

Vacuum Sewerage Code of Australia

The Power and Water Corporation has moved to adopt the Vacuum Sewerage Code of Australia as the general basis for the design of vacuum sewerage infrastructure under its control in the Northern Territory. This document is read as a supplement to the Vacuum Sewerage Code of Australia to provide details of those modification and additions to suit the particular requirements of the Power and Water Corporation.

Where appropriate WSA Standard Drawings are either:

- ❖ Adopted in full (AIF)
- ❖ Adopted with minor amendments or qualification (NT Variant)
- ❖ Not Applicable to PWC works. Refer to PWC issue Standard Drawings for equivalent details (N/A)

In addition, PWC have issued some standard drawings for which there is no WSA equivalent

| Requirement | WSAA Drawing Title | WSAA Drawing |
|----------------------|--|---------------------|
| NT Variant | Vacuum Sewer Profile – Typical Example with Design Detail | VAC-1100 |
| N/A | Vacuum Sewer Profile – PVC | VAC-1101 |
| AIF | Vacuum Sewer Profile – PE | VAC-1102 |
| N/A | DN1050 Collection Chamber with Single Vacuum Interface Valve – DN150 & DN225 Sewers, 1.8 & 2.4 Metres Deep – Typical Example With Design Detail | VAC-1200 |
| N/A Refer W2-2-10 | DN1500 Collection Chamber with Single Vacuum Interface Valve – DN150 & DN225 Sewers, 1.8 & 2.4 Metres Deep – Typical Example With Design Detail | VAC-1201 |
| NT Variant | DN1500 Collection Chamber with Two Vacuum Interface Valves - DN150 & DN225 Sewers, 1.8 & 2.4 Metres Deep – Typical Example With Design Detail | VAC-1202 |
| NT Variant | DN1800 Collection Chamber with Two Vacuum Interface Valves - DN150 & DN225 Sewers, 1.8 & 2.4 Metres Deep – Typical Example With Design Detail | VAC-1203 |
| N/A | Collection Chambers Deeper Than 2.4m – Typical Landing Details | VAC-1204 |
| NT Variant | Collection Chamber – Emergency Storage Pipe – Typical Arrangements | VAC-1205 |
| NT Variant | Collection Chamber – Service Connection, Pipe Penetration Through Collection Chamber Walls and Typical Property Connection Layout | VAC-1206 |
| AIF | Vacuum Station Layout – Horizontal Vacuum Vessel | VAC-1301 |
| AIF | Vacuum Station Layout – Vertical Vacuum Vessel | VAC-1302 |
| AIF | Soil Classification Guidelines – Allowable Bearing Pressures for Anchors and Thrust Blocks | VAC-1400 |
| AIF | Embedment & Trenchfill – Typical Arrangement | VAC-1401 |
| NT Variant | Standard Embedment – Flexible & Rigid Pipes | VAC-1402 |
| NT Variant | Standard Embedment – Inadequate Foundations Requiring Over-Excavation and Replacement | VAC-1403 |

| Requirement | WSAA Drawing Title | WSAA Drawing |
|-------------|---|---------------------|
| AIF | Special Embedment – Concrete & Stabilised Supports | VAC-1404 |
| AIF | Special Embedment – Support Utilising Piles | SEW-1204 |
| AIF | Trench Drainage – Bulkheads & Trenchstop | SEW-1206 |
| AIF | Trench Drainage – Typical Systems | SEW-1207 |
| AIF | Verticals & Near Verticals – Exposed & Concealed Methods | SEW-1208 |
| NT Variant | Thrust Block Details Concrete Blocks | WAT-1205 |
| N/A | Thrust Block Details – Timber & Recycled Plastic Blocks | WAT-1206 |
| NT Variant | Thrust and Anchor Blocks – Gate Valves and Vertical Bends | WAT-1207 |
| AIF | Restrained Joint System - DN100 to DN375 DI Mains | WAT-1208 |
| AIF | Trench Drainage – Bulkheads & Trenchstop | WAT-1209 |
| N/A | Trench Drainage – Typical Systems | WAT-1210 |
| AIF | Buried Crossings Under Obstructions | WAT-1211 |
| AIF | Buried Crossing Major Roadways | WAT-1212 |
| AIF | Buried Crossings - Railways | WAT-1213 |
| NT Variant | Buried Crossings – Bored & Jacked Encasing Pipe Details | WAT-1214 |
| N/A | Property Connection Details – Sewer in Road Reserve | SEW-1104 |
| N/A | Property Connection Details – Sewer in Easements & Inside Property | SEW-1105 |
| N/A | Property Connection Details – IO Interface Method | SEW-1106 |
| N/A | Property Connection Details – Buried Interface Method | SEW-1107 |
| N/A | Property Connection Details – “Y” Branch & Around Obstructions | SEW-1108 |
| N/A | Property Connection Details – Private Property & Marking Systems | SEW-1109 |
| N/A | Maintenance Holes – Sewers ≤ DN300 – Precast Types P1 & P2 | SEW-1300 |
| N/A | Maintenance Holes – Sewers ≤ DN300 – Cast Insitu Types C1 & C2 | SEW-1301 |
| N/A | Maintenance Holes – Pipe Connection Details | SEW-1302 |
| N/A | Maintenance Holes – Sewers ≤ DN300 – Changes in Level Details | SEW-1303 |
| N/A | Maintenance Holes – Sewers ≤ DN300 – Typical Channel Arrangements | SEW-1304 |
| N/A | Maintenance Holes – Typical Channel Arrangements | SEW-1305 |
| N/A | Maintenance Holes – Alternative Drop Connections | SEW-1307 |
| N/A | Maintenance Holes – Typical MH Cover Arrangements | SEW-1308 |
| N/A | Maintenance Holes – MH Connection Details – DN110 to DN450 PE Pipe | SEW-1313 |
| NT Variant | Maintenance Shafts – Typical Installation | SEW-1314 |
| N/A | Maintenance Shafts – MS & Variable Bend Installations | SEW-1315 |
| NT Variant | Maintenance Shafts – TMS and Connection Installations | SEW-1316 |
| NT Variant | Maintenance Shafts – Typical MS Cover Arrangements | SEW-1317 |
| AIF | Buried Crossings – Syphon Arrangement | SEW-1400 |
| NT Variant | Buried Crossings - Railways | SEW-1401 |
| NT Variant | Buried Crossings – Major Roadways | SEW-1402 |
| AIF | Buried Crossings – Bored & Jacked Encasing Pipe Details | SEW-1403 |
| AIF | Aerial Crossings – Bridge Crossing Concepts | SEW-1406 |

| Requirement | WSAA Drawing Title | WSAA Drawing |
|-------------|---|---------------------|
| N/A | Typical Surface Fitting Installation – Gate Valve Surface Boxes – Non-Trafficable | WAT-1303 |
| N/A | Typical Surface Fitting Installation – Gate Valve Surface Boxes – Trafficable | WAT-1304 |
| N/A | Typical Surface Fitting Installation – Hydrant Surface Boxes – Trafficable & Non-Trafficable | WAT-1305 |
| N/A | Typical Surface Fitting Installation – Hydrant Surface Boxes – Trafficable | WAT-1306 |
| NT Variant | Typical Appurtenance Installation – Scour Arrangements | WAT-1307 |
| N/A | Typical Appurtenance Installation – Valve Chambers | WAT-1308 |
| NT Variant | Typical Appurtenance Installation – Pressure Reducing Valves (PRV) | WAT-1309 |
| AIF | Aerial Crossings - Aqueduct | WAT-1310 |
| AIF | Aerial Crossings – Aqueduct - Protection Grille | WAT-1311 |
| AIF | Aerial Crossings – Bridge Crossing Concepts | WAT-1312 |
| AIF | Flanged joints – Bolting Details | WAT-1313 |
| AIF | Typical Steel Pipe Jointing – Butt Welding of Joints | WAT-1400 |
| AIF | Typical Steel Pipe Jointing – Rubber Ring Joint Spigot Bands | WAT-1401 |
| NT Variant | Typical Steel Pipe Jointing – Welded Pipe Collars | WAT-1402 |
| NT Variant | Typical Steel Fabrication - Bends | WAT-1403 |
| NT Variant | Joint Corrosion Protection Cement Mortar Lined Steel Pipe DN300 to DN1200 | WAT-1408 |