

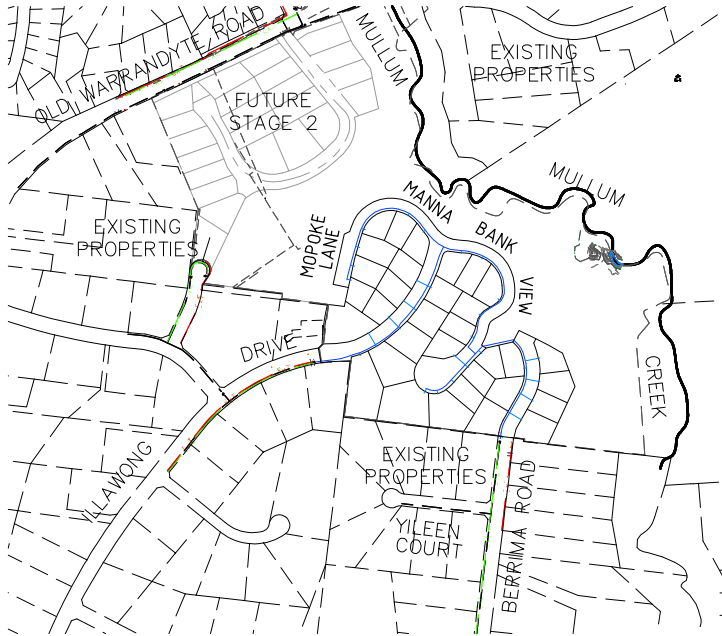
FILE PATH: C:\CEUsers - Active\PJ58-Donvale\CAD\LPN100243-W.dwg

PLOT DATE: 10/22/2015 12:22 AM BY: TAT HOI

DESIGN HEAD: 107 m
ZONE: RESIDENTIAL
TEST PRESSURE: 1338 kPa

LOCALITY PLAN

SCALE: 1: 5000 @ A1
MELWAYS: 34 H10



GENERAL NOTES:

- ONLY PRODUCTS APPROVED AND CATALOGUED BY THE WATER AGENCY SHALL BE USED.
- WORKS MUST BE CONSTRUCTED ACCORDING TO WSA 03-2011-3.1 MRWA EDITION. THE CONTRACTOR SHALL ENSURE THAT THEY ARE CONVERSANT WITH ALL CURRENT REVISIONS, AMENDMENTS AND UPDATES THAT THE RELEVANT WATER AGENCY HAS MADE TO THEIR STANDARDS.
- DW ASSETS SHALL ONLY BE CONSTRUCTED AFTER DEEPER ASSETS AFFECTING THE WATER MAINS HAVE BEEN CONSTRUCTED (EG: SEWERAGE & DRAINAGE ASSETS).
- THIS DESIGN IS TO BE READ IN CONJUNCTION WITH ROAD AND DRAINAGE PLANS.
- THE CONTRACTOR SHALL OBTAIN A ROAD OPENING PERMIT FOR ANY WORKS WITHIN THE ROAD RESERVE AND COMPLY WITH ALL REQUIREMENTS OF THE ROAD OWNER.
- FOR INTERPRETATION OF THE SYMBOLS USED IN THIS DESIGN, REFER TO DRAWING MRWA-W-100.

SURVEY, SETOUT AND ASSET RECORDING

- TEMPORARY BENCH MARKS (TBM) FOR THE SET OUT OF WORKS TO THE AUSTRALIAN HEIGHT DATUM (AHD) ARE PROVIDED IN THE DESIGN DRAWINGS.
- ALL LEVELS ARE IN METRES TO AHD.
- ALL CO-ORDINATES ARE IN METRES TO THE MAP GRID OF AUSTRALIA (MGA 55-94).
- THE CONTRACTOR IS DIRECTLY RESPONSIBLE FOR ENSURING THE PROJECT SETOUT IS CONSISTENT WITH THE DESIGN. SHOULD ACTUAL SITE CONDITIONS CONFLICT IN ANY WAY WITH THAT DOCUMENTED, THE CONTRACTOR SHALL CONTACT THE SUPERINTENDENT FOR CLARIFICATION BEFORE PROCEEDING.
- THE CONTRACTOR IS TO ENGAGE A SUITABLY QUALIFIED AND EXPERIENCED SURVEYOR TO UNDERTAKE ASSET RECORDING OF THE WORK. ALL SURVEYOR WORKS AND DATA RECORDING SHALL BE UNDERTAKEN IN ACCORDANCE WITH THE MRWA SURVEY MANUAL.
- ALL SPECIFIC PIPE MATERIALS (EG: PVC-O) SHALL BE INDICATED IN THE AS CONSTRUCTED INFORMATION.

PRODUCTS AND MATERIALS

- FOR THE PIPE SCHEDULE, REFER TO TABLE 1.
- FOR THE PIPE MATERIAL SCHEDULE, REFER TO TABLE 2.
- FOR PE PIPE CONSTRUCTION, REFER TO DRAWING MRWA-W-103 AND WSA 01 (PE PIPELINE CODE). WELDERS SHALL BE ACCREDITED TO PMBWELD301A (BUTT) AND PMBWELD302B (ELECTROFUSION).

TABLE 1: PIPE SCHEDULE

NEW WORK			DRINKING MAIN
SIZE (DN)	TYPE	CLASS	LENGTH
100	PVC (M/O)	16	475m
125	PE	12.5	356m
50	PE	12.5	35m
40	PE	12.5	80m
25	PE	12.5	Property Services

TABLE 7: VERTICAL CLEARANCES SCHEDULE

EXISTING OR PROPOSED SERVICE	MINIMUM VERTICAL CLEARANCE (mm)	EXISTING OR PROPOSED SERVICE	MINIMUM VERTICAL CLEARANCE (mm)
Water mains < DN375	150	Electricity conduits and cables	225
Water mains > DN375	300	Stormwater drains & pits	150
Gas mains	150	Sewers - gravity	500
Telco conduits and cables	150	Sewers - pressure & vacuum	300

- VERTICAL CLEARANCE BETWEEN WATER MAINS SHALL DEPEND ON THE LARGER MAIN DIAMETER.
- WATER MAINS SHALL CROSS OVER SEWERS AND DRAINS UNLESS SHOWN OTHERWISE.
- MAINTAIN ADDITIONAL CLEARANCE FROM HIGH VOLTAGE ELECTRICAL CABLES TO ALLOW FOR A PROTECTIVE BARRIER AND MARKING.

THRUST RESTRAINT

- FOR THE THRUST RESTRAINT SCHEDULE, REFER TO TABLE 6.
- CONSTRUCT CONCRETE THRUST RESTRAINTS AS PER DRAWINGS MRWA-W- 204, 205A, 205B AND 205C.
- TIMBER / RECYCLED PLASTIC BLOCKS AS PER DRAWINGS MRWA-W-204 AND MRWA-W-206.
- THRUST RESTRAINTS HAVE BEEN DESIGNED ON THE BASIS OF THE AHBP (GROUND STRENGTH) NOMINATED IN TABLE 6. THE CONTRACTOR SHALL CONFIRM THE ACTUAL GROUND CONDITIONS (USING STANDARD DRAWING MRWA-W-200 AS A GUIDE) AND DISCUSS WITH THE SUPERINTENDENT ANY GROUND CONDITIONS WHICH ARE FOUND TO BE DIFFERENT TO THAT NOMINATED.

PROPERTY SERVICES

- PROPERTY SERVICES TO THE END OF SERVICE SHALL BE CONSTRUCTED AS PER DRAWINGS MRWA-W-110 AND MRWA-W-111.

CONNECTIONS (ALL TYPES)

- CONNECTION OF >DN100 OFFTAKES TO EXISTING MAINS SHALL BE AS INDICATED IN THE DESIGN DRAWINGS AND AS PER DRAWING MRWA-W-106.
- CONNECTION OF DN40, 50 & 63 PE OFFTAKES SHALL BE AS PER DRAWING MRWA-W-107.
- PROPERTY SERVICE CONNECTIONS AS PER DRAWING MRWA-W-111.
- ALL PROPERTY SERVICE CONNECTIONS TO NEW RESIDENTIAL NON PE RETICULATION MAINS ARE TO BE COMPLETED USING PRETAPPED CONNECTORS.

OTHER SERVICES

- TO RECEIVE THE MOST UP TO DATE INFORMATION PRIOR TO CONSTRUCTION, "DIAL BEFORE YOU DIG" SHALL BE UNDERTAKEN TO AID IN THE LOCATION OF OTHER SERVICES. OTHER SERVICES SHALL BE CAREFULLY LOCATED PRIOR TO FULL EXCAVATION AT THE CONTRACTOR'S COST. ANY CLASHES OF PROPOSED NEW WORKS WITH OTHER ASSETS SHALL BE REPORTED TO THE SUPERINTENDENT IMMEDIATELY FOR CLARIFICATION.
- OFFSETS TO OTHER SERVICES SHALL BE AS PER TABLE 5 OR OTHERWISE AS PER TABLE 5.5 OF WSA03- 2011-3.1 MRWA EDITION. THESE CLEARANCES SHALL APPLY TO SURFACE COVERS AS WELL AS UNDERGROUND ASSETS.
- VERTICAL CLEARANCES FROM OTHER SERVICES SHALL BE AS PER TABLE 7.

TESTING, ASSET ACCEPTANCE AND LIVE CONNECTIONS

- POST CONSTRUCTION ACTIVITIES (OF BOTH DW & NDW) SUCH AS SWABBING, WATER QUALITY TESTING, PRESSURE TESTING AND CHLORINATION SHALL BE CARRIED OUT IN ACCORDANCE WITH WSA03-2011-3.1 MRWA EDITION AND THE MRWA WATER QUALITY COMPLIANCE SPECIFICATION. ALL TEST RESULTS SHALL BE DOCUMENTED AND REPORTED TO THE SUPERINTENDENT.
- THE CONTRACTOR &/OR CONSULTANT SHALL PROVIDE 2 DAYS NOTICE TO THE SUPERINTENDENT PRIOR TO TESTING BEING UNDERTAKEN.
- UNLESS OTHERWISE INFORMED, ALL NDW MAIN TO METER CONNECTIONS SHALL BE INSPECTED BY THE WATER AGENCY, WITH THE WATER AGENCY BEING NOTIFIED AT LEAST 5 DAYS PRIOR TO CONNECTION. ALL MAIN TO METER SERVICE CONNECTIONS ARE TO REMAIN EXPOSED UNTIL INSPECTED BY THE WATER AGENCY COMPLIANCE OFFICER.
- WITH EACH NDW CONNECTION, THE CONTRACTOR MUST SUPPLY A SIGNED PRE-INSPECTION CHECKLIST.
- THE CONTRACTOR SHALL PROVIDE AT LEAST 5 DAYS NOTICE TO THE SUPERINTENDENT PRIOR TO CONNECTING NEW WORKS TO THE EXISTING NETWORK. SHUT DOWN WORK SHALL BE SCHEDULED FOR 9AM WEEKDAYS AND BE COMPLETED WITHIN 150 MINUTES.
- VALVES CONNECTING NEW ASSETS TO THE WATER AGENCY'S LIVE SYSTEM SHALL NOT BE OPERATED BY THE CONTRACTOR.

ENVIROMENTAL CONTROL MEASURES

- NO NATIVE VEGETATION SHALL BE DESTROYED, FELLED, LOPPED RING BARKED OR UPROOTED WITHOUT THE CONSENT OF THE RESPONSIBLE AUTHORITY.
- CONTRACTOR TO PROVIDE ADEQUATE PROTECTION AGAINST SILT RUNOFF FROM THE SITE AS PART OF THE ENVIRONMENTAL MANAGEMENT PLAN (EMP)

CONSTRUCTION MANAGEMENT

- CONTRACTOR SHALL BE REQUIRED PRIOR TO COMMENCING WORKS TO SUBMIT THE FOLLOWING DOCUMENTS:
 - PROJECT MANAGEMENT PLAN
 - ENVIRONMENTAL MANAGEMENT PLAN
 - OH&S RISK ASSESSMENT
 - TRAFFIC MANAGEMENT PLAN
 - PROGRAM OF WORKS
 - INSPECTION & TEST PLAN

TABLE 2: PIPE MATERIAL SCHEDULE

MATERIAL	REFERENCE
PVC-M	WSA-PS-209
PE (Retic & Submain)	WSA-PS-207
PE (Property Services)	WSA-PS-215

TABLE 3: HYDRANT & WASHOUT SCHEDULE

MAIN SIZE	FITTING TYPE	OWNERSHIP	LOCATION	STREET NAME	LOCATION
100	HYDRANT	COUNCIL	In Line	MOPOKE LANE	ADJACENT LOT 25
100	HYDRANT	COUNCIL	In Line	MANNA BANK VIEW	ADJACENT LOT 32
100	HYDRANT	COUNCIL	In Line	ILLAWONG DRIVE	ADJACENT LOT 37
100	HYDRANT	COUNCIL	In Line	ILLAWONG DRIVE	ADJACENT LOT 34
100	HYDRANT	COUNCIL	In Line	MANNA BANK VIEW	ADJACENT LOT 41
100	HYDRANT	COUNCIL	In Line	MANNA BANK VIEW	ADJACENT LOT 48
100	HYDRANT	COUNCIL	In Line	BERRIMA ROAD	ADJACENT LOT 50
100	HYDRANT	COUNCIL	In Line	BERRIMA ROAD	ADJACENT LOT 52

TABLE 4: CURVED PIPE & DEFLECTION SCHEDULE

LOCATION	METHOD	OFFSET / RADIUS (m)	TOTAL PIPE LENGTH (m)	PIPE LENGTHS (m)
IN FRONT OF EXISTING PROPERTY & ADJACENT TO LOT 34	1° JOINT DEFLECTION	195m Radius	27	9No x 3m CUT PIPE
IN FRONT OF EXISTING PROPERTY & ADJACENT TO LOT 34	DOUBLE SOC CONNECTOR	50m Radius	42	7No x 6m PIPE
LOT 34 TO 36	1° JOINT DEFLECTION	178.54m Radius	51	17No x 3m CUT PIPE
LOT 37 TO 39	1° JOINT DEFLECTION	191.07m Radius	102	34No x 3m CUT PIPE
LOT 50	DOUBLE SOC CONNECTOR	25.65m Radius	12	4No x 3m CUT PIPE
LOT 52	DOUBLE SOC CONNECTOR	39.4m Radius	15	5No x 3m CUT PIPE

TABLE 5: SERVICE ALIGNMENT SCHEDULE

STREET NAME	GAS		WATER		ELECTRICITY		TELSTRA	
			DRINKABLE					
	SIDE	OFFSET	SIDE	OFFSET	SIDE	OFFSET	SIDE	OFFSET
ILLAWONG DRIVE	EAST	1.80m	EAST	2.30m	WEST	2.35m	WEST	1.85m
MANNA BANK VIEW (LOTS 39 - 41)	SOUTH	2.05m	SOUTH	2.55m	NORTH	3.45m	NORTH	2.95m
MANNA BANK VIEW (LOT 42)	WEST	1.00m	WEST	1.50m	-	-	-	-
MANNA BANK VIEW (LOTS 45 - 48)	SOUTH	3.56m-3.75m	SOUTH	3.75-4.12m	SOUTH	4.89-5.25m	SOUTH	4.34-4.75m
MANNA BANK VIEW (LOTS 49 - 50)	SOUTH	2.50m	SOUTH	3.00m	SOUTH	4.00m	SOUTH	3.50m
BERRIMA ROAD	WEST	2.10m	WEST	2.60m	EAST	2.3m	EAST	1.80m
MOPOKE LANE	EAST	2.50m	EAST	3.00m	WEST	1.00m	WEST	1.50m

TABLE 6: THRUST RESTRAINT SCHEDULE

LOCATION	TYPE	AREA (m ²)	DEPTH (m)	WIDTH (m)	QUANTITY	FITTING	AHBP (kPa) USED
A	Detail D MRWA-W-109	0.30	N/A	N/A	2	DEAD END	50
B	Detail H & I, MRWA-W-205A	0.30	N/A	N/A	6	REDUCERS	50
C	Detail J & K, MRWA-W-205A	0.30	N/A	N/A	10	VALVE	50
D	Detail A & B MRWA-W-205A	0.31	N/A	N/A	2	100ø TEE	50
E	Detail C & D MRWA-W-205A	TIMBER	N/A	N/A	5	100ø x 1125° BEND	50
F	Detail C & D MRWA-W-205A	TIMBER	N/A	N/A	2	100ø x 22.5° BEND	50
G	Detail C & D MRWA-W-205A	0.43	N/A	N/A	1	100ø x 90° BEND	50
H	Detail C & D MRWA-W-205A	0.23	N/A	N/A	1	1125° x 22.5° BEND	50
I	Detail C & D MRWA-W-205A	0.31	N/A	N/A	1	100ø x 60° BEND	50

REINSTATE PAVEMENT OR ANY OTHER EXISTING ASSETS THAT HAS BEEN DISTURBED DURING THE CONSTRUCTION PROCESS TO THE SATISFACTION OF THE SUPERINTENDENT.

FOR THE DURATION OF PROCLAIMED WATER RESTRICTIONS, THE CONTRACTOR SHALL COMFORM WITH THE RESTRICTIONS AND ANY OTHER WATER CONSERVATION REQUIREMENTS IMPOSED BY THE WATER AUTHORITY

WARNING
BEWARE OF UNDERGROUND SERVICES
THE LOCATIONS OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN. A MOCS ENQUIRY ON 1100 MUST BE MADE BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF WORKS.

WARNING
BEWARE OF ASBESTOS
SOME UNDERGROUND SERVICES MAY BE CONSTRUCTED FROM MATERIALS CONTAINING ASBESTOS. CONTACT THE SUPERINTENDENT FOR INSTRUCTIONS ON HOW TO MANAGE ANY POTENTIAL ASBESTOS HAZARDS.

REV	DATE	DESCRIPTION	APPROVED
0	19.10.15	CONSTRUCTION ISSUE	T.H
B	05.09.14	TENDER ISSUE	B.G.
A	18-08-14	PRELIMINARY ISSUE	B.G.

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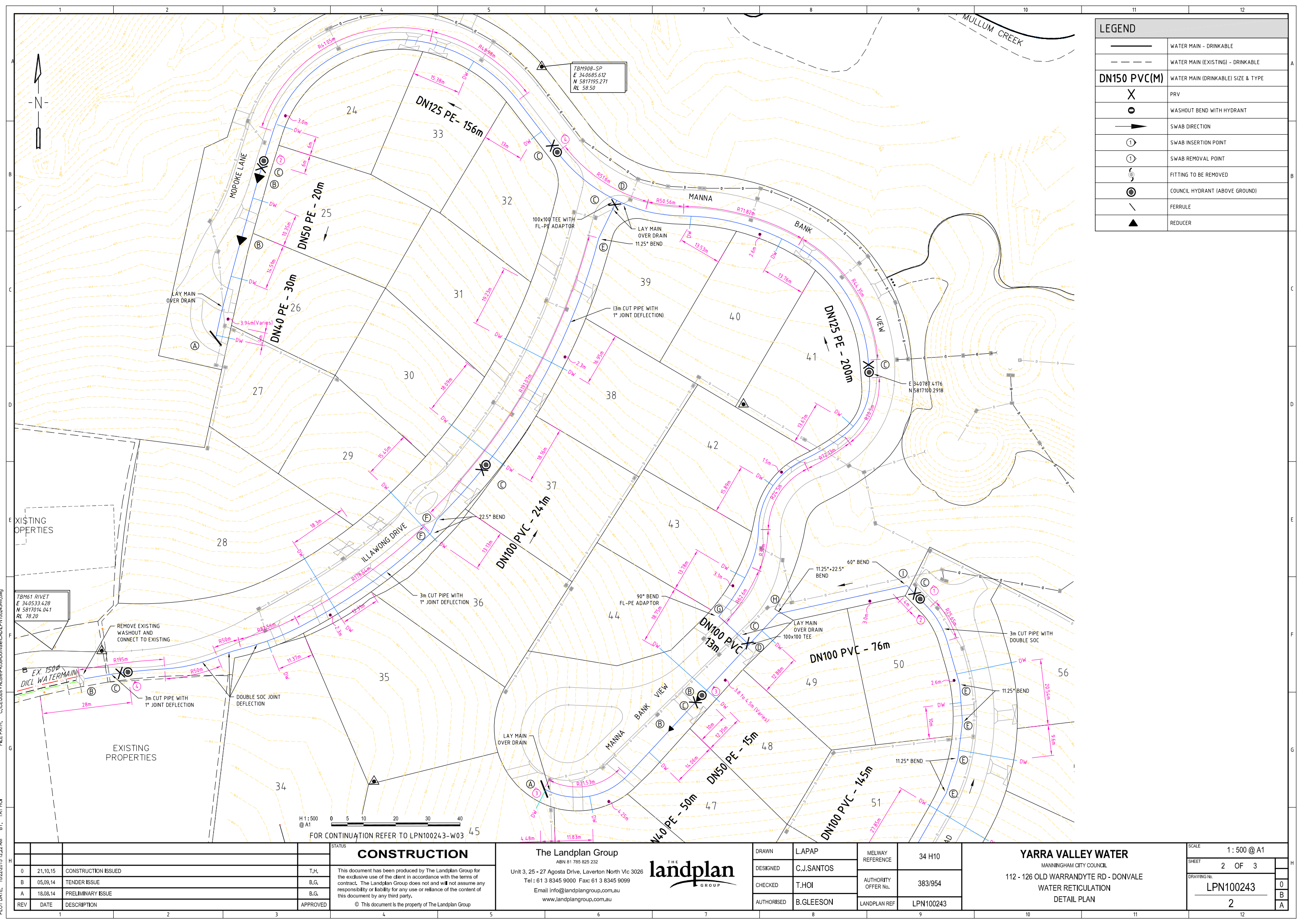
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DRAWN	L.APAP	MELWAY REFERENCE	34 H10
DESIGNED	C.J.SANTOS	AUTHORITY OFFER No.	383/954
CHECKED	T.HOI		
AUTHORISED	B.GLEESON	LANDPLAN REF	LPN100243

YARRA VALLEY WATER
MANNINGHAM CITY COUNCIL
112 - 126 OLD WARRANDYTE RD - DONVALE
WATER RETICULATION
LOCALITY PLAN AND NOTES

SCALE	N.T.S.
SHEET	1 OF 3
DRAWING No:	LPN100243
	1



LEGEND	
	WATER MAIN - DRINKABLE
	WATER MAIN (EXISTING) - DRINKABLE
DN150 PVC(M)	
	PRV
	WASHOUT BEND WITH HYDRANT
	SWAB DIRECTION
	SWAB INSERTION POINT
	SWAB REMOVAL POINT
	FITTING TO BE REMOVED
	COUNCIL HYDRANT (ABOVE GROUND)
	FERRULE
	REDUCER

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PLOT DATE: 10/22/2015 12:22 AM BY: TAT-HOI

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YARRA VALLEY WATER

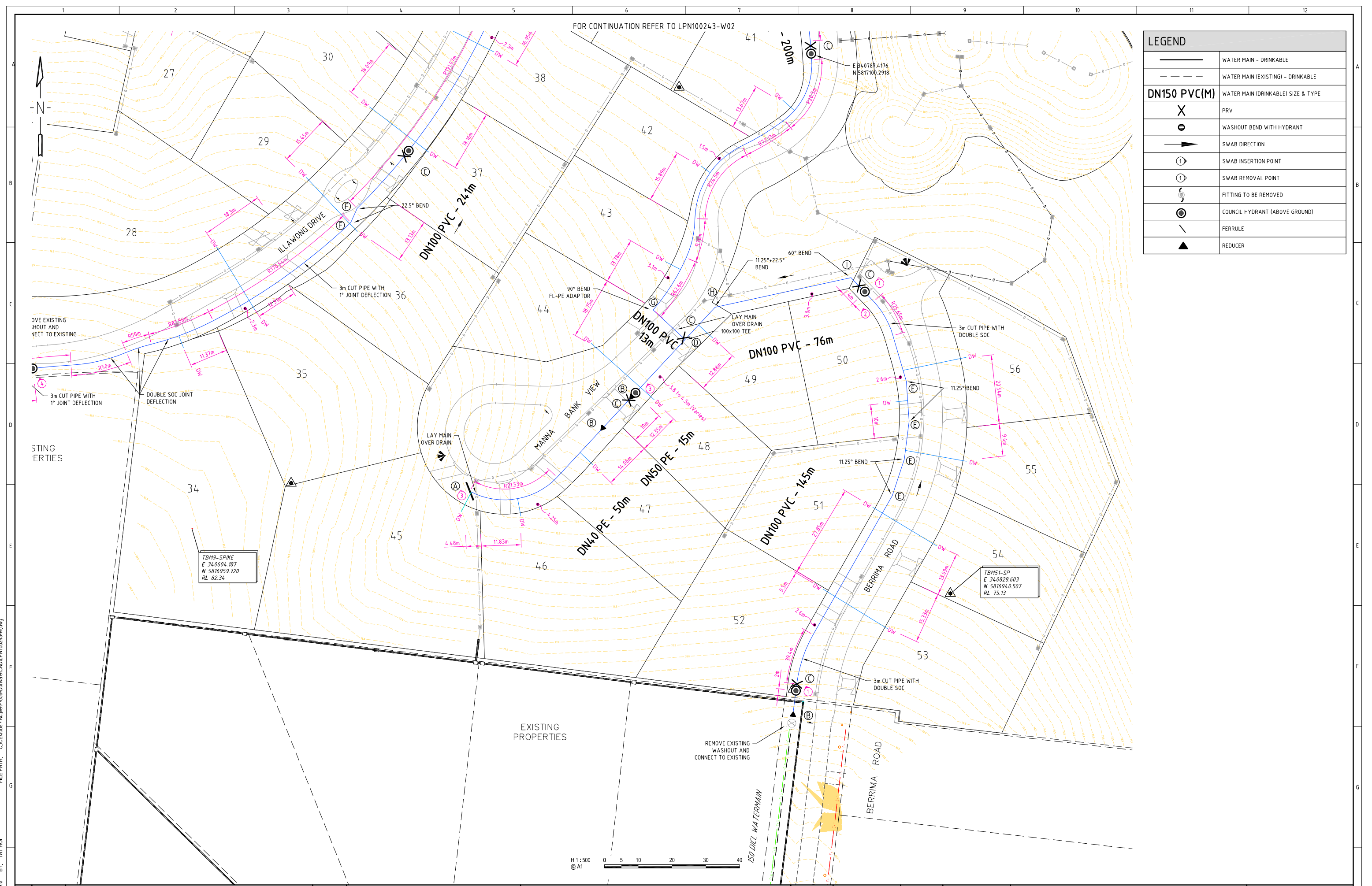
MANNINGHAM CITY COUNCIL

112 - 126 OLD WARRANDYTE RD - DONVALE

WATER RETICULATION

DETAIL PLAN

SCALE	1: 500 @ A1
SHEET	2 OF 3
DRAWING No.	LPN100243
	2



LEGEND	
	WATER MAIN - DRINKABLE
	WATER MAIN (EXISTING) - DRINKABLE
DN150 PVC(M)	WATER MAIN (DRINKABLE) SIZE & TYPE
	PRV
	WASHOUT BEND WITH HYDRANT
	SWAB DIRECTION
	SWAB INSERTION POINT
	SWAB REMOVAL POINT
	FITTING TO BE REMOVED
	COUNCIL HYDRANT (ABOVE GROUND)
	FERRULE
	REDUCER

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AUTHORISED	B.GLEESON		

YARRA VALLEY WATER

MANNINGHAM CITY COUNCIL

112 - 126 OLD WARRANDYTE RD - DONVALE

WATER RETICULATION

DETAIL PLAN

SCALE	1 : 500 @ A1
SHEET	3 OF 3
DRAWING No.	LPN100243
	3