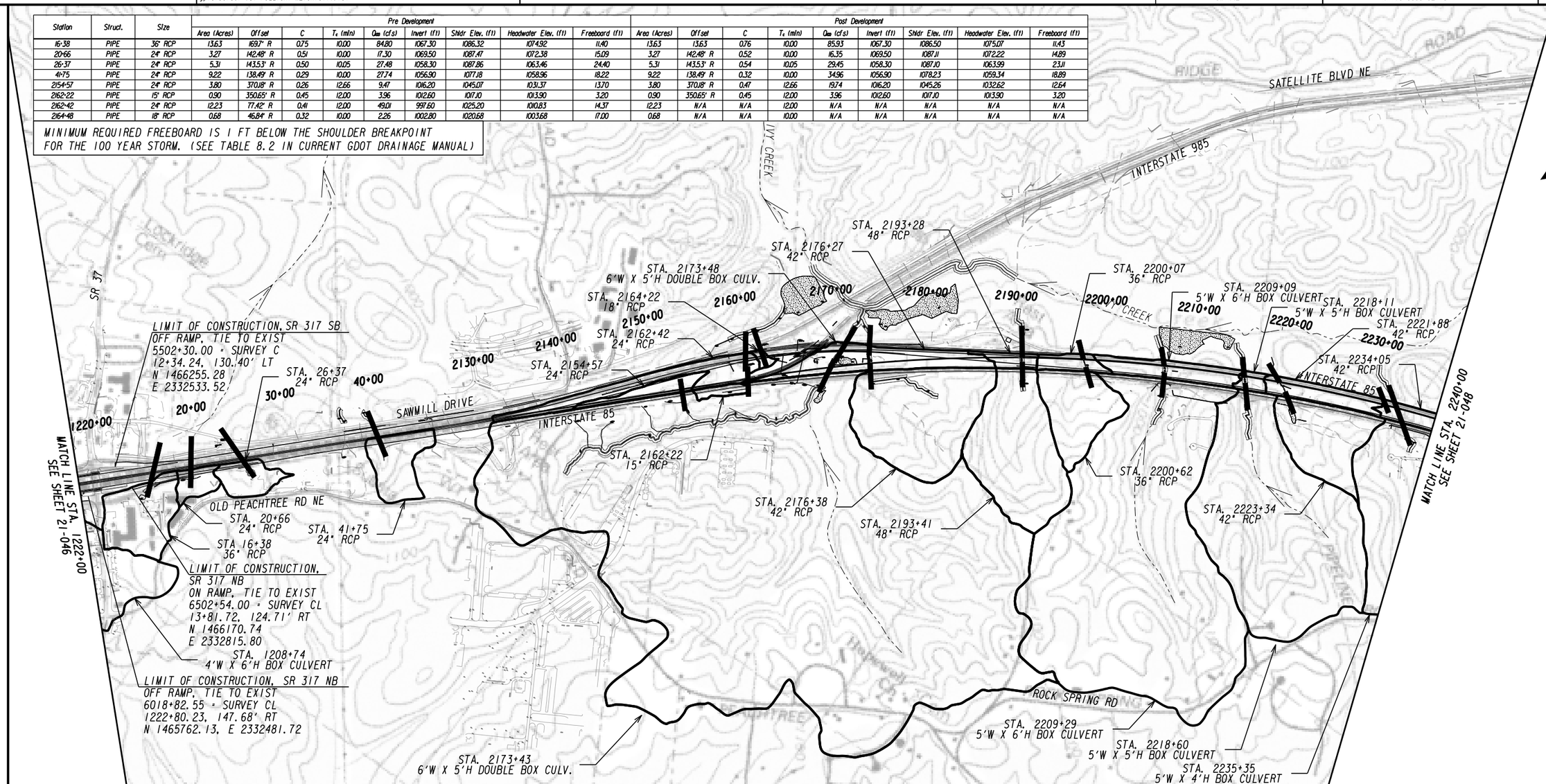
Station	Struct.	Size	Pre Development Area (Acres)	Offset	C	T_c (min)	Q_{100} (cfs)	Invert (ft)	Shldr Elev. (ft)	Headwater Elev. (ft)	Freeboard (ft)	Post Development Area (Acres)	Offset	C	T_c (min)	Q_{100} (cfs)	Invert (ft)	Shldr Elev. (ft)	Headwater Elev. (ft)	Freeboard (ft)
16+38	PIPE	36" RCP	13.63	169.7' R	0.75	10.00	84.80	1067.30	1086.32	1074.92	11.40	13.63	13.63	0.76	10.00	85.93	1067.30	1086.50	1075.07	11.43
20+66	PIPE	24" RCP	3.27	142.48' R	0.51	10.00	17.30	1069.50	1087.47	1072.38	15.09	3.27	142.48' R	0.52	10.00	16.35	1069.50	1087.11	1072.22	14.89
26+37	PIPE	24" RCP	5.31	143.53' R	0.50	10.05	27.48	1058.30	1087.86	1063.46	24.40	5.31	143.53' R	0.54	10.05	29.45	1058.30	1087.10	1063.99	23.11
41+75	PIPE	24" RCP	9.22	138.49' R	0.29	10.00	27.74	1056.90	1077.18	1058.96	18.22	9.22	138.49' R	0.32	10.00	34.96	1056.90	1078.23	1059.34	18.89
2154+57	PIPE	24" RCP	3.80	370.18' R	0.26	12.66	9.47	1016.20	1045.07	1031.37	13.70	3.80	370.18' R	0.47	12.66	19.74	1016.20	1045.26	1032.62	12.64
2162+22	PIPE	15" RCP	0.90	350.65' R	0.45	12.00	3.96	1012.60	1017.10	1013.90	3.20	0.90	350.65' R	0.45	12.00	3.96	1012.60	1017.10	1013.90	3.20
2162+42	PIPE	24" RCP	12.23	77.42' R	0.41	12.00	49.01	997.60	1025.20	1010.83	14.37	12.23	N/A	N/A	12.00	N/A	N/A	N/A	N/A	N/A
2164+48	PIPE	18" RCP	0.68	46.84' R	0.32	10.00	2.26	1002.80	1020.68	1003.68	17.00	0.68	N/A	N/A	10.00	N/A	N/A	N/A	N/A	N/A

MINIMUM REQUIRED FREEBOARD IS 1 FT BELOW THE SHOULDER BREAKPOINT FOR THE 100 YEAR STORM. (SEE TABLE 8.2 IN CURRENT GDOT DRAINAGE MANUAL)



Station	Struct.	Size	Pre Development Area (Acres)	Offset	C	T_c (min)	Q_{100} (cfs)	Invert (ft)	Shldr Elev. (ft)	Headwater Elev. (ft)	Freeboard (ft)	Post Development Area (Acres)	Offset	C	T_c (min)	Q_{100} (cfs)	Invert (ft)	Shldr Elev. (ft)	Headwater Elev. (ft)	Freeboard (ft)
2173+43	BOX CULV.	6'W X 5'H (2)	448.00	396.47' R	N/A	N/A	635.00	960.50	993.86	974.81	19.05	448.00	396.47' R	N/A	N/A	635.00	960.50	983.24	970.63	12.61
2173+48	BOX CULV.	6'W X 5'H (2)	448.00	76.17' R	N/A	N/A	635.00	957.90	1006.25	971.21	35.04	448.00	168.75' R	N/A	N/A	635.00	958.80	1009.36	967.03	42.33
2176+27	PIPE	42" RCP	41.10	89.41' R	0.20	18.54	67.92	962.30	1008.93	966.98	41.95	41.10	N/A	N/A	18.54	N/A	N/A	N/A	N/A	N/A
2176+38	PIPE	42" RCP	34.65	171.06' R	0.19	18.54	54.40	978.80	1000.93	982.73	18.20	34.65	171.06	0.19	18.54	54.40	978.80	1000.93	982.63	18.30
2193+28	PIPE	48" RCP	34.57	47.86' R	0.17	13.32	55.32	990.80	1012.59	994.10	18.49	34.57	N/A	N/A	13.32	N/A	N/A	N/A	N/A	N/A
2193+41	PIIPE	48" RCP	32.39	275.95' R	0.16	13.32	48.78	1001.10	1025.49	1004.12	21.37	32.39	275.95' R	0.16	13.32	48.78	1001.10	1025.49	1004.13	21.36
2200+07	PIPE	36" RCP	18.17	34.46' R	0.24	10.38	44.70	986.30	999.35	989.82	9.53	18.17	67.29' R	0.26	10.38	48.42	987.93	997.19	991.15	6.04
2200+62	PIPE	36" RCP	15.22	253.92' R	0.22	10.38	34.32	998.60	1012.73	1001.71	11.02	15.22	253.92' R	0.22	10.38	34.32	998.60	1011.92	1001.71	10.21
2209+09	BOX CULV.	5'W X 6'H	153.60	38.46' R	N/A	N/A	264.00	963.14	984.32	973.05	11.27	153.60	58.92' R	N/A	N/A	264.00	963.27	983.38	970.39	12.99
2209+29	BOX CULV.	5'W X 6'H	153.60	288.38' R	N/A	N/A	264.00	966.33	999.66	975.33	24.33	153.60	288.38' R	N/A	N/A	264.00	966.33	998.21	973.38	24.83
2218+11	BOX CULV.	5'W X 5'H	102.40	46.75' R	N/A	N/A	180.00	970.94	996.51	976.81	19.70	102.40	56.95' R	N/A	N/A	180.00	971.11	996.06	976.97	19.09
2218+60	BOX CULV.	5'W X 5'H	102.40	297.73' R	N/A	N/A	180.00	975.87	1009.81	981.73	28.08	102.40	297.73' R	N/A	N/A	180.00	975.87	1009.37	981.73	27.64
2221+88	PIPE	42" RCP	23.71	36.63' R	0.27	13.56	59.86	986.02	1002.75	989.84	12.91	23.71	73.11' R	0.31	13.56	68.72	987.76	1002.80	991.73	11.07
2223+34	PIPE	42" RCP	17.66	264.89' R	0.24	13.56	39.63	1000.75	1016.82	1003.83	12.99	17.66	264.89' R	0.24	13.56	39.63	1000.75	1016.73	1003.83	12.90
2234+05	PIPE	24" RCP	7.26	26.64' R	0.34	21.06	19.32	1015.79	1022.64	1018.60	4.04	7.26	61.12' R	0.49	21.06	27.84	1017.00	1023.02	1019.61	3.41
2235+35	BOX CULV.	5'W X 4'H	40.48	312.79' R	N/A	N/A	100.00	989.25	1035.80	992.81	42.99	40.48	312.79' R	N/A	N/A	100.00	989.25	1035.80	992.81	42.99

PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
R/W AND LIMIT OF ACCESS
EXISTING R/W LINE
OBLITERATE & REMOVE PAVEMENT & GRADE TO DRAIN

ARCADIS Design & Consultancy for natural and built assets

SCALE IN FEET
0 600 1200 2400

RELEASE FOR CONSTRUCTION 07/27/2016

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE DELIVERY

DRAINAGE AREA MAP

PROJECT: I-85 NORTH EXPRESS LANE EXTENSION
COUNTY: GWINNETT

DRAWING No. 21-047

12/14/2012 GPLN