

INLET DESIGN CALCULATIONS			PROJECT NAME <u>CARUTH LAKE, PHASE 6</u>										BY <u>N.K.</u>			
			LINE NAME <u>N/A</u>										DATE <u>7/7/03</u>			
No.	Inlet Location/Comments	Design Storm Frequency (yrs.)	AREA RUNOFF Q = CIA					Carry-Over From Upstream Inlet (c.f.s.)	Total Gutter Flow (c.f.s.)	Gutter Capacity (c.f.s.)	Gutter Slope (%)	Crown Type	SELECTED INLET			Carry-Over To Downstream Inlet (c.f.s.)
			Time of Conc. (min.)	Intensity I (in./hr.)	Runoff Coeff. "C"	Area (ac.)	"Q" (c.f.s.)						Length "L" (Feet)	Inlet Capacity (c.f.s.)	Type	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1A	STA. 0+61.97 HIDDEN LAKES WAY (14.5' RT.)	100	10	9.8	0.50	1.90	9.31	0	7.50	9.41	0.60	6" PARABOLIC	10	7.50	C.I.	1.81
1B	STA. 2+28.77 HIDDEN LAKES WAY (14.5' LT.)	100	10	9.8	0.50	1.84	9.02	0	9.02	17.17	2.00	6" PARABOLIC	15	10.80	C.I.	0
1C	STA. 7+85.00 ALLEY "5" (6.5' LT.)	100	10	9.8	0.50	2.41	11.81	0	11.81	-	SAG	5" INVERT	10	21.00	C.I.	0
1D	STA. 6+13.00 HIDDEN LAKES WAY (14.5' RT.)	100	10	9.8	0.50	1.45	7.11	0	7.11	9.41	0.60	6" PARABOLIC	10	7.50	C.I.	0
1E	STA. 0+51.00 BLUE BROOK DRIVE (14.5' RT.)	100	10	9.8	0.50	1.07	5.24	0	5.24	21.24	3.06	6" PARABOLIC	10	6.00	C.I.	0
1F	STA. 8+02.70 ALLEY "2" (6.5' LT.)	100	10	9.8	0.50	0.77	3.77	0	3.77	15.62	4.40	5" INVERT	10	4.90	C.I.	0
1G	STA. 8+00 HIDDEN LAKES WAY (14.5' LT.)	100	10	9.8	0.50	1.25	6.13	0	6.13	9.41	0.60	6" PARABOLIC	15	10.30	C.I.	0
1H	STA. 10+21.30 ALLEY "1" (6.5' LT.)	100	10	9.8	0.50	0.99	4.85	0	4.85	8.23	1.22	5" INVERT	10	5.60	C.I.	0
1J	STA. 0+51.36 ALLEY "7" (6.5' RT.)	100	10	9.8	0.50	0.64	3.14	0	3.14	17.94	5.80	5" INVERT	10	4.80	C.I.	0
1K	STA. 3+21.98 BAY LINE DRIVE (14.5' LT.)	100	10	9.8	0.50	1.10	5.39	0	5.39	-	SAG	6" PARABOLIC	5	12.80	C.I.	0
1L	STA. 3+33.58 BAY LINE DRIVE (14.5' RT.)	100	10	9.8	0.50	2.04	10.00	0	10.00	-	SAG	6" PARABOLIC	5	12.80	C.I.	0
1M	STA. 7+87.07 ALLEY "8" (6.5' RT.)	100	10	9.8	0.50	1.06	5.19	0	5.19	8.49	1.30	5" INVERT	10	5.60	-	0
1N	STA. 16+04.78 WHITE WATER LANE (14.5' RT.)	100	10	9.8	0.50	1.36	6.66	0	6.66	10.86	0.80	6" PARABOLIC	10	7.50	C.I.	0
1P	STA. 16+04.78 WHITE WATER LANE (14.5' LT.)	100	10	9.8	0.50	0.68	3.33	0	3.33	10.86	0.80	6" PARABOLIC	10	7.50	C.I.	0
1Q	STA. 4+51.06 ALLEY "7" (6.00' LT.)	100	10	9.8	0.50	0.11	0.54	0	0.54	-	SAG	5" INVERT	5	12.80	C.I.	0
2A	STA. 4+64.00 WATERSEDGE DRIVE (14.5' LT.)	100	10	9.8	0.50	0.67	3.28	0	3.28	-	SAG	6" PARABOLIC	5	12.80	C.I.	0
2B	STA. 4+64.00 WATERSEDGE DRIVE (14.5' RT.)	100	10	9.8	0.50	1.82	8.92	1.81	10.73	-	SAG	6" PARABOLIC	5	12.80	C.I.	0
3A	STA. 0+48.89 ALLEY "5" (6.5' RT.)	100	10	9.8	0.50	0.25	1.22	0	1.22	14.13	3.60	5" INVERT	5	2.25	C.I.	0
3B	STA. 1+69.35 WATERSEDGE DRIVE (14.5' RT.)	100	10	9.8	0.50	1.86	9.11	0	9.11	14.11	1.35	6" PARABOLIC	15	9.30	C.I.	0
4A	STA. 0+40.24 ALLEY "6" (6.5' RT.)	100	10	9.8	0.50	0.84	4.12	0	4.12	13.53	3.30	5" INVERT	10	5.00	C.I.	0
4B	STA. 0+81.28 ALLEY "4" (6.5' LT.)	100	10	9.8	0.50	1.41	6.91	0	6.91	10.79	2.10	5" INVERT	15	8.80	C.I.	0
5A	STA. 12+37.94 WATERSEDGE DRIVE (14.5' LT.)	100	10	9.8	0.50	0.45	2.21	0	2.21	-	SAG	6" PARABOLIC	5	12.80	C.I.	0
5B	STA. 12+37.94 WATERSEDGE DRIVE (14.5' RT.)	100	10	9.8	0.50	2.95	14.46	0	14.46	-	SAG	6" PARABOLIC	10	25.00	C.I.	0
5C	STA. 7+80.00 ALLEY "6" (6.5' LT.)	100	10	9.8	0.50	1.53	7.50	0	7.50	-	SAG	5" INVERT	5	10.5	C.I.	0
6A	STA. 0+38.53 HIGHBLUFF LANE (14.5' LT.)	100	10	9.8	0.50	0.37	1.81	0	1.81	21.54	2.82	6" PARABOLIC	5	2.60	C.I.	0
6B	STA. 0+64.76 HIGHBLUFF LANE (14.5' RT.)	100	10	9.8	0.50	1.65	8.09	0	8.09	21.54	2.82	6" PARABOLIC	15	9.90	C.I.	0
7A	STA. 6+84.21 HAMPTON BAY DRIVE (14.5' LT.)	100	10	9.8	0.50	0.43	2.11	0	2.11	9.41	0.60	6" PARABOLIC	5	3.10	C.I.	0
7B	STA. 6+61.13 HAMPTON BAY DRIVE (14.5' RT.)	100	10	9.8	0.50	2.37	11.61	0	11.61	9.41	0.60	6" PARABOLIC	15	13.00	C.I.	0
7C	STA. 0+47.71 ALLEY "2" (6.5' RT.)	100	10	9.8	0.90	0.72	3.53	0	3.53	15.08	4.10	5" INVERT	10	5.00	C.I.	0
8A	STA. 4+07.50 SHADY LANE DRIVE (14.5' LT.)	100	10	9.8	0.50	0.42	2.06	0	2.06	-	SAG	6" PARABOLIC	5	12.80	C.I.	0
8B	STA. 4+07.50 SHADY LANE DRIVE (14.5' RT.)	100	10	9.8	0.50	1.31	6.42	0	6.42	-	SAG	6" PARABOLIC	5	12.80	C.I.	0
8C	STA. 14+29.12 ALLEY "6" (6.5' LT.)	100	10	9.8	0.50	2.94	14.40	0	14.40	-	SAG	6" PARABOLIC	15	37.50	C.I.	0
8D	STA. 10+75.93 HAMPTON BAY DRIVE (14.5' LT.)	100	10	9.8	0.50	0.38	1.86	0	1.86	-	SAG	6" PARABOLIC	5	12.80	C.I.	0
8E	STA. 10+75.93 HAMPTON BAY DRIVE (14.5' RT.)	100	10	9.8	0.50	1.33	6.52	2.76	9.28	-	SAG	6" PARABOLIC	5	12.80	C.I.	0
8F	STA. 3+00 ALLEY "1" (6.5' RT.)	100	10	9.8	0.90	2.32	11.36	0	11.36	12.06	2.62	5" INVERT	15	8.60	C.I.	2.76
9A	STA. 16+26.76 BAY LINE DRIVE (14.5' LT.)	100	10	9.8	0.50	1.70	8.33	0	8.33	16.52	1.85	6" PARABOLIC	15	10.20	C.I.	0
9B	STA. 16+26.76 BAY LINE DRIVE (14.5' RT.)	100	10	9.8	0.50	1.06	5.19	0	5.19	16.52	1.85	6" PARABOLIC	10	6.30	C.I.	0
9C	STA. 12+20 BAY LINE DRIVE (14.5' RT.)	100	10	9.8	0.50	1.85	9.07	0	9.07	24.29	4.00	6" PARABOLIC	15	9.80	C.I.	0
9D	FROM FUTURE PHASE (DEVELOPED)	100	10	9.8	0.50	11.62	56.94	-	56.94	-	-	-	-	-	-	-
10A	FROM FUTURE PHASE (DEVELOPED)	100	10	9.8	0.50	1.32	6.46	-	6.46	-	-	-	-	-	-	-

- 100-YR DESIGN FREQUENCY SHALL NOT EXCEED A DEPTH OF 1 1/2" OVER TOP OF CURB IN STREET.
- 100-YR DESIGN FREQUENCY SHALL NOT EXCEED THE CAPACITY OF ALLEY PAVEMENT.
- OFF-SITE DRAINAGE TRIBUTARY (DEVELOPED)

4. PONDING DEPTH OF CURB INLET AT LOW POINT ON STREET IS 0.62'
5. PONDING DEPTH OF CURB INLET AT LOW POINT ON ALLEY IS 0.50'

BENCHMARK:
"X" CHISELED IN C. OF ALLEY EAST OF MORNINGSTAR DRIVE WITHIN 3RD LOT NORTH OF MIDNIGHT PASS. ELEV. 513.26

BENCHMARK:
PK NAIL IN C. OF CARUTH LANE & ALLEY INTERSECTION 150'± EAST OF MORNINGSTAR DRIVE. ELEV. 491.68

THESE CONSTRUCTION PLANS WERE PREPARED UNDER THE RESPONSIBLE SUPERVISION OF MD. NAIM UDDIN KHAN, REGISTERED PROFESSIONAL ENGINEER NO. 87776

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY MD. NAIM UDDIN KHAN, # 87776

REVISION
NO. DATE

REVISED DRAINAGE CALCULATIONS
9/10/04

APPROV
N.K.

Scale : 1"=100' Date : 3-24-04

Designed By : NK

Drawn By : MS

Checked By : NK

File : I46546NDAM.DWG

Project No. : I4654.01

M.B. JONES SURVEY, ABSTRACT NO. 122
CITY OF ROCKWALL
ROCKWALL COUNTY, TEXAS
LUMBERMEN'S INVESTMENT CORPORATION
5495 BELTLINE ROAD, #225
DALLAS, TEXAS 75240

**DRAINAGE CALCULATIONS
PHASE 6**

SHEET
3
OF
57