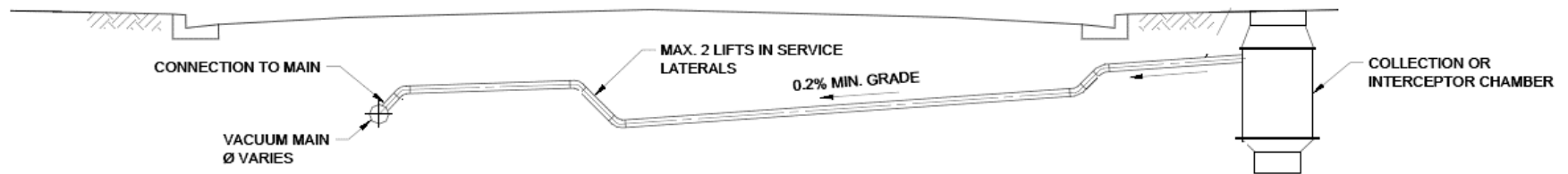
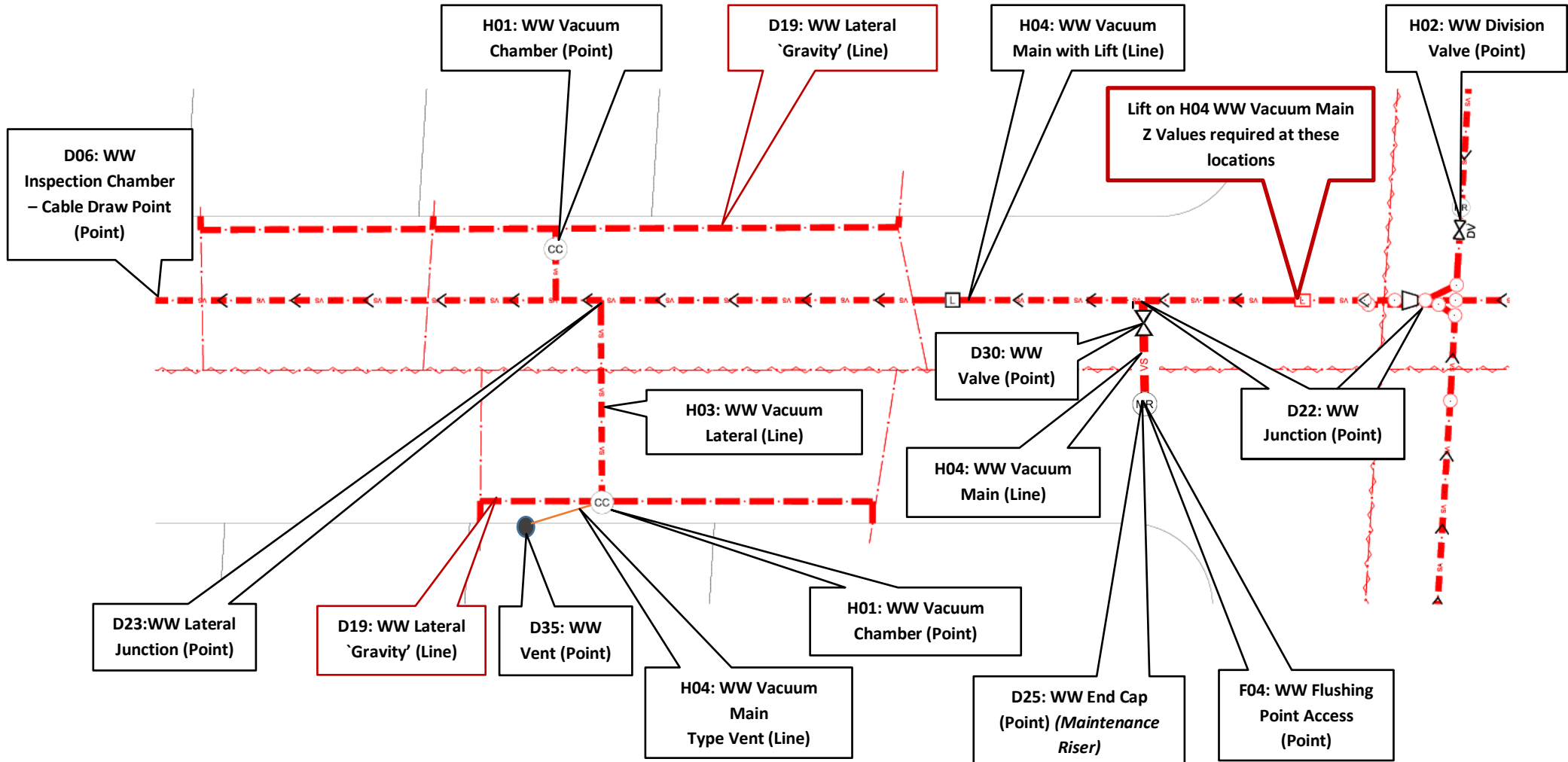


Appendix H As-built Requirements for Vacuum Wastewater System

H01: WW Vacuum Chamber	3
H02: WW Division Valve	4
H03: WW Vacuum Lateral.....	5
H04: WW Vacuum Main.....	6



VACUUM SERVICE LATERAL TYPICAL SECTION

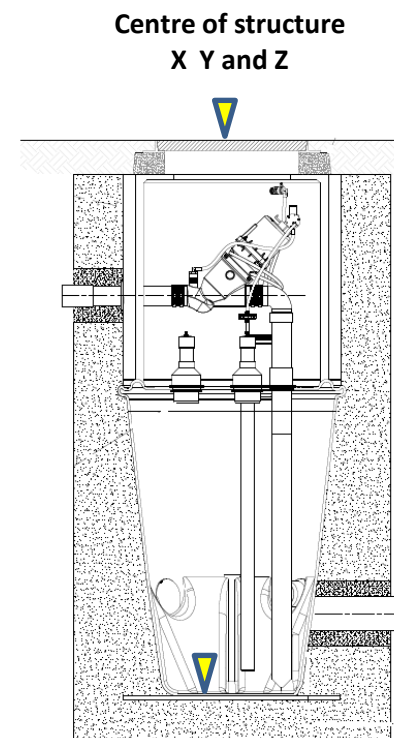


Wastewater Vacuum – Overview

As-Built requirements (WW)

H01: WW Vacuum Chamber

Name		WW Vacuum Chamber (Point)
Point Type		H01 "Point Asset Inputs"
CAT Column	SAG Description	Valid Values
A	Type of Point Feature	H01
B	Type of Vacuum Chamber	Select from pick list: domWwVacuumChamberType
C	Asset Record Capture Type	Select from pick list: domAssetRecordCaptureType
D	Differs from design (yes/no)	Select from pick list: domDiffersFromDesign
E	Asset Unique Identifier	data - Text (100 Characters)
F	Centre of Structure in Easting coordinate - (m)	data - Decimal Number (12 Chars, 2 Decimals)
G	Centre of Structure in Northing coordinate - (m)	data - Decimal Number (12 Chars, 2 Decimals)
H	RL on lowest corner of lid - (m)	data - Decimal Number (6 Chars, 3 Decimals)
I	RL at base of pit (lowest point) - (m)	data - Decimal Number (6 Chars, 3 Decimals)
J	Leave Blank	Leave Blank
K	Date of commission	data - Date (dd/mm/yyyy)
L	Location certainty - accuracy of data	Select from pick list: domLocationCertainty
M	Name of main contractor who installed the asset	Select from pick list: domInstallationCompany
N	Date of 'survey start'	data - Date (dd/mm/yyyy)
O	Trafficable or non trafficable structure	Select from pick list: domTrafficable
P	Shape of access lid	Select from pick list: domAccessLidShape
Q	Manufacturer of asset	Select from pick list: domManufacturer
R	Construction material of chamber	Select from pick list: domAccessConstruction
S	Type of security on access	Select from pick list: domAccessSecurity
T	Serial number of tank	data - Text (50 Characters)
U	Capacity of tank in litres - (Litres)	data - Number
V	Manufacturer warranty reference	data - Text (50 Characters)
W	Manufacturer warranty term in years	data - Number
X	Number of interface valves in chamber	data - Number
Y	Chamber Flootation Protection	Select from pick list: domWwVacuumChamberFlootationProtection
Z	Type of additional storage apart from this chamber	Select from pick list: domWwVacuumChamberAdditionalStorageType
Additional Information		
*All other columns must be left "blank" or hold the value "LEAVE BLANK" as default in CAT		



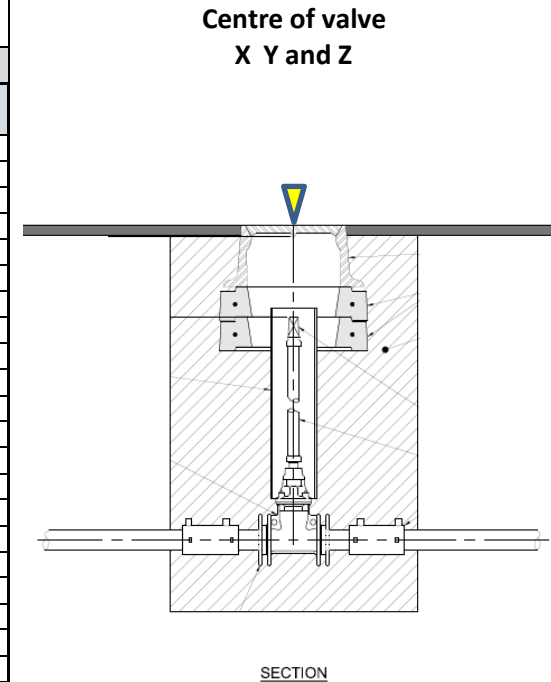
As-Built requirements (WW)

Name	WW Division Valve (Point)
Point Type	H02 "Point Asset Inputs"

CAT Column	SAG Description	Valid Values
A	Type of Point Feature	H02
B	Type of Valve	Select from pick list: domWwValveType
C	Asset Record Capture Type	Select from pick list: domAssetRecordCaptureType
D	Differs from design (yes/no)	Select from pick list: domDiffersFromDesign
E	Asset Unique Identifier	data - Text (100 Characters)
F	Centre of Structure in Easting coordinate - (m)	data - Decimal Number (12 Chars, 2 Decimals)
G	Centre of Structure in Northing coordinate - (m)	data - Decimal Number (12 Chars, 2 Decimals)
H	RL on lowest corner of lid - (m)	data - Decimal Number (6 Chars, 3 Decimals)
I	Leave Blank	Leave Blank
J	Nominal diameter in mm - (mm)	Select from pick list: domValveNominalDiameter
K	Date of commission	data - Date (dd/mm/yyyy)
L	Location certainty - accuracy of data	Select from pick list: domLocationCertainty
M	Name of main contractor who installed the asset	Select from pick list: domInstallationCompany
N	Date of 'survey start'	data - Date (dd/mm/yyyy)
O	Valve normal operating position - open or closed	Select from pick list: domValveNormalPosition
P	Manual or motorised valve	Select from pick list: domValveActuation
Q	Manufacturer of asset	Select from pick list: domManufacturer
R	Valve closure rotation direction	Select from pick list: domValveClosureRotation
S	Situation of Valve	Select from pick list: domValveSituation
T	Main function of valve	Select from pick list: domWwValveFunction
U	Valve control point	Select from pick list: domValveControlPoint
V	Manufacturer warranty reference	data - Text (50 Characters)
W	Manufacturer warranty term in years	data - Number


Additional Information
 *All other columns must be left "blank" or hold the value "LEAVE BLANK" as default in CAT

H02: WW Division Valve

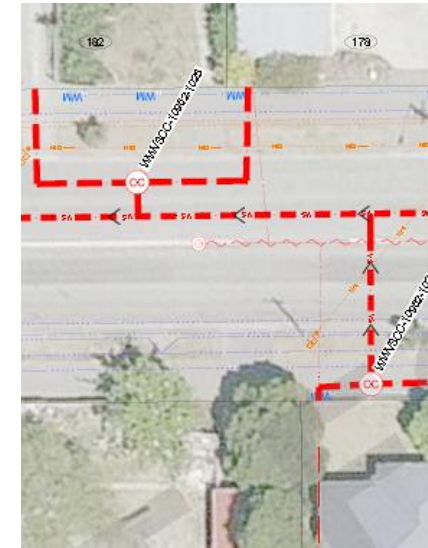


As-Built requirements (WW)

H03: WW Vacuum Lateral

Name		WW Vacuum Lateral (Line)
Line Type		H03 "Line Asset Inputs"
		
CAT Column	SAG Description	Valid Values
A	Type of Line Feature	H03
B	Type of Pipe	Select from pick list: domWwPipeType
C	Asset Record Capture Type	Select from pick list: domAssetRecordCaptureType
D	Differs from design (yes/no)	Select from pick list: domDiffersFromDesign
E	Asset Unique Identifier	data - Text (100 Characters)
F	Line Vertex Easting coordinate - (m)	data - Decimal Number (12 Chars, 2 Decimals)
G	Line Vertex Northing coordinate - (m)	data - Decimal Number (12 Chars, 2 Decimals)
H	Invert level at vertex - (m)	data - Decimal Number (6 Chars, 3 Decimals)
I	Number of Vertex (point along line)	data - Number
J	Material of pipe	Select from pick list: domPipeConstruction
K	Nominal diameter in mm - (mm)	Select from pick list: domPipeNominalDiameter
L	At Node - Asset Unique Identifier	data - Text (50 Characters)
M	To Node - Asset Unique Identifier	data - Text (50 Characters)
N	Manufacturer of asset	Select from pick list: domWwPipeManufacturer
O	Name of main contractor who installed the asset	Select from pick list: domInstallationCompany
P	Pressure class (PN)	Select from pick list: domWwPipePressureClass
Q	Stiffness rating (SN)	Select from pick list: domPipeStiffnessClass
R	Concrete Load Class	Select from pick list: domPipeLoadClass
S	Date of commission	data - Date (dd/mm/yyyy)
T	Location certainty - accuracy of data	Select from pick list: domLocationCertainty
U	Date of 'survey start'	data - Date (dd/mm/yyyy)
V	Shape of pipe	Select from pick list: domPipeShape
W	Average burial depth to invert of pipe - (m)	data - Decimal Number (6 Chars, 3 Decimals)
X	Method by which the pipe was installed	Select from pick list: domPipeInstallationMethod
Y	Leave Blank	Leave Blank
Z	Leave Blank	Leave Blank
AA	Type of lateral junction	Select from pick list: domWwEyeType
AB	Distance of IP from lateral start (from connection to existing private lateral) - (mm)	data - Decimal Number (9 Chars, 3 Decimals)

Lateral Pipe
X Y



All bends, start/end points to be surveyed.
Create one CAT row per surveyed point.

Additional Information
 *All other columns must be left "blank" or hold the value "LEAVE BLANK" as default in CAT
 This feature requires at least two row entries.
 Col I: enter number of vertex along line starting with the downstream end (also survey grade changes at lifts)

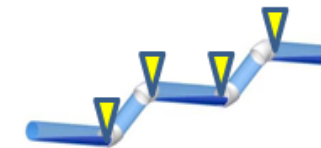
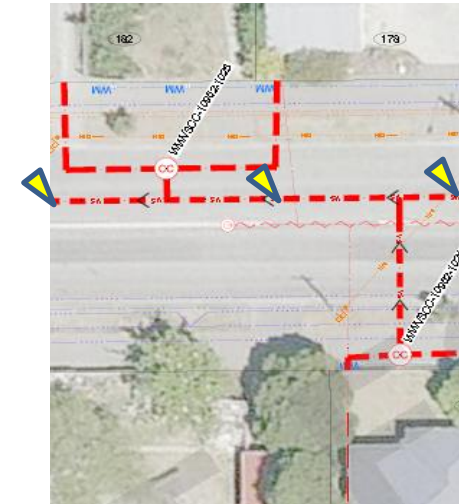
As-Built requirements (WW)

H04: WW Vacuum Main

Name		WW Vacuum Main (Line)
Line Type		H04 "Line Asset Inputs"
CAT Column	SAG Description	Valid Values
A	Type of Line Feature	H04
B	Type of Pipe	Vacuum
C	Asset Record Capture Type	Select from pick list: domAssetRecordCaptureType
D	Differs from design (yes/no)	Select from pick list: domDiffersFromDesign
E	Asset Unique Identifier	data - Text (100 Characters)
F	Line Vertex Easting coordinate - (m)	data - Decimal Number (12 Chars, 2 Decimals)
G	Line Vertex Northing coordinate - (m)	data - Decimal Number (12 Chars, 2 Decimals)
H	Invert level at vertex - (m)	data - Decimal Number (6 Chars, 3 Decimals)
I	Number of Vertex (point along line)	data - Number
J	Material of pipe	Select from pick list: domWwVacuumBreatherPipeConstruction
K	Nominal diameter in mm - (mm)	Select from pick list: domPipeNominalDiameter
L	At Node - Asset Unique Identifier	data - Text (50 Characters)
M	To Node - Asset Unique Identifier	data - Text (50 Characters)
N	Manufacturer of asset	Select from pick list: domWwPipeManufacturer
O	Name of main contractor who installed the asset	Select from pick list: domInstallationCompany
P	Pressure class (PN)	Select from pick list: domWwPipePressureClass
Q	Stiffness rating (SN)	Select from pick list: domPipeStiffnessClass
R	Concrete Load Class	Select from pick list: domPipeLoadClass
S	Date of commission	data - Date (dd/mm/yyyy)
T	Location certainty - accuracy of data	Select from pick list: domLocationCertainty
U	Date of 'survey start'	data - Date (dd/mm/yyyy)
V	Shape of pipe	Select from pick list: domPipeShape
W	Average burial depth to invert of pipe - (m)	data - Decimal Number (6 Chars, 3 Decimals)
X	Method by which the pipe was installed	Select from pick list: domPipeInstallationMethod



**Main Pipe
X Y and Z**



Z Values at change of grade

All bends, lifts, start/end points to be surveyed.
Create one CAT row per surveyed point.

Additional Information
 *All other columns must be left "blank" or hold the value "LEAVE BLANK" as default in CAT
 This feature requires at least two row entries.
 Col I: enter number of vertex along line starting with the downstream end (also survey grade changes at lifts)
 See Appendix C.2.4 for a CAT example.

Notes : - Please refer to appendices D & I for pickups of other assets which may be associated with a Wastewater Vacuum System

- D06 WW Inspection Chamber
- D10 WW Square Manhole Non Vented
- D12 WW Circular Manhole Non Vented
- D19 WW Gravity Lateral
- D22 WW Junction
- D24 WW Inspection Point
- D25 WW End Cap
- D26 WW Thrust Block – Non-Standard
- D27 WW Thrust Block – Standard
- D28 WW Pump
- D30 WW Valve
- D35 WW Vent
- I04 WW Pump Station Structure