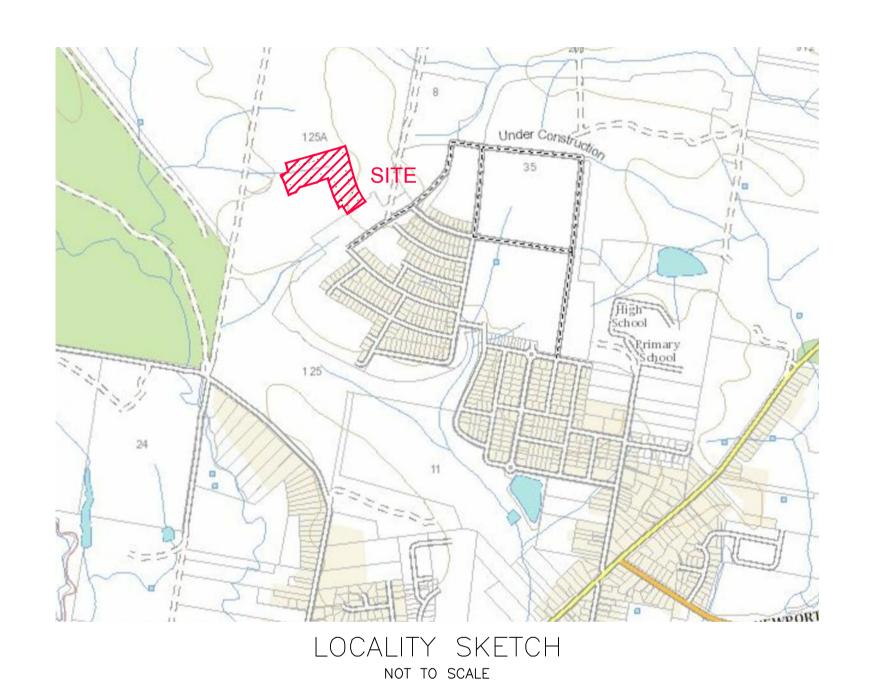
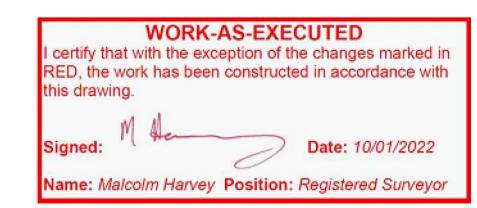


# PROPOSED SUBDIVISION STAGE 3.2 WATAGAN PARK



S	heet List Table
Sheet Title	Sheet Description
239078(3.2)-WAC-001(2)	COVER SHEET, LOCALITY PLAN AND DRAWING INDEX
239078(3.2)-WAC-002(2)	GENERAL NOTES
239078(3.2)-WAC-003(2)	OVERALL SITE PLAN
239078(3.2)-WAC-004(2)	POTABLE WATER DETAIL PLAN - SHEET 1
239078(3.2)-WAC-005(2)	POTABLE WATER DETAIL PLAN – SHEET 2
239078(3.2)-WAC-006(2)	POTABLE WATER DETAIL PLAN – SHEET 3
239078(3.2)-WAC-007(2)	NOT USED
239078(3.2)-WAC-008(2)	RECYCLED WATER DETAIL PLAN - SHEET 1
239078(3.2)-WAC-009(2)	RECYCLED WATER DETAIL PLAN - SHEET 2
239078(3.2)-WAC-010(2)	RECYCLED WATER DETAIL PLAN - SHEET 3
239078(3.2)-WAC-011(2)	NOT USED
239078(3.2)-WAC-012(2)	PRESSURE SEWER DETAIL PLAN - SHEET 1
239078(3.2)-WAC-013(2)	PRESSURE SEWER DETAIL PLAN - SHEET 2
239078(3.2)-WAC-014(2)	PRESSURE SEWER DETAIL PLAN - SHEET 3
239078(3.2)-WAC-015(2)	PRESSURE SEWER DETAIL PLAN - SHEET 4
239078(3.2)-WAC-016(2)	WAC COORD SCHEDULE
239078(3.2)-WAC-017(2)	TYPICAL CROSS SECTIONS - A & B
239078(3.2)-WAC-018(2)	TYPICAL PIPEWORK TRENCHING DETAILS
239078(3.2)-WAC-019(2)	TYPICAL PROPERTY CONNECTION - SHEET 1
239078(3.2)-WAC-020(2)	TYPICAL PROPERTY CONNECTION - SHEET 2
239078(3.2)-WAC-021(2)	SEWER SERVICE CONNECTION DETAILS
239078(3.2)-WAC-022(2)	THRUST BLOCK DETAILS



REV. DATE AMENDMENT DRAWN CHECK DESIGN VERIFY  A 16.04.2021 PRELIMINARY ISSUE T.S. J.N. T.S. R.J.	Hunter Office	CLIENT	PROPERTY DESCRIPTION			E WATER, RECYCLE SSURE SEWER RET		
B 22.04.2021 CLIENT COMMENTS C 27.04.2021 ELECTRICAL KIOSK LOCATION AMENDED T.S. R.J. T.S. R.J. 29.04.2021 ALTOGETHER COMMENTS T.S. R.J. T.S. R.J. 1 09.06.2021 CONSTRUCTION ISSUE T.S. R.J. T.S. R.J. 1 09.06.2021 ELECTRICAL EASEMENT AMENDMENT T.S. R.J.	Unit 7/335 Hillsborough Rd Warners Bay N.S.W. 2282 Phone: (02) 4978 5100 Fax: (02) 4978 5199 email:hunter@adwjohnson.com.au	JOHNSON PROPERTY	PROPOSED SU STAGE WATAGAN	3.2	PLAN TITLE C	OVER SHEET, LOCALITY I DRAWING INDEX		
	www.adwjohnson.com.au  Ohnson  ABN 62 129 445 398  ALL DIMENSIONS ARE IN METRES. DO NOT SCALE	GROUP		DATUM	PROJECT No.	DISCIPLINE	NUMBER	REV.
DESIGN FILE N:\ Plotted By: iainb Plot Date: 09/03/22 - 08:59 Cad File: C:\Users\iainb\AppData\Local\Temp\Acf			ADW Johnson	A.H.D.	239078(3.2)	- WAT -	- 001	2

# PRESSURE SEWER NOTES:

- 1. ALL WORKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DESIGN DRAWINGS, ALTOGETHER SUPPLEMENTARY MANUAL TO WSAA, PRESSURE SEWERAGE CODE OF AUSTRALIA - WSA 07-2007 VERSION 1.1 AND POLYETHYLENE PIPELINE CODE WSA 01-2004.
- 2. ALL EQUIPMENT, MATERIALS AND ACCESSORIES USED IN THIS CONTRACT SHALL BE NEW AND SHALL COMPLY WITH ALTOGETHER REQUIREMENTS. BUTT FUSION FITTINGS DENOTED HEREWITH HAVE BEEN DERIVED FROM THE GEORG FISCHER PIPING SYSTEMS BUTT FUSION PRODUCT RANGE. ELECTROFUSION FITTINGS DENOTED HEREWITH HAVE BEEN DERIVED FROM THE PLASSON "POLYETHYLENE PIPING SYSTEMS" PRODUCT RANGE.
- ALL SERVICES SHOWN ARE INDICATIVE ONLY. A CURRENT SERVICES SEARCH AND SITE CHECK OF ALL EXISTING SERVICES WILL BE REQUIRED PRIOR TO COMMENCEMENT OF ANY WORKS. THE CONSTRUCTOR IS TO DETERMINE LEVELS AND LOCATIONS OF ALL EXISTING SERVICES IN THE VICINITY OF THE CONSTRUCTION SITE AND ANY CONSTRUCTED STRUCTURES FOR PROPOSED SERVICES, SUCH AS DUCTING FOR WATER OR ELECTRICITY WITHIN THE SUBDIVISION. THE CONTRACTOR MUST ENSURE ALL SERVICES ARE LOCATED BY THE RELEVANT AUTHORITY PRIOR TO COMMENCEMENT OF WORKS.
- 4. PRESSURE SEWER MAINS SHALL BE BLACK POLYETHYLENE (PE100 PN16) WITH A CREAM STRIPE AS PER WSA 02-2007 AND ALTOGETHER SUPPLEMENTARY MANUAL TO WSAA.
- 5. ALL POLYETHYLENE MAINS ≤ DN200 SHALL BE JOINED USING ELECTROFUSION JOINTING TECHNIQUES IN ACCORDANCE WITH MANUFACTURERS ALL POLYETHYLENE MAINS ≥ DN200 SHALL BE JOINED USING BUTTWELD JOINTING TECHNIQUES IN ACCORDANCE WITH MANUFACTURERS REQUIREMENTS.
- 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, POTABLE WATER 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 COORANBONG WATER 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
- 11. MINIMUM BENDING RADIUS FOR PN16 PE100 (SDR11) SHALL BE 20 x DN. (i.e. DN400 : R8.0m, DN250 : R5.0m, DN200: R4.0m, DN160: R3.2m, DN125: R2.5m, DN90: R1.8m, DN75: R1.5m, DN63: R1.3m, DN50: R1.0m, DN40: R0.8m).
- 12. ALL HOUSE SERVICE LATERALS SHALL BE DN40 (PE100 PN16).
- 13. FLUSHING PITS SHALL CONFORM WITH ALTOGETHER STANDARD DRAWINGS. REFER TO ALTOGETHER WEBSITE FOR CURRENT VERSION.
- SMALL MAINS (≤ DN110) http://information.altogethergroup.com.au/governance/Land\_Housing/PSS-1017A-FS.pdf
- LARGE MAINS (> DN110) http://information.altogethergroup.com.au/governance/Land\_Housing/PSS-1017B-FS.pdf
- 14. LOCALISED DEEPENING OF MAINS MAY BE REQUIRED TO FACILITATE AIR VALVE INSTALLATION.
- THE CONTRACTOR SHALL ENSURE THAT THE AIR VALVE OFFTAKE IS LOCATED AT A HIGH POINT (NATURAL OR ARTIFICIAL) IN THE MAIN (i.e. MAIN SHALL GRADE DOWNWARDS EITHER SIDE OF THE AIR VALVE).
- 15. DETECTABLE MARKING TAPE SHALL BE LAID ON TOP OF THE PIPE EMBEDMENT MATERIAL BEFORE BACKFILLING AND CONNECTED TO SURFACE
- 16. ALL SURFACE FITTINGS LOCATED IN TRAFFICABLE AREAS (i.e. ROADWAYS, PATHS etc.) SHALL HAVE HEAVY DUTY SURROUNDS INSTALLED.
- 17. DURING CONSTRUCTION, ALL OPEN ENDS OF PIPE SHALL BE CAPPED OFF TO PREVENT ENTRY OF FOREIGN MATTER.
- 18. ALL VALVES SHALL BE RESILIENT SEATED SLUICE VALVES (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 COORANBONG 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 COORANBONG WATER REPRESENTATIVE.
- 22. UPON COMPLETION OF WORKS, ALL SURFACES MUST BE RESTORED AS CLOSE AS POSSIBLE, TO THE CONDITION THAT EXISTED PRIOR TO COMMENCEMENT OF WORKS.
- 23. PERMISSION OF ENTRY MUST BE OBTAINED BY THE CONTRACTOR FROM THE GWNER/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 COORANBONG WATER 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:
  - 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.
- 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 COORANBONG 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 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.
- 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 POTABLE WATER AND RECYCLED WATER MAINS. MINIMUM PIPE COVER SHALL BE 600mm IN FOOTWAYS (TYPE B EMBEDMENT: WAT-1202-V) AND 800mm IN ROADWAYS (TYPE L EMBEDMENT:
- 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).

PER THE CLEARANCE TABLE ADJACENT.

FITTINGS.

- ALL RECYCLED WATERMAINS SHALL BE LILAC PVC-M (PN16). DIFFERENTIATION OF POTABLE AND RECYCLED WATER SYSTEMS SHALL BE AS PER TABLE 4.1 WSA03-2011 WITH BOTH SERVICES BEING CLASSIFIED AS
- RECYCLED WATER MAINS SHALL ALWAYS BE LOWER THAN POTABLE WATER MAINS. 150mm VERTICAL CLEARANCE BETWEEN POTABLE WATER AND RECYCLED WATER MAINS SHALL BE PROVIDED.
- 8. MAXIMUM JOINT DEFLECTIONS TO BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
- 9. LOCALLY LOWER PIPEWORK IN VICINITY OF STOP VALVES TO ENSURE SUFFICIENT COVER IS MAINTAINED OVER VALVES. LOWERING OF PIPEWORK SHALL BE ACHIEVED OVER A NUMBER OF PIPE LENGTHS EITHER SIDE OF VALVES TO ELIMINATE ANY SHARP DEFLECTIONS.
- 10. ALL PIPE BEDDING MATERIAL SHALL COMPLY WITH WSAA PRODUCT SPECIFICATION PS-350, 368 AND 369. GEOTECHNICAL CONDITIONS SHOULD BE ASSESSED DURING CONSTRUCTION BY THE CONTRACTOR IN ASSOCIATION WITH THE COORANBONG 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 ALTOGETHER REQUIREMENTS. REFER TO ALTOGETHER WEBSITE FOR CURRENT VERSION.
- SINGLE SERVICE: http://information.altogethergroup.com.au/governance/Land\_Housing/WAT-1854-FS.pdf http://information.altogethergroup.com.au/governance/Land Housing/WAT-1855-FS.pdf
- 16. PROPERTY SERVICE CONNECTIONS SHALL BE FLUSHED AND LOCKED (BY THE COORANBONG WATER 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 COORANBONG 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 COORANBONG 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 COORANBONG WATER 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 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 COORANBONG WATER 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 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 RETWEEN PIPELINES AND LINDERGROUND SERVICES

CLEARANCES DE I WEEN PIP	ELINES AND	ONDERGROOI	ND 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	3004	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	3004	600	150 °
SEWERS (GRAVITY)	1000 6 / 600	1000 <sup>6</sup> / 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 OF A PRESSURE MAIN BREAK
- 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.
- 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

SHOULD THE RECOMMENDED CLEARANCES NOT BE ACHIEVED, NOTIFICATION SHALL BE CONVEYED TO THE COORANBONG WATER REPRESENTATIVE IN WRITING FOR REVIEW & ACCEPTANCE PRIOR TO INSTALLATION.

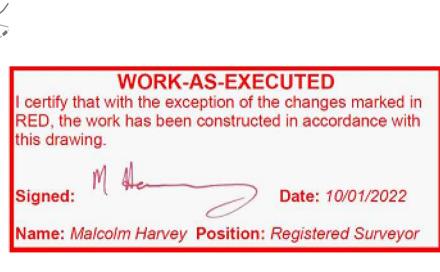
> WORK-AS-EXECUTED certify that with the exception of the changes marked in RED, the work has been constructed in accordance with this drawing. Date: 10/01/2022 ame: Malcolm Harvey Position: Registered Surveyor

- RI	EV. DATE	AMENDMENT	DRAWN C	HECK DESIG	N VERIFY	SCALES		Llunton Office	CLIENT	PROPERTY DESCRIPTION				•	CLED WATER AND	
	A 16.04.202	1 PRELIMINARY ISSUE	T.S.	J.N. T.S.	R.J.			Hunter Office					PR	ESSURE SEWER F	RETICULATION	
		1 CLIENT COMMENTS 1 ELECTRICAL KIOSK LOCATION AMENDED	1.S.   1	R.J.   1.S. R.J.   T.S.	R.J. R.J			Unit 7/335 Hillsborough Rd Warners Bay N.S.W. 2282		PROPOSED	SUBDIVISION		PLAN TITLE			
	D 29.04.202	1 ALTOGETHER COMMENTS	T.S.	R.J. T.S.	R.J.			Phone: (02) 4978 5100	IOHNICONI		GE 3.2					
		1 CONSTRUCTION ISSUE 1 ELECTRICAL EASEMENT AMENDMENT	T.S.	R.J. T.S.	R.J.		$\alpha\alpha$	Fax: (02) 4978 5199	JOHNSON		SAN PARK			GENERAL NO	DTES	
		WORK AS CONSTRUCTED	10	S.S. T.S.	R.J.		<b>UU YY</b>	email: hunter@adwjohnson.com.au	│	William	27 ((					
<u></u>								www.adwjohnson.com.au	GROUP	SURVEYED	DATUM		PROJECT No.	DISCIPLINE	NUMBER	REV.
_∄ —							<b>∃iohnsor</b>	ABN 62 129 445 398			DATOW	A 11 D				
_ DE	SIGN FILE N:\					ALL DIMENSIONS ARE IN METRES. DO NOT SCALE				ADW Johnson		A.H.D.	239078(3.2)	- WAT	<del>-</del> 002	

EXISTING STAGES 2.11 & 2.12

FUTURE STAGES 3.7 & 3.8





# AS CONSTRUCTED

RE	EV.	DATE	AMENDMENT	DRAWN	CHECK	DESIG	GN VEF	RIFY SCALES			CLIENT	PROPERTY DESCRIPTION		PROJECT POTAB	LE WATER, RECYC	LED WATER	AND	
			PRELIMINARY ISSUE CLIENT COMMENTS	T.S.	J.N.	T.S.	. R.	J. 0 10 20 30 40 A1 / A3		Hunter Office Unit 7/335 Hillsborough Rd				PRI	ESSURE SEWER RE	ETICULATION		
-   5	27	2.04.2021 7.04.2021	ELECTRICAL KIOSK LOCATION AMENDED	T.S.	R.J.	T.S.	P	1:1000 / 1:2000		Warners Bay N.S.W. 2282		PROPOSED S		PLAN TITLE				
		9.04.2021 0.05.2021	ALTOGETHER COMMENTS CONSTRUCTION ISSUE	T.S. T.S.	R.J. R.J.	T.S. T.S.	P	. J. . J.		Phone: (02) 4978 5100	JOHNSON	STAG			OVERALL SITE F	PI AN		
	1 09	9.06.2021	ELECTRICAL EASEMENT AMENDMENT WORK AS CONSTRUCTED	T.S.	R.J.	T.S.	R	. J.	aawi	Fax: (02) 4978 5199 email:hunter@adwjohnson.com.au	PROPERTY	WATAGA	AN PARK		OVERVIEE OFFE			
		9.03.2022	WORK AS CONSTRUCTED	1.0.	٥.٥.	1.3.				www.adwjohnson.com.au	GROUP	CHDVEVED	DATUM	DDO ICOT No	DICCIDI INF	NUM	DED   DE	-1/
<u> </u>									<b>johnson</b>		01(001	SURVEYED  ADW Johnson	DATUM A.H.D.	PROJECT No. 239078(3.2)	- WAT	<b>–</b> 00		<b>)</b>
	SIGN FIL	•						THE BIMEROIOTO THE IT METICES. BOTTOT GOTIE				ADW JOHNSON	A.H.D.	1239076(3.2)	VVA1		3 2	<u>-</u>
F	Plotted	d By: iain	b	\iainb\A	.ppData`	\Local\	\Temp	$\AcPublish_15148\239078(3.2)-WAC-003(2).dwg$	g									

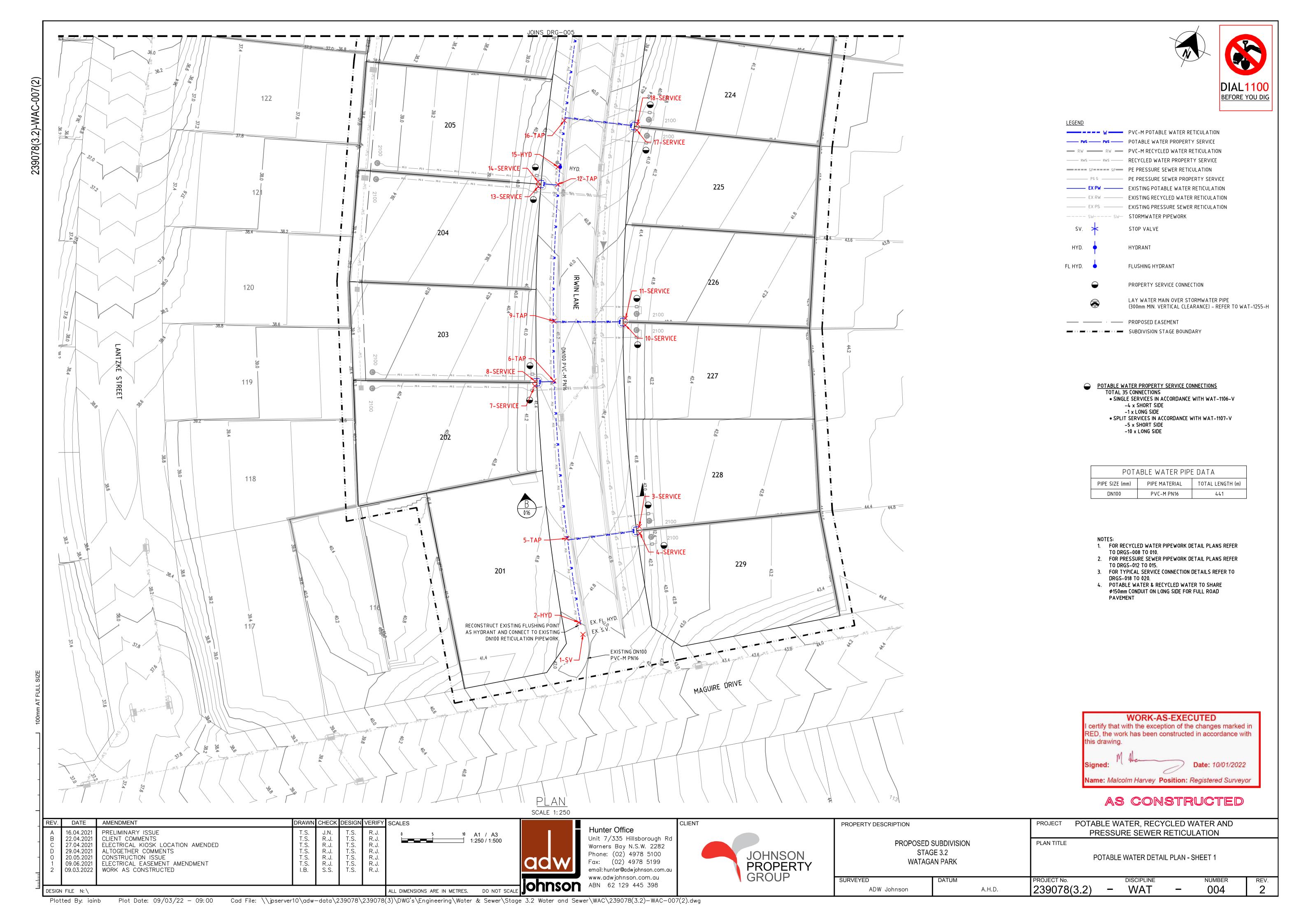
FOR POTABLE WATER DETAIL PLANS REFER TO DRG-004
FOR RECYCLED WATER DETAIL PLANS REFER TO DRG-008
FOR PRESSURE SEWER DETAIL PLANS REFER TO DRG-012

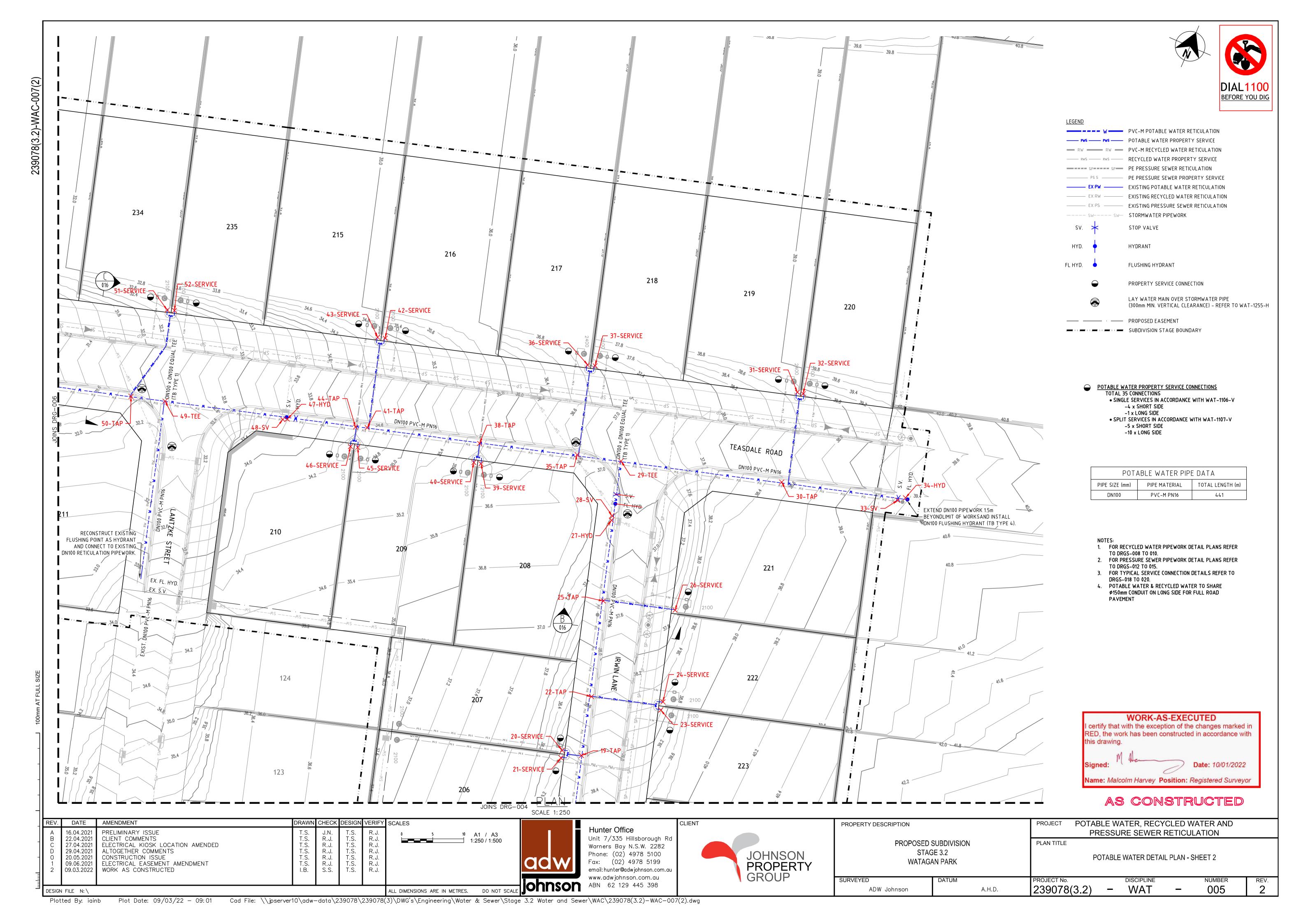
201

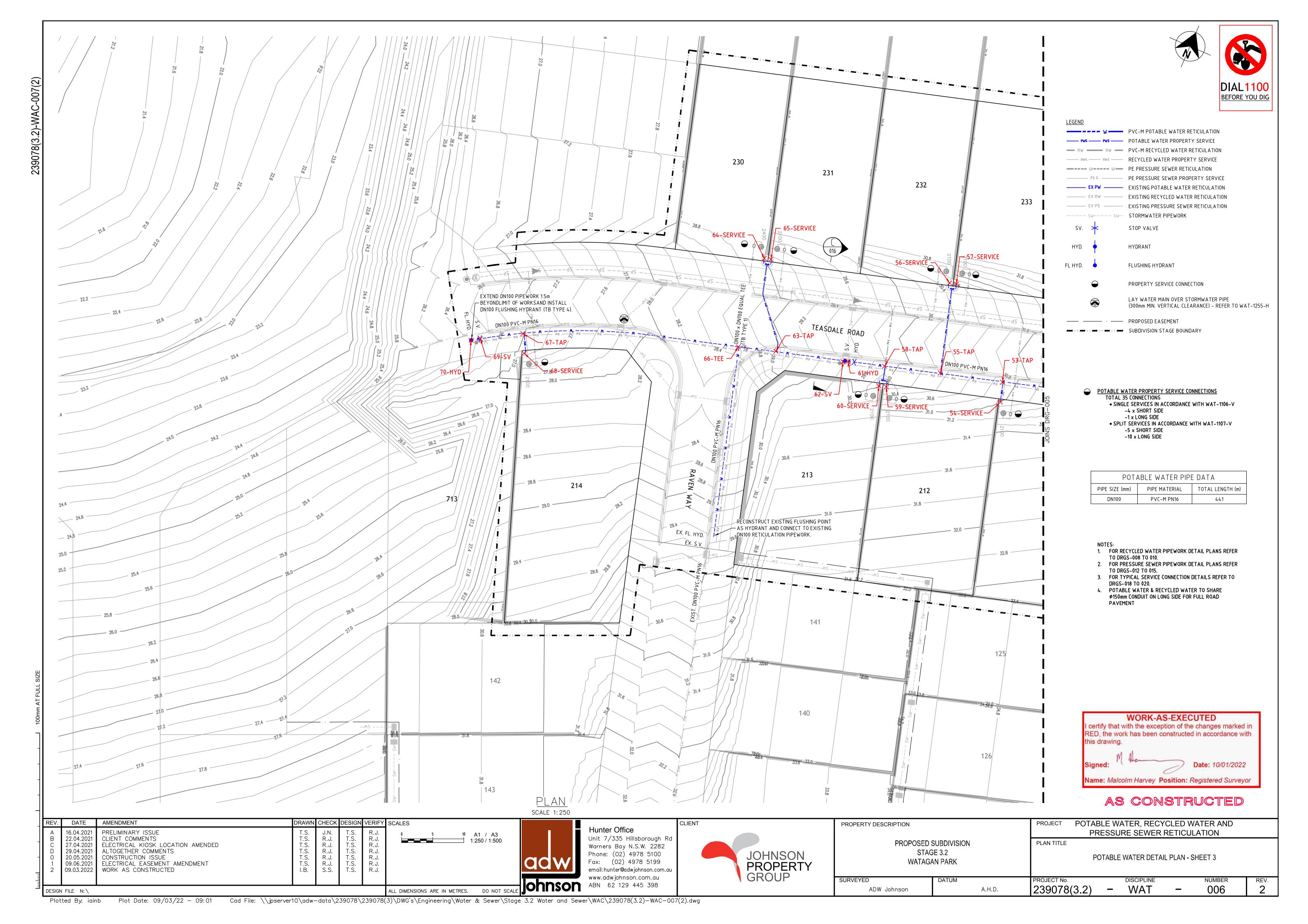
FOR PRESSURE SEWER DETAIL PLANS REFER TO DRG-015

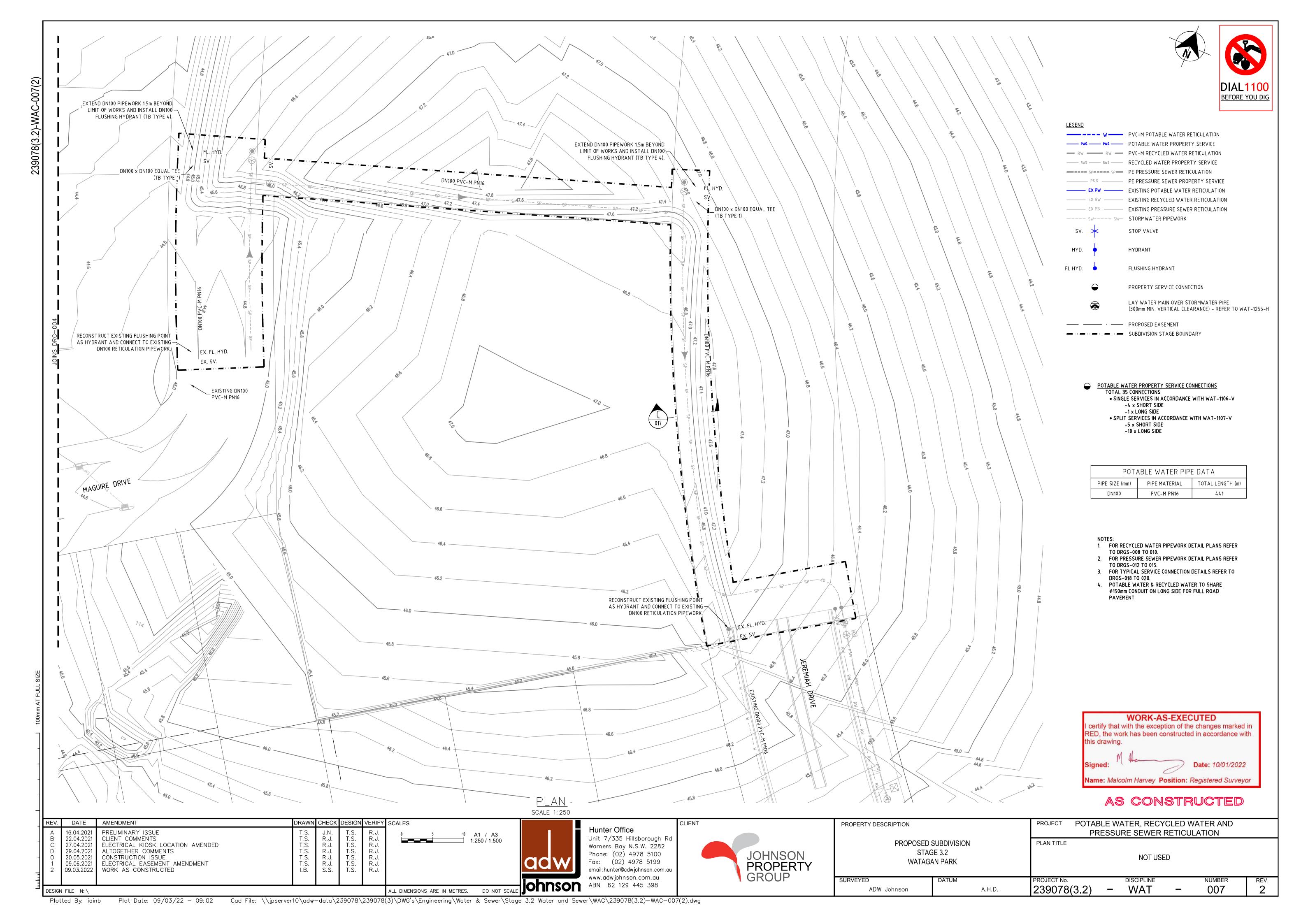
FUTURE SCHOOL

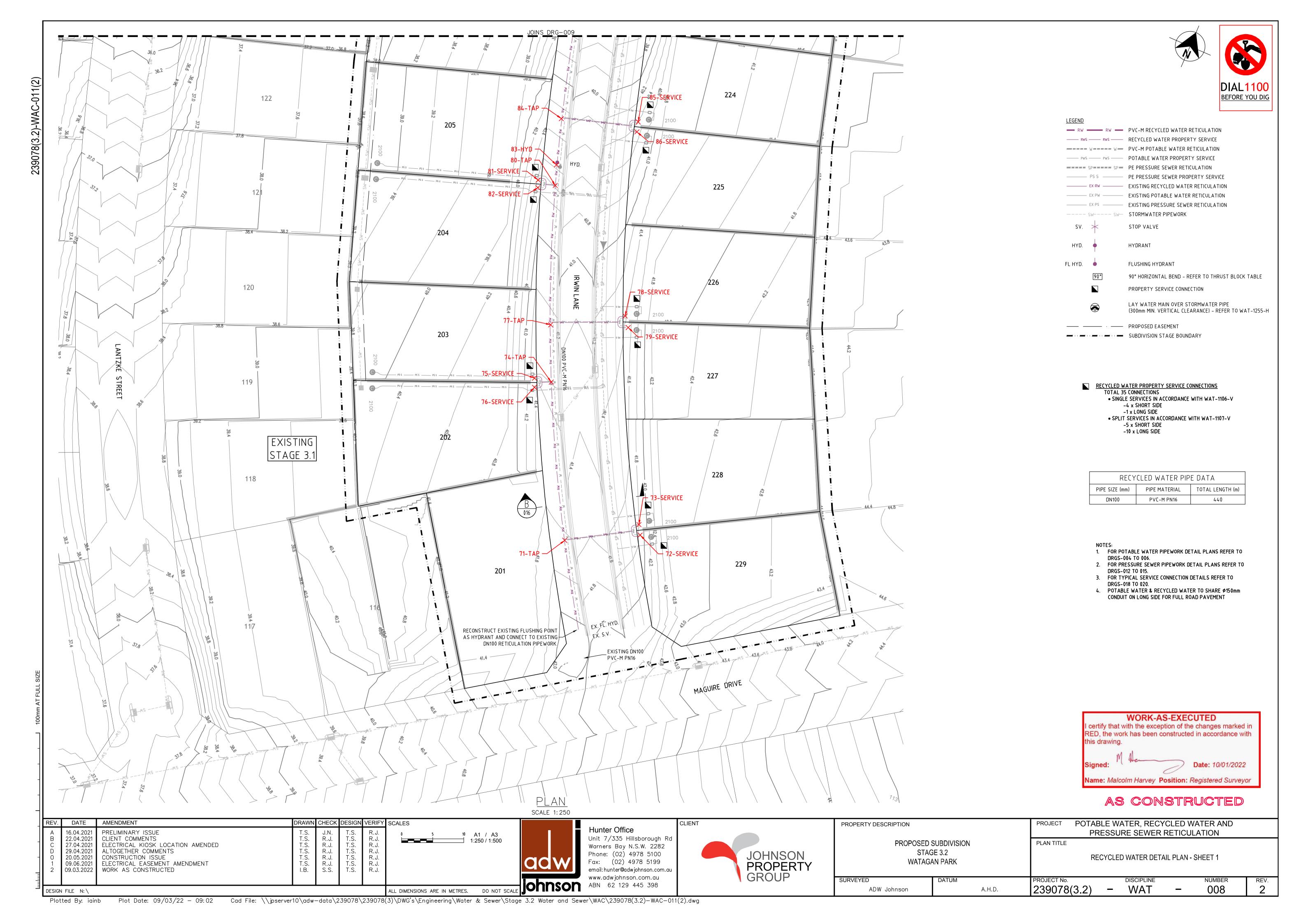
EXISTING STAGE 2.15

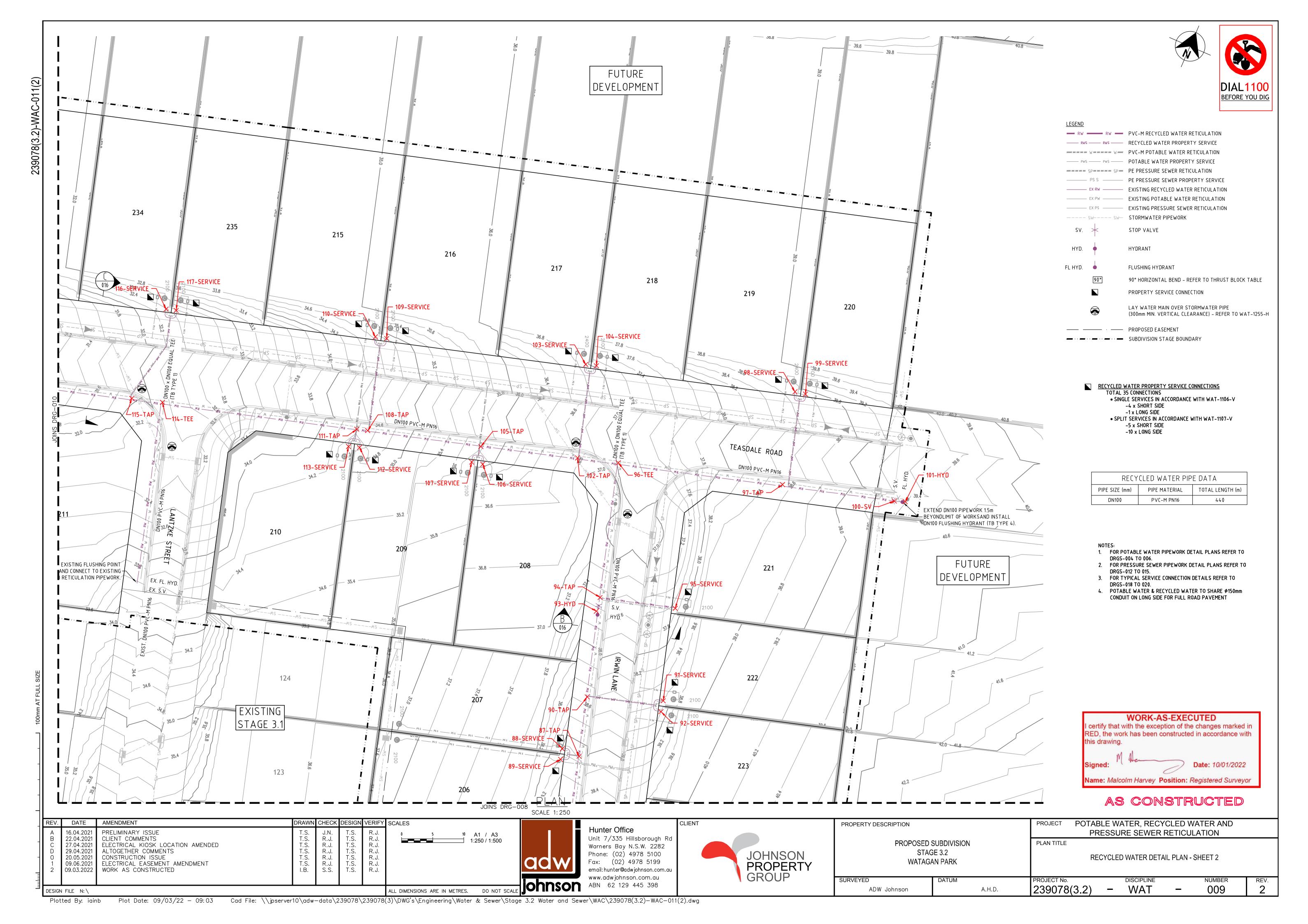


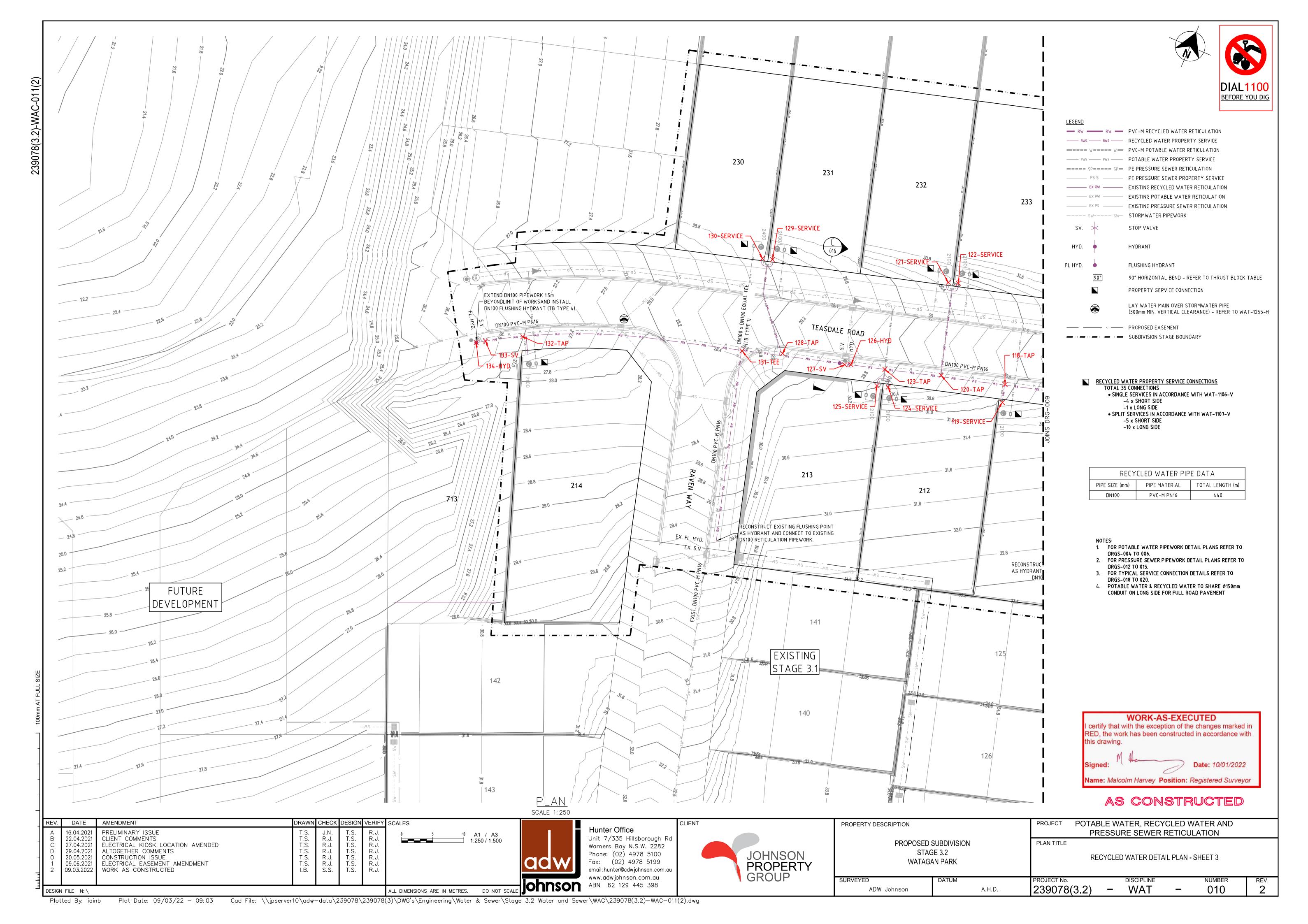


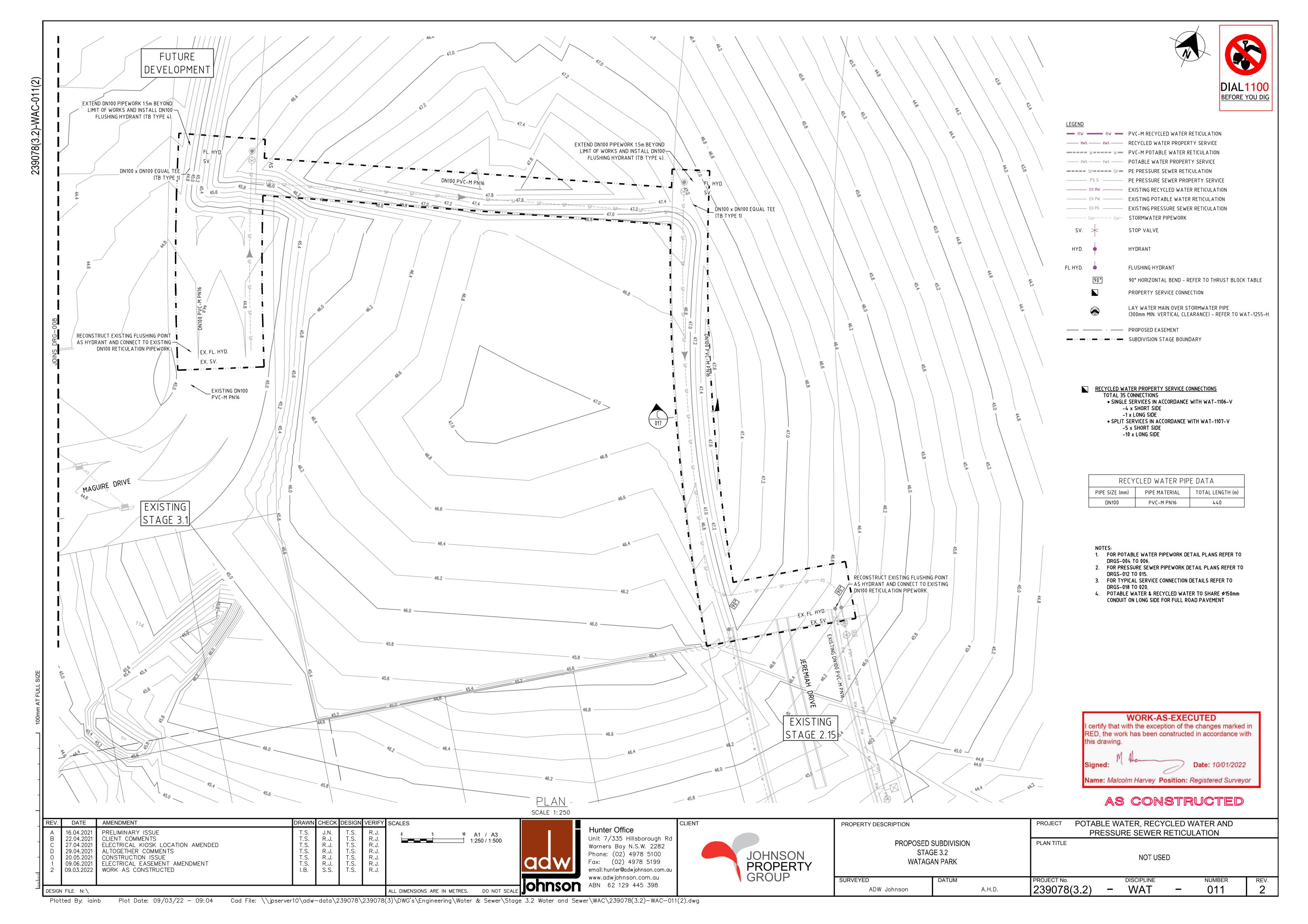


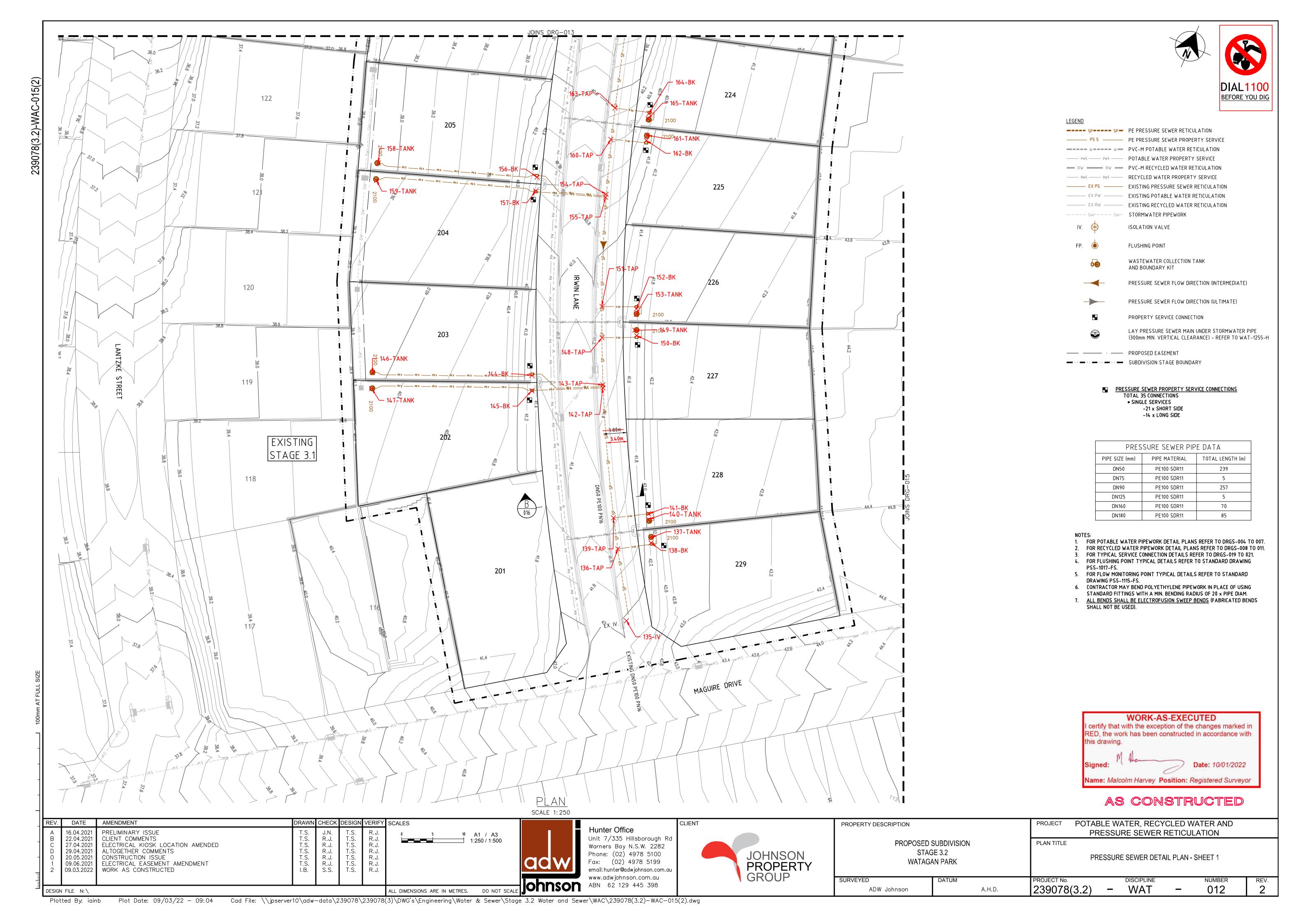


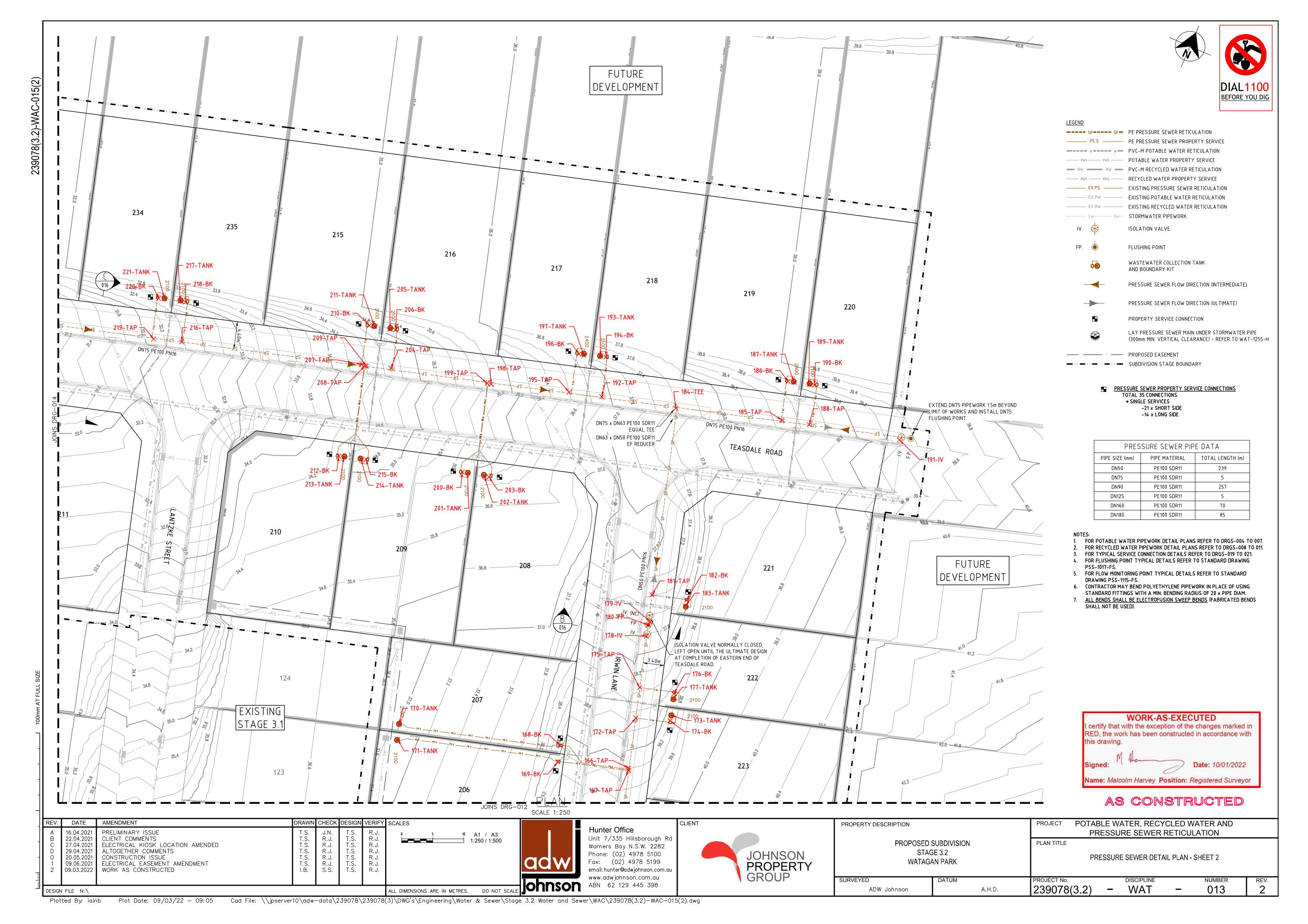


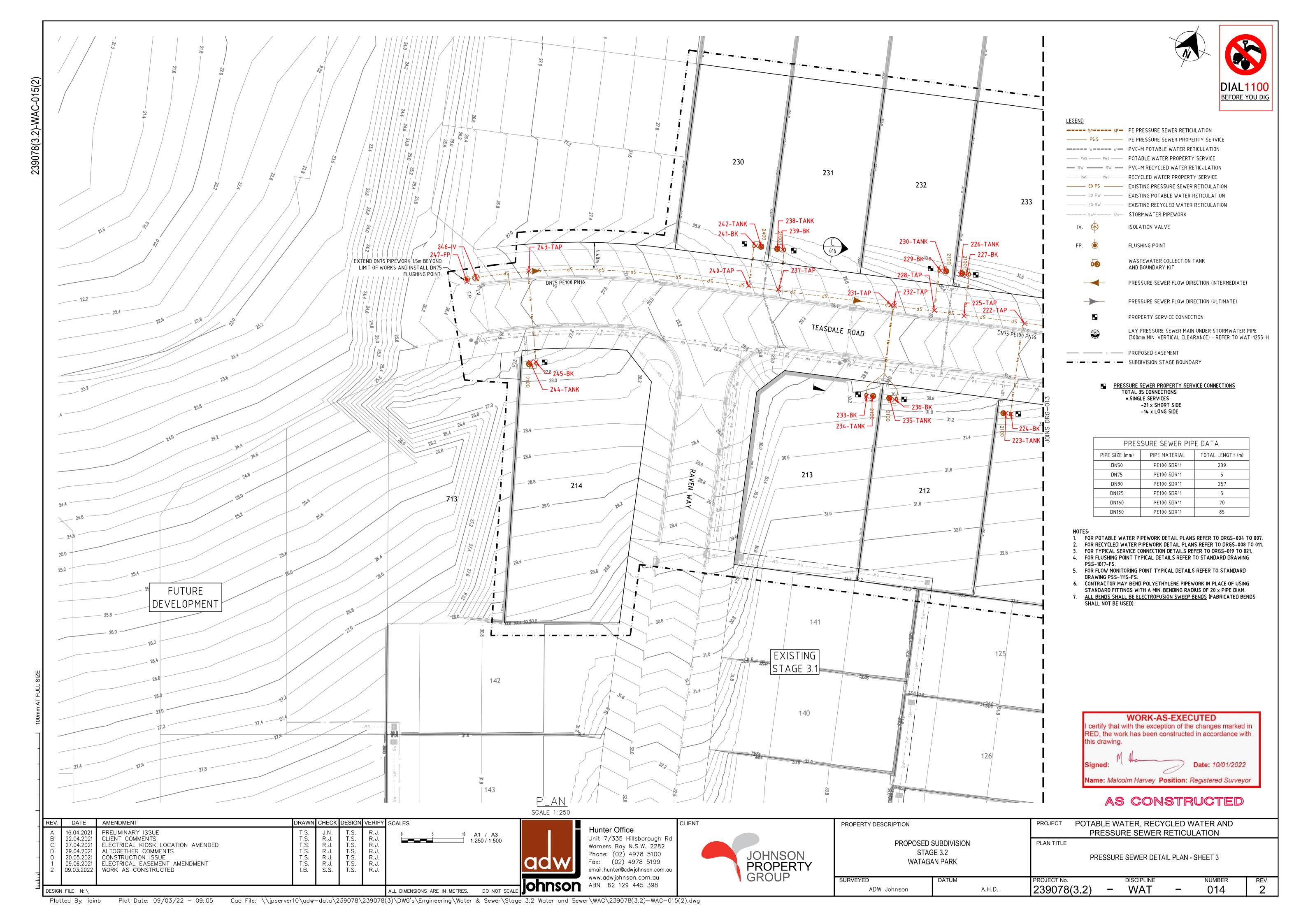


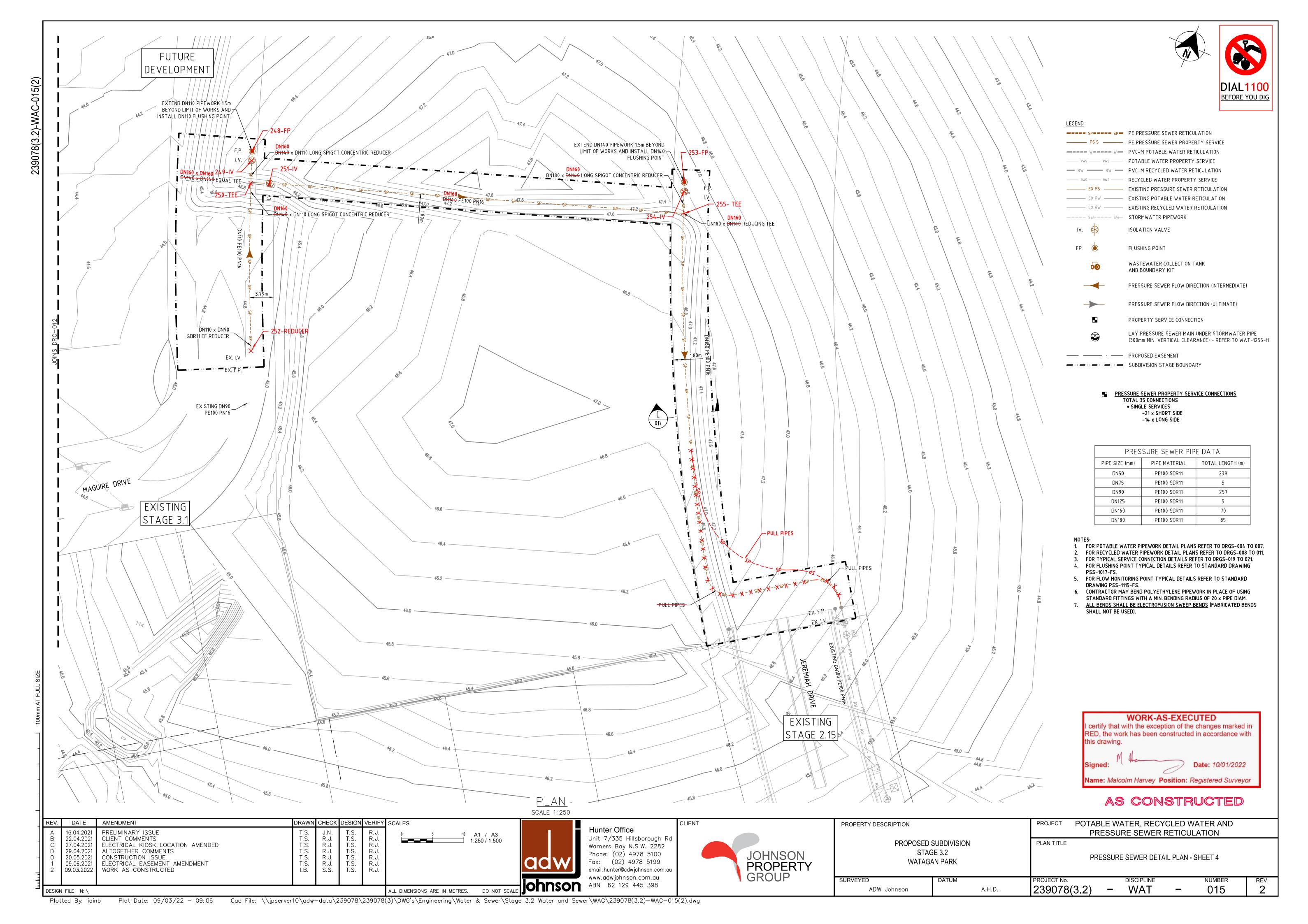












355618.808 | 6341223.566 TAP BAND 355588.765 | 6341214.844 | TEE 178 | 355675.093 | 6341211.396 |IV 244 | 355495.224 | 6341181.191 | TANK 355620.431 | 6341220.726 | SERVICE 355584.002 | 6341213.463 | TAP BAND 179 | 355674.716 | 6341213.758 | IV 245 | 355496.003 | 6341181.615 | BK 355619.32 | 6341220.373 | SERVICE 355583.339 | 6341228.825 | SERVICE 246 | 355481.967 | 6341190.103 | IV 180 | 355674.627 | 6341213.141 | FP 355608.253 | 6341220.371 | HYD 355584.909 6341229.267 SERVICE 247 | 355480.691 | 6341189.024 | FP 355673.274 | 6341217.814 | TAP BAND 355607.62 | 6341220.028 SV 355566.617 | 6341208.315 | TAP BAND 182 | 355678.707 | 6341219.271 | BK 248 | 355769.575 | 6341175.795 | FP 355589.072 | 6341215.185 | TEE 355567.358 | 6341205.507 | SERVICE 355678.919 | 6341218.344 | TANK 249 | 355770.09 | 6341174.318 | IV 355583.754 | 6341213.685 | TAP BAND 355556.609 | 6341205.597 | TAP BAND 250 | 355771.45 | 6341170.956 | TEE 355664.816 | 6341246.858 | TEE 355583.584 | 6341228.738 | SERVICE 121 | 355551.693 | 6341219.734 | SERVICE 355681.194 6341251.878 TAP BAND 251 | 355774.198 | 6341171.936 | IV 355584.657 | 6341229.125 | SERVICE 122 | 355553.227 | 6341220.252 | SERVICE 252 | 355782.189 | 6341146.298 | REDUCER 355679.67 6341257.974 BK 355566.086 6341208.506 TAP BAND 123 | 355547.936 | 6341202.854 | TAP BAND 355680.536 6341258.253 TANK 253 | 355835.265 | 6341198.895 | FP 124 | 355549.545 | 6341200.466 | SERVICE 254 | 355835.811 | 6341197.497 | IV 355567.047 | 6341205.442 SERVICE 355685.537 | 6341252.978 | TAP BAND 

 T.S.
 R.J.
 T.S.

 T.S.
 R.J.
 T.S.

 T.S.
 R.J.
 T.S.

 T.S.
 R.J.
 T.S.

 I.B.
 S.S.
 T.S.

 PROPOSED SUBDIVISION 27.04.2021 ELECTRICAL KIOSK LOCATION AMENDED Warners Bay N.S.W. 2282 29.04.2021 ALTOGETHER COMMENTS STAGE 3.2 **JOHNSON** Phone: (02) 4978 5100 CONSTRUCTION ISSUE Fax: (02) 4978 5199 WATAGAN PARK PROPERTY GROUP 09.06.2021 | ELECTRICAL EASEMENT AMENDMENT email: hunter@adwjohnson.com.au 09.03.2022 WORK AS CONSTRUCTED www.adwjohnson.com.au SURVEYED DATUM johnson ABN 62 129 445 398 ADW Johnson A.H.D. ALL DIMENSIONS ARE IN METRES. DO NOT SCAL DESIGN FILE N: \ 

POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION PLAN TITLE WAC COORD SCHEDULE PROJECT No. 239078(3.2) WAT 016 2 \_

WAC SEWER TABLE

201 | 355638.277 | 6341223.995 | TANK

202 | 355640.946 | 6341224.563 TANK

205 | 355617.637 | 6341240.19 | TANK

204 | 355620.255 | 6341234.506 TAP BAND

207 | 355615.718 | 6341233.241 | TAP BAND

208 | 355616.27 | 6341233.198 | TAP BAND

209 | 355616.513 | 6341233.243 TAP BAND

203 | 355641.688 | 6341224.737 |BK

206 | 355618.474 | 6341240.419 | BK

210 | 355614.343 | 6341239.385 | BK

212 | 355618.205 | 6341218.197 | BK

215 | 355622.446 | 6341219.478 | BK

211 | 355615.144 | 6341239.625 | TANK

213 | 355619.027 | 6341218.368 | TANK

214 | 355621.682 | 6341219.181 | TANK

217 | 355584.889 | 6341230.913 | TANK

218 | 355585.722 | 6341231.085 | BK

220 | 355581.533 | 6341229.919 | BK

221 | 355582.377 | 6341230.212 | TANK

223 | 355568.575 | 6341204.165 | TANK

226 | 355553.009 | 6341221.679 | TANK

224 | 355569.371 | 6341204.376 | BK

227 | 355553.897 | 6341221.97 | BK

229 | 355549.834 | 6341220.972 | BK

233 | 355546.973 | 6341197.744 | BK

236 | 355551.308 | 6341199.054 | BK

239 | 355525.207 | 6341213.957 | BK

241 | 355520.992 | 6341212.8 | BK

242 | 355521.826 | 6341213.032 | TANK

234 | 355547.783 | 6341198.011 | TANK

235 | 355550.438 | 6341198.955 | TANK

238 | 355524.358 | 6341213.797 | TANK

230 | 355550.622 | 6341221.19 | TANK

216 | 355587.732 | 6341224.969 TAP BAND

219 | 355583.406 | 6341223.603 | TAP BAND

222 | 355565.617 | 6341218.575 | TAP BAND

225 | 355556.156 | 6341215.832 | TAP BAND

228 | 355551.438 | 6341214.72 | TAP BAND

231 | 355544.724 | 6341212.753 | TAP BAND

232 | 355545.242 | 6341212.847 | TAP BAND

237 | 355527.124 | 6341207.825 | TAP BAND

240 | 355522.47 | 6341206.446 TAP BAND

243 | 355489.16 | 6341194.519 | TAP BAND

NORTHING FITTING

POINT | EASTING

137 | 355718.512 | 6341113.156 | TANK

140 | 355717.063 | 6341115.671 | TANK

144 | 355690.605 | 6341129.421 | BK

145 | 355691.585 | 6341127.157 | BK

146 | 355666.955 | 6341119.622 | TANK

147 | 355667.843 | 6341117.215 | TANK

149 | 355702.878 | 6341142.678 | TANK

152 | 355701.746 | 6341145.933 |BK

156 | 355678.663 | 6341158.984 | BK

157 | 355679.357 | 6341156.899 | BK

162 | 355692.431 | 6341171.405 | BK

158 | 355654.385 | 6341150.93 | TANK

159 | 355655.218 | 6341148.193 | TANK

160 | 355687.152 | 6341169.282 | TAP BAND

163 | 355685.749 | 6341174.154 | TAP BAND

355691.096 | 6341175.506 |BK

166 | 355680.913 | 6341190.821 | TAP BAND

355669.391 6341189.719 BK

169 | 355670.077 | 6341187.175 | BK

170 | 355644.271 | 6341182.576 | TANK

171 | 355645.042 | 6341180.243 | TANK

173 | 355683.736 | 6341201.313 | TANK

176 | 355682.813 | 6341204.672 | BK

177 | 355683.035 | 6341203.852 | TANK

172 | 355678.768 | 6341198.651 | TAP BAND

355684.007 | 6341200.432 BK

175 | 355677.377 | 6341203.394 | TAP BAND

355681.033 | 6341190.476 | TAP BAND

165 | 355691.321 | 6341174.666 | TANK

355692.22 | 6341172.192 | TANK

153 | 355702.078 | 6341145.099 | TANK

150 | 355703.496 | 6341142

148 | 355698.532 | 6341139.48 | TAP BAND

151 | 355696.522 | 6341144.089 | TAP BAND

154 | 355689.95 | 6341160.871 | TAP BAND

355690.061 | 6341160.416 | TAP BAND

141 355716.68

139 | 355711.772 | 6341113.663 | TAP BAND

142 | 355701.882 | 6341132.15 | TAP BAND

143 | 355701.669 | 6341132.584 | TAP BAND

6341116.517 BK

138 | 355718.906 | 6341112.387 | BK

WORK-AS-EXECUTED certify that with the exception of the changes marked in RED, the work has been constructed in accordance with this drawing. Name: Malcolm Harvey Position: Registered Surveyor

**DIAL1100** 

BEFORE YOU DIG

AS	CONSTRUCTED

+	B 22.04.2021 CLIENT COMMENTS  T.S  T.S	S. J.N. T.S. R.J. S. R.J. T.S. R.J.	Unit 7/335 Hillsborough Rd		PROPOSED SUBDIVISION	PLAN TITLE
<b>  </b>	A 16.04.2021 PRELIMINARY ISSUE T.S B 22.04.2021 CLIENT COMMENTS T.S	<del></del>	Hunter Office	PROPERTI DE	SOME HON	
╟	REV. DATE AMENDMENT DRAV	WN CHECK DESIGN VERIFY SCALES	CLIENT	PROPERTY DE	SCRIPTION	PROJECT
<b>∐</b>	70   355485.079   6341180.641   HYD	REFER SHEETS 004 TO 006				
+	69 355486.342 6341181.449 SV	NOTE:		REFER SHEETS 012 TO 015		
	68 355493.717 6341182.119 SERVICE	NO TE		NOTE:		
$\rfloor  $	67 355492.269 6341184.93 TAP BAND	REFER SHE	EETS 008 TO 010	NOTE		
+	66 355524.878 6341196.808 TEE	NOTE:		355637.437 6341223.769 BK	J	
1	65 355524.09 6341211.755 SERVICE			355635.402 6341238.426 TAP BAND	-	
Ш		134   353403.970	<u> </u>			
٦	64 355523.044 6341211.507 SERVICE		8 6341180.631 HYD 198	355636.083 6341238.579 TAP BAND	-	
100	63 355530.681 6341198.569 TAP BAND			355647.889 6341248.753 TANK	-	
mm	62 355541.26 6341201.306 SV			355647.068 6341248.658 BK	-	
AT F	61 355541.976 6341200.657 HYD			355648.085 6341242.39 TAP BAND	-	
	60 355548.1 6341200.032 SERVICE		7 6341211.362 SERVICE 194	355651.227 6341249.942 BK		
SIZI	59 355549.262 6341200.373 SERVICE		4 6341211.833 SERVICE 193	355650.371 6341249.737 TANK	INELEX SHEETS OF	10 013
اسا	58 355547.663 6341203.319 TAP BAND		6341198.664 TAP BAND 192	355653.133 6341243.825 TAP BAND		TO 015
	57 355553.018 6341220.023 SERVICE		9 6341200.965 SV 191	355699.815 6341256.499 IV	NOTE:	
	56 355551.935 6341219.746 SERVICE		3 6341201.4 HYD 190	355683.765 6341259.128 BK		
	55 355556.316 6341205.878 TAP BAND	125 355547.81	6341199.96 SERVICE 189	355682.918 6341258.868 TANK	255 355837.272 6341194.2	99 TEE

TΑ	BLE	 WA	C REC-	WATER	TABLE
IING	FITTING	POINT	EASTING	NORTHING	FITTING
4.521	SV	71	355706.007	6341107.226	TAP BAND
6.022	HYD	72	355716.791	6341112.829	SERVICE

355693.893 | 6341129.691 | TAP BAND

355691.159 | 6341129.195 | SERVICE

355691.763 | 6341127.849 | SERVICE

355700.544 6341144.157 SERVICE

355701.747 | 6341142.65 | SERVICE

355681.894 | 6341158.923 | TAP BAND

355679.028 | 6341158.613 | SERVICE

355679.474 | 6341157.487 | SERVICE

355678.504 | 6341169.155 | TAP BAND

355690.048 6341173.598 SERVICE

355690.492 6341172.044 SERVICE

355669.894 | 6341189.407 | SERVICE

355670.323 | 6341187.723 | SERVICE

355681.691 | 6341202.922 | SERVICE

355682.072 | 6341201.179 | SERVICE

355665.772 | 6341214.117 | TAP BAND

355677.546 | 6341217.319 | SERVICE

355685.432 | 6341242.43 | TAP BAND

355681.321 | 6341256.914 | SERVICE

355683.031 | 6341257.24 | SERVICE

355653.522 | 6341233.236 | TAP BAND

355650.399 6341248.015 SERVICE

355639.954 6341226.234 SERVICE

355638.18 | 6341225.847 | SERVICE

355620.83 | 6341223.813 | TAP BAND

355617.756 | 6341238.607 | SERVICE

355615.958 | 6341238.132 | SERVICE

355619.022 | 6341220.254 | SERVICE

112 | 355620.713 | 6341220.802 | SERVICE

355619.133 | 6341223.321 | TAP BAND

355666.101 | 6341211.846 | HYD

355659.832 | 6341235.141 | TEE

355702.96 | 6341247.162 | SV

103 | 355648.737 | 6341247.537 | SERVICE

105 | 355638.536 | 6341228.715 | TAP BAND

355704.617 | 6341247.794 HYD

355670.237 | 6341198.645 | TAP BAND

355672.853 | 6341189.359 | TAP BAND

355680.754 6341162.033 HYD

355690.142 | 6341138.094 | TAP BAND

73 | 355715.955 | 6341114.295 | SERVICE

WAC WATER

EASTING NORTHIN

355714.733 | 6341094.

355713.357 6341096.

355701.16

355716.124 | 6341114.039 | SERVICE

355716.641 | 6341113.076 | SERVICE

355706.205 | 6341107.645 | TAP BAND

355694.219 | 6341130.024 | TAP BAND

355691.712 | 6341128.069 | SERVICE

355691.442 | 6341128.778 | SERVICE

355690.393 | 6341138.843 | TAP BAND

6341142.84

355700.763 | 6341143.848 | SERVICE

355682.23 | 6341159.24 | TAP BAND

355679.453 | 6341157.694 | SERVICE

355679.137 | 6341158.349 | SERVICE

355679.067 | 6341169.075 | TAP BAND

355690.376 | 6341172.302 | SERVICE 355690.105 | 6341173.192 | SERVICE

355673.162 | 6341189.631 | TAP BAND

355669.972 6341189.13 SERVICE

355670.266 | 6341187.982 | SERVICE

23 | 355681.936 | 6341201.426 | SERVICE

355670.858 | 6341198.945 | TAP BAND

355681.733 | 6341202.76 | SERVICE

355666.5 6341213.798 TAP BAND

355685.153 | 6341242.74 | TAP BAND

355681.702 | 6341256.997 | SERVICE

355682.663 | 6341257.156 | SERVICE

355653.253 | 6341233.679 TAP BAND

355649.052 | 6341247.592 | SERVICE

355650.208 | 6341247.938 | SERVICE

355638.147 | 6341229.104 | TAP BAND

355639.659 | 6341226.197 | SERVICE

355638.509 | 6341225.922 | SERVICE

355620.566 | 6341224.233 TAP BAND

42 | 355617.502 | 6341238.566 | SERVICE

43 | 355616.319 | 6341238.213 | SERVICE

355703.423 | 6341247.501 SV

355704.414 | 6341248.366 HYD

355677.639 | 6341217.055 | SERVICE

355662.506 | 6341226.212 HYD

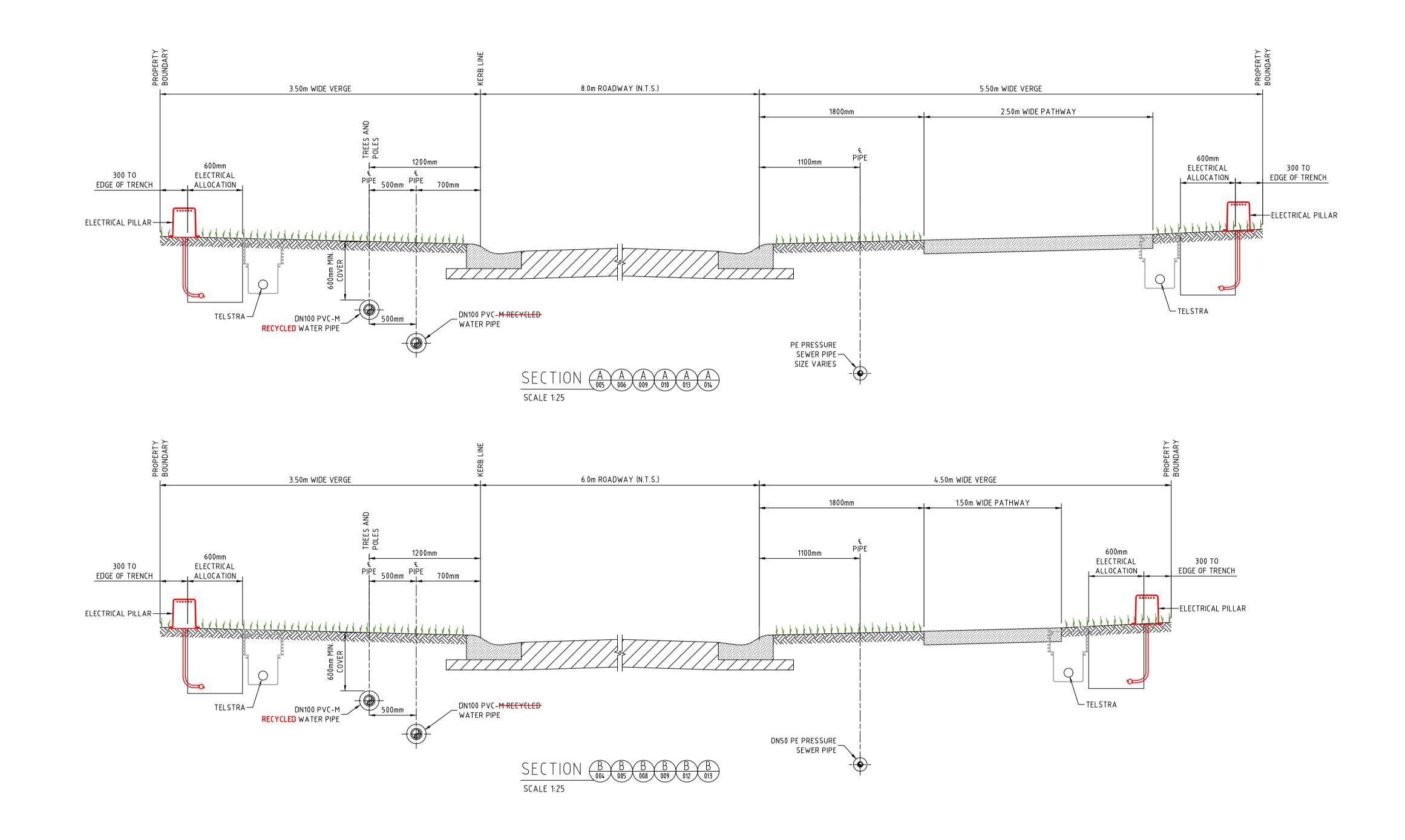
355662.291 | 6341226.939 SV

29 | 355660.133 | 6341235.548 TEE

355681.12 | 6341161.815 | HYD

SERVICE







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

WORK-AS-EXECUTED
I certify that with the exception of the changes marked in RED, the work has been constructed in accordance with this drawing.

Signed:

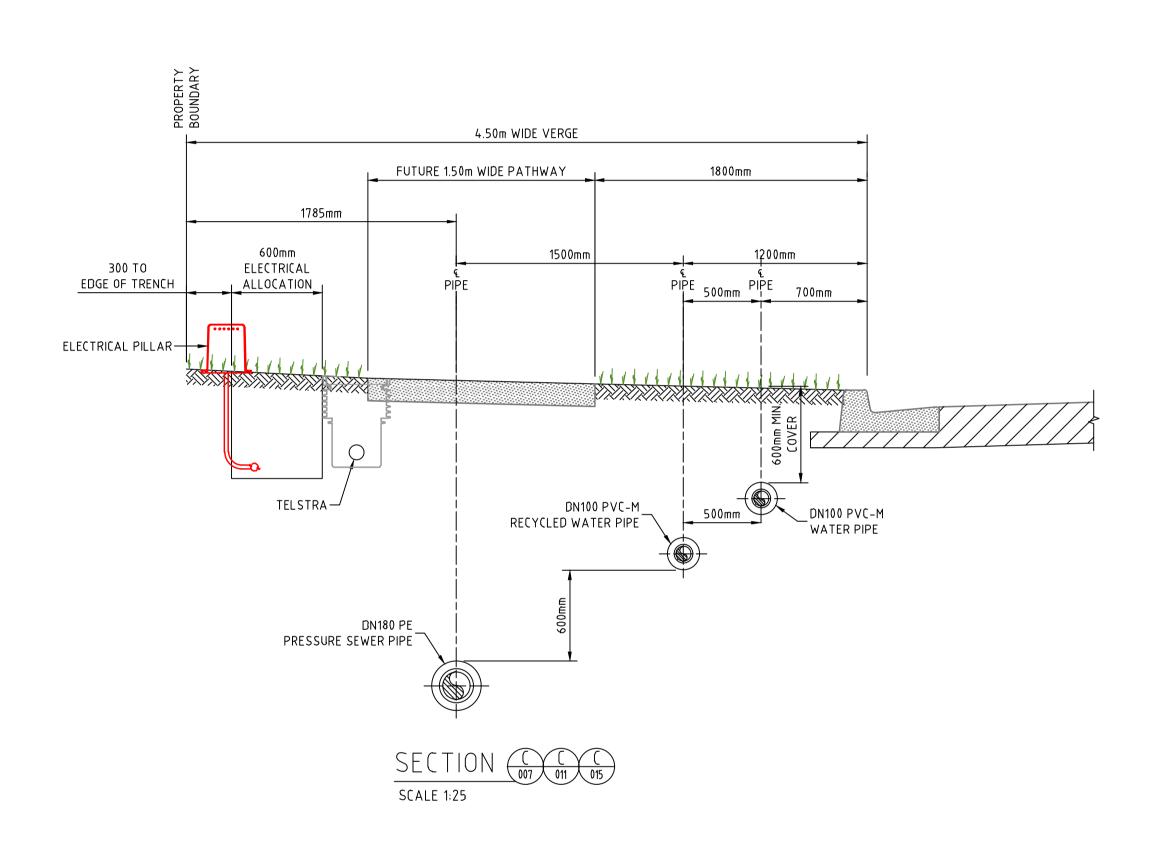
Date: 10/01/2022

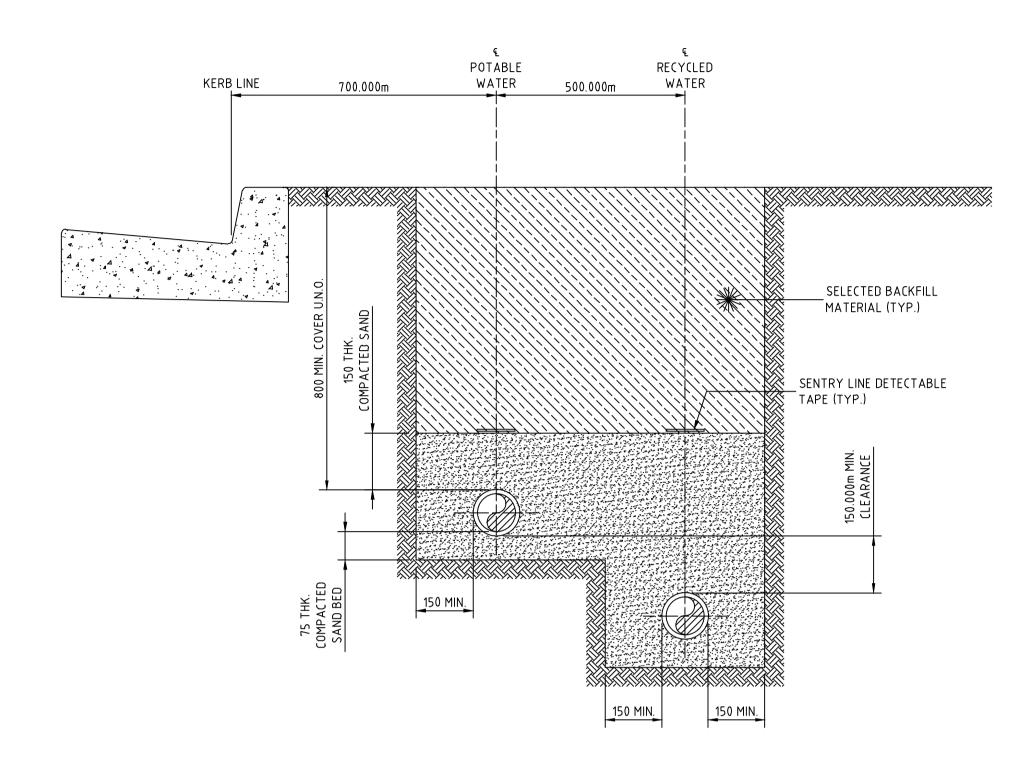
Name: Malcolm Harvey Position: Registered Surveyor

# as constructed

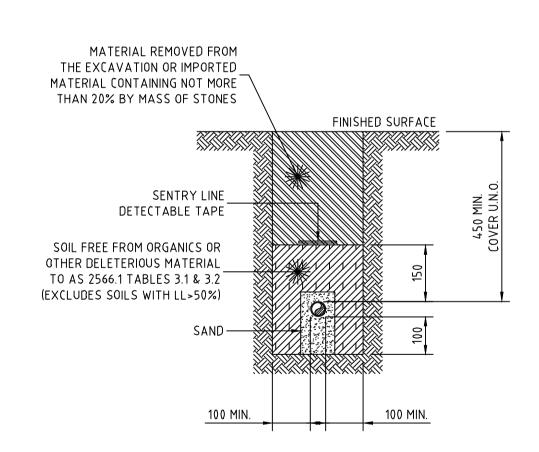
REV.	DATE	AMENDMENT	DRAW	/N CHE	CK DES	IGN V	ERIFY SCALES			CLIENT	PROPERTY DESCRIPTION			PROJECT POTAB	BLE WATER, RECY	CLED WA	ΓER AND	
A	16.04.20	21 PRELIMINARY ISSUE	T.S.	J.N	ļ. <u>T</u> .	S.	R.J. 0 0.1 0.2 0.3 0.4 A1 / A3		Hunter Office					PR	ESSURE SEWER F	RETICULA	TION	
-   C	22.04.20 27.04.20	21 ELECTRICAL KIOSK LOCATION AMENDED	1.S. T.S.	R.	J.   T. J.   T.	$\circ$	R.J. 1:10 / 1:20		Unit 7/335 Hillsborough Rd Warners Bay N.S.W. 2282		PROPOSED	SUBDIVISION		PLAN TITLE				
_	29.04.20 20.05.20	21 ALTOGETHER COMMENTS 21 CONSTRUCTION ISSUE	T.S.	D	J. T.	<	R.J.		Phone: (02) 4978 5100	JOHNSON		GE 3.2			TYPICAL CROSS SEC	S A - SMOIT	R	
	09.06.20	21  ■ ELECTRICAL EASEMENT AMENDMENT	T.S.	P	j.   <u>T</u> .	$\circ$	R.J.	Idawi	Fax: (02) 4978 5199	PROPERTY	WATAG	AN PARK			THEOAL OROUGULO	TIONO - A a	D	
<b>∃</b>   <sup>2</sup>	09.03.202	22 WORK AS CONSTRUCTED	I.B.	5.3	).   I.	S.	K.J.		email: hunter@adwjohnson.com.au	CROUD								
<b>립</b>								lebpeer	www.adwjohnson.com.au	GROUP	SURVEYED	DATUM		PROJECT No.	DISCIPLINE		NUMBER	REV.
DESIG	N FILE N:\	<u> </u>	•	•		•	ALL DIMENSIONS ARE IN METRES. DO NOT SCALE	<b>Journson</b>	ABN 62 129 445 398		ADW Johnson		A.H.D.	239078(3.2)	<ul><li>WAT</li></ul>	_	017	2
Plo	tted By:	iainb	\\jpserver10\ad	lw-date	a\2390	78\23	39078(3)\DWG's\Engineering\Water & Sewer\Stag	ge 3.2 Water and So	ewer\WAC\239078(3.2)-WAC-01	7(2).dwg								







# STREET PRESSURE MAIN TYPICAL DETAIL SCALE 1:10



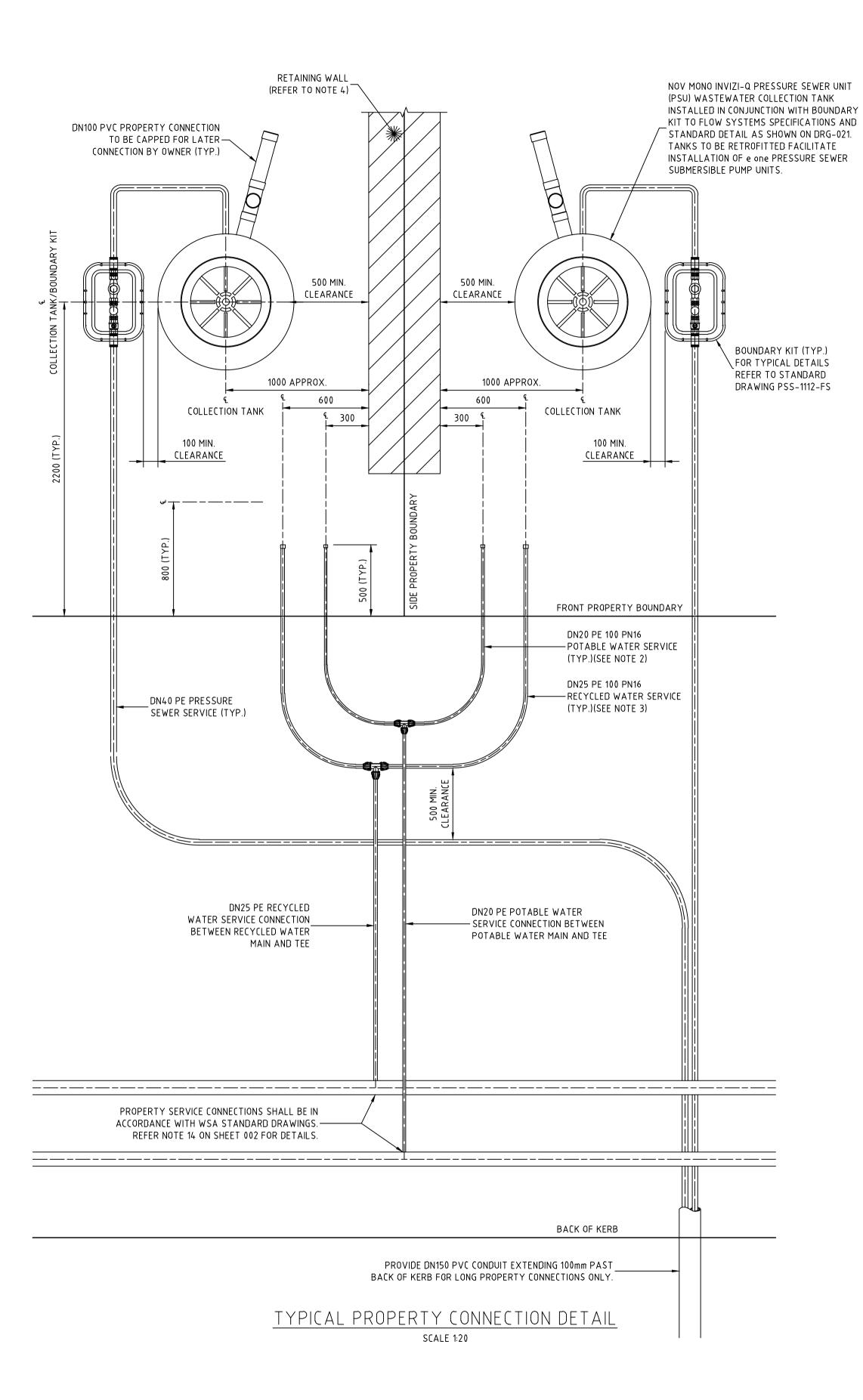
PRIVATE PROPERTY PRESSURE MAIN

TYPICAL DETAIL

SCALE 1:10



_ R	EV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIF	SCALES			CLIENT	PROPERTY DESCRIPTION		PROJECT POTABLE WATER, REC	YCLED WATER AN	D
	A 1	6.04.2021	PRELIMINARY ISSUE	T.S.	J.N.	T.S.	R.J.	0 0.4 0.8 A1 / A3		Hunter Office				PRESSURE SEWER	RETICULATION _	
-	B 2	2.04.2021 7.04.2021	CLIENT COMMENTS ELECTRICAL KIOSK LOCATION AMENDED	1.S. T.S.	R.J. R.J.	1.S. T.S.	R.J. R.J.	1:20 / 1:40		Unit 7/335 Hillsborough Rd Warners Bay N.S.W. 2282		PROPOSED S	SUBDIVISION	PLAN TITLE	•	
_	D 2	9.04.2021 0.05.2021	ALTOGETHER COMMENTS CONSTRUCTION ISSUE	T.S.	R.J.	T.S.	R.J. R.J			Phone: (02) 4978 5100	JOHNSON	STAG		TYPICAL PIPEWORK T	RENCHING DETAILS	
	1 0	9.06.2021	ELECTRICAL EASEMENT AMENDMENT	T.S.	R.J.	T.S.	R.J.		Igawi	Fax: (02) 4978 5199	DD∩DEDTV	WATAGA	N PARK	THIS ALT II EVVOITANT	VERTORING BETTALES	
<b> </b>	2   0:	9.03.2022	WORK AS CONSTRUCTED	1.6.	5.5.	1.5.	R.J.			email: hunter@adwjohnson.com.au www.adwjohnson.com.au	GROUP	CLIDVEVED.	DATUM	DECIDENT.	NUMBER	DEV.
<b>]</b>  -									<b>Hjohnsor</b>			SURVEYED	DATUM	PROJECT No. DISCIPLINE	NUMBER	REV.
DE	ESIGN FI	ILE N:\										ADW Johnson	A.H.D.	239078(3.2)	- 018	
	Plotted	d B <i>y</i> : iain	b	10∖adw∙	-data\2	≟39078\ʻ	23907	8(3)\DWG's\Engineering\Water & Sewer\Sta	ge 3.2 Water and Se	wer\WAC\239078(3.2)-WAC-01	17(2).dwg					

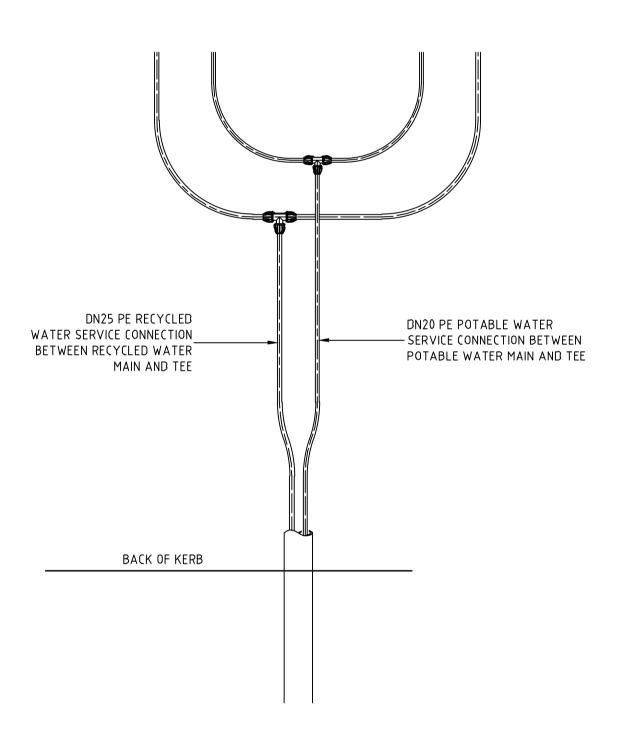


#### NOTES:

- 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 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.

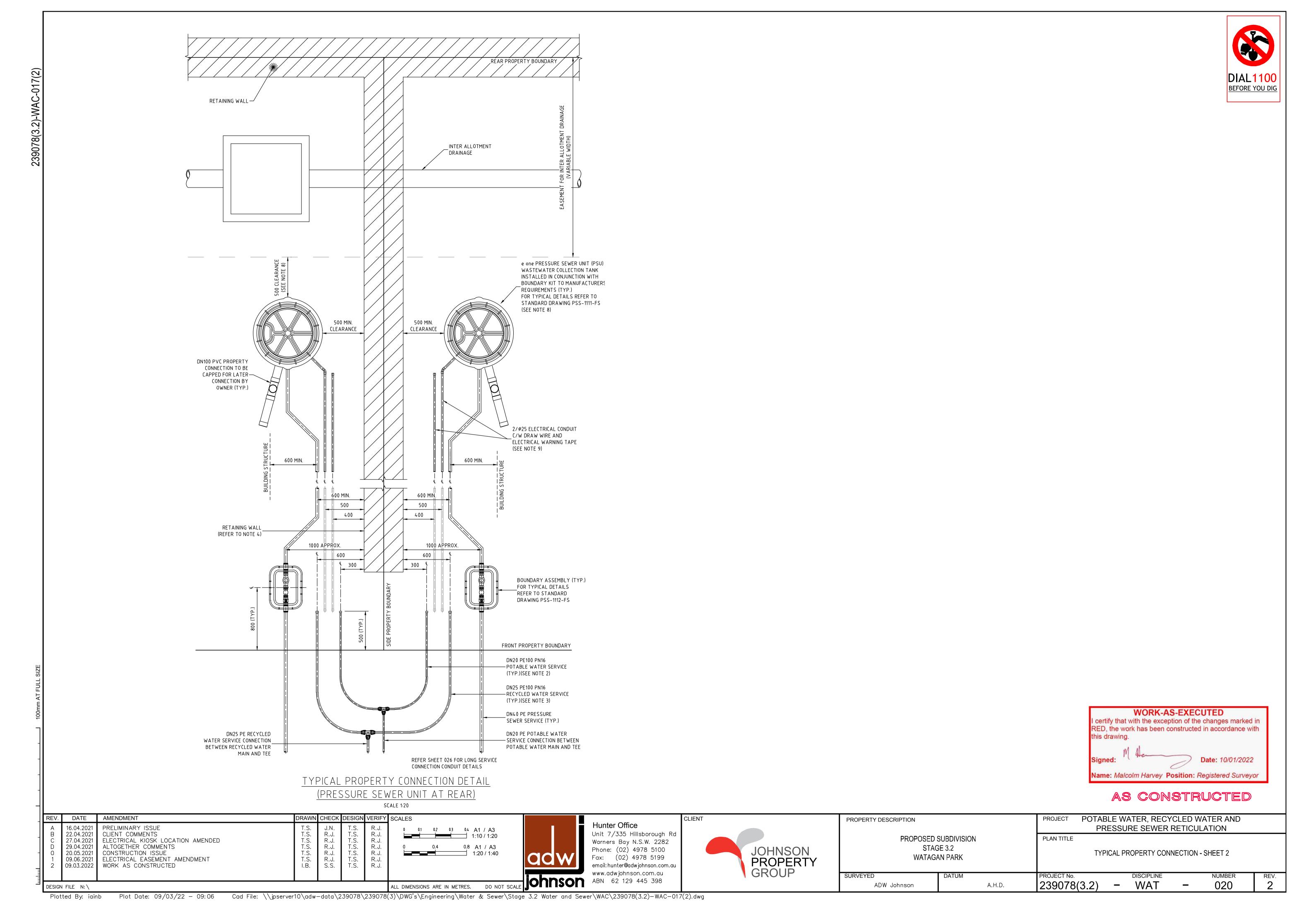
  ALL CONDUIT BENDS ARE TO BE LARGE RADIUS SWEEP BENDS.
- 10. FOR MORE INFORMATION REFER TO FLOW SYSTEMS STANDARD DRAWING FSI-1000-FS.
- 11. FOR ALTERNATE TANK AND BOUNDARY CONFIGURATIONS, AND DETAILS FOR TANKS INSTALLED ON PROPERTIES WITH BATTERS AND RETAINING WALLS, REFER TO FLOW SYSTEMS STANDARD DRAWINGS FSI-SK03A-FS AND FSI-SK03B-FS.



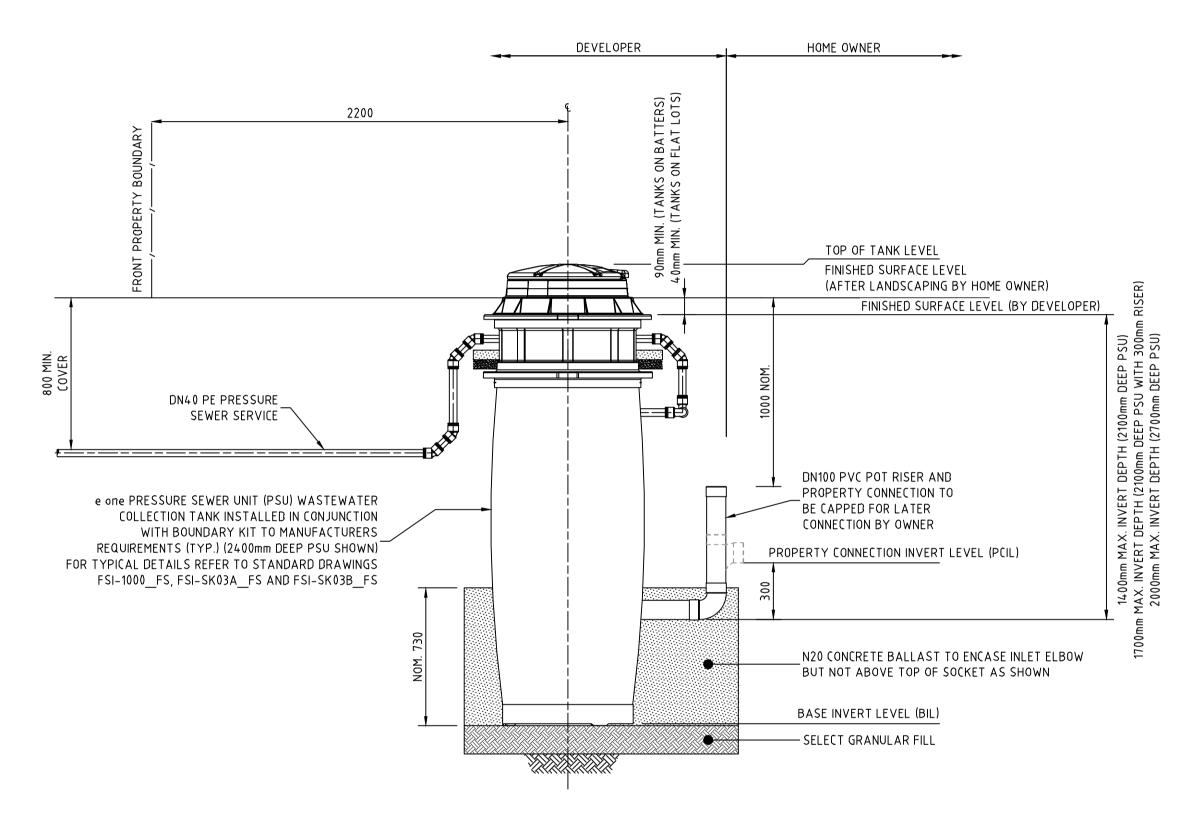
TYPICAL POTABLE WATER AND
RECYCLED WATER CONDUIT DETAIL
(LONG SIDE)
SCALE 1:20



RE	EV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIF	Y SCALES			CLIENT	PROPERTY DESCRIPTION		PROJECT POTABLE WAT	ΓER, RECYCLE	ED WATER AND	
		6.04.2021	PRELIMINARY ISSUE	T.S.	J.N.	T.S.	R.J.	0 0.4 0.8 A1 / A3		Hunter Office				PRESSUR	E SEWER RET	TCULATION	
-    E	B   2 C   2		CLIENT COMMENTS ELECTRICAL KIOSK LOCATION AMENDED	T.S.	R.J. R.J.	T.S. T.S.	R.J. R.J.	1:20 / 1:40		Unit 7/335 Hillsborough Rd Warners Bay N.S.W. 2282		PROPOSED SU	JBDIVISION	PLAN TITLE			
	D 2 O 2 1 0	9.04.2021 20.05.2021 9.06.2021	ALTOGETHER COMMENTS CONSTRUCTION ISSUE ELECTRICAL EASEMENT AMENDMENT WORK AS CONSTRUCTED	T.S. T.S. T.S. I.B.	R.J. R.J. R.J. S.S.	T.S. T.S. T.S. T.S.	R.J. R.J. R.J. R.J.		adw	Phone: (02) 4978 5100 Fax: (02) 4978 5199 email:hunter@adwjohnson.com.au	JOHNSON PROPERTY	STAGE WATAGAN		TYPICAL PRC	PERTY CONNEC	TION - SHEET 1	
4						<u> </u>			lobocor	www.adwjohnson.com.au ABN 62 129 445 398	GROUP	SURVEYED	DATUM		DISCIPLINE	NUMBER	REV.
JE DE	ESIGN FI	ILE N:\			-			ALL DIMENSIONS ARE IN METRES. DO NOT SCAL	<b>johnsor</b>	ABN 62 129 445 596		ADW Johnson	A.H.D.	239078(3.2) -	WAT ·	- 019	2
F	Plotted	d By: iain	b Plot Date: 09/03/22 — 09:06 Cad File: \jpserve	r10\adw	−data\2	<u> 39078∖</u>	23907	8(3)\DWG's\Engineering\Water & Sewer\Stag	ge 3.2 Water and Se	wer\WAC\239078(3.2)-WAC-01	017(2).dwg						



LOT NUMBER	TOP OF TANK	BASE IL	CONNECTION IL	EWATER COLLE TANK HEIGHT OI SERVICED IN STA	CTION TANK DE TANK LOCATION   GF 3.1	ETAILS EASTING	NORTHING	TOP OF COLLECTION TANK LID	CALCULATED WAC SANITARY DRAINAGE INVERT LEVEL	WAC V'S DESIGN INVERT LEVEL COMPARISON
202	40.40	38.27	39.17	2100	REAR	355667.924	6341117.303	40.60	39.28	0.11
203	40.03	37.90	38.80	2100	REAR	355666.913	6341119.698	40.26	38.94	0.14
204	39.41	37.28	38.18	2100	REAR	355655.081	6341148.368	39.58	38.27	0.09
205	38.95	36.82	37.72	2100	REAR	355654.234	6341150.827	39.17	37.85	0.13
206	37.96	35.83	36.73	2100	REAR	355644.957	6341180.111	38.21	36.89	0.16
207	37.08	34.95	35.85	2100	REAR	355644.243	6341182.611	37.31	35.99	0.14
208	36.27	34.14	35.04	2100	FRONT	355640.791	6341224.740	36.55	35.23	0.19
209 EAST	35.81	33.68	34.58	2100	FRONT	355717.220	6341115.509	35.96	34.64	0.06
209 WEST	34.86	32.73	33.63	2100	FRONT	355521.840	6341213.002	35.07	33.76	0.13
210	34.37	32.24	33.14	2100	FRONT	355638.291	6341224.026	34.54	33.23	0.09
211	31.52	29.39	30.29	2100	FRONT	355621.561	6341219.244	31.75	30.44	0.15
212	30.63	28.50	29.40	2100	FRONT	355619.061	6341218.530	30.77	29.45	0.05
213	30.21	28.08	28.98	2100	FRONT	355568.192	6341203.992	30.47	29.15	0.17
214	27.58	25.45	26.35	2100	FRONT	355550.405	6341198.909	27.78	26.47	0.12
215	34.83	32.70	33.60	2100	FRONT	355547.905	6341198.195	35.00	33.68	0.08
216	35.33	33.20	34.10	2100	FRONT	355495.124	6341180.839	35.53	34.21	0.11
217	36.94	34.51	35.41	2400	FRONT	355509.917	6341209.595	37.09	35.18	-0.23
218	37.46	35.33	36.23	2100	FRONT	355524.340	6341213.717	37.67	36.35	0.12
219	38.91	36.48	37.38	2400	FRONT	355647.797	6341248.999	39.00	37.08	-0.30
220	39.35	37.22	38.12	2100	FRONT	355553.185	6341221.960	39.49	38.17	0.05
221	38.13	36.00	36.90	2100	FRONT	355680.488	6341258.341	38.23	36.92	0.02
222	38.81	36.68	37.58	2100	FRONT	355584.915	6341231.028	38.92	37.60	0.02
223	39.28	37.15	38.05	2100	FRONT	355615.106	6341239.656	39.45	38.14	0.09
224	40.64	38.51	39.41	2100	FRONT	355617.606	6341240.371	40.79	39.47	0.06
225	40.90	38.77	39.67	2100	FRONT	355635.874	6341245.591	41.04	39.72	0.05
226	41.66	39.53	40.43	2100	FRONT	355650.297	6341249.713	41.86	40.55	0.12
227	41.84	39.71	40.61	2100	FRONT	355664.720	6341253.835	41.98	40.67	0.06
228	42.15	40.02	40.92	2100	FRONT	355682.988	6341259.056	42.30	40.99	0.07
229	42.35	40.22	41.12	2100	FRONT	355678.996	6341218.237	42.43	41.12	0.00
230	29.01	26.58	27.48	2400	FRONT	355683.115	6341203.814	29.28	27.37	-0.11
231	29.52	27.39	28.29	2100	FRONT	355683.829	6341201.314	29.86	28.54	0.25
232	30.76	28.63	29.53	2100	FRONT	355691.460	6341174.611	30.85	29.53	0.00
233	31.24	29.11	30.01	2100	FRONT	355692.216	6341172.123	31.43	30.11	0.10
234	32.68	30.55	31.45	2100	FRONT	355702.112	6341145.205	32.89	31.57	0.12
235	33.16	31.03	31.93	2100	FRONT	355703.134	6341142.813	33.40	32.08	0.15



PRESSURE SEWER SERVICE CONNECTION

TYPICAL SECTIONAL ELEVATION



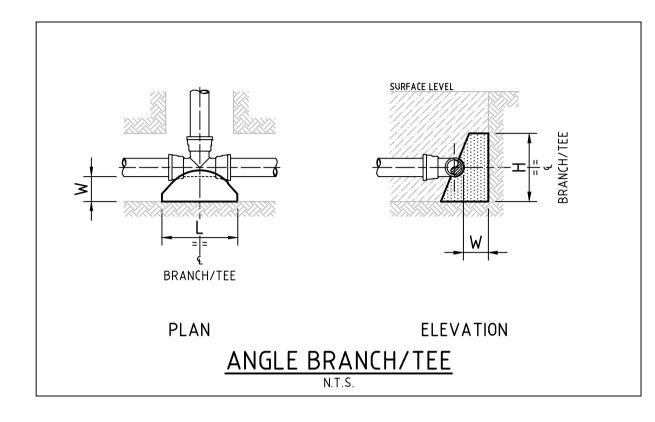
1.2071.70			
D 29.04.2021 ALTOGETHER COMMENTS CONSTRUCTION ISSUE CONSTRUCTION ISSUE Fax: (02) 4978 5100 Fax: (02) 4978 5199 Fax: (03) 4978 5199 Fax: (04) 4978 5199 Fax: (05) 4978	Fax: (02) 4978 5199 email: hunter@adwichnson.com.au  PROPERTY	PROPOSED SUBDIVISION STAGE 3.2 WATAGAN PARK	PLAN TITLE SEWER SERVICE CONNECTION DETAILS
DESIGN FILE N:\  ALL DIMENSIONS ARE IN METRES. DO NOT SCALE ON NOT SCA	GROUP	SURVEYED DATUM ADW Johnson A.H.D.	PROJECT No. DISCIPLINE NUMBER REV. 239078(3.2) - WAT - 021 2

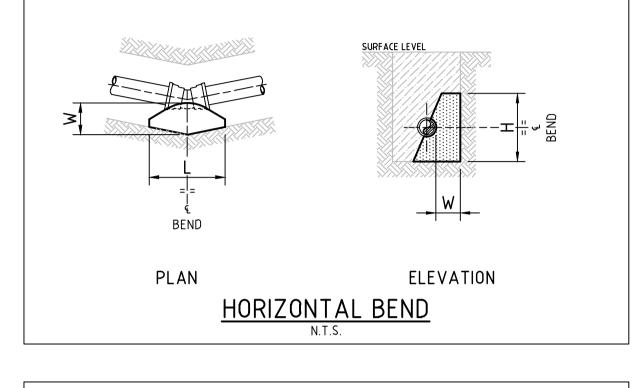


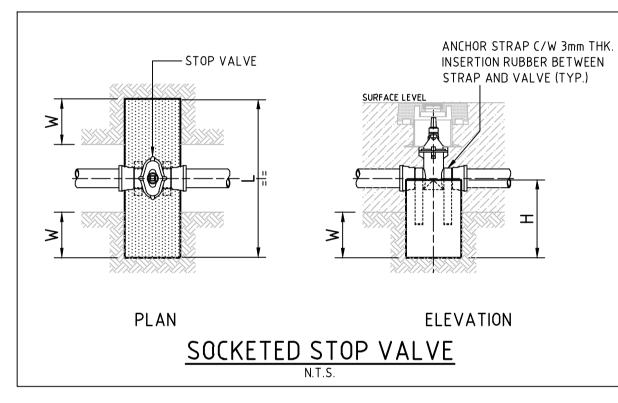
#### THRUST BLOCK NOTES:

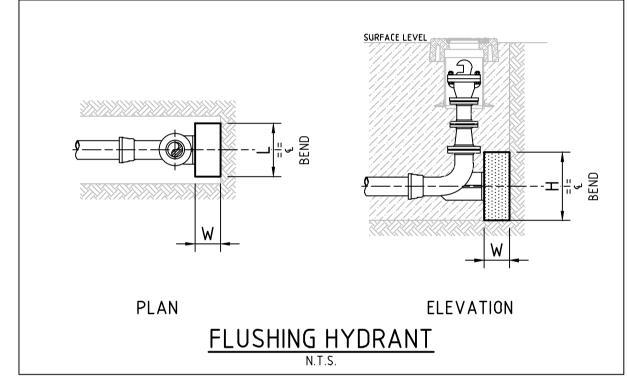
- 1. "N" DENOTES NOMINAL THRUST AREA TO BE ACHIEVED BY POURING CONCRETE THE FULL LENGTH OF THE FITTING AND EXTENDING FROM THE FLOOR OF THE TRENCH TO NOM. 100mm ABOVE THE FITTING.
- 2. CONCRETE THRUST BLOCKS ARE TO BE PROVIDED FOR ALL FITTINGS IN ACCORDANCE WITH TABLE.
- 3. THRUST BLOCK DIMENSIONS ARE 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.

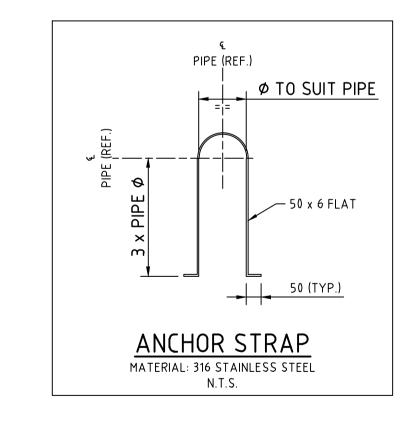
TYPE	FITTING	SOIL	DESIGN	THRUST	TΑ	LENGTH	HEIGHT	WIDTH
		AHBP (kPa)	STP (kPa)		(m <sup>2</sup> )	(L)	(H)	(W)
1	BN100 × DN100 EQUAL TEE	100	1500	18.00	0.18	0.45	0.4	0.30
2	DN100 x 90° HORIZONTAL BEND	100	1500	25.50	0.26	0.55	0.47	0.30
3	DN100 SOCKETED STOP VALVE	100	1500	18.00	0.18	1.05	0.44	0.30
4	DN100 FLUSHING HYDRANT	100	1500	18.00	0.18	0.45	0.4	0.30













# AS CONSTRUCTED

- RE	EV. DATE 16.04.2021	AMENDMENT  PRELIMINARY ISSUE	DRAWN CHECK DESIGN VER	SCALES .	Hunter Office	PROPERTY DESCRIPTION	PROJECT POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION
- C C C 1 2	27.04.2021 29.04.2021 20.05.2021 1 09.06.2021	CLIENT COMMENTS ELECTRICAL KIOSK LOCATION AMENDED ALTOGETHER COMMENTS CONSTRUCTION ISSUE ELECTRICAL EASEMENT AMENDMENT WORK AS CONSTRUCTED	T.S. R.J. T.S. R I.B. S.S. T.S. R	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 www.adwjohnson.com.au	PROPOSED SUBDIVISION STAGE 3.2 WATAGAN PARK	PLAN TITLE THRUST BLOCK DETAILS
DES	SIGN FILE N:\			ALL DIMENSIONS ARE IN METRES. DO NOT SCALE JOHNSON	www.adwjohnson.com.au ABN 62 129 445 398	SURVEYED DATUM  ADW Johnson A.H.D.	PROJECT No. DISCIPLINE NUMBER REV. 239078(3.2) - WAT - 022 2

Plotted By: iainb Plot Date: 09/03/22 - 09:06 Cad File: \jpserver10\adw-data\239078\239078(3)\DWG's\Engineering\Water & Sewer\Stage 3.2 Water and Sewer\WAC\239078(3.2)-WAC-022(2).dwg