



# **Development Code: Construction**

## **Table of Contents**

### **Construction Standards**

CS1 Preliminary and General

CS2 Streetscape

CS3 Reserves

CS4 Transportation

CS5&6 Stormwater & Wastewater

CS7 Water

CS8 Streetlighting

CS9 Network Utilities

CS10 Land Stability & Earthworks

CS11 Waste Water Pump Station

CS12 Road Reserve Occupany





# **Approved Products & Materials**

AP1 Approval Process

AP2 Streetscape

AP3 Reserves

AP4 Transportation

AP5 Stormwater

AP6 Wastewater

AP7 Water

AP8 Streetlighting





### **Standard Checklists**

#### Introduction

CERT1 General

Section 224 Certification StatementEngineering Plan Approval Application

1c Financial Asset Register/Schedule of Asset Values
1d Quality Assurance Checklist Sheets – Earthworks
1e Quality Assurance Checklist Sheets – Roading

1f Quality Assurance Checklist Sheets – Underground Services

1g GST Requirements/Asset Register/Schedule of Engineering/Landscape Value

1h Benchmarch Record

CERT2 Streetscape - Under Development

CERT3 Reserves - Under Development

CERT4 Transportation

4a Confirmation of Road & Ancillary Construction

4b Road Opening Notice

CERT5 Stormwater

5a Confirmation of Stormwater Construction

CERT6 Wastewater

6a Confirmation of Sanitary Sewer Construction

CERT7 Water

7a Confirmation of Water Reticulation

7b Working on Utilities Notice

CERT8 Streetlighting - Under Development

CERT9 Network Utilities - Under Development

CERT10 Natural Hazards and Earthworks

10a Guide for Geotechnical Report
10b Suitability of Land for Development
10b Suitability of Land for Building

CERT11 Wastewater Pump Stations/Rising Mains - Under Development





## **As Builts**

AB1 As Built Specification – Utilities

AB2 As Built Specification – Roading

AB3.1 As Built Specification – Reserves and Facilities

AB3.2 Appendix Reserves Data Spec Sheet





# **Drawings**

QA	Quality Assurance	QA-01	Relativity of Datum Levels
	•		Draughting Symbols
			As Built Dimensioning
		QA-04	Benchmark In K & C
		QA-05	Benchmark in Block
200	Streetscape	W201	Street Trees - Tree Location
	•	W202	Street Trees - Tree Planting & Mulchable Area
			Street Trees - Tree Tie Configuration
			Sight Distances
			Street Garden Edging
300	Reserves	W301	Timber Work - Bollards
300	Nesel ves		Timber Work - Removable Bollard Detail
			Fencing - Post & Rail
			Fencing - Fencing for Reserves and Accessways (to be vested)
			Fencing – Rural Reserves & Accessways
			Fencing – Solid, Railing & Combination
		**500	Tending – Solid, Italing & Combination
400	Transportation		Carriageway - Location & Variations 1-4
			Carriageway - Location & Variations 5
			Carriageway - Location & Variations 6
			Carriageway - Location & Variations 7
			Turning Areas
			Tee Intersection Details
			Swept Path Design 90% Car
			Swept Path Design Minimum Truck
			Swept Path Design 90% Semi Trailer
			Intersection Sight Distances
			Entranceway Sight Distances
		W417	Standard Rural Public Road
			Rural/Residential Road
			Carriageway Trench Reinstatement
		W422	Subsoil Drain for Kerbs
			Concrete Work - Kerb & Channel
			Concrete Work - Kerb & Nib for Traffic Island
			Concrete Work – Prescast Traffic Islands





- W426 Concrete Work Dished Channel
- W427 Concrete Work Recessed Sump
- W428 Concrete Work Alternative Sump (Special Approval Only)
- W429 Concrete Work Sump Frame & Grate
- W430 Concrete Work Drop Structure
- W435 Urban Vehicle Crossing
- W436 Vehicle Crossing Profiles
- W437 Rural Vehicle Entrance
- W438 Residential Private Way
- W439 Rural Private Way
- W440 Rural Privateway Passing Bay
- W445 Berm Features Mobility Pram Kerb Crossing
- W446 Berm Features Pedestrian & Cycle Pathway
- W449 Walkway/Accessway & Pedestrian/Cycle Pathway
- W460 Road Marking Parking Dimensions
- W461 Road Marking Urban Right Turn Bay (Option A)
- W462 Road Marking Urban Right Turn Bay (Option B)
- W463 Road Marking Rural Right Turn Bay
- W464 Road Marking Culvert Marker
- W468 Pio Shores Urban Vehicle Crossing

#### 500 Stormwater

- W501 Structure Manhole Standard
- W502 Structure Manhole Shallow
- W503 Structure Manhole Ladder & Steps
- W504 Structure Manhole Precast 1050mmØ LID
- W505 Structure Manhole Entry Fixing
- W506 Structure Manhole Standard & Raised Access Detail
- W507 Structure Manhole Inclined Access Detail
- W514 Structure Manhole Standard Cover & Frame
- W515 Structure Manhole Light Cover & Frame
- W516 Structure Manhole Heavy Duty Non-rock Type Cover & Frame
- W521 Structure Rodding Eye Shallow < 2.5m
- W522 Structure Rodding Eye Deep > 2.5m
- W524 Structure Inlet & Outlet Structure
- W526 Structure Yard Sump
- W531 Property Connection Standard
- W532 Property Connection Depth > 2.5m
- W533 Property Connection Within Property
- W534 Property Connection Outside Property
- W535 Property Connection Entry to Stormwater Main/Mainhole
- W536 Property Connection Kerb Connection
- W537 Property Connection Stormwater Downpipe Syphons (Residential Sites Only)
- W538 Lateral Connection Single Connection to Manhole
- W539 Lateral Connection 2 to 6 Connections to Manhole
- W540 Lateral Connection Single Connection to Main
- W541 Lateral Connection Two Connections to Main
- W542 Lateral Connection Two Adjacent Connections to Main







600 Wastewater

W533 Lateral Connection Rear Lot Connection W544 Mains Connection Saddle Connection W551 Trenchless Pipe Installation W552 Anti-Scour Blocks W553 Close Proximity Building Near Public Mains W554 Close Proximity Retaining Wall Restrictions W601 Structure - Manhole Standard W603 Structure - Manhole Ladder & Steps W604 Structure – Manhole Precast 1050mmØ LID W605 Structure - Manhole Entry Fixing W606 Structure - Manhole Standard & Raised Access Detail W607 Structure - Manhole Inclined Access Detail W608 structure - Manhole Internal Drop W609 Structure – Manhole External Drop W610 Structure - Manhole PE Pipe Connections Wall Adapter & **Precast Manhole** W611 Structure - Manhole PE Pipe Connections Stub Flange & In-Situ Base W612 Structure - Manhole PE Pipe Connections Electrofusion Coupler & In-Situ Base W613 Structure - Manhole PE Pipe Connections Puddle Flange & **Precast Manhole** W614 Structure – Manhole Standard Cover and Frame W615 Structure - Light Cover and Frame W616 Structure – Manhole – Heavy Duty Non Rock Type Cover & Frame W620 Structure – Rodding Eye Shallow <2.5m W621 Structure - Rodding Eye Deep >2.5m W630 Property Connection - Standard W631 Property Connection - Depth >2.5m W632 Property Connection - Within Property W633 Property Connection - Outside Property W634 Property Connection - Entry to Wastewater Main/Manhole W637 Lateral Connection - Single Connection to Manhole W638 Lateral Connection - 2 to 6 Connections to Manhole W639 Lateral Connection - Single Connection to Main W640 Lateral Connection - Two Connections to Main W641 Lateral Connection - Two Adjacent Connections to Main W642 Lateral Connection - Rear Lot Connection

September 2009 Table of Contents

W643 Mains Connection Saddle Connection

W652 Close Proximity - Building Near Public Mains W653 Close Proximity - Retaining Wall Restrictions

W644 Bulk Head & Trenchstop





700 Water W701 Water Supply - Looped and Linked Principal Mains W702 Water Main - Location at Intersections W706 Water Main - Main to Main Connection W708 Water Main - Branch Valves and Hydrant Combinations W709 Water Main – Support for Asbestos Cement Main W710 Water Fittings Hydrant Surround W714 Water Fittings Hydrant Box W715 Water Fittings Hydrant Surround Blocks W716 Water Fittings Valve Surround W717 Water Fittings Valve Box W718 Water Fittings Valve Surround 75mm Concrete W719 Water Fittings Valve Surround 100mm Concrete W720 Water Fittings Valve Surround Heavy Duty Concrete W721 Water Fittings Anchor Block for Sluice Valves On Mains W722 Water Fittings Anchor Block for Flanged Fittings on Mains W724 Water Fittings Hydrant & Valve Marker Post W727 Water Meter Type 1 & 2 Point of Supply Location Installation W728 Water Meter Type 3 & 4 Point of Supply Location Installation W729 Water Meter Fire System Connection with Potable **Supply Installation** W730 Property Connection Standard 20mm Manifold Connections W731 Property Connection Standard 20mm Manifold Connections **Plan View** W732 Property Connection Multiple 20mm Manifold Connections W733 Property Connection 20mm Connection Requiring Double Check Valve W734 Property Connection 20mm Connection Requiring RPZ Installation W735 Property Connection 25mm OR 40mm Meter Installation with Double **Check Valve** W736 Property Connection 25mm OR 40mm Meter Installation with RPZ W737 Property Connection 50mm Combination Meter Installation With Double Check Valve W738 Property Connection Combination Meter Installation with RPZ W739 Property Connection Combined Meter Installation with RPZ and **Bypass Option** 

W740 Property Connection Secure Connection

800 Streetlighting W801 Streetlighting Mowing Strip Detail

900 Network Utilities W901 Network Utility Locations

1000 Natural Hazards & Earthworks No Drawings







1100 Wastewater Pump Station

W1101 Typical Site Layout

W1102 Elevation Section

W1103 Plan Section

W1104 Detail - Pedestal Base Plate, Pedestal Mounting, Valve Chamber & Riser

W1105 Detail - Deflector Plate, Ladder and Plinth

W1106 Detail - Valve Extension Spindle, Spindle Guide and Handwheel

W1107 Detail - Detail Cover Slab

W1108 Detail - Detail Frame

W1109 Detail - Detail Chamber Lid

W1110 Detail - Chamber Lid Padlock and Handle

W1111 Alternate Rising Main Entry to Receiving Manhole

W1112 25mm Water Service Connection

W1113 Electrical – Standard 2 Pump Stn Without Soft Starters (1 of 2)

W1114 Electrical – Standard 2 Pump Stn Without Soft Starters (2 of 2)

W1115 Electrical – Standard 2 Pump Stn SMC – 3 Soft Starters (1 of 2)

W1116 Electrical – Standard 2 Pump Stn SMC – 3 Soft Starters (2 of 2)

W1117 Electrical – Standard 2 Pump Stn IMS2 Soft Starters (1 of 2)

W1118 Electrical – Standard 2 Pump Stn IMS2 Soft Starters (2 of 2)

W1119 Electrical – Standard 2 Pump Stn ISMC – 3 Soft Starters (1 of 3)

W1120 Electrical – Standard 2 Pump Stn ISMC – 3 Soft Starters (2 of 3)

W1121 Electrical – Standard 2 Pump Stn ISMC – 3 Soft Starters (3 of 3) W1122 Electrical – 2 Pump Stn Mincas SMC – 3 Soft Starters (1 of 2)

W1123 Electrical - 2 Pump Stn Mincas SMC - 3 Soft Starters (2 of 2)

W1124 Electrical – Pumping Station Cabinet