# POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION PROPOSED SUBDIVISION STAGE 1F WATAGAN PARK McCULLOUGH STREET, COORANBONG DA/573/2014





LOCALITY SKETCH NOT TO SCALE

#### DRAWING INDEX

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239078(1F)-WAT-002	GENERAL NOTES.	
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239078(1F)-WAT-004	POTABLE WATER DETAIL PLAN SHEET 1.	
239078(1F)-WAT-005	POTABLE WATER DETAIL PLAN SHEET 2.	
239078(1F)-WAT-006	NOT USED.	
239078(1F)-WAT-007	NOT USED.	
239078(1F)-WAT-008	RECYCLED WATER DETAIL PLAN SHEET 1.	
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239078(1F)-WAT-010	NOT USED.	
239078(1F)-WAT-011	NOT USED.	
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239078(1F)-WAT-015	NOT USED.	
239078(1F)-WAT-016	TYPICAL PIPEWORK DETAILS.	
239078(1F)-WAT-017	NOT USED.	
239078(1F)-WAT-018	TYPICAL SERVICE CONNECTION DETAILS.	
239078(1F)-WAT-019	NOT USED.	
239078(1F)-WAT-020	ROAD CROSS SECTIONS SHEET 1.	
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239078(1F)-WAT-022	NOT USED.	
239078(1F)-WAT-023	THRUST BLOCK DETAILS.	

# WORK-AS-CONSTRUCTED

DATE AMENDMENT INITIAL DRAFT AMENDED ISSUE CONSTRUCTION ISSUE J.N. AMENDED CONSTRUCTION ISSUE WORK AS CONSTRUCTED - RAR ESIGN FILE N:\

**Hunter Office** Warners Bay N.S.W. 2282 Phone: (02) 4978 5100 www.adwjohnson.com.au ABN 62 129 445 398

JOHNSON PROPERTY GROUP

PROPERTY DESCRIPTION				
PROPOSED SUBDIVISION				
STAGE 1F WATAGAN PARK				
McCULLOUGH STREET, COORANBONG				
DA/573/201/				

SURVEYED

ADW Johnson

POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION PLAN TITLE

DISCIPLINE

WAT

WAC

COVER SHEET, LOCALITY PLAN AND DRAWING INDEX DA/5/3/2014

A.H.D.

239078(1F)

GENERAL NOTES:

COMMENCEMENT.

SUPERINTENDENT.

1. THIS DRAWING SET SHOULD BE READ IN CONJUNCTION WITH LAKE MACQUARIE CITY COUNCIL STANDARDS AND

2. THE CONTRACTOR SHALL LOCATE AND IDENTIFY ALL UNDERGROUND SERVICES PRIOR TO COMMENCEMENT OF

WORK AND SHALL REPAIR ANY DAMAGE CAUSED TO SUCH SERVICES DURING CONSTRUCTION. ANY SERVICE

3. ALL PRODUCTS AND MATERIALS SHALL BE NEW, SHALL COMPLY WITH THE RELEVANT AUSTRALIAN STANDARDS AND ARE TO BE SELECTED FROM THE COORANBONG WATER APPROVED PRODUCTS AND MATERIALS REGISTER.

4. DURING CONSTRUCTION ALL OPEN ENDS OF PIPES SHALL BE CAPPED TO PREVENT ENTRY OF FOREIGN MATTER.

7. MAKE SMOOTH TRANSITION TO EXISTING INFRASTRUCTURE (ROAD PAVEMENT, KERBS, FOOTPATHS, ETC.) TO LAKE

8. SUITABLE PROTECTION TO EXISTING INFRASTRUCTURE (ROAD PAVEMENT, KERBS, FOOTPATHS, ETC.) IS TO BE

9. CLEAR VEHICULAR ACCESS TO ADJOINING PROPERTIES IS TO BE MAINTAINED AT ALL TIMES FOR DURATION OF

CONSTRUCTION. FOR ANY WORKS IN ADJOINING PROPERTIES, PERMISSION IS TO BE OBTAINED PRIOR TO

10. SERVICE CONDUITS ARE TO BE LAID AS DIRECTED BY THE SUPERINTENDENT/RELEVANT SERVICE AUTHORITY.

12. THE CONTRACTOR SHALL PROVIDE COORANBONG WATER WITH M.G.A. COORDINATED WORK AS CONSTRUCTED

13. ANY WORKS NOT COVERED BY THE SPECIFICATION OR THIS DRAWING SET ARE TO BE REFERRED TO THE

BE UNDERTAKEN BY THE CONTRACTOR, WITH FILL DEPTHS NOTED ON W.A.C. PLANS.

(IN WRITING) OF INTENT TO CONNECT NEW MAINS TO EXISTING INFRASTRUCTURE.

LOCATE CLEAR OF VEHICULAR ACCESS LOCATIONS AND PROVIDE KERB MARKING AS PER COUNCIL REQUIREMENTS.

INFORMATION. BURIED FITTINGS ARE NOT TO BE BACKFILLED UNTIL WORK AS CONSTRUCTED DETAILS HAVE BEEN

OBTAINED AND APPROVAL FOR BACKFILLING HAS BEEN GIVEN BY THE COORANBONG WATER REPRESENTATIVE.

14. THE CONTRACTOR SHALL PROVIDE COORANBONG WATER AND HUNTER WATER WITH A MINIMUM OF 7 DAYS NOTICE

15. ALL PIPE BEDDING MATERIAL TO COMPLY WITH WSAA PRODUCT SPECIFICATION WSA-PS350 AND WSA PS351.

11. WHERE LOT FILLING EXCEEDS 300mm, A SURVEY OF THE STRIPPED SURFACE AND FINAL FILLED SURFACE SHALL

5. ALL MAINS SHALL BE FLUSHED WITH WATER TO REMOVE ANY DEBRIS PRIOR TO COMMISSIONING.

6. SURFACE IDENTIFICATION MARKERS ARE TO BE PROVIDED TO COORANBONG WATER REQUIREMENTS.

SUPERINTENDENT REPRESENTATIVE PRIOR TO COMMENCEMENT OF WORK.

LOCATIONS SHOWN IN THIS DRAWING SET ARE INDICATIVE ONLY.

MACQUARIE CITY COUNCIL AND SUPERINTENDENT'S SATISFACTION.

PROVIDED DURING DURATION OF CONSTRUCTION.

OTHER ASSOCIATED DRAWINGS AND TECHNICAL SPECIFICATIONS. ANY VARIATIONS SHALL BE APPROVED BY THE

### POTABLE WATER AND RECYCLED WATER NOTES

- 1. ALL WORKS SHALL BE IN ACCORDANCE WITH BUT NOT LIMITED TO, WATER SUPPLY CODE OF AUSTRALIA WSA 03-2011-3.1 AND COORANBONG WATER REQUIREMENTS.
- 2. WORKS MUST BE 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).
- 3. CLEARANCES SHOWN TO OTHER PIPES HAVE BEEN CALCULATED FROM THE COLLAR.
- 4. ALL PRODUCTS AND MATERIALS TO BE SELECTED FROM THE COORANBONG WATER APPROVED PRODUCTS AND MATERIALS REGISTER.
- 5. HYDRANTS, STOP VALVES AND ALL OTHER FITTINGS TO BE THE SAME SIZE AS THE THROUGH WATER MAIN. ALL POTABLE & RECYCLED WATER VALVES TO BE ANTI CLOCKWISE CLOSING.
- 6. HYDRANTS MUST NOT BE POSITIONED IN DRIVEWAYS OR TAPPING POINTS. HYDRANTS NOMINALLY AT LEAST 5m FROM EACH BOUNDARY OR ON BOUNDARIES.
- 7. ALL PIPES AND FITTINGS TO BE 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.
- 8. 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.
- 9. GEOTECHNICAL CONDITIONS SHALL BE ASSESSED DURING CONSTRUCTION BY THE CONTRACTOR IN ASSOCIATION WITH COORANBONG WATER SUPERINTENDENT TO DETERMINE MODIFICATIONS TO EMBEDMENT/TRENCH TYPE AND TRENCH DRAINAGE/BULKHEAD REQUIREMENTS.
- 10. ALL POTABLE WATERMAINS SHALL BE PLAIN BLUE PVC-M (PN16).
- 11. ALL RECYCLED WATERMAINS SHALL BE LILAC PVC-M (PN16).
- 12. DIFFERENTIATION OF DRINKING (POTABLE) AND NON-DRINKING (RECYCLED) WATER SYSTEMS TO BE AS PER WSA 03-2011, TABLE 4.1 WITH BOTH SERVICES BEING CLASSIFIED AS WATERMAINS. RECYCLED WATERMAIN TO ALWAYS BE LOWER THAN POTABLE WATERMAIN WITH MINIMUM 150mm VERTICAL CLEARANCE.
- 13. FOR THRUST BLOCK DETAILS REFER TO DRG-027.
- 14. PROPERTY SERVICE CONNECTIONS SHALL BE IN ACCORDANCE WITH WSA STANDARD DRAWINGS FOR DUAL WATER SUPPLY SYSTEMS(SYDNEY WATER VERSION)(SUPPLEMENT TO WSA 03-2002).
  - WAT-1853-S.
  - WAT-1854-S.
  - WAT-1855-S.
  - WAT-1856-S.
- 15. PROPERTY SERVICE CONNECTIONS MUST BE INSTALLED BY A LICENSED PLUMBER AND COMPLY WITH N.S.W. CODE OF PRACTICE FOR PLUMBING AND DRAINAGE AND AS/NZ 3500.
- 16. ALL MATERIALS USED IN PROPERTY SERVICES ARE TO BE IN ACCORDANCE WITH N.S.W. CODE OF PRACTICE FOR PLUMBING AND DRAINAGE AND AS/NZ 3500 (MINIMUM PN15), PE 80 B, PN16.
- 17. ALL PROPERTY SERVICE PIPES FOR RECYCLED WATER ARE TO BE 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 80 B, PN16. ALL PROPERY SERVICE PIPES FOR POTABLE WATER ARE TO BE COLOURED BLACK WITH BLUE LONGITUDINAL STRIPE TO A.S.2700.
- 18. MAXIMUM PIPE COVER SHALL BE 1500mm UNLESS SPECIFIED ON THE DESIGN DRAWINGS OR APPROVAL IS OBTAINED FROM THE COORANBONG WATER REPRESENTATIVE.
- 19. ALL MAINS LAID IN TRAFFICABLE CARRIAGEWAYS SHALL BE BACKFILLED WITH 16:1 STABILISED SAND CEMENT TO SUBGRADE LEVEL ONLY.
- 20. 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 IS TO BE IN ACCORDANCE WITH WATER SUPPLY CODE OF AUSTRALIA TABLES 16.1 AND 17.1.

- 21. POTABLE AND RECYCLED WATERMAIN FITTINGS ARE TO BE STAGGERED.
- 22. MAXIMUM JOINT DEFLECTIONS TO BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
- 23. EACH PROPERTY SERVICE CONNECTION IS TO BE FLUSHED AND LOCKED FOLLOWING PRESSURE TESTING.
- 24. SCOUR VALVES TO BE CONNECTED TO LOCAL STORMWATER SYSTEM.
- 25. POTABLE WATER IS TO BE UTILISED FOR FIRE FIGHTING PURPOSES.
- 26. PRESSURE TRANSMITTER TO BE MEASUREX MRB21 GENERAL PURPOSE TRANSMITTER WITH MICROSPIDER LOGGING TELEMETRY AND ALARM AS PER COORANBONG WATER REQUIREMENTS.
- 27. HYDRANT SURFACE BOXES TO BE YELLOW (POTABLE WATER) AND LILAC (RECYCLED WATER).

#### PRESSURE SEWER NOTES:

1. ALL WORKS SHALL BE IN ACCORDANCE WITH BUT NOT LIMITED TO PRESSURE SEWER CODE OF AUSTRALIA - WSA 07-2007, POLYETHYLENE PIPELINE CODE WSA 01-2004 AND COORANBONG WATER REQUIREMENTS.

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- 2. PRESSURE SEWER MAINS SHALL BE BLACK POLYETHYLENE (PE100 PN16) WITH A CREAM STRIPE AS PER WSA
- 3. ALL POLYETHYLENE MAINS SHALL BE JOINED USING ELECTROFUSION JOINTING TECHNIQUES IN ACCORDANCE WITH MANUFACTURERS REQUIREMENTS.
- 4. ALL MAINS LAID IN TRAFFICABLE CARRIAGEWAYS SHALL BE BACKFILLED WITH 16:1 STABILISED SAND CEMENT TO SUBGRADE LEVEL ONLY.
- 5. <u>ALL BENDS SHALL BE ELECTROFUSION SWEEP BENDS</u> (FABRICATED BENDS SHALL NOT BE USED).
- 6. ALL HOUSE SERVICE LATERALS SHALL BE DN40 PE 100 PN16.
- 7. DETECTABLE MARKING TAPE SHALL BE LAID ON TOP OF THE PIPE EMBEDMENT MATERIAL BEFORE BACKFILLING AND CONNECTED TO SURFACE FITTINGS.
- 8. ALL SURFACE FITTINGS LOCATED IN TRAFFICABLE AREAS (ROADWAYS, PATHS) SHALL HAVE HEAVY DUTY SURROUNDS INSTALLED.
- 9. ALL PRESSURE SEWER VALVES SHALL BE RESILIENT SEATED SLUICE GATE VALVES (CLOCKWISE CLOSING) AND SHALL BE RESTRAINED IN ACCORDANCE WITH WAT-1207.
- 10. ALL MAINS MUST BE TESTED (AS DIRECTED BY THE COORANBONG WATER REPRESENTATIVE) TO MEET CERTIFYING AUTHORITIES STANDARDS. ALL PRESSURE SEWER MAINS AND JOINTS TO BE TESTED TO 1600kPa.

#### 11. FOR LOTS WITH TANKS IN THE REAR.

- PROVIDE Ø32 HEAVY DUTY ELECTRICAL CONDUIT (WITH DRAW WIRE) INSTALLED FROM THE COLLECTION TANK TO THE RECYCLED WATER METER.
- PROVIDE Ø32 HEAVY DUTY ELECTRICAL CONDUIT (WITH DRAW WIRE) INSTALLED FROM THE COLLECTION TANK TO THE POTABLE WATER METER.
- CONDUITS SHALL BE LAID IN COMMON TRENCH WITH PRESSURE SEWER PIPEWORK WITH 400mm MINIMUM HORIZONTAL CLEARANCE BETWEEN CONDUIT AND SEWER.
- CONDUIT SHALL BE BROUGHT TO THE SURFACE AT MID RUN (MAXIMUM 25m FROM COLLECTION TANK AND 40m FROM WATER METERS) USING LARGE RADIUS SWEEP BENDS FOR FUTURE PROPERTY CONNECTION.
- 12. PRESSURE TRANSMITTER TO BE INSTALLED AT SPECIFIC POINTS SHALL BE MEASUREX MRB21 GENERAL PURPOSE TRANSMITTER WITH MICROSPIDER LOGGING TELEMETRY AND ALARM AS PER COORANBONG WATER REQUIREMENTS.
- 13. LOCALISED DEEPENING OF THE MAIN MAY BE REQUIRED TO FACILITATE AIR VALVE INSTALLATION. CONTRACTOR IS TO ENSURE 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).
- 14. THE MINIMUM NUMBER OF COMPACTION TESTS REQUIRED TO SATISFY THE PRESSURE SEWER CODE OF AUSTRALIA (CLAUSE 21.3.4) ARE AS FOLLOWS:

#### **TRAFFICABLE**

- PIPE EMBEDMENT ZONE: NIL.
- TRENCHFILL ZONE: NIL (REFER TO NOTE 9).

#### NON-TRAFFICABLE

- PIPE EMBEDMENT ZONE: 30 TESTS.
- TRENCHFILL ZONE: 30 TESTS.
- 15. FOR BOUNDARY KIT, FLUSHING POINT, AND ISOLATION VALVE TYPICAL DETAILS REFER TO DRG-020.
- 16. ROPE OFF ALL PRESSURE SEWER UNITS AND FLUSHING POINTS TO LIMIT DAMAGE DURING CONSTRUCTION.

#### WORK-AS-CONSTRUCTED

	REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES
	А	20.08.2014	INITIAL DRAFT	J.N.	L.G.	J.N.		
_	В	7.10.2014	AMENDED ISSUE	T.M.	L.G.	J.N.		
	0	22.10.2014	CONSTRUCTION ISSUE	J.N.	L.G.	J.N.	L.G.	
_	WAC	28.10.2015	WORK AS CONSTRUCTED - RAR	A.S.A.			B.K.	
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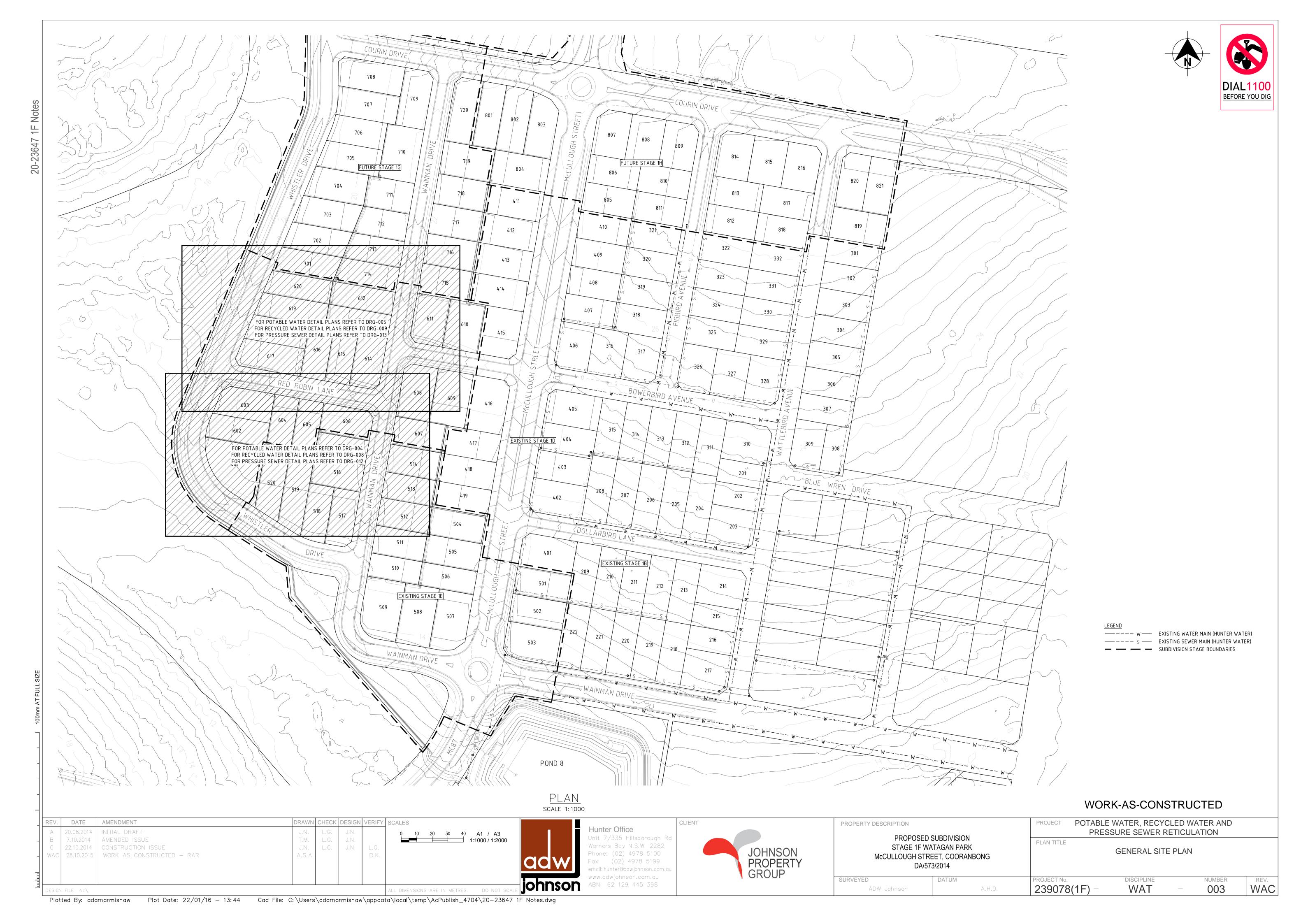
Hunter Office Unit 7/335 Hillsborough Rd Warners Bay N.S.W. 2282 Phone: (02) 4978 5100 Fax: (02) 4978 5199 email: hunter@adwjohnson.com.au ABN 62 129 445 398

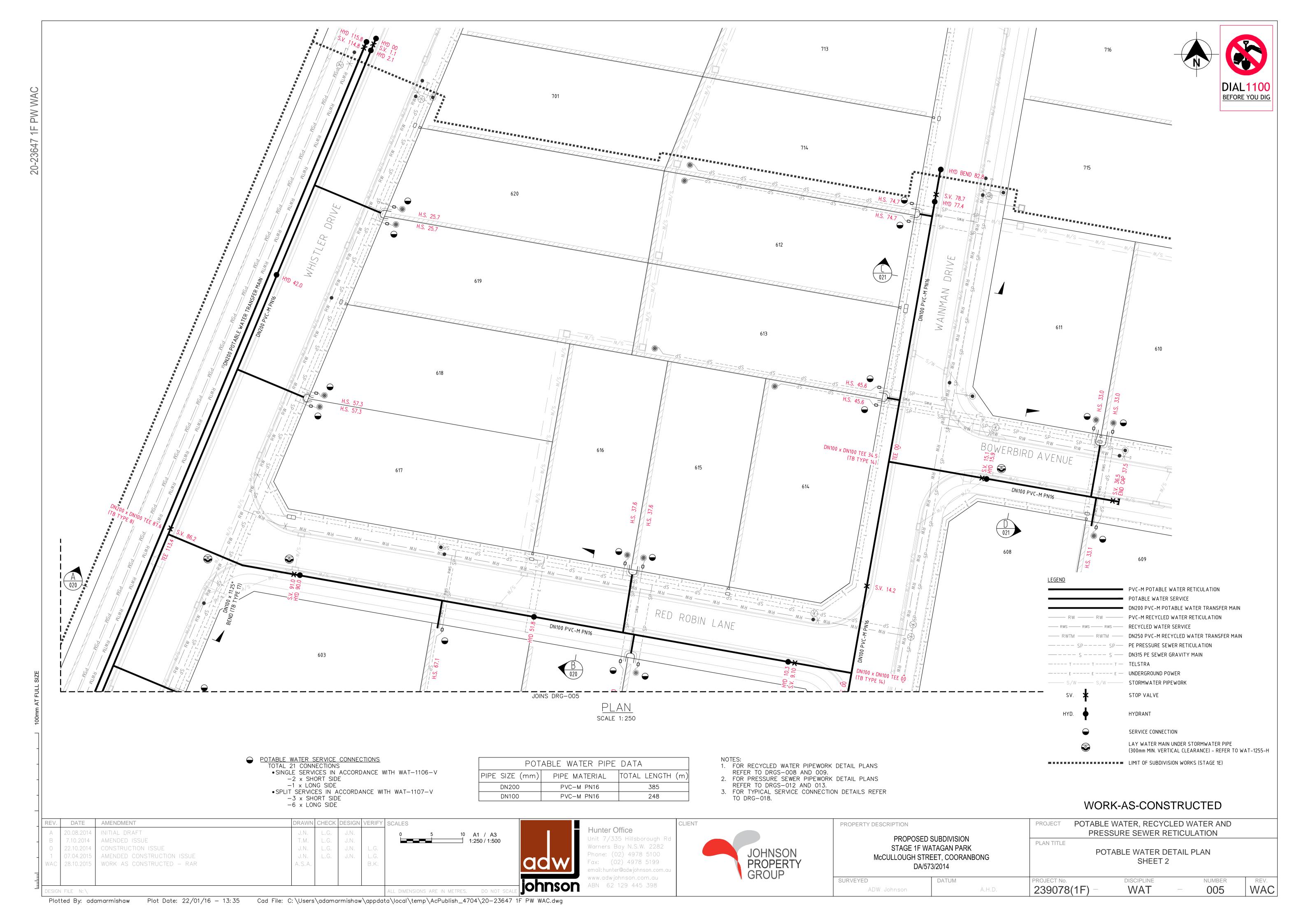


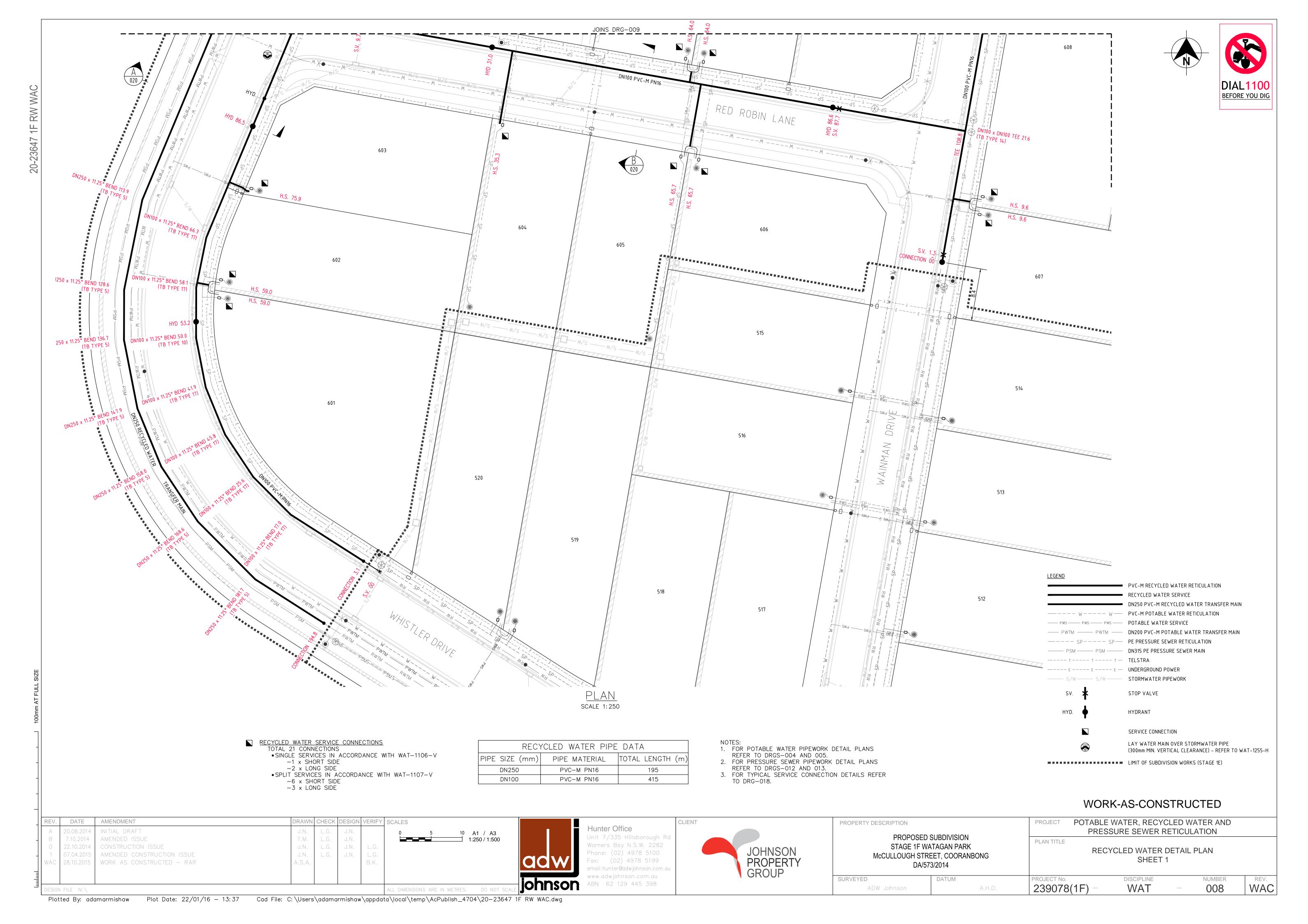
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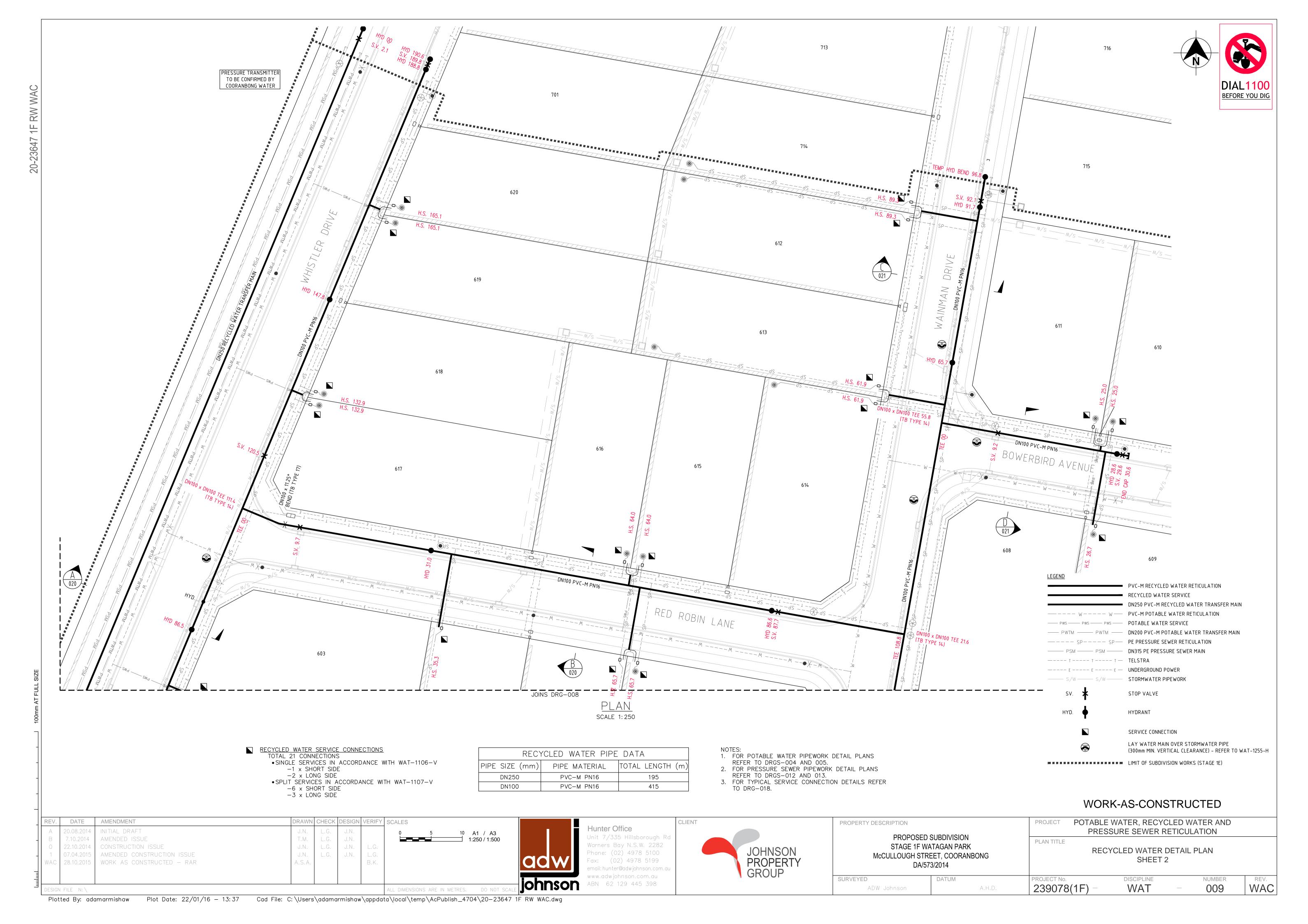
POTABLE WATER, RECYCLED WATER AND PRESSURE SEWER RETICULATION **PLAN TITLE GENERAL NOTES** 

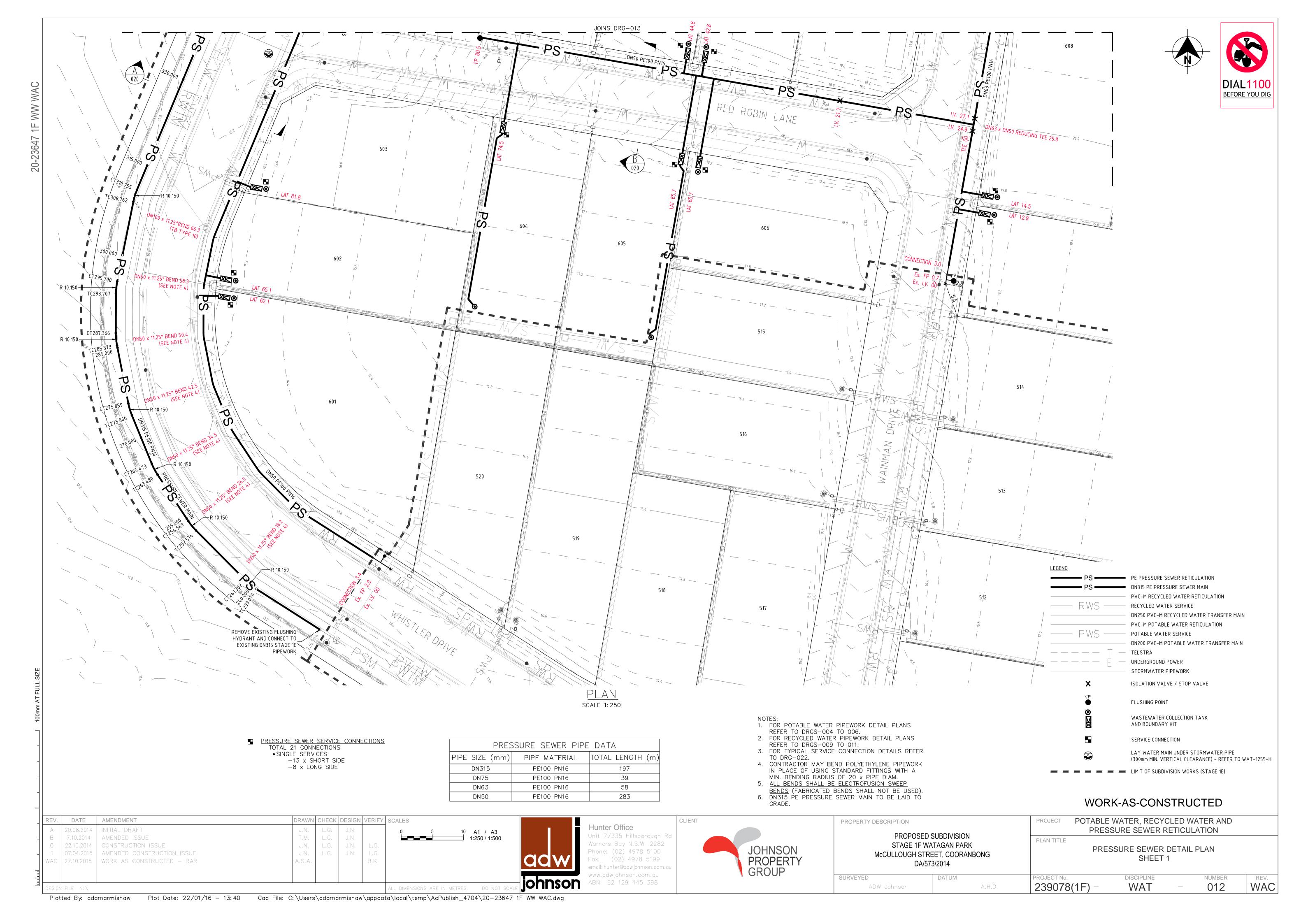
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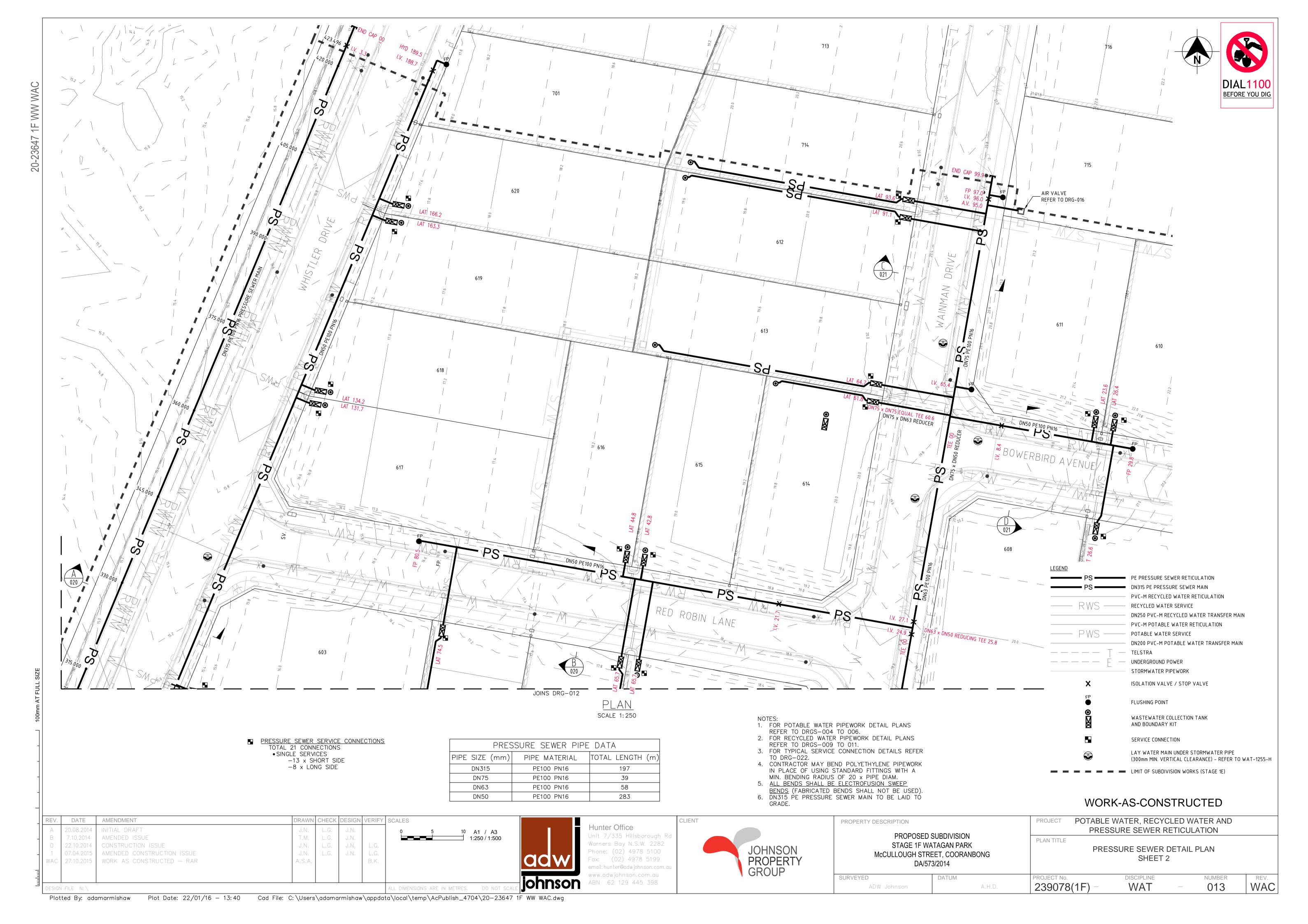




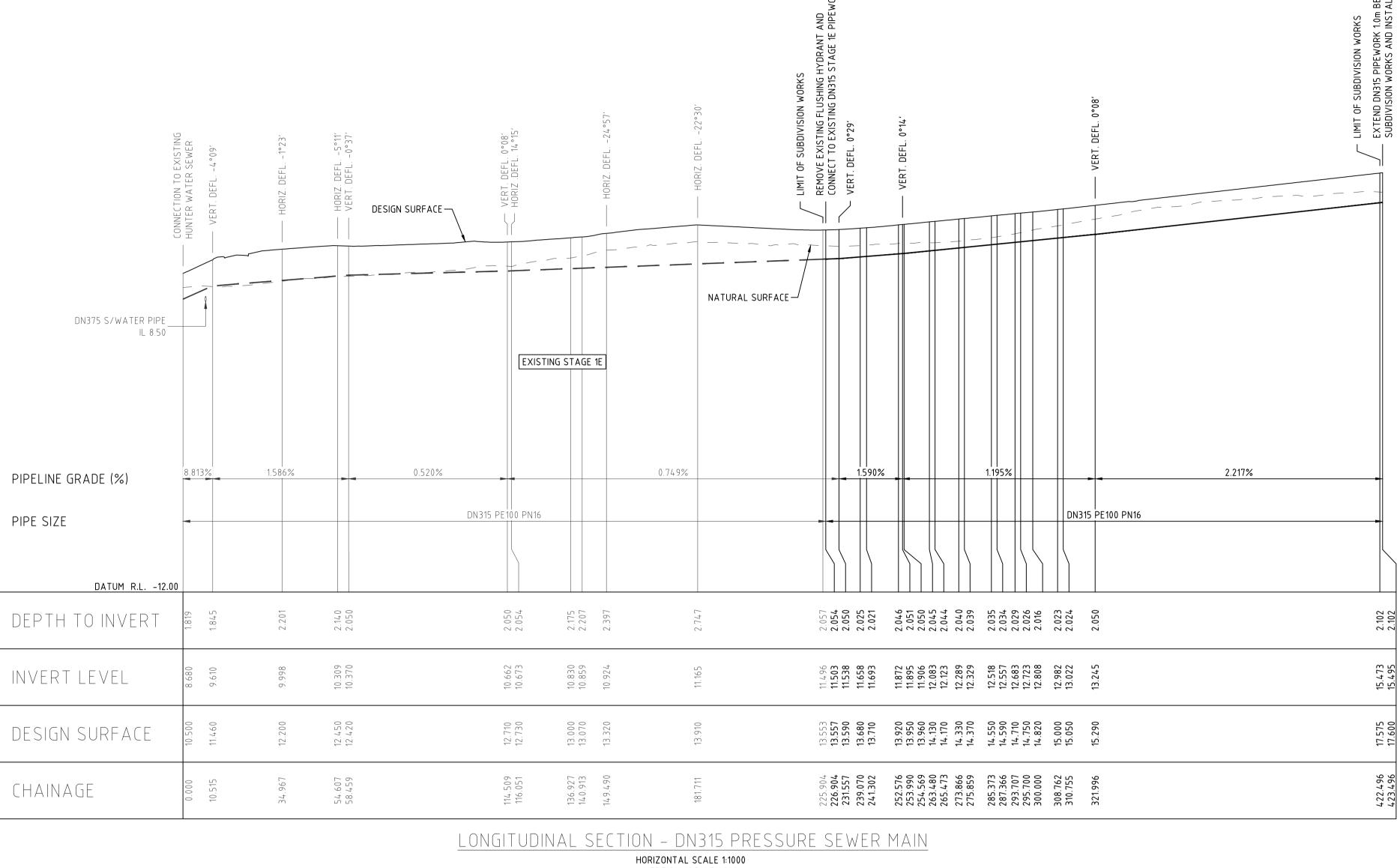








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HORIZONTAL SCALE 1:1000 VERTICAL SCALE 1:200

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	0	22.10.2014	CONSTRUCTION ISSUE	J.N.	L.G.	J.N.	L.G.		
41	1	07.04.2015	AMENDED CONSTRUCTION ISSUE	J.N.	L.G.	J.N.	L.G.		
	WAC	27.10.2015	WORK AS CONSTRUCTED — RAR	A.S.A.			B.K.		

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



PROPERTY DESCRIPTION					
STAGE 1F W McCULLOUGH STE	SUBDIVISION ATAGAN PARK REET, COORANBONG 73/2014				
SURVEYED	DATUM				

ADW Johnson

_			
PROJECT	POTABLE WATER	R, RECYCLED WATER	R AND
	PRESSURE S	SEWER RETICULATIO	N
PLAN TITLE			
PRI	ESSURE SEWER	MAIN LONGITUDINAL	SECTION

UDINAL SECTION

DISCIPLINE

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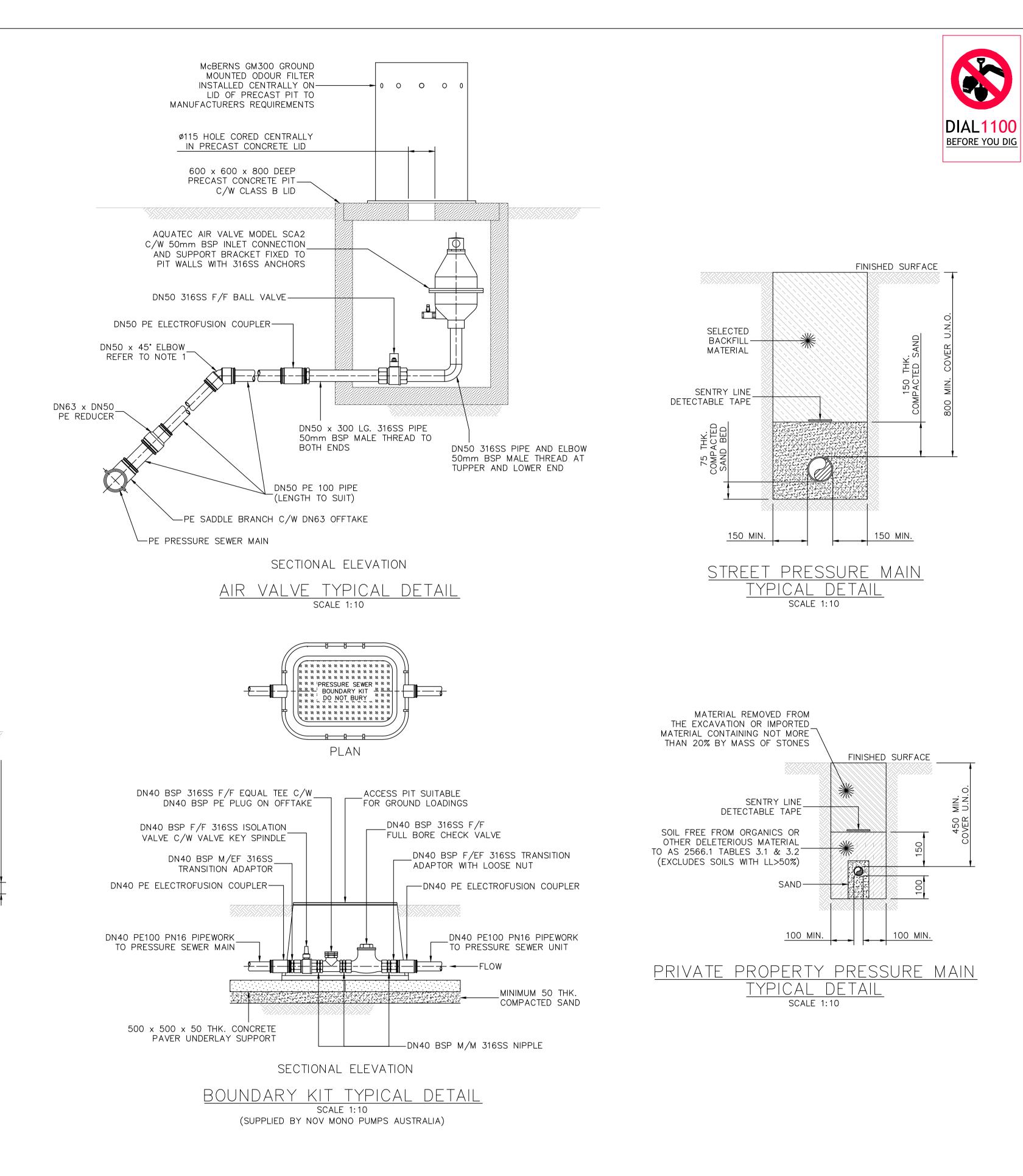
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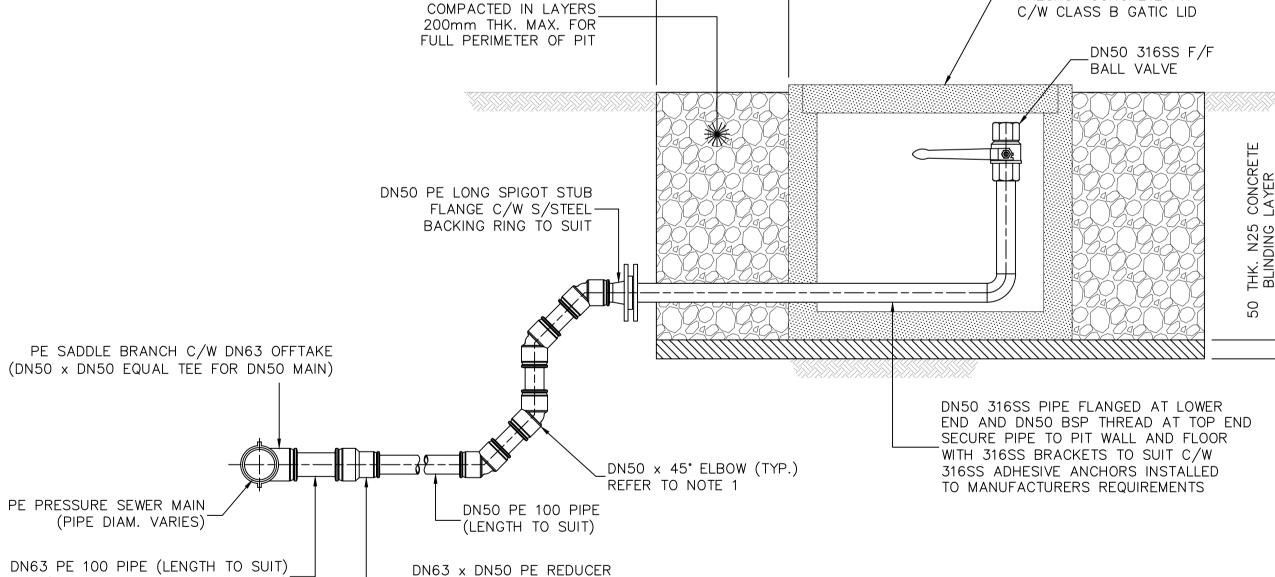
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WORK-AS-CONSTRUCTED



COARSE GRANULAR FILL

(NOT REQUIRED FOR DN50 MAIN)

Plotted By: adamarmishaw

SECTIONAL ELEVATION

(NOT REQUIRED FOR DN50 MAIN)

# FLUSHING POINT TYPICAL DETAIL

# NOTES:

600 x 600 x 600 DEEP

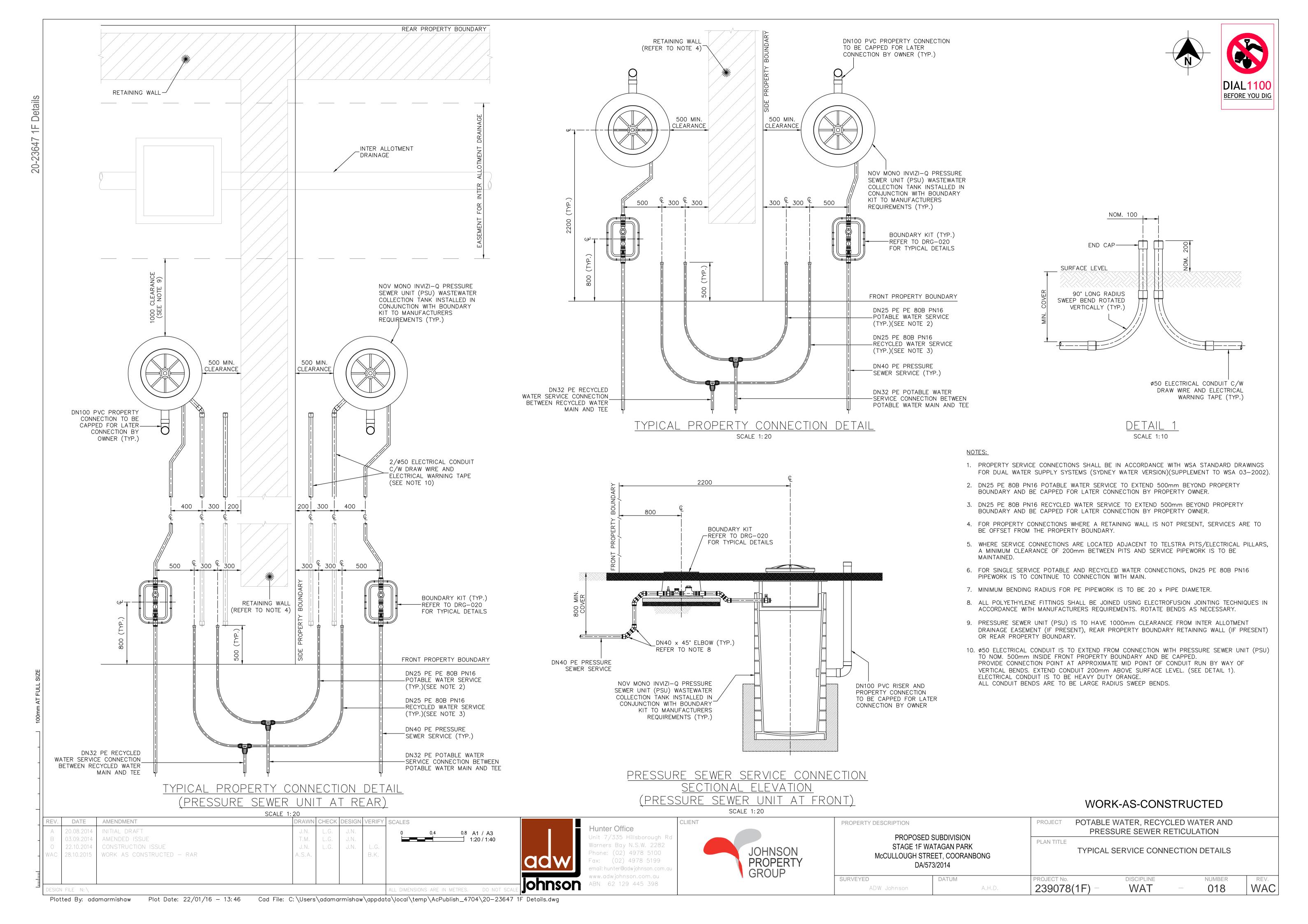
-PRECAST CONCRETE PIT

\_PRESSURË SEWER\_

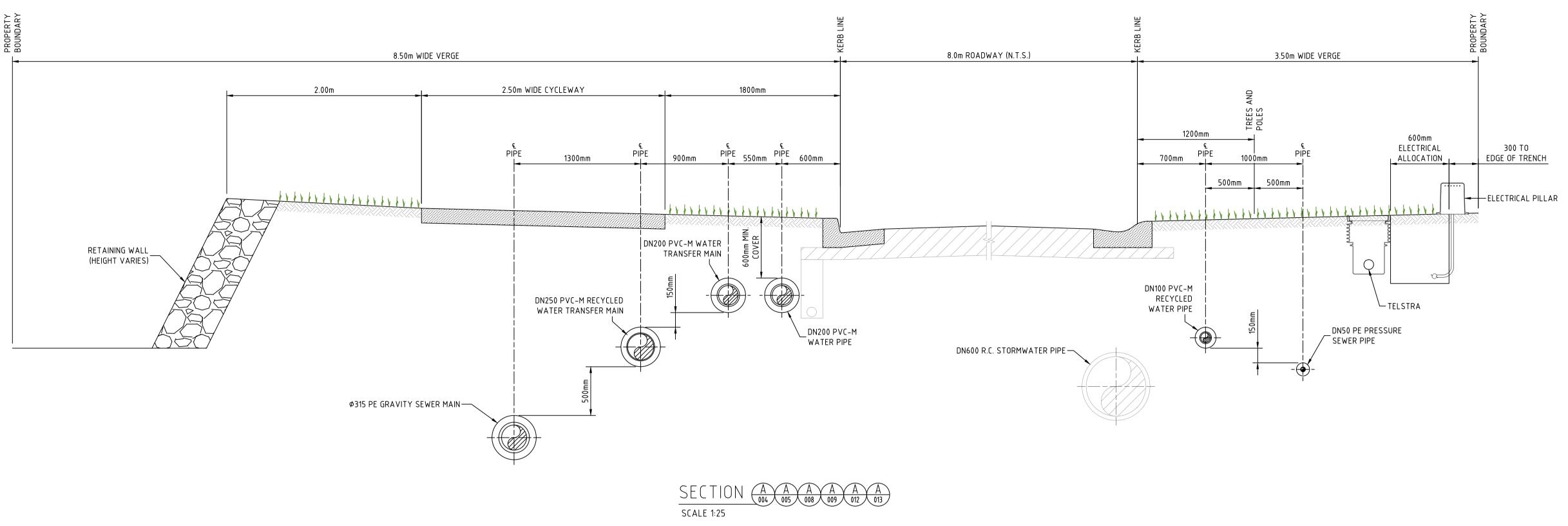
PLAN

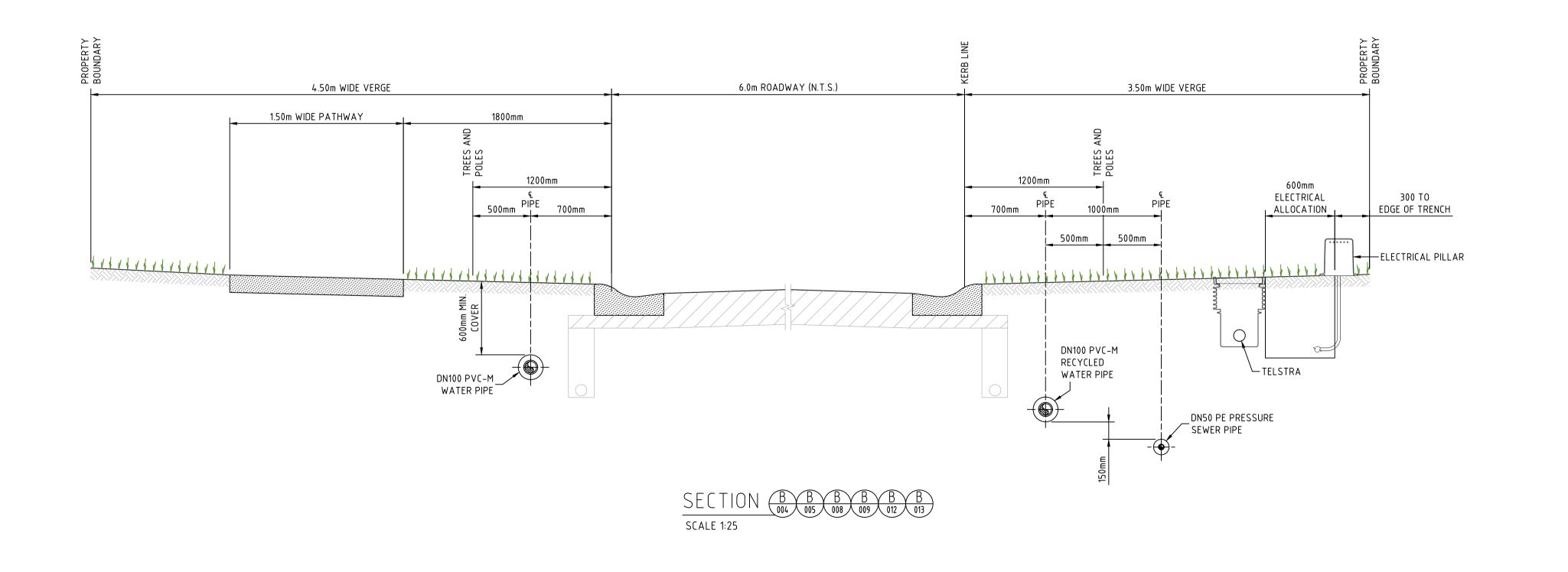
1. ALL POLYETHYLENE FITTINGS SHALL BE JOINED USING ELECTROFUSION JOINTING TECHNIQUES IN ACCORDANCE WITH MANUFACTURERS REQUIREMENTS. ROTATE BENDS AS NECESSARY.

DRAWN CHECK DESIGN VERIFY SCALES DATE **AMENDMENT** CLIENT PROJECT POTABLE WATER, RECYCLED WATER AND PROPERTY DESCRIPTION Hunter Office PRESSURE SEWER RETICULATION 0.1 0.2 0.3 0.4 A1 / A3 Unit 7/335 Hillsborough Rd PROPOSED SUBDIVISION 1:10 / 1:20 PLAN TITLE Warners Bay N.S.W. 2282 STAGE 1F WATAGAN PARK CONSTRUCTION ISSUE J.N. L.G. **JOHNSON** TYPICAL PIPEWORK DETAILS Phone: (02) 4978 5100 8.10.2015 WORK AS CONSTRUCTED - RAR McCULLOUGH STREET, COORANBONG PROPERTY Fax: (02) 4978 5199 DA/573/2014 email: hunter@adwjohnson.com.au **GROUP** www.adwjohnson.com.au SURVEYED PROJECT No. DATUM DISCIPLINE NUMBER ABN 62 129 445 398 WAC WAT 239078(1F) 016 A.H.D. ADW Johnson LL DIMENSIONS ARE IN METRES. SIGN FILE N:\







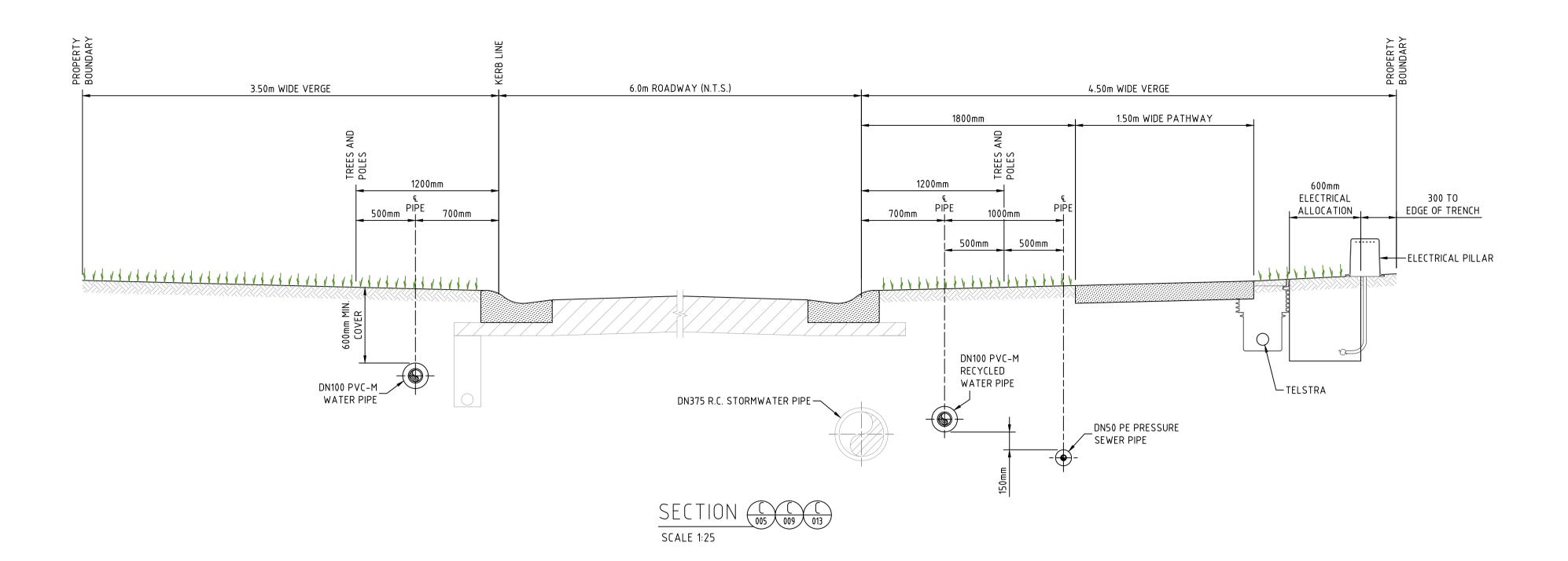


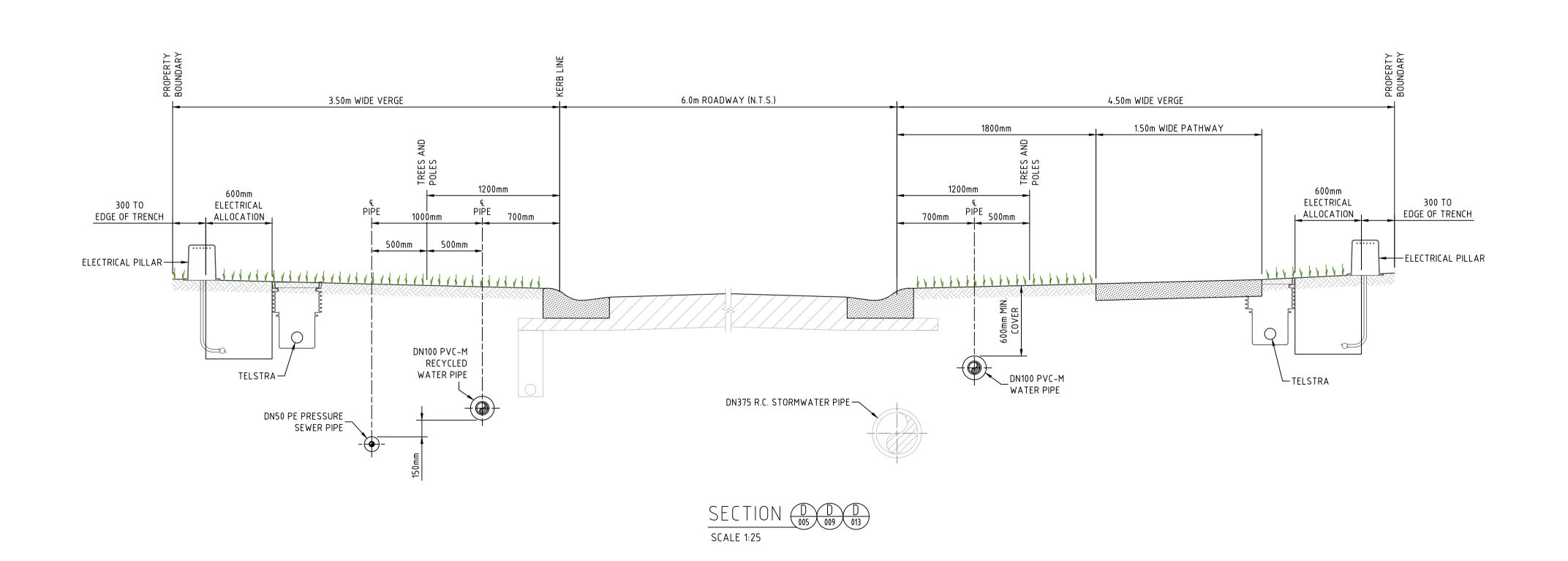
#### NOTE:

 FOR MINIMUM VERTICAL AND HORIZONTAL CLEARANCES REFER TO WATER SUPPLY CODE OF AUSTRALIA WSA 03-2002-2.3, TABLE 4.1 (HUNTER WATER EDITION VERSION 1).

# WORK-AS-CONSTRUCTED

REV. DATE AMENDMENT  A 20.08.2014 INITIAL DRAFT	DRAWN CHECK DESIGN VERIFY  J.N. L.G. J.N.	0 0.5 1 A1 / A3	Hunter Office	CLIENT	PROPERTY DESCRIPTION  PROPOSED SUBDIVISION	PROJE		/ATER, RECYCLE JRE SEWER RETI		
B 03.09.2014 AMENDED ISSUE 0 22.10.2014 CONSTRUCTION ISSUE 1 07.04.2015 AMENDED CONSTRUCTION ISSUE WAC 28.10.2015 WORK AS CONSTRUCTED — RAR	J.N. L.G. J.N. L.G. J.N. L.G. J.N. L.G. A.S.A. B.K.	1:25 / 1:50	Warners Bay N.S.W. 2282 Phone: (02) 4978 5100 Fax: (02) 4978 5199 email:hunter@adwjohnson.com.au	JOHNSON PROPERTY GROUP	STAGE 1F WATAGAN PARK McCULLOUGH STREET, COORANBON DA/573/2014	PLAN <sup>-</sup>		OAD CROSS SECT DETAILS	ΓIONS	
		T	www.adwjohnson.com.au ABN 62 129 445 398	GIVOOI	SURVEYED DATUM	PROJEC		DISCIPLINE	NUMBER	REV.
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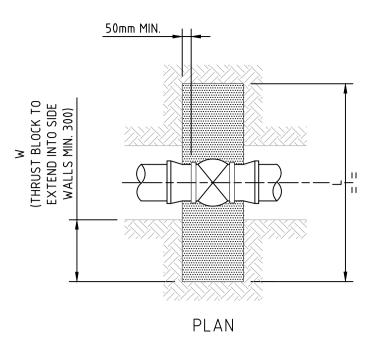
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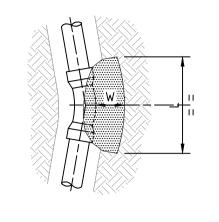
 FOR MINIMUM VERTICAL AND HORIZONTAL CLEARANCES REFER TO WATER SUPPLY CODE OF AUSTRALIA WSA 03-2002-2.3, TABLE 4.1 (HUNTER WATER EDITION VERSION 1).

# WORK-AS-CONSTRUCTED

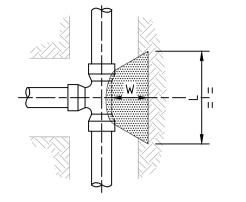
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B 03.09.2014 AMENDED ISSUE CONSTRUCTION ISSUE WAC 28.10.2015 WORK AS CONSTRUCTED — RAR	T.M. L.G. J.N. L.G. B.K. 1:25 / 1:50	Unit 7/335 Hillsborough Rd Warners Bay N.S.W. 2282 Phone: (02) 4978 5100 Fax: (02) 4978 5199 email: hunter@adwjohnson.com.au www.adwjohnson.com.au	PA/573/2014	PLAN TITLE  ROAD CROSS SECTIONS  SHEET 2
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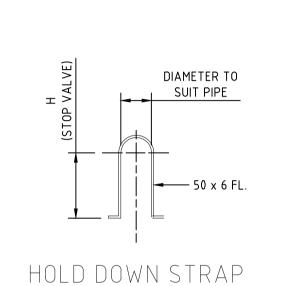


PLAN



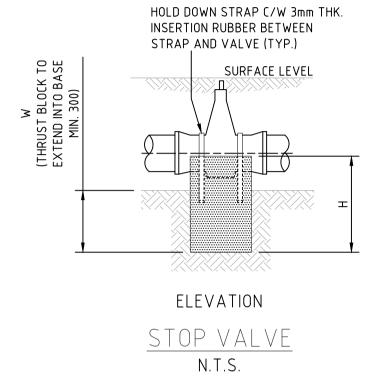
PLAN

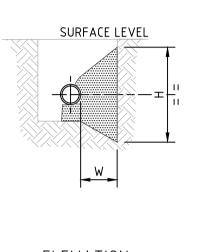


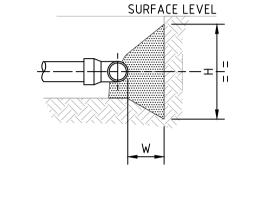


MATERIAL: 316 STAINLESS STEEL

N.T.S.







ELEVATION

HORIZONTAL BEND

N.T.S.

ELEVATION

TEE AND CAP

N.T.S.

ГҮРЕ	FITTING	Soil	Design	<b>Thrust</b>	TA (m2)	Length	Height	Width
		AHBP (Kpa)	STP (Kpa)			<b>(L)</b>	(H)	(W)
1	DN315 Flushing Hydrant	100	1000	94.00	0.94	1.00	0.94	0.40
2	DN300 x DN100 Taper	100	1000	82.00	0.82	1.55	0.69	0.40
3	DN250 x 45° Bend	100	1000	51.00	0.51	0.75	0.68	0.40
4	DN250 x 22.5° Bend	100	1000	26.00	0.26	0.55	0.47	0.40
5	DN250 x 11.25° Bend	100	1000	13.00	0.13	0.40	0.33	0.40
6	DN250 Flushing Hydrant	100	1000	65.00	0.65	0.90	0.72	0.40
7	<b>DN200 x DN200 Tee</b>	100	1000	43.00	0.43	0.70	0.61	0.30
8	<b>DN200 x DN100 Tee</b>	100	1000	12.00	0.12	0.40	0.30	0.30
9	DN200 x DN100 Taper	100	1000	31.00	0.31	1.20	0.55	0.30
10	DN200 x 45° Bend	100	1000	33.00	0.33	0.60	0.55	0.30
11	DN200 x 22.5° Bend	100	1000	17.00	0.17	0.45	0.38	0.30
12	DN200 x 11.25° Bend	100	1000	8.10	0.08	0.30	0.30	0.30
13	DN200 Stop Valve	100	1000	43.00	0.43	1.20	0.55	0.30
13	DN200 Flushing Hydrant	100	1000	43.00	0.43	0.70	0.61	0.30
14	DN100 x DN100 Tee	100	1000	12.00	0.12	0.40	0.30	0.30
15	DN100 x 45° Bend	100	1000	8.80	0.09	0.30	0.30	0.30
16	DN100 x 22.5° Bend	100	1000	4.50	0.05	0.30	0.30	0.30
17	DN100 x 11.25° Bend	100	1000	2.20	0.02	0.30	0.30	0.30
18	DN100 Stop Valve	100	1000	12.00	0.12	1.05	0.49	0.30
19	DN100 Flushing Hydrant	100	1000	12.00	0.12	0.40	0.30	0.30
20	DN100 End Cap	100	1000	12.00	0.12	0.40	0.30	0.30

# THRUST BLOCK NOTES:

- 1. CONCRETE THRUST BLOCKS ARE TO BE 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 TO BE 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 TO BE GRADE S25 USING CEMENT TYPE "SR" TO AS3972. CONCRETE TO BE MECHANICALLY VIBRATED.
- 6. CONCRETE THRUST BLOCKS ARE TO BE 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.

# WORK-AS-CONSTRUCTED

REV. DATE AMENDMENT

A 20.08.2014 INITIAL DRAFT
B 03.09.2014 AMENDED ISSUE
O 22.10.2014 CONSTRUCTION ISSUE
WAC 28.10.2015 WORK AS CONSTRUCTED — RAR

DRAWN CHECK DESIGN VERIFY SCALES

J.N. L.G. J.N. L.G. J.N. L.G. B.K.

A.S.A. B.K.

ALL DIMENSIONS ARE IN METRES. DO NOT SCALE



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



PROPERTY DESCRIPTION	
PROPOSEI	D SUBDIVISION
STAGE 1F V	VATAGAN PARK
McCULLOUGH ST	REET, COORANBONG
DA/S	573/2014

1100201
PLAN TITLE

PROJECT	POTABLE WATER, RECYCLED WATER AND
	PRESSURE SEWER RETICULATION
DI ANI TITI E	

McCULLOUGH STREET, COORANBONG

THRUST BLOCK DETAILS