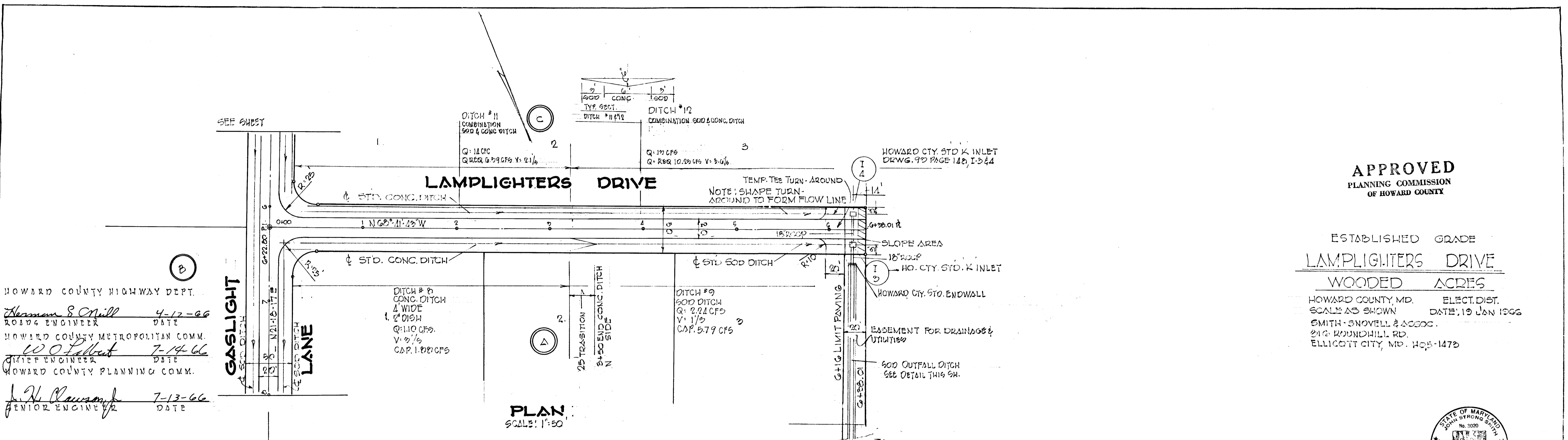






DATE	
BY	
PLAN	
SURVEYED	
PLOTTED	
NOTE BOOK	
NO.	

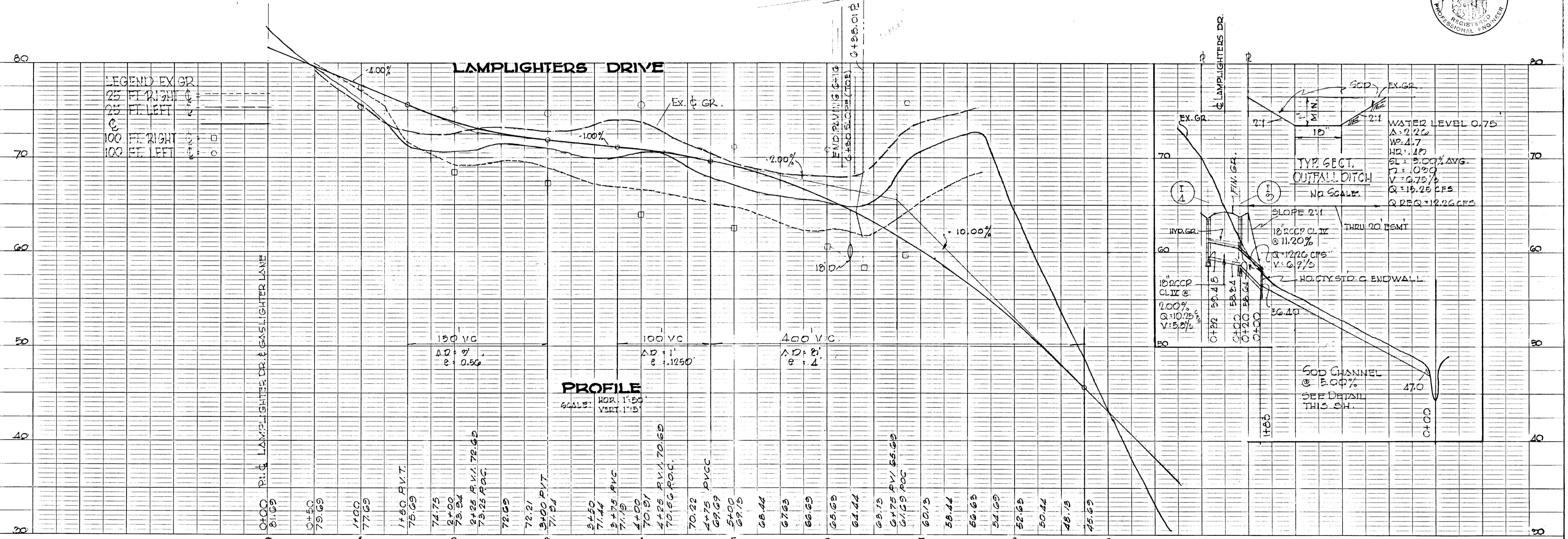
DATE	
BY	
PROFILE	
SURVEYED	
PLOTTED	
NOTE BOOK	
NO.	

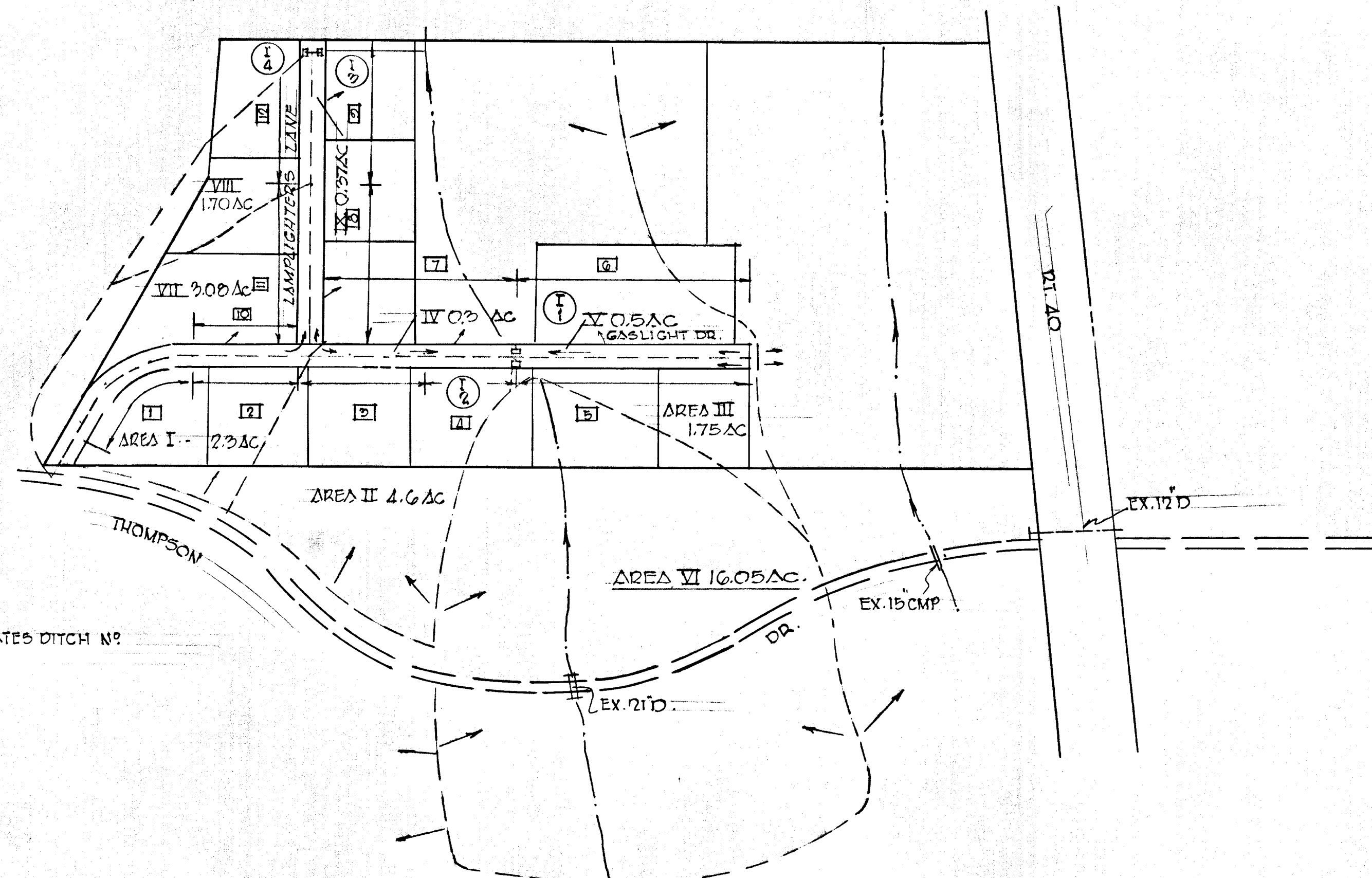


**APPROVED**  
PLANNING COMMISSION  
OF HOWARD COUNTY

ESTABLISHED GRADE  
**LAMPLIGHTERS DRIVE**  
WOODED ACRES

HOWARD COUNTY, MD. ELECT. DIST.  
SCALE AS SHOWN DATE: 19 JAN 1966  
SMITH-SNOVELL & ASSOC.  
212 ROUNDHILL RD.  
ELLICOTT CITY, MD. HQS-1478





DRAINAGE MAP  
SCALE: 1"=200'

DRAINAGE COMPUTATIONS															
AREA	ACRES		COEFF C	CA	ECA	TIME CONC - MIN.			INTEN I	Q - CIA C.F.S.	PIPE D. - 15' DIA			REMARKS	
	SUB	TOTAL				INLET	DRAIN	TOTAL			SIZE	SL.	V		LGTH.
I	2.30		.95	.81					0	6.1	4.94			SEE DITCH 1 & 2	
II	4.60		.90	1.28					9					" " 3 & 4	
I+II		6.90			2.19				0	6	13.14			" " 5	
III	1.75		.95	.61					8	6.1	2.72			" " 6	
I-III		8.65			2.80	9			9	6	16.80	21"	1.4	I-2	
IV	0.2		.90	.27					5	6.8	1.84			SEE DITCH 7	
V	0.5		.90	.45					5	6.8	3.40			" " 6	
IV+V		0.7			.72				5	6.8	4.90			I-1	
VI	16.05		.90	2.82					12	5.5	26.51	24"	1.7	8.4	
I-III+VI		24.70			7.62				12	5.5	41.91	30"	1.0	8.5	
I-VI		25.50			8.24				12	5.5	45.87	30"	1.2	9.3	
VII	3.02		.95	1.07					6.1	6.59				SEE DITCH 11	
VIII	1.70		.95	.60					6.1	7.66				SEE " 12	
I-4	I-3			4.72			1.02		0	6.1	10.25	18"	1.2	5.8	I-4
I-7	OUT	VII-IX		5.15			.93	5	0.8	2.24				I-3	
I-7	OUT	VII-IX		5.15			2.01	8	6.1	12.26	18"	1.8	6.9		

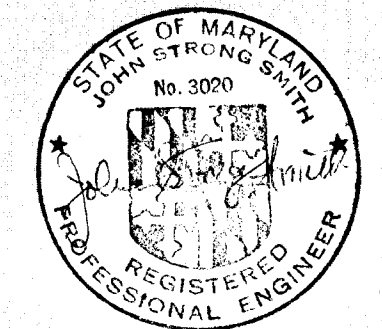
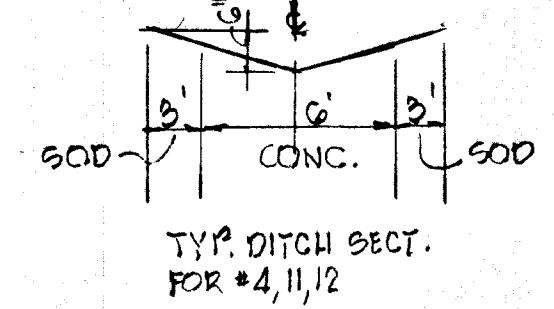
DITCH COMPUTATIONS BASED ON V: 1.86 r: 2/3 s: 1/2

DITCH # 1  
 A = 2.10  
 WP = 10.1  
 HR = .21  
 SL = 3.96  
 N = 0.30  
 V = 3.46 1/5  
 CAP = 7.27 CFS  
 REQUIRED 4.94 CFS  
 USE STD. SOD DITCH  
 DITCH # 2 & 3  
 A = 1  
 WP = 6  
 HR = .16  
 SL = 5.8%  
 N = .013  
 V = 2.26 1/5  
 Q = 8.26 CFS  
 REQ Q = 4.94 CFS  
 USE CONC. DITCH  
 6' WIDE  
 3' DISH  
 DITCH # 4  
 A = 3  
 WP = 12.4  
 HR = .24  
 SL = 2.00%  
 N = .019 COMPOSITE  
 V = 1.2 1/5  
 Q = 17. CFS  
 REQ Q = 13.14  
 USE CONC. DITCH & SOD DITCH  
 SEE THIS SH.

DITCH # 8  
 A = 0.34  
 WP = 4  
 HR = .09  
 SL = 6%  
 N = .013  
 V = 5.53  
 CAP = 1.88 CFS  
 REQ 1.10 CFS  
 USE CONC DITCH  
 4' WIDE  
 2' DISH  
 DITCH # 9  
 SL = 1.00%  
 V = 1.95 1/5  
 Q = 5.79 CFS  
 REQ 2.24 CFS  
 USE STD SOD  
 AFTER TRANSITION  
 DITCH # 10  
 SL = 5.8%  
 V = 5.5 1/5  
 Q = 1.92 CFS  
 REQ = NEG.  
 CONC DITCH 4' WIDE 2' DISH  
 DITCH # 11  
 SL = 6%  
 V = 1.7 1/5  
 Q = 1.1 CFS  
 REQ = 6.59 CFS  
 USE CONC. DITCH & SOD DITCH  
 SEE TYP. THIS SH.

DITCH # 5 & 6 & 7  
 SL = 2%  
 V = 2.73 1/5  
 Q = 8.19 CFS  
 REQ Q = 3.72 CFS (MAX)  
 USE STD. SOD DITCH

DITCH # 12  
 A = 2  
 WP = 12.4  
 HR = .24  
 SL = 2.00% AVG.  
 N = .019 COMPOSITE CONC & SOD DITCH  
 V = 1.2 1/5  
 Q = 19 CFS  
 REQ 10.25 CFS



DRAINAGE STUDY & COMPUTATIONS  
**WOODED ACRES**  
 HOWARD CO. MD. ELECT. DIST.  
 SCALE: AS SHOWN DATE:  
 SMITH & SNOVELL  
 316 ROUNDHILL RD.  
 ELLICOTT CITY, MD.