



WATER SERVICES ASSOCIATION
OF AUSTRALIA

Water Supply Code of Australia
Hunter Water Corporation
Version 1.0



WSA 03–2002



WATER SERVICES ASSOCIATION
of Australia

Water Supply Code of Australia

WSA 03—2002-2.3

Hunter Water Edition

Version 1

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- 28.2 WAT–1200 – Soil classification guidelines
- 28.3 WAT–1201-V – Embedment and trench fill
- 28.4 WAT–1202 – Standard embedment – All pipe types
- 28.5 WAT–1203 – Special embedments – Inadequate and poor foundation
- 28.6 WAT–1204-V – Special embedments – Concrete, geotextile and cement stabilised systems
- 28.7 WAT–1205 – Thrust block details – Concrete blocks
- 28.8 WAT–1206 – Thrust block details – Timber & recycled plastic blocks
- 28.9 WAT–1207-V – Thrust and anchor blocks – Gate valves and vertical bends
- 28.10 WAT–1208 – Restrained joint system – DN 100 to DN 375 DI mains
- 28.11 WAT–1209 – Trench drainage – Bulkheads and trenchstop
- 28.12 WAT–1210 – Trench drainage – Typical systems
- 28.13 WAT–1211-V, WAT-1212-V, WAT-1213-V and WAT–1214-V – Buried crossings
- HW 28.14 WAT–1250-H AND WAT–1251-H – Standard Trench Details
- HW 28.15 WAT–1252-H – Thrust Block Details
- HW 28.16 WAT–1253-H AND WAT–1254-H – Anchorage Details – Stop Valve Installations
- HW 28.17 WAT–1255-H – Buried Crossings

29 COMMENTARY On WAT–1300 SERIES – INSTALLATION PRACTICES / STRUCTURES

- 29.1 General
- 29.2 WAT–1300-V – Valve and hydrant identification
- 29.3 WAT–1301-V and WAT–1302-V – Typical valve & hydrant installation
- 29.4 WAT–1303-V, WAT-1304-V, WAT-1305-V AND WAT–1306-V – Typical surface fitting installation
- 29.5 WAT–1307-V – Typical appurtenance (scour) installation
- 29.6 WAT–1308-V and WAT–1309-V – Typical appurtenance (valve) installation
- 29.7 WAT–1310-V, WAT-1311 and WAT–1312 – Aerial crossings
- 29.8 WAT–1313 – Flanged joints
- HW 29.9 WAT–1350-H AND WAT–1351-H – Typical Appurtenance (Valve) Installation
- HW 29.10 WAT–1355-H – Aerial Crossings – Circular Rc Piers In Non-Flood Conditions

30 COMMENTARY ON WAT–1400 SERIES – FABRICATION DETAILS

- 30.1 General
- 30.2 WAT–1400 – Typical steel pipe jointing – Butt welding of joints
- 30.3 WAT–1401-V – Typical steel pipe jointing – RRJ spigot bands
- 30.4 WAT–1402 – Typical steel pipe jointing – Welded pipe collars
- 30.5 WAT–1403 – Typical steel fabrication – Bends
- 30.6 WAT–1404 – Typical steel fabrication – Access openings
- 30.7 WAT–1405 – Typical steel fabrication – Dismantling and flexible joints
- 30.8 WAT–1406-V and WAT–1407-V – Valve connection & by-pass arrangements
- 30.9 WAT-1408-V – Joint corrosion protection
- 30.10 WAT-1409 – Hydrant installation fittings – PE assemblies
- HW 30.11 WAT–1450-H – TYPICAL STEEL PIPE JOINTING – LEAD AND RR JOINTS

STANDARD DRAWINGS

TABLES

TABLE 28.1 MINIMUM TRENCH DIMENSIONS

26 LISTING OF STANDARD DRAWINGS

DRAWING NUMBER	ACTIVITY	TITLE	Equivalent 1999 DRAWING NUMBER
PIPELINE LAYOUT			
WAT-1100*	Design Layouts	Typical Locality Plan	
WAT-1101*	Design Layouts	Typical Site Plan	
WAT-1102-V	Typical Mains Construction	Reticulation Main Arrangements	WAT-200
WAT-1103-V	Typical Mains Construction	Distribution and Transfer Mains	WAT-201
WAT-1104-V	Typical Mains Construction	DN 63 PE Cul-de-Sac Arrangement	WAT-202
WAT-1105-V	Typical Mains Construction	Connection to Existing Mains	
WAT-1106-V	Property Services	Single Service Main to Meter	WAT-300
WAT-1107-V	Property Services	Split Service Main to Meter	WAT-301
WAT-1108-V	Property Services	Connection to Main	WAT-302
WAT-1109-V	Property Services	Above Ground Meter Assembly Arrangement	WAT-303
WAT-1150-H	Water Main Symbols		
WAT-1151-H	Design Layouts	Typical Locality Plan	
WAT-1152-H	Design Layouts	Typical Site Plan	
WAT-1153-H	Design Layouts	Utility Services – Space Allocations in Footways – Hunter Water Area	
EMBEDMENT / TRENCHFILL AND RESTRAINTS			
WAT-1200	Soil Classification Guidelines	And Allowable Bearing Pressures for Anchors and Thrust Blocks	WAT-400
WAT-1201-V	Embedment & Trenchfill	Typical Arrangement	WAT-100
WAT-1202	Standard Embedment	All Pipe Types	
WAT-1203	Special Embedments	Inadequate and Poor Foundation	WAT-101
WAT-1204-V	Special Embedments	Concrete, Geotextile and Cement Stabilised Systems	WAT-102
WAT-1205	Thrust Block Details	Concrete Blocks	WAT-203
WAT-1206*	Thrust Block Details	Timber & Recycled Plastic Blocks	WAT-204
WAT-1207-V	Thrust and Anchor Blocks	Gate Valves and Vertical Bends	WAT-205
WAT-1208	Restrained Joint System	DN 100 to DN 375 DI Mains	
WAT-1209	Trench Drainage	Bulkheads and Trenchstop	WAT-103
WAT-1210	Trench Drainage	Typical Systems	WAT-104
WAT-1211-V	Buried Crossings	Under Obstructions	WAT-105
WAT-1212-V	Buried Crossings	Major Roadways	WAT-106
WAT-1213-V	Buried Crossings	Railways	WAT-107
WAT-1214-V	Buried Crossings	Bored & Jacked Encasing Pipe Details	
WAT-1250-H	Standard Trench Details	Reticulation Mains DN 100 to DN 375	
WAT-1251-H	Standard Trench Details	Transfer and Distribution Mains DN 300 to DN 750	
WAT-1252-H	Thrust Block Details	DN 450 to DN 750 Mains	

DRAWING NUMBER	ACTIVITY	TITLE	Equivalent 1999 DRAWING NUMBER
EMBEDMENT / TRENCHFILL AND RESTRAINTS <i>continued</i>			
WAT-1253-H	Anchorage Details	Stop Valve Installations up to DN 1200 SCL Mains	
WAT-1254-H	Anchorage Details	Stop Valve Installations up to DN 750 DICL Mains	
WAT-1255-H	Buried Crossings	Under Minor Obstructions	
INSTALLATION PRACTICES/ STRUCTURES			
WAT-1300-V	Valve and Hydrant Identification	Identification Markers & Marker Posts	WAT-207
WAT-1301-V	Typical Valve & Hydrant Installation	Valve Arrangement	WAT-206
WAT-1302-V	Typical Valve & Hydrant Installation	Hydrants and Air Relief Valves	WAT-206 WAT-210
WAT-1303-V	Typical Surface Fitting Installation	Gate Valve Surface Boxes Non Trafficable	WAT-208 WAT-209
WAT-1304-V	Typical Surface Fitting Installation	Gate Valve Surface Boxes Trafficable	
WAT-1305-V	Typical Surface Fitting Installation	Hydrant Surface Boxes Trafficable and Non Trafficable	
WAT-1306-V	Typical Surface Fitting Installation	Hydrant Surface Boxes Trafficable	
WAT-1307-V	Typical Appurtenance Installation	Scour Arrangements	WAT-211
WAT-1308-V	Typical Appurtenance Installation	Valve Chambers	
WAT-1309-V	Typical Appurtenance Installation	Pressure Reducing Valves (PRV)	WAT-213
WAT-1310-V	Aerial Crossings	Aqueduct	WAT-108
WAT-1311	Aerial Crossings	Aqueduct Protection Grille	WAT-109
WAT-1312	Aerial Crossings	Bridge Crossing Concepts	
WAT-1313	Flanged Joints	Bolting Details	
WAT-1350-H	Typical Appurtenance Installation	Valve Gearbox Chamber for Vertical Type Gate Valve & Bypass in Footway	
WAT-1351-H	Typical Appurtenance Installation	Valve Gearbox Chamber for Vertical Type Gate Valve & Bypass in Carriageway	
WAT-1355-H	Aerial Crossings	Circular RC Piers in Non Flood Conditions for DN 100 to DN 750 Mains	
FABRICATION DETAILS			
WAT-1400	Typical Steel Pipe Jointing	Butt Welding of Joints	
WAT-1401-V	Typical Steel Pipe Jointing	Rubber Ring Joint Spigot Bands	
WAT-1402	Typical Steel Pipe Jointing	Welded Pipe Collars	
WAT-1403	Typical Steel Fabrication	Bends	
WAT-1404	Typical Steel Fabrication	Access Opening for Pipes \geq DN 750	
WAT-1405	Typical Steel Fabrication	Dismantling and Flexible Joints	
WAT-1406-V	Typical Steel Fabrication	Valve Connection & Bypass	
WAT-1407-V	DI Installation	Valve Bypass Arrangement DI and GRP Pipe	
WAT-1408-V	Joint Corrosion Protection	Cement Mortar Lined Steel Pipe DN 300 to DN 1200	
FABRICATION DETAILS <i>continued</i>			

DRAWING NUMBER	ACTIVITY	TITLE	Equivalent 1999 DRAWING NUMBER
WAT-1409	Hydrant Installation Fittings	PE Assemblies	PE Code
WAT-1450-H	Typical Steel Pipe Jointing	Welding of Existing Lead and Rubber Ring Joints	

NOTE: 1999 Drawing WAT-212 – “Swabbing Point Typical Arrangement” has been deleted from the new series of drawings

* This Drawing is **NOT** used by Hunter Water.