



Western Bay of Plenty District Council

RESERVES & FACILITIES

AS BUILT DATA SPECIFICATION

September 2009



© WBOPDC - Noble Johnson Drive, Katikati – The Landing



TABLE OF CONTENTS

TABLE OF CONTENTS..... 2

1. OBJECTIVE OF THE SPECIFICATION 3

2. RELEVANCY 3

COUNCIL PROJECTS:..... 3

COMMERCIAL OR RESIDENTIAL SUBDIVISION DEVELOPMENT PROJECTS: 3

3. DATA SUPPLY 3

3.1 SCALED LINE DRAWING 4

TABLE 3.1 - ASSET TYPES & DRAWING PLOT REQUIREMENTS 4

Drawing Title block..... 5

Drawing Legend..... 5

Drawing asset summary table..... 5

3.2 ASPATIAL FILE (ASSET DATA ATTRIBUTES SPREADSHEET) 6

TABLE 3.2 - ATTRIBUTE SPREADSHEET COLUMN HEADING EXPLANATIONS 6

3.3 SPATIAL FILE (ASSET GIS COORDINATES SPREADSHEET) 7

Point features: 7

Line features:..... 7

Polygon features:..... 7

TABLE 3.3 - ASSET HIERARCHY & GIS FEATURE TYPES 8

TABLE 3.4 – SPATIAL DATA INPUT FILE (EXAMPLE) 12

4. MEANS OF COMPLIANCE 12

5. MANDATORY FIELDS 12

APPENDIX A – ASPATIAL DATA ATTRIBUTE SPREADSHEET 13

APPENDIX B – CERTIFICATE FOR AS BUILT DRAWING 14

APPENDIX C – AS BUILT CHECK SHEET 15

1. OBJECTIVE OF THE SPECIFICATION

To ensure Reserves & Facilities asset data is captured into Council's GIS and the Loftus-HMS asset management system.

2. RELEVANCY

This document specification applies to council projects or for commercial or residential subdivision development projects with assets that are vested to council.

COUNCIL PROJECTS:

- Prior to the commencement of the physical works, a summary of the Reserves & Facilities assets & quantities to be created, upgraded or disposed of shall be clearly defined in accordance with the asset types described at Appendix A¹. This is to ensure alignment with the asset management system. A schedule of existing assets at the affected location will be provided by council on request.
- Project retention payments will not be approved until all as-built data supplied has been verified by council staff.
- The payment claim certificates are to reflect all costs apportioned to each asset created or upgraded as listed in the payment schedule, including professional services, contract variations and asset disposal costs.
- As-built data must comply with item 3 Data Supply.

COMMERCIAL OR RESIDENTIAL SUBDIVISION DEVELOPMENT PROJECTS:

- Where Reserves & Facilities assets are to be vested to Council, as built data is required to be submitted 10 working days before application for the signing off of the 224 Consents Notice. Failure to provide accurate "as built", may impact on the 224 Consent Notice completion.
- All assets that are to be vested in Council must comply with item 3 Data Supply.

3. DATA SUPPLY

The accuracy of the data supplied is to be +/- 0.1m (100mm) for the X & Y co-ordinates and +/- 0.01 (10mm) for the Z co-ordinate.

Data will be supplied directly to the Principal Administrative Officer (PAO) and/or the Project Engineer, in both hardcopy & electronic documentation:

- **Hardcopy**
Includes 2 sets of clear, legible, scaled line drawings with an as-built drawings certificate (Appendix B). Drawings shall provide both construction and location information - A3 size minimum.
- **Electronic**
Supplied on CD/USB flash memory drive or via email as per specification:
 - copy of the scaled line drawing(s) in .pdf or .dwg format (refer 3.1 below)
 - An Aspatial file (asset data attributes spreadsheet)
 - A Spatial file (asset GIS coordinates spreadsheet)
 - Digital photograph(s) of each asset
 - A copy of the as-built drawings certificate in .pdf format (Appendix B)

¹ Exception: Underground Utilities assets data shall be supplied in accordance with the Development Code Utilities as-built data specification.

3.1 SCALED LINE DRAWING

All scaled line drawings are required to be signed off by either a Registered Surveyor or a Chartered Professional Engineer. They include one sheet/drawing or series of sheets/drawings showing the new and existing assets as described in table 3.1.

TABLE 3.1 - ASSET TYPES & DRAWING PLOT REQUIREMENTS

<u>Asset description</u>	<u>Drawn colour (visible on plot)</u>	<u>Drawn line width</u>
Reserves & Facilities assets		
HORT - Grassed areas including grass type and area in square metres	light green	0.5
HORT - Trees (species, canopy radius, estimated maturity height and quantity)	dark green	0.5
HORT - Gardens including type, species and area in square metres	dark brown	0.5
HORT - Other vegetation control areas such as re-vegetation or erosion control plantings	light brown	0.5
FEATURES - Furniture - types such as tables, seating, refuse containers, drinking fountains, barbeque equipment	black	0.25
FEATURES - Playground / play equipment, including fall surface areas and supplier information	dark red	0.25
FEATURES - Signage – type, material, qty, description / message	black	0.25
FEATURES - Fencing, gates and barriers or bollards – types, and supplier information	dark blue	0.25
FEATURES - Any works of art – supplier data	black	0.25
FEATURES - Lighting and designation under AS/NZS 1158.3.1, including lighting power supply and ground trenching details, lighting type, quantities, lamp height, bulb types and power ratings	purple	0.25
STRUCTURES - All buildings or structures such as; public toilets, bridges, platforms, wharves/jetties, skate-parks and the like	black	0.25
PAVEMENT - including roadways, car-parks and footpaths/boardwalks	black	0.5
PAVEMENT - Sports hard-courts (for example, tennis, netball)	black	0.5
property/lot boundaries, kerb lines and or edge of seal	grey	0.25
ELECTRICAL – electrical power supply & distribution detail	dark grey	0.25
Abandoned and or removed Reserves & Facilities assets and surface features labelled abandoned or removed.	yellow	0.25
Utilities assets		
UTILITIES - all existing surface features i.e. manholes, valves, hydrants, pump stations, flow meters, cesspits, reservoirs, tanks	refer Utilities as built data specification	
Abandoned and or removed pipe work and surface features labelled abandoned or removed.	refer Utilities as built data specification	
new water features	refer Utilities as-built data specification	
new stormwater features	refer Utilities as-built data specification	
new wastewater features	refer Utilities as-built data specification	

Enlargements to show clearly how new features connect to existing features (if applicable)

The drawing set will include a **title block, legend and an asset summary table** (indicating new, existing and disposed assets) as it may be used for public enquires as well as for checking the electronic data supply.

DRAWING TITLE BLOCK

The title block will include:

- Contract/Sub division Number
- Date Drawn
- Street or Area Location
- Contractors Name
- Scale
- Surveyors Name
- Construction date
- Drawing amendment/issue number
- The words As Built Plans
- Drawing Number
- Drawing sheet size
- North Point/Arrow

DRAWING LEGEND

The Legend will show all symbols and line types used.

DRAWING ASSET SUMMARY TABLE

The Asset Summary table will identify all assets displayed on the drawing, including whether they are new, existing or disposed / for disposal.

3.2 ASPATIAL FILE (ASSET DATA ATTRIBUTES SPREADSHEET)

The Aspatial file is included at appendix A and will be provided electronically in .xls format by request.

An explanation of the Aspatial file attribute spreadsheet column headings is incorporated at Table 3.2 below.

When entering data if there is no information for a particular asset data cell, leave the field blank.

TABLE 3.2 - ATTRIBUTE SPREADSHEET COLUMN HEADING EXPLANATIONS

Column heading	Explanation
Asset Discipline	The asset management system arranges assets in a certain hierarchy. Asset discipline is the hierarchy level above Asset Group
Asset Group	The asset management system arranges assets in a certain hierarchy. Asset Group is the hierarchy level above Asset Type
Asset Type	Asset management system lowest denominator category for describing an asset type. Note that a description of each asset type is provided at Appendix A for clarity
Explanation of the asset type	This is provided to ensure consistency with asset type selection
Asset type code	Unique code assigned for any particular asset type.
Asset description	This is a 50 character free form text field used to describe the asset succinctly
Manufacturer details	Also sub-contractor or supplier details about the supply or construction of the asset
Photo file name	Field to provide the user with a cross reference to the digital photo
Installation date	The date that the asset begins it's lifecycle
As-built plan reference	Field to provide the user with a cross reference to the plan or drawing
Condition rating	A rating given from 1 to 5. 1 = new / excellent. 5 = very poor.
Survey date	Date that the asset attribute data was collected
Datum	For the spatial data - will either be "Moturiki" or "Auckland"
Length (metres)	Length of the asset in metres
Width (metres)	Width of the asset in metres
Height/depth (metres)	Height of the asset in metres
Diameter (metres)	Diameter of the asset in metres
Volume (m3)	Volume of the asset – m3
Area (m2)	Footprint area of the asset – m2
Quantity (each)	Generally only used for low value assets and a single asset ID will suffice for multiple identical assets. For example, picnic tables, litter bins.
Expired Asset ID (if applicable)	Existing site asset information will be provided prior to construction works. This field is used to identify the assets which are disposed of
ASSET NOTES	Free form text field used to capture any other information relating to the asset, not otherwise stated by the other attributes.

3.3 SPATIAL FILE (ASSET GIS COORDINATES SPREADSHEET)

Asset GIS coordinates will be captured either as a point, line or polygon feature. **Table 3.3 states which coordinate feature type to use for each asset type.**

Table 3.4 provides an example of the asset spatial data input file required.

Note that all Utility (generally underground) services asset spatial data must be captured in accordance with the Utilities as-built data specification document.

POINT FEATURES:

- Point features only require 1 set of co-ordinates.

LINE FEATURES:

- Line features requires at least 2 sets of co-ordinates.
- Straight lines - include any point that the line feature has a change in direction.
- Curved lines - the distance between points should not exceed 1m.
- Underground lines - start and end co-ordinates should be repeated for any corresponding surface point feature at each end of the line.

POLYGON FEATURES:

- Polygon features requires at least 3 sets of co-ordinates.
- The last set of coordinates must be the same as the first set of coordinates.

The coordinates must be in NZTM 2000 with levels based on the Moturiki VD 1953 Datum.

Within the WBOPDC region there are two datum's in operation 1) Moturiki VD 1953 and 2) Auckland Datum 1946 - Basically the cut-off point is at Apata (near Katikati) where a benchmark there (BC 33) has levels shown in both datum's.

If the Auckland Datum 1946 is used this will be converted to the Moturiki VD 1953 equivalent.

Asset type codes used for a feature will be applied to the as-built plan, spatial and aspatial files.

Existing feature Asset type codes will begin with an "ex". e.g. ex BAV ("existing Toilets – very basic").

TABLE 3.3 - ASSET HIERARCHY & GIS FEATURE TYPES

Asset Discipline	Asset Group	Asset Type	Asset Type code	GIS feature type
Hort	Grassed Amenity	Athletic Track	HAA	polygon
Hort	Grassed Amenity	Grazing Land	HAG	polygon
Hort	Grassed Amenity	Recreation	HAR	polygon
Hort	Grassed Amenity	Sports	HAS	polygon
Hort	Grassed Amenity	Weed Control	HAW	polygon
Hort	Trees	Amenity	HTA	point
Hort	Trees	Native Bush	HTB	polygon
Hort	Trees	Plantation	HTT	polygon
Hort	Trees	Protected	HTP	point
Hort	Trees	Tree Hedge	HTH	line
Features	Access	Ramp - Beach	FAR	point
Features	Access	Steps - Concrete	FAC	point
Features	Access	Steps - Other	FAO	point
Features	Access	Steps - Sand Ladder	FAL	point
Features	Access	Steps - Wooden	FAW	point
Features	ART - Open Air	Boulder - engraved	FABE	point
Features	Barriers	Bollards - Large 200dia	FIL	line
Features	Barriers	Bollards - Small 140dia	FIS	line
Features	Boardwalk	Boardwalk	FFBW	line
Features	Gates	Decorative	FGY	point
Features	Gates	Gate - Pipe	FGP	point
Features	Gates	Gate-pedestrian	FGG	point
Features	Lights	Floodlight - Double	FLD	point
Features	Lights	Floodlight - Quadruple	FLQ	point
Features	Lights	Floodlight - Single	FLS	point
Features	Lights	Floodlight - Triple	FLT	point
Features	Play Equipment	Other	FQO	point
Features	Play Equipment	Other - Coastal	FQOC	point
Features	Play Equipment	Seesaw	FQS	point
Features	Play Equipment	Seesaw - Coastal	FQSC	point
Features	Play Equipment	Slides	FQL	point
Features	Play Equipment	Slides - Coastal	FQLC	point
Features	Play Equipment	Swings	FQW	point
Features	Play Equipment	Swings - Coastal	FQWC	point
Features	Playgrounds	Adventure - Coastal Large	FPCL	point
Features	Playgrounds	Adventure - Coastal Medium	FPCM	point
Features	Playgrounds	Adventure - Coastal Small	FPCS	point
Features	Playgrounds	Adventure - Large	FPL	point
Features	Playgrounds	Adventure - Medium	FPM	point
Features	Playgrounds	Adventure - Small	FPS	point
Features	Playgrounds	Golf - Mini	FPG	point
Features	Playgrounds	Surface - Bark	FPB	polygon
Features	Playgrounds	Surface - Natural	FPN	polygon
Features	Playgrounds	Surface - Rubber	FPR	polygon
Features	Ponds	Artificial	FDA	polygon
Features	Ponds	Natural	FDN	polygon

Asset Discipline	Asset Group	Asset Type	Asset Type code	GIS feature type
Features	Refuse	Rubbish Bin - B FEL Round Colonial	FRB	point
Features	Refuse	Rubbish Bin - C 209 Ltr Drum / Lid	FRC	point
Features	Refuse	Rubbish Bin - D Excell design	FRD	point
Features	Refuse	Rubbish Bin - FEL Tilt SS R100	FRF	point
Features	Refuse	Wheelie Bin - Plastic	FRP	point
Features	Seating	Bench - Curved (Haiku Park Style)	FSC	point
Features	Seating	Bench - FEL Rose Garden style	FSR	point
Features	Seating	Bench - Special Type	FSU	point
Features	Seating	Bench - Steel/Timber	FSS	point
Features	Seating	Bench - Timber	FST	point
Features	Signs	ARTISTIC	FNZ	point
Features	Signs	Board - Routed	FNB	point
Features	Signs	Marine Information	FNM	point
Features	Signs	Post - Routed	FNP	point
Features	Signs	Sign - Information Kiosk	FNC	point
Features	Signs	Sign Board	FNS	point
Features	Signs	Traffic / road sign	FNT	point
Features	Sports Equipment	Basketball Hoop	FEH	point
Features	Sports Equipment	Goals - Soccer	FEG	point
Features	Sports Equipment	Net - Cricket Practice	FEN	point
Features	Sports Equipment	Wicket - Cricket	FEW	point
Features	Tables	Steel - Pedestal	FTT	point
Features	Tables	Timber - Picnic	FTP	point
Features	Water Features	Fountain - Display	FWF	point
Features	Water Features	Fountain - Drinking	FWD	point
Features	Water Features	Water Tap	FWT	point
Features	Whole Site	Resource Consent	FZR	N/A
Features	Whole Site	Whole Site	FZZ	N/A
Structures	Ablutions	Toilets - Basic	BAB	polygon
Structures	Ablutions	Toilets - High	BAH	polygon
Structures	Ablutions	Toilets - Medium	BAM	polygon
Structures	Ablutions	Toilets - Very Basic	BAV	point
Structures	Bridges	Pedestrian - Major	BBJ	line
Structures	Bridges	Pedestrian - Minor	BBP	line
Structures	Monument/Statues	Artistic	BMA	point
Structures	Monument/Statues	Remembrance	BMR	point
Structures	Other Structures	Access Ladder	BZL	point
Structures	Other Structures	Access Stairway	BZS	line
Structures	Other Structures	Other	BZZ	point
Structures	Other Structures	Skate Ramp	BZK	polygon
Structures	Other Structures	Swimming Pool	BZW	polygon
Structures	Other Structures	Veranda/Deck	BZV	polygon
Structures	Platforms	Viewing Area	BFV	polygon
Structures	Public buildings	Clubroom/Community	BPC	polygon
Structures	Public buildings	Hall	BPH	polygon
Structures	Retaining Walls	Wall 1.5m to 3.0m high	BRH	line
Structures	Retaining Walls	Wall under 1.5m high	BRL	line
Structures	Shelter/Pergolas	Barbeque Shelter	BSQ	point

Asset Discipline	Asset Group	Asset Type	Asset Type code	GIS feature type
Structures	Shelter/Pergolas	Bus Stop	BSB	point
Structures	Shelter/Pergolas	Shelter/Shade	BSS	point
Marine	Boat Ramps	Ferry Landing	MBF	polygon
Marine	Boat Ramps	Ramp-Multiple Lanes	MBM	polygon
Marine	Boat Ramps	Ramp-Single Lane	MBS	polygon
Marine	Boat Ramps	Unformed Access	MBU	polygon
Marine	Jetty/Wharf	Gangway	MJG	point
Marine	Jetty/Wharf	Jetty	MJJ	point
Marine	Jetty/Wharf	Wharf	MJW	point
Marine	Pontoons	Concrete	MPC	point
Marine	Pontoons	Plastic/Polystyrene	MPP	point
Marine	Seawall	Other	MSZ	line
Marine	Seawall	Rock-concreted /grouted	MSC	line
Marine	Seawall	Rock-Gabions	MSG	line
Marine	Seawall	Rock-Loose	MSL	line
Marine	Seawall	Sand Pillow	MSP	line
Marine	Seawall	Sand tube	MSU	line
Marine	Seawall	Timber	MST	line
Pavement	Carpark	AC SURFACE	PCA	polygon
Pavement	Carpark	Cobblestones	PCB	polygon
Pavement	Carpark	Concrete Kerb & Channel	PCK	Line
Pavement	Carpark	Concrete Nib Kerb	PCN	Line
Pavement	Carpark	Concrete surface	PCT	polygon
Pavement	Carpark	CS SURFACE	PCC	polygon
Pavement	Carpark	Speed hump (judder bar)	PCH	Line
Pavement	Carpark	Unsealed Surface	PCU	polygon
Pavement	Carpark	WHOLE CARPARK	PCW	N/A
Pavement	Hardstand	Cobblestones	PHC	polygon
Pavement	Hardstand	Pad - Concrete	PHP	polygon
Pavement	Path	Surfaced	PPS	polygon
Pavement	Path	Unsurfaced	PPU	polygon
Pavement	Recreation Area	Hardcourt - Foundation	PSF	N/A
Pavement	Recreation Area	Hardcourt - Surface (Concrete)	PSC	polygon
Pavement	Recreation Area	Hardcourt - Surface (Multiuse asphalt)	PSS	polygon
Pavement	Recreation Area	Hardcourt - Surface (Netball asphalt)	PSN	polygon
Pavement	Recreation Area	Hardcourt - Surface (Tennis asphalt)	PST	polygon
Pavement	Recreation Area	Hardcourt - Surface synthetic grass	PSG	polygon
Pavement	Recreation Area	Loose Court	PSL	polygon
Pavement	Roadway	AC SURFACE	PRA	polygon
Pavement	Roadway	Cobblestones	PRB	polygon
Pavement	Roadway	Concrete Kerb & Channel	PRK	Line
Pavement	Roadway	Concrete Nib Kerb	PRN	Line
Pavement	Roadway	Concrete surface	PRT	polygon
Pavement	Roadway	CS SURFACE	PRC	polygon
Pavement	Roadway	Speed hump (judder bar)	PRH	Line

Asset Discipline	Asset Group	Asset Type	Asset Type code	GIS feature type
Pavement	Roadway	Unsealed Surface	PRU	polygon
Pavement	Roadway	WHOLE ROADWAY	PRW	N/A
Drain	Culvert	Culvert - Pipe	Utilities as-built data specification	Utilities as-built data specification
Drain	Inlet / Outlet	Cesspit - Double	Utilities as-built data specification	Utilities as-built data specification
Drain	Inlet / Outlet	Cesspit - Single	Utilities as-built data specification	Utilities as-built data specification
Drain	Inlet / Outlet	Inlet	Utilities as-built data specification	Utilities as-built data specification
Drain	Inlet / Outlet	Outlet	Utilities as-built data specification	Utilities as-built data specification
Drain	Inlet / Outlet	Soakhole	Utilities as-built data specification	Utilities as-built data specification
Drain	Open Drain	Natural Channel	Utilities as-built data specification	Utilities as-built data specification
Drain	Open Drain	Swale	Utilities as-built data specification	Utilities as-built data specification
Drain	Stormwater Line	Manhole	Utilities as-built data specification	Utilities as-built data specification
Drain	Stormwater Line	Stormwater Main	Utilities as-built data specification	Utilities as-built data specification
Sewer	On Site Effluent	Advanced System	SEA	point
Sewer	On Site Effluent	Standard Septic Tank	SES	point
Sewer	On Site Effluent	Holding Tank	SEH	point
Sewer	Reticulation	Sewerage Service Line	Utilities as-built data specification	Utilities as-built data specification
Sewer	Reticulation	Pump Station	Utilities as-built data specification	Utilities as-built data specification
Water	Reticulation	Domestic Line	WRD	line
Water	Reticulation	Irrigation system	WRI	point
Water	Water Storage	Water Tank	WST	point
Water	Reticulation	Watermain	Utilities as-built data specification	Utilities as-built data specification

TABLE 3.4 – SPATIAL DATA INPUT FILE (EXAMPLE)

Asset type code + sequential number	HTP01					
Points	x	1852765.94				
	y	5837992.98				
	z	3.52				
Asset type code + sequential number	HTH01					
Lines	x	1852765.94	1852764.64	1852762.07		
	y	5837992.98	5837992.67	5837989.64		
	z	0	0	0	0	
Asset type code + sequential number	HTB01					
Polygon	x	1852759.58	1852764.64	1852762.07	1852759.58	
	y	5837987.14	5837992.67	5837989.64	5837987.14	
	z	0	0	0	0	

For a polygon feature, green shaded areas show start and end coordinates the same.

4. MEANS OF COMPLIANCE

Certification by a Chartered Professional Engineer Licence Cadastral Surveyor or their Authorised Representative that the information supplied on the as built plans is accurate. As Built plans are to be prepared or produce by the office of the Chartered Professional Engineer or Licence Cadastral Surveyor. The form for Certification is shown on the Appendix B of the specification booklet.

5. MANDATORY FIELDS

All Features

Aspatial data:

Asset type, Asset type code, asset description (< 50 characters), Manufacturer/supplier or sub-contractor, Photo file name, installation / construction date, Install/construction Date, as-built plan reference, condition rating, Survey date, Datum and quantity information.

Spatial data:

Asset type code + sequential number, X, Y, coordinates (as per example at Table 3.4)

APPENDIX A – ASPATIAL DATA ATTRIBUTE SPREADSHEET

APPENDIX B – CERTIFICATE FOR AS BUILT DRAWING

**CERTIFICATE FOR
AS BUILT DRAWINGS**

I, _____ Chartered Professional Engineer/ Licence
Cadastral Surveyor (cross out not applicable) hereby certify that the:

Earthwork
Public Access-ways
Right of Way
Water
Stormwater
Other Services

Roading
Reserve Development
Common Access Lots
Wastewater
Solid-waste

are correctly shown on the attached plans /reference numbers _____, prepared by
subdivision at the property specified below.

I hereby certify that the “as-built” measurements and information as shown hereon were made under my
Supervision or as noted and are correct to the best of my knowledge and belief.

I also understand that any inaccuracy of data supplied may require additional input from Council and their Asset
Manager and attract additional charges to the Consent Holder.

Property Description/Title: _____

Address of Property: _____

Chartered Professional Engineer/ Licence Cadastral Surveyor

Registration Number

Date: _____

APPENDIX C – AS BUILT CHECK SHEET

(This sheet is to accompany the "As built" contract document at all times)

Contract Name: _____	Contract Number: _____
----------------------	------------------------

Principal Contractor: (Name)

Project Engineers or Surveyors (Company name)

Contact person _____

Contact Person: _____

Contact details: _____

Contact details: _____

Sub-divisional As Built Plan data received at WBOPDC by Principal Administrative Officer

Sign _____ Date: _____

Format	Hard Copy	Original	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px;">Electronic Copy</td> <td style="width: 50%; padding: 5px;">Csv</td> </tr> <tr> <td style="padding: 5px;"></td> <td style="padding: 5px;">Xls</td> </tr> <tr> <td style="padding: 5px;"></td> <td style="padding: 5px;">Di</td> </tr> <tr> <td style="padding: 5px;"></td> <td style="padding: 5px;">dxf</td> </tr> <tr> <td style="padding: 5px;"></td> <td style="padding: 5px;">Pdf</td> </tr> </table>	Electronic Copy	Csv		Xls		Di		dxf		Pdf	<p>Capitalisation of Asset</p> <p>Asset Capitalised? YES or NO</p> <p>Date: _____</p> <p>Officer (Name) _____</p> <p>Officer: (Contact Tel No) _____</p>
Electronic Copy	Csv													
	Xls													
	Di													
	dxf													
	Pdf													

As Built Plan data received by Project Engineer

Sign _____ Date: _____

Format	Hard Copy	Original	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px;">Electronic Copy</td> <td style="width: 50%; padding: 5px;">csv</td> </tr> <tr> <td style="padding: 5px;"></td> <td style="padding: 5px;">xls</td> </tr> <tr> <td style="padding: 5px;"></td> <td style="padding: 5px;">di</td> </tr> <tr> <td style="padding: 5px;"></td> <td style="padding: 5px;">dxf</td> </tr> <tr> <td style="padding: 5px;"></td> <td style="padding: 5px;">pdf</td> </tr> </table>	Electronic Copy	csv		xls		di		dxf		pdf	<p>Capitalisation of Asset</p> <p>Asset Capitalised? YES or NO</p> <p>Date: _____</p> <p>Officer (Name) _____</p> <p>Officer: (Contact Tel No) _____</p>
Electronic Copy	csv													
	xls													
	di													
	dxf													
	pdf													

Information Flow Processes:

Flow Processes	Comment	Time Frame required
Data Forwarded to Reserves & Facilities - ISO		
Date Received _____ Signed: _____		2 working days
Date Sent: _____ Signed: _____		
Data Returned to WBOPDC for entering onto GIS/AMS		
Date Received: _____ Signed: _____		12 working days
Date Sent: _____ Signed: _____		
Data Returned to Reserves & Facilities-ISO for checking and signing off from WBOPDC		
Date Received: _____ Signed _____		5 working days
Date Sent _____ Signed _____		
As Built plan and other associated information return to Principal Administrative Officer or Project Engineer from Reserves & Facilities – ISO		
Date Received: _____ Signed _____		For Safe Keeping

DEVELOPMENT CODE - RESERVES & FACILITIES AS-BUILT DATA SPECIFICATION

Appendix A - Spatial data attribute spreadsheet

As-built asset data types. Mandatory data attribute indicated with a yellow highlighted "M". Optional quantity values indicated with a green highlighted "O" - if a mandatory quantity value cannot be provided then the optional quantity values must be provided

Asset Discipline	Asset Group	Asset Type	explanation of the asset type	Asset Type code	Asset description	Manufacturer / sub-contractor or supplier details	Photo file name	Installation / construction date	as-built plan reference	Condition rating	Survey date	Datum	Length (metres)	Width (metres)	Height / depth (metres)	Diameter (metres)	Volume (m3)	Area (m2)	Quantity (each)	Expired Asset ID (if applicable)	ASSET NOTES
Horticulture	Cult/Plantation	Avocado	avocado orchard.	HCA	M		M	M	M	M	M	M						M			applicable information relating to the effective management of the asset, not otherwise stated by the other attributes
Horticulture	Cult/Plantation	Kiwifruit	kiwifruit orchard.	HCK	M		M	M	M	M	M	M						M			
Horticulture	Cult/Plantation	Protective Vegetation	re-vegetation species often used for erosion control or other aesthetic or environmental reasons	HCV	M	M	M	M	M	M	M	M						M			
Horticulture	Gardens	Annual	flower beds that require a regime of seasonal re-planting and intensive maintenance. Refer Development code specifications - DRAWINGS "200 Streetscape"	HGA	M	M	M	M	M	M	M	M						M			
Horticulture	Gardens	Roses	rose plants grouped in a common location. Refer Development code specifications - DRAWINGS "200 Streetscape"	HGR	M	M	M	M	M	M	M	M						M			
Horticulture	Gardens	Shrubberies	shrub plants grouped in a common location. Refer Development code specifications - DRAWINGS "200 Streetscape"	HGS	M	M	M	M	M	M	M	M						M			
Horticulture	Grassed Amenity	Athletic Track	Standard size provides 400m length (circumference) track	HAA	M		M	M	M		M	M	O	O		O			M		
Horticulture	Grassed Amenity	Grazing Land	grazed land - paddocks with stock proof fences.	HAG	M		M	M	M		M	M						M			
Horticulture	Grassed Amenity	Recreation	A mown grassed surface for passive recreation use.	HAR	M		M	M	M		M	M						M			
Horticulture	Grassed Amenity	Sports	A mown grassed surface for organised sports use. The rule of thumb is that a full size rugby field requires 1.0 Ha of land.	HAS	M		M	M	M		M	M						M			
Horticulture	Grassed Amenity	Weed Control	Land area not mown but requires an area of weed control to provide access - for example, waste-water pump stations.	HAW	M		M	M	M		M	M						M			
Horticulture	Trees	Amenity	A single tree planted for aesthetic or amenity reasons. Refer Development code specifications - DRAWINGS "200 Streetscape"	HTA	M	M	M	M	M	M	M	M			M	M			M		
Horticulture	Trees	Native Bush	natural vegetation canopy	HTB	M		M	M	M		M	M						M			
Horticulture	Trees	Plantation	Generally used for forestry plantations	HTT	M	M	M	M	M		M	M	O	O	M			M			
Horticulture	Trees	Protected	An amenity tree that is notified protected. Refer Development code specifications - DRAWINGS "200 Streetscape"	HTP	M	M	M	M	M	M	M	M			M	M			M		
Horticulture	Trees	Tree Hedge	For example, orchard shelter belts	HTH	M		M	M	M		M	M	O	O	M			M			
Features	Access	Ramp - Beach	Beach access ramp, generally to allow for pedestrians or beach access vehicles - quad bikes.	FAR	M	M	M	M	M	M	M	M	O	O				M			
Features	Access	Steps - Concrete	concrete steps	FAC	M	M	M	M	M	M	M	M	O	O				M			
Features	Access	Steps - Other	used for other step types that don't fall under another type.	FAO	M	M	M	M	M	M	M	M	O	O				M			
Features	Access	Steps - Sand Ladder	Provide pedestrian access over coastal dunes to the beach. Usually between 1 & 1.5m wide constructed from 1/2 round posts as steps, secured to galvanised chain. The wider steps will require a third central chain.	FAL	M	M	M	M	M	M	M	M	M	M							
Features	Access	Steps - Wooden	Staircase design structure	FAW	M	M	M	M	M	M	M	M	M	O							
Features	ART - Open Air	Boulder - engraved	Examples installed at Haiku Park - Katikati	FABE	M	M	M	M	M	M	M	M							M		
Features	Barriers	Bollards - Large 200dia	Installed generally at 1.5 m spacings. Refer Development code specifications - DRAWINGS "300 Reserves"	FIL	M	M	M	M	M	M	M	M							M		
Features	Barriers	Bollards - Small 140dia	Installed generally at 1.5 m spacings. Refer Development code specifications - DRAWINGS "300 Reserves"	FIS	M	M	M	M	M	M	M	M							M		
Features	Boardwalk	Boardwalk	Timber construction. Generally 1.5m wide.	FFBW	M	M	M	M	M	M	M	M	M	O							
Features	Cooking	BBQ - basic fossil fuel	No examples in use at present.	FCW	M	M	M	M	M	M	M	M							M		
Features	Cooking	BBQ - Electric	Free standing stainless steel commercial grade. For examples, see Fairhaven Park (Te Puke) or Brighton Reserve (Waihi Beach)	FCE	M	M	M	M	M	M	M	M							M		
Features	Fences	Post / 7 Wire	Typical stock control fence Refer Development code specifications - DRAWINGS "300 Reserves"	FFW	M	M	M	M	M	M	M	M									
Features	Fences	Post / Rail	All timber construction - common barrier in use at many reserves. Refer Development code specifications - DRAWINGS "300 Reserves"	FFR	M	M	M	M	M	M	M	M	M		O						
Features	Fences	Post / Rope / Cable / Chain	Low height decorative design commonly seen at coastal reserves to direct pedestrians away from the dunes	FFC	M	M	M	M	M	M	M	M	M								
Features	Fences	Post / Windbreak	Simple post and single wire with wind-break cloth	FFB	M	M	M	M	M	M	M	M									
Features	Fences	Rockwall	decorative design - may include concrete or other grout mediums.	FFK	M	M	M	M	M	M	M	M	M	O	M						
Features	Fences	Security	Chain-link design. Common examples include all tennis / netball courts.	FFS	M	M	M	M	M	M	M	M	M		M						
Features	Fences	Timber Pailing	All timber construction - Refer Development code specifications - DRAWINGS "300 Reserves"	FFT	M	M	M	M	M	M	M	M	M		M						
Features	Gates	Decorative	Decorative design. Example - Te Puke cemetery	FGY	M	M	M	M	M	M	M	M	O	O					M		
Features	Gates	Farm Gate - Hinged	Standard design galvanised steel hinged farm gate	FGH	M	M	M	M	M	M	M	M							M		
Features	Gates	Gate - Pipe	Steel single tube construction	FGP	M	M	M	M	M	M	M	M									
Features	Gates	Gate-pedestrian	Steel or timber construction - may incorporate a self-closing function to prevent motorcycle access	FGG	M	M	M	M	M	M	M	M							M		

Appendix A - Aspatial data attribute spreadsheet																					
As-built asset data types. Mandatory data attribute indicated with a yellow highlighted "M". Optional quantity values indicated with a green highlighted "O" - if a mandatory quantity value cannot be provided then the optional quantity values must be provided																					
Asset Discipline	Asset Group	Asset Type	explanation of the asset type	Asset Type code	Asset description	Manufacturer / sub-contractor or supplier details	Photo file name	Installation / construction date	as-built plan reference	Condition rating	Survey date	Datum	Length (metres)	Width (metres)	Height / depth (metres)	Diameter (metres)	Volume (m3)	Area (m2)	Quantity (each)	Expired Asset ID (if applicable)	ASSET NOTES
Features	Lights	Floodlight - Double	carpark or sports court floodlight - double lamp	FLD	M	M	M	M	M	M	M	M			M				M		Notes to include: LUX value, bulb type & power rating
Features	Lights	Floodlight - Quadruple	carpark or sports court floodlight - quad lamp	FLQ	M	M	M	M	M	M	M	M			M				M		Notes to include: LUX value, bulb type & power rating
Features	Lights	Floodlight - Single	carpark or sports court floodlight - single lamp	FLS	M	M	M	M	M	M	M	M			M				M		Notes to include: LUX value, bulb type & power rating
Features	Lights	Floodlight - Triple	carpark or sports court floodlight - triple lamp	FLT	M	M	M	M	M	M	M	M			M				M		Notes to include: LUX value, bulb type & power rating
Features	Play Equipment	Other	Equipment that does not fit other type descriptions	FQO	M	M	M	M	M	M	M	M							M		
Features	Play Equipment	Other - Coastal	Coastal playground equipment that does not fit other type descriptions	FQOC	M	M	M	M	M	M	M	M							M		
Features	Play Equipment	Seesaw	seesaw	FQS	M	M	M	M	M	M	M	M							M		
Features	Play Equipment	Seesaw - Coastal	coastal playground seesaw	FQSC	M	M	M	M	M	M	M	M							M		
Features	Play Equipment	Slides	slides - expressed as a single slide or slide unit	FQL	M	M	M	M	M	M	M	M							M		
Features	Play Equipment	Slides - Coastal	coastal playground slides - expressed as a single slide or slide unit	FQLC	M	M	M	M	M	M	M	M							M		
Features	Play Equipment	Swings	swings - either single or multiple. State number of wing seats	FQW	M	M	M	M	M	M	M	M							M		
Features	Play Equipment	Swings - Coastal	coastal playground swings - either single or multiple. State number of wing seats	FQWC	M	M	M	M	M	M	M	M							M		
Features	Playgrounds	Adventure - Coastal Large	Coastal playground adventure module with substantial structure, multiple activities & accessories	FPCL	M	M	M	M	M	M	M	M							M		
Features	Playgrounds	Adventure - Coastal Medium	Coastal playground adventure module with one accessory such as a slide	FPCM	M	M	M	M	M	M	M	M							M		
Features	Playgrounds	Adventure - Coastal Small	Coastal playground adventure module with no accessories, minimal / basic activities	FPCS	M	M	M	M	M	M	M	M							M		
Features	Playgrounds	Adventure - Large	adventure playground module with substantial structure, multiple activities & accessories	FPL	M	M	M	M	M	M	M	M							M		
Features	Playgrounds	Adventure - Medium	adventure playground module with one accessory such as a slide	FPM	M	M	M	M	M	M	M	M							M		
Features	Playgrounds	Adventure - Small	adventure playground module with no accessories, minimal / basic activities	FPS	M	M	M	M	M	M	M	M							M		
Features	Playgrounds	Golf - Mini	mini golf activity installation	FPG	M	M	M	M	M	M	M	M							M		
Features	Playgrounds	Surface - Bark	natural timber bark soft-fall surface	FPB	M	M	M	M	M	M	M	M						M			
Features	Playgrounds	Surface - Natural	No specific soft-fall surface - bare land / grass	FPN	M	M	M	M	M	M	M	M						M			
Features	Playgrounds	Surface - Rubber	rubber matting or similar soft-fall surface	FPR	M	M	M	M	M	M	M	M						M			
Features	Ponds	Artificial	artificially constructed asset to provide an aquatic amenity	FDA	M	M	M	M	M	M	M	M						M			
Features	Ponds	Natural	naturally formed pond, adapted as a public amenity	FDN	M	M	M	M	M	M	M	M						M			
Features	Refuse	Rubbish Bin - B FEL Round Colonial	as available from FEL	FRB	M	M	M	M	M	M	M	M							M		
Features	Refuse	Rubbish Bin - C 209 Ltr Drum / Lid	Standard 209 ltr drum, painted with support post and galvanised lid bracket. Example - FEL Tilt-a-drum	FRC	M	M	M	M	M	M	M	M							M		
Features	Refuse	Rubbish Bin - D Excell design	As supplied by Downer Works EDI, designed by Excell Corp	FRD	M	M	M	M	M	M	M	M							M		
Features	Refuse	Rubbish Bin - FEL Tilt SS R100	as available from FEL	FRF	M	M	M	M	M	M	M	M							M		
Features	Refuse	Wheellie Bin - Plastic	Large plastic wheelly bin secured by a pipe steel frame on a concrete base. These bins are being removed from use	FRP	M	M	M	M	M	M	M	M							M		
Features	Seating	Bench - Curved (Haiku Park Style)	SFNZ Curved Bench Seat - manufactured by FEL Group	FSC	M	M	M	M	M	M	M	M							M		
Features	Seating	Bench - FEL Rose Garden style	Victoria seat as available from FEL	FSR	M	M	M	M	M	M	M	M							M		
Features	Seating	Bench - Special Type	Use when no other type matches. Consider selection from FEL as many other types available.	FSU	M	M	M	M	M	M	M	M							M		
Features	Seating	Bench - Steel/Timber	Locally made by "Routed Timber Signs Ltd - John Lewis.	FSS	M	M	M	M	M	M	M	M							M		
Features	Seating	Bench - Timber	Disused design - all timber, refer to FEL catalogue for current all-timber options.	FST	M	M	M	M	M	M	M	M							M		
Features	Signs	ARTISTIC	Custom design - generally involves local Community Board or group involvement	FNZ	M	M	M	M	M	M	M	M							M		
Features	Signs	Board - Routed	Timber construction large board spanned between 2 upright 100 x 100mm square posts with large font text routed into the board. Typical for Reserve site names. Painted	FNB	M	M	M	M	M	M	M	M							M		
Features	Signs	Marine Information	Custom design as specified by TLA - DOC / EBOP. Not usually owned by WBOPDC.	FNM	M	M	M	M	M	M	M	M							M		
Features	Signs	Post - Routed	Square timber post, painted with small interpretive sign or logo routed near top of post on 1 or 2 sides. Typical for walkway direction signs.	FNP	M	M	M	M	M	M	M	M							M		
Features	Signs	Sign - Information Kiosk	Includes a large public use sign-board of permanent construction, with a roof to protect temporary notices from rain. Less permanent style of sign board for attachment to an existing structure or vertical post. made from lighter materials such as thin gauge plywood or plastic. Typical for reserve bylaw signs	FNC	M	M	M	M	M	M	M	M							M		
Features	Signs	Sign Board	Attributes / specifications in accordance with traffic sign legislation / standards.	FNS	M	M	M	M	M	M	M	M							M		
Features	Signs	Traffic / road sign	Attributes / specifications in accordance with traffic sign legislation / standards.	FNT	M	M	M	M	M	M	M	M							M		

Appendix A - Aspatial data attribute spreadsheet

As-built asset data types. Mandatory data attribute indicated with a yellow highlighted "M". Optional quantity values indicated with a green highlighted "O" - if a mandatory quantity value cannot be provided then the optional quantity values must be provided

Asset Discipline	Asset Group	Asset Type	explanation of the asset type	Asset Type code	Asset description	Manufacturer / sub-contractor or supplier details	Photo file name	Installation / construction date	as-built plan reference	Condition rating	Survey date	Datum	Length (metres)	Width (metres)	Height / depth (metres)	Diameter (metres)	Volume (m3)	Area (m2)	Quantity (each)	Expired Asset ID (if applicable)	ASSET NOTES
Features	Sports Equipment	Basketball Hoop	Standard full-size steel hoop with spring shock absorber. Example at Brighton Reserve Waihi Beach	FEH	M	M	M	M	M	M	M	M							M		
Features	Sports Equipment	Goals - Soccer	Playground style - for young children. Example at Tui reserve, Waihi Beach Bowentown Boulevard	FEG	M	M	M	M	M	M	M	M							M		
Features	Sports Equipment	Net - Cricket Practice	Standard cricket practise nets & frame installation	FEN	M	M	M	M	M	M	M	M							M		
Features	Sports Equipment	Wicket - Cricket	concrete base with artificial turf glued to surface. Examples at Centennial Park Te Puke	FEW	M	M	M	M	M	M	M	M							M		
Features	Tables	Steel - Pedestal	Locally made by "Routed Timber Signs Ltd - John Lewis. Mounted on a 2 x 2m concrete pad.	FTT	M	M	M	M	M	M	M	M							M		
Features	Tables	Timber - Picnic	Traditional older style all timber. This type is being gradually removed from service due to limited life span.	FTP	M	M	M	M	M	M	M	M							M		
Features	Water Features	Fountain - Display	Water feature style. No examples	FWF	M	M	M	M	M	M	M	M							M		
Features	Water Features	Fountain - Drinking	Drinking fountain - see Reserves Officer for local design	FWD	M	M	M	M	M	M	M	M							M		
Features	Water Features	Water Tap	standard domestic design - available from any hardware shop	FWT	M	M	M	M	M	M	M	M							M		
Features	Whole Site	Resource Consent	This asset type used to acknowledge any resource consent that requires on-going monitoring	FZR	M																
Features	Whole Site	Whole Site	For staff internal use only	FZZ	M																
Structures	Ablutions	Toilets - Basic	Refer to WBOPDC Recreation Standards 2002. Separate male/female	BAB	M	M	M	M	M	M	M	M	O	O					M		
Structures	Ablutions	Toilets - High	Refer to WBOPDC Recreation Standards 2002. High quality fittings, parents room, hand drying. Example - Brighton Reserve	BAH	M	M	M	M	M	M	M	M	O	O					M		
Structures	Ablutions	Toilets - Medium	Refer to WBOPDC Recreation Standards 2002. Includes changing space, well lit, corporate style. Examples - Pahoia Domain, Omokoroa sportsfield, Coronation Park	BAM	M	M	M	M	M	M	M	M	O	O					M		
Structures	Ablutions	Toilets - Very Basic	Refer to WBOPDC Recreation Standards 2002. Portaloo or equivalent (eg. Long-drop style). Generally no water supply.	BAV	M	M	M	M	M	M	M	M	O	O					M		
Structures	Bridges	Pedestrian - Major	Example - Uretara River pedestrian bridge at Haiku Park Katikati	BBJ	M	M	M	M	M	M	M	M	M	O							
Structures	Bridges	Pedestrian - Minor	Example - Kaiate Falls, stream pedestrian bridges	BBP	M	M	M	M	M	M	M	M	M	O							
Structures	Council Building	Council - Admin	council owned administration building structure	BCA	M	M	M	M	M	M	M	M	O	O					M		
Structures	Council Building	Council - Depot	council owned depot building structure	BCD	M	M	M	M	M	M	M	M	O	O					M		
Structures	Council Building	Council - Utility	council owned Utility services building structure	BCU	M	M	M	M	M	M	M	M	O	O					M		
Structures	Council Building	Shed/Storage	council owned shed building structure	BCS	M	M	M	M	M	M	M	M	O	O					M		
Structures	Domestic Bldg	Pensioner	council owned pensioner accommodation unit	BDP	M	M	M	M	M	M	M	M	O	O					M		
Structures	Domestic Bldg	Residential	residential house	BDR	M	M	M	M	M	M	M	M	O	O					M		
Structures	Monument/Statues	Artistic	Unique design.	BMA	M	M	M	M	M	M	M	M							M		
Structures	Monument/Statues	Remembrance	Structures of historic significance. May also include assets such as memorial gates (eg. Katikati Uretara Domain)	BMR	M	M	M	M	M	M	M	M							M		
Structures	Other Structures	Access Ladder	more substantial than "Access" assets requiring structural certification	BZL	M	M	M	M	M	M	M	M	M								
Structures	Other Structures	Access Stairway	more substantial staircase than "Access" assets requiring structural certification	BZS	M	M	M	M	M	M	M	M	O	O					M		
Structures	Other Structures	Other	Any other structure no falling under another type	BZZ	M	M	M	M	M	M	M	M	O	O					M		
Structures	Other Structures	Skate Ramp	also termed "skate-park" - substantial concrete structure with integral hard accessories such as steel jumps. etc.	BZK	M	M	M	M	M	M	M	M	O	O					M		
Structures	Other Structures	Swimming Pool	swimming pool	BZW	M	M	M	M	M	M	M	M	O	O					M		
Structures	Other Structures	Veranda/Deck	vernada/deck - example Pohutukawa Park tennis club-room veranda	BZV	M	M	M	M	M	M	M	M	O	O					M		
Structures	Platforms	Viewing Area	Example at Lindemann Lookout	BFV	M	M	M	M	M	M	M	M	O	O					M		
Structures	Public buildings	Clubroom/Community	public clubroom or community facility building, not hall	BPC	M	M	M	M	M	M	M	M	O	O					M		
Structures	Public buildings	Hall	public hall	BPH	M	M	M	M	M	M	M	M	O	O					M		
Structures	Retaining Walls	Wall 1.5m to 3.0m high	substantial structure - requires a building consent	BRH	M	M	M	M	M	M	M	M	M								
Structures	Retaining Walls	Wall under 1.5m high	lesser structure - may require a building consent	BRL	M	M	M	M	M	M	M	M	M								
Structures	Shelter/Pergolas	Barbeque Shelter	For examples visit Brighton reserve Waihi Beach or Fairhaven Park Te Puke	BSQ	M	M	M	M	M	M	M	M	O	O					M		
Structures	Shelter/Pergolas	Bus Stop	bus stop structure includes seating	BSB	M	M	M	M	M	M	M	M	O	O					M		
Structures	Shelter/Pergolas	Shelter/Shade	constructed from either soft material - such as sun-shade cloth or hard materials similar to a bus-stop.	BSS	M	M	M	M	M	M	M	M	O	O					M		

Appendix A - Aspatial data attribute spreadsheet																					
As-built asset data types. Mandatory data attribute indicated with a yellow highlighted "M". Optional quantity values indicated with a green highlighted "O" - if a mandatory quantity value cannot be provided then the optional quantity values must be provided																					
Asset Discipline	Asset Group	Asset Type	explanation of the asset type	Asset Type code	Asset description	Manufacturer / sub-contractor or supplier details	Photo file name	Installation / construction date	as-built plan reference	Condition rating	Survey date	Datum	Length (metres)	Width (metres)	Height / depth (metres)	Diameter (metres)	Volume (m3)	Area (m2)	Quantity (each)	Expired Asset ID (if applicable)	ASSET NOTES
Pavement	Carpark	AC SURFACE	Asphalted concrete pavement surface. Refer Development code specifications - DRAWINGS "400 Transportation"	PCA	M	M	M	M	M	M	M	M	O	O				M			
Pavement	Carpark	Cobblestones	cobblestone pavement surface	PCB	M	M	M	M	M	M	M	M	O	O				M			
Pavement	Carpark	Concrete surface	concrete pavement surface	PCT	M	M	M	M	M	M	M	M	O	O				M			
Pavement	Carpark	CS SURFACE	Chip-seal pavement surface. Refer Development code specifications - DRAWINGS "400 Transportation"	PCC	M	M	M	M	M	M	M	M	O	O				M			
Pavement	Carpark	Unsealed Surface	unsealed or gravel surface. Refer Development code specifications - DRAWINGS "400 Transportation"	PCU	M	M	M	M	M	M	M	M	O	O				M			
Pavement	Carpark	Concrete Nib Kerb	standard design concrete kerbing commonly used to border carpark sealed areas	PCN	M	M	M	M	M	M	M	M	M								
Pavement	Carpark	Concrete Kerb & Channel	standard design concrete kerb & channel used to border carpark sealed areas and direct stormwater.	PCK	M	M	M	M	M	M	M	M	M								
Pavement	Carpark	Speed hump (judder bar)	standard design under AS/NZS 2890.1.2004 - 4.9 Type 2 is typical where H=50mm	PCH	M	M	M	M	M	M	M	M	M						M		
Pavement	Carpark	WHOLE CARPARK	this type used to capture the underlying pavement construction materials and cost associated with a carpark. Refer Development code specifications - DRAWINGS "400 Transportation"	PCW	M			M	M		M	M	O	O				M			
Pavement	Hardstand	Cobblestones	cobblestoned surface	PHC	M	M	M	M	M	M	M	M	O	O				M			
Pavement	Hardstand	Pad - Concrete	slab of concrete	PHP	M	M	M	M	M	M	M	M	O	O				M			
Pavement	Path	Surfaced	paved footpath - generally concrete. Refer Development code specifications - DRAWINGS "400 Transportation"	PPS	M	M	M	M	M	M	M	M	O	O				M			
Pavement	Path	Unsurfaced	unpaved footpath - generally gravel or natural earth. Refer Development code specifications - DRAWINGS "400 Transportation"	PPU	M	M	M	M	M	M	M	M	O	O				M			
Pavement	Recreation ARea	Hardcourt - Foundation	this type used to capture the underlying pavement construction materials and cost associated with a recreational surface.	PSF	M	M	M	M	M		M	M	O	O				M			
Pavement	Recreation ARea	Hardcourt - Surface (Concrete)	recreational hardcourt concrete surface	PSC	M	M	M	M	M	M	M	M	O	O				M			
Pavement	Recreation ARea	Hardcourt - Surface (Multiuse asphalt)	describes a concrete/asphalt surface used for different sport disciplines - may have multiple line markings	PSS	M	M	M	M	M	M	M	M	O	O				M			
Pavement	Recreation ARea	Hardcourt - Surface (Netball asphalt)	concrete/asphalt surface used for netball only	PSN	M	M	M	M	M	M	M	M	O	O				M			
Pavement	Recreation ARea	Hardcourt - Surface (Tennis asphalt)	concrete/asphalt surface used for tennis only	PST	M	M	M	M	M	M	M	M	O	O				M			
Pavement	Recreation ARea	Hardcourt - Surface synthetic grass	recreational hardcourt synthetic grass top surface	PSG	M	M	M	M	M	M	M	M	O	O				M			
Pavement	Recreation ARea	Loose Court	for example, a petanque court, sand or fine gravel surface	PSL	M	M	M	M	M	M	M	M	O	O				M			
Pavement	Roadway	AC SURFACE	Asphalted concrete pavement surface. Refer Development code specifications - DRAWINGS "400 Transportation"	PRA	M	M	M	M	M	M	M	M	O	O				M			
Pavement	Roadway	Cobblestones	cobblestone pavement surface	PRB	M	M	M	M	M	M	M	M	O	O				M			
Pavement	Roadway	Concrete surface	concrete pavement surface. Refer Development code specifications - DRAWINGS "400 Transportation"	PRT	M	M	M	M	M	M	M	M	O	O				M			
Pavement	Roadway	CS SURFACE	Chip-seal pavement surface. Refer Development code specifications - DRAWINGS "400 Transportation"	PRC	M	M	M	M	M	M	M	M	O	O				M			
Pavement	Roadway	Unsealed Surface	unsealed or gravel surface. Refer Development code specifications - DRAWINGS "400 Transportation"	PRU	M	M	M	M	M	M	M	M	O	O				M			
Pavement	Roadway	Concrete Nib Kerb	standard design concrete kerbing commonly used to border sealed areas	PRN	M	M	M	M	M	M	M	M	M								
Pavement	Roadway	Concrete Kerb & Channel	standard design concrete kerb & channel used to border sealed areas and direct stormwater.	PRK	M	M	M	M	M	M	M	M	M								
Pavement	Roadway	Speed hump (judder bar)	standard design under AS/NZS 2890.1.2004 - 4.9 Type 2 is typical where H=50mm	PRH	M	M	M	M	M	M	M	M	M						M		
Pavement	Roadway	WHOLE ROADWAY	this type used to capture the underlying pavement construction materials and cost associated with a roadway.	PRW	M			M	M		M	M	O	O				M			
Marine	Boat Ramps	Ferry Landing	Generally single lane - examples at Omokoroa and Opoureora Matakana Island - approx \$250k	MBF	M	M	M	M	M	M	M	M	O	O				O	M		
Marine	Boat Ramps	Ramp-Multiple Lanes	concrete recreational boat ramp - 2 or more lanes	MBM	M	M	M	M	M	M	M	M	O	O				O	M		
Marine	Boat Ramps	Ramp-Single Lane	smaller concrete recreational boat ramp single lane	MBS	M	M	M	M	M	M	M	M	O	O				O	M		
Marine	Boat Ramps	Unformed Access	a naturally formed boat launch area for small water-craft - example at Kauri Point	MBU	M	M	M	M	M	M	M	M	O	O				O	M		
Marine	Consents	Resource Consent 35yr	type used to capture the cost and life-cycle of a typical marine structure resource consent	MRC	M			M	M	M	M	M							M		
Marine	Jetty/Wharf	Gangway	gangway structure that connects land or a jetty with a pontoon structure	MJG	M	M	M	M	M	M	M	M	M								
Marine	Jetty/Wharf	Jetty	marine structure that provides for pedestrian dry egress to and from boats secured alongside.	MJJ	M	M	M	M	M	M	M	M	O	O				M			
Marine	Jetty/Wharf	Wharf	A larger marine structure that provides for vehicular and pedestrian access to and from boats secured alongside.	MJW	M	M	M	M	M	M	M	M	O	O				M			

Appendix A - Aspatial data attribute spreadsheet																					
As-built asset data types. Mandatory data attribute indicated with a yellow highlighted "M". Optional quantity values indicated with a green highlighted "O" - if a mandatory quantity value cannot be provided then the optional quantity values must be provided																					
Asset Discipline	Asset Group	Asset Type	explanation of the asset type	Asset Type code	Asset description	Manufacturer / sub-contractor or supplier details	Photo file name	Installation / construction date	as-built plan reference	Condition rating	Survey date	Datum	Length (metres)	Width (metres)	Height / depth (metres)	Diameter (metres)	Volume (m3)	Area (m2)	Quantity (each)	Expired Asset ID (if applicable)	ASSET NOTES
Marine	Pontoons	Concrete	concrete / cavity design pontoon. Example Omokoroa large No.1 pontoon	MPC	M	M	M	M	M	M	M	M	O	O				M			
Marine	Pontoons	Plastic/Polystyrene	plastic/polystyrene modular design. Example Tanners Point	MPP	M	M	M	M	M	M	M	M							M		
Marine	Seawall	Other	use this type when no other type applicable.	MSZ	M	M	M	M	M	M	M	M	M								
Marine	Seawall	Rock-concreted/grouted	rock with concrete grout seawall, including geotextile filter cloth construction	MSC	M	M	M	M	M	M	M	M	M								
Marine	Seawall	Rock-Gabians	rock / gabian coated/galvanised wire basket construction.	MSG	M	M	M	M	M	M	M	M	M								
Marine	Seawall	Rock-Loose	Loose rock design incorporating progressive rock size to final large rock armour plating. Also includes geotextile filter cloth barrier	MSL	M	M	M	M	M	M	M	M	M								
Marine	Seawall	Sand Pillow	Soft option seawall - heavy duty geotextile fabric bag filled with sand and then sealed.	MSP	M	M	M	M	M	M	M	M	M								
Marine	Seawall	Sand tube	Soft option seawall - heavy duty geotextile fabric tube filled with sand and then sealed.	MSU	M	M	M	M	M	M	M	M	M								
Marine	Seawall	Timber	tanalised timber pile and plank clad seawall, includes geotextile filter cloth barrier.	MST	M	M	M	M	M	M	M	M	M								
Drain	Culvert	Culvert - Pipe	Typical reinforced concrete culvert	refer Utilities as-built specification	M	M	M	M	M	M	M	M	M			M					
Drain	Inlet / Outlet	Cesspit - Double	cess/catch-pit with double inlets	refer Utilities as-built specification	M	M	M	M	M	M	M	M							M		
Drain	Inlet / Outlet	Cesspit - Single	cess/catch-pit with a single inlet Refer Development code specifications - DRAWINGS "400 Transportation and 500 Stormwater"	refer Utilities as-built specification	M	M	M	M	M	M	M	M							M		
Drain	Inlet / Outlet	Inlet	stormwater flush-kerb inlet to drainage system. Refer Development code specifications - DRAWINGS "400 Transportation and 500 Stormwater"	refer Utilities as-built specification	M	M	M	M	M	M	M	M							M		
Drain	Inlet / Outlet	Outlet	stormwater outlet part of drainage system. Refer Development code specifications - DRAWINGS "400 Transportation and 500 Stormwater"	refer Utilities as-built specification	M	M	M	M	M	M	M	M							M		
Drain	Inlet / Outlet	Soakhole	typical drainage system soakhole	refer Utilities as-built specification	M	M	M	M	M	M	M	M							M		
Drain	Open Drain	Natural Channel	a typical open drain	refer Utilities as-built specification	M	M	M	M	M	M	M	M	M								
Drain	Open Drain	Swale	constructed natural open stormwater drainage system. Virtually zero impact on reserve amenity values	refer Utilities as-built specification	M	M	M	M	M	M	M	M	M								
Drain	Stormwater Line	Manhole	stormwater system manhole / lid Refer Development code specifications - DRAWINGS "400 Transportation and 500 Stormwater"	refer Utilities as-built specification	M	M	M	M	M	M	M	M							M		
Drain	Stormwater Line	Stormwater Main	Major stormwater system below ground pipe Refer Development code specifications - DRAWINGS "400 Transportation and 500 Stormwater"	refer Utilities as-built specification	M	M	M	M	M	M	M	M	M			M					
Sewer	Reticulation	Sewerage Service Line	underground waste-water system pipe	refer Utilities as-built specification	M	M	M	M	M	M	M	M	M			M					
Sewer	Reticulation	Pump Station	Utility services pump station - generally waste-water.	refer Utilities as-built specification	M	M	M	M	M	M	M	M							M		
Sewer	On Site Effluent	Advanced System	Modern contained treatment system where space is constrained or a standard septic tank system is not practical or non-compliant. Example located at Te Puna Quarry Reserve	SEA	M	M	M	M	M	M	M	M			O	O	M		M		
Sewer	On Site Effluent	Standard Septic Tank	Traditional concrete septic tank with conventional effluent field discharge - raised bed or sub-surface	SES	M	M	M	M	M	M	M	M			O	O	M		M		
Sewer	On Site Effluent	Holding Tank	May be concrete or plastic. Used where an advanced treatment system is not practical or a standard septic tank system is not compliant.	SEH	M	M	M	M	M	M	M	M			O	O	M		M		
Water	Reticulation	Watermain	Major water system supply below ground pipe	refer Utilities as-built specification	M	M	M	M	M	M	M	M	M			M					
Water	Reticulation	Domestic Line	Small diameter domestic water system supply below ground pipe	refer Utilities as-built specification	M	M	M	M	M	M	M	M	M			M					
Water	Reticulation	Irrigation system	Used to describe the complete system installation. Includes pipe-work, controller & risers	WRI	M	M	M	M	M	M	M	M							M		
Water	Water Storage	Water Tank	water supply tank	WST	M	M	M	M	M	M	M	M			O	O	O		M		

Appendix A - Aspatial data attribute spreadsheet

As-built asset data types. Mandatory data attribute indicated with a yellow highlighted "M". Optional quantity values indicated with a green highlighted "O" - if a mandatory quantity value cannot be provided then the optional quantity values must be provided

Asset Discipline	Asset Group	Asset Type	explanation of the asset type	Asset Type code	Asset description	Manufacturer / sub-contractor or supplier details	Photo file name	Installation / construction date	as-built plan reference	Condition rating	Survey date	Datum	Length (metres)	Width (metres)	Height / depth (metres)	Diameter (metres)	Volume (m3)	Area (m2)	Quantity (each)	Expired Asset ID (if applicable)	ASSET NOTES
Equipment	Aquatic Water Treatment	Filtration system	as used for a public swimming pool	EAF	M	M	M	M	M	M	M	M							M		
Equipment	Aquatic Water Treatment	Water Heater	commercial aquatic water heater system such as used for the Dave Hume pool	EAH	M	M	M	M	M	M	M	M							M		
Equipment	Elect Appliance	Water Boiler (Zip)	a standard commercial water boiler as used in a staff cafeteria	EBZ	M	M	M	M	M	M	M	M							M		
Equipment	Elect Appliance	Hand Dryer (hot air)	Hand blower dryer commonly used in public toilets	EBH	M	M	M	M	M	M	M	M							M		
Equipment	Electrical	Camp Ground Power Outlet	an external 240v AC power supply, RCD protected	EEO	M	M	M	M	M	M	M	M							M		
Equipment	Electrical	Switchboard	electrical distribution switchboard	EES	M	M	M	M	M	M	M	M							M		
Equipment	Electrical	Generator / Power supply	electrical power supply - may be either mains supply or "off the grid"	EEG	M	M	M	M	M	M	M	M							M		
Equipment	HVAC	HVAC - cassette type	generally flush-mounted in a ceiling - example, Barks Corner offices committee rooms. Specific Kw output	EHA	M	M	M	M	M	M	M	M							M		
Equipment	HVAC	HVAC - Hi Wall Split	The condenser unit is located outside the building - common in large shared office spaces. Specific Kw output	EHW	M	M	M	M	M	M	M	M							M		
Equipment	HVAC	HVAC - In window combined	the condenser & outlet is one unit, mounted through a wall or window - generally for small room or single occupant office. Specific Kw output	EHC	M	M	M	M	M	M	M	M							M		
Equipment	HVAC	HVAC - Ducted system	Large high cost system for large spaces, such as the Council chambers. Specific Kw output	EHD	M	M	M	M	M	M	M	M							M		
Equipment	Electronics	Datashow	a datashow projector	EED	M	M	M	M		M	M	M							M		
Equipment	Electronics	Facsimile	Fax machine	EEF	M	M	M	M		M	M	M							M		
Equipment	Fixtures	Chairs	chair	EXC	M	M	M	M		M	M	M							M		
Equipment	Fixtures	Clothesline	domestic outside clothesline	EXL	M	M	M	M	M	M	M	M							M		
Equipment	Fixtures	Floor Coverings	generally carpet or synthetic surface	EXF	M	M	M	M	M	M	M	M	O	O				M			
Equipment	Fixtures	Stoves	domestic kitchen combined oven & hob	EXS	M	M	M	M	M	M	M	M							M		
Equipment	Fixtures	Washing Machine	domestic laundry washing machine	EXW	M	M	M	M	M	M	M	M							M		