

DEVELOPER'S CHECKLIST FOR SUBMISSION OF AS-BUILT DRAWINGS

(To be completed by Developer's representative and submitted with As-built drawings for Council approval)



RM Number: _____
Location/ Address: _____
Development Name: _____
Checklist completed by: _____ Date: _____
Business Name: _____

Soft copy Electronic File format provided is:

(Tick to confirm)

- PDF format
- Data: (See appendix A)
 - 1.) AutoCAD 2009.dwg
 - 2.) AutoCAD 2009.dwg with ESRI Shapefile.shp if available.
 - 3.) Or DXF and Excel Spreadsheet if data 1 & 2 is not available.
- New Zealand Transverse Mercator (NZTM). If not possible, coordinate projection is specified.
- Vertical datum – Wellington datum 1953.

Note: (As-builts provided without NZTM coordinates will not be accepted).

Hard copy As-built drawings provided show:

(Tick to confirm)

- North point.
- Lot boundaries, lot numbers, property numbers and legal road names. (if available)
- RM number (and contract number for Council contracts).
- Asset installation date, project name, address.
- Projection/coordinate system used in electronic drawing.
- The coordinates of at least two points on each plan.
- Bench mark information (including Coordinates and Elevation).
- Plan scales to be 1:250 or 1:500 to suit, with appropriately sized details.
- Plan sizes to be A3 or A2 paper as appropriate.

As-built drawings include:

(a) For Water reticulation:

(Tick to confirm)

- Watermain, alignment, depth, diam. (IDmm, ODmm), material, pressure rating, etc. (eg. 200mm PE100 Series 2 RRJ PN12)
- Locations of valves, meters, hydrants, pump stations, and all fittings.
- Connection details shown, including manifold type (restrictor manifolds, meter manifold), etc.
- Valve & pipe connections in separate box with detailed components and connections.
- Connections to existing assets are shown and all features accurately dimensioned, coordinated and referenced to boundary pegs.

(b) For Wastewater and Stormwater reticulation:

(Tick to confirm)

- Coordinated positions of manholes.
- Manhole inverts.
- RL (Reduced Level or lid level).
- Invert level of pipes when different from manhole or pump station Invert.
- Pipe diameter and material, US or DS invert if different from manhole invert (diam. IDmm, ODmm, pipe material, jointing system, pipe class and grade).
- Measurements to house connections, laterals, their length and position.
Positions of connections and laterals shall be both coordinated and referenced to adjacent manhole lids and boundary pegs.
- The details of all existing and non-standard connections are shown. (if applicable)
- Sumps will be labeled with type (this can be shown in notes box for general and individually labeled if different or special type i.e. quad sump or enviropod).
- Pump stations and Rising main (diam. IDmm, ODmm, pipe material, jointing system and pipe class).
- Pump set details and switch levels.
- Connection to existing assets shall be shown. Where appropriate cross-section references to be provided. Positions of connections and laterals shall be both coordinated and referenced to adjacent manhole lids and boundary pegs.
- Stormwater Attenuation shows Q100 Extent including freeboard, volume of storage, contour plan and cross sections. (if applicable)
- Details of all drainage structures (eg. flap gate, scruffy domes) including brand and supplier. (If applicable)
- Details of all soak pits, including invert levels and cross sections. (If applicable)
- Any maintenance requirements.

(c) For Earthworks:

(Tick to confirm)

- Extent of earthworks, finished 1m contours, batter slopes, and location of subsoil drainage

(d) For Roading:

(Tick to confirm)

- Chainage
- Location, with type identified where applicable, of sumps, signs and street markings, street lights, traffic management features (i.e. roundabouts and islands), vehicle crossings, footpaths, rain gardens, swales, berms, landscape features, sub-surface drainage, retaining walls
- The detail of all non-standard features such as swales, versitanks, rain gardens, etc
- Specification for street lights
- Cross section showing construction of road, footpaths, vehicle crossing

Notes:

(For Council Use Only)

Approved Site Accurate: _____ **Date:** _____
(Council Sustainable Developments Team)

Authorised W&WW Assets Team: _____ **Date:** _____

Authorised Roading Team: _____ **Date:** _____

APPENDIX A

Specifications for As-built Shapefiles:

Coordinate system: NZ Transverse Mercator

Each new asset shall be stored as a separate feature in a shapefile. For each asset the appropriate attributes shall be supplied (see below).

One shapefile per asset type:

1. Water services
 - Points assets e.g. manifolds,hydrants,valves.etc.
 - i. Attribute information
 1. Asset type
 2. Size or diameter
 3. X
 4. Y
 - Pipe assets
 - i. Attribute information
 1. Nominal Diameter
 2. Pipe Inside Diameter
 3. Pipe Outside Diameter
 4. Pipe Material
 5. Series
 6. Jointing System
 7. Length
 8. PN Rating
 - Service pipes (laterals)
 - i. Attribute information
 1. Nominal diameter
 2. Pipe material
 3. PN Rating
2. Wastewater services
 - Point assets e.g. manholes, pump stations,etc.
 - i. Attribute information:
 1. Invert level's (inlet & outlet)
 2. Lid Level
 3. Manhole size diameter
 4. Material
 5. X
 6. Y
 - Pipe assets
 - i. Attribute information
 1. Nominal Diameter
 2. Pipe Inside Diameter
 3. Pipe Outside Diameter
 4. Pipe Material
 5. Pipe Class
 6. Jointing System
 7. Length
 8. Gradient

- Wastewater laterals/ connections
 - i. Attribute information
 1. Nominal diameter
 2. Pipe material

- 3. Stormwater services
 - Point assets e.g. manholes, sumps, pump stations, etc.
 - i. Attribute information
 1. Invert level
 2. Lid Level
 3. Manhole size diameter
 4. X
 5. Y

 - Pipe assets
 - i. Attribute information
 1. Nominal Diameter
 2. Pipe Inside Diameter
 3. Pipe Outside Diameter
 4. Pipe Material
 5. Pipe Class
 6. Jointing System
 7. Length
 8. Gradient

 - Stormwater service pipes
 - i. Attribute information
 1. Nominal diameter
 2. Pipe material

Specifications for As-built DXF and Excel Spreadsheet:

Coordinate system: NZ Transverse Mercator

As-built can also be supplied as DXF files provided the attribute data is also supplied in the form of an Excel spreadsheet. Each DXF feature (point or pipe) shall have a unique identifier so that it can be linked to its attributes in the Excel Spreadsheet. Attributes for each asset type shall be stored in a separate Spreadsheet or Worksheet. New assets can be stored in a single DXF file provided that separate layers are used for each asset type.

The Excel tables should have the same attributes as the Shapefiles described above.