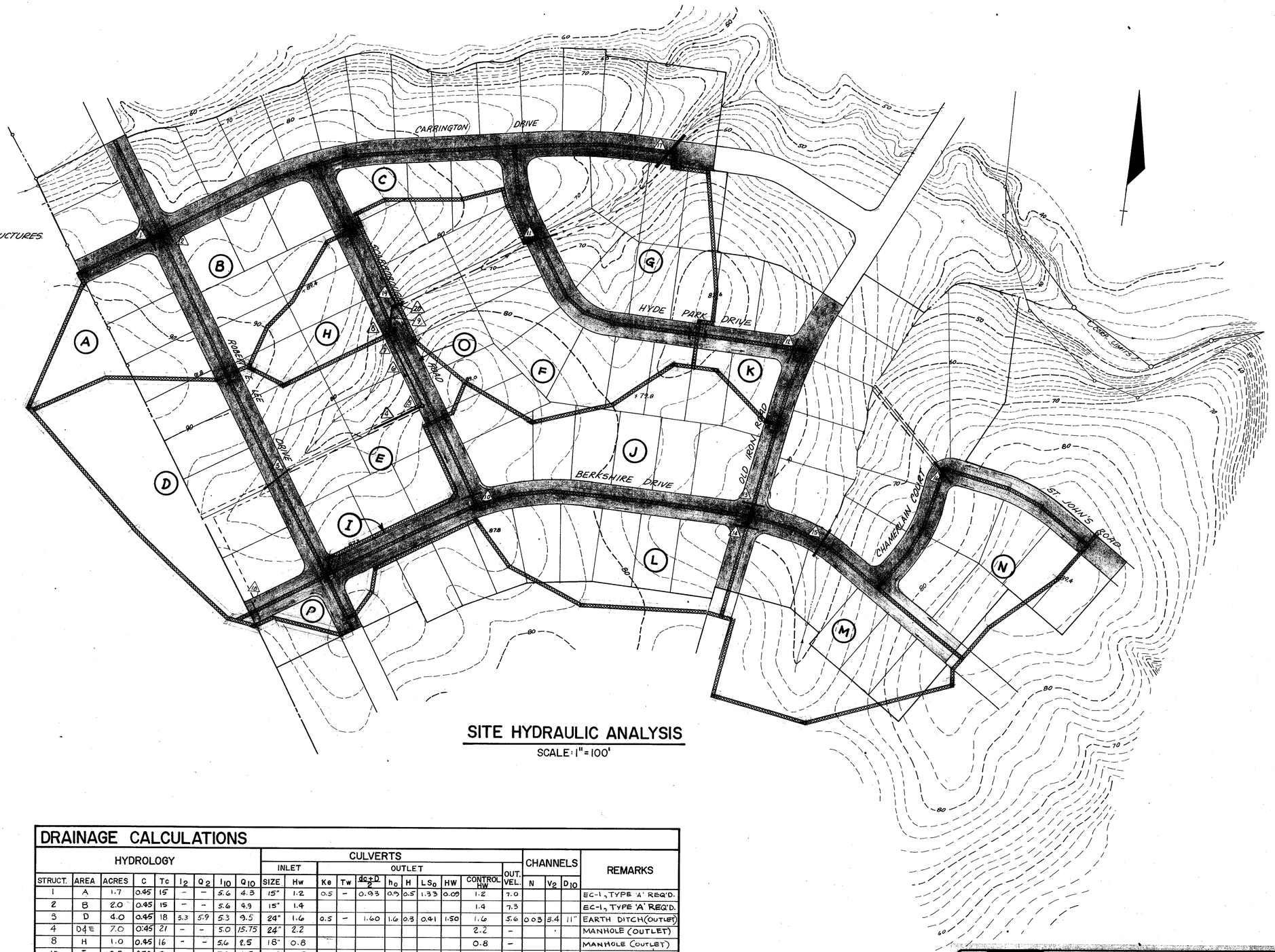
NOTE

1) LETTERS IN CIRCLES DENOTE DRAINAGE AREAS.
2) NUMBERS IN TRIANGLES DENOTE DRAINAGE STRUCTURES.



SITE HYDRAULIC ANALYSIS

SCALE: 1" = 100'

DRAINAGE CALCULATIONS

HYDROLOGY									CULVERTS											CHANNELS			REMARKS
									INLET		OUTLET												
STRUCT.	AREA	ACRES	C	Tc	I_2	Q_2	I_{10}	Q_{10}	SIZE	Hw	Ke	Tw	$\frac{dc+D}{2}$	h_o	H	LS_o	HW	CONTROL HW	OUT. VEL.	N	V_2	D_{10}	
1	A	1.7	0.45	15	–	–	5.6	4.3	15"	1.2	0.5	–	0.93	0.9	0.5	1.33	0.09	1.2	7.0				EC-1, TYPE 'A' REQ'D.
2	B	2.0	0.45	15	–	–	5.6	4.9	15"	1.4								1.4	7.3				EC-1, TYPE 'A' REQ'D.
3	D	4.0	0.45	18	5.3	5.9	5.3	9.5	24"	1.6	0.5	–	1.60	1.6	0.3	0.41	1.50	1.6	5.6	0.03	3.4	11"	EARTH DITCH (OUTLET)
4	D & E	7.0	0.45	21	–	–	5.0	15.75	24"	2.2								2.2	–				MANHOLE (OUTLET)
8	H	1.0	0.45	16	–	–	5.6	2.5	18"	0.8								0.8	–				MANHOLE (OUTLET)
10	I	0.3	0.70	2	–	–	7.2	1.5	15"	0.7								0.7	3.5				
11	D,E,F & H	13.2	0.45	23	3.0	17.8	4.9	28.9	30"	3.3								3.3	12	0.03	4.9	21"	EC-1, TYPE 'A' REQ'D
12	K	0.5	0.45	15	–	–	5.6	1.3	15"	0.6								0.6	5.7				
13	I & J	3.5	0.45	20	–	–	5.0	7.9	18"	1.7								1.7	7.5				EC-1, TYPE 'A' REQ'D.
14	L	2.7	0.45	18	–	–	5.2	6.3	18"	1.4								1.4	8.7				EC-1, TYPE 'A' REQ'D.
15	L & M	5.8	0.45	18	–	–	5.2	13.6	24"	2.0	0.5	–	1.65	1.7	0.5	0.47	1.7	2.0	6.5				EC-1, TYPE 'A' REQ'D.
16	N	1.8	0.45	10	2.8	3.2	4.9	4.0	15"	1.2								1.2	4.5	0.05	4.5	7"	JUTE MESH DITCH (OUT)
17	D-H	17.6	0.45	22	3.0	23.8	4.8	38.0	36"	3.2								3.2	12	0.03	6.5	14"	EC-1, TYPE 'A' REQ'D
18	P	0.3	0.45	18			5.2	0.7	15"	0.6								0.6	2.7				

L-E

Legat, Elrod & Associates, Inc.
Consulting Engineers/Surveyors
Hopewell, Virginia

Date: 27 JULY 1978
Scale: 1" = 50'
Drawn: DEH
Checked: MLE

Revisions

STRATFORD WOODS
SECTION 5
PRINCE GEORGE COUNTY, VIRGINIA

Proj. No. 7705-22

DRAINAGE ANALYSIS

Sheet 9 of 16