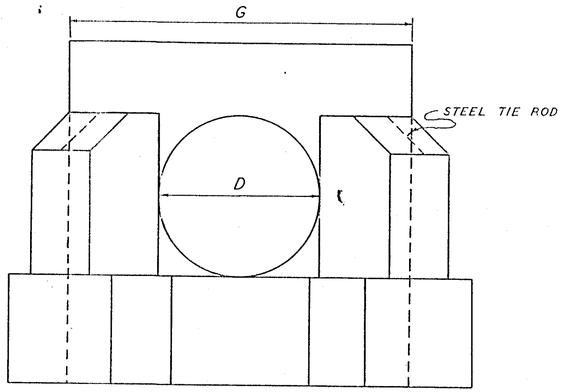
DRAINAGE DESIGN COMPUTATIONS

LINE SEGMENT	LENGTH OF DRAIN IN FEET	DRAIN AREA IN ACRES "A"	CONCENTRATION TIME IN MINUTES: OVERLAND FLOW TIME	DITCH FLOW TIME	TOTAL TIME	RUNOFF COEFFICIENT "C"	SUB AREA RAINFALL INTENSITY "I" IN/HR.	MAXIMUM RUNOFF Q=CIA C.F.S.: INCMT.	ACCMD.	SLOPE OF DRAIN FT/FT.	VELOCITY OF DRAIN FT/SEC.	DITCH OR PIPE SIZE	DITCH OR PIPE CAPACITY C.F.S.	REMARKS	ELEVATIONS: INLET INVERT	OUTLET INVERT	FALL FEET
DITCH "A" (MOST CRITICAL)	1300'	14	14	0	14	0.30	5.5	23.1	23.1	0.005	2	33 SQ FT	70	OK			
"B" LINE	35'	4	15	0	15	0.30	5.5	6.6	6.6	0.010	4.5	18"	8.1	OK	947.00	946.44	0.56

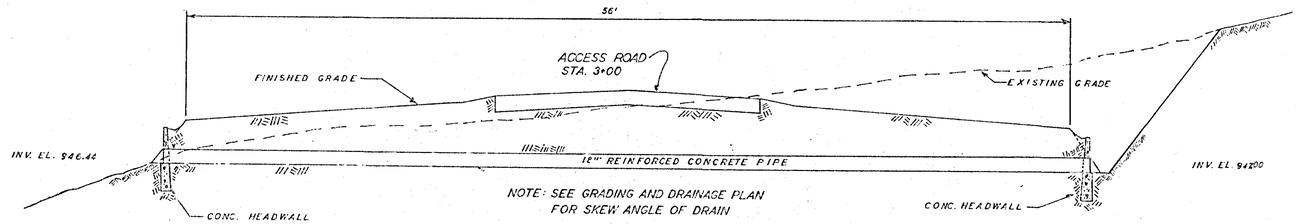
DRAINAGE DESIGN CRITERIA:

1. RAINFALL TO BE EXPECTED ONCE IN 25 YEARS = 2.90"
2. COEFFICIENTS OF RUNOFF = 0.30
3. DISCHARGE THROUGH DITCH BASED ON KUTTERS FORMULA AND N = 0.0225.
4. DISCHARGE THROUGH PIPE BASED ON MANNING FORMULA AND N = 0.015.
5. QUANTITY OF RUNOFF ESTIMATED BY THE RATIONAL FORMULA, Q = CIA.



FRONT ELEVATION

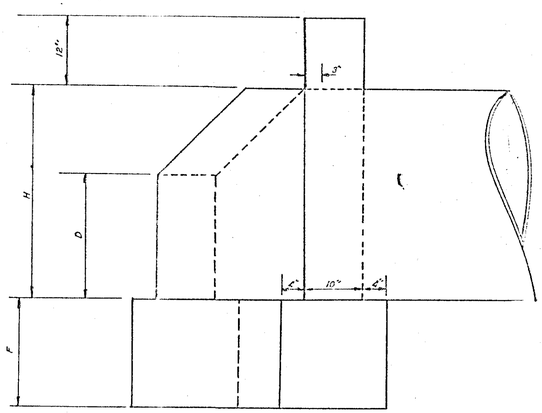
DEMENSIONS: OPENING D	AREA SQ. FT.	WALL N	G	L	FOOTING M'	F	QUANTITIES ONE ENDWALL WITH 45° WING WALL: CLASS "B" CONCRETE CUBIC FEET WALL	1-30'	TOTAL CU.FT.	CU.YD.	STEEL TIE RODS
1.8"	1.8	2'6"	3'10"	1'2"	1'7"	1'5"	9.3	10.7	20.0	0.74	NONE
2'4"	3.1	3'0"	4'4"	1'5"	2'1"	1'4"	13.1	14.2	27.5	1.02	2-3/4"Φ X 2'0"
3'0"	4.9	3'6"	4'10"	1'9"	2'5"	1'6"	17.4	18.8	36.7	1.34	2-3/4"Φ X 2'0"
3'6"	7.1	4'0"	5'4"	2'0"	2'11"	1'8"	22.6	24.6	47.2	1.75	2-3/4"Φ X 3'0"
4'2"	9.6	4'6"	5'10"	2'3"	3'6"	2'0"	29.1	34.5	63.7	2.36	2-3/4"Φ X 3'0"
4'8"	12.6	5'0"	6'4"	2'6"	4'0"	2'0"	35.9	39.1	75.0	2.78	2-3/4"Φ X 3'0"
6'4"	16.0	5'8"	6'10"	2'9"	4'8"Φ	2'0"	42.9	46.6	89.5	3.31	2-3/4"Φ X 3'0"
6'0"	19.6	6'0"	7'4"	3'0"	5'0"Φ	2'0"	51.8	51.1	102.9	3.81	2-3/4"Φ X 3'0"



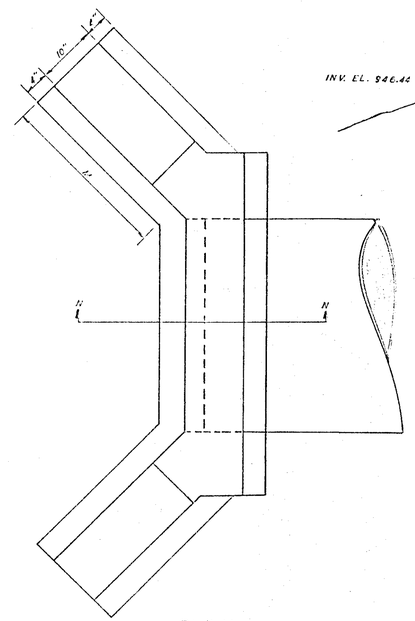
NOTE: SEE GRADING AND DRAINAGE PLAN FOR SKEW ANGLE OF DRAIN

TYPICAL DRAIN PIPE SECTION AT STA. 3+00 ON ACCESS ROAD

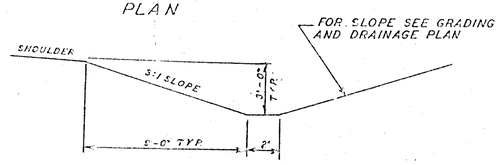
NO. SCALE



SECTION NN



PLAN



TYPICAL DITCH SECTION

SCALE: 1/4" = 1'-0"

REV.	BY	DATE	DESCRIPTION

POLK COUNTY, GEORGIA
FAAP PROJECT NO. 9-09-056 -01

DRAINAGE DETAILS

APPROVED:

DISTRICT AIRPORT ENGINEER — DATE

CONSULTING ENGINEER — DATE

OWNER — DATE

POLK COUNTY AIRPORT
CEDARTOWN GEORGIA

DRWN. BJM
CHKD. PJS/GHF
DATE MAY 5, 1965
SCALE AS SHOWN

HENSLEY-SCHMIDT, INC.
CONSULTING ENGINEERS
CHATTANOOGA, TENNESSEE
MARIETTA, GEORGIA

DRAWING NO. E-354.9