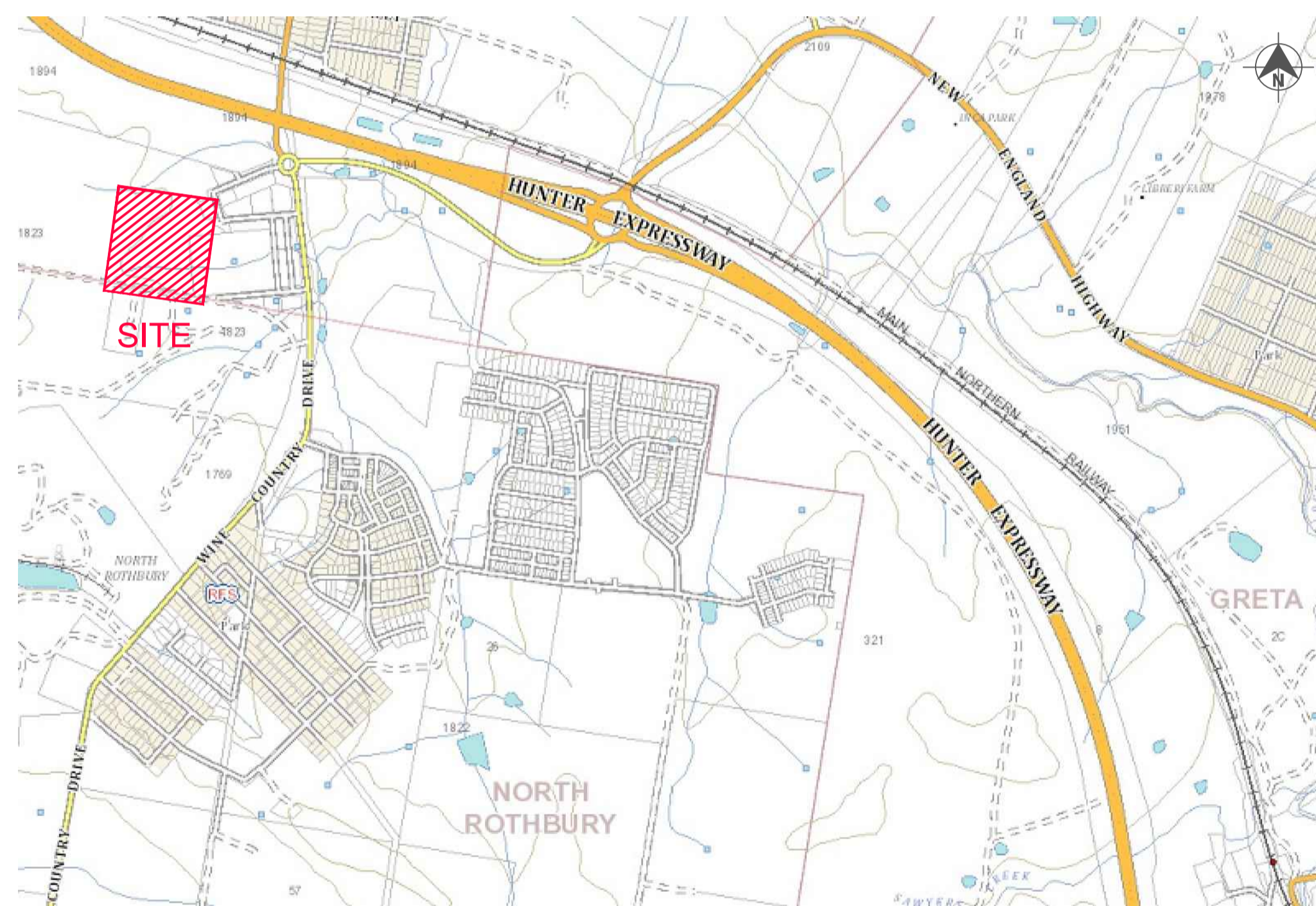




PROPOSED SERVICING ARRANGEMENT LOTS 280 TO 283 STAGE 2C, COMMERCIAL HUNTLEE



LOCALITY SKETCH
NOT TO SCALE

DRAWING INDEX	
Sheet Title	Sheet Description
24.0037(TC2)-WAT-001	COVER SHEET, LOCALITY PLAN & DRAWING INDEX
24.0037(TC2)-WAT-002	GENERAL NOTES
24.0037(TC2)-WAT-003	OVERALL SITE PLAN
24.0037(TC2)-WAT-004	POTABLE WATER DETAIL PLAN - SHEET 1
24.0037(TC2)-WAT-005	POTABLE WATER DETAIL PLAN - SHEET 2
24.0037(TC2)-WAT-006	RECYCLED WATER DETAIL PLAN - SHEET 1
24.0037(TC2)-WAT-007	RECYCLED WATER DETAIL PLAN - SHEET 2
24.0037(TC2)-WAT-008	PRESSURE SEWER DETAIL PLAN - SHEET 1
24.0037(TC2)-WAT-009	PRESSURE SEWER DETAIL PLAN - SHEET 2
24.0037(TC2)-WAT-010	FITTINGS TABLE
24.0037(TC2)-WAT-011	TYPICAL CROSS-SECTION AND PIPEWORK TRENCHING DETAILS
24.0037(TC2)-WAT-012	THRUST BLOCK DETAIL

WORK AS CONSTRUCTED

THESE DRAWINGS ARE AN ACCURATE REPRESENTATION AS AT 25/03/2022 OF THE WORK-AS-CONSTRUCTED, BUT THE POSITION OF THE WORK RELATIVE TO OTHER STRUCTURES OR BOUNDARIES IS APPROXIMATE ONLY AND HAS NOT BEEN VERIFIED BY PRECISE SURVEY.

COMPANY	ADW Johnson Pty Ltd	COMPANY	
NAME	MATHEW DAVID LONDON	NAME	
SIGNED	<i>(Signature)</i>	DATE	22/04/2022
	REGISTERED SURVEYOR	SIGNED	
		DATE/...../.....
			CONSTRUCTION MANAGER

ORIGIN OF W.A.C. LEVELS

PM	20029	Co-Ord System:	MGA Ground
E:	345 612.942	MGA Datum:	GDA94
N:	6 382 878.917	MGA Zone:	56
RL:	77.675m		

APPROVED FOR CONSTRUCTION
BY ADW Johnson Pty Ltd
Date Approved: 25/08/2021

AS CONSTRUCTED

REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES
A	06.05.2021	INITIAL ISSUE	G.S.	C.B.	G.S.	C.B.	
B	24.06.2021	FOR APPROVAL	G.S.	C.B.	G.S.	C.B.	
C	28.06.2021	FOR APPROVAL	G.S.	C.B.	G.S.	C.B.	
O	07.07.2021	CONSTRUCTION ISSUE	G.S.	C.B.	G.S.	C.B.	
1	22.04.2022	WORK AS CONSTRUCTED	I.B.	C.B.	G.S.	C.B.	

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ABN 62 129 445 398

CLIENT

PROPERTY DESCRIPTION

**PROPOSED SERVICING ARRANGEMENT
LOTS 280 TO 283
STAGE 2C, COMMERCIAL**

SURVEYED
Daly,Smith Pty Ltd

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

PROJECT POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION			
PLAN TITLE COVER SHEET, LOCALITY PLAN & DRAWING INDEX			
PROJECT No. 240037(TC2)	DISCIPLINE - WAC	NUMBER - 001	REV. 1

PRESSURE SEWER NOTES:

- ALL WORKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DESIGN DRAWINGS, ALTOGETHER 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 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.
- PRESSURE SEWER MAINS SHALL BE BLACK POLYETHYLENE (PE100 PN16) WITH A CREAM STRIPE AS PER WSA 02-2007 AND ALTOGETHER 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 ALTOGETHER 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 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
- 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 ALTOGETHER 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 #25mm INSTRUMENTATION CONDUIT (ORANGE) AND 1 x #25mm ELECTRICAL CONDUIT (ORANGE)(WITH DRAW WIRES) SHALL BE INSTALLED FROM THE COLLECTION TANK TO WATER METERS. THE CONDUITS SHALL BE LAID IN A COMMON TRENCH WITH THE SEWERAGE AND MAINTAIN A MINIMUM HORIZONTAL CLEARANCE OF 400mm. (REFER TO ALTOGETHER STANDARD DRAWINGS FOR SETOUT DIMENSIONS).
- THE CONSTRUCTOR SHALL PROVIDE HUNTLEE WATER WITH MINIMUM OF 7 DAYS NOTICE IN WRITING OF INTENT TO CONNECT NEW MAINS TO EXISTING INFRASTRUCTURE. CONNECTIONS ARE NOT PERMITTED UNTIL COMPLIANT TEST RESULTS HAVE BEEN PROVIDED AND CONFIRMATION IS PROVIDED BY THE ALTOGETHER REPRESENTATIVE.
- 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 ALTOGETHER 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 21.3.4) ARE:
TRAFFICABLE
PIPE EMBEDMENT ZONE: NIL TRENCH FILL ZONE: 1 TEST/300mm LAYER OF FILL AT EACH ROAD CROSSING.
NON-TRAFFICABLE
PIPE EMBEDMENT ZONE: NIL TRENCH FILL ZONE: 1 TEST/900mm OF FILL AND EACH 100 LINEAL METRES OF PIPE.
- BOUNDARY KITS (COMPLETE) SHALL BE NOV SUPPLIED (NOV PSS-BK4).
e one COLLECTION TANK (ESD 20-0032/ESD 20-0033) SHALL BE INSTALLED WITH BOUNDARY KIT (REFER ALTOGETHER STANDARD DRAWINGS PSS-1112-FS AND PSS-1113-FS). PUMP TO BE INSTALLED BY OTHERS.
- ALL 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 ALTOGETHER 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 ALTOGETHER REQUIREMENTS.
- 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:

- ALL WORKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DESIGN DRAWINGS, ALTOGETHER 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 ALTOGETHER 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 WATERMAINS TO BE BLUE PVC-M (PN16). ALL RECYCLED WATERMAINS SHALL BE LILAC PVC-M (PN16). DIFFERENTIATION OF POTABLE AND RECYCLED WATER SYSTEMS SHALL BE AS PER TABLE 4.1 WSA03-2011 WITH BOTH SERVICES BEING CLASSIFIED AS WATER MAINS. RECYCLED WATER MAINS SHALL ALWAYS BE LOWER THAN POTABLE WATER MAINS. 150mm VERTICAL CLEARANCE BETWEEN POTABLE WATER AND RECYCLED WATER MAINS SHALL BE PROVIDED.
 - 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 ALTOGETHER 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 ALTOGETHER REQUIREMENTS. REFER TO ALTOGETHER WEBSITE FOR CURRENT VERSION. SINGLE SERVICE: http://information.altogethergroup.com.au/governance/Land_Housing/WAT-1854-FS.pdf DUAL SERVICE: http://information.altogethergroup.com.au/governance/Land_Housing/WAT-1855-FS.pdf
 - PROPERTY SERVICE CONNECTION IS SHALL BE FLUSHED AND LOCKED (BY THE ALTOGETHER 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 HUNTLEE WATER WITH MINIMUM OF 7 DAYS NOTICE IN WRITING OF INTENT TO CONNECT NEW MAINS TO EXISTING INFRASTRUCTURE. CONNECTIONS ARE NOT PERMITTED UNTIL COMPLIANT TEST RESULTS HAVE BEEN PROVIDED AND CONFIRMATION IS PROVIDED BY THE ALTOGETHER REPRESENTATIVE.
 - 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 ALTOGETHER 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 ALTOGETHER REQUIREMENTS.
 - PRESSURE TRANSMITTER TO BE MEASUREX MRB21 GENERAL PURPOSE TRANSMITTER WITH MICROSPIDER LOGGING TELEMETRY AND ALARM PER ALTOGETHER REQUIREMENTS.
 - WORK-AS-CONSTRUCTED DOCUMENTATION SHALL BE PROVIDED BY THE CONTRACTOR STRICTLY IN ACCORDANCE WITH THE ALTOGETHER Q.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.
- ALTOGETHER STANDARD DRAWINGS CAN BE FOUND AT THE FOLLOWING ADDRESS:
<https://askus.altogethergroup.com.au/hc/en-us/articles/90000482763-Standard-drawings-for-land-developers->

GENERAL NOTES:

- THIS DRAWING SET SHALL BE READ IN CONJUNCTION WITH CESSNOCK CITY COUNCIL STANDARDS, ALTOGETHER 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*	600	150
GAS MAINS	300*	600	150
TELECOMMUNICATION CONDUITS AND CABLES	300*	600	150
ELECTRICITY CONDUITS AND CONDUITS	200	1000	225*
STORMWATER DRAINS	300*	600	150*
SEWERS (GRAVITY)	1000* / 600	1000* / 600	500*
SEWERS (PRESSURE AND VACUUM)	600	600	300*
KERBS	150	600*	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 1000mm. 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 (JOINT-FREE IN THE VICINITY OF THE SEWER).

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

WORK AS CONSTRUCTED

THESE DRAWINGS ARE AN ACCURATE REPRESENTATION AS AT 25/03/2022 OF THE WORK-AS-CONSTRUCTED, BUT THE POSITION OF THE WORK RELATIVE TO OTHER STRUCTURES OR BOUNDARIES IS APPROXIMATE ONLY AND HAS NOT BEEN VERIFIED BY PRECISE SURVEY.

COMPANY ADW Johnson Pty Ltd COMPANY
NAME MATHEW DAVID LONDON NAME
SIGNED *mathew* DATE 22/04/2022 SIGNED DATE _____/_____/_____
REGISTERED SURVEYOR CONSTRUCTION MANAGER

ORIGIN OF W.A.C. LEVELS

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

APPROVED FOR CONSTRUCTION

BY ADW Johnson Pty Ltd

Date Approved: 25/08/2021

AS CONSTRUCTED

240037(TC2)-WAC-001 TO 003

100mm AT FULL SIZE
This plan includes coloured information. If you have a black and white copy you do not have all of the information. This note is coloured RED.

REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES
A	06.05.2021	INITIAL ISSUE	G.S.	C.B.	G.S.	C.B.	
B	24.06.2021	FOR APPROVAL	G.S.	C.B.	G.S.	C.B.	
C	28.06.2021	FOR APPROVAL	G.S.	C.B.	G.S.	C.B.	
O	07.07.2021	CONSTRUCTION ISSUE	G.S.	C.B.	G.S.	C.B.	
1	22.04.2022	WORK AS CONSTRUCTED	I.B.	C.B.	G.S.	C.B.	

DESIGN FILE N:\JOBNUMBER\Design\120\ ALL DIMENSIONS ARE IN METRES U.N.O. DO NOT SCALE

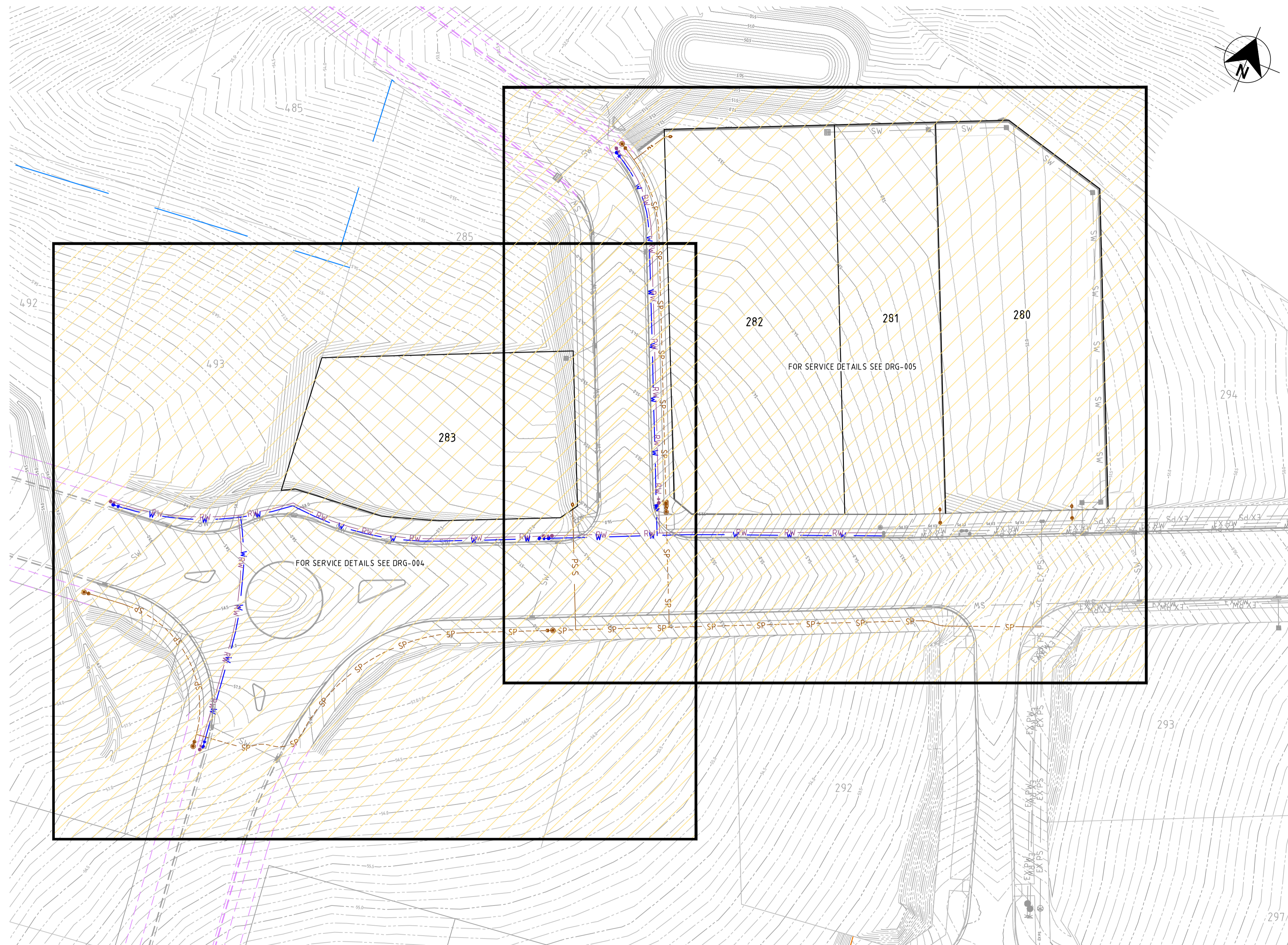
adw Johnson
Hunter Office
Unit 7/335 Hillsborough Rd
Warners Bay N.S.W. 2282
Phone: (02) 4978 5100
Fax: (02) 4978 5199
email: hunter@adwjohnson.com.au
www.adwjohnson.com.au
ABN 62 129 445 398

altogether.

PROPERTY DESCRIPTION	PROPOSED SERVICING ARRANGEMENT LOTS 280 TO 283 STAGE 2C, COMMERCIAL
SURVEYED	Daly,Smith Pty Ltd
DATUM	GDA94 M.G.A. ZONE 56 A.H.D.

PROJECT	POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION		
PLAN TITLE	GENERAL NOTES		
PROJECT No.	240037(TC2)	DISCIPLINE	WAC
NUMBER	002	REV.	1





WORK AS CONSTRUCTED
 THESE DRAWINGS ARE AN ACCURATE REPRESENTATION AS AT 25/03/2022 OF THE WORK-AS-CONSTRUCTED, BUT THE POSITION OF THE WORK RELATIVE TO OTHER STRUCTURES OR BOUNDARIES IS APPROXIMATE ONLY AND HAS NOT BEEN VERIFIED BY PRECISE SURVEY.

COMPANY	ADW Johnson Pty Ltd	COMPANY	
NAME	MATHEW DAVID LONDON	NAME	
SIGNED	<i>MatheW</i>	DATE	22/04/2022
	REGISTERED SURVEYOR	SIGNED	
		DATE/...../.....
			CONSTRUCTION MANAGER

ORIGIN OF W.A.C. LEVELS

PM	20029	Co-Ord System	MGA Ground
E:	345 612.942	MGA Datum:	GDA94
N:	6 382 878.917	MGA Zone:	56
RL:	77.675m		

APPROVED FOR CONSTRUCTION
 BY ADW Johnson Pty Ltd
 Date Approved: 25/08/2021

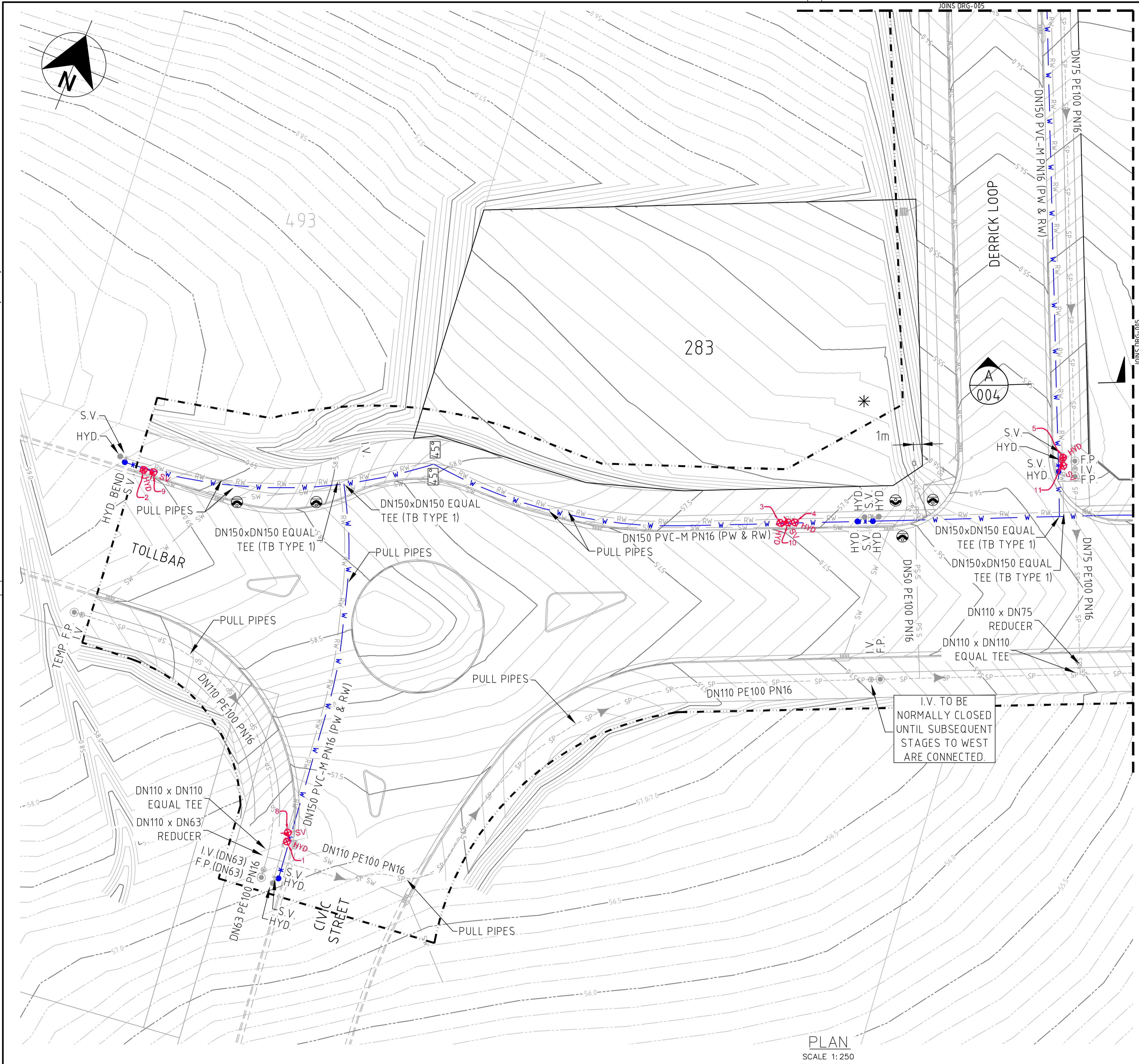
AS CONSTRUCTED

PLAN
SCALE 1:500

REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES	 ALL DIMENSIONS ARE IN METRES U.N.O. 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	 CLIENT	PROPERTY DESCRIPTION PROPOSED SERVICING ARRANGEMENT LOTS 280 TO 283 STAGE 2C, COMMERCIAL	PROJECT POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION			
A	06.05.2021	INITIAL ISSUE	G.S.	C.B.	G.S.	C.B.						PLAN TITLE	OVERALL SITE PLAN		
B	24.06.2021	FOR APPROVAL	G.S.	C.B.	G.S.	C.B.						PROJECT No.	DISCIPLINE	NUMBER	REV.
C	28.06.2021	FOR APPROVAL	G.S.	C.B.	G.S.	C.B.						240037(TC2) -	WAC	003	1
0	07.07.2021	CONSTRUCTION ISSUE	G.S.	C.B.	G.S.	C.B.									
1	22.04.2022	WORK AS CONSTRUCTED	I.B.	C.B.	G.S.	C.B.									

240037(TC2)-WAC-005

100mm AT FULL SIZE
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PLAN
SCALE 1: 250

WORK AS CONSTRUCTED
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COMPANY ADW Johnson Pty Ltd COMPANY
NAME MATHEW DAVID LONDON NAME
SIGNED [Signature] DATE 22/04/2022 SIGNED [Signature] DATE _____
REGISTERED SURVEYOR CONSTRUCTION MANAGER



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

LEGEND

- W-SV HYD. FL HYD. PVC-M POTABLE WATER RETICULATION WITH STOP VALVE, HYDRANT, FLUSHING HYDRANT
- PWS PWS PWS POTABLE WATER PROPERTY SERVICE (PRE-LAID DN90)
- RW-SV HYD. FL HYD. PVC-M RECYCLED WATER RETICULATION WITH STOP VALVE, HYDRANT, FLUSHING HYDRANT
- RWS RWS RWS RECYCLED WATER PROPERTY SERVICE (PRE-LAID DN90)
- SP-IV I.V. N.C. F.P. PE PRESSURE SEWER RETICULATION WITH ISOLATION VALVE, ISOLATION VALVE - NORMALLY CLOSED, FLUSHING POINT
- PS S PS S PE PRESSURE SEWER PROPERTY SERVICE, WASTE WATER BOUNDARY KIT
- EX RW EX RW EX PW EX PS EXisting RETICULATION
- SW SW STORMWATER PIPEWORK
- 11.25° 11.25° HORIZONTAL BEND - REFER TO THRUST BLOCK TABLE
- LAY PRESSURE SEWER MAIN UNDER STORMWATER PIPE (300mm MIN. VERTICAL CLEARANCE) - REFER TO WAT-1255-H
- LAY WATER MAIN OVER STORMWATER PIPE (300mm MIN. VERTICAL CLEARANCE) - REFER TO WAT-1255-H
- Pressure Sewer Flow Direction (Intermediate)
- Pressure Sewer Flow Direction (Ultimate)
- LIMIT OF WORKS
- * DENOTES LOT SERVICING TO BE PROVIDED FOR BY SEPARATE APPLICATION TO HUNTEE WATER UPON CONFIRMATION OF LOT CONFIGURATION.

POTABLE WATER PIPE DATA

PIPE SIZE (mm)	PIPE MATERIAL	TOTAL LENGTH (m)
DN150	PVC-M PN16	280

RECYCLED WATER PIPE DATA

PIPE SIZE (mm)	PIPE MATERIAL	TOTAL LENGTH (m)
DN150	PVC-M PN16	285

PRESSURE SEWER PIPE DATA

PIPE SIZE (mm)	PIPE MATERIAL	TOTAL LENGTH (m)
DN110	PE100 SDR11	230
DN75	PE100 SDR11	99
DN63	PE100 SDR11	3
DN50 PRESSURE SEWER PROPERTY SERVICE CONNECTION	PE100 SDR11	40

- NOTES:**
- LOCALLY PULL PIPES TO AVOID ANY POTENTIAL CLASH WITH STORM WATER PITS/PIPES OR OTHER SERVICES.
 - DN50 PROPERTY BOUNDARY KITS TO BE INSTALLED ON EACH LOT 0.8m FROM FRONT BOUNDARY AND 1m FROM SIDE BOUNDARY UNLESS OTHERWISE NOTED.
 - CONTRACTOR TO CONFIRM LOCATION AND LEVEL OF ALL EXISTING SERVICES. MINIMUM VERTICAL CLEARANCES PROVIDED IN TABLE ON SHEET 002. POTABLE WATER TO ALWAYS CROSS OVER STORM WATER.

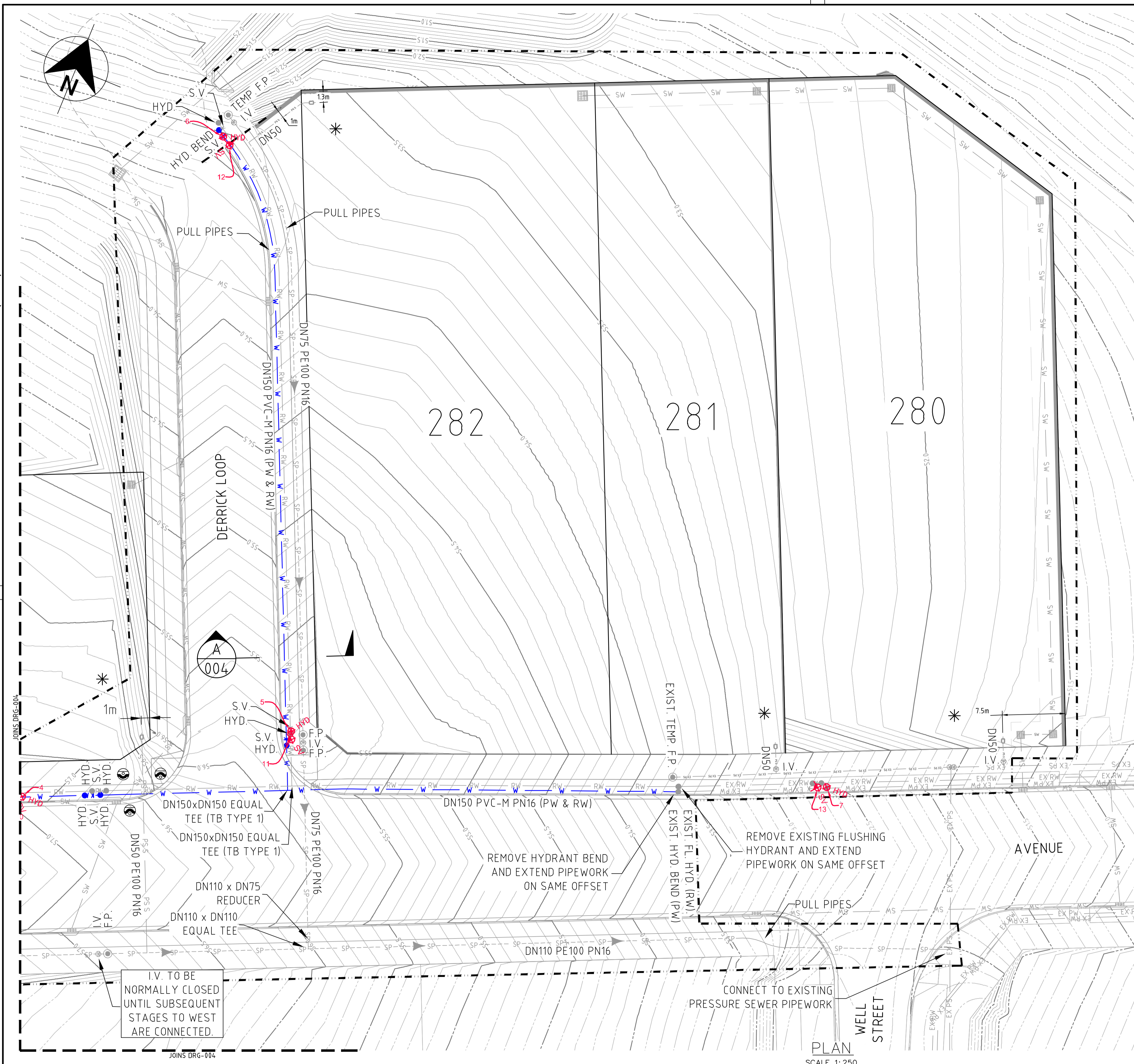
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REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES	CLIENT	PROPERTY DESCRIPTION	PROJECT	PLAN TITLE	SURVEYED	DATUM	PROJECT No.	DISCIPLINE	NUMBER	REV.
A	06.05.2021	INITIAL ISSUE	G.S.	C.B.	G.S.	C.B.	 ALL DIMENSIONS ARE IN METRES U.N.O. DO NOT SCALE	Hunter 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	PROPOSED SERVICING ARRANGEMENT LOTS 280 TO 283 STAGE 2C, COMMERCIAL	POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION	POTABLE WATER DETAIL PLAN - SHEET 1	Daly, Smith Pty Ltd	GDA94 M.G.A. ZONE 56 A.H.D.	240037(TC2)	WAC	004	1
B	24.06.2021	FOR APPROVAL	G.S.	C.B.	G.S.	C.B.											
C	28.06.2021	FOR APPROVAL	G.S.	C.B.	G.S.	C.B.											
O	07.07.2021	CONSTRUCTION ISSUE	G.S.	C.B.	G.S.	C.B.											
1	22.04.2022	WORK AS CONSTRUCTED	I.B.	C.B.	G.S.	C.B.											

240037(TC2)-WAC-005

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 COMPANY ADW Johnson Pty Ltd COMPANY
 NAME MATHEW DAVID LONDON NAME
 SIGNED [Signature] DATE 22/04/2022 SIGNED [Signature] DATE [Signature]
 REGISTERED SURVEYOR CONSTRUCTION MANAGER



ORIGIN OF W.A.C. LEVELS
 PM 20029 Co-Ord System: MGA Ground
 E: 345 612.942 MGA Datum: GDA94
 N: 6 382 878.917 MGA Zone: 56
 RL: 77.675m

- LEGEND**
- W-SV-HYD-FL HYD. PVC-M POTABLE WATER RETICULATION WITH STOP VALVE, HYDRANT, FLUSHING HYDRANT
 - PWS-PWS-PWS POTABLE WATER PROPERTY SERVICE (PRE-LAID DN90)
 - RW-RW-SV-HYD-FL HYD. PVC-M RECYCLED WATER RETICULATION WITH STOP VALVE, HYDRANT, FLUSHING HYDRANT
 - RWS-RWS-RWS RECYCLED WATER PROPERTY SERVICE (PRE-LAID DN90)
 - SP-IV-IV N.C.-FP. PE PRESSURE SEWER RETICULATION WITH ISOLATION VALVE, ISOLATION VALVE - NORMALLY CLOSED, FLUSHING POINT
 - PS S-PS S-PE PE PRESSURE SEWER PROPERTY SERVICE, WASTE WATER BOUNDARY KIT
 - EX RW EXISTING RECYCLED WATER RETICULATION
 - EX PW EXISTING POTABLE WATER RETICULATION
 - EX PS EXISTING PRESSURE SEWER RETICULATION
 - SW SW STORMWATER PIPEWORK
 - 11.25° 11.25° HORIZONTAL BEND - REFER TO THRUST BLOCK TABLE
 - LAY PRESSURE SEWER MAIN UNDER STORMWATER PIPE (300mm MIN. VERTICAL CLEARANCE) - REFER TO WAT-1255-H
 - LAY WATER MAIN OVER STORMWATER PIPE (300mm MIN. VERTICAL CLEARANCE) - REFER TO WAT-1255-H
 - Pressure Sewer Flow Direction (Intermediate)
 - Pressure Sewer Flow Direction (Ultimate)
 - LIMIT OF WORKS
 - * DENOTES LOT SERVICING TO BE PROVIDED FOR BY SEPARATE APPLICATION TO HUNTLEE WATER UPON CONFIRMATION OF LOT CONFIGURATION.

POTABLE WATER PIPE DATA

PIPE SIZE (mm)	PIPE MATERIAL	TOTAL LENGTH (m)
DN150	PVC-M PN16	280

RECYCLED WATER PIPE DATA

PIPE SIZE (mm)	PIPE MATERIAL	TOTAL LENGTH (m)
DN150	PVC-M PN16	285

PRESSURE SEWER PIPE DATA

PIPE SIZE (mm)	PIPE MATERIAL	TOTAL LENGTH (m)
DN110	PE100 SDR11	230
DN75	PE100 SDR11	99
DN63	PE100 SDR11	3
DN50 PRESSURE SEWER PROPERTY SERVICE CONNECTION	PE100 SDR11	40

- NOTES:**
- LOCALLY PULL PIPES TO AVOID ANY POTENTIAL CLASH WITH STORM WATER PITS/PIPES OR OTHER SERVICES.
 - DN50 PROPERTY BOUNDARY KITS TO BE INSTALLED ON EACH LOT 0.8m FROM FRONT BOUNDARY AND 1m FROM SIDE BOUNDARY UNLESS OTHERWISE NOTED.
 - CONTRACTOR TO CONFIRM LOCATION AND LEVEL OF ALL EXISTING SERVICES. MINIMUM VERTICAL CLEARANCES PROVIDED IN TABLE ON SHEET 002. POTABLE WATER TO ALWAYS CROSS OVER STORM WATER.

APPROVED FOR CONSTRUCTION
 BY ADW Johnson Pty Ltd
 Date Approved: 25/08/2021

AS CONSTRUCTED

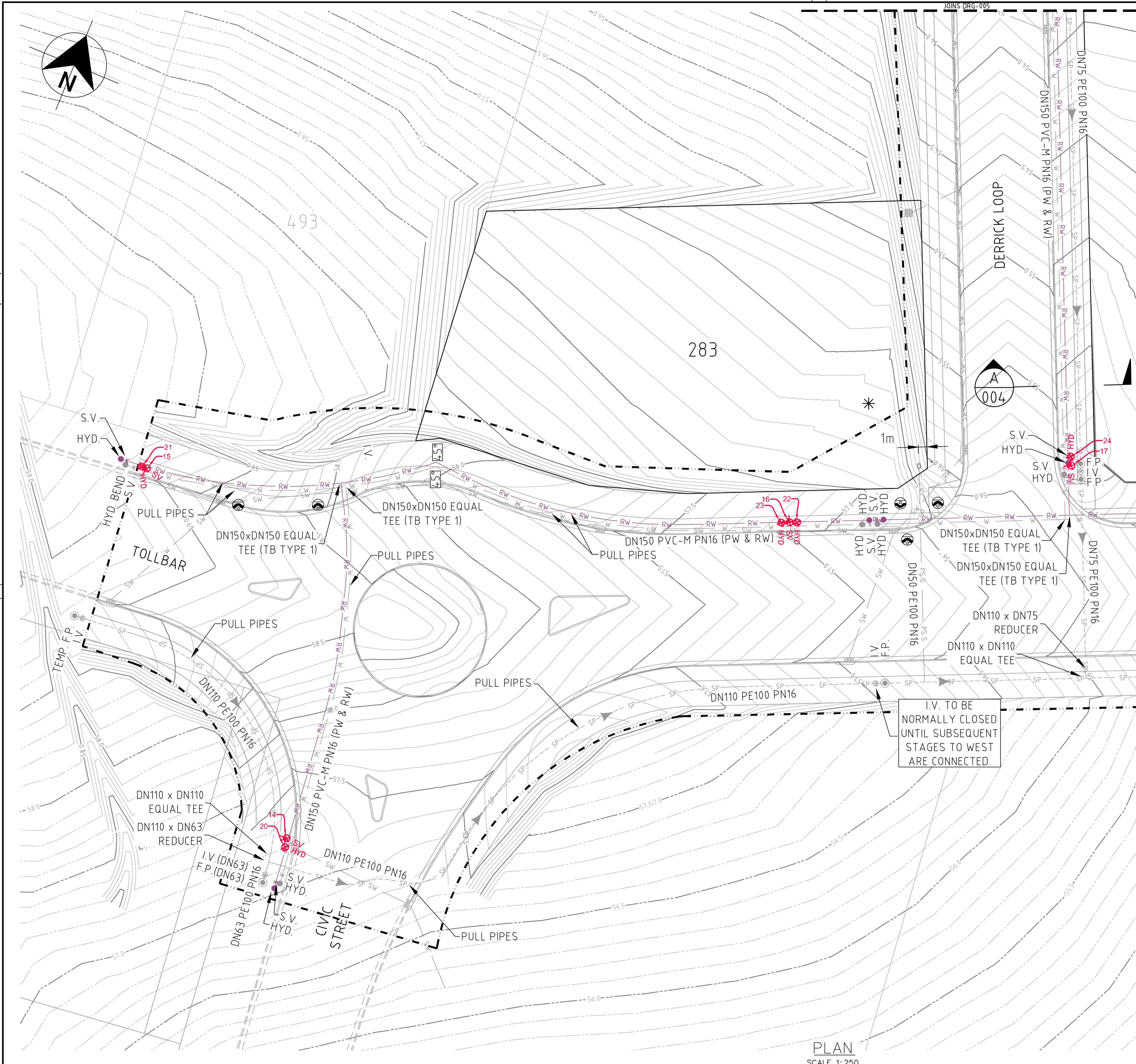
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B	24.06.2021	FOR APPROVAL	G.S.	C.B.	G.S.	C.B.	
C	28.06.2021	FOR APPROVAL	G.S.	C.B.	G.S.	C.B.	
O	07.07.2021	CONSTRUCTION ISSUE	G.S.	C.B.	G.S.	C.B.	
1	22.04.2022	WORK AS CONSTRUCTED	I.B.	C.B.	G.S.	C.B.	

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

CLIENT

PROPERTY DESCRIPTION
 PROPOSED SERVICING ARRANGEMENT
 LOTS 280 TO 283
 STAGE 2C, COMMERCIAL

PROJECT	POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION				
PLAN TITLE	POTABLE WATER DETAIL PLAN - SHEET 2				
SURVEYED	DATUM	PROJECT No.	DISCIPLINE	NUMBER	REV.
Daly, Smith Pty Ltd	GDA94 M.G.A. ZONE 56 A.H.D.	240037(TC2)	WAC	005	1



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COMPANY: ADW Johnson Pty Ltd
 NAME: MATHEW DAVID LONDON
 SIGNED: [Signature] REGISTERED SURVEYOR

COMPANY: [Blank]
 NAME: [Blank]
 SIGNED: [Blank] CONSTRUCTION MANAGER

DATE: 22/04/2022
 DATE: [Blank]



ORIGIN OF W.A.C. LEVELS

PM: 20029
 E: 345 612.942
 N: 6 382 878.917
 RL: 77.675m

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

LEGEND

- PVC-M POTABLE WATER RETICULATION WITH STOP VALVE, HYDRANT, FLUSHING HYDRANT
- POTABLE WATER PROPERTY SERVICE (PRE-LAID DN90)
- PVC-M RECYCLED WATER RETICULATION WITH STOP VALVE, HYDRANT, FLUSHING HYDRANT
- RECYCLED WATER PROPERTY SERVICE (PRE-LAID DN90)
- PE PRESSURE SEWER RETICULATION WITH ISOLATION VALVE, ISOLATION VALVE - NORMALLY CLOSED, FLUSHING POINT
- PE PRESSURE SEWER PROPERTY SERVICE, WASTE WATER BOUNDARY KIT
- EX RW EXISTING RECYCLED WATER RETICULATION
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- EX PS EXISTING PRESSURE SEWER RETICULATION
- STORMWATER PIPEWORK
- 11.25° HORIZONTAL BEND - REFER TO THRUST BLOCK TABLE
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- PRESSURE SEWER FLOW DIRECTION (INTERMEDIATE)
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POTABLE WATER PIPE DATA

PIPE SIZE (mm)	PIPE MATERIAL	TOTAL LENGTH (m)
DN150	PVC-M PN16	280

RECYCLED WATER PIPE DATA

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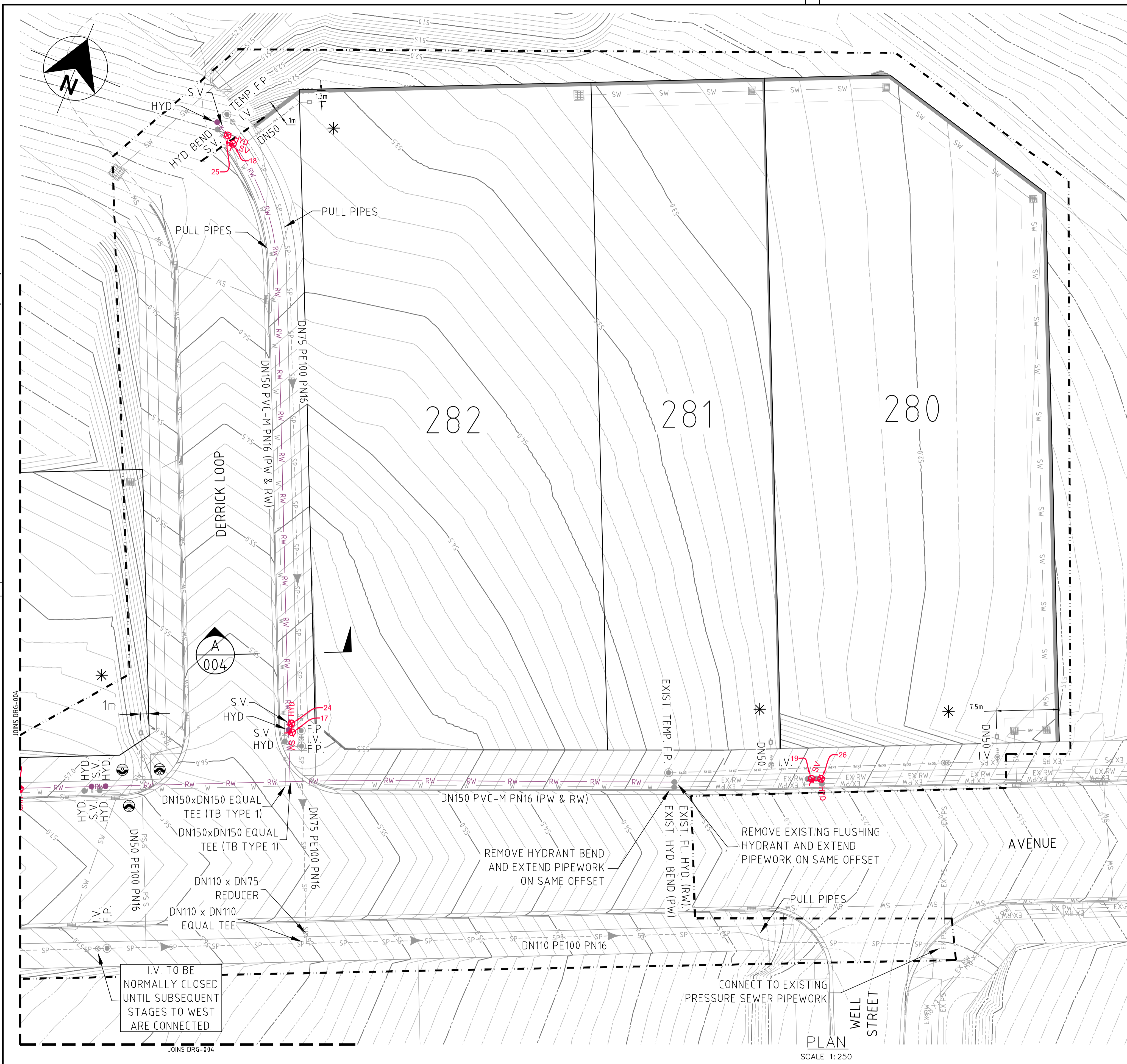
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 Date Approved: 25/08/2021

AS CONSTRUCTED

<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>REV.</th> <th>DATE</th> <th>AMENDMENT</th> <th>DRAWN</th> <th>CHECK</th> <th>DESIGN</th> <th>VERIFY</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>06.05.2021</td> <td>INITIAL ISSUE</td> <td>G.S.</td> <td>C.B.</td> <td>G.S.</td> <td>C.B.</td> </tr> <tr> <td>B</td> <td>24.06.2021</td> <td>FOR APPROVAL</td> <td>G.S.</td> <td>C.B.</td> <td>G.S.</td> <td>C.B.</td> </tr> <tr> <td>C</td> <td>28.06.2021</td> <td>FOR APPROVAL</td> <td>G.S.</td> <td>C.B.</td> <td>G.S.</td> <td>C.B.</td> </tr> <tr> <td>O</td> <td>07.07.2021</td> <td>CONSTRUCTION ISSUE</td> <td>G.S.</td> <td>C.B.</td> <td>G.S.</td> <td>C.B.</td> </tr> <tr> <td>1</td> <td>22.04.2022</td> <td>WORK AS CONSTRUCTED</td> <td>I.B.</td> <td>C.B.</td> <td>G.S.</td> <td>C.B.</td> </tr> </tbody> </table>	REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	A	06.05.2021	INITIAL ISSUE	G.S.	C.B.	G.S.	C.B.	B	24.06.2021	FOR APPROVAL	G.S.	C.B.	G.S.	C.B.	C	28.06.2021	FOR APPROVAL	G.S.	C.B.	G.S.	C.B.	O	07.07.2021	CONSTRUCTION ISSUE	G.S.	C.B.	G.S.	C.B.	1	22.04.2022	WORK AS CONSTRUCTED	I.B.	C.B.	G.S.	C.B.	<p>DESIGN FILE: N:\JOBNUMBER\Design\120\</p> <p>Plotted By: iainb Plot Date: 05/05/22 - 09:32 Cad File: \\jserver10\adw-data\240072\DWG\Water & Sewer\Stage 2C-WAC\240037(TC2)-WAC-007.dwg</p>	<p>ALL DIMENSIONS ARE IN METRES U.N.O. DO NOT SCALE</p> <p style="text-align: center;">Bar Scale 1: 250 (A1)</p>	<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>	<p>CLIENT</p>	<p>PROPERTY DESCRIPTION</p> <p style="text-align: center;">PROPOSED SERVICING ARRANGEMENT LOTS 280 TO 283 STAGE 2C, COMMERCIAL</p>	<p>PROJECT</p> <p style="text-align: center;">POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION</p> <p>PLAN TITLE</p> <p style="text-align: center;">RECYCLED WATER DETAIL PLAN - SHEET 1</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>SURVEYED</th> <th>DATUM</th> <th>PROJECT No.</th> <th>DISCIPLINE</th> <th>NUMBER</th> <th>REV.</th> </tr> <tr> <td>Daly,Smith Pty Ltd</td> <td>GDA94 M.G.A. ZONE 56 A.H.D.</td> <td>240037(TC2)</td> <td>WAC</td> <td>006</td> <td>1</td> </tr> </table>	SURVEYED	DATUM	PROJECT No.	DISCIPLINE	NUMBER	REV.	Daly,Smith Pty Ltd	GDA94 M.G.A. ZONE 56 A.H.D.	240037(TC2)	WAC	006	1
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240037(TC2)-WAC-007

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PRESSURE SEWER PIPE DATA

PIPE SIZE (mm)	PIPE MATERIAL	TOTAL LENGTH (m)
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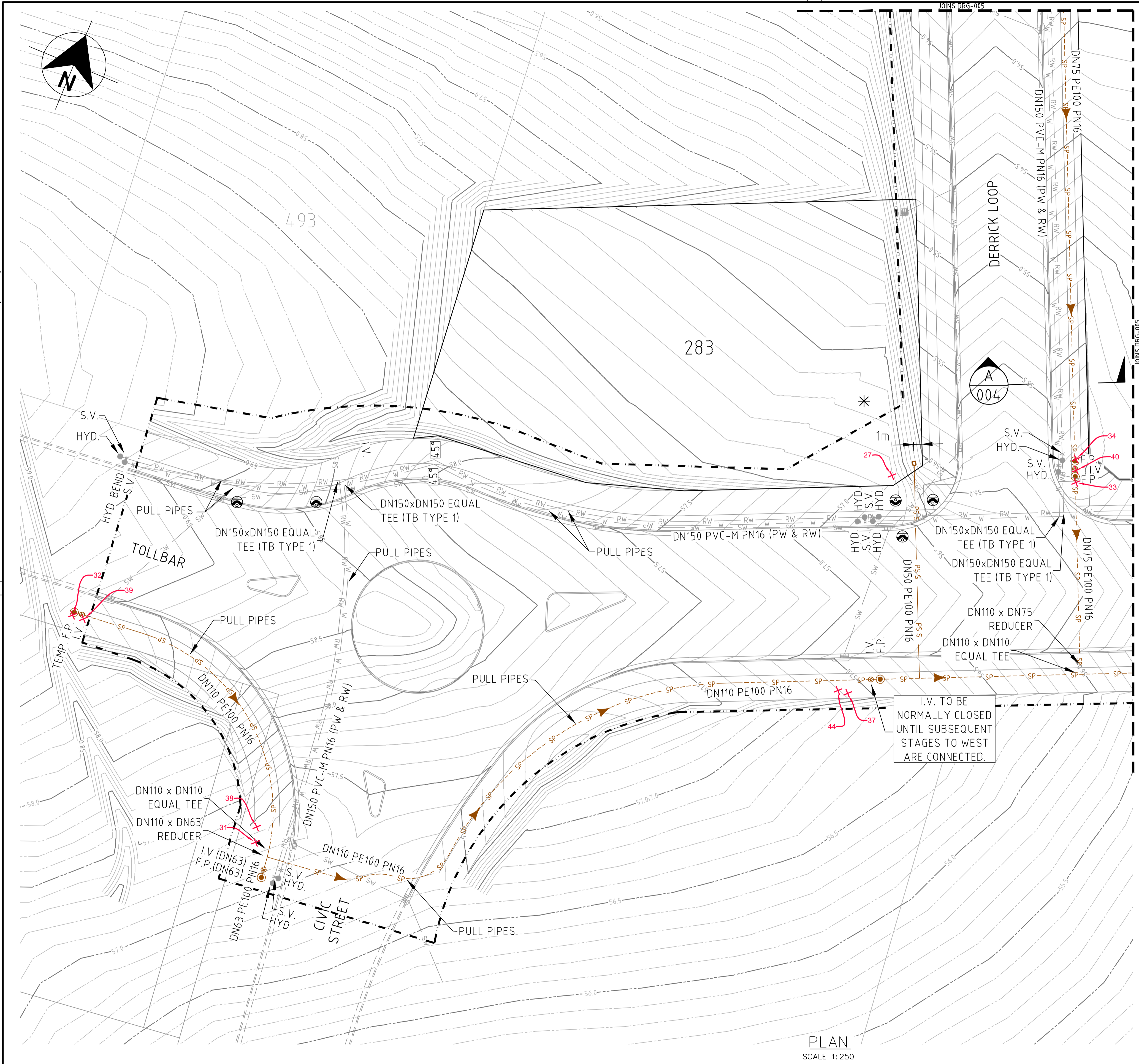
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240037(TC2)-WAC-009

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100mm AT FULL SIZE



PLAN SCALE 1: 250

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 COMPANY ADW Johnson Pty Ltd
 NAME MATHEW DAVID LONDON
 SIGNED [Signature] DATE 22/04/2022 REGISTERED SURVEYOR
 COMPANY [Blank]
 NAME [Blank]
 SIGNED [Blank] DATE [Blank] CONSTRUCTION MANAGER



ORIGIN OF W.A.C. LEVELS
 PM 20029
 E: 345 612.942
 N: 6 382 878.917
 RL: 77.675m
 Co-Ord System: MGA Ground
 MGA Datum: GDA94
 MGA Zone: 56

- LEGEND**
- PVC-M POTABLE WATER RETICULATION WITH STOP VALVE, HYDRANT, FLUSHING HYDRANT
 - POTABLE WATER PROPERTY SERVICE (PRE-LAID DN90)
 - PVC-M RECYCLED WATER RETICULATION WITH STOP VALVE, HYDRANT, FLUSHING HYDRANT
 - RECYCLED WATER PROPERTY SERVICE (PRE-LAID DN90)
 - PE PRESSURE SEWER RETICULATION WITH ISOLATION VALVE, ISOLATION VALVE - NORMALLY CLOSED, FLUSHING POINT
 - PE PRESSURE SEWER PROPERTY SERVICE, WASTE WATER BOUNDARY KIT
 - EXISTING RECYCLED WATER RETICULATION
 - EXISTING POTABLE WATER RETICULATION
 - EXISTING PRESSURE SEWER RETICULATION
 - STORMWATER PIPEWORK
 - 11.25° HORIZONTAL BEND - REFER TO THRUST BLOCK TABLE
 - LAY PRESSURE SEWER MAIN UNDER STORMWATER PIPE (300mm MIN. VERTICAL CLEARANCE) - REFER TO WAT-1255-H
 - LAY WATER MAIN OVER STORMWATER PIPE (300mm MIN. VERTICAL CLEARANCE) - REFER TO WAT-1255-H
 - PRESSURE SEWER FLOW DIRECTION (INTERMEDIATE)
 - PRESSURE SEWER FLOW DIRECTION (ULTIMATE)
 - LIMIT OF WORKS
 - * DENOTES LOT SERVICING TO BE PROVIDED FOR BY SEPARATE APPLICATION TO HUNTELE WATER UPON CONFIRMATION OF LOT CONFIGURATION.

POTABLE WATER PIPE DATA

PIPE SIZE (mm)	PIPE MATERIAL	TOTAL LENGTH (m)
DN150	PVC-M PN16	280

RECYCLED WATER PIPE DATA

PIPE SIZE (mm)	PIPE MATERIAL	TOTAL LENGTH (m)
DN150	PVC-M PN16	285

PRESSURE SEWER PIPE DATA

PIPE SIZE (mm)	PIPE MATERIAL	TOTAL LENGTH (m)
DN110	PE100 SDR11	230
DN75	PE100 SDR11	99
DN63	PE100 SDR11	3
DN50 PRESSURE SEWER PROPERTY SERVICE CONNECTION	PE100 SDR11	40

- NOTES:**
- LOCALLY PULL PIPES TO AVOID ANY POTENTIAL CLASH WITH STORM WATER PITS/PIPES OR OTHER SERVICES.
 - DN50 PROPERTY BOUNDARY KITS TO BE INSTALLED ON EACH LOT 0.8m FROM FRONT BOUNDARY AND 1m FROM SIDE BOUNDARY UNLESS OTHERWISE NOTED.
 - CONTRACTOR TO CONFIRM LOCATION AND LEVEL OF ALL EXISTING SERVICES. MINIMUM VERTICAL CLEARANCES PROVIDED IN TABLE ON SHEET 002. POTABLE WATER TO ALWAYS CROSS OVER STORM WATER.

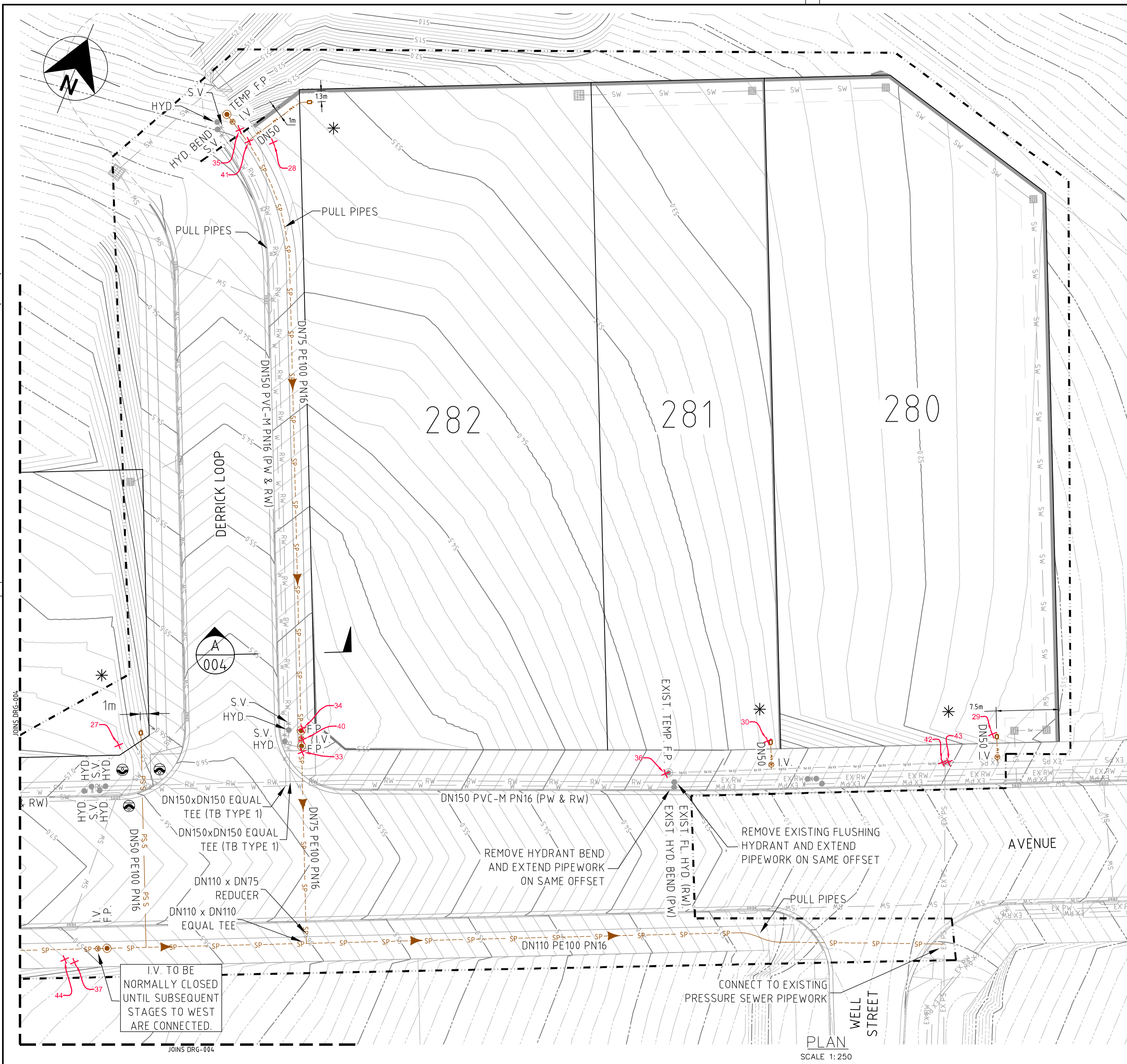
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 Date Approved: 25/08/2021

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ORIGIN OF W.A.C. LEVELS
 PM 20029 Co-Ord System: MGA Ground
 E: 345 612.942 MGA Datum: GDA94
 N: 6 382 878.917 MGA Zone: 56
 RL: 77.675m

- LEGEND**
- W-SV-HYD-FL HYD. PVC-M POTABLE WATER RETICULATION WITH STOP VALVE, HYDRANT, FLUSHING HYDRANT
 - PWS-PWS-PWS POTABLE WATER PROPERTY SERVICE (PRE-LAID DN90)
 - RW-RW-SV-HYD-FL HYD. PVC-M RECYCLED WATER RETICULATION WITH STOP VALVE, HYDRANT, FLUSHING HYDRANT
 - RWS-RWS-RWS RECYCLED WATER PROPERTY SERVICE (PRE-LAID DN90)
 - SP-IV-IV N.C.-FP. PE PRESSURE SEWER RETICULATION WITH ISOLATION VALVE, ISOLATION VALVE - NORMALLY CLOSED, FLUSHING POINT
 - PS S-PS S-PE PE PRESSURE SEWER PROPERTY SERVICE, WASTE WATER BOUNDARY KIT
 - EX RW EXISTING RECYCLED WATER RETICULATION
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Point Table				
Point #	Eastings	Northings	Levels	Codes
1	345009.91	6384270.85	57.16	waHYD
2	344977.06	6384305.62	59.31	waHYD
3	345050.20	6384328.72	57.24	waHYD
4	345051.81	6384329.43	57.16	waHYD
5	345078.65	6384348.85	55.89	waHYD
6	345044.14	6384411.60	53.60	waHYD
7	345140.47	6384366.97	52.80	waHYD
8	345009.60	6384271.90	57.21	waSV
9	344978.25	6384305.79	59.27	waSV
10	345051.04	6384329.12	57.15	waSV
11	345079.05	6384347.96	55.92	waSV
12	345045.25	6384410.94	53.61	waSV
13	345139.46	6384366.53	52.90	waSV
14	345009.32	6384271.69	57.26	waSVR
15	344977.11	6384306.20	59.30	waSVR
16	345050.58	6384329.36	57.25	waSVR
17	345079.18	6384348.39	55.91	waSVR
18	345045.73	6384411.21	53.72	waSVR
19	345139.18	6384366.96	52.91	waSVR
20	345009.55	6384270.59	57.23	waHYDR
21	344976.46	6384306.16	59.32	waHYDR
22	345051.44	6384329.68	57.18	waHYDR
23	345049.70	6384328.94	57.28	waHYDR
24	345078.70	6384349.36	55.90	waHYDR
25	345044.75	6384411.92	53.63	waHYDR
26	345140.23	6384367.39	52.83	waHYDR
27	345060.46	6384339.08	56.89	seBOUNDARYKIT
28	345050.17	6384413.23	53.91	seBOUNDARYKIT
29	345157.28	6384380.20	51.86	seBOUNDARYKIT
30	345132.56	6384369.17	53.36	seBOUNDARYKIT
31	345006.46	6384269.36	57.49	seFP
32	344975.79	6384286.26	59.30	seFP
33	345081.20	6384346.68	55.88	seFP
34	345080.17	6384349.31	55.92	seFP
35	345045.86	6384413.13	53.68	seFP
36	345122.67	6384360.87	53.96	seFP
37	345065.46	6384312.88	57.21	seFP
38	345005.90	6384271.12	57.57	seSV
39	344977.18	6384286.35	59.29	seSV
40	345080.70	6384348.08	55.92	seSV
41	345047.42	6384412.27	53.73	seSV
42	345153.01	6384374.77	52.13	seSV
43	345153.66	6384375.07	52.15	seSV
44	345064.24	6384312.75	57.19	seSV

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 SIGNED *mathe* DATE 22/04/2022 SIGNED DATE/...../.....
 REGISTERED SURVEYOR CONSTRUCTION MANAGER

ORIGIN OF W.A.C. LEVELS
 PM 20029
 E: 345 612.942 Co-Ord System: MGA Ground
 N: 6 382 878.917 MGA Datum: GDA94
 RL: 77.675m MGA Zone: 56

APPROVED FOR CONSTRUCTION
 BY ADW Johnson Pty Ltd
 Date Approved: 25/08/2021

AS CONSTRUCTED

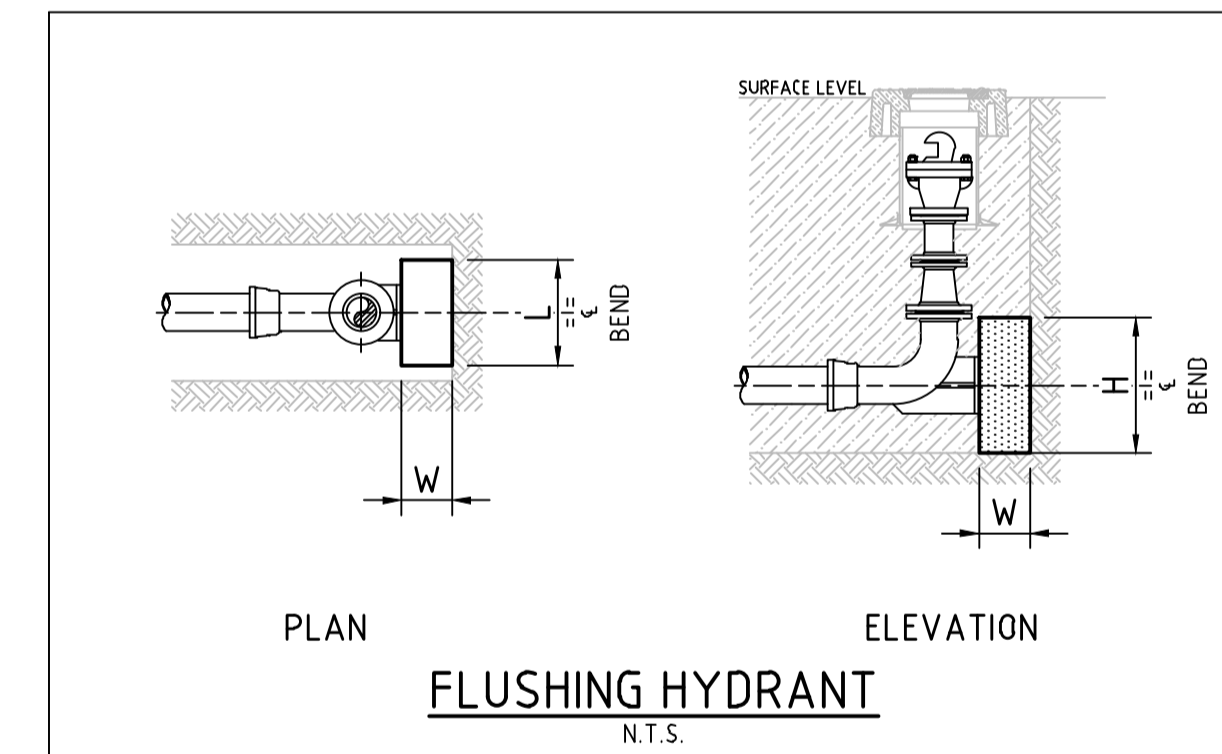
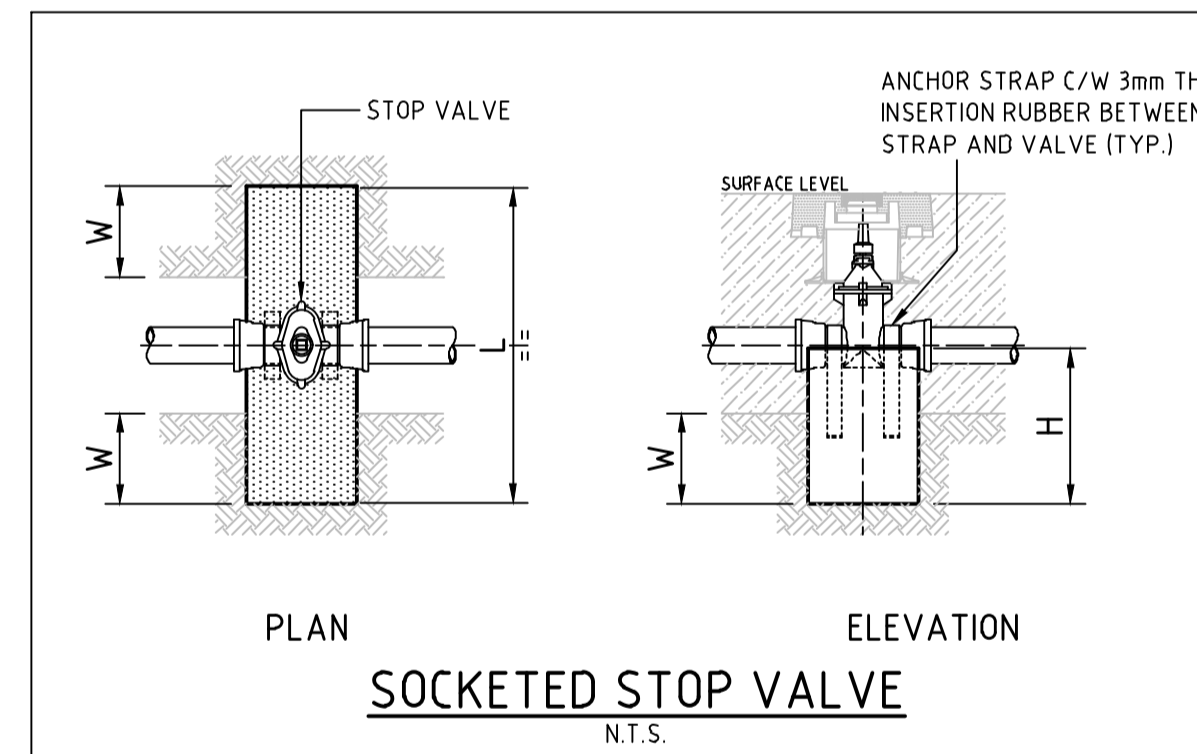
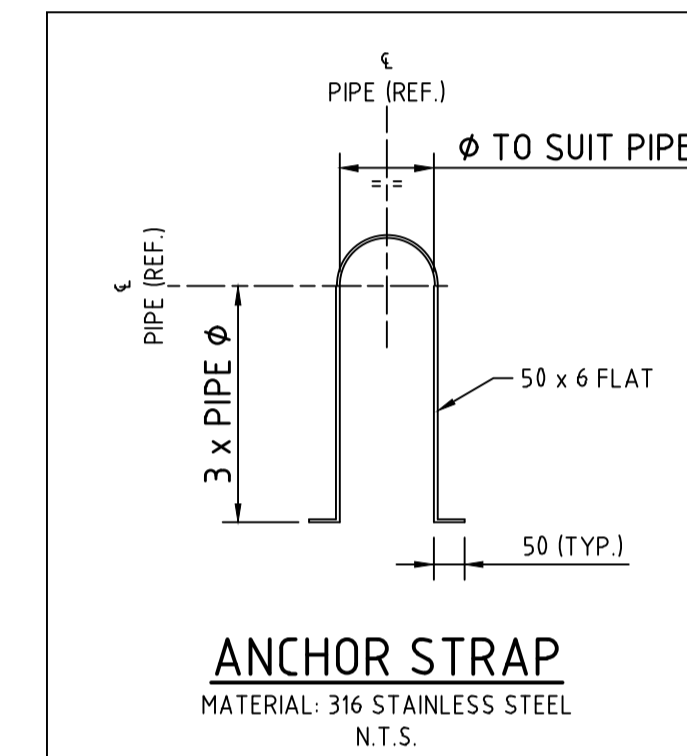
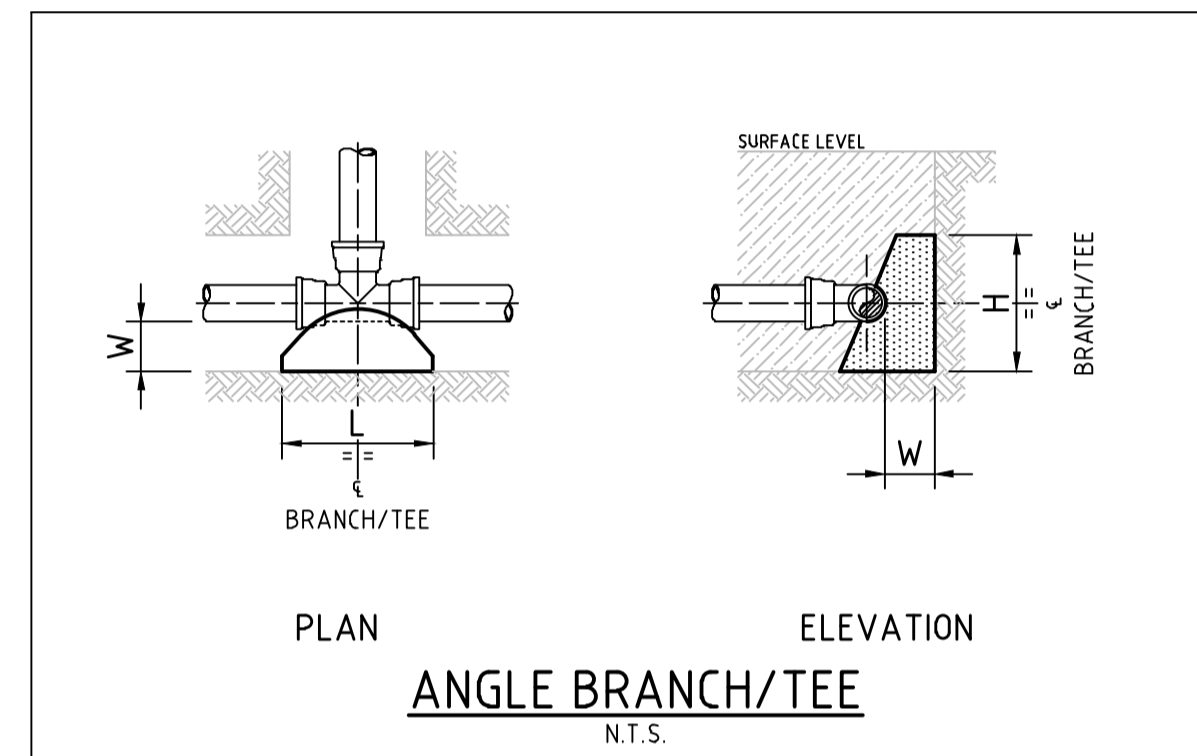
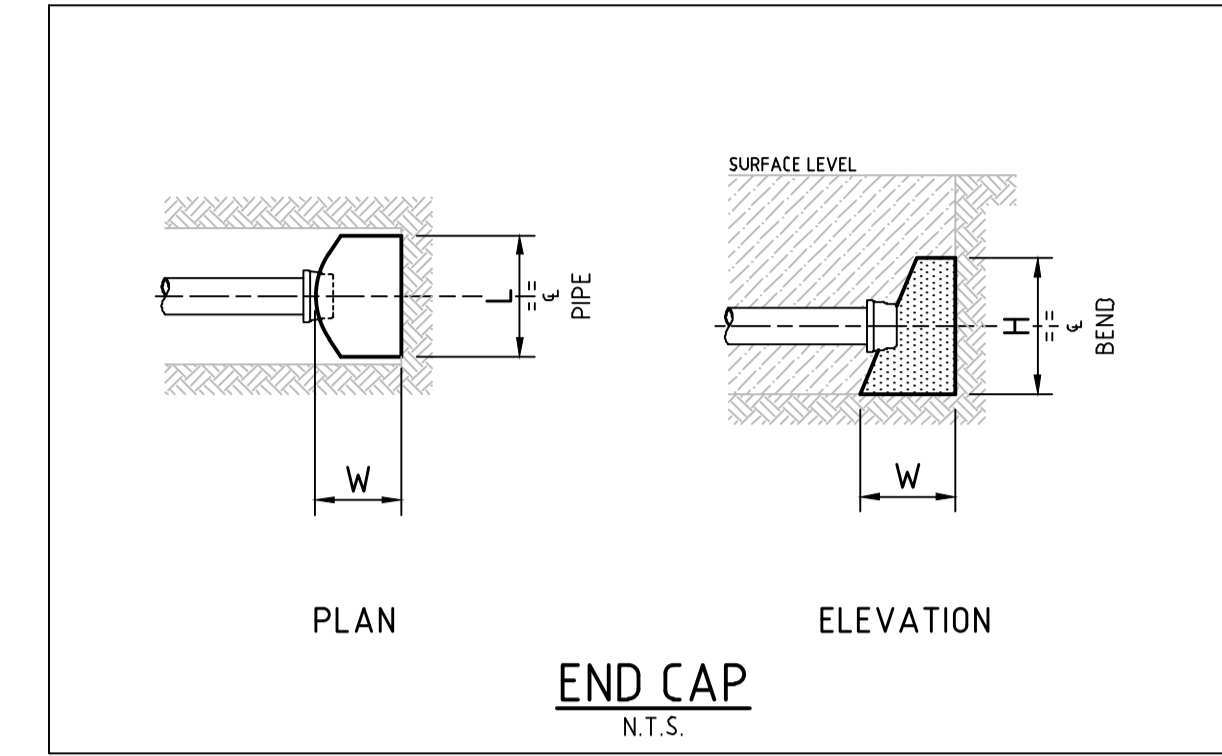
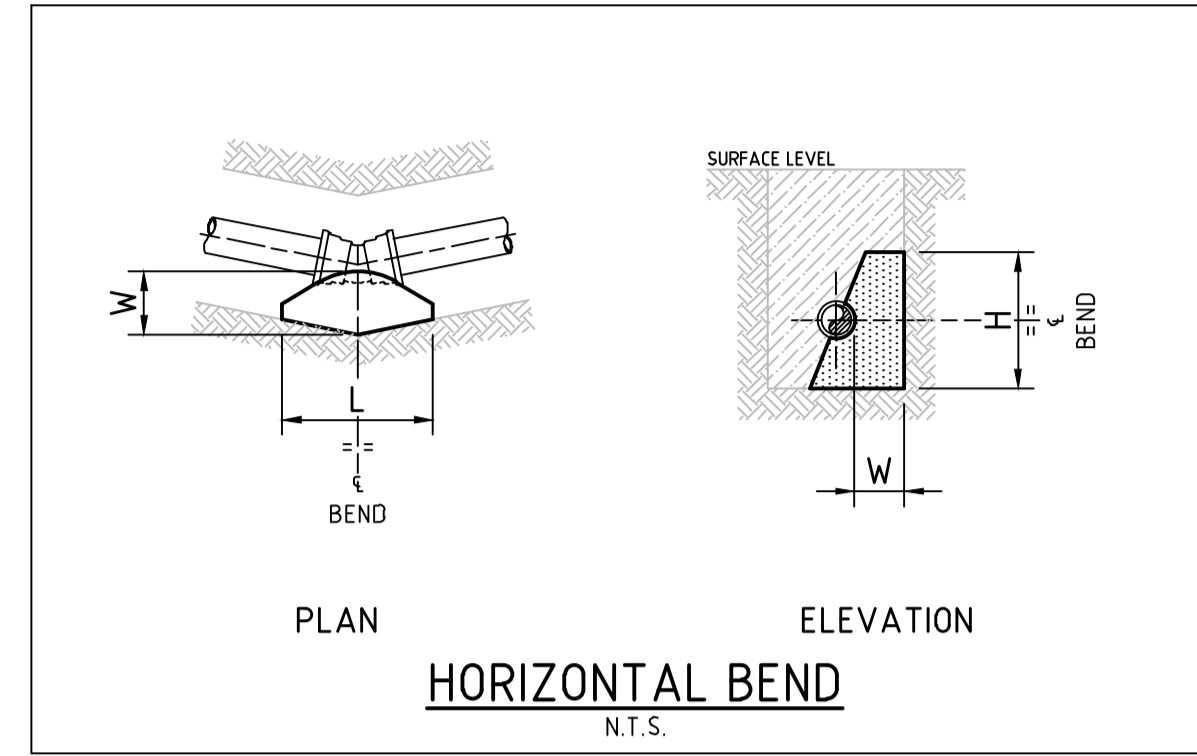
REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES	CLIENT	PROPERTY DESCRIPTION	PROJECT	PLAN TITLE	SURVEYED	DATUM	PROJECT No.	DISCIPLINE	NUMBER	REV.
A	06.05.2021	INITIAL ISSUE	G.S.	C.B.	G.S.	C.B.		<p>Hunter Office Unit 7/335 Hillsborough Rd Warners Bay N.S.W. 2282 Phone: (02) 4978 5100 Fax: (02) 4978 5199 email: hunter@adwjohnson.com.au www.adwjohnson.com.au ABN 62 129 445 398</p>	<p>PROPOSED SERVICING ARRANGEMENT LOTS 280 TO 283 STAGE 2C, COMMERCIAL</p>	POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION	FITTINGS TABLE	Daly,Smith Pty Ltd	GDA94 M.G.A. ZONE 56 A.H.D.	240037(TC2)	WAC	010	1
B	24.06.2021	FOR APPROVAL	G.S.	C.B.	G.S.	C.B.											
C	28.06.2021	FOR APPROVAL	G.S.	C.B.	G.S.	C.B.											
O	07.07.2021	CONSTRUCTION ISSUE	G.S.	C.B.	G.S.	C.B.											
1	22.04.2022	WORK AS CONSTRUCTED	I.B.	C.B.	G.S.	C.B.											



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 AHBP (kPa)	DESIGN STP (kPa)	THRUST	TA (m ²)	LENGTH (L)	HEIGHT (H)	WIDTH (W)
1	DN150 x DN150 EQUAL TEE	100	1500	37.50	0.38	0.50	0.75	0.30
2	DN150 x 11.25" HORIZONTAL BEND	100	1500	7.50	0.08	N	N	0.30
3	DN150 SOCKETED STOP VALVE	100	1500	37.50	0.38	1.05	0.46	0.30
4	DN150 FLUSHING HYDRANT	100	1500	37.50	0.38	0.50	0.76	0.30
5	DN150 END CAP	100	1500	37.50	0.38	0.50	0.76	0.30



WORK AS CONSTRUCTED
THESE DRAWINGS ARE AN ACCURATE REPRESENTATION AS AT 25/03/2022 OF THE WORK-AS-CONSTRUCTED, BUT THE POSITION OF THE WORK RELATIVE TO OTHER STRUCTURES OR BOUNDARIES IS APPROXIMATE ONLY AND HAS NOT BEEN VERIFIED BY PRECISE SURVEY.
COMPANY ADWJohnson Pty Ltd COMPANY
NAME MATHEW DAVID LONDON NAME
SIGNED *matheW* DATE 22/04/2022 SIGNED DATE/...../.....
REGISTERED SURVEYOR CONSTRUCTION MANAGER

ORIGIN OF W.A.C. LEVELS
PM 20029
E: 345 612 942 Co-Ord System: MGA Ground
N: 6 382 878 917 MGA Datum: GDA94
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PLAN
SCALE 1:500

REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES	CLIENT		PROPERTY DESCRIPTION		PROJECT		
A	06.05.2021	INITIAL ISSUE	G.S.	C.B.	G.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 SERVING ARRANGEMENT LOTS 280 TO 283 STAGE 2C, COMMERCIAL		POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION		
B	24.06.2021	FOR APPROVAL	G.S.	C.B.	G.S.	C.B.				SURVEYED Daly,Smith Pty Ltd		PLAN TITLE		
C	28.06.2021	FOR APPROVAL	G.S.	C.B.	G.S.	C.B.	THRUST BLOCK DETAIL							
O	07.07.2021	CONSTRUCTION ISSUE	G.S.	C.B.	G.S.	C.B.				PROJECT No.		DISCIPLINE	NUMBER	REV.
1	22.04.2022	WORK AS CONSTRUCTED	I.B.	C.B.	G.S.	C.B.				240037(TC2)		WAC	012	1