

## Appendix J: Schedule 1D As-Built Plans and Documents

Commented [SC1]: No changes

## Schedule 1D

### As-Builts Drawings

Information given on as-built drawings, submitted electronically in PDF format at a scale of 1:500, shall include but shall not be limited to the following and is required on disc prior to the issue off the Section 224 Certificate.

(a) General:

- ☐ Separate PDF files are required for each Infrastructure service. One .DXF file with layers for each Infrastructure service contained in it will be sufficient. The format of the .DXF file must be identified when submitting (Exact Projection e.g., Whanganui Circuit)

- (b) ☐ The co-ordinates of at least two points on each Plan in terms of an appropriate geodetic or cadastral datum and the origin of the plan level datum. Refer Supplement Document clause 1.5.2.2

The format of the .DXF file which has been submitted must be identified when submitting.

(c) Roading Plan:

- |  |  |
|--|--|
| <input type="checkbox"/> Location                            | <input type="checkbox"/> Details of road marking         |
| <input type="checkbox"/> Signs                               | <input type="checkbox"/> Amenities features, eg: seats   |
| <input type="checkbox"/> Street Lights                       | <input type="checkbox"/> Centreline distances            |
| <input type="checkbox"/> Road Names (as approved by Council) | <input type="checkbox"/> Sumps (Type/Lid Level/Co-ords)  |
|  | <input type="checkbox"/> Sump Legs (DN Size/Material)    |
|  | <input type="checkbox"/> Subsoil (DN Size/Material/DofC) |

- (d) Typical Roading Cross Section Drawing Showing Pavement Layers. Scale 1:100

(e) Roading Longsection:

(f) Stormwater Reticulation Drawing:

- |   |   |
|---|---|
| <input type="checkbox"/> Co-ordinated positions of manholes   | <input type="checkbox"/> Manhole inverts and lid levels |
| <input type="checkbox"/> Inverts of pipes   |   |
| <input type="checkbox"/> Position and depth of connections at lot boundaries (Depths in metres and also City Datum)                         |   |
| <input type="checkbox"/> Positions of connections shall be both co-ordinated and referenced to adjacent manhole lids and lot boundary pegs* |   |
| <input type="checkbox"/> Pipe material  | <input type="checkbox"/> DN size                        |
| <input type="checkbox"/> Class rating   | <input type="checkbox"/> Joint type                     |
| <input type="checkbox"/> Pipe Grade as %  |   |
| <input type="checkbox"/> As a minimum, detention and the secondary flow path route to meet the 1% AEP flood event must be shown             |   |

(g) Wastewater Reticulation Drawing:

- |   |  |
|---|--|
| <input type="checkbox"/> Co-ordinated positions of manholes   | <input type="checkbox"/> Manhole inverts and lid levels                |
| <input type="checkbox"/> Inverts of pipes   | <input type="checkbox"/> Measurements to house connections (from MH's) |
| <input type="checkbox"/> Position and depth of connections at lot boundaries (Depths in metres and also City Datum)                         |  |
| <input type="checkbox"/> Positions of connections shall be both co-ordinated and referenced to adjacent manhole lids and lot boundary pegs* |  |
| <input type="checkbox"/> Pipe material  | <input type="checkbox"/> DN size                                       |
| <input type="checkbox"/> Class rating   | <input type="checkbox"/> Joint type                                    |
| <input type="checkbox"/> Pipe Grade as %  |  |

(h) Water Reticulation Drawing:

- |  |                                     |
|--|-------------------------------------|
| <input type="checkbox"/> Results of pressure test pipes  | <input type="checkbox"/> Joint type |
| <input type="checkbox"/> Pipe material, PN rating, joint type, DN size   |                                     |
| <input type="checkbox"/> Location of thrust blocks, fire hydrants, valves (FH and V shall be co-ordinated)           |                                     |
| <input type="checkbox"/> Distance of water connection (to by) (LH Bdy and RH Bdy)                                    |                                     |
| <input type="checkbox"/> Depth of cover and position of mains (grass or seal) (Depths in metres and also City Datum) |                                     |

(i) Ducts:

- ☐ Position and diameter, cover and utility type for ducts installed for utilities

## Schedule 1D

### Post Construction Information

Post construction information is required in full prior to issue of the Section 224 Certificate but may be provided progressively as works are completed and tested.

(a) Road Information – General:

- ☐ Source of aggregates
- ☐ Pavement design including subgrade test results (compaction and CBR) and pavement depth
- ☐ Grading and sand equivalent of basecourse
- ☐ Compaction of basecourse (as required by NZS4404 and TNZ B/2)
- ☐ Benkelman Beam test results on finished basecourse
- ☐ Source of pavement and surfacing materials

(b) Road Surfacing Information – For Sealed Roads:

- ☐ Binder type and application rate
- ☐ Adhesion agent type and quantity
- ☐ Chip size
- ☐ Width, length and area of each street sealed
- ☐ Discussion on any reasons for differences between design and applied rate
- ☐ Mix design for asphaltic concrete
- ☐ Density tests and air voids content for asphaltic concrete
- ☐ Asphalt details including mixture and thickness
- ☐ Interface details between asphalt surfacing and basecourse  
(i.e.: tack coat or full chip seal, etc)
- ☐ Cutter type and quantity
- ☐ Type and quantity of other additives
- ☐ Design basis for binder application rate
- ☐ Source of aggregates

(c) Stormwater Reticulation Information:

- ☐ Results of pressure test of pipes
- ☐ Test results of backfill for all lines including bedding
- ☐ CCTV inspection records of all stormwater pipelines (flush lines first)
- ☐ WDC MH inventory data sheets

(d) Wastewater Reticulation Datasheets:

- ☐ Results of pressure test of pipes
- ☐ Test results of backfill for all lines including bedding
- ☐ CCTV inspection records of all wastewater pipelines (flush lines first)
- ☐ WDC MH inventory datasheets


(e) Water Reticulation Information:

- ☐ Results of pressure testing of pipelines
- ☐ Test results of backfilling for all lines including backfill
- ☐ CCTV inspection of all large water pipelines at Engineers discretion (flush lines first)

(f) Geotechnical Completion Report:

- ☐ Bulk fill test results (TNZ F/1)
- ☐ Test results for residential (building platform) fills (NZS 4431)
- ☐ Statement of suitability (Schedule 2A NZS4404)
- ☐ As-built surface contour drawing inclusive of all areas of undisturbed and cut/fill ground to indicate the finished ground and any deviation from approved design plan, also delineating zone areas of low density

# Manhole Inventory Form



**WHANGANUI  
DISTRICT COUNCIL**  
Te Kaunihera a Rohe o Whanganui

**Effluent Type:**    ☐ Stormwater  
                              ☐ Wastewater

**Address:**

**Construction Date (if new) or Inspection Date:**  

(C)
(I)

**Contractor:**

**Location Details**

☐ Bern  
☐ Carriageway

☐ Private Property  
☐ Reserve

**Fixing Details**  
**Manhole Asset ID**

**Cover Level**

**Depth (m)**

**Invert Level**

**Easting (X)**

**Northing (Y)**

Diagram: Show inverts, direction and sizes (include MH diameter in mm)

North

**Structural Details**

Manhole Type	Chamber	Cone	Steps	Cover
<input type="checkbox"/> Standard	<input type="checkbox"/> Brick	<input type="checkbox"/> Brick	<input type="checkbox"/> Safety	<input type="checkbox"/> Standard
<input type="checkbox"/> Cross-over	<input type="checkbox"/> Precast Concrete	<input type="checkbox"/> Precast Concrete	<input type="checkbox"/> Non-safety	<input type="checkbox"/> Non-rock
<input type="checkbox"/> Diversion	<input type="checkbox"/> In-situ Concrete	<input type="checkbox"/> In-situ Concrete	<input type="checkbox"/> No Steps	<input type="checkbox"/> Locked
<input type="checkbox"/> Internal Drop	<input type="checkbox"/> Other	<input type="checkbox"/> Other	<input type="checkbox"/> Steel	<input type="checkbox"/> Scaled
<input type="checkbox"/> External Drop	<div style="border: 1px solid black; width: 50px; height: 20px;"></div>	<div style="border: 1px solid black; width: 50px; height: 20px;"></div>	<input type="checkbox"/> Plastic	<input type="checkbox"/> Banded
<input type="checkbox"/> Riser Manhole				<input type="checkbox"/> Caged
<input type="checkbox"/> Rising Main Discharge		If cover is AS/NZS 3996, indicate class(B, C or D) <div style="border-bottom: 1px solid black; width: 80px;"></div>		

**Condition Details**

Chamber	Channel/Base	Cone	Steps	Cover
<input type="checkbox"/> Good	<input type="checkbox"/> Good	<input type="checkbox"/> Good	<input type="checkbox"/> Good	<input type="checkbox"/> Good
<input type="checkbox"/> Fair	<input type="checkbox"/> Fair	<input type="checkbox"/> Fair	<input type="checkbox"/> Fair	<input type="checkbox"/> Fair
<input type="checkbox"/> Poor	<input type="checkbox"/> Poor	<input type="checkbox"/> Poor	<input type="checkbox"/> Poor	<input type="checkbox"/> Poor

**General Information**

**Evidence of:**

☐ Surcharge  
☐ Infiltration  
☐ Roots  
☐ Debris / Silt

}

**Dewatering:**

☐ Required  
☐ Not required

Indicate severity in comments box

**Comments**

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