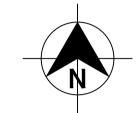
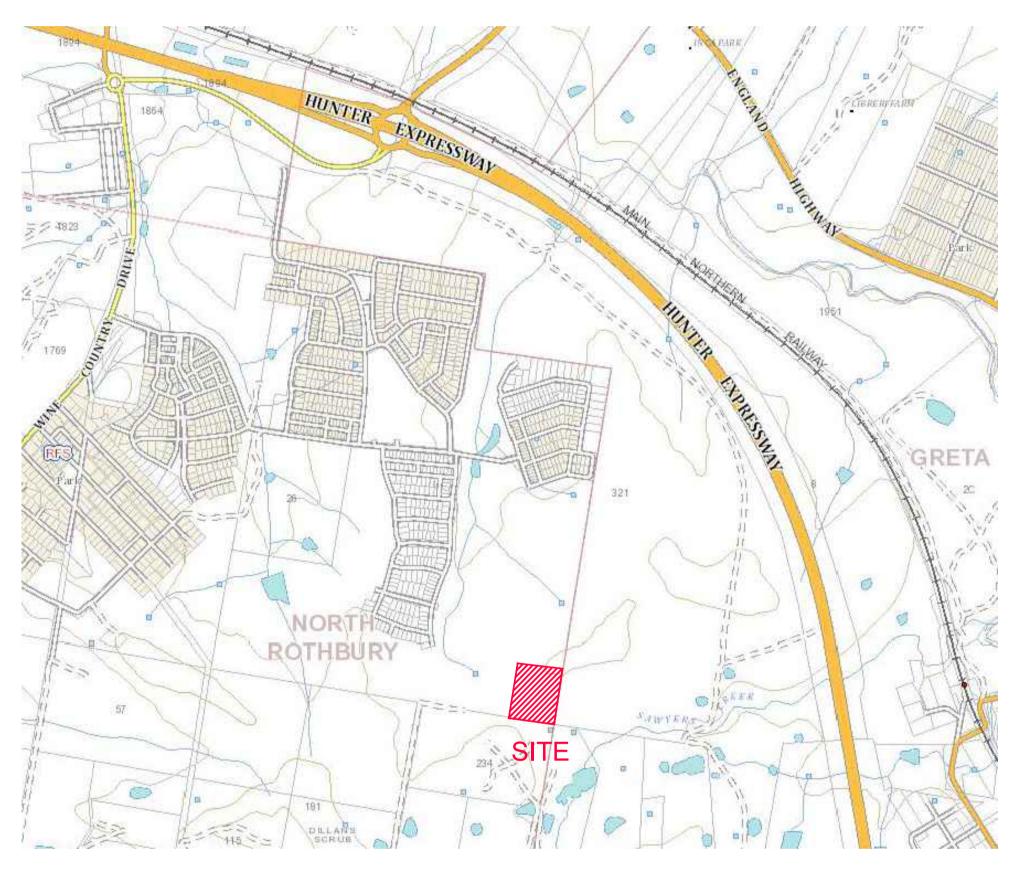
PROPOSED SUBDIVISION

STAGE 32

HUNTLEE







LOCALITY SKETCH NOT TO SCALE

	DRAWING INDEX
DRAWING NUMBER	DRAWING TITLE
240037(32)-WAT-001	COVER SHEET, LOCALITY PLAN & DRAWING INDEX
240037(32)-WAT-002	GENERAL NOTES
240037(32)-WAT-003	OVERALL SITE PLAN
240037(32)-WAT-101	POTABLE WATER DETAIL PLAN - SHEET 1
240037(32)-WAT-102	POTABLE WATER DETAIL PLAN - SHEET 2
240037(32)-WAT-103	POTABLE WATER DETAIL PLAN - SHEET 3
240037(32)-WAT-104	POTABLE WATER DETAIL PLAN - SHEET 4
240037(32)-WAT-201	RECYCLED WATER DETAIL PLAN - SHEET 1
240037(32)-WAT-202	RECYCLED WATER DETAIL PLAN - SHEET 2
240037(32)-WAT-203	RECYCLED WATER DETAIL PLAN - SHEET 3
240037(32)-WAT-204	RECYCLED WATER DETAIL PLAN - SHEET 4
240037(32)-WAT-301	PRESSURE SEWER DETAIL PLAN - SHEET 1
240037(32)-WAT-302	PRESSURE SEWER DETAIL PLAN - SHEET 2
240037(32)-WAT-303	PRESSURE SEWER DETAIL PLAN - SHEET 3
240037(32)-WAT-304	PRESSURE SEWER DETAIL PLAN - SHEET 4
240037(32)-WAT-401	TYPICAL PIPEWORK TRENCHING DETAIL
240037(32)-WAT-402	TYPICAL PROPERTY CONNECTION DETAILS
240037(32)-WAT-403	WASTE WATER COLLECTION TANK LEVEL DETAILS
240037(32)-WAT-404	THRUST BLOCK DETAILS

WORK AS CONSTRUCTED

THESE DRAWINGS ARE AN ACCURATE REPRESENTATION AS AT 30/03/2023 OF THE WORK-AS-CONSTRUCTED, BUT THE POSITION OF THE WORK RELATIVE TO OTHER STRUCTURES OR BOUNDARIES IS APPROXIMATE ONLY AND HAS NOT BEEN VERIFIED BY PRECISE SURVEY.

COMPANY ADWJohnson Pty Ltd NAME MATHEW DAVID LONDON Mand DATE 28/04/2023 SIGNED

DATE/..... CONSTRUCTION MANAGER

ORIGIN OF W.A.C. LEVELS

REGISTERED SURVEYOR

PM 20029 E: 345 612, 942 N: 6 382 878, 917 RL: 77.675m

Co-Ord System: MGA Ground MGA Datum: GDA94 MGA Zone: 56

CONSTRUCTION ISSUE

APPROVED FOR CONSTRUCTION

BY ADW Johnson Pty Ltd

Date Approved:11/07/2022

REV.	DATE	AMENDMENT	DRAWN CHEC	K DESIGN	VERIFY	SCALES			CLIENT	PROPERTY DESCRIPTION		PROJECT	POTABLE WATER, REC	YCLED WATER A	ND
Α		INITIAL ISSUE	G.S. C.B.					Hunter Office					PRESSURE SEWER	RETICULATION	
0		ISSUED FOR CONSTRUCTION	G.S. C.B.					Unit 7/335 Hillsborough Rd Warners Bay N.S.W. 2282			ED SUBDIVISION	PLAN TITLE			
2		UPDATED WATER PIPE DATA TABLES UPDATED SERVICES AND HYDRANT LOCATIONS	G.S. C.B. G.S. C.B.					Phone: (02) 4978 5100	ditodether		TAGE 32		COVER SHEET, LOCALITY PL	AN & DRAWING INDEX	Y
		UPDATED SERVICES LOCATIONS -LOT 3207	G.S. C.B.				adwi	Fax: (02) 4978 5199	decogociio.	T T	UNTLEE		COVER SHEET, LOCALITY I		`
		UPDATED HYD. LOCATIONS ADJACENT TO LOTS 3030/3031	G.S. C.B.		C.B.		GGT	email: hunter@adwjohnson.com.au							
5	05.05.2023	WORK AS CONSTRUCTED	I.B. S.S.	G.S.	C.B.			www.adwjohnson.com.au ABN 62 129 445 398		SURVEYED	DATUM	PROJECT No.	DISCIPLINE	NUMBER	REV.
DESIG	N FILE N: \240	037\DWG\Water & Sewer\Stage 32 Water and Sewer\x-240037(32)-huntlee-	water.dwg			ALL DIMENSIONS ARE IN METRES U.N.O. DO NOT SCALE		ABN 62 129 445 398		Daly.Smith Pty Ltd	GDA94 M.G.A. ZONE 56 A.H.D.	240037	(32) – WAC	- 001	5

PRESSURE SEWER NOTES:

- 1. ALL WORKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DESIGN DRAWINGS, ALTOGETHER SUPPLEMENTARY MANUAL TO WSAA. PRESSURE SEWERAGE CODE OF AUSTRALIA - WSA 07-2007 VERSION 1.1 AND POLYETHYLENE PIPELINE CODE WSA 01-2004.
- 2. ALL EQUIPMENT, MATERIALS AND ACCESSORIES USED IN THIS CONTRACT SHALL BE NEW AND SHALL COMPLY WITH ALTOGETHER REQUIREMENTS. BUTT FUSION FITTINGS DENOTED HEREWITH HAVE BEEN DERIVED FROM THE GEORG FISCHER PIPING SYSTEMS BUTT FUSION PRODUCT RANGE. ELECTROFUSION FITTINGS DENOTED HEREWITH HAVE BEEN DERIVED FROM THE PLASSON "POLYETHYLENE PIPING SYSTEMS"PRODUCT RANGE.
- ALL SERVICES SHOWN ARE INDICATIVE ONLY. A CURRENT SERVICES SEARCH AND SITE CHECK OF ALL EXISTING SERVICES WILL BE REQUIRED PRIOR TO COMMENCEMENT OF ANY WORKS.
- THE CONSTRUCTOR IS TO DETERMINE LEVELS AND LOCATIONS OF ALL EXISTING SERVICES IN THE VICINITY OF THE CONSTRUCTION SITE AND ANY CONSTRUCTED STRUCTURES FOR PROPOSED SERVICES, SUCH AS DUCTING FOR WATER OR ELECTRICITY WITHIN THE SUBDIVISION. THE CONTRACTOR MUST ENSURE ALL SERVICES ARE LOCATED BY THE RELEVANT AUTHORITY PRIOR TO COMMENCEMENT OF WORKS.
- 4. PRESSURE SEWER MAINS SHALL BE BLACK POLYETHYLENE (PE100 PN16) WITH A CREAM STRIPE AS PER WSA 02-2007 AND ALTOGETHER SUPPLEMENTARY MANUAL TO WSAA.
- 5. ALL POLYETHYLENE MAINS ≤ DN200 SHALL BE JOINED USING ELECTROFUSION JOINTING TECHNIQUES IN ACCORDANCE WITH MANUFACTURERS

ALL POLYETHYLENE MAINS ≥ DN200 SHALL BE JOINED USING BUTTWELD JOINTING TECHNIQUES IN ACCORDANCE WITH MANUFACTURERS REQUIREMENTS.

- 6. MAIN TO BE LAID GENERALLY AS INDICATED IN SERVICE ALLOCATION DIAGRAMS.
- INSTRUCTION NOTES SHALL TAKE PRECEDENCE OVER DIAGRAMS WHERE PROVIDED. 600mm HORIZONTAL CLEARANCE TO BE MAINTAINED BETWEEN ALL SEWER AND WATER MAINS.
- MINIMUM PIPE COVER SHALL BE 800mm IN FOOTWAYS AND 1000mm IN ROADWAYS.
- MAXIMUM PIPE COVER SHALL GENERALLY BE 1500mm. WHERE COVER FOR A TRENCHED INSTALLATION EXCEEDS 1500mm BUT LESS THAN 2500mm THE MAIN AS A MINIMUM SHALL BE EMBEDDED IN STABILISED SAND. THE CONTRACTOR SHALL ENSURE THAT ALL PRESSURE SEWER AND RECYCLED WATER MAINS HAVE SUFFICIENT VERTICAL SEPARATION AS PER THE CLEARANCE TABLE ADJACENT.
- MAINS CROSSING UNDER EXISTING DRIVEWAYS (SEALED, PAVED OR DECORATIVE) SHALL BE CONDUCTED BY UNDER BORING ONLY UNLESS PERMISSION IS GRANTED BY THE AFFECTED PROPERTY OWNER.
- 8. MAINS WITHIN 2.0m OF ELECTRICITY OR POWER POLES SHALL BE CONDUCTED BY BORING TECHNOLOGY (UNLESS AGREED TO BY THE ALTOGETHER REPRESENTATIVE).
- ALL PIPE BEDDING MATERIAL SHALL COMPLY WITH WSAA PRODUCT SPECIFICATION WSA-PS350 AND WSA-PS351.
- 10. ALL BENDS SHALL BE <u>ELECTROFUSION OR BUTT WELD SWEEP BENDS</u>, FABRICATED BENDS SHALL NOT BE USED IN LIEU. KNUCKLE ELBOWS ARE NOT
- 11. MINIMUM BENDING RADIUS FOR PN16 PE100 (SDR11) SHALL BE 20 x DN. (i.e. DN400 : R8.0m, DN250 : R5.0m, DN200 : R4.0m, DN160 : R3.2m, DN125 : R2.5m, DN90 : R1.8m, DN75 : R1.5m, DN63 : R1.3m, DN50 : R1.0m, DN40 : R0.8m).
- 12. ALL HOUSE SERVICE LATERALS SHALL BE DN40 (PE100 PN16).
- 13. FLUSHING PITS SHALL CONFORM WITH ALTOGETHER STANDARD DRAWINGS.
- REFER TO ALTOGETHER WEBSITE FOR CURRENT VERSION. SMALL MAINS (≤ DN110)
- http://information.altogethergroup.com.au/governance/Land_Housing/PSS-1017A-FS.pdf
- LARGE MAINS (> DN110) http://information.altogethergroup.com.au/governance/Land_Housing/PSS-1017B-FS.pdf
- 14. LOCALISED DEEPENING OF MAINS MAY BE REQUIRED TO FACILITATE AIR VALVE INSTALLATION.
- THE CONTRACTOR SHALL ENSURE THAT THE AIR VALVE OFFTAKE IS LOCATED AT A HIGH POINT (NATURAL OR ARTIFICIAL) IN THE MAIN (i.e. MAIN SHALL GRADE DOWNWARDS EITHER SIDE OF THE AIR VALVE).
- 15. DETECTABLE MARKING TAPE SHALL BE LAID ON TOP OF THE PIPE EMBEDMENT MATERIAL BEFORE BACKFILLING AND CONNECTED TO SURFACE
- 16. ALL SURFACE FITTINGS LOCATED IN TRAFFICABLE AREAS (i.e. ROADWAYS, PATHS etc.) SHALL HAVE HEAVY DUTY SURROUNDS INSTALLED.
- 17. DURING CONSTRUCTION, ALL OPEN ENDS OF PIPE SHALL BE CAPPED OFF TO PREVENT ENTRY OF FOREIGN MATTER.
- 18. ALL VALVES SHALL BE RESILIENT SEATED SLUICE VALVES (ANTI-CLOCKWISE CLOSING), SHALL BE RESTRAINED IN ACCORDANCE WITH WAT-1207 AND SHALL COMPLY WITH ALTOGETHER STANDARD DRAWING PSS-1015-FS.
- 19. ALL MAINS SHALL BE TESTED IN ACCORDANCE WITH WSA 07-2007 VERSION 1.1.
- 20. FOR LOTS WITH TANKS IN THE REAR. 1 x Ø25mm INSTRUMENTATION CONDUIT (ORANGE) AND 1 x Ø25mm ELECTRICAL CONDUIT (ORANGE)(WITH DRAW WIRES) SHALL BE INSTALLED FROM THE COLLECTION TANK TO WATER METERS. THE CONDUITS SHALL BE LAID IN A COMMON TRENCH WITH THE SEWERAGE AND MAINTAIN A MINIMUM HORIZONTAL CLEARANCE OF 400mm. (REFER TO ALTOGETHER STANDARD DRAWINGS FOR SETOUT DIMENSIONS).
- 21. THE CONSTRUCTOR SHALL PROVIDE HUNTLEE WATER WITH MINIMUM OF 7 DAYS NOTICE IN WRITING OF INTENT TO CONNECT NEW MAINS TO EXISTING INFRASTRUCTURE. CONNECTIONS ARE NOT PERMITTED UNTIL COMPLIANT TEST RESULTS HAVE BEEN PROVIDED AND CONFIRMATION IS PROVIDED BY THE ALTOGETHER REPRESENTATIVE.
- 22. UPON COMPLETION OF WORKS, ALL SURFACES MUST BE RESTORED AS CLOSE AS POSSIBLE, TO THE CONDITION HAT EXISTED PRIOR TO COMMENCEMENT OF WORKS.
- 23. PERMISSION OF ENTRY MUST BE OBTAINED BY THE CONTRACTOR FROM THE OWNER/OCCUPIER PRIOR TO COMMENCEMENT OF WORK IN PRIVATE PROPERTY.
- 24. BURIED FITTINGS ARE NOT TO BE BACKFILLED UNTIL W.A.C. DETAILS HAVE BEEN OBTAINED AND APPROVAL FOR BACKFILLING GIVEN BY THE ALTOGETHER REPRESENTATIVE. THE CONTRACTOR SHALL PROVIDE M.G.A. COORDINATED WORK-AS-CONSTRUCTED INFORMATION REGARDING THE INSTALLATION OF ALL BURIED
- 25. THE MINIMUM NUMBER OF COMPACTION TESTS REQUIRED TO SATISFY THE PRESSURE SEWER CODE OF AUSTRALIA (CLAUSE 21.3.4) ARE:
- **TRAFFICABLE** PIPE EMBEDMENT ZONE: NIL TRENCH FILL ZONE: 1 TEST/300mm LAYER OF FILL AT EACH ROAD CROSSING.
- NON-TRAFFICABLE
- PIPE EMBEDMENT ZONE: NIL TRENCH FILL ZONE: 1 TEST/900mm OF FILL AND EACH 100 LINEAL METRES OF PIPE.
- 26. BOUNDARY KITS (COMPLETE) SHALL BE NOV SUPPLIED (NOV PSS-BK4). e one COLLECTION TANK (ESD 20-0032/ESD 20-0033) SHALL BE INSTALLED WITH BOUNDARY KIT (REFER ALTOGETHER STANDARD DRAWINGS PSS-1112-FS AND PSS-1113-FS). PUMP TO BE INSTALLED BY OTHERS.

ALL LINES FROM THE WASTEWATER COLLECTION TANK TO THE MANUAL ISOLATION VALVE WITHIN THE BOUNDARY KIT TO BE PRESSURE

- 29. SURFACE IDENTIFICATION MARKERS ARE TO BE PROVIDED TO ALTOGETHER REQUIREMENTS

DESIGN FILE N: \240037\DWG\Water & Sewer\Stage 32 Water and Sewer\x-240037(32)-huntlee-water.dwg

28. ALL MAINS SHALL BE FLUSHED WITH WATER TO REMOVE ANY DEBRIS PRIOR TO COMMISSIONING.

27. ALL MAINS (UP TO THE BOUNDARY KIT) SHALL BE PRESSURE TESTED TO 1600 kPa.

- 30. ROPE OFF ALL PRESSURE SEWER UNITS AND FLUSHING POINTS TO LIMIT DAMAGE DURING CONSTRUCTION.
- 31. PRESSURE TRANSMITTER TO BE MEASUREX MRB21 GENERAL PURPOSE TRANSMITTER WITH MICROSPIDER LOGGING TELEMETRY AND ALARM PER ALTOGETHER REQUIREMENTS.
- 32. WORK-AS-CONSTRUCTED DOCUMENTATION SHALL BE PROVIDED BY THE CONTRACTOR STRICTLY IN ACCORDANCE WITH THE ALTOGETHER Q.A. SUBMISSION CHECKLIST.

POTABLE WATER AND RECYCLED WATER NOTES:

- 1. ALL WORKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DESIGN DRAWINGS, ALTOGETHER SUPPLEMENTARY MANUAL TO WSAA AND WSA 03-2011-3.1 (SYDNEY WATER EDITION 2014).
- 2. POTABLE WATER SHALL BE UTILISED FOR FIRE FIGHTING PURPOSES.
- 3. ALL EQUIPMENT. MATERIALS AND ACCESSORIES USED IN THIS CONTRACT SHALL BE NEW, SHALL CONFORM TO THE APPROPRIATE CURRENT AUSTRALIAN STANDARDS AND SHALL COMPLY WITH ALTOGETHER REQUIREMENTS.
- 4. ALL SERVICES SHOWN ARE INDICATIVE ONLY. A CURRENT SERVICES SEARCH AND SITE CHECK OF ALL EXISTING SERVICES WILL BE REQUIRED PRIOR TO COMMENCEMENT OF ANY WORKS. THE CONSTRUCTOR IS TO DETERMINE LEVELS AND LOCATIONS OF ALL EXISTING SERVICES IN THE VICINITY OF THE CONSTRUCTION SITE AND ANY CONSTRUCTED STRUCTURES FOR PROPOSED SERVICES, SUCH AS DUCTING FOR WATER OR ELECTRICITY WITHIN THE SUBDIVISION.

THE CONTRACTOR MUST ENSURE ALL SERVICES ARE LOCATED BY THE RELEVANT AUTHORITY PRIOR TO COMMENCEMENT OF WORKS.

- THE CONSTRUCTOR SHALL VERIFY WITH THE SITE SUPERVISOR THE POSITION AND LEVEL OF ALL EXISTING AND PROPOSED BOUNDARIES PERTINENT TO THE INFRASTRUCTURE INSTALLATIONS.
- 6. MAIN TO BE LAID GENERALLY AS INDICATED IN SERVICE ALLOCATION DIAGRAMS. INSTRUCTION NOTES SHALL TAKE PRECEDENCE OVER DIAGRAMS WHERE PROVIDED. 600mm HORIZONTAL CLEARANCE TO BE MAINTAINED BETWEEN ALL SEWER AND WATER MAINS. MINIMUM PIPE COVER SHALL BE 600mm IN FOOTWAYS (TYPE B EMBEDMENT: WAT-1202-V) AND 800mm IN ROADWAYS (TYPE L EMBEDMENT: WAT-1204-V). MAXIMUM PIPE COVER SHALL GENERALLY BE 1500mm. WHERE COVER FOR A TRENCHED INSTALLATION EXCEEDS 1500mm BUT LESS THAN 2500mm THE MAIN AS A MINIMUM SHALL BE EMBEDDED IN STABILISED SAND. THE CONTRACTOR SHALL ENSURE THAT ALL RECYCLED WATER MAINS AND PRESSURE SEWER MAINS HAVE SUFFICIENT VERTICAL SEPARATION AS PER THE CLEARANCE TABLE ADJACENT.
- 7. ALL POTABLE WATERMAINS TO BE BLUE PVC-M (PN16). ALL RECYCLED WATERMAINS SHALL BE LILAC PVC-M (PN16). DIFFERENTIATION OF POTABLE AND RECYCLED WATER SYSTEMS SHALL BE AS PER TABLE 4.1 WSA03-2011 WITH BOTH SERVICES BEING CLASSIFIED AS
- RECYCLED WATER MAINS SHALL ALWAYS BE LOWER THAN POTABLE WATER MAINS. 150mm VERTICAL CLEARANCE BETWEEN POTABLE WATER AND RECYCLED WATER MAINS SHALL BE PROVIDED.
- 8. MAXIMUM JOINT DEFLECTIONS TO BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
- 9. LOCALLY LOWER PIPEWORK IN VICINITY OF STOP VALVES TO ENSURE SUFFICIENT COVER IS MAINTAINED OVER VALVES. LOWERING OF PIPEWORK SHALL BE ACHIEVED OVER A NUMBER OF PIPE LENGTHS EITHER SIDE OF VALVES TO ELIMINATE ANY SHARP DEFLECTIONS.
- 10. ALL PIPE BEDDING MATERIAL SHALL COMPLY WITH WSAA PRODUCT SPECIFICATION PS-350, 368 AND 369. GEOTECHNICAL CONDITIONS SHOULD BE ASSESSED DURING CONSTRUCTION BY THE CONTRACTOR IN ASSOCIATION WITH THE ALTOGETHER REPRESENTATIVE TO DETERMINE THE NEED TO MODIFY EMBEDMENT/TRENCHFILL TYPE AND THE NED FOR TRENCH DRAINAGE/BULKHEADS.
- DURING CONSTRUCTION, ALL OPEN ENDS OF PIPES SHALL BE CAPPED OFF TO PREVENT ENTRY OF FOREIGN MATTER.
- 12. HYDRANTS, STOP VALVES AND ALL OTHER FITTINGS TO BE THE SAME SIZE AS THE THROUGH WATER MAIN AND ANTI CLOCKWISE CLOSING.
- 13. HYDRANTS MUST NOT BE INSTALLED IN POTENTIAL DRIVEWAY LOCATIONS. HYDRANTS AND WATER SERVICES SHALL BE NOMINALLY AT LEAST 5.0m FROM EACH BOUNDARY OR ON BOUNDARIES. WHERE POSSIBLE, FITTINGS SHALL BE LOCATED BEHIND KERB INLET PITS
- 14. THRUST BLOCKS SHALL BE INSTALLED IN ACCORDANCE WITH WAT-1205.
- ALL PROPERTY (MAIN TO METER) SERVICE CONNECTIONS SHALL BE CONSTRUCTED STRICTLY IN ACCORDANCE WITH ALTOGETHER REQUIREMENTS. REFER TO ALTOGETHER WEBSITE FOR CURRENT VERSION.
- SINGLE SERVICE: http://information.altogethergroup.com.au/governance/Land_Housing/WAT-1854-FS.pdf DUAL SERVICE: http://information.altogethergroup.com.au/governance/Land_Housing/WAT-1855-FS.pdi
- 16. PROPERTY SERVICE CONNECTION IS SHALL BE FLUSHED AND LOCKED (BY THE ALTOGETHER REPRESENTATIVE) FOLLOWING SUCCESSFUL PRESSURE TESTING.
- 17. SURFACE FITTINGS LOCATED IN TRAFFICABLE AREAS (i.e. ROADWAYS, PATHS etc. SHALL HAVE HEAVY DUTY SURROUNDS INSTALLED.
- 18. ALL MAINS SHALL BE PRESSURE TESTED TO 1500kPa IN ACCORDANCE WITH CLAUSE 19.4 OF WSA03-2011 (SYDNEY WATER EDITION 2014).
- 19. ALL MAINS SHALL BE FLUSHED WITH WATER TO REMOVE ANY DEBRIS PRIOR TO COMMISSIONING.
- 20. WATER QUALITY TESTING SHALL BE IN ACCORDANCE WITH WSA 03-2011-3.1(SYDNEY WATER EDITION-2014, CLAUSE 19.7).
- 21. THE CONSTRUCTOR SHALL PROVIDE HUNTLEE WATER WITH MINIMUM OF 7 DAYS NOTICE IN WRITING OF INTENT TO CONNECT NEW MAINS TO EXISTING INFRASTRUCTURE . CONNECTIONS ARE NOT PERMITTED UNTIL COMPLIANT TEST RESULTS HAVE BEEN PROVIDED AND CONFIRMATION IS PROVIDED BY THE ALTOGETHER REPRESENTATIVE.
- 22. UPON COMPLETION OF WORKS, ALL SURFACES MUST BE RESTORED AS CLOSE AS POSSIBLE, TO THE CONDITION HAT EXISTED PRIOR TO COMMENCEMENT OF WORKS.
- 23. PERMISSION OF ENTRY MUST BE OBTAINED BY THE CONTRACTOR FROM THE OWNER/OCCUPIER PRIOR TO COMMENCEMENT OF WORK IN PRIVATE PROPERTY.
- 24. BURIED FITTINGS ARE NOT TO BE BACKFILLED UNTIL W.A.C. DETAILS HAVE BEEN OBTAINED AND APPROVAL FOR BACKFILLING GIVEN BY THE THE CONTRACTOR SHALL PROVIDE M.G.A. COORDINATED WORK-AS-CONSTRUCTED INFORMATION REGARDING THE INSTALLATION OF ALL BURIED
- 25. MINIMUM NUMBER OF COMPACTION TESTS REQUIRED TO SATISFY WSA03-2011 (SYDNEY WATER EDITION 2014) (CLAUSE 19.3.5):
 - PIPE EMBEDMENT ZONE: NIL TRENCH FILL ZONE: 1 TEST/300mm LAYER OF FILL AT EACH ROAD CROSSING. NON-TRAFFICABLE
 - PIPE EMBEDMENT ZONE: NIL TRENCH FILL ZONE: 1 TEST/900MM OF FILL AND EACH 100 LINEAL METERS OF PIPE. PROPERTY SERVICES
- TEST 1 OF EVERY 5 PROPERTY SERVICE TRENCHES. TESTING SHALL BE IN ACCORDANCE WITH TABLE 16.1 AND 17.1 OF THE WATER SUPPLY CODE OF AUSTRALIA.
- 26. SURFACE IDENTIFICATION MARKERS ARE TO BE PROVIDED TO ALTOGETHER REQUIREMENTS.
- 27. PRESSURE TRANSMITTER TO BE MEASUREX MRB21 GENERAL PURPOSE TRANSMITTER WITH MICROSPIDER LOGGING TELEMETRY AND ALARM PER ALTOGETHER REQUIREMENTS.
- 28. WORK-AS-CONSTRUCTED DOCUMENTATION SHALL BE PROVIDED BY THE CONTRACTOR STRICTLY IN ACCORDANCE WITH THE ALTOGETHER Q.A.
- 29. WHERE THE PIPE GRADE EXCEEDS 5%, TRENCHSTOPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH WAT-1209 AND WAT-1210 AT THE SPACING OF WHERE PIPE GRADES EXCEED 15%, CONCRETE BULKHEADS WILL BE CONSTRUCTED AT SPACING AS PER TABLE 7.5 OF WSA03-2001 SYDNEY WATER

ALTOGETHER STANDARD DRAWINGS CAN BE FOUND AT THE FOLLOWING ADDRESS: https://askus.altogethergroup.com.au/hc/en-us/articles/900004827263-Standard-drawings-for-land-developers-

GENERAL NOTES:

- 1. THIS DRAWING SET SHALL BE READ IN CONJUNCTION WITH CESSNOCK CITY COUNCIL STANDARDS, ALTOGETHER SUPPLEMENTARY MANUAL TO WSAA AND OTHER ASSOCIATED DRAWINGS AND TECHNICAL SPECIFICATIONS.
- 2. THE CONTRACTOR SHALL LOCATE AND IDENTIFY ALL UNDERGROUND SERVICES PRIOR TO COMMENCEMENT OF WORK AND SHALL REPAIR ANY DAMAGE CAUSED TO SUCH SERVICES DURING THE COURSE OF WORKS. ANY SERVICE LOCATIONS SHOWN IN THIS DRAWING SET ARE INDICATIVE ONLY.
- MAKE SMOOTH TRANSITION TO EXISTING WORKS (i.e. ROAD PAVEMENT AND FOOTPATHS) TO P.C.A. AND SUPERINTENDENT'S REQUIREMENTS.
- SUITABLE PROTECTION TO EXISTING ROAD PAVEMENT, KERB AND GUTTER, FOOTPATHS AND ANY EXISTING FEATURES SHALL BE PROVIDED UNTIL THE CONSTRUCTION WORKS ARE COMPLETED.



CLEARANCES BETWEEN PIPELINES AND UNDERGROUND SERVICES

UTILITY	MINIMUM HORIZONTAL CLEARANCE (mm)		MINIMUM VERTICA	
(EXISTING OR PROPOSED SERVICE)	NEW MA	AIN SIZE	CLEARANCE (mm)	
	≤ DN200	≥ DN200		
WATER MAINS > DN375	600	600	300	
WATER MAINS < DN375	300 4	600	150	
GAS MAINS	300 4	600	150	
TELECOMMUNICATION CONDUITS AND CABLES	300 4	600	150	
ELECTRICITY CONDUITS AND CONDUITS	200	1000	225 ⁸	
STORMWATER DRAINS	300 4	600	150 °	
SEWERS (GRAVITY)	1000 6 / 600	1000 ⁶ / 600	500 °	
SEWERS (PRESSURE AND VACUUM)	600	600	300 9	
KERBS	150	600 ⁵	150 (WHERE POSSIBLE)	

- 1. VERTICAL CLEARANCES APPLY WHERE PIPELINES CROSS OTHER UTILITY SERVICES, EXCEPT IN THE CASE OF WATER/SEWER MAINS WHEN A VERTICAL SEPARATION SHALL ALWAYS BE MAINTAINED, EVEN WHEN THE PRESSURE SEWER AND WATER MAIN ARE PARALLEL. THE PRESSURE SEWER SHOULD ALWAYS BE LOCATED BELOW THE WATER MAIN TO MINIMISE THE POSSIBILITY OF BACKFLOW CONTAMINATION IN THE EVENT OF A PRESSURE MAIN BREAK.
- 2. WATER MAINS INCLUDES MAINS SUPPLYING BOTH POTABLE AND RECYCLED WATER.
- 3. FOR AREAS WITH EXISTING WATER RETICULATION, CLEARANCES CAN BE FURTHER REDUCED TO 600mm WITH THE APPROVAL OF THE WATER AUTHORITY.
- 4. CLEARANCES CAN BE FURTHER REDUCED TO 150mm FOR DISTANCES UP TO 2.0m WHEN PASSING INSTALLATIONS SUCH AS POLES, PITS, AND SMALL STRUCTURES, PROVIDING THE STRUCTURE IS NOT DE-STABILISED IN THE PROCESS.
- 5. CLEARANCES FROM KERBS SHALL BE MEASURED FROM THE NEAREST POINT OF THE KERB. FOR WATER/SEWER < DN 375. CLEARANCES FROM KERBS CAN BE PROGRESSIVELY REDUCED UNTIL THE MINIMUM OF 150mm IS REACHED FOR WATER/SEWER < DN200.
- 6. WHERE A PARALLEL SEWER IS AT MINIMUM VERTICAL CLEARANCE LOWER THAN THE WATER MAIN (500mm), MAINTAIN A MINIMUM HORIZONTAL OF 1000mm. THIS MINIMUM CLEARANCE CAN BE PROGRESSIVELY REDUCED TO 600mm AS THE VERTICAL CLEARANCE IS INCREASED TO 750mm.
- 7. FOR PRESSURE SEWER LATERALS, MINIMUM VERTICAL CLEARANCES MAY BE REDUCED TO 150mm PROVIDING THERE IS NO JOINT IN THE LATERAL WITHIN 500mm OF EITHER SIDE OF THE SERVICE BEING CROSSED.
- 8. AN ADDITIONAL CLEARANCE FROM HIGH VOLTAGE ELECTRICAL INSTALLATIONS SHOULD BE MAINTAINED ABOVE THE CONDUITS OR CABLES TO ALLOW FOR A PROTECTIVE BARRIER AND MARKING
- 9. WATER MAINS SHOULD ALWAYS CROSS OVER SEWERS AND STORMWATER DRAINS. FOR CASES WHERE THERE IS NO ALTERNATIVE AND THE MAIN MUST CROSS UNDER THE SEWER, THE DESIGN SHALL NOMINATE AN APPROPRIATE PROTECTION TREATMENT (JOINT-FREE IN THE VICINITY OF THE SEWER).

SHOULD THE RECOMMENDED CLEARANCES NOT BE ACHIEVED, NOTIFICATION SHALL BE CONVEYED TO THE ALTOGETHER REPRESENTATIVE IN WRITING.

WORK AS CONSTRUCTED

THESE DRAWINGS ARE AN ACCURATE REPRESENTATION AS AT 30/03/2023 OF THE WORK-AS-CONSTRUCTED, BUT THE POSITION OF THE WORK RELATIVE TO OTHER STRUCTURES OR BOUNDARIES IS APPROXIMATE ONLY AND HAS NOT BEEN VERIFIED BY PRECISE SURVEY.

COMPANY ADW Johnson Pty Ltd COMPANY NAME MATHEW DAVID LONDON

Mand DATE 28/04/2023 SIGNED REGISTERED SURVEYOR

DATE/.... CONSTRUCTION MANAGER

ORIGIN OF W.A.C. LEVELS Co-Ord System: MGA Ground 345 612. 942 MGA Datum: GDA94 N: 6 382 878. 917 MGA Zone: 56 RL: 77.675m

Daly.Smith Pty Ltd

APPROVED FOR CONSTRUCTION BY ADW Johnson Pty Ltd

Date Approved:11/07/2022

CONSTRUCTION ISSUE

240037(32) -

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informa	REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALE
	Α	08.11.2021	INITIAL ISSUE	G.S.	C.B.	G.S.	C.B.	
olo	0	11.07.2022	ISSUED FOR CONSTRUCTION	G.S.	C.B.	G.S.	C.B.	
SS C	1	15.07.2022	UPDATED WATER PIPE DATA TABLES	G.S.	C.B.	G.S.	C.B.	
Inde	2	28.09.2022	UPDATED SERVICES AND HYDRANT LOCATIONS	G.S.	C.B.	G.S.	C.B.	
inc	3	13.10.2022	UPDATED SERVICES LOCATIONS —LOT 3207	G.S.	C.B.	G.S.	C.B.	
olan	4	16.01.2023	UPDATED HYD. LOCATIONS ADJACENT TO LOTS 3030/3031	G.S.	C.B.	G.S.	C.B.	
This plan includes coloured	5	05.05.2023	WORK AS CONSTRUCTED	I.B.	S.S.	G.S.	C.B.	

ALL DIMENSIONS ARE IN METRES U.N.O. DO NOT SO

EDITION 2014.

Hunter Office Unit 7/335 Hillsborough Rd Warners Bay N.S.W. 2282 Phone: (02) 4978 5100 Fax: (02) 4978 5199 email: hunter@adwjohnson.com.au www.adwjohnson.com.au

ABN 62 129 445 398



ROPERTY DESCRIPTION			PROJECT	POTABLE WATER, RECYCLE PRESSURE SEWER RET	
PR	ST	O SUBDIVISION AGE 32 INTLEE	PLAN TITLE	GENERAL NOTES	
JRVEYED		DATUM	PROJECT No.	DISCIPLINE	NUMBER

GDA94 M.G.A. ZONE 56 A.H.D.

AMENDMENT

INITIAL ISSUE

G.S. G.S. G.S. G.S. G.S. J.B. C.B. C.B. 2 28.09.2022 UPDATED SERVICES AND HYDRANT LOCATIONS C.B. C.B. **S.S.** 3 | 13.10.2022 | UPDATED SERVICES LOCATIONS -LOT 3207 4 16.01.2023 UPDATED HYD. LOCATIONS ADJACENT TO LOTS 3030/3031 5 05.05.2023 WORK AS CONSTRUCTED DESIGN FILE N: $\240037\DWG\Water \& Sewer\Stage 32 Water and Sewer\x-240037(32)-huntlee-water.dwg$

ALL DIMENSIONS ARE IN METRES U.N.O. DO NOT SO

Hunter Office Unit 7/335 Hillsborough Rd Warners Bay N.S.W. 2282 Phone: (02) 4978 5100 Fax: (02) 4978 5199 email: hunter@adwjohnson.com.au www.adwjohnson.com.au
ABN 62 129 445 398



PROPERTY DESCRIPTION PROPOSED SUBDIVISION STAGE 32 HUNTLEE

POTABLE WATER, RECYCLED WATER AND PROJECT PRESSURE SEWER RETICULATION PLAN TITLE OVERALL SITE PLAN

APPROVED FOR CONSTRUCTION

BY ADW Johnson Pty Ltd

Date Approved:11/07/2022

CONSTRUCTION ISSUE

5

BEFORE YOU DIG

PROJECT No. 240037(32) -WAC 003 Daly.Smith Pty Ltd GDA94 M.G.A. ZONE 56 A.H.D.

DATE/...../

CONSTRUCTION MANAGER

FUTURE STAGE SUBDIVISION STAGE 30 SUBDIVISION FOR POTABLE WATER DETAIL PLANS REFER TO DRG-101 FOR POTABLE WATER DETAIL PLANS REFER TO DRG-102 FOR RECYCLED WATER DETAIL PLANS REFER TO DRG-201 🗶 FOR RECYCLED WATER DETAIL PLANS REFER TO DRG-202 🚧 FOR PRESSURE SEWER DETAIL PLANS REFER TO DRG-301 FOR PRESSURE SEWER DETAIL PLANS REFER TO DRG-302 FOR POTABLE WATER DETAIL PLANS REFER TO DRG-103 FOR POTABLE WATER DETAIL PLANS REFER TO DRG-104 FOR RECYCLED WATER DETAIL PLANS REFER TO DRG-203 < $_{ec{ec{v}}}$ FOR RECYCLED WATER DETAIL PLANS REFER TO DRG-204 $^{\prime}$ FOR PRESSURE SEWER DETAIL PLANS REFER TO DRG-303 (FOR PRESSURE SEWER DETAIL PLANS REFER TO DRG-304

WORK AS CONSTRUCTED

THESE DRAWINGS ARE AN ACCURATE REPRESENTATION AS AT 30/03/2023 OF THE WORK-AS-CONSTRUCTED, BUT THE POSITION OF THE WORK RELATIVE TO OTHER STRUCTURES OR BOUNDARIES IS APPROXIMATE ONLY AND HAS NOT BEEN VERIFIED BY PRECISE SURVEY.

COMPANY ADWJohnson Pty Ltd MATHEW DAVID LONDON mand DATE 28/04/2023 SIGNED REGISTERED SURVEYOR

ORIGIN OF W.A.C. LEVELS

Co-Ord System: MGA Ground E: 345 612. 942 MGA Datum: GDA94 N: 6 382 878. 917 MGA Zone: 56 RL: 77.675m

PLAN SCALE 1:1000

G.S. C.B. **C.B.** Plotted By: glenns Plot Date: 05/05/23 - 10:50 Cad File: N:\240072\DWG\water & sewer\stage 32-wac\240037(32)-WAC-001.dwg

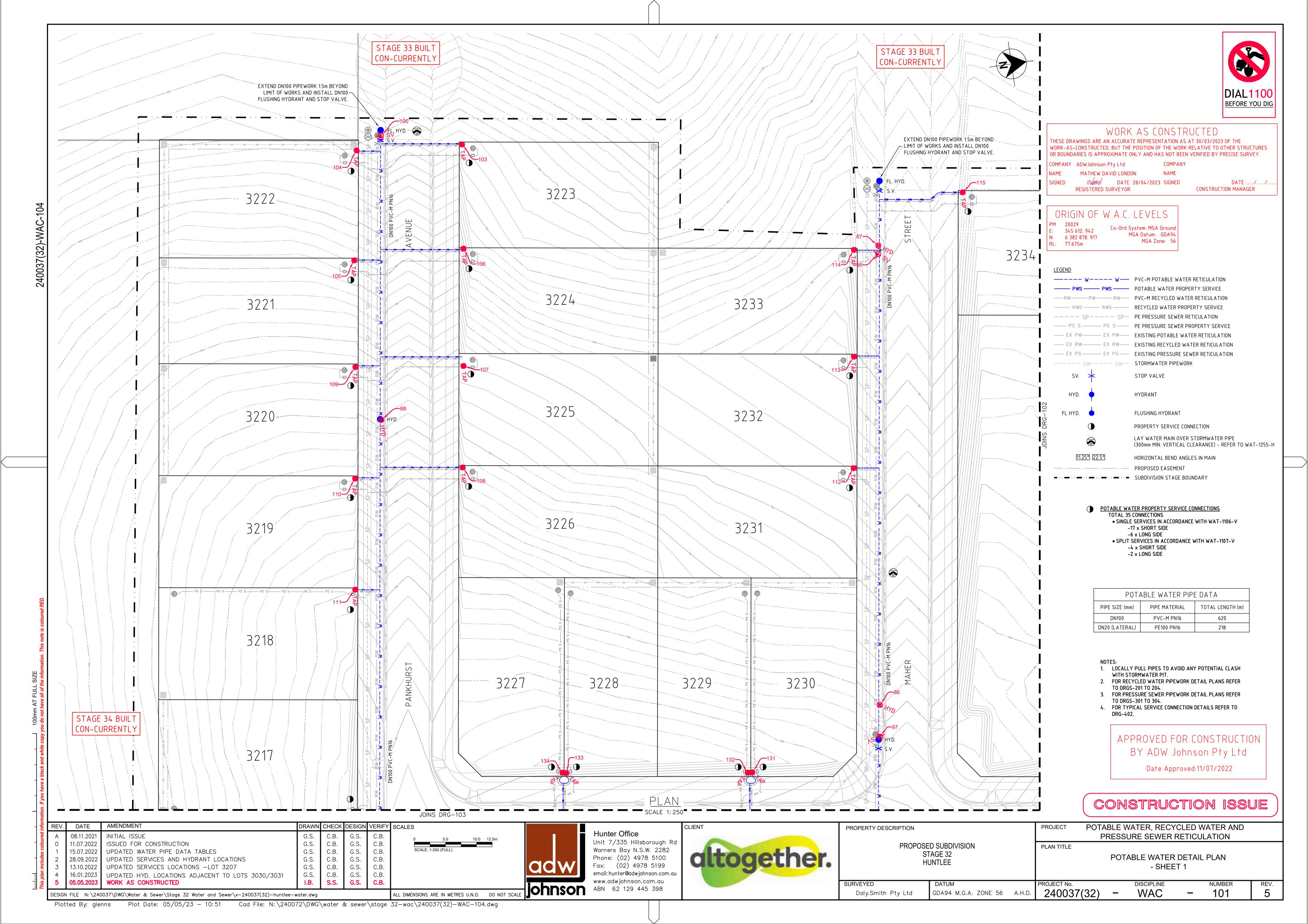
DRAWN CHECK DESIGN VERIFY SCALES

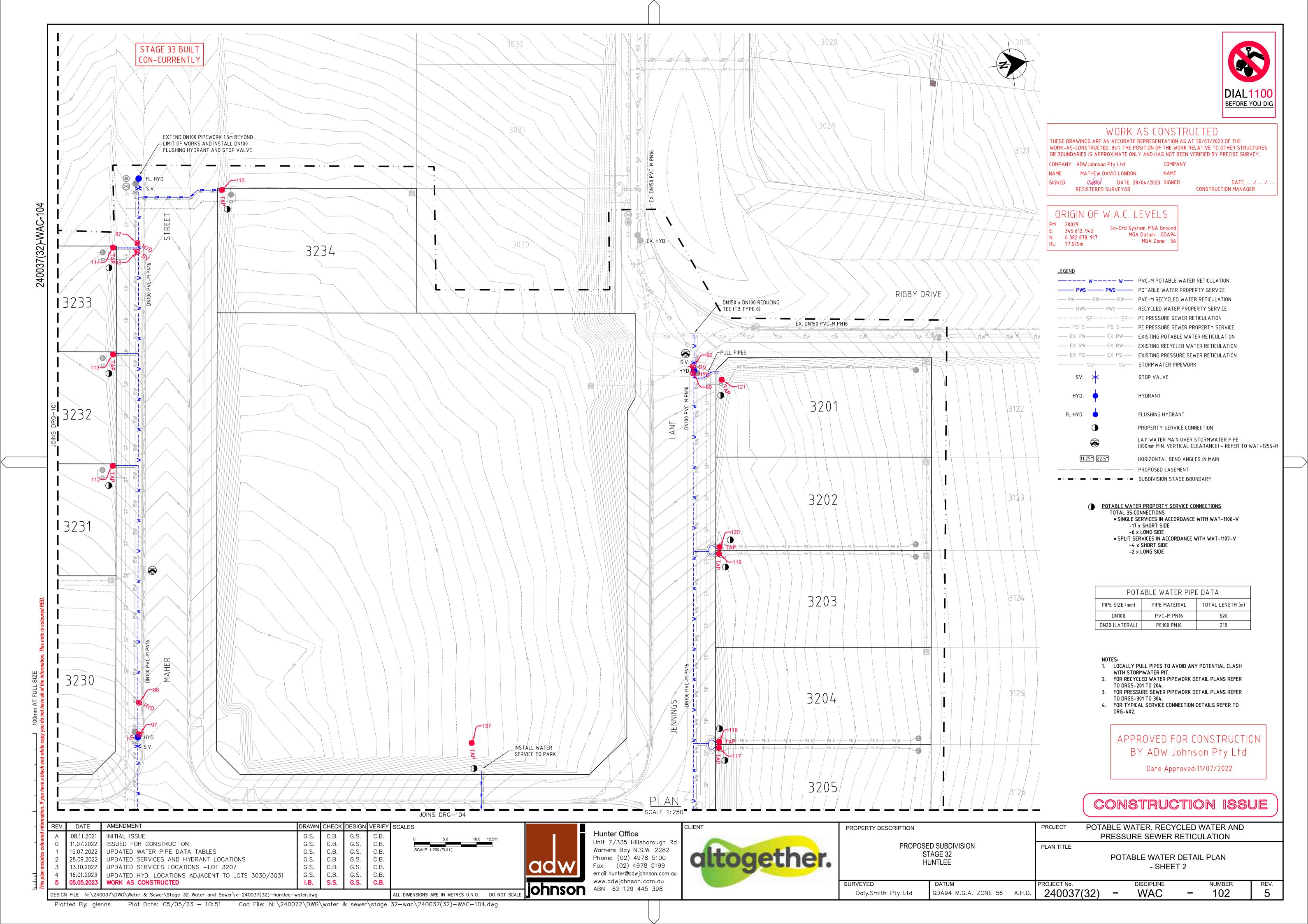
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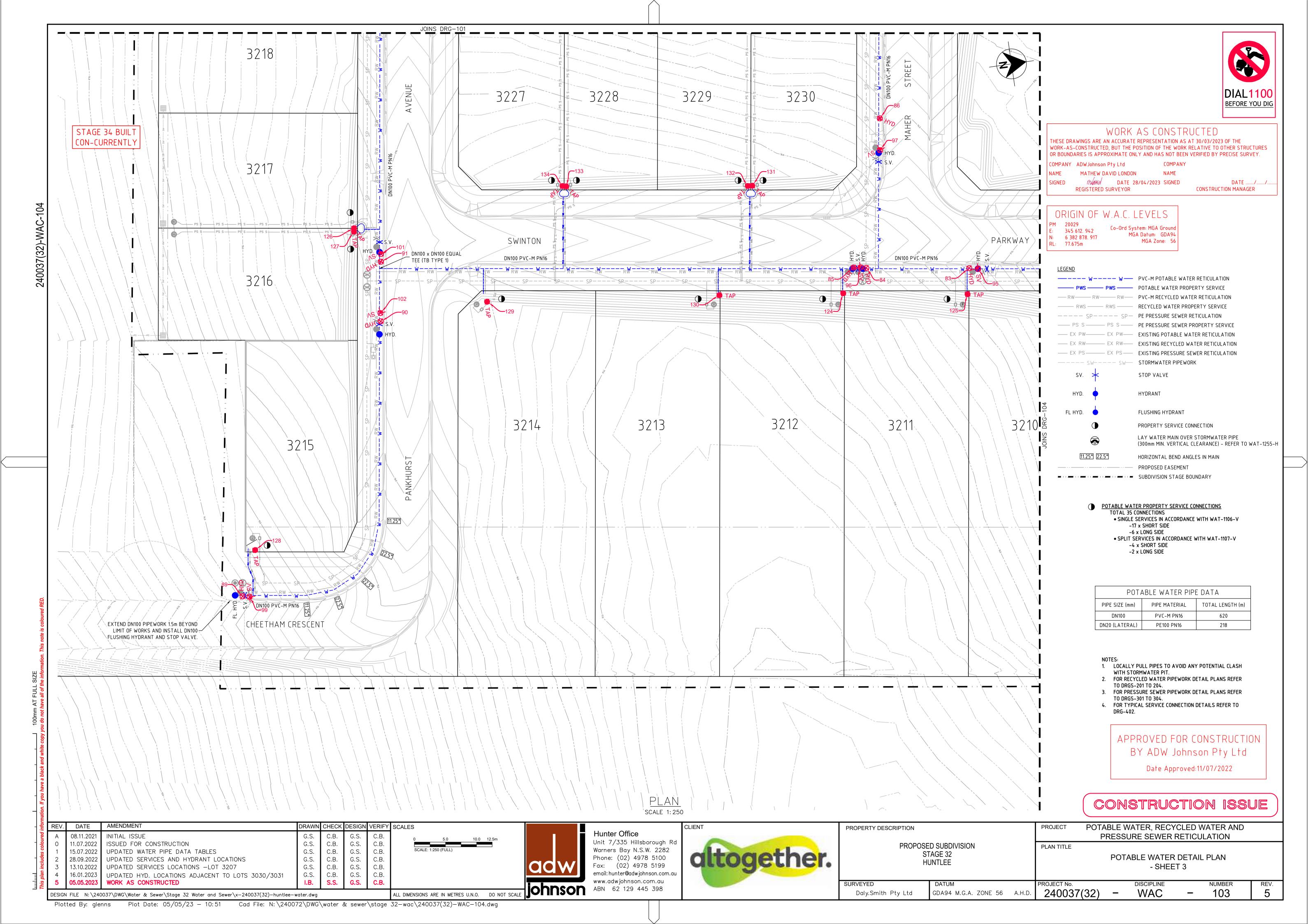
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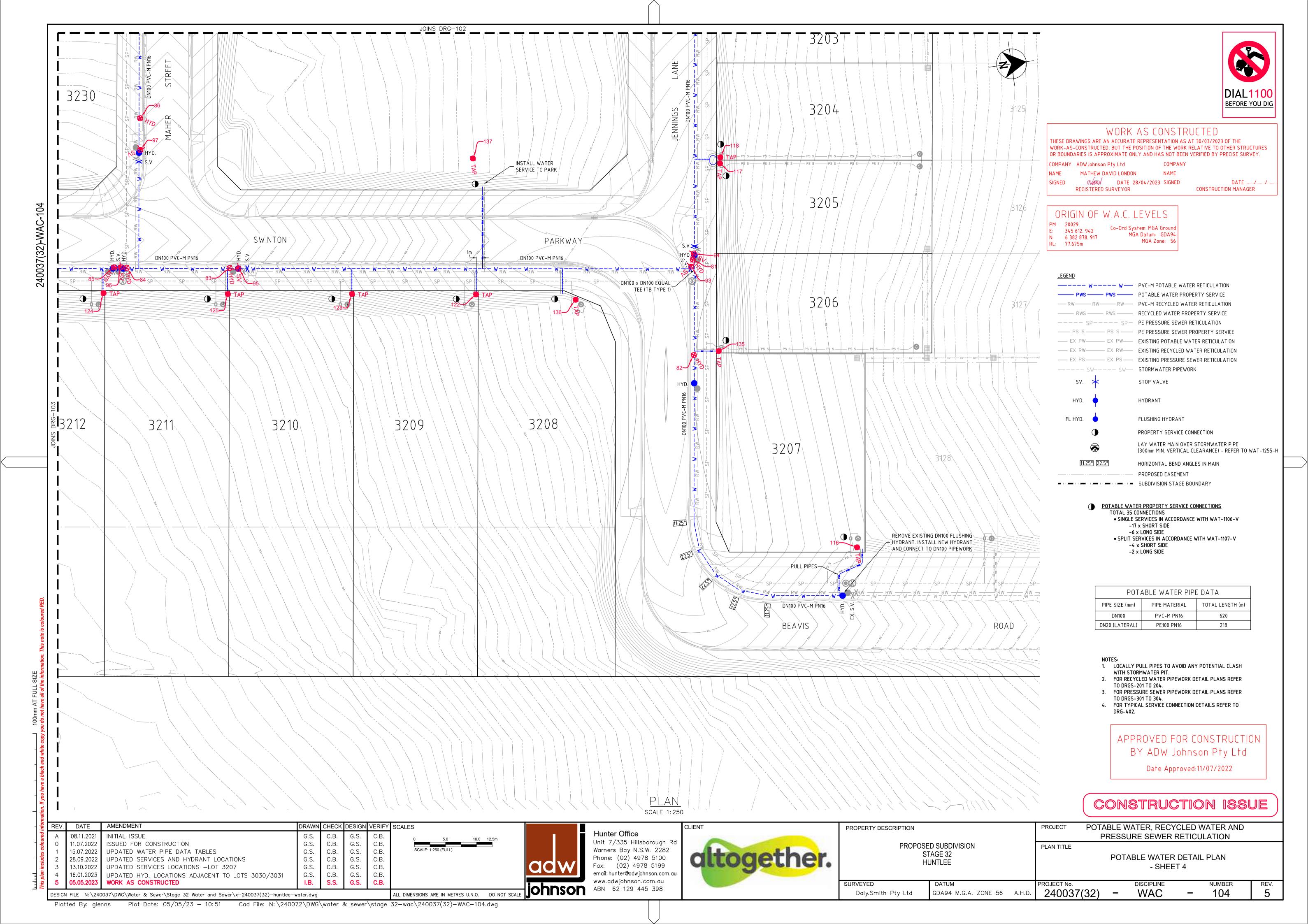
G.S. C.B.

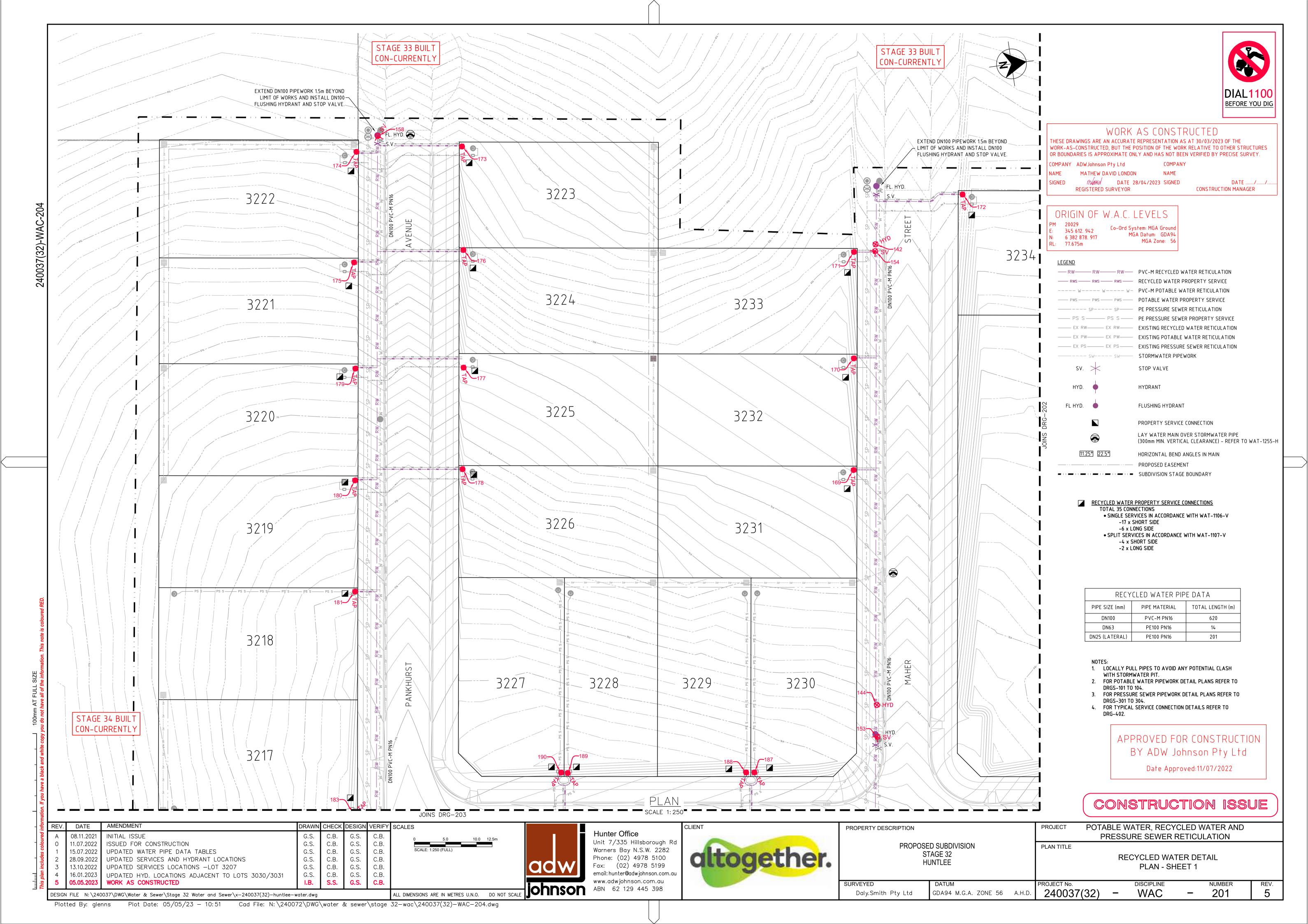
C.B.

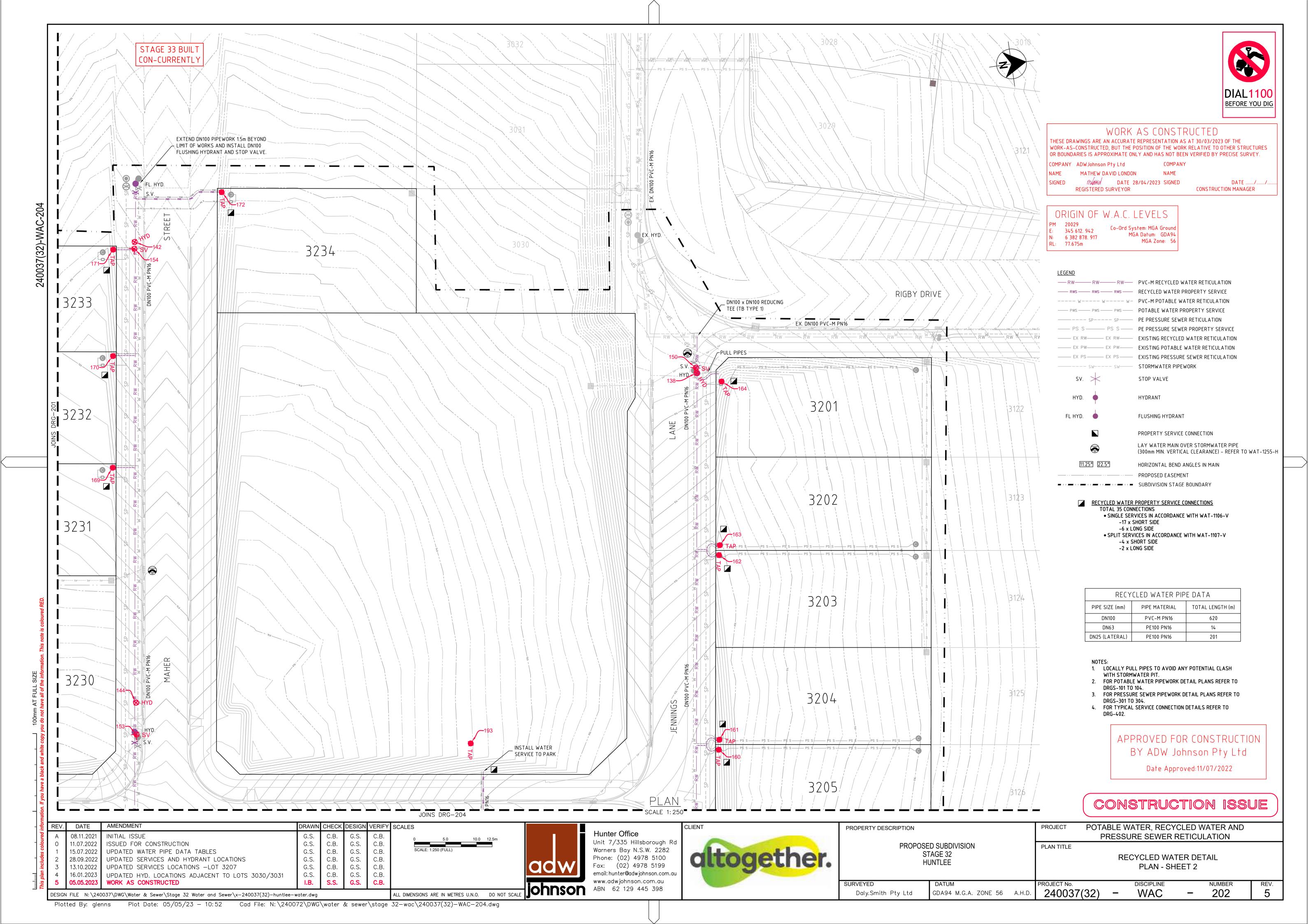


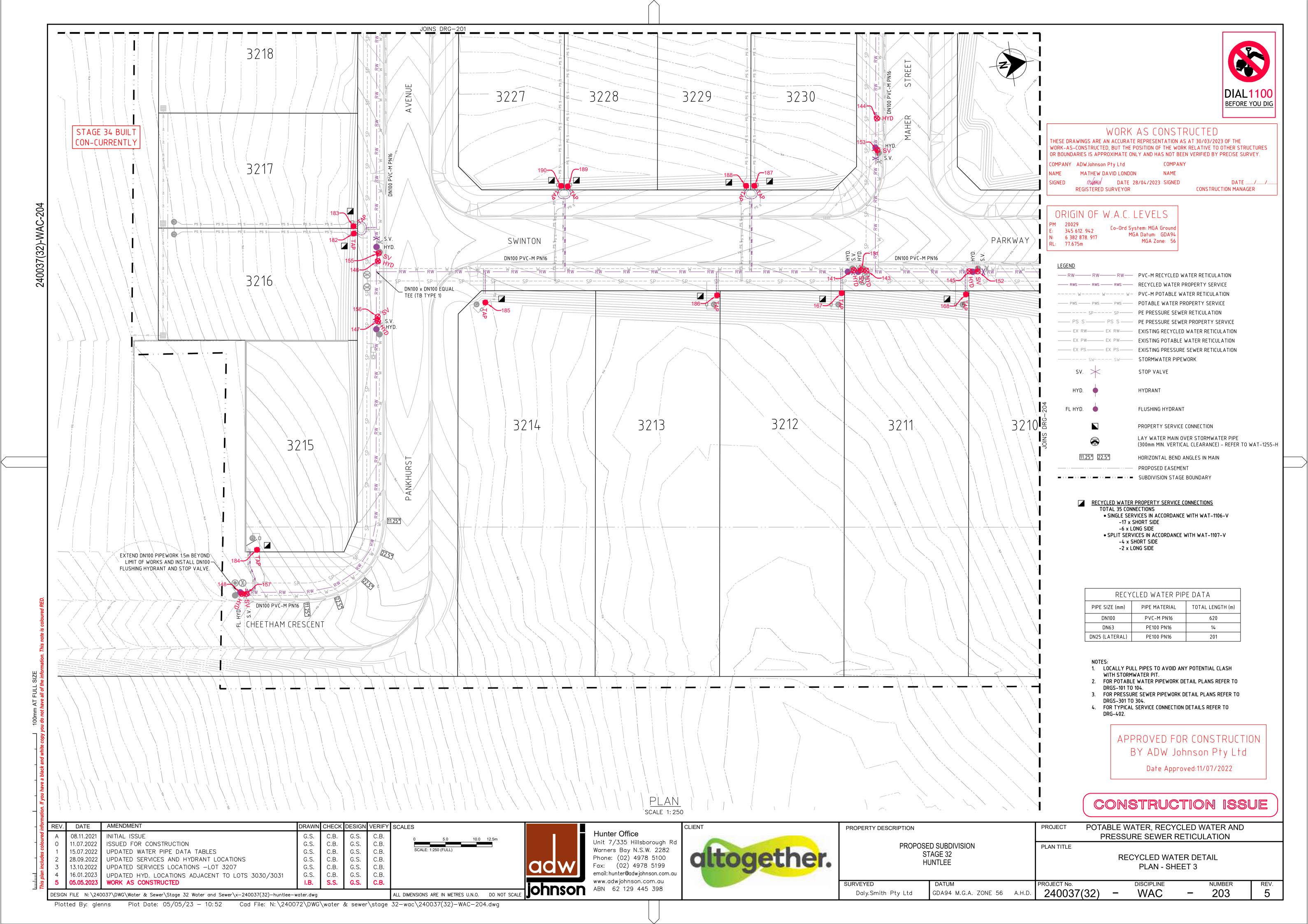


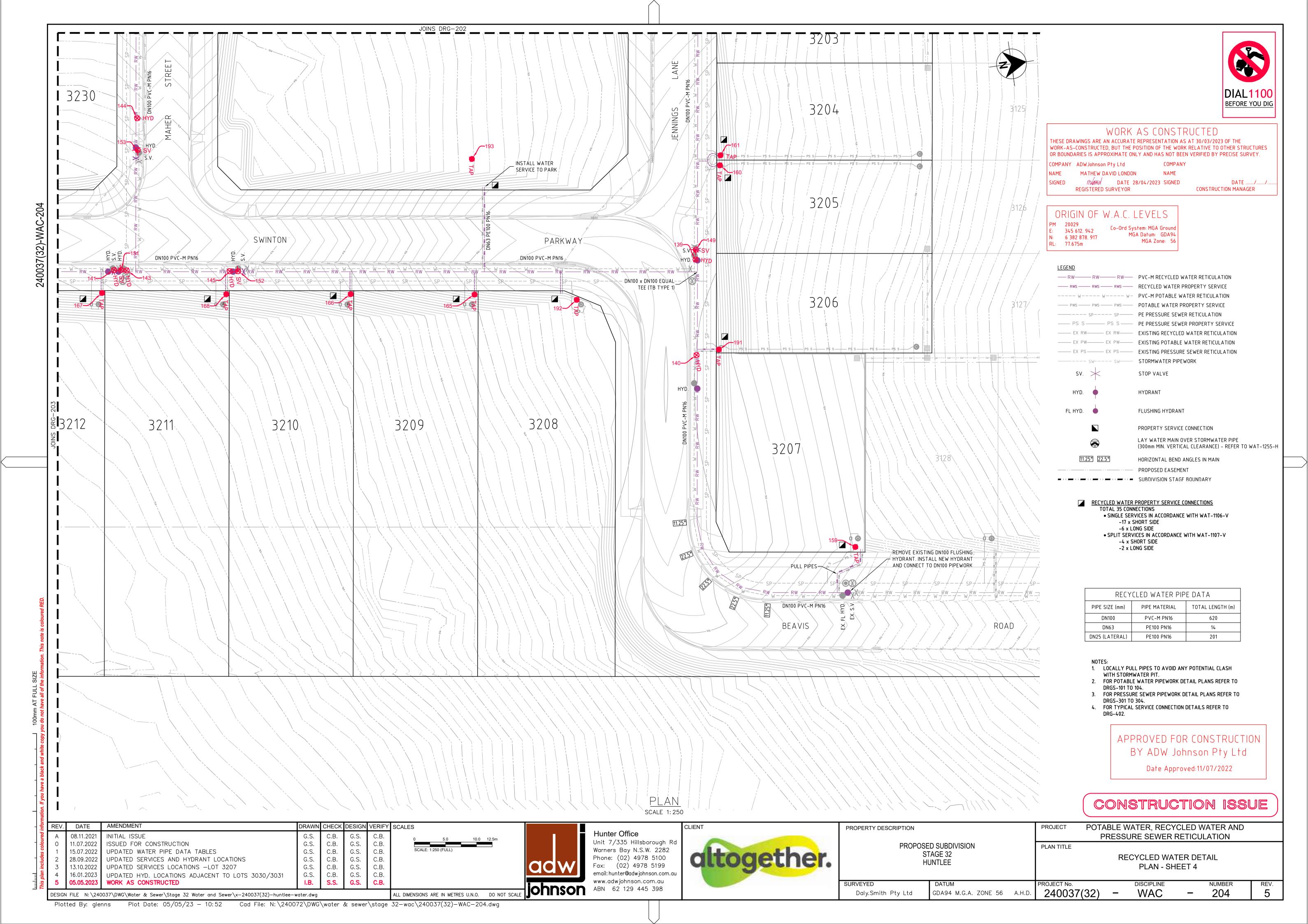


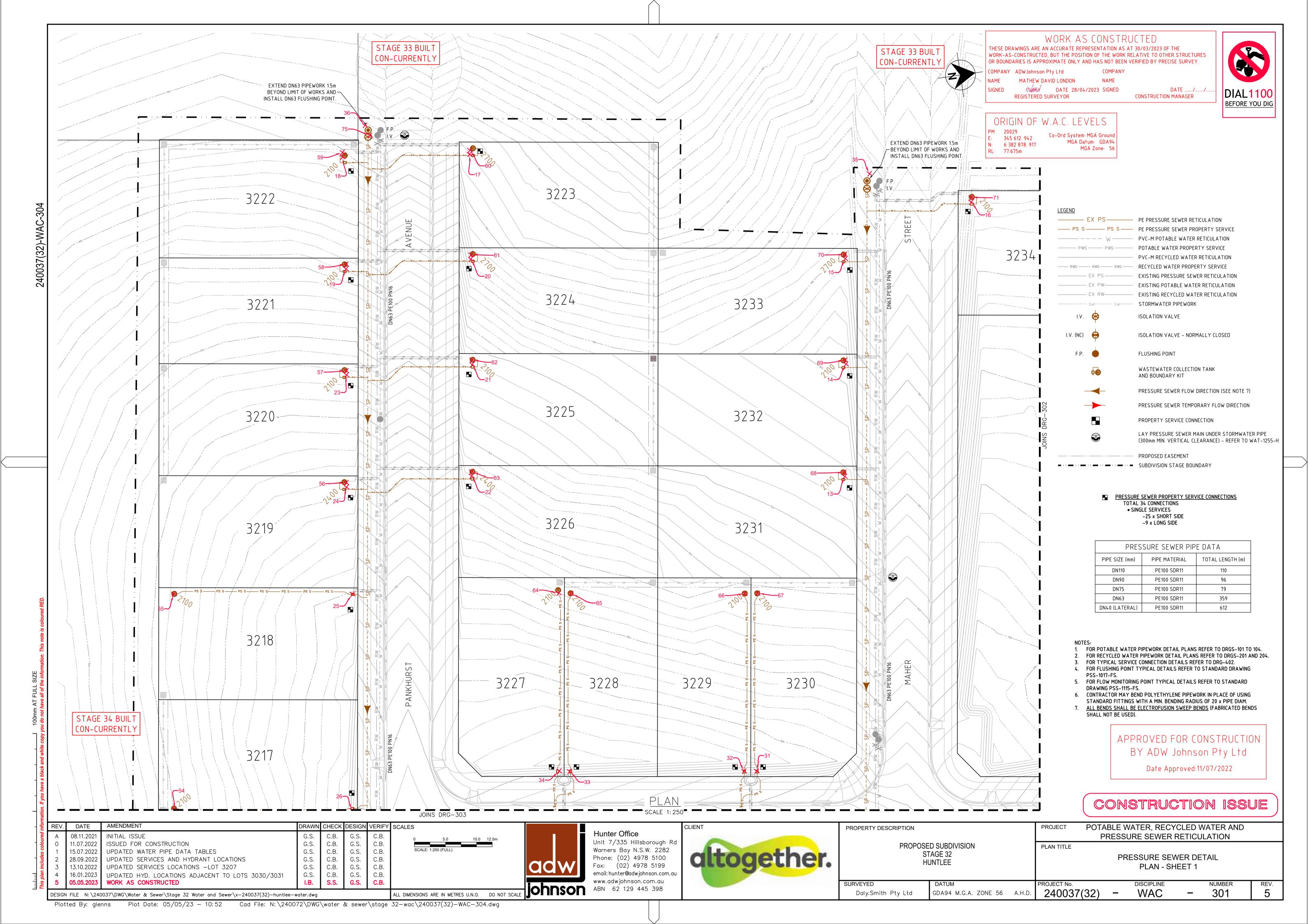


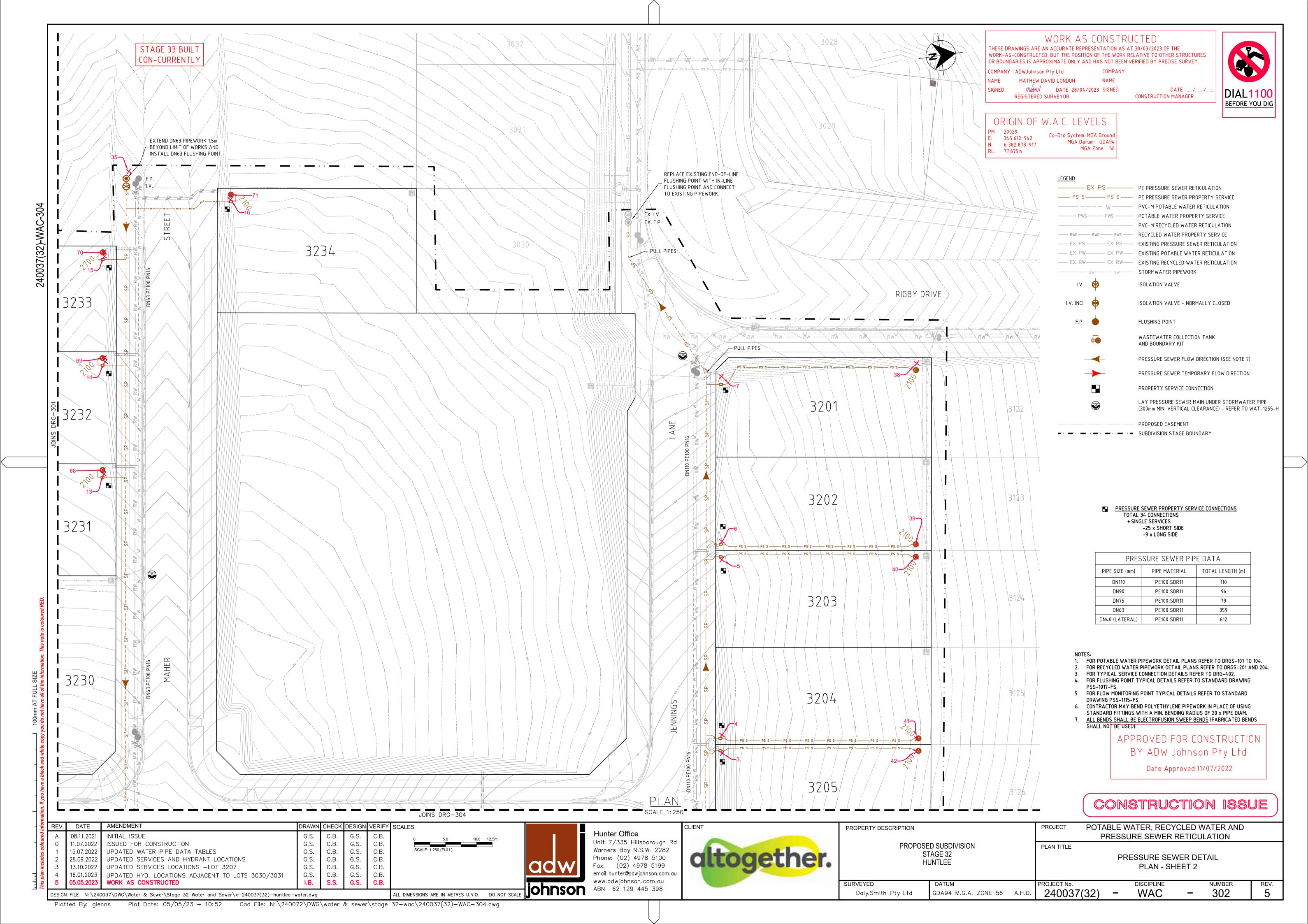


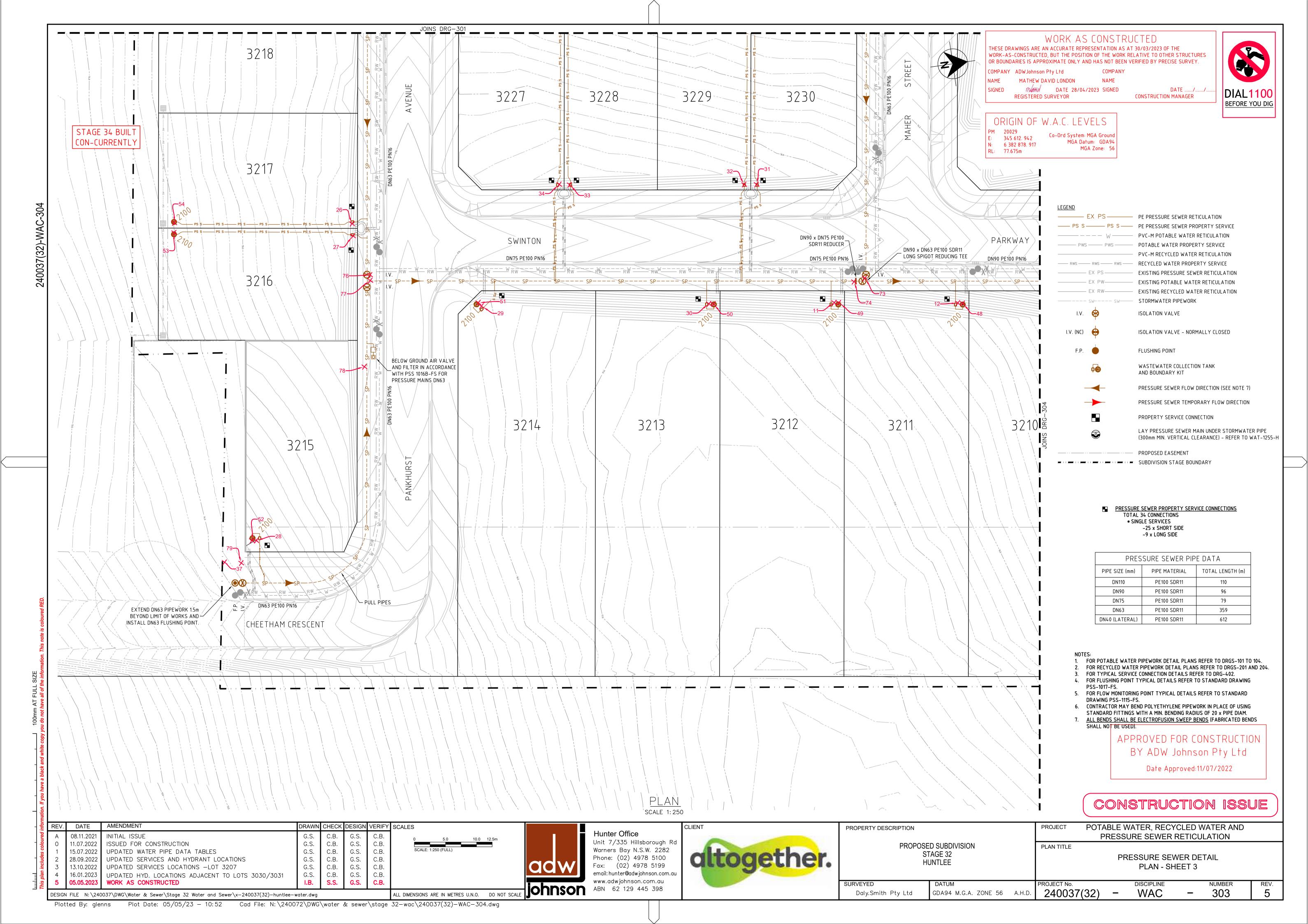


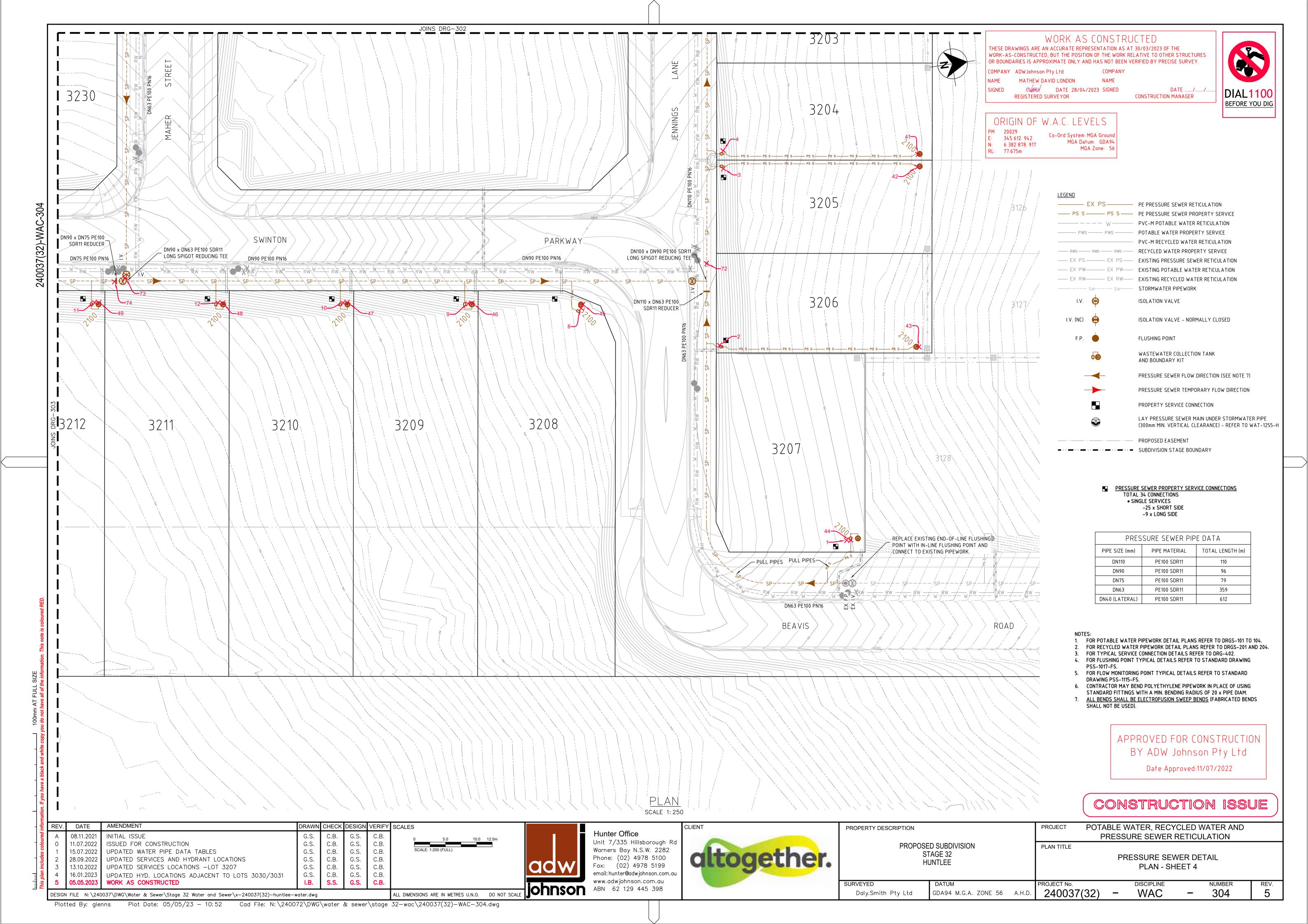












Ζ	34 /006.98	6382484.79	13.05	SERDIKII
3	346978.98	6382489.46	72.73	seBDYKIT
4	346976.10	6382489.86	72.72	seBDYKIT
5	346948.21	6382493.90	72.00	seBDYKIT
6	346945.30	6382494.39	72.02	seBDYKIT
7	346919.06	6382498.11	71.28	seBDYKIT
8	346997.89	6382463.59	73.26	seBDYKIT
9	346994.51	6382445.74	73.91	seBDYKIT
10	346991.48	6382425.89	74.87	seBDYKIT
11	346985.64	6382386.36	76.11	seBDYKIT
12	346988.56	6382406.01	75.60	seBDYKIT
13	346920.24	6382397.64	73.89	seBDYKIT
14	346902.40	6382400.43	73.59	seBDYKIT
15	346885.61	6382402.78	73.07	seBDYKIT
16	346879.54	6382424.15	73.16	seBDYKIT
17	346860.26	6382345.44	72.22	seBDYKIT
18	346857.72	6382325.18	72.37	seBDYKIT
19	346875.64	6382323.14	73.44	seBDYKIT
20	346876.98	6382343.22	73.24	seBDYKIT
21	346893.78	6382340.98	74.21	seBDYKIT
22	346911.47	6382338.29	74.82	seBDYKIT
23	346892.51	6382320.75	74.23	seBDYKIT
24	346910.35	6382318.14	75.08	seBDYKIT
25	346927.48	6382316.62	75.72	seBDYKIT
26	346961.86	6382311.50	76.28	seBDYKIT
27	346963.83	6382311.36	76.29	seBDYKIT
28	347010.04	6382288.90	75.02	seBDYKIT
29	346977.98	6382330.16	76.51	seBDYKIT
30	346982.90	6382366.40	76.33	seBDYKIT
31	346965.03	6382376.75	75.99	seBDYKIT
32	346964.76	6382374.77	76.00	seBDYKIT
33	346960.74	6382347.02	76.09	seBDYKIT
34	346960.44	6382345.37	76.14	seBDYKIT
35	346872.66	6382408.62	72.34	seFP
36	346853.22	6382329.50	72.09	seFP
37	347012.75	6382283.35	74.45	seFP
38	346921.53	6382529.48	70.10	seSPT3201
39	346950.28	6382525.18	70.54	seSPT3202
40	346952.30	6382524.86	70.54	seSPT3203
41	346981.19	6382520.76	70.67	seSPT3204
42	346983.18	6382520.37	70.67	seSPT3205
43	347011.92	6382516.43	70.36	seSPT3206
44	347041.02	6382501.06	72.10	seSPT3207
45	346997.36	6382463.98	73.31	seSPT3208
46	346994.55	6382446.41	73.94	seSPT3209
47	346991.53	6382426.56	74.92	seSPT3210
48	346988.74	6382406.77	75.65	seSPT3211
49	346985.76	6382387.09	76.16	seSPT3212
50	346983.04	6382367.10	76.36	seSPT3213
51	346977.38	6382329.76	76.58	seSPT3214
52	347009.93	6382288.19	75.00	seSPT3215
53	346959.16	6382283.00	74.46	seSPT3216
54	346957.61	6382283.24	74.45	seSPT3217
55	346923.32	6382288.21	74.73	seSPT3218

Point Table

1 347040.94 6382500.42 72.13 seBDYKIT

2 347006.98 6382484.79 73.05 seBDYKIT

Point # Eastings Northings Levels Codes

	<u>'</u>	Point Table -	1	ı
Point #	Eastings	Northings	Levels	Codes
56	346909.62	6382318.21	75.07	seSPT32
57	346891.84	6382320.81	74.22	seSPT32
58	346874.91	6382323.26	73.45	seSPT32
59	346857.00	6382325.29	72.40	seSPT32
60	346859.60	6382345.60	72.33	seSPT32
61	346876.26	6382343.35	73.24	seSPT32
62	346893.04	6382341.07	74.21	seSPT32
63	346910.80	6382338.42	74.84	seSPT32:
64	346932.11	6382349.41	75.38	seSPT32
65	346932.49	6382351.37	75.37	seSPT32
66	346936.56	6382379.01	75.13	seSPT32:
67	346936.79	6382381.05	75.12	seSPT32
68	346919.57	6382397.63	73.92	seSPT32
69	346901.74	6382400.41	73.60	seSPT32
70	346884.94	6382402.79	73.08	seSPT32
71	346878.78	6382424.27	73.19	seSPT32
72	346993.66	6382484.62	72.94	seSV
73	346982.46	6382391.77	75.45	seSV
74	346982.76	6382389.98	75.50	seSV
75	346854.93	6382330.05	72.19	seSV
76	346970.44	6382313.17	76.30	seSV
77	346971.33	6382313.08	76.30	seSV
78	346984.90	6382310.14	76.35	seSV
79	347013.26	6382285.98	74.75	seSV
80	346917.88	6382493.68	70.84	waHYD
81	346992.74	6382482.49	72.96	waHYD
82	347007.94	6382480.44	73.00	waHYD
83	346983.30	6382408.62	74.85	waHYD
84	346980.86	6382392.26	75.29	waHYD
85	346980.50	6382390.23	75.40	waHYD
86	346957.38	6382397.88	74.51	waHYD
87	346884.28	6382408.32	72.55	waHYD
88	346900.45	6382325.21	74.53	waHYD
89	347018.58	6382285.42	74.50	waHYD
90	346978.05	6382313.78	76.29	waHYD
91	346968.57	6382315.19	76.24	waHYD
92	346916.83	6382493.81	70.82	waSV
93	346993.82	6382482.06	72.90	waSV
94	346991.80	6382482.78	72.93	waSV
95	346983.58	6382410.02	74.79	waSV
96	346980.65	6382391.32	75.36	waSV
97	34.6885.64	6382397.16 6382408.13	74.63	Vasv
98 99	346885.64	6382408.13	72.59 74.52	waSV
100	347018.81 346855.23	6382286.52	72.14	waSV waSV
100	346855.23	6382331.77	76.20	waSV
101	346976.74	6382313.92	76.20	waSV
102	346976.74	6382344.48	72.16	waSv
10.5	346857.02	6382327.57	72.16	waTAP
104	346874.45	6382324.63	73.31	waTAP
106	346875.13	6382324.63	73.31	waTAP
107	346893.79	6382342.28	74.10	waTAP waTAP
107	346893.79	6382339.55	74.10	waTAP waTAP
108	346891.46	6382337.06	74.72	waTAP waTAP
107	J40071.45	ا کرککرکیری	14.07	l walap

	Р	oint Table		
Point #	Eastings	Northings	Levels	Codes
111	346926.85	6382317.13	75.56	waTAP
112	346919.12	6382399.21	73.50	waTAP
113	346901.40	6382401.86	73.15	waTAP
114	346884.41	6382404.36	72.67	waTAP
115	346877.78	6382422.99	72.67	waTAP
116	347042.32	6382501.92	71.77	waTAP
117	346978.06	6382489.06	72.62	waTAP
118	346977.10	6382489.25	72.60	waTAP
119	346947.20	6382493.59	71.87	waTAP
120	346946.16	6382493.85	71.84	waTAP
121	346919.58	6382498.06	71.14	waTAP
122	346993.23	6382447.21	73.43	waTAP
123	346990.28	6382427.50	74.32	waTAP
124	346984.35	6382387.99	75.52	waTAP
125	346987.40	6382407.74	74.98	waTAP
126	346962.63	6382311.71	76.20	waTAP
127	346963.18	6382311.61	76.19	waTAP
128	347011.52	6382288.49	74.91	waTAP
129	346977.41	6382331.15	76.35	waTAP
130	346981.78	6382368.25	75.80	waTAP
131	346965.13	6382376.03	75.86	waTAP
132	346965.07	6382375.31	75.84	waTAP
133	346960.92	6382346.42	76.05	waTAP
134	346960.77	6382345.83	76.03	waTAP
135	347007.88	6382484.48	72.91	waTAP
136	346996.39	6382462.92	73.08	waTAP
137	346971.53	6382449.87	73.44	waTAP
138	346917.93	6382494.24	70.86	waHYDR
139	346992.78	6382482.93	72.92	waHYDR
140	347008.00	6382480.86	72.99	waHYDR
141	346980.93	6382390.21	75.42	waHYDR
142	346884.02	6382407.92	72.53	waHYDF
143	346981.28	6382392.20	75.31	waHYDR
144	346957.32	6382397.41	74.54	waHYDF
145	346983.80	6382408.56	74.88	wallibr
146	346968.41	6382314.74	76.22	waHYDF
147	346977.98	6382313.33	76.30	waHYDR
148	347018.17	6382285.36	74.49	waHYDR
149	346991.22	6382483.18	72.91	waSVR
150	346917.07	6382494.25	70.82	waSVR
151	346981.09	6382391.32	75.34	waSVR
152	346984.01	6382409.89	74.80	waSVR
153	346962.39	6382396.75	74.64	waSVR
154	346885.09	6382407.71	72.58	waSVR
155	346967.19	6382315.02	76.22	waSVR
156	346977.24	6382313.40	76.25	waSVR
157	347018.28	6382286.09	74.50	waSVR
158	346855.21	6382331.27	72.13	waSVR
159	347042.22	6382501.65	71.81	waTAPF
160	346978.37	6382489.00	72.61	waTAPF
161	346976.76	6382489.32	72.61	waTAPR
			71.89	waTAPR
162	346947.42	6382493.57		
	346947.42 346945.86	6382493.57	71.85 71.15	waTAPR

	Р	oint Table		
Point #	Eastings	Northings	Levels	Codes
166	346990.27	6382427.27	74.35	waTAPR
167	346984.30	6382387.76	75.51	waTAPR
168	346987.38	6382407.49	74.98	waTAPR
169	346919.41	6382399.18	73.53	waTAPR
170	346901.66	6382401.82	73.12	waTAPR
171	346884.74	6382404.32	72.63	waTAPR
172	346878.12	6382422.91	72.73	waTAPR
173	346858.85	6382344.42	72.17	waTAPR
174	346857.24	6382327.50	72.24	waTAPR
175	346874.78	6382324.56	73.37	waTAPR
176	346875.34	6382342.24	73.17	waTAPR
177	346894.05	6382339.53	74.17	waTAPR
178	346910.17	6382337.00	74.74	waTAPR
179	346891.68	6382322.30	74.12	waTAPR
180	346909.46	6382319.65	74.93	waTAPR
181	346927.14	6382317.07	75.57	waTAPR
182	346963.47	6382311.55	76.18	waTAPR
183	346962.31	6382311.67	76.19	waTAPR
184	347011.52	6382288.78	74.90	waTAPR
185	346977.49	6382330.86	76.39	waTAPR
186	346981.74	6382367.89	75.83	waTAPR
187	346965.20	6382376.35	75.87	waTAPR
188	346965.00	6382375.05	75.84	waTAPR
189	346960.95	6382346.65	76.05	waTAPR
190	346960.72	6382345.62	76.06	waTAPR
191	347007.65	6382484.54	72.90	waTAPR
192	346996.43	6382463.10	73.07	waTAPR
193	346971.59	6382449.69	73.44	waTAPR

WORK AS CONSTRUCTED

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COMPANY ADW Johnson Pty Ltd NAME MATHEW DAVID LONDON Mand DATE 28/04/2023 SIGNED REGISTERED SURVEYOR

DATE/....... CONSTRUCTION MANAGER

ORIGIN OF W.A.C. LEVELS Co-Ord System: MGA Ground MGA Datum: GDA94 MGA Zone: 56 E: 345 612. 942 N: 6 382 878. 917 RL: 77.675m

APPROVED FOR CONSTRUCTION BY ADW Johnson Pty Ltd Date Approved:11/07/2022

CONSTRUCTION ISSUE

305

informati							
infor	REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY
is plan includes coloured	Α	08.11.2021	INITIAL ISSUE	G.S.	C.B.	G.S.	C.B.
olo	0	11.07.2022	ISSUED FOR CONSTRUCTION	G.S.	C.B.	G.S.	C.B.
SS C	1	15.07.2022	UPDATED WATER PIPE DATA TABLES	G.S.	C.B.	G.S.	C.B.
Inde	2	28.09.2022	UPDATED SERVICES AND HYDRANT LOCATIONS	G.S.	C.B.	G.S.	C.B.
inc	3	13.10.2022	UPDATED SERVICES LOCATIONS —LOT 3207	G.S.	C.B.	G.S.	C.B.
olan	4	16.01.2023	UPDATED HYD. LOCATIONS ADJACENT TO LOTS 3030/3031	G.S.	C.B.	G.S.	C.B.
is l	5	05.05.2023	WORK AS CONSTRUCTED	I.B.	S.S.	G.S.	C.B.

SCALES 0 0.1 0.2 0.3 0.4 A1 / A3 1:10 / 1:20

Hunter Office Unit 7/335 Hillsborough Rd Warners Bay N.S.W. 2282 Phone: (02) 4978 5100 Fax: (02) 4978 5199 email: hunter@adwjohnson.com.au www.adwjohnson.com.au ABN 62 129 445 398



PROPERTY DESCRIPTION	
	SED SUBDIVISION STAGE 32 HUNTLEE
URVEYED	DATUM

PROJECT	POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION
PLAN TITLE	
	FITTINGS TABLE

240037(32) -WAC GDA94 M.G.A. ZONE 56 A.H.D. Daly.Smith Pty Ltd

AMENDMENT

INITIAL ISSUE

15.07.2022 UPDATED WATER PIPE DATA TABLES

WORK AS CONSTRUCTED

GDA94 M.G.A. ZONE 56 A.H.D.

POTABLE WATER, RECYCLED WATER AND PROJECT PRESSURE SEWER RETICULATION PLAN TITLE

240037(32) -

APPROVED FOR CONSTRUCTION

BY ADW Johnson Pty Ltd

Date Approved:11/07/2022

CONSTRUCTION ISSUE

5

401

WAC

BEFORE YOU DIG

TYPICAL PIPEWORK TRENCHING DETAIL DISCIPLINE PROJECT No.

MATERIAL REMOVED FROM

SENTRY LINE DETECTABLE TAPE

PRIVATE PROPERTY PRESSURE MAIN

TYPICAL DETAIL

FINISHED SURFACE

THE EXCAVATION OR IMPORTED MATERIAL CONTAINING NOT MORE THAN 20% BY MASS OF STONES

SOIL FREE FROM ORGANICS OR OTHER DELETERIOUS MATERIAL TO AS 2566.1 TABLES 3.1 & 3.2 (EXCLUDES SOILS WITH LL>50%)

PRESSURE RECYCLED POTABLE KERB LINE WATER WATER SEWER 1500 500 FINISHED SURFACE SELECTED BACKFILL MATERIAL (TYP.) SENTRY LINE DETECTABLE TAPE (TYP.)

STREET PRESSURE MAIN

TYPICAL DETAIL

0 0.1 0.2 0.3 0.4 A1 / A3 1:10 / 1:20

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WORK AS CONSTRUCTED

COMPANY ADW Johnson Pty Ltd NAME MATHEW DAVID LONDON

Mand DATE 28/04/2023 SIGNED DATE/....../ REGISTERED SURVEYOR CONSTRUCTION MANAGER

ORIGIN OF W.A.C. LEVELS

Co-Ord System: MGA Ground MGA Datum: GDA94 E: 345 612. 942 N: 6 382 878. 917 MGA Zone: 56 RL: 77.675m

Daly.Smith Pty Ltd

1. ALL POLYETHYLENE FITTINGS SHALL BE JOINED USING ELECTROFUSION JOINTING TECHNIQUES IN ACCORDANCE WITH MANUFACTURERS REQUIREMENTS. ROTATE BENDS AS NECESSARY.

ALL DIMENSIONS ARE IN METRES U.N.O. DO NOT SO DESIGN FILE N: $\240037\DWG\Water \& Sewer\Stage 32 Water and Sewer\x-240037(32)-huntlee-water.dwg$ Plotted By: glenns Plot Date: 05/05/23 - 10:53 Cad File: N:\240072\DWG\water & sewer\stage 32-wac\240037(32)-WAC-401.dwg

G.S. G.S. G.S. G.S. G.S.

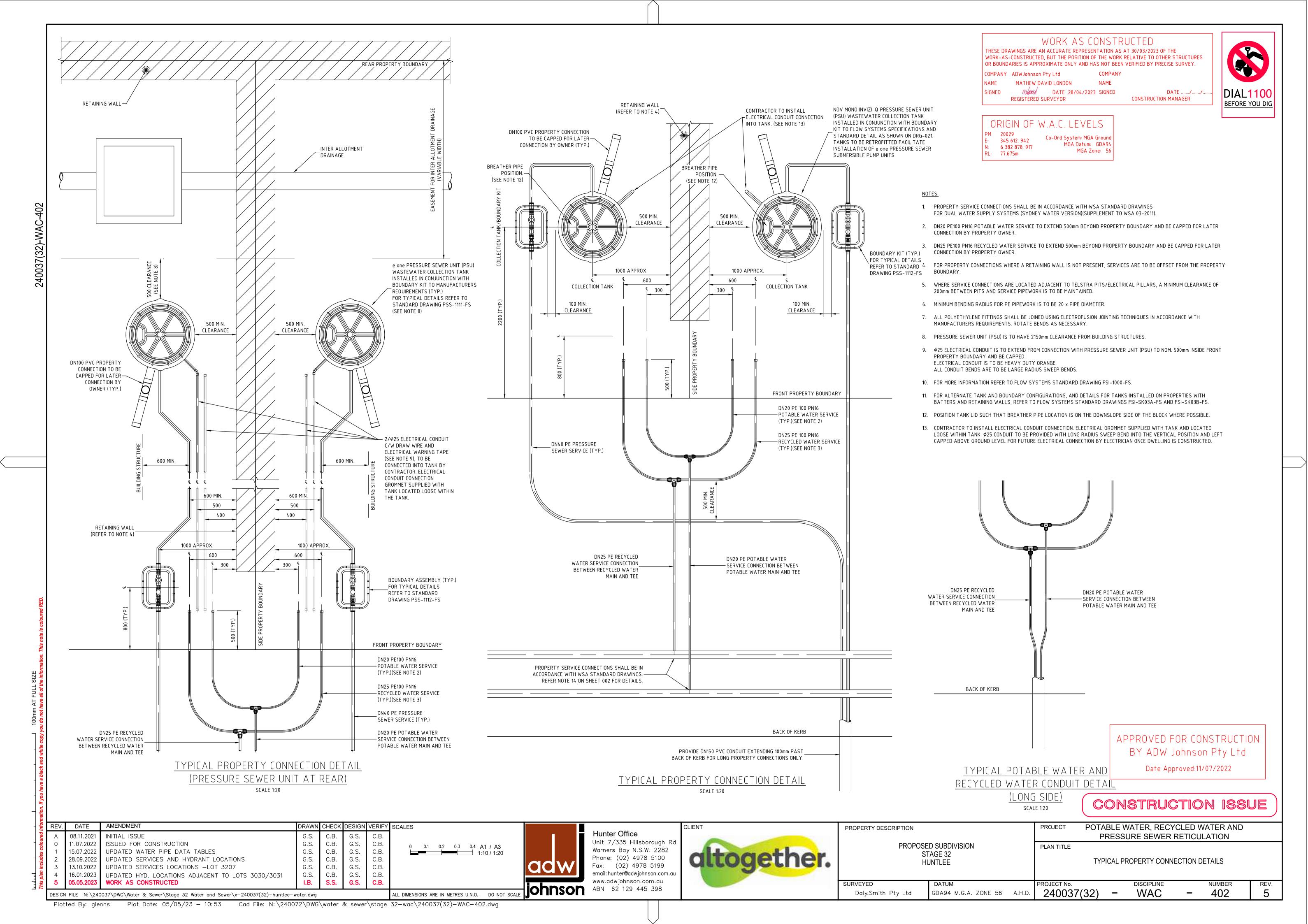
C.B. C.B. C.B.

C.B. C.B. **S.S.**

DRAWN CHECK DESIGN VERIFY SCALES

G.S. C.B. G.S. C.B. G.S. C.B. G.S. C.B.

G.S. C.B. **C.B.**



LOT NUMBER

3203

3204

3206

3207

3208

3209

3210

3212

3213

3214

3215

3217

3218

3220

3221

3223

3224

3226

3227

3229

TOP OF TANK TANK FSL

70.17

70.38

70.39

70.52

70.51

70.18

71.96

73.17

73.80

74.72

75.51

76.04

76.29

76.46

74.88

74.49

74.51

74.57

74.91

74.21

73.34

72.55

72.27

72.98

74.09

74.76

75.28

75.26

75.05

75.04

73.77

73.49

73.00

73.09

73.05

73.04

71.77

71.49

70.40

71.09

70.30

70.51

70.52

70.65

70.64

70.31

72.09

73.30

73.93

74.85

75.64

76.17

76.42

76.59

75.01

74.62

74.64

74.70

75.04

74.34

73.47

72.68

72.40

73.11

74.22

74.89

75.41

75.39

75.18

75.17

73.90

73.62

73.22



APPROVED FOR CONSTRUCTION

BY ADW Johnson Pty Ltd

Date Approved:11/07/2022

CALCULATED WAC V'S TOP OF VAC SANITARY DESIGN INVERT DRAINAGE LEVEL TANK LID INVERT LEVEL COMPARISON WASTEWATER COLLECTION TANK DETAILS BASE IL CONNECTION IL TANK HEIGHT TANK LOCATION EASTING NORTHING 68.17 69.07 2100 REAR 346922.57 6382529.21 68.79 70.10 -0.28 2100 REAR 68.38 69.28 346950.27 6382525.11 70.54 69.23 -0.052100 REAR 68.39 69.29 346952.24 -0.076382524.82 70.54 69.22 68.52 69.42 2100 REAR 346981.20 6382521.04 70.67 69.36 -0.062100 REAR 346983.18 6382520.75 70.67 69.35 -0.0668.51 69.41 2100 REAR 69.08 347011.80 68.18 6382516.02 70.36 69.04 -0.042100 69.96 70.86 FRONT 347040.91 6382502.27 70.79 -0.0772.10 71.17 72.07 2100 FRONT BATTER 346997.27 6382463.67 73.31 71.99 -0.0871.80 72.70 2100 FRONT BATTER 346994.72 6382446.32 -0.0773.94 72.63 72.72 2100 FRONT BATTER 73.62 346991.82 6382426.53 74.92 73.60 -0.022100 73.51 74.41 FRONT BATTER 346988.92 6382406.74 75.65 74.34 -0.0774.94 2100 FRONT BATTER 74.04 346986.02 6382386.95 76.16 74.84 -0.1074.29 75.19 2100 FRONT BATTER 75.05 346983.12 6382367.16 76.37 -0.14 75.36 2100 FRONT BATTER 74.46 346977.58 6382329.42 76.58 75.26 -0.1072.88 73.78 2100 FRONT 347009.56 6382288.34 75.00 -0.0973.69 2100 72.49 REAR 73.39 346959.41 6382282.92 74.46 73.14 -0.2572.51 73.41 2100 REAR 346957.43 6382283.21 74.45 73.13 -0.28 2100 REAR 72.57 73.47 346923.30 6382288.26 74.73 73.41 -0.0673.51 2400 FRONT 72.61 346909.49 6382317.90 75.07 -0.0673.45 2100 FRONT 72.21 73.11 346891.68 6382320.53 74.22 72.91 -0.2071.34 72.24 2100 FRONT 346874.87 6382323.02 73.45 72.14 -0.1070.55 71.45 2100 FRONT 346857.55 71.09 6382325.58 72.41 -0.36 70.57 2700 FRONT 69.67 346859.38 6382346.13 72.33 70.42 -0.15 70.38 2700 FRONT BATTER 71.28 346876.20 6382343.64 73.24 71.32 0.04 2100 72.09 72.99 FRONT BATTER 346893.02 6382341.16 74.21 72.90 -0.0972.46 73.36 2400 FRONT BATTER 346910.82 6382338.52 73.22 74.84 -0.14 REAR 73.28 74.18 2100 346931.64 6382349.40 75.38 74.06 -0.122100 REAR 73.26 74.16 346932.43 6382351.30 75.37 74.05 -0.11

346936.52

346936.78

346919.54

346901.73

346884.92

346878.72

6382379.00

6382380.99

6382397.48

6382400.12

6382402.60

6382424.34

75.13

73.92

73.60

73.82

73.80

72.60

72.28

-0.14

-0.14

-0.07

-0.11

WASTEWATER COLLECTION TANK COUNT

73.95

73.94

72.67

72.39

2100

2100

2100

2100

2100

REAR

REAR

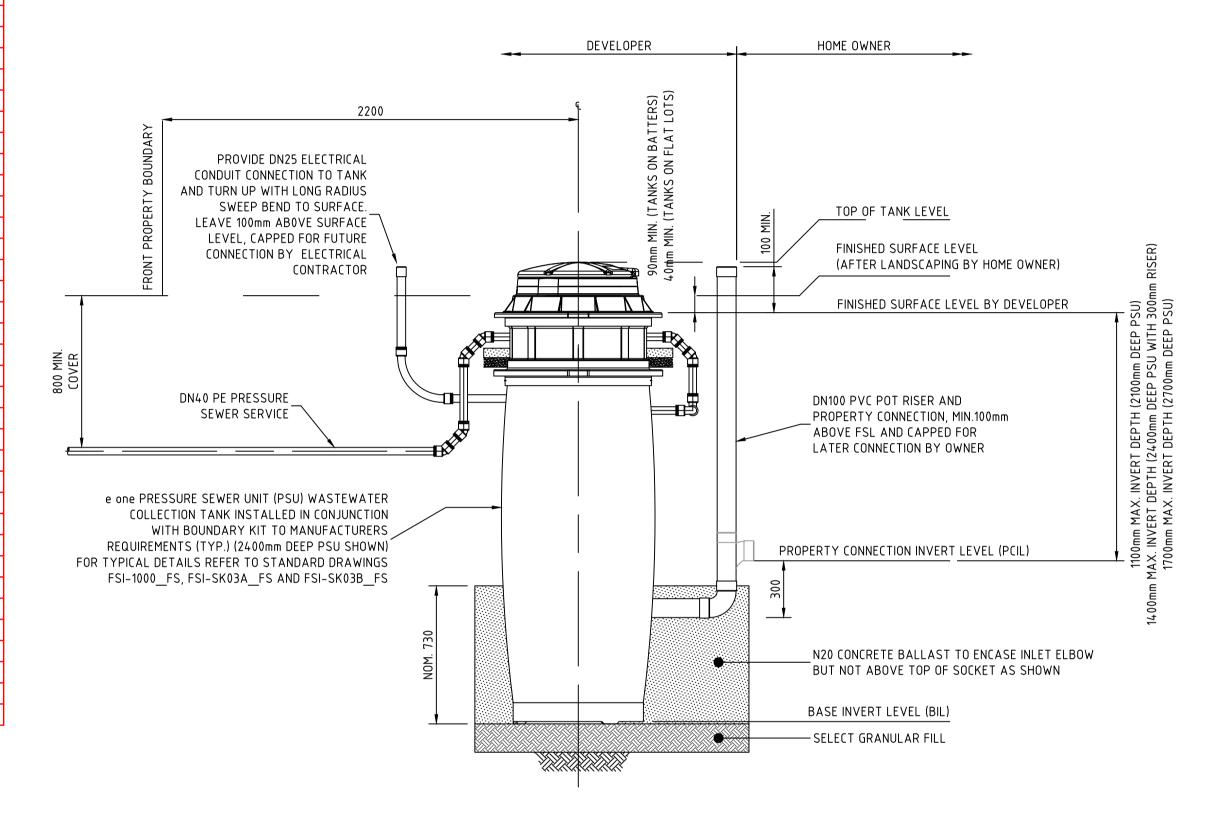
FRONT BATTER

FRONT BATTER

FRONT

FRONT BATTER

TANK SIZE	NUMBER OF
2100	29
2400	2
2700	3



BEFORE YOU DIG

PRESSURE SEWER SERVICE CONNECTION TYPICAL SECTIONAL ELEVATION

WORK AS CONSTRUCTED

THESE DRAWINGS ARE AN ACCURATE REPRESENTATION AS AT 30/03/2023 OF THE WORK-AS-CONSTRUCTED, BUT THE POSITION OF THE WORK RELATIVE TO OTHER STRUCTURES OR BOUNDARIES IS APPROXIMATE ONLY AND HAS NOT BEEN VERIFIED BY PRECISE SURVEY.

COMPANY ADW Johnson Pty Ltd NAME MATHEW DAVID LONDON Mand DATE 28/04/2023 SIGNED

CONSTRUCTION MANAGER

DATE/..../...

ORIGIN OF W.A.C. LEVELS

Co-Ord System: MGA Ground E: 345 612. 942 MGA Datum: GDA94 N: 6 382 878. 917 MGA Zone: 56 RL: 77.675m

REGISTERED SURVEYOR

DRAWN CHECK DESIGN VERIFY SCALES AMENDMENT

REV. DATE C.B. INITIAL ISSUE G.S. G.S. G.S. G.S. C.B. 11.07.2022 ISSUED FOR CONSTRUCTION C.B. G.S. C.B. C.B. 15.07.2022 UPDATED WATER PIPE DATA TABLES C.B. C.B. G.S. 28.09.2022 UPDATED SERVICES AND HYDRANT LOCATIONS C.B. G.S. C.B. 3 | 13.10.2022 | UPDATED SERVICES LOCATIONS -LOT 3207 G.S. 4 | 16.01.2023 | UPDATED HYD. LOCATIONS ADJACENT TO LOTS 3030/3031 G.S. C.B. G.S. C.B. G.S. C.B. WORK AS CONSTRUCTED

0 0.1 0.2 0.3 0.4 A1 / A3 1:10 / 1:20

Hunter Office Unit 7/335 Hillsborough Rd Warners Bay N.S.W. 2282 Phone: (02) 4978 5100 Fax: (02) 4978 5199 email: hunter@adwjohnson.com.au

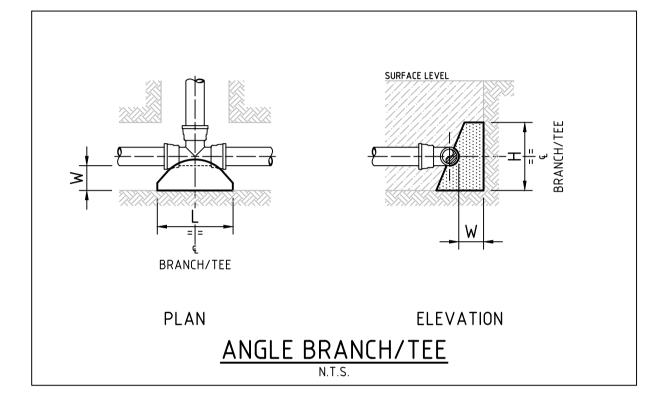
www.adwjohnson.com.au **Johnson** ABN 62 129 445 398

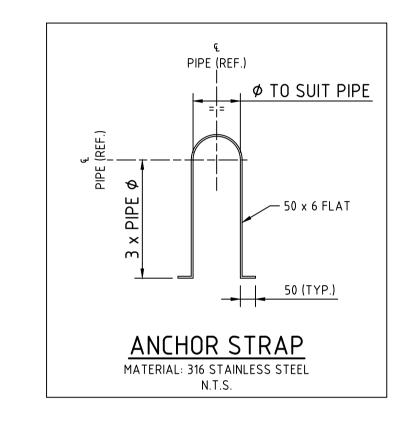
DESIGN FILE N: $\240037\DWG\Water \& Sewer\Stage 32 Water and Sewer\x-240037(32)-huntlee-water.dwg$ ALL DIMENSIONS ARE IN METRES U.N.O. DO NOT S Plotted By: glenns Plot Date: 05/05/23 - 10:53 Cad File: N:\240072\DWG\water & sewer\stage 32-wac\240037(32)-WAC-403.dwg

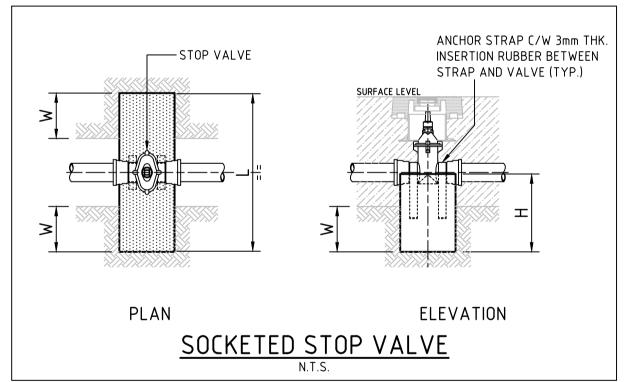
THRUST BLOCK NOTES:

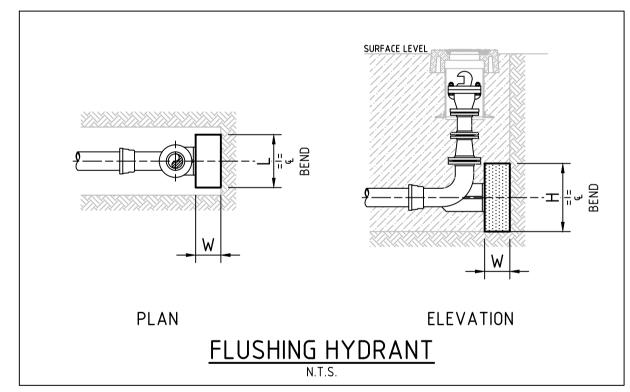
- 1. "N" DENOTES NOMINAL THRUST AREA TO BE ACHIEVED BY POURING CONCRETE THE FULL LENGTH OF THE FITTING AND EXTENDING FROM THE FLOOR OF THE TRENCH TO NOM. 100mm ABOVE THE FITTING.
- 2. CONCRETE THRUST BLOCKS ARE TO BE PROVIDED FOR ALL FITTINGS IN ACCORDANCE WITH TABLE.
- 3. THRUST BLOCK DIMENSIONS ARE BASED ON THE MINIMUM ALLOWABLE HORIZONTAL BEARING PRESSURES OF THE SOIL AS SHOWN. IF GROUND CONDITIONS ENCOUNTERED INDICATE THAT THESE BEARING PRESSURES MAY NOT BE ACHIEVED, THRUST BLOCK DESIGN IS TO BE REVISED.
- 4. THRUST BLOCKS ARE TO BE CONSTRUCTED SUCH THAT THEY TRANSFER THE THRUST ONTO UNDISTURBED GROUND. THRUST BLOCKS ARE NOT TO INTERFERE WITH OTHER SERVICES.
- 5. FINISH THRUST BLOCKS APPROXIMATELY 100mm ABOVE THE TOP OF THE FITTING OR BEARING PAD AND EXTEND TO THE FLOOR OF THE TRENCH OR DEEPER IF NECESSARY TO ACHIEVE THE REQUIRED THRUST AREA. MAXIMUM ENCASEMENT TO BE 180°.
- 6. CONCRETE FOR THE THRUST BLOCKS TO BE GRADE S25 USING CEMENT TYPE "SR" TO AS3972. CONCRETE TO BE MECHANICALLY VIBRATED.
- 7. CONCRETE THRUST BLOCKS ARE TO BE CURED FOR A MINIMUM OF 7 DAYS BEFORE BEING SUBJECTED TO ANY THRUST LOAD.
- 8. REFER TO WAT-1205-V FOR GENERAL FITTING THRUST BLOCK ARRANGEMENTS.
- 9. REFER TO WAT-1207-V FOR GENERAL VALVE AND VERTICAL BEND THRUST BLOCK ARRANGEMENTS.
- 10. THRUST BLOCK TO EXTEND 300mm MINIMUM INTO BASE AND SIDE WALLS OF TRENCH.
- 11. PROVIDE 3mm THK. INSERTION RUBBER BETWEEN ANCHOR STRAP AND PIPE BARREL

TYPE	FITTING	SOIL	DESIGN	THRUST	TA	LENGTH	HEIGHT	WIDTH
		AHBP (kPa)	STP (kPa)		(m ²)	(L)	(H)	(W)
1	DN100 × DN100 EQUAL TEE	100	1500	18.00	0.18	0.45	0.40	0.30
2	DN100 x (45°, 22.5°, 11.25° & 6°) HORIZONTAL BENDS	100	1500	7.50	0.08	N	N	0.30
3	DN100 SOCKETED STOP VALVE	100	1500	18.00	0.18	1.05	0.44	0.30
4	DN100 FLUSHING HYDRANT	100	1500	18.00	0.18	0.45	0.40	0.30
5	DN100 x 90° HORIZONTAL BEND	100	1500	25.50	0.26	0.55	0.47	0.30
6	DN150 x DN100 REDUCING TEE	100	1500	18.00	0.18	0.40	0.45	0.30









WORK AS CONSTRUCTED

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COMPANY COMPANY ADW Johnson Pty Ltd MATHEW DAVID LONDON mand DATE 28/04/2023 SIGNED

DATE/..../... REGISTERED SURVEYOR CONSTRUCTION MANAGER

E: 345 612. 942 N: 6 382 878. 917 RL: 77.675m

ORIGIN OF W.A.C. LEVELS Co-Ord System: MGA Ground MGA Datum: GDA94 MGA Zone: 56

APPROVED FOR CONSTRUCTION BY ADW Johnson Pty Ltd Date Approved:11/07/2022

CONSTRUCTION ISSUE

PLAN SCALE 1:1000

REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES	
Α	08.11.2021	INITIAL ISSUE	G.S.	C.B.	G.S.	C.B.		П
0	11.07.2022	ISSUED FOR CONSTRUCTION	G.S.	C.B.	G.S.	C.B.		
1	15.07.2022	UPDATED WATER PIPE DATA TABLES	G.S.	C.B.	G.S.	C.B.		
2	28.09.2022	UPDATED SERVICES AND HYDRANT LOCATIONS	G.S.	C.B.	G.S.	C.B.		
3	13.10.2022	UPDATED SERVICES LOCATIONS —LOT 3207	G.S.	C.B.	G.S.	C.B.		
4	16.01.2023	UPDATED HYD. LOCATIONS ADJACENT TO LOTS 3030/3031	G.S.	C.B.	G.S.	C.B.		
5	05.05.2023	WORK AS CONSTRUCTED	I.B.	S.S.	G.S.	C.B.		

Hunter Office Unit 7/335 Hillsborough Rd Warners Bay N.S.W. 2282 Phone: (02) 4978 5100 Fax: (02) 4978 5199 email: hunter@adwjohnson.com.au www.adwjohnson.com.au
ABN 62 129 445 398



	PROPERTY DESCRIPTION	PROJECT POTABLE WATER, RECYCLED WATER AND						
			PRESSURE SEWER RETICULATION					
	PROPOSED SUBDIVISION	PLAN TITLE						
•	STAGE 32 HUNTLEE			THRUST BLOCK I	DETAILS	5		
	SURVEYED DATUM		PROJECT No.	DISCIPLINE		NUMBER	RE	
						_		
	Daly.Smith Pty Ltd GDA94 M.G.A. ZONE 56	A.H.D.	240037(32	2) – WAC	_	404		

DESIGN FILE N: $\240037\DWG\Water \& Sewer\Stage 32 Water and Sewer\x-240037(32)-huntlee-water.dwg$ Plotted By: glenns Plot Date: 05/05/23 - 10:53 Cad File: N:\240072\DWG\water & sewer\stage 32-wac\240037(32)-WAC-404.dwg