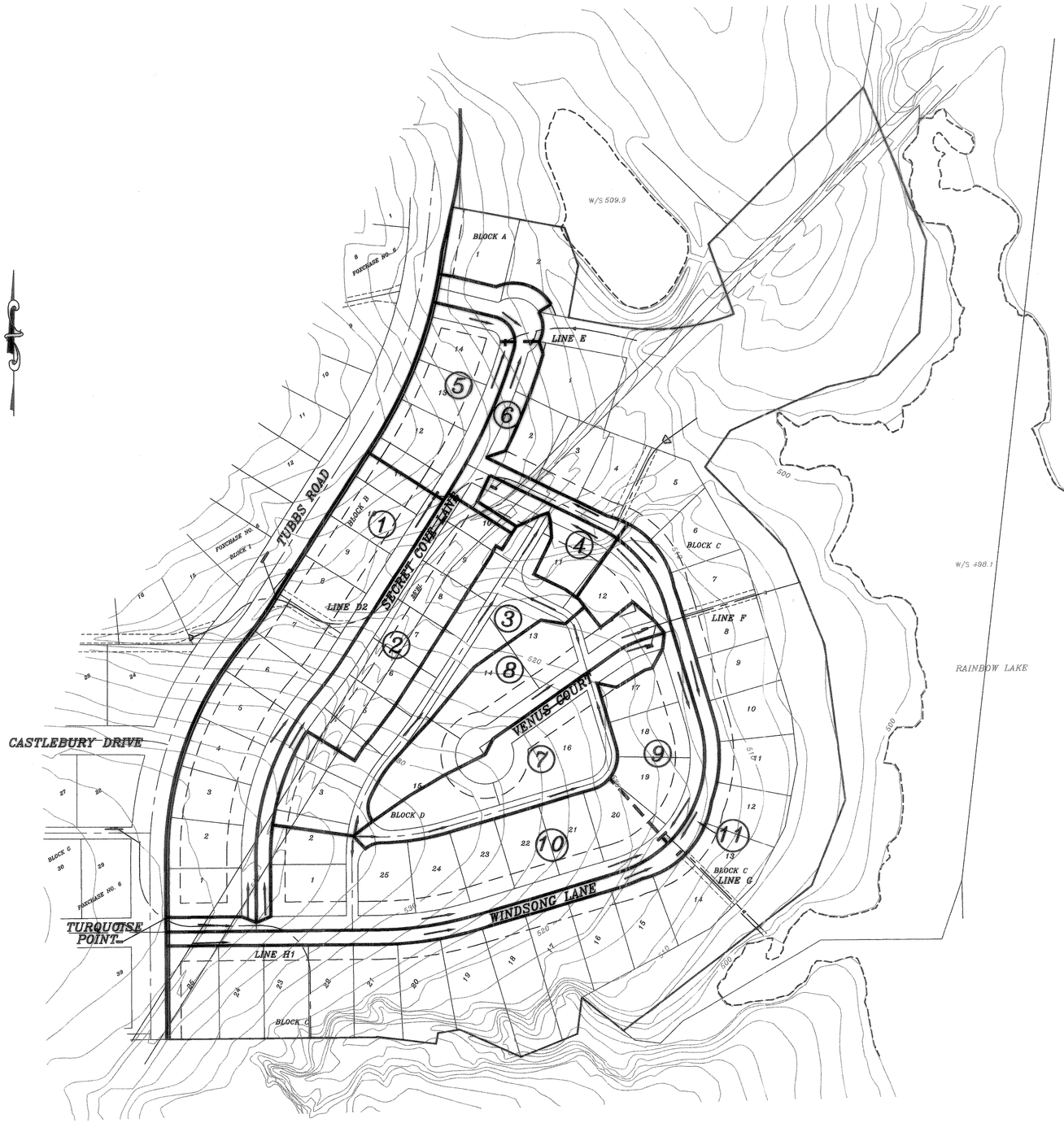

DRAINAGE TABLE

DRAINAGE AREA NO.	ACRES	T.C.	C	I 100 YR.	Q 100 YR.	SUM Q 100 YR.
LINE D2						
OFFSITE		10 MIN.	0.5	9.8		117.99
1	3.03	"	"	"	14.85	
2	1.52	"	"	"	7.45	140.29
3	1.54	"	"	"	7.55	
4	0.40	"	"	"	1.96	149.80
LINE E						
5	1.09	"	"	"	5.34	
6	0.79	"	"	"	3.87	9.21
LINE F						
7	1.38	"	"	"	6.76	
8	1.22	"	"	"	5.98	12.74
LINE C						
9	1.27	"	"	"	6.22	
10	2.35	"	"	"	11.52	
11	0.91	"	"	"	4.46	22.20
LINE H1						
10	1.05	"	"	"	5.15	
11	1.50	"	"	"	7.35	12.45

STORM SEWER CALCULATIONS

PROJECT NAME: RAINBOW LAKE ESTATES
LINE NAME: D2, E, F, G, AND H1
BY: Harold L. Evans
Date: 11/7/99

RUN OFF COLLECTION POINT (INLET OR MANHOLE) UPSTREAM STATION	RUN OFF COLLECTION POINT (INLET OR MANHOLE) DWNTREAM STATION	DISTANCE BETWEEN COLLECTION POINTS FT.	INCREMENTAL DRAINAGE AREA: AREA NO.	DRAINAGE AREA "A" (ACRES)	RUNOFF COEF. "C"	INCREMENTAL	ACCUMULATED "CA"	TIME AT UPSTREAM STATION (min.)	STORM FREQUENCY (years)	INTENSITY "I" (in./hr.)	STORM WATER RUNOFF "Q" (c.f.s.)	SLOPE OF HYDRAULIC GRADIENT (ft./ft.)	SELECTED STORM SIZE	VELOCITY OF SEWER BETWEEN COLLECTION POINTS "V" (f.p.s.)	HEAD LOSS COEFFICIENT Kj	VELOCITY HEAD LOSS AT UPSTREAM STATION $Kj\frac{V^1}{2g}$	FLOW TIME IN SEWER $\frac{\text{DISTANCE}}{V \times 60}$ (feet)	TIME AT DOWNSTREAM STATION (min.)	REMARKS
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
11+43	9+67	176	OFFSITE & 6	24.08	0.50	24.08	12.04	10.0	100	9.80	117.99	0.0145	42"	10.69	0.25	0.04	0.27	10.27	
9+67	5+59	408	1 & 2	4.55	"	2.275	14.315	10.30	"	9.75	139.57	0.00959	48"	11.20	0.50	0.09	0.61	10.88	
5+59	4+56	103	3 & 4	1.94	"	0.97	15.285	10.90	"	9.60	146.74	0.00435	57"	8.45	0.25	0.03	0.20	11.08	

BY: HAROLD L. EVANS
DATE: 11/7/99
CK'D.: _____
DATE: _____

$a = 0.58$
$n = 0.016$

CITY OF ROCKWALL, TEXAS
COMPUTATION SHEET FOR DETERMINING CAPACITY OF CURB OPENING INLET

SHEET: 1 OF 1
STREET:
MAJOR WATERSHED: BUFFALO CREEK
JOB OR FILE NO.: 98111

INLET TYPE & NO.	INLET STATION	D.A. NO.	Qp C.F.S.	CARRY-OVER FLOW q C.F.S.	TOTAL FLOW Q C.F.S.	Z	Z/N	So FT./FT.	Yo FT.	PONDED WIDTH	$\frac{Q}{Lo}$ C.F.S./FT.	$Lo=\frac{Q}{Q/Lo}$ FT	L FT	$\frac{L}{Lo}$	$\frac{Q}{Qo}$ %	$Q=\frac{Q}{Qo}\times Qo$	CARRY-OVER FLOW q C.F.S.	REMARKS
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
D1-L	11+50	1	14.85	–	14.85	28	1750	0.005	0.56	15.8	1.21	12.3	15	1.2	100	14.85	–	
D2-R	8+38	2	7.40	–	7.45	"	"	0.005	0.44	12.2	1.07	6.9	15	1.4	"	7.40	–	
D3-4	7+65	3&4	9.51	–	9.51	"	"	0.0066	0.45	12.6	1.09	8.7	10	1.1	"	9.51	–	
E-5	14+80R	5	5.34	–	5.34	"	"	0.007	0.36	10.1	1.00	5.3	10	1.9	"	5.34	–	
E-6	14+80L	6	3.87	–	3.87	"	"	0.007	0.32	9.0	0.94	4.1	10	2.4	"	3.87	–	
F-7	20+41R	7	8.76	–	8.76	"	"	0.005	0.46	13.0	1.11	7.9	10	1.3	"	8.76	–	
F-8	10+41L	8	8.98	–	8.98	"	"	0.005	0.47	13.1	1.12	8.2	10	1.20	"	8.98	–	
G-9		9&10	17.74	–	17.74	"	"	0.007	0.44	12.3	1.07	16.6	20	1.2	"	17.74	–	
G-11		9&10	4.46	–	4.46	"	"	0.007	0.34	9.4	0.96	4.6	10	2.2	"	4.46	–	

AS BUILT

Record Drawing
6-21-05

STATE OF TEXAS
HAROLD L. EVANS
23155
REGISTERED PROFESSIONAL ENGINEER
4/00

REVISION DESCRIPTION	DATE
REV. STREET NAMES	4/8/00
REV. PER CITY REVIEW	11/7/99
98111DRH	

HAROLD L. EVANS
CONSULTING ENGINEER
P.O. BOX 28355
2331 GUS THOMASSON ROAD, SUITE 102
DALLAS, TEXAS 75228, (214) 328-8133

SCALE	DESIGN	DRAWN
1" = 100'	H.L.E.	

DRAINAGE AREA MAP
DRAINAGE AREA MAP
RAINBOW LAKE ESTATES
CITY OF ROCKWALL

SHEET NO. 8 / 15
JOB NO. 98111