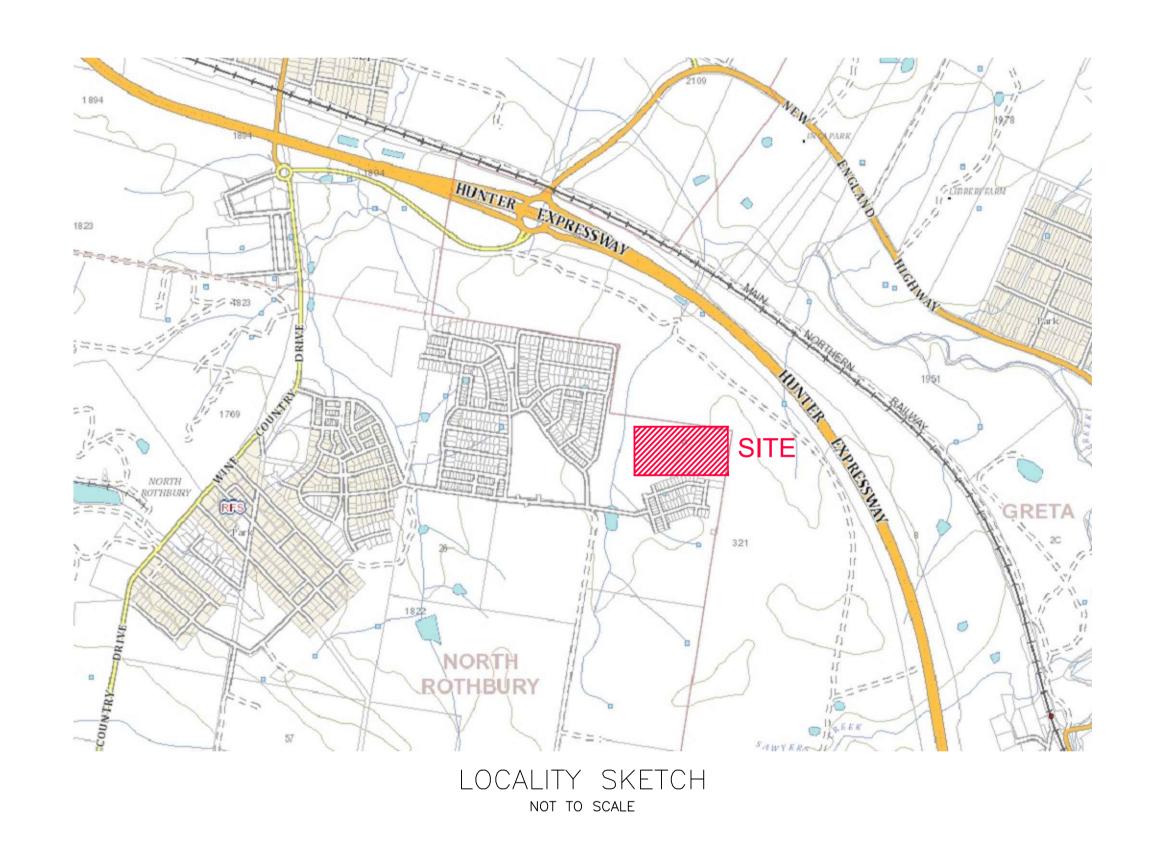


PROPOSED SUBDIVISION STAGE 19a RIGBY DRIVE, HUNTLEE



	DRAWING INDEX
DRAWING NUMBER	DRAWING TITLE
240037(19a)-WAT-001	COVER SHEET, LOCALITY PLAN AND DRAWING INDEX
240037(19a)-WAT-002	GENERAL NOTES
40037(19a)-WAT-003	OVERALL SITE PLAN
40037(19a)-WAT-004	POTABLE WATER DETAIL PLAN - SHEET 1
40037(19a)-WAT-005	POTABLE WATER DETAIL PLAN - SHEET 2
240037(19a)-WAT-006	POTABLE WATER DETAIL PLAN - SHEET 3
40037(19a)-WAT-007	NOT USED
40037(19a)-WAT-008	RECYCLED WATER DETAIL PLAN - SHEET 1
40037(19a)-WAT-009	RECYCLED WATER DETAIL PLAN - SHEET 2
40037(19a)-WAT-010	RECYCLED WATER DETAIL PLAN - SHEET 3
40037(19a)-WAT-011	NOT USED
40037(19a)-WAT-012	PRESSURE SEWER DETAIL PLAN - SHEET 1
40037(19a)-WAT-013	PRESSURE SEWER DETAIL PLAN - SHEET 2
40037(19a)-WAT-014	PRESSURE SEWER DETAIL PLAN - SHEET 3
40037(19a)-WAT-015	PRESSURE SEWER FLOW REDIRECTION DETAIL
40037(19a)-WAT-016	TYPICAL PIPEWORK TRENCHING DETAILS
40037(19a)-WAT-017	NOT USED
40037(19a)-WAT-018	TYPICAL SERVICE CONNECTION DETAILS
40037(19a)-WAT-019	WASTEWATER COLLECTION TANK LEVEL DETAILS
40037(19a)-WAT-020	THRUST BLOCK DETAILS

ORIGIN OF W.A.C. LEVELS

PM 20029
E: 345 613. 420
N: 6 382 880. 288
RL: 77.675m

Co-Ord System: MGA Ground
MGA Datum: GDA2020
MGA Zone: 56

APPROVED FOR CONSTRUCTION
BY ADW Johnson Pty Ltd

Date Approved:03/07/2020

CONSTRUCTION ISSUE

DRAWN CHECK DESIGN VERIFY SCALES AMENDMENT POTABLE WATER, RECYCLED WATER AND DATE PROPERTY DESCRIPTION **Hunter Office** J.N. C.B. J.N. C.B. J.N. C.B. J.N. C.B. J.N. C.B. J.N. C.B. RJC ML C.B. C.B. C.B. C.B. C.B. ML PRESSURE SEWER RETICULATION PRELIMINARY ISSUE J.N. J.N. J.N. J.N. J.N. Unit 7/335 Hillsborough Rd AMENDED ISSUE - CLIENT COMMENTS PROPOSED SUBDIVISION PLAN TITLE AMENDED ISSUE - CLIENT COMMENTS Warners Bay N.S.W. 2282 STAGE 19a CONSTRUCTION ISSUE
AMENDED CONSTRUCTION ISSUE 24.06.2020 COVER SHEET, LOCALITY PLAN Phone: (02) 4978 5100 MORAN PARKWAY, Fax: (02) 4978 5199 AND DRAWING INDEX AMENDED CONSTRUCTION ISSUE 28.08.2020 HUNTLEE 01.12.2020 WORK AS CONSTRUCTED email: hunter@adwjohnson.com.au www.adwjohnson.com.au SURVEYED johnson ABN 62 129 445 398 240037(19a) - WAT -001 3 ADW Johnson A.H.D. DESIGN FILE N: \ ALL DIMENSIONS ARE IN METRES. DO NOT SCAL

PRESSURE SEWER NOTES

- 1. ALL WORKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DESIGN DRAWINGS, FLOW SYSTEMS SUPPLEMENTARY MANUAL TO WSAA, PRESSURE SEWERAGE CODE OF AUSTRALIA - WSA 07-2007 VERSION 1.1 AND POLYETHYLENE PIPELINE CODE WSA 01-2004.
- ALL EQUIPMENT, MATERIALS AND ACCESSORIES USED IN THIS CONTRACT SHALL BE NEW AND SHALL COMPLY WITH FLOW SYSTEMS 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.

PRESSURE SEWER MAINS SHALL BE BLACK POLYETHYLENE (PE100 PN16) WITH A CREAM STRIPE AS PER WSA 02-2007 AND FLOW SYSTEMS

- 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.
- 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 HUNTLEE WATER REPRESENTATIVE).
- ALL PIPE BEDDING MATERIAL SHALL COMPLY WITH WSAA PRODUCT SPECIFICATION WSA-PS350 AND WSA-PS351.
- 10. ALL BENDS SHALL BE ELECTROFUSION OR BUTT WELD SWEEP BENDS. FABRICATED BENDS SHALL NOT BE USED IN LIEU. KNUCKLE ELBOWS ARE NOT PERMITTED.
- 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).

CLEARANCE TABLE ADJACENT.

- 13. FLUSHING PITS SHALL CONFORM WITH FLOW SYSTEMS STANDARD DRAWINGS. REFER TO FLOW SYSTEMS WEBSITE FOR CURRENT VERSION.
- SMALL MAINS (≤ DN110) <u>http://flowsystems.com.au/governance/Land Housing/PSS-1017A-FS.pdf</u>
- LARGE MAINS (> DN110)
- http://flowsystems.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 FLOW SYSTEMS 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 FLOW SYSTEMS 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 HUNTLEE WATER 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 HUNTLEE 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:
 - 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 FLOW SYSTEMS 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 HUNTLEE WATER 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 FLOW SYSTEMS REQUIREMENTS.
- 32. WORK-AS-CONSTRUCTED DOCUMENTATION SHALL BE PROVIDED BY THE CONTRACTOR STRICTLY IN ACCORDANCE WITH THE FLOW SYSTEMS Q.A. SUBMISSION CHECKLIST.

POTABLE WATER AND RECYCLED WATER NOTES:

- 1. ALL WORKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DESIGN DRAWINGS, FLOW SYSTEMS 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 FLOW SYSTEMS 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
 - 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.
- 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 HUNTLEE WATER 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 FLOW SYSTEMS REQUIREMENTS. REFER TO FLOW SYSTEMS WEBSITE FOR CURRENT VERSION.
- SINGLE SERVICE: http://flowsystems.com.au/governance/Land Housing/WAT-1854-FS.pdf http://flowsystems.com.au/governance/Land_Housing/WAT-1855B-FS.pdf
- 16. PROPERTY SERVICE CONNECTION IS SHALL BE FLUSHED AND LOCKED (BY THE HUNTLEE WATER REPRESENTATIVE) FOLLOWING SUCCESSFUL PRESSURE
- 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).
- 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 HUNTLEE WATER 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 HUNTLEE WATER REPRESENTATIVE. THE CONTRACTOR SHALL PROVIDE M.G.A. COORDINATED WORK-AS-CONSTRUCTED INFORMATION REGARDING THE INSTALLATION OF ALL BURIED
- **TRAFFICABLE** PIPE EMBEDMENT ZONE: NIL TRENCH FILL ZONE: 1 TEST/300mm LAYER OF FILL AT EACH ROAD CROSSING.

25. MINIMUM NUMBER OF COMPACTION TESTS REQUIRED TO SATISFY WSA03-2011 (SYDNEY WATER EDITION 2014) (CLAUSE 19.3.5) :

- 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 HUNTLEE WATER REQUIREMENTS.
- 27. PRESSURE TRANSMITTER TO BE MEASUREX MRB21 GENERAL PURPOSE TRANSMITTER WITH MICROSPIDER LOGGING TELEMETRY AND ALARM PER FLOW SYSTEMS REQUIREMENTS.
- 28. WORK-AS-CONSTRUCTED DOCUMENTATION SHALL BE PROVIDED BY THE CONTRACTOR STRICTLY IN ACCORDANCE WITH THE FLOW SYSTEMS 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 WHERE PIPE GRADES EXCEED 15%, CONCRETE BULKHEADS WILL BE CONSTRUCTED AT SPACING AS PER TABLE 7.5 OF WSA03-2001 SYDNEY WATER
- FLOW SYSTEMS STANDARD DRAWINGS CAN BE FOUND AT THE FOLLOWING ADDRESS:

http://askus.flowsystems.com.au/hc/en-us/articles/21065383--Standard-Drawings

EDITION 2014.

GENERAL NOTES:

- 1. THIS DRAWING SET SHALL BE READ IN CONJUNCTION WITH CESSNOCK CITY COUNCIL STANDARDS, FLOW SYSTEMS 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.



CLEARNCES BETWEEN PIPELINES AND UNDERGROUND SERVICES

UTILITY		ORIZONTAL NCE (mm)	MINIMUM VERTICAL	
(EXISTING OR PROPOSED SERVICE)	NEW MA	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	600 ⁵	150 (WHERE POSSIBLE)	

- 1. VERTICAL CLEARANCES APPLY WHERE PIPELINES CROSS OTHER UTILITY SERVICES, EXCEPT IN THE CASE OF WATER/SEWER MAINS WHEN A VERTICAL SEPARATION SHALL ALWAYS BE MAINTAINED, EVEN WHEN THE PRESSURE SEWER AND WATER MAIN ARE PARALLEL. THE PRESSURE SEWER SHOULD ALWAYS BE LOCATED BELOW THE WATER MAIN TO MINIMISE THE POSSIBILITY OF BACKFLOW CONTAMINATION IN THE EVENT
- 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
- 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.
- 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 THI 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

WORK AS CONSTRUCTED

THESE DRAWINGS ARE AN ACCURATE REPRESENTATION AS AT 26/11/2020 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 COMPANY ADWJohnson Pty Ltd NAME MATHEW DAVID LONDON

NAME Man DATE 02/12/2020 SIGNED CONSTRUCTION MANAGER REGISTERED SURVEYOR

ORIGIN OF W.A.C. LEVELS

Co-Ord System: MGA Ground 345 613. 420 MGA Datum: GDA2020 N: 6 382 880. 288 MGA Zone: 56 77.675m

> APPROVED FOR CONSTRUCTION BY ADW Johnson Pty Ltd

> > Date Approved:03/07/2020

CONSTRUCTION ISSUE

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

_][REV. DATE	AMENDMENT	DRAWN CHECK DESIGN VERIF	Y SCALES			CLIENT	PROPERTY DESCRIPTION		PROJECT POTABLE WA	ATER, RECYCLED WA	TER AND	
		PRELIMINARY ISSUE	J.N. C.B. J.N. C.B.			Hunter Office		PDODOGED	OUDDIN/IOLON	PRESSU	JRE SEWER RETICULA	ATION	
		AMENDED ISSUE — CLIENT COMMENTS AMENDED ISSUE — CLIENT COMMENTS	J.N. C.B. J.N. C.B. J.N. C.B. J.N. C.B.			Unit 7/335 Hillsborough Rd Warners Bay N.S.W. 2282			SUBDIVISION	PLAN TITLE			
	0 24.06.2020 1 16.07.2020	CONSTRUCTION ISSUE AMENDED CONSTRUCTION ISSUE	J.N. C.B. J.N. C.B. J.N. C.B. J.N. C.B.			Phone: (02) 4978 5100	Huntlee 🔂 Water		GE 19a PARKWAY,		GENERAL NOTES		
	2 28.08.2020	AMENDED CONSTRUCTION ISSUE	J.N. C.B. J.N. C.B.		aawi	Fax: (02) 4978 5199	riundee water		NTLEE		GLNLRAL NOTES		
\exists	3 01.12.2020	WORK AS CONSTRUCTED	RJC ML - ML			email:hunter@adwjohnson.com.au www.adwjohnson.com.au							
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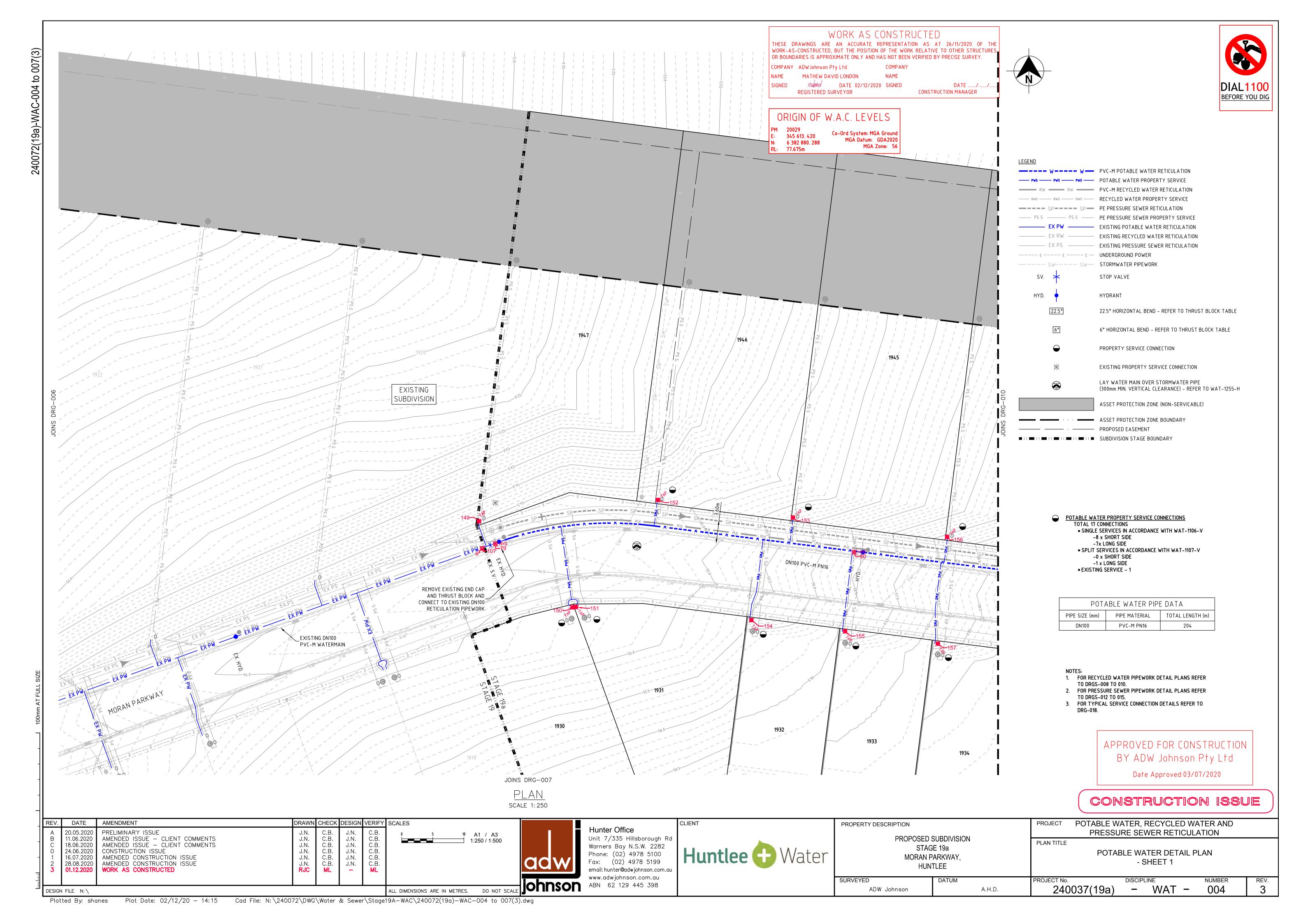
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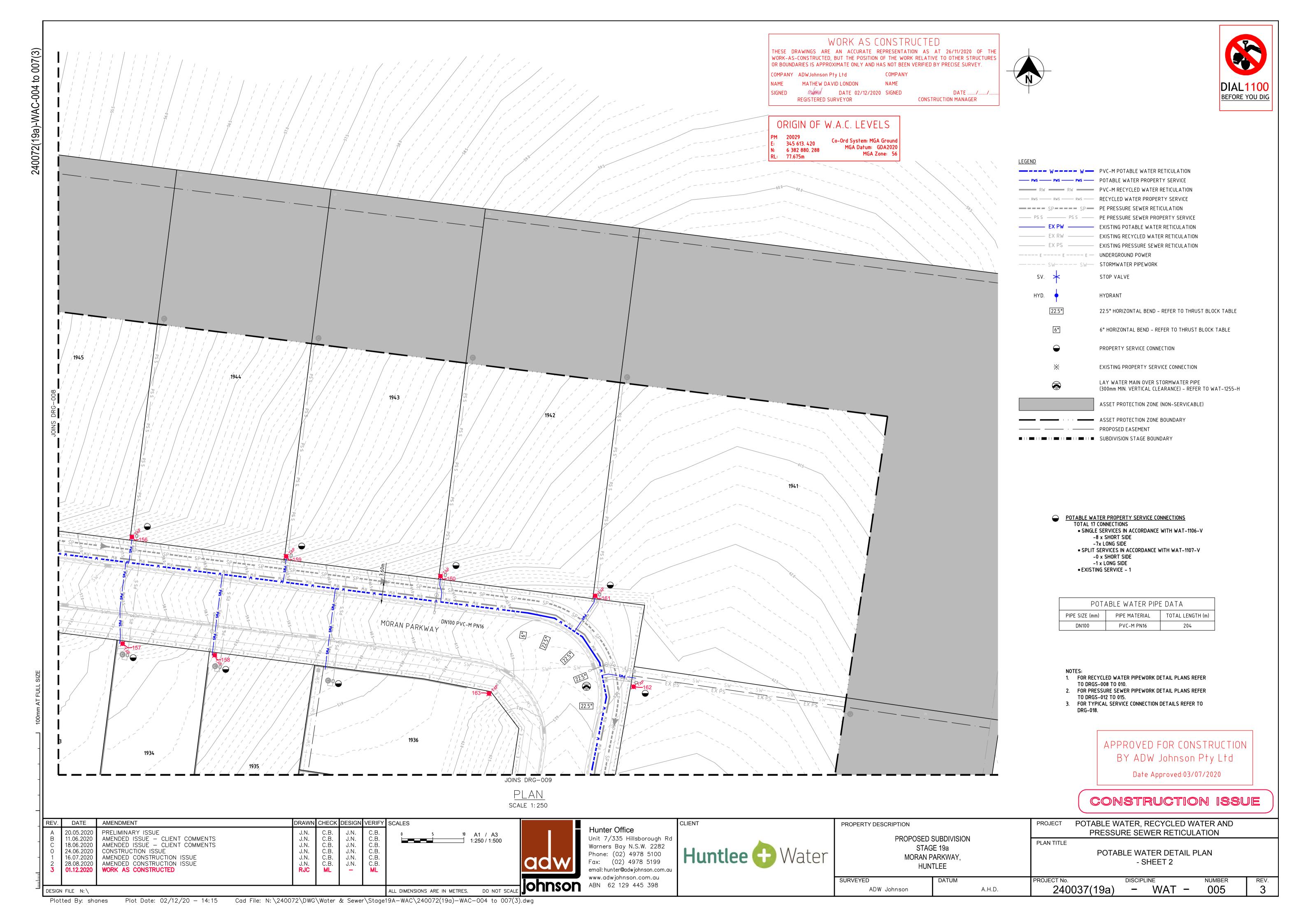
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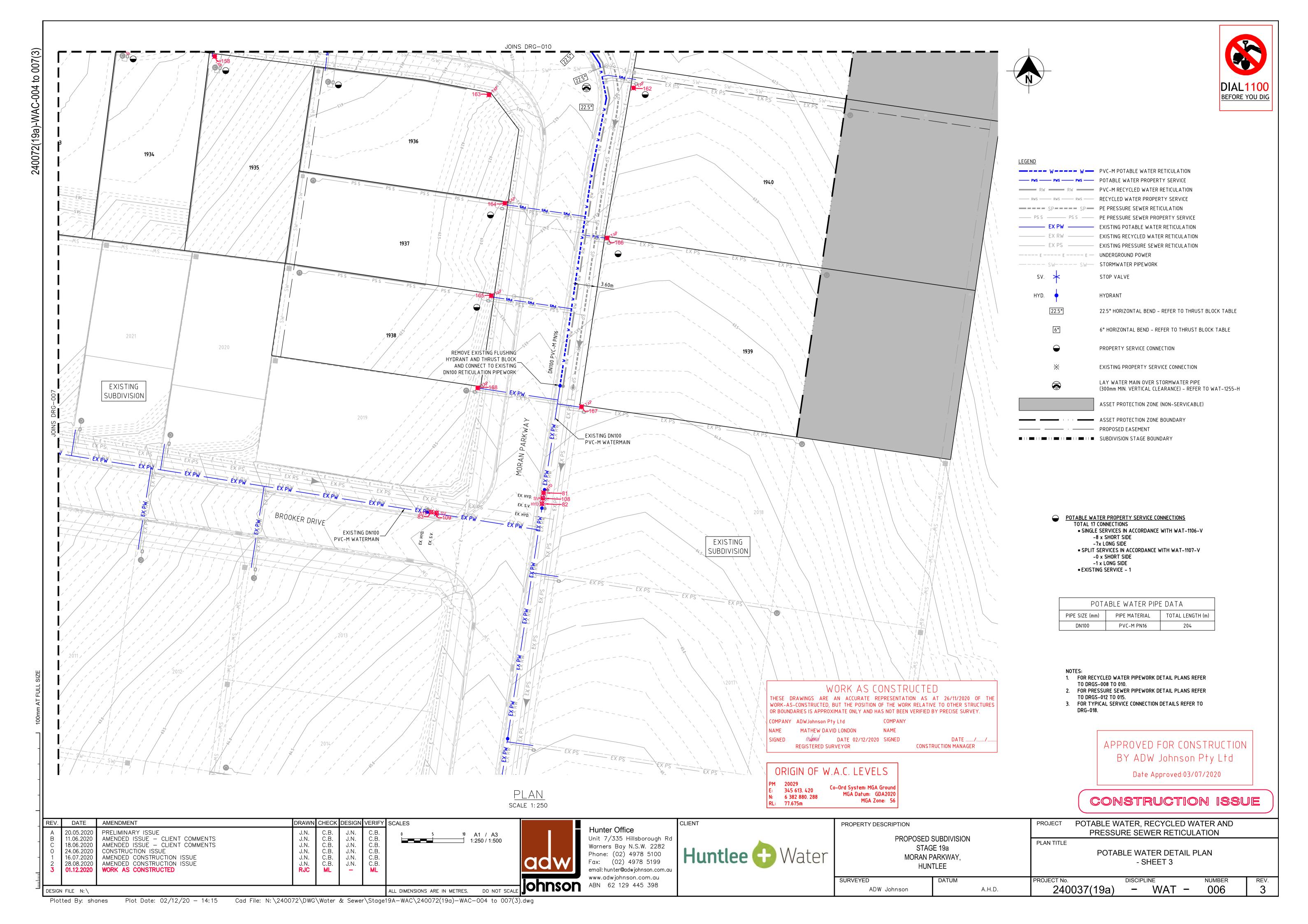
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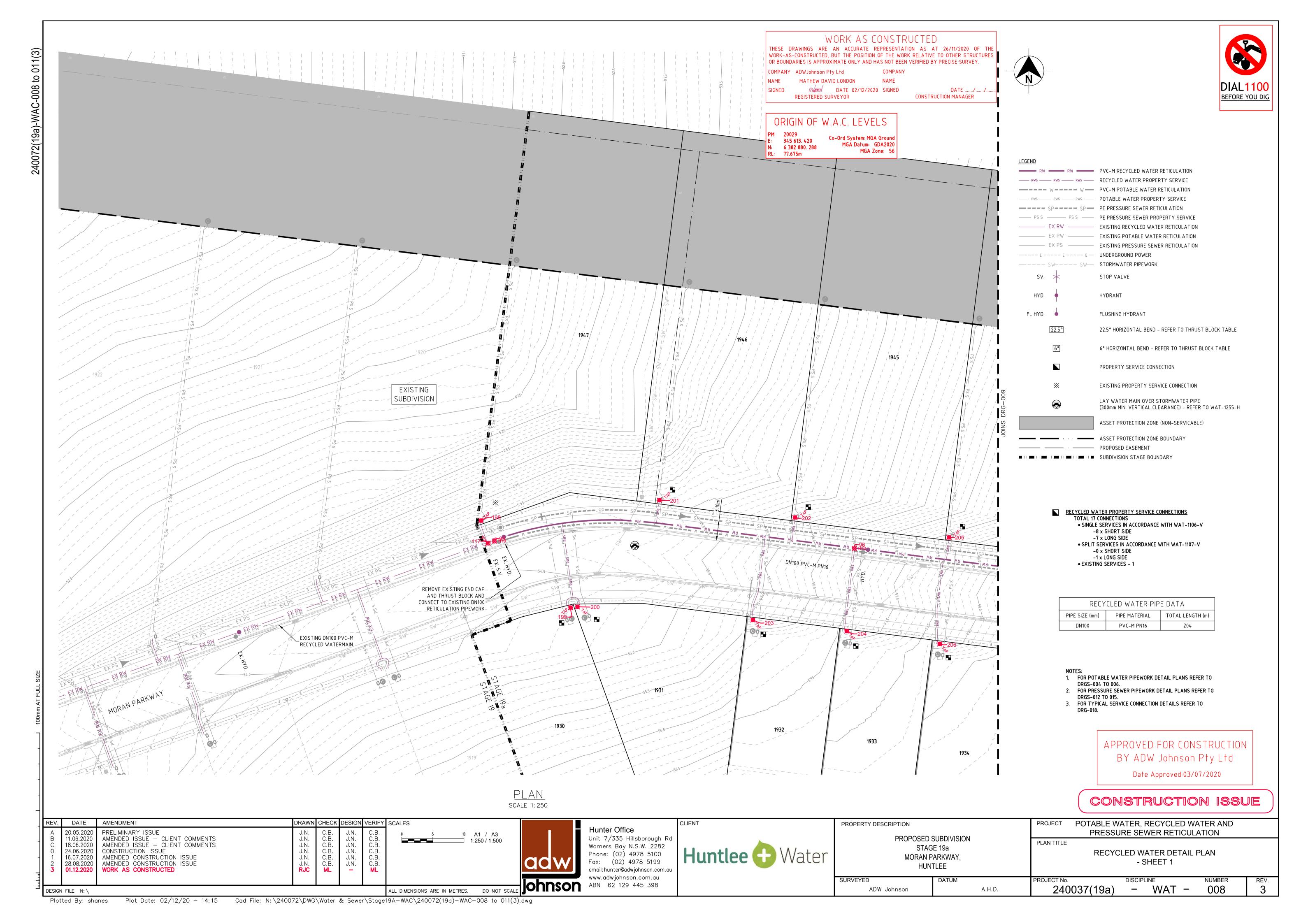
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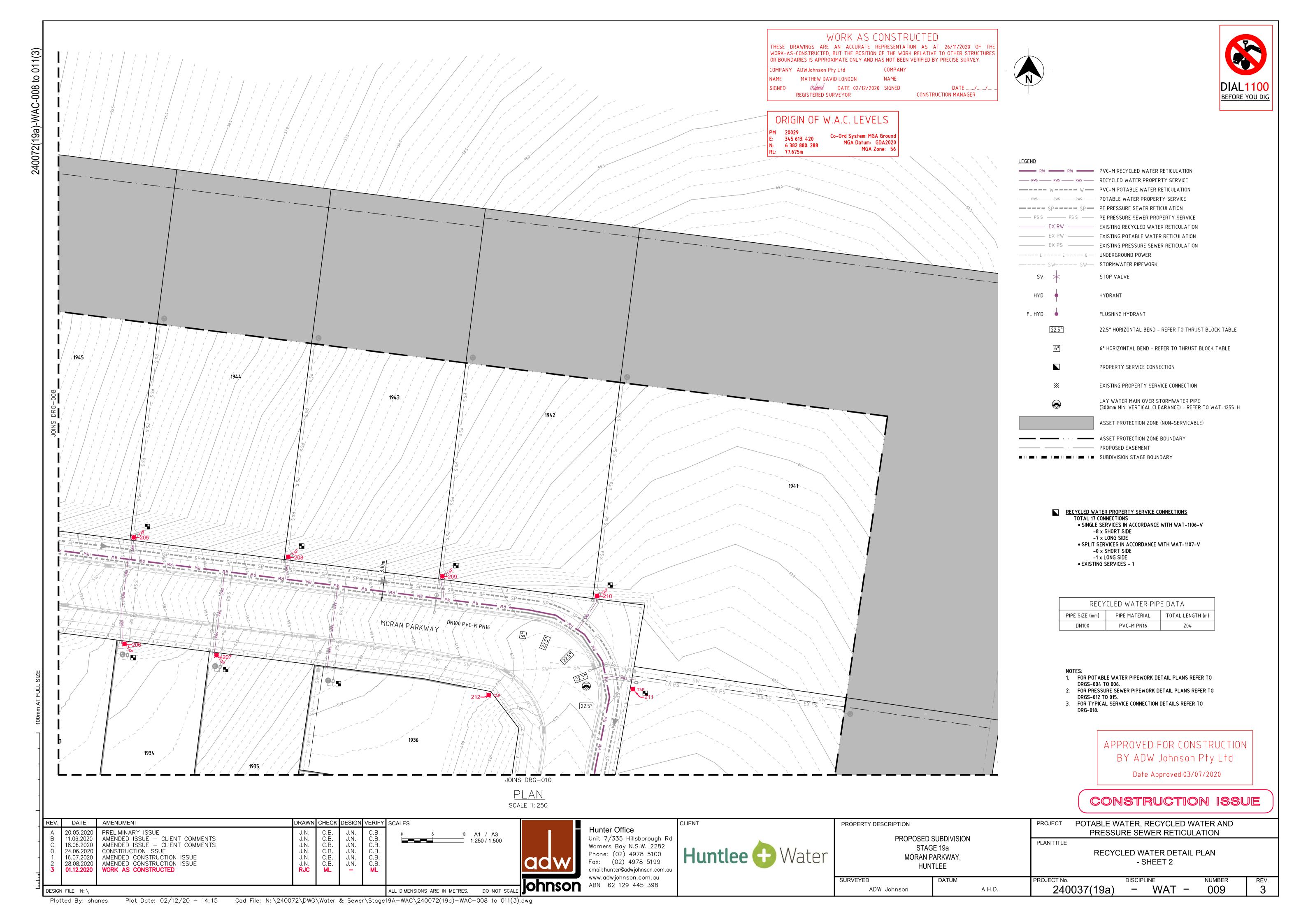
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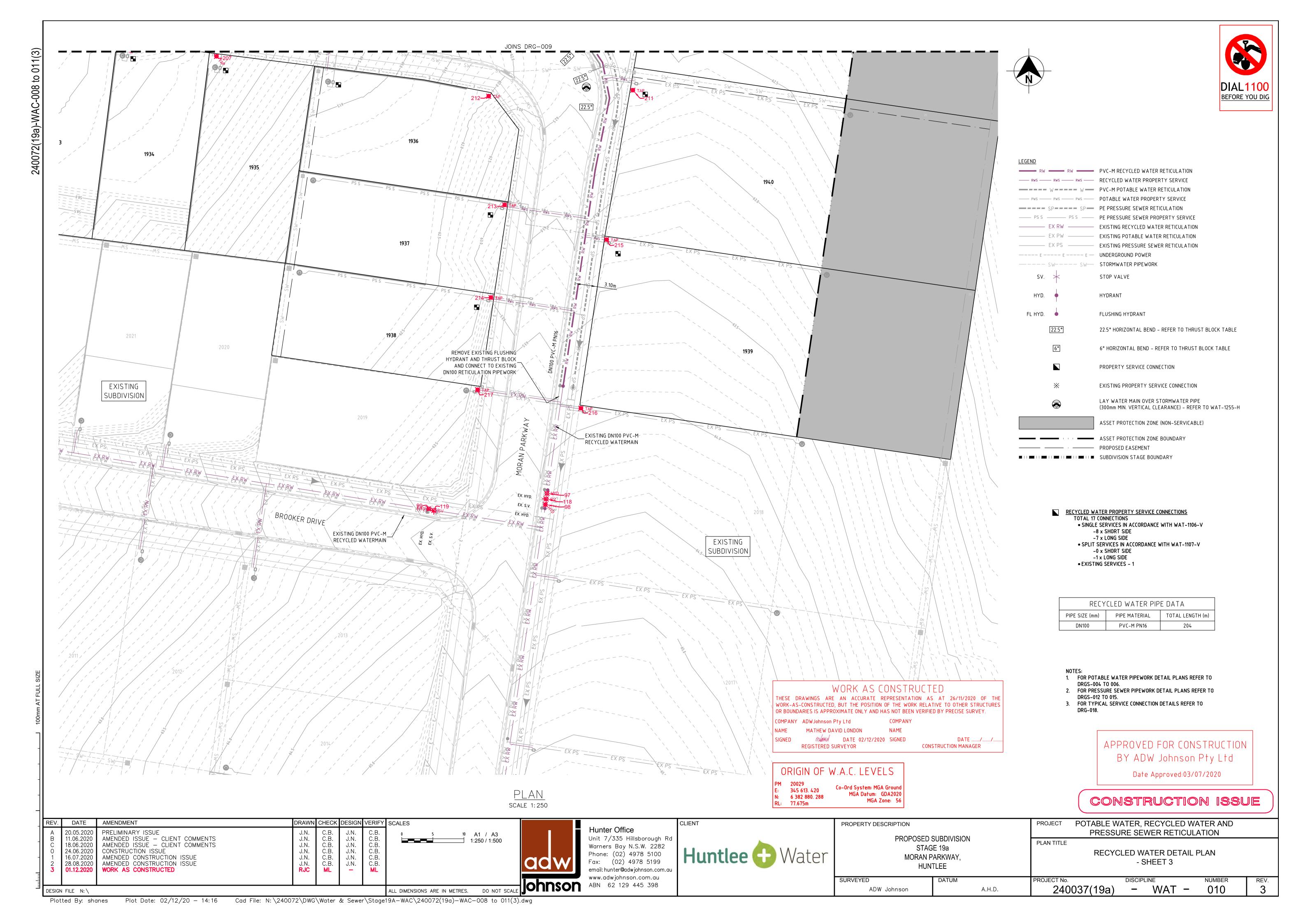


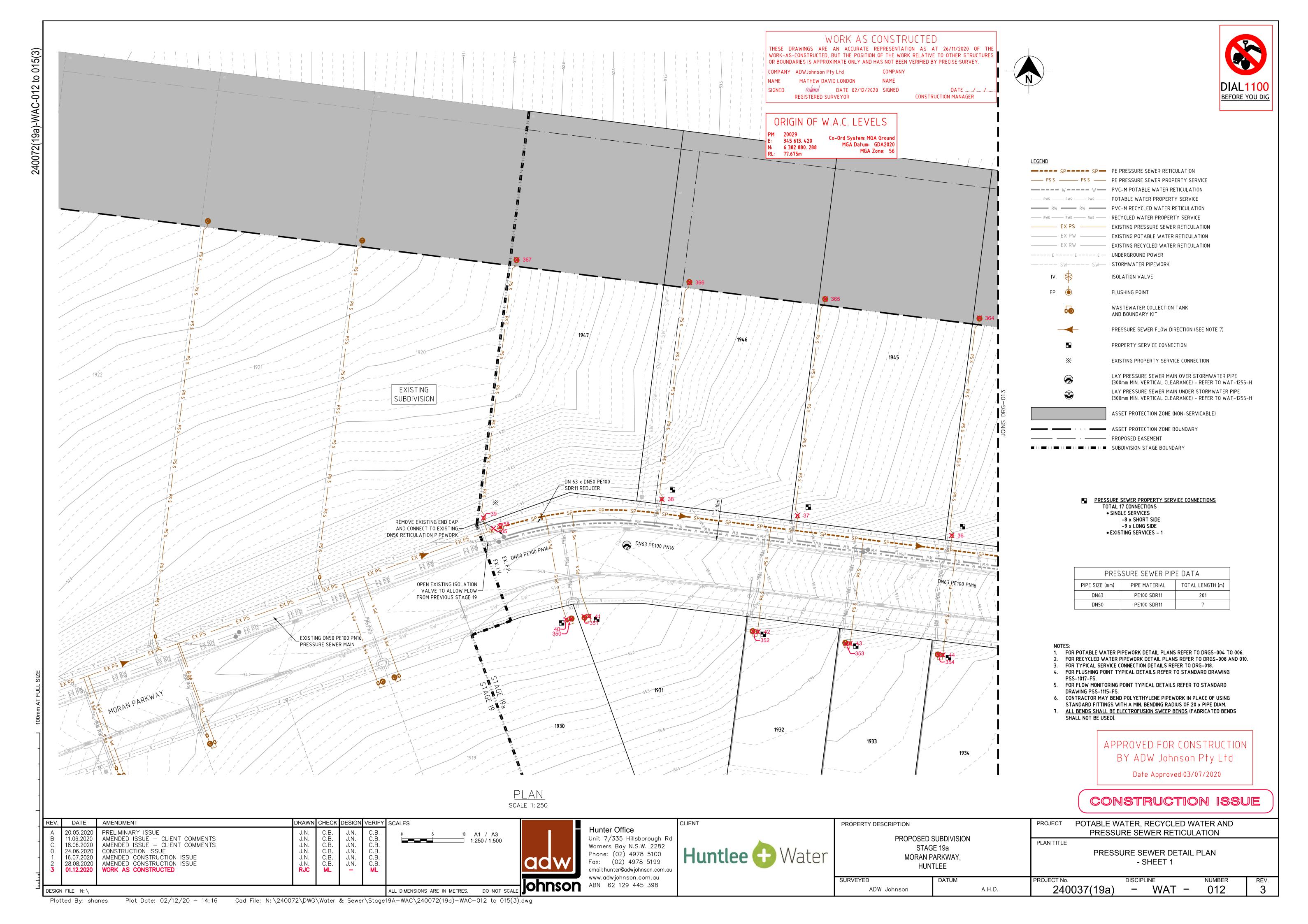


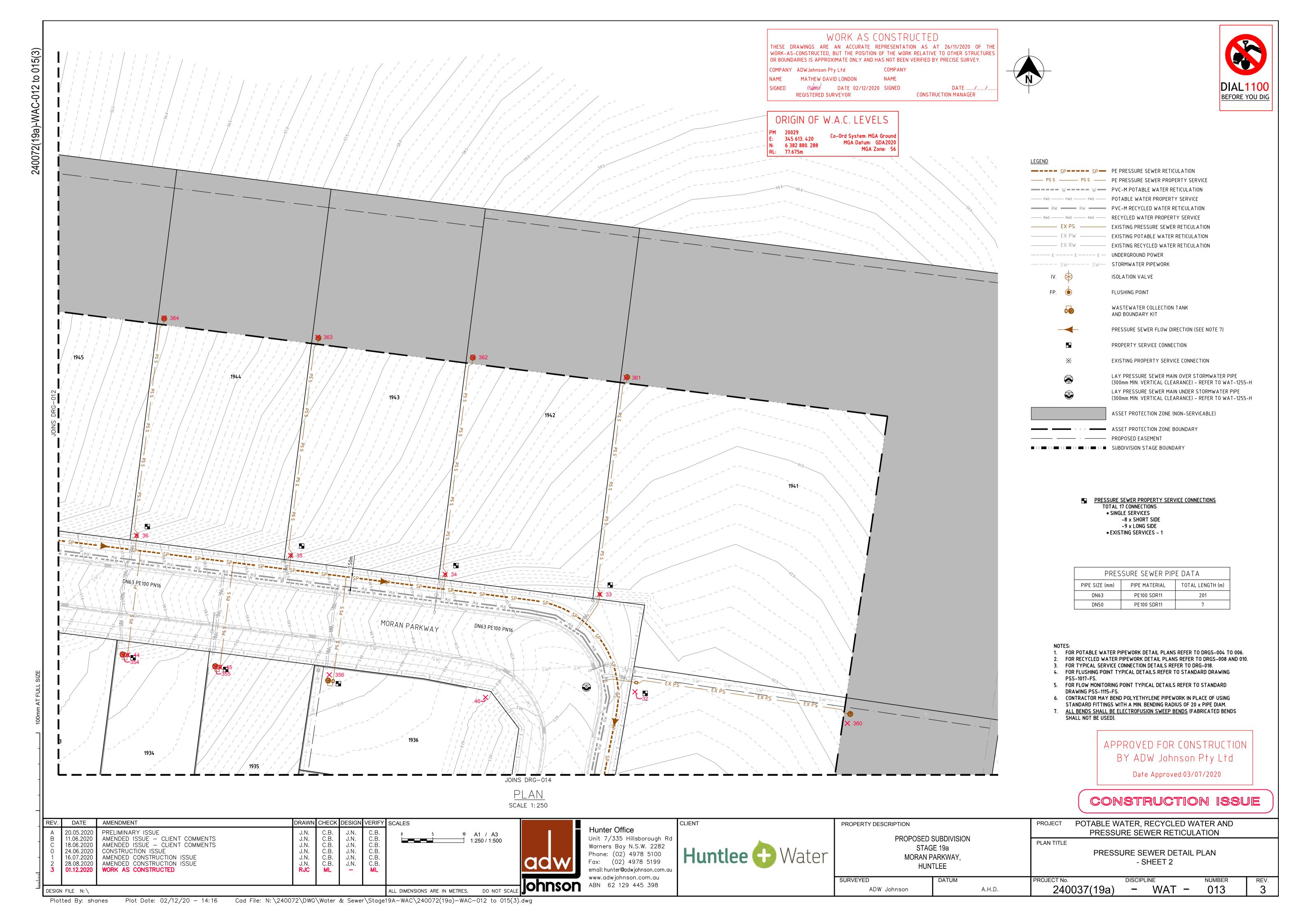


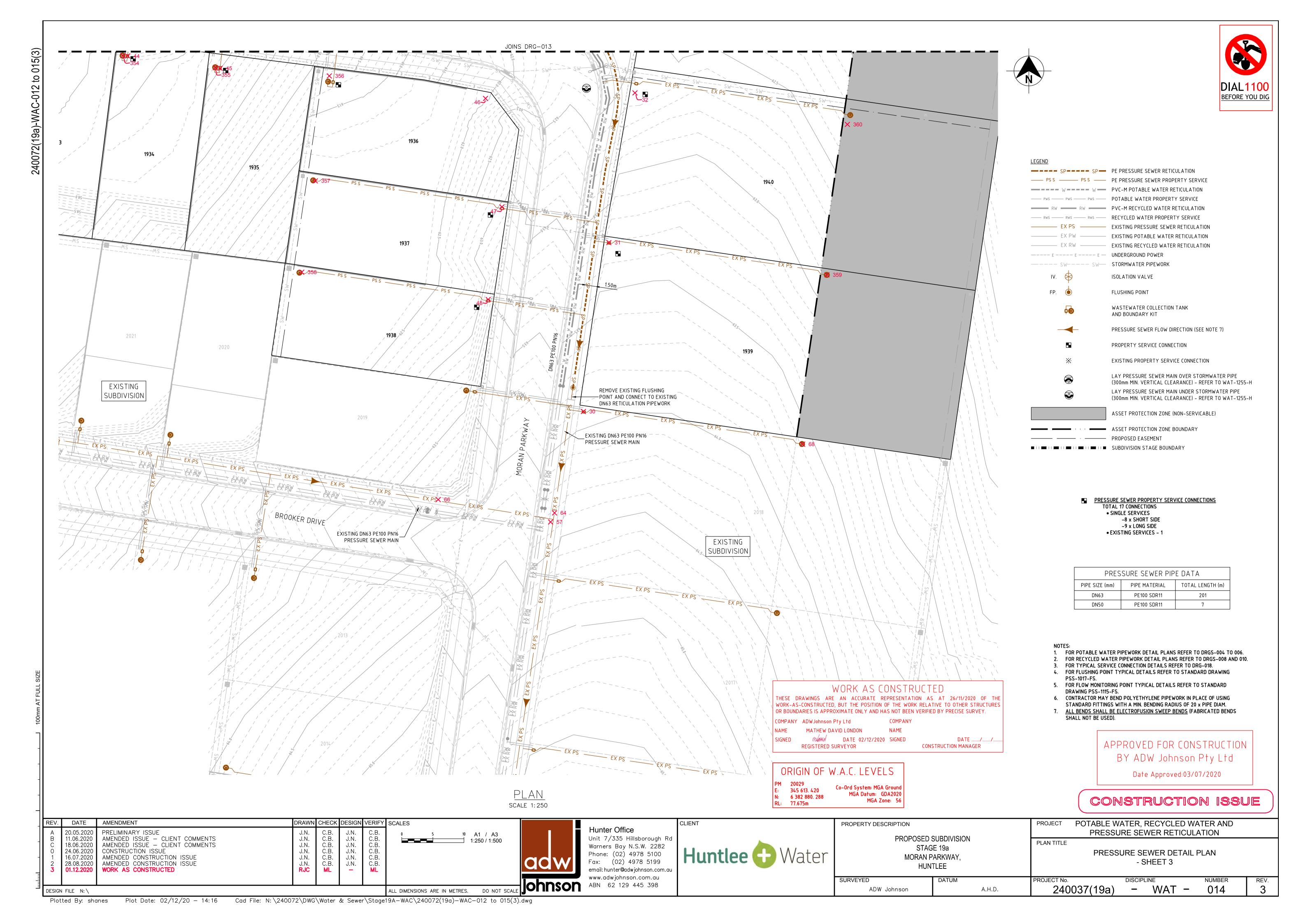






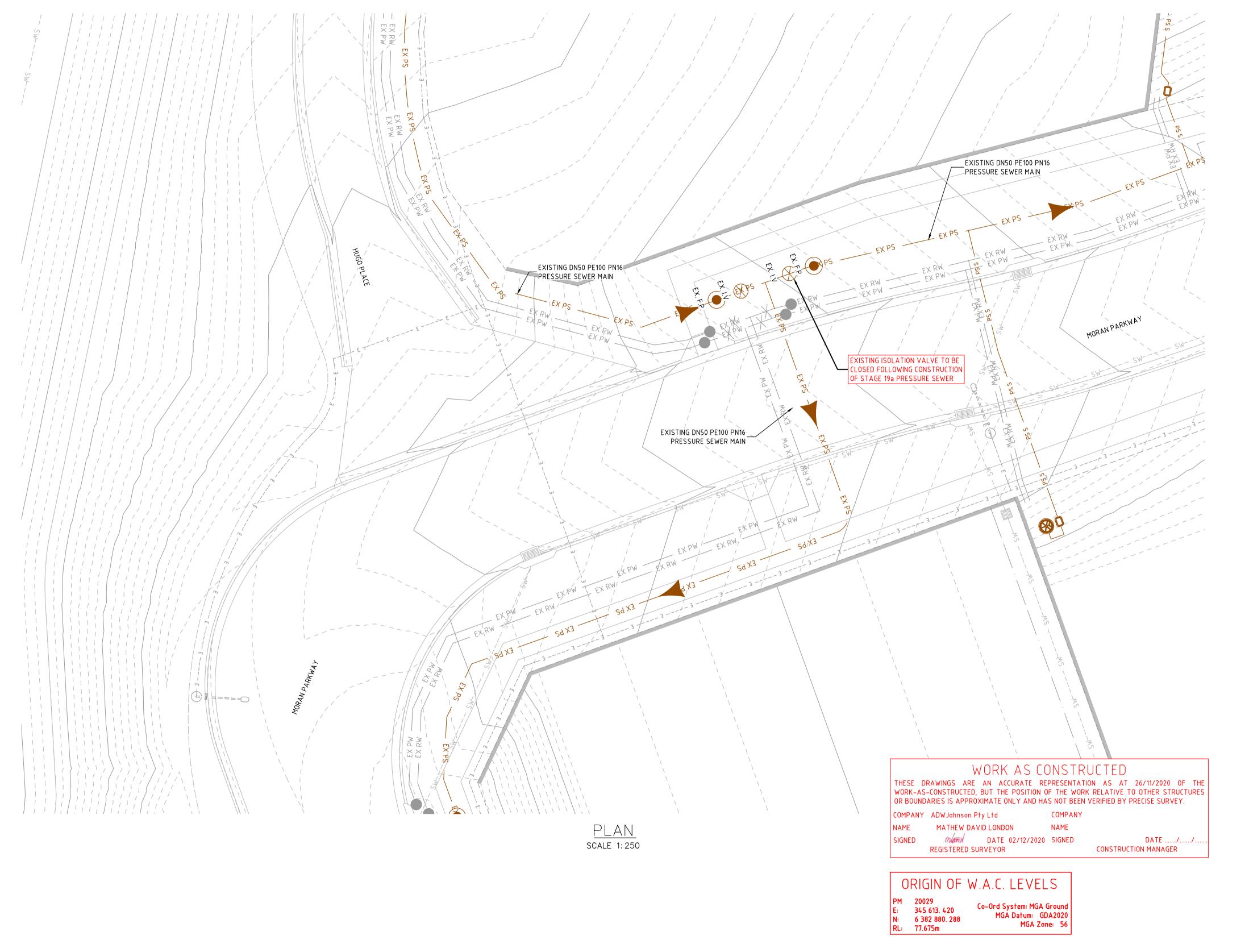












<u>LEGEND</u> PE PRESSURE SEWER RETICULATION PS S PE PRESSURE SEWER PROPERTY SERVICE PVC-M POTABLE WATER RETICULATION ---- PWS ----- PWS ----- POTABLE WATER PROPERTY SERVICE RW PVC-M RECYCLED WATER RETICULATION — EX PS — EXISTING PRESSURE SEWER RETICULATION EXISTING POTABLE WATER RETICULATION EX RW EXISTING RECYCLED WATER RETICULATION ---- E ---- E ---- E - UNDERGROUND POWER ----- SW----- SW-- STORMWATER PIPEWORK ISOLATION VALVE FP. FLUSHING POINT WASTEWATER COLLECTION TANK AND BOUNDARY KIT PRESSURE SEWER FLOW DIRECTION (SEE NOTE 7) PROPERTY SERVICE CONNECTION EXISTING PROPERTY SERVICE CONNECTION LAY PRESSURE SEWER MAIN OVER STORMWATER PIPE (300mm MIN. VERTICAL CLEARANCE) - REFER TO WAT-1255-H LAY PRESSURE SEWER MAIN UNDER STORMWATER PIPE (300mm MIN. VERTICAL CLEARANCE) - REFER TO WAT-1255-H ASSET PROTECTION ZONE (NON-SERVICABLE) ASSET PROTECTION ZONE BOUNDARY ----- PROPOSED EASEMENT ■ | | ■ | | ■ SUBDIVISION STAGE BOUNDARY

> PRESSURE SEWER PROPERTY SERVICE CONNECTIONS TOTAL 17 CONNECTIONS SINGLE SERVICES -8 x SHORT SIDE -9 x LONG SIDE EXISTING SERVICES – 1

PRESSURE SEWER PIPE DATA								
PIPE SIZE (mm)	PIPE MATERIAL	TOTAL LENGTH (m)						
DN63	PE100 SDR11	201						
DN50	PE100 SDR11	7						

- 1. FOR POTABLE WATER PIPEWORK DETAIL PLANS REFER TO DRGS-004 TO 006. 2. FOR RECYCLED WATER PIPEWORK DETAIL PLANS REFER TO DRGS-008 AND 010.
- 3. FOR TYPICAL SERVICE CONNECTION DETAILS REFER TO DRG-018.
- 4. FOR FLUSHING POINT TYPICAL DETAILS REFER TO STANDARD DRAWING PSS-1017-FS.
- 5. FOR FLOW MONITORING POINT TYPICAL DETAILS REFER TO STANDARD
- DRAWING PSS-1115-FS. CONTRACTOR MAY BEND POLYETHYLENE PIPEWORK IN PLACE OF USING STANDARD FITTINGS WITH A MIN. BENDING RADIUS OF 20 x PIPE DIAM.
- ALL BENDS SHALL BE ELECTROFUSION SWEEP BENDS (FABRICATED BENDS SHALL NOT BE USED).

APPROVED FOR CONSTRUCTION BY ADW Johnson Pty Ltd

Date Approved:03/07/2020

CONSTRUCTION ISSUE

٦I														
4	REV. DA	AMENDMEN		WN CHECK DESIGN VERIFY	SCALES	_	Hunter Office	CLIENT	PROPERTY DESCRIPTION			WATER, RECYCLED WA		
	B 11.06.	0.2020 PRELIMINAF	ARY ISSUE J.I ISSUE — CLIENT COMMENTS J.I		0 25 5 A1 / A3		Unit 7/335 Hillsborough Rd		PROPOSED SUBDIVISION STAGE 19a MORAN PARKWAY, PRESSURE SEWER RETICULATION PLAN TITLE PRESSURE SEWER FLOW PRESSURE SEWER FLOW PRESSURE SEWER FLOW PRESSURE SEWER FLOW		ATION			
- 11	C 18.06.	.2020 AMENDED I	ISSUE — CLIENT COMMENTS J.I	N. C.B. J.N. C.B.	1:125 / 1:250		Warners Bay N.S.W. 2282							
_∐	0 24.06. 1 16.07.		CTION ISSUE J.I CONSTRUCTION ISSUE J.I				Phone: (02) 4978 5100	Huntlee 🔂 Water						
	2 28.08	.2020 AMENDED	CONSTRUCTION ISSUE J.I	N. C.B. J.N. C.B.		Iddwi	Fax: (02) 4978 5199	nundee Water		ITLEE	REDIRECTION DETAIL			
- ₌	3 01.12.	.2020 WORK AS	S CONSTRUCTED R.	IC ML - ML		GIGITY	email: hunter@adwjohnson.com.au		1101					
- 4						laboran	www.adwjohnson.com.au		SURVEYED	DATUM	PROJECT No.	DISCIPLINE	NUMBER	REV.
3	DESIGN FILE	N: \			ALL DIMENSIONS ARE IN METRES. DO NOT SCALE		ABN 62 129 445 398		ADW Johnson	A.H.D.	240037(19a)	- WAT -	015	3
	Plotted By: shanes Plot Date: 02/12/20 - 14:16 Cad File: N:\240072\DWG\Water & Sewer\Stage19A-WAC\240072(19a)-WAC-012 to 015(3).dwg													





Point Table									
Point #	Eastings	Northings	Levels	Codes					
30	347125.18	6383332.41	64.00	BDY KIT					
31	347129.28	6383359.55	63.19	BDY KIT					
32	347133.48	6383383.61	62.59	BDY KIT					
33	347127.84	6383399.27	62.33	BDY KIT					
34	347102.96	6383402.48	61.22	BDY KIT					
35	347078.12	6383405.52	59.49	BDY KIT					
36	347053.34	6383408.74	57.61	BDY KIT					
37	347028.55	6383411.94	55.82	BDY KIT					
38	347006.76	6383414.56	54.86	BDY KIT					
39	346978.08	6383411.56	54.52	BDY KIT					
40	346991.35	6383395.24	54.71	BDY KIT					
41	346995.02	6383395.74	54.70	BDY KIT					
42	347022.22	6383393.26	55.97	BDY KIT					
43	347037.00	6383391.38	57.07	BDY KIT					
44	347051.93	6383389.55	58.05	BDY KIT					
45	347066.80	6383387.57	58.87	BDY KIT					
46	347109.45	6383382.72	62.10	BDY KIT					
47	347112.09	6383365.29	63.08	BDY KIT					
48	347109.87	6383350.41	63.37	BDY KIT					
57	347119.91	6383314.66	64.35	FP					
58	346980.75	6383410.16	54.61	FP					
64	347120.55	6383316.12	64.38	SV					
65	346979.69	6383409.89	54.59	SV					
66	347101.85	6383318.25	64.16	SV					
68	347160.43	6383327.16	63.97	TANK					

	P	oint Table		
Point #	Eastings	Northings	Levels	Codes
79	346979.99	6383407.40	54.50	HYD
80	347037.66	6383406.08	56.48	HYD
81	347118.78	6383319.35	64.15	HYD
82	347118.54	6383317.60	64.20	HYD
83	347100.71	6383316.25	64.08	HYD
95	346979.84	6383407.83	54.51	HYDR
96	347037.69	6383406.64	56.50	HYDR
97	347119.33	6383319.23	64.20	HYDR
98	347119.07	6383317.45	64.26	HYDR
99	347100.32	6383316.77	64.09	HYDR
107	346977.87	6383406.67	54.48	SV
108	347118.67	6383318.51	64.16	SV
109	347101.57	6383316.11	64.10	SV
117	346978.81	6383407.50	54.49	SVR
118	347119.20	6383318.36	64.20	SVR
119	347101.15	6383316.50	64.10	SVR
149	346977.34	6383411.02	54.49	TAP
150	346992.37	6383397.20	54.65	TAP
151	346992.93	6383397.24	54.67	TAP
152	347006.11	6383414.45	54.73	TAP
153	347027.82	6383411.62	55.74	TAP
154	347021.13	6383395.15	55.52	TAP
155	347036.21	6383393.34	56.48	TAP
156	347052.60	6383408.49	57.60	TAP
157	347051.12	6383391.34	57.58	TAP

	· · · · · · · · · · · · · · · · · · ·	oint Table	Т	·
Point #	Eastings	Northings	Levels	Codes
158	347065.93	6383389.50	58.72	TAP
159	347077.39	6383405.38	59.45	TAP
160	347102.19	6383402.20	61.25	TAP
161	347127.09	6383399.04	62.33	TAP
162	347133.24	6383384.43	62.58	TAP
163	347110.01	6383383.33	61.85	TAP
164	347112.57	6383365.89	62.91	TAP
165	347110.37	6383351.02	63.21	TAP
166	347128.99	6383360.33	63.18	TAP
167	347124.88	6383333.20	63.89	TAP
168	347108.19	6383336.22	63.70	TAP
198	346977.67	6383411.13	54.51	TAPR
199	346992.07	6383397.14	54.65	TAPR
200	346993.18	6383397.27	54.64	TAPR
201	347006.36	6383414.40	54.74	TAPR
202	347028.14	6383411.63	55.81	TAPR
203	347021.37	6383395.15	55.53	TAPR
204	347036.48	6383393.38	56.64	TAPR
205	347052.89	6383408.43	57.59	TAPR
206	347051.42	6383391.31	57.65	TAPR
207	347066.21	6383389.48	58.74	TAPR
208	347077.71	6383405.29	59.47	TAPR
209	347102.51	6383402.17	61.24	TAPR
210	347127.35	6383399.02	62.31	TAPR
211	347133.13	6383384.05	62.56	TAPR

Point Table										
Point #	Eastings	Northings	Levels	Codes						
212	347109.95	6383383.09	61.84	TAPR						
213	347112.53	6383365.60	62.94	TAPR						
214	347110.32	6383350.73	63.13	TAPR						
215	347128.92	6383360.03	63.17	TAPR						
216	347124.79	6383332.93	63.88	TAPR						
217	347108.17	6383335.91	63.70	TAPR						
350	346992.18	6383395.36	54.85	TANK 1930						
351	346994.25	6383395.70	54.85	TANK 1931						
352	347021.42	6383393.31	56.12	TANK 1932						
353	347036.30	6383391.33	57.22	TANK 1933						
354	347051.15	6383389.61	58.13	TANK 1934						
355	347066.04	6383387.66	59.02	TANK 1935						
356	347084.34	6383386.34	61.45	TANK 1936						
357	347082.10	6383369.47	62.46	TANK 1937						
358	347079.91	6383354.80	62.44	TANK 1938						
359	347164.34	6383354.37	63.10	TANK 1939						
360	347167.62	6383378.55	62.38	TANK 1940						
361	347132.04	6383434.10	60.96	TANK 1941						
362	347107.42	6383437.37	59.85	TANK 1942						
363	347082.49	6383440.61	58.23	TANK 1943						
364	347057.78	6383443.69	56.56	TANK 1944						
365	347033.01	6383446.75	54.96	TANK 1945						
366	347011.20	6383449.38	53.45	TANK 1946						
367	346983.43	6383453.05	51.70	TANK 1947						

WORK AS CONSTRUCTED

THESE DRAWINGS ARE AN ACCURATE REPRESENTATION AS AT 26/11/2020 OF THE WORK-AS-CONSTRUCTED, BUT THE POSITION OF THE WORK RELATIVE TO OTHER STRUCTURES OR BOUNDARIES IS APPROXIMATE ONLY AND HAS NOT BEEN VERIFIED BY PRECISE SURVEY.

COMPANY ADWJohnson Pty Ltd

MATHEW DAVID LONDON NAME

mand DATE 02/12/2020 SIGNED DATE/....../ REGISTERED SURVEYOR CONSTRUCTION MANAGER

ORIGIN OF W.A.C. LEVELS

PM 20029 E: 345 613. 420 N: 6 382 880. 288 RL: 77.675m

Co-Ord System: MGA Ground MGA Datum: GDA2020 MGA Zone: 56

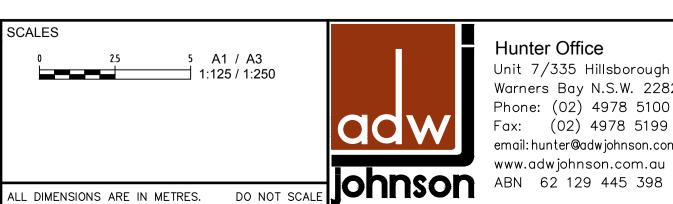
Date Approved:03/07/2020

APPROVED FOR CONSTRUCTION

BY ADW Johnson Pty Ltd

CONSTRUCTION ISSUE

DRAWN CHECK DESIGN VERIFY SCALES DATE AMENDMENT J.N. C.B. J.N. D. C.B C.B. C.B. C.B. C.B. C.B. ML PRELIMINARY ISSUE AMENDED ISSUE — CLIENT COMMENTS AMENDED ISSUE — CLIENT COMMENTS 11.06.2020 18.06.2020 24.06.2020 CONSTRUCTION ISSUE
16.07.2020 AMENDED CONSTRUCTION ISSUE
28.08.2020 AMENDED CONSTRUCTION ISSUE 01.12.2020 WORK AS CONSTRUCTED DESIGN FILE N: \



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	
PROPOSED SUBDIVISION	
STAGE 19a	
MORAN PARKWAY,	
HUNTLEE	

POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION PLAN TITLE

PRESSURE SEWER FLOW REDIRECTION DETAIL

SURVEYED PROJECT No. DISCIPLINE 240037(19a) - WAT -015 3 ADW Johnson A.H.D.

Plotted By: shanes Plot Date: 02/12/20 - 14:16 Cad File: N:\240072\DWG\Water & Sewer\Stage19A-WAC\240072(19a)-WAC-012 to 015(3).dwg

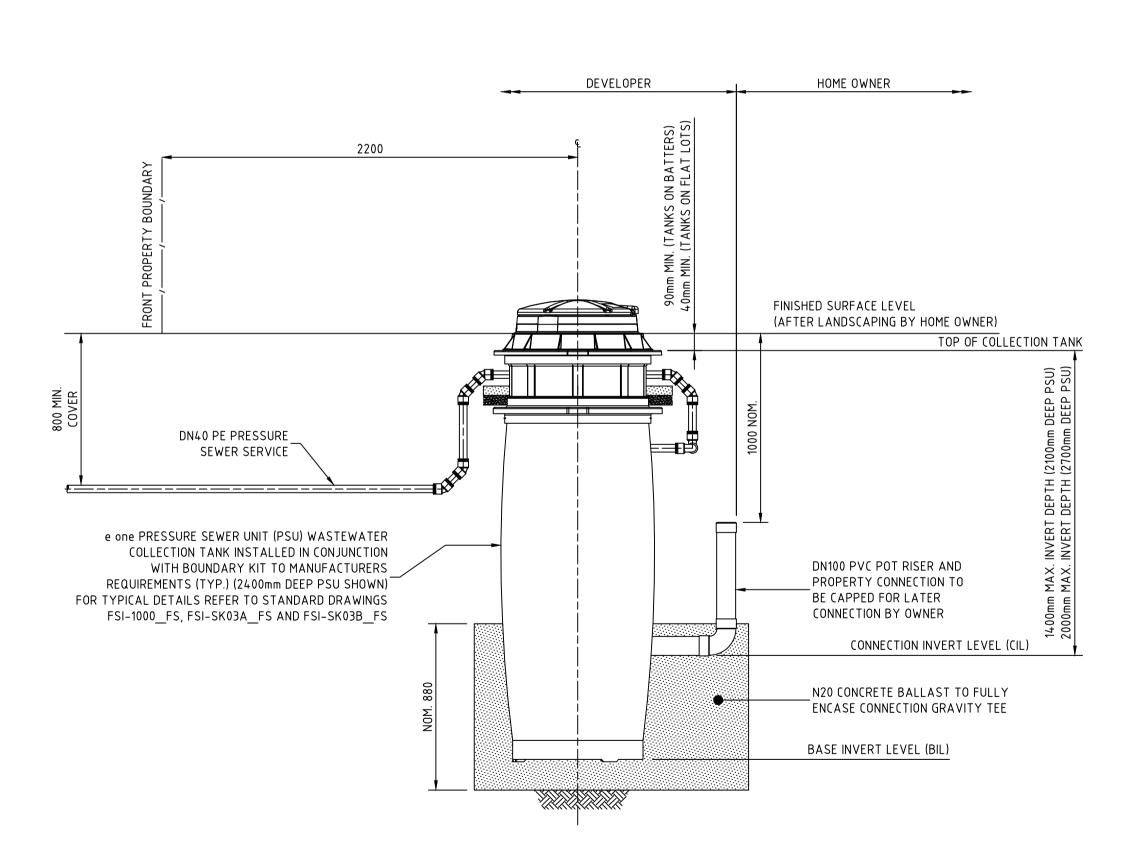


	WASTEWATER COLLECTION TANK DETAILS										
LOT NUMBER	FINISHED SURFACE LEVEL (FSL)	TANK BASE INVERT LEVEL (BIL)	TANK CONNECTION INVERT LEVEL (CIL)	T A N K HEIGHT	TANK CAPACITY	TANK LOCATION	EASTING	NORTHING	TOP OF COLLECTION TANK LID	CALCULATED SANITARY DRAINAGE INVERT LEVEL	WAC V'S DESIGN INVERT LEVEL COMPARISON
1930	54.72	52.85	53.45	2100	650 L	FRONT	346991.73	6383393.96	54.85	53.59	0.13
1931	54.74	52.87	53.47	2100	650 L	FRONT	346993.81	6383394.10	54.85	53.59	0.12
1932	56.00	54.08	54.68	2100	650 L	FRONT BATTER	347020.83	6383391.94	56.12	54.86	0.17
1933	57.03	55.11	55.71	2100	650 L	FRONT BATTER	347035.71	6383390.06	57.22	55.96	0.24
1934	58.30	56.38	56.98	2100	650 L	FRONT BATTER	347050.59	6383388.19	58.13	56.87	-0.11
1935	58.88	57.01	57.61	2100	650 L	FRONT	347065.47	6383386.30	59.02	57.76	0.15
1936	61.33	59.46	60.06	2100	650 L	FRONT	347083.64	6383384.00	61.45	60.19	0.13
1937	62.33	60.46	61.06	2100	650 L	REAR	347081.23	6383368.13	62.46	61.20	0.13
1938	62.33	60.46	61.06	2100	650 L	REAR	347079.03	6383353.30	62.44	61.18	0.11
1939	62.89	61.02	61.62	2100	650 L	REAR	347163.79	6383352.93	63.10	61.84	0.22
1940	62.22	60.35	60.95	2100	650 L	REAR	347167.55	6383378.62	62.38	61.12	0.16
1941	60.82	58.95	59.55	2100	650 L	REAR	347131.70	6383432.76	60.96	59.70	0.15
1942	59.69	57.82	58.42	2100	650 L	REAR	347106.89	6383435.90	59.85	58.59	0.16
1943	58.07	56.20	56.80	2100	650 L	REAR	347082.09	6383439.03	58.23	56.97	0.16
1944	56.41	54.54	55.14	2100	650 L	REAR	347057.29	6383442.17	56.56	55.30	0.16
1945	54.78	52.91	53.51	2100	650 L	REAR	347032.49	6383445.30	54.96	53.70	0.19
1946	53.31	51.44	52.04	2100	650 L	REAR	347010.66	6383448.06	53.45	52.19	0.15

NOTE:

FINISHED SURFACE LEVELS EXTRACTED FROM DIGITAL DATA SUPPLIED BY NORTHROP CONSULTING ENGINEERS (09.06.2020).





PRESSURE SEWER SERVICE CONNECTION

TYPICAL SECTIONAL ELEVATION

(SHOWN AS FRONT OF LOT SERVICE CONNECTION WITH 2400mm DEEP PSU)

WORK AS CONSTRUCTED

THESE DRAWINGS ARE AN ACCURATE REPRESENTATION AS AT 26/11/2020 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 NAME

SIGNED DATE 02/12/2020 SIGNED REGISTERED SURVEYOR

ORIGIN OF W.A.C. LEVELS

1 20029 345 613. 420 6 382 880. 288 : 77.675m

Co-Ord System: MGA Ground MGA Datum: GDA2020 MGA Zone: 56

APPROVED FOR CONSTRUCTION
BY ADW Johnson Pty Ltd

DATE/..../....

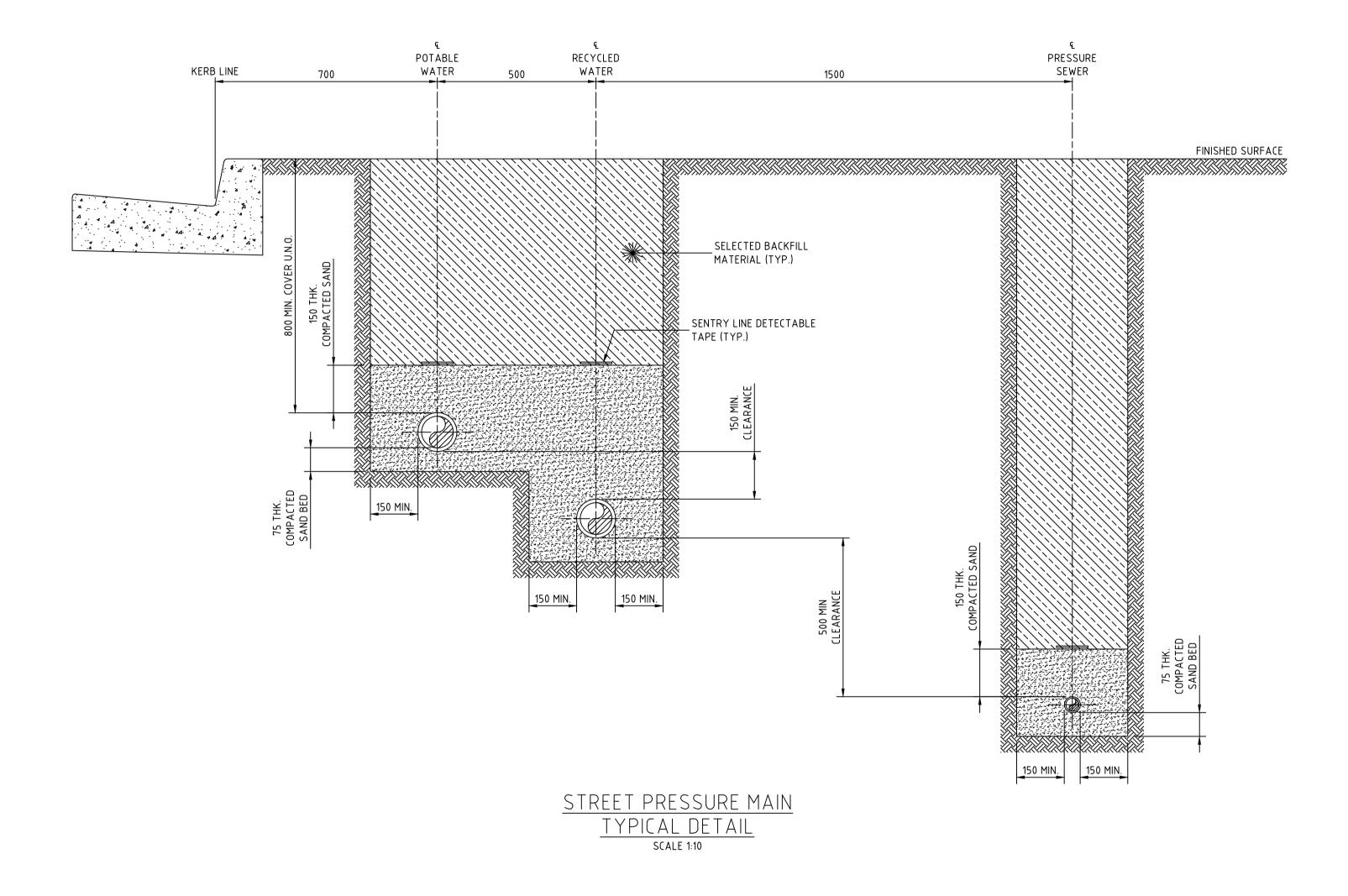
CONSTRUCTION MANAGER

Date Approved:03/07/2020

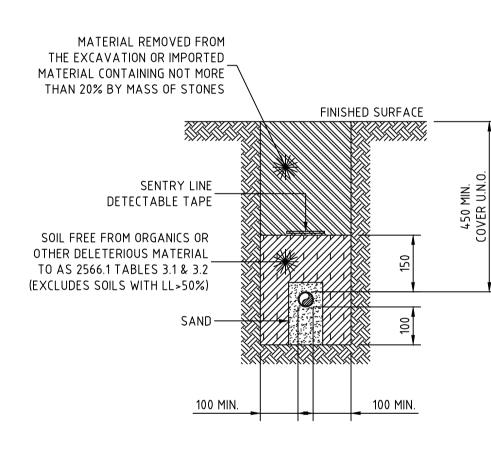
CONSTRUCTION ISSUE

POTABLE WATER, RECYCLED WATER AND DRAWN CHECK DESIGN VERIFY SCALES DATE AMENDMENT PROPERTY DESCRIPTION PROJECT **Hunter Office** J.N. C.B. J.N. C.B. J.N. C.B. J.N. C.B. J.N. C.B. J.N. C.B. RJC ML C.B. C.B. C.B. C.B. C.B. ML PRESSURE SEWER RETICULATION PRELIMINARY ISSUE 0.8 A1 / A3 J.N. J.N. J.N. J.N. J.N. Unit 7/335 Hillsborough Rd 11.06.2020 AMENDED ISSUE - CLIENT COMMENTS PROPOSED SUBDIVISION 1:20 / 1:40 PLAN TITLE AMENDED ISSUE - CLIENT COMMENTS 18.06.2020 Warners Bay N.S.W. 2282 STAGE 19a CONSTRUCTION ISSUE
AMENDED CONSTRUCTION ISSUE 24.06.2020 WASTEWATER COLLECTION Phone: (02) 4978 5100 MORAN PARKWAY, 16.07.2020 Fax: (02) 4978 5199 TANK LEVEL DETAILS AMENDED CONSTRUCTION ISSUE 28.08.2020 HUNTLEE 01.12.2020 WORK AS CONSTRUCTED email: hunter@adwjohnson.com.au www.adwjohnson.com.au SURVEYED DATUM PROJECT No. DISCIPLINE REV. johnson ABN 62 129 445 398 240037(19a) WAT -019 3 ADW Johnson A.H.D. DESIGN FILE N: \ ALL DIMENSIONS ARE IN METRES. DO NOT SCAL





NOTES:



PRIVATE PROPERTY PRESSURE MAIN
TYPICAL DETAIL

WORK AS CONSTRUCTED

THESE DRAWINGS ARE AN ACCURATE REPRESENTATION AS AT 26/11/2020 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 COMPA

NAME MATHEW DAVID LONDON NAME

REGISTERED SURVEYOR SIGNED DATE/...../....

CONSTRUCTION MANAGER

ORIGIN OF W.A.C. LEVELS

PM 20029 E: 345 613. 420 Co-Ord System: MGA Ground N: 6 382 880. 288 RL: 77.675m MGA Datum: GDA2020 APPROVED FOR CONSTRUCTION
BY ADW Johnson Pty Ltd

Date Approved:03/07/2020

(CONSTRUCTION ISSUE

POTABLE WATER, RECYCLED WATER AND DATE AMENDMENT DRAWN CHECK DESIGN VERIFY SCALES PROPERTY DESCRIPTION J.N. C.B.
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RJC ML Hunter Office PRESSURE SEWER RETICULATION PRELIMINARY ISSUE 0.1 0.2 0.3 0.4 A1 / A3 J.N. J.N. J.N. J.N. J.N. Unit 7/335 Hillsborough Rd 11.06.2020 AMENDED ISSUE - CLIENT COMMENTS PROPOSED SUBDIVISION 1:10 / 1:20 PLAN TITLE C.B. C.B. C.B. C.B. 18.06.2020 AMENDED ISSUE - CLIENT COMMENTS Warners Bay N.S.W. 2282 STAGE 19a CONSTRUCTION ISSUE
AMENDED CONSTRUCTION ISSUE 24.06.2020 TYPICAL PIPEWORK Phone: (02) 4978 5100 MORAN PARKWAY, 16.07.2020 Fax: (02) 4978 5199 TRENCHING DETAILS AMENDED CONSTRUCTION ISSUE 28.08.2020 HUNTLEE 01.12.2020 WORK AS CONSTRUCTED email: hunter@adwjohnson.com.au www.adwjohnson.com.au SURVEYED DATUM PROJECT No. DISCIPLINE johnson ABN 62 129 445 398 240037(19a) - WAT -016 3 ADW Johnson A.H.D. DESIGN FILE N: \ ALL DIMENSIONS ARE IN METRES. DO NOT SCAL

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

MANUFACTURERS REQUIREMENTS. ROTATE BENDS AS NECESSARY.



APPROVED FOR CONSTRUCTION BY ADW Johnson Pty Ltd

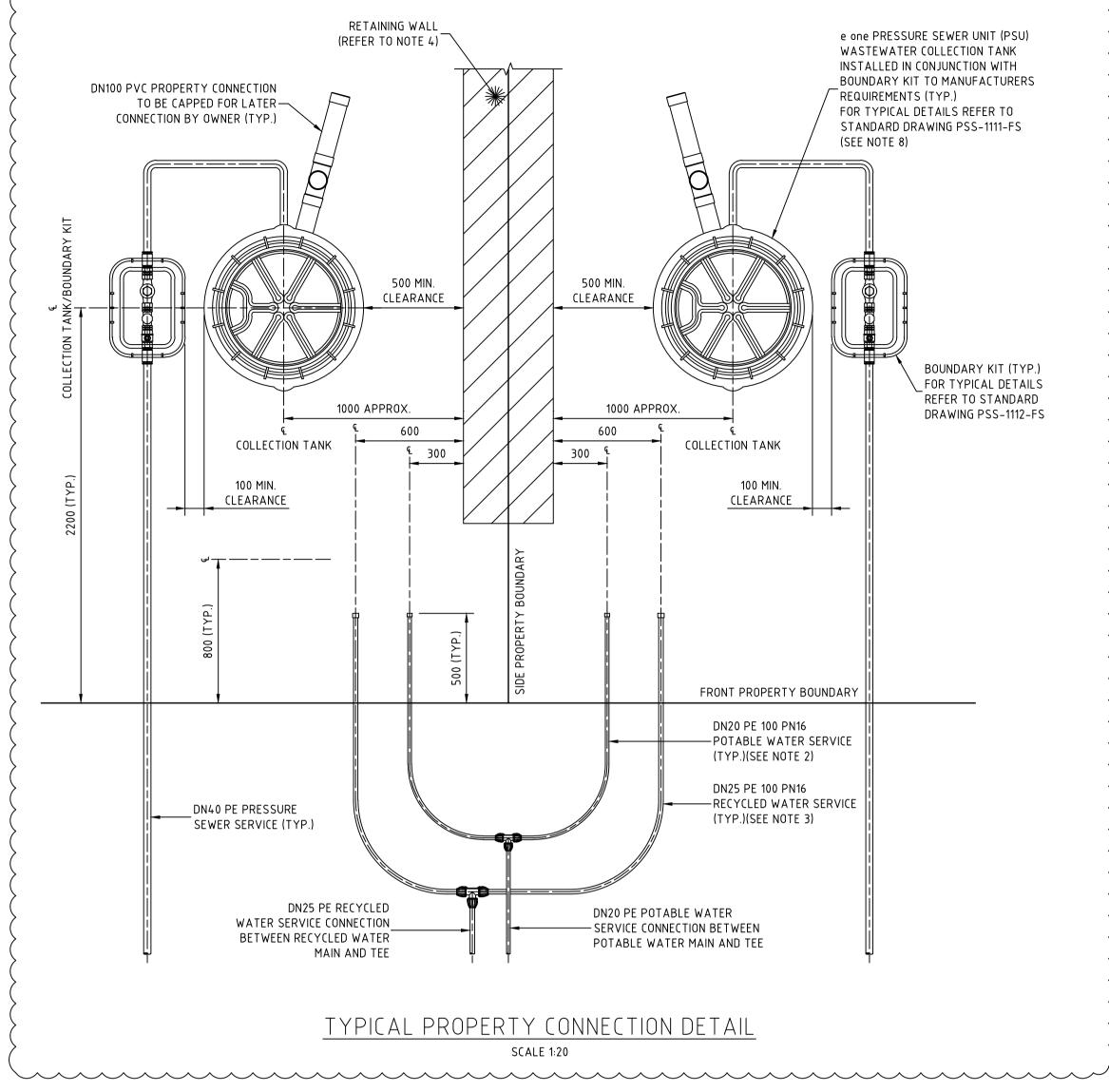
Date Approved:03/07/2020

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CONSTRUCTION ISSUE

POTABLE WATER, RECYCLED WATER AND DATE AMENDMENT DRAWN CHECK DESIGN VERIFY SCALES PROPERTY DESCRIPTION Hunter Office
Unit 7/335 Hillsborough Rd
Warners Bay N.S.W. 2282
Phone: (02) 4978 5100
Fax: (02) 4978 5199 20.05.2020
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20.05.2020 C.B. C.B. C.B. C.B. C.B. C.B. PRESSURE SEWER RETICULATION PROPOSED SUBDIVISION PLAN TITLE STAGE 19a MORAN PARKWAY, NOT USED HUNTLEE email: hunter@adwjohnson.com.au www.adwjohnson.com.au
ABN 62 129 445 398 PROJECT No. DISCIPLINE SURVEYED 240037(19a) - WAT -A.H.D. ADW Johnson ALL DIMENSIONS ARE IN METRES. DO NOT SCALI DESIGN FILE N: \



WORK AS CONSTRUCTED

BEFORE YOU DIG

THESE DRAWINGS ARE AN ACCURATE REPRESENTATION AS AT 26/11/2020 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.

MGA Zone: 56

DATE/...

3

CONSTRUCTION MANAGER

COMPANY ADWJohnson Ptv Ltd NAME MATHEW DAVID LONDON

Mand DATE 02/12/2020 SIGNED REGISTERED SURVEYOR

ORIGIN OF W.A.C. LEVELS

345 613. 420 6 382 880. 288

MGA Datum: GDA2020 77.675m

Co-Ord System: MGA Ground

APPROVED FOR CONSTRUCTION BY ADW Johnson Pty Ltd

Date Approved:03/07/2020

CONSTRUCTION ISSUE

DATE **AMENDMENT** DRAWN CHECK DESIGN VERIFY SCALES POTABLE WATER, RECYCLED WATER AND PROPERTY DESCRIPTION Hunter Office PRESSURE SEWER RETICULATION PRELIMINARY ISSUE 0.1 0.2 0.3 0.4 A1 / A3 C.B. C.B. C.B. C.B. C.B. Unit 7/335 Hillsborough Rd PROPOSED SUBDIVISION 1.06.2020 AMENDED ISSUE - CLIENT COMMENTS 1:10 / 1:20 PLAN TITLE AMENDED ISSUE - CLIENT COMMENTS C.B. 18.06.2020 J.N. Warners Bay N.S.W. 2282 STAGE 19a 24.06.2020 CONSTRUCTION ISSUE J.N. C.B. 0.8 A1 / A3 TYPICAL SERVICE Phone: (02) 4978 5100 MORAN PARKWAY. C.B. J.N. J.N. AMENDED CONSTRUCTION ISSUE 16.07.2020 1:20 / 1:40 CONNECTION DETAILS Fax: (02) 4978 5199 C.B. AMENDED CONSTRUCTION ISSUE 28.08.2020 J.N. HUNTLEE 01.12.2020 WORK AS CONSTRUCTED **RJC** email: hunter@adwjohnson.com.au _ www.adwjohnson.com.au SURVEYED DATUM PROJECT No. DISCIPLINE johnson ABN 62 129 445 398 240037(19a) 018 WAT -ADW Johnson A.H.D. ALL DIMENSIONS ARE IN METRES. DO NOT SCAL

POTABLE WATER MAIN AND TEE

- 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
- 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 (LEARANCE 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. ϕ 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.

DESIGN FILE N: \

BETWEEN RECYCLED WATER

MAIN AND TEE

TYPICAL PROPERTY CONNECTION DETAIL

(PRESSURE SEWER UNIT AT REAR)

SCALE 1:20