Wastewater Graphics

Short SEWER LEVEL List
Revised: December 17, 2014

LEVEL	INFORMATION
1	(Correction circles)
3	1/4 section stubs, blowups, microfilm#
4	Open ended pipe cells, graphic drawing ends cells, map edge cell, tie to san etc.
5	Easements & lot lines, block#, street, building, hydrology, park names etc.
Public Linear Feature :	
6	150 / 200 / 225 / 250 / 300mm main
7	325 / 350 / 375 / 400 / 425 / 450 / 475 / 500mm main
8	525 / 550 / 575 / 600 / 625 / 650 / 675 / 700 / 710 / 725 / 750mm main
9	800 / 850 / 900 / 1050 / 1200mm main
10	1350 / 1500 / 1650 / 1800mm main
11	1950 / 2100 / 2400 / 3000mm main
12(*)	abandoned public main, active and abandoned forcemain / syphon / duct / *weeping tile
Active and abandoned Linear Feature (private/services):	
13(*)	private pipe / residential / commercial / multi-family service/ *private open channel / *weeping tile / forcemain / *private multi-line drainage / *culvert
Public Linear Feature :	
14*	catch basin lead
15*	culvert / cross-fall / ditch / swale / open channel / multi-line drainage
16	1:500 text for level 6
17	1:500 text for level 7
18	1:500 text for level 8
19	1:500 text for level 9
20	1:500 text for level 10
21	1:500 text for level 11
22	1:500 text for level 12
23	1:500 text for level 13
24*	1:500 text for level 14
25*	1:500 text for level 15
26	1:4000 text for level 6
27	1:4000 text for level 7
28	1:4000 text for level 8
29	1:4000 text for level 9
30	1:4000 text for level 10
31	1:4000 text for level 11
32	1:4000 text for level 12
33	1:4000 text for level 13
34*	1:4000 text for level 14

35*	1:4000 text for level 15
Active and abandoned Point Feature Manager :	
36	manhole and chamber 1:500 symbol
37	manhole and chamber 1:4000 symbol
38	manhole and chamber 1:500 text
39	manhole and chamber 1:4000 text
40*	structure and catch basin 1:500 symbol
41*	structure/catch basin/ LID-RWH/LID-SCR/LID-GR/LID-PPV/LID-AL/LID-BS/LID-BR 1:4000 symbol
42*	structure and catch basin 1:500 text
43*	Structures/catch basins/ LID-RWH/LID-SCR/LID-GR/LID-PPV/LID-AL/LID-BS/LID-BR 1:4000 text
44	station / flow arrow / miscellaneous cell 1:500
45	station / flow arrow / miscellaneous cell 1:4000
46	station / flow arrow / miscellaneous text 1:500
47	station / flow arrow / miscellaneous text 1:4000
48	Planned Line features and texts
49	Planned Point Features and texts
50	Active pond outline
55	
58	Sanitary Arc
59*	Storm Arc
61	Services
63	border cell

Note: * STRICTLY STORM LEVELS

Wastewater Drafting Procedures Manual – GRAPHICS

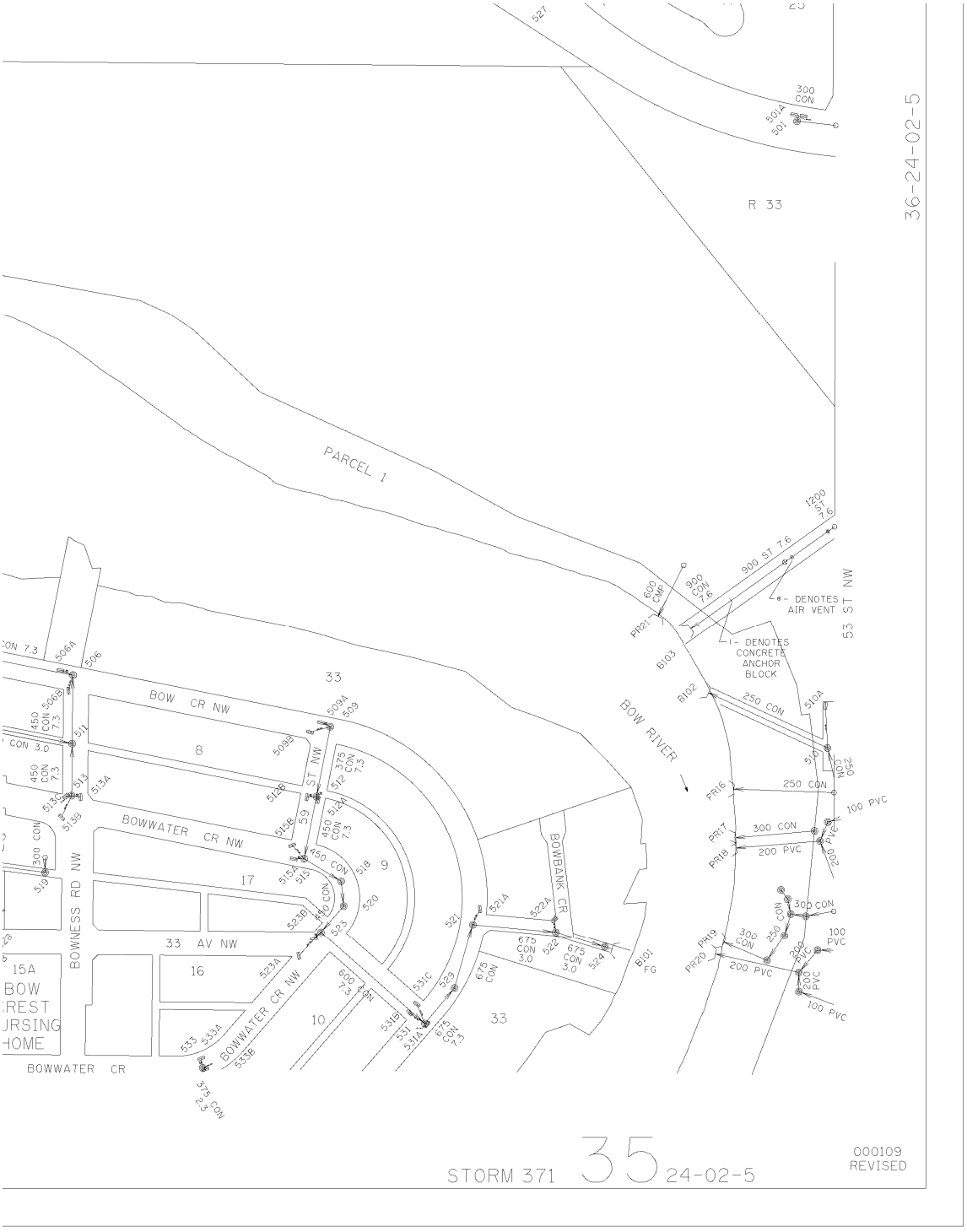
SEWER LEVEL AND COLOUR ASSIGNMENTS
Revised: December 19, 2000

Note: Linear Feature wt=3, cellwork wt=1 and all text wt=1.
Open channel (construction lines) with cells placed evenly along the line.
Active elements lc=0 and abandoned elements lc=1.
All catch basin leads should be placed public.
Do not use abandoned open channel, catch basin or catch basin lead.

Level	Colour	Information
1	0	(Correction circles)
3	0 1 2	1/4 section stubs (wt=4) blowups (ellipse wt=4) microfilm# (wt=2, tx=16, ft=66)
4	1 - 4 5 - 8 9 - 12 20 - 23 24 - 27 31 - 34 46 - 49	open ended pipe symbol graphical drawing end symbol map edge symbol tie to sanitary system symbol sludge lagoon tie symbol wastewater treatment plant tie symbol water treatment plant tie symbol

5	wt/lc/co	Cell Name AC=…	Text tx/ft/ls	Information	Example
	1/ 0/ 0		5.0/60	revision date	every section
	1/ 0/ 0	VV.		air vent	stm3524025.dgn
		TR.		concrete anchor block	stm1824015.dgn
			5.0/60	text note	
	1/ 1/ 0			easement	
	1/ 0/ 0			lot lines	
	1/ 0 /15		6.2/60/4.1	street names	
			7.0/60/4.5	major street names	
	1/ 0/30		7.0/60	block numbers	
	1/ 0/45		9.0/60/5.5	building names	LRT stations
	1/ 0/60		7.0/60/4.5	hydrology text	
	1/ 4/ 7			hydrology lines	stm2824015.dgn
	1/ 0/ 75		9.0/60/5.5	park names	
	1/ 0/ 0			site Linear Feature	
	1/ 0/90		6.2/60	site and plant names	
	1/ 5/ 2		5.0/60	misc. structures	san1324015.dgn tunnel, chamber

Example:


36-24-02-5
R 33
PARCEL 1
BOW CR NW
BOWWATER CR NW
BOWWATER CR
BOWWESS RD NW
33 AV NW
53 ST NW
BOW RIVER
BOWBANK CR
1200 ST 7.6
900 ST 7.6
900 CON 7.6
600 CMP
300 CON
250 CON
200 PVC
100 PVC
675 CON 3.0
675 CON
450 CON 7.3
375 CON 7.3
600 CON 7.3
- DENOTES AIR VENT
- DENOTES CONCRETE ANCHOR BLOCK
STORM 371
35
24-02-5
000109
REVISED

Wastewater Drafting Procedures Manual – GRAPHICS

Level 6-15 Linear Feature	
Pipe	
Colour	Material
1/16/31/46/61/76	concrete
2/17/32/47/62/77	vitrified clay/gravel
3/18/33/48/63/78	polyvinyl chloride/asphalt
4/19/34/49/6479	steel/grass
5/20/35/50/65/80	asbestos concrete
6/21/36/51/66/81	brick
7/22/37/52/67/82	cured in place
8/23/38/53/68/83	corrugated metal
9/24/39/54/69/84	con sedimentation vault
10/25/40/55/70/85	nudrain (WTD only)
11/26/41/56/71/86	polyethylene
12/27/42/57/72/87	cast iron
13/28/43/58/73/88	concrete cylinder
14/29/44/59/74/89	

Level	Colour	Information
6	1 - 14	150mm
	16 - 29	200mm
	31 - 44	225/250mm
	46 - 59	300mm
7	1 - 14	325/350mm
	16 - 29	375mm
	31 - 44	400/425/450mm
	46 - 59	475/510mm
8	1 - 14	525/550mm
	16 - 29	575/600mm
	31 - 44	625/650/675mm
	46 - 59	700/710/725/750
9	1 - 14	800mm
	16 - 29	850/900mm
	31 - 44	1050mm
	46 - 59	1200mm
10	1 - 14	350mm
	16 - 29	1500mm
	31 - 44	1650mm
	46 - 59	1800mm
11	1 - 14	1950/2100mm
	16 - 29	2400mm
	31 - 44	3000mm
12	1 - 14	abandoned public main
	10 - 85	active/abandoned nudrain weeping tile
	16 - 29	active/abandoned forcemain
	31 - 44	active/abandoned syphon
	46 - 59	active/abandoned duct
	61 - 74	active/abandoned weeping tile
13	1 - 14	active/abandoned private main
	10 - 85	active/abandoned private nudrain weeping tile

	16 - 29	active/abandoned residential service
	31 - 44	active/abandoned commercial/multi-family
	46 - 59	active private open channel c/w cells
	61 - 74	active/abandoned private weeping tile
	76 - 89	active private multiline drainage
	91 -104	active/abandoned private forcemain
	106 -119	active/abandoned private culvert
14	1 - 14	catch basin lead
15	1 - 14	culvert c/w cells
	16 - 29	x-fall c/w cells
	31 - 44	ditch c/w cells
	46 - 59	swale c/w cells
	61 - 74	active public open channel c/w cells
	76 - 89	multiline drainage
Level 16-25 Linear Feature Text 1:500		
16	1 - 14	150mm
	16 - 29	200mm
	31 - 44	225/250mm
	46 - 59	300mm
17	1 - 14	325/350mm
	16 - 29	375mm
	31 - 44	400/425/450mm
	46 - 59	475/510mm
18	1 - 14	525/550mm
	16 - 29	575/600mm
	31 - 44	625/650/675mm
	46 - 59	700/710/725/750mm
19	1 - 14	800mm
	16 - 29	850/900mm
	31 - 44	1050mm
	46 - 59	1200mm
20	1 - 14	1350mm
	16 - 29	1500mm
	31 - 44	1650mm
	46 - 59	1800mm
21	1 - 14	1950/2100mm
	16 - 29	2400mm
	31 - 44	3000mm
22	1 - 14	abandoned public main
	10 - 85	active/abandoned nudrain weeping tile
	16 - 29	active/abandoned forcemain
	31 - 44	active/abandoned syphon
	46 - 59	active/abandoned duct
	61 - 74	active/abandoned weeping tile
23	1 - 14	active/abandoned private main
	10 - 85	active/abandoned private nudrain weeping tile
	16 - 29	active/abandoned residential service)
	31 - 44	active/abandoned commercial/multi-family
	46 - 59	active private open channel

	61 - 74	active/abandoned private weeping tile
	76 - 89	active private multiline drainage
	91 -104	active/abandoned private forcemain
	106 -119	active/abandoned private culvert
24	1 - 14	catch basin lead
25	1 - 14	culvert
	16 - 29	x-fall
	31 - 44	ditch
	46 - 59	swale
	61 - 74	active public open channel
	76 - 89	multiline drainage
Level 26-35 Linear Feature Text 1:4000		
26	1 - 14	150mm
	16 - 29	200mm
	31 - 44	225/250mm
	46 - 59	300mm
27	1 - 14	325/350mm
	16 - 29	375mm
	31 - 44	400/425/450mm
	46 - 59	475/510mm
28	1 - 14	525/550mm
	16 - 29	575/600mm
	31 - 44	625/650/675mm
	46 - 59	700/710/725/750mm
29	1 - 14	800mm
	16 - 29	850/900mm
	31 - 44	1050mm
	46 - 59	1200mm
30	1 - 14	1350mm
	16 - 29	1500mm
	31 - 44	1650mm
	46 - 59	1800mm
31	1 - 14	1950/2100mm
	16 - 29	2400mm
	31 - 44	3000mm
32	1 - 14	abandoned public main
	10 - 85	active/abandoned nudrain weeping tile
	16 - 29	active/abandoned forcemain
	31 - 44	active/abandoned syphon
	46 - 59	active/abandoned duct
	61 - 74	active/abandoned weeping tile
33	1 - 14	active/abandoned private main
	10 - 85	active/abandoned private nudrain weeping tile
	16 - 29	active/abandoned residential service
	31 - 44	active/abandoned commercial/multi-family
	46 - 59	active private open channel
	61 - 74	active/abandoned private weeping tile
	76 - 89	active private multiline drainage
	91 -104	active/abandoned private forcemain
	106 -119	active/abandoned private culvert

34	1 - 14	catch basin lead
35	1 - 14	culvert
	16 - 29	x-fall
	31 - 44	ditch
	46 - 59	swale
	61 - 74	active public open channel
	76 - 89	multiline drainage
Cellwork 1:500 Symbol		
36	1 - 4	manhole
	5 - 8	air release manhole
	9 - 12	diversion manhole
	16 - 19	metering manhole
	20 - 23	sediment manhole
	24 - 27	weir manhole
	31 - 34	oil recovery manhole
	35 - 38	flood gate manhole
	39 - 42	flapper gate manhole
	46 - 49	manhole with valve
	50 - 53	lake control manhole
	54 - 57	access opening manhole
	61 - 64	chamber
	65 - 68	(chamber to scale) NOT IN USE
	69 - 72	chamber with valve
	76 - 79	inlet chamber
	80 - 83	outlet chamber
	84 - 87	private manhole/chamber
	91 - 94	abandoned manhole/chamber
	99 - 102	test manhole public
	106 - 109	(test manhole private) NOT IN USE
	110 - 113	septic dump manhole
	114 - 117	cleanout in manhole
	121 - 124	manhole with inline or slip on valve
	129 - 132	drypond control/monitor chamber
	136 - 139	drypond inlet/outlet chamber
	140 - 143	manhole with flapper valve
	144 - 147	STC manhole
	151 -154	vortech chamber
	159 - 162	pump manhole
	166 - 169	biofilter chamber
	170 - 173	monitoring manhole

Cellwork 1:4000 Symbol		
37 Manhole	Colour	Accuracy
	base color	surveyed
	base + 1	calsim
	base + 2	dimension
	base + 3	scaled
	Colour	Information

	1 - 4	manhole
	5 - 8	air release manhole
	9 - 12	diversion manhole
	16 - 19	metering manhole
	20 - 23	sediment manhole
	24 - 27	weir manhole
	31 - 34	oil recovery manhole
	35 - 38	flood gate manhole
	39 - 42	flapper gate manhole
	46 - 49	manhole with valve
	50 - 53	lake control manhole
	54 - 57	access opening manhole
	61 - 64	chamber
	65 - 68	(chamber to scale) NOT IN USE
	69 - 72	chamber with valve
	76 - 79	inlet chamber
	80 - 83	outlet chamber
	84 - 87	private manhole/chamber
	91 - 94	abandoned manhole/chamber
	99 - 102	test manhole public
	106 - 109	(test manhole private) NOT IN USE
	110 - 113	septic dump manhole
	114 - 117	cleanout in manhole
	121 - 124	manhole with inline or slip on valve
	129 - 132	drypond control/monitor chamber
	136 - 139	drypond inlet/outlet chamber
	140 - 143	manhole with flapper valve
	144 - 147	STC manhole
	151 -154	vortech chamber
	159 - 162	pump manhole
	166 - 169	biofilter chamber
	170 - 173	monitoring manhole
Cellwork 1:500 Text		
38	5 - 8	air release manhole
	9 -12	diversion manhole
	15	safety grate cover
	16 - 19	metering manhole
	20 - 23	sediment manhole
	24 - 27	weir manhole
	30	flagged cover
	31 - 34	oil recovery manhole
	35 - 38	flood gate manhole
	39 - 42	flapper gate manhole
	45	padlocked cover
	46 - 49	manhole with valve
	50 - 53	lake control manhole
	54 - 57	access opening manhole
	60	sealed cover
	65 - 68	(chamber to scale) NOT IN USE
	69 - 72	chamber with valve

	75	grated top cover
	76 - 79	inlet chamber
	80 - 83	outlet chamber
	84 - 87	private manhole/chamber
	90	parson insert cover
	91 - 94	abandoned manhole/chamber
	95 - 98	manhole/chamber number
	99 -102	test manhole public
	105	special/super manhole
	106 -109	(test manhole private) NOT IN USE
	110 -113	septic dump manhole
	114 -117	cleanout in manhole
	120	plastic plug cover
	121 -124	manhole with inline or slip on valve
	129 -132	drypond control/monitor chamber
	135	carbon/charcoal cover
	136 -139	drypond inlet/outlet chamber
	140 -143	manhole with flapper valve
	144 -147	STC manhole
	151 -154	vortech chamber
	159 -162	pump manhole
	166 - 169	biofilter chamber
	170 - 173	monitoring manhole
Cellwork 1:4000 Text		
39	5 - 8	air release manhole
	9 - 12	diversion manhole
	15	safety grate cover
	16 - 19	metering manhole
	20 - 23	sediment manhole
	24 - 27	weir manhole
	30	flagged cover
	31 - 34	oil recovery manhole
	35 - 38	flood gate manhole
	39 - 42	flapper gate manhole
	45	padlocked cover
	46 - 49	manhole with valve
	50 - 53	lake control manhole
	54 - 57	access opening manhole
	60	sealed cover
	65 - 68	(chamber to scale) NOT IN USE
	69 - 72	chamber with valve
	75	grated top cover
	76 - 79	inlet chamber
	80 - 83	outlet chamber
	84 - 87	private manhole/chamber
	90	parson insert cover
	91 - 94	abandoned manhole/chamber
	95 - 98	manhole/chamber number
	99 - 102	test manhole public
	105	special/super manhole
	106 -109	(test manhole private) NOT IN USE

	110 -113	septic dump manhole
	114 -117	cleanout in manhole
	120	plastic plug cover
	121 -124	manhole with inline or slip on valve
	129 -132	drypond control/monitor chamber
	135	carbon/charcoal cover
	136 -139	drypond inlet/outlet chamber
	140 -143	manhole with flapper valve
	144 -147	STC manhole
	151 -154	vortech chamber
	159 – 162	pump manhole
	166 - 169	biofilter chamber
	170 - 173	monitoring manhole
Cellwork 1:500 Symbol		
40	1 - 4	inlet structure
	5 - 8	screened inlet
	9 - 12	outfall structure
	16 - 19	flapper gate outfall
	20 - 23	flood gate outfall
	24 - 27	screened outfall
	31 - 34	waterworks structure NOT IN USE
	35 - 38	private inlet/outfall
	39 - 42	abandoned inlet/outfall
	50 - 53	single/twin/triple catch basin
	61 - 64	catch basin with valve
	65 - 68	sump pit
	69 - 72	dry well
	76 - 79	sanitary catch basin
	80 - 83	private catch basin
	84 - 87	(abandoned catch basin) NOT IN USE
	95 - 98	cleanout in catch basin
	99 -102	dry pond inlet/outlet
Cellwork 1:4000 Symbol		
41	1 - 4	inlet structure
	5 - 8	screened inlet
	9 - 12	outfall structure
	16 - 19	flapper gate outfall
	20 - 23	flood gate outfall
	24 - 27	screened outfall
	31 - 34	waterworks structure NOT IN USE
	35 - 38	private inlet/outfall
	39 - 42	abandoned inlet/outfall
	50 - 53	single/twin/triple catch basin
	61 - 64	catch basin with valve
	65 - 68	sump pit
	69 - 72	dry well
	76 - 79	sanitary catch basin
	80 – 83	private catch basin
	109 – 112	Rainwater Harvest
	113 -116	

		bio retention/bio swale/green roof/capture & reuse/ absorbent landscape/permeable pavement
Cellwork 1:500 Text		
42	5 - 8	screened inlet
	16 - 19	flapper gate outfall
	20 - 23	flood gate outfall
	24 - 27	screened outfall
	31 - 34	waterworks structure NOT IN USE
	35 - 38	(private inlet/outfall 'PR') NOT IN USE
	39 - 42	abandoned inlet/outfall
	46 - 49	inlet/outfall number
	50 - 53	single/twin/triple catch basin
	61 - 64	catch basin with valve
	65 - 68	sump pit
	69 - 72	dry well
	76 - 79	sanitary catch basin
	80 - 83	private catch basin
	84 - 87	(abandoned catch basin) NOT IN USE
	91 - 94	catch basin number
	95 - 98	cleanout in catch basin number
	99 -102	drypond inlet/outlet
	105	special/super catch basin
Cellwork 1:4000 Text		
43	5 - 8	screened inlet
	16 - 19	flapper gate outfall
	20 - 23	flood gate outfall
	24 - 27	screened outfall
	31 - 34	waterworks structure NOT IN USE
	35 - 38	(private inlet/outfall 'PR') NOT IN USE
	39 - 42	abandoned inlet/outfall
	46 - 49	inlet/outfall number
	61 - 64	catch basin with valve
	65 - 68	sump pit
	69 - 72	dry well
	84 - 87	(abandoned catch basin) NOT IN USE
	91 - 94	catch basin number
	95 - 98	cleanout in catch basin number
	99 -102	drypond inlet/outlet
	105	special/super catch basin
	109 – 112	Rainwater Harvest
	113 - 116	bio retention/bio swale/green roof/capture & reuse/ absorbent landscape/permeable pavement
Cellwork 1:500 Symbol		
44	1 - 4	lift station
	8	line terminator for culvert
	9 - 12	gauge station
	16 - 19	metering station
	20 - 23	private station

	24 - 27	abandoned station
	31 - 34	valve
	35 - 38	thrust block (used by 1:4000 symbol … does not
	39 - 42	print)
	46 - 49	test point
	50 - 53	anode
	54 - 57	trash collector (to scale)
	61 - 64	drainage barrier (to scale)
	65 - 68	ice dam (to scale)
	69 - 72	weir (to scale)
	76 - 79	high point
	80 - 83	transition point
	84 - 87	closed end stub (end-cap)
	91 - 94	cleanout
	95 - 98	other private
	100	other abandoned
	132 - 135	active/abandoned flow arrow
	155 - 158	public/private@mh/tee
		septic tank
		inline or slip on red valve
Cellwork 1:4000 Symbol		
45	1 - 4	lift station
	8	line terminator for culvert
	9 - 12	gauge station
	16 - 19	metering station
	20 - 23	private station
	24 - 27	abandoned station
	31 - 34	valve
	35 - 38	thrust block (see 1:500 symbol … does not print)
	39 - 42	test point
	46 - 49	anode/open channel flow arrow
	50 - 53	trash collector (to scale)
	54 - 57	drainage barrier (to scale)
	61 - 64	ice dam (to scale)
	65 - 68	weir (to scale)
	69 - 72	high point
	76 - 79	transition point
	80 - 83	closed end stub (end-cap)
	84 - 87	cleanout
	91 - 94	other private
	95 - 98	other abandoned
	100	active/abandoned flow arrow
	132 - 135	public/private@mh/tee
	155 - 158	septic tank
		inline or slip on red valve
Cellwork 1:500 Text		
46	0	lake/pond number (tx=7.0)
	0	lake/pond name (tx=7.0)
	1 - 4	lift station
	5 - 8	station number

	9 - 12	gauge station
	16 - 19	metering station
	20 - 23	private station
	24 - 27	abandoned station
	39 - 42	test point
	46 - 49	anode
	50 - 53	trash collector (to scale)
	54 - 57	drainage barrier (to scale)
	61 - 64	ice dam (to scale)
	65 - 68	weir (to scale)
	84 - 87	cleanout
	91 - 94	other private
	95 - 98	other abandoned
	132 - 135	septic tank
	155 - 158	inline or slip on red valve
Cellwork 1:4000 Text		
47	0	lake/pond number (tx=7.0)
	0	lake/pond name (tx=7.0)
	1 - 4	lift station
	5 - 8	station number
	9 - 12	gauge station
	16 - 19	metering station
	20 - 23	private station
	24 - 27	abandoned station
	39 - 42	test point
	46 - 49	anode
	50 - 53	trash collector (to scale)
	54 - 57	drainage barrier (to scale)
	61 - 64	ice dam (to scale)
	65 - 68	weir (to scale)
	84 - 87	cleanout
	91 - 94	other private
	95 - 98	other abandoned
	132 - 135	septic tank
	155 - 158	inline or slip on red valve
Planned Features		
48	0	Planned Line Features; LC=7, Co=0
49	0	Planned Point Features; LC=7, Co=0
Boundaries & texts		
50	0	
55	0	
Arcs and Nodes		
58		sanitary arcs and nodes
59		Storm arcs and nodes
Services		
61	0	Sanitary and Storm Services
Title Block		
63	0	border cell (dropped)

Wastewater Drafting Procedures Manual – GLOSSARY