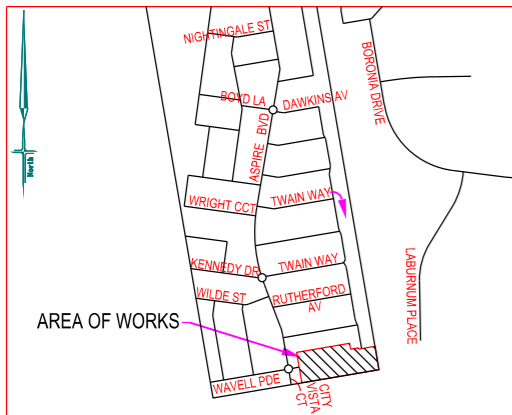


DESIGN HEAD: 108m
 ZONE: RESIDENTIAL
 TEST PRESSURE: 1356 kPa



LOCALITY PLAN

SCALE: 1:20,000
 MELWAYS: 356 - D3

FOR THE DURATION OF PROCLAIMED WATER RESTRICTIONS, THE CONTRACTOR SHALL CONFORM WITH THE RESTRICTIONS AND ANY OTHER WATER CONSERVATION REQUIREMENTS IMPOSED BY THE WATER AGENCY.

WARNING
 BEWARE OF UNDERGROUND SERVICES
 THE LOCATION 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.

WARNING
 BEWARE OF ASBESTOS
 SOME UNDERGROUND SERVICES MAYBE CONSTRUCTED FROM ASBESTOS CONTAINING MATERIAL. CONTACT THE SUPERINTENDENT FOR INSTRUCTIONS ON HOW TO MANAGE ANY POTENTIAL ASBESTOS HAZARD

General Notes:

- A1. Only products approved and catalogued by the Water Agency shall be used.
- A2. 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.
- A3. DW and NDW assets shall only be constructed after deeper assets affecting the water mains have been constructed (eg: sewerage & drainage assets).
- A4. This design is to be read in conjunction with road and drainage plans.
- A5. The Contractor shall obtain a road opening permit for any works within the road reserve and comply with all requirements of the road owner.
- A6. For interpretation of the symbols used in this design, refer to drawing MRWA-W-100.

Survey, Set Out and Asset Recording

- B1. Temporary Bench Marks (TBM) for the set out of works to the Australian Height Datum (AHD) are provided in the design drawings.
- B2. All levels are in metres to AHD.
- B3. All co-ordinates are in metres to the Map Grid of Australia (MGA 55- 94).
- B4. The Contractor is directly responsible for ensuring the project set out 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.
- B5. 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.
- B6. All specific pipe materials (eg: PVC-O) shall be indicated in the As Constructed information

Products and Materials

- C2. For the Pipe Schedule, refer to TABLE .1.
- C3. For the Pipe Material Schedule, refer to TABLE. 2.
- C4. 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).

Appurtenances (Fittings)

- D1. All valves and hydrants shall be marked according to drawings MRWA-W-300 and MRWA-W-301.
- D2. Valve surrounds, covers and spindles shall be constructed in accordance with drawing MRWA-W-302.
- D3. Hydrant surface arrangements shall be constructed in accordance with drawings MRWA-W-303.
- D4. Flange and flange bolts shall be constructed in accordance with drawings MRWA-W-306A and MRWA-W-306B.
- D5. For the Hydrant and Washout Schedule, refer to TABLE .3.
- D6. All valves shall be located directly out from the apex of the splay corner (unless otherwise indicated).

Water Main Alignment, Trenching & Cover

- E1. Trench, pipe placement, embedment and backfill dimensions as per standard drawing MRWA-W-202.
- E2. Offsets of mains from property boundaries shall be: min 600mm (mains < DN100) and min 1m (mains ≥ DN100).
- E3. All water mains shall pass over drains and sewers unless shown otherwise in the design drawings.
- E5. Mains shall be aligned in accordance with the Services Alignment Schedule (Refer to TABLE .5).

Embedment

- F1. For acceptable alternate embedment materials refer to Product Specifications WSA-PS-360, 361 or 368.
- F2. Embedment shall be placed as per drawings MRWA-W-201 and MRWA-W-202.

Backfill

- G1. Trafficable areas are to be backfilled with 20mm Class 2 FCR compacted to a minimum density of 98% modified compaction in 150mm layers. For non trafficable areas refer to the MRWA Specification 04-03.2 and drawings MRWA-W-201 and 202.
- G2. Compaction trials and compaction testing shall be undertaken in accordance with the MRWA Specification 04-03.2.

Thrust Restraint

- H1. For the Thrust Restraint Schedule, refer to TABLE .6.
- H2. Construct concrete thrust restraints as per drawings MRWA-W-204 & 205A.
- H3. Timber / Recycled plastic blocks as per drawings MRWA-W-204 and MRWA-W-206.
- H4. 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

- I1. Property Services to the end of service shall be constructed as per drawings MRWA-W-110 and MRWA-W-111.

Connections (All types)

- J1. Connection of ≥ DN100 offtakes to existing mains shall be as indicated in the design drawings and as per drawing MRWA-W-106.
- J2. Connection of DN40, 50 & 63 PE offtakes shall be as per drawing MRWA-W-107.
- J3. Property Service Connections as per drawing MRWA-W-111.
- J4. All property service connections to new residential non PE reticulation mains are to be completed using pretapped connectors.

Other Services

- K1. 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.
- K2. Offsets to other services shall be as per TABLE 5 or otherwise as per table 5.5 of WSA 03-2011-3.1 MRWA edition. These clearances shall apply to surface covers as well as underground assets.
- K3. Vertical Clearances from other services shall be as per TABLE 7.

Testing, Asset Acceptance and Live Connections

- L1. Post construction activities (of both DW & NDW) such as swabbing, water quality testing, pressure testing and chlorination shall be carried out in accordance with WSA 03-2011-3.1 MRWA edition and the MRWA Water Quality Compliance Specification. All test results shall be documented and reported to the Superintendent.
- L2. The Contractor &/or Consultant shall provide 2 days notice to the Superintendent prior to testing being undertaken.
- L5. 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.
- L6. Valves connecting new assets to the Water Agency's live system shall not be operated by the Contractor.

PE Mains

- M1. All PE mains to be constructed at a temperature less than 25°.
- M2. The minimum radius for curved PE is to be 25xOD.
- M3. All tapings <DN63 off PE mains that are installed on curves are to be constructed at the top of the pipe to minimise stress around the tapping hole.
- M4. DN PE Pipe to be laid and backfilled to achieve an in situ pipe temperature of ≤16° prior to connection to PVC pipe.

TABLE 1. New Pipe Schedule

New Work		Drinking Main	
Size (DN)	Type	Class	Length
150	PVC-O or PVC-M	PN16	176
50	PE100	PN16	35

TABLE 2. Pipe Material Schedule

Material	Reference	Material	Reference
PVC-M	WSA-PS-209	PE (retic & submain)	WSA-PS-207
PVC-O	WSA-PS-210	PE (property services)	WSA-PS-215

TABLE 3. Hydrant & Washout Schedule (All washouts & operational hydrants are Water Agency owned)

Main Size	Fitting Type	Ownership	Location	Street	Location
150	HYDRANT	DW - Council	In Line	HIGGINS STREET	3m W of W Splay Lot 1209

TABLE 5. Service Alignment Schedule (offsets in m)

Location	Water	Gas	NBN	Elec	Poles	BOK
HIGGINS STREET (EAST-WEST)	2.60N	2.10N	1.80S	2.30S	0.80	4.20
HIGGINS ST (NORTH-SOUTH)	2.60W	2.10W	1.80E	2.30E	0.80	4.20
SHARED DRIVEWAY (LOTS 1212-1213)	2.60W	2.10W	1.80E	2.30E	0.80	3.50

TABLE 6. Thrust Restraint Schedule

Location	Type	Area (m ²)	Depth (m)	Width (m)	Quantity	Fitting	AHBP (kPa) USED
A	Detail H & I, MRWA-W-205A	0.65	N/A	N/A	1	150x150 TEE	50

TABLE 7. Vertical Clearances

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
Teleco 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.

SHEET INDEX

SHT No.	VER	DESCRIPTION
1	A	LOCALITY PLAN & NOTES
2	A	DETAIL PLAN

	DESIGNED DATE 31/07/15 <i>I. Bonacci</i> I. BONACCI	breese pitt dixon Ref No : 8226E/12	Water Agency Project Ref : LND/15/00038	CITY WEST WATER LTD.	SCALE AS SHOWN @ A3 SHEET 1 OF 2
	CHECKED DATE 31/07/15 <i>P. Cuttler</i> P. CUTTLER			MUNICIPALITY OF MELTON ASPIRE ESTATE STAGE 12 DW DESIGN PLANS LOCALITY PLAN & NOTES	DRAWING No. 15/00038W
A	ISSUED FOR CONSTRUCTION DATE 31/07/15 IB	AUTHORISED BY DATE 31/07/15 <i>R. Jarvis</i> R. JARVIS			ISSUED MAY '15 VERSION A