

WATER PERMIT NO. 1737-1

Name of Applicant: Harvey Malon

Address: 635 Westwind Dr., Rapid City 57702

Phone: 605 343-2349

Amount of Water Claimed: 165 acre-feet

Total Acres: NA

Source of Water Supply: runoff

Water to be used for: fish & wildlife propagation, livestock

County: Meade

Type of Waste Disposal System:

Location: 40 miles southwest of Faith

PRIORITY

Date Received: 9-18-2000

Fee: \$225

Corrected Application Received: :

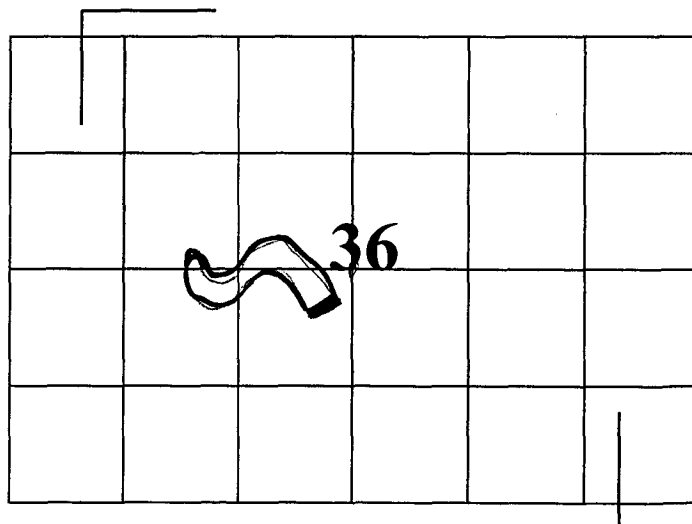
Period of Annual Use: January 1 – December 31

Remarks:

Diversion Point: NE SW
NW 1/4 SW 1/4 Sec 36-T7N-R14E

Water Impounded: S 1/2 NW 1/4, N 1/2 SW 1/4

Sec 36-T7N-R14E



Depth of Well: NA

Well Driller: : NA

Remarks:

Type of Map: plat

Prepared by: Thomas D VerHelst, NRCS

Reviewed and the Number Assigned on: 9-20-2000

By: Karen Schlaak

Notice of Hearing - date to intervene: _____

SOUTH DAKOTA
WATER PERMIT NO. 1737-1

Date of first receipt of application September 18, 2000.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 1737-1 to Harvey Malon, 635 Westwind Dr., Rapid City SD 57702 authorizing the construction of the dam and the placing of water to beneficial use subject to the following limitations, conditions and qualifications:

1. Water Permit No. 1737-1 authorizes impoundment of 165 acre-feet of water from runoff by constructing a dam located in the NE ¼ SW ¼ Section 36 with water impounded in the S ½ NW ¼, N ½ SW ¼ Section 36; all in T7N-R14E
2. The water appropriated shall be used for the purpose of supplying water for fish & wildlife propagation, recreation and stock water and may not exceed the amount of water needed for beneficial use.
3. The water is to be used during the following described annual period: January 1 – December 31.
4. The date of approval of Permit No. 1737-1 is November 6, 2000.
5. The date from which applicant may claim right is September 18, 2000.
6. One-fifth of the construction is to be completed on or before May 6, 2002.
7. All construction is to be completed on or before November 6, 2005.
8. Water is to be put to beneficial use on or before November 6, 2009.
9. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

1. Water Permit No. 1737-1 authorizes a dam with a storage capacity of 165 acre feet of water and sufficient water annually to maintain the water level to the outlet elevation.
2. Low flows as needed for downstream domestic use, including livestock water and prior water rights must be by-passed.

WATER MANAGEMENT BOARD

By: Garland Erbele

Garland Erbele, Chief Engineer
Water Rights Program
Department of Environment and Natural Resources

NOV 15 2000

date



FORM 2: Application for uses other than irrigation
(type or print)

Mail to:
Water Rights Division
Joe Foss Building
523 E Capitol
Pierre SD 57501-3181
605 773-3352

No. 1737-1 Hydrologic Unit 10120112
Basin Lower Cheyenne
Newspaper Meade Co. Times Tribune
(office use only)



Application For Permit To Appropriate Water Within The State Of South Dakota

Check use of water:

☐ Municipal ☐ Suburban Housing ☒ Recreational ☐ Institutional
☐ Rural Water System ☐ Commercial ☒ Fish & Wildlife ☐ Geothermal Heat
☐ Domestic (over 18 gpm) ☐ Industrial ☒ Other Livestock

Type of Application: ☒ New ☐ Vested Right (Use predates Mar 2, 1955) ☐ Future Use Reservation
(check one) ☐ Place to Beneficial Use Water Reserved by Future Use Permit No. _____
☐ Amendment/Correction to Permit No. _____

Description of amendment/correction: (i.e. change diversion point(s), add diversion point(s), change use, etc.) _____

1. Name of Applicant Harvey Malon Phone 343-2349
(check one) ☒ Owner ☐ Tenant/lessee
Mailing Address 635 Westwind Dr. Rapid City State SD 57702
(Street, RR, or Box) (City) (Zip Code)

2. Amount of water claimed _____ *CFS or _____ **GPM 165 ***AF
(*Cubic Feet per Second) (**Gallons per Minute) (***Acre Feet - storage capacity of dam/dugout or annual use if applicable)

3. Source of water supply Runoff

4. Location of point of diversion (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W) NE 1/4 SW 1/4
SEC 36 T7N-R14E Water Impounded: 5 1/2 NW 1/4,
N 1/2 SW 1/4 Sec 36 - T7N - R14E County Meade

5. County or counties where water will be used Meade

6. Annual period during which water is to be used January 1 to January to December 31

7. Give a description of the project. When available include any preliminary engineering report or other reports or information that will help explain the project. (Attach sheet if more space is needed)
Proposed dam is solution to repairing failing WPA dam that is located upstream about 1000'. New dam will impound water to a level about 2' above existing WPA dam water level. Existing structure will remain as a sediment catch until it completely fails.

Attachments: Attach Form 2A if diversion is from a well or dugout, or if storage of water is proposed. Attach map and any other technical information. (see instructions)

STATE OF SOUTH DAKOTA)

County of Hughes ^{SS}

I, Harvey Malon, the applicant, certify that I have read this application, have examined the attached map and that the matters stated are true and that I intend, and am able to complete the necessary construction.

Signed Harvey Malon
Subscribed and sworn to before me this 18th day of Sept. 2000

Dutter R. Buckner
Notary Public
My Commission Expires 09/06/2004

Supplemental Information

(type or print in ink)

1. Well Information - Proposed Construction

- a) Drill Hole Diameter _____ Depth _____
- b) Casing Type _____ Diameter _____ Thickness _____
- c) Screen Type _____ Diameter _____ Thickness _____
- d) Gravel Pack Thickness _____ Length of Gravel Pack _____
- e) Depth to Top of Water Bearing Material _____
- f) Depth to Water (ground surface to water level) _____
- g) Distance to nearest existing domestic well:
On applicants property _____ On property owned by others _____

2. Wastewater Disposal System Information

- a) Type of System (i.e. septic tank, drain field) _____
- b) System Capacity (gallons) _____ c) Year Constructed _____
- d) Connected to the City of _____ Sanitary System.

3. Dugout Information

- a) Surface Dimensions _____ Depth _____
- b) Depth to water (ground surface to water level) _____

4. Water Storage Dams

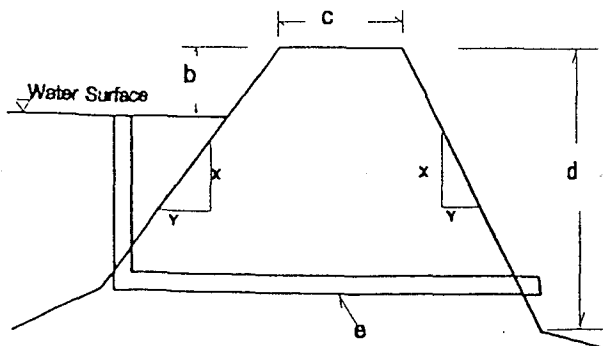
If the proposed water use system contains one or more storage dams, please furnish the information requested below for each dam. The locations of the dams need to be shown on the map submitted with the application.

- a) If a private engineering firm or government agency was involved in the design of this dam, please give their name and address:

NRCS

1837 5th Ave. South

Belle Fourche, SD 57717



- b) Freeboard 7.0'
- c) Crest Width 14'
Crest Length 393'
- d) Height 31.5'
- e) Primary Outlet Capacity 83 CFS
If pipe, diameter 24"
- f) Secondary Spillway Capacity 793 CFS
Spillway Width 100'
- g) X & Y Slope
Upstream 3:1
Downstream 2 1/2:1
- h) Surface Area of Impoundment 22.5 A
- i) Storage 165 Acre Feet
- j) Drainage Area Above Dam 6940 Acres

RECEIPT

Water Rights Program

South Dakota Department of Environment and Natural Resources

N2 416634

Pierre, September 18, 2000, _____

RECEIVED OF Harvey K Malon, 635 Westwind Dr, Rapid City, SD 57702
the following amount in fees for services rendered as provided for by law:

Fee for Application for Permit No. _____ to Appropriate Water, to construct and to put water to beneficial use _____	225	00
Fee for Application for Permit No. _____ to Appropriate Water, for Future Use _____		
Fee to retain Future Use Permit No. _____ after period of seven years.		
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. _____	50	00
Fee for Filing Transfer Form _____		
Fee for Filing Extension Request _____		
Fee for _____		

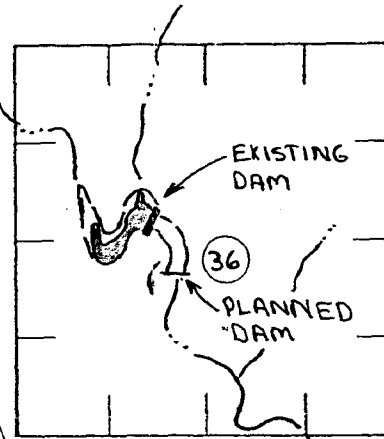
(Any Other Work Provided by Law)	Total	27500

By Gariand Erbfle
Chief Engineer

GARIAND ERBFLE

STRUCTURE DATA

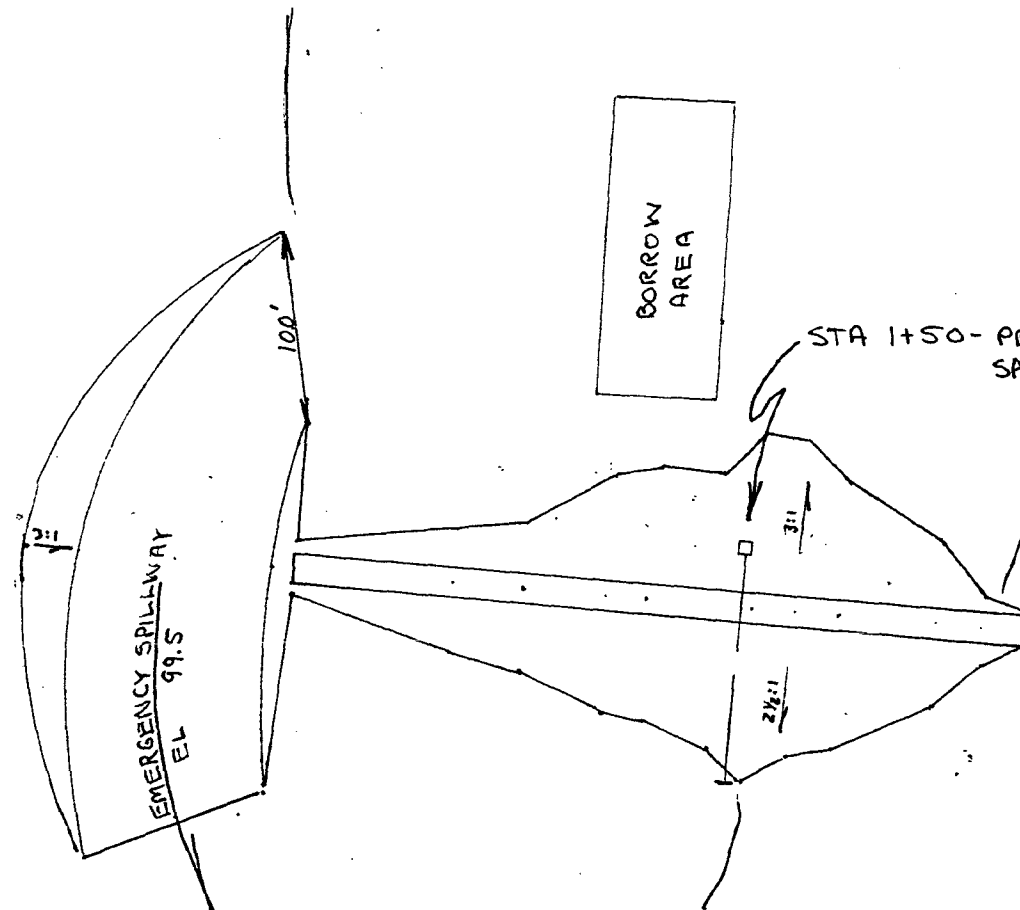
DRAINAGE AREA	ANNUAL YIELD	PEAK RUNOFF	EMERG. SPLWY. CAPACITY	WATER DEPTH	SURFACE AREA	SEDIMENT STORAGE	TOTAL STORAGE
ACRES	AC.FT.	25-YR.	C.F.S.	FEET	ACRES	AC.FT.	AC.FT.
6940	46.3	476	512	21.9	22.5	16.7	165



Sec. 36 T. 7N R. 14E
MEADE County

LOCATION

POOL AREA
22.5 Ac



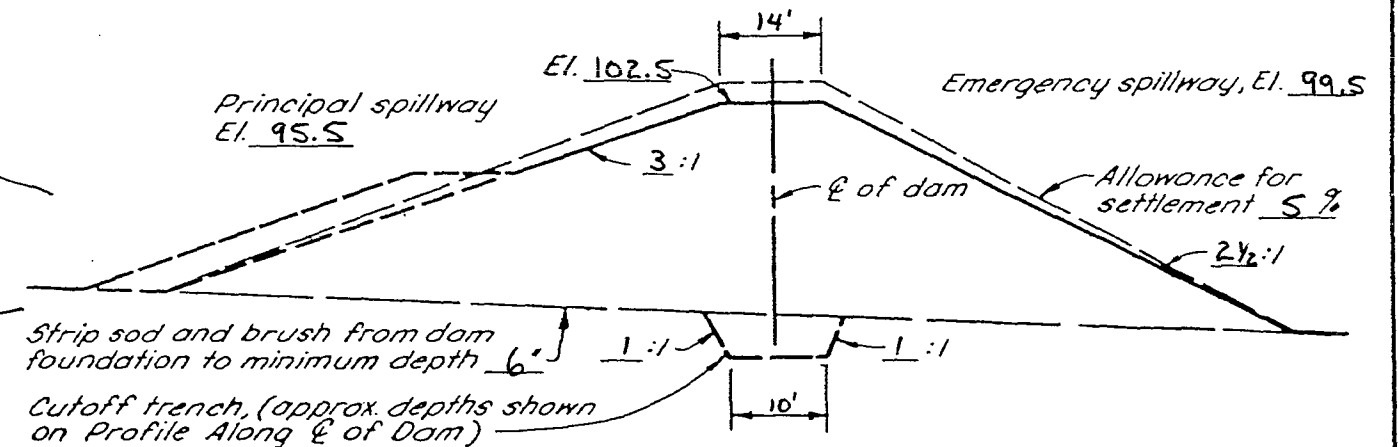
SKETCH PLAN OF DAM AND RESERVOIR AREA

Approximate scale 1" = 100'

REFERENCE: GUIDE PLAN NO. 1.0

TABLE OF QUANTITIES

ITEM	UNIT	QUANTITY
EARTH FILL	CY	14849
STRIPPING	CY	680
CORE TRENCH	CY	339
TOP SOIL	CY	593
CONCRETE DROP INLET - (PER DETAIL)	EA	1
TRASH RACK & BAFFLE - (PER DETAIL)	EA	1
24" DIA - SDR 35 or 32.5 - PVC PIPE	LF	120
SAND ANTI-SEEP DRAIN - (PER DETAIL)	EA	1
TIMBER PIPE SUPPORT - (PER DETAIL)	EA	1
SEEDING	Ac	1.0



TYPICAL CROSS SECTION OF DAM

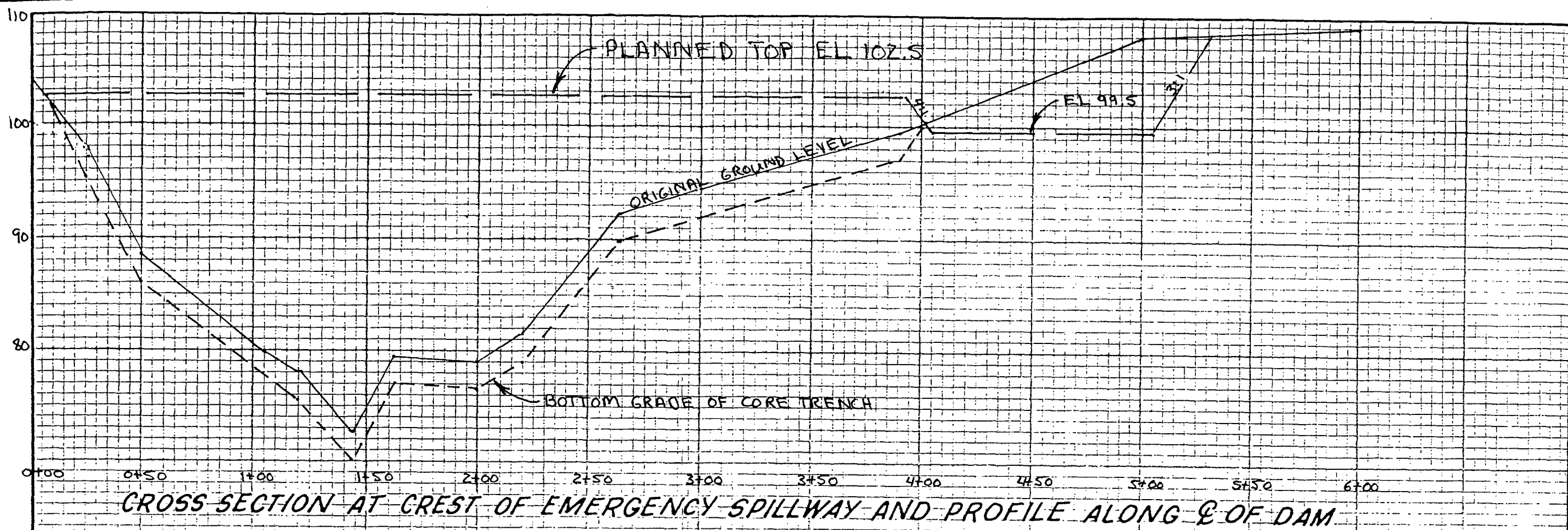
S.D. CONSTRUCTION AND MATERIAL SPECIFICATIONS:

- SD-4 STRIPPING
- SD-7S EARTH FILL - CLASS 5
- SD-10 SALVAGING & SPREADING TOPSOIL
- SD-12A CONCRETE
- SD-13 STEEL REINFORCEMENT
- SD-16 TIMBER FABRICATION
- SD-28 SEEDING
- SD-55 PLASTIC PIPE

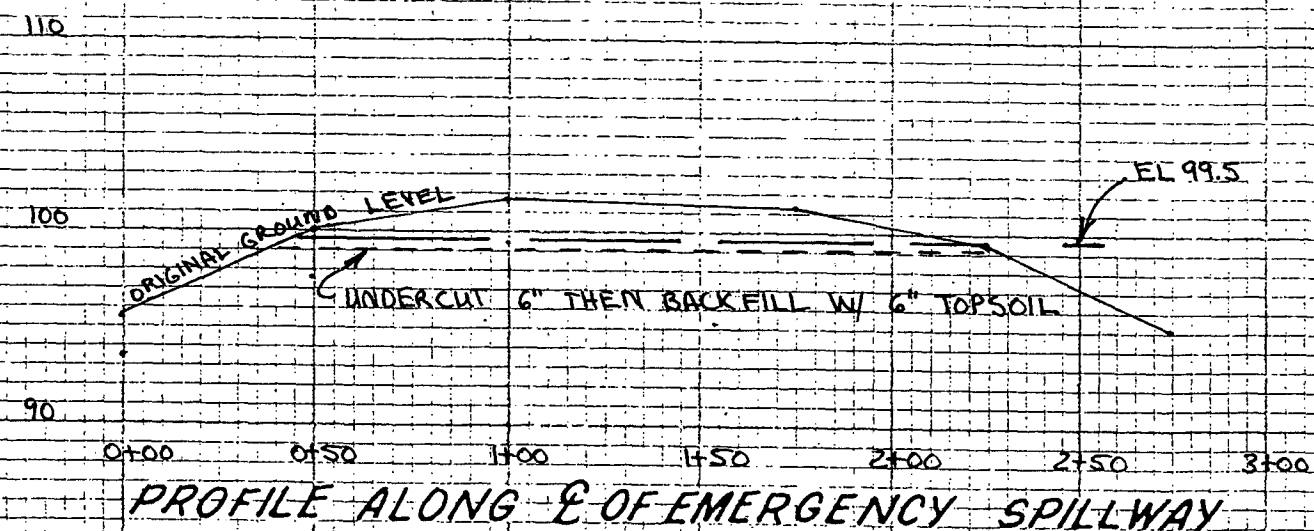
EARTH DAM

OPERATOR: HARVEY MALON	
CONSERVATION DISTRICT: TRI-COUNTY	
U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	
Designed: T. VER HELST 9/00	Date: 9/00
Drawn: T. VER HELST 9/00	Approved by: Thomas D. Ver Helst Title: Ag. Engineer
Traced: 1	Title: _____
Checked: _____	Sheet: No 1 of 7

JOB PLAN NO. 1.0



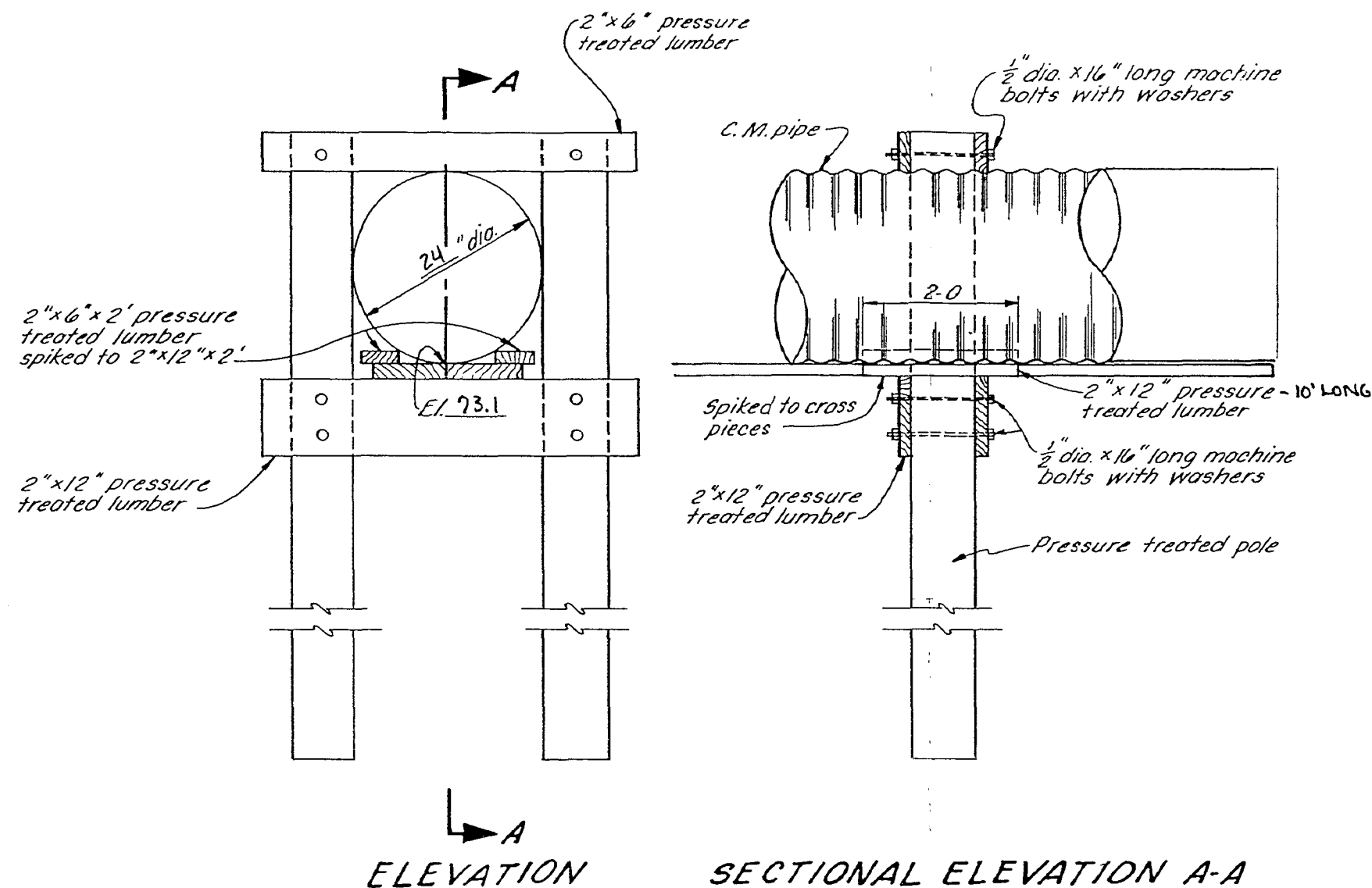
SEE SHEET 2



MAXIMUM CROSS SECTION OF DAM

SEDIMENT YIELD

ERODIBILITY AREA ACRES	GROSS RATE A.F./AC./YR.	DRAINAGE AREA ACRES	DELIVERY RATE %	DESIGN PERIOD YEARS	REQ'D. SEDIMENT VOLUME AC.FT.
Q	.0012	6940	10	20	16.7



NOTES:

1. HAND OR MACHINE TAMP BACKFILL THOROUGHLY AROUND FOOTINGS AND COLUMNS.

TABLE OF QUANTITIES

ITEM	LENGTH FOR 24" DIA. PVC C.M. PIPE	UNIT	QUANTITY
PRESSURE TREATED POLE 10" DIA.	8'-0"	EACH	2
2" X 12" PRESSURE TREATED LUMBER	10'-0"	EACH	2
2" X 6" PRESSURE TREATED LUMBER	4'-0"	EACH	2
2" X 12" PRESSURE TREATED LUMBER	4'-0"	EACH	2
2" X 6" PRESSURE TREATED LUMBER	2'-0"	EACH	2
1/2" DIA. MACHINE BOLTS WITH NUTS	16"	EACH	6
1/2" DIA. WASHERS		EACH	12

REFERENCE: GUIDE PLAN NO. 4.0

JOB PLAN NO. 4.0

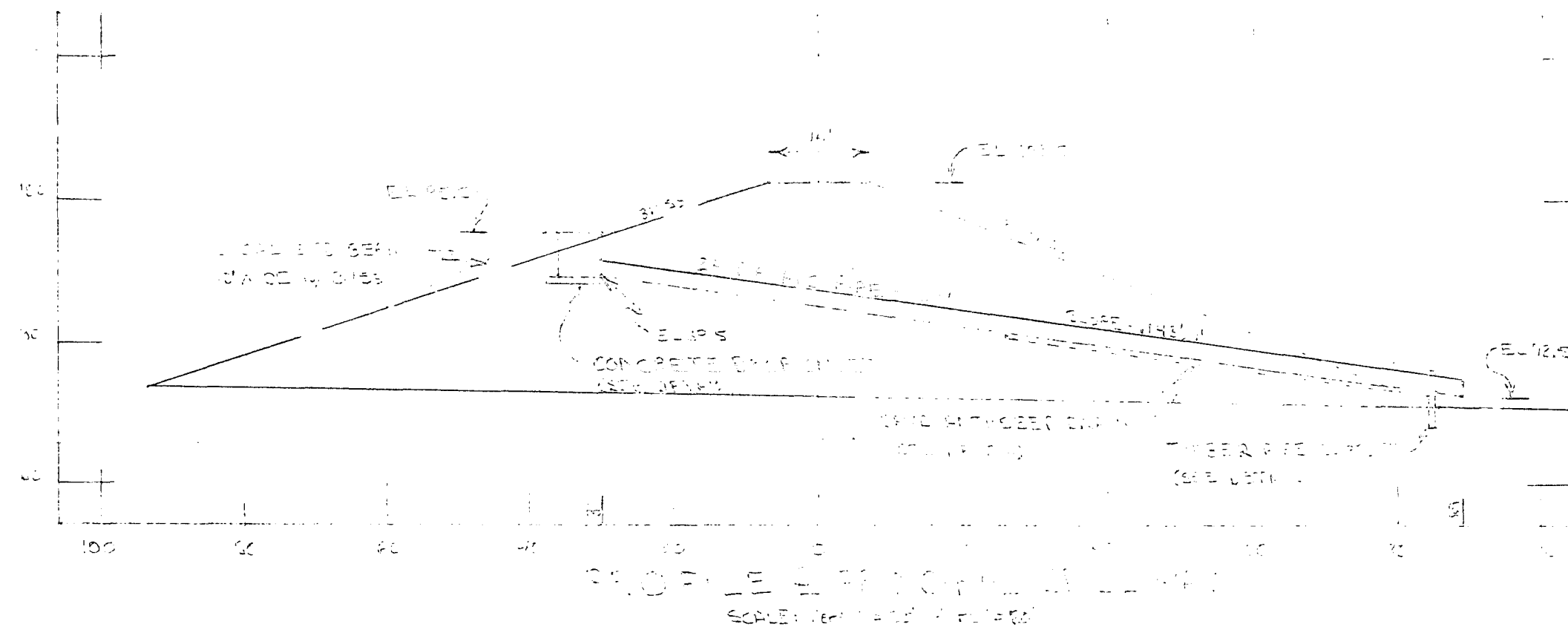
TIMBER PIPE SUPPORT

OPERATOR: HARVEY MALON
 CONSERVATION DISTRICT: TRI-COUNTY

U. S. DEPARTMENT OF AGRICULTURE
 SOIL CONSERVATION SERVICE

Designed.....	Date.....	Approved by.....
Drawn.....		Title.....
Traced.....		Title.....
Checked.....	Sheet No. <u>7</u> of <u>7</u>	Drawing No.

5, N-29,073.4a



BRINCHFIELD, W. A.			
HARVEY DILON			
Date		Approved by	
Designed: T. HERBERT 7/66		Title	
Drawn		Title	
Traced		Title	
Checked		Title	
Sheet		Drawing No.	
No. 7		of 7	

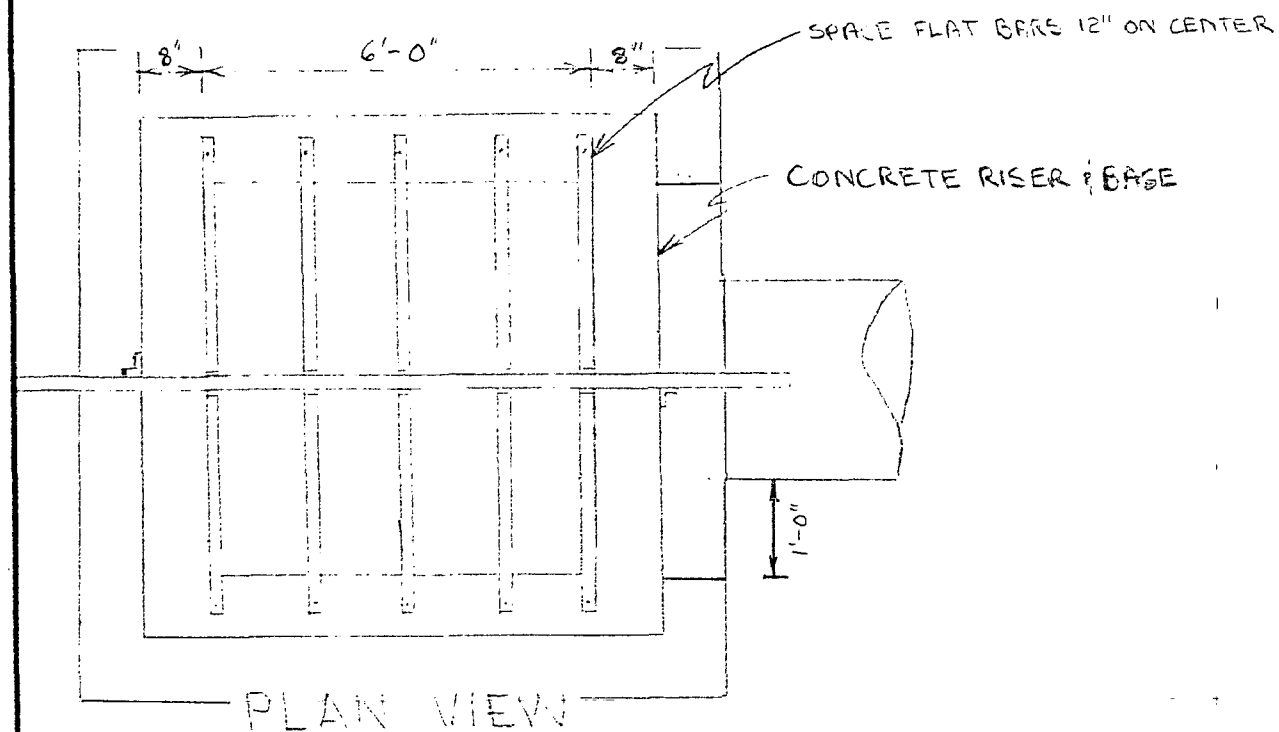
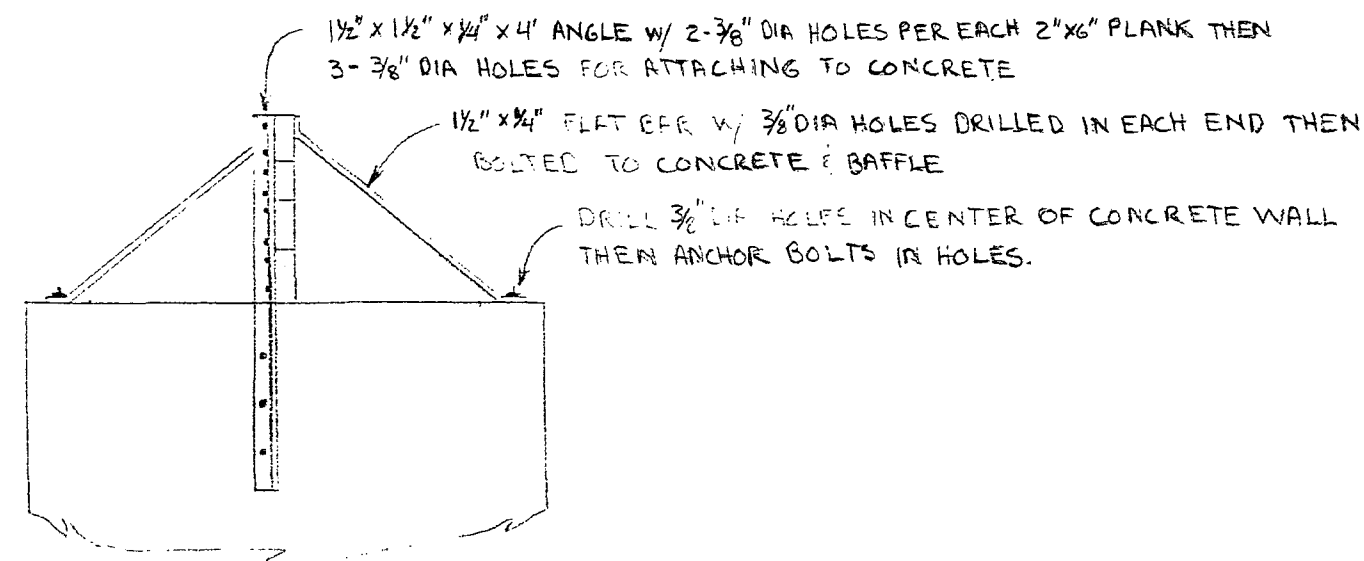
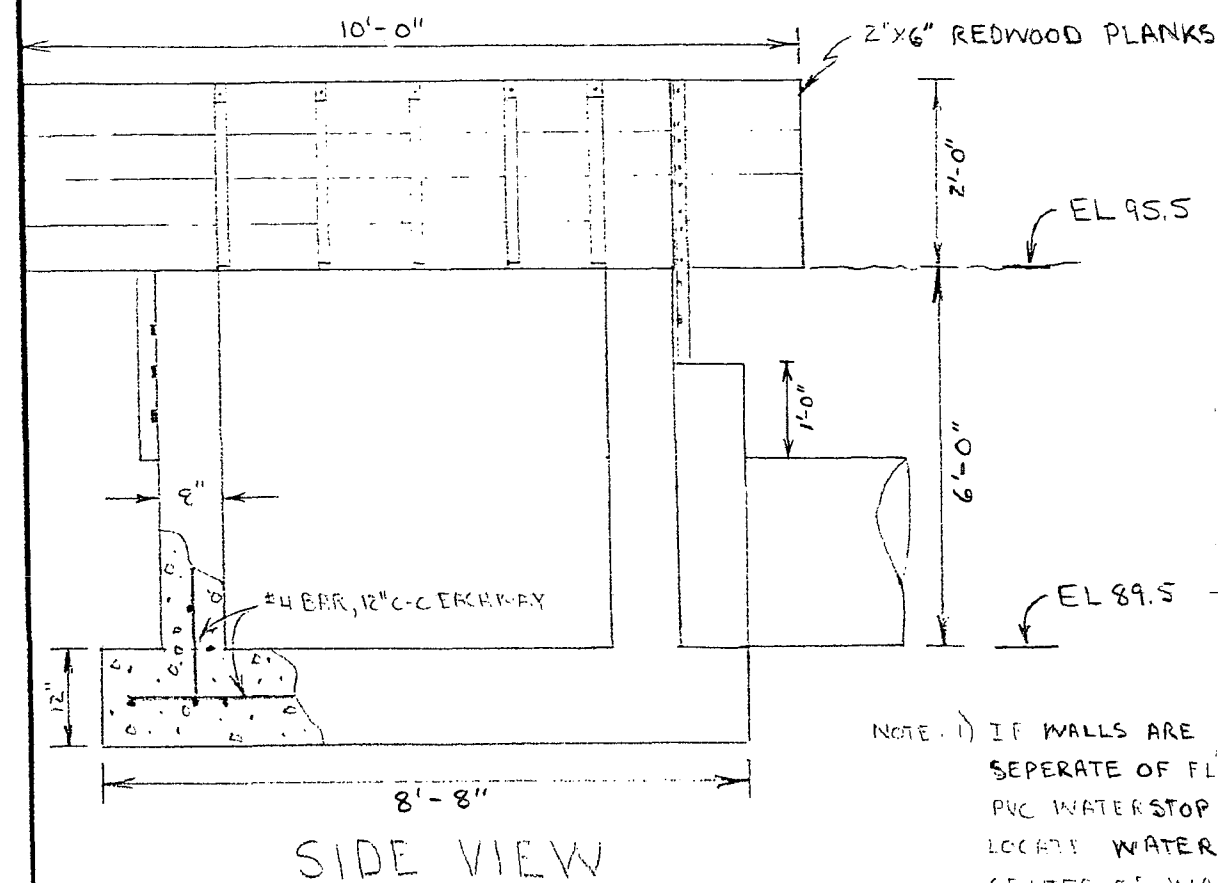


TABLE OF QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QTY
1	CONCRETE - REINFORCED	CY	7.1
2	2"x6" RED WOOD PLANK - 10' LENGTHS	LF	40
3	1 1/2" x 1 1/2" x 1/4" ANGLE - 4' LENGTHS	LF	8
4	1 1/2" x 1/4" FLAT BAR	LF	60
5	3/8" x 3" BOLT	EA	23
6		EA	
7	3/8" x 2 1/2" BOLT & CONCRETE ANCHOR	EA	20



NOTE: 1) IF WALLS ARE POURED SEPERATE OF FLOOR, A 6" WIDE PVC WATERSTOP IS REQUIRED. LOCATE WATERSTOP IN THE CENTER OF WALL AT JOINT BETWEEN WALL & FLOOR.

SOUTH DAKOTA CONSTRUCTION & MATERIAL SPECIFICATIONS

SD-12 CONCRETE FOR ANCHOR BOLTS & WALL
SD-13 STEEL REINFORCEMENT

CONCRETE DROP INLET HARVEY MALON

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Date		Approved by	
Designed		Title	
Drawn		Title	
Traced		Sheet No. 5 of 7	
Checked		Drawing No.	

Drainage Area - 6940 Ac

Slope (Avg.) - 13.3 %

Travel Length - 49000'

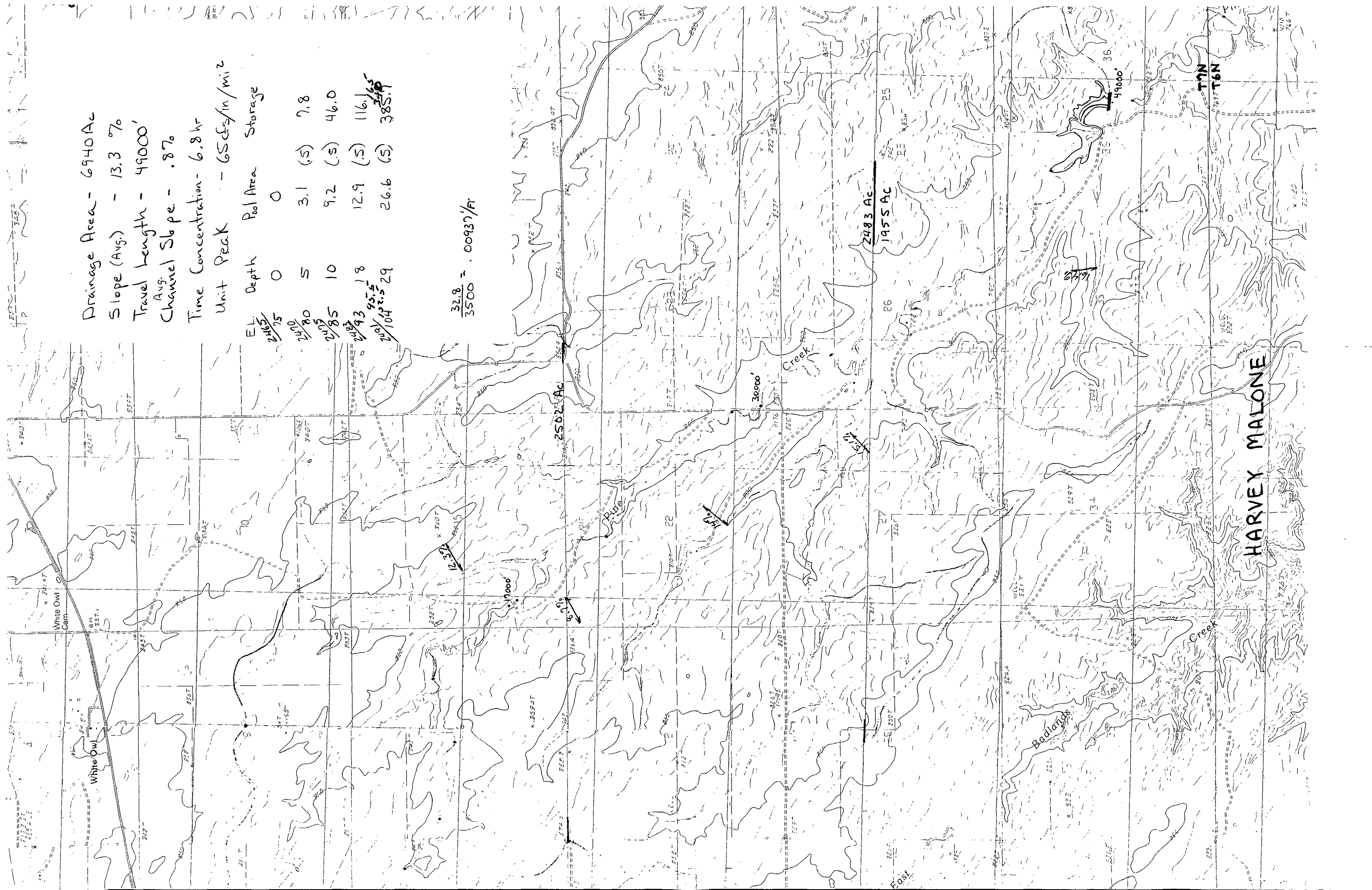
Channel Slope - .87%

Time Concentration - 6.8 hr

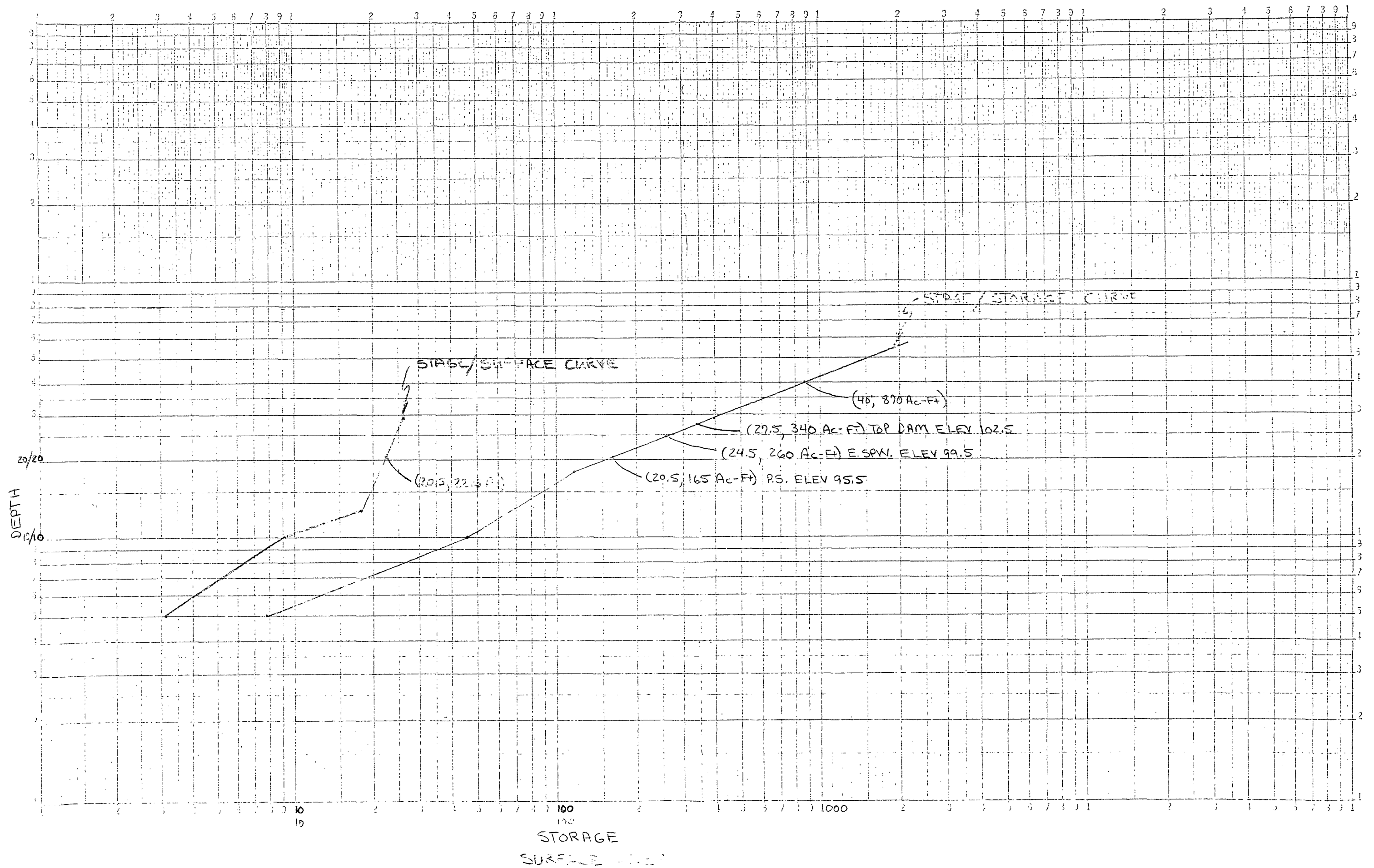
Unit Peak - 6 SCFS/in/mi²

EL	Depth	Pool Area	Storage
2291.5	0	0	
2291.80	5	3.1 (5)	7.8
2292.85	10	9.2 (5)	46.0
2293.93	18	12.9 (5)	116.1
2294.95	29	26.6 (5)	385.1

$$\frac{32.8}{3500} = .00937/\text{ft}$$



MALON DAM



THIS ONE

1DAMS2 XEQ 09/13/** STRUCTURE SITE ANALYSIS COMPUTER PROGRAM
REV 01/01/90 SCS TECHNICAL RELEASE 48, (USER MANUAL) DATED JAN. 1990
TIME 09:56:08

***** THIS PROGRAM IS IN TEST STATUS *****

***** 80-80 LIST OF INPUT DATA *****

DAMS2 01/01/90 TYPICAL DESIGN RUN -378
STRUCTURE MULTI-PURPOSE DAM MALONE SEC36,T7N-R14E
75. 0.000
80.0 7.8
85.0 46.0
93.0 116.1
104.0 385.7
ENDTABLE
WSDATA 2A101 AC 65.0 6940 6.8
PDIRECT 2.6 3.7 3.7
POOLDATA ELEV 95.5 95.5 72.6
PSDATA 1 90 24 0.009 74.0
PSINLET ELEV 1.0 20.00
ESCREST ELEV
ESDATA 01 125 0.035 3 0.035 8.0
BTMWIDTH FEET 100
GO,DESIGN TYPE 2 24 TYPE2 378 24
COMMENT EXISTING DAM HAS AN 18"BARREL WITH VERY LITTLE PROBLEM TO E.S.
COMMENT SPECS FOR NEW DAM REQUIRE A 10YR-24HR STORM FOR P.S. ROUTING
COMMENT HOWEVER BASED ON HISTORY I WILL USE A 5YR-24HR STORM FOR P.S.
ENDJOB

***** MESSAGE - DRAINAGE AREA FROM WSDATA CONTROL BEING CONVERTED FROM
ACRES TO SQUARE MILES FOR COMPUTATION PURPOSES.

1DAMS2 -----
XEQ 09/13/** SIGH RUN -378 WSID= TYPICAL
REV 01/01/90 OSE DAM MALONE SEC36,T7N-R14E SUBW= 01
TIME 09:56:08 SITE = MULTI PASS= 1 PAGE= 1

***** BASIC DATA *****
HUMID- SUBHUMID CLIMATE AREA DESIGN CLASS A1 =LT 3000

STORM DISTRIBUTION-PSH 24 HOUR TYPE II RAINFALL DISTRIBUTION

STORM DISTRIBUTION ESH...24 HOUR TYPE I RAINFALL DISTRIBUTION

PRECIP.-	P-PS1 DAY	P-PS10 DAY	P-ES	P-FB
	2.60	.00	3.70	3.70

WSDATA-	CN	DA-SM	TC/L	-/H
	65.00	10.84	6.80	.00

SITEDATA-	PERM POOL	CREST PS	FP SED	QRF
	95.50	95.50	.00	.00

	BASEFLOW	INITIAL EL	EXTRA VOL.	
	.00	.00	.00	
PSDATA-	NO. COND.	COND L	D/W	-/H
	1.00	90.00	24.00	.00
	PS N	KE	WEIR L	TW EL
	.009	1.00	20.00	74.00
	2ND STG	ORF H	ORF L	START ES
	.00	.00	.00	.00
CRESTS-	ES1	ES2	ES3	ES4
	.00	.00	.00	.00
EMG DATA-	SIDE SLOPE	EXIT N	EXIT SLOPE	
	30.00	.035	.080	
EMG DATA-	ES TYPE	ES LENGTH	ES ENTRANCE N	
	1	125	.035	
BTM WIDTH-	BW1	BW2	BW3	BW4
	100.00	.00	.00	.00

***** NOTE - THIS IS ONLY A PRELIMINARY EMG RATING CURVE OF DISCHARGE/FT
OF WIDTH AND DOES NOT INCLUDE SIDESLOPE CORRECTION OR
REVISED RATING USING ACTUAL EMG. CONFIGURATION.

EMG ID CODE	01	ELEVATION INCREMENT (FT) = 1.000	
DISCHARGES-Q1	Q2	Q3	Q4
1.514	5.663	11.738	19.402
Q5	Q6	Q7	Q8
28.356	38.485	49.586	61.698
Q9	Q10	Q11	Q12
74.630	88.396	102.943	118.211

1DAMS2 -----
 XEQ 09/13/** SIGH RUN -378 WSID= TYPICAL
 REV 01/01/90 OSE DAM MALONE SEC36,T7N-R14E SUBW= 01
 TIME 09:56:08 SITE = MULTI PASS= 1 PAGE= 2

PERM POOL	95.50 FT	177.4 ACFT	.00 AC	.0 CFS
CREST PS	95.50 FT	177.4 ACFT	.00 AC	.0 CFS
SED ACCUM	95.50 FT	177.4 ACFT	.00 AC	.0 CFS
STARTING E	95.50 FT	177.4 ACFT	.00 AC	.0 CFS
SCS-PSH	D= 24.00 HR	P= 2.60 IN	Q= .34 IN	DA = 10.84 SM
	TC= 6.80 HR	CN= 65.00	VOL= 194.2 ACFT	
PEAK =	240.7 CFS, AT 17.4 HRS.			

ROUTED RESULTS - HYD TYPE EMAX VOL-MAX AMAX QMAX
 SCS-PSH 99.57 FT 277.1 ACFT .00 AC 80.0 CFS

PS STORAGE 99.7 ACFT BETWEEN ES CREST AND SED ACCUM ELEVATIONS

DRAWDOWN (DDT) TEST 95.50 FT 177.4 ACFT .00 CFS
 CONTROL IS .000 DETENTION STORAGE

TIME = 2.99 DAYS, TO .0 CFS (LIMIT = 10.00 DAYS)

1DAMS2

 XEQ 09/13/** SIGH RUN -378 WSID= TYPICAL
 REV 01/01/90 OSE DAM MALONE SEC36,T7N-R14E SUBW= 01
 TIME 09:56:08 SITE = MULTI PASS= 1 PAGE= 3

ES CREST 99.57 FT 277.1 ACFT .00 AC 80.0 CFS

PS STORAGE 99.7 ACFT BETWEEN ES CREST AND SED ACCUM ELEVATIONS

STARTING E 95.50 FT 177.4 ACFT .00 AC .0 CFS

EFFECTIVE HEIGHT(H) = 27.0 FEET, PRODUCT = 7471. (H * STORAGE AT CREST EMG.)

INPUT DESIGN CLASS = A1 -LT 3000

***** MESSAGE - NCPS 378 CRITERIA DOES NOT APPLY WHEN THE EFFECTIVE HEIGHT
 IS OVER 35 FEET OR THE PRODUCT IS 3000 OR GREATER

SCS-ESH D= 24.00 HR P= 3.70 IN Q= .86 IN DA = 10.84 SM
 TC= 6.80 HR CN= 65.00 VOL= 496.9 ACFT

PEAK = 476.4 CFS, AT 16.0 HRS.

SCS-FBH D= 24.00 HR P= 3.70 IN Q= .86 IN DA = 10.84 SM
 TC= 6.80 HR CN= 65.00 VOL= 496.9 ACFT

PEAK = 476.4 CFS, AT 16.0 HRS.

ROUTED	BTM WIDTH	MAX ELEV	VOL-MAX	AREA-MAX	EMG. HP	VOL-ES
RESULTS	FT	FT	ACFT	AC	FT	ACFT
SCS-ESH	100.0	100.88	309.1	.0	1.31	32.1

PEAK - CFS	Q-PS	Q-ES	Q-TOT
DISCHARGE =	82.0	334.9	416.9

	CRITICAL	CRITICAL	CRITICAL	25% OF
	DEPTH	VELOCITY	SLOPE-S/C	S/C
EMERGENCY	FT	FT/SEC	FT/FT	FT/FT
SPILLWAY----	.66	4.27	.022	.028

	DURATION	ATTACK	SUMMATION
	FLOW	OE/B	VEL**2 DELTA T
EMERGENCY	HRS	ACFT/FT	(FT/SEC)**2 HRS

SPILLWAY---- 16.5 2.6 453.9

***** MESSAGE - ES378 CRITERIA USED BUT EMERGENCY SPILLWAY NOT BASED
ON RETARDANCE.

EXIT CHANNEL FLOW SUPERCRITICAL: MAX VELOCITY= 6.55 FT/SEC
EXIT SLOPE = .080 FT/FT
FLOW DEPTH = .450

DRAWDOWN USING FREEBOARD STORM FOLLOWS, STARTING AT ELEVATION 99.57 FT.

DRAWDOWN (DDT) TEST 95.50 FT 177.4 ACFT .00 CFS
CONTROL IS .000 DETENTION STORAGE

TIME = 3.02 DAYS, TO .0 CFS (LIMIT = 10.00 DAYS)

ROUTED RESULTS	BTM WIDTH FT	MAX ELEV FT	VOL-MAX ACFT	AREA-MAX AC	EMG. HP FT	VOL-ES ACFT
SCS-FBH	100.0	100.88	309.1	.0	1.31	32.1

PEAK - CFS DISCHARGE =	Q-PS	Q-ES	Q-TOT
	82.0	334.9	416.9

	CRITICAL DEPTH FT	CRITICAL VELOCITY FT/SEC	CRITICAL SLOPE-S/C FT/FT	25% OF S/C FT/FT
EMERGENCY SPILLWAY----	.66	4.27	.022	.028

	DURATION FLOW HRS	ATTACK OE/B ACFT/FT	SUMMATION VEL**2 DELTA T (FT/SEC)**2 HRS
EMERGENCY SPILLWAY----	16.5	2.6	453.9

***** MESSAGE - ES378 CRITERIA USED BUT EMERGENCY SPILLWAY NOT BASED
ON RETARDANCE.

EXIT CHANNEL FLOW SUPERCRITICAL: MAX VELOCITY= 6.55 FT/SEC
EXIT SLOPE = .080 FT/FT
FLOW DEPTH = .450

***** ES378 RUN - MINIMUM FLOW IN EMG. SPILLWAY FROM TR60
USING FORMULA WITHOUT 200 CFS MINIMUM LIMIT. *****

ROUTED RESULTS	BTM WIDTH FT	MAX ELEV FT	VOL-MAX ACFT	AREA-MAX AC	EMG. HP FT	VOL-ES ACFT
MINIMUM ES	100.0	101.53	325.1	.0	1.96	48.1

PEAK - CFS DISCHARGE =	Q-PS	Q-ES	Q-TOT
	83.0	767.5	850.6

	CRITICAL DEPTH FT	CRITICAL VELOCITY FT/SEC	CRITICAL SLOPE-S/C FT/FT	25% OF S/C FT/FT
EMERGENCY SPILLWAY----	1.09	5.31	.019	.024

***** ES378 RUN - MINIMUM DEPTH, CREST EMG TO TOP OF DAM IS 2.00 FT
 NEW TOP OF DAM ELEVATION = 101.57

ROUTED RESULTS	BTM WIDTH FT	MAX ELEV FT	VOL-MAX ACFT	AREA-MAX AC	EMG. HP FT	VOL-ES ACFT
MINIMUM ES	100.0	101.57	326.1	.0	2.00	49.0
PEAK - CFS DISCHARGES =		Q-PS 83.1	Q-ES 793.0	Q-TOT 876.0		
		CRITICAL DEPTH	CRITICAL VELOCITY	CRITICAL SLOPE-S/C	25% OF S/C	
EMERGENCY SPILLWAY----		FT 1.11	FT/SEC 5.35	FT/FT .019	FT/FT .024	

***** ES378 RUN - MINIMUM DEPTH, DESIGN FLOW TO TOP OF DAM, REQUIRED
 FOR THIS PASS. NEW TOP OF DAM ELEVATION = 101.88

ROUTED RESULTS	BTM WIDTH FT	MAX ELEV FT	VOL-MAX ACFT	AREA-MAX AC	EMG. HP FT	VOL-ES ACFT
MINIMUM ES	100.0	101.88	333.7	.0	2.31	56.6
PEAK - CFS DISCHARGES =		Q-PS 83.5	Q-ES 1044.9	Q-TOT 1128.5		
		CRITICAL DEPTH	CRITICAL VELOCITY	CRITICAL SLOPE-S/C	25% OF S/C	
EMERGENCY SPILLWAY----		FT 1.31	FT/SEC 5.73	FT/FT .018	FT/FT .023	

1DAMS2 XEQ 09/13/**

REV 01/01/90

SIGH RUN -378

WSID = TYPICAL

EXISTING DAM HAS AN 18"BARREL WITH VERY LITTLE PROBLEM TO E.

SPECS FOR NEW DAM REQUIRE A 10YR-24HR STORM FOR P.S. ROUTING

HOWEVER BASED ON HISTORY I WILL USE A 5YR-24HR STORM FOR P.S

1DAMS2....JOB NO. 1 COMPLETE

TYPICAL

SIGH RUN -378

0 SUBWATERSHED(S) ANALYZED

1 STRUCTURE(S) ANALYZED

3 HYDROGRAPHS ROUTED AT LOWEST SITE

0 TRIALS TO OBTAIN BOTTOM WIDTH FOR SPECIFIED VELOCITY(S)

DAMS2.....COMPUTATIONS COMPLETE

1

SUMMARY TABLE 1

DAMS2 VERSION 01/01/90

WATERSHED ID	RUN DATE	RUN TIME
TYPICAL	09/13/**	09:56:08

>>>	SITE ID	SUBWS ID	SUBWS DA (SQ MI)	CURVE NO.	TC (HRS)	TOTAL DA (SQ MI)	TYPE DESIGN	STRUC CLASS	<<<
	MULTI	01	10.84	65.	6.80	10.84	378CR	A1	

PASS NO.	DIA/ WIDTH (IN/FT)	ES CREST ELEV (FT)	BTM WIDTH (FT)	MAX HP (FT)	MAX ELEV (FT)	YARDAGE EMB (CY)	OE/B* (AF/FT)	EXIT* VELOCITY (FT/SEC)	TYPE HYD
1	24.0	99.57	100.00	2.31	101.88	0.	2.6	6.55	MINIMUM ES

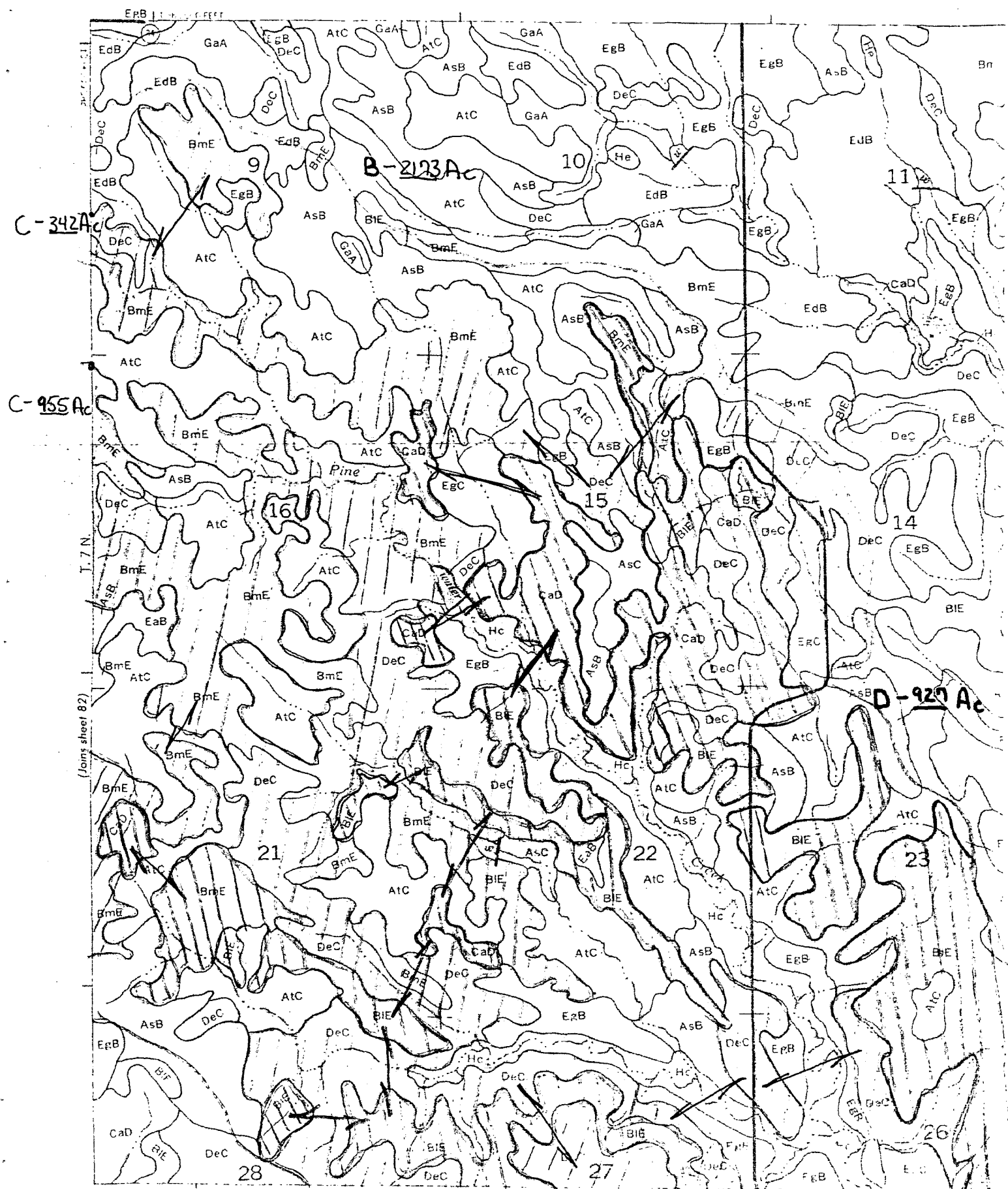
* OE/B AND EXIT VELOCITY ARE BASED ON THE ROUTED HYDROGRAPH AND WILL NOT RELATE TO THE MAX. ELEV. (TOP OF DAM), WHICH IS SET BY MINIMUM DESIGN CRITERIA.

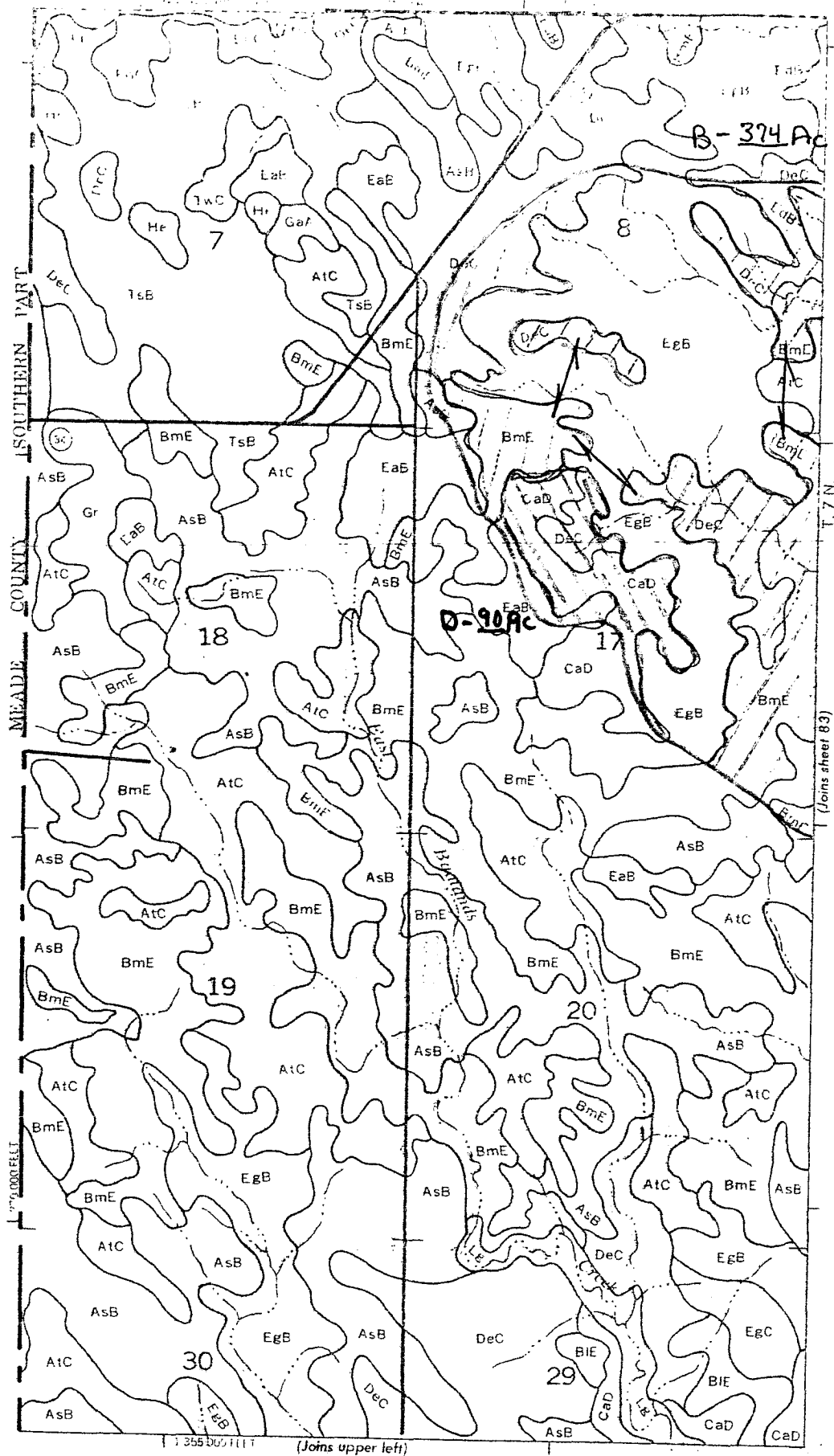
DAMS2.....SUMMARY TABLE 1 COMPLETED

SCS DAMS2 , VERSION 01/01/90
TYPICAL FILES

INPUT = MALONE
OUTPUT = MALONE.OUT

DATED 09/13/** 09:56:08

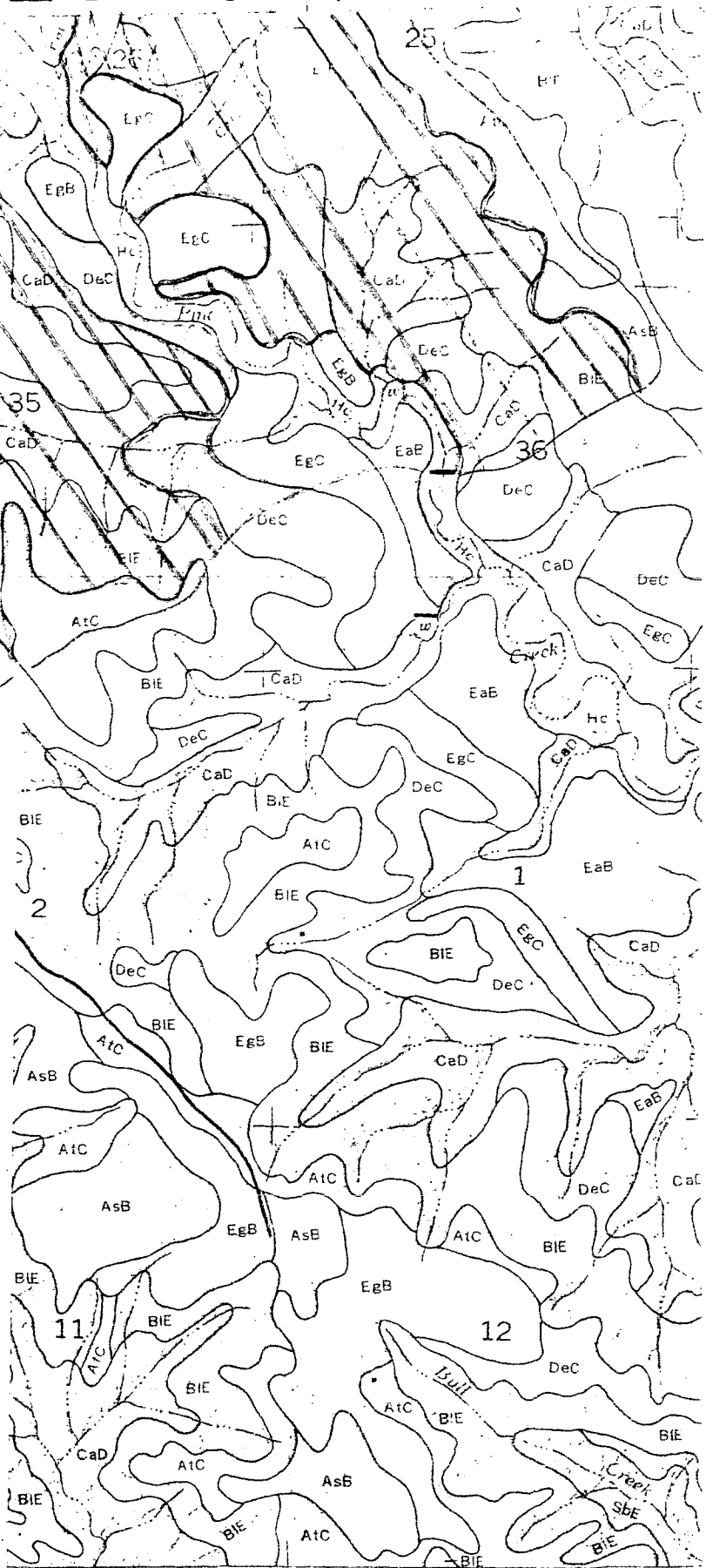




(Joins upper left)

(Joins sheet 83)

Q-1148 Ac



AtC - Assiniboine - Twilight - B
 BmE - Blackhall - Twilight - ~~OB~~ - B
 BIE - Blackhall - Rack - D
 DeC - Delridge - Cabbart - ~~BD~~ - B
 EgC - Eapa - Grail - ~~B/C~~ - B
 EaB - Eapa - B
 Hc - Harre - B
 CaD - Cabbart - D
 AsB - Assiniboine - B

$$\begin{array}{l} \text{B- } 2927 A_c \times 61 \\ \text{B- } 1848 A_c \times 61 \\ \text{D- } \underline{2165 A_c} \times 80 = \underline{173200} \end{array} \left. \begin{array}{l} \\ \\ \end{array} \right\} \begin{array}{l} \text{CN} \\ \\ 291275 \end{array}$$
$$464475 \div 6940 = 66.9$$

Use Weighted $CN = 65$

Note: Existing dam shows very little damage to c. spwr. Only thing wrong is p.s. is rusting out. Existing elev. difference between p.s. & es. is .75'

Water Permit Application No 1731-1 Harvey Malon

Top of Dam Elev - 102.5
2nd Spillway Elev. - 99.5
P. Spillway Elev - 92.5
DS Toe Elev. - 71.0

Cat. 3 Low Hazard Dam

Ht = 31.5 ft

Normal Storage Capacity - 165 Ac-Ft
Int. Storage Capacity - 260 Ac-Ft
Max. Storage Capacity - 340 Ac-Ft

Int. Capacity x Eff Ht. = $260 \times 27 = 7020 > 3000 \therefore 50 \text{ year}$
Minimum Spillway Design

From USGS WRI 80-80 " Tech for Est. Flood Peaks ... in 50 "

DA = 6940 Ac = 10.84 mi²

Slope =

SI =

$$Q_{50} = 106 A^{.63} S^{.45} S_i^{-.69}$$

$$\begin{aligned} &= 106 (10.84)^{.63} (39)^{.45} (1.76)^{-.69} \\ &= 106 (4.488) (5.1997) (.6770) \\ &= \underline{1675 \text{ cfs}} \end{aligned}$$

Spillway Flow

$$\begin{aligned} Q &= CLH^{3/2} \quad C = 2.6 \quad L = 125 \quad H = 3 \\ &= 2.6 (125)^{3/2} \\ &= 1688 \text{ cfs plus } 82 \text{ cfs (Primary)} \end{aligned}$$

Total = 1770 cfs

Section 74:02:08:09

1. Topo Map - OK
2. Dam Axis Profile - OK
3. Dam Max X-Sec. - OK
4. Area Capacity - OK
5. Outlet Details - OK
6. Spillway Rating - OK
7. Spillway Details - OK
8. Specs std. NRCS - OK
9. EPP - Cat. 3 NR - OK

NRCS Annual Yield

DA = 6940 Ac, CN = 64 ISO = 2

$$\begin{aligned} 80\% \text{ chance} &= 0.031 \\ 6940 \times 0.031^{1/2} &= \underline{18 \text{ Ac-Ft}} \end{aligned}$$

$$\begin{aligned} 50\% \text{ chance} &= 0.10 \\ 6940 \times 0.10^{1/2} &= \underline{57 \text{ Ac-Ft}} \end{aligned}$$

$$\begin{aligned} 10\% \text{ chance} &= 0.82 \\ 6940 \times 0.82^{1/2} &= \underline{475 \text{ Ac-Ft}} \end{aligned}$$

Application #1731-1

DA = 10.84 mi.²

WR #542-1

R 15 E 2.72 cfs

190.8 Ac in Sec 25

Pine Creek
ALL 1 DA = 22 mi.² = 14,080 Ac

NRCS Annual Yield CN = 64
ISO = 2

50% chance = 0.10

$14,080 \times 0.10^{1/2} = 117 \text{ Ac-Ft}$

GENERAL HIGHWAY MAP
SOUTH HALF

MEADE COUNTY
SOUTH DAKOTA

SCALE 0 1 2 3 4 5 MILES





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3181
www.state.sd.us/denr

October 11, 2000

Harvey Malon
635 Westwind Dr.
Rapid City SD 57702

Dear Mr. Malon:

We have reviewed the plans and specifications for your dam project located in the SW 1/4 of Section 36-T7N-R14E, in Meade County. The plans and specifications as submitted are approved. Approval of the plans and specifications does not authorize construction of the dam. The construction may not begin until Water Permit Application No. 1737-1 is approved.

Our review was to determine compliance with the requirements of the Water Management Board Safety of Dams Rules, Chapter 74:02:08. Approval of these plans and specifications does not release you, as owner of the dam, from the responsibility for operating and maintaining the dam in good repair to ensure the safety of the dam.

The Malon Dam will be classified as a small size Category 3, Low Hazard dam with a dam height of 31.5 feet and a normal storage capacity of 165 acre-feet and a maximum storage capacity of 340 acre-feet.

If you have any questions, please feel free to contact us.

Sincerely,

Gale N. Selken, P.E.
Natural Resources Engineer IV
for Garland Erbele, Chief Engineer
Water Rights Program
(605) 773-3352

c: Tom VerHelst, NRCS



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**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 1737-1, Harvey Malon**

Pursuant to SDCL 46-2A-2, the following is the recommendation of the Chief Engineer, Water Rights Program, Department of Environment and Natural Resources concerning Water Permit Application No. 1737-1, Harvey Malon, 635 Westwind Dr., Rapid City SD 57702.

The Chief Engineer is recommending APPROVAL of Application No. 1737-1 because 1) there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) the proposed diversion can be developed without unlawful impairment of existing rights, 3) the proposed use is a beneficial use and 4) it is in the public interest with the following qualifications:

1. Water Permit No. 1737-1 authorizes a dam with a storage capacity of 165 acre feet of water and sufficient water annually to maintain the water level to the outlet elevation.
2. Low flows as needed for downstream domestic use, including livestock water and prior water rights must be by-passed.

See report on application for additional information.

Garland Erbele, Chief Engineer
October 10, 2000

**REPORT ON
WATER PERMIT APPLICATION NO. 1737-1
Harvey Malon
October 5, 2000**

Water Permit Application No. 1737-1 has been filed by Harvey Malon to impound 165 acre-feet of water from runoff by constructing a dam located in the NE 1/4 SW 1/4 of Section 36-T7N-R14E, in Meade County. The application also requests impoundment of sufficient water to maintain water at the outlet elevation. The water will be used for fish and wildlife production, recreation and livestock watering.

Discussion:

The dam will be classified as a small size, Category 3, Low Hazard dam. The Natural Resources Conservation Service (NRCS) has designed the project. The plans and specifications have been reviewed and will be approved; however, construction of the dam can not begin until Water Permit Application No. 1737-1 is approved.

The Malon Dam will be 31.5 feet high with a normal storage capacity of 165 acre-feet with a reservoir level at the primary spillway elevation, and a maximum storage capacity of 340 acre-feet with a reservoir level at the top of dam elevation. A dam of this size and hazard classification is required to have a minimum spillway design capable of passing a 50-year frequency event.

The dam has a drainage area of 10.84 square miles. A 50-year frequency event for this drainage area produces a peak runoff of approximately 1675 cfs. The dam is designed to have a 24 inch PVC conduit with a six foot square concrete riser with 7 feet of available freeboard as the primary spillway, and a 125 foot wide earth spillway with 3 feet of available freeboard as the secondary spillway. The dam has a combined spillway capacity of approximately 1770 cfs.

The annual yield for this drainage area with an 80 percent chance of occurrence, or 8 out of 10 years, is expected to be 18 acre-feet. The annual yield with a 50 percent chance of occurrence, or 1 out of 2 years, is expected to be 57 acre-feet and the annual yield with a 10 percent chance, or 1 out of 10 years, is expected to be 475 acre-feet.

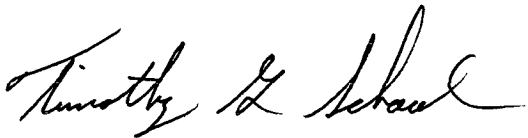
The proposed dam is a solution to repairing a failing upstream WPA dam with a rusted out primary spillway structure. The new dam will impound water to a level about two feet above the existing WPA dam water level. The upstream WPA dam had a storage capacity of approximately 75 acre-feet.

The Malon Dam will be located in the NE 1/4 SW 1/4 of Section 36-T7N-R14E on Pine Creek, about seven miles upstream of its confluence with the Cheyenne River. There is one existing

Water Right located on Pine Creek between the proposed dam and the Cheyenne River. Water Right No. 542-1, Mattie E. Newcombe, is located just above the Cheyenne River and appropriates 2.72 cfs from Pine Creek to irrigate 190.8 acres located in Section 25-T6N-R15E. Water Right No. 542-1 has a priority date of December 15, 1937. This water spreading irrigation project has approximately 22 square miles of additional drainage area to the 10.8 square miles of drainage above the proposed dam. The project is also covered by Water Permit No. 1060-1, which appropriates 4.70 cfs from the Cheyenne River to irrigate 332.4 acres located in Section 25-T6N-R15E. The new dam will store about twice as much water as the WPA dam, which has existed since the 1930's. Considering the additional drainage area available for the irrigation project, approval of Water Permit Application No. 1737-1 should not have any adverse effect on Water Right No. 542-1.

Conclusions:

1. Water Permit Application No. 1737-1 should be approved since unappropriated water is available and approval should not have any adverse effect on existing Water Permits/Rights.
2. If approved, the low flow bypass requirement for downstream domestic use should be a qualification on Water Permit Application No. 1737-1.



Timothy G. Schaal, P.E.
Natural Resources Engineer III

Approved by:



Gale N. Selken, P.E.
Natural Resources Engineer IV



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3181
www.state.sd.us/denr

NOTE: TO BE SURE OF PUBLICATION ON
THE CORRECT DATES, CONTACT
THE NEWSPAPER RIGHT AWAY.

October 11, 2000

Harvey Malon
635 Westwind Dr.
Rapid City SD 57702

Dear Mr. Malon:

Water Permit Application No. 1737-1 for fish & wildlife propagation, recreation and livestock watering use has been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice of hearing has been sent to the Publisher of the Meade Co. Times Tribune printed at Sturgis, SD (Ph # 605 347-2503). For your information, a copy of the notice, the recommendation of the Chief Engineer and a report on the application are enclosed. Please review the notice prior to publication and notify this office, if you have any corrections or questions.

Be sure to contact the above newspaper to authorize publication of your Notice of Hearing and to arrange for payment. Early contact with the paper can eliminate delays. The publisher has been instructed to publish your notice once each week for two consecutive weeks with the last publication to occur twenty days before the board meeting. The newspaper has been instructed to send us the Proof of Publication. We must receive Proof of Publication before action can be taken on the application.

Sincerely,

Eric Gronlund /KS

Eric Gronlund
Natural Resources Engineer
(605) 773-3352

enclosures

NOTE: If you plan to contest any part of the Chief Engineer's recommendation, you must file a petition pursuant to the procedures outlined in the attached notice of hearing. The Water Management Board will then consider your concerns during a hearing on the application.



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3181
www.state.sd.us/denr

October 11, 2000

Meade Co. Times-Tribune
Box 69
Sturgis SD 57785-0069

ATTENTION: Legal Public Notice

Enclosed is a Notice of Hearing on Application No. 1737-1 to Appropriate Water to be published twice. Please publish the first notice on October 18, 2000 with the second publication 7 days later.

The applicant must verify to you that the notice is to be published, before you make the first publication. **Please BILL the APPLICANT for the cost of publication.** The APPLICANT is Harvey Malon, 635 Westwind Dr., Rapid City SD 57702 (Ph # 605 343-2349).

Please send the Water Rights Program the first publication immediately. The publication is checked for accuracy so any corrections can be made in the second publication. You may use the form below or fax a copy of the first publication. Any fax should be sent to the attention of Karen Schlaak at (605) 773-4068. Publication errors can invalidate the public notice.

After the second publication, **please send us an affidavit or use the enclosed Proof of Publication form.** The applicant pays the cost of publication, but the Water Rights Program records require an affidavit or Proof of Publication. Delays in receiving the affidavit can be costly to the applicant.

Sincerely,

Eric Gronlund /ks

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

-----CU T HERE-----

No. 1737-1

TO: Eric Gronlund
Water Rights Program
Joe Foss Building
Pierre SD 57501-3181

Date _____

We are in receipt of your letter of October 11, 2000 enclosing Notice of Hearing to Appropriate Water by Application No. 1737-1 which was first published in our issue of _____. **ENCLOSED IS A COPY OF THIS FIRST PUBLICATION.**

Name

Newspaper

Instruction to Newspaper - Publish first Notice on October 18, 2000 with the second publication 7 days later. The applicant is responsible for payment.

NOTICE OF APPLICATION NO. 1737-1 to Appropriate Water

Notice is given that Harvey Malon, 635 Westwind Dr., Rapid City SD 57702 has filed an application for a water permit to impound 165 acre-feet of water from runoff by constructing a dam located in the NE $\frac{1}{4}$ SW $\frac{1}{4}$ Section 36 with water impounded in the S $\frac{1}{2}$ NW $\frac{1}{4}$, N $\frac{1}{2}$ SW $\frac{1}{4}$ Section 36; all in T7N-R14E. This application requests impoundment of sufficient water to maintain water at the outlet elevation. The water will be used to provide habitat for fish and wildlife propagation, recreational purposes and livestock water.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 1737-1 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. In accordance with SDCL 46-2A-23, the Chief Engineer will act on the application, as recommended, unless a petition is filed opposing the application or the applicant files a petition contesting the Chief Engineer's recommendation. If a petition opposing the application or contesting the recommendation is filed, then a hearing will be scheduled and the Water Management Board will consider the application. Notice of the hearing will be given to the applicant and any person filing a petition.

Any person interested in opposing or supporting this application or recommendation must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by November 6, 2000.

The petition may be informal, but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained. Contact Eric Gronlund at the above Water Rights Program address to request copies of information pertaining to this application. Steven M. Pirner, Secretary, Department of Environment and Natural Resources.

**PROOF OF PUBLICATION**

STATE OF SOUTH DAKOTA)
) SS
 County of Meade)

I, Joan M. Lewis

certify that the attached printed Notice was taken

from the Meade County
Times

printed and published in Sturgis

County of Meade and

state of South Dakota. The notice was published

in the newspaper on the following two dates:

Oct. 18, 2000

Oct. 25, 2000

Cost of Printing \$38.14

Joan M. Lewis
 (Signature)

Bookkeeper
 (Title)

10/31/00
 (Date Signed)

Water application**NOTICE OF APPLICATION****NO. 1737-1 to Appropriate Water**

Notice is given that Harvey Malon, 635 Westwind Dr., Rapid City SD 57702 has filed an application for a water permit to impound 165 acre-feet of water from runoff by constructing a dam located in the NE1/4 SW1/4 Section 36 with water impounded in the S1/2 NW1/4, N1/2 SW1/4 Section 36; all in T7N-R14E. This application requests impoundment of sufficient water to maintain water at the outlet elevation. The water will be used to provide habitat for fish and wildlife propagation, recreational purposes and live-stock water.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 1737-1 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. In accordance with SDCL 46-2A-23, the Chief Engineer will act on the application, as recommended, unless a petition is filed opposing the application or the applicant files a petition contesting the Chief Engineer's recommendation. If a petition opposing the application or contesting the recommendation is filed, then a hearing will be scheduled and the Water Management Board will consider the application. Notice of the hearing will be given to the applicant and any person filing a petition.

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Publ Oct. 18 and 25, 2000
 Meade County Times-Tribune

(Continued on page 17)



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

Harvey Malon
635 Westwind Dr.
Rapid City SD 57702

Dear Mr. Malon:

Enclosed is Water Permit No. 1737-1 authorizing construction of your water diversion system and beneficial use of the water, not exceeding the limits as specified in the Water Permit.

Form 10, *Notice of Completion of Works and Application of Water to Beneficial Use*, is enclosed. Please return this completed form after you have finished the system and have put the water to beneficial use. An investigation can then be scheduled so the water license may be issued, thus completing the acquisition of a water right.

An informational sheet *Common Water Right Questions* is also enclosed. This sheet is intended to answer some of the questions associated with obtaining and keeping a water right.

Sincerely,

Garland Erbele, Chief Engineer
Water Rights Program
(605) 773-3352

enclosures

**NOTICE OF COMPLETION OF WORKS AND
APPLICATION OF WATER TO BENEFICIAL USE**

Date 12-11-2001

TO: Water Rights Program, DENR
523 E. Capitol
Pierre, SD 57501-3181

FROM: HARVEY K. MALON

635 ~~100~~ Westwind Dr.
Rapid City, SD 57702
(address)

(city, state, zip)

605-343-2349
(phone)



I have completed the construction of the water use system and I have put the water to beneficial use to the maximum extent it is going to be used.

Water Permit No. 1737-1 states that the water use system is to be constructed by

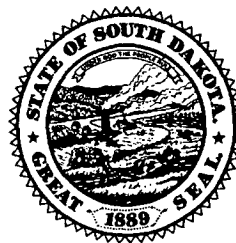
11-2-2005 , and water is to be put to beneficial use by 11-6-2009 .
(date) (date)

The water use system was completed on 10-1-2001 .
(date)

Applying the water to beneficial use ^{will be} ~~was~~ completed on 6-1-2002 .
(date)

You may schedule an investigation so that the water license may be issued.

Harvey K. Malon
(signature)



**Permit No. 1737-1
Meade County**

To: Chief Engineer, Water Rights Program, DENR Foss Bldg., Pierre, SD 57501

Other permit/license(s) associated with project: **None**

Contact Person & Address: **Harvey Malon, 635 Westwind Dr., Rapid City, SD 57702 Phone: 605 343 2349**

Report Of Examination of Works

On **September 10, 2002**, I made a thorough examination of a dam constructed by **Harvey Malon**, holder of Permit No. **1737-1**, bearing the priority date of **September 18, 2000** authorizing the storage of **165 acre-feet** of runoff water.

The system is in the following condition: **Good**. The dam is located in the **SE¼ NW¼ Section 36 T7N R14E 2270-feet East 2640-feet South of the NW corner of Section 36 (W102.3725° N44.5250°)**. The dam is capable of storing **165 acre-feet** of water for **Fish & Wildlife Propagation, Recreation, and Livestock Watering**. This is a **Category 3 Low Hazard** dam.

Review of Permit Qualifications and Regulations:

- 1) Special qualifications to permit being abided by: **NA**
- 2) All structures, wells and lands on map: **Diversion location on map.**
- 3) Irrigation Questionnaires checked to determine if permit owner started irrigation by the end of construction period: **NA**
- 4) Exceptions to compliance are: **None**

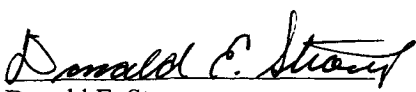
Report on Specifics of the System

Dam Information

- | | |
|---|--|
| 1) Height to crest: 31 feet | 2) Height to primary spillway or outlet: 24-feet |
| 3) Height to secondary spillway: 28-feet | 4) Crest width: 14-feet |
| 5) Crest length: 395-feet | 6) Spillway length: 450-feet |
| 7) Spillway width: 100-feet | 8) Approx. storage: 165 ac-ft |
| 9) Outlet tubes: | |
| a) diameter: 24-inches | b) type: PVC located at bottom of 6x6x6-feet concrete riser |
| c) valved: No | d) valve type: NA |

COMMENTS:

Water has been put to beneficial use and the dam should be licensed for storage of 165 acre-feet of water for Fish & Wildlife Propagation, Recreation, and Livestock Watering.


Donald E. Stroup
Natural Resources Project Engineer
DENR, Water Rights Program

9/17/02
Date

Approval of Location Change and/or Additional Diversion Point(s)

NAME: Harvey Malon

ADDRESS: 635 Westwind Dr., Rapid City, SD 57702

DATE: September 16, 2002 **COUNTY:** Meade

AUTHORITY:

Pursuant to SDCL 46-5-13.1, the location of a diversion point may be changed or additional diversion points may be licensed provided the following conditions are met and the potential for interference with other existing diversions is not increased:

- **Developed water source same as permitted source and no additional water appropriated**

The dam location was reported as in the NE $\frac{1}{4}$ SW $\frac{1}{4}$ Section 36 T7N R14E. GPS and on-site examination located the center of the dam's crest as in the SE $\frac{1}{4}$ NW $\frac{1}{4}$ Section 36 T7N R14E. The water source for the dam remains the same and no additional water will be appropriated.

- **~~If irrigation, no new land is irrigated~~**

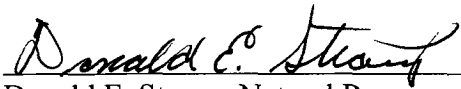
No land is irrigated. Water is for Wildlife Propagation, Recreation, and Livestock Watering.

- **Review of Existing Diversions**

This location change will not affect any other appropriations.

RECOMMENDED ACTION

Based on the above criteria, it is recommended that the diversion point(s) be licensed as developed.



Donald E. Stroup, Natural Resources Project Engineer
Water Rights Program

The Chief Engineer makes a finding pursuant SDCL 46-5-13.1 and ARSD 74:02:01:14.01 that:

This change in location and/or additional diversion point(s) does not increase the potential for adverse effects to existing diversions.



Garland Erbele, Chief Engineer
Water Rights Program

STATE OF SOUTH DAKOTA

WATER LICENSE NO. 1737-1

(1) Harvey Malon, 635 Westwind Dr., Rapid City SD 57702 made Application No. 1737-1, September 18, 2000 for a water permit to impound 165 acre feet of water from runoff, Meade County, South Dakota for fish and wildlife propagation, recreation and livestock watering purposes. Permit No. 1737-1, with a priority date of September 18, 2000 was approved November 6, 2000 and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before November 6, 2005 and for the application to beneficial use of water on or before November 6, 2009.

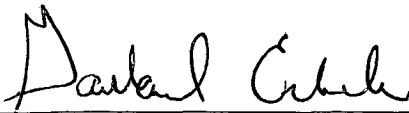
An investigation conducted for licensing purposes found the storage dam (spillway) developed under Water Permit No. 1737-1 was not in the location authorized by the permit. Pursuant to SDCL 46-5-13.1 and 46-5-30.5, the Chief Engineer makes a finding that existing water rights will not be impaired and the overall project, as developed, is consistent with the original application.

(2) The water supply system has been completed and water applied to beneficial use in accordance with South Dakota State Law. Pursuant to South Dakota Codified Law 46-5-30.1, the holder and/or owner of Water Right No. 1737-1 is issued a license, bearing a priority date of September 18, 2000, to impound 165 acre feet of water.

The location of the storage dam (spillway) is 2,270 feet east and 2,640 feet south of the northwest corner of Section 36-T7N-R14E (SE ¼ NW ¼).

(3) This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Permit No. 1737-1, including the following qualifications:

- Water Permit No. 1737-1 authorizes a dam with a storage capacity of 165 acre feet of water and sufficient water annually to maintain the water level to the outlet elevation.
- Low flows as needed for downstream domestic use, including livestock water and prior water rights must be by-passed.



Garland Erbele, Chief Engineer
Water Rights Program
Department of Environment and Natural Resources

SEP 20 2002

date





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

SEP 20 2002

1737-1

Harvey Malon
635 Westwind Dr.
Rapid City SD 57702

Dear Mr. Malon:

Enclosed is Water License No. 1737-1. This is the final water right document completing your process of obtaining a Water Right.

As long as you use the water beneficially, as stated in the Water License, State Water Laws provide that you have a continuing right to use the water.

Sincerely,

Garland Erbele, Chief Engineer
Water Rights Program
(605) 773-3352

enclosures