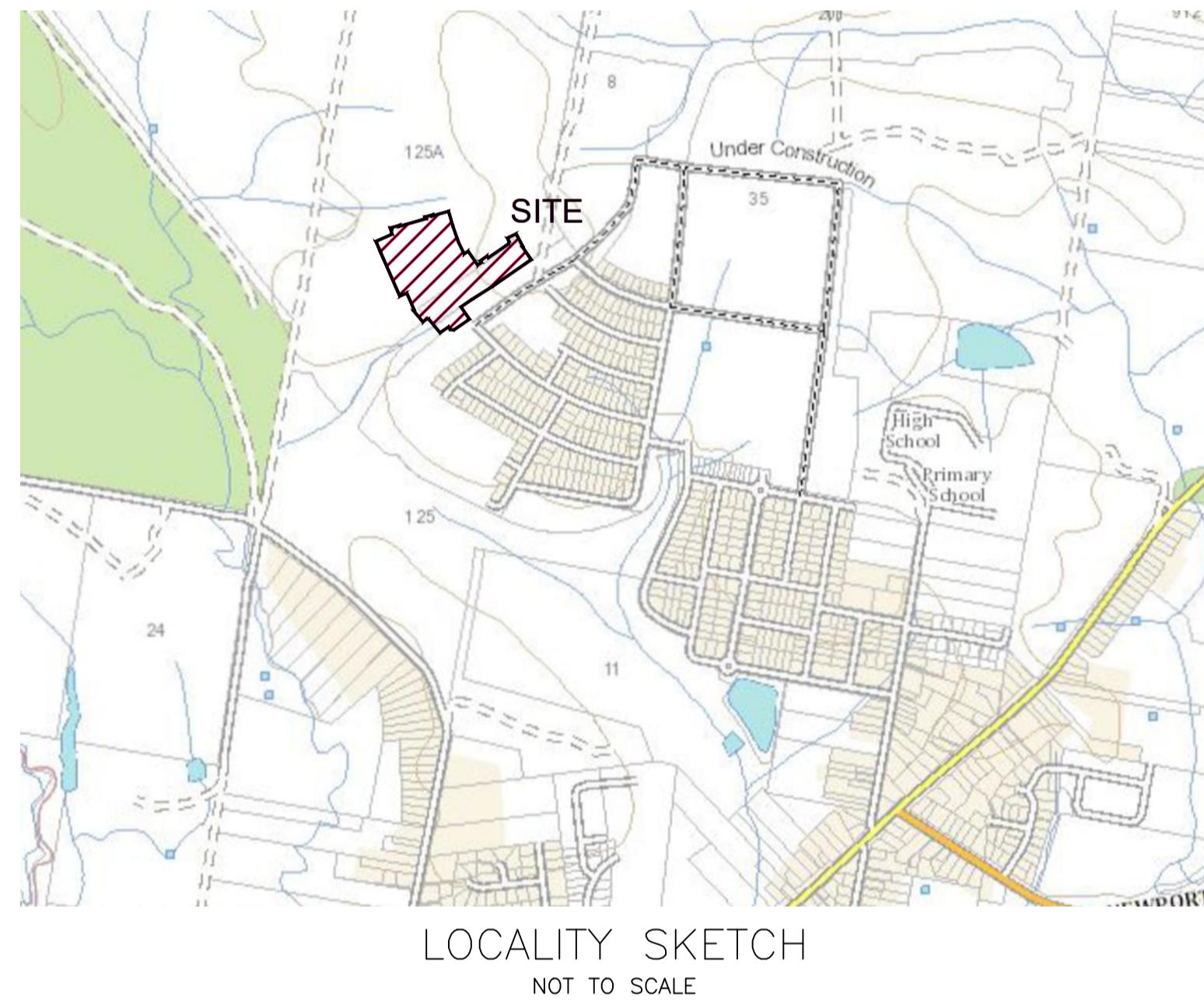




PROPOSED SUBDIVISION STAGE 3.1 WATAGAN PARK



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239078(3.1)-WAT-005(1)	POTABLE WATER DETAIL PLAN - SHEET 2
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239078(3.1)-WAT-019(1)	TYPICAL PIPEWORK TRENCHING DETAILS
239078(3.1)-WAT-022(1)	TYPICAL PROPERTY CONNECTION - SHEET 1
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239078(3.1)-WAT-025(0)	THRUST BLOCK DETAILS

I certify that this plan represents Works-as-Executed details of completed works (regarding road, stormwater & retaining wall levels and positions) with any revised information being shown in red ink.

M. Jones Date: _____
Registered Surveyor

ADW Johnson Pty Ltd
on behalf of
Cooranbong Water
Date Approved: 17/12/2020

AS CONSTRUCTED

100mm AT FULL SIZE

REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES	CLIENT		PROPERTY DESCRIPTION		PROJECT	
A	01.09.2020	PRELIMINARY ISSUE	T.S.	J.N.	T.S.	C.B.		<p>Hunter Office Unit 7/335 Hillsborough Rd Warners Bay N.S.W. 2282 Phone: (02) 4978 5100 Fax: (02) 4978 5199 email: hunter@adwjohanson.com.au www.adwjohanson.com.au ABN 62 129 445 398</p>		PROPOSED SUBDIVISION STAGE 3.1 WATAGAN PARK		POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION	
B	13.11.2020	CLIENT COMMENTS ADDED	J.N.	C.B.	T.S.	C.B.	PLAN TITLE						
C	11.12.2020	CLIENT COMMENTS ADDED	T.S.	C.B.	T.S.	C.B.	COVER SHEET, LOCALITY PLAN AND DRAWING INDEX						
D	17.12.2020	FLOW SYSTEMS COMMENTS ADDED	T.S.	C.B.	T.S.	C.B.	PROJECT No.			DISCIPLINE	NUMBER	REV.	
0	11.01.2021	CONSTRUCTION ISSUE	T.S.	C.B.	T.S.	C.B.	239078(3.1)			- WAT -	001	1	
1	30.08.2021	WORK AS CONSTRUCTED ISSUE	M.S.	S.S.	T.S.	C.B.	SURVEYED ADW Johnson		DATUM A.H.D.				

239078(3.1)-WAT-003(1)

PRESSURE SEWER NOTES:

- ALL WORKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DESIGN DRAWINGS, FLOW SYSTEMS SUPPLEMENTARY MANUAL TO WSA, 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 WSA.
- ALL POLYETHYLENE MAINS ≤ DN200 SHALL BE JOINED USING ELECTROFUSION JOINTING TECHNIQUES IN ACCORDANCE WITH MANUFACTURERS REQUIREMENTS. ALL POLYETHYLENE MAINS ≥ DN200 SHALL BE JOINED USING BUTTWELD JOINTING TECHNIQUES IN ACCORDANCE WITH MANUFACTURERS 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 CLEARANCE TABLE ADJACENT.
- MAINS CROSSING UNDER EXISTING DRIVEWAYS (SEALED, PAVED OR DECORATIVE) SHALL BE CONDUCTED BY UNDER BORING ONLY UNLESS PERMISSION IS GRANTED BY THE AFFECTED PROPERTY OWNER.
- MAINS WITHIN 2.0m OF ELECTRICITY OR POWER POLES SHALL BE CONDUCTED BY BORING TECHNOLOGY (UNLESS AGREED TO BY THE COORANBONG WATER REPRESENTATIVE).
- ALL PIPE BEDDING MATERIAL SHALL COMPLY WITH WSA PRODUCT SPECIFICATION WSA-PS350 AND WSA-PS351.
- 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).
- ALL HOUSE SERVICE LATERALS SHALL BE DN40 (PE100 PN16).
- FLUSHING PITS SHALL CONFORM WITH FLOW SYSTEMS STANDARD DRAWINGS. REFER TO FLOW SYSTEMS WEBSITE FOR CURRENT VERSION. SMALL MAINS (≤ DN110) http://flowsystems.com.au/governance/Land_Housing/PSS-1017A-FS.pdf LARGE MAINS (> DN110) http://flowsystems.com.au/governance/Land_Housing/PSS-1017B-FS.pdf
- 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).
- DETECTABLE MARKING TAPE SHALL BE LAID ON TOP OF THE PIPE EMBEDMENT MATERIAL BEFORE BACKFILLING AND CONNECTED TO SURFACE FITTINGS.
- ALL SURFACE FITTINGS LOCATED IN TRAFFICABLE AREAS (i.e. ROADWAYS, PATHS etc.) SHALL HAVE HEAVY DUTY SURROUNDS INSTALLED.
- DURING CONSTRUCTION, ALL OPEN ENDS OF PIPE SHALL BE CAPPED OFF TO PREVENT ENTRY OF FOREIGN MATTER.
- 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.
- ALL MAINS SHALL BE TESTED IN ACCORDANCE WITH WSA 07-2007 VERSION 1.1.
- 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).
- 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.
- UPON COMPLETION OF WORKS, ALL SURFACES MUST BE RESTORED AS CLOSE AS POSSIBLE, TO THE CONDITION HAT EXISTED PRIOR TO COMMENCEMENT OF WORKS.
- PERMISSION OF ENTRY MUST BE OBTAINED BY THE CONTRACTOR FROM THE OWNER/OCCUPIER PRIOR TO COMMENCEMENT OF WORK IN PRIVATE PROPERTY.
- 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.
- THE MINIMUM NUMBER OF COMPACTION TESTS REQUIRED TO SATISFY THE PRESSURE SEWER CODE OF AUSTRALIA (CLAUSE 213.4) ARE:
TRAFFICABLE
PIPE EMBEDMENT ZONE: NIL TRENCH FILL ZONE: 1 TEST/300mm LAYER OF FILL AT EACH ROAD CROSSING.
NON-TRAFFICABLE
PIPE EMBEDMENT ZONE: NIL TRENCH FILL ZONE: 1 TEST/900mm OF FILL AND EACH 100 LINEAL METRES OF PIPE.
- BOUNDARY KITS (COMPLETE) SHALL BE NOV SUPPLIED (NOV PSS-BK4). 2 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.
- 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.
- ALL MAINS SHALL BE FLUSHED WITH WATER TO REMOVE ANY DEBRIS PRIOR TO COMMISSIONING.
- SURFACE IDENTIFICATION MARKERS ARE TO BE PROVIDED TO COORANBONG WATER REQUIREMENTS.
- ROPE OFF ALL PRESSURE SEWER UNITS AND FLUSHING POINTS TO LIMIT DAMAGE DURING CONSTRUCTION.
- PRESSURE TRANSMITTER TO BE MEASUREX MRB21 GENERAL PURPOSE TRANSMITTER WITH MICROSPIDER LOGGING TELEMETRY AND ALARM PER FLOW SYSTEMS REQUIREMENTS.
- WORK-AS-CONSTRUCTED DOCUMENTATION SHALL BE PROVIDED BY THE CONTRACTOR STRICTLY IN ACCORDANCE WITH THE FLOW SYSTEMS O.A. SUBMISSION CHECKLIST

POTABLE WATER AND RECYCLED WATER NOTES:

- ALL WORKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DESIGN DRAWINGS, FLOW SYSTEMS SUPPLEMENTARY MANUAL TO WSA AND WSA 03-2011-3.1 (SYDNEY WATER EDITION 2014).
- POTABLE WATER SHALL BE UTILISED FOR FIRE FIGHTING PURPOSES.
- 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.
- ALL SERVICES SHOWN ARE INDICATIVE ONLY. A CURRENT SERVICES SEARCH AND SITE CHECK OF ALL EXISTING SERVICES WILL BE REQUIRED PRIOR TO COMMENCEMENT OF ANY WORKS. THE CONSTRUCTOR IS TO DETERMINE LEVELS AND LOCATIONS OF ALL EXISTING SERVICES IN THE VICINITY OF THE CONSTRUCTION SITE AND ANY CONSTRUCTED STRUCTURES FOR PROPOSED SERVICES, SUCH AS DUCTING FOR WATER OR ELECTRICITY WITHIN THE SUBDIVISION. THE CONTRACTOR MUST ENSURE ALL SERVICES ARE LOCATED BY THE RELEVANT AUTHORITY PRIOR TO COMMENCEMENT OF WORKS.
- THE CONSTRUCTOR SHALL VERIFY WITH THE SITE SUPERVISOR THE POSITION AND LEVEL OF ALL EXISTING AND PROPOSED BOUNDARIES PERTINENT TO THE INFRASTRUCTURE INSTALLATIONS.
- 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.
- ALL POTABLE WATER MAINS TO BE BLUE PVC-M (PN16). ALL RECYCLED WATER MAINS SHALL BE LILAC PVC-M (PN16). DIFFERENTIATION OF POTABLE AND RECYCLED WATER SYSTEMS SHALL BE AS PER TABLE 4.1 WSA03-2011 WITH BOTH SERVICES BEING CLASSIFIED AS WATER MAINS. RECYCLED WATER MAINS SHALL ALWAYS BE LOWER THAN POTABLE WATER MAINS. 150mm VERTICAL CLEARANCE BETWEEN POTABLE WATER AND RECYCLED WATER MAINS SHALL BE PROVIDED.
- MAXIMUM JOINT DEFLECTIONS TO BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
- 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 WSA 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 NEED FOR TRENCH DRAINAGE/BULKHEADS.
- DURING CONSTRUCTION, ALL OPEN ENDS OF PIPES SHALL BE CAPPED OFF TO PREVENT ENTRY OF FOREIGN MATTER.
- HYDRANTS, STOP VALVES AND ALL OTHER FITTINGS TO BE THE SAME SIZE AS THE THROUGH WATER MAIN AND ANTI CLOCKWISE CLOSING.
- 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.
- THRUST BLOCKS SHALL BE INSTALLED IN ACCORDANCE WITH WAT-1205.
- 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 DUAL SERVICE: http://flowsystems.com.au/governance/Land_Housing/WAT-1855B-FS.pdf
- PROPERTY SERVICE CONNECTION IS SHALL BE FLUSHED AND LOCKED (BY THE COORANBONG WATER REPRESENTATIVE) FOLLOWING SUCCESSFUL PRESSURE TESTING.
- SURFACE FITTINGS LOCATED IN TRAFFICABLE AREAS (i.e. ROADWAYS, PATHS etc.) SHALL HAVE HEAVY DUTY SURROUNDS INSTALLED.
- 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.
- WATER QUALITY TESTING SHALL BE IN ACCORDANCE WITH WSA 03-2011-3.1 (SYDNEY WATER EDITION-2014. CLAUSE 19.7).
- 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.
- UPON COMPLETION OF WORKS, ALL SURFACES MUST BE RESTORED AS CLOSE AS POSSIBLE, TO THE CONDITION HAT EXISTED PRIOR TO COMMENCEMENT OF WORKS.
- PERMISSION OF ENTRY MUST BE OBTAINED BY THE CONTRACTOR FROM THE OWNER/OCCUPIER PRIOR TO COMMENCEMENT OF WORK IN PRIVATE PROPERTY.
- 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.
- 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.
- SURFACE IDENTIFICATION MARKERS ARE TO BE PROVIDED TO COORANBONG WATER REQUIREMENTS.
- PRESSURE TRANSMITTER TO BE MEASUREX MRB21 GENERAL PURPOSE TRANSMITTER WITH MICROSPIDER LOGGING TELEMETRY AND ALARM PER FLOW SYSTEMS REQUIREMENTS.
- WORK-AS-CONSTRUCTED DOCUMENTATION SHALL BE PROVIDED BY THE CONTRACTOR STRICTLY IN ACCORDANCE WITH THE FLOW SYSTEMS O.A. SUBMISSION CHECKLIST.
- 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.

FLOW SYSTEMS STANDARD DRAWINGS CAN BE FOUND AT THE FOLLOWING ADDRESS:
<http://askus.flowsystems.com.au/hc/en-us/articles/21065283--Standard-Drawings>

GENERAL NOTES:

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

CLEARANCES BETWEEN PIPELINES AND UNDERGROUND SERVICES

UTILITY (EXISTING OR PROPOSED SERVICE)	MINIMUM HORIZONTAL CLEARANCE (mm)		MINIMUM VERTICAL CLEARANCE (mm)
	NEW MAIN SIZE		
	≤ 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 ⁴
STORMWATER DRAINS	300 ⁴	600	150 ⁹
SEWERS (GRAVITY)	1000 ⁴ / 600	1000 ⁴ / 600	500 ⁹
SEWERS (PRESSURE AND VACUUM)	600	600	300 ⁹
KERBS	150	600 ⁹	150 (WHERE POSSIBLE)

NOTES:

- 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.
- FOR AREAS WITH EXISTING WATER RETICULATION, CLEARANCES CAN BE FURTHER REDUCED TO 600mm WITH THE APPROVAL OF THE WATER AUTHORITY.
- 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.
- WHERE A PARALLEL SEWER IS AT MINIMUM VERTICAL CLEARANCE LOWER THAN THE WATER MAIN (500mm), MAINTAIN A MINIMUM HORIZONTAL OF 900mm. THIS MINIMUM CLEARANCE CAN BE PROGRESSIVELY REDUCED TO 600mm AS THE VERTICAL CLEARANCE IS INCREASED TO 750mm.
- 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.
- 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.
- 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 LIGHT-FREE IN THE VICINITY OF THE SEWER.

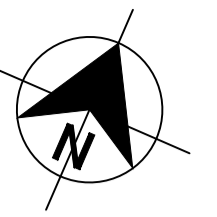
SHOULD THE RECOMMENDED CLEARANCES NOT BE ACHIEVED, NOTIFICATION SHALL BE CONVEYED TO THE COORANBONG WATER REPRESENTATIVE IN WRITING.

I certify that this plan represents Works-as-Executed details of completed works (regarding road, stormwater & retaining wall levels and positions) with any revised information being shown in red ink.
M. Jones Date: _____
Registered Surveyor

ADW Johnson Pty Ltd
on behalf of
Cooranbong Water
Date Approved: 17/12/2020

AS CONSTRUCTED

REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES	CLIENT	PROPERTY DESCRIPTION	PROJECT	PLAN TITLE	DISCIPLINE	NUMBER	REV.	
A	01.09.2020	PRELIMINARY ISSUE	T.S.	J.N.	T.S.	C.B.		Hunter Office Unit 7/335 Hillsborough Rd Warners Bay N.S.W. 2282 Phone: (02) 4978 5100 Fax: (02) 4978 5199 email: hunter@adwjohnson.com.au www.adwjohnson.com.au ABN 62 129 445 398	PROPOSED SUBDIVISION STAGE 3.1 WATAGAN PARK	POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION	GENERAL NOTES				
B	13.11.2020	CLIENT COMMENTS ADDED	J.N.	C.B.	T.S.	C.B.									
C	11.12.2020	CLIENT COMMENTS ADDED	T.S.	C.B.	T.S.	C.B.									
D	17.12.2020	FLOW SYSTEMS COMMENTS ADDED	T.S.	C.B.	T.S.	C.B.									
O	11.01.2021	CONSTRUCTION ISSUE	T.S.	C.B.	T.S.	C.B.									
1	30.08.2021	WORK AS CONSTRUCTED ISSUE	M.S.	S.S.	T.S.	C.B.									
DESIGN FILE N:\								ALL DIMENSIONS ARE IN METRES. DO NOT SCALE							



I certify that this plan represents Works-as-Executed details of completed works (regarding road, stormwater & retaining wall levels and positions) with any revised information being shown in red ink.
 Moneg
 Registered Surveyor Date:

ADW Johnson Pty Ltd
 on behalf of
 Cooranbong + Water
 Date Approved: 17/12/2020

AS CONSTRUCTED

REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY
A	01.09.2020	PRELIMINARY ISSUE	T.S.	J.N.	T.S.	C.B.
B	13.11.2020	CLIENT COMMENTS ADDED	J.N.	C.B.	T.S.	C.B.
C	11.12.2020	CLIENT COMMENTS ADDED	T.S.	C.B.	T.S.	C.B.
D	17.12.2020	FLOW SYSTEMS COMMENTS ADDED	T.S.	C.B.	T.S.	C.B.
O	11.01.2021	CONSTRUCTION ISSUE	T.S.	C.B.	T.S.	C.B.
1	30.08.2021	WORK AS CONSTRUCTED ISSUE	M.S.	S.S.	T.S.	C.B.

SCALE
0 10 20 30 40 A1 / A3 1:1000 / 1:2000

ALL DIMENSIONS ARE IN METRES. DO NOT SCALE

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

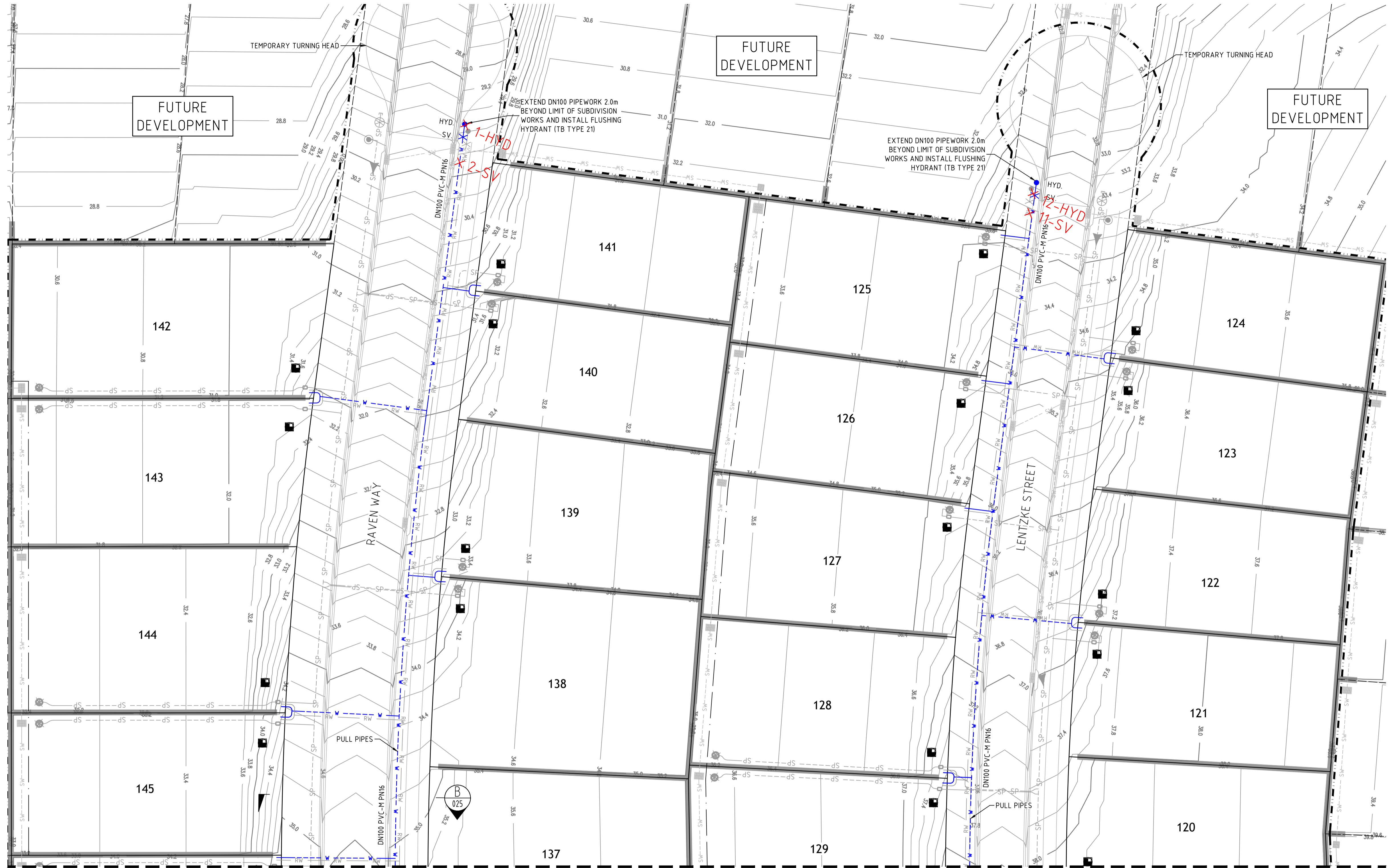
CLIENT
JOHNSON PROPERTY GROUP

PROPERTY DESCRIPTION	
PROPOSED SUBDIVISION STAGE 3.1 WATAGAN PARK	
SURVEYED ADW Johnson	DATUM A.H.D.

PROJECT POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION			
PLAN TITLE			
OVERALL SITE PLAN			
PROJECT No. 239078(3.1)	DISCIPLINE - WAT -	NUMBER 003	REV. 1

239078(3.1)-WAT-008(1)

100mm AT FULL SIZE



FUTURE DEVELOPMENT

FUTURE DEVELOPMENT

FUTURE DEVELOPMENT

- LEGEND**
- PVC-M POTABLE WATER RETICULATION
 - POTABLE WATER PROPERTY SERVICE
 - PVC-M RECYCLED WATER RETICULATION
 - RECYCLED WATER PROPERTY SERVICE
 - PE PRESSURE SEWER RETICULATION
 - PE PRESSURE SEWER PROPERTY SERVICE
 - EXISTING POTABLE WATER RETICULATION
 - EXISTING RECYCLED WATER RETICULATION
 - EXISTING PRESSURE SEWER RETICULATION
 - STORMWATER PIPEWORK
 - STOP VALVE
 - HYDRANT
 - FLUSHING HYDRANT
 - 22.5° HORIZONTAL BEND - REFER TO THRUST BLOCK TABLE
 - 11.25° HORIZONTAL BEND - REFER TO THRUST BLOCK TABLE
 - PROPERTY SERVICE CONNECTION
 - LAY WATER MAIN OVER STORMWATER PIPE (300mm MIN. VERTICAL CLEARANCE) - REFER TO WAT-1255-H
 - PROPOSED EASEMENT
 - SUBDIVISION STAGE BOUNDARY

- POTABLE WATER PROPERTY SERVICE CONNECTIONS**
- TOTAL 51 CONNECTIONS
- SINGLE SERVICES IN ACCORDANCE WITH WAT-1106-V
 - 7 x SHORT SIDE
 - 2 x LONG SIDE
 - SPLIT SERVICES IN ACCORDANCE WITH WAT-1107-V
 - 9 x SHORT SIDE
 - 12 x LONG SIDE

POTABLE WATER PIPE DATA		
PIPE SIZE (mm)	PIPE MATERIAL	TOTAL LENGTH (m)
DN100	PVC-M PN16	663

- NOTES:**
1. FOR RECYCLED WATER PIPEWORK DETAIL PLANS REFER TO DRGS-009 TO 012.
 2. FOR PRESSURE SEWER PIPEWORK DETAIL PLANS REFER TO DRGS-014 TO 017.
 3. FOR TYPICAL SERVICE CONNECTION DETAILS REFER TO DRGS-022 AND 023.
 4. POTABLE WATER & RECYCLED WATER TO SHARE ϕ 150mm CONDUIT ON LONG SIDE FOR FULL ROAD PAVEMENT

PLAN SCALE 1:250

I certify that this plan represents Works-as-Executed details of completed works (regarding road, stormwater & retaining wall levels and positions) with any revised information being shown in red ink.

M. Jones Date: _____
Registered Surveyor

ADW Johnson Pty Ltd
on behalf of
Cooranbong Water
Date Approved: 17/12/2020

AS CONSTRUCTED

REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES
A	01.09.2020	PRELIMINARY ISSUE	T.S.	J.N.	T.S.	C.B.	A1 / A3 1:250 / 1:500
B	13.11.2020	CLIENT COMMENTS ADDED	J.N.	C.B.	T.S.	C.B.	
C	11.12.2020	CLIENT COMMENTS ADDED	T.S.	C.B.	T.S.	C.B.	
D	17.12.2020	FLOW SYSTEMS COMMENTS ADDED	T.S.	C.B.	T.S.	C.B.	
O	11.01.2021	CONSTRUCTION ISSUE	T.S.	C.B.	T.S.	C.B.	
1	30.08.2021	WORK AS CONSTRUCTED ISSUE	M.S.	S.S.	T.S.	C.B.	

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email: hunter@adwjohnson.com.au
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ABN 62 129 445 398

CLIENT

JOHNSON PROPERTY GROUP

PROPERTY DESCRIPTION

PROPOSED SUBDIVISION
STAGE 3.1
WATAGAN PARK

SURVEYED: ADW Johnson DATUM: A.H.D.

PROJECT	POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION		
PLAN TITLE	POTABLE WATER DETAIL PLAN - SHEET 1		
PROJECT No.	DISCIPLINE	NUMBER	REV.
239078(3.1)	- WAT -	004	1

239078(3.1)-WAT-008(1)

100mm AT FULL SIZE

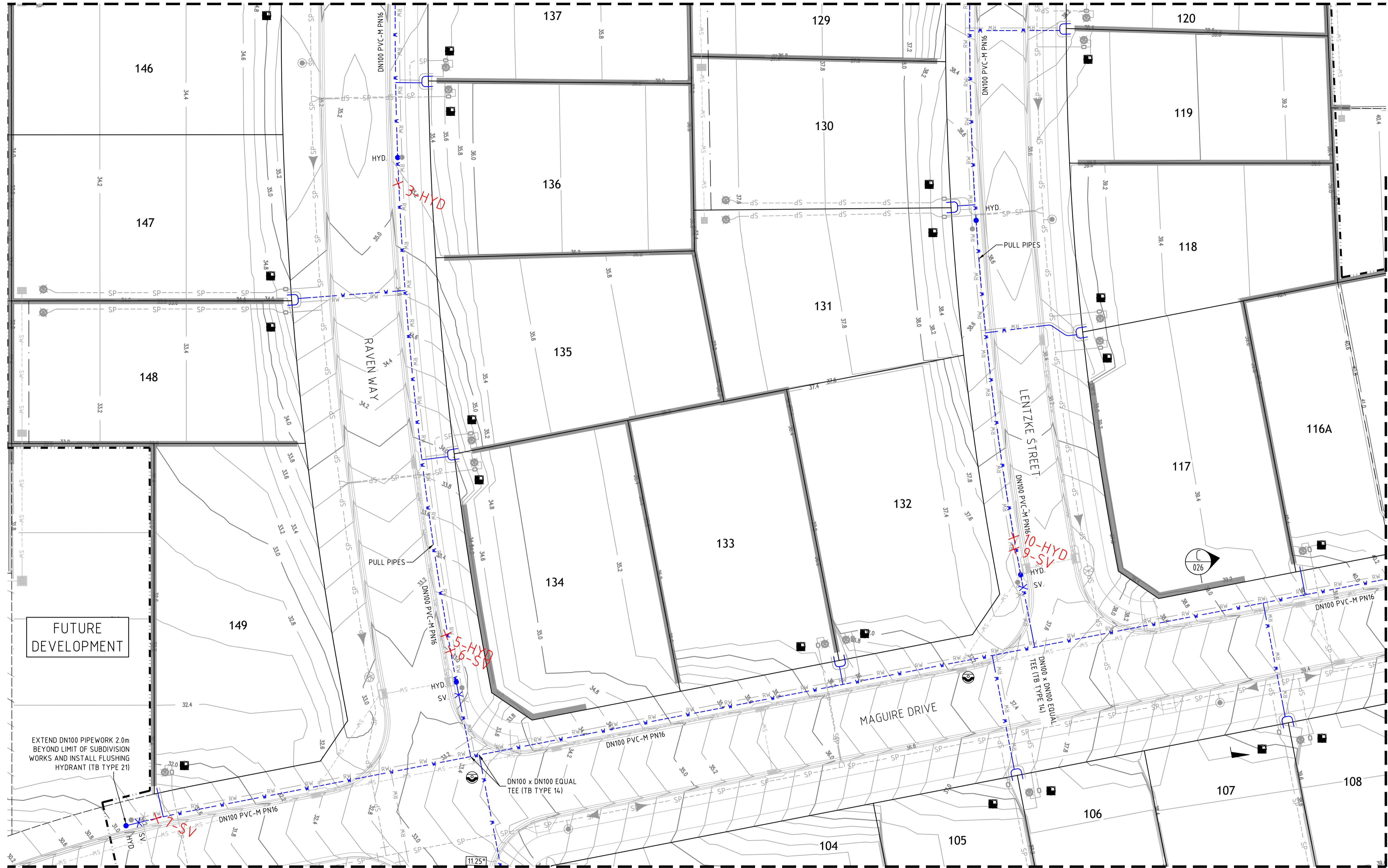
JOINS DRG-004

JOINS DRG-006

PLAN
SCALE 1:250



DIAL 1100
BEFORE YOU DIG



- LEGEND**
- PVC-M POTABLE WATER RETICULATION
 - POTABLE WATER PROPERTY SERVICE
 - PVC-M RECYCLED WATER RETICULATION
 - RECYCLED WATER PROPERTY SERVICE
 - PE PRESSURE SEWER RETICULATION
 - PE PRESSURE SEWER PROPERTY SERVICE
 - EXISTING POTABLE WATER RETICULATION
 - EXISTING RECYCLED WATER RETICULATION
 - EXISTING PRESSURE SEWER RETICULATION
 - STORMWATER PIPEWORK
 - STOP VALVE
 - HYDRANT
 - FLUSHING HYDRANT
 - 22.5° HORIZONTAL BEND - REFER TO THRUST BLOCK TABLE
 - 11.25° HORIZONTAL BEND - REFER TO THRUST BLOCK TABLE
 - PROPERTY SERVICE CONNECTION
 - LAY WATER MAIN OVER STORMWATER PIPE (300mm MIN. VERTICAL CLEARANCE) - REFER TO WAT-1255-H
 - PROPOSED EASEMENT
 - SUBDIVISION STAGE BOUNDARY

- POTABLE WATER PROPERTY SERVICE CONNECTIONS**
- TOTAL 51 CONNECTIONS
- SINGLE SERVICES IN ACCORDANCE WITH WAT-1106-V
 - 7 x SHORT SIDE
 - 2 x LONG SIDE
 - SPLIT SERVICES IN ACCORDANCE WITH WAT-1107-V
 - 9 x SHORT SIDE
 - 12 x LONG SIDE

POTABLE WATER PIPE DATA		
PIPE SIZE (mm)	PIPE MATERIAL	TOTAL LENGTH (m)
DN100	PVC-M PN16	663

- NOTES:**
1. FOR RECYCLED WATER PIPEWORK DETAIL PLANS REFER TO DRGS-009 TO 012.
 2. FOR PRESSURE SEWER PIPEWORK DETAIL PLANS REFER TO DRGS-014 TO 017.
 3. FOR TYPICAL SERVICE CONNECTION DETAILS REFER TO DRGS-022 AND 023.
 4. POTABLE WATER & RECYCLED WATER TO SHARE ϕ 150mm CONDUIT ON LONG SIDE FOR FULL ROAD PAVEMENT

FUTURE DEVELOPMENT

EXTEND DN100 PIPEWORK 2.0m BEYOND LIMIT OF SUBDIVISION WORKS AND INSTALL FLUSHING HYDRANT (TB TYPE 21)

I certify that this plan represents Works-as-Executed details of completed works (regarding road, stormwater & retaining wall levels and positions) with any revised information being shown in red ink.

M. Jones Date: _____
Registered Surveyor

ADW Johnson Pty Ltd
on behalf of
Cooranbong + Water
Date Approved: 17/12/2020

AS CONSTRUCTED

REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES
A	01.09.2020	PRELIMINARY ISSUE	T.S.	J.N.	T.S.	C.B.	 A1 / A3 1:250 / 1:500
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C	11.12.2020	CLIENT COMMENTS ADDED	T.S.	C.B.	T.S.	C.B.	
D	17.12.2020	FLOW SYSTEMS COMMENTS ADDED	T.S.	C.B.	T.S.	C.B.	
O	11.01.2021	CONSTRUCTION ISSUE	T.S.	C.B.	T.S.	C.B.	
1	30.08.2021	WORK AS CONSTRUCTED ISSUE	M.S.	S.S.	T.S.	C.B.	

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ABN 62 129 445 398

CLIENT

JOHNSON PROPERTY GROUP

PROPERTY DESCRIPTION

PROPOSED SUBDIVISION
STAGE 3.1
WATAGAN PARK

PROJECT POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION

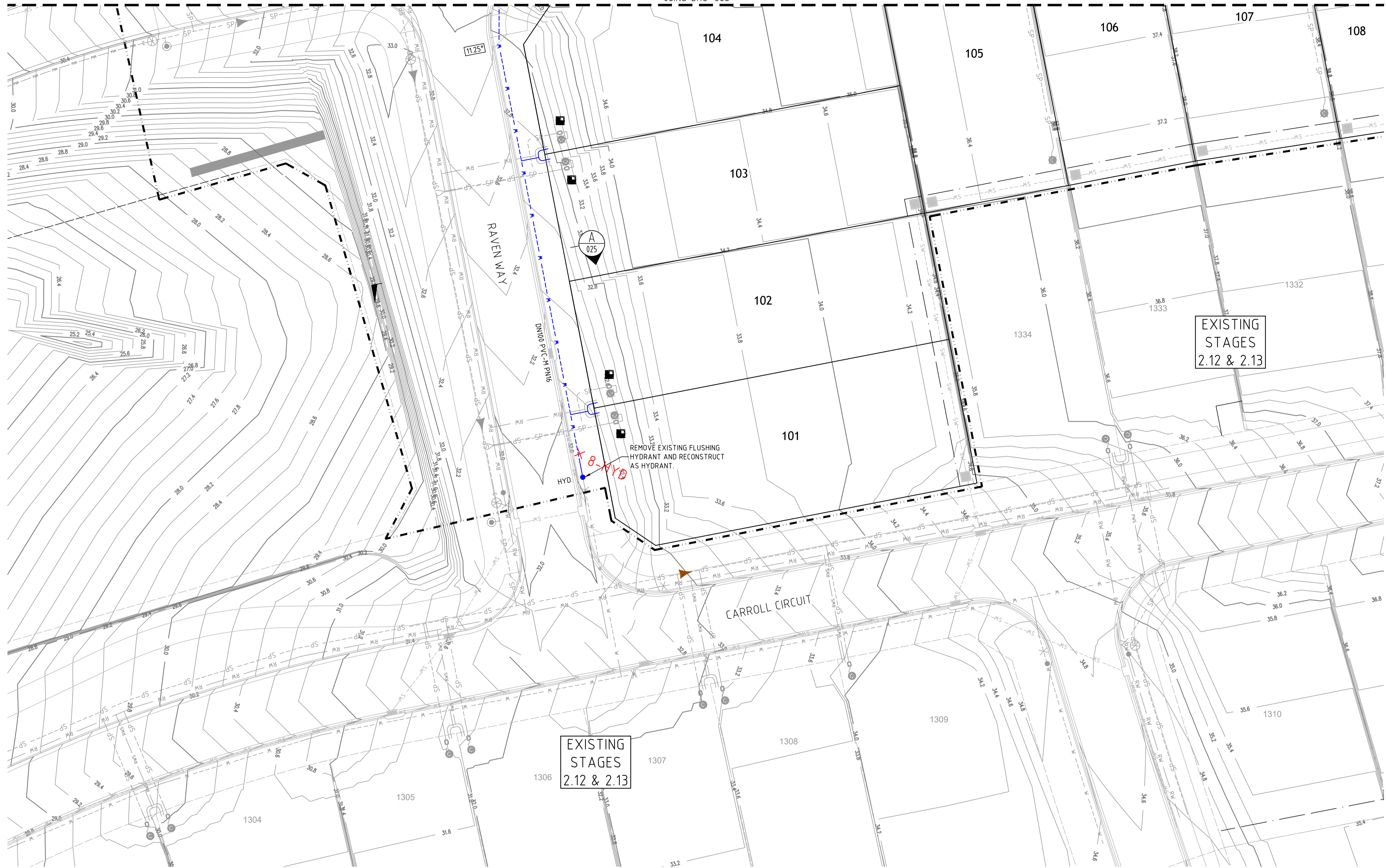
PLAN TITLE POTABLE WATER DETAIL PLAN - SHEET 2

SURVEYED ADW Johnson	DATUM A.H.D.	PROJECT No. 239078(3.1)	DISCIPLINE - WAT -	NUMBER 005	REV. 1
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239078(3.1)-WAT-008(1)

100mm AT FULL SIZE

JOINS DRG-005



EXISTING STAGES 2.12 & 2.13

EXISTING STAGES 2.12 & 2.13

REMOVE EXISTING FLUSHING HYDRANT AND RECONSTRUCT AS HYDRANT.

PLAN SCALE 1:250



- LEGEND**
- PVC-M POTABLE WATER RETICULATION
 - POTABLE WATER PROPERTY SERVICE
 - PVC-M RECYCLED WATER RETICULATION
 - RECYCLED WATER PROPERTY SERVICE
 - PE PRESSURE SEWER RETICULATION
 - PE PRESSURE SEWER PROPERTY SERVICE
 - EXISTING POTABLE WATER RETICULATION
 - EXISTING RECYCLED WATER RETICULATION
 - EXISTING PRESSURE SEWER RETICULATION
 - STORMWATER PIPEWORK
 - SV. STOP VALVE
 - HYD. HYDRANT
 - FL HYD. FLUSHING HYDRANT
 - 22.5° HORIZONTAL BEND - REFER TO THRUST BLOCK TABLE
 - 11.25° HORIZONTAL BEND - REFER TO THRUST BLOCK TABLE
 - PROPERTY SERVICE CONNECTION
 - LAY WATER MAIN OVER STORMWATER PIPE (300mm MIN. VERTICAL CLEARANCE) - REFER TO WAT-1255-H
 - PROPOSED EASEMENT
 - SUBDIVISION STAGE BOUNDARY

- POTABLE WATER PROPERTY SERVICE CONNECTIONS**
- TOTAL 51 CONNECTIONS
- SINGLE SERVICES IN ACCORDANCE WITH WAT-1106-V
 - 7 x SHORT SIDE
 - 2 x LONG SIDE
 - SPLIT SERVICES IN ACCORDANCE WITH WAT-1107-V
 - 9 x SHORT SIDE
 - 12 x LONG SIDE

POTABLE WATER PIPE DATA		
PIPE SIZE (mm)	PIPE MATERIAL	TOTAL LENGTH (m)
DN100	PVC-M PN16	663

- NOTES:**
1. FOR RECYCLED WATER PIPEWORK DETAIL PLANS REFER TO DRGS-009 TO 012.
 2. FOR PRESSURE SEWER PIPEWORK DETAIL PLANS REFER TO DRGS-014 TO 017.
 3. FOR TYPICAL SERVICE CONNECTION DETAILS REFER TO DRGS-022 AND 023.
 4. POTABLE WATER & RECYCLED WATER TO SHARE ϕ 150mm CONDUIT ON LONG SIDE FOR FULL ROAD PAVEMENT

I certify that this plan represents Works-as-Executed details of completed works (regarding road, stormwater & retaining wall levels and positions) with any revised information being shown in red ink.

M. Ouse Date: _____
Registered Surveyor

ADW Johnson Pty Ltd
on behalf of
Cooranbong Water
Date Approved: 17/12/2020

AS CONSTRUCTED

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C	11.12.2020	CLIENT COMMENTS ADDED	T.S.	C.B.	T.S.	C.B.
D	17.12.2020	FLOW SYSTEMS COMMENTS ADDED	T.S.	C.B.	T.S.	C.B.
O	11.01.2021	CONSTRUCTION ISSUE	T.S.	C.B.	T.S.	C.B.
1	30.08.2021	WORK AS CONSTRUCTED ISSUE	M.S.	S.S.	T.S.	C.B.

SCALES	
	A1 / A3 1:250 / 1:500

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

CLIENT

JOHNSON PROPERTY GROUP

PROPERTY DESCRIPTION

PROPOSED SUBDIVISION
STAGE 3.1
WATAGAN PARK

PROJECT POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION

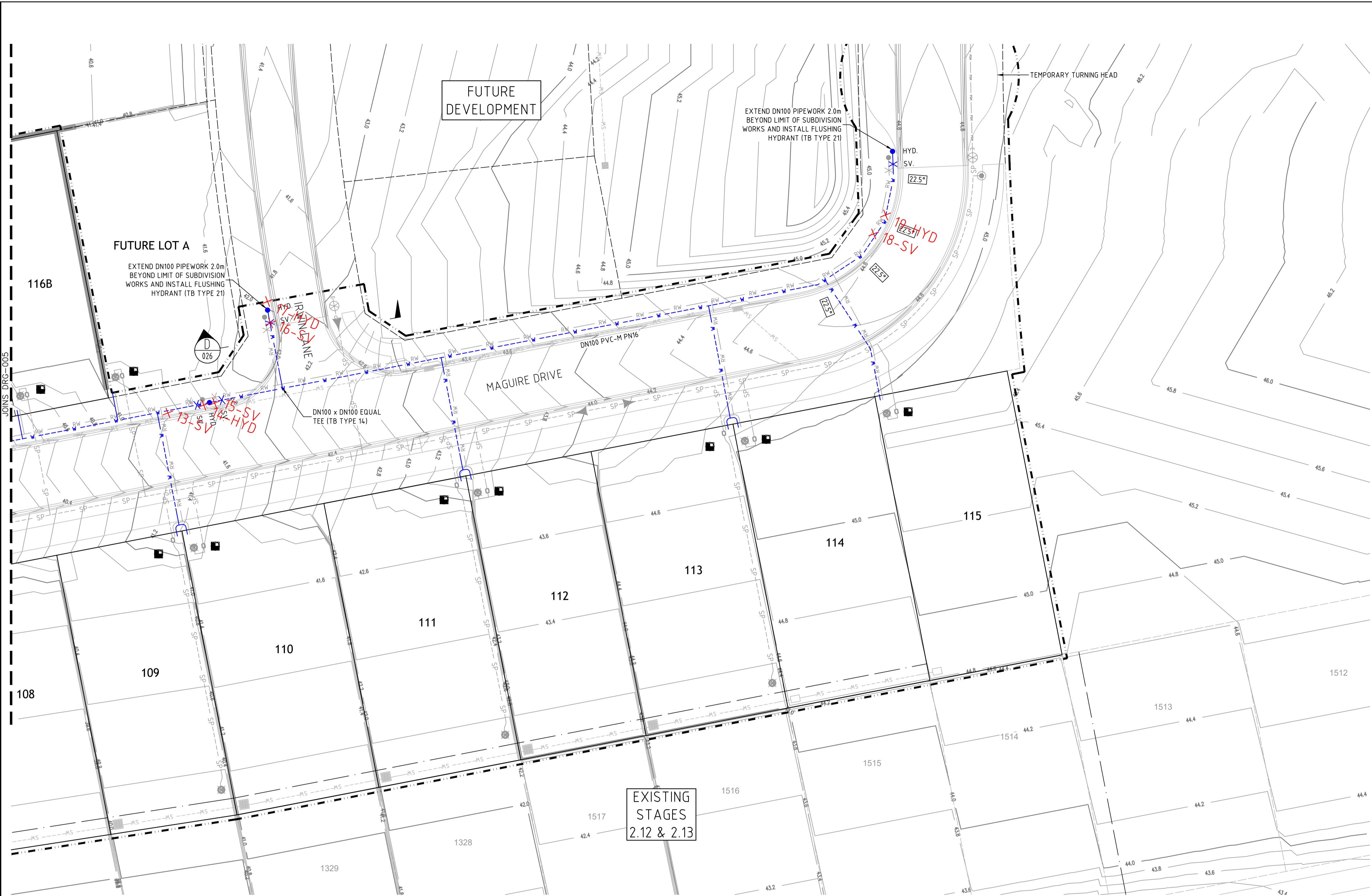
PLAN TITLE POTABLE WATER DETAIL PLAN - SHEET 3

PROJECT No. 239078(3.1)	DISCIPLINE - WAT	NUMBER - 006	REV. 1
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239078(3.1)-WAT-008(1)

JOINS DRG-005

100mm AT FULL SIZE



- LEGEND**
- W --- PVC-M POTABLE WATER RETICULATION
 - PWS --- POTABLE WATER PROPERTY SERVICE
 - RW --- PVC-M RECYCLED WATER RETICULATION
 - RWS --- RECYCLED WATER PROPERTY SERVICE
 - SP --- PE PRESSURE SEWER RETICULATION
 - PS S --- PE PRESSURE SEWER PROPERTY SERVICE
 - EX PW --- EXISTING POTABLE WATER RETICULATION
 - EX RW --- EXISTING RECYCLED WATER RETICULATION
 - EX PS --- EXISTING PRESSURE SEWER RETICULATION
 - SW --- STORMWATER PIPEWORK
 - SV * STOP VALVE
 - HYD. * HYDRANT
 - FL HYD. * FLUSHING HYDRANT
 - 22.5° 22.5° HORIZONTAL BEND - REFER TO THRUST BLOCK TABLE
 - 11.25° 11.25° HORIZONTAL BEND - REFER TO THRUST BLOCK TABLE
 - PROPERTY SERVICE CONNECTION
 - LAY WATER MAIN OVER STORMWATER PIPE (300mm MIN. VERTICAL CLEARANCE) - REFER TO WAT-1255-H
 - PROPOSED EASEMENT
 - SUBDIVISION STAGE BOUNDARY

- POTABLE WATER PROPERTY SERVICE CONNECTIONS**
TOTAL 51 CONNECTIONS
- SINGLE SERVICES IN ACCORDANCE WITH WAT-1106-V
 - 7 x SHORT SIDE
 - 2 x LONG SIDE
 - SPLIT SERVICES IN ACCORDANCE WITH WAT-1107-V
 - 9 x SHORT SIDE
 - 12 x LONG SIDE

POTABLE WATER PIPE DATA		
PIPE SIZE (mm)	PIPE MATERIAL	TOTAL LENGTH (m)
DN100	PVC-M PN16	663

- NOTES:**
1. FOR RECYCLED WATER PIPEWORK DETAIL PLANS REFER TO DRGS-009 TO 012.
 2. FOR PRESSURE SEWER PIPEWORK DETAIL PLANS REFER TO DRGS-014 TO 017.
 3. FOR TYPICAL SERVICE CONNECTION DETAILS REFER TO DRGS-022 AND 023.
 4. POTABLE WATER & RECYCLED WATER TO SHARE ϕ 150mm CONDUIT ON LONG SIDE FOR FULL ROAD PAVEMENT

EXISTING STAGES
2.12 & 2.13

PLAN
SCALE 1:250

I certify that this plan represents Works-as-Executed details of completed works (regarding road, stormwater & retaining wall levels and positions) with any revised information being shown in red ink.

M. Jones Date: _____
Registered Surveyor

ADW Johnson Pty Ltd
on behalf of
Cooranbong + Water
Date Approved: 17/12/2020

AS CONSTRUCTED

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D	17.12.2020	FLOW SYSTEMS COMMENTS ADDED	T.S.	C.B.	T.S.	C.B.
O	11.01.2021	CONSTRUCTION ISSUE	T.S.	C.B.	T.S.	C.B.
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SCALES	
0 5 10	A1 / A3 1:250 / 1:500

adw Johnson

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ABN 62 129 445 398

CLIENT

JOHNSON PROPERTY GROUP

PROPERTY DESCRIPTION

PROPOSED SUBDIVISION
STAGE 3.1
WATAGAN PARK

SURVEYED
ADW Johnson

DATUM
A.H.D.

PROJECT	PLAN TITLE
POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION	POTABLE WATER DETAIL PLAN - SHEET 4
PROJECT No. 239078(3.1)	DISCIPLINE - WAT -
NUMBER 007	REV. 1

POINT	EASTING	NORTHING	FITTING
1	355533.55	6341167.22	HYD
2	355534.66	6341162.90	SV
3	355568.91	6341066.12	HYD
4	355568.91	6341066.12	HYD
5	355594.83	6341020.37	HYD
6	355596.06	6341018.88	SV
7	355572.56	6340987.49	SV
8	355640.65	6340954.19	HYD
9	355651.31	6341055.73	SV
10	355650.71	6341056.95	HYD
11	355597.60	6341183.87	SV
12	355597.05	6341186.13	HYD
13	355707.83	6341080.11	SV
14	355711.32	6341082.64	HYD
15	355712.40	6341083.37	SV
16	355714.68	6341094.61	SV
17	355713.35	6341096.80	HYD
18	355775.55	6341132.49	SV
19	355775.95	6341135.10	HYD



I certify that this plan represents Works-as-Executed details of completed works (regarding road, stormwater & retaining wall levels and positions) with any revised information being shown in red ink.
Morse Date: _____
 Registered Surveyor

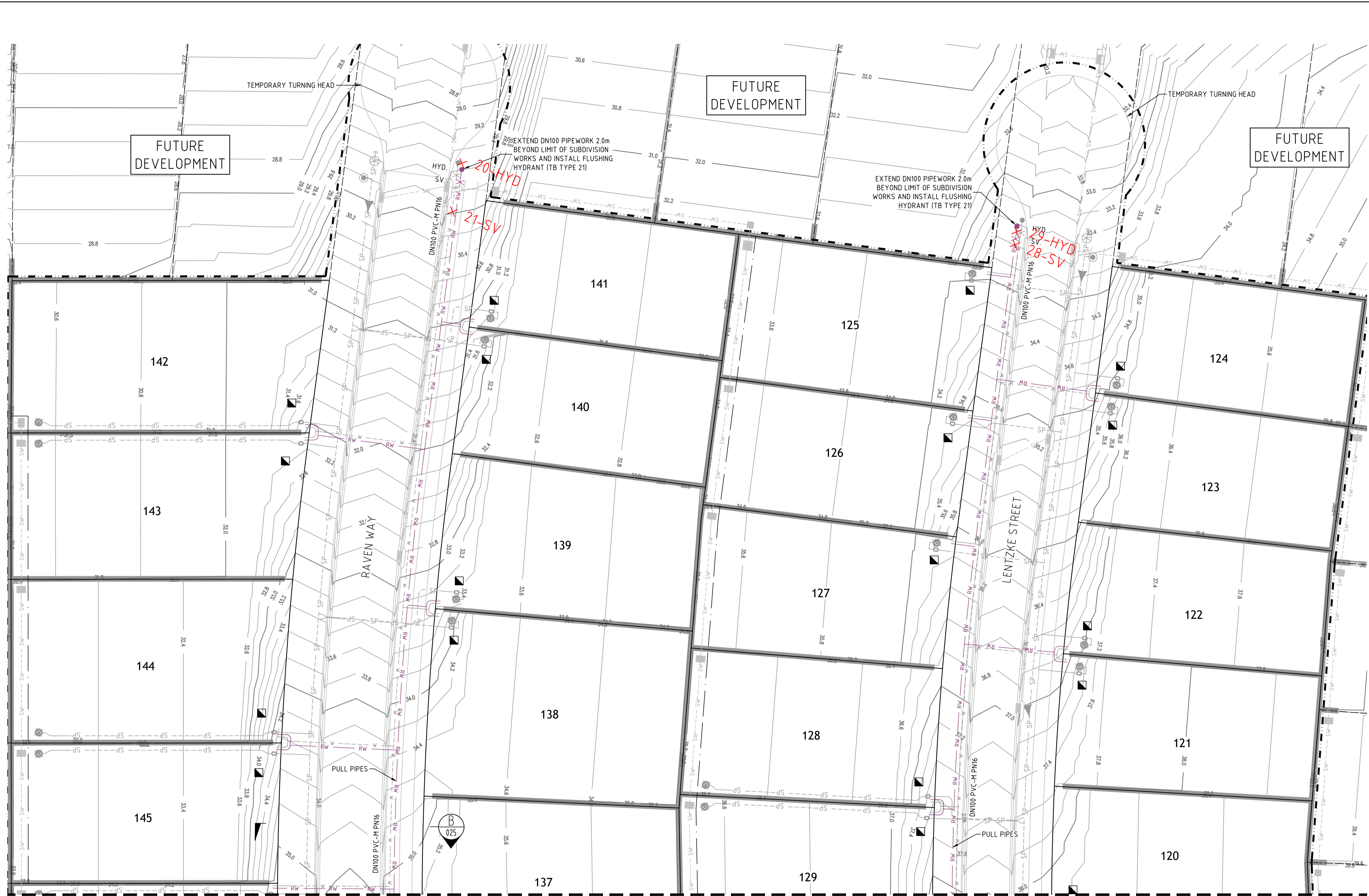
ADW Johnson Pty Ltd
 on behalf of
 Cooranbong + Water
 Date Approved: 17/12/2020

AS CONSTRUCTED

REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES	CLIENT		PROPERTY DESCRIPTION		PROJECT				
A	01.09.2020	PRELIMINARY ISSUE	T.S.	J.N.	T.S.	C.B.		Hunter Office Unit 7/335 Hillsborough Rd Warners Bay N.S.W. 2282 Phone: (02) 4978 5100 Fax: (02) 4978 5199 email: hunter@adwjohnson.com.au www.adwjohnson.com.au ABN 62 129 445 398	JOHNSON PROPERTY GROUP	PROPOSED SUBDIVISION STAGE 3.1 WATAGAN PARK		POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION				
B	13.11.2020	CLIENT COMMENTS ADDED	J.N.	C.B.	T.S.	C.B.	PLAN TITLE WAC COORD SCHEDULE									
C	11.12.2020	CLIENT COMMENTS ADDED	T.S.	C.B.	T.S.	C.B.	SURVEYED ADW Johnson			DATUM A.H.D.		PROJECT No. 239078(3.1)	DISCIPLINE - WAT -	NUMBER 008	REV. 1	
D	17.12.2020	FLOW SYSTEMS COMMENTS ADDED	T.S.	C.B.	T.S.	C.B.										
O	11.01.2021	CONSTRUCTION ISSUE	T.S.	C.B.	T.S.	C.B.										
1	30.08.2021	WORK AS CONSTRUCTED ISSUE	M.S.	S.S.	T.S.	C.B.										

239078(3.1)-WAT-013(1)

100mm AT FULL SIZE



- LEGEND**
- RW — PVC-M RECYCLED WATER RETICULATION
 - RWS --- RECYCLED WATER PROPERTY SERVICE
 - PWS --- PVC-M POTABLE WATER RETICULATION
 - PWS --- POTABLE WATER PROPERTY SERVICE
 - SP --- PE PRESSURE SEWER RETICULATION
 - PS S --- PE PRESSURE SEWER PROPERTY SERVICE
 - EX RW --- EXISTING RECYCLED WATER RETICULATION
 - EX PWS --- EXISTING POTABLE WATER RETICULATION
 - EX PS --- EXISTING PRESSURE SEWER RETICULATION
 - SW --- STORMWATER PIPEWORK
 - SV STOP VALVE
 - HYD HYDRANT
 - FL HYD FLUSHING HYDRANT
 - 22.5° 22.5° HORIZONTAL BEND - REFER TO THRUST BLOCK TABLE
 - 11.25° 11.25° HORIZONTAL BEND - REFER TO THRUST BLOCK TABLE
 - PROPERTY SERVICE CONNECTION
 - LAY WATER MAIN OVER STORMWATER PIPE (300mm MIN. VERTICAL CLEARANCE) - REFER TO WAT-1255-H
 - PROPOSED EASEMENT
 - SUBDIVISION STAGE BOUNDARY

- RECYCLED WATER PROPERTY SERVICE CONNECTIONS**
- TOTAL 51 CONNECTIONS
- SINGLE SERVICES IN ACCORDANCE WITH WAT-1106-V
 - 7 x SHORT SIDE
 - 2 x LONG SIDE
 - SPLIT SERVICES IN ACCORDANCE WITH WAT-1107-V
 - 7 x SHORT SIDE
 - 14 x LONG SIDE

RECYCLED WATER PIPE DATA		
PIPE SIZE (mm)	PIPE MATERIAL	TOTAL LENGTH (m)
DN100	PVC-M PN16	659

- NOTES:**
1. FOR POTABLE WATER PIPEWORK DETAIL PLANS REFER TO DRGS-004 TO 007.
 2. FOR PRESSURE SEWER PIPEWORK DETAIL PLANS REFER TO DRGS-014 TO 017.
 3. FOR TYPICAL SERVICE CONNECTION DETAILS REFER TO DRGS-022 AND 023.
 4. POTABLE WATER & RECYCLED WATER TO SHARE ϕ 150mm CONDUIT ON LONG SIDE FOR FULL ROAD PAVEMENT

JOINS DRG-010
PLAN
 SCALE 1:250

I certify that this plan represents Works-as-Executed details of completed works (regarding road, stormwater & retaining wall levels and positions) with any revised information being shown in red ink.

M. Jones Date: _____
 Registered Surveyor

ADW Johnson Pty Ltd
 on behalf of
Cooranbong + Water
 Date Approved: 17/12/2020

REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES
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CLIENT

JOHNSON PROPERTY GROUP

PROPERTY DESCRIPTION

PROPOSED SUBDIVISION
 STAGE 3.1
 WATAGAN PARK

SURVEYED ADW Johnson DATUM A.H.D.

PROJECT POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION

PLAN TITLE RECYCLED WATER DETAIL PLAN - SHEET 1

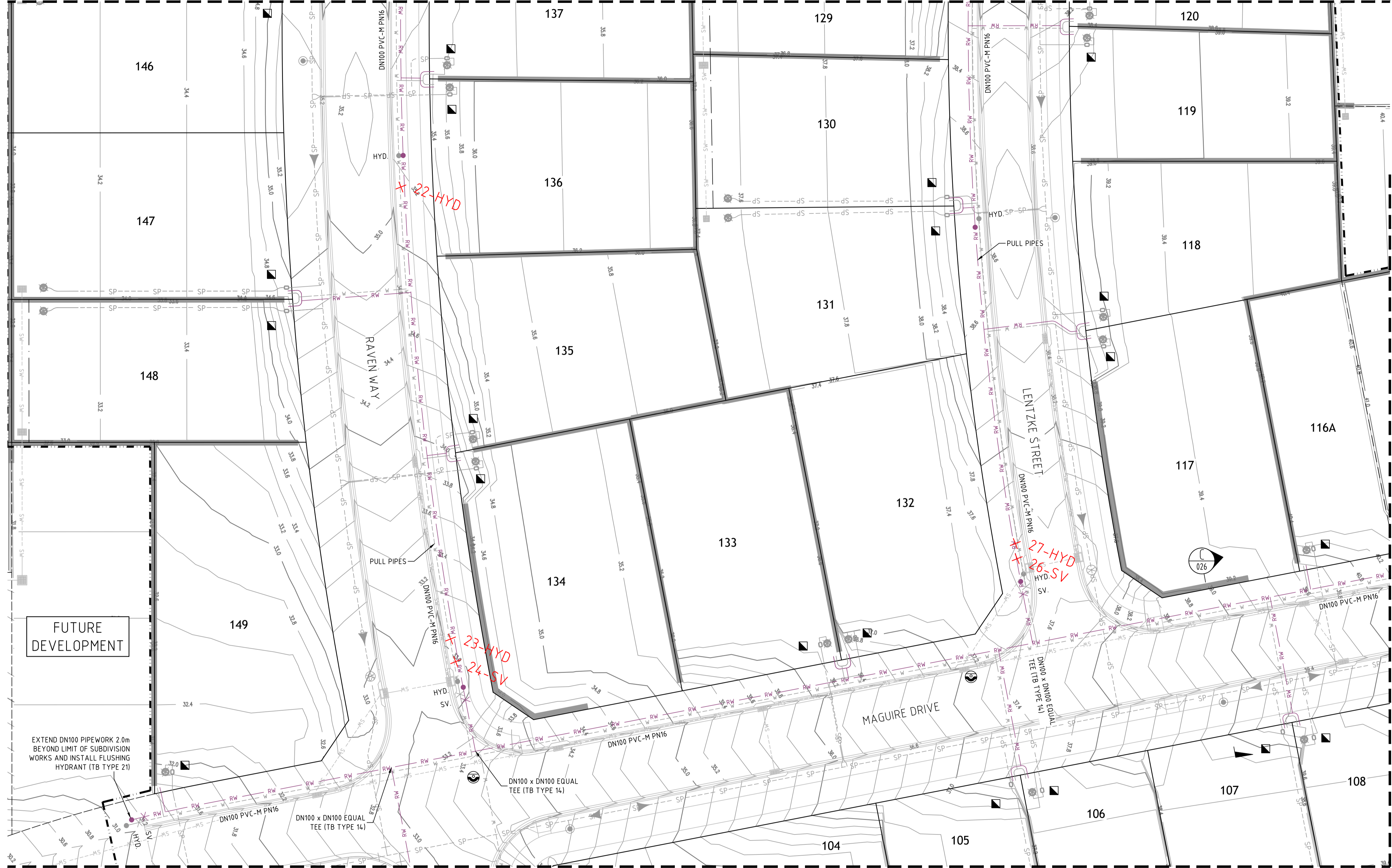
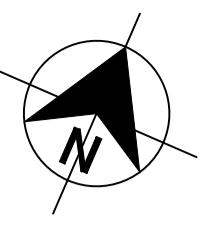
PROJECT No. 239078(3.1) DISCIPLINE WAT NUMBER 009 REV. 1

239078(3.1)-WAT-013(1)

100mm AT FULL SIZE

JOINS DRG-009

JOINS DRG-011



- LEGEND**
- RW PVC-M RECYCLED WATER RETICULATION
 - RWS RECYCLED WATER PROPERTY SERVICE
 - PWS POTABLE WATER RETICULATION
 - PS POTABLE WATER PROPERTY SERVICE
 - SP PE PRESSURE SEWER RETICULATION
 - PS S PE PRESSURE SEWER PROPERTY SERVICE
 - EX RW EXISTING RECYCLED WATER RETICULATION
 - EX PW EXISTING POTABLE WATER RETICULATION
 - EX PS EXISTING PRESSURE SEWER RETICULATION
 - SW STORMWATER PIPEWORK
 - SV STOP VALVE
 - HYD HYDRANT
 - FL HYD FLUSHING HYDRANT
 - 22.5° 22.5° HORIZONTAL BEND - REFER TO THRUST BLOCK TABLE
 - 11.25° 11.25° HORIZONTAL BEND - REFER TO THRUST BLOCK TABLE
 - PROPERTY SERVICE CONNECTION
 - LAY WATER MAIN OVER STORMWATER PIPE (300mm MIN. VERTICAL CLEARANCE) - REFER TO WAT-1255-H
 - PROPOSED EASEMENT
 - SUBDIVISION STAGE BOUNDARY

- RECYCLED WATER PROPERTY SERVICE CONNECTIONS**
- TOTAL 51 CONNECTIONS
- SINGLE SERVICES IN ACCORDANCE WITH WAT-1106-V
 - 7 x SHORT SIDE
 - 2 x LONG SIDE
 - SPLIT SERVICES IN ACCORDANCE WITH WAT-1107-V
 - 7 x SHORT SIDE
 - 14 x LONG SIDE

RECYCLED WATER PIPE DATA		
PIPE SIZE (mm)	PIPE MATERIAL	TOTAL LENGTH (m)
DN100	PVC-M PN16	659

- NOTES:**
1. FOR POTABLE WATER PIPEWORK DETAIL PLANS REFER TO DRGS-004 TO 007.
 2. FOR PRESSURE SEWER PIPEWORK DETAIL PLANS REFER TO DRGS-014 TO 017.
 3. FOR TYPICAL SERVICE CONNECTION DETAILS REFER TO DRGS-022 AND 023.
 4. POTABLE WATER & RECYCLED WATER TO SHARE Ø150mm CONDUIT ON LONG SIDE FOR FULL ROAD PAVEMENT

FUTURE DEVELOPMENT

EXTEND DN100 PIPEWORK 2.0m BEYOND LIMIT OF SUBDIVISION WORKS AND INSTALL FLUSHING HYDRANT (TB TYPE 21)

22-HYD

23-HYD
24-SV

27-HYD
26-SV

PLAN
SCALE 1:250

I certify that this plan represents Works-as-Executed details of completed works (regarding road, stormwater & retaining wall levels and positions) with any revised information being shown in red ink.

Date: _____
Registered Surveyor

ADW Johnson Pty Ltd
on behalf of
Cooranbong + Water
Date Approved: 17/12/2020

REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES
A	01.09.2020	PRELIMINARY ISSUE	T.S.	J.N.	T.S.	C.B.	A1 / A3 1:250 / 1:500
B	13.11.2020	CLIENT COMMENTS ADDED	J.N.	C.B.	T.S.	C.B.	
C	11.12.2020	CLIENT COMMENTS ADDED	T.S.	C.B.	T.S.	C.B.	
D	17.12.2020	FLOW SYSTEMS COMMENTS ADDED	T.S.	C.B.	T.S.	C.B.	
O	11.01.2021	CONSTRUCTION ISSUE	T.S.	C.B.	T.S.	C.B.	
1	30.08.2021	WORK AS CONSTRUCTED ISSUE	M.S.	S.S.	T.S.	C.B.	

adw Johnson

Hunter Office
Unit 7/335 Hillsborough Rd
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Fax: (02) 4978 5199
email: hunter@adwjohnson.com.au
www.adwjohnson.com.au
ABN 62 129 445 398

CLIENT

JOHNSON PROPERTY GROUP

PROPERTY DESCRIPTION

PROPOSED SUBDIVISION
STAGE 3.1
WATAGAN PARK

SURVEYED
ADW Johnson

DATUM
A.H.D.

PROJECT
POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION

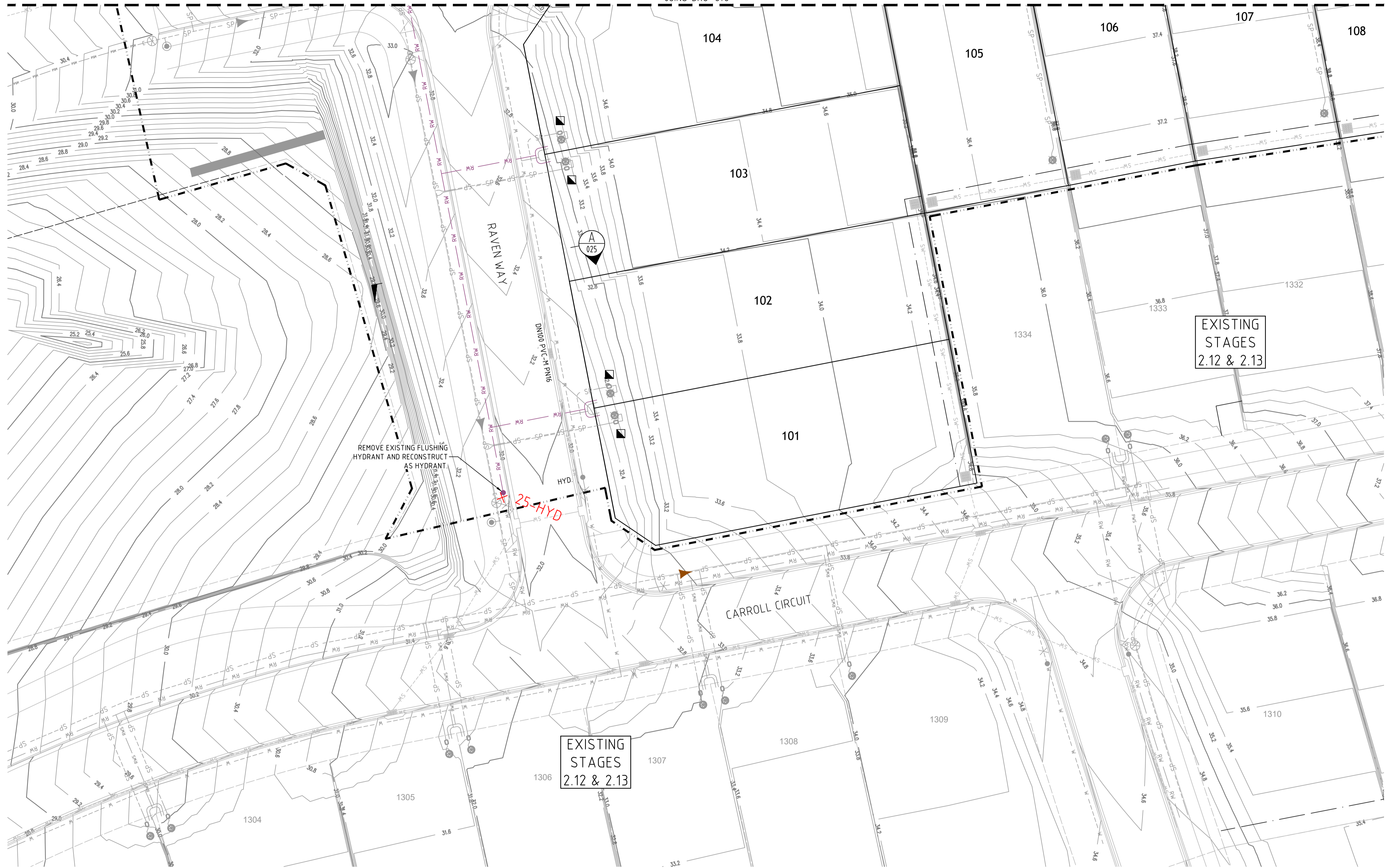
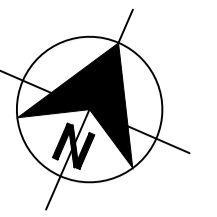
PLAN TITLE
RECYCLED WATER DETAIL PLAN - SHEET 2

PROJECT No.	DISCIPLINE	NUMBER	REV.
239078(3.1)	- WAT -	010	1

239078(3.1)-WAT-013(1)

100mm AT FULL SIZE

JOINS DRG-010



LEGEND

RW	PVC-M RECYCLED WATER RETICULATION
RWS	RECYCLED WATER PROPERTY SERVICE
PWS	POTABLE WATER PROPERTY SERVICE
SP	PE PRESSURE SEWER RETICULATION
PS S	PE PRESSURE SEWER PROPERTY SERVICE
EX RW	EXISTING RECYCLED WATER RETICULATION
EX PW	EXISTING POTABLE WATER RETICULATION
EX PS	EXISTING PRESSURE SEWER RETICULATION
SW	STORMWATER PIPEWORK
SV	STOP VALVE
HYD.	HYDRANT
FL HYD.	FLUSHING HYDRANT
22.5°	22.5° HORIZONTAL BEND - REFER TO THRUST BLOCK TABLE
11.25°	11.25° HORIZONTAL BEND - REFER TO THRUST BLOCK TABLE
Property Service Connection Symbol	PROPERTY SERVICE CONNECTION
Lay Water Main Over Stormwater Pipe Symbol	LAY WATER MAIN OVER STORMWATER PIPE (300mm MIN. VERTICAL CLEARANCE) - REFER TO WAT-1255-H
Proposed Easement Symbol	PROPOSED EASEMENT
Subdivision Stage Boundary Symbol	SUBDIVISION STAGE BOUNDARY

- RECYCLED WATER PROPERTY SERVICE CONNECTIONS**
- TOTAL 51 CONNECTIONS
- SINGLE SERVICES IN ACCORDANCE WITH WAT-1106-V
 - 7 x SHORT SIDE
 - 2 x LONG SIDE
 - SPLIT SERVICES IN ACCORDANCE WITH WAT-1107-V
 - 7 x SHORT SIDE
 - 14 x LONG SIDE

RECYCLED WATER PIPE DATA		
PIPE SIZE (mm)	PIPE MATERIAL	TOTAL LENGTH (m)
DN100	PVC-M PN16	659

- NOTES:**
- FOR POTABLE WATER PIPEWORK DETAIL PLANS REFER TO DRGS-004 TO 007.
 - FOR PRESSURE SEWER PIPEWORK DETAIL PLANS REFER TO DRGS-014 TO 017.
 - FOR TYPICAL SERVICE CONNECTION DETAILS REFER TO DRGS-022 AND 023.
 - POTABLE WATER & RECYCLED WATER TO SHARE Ø150mm CONDUIT ON LONG SIDE FOR FULL ROAD PAVEMENT

EXISTING STAGES 2.12 & 2.13

EXISTING STAGES 2.12 & 2.13

PLAN SCALE 1:250

I certify that this plan represents Works-as-Executed details of completed works (regarding road, stormwater & retaining wall levels and positions) with any revised information being shown in red ink.

M. Hunter Date: _____
Registered Surveyor

ADW Johnson Pty Ltd
on behalf of
Cooranbong + Water
Date Approved: 17/12/2020

REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY
A	01.09.2020	PRELIMINARY ISSUE	T.S.	J.N.	T.S.	C.B.
B	13.11.2020	CLIENT COMMENTS ADDED	J.N.	C.B.	T.S.	C.B.
C	11.12.2020	CLIENT COMMENTS ADDED	T.S.	C.B.	T.S.	C.B.
D	17.12.2020	FLOW SYSTEMS COMMENTS ADDED	T.S.	C.B.	T.S.	C.B.
O	11.01.2021	CONSTRUCTION ISSUE	T.S.	C.B.	T.S.	C.B.
1	30.08.2021	WORK AS CONSTRUCTED ISSUE	M.S.	S.S.	T.S.	C.B.

SCALE
0 5 10 A1 / A3 1:250 / 1:500

adw Johnson

Hunter Office
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Fax: (02) 4978 5199
email: hunter@adwjohnson.com.au
www.adwjohnson.com.au
ABN 62 129 445 398

CLIENT

JOHNSON PROPERTY GROUP

PROPERTY DESCRIPTION

PROPOSED SUBDIVISION
STAGE 3.1
WATAGAN PARK

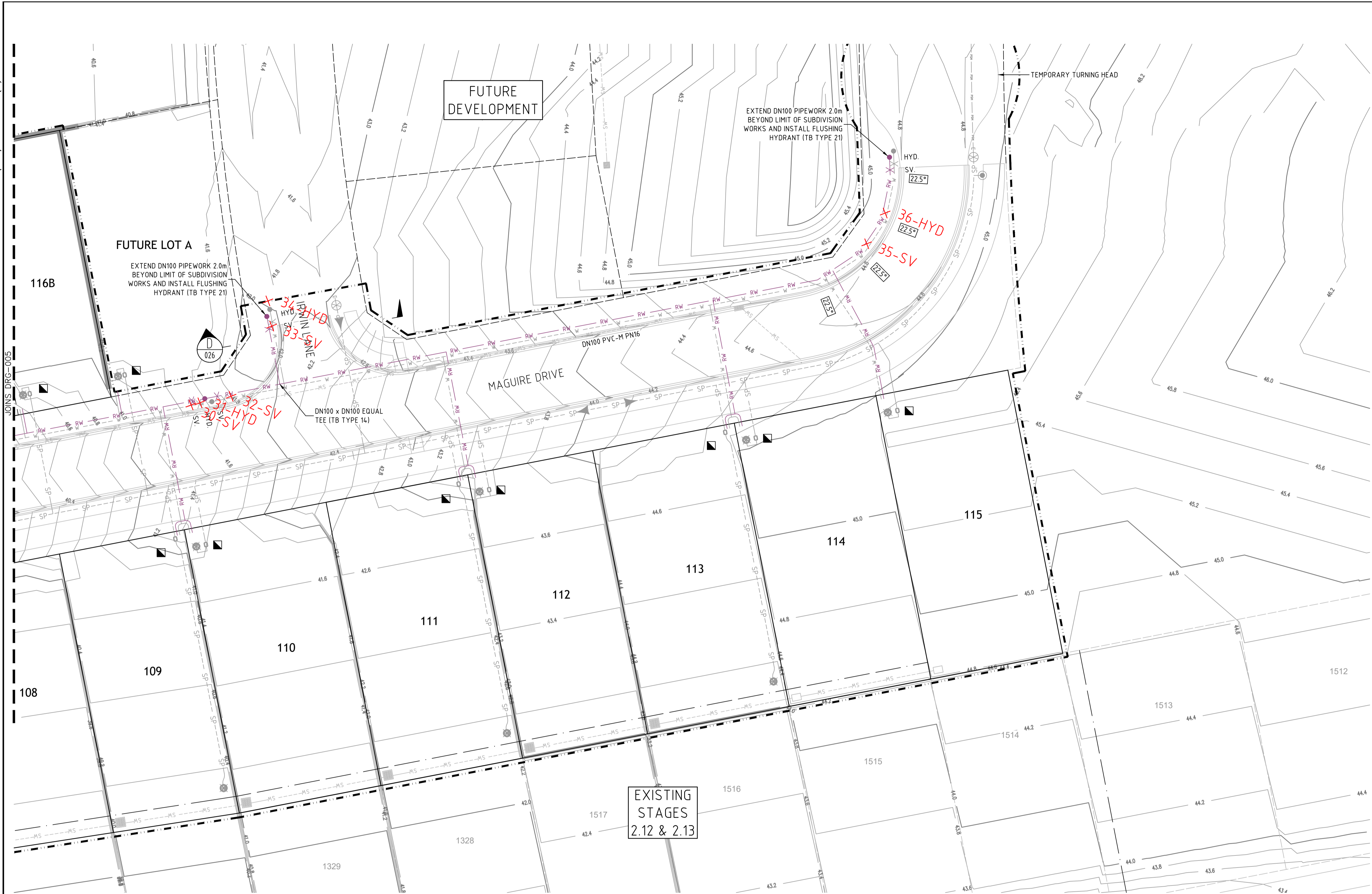
SURVEYED ADW Johnson DATUM A.H.D.

PROJECT	PLAN TITLE
POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION	RECYCLED WATER DETAIL PLAN - SHEET 3
PROJECT No. 239078(3.1)	DISCIPLINE - WAT
NUMBER 011	REV. 1

239078(3.1)-WAT-013(1)

JOINS DRG-005

100mm AT FULL SIZE



- LEGEND**
- RW — PVC-M RECYCLED WATER RETICULATION
 - RWS --- RECYCLED WATER PROPERTY SERVICE
 - PWS --- PVC-M POTABLE WATER RETICULATION
 - PWS --- POTABLE WATER PROPERTY SERVICE
 - SP --- PE PRESSURE SEWER RETICULATION
 - PS S --- PE PRESSURE SEWER PROPERTY SERVICE
 - EX RW --- EXISTING RECYCLED WATER RETICULATION
 - EX PWS --- EXISTING POTABLE WATER RETICULATION
 - EX PS --- EXISTING PRESSURE SEWER RETICULATION
 - SW --- STORMWATER PIPEWORK
 - SV STOP VALVE
 - HYD. HYDRANT
 - FL HYD. FLUSHING HYDRANT
 - 22.5° 22.5° HORIZONTAL BEND - REFER TO THRUST BLOCK TABLE
 - 11.25° HORIZONTAL BEND - REFER TO THRUST BLOCK TABLE
 - PROPERTY SERVICE CONNECTION
 - LAY WATER MAIN OVER STORMWATER PIPE (300mm MIN. VERTICAL CLEARANCE) - REFER TO WAT-1255-H
 - PROPOSED EASEMENT
 - SUBDIVISION STAGE BOUNDARY

- RECYCLED WATER PROPERTY SERVICE CONNECTIONS**
- TOTAL 51 CONNECTIONS
- SINGLE SERVICES IN ACCORDANCE WITH WAT-1106-V
 - 7 x SHORT SIDE
 - 2 x LONG SIDE
 - SPLIT SERVICES IN ACCORDANCE WITH WAT-1107-V
 - 7 x SHORT SIDE
 - 14 x LONG SIDE

RECYCLED WATER PIPE DATA		
PIPE SIZE (mm)	PIPE MATERIAL	TOTAL LENGTH (m)
DN100	PVC-M PN16	659

- NOTES:**
1. FOR POTABLE WATER PIPEWORK DETAIL PLANS REFER TO DRGS-004 TO 007.
 2. FOR PRESSURE SEWER PIPEWORK DETAIL PLANS REFER TO DRGS-014 TO 017.
 3. FOR TYPICAL SERVICE CONNECTION DETAILS REFER TO DRGS-022 AND 023.
 4. POTABLE WATER & RECYCLED WATER TO SHARE ø150mm CONDUIT ON LONG SIDE FOR FULL ROAD PAVEMENT

EXISTING STAGES
2.12 & 2.13

PLAN
SCALE 1:250

I certify that this plan represents Works-as-Executed details of completed works (regarding road, stormwater & retaining wall levels and positions) with any revised information being shown in red ink.

M. Jones Date: _____
Registered Surveyor

ADW Johnson Pty Ltd
on behalf of
Cooranbong + Water
Date Approved: 17/12/2020

REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES
A	01.09.2020	PRELIMINARY ISSUE	T.S.	J.N.	T.S.	C.B.	
B	13.11.2020	CLIENT COMMENTS ADDED	J.N.	C.B.	T.S.	C.B.	
C	11.12.2020	CLIENT COMMENTS ADDED	T.S.	C.B.	T.S.	C.B.	
D	17.12.2020	FLOW SYSTEMS COMMENTS ADDED	T.S.	C.B.	T.S.	C.B.	
O	11.01.2021	CONSTRUCTION ISSUE	T.S.	C.B.	T.S.	C.B.	
1	30.08.2021	WORK AS CONSTRUCTED ISSUE	M.S.	S.S.	T.S.	C.B.	

ALL DIMENSIONS ARE IN METRES. DO NOT SCALE

adw Johnson

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Phone: (02) 4978 5100
Fax: (02) 4978 5199
email: hunter@adwjohnson.com.au
www.adwjohnson.com.au
ABN 62 129 445 398

CLIENT

JOHNSON PROPERTY GROUP

PROPERTY DESCRIPTION

PROPOSED SUBDIVISION
STAGE 3.1
WATAGAN PARK

SURVEYED ADW Johnson DATUM A.H.D.

PROJECT	POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION		
PLAN TITLE	RECYCLED WATER DETAIL PLAN - SHEET 4		
PROJECT No.	DISCIPLINE	NUMBER	REV.
239078(3.1)	- WAT -	012	1



POINT	EASTING	NORTHING	FITTING
20	355533.82	6341167.33	HYD
21	355535.08	6341161.69	SV
22	355569.35	6341065.65	HYD
23	355595.44	6341020.01	HYD
24	355597.02	6341017.85	SV
25	355634.41	6340945.94	HYD
26	355651.81	6341054.63	SV
27	355650.91	6341056.16	HYD
28	355597.26	6341184.46	SV
29	355596.83	6341185.93	HYD
30	355709.73	6341081.84	SV
31	355710.59	6341082.49	HYD
32	355713.64	6341084.66	SV
33	355714.74	6341094.15	SV
34	355713.15	6341096.69	HYD
35	355775.18	6341130.99	SV
36	355775.73	6341135.18	HYD

I certify that this plan represents Works-as-Executed details of completed works (regarding road, stormwater & retaining wall levels and positions) with any revised information being shown in red ink.

Morse
 Date:
 Registered Surveyor

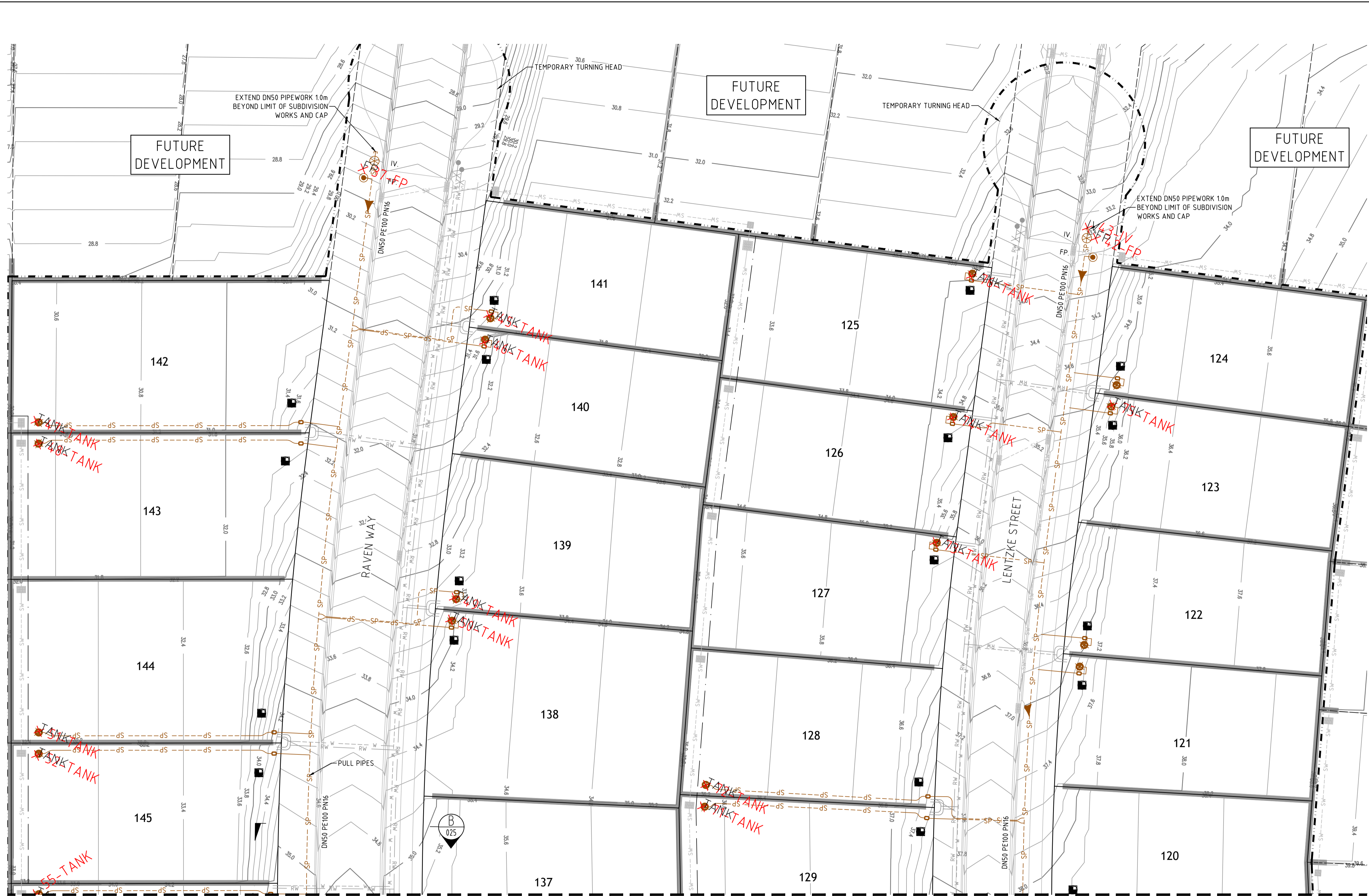
ADW Johnson Pty Ltd
 on behalf of
Cooranbong + Water
 Date Approved: 17/12/2020

100mm AT FULL SIZE

REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES	CLIENT		PROPERTY DESCRIPTION		PROJECT									
A	01.09.2020	PRELIMINARY ISSUE	T.S.	J.N.	T.S.	C.B.		<p>Hunter Office Unit 7/335 Hillsborough Rd Warners Bay N.S.W. 2282 Phone: (02) 4978 5100 Fax: (02) 4978 5199 email: hunter@adwjohnson.com.au www.adwjohnson.com.au ABN 62 129 445 398</p>		PROPOSED SUBDIVISION STAGE 3.1 WATAGAN PARK		POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION									
B	13.11.2020	CLIENT COMMENTS ADDED	J.N.	C.B.	T.S.	C.B.	PLAN TITLE WAC COORD SCHEDULE														
C	11.12.2020	CLIENT COMMENTS ADDED	T.S.	C.B.	T.S.	C.B.															
D	17.12.2020	FLOW SYSTEMS COMMENTS ADDED	T.S.	C.B.	T.S.	C.B.															
O	11.01.2021	CONSTRUCTION ISSUE	T.S.	C.B.	T.S.	C.B.															
1	30.08.2021	WORK AS CONSTRUCTED ISSUE	M.S.	S.S.	T.S.	C.B.															
DESIGN FILE N:\								ALL DIMENSIONS ARE IN METRES. DO NOT SCALE		SURVEYED ADW Johnson		DATUM A.H.D.		PROJECT No. 239078(3.1)		DISCIPLINE - WAT -		NUMBER 013		REV. 1	

239078(3.1)-WAT-018(1)

100mm AT FULL SIZE



- LEGEND**
- SP PE PRESSURE SEWER RETICULATION
 - PS S PE PRESSURE SEWER PROPERTY SERVICE
 - PVC-M POTABLE WATER RETICULATION
 - PWS POTABLE WATER PROPERTY SERVICE
 - RW PVC-M RECYCLED WATER RETICULATION
 - RWS RECYCLED WATER PROPERTY SERVICE
 - EX PS EXISTING PRESSURE SEWER RETICULATION
 - EX PW EXISTING POTABLE WATER RETICULATION
 - EX RW EXISTING RECYCLED WATER RETICULATION
 - SW STORMWATER PIPEWORK
 - IV ISOLATION VALVE
 - FP FLUSHING POINT
 - WASTEWATER COLLECTION TANK AND BOUNDARY KIT
 - PRESSURE SEWER FLOW DIRECTION (INTERMEDIATE)
 - PRESSURE SEWER FLOW DIRECTION (ULTIMATE)
 - PROPERTY SERVICE CONNECTION
 - LAY PRESSURE SEWER MAIN UNDER STORMWATER PIPE (300mm MIN. VERTICAL CLEARANCE) - REFER TO WAT-1255-H
 - PROPOSED EASEMENT
 - SUBDIVISION STAGE BOUNDARY

■ PRESSURE SEWER PROPERTY SERVICE CONNECTIONS
 TOTAL 51 CONNECTIONS
 • SINGLE SERVICES
 -26 x SHORT SIDE
 -25 x LONG SIDE

PRESSURE SEWER PIPE DATA		
PIPE SIZE (mm)	PIPE MATERIAL	TOTAL LENGTH (m)
DN50	PE100 SDR11	428
DN63	PE100 SDR11	28
DN75	PE100 SDR11	160
DN90	PE100 SDR11	91

- NOTES:**
- FOR POTABLE WATER PIPEWORK DETAIL PLANS REFER TO DRGS-004 TO 007.
 - FOR RECYCLED WATER PIPEWORK DETAIL PLANS REFER TO DRGS-009 TO 012.
 - FOR TYPICAL SERVICE CONNECTION DETAILS REFER TO DRGS-022 AND 023.
 - FOR FLUSHING POINT TYPICAL DETAILS REFER TO STANDARD DRAWING PSS-1017-FS.
 - 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).

JOINS DRG-015
PLAN
 SCALE 1:250

I certify that this plan represents Works-as-Executed details of completed works (regarding road, stormwater & retaining wall levels and positions) with any revised information being shown in red ink.
Morse Date: _____
 Registered Surveyor

ADW Johnson Pty Ltd
 on behalf of
Cooranbong + Water
 Date Approved: 17/12/2020

AS CONSTRUCTED

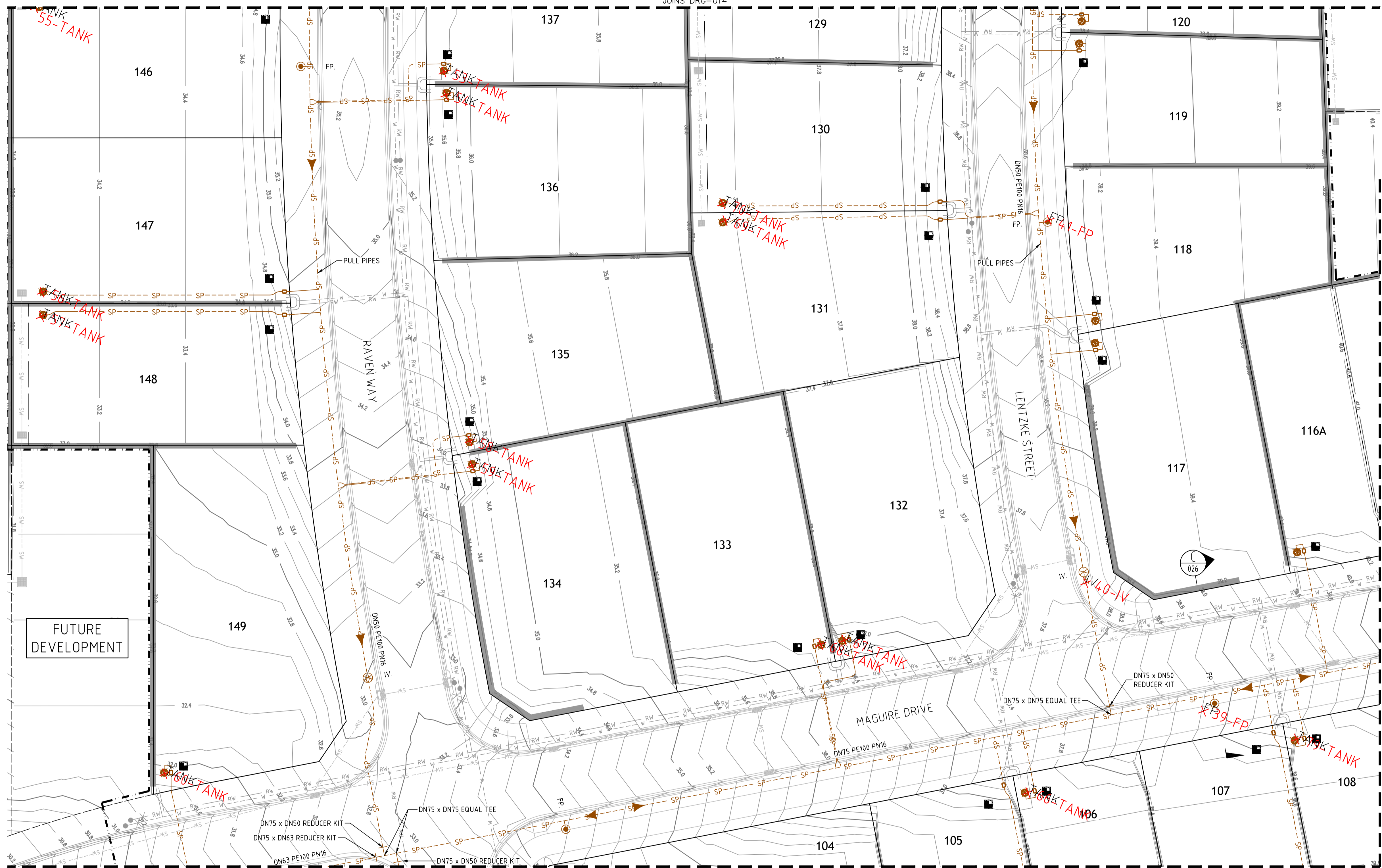
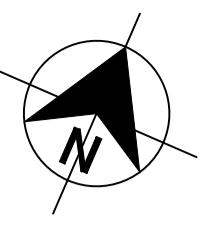
REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES	CLIENT	PROPERTY DESCRIPTION	PROJECT	PLAN TITLE	PROJECT No.	DISCIPLINE	NUMBER	REV.	
A	01.09.2020	PRELIMINARY ISSUE	T.S.	J.N.	T.S.	C.B.	 ALL DIMENSIONS ARE IN METRES. DO NOT SCALE	Hunter Office Unit 7/335 Hillsborough Rd Warners Bay N.S.W. 2282 Phone: (02) 4978 5100 Fax: (02) 4978 5199 email: hunter@adwjohnson.com.au www.adwjohnson.com.au ABN 62 129 445 398	JOHNSON PROPERTY GROUP	PROPOSED SUBDIVISION STAGE 3.1 WATAGAN PARK	POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION	PRESSURE SEWER DETAIL PLAN - SHEET 1	PROJECT No. 239078(3.1)	DISCIPLINE - WAT -	NUMBER 014	REV. 1
B	13.11.2020	CLIENT COMMENTS ADDED	J.N.	C.B.	T.S.	C.B.										
C	11.12.2020	CLIENT COMMENTS ADDED	T.S.	C.B.	T.S.	C.B.										
D	17.12.2020	FLOW SYSTEMS COMMENTS ADDED	T.S.	C.B.	T.S.	C.B.										
O	11.01.2021	CONSTRUCTION ISSUE	T.S.	C.B.	T.S.	C.B.										
1	30.08.2021	WORK AS CONSTRUCTED ISSUE	M.S.	S.S.	T.S.	C.B.										
DESIGN FILE N:\								SURVEYED ADW Johnson		DATUM A.H.D.						

239078(3.1)-WAT-018(1)

100mm AT FULL SIZE

JOINS DRG-014

JOINS DRG-016



- LEGEND**
- SP PE PRESSURE SEWER RETICULATION
 - PS S PE PRESSURE SEWER PROPERTY SERVICE
 - PVC-M POTABLE WATER RETICULATION
 - PWS POTABLE WATER PROPERTY SERVICE
 - RW PVC-M RECYCLED WATER RETICULATION
 - RWS RECYCLED WATER PROPERTY SERVICE
 - EX PS EXISTING PRESSURE SEWER RETICULATION
 - EX PW EXISTING POTABLE WATER RETICULATION
 - EX RW EXISTING RECYCLED WATER RETICULATION
 - SW STORMWATER PIPEWORK
 - IV ISOLATION VALVE
 - FP FLUSHING POINT
 - WASTEWATER COLLECTION TANK AND BOUNDARY KIT
 - PRESSURE SEWER FLOW DIRECTION (INTERMEDIATE)
 - PRESSURE SEWER FLOW DIRECTION (ULTIMATE)
 - PROPERTY SERVICE CONNECTION
 - LAY PRESSURE SEWER MAIN UNDER STORMWATER PIPE (300mm MIN. VERTICAL CLEARANCE) - REFER TO WAT-1255-H
 - PROPOSED EASEMENT
 - SUBDIVISION STAGE BOUNDARY

■ PRESSURE SEWER PROPERTY SERVICE CONNECTIONS
 TOTAL 51 CONNECTIONS
 • SINGLE SERVICES
 -26 x SHORT SIDE
 -25 x LONG SIDE

PRESSURE SEWER PIPE DATA		
PIPE SIZE (mm)	PIPE MATERIAL	TOTAL LENGTH (m)
DN50	PE100 SDR11	428
DN63	PE100 SDR11	28
DN75	PE100 SDR11	160
DN90	PE100 SDR11	91

- NOTES:**
- FOR POTABLE WATER PIPEWORK DETAIL PLANS REFER TO DRGS-004 TO 007.
 - FOR RECYCLED WATER PIPEWORK DETAIL PLANS REFER TO DRGS-009 TO 012.
 - FOR TYPICAL SERVICE CONNECTION DETAILS REFER TO DRGS-022 AND 023.
 - FOR FLUSHING POINT TYPICAL DETAILS REFER TO STANDARD DRAWING PSS-1017-FS.
 - FOR FLOW MONITORING POINT TYPICAL DETAILS REFER TO STANDARD DRAWING PSS-1115-FS.
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PLAN
 SCALE 1:250

I certify that this plan represents Works-as-Executed details of completed works (regarding road, stormwater & retaining wall levels and positions) with any revised information being shown in red ink.
M. Jones
 Registered Surveyor Date:

ADW Johnson Pty Ltd
 on behalf of
 Cooranbong Water
 Date Approved: 17/12/2020

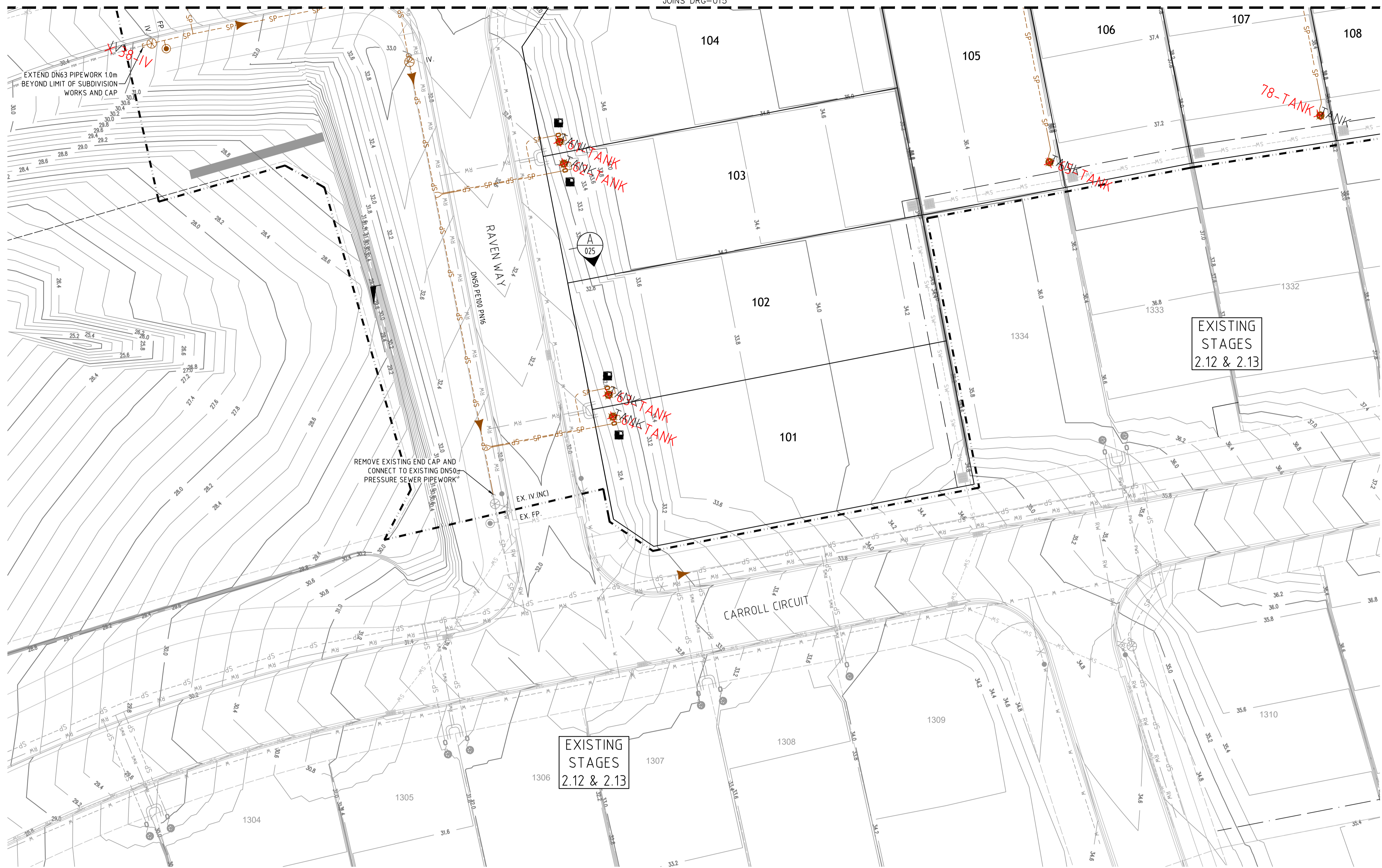
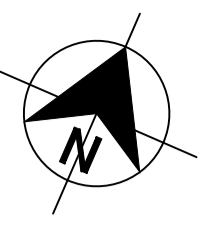
AS CONSTRUCTED

REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES	 Hunter Office Unit 7/335 Hillsborough Rd Warners Bay N.S.W. 2282 Phone: (02) 4978 5100 Fax: (02) 4978 5199 email: hunter@adwjohnson.com.au www.adwjohnson.com.au ABN 62 129 445 398	CLIENT	PROPERTY DESCRIPTION	PROJECT	PLAN TITLE	PROJECT No.	DISCIPLINE	NUMBER	REV.
A	01.09.2020	PRELIMINARY ISSUE	T.S.	J.N.	T.S.	C.B.	 A1 / A3 1:250 / 1:500		 JOHNSON PROPERTY GROUP	PROPOSED SUBDIVISION STAGE 3.1 WATAGAN PARK	POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION	PRESSURE SEWER DETAIL PLAN - SHEET 2	239078(3.1)	WAT	015	1
B	13.11.2020	CLIENT COMMENTS ADDED	J.N.	C.B.	T.S.	C.B.		ADW Johnson								
C	11.12.2020	CLIENT COMMENTS ADDED	T.S.	C.B.	T.S.	C.B.										
D	17.12.2020	FLOW SYSTEMS COMMENTS ADDED	T.S.	C.B.	T.S.	C.B.										
O	11.01.2021	CONSTRUCTION ISSUE	T.S.	C.B.	T.S.	C.B.										
1	30.08.2021	WORK AS CONSTRUCTED ISSUE	M.S.	S.S.	T.S.	C.B.										

239078(3.1)-WAT-018(1)

100mm AT FULL SIZE

JOINS DRG-015



- LEGEND**
- SP PE PRESSURE SEWER RETICULATION
 - PS S PE PRESSURE SEWER PROPERTY SERVICE
 - PVC-M POTABLE WATER RETICULATION
 - PWS POTABLE WATER PROPERTY SERVICE
 - RW PVC-M RECYCLED WATER RETICULATION
 - RWS RECYCLED WATER PROPERTY SERVICE
 - EX PS EXISTING PRESSURE SEWER RETICULATION
 - EX PW EXISTING POTABLE WATER RETICULATION
 - EX RW EXISTING RECYCLED WATER RETICULATION
 - SW STORMWATER PIPEWORK
 - IV ISOLATION VALVE
 - FP FLUSHING POINT
 - WASTEWATER COLLECTION TANK AND BOUNDARY KIT
 - PRESSURE SEWER FLOW DIRECTION (INTERMEDIATE)
 - PRESSURE SEWER FLOW DIRECTION (ULTIMATE)
 - PROPERTY SERVICE CONNECTION
 - LAY PRESSURE SEWER MAIN UNDER STORMWATER PIPE (300mm MIN. VERTICAL CLEARANCE) - REFER TO WAT-1255-H
 - PROPOSED EASEMENT
 - SUBDIVISION STAGE BOUNDARY

■ PRESSURE SEWER PROPERTY SERVICE CONNECTIONS
 TOTAL 51 CONNECTIONS
 • SINGLE SERVICES
 -26 x SHORT SIDE
 -25 x LONG SIDE

PRESSURE SEWER PIPE DATA		
PIPE SIZE (mm)	PIPE MATERIAL	TOTAL LENGTH (m)
DN50	PE100 SDR11	428
DN63	PE100 SDR11	28
DN75	PE100 SDR11	160
DN90	PE100 SDR11	91

- NOTES:**
- FOR POTABLE WATER PIPEWORK DETAIL PLANS REFER TO DRGS-004 TO 007.
 - FOR RECYCLED WATER PIPEWORK DETAIL PLANS REFER TO DRGS-009 TO 012.
 - FOR TYPICAL SERVICE CONNECTION DETAILS REFER TO DRGS-022 AND 023.
 - FOR FLUSHING POINT TYPICAL DETAILS REFER TO STANDARD DRAWING PSS-1017-FS.
 - 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).

EXISTING STAGES 2.12 & 2.13

EXISTING STAGES 2.12 & 2.13

PLAN SCALE 1:250

I certify that this plan represents Works-as-Executed details of completed works (regarding road, stormwater & retaining wall levels and positions) with any revised information being shown in red ink.
Morse Date: _____
 Registered Surveyor

ADW Johnson Pty Ltd
 on behalf of
 Cooranbong + Water
 Date Approved: 17/12/2020

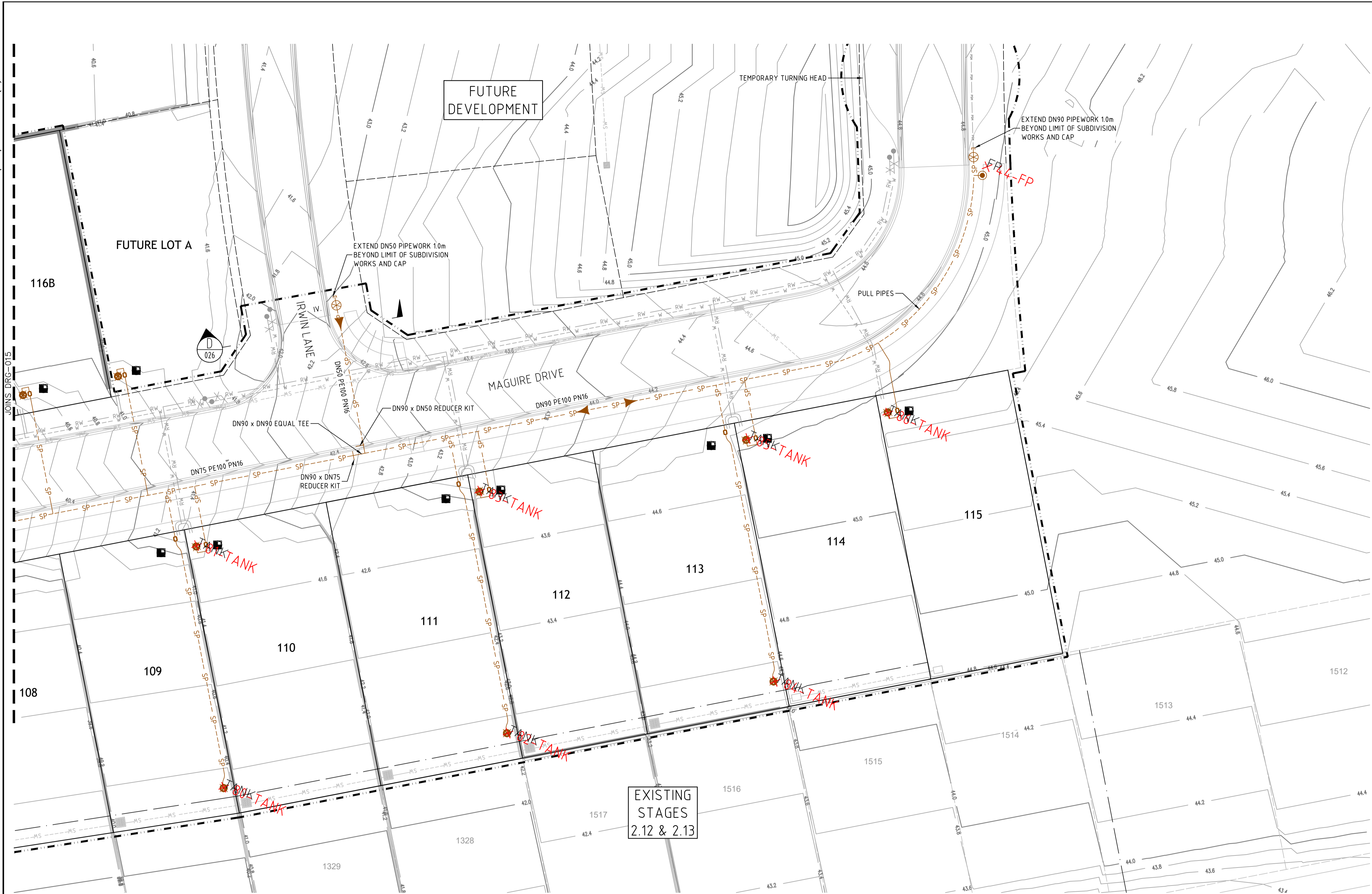
AS CONSTRUCTED

REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES	 A1 / A3 1:250 / 1:500	 Hunter Office Unit 7/335 Hillsborough Rd Warners Bay N.S.W. 2282 Phone: (02) 4978 5100 Fax: (02) 4978 5199 email: hunter@adwjohnson.com.au www.adwjohnson.com.au ABN 62 129 445 398	 CLIENT	PROPERTY DESCRIPTION		PROJECT	PLAN TITLE
SURVEYED		DATUM	PROJECT No.	DISCIPLINE	NUMBER	REV.								
A	01.09.2020	PRELIMINARY ISSUE	T.S.	J.N.	T.S.	C.B.	ALL DIMENSIONS ARE IN METRES. DO NOT SCALE			PROPOSED SUBDIVISION STAGE 3.1 WATAGAN PARK	ADW Johnson	A.H.D.	POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION	PRESSURE SEWER DETAIL PLAN - SHEET 3
B	13.11.2020	CLIENT COMMENTS ADDED	J.N.	C.B.	T.S.	C.B.								
C	11.12.2020	CLIENT COMMENTS ADDED	T.S.	C.B.	T.S.	C.B.								
D	17.12.2020	FLOW SYSTEMS COMMENTS ADDED	T.S.	C.B.	T.S.	C.B.								
O	11.01.2021	CONSTRUCTION ISSUE	T.S.	C.B.	T.S.	C.B.								
1	30.08.2021	WORK AS CONSTRUCTED ISSUE	M.S.	S.S.	T.S.	C.B.								
DESIGN FILE N:\														
Plotted By: marks Plot Date: 06/09/21 - 19:15 Cad File: N:\239078\239078(3)\DWG's\engineering\water & sewer\stage 3.1 water and sewer\239078(3.1)-WAT-018(1).dwg														

239078(3.1)-WAT-018(1)

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100mm AT FULL SIZE



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PLAN
SCALE 1:250

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Morse
 Date: _____
 Registered Surveyor

ADW Johnson Pty Ltd
 on behalf of
 Cooranbong Water
 Date Approved: 17/12/2020

AS CONSTRUCTED

<table border="1"> <thead> <tr> <th>REV.</th> <th>DATE</th> <th>AMENDMENT</th> <th>DRAWN</th> <th>CHECK</th> <th>DESIGN</th> <th>VERIFY</th> <th>SCALES</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>01.09.2020</td> <td>PRELIMINARY ISSUE</td> <td>T.S.</td> <td>J.N.</td> <td>T.S.</td> <td>C.B.</td> <td rowspan="5"> A1 / A3 1:250 / 1:500 </td> </tr> <tr> <td>B</td> <td>13.11.2020</td> <td>CLIENT COMMENTS ADDED</td> <td>J.N.</td> <td>C.B.</td> <td>T.S.</td> <td>C.B.</td> </tr> <tr> <td>C</td> <td>11.12.2020</td> <td>CLIENT COMMENTS ADDED</td> <td>T.S.</td> <td>C.B.</td> <td>T.S.</td> <td>C.B.</td> </tr> <tr> <td>D</td> <td>17.12.2020</td> <td>FLOW SYSTEMS COMMENTS ADDED</td> <td>T.S.</td> <td>C.B.</td> <td>T.S.</td> <td>C.B.</td> </tr> <tr> <td>O</td> <td>11.01.2021</td> <td>CONSTRUCTION ISSUE</td> <td>T.S.</td> <td>C.B.</td> <td>T.S.</td> <td>C.B.</td> </tr> <tr> <td>1</td> <td>30.08.2021</td> <td>WORK AS CONSTRUCTED ISSUE</td> <td>M.S.</td> <td>S.S.</td> <td>T.S.</td> <td>C.B.</td> </tr> </tbody> </table>	REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES	A	01.09.2020	PRELIMINARY ISSUE	T.S.	J.N.	T.S.	C.B.	 A1 / A3 1:250 / 1:500	B	13.11.2020	CLIENT COMMENTS ADDED	J.N.	C.B.	T.S.	C.B.	C	11.12.2020	CLIENT COMMENTS ADDED	T.S.	C.B.	T.S.	C.B.	D	17.12.2020	FLOW SYSTEMS COMMENTS ADDED	T.S.	C.B.	T.S.	C.B.	O	11.01.2021	CONSTRUCTION ISSUE	T.S.	C.B.	T.S.	C.B.	1	30.08.2021	WORK AS CONSTRUCTED ISSUE	M.S.	S.S.	T.S.	C.B.	 Hunter Office Unit 7/335 Hillsborough Rd Warners Bay N.S.W. 2282 Phone: (02) 4978 5100 Fax: (02) 4978 5199 email: hunter@adwjohnson.com.au www.adwjohnson.com.au ABN 62 129 445 398	 JOHNSON PROPERTY GROUP	PROPERTY DESCRIPTION PROPOSED SUBDIVISION STAGE 3.1 WATAGAN PARK		PROJECT POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION	
	REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES																																																	
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Plotted By: marks Plot Date: 06/09/21 - 19:15 Cad File: N:\239078\239078(3)\DWG's\engineering\water & sewer\stage 3.1 water and sewer\239078(3.1)-WAT-018(1).dwg				SURVEYED ADW Johnson		DATUM A.H.D.		PROJECT No. 239078(3.1)		DISCIPLINE - WAT -		NUMBER 017		REV. 1																																											



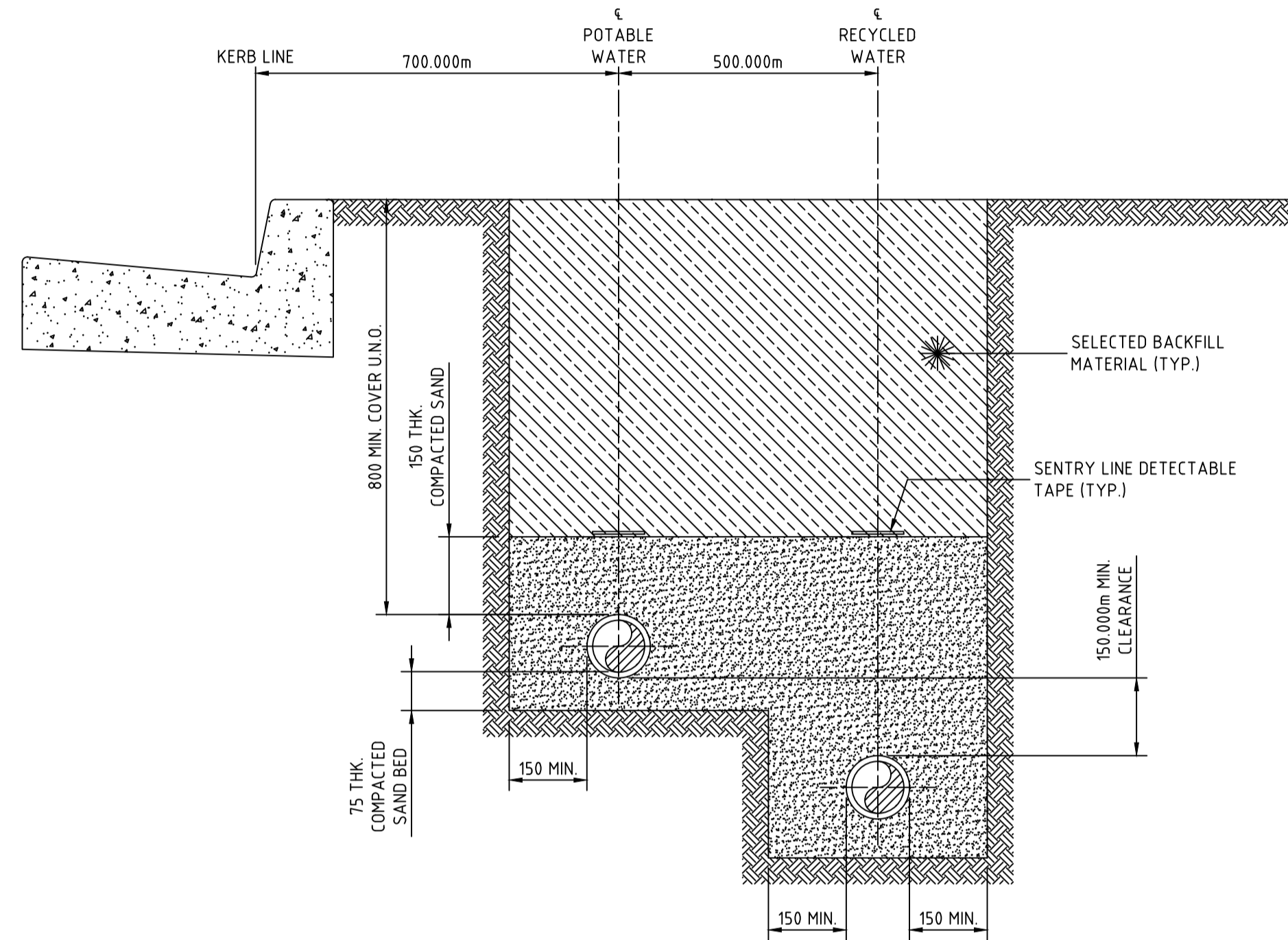
POINT	EASTING	NORTHING	FITTING
37	355523.42	6341162.10	FP
38	355571.81	6340975.81	IV
39	355679.45	6341047.58	FP
40	355660.93	6341055.81	IV
41	355640.21	6341092.83	FP
42	355605.65	6341188.92	FP
43	355604.27	6341189.66	IV
44	355784.57	6341144.97	FP
45	355543.83	6341152.18	TANK
46	355544.63	6341149.07	TANK
47	355499.99	6341119.56	TANK
48	355501.34	6341117.22	TANK
49	355553.37	6341120.09	TANK
50	355553.99	6341117.56	TANK
51	355514.83	6341086.30	TANK
52	355515.72	6341083.56	TANK
53	355568.70	6341080.54	TANK
54	355569.95	6341078.19	TANK
55	355522.09	6341068.48	TANK
56	355536.00	6341038.39	TANK
57	355537.06	6341035.78	TANK
58	355588.58	6341042.38	TANK
59	355589.96	6341039.83	TANK
60	355571.45	6340992.70	TANK
61	355624.05	6340986.77	TANK
62	355625.63	6340984.64	TANK
63	355641.02	6340962.06	TANK
64	355642.56	6340959.86	TANK
65	355677.41	6341007.24	TANK
66	355664.48	6341030.74	TANK
67	355637.81	6341038.46	TANK
68	355635.49	6341036.94	TANK
69	355605.60	6341077.74	TANK
70	355604.57	6341079.42	TANK
71	355589.90	6341109.21	TANK
72	355589.26	6341111.67	TANK
73	355602.60	6341148.62	TANK
74	355598.62	6341162.86	TANK
75	355615.24	6341171.71	TANK
76	355594.00	6341179.00	TANK
77	355754.67	6340965.48	TANK
78	355703.98	6341024.87	TANK
79	355690.68	6341048.92	TANK
80	355731.21	6341042.06	TANK
81	355716.93	6341066.91	TANK
82	355759.40	6341061.28	TANK
83	355744.98	6341086.10	TANK
84	355785.83	6341079.39	TANK
85	355771.49	6341104.37	TANK
86	355785.4	6341113.69	TANK

I certify that this plan represents Works-as-Executed details of completed works (regarding road, stormwater & retaining wall levels and positions) with any revised information being shown in red ink.
M. Jones Date: _____
 Registered Surveyor

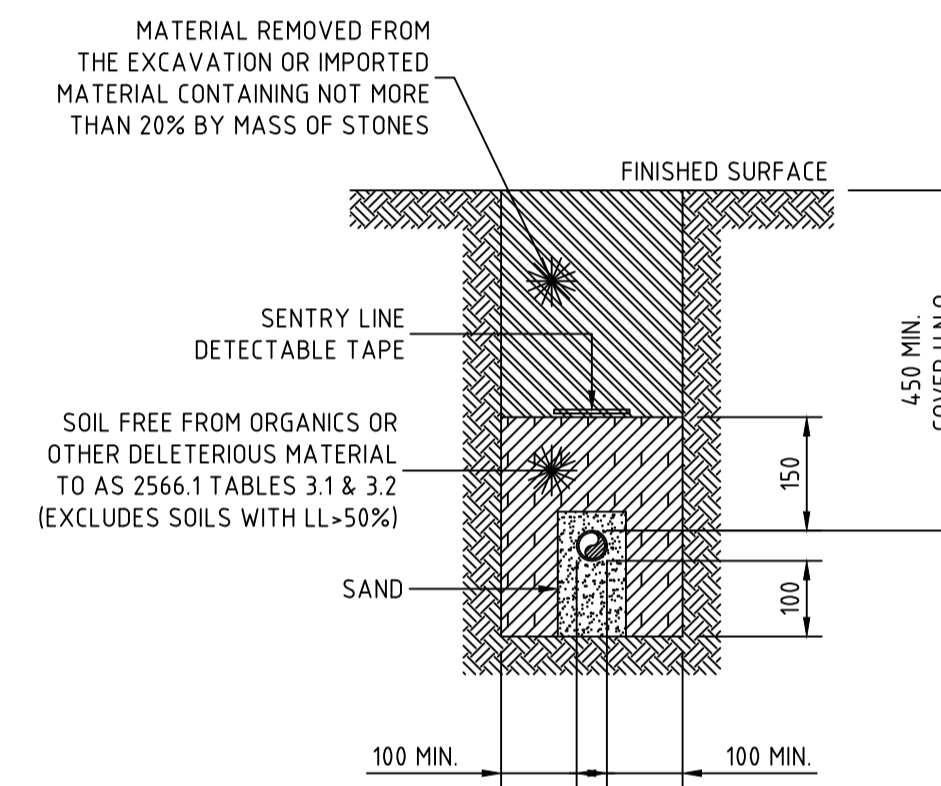
ADW Johnson Pty Ltd
 on behalf of
 Cooranbong + Water
 Date Approved: 17/12/2020

AS CONSTRUCTED

REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES	CLIENT		PROPERTY DESCRIPTION		PROJECT					
A	01.09.2020	PRELIMINARY ISSUE	T.S.	J.N.	T.S.	C.B.		Hunter Office Unit 7/335 Hillsborough Rd Warners Bay N.S.W. 2282 Phone: (02) 4978 5100 Fax: (02) 4978 5199 email: hunter@adwjohnson.com.au www.adwjohnson.com.au ABN 62 129 445 398		PROPOSED SUBDIVISION STAGE 3.1 WATAGAN PARK		POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION					
B	13.11.2020	CLIENT COMMENTS ADDED	J.N.	C.B.	T.S.	C.B.	PLAN TITLE										
C	11.12.2020	CLIENT COMMENTS ADDED	T.S.	C.B.	T.S.	C.B.	WAC COORD SCHEDULE										
D	17.12.2020	FLOW SYSTEMS COMMENTS ADDED	T.S.	C.B.	T.S.	C.B.	PROJECT No.										
O	11.01.2021	CONSTRUCTION ISSUE	T.S.	C.B.	T.S.	C.B.	DISCIPLINE										
1	30.08.2021	WORK AS CONSTRUCTED ISSUE	M.S.	S.S.	T.S.	C.B.	NUMBER		REV.								
DESIGN FILE N:\								ALL DIMENSIONS ARE IN METRES. DO NOT SCALE		ADW Johnson		A.H.D.		239078(3.1) - WAT - 018		1	



STREET PRESSURE MAIN
TYPICAL DETAIL
SCALE 1:10



PRIVATE PROPERTY PRESSURE MAIN
TYPICAL DETAIL
SCALE 1:10

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SCALE
0 0.4 0.8 A1 / A3 1.20 / 1:40

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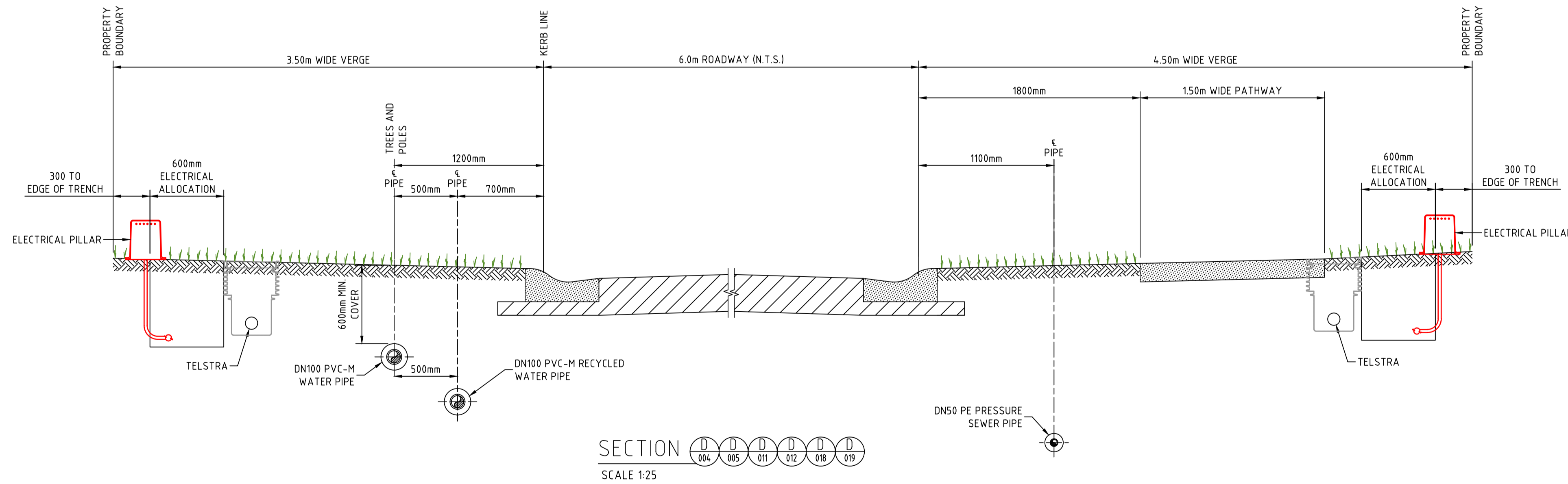
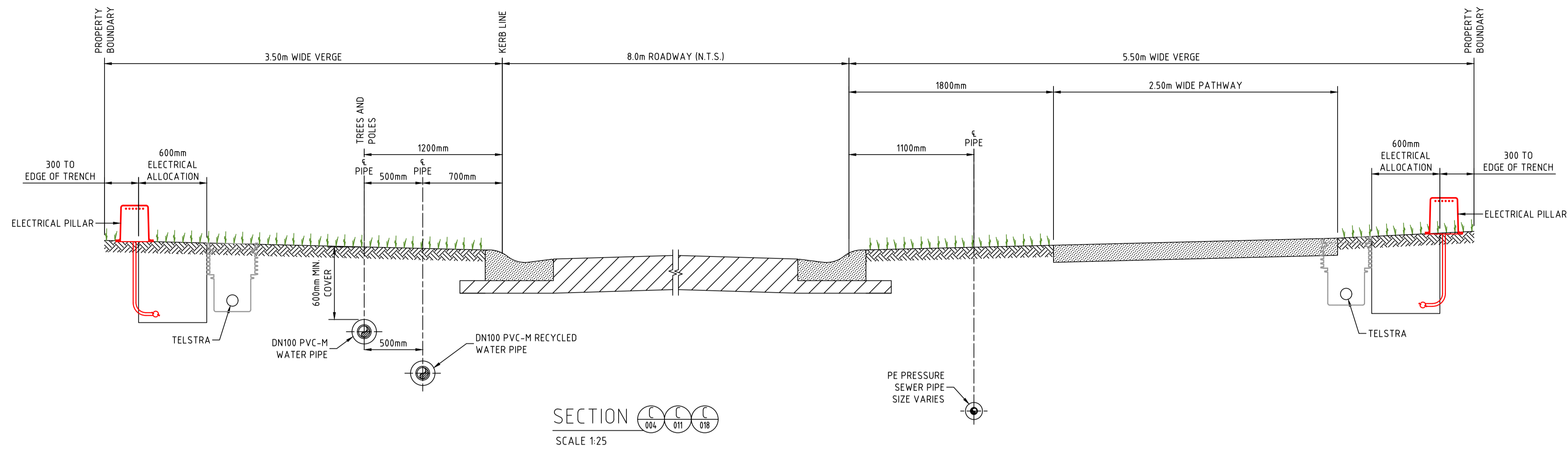
adw Johnson
Hunter Office
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Warners Bay N.S.W. 2282
Phone: (02) 4978 5100
Fax: (02) 4978 5199
email: hunter@adwjohnson.com.au
www.adwjohnson.com.au
ABN 62 129 445 398

CLIENT
JOHNSON PROPERTY GROUP

PROPERTY DESCRIPTION
PROPOSED SUBDIVISION
STAGE 3.1
WATAGAN PARK

SURVEYED ADW Johnson DATUM A.H.D.

PROJECT	POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION		
PLAN TITLE	TYPICAL CROSS SECTIONS - A & B		
PROJECT No.	DISCIPLINE	NUMBER	REV.
239078(3.1)	- WAT -	021	1



NOTES:

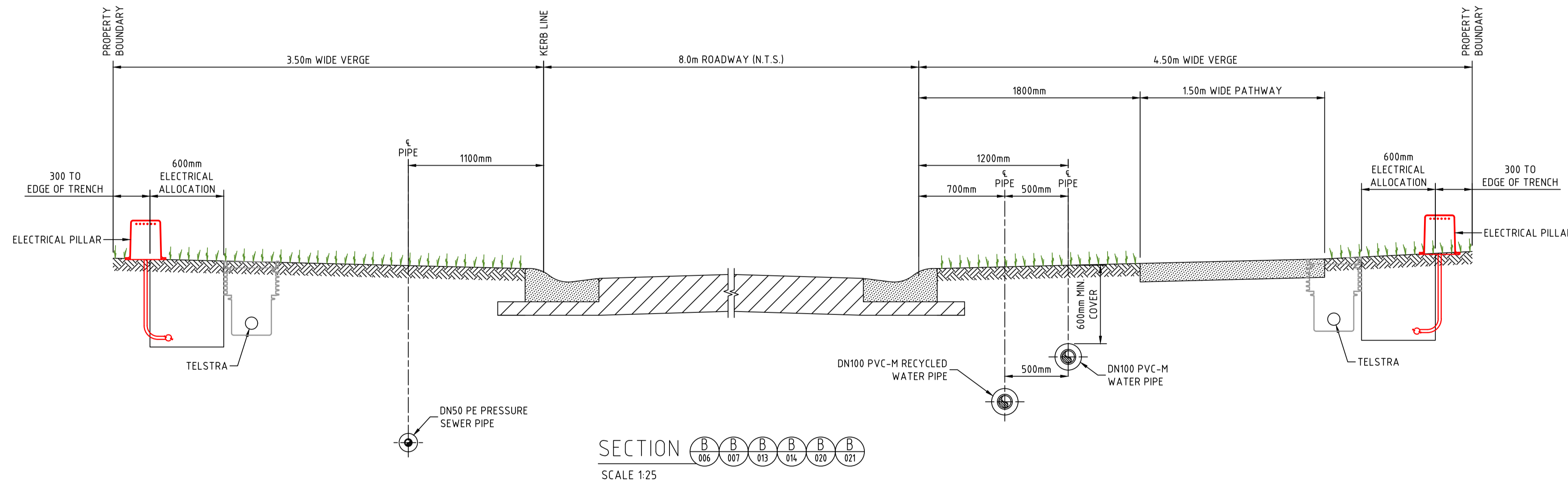
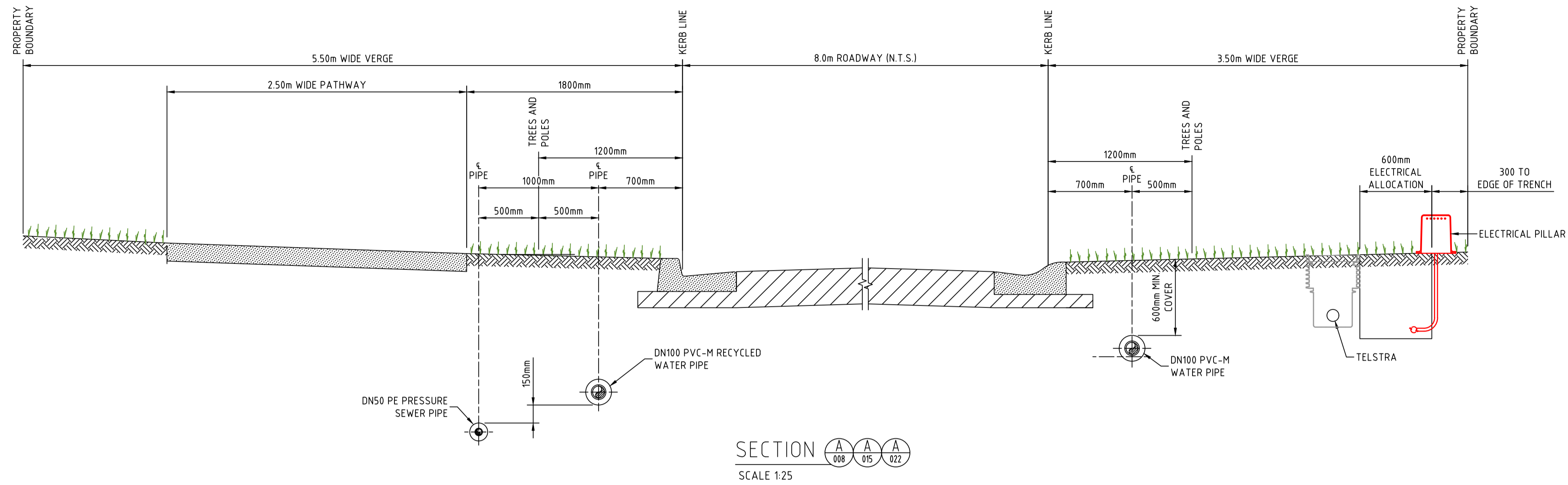
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B	13.11.2020	CLIENT COMMENTS ADDED	J.N.	C.B.	T.S.	C.B.	1:10 / 1:20		TYPICAL CROSS SECTIONS - C & D									
C	11.12.2020	CLIENT COMMENTS ADDED	T.S.	C.B.	T.S.	C.B.			ADW Johnson		DATUM	A.H.D.						
D	17.12.2020	FLOW SYSTEMS COMMENTS ADDED	T.S.	C.B.	T.S.	C.B.												
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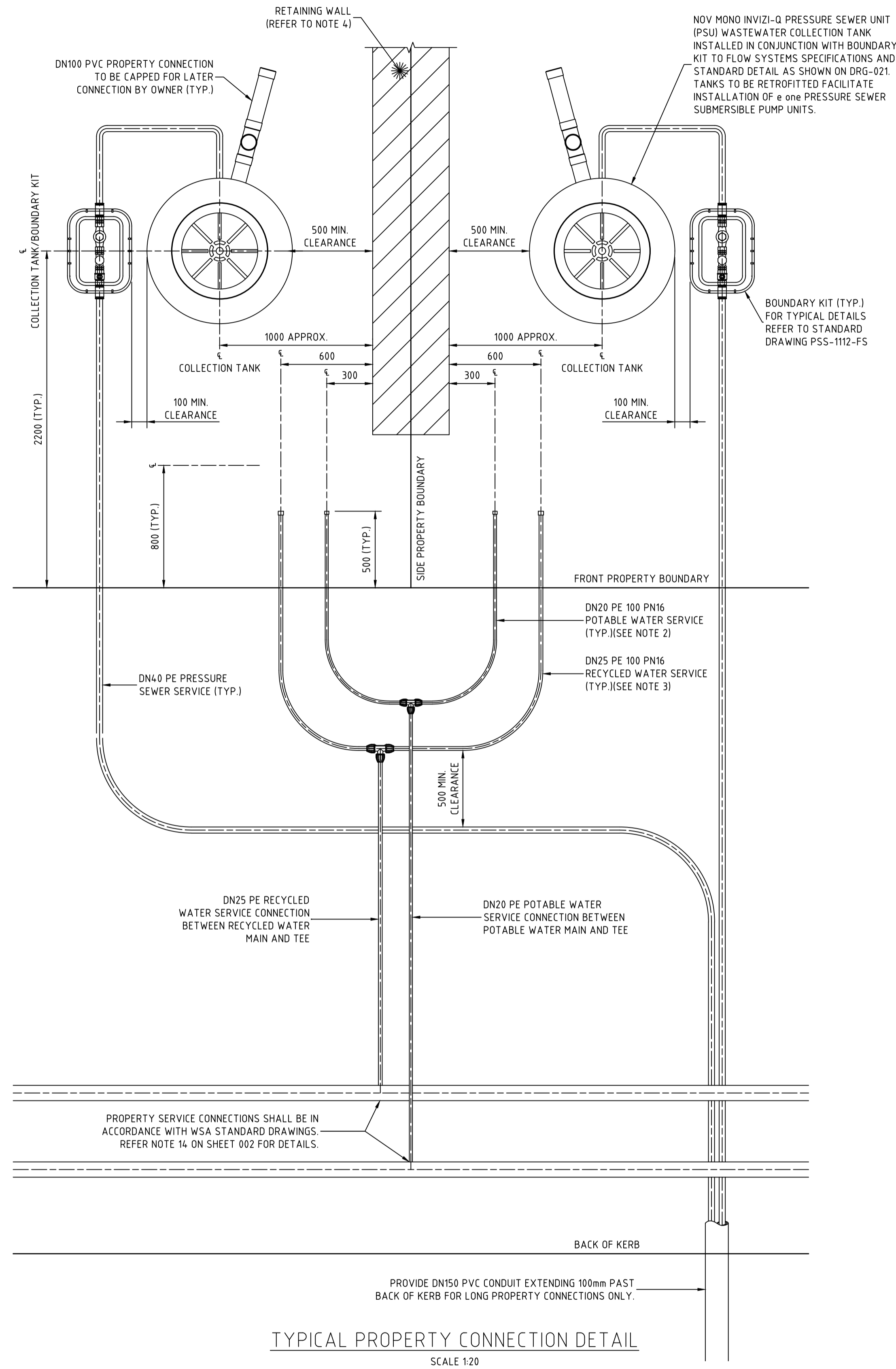
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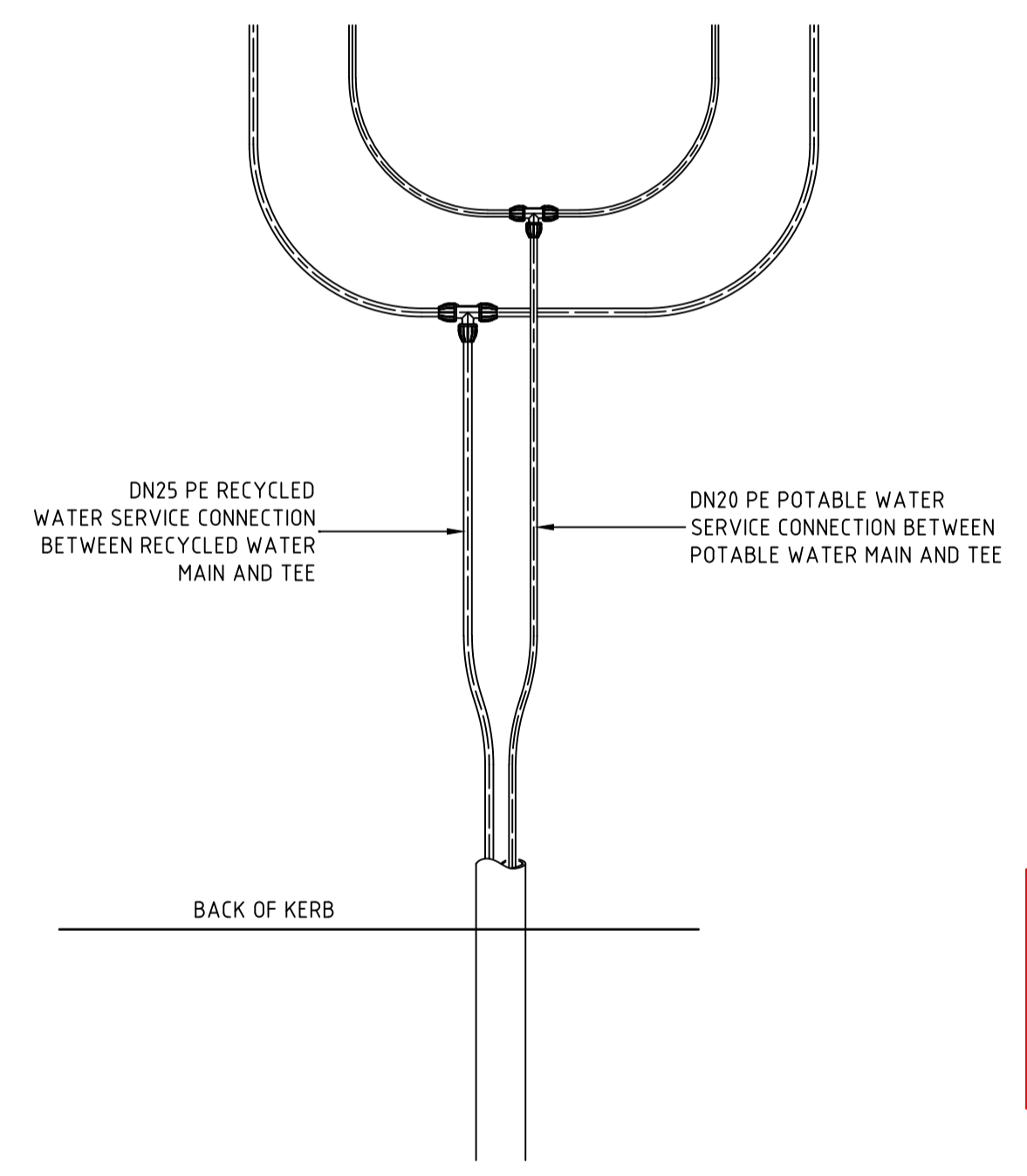
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- NOTES:**
- PROPERTY SERVICE CONNECTIONS SHALL BE IN ACCORDANCE WITH WSA STANDARD DRAWINGS FOR DUAL WATER SUPPLY SYSTEMS (SYDNEY WATER VERSION) (SUPPLEMENT TO WSA 03-2011).
 - DN20 PE100 PN16 POTABLE WATER SERVICE TO EXTEND 500mm BEYOND PROPERTY BOUNDARY AND BE CAPPED FOR LATER CONNECTION BY PROPERTY OWNER.
 - DN25 PE100 PN16 RECYCLED WATER SERVICE TO EXTEND 500mm BEYOND PROPERTY BOUNDARY AND BE CAPPED FOR LATER CONNECTION BY PROPERTY OWNER.
 - FOR PROPERTY CONNECTIONS WHERE A RETAINING WALL IS NOT PRESENT, SERVICES ARE TO BE OFFSET FROM THE PROPERTY BOUNDARY.
 - 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.
 - MINIMUM BENDING RADIUS FOR PE PIPEWORK IS TO BE 20 x PIPE DIAMETER.
 - ALL POLYETHYLENE FITTINGS SHALL BE JOINED USING ELECTROFUSION JOINTING TECHNIQUES IN ACCORDANCE WITH MANUFACTURERS REQUIREMENTS. ROTATE BENDS AS NECESSARY.
 - PRESSURE SEWER UNIT (PSU) IS TO HAVE 2150mm CLEARANCE FROM BUILDING STRUCTURES.
 - Ø25 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.
 - FOR MORE INFORMATION REFER TO FLOW SYSTEMS STANDARD DRAWING FSI-1000-FS.
 - 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.

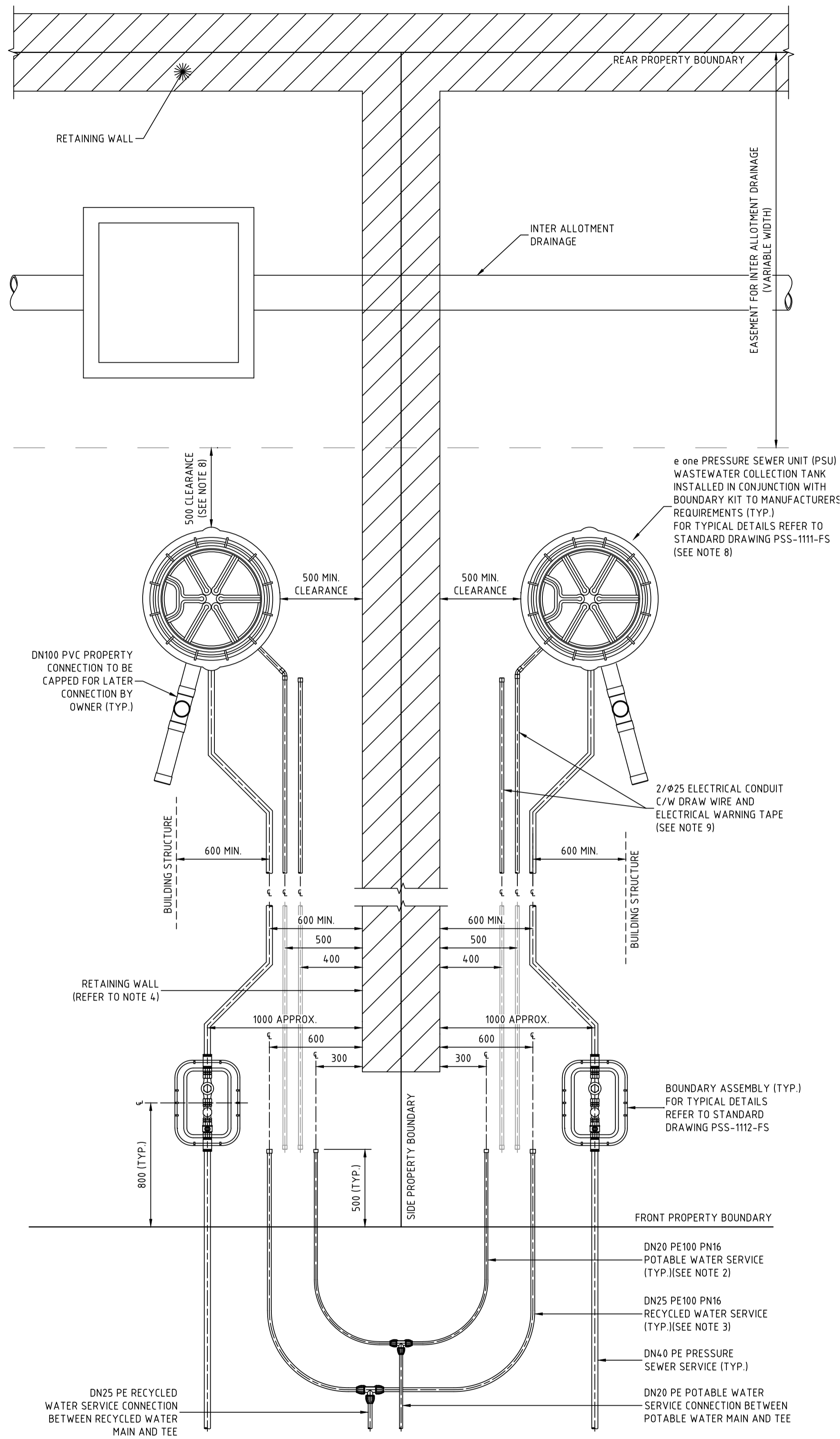


I certify that this plan represents Works-as-Executed details of completed works (regarding road, stormwater & retaining wall levels and positions) with any revised information being shown in red ink.
Morse Date:
 Registered Surveyor

ADW Johnson Pty Ltd
 on behalf of
 Cooranbong + Water
 Date Approved: 17/12/2020

AS CONSTRUCTED

REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES	CLIENT	PROPERTY DESCRIPTION	PROJECT	PLAN TITLE	SURVEYED	DATUM	PROJECT No.	DISCIPLINE	NUMBER	REV.
A	01.09.2020	PRELIMINARY ISSUE	T.S.	J.N.	T.S.	C.B.		Hunter Office Unit 7/335 Hillsborough Rd Warners Bay N.S.W. 2282 Phone: (02) 4978 5100 Fax: (02) 4978 5199 email: hunter@adwjohnson.com.au www.adwjohnson.com.au ABN 62 129 445 398	PROPOSED SUBDIVISION STAGE 3.1 WATAGAN PARK	POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION	TYPICAL PROPERTY CONNECTION - SHEET 1	ADW Johnson	A.H.D.	239078(3.1)	- WAT -	022	1
B	13.11.2020	CLIENT COMMENTS ADDED	J.N.	C.B.	T.S.	C.B.											
C	11.12.2020	CLIENT COMMENTS ADDED	T.S.	C.B.	T.S.	C.B.											
D	17.12.2020	FLOW SYSTEMS COMMENTS ADDED	T.S.	C.B.	T.S.	C.B.											
O	11.01.2021	CONSTRUCTION ISSUE	T.S.	C.B.	T.S.	C.B.											
1	30.08.2021	WORK AS CONSTRUCTED ISSUE	M.S.	S.S.	T.S.	C.B.											



TYPICAL PROPERTY CONNECTION DETAIL
(PRESSURE SEWER UNIT AT REAR)

SCALE 1:20

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 [Signature] Date: _____
 Registered Surveyor

ADW Johnson Pty Ltd
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O	11.01.2021	CONSTRUCTION ISSUE	T.S.	C.B.	T.S.	C.B.
1	30.08.2021	WORK AS CONSTRUCTED ISSUE	M.S.	S.S.	T.S.	C.B.

SCALES
0 0.1 0.2 0.3 0.4 A1 / A3 1:10 / 1:20
0 0.4 0.8 A1 / A3 1:20 / 1:40

adw Johnson

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 email: hunter@adwjohnson.com.au
 www.adwjohnson.com.au
 ABN 62 129 445 398

CLIENT

JOHNSON PROPERTY GROUP

PROPERTY DESCRIPTION
PROPOSED SUBDIVISION STAGE 3.1 WATAGAN PARK

PROJECT	DISCIPLINE	NUMBER	REV.
POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION	- WAT -	023	1

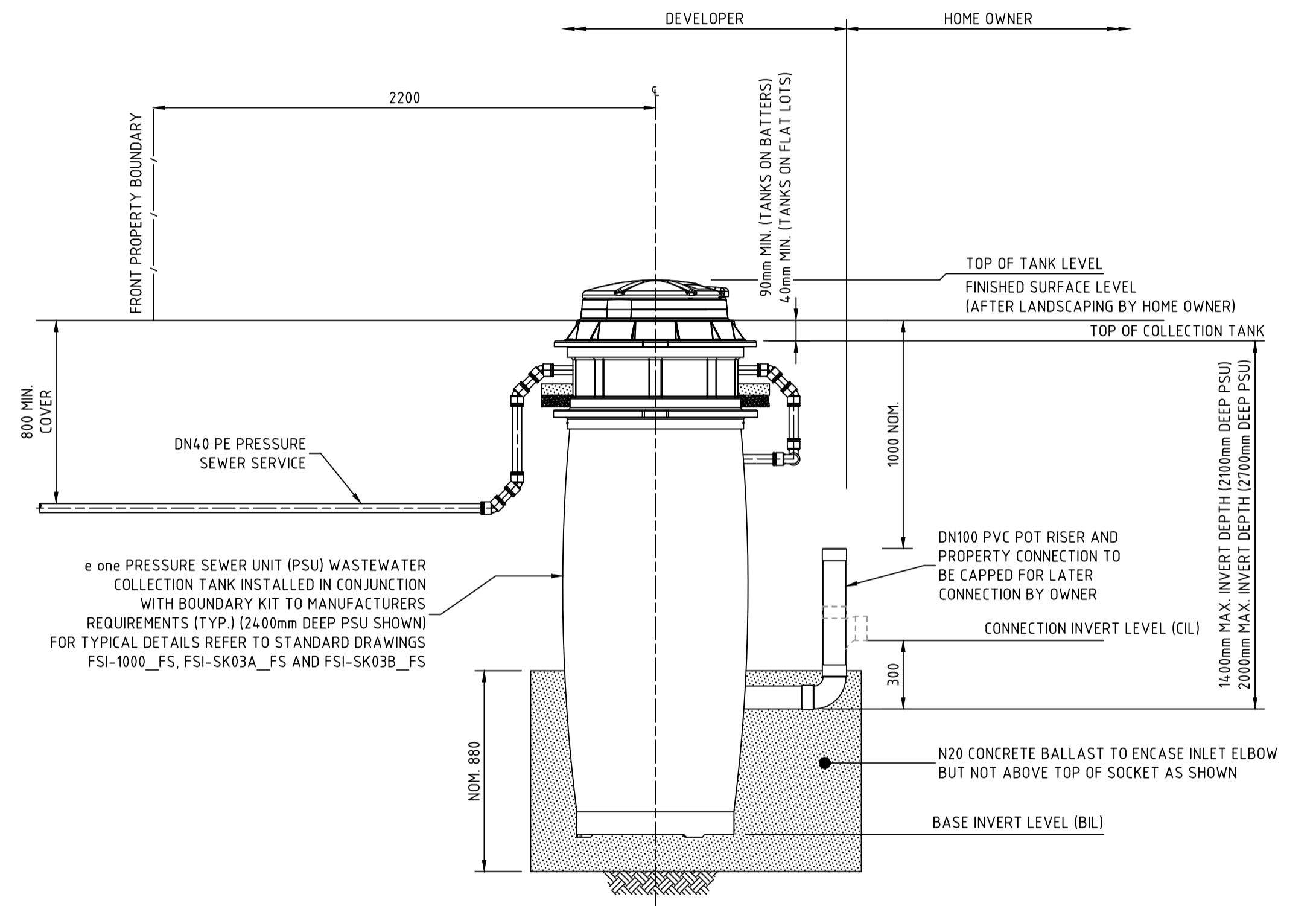


WAC TANK DETAILS

LOT No.	WAC RL	WAC IL	Δ IL	Design IL
101	32.69	31.46	0.00	31.46
102	32.68	31.45	0.01	31.46
103	33.21	31.98	-0.02	31.96
104	33.41	32.18	-0.02	32.16
105	36.70	35.47	-0.02	35.45
106	37.70	36.47	-0.05	36.42
107	38.28	37.05	-0.03	37.02
108	39.52	38.29	-0.08	38.21
109	40.26	39.03	-0.02	39.01
110	41.61	40.38	0.01	40.39
111	42.26	41.03	-0.01	41.02
112	43.62	42.39	0.01	42.40
113	44.09	42.86	0.00	42.86
114	45.00	43.77	-0.01	43.76
115	45.03	43.80	-0.03	43.77
116a	40.30	39.07	-0.01	39.06
116b	40.70	39.47	0.00	39.47
117	38.96	37.73	0.03	37.76
118	39.02	37.79	-0.03	37.76
119	38.57	37.34	0.02	37.36
120	38.38	37.15	0.01	37.16
121	37.14	35.91	0.25	36.16
122	37.06	35.83	0.03	35.86
123	35.65	34.42	0.04	34.46
124	35.22	33.99	-0.03	33.96
125	34.05	32.22	-0.01	32.21
126	35.19	33.36	-0.02	33.34
127	36.17	34.34	-0.03	34.31
128	36.15	34.92	0.00	34.92
129	36.67	35.44	-0.02	35.42
130	37.54	36.31	0.11	36.42
131	37.59	36.36	0.02	36.38
132	36.92	35.69	-0.03	35.66
133	36.29	34.46	0.05	34.51
134	34.48	33.25	0.01	33.26
135	34.77	33.54	0.02	33.56
136	35.67	34.44	0.02	34.46
137	35.47	34.24	0.02	34.26
138	34.07	32.84	0.02	32.86
139	33.47	32.24	0.02	32.26
140	31.90	30.67	-0.01	30.66
141	31.32	30.09	-0.03	30.06
142	30.67	29.44	-0.02	29.42
143	31.59	30.36	0.06	30.42
144	32.10	30.87	-0.01	30.86
145	33.16	31.93	-0.01	31.92
146	34.08	32.85	0.03	32.88
147	34.08	32.85	0.03	32.88
148	33.10	31.87	0.05	31.92
149	31.95	30.72	0.00	30.72
A	41.32	40.09	0.01	40.10

WASTEWATER COLLECTION TANK DETAILS

LOT NUMBER	TOP OF TANK	BASE IL	CONNECTION IL	TANK HEIGHT	TANK CAPACITY	TANK LOCATION	EASTING	NORTHING
101	32.69	30.56	31.46	2100	650 L	FRONT	355642.586	634.0959.888
102	32.69	30.56	31.46	2100	650 L	FRONT	355641.114	634.0962.033
103	33.19	31.06	31.96	2100	650 L	FRONT	355625.611	634.0984.624
104	33.39	31.26	32.16	2100	650 L	FRONT	355624.139	634.0986.769
105	36.68	34.55	35.45	2100	650 L	REAR	355677.406	634.1007.323
106	37.65	34.92	35.82	2700	800 L	FRONT	355664.172	634.1030.583
107	38.25	36.12	37.02	2100	650 L	REAR	355704.172	634.1024.873
108	39.44	36.71	37.61	2700	800 L	FRONT	355690.556	634.1048.690
109	40.24	38.11	39.01	2100	650 L	REAR	355731.245	634.1041.975
110	41.62	38.89	39.79	2700	800 L	FRONT	355716.940	634.1066.796
111	42.25	40.12	41.02	2100	650 L	REAR	355759.279	634.1061.214
112	43.63	40.90	41.80	2700	800 L	FRONT	355744.974	634.1086.035
113	44.09	41.96	42.86	2100	650 L	REAR	355785.664	634.1079.321
114	44.99	42.26	43.16	2700	800 L	FRONT	355771.358	634.1104.142
115	45.00	42.27	43.17	2700	800 L	FRONT	355785.375	634.1113.762
116A	40.29	38.16	39.06	2100	650 L	FRONT	355682.091	634.1068.890
116B	40.70	38.57	39.47	2100	650 L	FRONT	355691.108	634.1075.023
117	38.99	36.86	37.76	2100	650 L	FRONT	355650.797	634.1081.833
118	38.99	36.86	37.76	2100	650 L	FRONT	355649.798	634.1084.236
119	38.59	36.46	37.36	2100	650 L	FRONT	355635.213	634.1113.072
120	38.39	36.26	37.16	2100	650 L	FRONT	355634.453	634.1115.560
121	37.39	35.26	36.16	2100	650 L	FRONT	355624.002	634.1142.005
122	37.09	34.96	35.86	2100	650 L	FRONT	355623.475	634.1144.552
123	35.69	33.56	34.46	2100	650 L	FRONT	355616.218	634.1171.524
124	35.19	33.06	33.96	2100	650 L	FRONT	355614.796	634.1174.091
125	34.04	31.31	32.21	2700	800 L	FRONT	355594.015	634.1179.339
126	35.17	32.44	33.34	2700	800 L	FRONT	355598.684	634.1162.993
127	36.14	33.41	34.31	2700	800 L	FRONT	355602.781	634.1148.646
128	36.15	34.02	34.92	2100	650 L	REAR	355589.241	634.1111.732
129	36.65	34.52	35.42	2100	650 L	REAR	355590.140	634.1109.334
130	37.65	35.52	36.42	2100	650 L	REAR	355604.536	634.1079.334
131	37.61	35.48	36.38	2100	650 L	REAR	355605.450	634.1077.453
132	36.89	34.76	35.66	2100	650 L	FRONT	355637.635	634.1038.325
133	36.34	33.61	34.51	2700	800 L	FRONT	355635.513	634.1036.910
134	36.49	32.36	33.26	2100	650 L	FRONT	355589.908	634.1039.996
135	34.79	32.66	33.56	2100	650 L	FRONT	355588.603	634.1042.239
136	35.69	33.56	34.46	2100	650 L	FRONT	355569.936	634.1078.449
137	35.49	33.36	34.26	2100	650 L	FRONT	355568.631	634.1080.691
138	34.09	31.96	32.86	2100	650 L	FRONT	355554.181	634.1117.537
139	33.49	31.36	32.26	2100	650 L	FRONT	355553.619	634.1120.077
140	31.89	29.76	30.66	2100	650 L	FRONT	355544.582	634.1149.394
141	31.29	29.16	30.06	2100	650 L	FRONT	355544.160	634.1151.961
142	30.65	28.52	29.42	2100	650 L	REAR	355500.329	634.1119.567
143	31.65	29.52	30.42	2100	650 L	REAR	355501.137	634.1117.086
144	32.09	29.96	30.86	2100	650 L	REAR	355516.870	634.1086.138
145	33.15	31.02	31.92	2100	650 L	REAR	355515.688	634.1083.658
146	34.11	31.98	32.88	2100	650 L	REAR	355522.463	634.1068.712
147	34.11	31.98	32.88	2100	650 L	REAR	355536.094	634.1038.500
148	33.15	31.02	31.92	2100	650 L	FRONT	355537.172	634.1036.025
149	31.95	29.82	30.72	2100	650 L	REAR	355571.336	634.0992.782
FUTURE LOT A	41.33	39.20	40.10	2100	650 L	FRONT	355700.486	634.1081.514



PRESSURE SEWER SERVICE CONNECTION
TYPICAL SECTIONAL ELEVATION

SCALE 1:20
(SHOWN AS FRONT OF LOT SERVICE CONNECTION WITH 2400mm DEEP PSU)

I certify that this plan represents Works-as-Executed details of completed works (regarding road, stormwater & retaining wall levels and positions) with any revised information being shown in red ink.
M. Jones Date: _____
Registered Surveyor

ADW Johnson Pty Ltd
on behalf of
Cooranbong Water
Date Approved: 17/12/2020

AS CONSTRUCTED

100mm AT FULL SIZE

REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES
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C	11.12.2020	CLIENT COMMENTS ADDED	T.S.	C.B.	T.S.	C.B.	
D	17.12.2020	FLOW SYSTEMS COMMENTS ADDED	T.S.	C.B.	T.S.	C.B.	
O	11.01.2021	CONSTRUCTION ISSUE	T.S.	C.B.	T.S.	C.B.	
1	30.08.2021	WORK AS CONSTRUCTED ISSUE	M.S.	S.S.	T.S.	C.B.	

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ABN 62 129 445 398

CLIENT

PROPERTY DESCRIPTION

PROPOSED SUBDIVISION
STAGE 3.1
WATAGAN PARK

PROJECT POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION

PLAN TITLE SEWER SERVICE CONNECTION DETAILS

SURVEYED ADW Johnson DATUM A.H.D.

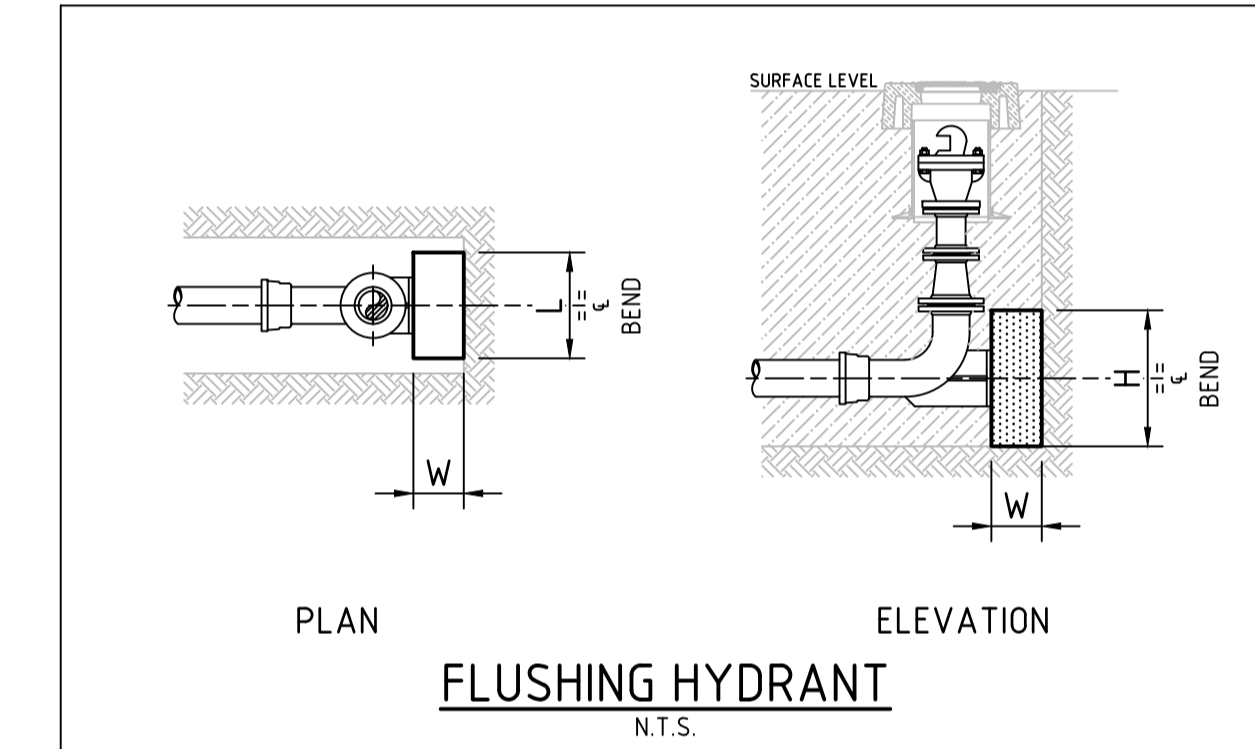
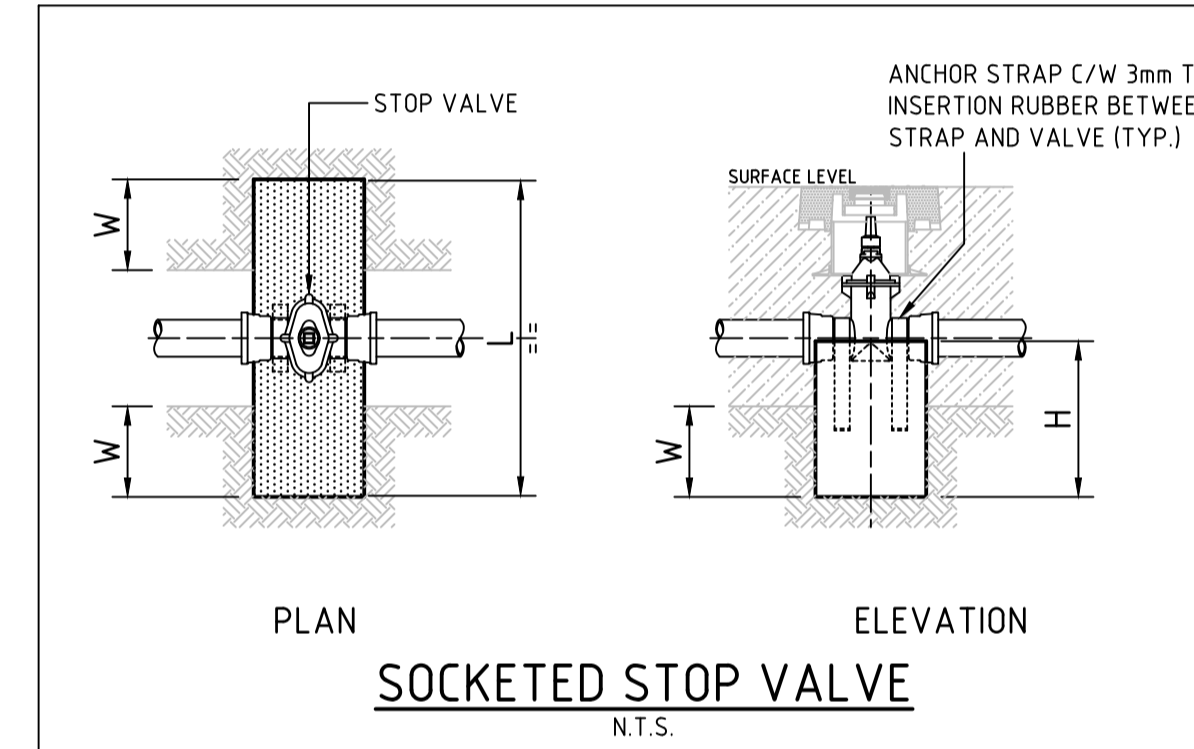
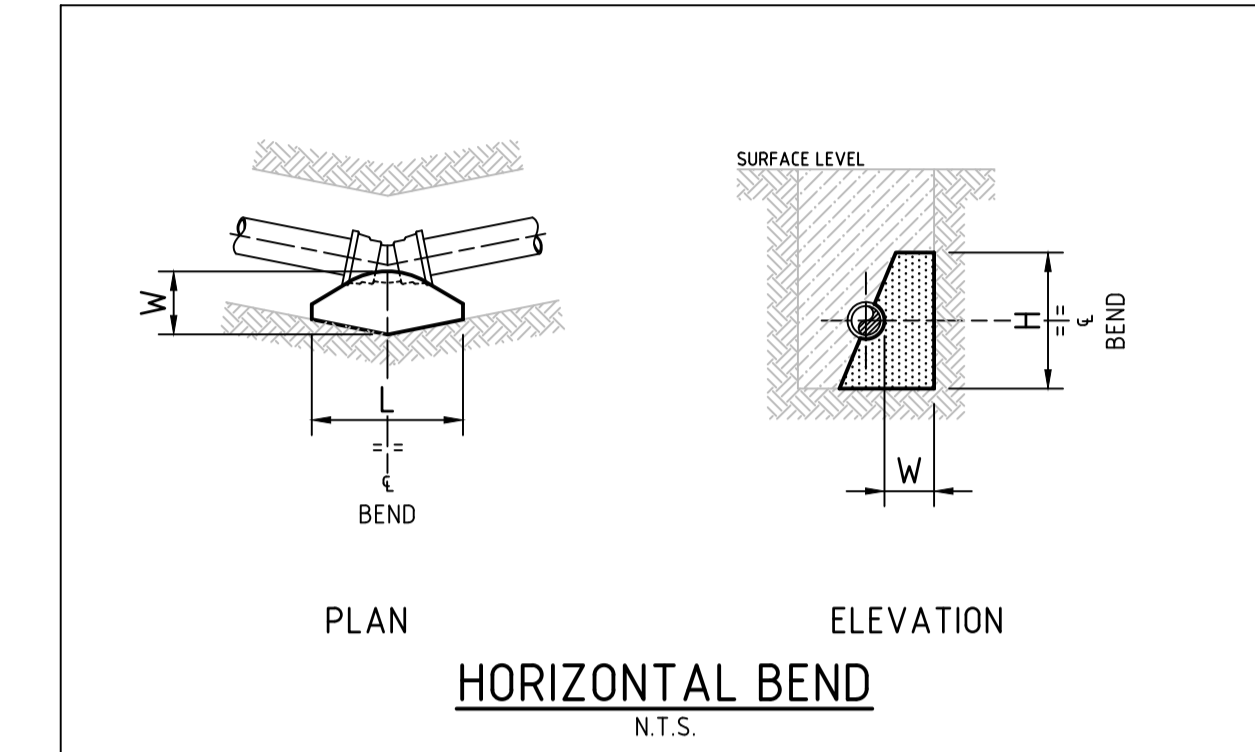
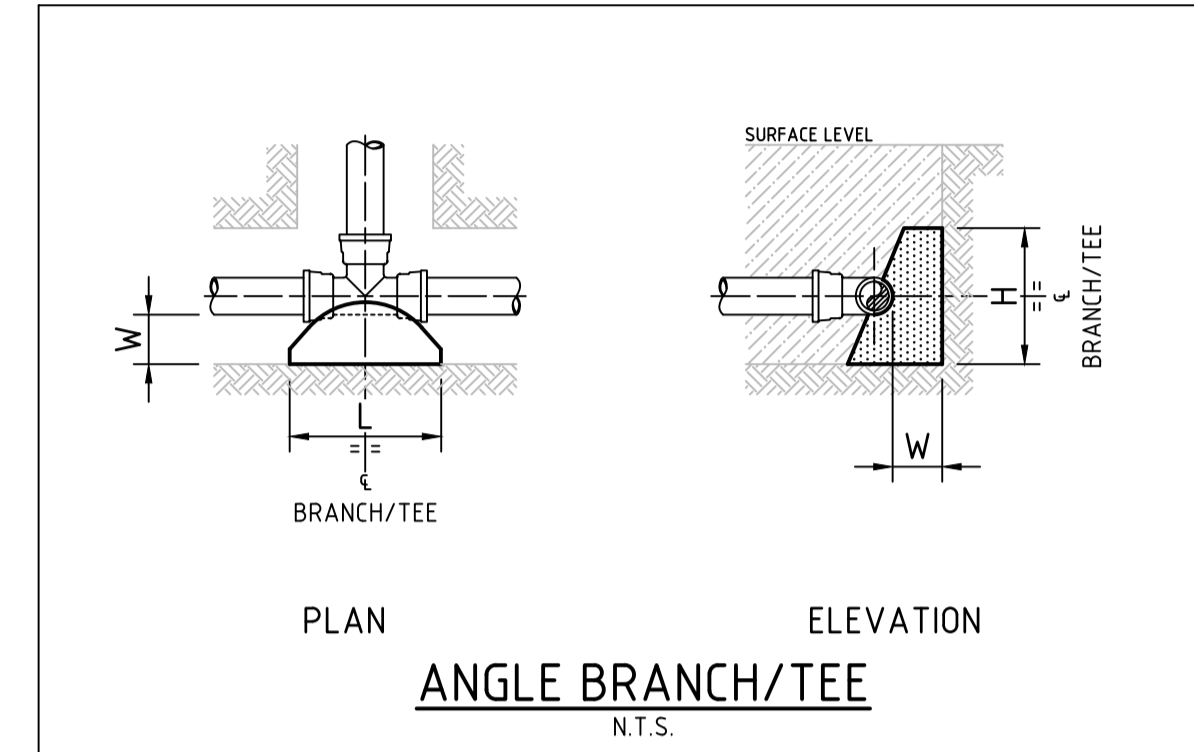
PROJECT No. 239078(3.1) DISCIPLINE WAT NUMBER 024 REV. 1



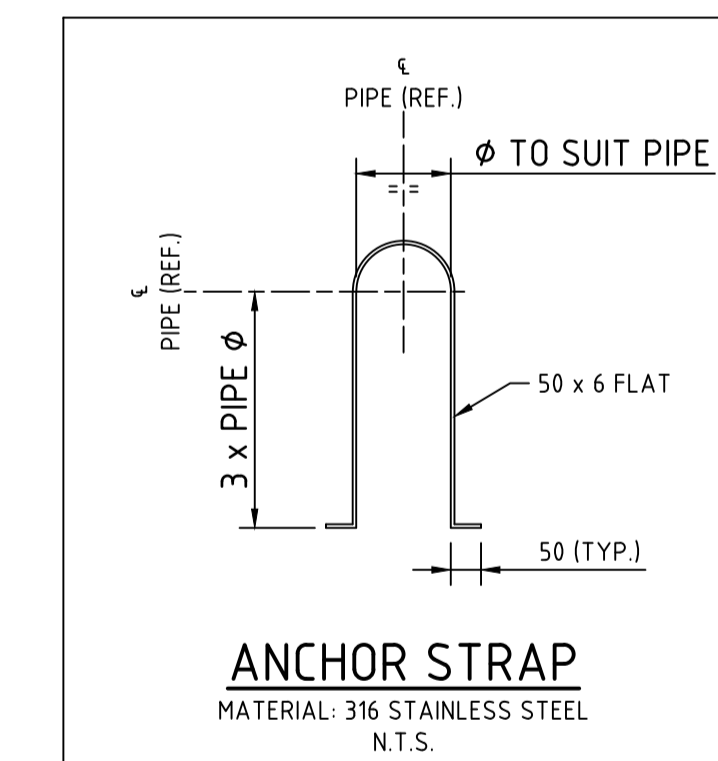
DIAL 1100
BEFORE YOU DIG

THRUST BLOCK NOTES:

- "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.
- CONCRETE THRUST BLOCKS ARE TO BE PROVIDED FOR ALL FITTINGS IN ACCORDANCE WITH TABLE.
- 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.
- THRUST BLOCKS ARE TO BE CONSTRUCTED SUCH THAT THEY TRANSFER THE THRUST ONTO UNDISTURBED GROUND. THRUST BLOCKS ARE NOT TO INTERFERE WITH OTHER SERVICES.
- 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°.
- CONCRETE FOR THE THRUST BLOCKS TO BE GRADE S25 USING CEMENT TYPE "SR" TO AS3972. CONCRETE TO BE MECHANICALLY VIBRATED.
- CONCRETE THRUST BLOCKS ARE TO BE CURED FOR A MINIMUM OF 7 DAYS BEFORE BEING SUBJECTED TO ANY THRUST LOAD.
- REFER TO WAT-1205-V FOR GENERAL FITTING THRUST BLOCK ARRANGEMENTS.
- REFER TO WAT-1207-V FOR GENERAL VALVE AND VERTICAL BEND THRUST BLOCK ARRANGEMENTS.
- THRUST BLOCK TO EXTEND 300mm MINIMUM INTO BASE AND SIDE WALLS OF TRENCH.
- PROVIDE 3mm THK. INSERTION RUBBER BETWEEN ANCHOR STRAP AND PIPE BARREL.



TYPE	FITTING	SOIL AHP (kPa)	DESIGN STP (kPa)	THRUST	TA (m ²)	LENGTH (L)	HEIGHT (H)	WIDTH (W)
1	DN150 x DN100 REDUCING TEE	100	1000	12.00	0.12	0.40	0.30	0.30
2	DN150 SOCKETED STOP VALVE	100	1000	25.00	0.25	1.05	0.46	0.30
3	DN150 FLUSHING HYDRANT	100	1000	25.00	0.25	0.50	0.50	0.30
4	DN100 x DN100 EQUAL TEE	100	1000	12.00	0.12	0.40	0.30	0.30
5	DN100 x 22.5° HORIZONTAL BEND	100	1000	5.00	0.05	N	N	0.30
6	DN100 x 11.25° HORIZONTAL BEND	100	1000	5.00	0.05	N	N	0.30
7	DN100 SOCKETED STOP VALVE	100	1000	12.00	0.12	1.05	0.44	0.30
8	DN100 FLUSHING HYDRANT	100	1000	12.00	0.12	0.40	0.30	0.30



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Registered Surveyor

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100mm AT FULL SIZE

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CLIENT
JOHNSON PROPERTY GROUP

PROPERTY DESCRIPTION
PROPOSED SUBDIVISION
STAGE 3.1
WATAGAN PARK

PROJECT POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION
PLAN TITLE THRUST BLOCK DETAILS
PROJECT No. 239078(3.1) DISCIPLINE WAT NUMBER 025 REV. 1