

Condition Assessment Report

APPENDICES A-E

Stormwater, Sanitary Sewer, Water and Irrigation Systems

University at Albany (Uptown Campus)

Prepared for:

The State University Construction Fund and the University at Albany

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COMMITMENT & INTEGRITY DRIVE RESULTS



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Туре	Start Location (Historic ID)	End Location (Historic ID)	Start Location (New ID)	End Location (New ID)	Location of Issue in Pipe (feet from Start)	Area	Page Number
Circumferential Crack	MH133	MH134	D08_sMH03	D08_sMH04	63.7	Colonial Quad	41
Circumferential Crack	MH135	MH136	E09_sMH01	E08_sMH02	61.2	Colonial Quad	44
Longitudinal Fracture	MH37	MH38	H06_sMH03	H07_sMH01	36.2	Dutch Quad	3
Break	MH39	MH82	H07_sMH04	H07_sMH05	11.2	Dutch Quad	5
Break - Void Visible	MH39	MH40	H07_sMH04	H07_sMH02	88.1	Dutch Quad	19
Circumferential Crack	MH39	MH40	H07_sMH04	H07_sMH02	30.0	Dutch Quad	19
Circumferential Crack	MH39	MH40	H07_sMH04	H07_sMH02	45.5	Dutch Quad	19
Hole	MH39	MH40	H07_sMH04	H07_sMH02	68.5	Dutch Quad	19
Break	MH86	STUB – A	J08_sMH01	Indian Quad	102.6	Indian Quad and Justice Drive	22
Circumferential Crack	MH144	MH145	F11_sMH02	F11_sMH03	4.2	North State Quad and Softball Field	56

Table A-1: Sanitary Sewer System Cracks and Breaks



Туре	Start Location (Historic ID)	End Location (Historic ID)	Start Location (New ID)	End Location (New ID)	Location of Issue in Pipe (feet from Start)	Area	Page Number
70% Roots	MH132	MH133	D08_sMH01	D08_sMH03	42.0	Colonial Quad	39
65% Roots	MH132	MH133	D08_sMH01	D08_sMH03	85.5	Colonial Quad	39
40% Roots	MH132	MH133	D08_sMH01	D08_sMH03	80.5	Colonial Quad	39
Obstacle Brick	MH132	MH133	D08_sMH01	D08_sMH03	42.0	Colonial Quad	39
Intruding Tap	MH133	MH134	D08_sMH03	D08_sMH04	134.4	Colonial Quad	41
20% Roots	MH134	MH135	D08_sMH04	E09_sMH01	146.1	Colonial Quad	43
25% Roots	MH135	MH136	E09_sMH01	E08_sMH02	8.0	Colonial Quad	44
70% Roots	MH135	MH137	E09_sMH01	E09_sMH02	29.3	Colonial Quad	45
55% Roots	MH135	MH137	E09_sMH01	E09_sMH02	20.0	Colonial Quad	45
90% Alignment Right	MH86	STUB – A	J08_sMH01	Indian Quad	136.8	Indian Quad and Justice Drive	22
25% Tennis Ball	MH86	STUB – B	J08_sMH01	Indian Quad	74.7	Indian Quad and Justice Drive	23
35% Roots	MH140	MH141	F10_sMH02	F10_sMH03	100.1, 107.3	North State Quad Softball Field	48
25% Deposits	MH140	MH141	F10_sMH02	F10_sMH03	9.7	North State Quad Softball Field	48
10% Deposits	MH140	MH141	F10_sMH02	F10_sMH03	131.1	North State Quad Softball Field	48
Roots	MH140	MH141	F10_sMH02	F10_sMH03	100.1	North State Quad Softball Field	48

Table A-2: Sanitary Sewer System Pipe Blockages



Туре	Start Location (Historic ID)	End Location (Historic ID)	Start Location (New ID)	End Location (New ID)	Location of Issue in Pipe (feet from Start)	Area	Page Number
20% Roots	MH141	MH142	F10_sMH03	F10_sMH04	100.0	North State Quad Softball Field	50
60% Roots	MH140	MH139	F10_sMH02	F10_sMH01	181.8	North State Quad Softball Field	54
40% Roots	MH140	MH139	F10_sMH02	F10_sMH01	191.3, 210.6	North State Quad Softball Field	54
25% Roots	MH142	MH144	F10_sMH04	F11_sMH02	3.0, 38.1	North State Quad Softball Field	55
85% Roots	MH143	MH142	G10_sMH01	F10_sMH04	257.8	North State Quad Softball Field	58
35% Roots	MH60	MH308	H08_sMH02	H08_sMH01	4.0	Parking Mass Transit	28
70% Roots	MH60	MH61	H08_sMH02	H08_sMH04	10.6	Parking Mass Transit	29
80% Roots	MH60	MH189	H08_sMH02	H08_sMH03	8.0	Parking Mass Transit	31
30% Roots	MH189	MH60	H08_sMH03	H08_sMH02	107.4	Parking Mass Transit	32
90% Roots	MH32	MH27	F05_sMH04	G05_sMH03	19.3	Support Building	25
75% Roots	MH32	MH29	F05_sMH04	F05_sMH02	17.4	Support Building	26
30% Roots	MH32	MH29	F05_sMH04	F05_sMH02	66.1	Support Building	26
20% Roots	MH32	MH29	F05_sMH04	F05_sMH02	10.4, 17.4	Support Building	26
25% Roots	MH20	MH21	G05_sMH05	G05_sMH06	40.4	Support Building	37
40% Roots	MH82	MH83	H07_sMH05	H07_sMH09	73.1, 74.1	University Field	6
35% Roots	MH82	MH83	H07_sMH05	H07_sMH09	107.4	University Field	6



Туре	Start Location (Historic ID)	End Location (Historic ID)	Start Location (New ID)	End Location (New ID)	Location of Issue in Pipe (feet from Start)	Area	Page Number
20% Roots	MH82	MH83	H07_sMH05	H07_sMH09	48.8, 64.7	University Field	6
Roots (Unspecified)	MH82	MH83	H07_sMH05	H07_sMH09	64.7-73.1	University Field	6
30% Roots	MH84	MH85	107_sMH03	108_sMH01	169.6, 184.9	University Field	9
20% Roots	MH84	MH85	107_sMH03	108_sMH01	101.2, 140.8, 150.2	University Field	9
30% Roots	MH85	MH81	108_sMH01	108_sMH04	15.0, 23.2	University Field	10
20% Roots	MH85	MH81	108_sMH01	108_sMH04	10.3, 122.8	University Field	10
Roots (Unspecified)	MH85	MH81	I08_sMH01	108_sMH04	23.2	University Field	10



Start Location (Historic ID)	End Location (Historic ID)	Start Location (New ID)	End Location (New ID)	Area	Page Number
MH133	MH134	D08_sMH03	D08_sMH04	Colonial Quad	41
MH134	MH135	D08_sMH04	E09_sMH01	Colonial Quad	43
MH135	MH136	E09_sMH01	E08_sMH02	Colonial Quad	44
MH135	MH137	E09_sMH01	E09_sMH02	Colonial Quad	45
MH35	MH36	G06_sMH05	H06_sMH01	Dutch Quad	1
MH37	MH38	H06_sMH03	H07_sMH01	Dutch Quad	3
MH39	MH40	H07_sMH04	H07_sMH02	Dutch Quad	19
MH81	MH63	108_sMH04		Dutch Quad	21
MH100	MH101	K09_sMH01	K09_sMH02	Indian Quad and Justice Drive	17
MH88	MH91	J08_sMH05	J09_sMH01	Indian Quad and Justice Drive	59
MH91	MH99	J09_sMH01	J09_sMH02	Indian Quad and Justice Drive	60
MH110	MH103	K10_sMH01	K10_sMH02	Indian Quad and Justice Drive	63
MH103	MH104	K10_sMH02	K10_sMH04	Indian Quad and Justice Drive	64
MH138	MH139	E09_sMH03	F10_sMH01	North State Quad Softball Field	47
MH140	MH141	F10_sMH02	F10_sMH03	North State Quad Softball Field	48
MH140	MH139	F10_sMH02	F10_sMH01	North State Quad Softball Field	54

Table A-3: Sanitary Sewer System Pipes Containing Fine Roots



Start Location (Historic ID)	End Location (Historic ID)	Start Location (New ID)	End Location (New ID)	Area	Page Number
MH144	MH145	F11_sMH02	F11_sMH03	North State Quad Softball Field	56
MH143	MH142	G10_sMH01	F10_sMH04	North State Quad Softball Field	58
MH60	MH308	H08_sMH02	H08_sMH01	Parking Mass Transit	28
MH60	MH189	H08_sMH02	H08_sMH03	Parking Mass Transit	31
MH32	MH29	F05_sMH04	F05_sMH02	Support Building	26
MH19	MH20	G04_sMH04	G05_sMH05	Support Building	36
MH20	MH109	G05_sMH05	G05_sMH04	Support Building	38
MH82	MH83	H07_sMH05	H07_sMH09	University Field	6
MH84	MH85	107_sMH03	108_sMH01	University Field	9
MH85	MH81	I08_sMH01	108_sMH04	University Field	10



Amount	Start Location (Historic ID)	End Location (Historic ID)	Start Location (New ID)	End Location (New ID)	Location of Issue in Pipe (feet from Start)	Area	Page Number
5%	MH137	MH138	E09_sMH02	E09_sMH03	258.7, 276.1	Collins Circle	46
5%	MH138	MH139	E09_sMH03	F10_sMH01	3.1, 252.5	Collins Circle	47
5%	MH133	MH134	D08_sMH03	D08_sMH04	140.5, 164.7	Colonial Quad	41
5%	MH134	MH135	D08_sMH04	E09_sMH01	117.6, 169.3	Colonial Quad	43
5%	MH135	MH137	E09_sMH01	E09_sMH02	12.8, 90.6	Colonial Quad	45
10%	MH36	MH37	H06_sMH01	H06_sMH03	0.0, 191.7	Dutch Quad	2
20%	MH87	MH88	J08_sMH02	J08_sMH05	6.5,48.7	Indian Quad and Justice Drive	15
5%	MH140	MH139	F10_sMH02	F10_sMH01	161.4, 172.5	North State Quad Softball Field	54
5%	MH141	MH142	F10_sMH03	F10_sMH04	0.1, 80.2	North State Quad Softball Field	50
35%	MH82	MH83	H07_sMH05	H07_sMH09	63.2	University Field	6
15%	MH82	MH83	H07_sMH05	H07_sMH09	9.0, 34.0	University Field	6

Table A-4: Sanitary Sewer System Pipes Containing Grease



	Start	End	Start	End	Location of Issue		
Туре	Location (Historic ID)	Location (Historic ID)	Location (New ID)	Location (New ID)	in Pipe (feet from Start)	Area	Page Number
15-20%	MH135	MH137	E09_sMH01	E09_sMH02	-	Collins Circle	45
15%	MH137	MH138	E09_sMH02	E09_sMH03	-	Collins Circle	46
25%	MH138	MH139	E09_sMH03	F10_sMH01	-	Collins Circle	47
10-20%	MH134	MH135	D08_sMH04	E09_sMH01	-	Colonial Quad	43
20%	MH135	MH136	E09_sMH01	E08_sMH02	-	Colonial Quad	44
20-25%	MH35	MH36	G06_sMH05	H06_sMH01	-	Dutch Quad	1
25%	MH36	MH37	H06_sMH01	H06_sMH03	-	Dutch Quad	2
30%	MH37	MH38	H06_sMH03	H07_sMH01	0.0, 98.1	Dutch Quad	3
25%	MH38	MH39	H07_sMH01	H07_sMH04	-	Dutch Quad	4
35%	MH39	MH82	H07_sMH04	H07_sMH05	0.0, 49.7	Dutch Quad	5
15%	MH37	STUB – 37	H06_sMH03	Dutch Quad	-	Dutch Quad	18
20%	MH86	STUB – A	J08_sMH01	Indian Quad	-	Indian Quad and Justice Dr.	22
35%	MH88	MH91	J08_sMH05	J09_sMH01	206.0, 235.1	Indian Quad and Justice Drive	59
30%	MH88	MH91	J08_sMH05	J09_sMH01	8.0, 186.5	Indian Quad and Justice Drive	59
35%	MH91	MH99	J09_sMH01	J09_sMH02	23.2, 202.2	Indian Quad and Justice Drive	60
45%	MH101	MH102	K09_sMH02	K09_sMH03	0.0, 49.4	Indian Quad and Justice Drive	61
40%	MH101	MH102	K09_sMH02	K09_sMH03	144.8, 180.8	Indian Quad and Justice Drive	61
35%	MH101	MH102	K09_sMH02	K09_sMH03	73.4, 115.0	Indian Quad and Justice Drive	61
35%	MH102	MH110	K09_sMH03	K10_sMH01	10.6, 139.4	Indian Quad and Justice Drive	62
45%	MH110	MH103	K10_sMH01	K10_sMH02	3.6, 141.0	Indian Quad and Justice Drive	63
45%	MH103	MH104	K10_sMH02	K10_sMH04	30.8, 196.3	Indian Quad and Justice Drive	64

Table A-5: Sanitary Sewer System Pipe Sags



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30%	MH140	MH141	F10_sMH02	F10_sMH03	0.0, 20.6, 166.7, 176.1, 190.0	North State Quad Softball Field	48
45%	MH141	MH142	F10_sMH03	F10_sMH04	80.9, 89.4	North State Quad Softball Field	50
25%	MH141	MH142	F10_sMH03	F10_sMH04	-	North State Quad Softball Field	50
50%	MH140	MH139	F10_sMH02	F10_sMH01	0.0, 63.1	North State Quad Softball Field	54
45%	MH140	MH139	F10_sMH02	F10_sMH01	100.2, 124.5, 159.1, 172.5	North State Quad Softball Field	54
30%	MH142	MH144	F10_sMH04	F11_sMH02	147.3, 258.7	North State Quad Softball Field	55
25%	MH142	MH144	F10_sMH04	F11_sMH02	-	North State Quad Softball Field	55
30%	MH144	MH145	F11_sMH02	F11_sMH03	201.1, 240.7	North State Quad Softball Field	56
25%	MH144	MH145	F11_sMH02	F11_sMH03	-	North State Quad Softball Field	56
25%	MH189	STUB – 189	H08_sMH03	Physics	-	Parking Mass Transit	33
20-25%	MH32	MH29	F05_sMH04	F05_sMH02	-	Support Building	26
75%	MH14	MH13	G05_sMH02	F05_sMH03	3.0, 56.2	Support Building	34
20-25%	MH19	MH20	G04_sMH04	G05_sMH05	-	Support Building	36
30%	MH20	MH21	G05_sMH05	G05_sMH06	18.9, 136.8	Support Building	37
60%	MH85	MH81	I08_sMH01	108_sMH04	133.7, 187.0	University Field	10
20%	MH81	MH80	108_sMH04	108_sMH02	-	University Field	12
35%	MH81	MH86	108_sMH04	J08_sMH01	9.0, 200.2	University Field	13
20%	MH73	MH74	107_sMH04	J07_sMH05	-	University Field	24



	Table A-0. Salitary Sewer System Other Fipe issues										
Туре	Start Location (Historic ID)	End Location (Historic ID)	Start Location (New ID)	End Location (New ID)	Location of Issue in Pipe (feet from Start)	Area	Page Number				
Under Water	MH37	STUB	H06_sMH 03	Dutch Quad	43.3	Dutch Quad	18				
Siphon	MH86	STUB – B	J08_sMH 01	Indian Quad	101.5	Indian Quad and Justice Drive	23				
Under Water	MH140	MH141	F10_sMH 02	F10_sMH03	20.6	North State Quad Softball Field	48				

 Table A-6: Sanitary Sewer System Other Pipe Issues



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Туре	Start Location (Historic ID)	End Location (Historic ID)	Start Location (New ID)	End Location (New ID)	Location of Issue in Pipe (feet from Start)	Area	Page Number			
Infiltration Runner [1/2 GPM]	MH51	MH49	G06_dMH01	G06_dMH04	10.4	Dutch Quad	76			
Infiltration Dripper [1/32 GPM]	MH44	MH43	H06_dMH01	H07_dMH02	123.4	Dutch Quad	104			
Longitudinal Crack	MH155	MH182	G07_dMH04	G07_dMH06	20.3	Humanities and Education	78			
Longitudinal Crack	MH155	MH182	G07_dMH04	G07_dMH06	30.1	Humanities and Education	78			
Longitudinal Crack	MH155	MH182	G07_dMH04	G07_dMH06	43.0	Humanities and Education	78			
Longitudinal Crack	MH182	MH181	G07_dMH06	G08_dMH01	90.8	Humanities and Education	79			
Longitudinal Crack	MH182	MH181	G07_dMH06	G08_dMH01	156.7	Humanities and Education	79			
Longitudinal Crack	MH182	MH181	G07_dMH06	G08_dMH01	194.0	Humanities and Education	79			
Circumferenti al Fracture	CB232	MH172	G09_	F09_dMH01	94.0	South State Quad and Fine Arts	123			
Longitudinal Crack	MH31	MH49A	F05_dMH04		90.0	Support Building	85			
Longitudinal Crack	MH31	MH49A	F05_dMH04		114.4	Support Building	85			
Longitudinal Crack	MH31	MH49A	F05_dMH04		118.5	Support Building	85			
Circumferenti al Crack	MH30	CB557	F05_dMH02	F05_dCB15	20.2	Support Building	87			
Longitudinal Crack	MH30	CB557	F05_dMH02	F05_dCB15	7.0	Support Building	87			
Longitudinal Crack	MH30	CB557	F05_dMH02	F05_dCB15	28.6	Support Building	87			

Table A-7: Storm Sewer System	Cracks and Breaks
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Туре	Start Location (Historic ID)	End Location (Historic ID)	Start Location (New ID)	End Location (New ID)	Location of Issue in Pipe (feet from Start)	Area	Page Number
Longitudinal Crack	MH30	CB557	F05_dMH02	F05_dCB15	44.6	Support Building	87
Longitudinal Crack	MH30	CB557	F05_dMH02	F05_dCB15	69.7	Support Building	87
Longitudinal Crack	MH30	CB557	F05_dMH02	F05_dCB15	74.5	Support Building	87
Multiple Cracks	MH30	CB557	F05_dMH02	F05_dCB15	57.9	Support Building	87
Multiple Cracks	MH30	CB557	F05_dMH02	F05_dCB15	64.7	Support Building	87
Longitudinal Crack	CB557	MH3	F05_dCB15	F05_dMH03	4.7	Support Building	88
Longitudinal Crack	CB557	MH3	F05_dCB15	F05_dMH03	20.9	Support Building	88
Longitudinal Crack	CB557	MH3	F05_dCB15	F05_dMH03	36.8	Support Building	88
Longitudinal Crack	MH3	MH4	F05_dMH03	G05_dMH01	41.9	Support Building	89
Longitudinal Crack	MH3	MH4	F05_dMH03	G05_dMH01	98.0	Support Building	89
Longitudinal Crack	MH3	MH4	F05_dMH03	G05_dMH01	160.3	Support Building	89
Longitudinal Crack	CB361	CB374	107_dCB17	J07_dCB06	16.5	University Field	154
Longitudinal Crack	CB361	CB374	107_dCB17	J07_dCB06	19.8	University Field	154
Infiltration Runners and Drippers	MH97	MH96	L08_dMH02	L08_dMH03	Multiple (each joint)	Hammer Throw	Lash
Multiple Cracks	MH97	CB128	L08_dMH02	M07_dCB12	191	Hammer Throw	Lash



Туре	Start Location (Historic ID)	End Location (Historic ID)	Start Location (New ID)	End Location (New ID)	Location of Issue in Pipe (feet from Start)	Area	Page Number
35% Obstacles	MH194	MH52	F07_dMH02	F06_dMH05	30.1, 32.7	Dutch Quad Area	73
10% Deposits	MH155	MH182	G07_dMH04	G07_dMH06	-	Humanities and Education	78
5% Deposits Settled Gravel	MH182	MH181	G07_dMH06	G08_dMH01	-	Humanities and Education	79
20% Deposits	CB162	CB164	F07_dCB10	F07_dCB09	39.9	Social Sciences	66
10% Deposits	CB91	CB164	F07_dCB05	F07_dCB09	-	Social Sciences	119
15% Deposits	CB93	CB161	F07_dCB06	F07_dCB07	-	Social Sciences	121
25% Deposits	CB93	CB90	F07_dCB06	F07_dCB04	0.0, 59.0	Social Sciences	122
20% Obstacle	CB232	MH172	G09_dCB07	F09_dMH01	102.3	South State Quad and Fine Arts	123
15% Obstacle	CB232	MH172	G09_dCB07	F09_dMH01	113.5	South State Quad and Fine Arts	123
20% Obstacle	CB231	CB229	G09_dCB06	G09_dCB05	154.2, 163.5	South State Quad and Fine Arts	124
Unspecified Debris	CB231	CB229	G09_dCB06	G09_dCB05	165.5	South State Quad and Fine Arts	124
15% Deposits	CB228	CB227	G09_dCB01	F09_dCB23	-	South State Quad and Fine Arts	133
25% Deposits	CB228	CB229	G09_dCB01	G09_dCB05	17.5, 40.0	South State Quad and Fine Arts	134
10% Deposits	CB228	CB229	G09_dCB01	G09_dCB05	-	South State Quad and Fine Arts	134
20% Deposits	MH31	MH28	F07_dMH02	F06_dMH05	55.3, 68.4	Support Building	84
10% Deposits	MH31	MH28	G07_dMH04	G07_dMH06	-	Support	84



Туре	Start Location (Historic ID)	End Location (Historic ID)	Start Location (New ID)	End Location (New ID)	Location of Issue in Pipe (feet from Start)	Area	Page Number
						Building	
15% Deposits	MH30	CB557	G07_dMH06	G08_dMH01	-	Support Building	87
10% Deposits	CB557	MH3	F05_dMH04	G05_dMH06	-	Support Building	88
10% Unidentified Obstacle	MH3	MH4	F05_dMH04	G05_dMH06	135.6	Support Building	89
10% Deposits	MH3	MH4	F05_dMH02	F05_dCB15	-	Support Building	89
5% Deposits	MH3	MH4	F05_dCB15	F05_dMH03	-	Support Building	89
20% Deposits	MH9	MH8	F05_dMH03	G05_dMH01	0.0, 48.6	Support Building	91
15% Deposits	MH9	MH8	F05_dMH03	G05_dMH01	-	Support Building	91
15% Deposits	MH8	CB16	F05_dMH03	G05_dMH01	-	Support Building	92
10% Deposits	MH8	MH6	G05_dMH04	G05_dMH05	-	Support Building	93
15% Obstacle	MH6	MH4	G05_dMH03	G05_dMH01	44.7	Support Building	94
40% Deposits	MH1	CB4	F05_dMH01	F05_dCB10	49.6, 52.6	Support Building	97
20% Deposits	MH1	CB4	F05_dMH01	F05_dCB10	123.1, 156.0	Support Building	97
10% Deposits	MH1	CB4	F05_dMH01	F05_dCB10	-	Support Building	97
Muck/Deposits	MH1	CB4	F05_dMH01	F05_dCB10	52.6-123.1	Support Building	97
25% Deposits	CB4	CB5	F05_dCB10	F05_dCB11	0.0, 16.7	Support Building	99
15% Deposits	CB6	CB3	G05_dCB01	F05_dCB12	-	Support Building	105
15% Deposits	CB6	CB9	G05_dCB01	G05_dCB03	-	Support Building	106
15% Deposits	CB8	CB8A	G05_dCB04		-	Support Building	107
10% Deposits	CB10	CB9	G05_dCB05	G05_dCB03	-	Support Building	110
5% Deposits	MH7	MH6	G05_dMH02	G05_dMH03	-	Support Building	112



Туре	Start Location (Historic ID)	End Location (Historic ID)	Start Location (New ID)	End Location (New ID)	Location of Issue in Pipe (feet from Start)	Area	Page Number
10% Deposits	MH3	1012	F05_dMH03	G05_dCB06	-	Support Building	113
10% Deposits	CB15	CB16	G05_dCB14	G05_dCB13	-	Support Building	114
10% Deposits	MH28	CB46	G05_dMH06	F05_dCB17	-	Support Building	115
45% Deposits	CB51	CB52	F05_dCB13	F05_dCB16	0.0, 3.0	Support Building	116
30% Deposits	CB51	CB52	F05_dCB13	F05_dCB16	3.0	Support Building	116
Unspecified Deposits	CB51	CB52	F05_dCB13	F05_dCB16	3.0	Support Building	116
30% Deposits	CB52	CB51	F05_dCB16	F05_dCB13	50.3	Support Building	117
10% Deposits	CB52	CB51	F05_dCB16	F05_dCB13	21.7, 50.3	Support Building	117
20% Deposits	CB51	CB49	F05_dCB13	F05_dCB09	0.0, 12.4	Support Building	118
45% Alignment Right	CB361	CB374	I07_dCB17	J07_dCB06	62.4	University Field	154
35% Deposits	MH113	CB362	107_dMH01	I07_dCB01	4.0	University Field	156
25% Deposits	MH113	CB362	107_dMH01	I07_dCB01	73.0, 113.0	University Field	156
Unspecified Deposits	MH113	CB362	107_dMH01	I07_dCB01	4.0-73.0	University Field	156
10% Deposits	MH97	MH96	L08_dMH02	L08_dMH03	Every joint	Hammer Throw	Lash
10% Deposits	MH97	MH128	L08_dMH02	M07_dCB12	Every joint	Hammer Throw	Lash
30% Obstacles	MH97	CB128	L08_dMH02	M07_dCB12	112.6	Hammer Throw	Lash



Start Location (Historic ID)	End Location (Historic ID)	Start Location (New ID)	End Location (New ID)	Area	Page Number
MH169	MH168	E08_dMH05	E08_dMH06	Colonial Quad Area	132
MH182	MH181	G07_dMH06	G08_dMH01	Humanities and Education	79
MH181	MH316	G08_dMH01	G08_dMH02	Humanities and Education	80
CB223	CB222	F08_dCB06	F08_dCB07	North of Business	126
CB226	CB224	F08_dCB04	F08_dCB05	North of Business	128
CB226	CB220	F08_dCB04	F08_dCB03	North of Business	129
CB203	CB220	E08_dCB14	F08_dCB03	North of Business	130
MH1	CB4	F05_dMH01	F05_dCB10	Support Building	97
CB6	CB9	G05_dCB01	G05_dCB03	Support Building	106
CB10	CB9	G05_dCB05	G05_dCB03	Support Building	110
CB52	CB51	F05_dCB16	F05_dCB13	Support Building	117
MH26	CB45	106_dMH01	106_dCB05	University Field Area	135

Table A-9: Storm Sewer System Pipes Containing Fine Roots



Туре	Start Location (Historic ID)	End Location (Historic ID)	Start Location (New ID)	End Location (New ID)	Location of Issue in Pipe (feet from Start)	Area	Page Number
20%	MH58	CB79	H07_dMH05	H07_dCB05	-	Humanities and Education	83
15%	MH8	MH10	G05_dMH05	G05_dMH07	-	Support Building	95

Table A-10: Storm Sewer System Pipe Sags

Table A-11: Storm Sewer System Other Pipe Issues

Туре	Start Location (Historic ID)	End Location (Historic ID)	Start Location (New ID)	End Location (New ID)	Location of Issue in Pipe (feet from Start)	Area	Page Number
Cannot Open CB Covers	CB4	CB5	F11_dCB10	F05_dCB11	16.7-29.0	Support Building	99
Cannot Open CB Covers	CB7	CB9	G05_dCB02	G05_dCB03	1.1-30.0	Support Building	108





APPENDIX B: ALL PIPE CONDITIONS

Table B-1: All Sanitary Sewer Pipes	B-1
Table B-2: All Storm Sewer Pipes	B-5





Table B-1: All Sanitary Sewer Pipes

Area	Start Location (Historic ID)	End Location (Historic ID)	Start Location (New ID)	End Location (New ID)	Page Number	Cracks or Breaks	Blockage (%)	Grease (%)	Sags (%)	Fine Roots	Condition
Collins Circle	MH135	MH137	D08_sMH03	E09_sMH02	45		70	5	20	Y	Poor
Collins Circle	MH137	MH138	E09_sMH02	E09_sMH03	46			5	15		Fair
Collins Circle	MH138	MH139	E09_sMH03	F10_sMH01	47			5	25	Y	Fair
Colonial Quad	MH132	MH133	D08_sMH01	D08_sMH03	39		70				Poor
Colonial Quad	MH133	MH134	D08_sMH03	D08_sMH04	41	х	Un sp	5		Y	Poor
Colonial Quad	MH134	MH135	D08_sMH04	E09_sMH01	43		20	5	20	Y	Fair
Colonial Quad	MH135	MH136	E09_sMH01	E08_sMH02	44	х	25		20	Y	Poor
Dutch Quad	MH35	MH36	G06_sMH05	H06_SMH01	1				25	Y	Fair
Dutch Quad	MH36	MH37	H06_SMH01	H06_sMH03	2			10	25		Fair
Dutch Quad	MH37	MH38	H06_sMH03	H07_sMH01	3	х			30	Y	Poor
Dutch Quad	MH38	MH39	H07_sMH01	H07_sMH04	4				25		Fair
Dutch Quad	MH39	MH82	H07_sMH04	H07_sMH05	5	Х			35		Poor
Dutch Quad	MH37	STUB	H06_sMH03	Dutch Quad	18		W at er		15		Fair
Dutch Quad	MH39	MH40	H07_sMH04	H07_sMH02	19	Х				Y	Poor
Dutch Quad	MH41	MH40	H07_sMH03	H07_sMH02	52						Excellent



Area	Start Location (Historic ID)	End Location (Historic ID)	Start Location (New ID)	End Location (New ID)	Page Number	Cracks or Breaks	Blockage (%)	Grease (%)	Sags (%)	Fine Roots	Condition
Dutch Quad	MH41	STUB	H07_sMH03	Dutch Quad	53						Excellent
l. Q. & J. Dr.	MH86	MH87	J08_sMH01	J08_sMH02	14						Excellent
l. Q. & J. Dr.	MH87	MH88	J08_sMH02	J08_sMH05	15			20			Poor
l. Q. & J. Dr.	MH99	MH100	J09_sMH02	K09_sMH01	16						Excellent
l. Q. & J. Dr.	MH100	MH101	K09_sMH01	K09_sMH02	17					Y	Good
l. Q. & J. Dr.	MH86	STUB-A	J08_sMH01	Indian Quad	22	х	90		20		Poor
l. Q. & J. Dr.	MH86	STUB-B	J08_sMH01	Indian Quad	23		25				Fair
l. Q. & J. Dr.	MH88	MH91	J08_sMH05	J09_sMH01	59				35	Y	Poor
l. Q. & J. Dr.	MH91	MH99	J09_sMH01	J09_sMH02	60				35	Y	Poor
l. Q. & J. Dr.	MH101	MH102	K09_sMH02	K09_sMH03	61				45		Poor
l. Q. & J. Dr.	MH102	MH110	K09_sMH03	K10_sMH01	62				35		Poor
l. Q. & J. Dr.	MH110	MH103	K10_sMH01	K10_sMH02	63				45	Y	Poor
l. Q. & J. Dr.	MH103	MH104	K10_sMH02	K10_sMH04	64				45	Y	Poor
N.S.Q. & S.F.	MH140	MH141	F10_sMH02	F10_sMH03	48		35		30	Y	Poor
N.S.Q. & S.F.	MH141	MH142	F10_sMH03	F10_sMH04	50		20	5	45		Poor
N.S.Q. & S.F.	MH140	MH139	F10_sMH02	F10_sMH01	54		60	5	50	Y	Poor



Area	Start Location (Historic ID)	End Location (Historic ID)	Start Location (New ID)	End Location (New ID)	Page Number	Cracks or Breaks	Blockage (%)	Grease (%)	Sags (%)	Fine Roots	Condition
N.S.Q. & S.F.	MH142	MH144	F10_sMH04	F11_sMH02	55		25		30		Poor
N.S.Q. & S.F.	MH144	MH145	F11_sMH02	F11_sMH03	56	х			30	Y	Poor
N.S.Q. & S.F.	MH145	MH146	F11_sMH03	F11_sMH04	57						Excellent
N.S.Q. & S.F.	MH143	MH142	G10_sMH01	F10_sMH04	58		85			Y	Poor
Parking M.T.	MH60	MH308	H08_sMH02	H08_sMH01	28		35			Y	Poor
Parking M.T.	MH60	MH61	H08_sMH02	H08_sMH04	29		70				Poor
Parking M.T.	MH60	MH189	H08_sMH02	H08_sMH03	31		80			Y	Poor
Parking M.T.	MH189	STUB	H08_sMH03	Physics	33		30		25		Fair
Support Building	MH32	MH27	F05_sMH04	G05_sMH03	25		90				Poor
Support Building	MH32	MH29	F05_sMH04	F05_sMH02	26		75		25	Y	Poor
Support Building	MH14	MH13	G05_sMH02	F05_sMH03	34				75		Poor
Support Building	MH14	MH15	G05_sMH02	G05_sMH01	35						Excellent
Support Building	MH19	MH20	G04_sMH04	G05_sMH05	36					Y	Good
Support Building	MH20	MH21	G05_sMH05	G05_sMH06	37		25		30		Poor
Support Building	MH20	MH109	G05_sMH05	G05_sMH04	38					Y	Good
University Field	MH82	MH83	H07_sMH05	H07_sMH09	6		40	35		Y	Poor



Area	Start Location (Historic ID)	End Location (Historic ID)	Start Location (New ID)	End Location (New ID)	Page Number	Cracks or Breaks	Blockage (%)	Grease (%)	Sags (%)	Fine Roots	Condition
University Field	MH83	MH84	H07_sMH09	107_sMH03	8						Excellent
University Field	MH84	MH85	107_sMH03	108_sMH01	9		30			Y	Fair
University Field	MH85	MH81	108_sMH01	108_sMH04	10		30		60	Y	Poor
University Field	MH81	MH80	108_sMH04	108_sMH02	12				20		Fair
University Field	MH81	MH86	108_sMH04	J08_sMH01	13				35		Poor
University Field	MH82	MH310	H07_sMH05	H07_sMH06	20						Excellent
University Field	MH81	MH63	108_sMH04		21					Y	Good
University Field	MH73	MH74	107_sMH04	J07_sMH05	24				20		Fair



Table B-2: All Storm Sewer Pipes

Area	Start Location (Historic ID)	End Location (Historic ID)	Start Location (New ID)	End Location (New ID)	Page Number	Cracks or Breaks	Blockage (%)	Grease (%)	Sags (%)	Fine Roots	Condition
Colonial Quad	MH169	MH168	E08_dMH05	E08_dMH06	132					Y	Good
Dutch Quad	MH194	MH52	F07_dMH02	F06_dMH05	73		35				Poor
Dutch Quad	MH52	MH51	F06_dMH05	G06_dMH01	75						Excellent
Dutch Quad	MH51	MH49	G06_dMH01	G06_dMH04	76	х					Poor
Dutch Quad	MH45	MH47	G06_dMH03	G06_dMH02	101						Excellent
Dutch Quad	MH47	MH49	G06_dMH02	G06_dMH04	102						Excellent
Dutch Quad	MH45	MH44	G06_dMH03	H06_dMH01	103						Excellent
Dutch Quad	MH44	MH43	H06_dMH01	H07_dMH02	104	х					Poor
Hum. & Educ.	MH155	CB165	G07_dMH04	G07_dCB08	77						Excellent
Hum. & Educ.	MH155	MH182	G07_dMH04	G07_dMH06	78	х	10				Poor
Hum. & Educ.	MH182	MH181	G07_dMH06	G08_dMH01	79	х	5			Y	Poor
Hum. & Educ.	MH181	MH316	G08_dMH01	G08_dMH02	80					Y	Good
Hum. & Educ.	MH316	CB77	G08_dMH02	G07_dCB11	81						Excellent
Hum. & Educ	CB77	MH58	G07_dCB11	H07_dMH05	82						Excellent
Hum. & Educ	MH58	CB79	H07_dMH05	H07_dCB05	83				20		Fair
Business	CB223	CB222	F08_dCB06	F08_dCB07	126					Y	Good



Area	Start Location (Historic ID)	End Location (Historic ID)	Start Location (New ID)	End Location (New ID)	Page Number	Cracks or Breaks	Blockage (%)	Grease (%)	Sags (%)	Fine Roots	Condition
Business	CB223	CB224	F08_dCB06	F08_dCB05	127						Excellent
Business	CB226	CB224	F08_dCB04	F08_dCB05	128					Y	Good
Business	CB226	CB220	F08_dCB04	F08_dCB03	129					Y	Good
Business	CB203	CB220	E08_dCB14	F08_dCB03	130					Y	Good
Business	CB203	MH169	E08_dCB14	E08_dMH05	131						Excellent
S.S.Q. & F.A.	CB232	MH172	G09_dCB07	F09_dMH01	123	Х	20				Poor
S.S.Q. & F.A.	CB231	CB229	G09_dCB06	G09_dCB05	124		20				Fair
S.S.Q. & F.A.	CB231	CB232	G09_dCB06	G09_dCB07	125						Excellent
S.S.Q. & F.A.	CB228	CB227	G09_dCB01	F09_dCB23	133		15				Fair
S.S.Q. & F.A.	CB228	CB229	G09_dCB01	G09_dCB05	134		25				Fair
Social Sciences	CB162	MH156	F07_dCB10	F07_dMH04	65						Excellent
Social Sciences	CB162	CB164	F07_dCB10	F07_dCB09	66		20				Fair
Social Sciences	MH154	CB90	F07_dMH03	F07_dCB04	68						Excellent
Social Sciences	MH154	MH153	F07_dMH03	F07_dMH01	69						Excellent
Social Sciences	MH153	3101	F07_dMH01	F07_dCB01	70						Excellent
Social Sciences	3101	CB505	F07_dCB01	F07_dCB03	71						Excellent
Social Sciences	CB505	MH194	F07_dCB03	F07_dMH02	72						Excellent



Area	Start Location (Historic ID)	End Location (Historic ID)	Start Location (New ID)	End Location (New ID)	Page Number	Cracks or Breaks	Blockage (%)	Grease (%)	Sags (%)	Fine Roots	Condition
Social Sciences	CB91	CB164	F07_dCB05	F07_dCB09	119		10				Fair
Social Sciences	CB91	CB90	F07_dCB05	F07_dCB04	120						Excellent
Social Sciences	CB93	CB161	F07_dCB06	F07_dCB07	121		15				Fair
Social Sciences	CB93	CB90	F07_dCB06	F07_dCB04	122		25				Fair
Support Building	MH31	MH28	F05_dMH04	G05_dMH06	84		20				Fair
Support Building	MH31	MH49A	F05_dMH04		85	х					Poor
Support Building	MH30	CB50	F05_dMH02	F05_dCB14	86						Excellent
Support Building	MH30	CB557	F05_dMH02	F05_dCB15	87	х	15				Poor
Support Building	CB557	MH3	F05_dCB15	F05_dMH03	88	х	10				Poor
Support Building	MH3	MH4	F05_dMH03	G05_dMH01	89	х	10				Poor
Support Building	MH9	CB14	G05_dMH04	G05_dCB12	90						Excellent
Support Building	MH9	MH8	G05_dMH04	G05_dMH05	91		20				Fair
Support Building	MH8	CB16	G05_dMH05	G05_dCB13	92		15				Fair
Support Building	MH8	MH6	G05_dMH05	G05_dMH03	93		10				Fair
Support Building	MH6	MH4	G05_dMH03	G05_dMH01	94		15				Fair
Support Building	MH8	MH10	G05_dMH05	G05_dMH07	95				15		Fair



Area	Start Location (Historic ID)	End Location (Historic ID)	Start Location (New ID)	End Location (New ID)	Page Number	Cracks or Breaks	Blockage (%)	Grease (%)	Sags (%)	Fine Roots	Condition
Support Building	MH5	MH4	G04_dMH02	G05_dMH01	96						Excellent
Support Building	MH1	CB4	F05_dMH01	F05_dCB10	97		40			Y	Poor
Support Building	CB4	CB5	F05_dCB10	F05_dCB11	99		25				Fair
Support Building	CB6	CB3	G05_dCB01	F05_dCB12	105		15				Fair
Support Building	CB6	CB9	G05_dCB01	G05_dCB03	106		15			Y	Fair
Support Building	CB8	CB8A	G05_dCB04		107		15				Fair
Support Building	CB7	CB9	G05_dCB02	G05_dCB03	108		Can't open CBs				Poor
Support Building	CB10	CB9	G05_dCB05	G05_dCB03	110		10			Y	Fair
Support Building	CB10	MH4	G05_dCB05	G05_dMH01	111						Excellent
Support Building	MH7	MH6	G05_dMH02	G05_dMH03	112		5				Good
Support Building	MH3	1012	F05_dMH03	G05_dCB06	113		10				Fair
Support Building	CB15	CB16	G05_dCB14	G05_dCB13	114		10				Fair
Support Building	MH28	CB46	G05_dMH06	F05_dCB17	115		10				Fair
Support Building	CB51	CB52	F05_dCB13	F05_dCB16	116		45			Y	Poor
Support Building	CB51	CB49	F05_dCB13	F05_dCB09	118		20				Fair
University Field	MH26	CB45	106_dMH01	106_dCB05	135					Y	Good



Area	Start Location (Historic ID)	End Location (Historic ID)	Start Location (New ID)	End Location (New ID)	Page Number	Cracks or Breaks	Blockage (%)	Grease (%)	Sags (%)	Fine Roots	Condition
University Field	MH26	MH43	106_dMH01	H07_dMH02	136						Excellent
University Field	MH26	MH113	106_dMH01	107_dMH01	137						Excellent
University Field	MH113	CB173	107_dMH01	107_dCB06	138						Excellent
University Field	CB173	MH114	107_dCB06	107_dMH02	139						Excellent
University Field	MH114	CB359	107_dMH02	I07_dCB11	140						Excellent
University Field	1053	1052	J07_dMH05	J07_dCB11	141						Excellent
University Field	1052	1050	J07_dCB11	J07_dCB08	142						Excellent
University Field	1050	CB361	J07_dCB08	I07_dCB17	143						Excellent
University Field	CB361	MH115	107_dCB17	107_dMH03	144						Excellent
University Field	MH115	CB360	107_dMH03	107_dCB12	145						Excellent
University Field	CB360	CB359	107_dCB12	I07_dCB11	146						Excellent
University Field	1053	CB473	J07_dMH05	J07_dCB19	147						Excellent
University Field	MH75	MH76	108_dMH04	108_dMH05	148						Excellent
University Field	MH92	MH76	108_dMH06	108_dMH05	149						Excellent
University Field	MH92	MH302	108_dMH06	J08_dMH01	150						Excellent
University Field	MH302	OUTFAL L	J08_dMH01	J03_dOF01	151						Excellent



Area	Start Location (Historic ID)	End Location (Historic ID)	Start Location (New ID)	End Location (New ID)	Page Number	Cracks or Breaks	Blockage (%)	Grease (%)	Sags (%)	Fine Roots	Condition
University Field	1053	CB373	J07_dMH05	J07_dCB14	152						Excellent
University Field	CB180	1052	J07_dMH04	J07_dCB11	153						Excellent
University Field	CB361	CB374	107_dCB17	J07_dCB06	154	х	45				Poor
University Field	CB359	CB358	107_dCB11	107_dCB07	155						Excellent
University Field	MH113	CB362	107_dMH01	107_dCB01	156		35				Poor
University Field	MH113	CB172	107_dMH01	107_dCB05	158						Excellent
Hammer Throw	MH97	MH96	L08_dMH02	L08_dMH03	Las h		10				Fair
Hammer Throw	MH97	CB128	L08_dMH02	M07_dCB12	Las h	Х	30				Poor





APPENDIX C: MANHOLE, CATCH BASIN, DRAIN INLET AND OTHER STORM SEWER APPURTENANCE CONDITIONS

Table C-1: Sanitary Sewer Manholes	C-1
Table C-2: Catch Basins	C-6
Table C-3: Drainage Manholes	C-30
Table C-4: Drain Inlets	C-35
Table C-5: Other Storm Sewer Appurtenances	C-48





Table C-1: Sanitary Sewer Manholes

Historic Manhole ID	New Manhole ID	Ov	erall C	Conditi	ion		tructu onditi			Sed	iment		Нус	Irauli	c Conc	lition
		Excellent	Good	Fair	Poor	Good	Damaged Functional	Damaged Non-Functional	None	Partial	Substantial	Full	Good	Damaged Functional	Damaged Non-Functional	Blocked
	nking fair, poor, ked in terms of c												ly full	of se	dimen	t.
sMH109	G05_sMH04				Х			Х				Х				Х
sMH25	G06_sMH03				X		X				X			X		
sMH36	H06_sMH01				Х		X				X			Χ		
sMH57	G07_sMH05				Х		X				X			Χ		
sMH64	107_sMH02				Χ		Х				Х			X		
sMH56	G07_sMH02				Χ	Х					Х				Х	
3098	108_sMH06				Х		Х			Х				Χ		
sMH122	E08_sMH01				Х		X			X				Χ		
sMH79	108_sMH03				Х		X			Х				X		
3176	D03_sMH01				X	Х					Х			X		
sMH125	F08_sMH03			Х			X				Х			X		
sMH86	J08_sMH01			Х			X				Х			X		
1031	H06_sMH02			Х			X			Х				X		
sMH127	G09_sMH02			Х			X			Χ				X		
sMH130	F09_sMH03			Х			Х			Х				Χ		
sMH318	K07_sMH01			Х			X			Χ				X		
sMH39	H07_sMH04			Х			X			X				X		
sMH73	107_sMH04			Х			X			X				Χ		
sMH82	H07_sMH05			Х			X			Х				X		
sMH331	J08_sMH03			Х			X				X		X			
sMH193	F07_sMH04			Х		Х					Χ			Χ		
sMH310	H07_sMH06			Х		Х					Χ			Χ		
sMH347	D06_sMH05			Х		Х					X			Χ		



Historic Manhole ID	New Manhole ID	Ov	erall C	Conditi	on		tructu onditi			Sed	liment		Нус	drauli	c Cond	lition
		Excellent	Good	Fair	Poor	Good	Damaged Functional	Damaged Non-Functional	None	Partial	Substantial	Full	Good	Damaged Functional	Damaged Non-Functional	Blocked
sMH351	C06_sMH02			Х		Х					Х			х		
sMH61	H08_sMH04			Χ		Х					Х			X		
2695	G07_sMH04			Χ			Х			Х			Х			
2697	H07_sMH08			Х			Х			Х				Χ		
3177	D04_sMH01			Х			Х			Х			Х			
sMH129	F09_sMH02			Х			Х			Х			Х			
sMH140	F10_sMH02			Х			Х			Х			Х			
sMH141	F10_sMH03			Х			Х			Х			Х			
sMH142	F10_sMH04			Х			Х			Х			Х			
sMH33	G06_sMH02			Х			Х			Х			Х			
sMH34	G06_sMH04			Х			Х			Х			Х			
sMH50	G07_sMH01			Х			Х			Х			Х			
sMH72	I07_sMH01			Х			Х			Х			Х			
sMH78	108_sMH05			Х			Х			Х			Х			
sMH80	108_sMH02			Х			Х			Х			Х			
sMH87	J08_sMH02			X			Х			Х			Х			
sMH99	J09_sMH02			Х			Х			X			Х			
3179	D04_sMH07			Х		Х				X				X		
sMH131	D08_sMH02			Χ		Х				X				X		
sMH143	G10_sMH01			Х		Х				X				X		
sMH20	G05_sMH05			Х		Х				X				X		
sMH348	C06_sMH01			Χ		Х				X				Χ		
sMH41	H07_sMH03			Х		Х			Х					Χ		
sMH14	G05_sMH02			Х			Х		Х				Х			
sMH337	H09_sMH06			Х			Х		Х				Х			
sMH339	H10_sMH01			X			X		Х				X			



Historic Manhole ID	New Manhole ID	Ov	erall C	Conditi	ion		tructu onditi			Sed	liment		Нус	drauli	c Conc	lition
		Excellent	Good	Fair	Poor	Good	Damaged Functional	Damaged Non-Functional	None	Partial	Substantial	Full	Good	Damaged Functional	Damaged Non-Functional	Blocked
sMH46	G06_sMH06			Х			Х		х				x			
sMH345	D06_sMH07			Х		Х				Х			Х			
sMH48	G06_sMH07			Х		Х				Х			Х			
sMH85	I08_sMH01			Х		Х				Х			Х			
sMH90	I09_sMH01			Х		Х				Х			X			
3173	D04_sMH03			Х		Х			Х					Χ		
sMH18	G04_sMH03			Х		Х			Х					Χ		
sMH60	H08_sMH02			Х		Х			Х					Χ		
sMH27	G05_sMH03		Х			Х					Х		Х			
sMH319	K06_sMH02		Х			Х					Х		Х			
	the remainder of f full of sediment, a			not blo	ocked	or dam	aged n		tiona							
sMH84	107_sMH03		Х				Х			Х			Х			
sMH145	F11_sMH03		Х			х				Х				X		
3141	G09_sMH01		Х			Х				Х				X		
3174	D04_sMH04		Х			Х				Х				X		
sMH123	 F08_sMH01		Х			Х				Х				X		
sMH199	E07_sMH01		Х				Х		Х				Х			
sMH335	109_sMH04		Х				Х		Х				Х			
sMH66	 109_sMH02		Х				Х		Х			<u></u>	Х			
3140	G09_sMH03		Х			Х				Х			Х			
3144	 F09_sMH01		Х			Х				Х			x			
3172	 D04_sMH05		Х			Х				Х			Х			
sMH101	 K09_sMH02		Х			Х				Х			Х			
sMH102	K09_sMH03		Х			Х				Х			Х			



Historic Manhole ID	New Manhole ID	Ov	erall C	onditi	ion		tructu onditi			Sed	liment		Нус	drauli	c Cond	lition
		Excellent	Good	Fair	Poor	Good	Damaged Functional	Damaged Non-Functional	None	Partial	Substantial	Full	Good	Damaged Functional	Damaged Non-Functional	Blocked
sMH110	K10_sMH01		Х			Х				Χ			Х			
sMH117	F07_sMH02		X			Х				Χ			Х			
sMH118	F07_sMH03		Х			Х				X			Х			
sMH119	F07_sMH05		Х			Х				X			Х			
sMH128	G09_sMH04		Х			X				Χ			Χ			
sMH13	F05_sMH03		Х			Х				Х			Х			
sMH132	D08_sMH01		Х			Х				Χ			Х			
sMH133	D08_sMH03		X			Х				Χ			Х			
sMH134	D08_sMH04		Х			Х				Χ			X			
sMH136	E08_sMH02		X			Х				Χ			Х			
sMH137	E09_sMH02		X			Х				Х			Х			
sMH138	E09_sMH03		X			Х				Χ			Х			
sMH187	H08_sMH05		X			Х				Χ			Х			
sMH189	H08_sMH03		X			Х				Х			Х			
sMH19	G04_sMH04		X			Х				Χ			Х			
sMH191	G08_sMH02		Х			Х				Х			Х			
sMH192	G07_sMH03		Х			Х				Х			Х			
sMH21	G05_sMH06		Χ			X				X			Х			
sMH22	G05_sMH07		Χ			Х				X			Х			
sMH23	G05_sMH08		Х			Х				Х			Х			
sMH24	G06_sMH01		Х			Х				X			Х			
sMH29	F05_sMH02		Х			Х				X			Х			
sMH313	H07_sMH07		Χ			Х				X			Х			
sMH32	F05_sMH04		Х			Х				X			Х			
sMH338	G09_sMH05		X			Х				Х			Х			



Historic Manhole ID	New Manhole ID	Ov	erall C	onditi	on		tructu onditi			Sed	iment		Нус	Irauli	c Cond	lition
		Excellent	Good	Fair	Poor	Good	Damaged Functional	Damaged Non-Functional	None	Partial	Substantial	Full	Good	Damaged Functional	Damaged Non-Functional	Blocked
sMH343	D06_sMH03		Х			Х				Х			Х			
sMH344	D06_sMH04		Х			Х				Х			Х			
sMH346	D06_sMH09		Х			Х				Х			Х			
sMH349	D06_sMH08		Х			Х				Χ			Х			
sMH350	D07_sMH01		Х			Х				X			Х			
sMH352	C07_sMH01		Х			Х				Х			Х			
sMH37	H06_sMH03		Х			Х				Х			Х			
sMH40	H07_sMH02		Х			Х				Х			Х			
sMH83	H07_sMH09		Х			Х				Х			Х			
sMH88	J08_sMH05		Х			Х				Х			Х			
sMH91	J09_sMH01		Х			Х				Х			Х			
3146	109_sMH03		Х			Х			Х				Х			
3147	K10_sMH06		Х			Х			Х				Х			
3149	K10_sMH05		Х			Х			Х				Х			
3175	E04_sMH01		Х			Х			Х				Х			
3178	D04_sMH02		Х			Х			Х				Х			
3180	D05_sMH01		Х			Х			Х				Х			
3181	D04_sMH06		Х			Х			Х				Х			
sMH124	F08_sMH02		Х			Х			Х				Х			
sMH135	E09_sMH01		Х			Х			X				Х			
sMH15	G05_sMH01		Х			Х			X				Х			
sMH320	K06_sMH01		Х			Х			X				Х			
sMH333	H09_sMH03		Х			Х			X				Х			
2612	K10_sMH03	Х				Х				X			Х			
sMH309	H07_sMH10	Х				Х				Х			Х			
sMH144	F11_sMH02	Х	<u></u>			Х			X				Х			
sMH340	H10_sMH02	Х				Х			Х				Х			



Table C-2: Catch Basins

Catch Basins Histori c ID	Catch Basins New ID	Ove	erall C	onditi	on		Structur Conditic			Sedi	ment			Hydraul	ic Co	ndition	
		Excellent	Good	Fair	Poor	Good	Damaged Functional	Damaged Non- Functional	None	Partial	Substantial	Full	Good	Damaged Functional	Surcharging	Damaged Non- Functional	Blocked
	re catch basir ediment. They																ly
3009	F06_dCB17				Χ			Х				Χ					Χ
dCB29 9	J10_dCB02				X			X				X					X
dCB39 1	J08_dCB02				Х			X				X					X
dCB25	H05_dCB06				Х		X					Χ					X
dCB14	G05_dCB12				Х		X					Χ				Х	
dCB45 2	L06_dCB04				Х		X					X				Х	
2783	D04_dCB11				Χ			X			Χ			Х			
3067	D07_dCB06				Χ		X				X					Х	
dCB11 8	J07_dCB10				X		X			X						X	
1012	G05_dCB06				X		X					X		X			
2770	E04_dCB03				Χ		X					X		X			
dCB13 1	M07_dCB10				X		X				X			X			
3014	E07_dCB01				Χ	Х						X					Χ
dCB17 9	E06_dCB14				X	Х						X					X
dCB38 4	109_dCB04				X	Х						X					X
dCB42 4	J07_dCB01				X	Х						X					X
dCB43 1	J06_dCB02				X	Х						X					X
2779	E04_dCB02				Χ		Х				Χ			Х			
2782	D04_dCB12				Χ		Х				Χ			Х			
2784	D04_dCB08				Χ		X				Χ			Х			
3007	F06_dCB14				Χ		X				X			X			



Catch Basins Histori c ID	Catch Basins New ID	Ove	erall C	onditi	on		Structur Conditio			Sedi	ment			Hydraul	ic Co	ndition	
		Excellent	Good	Fair	Poor	Good	Damaged Functional	Damaged Non- Functional	None	Partial	Substantial	Full	Good	Damaged Functional	Surcharging	Damaged Non- Functional	Blocked
3048	C07_dCB03				х		х				Х			x			
3049	C07_dCB04				Х		Х				Χ			X			
dCB10	G05_dCB05				Х		Х				Χ			X			
dCB13	G05_dCB08				Х		Х				Х			X			
dCB13 1	M07_dCB10				Х		Х				Х			X			
dCB15	G05_dCB14				Х		Х				Х			X			
dCB29 1	H08_dCB04				Х		Х				Х			X			
dCB47 6	108_dCB03				Х		X				X			X			
dCB41 4	106_dCB06				Х		Х			Х					X		
dCB31 1	G09_dCB10				Х	Х					X					Х	
dCB12 1	K07_dCB04				Х			Х	Х						X		
dCB13 6	L07_dCB04				Х		Х			Х				X			
dCB20 2	E08_dCB13				Х		Х			Х				X			
dCB31 4	G09_dCB09				X		Х			X				X			
dCB31 5	G10_dCB03				Х		Х			Х				X			
dCB31 6	G10_dCB05				Х		Х			Х				X			
dCB50	F05_dCB14				Х		Х			Х				X			
3076	J10_dCB13				Х	Х				Х						X	
2080	G07_dCB06				Χ	Χ						Χ		X			
3037	C06_dCB13				Χ	Х						X		X			
3196	D04_dCB01				Χ	Х						Χ		X			
dCB50 8	D07_dCB08				Х	Х						X		X			
dCB51 0	D07_dCB13				X	X						X		X			



Catch Basins Histori c ID	Catch Basins New ID	Ove	erall C	onditi	on		Structur Conditio			Sedi	ment			Hydraul	ic Co	ndition	
		Excellent	Good	Fair	Poor	Good	Damaged Functional	Damaged Non- Functional	None	Partial	Substantial	Full	Good	Damaged Functional	Surcharging	Damaged Non- Functional	Blocked
dCB51 1	D07_dCB12				x	х						x		x			
dCB52	F05_dCB16				X	Х						Χ		Х			
1052	J07_dCB11				Χ	Χ					Х			Х			
2785	D04_dCB06				Χ	Х					Х			X			
2786	D04_dCB07				Χ	Х					Х			X			
2787	D04_dCB10				Χ	Х					Х			X			
3017	E06_dCB07				X	Х					Х			X			
3018	D06_dCB04				X	Х					X			X			
3046	C07_dCB02				X	Х					X			X			
dCB46	F05_dCB17				Χ	Х					Χ			X			
dCB72	G07_dCB03				Χ		Х			Χ			Х				
dCB35 9	I07_dCB11				X		X		X					X			
dCB36 0	I07_dCB12				X		X		X					X			
dCB36 1	I07_dCB17				X		Х		Х					X			
1041	106_dCB07			Χ			Х				Χ			X			
1998	G05_dCB09			Χ			Х				Χ			X			
3026	E06_dCB02			Χ			Х				X			X			
3027	E06_dCB01			Χ			Х				Χ			X			
dCB11	G04_dCB11			Χ			Х				Х			X			
dCB12 7	M07_dCB01			X			X				X			X			
dCB13 9	M08_dCB03			X			X				X			X			
dCB27 8	I09_dCB15			X			X				X			X			
dCB29	I05_dCB01			X			X				X			X			
dCB30 1	E06_dCB16			X			X				X			X			
dCB30	E06_dCB11			X			X				X			X			



Catch Basins Histori c ID	Catch Basins New ID	Ove	erall C	onditi	on		Structur Conditio			Sedi	ment			Hydraul	ic Co	ndition	
		Excellent	Good	Fair	Poor	Good	Damaged Functional	Damaged Non- Functional	None	Partial	Substantial	Full	Good	Damaged Functional	Surcharging	Damaged Non- Functional	Blocked
2																	
dCB35 5	F09_dCB04			х			Х				Х			X			
dCB40 7	C08_dCB05			Х			Х				Х			X			
dCB14 4	M09_dCB01			Х		Х				Х			Х				
dCB14 1	M08_dCB05			Х		Х				X				X			
dCB13 2	M07_dCB05			Х		Х				Х				X			
dCB46 0	M07_dCB03			Х		Х				Х				X			
dCB12 8	M07_dCB12			Х			Х		Х				Х				
dCB14 7	M09_dCB05			Х			Х			Х				X			
dCB14 0	M08_dCB04			X			Х			Х				X			
dCB13	M08_dCB02			Х			Х			Х				X			
8 dCB13 9	M08_dCB02			Х			Х				Х			X			
dCB12 7	M07_dCB03			X			X				Х			X			
dCB43 2	J06_dCB03			X			X				Х			X			
dCB44	K06_dCB03			X			Х				Х			X			
2 dCB48	D08_dCB03			X			X				Х			X			
1 dCB50	 E07_dCB22			X			X				X			X			
4 dCB51	E08_dCB02			X			X				X			X			
8 dCB52	J09_dCB04			X			X				X			X			
5 dCB53	H09_dCB04			X			X				X			X			
1 3023	E06_dCB04			X			X				X		Х				┢──┨



Catch Basins Histori c ID	Catch Basins New ID	Ove	erall C	onditi	on		Structur Conditio			Sedi	ment			Hydraul	ic Co	ndition	
		Excellent	Good	Fair	Poor	Good	Damaged Functional	Damaged Non- Functional	None	Partial	Substantial	Full	Good	Damaged Functional	Surcharging	Damaged Non- Functional	Blocked
3028	D06_dCB03			х			х				х		Х				
3191	D04_dCB16			Х			Х				Х		Х				
3192	D04_dCB17			Х			Х				X		X				
dCB33	I06_dCB01			Х			Х				Х		Х				
2430	F09_dCB25			Х			X			Χ				X			
3070	C08_dCB02			X			X			Χ				X			
3132	H10_dCB12			X			Х			Χ				X			
dCB10 7	K07_dCB06			X			Х			X				X			
dCB12	G05_dCB07			Χ			Х			Χ				X			
dCB13 8	M08_dCB02			X			X			Х				X			
dCB14 0	M08_dCB04			X			Х			X				X			
dCB14 7	M09_dCB05			X			Х			X				X			
dCB17 3	107_dCB06			X			X			Х				X			
dCB18 5	D08_dCB07			X			X			X				X			
dCB19	G04_dCB10			Χ			Х			Χ				X			
dCB20 3	E08_dCB14			X			X			X				X			
dCB21	G04_dCB09			X			Х			Χ				X			
dCB22 3	F08_dCB06			X			Х			X				x			
dCB22 8	G09_dCB01			Х			X			Х				X			
dCB23 0	G09_dCB08			Х			Х			Х				X			
dCB23 1	G09_dCB06			Х			X			Х				X			
dCB28 2	F08_dCB02			Х			X			Х				X			
dCB29 4	109_dCB16			Х			X			Х				X			



Catch Basins Histori c ID	Catch Basins New ID	Ove	erall C	onditi	on		Structur Conditio			Sedi	ment			Hydraul	ic Co	ndition	
		Excellent	Good	Fair	Poor	Good	Damaged Functional	Damaged Non- Functional	None	Partial	Substantial	Full	Good	Damaged Functional	Surcharging	Damaged Non- Functional	Blocked
dCB46 3	J08_dCB11			x			x			х				x			
dCB46 7	K07_dCB05			X			Х			Х				X			
dCB46 8	K07_dCB08			Х			Х			Х				Х			
dCB48 8	E07_dCB08			Х			Х			Х				X			
dCB51 4	D07_dCB17			Х			Х			Х				X			
dCB52 3	K09_dCB04			Х			Х			Х				X			
dCB52 4	K09_dCB05			Х			Х			Х				X			
dCB53 2	H09_dCB02			Х			X			Х				X			
dCB7	G05_dCB02			X			X			X				X			
dCB71	G07_dCB07			X			X			Х				X			
dCB12 3	L06_dCB05			X			X			Х			Х				
dCB16 5	G07_dCB08			Х			Х			Х			Х				
dCB20	G04_dCB08			X			Х			Х			Х				
dCB23 4	E09_dCB11			Х			Х			Х			Х				
dCB24	H05_dCB05			Х			Х			Χ			Х				
dCB27	H05_dCB07			Х			Х			Х			Х				
dCB31 3	G10_dCB04			X			X			Х			Х				
dCB32 0	G10_dCB09			X			X			Х			Х				
dCB42	H06_dCB02			Х			Х			Х			Х				
dCB42 5	J07_dCB09			X			X			Х			Х				
dCB55 7	F05_dCB15			Х			X			Х			Х				
dCB79	H07_dCB05			X			X			Х			Х				



Catch Basins Histori c ID	Catch Basins New ID	Ove	erall C	onditi	on		Structur Conditio			Sedi	ment			Hydraul	ic Co	ndition	
		Excellent	Good	Fair	Poor	Good	Damaged Functional	Damaged Non- Functional	None	Partial	Substantial	Full	Good	Damaged Functional	Surcharging	Damaged Non- Functional	Blocked
dCB98	I08_dCB01			х			Х			х			Х				
3165	F09_dCB20			Χ			Х		Х					Х			
dCB52 2	J09_dCB02			Х			Х		Х					X			
dCB53 9	109_dCB08			х			Х		Х					X			
dCB12 8	M07_dCB12			Х			X		Х				Х				
dCB20 6	E09_dCB07			x			Х		Х				Х				
dCB45	L06_dCB02			х		Х						Х		X			
1001	G05_dCB10			Х		Х					Х			X			
1051	J07_dCB05			X		X					X			X			
1054	 J07_dCB18			Х		Х					Х			X			
1055	J07_dCB17			Х		Х					Х			X			
1056	J07_dCB15			Х		Х					Х			X			
1061	J08_dCB08			Х		Х					Х			X			
1062	J08_dCB05			Х		Х					Х			X			
1063	J08_dCB03			Х		Χ					Χ			Х			
1064	J08_dCB01			Χ		Х					Χ			X			
2777	D04_dCB15			Х		Х					Х			Х			
2778	D04_dCB14			Χ		Х					Χ			X			
3000	F06_dCB04			Χ		Х					Χ			X			
3015	D06_dCB08			Χ		Х					Χ			X			
3016	D06_dCB07			Х		Х					Х			X			
3019	E06_dCB10			Х		Х					Х			X			
3020	E06_dCB06			Χ		Х					Х			X			
3021	E06_dCB08			Χ		Х					Х			Х			
3025	E06_dCB03			Х		Х					Х			X			
3033	C06_dCB11			Χ		Х					Χ			X			



Catch Basins Histori c ID	Catch Basins New ID	Ove	erall C	onditi	on		Structur Conditio			Sedi	ment			Hydraul	ic Co	ndition	
		Excellent	Good	Fair	Poor	Good	Damaged Functional	Damaged Non- Functional	None	Partial	Substantial	Full	Good	Damaged Functional	Surcharging	Damaged Non- Functional	Blocked
3081	K10_dCB06			х		х					Х			х			
3082	K10_dCB04			Х		Х					Χ			Х			
3087	J10_dCB04			Х		Χ					Χ			Х			
3088	H09_dCB15			Х		Х					Χ			X			
3106	D09_dCB02			Х		Х					Χ			Х			
3121	E08_dCB11			Х		Х					Χ			Х			
dCB11 7	J07_dCB07			X		Х					X			X			
dCB16 2	F07_dCB10			Х		Х					Х			X			
dCB16 4	F07_dCB09			Х		Х					Х			X			
dCB18	G05_dCB15			Χ		Х					Х			Х			
dCB19 1	E08_dCB04			Х		Х					Х			X			
dCB19 2	E08_dCB08			Х		Х					Х			X			
dCB21 9	F11_dCB03			X		Х					X			X			
dCB23	H05_dCB04			Х		Х					Х			X			
dCB29 3	I09_dCB17			X		Х					Х			X			
dCB29 8	E06_dCB13			X		Х					X			X			
dCB31 0	G09_dCB11			X		Х					Х			X			
dCB31 2	G10_dCB02			X		Х					X			X			
dCB34 2	E09_dCB03			X		Х					X			X			
dCB36 2	I07_dCB01			Х		Х					Х			X			
dCB42 2	J07_dCB03			Х		Х					Х			X			
dCB42 3	J07_dCB02			Х		Х					Х			X			
dCB43	J06_dCB01			X		Χ					Χ			X			



Catch Basins Histori c ID	Catch Basins New ID	Ove	erall C	onditi	on		Structur Conditio			Sedi	ment			Hydraul	ic Co	ndition	
		Excellent	Good	Fair	Poor	Good	Damaged Functional	Damaged Non- Functional	None	Partial	Substantial	Full	Good	Damaged Functional	Surcharging	Damaged Non- Functional	Blocked
0																	
dCB46 9	K08_dCB04			Х		Х					Х			X			
dCB47 8	109_dCB07			Х		Х					Х			X			
dCB48 0	D08_dCB02			Х		Х					Х			X			
dCB48 5	E07_dCB14			Х		Х					Х			X			
dCB48 6	E07_dCB13			Х		Х					Х			X			
dCB49	E07_dCB11			X		Х					X			X			
dCB49 2	E07_dCB06			Х		Х					Х			X			
dCB49 5	D07_dCB10			X		Х					X			X			
dCB49 6	E07_dCB07			X		Х					X			X			
dCB49 9	E07_dCB17			Х		Х					Х			X			
dCB50 0	E07_dCB19			Х		Х					Х			X			
dCB50 6	F07_dCB08			Х		Х					Х			X			
dCB51	F05_dCB13			Х		Х					Х			X			
dCB51 5	D07_dCB15			X		Х					X			X			
dCB51 9	E07_dCB24			Х		Х					Х			X			
dCB52	K10_dCB02			Х		Х					Х			X			
dCB53	F06_dCB02			Х		Х					Х			X			
dCB53 0	K09_dCB01			X		Х					X			X			
dCB54	F06_dCB01			X		Х					X			X			
dCB54 7	H10_dCB09			X		Х					X			X			
dCB6	G05_dCB01			X		Х					X			X			



Catch Basins Histori c ID	Catch Basins New ID	Ove	erall C	onditi	on		Structur Conditio			Sedi	ment			Hydraul	ic Co	ndition	
		Excellent	Good	Fair	Poor	Good	Damaged Functional	Damaged Non- Functional	None	Partial	Substantial	Full	Good	Damaged Functional	Surcharging	Damaged Non- Functional	Blocked
dCB60 8	E06_dCB15			x		х					х			x			
dCB65	G07_dCB02			Х		Х					Х			X			
dCB66	G07_dCB01			Х		Х					Х			X			
dCB27 5	H10_dCB14			Х		Х					Х			X			
dCB85	H08_dCB05			Х		Х					Х			X			
dCB9	G05_dCB03			Х		Х					Х			X			
dCB91	F07_dCB05			Χ		Х					Х			X			
dCB93	F07_dCB06			Χ		Х					Χ			X			
3034	C06_dCB07			Χ		X					Χ		Х				
3040	C06_dCB16			Χ		X					Χ		Χ				
3187	D04_dCB03			Χ		Χ					X		Χ				
2051	106_dCB03			Χ		Χ					X		Χ				
3188	D04_dCB04			Χ		Χ					Χ		Х				
3189	D04_dCB02			Χ		Χ					Χ		Х				
3194	D04_dCB18			Χ		Χ					Χ		Х				
dCB12 0	K07_dCB01			X		X					X		X				
dCB38 7	109_dCB03			X		Х				X						X	
dCB46 1	L10_dCB02			X		X				X						X	
2780	E04_dCB01			Χ		Χ				X				X			
2781	D04_dCB13			Χ		Х				Χ				X			
3030	D06_dCB02			Χ		Х				Χ				X			
3032	D06_dCB06			Χ		Х				Χ				X			
3042	C07_dCB01			Χ		Х				Χ				X			
3043	C06_dCB14			Χ		Х				Χ				X			
3044	C06_dCB12			Χ		Х				Χ				X			
3050	D07_dCB02			X		Χ				X				X			



Catch Basins Histori c ID	Catch Basins New ID	Ove	erall C	onditi	on		Structur Conditio			Sedi	ment			Hydraul	ic Co	ndition	
		Excellent	Good	Fair	Poor	Good	Damaged Functional	Damaged Non- Functional	None	Partial	Substantial	Full	Good	Damaged Functional	Surcharging	Damaged Non- Functional	Blocked
3072	J09_dCB03			х		х				х				х			
3089	H09_dCB10			Х		Х				Х				Х			
3112	E08_dCB07			Х		Х				Χ				X			
3166	F09_dCB21			X		Х				Х				Х			
3200	D04_dCB22			Х		Х				Х				Х			
dCB11 0	K06_dCB06			X		Х				Х				X			
dCB12 4	L07_dCB02			X		Х				X				X			
dCB13 2	M07_dCB05			X		Х				Х				X			
dCB14 1	M08_dCB05			X		Х				X				X			
dCB15 2	K10_dCB03			X		Х				X				X			
dCB15 5	J10_dCB03			X		Х				X				X			
dCB18 4	D08_dCB08			X		Х				X				X			
dCB23 2	G09_dCB07			X		Х				X				X			
dCB31 9	G10_dCB08			X		Х				X				X			
dCB35 6	E09_dCB05			X		Х				X				X			
dCB35 8	107_dCB07			X		Х				X				X			
dCB36 3	107_dCB03			X		Х				X				X			
dCB36 4	107_dCB02			X		Х				X				X			
dCB36 9	I07_dCB15			Х		Х				Х				X			
dCB37 0	I07_dCB19			X		Х				X				X			
dCB37 2	I07_dCB18			Х		Х				Х				X			
dCB37 5	J07_dCB04			X		X				X				X			



Catch Basins Histori c ID	Catch Basins New ID	Ove	erall C	onditi	on		Structur Conditio			Sedi	ment			Hydraul	ic Co	ndition	
		Excellent	Good	Fair	Poor	Good	Damaged Functional	Damaged Non- Functional	None	Partial	Substantial	Full	Good	Damaged Functional	Surcharging	Damaged Non- Functional	Blocked
dCB38 9	J08_dCB09			x		х				х				x			
dCB39 0	J08_dCB07			х		Х				Х				X			
dCB40 1	107_dCB20			Х		Х				Х				X			
dCB40 5	F06_dCB15			Х		Х				Х				X			
dCB41 0	D08_dCB05			Х		Х				Х				X			
dCB42 8	J06_dCB06			Х		Х				Х				X			
dCB44 0	K06_dCB01			X		Х				Х				X			
dCB46 0	M07_dCB03			X		Х				X				X			
dCB46 4	J08_dCB10			Х		Х				Х				X			
dCB5	F05_dCB11			X		Х				Х				X			
dCB51 2	D07_dCB11			Х		Х				Х				X			
dCB52 0	K10_dCB01			Х		Х				Х				X			
dCB52 6	K09_dCB06			Х		Х				Х				X			
dCB53 5	H09_dCB14			Х		Х				Х				X			
dCB54 4	H09_dCB19			Х		Х				Х				X			
dCB55 2	H09_dCB18			Х		Х				Х				X			
dCB55 4	H09_dCB17			X		Х				X				X			
dCB55 5	H09_dCB13			X		Х				Х				X			
dCB63	G06_dCB01			X		Х				X				X			
dCB75	G07_dCB09			Х		Х				Х				X			
dCB76	G07_dCB10			Х		Х				Х				X			
dCB90	F07_dCB04			X		Х				Χ				X			



Catch Basins Histori c ID	Catch Basins New ID	Ove	erall C	onditi	on		Structur Conditio			Sedi	ment			Hydraul	ic Co	ndition	
		Excellent	Good	Fair	Poor	Good	Damaged Functional	Damaged Non- Functional	None	Partial	Substantial	Full	Good	Damaged Functional	Surcharging	Damaged Non- Functional	Blocked
3036	C06_dCB10			x		х				х			Х				
3057	D07_dCB05			Х		Х				Х			X				
3077	J10_dCB12			Х		Х				Х			X				
3110	E08_dCB05			Х		Х				Х			X				
3193	D04_dCB21			Х		Х				Х			Х				
dCB11 2	K06_dCB07			X		Х				Х			Х				
dCB11 9	K07_dCB03			Х		Х				Х			X				
dCB14 4	M09_dCB01			Х		Х				Х			Х				
dCB15 4	J10_dCB10			X		Х				Х			Х				
dCB36 5	I07_dCB04			Х		Х				Х			X				
dCB44 1	K06_dCB02			X		Х				Х			Х				
dCB33 3	G11_dCB02			X		Х			X					X			
dCB41 3	106_dCB08			X		Х			X					X			
dCB52 7	K09_dCB07			Х		Х			Х					X			
dCB53 6	H09_dCB09			Х		Х			X					X			
dCB55 3	H10_dCB01			Х		Х			X					X			
3199	D04_dCB20		Х				X				Х		Х				
3012	E07_dCB02		Х			Х					Х			X			
dCB14 5	M09_dCB02		X			Х					Х			X			
dCB18 1	C08_dCB07		X			Х					X			X			
dCB39	H05_dCB11		Х			Х					Х			X			
dCB40 4	F06_dCB09		Х			Х					Х			X			
dCB41	D08_dCB10		Χ			Х					X			X			



Catch Basins Histori c ID	Catch Basins New ID	Ove	erall C	onditi	on		Structur Conditio			Sedi	ment			Hydraul	ic Co	ndition	
		Excellent	Good	Fair	Poor	Good	Damaged Functional	Damaged Non- Functional	None	Partial	Substantial	Full	Good	Damaged Functional	Surcharging	Damaged Non- Functional	Blocked
1																	
dCB45	106_dCB05		Х			Х					Х			X			
dCB46 2	L10_dCB03		Х			Х					Х			X			
dCB48 2	F06_dCB10		X			Х					X			X			
dCB48 3	F06_dCB11		Х			Х					Х			X			
dCB48 4	F06_dCB13		Х			Х					X			X			
dCB50 3	E07_dCB20		X			Х					X			X			
dCB50 7	D08_dCB04		Х			Х					X			X			
dCB50 9	D07_dCB09		Х			Х					X			X			
dCB51 3	D08_dCB01		Х			Х					Х			X			
dCB52 9	K09_dCB02		Х			Х					Х			X			
dCB54 9	H10_dCB05		Х			Х					Х			X			
dCB60	G06_dCB06		Χ			Х					X			X			
dCB95	H07_dCB02		Χ			Х					Χ			X			
3011	F06_dCB19		Χ			Х					Χ		X				
3024	E06_dCB05		Χ			Х					Χ		X				
3029	D06_dCB01		Χ			Х					X		X				
3035	C06_dCB06		Χ			Х					X		X				
3039	C06_dCB15		Χ			Х					X		X				
3051	D07_dCB01		Χ			Х					X		X				
3061	D07_dCB03		X			Х					X		X				
3190	D04_dCB09		X			Х					X		X				
3198	D04_dCB19		X			Х					X		X				



Catch Basins Histori c ID	Catch Basins New ID	Ove	erall C	onditi	on		Structur Conditio			Sedi	ment			Hydraul	ic Co	ndition	
		Excellent	Good	Fair	Poor	poog	Damaged Functional	Damaged Non- Functional	None	Partial	Substantial	Full	Good	Damaged Functional	Surcharging	Damaged Non- Functional	Blocked
dCB11 3	K06_dCB08		x			х					х		Х				
dCB69	H06_dCB05		Χ			Χ					X		X				
	are the remain ore than parti	ally ful	l of s	edime	ent, a	nd th		not sur	charg	ging, l	block	ed, or	' dama	aged no			
dCB15 3	J10_dCB09		Х				X			Х			Х				
dCB22 9	G09_dCB05		X				X			X			X				
dCB23 5	F11_dCB07		Х				X			Х			X				
dCB24 0	G11_dCB06		Х				Х			Х			X				
dCB32 5	G10_dCB15		X				Х			X			Х				
dCB40 6	F06_dCB18		X				Х			Х			Х				
dCB41	H06_dCB01		Х				X			Х			Х				
dCB62	G06_dCB04		Х				Х			Χ			Х				
dCB77	G07_dCB11		X				Х			Χ			X				
dCB18 7	D08_dCB11		X				Х		Х				Х				
dCB21 0	E09_dCB10		X				X		Х				Х				
dCB21 7	F11_dCB02		X				Х		X				Х				
dCB32 4	G10_dCB16		X				X		X				X				
dCB14 5	M09_dCB02		X			X			1		X			X			
dCB14 3	M08_dCB08		X			Х			1	X			Х				
dCB14 2	M08_dCB06		X			X				X			X				
dCB13 7	M08_dCB01		X			X				X			X				



Catch Basins Histori c ID	Catch Basins New ID	Ove	erall C	onditi	on		Structur Conditio			Sedi	ment		ł	Hydrau	lic Cor	ndition	
		Excellent	Good	Fair	Poor	Good	Damaged Functional	Damaged Non-Functional	None	Partial	Substantial	Full	Good	Damaged Functional	Surcharging	Damaged Non-Functional	Blocked
dCB12 9	M07_dCB11		Х			Х				Х			Х				
dCB15			Х			Х				Х			Х				
7 dCB45	M07_dCB09												~				
9	M07_dCB07		X			X				X				X			
dCB13 3	M07_dCB04		Х			Х				Х			Х				
3005	F06_dCB03		Х			Х				Х				Х			
3006	F06_dCB07		Χ			Х				Χ				X			
3069	C07_dCB05		Χ			Χ				Χ				Х			
3074	K10_dCB08		Χ			Х				Χ				X			
3102	F07_dCB02		Χ			Х				X				X			
3108	E09_dCB02		Χ			Х				X				X			
3125	G10_dCB11		X			Χ				Χ				X			
3126	G10_dCB10		X			Х				Χ				X			
3129	G10_dCB07		X			Х				Χ				X			
3139	G09_dCB04		X			Х				Χ				X			
dCB16 6	E08_dCB09		Х			Х				Х				X			
dCB16 8	D07_dCB16		Х			Х				X				X			
dCB18 9	E08_dCB03		Х			Х				Х				X			
dCB20 9	E09_dCB09		X			X				X				X			
dCB21 4	E10_dCB05		Х			Х				X				X			
dCB21 6	F11_dCB01		X			X				X				X			
dCB22 0	F08_dCB03		X			X				X				X			
dCB22 5	F08_dCB08		X			X				X				X			



Catch Basins Histori c ID	Catch Basins New ID	Ove	erall C	onditi	on		Structur Conditio			Sedi	ment		ł	Hydrau	lic Cor	ndition	
		Excellent	Good	Fair	Poor	Good	Damaged Functional	Damaged Non-Functional	None	Partial	Substantial	Full	Good	Damaged Functional	Surcharging	Damaged Non-Functional	Blocked
dCB22 6	F08_dCB04		X			Х				X				X			
dCB26	H05_dCB09		X			Х				X				X			
dCB28	H05_dCB08		X			Х				X				X			
dCB29 6	F06_dCB08		Х			х				Х				X			
dCB32 8	G10_dCB17		Х			Х				Х				Х			
dCB33 2	F11_dCB06		Х			Х				X				X			
dCB34 0	H10_dCB17		X			Х				X				X			
dCB36 6	107_dCB08		Х			Х				Х				X			
dCB38 5	109_dCB12		Х			Х				X				X			
dCB40	H05_dCB10		Х			Х				Χ				X			
dCB40 9	D08_dCB06		Х			Х				X				X			
dCB45 4	L08_dCB01		Х			Х				X				X			
dCB45 9	M07_dCB07		X			Х				X				X			
dCB48 7	E07_dCB12		X			Х				X				X			
dCB48 9	E07_dCB09		X			Х				X				X			
dCB49 3	E07_dCB05		X			Х				X				X			
dCB50 1	E07_dCB18		Х			Х				Х				X			
dCB50 2	E07_dCB21		X			Х				X				X			
dCB50 5	F07_dCB03		X			Х				X				X			
dCB51 6	E07_dCB23		X			Х				X				X			



Catch Basins Histori c ID	Catch Basins New ID	Ove	erall C	onditi	on		Structur Conditio			Sedi	ment		I	Hydrau	lic Coi	ndition	
		Excellent	Good	Fair	Poor	Good	Damaged Functional	Damaged Non-Functional	None	Partial	Substantial	Full	Good	Damaged Functional	Surcharging	Damaged Non-Functional	Blocked
dCB52 8	K09_dCB03		Х			X				Х				X			
dCB53 3	H09_dCB03		Х			X				Х				X			
dCB53	109_dCB05		х			х				х				X			
dCB53 8	109_dCB06		х			х				x				X			
dCB54	109_dCB09		X			X				X				X			
0 dCB54	109_dCB11		Х			X				Х				X			
2 dCB54 3	- 109_dCB13		X			X				X				X			
dCB54 6	H10_dCB08		Х			X				Х				x			
dCB55 6	H09_dCB06		Х			X				X				x			
dCB59	F06_dCB16		Х			X				Х				X			
dCB61	G06_dCB02		Х			Χ				X				Х			
1999	G05_dCB11		Х			Χ				Х			Х				
2061	L06_dCB06		Х			Χ				X			Х				
2708	H07_dCB03		Х			Χ				Х			Х				
dCB47 2	C08_dMH05		Х			X				Х			Х				
dCB2	G04_dCB04		Χ			Χ				Χ			Х				
3078	J10_dCB11		Х			Χ				Χ			Х				
3001	F06_dCB06		Х			Χ				X			Х				
3003	E06_dCB09		Х			Х				Х			Х				
3031	D06_dCB05		Х			Х				Х			Х				
3060	D07_dCB04		Х			X				Х			Х				
3068	D07_dCB07		X			X				X			Х				



Catch Basins Histori c ID	Catch Basins New ID	Ove	erall C	onditi	on		Structur Conditio			Sedi	ment		1	Hydrau	lic Cor	ndition	
		Excellent	Good	Fair	Poor	Good	Damaged Functional	Damaged Non-Functional	anoN	Partial	Substantial	Full	Good	Damaged Functional	Surcharging	Damaged Non-Functional	Blocked
3079	J10_dCB14		X			Х				X			Х				
3080	K10_dCB05		Χ			Х				X			Х				
3083	J10_dCB05		X			X				X			Х				
3086	J10_dCB08		Χ			Χ				X			Х				
3091	I09_dCB10		Χ			Χ				X			Х				
3105	E09_dCB01		Χ			Χ				Χ			Х				
3119	E08_dCB12		X			Х				X			Х				
3123	H10_dCB04		X			X				X			Х				
3142	G09_dCB03		X			X				X			Х				
3197	D04_dCB05		Х			Х				Х			Х				
dCB11 1	K06_dCB04		X			X				X			X				
dCB11 5	K06_dCB12		X			X				X			X				
dCB11 6	K06_dCB14		X			X				X			Х				
dCB12 2	K06_dCB15		X			X				X			X				
dCB12 5 dCB12	L07_dCB01		X			X				X			X				
6 dCB12	L07_dCB03		X			X				X			X				
9 dCB12	M07_dCB11		X			X				X			X				
3	M07_dCB04		Х			Х				Х			Х				
dCB13 7	M08_dCB01		X			X				X			X				
dCB14 2	M08_dCB06		X			X				X			X				
dCB14 3	M08_dCB08		X			X				X			X				
dCB15 6	J10_dCB01		X			X				X			X				



Catch Basins Histori c ID	Catch Basins New ID	Ove	erall C	onditi	on		Structur Conditio			Sedi	ment			Hydrau	lic Coi	ndition	
		Excellent	Good	Fair	Poor	Good	Damaged Functional	Damaged Non-Functional	None	Partial	Substantial	Full	Good	Damaged Functional	Surcharging	Damaged Non-Functional	Blocked
dCB15 7	M07_dCB09		Х			Х				X			Х				
dCB16	G05_dCB13		Χ			Χ				Χ			Χ				
dCB17	H05_dCB01		Χ			X				X			X				
dCB17 2	I07_dCB05		Х			Х				Х			Х				
dCB19 4	E08_dCB10		Х			Х				Х			X				
dCB21 5	F10_dCB04		Х			Х				x			Х				
dCB22	H05_dCB03		Х			Х				X			Х				
dCB22 4	F08_dCB05		Х			х				x			Х				
dCB23 3	F10_dCB02		Х			Х				X			Х				
dCB23 6	H10_dCB19		Х			Х				Х			Х				
dCB23 7	H10_dCB20		Х			Х				X			X				
dCB23 8	G11_dCB09		Х			Х				X			Х				
dCB23 9	G11_dCB05		Х			Х				X			Х				
dCB29 0	H09_dCB01		Х			Х				X			Х				
dCB29 5	H08_dCB06		Х			Х				Х			Х				
dCB32	106_dCB04		X			Х				Х			Х				
dCB32 6	G10_dCB13		Х			Х				Х			Х				
dCB32 7	G10_dCB14		X			X				X			X				
dCB32 9	G11_dCB01		Х			Х				Х			Х				
dCB33 0	F11_dCB09		X			X				X			X				
dCB33	F11_dCB08		Χ			Х				Χ			X				



Catch Basins Histori c ID	Catch Basins New ID	Ove	erall C	onditi	on		Structur Conditio			Sedi	ment		I	Hydrau	lic Coi	ndition	
		Excellent	Good	Fair	Poor	Good	Damaged Functional	Damaged Non-Functional	None	Partial	Substantial	Full	Good	Damaged Functional	Surcharging	Damaged Non-Functional	Blocked
1																	
dCB33 4	G11_dCB03		Х			Х				Χ			Х				
dCB33 6	G11_dCB07		Х			Х				Х			Х				
dCB33 7	H11_dCB02		Х			Х				Х			Х				
dCB33 8	H11_dCB01		Х			Х				Х			Х				
dCB33 9	H10_dCB18		х			х				х			Х				
dCB34	G11_dCB08		Х			X				X			Х				
dCB35	H05_dCB12		Х			X				X			X				
dCB35 0	F09_dCB12		Х			Х				Х			Х				
dCB35 1	F09_dCB24		Х			Х				X			Х				
dCB36	H05_dCB13		X			Х				X			X				
dCB37 1	107_dCB21		Х			Х				Х			Х				
dCB37 3	J07_dCB14		Х			Х				X			Х				
dCB38 3	109_dCB02		х			Х				Х			Х				
dCB38 8	J09_dCB01		Х			х				X			Х				
dCB40 3	H05_dCB02		X			Х				X			Х				
dCB40 8	C08_dCB04		X			X				X			Х				
dCB41 2	I06_dCB09		X			X				X			Х				
dCB42 7	J06_dCB05		Х			Х				X			Х				
dCB43 3	J06_dCB04		X			X				X			X				



Catch Basins Histori c ID	Catch Basins New ID	Ove	erall C	onditi	on		Structur Conditio			Sedi	ment		I	Hydrau	lic Cor	ndition	
		Excellent	Good	Fair	Poor	Good	Damaged Functional	Damaged Non-Functional	None	Partial	Substantial	Full	Good	Damaged Functional	Surcharging	Damaged Non-Functional	Blocked
dCB44	G06_dCB05		X			X				Χ			Х				
dCB44 8	K06_dCB13		Х			X				Х			Х				
dCB44 9	L06_dCB01		Х			X				X			X				
dCB45 0	L06_dCB03		Х			X				Х			Х				
dCB46 5	J07_dCB12		Х			X				X			Х				
dCB47 4	J08_dCB06		Х			Х				X			Х				
dCB47 9	K07_dCB02		Х			X				X			Х				
dCB54 8	H10_dCB06		X			X				X			Х				
dCB55	F06_dCB05		X			Χ				Х			Х				
dCB55 0	H10_dCB03		X			X				X			Х				
dCB55 1	H10_dCB02		X			X				X			X				
dCB58	F06_dCB20		X			X				Χ			Х				
dCB64	G06_dCB03		X			X				Χ			Х				
dCB67	G06_dCB08		Χ			X				Χ			Х				
dCB68	G06_dCB09		X			X				X			X				
dCB70	H06_dCB06		X			X				Χ			X				
dCB81	H08_dCB01		X			X				Χ			Х				
dCB82	H08_dCB03		Χ			X				Χ			Х				
dMH17 3	F10_dCB01		X			X				X			X				
3010	F06_dCB12		X			Χ			Х					Х			
3127	G10_dCB12		X			Χ			Х					Х			
dCB11 4	K06_dCB11		X			X			Х					X			



Catch Basins Histori c ID	Catch Basins New ID	Ove	erall C	onditi	on		Structur Conditio			Sedi	ment		I	Hydrau	lic Coi	ndition	
		Excellent	Good	Fair	Poor	Good	Damaged Functional	Damaged Non-Functional	None	Partial	Substantial	Full	Good	Damaged Functional	Surcharging	Damaged Non-Functional	Blocked
dCB17 4	C08_dCB03		Х			Х			Х					X			
dCB49	E07_dCB16		Х			Х			Х					X			
dCB49 8	E07_dCB15		х			х			Х					X			
dCB51	E08_dCB01		х			х			Х					X			
7 dCB53	H09_dCB05		Х			Х			Х					x			
4 dCB54	H09_dCB16		X			X			X					X			
dCB54 5	H10_dCB07		Х			Х			Х					X			
dMH33 9	H09_dCB08		X			Х			Х					x			
1050	J07_dCB08		X			Х			Х				Х				
3090	H09_dDI17		Х			Х			Х				Х				
3135	C08_dCB01		Х			Х			Х				Х				
3092	H09_dCB07		Χ			Х			Х				Х				
3093	H09_dCB11		Х			Х			Х				Х				
3101	F07_dCB01		X			Х			Х				Х				
3143	G09_dCB02		Χ			Х			Х				Х				
dCB18 0	J07_dCB20		Х			Х			Х				Х				
dCB15 1	K10_dCB07		Х			Х			Х				Х				
dCB16 7	F08_dCB01		X			Х			Х				Х				
dCB17 0	D07_dCB14		X			Х			Х				Х				
dCB18 6	D08_dCB09		Х			Х			Х				Х				
dCB20 5	E09_dCB04		X			Х			Х				X				



Catch Basins Histori c ID	Catch Basins New ID	Ove	erall C	onditi	on		Structur Conditio			Sedi	ment		ł	Hydraul	lic Cor	ndition	
		Excellent	Good	Fair	Poor	Good	Damaged Functional	Damaged Non-Functional	None	Partial	Substantial	Full	Good	Damaged Functional	Surcharging	Damaged Non-Functional	Blocked
dCB20 7	E09_dCB08		Х			Х			Х				Х				
dCB20 8	E09_dCB06		Х			Х			Х				Х				
dCB21 1	E10_dCB01		х			Х			Х				Х				
dCB21 2	E10_dCB02		Х			Х			Х				Х				
dCB21 3	E10_dCB03		X			Х			Х				Х				
dCB27 6	H10_dCB10		Х			Х			Х				Х				
dCB33 5	G11_dCB04		Х			Х			Х				Х				
dCB37	H06_dCB03		Χ			Х			Χ				Х				
dCB84	H08_dCB02		Х			Х			Х				Х				
3084	J10_dCB07	X				Х			X				Х				
3085	J10_dCB06	X				Х			Χ				Х				
dCB43	G06_dCB07	X				Χ			Χ				Х				



Table C-3: Drainage Manholes

Drainage Mahole Historic ID	Drainage Manhole New ID	Ov	erall C	Condit	ion		Structu Conditio	-		Sedi	ment		Hy	ydrauli	c Conditio	on
		Excellent	Good	Fair	Poor	Good	Damaged Functional	Damaged Non- Functional	None	Partial	Substantial	Full	Good	Damaged Functional	Damaged Non- Functional	Blocked
	drainage manh iment. They are															
dMH12	G04_dMH01				Х		Х				Х			Х		
dMH30	F05_dMH02				Х		X				Х			Х		
dMH172	F09_dMH01				Х		Х			Х				Х		
dMH207	G10_dMH01				Х		Х			Х				Х		
dMH28	G05_dMH06				Х	Х						Х		Х		
dMH200	E07_dMH04				Χ	Х				Х				Х		
dMH170	E08_dMH03			Х			X				Х			Х		
dMH4	G05_dMH01			Х			Х				Х			Х		
dMH9	G05_dMH04			Х			Х				Х			Х		
2081	G07_dMH03			Χ			Х			Х				Х		
3041	C07_dMH01			X			Х			Х				Х		
3122	F08_dMH01			X			Х			X				Х		
3171	D04_dMH01			X			Х			Х				Х		
dMH161	E08_dMH02			X			X			Х				Х		
dMH194	F07_dMH02			Х			X			X				Х		
dMH213	108_dMH08			Х			X			X				Х		
dMH215	108_dMH09			X			X			Х				Х		
dMH216	J08_dMH02			Х			X			X				X		
dMH322	J06_dMH02			X			X			X				X		
dMH325	106_dMH03			X			X			X				X		
dMH333	K10_dMH03			Χ			X			X				Х		
dMH92	108_dMH06			X			X			X				Х		
dMH96	L08_dMH03			X			X			X				X		
dMH323	J06_dMH01			X			X				Х		Х			



Drainage Mahole Historic ID	Drainage Manhole New ID	Ov	erall C	Condit	ion		Structu Conditi			Sedi	ment		Hy	/drauli	c Conditio	on
		Excellent	Good	Fair	Poor	Good	Damaged Functional	Damaged Non- Functional	None	Partial	Substantial	Full	Good	Damaged Functional	Damaged Non- Functional	Blocked
dMH1	F05_dMH01			Х		Х					Х			Х		
dMH10	G05_dMH07			Х		Х					Х			Х		
dMH164	D08_dMH05			Х		Х					Х			Х		
dMH209	F10_dMH01			Х		Х					Х			Х		
dMH31	F05_dMH04			Х		Х					Х			Х		
dMH312	H07_dMH04			Х		Х					Х			Х		
dMH327	D08_dMH02			Х		Х					Х			Х		
dMH330	E07_dMH02			Х		Х					Х			Х		
dMH340	H09_dMH01			Х		Х					Х			Х		
dMH8	G05_dMH05			Х		Х					Х			Х		
dMH108	J07_dMH03			Х			Х			Х			Х			
dMH155	G07_dMH04			Х			X			Х			Х			
dMH324	106_dMH02			Х			X			Х			Х			
dMH328	D08_dMH01			Х			Х			Х			Х			
dMH75	108_dMH04			Х			X			Х			Х			
dMH169	E08_dMH05			Х			X		Х					Х		
1053	J07_dMH05			Х		Х				Х				Х		
3013	E07_dMH01			Х		Х				Х				Х		
dCB104	K08_dMH01			Х		Х				Х				Х		
dMH113	107_dMH01			Х		Х				Х				Х		
dMH179	H08_dMH10			Х		Х				Х				Х		
dMH210	F10_dMH03			Х		Х				Х				Х		
dMH306	H08_dMH07			Х		Х				Х				Х		
dMH307	H08_dMH03			Х		Х				Х				Х		
dMH54	G07_dMH02			Х		Х			<u> </u>	Х				X		
dMH70	J08_dMH05			X		Х	1		<u> </u>	Х				Х		
dMH6	G05_dMH03			Х		X			<u></u>		X		Х			
3195	D04_dMH02	l		Х		Х				X			Х			



Drainage Mahole Historic ID	Drainage Manhole New ID	Ov	erall C	Condit	ion		Structu Conditi			Sedi	ment		Hy	ydrauli	c Conditio	on
		Excellent	Good	Fair	Poor	Good	Damaged Functional	Damaged Non- Functional	None	Partial	Substantial	Full	Good	Damaged Functional	Damaged Non- Functional	Blocked
dMH301	J07_dMH02		х			х					Х			Х		
dMH208	G09_dMH01		Х			Х					X		Х			
not more t	e the remainder than partially fu	III of s	sedim nked i	ent, a	ind th	iat wer	e not s tion co		ging, b	locked the a	d, or da	amage	d non-			
dMH211	F10_dMH05		X				X			X			X			
dMH315	H08_dMH01		X				X			X			X			
dMH97	L08_dMH02		X				X			X			X			
3004	F06_dMH01		X			X				X				X		
3096	J07_dMH01		X			X				X				X		
3128	G10_dMH05		X			X				X				X		
3148	K10_dMH04		X			X				X				X		
dMH178	109_dMH04		X			X				X				X		
dMH214	109_dMH01		X			X				X				X		
dMH331 dMH332	K10_dMH01		X X			X X				X X				X X		
dMH336	K10_dMH02		× X			× X				X				X		
dMH338	H09_dMH03		X			^ X				X				X		
dMH190	H08_dMH05		X				X		X	~			X	Λ		
3047	C07_dMH02		X			X	~			X			X			
3058	D06_dMH01		X			X				X			X			
3059	D07_dMH01		X			X				X			X			
3075	K10_dMH05		X			X				X			X			
3111	E08_dMH01		X			X				X			X			
3120	E08_dMH04		Х			Х				Х			Х			
3131	 G12_dMH01		Х			Х				Х			Х			
3201	D04_dMH04		Х		<u> </u>	X				X			Х			
dCB183	D08_dMH04		Х			Х				Х			Х			



Drainage Mahole Historic ID	Drainage Manhole New ID	Ov	erall C	Condit	ion		Structu			Sedi	ment		H	/drauli	c Conditio	on
		Excellent	Good	Fair	Poor	Good	Damaged Functional	Damaged Non- Functional	None	Partial	Substantial	Full	Good	Damaged Functional	Damaged Non- Functional	Blocked
dMH105	J10_dMH01		Х			х				Х			Х			
dMH153	F07_dMH01		Х			Х				Х			Х			
dMH154	F07_dMH03		Х			Х				Х			Х			
dMH162	D08_dMH07		Χ			Х				Х			Х			
dMH165	D08_dMH08		Х			Х				Х			Х			
dMH166	E09_dMH01		Х			Х				Х			Х			
dMH167	E09_dMH02		Х			Х				Х			Х			
dMH180	H08_dMH06		Х			Х				Х			Х			
dMH182	G07_dMH06		Х			Х				Х			Х			
dMH195	F06_dMH03		Х			Х				Х			Х			
dMH196	E06_dMH01		Х			Х				Х			Х			
dMH205	G10_dMH02		Х			Х				Х			Х			
dMH206	G10_dMH03		Х			Х				Х			Х			
dMH212	F10_dMH06		Х			Х				Х			Х			
dMH311	H07_dMH03		Х			Х				Х			Х			
dMH314	H08_dMH02		Х			Х				Х			Х			
dCB472	C08_dMH05		Х			Х				Х			Х			
dMH316	G08_dMH02		Х			Х				Х			Х			
dMH334	K09_dMH01		Χ			Х				Х			Х			
dMH337	H10_dMH01		X			Х				Χ			Х			
dMH42	H07_dMH01		X			Х				Х			Х			
dMH44	H06_dMH01		Χ			Х				X			Х			
dMH45	G06_dMH03		Χ			Х				X			Х			
dMH5	G04_dMH02		X			Х				X			Х			
dMH51	G06_dMH01		Χ			Х				Х			Х			
dMH52	F06_dMH05		X			Х				X			Х			
dMH68	109_dMH03		X			Х				X			X			
dMH69	J08_dMH03		X			Х				X			Х			



Drainage Mahole Historic ID	Drainage Manhole New ID	Ov	erall C	Condit	ion		Structur Conditio			Sedi	ment		Hy	ydrauli	c Conditio	on
		Excellent	Good	Fair	Poor	Good	Damaged Functional	Damaged Non- Functional	None	Partial	Substantial	Full	Good	Damaged Functional	Damaged Non- Functional	Blocked
dMH7	G05_dMH02		х			Х				Х			х			
dMH76	108_dMH05		Х			Х				Х			Х			
dMH77	108_dMH03		Х			Х				Х			Х			
dMH163	D08_dMH06		Х			Х			Х					Х		
dMH329	D07_dMH02		Х			Х			Х					Х		
dMH335	H09_dMH02		Х			Х			Х					Х		
dMH67	109_dMH02		Х			Х			Х					Х		
dMH93	K07_dMH01		Х			Х			Х					Х		
3002	F06_dMH02		Х			Х			Х				Х			
3008	F06_dMH04		Х			Х			Х				Х			
dMH184	H10_dMH02		Х			Х			Х				Х			
dMH11	G04_dMH03		Х			Х			Х				Х			
dMH112	H08_dMH04		Х			Х			Х				Х			
dMH168	E08_dMH06		Х			Х			Х				Х			
dMH304	108_dMH01	Х				Х				X				Х		
3202	D04_dMH03	Х				Х			X				Х			
3206	E04_dMH01	Х				Х			Х				Х			
dMH3	F05_dMH03	Χ				X			X				Х			



Table C-4: Drain Inlets

Drain Inlet Historic ID	Drain Inlet New ID	Ov	erall C	condit	ion		ructui			Sedi	iment		н	ydrau	lic Co	nditio	n
		Excellent	Good	Fair	Poor	Good	Damaged Functional	Damaged Non-Functional	None	Partial	Substantial	Full	Good	Damaged Functional	Surcharging	Damaged Non-Functional	Blocked
	re drain inlets ely full of sec ondition.																the
2109	G08_dDI35				Χ		Х					Χ					Χ
2254	F07_dDI03				Χ		Х					Χ				Х	
2413	F10_dDl02				Χ		Х					X				Х	
2414	F10_dDI04				Χ		Х					X				Х	
dCB419	J07_dDI03				Χ		Х					X			Х		
2091	G06_dDI02				Χ		Х					Χ		Х			
2232	H08_dDI63				Χ		Х			Х						Х	
2093	H06_dDI01				Χ	Х						Χ					Χ
2210	H08_dDI60				Χ	Х						Χ				Х	
2258	F07_dDl07				Χ	Х						X					Χ
2259	F07_dDl08				Χ	Х						X					Χ
2260	F07_dDI05				Χ	Х						Χ					Χ
2261	F07_dDI04				X	Х						X					X
2263	F07_dDI06				X	Χ						X					X
2265	F08_dDI15				X	X						Χ					Χ
2266	F08_dDI12				Χ	X						X					X
2268	F08_dDI07				X	X						X					X
2272	F08_dDI05				X	X						X					X
2273	F08_dDI08				Χ	X						Χ					X
2231	H08_dDl62				Χ		Χ				Χ			Χ			



Drain Inlet Historic ID	Drain Inlet New ID	Ov	erall C	Condit	ion		ructu			Sedi	iment		H	vdrau	lic Co	nditio	n
		Excellent	Good	Fair	Poor	Good	Damaged Functional	Damaged Non-Functional	None	Partial	Substantial	Full	Good	Damaged Functional	Surcharging	Damaged Non-Functional	Blocked
2313	G08_dDI58				X		Х				Х			Х			
2329	H09_dDI15				X		Х				Х			Х			
2384	108_dCB05				X		Х				Х			Х			
2388	108_dD113				Χ		Х				Х			Х			
2401	108_dCB02				Χ		Х				Х			Х			
2404	F10_dCB0 3				X		X				X			X			
2418	F10_dDI13				X		X				X			X			
2419	F10_dDI07				Χ		Χ				Χ			Χ			
2420	F10_dDI10				Χ		X				X			X			
2423	F10_dDI14				Χ		Χ				Χ			Χ			
2106	G08_dDI30				X	Χ					X					Х	
2107	G08_dDI33				Χ	X					X						X
2108	G08_dDI34				Χ	X					X						Χ
2338	G09_dDl21				X	Х					Χ					Х	
2382	108_dCB06				X	X					X					Х	
2112	G08_dDI36				X		X			X				X			
2233	H08_dDl61				X		X			X				X			
2328	H09_dDI14				X		X			X				X			
2262	F08_dDI18				X	Χ						X		X			
2271	F08_dD106				X	X						X		X			
2341	G09_dDI19				Χ	Χ						X		X			
2347	G09_dDI15				X	X						X		X			
2425	F10_dDI17				Χ	X						X		X			
2603	J08_dD104				X	X						X		X			



Drain Inlet Historic ID	Drain Inlet New ID	Ov	erall C	condit	ion		ructui			Sedi	iment		Н	ydrau	llic Co	nditio	n
		Excellent	Good	Fair	Poor	Good	Damaged Functional	Damaged Non-Functional	None	Partial	Substantial	Full	Good	Damaged Functional	Surcharging	Damaged Non-Functional	Blocked
2086	G07_dDl02				х	х				Х							x
2264	F08_dDI13				Х	Х					Х			Х			
2267	F08_dDI10				Χ	Х					Х			Х			
2269	F08_dDI11				X	Х					Х			Х			
2270	F08_dD109				Χ	Х					Х			Х			
2288	F08_dDI04				Χ	Х					Х			Х			
2289	F08_dDI02				Χ	Х					Х			Х			
2331	H09_dDI10				Χ	Х					Х			Х			
2332	H09_dDI11				Χ	Х					Х			Х			
2333	H09_dDI08				Χ	Х					Х			Х			
2334	H09_dDI06				Χ	Х					Х			Х			
2335	H09_dDI05				Χ	Х					Х			Х			
2339	G09_dDI20				Χ	Х					Х			Х			
2340	G09_dDI18				Χ	Х					Х			Х			
2416	F10_dDI06				Χ	Х					Х			Х			
2422	F10_dDl08				Χ	Х					Х			Х			
2300	F08_dDI25				Χ		Х			Х			Х				
2110	G08_dDI38				X	Х						X	Х				
2327	H09_dDI13			X			Х				Х			Х			
2111	G08_dDI31			X			Х			X				Х			
2251	G08_dD106			X			X			X				X			
2287	F08_dDI16			X			Х			X				Х			
2360	G08_dDI72			Χ			X			Χ				Χ			
2365	G08_dDl37			X			Х			X				Х			



Drain Inlet Historic ID	Drain Inlet New ID	Ον	erall C	ondit	ion		ructu			Sed	iment		Н	lvdrau	lic Co	nditio	n
	New ID	Excellent	Good	Fair	Poor	Good	Damaged Functional	Damaged Non-Functional	None	Partial	Substantial	Full	Good	Damaged Functional	Surcharging	Damaged Non-Functional	Blocked
							Dama	Damage						Dama	55	Damage	
2371	G08_dDI15			Х			Х			Х				x			
2372	G08_dDI19			Х			Х			Х				Х			
2378	G09_dDI22			Х			Х			Х				Х			
2379	G09_dDI23			Х			Х			Х				Х			
2241	G08_dDI60			X			X			Х			Х				
2250	G08_dDI10			Х			X			Х			Х				
2291	F08_dDI03			Χ			Χ			Χ			X				
2293	F08_dDl21			X			X			Χ			Χ				
2294	F08_dDI23			X			X			Χ			X				
2296	F08_dDl26			X			X			X			X				
2302	F08_dDI31			X			Χ			Χ			Χ				
2305	F08_dDI34			X			Χ			Χ			Χ				
2314	G08_dDI59			X			Χ			Χ			Х				
2351	G09_dDI11			X			X			Χ			X				
2352	G08_dDI75			X			X			X			X				
2387	108_dD114			X			X			X			X				
2415	F10_dDI01			X			Х			Х			Х				
2601	J08_dD102			X			Х			Х			Х				
2745	K08_dDI01			X			X			X			Х				
2381	G09_dDI25			X			X		Х					X			
dCB415	106_dD101			X		X						X		X			
2094	H07_dDI02			X		X					X			X			
2190	H08_dDI25			X		X					X			X			
2206	H08_dDI48			X		X					X			X			



Drain Inlet Historic ID	Drain Inlet New ID	Ov	erall C	Condit	ion		ructu			Sedi	iment		Н	lydrau	lic Co	nditio	n
		Excellent	Good	Fair	Poor	Good	Damaged Functional	Damaged Non-Functional	None	Partial	Substantial	Full	Good	Damaged Functional	Surcharging	Damaged Non-Functional	Blocked
2211	H08_dDI59			Х		Х					Х			х			
2220	H08_dDI21			X		X					Х			Х			
2285	F08_dDl24			X		X					Х			Х			
2308	G08_dDI54			Х		Х					Х			Х			
2348	G09_dD109			X		Χ					Х			Х			
2355	G08_dDI69			X		Χ					Х			Х			
2370	G08_dDI16			Χ		Χ					Χ			Х			
2397	108_dD101			Χ		Χ					Х			Х			
2412	F10_dDI03			Χ		Χ					Х			Х			
2424	F10_dDI15			Χ		Χ					Х			Х			
2427	G10_dDI03			X		X					Х			Х			
2245	G08_dDI43			X		X					Х		Х				
2088	H07_dDI03			Χ		Χ				Х				Х			
2095	H07_dDI04			X		X				Х				Х			
2096	H07_dDI06			X		X				Х				Х			
2097	H07_dDI07			X		X				Х				X			
2113	G08_dDI41			X		X				X				Х			
2114	G08_dDl45			X		X				X				Х			
2188	H08_dDI19			X		Χ				X				X			
2209	H08_dDI52			X		X				X				Х			
2212	H08_dDI57			X		X				X				X			
2213	H08_dDI54			X		X				Х				Х			
2214	H08_dDI51			X		Χ				X				X			
2235	G08_dD177			X		X				Х				Х			



Drain Inlet Historic ID	Drain Inlet New ID	Ov	erall C	ondit	ion		ructui			Sed	iment		Н	ydrau	lic Co	nditio	1
		Excellent	Good	Fair	Poor	Good	Damaged Functional	Damaged Non-Functional	None	Partial	Substantial	Full	Good	Damaged Functional	Surcharging	Damaged Non-Functional	Blocked
2274	G08_dD103			Х		х				Х				х			
2275	G08_dD107			Х		Х				Х				Х			
2320	G09_dDI02			Х		Х				Х				Х			
2322	G09_dDI06			Х		Х				Х				Х			
2323	G09_dDI08			Х		Χ				Х				Х			
2326	G09_dDl24			Х		Χ				Х				Х			
2337	H09_dDI12			Х		Х				Х				Х			
2361	G08_dDI64			Х		Χ				Х				Χ			
2362	G08_dDI51			Х		Х				Х				Х			
2364	G08_dDI42			Х		Х				Х				Х			
2373	G08_dDI21			Х		X				Х				Х			
2377	G08_dDI63			Х		Х				Х				Χ			
2405	G10_dDI01			Х		Χ				Х				X			
2417	F10_dDI12			Х		Х				Х				Х			
2115	H08_dDI01			Х		Х				Х			Х				
2120	G08_dDI46			Х		Х				Х			Х				
2239	H09_dDI04			Х		Х				Х			Х				
2255	F07_dDI02			Х		Х				Х			Х				
2292	F08_dDI17			Х		Х				Х			Х				
2324	G09_dDI12			Х		Х				Χ			Х				
2330	H09_dDI07			Х		Х				Х			Х				
2385	J08_dDI06			Х		Х				Х			Х				
2123	H08_dDI10			X		Х			Х					Х			
2403	109_dD101			Х		Х			Χ					Χ			



Drain Inlet Historic ID	Drain Inlet New ID	Ov	erall C	ondit	ion		ructur			Sedi	iment		Н	lydrau	lic Co	nditio	1
		Excellent	Good	Fair	Poor	Good	Damaged Functional	Damaged Non-Functional	None	Partial	Substantial	Full	Good	Damaged Functional	Surcharging	Damaged Non-Functional	Blocked
2089	H07_dDI01		х			х			х							Х	
2090	G06_dDI01		Χ			Х			Х							Х	
2092	G06_dDI03		Χ			Χ			Х							Х	
2098	G07_dDI01		Χ			Χ			Х							Х	
2099	G07_dDI06		Χ			Χ			Х							Х	
2103	G08_dDI23		Χ			Х			Х							Х	
2104	G08_dDI27		X			X			Х							Х	
2105	G08_dDI32		X			X			Х							Х	
2116	G08_dDI39		X			X			Х							Х	
2131	H08_dDI18		X			X					X		X				
2182	H08_dDI24		X			Χ					Χ		X				
2183	H08_dDI30		Χ			Χ					Χ		X				
2184	H08_dDI33		X			Χ					X		X				
condit	low are the re ion, were not ged non-fune	t mor	e thar	n part	ially f	ull of	sedir	nent,	and	that	were	not si	urcha	rging	, bloc	ked, o	
2185	H08_dDI32		X			Χ				X			Χ				
2186	H08_dDI31		Χ			Χ				Х			Χ				
2187	H08_dDI13		X			Χ				Χ			X				
2189	H08_dDI23		Χ			Χ				Χ			Χ				
2191	H08_dDI28		Χ			Χ				Х			X				
2192	H08_dDI35		Χ			Χ				Х			Х				
2200	H08_dDI42		Χ			Χ				Χ			X				
2201	H08_dDI46		Χ			Χ				Х			X				
2202	H08_dDI45		Χ			Χ				Χ			Χ				



Drain Inlet Historic ID	Drain Inlet New ID	Ov	erall C	condit	ion		ructur			Sedi	ment		Н	lydrau	lic Co	nditio	n
		Excellent	Good	Fair	Poor	Good	Damaged Functional	Damaged Non-Functional	None	Partial	Substantial	Full	Good	Damaged Functional	Surcharging	Damaged Non-Functional	Blocked
2203	H08_dDl44		X			х				Х			х				
2204	H08_dDI43		Χ			Х				Х			Х				
2205	H08_dDI47		Χ			Х				Х			Х				
2207	H08_dDI49		Χ			Х				Х			Х				
2208	H08_dDI50		Χ			Х				Х			Х				
2216	H08_dDI53		X			Х				X			Х				
2217	H08_dDI55		X			Х				X			Х				
2218	H08_dDI58		X			X				Χ			X				
2219	H08_dDI56		X			Х				X			Х				
2221	H08_dDI15		X			X				Χ			X				
2222	H08_dDI16		X			Х				X			Х				
2223	H08_dDI17		X			Х				Χ			Х				
2224	H08_dDI22		X			Χ				X			Χ				
2225	H08_dDI26		X			Х				Χ			Х				
2226	H08_dDI29		X			Х				Х			Х				
2227	H08_dDI20		Χ			X				Х			Х				
2228	H08_dDI27		Χ			Х				Х			Х				
2234	G08_dDI76		X			X				Χ			X				
2236	H09_dDI01		X			X				Х			Х				
2238	H09_dDI03		Χ			Х				Х			Х				
2240	G08_dD168		Χ			Х				Х			Х				
2242	G08_dDI55		Χ			X				Х			X				
2243	G08_dDI50		Χ			Х				Х			Х				
2244	G08_dDI53		X			Χ				X			Χ				



Drain Inlet Historic ID	Drain Inlet New ID	Ov	erall C	ondit	ion		ructui			Sedi	ment		Н	ydrau	lic Co	nditio	n
		Excellent	Good	Fair	Poor	Good	Damaged Functional	Damaged Non-Functional	None	Partial	Substantial	Full	Good	Damaged Functional	Surcharging	Damaged Non-Functional	Blocked
2246	G08_dDl40		x			х				х			х				
2247	G08_dDI20		Х			Х				Х			Х				
2248	G08_dDI17		Х			Х				Х			Х				
2249	G08_dDI13		Х			Х				Х			Х				
2252	G08_dDI05		Х			Х				Х			Х				
2253	G08_dDI02		Х			Х				Х			Х				
2256	F07_dDI01		X			Х				Х			Х				
2257	G07_dDI03		Χ			Х				Х			Х				
2276	G08_dDI08		Χ			Х				Х			Х				
2277	G08_dDI04		X			Х				Х			Х				
2278	G08_dDI01		Χ			Х				Х			Х				
2279	G08_dD109		X			Х				Х			Х				
2280	G08_dDI11		X			Х				Х			Х				
2281	G08_dDI12		Χ			Х				Х			Х				
2282	G08_dDI14		X			Х				Х			Х				
2283	F08_dDI30		X			Х				Х			Х				
2284	F08_dDl28		X			Х				Х			Х				
2286	F08_dDI20		X			Х				Х			Х				
2290	F08_dDI01		X			Х				Х			Х				
2295	F08_dDl27		X			Х				Х			Х				
2297	F08_dDl22		X			Х				Х			Х				
2298	F08_dDI19		Х			Х				Х			Х				
2299	F08_dDI14		X			Х				Х			Х				
2301	F08_dDI29		X			Х				Х			Х				



Drain Inlet Historic ID	Drain Inlet New ID	Ov	erall C	condit	ion		ructur			Sedi	ment		Н	lydrau	lic Co	nditio	1
		Excellent	Good	Fair	Poor	Good	Damaged Functional	Damaged Non-Functional	None	Partial	Substantial	Full	Good	Damaged Functional	Surcharging	Damaged Non-Functional	Blocked
2303	F08_dDI32		X			х				Х			х				
2304	F08_dDI33		Χ			Х				Х			Х				
2306	F08_dDI35		X			Х				Х			Х				
2307	G08_dDI49		Χ			Х				Х			Х				
2309	F08_dDI36		Χ			Х				Χ			Х				
2310	G08_dDI56		Χ			Х				Х			Х				
2311	G08_dDI62		Χ			Х				Х			Х				
2312	G08_dDI65		Χ			Х				Х			Х				
2315	G08_dDI66		X			Х				X			Х				
2316	G08_dDl61		Χ			Х				Χ			Х				
2317	G08_dDI57		X			X				Χ			X				
2318	G08_dDI71		X			X				X			X				
2319	G09_dDI01		X			X				Χ			X				
2321	G09_dDI04		X			X				Χ			X				
2325	G09_dDI16		X			Х				X			Х				
2336	H09_dDI09		X			Х				X			Х				
2342	G09_dDI17		X			Х				X			Х				
2345	G09_dDI10		X			Х				X			Х				
2346	G09_dDI14		X			Х				X			Х				
2349	G09_dD107		X			Х				X			Х				
2193	H08_dDI34		X			X			Х					X			
2194	H08_dDI36		X			Х			Х					Х			
2195	H08_dDI37		X			Χ			Х					Χ			
2196	H08_dDI38		X			Х			Х					Х			



Drain Inlet Historic ID	Drain Inlet New ID	Ov	erall C	ondit	ion		ructui			Sedi	iment		Н	ydrau	lic Co	nditio	n
		Excellent	Good	Fair	Poor	Good	Damaged Functional	Damaged Non-Functional	None	Partial	Substantial	Inf	Good	Damaged Functional	Surcharging	Damaged Non-Functional	Blocked
2197	H08_dDI39		x			х			Х					х			
2198	H08_dDI41		Х			Х			Χ					Х			
2199	H08_dDI40		X			Х			Х					Х			
2350	G09_dDI05		Χ			Х			Χ				Х				
2353	G09_dDI13		Χ			Х			Χ				Х				
2354	G08_dDl67		Χ			Х			Χ				Х				
2356	G08_dDI70		Χ			Х			Х				Х				
2357	G08_dDI73		Χ			Х			Х				Х				
2358	G08_dDI74		Χ			Х			Χ				Х				
2359	G09_dDI03		Χ			Х			Χ				Х				
2363	G08_dDI47		Χ			Х			Х				Х				
2366	G08_dDI29		Χ			Х			Х				Х				
2367	G08_dDI25		Χ			Х			Χ				Х				
2368	G08_dDI22		Χ			Х			Х				Х				
2369	G08_dDI18		Χ			Х			Χ				Х				
2374	G08_dDI28		Χ			Х			Χ				Х				
2375	G08_dDI48		Χ			Х			Χ				Х				
2376	G08_dDI52		Χ			Х			Χ				Х				
2389	108_dD112		Χ			Х			Χ				Х				
2390	108_dD111		Χ			Х			Χ				Х				
2391	108_dD109		X			Х			Χ				Х				
2392	108_dD108		Χ			Х			Χ				Х				
2393	108_dD110		Χ			Х			Χ				Х				
2394	108_dD103		X			Х			Χ				Х				



Drain Inlet Historic ID	Drain Inlet New ID	Ov	erall C	Condit	ion		ructui			Sedi	iment		Н	lydrau	lic Co	nditio	n
		Excellent	Good	Fair	Poor	Good	Damaged Functional	Damaged Non-Functional	None	Partial	Substantial	Full	Good	Damaged Functional	Surcharging	Damaged Non-Functional	Blocked
2399	108_dD107		x			х			х				х				
2400	108_dD106		X			Х			Х				Х				
2402	108_dD105		X			Х			Х				Х				
2407	G10_dDI02		X			Х			Χ				Х				
2408	F10_dDl09		X			Х			Х				Х				
2102	G07_dDI 05		X			Х			х				Х				
2101	G08_dDI 24		X			Х			Х				Х				
2117	G08_dDI 26		X			Х					X		Х				
2119	G08_dDI 44		X			Х			Х							Х	
2122	H08_dDI 02		X			Х			х							X	
2118	H08_dDI 03		X			Х			х				Х				
2121	H08_dDI 04		X			Х			Х							Х	
2126	H08_dDI 05		X			Х			Х				Х				
2124	H08_dDI 07		X			Х			х				Х				
2125	H08_dDI 08		X			Х			х				Х				
2128	H08_dDI 09		Х			Х			Х				Х				
2129	H08_dDI 11		Х			Х			х					Х			
2119	H08_dDI 12		Х			Х			Х					Х			
2130	H08_dDI 14		Х			Х			Х					Х			
2410	F10_dDI05		X			Х			Х				Х				



Drain Inlet Historic ID	Drain Inlet New ID	Ov	erall C	Condit	ion		ructur			Sedi	ment		Н	ydrau	lic Co	nditio	n
		Excellent	Good	Fair	Poor	Good	Damaged Functional	Damaged Non-Functional	None	Partial	Substantial	Full	Good	Damaged Functional	Surcharging	Damaged Non-Functional	Blocked
2421	F10_dDI11		х			х			х				х				
2464	E06_dDI03		Χ			X			Χ				Х				
2490	C06_dDI02		Χ			Χ			X				Х				
2496	C06_dDI01		X			Х			X				Х				
2586	E06_dDI02		X			X			X				Х				
2600	J08_dDI01		X			X			Χ				Х				
2604	J08_dDI05		X			Χ			X				Х				
2744	J08_dDI03		X			Χ			Χ				Х				
3104	E08_dDI01		X			Χ			Χ				Х				
3113	D08_dDI01		X			Χ			X				Х				
3115	E08_dDI05		X			Х			X				Х				
3116	E08_dDI02		X			Χ			Χ				Х				
3117	E08_dDI04		X			Χ			Χ				Х				
3118	E08_dDI06		X			Х			Χ				Х				
dCB416	J06_dDI01		X			X			X				Х				
dCB417	J07_dDl01		X			Χ			X				Х				
dCB418	J07_dDI02		X			Х			X				Х				
dCB420	J07_dDI04		X			Х			X				Х				
dCB421	J07_dDI05		X			X			X				Х				
3114	E08_dDI03	Χ				X				X			Х				



	1	able	C-J.	Othe	1 3101	m ə	ewer	Appu	ntena	ances						
Historic Appurtenance ID	New Appurtenance ID	Ov	verall C	Condit	ion		Structu Condit			Sedir	nent	F	Ну	drauli	c Cond	ition
		Excellent	Good	Fair	Poor	Good	Damaged Functional	Damaged Non- Functional	None	Partial	Substantial	Full	Good	Damaged Functional	Damaged Non- Functional	Blocked
	re storm sewer v full of or com	pletel	y full	ofse	edime	ent. 1	「hey		nkec	l in te	rms					
2775 - Outfall	E04_dOF01				X		X				Х					Χ
dCI1 - Culvert Inlet	K10_dCl01			X		Х					X				X	
2722 - Dry Well	J07_dDW01			X		Х					Х				X	
1071 - Drain Outlet	L07_dDO01			X		Х				Х					X	
3136 - Inlet	C08_dSI01			Х		Х				Х					X	
3064 - Dry Well	C06_dDW03		X			Х					Χ			Х		
were not me	the remainder or ore than partial inctional. They	ly ful	l of s	edim	ent, a	nd t	hat w	vere no	ot su	rchai	ging	, blc	cke	d, or (damaç	
303 – Vault	108_dVT01		X				Χ			Χ			X			
3124 – Dry Well	H10_dDW01		Х			Х				Х				Х		
dOF198 – Outfall	K08_dOF01		Х			Х				Х				X		
dCO1 - Culvert Outlet	K10_dCO01		Х			Х				Х			X			
1070 - Drain Outlet	L07_dDO02		Х			Х				Х			Х			
3100 – Trench	D03_dTD01		X			X				X			X			
3097 - Trench	E02_dTD02		Х			Х				Х			Χ			
3205	D04_dOF01		X			Χ			Х				X			
3204	D04_dOF02		X			X			X				X			
3203 2773 - Outfall	D04_dSI01 E04_dOF02		X			X			Х	v			X			
2773 - Outfall 3097 - Trench	B02_dTD01		X X			X X				X X			X X			
			~			^				^			Λ			

Table C-5: Other Storm Sewer Appurtenances



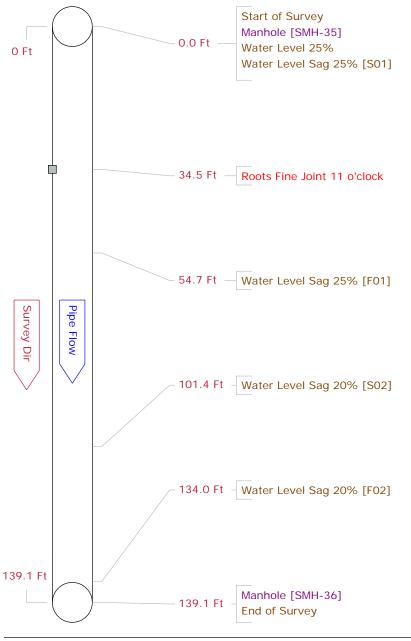
Historic Appurtenance ID	New Appurtenance ID	Ov	erall (Condit	tion		Structı Condit			Sedir	nent		Ну	drauli	c Condi	tion
		Excellent	Good	Fair	Poor	Good	Damaged Functional	Damaged Non- Functional	None	Partial	Substantial	Full	Good	Damaged Functional	Damaged Non- Functional	Blocked
3054 – Dry Well	D06_dDW01		X			х			Х				Х			
3055 – Dry Well	D06_dDW03		X			х			Х				X			
3056 – Dry Well	E06_dDW01		X			х			Х				X			
3062 - Dry Well	D07_dDW02		Χ			Х			Х				Χ			
3063 - Dry Well	D07_dDW01		Χ			Х			Х				Χ			
3065 - Dry Well	D06_dDW04		Χ			Х			Х				Χ			
3066 - Dry Well	D06_dDW02		Χ			Х			Х				Χ			
dOF382 - Outfall	K09_dOF03		X			х			Х				Х			
dOF385 - Outfall	E06_dOF01		X			х			Х				X			
3053 - Dry Well	C06_dDW02	Χ				Х				Х			Χ			
dOF197 - Outfall	K08_dOF02	X				х				X			Х			
3052 - Dry Well	C06_dDW01	Χ				Х			Х				Χ			
dOF383 - Outfall	K09_dOF02	X				х			Х				X			
dOF386 - Outfall	C06_dOF01	X				х			Х				Х			
2732 - Trench	B02_dT02	X				Х			Х				Χ			
dOF387 - Outfall	C06_dOF02	X				X			X				X			



APPENDIX D: PIPE INSPECTION LOGS

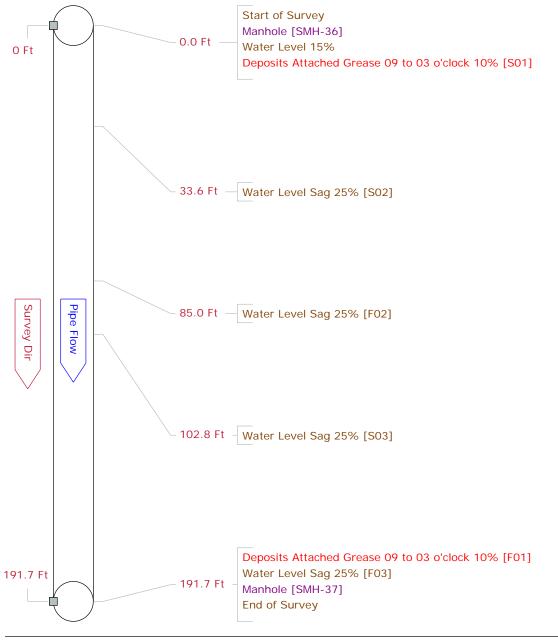
Pipe Graphic Report of PLR SMH-35 X for WOODARD & CURRAN

Setup 1	Surveyor WP	Certificate #	T-001-002	System Owner	ALBANY UNIVERSITY
Drainage	CAMPUS GRC Survey (Customer WOODARD & CU	RRAN		
P/O #	Date	2007/07/18 Time 10:47	Street SUNY	OF ALBANY	
Locality	CAMPUS GROUNDS	Further location details			
Start S	SMH-35	Rim to invert	Grade to invert	Rim to g	rade Ft
Finish S	SMH-36	Rim to invert	Grade to invert	Rim to g	rade Ft
Use Sa	nitary	Direction Downstream	Flow control	Not Controlled	Tape/Media # WP-01
Shape (Circular	Height 10 Width	ins Precle	an J	Year Cleaned
Material	Vitrified Clay Pipe	Joint length	Ft Total length	139.1 Ft Leng	th Surveyed 139.10
Lining		Year laid Y	ear rehabilitated	Weather	Damp
Purpose	Infiltration/Inflow Investigation	tion	Cat		
Addition	al info			Structural O8	Constructional
Location	Light Highway			Miscellaneous Hy	draulic



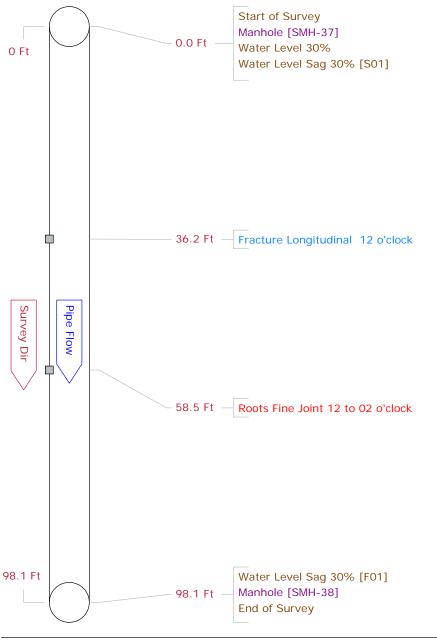
Pipe Graphic Report of PLR SMH-36 X for WOODARD & CURRAN

Setup 2	2 Surveyor WP	Certificate #	T-001-002	System Owner	ALBANY UNIVERSITY
Drainage	e CAMPUS GRC Survey C	Customer WOODARD & CUF	RRAN		
P/O #	Date	2007/07/18 Time 10:59	Street SUNY	Ó OF ALBANY	
Locality	CAMPUS GROUNDS	Further location details			
Start S	SMH-36	Rim to invert	Grade to invert	Rim to g	grade Ft
Finish S	SMH-37	Rim to invert	Grade to invert	Rim to g	grade Ft
Use Sa	nitary	Direction Downstream	Flow control	Not Controlled	Tape/Media # WP-01
Shape (Circular	Height 10 Width	ins Precle	an J	Year Cleaned
Material	Vitrified Clay Pipe	Joint length F	t Total length	191.7 Ft Len	igth Surveyed 191.70
Lining		Year laid Ye	ear rehabilitated	Weather	Damp
Purpose	Infiltration/Inflow Investigat	tion	Cat		
Addition	nal info			Structural O	&M Constructiona
Locatior	Light Highway			Miscellaneous H	ydraulic



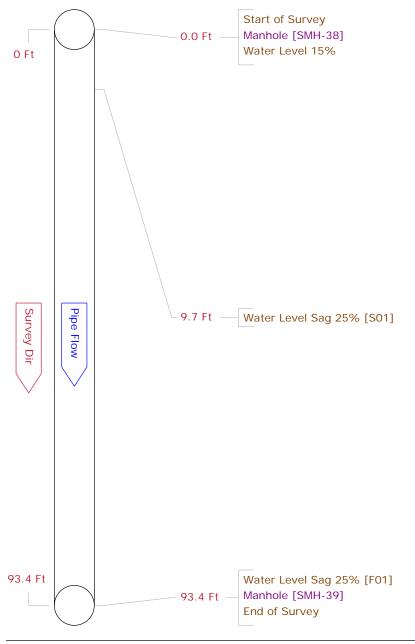
Pipe Graphic Report of PLR SMH-37 X for WOODARD & CURRAN

Setup 3	3 Surveyor WP	Certificate #	T-001-002	System Owne	er ALBANY UN	NIVERSITY
Drainage	e CAMPUS GRC Survey C	Customer WOODARD & CU	RRAN			
P/O #	Date	2007/07/18 Time 11:07	Street SUNY	OF ALBANY		
Locality	CAMPUS GROUNDS	Further location details				
Start S	SMH-37	Rim to invert	Grade to invert	Rim to	grade	Ft
Finish S	SMH-38	Rim to invert	Grade to invert	Rim to	grade	Ft
Use Sa	nitary	Direction Downstream	Flow control	Not Controlled	Tape/Media	# WP-01
Shape (Circular	Height 10 Width	ins Preclea	an J	Year Cleane	ed
Material	Vitrified Clay Pipe	Joint length	Ft Total length	98.1 Ft Le	ength Surveye	d 98.10
Lining		Year laid Year	ear rehabilitated	Weather	Damp	
Purpose	Infiltration/Inflow Investigat	tion	Cat			
Addition	nal info			Structural	O&M	Constructional
Location	Light Highway			Miscellaneous	Hydraulic	



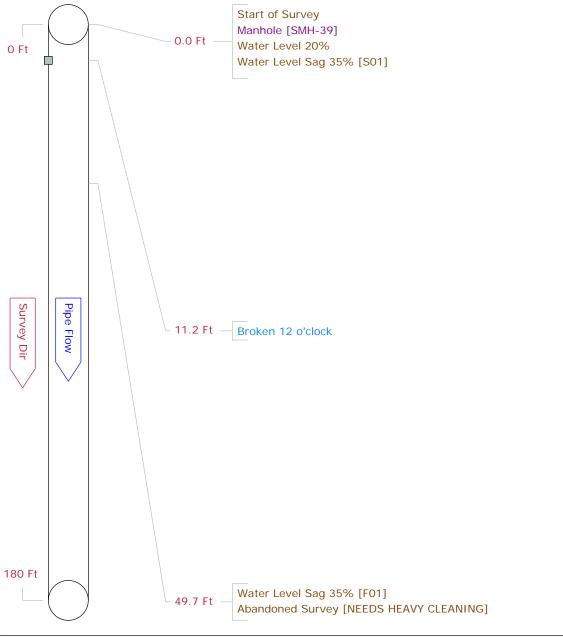
Pipe Graphic Report of PLR SMH-38 X for WOODARD & CURRAN

Setup 4	4 Surveyor WP	Certificate #	T-001-002	System Own	er ALBANY	UNIVERSITY
Drainage	e CAMPUS GRC Survey C	ustomer WOODARD & CU	RRAN			
P/O #	Date	2007/07/18 Time 11:13	Street SUNY	OF ALBANY		
Locality	CAMPUS GROUNDS	Further location details				
Start S	SMH-38	Rim to invert	Grade to invert	Rim to	o grade	Ft
Finish S	SMH-39	Rim to invert	Grade to invert	Rim to	o grade	Ft
Use Sa	nitary	Direction Downstream	Flow control	Not Controlled	Tape/Med	lia # WP-01
Shape (Circular	Height 10 Width	ins Precle	an J	Year Clea	ned
Material	Vitrified Clay Pipe	Joint length	Ft Total length	93.4 Ft L	ength Survey	/ed 93.40
Lining		Year laid Y	ear rehabilitated	Weather	 Damp 	
Purpose	Infiltration/Inflow Investigat	ion	Cat			
Addition	al info			Structural	O&M	Constructional
Location	Light Highway			Miscellaneous	Hydraulic	



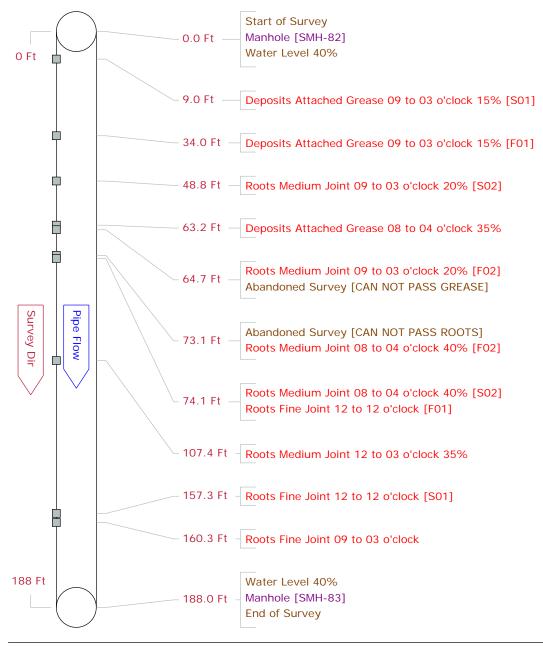
Pipe Graphic Report of PLR SMH-39 X for WOODARD & CURRAN

Setup	5 Surveyor WP	Certificate #	T-001-002	System Own	ner Albany	UNIVERSITY
Drainag	e CAMPUS GRC Survey	Customer WOODARD & CU	RRAN			
P/O #	Date	2007/07/18 Time 2:27	Street SUNY	OF ALBANY		
Locality	CAMPUS GROUNDS	Further location details				
Start	SMH-39	Rim to invert	Grade to invert	Rim t	o grade	Ft
Finish	SMH-82	Rim to invert	Grade to invert	Rim t	o grade	Ft
Use Sa	initary	Direction Downstream	Flow control	Not Controlled	Tape/Mee	dia # WP-01
Shape	Circular	Height 12 Width	ins Precle	an J	Year Clea	aned
Material	Vitrified Clay Pipe	Joint length	Ft Total length	180.0 <i>Ft L</i>	ength Surve.	yed 49.70
Lining		Year laid Y	'ear rehabilitated	Weathe	r Damp	
Purpose	e Infiltration/Inflow Investiga	tion	Cat			
Additio	nal info			Structural	O&M	Constructional
Locatio	n Light Highway			Miscellaneous	Hydraulic	



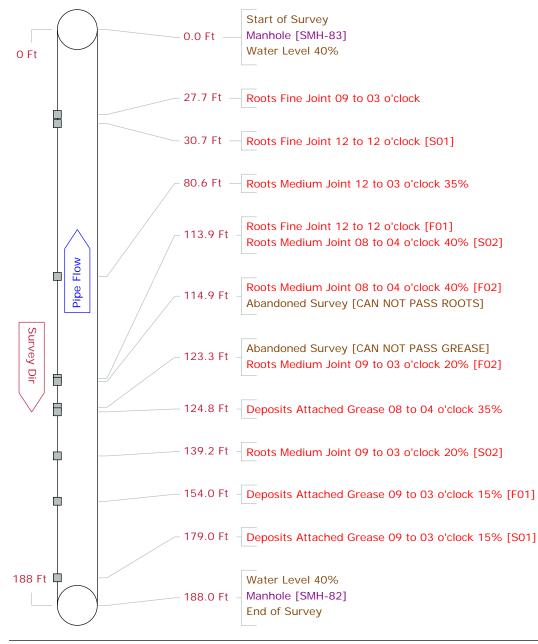
Pipe Graphic Report of PLR SMH-82 X for WOODARD & CURRAN

Setup 6/7 Surveyor WP	Certificate #	T-001-002	System Owner	ALBANY UNIVERSITY
Drainage CAMPUS GRC Survey Cus	tomer WOODARD & CUF	RAN		
P/O # Date 20	07/07/19 Time 9:25	Street SUNY	OF ALBANY	
Locality CAMPUS GROUNDS	Further location details			
Start SMH-82	Rim to invert	Grade to invert	Rim to g	rade Ft
Finish SMH-83	Rim to invert	Grade to invert	Rim to g	rade Ft
Use Sanitary	Direction Downstream	Flow control	Not Controlled	Tape/Media # WP-01
Shape Circular	Height 12 Width	ins Precle	an J	Year Cleaned
Material Vitrified Clay Pipe	Joint length F	t Total length	188.0 <i>Ft Len</i>	gth Surveyed 64.70
Lining	Year laid Ye	ar rehabilitated	Weather	Damp
Purpose Infiltration/Inflow Investigation	I	Cat		
Additional info			Structural O	&M Constructional
Location Light Highway			Miscellaneous H	ydraulic



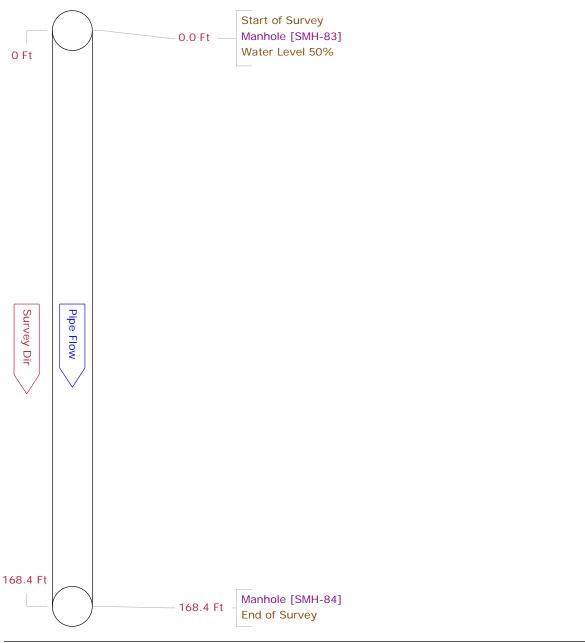
Pipe Graphic Report of PLR SMH-82 X for WOODARD & CURRAN

Setup 7/6 Surveyor WP	Certificate #	T-001-002	System Owner	ALBANY UNIVERSITY
Drainage CAMPUS GRC Survey Cust	tomer WOODARD & CUF	RAN		
P/O # Date 200	7/07/19 Time 9:45	Street SUNY	OF ALBANY	
Locality CAMPUS GROUNDS	Further location details			
Start SMH-83	Rim to invert	Grade to invert	Rim to gra	ade Ft
Finish SMH-82	Rim to invert	Grade to invert	Rim to gra	ade Ft
Use Sanitary	Direction Upstream	Flow control	Not Controlled	Tape/Media # WP-01
Shape Circular	Height 12 Width	ins Precle	an J	Year Cleaned
Material Vitrified Clay Pipe	Joint length F	t Total length	188.0 Ft Leng	th Surveyed 114.90
Lining	Year laid Ye	ar rehabilitated	Weather	Damp
Purpose Infiltration/Inflow Investigation		Cat		
Additional info Reverse set up on she	et:6		Structural O&	M Constructional
Location Light Highway			Miscellaneous Hyd	draulic



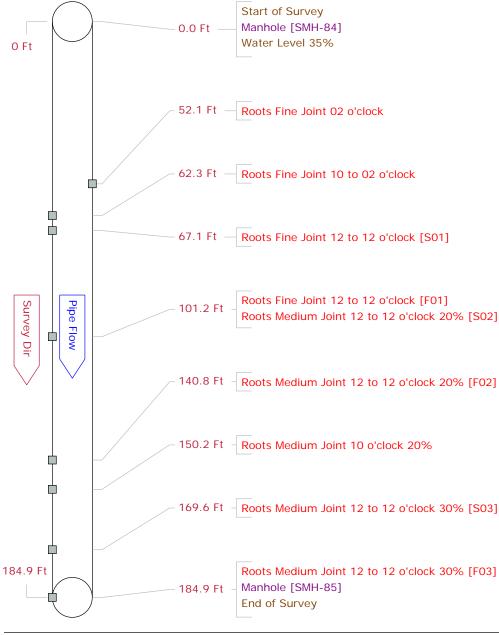
Pipe Graphic Report of PLR SMH-83 X for WOODARD & CURRAN

Setup 8	3 Surveyor WP	Certificate #	t T-001-002	System Own	er ALBANY U	INIVERSITY
Drainage	e CAMPUS GRC Survey (Customer WOODARD & CU	JRRAN			
P/O #	Date	2007/07/19 Time 10:05	Street SUN	OF ALBANY		
Locality	CAMPUS GROUNDS	Further location details	5			
Start S	SMH-83	Rim to invert	Grade to invert	Rim to	o grade	Ft
Finish S	SMH-84	Rim to invert	Grade to invert	Rim to	o grade	Ft
Use Sa	nitary	Direction Downstream	Flow control	Not Controlled	Tape/Media	a# WP-01
Shape (Circular	Height 12 Width	ins Precle	an J	Year Clean	ed
Material	Vitrified Clay Pipe	Joint length	Ft Total length	168.4 Ft L e	ength Surveye	ed 168.40
Lining		Year laid	Year rehabilitated	Weather	Damp	
Purpose	Infiltration/Inflow Investiga	tion	Cat			
Addition	al info			Structural	O&M	Constructional
Location	Light Highway			Miscellaneous	Hydraulic	



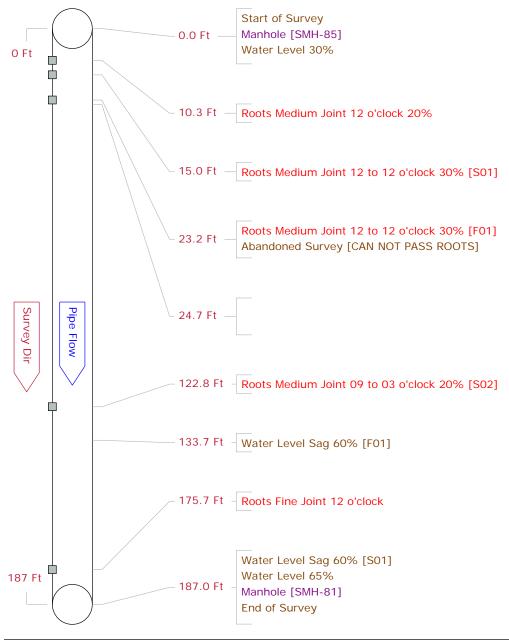
Pipe Graphic Report of PLR SMH-84 X for WOODARD & CURRAN

Setup	9 Surveyor WP	Certifica	ate # T-001-00	2 S	/stem Owner	ALBANY UNI	/ERSITY
Drainage	e CAMPUS GRC Survey (Customer WOODARD	& CURRAN				
P/O #	Date	2007/07/19 Time 1	0:19 Stree	SUNY OF A	LBANY		
Locality	CAMPUS GROUNDS	Further location de	etails				
Start S	SMH-84	Rim to invert	Grade to	o invert	Rim to g	rade	Ft
Finish S	SMH-85	Rim to invert	Grade to	o invert	Rim to g	rade	Ft
Use Sa	nitary	Direction Downst	ream Flow c	ontrol Not C	ontrolled	Tape/Media #	WP-01
Shape (Circular	Height 12 W	'idth ins	Preclean J		Year Cleaned	
Material	Vitrified Clay Pipe	Joint length	Ft Tota	l length 184.	9 Ft Leng	gth Surveyed	184.90
Lining		Year laid	Year rehab	litated	Weather	Damp	
Purpose	Infiltration/Inflow Investigation	tion	Cat				
Addition	al info			Struc	tural O8	&M C	onstructional
Location	Light Highway			Misc	ellaneous Hy	/draulic	



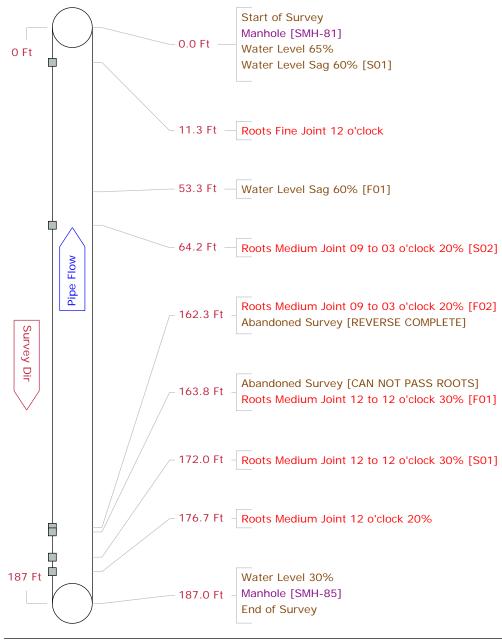
Pipe Graphic Report of PLR SMH-85 X for WOODARD & CURRAN

Setup 10/11 Surveyo	or WP	Certificate	# T-001-002	System Owr	ner ALBANY	UNIVERSITY
Drainage CAMPUS G	RC Survey Customer	WOODARD & C	URRAN			
P/O #	Date 2007/07/1	9 Time 10:3	1 Street SUN	Y OF ALBANY		
Locality CAMPUS GR	OUNDS Furth	er location detai	ls			
Start SMH-85	Rim	to invert	Grade to inver	t Rim t	o grade	Ft
Finish SMH-81	Rim	to invert	Grade to inver	t Rim t	o grade	Ft
Use Sanitary	Dire	ction Downstrea	m Flow control	Not Controlled	Tape/Mec	dia # WP-01
Shape Circular	He	eight 12 Widtl	n ins Precl	ean J	Year Clea	aned
Material Vitrified Clay	Pipe J	oint length	Ft Total lengt	h 187.0 Ft L	ength Surve	yed 23.20
Lining	Y	'ear laid	Year rehabilitated	Weathe	r Light Rain	
Purpose Infiltration/Infl	ow Investigation		Cat			
Additional info				Structural	O&M	Constructional
Location Light Highway	/			Miscellaneous	Hydraulic	



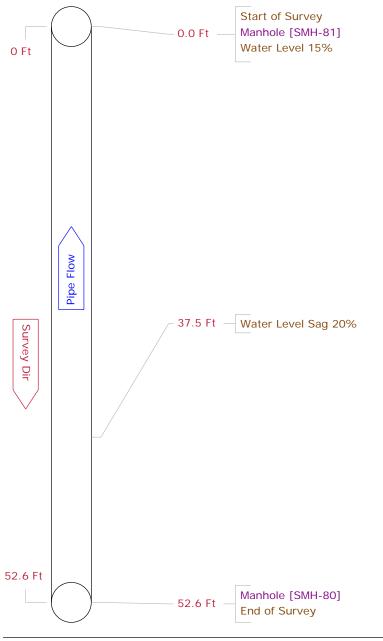
Pipe Graphic Report of PLR SMH-85 X for WOODARD & CURRAN

Setup 11/10 Surveyor WP	Certificate #	T-001-002	System Owner	ALBANY UNIVE	RSITY
Drainage CAMPUS GRC Survey	Customer WOODARD & CUR	RRAN			
P/O # Date	2007/07/19 Time 10:54	Street SUNY	OF ALBANY		
Locality CAMPUS GROUNDS	Further location details				
Start SMH-81	Rim to invert	Grade to invert	Rim to g	ırade	Ft
Finish SMH-85	Rim to invert	Grade to invert	Rim to g	ırade	Ft
Use Sanitary	Direction Upstream	Flow control	Not Controlled	Tape/Media # V	/P-01
Shape Circular	Height 12 Width	ins Preclea	an J	Year Cleaned	
Material Vitrified Clay Pipe	Joint length	Ft Total length	187.0 Ft Len	gth Surveyed 16	2.30
Lining	Year laid Year	ear rehabilitated	Weather	Light Rain	
Purpose Infiltration/Inflow Investiga	ation	Cat			
Additional info Reverse set up or	n sheet:10		Structural O	&M Con	structional
Location Light Highway			Miscellaneous H	ydraulic	



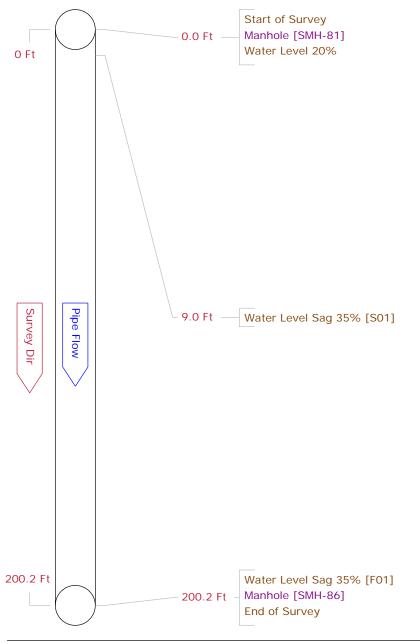
Pipe Graphic Report of PLR SMH-80 X for WOODARD & CURRAN

Setup 12 Surveyor WP	Certificate #	T-001-002	System Owner	ALBANY UNIVERSITY
Drainage CAMPUS GRC Survey Cu	stomer WOODARD & CUF	RRAN		
P/O # Date 20	007/07/19 Time 11:17	Street SUNY	OF ALBANY	
Locality CAMPUS GROUNDS	Further location details			
Start SMH-81	Rim to invert	Grade to invert	Rim to gr	ade Ft
Finish SMH-80	Rim to invert	Grade to invert	Rim to gr	ade Ft
Use Sanitary	Direction Upstream	Flow control	Not Controlled	Tape/Media # WP-01
Shape Circular	Height 12 Width	ins Preclea	n J	Year Cleaned
Material Vitrified Clay Pipe	Joint length	t Total length	52.6 Ft Leng	th Surveyed 52.60
Lining	Year laid Ye	ear rehabilitated	Weather	Light Rain
Purpose Infiltration/Inflow Investigatio	n	Cat		
Additional info			Structural O8	M Constructional
Location Light Highway			Miscellaneous Hy	draulic



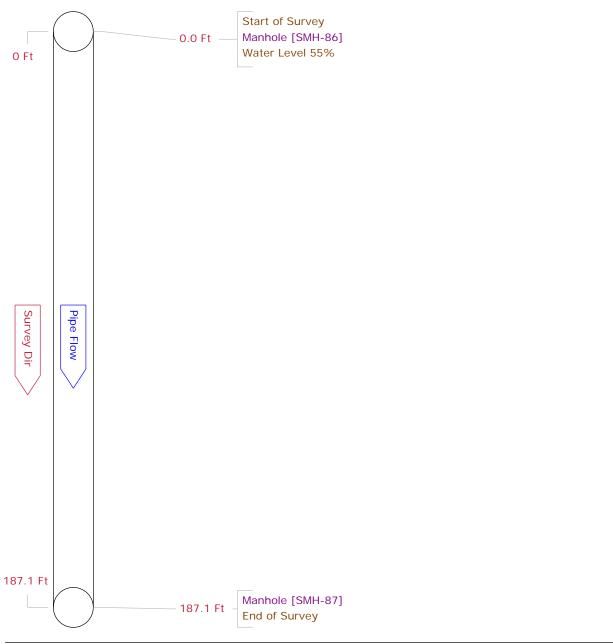
Pipe Graphic Report of PLR SMH-81 X for WOODARD & CURRAN

Setup 13	3 Surveyor WP	Certi	ficate #	T-001-002	System O	wner Alban	Y UNIVERSITY
Drainage	CAMPUS GRC Survey C	ustomer WOODA	RD & CUR	RAN			
P/O #	Date	2007/07/19 Time	11:21	Street SUI	NY OF ALBANY		
Locality	CAMPUS GROUNDS	Further location	details				
Start S	MH-81	Rim to invert		Grade to inve	ert Rin	to grade	Ft
Finish S	MH-86	Rim to invert		Grade to inve	ert Rin	to grade	Ft
Use Sani	itary	Direction Dow	nstream	Flow contro	Not Controlled	Tape/Me	edia # WP-01
Shape C	ircular	Height 12	Width	ins Prec	clean J	Year Cle	eaned
Material	Vitrified Clay Pipe	Joint length	n F	t Total leng	th 200.2 Ft	Length Surv	reyed 200.20
Lining		Year laid	Ye	ar rehabilitate	d Weath	ner Light Rai	in
Purpose	Infiltration/Inflow Investigati	ion		Cat			
Additiona	al info				Structural	O&M	Constructional
Location	Light Highway				Miscellaneous	Hydraulic	



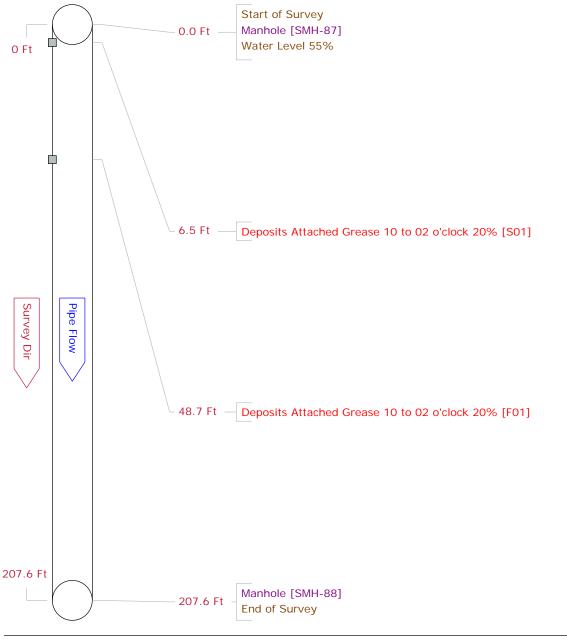
Pipe Graphic Report of PLR SMH-86 X for WOODARD & CURRAN

Setup 14	Surveyor WP	Certificate	# T-001-002	System Owr	ner ALBANY	UNIVERSITY
Drainage	CAMPUS GRC Survey	Customer WOODARD & C	URRAN			
P/O #	Date	2007/07/19 Time 11:47	SUN	OF ALBANY		
Locality	CAMPUS GROUNDS	Further location detail	s			
Start SN	/H-86	Rim to invert	Grade to invert	Rim t	o grade	Ft
Finish SN	/IH-87	Rim to invert	Grade to invert	Rim t	o grade	Ft
Use Sanit	ary	Direction Downstream	m Flow control	Not Controlled	Tape/Mee	dia # WP-01
Shape Cir	cular	Height 12 Width	ins Precle	an J	Year Clea	aned
Material	Vitrified Clay Pipe	Joint length	Ft Total length	187.1 Ft L	ength Surve.	yed 187.10
Lining		Year laid	Year rehabilitated	Weathe	r Light Rain	
Purpose	Infiltration/Inflow Investiga	ation	Cat			
Additional	l info			Structural	O&M	Constructional
Location	Light Highway			Miscellaneous	Hydraulic	



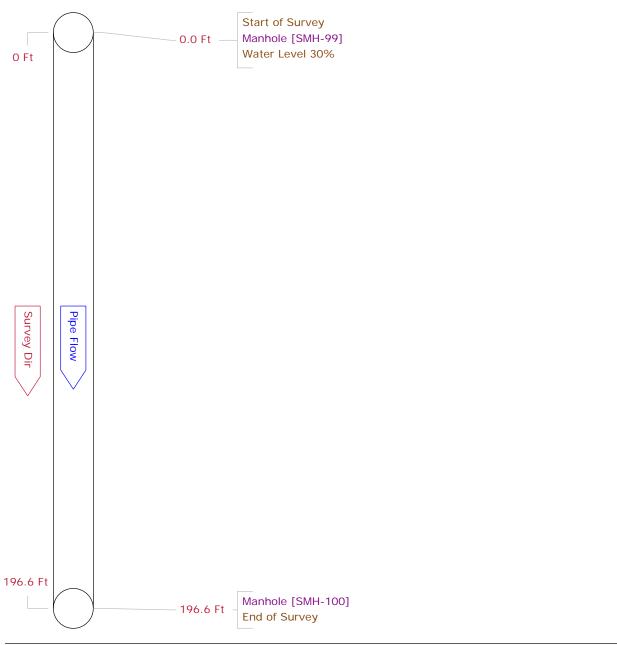
Pipe Graphic Report of PLR SMH-87 X for WOODARD & CURRAN

Setup 15 Surveyor WP	Certificate #	T-001-002	System Owner	ALBANY UNIVERSITY
Drainage CAMPUS GRC Survey Cust	omer WOODARD & CUR	RAN		
P/O # Date 200	7/07/19 Time 11:52	Street SUNY	OF ALBANY	
Locality CAMPUS GROUNDS	Further location details			
Start SMH-87	Rim to invert	Grade to invert	Rim to g	rade Ft
Finish SMH-88	Rim to invert	Grade to invert	Rim to g	grade Ft
Use Sanitary	Direction Downstream	Flow control	Not Controlled	Tape/Media # WP-01
Shape Circular	Height 12 Width	ins Precle	an J	Year Cleaned
Material Vitrified Clay Pipe	Joint length F	t Total length	207.6 Ft Len	gth Surveyed 207.60
Lining	Year laid Ye	ar rehabilitated	Weather	Heavy Rain
Purpose Infiltration/Inflow Investigation		Cat		
Additional info			Structural O	&M Constructional
Location Light Highway			Miscellaneous H	ydraulic



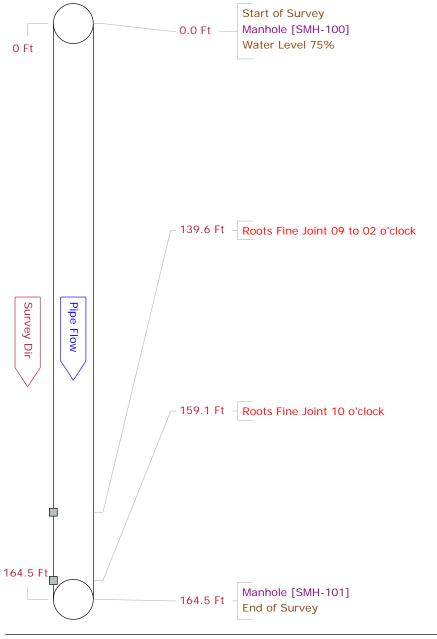
Pipe Graphic Report of PLR SMH-99 X for WOODARD & CURRAN

Setup 1	6 Surveyor WP	Certificate #	T-001-002	System Owner	r ALBANY UN	IVERSITY
Drainage	CAMPUS GRC Survey C	Customer WOODARD & CU	RRAN			
P/O #	Date	2007/07/19 Time 12:31	Street SUNY	OF ALBANY		
Locality	CAMPUS GROUNDS	Further location details				
Start S	MH-99	Rim to invert	Grade to invert	Rim to	grade	Ft
Finish S	MH-100	Rim to invert	Grade to invert	Rim to	grade	Ft
Use San	itary	Direction Downstream	Flow control	Not Controlled	Tape/Media	# WP-01
Shape C	Fircular	Height 12 Width	ins Precle	an J	Year Cleane	d
Material	Vitrified Clay Pipe	Joint length	Ft Total length	196.6 Ft Le i	ngth Surveyed	196.60
Lining		Year laid Y	ear rehabilitated	Weather	Heavy Rain	
Purpose	Infiltration/Inflow Investigat	tion	Cat			
Addition	al info			Structural C	D&M	Constructional
Location	Light Highway			Miscellaneous H	Hydraulic	



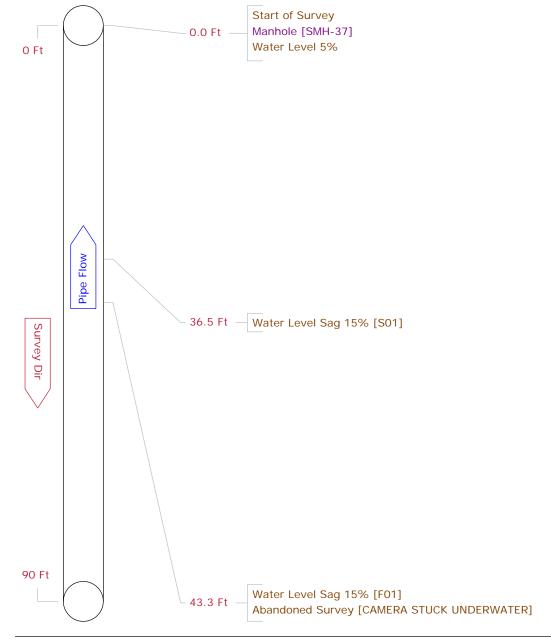
Pipe Graphic Report of PLR SMH-100 X for WOODARD & CURRAN

Setup 17 Surveyor WP	Certificate #	T-001-002	System Owner	ALBANY UNIVERSITY
Drainage CAMPUS GRC Survey Cus	tomer WOODARD & CUR	RAN		
P/O # Date 200	07/07/19 Time 12:31	Street SUNY	OF ALBANY	
Locality CAMPUS GROUNDS	Further location details			
Start SMH-100	Rim to invert	Grade to invert	Rim to g	rade Ft
Finish SMH-101	Rim to invert	Grade to invert	Rim to g	rade Ft
Use Sanitary	Direction Downstream	Flow control	Not Controlled	Tape/Media # WP-01
Shape Circular	Height 12 Width	ins Precle	an J	Year Cleaned
Material Vitrified Clay Pipe	Joint length F	t Total length	164.5 <i>Ft Len</i>	gth Surveyed 164.50
Lining	Year laid Ye	ar rehabilitated	Weather	Heavy Rain
Purpose Infiltration/Inflow Investigation		Cat		
Additional info			Structural O	&M Constructional
Location Light Highway			Miscellaneous H	ydraulic



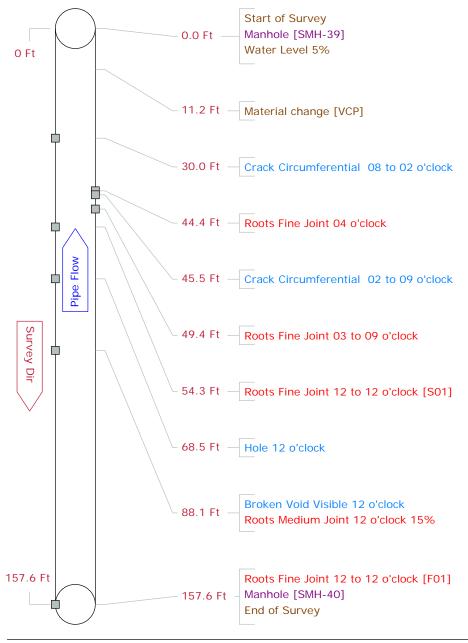
Pipe Graphic Report of PLR STUB X for WOODARD & CURRAN

Setup 18 Surveyor WP	Certificate #	T-001-002	System Owner	ALBANY UNIVERSITY
Drainage CAMPUS GRC Survey Cus	tomer WOODARD & CU	RRAN		
P/O # Date 200	7/07/23 Time 8:56	Street SUNY	OF ALBANY	
Locality CAMPUS GROUNDS	Further location details			
Start SMH-37	Rim to invert	Grade to invert	Rim to g	grade Ft
Finish STUB	Rim to invert	Grade to invert	Rim to g	grade Ft
Use Sanitary	Direction Upstream	Flow control	Not Controlled	Tape/Media # WP-01
Shape Circular	Height 8 Width	ins Preclea	an J	Year Cleaned
Material Cast Iron	Joint length	t Total length	90.0 Ft Ler	ngth Surveyed 43.30
Lining	Year laid Ye	ear rehabilitated	Weather	Dry
Purpose Infiltration/Inflow Investigation		Cat		
Additional info			Structural C	Constructional
Location Light Highway			Miscellaneous H	lydraulic



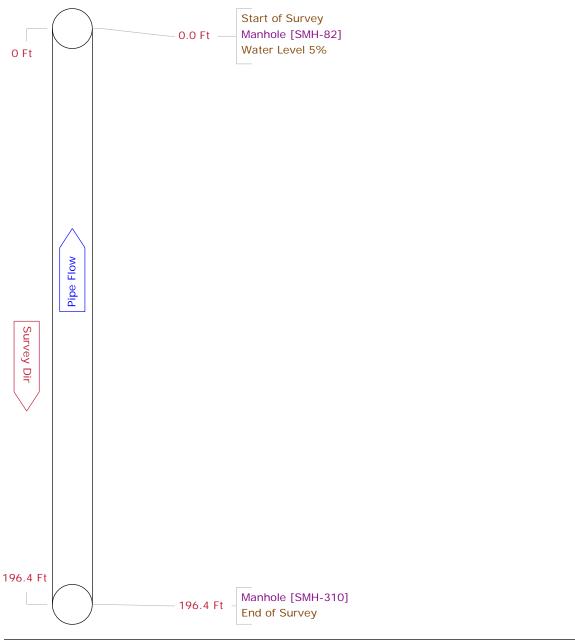
Pipe Graphic Report of PLR SMH-40 X for WOODARD & CURRAN

Setup 19 Surveyor WP	Certificate #	T-001-002	System Owne	r ALBANY UN	IVERSITY
Drainage CAMPUS GRC Survey C	Customer WOODARD & CUF	RRAN			
P/O # Date	2007/07/23 Time 9:23	Street SUNY	OF ALBANY		
Locality CAMPUS GROUNDS	Further location details				
Start SMH-39	Rim to invert	Grade to invert	Rim to	grade	Ft
Finish SMH-40	Rim to invert	Grade to invert	Rim to	grade	Ft
Use Sanitary	Direction Upstream	Flow control	Not Controlled	Tape/Media	# WP-01
Shape Circular	Height ⁸ Width	ins Precle	an J	Year Cleane	d
Material Polyvinyl Chloride	Joint length F	t Total length	157.6 Ft Le	ngth Surveyed	157.60
Lining	Year laid Ye	ear rehabilitated	Weather	Dry	
Purpose Infiltration/Inflow Investigat	ion	Cat			
Additional info			Structural	O&M	Constructional
Location Light Highway			Miscellaneous	Hydraulic	



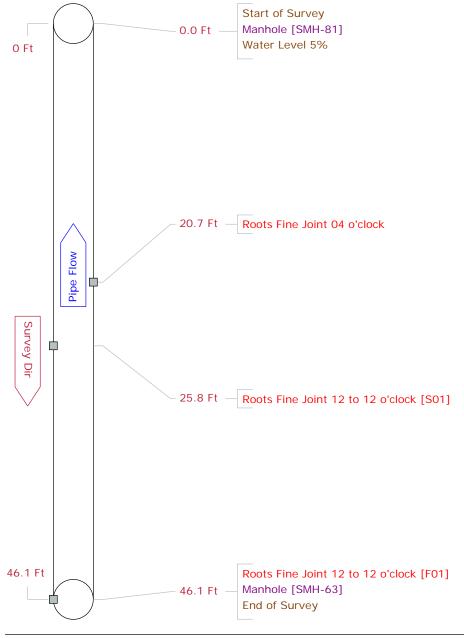
Pipe Graphic Report of PLR SMH-310 X for WOODARD & CURRAN

Setup 20	Surveyor V	VP	Certifi	cate #	T-001-002	2	System O	wner Alban	Y UNIVERSITY
Drainage	CAMPUS GRC SI	urvey Customer	WOODARI	D & CUR	RAN				
P/O #		Date 2007/07/2	3 Time	9:46	Street	SUNY	OF ALBANY		
Locality	CAMPUS GROUN	DS Furth	er location o	letails					
Start S	MH-82	Rim	to invert		Grade to	invert	Rin	n to grade	Ft
Finish S	MH-310	Rim	to invert		Grade to	invert	Rin	n to grade	Ft
Use Sani	itary	Dire	ction Upstro	eam	Flow co	ntrol	Not Controlled	Tape/Me	edia # WP-01
Shape C	ircular	н	eight 10 I	Nidth	ins	Precle	an J	Year Cle	eaned
Material	Cast Iron		loint length	F	t Total	length	196.4 Ft	Length Surv	eyed 196.40
Lining		,	fear laid	Ye	ar rehabil	itated	Weat	her Dry	
Purpose	Infiltration/Inflow In	vestigation		(Cat				
Additiona	al info						Structural	O&M	Constructional
Location	Light Highway						Miscellaneous	Hydraulic	



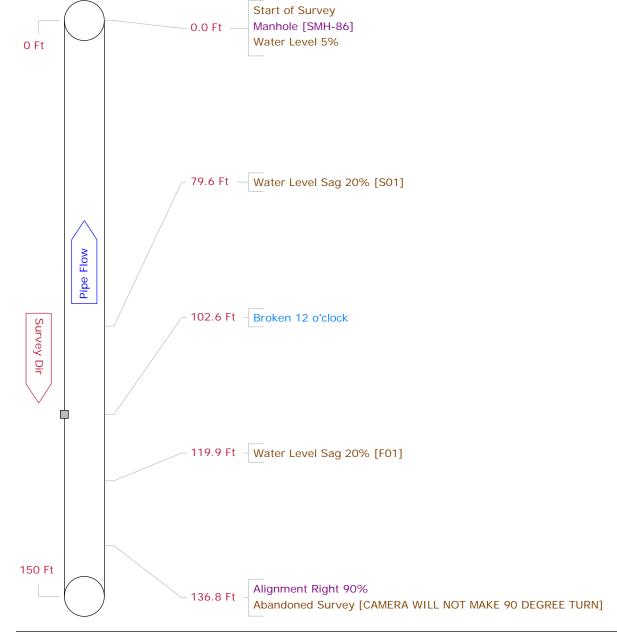
Pipe Graphic Report of PLR SMH-63 X for WOODARD & CURRAN

Setup 21 Surveyor WP	Certificate #	T-001-002	System Owner	ALBANY UNIVER	SITY
Drainage CAMPUS GRC Survey Cus	tomer WOODARD & CUF	RRAN			
P/O # Date 20	07/07/23 Time 10:01	Street SUNY	OF ALBANY		
Locality CAMPUS GROUNDS	Further location details				
Start SMH-81	Rim to invert	Grade to invert	Rim to g	grade F	t
Finish SMH-63	Rim to invert	Grade to invert	Rim to g	grade Fi	t
Use Sanitary	Direction Upstream	Flow control	Not Controlled	Tape/Media # WF	?- 01
Shape Circular	Height 8 Width	ins Preclea	an J	Year Cleaned	
Material Vitrified Clay Pipe	Joint length F	t Total length	46.1 Ft Ler	ngth Surveyed 46.1	0
Lining	Year laid Ye	ear rehabilitated	Weather	Dry	
Purpose Infiltration/Inflow Investigation		Cat			
Additional info			Structural C	0&M Const	ructional
Location Light Highway			Miscellaneous H	lydraulic	



Pipe Graphic Report of PLR STUB-A X for WOODARD & CURRAN

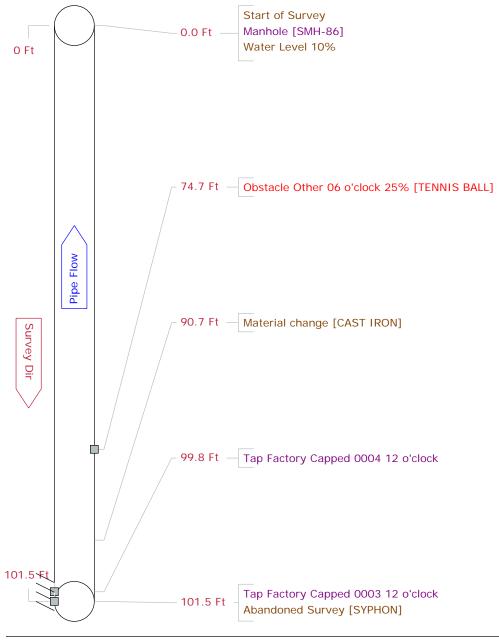
Setup 22 Surveyor WP	Certificate #	T-001-002	System Owne	er ALBANY UN	IIVERSITY
Drainage CAMPUS GRC Survey C	ustomer WOODARD & CUF	RRAN			
P/O # Date 2	2007/07/23 Time 10:14	Street SUNY	OF ALBANY		
Locality CAMPUS GROUNDS	Further location details				
Start SMH-86	Rim to invert	Grade to invert	Rim to	grade	Ft
Finish STUB-A	Rim to invert	Grade to invert	Rim to	grade	Ft
Use Sanitary	Direction Upstream	Flow control	Not Controlled	Tape/Media	# WP-01
Shape Circular	Height 8 Width	ins Preclea	an J	Year Cleane	d
Material Asbestos Cement	Joint length	t Total length	150.0 <i>Ft Le</i>	ength Surveyed	136.80
Lining	Year laid Ye	ear rehabilitated	Weather	Dry	
Purpose Infiltration/Inflow Investigati	on	Cat			
Additional info			Structural	O&M	Constructional
Location Light Highway			Miscellaneous	Hydraulic	



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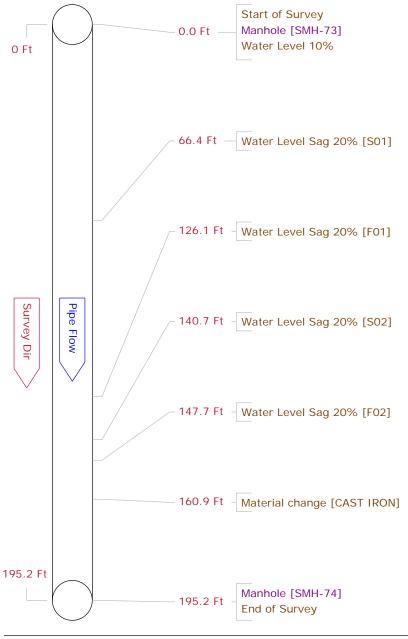
Pipe Graphic Report of PLR STUB-B X for WOODARD & CURRAN

Setup 23	Surveyor WP	Certificate #	# T-001-002	System Own	er ALBANY U	INIVERSITY
Drainage	CAMPUS GRC Survey	Customer WOODARD & CU	JRRAN			
P/O #	Date	2007/07/23 Time 10:27	Street SUNY	OF ALBANY		
Locality	CAMPUS GROUNDS	Further location details	5			
Start SN	/H-86	Rim to invert	Grade to invert	Rim to	grade	Ft
Finish ST	UB-B	Rim to invert	Grade to invert	Rim to	o grade	Ft
Use Sanit	ary	Direction Upstream	Flow control	Not Controlled	Tape/Media	a# WP-01
Shape Cir	cular	Height ⁸ Width	ins Precle	an J	Year Clean	ed
Material	Asbestos Cement	Joint length	Ft Total length	101.5 Ft Le	ength Surveye	ed 101.50
Lining		Year laid	Year rehabilitated	Weather	Dry	
Purpose	Infiltration/Inflow Investiga	ation	Cat			
Additiona	l info			Structural	O&M	Constructional
Location	Light Highway			Miscellaneous	Hydraulic	



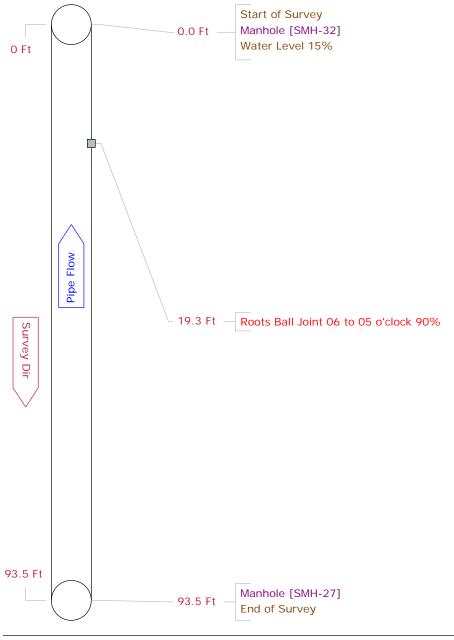
Pipe Graphic Report of PLR SMH-73 X for WOODARD & CURRAN

Setup 24 Surveyor WP	Certificate #	T-001-002	System Owner	ALBANY UNIVERSITY
Drainage CAMPUS GRC Survey Cu	stomer WOODARD & CUR	RAN		
P/O # Date 20	007/07/23 Time 11:06	Street SUNY	OF ALBANY	
Locality CAMPUS GROUNDS	Further location details			
Start SMH-73	Rim to invert	Grade to invert	Rim to g	grade Ft
Finish SMH-74	Rim to invert	Grade to invert	Rim to g	grade Ft
Use Sanitary	Direction Downstream	Flow control	Not Controlled	Tape/Media # WP-01
Shape Circular	Height ⁸ Width	ins Precle	an J	Year Cleaned
Material Vitrified Clay Pipe	Joint length F	t Total length	195.2 Ft Len	igth Surveyed 195.20
Lining	Year laid Ye	ar rehabilitated	Weather	Dry
Purpose Infiltration/Inflow Investigation	า	Cat		
Additional info			Structural O	&M Constructional
Location Light Highway			Miscellaneous H	ydraulic



Pipe Graphic Report of PLR SMH-27 X for WOODARD & CURRAN

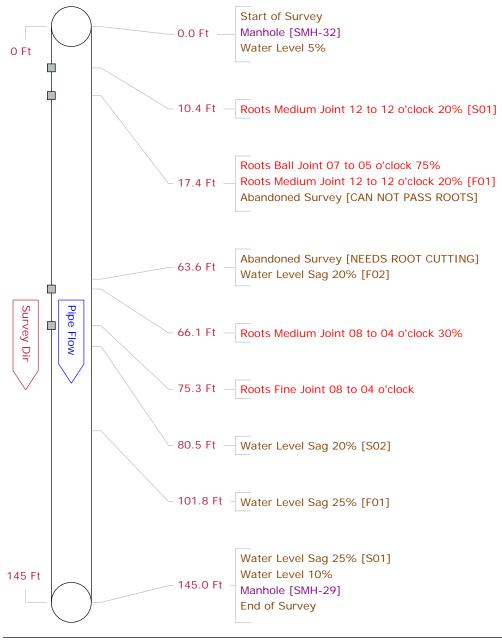
Setup 25	Surveyor WP	Certific	ate # ⊺	-001-002	System O	wner ALBAN	UNIVERSITY
Drainage	CAMPUS GRC Survey	Customer WOODARD	& CURR	AN			
P/O #	Date	2007/07/23 Time 1	4:49	Street SUN	Y OF ALBANY		
Locality C	AMPUS GROUNDS	Further location de	etails				
Start SM	H-32	Rim to invert	G	ade to inver	t Rim	to grade	Ft
Finish SM	H-27	Rim to invert	G	ade to inver	t Rim	i to grade	Ft
Use Sanita	ıry	Direction Upstrea	am 🦷	Flow control	Not Controlled	Tape/Me	dia # WP-01
Shape Circ	cular	Height 8 W	'idth	ins Precle	e an J	Year Cle	aned
Material V	itrified Clay Pipe	Joint length	Ft	Total lengtl	h 93.5 Ft	Length Surve	eyed 93.50
Lining		Year laid	Year	rehabilitated	Weath	ner Heavy Ra	iin
Purpose Ir	nfiltration/Inflow Investig	gation	Ca	nt			
Additional	info				Structural	O&M	Constructional
Location L	ight Highway				Miscellaneous	Hydraulic	



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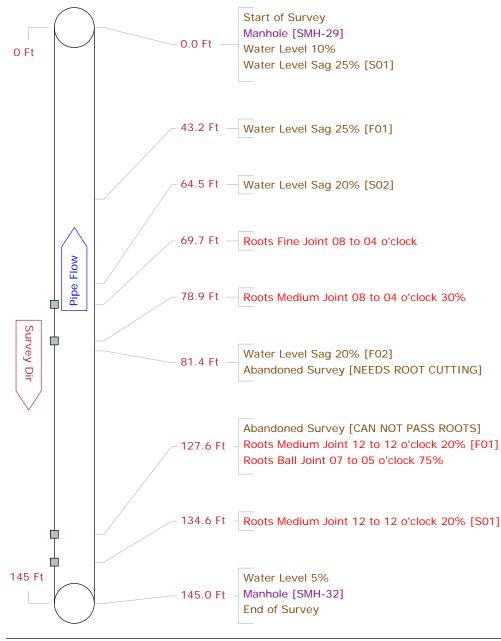
Pipe Graphic Report of PLR SMH-32 X for WOODARD & CURRAN

Setup 26/27 Surveyor WP	Certificate #	T-001-002	System Owne	er ALBANY UN	IVERSITY
Drainage CAMPUS GRC Survey Cus	tomer WOODARD & CUR	RAN			
P/O # Date 20	07/07/23 Time 15:19	Street SUNY	OF ALBANY		
Locality CAMPUS GROUNDS	Further location details				
Start SMH-32	Rim to invert	Grade to invert	Rim to	grade	Ft
Finish SMH-29	Rim to invert	Grade to invert	Rim to	grade	Ft
Use Sanitary	Direction Downstream	Flow control	Not Controlled	Tape/Media	# WP-01
Shape Circular	Height 8 Width	ins Precle	an J	Year Cleane	d
Material Vitrified Clay Pipe	Joint length F	t Total length	145.0 <i>Ft Le</i>	ength Surveyed	17.40
Lining	Year laid Ye	ar rehabilitated	Weather	Heavy Rain	
Purpose Infiltration/Inflow Investigation		Cat			
Additional info			Structural	O&M	Constructional
Location Light Highway			Miscellaneous	Hydraulic	



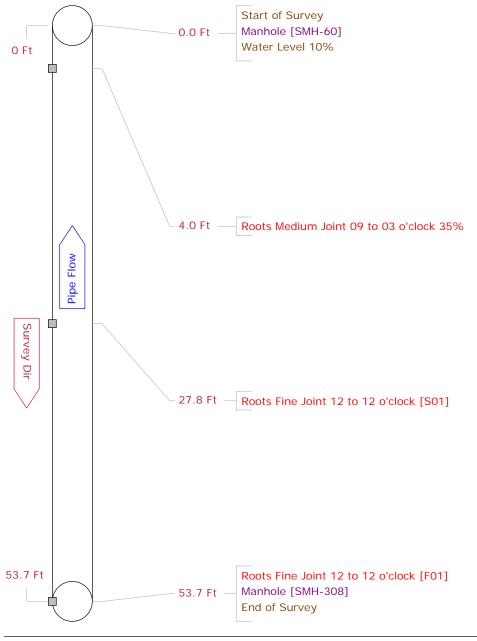
Pipe Graphic Report of PLR SMH-32 X for WOODARD & CURRAN

Setup 27/26 Surveyor WP	Certificate #	T-001-002	System Owner	· ALBANY UNIV	ERSITY
Drainage CAMPUS GRC Survey Cus	tomer WOODARD & CUR	RAN			
P/O # Date 200	7/07/23 Time 15:19	Street SUNY	OF ALBANY		
Locality CAMPUS GROUNDS	Further location details				
Start SMH-29	Rim to invert	Grade to invert	Rim to g	grade	Ft
Finish SMH-32	Rim to invert	Grade to invert	Rim to g	grade	Ft
Use Sanitary	Direction Upstream	Flow control	Not Controlled	Tape/Media #	WP-01
Shape Circular	Height 8 Width	ins Precle	an J	Year Cleaned	
Material Vitrified Clay Pipe	Joint length F	t Total length	145.0 <i>Ft Ler</i>	ngth Surveyed 8	1.40
Lining	Year laid Ye	ar rehabilitated	Weather	Heavy Rain	
Purpose Infiltration/Inflow Investigation		Cat			
Additional info Reverse set up on she	et:26		Structural C	M Co	nstructional
Location Light Highway			Miscellaneous H	lydraulic	



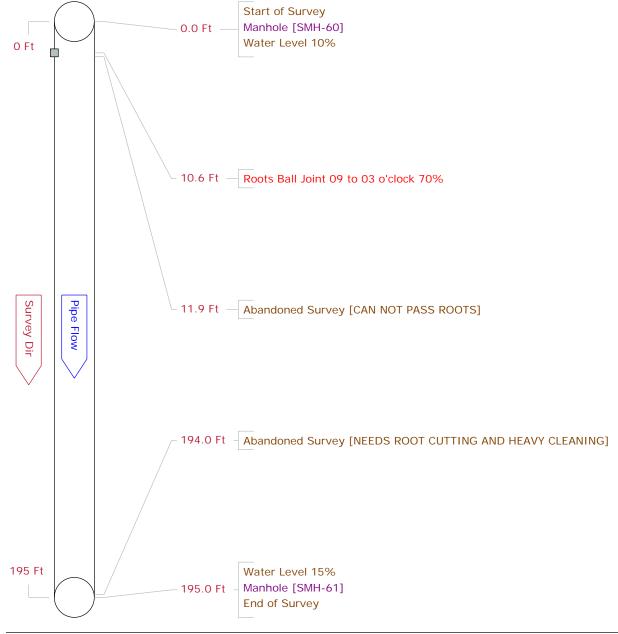
Pipe Graphic Report of PLR SMH-308 X for WOODARD & CURRAN

Setup 28 Surveyor WP	Certificate #	T-001-002	System Owner	ALBANY UNIVERSITY
Drainage CAMPUS GRC Survey Cu	stomer WOODARD & CU	RRAN		
P/O # Date 20	007/07/23 Time 17:54	Street SUNY	OF ALBANY	
Locality CAMPUS GROUNDS	Further location details			
Start SMH-60	Rim to invert	Grade to invert	Rim to g	rade Ft
Finish SMH-308	Rim to invert	Grade to invert	Rim to g	rade Ft
Use Sanitary	Direction Upstream	Flow control	Not Controlled	Tape/Media # WP-01
Shape Circular	Height ⁸ Width	ins Preclea	an J	Year Cleaned
Material Vitrified Clay Pipe	Joint length	t Total length	53.7 Ft Leng	gth Surveyed 53.70
Lining	Year laid Ye	ear rehabilitated	Weather	Heavy Rain
Purpose Infiltration/Inflow Investigation	า	Cat		
Additional info			Structural O8	&M Constructional
Location Light Highway			Miscellaneous Hy	/draulic



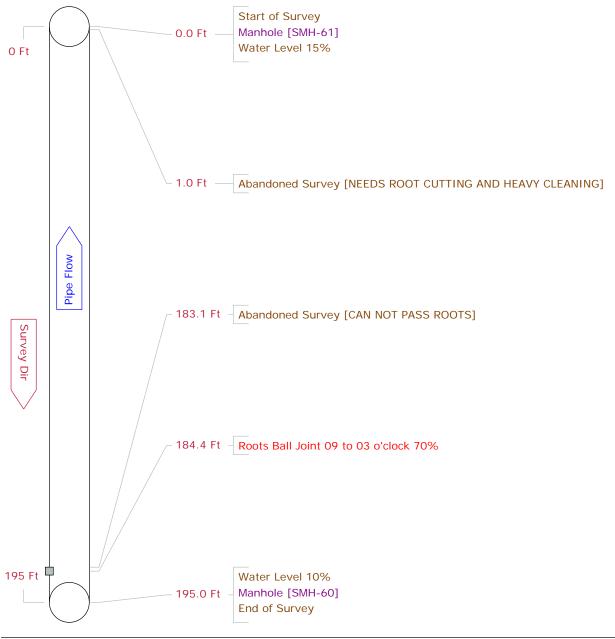
Pipe Graphic Report of PLR SMH-60 X for WOODARD & CURRAN

Setup 29/30 Surveyor WP	Certificate #	T-001-002	System Owner	ALBANY UNIVERSITY
Drainage CAMPUS GRC Survey Cust	omer WOODARD & CUR	RAN		
P/O # Date 200	7/07/23 Time 18:10	Street SUNY	OF ALBANY	
Locality CAMPUS GROUNDS	Further location details			
Start SMH-60	Rim to invert	Grade to invert	Rim to g	rade Ft
Finish SMH-61	Rim to invert	Grade to invert	Rim to g	rade Ft
Use Sanitary	Direction Downstream	Flow control	Not Controlled	Tape/Media # WP-01
Shape Circular	Height 8 Width	ins Preclea	an J	Year Cleaned
Material Vitrified Clay Pipe	Joint length F	t Total length	195.0 Ft Len g	gth Surveyed 11.90
Lining	Year laid Ye	ar rehabilitated	Weather	Heavy Rain
Purpose Infiltration/Inflow Investigation	(Cat		
Additional info			Structural O	&M Constructional
Location Light Highway			Miscellaneous Hy	ydraulic



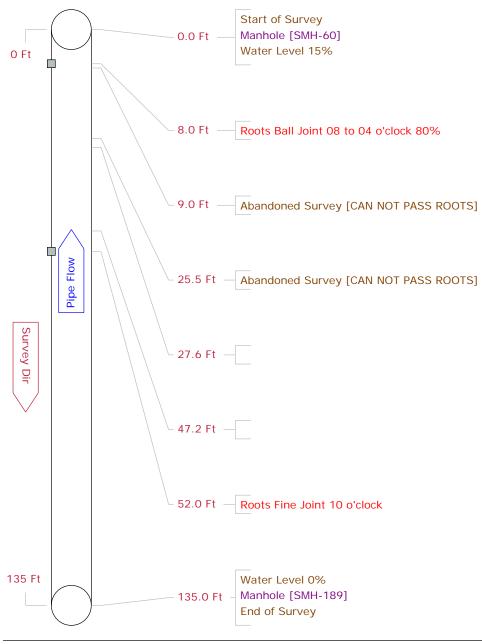
Pipe Graphic Report of PLR SMH-60 X for WOODARD & CURRAN

Setup 30/29 Surveyor WP	Certificate #	T-001-002	System Owne	r ALBANY UN	IVERSITY
Drainage CAMPUS GRC Survey Cust	omer WOODARD & CUF	RRAN			
P/O # Date 200	7/07/23 Time 6:19	Street SUNY	OF ALBANY		
Locality CAMPUS GROUNDS	Further location details				
Start SMH-61	Rim to invert	Grade to invert	Rim to	grade	Ft
Finish SMH-60	Rim to invert	Grade to invert	Rim to	grade	Ft
Use Sanitary	Direction Upstream	Flow control	Not Controlled	Tape/Media	# WP-01
Shape Circular	Height 8 Width	ins Precle	an J	Year Cleaned	1
Material Vitrified Clay Pipe	Joint length F	-t Total length	195.0 <i>Ft Le</i>	ngth Surveyed	01.00
Lining	Year laid Ye	ear rehabilitated	Weather	Heavy Rain	
Purpose Infiltration/Inflow Investigation		Cat			
Additional info Reverse set up on she	et:29		Structural	O&M (Constructional
Location Light Highway			Miscellaneous	Hydraulic	



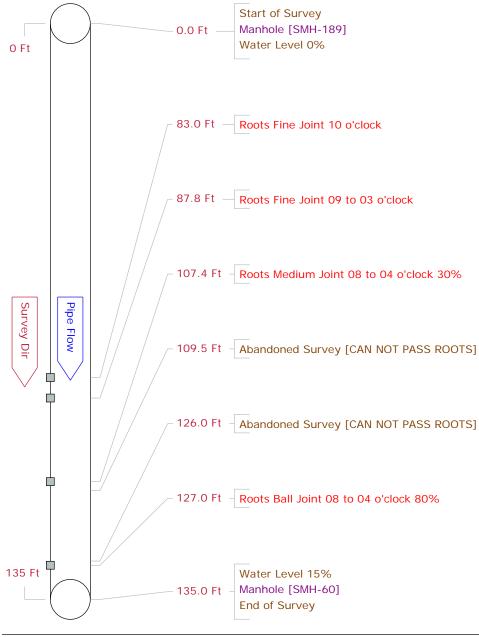
Pipe Graphic Report of PLR SMH-189 X for WOODARD & CURRAN

Setup 31	/32 Surveyor WP	Certificate	# T-001-002	System Owne	r ALBANY UN	NIVERSITY
Drainage	CAMPUS GRC Survey	Customer WOODARD & C	URRAN			
P/O #	Date	2007/07/23 Time 18:23	3 Street SUNY	OF ALBANY		
Locality	CAMPUS GROUNDS	Further location detail	s			
Start SN	/H-60	Rim to invert	Grade to invert	Rim to	grade	Ft
Finish SN	/IH-189	Rim to invert	Grade to invert	Rim to	grade	Ft
Use Sanit	ary	Direction Upstream	Flow control	Not Controlled	Tape/Media	# WP-01
Shape Cir	cular	Height 8 Width	n ins Precle	an J	Year Cleane	ed
Material	Vitrified Clay Pipe	Joint length	Ft Total length	135.0 <i>Ft Le</i>	ngth Surveye	d 09.00
Lining		Year laid	Year rehabilitated	Weather	Heavy Rain	
Purpose	Infiltration/Inflow Investiga	ition	Cat			
Additiona	l info			Structural (D&M	Constructional
Location	Light Highway			Miscellaneous	Hydraulic	



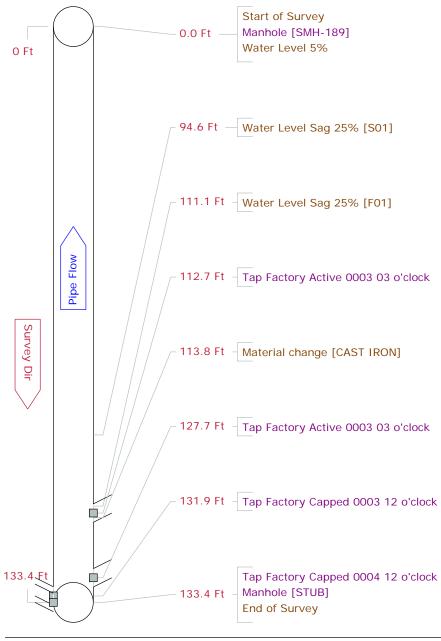
Pipe Graphic Report of PLR SMH-189 X for WOODARD & CURRAN

Setup 32/31 Surveyor WP	Certificate #	T-001-002	System Owne	er ALBANY UN	IVERSITY
Drainage CAMPUS GRC Survey Cus	tomer WOODARD & CUR	RAN			
P/O # Date 200	07/07/23 Time 6:28	Street SUNY	OF ALBANY		
Locality CAMPUS GROUNDS	Further location details				
Start SMH-189	Rim to invert	Grade to invert	Rim to	grade	Ft
Finish SMH-60	Rim to invert	Grade to invert	Rim to	grade	Ft
Use Sanitary	Direction Downstream	Flow control	Not Controlled	Tape/Media ‡	# WP-01
Shape Circular	Height ⁸ Width	ins Precle	an J	Year Cleaned	1
Material Vitrified Clay Pipe	Joint length F	t Total length	135.0 Ft Le	ength Surveyed	109.50
Lining	Year laid Ye	ar rehabilitated	Weather	Heavy Rain	
Purpose Infiltration/Inflow Investigation		Cat			
Additional info Reverse set up on she	et:31		Structural	O&M (Constructional
Location Light Highway			Miscellaneous	Hydraulic	



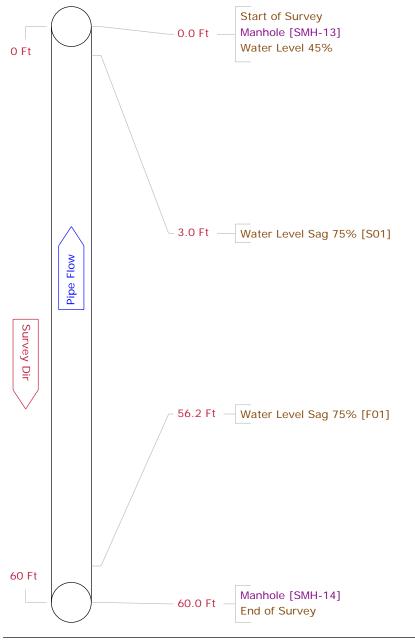
Pipe Graphic Report of PLR STUB Y for WOODARD & CURRAN

Setup 33 Surveyor WP	Certificate #	T-001-002	System Own	er ALBANY UN	IVERSITY
Drainage CAMPUS GRC Survey Cus	tomer WOODARD & CUR	RAN			
P/O # Date 200	07/07/25 Time 8:31	Street SUNY	OF ALBANY		
Locality CAMPUS GROUNDS	Further location details				
Start SMH-189	Rim to invert	Grade to invert	Rim to	o grade	Ft
Finish STUB	Rim to invert	Grade to invert	Rim to	o grade	Ft
Use Sanitary	Direction Upstream	Flow control	Not Controlled	Tape/Media	# WP-01
Shape Circular	Height ⁸ Width	ins Precle	an J	Year Cleane	d
Material Vitrified Clay Pipe	Joint length F	t Total length	133.4 Ft L	ength Surveyed	133.40
Lining	Year laid Ye	ar rehabilitated	Weather	r Dry	
Purpose Infiltration/Inflow Investigation		Cat			
Additional info			Structural	O&M	Constructional
Location Light Highway			Miscellaneous	Hydraulic	



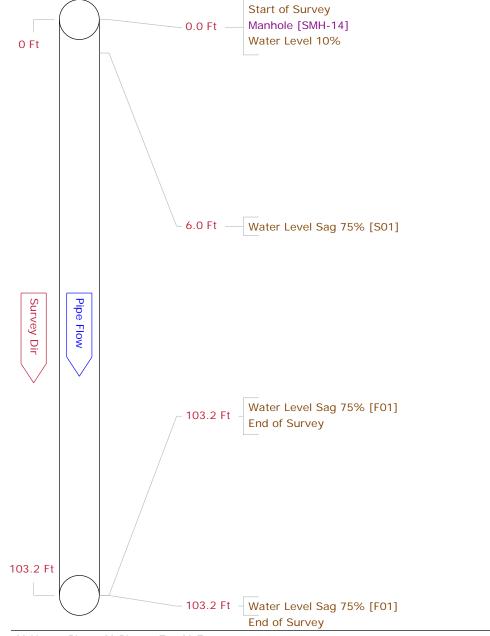
Pipe Graphic Report of PLR SMH-14 Y for WOODARD & CURRAN

Setup 34 Surveyor WP	Certificate #	T-001-002	System Owner	r ALBANY UNIVERSITY	,
Drainage CAMPUS GRC Survey Cu	Istomer WOODARD & CUF	RRAN			
P/O # Date 2	007/07/25 Time 8:54	Street SUNY	OF ALBANY		
Locality CAMPUS GROUNDS	Further location details				
Start SMH-14	Rim to invert	Grade to invert	Rim to g	grade Ft	
Finish SMH-13	Rim to invert	Grade to invert	Rim to g	grade Ft	
Use Sanitary	Direction Upstream	Flow control	Not Controlled	Tape/Media # WP-01	
Shape Circular	Height ⁸ Width	ins Preclea	an J	Year Cleaned	
Material Vitrified Clay Pipe	Joint length F	t Total length	60.0 Ft Ler	ngth Surveyed 60.00	
Lining	Year laid Ye	ear rehabilitated	Weather	Dry	
Purpose Infiltration/Inflow Investigation	on	Cat			
Additional info			Structural C	D&M Construction	onal
Location Light Highway			Miscellaneous H	lydraulic	



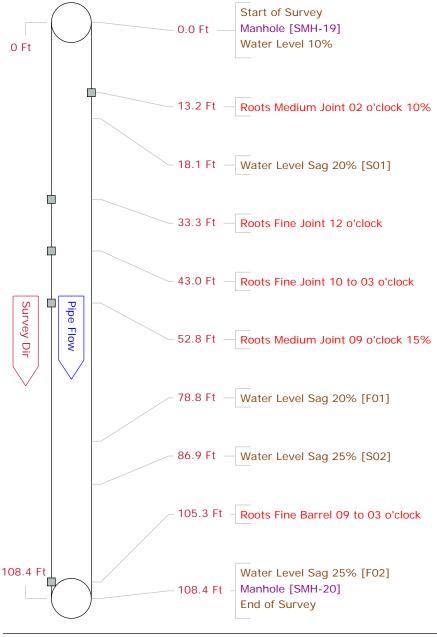
Pipe Graphic Report of PLR SMH-14 X for WOODARD & CURRAN

Setup 35 Surveyor WP	Certificate #	T-001-002	System Ow	ner ALBANY U	JNIVERSITY
Drainage CAMPUS GRC Survey Cu.	stomer WOODARD & CUR	RAN			
P/O # Date 20	007/07/25 Time 9:05	Street SUNY	OF ALBANY		
Locality CAMPUS GROUNDS	Further location details				
Start SMH-14	Rim to invert	Grade to invert	Rim	to grade	Ft
Finish SMH-15	Rim to invert	Grade to invert	Rim	to grade	Ft
Use Sanitary	Direction Downstream	Flow control	Not Controlled	Tape/Medi	a # WP-01
Shape Circular	Height 8 Width	ins Precle	an J	Year Clear	ned
Material Vitrified Clay Pipe	Joint length F	t Total length	103.2 Ft	Length Survey	ed 103.20
Lining	Year laid Ye	ar rehabilitated	Weathe	e r Dry	
Purpose Infiltration/Inflow Investigation	n	Cat			
Additional info			Structural	O&M	Constructional
Location Light Highway			Miscellaneous	Hydraulic	



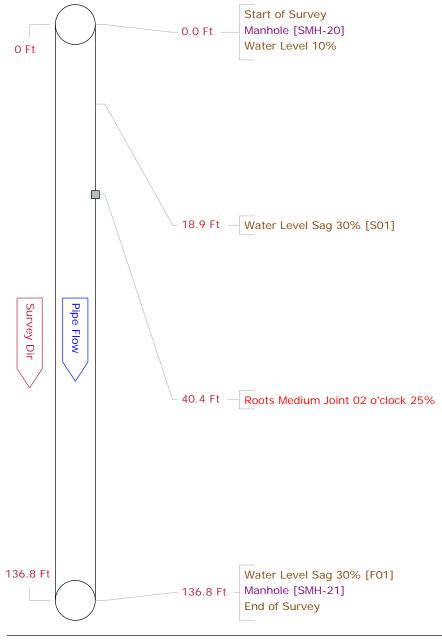
Pipe Graphic Report of PLR SMH-19 W for WOODARD & CURRAN

Setup 36	Surveyor	WP		Certif	icate #	T-001-00	2	Syst	tem Ov	wner Alban	IY UNIVERSITY
Drainage	CAMPUS GRC S	urvey Cu	ustomer	NOODAR	D & CUF	RAN					
P/O #		Date 2	2007/07/25	Time	10:04	Street	SUNY	OF ALB	ANY		
Locality C	AMPUS GROUN	IDS	Further	location	details						
Start SM	H-19		Rim to	invert		Grade to	invert		Rim	to grade	Ft
Finish SM	H-20		Rim to	invert		Grade to	invert		Rim	to grade	Ft
Use Sanita	ry		Directio	on Dowr	nstream	Flow co	ontrol	Not Con	trolled	Tape/M	ledia # WP-01
Shape Circ	ular		Heig	ht 8	Width	ins	Precle	an J		Year Cl	eaned
Material V	itrified Clay Pipe		Joir	nt length	F	t Total	length	108.4	Ft	Length Sur	veyed 108.40
Lining			Yea	r laid	Ye	ar rehabi	itated		Weath	er Dry	
Purpose In	nfiltration/Inflow Ir	nvestigatio	on			Cat					
Additional i	info							Structu	ral	O&M	Constructional
Location Li	ight Highway							Miscella	aneous	Hydraulic	



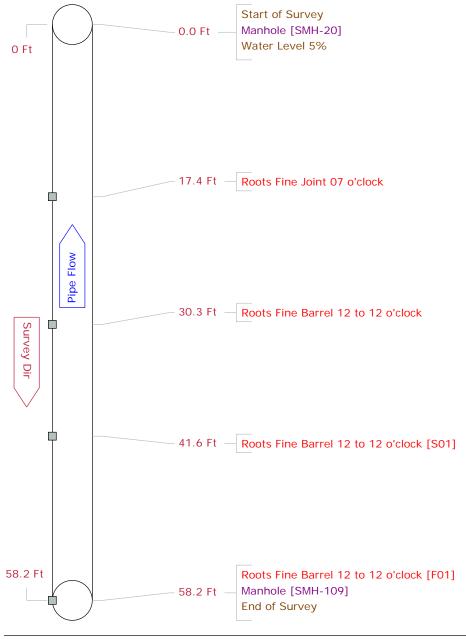
Pipe Graphic Report of PLR SMH-20 W for WOODARD & CURRAN

Setup 37 Surveyor WP	Certificate #	T-001-002	System Owne	er ALBANY UN	IIVERSITY
Drainage CAMPUS GRC Survey Cu	Istomer WOODARD & CUF	RAN			
P/O # Date 2	007/07/25 Time 10:21	Street SUNY	OF ALBANY		
Locality CAMPUS GROUNDS	Further location details				
Start SMH-20	Rim to invert	Grade to invert	Rim to	grade	Ft
Finish SMH-21	Rim to invert	Grade to invert	Rim to	grade	Ft
Use Sanitary	Direction Downstream	Flow control	Not Controlled	Tape/Media	# WP-01
Shape Circular	Height 8 Width	ins Precle	an J	Year Cleane	d
Material Vitrified Clay Pipe	Joint length F	t Total length	136.8 <i>Ft Le</i>	ength Surveyed	1 36.80
Lining	Year laid Ye	ar rehabilitated	Weather	Dry	
Purpose Infiltration/Inflow Investigation	n	Cat			
Additional info			Structural	O&M	Constructional
Location Light Highway			Miscellaneous	Hydraulic	



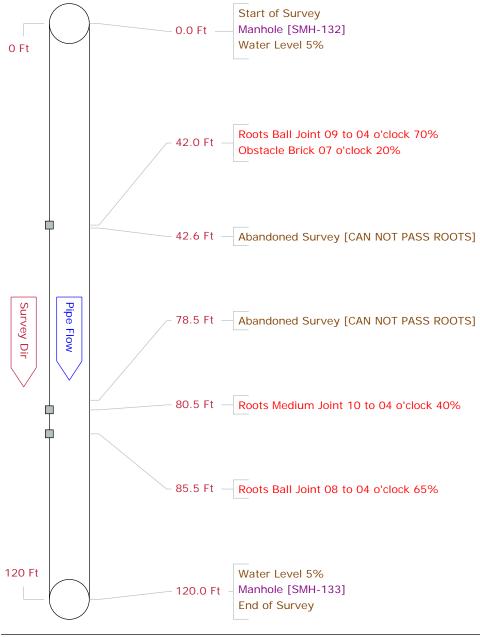
Pipe Graphic Report of PLR SMH-109 W for WOODARD & CURRAN

Setup 38 Surveyor	WP Cert	<i>ificate</i> # T-001-0	002	System Owner	ALBANY UNI	'ERSITY
Drainage CAMPUS GRC	Survey Customer WOODA	RD & CURRAN				
P/O #	Date 2007/07/25 Time	e 10:39 Stree	et SUNY OF	ALBANY		
Locality CAMPUS GROU	NDS Further location	n details				
Start SMH-20	Rim to invert	Grade	to invert	Rim to g	grade	Ft
Finish SMH-109	Rim to invert	Grade	to invert	Rim to g	grade	Ft
Use Sanitary	Direction Ups	stream Flow	control Not	Controlled	Tape/Media #	WP-01
Shape Circular	Height 8	Width ins	Preclean	J	Year Cleaned	
Material Vitrified Clay Pipe	e Joint lengtl	h Ft Tot	al length 58	.2 Ft Len	gth Surveyed	58.20
Lining	Year laid	Year reha	bilitated	Weather	Dry	
Purpose Infiltration/Inflow	Investigation	Cat				
Additional info			St	ructural O	&M C	onstructional
Location Light Highway			Mi	scellaneous H	ydraulic	



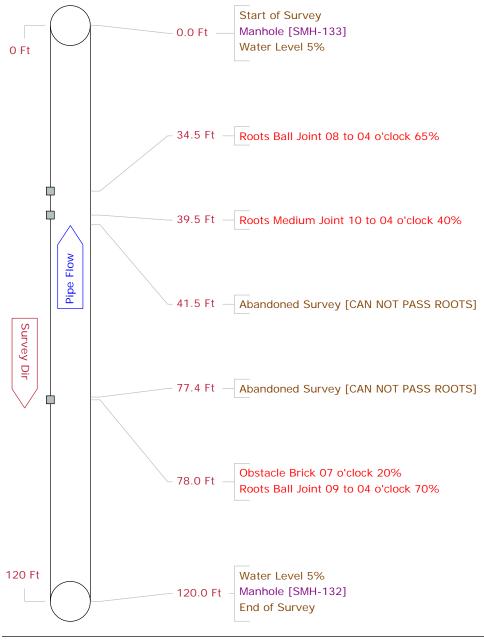
Pipe Graphic Report of PLR SMH-132 W for WOODARD & CURRAN

Setup 39/40	Surveyor WP	Certific	ate # T-	001-002	System O	wner ALBAN	Y UNIVERSITY
Drainage CAM	IPUS GRC Survey	Customer WOODARD	& CURRA	N			
P/O #	Date	2007/07/25 Time	11:07	Street SUN	Y OF ALBANY		
Locality CAMP	PUS GROUNDS	Further location d	etails				
Start SMH-13	2	Rim to invert	G	rade to inver	Rim	to grade	Ft
Finish SMH-13	3	Rim to invert	G	rade to inver	t Rim	to grade	Ft
Use Sanitary		Direction Downs	tream I	Flow control	Not Controlled	Tape/Me	edia # WP-01
Shape Circular		Height ⁸ M	/idth	ins Precle	ean J	Year Cle	aned
Material Vitrifie	ed Clay Pipe	Joint length	Ft	Total lengtl	120.0 Ft	Length Surve	eyed 42.60
Lining		Year laid	Year	rehabilitated	Weath	ner Dry	
Purpose Infiltra	tion/Inflow Investiga	ation	Ca	t			
Additional info					Structural	O&M	Constructional
Location Light	Highway				Miscellaneous	Hydraulic	



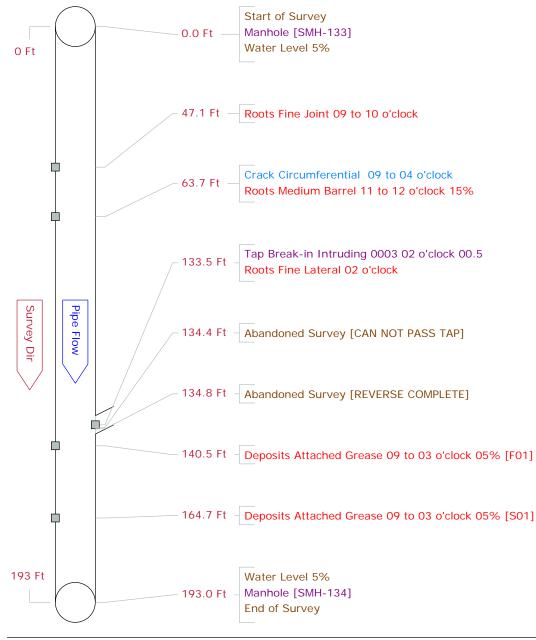
Pipe Graphic Report of PLR SMH-132 W for WOODARD & CURRAN

Setup 40/39 Surveyor WP	Certificate #	T-001-002	System Owne		/ERSITY
Drainage CAMPUS GRC Survey Cus	tomer WOODARD & CUF	RAN			
P/O # Date 200	07/07/25 Time 11:14	Street SUNY	OF ALBANY		
Locality CAMPUS GROUNDS	Further location details				
Start SMH-133	Rim to invert	Grade to invert	Rim to	grade	Ft
Finish SMH-132	Rim to invert	Grade to invert	Rim to	grade	Ft
Use Sanitary	Direction Upstream	Flow control	Not Controlled	Tape/Media #	WP-01
Shape Circular	Height ⁸ Width	ins Precle	an J	Year Cleaned	
Material Vitrified Clay Pipe	Joint length F	t Total length	120.0 <i>Ft Le</i>	ngth Surveyed	41.50
Lining	Year laid Ye	ear rehabilitated	Weather	Dry	
Purpose Infiltration/Inflow Investigation		Cat			
Additional info Reverse set up on she	et:39		Structural (C M&C	onstructional
Location Light Highway			Miscellaneous	Hydraulic	



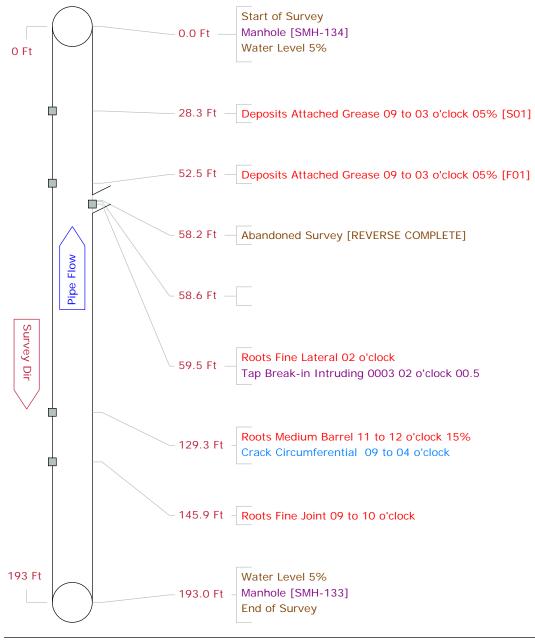
Pipe Graphic Report of PLR SMH-133 W for WOODARD & CURRAN

Setup 41/42 Surveyor WP	Certificate #	T-001-002	System Owne	r ALBANY UNI	VERSITY
Drainage CAMPUS GRC Survey Cus	tomer WOODARD & CUR	RAN			
P/O # Date 20	07/07/25 Time 11:23	Street SUNY	OF ALBANY		
Locality CAMPUS GROUNDS	Further location details				
Start SMH-133	Rim to invert	Grade to invert	Rim to	grade	Ft
Finish SMH-134	Rim to invert	Grade to invert	Rim to	grade	Ft
Use Sanitary	Direction Downstream	Flow control	Not Controlled	Tape/Media #	WP-01
Shape Circular	Height 8 Width	ins Precle	an J	Year Cleaned	1
Material Vitrified Clay Pipe	Joint length F	t Total length	193.0 <i>Ft Le</i>	ngth Surveyed	134.40
Lining	Year laid Ye	ar rehabilitated	Weather	Dry	
Purpose Infiltration/Inflow Investigation		Cat			
Additional info			Structural	O&M C	Constructional
Location Light Highway			Miscellaneous	Hydraulic	



Pipe Graphic Report of PLR SMH-133 W for WOODARD & CURRAN

Setup 42/41 Surveyor WP	Certificate #	T-001-002	System Owner	ALBANY UNIVERSITY
Drainage CAMPUS GRC Survey Cus	tomer WOODARD & CUF	RRAN		
P/O # Date 200	07/07/25 Time 11:30	Street SUNY	OF ALBANY	
Locality CAMPUS GROUNDS	Further location details			
Start SMH-134	Rim to invert	Grade to invert	Rim to g	rade Ft
Finish SMH-133	Rim to invert	Grade to invert	Rim to g	rade Ft
Use Sanitary	Direction Upstream	Flow control	Not Controlled	Tape/Media # WP-01
Shape Circular	Height ⁸ Width	ins Precle	an J	Year Cleaned
Material Vitrified Clay Pipe	Joint length F	t Total length	193.0 Ft Len	gth Surveyed 58.20
Lining	Year laid Ye	ar rehabilitated	Weather	Dry
Purpose Infiltration/Inflow Investigation		Cat		
Additional info Reverse set up on she	et:41		Structural Od	&M Constructional
Location Light Highway			Miscellaneous Hy	/draulic

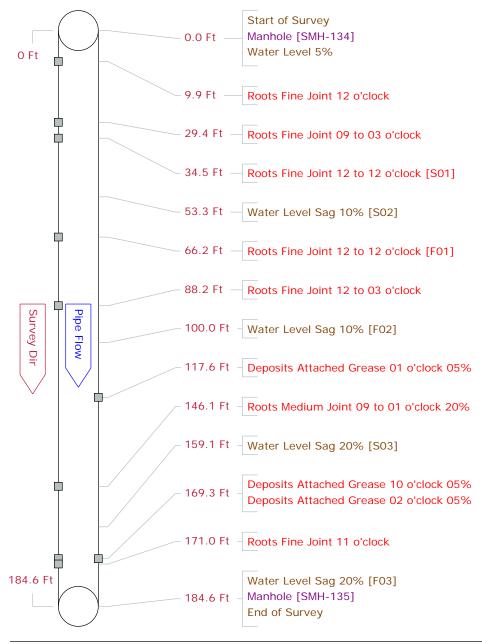


Pipe Graphic Report of PLR SMH-134

for WOODARD & CURRAN

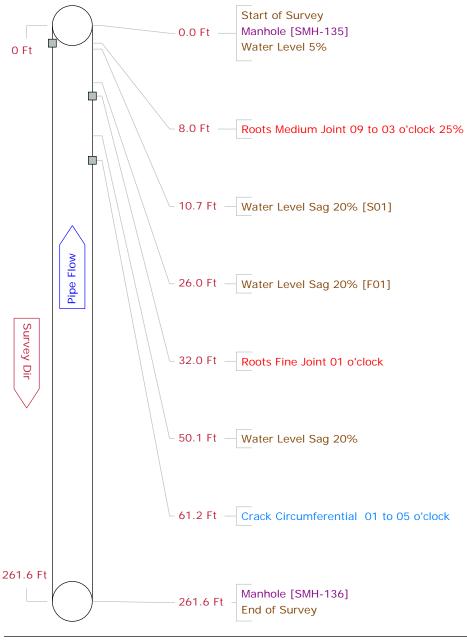
Setup 43	3 Surveyor WP	Certificate #	T-001-002	System Owner	 ALBANY UNIVERSITY
Drainage	CAMPUS GRC Survey (Customer WOODARD & CL	JRRAN		
P/O #	Date	2007/07/25 Time 11:40	Street SUNY	OF ALBANY	
Locality	CAMPUS GROUNDS	Further location details	1		
Start S	MH-134	Rim to invert	Grade to invert	Rim to g	grade Ft
Finish S	MH-135	Rim to invert	Grade to invert	Rim to g	grade Ft
Use Sani	itary	Direction Downstream	Flow control	Not Controlled	Tape/Media # WP-01
Shape C	ircular	Height ⁸ Width	ins Precle	an J	Year Cleaned
Material	Vitrified Clay Pipe	Joint length	Ft Total length	184.6 Ft Len	ngth Surveyed 184.60
Lining		Year laid	ear rehabilitated	Weather	Dry
Purpose	Infiltration/Inflow Investigation	tion	Cat		
Additiona	al info			Structural C	Constructional
Location	Light Highway			Miscellaneous H	lydraulic

W



Pipe Graphic Report of PLRSMH-136WforWOODARD & CURRAN

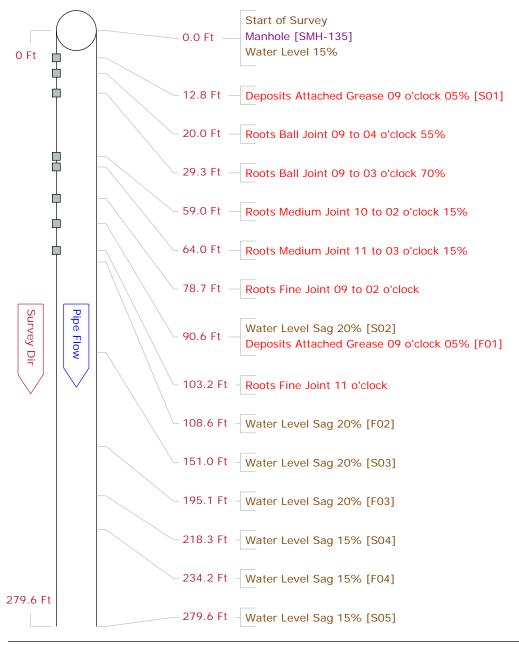
Setup 44	Surveyor WP	Certificate	# T-001-002	System Owr	ner ALBAN	Y UNIVERSITY
Drainage	CAMPUS GRC Survey	Customer WOODARD &	CURRAN			
P/O #	Date	2007/07/25 Time 13:2	24 Street SUN	NY OF ALBANY		
Locality	CAMPUS GROUNDS	Further location deta	ils			
Start SN	/H-135	Rim to invert	Grade to inve	rt Rim t	o grade	Ft
Finish SN	/H-136	Rim to invert	Grade to inve	rt Rim t	o grade	Ft
Use Sanit	ary	Direction Upstream	Flow control	Not Controlled	Tape/Me	edia # WP-01
Shape Cir	rcular	Height ⁸ Widt	th ins Prec	lean J	Year Cle	eaned
Material	Vitrified Clay Pipe	Joint length	Ft Total leng	th 261.6 Ft L	ength Surv	eyed 261.60
Lining		Year laid	Year rehabilitated	d Weathe	r Dry	
Purpose	Infiltration/Inflow Investig	ation	Cat			
Additional	l info			Structural	O&M	Constructional
Location	Light Highway			Miscellaneous	Hydraulic	



Pipe Graphic Report of PLR SMH-135 W

<u> </u>				
Setup 45 Surveyor WP	Certificate #	T-001-002	System Owner	ALBANY UNIVERSITY
Drainage CAMPUS GRC Survey Cu	stomer WOODARD & CUF	RAN		
P/O # Date 20	007/07/25 Time 13:43	Street SUNY	OF ALBANY	
Locality CAMPUS GROUNDS	Further location details			
Start SMH-135	Rim to invert	Grade to invert	Rim to g	rade Ft
Finish SMH-137	Rim to invert	Grade to invert	Rim to g	rade Ft
Use Sanitary	Direction Downstream	Flow control	Not Controlled	Tape/Media # WP-01
Shape Circular	Height ⁸ Width	ins Preclea	an J	Year Cleaned
Material Vitrified Clay Pipe	Joint length F	t Total length	289.5 Ft Len	gth Surveyed 289.50
Lining	Year laid Ye	ear rehabilitated	Weather	Dry
Purpose Infiltration/Inflow Investigation	n	Cat		
Additional info			Structural O	&M Constructional
Location Light Highway			Miscellaneous H	ydraulic

for WOODARD & CURRAN



Pipe Graphic Report of PLR SMH-137 W for WOODARD & CURRAN

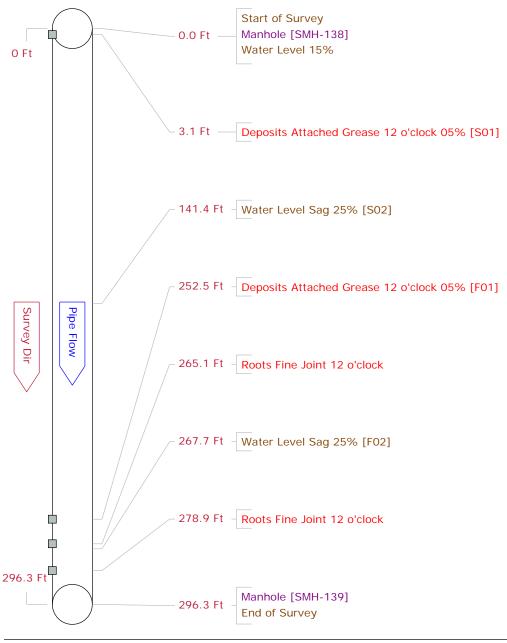
Setup 46 Surveyor WP	Certificate #	T-001-002	System Owne	r ALBANY UNI	/ERSITY
Drainage CAMPUS GRC Survey Cus	tomer WOODARD & CUR	RAN			
P/O # Date 200	07/07/25 Time 14:04	Street SUNY	OF ALBANY		
Locality CAMPUS GROUNDS	Further location details				
Start SMH-137	Rim to invert	Grade to invert	Rim to	grade	Ft
Finish SMH-138	Rim to invert	Grade to invert	Rim to	grade	Ft
Use Sanitary	Direction Downstream	Flow control	Not Controlled	Tape/Media #	WP-01
Shape Circular	Height 8 Width	ins Precle	an J	Year Cleaned	
Material Vitrified Clay Pipe	Joint length F	t Total length	297.2 Ft Le	ngth Surveyed	297.20
Lining	Year laid Ye	ar rehabilitated	Weather	Dry	
Purpose Infiltration/Inflow Investigation	(Cat			
Additional info			Structural (O&M C	onstructional
Location Light Highway			Miscellaneous	Hydraulic	



MyName Phone: MyPhone Fax: MyFax

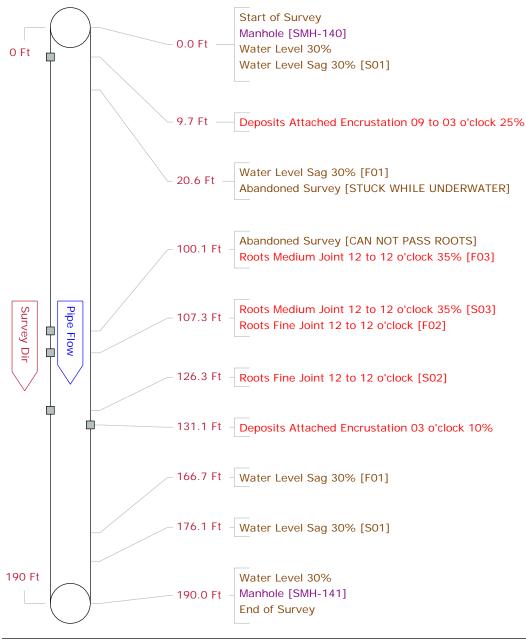
Pipe Graphic Report of PLR SMH-138 X for WOODARD & CURRAN

Setup 47 Surveyor WP	Certificate #	T-001-002	System Owner	· ALBANY UNIVERSITY
Drainage CAMPUS GRC Survey C	ustomer WOODARD & CUR	RAN		
P/O # Date	2007/07/25 Time 14:13	Street SUNY	OF ALBANY	
Locality CAMPUS GROUNDS	Further location details			
Start SMH-138	Rim to invert	Grade to invert	Rim to g	grade Ft
Finish SMH-139	Rim to invert	Grade to invert	Rim to g	grade Ft
Use Sanitary	Direction Downstream	Flow control	Not Controlled	Tape/Media # WP-01
Shape Circular	Height 8 Width	ins Precle	an J	Year Cleaned
Material Vitrified Clay Pipe	Joint length F	t Total length	296.3 Ft Ler	igth Surveyed 296.30
Lining	Year laid Ye	ar rehabilitated	Weather	Dry
Purpose Infiltration/Inflow Investigation	on	Cat		
Additional info			Structural C	&M Constructional
Location Light Highway			Miscellaneous H	ydraulic



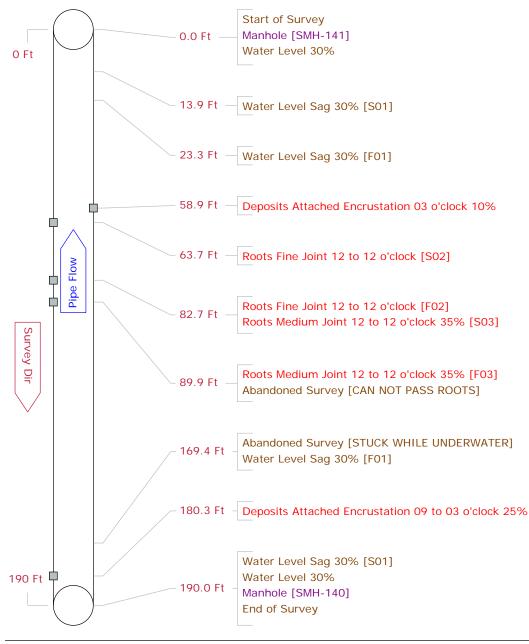
Pipe Graphic Report of PLR SMH-140 X for WOODARD & CURRAN

Setup 48/4	9 Surveyor WP	Cer	rtificate #	T-001-002	System O	wner ALBAN	Y UNIVERSITY
Drainage (CAMPUS GRC Survey	Customer WOOD	ARD & CUR	RAN			
P/O #	Date	2007/07/25 Tim	ie 14:57	Street SUN	Y OF ALBANY		
Locality C.	AMPUS GROUNDS	Further locatio	n details				
Start SMH	I-140	Rim to invert		Grade to inver	rt Rim	to grade	Ft
Finish SMH	I-141	Rim to invert		Grade to inver	rt Rim	to grade	Ft
Use Sanitar	у	Direction Do	wnstream	Flow control	Not Controlled	Tape/Me	edia # WP-01
Shape Circu	ular	Height 10	Width	ins Precl	ean J	Year Cle	eaned
Material Vi	trified Clay Pipe	Joint leng	th F	t Total lengt	h 190.0 Ft	Length Surv	eyed 20.60
Lining		Year laid	Ye	ar rehabilitated	l Weath	ner Dry	
Purpose In	filtration/Inflow Investig	ation		Cat			
Additional i	nfo				Structural	O&M	Constructional
Location Li	ght Highway				Miscellaneous	Hydraulic	



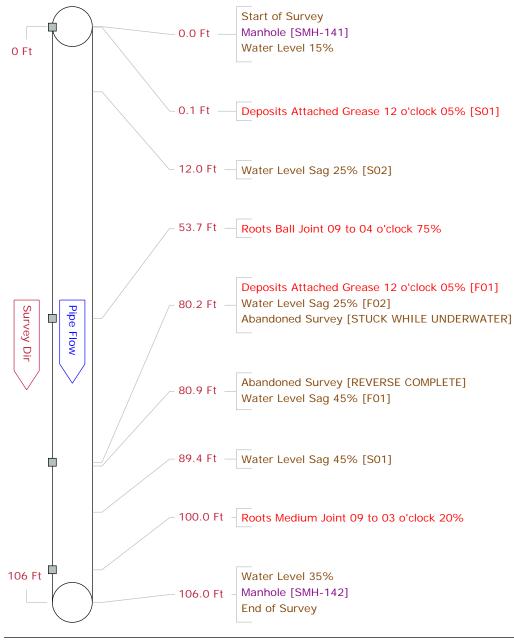
Pipe Graphic Report of PLR SMH-140 X for WOODARD & CURRAN

Setup 49/48 Surveyor WP	Certificate #	T-001-002	System Owne	er ALBANY UNI	VERSITY
Drainage CAMPUS GRC Survey Cus	tomer WOODARD & CUR	RAN			
P/O # Date 200	7/07/25 Time 2:57	Street SUNY	OF ALBANY		
Locality CAMPUS GROUNDS	Further location details				
Start SMH-141	Rim to invert	Grade to invert	Rim to	grade	Ft
Finish SMH-140	Rim to invert	Grade to invert	Rim to	grade	Ft
Use Sanitary	Direction Upstream	Flow control	Not Controlled	Tape/Media #	WP-02
Shape Circular	Height 10 Width	ins Precle	an J	Year Cleaned	1
Material Vitrified Clay Pipe	Joint length F	t Total length	190.0 Ft Le	ength Surveyed	89.90
Lining	Year laid Ye	ar rehabilitated	Weather	Dry	
Purpose Infiltration/Inflow Investigation		Cat			
Additional info Reverse set up on she	et:48		Structural	O&M C	onstructional
Location Light Highway			Miscellaneous	Hydraulic	



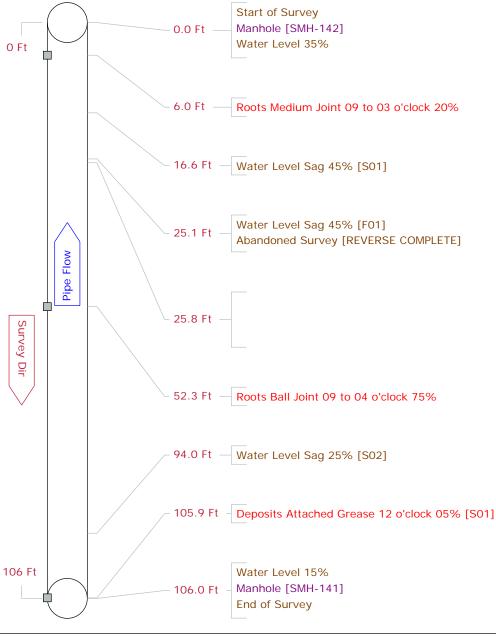
Pipe Graphic Report of PLR SMH-141 X for WOODARD & CURRAN

Setup 50/51 Surveyor WP	Certificate #	T-001-002	System Owne	r ALBANY UNIV	'ERSITY
Drainage CAMPUS GRC Survey Cus	stomer WOODARD & CUR	RAN			
P/O # Date 20	07/07/25 Time 3:33	Street SUNY	OF ALBANY		
Locality CAMPUS GROUNDS	Further location details				
Start SMH-141	Rim to invert	Grade to invert	Rim to	grade	Ft
Finish SMH-142	Rim to invert	Grade to invert	Rim to	grade	Ft
Use Sanitary	Direction Downstream	Flow control	Not Controlled	Tape/Media #	WP-02
Shape Circular	Height 10 Width	ins Precle	an J	Year Cleaned	
Material Vitrified Clay Pipe	Joint length F	t Total length	106.0 <i>Ft Le</i>	ngth Surveyed 8	30.20
Lining	Year laid Ye	ar rehabilitated	Weather	Dry	
Purpose Infiltration/Inflow Investigation	ı	Cat			
Additional info			Structural (D&M Co	onstructional
Location Light Highway			Miscellaneous H	Hydraulic	



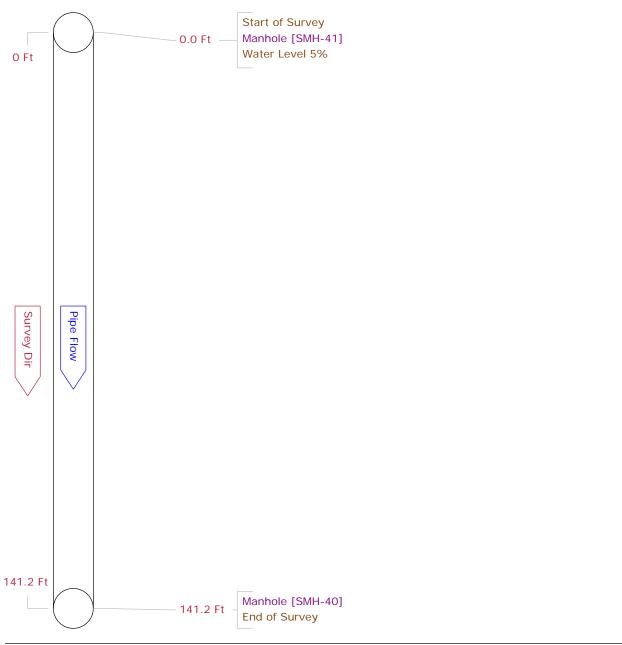
Pipe Graphic Report of PLR SMH-141 X for WOODARD & CURRAN

Setup 51/50 Surveyor WP	Certificate #	T-001-002	System Owne	er ALBANY UNI	VERSITY
Drainage CAMPUS GRC Survey Cus	tomer WOODARD & CUR	RAN			
P/O # Date 200	07/07/25 Time 4:00	Street SUNY	OF ALBANY		
Locality CAMPUS GROUNDS	Further location details				
Start SMH-142	Rim to invert	Grade to invert	Rim to	grade	Ft
Finish SMH-141	Rim to invert	Grade to invert	Rim to	grade	Ft
Use Sanitary	Direction Upstream	Flow control	Not Controlled	Tape/Media #	WP-02
Shape Circular	Height 10 Width	ins Precle	an J	Year Cleaned	1
Material Vitrified Clay Pipe	Joint length F	t Total length	106.0 Ft Le	ength Surveyed	25.10
Lining	Year laid Ye	ar rehabilitated	Weather	Dry	
Purpose Infiltration/Inflow Investigation		Cat			
Additional info Reverse set up on she	eet:50		Structural	O&M C	Constructional
Location Light Highway			Miscellaneous	Hydraulic	



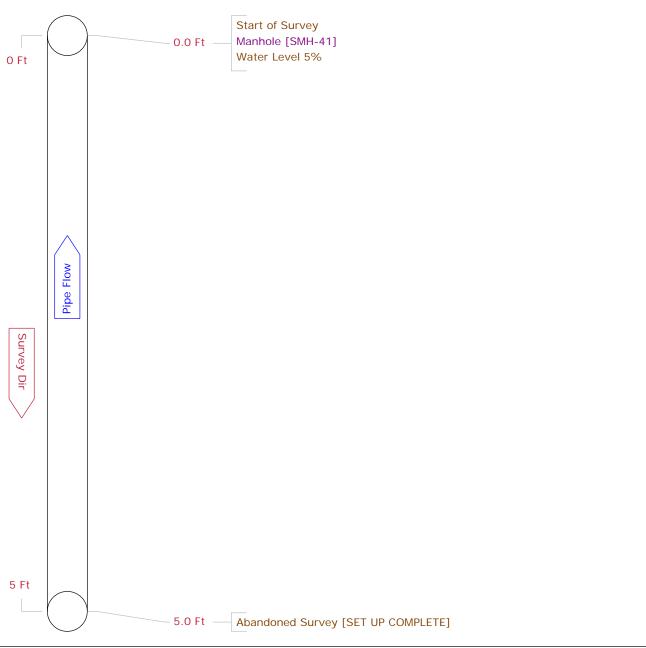
Pipe Graphic Report of PLR SMH-41 X for WOODARD & CURRAN

Setup 5	2 Surveyor WP	Certificate #	T-001-002	System Ov	wner ALBAN	UNIVERSITY
Drainage	CAMPUS GRC Survey (Customer WOODARD & CU	RRAN			
P/O #	Date	2007/07/31 Time 12:51	Street SUN	OF ALBANY		
Locality	CAMPUS GROUNDS	Further location details				
Start S	MH-41	Rim to invert	Grade to invert	Rim	to grade	Ft
Finish S	MH-40	Rim to invert	Grade to invert	Rim	to grade	Ft
Use San	itary	Direction Downstream	Flow control	Not Controlled	Tape/Me	dia # WP-02
Shape C	Fircular	Height ⁸ Width	ins Precle	an J	Year Cle	aned
Material	Vitrified Clay Pipe	Joint length	Ft Total length	141.2 Ft	Length Surve	eyed 141.20
Lining		Year laid Y	ear rehabilitated	Weath	er Dry	
Purpose	Infiltration/Inflow Investiga	tion	Cat			
Additiona	al info			Structural	O&M	Constructional
Location	Light Highway			Miscellaneous	Hydraulic	



Pipe Graphic Report of PLR STUB S for WOODARD & CURRAN

Setup 53 Surveyor WP	Certificate #	T-001-002	System Owner	ALBANY UNIVERSITY
Drainage CAMPUS GRC Survey	Customer WOODARD & CUR	RRAN		
P/O # Date	2007/07/31 Time 1:00	Street SUNY C	OF ALBANY	
Locality CAMPUS GROUNDS	Further location details			
Start SMH-41	Rim to invert	Grade to invert	Rim to gr	ade Ft
Finish STUB	Rim to invert	Grade to invert	Rim to gr	ade Ft
Use Sanitary	Direction Upstream	Flow control N	ot Controlled	Tape/Media # WP-02
Shape Circular	Height 8 Width	ins Preclear	n J	Year Cleaned
Material Vitrified Clay Pipe	Joint length	Ft Total length	5.0 Ft Leng	th Surveyed 05.00
Lining	Year laid Ye	ear rehabilitated	Weather	Dry
Purpose Infiltration/Inflow Investig	ation	Cat		
Additional info		:	Structural O&	M Constructional
Location Light Highway			Miscellaneous Hyd	draulic



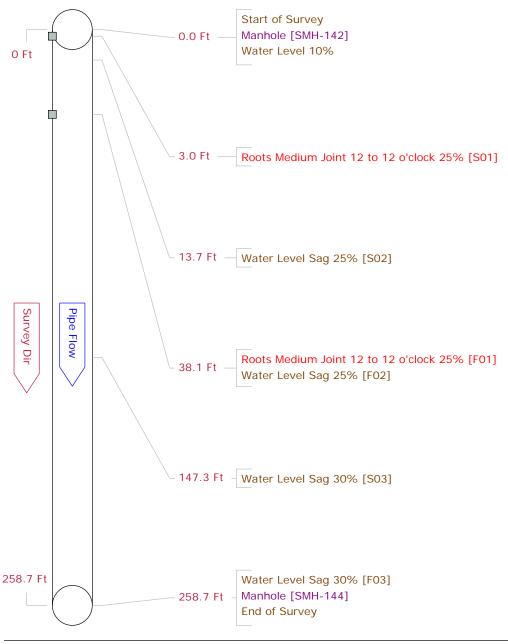
Pipe Graphic Report of PLR SMH-139 S for WOODARD & CURRAN

Setup 54 Surveyor WP	Certificate #	T-001-002	System Owner	ALBANY UNIVERSITY
Drainage CAMPUS GRC Survey Cu	Istomer WOODARD & CUF	RRAN		
P/O # Date 2	007/07/31 Time 13:17	Street SUNY	OF ALBANY	
Locality CAMPUS GROUNDS	Further location details			
Start SMH-140	Rim to invert	Grade to invert	Rim to g	rade Ft
Finish SMH-139	Rim to invert	Grade to invert	Rim to g	rade Ft
Use Sanitary	Direction Upstream	Flow control	Not Controlled	Tape/Media # WP-02
Shape Circular	Height 10 Width	ins Preclea	an J	Year Cleaned
Material Vitrified Clay Pipe	Joint length F	t Total length	210.6 Ft Leng	gth Surveyed 210.60
Lining	Year laid Ye	ear rehabilitated	Weather	Dry
Purpose Infiltration/Inflow Investigation	on	Cat		
Additional info CAN NOT LOCATE	SMH-139		Structural O8	Constructional
Location Light Highway			Miscellaneous Hy	rdraulic



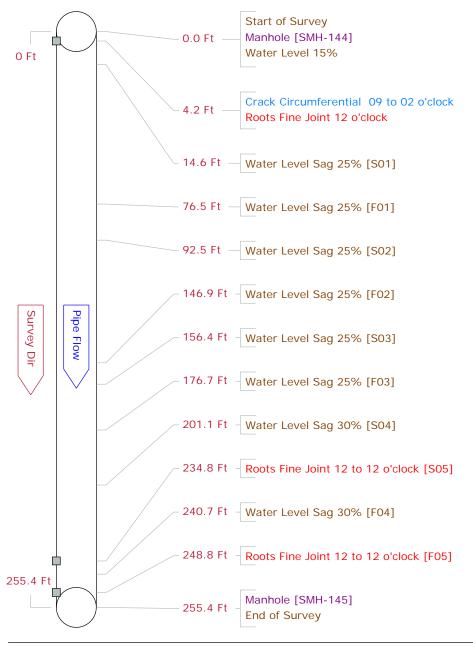
Pipe Graphic Report of PLR SMH-142 S for WOODARD & CURRAN

Setup 55 S	Surveyor V	VP		Certif	icate #	T-001-00	2	Sys	tem Ov	vner ALB	ANY UNIVERSITY
Drainage CAM	PUS GRC Sı	irvey Cust	tomer W	OODAR	D & CUF	RRAN					
P/O #		Date 200	07/07/31	Time	13:55	Street	SUN	OF ALE	ANY		
Locality CAMP	US GROUN	DS	Further lo	cation	details						
Start SMH-142	2		Rim to in	vert		Grade to	invert		Rim	to grade	Ft
Finish SMH-144	4		Rim to in	vert		Grade to	invert		Rim	to grade	Ft
Use Sanitary			Direction	Dowr	nstream	Flow co	ontrol	Not Con	trolled	Tape/	/ Media # WP-02
Shape Circular			Height	10	Width	ins	Precle	an J		Year	Cleaned
Material Vitrifie	d Clay Pipe		Joint	length	F	t Total	length	258.7	Ft	Length Su	irveyed 258.70
Lining			Year	laid	Ye	ear rehabi	litated		Weath	er Dry	
Purpose Infiltra	tion/Inflow In	vestigation				Cat					
Additional info								Structu	ral	O&M	Constructio
Location Light H	Highway							Miscell	aneous	Hydrauli	c



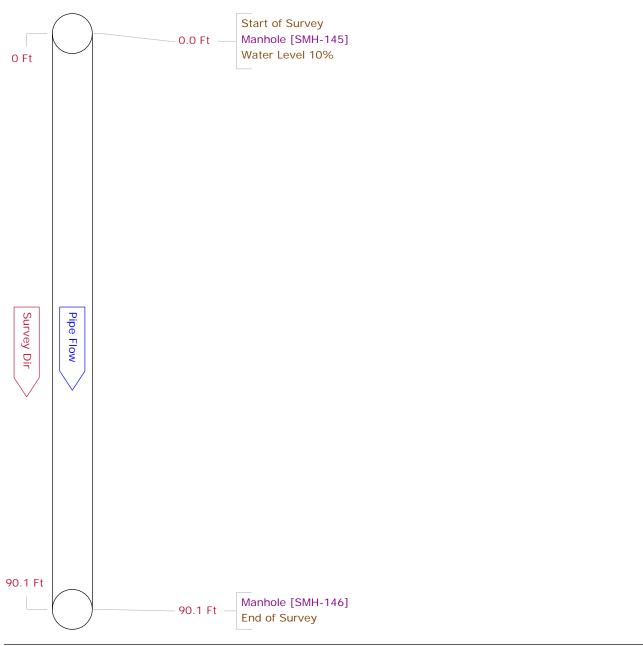
Pipe Graphic Report of PLR SMH-144 S for WOODARD & CURRAN

Setup 56 Surveyor WP	Certificate #	T-001-002	System Owne	r ALBANY UN	VERSITY
Drainage CAMPUS GRC Survey Cu	stomer WOODARD & CUF	RAN			
P/O # Date 2	007/07/31 Time 14:07	Street SUNY	OF ALBANY		
Locality CAMPUS GROUNDS	Further location details				
Start SMH-144	Rim to invert	Grade to invert	Rim to	grade	Ft
Finish SMH-145	Rim to invert	Grade to invert	Rim to	grade	Ft
Use Sanitary	Direction Downstream	Flow control	Not Controlled	Tape/Media #	# WP-02
Shape Circular	Height 10 Width	ins Precle	an J	Year Cleaned	1
Material Vitrified Clay Pipe	Joint length F	t Total length	255.4 <i>Ft Le</i>	ngth Surveyed	255.40
Lining	Year laid Ye	ar rehabilitated	Weather	Dry	
Purpose Infiltration/Inflow Investigation	n	Cat			
Additional info			Structural	O&M (Constructional
Location Light Highway			Miscellaneous	Hydraulic	



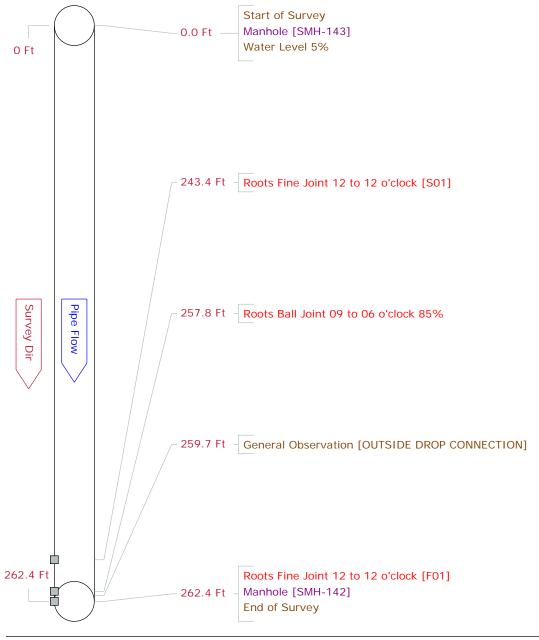
Pipe Graphic Report of PLR SMH-145 S for WOODARD & CURRAN

Setup 57	7 Surveyor WP	Certificate	# T-001-002	System Own	ner Albany	UNIVERSITY
Drainage	CAMPUS GRC Survey C	Customer WOODARD & C	URRAN			
P/O #	Date	2007/07/31 Time 14:35	Street SUNY	OF ALBANY		
Locality	CAMPUS GROUNDS	Further location detail	S			
Start S	MH-145	Rim to invert	Grade to invert	Rim te	o grade	Ft
Finish S	MH-146	Rim to invert	Grade to invert	Rim te	o grade	Ft
Use San	itary	Direction Downstrear	n Flow control	Not Controlled	Tape/Med	lia # WP-02
Shape C	ircular	Height 12 Width	ins Precle	an J	Year Clea	ned
Material	Cast Iron	Joint length	Ft Total length	90.1 Ft L	ength Survey	yed 90.10
Lining		Year laid	Year rehabilitated	Weather	r Dry	
Purpose	Infiltration/Inflow Investigat	tion	Cat			
Additiona	al info			Structural	O&M	Constructional
Location	Light Highway			Miscellaneous	Hydraulic	



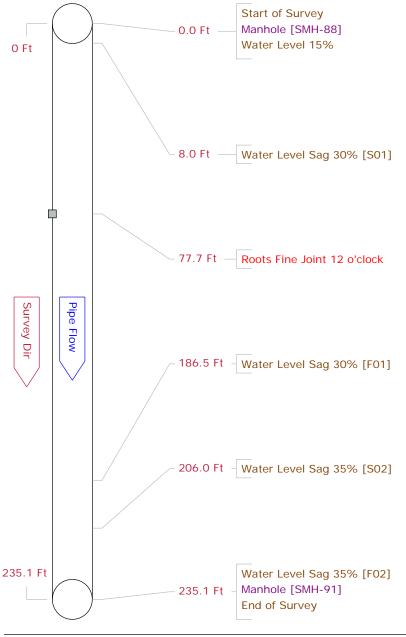
Pipe Graphic Report of PLR SMH-143 S for WOODARD & CURRAN

Setup 58 Surveyor WP	Certificate #	T-001-002	System Owne	r ALBANY UNIV	/ERSITY
Drainage CAMPUS GRC Survey Cus	tomer WOODARD & CUR	RAN			
P/O # Date 200	7/07/31 Time 14:47	Street SUNY	OF ALBANY		
Locality CAMPUS GROUNDS	Further location details				
Start SMH-143	Rim to invert	Grade to invert	Rim to	grade	Ft
Finish SMH-142	Rim to invert	Grade to invert	Rim to	grade	Ft
Use Sanitary	Direction Downstream	Flow control	Not Controlled	Tape/Media #	WP-02
Shape Circular	Height 8 Width	ins Precle	an J	Year Cleaned	
Material Vitrified Clay Pipe	Joint length F	t Total length	262.4 Ft Le	ngth Surveyed	262.40
Lining	Year laid Ye	ar rehabilitated	Weather	Dry	
Purpose Infiltration/Inflow Investigation		Cat			
Additional info			Structural (D&M C	onstructional
Location Light Highway			Miscellaneous H	Hydraulic	



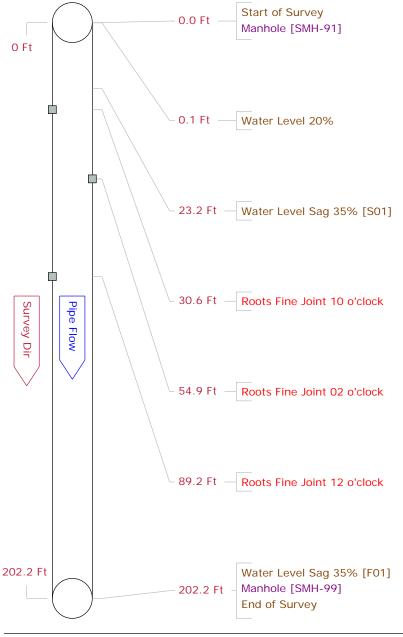
Pipe Graphic Report of PLR SMH-88 S for WOODARD & CURRAN

Setup 59	Surveyor WP	Certifica	ate # T-001-00	2 S J	vstem Owner	ALBANY UNIVERSITY
Drainage	CAMPUS GRC Survey	Customer WOODARD	& CURRAN			
P/O #	Date	2007/07/31 Time 1	5:09 Street	SUNY OF AI	BANY	
Locality	CAMPUS GROUNDS	Further location de	tails			
Start SI	MH-88	Rim to invert	Grade to	o invert	Rim to gr	rade Ft
Finish SI	MH-91	Rim to invert	Grade to	o invert	Rim to gr	rade Ft
Use Sani	tary	Direction Downst	ream Flow c	ontrol Not Co	ontrolled	Tape/Media # WP-02
Shape Ci	ircular	Height 12 W	idth ins	Preclean J		Year Cleaned
Material	Vitrified Clay Pipe	Joint length	Ft Tota	length 235.2	<i>Ft Len</i> g	th Surveyed 235.10
Lining		Year laid	Year rehabi	litated	Weather	Dry
Purpose	Infiltration/Inflow Investig	gation	Cat			
Additiona	l info			Struc	tural O8	Construction
Location	Light Highway			Misce	ellaneous Hy	draulic



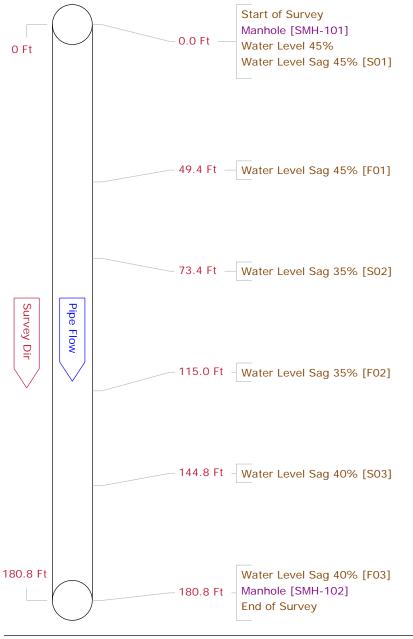
Pipe Graphic Report of PLR SMH-91 S for WOODARD & CURRAN

Setup 60	O Surveyor WP	Certificate #	t T-001-002	System Owne	er Albany ui	NIVERSITY
Drainage	CAMPUS GRC Survey	Customer WOODARD & CU	JRRAN			
P/O #	Date	2007/07/31 Time 15:43	Street SUNY	OF ALBANY		
Locality	CAMPUS GROUNDS	Further location details	;			
Start S	MH-91	Rim to invert	Grade to invert	Rim to	o grade	Ft
Finish S	MH-99	Rim to invert	Grade to invert	Rim to	grade	Ft
Use Sani	itary	Direction Downstream	Flow control	Not Controlled	Tape/Media	# WP-02
Shape C	ircular	Height 12 Width	ins Precle	an J	Year Cleane	ed
Material	Vitrified Clay Pipe	Joint length	Ft Total length	202.2 Ft Le	ength Surveye	d 202.20
Lining		Year laid	Year rehabilitated	Weather	Dry	
Purpose	Infiltration/Inflow Investiga	ation	Cat			
Additiona	al info			Structural	O&M	Constructional
Location	Light Highway			Miscellaneous	Hydraulic	



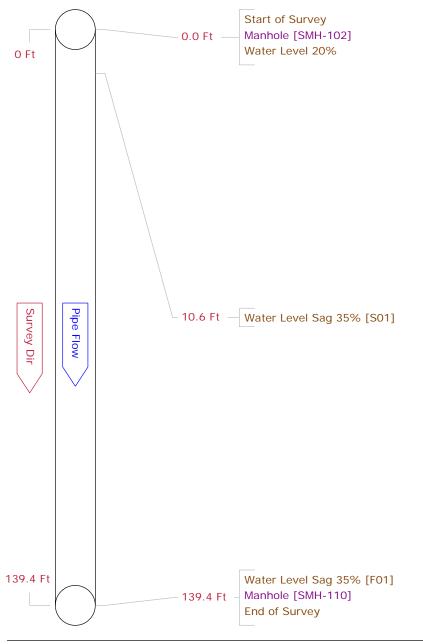
Pipe Graphic Report of PLR SMH-101 S for WOODARD & CURRAN

Setup 6	1 Surveyor WP	Certificate #	T-001-002	System Owner	r ALBANY UNI	VERSITY
Drainage	CAMPUS GRC Survey	Customer WOODARD & CU	JRRAN			
P/O #	Date	2007/07/31 Time 16:07	Street SUN	OF ALBANY		
Locality	CAMPUS GROUNDS	Further location details	;			
Start S	MH-101	Rim to invert	Grade to invert	Rim to g	grade	Ft
Finish S	MH-102	Rim to invert	Grade to invert	Rim to g	grade	Ft
Use San	itary	Direction Downstream	Flow control	Not Controlled	Tape/Media #	WP-02
Shape C	Fircular	Height 12 Width	ins Precle	an J	Year Cleaned	
Material	Vitrified Clay Pipe	Joint length	Ft Total length	180.8 Ft Ler	ngth Surveyed	180.80
Lining		Year laid	Year rehabilitated	Weather	Dry	
Purpose	Infiltration/Inflow Investiga	ation	Cat			
Additiona	al info			Structural C	D&M C	onstructional
Location	Light Highway			Miscellaneous H	lydraulic	



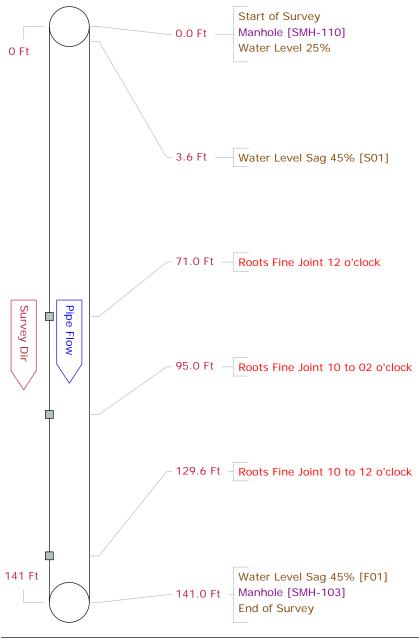
Pipe Graphic Report of PLR SMH-102 S for WOODARD & CURRAN

Setup 62 Surveyor WP	Certificate #	T-001-002	System Owner	ALBANY UNIVERSITY
Drainage CAMPUS GRC Survey Cu	Istomer WOODARD & CUF	RAN		
P/O # Date 2	.007/07/31 Time 16:21	Street SUNY	OF ALBANY	
Locality CAMPUS GROUNDS	Further location details			
Start SMH-102	Rim to invert	Grade to invert	Rim to g	ırade Ft
Finish SMH-110	Rim to invert	Grade to invert	Rim to g	rade Ft
Use Sanitary	Direction Downstream	Flow control	Not Controlled	Tape/Media # WP-02
Shape Circular	Height 12 Width	ins Precle	an J	Year Cleaned
Material Vitrified Clay Pipe	Joint length F	t Total length	139.4 Ft Len	gth Surveyed 139.40
Lining	Year laid Ye	ar rehabilitated	Weather	Dry
Purpose Infiltration/Inflow Investigation	on	Cat		
Additional info			Structural O	&M Constructional
Location Light Highway			Miscellaneous H	ydraulic



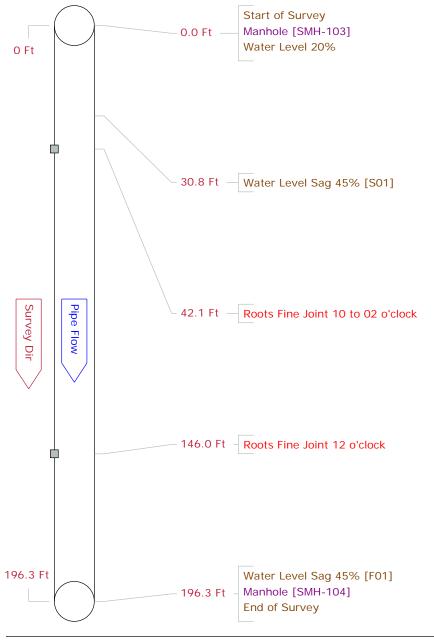
Pipe Graphic Report of PLR SMH-110 S for WOODARD & CURRAN

Setup 63	Surveyor WP		Certificate #	T-001-002	System Ov	vner ALBAN`	Y UNIVERSITY
Drainage (CAMPUS GRC Surve	ey Customer Wo	DODARD & CUF	RAN			
P/O #	Da	<i>te</i> 2007/07/31	<i>Time</i> 16:30	Street SUN	Y OF ALBANY		
Locality C/	AMPUS GROUNDS	Further loo	cation details				
Start SMH	I-110	Rim to in	vert	Grade to inver	t Rim	to grade	Ft
Finish SMH	I-103	Rim to in	vert	Grade to inver	t Rim	to grade	Ft
Use Sanitar	у	Direction	Downstream	Flow control	Not Controlled	Tape/Me	edia # WP-02
Shape Circu	ılar	Height	12 <i>Width</i>	ins Precl	ean J	Year Cle	aned
Material Vit	trified Clay Pipe	Joint	length F	t Total lengt	h 141.0 Ft	Length Surve	eyed 141.00
Lining		Year l	aid Ye	ar rehabilitated	Weath	er Dry	
Purpose Ini	filtration/Inflow Inves	tigation		Cat			
Additional in	nfo				Structural	O&M	Constructional
Location Lig	ght Highway				Miscellaneous	Hydraulic	



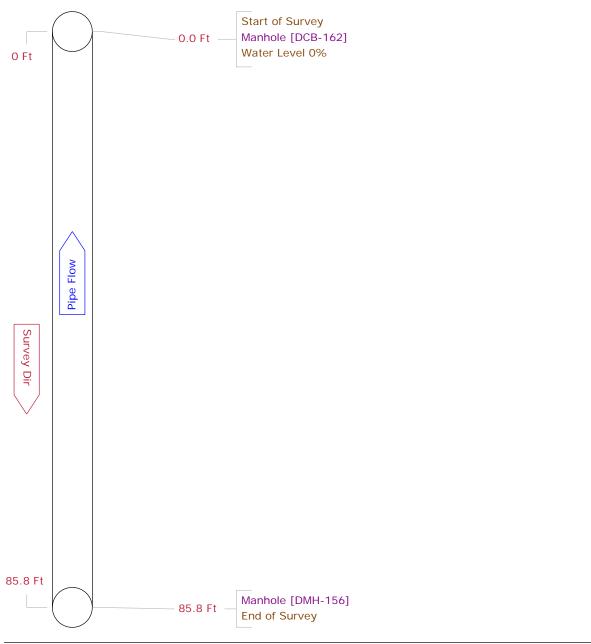
Pipe Graphic Report of PLR SMH-103 S for WOODARD & CURRAN

Setup 64	4 Surveyor WP	Certificate	# T-001-002	System Owner	ALBANY UNIVERSITY
Drainage	CAMPUS GRC Survey	Customer WOODARD &	CURRAN		
P/O #	Date	2007/07/31 Time 16:3	39 Street SUN	OF ALBANY	
Locality	CAMPUS GROUNDS	Further location deta	ils		
Start S	MH-103	Rim to invert	Grade to invert	Rim to g	rade Ft
Finish S	MH-104	Rim to invert	Grade to invert	Rim to g	rade Ft
Use Sani	itary	Direction Downstrea	am Flow control	Not Controlled	Tape/Media # WP-02
Shape C	ircular	Height 12 Widt	h ins Precle	ean J	Year Cleaned
Material	Vitrified Clay Pipe	Joint length	Ft Total length	196.3 Ft Len	gth Surveyed 196.30
Lining		Year laid	Year rehabilitated	Weather	Dry
Purpose	Infiltration/Inflow Investiga	ation	Cat		
Additiona	al info			Structural O	&M Constructional
Location	Light Highway			Miscellaneous Hy	/draulic



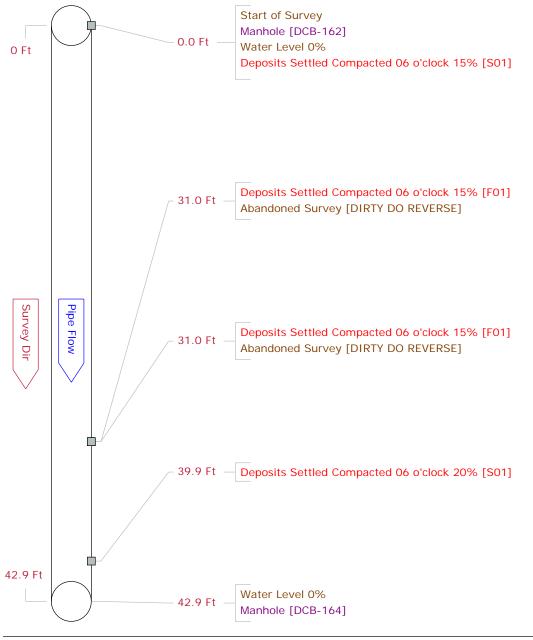
Pipe Graphic Report of PLR DMH-156 X for WOODARD & CURRAN

Setup	1 Surveyor WF	Р	Certificate	# T-001-00	2	System Ov	wner SUNY (OF ALBANY
Drainage	STORM DRAII Sur	rvey Customer	WOODARD &	CURRAN				
P/O #	D	Date 2007/08/01	Time 8:45	5 Street	SUNY (OF ALBANY		
Locality	VARIOUS LOCATIO	NS Furthe	r location deta	ils				
Start	DCB-162	Rim te	o invert	Grade to	invert	Rim	to grade	Ft
Finish	DMH-156	Rim to	o invert	Grade to	invert	Rim	to grade	Ft
Use Sto	ormwater	Direct	ion Upstream	Flow co	ontrol N	lot Controlled	Tape/Me	edia # WP-03
Shape (Circular	Heig	ght 15 Widt	th ins	Preclear	n N	Year Cle	eaned
Material	Reinforced Concrete	e Pipe Jo	int length	Ft Total	length	85.8 Ft	Length Surv	eyed 85.80
Lining		Ye	ar laid	Year rehabi	litated	Weath	er Dry	
Purpose	Infiltration/Inflow Inve	estigation		Cat				
Addition	al info					Structural	O&M	Constructional
Locatior	Parking Lot					Miscellaneous	Hydraulic	



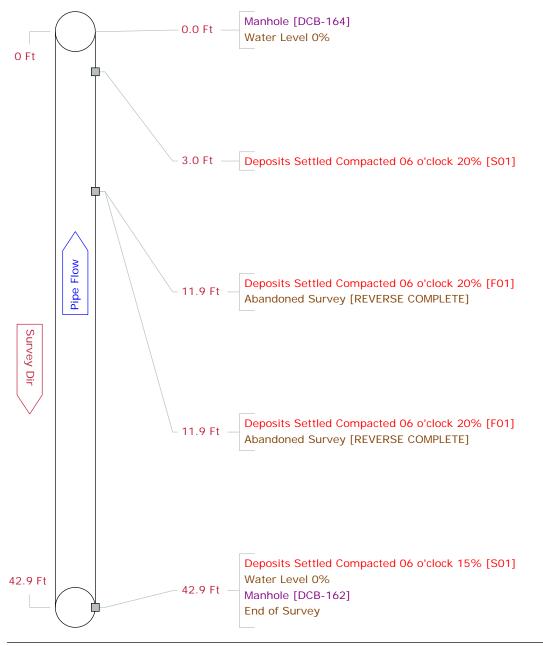
Pipe Graphic Report of PLR DCB-162 X for WOODARD & CURRAN

Setup 2	/3 Surveyor WP	Certifica	te # T-001-002	2 System	Owner SUNY (OF ALBANY
Drainage	STORM DRAII Survey	Customer WOODARD 8	& CURRAN			
P/O #	Date	2007/08/01 Time 9:	08 Street	SUNY OF ALBANY	/	
Locality	VARIOUS LOCATIONS	Further location de	tails			
Start D)CB-162	Rim to invert	Grade to	invert F	Rim to grade	Ft
Finish C	0CB-164	Rim to invert	Grade to	invert F	Rim to grade	Ft
Use Stor	rmwater	Direction Downstr	eam Flow co	ntrol Not Controlle	ed Tape/Me	edia # WP-03
Shape C	Sircular	Height 15 Wi	dth ins	Preclean N	Year Cle	eaned
Material	Reinforced Concrete Pipe	Joint length	Ft Total	length 42.9 Ft	Length Surv	eyed 31.00
Lining		Year laid	Year rehabili	itated We	ather Dry	
Purpose	Infiltration/Inflow Investigation	ation	Cat			
Addition	al info			Structural	O&M	Constructional
Location	Parking Lot			Miscellaneo	ous Hydraulic	



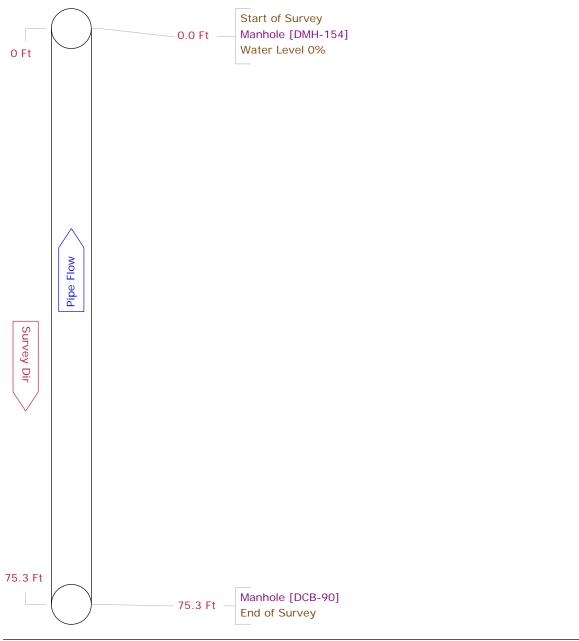
Pipe Graphic Report of PLR DCB-162 X for WOODARD & CURRAN

Setup 3	/2 Surveyor WP	Certificate	# T-001-002	System Owner	SUNY OF ALBANY
Drainage	STORM DRAII Survey (Customer WOODARD & C	URRAN		
P/O #	Date	2007/08/01 Time 9:39	Street SUNY	OF ALBANY	
Locality	VARIOUS LOCATIONS	Further location detail	s		
Start D	CB-164	Rim to invert	Grade to invert	Rim to g	rade Ft
Finish C	CB-162	Rim to invert	Grade to invert	Rim to g	rade Ft
Use Stor	rmwater	Direction Upstream	Flow control	Not Controlled	Tape/Media # WP-03
Shape C	Fircular	Height 15 Width	ins Precle	an N	Year Cleaned
Material	Reinforced Concrete Pipe	Joint length	Ft Total length	42.9 Ft Leng	gth Surveyed 11.90
Lining		Year laid	Year rehabilitated	Weather	Dry
Purpose	Infiltration/Inflow Investiga	tion	Cat		
Addition	al info Reverse set up on	sheet:2		Structural O8	Constructional
Location	Parking Lot			Miscellaneous Hy	draulic



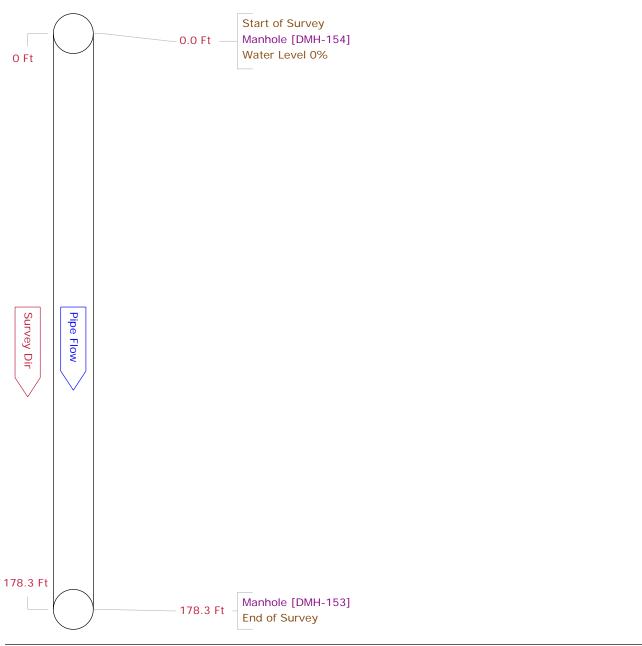
Pipe Graphic Report of PLR DCB-90 X for WOODARD & CURRAN

Setup 4	4 Surveyor WP	Certificate #	T-001-002	System Owner	SUNY OF AL	BANY
Drainage	e STORM DRAII Survey	Customer WOODARD & CU	IRRAN			
P/O #	Date	2007/08/01 Time 10:10	Street SUNY	OF ALBANY		
Locality	VARIOUS LOCATIONS	Further location details				
Start [DMH-154	Rim to invert	Grade to invert	Rim to g	grade	Ft
Finish [DCB-90	Rim to invert	Grade to invert	Rim to g	grade	Ft
Use Sto	ormwater	Direction Upstream	Flow control	Not Controlled	Tape/Media #	WP-03
Shape (Circular	Height 15 Width	ins Precle	an N	Year Cleaned	1
Material	Reinforced Concrete Pipe	Joint length	Ft Total length	75.3 Ft Ler	ngth Surveyed	75.30
Lining		Year laid Y	ear rehabilitated	Weather	Dry	
Purpose	Infiltration/Inflow Investiga	tion	Cat			
Addition	nal info			Structural C	0&M C	Constructional
Location	Parking Lot			Miscellaneous H	lydraulic	



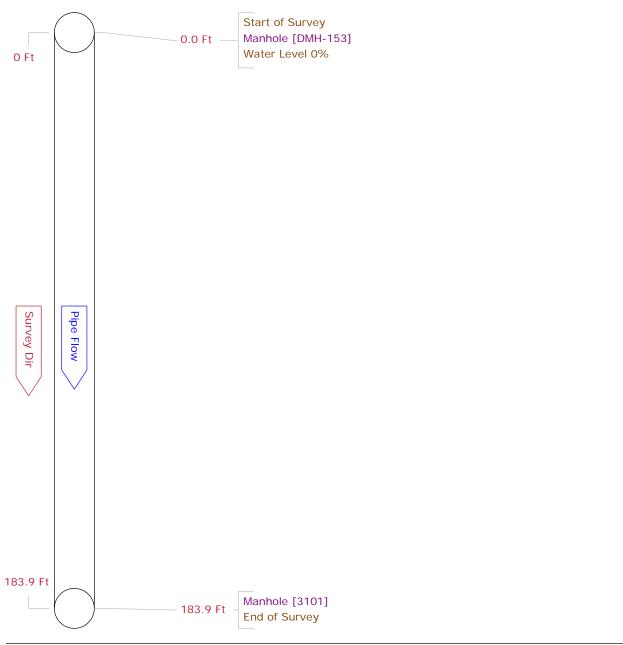
Pipe Graphic Report of PLR DMH-154 X for WOODARD & CURRAN

Setup	5 Surveyor	WP		Certif	icate #	T-001-00	2	Sys	tem Ov	wner	SUNY OF A	LBANY
Drainag	e STORM DRAIL	Survey	Customer	WOODAR	D & CUF	RAN						
P/O #		Date	2007/08/01	Time	10:26	Street	SUN	Y OF ALB	ANY			
Locality	VARIOUS LOCA	TIONS	Further	^r location	details							
Start	DMH-154		Rim to	o invert		Grade to	inver	t	Rim	n to gra	ade	Ft
Finish	DMH-153		Rim to	o invert		Grade to	inver	t	Rim	n to gra	ade	Ft
Use Sto	ormwater		Direct	<i>ion</i> Dowr	nstream	Flow co	ontrol	Not Con	trolled	7	ape/Media	# WP-03
Shape	Circular		Heig	ght 21	Width	ins	Precle	ean N		Y	/ear Cleane	d
Material	Reinforced Conc	rete Pipe	e Jo	int length	F	t Total	length	h 178.3	Ft	Lengt	th Surveyed	1 78.30
Lining			Ye	ar laid	Ye	ar rehabi	litated		Weath	ner D	Dry	
Purpose	Infiltration/Inflow	Investiga	ation			Cat						
Additio	nal info							Structu	ral	0&1	М	Constructional
Locatio	n Parking Lot							Miscella	aneous	Hyd	Iraulic	



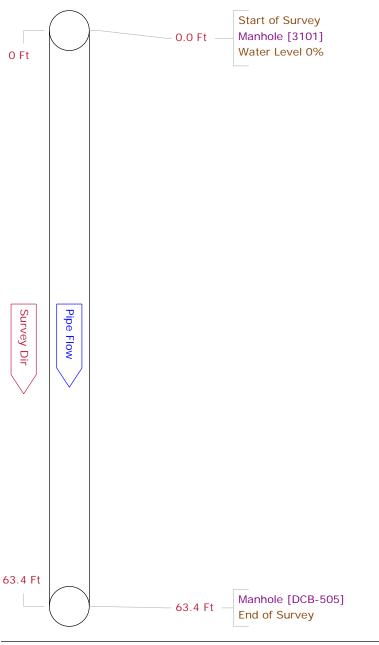
Pipe Graphic Report of PLR DMH-153 X for WOODARD & CURRAN

Setup	6 Surveyor	WP		Certif	icate #	T-001-00	2	Syst	em Ov	ner SUN	Y OF ALBANY
Drainag	e STORM DRAIL	Survey	Customer	WOODAR	D & CUF	RAN					
P/O #		Date	2007/08/01	Time	10:42	Street	SUN	Y OF ALB	ANY		
Locality	VARIOUS LOCA	TIONS	Further	location	details						
Start	DMH-153		Rim to	o invert		Grade to	invert	t	Rim	to grade	Ft
Finish	3101		Rim to	o invert		Grade to	invert	t	Rim	to grade	Ft
Use Sta	ormwater		Direct	ion Dowr	nstream	Flow co	ontrol	Not Cont	rolled	Tape/l	Media # WP-03
Shape	Circular		Heig	ght 21	Width	ins	Precle	ean N		Year C	Cleaned
Material	Reinforced Conci	rete Pipe	Joi	int length	F	t Total	length	1 83.9	Ft	Length Su	rveyed 183.90
Lining			Ye	ar laid	Ye	ar rehabil	itated		Weath	er Dry	
Purpose	Infiltration/Inflow	Investiga	ation			Cat					
Addition	nal info							Structur	al	O&M	Constructional
Locatio	Parking Lot							Miscella	neous	Hydraulic	



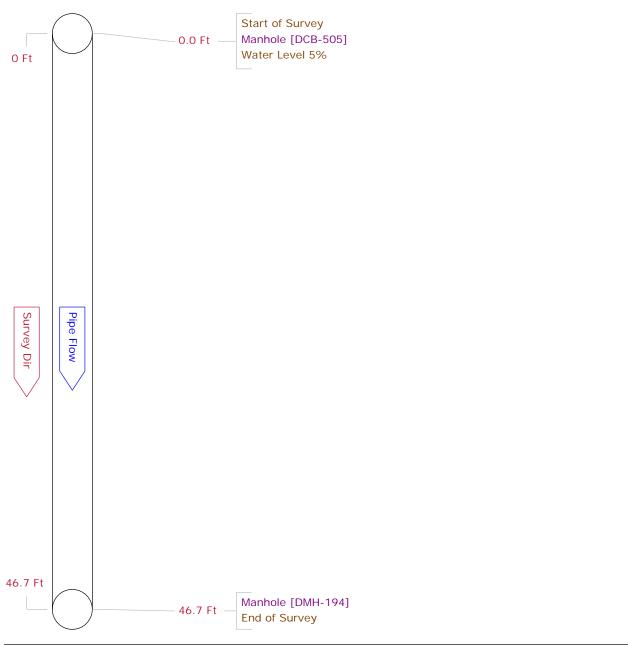
Pipe Graphic Report of PLR 3101 X for WOODARD & CURRAN

Setup 7	Surveyor WP	Certificate #	t T-001-002	System Owne	r SUNY OF	ALBANY
Drainage	STORM DRAIL Survey	Customer WOODARD & CI	JRRAN			
P/O #	Date	2007/08/01 Time 10:49	Street SUN	OF ALBANY		
Locality	VARIOUS LOCATIONS	Further location details	5			
Start 3	101	Rim to invert	Grade to invert	Rim to	grade	Ft
Finish D	OCB-505	Rim to invert	Grade to invert	Rim to	grade	Ft
Use Sto	rmwater	Direction Downstrean	Flow control	Not Controlled	Tape/Media	# WP-03
Shape C	Circular	Height 21 Width	ins Precle	an N	Year Clean	ed
Material	Reinforced Concrete Pipe	Joint length	Ft Total length	63.4 Ft Le	ngth Surveye	ed 63.40
Lining		Year laid	Year rehabilitated	Weather	Dry	
Purpose	Infiltration/Inflow Investiga	ation	Cat			
Addition	al info			Structural	D&M	Constructional
Location	Parking Lot			Miscellaneous	Hydraulic	



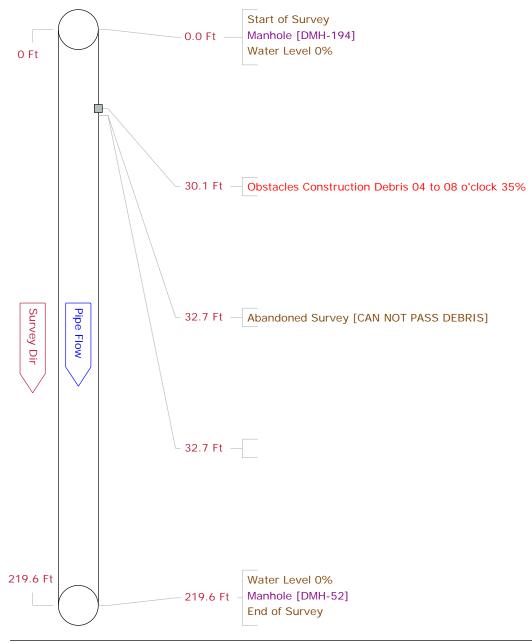
Pipe Graphic Report of PLR DCB-505 X for WOODARD & CURRAN

Setup	8 Surveyor WP	Certificate #	T-001-002	System Owner	SUNY OF ALBANY
Drainag	e STORM DRAII Survey	Customer WOODARD & CU	RRAN		
P/O #	Date	2007/08/01 Time 10:55	Street SUNY	OF ALBANY	
Locality	VARIOUS LOCATIONS	Further location details			
Start	DCB-505	Rim to invert	Grade to invert	Rim to g	rade Ft
Finish	DMH-194	Rim to invert	Grade to invert	Rim to g	rade Ft
Use Sta	ormwater	Direction Downstream	Flow control	Not Controlled	Tape/Media # WP-03
Shape	Circular	Height 21 Width	ins Precle	an N	Year Cleaned
Material	Reinforced Concrete Pipe	Joint length	Ft Total length	46.7 Ft Len	gth Surveyed 46.70
Lining		Year laid Y	ear rehabilitated	Weather	Dry
Purpose	Infiltration/Inflow Investiga	ation	Cat		
Addition	nal info			Structural O	&M Constructiona
Location	n Parking Lot			Miscellaneous H	ydraulic



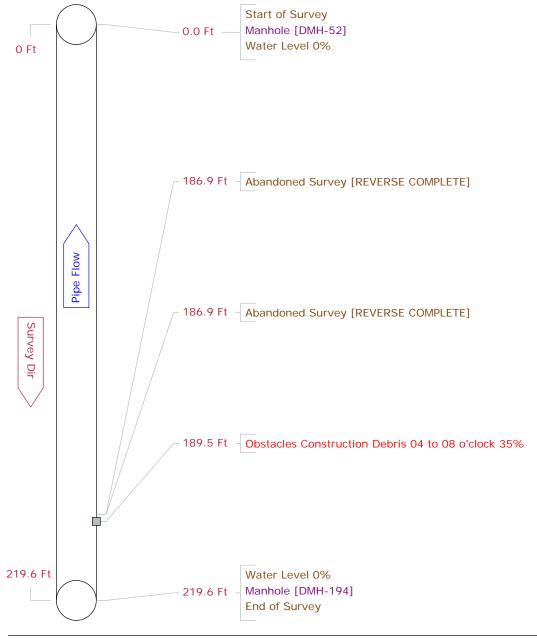
Pipe Graphic Report of PLR DMH-194 X for WOODARD & CURRAN

Setup 9	/10 Surveyor WP	Certificate #	T-001-002	System Owne	er SUNY OF A	ALBANY
Drainage	STORM DRAIL Survey	Customer WOODARD & CU	RRAN			
P/O #	Date	2007/08/01 Time 11:10	Street SUNY	OF ALBANY		
Locality	VARIOUS LOCATIONS	Further location details				
Start [DMH-194	Rim to invert	Grade to invert	Rim to	grade	Ft
Finish [DMH-52	Rim to invert	Grade to invert	Rim to	grade	Ft
Use Sto	rmwater	Direction Downstream	Flow control	Not Controlled	Tape/Media	# WP-03
Shape (Circular	Height 21 Width	ins Precle	an N	Year Cleane	ed
Material	Reinforced Concrete Pipe	Joint length	Ft Total length	219.6 Ft Le	ngth Surveye	d 32.70
Lining		Year laid Y	'ear rehabilitated	Weather	Dry	
Purpose	Infiltration/Inflow Investiga	ation	Cat			
Addition	al info			Structural	O&M	Constructional
Location	Parking Lot			Miscellaneous	Hydraulic	



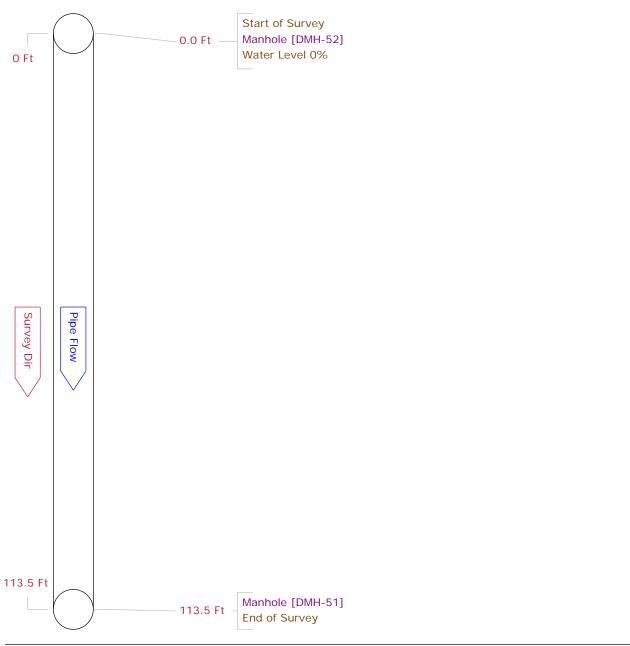
Pipe Graphic Report of PLR DMH-194 X for WOODARD & CURRAN

Setup 10/9	Surveyor WP		Certificate #	T-001-00	2	System O	wner SUNY (OF ALBANY
Drainage	STORM DRAII Survey	Customer WO	ODARD & CL	JRRAN				
P/O #	Date	2007/08/01	Time 11:14	Street	SUNY	OF ALBANY		
Locality VA	ARIOUS LOCATIONS	Further loca	ation details					
Start DMH	I-52	Rim to inv	ert	Grade to	invert	Rim	to grade	Ft
<i>Finish</i> DM⊦	I-194	Rim to inv	ert	Grade to	invert	Rim	to grade	Ft
Use Stormw	vater	Direction	Upstream	Flow co	ontrol	Not Controlled	Tape/Me	edia # WP-03
Shape Circu	ılar	Height	21 <i>Width</i>	ins	Preclea	an N	Year Cle	eaned
Material Re	einforced Concrete Pipe	e Joint le	ength	Ft Total	length	219.6 Ft	Length Surv	eyed 186.90
Lining		Year la	id Y	'ear rehabil	itated	Weath	er Dry	
Purpose Ini	filtration/Inflow Investiga	ation		Cat				
Additional in	nfo Reverse set up or	n sheet:9				Structural	O&M	Constructional
Location Pa	arking Lot					Miscellaneous	Hydraulic	



Pipe Graphic Report of PLR DMH-52 X for WOODARD & CURRAN

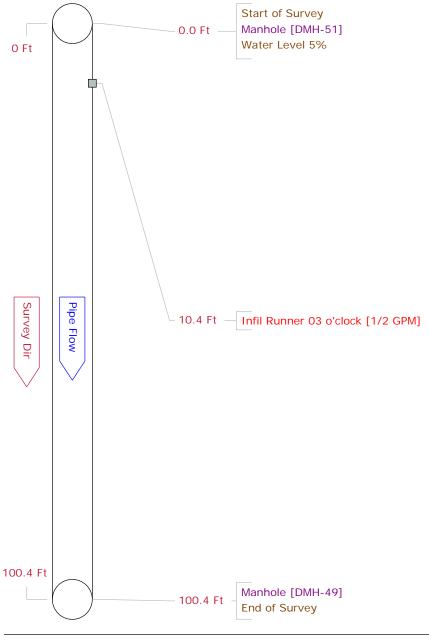
Setup 1	1 Surveyor WP	Certifica	ate # T-001-00	2 Sy	stem Owner	SUNY OF ALBANY
Drainage	STORM DRAIL Survey	Customer WOODARD	& CURRAN			
P/O #	Date	2007/08/01 Time 1	2:20 Street	SUNY OF AL	BANY	
Locality	VARIOUS LOCATIONS	Further location de	tails			
Start [0MH-52	Rim to invert	Grade to	o invert	Rim to gra	ade Ft
Finish [0MH-51	Rim to invert	Grade to	o invert	Rim to gra	ade Ft
Use Sto	rmwater	Direction Downst	ream Flow c	ontrol Not Co	ntrolled 7	Tape/Media # WP-03
Shape (Circular	Height 27 Wi	idth ins	Preclean N	Y	lear Cleaned
Material	Reinforced Concrete Pipe	Joint length	Ft Tota	length 113.5	Ft Leng	th Surveyed 113.50
Lining		Year laid	Year rehab	litated	Weather [Dry
Purpose	Infiltration/Inflow Investiga	ation	Cat			
Addition	al info			Struct	ural O&I	M Constructional
Location	Parking Lot			Misce	llaneous Hyc	draulic



MyName Phone: MyPhone Fax: MyFax

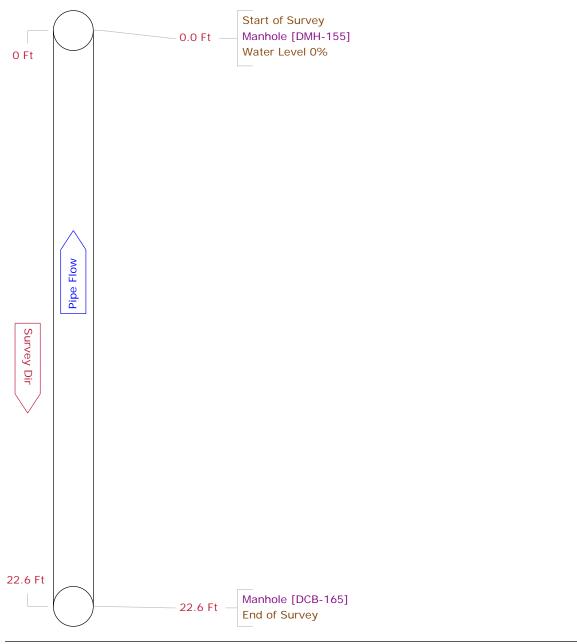
Pipe Graphic Report of PLR DMH-51 X for WOODARD & CURRAN

Setup 12 Surveyor WP	Certificate #	T-001-002	System Ow	ner SUNY OF	ALBANY
Drainage STORM DRAII Survey Cu	stomer WOODARD & CUR	RAN			
P/O # Date 20	007/08/01 Time 12:36	Street SUNY	OF ALBANY		
Locality VARIOUS LOCATIONS	Further location details				
Start DMH-51	Rim to invert	Grade to invert	Rim	to grade	Ft
Finish DMH-49	Rim to invert	Grade to invert	Rim	to grade	Ft
Use Stormwater	Direction Downstream	Flow control	Not Controlled	Tape/Media	a# WP-03
Shape Circular	Height 27 Width	ins Precle	an N	Year Clean	ed
Material Reinforced Concrete Pipe	Joint length F	t Total length	100.4 Ft	Length Surveye	ed 100.40
Lining	Year laid Ye	ar rehabilitated	Weathe	e r Dry	
Purpose Infiltration/Inflow Investigation	า	Cat			
Additional info			Structural	O&M	Constructional
Location Parking Lot			Miscellaneous	Hydraulic	



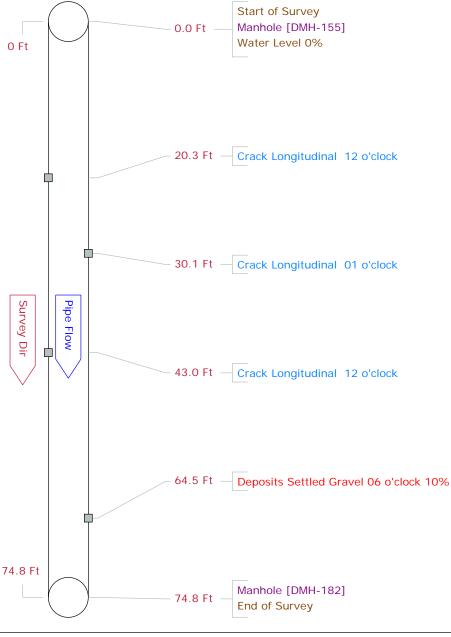
Pipe Graphic Report of PLR DCB-165 X for WOODARD & CURRAN

Setup 1	3 Surveyor WP	Certificate #	# T-001-002	System Owne	r SUNY OF A	LBANY
Drainage	STORM DRAII Survey (Customer WOODARD & CU	JRRAN			
P/O #	Date	2007/08/06 Time 9:54	Street SUNY	OF ALBANY		
Locality	VARIOUS LOCATIONS	Further location details	6			
Start [DMH-155	Rim to invert	Grade to invert	Rim to	grade	Ft
Finish [DCB-165	Rim to invert	Grade to invert	Rim to	grade	Ft
Use Sto	rmwater	Direction Upstream	Flow control	Not Controlled	Tape/Media	# WP-03
Shape (Circular	Height 15 Width	ins Precle	an N	Year Cleane	d
Material	Reinforced Concrete Pipe	Joint length	Ft Total length	22.6 Ft Le	ngth Surveyed	22.60
Lining		Year laid	Year rehabilitated	Weather	Dry	
Purpose	Infiltration/Inflow Investiga	tion	Cat			
Addition	al info			Structural (D&M	Constructional
Location	Parking Lot			Miscellaneous	Hydraulic	



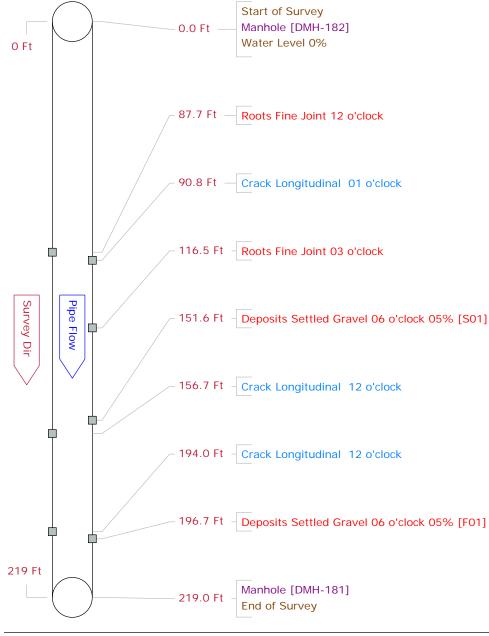
Pipe Graphic Report of PLR DMH-155 X for WOODARD & CURRAN

Setup 1	4 Surveyor V	NP		Certif	icate #	T-001-00	2	Sys	tem Ov	vner	SUNY OF	ALBANY
Drainage	STORM DRAIL	urvey Cu	istomer W	OODAR	D & CUR	RAN						
P/O #		Date 2	007/08/06	Time	9:58	Street	SUN	OF ALB	ANY			
Locality	VARIOUS LOCAT	IONS	Further lo	cation	details							
Start [MH-155		Rim to in	vert		Grade to	invert	Ļ	Rim	to gra	ade	Ft
Finish 🛛	MH-182		Rim to in	vert		Grade to	invert	Ļ	Rim	to gra	ade	Ft
Use Sto	rmwater		Directior	Dowr	nstream	Flow co	ntrol	Not Con	trolled	7	ape/Medi	a# WP-03
Shape 🤇	Circular		Height	15	Width	ins	Precle	ean N		Y	ear Clear	ed
Material	Reinforced Concre	ete Pipe	Joint	length	F	t Total	length	74.8	Ft	Lengt	th Survey	ed 74.80
Lining			Year	laid	Ye	ar rehabil	itated		Weath	ner D	Dry	
Purpose	Infiltration/Inflow In	vestigatio	n			Cat						
Addition	al info							Structu	ral	0&1	М	Constructional
Location	Parking Lot							Miscella	aneous	Hyd	Iraulic	



Pipe Graphic Report of PLR DMH-182 X for WOODARD & CURRAN

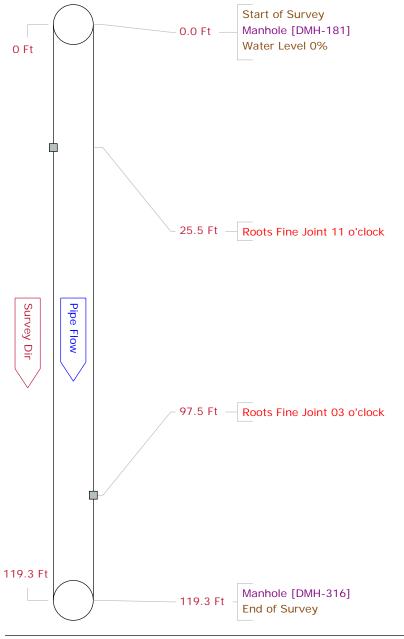
•	• •					
Setup	15 Surveyor WP	Certificate #	T-001-002	System Owne	er SUNY OF A	LBANY
Drainag	e STORM DRAII Survey C	Customer WOODARD & CUI	RRAN			
P/O #	Date	2007/08/06 <i>Time</i> 10:16	Street SUNY	OF ALBANY		
Locality	VARIOUS LOCATIONS	Further location details				
Start	DMH-182	Rim to invert	Grade to invert	Rim to	grade	Ft
Finish	DMH-181	Rim to invert	Grade to invert	Rim to	grade	Ft
Use Sto	ormwater	Direction Downstream	Flow control	Not Controlled	Tape/Media	# WP-03
Shape	Circular	Height 18 Width	ins Precle	an N	Year Cleane	d
Material	Reinforced Concrete Pipe	Joint length	t Total length	219.0 Ft Le	ength Surveye	d 219.00
Lining		Year laid Year laid	ear rehabilitated	Weather	Dry	
Purpose	Infiltration/Inflow Investigat	tion	Cat			
Addition	al info			Structural	O&M	Constructional
Location	Parking Lot			Miscellaneous	Hydraulic	



MyName Phone: MyPhone Fax: MyFax

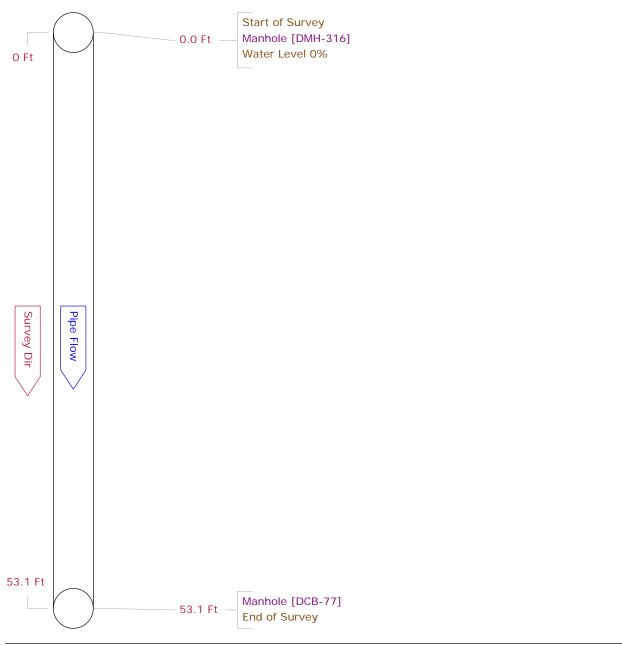
Pipe Graphic Report of PLR DMH-181 X for WOODARD & CURRAN

Certificate #	T-001-002	System Own	er SUNY OF	ALBANY
Istomer WOODARD & CUR	RAN			
007/08/06 Time 12:54	Street SUNY	OF ALBANY		
Further location details				
Rim to invert	Grade to invert	Rim to	o grade	Ft
Rim to invert	Grade to invert	Rim to	o grade	Ft
Direction Downstream	Flow control	Not Controlled	Tape/Media	# WP-03
Height 18 Width	ins Precle	an N	Year Clean	ed
Joint length F	t Total length	119.3 Ft L	ength Surveye	d 119.30
Year laid Ye	ar rehabilitated	Weather	r Dry	
on	Cat			
		Structural	O&M	Constructional
		Miscellaneous	Hydraulic	
	Istomer WOODARD & CUF 007/08/06 Time 12:54 Further location details Rim to invert Rim to invert Direction Downstream Height 18 Width Joint length F Year laid Ye	OO7/08/06 Time 12:54 Street SUNY Further location details Rim to invert Grade to invert Rim to invert Grade to invert Rim to invert Grade to invert Direction Downstream Height 18 Width ins Precle Joint length Year laid Year rehabilitated	Istomer WOODARD & CURRAN 1007/08/06 Time 12:54 Street SUNY OF ALBANY Further location details Rim to invert Grade to invert Rim to Rim to invert Grade to invert Rim to Direction Downstream Flow control Not Controlled Height 18 Width ins Preclean N Joint length Ft Total length 119.3 Ft L Year laid Year rehabilitated Weather on Cat Structural	Istomer WOODARD & CURRAN 1007/08/06 Time 12:54 Street SUNY OF ALBANY Further location details Rim to invert Grade to invert Rim to grade Rim to invert Grade to invert Rim to grade Direction Downstream Flow control Not Controlled Tape/Media Height 18 Width ins Preclean N Year Clean Joint length Ft Total length 119.3 Ft Length Surveyer Year laid Year rehabilitated Weather Dry on <u>Cat</u>



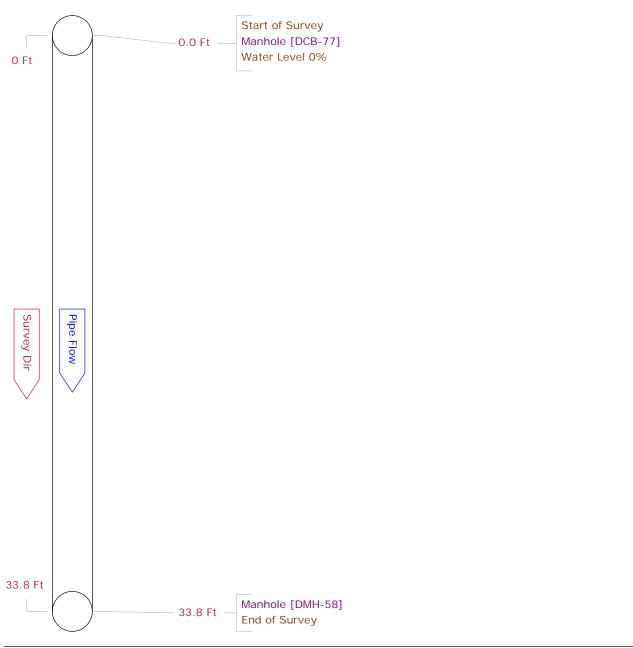
Pipe Graphic Report of PLR DMH-316 X for WOODARD & CURRAN

Setup 1	7 Surveyor	WP		Certif	icate #	T-001-00	2	Sys	tem Ov	vner	SUNY OF	ALBANY
Drainage	STORM DRAIL	urvey C	ustomer V	/OODAR	D & CUF	RAN						
P/O #		Date 2	2007/08/06	Time	13:00	Street	SUN	Y OF ALE	BANY			
Locality	VARIOUS LOCAT	IONS	Further le	ocation	details							
Start [DMH-316		Rim to i	nvert		Grade to	invert	ł	Rim	to gra	ade	Ft
Finish [DCB-77		Rim to i	nvert		Grade to	invert	t	Rim	to gra	ade	Ft
Use Sto	rmwater		Directio	n Dowr	nstream	Flow co	ontrol	Not Cor	trolled	7	Tape/Media	a# WP-03
Shape (Circular		Heigh	t 18	Width	ins	Precle	ean N		Ŋ	ear Clean	ed
Material	Reinforced Concre	ete Pipe	Join	t length	F	t Total	length	53.1	Ft	Leng	th Surveye	ed 53.10
Lining			Year	laid	Ye	ar rehabil	itated		Weath	ner 🛛	Dry	
Purpose	Infiltration/Inflow Ir	nvestigati	on			Cat						
Addition	al info							Structu	ıral	O&	М	Constructional
Location	Parking Lot							Miscell	aneous	Hyc	draulic	



Pipe Graphic Report of PLR DCB-77 X for WOODARD & CURRAN

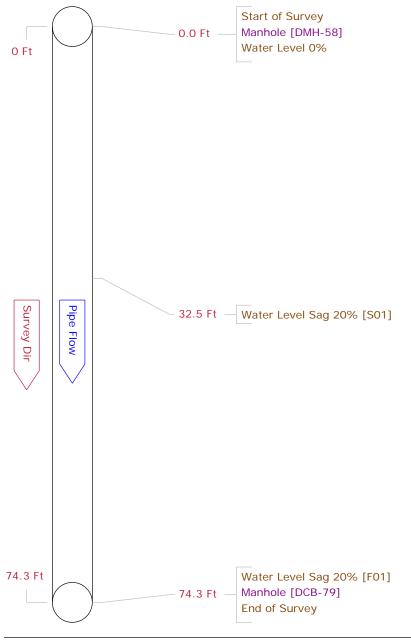
Setup 1	8 Surveyor	WP		Certif	icate #	T-001-00	2	Sys	tem Ov	wner	SUNY OF	ALBANY
Drainage	STORM DRAILS	Survey (Customer	WOODAR	D & CUF	RAN						
P/O #		Date	2007/08/06	Time	13:03	Street	SUN	Y OF ALE	BANY			
Locality	VARIOUS LOCAT	TIONS	Further	location	details							
Start [DCB-77		Rim to	invert		Grade to	invert	:	Rim	to gr	ade	Ft
Finish [DMH-58		Rim to	invert		Grade to	invert	t	Rim	to gr	ade	Ft
Use Sto	rmwater		Directi	on Dowr	nstream	Flow co	ontrol	Not Cor	ntrolled		Tape/Media	a# WP-03
Shape (Circular		Heig	ht 21	Width	ins	Precle	ean N		7	Year Clean	ed
Material	Reinforced Concr	ete Pipe	Joi	nt length	F	t Total	length	33.8	Ft	Leng	th Surveye	ed 33.80
Lining			Yea	ar laid	Ye	ar rehabil	itated		Weath	ner [Dry	
Purpose	Infiltration/Inflow I	nvestiga	tion			Cat						
Addition	al info							Structu	ural	0&	М	Constructiona
Location	Parking Lot							Miscel	laneous	Hyd	draulic	



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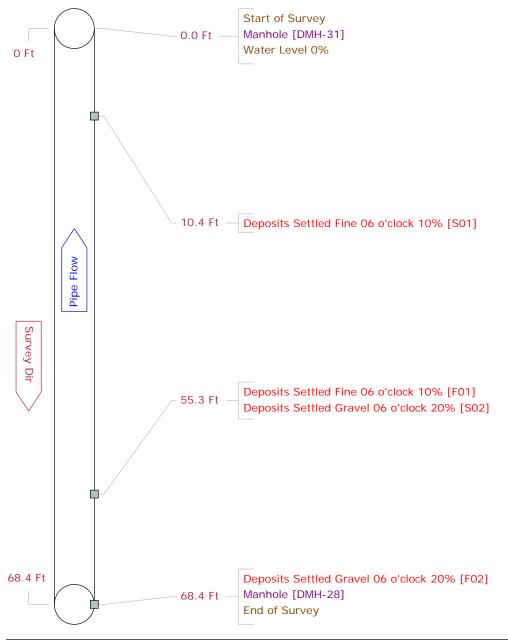
Pipe Graphic Report of PLR DMH-58 X for WOODARD & CURRAN

Setup 1	9 Surveyor WP	Certificate #	T-001-002	System Owner	r SUNY OF ALBA	NY
Drainage	STORM DRAII Survey	Customer WOODARD & CUR	RRAN			
P/O #	Date	2007/08/06 Time 13:06	Street SUNY	OF ALBANY		
Locality	VARIOUS LOCATIONS	Further location details				
Start [DMH-58	Rim to invert	Grade to invert	Rim to	grade	Ft
Finish [)CB-79	Rim to invert	Grade to invert	Rim to	grade	Ft
Use Sto	rmwater	Direction Downstream	Flow control	Not Controlled	Tape/Media # V	VP-03
Shape (Circular	Height 21 Width	ins Precle	an N	Year Cleaned	
Material	Reinforced Concrete Pipe	e Joint length I	t Total length	74.3 Ft Lei	ngth Surveyed 74	.30
Lining		Year laid Ye	ear rehabilitated	Weather	Dry	
Purpose	Infiltration/Inflow Investig	ation	Cat			
Addition	al info			Structural C	D&M Cor	structional
Location	Parking Lot			Miscellaneous H	lydraulic	



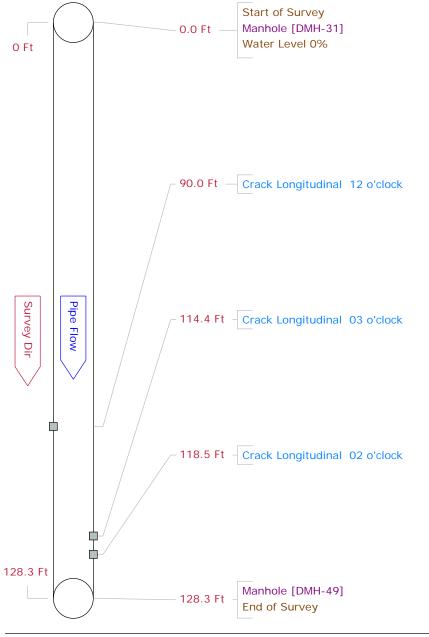
Pipe Graphic Report of PLR DMH-28 X for WOODARD & CURRAN

Setup 2	20 Surveyor WP	Certificate	# T-001-002	System Owner	SUNY OF ALBANY
Drainage	e STORM DRAII Survey	Customer WOODARD & C	URRAN		
P/O #	Date	2007/08/06 Time 13:40	5 Street SUN	OF ALBANY	
Locality	VARIOUS LOCATIONS	Further location detail	s		
Start [DMH-31	Rim to invert	Grade to invert	Rim to g	rade Ft
Finish [DMH-28	Rim to invert	Grade to invert	Rim to g	rade Ft
Use Sto	ormwater	Direction Upstream	Flow control	Not Controlled	Tape/Media # WP-03
Shape (Circular	Height 15 Width	n ins Precle	ean N	Year Cleaned
Material	Reinforced Concrete Pip	be Joint length	Ft Total length	68.4 Ft Len	gth Surveyed 68.40
Lining		Year laid	Year rehabilitated	Weather	Dry
Purpose	Infiltration/Inflow Investig	gation	Cat		
Addition	nal info			Structural O	&M Constructional
Location	Parking Lot			Miscellaneous H	ydraulic



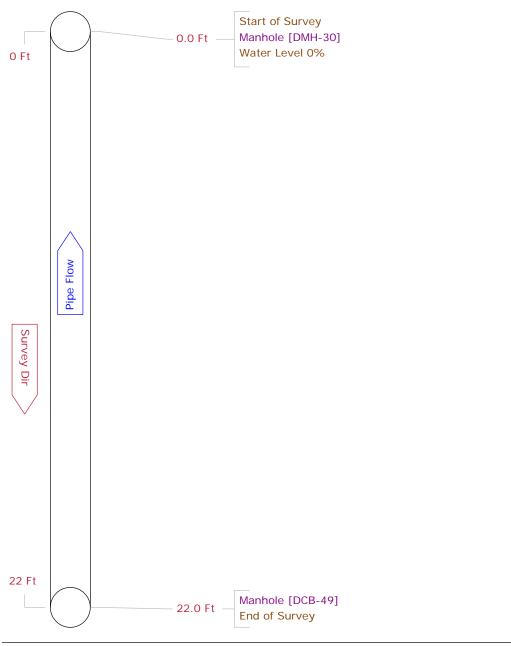
Pipe Graphic Report of PLR DMH-31 X for WOODARD & CURRAN

Setup 2	1 Surveyor WP	Certificate #	T-001-002	System Owr	ner SUNY OF	ALBANY
Drainage	STORM DRAIL Survey	Customer WOODARD & CU	RRAN			
P/O #	Date	2007/08/06 Time 13:56	Street SUNY	OF ALBANY		
Locality	VARIOUS LOCATIONS	Further location details				
Start [DMH-31	Rim to invert	Grade to invert	Rim t	o grade	Ft
Finish [DMH-49A	Rim to invert	Grade to invert	Rim t	o grade	Ft
Use Sto	rmwater	Direction Downstream	Flow control	Not Controlled	Tape/Media	a# WP-03
Shape (Circular	Height 15 Width	ins Precle	an N	Year Clean	ed
Material	Reinforced Concrete Pipe	Joint length	Ft Total length	128.3 Ft L	ength Survey	ed 128.30
Lining		Year laid Y	ear rehabilitated	Weathe	r Dry	
Purpose	Infiltration/Inflow Investiga	ation	Cat			
Addition	al info			Structural	O&M	Constructional
Location	Parking Lot			Miscellaneous	Hydraulic	



Pipe Graphic Report of PLR DCB-50 X for WOODARD & CURRAN

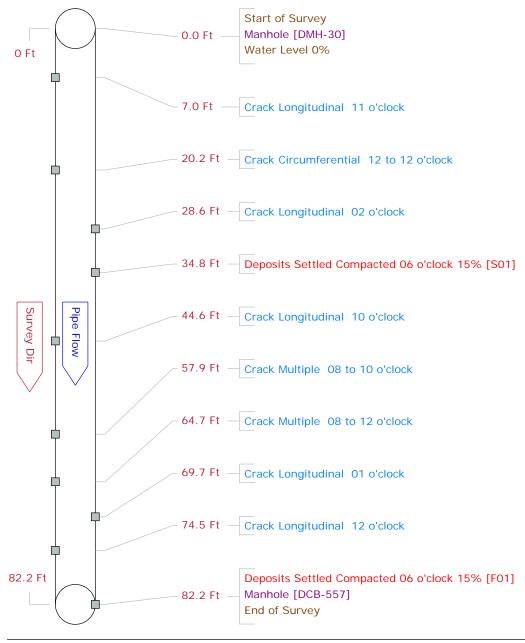
Setup 2	2 Surveyor	WP		Certif	ficate #	• T-001-00)2	Sys	stem O	vner SUN	Y OF ALBANY
Drainage	STORM DRAIL	Survey (Customer	WOODAR	RD & CL	JRRAN					
P/O #		Date	2007/08/06	Time	14:19	Street	SUN	Y OF AL	BANY		
Locality	VARIOUS LOCA	TIONS	Further	location	details	;					
Start [MH-30		Rim to	invert		Grade to	o invert	t	Rin	to grade	Ft
Finish [DCB-50		Rim to	invert		Grade to	o invert	t	Rin	to grade	Ft
Use Sto	rmwater		Directi	i on Upst	ream	Flow c	ontrol	Not Co	ntrolled	Tape/	Media # WP-03
Shape (Circular		Heig	ht 15	Width	ins	Precle	ean N		Year (Cleaned
Material	Reinforced Concr	ete Pipe	Joi	nt length		Ft Tota	l length	1 22.0	Ft	Length Su	rveyed 22.00
Lining			Yea	ar laid	Ŋ	Year rehabi	litated		Weath	er Dry	
Purpose	Infiltration/Inflow I	nvestiga	tion			Cat					
Addition	al info							Struct	ural	O&M	Constructional
Location	Parking Lot							Miscel	laneous	Hydraulic	:



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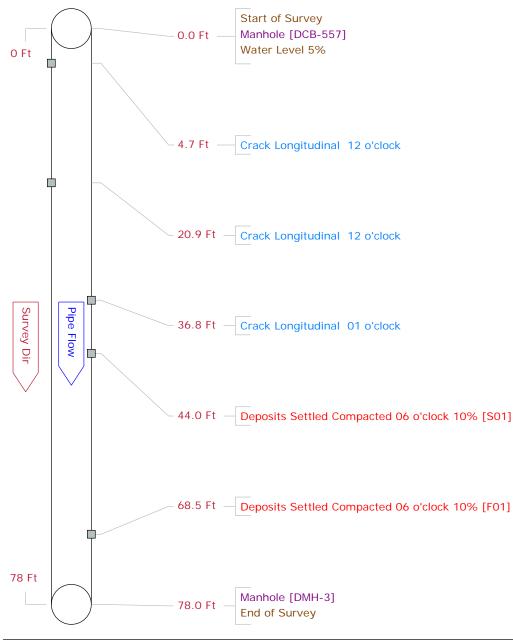
Pipe Graphic Report of PLR DMH-30 X for WOODARD & CURRAN

Setup	23 Surveyor	WP		Certifi	cate #	T-001-00	2	Syste	em Ow	ner SUNY (OF ALBANY
Drainag	e STORM DRAII S	urvey Cu	stomer V	OODAR	D & CUF	RAN					
P/O #		Date 20	007/08/06	Time	14:23	Street	SUN	Y OF ALBA	NY		
Locality	VARIOUS LOCAT	IONS	Further lo	ocation d	details						
Start	DMH-30		Rim to i	nvert		Grade to	invert	t	Rim	to grade	Ft
Finish	DCB-557		Rim to i	nvert		Grade to	invert	<u>!</u>	Rim	to grade	Ft
Use Sto	ormwater		Directio	n Down	stream	Flow co	ontrol	Not Contr	olled	Tape/Me	edia # WP-03
Shape	Circular		Heigh	t 15	Width	ins	Precle	ean N		Year Cle	eaned
Material	Reinforced Concre	ete Pipe	Join	length	F	t Total	length	82.2	Ft	Length Surv	eyed 82.20
Lining			Year	laid	Ye	ar rehabil	itated	I	Weathe	e r Dry	
Purpose	Infiltration/Inflow Ir	nvestigatio	n			Cat					
Additior	nal info							Structura	al	O&M	Constructional
Locatio	n Parking Lot							Miscella	neous	Hydraulic	



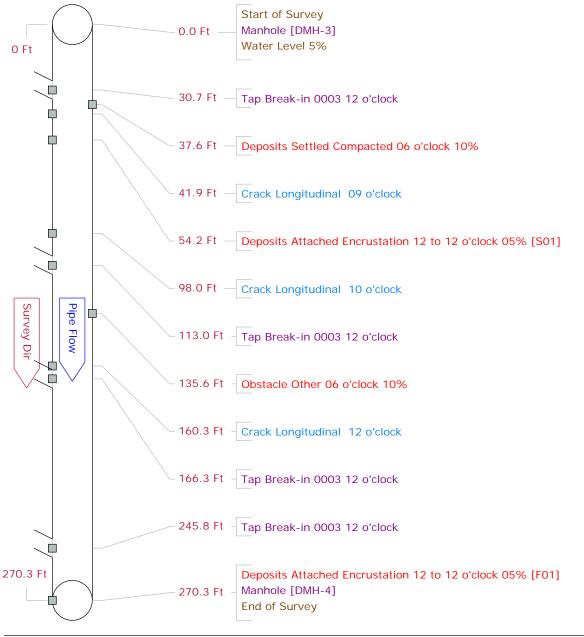
Pipe Graphic Report of PLR DCB-557 X for WOODARD & CURRAN

Setup 2	4 Surveyor WP	Certificate #	T-001-002	System Owne	er SUNY OF	ALBANY
Drainage	STORM DRAIl Survey	Customer WOODARD & CU	RRAN			
P/O #	Date	2007/08/06 Time 14:30	Street SUNY	OF ALBANY		
Locality	VARIOUS LOCATIONS	Further location details				
Start D	OCB-557	Rim to invert	Grade to invert	Rim to	grade	Ft
Finish D	MH-3	Rim to invert	Grade to invert	Rim to	grade	Ft
Use Sto	rmwater	Direction Downstream	Flow control	Not Controlled	Tape/Med	<i>ia</i> # WP-03
Shape C	Sircular	Height 18 Width	ins Precle	an N	Year Clea	ned
Material	Reinforced Concrete Pipe	Joint length	Ft Total length	78.0 Ft Le	ength Survey	red 78.00
Lining		Year laid Y	ear rehabilitated	Weather	Dry	
Purpose	Infiltration/Inflow Investiga	ation	Cat			
Addition	al info			Structural	O&M	Constructional
Location	Parking Lot			Miscellaneous	Hydraulic	



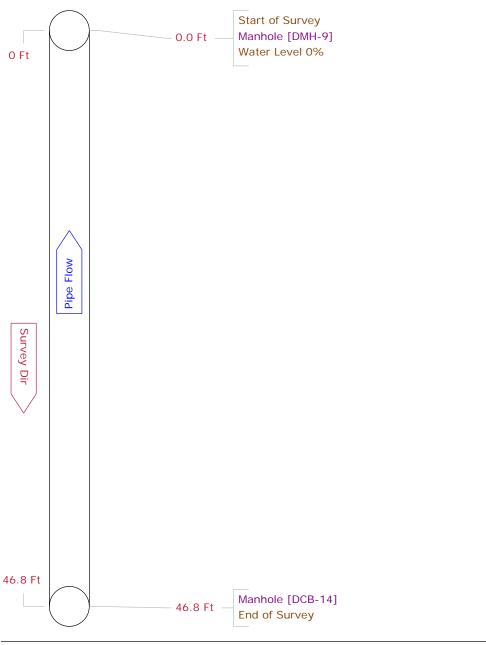
Pipe Graphic Report of PLR DMH-3 X for WOODARD & CURRAN

Setup 25 Surveyor WP	Certificate #	T-001-002	System Owne	er SUNY OF AL	BANY
Drainage STORM DRAII Survey Cus	tomer WOODARD & CUR	RAN			
P/O # Date 200	07/08/06 Time 14:38	Street SUNY	OF ALBANY		
Locality VARIOUS LOCATIONS	Further location details				
Start DMH-3	Rim to invert	Grade to invert	Rim to	grade	Ft
Finish DMH-4	Rim to invert	Grade to invert	Rim to	grade	Ft
Use Stormwater	Direction Downstream	Flow control	Not Controlled	Tape/Media #	# WP-03
Shape Circular	Height 18 Width	ins Precle	an N	Year Cleaned	1
Material Reinforced Concrete Pipe	Joint length F	t Total length	270.3 Ft Le	ength Surveyed	270.30
Lining	Year laid Ye	ar rehabilitated	Weather	Dry	
Purpose Infiltration/Inflow Investigation		Cat			
Additional info			Structural	O&M (Constructional
Location Parking Lot			Miscellaneous	Hydraulic	



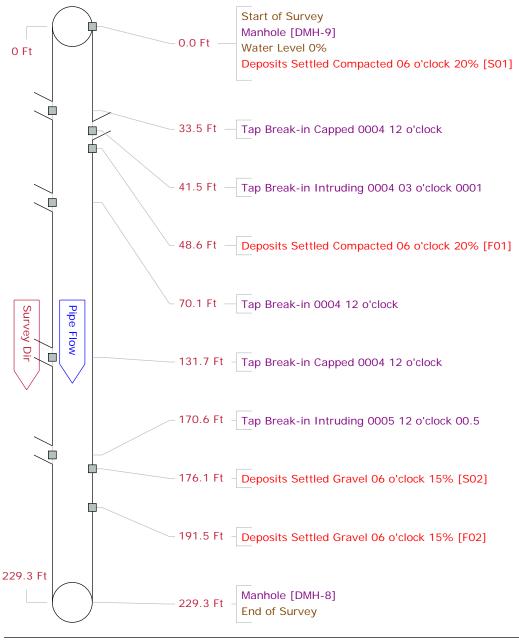
Pipe Graphic Report of PLR DCB-14 X for WOODARD & CURRAN

Setup	26 Surveyor	WP		Certif	icate #	T-001-00	2	Syst	tem Ov	vner S	SUNY OF A	LBANY
Drainag	e STORM DRAIL	Survey	Customer	WOODAR	D & CU	RRAN						
P/O #		Date	2007/08/06	Time	15:29	Street	SUN	Y OF ALB	ANY			
Locality	VARIOUS LOCA	TIONS	Further	location	details							
Start	DMH-9		Rim to	invert		Grade to	inver	t	Rim	to grad	de	Ft
Finish	DCB-14		Rim to	invert		Grade to	invert	t	Rim	to grad	de	Ft
Use Sto	ormwater		Direct	i on Upsti	ream	Flow co	ontrol	Not Cont	trolled	Tá	ape/Media	# WP-03
Shape	Circular		Heig	ht 15	Width	ins	Precle	ean N		Ye	ear Cleane	d
Material	Reinforced Conc	rete Pipe	Joi	nt length		Ft Total	length	4 6.8	Ft	Lengt	h Surveyed	4 6.80
Lining			Yea	ar laid	Y	ear rehabil	itated		Weath	er Dr	у	
Purpose	Infiltration/Inflow	Investiga	tion			Cat						
Additior	nal info							Structur	ral	O&N		Constructiona
Location	n Parking Lot							Miscella	aneous	Hydr	aulic	



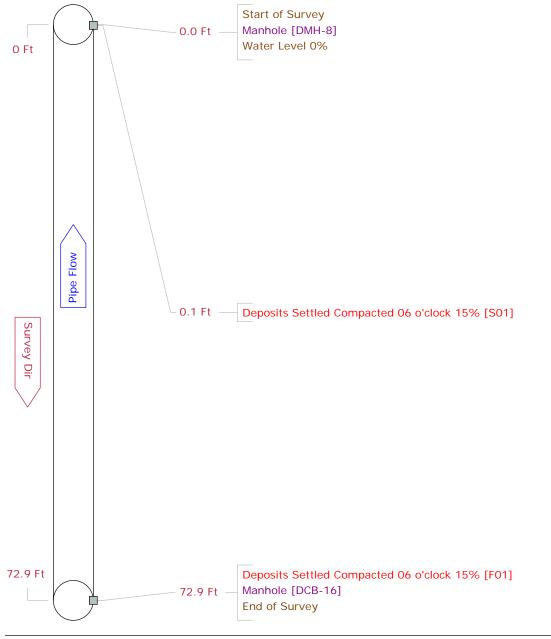
Pipe Graphic Report of PLR DMH-9 X for WOODARD & CURRAN

Setup 2	27 Surveyor	WP		Certif	icate #	T-001-00	2	Syster	n Owne	r SUNY C	OF ALBANY
Drainage	STORM DRAIL	Survey	Customer	WOODAR	D & CUF	RAN					
P/O #		Date	2007/08/07	Time	13:27	Street	SUN	OF ALBAN	١Y		
Locality	VARIOUS LOCA	TIONS	Further	location	details						
Start [DMH-9		Rim to	invert		Grade to	invert		Rim to	grade	Ft
Finish [DMH-8		Rim to	invert		Grade to	invert	<u>.</u>	Rim to	grade	Ft
Use Sto	rmwater		Direct	i on Dowr	nstream	Flow co	ontrol	Not Contro	lled	Tape/Me	edia # WP-03
Shape (Circular		Heig	ht 15	Width	ins	Precle	ean N		Year Cle	eaned
Material	Reinforced Conc	rete Pipe	ə Joi	nt length	F	t Total	length	229.3	⁼t Ler	ngth Surv	eyed 229.30
Lining			Yea	ar laid	Ye	ar rehabi	litated	И	leather	Dry	
Purpose	Infiltration/Inflow	Investiga	ation			Cat					
Addition	al info							Structural	C	D&M	Constructional
Location	Parking Lot							Miscellan	eous H	lydraulic	



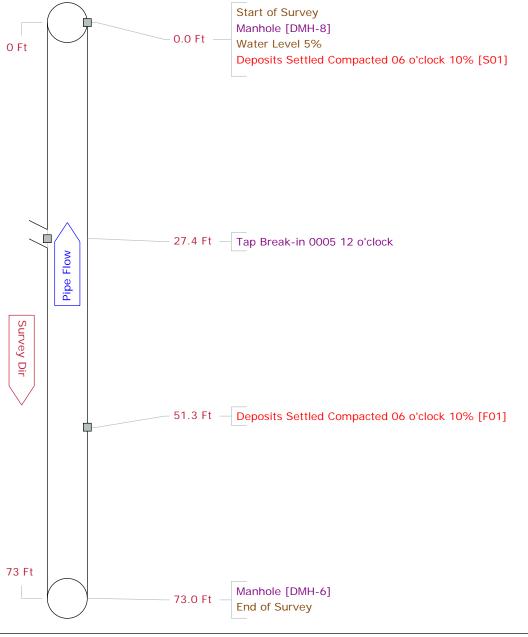
Pipe Graphic Report of PLR DCB-16 X for WOODARD & CURRAN

Setup	28 Surveyor	WP		Certif	icate #	T-001-00	2	System	Owner	SUNY OF AI	LBANY
Drainag	e STORM DRAIL	Survey (Customer	WOODAR	D & CU	RRAN					
P/O #		Date	2007/08/07	Time	13:54	Street	SUN	Y OF ALBAN	Y		
Locality	VARIOUS LOCA	TIONS	Further	location	details						
Start	DMH-8		Rim to	invert		Grade to	invert	t I	Rim to gr	ade	Ft
Finish	DCB-16		Rim to	invert		Grade to	invert	t I	Rim to gr	ade	Ft
Use Sto	ormwater		Directi	i on Upsti	ream	Flow co	ontrol	Not Controll	ed	Tape/Media	# WP-03
Shape	Circular		Heig	ht 15	Width	ins	Precle	ean N		Year Cleane	d
Material	Reinforced Conc	rete Pipe	Joi	nt length		Ft Total	length	72.9 F a	t Leng	th Surveyed	72.90
Lining			Yea	ar laid	Ŷ	ear rehabil	litated	We	ather [Dry	
Purpose	Infiltration/Inflow	Investiga	tion			Cat					
Additio	nal info							Structural	0&	М	Constructional
Location	n Parking Lot							Miscellane	ous Hyd	draulic	



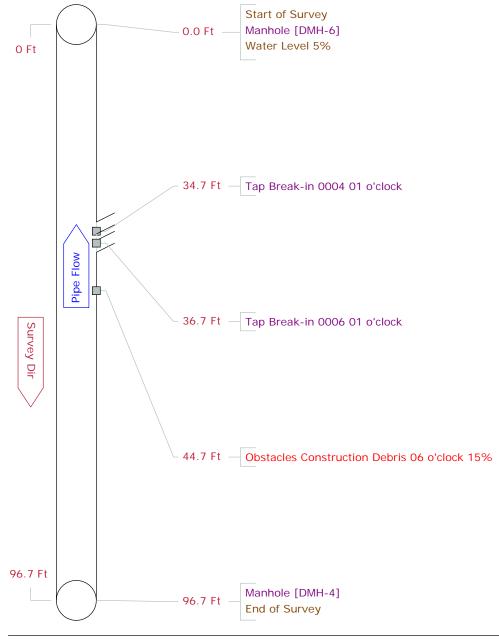
Pipe Graphic Report of PLR DMH-6 X for WOODARD & CURRAN

Setup 2	9 Surveyor	WP		Certif	ficate #	# T-001-0	02	Sy	stem O	wner S	UNY OF A	LBANY
Drainage	STORM DRAIL	Survey C	Customer	WOODAF	RD & CL	JRRAN						
P/O #		Date	2007/08/07	Time	14:19	Stree	et SUN	Y OF AL	BANY			
Locality	VARIOUS LOCA	TIONS	Further	location	details	5						
Start D	MH-8		Rim to	invert		Grade	to inver	t	Rin	n to grad	le	Ft
Finish D	MH-6		Rim to	invert		Grade	to inver	t	Rin	n to grad	le	Ft
Use Sto	rmwater		Directi	on Upst	ream	Flow	control	Not Co	ntrolled	Та	pe/Media	# WP-03
Shape C	Circular		Heig	ht 21	Width	ins	Precl	ean N		Ye	ar Cleane	d
Material	Reinforced Concr	ete Pipe	Joi	nt length		Ft Tota	al lengt	h 73.0	Ft	Length	Surveyed	1 73.00
Lining			Yea	nr laid	Y	Year rehal	oilitated	1	Weath	her Dry	/	
Purpose	Infiltration/Inflow I	nvestiga	tion			Cat						
Addition	al info							Struct	ural	O&M		Constructional
Location	Parking Lot							Misce	llaneous	Hydra	ulic	



Pipe Graphic Report of PLR DMH-4 X for WOODARD & CURRAN

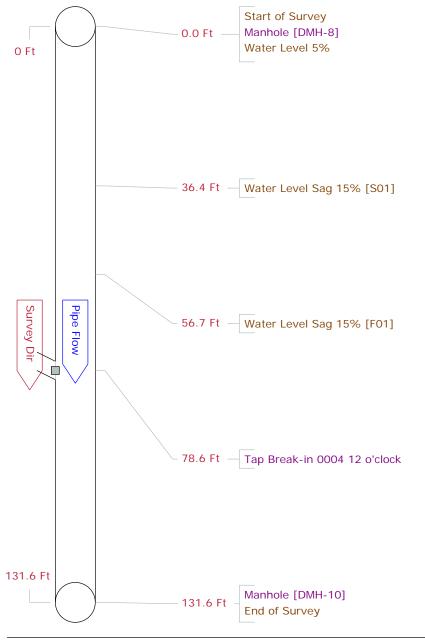
Setup 3	30 Surveyor	WP		Certif	icate #	T-001-00	2	System	n Owner	SUNY OF	ALBANY
Drainage	STORM DRAIL	Survey (Customer	WOODAR	D & CU	RRAN					
P/O #		Date	2007/08/07	Time	14:23	Street	SUN	Y OF ALBAN	IY		
Locality	VARIOUS LOCA	TIONS	Further	location	details						
Start [DMH-6		Rim to	invert		Grade to	inver	t	Rim to g	rade	Ft
Finish [DMH-4		Rim to	invert		Grade to	inver	t	Rim to g	rade	Ft
Use Sto	ormwater		Direct	i on Upst	ream	Flow co	ontrol	Not Control	led	Tape/Medi	a # WP-03
Shape (Circular		Heig	ht 21	Width	ins	Precle	ean N		Year Clear	ned
Material	Reinforced Conc	rete Pipe	Joi	nt length		Ft Total	length	96.7 F	t Len	gth Survey	ed 96.70
Lining			Yea	ar laid	Ŷ	'ear rehabi	litated	W	eather	Dry	
Purpose	Infiltration/Inflow	Investiga	tion			Cat					
Addition	al info							Structural	0	&M	Constructional
Location	Parking Lot							Miscellane	eous Hy	ydraulic	



MyName Phone: MyPhone Fax: MyFax

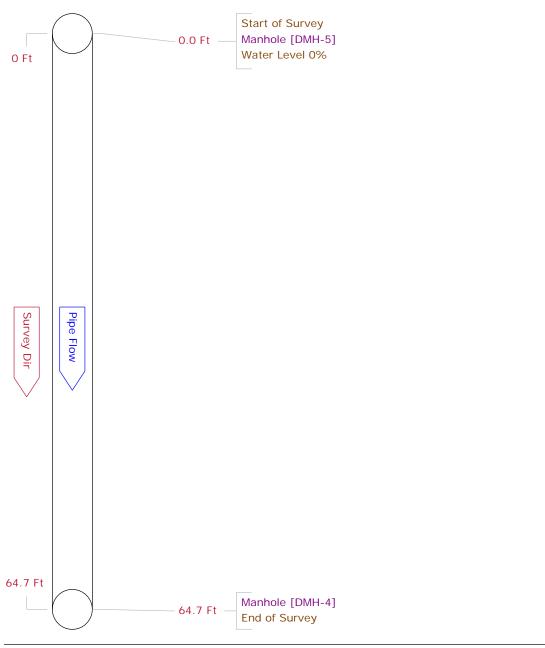
Pipe Graphic Report of PLR DMH-8 X for WOODARD & CURRAN

Setup	31 Surveyor WP	Certific	cate # T-0	01-002	System O	wner SUNY (OF ALBANY
Drainage	e STORM DRAII Survey	Customer WOODARE	0 & CURRAN	I			
P/O #	Date	2007/08/07 Time	14:33 S	Street SUN	Y OF ALBANY		
Locality	VARIOUS LOCATIONS	Further location d	letails				
Start	DMH-8	Rim to invert	Gra	nde to inver	t Rin	to grade	Ft
Finish	DMH-10	Rim to invert	Gra	de to inver	t Rin	to grade	Ft
Use Sto	ormwater	Direction Downs	stream FI	ow control	Not Controlled	Tape/Me	edia # WP-03
Shape	Circular	Height 21	Vidth	ins Precl	e an N	Year Cle	eaned
Material	Reinforced Concrete Pipe	Joint length	Ft	Total lengt	h 131.6 Ft	Length Surv	eyed 131.60
Lining		Year laid	Year r	ehabilitated	Weath	ner Dry	
Purpose	Infiltration/Inflow Investiga	ation	Cat				
Addition	nal info				Structural	O&M	Constructional
Location	Parking Lot				Miscellaneous	Hydraulic	



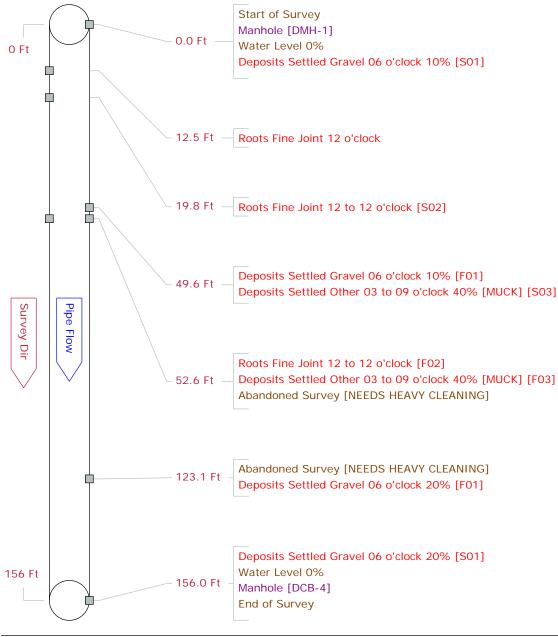
Pipe Graphic Report of PLR DMH-5 X for WOODARD & CURRAN

Setup 3	32 Surveyor	WP		Certif	icate #	T-001-002	2	Sys	stem Ov	wner	SUNY OF	ALBANY
Drainage	STORM DRAIL	Survey (Customer	WOODAR	D & CUF	RAN						
P/O #		Date	2007/08/07	Time	14:54	Street	SUN	y of Ale	BANY			
Locality	VARIOUS LOCA	TIONS	Further	location	details							
Start [DMH-5		Rim to	invert		Grade to	invert	t	Rim	to gra	ade	Ft
Finish [DMH-4		Rim to	invert		Grade to	invert	t	Rim	to gra	ade	Ft
Use Sto	rmwater		Directi	on Dowr	nstream	Flow co	ntrol	Not Cor	ntrolled	7	Tape/Medi	ia# WP-03
Shape (Circular		Heig	ht 15	Width	ins	Precle	ean N		Ŋ	Year Clear	ned
Material	Reinforced Conc	rete Pipe	Joi	nt length	F	t Total	length	6 4.7	Ft	Leng	th Survey	ed 64.70
Lining			Yea	ar laid	Ye	ar rehabil	itated		Weath	ner [Dry	
Purpose	Infiltration/Inflow	Investiga	tion			Cat						
Addition	al info							Structu	ural	0&	М	Constructiona
Location	Parking Lot							Miscel	laneous	Hyd	draulic	



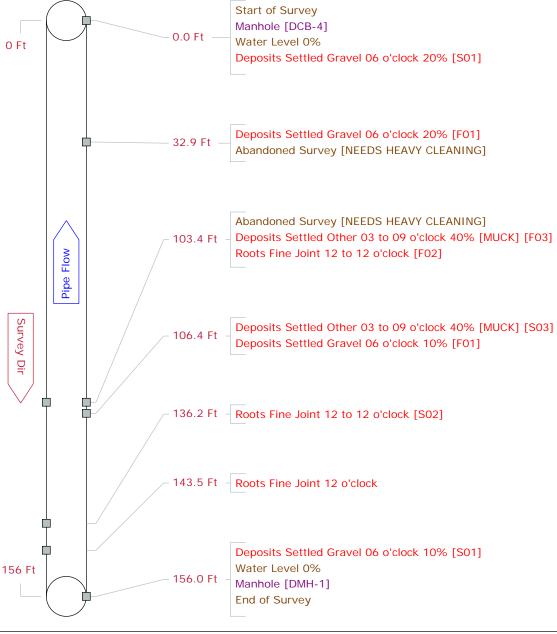
Pipe Graphic Report of PLR DMH-1 X for WOODARD & CURRAN

Setup 3	3/34 Surveyor WP	Certificate #	T-001-002	System Owr	ner SUNY C	OF ALBANY
Drainage	STORM DRAIL Survey	Customer WOODARD & CU	RRAN			
P/O #	Date	2007/08/07 Time 15:09	Street SUN	OF ALBANY		
Locality	VARIOUS LOCATIONS	Further location details				
Start D	DMH-1	Rim to invert	Grade to invert	Rim t	o grade	Ft
Finish 🛛	CB-4	Rim to invert	Grade to invert	Rim t	o grade	Ft
Use Sto	rmwater	Direction Downstream	Flow control	Not Controlled	Tape/Me	edia # WP-03
Shape C	Circular	Height 15 Width	ins Precle	an N	Year Cle	aned
Material	Reinforced Concrete Pipe	Joint length	Ft Total length	156.0 Ft L	ength Surve	eyed 52.60
Lining		Year laid Y	ear rehabilitated	Weathe	r Dry	
Purpose	Infiltration/Inflow Investiga	ation	Cat			
Addition	al info			Structural	O&M	Constructional
Location	Parking Lot			Miscellaneous	Hydraulic	



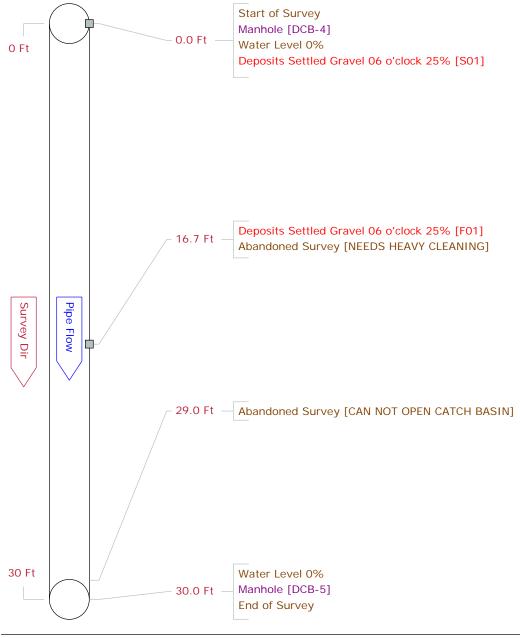
Pipe Graphic Report of PLR DMH-1 X for WOODARD & CURRAN

Setup 34/3	3 Surveyor WP	Cer	tificate #	T-001-00	2	System O	wner SUNY	OF ALBANY
Drainage	STORM DRAII Survey	Customer WOOD	ARD & CUI	RRAN		-		
P/O #	Date	2007/08/07 Tim	ie 3:18	Street	SUNY	OF ALBANY		
Locality V	ARIOUS LOCATIONS	Further locatio	n details					
Start DCI	3-4	Rim to invert		Grade to	invert	Rin	n to grade	Ft
Finish DM	H-1	Rim to invert		Grade to	invert	Rin	n to grade	Ft
Use Storm	water	Direction Up	stream	Flow co	ntrol	Not Controlled	Tape/N	ledia # WP-03
Shape Circ	ular	Height 15	Width	ins	Precle	an N	Year C	leaned
Material R	einforced Concrete Pipe	Joint leng	th l	Ft Total	length	156.0 Ft	Length Sur	veyed 32.90
Lining		Year laid	Y	ear rehabil	itated	Weatl	h er Dry	
Purpose Ir	filtration/Inflow Investiga	ation		Cat				
Additional	nfo Reverse set up or	n sheet:33				Structural	O&M	Constructional
Location P	arking Lot					Miscellaneous	Hydraulic	



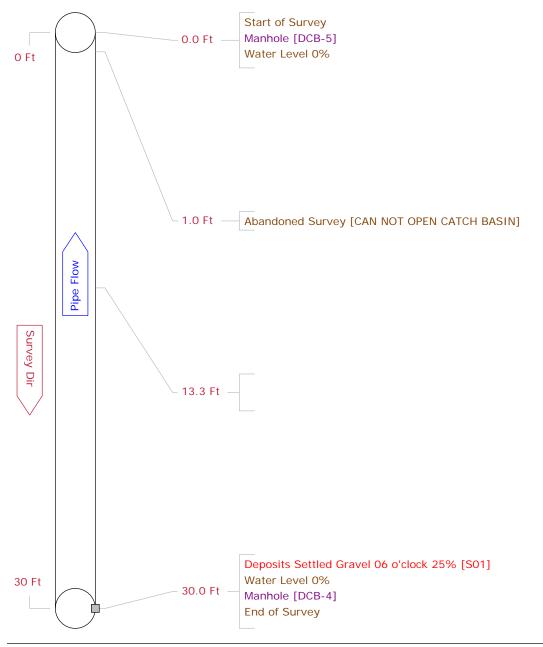
Pipe Graphic Report of PLR DCB-4 X for WOODARD & CURRAN

•							
Setup 3	5/36 Surveyor WP	C	ertificate #	T-001-002	System O	wner SUNY (OF ALBANY
Drainage	STORM DRAII Survey	Customer WOO	DARD & CUR	RAN			
P/O #	Date	2007/08/08 Ti	i me 10:28	Street SI	JNY OF ALBANY		
Locality	VARIOUS LOCATIONS	Further locat	ion details				
Start D	CB-4	Rim to inver	rt	Grade to inv	vert Rim	to grade	Ft
Finish D	CB-5	Rim to inver	rt	Grade to inv	vert Rim	to grade	Ft
Use Stor	mwater	Direction	Downstream	Flow contr	ol Not Controlled	Tape/M	edia # WP-03
Shape C	ircular	Height 15	Width	ins Pre	eclean N	Year Cle	eaned
Material	Reinforced Concrete Pip	e Joint len	gth F	t Total len	gth 30.0 Ft	Length Surv	eyed 16.70
Lining		Year laid	l Ye	ar rehabilitat	ed Weath	ner Dry	
Purpose	Infiltration/Inflow Investig	ation	(Cat			
Additiona	al info				Structural	O&M	Constructiona
Location	Parking Lot				Miscellaneous	Hydraulic	



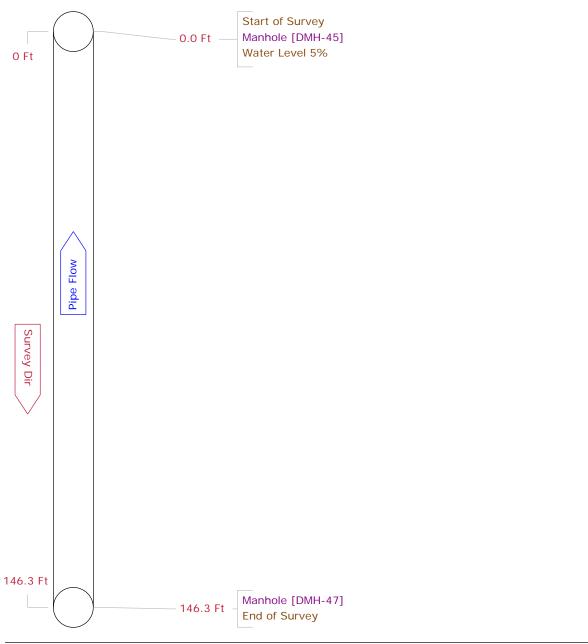
Pipe Graphic Report of PLR DCB-4 X for WOODARD & CURRAN

Setup 36/35 Surve	eyor WP	Certific	ate #	T-001-002	2	System O	wner SUNY	OF ALBANY
Drainage STORM D	RAII Survey Custo	omer WOODARD	& CUR	RAN				
P/O #	Date 2007	7/08/08 Time	10:28	Street	SUNY	OF ALBANY		
Locality VARIOUS	LOCATIONS	Further location de	etails					
Start DCB-5		Rim to invert		Grade to	invert	Rim	to grade	Ft
Finish DCB-4		Rim to invert		Grade to	invert	Rim	to grade	Ft
Use Stormwater		Direction Upstrea	am	Flow co	ntrol	Not Controlled	Tape/M	edia # WP-03
Shape Circular		Height 15 W	/idth	ins	Preclea	an N	Year Cl	eaned
Material Reinforced	Concrete Pipe	Joint length	F	t Total	length	30.0 Ft	Length Surv	reyed 01.00
Lining		Year laid	Ye	ar rehabili	tated	Weath	ner Dry	
Purpose Infiltration/I	nflow Investigation		(Cat				
Additional info Rev	verse set up on shee	et:35				Structural	O&M	Constructional
Location Parking Lot	t					Miscellaneous	Hydraulic	



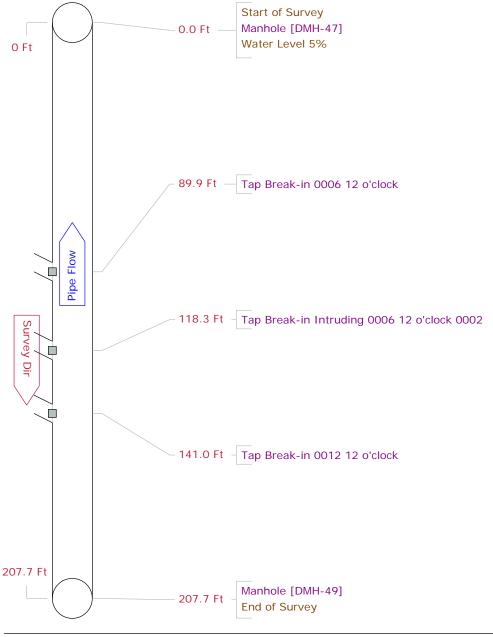
Pipe Graphic Report of PLR DMH-47 X for WOODARD & CURRAN

Setup 3	37 Surveyor	WP		Certif	icate #	T-001-00	2	Syst	em Ov	vner SUN	Y OF ALBANY
Drainage	STORM DRAIL	Survey (Customer	WOODAR	D & CU	RRAN					
P/O #		Date	2007/08/08	Time	15:08	Street	SUN	Y OF ALB	ANY		
Locality	VARIOUS LOCA	TIONS	Further	location	details						
Start [DMH-45		Rim to	invert		Grade to	invert	!	Rim	to grade	Ft
Finish [DMH-47		Rim to	invert		Grade to	invert	<u>:</u>	Rim	to grade	Ft
Use Sto	ormwater		Direct	i on Upsti	ream	Flow co	ontrol	Not Cont	rolled	Tape/	Media # WP-03
Shape (Circular		Heig	ht 30	Width	ins	Precle	ean N		Year (Cleaned
Material	Reinforced Conc	rete Pipe	Joi	nt length		Ft Total	length	146.3	Ft	Length Su	rveyed 146.30
Lining			Yea	ar laid	Y	ear rehabil	itated		Weath	er Dry	
Purpose	Infiltration/Inflow	Investiga	tion			Cat					
Addition	al info							Structur	al	O&M	Constructional
Location	Parking Lot							Miscella	neous	Hydraulic	



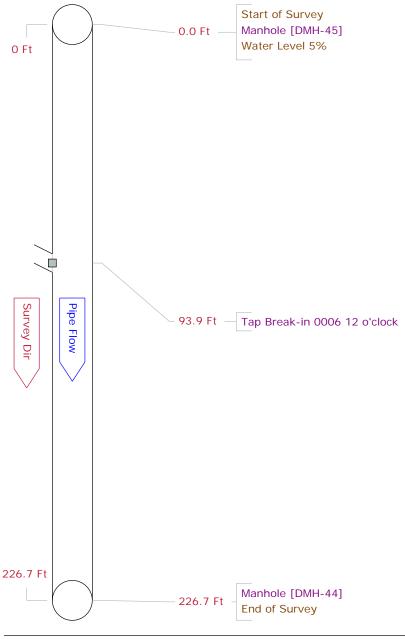
Pipe Graphic Report of PLR DMH-49 X for WOODARD & CURRAN

Setup 3	38 Surveyor	WP		Certif	ficate #	T-001-00	2	System O	wner SUNY	OF ALBANY
Drainage	e STORM DRAIL	Survey C	Customer	WOODAF	RD & CL	JRRAN				
P/O #		Date	2007/08/08	Time	15:15	Street	SUN	Y OF ALBANY		
Locality	VARIOUS LOCA	TIONS	Further	location	details					
Start I	DMH-47		Rim to	invert		Grade to	invert	t Rin	n to grade	Ft
Finish	DMH-49		Rim to	invert		Grade to	invert	t Rin	n to grade	Ft
Use Sto	ormwater		Direct	i on Upst	ream	Flow co	ontrol	Not Controlled	Tape/M	ledia # WP-03
Shape (Circular		Heig	ht 30	Width	ins	Precle	ean N	Year Cl	leaned
Material	Reinforced Conc	rete Pipe	Joi	nt length		Ft Total	length	n 207.7 Ft	Length Sur	veyed 207.70
Lining			Yea	ar laid	١	′ear rehabi	litated	Weat	her Dry	
Purpose	Infiltration/Inflow	Investiga	tion			Cat				
Addition	nal info							Structural	O&M	Constructional
Locatior	Parking Lot							Miscellaneous	B Hydraulic	



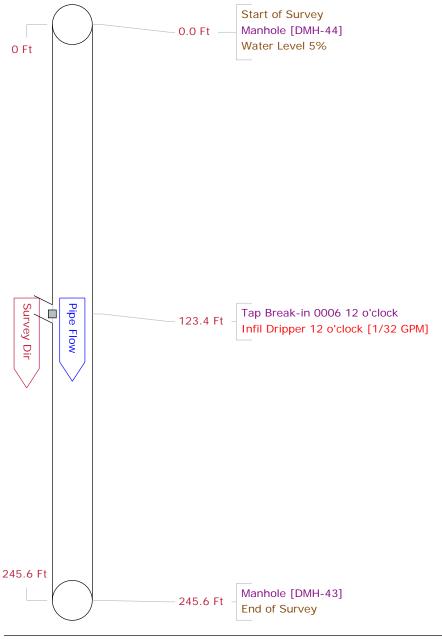
Pipe Graphic Report of PLR DMH-45 X for WOODARD & CURRAN

Setup 3	9 Surveyor WP	Certifi	cate #	T-001-002	System O	wner SUNY (OF ALBANY
Drainage	STORM DRAII Survey	Customer WOODAR	D & CURF	RAN			
P/O #	Date	2007/08/08 Time	15:27	Street SUN	Y OF ALBANY		
Locality	VARIOUS LOCATIONS	Further location of	letails				
Start [DMH-45	Rim to invert	(Grade to inver	t Rin	n to grade	Ft
Finish [DMH-44	Rim to invert	(Grade to inver	t Rin	n to grade	Ft
Use Sto	rmwater	Direction Down	stream	Flow control	Not Controlled	Tape/Me	edia # WP-03
Shape 🤇	Circular	Height 30	Width	ins Precl	ean N	Year Cle	eaned
Material	Reinforced Concrete Pipe	Joint length	Ft	Total lengt	h 226.7 Ft	Length Surv	eyed 226.70
Lining		Year laid	Yea	ar rehabilitated	Weath	her Dry	
Purpose	Infiltration/Inflow Investiga	ation	С	Cat			
Addition	al info				Structural	O&M	Constructional
Location	Parking Lot				Miscellaneous	Hydraulic	



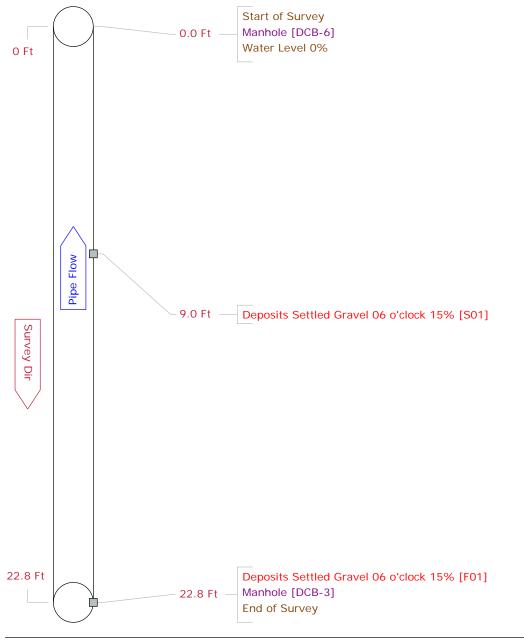
Pipe Graphic Report of PLR DMH-44 X for WOODARD & CURRAN

Setup 4	40 Surveyor	WP		Certifi	cate #	T-001-00	2	Syste	m Own	er SUNY C	OF ALBANY
Drainage	e STORM DRAILS	Survey C	ustomer W	OODARI	D & CUR	RAN					
P/O #		Date 2	2007/08/08	Time	15:35	Street	SUN	Y OF ALBA	NY		
Locality	VARIOUS LOCA	TIONS	Further lo	ocation o	letails						
Start I	DMH-44		Rim to i	nvert		Grade to	invert	!	Rim to	grade	Ft
Finish	DMH-43		Rim to i	nvert		Grade to	invert	t	Rim to	o grade	Ft
Use Sto	ormwater		Directio	n Down	stream	Flow co	ontrol	Not Contro	olled	Tape/Me	edia # WP-03
Shape (Circular		Heigh	t 30 🛛	Vidth	ins	Precle	ean N		Year Cle	eaned
Material	Reinforced Concr	ete Pipe	Join	length	F	t Total	length	245.6	Ft L	ength Surv	eyed 245.60
Lining			Year	laid	Ye	ar rehabil	itated	V	Veather	Dry	
Purpose	Infiltration/Inflow I	nvestigati	on			Cat					
Addition	nal info							Structura	l	O&M	Constructional
Locatior	Parking Lot							Miscellar	neous	Hydraulic	



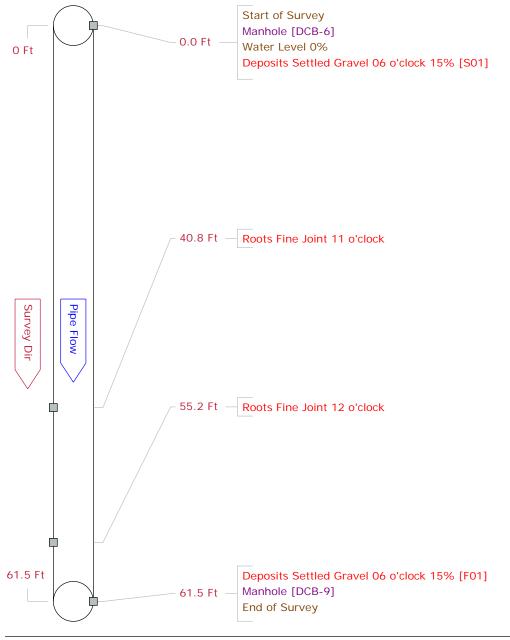
Pipe Graphic Report of PLR DCB-3 X for WOODARD & CURRAN

Setup 41 Surveyor WP	Certificate #	T-001-002	System Owne	er SUNY OF ALBANY	
Drainage STORM DRAII Survey Cu	stomer WOODARD & CUF	RAN			
P/O # Date 20	007/08/14 Time 8:25	Street SUNY	OF ALBANY		
Locality VARIOUS LOCATIONS	Further location details				
Start DCB-6	Rim to invert	Grade to invert	Rim to	grade Ft	
Finish DCB-3	Rim to invert	Grade to invert	Rim to	grade Ft	
Use Stormwater	Direction Upstream	Flow control	Not Controlled	Tape/Media # WP-0	3
Shape Circular	Height 15 Width	ins Preclea	an N	Year Cleaned	
Material Reinforced Concrete Pipe	Joint length F	t Total length	22.8 Ft Le	ength Surveyed 22.80	
Lining	Year laid Ye	ear rehabilitated	Weather	Dry	
Purpose Infiltration/Inflow Investigatio	n	Cat			
Additional info			Structural	O&M Constru	ctional
Location Parking Lot			Miscellaneous	Hydraulic	



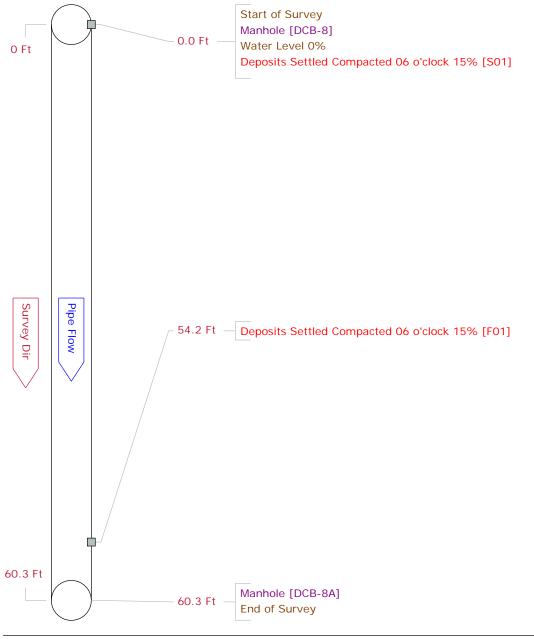
Pipe Graphic Report of PLR DCB-6 X for WOODARD & CURRAN

Setup 4	42 Surveyor WP	Certific	ate # T-001-00	2 Sys i	tem Owner SUN	NY OF ALBANY
Drainage	e STORM DRAII Survey	Customer WOODARD	& CURRAN			
P/O #	Date	2007/08/14 Time 8	3:31 Street	SUNY OF ALB	ANY	
Locality	VARIOUS LOCATIONS	Further location de	etails			
Start [DCB-6	Rim to invert	Grade to	invert	Rim to grade	Ft
Finish [DCB-9	Rim to invert	Grade to	invert	Rim to grade	Ft
Use Sto	ormwater	Direction Downst	tream Flow co	ntrol Not Con	trolled Tape	e/Media # WP-03
Shape (Circular	Height 15 W	/idth ins	Preclean N	Year	Cleaned
Material	Reinforced Concrete Pip	e Joint length	Ft Total	<i>length</i> 61.5	Ft Length S	Surveyed 61.50
Lining		Year laid	Year rehabil	itated	Weather Dry	
Purpose	Infiltration/Inflow Investig	ation	Cat			
Addition	al info			Structu	ral O&M	Constructional
Location	Parking Lot			Miscella	aneous Hydraul	lic



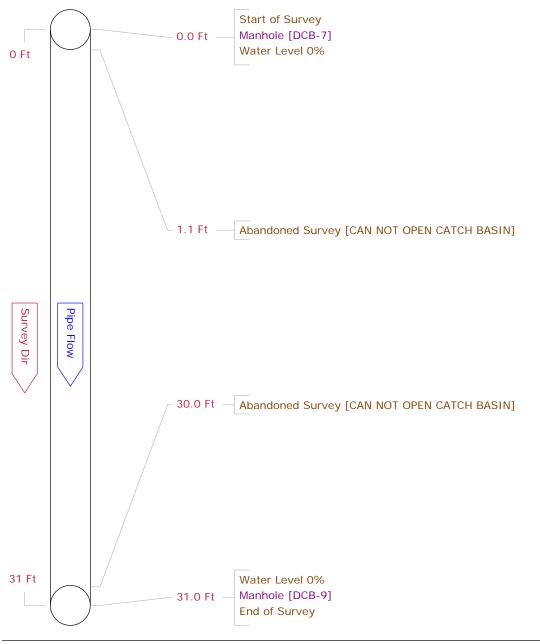
Pipe Graphic Report of PLR DCB-8 X for WOODARD & CURRAN

	-						
Setup 43 S	<i>urveyor</i> WP	C	ertificate #	T-001-002	System Ou	wner SUNY (OF ALBANY
Drainage STOF	RM DRAII Survey	Customer WOC	DARD & CUF	RAN			
P/O #	Date	2007/08/14 7	ime 8:52	Street SI	UNY OF ALBANY		
Locality VARIO	US LOCATIONS	Further loca	tion details				
Start DCB-8		Rim to inve	rt	Grade to inv	vert Rim	to grade	Ft
Finish DCB-8A		Rim to inve	rt	Grade to inv	vert Rim	to grade	Ft
Use Stormwater		Direction	Downstream	Flow contr	ol Not Controlled	Tape/Me	edia # WP-03
Shape Circular		Height 1	5 Width	ins Pre	eclean N	Year Cle	eaned
Material Reinfor	rced Concrete Pipe	e Joint lei	ngth F	t Total len	gth 60.3 Ft	Length Surv	eyed 60.30
Lining		Year laid	d Ye	ar rehabilitat	ted Weath	ner Dry	
Purpose Infiltrat	ion/Inflow Investig	ation		Cat			
Additional info					Structural	O&M	Constructional
Location Parking	g Lot				Miscellaneous	Hydraulic	



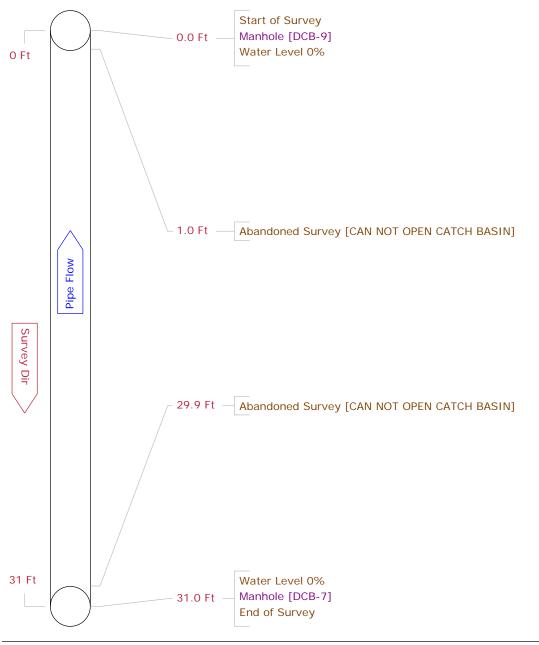
Pipe Graphic Report of PLR DCB-7 X for WOODARD & CURRAN

Setup 44/45	Surveyor WP	Cert	ificate #	T-001-002	System O	wner SUNY (OF ALBANY
Drainage S	TORM DRAII Survey	Customer WOODA	RD & CUR	RAN			
P/O #	Date	2007/08/14 Tim	9 :09	Street SUN	IY OF ALBANY		
Locality VA	RIOUS LOCATIONS	Further location	n details				
Start DCB-	-7	Rim to invert		Grade to inve	rt Rin	to grade	Ft
Finish DCB-	.9	Rim to invert		Grade to inve	rt Rin	to grade	Ft
Use Stormw	ater	Direction Dov	wnstream	Flow control	Not Controlled	Tape/Me	edia # WP-03
Shape Circu	lar	Height 15	Width	ins Preci	l ean N	Year Cle	eaned
<i>Material</i> Re	inforced Concrete Pipe	Joint lengt	h F	t Total lengt	h 31.0 Ft	Length Surv	eyed 01.10
Lining		Year laid	Ye	ar rehabilitateo	l Weath	ner Dry	
Purpose Inf	iltration/Inflow Investiga	ation	(Cat			
Additional in	lfo				Structural	O&M	Constructional
Location Pa	rking Lot				Miscellaneous	Hydraulic	



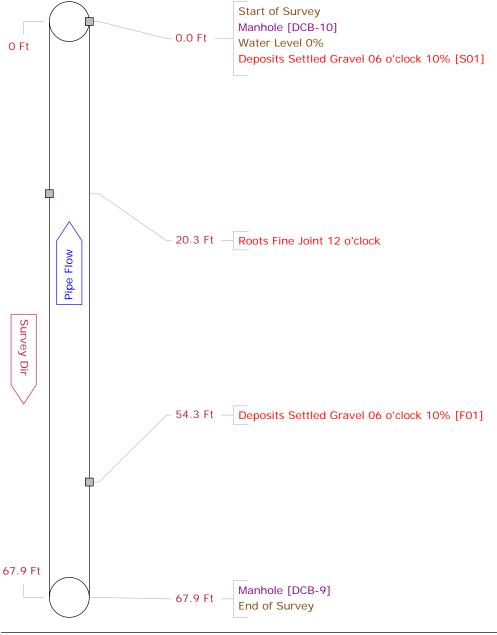
Pipe Graphic Report of PLR DCB-7 X for WOODARD & CURRAN

Setup 45/44 Surveyor WP	Certificate #	T-001-002	System Own	er SUNY OF	ALBANY
Drainage STORM DRAIL Survey Cus	tomer WOODARD & CU	RRAN			
P/O # Date 20	07/08/14 Time 9:12	Street SUNY	OF ALBANY		
Locality VARIOUS LOCATIONS	Further location details				
Start DCB-9	Rim to invert	Grade to invert	Rim to	o grade	Ft
Finish DCB-7	Rim to invert	Grade to invert	Rim to	o grade	Ft
Use Stormwater	Direction Upstream	Flow control	Not Controlled	Tape/Medi	a# WP-03
Shape Circular	Height 15 Width	ins Preclea	an N	Year Clear	led
Material Reinforced Concrete Pipe	Joint length	-t Total length	31.0 Ft L	ength Survey	ed 01.00
Lining	Year laid Ye	ear rehabilitated	Weather	r Dry	
Purpose Infiltration/Inflow Investigation	1	Cat			
Additional info Reverse set up on sh	eet:44		Structural	O&M	Constructional
Location Parking Lot			Miscellaneous	Hydraulic	



Pipe Graphic Report of PLR DCB-9 X for WOODARD & CURRAN

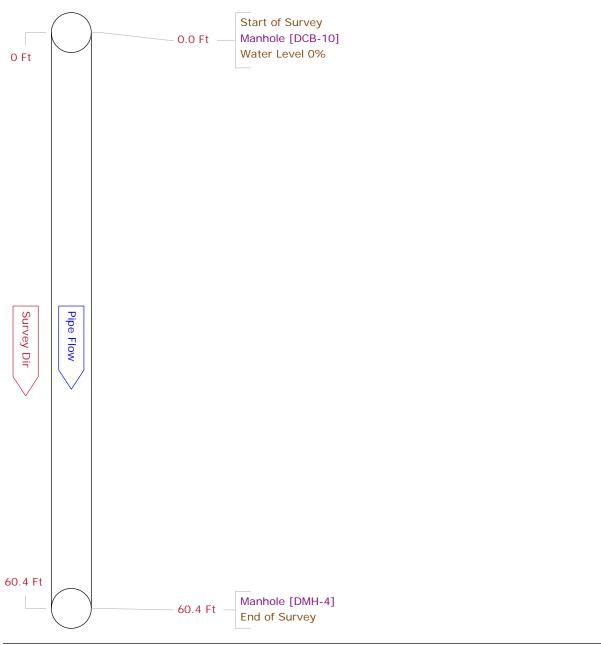
Setup 4	6 Surveyor WP	Certificate	# T-001-002	System Owner	r SUNY OF AL	BANY
Drainage	STORM DRAIL Surve	y Customer WOODARD & (CURRAN			
P/O #	Date	e 2007/08/14 Time 9:19	Street SUNY	OF ALBANY		
Locality	VARIOUS LOCATIONS	Further location detail	ils			
Start [DCB-10	Rim to invert	Grade to invert	Rim to	grade	Ft
Finish [DCB-9	Rim to invert	Grade to invert	Rim to	grade	Ft
Use Sto	rmwater	Direction Upstream	Flow control	Not Controlled	Tape/Media #	• WP-03
Shape (Circular	Height 15 Widt	h ins Precle	an N	Year Cleaned	1
Material	Reinforced Concrete Pi	pe Joint length	Ft Total length	67.9 Ft Le i	ngth Surveyed	67.90
Lining		Year laid	Year rehabilitated	Weather	Dry	
Purpose	Infiltration/Inflow Investi	gation	Cat			
Addition	al info			Structural C	0&M (Constructional
Location	Parking Lot			Miscellaneous H	Hydraulic	



Page 1 of 1

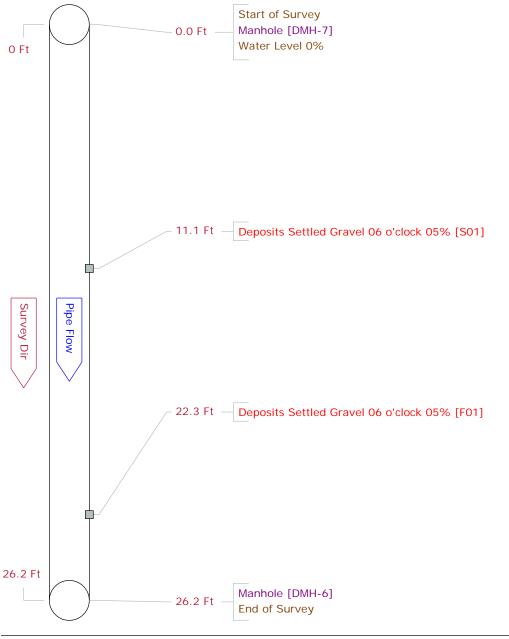
Pipe Graphic Report of PLR DCB-5 X for WOODARD & CURRAN

Setup 4	7 Surveyor	WP		Certif	icate #	T-001-00	2	Sys	tem Ov	wner	SUNY OF	ALBANY
Drainage	STORM DRAIL	Survey	Customer	WOODAR	D & CUF	RRAN						
P/O #		Date	2007/08/14	Time	9:24	Street	SUN	Y OF ALE	BANY			
Locality	VARIOUS LOCA	TIONS	Further	location	details							
Start [DCB-10		Rim to	invert		Grade to	inver	t	Rim	n to gra	ade	Ft
Finish [DMH-4		Rim to	invert		Grade to	inver	t	Rim	n to gra	ade	Ft
Use Sto	rmwater		Directi	i on Dowr	nstream	Flow co	ontrol	Not Cor	trolled	7	Tape/Media	a# WP-03
Shape (Circular		Heig	ht 15	Width	ins	Precle	ean N		Ŋ	lear Clean	ed
Material	Reinforced Conc	rete Pipe	Joi	nt length	F	t Total	length	6 0.4	Ft	Leng	th Surveye	ed 60.40
Lining			Yea	ar laid	Ye	ar rehabi	litated		Weath	ner 🛛	Dry	
Purpose	Infiltration/Inflow	Investiga	ition			Cat						
Addition	al info							Structu	ıral	O&	M	Constructional
Location	Parking Lot							Miscell	aneous	Hyc	draulic	



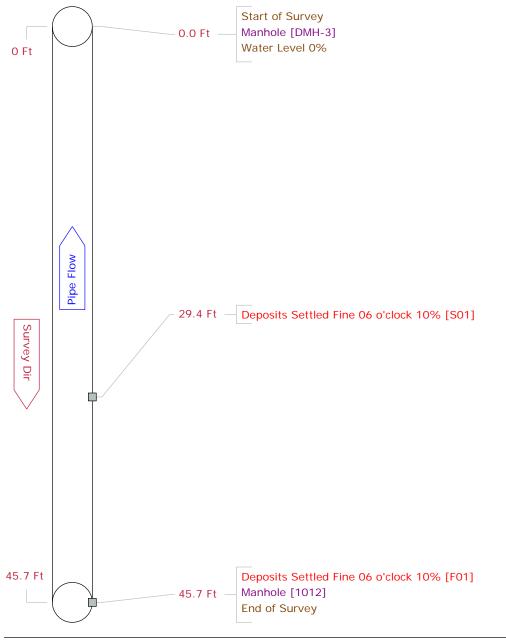
Pipe Graphic Report of PLR DMH-7 X for WOODARD & CURRAN

Setup 48 Surveyo	or WP	Certific	cate # ⊺	-001-002	System Ov	wner SUNY O	F ALBANY
Drainage STORM DRA	All Survey Custo	mer WOODARD	0 & CURR	AN			
P/O #	Date 2007	/08/14 Time	9:40	Street SUN	Y OF ALBANY		
Locality VARIOUS LO	CATIONS F	urther location d	letails				
Start DMH-7		Rim to invert	G	Grade to invert	t Rim	to grade	Ft
Finish DMH-6		Rim to invert	G	Grade to invert	t Rim	to grade	Ft
Use Stormwater		Direction Downs	stream	Flow control	Not Controlled	Tape/Me	dia# WP-03
Shape Circular		Height 15	Vidth	ins Precle	ean N	Year Clea	aned
Material Reinforced Co	oncrete Pipe	Joint length	Ft	Total length	26.2 Ft	Length Surve	eyed 26.20
Lining		Year laid	Year	[,] rehabilitated	Weath	ner Dry	
Purpose Infiltration/Inflo	ow Investigation		Cá	at			
Additional info					Structural	O&M	Constructional
Location Parking Lot					Miscellaneous	Hydraulic	

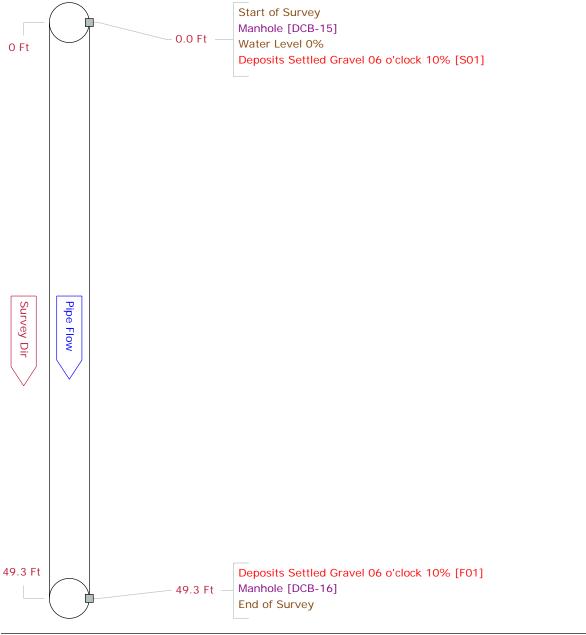


Pipe Graphic Report of PLR 1012 X for WOODARD & CURRAN

Setup 4	49 Surveyor W	/P	C	ertificate	# T-00	01-002	System O	wner SUNY	OF ALBANY
Drainag	e STORM DRAII Su	rvey Cust	omer WOC	DARD & C	CURRAN				
P/O #	I	Date 2007	7/08/14 T	ime 9:52	s	treet SUN	Y OF ALBANY		
Locality	VARIOUS LOCATIO	ONS	Further loca	tion detai	ls				
Start	DMH-3		Rim to inve	rt	Gra	de to inver	t Rin	n to grade	Ft
Finish	1012		Rim to inve	rt	Gra	de to inver	t Rin	n to grade	Ft
Use Sto	ormwater		Direction	Upstream	Flo	ow control	Not Controlled	Tape/M	edia # WP-03
Shape	Circular		Height 1	5 Widt	h .	ins Precl	ean N	Year Cl	eaned
Material	Reinforced Concret	e Pipe	Joint ler	ngth	Ft	Total lengt	h 45.7 Ft	Length Surv	/eyed 45.70
Lining			Year laid	d	Year re	habilitated	Weat	her Dry	
Purpose	Infiltration/Inflow Inv	estigation/			Cat				
Addition	nal info						Structural	O&M	Constructional
Location	Parking Lot						Miscellaneous	B Hydraulic	

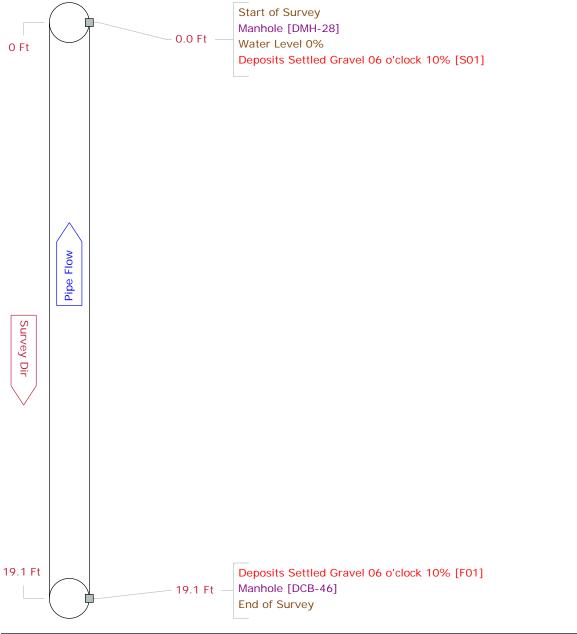


Pipe Graphic Report of PLR DC	B-15 W	for	WOODARD & CURRAN		
Setup 50 Surveyor WP	Certificate #	T-001-002	System Owner SUNY	OF ALBANY	
Drainage STORM DRAII Survey Cust	omer WOODARD & CUF	RRAN			
P/O # Date 200	7/08/14 Time 10:11	Street SUN	Y OF ALBANY		
Locality VARIOUS LOCATIONS	Further location details				
Start DCB-15	Rim to invert	Grade to invert	t Rim to grade	Ft	
Finish DCB-16	Rim to invert	Grade to invert	t Rim to grade	Ft	
Use Stormwater	Direction Downstream	Flow control	Not Controlled Tape/M	edia # WP-03	
Shape Circular	Height 15 Width	ins Precle	ean N Year Cleaned		
Material Reinforced Concrete Pipe	Joint length F	t Total length	h 49.3 Ft Length Surv	eyed 49.30	
Lining	Year laid Ye	ear rehabilitated	Weather Dry		
Purpose Infiltration/Inflow Investigation		Cat			
Additional info			Structural O&M	Constructional	
Location Parking Lot			Miscellaneous Hydraulic		



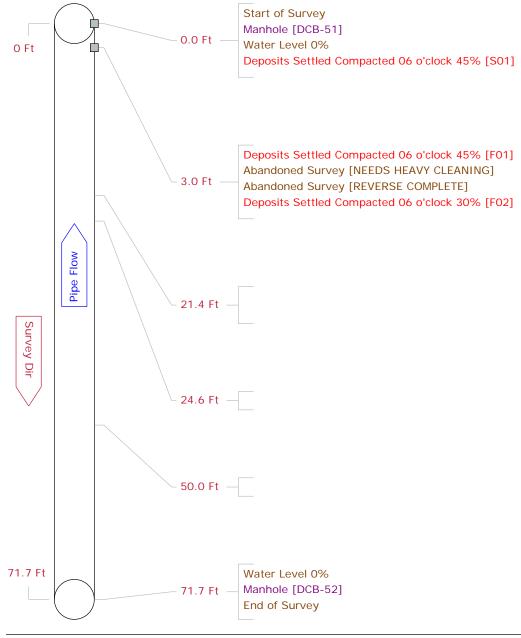
Pipe Graphic Report of PLR	DCB-46 W	for WOODARI	D & CURRAN
Setup 51 Surveyor WP	Certificate #	T-001-002 System	Owner SUNY OF ALBANY
Drainage STORM DRAII Survey (Customer WOODARD & CU	RRAN	
P/O # Date	2007/08/14 <i>Time</i> 10:23	Street SUNY OF ALBANY	/
Locality VARIOUS LOCATIONS	Further location details		
Start DMH-28	Rim to invert	Grade to invert F	Rim to grade Ft
Finish DCB-46	Rim to invert	Grade to invert F	Rim to grade Ft
Use Stormwater	Direction Upstream	Flow control Not Controlle	d Tape/Media # WP-03

Use Stormwater	Direction Upst	tream Flow co	ontrol Not Controlled	Tape/Med	dia# WP-03
Shape Circular	Height 15	Width ins	Preclean N	Year Clea	aned
Material Reinforced Concrete Pipe	Joint length	h Ft Total	length 19.1 Ft	Length Surve	yed 19.10
Lining	Year laid	Year rehabi	litated Weat	her Dry	
Purpose Infiltration/Inflow Investigation		Cat			
Additional info			Structural	O&M	Constructional
Location Parking Lot			Miscellaneous	s Hydraulic	



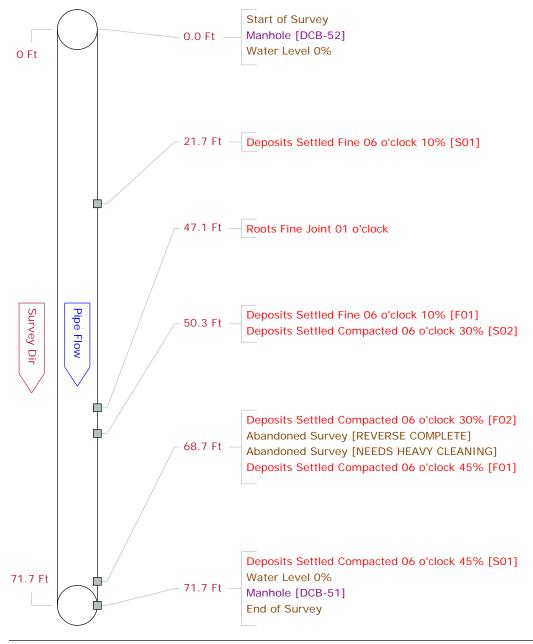
Pipe Graphic Report of PLR DCB-52 W for WOODARD & CURRAN

Setup 5	2/53 Surveyor WP	Certificate #	T-001-002	System Owne	er SUNY OF	ALBANY
Drainage	STORM DRAII Survey	Customer WOODARD & CL	JRRAN			
P/O #	Date	2007/08/14 Time 10:38	Street SUN	OF ALBANY		
Locality	VARIOUS LOCATIONS	Further location details				
Start D	CB-51	Rim to invert	Grade to invert	Rim to	grade	Ft
Finish D	CB-52	Rim to invert	Grade to invert	Rim to	grade	Ft
Use Stor	mwater	Direction Upstream	Flow control	Not Controlled	Tape/Medi	a # WP-03
Shape C	ircular	Height 15 Width	ins Precle	an N	Year Clear	led
Material	Reinforced Concrete Pipe	Joint length	Ft Total length	71.7 Ft Le	ength Survey	e d 03.00
Lining		Year laid	ear rehabilitated	Weather	Dry	
Purpose	Infiltration/Inflow Investiga	tion	Cat			
Additiona	al info			Structural	O&M	Constructional
Location	Parking Lot			Miscellaneous	Hydraulic	

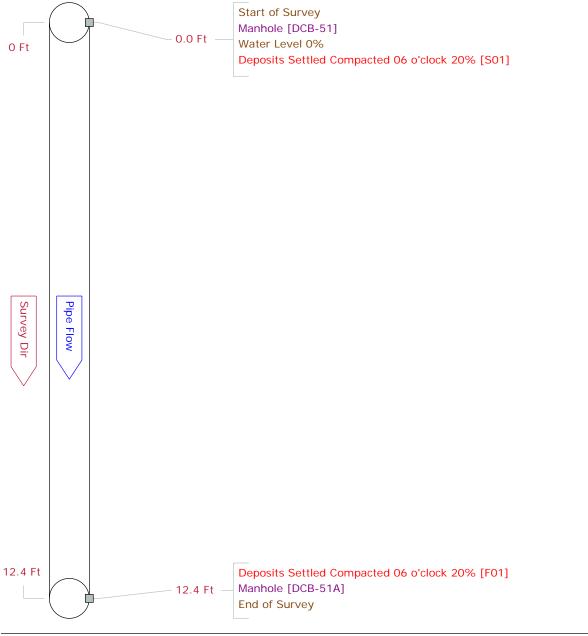


Pipe Graphic Report of PLR DCB-52 W for WOODARD & CURRAN

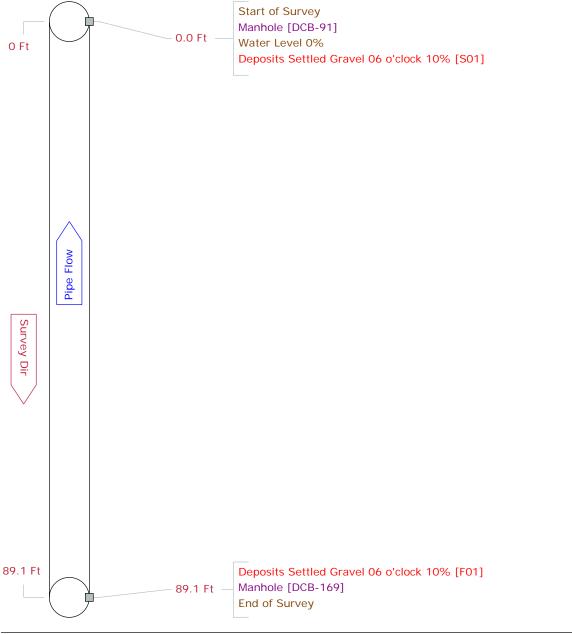
Setup 5	53/52 Surveyor WP	Certificate #	T-001-002	System Ow	ner SUNY OF	F ALBANY
Drainage	STORM DRAII Survey	Customer WOODARD & CU	RRAN			
P/O #	Date	2007/08/14 <i>Time</i> 10:41	Street SUNY	OF ALBANY		
Locality	VARIOUS LOCATIONS	Further location details				
Start [DCB-52	Rim to invert	Grade to invert	Rim t	o grade	Ft
Finish [DCB-51	Rim to invert	Grade to invert	Rim t	o grade	Ft
Use Sto	rmwater	Direction Downstream	Flow control	Not Controlled	Tape/Mec	lia # WP-03
Shape (Circular	Height 15 Width	ins Precle	an N	Year Clea	ned
Material	Reinforced Concrete Pipe	Joint length	Ft Total length	71.7 Ft L	ength Surve	yed 68.70
Lining		Year laid Year	ear rehabilitated	Weathe	r Dry	
Purpose	Infiltration/Inflow Investiga	tion	Cat			
Addition	al info Reverse set up on	sheet:52		Structural	O&M	Constructional
Location	Parking Lot			Miscellaneous	Hydraulic	



Pipe Graphic Report of PLR DC	B-51 W	for	WOODARD & CURRAN	
Setup 54 Surveyor WP	Certificate #	T-001-002	System Owner SUNY OF A	LBANY
Drainage STORM DRAII Survey Cust	omer WOODARD & CUF	RRAN		
P/O # Date 200	7/08/14 Time 10:41	Street SUN	Y OF ALBANY	
Locality VARIOUS LOCATIONS	Further location details			
Start DCB-51	Rim to invert	Grade to inver	t Rim to grade	Ft
Finish DCB-49	Rim to invert	Grade to invert	t Rim to grade	Ft
Use Stormwater	Direction Downstream	Flow control	Not Controlled Tape/Media	# WP-03
Shape Circular	Height 15 Width	ins Precle	ean N Year Cleane	ed
Material Reinforced Concrete Pipe	Joint length F	t Total lengt	h 12.4 Ft Length Surveye	d 12.40
Lining	Year laid Ye	ear rehabilitated	Weather Dry	
Purpose Infiltration/Inflow Investigation		Cat		
Additional info			Structural O&M	Constructional
Location Parking Lot			Miscellaneous Hydraulic	

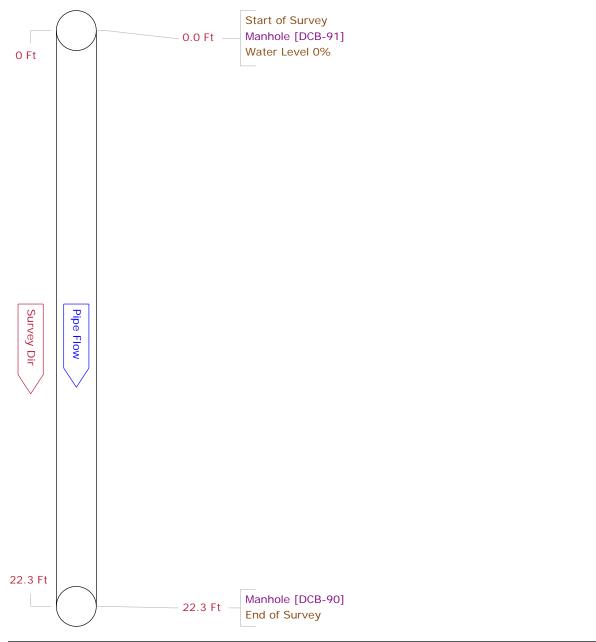


Pipe Graphic Report of PLR DC	B-169 W	for	WOODARD & CURRAN	
Setup 55 Surveyor WP	Certificate #	T-001-002	System Owner SUNY OF	ALBANY
Drainage STORM DRAII Survey Cust	tomer WOODARD & CUF	RRAN		
P/O # Date 200	7/08/14 Time 11:06	Street SUN	Y OF ALBANY	
Locality VARIOUS LOCATIONS	Further location details			
Start DCB-91	Rim to invert	Grade to invert	Rim to grade	Ft
Finish DCB-164	Rim to invert	Grade to invert	Rim to grade	Ft
Use Stormwater	Direction Upstream	Flow control	Not Controlled Tape/Media	a# WP-03
Shape Circular	Height 15 Width	ins Precle	ean N Year Clean	ed
Material Reinforced Concrete Pipe	Joint length	t Total length	89.1 Ft Length Surveye	ed 89.10
Lining	Year laid Ye	ear rehabilitated	Weather Dry	
Purpose Infiltration/Inflow Investigation		Cat		
Additional info			Structural O&M	Constructional
Location Parking Lot			Miscellaneous Hydraulic	

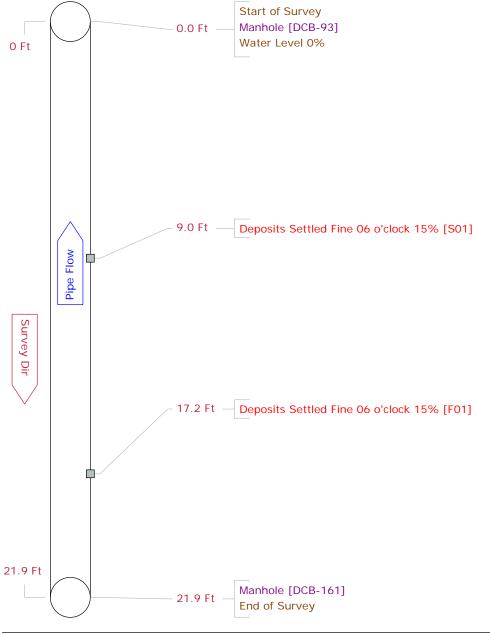


Pipe Graphic Report of PLR	DCB-91 W	for WOODARD 8	
Setup 56 Surveyor WP	Certificate #	T-001-002 System Ow	Iner SUNY OF ALBANY
Drainage STORM DRAII Survey	Customer WOODARD & CU	RRAN	
P/O # Date	2007/08/14 Time 11:17	Street SUNY OF ALBANY	
Locality VARIOUS LOCATIONS	Further location details		
Start DCB-91	Rim to invert	Grade to invert Rim	to grade Ft
Finish DCB-90	Rim to invert	Grade to invert Rim	to grade Ft
Use Stormwater	Direction Downstream	Flow control Not Controlled	Tape/Media # WP-03
		<i>i</i> – <i>i</i> N	

Shape Circular	Height 15 M	Vidth	ins Preclea	an N	Year Cle	aned
Material Reinforced Concrete Pipe	Joint length	Ft	Total length	22.3 Ft	Length Surve	eyed 22.30
Lining	Year laid	Year r	ehabilitated	Weath	ner Dry	
Purpose Infiltration/Inflow Investigation		Cat				
Additional info				Structural	O&M	Constructional
Location Parking Lot				Miscellaneous	Hydraulic	



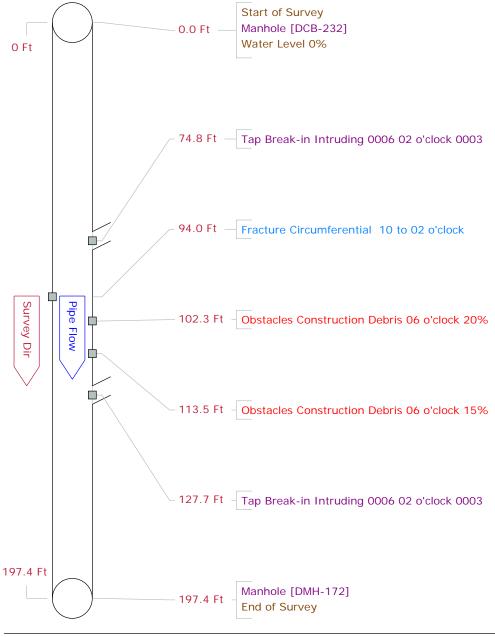
Pipe Graphic Report of PLR DC	B-161 W	for \	WOODARD & CURRAN	
Setup 57 Surveyor WP	Certificate #	T-001-002	System Owner SUNY OF	ALBANY
Drainage STORM DRAII Survey Cust	omer WOODARD & CU	RRAN		
P/O # Date 200	7/08/14 Time 11:25	Street SUNY	(OF ALBANY	
Locality VARIOUS LOCATIONS	Further location details			
Start DCB-93	Rim to invert	Grade to invert	Rim to grade	Ft
Finish DCB-161	Rim to invert	Grade to invert	Rim to grade	Ft
Use Stormwater	Direction Upstream	Flow control	Not Controlled Tape/Med	ia # WP-03
Shape Circular	Height 15 Width	ins Precle	an N Year Clear	ned
Material Reinforced Concrete Pipe	Joint length	Ft Total length	21.9 Ft Length Survey	r ed 21.90
Lining	Year laid Ye	ear rehabilitated	Weather Dry	
Purpose Infiltration/Inflow Investigation		Cat		
Additional info			Structural O&M	Constructional
Location Parking Lot			Miscellaneous Hydraulic	



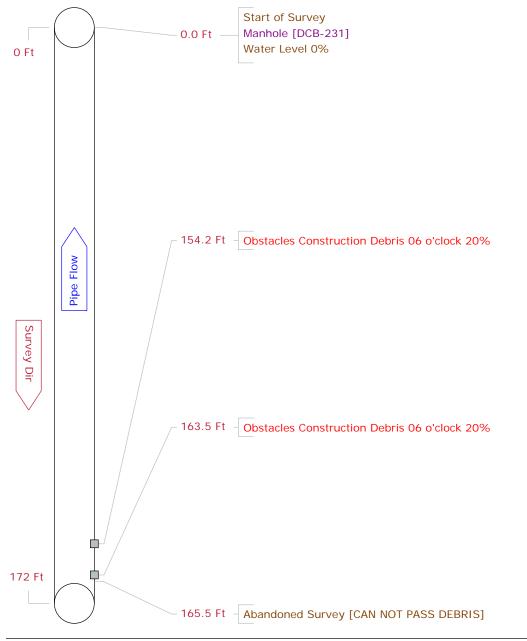
Pipe Graphic Report of PLR DC	B-93 W	for	WOODARD & CURRAN	
Setup 58 Surveyor WP	Certificate #	T-001-002	System Owner SUNY OF	ALBANY
Drainage STORM DRAII Survey Cust	omer WOODARD & CUP	RRAN		
P/O # Date 200	7/08/14 Time 11:29	Street SUN	Y OF ALBANY	
Locality VARIOUS LOCATIONS	Further location details			
Start DCB-93	Rim to invert	Grade to invert	t Rim to grade	Ft
Finish DCB-90	Rim to invert	Grade to invert	t Rim to grade	Ft
Use Stormwater	Direction Downstream	Flow control	Not Controlled Tape/Med	ia # WP-03
Shape Circular	Height 15 Width	ins Precle	ean N Year Clear	ned
Material Reinforced Concrete Pipe	Joint length	t Total lengt	h 59.0 Ft Length Survey	ed 59.00
Lining	Year laid Ye	ear rehabilitated	Weather Dry	
Purpose Infiltration/Inflow Investigation		Cat		
Additional info			Structural O&M	Constructional
Location Parking Lot			Miscellaneous Hydraulic	



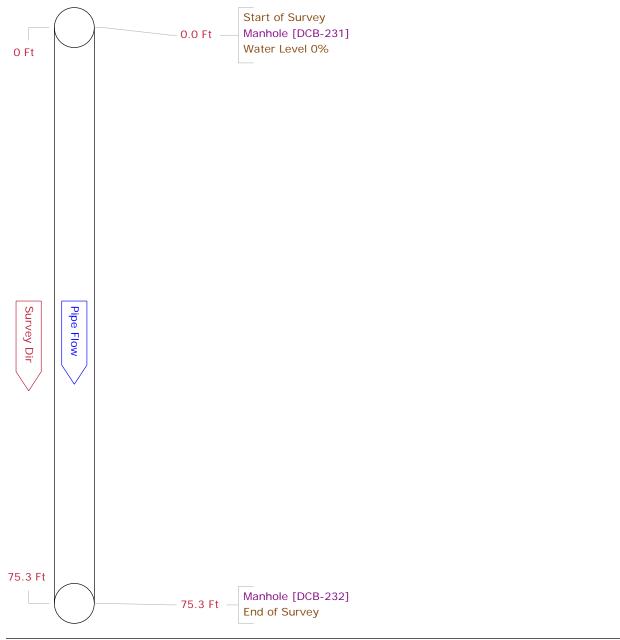
Pipe Graphic Report of PLR DC	CB-232 W	for	WOODARD & CURRAN	
Setup 59 Surveyor WP	Certificate #	T-001-002	System Owner SUNY OF A	ALBANY
Drainage STORM DRAII Survey Cus	tomer WOODARD & CUP	RRAN		
P/O # Date 200	07/08/14 Time 12:58	Street SUN	Y OF ALBANY	
Locality VARIOUS LOCATIONS	Further location details			
Start DCB-232	Rim to invert	Grade to invert	Rim to grade	Ft
Finish DMH-172	Rim to invert	Grade to invert	Rim to grade	Ft
Use Stormwater	Direction Downstream	Flow control	Not Controlled Tape/Media	# WP-03
Shape Circular	Height 18 Width	ins Precle	ean N Year Clean	ed
Material Reinforced Concrete Pipe	Joint length	t Total length	n 197.4 Ft Length Surveye	d 197.40
Lining	Year laid Ye	ear rehabilitated	Weather Dry	
Purpose Infiltration/Inflow Investigation		Cat		
Additional info			Structural O&M	Constructional
Location Parking Lot			Miscellaneous Hydraulic	



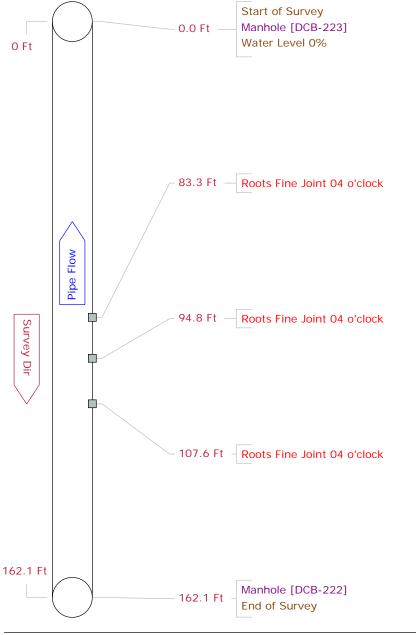
Pipe Graphic Report of PLR DC	B-229 W	for	WOODARD & CURRAN	
Setup 60 Surveyor WP	Certificate #	T-001-002	System Owner SUNY OF A	LBANY
Drainage STORM DRAII Survey Cust	tomer WOODARD & CUI	RRAN		
P/O # Date 200	7/08/14 Time 13:34	Street SUN	Y OF ALBANY	
Locality VARIOUS LOCATIONS	Further location details			
Start DCB-231	Rim to invert	Grade to invert	t Rim to grade	Ft
Finish DCB-229	Rim to invert	Grade to invert	t Rim to grade	Ft
Use Stormwater	Direction Upstream	Flow control	Not Controlled Tape/Media	# WP-03
Shape Circular	Height 15 Width	ins Precle	ean N Year Cleane	ed
Material Reinforced Concrete Pipe	Joint length	Ft Total length	h 172.0 Ft Length Surveye	d 165.50
Lining	Year laid Year laid	ear rehabilitated	Weather Dry	
Purpose Infiltration/Inflow Investigation		Cat		
Additional info			Structural O&M	Constructional
Location Parking Lot			Miscellaneous Hydraulic	



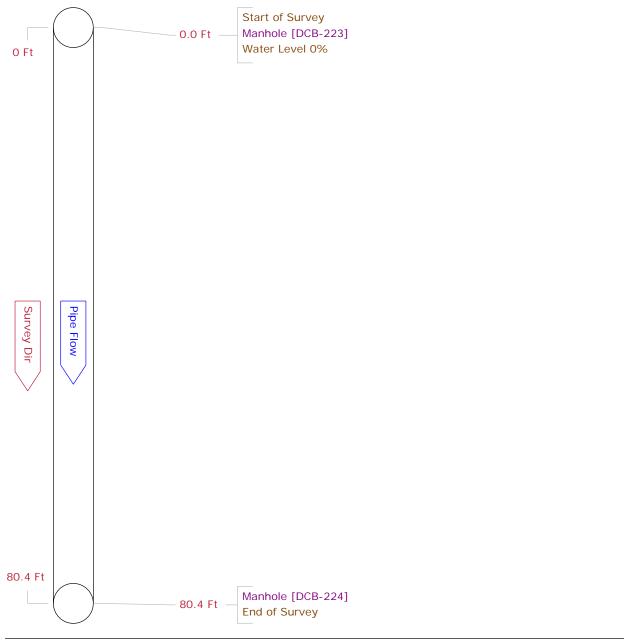
Pipe Graphic Report of PLR DC	B-231 W	for	WOODARD & CURRAN	
Setup 61 Surveyor WP	Certificate #	T-001-002	System Owner SUNY OF A	LBANY
Drainage STORM DRAII Survey Cust	tomer WOODARD & CUF	RRAN		
P/O # Date 200	7/08/14 Time 13:45	Street SUNY	Y OF ALBANY	
Locality VARIOUS LOCATIONS	Further location details			
Start DCB-231	Rim to invert	Grade to invert	Rim to grade	Ft
Finish DCB-232	Rim to invert	Grade to invert	Rim to grade	Ft
Use Stormwater	Direction Downstream	Flow control	Not Controlled Tape/Media	# WP-03
Shape Circular	Height 15 Width	ins Precle	ean N Year Cleane	ed
Material Reinforced Concrete Pipe	Joint length F	t Total length	n 75.3 Ft Length Surveye	d 75.30
Lining	Year laid Ye	ear rehabilitated	Weather Dry	
Purpose Infiltration/Inflow Investigation		Cat		
Additional info			Structural O&M	Constructional
Location Parking Lot			Miscellaneous Hydraulic	



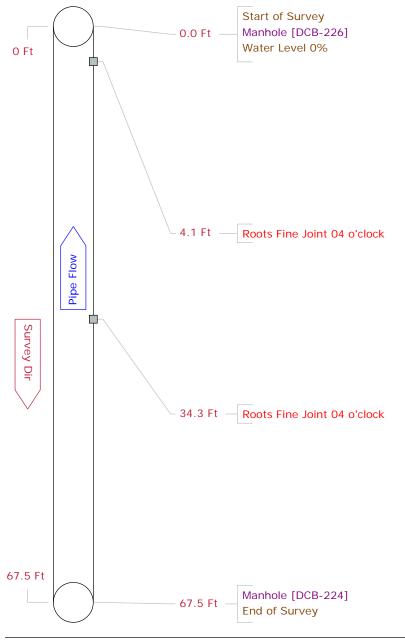
Pipe Graphic Report of PLR DC	CB-222 W	for	WOODARD & CURRAN	
Setup 62 Surveyor WP	Certificate #	T-001-002	System Owner SUNY OF	ALBANY
Drainage STORM DRAII Survey Cust	tomer WOODARD & CUI	RRAN		
P/O # Date 200	7/08/14 Time 14:29	Street SUN	Y OF ALBANY	
Locality VARIOUS LOCATIONS	Further location details			
Start DCB-223	Rim to invert	Grade to invert	t Rim to grade	Ft
Finish DCB-222	Rim to invert	Grade to invert	t Rim to grade	Ft
Use Stormwater	Direction Upstream	Flow control	Not Controlled Tape/Media	# WP-03
Shape Circular	Height 15 Width	ins Precle	ean N Year Clean	ed
Material Reinforced Concrete Pipe	Joint length	Ft Total length	n 162.1 Ft Length Surveye	d 162.10
Lining	Year laid Year laid	ear rehabilitated	Weather Dry	
Purpose Infiltration/Inflow Investigation		Cat		
Additional info			Structural O&M	Constructional
Location Parking Lot			Miscellaneous Hydraulic	



Pipe Graphic Report of PLR DC	CB-223 W	for	WOODARD & CURRAN	
Setup 63 Surveyor WP	Certificate #	T-001-002	System Owner SUNY OF	ALBANY
Drainage STORM DRAII Survey Cust	tomer WOODARD & CUF	RRAN		
P/O # Date 200	07/08/14 Time 14:38	Street SUN	Y OF ALBANY	
Locality VARIOUS LOCATIONS	Further location details			
Start DCB-223	Rim to invert	Grade to invert	t Rim to grade	Ft
Finish DCB-224	Rim to invert	Grade to invert	t Rim to grade	Ft
Use Stormwater	Direction Downstream	Flow control	Not Controlled Tape/Medi	a# WP-03
Shape Circular	Height 15 Width	ins Precle	ean N Year Clear	led
Material Reinforced Concrete Pipe	Joint length F	t Total lengt	h 80.4 Ft Length Survey	ed 80.40
Lining	Year laid Ye	ear rehabilitated	Weather Dry	
Purpose Infiltration/Inflow Investigation		Cat		
Additional info			Structural O&M	Constructional
Location Parking Lot			Miscellaneous Hydraulic	

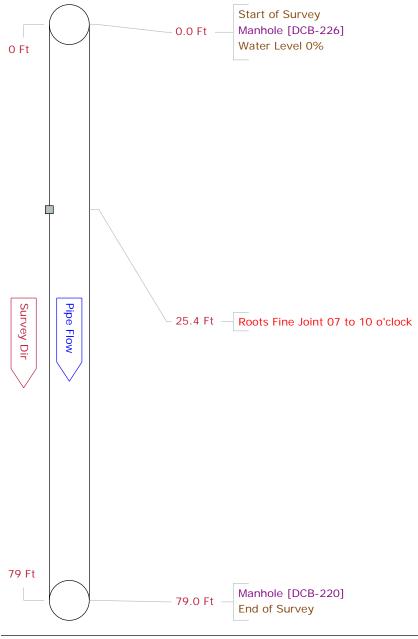


Pipe Graphic Report of PLR DC	B-224 W	for \	WOODARD & CURRAN	
Setup 64 Surveyor WP	Certificate #	T-001-002	System Owner SUNY OF A	LBANY
Drainage STORM DRAII Survey Cust	omer WOODARD & CUI	RRAN		
P/O # Date 200	7/08/14 Time 15:06	Street SUNY	OF ALBANY	
Locality VARIOUS LOCATIONS	Further location details			
Start DCB-226	Rim to invert	Grade to invert	Rim to grade	Ft
Finish DCB-224	Rim to invert	Grade to invert	Rim to grade	Ft
Use Stormwater	Direction Upstream	Flow control	Not Controlled Tape/Media	# WP-03
Shape Circular	Height 15 Width	ins Precle	an N Year Cleane	ed
Material Reinforced Concrete Pipe	Joint length	Ft Total length	67.5 Ft Length Surveye	d 67.50
Lining	Year laid Ye	ear rehabilitated	Weather Dry	
Purpose Infiltration/Inflow Investigation		Cat		
Additional info			Structural O&M	Constructional
Location Parking Lot			Miscellaneous Hydraulic	



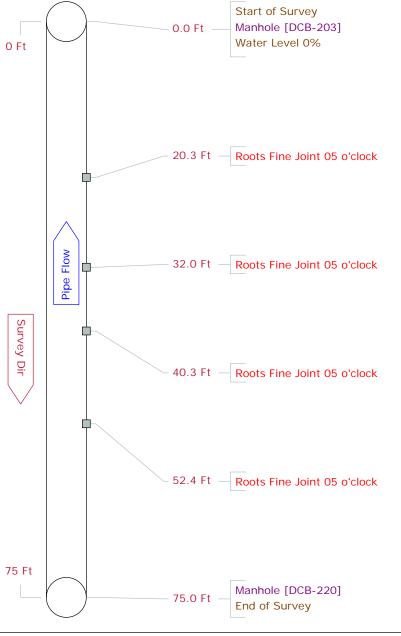
Pipe Graphic Report of PLR DCB-226 X for WOODARD & CURRAN

Setup 6	65 Surveyor WP	Certificate #	T-001-002	System Owner	r SUNY OF AL	BANY
Drainage	STORM DRAII Survey	Customer WOODARD & CU	RRAN			
P/O #	Date	2007/08/14 Time 15:13	Street SUNY	OF ALBANY		
Locality	VARIOUS LOCATIONS	Further location details				
Start [DCB-226	Rim to invert	Grade to invert	Rim to	grade	Ft
Finish [DCB-220	Rim to invert	Grade to invert	Rim to	grade	Ft
Use Sto	ormwater	Direction Downstream	Flow control	Not Controlled	Tape/Media	# WP-03
Shape (Circular	Height 15 Width	ins Precle	an N	Year Cleane	d
Material	Reinforced Concrete Pip	e Joint length	Ft Total length	79.0 Ft Le i	ngth Surveyed	79.00
Lining		Year laid Y	ear rehabilitated	Weather	Dry	
Purpose	Infiltration/Inflow Investig	ation	Cat			
Addition	al info			Structural C	D&M	Constructional
Location	Parking Lot			Miscellaneous H	Hydraulic	



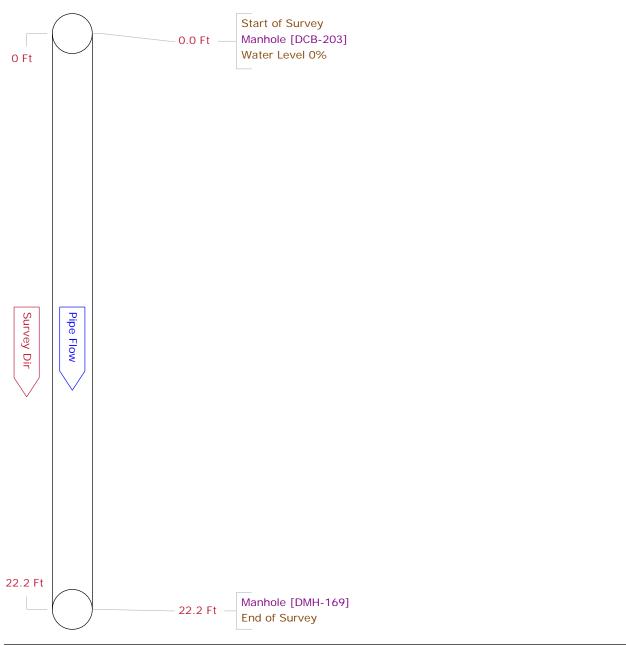
Pipe Graphic Report of PLR DCB-220 X for WOODARD & CURRAN

Setup 6	6 Surveyor	WP		Certifi	icate #	T-001-00	2	Sys	stem Ov	wner SUNY	OF ALBANY
Drainage	STORM DRAILS	Survey C	Customer W	OODAR	D & CU	RRAN					
P/O # Date 2007			2007/08/14	07/08/14 Time 15:28 Street SUN			IY OF ALBANY				
Locality	VARIOUS LOCAT	TIONS	Further lo	cation	details						
Start [tart DCB-203		Rim to in	Rim to invert		Grade to invert		t	Rim to grade		Ft
Finish [DCB-220		Rim to in	vert		Grade to	invert	t	Rim	to grade	Ft
Use Sto	rmwater		Direction	Upstr	eam	Flow co	ontrol	Not Co	ntrolled	Tape/I	Media # WP-03
Shape (Circular		Height	15	Width	ins	Precle	ean N		Year C	Cleaned
Material	Reinforced Concr	ete Pipe	Joint	length		Ft Total	length	n 75.0	Ft	Length Su	rveyed 75.00
Lining			Year l	aid	Y	ear rehabi	itated		Weath	ner Dry	
Purpose	Infiltration/Inflow I	nvestigat	ion			Cat					
Addition	al info							Struct	ural	O&M	Constructional
Location	Parking Lot							Miscel	laneous	Hydraulic	



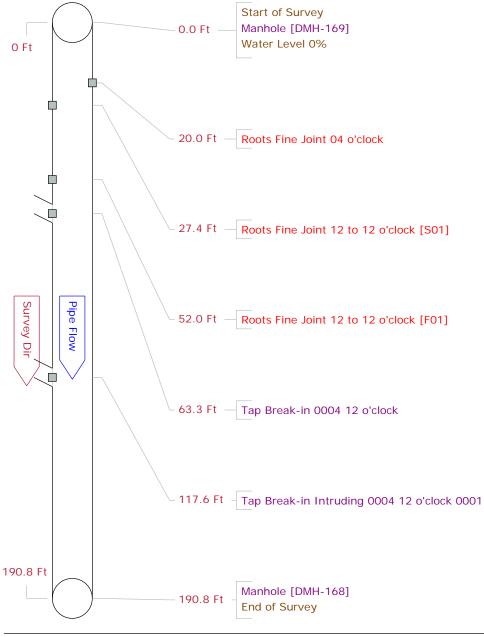
Pipe Graphic Report of PLR DCB-203 X for WOODARD & CURRAN

Setup 6	67 Surveyor	WP		Certif	icate #	T-001-00	2	Sys	tem Ov	wner	SUNY OF AL	BANY
Drainage	STORM DRAIL	Survey (Customer	WOODAR	D & CUF	RAN						
P/O #		Date	2007/08/14	Time	15:38	Street	SUN	Y OF ALE	BANY			
Locality	VARIOUS LOCA	TIONS	Further	location	details							
Start [DCB-203		Rim to	invert		Grade to	invert	ł	Rim	n to gra	nde	Ft
Finish [DMH-169		Rim to	invert		Grade to	invert	t	Rim	n to gra	nde	Ft
Use Sto	ormwater		Directi	on Dowr	nstream	Flow co	ntrol	Not Cor	ntrolled	Т	ape/Media #	• WP-03
Shape (Circular		Heig	ht 15	Width	ins	Precle	ean N		Y	'ear Cleaned	1
Material	Reinforced Concr	ete Pipe	Joii	nt length	F	t Total	length	22.2	Ft	Lengt	th Surveyed	22.20
Lining			Yea	r laid	Ye	ar rehabil	itated		Weath	ner D	Dry	
Purpose	Infiltration/Inflow I	Investiga	tion			Cat						
Addition	al info							Structu	ural	0&0	V (Constructional
Location	Parking Lot							Miscel	laneous	Hyd	raulic	



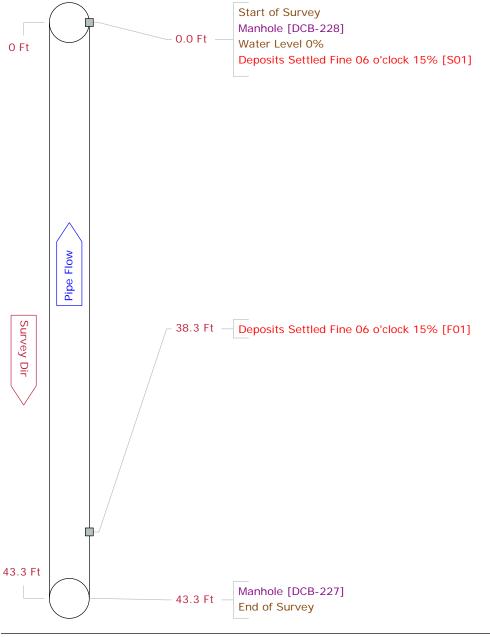
Pipe Graphic Report of PLR DMH-169 X for WOODARD & CURRAN

Setup	68 Surveyor WP	Certificate #	T-001-002	System Owner	SUNY OF ALBANY	
Drainage	e STORM DRAII Survey	Customer WOODARD & CU	IRRAN			
P/O #	Date	2007/08/14 Time 15:43	Street SUNY	OF ALBANY		
Locality	VARIOUS LOCATIONS	Further location details				
Start	DMH-169	Rim to invert	Grade to invert	Rim to g	grade Ft	
Finish	DMH-168	Rim to invert	Grade to invert	Rim to g	grade Ft	
Use Sto	ormwater	Direction Downstream	Flow control	Not Controlled	Tape/Media # WP-03	,
Shape (Circular	Height 15 Width	ins Precle	an N	Year Cleaned	
Material	Reinforced Concrete Pip	e Joint length	Ft Total length	190.8 Ft Ler	ngth Surveyed 190.80	
Lining		Year laid Y	ear rehabilitated	Weather	Dry	
Purpose	Infiltration/Inflow Investig	ation	Cat			
Addition	nal info			Structural C	Construct	ional
Locatior	Parking Lot			Miscellaneous H	lydraulic	



Pipe Graphic Report of PLR DCB-227 X for WOODARD & CURRAN

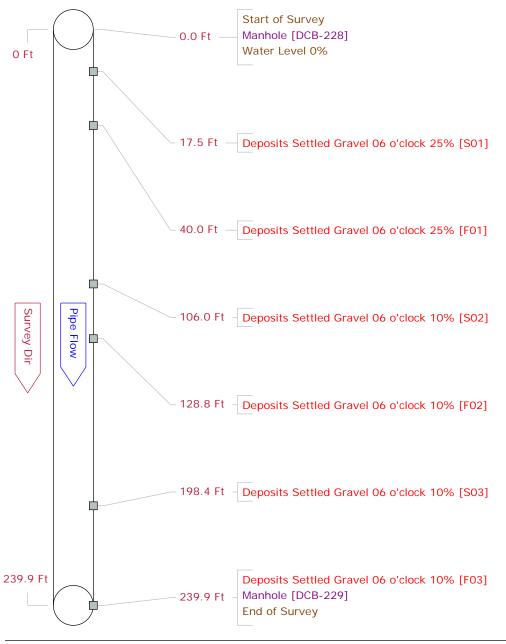
Setup 6	9 Surveyor WP		Certificate	# T-001-00)2	System O	wner SUNY (OF ALBANY
Drainage	STORM DRAII Surv	vey Customer V	VOODARD & (CURRAN				
P/O #	Da	ate 2007/08/14	Time 16:1	19 Stree	SUNY	OF ALBANY		
Locality	VARIOUS LOCATION	NS Further I	ocation deta	ils				
Start [DCB-228	Rim to i	nvert	Grade to	o invert	Rin	to grade	Ft
Finish 🛛	DCB-227	Rim to i	nvert	Grade to	o invert	Rin	to grade	Ft
Use Sto	rmwater	Directio	n Upstream	Flow c	ontrol 1	Not Controlled	Tape/Me	edia # WP-03
Shape 🤇	Circular	Heigh	nt 15 Widt	th ins	Preclea	n N	Year Cle	eaned
Material	Reinforced Concrete	Pipe Join	t length	Ft Tota	l length	43.3 Ft	Length Surv	eyed 43.30
Lining		Year	[,] laid	Year rehab	litated	Weath	ner Dry	
Purpose	Infiltration/Inflow Invest	stigation		Cat				
Addition	al info					Structural	O&M	Constructional
Location	Parking Lot					Miscellaneous	Hydraulic	



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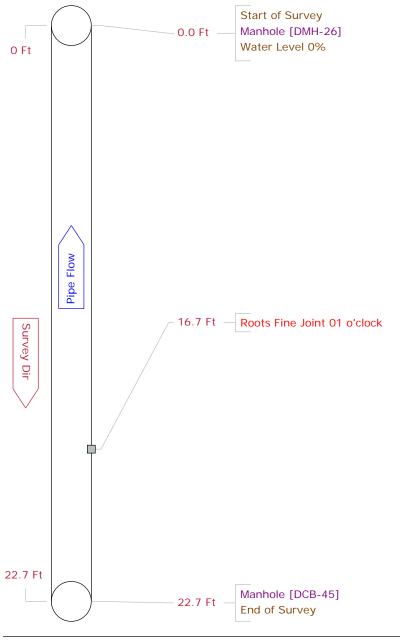
Pipe Graphic Report of PLR DCB-228 X for WOODARD & CURRAN

Setup 7	O Surveyor WP	Certi	ficate #	T-001-002	System O	wner SUNY (OF ALBANY
Drainage	STORM DRAII Survey	Customer WOODA	RD & CUR	RAN			
P/O #	Date	2007/08/14 Time	16:24	Street SUN	Y OF ALBANY		
Locality	VARIOUS LOCATIONS	Further location	details				
Start D	CB-228	Rim to invert		Grade to inver	t Rim	to grade	Ft
Finish D	CB-229	Rim to invert		Grade to inver	t Rim	to grade	Ft
Use Stor	mwater	Direction Dow	nstream	Flow control	Not Controlled	Tape/Me	edia # WP-03
Shape C	ircular	Height 15	Width	ins Precl	e an N	Year Cle	eaned
Material	Reinforced Concrete Pip	e Joint lengtl	n Fa	t Total lengt	h 239.9 Ft	Length Surv	eyed 239.90
Lining		Year laid	Ye	ar rehabilitated	Weath	ner Dry	
Purpose	Infiltration/Inflow Investig	ation	(Cat			
Additiona	al info				Structural	O&M	Constructional
Location	Parking Lot				Miscellaneous	Hydraulic	



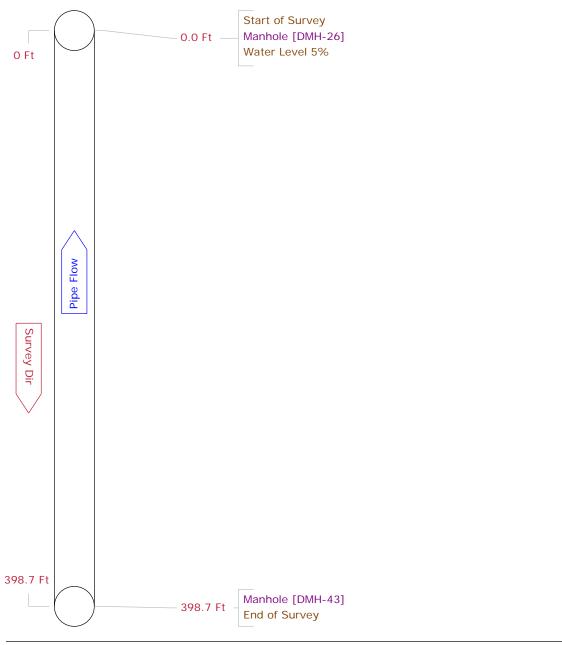
Pipe Graphic Report of PLR DCB-45 X for WOODARD & CURRAN

Setup	71 Surveyor WP	Certificate	# T-001-002	System Owr	ner SUNY O	F ALBANY
Drainage	e STORM DRAII Survey	Customer WOODARD & C	URRAN			
P/O #	Date	2007/08/15 Time 8:20	Street SUNY	OF ALBANY		
Locality	VARIOUS LOCATIONS	Further location details	S			
Start I	DMH-26	Rim to invert	Grade to invert	Rim t	o grade	Ft
Finish	DCB-45	Rim to invert	Grade to invert	Rim t	o grade	Ft
Use Sto	ormwater	Direction Upstream	Flow control	Not Controlled	Tape/Me	dia # WP-03
Shape (Circular	Height 12 Width	ins Precle	an N	Year Clea	aned
Material	Reinforced Concrete Pipe	Joint length	Ft Total length	22.7 Ft L	ength Surve	eyed 22.70
Lining		Year laid	Year rehabilitated	Weathe	r Dry	
Purpose	Infiltration/Inflow Investiga	tion	Cat			
Addition	nal info			Structural	O&M	Constructional
Locatior	Parking Lot			Miscellaneous	Hydraulic	



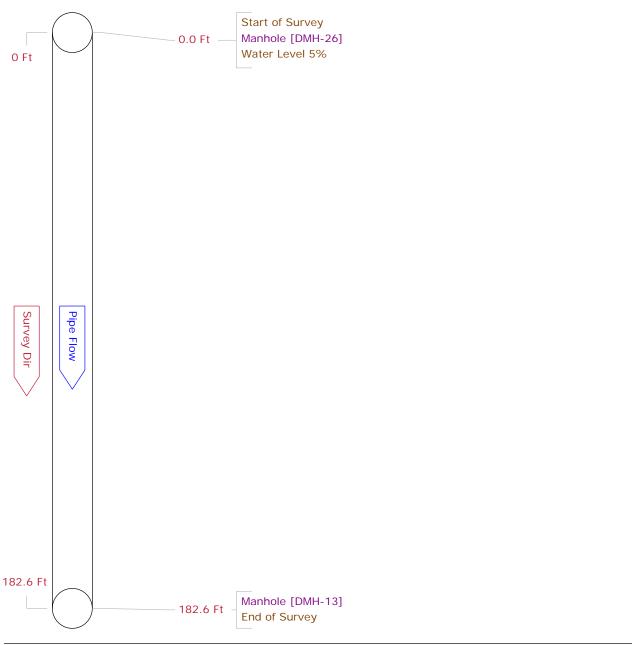
Pipe Graphic Report of PLR DMH-43 X for WOODARD & CURRAN

Setup 7	2 Surveyor	WP		Certif	icate #	T-001-00	2	Sys	tem Ov	vner SUNY	OF ALBANY
Drainage	STORM DRAIL	Survey (Customer	WOODAR	D & CU	JRRAN					
P/O #		Date	2007/08/15	Time	8:45	Street	SUN	OF ALB	ANY		
Locality	VARIOUS LOCA	TIONS	Further	location	details						
Start [MH-26		Rim to	invert		Grade to	invert	Ļ	Rim	to grade	Ft
Finish 🛛	MH-43		Rim to	invert		Grade to	invert	ţ	Rim	to grade	Ft
Use Sto	rmwater		Directi	on Upsti	ream	Flow co	ontrol	Not Con	trolled	Tape/N	ledia # WP-03
Shape 🤇	Circular		Heig	ht 36	Width	ins	Precle	ean N		Year C	leaned
Material	Reinforced Conci	rete Pipe	Joi	nt length		Ft Total	length	398.7	Ft	Length Sur	veyed 398.70
Lining			Yea	nr laid	У	(ear rehabi	litated		Weath	er Dry	
Purpose	Infiltration/Inflow	Investiga	tion			Cat					
Addition	al info							Structu	ral	O&M	Constructional
Location	Parking Lot							Miscella	aneous	Hydraulic	



Pipe Graphic Report of PLR DMH-26 X for WOODARD & CURRAN

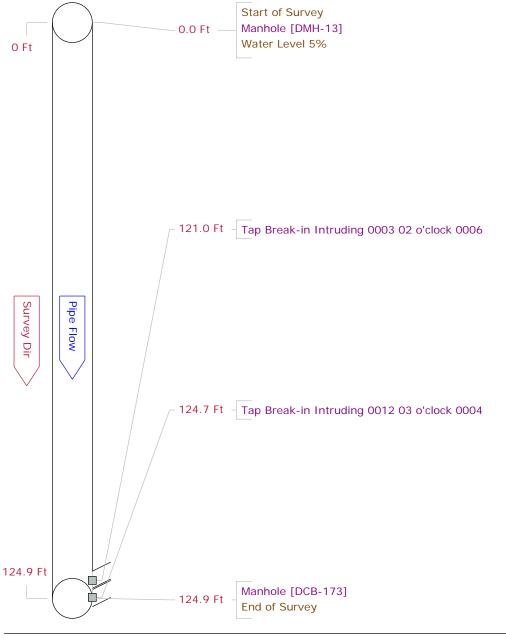
Setup	73 Surveyor WP	Certificate #	T-001-002	System Own	er SUNY OF	ALBANY
Drainage	e STORM DRAII Survey	Customer WOODARD & CL	JRRAN			
P/O #	Date	2007/08/15 Time 9:07	Street SUN	OF ALBANY		
Locality	VARIOUS LOCATIONS	Further location details				
Start	DMH-26	Rim to invert	Grade to invert	Rim to	o grade	Ft
Finish	DMH-113	Rim to invert	Grade to invert	Rim to	o grade	Ft
Use Sto	ormwater	Direction Downstream	Flow control	Not Controlled	Tape/Medi	a # WP-03
Shape (Circular	Height 36 Width	ins Precle	an N	Year Clear	led
Material	Reinforced Concrete Pipe	e Joint length	Ft Total length	182.6 Ft L e	ength Survey	ed 182.60
Lining		Year laid	ear rehabilitated	Weather	Dry	
Purpose	Infiltration/Inflow Investigation	ation	Cat			
Addition	nal info			Structural	O&M	Constructional
Locatior	Parking Lot			Miscellaneous	Hydraulic	



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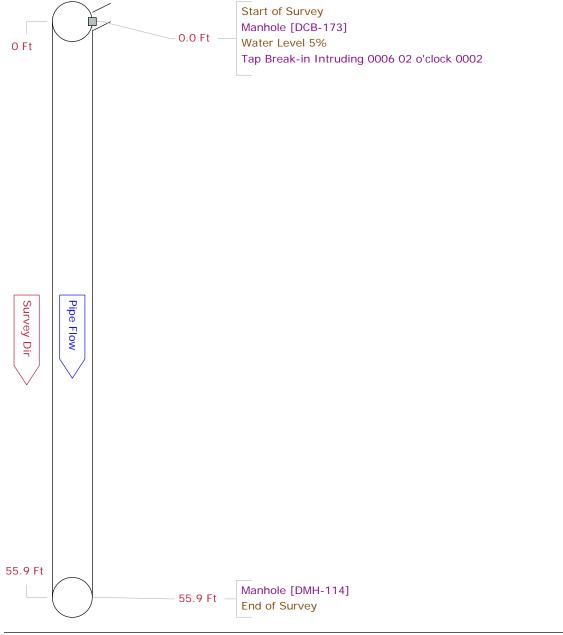
Pipe Graphic Report of PLR DMH-13 X for WOODARD & CURRAN

Setup 74 Surveyor WP	Certificate #	T-001-002	System Own	er SUNY OF	ALBANY
Drainage STORM DRAII Survey Cu	stomer WOODARD & CUR	RAN			
P/O # Date 2	007/08/15 Time 9:12	Street SUNY	OF ALBANY		
Locality VARIOUS LOCATIONS	Further location details				
Start DMH-113	Rim to invert	Grade to invert	Rim to	o grade	Ft
Finish DCB-173	Rim to invert	Grade to invert	Rim to	o grade	Ft
Use Stormwater	Direction Downstream	Flow control	Not Controlled	Tape/Media	a# WP-03
Shape Circular	Height 36 Width	ins Precle	an N	Year Clean	ed
Material Reinforced Concrete Pipe	Joint length F	t Total length	124.9 Ft L	ength Surveye	ed 124.90
Lining	Year laid Ye	ar rehabilitated	Weather	r Dry	
Purpose Infiltration/Inflow Investigation	n	Cat			
Additional info			Structural	O&M	Constructional
Location Parking Lot			Miscellaneous	Hydraulic	



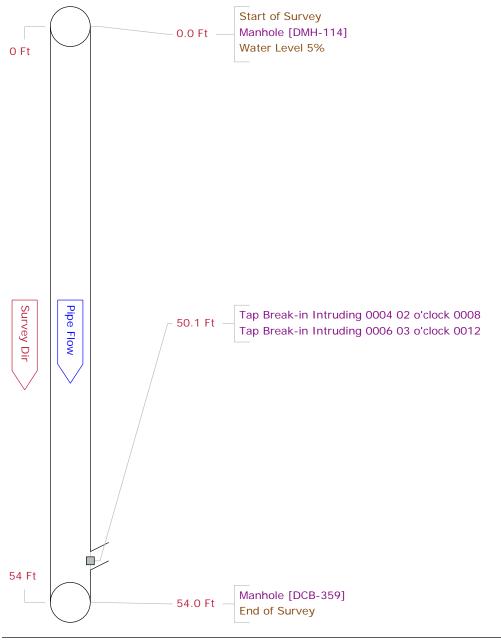
Pipe Graphic Report of PLR DCB-173 X for WOODARD & CURRAN

Setup	75 Surveyor WP	Certifica	nte # T-001-002	2 S y	stem Owner	SUNY OF ALBA	٩NY
Drainag	e STORM DRAII Survey	Customer WOODARD	& CURRAN				
P/O #	Date	2007/08/15 Time 9:	:17 Street	SUNY OF AL	BANY		
Locality	VARIOUS LOCATIONS	Further location de	tails				
Start	DCB-173	Rim to invert	Grade to	invert	Rim to gi	rade	Ft
Finish	DMH-114	Rim to invert	Grade to	invert	Rim to gi	rade	Ft
Use Sta	ormwater	Direction Downstr	ream Flow co	ntrol Not Co	ontrolled	Tape/Media # 🕚	NP-03
Shape	Circular	Height 36 Wi	idth ins	Preclean N		Year Cleaned	
Material	Reinforced Concrete Pipe	e Joint length	Ft Total	length 55.9	Ft Leng	yth Surveyed 5	5.90
Lining		Year laid	Year rehabil	itated	Weather	Dry	
Purpose	Infiltration/Inflow Investig	ation	Cat				
Addition	nal info			Struc	tural O8	Co	nstructional
Location	n Parking Lot			Misce	ellaneous Hy	draulic	



Pipe Graphic Report of PLR DMH-114 X for WOODARD & CURRAN

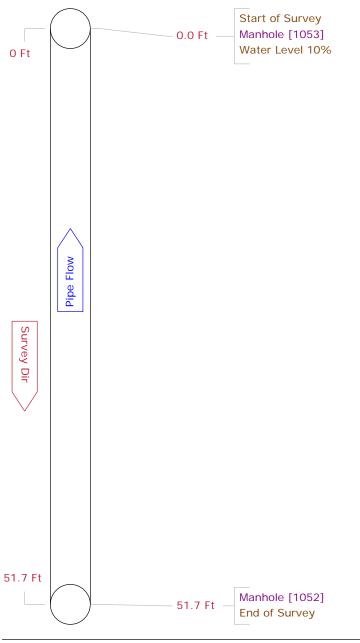
Setup 7	6 Surveyor WP	Certific	ate # T-001-002	2 System C	Dwner SUNY C	OF ALBANY
Drainage	STORM DRAII Survey	Customer WOODARD	& CURRAN			
P/O #	Date	2007/08/15 Time 9	:21 Street	SUNY OF ALBANY		
Locality	VARIOUS LOCATIONS	Further location de	tails			
Start [DMH-114	Rim to invert	Grade to	invert Ri	m to grade	Ft
Finish [DCB-359	Rim to invert	Grade to	invert Ri	m to grade	Ft
Use Sto	rmwater	Direction Downst	ream Flow co	ntrol Not Controlled	Tape/Me	edia # WP-03
Shape (Circular	Height 36 W	'idth ins	Preclean N	Year Cle	eaned
Material	Reinforced Concrete Pipe	Joint length	Ft Total	length 54.0 Ft	Length Surv	eyed 54.00
Lining		Year laid	Year rehabil	itated Wea	ther Dry	
Purpose	Infiltration/Inflow Investiga	ation	Cat			
Addition	al info			Structural	O&M	Constructional
Location	Parking Lot			Miscellaneou	Is Hydraulic	



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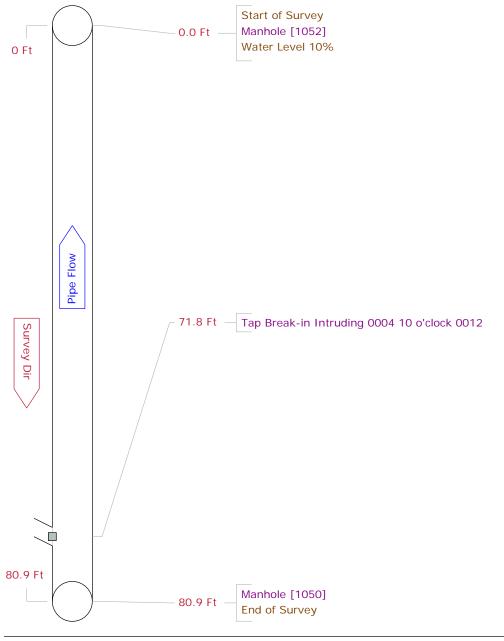
Pipe Graphic Report of PLR 1052 X for WOODARD & CURRAN

Setup 7	7 Surveyor WP	Certificat	e# T-001-002	System Owner	r SUNY OF AL	BANY
Drainage	STORM DRAII Surve	Customer WOODARD &	CURRAN			
P/O #	Date	e 2007/08/15 Time 9:4	9 Street SUN	OF ALBANY		
Locality	VARIOUS LOCATIONS	Further location deta	nils			
Start 1	053	Rim to invert	Grade to invert	Rim to	grade	Ft
Finish 1	052	Rim to invert	Grade to invert	Rim to	grade	Ft
Use Stor	mwater	Direction Upstream	Flow control	Not Controlled	Tape/Media #	WP-03
Shape C	ircular	Height 36 Wid	th ins Precle	an N	Year Cleaned	
Material	Reinforced Concrete Pi	be Joint length	Ft Total length	51.7 Ft Le r	ngth Surveyed	51.70
Lining		Year laid	Year rehabilitated	Weather	Dry	
Purpose	Infiltration/Inflow Investi	gation	Cat			
Additiona	al info			Structural C	D&M C	onstructional
Location	Parking Lot			Miscellaneous H	lydraulic	



Pipe Graphic Report of PLR 1050 X for WOODARD & CURRAN

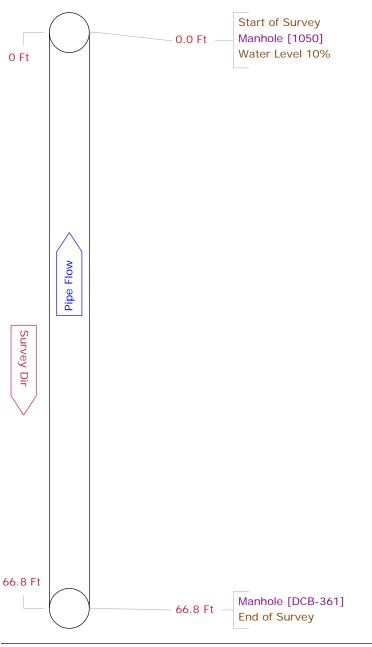
Setup 7	8 Surveyor WP	Certificate	# T-001-002	System Own	er SUNY OF	ALBANY
Drainage	STORM DRAII Survey	Customer WOODARD & C	URRAN			
P/O #	Date	2007/08/15 Time 9:54	Street SUNY	OF ALBANY		
Locality	VARIOUS LOCATIONS	Further location details	S			
Start 1	052	Rim to invert	Grade to invert	Rim te	o grade	Ft
Finish 10	050	Rim to invert	Grade to invert	Rim te	o grade	Ft
Use Stor	mwater	Direction Upstream	Flow control	Not Controlled	Tape/Meo	lia # WP-03
Shape C	ircular	Height 36 Width	ins Precle	an N	Year Clea	ned
Material	Reinforced Concrete Pipe	e Joint length	Ft Total length	80.9 Ft L	ength Surve	yed 80.90
Lining		Year laid	Year rehabilitated	Weather	r Dry	
Purpose	Infiltration/Inflow Investigation	ation	Cat			
Additiona	al info			Structural	O&M	Constructional
Location	Parking Lot			Miscellaneous	Hydraulic	



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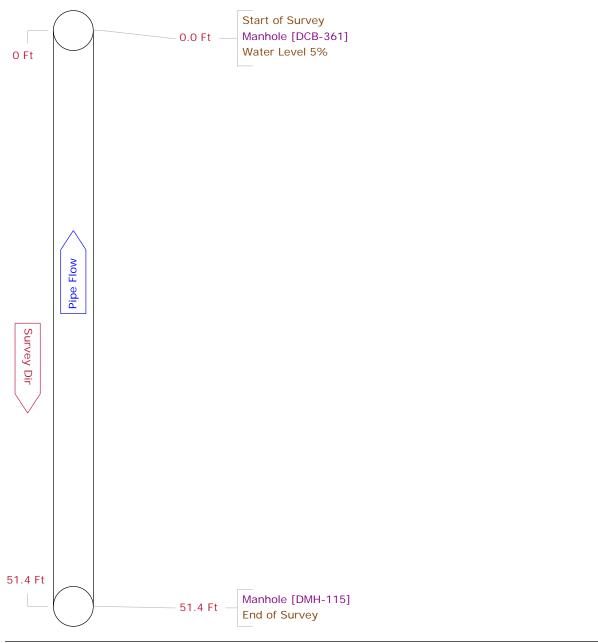
Pipe Graphic Report of PLR DCB-361 X for WOODARD & CURRAN

Setup 7	9 Surveyor WP	Certificate #	# T-001-002	System Owner	SUNY OF ALBANY
Drainage	STORM DRAII Survey	Customer WOODARD & CU	JRRAN		
P/O #	Date	2007/08/15 Time 9:58	Street SUNY	OF ALBANY	
Locality	VARIOUS LOCATIONS	Further location details	6		
Start 1	050	Rim to invert	Grade to invert	Rim to g	rade Ft
Finish [DCB-361	Rim to invert	Grade to invert	Rim to g	rade Ft
Use Sto	rmwater	Direction Upstream	Flow control	Not Controlled	Tape/Media # WP-03
Shape (Circular	Height 36 Width	ins Precle	an N	Year Cleaned
Material	Reinforced Concrete Pipe	Joint length	Ft Total length	66.8 Ft Len	gth Surveyed 66.80
Lining		Year laid	Year rehabilitated	Weather	Dry
Purpose	Infiltration/Inflow Investiga	ition	Cat		
Addition	al info			Structural O	&M Constructional
Location	Parking Lot			Miscellaneous H	ydraulic



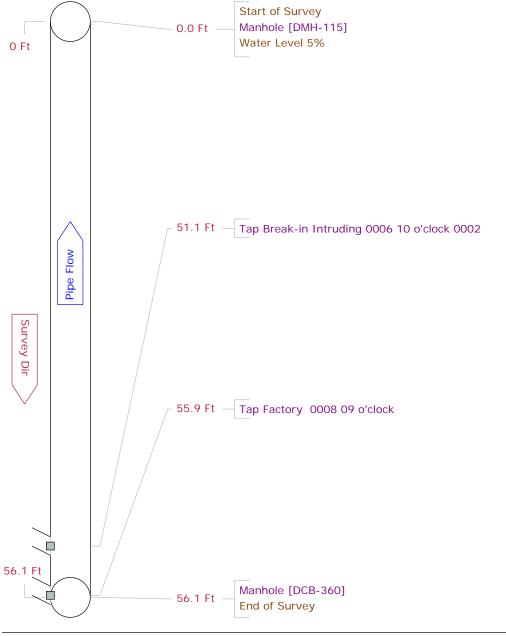
Pipe Graphic Report of PLR DMH-115 X for WOODARD & CURRAN

Setup 8	30 Surveyor	WP		Certif	icate #	T-001-002	2	Sys	tem Ov	wner SUN	NY OF ALBANY
Drainage	STORM DRAIL	Survey (Customer	WOODAR	D & CU	RRAN					
P/O #		Date	2007/08/15	Time	10:01	Street	SUN	Y OF ALE	BANY		
Locality	VARIOUS LOCA	TIONS	Further	location	details						
Start [DCB-361		Rim to	invert		Grade to	invert	:	Rim	to grade	Ft
Finish [DMH-115		Rim to	invert		Grade to	invert	t	Rim	to grade	Ft
Use Sto	rmwater		Directi	i on Upsti	ream	Flow co	ntrol	Not Cor	ntrolled	Таре	e/Media # WP-03
Shape (Circular		Heig	ht 36	Width	ins	Precle	ean N		Year	Cleaned
Material	Reinforced Conc	rete Pipe	Joi	nt length		Ft Total	length	51.4	Ft	Length S	Gurveyed 51.40
Lining			Yea	ar laid	Y	ear rehabil	itated		Weath	ner Dry	
Purpose	Infiltration/Inflow	Investiga	tion			Cat					
Addition	al info							Structu	ural	O&M	Constructiona
Location	Parking Lot							Miscel	laneous	Hydraul	lic



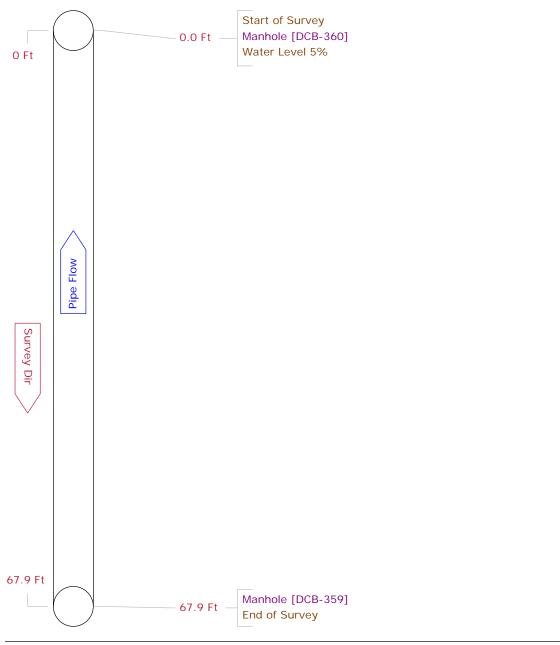
Pipe Graphic Report of PLR DCB-360 X for WOODARD & CURRAN

Setup	81 Surveyor WP		Certific	ate #	T-001-00	2	System O	wner SUNY	OF ALBANY
Drainag	e STORM DRAII Surve	y Customer	WOODARD	& CUR	RAN				
P/O #	Dat	e 2007/08/15	Time	10:05	Street	SUNY	OF ALBANY		
Locality	VARIOUS LOCATION	6 Furthe	location d	etails					
Start	DMH-115	Rim to	o invert		Grade to	invert	Rin	n to grade	Ft
Finish	DCB-360	Rim to	o invert		Grade to	invert	Rin	n to grade	Ft
Use St	ormwater	Direct	<i>ion</i> Upstre	am	Flow co	ontrol	Not Controlled	Tape/M	ledia # WP-03
Shape	Circular	Heig	ght 36 И	/idth	ins	Precle	an N	Year C	leaned
Materia	Reinforced Concrete P	ipe Jo	int length	F	t Total	length	56.1 Ft	Length Sur	veyed 56.10
Lining		Ye	ar laid	Ye	ar rehabil	itated	Weatl	her Dry	
Purpose	Infiltration/Inflow Invest	igation		(Cat				
Additio	nal info						Structural	O&M	Constructional
Locatio	n Parking Lot						Miscellaneous	Hydraulic	



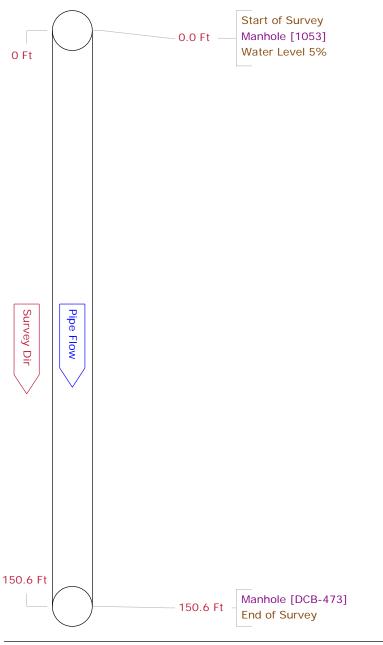
Pipe Graphic Report of PLR DCB-359 X for WOODARD & CURRAN

Setup 8	2 Surveyor WP	Certificate #	# T-001-002	System Owne	er SUNY OF	ALBANY
Drainage	STORM DRAII Survey	Customer WOODARD & CU	JRRAN			
P/O #	Date	2007/08/15 Time 10:10	Street SUNY	OF ALBANY		
Locality	VARIOUS LOCATIONS	Further location details	6			
Start D	CB-360	Rim to invert	Grade to invert	Rim to	grade	Ft
Finish D	CB-359	Rim to invert	Grade to invert	Rim to	grade	Ft
Use Stor	rmwater	Direction Upstream	Flow control	Not Controlled	Tape/Medi	a # WP-03
Shape C	Fircular	Height 36 Width	ins Precle	an N	Year Clear	ned
Material	Reinforced Concrete Pipe	e Joint length	Ft Total length	67.9 Ft Le	ngth Survey	ed 67.90
Lining		Year laid	Year rehabilitated	Weather	Dry	
Purpose	Infiltration/Inflow Investigation	ation	Cat			
Additiona	al info			Structural	O&M	Constructional
Location	Parking Lot			Miscellaneous	Hydraulic	



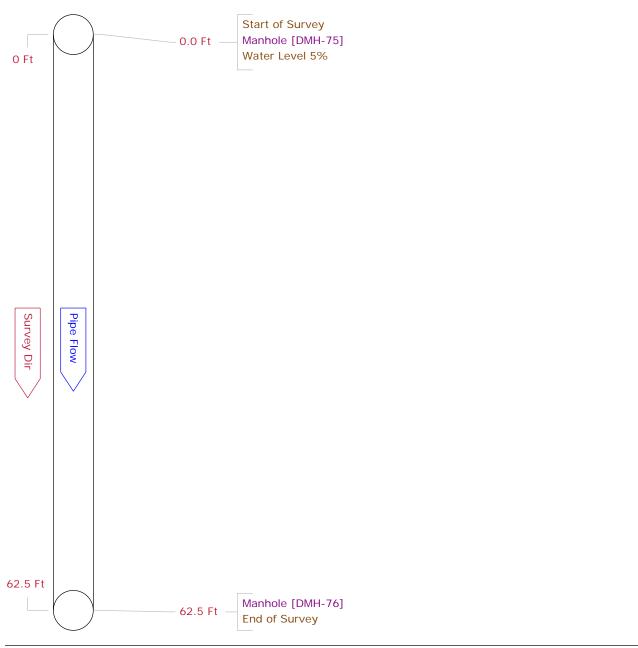
Pipe Graphic Report of PLR 1053 X for WOODARD & CURRAN

Setup 8	3 Surveyor V	VP		Certifica	nte #	T-001-00	2	Syst	em Ov	vner SUNY	OF ALBANY
Drainage	STORM DRAII SL	irvey Cu	stomer WC	DODARD	& CUR	RAN					
P/O #		Date 20	07/08/15	Time 1	0:20	Street	SUN	OF ALB	ANY		
Locality	VARIOUS LOCATI	ONS	Further loc	cation de	tails						
Start 1	053		Rim to in	vert		Grade to	invert	ļ	Rim	to grade	Ft
Finish [DCB-473		Rim to in	vert		Grade to	invert	Ļ	Rim	to grade	Ft
Use Sto	rmwater		Direction	Downst	ream	Flow co	ntrol	Not Cont	rolled	Tape/M	ledia # WP-03
Shape (Circular		Height	36 W i	dth	ins	Precle	ean N		Year C	eaned
Material	Reinforced Concre	te Pipe	Joint	length	F	t Total	length	150.6	Ft	Length Sur	veyed 150.60
Lining			Year I	aid	Ye	ar rehabil	itated		Weath	er Dry	
Purpose	Infiltration/Inflow In	vestigatio	n		(Cat					
Addition	al info							Structur	al	O&M	Constructional
Location	Parking Lot							Miscella	aneous	Hydraulic	



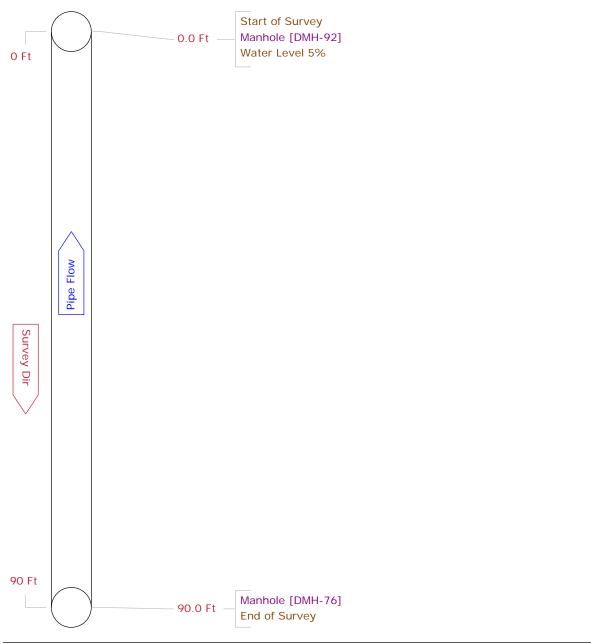
Pipe Graphic Report of PLR DMH-75 X for WOODARD & CURRAN

Setup	84 Surveyor WP	Certificate #	T-001-002	System Owne	er SUNY OF	ALBANY
Drainage	e STORM DRAII Survey	Customer WOODARD & CU	IRRAN			
P/O #	Date	2007/08/15 Time 13:45	Street SUNY	OF ALBANY		
Locality	VARIOUS LOCATIONS	Further location details				
Start	DMH-75	Rim to invert	Grade to invert	Rim to	grade	Ft
Finish	DMH-76	Rim to invert	Grade to invert	Rim to	grade	Ft
Use Sto	ormwater	Direction Downstream	Flow control	Not Controlled	Tape/Medi	a # WP-03
Shape (Circular	Height 36 Width	ins Precle	an N	Year Clear	ned
Material	Reinforced Concrete Pipe	Joint length	Ft Total length	62.5 Ft Le	ength Survey	ed 62.50
Lining		Year laid Y	ear rehabilitated	Weather	Dry	
Purpose	Infiltration/Inflow Investiga	ation	Cat			
Addition	nal info			Structural	O&M	Constructional
Locatior	Parking Lot			Miscellaneous	Hydraulic	



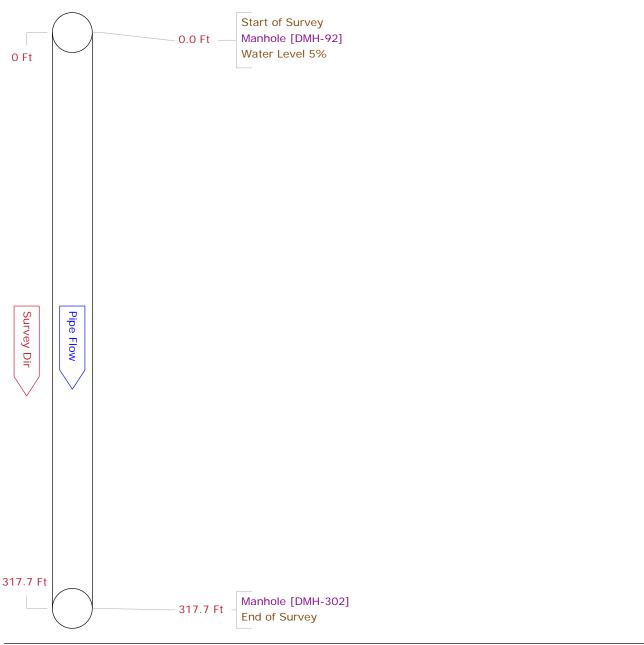
Pipe Graphic Report of PLR DMH-76 X for WOODARD & CURRAN

Setup 8	35 Surveyor V	NP		Certific	ate #	T-001-00	2	Sys	tem Ov	vner SUN	IY OF ALBANY
Drainage	STORM DRAII SI	urvey Cu	istomer Wo	DODARD	& CUF	RRAN					
P/O #		Date 2	007/08/15	Time	13:58	Street	SUNY	OF ALE	ANY		
Locality	VARIOUS LOCAT	IONS	Further lo	cation d	etails						
Start [DMH-92		Rim to in	vert		Grade to	invert		Rim	to grade	Ft
Finish [DMH-76		Rim to in	vert		Grade to	invert		Rim	to grade	Ft
Use Sto	ormwater		Direction	Upstre	am	Flow co	ntrol	Not Con	trolled	Tape	/ Media # WP-03
Shape (Circular		Height	36 И	/idth	ins	Precle	an N		Year	Cleaned
Material	Reinforced Concre	ete Pipe	Joint	length	F	t Total	length	90.0	Ft	Length St	urveyed 90.00
Lining			Year l	aid	Ye	ear rehabil	itated		Weath	er Dry	
Purpose	Infiltration/Inflow In	vestigatio	on			Cat					
Addition	al info							Structu	ral	O&M	Constructional
Location	Parking Lot							Miscell	aneous	Hydrauli	с



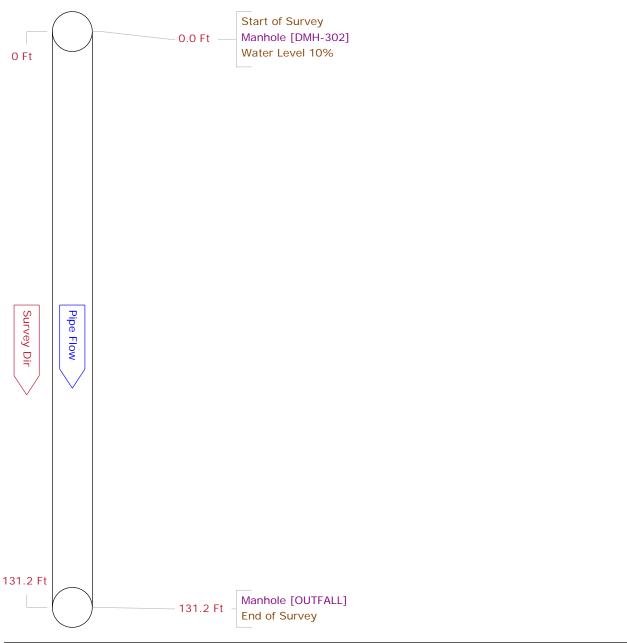
Pipe Graphic Report of PLR DMH-92 X for WOODARD & CURRAN

Setup 8	36 Surveyor	WP		Certif	icate #	T-001-00	2	Sys	tem Ov	wner SUNY	OF ALBANY
Drainage	STORM DRAIL	Survey (Customer	WOODAR	D & CUF	RAN					
P/O #		Date	2007/08/15	Time	14:13	Street	SUNY	OF ALB	BANY		
Locality	VARIOUS LOCA	TIONS	Further	location	details						
Start [DMH-92		Rim to	invert		Grade to	invert	ŀ	Rim	to grade	Ft
Finish [DMH-302		Rim to	invert		Grade to	invert	ţ	Rim	to grade	Ft
Use Sto	ormwater		Directi	on Dowr	nstream	Flow co	ontrol	Not Con	trolled	Tape/M	ledia # WP-03
Shape (Circular		Heig	ht 36	Width	ins	Precle	ean N		Year Cl	leaned
Material	Reinforced Conc	rete Pipe	Joi	nt length	F	t Total	length	317.7	Ft	Length Sur	veyed 317.70
Lining			Yea	r laid	Ye	ar rehabi	itated		Weath	er Dry	
Purpose	Infiltration/Inflow	Investiga	tion			Cat					
Addition	al info							Structu	ral	O&M	Constructional
Location	Parking Lot							Miscell	aneous	Hydraulic	



Pipe Graphic Report of PLR DMH-302 X for WOODARD & CURRAN

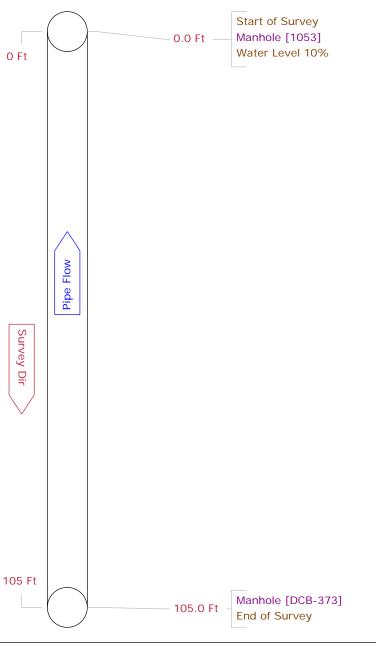
Setup	87 Surveyor V	NP		Certifica	te #	T-001-002	2	Sys	tem Ov	vner SUNY	OF ALBANY
Drainag	e STORM DRAII S	urvey Cus	stomer WO	ODARD 8	CUR	RAN					
P/O #		Date 20	07/08/20	Time 8:	41	Street	SUN	OF ALB	ANY		
Locality	VARIOUS LOCAT	IONS	Further loca	ation det	ails						
Start	DMH-302		Rim to inv	ert		Grade to	invert	•	Rim	to grade	Ft
Finish (OUTFALL		Rim to inv	ert		Grade to	invert	ţ	Rim	to grade	Ft
Use Sto	ormwater		Direction	Downstr	eam	Flow co	ntrol	Not Con	trolled	Tape/l	Media # WP-03
Shape	Circular		Height	36 Wi	dth	ins	Precle	ean N		Year C	Cleaned
Material	Reinforced Concre	ete Pipe	Joint le	ength	Ft	Total	length	131.2	Ft	Length Su	rveyed 131.20
Lining			Year la	id	Yea	ar rehabil	itated		Weath	er Dry	
Purpose	Infiltration/Inflow In	vestigatior	า		C	Cat					
Addition	nal info							Structu	ral	O&M	Constructiona
Location	Parking Lot							Miscella	aneous	Hydraulic	



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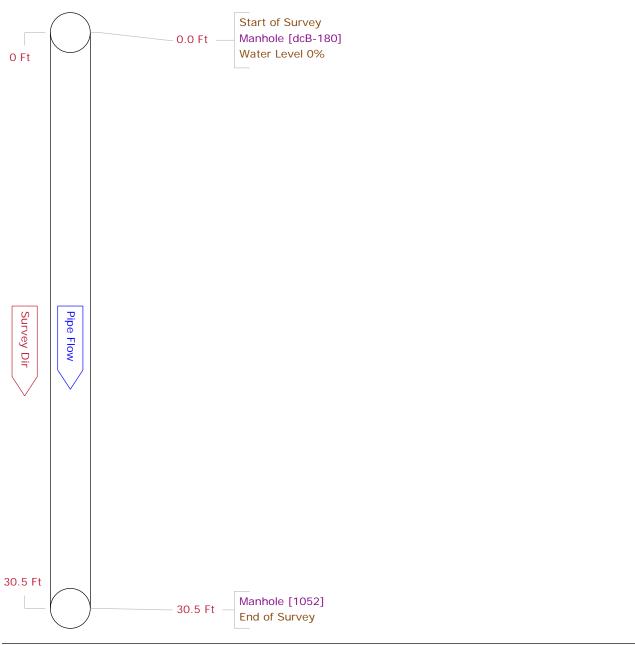
Pipe Graphic Report of PLR DCB-373 X for WOODARD & CURRAN

Setup 8	38 Surveyor	WP		Certif	icate #	T-001-00	2	Syst	tem Ov	vner S	SUNY OF AI	LBANY
Drainage	STORM DRAIL	Survey (Customer	WOODAR	D & CU	RRAN						
P/O #		Date	2007/08/20	Time	9:10	Street	SUN	Y OF ALB	ANY			
Locality	VARIOUS LOCA	TIONS	Further	location	details							
Start 1	1053		Rim to	invert		Grade to	invert	t	Rim	to grad	de	Ft
Finish [DCB-373		Rim to	invert		Grade to	invert	t	Rim	to grad	de	Ft
Use Sto	rmwater		Directi	on Upst	ream	Flow co	ontrol	Not Con	trolled	Ta	pe/Media	# WP-03
Shape (Circular		Heig	ht 15	Width	ins	Precle	ean N		Ye	ear Cleane	d
Material	Reinforced Conc	rete Pipe	Joi	nt length		Ft Total	length	1 05.0	Ft	Length	n Surveyed	1 05.00
Lining			Yea	ar laid	Ŷ	'ear rehabil	itated		Weath	er Dr	у	
Purpose	Infiltration/Inflow	Investiga	tion			Cat						
Addition	al info							Structu	ral	O&M		Constructional
Location	Parking Lot							Miscella	aneous	Hydra	aulic	



Pipe Graphic Report of PLR dcB-180 X for WOODARD & CURRAN

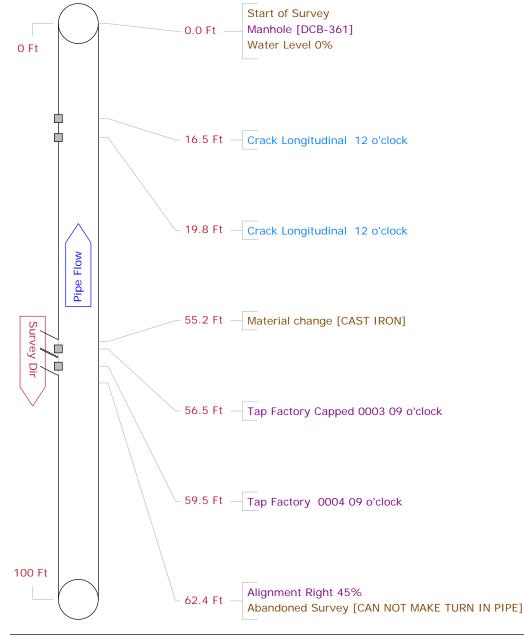
Setup 89 Surveyor WP	Certificate #	T-001-002	System Owne	r SUNY OF AL	BANY
Drainage STORM DRAII Survey C	Customer WOODARD & CUF	RAN			
P/O # Date	2007/08/20 Time 9:34	Street SUNY	OF ALBANY		
Locality VARIOUS LOCATIONS	Further location details				
Start DCB-180	Rim to invert	Grade to invert	Rim to	grade	Ft
Finish 1052	Rim to invert	Grade to invert	Rim to	grade	Ft
Use Stormwater	Direction Downstream	Flow control	Not Controlled	Tape/Media #	WP-03
Shape Circular	Height 10 Width	ins Preclea	an N	Year Cleaned	1
Material Polyvinyl Chloride	Joint length F	t Total length	30.5 Ft Lei	ngth Surveyed	30.50
Lining	Year laid Ye	ear rehabilitated	Weather	Dry	
Purpose Infiltration/Inflow Investigat	ion	Cat			
Additional info			Structural (D&M C	Constructional
Location Parking Lot			Miscellaneous H	Hydraulic	



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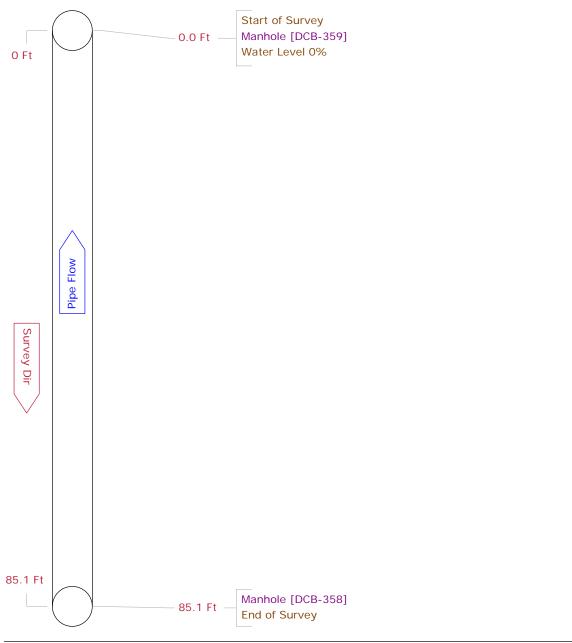
Pipe Graphic Report of PLR DCB-374 X for WOODARD & CURRAN

Setup 90 Surveyor WP	Certificate #	T-001-002	System Ow	ner SUNY OF	ALBANY
Drainage STORM DRAIL Survey Cu	ustomer WOODARD & CUF	RAN			
P/O # Date 2	2007/08/20 Time 9:54	Street SUNY	OF ALBANY		
Locality VARIOUS LOCATIONS	Further location details				
Start DCB-361	Rim to invert	Grade to invert	Rim	to grade	Ft
Finish DCB-374	Rim to invert	Grade to invert	Rim	to grade	Ft
Use Stormwater	Direction Upstream	Flow control	Not Controlled	Tape/Meo	l ia # WP-03
Shape Circular	Height 8 Width	ins Preclea	an N	Year Clea	ned
Material Asbestos Cement	Joint length F	t Total length	100.0 Ft I	Length Survey	/ed 62.40
Lining	Year laid Ye	ear rehabilitated	Weathe	r Dry	
Purpose Infiltration/Inflow Investigation	on	Cat			
Additional info			Structural	O&M	Constructional
Location Parking Lot			Miscellaneous	Hydraulic	



Pipe Graphic Report of PLR DCB-358 X for WOODARD & CURRAN

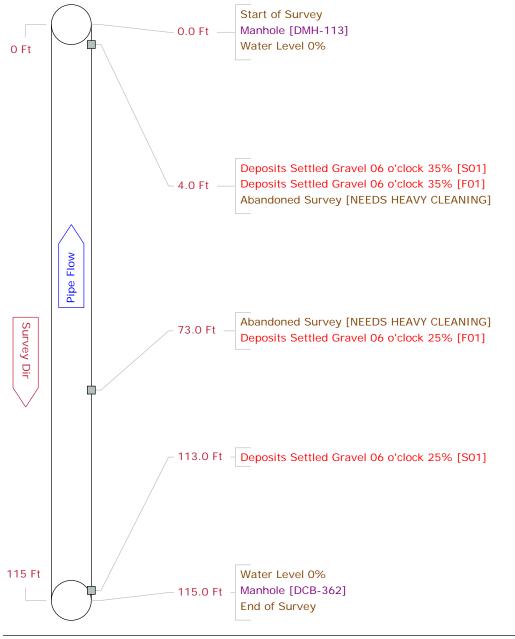
Setup 9	1 Surveyor	WP		Certif	icate #	T-001-00	2	Sys	stem Ov	wner	SUNY OF A	LBANY
Drainage	STORM DRAILS	Survey C	ustomer	NOODAR	D & CU	RRAN						
P/O #		Date	2007/08/20	Time	10:15	Street	SUN	Y OF ALI	BANY			
Locality	VARIOUS LOCAT	TIONS	Further	location	details							
Start D	CB-359		Rim to	invert		Grade to	invert	<u>!</u>	Rim	n to gra	nde	Ft
Finish D	CB-358		Rim to	invert		Grade to	invert	<u>!</u>	Rim	n to gra	nde	Ft
Use Stor	mwater		Directio	on Upsti	ream	Flow co	ontrol	Not Cor	ntrolled	7	ape/Media	# WP-03
Shape C	ircular		Heig	ht 15	Width	ins	Precle	ean N		Y	ear Cleane	ed
Material	Reinforced Concr	ete Pipe	Joir	nt length		Ft Total	length	85.1	Ft	Lengt	th Surveye	d 85.10
Lining			Yea	r laid	Ŷ	'ear rehabil	itated		Weath	ner D	Dry	
Purpose	Infiltration/Inflow I	nvestigat	ion			Cat						
Additiona	al info							Struct	ural	0&1	N	Constructional
Location	Parking Lot							Miscel	laneous	Hyd	raulic	



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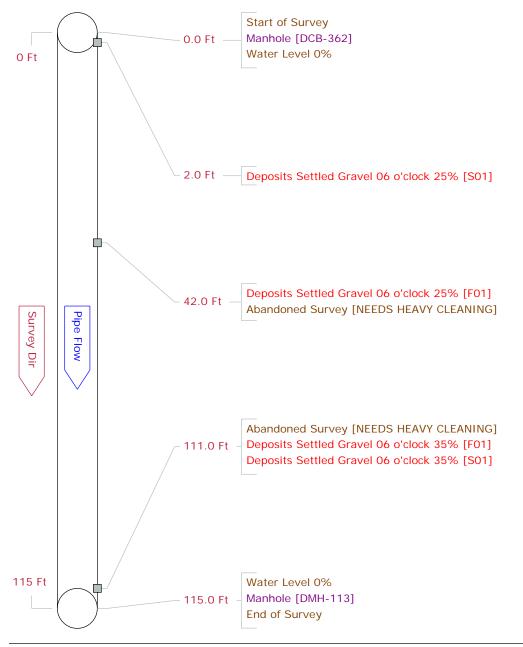
Pipe Graphic Report of PLR DCB-362 X for WOODARD & CURRAN

Setup 9	02/93 Surveyor WP	Certificate #	T-001-002	System Owner	r SUNY OF AI	LBANY
Drainage	STORM DRAII Survey	Customer WOODARD & CU	RRAN			
P/O #	Date	2007/08/20 Time 10:32	Street SUNY	OF ALBANY		
Locality	VARIOUS LOCATIONS	Further location details				
Start [DMH-113	Rim to invert	Grade to invert	Rim to	grade	Ft
Finish [DCB-362	Rim to invert	Grade to invert	Rim to	grade	Ft
Use Sto	rmwater	Direction Upstream	Flow control	Not Controlled	Tape/Media	# WP-03
Shape (Circular	Height 15 Width	ins Precle	an N	Year Cleane	d
Material	Reinforced Concrete Pipe	Joint length	Ft Total length	115.0 Ft Lei	ngth Surveyed	04.00
Lining		Year laid Y	ear rehabilitated	Weather	Dry	
Purpose	Infiltration/Inflow Investiga	ation	Cat			
Addition	al info			Structural C	D&M	Constructional
Location	Parking Lot			Miscellaneous H	Hydraulic	



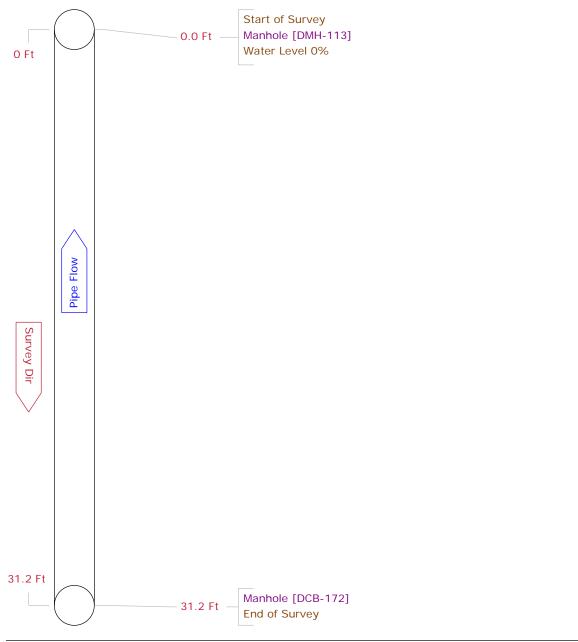
Pipe Graphic Report of PLR DCB-362 X for WOODARD & CURRAN

Setup 93/92 Surveyor WP Certificate # T-001-002 System Owner SUNY OF ALBANY Drainage STORM DRAIL Surveyor WOODARD & CURAN P/O # Date 2007/08/20 Time 10:38 Street SUNY OF ALBANY Locality VARIOUS LOCATIONS Further location details Street SUNY OF ALBANY Ft Start DCB-362 Rim to invert Grade to invert Rim to grade Ft Finish DMH-113 Rim to invert Grade to invert Rim to grade Ft Use Stormwater Direction Downstream Flow control Not Controlled Tape/Media # WP-03 Shape Circular Height 15 Width ins Preclean Year Cleaned Material Reinforced Concrete Pipe Joint length Ft Total length 115.0 Ft Length Surveyed 42.00 Lining Year laid Year rehabilitated Weather Dry Zeat Additional info Reverse set up on sheet:92 Structural O&M Constructiona	• • •					
P/O # Date 2007/08/20 Time 10:38 Street SUNY OF ALBANY Locality VARIOUS LOCATIONS Further location details Grade to invert Rim to grade Ft Start DCB-362 Rim to invert Grade to invert Rim to grade Ft Finish DMH-113 Rim to invert Grade to invert Rim to grade Ft Use Stormwater Direction Downstream Flow control Not Controlled Tape/Media # WP-03 Shape Circular Height 15 Width ins Preclean N Year Cleaned Material Reinforced Concrete Pipe Joint length Ft Total length 115.0 Ft Length Surveyed 42.00 Lining Year laid Year rehabilitated Weather Dry Purpose Infiltration/Inflow Investigation Cat Additional info Reverse set up on sheet:92 Structural O&M Constructional	Setup 93/92 Surveyor WP	Certificate #	T-001-002	System Own	er SUNY OF AL	BANY
Locality VARIOUS LOCATIONS Further location details Start DCB-362 Rim to invert Grade to invert Rim to grade Ft Finish DMH-113 Rim to invert Grade to invert Rim to grade Ft Use Stormwater Direction Downstream Flow control Not Controlled Tape/Media # WP-03 Shape Circular Height 15 Width ins Preclean Year Cleaned Material Reinforced Concrete Pipe Joint length Ft Total length 115.0 Ft Length Surveyed 42.00 Lining Year laid Year rehabilitated Weather Dry Purpose Dry Purpose Infiltration/Inflow Investigation Cat Structural 0&M Constructional	Drainage STORM DRAII Survey Cus	tomer WOODARD & CUR	RAN			
Start DCB-362 Rim to invert Grade to invert Rim to grade Ft Finish DMH-113 Rim to invert Grade to invert Rim to grade Ft Use Stormwater Direction Downstream Flow control Not Controlled Tape/Media # WP-03 Shape Circular Height 15 Width ins Preclean N Year Cleaned Material Reinforced Concrete Pipe Joint length Ft Total length 15.0 Ft Length Surveyed 42.00 Lining Year laid Year rehabilitated Weather Dry Preclean N Constructional Additional info Reverse set up on sheet:92 Structural O&M Constructional	P/O # Date 200	07/08/20 Time 10:38	Street SUNY	OF ALBANY		
Finite minite	Locality VARIOUS LOCATIONS	Further location details				
Use Stormwater Direction Downstream Flow control Not Controlled Tape/Media # WP-03 Shape Circular Height 15 Width ins Preclean N Year Cleaned Material Reinforced Concrete Pipe Joint length Ft Total length 115.0 Ft Length Surveyed 42.00 Lining Year laid Year rehabilitated Weather Dry Purpose Infiltration/Inflow Investigation Cat Additional info Reverse set up on sheet:92 Structural O&M Constructional	Start DCB-362	Rim to invert	Grade to invert	Rim to	grade	Ft
Shape Circular Height 15 Width ins Preclean N Year Cleaned Material Reinforced Concrete Pipe Joint length Ft Total length 115.0 Ft Length Surveyed 42.00 Lining Year Iaid Year rehabilitated Weather Dry Purpose Infiltration/Inflow Investigation Cat Structural O&M Constructional	Finish DMH-113	Rim to invert	Grade to invert	Rim to	grade	Ft
Material Reinforced Concrete Pipe Joint length Ft Total length 115.0 Ft Length Surveyed 42.00 Lining Year laid Year rehabilitated Weather Dry Purpose Infiltration/Inflow Investigation Cat Additional info Reverse set up on sheet:92 Structural O&M Constructional	Use Stormwater	Direction Downstream	Flow control	Not Controlled	Tape/Media #	# WP-03
Lining Year laid Year rehabilitated Weather Dry Purpose Infiltration/Inflow Investigation Cat Additional info Reverse set up on sheet:92 Structural O&M Constructional	Shape Circular	Height 15 Width	ins Preclea	an N	Year Cleaned	1
Purpose Infiltration/Inflow Investigation Cat Additional info Reverse set up on sheet:92 Structural O&M Constructional	Material Reinforced Concrete Pipe	Joint length F	t Total length	115.0 Ft Le	ength Surveyed	42.00
Additional info Reverse set up on sheet:92 Structural O&M Constructional	Lining	Year laid Ye	ar rehabilitated	Weather	Dry	
	Purpose Infiltration/Inflow Investigation		Cat			
	Additional info Reverse set up on she	eet:92		Structural	O&M (Constructional
Location Parking Lot Miscellaneous Hydraulic	Location Parking Lot			Miscellaneous	Hydraulic	



Pipe Graphic Report of PLR DCB-172 X for WOODARD & CURRAN

	•											
Setup 9	4 Surveyor	WP		Certif	icate #	T-001-00	2	Sys	tem Ov	wner SL	JNY OF ALBAN	IY
Drainage	STORM DRAILS	Survey C	Customer	WOODAR	D & CU	RRAN						
P/O #		Date	2007/08/20	Time	10:38	Street	SUN	y of ale	BANY			
Locality	VARIOUS LOCAT	FIONS	Further	location	details							
Start [MH-113		Rim to	invert		Grade to	invert	t	Rim	to grade	e l	t
Finish [CB-172		Rim to	invert		Grade to	invert	t	Rim	to grade	ə I	t
Use Sto	rmwater		Directi	i on Upsti	ream	Flow co	ontrol	Not Cor	ntrolled	Тар	e/Media # W	P-03
Shape (Circular		Heig	ht 15	Width	ins	Precle	ean N		Yea	r Cleaned	
Material	Reinforced Concr	ete Pipe	Joi	nt length	l	Ft Total	length	3 1.2	Ft	Length	Surveyed 31.2	20
Lining			Yea	ar laid	Y	ear rehabil	itated		Weath	ner Dry		
Purpose	Infiltration/Inflow I	nvestigat	tion			Cat						
Addition	al info							Structu	ural	O&M	Cons	tructiona
Location	Parking Lot							Miscel	laneous	Hydra	ulic	





APPENDIX E: CAMPUS IRRIGATION EVALUATION REPORT PREPARED BY NORTHERN DESIGNS, LLC

Campus Irrigation System Evaluation Report

for:

UNIVERSITY AT ALBANY

State University of New York 1400 Washington Avenue Albany, New York

prepared by:

NORTHERN DESIGNS LLC 2089 Hartford Turnpike North Haven, Connecticut 06473 Tel. 203.239.2710 1 December 2008

Woodard & Curran 709 Westchester Avenue Suite L2 White Plains, New York 10604

Attn: Anthony Catalano

Re: University at Albany 1400 Washington Avenue Albany, New York

Gentlemen:

As requested, the following report is a complete evaluation of the existing campus wide irrigation system at the University at Albany, 1400 Washington Avenue, Albany, New York. The purposes are two-fold, to provide an inventory and evaluation of the existing irrigation system and to furnish general recommendations to help guide University at Albany in all decisions regarding future modifications or redesign of the campus irrigation system.

The inventory and evaluation will include a review of most of the components which make up the existing irrigation system including sprinklers, valves, piping etc. The review also encompasses existing maintenance procedures and encountered problems including outdated equipment and operational inadequacies.

Due to the lack of existing 'as-built' irrigation plans for the campus wide irrigation system, some components of that system were not evaluated, primarily the mainline piping and zone laterals. As a result, a 'record' GPS drawing was created by Northern Designs LLC, which incorporates information from construction plans for the irrigation systems installed over the years and from on-site field observations. This newly created 'record' plan is an integral part of the inventory process contained within this report.

General recommendations will include overall design guidance as well as some specific recommendations to update existing irrigation components and operation. The summary will aide University at Albany in the types of decisions which will need to be made to bring the overall irrigation system up to par in conjunction with the current watering requirements and operational and maintenance procedures.

We welcome the opportunity to review and discuss, in further detail, our evaluation and recommendations. If you or University at Albany should have any questions please contact us any time.

Very Truly Yours, NORTHERN DESIGNS

Michael J. Astram *Certified Irrigation Designer*

MJA:sa attachment

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A. Evaluation Process

The evaluation consisted of several visits to the campus to do GPS mapping of the existing irrigation systems. In addition, data pertaining to the irrigation system was obtained from on-site observations, discussions with University of Albany maintenance staff and review of the Universities construction plan archives. It should be noted that some information about the irrigation system could not be documented without doing extensive excavation of the system; therefore some information regarding the original irrigation system cannot be confirmed.

B. System Overview

For the purposes of this report the existing campus wide irrigation system is divided into several separate irrigation systems. The original system installed in 1970 provided irrigation to the entire campus and can be seen on the Site Utilities drawings dated 4/1/70. This system now provides irrigation to University Field, Intramural Fields, Practice Fields, Baseball Fields, Artificial Turf Fields, Flag Pole Plaza and Oval at the campus entry and was comprised of manual sprinklers, steel and copper pipe main lines and lateral pipes. A few areas, such as the Flag Pole Plaza and Practice fields have been upgraded over time to include automatic valves, gear drive sprinklers and electronic controllers.

Recently; the Entry Oval irrigation has been capped for future renovations.

The newer irrigation systems include University Hall (2005), Life Science Building (2003), University Police, Boor Sculpture Studio, Artificial Turf Fields (Lacrosse & Field Hockey (2005), Science Library, Empire Commons (2002) and are comprised of an automatic electrically controlled pop-up sprinkler system consisting of gear driven rotor sprinklers, pop-up sprinklers, PVC piping and automatic valves for irrigating both the lawn areas and planting beds.

Recently; the site to the East of University Hall has had an automatic irrigation system installed.

C. Water Supplies

Inventory

The current water supply for the Southern University Field, Artificial Turf Fields (Lacrosse & Field Hockey), Practice Athletic Fields and Baseball Fields is the lake North of the Baseball Fields

The current water supply for the Boor Sculpture Studio, Life Sciences, Science Library, University Hall and University Police is the potable water supply from the building water supply.

The current water supply for Empire commons is (2) two independent 50 gpm wells.

Evaluation

The existing lake water supply appears to be sufficient to provide the necessary water and pressure required to irrigate the Southern University Field, Artificial Turf Fields (Lacrosse & Field Hockey), Practice Athletic Fields and Baseball Fields.

The existing potable water connections appear to be sufficient enough to provide the necessary water and pressure required to irrigate the Boor Sculpture Studio, Life Sciences, Science Library, University Hall and University Police lawn and plant material.

Recommendations

In the effort to conserve water and reduce irrigation water costs it should be determined if the existing lake can provide the necessary water to irrigate the entire campus. If this is possible, the existing potable irrigation systems should be modified to be connected to the lake water supply.

D. Irrigation Pump

Inventory

The current irrigation pumping system consists of 2 - 40hp (600 gpm each) vertical turbine pumps manufactured by Hayes pumps that produce a system pressure of approximately 100 psi. The pumps located in a pump house sit over a wet well with a flume out to the lake.

Evaluation

The existing pumps can produce up to 1200 gpm of water to the irrigation system which is enough to irrigate the entire existing campus irrigation system. The pumps are the original pumps and have been recently upgraded with new controls, but are starting to show their age. The leaks in the main line piping have caused the pump to constantly cycle on and off. To alleviate this problem a master valve was installed just west of the artificial turf fields at a location where there are no known leaks in the main line. The master valve is a normally closed valve, so the main line piping would remain fully pressurized which will keep the pumps isolated so they will not cycle on and off. However, this creates another problem. The small section from the pump house is pressurized, but the remaining main line continues to drain, emptying the mainlines. Whenever the irrigation system operates the master valve opens and the water rushes to fill the main line causing pressure surges in the pipe which can weaken the pipe and damage irrigation system components.

Recommendations

Install a new (VFD) pumping system and with new controls. Repair or replace main line piping. Refer to section on (**Main Line Piping – Pressurized**).

E. Water Meters

Inventory

The current irrigation systems (Boor Sculpture Studio, Life Sciences, Science Library, University Hall and University Police) are not metered separately from the existing potable water supplies.

The current irrigation system (Empire Commons) well is not metered

The current irrigation systems (University Field, Artificial Turf Fields (Lacrosse & Field Hockey), Practice Athletic Fields and Baseball Fields are not metered separately from the existing lake water supply. However, it is possible to monitor total water use from the lake from the pump station.

Evaluation

Much of the water used for irrigation is not metered and even though the existing pump station has the ability to quantify the amount of water that is used over a designated period of time for the Southern University Field, Artificial Turf Fields (Lacrosse & Field Hockey), Practice Athletic Fields and Baseball Fields irrigation systems, there is no ability to know the quantity of water being used for each individual system or zone by zone. Having a system by system or zone by zone water reading allows State University of New York the ability to confirm and isolate a particular zone if a problem has been detected (ie. too much water used by a system/zone may indicate a leak in the pipe or broken valve). Having the capability to isolate water usage readings also allows State University of New York ability to know how much water a certain system or zone is receiving (useful in determining watering requirements for the type of turf or landscape plants being irrigated).

Recommendations

A new irrigation central control system (refer to section on **Control System**) should be installed. An irrigation central control system with software interface will allow metering, monitoring and management of each system on a zone by zone basis.

F. Control System

Inventory

A list of independent irrigation controllers installed is provided below.

	Description	<u>Controller</u>	<u>Mfg.</u>
1	University Field	None - Manual System	
2	Intramural Fields	ESP-MC -Partial Automatic Control	Rainbird
3	Baseball Fields	None - Manual System	
4	Artificial Turf	ICC	Hunter
5	Science Library	LX	Rainbird
6	University Police	ICC	Hunter
7	Life Science Building	LX	Rainbird
8	Boor Sculpture Building	ESP-MC	Rainbird
9	University Hall	LX	Rainbird
10	Entry Oval	None - Manual System	
11	Empire Commons	ICC (3)	Hunter

Evaluation

The existing controllers have limited abilities to perform all tasks required for complete irrigation system control. Examples of tasks not currently performed include zone by zone water management, automatic shut-down (during rain storms or equipment malfunction), daily reports on complete system operation, ability to operate irrigation system remotely via handheld radio and system programmability for numerous operational scenarios. The existing system does have the ability to monitor overall water usage to run the system automatically and to monitor time of operation; but it does not allow monitoring on a zone by zone basis. The irrigation controllers are from different manufacturers and not compatible with each other.

Recommendations

A new irrigation central control system should be installed with a software interface which will allow University of Albany the ability to monitor and manage the irrigation operation from a computer within the facility. To determine the best control system, an overall irrigation system control system design will need to be prepared and operation/management requirements determined and reviewed with the University of Albany facility personnel. The existing manual irrigation systems on campus should be upgraded with automatic control that is compatible with the selected central control system. Replace existing controllers with controllers that are compatible with the selected central control system.

G. Zones

Inventory

For purposes of this report the zones for both the lawn/planter beds will be identified utilizing the attached 'GPS' record drawing. The following are the current zone designations:

University Field

1 Sprinklers: Turf 5 Toro 2001 (Part Circle) Manual Gate Valve 1 Sprinklers: Turf 5 Toro 2001 (Full Circle) Manual Gate Valve 2 Sprinklers: Turf 4 Toro 2001 (Part Circle) Manual Gate Valve 2 Sprinklers: Turf 5 Toro 2001 (Part Circle) Manual Gate Valve 2 Sprinklers: Turf 5 Toro 2001 (Full Circle) Manual Gate Valve 1 Sprinklers: Turf 4 Rainbird 8005 (Full Circle) Manual Gate Valve 1 Sprinklers: Turf 4 Rainbird 8005 (Full Circle) Manual Gate Valve 1 Sprinklers: Turf 5 Toro 2001 (Part Circle) Manual Gate Valve 1 Sprinklers: Turf 5 Toro 2001 (Part Circle) Manual Gate Valve 1 Sprinklers: Turf 9 Toro 2001 (Part Circle) Manual Gate Valve 2 Sprinklers: Turf 9 Toro 2001 (Full Circle) Manual Gate Valve	Description	Zone	Description	Heads	Head Mfg. ¹	Valve Mfg. ²
1 Sprinklers: Turf 5 Toro 2001 (Full Circle) 2 Sprinklers: Turf 4 Toro 2001 (Part Circle) Manual Gate Valve 2 Sprinklers: Turf 5 Toro 2001 (Full Circle) Manual Gate Valve 1 Sprinklers: Turf 4 Rainbird 8005 (Full Circle) Manual Gate Valve 1 Sprinklers: Turf 4 Rainbird 8005 (Full Circle) Manual Gate Valve 1 Sprinklers: Turf 5 Toro 2001 (Part Circle) Manual Gate Valve 1 Sprinklers: Turf 5 Toro 2001 (Part Circle) Manual Gate Valve 1 Sprinklers: Turf 9 Toro 2001 (Part Circle) Manual Gate Valve	Sprinklers:	1	Sprinklers: Turf	5	Toro 2001 (Part Circle)	Manual Gate Valve
2 Sprinklers: Turf 4 Toro 2001 (Part Circle) Manual Gate Valve 2 Sprinklers: Turf 5 Toro 2001 (Full Circle) Manual Gate Valve 1 Sprinklers: Turf 4 Rainbird 8005 (Full Circle) Manual Gate Valve 1 Sprinklers: Turf 5 Toro 2001 (Part Circle) Manual Gate Valve 1 Sprinklers: Turf 5 Toro 2001 (Part Circle) Manual Gate Valve 1 Sprinklers: Turf 5 Toro 2001 (Part Circle) Manual Gate Valve 1 Sprinklers: Turf 9 Toro 2001 (Part Circle) Manual Gate Valve		1				
2 Sprinklers: Turf 5 Toro 2001 (Full Circle) Intramural/Softball Field 1 Sprinklers: Turf 4 Rainbird 8005 (Full Circle) Manual Gate Valve 1 Sprinklers: Turf 5 Toro 2001 (Part Circle) Manual Gate Valve 1 Sprinklers: Turf 5 Toro 2001 (Part Circle) Manual Gate Valve 1 Sprinklers: Turf 9 Toro 2001 (Full Circle)		2		4	Toro 2001 (Part Circle)	Manual Gate Valve
1Sprinklers: Turf4Rainbird 8005 (Full Circle)Manual Gate Valve1Sprinklers: Turf5Toro 2001 (Part Circle)1Sprinklers: Turf9Toro 2001 (Full Circle)		2				
1Sprinklers: Turf5Toro 2001 (Part Circle)1Sprinklers: Turf9Toro 2001 (Full Circle)	mural/Soft	Intra	nural/Softball Field			
1Sprinklers: Turf5Toro 2001 (Part Circle)1Sprinklers: Turf9Toro 2001 (Full Circle)	Sprinklers:	1	Sprinklers: Turf	4	Rainbird 8005 (Full Circle)	Manual Gate Valve
1 Sprinklers: Turf 9 Toro 2001 (Full Circle)		1		5	· · · · · · · · · · · · · · · · · · ·	
		1				
2 Sprinkiers: 1 urt 21 1 oro 2001 (Full Circle) Manual Gate Valve	Sprinklers:	2	Sprinklers: Turf	21	Toro 2001 (Full Circle)	Manual Gate Valve
2 Sprinklers: Turf 2 Toro 2001 (Full Circle) Manual Gate Valve	Sprinklers:	2	Sprinklers: Turf	2	Toro 2001 (Full Circle)	Manual Gate Valve
Practice Fields/Baseball Fields		Pract				
1Sprinklers: Turf5Rainbird 8005 (Full Circle)Rainbird					× /	
2 Sprinklers: Turf 4 Rainbird 8005 (Full Circle) Ranbird						
3 Sprinklers: Turf 5 Rainbird 8005 (Full Circle) Rainbird						
4 Sprinklers: Turf 5 Rainbird 8005 (Full Circle) Rainbird						
5 Sprinklers: Turf 4 Rainbird 8005 (Full Circle) Ranbird	1		1		· · · · · · · · · · · · · · · · · · ·	
6 Sprinklers: Turf 5 Rainbird 8005 (Full Circle) Rainbird	1		1	-		
				-	· · · · · · · · · · · · · · · · · · ·	Manual Gate Valve
1						Manual Gate Valve
	1		1	-	· · · · · · · · · · · · · · · · · · ·	Manual Gate Valve
					· · · · · · · · · · · · · · · · · · ·	Manual Gate Valve
						Manual Gate Valve
					· · · · · · · · · · · · · · · · · · ·	Manual Gate Valve
					· · · · · · · · · · · · · · · · · · ·	Manual Gate Valve
13Sprinklers: Turf10Toro 2001 (Full Circle)Manual Gate Valve	Sprinklers:	13	Sprinklers: Turf	10	Toro 2001 (Full Circle)	Manual Gate Valve

Artificial Turf Fields (Lacrosse & Hockey)

1	Sprinkler: Artificial Turf	3	Quick Coupling Valve	Rainbird
2	Sprinkler: Artificial Turf	3	Quick Coupling Valve	Rainbird
3	Sprinkler: Artificial Turf	3	Quick Coupling Valve	Manual Gate Valve
4	Sprinkler: Artificial Turf	3	Quick Coupling Valve	Manual Gate Valve

Science Library

1	Spray: Lawn	6	Hunter	Rainbird
2	Sprinkler: Lawn	6	Hunter	Rainbird
3	Sprinkler: Lawn	6	Hunter	Rainbird
4	Sprinkler: Lawn	6	Hunter	Rainbird
5	Sprinkler: Lawn	6	Hunter	Rainbird
6	Sprinkler: Lawn	6	Hunter	Rainbird
7	Sprinkler: Lawn	6	Hunter	Rainbird
8	Sprinkler: Lawn	6	Hunter	Rainbird
9	Sprinkler: Lawn	6	Hunter	Rainbird
10	Sprinkler: Lawn	4	Hunter	Rainbird
11	Sprinkler: Lawn	4	Hunter	Rainbird
12	Sprinkler: Lawn	6	Hunter	Rainbird
13	Sprinkler: Lawn	3	Hunter	Rainbird
14	Spray: Planter	9	Rainbird	Rainbird
15	Spray: Planter	7	Rainbird	Rainbird
University Police				

1 Sprinkler: Lawn 5 Hunter (I20) Hunter Sprinkler: Lawn Sprinkler: Lawn 2 5 Hunter (I20) Hunter 3 3 Hunter (I20) Hunter Spray: Lawn/Planter 8 4 Rainbird (1800) Hunter

Boor Sculpture Studio

1	Spray: Lawn	8	Rainbird (1800)	Rainbird
2	Sprinkler: Lawn	4	Hunter (I20)	Rainbird
3	Sprinkler: Lawn	9	Hunter (I20)	Rainbird
4	Sprinkler: Lawn	8	Hunter (I20)	Rainbird
5	Spray: Planter	3	Rainbird (1800)	Rainbird
6	Sprinkler: Lawn	3	Hunter (I20)	Rainbird
7	Sprinkler: Lawn	6	Hunter (I20)	Rainbird
8	Sprinkler: Lawn	6	Hunter (I20)	Rainbird
9	Sprinkler: Lawn	6	Hunter (I20)	Rainbird
10	Sprinkler: Lawn	3	Hunter (I20)	Rainbird
11	Spray: Planter	3	Rainbird (1800)	Rainbird
12	Spray: Lawn	6	Rainbird (1800)	Rainbird
13	Spray: Lawn	6	Rainbird (1800)	Rainbird
14	Spray: Lawn	14	Rainbird (1800)	Rainbird
15	Spray: Lawn	9	Rainbird (1800)	Rainbird
16	Spray: Lawn	10	Rainbird (1800)	Rainbird
17	Sprinkler: Lawn	5	Hunter (I20)	Rainbird

Life Science Building

1	Sprinkler: Lawn	12	Hunter (I20)	Rainbird
2	Spray: Lawn	35	Rainbird (1800)	Rainbird
3	Sprinkler: Lawn	23	Hunter (I20)	Rainbird
4	Sprinkler: Lawn	19	Hunter (I20)	Rainbird
5	Sprinkler: Lawn	12	Hunter (I20)	Rainbird

_	~ ~ ~	10		
6	Spray: Lawn/Planter	18	Rainbird (1800)	Rainbird
7	Spray: Lawn/Planter	28	Rainbird (1800)	Rainbird
8	Spray: Planter	19	Rainbird (1800)	Rainbird
9	Spray: Planter	21	Rainbird (1800)	Rainbird
10	Spray: Planter	13	Rainbird (1800)	Rainbird
11	Sprinkler: Lawn	14	Hunter (I20)	Rainbird
12	Sprinkler: Lawn	14	Hunter (I20)	Rainbird
13	Sprinkler: Lawn	14	Hunter (I20)	Rainbird
14	Spray: Planter	22	Rainbird (1800)	Rainbird
15	Spray: Planter	24	Rainbird (1800)	Rainbird
16	Spray: Lawn	35	Rainbird (1800)	Rainbird
17	Sprinkler: Lawn	18	Hunter (I20)	Rainbird
18	Sprinkler: Lawn	15	Hunter (I20)	Rainbird
19	Spray: Planters	25	Rainbird (1800)	Rainbird
20	Spray: Planters	15	Rainbird (1800)	Rainbird
20	Sprinkler: Lawn	22	Hunter (I20)	Rainbird
21	Sprinkler: Lawn	11	Hunter (I20)	Rainbird
22	Spray: Planters	9	Rainbird (1800)	Rainbird
23 24		9		Rainbird
	Spray: Planters		Rainbird (1800)	
25 26	Spray: Planters	11	Rainbird (1800)	Rainbird
26	Spray: Planters	11	Rainbird (1800)	Rainbird
27	Spray: Lawn	18	Rainbird (1800)	Rainbird
28	Spray: Lawn	28	Rainbird (1800)	Rainbird
29	Sprinkler: Lawn	12	Hunter (I20)	Rainbird
30	Spray: Lawn	15	Rainbird (1800)	Rainbird
31	Spray: Lawn	25	Rainbird (1800)	Rainbird
32	Spray: Planters	30	Rainbird (1800)	Rainbird
32	Spray: Planters	36	Rainbird (1800)	Rainbird
Univ	ersity Hall			
1	Sprinkler: Lawn	8	Hunter (I20)	Rainbird
2	Sprinkler: Lawn	5	Hunter (I20)	Rainbird
3	Sprinkler: Lawn	2	Hunter (I20)	Rainbird
4	Sprinkler: Lawn	5	Hunter (I20)	Rainbird
5	Sprinkler: Lawn	5	Hunter (I20)	Rainbird
6	Sprinkler: Lawn	2	Hunter (I20)	Rainbird
0	Sprinkler. Lawii	Z	Huller (120)	Kalilolitu
Flag	Pole Plaza			
1	Sprinkler: Lawn	8	Hunter (I20)	Rainbird
2	Sprinkler: Lawn	5	Hunter (I20)	Rainbird
3	Sprinkler: Lawn	2	Hunter (I20)	Rainbird
4	Sprinkler: Lawn	5	Hunter (I20)	Rainbird
5	Sprinkler: Lawn	5	Hunter (I20)	Rainbird
6	Sprinkler: Lawn	2	Hunter (I20)	Rainbird
7	Sprinkler: Lawn	5	Hunter (I20)	Rainbird
8	Sprinkler: Lawn	8	Hunter (I20)	Rainbird
9	Sprinkler: Lawn	8	Hunter (I20)	Rainbird
10	Spray: Planter	12	Rainbird (1800)	Rainbird
10	Spray: Planter	12	Rainbird (1800)	Rainbird
11	Spray. I land	10	Kambild (1600)	Namonu

Empire Commons

Controller #1

12

13

14

15

Sprinkler: Lawn

Sprinkler: Lawn Sprinkler: Lawn

Spray: Planters

1	Spray: Planters	20	Rainbird (1800)	Rainbird
2	Spray: Planters	30	Rainbird (1800)	Rainbird
3	Spray: Planters	8	Rainbird (1800)	Rainbird
4	Sprinkler: Lawn	12	Hunter (I20)	Rainbird
5	Sprinkler: Lawn	14	Hunter (I20)	Rainbird
6	Sprinkler: Lawn	12	Hunter (I20)	Rainbird
7	Spray: Planters	14	Rainbird (1800)	Rainbird
8	Spray: Lawn	34	Rainbird (1800)	Rainbird
9	Spray: Lawn	33	Rainbird (1800)	Rainbird
10	Spray: Planter	17	Rainbird (1800)	Rainbird
11	Spray: Planter	14	Rainbird (1800)	Rainbird
12	Spray: Planter	8	Rainbird (1800)	Rainbird
13	Spray: Lawn	10	Rainbird (1800)	Rainbird
14	Sprinkler: Lawn	14	Hunter (I20)	Rainbird
15	Sprinkler: Lawn	18	Hunter (I20)	Rainbird
16	Sprinkler: Lawn	10	Hunter (I20)	Rainbird
17	Spray: Lawn	14	Rainbird (1800)	Rainbird
18	Spray: Lawn	9	Rainbird (1800)	Rainbird
19	Spray: Lawn	19	Rainbird (1800)	Rainbird
20	Spray: Lawn	6	Rainbird (1800)	Rainbird
21	Spray: Lawn	14	Rainbird (1800)	Rainbird
22	Spray: Lawn	24	Rainbird (1800)	Rainbird
23	Spray: Lawn	27	Rainbird (1800)	Rainbird
24	Spray: Lawn	20	Rainbird (1800)	Rainbird
25	Sprinkler: Lawn	21	Hunter (I20)	Rainbird
26	Sprinkler: Lawn	34	Hunter (I20)	Rainbird
27	Sprinkler: Lawn	12	Hunter (I20)	Rainbird
28	Sprinkler: Lawn	9	Hunter (I20)	Rainbird
(Controller #2			
1	Sprinkler: Lawn	7	Hunter (I20)	Rainbird
2	Spray: Lawn	21	Rainbird (1800)	Rainbird
3	Spray: Planters	16	Rainbird (1800)	Rainbird
4	Spray: Lawn	21	Rainbird (1800)	Rainbird
5	Spray: Lawn	23	Rainbird (1800)	Rainbird
6	Spray: Lawn	21	Rainbird (1800)	Rainbird
7	Spray: Planters	16	Rainbird (1800)	Rainbird
8	Spray: Lawn	22	Rainbird (1800)	Rainbird
9	Spray: Lawn	5	Rainbird (1800)	Rainbird
10	Spray: Lawn	8	Rainbird (1800)	Rainbird
11	Spray: Lawn	23	Rainbird (1800)	Rainbird
12	Sprinkler: Lawn	15	Hunter (120)	Rainhird

15

8 5

16

Hunter (I20)

Hunter (I20)

Hunter (I20)

Rainbird (1800)

Rainbird

Rainbird

Rainbird

Rainbird

16	Sprinkler: Lawn	14	Hunter (I20)	Rainbird
17	Sprinkler: Lawn	14	Hunter (I20)	Rainbird
18	Spray: Lawn	17	Rainbird (1800)	Rainbird
19	Spray: Lawn	11	Rainbird (1800)	Rainbird
20	Sprinkler: Lawn	23	Hunter (I20)	Rainbird
21	Sprinkler: Lawn	10	Hunter (I20)	Rainbird
22	Sprinkler: Lawn	5	Hunter (I20)	Rainbird

Controller #3

1	Spray: Planters	5	Rainbird (1800)	Rainbird
2	Sprinkler: Lawn	5	Hunter (I20)	Rainbird
3	Sprinkler: Lawn	9	Hunter (I20)	Rainbird
4	Sprinkler: Lawn	7	Hunter (I20)	Rainbird
5	Sprinkler: Lawn	8	Hunter (I20)	Rainbird
6	Sprinkler: Lawn	6	Hunter (I20)	Rainbird
7	Spray: Lawn	5	Rainbird (1800)	Rainbird
8	Sprinkler: Lawn	9	Hunter (I20)	Rainbird
9	Spray: Lawn	22	Rainbird (1800)	Rainbird
-	1 2		· · · · · · · · · · · · · · · · · · ·	
10	Sprinkler: Lawn	21	Hunter (I20)	Rainbird
11	Spray: Lawn	21	Rainbird (1800)	Rainbird
12	Spray: Lawn	6	Rainbird (1800)	Rainbird
13	Spray: Lawn	9	Rainbird (1800)	Rainbird
14	Spray: Lawn	23	Rainbird (1800)	Rainbird
15	Spray: Lawn	18	Rainbird (1800)	Rainbird
16	Spray: Lawn	22	Rainbird (1800)	Rainbird
17	Spray: Lawn	17	Rainbird (1800)	Rainbird
18	Spray: Lawn	23	Rainbird (1800)	Rainbird
19	Spray: Lawn	6	Rainbird (1800)	Rainbird
20	Spray: Lawn	23	Rainbird (1800)	Rainbird
21	Spray: Lawn	9	Rainbird (1800)	Rainbird
22	Spray: Lawn	23	Rainbird (1800)	Rainbird
	_ •			

Controller #4

1	Spray: Lawn	12	Rainbird (1800)	Rainbird
2	Spray: Planter	6	Rainbird (1800)	Rainbird
3	Spray: Lawn	11	Rainbird (1800)	Rainbird
4	Spray: Lawn	8	Rainbird (1800)	Rainbird
5	Sprinkler: Lawn	12	Hunter (I20)	Rainbird
6	Sprinkler: Lawn	8	Hunter (I20)	Rainbird
7	Spray: Lawn	12	Rainbird (1800)	Rainbird
8	Spray: Lawn	6	Rainbird (1800)	Rainbird
9	Spray: Lawn	5	Rainbird (1800)	Rainbird
10	Spray: Lawn	19	Rainbird (1800)	Rainbird
11	Spray: Planter	8	Rainbird (1800)	Rainbird
12	Spray: Planter	6	Rainbird (1800)	Rainbird
13	Spray: Lawn	22	Rainbird (1800)	Rainbird
13	Spray: Lawn	21	Rainbird (1800)	Rainbird
14	Spray: Planter	8	Rainbird (1800)	Rainbird
15	Spray: Planter	6	Rainbird (1800)	Rainbird
16	Spray: Lawn	21	Rainbird (1800)	Rainbird

17	Sprinkler: Lawn	12	Hunter (I20)	Rainbird
18	Spray: Lawn	30	Rainbird (1800)	Rainbird
19	Spray: Planter	13	Rainbird (1800)	Rainbird
20	Sprinkler: Lawn	16	Hunter (I20)	Rainbird
21	Sprinkler: Lawn	14	Hunter (I20)	Rainbird
22	Sprinkler: Lawn	14	Hunter (I20)	Rainbird
23	Sprinkler: Lawn	8	Hunter (I20)	Rainbird
24	Sprinkler: Lawn	18	Hunter (I20)	Rainbird
25	Spray: Lawn	22	Rainbird (1800)	Rainbird
26	Sprinkler: Lawn	10	Hunter (I20)	Rainbird
27	Sprinkler: Lawn	7	Hunter (I20)	Rainbird
28	Sprinkler: Lawn	10	Hunter (I20)	Rainbird
29	Sprinkler: Lawn	13	Hunter (I20)	Rainbird

1. Refer to section on **Sprinklers** for specific model numbers.

2. Refer to section on Automatic Zone Valves for specific model numbers.

Evaluation

University Field:

Install new automatic irrigation system with sprinklers properly spaced to provide efficient irrigation.

Intramural Fields/Softball Fields

Irrigation zoning is not done properly especially on the softball field. Sprinklers are not located properly to provide efficient irrigation.

Artificial Turf Fields

Did not see manual irrigation system operate, but locations of hydrants and quick couplers are in accordance with current irrigation techniques for synthetic turf fields.

Practice Fields/Baseball Fields

A portion of the existing practice fields have been automated, but the majority of the fields still operate manually. Sprinklers are not located properly to provide efficient irrigation.

Science Library Existing irrigation system zoning is sufficient. We could not locate water source for the island irrigation.

University Police Existing irrigation system zoning is sufficient.

Life Science Building

Irrigation zoning appears to be installed according to original planting plan by the Landscape Architect. It appears not all the plant beds were installed (groundcover) as the plan shows, but the irrigation was.

Boor Sculpture Building

Existing irrigation system is sufficient. There appeared to be a leak in the system near a newly installed tree. A water audit should be performed to provide a more in depth evaluation of the efficiency of the irrigation system.

University Hall Existing irrigation system is sufficient. Entry Oval Not evaluated.

Empire Commons

Existing irrigation system is sufficient, though a large number of spray heads with nozzles are not efficient and a lot of run-off in pavement areas.

Recommendations

University Field:

Install new automatic irrigation system with sprinklers properly spaced to provide efficient irrigation.

Intramural Fields/Softball Fields

Install new automatic irrigation system with sprinklers properly spaced to provide efficient irrigation.

Artificial Turf Fields Existing irrigation system is sufficient.

Practice Fields/Baseball Fields

Install new automatic irrigation system with sprinklers properly spaced to provide efficient irrigation.

Science Library

Existing irrigation system is sufficient; but a water audit should be performed to provide a more in depth evaluation of the efficiency of the irrigation system.

University Police

Existing irrigation system is sufficient; but a water audit should be performed to provide a more in depth evaluation of the efficiency of the irrigation system.

Life Science Building

Irrigation appears to be installed according to original planting plan by the Landscape Architect. It appears not all the plant beds were installed (groundcover) as the plan shows, but the irrigation was. System should be modified to adjust to the revised plantings. A water audit should be performed to provide a more in depth evaluation of the efficiency of the irrigation system.

Boor Sculpture Building

Existing irrigation system is sufficient, though there appeared to be a leak in the system near a newly installed tree. A water audit should be performed to provide a more in depth evaluation of the efficiency of the irrigation system.

University Hall

Existing irrigation system is sufficient; but a water audit should be performed to provide a more in depth evaluation of the efficiency of the irrigation system.

Entry Oval

A new system is currently planned for the site.

Empire Commons

Existing irrigation system is sufficient; but a water audit should be performed to provide a more in depth evaluation of the efficiency of the irrigation system. The system has a large number of spray heads with nozzles that are not efficient. Replacing the existing nozzles with high efficiency nozzles such as MP Rotator by Hunter Industries should be examined.

H. Drip Irrigation System

Inventory

There is currently no drip irrigation used on site.

Evaluation

Drip irrigation is the most efficient way to irrigate, and although drip has been used mostly in plant beds it has recently been used in turf.

Recommendations

In light of today's need for water conservation the use of drip irrigation should be reviewed with the University of Albany facility personnel.

I. Rain Sensor

Inventory

There are rain sensors currently located on several buildings. The majority of the rain sensors appear to be Mini-Clik as manufactured by Hunter Industries, but a couple of the rain sensor type and model could not be determined.

	Description	Rain Sensor
1	University Field	None - Manual System
2	Intramural Fields	Yes
3	Baseball Fields	None - Manual System
4	Artificial Turf	None
5	Science Library	Yes
6	University Police	Could not locate
7	Life Science Building	Yes
8	Boor Sculpture Building	Yes
9	University Hall	Could not locate
10	Entry Oval	None - Manual System
11	Empire Commons	Yes

Evaluation

Rain sensors will shut down the irrigation during rainfall events. They are the least expensive way to save water.

Recommendations

Add rain sensors where needed and confirm the existing rain sensor are functioning. If a new central control system is installed then the installation of a campus wide weather station should be reviewed with the University of Albany facility personnel.

J. Moisture Sensor

Inventory

There currently are no moisture sensors installed on any of the irrigation systems.

Evaluation

Moisture sensors are an important component to an irrigation system. The sensors give a representative indication of how much water the turf and plant material are receiving from the irrigation system, and adjusts the system accordingly to compensate for too little or too much water.

Recommendations

The installation of moisture sensors should be reviewed with the University of Albany facility personnel.

K. Automatic Zone Valves

Inventory

There are three (3) different automatic (solenoid) valves installed around the campus. The three (3) valves are the Rainbird series PEB, Weathermatic series #8200 and Hunter ICV. These valves are plastic solenoid valves.

Evaluation

Generally the operation of all the automatic zone valves was found to be satisfactory.

Recommendations

Although the existing automatic valves are satisfactory and should remain, any valve that fails should be replaced with a model PESB valve as manufactured by Rainbird. These valves are an industrial-strength glass-filled nylon globe valve with self-cleaning scrubber and stainless steel screen for reliable performance in dirty water irrigation applications.

L. Gate Valves – Main Line

Inventory

We could only locate one gate valve and were unable to determine the manufacturer. According to University of Albany maintenance staff more valves are located on the main lines, but are buried below grade.

Evaluation

The isolation valves provide two purposes. The first is to provide facility personnel the ability to shut down portions of the irrigations system for maintenance, testing or emergency purposes. Not being able to isolate certain areas is a major factor when trying to determine where the leaks are in the (1970) main line piping. Secondly, they are used to turn on the irrigation on many of the athletic fields since the majority of the fields (University Field, Practice Athletic Fields and Baseball Fields) still have manual irrigation systems.

Recommendations

Gate valves should be installed in key locations along the existing main lines to isolate specific areas of the irrigation system. Automate existing manual irrigation systems.

M. Ball Valves – Lateral lines

Inventory

Only one site, the Life Sciences Building, was located with ball valves installed for manual isolation. No other valves were found.

Evaluation

As with main line gate valves the ball valves provide the ability for facility personnel to shut down portions of the irrigation system for maintenance or emergency purposes at the individual irrigation zone level. Although the current automatic valves can be manually shut down, if an automatic valve was to malfunction or need to be replaced there is no way to shut the irrigation zone down with out shutting down the entire system.

Recommendations

As existing valve assemblies are replaced install manual ball valves for isolation. Incorporate into the design of future irrigation systems ball valves installed on all valve assemblies for isolation.

N. Automatic Valve Assembly and Fittings

Inventory

All of the automatic valve assemblies, consisting of multiple automatic valves, are installed in plastic valve boxes. The piping connecting the automatic valve assemblies to the main line is PVC.

Evaluation

The majority of the valve boxes appear to be in good shape.

Recommendations

Valve boxes should be cleaned out a few inches below the automatic valve and pea gravel added for drainage. Any valve box covers that are damaged or missing should be replaced to eliminate anyone from tripping and causing a possible litigation problem.

O. Sprinklers - Landscape

Inventory

The current lawn/planter bed irrigation systems consists of three (3) types of pop-up rotary sprinklers and two (2) types of pop-up spray heads. The sprinkler heads include Rainbird 3000 series, Hunter I-20 series and Hunter PGP series. The spray heads include Rainbird 1800 series and Toro 570 series. All existing sprinkler and spray heads are of current manufacture.

Evaluation

The existing landscape sprinklers are functioning properly; however there are heads that are clogged, are throwing on pavement and plant material which has grown over time blocking sprinklers. There is a lot of run-off of spray heads around the Empire Commons. Water running down pavement, blocked by plant material is a waste of water.

Recommendations

All sprinklers should be check periodically and adjusted so as to not overspray on sidewalks, buildings, windows, etc. This applies to both arc and radius adjustments. Check to see if vegetation has blocked sprinklers. Remove vegetation or other obstructions. Raise or lower heads flush with grade. A water audit should be performed to determine the efficiency of each irrigation system. If the existing systems are to be modified and heads need replacing the following heads should be used: Rainbird 1800 series pop-up spray heads and Hunter I-20 series

pop-up rotary sprinklers. Existing spray nozzles should be replaced with high efficient MP Rotator nozzles manufactured by Hunter Industries for water conservation.

P. Sprinklers – Athletic Fields

Inventory

The current athletic field irrigation systems consist of two (2) types of pop-up rotary sprinklers. The sprinkler heads include Rainbird 8005 series and Toro 2001 series. All existing sprinkler and spray heads are of current manufacture.

Evaluation

The current sprinkler spacing of (80'+) do not provide the most efficient distribution of water. The nozzle selection and operating pressure of these sprinklers are at the very end of the recommended range. This is because this sprinkler is the only one that could fit in the existing sprinkler locations installed in 1970. Large diameter sprinklers, by their nature, deliver a large volume of water over a large area - presenting undesirable heavy precipitation rates. The large diameter sprinklers, averaging 150' diameter or more, deliver water on the fields at rates that exceed some soil infiltration rates found on the athletic fields. This method of operation also applies a great deal of water to areas where it is least needed or wanted. In addition, large diameter sprinklers are more susceptible to wind.

Recommendations

The irrigation systems in the athletic fields should be replaced with properly spaced sprinklers and high efficient nozzles to provide a higher distribution of uniformity (DU), thus conserving water.

Q. Main Line Piping - Pressurized

Inventory

Main line piping of the irrigation system installed in 1970 appears to be steel and copper pipe. This pipe is buried at depths of (3') three feet or greater below finished grade.

All main line pipe installed at the Boor Sculpture Studio, Life Sciences, Science Library, University Hall, University Police, Artificial Turf Fields (Lacrosse & Field Hockey) and Empire Commons appears to be SDR 21 200 psi rated PVC pipe with solvent weld joints. SDR-21 PVC pipe with gasketed joints appears to be installed on the Artificial Turf Fields (Lacrosse & Field Hockey).

SDR-21 PVC pipe has also been installed whenever repairs were preformed on University Field,

Practice Athletic Fields, Intramural Fields and Baseball Field athletic field irrigation system.

Evaluation

The steel and copper piping installed in the 1970 system installation could not be evaluated. However, based on discussions with University of Albany maintenance staff, whenever the main lines are excavated they appear to be clean. The older main lines leak and it has proved extremely difficult to locate these leaks. Since the main line piping leaks the irrigation pumps cycle on and off constantly trying to maintain pressure in the lines. This cycling is a waste of energy and causes unnecessary wear on the irrigation pumps. The cycling has proved to be such a problem that a master valve was installed on the main line to solve the problem.

The PVC piping installed at the Boor Sculpture Studio, Life Sciences, Science Library, University Hall, University Police, Artificial Turf Fields (Lacrosse & Field Hockey) and Empire Commons appears to be in good condition.

Recommendations

The master valve installed on the 10" line from the irrigation pump is just a band-aid. The main line leaks should be repaired. If this is not possible a new irrigation main line should be installed utilizing High Density Polyethylene Piping (HDPE).

The PVC piping installed at the Boor Sculpture Studio, Life Sciences, Science Library, University Hall, University Police, Artificial Turf Fields (Lacrosse & Field Hockey) and Empire Commons is adequate.

R. Lateral Piping - Non Pressurized

Inventory

All lateral pipe found appears to be SDR 21 200 psi rated PVC pipe with solvent weld joints or 100 psi polyethylene pipe.

Evaluation

The PVC and polyethylene piping installed at the Boor Sculpture Studio, Life Sciences, Science Library, University Hall, University Police, Artificial Turf Fields (Lacrosse & Field Hockey) and Empire Commons appears to be in good condition.

The lateral piping installed at the University Field, Intramural Fields, Practice Fields and Baseball Fields appear to be a mix of copper and steel from the original 1970 system and PVC from repairs or modifications done over the years. The piping is also installed at depths greater than 18".

Recommendations

The PVC and polyethylene piping installed at the Boor Sculpture Studio, Life Sciences, Science Library, University Hall, University Police, Artificial Turf Fields (Lacrosse & Field Hockey) and Empire Commons is fine and just needs to be properly maintained. However, I would recommend the use of polyethylene pipe on any future landscape irrigation system and PVC on any Athletic Fields.

The piping installed at the University Field, Intramural Fields, Practice Fields and Baseball Fields is sufficient for now, however our recommendation is to have the irrigation systems at the University Field, Intramural Fields, Practice Fields and Baseball Fields replaced at which time all the lateral piping would be replaced.

S. Wiring

Inventory

Wire from the field controllers to the 24 volt automatic zone valves is UF (Underground Feeder) multi-cable designated as 'irrigation wire' with 600 volt rating and UL listing.

Evaluation

The 24V control wire has not provided any major maintenance problems. Splices used extensively throughout the system consist of wire nuts with silicone fill.

Recommendation

Multi-cable is acceptable, but would recommend using single strand commercial grade 14-1 control wire and 12-1 ground wire. All wire connections should use 3M Scotchlok DBY, moisture resistant connectors.

T. Summary

The existing irrigation system installed at University Field, Intramural Fields, Practice Fields and Baseball Fields is outdated and inefficiently designed. The existing irrigation system installed at the Boor Sculpture Studio, Life Sciences, Science Library, University Hall, University Police, Artificial Turf Fields (Lacrosse & Field Hockey) and Empire Commons although functional should each be audited for water conservation.

It is Northern Design's recommendation to include the following:

1. Create a campus wide set of irrigation standards and guidelines.

- 2. Repair existing irrigation main lines or replace with High Density Polyethylene piping.
- 3. Hydraulic analysis of existing main line piping distribution to see if it will accommodate possible future irrigation systems, changes required for existing pipe sizes and to determine pumping requirements for a possible master irrigation plan.
- 4. Install new pump station with a higher efficiency. Pump stations today are more efficient and can be connected to the central control system and monitored by central control system.
- 5. Install irrigation central control system for entire campus. Install flow meters and moisture sensors on individual irrigation systems and connect to central control.
- 6. Replace existing irrigation controllers with controllers compatible with new central control system.
- 7. Install new automatic irrigation system on lower practice fields and baseball fields.
- 8. Install new automatic irrigation system on Intramural fields and softball fields.
- 9. Install new automatic irrigation system on University Field.
- 10. Connect existing potable water irrigation (Boor Sculpture Studio, Life Sciences, Science Library, University Hall and University Police) systems to lake water supply.
- 11. Install weather station. Weather station could be installed with central control system, but if money is not available this item could wait while other more important items are completed.
- 12. Perform a water audit on existing irrigation systems. A water audit is a site specific micro-level evaluation of an irrigation system. This audit reviews sprinkler type, nozzle size, sprinkler spacing and sprinkler system uniformity, all which when combined provide the end user with a complete profile of the irrigation system and how a more efficient use of water could be achieved.