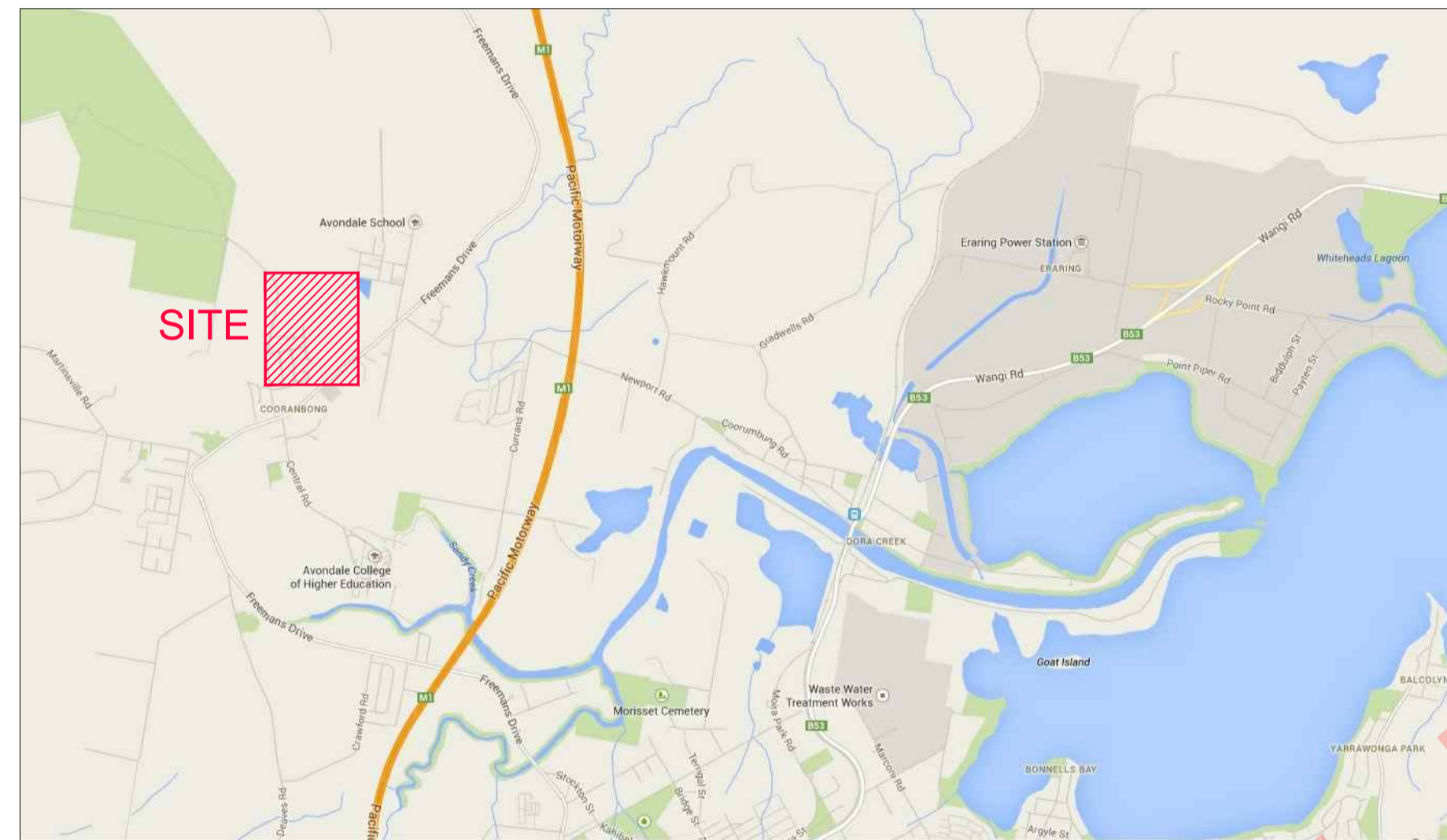
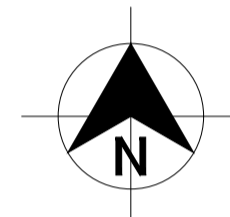




PROPOSED SUBDIVISION STAGE 1, FREEMANS DRIVE, COORANBONG



LOCALITY SKETCH
NOT TO SCALE

DRAWING INDEX	
DRAWING NUMBER	DRAWING TITLE
239078(12)TW-WAT-001	COVER SHEET, LOCALITY PLAN AND DRAWING INDEX
239078(12)TW-WAT-002	GENERAL NOTES
239078(12)TW-WAT-003	OVERALL SITE PLAN
239078(12)TW-WAT-004	POTABLE WATER DETAIL PLAN - SHEET 1
239078(12)TW-WAT-005	POTABLE WATER DETAIL PLAN - SHEET 2
239078(12)TW-WAT-006	POTABLE WATER DETAIL PLAN - SHEET 3
239078(12)TW-WAT-007	POTABLE WATER DETAIL PLAN - SHEET 4
239078(12)TW-WAT-008	POTABLE WATER DETAIL PLAN - SHEET 5
239078(12)TW-WAT-009	POTABLE WATER DETAIL PLAN - SHEET 6
239078(12)TW-WAT-010	NOT USED
239078(12)TW-WAT-011	RECYCLED WATER DETAIL PLAN - SHEET 1
239078(12)TW-WAT-012	RECYCLED WATER DETAIL PLAN - SHEET 2
239078(12)TW-WAT-013	RECYCLED WATER DETAIL PLAN - SHEET 3
239078(12)TW-WAT-014	RECYCLED WATER DETAIL PLAN - SHEET 4
239078(12)TW-WAT-015	RECYCLED WATER DETAIL PLAN - SHEET 5
239078(12)TW-WAT-016	RECYCLED WATER DETAIL PLAN - SHEET 6
239078(12)TW-WAT-017	NOT USED
239078(12)TW-WAT-018	PRESSURE SEWER DETAIL PLAN - SHEET 1
239078(12)TW-WAT-019	PRESSURE SEWER DETAIL PLAN - SHEET 2
239078(12)TW-WAT-020	PRESSURE SEWER DETAIL PLAN - SHEET 3
239078(12)TW-WAT-021	PRESSURE SEWER DETAIL PLAN - SHEET 4
239078(12)TW-WAT-022	PRESSURE SEWER DETAIL PLAN - SHEET 5
239078(12)TW-WAT-023	PRESSURE SEWER DETAIL PLAN - SHEET 6
239078(12)TW-WAT-024	NOT USED
239078(12)TW-WAT-025	TYPICAL PIPEWORK TRENCHING DETAILS
239078(12)TW-WAT-026	NOT USED
239078(12)TW-WAT-027	TYPICAL SERVICE CONNECTION DETAILS
239078(12)TW-WAT-028	WASTEWATER COLLECTION TANK LEVEL DETAILS
239078(12)TW-WAT-029	ROAD CROSS SECTIONS - SHEET 1
239078(12)TW-WAT-030	ROAD CROSS SECTIONS - SHEET 2
239078(12)TW-WAT-031	ROAD CROSS SECTIONS - SHEET 3
239078(12)TW-WAT-032	THRUST BLOCK DETAILS

P R E L I M I N A R Y

PRELIMINARY
WORK-AS-CONSTRUCTED

REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES	CLIENT		PROPERTY DESCRIPTION	PROJECT	PLAN TITLE	SURVEYED	DATUM	PROJECT No.	DISCIPLINE	NUMBER	REV.
A	18.10.2017	PRELIMINARY ISSUE	J.N.	L.G.	J.N.	L.G.		<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 SUBDIVISION STAGE 1, FREEMANS DRIVE, COORANBONG</p>	<p>POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER</p>	<p>COVER SHEET, LOCALITY PLAN AND DRAWING INDEX</p>	<p>ADW Johnson</p>	<p>A.H.D.</p>	<p>239078(12)TW</p>	<p>- WAT -</p>	<p>001</p>	<p>pWAC</p>
0	30.11.2017	CONSTRUCTION ISSUE	J.N.	L.G.	J.N.	L.G.												
1	13.12.2017	AMENDED CONSTRUCTION ISSUE - SERVICE LOCATIONS MOVED	J.N.	L.G.	J.N.	L.G.												
2	02.05.2018	AMENDED CONSTRUCTION ISSUE - LOT LAYOUT AND NUMBERS AMENDED	J.N.	L.G.	J.N.	L.G.												
3	28.06.2018	AMENDED CONSTRUCTION ISSUE - RECYCLED WATERMAIN AMENDED WORK-AS-CONSTRUCTED	J.N. A.S.A.	L.G. V.V.	J.N. L.G.													
<p>DESIGN FILE N:\</p>								<p>ALL DIMENSIONS ARE IN METRES. DO NOT SCALE</p>		<p>Plotted By: adamarmishaw Plot Date: 19/12/18 - 15:06 Cad File: C:\Users\adamarmishaw\appdata\local\temp\AcPublish_9896\239078(12)TW-WAT-001[WAC].dwg</p>		<p>100mm AT FULL SIZE</p>		<p>100mm AT FULL SIZE</p>				



GENERAL NOTES:

- THIS DRAWING SET SHOULD READ IN CONJUNCTION WITH LAKE MACQUARIE CITY COUNCIL STANDARDS AND OTHER ASSOCIATED DRAWINGS AND TECHNICAL SPECIFICATIONS. ANY VARIATIONS WERE APPROVED BY THE SUPERINTENDENT REPRESENTATIVE PRIOR TO COMMENCEMENT OF WORK.
- THE CONTRACTOR LOCATED AND IDENTIFIED ALL UNDERGROUND SERVICES PRIOR TO COMMENCEMENT OF WORK AND REPAIRED ANY DAMAGE CAUSED TO SUCH SERVICES DURING CONSTRUCTION. ANY SERVICE LOCATIONS SHOWN IN THIS DRAWING SET ARE INDICATIVE ONLY.
- ALL PRODUCTS AND MATERIALS WERE NEW, AND COMPLIED WITH THE RELEVANT AUSTRALIAN STANDARDS AND WERE SELECTED FROM THE COORANBONG WATER APPROVED PRODUCTS AND MATERIALS REGISTER.
- DURING CONSTRUCTION ALL OPEN ENDS OF PIPES WERE CAPPED TO PREVENT ENTRY OF FOREIGN MATTER.
- ALL MAINS WERE FLUSHED WITH WATER TO REMOVE ANY DEBRIS PRIOR TO COMMISSIONING.
- SURFACE IDENTIFICATION MARKERS WERE PROVIDED TO COORANBONG WATER REQUIREMENTS.
- MAKE SMOOTH TRANSITION TO EXISTING INFRASTRUCTURE (ROAD PAVEMENT, KERBS, FOOTPATHS, ETC.) TO LAKE MACQUARIE CITY COUNCIL AND SUPERINTENDENT'S SATISFACTION.
- SUITABLE PROTECTION TO EXISTING INFRASTRUCTURE (ROAD PAVEMENT, KERBS, FOOTPATHS, ETC.) WAS PROVIDED DURING DURATION OF CONSTRUCTION.
- CLEAR VEHICULAR ACCESS TO ADJOINING PROPERTIES WERE MAINTAINED AT ALL TIMES FOR DURATION OF CONSTRUCTION. FOR ANY WORKS IN ADJOINING PROPERTIES, PERMISSION WAS OBTAINED PRIOR TO COMMENCEMENT.
- SERVICE CONDUITS WERE LAID AS DIRECTED BY THE SUPERINTENDENT/RELEVANT SERVICE AUTHORITY. LOCATE CLEAR OF VEHICULAR ACCESS LOCATIONS AND PROVIDE KERB MARKING AS PER COUNCIL REQUIREMENTS.
- WHERE LOT FILLING EXCEEDS 300mm, A SURVEY OF THE STRIPPED SURFACE AND FINAL FILLED SURFACE WAS UNDERTAKEN BY THE CONTRACTOR, WITH FILL DEPTHS NOTED ON W.A.C. PLANS.
- THE CONTRACTOR PROVIDED COORANBONG WATER WITH M.G.A. COORDINATED WORK AS CONSTRUCTED INFORMATION. BURIED FITTINGS WERE NOT BACKFILLED UNTIL WORK AS CONSTRUCTED DETAILS HAD BEEN OBTAINED AND APPROVAL FOR BACKFILLING WAS GIVEN BY THE COORANBONG WATER REPRESENTATIVE.
- ANY WORKS NOT COVERED BY THE SPECIFICATION OR THIS DRAWING SET WERE REFERRED TO THE SUPERINTENDENT.
- THE CONTRACTOR PROVIDED COORANBONG WATER AND HUNTER WATER WITH A MINIMUM OF 7 DAYS NOTICE (IN WRITING) OF INTENT TO CONNECT NEW MAINS TO EXISTING INFRASTRUCTURE.
- ALL PIPE BEDDING MATERIAL COMPLIED WITH WSAA PRODUCT SPECIFICATION WSA-PS350 AND WSA PS351.

POTABLE WATER AND RECYCLED WATER NOTES:

- ALL WORKS ARE IN ACCORDANCE WITH BUT NOT LIMITED TO, WATER SUPPLY CODE OF AUSTRALIA WSA 03-2011-3.1 (SYDNEY WATER EDITION 2012) AND FLOW SYSTEMS SUPPLEMENTARY MANUAL TO WSAA.
- WORKS WERE CONSTRUCTED IN ACCORDANCE WITH THE DESIGN DRAWINGS, CONSTRUCTION SPECIFICATION, WSA 03 PART 2 - CONSTRUCTION AND WSA 03 STANDARDS DRAWINGS AND WSA STANDARD DRAWINGS (SYDNEY WATER VERSION) OR AS MODIFIED BY FLOW SYSTEMS SUPPLEMENTARY MANUAL TO WSAA, CURRENT AT THE TIME OF CONSTRUCTION.
- CLEARANCES SHOWN TO OTHER PIPES HAVE BEEN CALCULATED FROM THE COLLAR.
- ALL PRODUCTS AND MATERIALS WERE SELECTED FROM THE COORANBONG WATER APPROVED PRODUCTS AND MATERIALS REGISTER.
- HYDRANTS, STOP VALVES AND ALL OTHER FITTINGS ARE THE SAME SIZE AS THE THROUGH WATER MAIN. ALL POTABLE & RECYCLED WATER VALVES ARE ANTI CLOCKWISE CLOSING.
- HYDRANTS WERE NOT POSITIONED IN DRIVEWAYS OR TAPPING POINTS. HYDRANTS NOMINALLY AT LEAST 5m FROM EACH BOUNDARY OR ON BOUNDARIES.
- ALL PIPES AND FITTINGS ARE AT HWC PREFERRED MINIMUM COVER (WAT-1201-V).
 - FOOTWAYS - 0.6m TYPE B EMBEDMENT WAT-1202.
 - ROADWAYS - 0.75m TYPE L EMBEDMENT WAT-1204-V.
- LAY DETECTABLE MARKING TAPE OVER ALL MAINS AND PROPERTY SERVICE LINES AS PER WAT-1854-S AN WAT-1855-S ENSURING A CONTINUOUS ELECTRICAL PATHWAY ALONG THE TRACE WIRE ON EACH SERVICE FROM PROPERTY METERS TO AND ALONG THE RELEVANT MAIN TO HYDRANTS AND VALVES.
- GEOTECHNICAL CONDITIONS WERE ASSESSED DURING CONSTRUCTION BY THE CONTRACTOR IN ASSOCIATION WITH COORANBONG WATER SUPERINTENDENT TO DETERMINE MODIFICATIONS TO EMBEDMENT/TRENCH TYPE AND TRENCH DRAINAGE/BULKHEAD REQUIREMENTS.
- ALL POTABLE WATERMANS ARE PLAIN BLUE PVC-M (PN16).
- ALL RECYCLED WATERMANS ARE LILAC PVC-M (PN16).
- DIFFERENTIATION OF DRINKING (POTABLE) AND NON-DRINKING (RECYCLED) WATER SYSTEMS ARE AS PER WSA 03-2011, TABLE 4.1 WITH BOTH SERVICES BEING CLASSIFIED AS WATERMANS. RECYCLED WATERMAIN ARE LOWER THAN POTABLE WATERMAIN WITH MINIMUM 150mm VERTICAL CLEARANCE.
- FOR THRUST BLOCK DETAILS REFER TO DRG-027.
- PROPERTY SERVICE CONNECTIONS WERE IN ACCORDANCE WITH WSA STANDARD DRAWINGS FOR DUAL WATER SUPPLY SYSTEMS(SYDNEY WATER VERSION)(SUPPLEMENT TO WSA 03-2011) AND FLOW SYSTEMS SUPPLEMENTARY MANUAL TO WSAA.
 - WAT-1853-S.
 - WAT-1854-FS.
 - WAT-1855-FS.
 - WAT-1856-S.
- PROPERTY SERVICE CONNECTIONS WERE INSTALLED BY A LICENSED PLUMBER AND COMPLY WITH N.S.W. CODE OF PRACTICE FOR PLUMBING AND DRAINAGE AND AS/NZ 3500.
- ALL MATERIALS USED IN PROPERTY SERVICES WERE IN ACCORDANCE WITH N.S.W. CODE OF PRACTICE FOR PLUMBING AND DRAINAGE AND AS/NZ 3500 (MINIMUM PN15), PE 100 B, PN16.
- ALL PROPERTY SERVICE PIPES FOR RECYCLED WATER ARE COLOURED BLACK WITH LILAC (P23) LONGITUDINAL STRIPE TO AS 2700. WHERE NOMINAL PIPE SIZE IS SPECIFIED, AN EQUIVALENT PIPE SIZE APPROPRIATE TO THE MATERIAL BEING USED TO BE AS SPECIFIED IN AS 3500, TABLE 1.1, PE 100 B, PN16. ALL PROPERTY SERVICE PIPES FOR POTABLE WATER ARE COLOURED BLACK WITH BLUE LONGITUDINAL STRIPE TO A.S.2700.
- MAXIMUM PIPE COVER WAS 1500mm UNLESS SPECIFIED ON THE DESIGN DRAWINGS OR APPROVAL IS OBTAINED FROM THE COORANBONG WATER REPRESENTATIVE.
- ALL MAINS LAID IN TRAFFICABLE CARRIAGEWAYS WERE BACKFILLED WITH 16:1 STABILISED SAND CEMENT TO SUBGRADE LEVEL ONLY.
- THE MINIMUM NUMBER OF COMPACTION TESTS ARE AS FOLLOWS:

TRAFFICABLE

 - PIPE EMBEDMENT ZONE: 1 TEST/CROSSING.
 - TRENCHFILL ZONE: 1 TEST/CROSSING.

NON-TRAFFICABLE

 - PIPE EMBEDMENT ZONE: 1 TEST/100m.
 - TRENCHFILL ZONE: 1 TEST/100m.

TESTING WAS IN ACCORDANCE WITH WATER SUPPLY CODE OF AUSTRALIA TABLES 16.1 AND 17.1.
- POTABLE AND RECYCLED WATERMAIN FITTINGS ARE STAGGERED.
- MAXIMUM JOINT DEFLECTIONS WERE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
- EACH PROPERTY SERVICE CONNECTION WERE FLUSHED AND LOCKED FOLLOWING PRESSURE TESTING.
- SCOUR VALVES WERE CONNECTED TO LOCAL STORMWATER SYSTEM.
- POTABLE WATER IS UTILISED FOR FIRE FIGHTING PURPOSES.
- HYDRANT SURFACE BOXES ARE YELLOW (POTABLE WATER) AND LILAC (RECYCLED WATER).

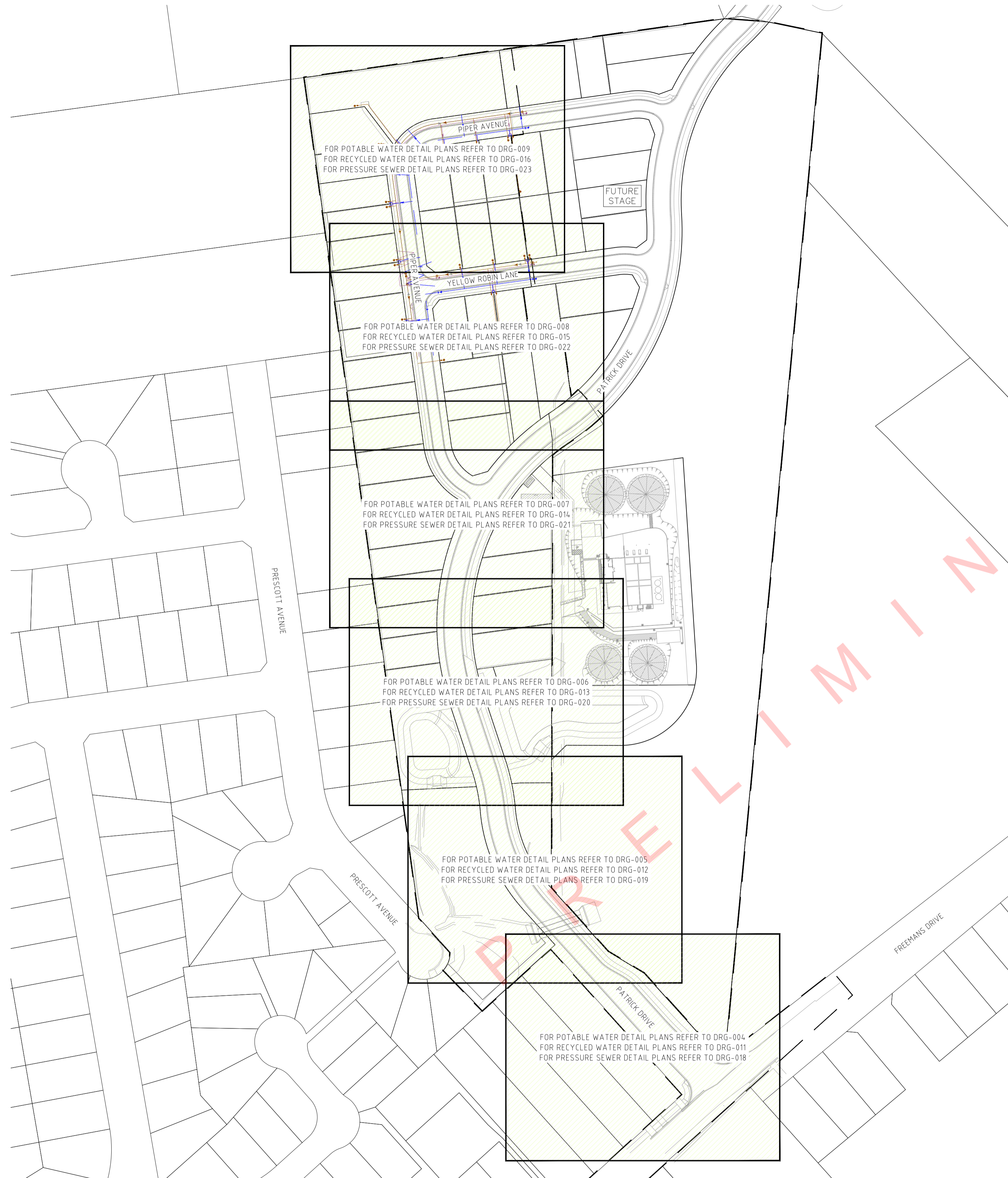
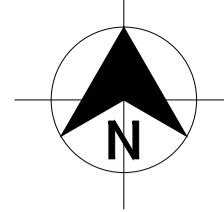
PRESSURE SEWER NOTES:

- ALL WORKS ARE IN ACCORDANCE WITH BUT NOT LIMITED TO PRESSURE SEWER CODE OF AUSTRALIA - WSA 07-2007, POLYETHYLENE PIPELINE CODE WSA 01-2004 AND FLOW SYSTEMS SUPPLEMENTARY MANUAL TO WSAA.
- WORKS WERE CONSTRUCTED IN ACCORDANCE WITH THE DESIGN DRAWINGS AND FLOW SYSTEMS STANDARD DRAWINGS REFERENCED IN FLOW SYSTEMS SUPPLEMENTARY MANUAL TO WSAA (TABLE 4.1)
 - FSI-1000-FS ON-LOT INFRASTRUCTURE INSTALLATION SET OUT DETAILS.
 - FSI-1001A-FS TYPICAL INFRASTRUCTURE STAGING DIAGRAM - TANK IN FRONT OF PROPERTY.
 - FSI-1001B-FS TYPICAL INFRASTRUCTURE STAGING DIAGRAM - TANK IN REAR OF PROPERTY.
 - FSI-1002-FS TYPICAL ON-LOT - WIRING DIAGRAM.
 - FSI-1003-FS TYPICAL WASTEWATER COLLECTION TANK CONTROL PANEL AND DMU ARRANGEMENT.
 - FSI-1005-FS INFRASTRUCTURE INSTALLATION RESPONSIBILITY.
 - PSS-1004-FS WATER SERVICES DRAWING - EXAMPLE ONLY.
 - PSS-1015-FS TYPICAL VALVE INSTALLATION ISOLATION.
 - PSS-1016A-FS STANDARD ABOVE GROUND AIR VALVE DETAILS.
 - PSS-1016B-FS STANDARD BELOW GROUND AIR VALVE DETAILS TO SUIT MAINS ≤ 90mm.
 - PSS-1017-FS FLUSHING POINTS.
 - PSS-1018-FS TYPICAL BRANCH CONNECTION DETAILS.
 - PSS-1111-FS TYPICAL ON PROPERTY LAYOUT AND SANITARY DRAINAGE DETAILS.
 - PSS-1112-FS PROPERTY BOUNDARY ASSEMBLY TYPICAL INSTALLATION.
 - PSS-1113-FS WASTEWATER COLLECTION TANK INSTALLATION REQUIREMENTS.
 - PSS-1114-FS POOL AND SPA DRAINAGE CONNECTION REQUIREMENTS.
 - FS-SK03-FS PROPERTY SEWERAGE SERVICING GUIDELINES - SLOPING LOTS.
 - FS-SK04-FS PROPERTY SEWERAGE SERVICING GUIDELINES - REDUCED AREA LOTS.
 - FS-SK05-FS PROPERTY SEWERAGE SERVICING GUIDELINES - NON-STANDARD CONNECTION DETAIL.
 - WAT-1854-FS DUAL WATER RETICULATION SYSTEM SINGLE PROPERTY SERVICES PRE-LAID IN FOOTWAYS.
 - WAT-1855-FS DUAL WATER RETICULATION SYSTEM SPLIT PROPERTY SERVICES PRE-LAID IN FOOTWAYS.
- PRESSURE SEWER MAINS ARE BLACK POLYETHYLENE (PE100 PN16) WITH A CREAM STRIPE AS PER WSA 02-2007.
- ALL POLYETHYLENE MAINS WERE JOINED USING ELECTROFUSION JOINTING TECHNIQUES IN ACCORDANCE WITH MANUFACTURERS REQUIREMENTS.
- ALL MAINS LAID IN TRAFFICABLE CARRIAGEWAYS WERE BACKFILLED WITH 16:1 STABILISED SAND CEMENT TO SUBGRADE LEVEL ONLY.
- ALL BENDS ARE ELECTROFUSION SWEEP BENDS (FABRICATED BENDS WERE NOT USED).
- ALL HOUSE SERVICE LATERALS ARE DN40 PE 100 PN16.
- DETECTABLE MARKING TAPE WAS LAID ON TOP OF THE PIPE EMBEDMENT MATERIAL BEFORE BACKFILLING AND CONNECTED TO SURFACE FITTINGS.
- ALL SURFACE FITTINGS LOCATED IN TRAFFICABLE AREAS (ROADWAYS, PATHS) HAVE HEAVY DUTY SURROUNDS INSTALLED.
- ALL PRESSURE SEWER VALVES ARE RESILIENT SEATED SLUICE GATE VALVES (CLOCKWISE CLOSING) AND WERE RESTRAINED IN ACCORDANCE WITH WAT-1207.
- ALL MAINS WERE TESTED (AS DIRECTED BY THE COORANBONG WATER REPRESENTATIVE) TO MEET CERTIFYING AUTHORITIES STANDARDS. ALL PRESSURE SEWER MAINS AND JOINTS WERE TESTED TO 1600kPa.
- FOR LOTS WITH TANKS IN THE REAR.
 - PROVIDE ø25 HEAVY DUTY ELECTRICAL CONDUIT (WITH DRAW WIRE) INSTALLED FROM THE COLLECTION TANK TO THE RECYCLED WATER METER.
 - PROVIDE ø25 HEAVY DUTY ELECTRICAL CONDUIT (WITH DRAW WIRE) INSTALLED FROM THE COLLECTION TANK TO THE POTABLE WATER METER.

CONDUITS WERE LAID IN COMMON TRENCH WITH PRESSURE SEWER PIPEWORK. (REFER TO TYPICAL CONNECTION DETAIL, DRG-030).
- PRESSURE TRANSMITTER WAS INSTALLED AT SPECIFIC POINTS ARE MEASUREX MRB21 GENERAL PURPOSE TRANSMITTER WITH MICROSPIDER LOGGING TELEMETRY AND ALARM AS PER COORANBONG WATER REQUIREMENTS.
- LOCALISED DEEPENING OF THE MAIN MAY BE REQUIRED TO FACILITATE AIR VALVE INSTALLATION. CONTRACTOR ENSURED THAT AIR VALVE OFFTAKE IS LOCATED AT A HIGH POINT IN THE MAIN. (i.e. THE MAIN SHALL GRADE DOWNWARDS EITHER SIDE OF THE AIR VALVE).
- FOR EMBEDMENT AND TRENCHFILL COMPACTION TEST REQUIREMENTS REFER TO THE PRESSURE SEWER CODE OF AUSTRALIA - SECTION 21.3. (REFER TO NOTE 9, POTABLE WATER AND RECYCLED WATER NOTES).
- ROPE OFF ALL PRESSURE SEWER UNITS AND FLUSHING POINTS TO LIMIT DAMAGE DURING CONSTRUCTION.

**PRELIMINARY
WORK-AS-CONSTRUCTED**

REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES	CLIENT	PROPERTY DESCRIPTION	PROJECT	PLAN TITLE	PROJECT No.	DISCIPLINE	NUMBER	REV.	
A	18.10.2017	PRELIMINARY ISSUE	J.N.	L.G.	J.N.	L.G.		<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 SUBDIVISION STAGE 1, FREEMANS DRIVE, COORANBONG</p>	POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER	GENERAL NOTES	239078(12)TW	- WAT -	002	pWAC	
0	30.11.2017	CONSTRUCTION ISSUE	J.N.	L.G.	J.N.	L.G.	ADW Johnson									A.H.D.
1	13.12.2017	AMENDED CONSTRUCTION ISSUE - SERVICE LOCATIONS MOVED	J.N.	L.G.	J.N.	L.G.										
2	02.05.2018	AMENDED CONSTRUCTION ISSUE - LOT LAYOUT AND NUMBERS AMENDED	J.N.	L.G.	J.N.	L.G.										
3	28.06.2018	AMENDED CONSTRUCTION ISSUE - RECYCLED WATERMAIN AMENDED WORK-AS-CONSTRUCTED	J.N.	L.G.	J.N.	L.G.										
WAC			A.S.A.	V.V.	J.N.	L.G.										
DESIGN FILE N:\								ALL DIMENSIONS ARE IN METRES. DO NOT SCALE								



PLAN
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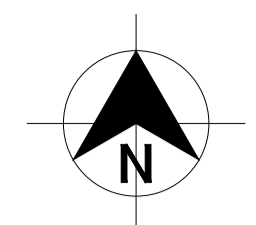
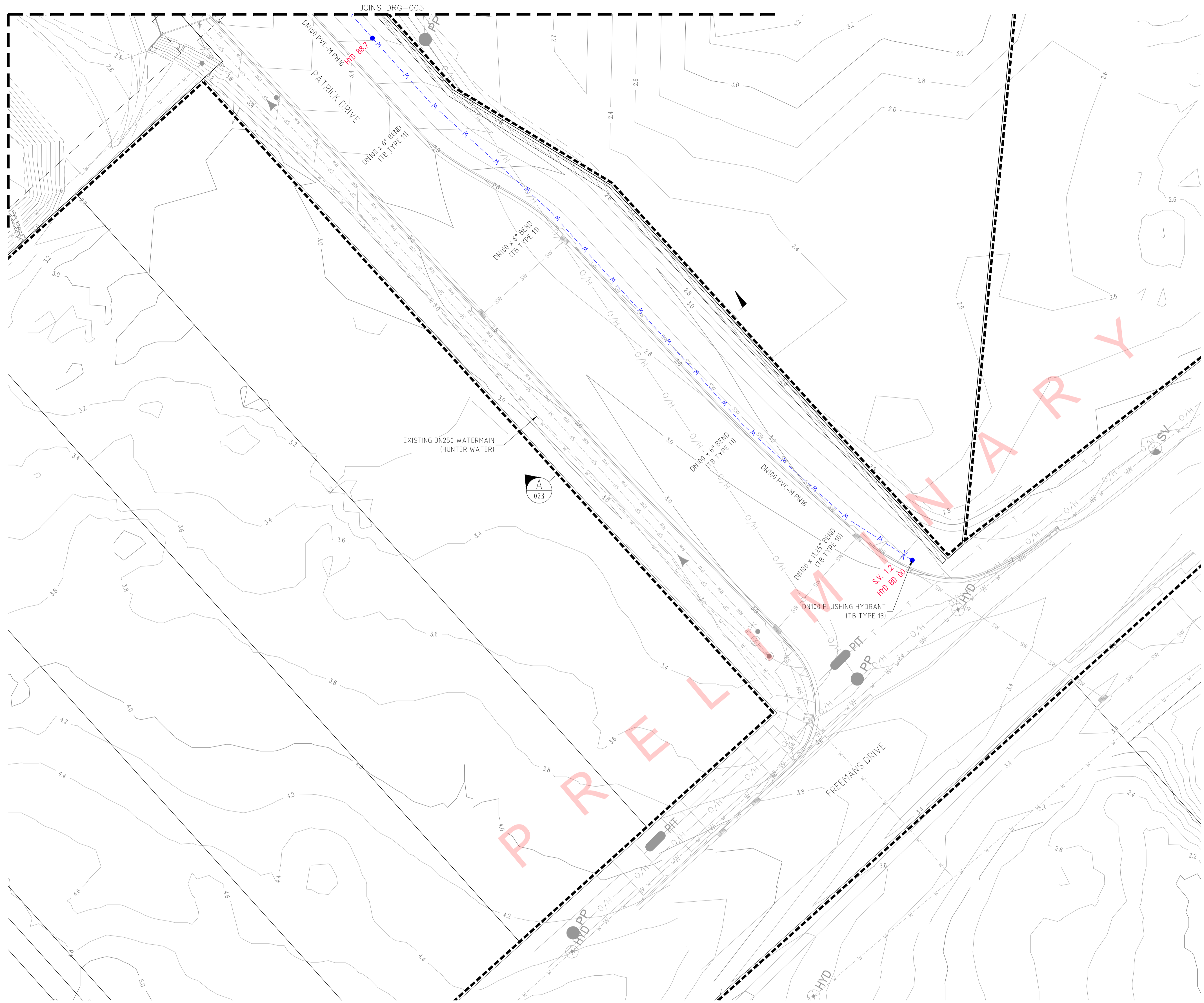
P R E L I M I N A R Y

PRELIMINARY
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REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES	CLIENT		PROPERTY DESCRIPTION		PROJECT	
A	18.10.2017	PRELIMINARY ISSUE	J.N.	L.G.	J.N.	L.G.		 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 1, FREEMANS DRIVE, COORANBONG		POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER	
0	30.11.2017	CONSTRUCTION ISSUE	J.N.	L.G.	J.N.	L.G.	PLAN TITLE						
1	13.12.2017	AMENDED CONSTRUCTION ISSUE - SERVICE LOCATIONS MOVED	J.N.	L.G.	J.N.	L.G.	OVERALL SITE PLAN						
2	02.05.2018	AMENDED CONSTRUCTION ISSUE - LOT LAYOUT AND NUMBERS AMENDED	J.N.	L.G.	J.N.	L.G.	PROJECT No.			DISCIPLINE	NUMBER	REV.	
3	28.06.2018	AMENDED CONSTRUCTION ISSUE - RECYCLED WATERMAIN AMENDED WORK-AS-CONSTRUCTED	J.N. A.S.A.	L.G. V.V.	J.N. L.G.	L.G.	239078(12)TW			- WAT -	003	pWAC	

239078(12)TW-WAT-004[WAC]

100mm AT FULL SIZE



LEGEND

- PVC-M POTABLE WATER RETICULATION
- POTABLE WATER PROPERTY SERVICE
- PVC-M RECYCLED WATER RETICULATION
- RECYCLED WATER PROPERTY SERVICE
- PE PRESSURE SEWER RETICULATION
- DN200 PVC-M POTABLE WATER TRANSFER MAIN (EXISTING)
- DN250 PVC-M RECYCLED WATER TRANSFER MAIN (EXISTING)
- PE PRESSURE SEWER MAIN (EXISTING)
- DN250 WATER MAIN CONNECTION WITH HUNTER WATER (FUTURE)
- EXISTING DN250 WATER MAIN (HUNTER WATER)
- UNDERGROUND POWER
- SV STOP VALVE
- HYD HYDRANT
- FL HYD FLUSHING HYDRANT
- IV ISOLATION VALVE
- FP FLUSHING POINT
- PRESSURE SEWER FLOW DIRECTION
- HIGH VOLTAGE ELECTRICAL EASEMENT (APPROX. LOCATION)
- PROPERTY SERVICE CONNECTION
- LAY WATER 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
- LIMIT OF SUBDIVISION WORKS

POTABLE WATER PROPERTY SERVICE CONNECTIONS

- TOTAL 40 CONNECTIONS
- SINGLE SERVICES IN ACCORDANCE WITH WAT-1106-V
 - 4 x SHORT SIDE
 - 6 x LONG SIDE
- SPLIT SERVICES IN ACCORDANCE WITH WAT-1107-V
 - 5 x SHORT SIDE
 - 10 x LONG SIDE

POTABLE WATER PIPE DATA		
PIPE SIZE (mm)	PIPE MATERIAL	TOTAL LENGTH (m)
DN200	PVC-M PN16	
DN100	PVC-M PN16	

- NOTES:**
- FOR RECYCLED WATER PIPEWORK DETAIL PLANS REFER TO DRGS-011 TO 016.
 - FOR PRESSURE SEWER PIPEWORK DETAIL PLANS REFER TO DRGS-018 TO 023.
 - FOR TYPICAL SERVICE CONNECTION DETAILS REFER TO DRG-027.
 - EXTEND DN25 WATER SERVICE ACROSS ROAD MC02 TO PROPERTY BOUNDARY AND CAP FOR FUTURE CONNECTION.

**PRELIMINARY
WORK-AS-CONSTRUCTED**

REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY
A	18.10.2017	PRELIMINARY ISSUE	J.N.	L.G.	J.N.	L.G.
0	30.11.2017	CONSTRUCTION ISSUE	J.N.	L.G.	J.N.	L.G.
1	13.12.2017	AMENDED CONSTRUCTION ISSUE - SERVICE LOCATIONS MOVED	J.N.	L.G.	J.N.	L.G.
2	02.05.2018	AMENDED CONSTRUCTION ISSUE - LOT LAYOUT AND NUMBERS AMENDED	J.N.	L.G.	J.N.	L.G.
3	28.06.2018	AMENDED CONSTRUCTION ISSUE - RECYCLED WATERMAIN AMENDED	J.N.	L.G.	J.N.	L.G.
WAC		WORK-AS-CONSTRUCTED	A.S.A.	V.V.	J.N.	L.G.

DRAWN	CHECK	DESIGN	VERIFY
J.N.	L.G.	J.N.	L.G.
J.N.	L.G.	J.N.	L.G.
J.N.	L.G.	J.N.	L.G.
J.N.	L.G.	J.N.	L.G.
A.S.A.	V.V.	J.N.	L.G.

SCALES

A1 / A3
1:250 / 1:500

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ABN 62 129 445 398

CLIENT

**JOHNSON
PROPERTY
GROUP**

PROPERTY DESCRIPTION

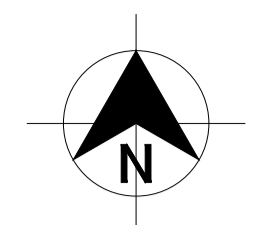
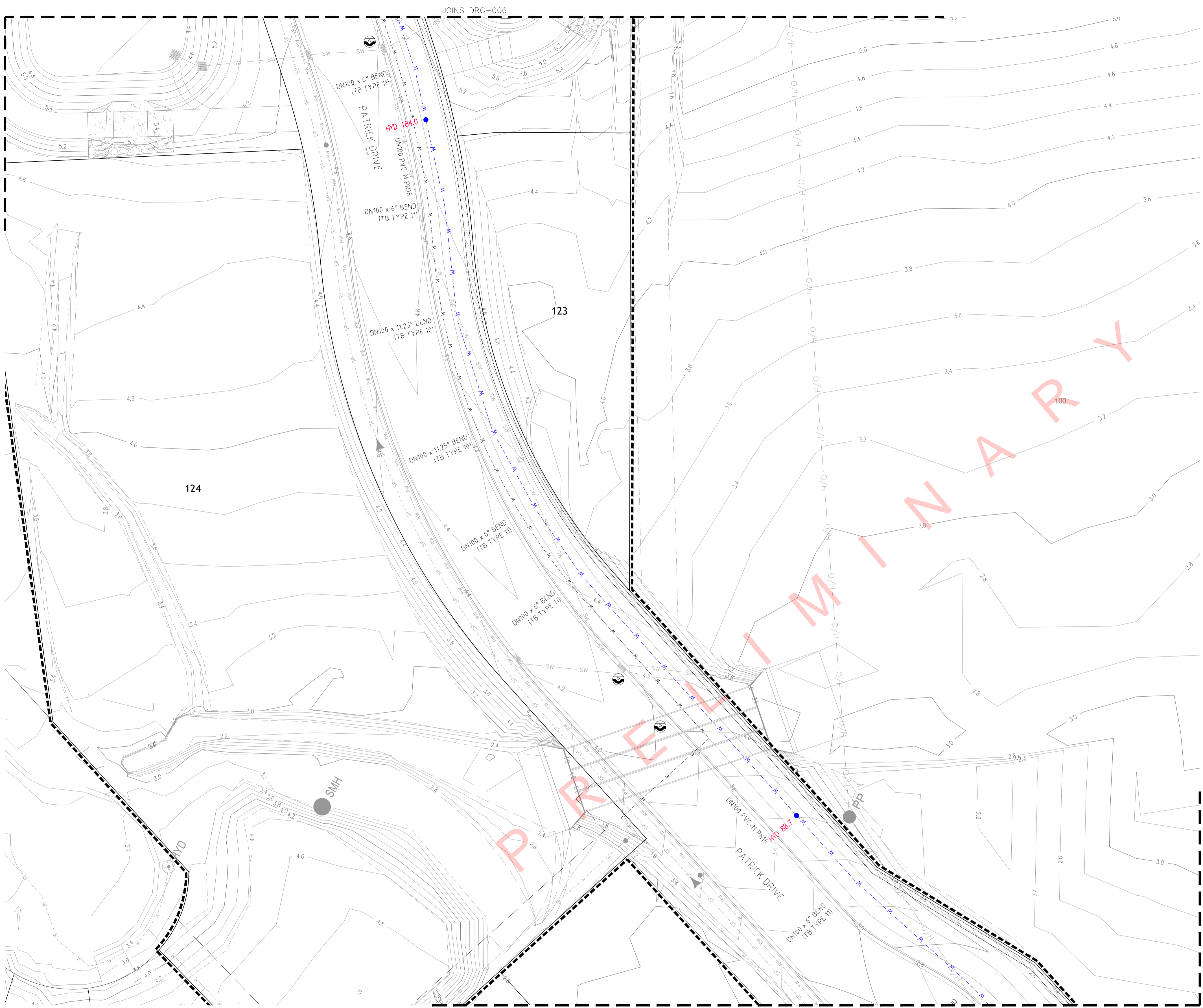
PROPOSED SUBDIVISION
STAGE 1, FREEMANS DRIVE,
COORANBONG

SURVEYED ADW Johnson DATUM A.H.D.

PROJECT POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER

PLAN TITLE POTABLE WATER DETAIL PLAN - SHEET 1

PROJECT No.	DISCIPLINE	NUMBER	REV.
239078(12)TW	- WAT -	004	pWAC



LEGEND

--- W --- W --- W --- W --- W	PVC-M POTABLE WATER RETICULATION
--- PWS --- PWS --- PWS --- PWS --- PWS	POTABLE WATER PROPERTY SERVICE
--- RW --- RW --- RW --- RW --- RW	PVC-M RECYCLED WATER RETICULATION
--- RWS --- RWS --- RWS --- RWS --- RWS	RECYCLED WATER PROPERTY SERVICE
--- SP --- SP --- SP --- SP --- SP	PE PRESSURE SEWER RETICULATION
--- PWTM --- PWTM --- PWTM --- PWTM --- PWTM	DN200 PVC-M POTABLE WATER TRANSFER MAIN (EXISTING)
--- RWTM --- RWTM --- RWTM --- RWTM --- RWTM	DN250 PVC-M RECYCLED WATER TRANSFER MAIN (EXISTING)
--- PSM --- PSM --- PSM --- PSM --- PSM	PE PRESSURE SEWER MAIN (EXISTING)
--- W --- W --- W --- W --- W	DN250 WATER MAIN CONNECTION WITH HUNTER WATER (FUTURE)
--- W --- W --- W --- W --- W	EXISTING DN250 WATER MAIN (HUNTER WATER)
--- E --- E --- E --- E --- E	UNDERGROUND POWER
SV	STOP VALVE
HYD	HYDRANT
FL HYD	FLUSHING HYDRANT
IV	ISOLATION VALVE
FP	FLUSHING POINT
▲	PRESSURE SEWER FLOW DIRECTION
▨	HIGH VOLTAGE ELECTRICAL EASEMENT (APPROX. LOCATION)
●	PROPERTY SERVICE CONNECTION
●	LAY WATER 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
---	LIMIT OF SUBDIVISION WORKS

POTABLE WATER PROPERTY SERVICE CONNECTIONS

TOTAL 40 CONNECTIONS

- SINGLE SERVICES IN ACCORDANCE WITH WAT-1106-V
 - 4 x SHORT SIDE
 - 6 x LONG SIDE
- SPLIT SERVICES IN ACCORDANCE WITH WAT-1107-V
 - 5 x SHORT SIDE
 - 10 x LONG SIDE

POTABLE WATER PIPE DATA		
PIPE SIZE (mm)	PIPE MATERIAL	TOTAL LENGTH (m)
DN200	PVC-M PN16	
DN100	PVC-M PN16	

- NOTES:**
1. FOR RECYCLED WATER PIPEWORK DETAIL PLANS REFER TO DRGS-011 TO 016.
 2. FOR PRESSURE SEWER PIPEWORK DETAIL PLANS REFER TO DRGS-018 TO 023.
 3. FOR TYPICAL SERVICE CONNECTION DETAILS REFER TO DRG-027.
 4. EXTEND DN25 WATER SERVICE ACROSS ROAD MC02 TO PROPERTY BOUNDARY AND CAP FOR FUTURE CONNECTION.

PLAN
SCALE 1:250

REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES
A	18.10.2017	PRELIMINARY ISSUE	J.N.	L.G.	J.N.	L.G.	 A1 / A3 1:250 / 1:500
0	30.11.2017	CONSTRUCTION ISSUE	J.N.	L.G.	J.N.	L.G.	
1	13.12.2017	AMENDED CONSTRUCTION ISSUE - SERVICE LOCATIONS MOVED	J.N.	L.G.	J.N.	L.G.	
2	02.05.2018	AMENDED CONSTRUCTION ISSUE - LOT LAYOUT AND NUMBERS AMENDED	J.N.	L.G.	J.N.	L.G.	
3	28.06.2018	AMENDED CONSTRUCTION ISSUE - RECYCLED WATERMAIN AMENDED	J.N.	L.G.	J.N.	L.G.	
WAC		WORK-AS-CONSTRUCTED	A.S.A.	V.V.	J.N.	L.G.	

DRAWN	CHECK	DESIGN	VERIFY
J.N.	L.G.	J.N.	L.G.
J.N.	L.G.	J.N.	L.G.
J.N.	L.G.	J.N.	L.G.
J.N.	L.G.	J.N.	L.G.
A.S.A.	V.V.	J.N.	L.G.

ALL DIMENSIONS ARE IN METRES. DO NOT SCALE

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

JOHNSON PROPERTY GROUP

CLIENT
PROPOSED SUBDIVISION
STAGE 1, FREEMANS DRIVE,
COORANBONG

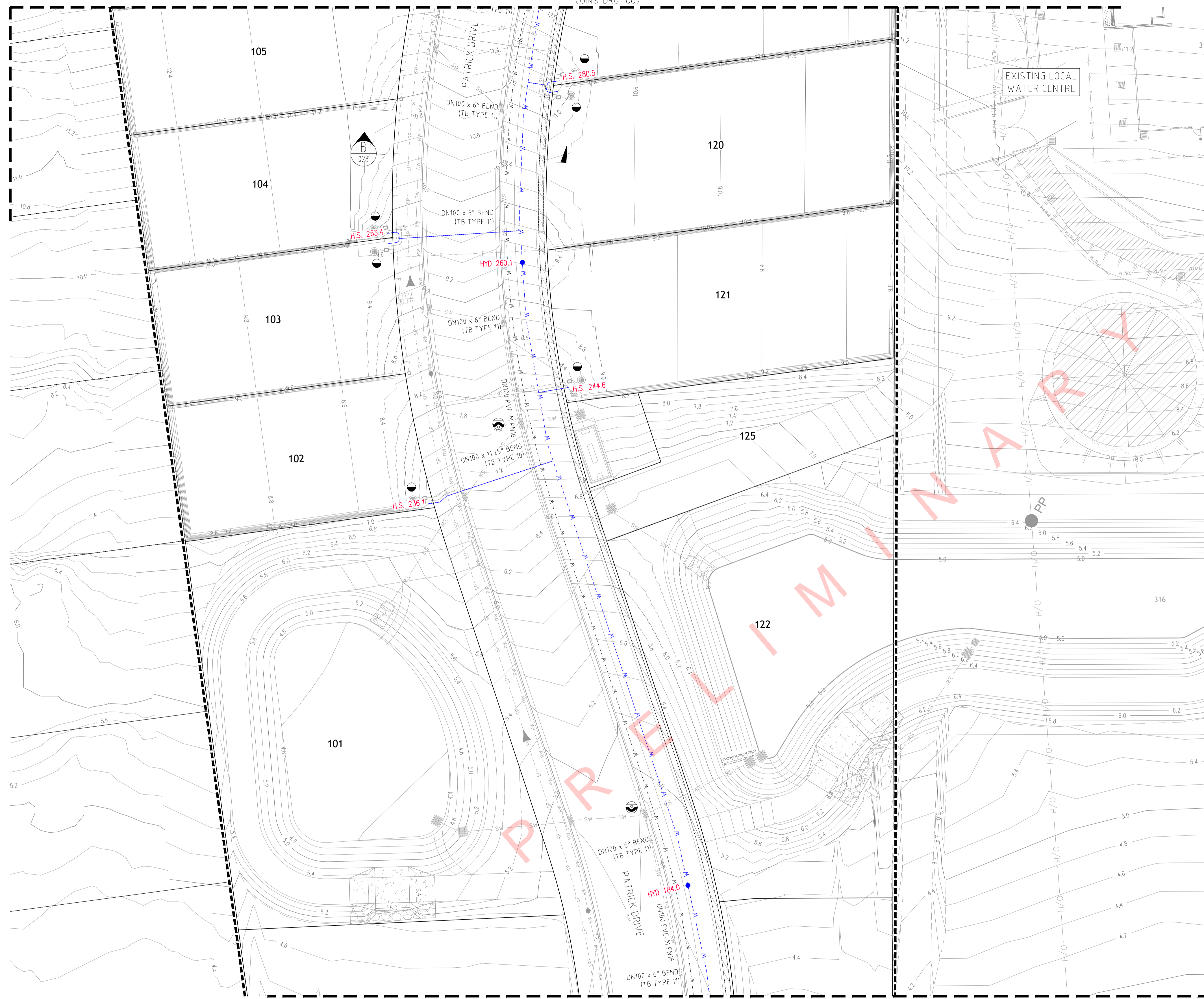
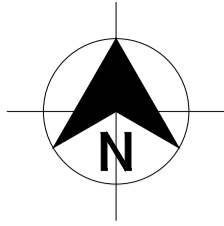
PROJECT
POTABLE WATER, RECYCLED WATER
AND PRESSURE SEWER

PLAN TITLE
POTABLE WATER DETAIL PLAN - SHEET 2

SURVEYED	DATUM	PROJECT No.	DISCIPLINE	NUMBER	REV.
ADW Johnson	A.H.D.	239078(12)TW	- WAT -	005	pWAC

239078(12)TW-WAT-004[WAC]

JOINS DRG-007



- LEGEND**
- PVC-M POTABLE WATER RETICULATION
 - POTABLE WATER PROPERTY SERVICE
 - PVC-M RECYCLED WATER RETICULATION
 - RECYCLED WATER PROPERTY SERVICE
 - PE PRESSURE SEWER RETICULATION
 - DN200 PVC-M POTABLE WATER TRANSFER MAIN (EXISTING)
 - DN250 PVC-M RECYCLED WATER TRANSFER MAIN (EXISTING)
 - PE PRESSURE SEWER MAIN (EXISTING)
 - DN250 WATER MAIN CONNECTION WITH HUNTER WATER (FUTURE)
 - EXISTING DN250 WATER MAIN (HUNTER WATER)
 - UNDERGROUND POWER
 - STOP VALVE
 - HYDRANT
 - FLUSHING HYDRANT
 - ISOLATION VALVE
 - FLUSHING POINT
 - PRESSURE SEWER FLOW DIRECTION
 - HIGH VOLTAGE ELECTRICAL EASEMENT (APPROX. LOCATION)
 - PROPERTY SERVICE CONNECTION
 - LAY WATER 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
 - LIMIT OF SUBDIVISION WORKS
- POTABLE WATER PROPERTY SERVICE CONNECTIONS**
- TOTAL 40 CONNECTIONS
 - SINGLE SERVICES IN ACCORDANCE WITH WAT-1106-V
 - 4 x SHORT SIDE
 - 6 x LONG SIDE
 - SPLIT SERVICES IN ACCORDANCE WITH WAT-1107-V
 - 5 x SHORT SIDE
 - 10 x LONG SIDE

POTABLE WATER PIPE DATA		
PIPE SIZE (mm)	PIPE MATERIAL	TOTAL LENGTH (m)
DN200	PVC-M PN16	
DN100	PVC-M PN16	

- NOTES:**
- FOR RECYCLED WATER PIPEWORK DETAIL PLANS REFER TO DRGS-011 TO 016.
 - FOR PRESSURE SEWER PIPEWORK DETAIL PLANS REFER TO DRGS-018 TO 023.
 - FOR TYPICAL SERVICE CONNECTION DETAILS REFER TO DRG-027.
 - EXTEND DN25 WATER SERVICE ACROSS ROAD MC02 TO PROPERTY BOUNDARY AND CAP FOR FUTURE CONNECTION.

PLAN
SCALE 1:250

JOINS DRG-005

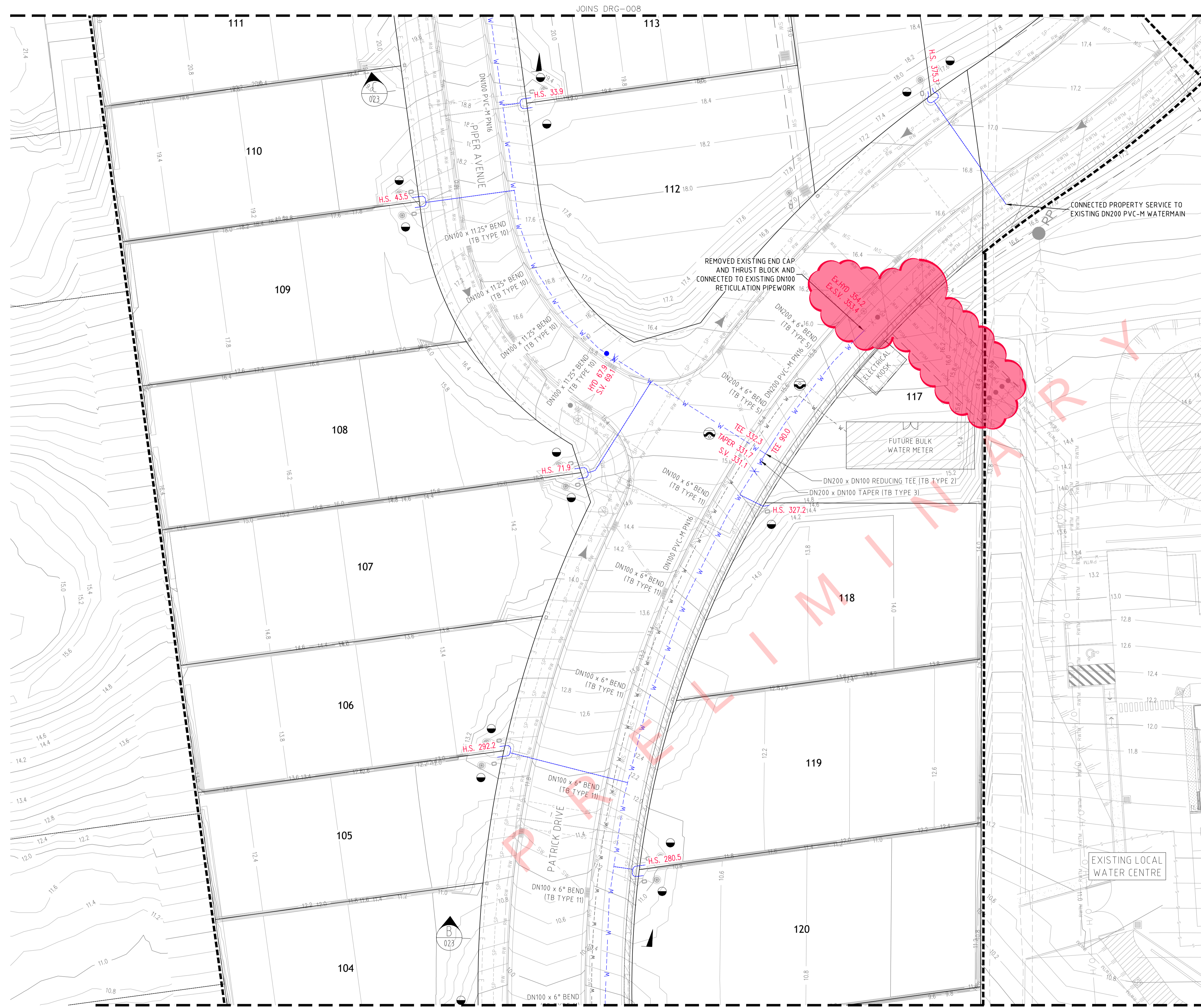
100mm AT FULL SIZE

**PRELIMINARY
WORK-AS-CONSTRUCTED**

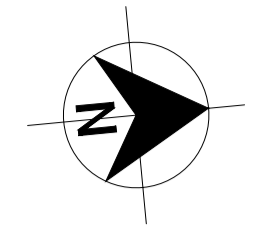
REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES		Hunter Office Unit 7/335 Hillsborough Rd Warners Bay N.S.W. 2282 Phone: (02) 4978 5100 Fax: (02) 4978 5199 email: hunter@adwjohnson.com.au www.adwjohnson.com.au ABN 62 129 445 398	CLIENT 	PROPERTY DESCRIPTION PROPOSED SUBDIVISION STAGE 1, FREEMANS DRIVE, COORANBONG	PROJECT				
POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER																
PLAN TITLE POTABLE WATER DETAIL PLAN - SHEET 3																
DESIGN FILE N:\		ALL DIMENSIONS ARE IN METRES. DO NOT SCALE						SURVEYED ADW Johnson		DATUM A.H.D.		PROJECT No. 239078(12)TW	DISCIPLINE - WAT -	NUMBER 006	REV. pWAC	
A	18.10.2017	PRELIMINARY ISSUE	J.N.	L.G.	J.N.	L.G.	0 / 5 / 10			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 SUBDIVISION STAGE 1, FREEMANS DRIVE, COORANBONG	PROJECT			
0	30.11.2017	CONSTRUCTION ISSUE	J.N.	L.G.	J.N.	L.G.	POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER									
1	13.12.2017	AMENDED CONSTRUCTION ISSUE - SERVICE LOCATIONS MOVED	J.N.	L.G.	J.N.	L.G.	PLAN TITLE									
2	02.05.2018	AMENDED CONSTRUCTION ISSUE - LOT LAYOUT AND NUMBERS AMENDED	J.N.	L.G.	J.N.	L.G.	POTABLE WATER DETAIL PLAN - SHEET 3									
3	28.06.2018	AMENDED CONSTRUCTION ISSUE - RECYCLED WATERMAIN AMENDED WORK-AS-CONSTRUCTED	J.N. A.S.A.	L.G. V.V.	J.N. L.G.	L.G.	PROJECT No. 239078(12)TW DISCIPLINE - WAT - NUMBER 006 REV. pWAC									

239078(12)TW-WAT-004[WAC]

100mm AT FULL SIZE



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
 - DN200 PVC-M POTABLE WATER TRANSFER MAIN (EXISTING)
 - DN250 PVC-M RECYCLED WATER TRANSFER MAIN (EXISTING)
 - PE PRESSURE SEWER MAIN (EXISTING)
 - DN250 WATER MAIN CONNECTION WITH HUNTER WATER (FUTURE)
 - EXISTING DN250 WATER MAIN (HUNTER WATER)
 - UNDERGROUND POWER
 - SV. STOP VALVE
 - HYD. HYDRANT
 - FL HYD. FLUSHING HYDRANT
 - IV. ISOLATION VALVE
 - FP. FLUSHING POINT
 - PRESSURE SEWER FLOW DIRECTION
 - HIGH VOLTAGE ELECTRICAL EASEMENT (APPROX. LOCATION)
 - PROPERTY SERVICE CONNECTION
 - LAY WATER 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
 - LIMIT OF SUBDIVISION WORKS
- POTABLE WATER PROPERTY SERVICE CONNECTIONS**
- TOTAL 40 CONNECTIONS
 - SINGLE SERVICES IN ACCORDANCE WITH WAT-1106-V
 - 4 x SHORT SIDE
 - 6 x LONG SIDE
 - SPLIT SERVICES IN ACCORDANCE WITH WAT-1107-V
 - 5 x SHORT SIDE
 - 10 x LONG SIDE

POTABLE WATER PIPE DATA		
PIPE SIZE (mm)	PIPE MATERIAL	TOTAL LENGTH (m)
DN200	PVC-M PN16	
DN100	PVC-M PN16	

- NOTES:**
1. FOR RECYCLED WATER PIPEWORK DETAIL PLANS REFER TO DRGS-011 TO 016.
 2. FOR PRESSURE SEWER PIPEWORK DETAIL PLANS REFER TO DRGS-018 TO 023.
 3. FOR TYPICAL SERVICE CONNECTION DETAILS REFER TO DRG-027.
 4. EXTEND DN25 WATER SERVICE ACROSS ROAD MC02 TO PROPERTY BOUNDARY AND CAP FOR FUTURE CONNECTION.

**PRELIMINARY
WORK-AS-CONSTRUCTED**

REV.	DATE	AMENDMENT
A	18.10.2017	PRELIMINARY ISSUE
0	30.11.2017	CONSTRUCTION ISSUE
1	13.12.2017	AMENDED CONSTRUCTION ISSUE - SERVICE LOCATIONS MOVED
2	02.05.2018	AMENDED CONSTRUCTION ISSUE - LOT LAYOUT AND NUMBERS AMENDED
3	28.06.2018	AMENDED CONSTRUCTION ISSUE - RECYCLED WATERMAIN AMENDED
WAC		WORK-AS-CONSTRUCTED

DRAWN	CHECK	DESIGN	VERIFY	SCALES
J.N.	L.G.	J.N.	L.G.	0 5 10 A1 / A3
J.N.	L.G.	J.N.	L.G.	1:250 / 1:500
J.N.	L.G.	J.N.	L.G.	
J.N.	L.G.	J.N.	L.G.	
A.S.A.	V.V.	J.N.	L.G.	

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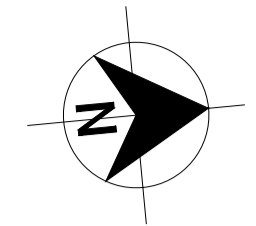
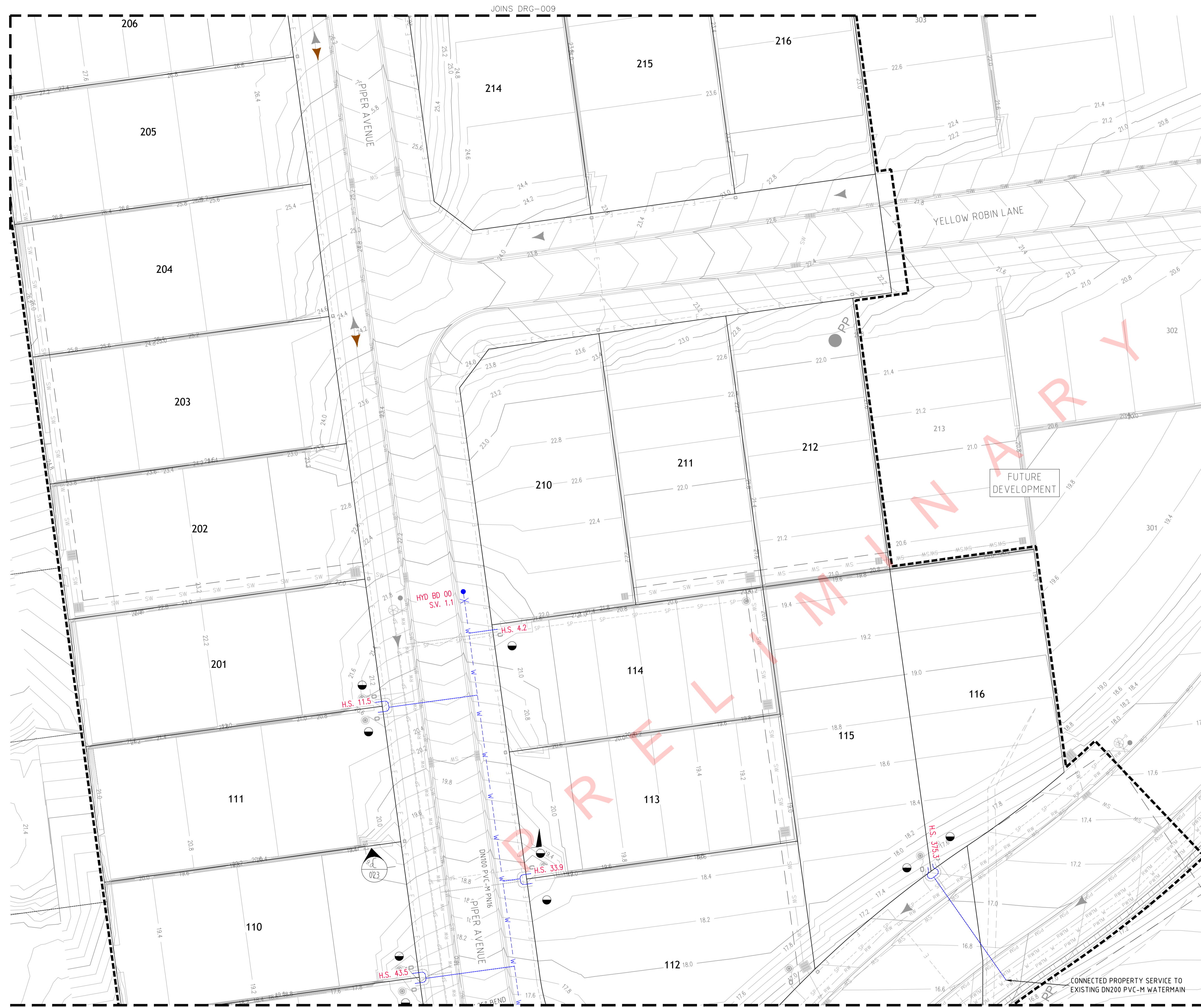
CLIENT

PROPOSED SUBDIVISION
STAGE 1, FREEMANS DRIVE,
COORANBONG

PROJECT	POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER				
PLAN TITLE	POTABLE WATER DETAIL PLAN - SHEET 4				
SURVEYED	DATUM	PROJECT No.	DISCIPLINE	NUMBER	REV.
ADW Johnson	A.H.D.	239078(12)TW	- WAT -	007	pWAC

239078(12)TW-WAT-004[WAC]

100mm AT FULL SIZE



- LEGEND**
- W --- W --- W --- PVC-M POTABLE WATER RETICULATION
 - PWS --- PWS --- PWS --- POTABLE WATER PROPERTY SERVICE
 - RW --- RW --- RW --- PVC-M RECYCLED WATER RETICULATION
 - RWS --- RWS --- RWS --- RECYCLED WATER PROPERTY SERVICE
 - SP --- SP --- SP --- PE PRESSURE SEWER RETICULATION
 - PWTM --- PWTM --- PWTM --- DN200 PVC-M POTABLE WATER TRANSFER MAIN (EXISTING)
 - RWTM --- RWTM --- RWTM --- DN250 PVC-M RECYCLED WATER TRANSFER MAIN (EXISTING)
 - PSM --- PSM --- PSM --- PE PRESSURE SEWER MAIN (EXISTING)
 - W --- W --- W --- DN250 WATER MAIN CONNECTION WITH HUNTER WATER (FUTURE)
 - W --- W --- W --- EXISTING DN250 WATER MAIN (HUNTER WATER)
 - E --- E --- E --- UNDERGROUND POWER
 - SV * STOP VALVE
 - HYD ● HYDRANT
 - FL HYD ● FLUSHING HYDRANT
 - IV ⊕ ISOLATION VALVE
 - FP ⊙ FLUSHING POINT
 - ▲ PRESSURE SEWER FLOW DIRECTION
 - ▨ HIGH VOLTAGE ELECTRICAL EASEMENT (APPROX. LOCATION)
 - PROPERTY SERVICE CONNECTION
 - LAY WATER 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
 - LIMIT OF SUBDIVISION WORKS
 - POTABLE WATER PROPERTY SERVICE CONNECTIONS
 - TOTAL 40 CONNECTIONS
 - SINGLE SERVICES IN ACCORDANCE WITH WAT-1106-V
 - 4 x SHORT SIDE
 - 6 x LONG SIDE
 - SPLIT SERVICES IN ACCORDANCE WITH WAT-1107-V
 - 5 x SHORT SIDE
 - 10 x LONG SIDE

POTABLE WATER PIPE DATA		
PIPE SIZE (mm)	PIPE MATERIAL	TOTAL LENGTH (m)
DN200	PVC-M PN16	
DN100	PVC-M PN16	

- NOTES:**
- FOR RECYCLED WATER PIPEWORK DETAIL PLANS REFER TO DRGS-011 TO 016.
 - FOR PRESSURE SEWER PIPEWORK DETAIL PLANS REFER TO DRGS-018 TO 023.
 - FOR TYPICAL SERVICE CONNECTION DETAILS REFER TO DRG-027.
 - EXTEND DN25 WATER SERVICE ACROSS ROAD MC02 TO PROPERTY BOUNDARY AND CAP FOR FUTURE CONNECTION.

JOINS DRG-007
PLAN
SCALE 1:250

**PRELIMINARY
WORK-AS-CONSTRUCTED**

REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY
A	18.10.2017	PRELIMINARY ISSUE	J.N.	L.G.	J.N.	L.G.
0	30.11.2017	CONSTRUCTION ISSUE	J.N.	L.G.	J.N.	L.G.
1	13.12.2017	AMENDED CONSTRUCTION ISSUE - SERVICE LOCATIONS MOVED	J.N.	L.G.	J.N.	L.G.
2	02.05.2018	AMENDED CONSTRUCTION ISSUE - LOT LAYOUT AND NUMBERS AMENDED	J.N.	L.G.	J.N.	L.G.
3	28.06.2018	AMENDED CONSTRUCTION ISSUE - RECYCLED WATERMAIN AMENDED	J.N.	L.G.	J.N.	L.G.
WAC		WORK-AS-CONSTRUCTED	A.S.A.	V.V.		

SCALES

A1 / A3
1:250 / 1:500

adw Johnson

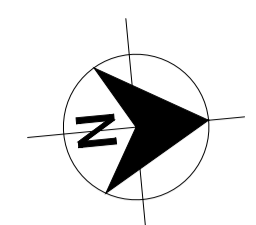
Hunter Office
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ABN 62 129 445 398

JOHNSON PROPERTY GROUP

CLIENT

PROPOSED SUBDIVISION
STAGE 1, FREEMANS DRIVE,
COORANBONG

PROPERTY DESCRIPTION		PROJECT	
ADW Johnson		POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER	
PLAN TITLE			
POTABLE WATER DETAIL PLAN - SHEET 5			
SURVEYED	DATUM	PROJECT No.	DISCIPLINE
ADW Johnson	A.H.D.	239078(12)TW	- WAT -
		NUMBER	REV.
		008	pWAC



- LEGEND**
- PVC-M POTABLE WATER RETICULATION
 - POTABLE WATER PROPERTY SERVICE
 - PVC-M RECYCLED WATER RETICULATION
 - RECYCLED WATER PROPERTY SERVICE
 - PE PRESSURE SEWER RETICULATION
 - DN200 PVC-M POTABLE WATER TRANSFER MAIN (EXISTING)
 - DN250 PVC-M RECYCLED WATER TRANSFER MAIN (EXISTING)
 - PE PRESSURE SEWER MAIN (EXISTING)
 - DN250 WATER MAIN CONNECTION WITH HUNTER WATER (FUTURE)
 - EXISTING DN250 WATER MAIN (HUNTER WATER)
 - UNDERGROUND POWER
 - SV STOP VALVE
 - HYD. HYDRANT
 - FL HYD. FLUSHING HYDRANT
 - IV. ISOLATION VALVE
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 - PRESSURE SEWER FLOW DIRECTION
 - HIGH VOLTAGE ELECTRICAL EASEMENT (APPROX. LOCATION)
 - PROPERTY SERVICE CONNECTION
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 - LAY WATER MAIN OVER STORMWATER PIPE (300mm MIN. VERTICAL CLEARANCE) - REFER TO WAT-1255-H
 - LIMIT OF SUBDIVISION WORKS
- POTABLE WATER PROPERTY SERVICE CONNECTIONS**
- TOTAL 40 CONNECTIONS
 - SINGLE SERVICES IN ACCORDANCE WITH WAT-1106-V
 - 4 x SHORT SIDE
 - 6 x LONG SIDE
 - SPLIT SERVICES IN ACCORDANCE WITH WAT-1107-V
 - 5 x SHORT SIDE
 - 10 x LONG SIDE

POTABLE WATER PIPE DATA		
PIPE SIZE (mm)	PIPE MATERIAL	TOTAL LENGTH (m)
DN200	PVC-M PN16	
DN100	PVC-M PN16	

- NOTES:**
1. FOR RECYCLED WATER PIPEWORK DETAIL PLANS REFER TO DRGS-011 TO 016.
 2. FOR PRESSURE SEWER PIPEWORK DETAIL PLANS REFER TO DRGS-018 TO 023.
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 4. EXTEND DN25 WATER SERVICE ACROSS ROAD MC02 TO PROPERTY BOUNDARY AND CAP FOR FUTURE CONNECTION.

PLAN
SCALE 1:250

**PRELIMINARY
WORK-AS-CONSTRUCTED**

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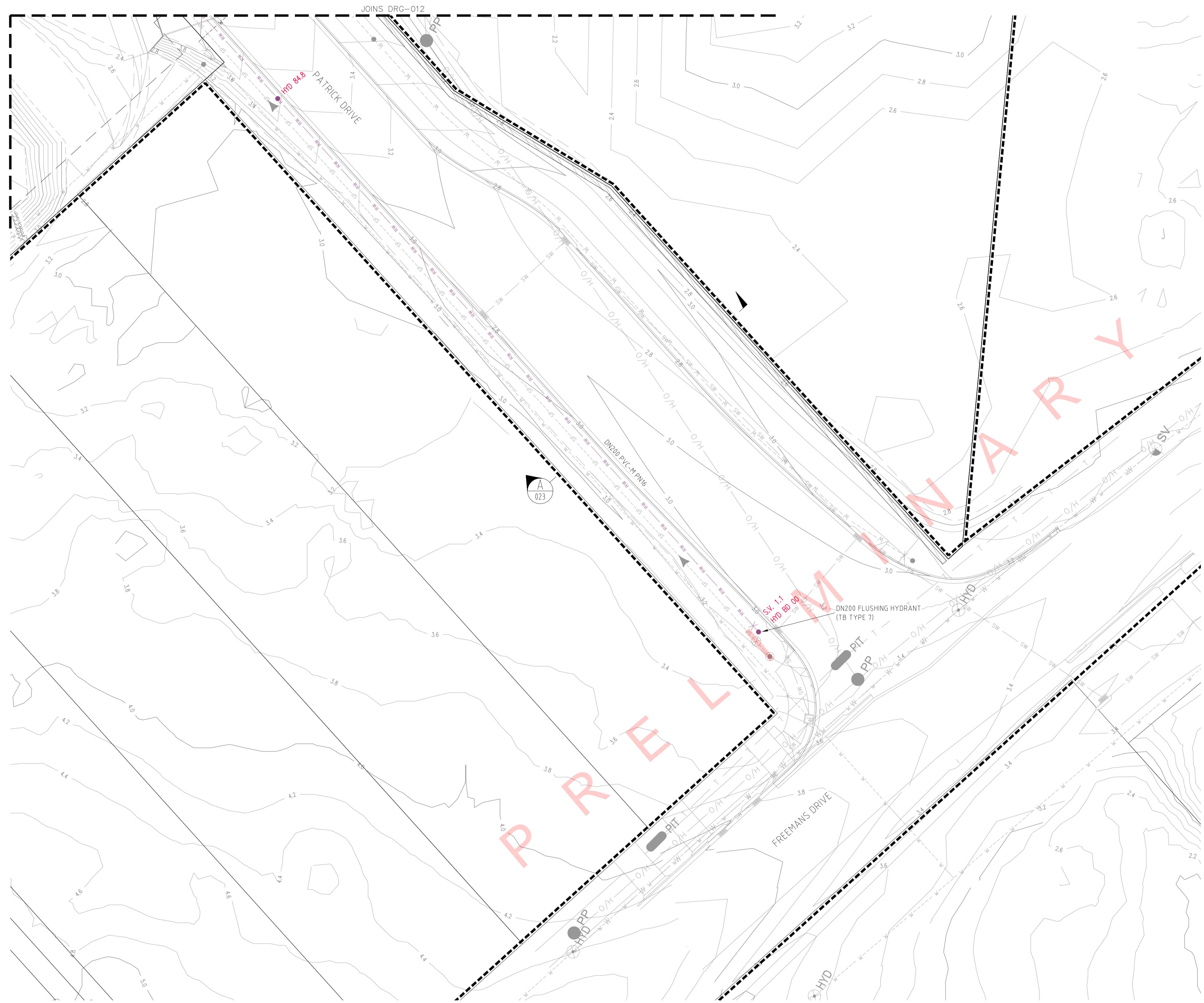
P R E L I M I N A R Y

PRELIMINARY
WORK-AS-CONSTRUCTED

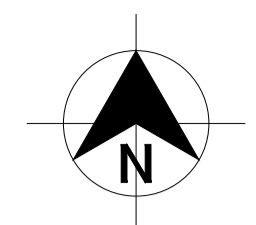
REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES	CLIENT	PROPERTY DESCRIPTION	PROJECT	PLAN TITLE		
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3	28.06.2018	AMENDED CONSTRUCTION ISSUE - RECYCLED WATERMAIN AMENDED	J.N.	L.G.	J.N.	L.G.							
WAC		WORK-AS-CONSTRUCTED	A.S.A.	V.V.	J.N.	L.G.					NOT USED		
DESIGN FILE N:\ ALL DIMENSIONS ARE IN METRES. DO NOT SCALE								SURVEYED ADW Johnson DATUM A.H.D.		PROJECT No. 239078(12)TW	DISCIPLINE - WAT -	NUMBER 010	REV. pWAC

239078(12)TW-WAT-011[WAC]

100mm AT FULL SIZE



PLAN
SCALE 1:250



- LEGEND**
- RW — RW — RW — PVC-M RECYCLED WATER RETICULATION
 - RWS — RWS — RWS — RECYCLED WATER PROPERTY SERVICE
 - W — W — W — PVC-M POTABLE WATER RETICULATION
 - PWS — PWS — PWS — POTABLE WATER PROPERTY SERVICE
 - SP — SP — SP — PE PRESSURE SEWER RETICULATION
 - PWTM — PWTM — PWTM — DN200 PVC-M POTABLE WATER TRANSFER MAIN (EXISTING)
 - RWTM — RWTM — RWTM — DN250 PVC-M RECYCLED WATER TRANSFER MAIN (EXISTING)
 - PSM — PSM — PSM — PE PRESSURE SEWER MAIN (EXISTING)
 - W — W — W — DN250 WATER MAIN CONNECTION WITH HUNTER WATER (FUTURE)
 - W — W — W — EXISTING DN250 WATER MAIN (HUNTER WATER)
 - E — E — E — UNDERGROUND POWER
- SV — STOP VALVE
 - HYD — HYDRANT
 - FL HYD — FLUSHING HYDRANT
 - IV — ISOLATION VALVE
 - FP — FLUSHING POINT
 - > — PRESSURE SEWER FLOW DIRECTION
 - ▨ — HIGH VOLTAGE ELECTRICAL EASEMENT (APPROX. LOCATION)
 - ▣ — PROPERTY SERVICE CONNECTION
 - — LAY WATER 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
 - — — — — LIMIT OF SUBDIVISION WORKS

- RECYCLED WATER PROPERTY SERVICE CONNECTIONS**
- TOTAL 40 CONNECTIONS
- SINGLE SERVICES IN ACCORDANCE WITH WAT-1106-V
 - 6 x SHORT SIDE
 - 4 x LONG SIDE
 - SPLIT SERVICES IN ACCORDANCE WITH WAT-1107-V
 - 10 x SHORT SIDE
 - 5 x LONG SIDE

RECYCLED WATER PIPE DATA		
PIPE SIZE (mm)	PIPE MATERIAL	TOTAL LENGTH (m)
DN200	PVC-M PN16	
DN100	PVC-M PN16	

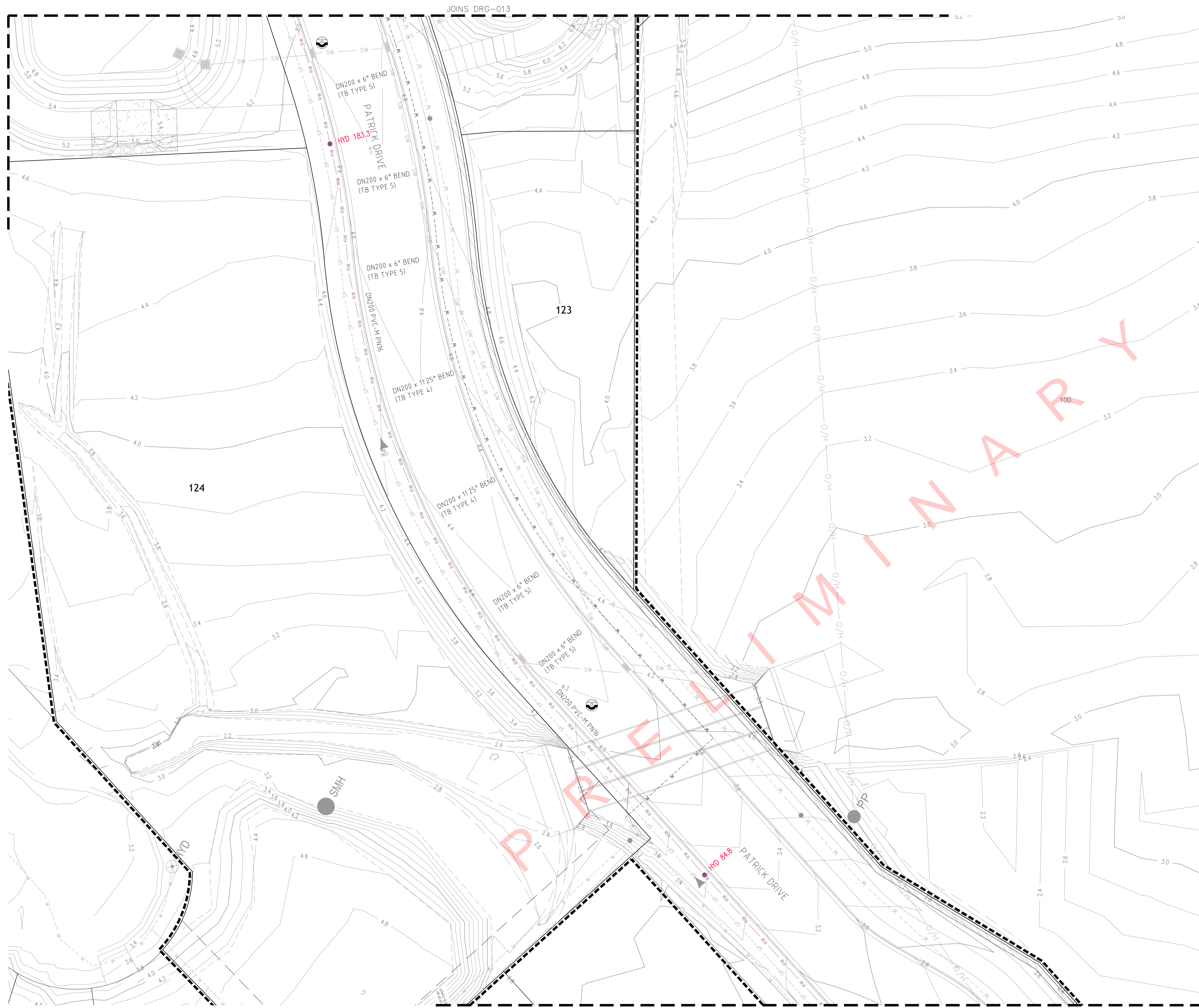
- NOTES:**
1. FOR POTABLE WATER PIPEWORK DETAIL PLANS REFER TO DRGS-004 TO 009.
 2. FOR PRESSURE SEWER PIPEWORK DETAIL PLANS REFER TO DRGS-018 TO 023.
 3. FOR TYPICAL SERVICE CONNECTION DETAILS REFER TO DRG-027.

**PRELIMINARY
WORK-AS-CONSTRUCTED**

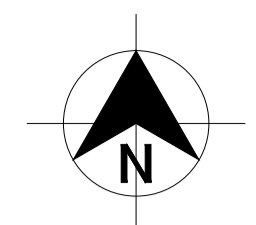
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239078(12)TW-WAT-011[WAC]

100mm AT FULL SIZE



PLAN
SCALE 1:250



- LEGEND**
- RW — RW — RW — PVC-M RECYCLED WATER RETICULATION
 - RWS — RWS — RWS — RECYCLED WATER PROPERTY SERVICE
 - W — W — W — PVC-M POTABLE WATER RETICULATION
 - PWS — PWS — PWS — POTABLE WATER PROPERTY SERVICE
 - SP --- SP --- SP --- PE PRESSURE SEWER RETICULATION
 - PWTM — PWTM — PWTM — DN200 PVC-M POTABLE WATER TRANSFER MAIN (EXISTING)
 - RWTM — RWTM — RWTM — DN250 PVC-M RECYCLED WATER TRANSFER MAIN (EXISTING)
 - PSM — PSM — PSM — PE PRESSURE SEWER MAIN (EXISTING)
 - W --- W --- W --- DN250 WATER MAIN CONNECTION WITH HUNTER WATER (FUTURE)
 - W --- W --- W --- EXISTING DN250 WATER MAIN (HUNTER WATER)
 - E --- E --- E --- UNDERGROUND POWER
 - SV — STOP VALVE
 - HYD — HYDRANT
 - FL HYD — FLUSHING HYDRANT
 - IV — ISOLATION VALVE
 - FP — FLUSHING POINT
 - ▲ — PRESSURE SEWER FLOW DIRECTION
 - ▨ — HIGH VOLTAGE ELECTRICAL EASEMENT (APPROX. LOCATION)
 - — PROPERTY SERVICE CONNECTION
 - ◉ — LAY WATER 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
 - --- --- LIMIT OF SUBDIVISION WORKS

- RECYCLED WATER PROPERTY SERVICE CONNECTIONS**
- TOTAL 40 CONNECTIONS
- SINGLE SERVICES IN ACCORDANCE WITH WAT-1106-V
 - 6 x SHORT SIDE
 - 4 x LONG SIDE
 - SPLIT SERVICES IN ACCORDANCE WITH WAT-1107-V
 - 10 x SHORT SIDE
 - 5 x LONG SIDE

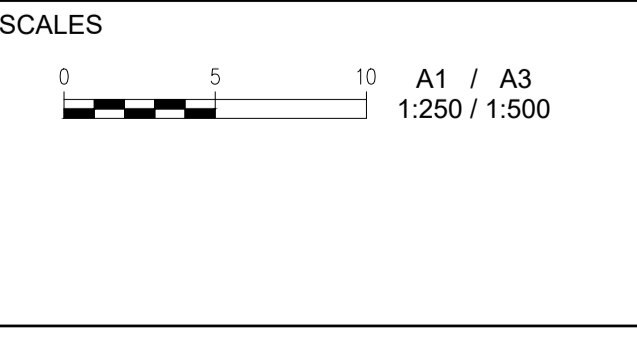
RECYCLED WATER PIPE DATA		
PIPE SIZE (mm)	PIPE MATERIAL	TOTAL LENGTH (m)
DN200	PVC-M PN16	
DN100	PVC-M PN16	

- NOTES:**
- FOR POTABLE WATER PIPEWORK DETAIL PLANS REFER TO DRGS-004 TO 009.
 - FOR PRESSURE SEWER PIPEWORK DETAIL PLANS REFER TO DRGS-018 TO 023.
 - FOR TYPICAL SERVICE CONNECTION DETAILS REFER TO DRG-027.

**PRELIMINARY
WORK-AS-CONSTRUCTED**

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WAC		WORK-AS-CONSTRUCTED	A.S.A.	V.V.		

DRAWN	CHECK	DESIGN	VERIFY
J.N.	L.G.	J.N.	L.G.
J.N.	L.G.	J.N.	L.G.
J.N.	L.G.	J.N.	L.G.
J.N.	L.G.	J.N.	L.G.
A.S.A.	V.V.		



adw
Johnson

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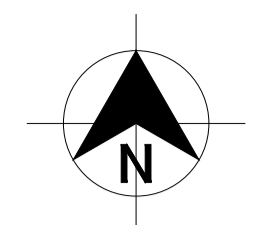
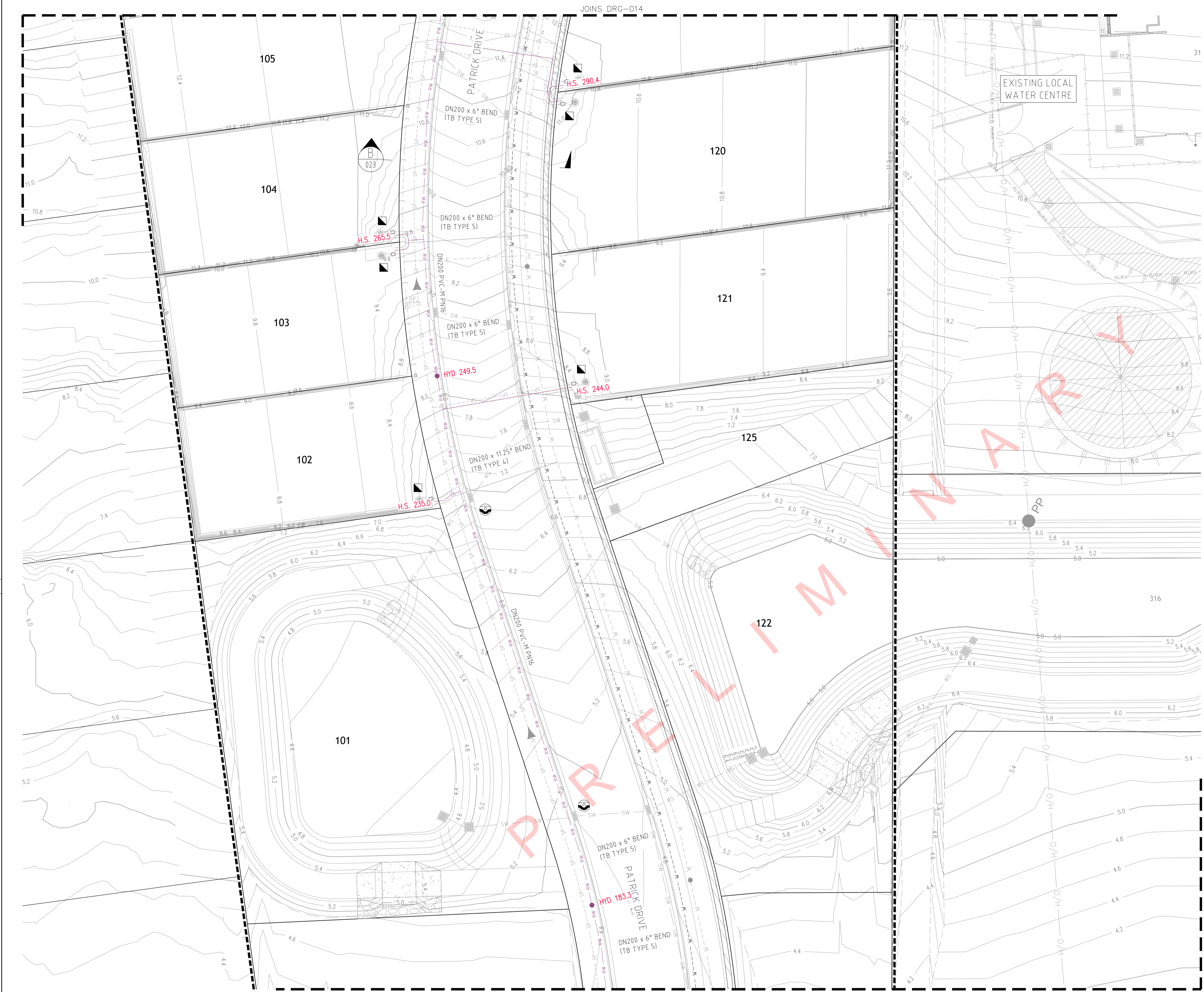
CLIENT

JOHNSON PROPERTY GROUP

PROPERTY DESCRIPTION

PROPOSED SUBDIVISION
STAGE 1, FREEMANS DRIVE,
COORANBONG

PROJECT	POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER		
PLAN TITLE	RECYCLED WATER DETAIL PLAN - SHEET 2		
PROJECT No.	DISCIPLINE	NUMBER	REV.
239078(12)TW	- WAT -	012	pWAC



LEGEND

- PVC-M RECYCLED WATER RETICULATION
- RECYCLED WATER PROPERTY SERVICE
- PVC-M POTABLE WATER RETICULATION
- POTABLE WATER PROPERTY SERVICE
- PE PRESSURE SEWER RETICULATION
- DN200 PVC-M POTABLE WATER TRANSFER MAIN (EXISTING)
- DN250 PVC-M RECYCLED WATER TRANSFER MAIN (EXISTING)
- PE PRESSURE SEWER MAIN (EXISTING)
- DN250 WATER MAIN CONNECTION WITH HUNTER WATER (FUTURE)
- EXISTING DN250 WATER MAIN (HUNTER WATER)
- UNDERGROUND POWER
- STOP VALVE
- HYDRANT
- FLUSHING HYDRANT
- ISOLATION VALVE
- FLUSHING POINT
- PRESSURE SEWER FLOW DIRECTION
- HIGH VOLTAGE ELECTRICAL EASEMENT (APPROX. LOCATION)
- PROPERTY SERVICE CONNECTION
- LAY WATER 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
- LIMIT OF SUBDIVISION WORKS

- RECYCLED WATER PROPERTY SERVICE CONNECTIONS
- TOTAL 40 CONNECTIONS
- SINGLE SERVICES IN ACCORDANCE WITH WAT-1106-V
 - 6 x SHORT SIDE
 - 4 x LONG SIDE
- SPLIT SERVICES IN ACCORDANCE WITH WAT-1107-V
 - 10 x SHORT SIDE
 - 5 x LONG SIDE

RECYCLED WATER PIPE DATA		
PIPE SIZE (mm)	PIPE MATERIAL	TOTAL LENGTH (m)
DN200	PVC-M PN16	
DN100	PVC-M PN16	

- NOTES:**
- FOR POTABLE WATER PIPEWORK DETAIL PLANS REFER TO DRGS-004 TO 009.
 - FOR PRESSURE SEWER PIPEWORK DETAIL PLANS REFER TO DRGS-018 TO 023.
 - FOR TYPICAL SERVICE CONNECTION DETAILS REFER TO DRG-027.

PLAN
SCALE 1:250

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WAC		WORK-AS-CONSTRUCTED	A.S.A.	V.V.		

DRAWN	CHECK	DESIGN	VERIFY	SCALES
J.N.	L.G.	J.N.	L.G.	0 5 10 A1 / A3 1:250 / 1:500

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ABN 62 129 445 398

CLIENT
PROPOSED SUBDIVISION
STAGE 1, FREEMANS DRIVE,
COORANBONG

PROPERTY DESCRIPTION	
SURVEYED	DATUM
ADW Johnson	A.H.D.

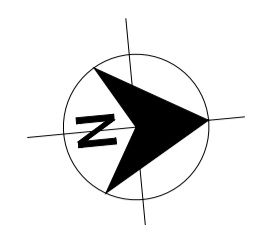
PROJECT POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER			
PLAN TITLE			
RECYCLED WATER DETAIL PLAN - SHEET 3			
PROJECT No.	DISCIPLINE	NUMBER	REV.
239078(12)TW	- WAT -	013	pWAC

239078(12)TW-WAT-011[WAC]

100mm AT FULL SIZE



PLAN
SCALE 1:250



- LEGEND**
- PVC-M RECYCLED WATER RETICULATION
 - RECYCLED WATER PROPERTY SERVICE
 - PVC-M POTABLE WATER RETICULATION
 - POTABLE WATER PROPERTY SERVICE
 - PE PRESSURE SEWER RETICULATION
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 - PROPERTY SERVICE CONNECTION
 - LAY WATER 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
 - LIMIT OF SUBDIVISION WORKS
 - RECYCLED WATER PROPERTY SERVICE CONNECTIONS
- TOTAL 40 CONNECTIONS**
- SINGLE SERVICES IN ACCORDANCE WITH WAT-1106-V
 - 6 x SHORT SIDE
 - 4 x LONG SIDE
 - SPLIT SERVICES IN ACCORDANCE WITH WAT-1107-V
 - 10 x SHORT SIDE
 - 5 x LONG SIDE

RECYCLED WATER PIPE DATA		
PIPE SIZE (mm)	PIPE MATERIAL	TOTAL LENGTH (m)
DN200	PVC-M PN16	
DN100	PVC-M PN16	

- NOTES:**
- FOR POTABLE WATER PIPEWORK DETAIL PLANS REFER TO DRGS-004 TO 009.
 - FOR PRESSURE SEWER PIPEWORK DETAIL PLANS REFER TO DRGS-018 TO 023.
 - FOR TYPICAL SERVICE CONNECTION DETAILS REFER TO DRG-027.

**PRELIMINARY
WORK-AS-CONSTRUCTED**

REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY
A	18.10.2017	PRELIMINARY ISSUE	J.N.	L.G.	J.N.	L.G.
0	30.11.2017	CONSTRUCTION ISSUE	J.N.	L.G.	J.N.	L.G.
1	13.12.2017	AMENDED CONSTRUCTION ISSUE - SERVICE LOCATIONS MOVED	J.N.	L.G.	J.N.	L.G.
2	02.05.2018	AMENDED CONSTRUCTION ISSUE - LOT LAYOUT AND NUMBERS AMENDED	J.N.	L.G.	J.N.	L.G.
3	28.06.2018	AMENDED CONSTRUCTION ISSUE - RECYCLED WATERMAIN AMENDED	J.N.	L.G.	J.N.	L.G.
WAC		WORK-AS-CONSTRUCTED	A.S.A.	V.V.		

DRAWN	CHECK	DESIGN	VERIFY	SCALES
J.N.	L.G.	J.N.	L.G.	0 5 10 A1 / A3 1:250 / 1:500

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@adwjohanson.com.au
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ABN 62 129 445 398

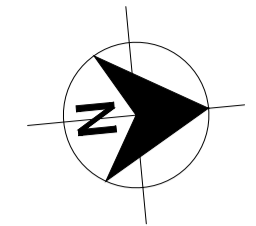
JOHNSON PROPERTY GROUP

PROPERTY DESCRIPTION	
PROPOSED SUBDIVISION STAGE 1, FREEMANS DRIVE, COORANBONG	
SURVEYED	DATUM
ADW Johnson	A.H.D.

PROJECT		PLAN TITLE	
POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER		RECYCLED WATER DETAIL PLAN - SHEET 4	
PROJECT No.	DISCIPLINE	NUMBER	REV.
239078(12)TW	- WAT -	014	pWAC

239078(12)TW-WAT-011[WAC]

100mm AT FULL SIZE



- LEGEND**
- RW — RW — RW — PVC-M RECYCLED WATER RETICULATION
 - RWS — RWS — RWS — RECYCLED WATER PROPERTY SERVICE
 - W — W — W — PVC-M POTABLE WATER RETICULATION
 - PWS — PWS — PWS — POTABLE WATER PROPERTY SERVICE
 - SP — SP — SP — PE PRESSURE SEWER RETICULATION
 - PWTM — PWTM — PWTM — DN200 PVC-M POTABLE WATER TRANSFER MAIN (EXISTING)
 - RWTM — RWTM — RWTM — DN250 PVC-M RECYCLED WATER TRANSFER MAIN (EXISTING)
 - PSM — PSM — PSM — PE PRESSURE SEWER MAIN (EXISTING)
 - W — W — W — DN250 WATER MAIN CONNECTION WITH HUNTER WATER (FUTURE)
 - W — W — W — EXISTING DN250 WATER MAIN (HUNTER WATER)
 - E — E — E — UNDERGROUND POWER
- SV. ✖ STOP VALVE
 - HYD. ● HYDRANT
 - FL HYD. ● FLUSHING HYDRANT
 - IV. ⊕ ISOLATION VALVE
 - FP. ● FLUSHING POINT
 - ▶ PRESSURE SEWER FLOW DIRECTION
 - ▨ HIGH VOLTAGE ELECTRICAL EASEMENT (APPROX. LOCATION)
 - ▣ PROPERTY SERVICE CONNECTION
 - LAY WATER MAIN UNDER STORMWATER PIPE (300mm MIN. VERTICAL CLEARANCE) - REFER TO WAT-1255-H
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 - LIMIT OF SUBDIVISION WORKS
- ▣ RECYCLED WATER PROPERTY SERVICE CONNECTIONS
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- SINGLE SERVICES IN ACCORDANCE WITH WAT-1106-V
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 - 4 x LONG SIDE
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 - 10 x SHORT SIDE
 - 5 x LONG SIDE

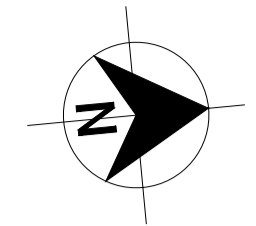
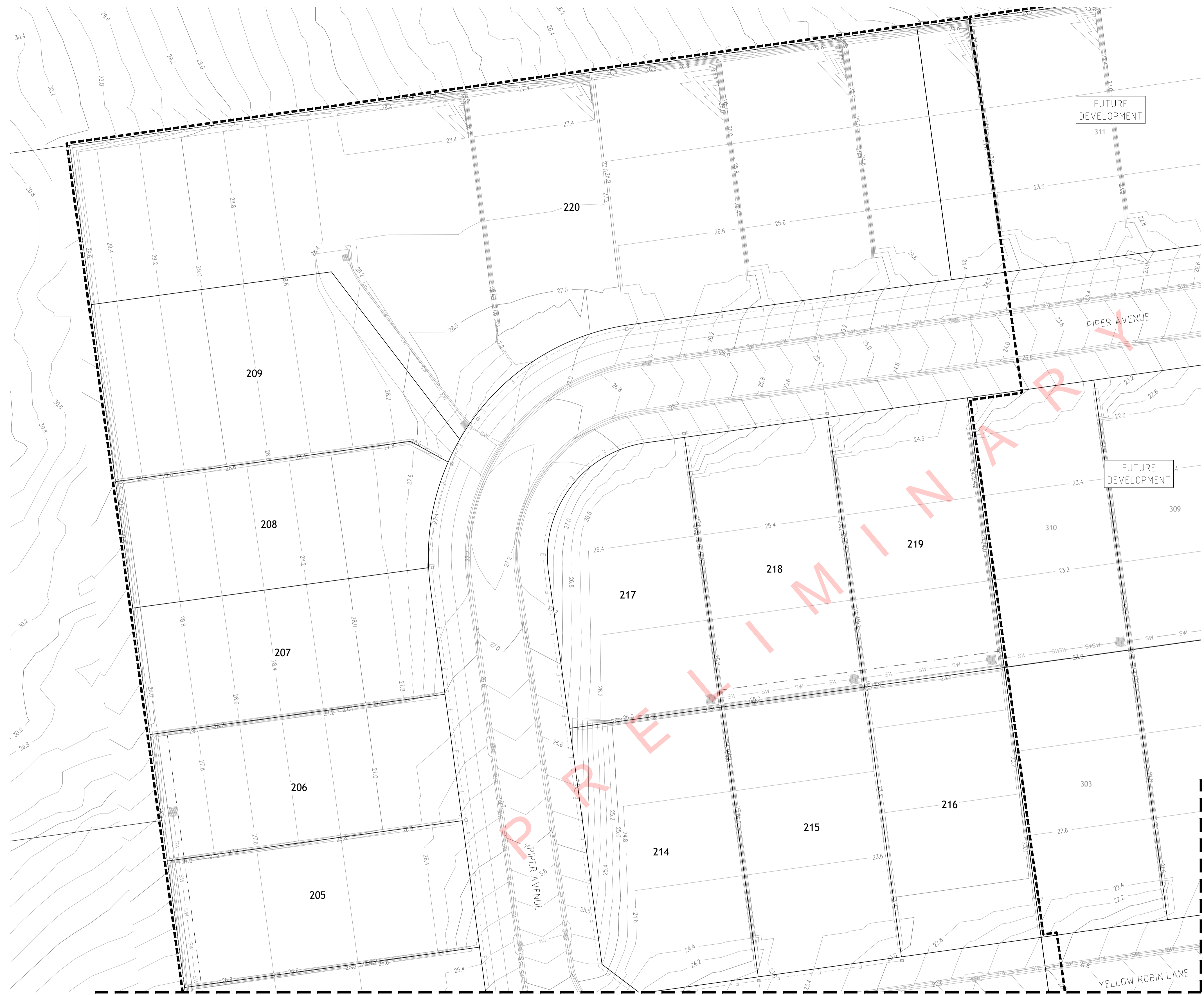
RECYCLED WATER PIPE DATA		
PIPE SIZE (mm)	PIPE MATERIAL	TOTAL LENGTH (m)
DN200	PVC-M PN16	
DN100	PVC-M PN16	

- NOTES:**
- FOR POTABLE WATER PIPEWORK DETAIL PLANS REFER TO DRGS-004 TO 009.
 - FOR PRESSURE SEWER PIPEWORK DETAIL PLANS REFER TO DRGS-018 TO 023.
 - FOR TYPICAL SERVICE CONNECTION DETAILS REFER TO DRG-027.

PLAN
SCALE 1:250

**PRELIMINARY
WORK-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>18.10.2017</td> <td>PRELIMINARY ISSUE</td> <td>J.N.</td> <td>L.G.</td> <td>J.N.</td> <td>L.C.</td> <td rowspan="5"> </td> </tr> <tr> <td>0</td> <td>30.11.2017</td> <td>CONSTRUCTION ISSUE</td> <td>J.N.</td> <td>L.G.</td> <td>J.N.</td> <td>L.C.</td> </tr> <tr> <td>1</td> <td>13.12.2017</td> <td>AMENDED CONSTRUCTION ISSUE - SERVICE LOCATIONS MOVED</td> <td>J.N.</td> <td>L.G.</td> <td>J.N.</td> <td>L.C.</td> </tr> <tr> <td>2</td> <td>02.05.2018</td> <td>AMENDED CONSTRUCTION ISSUE - LOT LAYOUT AND NUMBERS AMENDED</td> <td>J.N.</td> <td>L.G.</td> <td>J.N.</td> <td>L.C.</td> </tr> <tr> <td>3</td> <td>28.06.2018</td> <td>AMENDED CONSTRUCTION ISSUE - RECYCLED WATERMAIN AMENDED</td> <td>J.N.</td> <td>L.G.</td> <td>J.N.</td> <td>L.C.</td> </tr> <tr> <td>WAC</td> <td></td> <td>WORK-AS-CONSTRUCTED</td> <td>A.S.A.</td> <td>V.V.</td> <td>J.N.</td> <td>L.C.</td> </tr> </tbody> </table>	REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES	A	18.10.2017	PRELIMINARY ISSUE	J.N.	L.G.	J.N.	L.C.		0	30.11.2017	CONSTRUCTION ISSUE	J.N.	L.G.	J.N.	L.C.	1	13.12.2017	AMENDED CONSTRUCTION ISSUE - SERVICE LOCATIONS MOVED	J.N.	L.G.	J.N.	L.C.	2	02.05.2018	AMENDED CONSTRUCTION ISSUE - LOT LAYOUT AND NUMBERS AMENDED	J.N.	L.G.	J.N.	L.C.	3	28.06.2018	AMENDED CONSTRUCTION ISSUE - RECYCLED WATERMAIN AMENDED	J.N.	L.G.	J.N.	L.C.	WAC		WORK-AS-CONSTRUCTED	A.S.A.	V.V.	J.N.	L.C.	<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>	<p>CLIENT</p>	<p>PROPERTY DESCRIPTION</p> <p>PROPOSED SUBDIVISION STAGE 1, FREEMANS DRIVE, COORANBONG</p>	<p>PROJECT</p> <p>POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER</p>	<p>PROJECT No.</p> <p>239078(12)TW</p>	<p>DISCIPLINE</p> <p>- WAT -</p>	<p>NUMBER</p> <p>015</p>	<p>REV.</p> <p>pWAC</p>
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<p>DESIGN FILE N:\</p>	<p>ALL DIMENSIONS ARE IN METRES. DO NOT SCALE</p>	<p>SURVEYED</p> <p>ADW Johnson</p>	<p>DATUM</p> <p>A.H.D.</p>																																																								



- LEGEND**
- RW PVC-M RECYCLED WATER RETICULATION
 - RWS RECYCLED WATER PROPERTY SERVICE
 - W PVC-M POTABLE WATER RETICULATION
 - PWS POTABLE WATER PROPERTY SERVICE
 - SP PE PRESSURE SEWER RETICULATION
 - PWTM DN200 PVC-M POTABLE WATER TRANSFER MAIN (EXISTING)
 - RWTM DN250 PVC-M RECYCLED WATER TRANSFER MAIN (EXISTING)
 - PSM PE PRESSURE SEWER MAIN (EXISTING)
 - W DN250 WATER MAIN CONNECTION WITH HUNTER WATER (FUTURE)
 - W EXISTING DN250 WATER MAIN (HUNTER WATER)
 - E UNDERGROUND POWER
 - SV STOP VALVE
 - HYD. HYDRANT
 - FL HYD. FLUSHING HYDRANT
 - IV. ISOLATION VALVE
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 - LIMIT OF SUBDIVISION WORKS

- RECYCLED WATER PROPERTY SERVICE CONNECTIONS**
- TOTAL 40 CONNECTIONS
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RECYCLED WATER PIPE DATA		
PIPE SIZE (mm)	PIPE MATERIAL	TOTAL LENGTH (m)
DN200	PVC-M PN16	
DN100	PVC-M PN16	

- NOTES:**
1. FOR POTABLE WATER PIPEWORK DETAIL PLANS REFER TO DRGS-004 TO 009.
 2. FOR PRESSURE SEWER PIPEWORK DETAIL PLANS REFER TO DRGS-018 TO 023.
 3. FOR TYPICAL SERVICE CONNECTION DETAILS REFER TO DRG-027.

PLAN
SCALE 1:250

**PRELIMINARY
WORK-AS-CONSTRUCTED**

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<p>PLAN TITLE</p> <p>RECYCLED WATER DETAIL PLAN - SHEET 6</p>		<p>SURVEYED ADW Johnson</p>	<p>DATUM A.H.D.</p>	<p>PROJECT No. 239078(12)TW</p>	<p>DISCIPLINE - WAT -</p>	<p>NUMBER 016</p>	<p>REV. pWAC</p>																																																	



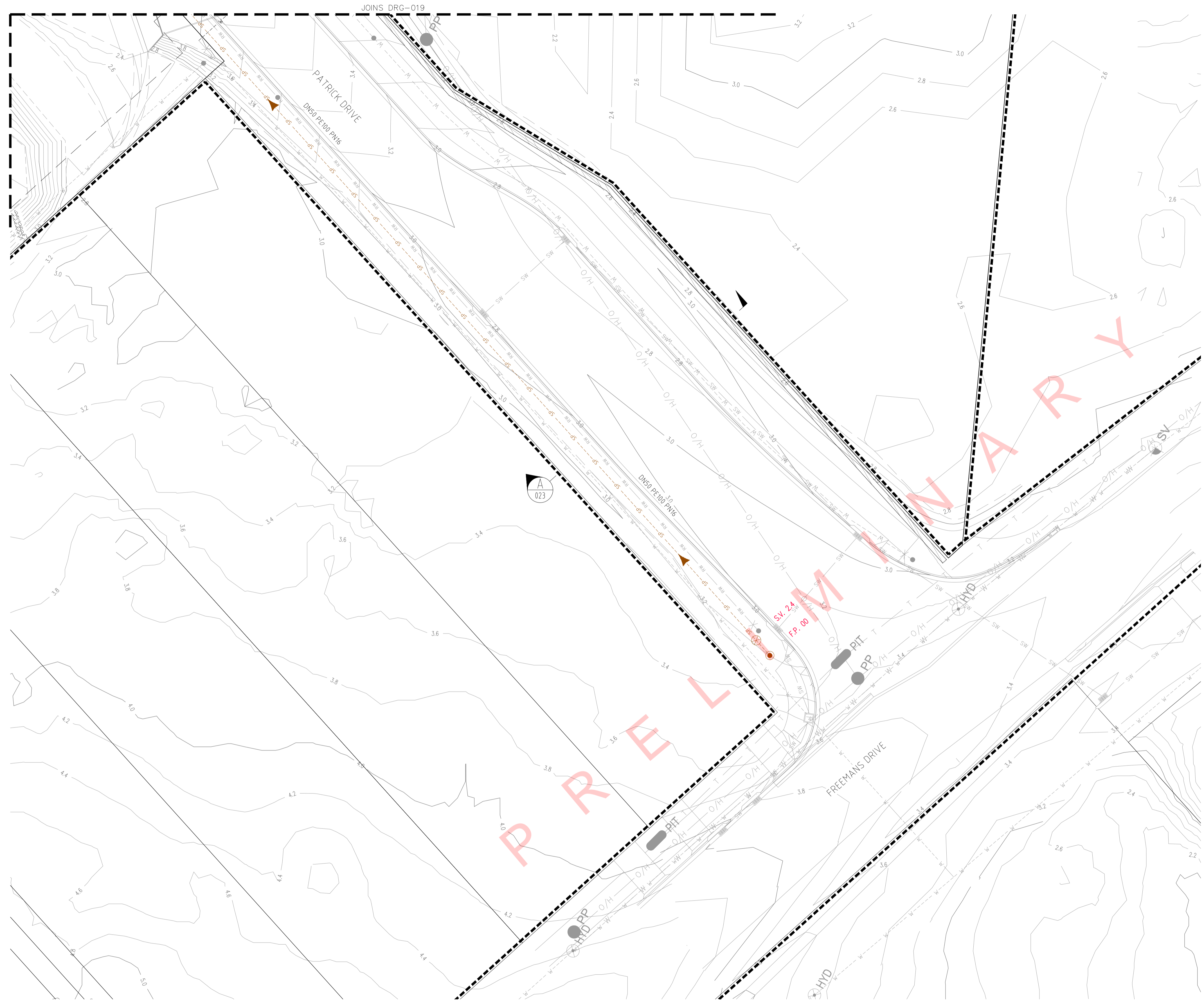
P R E L I M I N A R Y

PRELIMINARY
WORK-AS-CONSTRUCTED

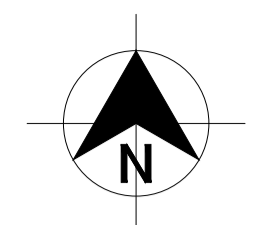
REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES	CLIENT	PROPERTY DESCRIPTION	PROJECT			
A	18.10.2017	PRELIMINARY ISSUE	J.N.	L.G.	J.N.	L.G.		Hunter Office Unit 7/335 Hillsborough Rd Warners Bay N.S.W. 2282 Phone: (02) 4978 5100 Fax: (02) 4978 5199 email: hunter@adwjohnson.com.au www.adwjohnson.com.au ABN 62 129 445 398	JOHNSON PROPERTY GROUP	POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER			
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WAC		WORK-AS-CONSTRUCTED	A.S.A.	V.V.	J.N.	L.G.				PLAN TITLE NOT USED			
DESIGN FILE N:\ ALL DIMENSIONS ARE IN METRES. DO NOT SCALE								SURVEYED ADW Johnson	DATUM A.H.D.	PROJECT No. 239078(12)TW	DISCIPLINE - WAT -	NUMBER 017	REV. pWAC

239078(12)TW-WAT-018[WAC]

100mm AT FULL SIZE



PLAN
SCALE 1:250



- LEGEND**
- SP- PE PRESSURE SEWER RETICULATION
 - PSM- PE PRESSURE SEWER MAIN (EXISTING)
 - RW- PVC-M RECYCLED WATER RETICULATION
 - RWS- RECYCLED WATER PROPERTY SERVICE
 - W- PVC-M POTABLE WATER RETICULATION
 - PWS- POTABLE WATER PROPERTY SERVICE
 - PWTM- DN200 PVC-M POTABLE WATER TRANSFER MAIN (EXISTING)
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 - E- UNDERGROUND POWER
 - IV- ISOLATION VALVE
 - FP- FLUSHING POINT
 - WASTEWATER COLLECTION TANK AND BOUNDARY KIT
 - PRESSURE SEWER FLOW DIRECTION
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 - LIMIT OF SUBDIVISION WORKS

- PRESSURE SEWER PROPERTY SERVICE CONNECTIONS
- TOTAL 40 CONNECTIONS
- SINGLE SERVICES
- 27 x SHORT SIDE
- 13 x LONG SIDE

PRESSURE SEWER PIPE DATA		
PIPE SIZE (mm)	PIPE MATERIAL	TOTAL LENGTH (m)
DN75	PE100 PN16	
DN63	PE100 PN16	
DN50	PE100 PN16	

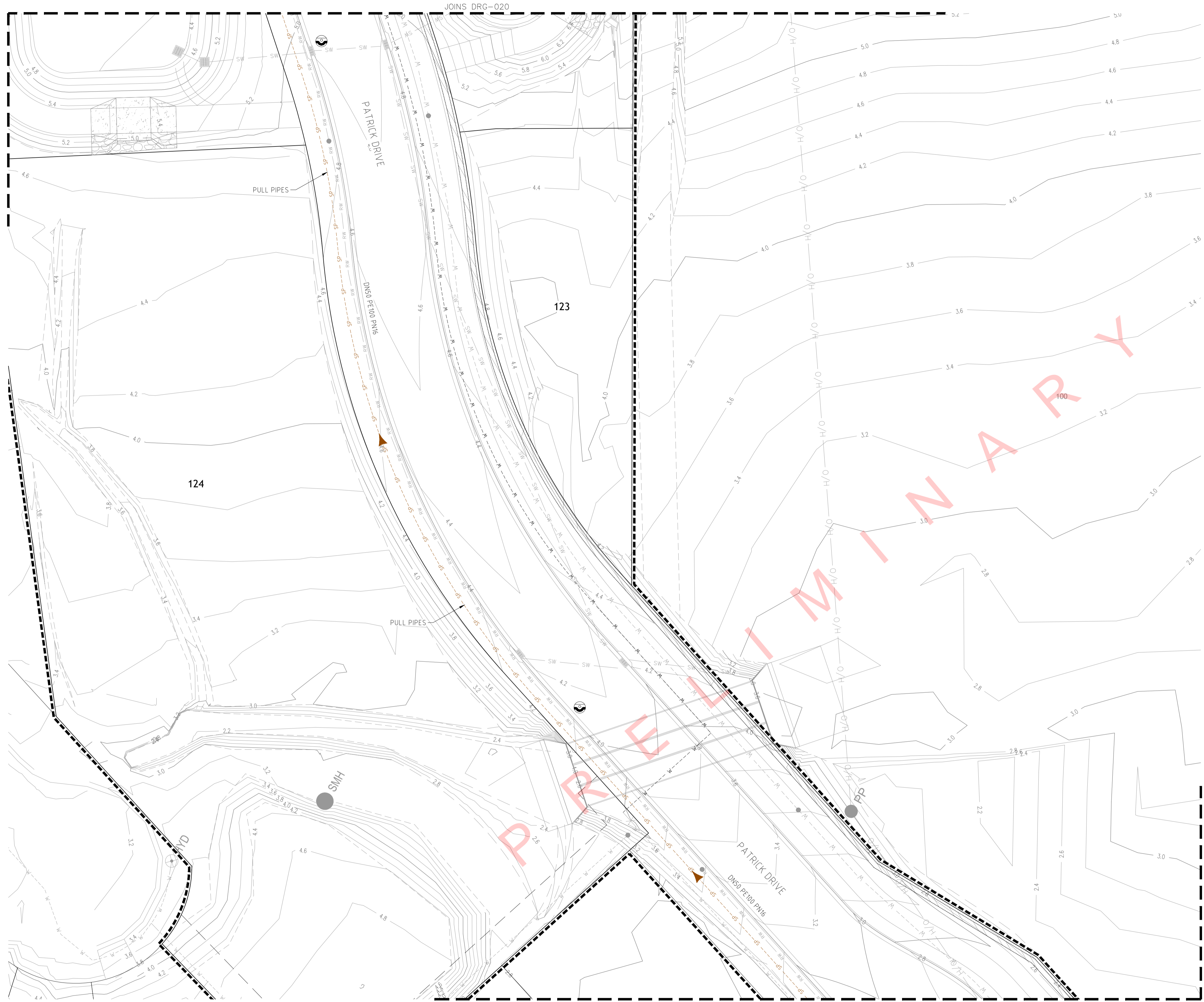
- NOTES:**
- FOR POTABLE WATER PIPEWORK DETAIL PLANS REFER TO DRCS-004 TO 009.
 - FOR RECYCLED WATER PIPEWORK DETAIL PLANS REFER TO DRCS-011 TO 016.
 - FOR TYPICAL SERVICE CONNECTION DETAILS REFER TO DRG-027.
 - FOR FLUSHING POINT TYPICAL DETAILS REFER TO STANDARD DRAWING PSS-1017-FS.
 - CONTRACTOR MAY 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).

**PRELIMINARY
WORK-AS-CONSTRUCTED**

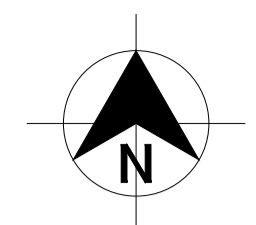
<table border="1"> <thead> <tr> <th>REV.</th> <th>DATE</th> <th>AMENDMENT</th> <th>DRAWN</th> <th>CHECK</th> <th>DESIGN</th> <th>VERIFY</th> <th>SCALES</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>18.10.2017</td> <td>PRELIMINARY ISSUE</td> <td>J.N.</td> <td>L.G.</td> <td>J.N.</td> <td>L.G.</td> <td rowspan="4"> </td> </tr> <tr> <td>0</td> <td>30.11.2017</td> <td>CONSTRUCTION ISSUE</td> <td>J.N.</td> <td>L.G.</td> <td>J.N.</td> <td>L.G.</td> </tr> <tr> <td>1</td> <td>13.12.2017</td> <td>AMENDED CONSTRUCTION ISSUE - SERVICE LOCATIONS MOVED</td> <td>J.N.</td> <td>L.G.</td> <td>J.N.</td> <td>L.G.</td> </tr> <tr> <td>2</td> <td>02.05.2018</td> <td>AMENDED CONSTRUCTION ISSUE - LOT LAYOUT AND NUMBERS AMENDED</td> <td>J.N.</td> <td>L.G.</td> <td>J.N.</td> <td>L.G.</td> </tr> <tr> <td>3</td> <td>28.06.2018</td> <td>AMENDED CONSTRUCTION ISSUE - RECYCLED WATERMAIN AMENDED</td> <td>J.N.</td> <td>L.G.</td> <td>J.N.</td> <td>L.G.</td> <td></td> </tr> <tr> <td>WAC</td> <td></td> <td>WORK-AS-CONSTRUCTED</td> <td>A.S.A.</td> <td>V.V.</td> <td>J.N.</td> <td>L.G.</td> <td></td> </tr> </tbody> </table>	REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES	A	18.10.2017	PRELIMINARY ISSUE	J.N.	L.G.	J.N.	L.G.		0	30.11.2017	CONSTRUCTION ISSUE	J.N.	L.G.	J.N.	L.G.	1	13.12.2017	AMENDED CONSTRUCTION ISSUE - SERVICE LOCATIONS MOVED	J.N.	L.G.	J.N.	L.G.	2	02.05.2018	AMENDED CONSTRUCTION ISSUE - LOT LAYOUT AND NUMBERS AMENDED	J.N.	L.G.	J.N.	L.G.	3	28.06.2018	AMENDED CONSTRUCTION ISSUE - RECYCLED WATERMAIN AMENDED	J.N.	L.G.	J.N.	L.G.		WAC		WORK-AS-CONSTRUCTED	A.S.A.	V.V.	J.N.	L.G.		<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>PROPOSED SUBDIVISION STAGE 1, FREEMANS DRIVE, COORANBONG</p>	<p>PROJECT</p> <p>POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER</p>	<p>PLAN TITLE</p> <p>PRESSURE SEWER DETAIL PLAN - SHEET 1</p>	<p>SURVEYED</p> <p>ADW Johnson</p>	<p>DATUM</p> <p>A.H.D.</p>	<p>PROJECT No.</p> <p>239078(12)TW</p>	<p>DISCIPLINE</p> <p>- WAT -</p>	<p>NUMBER</p> <p>018</p>	<p>REV.</p> <p>pWAC</p>
REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES																																																									
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WAC		WORK-AS-CONSTRUCTED	A.S.A.	V.V.	J.N.	L.G.																																																										

239078(12)TW-WAT-018[WAC]

100mm AT FULL SIZE



PLAN
SCALE 1:250



- LEGEND**
- SP- PE PRESSURE SEWER RETICULATION
 - PSM- PE PRESSURE SEWER MAIN (EXISTING)
 - RW- PVC-M RECYCLED WATER RETICULATION
 - RWS- RECYCLED WATER PROPERTY SERVICE
 - W- PVC-M POTABLE WATER RETICULATION
 - PWS- POTABLE WATER PROPERTY SERVICE
 - PWTM- DN200 PVC-M POTABLE WATER TRANSFER MAIN (EXISTING)
 - RWTM- DN250 PVC-M RECYCLED WATER TRANSFER MAIN (EXISTING)
 - W- DN250 WATER MAIN CONNECTION WITH HUNTER WATER (FUTURE)
 - W- EXISTING DN250 WATER MAIN (HUNTER WATER)
 - E- UNDERGROUND POWER
 - IV- ISOLATION VALVE
 - FP- FLUSHING POINT
 - WASTEWATER COLLECTION TANK AND BOUNDARY KIT
 - PRESSURE SEWER FLOW DIRECTION
 - HIGH VOLTAGE ELECTRICAL EASEMENT (APPROX. LOCATION)
 - PROPERTY SERVICE CONNECTION
 - LAY PRESSURE SEWER MAIN UNDER STORMWATER PIPE (300mm MIN. VERTICAL CLEARANCE) - REFER TO WAT-1255-H
 - LAY PRESSURE SEWER MAIN OVER STORMWATER PIPE (300mm MIN. VERTICAL CLEARANCE) - REFER TO WAT-1255-H
 - LIMIT OF SUBDIVISION WORKS

- PRESSURE SEWER PROPERTY SERVICE CONNECTIONS
- TOTAL 40 CONNECTIONS
- SINGLE SERVICES
- 27 x SHORT SIDE
- 13 x LONG SIDE

PRESSURE SEWER PIPE DATA		
PIPE SIZE (mm)	PIPE MATERIAL	TOTAL LENGTH (m)
DN75	PE100 PN16	
DN63	PE100 PN16	
DN50	PE100 PN16	

- NOTES:**
- FOR POTABLE WATER PIPEWORK DETAIL PLANS REFER TO DRCS-004 TO 009.
 - FOR RECYCLED WATER PIPEWORK DETAIL PLANS REFER TO DRCS-011 TO 016.
 - FOR TYPICAL SERVICE CONNECTION DETAILS REFER TO DRG-027.
 - FOR FLUSHING POINT TYPICAL DETAILS REFER TO STANDARD DRAWING PSS-1017-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).

REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES
A	18.10.2017	PRELIMINARY ISSUE	J.N.	L.G.	J.N.	L.G.	 A1 / A3 1:250 / 1:500
0	30.11.2017	CONSTRUCTION ISSUE	J.N.	L.G.	J.N.	L.G.	
1	13.12.2017	AMENDED CONSTRUCTION ISSUE - SERVICE LOCATIONS MOVED	J.N.	L.G.	J.N.	L.G.	
2	02.05.2018	AMENDED CONSTRUCTION ISSUE - LOT LAYOUT AND NUMBERS AMENDED	J.N.	L.G.	J.N.	L.G.	
3	28.06.2018	AMENDED CONSTRUCTION ISSUE - RECYCLED WATERMAIN AMENDED	J.N.	L.G.	J.N.	L.G.	
WAC		WORK-AS-CONSTRUCTED	A.S.A.	V.V.	J.N.	L.G.	

DRAWN	CHECK	DESIGN	VERIFY
J.N.	L.G.	J.N.	L.G.
J.N.	L.G.	J.N.	L.G.
J.N.	L.G.	J.N.	L.G.
J.N.	L.G.	J.N.	L.G.
A.S.A.	V.V.	J.N.	L.G.

ALL DIMENSIONS ARE IN METRES. DO NOT SCALE

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

JOHNSON PROPERTY GROUP

CLIENT

PROPERTY DESCRIPTION
 PROPOSED SUBDIVISION
 STAGE 1, FREEMANS DRIVE,
 COORANBONG

SURVEYED
 ADW Johnson

DATUM
 A.H.D.

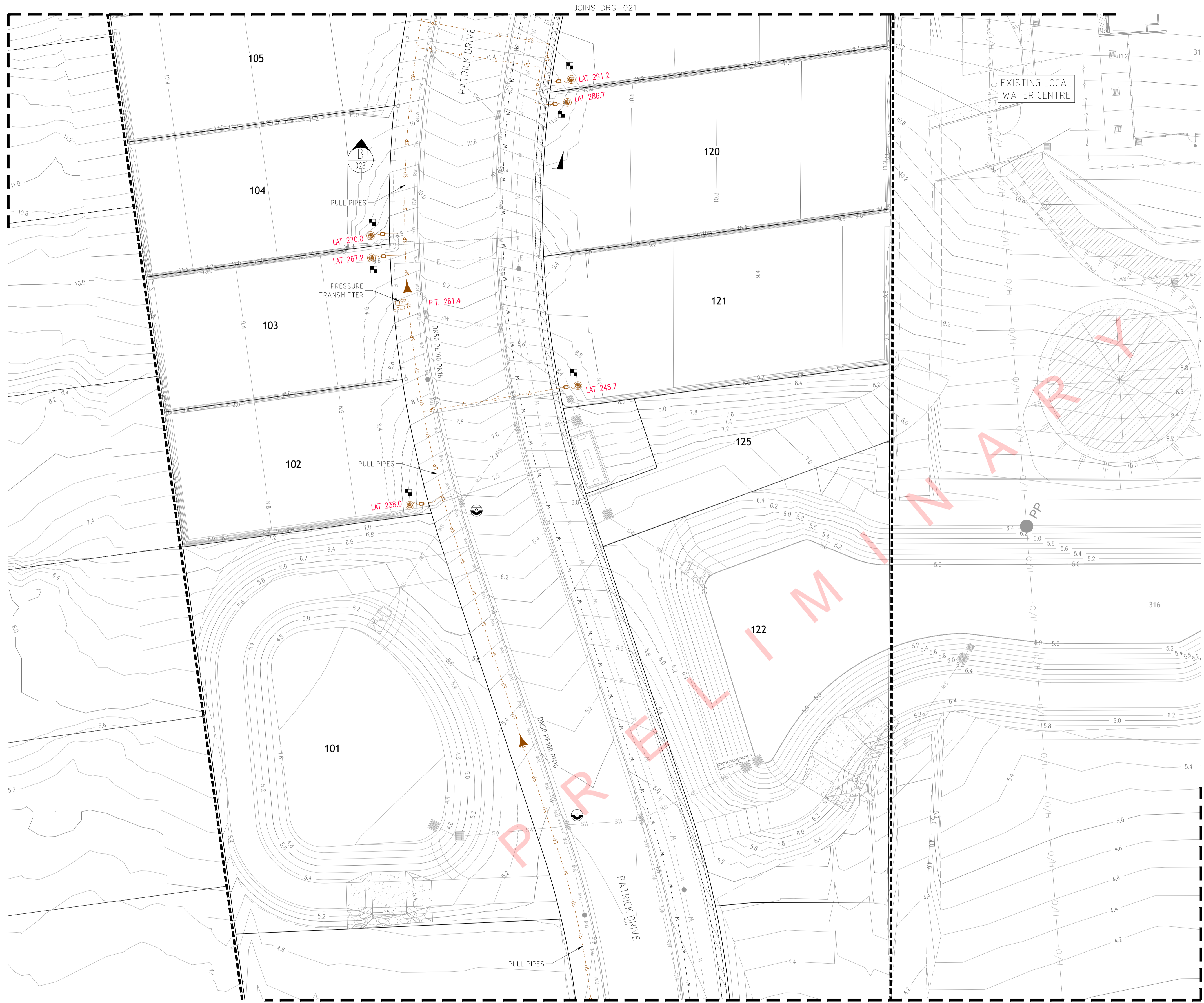
PROJECT
 POTABLE WATER, RECYCLED WATER
 AND PRESSURE SEWER

PLAN TITLE
 PRESSURE SEWER DETAIL PLAN - SHEET 2

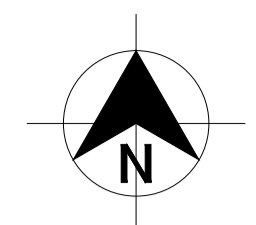
PROJECT No.	DISCIPLINE	NUMBER	REV.
239078(12)TW	- WAT -	019	pWAC

239078(12)TW-WAT-018[WAC]

100mm AT FULL SIZE



PLAN
SCALE 1:250



- LEGEND**
- SP- PE PRESSURE SEWER RETICULATION
 - PSM- PE PRESSURE SEWER MAIN (EXISTING)
 - RW- PVC-M RECYCLED WATER RETICULATION
 - RWS- RECYCLED WATER PROPERTY SERVICE
 - W- PVC-M POTABLE WATER RETICULATION
 - PWS- POTABLE WATER PROPERTY SERVICE
 - PWTM- DN200 PVC-M POTABLE WATER TRANSFER MAIN (EXISTING)
 - RWTM- DN250 PVC-M RECYCLED WATER TRANSFER MAIN (EXISTING)
 - W- DN250 PVC-M WATER MAIN CONNECTION WITH HUNTER WATER (FUTURE)
 - W- EXISTING DN250 WATER MAIN (HUNTER WATER)
 - E- UNDERGROUND POWER
 - IV- ISOLATION VALVE
 - FP- FLUSHING POINT
 - WASTEWATER COLLECTION TANK AND BOUNDARY KIT
 - PRESSURE SEWER FLOW DIRECTION
 - HIGH VOLTAGE ELECTRICAL EASEMENT (APPROX. LOCATION)
 - PROPERTY SERVICE CONNECTION
 - LAY PRESSURE SEWER MAIN UNDER STORMWATER PIPE (300mm MIN. VERTICAL CLEARANCE) - REFER TO WAT-1255-H
 - LAY PRESSURE SEWER MAIN OVER STORMWATER PIPE (300mm MIN. VERTICAL CLEARANCE) - REFER TO WAT-1255-H
 - LIMIT OF SUBDIVISION WORKS

- PRESSURE SEWER PROPERTY SERVICE CONNECTIONS
- TOTAL 40 CONNECTIONS
- SINGLE SERVICES
- 27 x SHORT SIDE
- 13 x LONG SIDE

PRESSURE SEWER PIPE DATA		
PIPE SIZE (mm)	PIPE MATERIAL	TOTAL LENGTH (m)
DN75	PE100 PN16	
DN63	PE100 PN16	
DN50	PE100 PN16	

- NOTES:**
- FOR POTABLE WATER PIPEWORK DETAIL PLANS REFER TO DRCS-004 TO 009.
 - FOR RECYCLED WATER PIPEWORK DETAIL PLANS REFER TO DRCS-011 TO 016.
 - FOR TYPICAL SERVICE CONNECTION DETAILS REFER TO DRG-027.
 - FOR FLUSHING POINT TYPICAL DETAILS REFER TO STANDARD DRAWING PSS-1017-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).

REV.	DATE	AMENDMENT
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3	28.06.2018	AMENDED CONSTRUCTION ISSUE - RECYCLED WATERMAIN AMENDED
WAC		WORK-AS-CONSTRUCTED

DRAWN	CHECK	DESIGN	VERIFY
J.N.	L.G.	J.N.	L.G.
J.N.	L.G.	J.N.	L.G.
J.N.	L.G.	J.N.	L.G.
A.S.A.	V.V.	J.N.	L.G.

SCALES

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 1, FREEMANS DRIVE,
COORANBONG

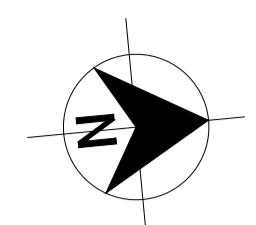
PROJECT POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER

PLAN TITLE
PRESSURE SEWER DETAIL PLAN - SHEET 3

SURVEYED ADW Johnson	DATUM A.H.D.	PROJECT No. 239078(12)TW	DISCIPLINE - WAT -	NUMBER 020	REV. pWAC
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PLAN
SCALE 1:250



- LEGEND**
- SP- PE PRESSURE SEWER RETICULATION
 - PE- PE PRESSURE SEWER MAIN (EXISTING)
 - PSM- PVC-M RECYCLED WATER RETICULATION
 - RW- RECYCLED WATER PROPERTY SERVICE
 - RWS- POTABLE WATER PROPERTY SERVICE
 - W- PVC-M POTABLE WATER RETICULATION
 - PWS- POTABLE WATER PROPERTY SERVICE
 - PWTM- DN200 PVC-M POTABLE WATER TRANSFER MAIN (EXISTING)
 - RWTM- DN250 PVC-M RECYCLED WATER TRANSFER MAIN (EXISTING)
 - W- DN250 WATER MAIN CONNECTION WITH HUNTER WATER (FUTURE)
 - W- EXISTING DN250 WATER MAIN (HUNTER WATER)
 - E- UNDERGROUND POWER
 - IV- ISOLATION VALVE
 - FP- FLUSHING POINT
 - WWT- WASTEWATER COLLECTION TANK AND BOUNDARY KIT
 - PSFD- PRESSURE SEWER FLOW DIRECTION
 - HVE- HIGH VOLTAGE ELECTRICAL EASEMENT (APPROX. LOCATION)
 - PC- PROPERTY SERVICE CONNECTION
 - LS- LAY PRESSURE SEWER MAIN UNDER STORMWATER PIPE (300mm MIN. VERTICAL CLEARANCE) - REFER TO WAT-1255-H
 - LO- LAY PRESSURE SEWER MAIN OVER STORMWATER PIPE (300mm MIN. VERTICAL CLEARANCE) - REFER TO WAT-1255-H
 - LSL- LIMIT OF SUBDIVISION WORKS

- PS- PRESSURE SEWER PROPERTY SERVICE CONNECTIONS
- TOTAL 40 CONNECTIONS
- SINGLE SERVICES
- 27 x SHORT SIDE
- 13 x LONG SIDE

PRESSURE SEWER PIPE DATA		
PIPE SIZE (mm)	PIPE MATERIAL	TOTAL LENGTH (m)
DN75	PE100 PN16	
DN63	PE100 PN16	
DN50	PE100 PN16	

- NOTES:**
- FOR POTABLE WATER PIPEWORK DETAIL PLANS REFER TO DRCS-004 TO 009.
 - FOR RECYCLED WATER PIPEWORK DETAIL PLANS REFER TO DRCS-011 TO 016.
 - FOR TYPICAL SERVICE CONNECTION DETAILS REFER TO DRG-027.
 - FOR FLUSHING POINT TYPICAL DETAILS REFER TO STANDARD DRAWING PSS-1017-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).

**PRELIMINARY
WORK-AS-CONSTRUCTED**

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2	02.05.2018	AMENDED CONSTRUCTION ISSUE - LOT LAYOUT AND NUMBERS AMENDED
3	28.06.2018	AMENDED CONSTRUCTION ISSUE - RECYCLED WATERMAIN AMENDED
WAC		WORK-AS-CONSTRUCTED

DRAWN	CHECK	DESIGN	VERIFY	SCALES
J.N.	L.G.	J.N.	L.G.	0 5 10 A1 / A3
J.N.	L.G.	J.N.	L.G.	1:250 / 1:500
J.N.	L.G.	J.N.	L.G.	
J.N.	L.G.	J.N.	L.G.	
A.S.A.	V.V.	J.N.	L.G.	

adw Johnson

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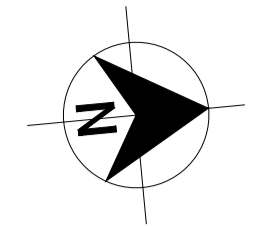
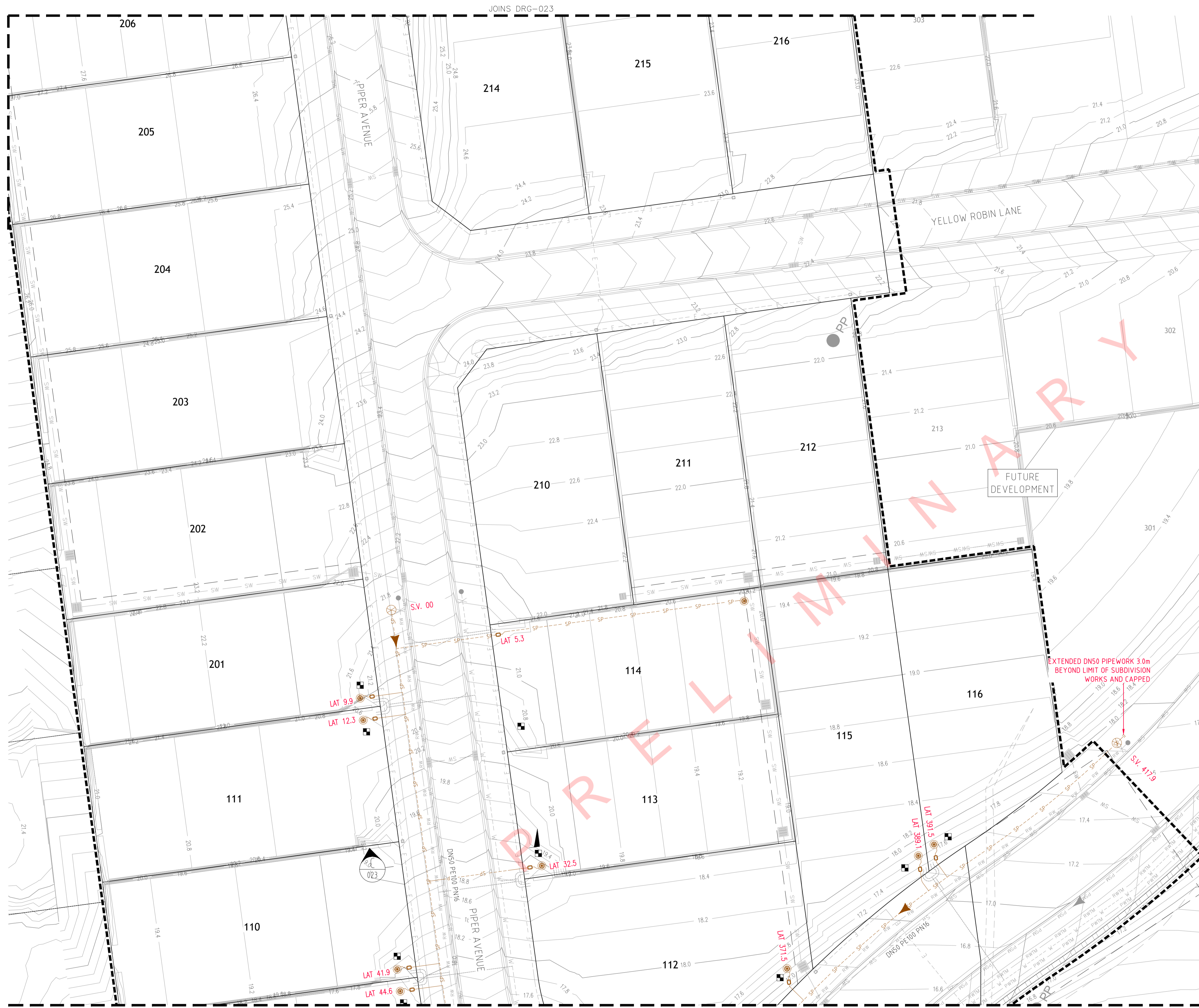
JOHNSON PROPERTY GROUP

PROPERTY DESCRIPTION	
PROPOSED SUBDIVISION STAGE 1, FREEMANS DRIVE, COORANBONG	
SURVEYED	DATUM
ADW Johnson	A.H.D.

PROJECT		PLAN TITLE	
POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER		PRESSURE SEWER DETAIL PLAN - SHEET 4	
PROJECT No.	DISCIPLINE	NUMBER	REV.
239078(12)TW	- WAT -	021	pWAC

239078(12)TW-WAT-018[WAC]

100mm AT FULL SIZE



- LEGEND**
- SP- PE PRESSURE SEWER RETICULATION
 - PSM- PE PRESSURE SEWER MAIN (EXISTING)
 - RW- PVC-M RECYCLED WATER RETICULATION
 - RWS- RECYCLED WATER PROPERTY SERVICE
 - W- PVC-M POTABLE WATER RETICULATION
 - PWS- POTABLE WATER PROPERTY SERVICE
 - PWTM- DN200 PVC-M POTABLE WATER TRANSFER MAIN (EXISTING)
 - RWTM- DN250 PVC-M RECYCLED WATER TRANSFER MAIN (EXISTING)
 - W- DN250 WATER MAIN CONNECTION WITH HUNTER WATER (FUTURE)
 - W- EXISTING DN250 WATER MAIN (HUNTER WATER)
 - E- UNDERGROUND POWER
 - IV- ISOLATION VALVE
 - FP- FLUSHING POINT
 - WASTEWATER COLLECTION TANK AND BOUNDARY KIT
 - PRESSURE SEWER FLOW DIRECTION
 - HIGH VOLTAGE ELECTRICAL EASEMENT (APPROX. LOCATION)
 - PROPERTY SERVICE CONNECTION
 - LAY PRESSURE SEWER MAIN UNDER STORMWATER PIPE (300mm MIN. VERTICAL CLEARANCE) - REFER TO WAT-1255-H
 - LAY PRESSURE SEWER MAIN OVER STORMWATER PIPE (300mm MIN. VERTICAL CLEARANCE) - REFER TO WAT-1255-H
 - LIMIT OF SUBDIVISION WORKS

- PRESSURE SEWER PROPERTY SERVICE CONNECTIONS
- TOTAL 40 CONNECTIONS
- SINGLE SERVICES
- 27 x SHORT SIDE
- 13 x LONG SIDE

PRESSURE SEWER PIPE DATA		
PIPE SIZE (mm)	PIPE MATERIAL	TOTAL LENGTH (m)
DN75	PE100 PN16	
DN63	PE100 PN16	
DN50	PE100 PN16	

- NOTES:**
- FOR POTABLE WATER PIPEWORK DETAIL PLANS REFER TO DRCS-004 TO 009.
 - FOR RECYCLED WATER PIPEWORK DETAIL PLANS REFER TO DRCS-011 TO 016.
 - FOR TYPICAL SERVICE CONNECTION DETAILS REFER TO DRG-027.
 - FOR FLUSHING POINT TYPICAL DETAILS REFER TO STANDARD DRAWING PSS-1017-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).

PLAN
SCALE 1:250

**PRELIMINARY
WORK-AS-CONSTRUCTED**

REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES	CLIENT	PROPERTY DESCRIPTION	PROJECT	PLAN TITLE	PROJECT No.	DISCIPLINE	NUMBER	REV.
A	18.10.2017	PRELIMINARY ISSUE	J.N.	L.G.	J.N.	L.C.	0 5 10 A1 / A3	Hunter Office	PROPOSED SUBDIVISION	POTABLE WATER, RECYCLED WATER		239078(12)TW	- WAT -	022	pWAC
0	30.11.2017	CONSTRUCTION ISSUE	J.N.	L.G.	J.N.	L.C.	1:250 / 1:500	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	STAGE 1, FREEMANS DRIVE, COORANBONG	AND PRESSURE SEWER	PRESSURE SEWER DETAIL PLAN - SHEET 5				
1	13.12.2017	AMENDED CONSTRUCTION ISSUE - SERVICE LOCATIONS MOVED	J.N.	L.G.	J.N.	L.C.									
2	02.05.2018	AMENDED CONSTRUCTION ISSUE - LOT LAYOUT AND NUMBERS AMENDED	J.N.	L.G.	J.N.	L.C.									
3	28.06.2018	AMENDED CONSTRUCTION ISSUE - RECYCLED WATERMAIN AMENDED	J.N.	L.G.	J.N.	L.C.									
WAC		WORK-AS-CONSTRUCTED	J.N. A.S.A.	L.G. V.V.	J.N. J.N.	L.C. L.C.									



LEGEND

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- PSM- PE PRESSURE SEWER MAIN (EXISTING)
- RW- PVC-M RECYCLED WATER RETICULATION
- RWS- RECYCLED WATER PROPERTY SERVICE
- W- PVC-M POTABLE WATER RETICULATION
- PWS- POTABLE WATER PROPERTY SERVICE
- PWTM- DN200 PVC-M POTABLE WATER TRANSFER MAIN (EXISTING)
- RWTM- DN250 PVC-M RECYCLED WATER TRANSFER MAIN (EXISTING)
- W- DN250 WATER MAIN CONNECTION WITH HUNTER WATER (FUTURE)
- W- EXISTING DN250 WATER MAIN (HUNTER WATER)
- E- UNDERGROUND POWER
- IV- ISOLATION VALVE
- FP- FLUSHING POINT
- WASTEWATER COLLECTION TANK AND BOUNDARY KIT
- PRESSURE SEWER FLOW DIRECTION
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- LAY PRESSURE SEWER MAIN OVER STORMWATER PIPE (300mm MIN. VERTICAL CLEARANCE) - REFER TO WAT-1255-H
- LIMIT OF SUBDIVISION WORKS

■ PRESSURE SEWER PROPERTY SERVICE CONNECTIONS
 TOTAL 40 CONNECTIONS
 • SINGLE SERVICES
 - 27 x SHORT SIDE
 - 13 x LONG SIDE

PRESSURE SEWER PIPE DATA		
PIPE SIZE (mm)	PIPE MATERIAL	TOTAL LENGTH (m)
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PLAN
SCALE 1:250

**PRELIMINARY
WORK-AS-CONSTRUCTED**

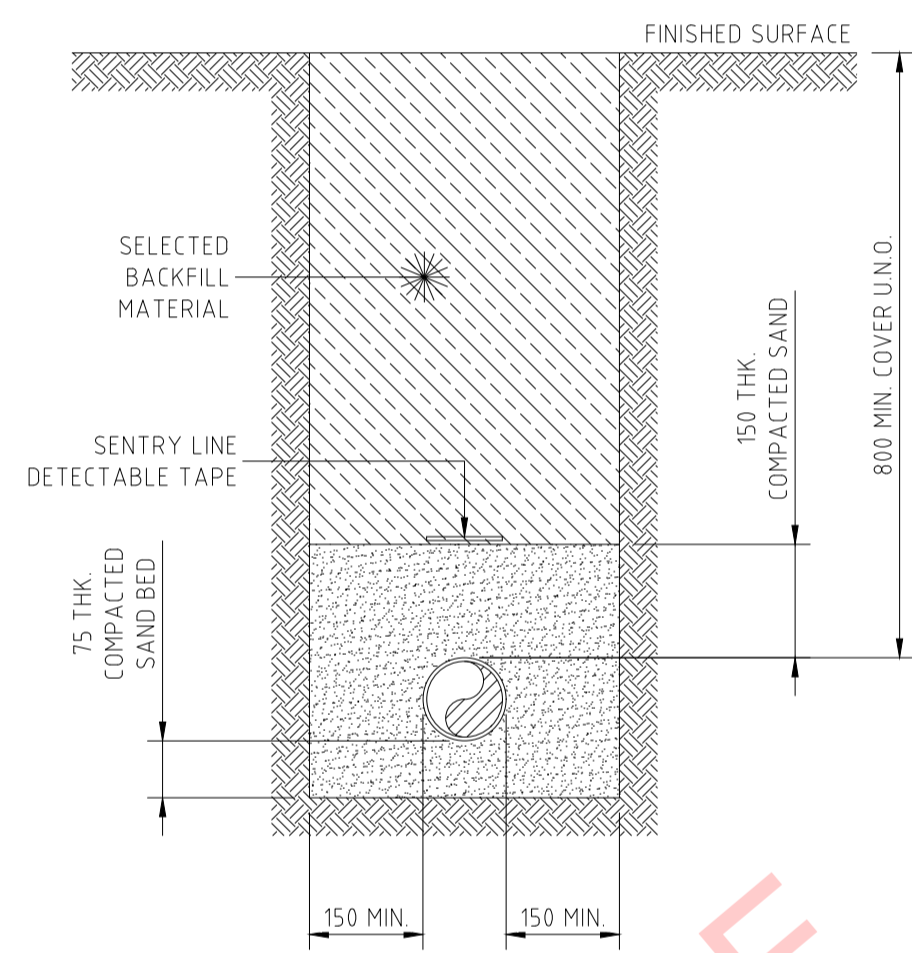
<table border="1"> <thead> <tr> <th>REV.</th> <th>DATE</th> <th>AMENDMENT</th> <th>DRAWN</th> <th>CHECK</th> <th>DESIGN</th> <th>VERIFY</th> <th>SCALES</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>18.10.2017</td> <td>PRELIMINARY ISSUE</td> <td>J.N.</td> <td>L.G.</td> <td>J.N.</td> <td>L.G.</td> <td rowspan="2"> A1 / A3 1:250 / 1:500 </td> </tr> <tr> <td>0</td> <td>30.11.2017</td> <td>CONSTRUCTION ISSUE</td> <td>J.N.</td> <td>L.G.</td> <td>J.N.</td> <td>L.G.</td> </tr> <tr> <td>1</td> <td>13.12.2017</td> <td>AMENDED CONSTRUCTION ISSUE - SERVICE LOCATIONS MOVED</td> <td>J.N.</td> <td>L.G.</td> <td>J.N.</td> <td>L.G.</td> </tr> <tr> <td>2</td> <td>02.05.2018</td> <td>AMENDED CONSTRUCTION ISSUE - LOT LAYOUT AND NUMBERS AMENDED</td> <td>J.N.</td> <td>L.G.</td> <td>J.N.</td> <td>L.G.</td> </tr> <tr> <td>3</td> <td>28.06.2018</td> <td>AMENDED CONSTRUCTION ISSUE - RECYCLED WATERMAIN AMENDED</td> <td>J.N.</td> <td>L.G.</td> <td>J.N.</td> <td>L.G.</td> </tr> <tr> <td>WAC</td> <td></td> <td>WORK-AS-CONSTRUCTED</td> <td>A.S.A.</td> <td>V.V.</td> <td>J.N.</td> <td>L.G.</td> </tr> </tbody> </table>	REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES	A	18.10.2017	PRELIMINARY ISSUE	J.N.	L.G.	J.N.	L.G.	 A1 / A3 1:250 / 1:500	0	30.11.2017	CONSTRUCTION ISSUE	J.N.	L.G.	J.N.	L.G.	1	13.12.2017	AMENDED CONSTRUCTION ISSUE - SERVICE LOCATIONS MOVED	J.N.	L.G.	J.N.	L.G.	2	02.05.2018	AMENDED CONSTRUCTION ISSUE - LOT LAYOUT AND NUMBERS AMENDED	J.N.	L.G.	J.N.	L.G.	3	28.06.2018	AMENDED CONSTRUCTION ISSUE - RECYCLED WATERMAIN AMENDED	J.N.	L.G.	J.N.	L.G.	WAC		WORK-AS-CONSTRUCTED	A.S.A.	V.V.	J.N.	L.G.	DESIGN FILE N:\	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	CLIENT 	PROPERTY DESCRIPTION PROPOSED SUBDIVISION STAGE 1, FREEMANS DRIVE, COORANBONG	PROJECT POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER	PLAN TITLE PRESSURE SEWER DETAIL PLAN - SHEET 6	SURVEYED ADW Johnson	DATUM A.H.D.	PROJECT No. 239078(12)TW	DISCIPLINE - WAT -	NUMBER 023	REV. pWAC
	REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES																																																									
A	18.10.2017	PRELIMINARY ISSUE	J.N.	L.G.	J.N.	L.G.	 A1 / A3 1:250 / 1:500																																																										
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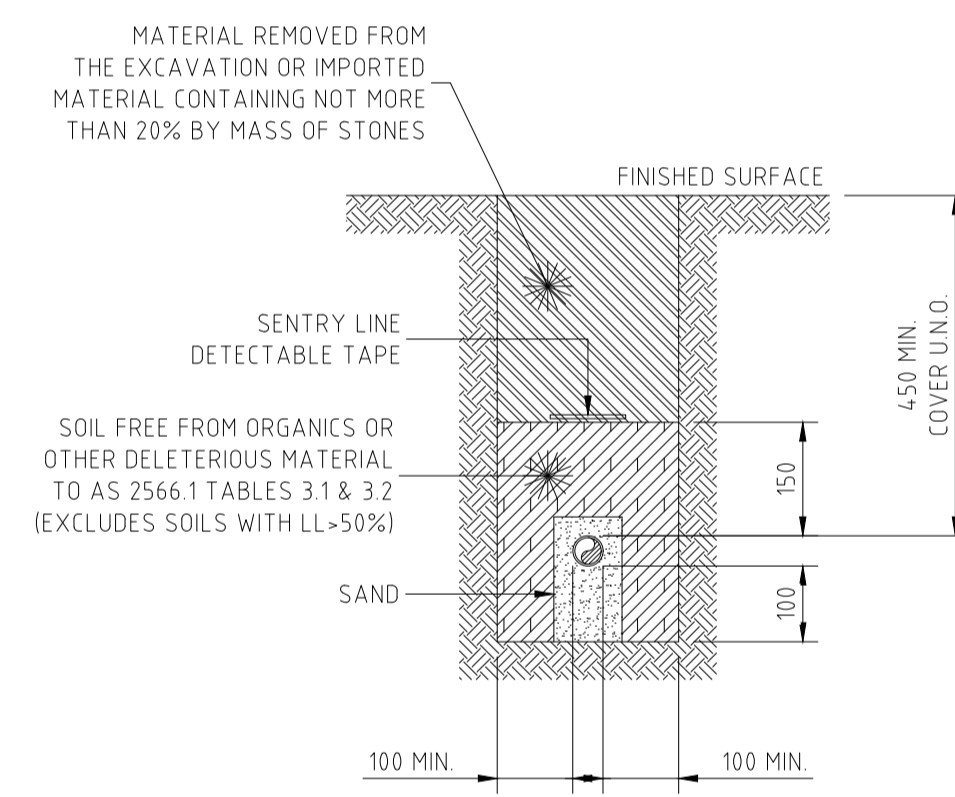
PRELIMINARY

PRELIMINARY
WORK-AS-CONSTRUCTED

REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES	CLIENT		PROPERTY DESCRIPTION	PROJECT	PLAN TITLE				
A	18.10.2017	PRELIMINARY ISSUE	J.N.	L.G.	J.N.	L.G.		<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 SUBDIVISION STAGE 1, FREEMANS DRIVE, COORANBONG</p>	POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER		NOT USED			
0	30.11.2017	CONSTRUCTION ISSUE	J.N.	L.G.	J.N.	L.G.	SURVEYED				DATUM	PROJECT No.	DISCIPLINE	NUMBER	REV.	
1	13.12.2017	AMENDED CONSTRUCTION ISSUE - SERVICE LOCATIONS MOVED	J.N.	L.G.	J.N.	L.G.	ADW Johnson				A.H.D.	239078(12)TW	- WAT -	024	pWAC	
2	02.05.2018	AMENDED CONSTRUCTION ISSUE - LOT LAYOUT AND NUMBERS AMENDED	J.N.	L.G.	J.N.	L.G.										
3	28.06.2018	AMENDED CONSTRUCTION ISSUE - RECYCLED WATERMAIN AMENDED	J.N.	L.G.	J.N.	L.G.										
WAC		WORK-AS-CONSTRUCTED	A.S.A.	V.V.	J.N.	L.G.										



STREET PRESSURE MAIN
TYPICAL DETAIL
SCALE 1:10



PRIVATE PROPERTY PRESSURE MAIN
TYPICAL DETAIL
SCALE 1:10

NOTES:

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

PRELIMINARY
WORK-AS-CONSTRUCTED

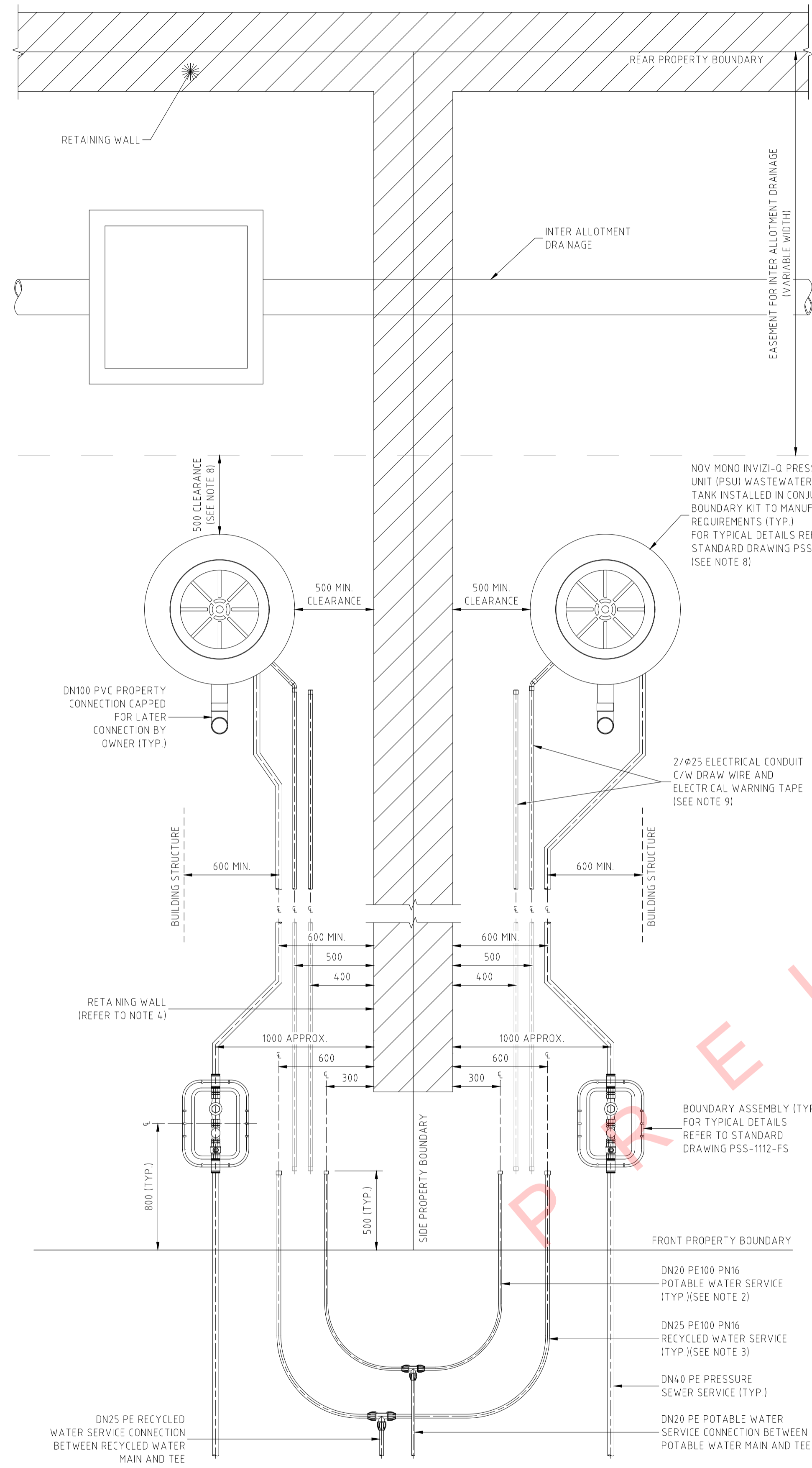
REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES	CLIENT	PROPERTY DESCRIPTION	PROJECT	PLAN TITLE	SURVEYED	DATUM	PROJECT No.	DISCIPLINE	NUMBER	REV.		
A	18.10.2017	PRELIMINARY ISSUE	J.N.	L.G.	J.N.	L.G.	 A1 / A3 1:10 / 1:20	Hunter Office Unit 7/335 Hillsborough Rd Warners Bay N.S.W. 2282 Phone: (02) 4978 5100 Fax: (02) 4978 5199 email: hunter@adwjohanson.com.au www.adwjohanson.com.au ABN 62 129 445 398	PROPOSED SUBDIVISION STAGE 1, FREEMANS DRIVE, COORANBONG	POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER	TYPICAL PIPEWORK TRENCHING DETAILS	ADW Johnson	A.H.D.	239078(12)TW	- WAT -	025	pWAC		
0	30.11.2017	CONSTRUCTION ISSUE	J.N.	L.G.	J.N.	L.G.													
1	13.12.2017	AMENDED CONSTRUCTION ISSUE - SERVICE LOCATIONS MOVED	J.N.	L.G.	J.N.	L.G.													
2	02.05.2018	AMENDED CONSTRUCTION ISSUE - LOT LAYOUT AND NUMBERS AMENDED	J.N.	L.G.	J.N.	L.G.													
3	28.06.2018	AMENDED CONSTRUCTION ISSUE - RECYCLED WATERMAIN AMENDED	J.N.	L.G.	J.N.	L.G.													
WAC		WORK-AS-CONSTRUCTED	J.N. A.S.A.	L.G. V.V.	J.N.	L.G.													



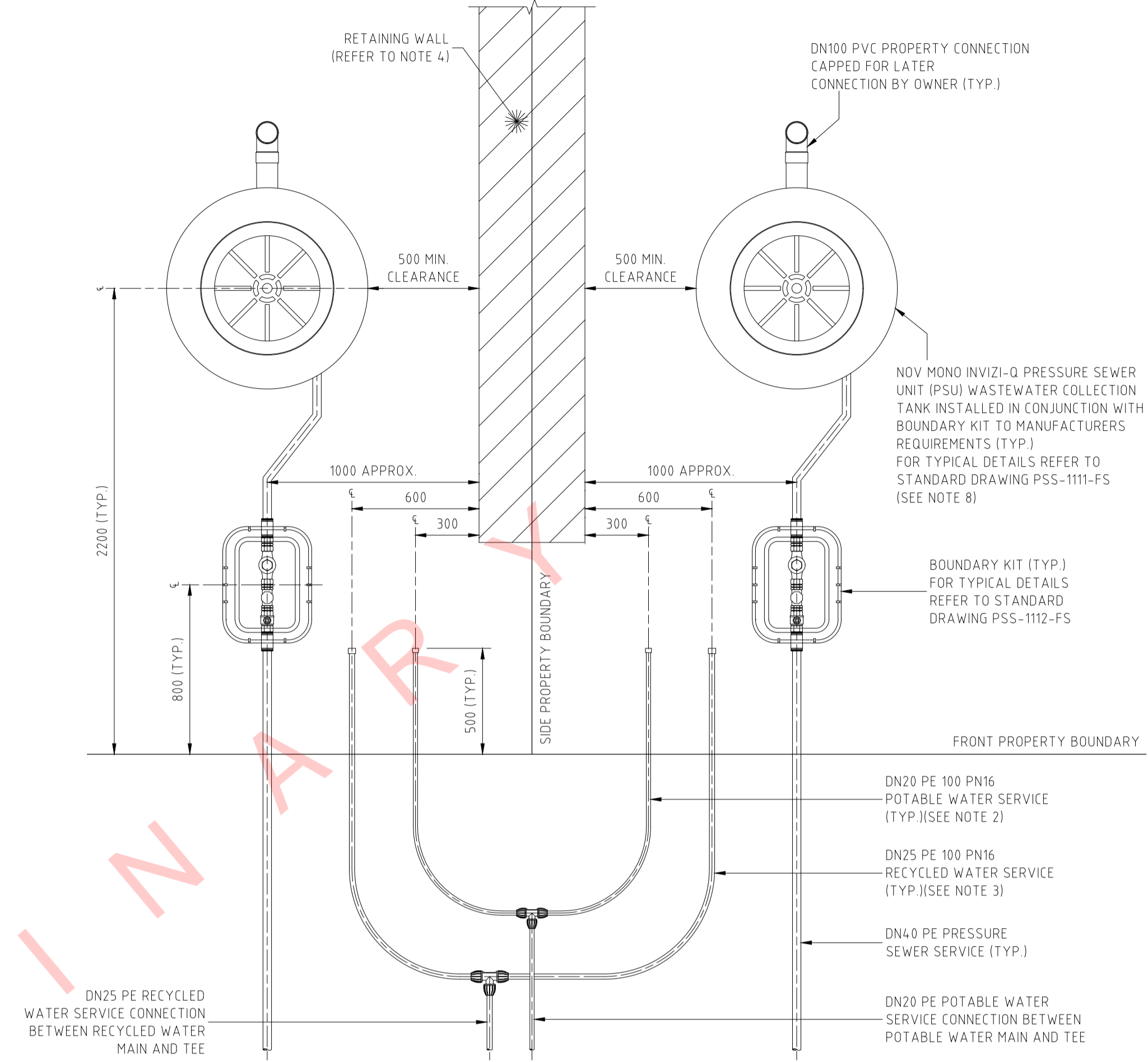
PRELIMINARY

PRELIMINARY
WORK-AS-CONSTRUCTED

REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES	CLIENT		PROPERTY DESCRIPTION	PROJECT	PLAN TITLE			
A	18.10.2017	PRELIMINARY ISSUE	J.N.	L.G.	J.N.	L.G.		<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>JOHNSON PROPERTY GROUP</p>	<p>PROPOSED SUBDIVISION STAGE 1, FREEMANS DRIVE, COORANBONG</p>	POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER				
0	30.11.2017	CONSTRUCTION ISSUE	J.N.	L.G.	J.N.	L.G.	PLAN TITLE								
1	13.12.2017	AMENDED CONSTRUCTION ISSUE - SERVICE LOCATIONS MOVED	J.N.	L.G.	J.N.	L.G.	NOT USED								
2	02.05.2018	AMENDED CONSTRUCTION ISSUE - LOT LAYOUT AND NUMBERS AMENDED	J.N.	L.G.	J.N.	L.G.									
3	28.06.2018	AMENDED CONSTRUCTION ISSUE - RECYCLED WATERMAIN AMENDED	J.N.	L.G.	J.N.	L.G.									
WAC		WORK-AS-CONSTRUCTED	A.S.A.	V.V.	J.N.	L.G.					PROJECT No.	DISCIPLINE	NUMBER	REV.	
DESIGN FILE N:\								ALL DIMENSIONS ARE IN METRES. DO NOT SCALE				239078(12)TW	- WAT -	026	pWAC



TYPICAL PROPERTY CONNECTION DETAIL
(PRESSURE SEWER UNIT AT REAR)
SCALE 1:20



TYPICAL PROPERTY CONNECTION DETAIL
SCALE 1:20

NOTES:

- PROPERTY SERVICE CONNECTIONS WERE IN ACCORDANCE WITH WSA STANDARD DRAWINGS FOR DUAL WATER SUPPLY SYSTEMS (SYDNEY WATER VERSION) SUPPLEMENT TO WSA 03-2011.
- DN20 PE 100 PN16 POTABLE WATER SERVICE TO EXTEND 500mm BEYOND PROPERTY BOUNDARY AND CAPPED FOR LATER CONNECTION BY PROPERTY OWNER.
- DN25 PE 100 PN16 RECYCLED WATER SERVICE TO EXTEND 500mm BEYOND PROPERTY BOUNDARY AND CAPPED FOR LATER CONNECTION BY PROPERTY OWNER.
- FOR PROPERTY CONNECTIONS WHERE A RETAINING WALL IS NOT PRESENT, SERVICES ARE 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 MAINTAINED.
- MINIMUM BENDING RADIUS FOR PE PIPEWORK IS 20 x PIPE DIAMETER.
- ALL POLYETHYLENE FITTINGS WERE JOINED USING ELECTROFUSION JOINTING TECHNIQUES IN ACCORDANCE WITH MANUFACTURERS REQUIREMENTS. ROTATE BENDS AS NECESSARY.
- PRESSURE SEWER UNIT (PSU) IS TO HAVE 500mm CLEARANCE FROM INTER ALLOTMENT DRAINAGE EASEMENT (IF PRESENT), REAR PROPERTY BOUNDARY RETAINING WALL (IF PRESENT) OR REAR PROPERTY BOUNDARY. PRESSURE SEWER UNIT (PSU) IS TO HAVE 2150mm CLEARANCE FROM BUILDING STRUCTURES.
- ø25 ELECTRICAL CONDUIT IS TO EXTEND FROM CONNECTION WITH PRESSURE SEWER UNIT (PSU) TO NOM. 500mm INSIDE FRONT PROPERTY BOUNDARY AND CAPPED. ELECTRICAL CONDUIT IS HEAVY DUTY ORANGE. ALL CONDUIT BENDS ARE LARGE RADIUS SWEEP BENDS.
- FOR MORE INFORMATION REFER TO FLOW SYSTEMS STANDARD DRAWING FSI-1000-FS.

PRELIMINARY

PRELIMINARY
WORK-AS-CONSTRUCTED

REV.	DATE	AMENDMENT
A	18.10.2017	PRELIMINARY ISSUE
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3	28.06.2018	AMENDED CONSTRUCTION ISSUE - RECYCLED WATERMAIN AMENDED
WAC		WORK-AS-CONSTRUCTED

DRAWN	CHECK	DESIGN	VERIFY	SCALES
J.N.	L.G.	J.N.	L.G.	0 0.1 0.2 0.3 0.4 A1 / A3
J.N.	L.G.	J.N.	L.G.	1:10 / 1:20
J.N.	L.G.	J.N.	L.G.	0 0.4 0.8 A1 / A3
J.N.	L.G.	J.N.	L.G.	1:20 / 1:40
A.S.A.	V.V.	J.N.	L.G.	



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ABN 62 129 445 398



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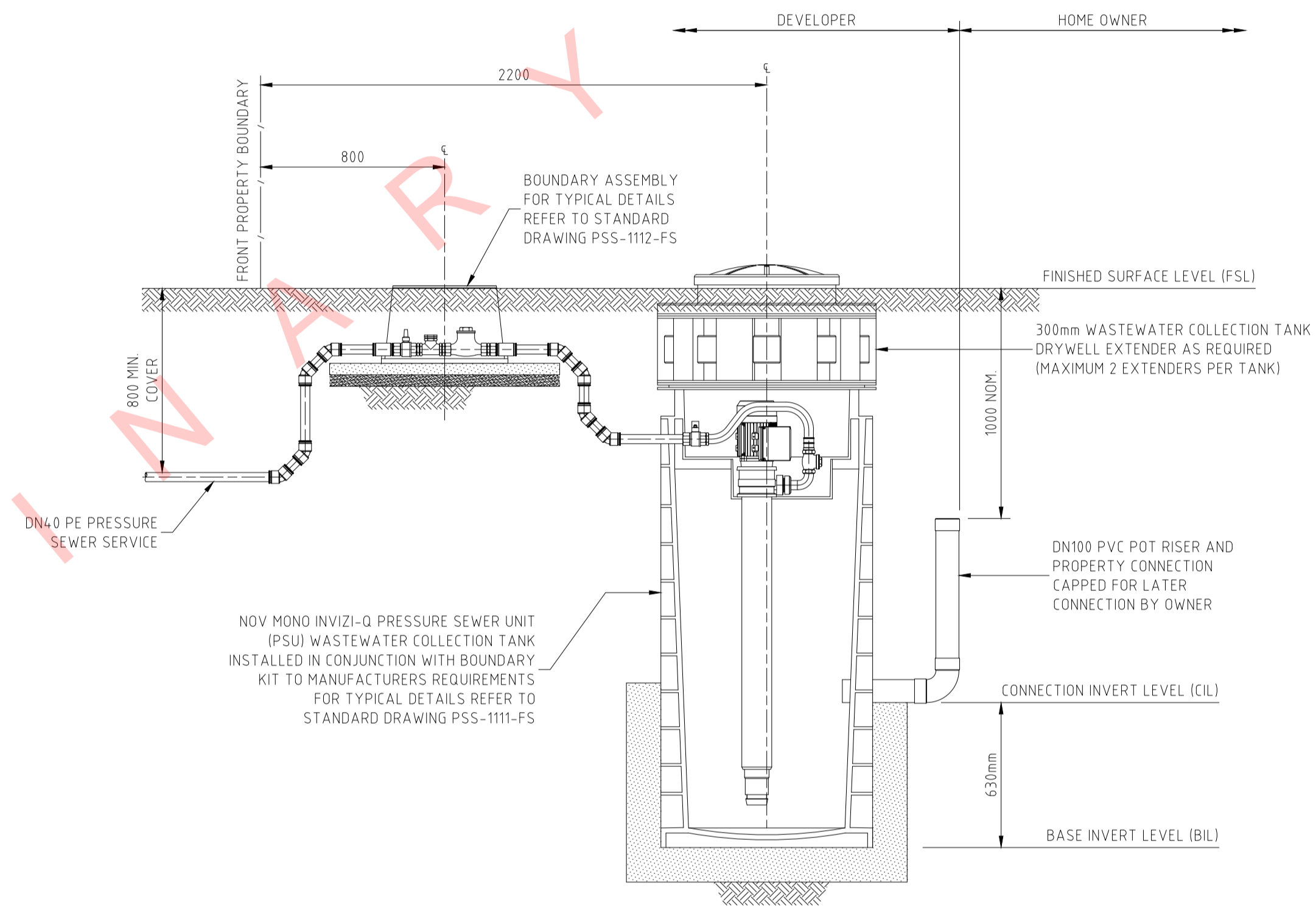
PROPERTY DESCRIPTION
PROPOSED SUBDIVISION
STAGE 1, FREEMANS DRIVE,
COORANBONG

PROJECT	POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER		
PLAN TITLE	TYPICAL SERVICE CONNECTION DETAILS		
SURVEYED	ADW Johnson	DATUM	A.H.D.
PROJECT No.	239078(12)TW	DISCIPLINE	- WAT -
NUMBER	027	REV.	pWAC



WASTEWATER COLLECTION TANK LEVEL DETAILS				
LOT NUMBER	TANK FSL	TANK BASE INVERT	CONNECTION INVERT	RISER No.
102	7.73	5.60	6.23	0
103	9.60	7.47	8.10	0
104	10.35	8.22	8.85	0
105	12.00	9.87	10.50	0
106	12.80	10.67	11.30	0
107	13.72	11.59	12.22	0
108	15.54	13.41	14.04	0
109	17.72	15.59	16.22	0
110	18.48	16.35	16.98	0
111	20.59	18.46	19.09	0
112	18.63	16.50	17.13	0
113	19.44	17.31	17.94	0
114	20.78	18.35	18.98	1
115	17.65	15.52	16.15	0
116	17.68	15.55	16.18	0
118	14.70	12.27	12.90	1
119	11.75	9.62	10.25	0
120	10.90	8.77	9.40	0
121	8.57	6.44	7.07	0
201	21.40	19.27	19.90	0
202	23.15	21.02	21.65	0
203	23.86	21.73	22.36	0
204	25.48	23.35	23.98	0
205	25.94	23.81	24.44	0
206	26.95	24.82	25.45	0
207	27.38	25.25	25.88	0
208	27.57	25.44	26.07	0
209	28.21	26.08	26.71	0
210	21.75	19.62	20.25	0
211	21.61	19.48	20.11	0
212	21.11	18.98	19.61	0
214	24.04	21.91	22.54	0
215	23.20	21.07	21.70	0
216	22.55	20.42	21.05	0
217	26.49	24.06	24.69	1
218	25.49	23.06	23.69	1
219	24.04	21.61	22.24	1
220	28.57	26.44	27.07	0
303 (Stage 2)	22.26	20.13	20.76	0
310 (Stage 2)	23.04	20.91	21.54	0

✱ WASTEWATER COLLECTION TANK PLACED IN REAR OF LOT



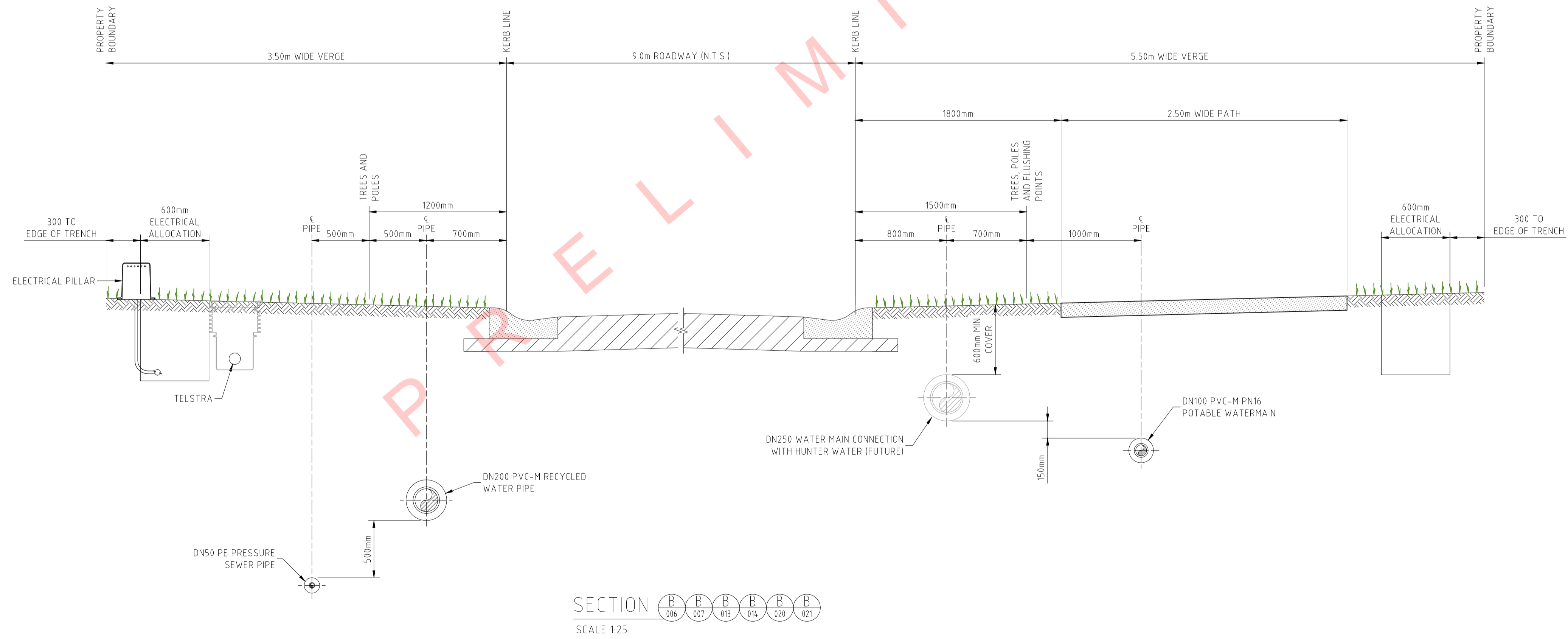
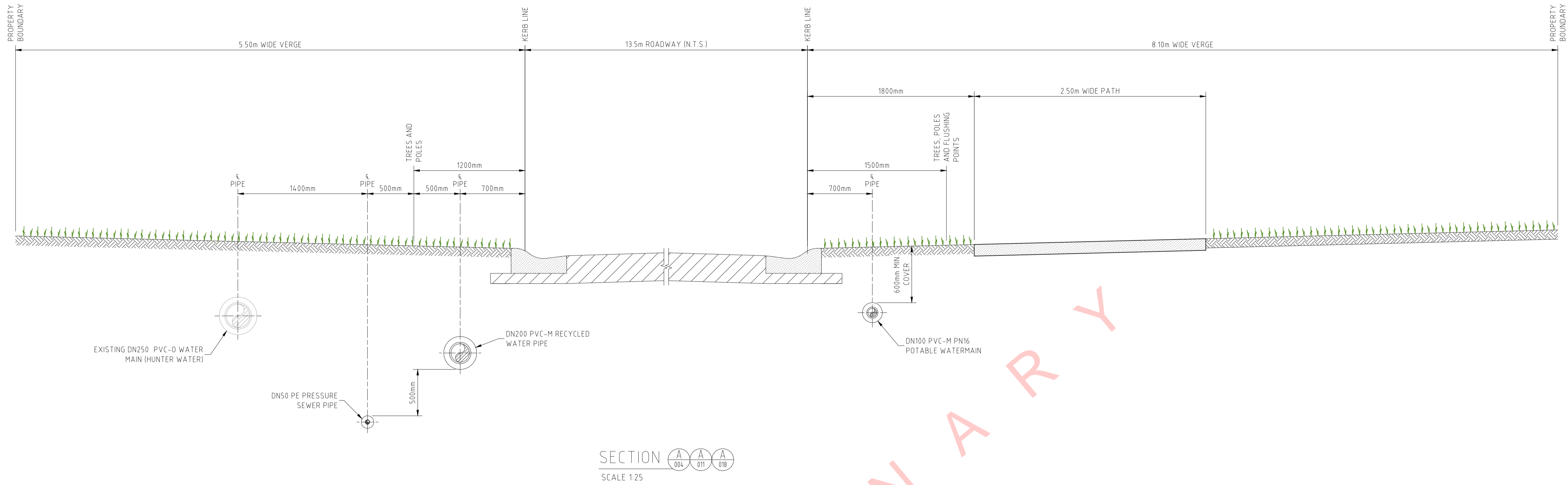
PRESSURE SEWER SERVICE CONNECTION
TYPICAL SECTIONAL ELEVATION

SCALE 1:20
(SHOWN AS FRONT OF LOT SERVICE CONNECTION WITH 1 DRYWELL EXTENDER)

- NOTE:
- WASTEWATER COLLECTION TANK INVERT LEVEL(IL)=FINISHED SURFACE LEVEL(FSL)
 - MINUS 2150 FOR 0 DRYWELL EXTENDERS
 - MINUS 2450 FOR 1 DRYWELL EXTENDERS
 - MINUS 2750 FOR 2 DRYWELL EXTENDERS
- FOR FURTHER DETAILS REFER TO STANDARD DRAWING PSS-1113-FS.

PRELIMINARY
WORK-AS-CONSTRUCTED

REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES	<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>		CLIENT	PROPERTY DESCRIPTION	PROJECT	POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER		
A 0 1 2 3 WAC	18.10.2017 30.11.2017 13.12.2017 02.05.2018 28.06.2018	PRELIMINARY ISSUE CONSTRUCTION ISSUE AMENDED CONSTRUCTION ISSUE - SERVICE LOCATIONS MOVED AMENDED CONSTRUCTION ISSUE - LOT LAYOUT AND NUMBERS AMENDED AMENDED CONSTRUCTION ISSUE - RECYCLED WATERMAIN AMENDED WORK-AS-CONSTRUCTED	J.N. J.N. J.N. J.N. A.S.A.	L.G. L.G. L.G. L.G. V.V.	J.N. J.N. J.N. J.N.	L.G. L.G. L.G. L.G.				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 1, FREEMANS DRIVE, COORANBONG	PLAN TITLE WASTEWATER COLLECTION TANK LEVEL DETAILS	PROJECT No. 239078(12)TW	DISCIPLINE - WAT -
DESIGN FILE N:\								ALL DIMENSIONS ARE IN METRES. DO NOT SCALE		SURVEYED ADW Johnson	DATUM A.H.D.	PROJECT No. 239078(12)TW - WAT - 028			REV. pWAC



PRELIMINARY

NOTE:
1. FOR MINIMUM VERTICAL AND HORIZONTAL CLEARANCES REFER TO WATER SUPPLY CODE OF AUSTRALIA WSA 03-2011-3.1. (SYDNEY WATER EDITION 2012).

PRELIMINARY
WORK-AS-CONSTRUCTED

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3	28.06.2018	AMENDED CONSTRUCTION ISSUE - RECYCLED WATERMAIN AMENDED
WAC		WORK-AS-CONSTRUCTED

DRAWN	CHECK	DESIGN	VERIFY
J.N.	L.G.	J.N.	L.G.
J.N.	L.G.	J.N.	L.G.
J.N.	L.G.	J.N.	L.G.
J.N.	L.G.	J.N.	L.G.
A.S.A.	V.V.	J.N.	L.G.

SCALES
0 0.5 1 A1 / A3 1:25 / 1:50

adw
Johnson

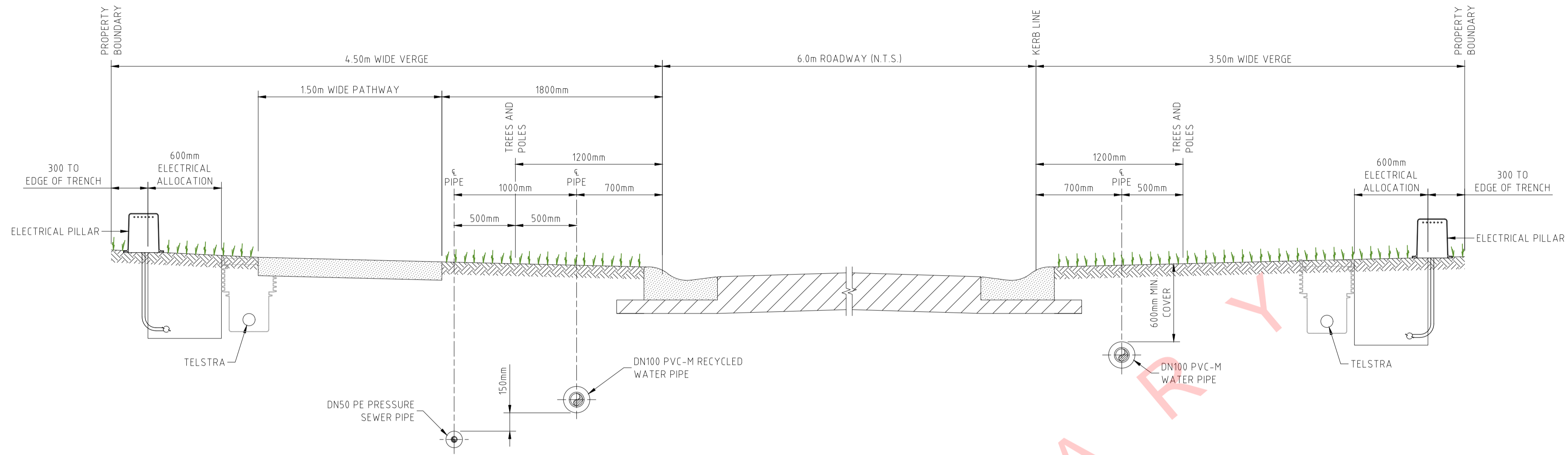
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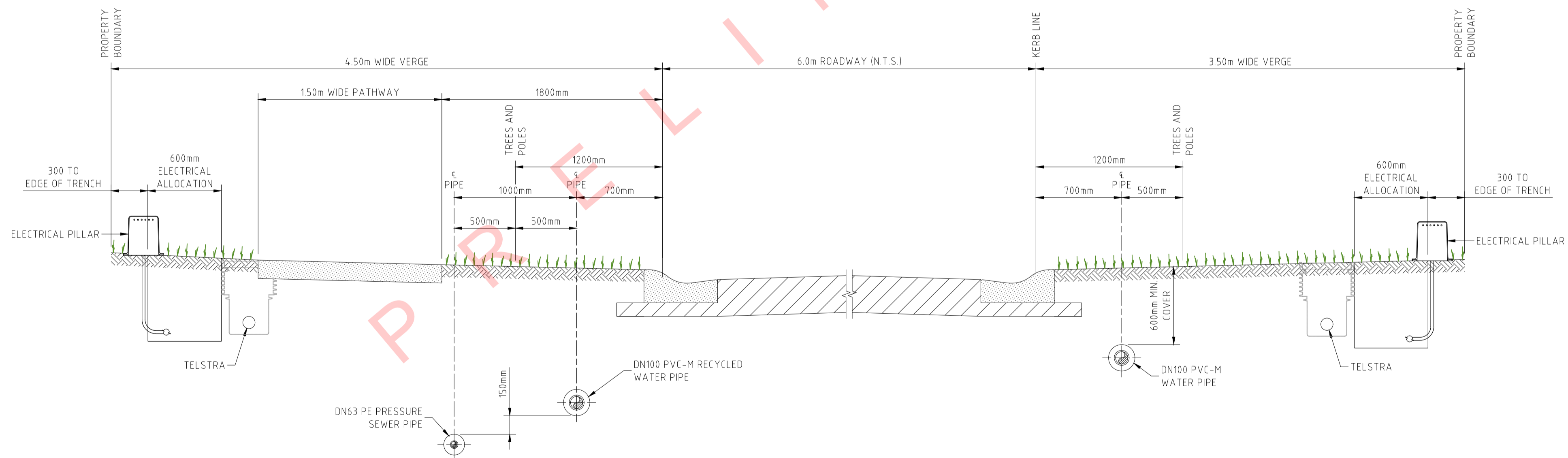
**JOHNSON
PROPERTY
GROUP**

PROPERTY DESCRIPTION	
PROPOSED SUBDIVISION STAGE 1, FREEMANS DRIVE, COORANBONG	
SURVEYED	DATUM
ADW Johnson	A.H.D.

PROJECT	POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER		
PLAN TITLE	ROAD CROSS SECTIONS - SHEET 1		
PROJECT No.	DISCIPLINE	NUMBER	REV.
239078(12)TW	- WAT -	029	pWAC



SECTION C007 C008 C014 C015 C021 C022
SCALE 1:25



SECTION D008 D009 D015 D016 D022 D023
SCALE 1:25

NOTE:
1. FOR MINIMUM VERTICAL AND HORIZONTAL CLEARANCES REFER TO WATER SUPPLY CODE OF AUSTRALIA WSA 03-2011-3.1. (SYDNEY WATER EDITION 2012).

**PRELIMINARY
WORK-AS-CONSTRUCTED**

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A	18.10.2017	PRELIMINARY ISSUE	J.N.	L.G.	J.N.	L.G.	
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3	28.06.2018	AMENDED CONSTRUCTION ISSUE - RECYCLED WATERMAIN AMENDED	J.N.	L.G.	J.N.	L.G.	
WAC		WORK-AS-CONSTRUCTED	A.S.A.	V.V.	J.N.	L.G.	

DRAWN	CHECK	DESIGN	VERIFY	SCALES
J.N.	L.G.	J.N.	L.G.	
J.N.	L.G.	J.N.	L.G.	
J.N.	L.G.	J.N.	L.G.	
J.N.	L.G.	J.N.	L.G.	

adw
Johnson

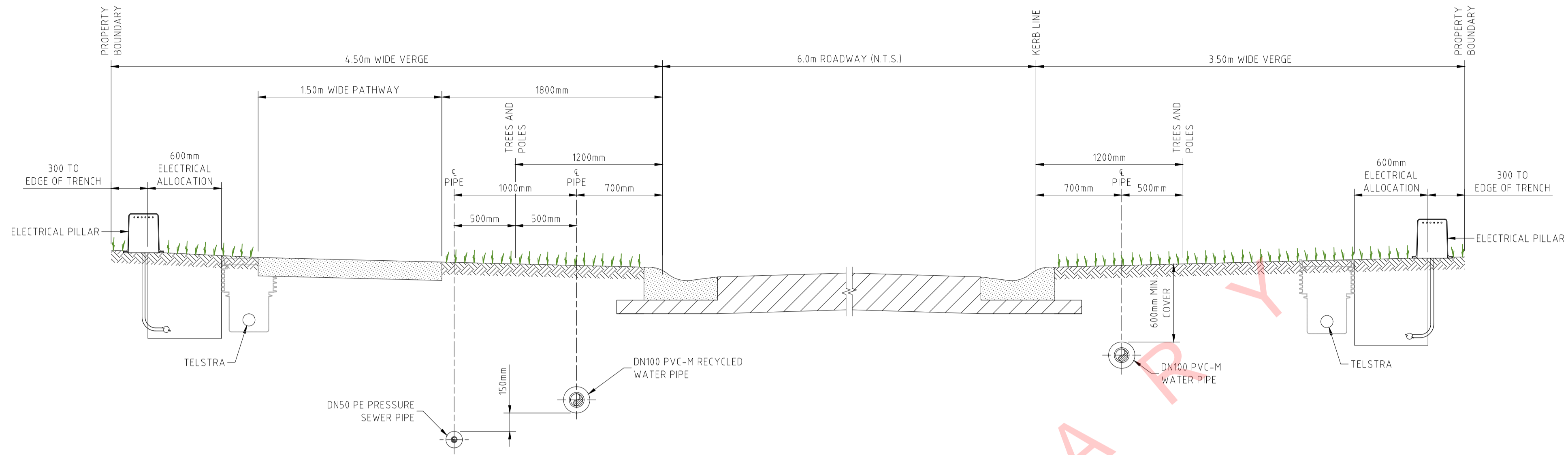
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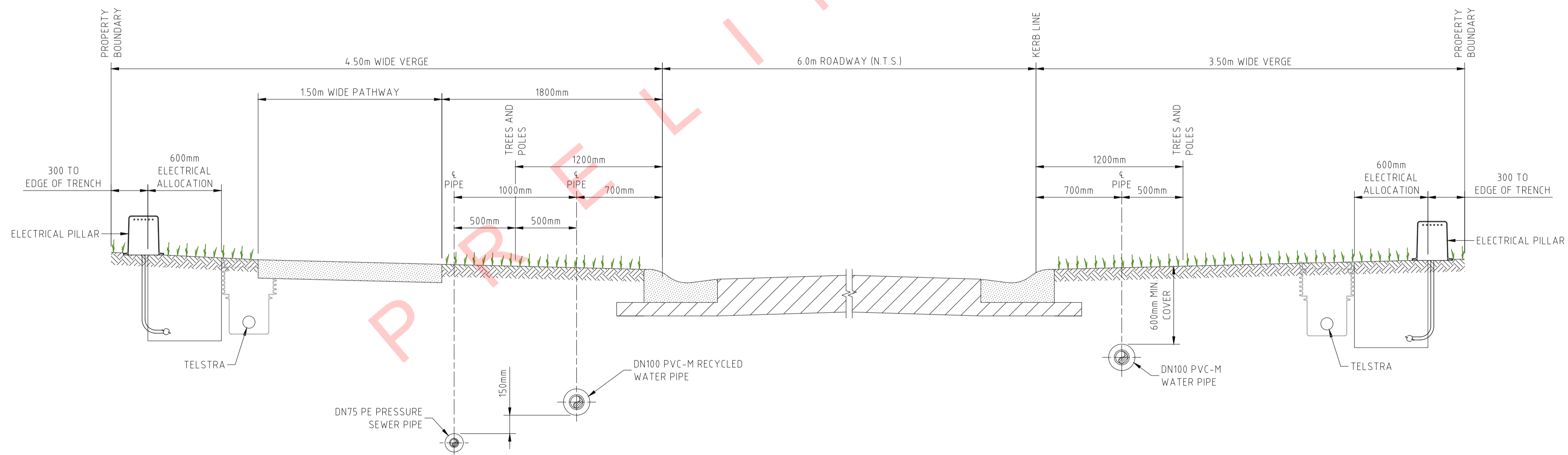
**JOHNSON
PROPERTY
GROUP**

PROPERTY DESCRIPTION	
PROPOSED SUBDIVISION STAGE 1, FREEMANS DRIVE, COORANBONG	
SURVEYED	DATUM
ADW Johnson	A.H.D.

PROJECT	POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER		
PLAN TITLE	ROAD CROSS SECTIONS - SHEET 2		
PROJECT No.	DISCIPLINE	NUMBER	REV.
239078(12)TW	- WAT -	030	pWAC



SECTION 008-015-022
SCALE 1:25

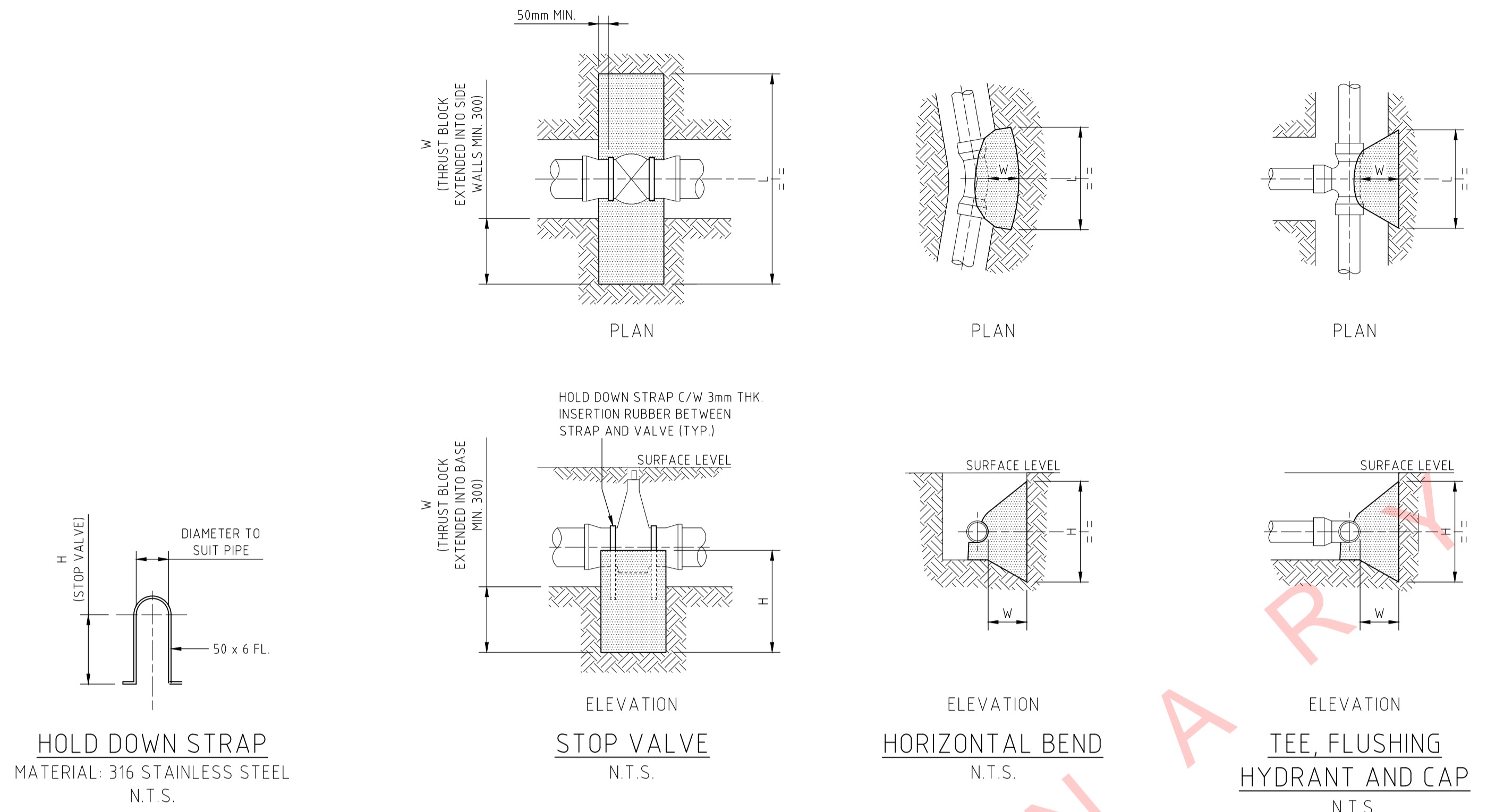


SECTION 009-016-023
SCALE 1:25

NOTE:
1. FOR MINIMUM VERTICAL AND HORIZONTAL CLEARANCES REFER TO WATER SUPPLY CODE OF AUSTRALIA WSA 03-2011-3.1. (SYDNEY WATER EDITION 2012).

**PRELIMINARY
WORK-AS-CONSTRUCTED**

REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES	CLIENT		PROPERTY DESCRIPTION		PROJECT		
A	18.10.2017	PRELIMINARY ISSUE	J.N.	L.G.	J.N.	L.G.		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		POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER		
0	30.11.2017	CONSTRUCTION ISSUE	J.N.	L.G.	J.N.	L.G.	PROPOSED SUBDIVISION STAGE 1, FREEMANS DRIVE, COORANBONG					PLAN TITLE		
1	13.12.2017	AMENDED CONSTRUCTION ISSUE - SERVICE LOCATIONS MOVED	J.N.	L.G.	J.N.	L.G.	ROAD CROSS SECTIONS - SHEET 3					PROJECT No.		
2	02.05.2018	AMENDED CONSTRUCTION ISSUE - LOT LAYOUT AND NUMBERS AMENDED	J.N.	L.G.	J.N.	L.G.	ADW Johnson					DISCIPLINE		
3	28.06.2018	AMENDED CONSTRUCTION ISSUE - RECYCLED WATERMAIN AMENDED	J.N.	L.G.	J.N.	L.G.	www.adwjohnson.com.au		A.H.D.		NUMBER			
WAC		WORK-AS-CONSTRUCTED	A.S.A.	V.V.	J.N.	L.G.					239078(12)TW - WAT - 031		REV.	
ALL DIMENSIONS ARE IN METRES. DO NOT SCALE												pWAC		



TYPE	FITTING	SOIL STP (Kpa)	DESIGN STP (Kpa)	THRUST	TA (m ²)	LENGTH (L)	HEIGHT (H)	WIDTH (W)
1	DN200 x DN200 EQUAL TEE	100	1000	43.00	0.43	0.67	0.65	0.30
2	DN200 x DN100 REDUCING TEE	100	1000	12.00	0.12	0.40	0.30	0.30
3	DN200 x DN100 TAPER	100	1000	31.00	0.31	1.20	0.78	0.30
4	DN200 x 11.25° HORIZONTAL BEND	100	1000	5.00	0.05	0.30	0.30	0.30
5	DN200 x 6° HORIZONTAL BEND	100	1000	5.00	0.05	0.30	0.30	0.30
6	DN200 SOCKETED STOP VALVE	100	1000	43.00	0.43	1.20	0.52	0.30
7	DN200 FLUSHING HYDRANT	100	1000	43.00	0.43	0.67	0.65	0.30
8	DN100 x DN100 EQUAL TEE	100	1000	12.00	0.12	0.40	0.30	0.30
9	DN100 x 22.5° HORIZONTAL BEND	100	1000	5.00	0.05	0.30	0.30	0.30
10	DN100 x 11.25° HORIZONTAL BEND	100	1000	5.00	0.05	0.30	0.30	0.30
11	DN100 x 6° HORIZONTAL BEND	100	1000	5.00	0.05	0.30	0.30	0.30
12	DN100 SOCKETED STOP VALVE	100	1000	12.00	0.12	1.05	0.44	0.30
13	DN100 FLUSHING HYDRANT	100	1000	12.00	0.12	0.40	0.30	0.30

THRUST BLOCK NOTES:

1. CONCRETE THRUST BLOCKS WERE PROVIDED FOR ALL FITTINGS IN ACCORDANCE WITH TABLE.
2. 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.
3. THRUST BLOCKS ARE CONSTRUCTED SUCH THAT THEY TRANSFER THE THRUST ONTO UNDISTURBED GROUND. THRUST BLOCKS ARE NOT TO INTERFERE WITH OTHER SERVICES.
4. 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 (N). MAXIMUM ENCASEMENT TO BE 180°.
5. CONCRETE FOR THE THRUST BLOCKS WAS GRADE S25 USING CEMENT TYPE "SR" TO AS3972. CONCRETE TO BE MECHANICALLY VIBRATED.
6. CONCRETE THRUST BLOCKS WERE CURED FOR A MINIMUM OF 7 DAYS BEFORE BEING SUBJECTED TO ANY THRUST LOAD.
7. REFER TO WAT-1205-V FOR GENERAL FITTING THRUST BLOCK ARRANGEMENTS.
8. REFER TO WAT-1207-V FOR GENERAL VALVE AND VERTICAL BEND THRUST BLOCK ARRANGEMENTS.

**PRELIMINARY
WORK-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				
A 0 1 2 3 WAC	18.10.2017 30.11.2017 13.12.2017 02.05.2018 28.06.2018	PRELIMINARY ISSUE CONSTRUCTION ISSUE AMENDED CONSTRUCTION ISSUE - SERVICE LOCATIONS MOVED AMENDED CONSTRUCTION ISSUE - LOT LAYOUT AND NUMBERS AMENDED AMENDED CONSTRUCTION ISSUE - RECYCLED WATERMAIN AMENDED WORK-AS-CONSTRUCTED	J.N. J.N. J.N. J.N. A.S.A.	L.G. L.G. L.G. L.G. V.V.	J.N. J.N. J.N. J.N.	L.G. L.G. L.G. L.G.				PROPOSED SUBDIVISION STAGE 1, FREEMANS DRIVE, COORANBONG	POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER	PLAN TITLE THRUST BLOCK DETAILS	SURVEYED ADW Johnson	DATUM A.H.D.	PROJECT No. 239078(12)TW	DISCIPLINE - WAT -