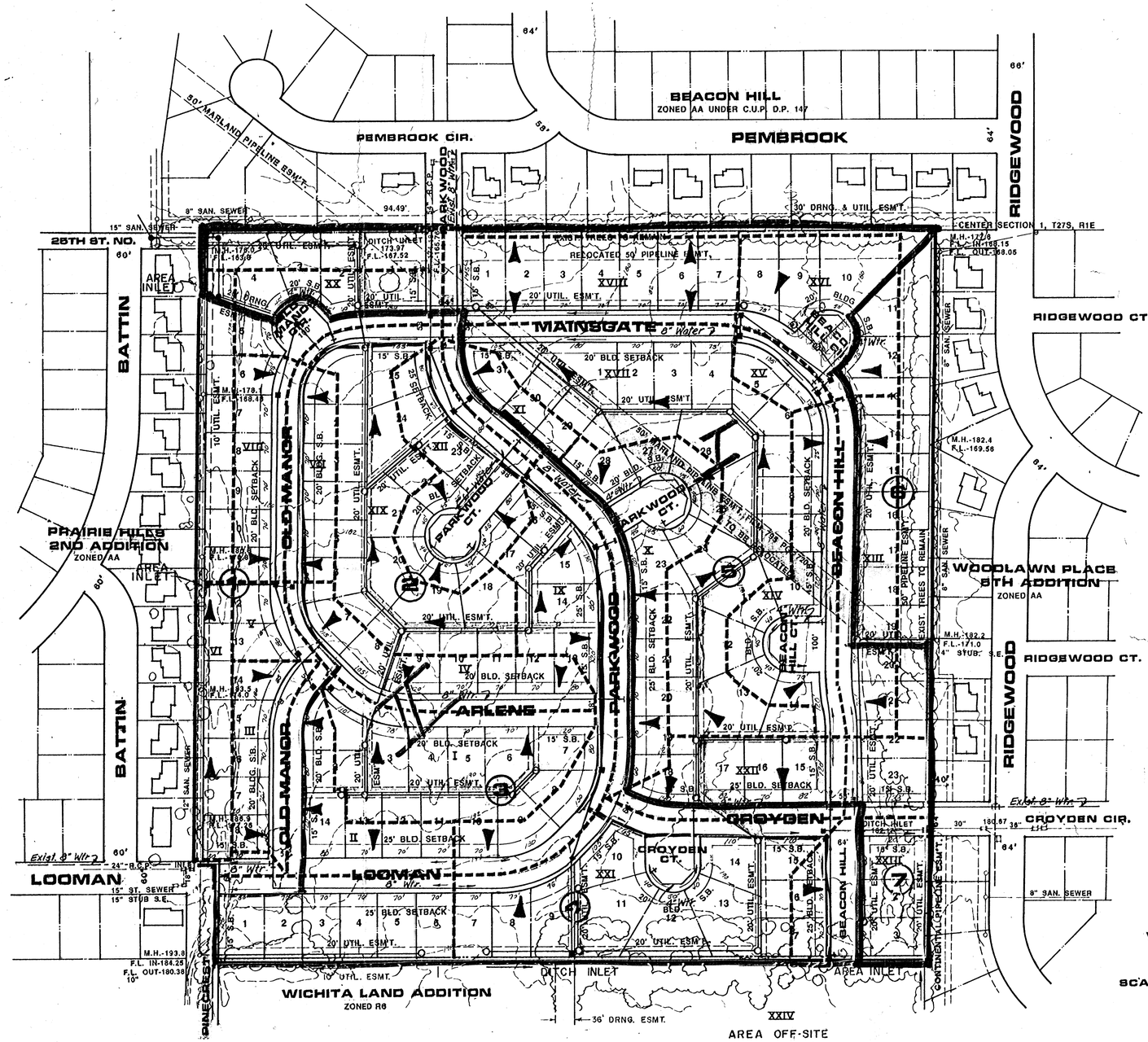
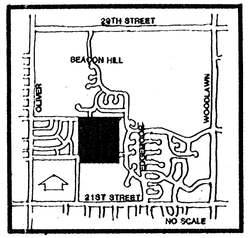


Beacon Village Drainage Area	AREA ACRES	AREA ACCUM.	C_2	C_{100}	T_c (min) 2	T_c (min) 100	I_2 (in/hr)	I_{100} (in/hr)	Q_2 (CFS)	Q_{100} (CFS)	Pipe Size	Pipe Slope	Inlets
AREA 'I'	2.11		0.48	0.62	17	15	3.61	7.37	3.7	9.6	15" RCP	0.50%	1L(I)+10'
AREA 'II'	1.31		0.60	0.72	19	15	3.42	7.37	2.7	7.0			1L(I)+10'
Sub Total		3.42	0.53	0.66	19	15	3.42	7.37	6.2	16.6	18" RCP	0.50%	
AREA 'III'	0.88		0.60	0.72	17	15	3.61	7.37	1.9	4.7			1L(I)+10'
Sub Total		4.30	0.54	0.67	19	15	3.42	7.37	7.9	21.2	18" RCP	0.60%	
AREA 'IV'	1.44		0.60	0.72	23	18	3.10	6.84	2.7	7.1	15" RCP	0.30%	1L(I)+10'
AREA 'V'	0.40		0.60	0.72	15	15	3.83	7.37	0.9	2.1			1L(I)+10'
AREA 'VI'	0.82		0.46	0.61	25	19	2.96	6.68	1.1	3.3			Area Inlet
Sub Total		6.96	0.55	0.68	26	20	2.90	6.53	11.1	30.9	21" RCP	0.60%	
AREA 'VII'	0.86		0.60	0.72	18	15	3.51	7.37	1.8	4.6			Sump Later
AREA 'VIII'	1.02		0.60	0.72	20	15	3.33	7.37	2.0	5.4			Sump Later
AREA 'X'	2.27		0.60	0.72	24	18	3.03	6.84	4.1	11.2	15" RCP	0.50%	1L(I)+10'
AREA 'IX'	2.17		0.57	0.69	20	16	3.33	7.18	4.1	10.8			1L(I)+10'
Sub Total		4.44	0.59	0.71	24	18	3.03	6.84	7.9	21.6	18" RCP	0.60%	
AREA 'XI'	0.56		0.60	0.72	16	15	3.72	7.37	1.2	3.0	15" RCP	0.50%	1L(I)+10'
AREA 'XII'	1.80		0.60	0.72	18	15	3.51	7.37	3.8	9.6			1L(I)+10'
Sub Total		6.80	0.59	0.71	25	19	2.96	6.68	11.9	32.3	24" RCP	0.50%	
AREA 'XIII'	1.71		0.60	0.72	28	22	2.78	6.26	2.9	7.7			1L(I)+10'
AREA 'XIV'	1.71		0.60	0.72	27	21	2.84	6.39	2.9	7.9	15" RCP	0.50%	1L(I)+10'
Sub Total		3.42	0.60	0.72	28	22	2.78	6.26	5.7	15.4	18" RCP	0.50%	
AREA 'XV'	0.40		0.60	0.72	15	15	3.83	7.37	0.9	2.1	15" RCP	0.50%	1L(I)+10'
AREA 'XVI'	1.72		0.57	0.69	21	17	3.25	7.00	3.2	8.3			1L(I)+10'
Sub Total		5.54	0.59	0.71	29	23	2.72	6.13	8.9	24.1	21" RCP	0.50%	
AREA 'XVII'	4.21		0.48	0.62	25	19	2.96	6.68	6.0	17.4			1L(I)+10'
AREA 'XVIII'	2.16		0.57	0.69	15	15	3.83	7.37	4.7	11.0			1L(I)+10'
Sub Total		11.91	0.55	0.67	30	24	2.67	6.01	17.5	48.0	27" RCP	0.50%	
AREA 'XIX'	2.46		0.46	0.61	36	28	2.39	5.59	2.7	8.4			
(AREA 'VIII' +)		(2.30)	(0.60)	(0.72)					2.0	5.4			
Sub Total		4.76	0.53	0.66	36	28	2.39	5.59	6.0	17.6	27" RCP	0.40%	1L(I)-10' Sump
(By-Pass)													
AREA 'XX'	1.18		0.60	0.72	20	15	3.33	7.37	2.4	6.3			
(AREA 'VII' +)		(6.54)	(0.54)	(0.67)					1.8	4.6			
Sub Total (By-Pass)		7.72	0.55	0.68	20	15	3.51	7.37	14.9	38.7			Sump 2L(I)+10' Sump
Total		12.48	0.54	0.67	36	28	2.39	5.59	16.1	46.7	36" RCP	0.50%	
AREA 'XXII'	1.27		0.57	0.69	22	17	3.17	7.00	2.3	6.1	15" RCP	0.50%	1L(I)+10'
AREA 'XXI'	3.42		0.54	0.67	27	21	2.84	6.39	5.2	14.6			1L(I)+10'
Sub Total		4.69	0.55	0.68	27	21	2.84	6.39	7.3	20.4	21" RCP	0.50%	
AREA 'XXIV' (Off-site)													
AREA 'XXIII'	1.91		0.57	0.69	18	15	3.72	7.37	4.1	9.7			1L(I)+10'



LOCATION MAP

DRAINAGE & UTILITY PLAN

BEACON VILLAGE

OWNER: LEEWOOD HOMES INC. 6130 LEGION, WICHITA, KANSAS

SAN. SEWER - Phase I & II

BILL G. YUNG DESIGN
4912 E. 29TH STREET NORTH, WICHITA, KS 67220
316-683-5667

date FEB. 26,1988
rev.

sheet title
PRELIMINARY PLAT

project
BEACON VILLAGE