

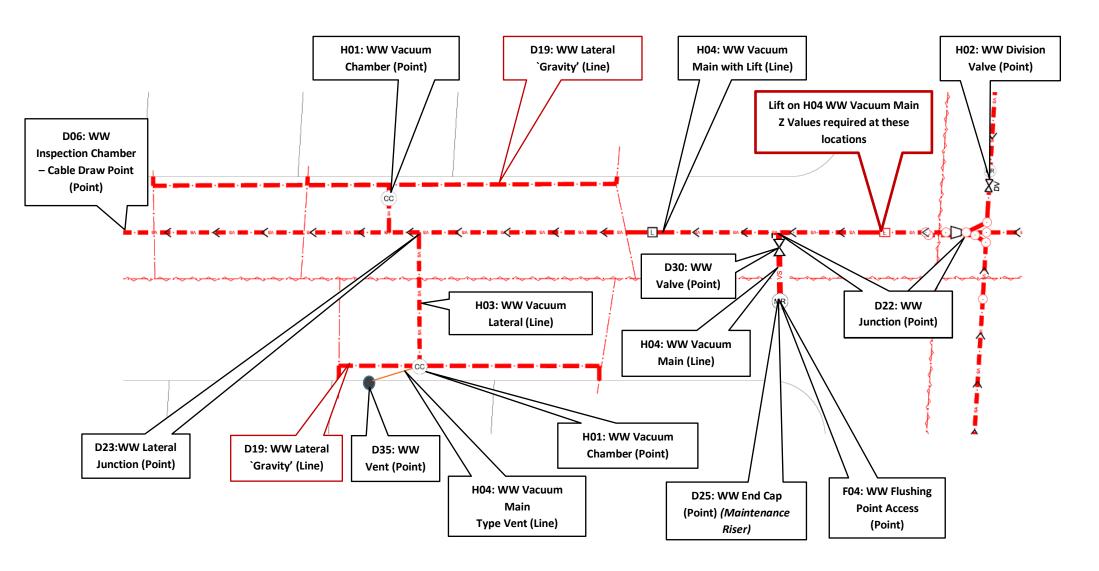
## **Appendix H As-built Requirements for Vacuum Wastewater System**

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



### VACUUM SERVICE LATERAL TYPICAL SECTION





# Wastewater Vacuum – Overview



Name Point Typ	ype WW Vacuum Chamber (Point)  H01 "Point Asset Inputs"		Centre of structure X Y and Z
CAT Column	SAG Description	Valid Values	<b>V</b>
Α	Type of Point Feature	H01	
В	Type of Vacuum Chamber	Select from pick list: domWwVacuumChamberType	
С	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)	
Н	RL on lowest corner of lid - (m)	data - Decimal Number (6 Chars, 3 Decimals)	
1	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 ass	et Select from pick list: domInstallationCompany	
N	Date of 'survey start'	data - Date (dd/mm/yyyy)	
0	Trafficable or non trafficable structure	Select from pick list: domTrafficable	
Р	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	
Χ	Number of interface valves in chamber	data - Number	
Υ	Chamber Floatation Protection	Select from pick list: domWwVacuumChamberFloatationProtection	
Z	Type of additional storage apart from this char	nber Select from pick list: domWwVacuumChamberAdditionalStorageType	Bottom of structure
	nal Information		Z
*All oth	ner columns must be left "blank" o	r hold the value "LEAVE BLANK" as default in CAT	_



Name Point Type WW Division Valve (P H02 "Point Asset Inputs"		/e (Point)	Centre of valve
			X Y and Z
SAG Description		Valid Values	
Type of Point Feature		H02	
Type of Valve		Select from pick list: domWwValveType	_
Asset Record Capture Type		Select from pick list: domAssetRecordCaptureType	lacksquare
Differs from design (yes/no)		Select from pick list: domDiffersFromDesign	Name Annaly
Asset Unique Identifier		data - Text (100 Characters)	
Centre of Structure in Easting	coordinate - (m)	data - Decimal Number (12 Chars, 2 Decimals)	
Centre of Structure in Northing	g coordinate - (m)	data - Decimal Number (12 Chars, 2 Decimals)	
RL on lowest corner of lid - (m	)	data - Decimal Number (6 Chars, 3 Decimals)	
Leave Blank	-	Leave Blank	
Nominal diameter in mm - (mr	n)	Select from pick list: domValveNominalDiameter	44444
Date of commission		data - Date (dd/mm/yyyy)	
Location certainty - accuracy	of data	Select from pick list: domLocationCertainty	
Name of main contractor who	installed the asset	Select from pick list: domInstallationCompany	
Date of 'survey start'		data - Date (dd/mm/yyyy)	
Valve normal operating position	on - open or closed	Select from pick list: domValveNormalPosition	
Manual or motorised valve		Select from pick list: domValveActuation	
Manufacturer of asset		Select from pick list: domManufacturer	
Valve closure rotation directio	n	Select from pick list: domValveClosureRotation	
Situation of Valve		Select from pick list: domValveSituation	(//////////////////////////////////////
Main function of valve		Select from pick list: domWwValveFunction	
Valve control point		Select from pick list: domValveControlPoint	SECTION
Manufacturer warranty referer	ce	data - Text (50 Characters)	
Manufacturer warranty term in years		data - Number	
	Type of Point Feature Type of Valve Asset Record Capture Type Differs from design (yes/no) Asset Unique Identifier Centre of Structure in Easting Centre of Structure in Northing RL on lowest corner of lid - (m Leave Blank Nominal diameter in mm - (mn Date of commission Location certainty - accuracy of Name of main contractor who Date of 'survey start' Valve normal operating position Manual or motorised valve Manufacturer of asset Valve closure rotation direction Situation of Valve Main function of valve Valve control point Manufacturer warranty referen	Type of Point Feature Type of Valve Asset Record Capture Type Differs from design (yes/no) Asset Unique Identifier Centre of Structure in Easting coordinate - (m) Centre of Structure in Northing coordinate - (m) RL on lowest corner of lid - (m) Leave Blank Nominal diameter in mm - (mm) Date of commission Location certainty - accuracy of data Name of main contractor who installed the asset Date of 'survey start' Valve normal operating position - open or closed Manual or motorised valve Manufacturer of asset Valve closure rotation direction Situation of Valve Main function of valve Valve control point Manufacturer warranty reference	SAG Description  Valid Values  Type of Point Feature  H02  Type of Valve  Select from pick list: dom/WwValveType  Asset Record Capture Type  Select from pick list: dom/AssetRecordCaptureType  Differs from design (yes/no)  Select from pick list: dom/DiffersFromDesign  Asset Unique Identifier  data - Text (100 Characters)  Centre of Structure in Easting coordinate - (m)  data - Decimal Number (12 Chars, 2 Decimals)  Centre of Structure in Northing coordinate - (m)  data - Decimal Number (12 Chars, 2 Decimals)  RL on lowest corner of lid - (m)  data - Decimal Number (6 Chars, 3 Decimals)  Leave Blank  Nominal diameter in mm - (mm)  Select from pick list: dom/ValveNominalDiameter  data - Date (dd/mm//yyyy)  Location certainty - accuracy of data  Select from pick list: dom/LocationCertainty  Name of main contractor who installed the asset  Select from pick list: dom/LocationCompany  data - Date (dd/mm/yyyy)  Valve normal operating position - open or closed  Manual or motorised valve  Select from pick list: dom/ValveNormalPosition  Manual or motorised valve  Select from pick list: dom/ValveNormalPosition  Manufacturer of asset  Select from pick list: dom/ValveNormalPosition  Main function of Valve  Select from pick list: dom/ValveClosureRotation  Select from pick list: dom/ValveControlPoint  Manufacturer warranty reference  data - Text (50 Characters)



Name Line Typ		/acuum Lateral (line Asset Inputs"	_ine)	Lateral Pipe	
X Y					
CAT Column	SAG Description		Valid Values	- 1200 Miles	
Α	Type of Line Feature		H03	(120)	
В	Type of Pipe		Select from pick list: domWwPipeType	The second secon	
С	Asset Record Capture Type		Select from pick list: domAssetRecordCaptureType		
D	Differs from design (yes/no)		Select from pick list: domDiffersFromDesign		
Е	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)		
Н	Invert level at vertex - (m)		data - Decimal Number (6 Chars, 3 Decimals)	- sn	
I	Number of Vertex (point along line)		data - Number	0~~~~~~~~~~~	
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  Manufacturer of asset  Name of main contractor who installed the asset  Pressure class (PN)  Stiffness rating (SN)		data - Text (50 Characters)	and the second s	
N			Select from pick list: domWwPipeManufacturer		
0			Select from pick list: domlnstallationCompany		
Р			Select from pick list: domWwPipePressureClass	· ·	
Q			Select from pick list: domPipeStiffnessClass	Post of the last o	
R	Concrete Load Class		Select from pick list: domPipeLoadClass	The same of the sa	
S	Date of commission		data - Date (dd/mm/yyyy)		
Т	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 - (r	n)	data - Decimal Number (6 Chars, 3 Decimals)		
X	Method by which the pipe was installed		Select from pick list: domPipeInstallationMethod		
Υ	Leave Blank		Leave Blank		
Z	Leave Blank		Leave Blank		
AA	Type of lateral junction		Select from pick list: domWwEyeType	All bands start/and naints to be a vice	
АВ	Distance of IP from lateral start (from collateral) - (mm)	nnection to existing private	data - Decimal Number (9 Chars, 3 Decimals)	All bends, start/end points to be surveyed  Create one CAT row per surveyed point	
Additio	nal Information				
*All ot	ner columns must be left "blar				
	ature requires at least two row				
Col 1: 6	enter number of vertex along I	ine starting with the	e downstream end (also survey grade		



#### As-Built requirements (WW)

Name	WW Vacuum Main (Line)			
Line Type	H04 "Line Asset Inputs"			

CAT Column	SAG Description	Valid Values	
Α	Type of Line Feature	H04	
В	Type of Pipe	Vacuum	
С	Asset Record Capture Type	Select from pick list: domAssetRecordCaptureType	
D	Differs from design (yes/no)  Select from pick list: domDiffersFromDesign		
Е	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)	
Н	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)	
М	To Node - Asset Unique Identifier	data - Text (50 Characters)	
N	Manufacturer of asset	Select from pick list: domWwPipeManufacturer	
0	Name of main contractor who installed the asset	Select from pick list: domInstallationCompany	
Р	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	ation 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)	
Χ	Method by which the pipe was installed	Select from pick list: domPipeInstallationMethod	

#### Additional Information

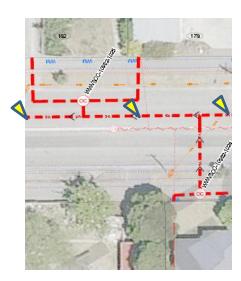
H04: WW Vacuum Main

\*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.

#### 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.



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
- 104 WW Pump Station Structure