REV. DATE

### INITIAL ISSUE 02.03.2022 CLIENT COMMENTS G.S. G.S. D 04.03.2022 FOR APPROVAL G.S. 15.06.2022 FOR APPROVAL 0 11.07.2022 ISSUED FOR CONSTRUCTION G.S. G.S. **I.B.** 06.10.2022 ISSUED FOR CONSTRUCTION WORK AS CONSTRUCTED DESIGN FILE N:\JOBNUMBER\Design\12D\

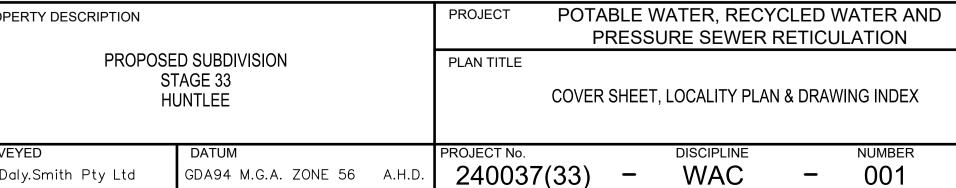
AMENDMENT

# www.adwjohnson.com.au 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





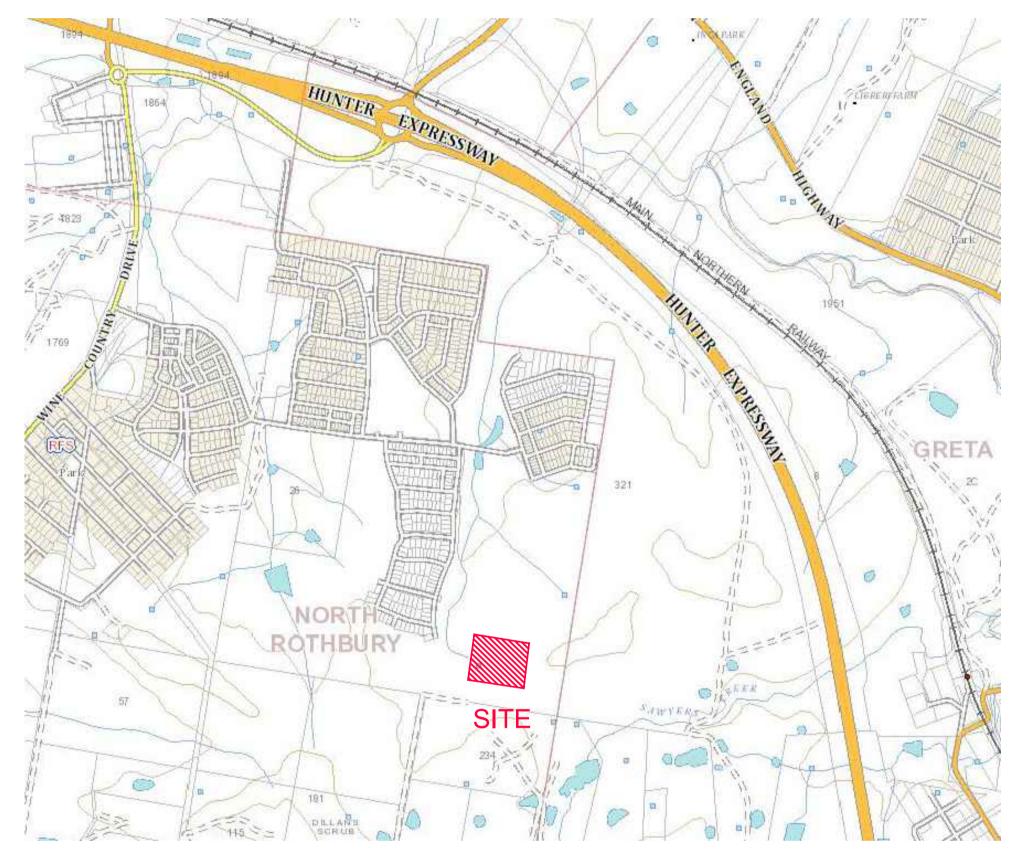


DATE ...../...../

CONSTRUCTION MANAGER

# PROPOSED SUBDIVISION STAGE 33 HUNTLEE





LOCALITY SKETCH NOT TO SCALE

DRAWN CHECK DESIGN VERIFY SCALES

C.B.

C.B. C.B.

C.B.

N.C. **S.S.** 

G.S. C.B.

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

G.S. C.B.

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

	DRAWING INDEX
DRAWING NUMBER	DRAWING TITLE
240037(33)-WAT-001	COVER SHEET, LOCALITY PLAN & DRAWING INDEX
240037(33)-WAT-002	GENERAL NOTES
240037(33)-WAT-003	OVERALL SITE PLAN
240037(33)-WAT-101	POTABLE WATER DETAIL PLAN - SHEET 1
240037(33)-WAT-102	POTABLE WATER DETAIL PLAN - SHEET 2
240037(33)-WAT-103	POTABLE WATER DETAIL PLAN - SHEET 3
240037(33)-WAT-104	POTABLE WATER DETAIL PLAN - SHEET 4
240037(33)-WAT-201	RECYCLED WATER DETAIL PLAN - SHEET 1
240037(33)-WAT-202	RECYCLED WATER DETAIL PLAN - SHEET 2
240037(33)-WAT-203	RECYCLED WATER DETAIL PLAN - SHEET 3
240037(33)-WAT-204	RECYCLED WATER DETAIL PLAN - SHEET 4
240037(33)-WAT-301	PRESSURE SEWER DETAIL PLAN - SHEET 1
240037(33)-WAT-302	PRESSURE SEWER DETAIL PLAN - SHEET 2
240037(33)-WAT-303	PRESSURE SEWER DETAIL PLAN - SHEET 3
240037(33)-WAT-304	PRESSURE SEWER DETAIL PLAN - SHEET 4
240037(33)-WAT-401	TYPICAL PIPEWORK TRENCHING DETAIL
240037(33)-WAT-402	TYPICAL PROPERTY CONNECTION DETAILS
240037(33)-WAT-403	WASTE WATER COLLECTION TANK LEVEL DETAILS
240037(33)-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 ADW Johnson Pty Ltd MATHEW DAVID LONDON

mand DATE 28/04/2023 SIGNED REGISTERED SURVEYOR

# ORIGIN OF W.A.C. LEVELS

PM 20029 E: 345 612. 942 N: 6 382 878. 917 Co-Ord System: MGA Ground MGA Datum: GDA94 MGA Zone: 56 RL: 77.675m

APPROVED FOR CONSTRUCTION BY ADW Johnson Pty Ltd

Date Approved:11/07/2022

# CONSTRUCTION ISSUE

ALL DIMENSIONS ARE IN METRES U.N.O. DO NOT SO Plotted By: glenns Plot Date: 05/05/23 - 10:23 Cad File: N:\240072\DWG\water & sewer\stage 33-wac\240037(33)-WAC-001.dwg

## PRESSURE SEWER NOTES:

- 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
- 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)

CLEARANCE TABLE ADJACENT.

- 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**

DESIGN FILE N:\JOBNUMBER\Design\12D\

- 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

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

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.

PER THE CLEARANCE TABLE ADJACENT.

- 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
- 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.
- 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.

150mm VERTICAL CLEARANCE BETWEEN POTABLE WATER AND RECYCLED WATER MAINS SHALL BE PROVIDED.

- 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: <a href="http://information.altogethergroup.com.au/governance/Land\_Housing/WAT-1854-FS.pdf">http://information.altogethergroup.com.au/governance/Land\_Housing/WAT-1854-FS.pdf</a> DUAL SERVICE: <a href="http://information.altogethergroup.com.au/governance/Land\_Housing/WAT-1855-FS.pdf">http://information.altogethergroup.com.au/governance/Land\_Housing/WAT-1855-FS.pdf</a>
- 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 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.
- 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 HI CLEARA	- MINIMUM VERTICAL CLEARANCE (mm)	
(EXISTING OR PROPOSED SERVICE)	NEW MA		
	≤ 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 <sup>8</sup>
STORMWATER DRAINS	300 4	600	150 °
SEWERS (GRAVITY)	1000 <sup>6</sup> / 600	1000 6 / 600	500 °
SEWERS (PRESSURE AND VACUUM)	600	600	300 °
KERBS	150	600 <sup>5</sup>	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 ADWJohnson Pty Ltd COMPANY 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 345 612. 942 MGA Datum: GDA94 N: 6 382 878. 917 MGA Zone: 56 77.675m

APPROVED FOR CONSTRUCTION BY ADW Johnson Pty Ltd

Date Approved:11/07/2022

# CONSTRUCTION ISSUE

infor	REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES
	Α	10.11.2021	INITIAL ISSUE	G.S.	C.B.	G.S.	C.B.	
includes coloured	С	02.03.2022	CLIENT COMMENTS	G.S.	C.B.	G.S.	C.B.	
SS	D	04.03.2022	FOR APPROVAL	G.S.	C.B.	G.S.	C.B.	
Inde	Ε	15.06.2022	FOR APPROVAL	G.S.	C.B.	G.S.	C.B.	
inc	0	11.07.2022	ISSUED FOR CONSTRUCTION	G.S.	C.B.	G.S.	C.B.	
plan	1	06.10.2022	ISSUED FOR CONSTRUCTION	G.S.	N.C.	G.S.	C.B.	
This	2	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

**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 33 HUNTLEE	GENERAL NOTES	
SURVEYED DATUM	PROJECT No. DISCIPLINE NUMBER F	REV
Daly.Smith Pty Ltd GDA94 M.G.A. ZONE 56 A.H.D.	240037(33) - WAC - 002	2

AMENDMENT

INITIAL ISSUE

G.S. G.S. G.S. G.S. G.S. N.C. **S.S.** G.S. C.B. **C.B.** 1 06.10.2022 ISSUED FOR CONSTRUCTION WORK AS CONSTRUCTED DESIGN FILE N:\JOBNUMBER\Design\12D\ Plotted By: glenns Plot Date: 05/05/23 - 10:23 Cad File: N:\240072\DWG\water & sewer\stage 33-wac\240037(33)-WAC-001.dwg

Johnson 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

PLAN

SCALE 1:250

CLIENT

SURVEYED Daly.Smith Pty Ltd

PROPOSED SUBDIVISION STAGE 33 HUNTLEE

PROJECT No. 240037(33) -

**OVERALL SITE PLAN** 

PLAN TITLE

STAGE 30 SUBDIVISION FOR POTABLE WATER DETAIL PLANS REFER TO DRG-101 荐 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 STREET STAGE 32 SUBDIVISION FOR POTABLE WATER DETAIL PLANS REFER TO DRG-103 FOR RECYCLED WATER DETAIL PLANS REFER TO DRG-203 FOR RECYCLED WATER DETAIL PLANS REFER TO DRG-204 FOR PRESSURE SEWER DETAIL PLANS REFER TO DRG-303 FOR PRESSURE SEWER DETAIL PLANS REFER TO DRG-304 FUTURE STAGE 34 SUBDIVISION

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 ...../...../.... REGISTERED SURVEYOR 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

CONSTRUCTION ISSUE

APPROVED FOR CONSTRUCTION

BY ADW Johnson Pty Ltd

Date Approved:11/07/2022

BEFORE YOU DIG

POTABLE WATER, RECYCLED WATER AND PROJECT PROPERTY DESCRIPTION PRESSURE SEWER RETICULATION

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

WAC 003

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

DRAWN CHECK DESIGN VERIFY SCALES

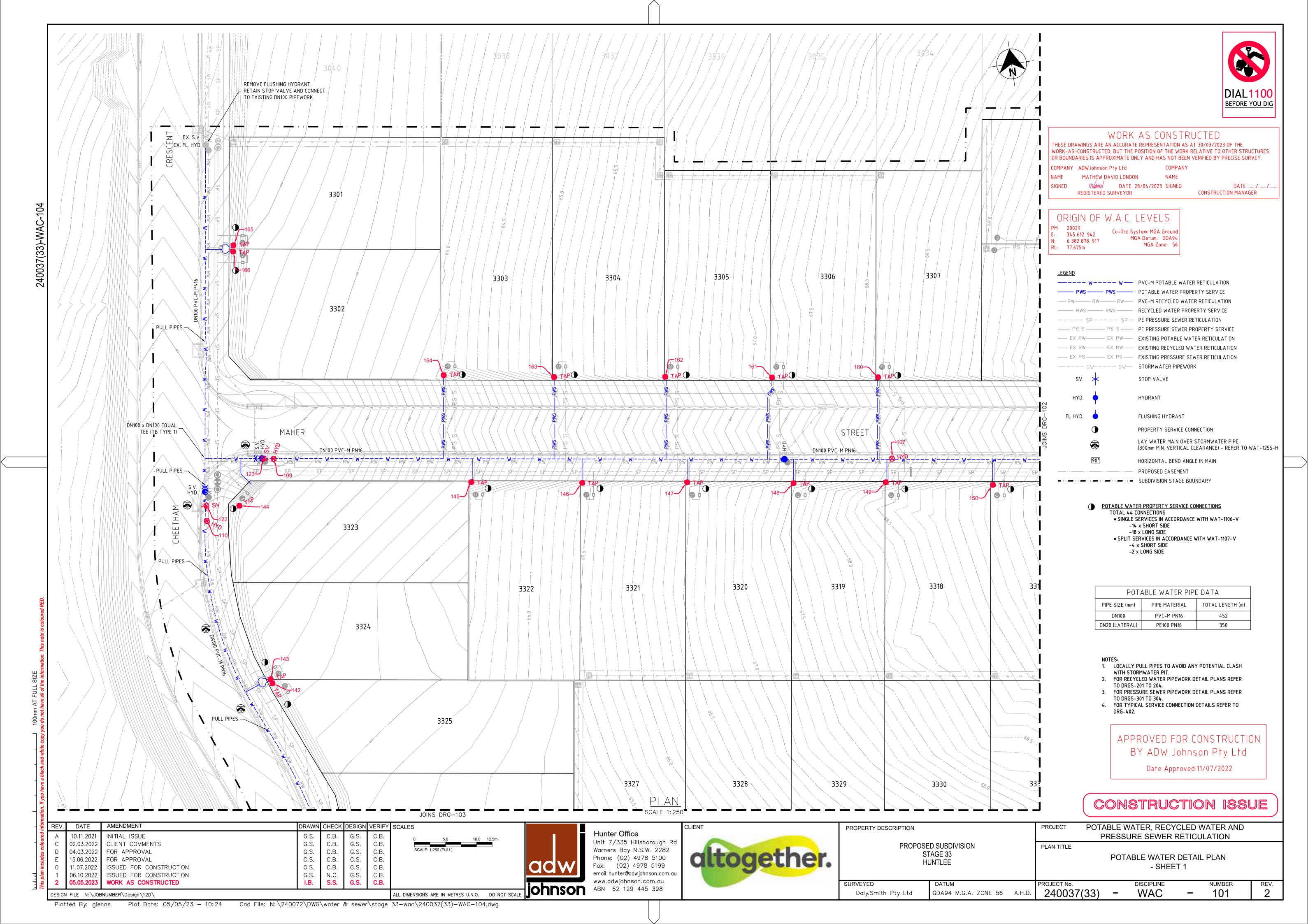
G.S. C.B.

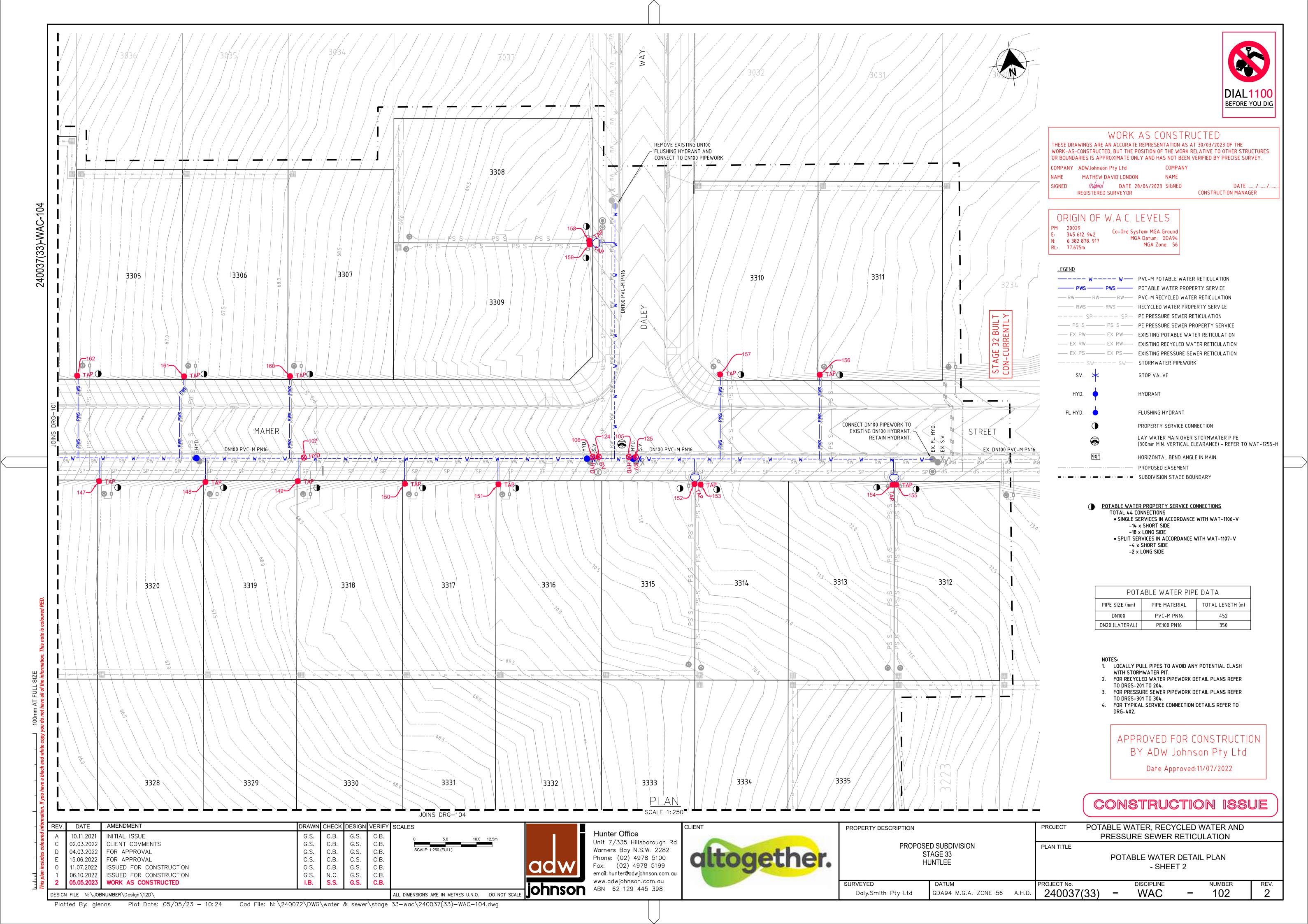
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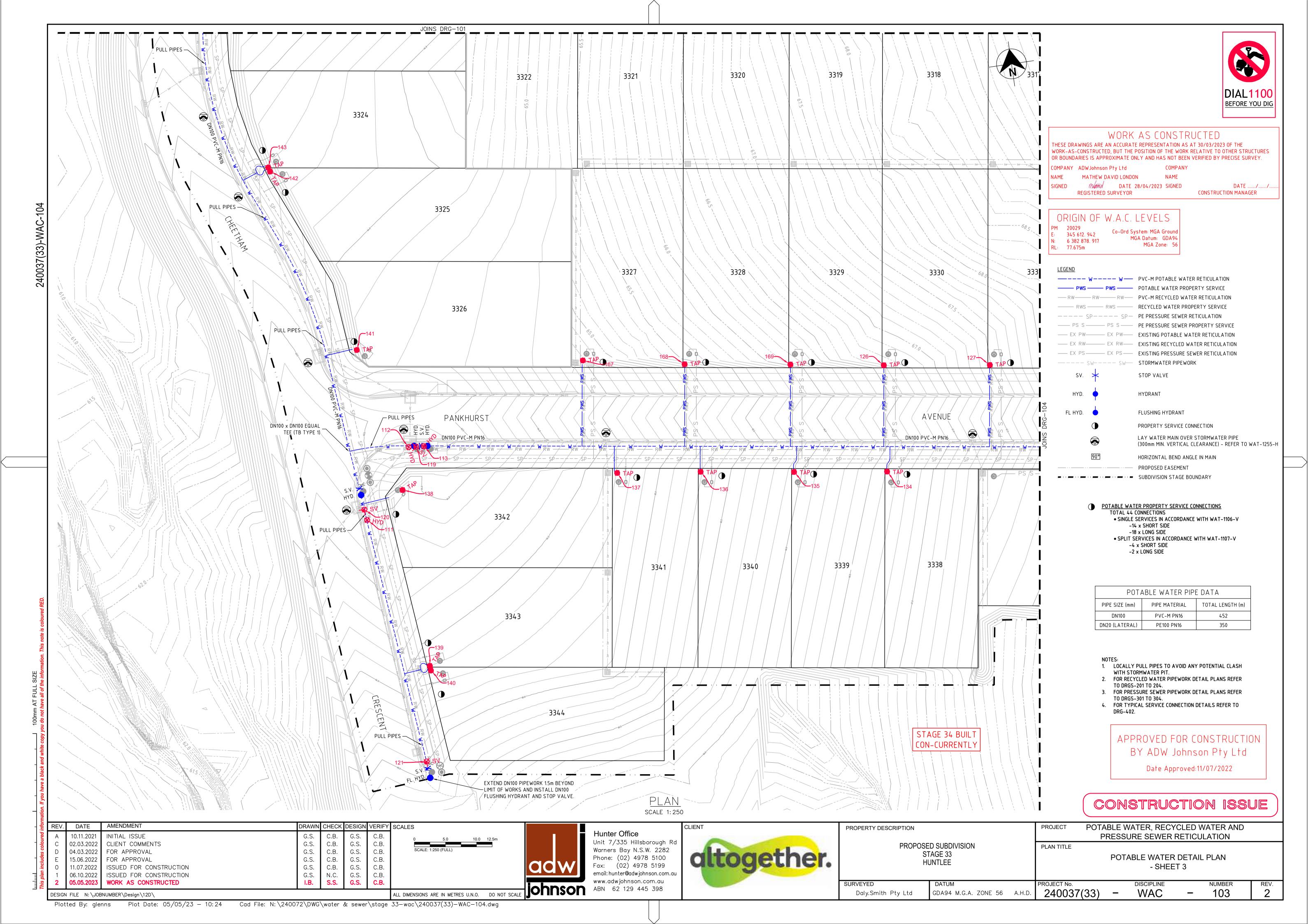
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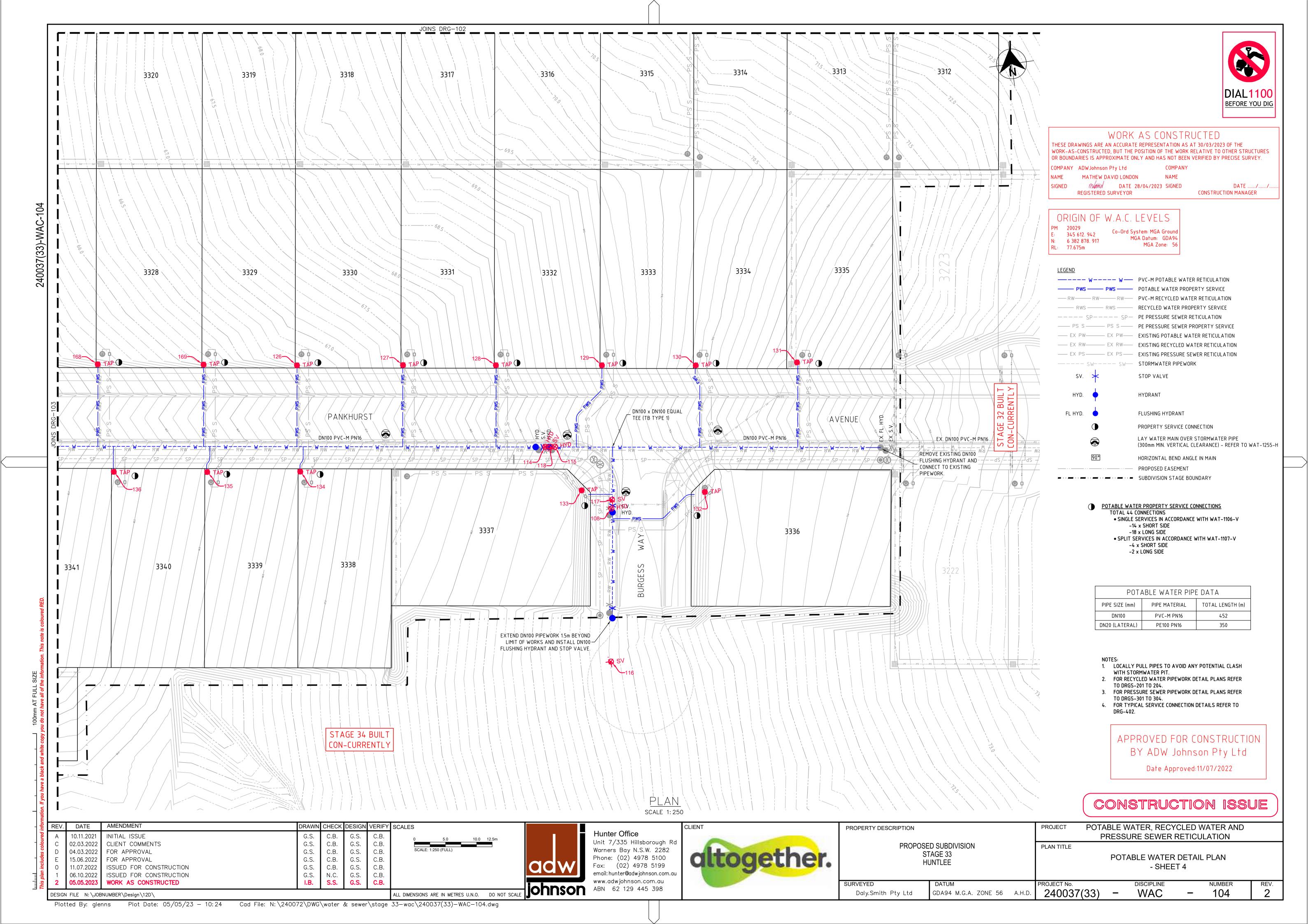
C.B. C.B. C.B.

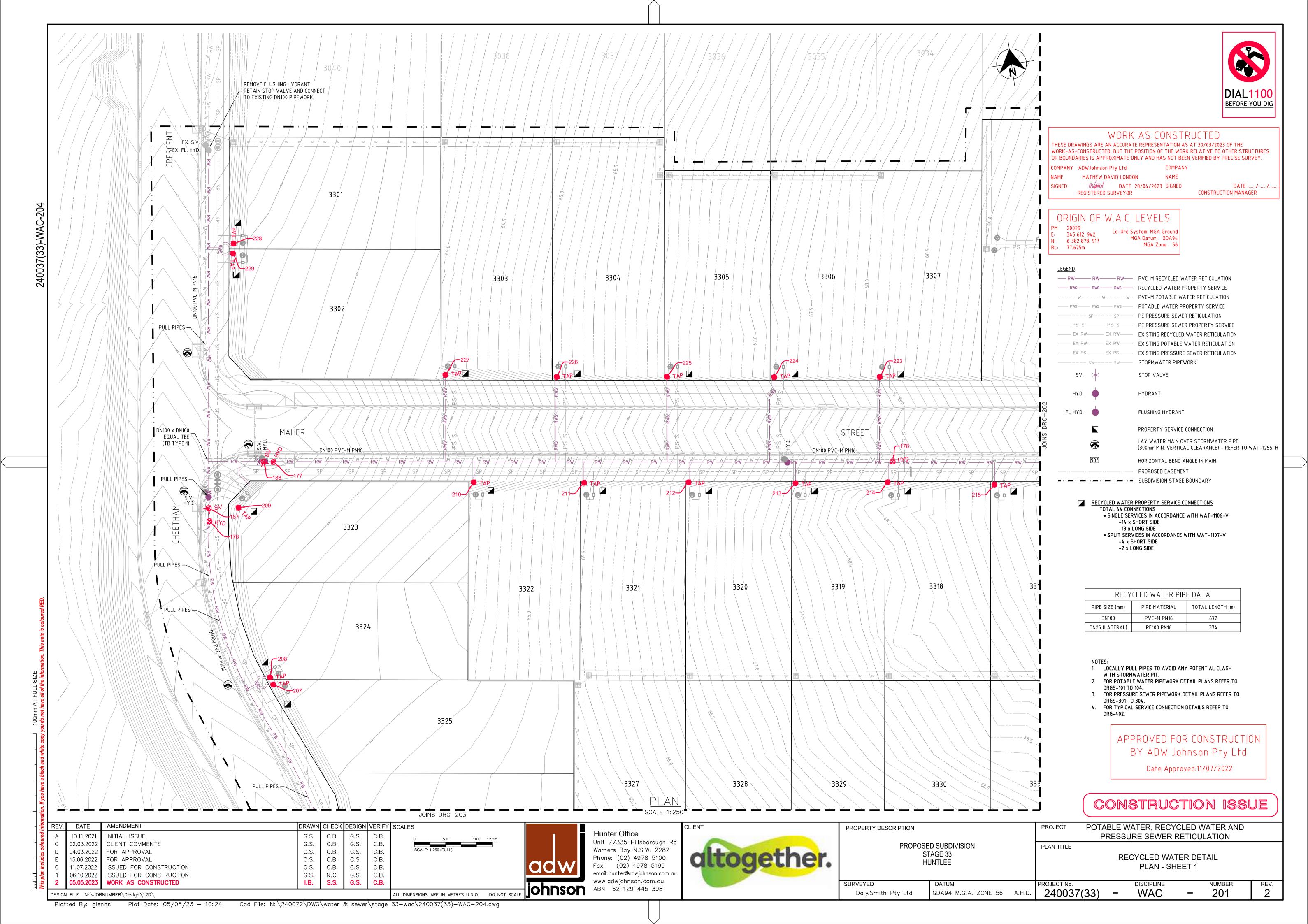
C.B.

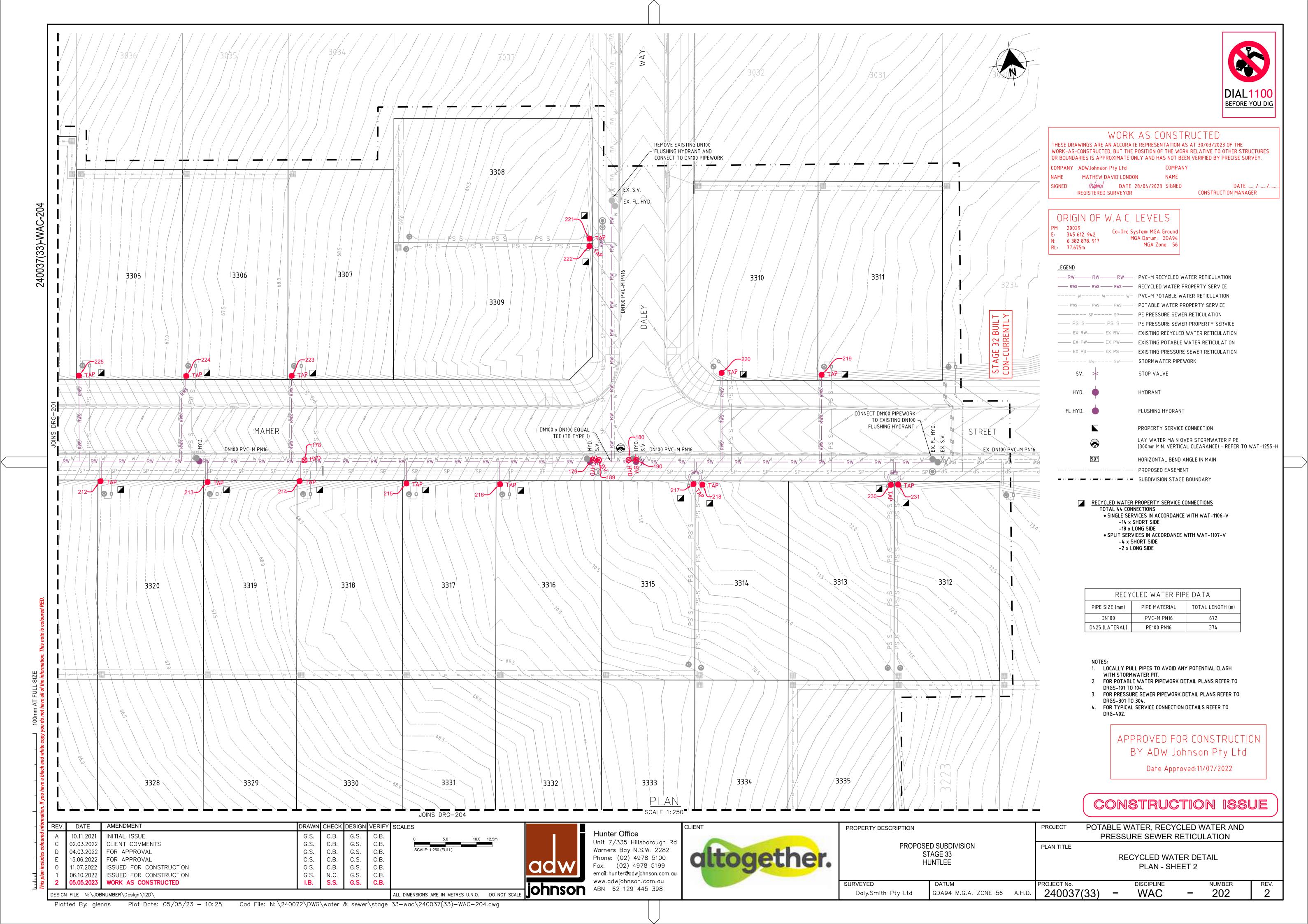


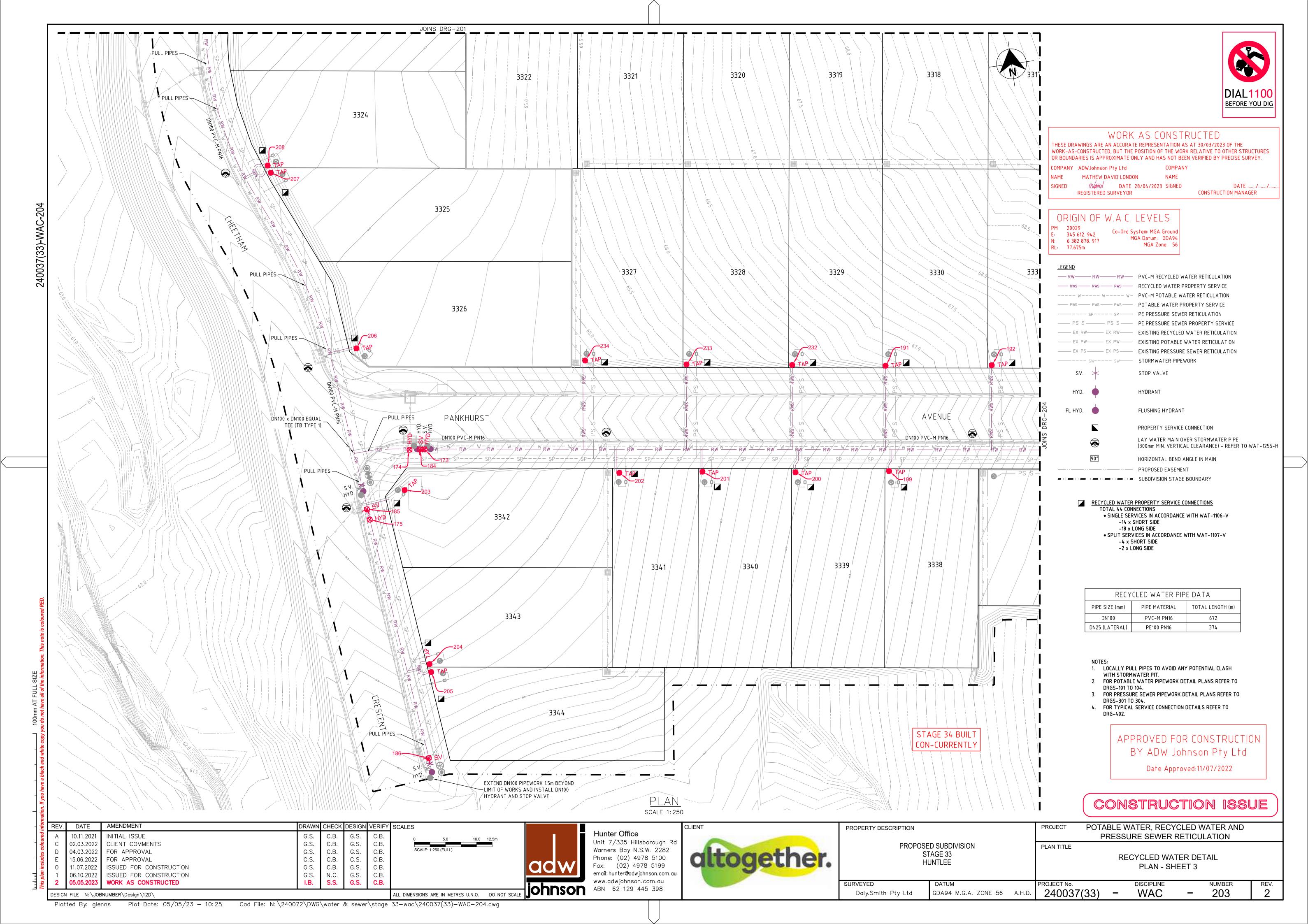


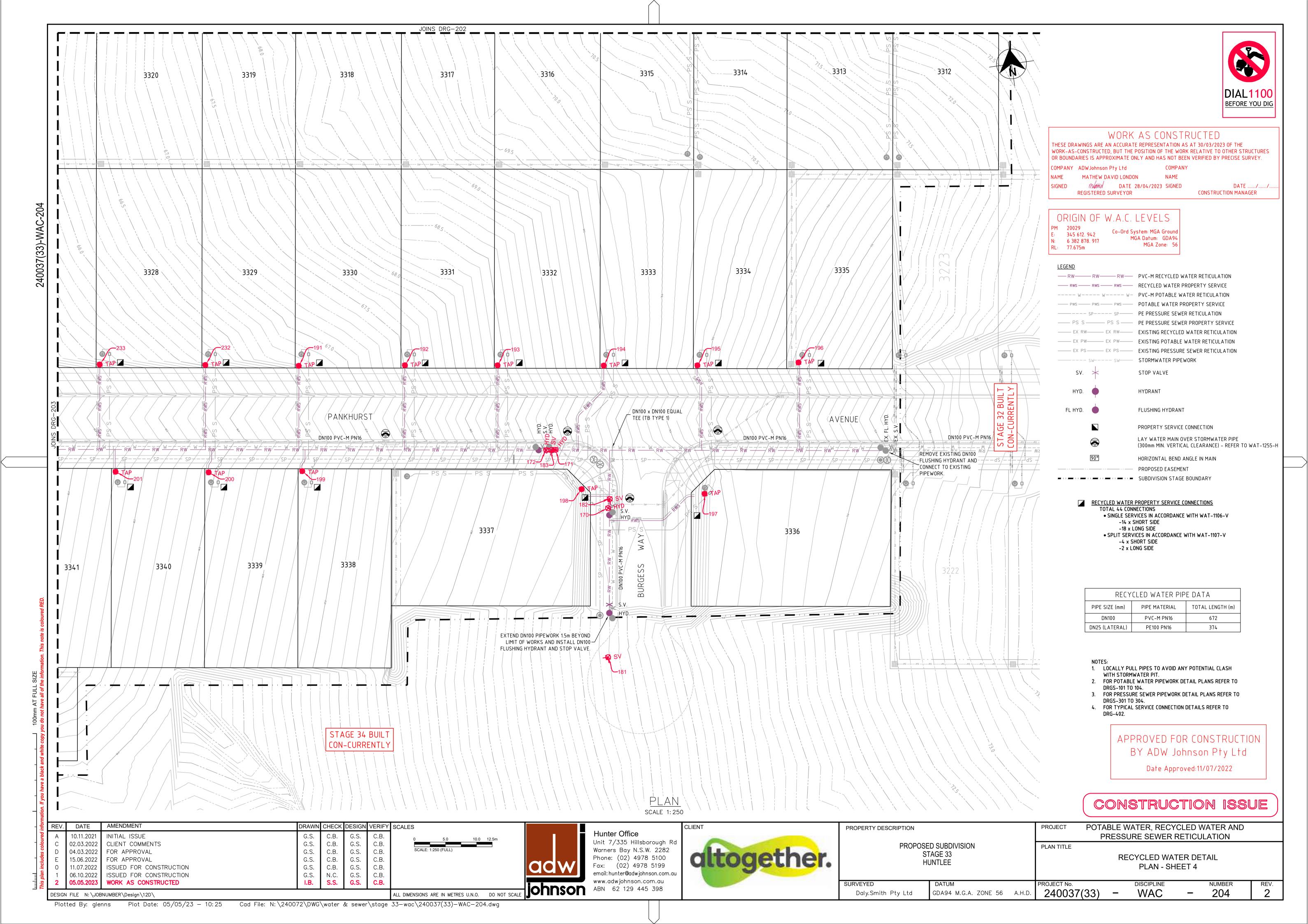


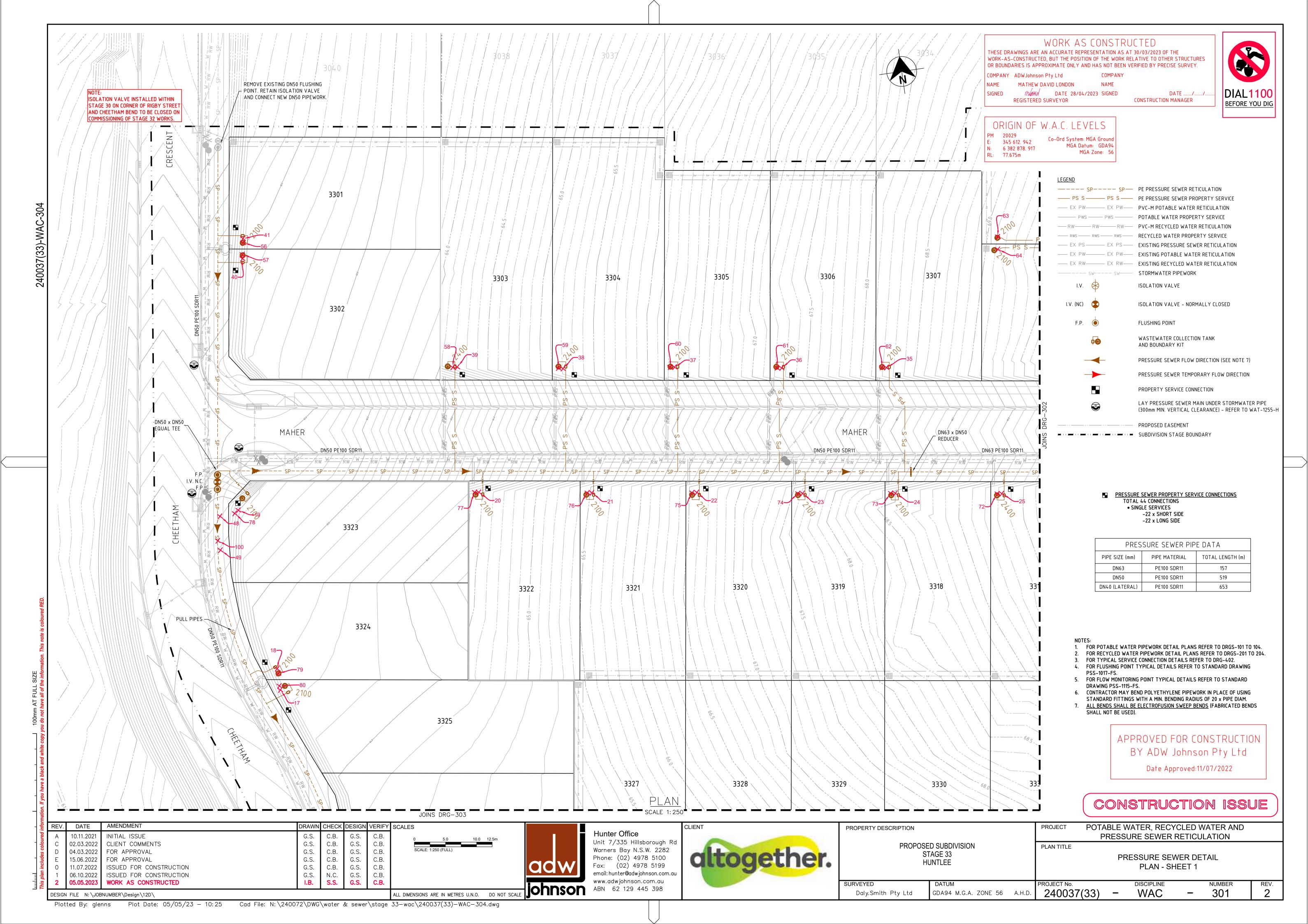


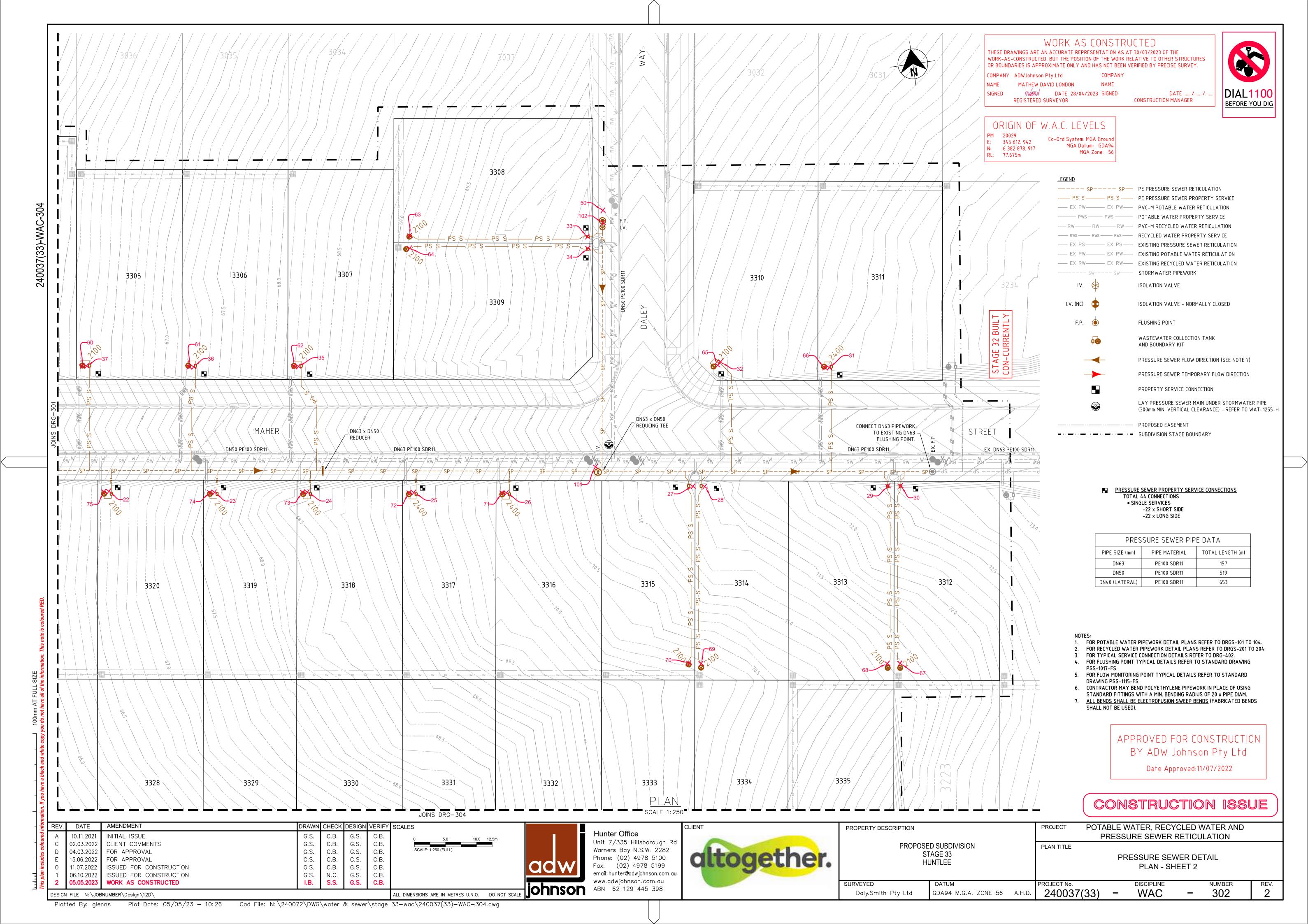


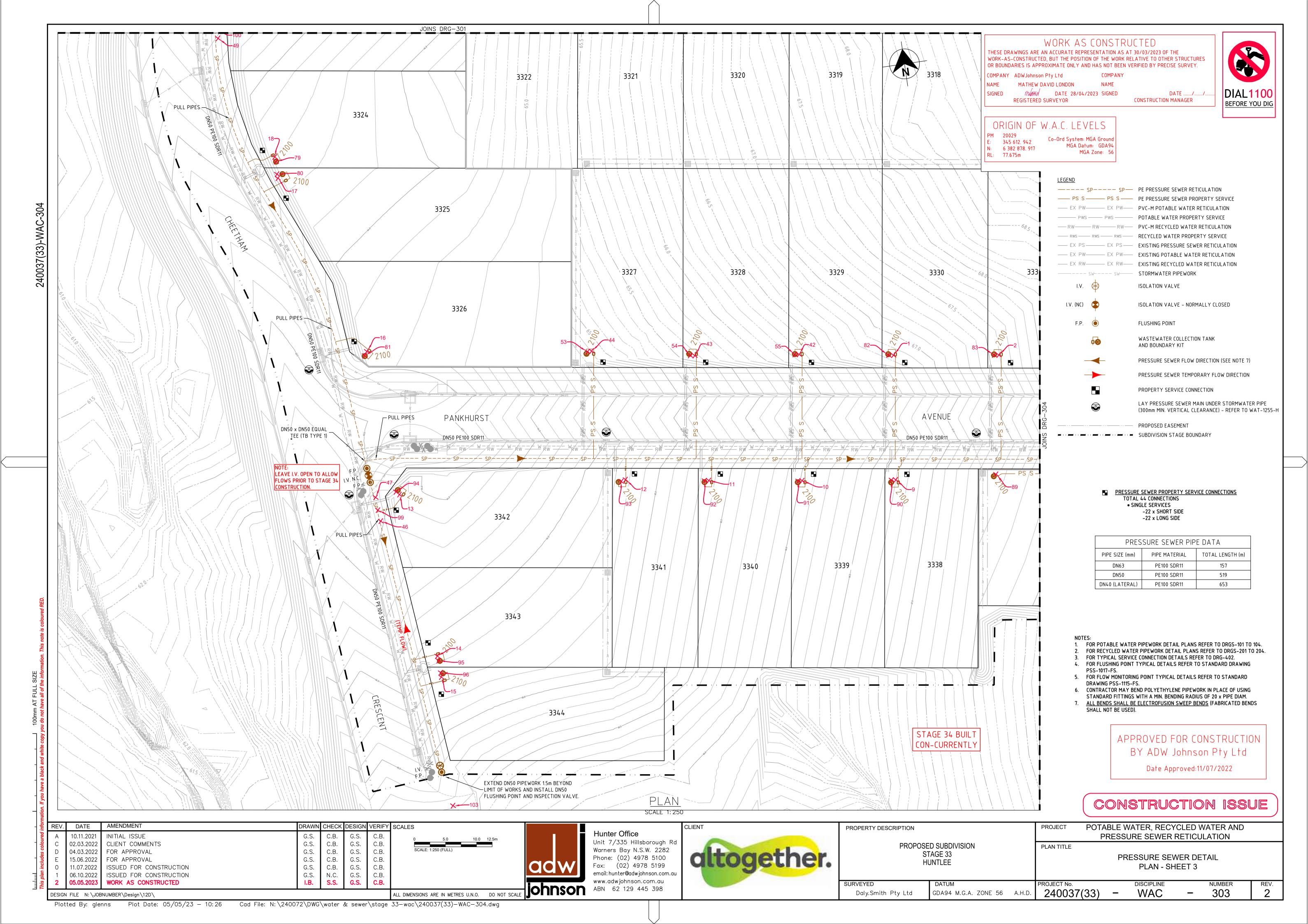


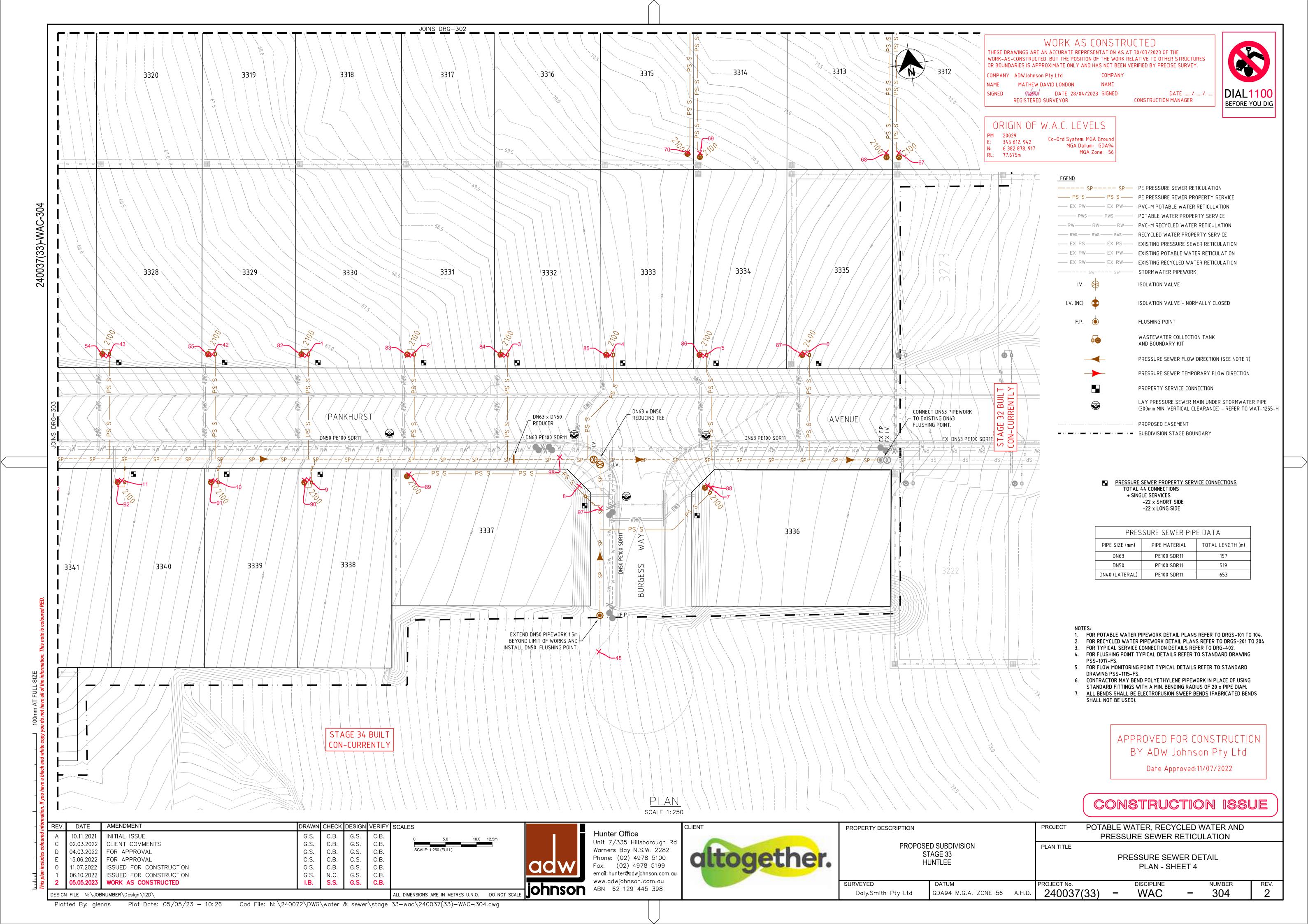












DRAWN CHECK DESIGN VERIFY SCALES AMENDMENT REV. DATE INITIAL ISSUE G.S. C.B. 02.03.2022 CLIENT COMMENTS G.S. D 04.03.2022 FOR APPROVAL G.S. 15.06.2022 FOR APPROVAL G.S. C.B. ISSUED FOR CONSTRUCTION G.S. **I.B.** N.C. **S.S.** 06.10.2022 ISSUED FOR CONSTRUCTION WORK AS CONSTRUCTED

0 0.1 0.2 0.3 0.4 A1 / A3

**Johnson** ABN 62 129 445 398

email: hunter@adwjohnson.com.au www.adwjohnson.com.au

her.	PROPERTID
	SURVEYED
	Daly.Smi

PROPERTY DESCRIPTION			PROJECT	POTABLE V PRESS
ST	ED SUBDIVISION FAGE 33		PLAN TITLE	TVDIO AL
H	JNTLEE			TYPICAL
SURVEYED	DATUM		PROJECT No.	
Daly.Smith Pty Ltd	GDA94 M.G.A. ZONE 56	A.H.D.	240037	(33) -

POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION TYPICAL PIPEWORK TRENCHING DETAIL

401

2

APPROVED FOR CONSTRUCTION BY ADW Johnson Pty Ltd

Date Approved:11/07/2022

WAC

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

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

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.

REGISTERED SURVEYOR CONSTRUCTION MANAGER

# NOTES:

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

	Hunter Office Unit 7/335 Hillsborough Rd Warners Bay N.S.W. 2282	CLIENT
adw	Phone: (02) 4978 5100 Fax: (02) 4978 5199	alte

CONSTRUCTION ISSUE PRO IECT DDODEDTY DESCRIPTION

Cad File: N: \240072\DWG\water & sewer\stage 33-wac\240037(33)-WAC-401.dwg

6382367.57 346804.82 6382305.95 69.68 6382345.42 64.04 346679.54 6382349.32 63.96 48 346665.88 6382431.38 62.62 6382425.99 346665.17 346827.38 | 6382457.26 | 70.29

6382297.33 65.48

346675.94 | 6382474.34 | 62.49 | seSPT3301

346716.65 6382367.56 64.94

6382364.58

346749.54 6382362.30 66.47

346685.05

346732.87

346842.59 | 6382430.41 | 71.79 | seBDYKIT 346824.32 | 6382453.45 | 70.44 | seBDYKIT 346824.16 | 6382451.58 | 70.50 | seBDYKIT 346775.34 6382439.53 68.37 seBDYKIT 346758.66 | 6382441.91 | 67.38 | seBDYKIT 346723.86 | 6382446.89 | 65.33 | seBDYKIT 346707.09 | 6382449.60 | 64.32 | seBDYKIT 346675.44 6382471.83 62.59 seBDYKIT 346676.00 | 6382475.00 | 62.52 | seBDYKIT 6382362.21 66.46 seBDYKIT 6382364.45 65.69 seBDYKIT 346733.62

Point Table

Point # | Eastings | Northings | Levels | Codes

346765.22 6382359.89 66.92 seBDYKIT

346781.98 | 6382357.48 | 67.64 | seBDYKIT

346796.88 | 6382355.28 | 68.55 | seBDYKIT

346813.47 | 6382352.84 | 69.57 | seBDYKIT

346828.53 | 6382350.57 | 70.46 | seBDYKIT

346844.54 | 6382348.52 | 71.50 | seBDYKIT

346826.43 | 6382329.31 | 70.32 | seBDYKIT

346805.55 | 6382332.77 | 69.37 | seBDYKIT

346762.70 | 6382340.01 | 66.78 | seBDYKIT

346747.79 | 6382342.05 | 65.97 | seBDYKIT

346732.96 | 6382344.25 | 65.34 | seBDYKIT

346719.72 | 6382346.33 | 64.70 | seBDYKIT

346683.42 | 6382349.22 | 64.16 | seBDYKIT

346685.67 | 6382322.65 | 64.78 | seBDYKIT

346685.82 | 6382319.22 | 64.85 | seBDYKIT

346681.56 | 6382372.74 | 64.26 | seBDYKIT

346671.42 | 6382405.80 | 63.91 | seBDYKIT

346707.62 | 6382429.18 | 64.60 | seBDYKIT

346725.60 6382426.47 65.62 seBDYKIT

346742.29 6382424.08 66.68 seBDYKIT

346759.07 | 6382421.47 | 67.75 | seBDYKIT

346773.84 | 6382419.32 | 68.60 | seBDYKIT

346790.76 | 6382416.80 | 69.46 | seBDYKIT

346835.30 6382411.27 71.66 seBDYKIT

346866.33 | 6382406.78 | 72.56 | seBDYKIT

346868.35 | 6382406.52 | 72.57 | seBDYKIT

346859.74 | 6382426.99 | 72.69 | seBDYKIT

6382402.35 63.91 seBDYKIT

6382431.92 62.97 seBDYKIT

6382414.58 70.16 seBDYKIT

6382410.97 71.68 seBDYKIT

346671.44

346668.94

346805.50

Point Table Point # | Eastings | Northings | Levels | Codes 346675.56 | 6382472.49 | 62.56 | seSPT3302 346706.35 | 6382449.66 | 64.31 | seSPT3303 346723.13 6382447.10 65.35 seSPT3304 346740.94 | 6382444.63 | 66.34 | seSPT3305 346757.90 | 6382442.04 | 67.39 | seSPT3306 346774.63 | 6382439.67 | 68.35 | seSPT3307 346796.10 | 6382457.74 | 69.28 | seSPT3308 346795.80 | 6382455.74 | 69.26 | seSPT3309 346842.03 | 6382429.98 | 71.80 | seSPT3310 346859.00 72.71 seSPT3311 6382427.11 67

346862.10

346830.58

346790.06

346671.53

346681.11

346764.44

346762.02

346682.92

346685.78

346685.84

346808.41

346803.12

346679.63

346664.96

346820.27

346827.12

346684.69

346825.78

346820.02

346774.08

346810.10

346675.75

346663.67

100

108

346832.49 | 6382382.90 | 70.40 | seSPT3314

346773.12 | 6382419.44 | 68.61 | seSPT3318

346758.35 | 6382421.55 | 67.78 | seSPT3319

346741.53 | 6382424.14 | 66.69 | seSPT3320

346724.86 | 6382426.56 | 65.63 | seSPT3321

346706.97 | 6382429.27 | 64.63 | seSPT3322

346668.28 | 6382431.50 | 62.97 | seSPT3323

346671.38 | 6382403.02 | 63.94 | seSPT3325

346781.24 | 6382357.58 | 67.67 | seSPT3331

346796.14 | 6382355.39 | 68.60 | seSPT3332

346812.83 | 6382352.92 | 69.57 | seSPT3333

346827.81 | 6382350.74 | 70.48 | seSPT3334

346843.81 | 6382348.64 | 71.52 | seSPT33335

346826.00 | 6382329.84 | 70.38 | seSPT3336

346778.77 | 6382338.55 | 68.16 | seSPT3337

346747.14 | 6382342.10 | 65.98 | seSPT3339

346732.27 | 6382344.32 | 65.36 | seSPT3340

6382337.77 69.06

62.71

70.64

70.43

70.88

70.59

68.02

69.62

61.98

62.56

63.96

6382340.08

6382346.14

6382321.88

6382319.92

6382328.67

6382347.23

6382427.54

6382416.65

6382455.28

6382298.49

6382417.44

6382418.27

6382424.91

6382328.43

6382439.28

6382430.94

6382345.91

346685.98 6382356.55 63.52

6382372.14

6382360.02

6382405.03 | 63.94 | seSPT3324

6382383.28

6382416.88

346804.83 6382414.68

346864.12 6382378.32 71.54 seSPT3312

70.36 seSPT3315

70.19 seSPT3316

69.47 seSPT3317

64.30 seSPT3326

66.94 seSPT3330

66.79 seSPT3338

64.69 seSPT334

64.19 seSPT3342

64.80 seSPT3343

64.87 seSPT3344

seSV

seSV

seSV

seSV

waHYD

waHYD

waHYD

120 121 122 123 6382378.58 71.51 seSPT3313

118 346801.87 6382339.66 346677.48 6382347.64 346663.95 6382433.38

346763.45 6382358.51

346795.09 6382353.89

346826.86 6382349.23

346843.04 6382347.34

346825.37 6382328.87

346805.81 6382332.00

346746.68 6382343.63

346718.53 6382347.59

346684.00 6382349.86

346684.25 6382321.26

346679.98 6382373.20

346670.33 6382403.60

346669.20 6382432.62

346724.27 6382428.27

346757.86 | 6382423.30

346804.40

346835.59

346836.55

346867.07

346867.68

346858.06 6382426.07

346842.22 | 6382428.45

346824.52 6382452.77

346773.78 6382438.18

346722.25 6382445.76

346704.75 6382448.61

346674.32 6382474.17

147 346740.96 6382425.92 66.37 waTAP

6382421.31

6382418.39

6382416.12

6382411.60

6382411.38

6382406.89

6382406.81

6382452.1

6382443.21

6382473.19

346715.70 | 6382366.27 | 64.59 | waTAP

127

129

130

131

132

133

134

140

142

143

144

145

151

63.89 waSV waSV 124 346821.01 6382418.15 70.63 125

346826.88 6382417.28

346681.53 | 6382306.12 | 65.09 | waSV

346780.32 | 6382356.08 | 67.43 | waTAP

346811.94 | 6382351.43 | 69.44 | waTAP

346761.49 | 6382341.53 | 66.44 | waTAP

346731.84 6382345.84 65.18 waTAP

346684.31 | 6382320.50 | 64.64 | waTAP

346670.13 6382404.28 63.50 waTAP

346706.65 | 6382430.98 | 64.06 | waTAP

70.95 waSV

346674.18 | 6382439.55 | 62.00 | waSV

68.88 waSV 346687.19 | 6382356.43 | 63.52 | waSV

346810.43 | 6382329.82 | 69.56 | waSV

68.81 waHYD

346802.59 6382339.56

346806.50 | 6382304.09 | 69.63 | waSV

66.56 | waTAP

68.35 waTAP

70.33 waTAP

71.32 waTAP

70.14 | waTAP

65.84 waTAP

64.56 waTAP

63.91 waTAP

64.61 waTAP

64.01 waTAP

63.50 waTAP

62.72 waTAP

65.18 waTAP

68.09 waTAP

69.06 | waTAP

69.88 waTAP

72.26 waTAP

70.30 waTAP

67.96 | waTAP

63.84 | waTAP

waTAP

346801.04 6382339.77

346688.42 6382356.34

63.53 waHYD

Levels Codes

Point # | Eastings | Northings

Point Table

Point Table Point # | Eastings | Northings | Levels | Codes

168 | 346731.79 | 6382363.30 | 65.26 | waTAP 169 346748.61 6382360.80 66.04 waTAP 170 | 346809.61 | 6382328.56 | 69.60 | waHYDF

177 | 346675.66 | 6382438.76 | 62.01 | waHYDR

178 | 346774.12 | 6382424.46 | 68.04 | waHYDR

179 | 346819.99 | 6382417.86 | 70.59 | waHYDR

172 | 346801.12 | 6382339.22 | 68.83 | waHYDR

173 | 346688.46 | 6382355.82 | 63.51 | waHYDR 174 346686.04 6382356.10 63.53 waHYDR 175 | 346678.10 | 6382345.92 | 63.93 | waHYDR

176 346664.08 6382430.84 62.54 waHYDR

180 | 346825.68 | 6382416.97 | 70.88 | waHYDR

181 | 346806.14 | 6382304.85 | 69.62 | waSVR

182 | 346810.08 | 6382329.97 | 69.58 | waSVR

183 346801.93 6382339.13 68.90 waSVR

185 | 346677.91 | 6382347.63 | 63.92 | waSVR

187 | 346664.27 | 6382432.94 | 62.50 | waSVR

188 | 346674.08 | 6382439.07 | 62.02 | waSVR

189 346820.96 6382417.65 70.63 waSVR

190 | 346826.89 | 6382416.81 | 70.97 | waSVR

191 346763.72 6382358.40 66.54 waTAPR

192 | 346780.62 | 6382356.01 | 67.44 | waTAPR

193 | 346795.35 | 6382353.85 | 68.37 | waTAPR

194 346812.24 6382351.33 69.46 waTAPR

195 | 346827.14 | 6382349.19 | 70.36 | waTAPR

196 | 346843.28 | 6382347.30 | 71.32 | waTAPR

197 | 346825.29 | 6382328.60 | 70.14 | waTAPR

198 | 346805.84 | 6382332.19 | 69.30 | waTAPR

199 | 346761.82 | 6382341.56 | 66.51 | waTAPR

200 346746.92 6382343.54 65.81 waTAPR

201 | 346732.12 | 6382345.80 | 65.18 | waTAPR

202 | 346718.88 | 6382347.55 | 64.57 | waTAPR

203 | 346684.33 | 6382349.81 | 63.98 | waTAPR

204 346684.25 6382321.55 64.63 waTAPF

205 346684.32 6382320.25 64.66 waTAPR

206 | 346679.96 | 6382373.47 | 64.01 | waTAPF

207 | 346670.42 | 6382403.38 | 63.43 | waTAPR

211 346724.57 6382428.24 65.24 waTAPR

212 | 346741.20 | 6382425.87 | 66.33 | waTAPF

214 | 346772.86 | 6382421.26 | 68.14 | waTAPR

215 | 346789.79 | 6382418.40 | 69.10 | waTAPF

6382411.62

6382426.03

220 | 346842.50 | 6382428.65 | 71.57 | waTAPR

221 | 346824.62 | 6382453.08 | 70.34 | waTAPR

222 346824.41 6382451.87 70.32 waTAPR

209

216 346804.67

217 346835.44

218 | 346836.83 | 6382411.34 |

346858.35

346670.10 | 6382404.60 | 63.45 | waTAPR

346669.03 | 6382432.32 | 62.77 | waTAPR

346707.02 | 6382430.88 | 64.11 | waTAPF

346758.19 | 6382423.25 | 67.32 | waTAPR

6382416.11 69.86 waTAPR

71.52 | waTAPR

71.53 | waTAPR

72.27 | waTAPF

346687.68 | 6382355.92 | 63.54 | waSVR

346681.94 | 6382306.62 | 65.10 | waSVR

171 | 346802.61 | 6382339.06 | 68.93 | waHYDR

Point # | Eastings | Northings 346774.04 346757.27 | 6382440.62 | 67.01 | waTAPR 346740.22 346722.68 | 6382445.71 | 64.93 | waTAPR 346705.02 | 6382448.62 | 63.82 | waTAPR 346674.38 | 6382474.44 | 61.97 | waTAPR

Point Table

6382438.19

229 | 346674.06 | 6382472.88 | 61.99 | waTAPR

233 | 346732.09 | 6382363.24 | 65.27 | waTAPR

231

346866.80 | 6382406.91 | 72.39 | waTAPR

346867.96 | 6382406.79 | 72.42 | waTAPR |

346748.88 | 6382360.70 | 66.04 | waTAPR

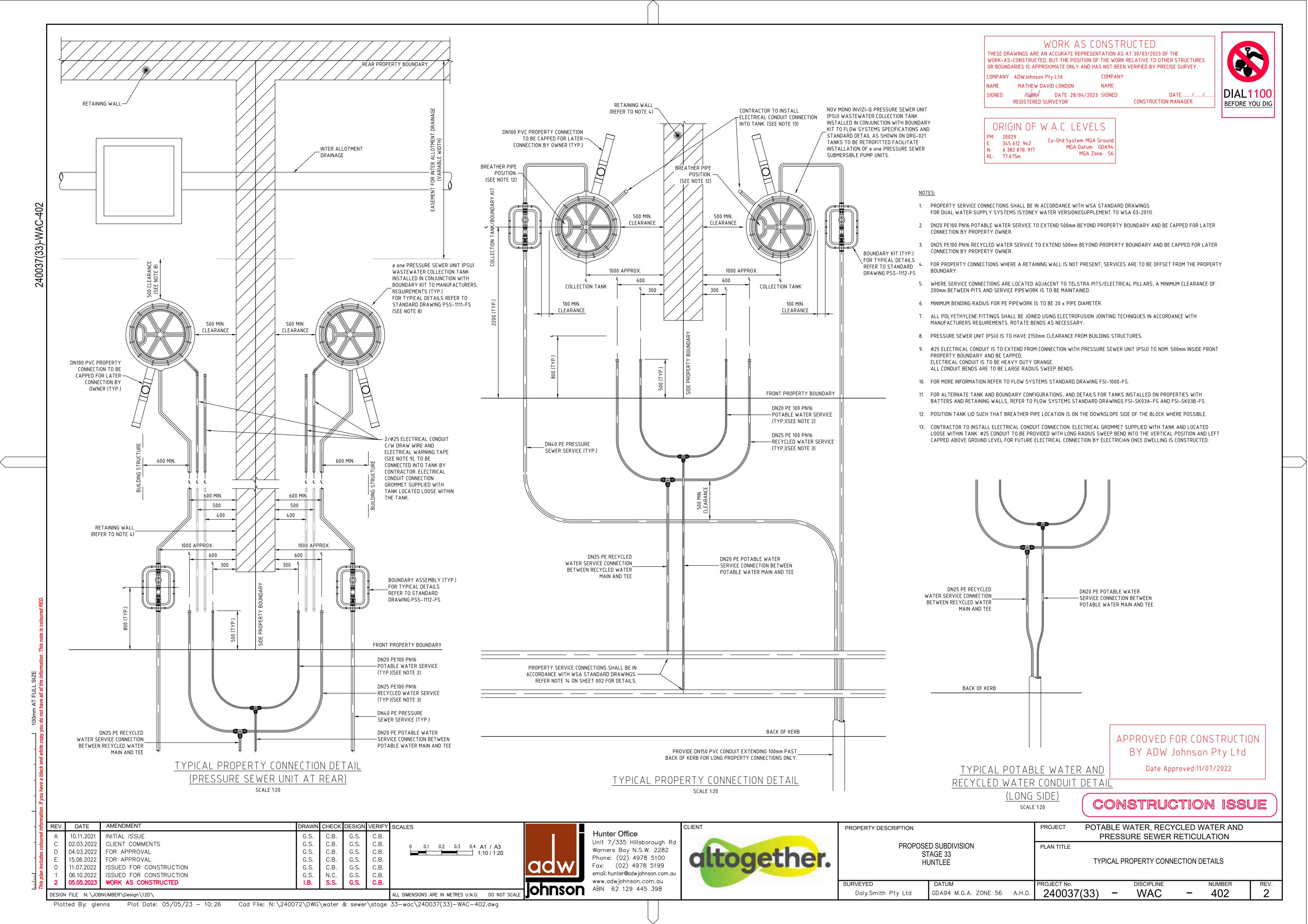
346716.05 | 6382366.22 | 64.66 | waTAPR

6382443.18 | 65.97 | waTAPR

Levels | Codes DIAL1100

BEFORE YOU DIG

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



3341

3342

3343

3344

64.86

64.21

64.72

64.79

64.73

64.08

64.59

64.66

62.73

62.08

62.59

62.66

REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY
Α	10.11.2021	INITIAL ISSUE	G.S.	C.B.	G.S.	C.B.
С	02.03.2022	CLIENT COMMENTS	G.S.	C.B.	G.S.	C.B.
D	04.03.2022	FOR APPROVAL	G.S.	C.B.	G.S.	C.B.
Ε	15.06.2022	FOR APPROVAL	G.S.	C.B.	G.S.	C.B.
0	11.07.2022	ISSUED FOR CONSTRUCTION	G.S.	C.B.	G.S.	C.B.
1	06.10.2022	ISSUED FOR CONSTRUCTION	G.S.	N.C.	G.S.	C.B.
2	05.05.2023	WORK AS CONSTRUCTED	I.B.	S.S.	G.S.	C.B.

SCALES 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

CLIENT altogether.

-0.09

-0.09

-0.09 -0.08

63.55

62.90

63.41

63.48

PROPERTY DESCRIPTION PROPOSED SUBDIVISION STAGE 33 HUNTLEE

POTABLE WATER, RECYCLED WATER AND **PROJECT** PLAN TITLE

PRESSURE SEWER RETICULATION WASTE WATER COLLECTION TANK LEVEL DETAILS PROJECT No. DISCIPLINE 240037(33) -WAC 403 Daly.Smith Pty Ltd GDA94 M.G.A. ZONE 56 A.H.D.

CALCULATED WAC TOP OF WAC V'S DESIGN SANITARY COLLECTION **INVERT LEVEL** RAINAGE INVERT **TANK LID COMPARISON** LEVEL WASTEWATER COLLECTION TANK DETAILS TANK HEIGHT LOT NUMBER TOP OF TANK TANK FSL BASE IL CONNECTION IL TANK LOCATION EASTING NORTHING 60.36 2100 FRONT BATTER 346675.85 6382474.35 62.49 62.36 61.26 62.49 61.18 -0.08 2100 3302 62.39 60.39 61.29 FRONT BATTER 346675.56 6382472.37 -0.08 62.52 62.52 61.21 2400 62.75 FRONT 346705.59 3303 64.28 64.15 6382449.93 61.85 64.28 62.67 -0.08 3304 65.30 65.17 62.87 63.77 2400 FRONT 346723.21 6382447.33 65.30 63.69 -0.09 2100 **FRONT** -0.09 66.22 65.12 346741.02 6382444.70 65.04 66.35 64.22 66.35 2100 FRONT 346757.84 67.22 66.12 6382442.21 -0.09 3306 67.35 65.22 67.35 66.04 FRONT 68.19 67.09 2100 346774.65 6382439.72 -0.09 3307 68.32 66.19 68.32 67.01 3308 69.23 69.10 67.10 68.00 2100 REAR 346796.00 6382457.60 69.23 67.92 -0.08 3309 69.08 67.98 2100 REAR 346795.21 6382455.69 67.90 -0.09 69.21 67.08 69.21 FRONT 71.74 71.61 70.51 2100 3310 69.61 346841.36 6382429.86 71.74 70.43 -0.09 72.51 71.11 2400 FRONT BATTER 346858.94 3311 72.64 70.21 6382427.27 72.64 71.03 -0.08 71.36 2100 REAR 3312 71.49 69.36 70.26 346864.03 6382377.59 71.49 70.18 -0.09 70.86 70.73 2100 REAR 346862.06 69.55 3313 68.73 69.63 6382377.88 70.86 -0.08 REAR 3314 70.38 70.25 2100 346832.38 68.25 69.15 6382382.27 70.38 68.47 -0.69 70.00 2100 REAR 70.13 68.90 346830.47 68.82 3315 68.00 6382383.05 -0.09 70.13 70.01 2400 FRONT 346804.79 3316 70.14 67.71 68.61 6382414.45 70.14 68.53 -0.08 FRONT 3317 69.42 69.29 66.99 67.89 2400 346789.95 6382416.64 67.81 -0.08 69.42 FRONT 68.47 67.37 2100 346773.13 6382419.13 68.60 67.29 -0.09 3318 68.60 66.47 67.57 2100 FRONT 3319 67.70 65.57 346758.29 -0.08 66.47 6382421.32 67.70 66.39 FRONT 2100 -0.39 3320 66.66 66.53 64.53 65.43 346741.47 6382423.80 66.66 65.05 FRONT 3321 65.60 65.47 63.47 64.37 2100 346724.66 6382426.29 64.29 -0.09 65.60 3322 2100 FRONT 346707.04 63.27 -0.09 64.58 64.45 63.35 6382428.90 64.58 62.45 2100 FRONT BATTER 3323 62.91 62.78 61.68 346669.85 6382433.73 60.78 62.91 61.60 -0.09 63.76 2100 FRONT BATTER 346671.52 6382405.03 62.58 3324 63.89 61.76 62.66 63.89 -0.08 2100 62.59 3325 63.90 63.77 61.77 62.67 FRONT BATTER 346672.26 6382402.90 63.90 -0.09 63.06 2100 FRONT BATTER 346681.12 62.98 3326 64.29 64.16 62.16 6382372.05 -0.08 64.29 2100 FRONT 63.68 3327 64.99 64.86 62.86 63.76 346716.44 6382367.26 64.99 -0.09 2100 **FRONT** 3328 65.70 65.57 63.57 64.47 346732.76 6382364.85 65.70 64.39 -0.08 2100 FRONT 346749.58 -0.08 3329 66.36 66.23 64.23 65.13 6382362.36 65.05 66.36 2100 FRONT 3330 66.96 66.83 64.83 65.73 346764.42 6382360.17 65.65 -0.09 66.96 FRONT 2100 346781.23 67.68 67.55 65.55 66.45 6382357.68 67.68 66.37 -0.08 FRONT 68.47 2100 346796.07 6382355.49 67.29 -0.09 68.60 67.37 68.60 3332 66.47 FRONT 346812.89 6382353.00 2100 69.49 67.49 68.39 69.62 70.38 FRONT 3334 70.51 68.38 69.28 2100 346827.73 6382350.81 70.51 -0.08 69.20 71.38 69.98 2400 FRONT 346844.05 -0.08 3335 71.51 69.08 6382348.39 71.51 69.90 69.07 -0.09 70.38 70.25 69.15 2100 FRONT BATTER 346825.49 3336 68.25 6382329.54 70.38 2100 67.05 REAR 346778.36 -0.08 3337 68.28 68.15 6382338.30 66.97 66.15 68.28 2100 FRONT 3338 66.80 66.67 64.67 65.57 346761.89 6382339.72 66.80 65.49 -0.08 3339 65.97 63.97 64.87 2100 FRONT 346747.05 6382341.91 64.79 -0.09 66.10 66.10 2100 FRONT 64.10 -0.09 65.28 64.18 346732.22 6382344.10 3340 65.41 63.28 65.41

FRONT

**FRONT** 

FRONT

FRONT

346718.56

346683.25

346685.97

346686.16

6382346.12

6382349.97

6382321.83

6382319.77

64.86

64.21

64.72

64.79

WASTEWATER COLLECTION TANK COUNT

63.63

62.98

63.49

63.56

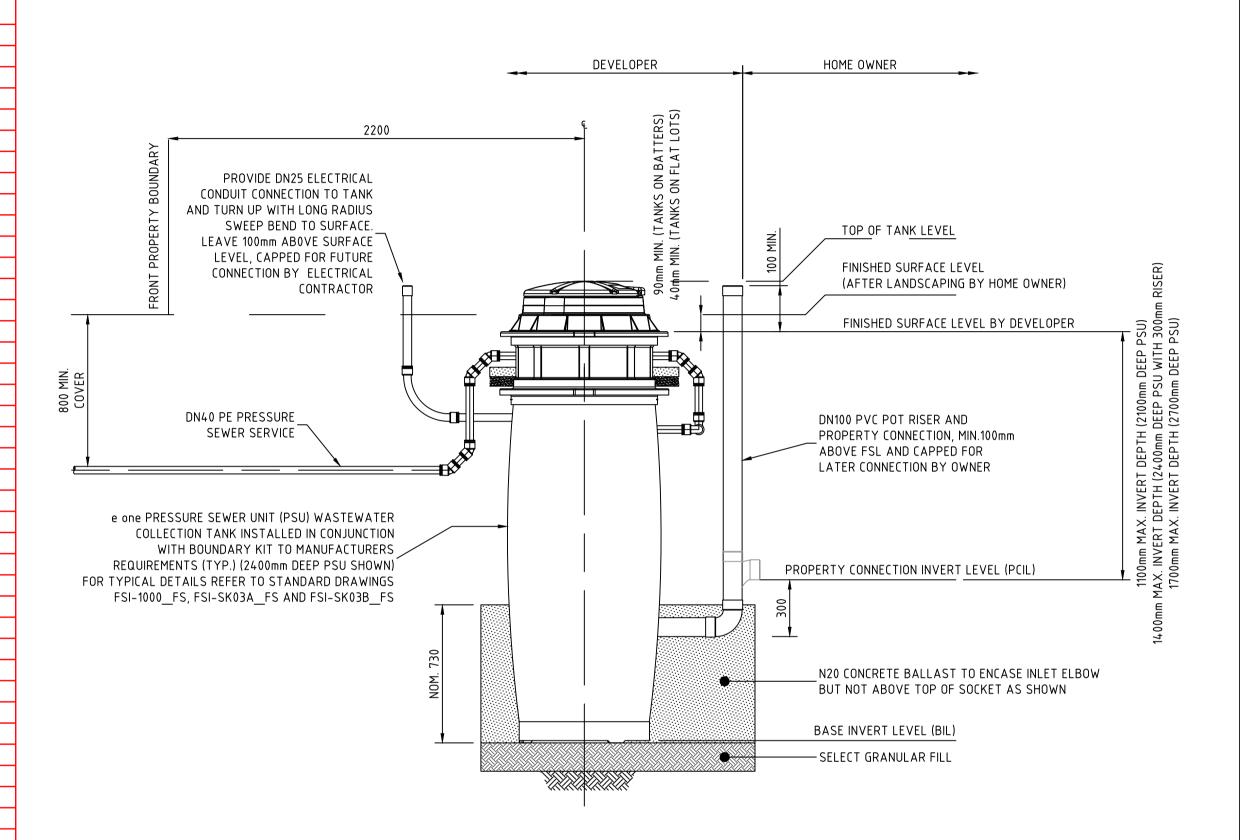
2100

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TANK SIZE NUMBER OF 2100 38 2400 2700



PRESSURE SEWER SERVICE CONNECTION TYPICAL SECTIONAL ELEVATION

DATE ...../...

# 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

REGISTERED SURVEYOR

Mand DATE 28/04/2023 SIGNED CONSTRUCTION MANAGER

# ORIGIN OF W.A.C. LEVELS

E: 345 612. 942 N: 6 382 878. 917

Co-Ord System: MGA Ground MGA Datum: GDA94 MGA Zone: 56 RL: 77.675m

# BY ADW Johnson Pty Ltd Date Approved:11/07/2022

2

CONSTRUCTION ISSUE

APPROVED FOR CONSTRUCTION

BEFORE YOU DIG

ALL DIMENSIONS ARE IN METRES U.N.O. DO NOT S DESIGN FILE N:\JOBNUMBER\Design\12D\ 





WORK AS CONSTRUCTED DESIGN FILE N:\JOBNUMBER\Design\12D\

DATE

15.06.2022

06.10.2022

AMENDMENT

02.03.2022 CLIENT COMMENTS

04.03.2022 FOR APPROVAL

INITIAL ISSUE

FOR APPROVAL

11.07.2022 ISSUED FOR CONSTRUCTION

ISSUED FOR CONSTRUCTION

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



## 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	TΑ	LENGTH	HEIGHT	WIDTH
		AHBP (kPa)	STP (kPa)		(m <sup>2</sup> )	(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	Ν	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

DRAWN CHECK DESIGN VERIFY SCALES

C.B.

C.B. C.B.

C.B.

N.C. **S.S.** 

G.S.

G.S. G.S.

G.S.

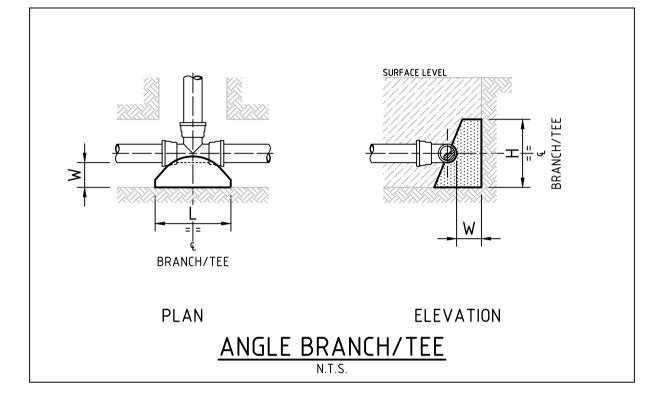
G.S. **I.B.** 

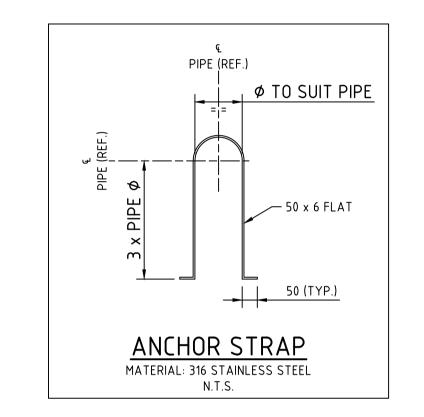
G.S. C.B. G.S. C.B. G.S. C.B.

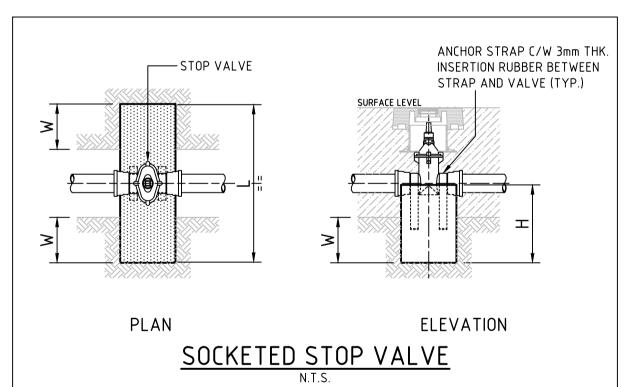
G.S. C.B.

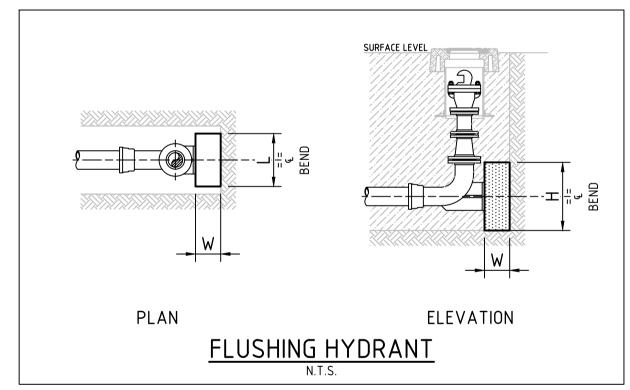
C.B. **C.B.** 

G.S. **G.S.** 









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MGA Zone: 56

COMPANY ADW Johnson Pty Ltd NAME MATHEW DAVID LONDON 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

Daly.Smith Pty Ltd

N: 6 382 878. 917

RL: 77.675m

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

404

# CONSTRUCTION ISSUE

DISCIPLINE

WAC

240037(33) -

	PROPERTY DESCRIPTION	PROJECT	POTABLE WATER, RECYCLED WATER AND
			PRESSURE SEWER RETICULATION
•	PROPOSED SUBDIVISION STAGE 33 HUNTLEE	PLAN TITLE	THRUST BLOCK DETAILS

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

CLIENT Unit 7/335 Hillsborough Rd Warners Bay N.S.W. 2282 Phone: (02) 4978 5100

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