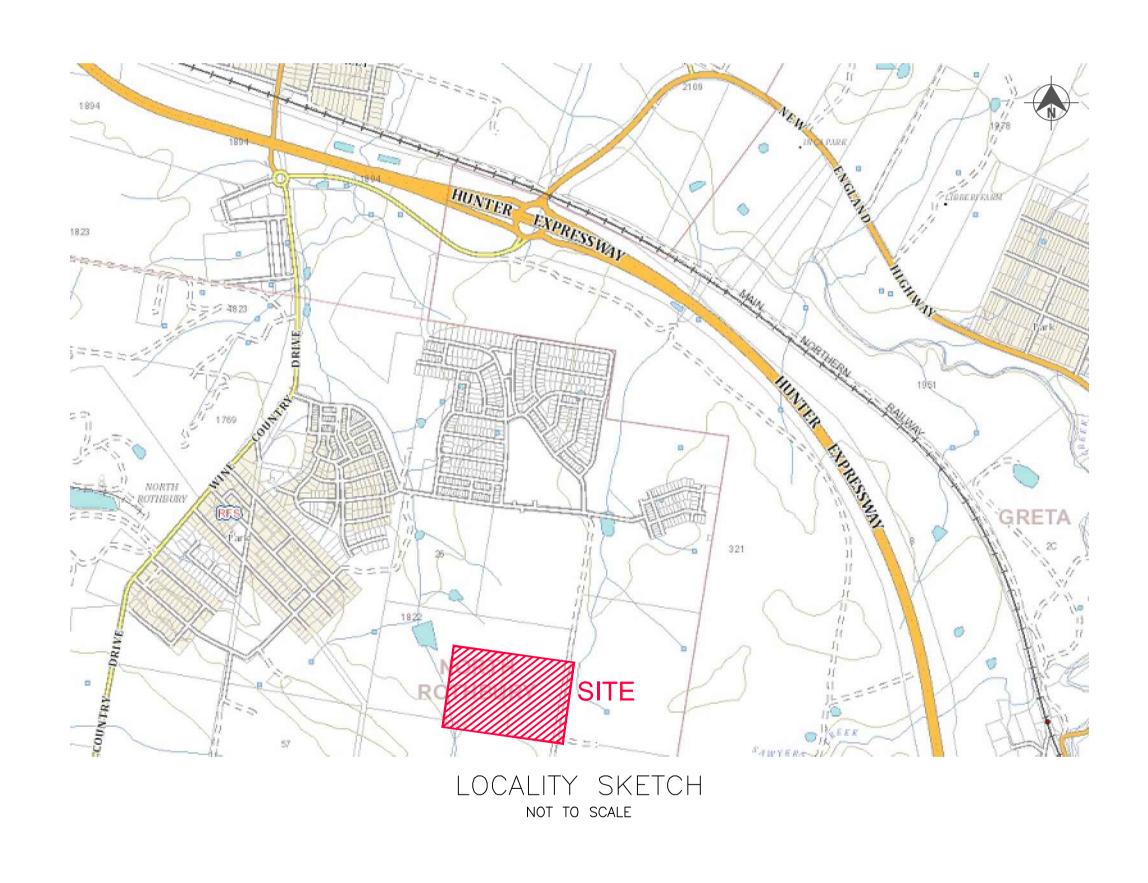


PROPOSED SUBDIVISION STAGE 23A FERRY PARADE, HUNTLEE



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240037(23A)-WAC-016	THRUST BLOCK DETAILS

WORK AS CONSTRUCTED

THESE DRAWINGS ARE AN ACCURATE REPRESENTATION AS AT 24/09/2021 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 30/09/2021 SIGNED

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

REGISTERED SURVEYOR

APPROVED FOR CONSTRUCTION BY ADW Johnson Pty Ltd Date Approved:25/03/2021

- RE	V. DATE	AMENDMENT 21 PRELIMINARY ISSUE	CS	CHECK D	ESIGN VERIFY SCALE	_	Hunter Office	CLIENT	PROPERTY DESCRIPTION			VATER, RECYCLED W URE SEWER RETICUI		
- B C D - 0	19.02.202 01.03.202 22.03.202 25.03.202 24.06.202	21 CLIENT COMMENTS 21 UPDATED DESIGN TIN, STREET PRESSURE MAIN TYPICAL DE	G.S. G.S. G.S. G.S. G.S.	T.S. C.B.	T.S. C.B. T.S. C.B. T.S. C.B. T.S. C.B. T.S. C.B. T.S. C.B.	adw	Unit 7/335 Hillsborough Rd Warners Bay N.S.W. 2282 Phone: (02) 4978 5100 Fax: (02) 4978 5199 email:hunter@adwjohnson.com.au	altogether.	STAG	SUBDIVISION SE 23A DE, HUNTLEE	PLAN TITLE	TITLE SHEET	LATION	
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PRESSURE SEWER NOTES:

REQUIREMENTS.

- 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.

- 3. 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 CONSTRUCTION STEED AND ANY C
- 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 REQUIREMENTS.

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

- 7. 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).
- 9. 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 PERMITTED.
- 11. <u>MINIMUM</u> 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_ES_pg
- 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 FITTINGS.
- 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 (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.
- 1x \$\phi 25mm Instrumentation conduit (orange) and 1x \$\phi 25mm 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
- FITTINGS.

 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.
- 27. ALL MAINS (UP TO THE BOUNDARY KIT) SHALL BE PRESSURE TESTED TO 1600 kPa.
 ALL LINES FROM THE WASTEWATER COLLECTION TANK TO THE MANUAL ISOLATION VALVE WITHIN THE BOUNDARY KIT TO BE PRESSURE TESTED TO 1000KPa.
- 28. ALL MAINS SHALL BE FLUSHED WITH WATER TO REMOVE ANY DEBRIS PRIOR TO COMMISSIONING.
- 29. SURFACE IDENTIFICATION MARKERS ARE TO BE PROVIDED TO ALTOGETHER REQUIREMENTS.
- 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.
- 5. 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 WATER MAINS.
 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.
- 11. 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.
- 15. 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.pdf
- 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 <u>IN WRITING</u> 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
- 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. MINIMUM NUMBER OF COMPACTION TESTS REQUIRED TO SATISFY WSA03-2011 (SYDNEY WATER EDITION 2014) (CLAUSE 19.3.5):
 - TRAFFICABLE

 PIPE EMBEDMENT ZONE: NIL

 TRENCH FILL ZONE: 1 TEST/300mm LAYER OF FILL AT EACH ROAD CROSSING.
 - NON-TRAFFICABLE

 PIPE EMBEDMENT ZONE: NIL

 PROPERTY SERVICES

 TRENCH FILL ZONE: 1 TEST/900MM OF FILL AND EACH 100 LINEAL METERS OF PIPE.
- 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.

FITTINGS.

- 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. SUBMISSION CHECKLIST.
- 29. WHERE THE PIPE GRADE EXCEEDS 5%, TRENCHSTOPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH WAT-1209 AND WAT-1210 AT THE SPACING OF 100/GRADE%.
 WHERE PIPE GRADES EXCEED 15%, CONCRETE BULKHEADS WILL BE CONSTRUCTED AT SPACING AS PER TABLE 7.5 OF WSA03-2001 SYDNEY WATER EDITION 2014.

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.
- 3. MAKE SMOOTH TRANSITION TO EXISTING WORKS (i.e. ROAD PAVEMENT AND FOOTPATHS) TO P.C.A. AND SUPERINTENDENT'S REQUIREMENTS.
- 4. 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		ORIZONTAL NCE (mm)	MINIMUM VERTICAL		
(EXISTING OR PROPOSED SERVICE)	NEW MA	AIN SIZE	CLEARANCE (mm)		
	≤ DN200	≥ DN200]		
WATER MAINS > DN375	600	60	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 °		
KERBS	150	6005	150 (WHERE POSSIBLE)		

NOTES

- 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 TO BE PROVIDED.
- 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.

CONSTRUCTION MANAGER

WORK AS CONSTRUCTED

ORIGIN OF W.A.C. LEVELS

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

ORIGIN OF W.A.C. LEVELS

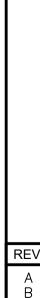
Co-Ord System: MGA Ground
MGA Datum: GDA94
MGA Zone: 56

REGISTERED SURVEYOR

APPROVED FOR CONSTRUCTION
BY ADW Johnson Pty Ltd

Date Approved: 25/03/2021

REV.	DATE	AMENDMENT	DRAWN	CHECK D	ESIGN VERIF	Y SCALES				CLIENT	PROPERTY DESCRIPTION		PROJECT	POTABLE WA	TER, RECYCLED WA	ATER AND
	5.02.2021	PRELIMINARY ISSUE	G.S.	J.N.	T.S. C.B				Hunter Office					PRESSUR	E SEWER RETICULA	ATION
C 01	1.03.2021	CLIENT COMMENTS UPDATED DESIGN TIN, STREET PRESSURE MAIN TYPICAL DETAIL	G.S. G.S.	1.S. T.S.	T.S. C.B				Unit 7/335 Hillsborough Rd Warners Bay N.S.W. 2282		PROPOSED :		PLAN TITLE			
D 22	2.03.2021	ALTOGETHER COMMENTS FOR CONSTRUCTION	T.S.	C.B.	T.S. C.B T.S. C.B				Phone: (02) 4978 5100	altogether.		E 23A	1		GENERAL NOTES	
1 24	4.06.2021	UPDATE TANK LEVEL DETAILS	G.S.	C.B.	T.S. C.B			aawi	Fax: (02) 4978 5199	9001011	FERRY PARA	DE, HUNTLEE	1		GLINLINAL NOTES	
2 30	0.09.2021	WORK AS CONSTRUCTED	I.B.	C.B.	T.S. C.B				email: hunter@adwjohnson.com.au www.adwjohnson.com.au		OUDVENED	DATIM	BBQ JEGT N		DIGOID! INF	NUMBER
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DATE

DRAWN CHECK DESIGN VERIFY SCALES AMENDMENT C 01.03.2021 UPDATED DESIGN TIN, STREET PRESSURE MAIN TYPICAL DETAIL ALTOGETHER COMMENTS FOR CONSTRUCTION UPDATE TANK LEVEL DETAILS
30.09.2021 WORK AS CONSTRUCTED G.S. J.N.
G.S. T.S.
G.S. T.S.
T.S. C.B.
G.S. C.B.
G.S. C.B.
G.S. C.B. C.B. C.B. C.B. C.B. C.B. T.S. T.S. T.S. T.S. T.S. T.S. 0 10 20 30 40 A1 / A3 1:1000 / 1:2000

ABN 62 129 445 398

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



PROPERTY DESCRIPTION SURVEYED

PROPOSED SUBDIVISION STAGE 23A FERRY PARADE, HUNTLEE

POTABLE WATER, RECYCLED WATER AND PLAN TITLE

PRESSURE SEWER RETICULATION

OVERALL SITE PLAN

003

PROJECT No. 240037(23A) - WAC -ADW Johnson A.H.D.

EXISTING STAGE 22 FOR POTABLE WATER DETAIL PLANS REFER TO DRG-004 FOR RECYCLED WATER DETAIL PLANS REFER TO DRG-007 FOR PRESSURE SEWER DETAIL PLANS REFER TO DRG-010 EXISTING FUTURE SUBDIVISION 2365 STAGE 23 FOR POTABLE WATER DETAIL PLANS REFER TO DRG-005 🕻 FOR RECYCLED WATER DETAIL PLANS REFER TO DRG-008 FOR PRESSURE SEWER DETAIL PLANS REFER TO DRG-011 2349 2372 2371

> PLAN SCALE 1:1000

WORK AS CONSTRUCTED

THESE DRAWINGS ARE AN ACCURATE REPRESENTATION AS AT 24/09/2021 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.

BEFORE YOU DIG

COMPANY ADWJohnson Pty Ltd MATHEW DAVID LONDON

DATE 30/09/2021 SIGNED DATE/...../ REGISTERED SURVEYOR CONSTRUCTION MANAGER

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

ORIGIN OF W.A.C. LEVELS

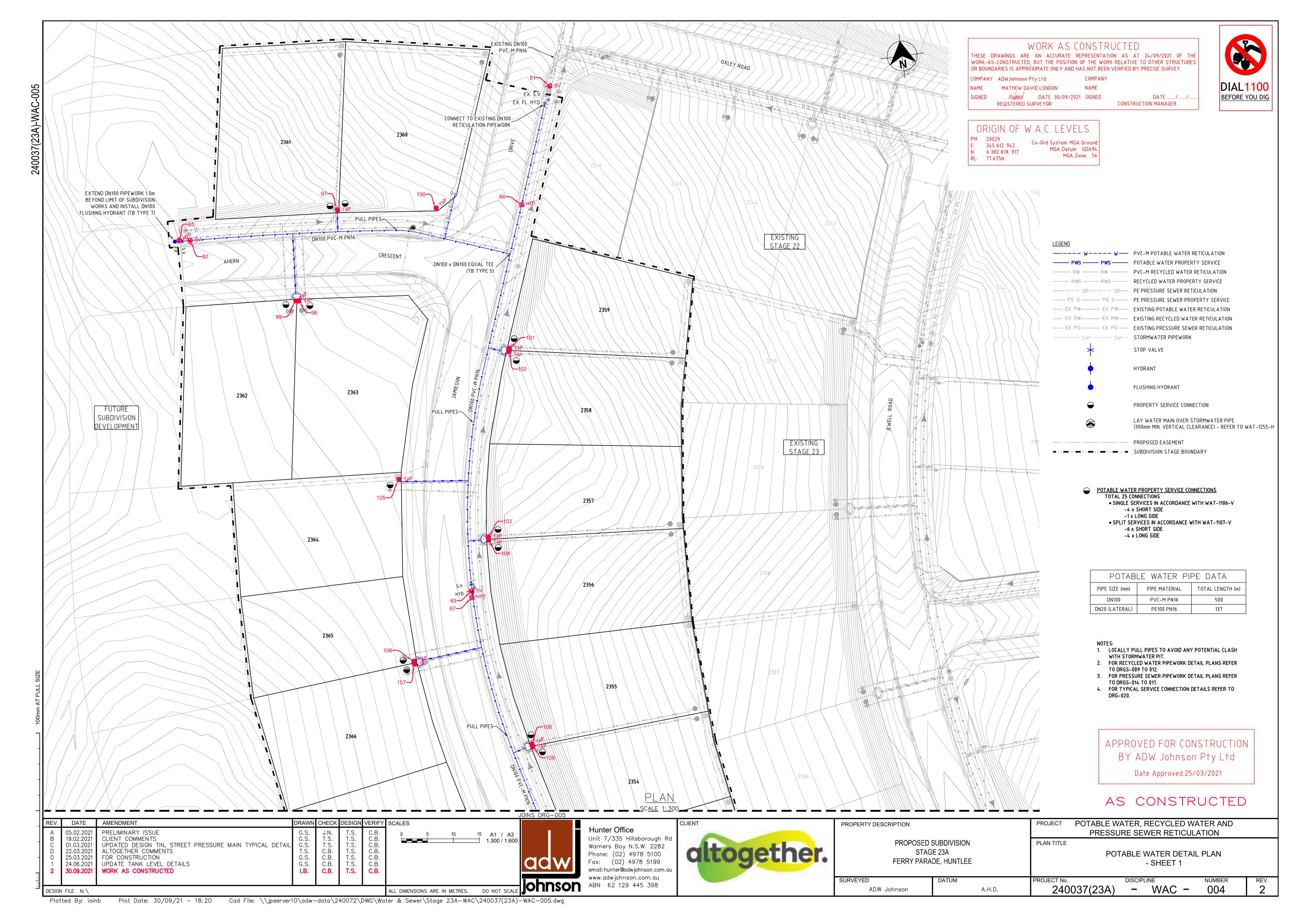
E: 345 612. 942 N: 6 382 878, 917 RL: 77.675m

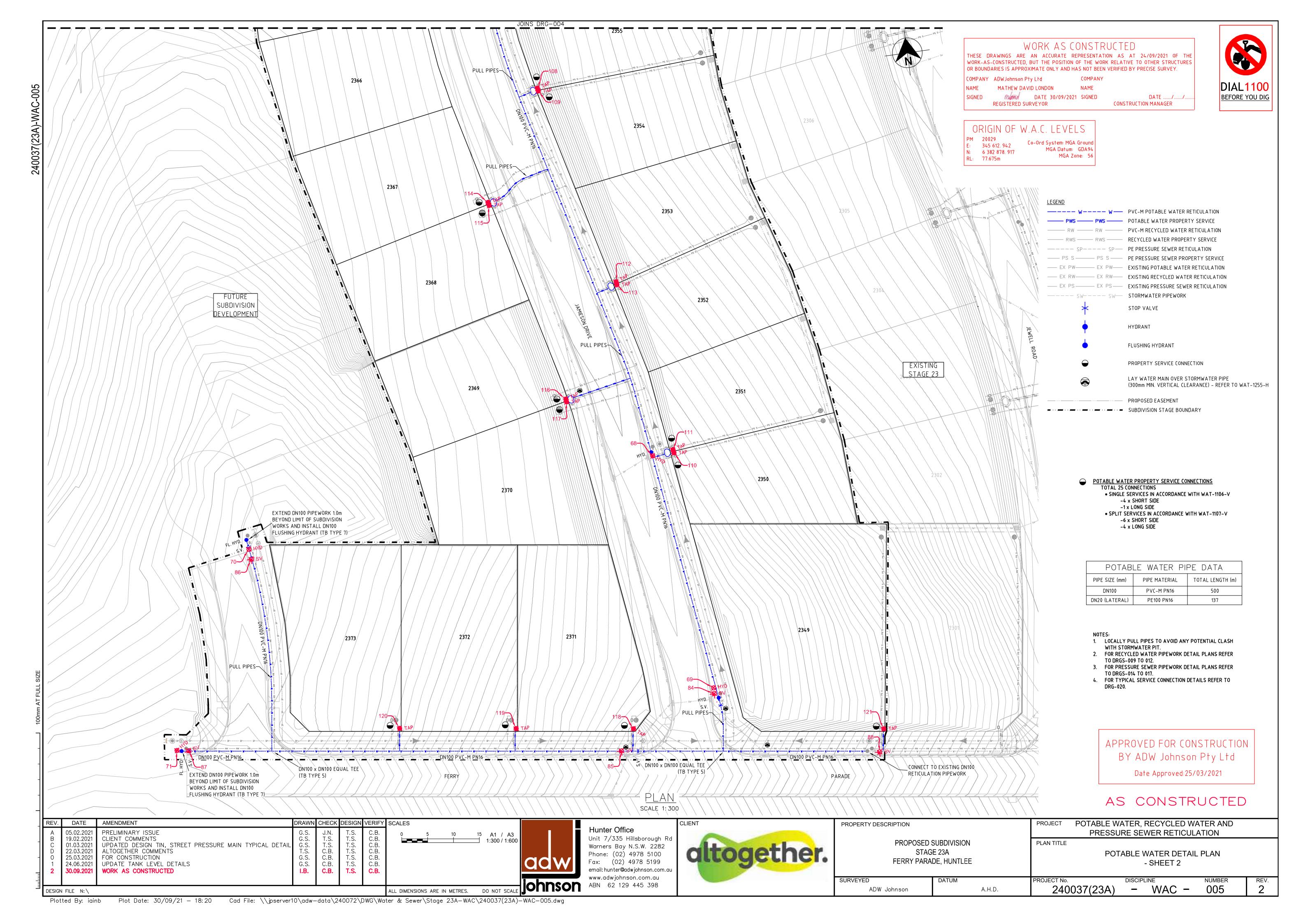
AS CONSTRUCTED

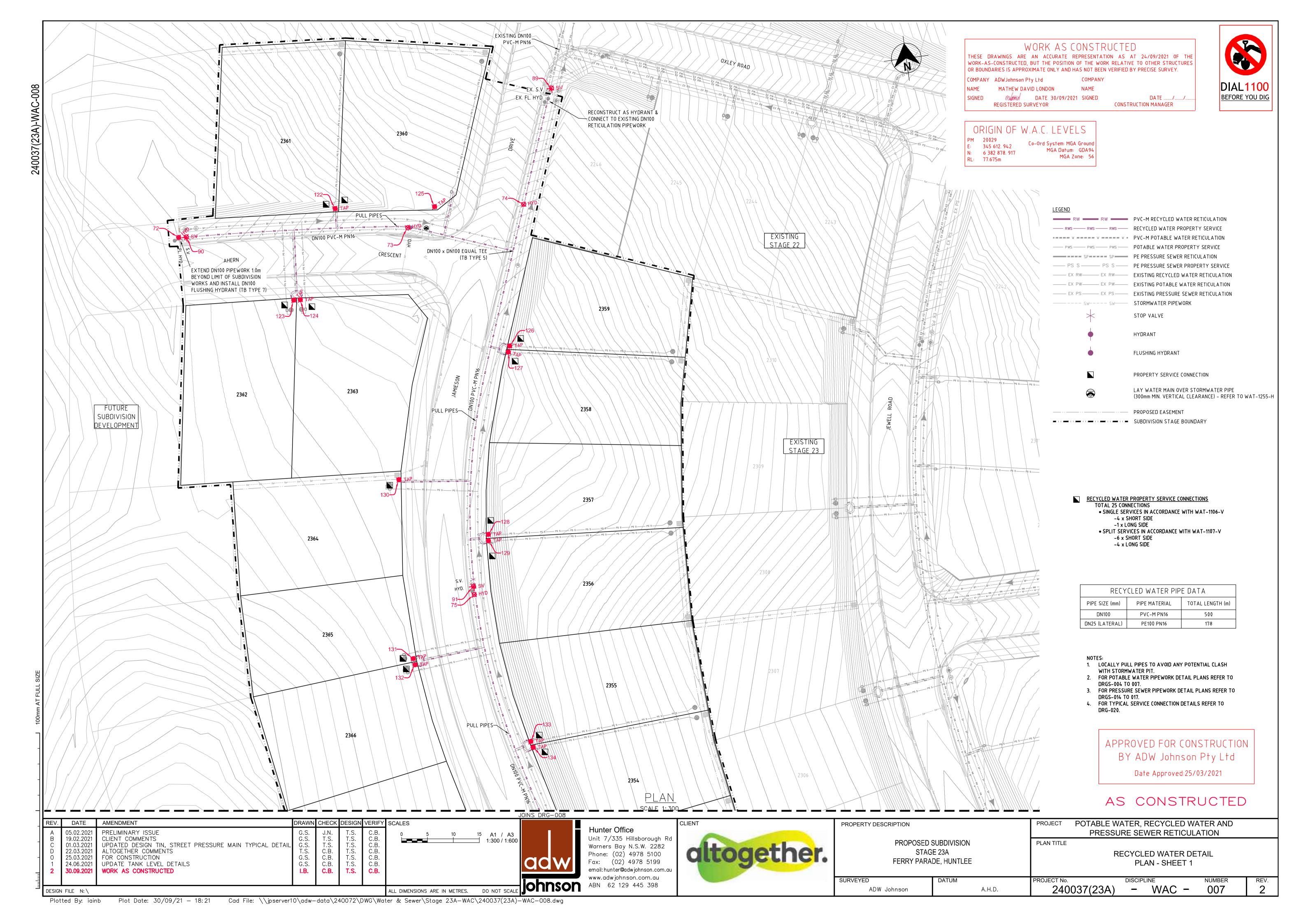
APPROVED FOR CONSTRUCTION

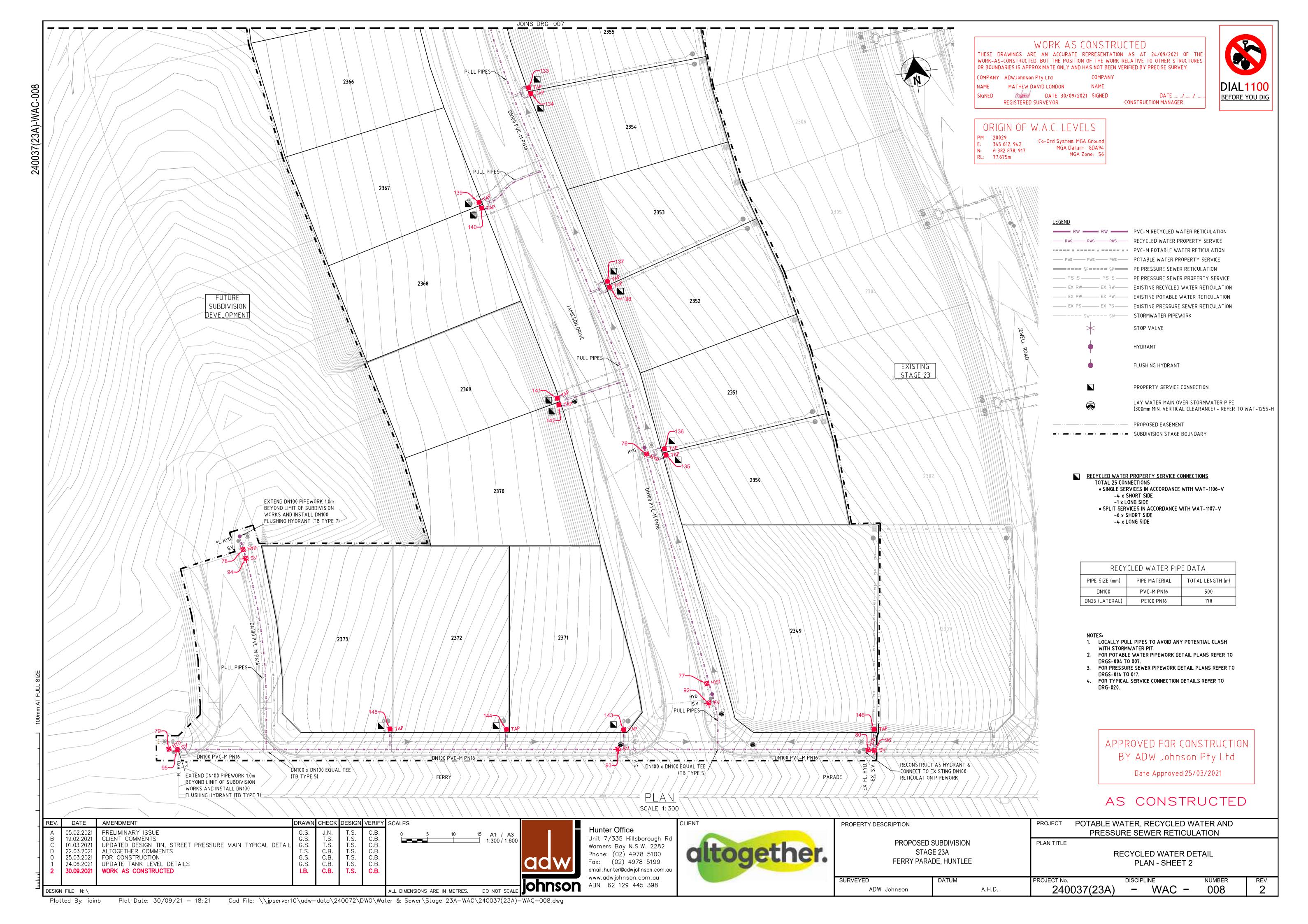
BY ADW Johnson Pty Ltd

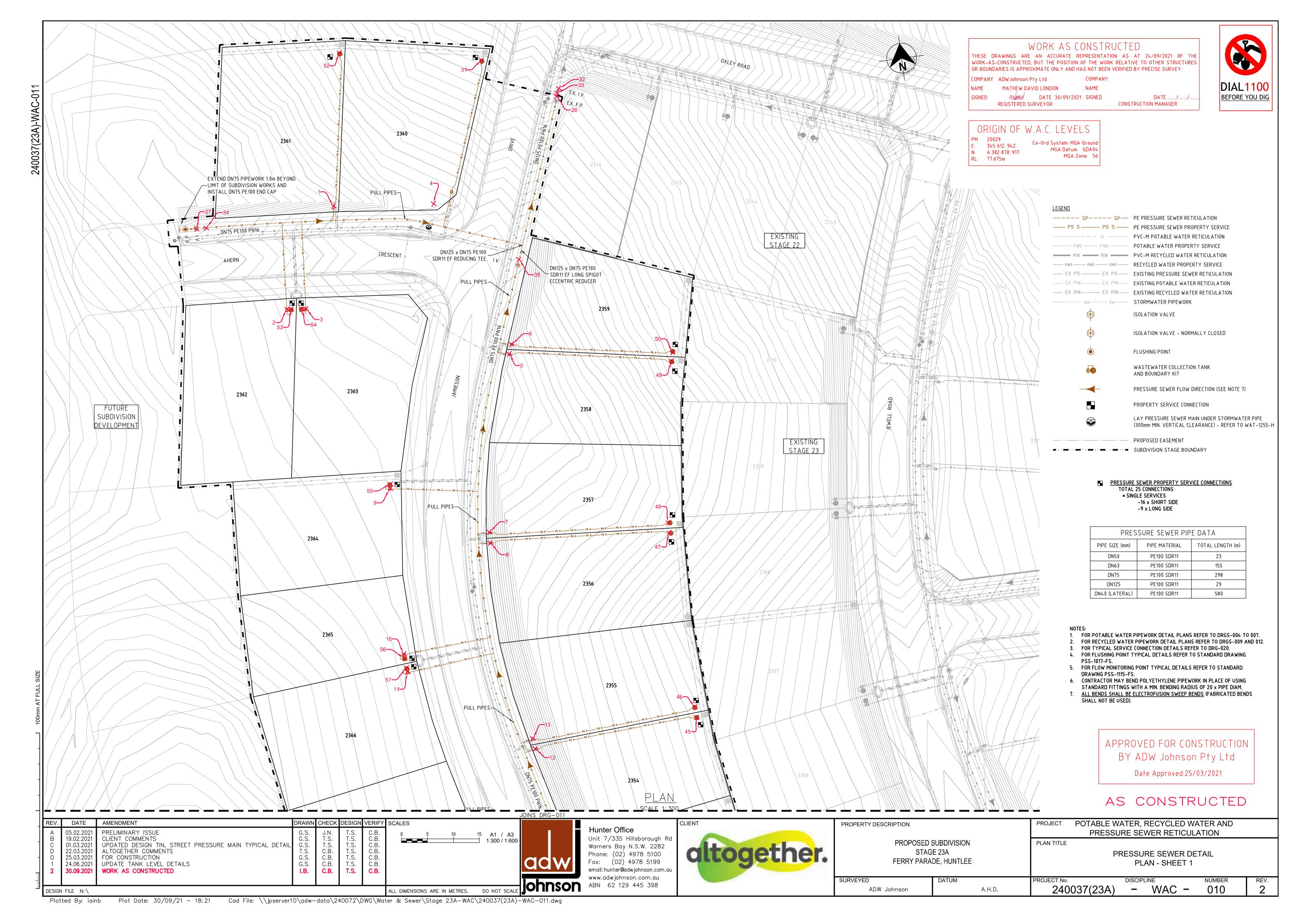
Date Approved:25/03/2021

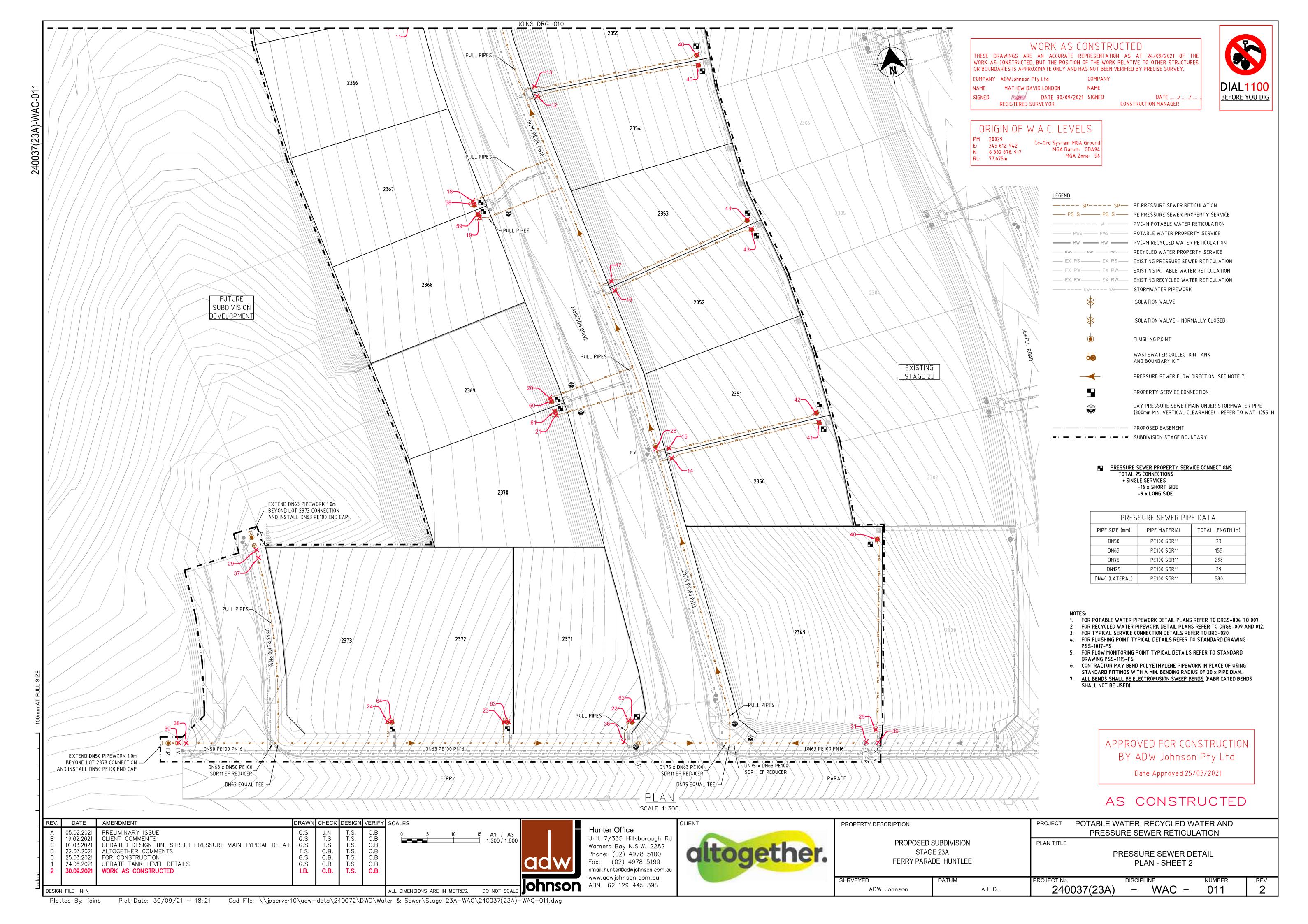












100mm AT FUL	
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Point #	Eastings	Northings	Levels	Codes
	346307.15	6382510.55	75.19	
2	346295.47			seBDYKIT
		6382492.10	75.36	seBDYKIT
3	346299.11	6382491.65	75.38	seBDYKIT
4	346326.29	6382508.31	74.94	seBDYKIT
5	346336.74	6382477.61	75.11	seBDYKIT
6	346337.43	6382479.39	75.09	seBDYKIT
7	346328.15	6382444.12	75.31	seBDYKIT
8	346328.04	6382442.04	75.31	seBDYKIT
9	346310.41	6382455.06	75.57	seBDYKIT
10	346308.62	6382423.12	75.56	seBDYKIT
11	346308.83	6382419.58	75.57	seBDYKIT
12	346331.18	6382401.51	75.35	seBDYKIT
13	346330.97	6382403.52	75.37	seBDYKIT
14	346347.27	6382328.80	74.99	seBDYKIT
15	346346.99	6382330.77	74.97	seBDYKIT
16	346340.84	6382362.36	75.13	seBDYKIT
17	346340.41	6382364.22	75.13	seBDYKIT
18	346316.09	6382383.24	75.41	seBDYKIT
19	346316.93	6382379.90	75.45	seBDYKIT
20	346325.55	6382343.59	75.70	seBDYKIT
21	346326.26	6382340.09	75.71	seBDYKIT
22	346331.98	6382279.84	75.74	seBDYKIT
23	346308.14	6382282.86	77.11	seBDYKIT
24	346285.92	6382286.12	78.34	seBDYKIT
25	346378.94	6382271.48	73.43	seBDYKIT
26	346352.61	6382525.59	73.46	seFP
27	346280.33	6382509.82	75.73	seFP
28	346344.45	6382331.02	75.05	seFP
29	346265.44	6382322.34	78.76	seFP
30	346245.41	6382287.59	79.59	seFP
31	346376.86	6382269.38	73.16	seFP
32	346353.30	6382527.01	73.34	seSV
33	346352.82	6382526.17	73.43	seSV
34	346282.23	6382509.74	75.79	seSV
35	346341.10	6382495.41	74.91	seSV
36	346330.51	6382275.91	75.65	seSV
37	346265.63	6382320.79	78.82	seSV
38	346246.88	6382287.30	79.52	seSV
39	346379.09	6382268.99	73.04	seSV
40	346384.33	6382307.75	72.80	seTANK2349
41	346376.37	6382331.69	73.79	seTANK2350
42	346375.96	6382333.68	73.79	seTANK2351
43	346368.60	6382370.45	73.18	seTANK2352
44	346368.11	6382372.31	73.20	seTANK2353
45	346362.80	6382403.16	73.07	seTANK2354
46	346362.77	6382405.19	73.10	seTANK2355
47	346362.50	6382439.13	73.64	seTANK2356
48	346362.57	6382441.08	73.63	seTANK2357
49	346367.53	6382471.90	73.05	seTANK2358
50	346367.97	6382473.54	73.07	seTANK2359
51	346339.29	6382534.49	73.61	seTANK2360
52	346312.34	6382539.64	74.46	seTANK2361
53	346296.26	6382491.96	75.46	seTANK2362
54	346298.27	6382491.69	75.47	seTANK2363
55	346310.58	6382455.91	75.69	seTANK2364
56	346308.64	6382422.26	75.70	seTANK2365
57	346308.75	6382420.36	75.70	seTANK2366
58	346316.25	6382382.51	75.56	seTANK2367
59	346316.78	6382380.65	75.56	seTANK2368

Point Table

		Point Tabl	_	
Paint #	Eastings	Northings	Levels	Codes
60	346325.73	6382342.88	75.82	seTANK2369
61	346326.15	6382340.84	75.82	seTANK237
62	346332.75	6382279.69	75.82	seTANK237
63	346308.93	6382282.77	77.21	seTANK2372
64	346286.68	6382285.95	78.42	seTANK237
65	346276.70	6382508.22	75.71	waHYD
66	346343.03	6382505.99	74.49	waHYD
67	346323.08	6382432.25	75.33	waHYD
68	346342.81	6382329.40	74.97	waHYD
69	346348.27	6382283.46	74.78	waHYD
70	346263.18	6382322.33	78.67	waHYD
71	346244.10	6382285.83	79.57	waHYD
72	346276.68	6382508.67	75.71	waHYDR
73	346320.69	6382504.45	74.72	waHYDR
74	346343.44	6382505.78	74.49	waHYDR
75	346323.59	6382432.55	75.33	waHYDR
76	346343.25	6382329.89	74.99	waHYDR
77	346348.64	6382284.42	74.76	waHYDR
78	346263.64	6382322.41	78.65	waHYDR
79	346244.15	6382286.26	79.57	waHYDR
80	346377.68	6382267.43	73.01	waHYDR
81	346351.58	6382527.92	73.31	waSV
82	346278.76	6382508.02	75.72	waSV
83	346323.16	6382433.54	75.33	waSV
84	346348.25	6382282.35	74.76	waSV
85	346328.98	6382273.89	75.77	waSV
86	346263.39	6382320.37	78.68	waSV
87	346246.34	6382285.47	79.51	waSV
88	346378.27	6382266.79	72.97	waSV
89	346351.87	6382527.25	73.39	waSVR
90	346278.16	6382508.57	75.75	waSVR
91	346323.68	6382434.17	75.36	waSVR
92	346348.48	6382280.68	74.80	waSVR
93	346329.94	6382274.28	75.68	waSVR
94	346263.94	6382320.64	78.74	waSVR
95	346245.73	6382285.95	79.54	waSVR
96	346378.89	6382267.20	72.95	waSVR
97	346307.74	6382509.92	74.99	waTAP
98	346297.92	6382493.53	75.22	
99	346297.33	6382493.62	75.23	waTAP
100	346326.64	6382507.60	74.66	waTAP
101	346336.90	6382478.83	75.11	waTAP
102	346336.69	6382478.27	75.08	waTAP
103	346327.85		75.00	
		6382443.42		waTAP
104 105	346327.77 346312.28	6382442.78 6382456.77	75.30 75.36	WaTAP
106				WaTAP
	346310.28	6382421.65	75.48	waTAP
107	346310.33	6382421.06	75.48	waTAP
108	346330.59	6382402.69	75.35	WaTAP
109	346330.71	6382402.14	75.32	WaTAP
110	346346.95	6382329.40	74.95	waTAP
111	346346.85	6382330.05	74.95	waTAP
112	346340.46	6382363.61	75.07	waTAP
113	346340.55	6382363.03	75.02	waTAP
114	346318.09	6382382.20	75.27	waTAP
115	346318.26	6382381.59	75.30	waTAP
116	346327.73	6382342.56	75.18	waTAP
117	346327.81	6382342.03	75.14	waTAP
118	346331.85	6382277.79	75.56	waTAP

	Р	oint Table		
Point #	Eastings	Northings	Levels	Codes
119	346309.46	6382280.94	76.92	waTAP
120	346287.21	6382284.09	78.15	waTAP
121	346379.66	6382271.09	73.17	waTAP
122	346307.35	6382510.00	75.07	waTAPF
123	346296.97	6382493.63	75.20	waTAPF
124	346298.23	6382493.52	75.21	waTAPF
125	346326.37	6382507.72	74.67	waTAPF
126	346336.98	6382479.13	75.09	waTAPF
127	346336.58	6382478.00	75.06	waTAPF
128	346327.88	6382443.67	75.30	waTAPF
129	346327.73	6382442.50	75.30	waTAPF
130	346312.28	6382456.51	75.36	waTAPF
131	346310.24	6382421.97	75.47	waTAPF
132	346310.40	6382420.74	75.46	waTAPF
133	346330.47	6382403.01	75.34	waTAPf
134	346330.78	6382401.83	75.31	waTAPF
135	346346.95	6382329.17	74.97	waTAPF
136	346346.80	6382330.40	74.96	waTAPF
137	346340.38	6382363.92	75.03	waTAPF
138	346340.65	6382362.75	75.02	waTAPF
139	346317.97	6382382.46	75.30	waTAPF
14 0	346318.33	6382381.28	75.31	waTAPF
141	346327.70	6382342.92	75.17	waTAPF
142	346327.82	6382341.62	75.12	waTAPF
143	346331.52	6382277.79	75.59	waTAPF
144	346309.14	6382281.01	76.92	waTAPF
145	346286.92	6382284.19	78.18	waTAPf
146	346379.39	6382271.19	73.21	waTAPF



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COMPANY ADWJohnson Pty Ltd NAME MATHEW DAVID LONDON NAME

DATE 30/09/2021 SIGNED REGISTERED SURVEYOR

DATE/....../ CONSTRUCTION MANAGER

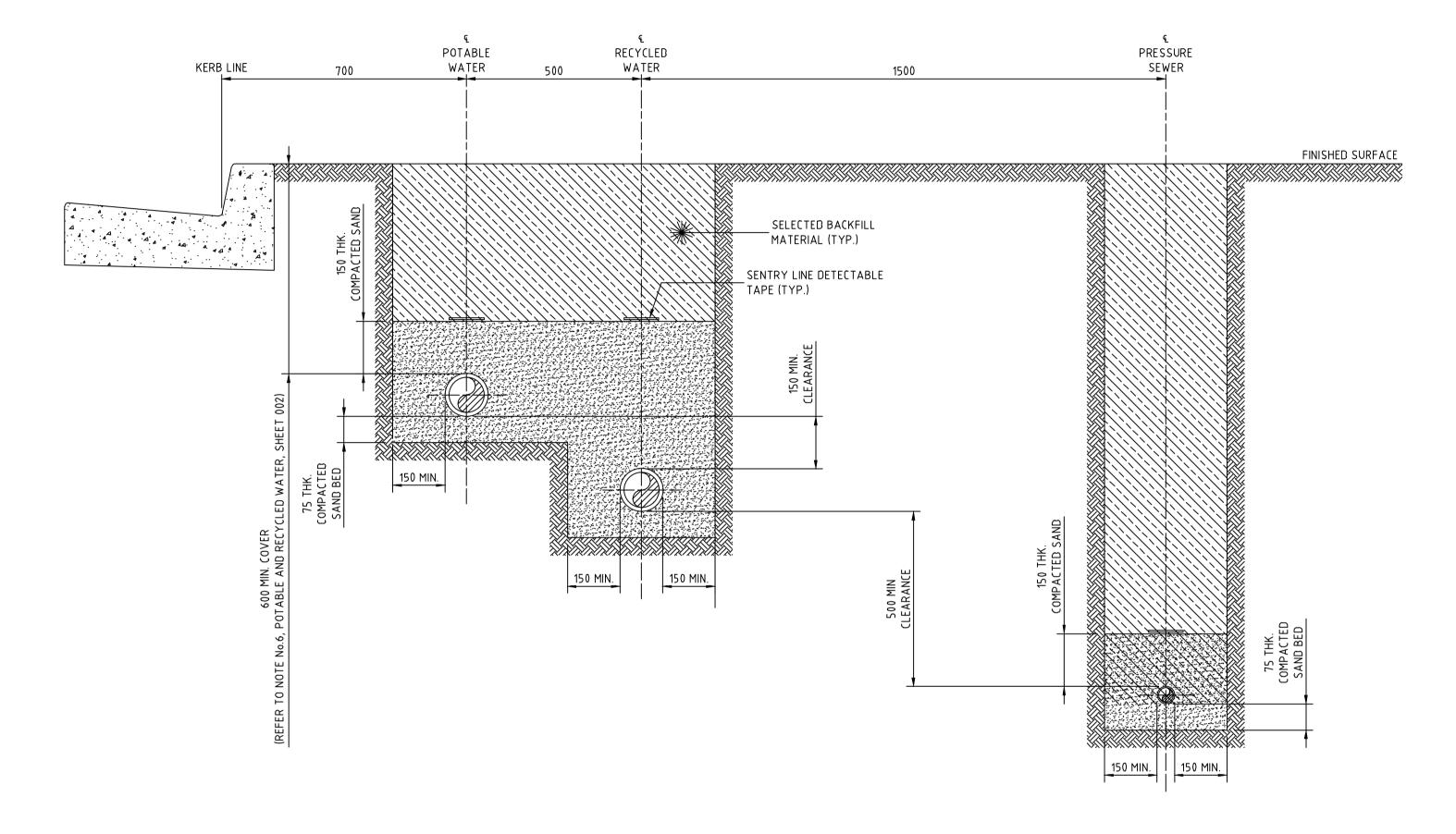
ORIGIN OF W.A.C. LEVELS

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 APPROVED FOR CONSTRUCTION BY ADW Johnson Pty Ltd Date Approved:25/03/2021

_ RE\	/. DATE	AMENDMENT DRAWN CHECK DESIGN VERIF	Y SCALES	CLIENT	PROPERTY DESCRIPTION	PROJECT POTABLE WATER, RECYCLED WATER AND							
А		PRELIMINARY ISSUE G.S. J.N. T.S. C.B.	0 0.1 0.2 0.3 0.4 A1 / A3	Hunter Office		PRESSURE SEWER RETICULATION							
- 		CLIENT COMMENTS UPDATED DESIGN TIN, STREET PRESSURE MAIN TYPICAL DETAIL G.S. T.S. T.S. C.B.	1:10 / 1:20	Unit 7/335 Hillsborough Rd	PROPOSED SUBDIVISION	PLAN TITLE							
	22.03.2021	ALTOGETHER COMMENTS T.S. C.B. T.S. C.B.		Warners Bay N.S.W. 2282 Phone: (02) 4978 5100	STAGE 23A								
- O		FOR CONSTRUCTION G.S. C.B. T.S. C.B. UPDATE TANK LEVEL DETAILS G.S. C.B. T.S. C.B.	$\alpha \alpha \omega$	Fax: (02) 4978 5199	FERRY PARADE, HUNTLEE	FITTINGS TABLE							
		UPDATE TANK LEVEL DETAILS WORK AS CONSTRUCTED G.S. C.B. T.S. C.B. I.B. C.B. T.S. C.B.	<u>aav</u>	email: hunter@adwjohnson.com.au									
]	00.00.202.			www.adwjohnson.com.au	SURVEYED DATUM	PROJECT No. DISCIPLINE NUMBER REV.							
3	IGN FILE N:\		ALL DIMENSIONS ARE IN METRES. DO NOT SCALE JOHNSON	ABN 62 129 445 398	ADW Johnson A.H.D.	240037(23A) - WAC - 012 2							
					7.11.12.	270001(20A) WAO 012 2							
PI	Plotted By: iainb Plot Date: $30/09/21 - 18:21$ Cad File: $\$ in Cad File: $\$ Sewer\Stage 23A-WAC\240037(23A)-WAC-015.dwg												







STREET PRESSURE MAIN

TYPICAL DETAIL

SCALE 1:10

NOTES:

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

SENTRY LINE
DETECTABLE TAPE

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

SAND

100 MIN.

PRIVATE PROPERTY PRESSURE MAIN

TYPICAL DETAIL
SCALE 1:10

DATE/....../

WORK AS CONSTRUCTED

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COMPANY ADWJohnson Pty Ltd COMPANY
NAME MATHEW DAVID LONDON NAME

SIGNED DATE 30/09/2021 SIGNED REGISTERED SURVEYOR

REGISTERED SURVEYOR CONSTRUCTION MANAGER

ORIGIN OF W.A.C. LEVELS

 PM
 20029
 Co-Ord System: MGA Ground

 E:
 345 612. 942
 MGA Datum: GDA94

 N:
 6 382 878. 917
 MGA Zone: 56

 RL:
 77.675m

APPROVED FOR CONSTRUCTION
BY ADW Johnson Pty Ltd

Date Approved:25/03/2021

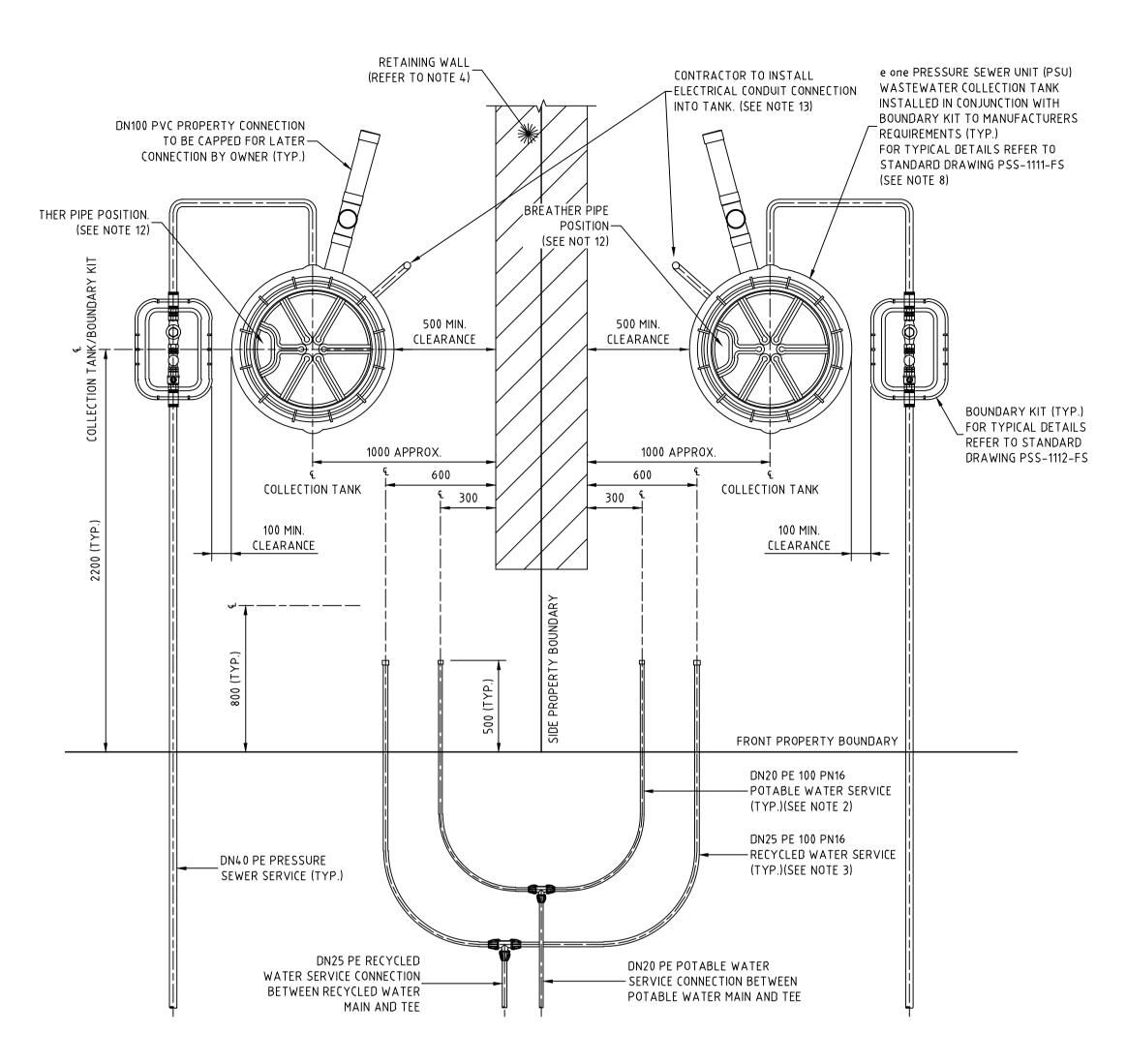
AS CONSTRUCTED

RI	V. DATE	AMENDMENT	DRAWN	CHECK	DESIGN VERIF	SCALES		11 1 000	CLIENT	PROPERTY DESCRIPTION		PROJECT POTABLE W	ATER, RECYCLED WA	ATER AND	
		PRELIMINARY ISSUE	G.S.	J.N.	T.S. C.B.	0 0.1 0.2 0.3 0.4 A1 / A3		Hunter Office				PRESSU	IRE SEWER RETICUL	ATION	
	0 01.03.2021 22.03.2021 25.03.2021 24.06.2021	CLIENT COMMENTS UPDATED DESIGN TIN, STREET PRESSURE MAIN TYPICAL DETAIL ALTOGETHER COMMENTS FOR CONSTRUCTION UPDATE TANK LEVEL DETAILS WORK AS CONSTRUCTED	G.S. G.S. T.S. G.S. G.S.	T.S. T.S. C.B. C.B. C.B.	T.S. C.B.	1:10 / 1:20	adw	Unit 7/335 Hillsborough Rd Warners Bay N.S.W. 2282 Phone: (02) 4978 5100 Fax: (02) 4978 5199 email:hunter@adwjohnson.com.au	altogether.	STAG	SUBDIVISION GE 23A .DE, HUNTLEE		TYPICAL PIPEWORK RENCHING DETAILS		
							lobpsor	www.adwjohnson.com.au		SURVEYED	DATUM	PROJECT No.	DISCIPLINE	NUMBER	REV.
JE DE	SIGN FILE N: \					ALL DIMENSIONS ARE IN METRES. DO NOT SCA		ABN 62 129 445 398		ADW Johnson	A.H.D.	240037(23A)	- WAC -	013	2
	Plotted By: iain	b Plot Date: 30/09/21 - 18:22	10\adw-	-data∖2⁴	40072\DWG\W	ater & Sewer\Stage 23A-WAC\240037(23	A)-WAC-015.dwg					-			

1. ALL POLYETHYLENE FITTINGS SHALL BE JOINED USING ELECTROFUSION JOINTING TECHNIQUES IN ACCORDANCE WITH

MANUFACTURERS REQUIREMENTS. ROTATE BENDS AS NECESSARY.

Plotted By: iainb



TYPICAL PROPERTY CONNECTION DETAIL SCALE 1:20

NOTES:

- 1. PROPERTY SERVICE CONNECTIONS SHALL BE IN ACCORDANCE WITH WSA STANDARD DRAWINGS FOR DUAL WATER SUPPLY SYSTEMS (SYDNEY WATER VERSION) (SUPPLEMENT TO WSA 03-2011).
- 2. DN20 PE100 PN16 POTABLE WATER SERVICE TO EXTEND 500mm BEYOND PROPERTY BOUNDARY AND BE CAPPED FOR LATER CONNECTION BY PROPERTY OWNER.
- 3. DN25 PE100 PN16 RECYCLED WATER SERVICE TO EXTEND 500mm BEYOND PROPERTY BOUNDARY AND BE CAPPED FOR LATER CONNECTION BY PROPERTY OWNER.
- 4. FOR PROPERTY CONNECTIONS WHERE A RETAINING WALL IS NOT PRESENT, SERVICES ARE TO BE OFFSET FROM THE PROPERTY BOUNDARY.
- 5. WHERE SERVICE CONNECTIONS ARE LOCATED ADJACENT TO TELSTRA PITS/ELECTRICAL PILLARS, A MINIMUM CLEARANCE OF 200mm BETWEEN PITS AND SERVICE PIPEWORK IS TO BE MAINTAINED.
- 6. MINIMUM BENDING RADIUS FOR PE PIPEWORK IS TO BE 20 x PIPE DIAMETER.
- 7. ALL POLYETHYLENE FITTINGS SHALL BE JOINED USING ELECTROFUSION JOINTING TECHNIQUES IN ACCORDANCE WITH MANUFACTURERS REQUIREMENTS. ROTATE BENDS AS NECESSARY.
- 8. PRESSURE SEWER UNIT (PSU) IS TO HAVE 500mm CLEARANCE FROM INTER ALLOTMENT DRAINAGE EASEMENT (IF PRESENT), REAR PROPERTY BOUNDARY RETAINING WALL (IF PRESENT) OR REAR PROPERTY BOUNDARY. PRESSURE SEWER UNIT (PSU) IS TO HAVE 2150mm CLEARANCE FROM BUILDING STRUCTURES.
- 9. \$\phi 25 ELECTRICAL CONDUIT IS TO EXTEND FROM CONNECTION WITH PRESSURE SEWER UNIT (PSU) TO NOM. 500mm INSIDE FRONT PROPERTY BOUNDARY AND BE CAPPED. ELECTRICAL CONDUIT IS TO BE HEAVY DUTY ORANGE. ALL CONDUIT BENDS ARE TO BE LARGE RADIUS SWEEP BENDS.
- 10. FOR MORE INFORMATION REFER TO FLOW SYSTEMS STANDARD DRAWING FSI-1000-FS.
- 11. FOR ALTERNATE TANK AND BOUNDARY CONFIGURATIONS, AND DETAILS FOR TANKS INSTALLED ON PROPERTIES WITH BATTERS AND RETAINING WALLS, REFER TO FLOW SYSTEMS STANDARD DRAWINGS FSI-SK03A-FS AND FSI-SK03B-FS.
- 12. POSITION TANK LID SUCH THAT BREATHER PIPE LOCATION IS ON THE DOWNSLOPE SIDE OF THE BLOCK WHERE POSSIBLE.
- 13. CONTRACTOR TO INSTALL ELECTRICAL CONDUIT CONNECTION. ELECTRICAL GROMMET SUPPLIED WITH TANK AND LOCATED LOOSE WITHIN TANK. Ø25 CONDUIT TO BE PROVIDED WITH LONG RADIUS SWEEP BEND INTO THE VERTICAL POSITION AND LEFT CAPPED ABOVE GROUND LEVEL FOR FUTURE ELECTRICAL CONNECTION BY ELECTRICIAN ONCE DWELLING IS CONSTRUCTED.

WORK AS CONSTRUCTED

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COMPANY ADW Johnson Pty Ltd COMPANY
NAME MATHEW DAVID LONDON NAME

DATE 30/09/2021 SIGNED DATE/.....

REGISTERED SURVEYOR CONSTRUCTION MANAGER

ORIGIN OF W.A.C. LEVELS

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

APPROVED FOR CONSTRUCTION
BY ADW Johnson Pty Ltd

Date Approved:25/03/2021

BEFORE YOU DIG

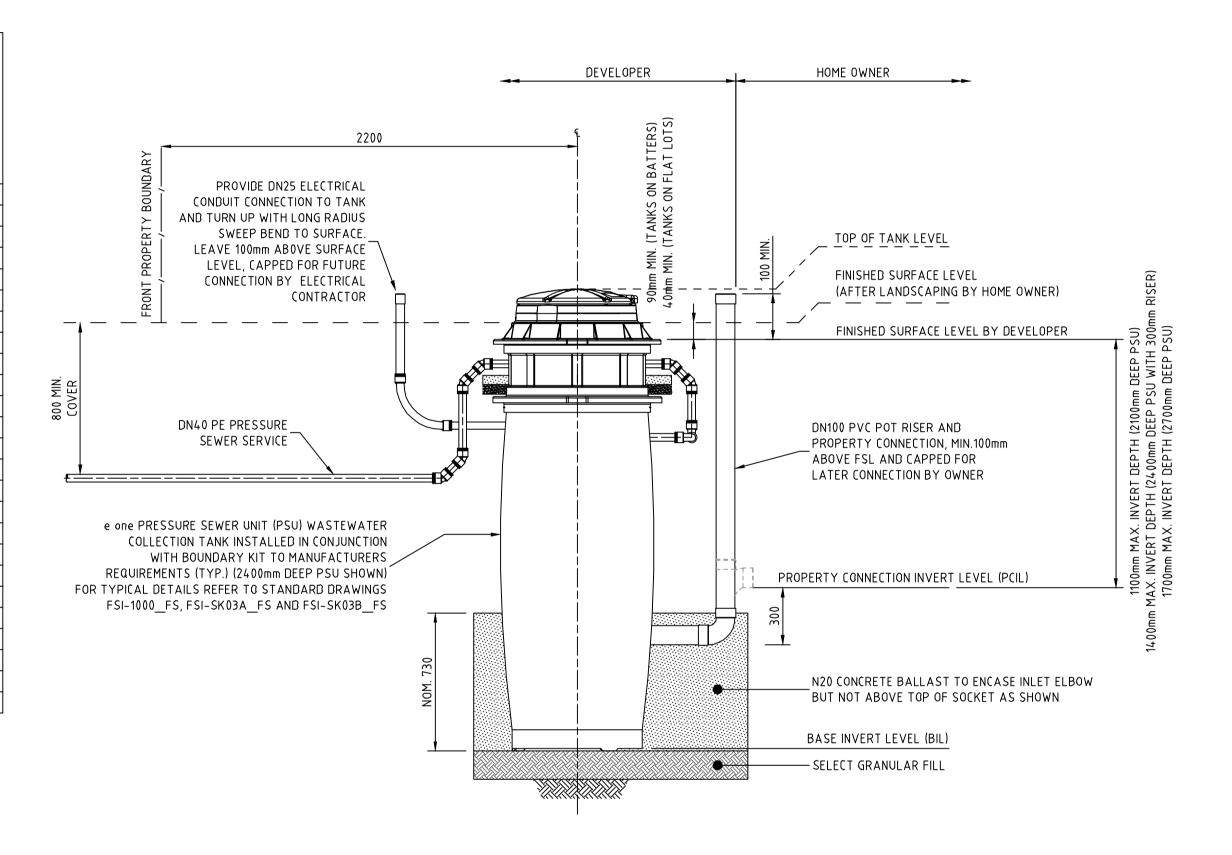
	REV. DATI	E AMENDMENT	DRAWN CHECK DESIGN VERIF	SCALES	Llumton Office	CLIENT	PROPERTY DESCRIPTION	PROJECT POTABLE WATER, RECYCLED WATER AND
	A 05.02.2	2021 PRELIMINARY ISSUE	G.S. J.N. T.S. C.B.	0 0.1 0.2 0.3 0.4 A1 / A3	Hunter Office			PRESSURE SEWER RETICULATION
	B 19.02.2 C 01.03.2		ETAIL G.S. T.S. T.S. C.B.	1:10 / 1:20	Unit 7/335 Hillsborough Rd Warners Bay N.S.W. 2282		PROPOSED SUBDIVISION	PLAN TITLE
	D 22.03.2	2021 ALTOGETHER COMMENTS	T.S. C.B. T.S. C.B.	0 0.4 0.8 A1 / A3	Phone: (02) 4978 5100	ditodether	STAGE 23A	TYPICAL SERVICE
1	1 25.03.2	2021 FOR CONSTRUCTION 2021 UPDATE TANK LEVEL DETAILS	G.S. C.B. T.S. C.B. G.B. C.B. C.	1:20 / 1:40	Fax: (02) 4978 5199	decode cilci.	FERRY PARADE, HUNTLEE	CONNECTION DETAILS
▗▋		2021 WORK AS CONSTRUCTED	I.B. C.B. T.S. C.B.		email: hunter@adwjohnson.com.au			
4					www.adwjohnson.com.au	and the second	SURVEYED DATUM	PROJECT No. DISCIPLINE NUMBER REV.
	ESIGN FILE N	:\	•	ALL DIMENSIONS ARE IN METRES. DO NOT SCALE	Johnson ABN 62 129 445 398		ADW Johnson A.H.D.	240037(23A) - WAC - 014 2



	~~~		WAST	EWATER COLLE	CTION TANK D	ΕΤΔΙΙ ς			TOP OF COLLECTION TANK LID	CALCULATED WAC SANITARY DRAINAGE INVERT LEVEL	WAC V'S DESIGN INVERT LEVEL COMPARISON
LOT NUMBER	TOP OF TANK	TANK FSL	BASE IL	CONNECTION IL	TANK HEIGHT	TANK LOCATION	EASTING	NORTHING	_		
2349	72.90	72.72	70.77	71.67	2100	REAR	346384.319	6382307.799	72.80	71.48	-0.19
2350	73.73	73.55	71.60	72.50	2100	REAR	346376.329	6382331.573	73.79	72.48	-0.02
2351	73.70	73.52	71.57	72.47	2100	REAR	346376.077	6382333.558	73.79	72.47	0.00
2352	73.26	73.08	71.13	72.03	2100	REAR	346368.559	6382370.303	73.18	71.86	-0.17
2353	73.24	73.06	71.11	72.01	2100	REAR	346367.970	6382372.215	73.20	71.88	-0.13
2354	73.03	72.85	70.90	71.80	2100	REAR	346362.825	6382403.124	73.07	71.76	-0.04
2355	73.01	72.83	70.88	71.78	2100	REAR	346362.738	6382405.122	73.10	71.78	0.00
2356	73.70	73.52	71.57	72.47	2100	REAR	346362.821	6382439.062	73.64	72.33	-0.14
2357	73.78	73.60	71.65	72.55	2100	REAR	346362.916	6382441.061	73.63	72.31	-0.24
2358	73.15	72.97	71.02	71.92	2100	REAR	346367.550	6382471.773	73.05	71.73	-0.19
2359	73.08	72.90	70.95	71.85	2100	REAR	346368.013	6382473.721	73.07	71.75	-0.10
2360	74.42	74.24	72.29	73.19	2100	REAR	346339.276	6382534.250	73.61	72.30	-0.89
2361	74.52	74.34	72.39	73.29	2100	REAR	346312.349	6382539.441	74.46	73.15	-0.14
2362	75.54	75.36	73.41	74.31	2100	FRONT	346296.233	6382491.845	75.46	74.14	-0.17
2363	75.51	75.33	73.38	74.28	2100	FRONT	346298.233	6382491.674	75.47	74.15	-0.13
2364	75.57	75.39	73.44	74.34	2100	FRONT	346310.402	6382455.764	75.69	74.38	0.03
2365	75.72	75.54	73.59	74.49	2100	FRONT	346308.613	6382422.194	75.70	74.38	-0.11
2366	75.72	75.54	73.59	74.49	2100	FRONT	346308.757	6382420.199	75.70	74.39	-0.10
2367	75.61	75.43	73.48	74.38	2100	FRONT	346316.251	6382382.404	75.56	74.24	-0.14
2368	75.60	75.42	73.47	74.37	2100	FRONT	346316.726	6382380.461	75.56	74.25	-0.12
2369	75.90	75.72	73.77	74.67	2100	FRONT	346325.795	6382342.762	75.82	74.51	-0.16
2370	75.88	75.70	73.75	74.65	2100	FRONT	346326.189	6382340.801	75.82	74.50	-0.15
2371	75.89	75.71	73.76	74.66	2100	FRONT	346332.600	6382279.382	75.82	74.50	-0.16
2372	77.29	77.11	75.16	76.06	2100	FRONT	346308.805	6382282.707	77.21	75.90	-0.16
2373	78.49	78.31	76.36	77.26	2100	FRONT	346286.725	6382285.793	78.42	77.10	-0.16
		UPD	ATED DETAILS								

WASTEWATER COLLECTION TANK COUNT

TANK SIZE	NUMBER OF
2100	25
2400	0
2700	0



PRESSURE SEWER SERVICE CONNECTION TYPICAL SECTIONAL ELEVATION SCALE 1:20

WORK AS CONSTRUCTED

THESE DRAWINGS ARE AN ACCURATE REPRESENTATION AS AT 24/09/2021 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

> DATE 30/09/2021 SIGNED DATE ....../...../ REGISTERED SURVEYOR CONSTRUCTION MANAGER

> > MGA Datum: GDA94

MGA Zone: 56

ORIGIN OF W.A.C. LEVELS PM 20029 Co-Ord System: MGA Ground 345 612. 942

6 382 878, 917

RL: 77.675m

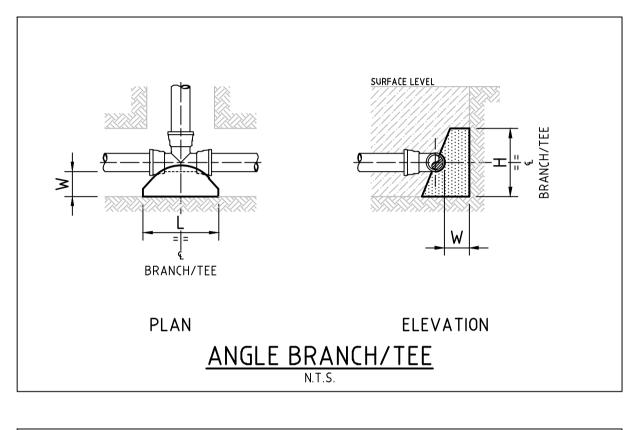
APPROVED FOR CONSTRUCTION BY ADW Johnson Pty Ltd Date Approved:25/03/2021

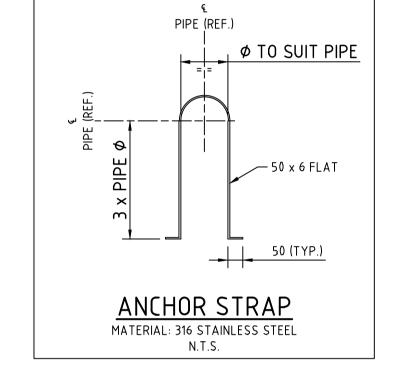
] RE\	V. DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIF	SCALES			CLIENT	PROPERTY DESCRIPTION		PROJECT POTABLE V	VATER, RECYCLED WA	ATER AND				
		PRELIMINARY ISSUE	G.S.	J.N.	T.S.	C.B.	0 0.4 0.8 A1 / A3		Hunter Office				PRESSURE SEWER RETICULATION						
] C	01.03.2021	CLIENT COMMENTS UPDATED DESIGN TIN, STREET PRESSURE MAIN TYPICAL DETAIL	G.S. G.S.	T.S.	T.S.	C.B.	1:20 / 1:40		Unit 7/335 Hillsborough Rd Warners Bay N.S.W. 2282				PLAN TITLE						
	22.03.2021 25.03.2021	ALTOGETHER COMMENTS FOR CONSTRUCTION	T.S. G.S.	C.B. C.B.	T.S. T.S.	C.B.			Phone: (02) 4978 5100	altogether.			WASTE WATER COLLECTION TANK LEVEL DETAILS						
1	24.06.2021	UPDATE TANK LEVEL DETAILS	G.S.	C.B.	T.S.	C.B.		aawi	Fax: (02) 4978 5199 email: hunter@adwjohnson.com.au	3									
<b>3</b>   <b>4</b>	30.09.2021	WORK AS CONSTRUCTED	I.D.	C.B.	1.5.	C.B.			www.adwjohnson.com.au		SURVEYED	DATUM	PROJECT No.	DISCIPLINE	NUMBER	REV.			
DES	DESIGN FILE N: \				ALL DIMENSIONS ARE IN METRES. DO NOT SCALE JOHNSON		ABN 62 129 445 398		ADW Johnson	A.H.D.	240037(23A)	- WAC -	015	2					
PI	otted By: iaiı	inb Plot Date: 30/09/21 — 18:22 Cad File: \\jpserver^	0\adw	−data\2	240072\	,DWG\W	Plotted By: iainb Plot Date: 30/09/21 - 18:22												

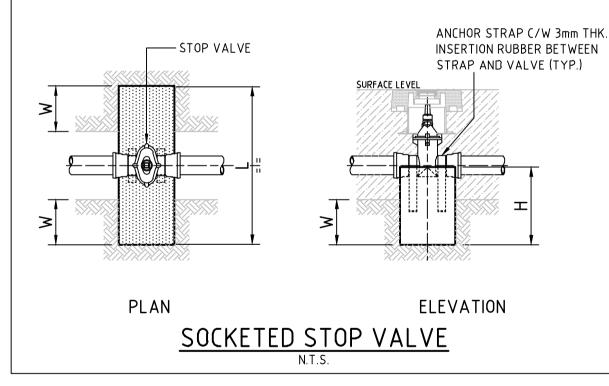
#### THRUST BLOCK NOTES:

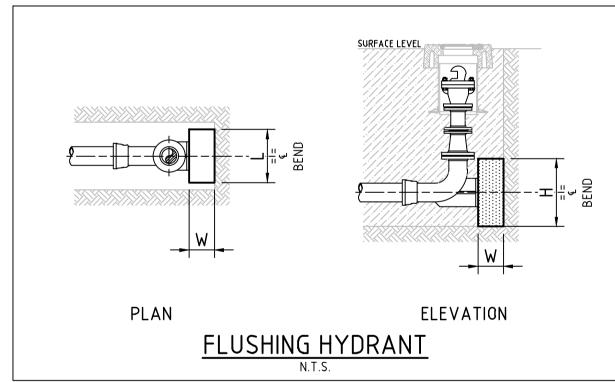
- 1. "N" DENOTES NOMINAL THRUST AREA TO BE ACHIEVED BY POURING CONCRETE THE FULL LENGTH OF THE FITTING AND EXTENDING FROM THE FLOOR OF THE TRENCH TO NOM. 100mm ABOVE THE FITTING.
- 2. CONCRETE THRUST BLOCKS ARE TO BE PROVIDED FOR ALL FITTINGS IN ACCORDANCE WITH TABLE.
- 3. THRUST BLOCK DIMENSIONS ARE 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 \$25 USING CEMENT TYPE "SR" TO A\$3972. 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 AHBP (kPa)		THRUST	T A (m²)	LENGTH (L)	HEIGHT (H)	WIDTH (W)
1	DN150 x DN150 EQUAL TEE	100	1000	25.00	0.25	0.50	0.50	0.30
2	DN150 x DN100 REDUCING TEE	100	1000	12.00	0.12	0.40	0.30	0.30
3	DN150 SOCKETED STOP VALVE	100	1000	25.00	0.25	1.05	0.46	0.30
4	DN150 FLUSHING HYDRANT	100	1000	25.00	0.25	0.50	0.50	0.30
5	DN100 x DN100 EQUAL TEE	100	1000	12.00	0.12	0.40	0.30	0.30
6	DN100 SOCKETED STOP VALVE	100	1000	12.00	0.12	1.05	0.44	0.30
7	DN100 FLUSHING HYDRANT	100	1000	12.00	0.12	0.40	0.30	0.30









### WORK AS CONSTRUCTED

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DATE 30/09/2021 SIGNED DATE ...../...../.... CONSTRUCTION MANAGER REGISTERED SURVEYOR

MGA Zone: 56

ORIGIN OF W.A.C. LEVELS PM 20029 E: 345 612, 942 N: 6 382 878, 917 RL: 77.675m Co-Ord System: MGA Ground MGA Datum: GDA94

APPROVED FOR CONSTRUCTION BY ADW Johnson Pty Ltd Date Approved:25/03/2021

	REV. DATE  A 05.02.2021	AMENDMENT DRAWN CHECK DESIGN VERIFOLD G.S. J.N. T.S. C.B.		Hunter Office	CLIENT	PROPERTY DESCRIPTION		PROJECT POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION				
-		1 UPDATED DESIGN TIN, STREET PRESSURE MAIN TYPICAL DETAIL G.S. T.S. T.S. C.B. 1 ALTOGETHER COMMENTS T.S. C.B. T.S. C.B.	adw	Unit 7/335 Hillsborough Rd Warners Bay N.S.W. 2282 Phone: (02) 4978 5100 Fax: (02) 4978 5199 email:hunter@adwjohnson.com.au	altogether.	STAG	PROPOSED SUBDIVISION STAGE 23A FERRY PARADE, HUNTLEE		RUST BLOCK DETAILS			
	DESIGN FILE N:\		ALL DIMENSIONS ARE IN METRES. DO NOT SCALE JOHNSON	www.adwjohnson.com.au ABN 62 129 445 398		SURVEYED ADW Johnson	DATUM A.H.D.	PROJECT No. 240037(23A)		NUMBER 016	REV.	
	Plotted By: iainb Plot Date: 30/09/21 - 18:22 Cad File: \jpserver10\adw-data\240072\DWG\Water & Sewer\Stage 23A-WAC\240037(23A)-WAC-016.dwg											