

WATER PERMIT NO. 2503-2

Name of Applicant: Lynn Leichtnam

Address: Box 204, Presho SD 57568

Phone: 605 895-2324

Amount of Water Claimed: 47.4 AF

Total Acres: NA

Source of Water Supply: runoff

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

County: Lyman
Lyann

Type of Waste Disposal System:

Location: 1 mile northwest of Presho

PRIORITY

Date Received: 4-21-03

Application/License Fee: \$200

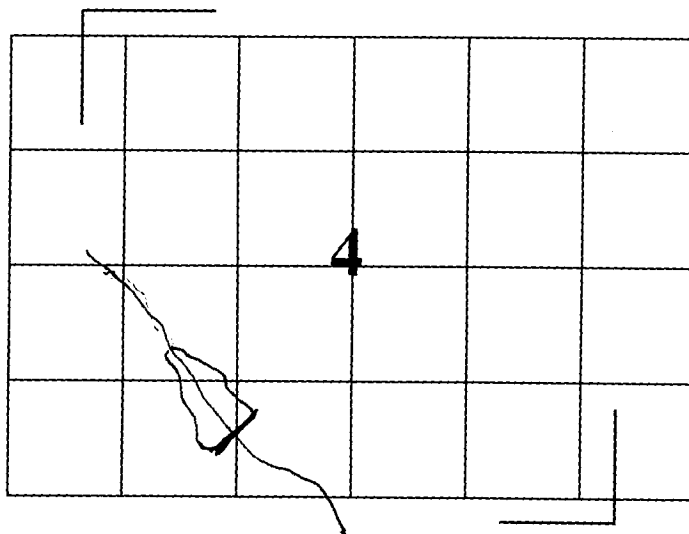
Corrected Application Received:

Period of Annual Use: January 1 – December 31

Remarks:

Diversion Point: S ½ SW ¼ Sec 4-T105N-R77W

Water Impounded: S ½ SW ¼, NW ¼ SW ¼ Sec
4-T105N-R77W



Depth of Well: NA

Well Driller: : NA

Remarks:

Type of Map: topo

Prepared by: Tim Olson, GF&P

Reviewed and the Number Assigned on: 4-29-03

By: Karen Schlaak

Notice of Hearing - date to intervene: _____

**SOUTH DAKOTA
WATER PERMIT NO. 2503-2**

Date of first receipt of application April 21, 2003.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 2503-2 to Lynn Leichtnam, Box 204, Presho SD 57568 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. 2503-2 authorizes impoundment of 38 acre-feet of water from runoff by constructing a dam located in the S $\frac{1}{2}$ SW $\frac{1}{4}$ Section 4 with water impounded in the S $\frac{1}{2}$ SW $\frac{1}{4}$, NW $\frac{1}{4}$ SW $\frac{1}{4}$ Section 4; all in T105N-R77W.
2. The water appropriated shall be used for the purpose of fish and wildlife propagation, recreation and livestock 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. 2503-2 is June 23, 2003.
5. The date from which applicant may claim right is April 21, 2003.
6. One-fifth of the construction is to be completed on or before December 23, 2005.
7. All construction is to be completed on or before June 23, 2008.
8. Water is to be put to beneficial use on or before June 23, 2012.
9. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

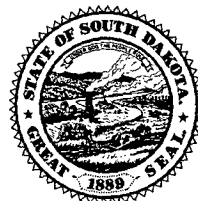
1. Water Permit No. 2503-2 authorizes a dam with a storage capacity of 38 acre feet of water and sufficient water annually to maintain the water level to the outlet elevation.
2. Low flows as needed for downstream domestic use, including livestock water and prior water rights must be by-passed.

WATER MANAGEMENT BOARD

By: Garland Erbele

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

JUN 30 2003
date



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

RECEIVED
APR 21 2003
WATER RIGHTS
PROGRAM

Mail to: Water Rights Program Joe Foss Building 523 E. Capitol Pierre, SD 57501-3181 (605) 773-3352	No. <u>2503-2</u>	(office use only) Hydrologic Unit <u>10140104</u>
	Basin <u>Missouri River</u>	
	Newspaper <u>Lyman Co Herald, Presho</u>	

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

Check use(s) of water:

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

Type of Application:
(check one)

- ☒ New ☐ Vested Right (Use predates Mar 2, 1955) ☐ Future Use Reservation
☐ 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 Lynn Leichtnam Phone 895-2324
(check one) ☐ Owner ☐ Tenant/lessee
Mailing Address Box 204 Presho State SD 57568
(Street, RR, or Box and City) (Zip Code)
2. Amount of water claimed _____ *CFS or _____ **GPM 47.4 38 ***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 Dry draw
4. Location of point of diversion (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W) County Lyman
S 1/2 SE 1/4, SW 1/4 Sec. 4, T105N R77W Water Impounded:
S 1/2 SW 1/4, NW 1/4 SW 1/4 Sec. 4 T105N-R77W
5. County or counties where water will be used Lyman
6. Annual period during which water is to be used Year around Jan 1-Dec 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)

Dam to be constructed in cooperation with S.D.
Game, Fish & Parks for fish, wildlife and recreational
Purposes

STATE OF SOUTH DAKOTA)

County of Lyman)

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)

I, Lynn Leichtnam, 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.

Applicant's signature Lynn Leichtnam

Subscribed and sworn to before me this 18th day of April 20 03



Tim Olson
Notary Public signature

My Commission Expires
May 18, 2007

(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 _____ 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) _____ Year Constructed _____
- c) Connected to the City of _____ Sanitary System _____

3. Dugout Information

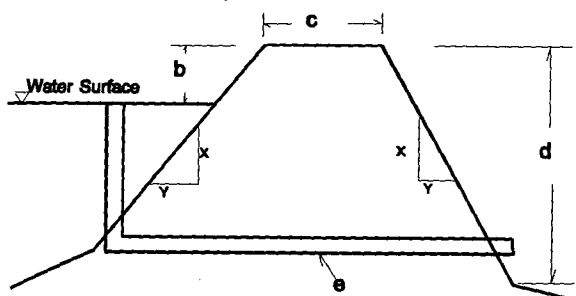
- a) Surface Dimensions _____ Depth _____
- b) Depth to water (ground surface to water level) _____

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.

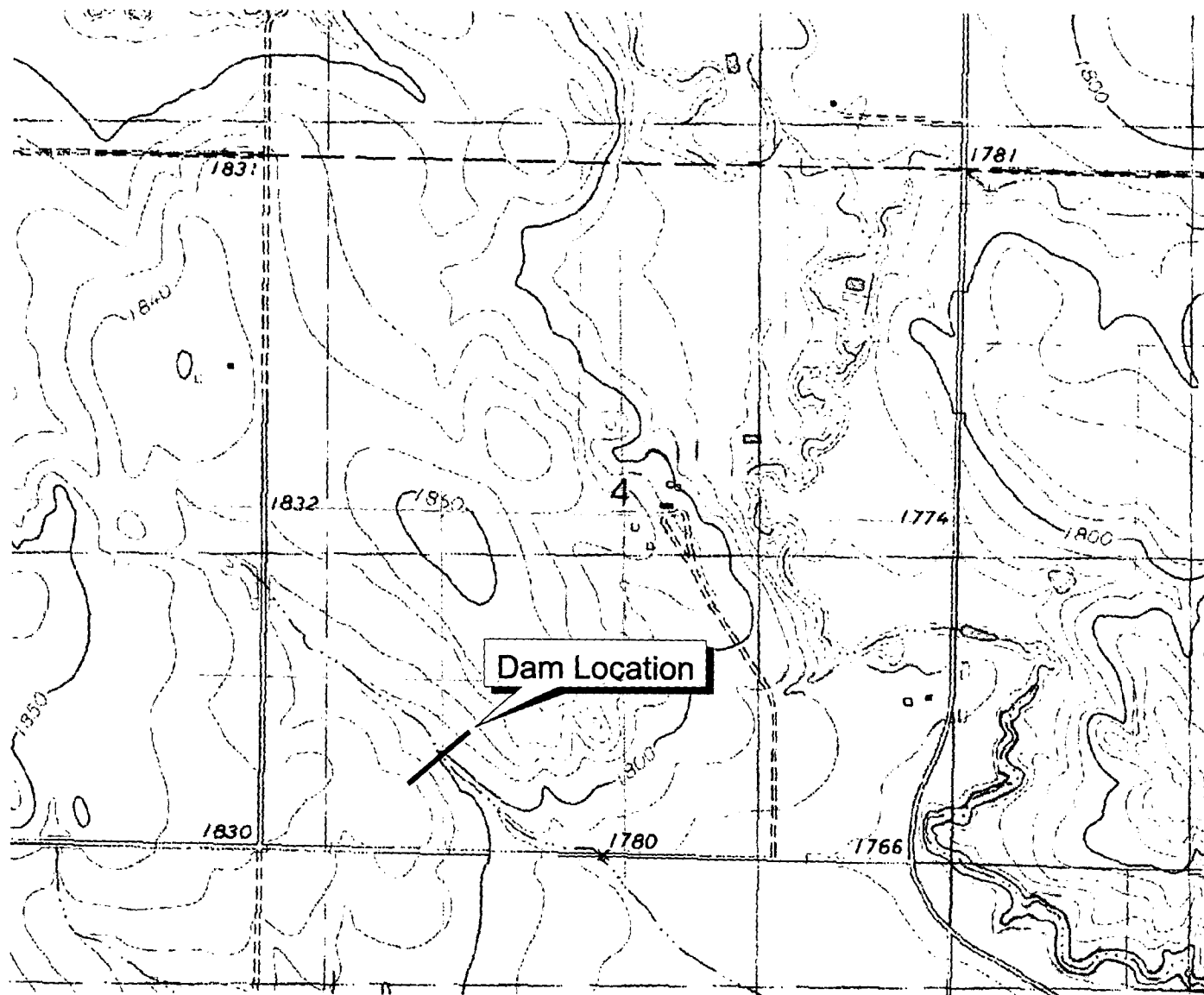
- a) If a private engineering firm or government agency was involved in the design of this dam, please give their name and address:

Kennebec NRCS Office
202 S. Main St. Suite 1
PO Box 156
Kennebec, SD 57544

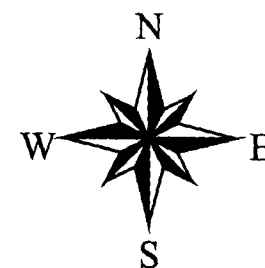


- b) Freeboard 4' to primary spillway
- c) Crest Width 12'
Crest Length 595'
- d) Height 16.4'
- e) Primary Outlet Capacity 23.5 cfs
If pipe, diameter 18" w/ 36" riser
- f) Secondary Spillway Capacity 18.8 cfs
Spillway Width 30'
- g) X & Y Slope
Upstream 3:1
Downstream 3:1
- h) Surface Area of Impoundment 8.76
- i) Storage 38 Acre Feet
- j) Drainage Area Above Dam 174 Acres

Lynn Leichtnam Dam



SE 1/4, SW 1/4, Sec. 4
T105N, R77W
Lyman County



2503-2

Tom Olsen SDGFP

Owner's Name ----- Lynn Leichtnam
Site name or number -----
District ----- Lyman County, SD
Location ----- SW 4-105-77
Drainage area ----- 174 Acres

Permanent pond area ----- 8.76 acres
Permanent storage below crest ----- 37.99 acre feet
Temporary storage to the emergency spillway ----- 9.41 acre feet
Total storage to the emergency spillway ----- 47.40 acre feet
Total storage to the top of fill ----- 83.56 acre feet

Fill height at centerline of fill ----- 15.8 feet
Effective fill height ----- 12.8 feet
Overall fill height to downstream toe ----- 16.4 feet

TR-60 product > > > 607 < < <

<< Principal Spillway Hydrology Design >>

Rainfall Distribution Type >>II << Runoff Curve Number 84
P 2 - 24 hr. rainfall = 2.3 inches - Time of concentration = 0.78 hr.
Peak runoff = 103 cfs -- Peak runoff volume = 13.97 ac. ft.

<< Principal Spillway >>

(Note: Pipe length shown is the centerline of pipe
perpendicular to the centerline of fill)

Pipe length used in the routing = 78.0 lin. ft.

18" combination Hooded inlet & riser see job plans

~~84.0 Lin. Feet of 18 inch diam. SPP with a Drop inlet~~
~~6.0 Lin. Feet of 30 inch diam. SPP for the riser~~
Mannings Friction value 'n' = 0.0100

<< Emergency Spillway Hydrology Design >>

P 25 - 24 hr. rainfall = 4.2 inches
Peak runoff = 294 cfs -- Peak runoff volume = 36.95 ac. ft.

<< Emergency Spillway >>

Bottom width of the emergency spillway = 30 feet
Vegetated Retardance = 'D' Crest Length = 150 feet
Emergency spillway flow = 18.8 cfs
Velocity = 3.0 ft./sec.
Minimum exit slope = 1% -- Maximum exit slope = 6%

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date April 21, 2003

RECEIVED OF Lynn Leightnam, PO Box 204, Presho SD 57568-0204

The following amount in fees for services rendered as provided for by law:

Fee for Application for Permit No. <u>2503-2</u> to Appropriate Water, to construct and to put water to beneficial use	150	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. <u>2503-2</u>	50	00
Fee for Filing Transfer Form _____		
Fee for _____		
Fee for Issuing New Well Driller's License No. _____ for C.Y. _____		
Fee for Renewal of Well Driller's License No. _____ for C.Y. _____		
Fee for Issuing Well Pump Installer's License No. _____ for C.Y. _____		
Fee for Renewal of Well Pump Installer's License No. _____ for C.Y. _____		
(Any Other Work Provided by Law)	TOTAL	200.00

No.

000769

By

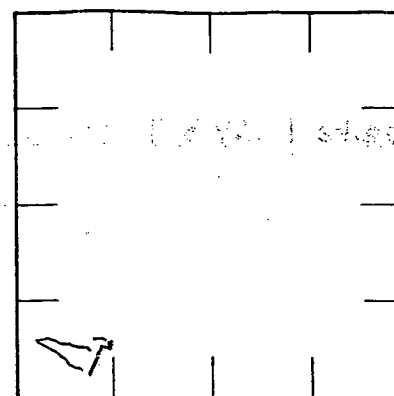
Darland Erbele

Chief Engineer

gm

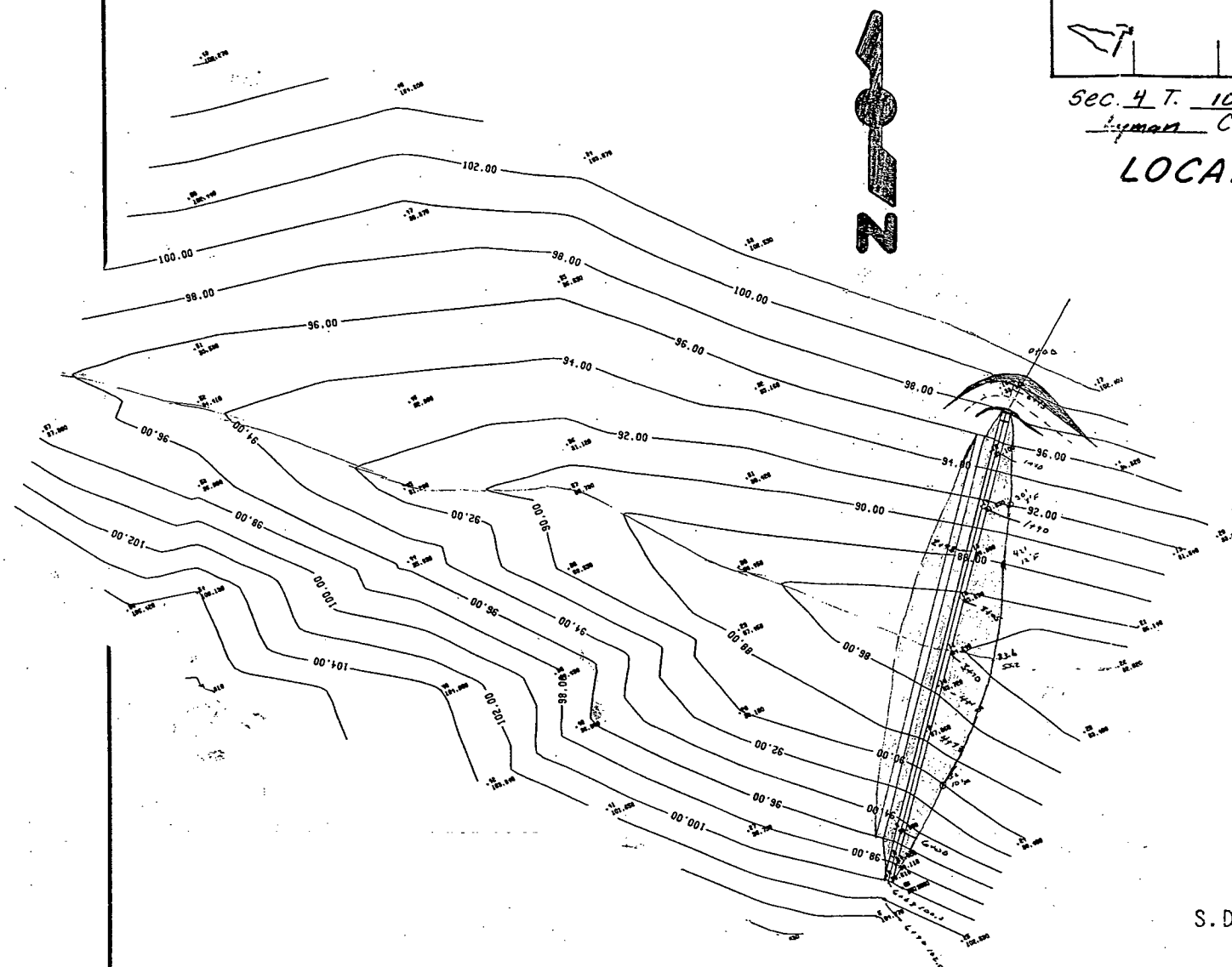
STRUCTURE DATA

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.
174	8.8	309		10.6	8.76	—	38.0



Sec. 4 T. 105 R. 77
Lynn County

LOCATION



"Class A Dam"

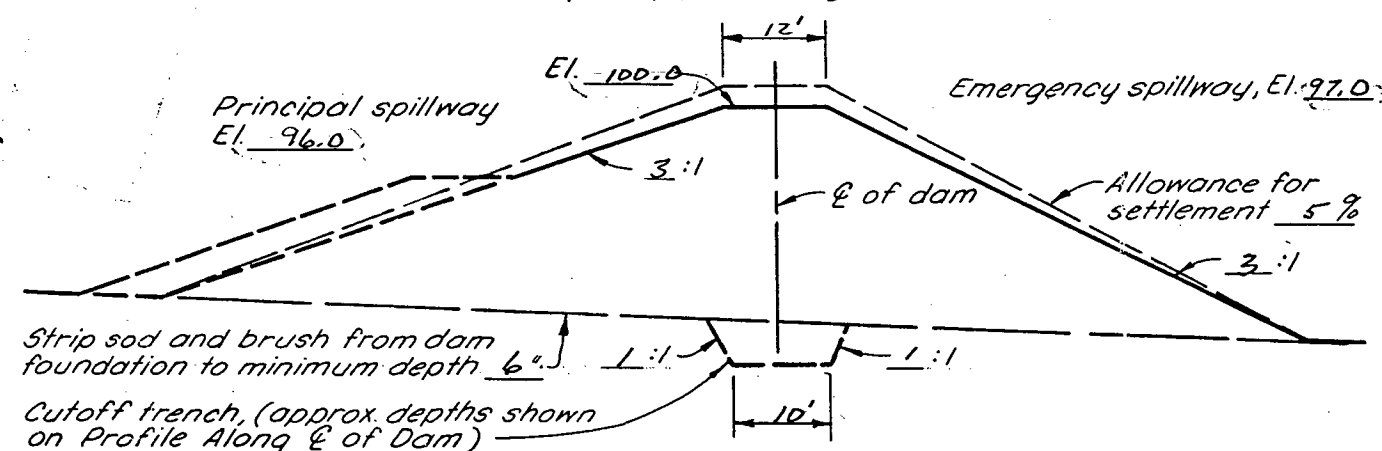
SKETCH PLAN OF DAM AND RESERVOIR AREA

Approximate scale 1" = 50'

TABLE OF QUANTITIES*1

ITEM	UNIT	QUANTITY
Earthwork: Embankment	c. Yd.	11,457
Stripping	c. Yd.	1,759
Core	c. Yd.	728
5% Total	c. Yd.	573
Undercut Spwy. and backfill Topsoil		
18" PE Dual wall corrugated Pipe JP#20	l. ft.	78
Timber Pipe Support Job Plan # 4.0	ea.	1
Concrete Riser Job Plan # 5.4A	ea.	1
Anti vortex Raffle	ea.	1
6 x 6' Anti seep collars	ea.	3

*1 Quantities Are Estimates Based on
Design Survey - Actual Amounts Will be
Determined after Final Staking



TYPICAL CROSS SECTION OF DAM

S.D. CONSTRUCTION AND MATERIAL SPECIFICATIONS:

- SD-4 Stripping
- SD-5 Excavation
- SD-75 Earth Fill Class S
- SD-10 Salvaging + Spreading Topsoil
- SD-128 Concrete for Minor Structures
- SD-16 Timber Fabrication + Installation

EARTH DAM

OPERATOR: Lynn Leichtnam

CONSERVATION DISTRICT: American Creek

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

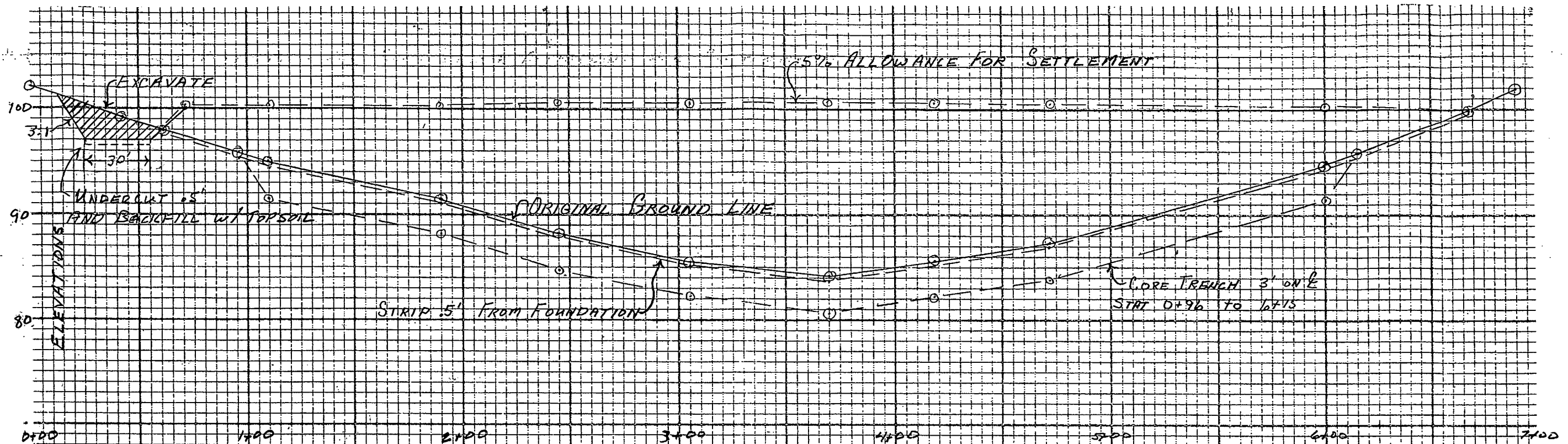
Designed: <u>2-03</u>	Date: <u>2-03</u>	Approved by: <u>Lynn Leichtnam</u>
Drawn: _____	Title: _____	
Traced: _____	Title: _____	
Checked: _____	Sheet No. _____	Drawing No. _____

REFERENCE: GUIDE PLAN NO. 1.0

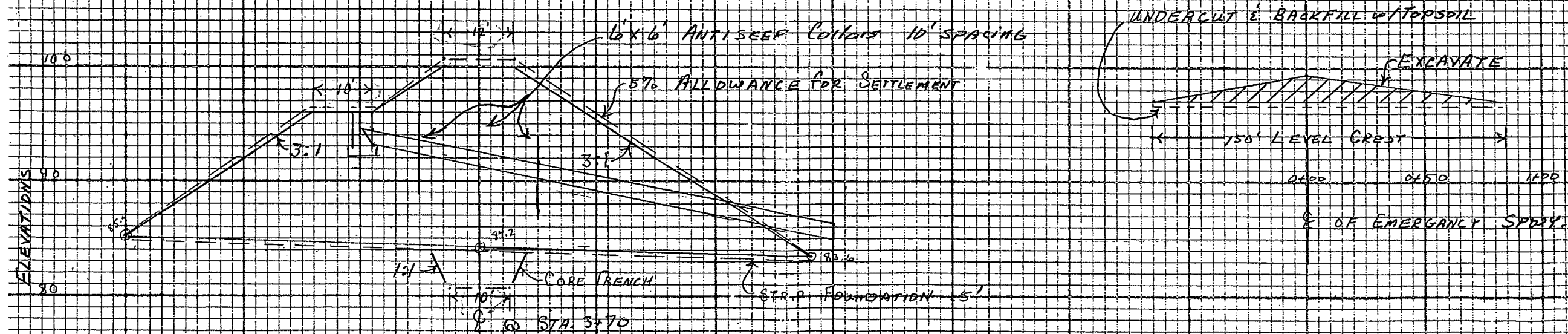
JOB PLAN NO. 1.0

(Rev. 4-73) 5, N-29, 073.1a(1)

2503-2



CROSS SECTION AT CREST OF EMERGENCY SPILLWAY AND PROFILE ALONG C OF DAM

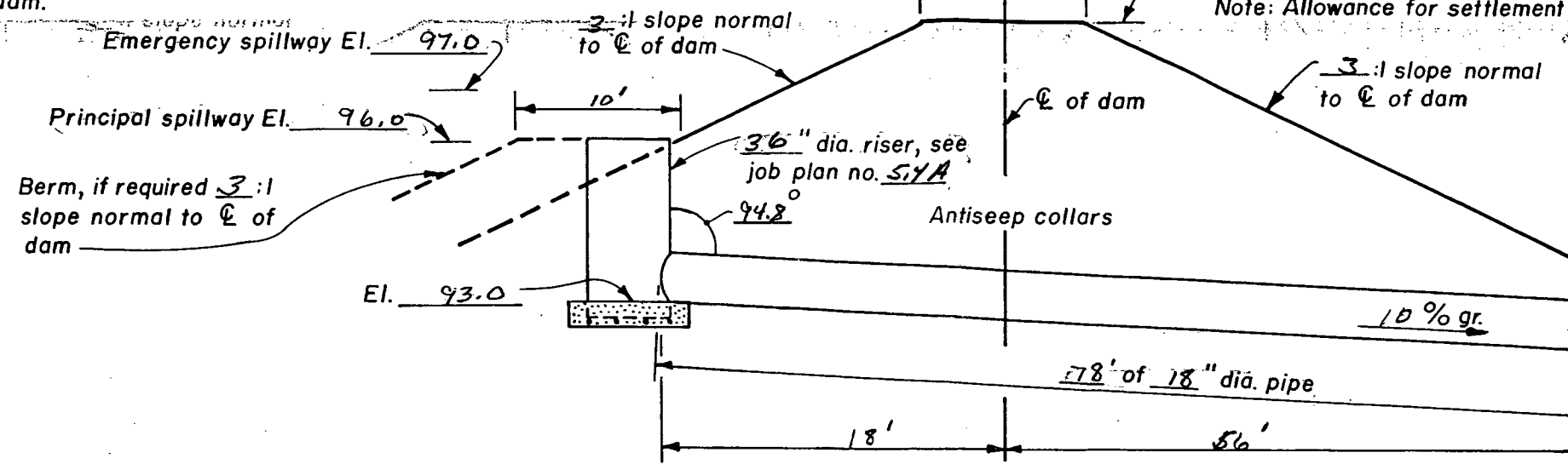


Locate principal spillway pipe
at $\mathbb{C}$ of dam sta. 5 + 70, at
an angle of 90° to the $\mathbb{C}$ of
the dam.

Trash rack and baffle plate
not shown. See job plan
no. 54B

Top of dam after
settlement El. 100.0

Note: Allowance for settlement 5 %



CROSS SECTION OF DAM ALONG C OF PRINCIPAL SPILLWAY
(Not to scale)

SPECIFICATION NOTES

1. ELBOW, IF REQUIRED, MAY BE FABRICATED BY CONTINUOUS WELDING SEPERATE PIPE SECTIONS OR BY FABRICATING A CONTINUOUS WELDED JOINT ON THE UPSTREAM END OF LAST SECTION OF PIPE.
2. PIPE WALL THICKNESS SHALL BE _____ GAGE OR _____ INCHES.

Use 18" Corrugated Smooth
Line of PE Pipe.

Use 6' x 6' Anti seep
collars

Saturated Distance = 6.6'

$$66(0.15) = 9.9'$$

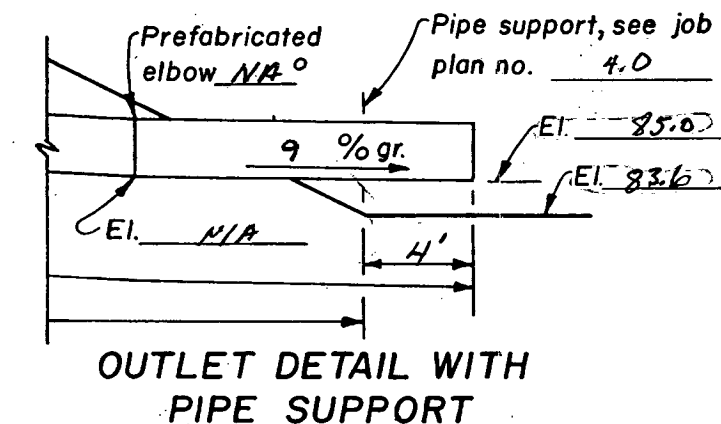
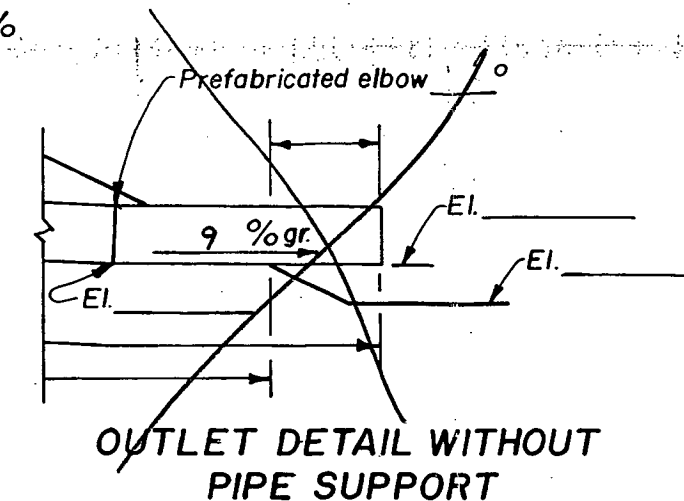
9,9

4.5 = 2.2 use 3 collars

TABLE OF QUANTITIES

[illegible]

APPLICABLE STANDARD S.C.S. SPECIFICATIONS



Sec. 4, T. 105, R. 77
Lyman County

**CORRUGATED METAL PIPE
DROP INLET PRINCIPAL SPILLWAY**

OPERATOR Lynn Leichtnam

CONSERVATION DISTRICT American Creek

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Designed <i>J. G. Jones</i>	Date <i>2-23</i>	Approved by <i>J. G. Jones</i>
		Title <i>RGT</i>

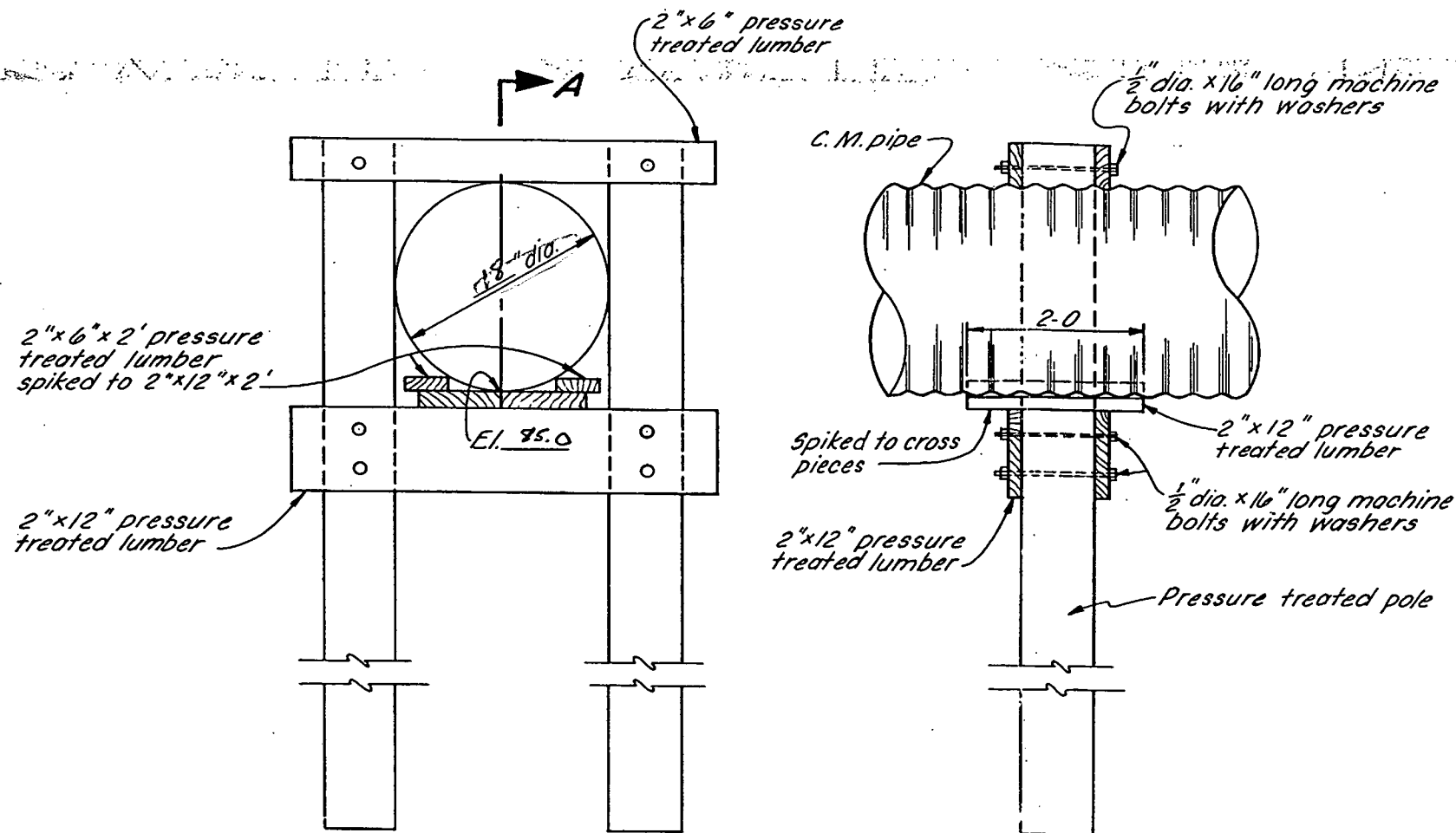
Drawn.....

Traced	Title	
	Sheet	Drawing No.

Checked _____	No _____
	of _____

REFERENCE: GUIDE PLAN NO. 2.0

Rev. 8/80
JOB PLAN NO. 2.0



ELEVATION

SECTIONAL ELEVATION A-A

TABLE OF QUANTITIES

ITEM	LENGTH FOR 18" DIA. C.M. PIPE	UNIT	QUANTITY
PRESSURE TREATED POLE 8" DIA.	8-0	EACH	2
2" X 12" PRESSURE TREATED LUMBER	4-0	EACH	2
2" X 6" PRESSURE TREATED LUMBER	4-0	EACH	2
2" X 12" PRESSURE TREATED LUMBER	2-0	EACH	2
2" X 6" PRESSURE TREATED LUMBER	2-0	EACH	2
1/2" DIA. MACHINE BOLTS WITH NUTS	1-4	EACH	10
1/2" DIA. WASHERS		EACH	20

NOTES:

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

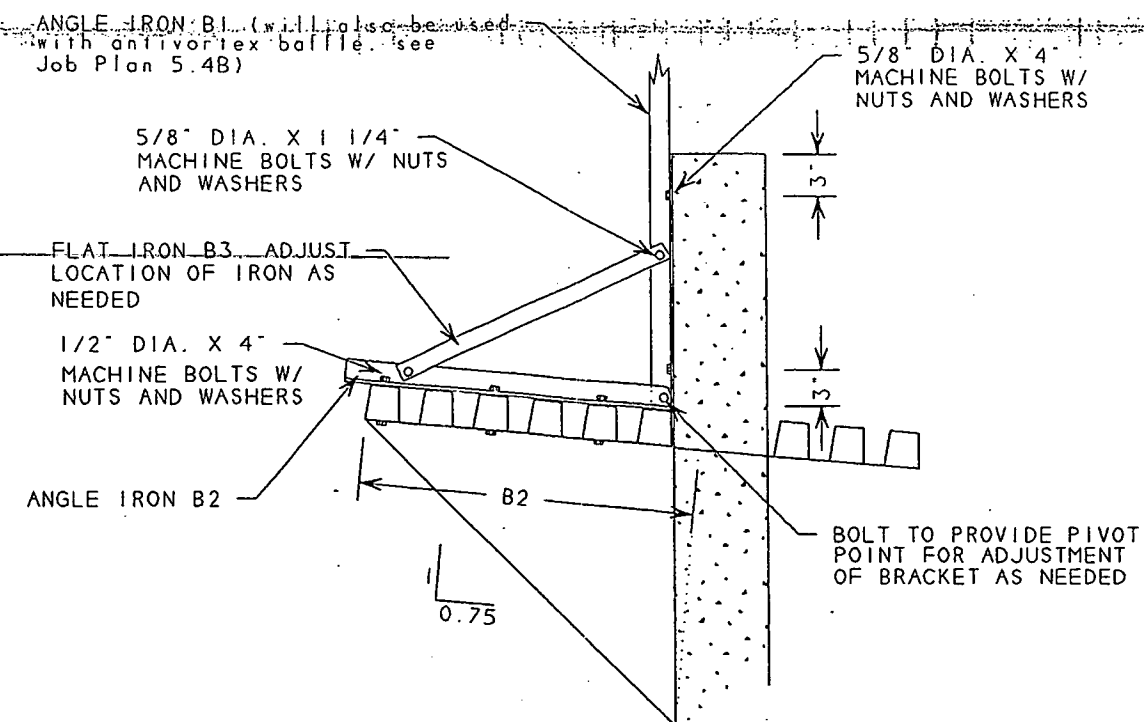
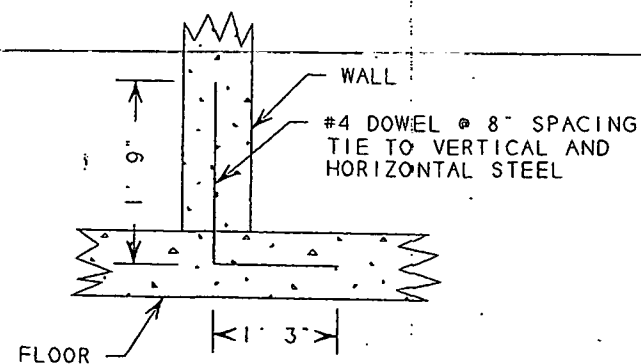
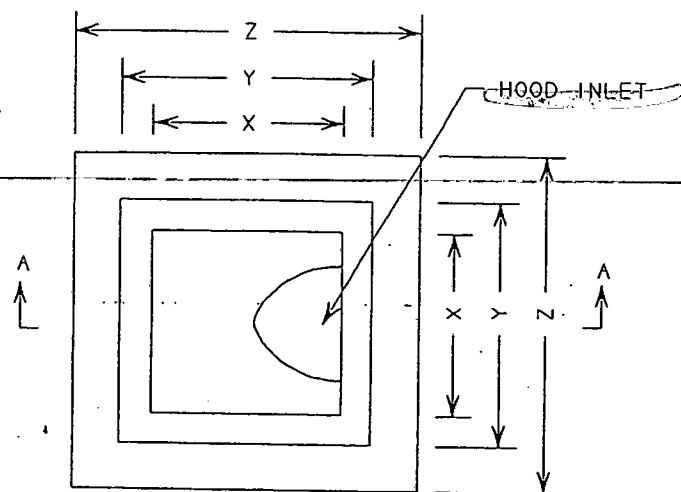
TIMBER PIPE SUPPORT

OPERATOR: Lynn Leichter

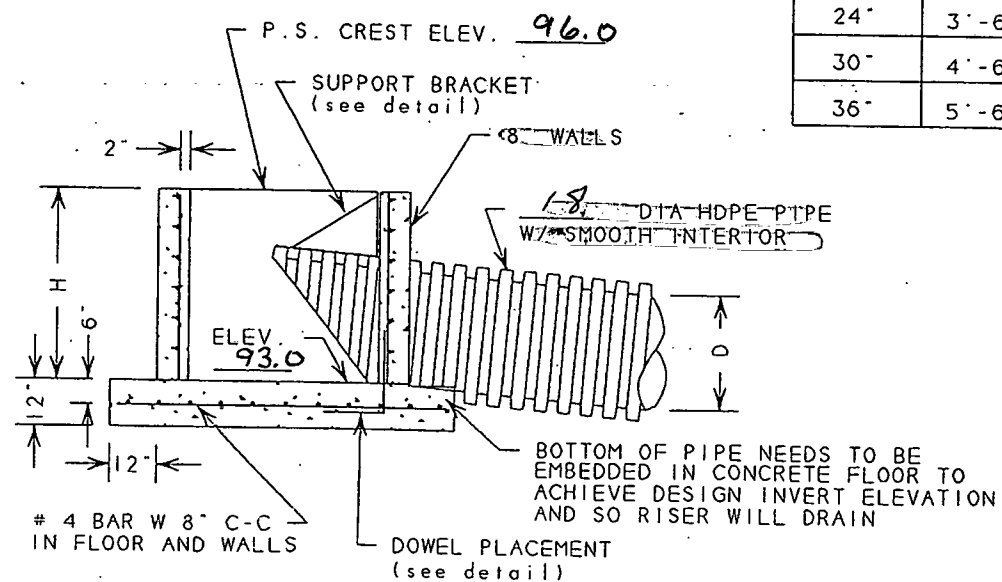
CONSERVATION DISTRICT: American Creek

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Designed: J. S. Smith Date: 2-05 Approved by: J. S. Smith
 Drawn: _____ Title: RECEIVED
 Traced: _____ Title: _____
 Checked: _____ Sheet: _____ Drawing No. _____
 of _____



BARREL DIA. D	FT.-IN. X	FT.-IN. Y	FT.-IN. Z	FT.-IN. H	CONCRETE CU.YDS.	#4 REBAR LBS.	SUPPORT BRACKET			BOLTS W/ WASHERS & NUTS		
							2" X 2" 3/16" ANGLE IRON		3/16" X 2" FLAT IRON	1/2" DIA	5/8" DIA	5/8" DIA
							LENGTH FT.-IN. B1	LENGTH FT.-IN. B2	LENGTH FT.-IN. B3	X 4"	X 1 1/4"	X 4"
10"	3'-0"	4'-4"	6'-4"	3'-0"	2.6	220	2'-10 1/4"	7 1/2"	1'-3"	2	2	2
12"	3'-0"	4'-4"	6'-4"	3'-0"	2.6	220	2'-10 1/8"	9"	1'-4"	2	2	2
15"	3'-0"	4'-4"	6'-4"	3'-0"	2.6	220	2'-10 3/8"	11 1/4"	1'-5"	2	2	2
18"	3'-0"	4'-4"	6'-4"	3'-0"	2.6	220	2'-10 3/4"	1'-1 1/2"	1'-6"	2	2	2
24"	3'-6"	4'-10"	6'-10"	4'-0"	3.4	295	3'-8 1/4"	1'-6"	1'-9"	3	2	2
30"	4'-6"	5'-10"	7'-10"	4'-0"	4.4	345	3'-8"	1'-10 1/2"	2'-0"	3	2	2
36"	5'-6"	6'-10"	8'-10"	4'-6"	5.6	430	4'-3/4"	2'-3"	2'-4"	3	2	2



NOTE: 1. CONCRETE AROUND PIPE NEEDS TO BE VIBRATED TO INSURE A GOOD SEAL AROUND PIPE.

2. CONSTRUCTION JOINT BETWEEN WALLS AND FLOOR OF CONCRETE RISER WILL HAVE #4 DOWELS @ MAX. 8" SPACING.

3. PE DOUBLE WALL CORRUGATED PIPE W/
SMOOTH INTERIOR (AASHTO M294 TYPE S)
WITH BELL & SPIGOT JOINT AND
WATER TIGHT GASKET.

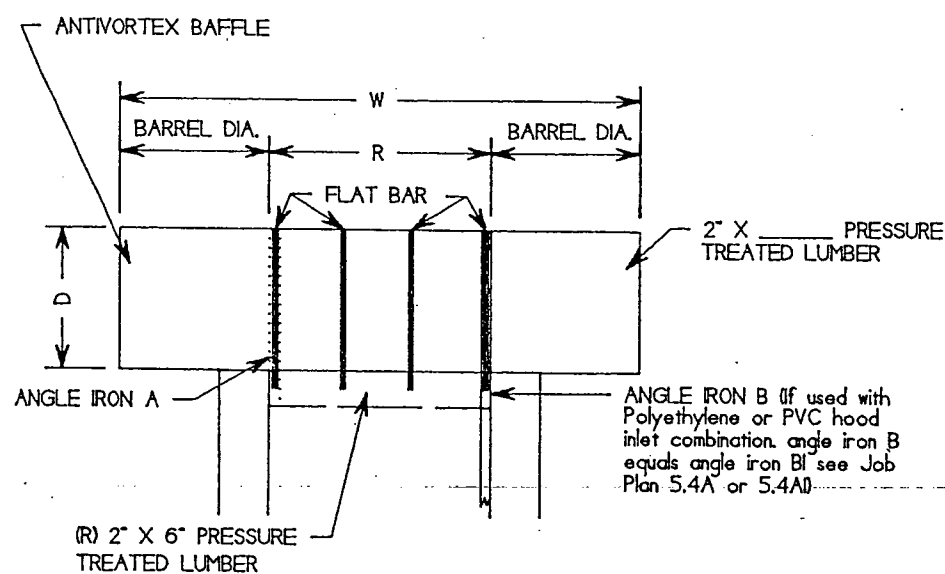
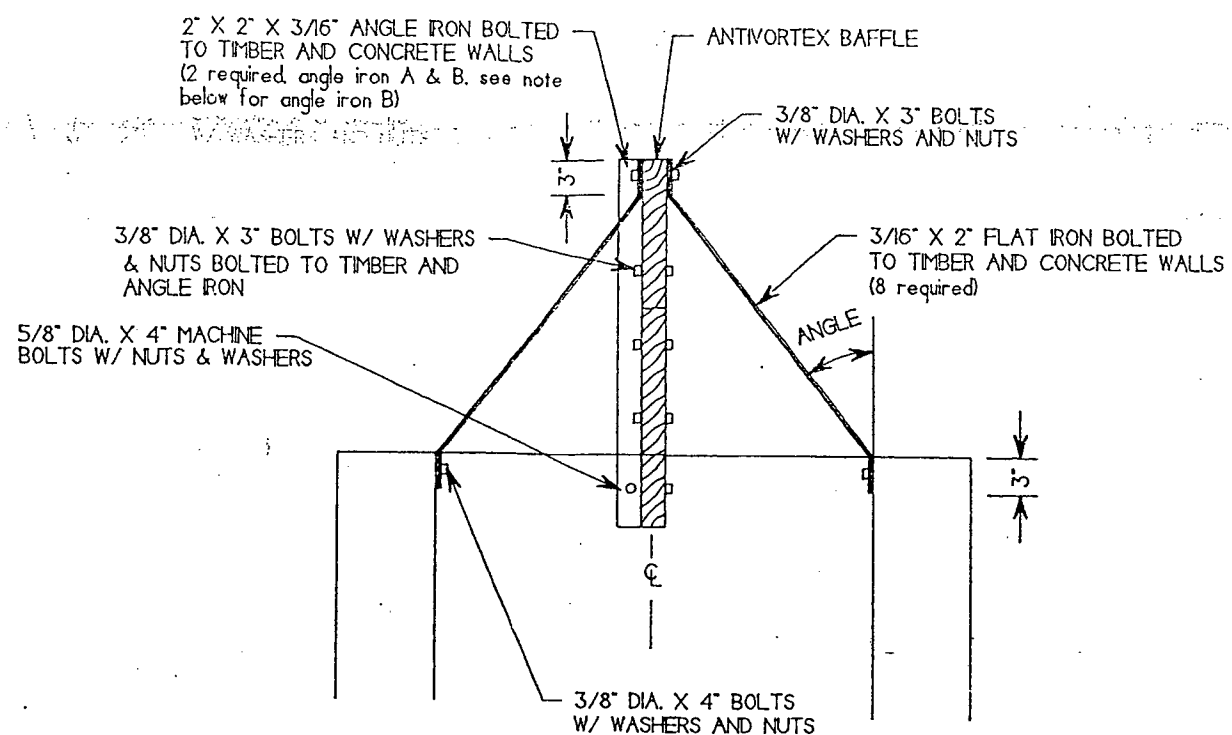
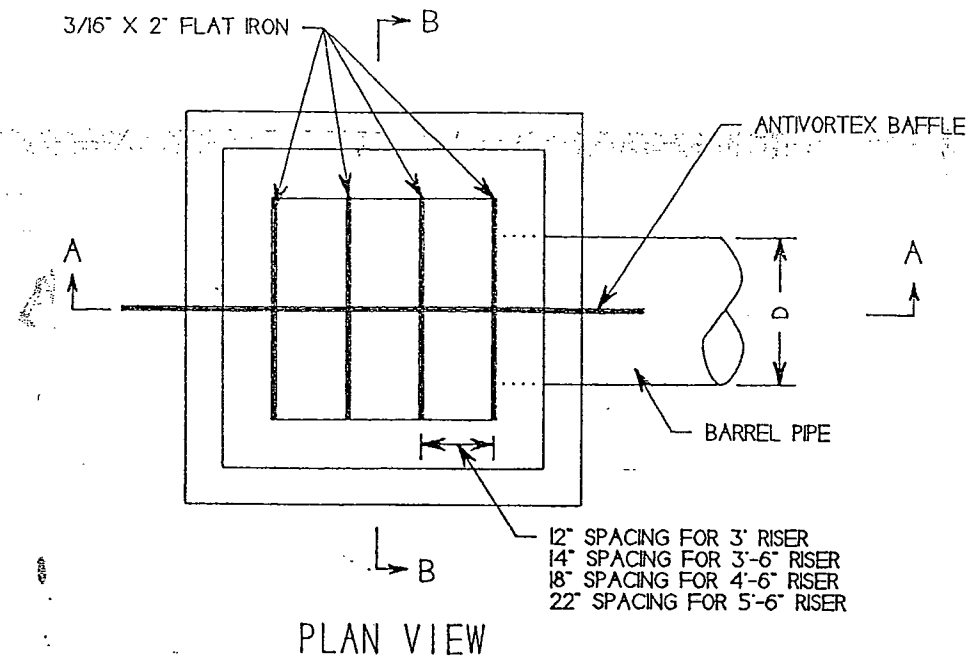
CONCRETE RISER AND POLYETHYLENE HOOD INLET COMBINATION

LYNN LEIGHTNAM
AMERICAN CREEK COND. D.



U.S. Department of Agriculture
Natural Resources Conservation Service

DESIGNED. <i>J. S. Gunn</i>	APPROVED BY <i>J. S. Gunn</i>	
DRAFTED.	TITLE <i>196T</i>	
DATE <i>2-4-3</i>	SHEET 1 OF	DWG NO. <i>PE16R.acd</i>



BARREL DIA.	D	R (Riser) LENGTH FT.-IN.	W LENGTH FT.-IN.	NO. REQ'D	(R) 2" X 6" LENGTH FT.-IN.	NO. REQ'D	ANGLE IRON A & B LENGTH FT.-IN.	FLAT IRON LENGTH FT.-IN.	3/8" DIA. X 3" BOLTS, NUTS & WASHERS	3/8" DIA. X 4" BOLTS, NUTS & WASHERS	5/8" DIA. X 4" BOLTS, NUTS & WASHERS	ANGLE
10"	0'-9 1/4"	3'-0"	(2" X 10") X 4'-8"	1	3'-0"	1	1'-2 3/4"	2'-1"	4 (8 washers)	8	2	70°
12"	0'-11 1/4"	3'-0"	(2" X 12") X 5'-0"	1	3'-0"	1	1'-4 3/4"	2'-1 3/4"	4 (8 washers)	8	2	65°
15"	1'-2 3/4"	3'-0"	(2" X 10") X 5'-6" (2" X 6") X 5'-6"	1	3'-0"	1	1'-8 1/4"	2'-3 3/4"	8 (16 washers)	8	2	57°
18"	1'-6 1/2"	3'-0"	(2" X 10") X 6'-0"	2	3'-0"	1	2'-0"	2'-5 3/4"	8 (16 washers)	8	2	49°
24"	1'-10 1/2"	3'-6"	(2" X 12") X 7'-6"	2	3'-6"	1	2'-4"	2'-10 3/4"	8 (16 washers)	8	2	47°
30"	2'-4"	4'-6"	(2" X 12") X 9'-6" (2" X 6") X 9'-6"	2	4'-6"	1	2'-9 1/2"	3'-6 3/4"	12 (24 washers)	8	2	47°
36"	2'-9 3/4"	5'-6"	(2" X 12") X 11'-6"	3	5'-6"	1	3'-3 1/4"	4'-3 1/8"	12 (24 washers)	8	2	47°

SECTIONAL ELEVATION A-A

SECTIONAL ELEVATION B-B

ANTIVORTEX BAFFLE FOR
CONCRETE RISER

LYNN LEICHTNAM

USDA U.S. Department of Agriculture
Natural Resources Conservation Service

DESIGNED: *[Signature]* APPROVED BY: *[Signature]*
DRAFTED: *[Signature]* TITLE: *[Signature]*
DATE: 2-03 SHEET 1 OF 1 DWG NO. AVBAF-CR-001

JOB PLAN 5.4B 1/02

Water Permit Application #2503-2 Lynn Leichtnam

Top of Dam Elev. - 100
2nd Spillway Elev. - 97
P. Spillway Elev. - 96
Dis Emb Toe Elev. - 83.6

Cat. 3 - Low Hazard Dam

$$H = 16.4 \text{ ft}$$

Normal Storage Capacity - 38 A.-Ft
Int. Storage Capacity - 47.4
Max. Storage Capacity - 83.6

$$\text{Int. Capacity} \times \text{Eff. H.} = 47.4 \times 15.8 = 749 < 3000 \therefore 25 \text{ yr}$$

Minimum Spillway Design

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

$$DA = 174 \text{ A} = 0.27 \text{ ft/mi}$$

$$\text{Slope} = 80 \text{ ft/mi}$$

$$S_i = 1.90$$

$$\begin{aligned} Q_{25} &= 83.4 A^{.64} S_i^{.44} S^{.72} \\ &= 83.4 (0.27)^{.64} (80)^{.44} (1.90)^{.72} \\ &= 83.4 (0.456) (6.88) (0.6299) \\ &= \underline{165 \text{ cfs}} \end{aligned}$$

$$\begin{aligned} Q_{100} &= 132 A^{.65} S_i^{.46} S^{.67} \\ &= 132 (0.27)^{.65} (80)^{.46} (1.90)^{.67} \\ &= 132 (.4270) (7.50) (.6505) \\ &= \underline{275 \text{ cfs}} \end{aligned}$$

Secondary Spillway Flow

$$\begin{aligned} Q &= CLH^{3/2} \quad H = 3 \\ &= 2.6 (30) (3)^{1.5} \quad L = 30 \\ &= \underline{405 \text{ cfs}} \end{aligned}$$

NRCS Annual Yield

$$DA = 174 \text{ A. CN} = 84 \text{ ISO} = 2\frac{1}{2}$$

$$\begin{aligned} 80\% \text{ chance} &= 0.58 \\ 0.58 \times 174\frac{1}{2} &= \underline{8.5 \text{ A.-Ft}} \end{aligned}$$

$$\begin{aligned} 50\% \text{ chance} &= 1.3 \\ 1.3 \times 174\frac{1}{2} &= \underline{18.8 \text{ A.-Ft}} \end{aligned}$$

$$\begin{aligned} 10\% \text{ chance} &= 4.0 \\ 4.0 \times 174\frac{1}{2} &= \underline{58 \text{ A.-Ft}} \end{aligned}$$

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 - N/A Cat. 3 - OK

Schlaak, Karen

From: Schlaak, Karen
Sent: Tuesday, April 29, 2003 8:36 AM
To: Olson, Tim
Subject: RE: Application for Lynn Leichtnam

Tracking: Recipient Read

Olson, Tim Read: 4/29/2003 8:36 AM

Your right - is it pretty much on the line. I'll change the location of the diversion point to the S 1/2 SW 1/4 Sec 4 with water impounded in the S 1/2 SW 1/4, NW 1/4 SW 1/4 Sec 4; all in T105N-R77W.

-----Original Message-----

From: Olson, Tim
Sent: Monday, April 28, 2003 2:00 PM
To: Schlaak, Karen
Subject: RE: Application for Lynn Leichtnam

Karen,

It doesn't matter to me how you do it- whatever you think is best. The dam is about right on the line.

-----Original Message-----

From: Schlaak, Karen
Sent: Monday, April 28, 2003 11:51 AM
To: Olson, Tim
Subject: Application for Lynn Leichtnam

I'm reviewing the application for Lynn Leichtnam. The application states the dam will be located: SE 1/4, SW 1/4 Sec 4-T105N-R77W. It appears from your map submitted with the application, that the dam will be located in the SW 1/4 SW 1/4 Sec 4 with water impounded in the W 1/2 SW 1/4 Sec 4-T105N-R77W. Please let me know if I'm correct and I'll change the application accordingly.

Thanks.

4/29/2003

File No. 2503-2

Water Rights Division -DENR
Conversation or File Documentation

NAME OF PERSON OR FILE: Lynn Leichtnam

ADDRESS: Box 204, Presho, SD

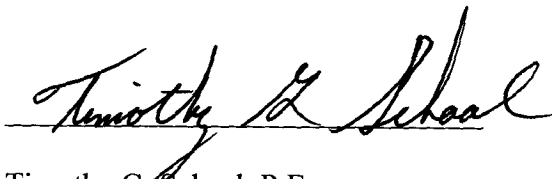
COUNTY: Lyman

DATE: May 2, 2003

TELEPHONE: XXXXXXX

RE: Storage capacity and risk assessment

I talked to Tim Olson, from GF&P, today about Application No. 2503-2. I told him we needed the risk assessment (Hazard Classification) for the dam and also the storage capacity of the application should be changed to 38 acre-feet, to reflect the storage at the primary spillway not the emergency spillway. He agreed with the storage capacity change and said he would contact the NRCS for the hazard classification.

A handwritten signature in cursive script, reading "Timothy G. Schaal", written over a horizontal line.

Timothy G. Schaal, P.E.
Natural Resources Engineer III
Water Rights Program



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

May 27, 2003

Lynn Leichtnam
Box 204
Presho, SD 57501

Dear Mr. Leichtnam:

We have reviewed the plans and specifications for your dam project located in the SW 1/4 of Section 4-T105N-R77W, in Lyman County. The plans and specifications as submitted are approved. Approval of the plans and specifications does not authorize construction of the dam. The construction of the dam may not begin until Water Permit No. 2503-2 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 Leichtnam Dam will be classified as a small size Category 3, Low Hazard dam with a dam height of 16.4 feet and a normal storage capacity of 38 acre-feet and a maximum storage capacity of 84 acre-feet.

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

Sincerely,

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

c: Lee Ozanne, NRCS, Kennebec
Tim Olson, GF&P, Pierre

REPORT ON
WATER PERMIT APPLICATION No. 2503-2
Lynn Leichtnam
May 8, 2003

Water Permit Application No. 2503-2 has been filed by Lynn Leichtnam to impound 38 acre-feet of water by constructing a dam, located in the S $\frac{1}{2}$ SW $\frac{1}{4}$ of Section 4-T105N-R77W, in Lyman 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 and livestock use.

Discussion:

The dam will be classified as a small size, Category 3, Low Hazard dam. The Natural Resources Conservation Service (NRCS) has designed the dam. The plans and specifications have been reviewed and will be approved.

The dam will be 16.4 feet high with a normal storage capacity of 38 acre-feet with a reservoir level at the primary spillway elevation, and a maximum storage capacity of 84 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 25-year frequency event.

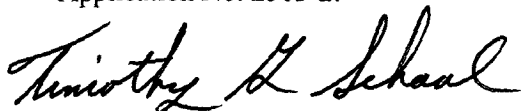
The dam has a drainage area of 174 acres or 0.27 square miles. The project is designed to have a 36 inch diameter concrete riser with an 18 inch diameter corrugated plastic pipe barrel and four feet of freeboard serving as the primary spillway structure, and a 30 foot wide earthcut secondary spillway with 3.0 feet of available freeboard. A 25-year frequency event produces a peak runoff of approximately 165 cfs and a 100-year frequency event produces a peak runoff of approximately 275 cfs. The earthcut secondary spillway will have the capacity to pass approximately 405 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 8.5 acre-feet. The annual yield with a 50 percent chance of occurrence, or 1 out of 2 years, is expected to be 19 acre-feet and the annual yield with a 10 percent chance, or 1 out of 10 years, is expected to be 58 acre-feet.

The Leichtnam Dam is located in the S $\frac{1}{2}$ SW $\frac{1}{4}$ of Section 4-T105N-R77W on an unnamed tributary to Medicine Creek, about one-half mile upstream of the confluence of the unnamed tributary and Medicine Creek. There are no existing Water Permit/Rights located between the proposed dam and Medicine Creek.

Conclusions:

1. Water Permit Application No. 2503-2 should be approved since unappropriated water is available and approval should not have an 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. 2503-2.



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

Approved by:



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



**DEPARTMENT of ENVIRONMENT
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**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 2503-2, Lynn Leichtnam**

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. 2503-2, Lynn Leichtnam, Box 204, Presho SD 57568.

The Chief Engineer is recommending APPROVAL of Application No. 2503-2 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. 2503-2 authorizes a dam with a storage capacity of 38 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
May 23, 2003

Publisher's Affidavit of Publication

RECEIVED

JUN 13 2003

WATER RIGHTS
PROGRAM

STATE OF SOUTH DAKOTA)
COUNTY OF LYMAN)

Lucy Halverson, of said county and state being duly sworn on her oath says: The Lyman County Herald is a weekly newspaper of general circulation and published in Presho, Lyman County, and State of South Dakota; and has been such newspaper during the times hereinafter mentioned; That said newspaper is a legal weekly, that it has a bonafide circulation of more than 200 copies weekly, that it has been published within said County of Lyman more than fifty-two successive weeks next prior to publication of the notice hereinafter mentioned and maintained at the place of publication; That I, the undersigned am editor of said newspaper, in charge of the advertising department thereof, and have personal knowledge of all the facts stated in this affidavit; that the advertisement headed:

Notice of Application
2503-2

a printed copy of which is hereto attached and published in the said newspaper for 2 consecutive week(s).

The first publication of said notice in said newspaper aforesaid was on Wednesday, the 4 day of June A.D., 2003 and that the succeeding publications were severally

Wednesday, the _____ day of _____ A.D., 2003
Wednesday, the _____ day of _____ A.D., 2003
Wednesday, the _____ day of _____ A.D., 2003
Wednesday, the _____ day of _____ A.D., 2003
Wednesday, the _____ day of _____ A.D., 2003
Wednesday, the _____ day of _____ A.D., 2003
Wednesday, the _____ day of _____ A.D., 2003
Wednesday, the _____ day of _____ A.D., 2003

and the last publication on Wednesday, the 11 day of June, 2003, that the full sum of fees charged for publishing the same, to-wit: the sum of \$ 37.03 insures solely to the editor of The Lyman County Herald. That no agreement or understanding for any division thereof had been made with any other person, and that no part thereof has been agreed to be paid to any person whatsoever.

Lucy Halverson
Renelle Utke
Notary Public

Subscribed and sworn to before me this 12 day of June, 2003

My Commission expires _____
RENELLE UTKE
NOTARY PUBLIC - SOUTH DAKOTA
My Commission Expires
September 20, 2007

NOTICE OF APPLICATION NO. 2503-2 to Appropriate Water

Notice is given that Lynn Leichtnam, Box 204, Presho SD 57568 has filed an application for a water permit to impound 38 acre-feet of water from runoff by constructing a dam located in the S 1/2 SW 1/4 Section 4 with water impounded in the S 1/2 SW 1/2 NW 1/4 SW 1/4 Section 4; all in T105N-R77W. This application requests impoundment of sufficient water to maintain water to the outlet elevation. The water is for fish and wildlife propagation, recreation and livestock water purposes.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 2503-2 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 June 23, 2003.

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. Pimer, Secretary, Department of Environment and Natural Resources.

Instruction to Newspaper - Publish first Notice on June 4, 2003 with the second publication 7 days later. The applicant is responsible for payment.

NOTICE OF APPLICATION NO. 2503-2 to Appropriate Water

Notice is given that Lynn Leichtnam, Box 204, Presho SD 57568 has filed an application for a water permit to impound 38 acre-feet of water from runoff by constructing a dam located in the S $\frac{1}{2}$ SW $\frac{1}{4}$ Section 4 with water impounded in the S $\frac{1}{2}$ SW $\frac{1}{4}$, NW $\frac{1}{4}$ SW $\frac{1}{4}$ Section 4; all in T105N-R77W. This application requests impoundment of sufficient water to maintain water to the outlet elevation. The water is for fish and wildlife propagation, recreation and livestock water purposes.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 2503-2 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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**DEPARTMENT of ENVIRONMENT
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www.state.sd.us/denr

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

May 27, 2003

Lynn Leichtnam
Box 204
Presho SD 57568

Dear Mr. Leichtnam:

Water Permit Application No. 2503-2 for recreation, fish & wildlife propagation 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 Lyman Co. Herald printed at Presho, SD (Ph # 605-895-6397). You will need to contact the newspaper and authorize publication of this notice. 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. Upon receiving authorization, 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 also 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
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
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May 27, 2003

Lyman Co Herald
PO Box 518
Presho SD 57568

ATTENTION: Legal Public Notice

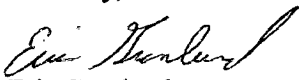
Enclosed is a Notice of Hearing on Application No. 2503-2 to Appropriate Water to be published twice. Please publish the first notice on June 4, 2003 with the second publication 7 days later.

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 Lynn Leichtnam, Box 204, Presho SD 57568 (Ph # 605-895-2324).

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
Natural Resources Engineer
605 773-3352

enclosures

-----CUT HERE-----

No. 2503-2

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

Date _____

We are in receipt of your letter of May 27, 2003 enclosing Notice of Hearing to Appropriate Water by Application No. 2503-2 which was first published in our issue of _____. **ENCLOSED IS A COPY OF THIS FIRST PUBLICATION.**

Name

Newspaper



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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PIERRE, SOUTH DAKOTA 57501-3182
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JUN 3 0 2003

Lynn Leichtnam
PO Box 204
Prescho SD 57568

Dear Mr. Leichtnam:

Enclosed is Water Permit No. 2503-2 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

Permit No. 2503-2
Missouri River - Water District

Report Of Examination Of Works And/Or Application of Water To Beneficial Use

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

I have this day, **October 19, 2005**, made a thorough examination of the water use system constructed by **Lynn Leichtnam** of **Box 204, Presho, SD 57568** holder of Permit No. **2503-2**, bearing the priority of **April 21, 2003** authorizing the storage of **38** acre-feet of the waters of **runoff** for **livestock water, fish & wildlife production and recreational use** purposes, in **Lyman** County.

I have to report on the conditions of the same as follows:

A. Works used to divert the water:

A 16.4 foot high dam with a normal storage capacity of 38 acre-feet

B. Works used to transport water to place of use:

N/A

C. Works used to apply water to beneficial use:

A 16.4 foot high dam with a normal storage capacity of 38 acre-feet

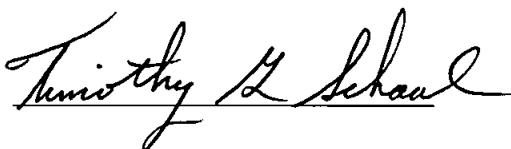
The system is in the following condition **good**. The point of diversion is located **700 ft. north & 1320 ft. east of the SW corner of Sec. 14-T105N-R77W (S ½ SW ¼) (Lat. 43.921891, Long. -100.08077)**. The works are capable of storing **38** acre-feet of water which is to be used for **livestock water, fish & wildlife production and recreational use**. Water has been put to beneficial use to the maximum extent as follows:

A 16.4 foot high dam with a normal storage capacity of 38 acre-feet

and the license should be issued **38** acre-feet of storage.

Applicable permit qualifications have been complied with: Yes **X**

Exceptions to compliance are: **none** Date Report Completed: **February 8, 2006**



Timothy G. Schaal, P.E.
Natural Resources Engineering Specialist
DENR, Water Rights Program

REPORT ON INSPECTION OF PERMIT NO. 2503-2

DATE OF INSPECTION: October 19, 2005

NAME & ADDRESS OF INSPECTION CONTACT/ Lynn Leichtnam

RELATIONSHIP TO PERMIT HOLDER, IF APPLICABLE: owner

NAME & ADDRESS OF PERMIT HOLDER: Lynn Leichtnam, Box 204, Presho, SD 57568

DIVERSION POINT LEGAL LOCATION: 700 ft. north & 1320 ft. east of the SW corner of Sec. 4-T105N-R77W (S 1/2 SW 1/4) (Lat. 43.921891, Long. -100.08077).

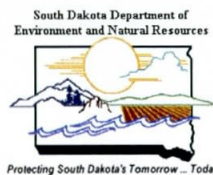
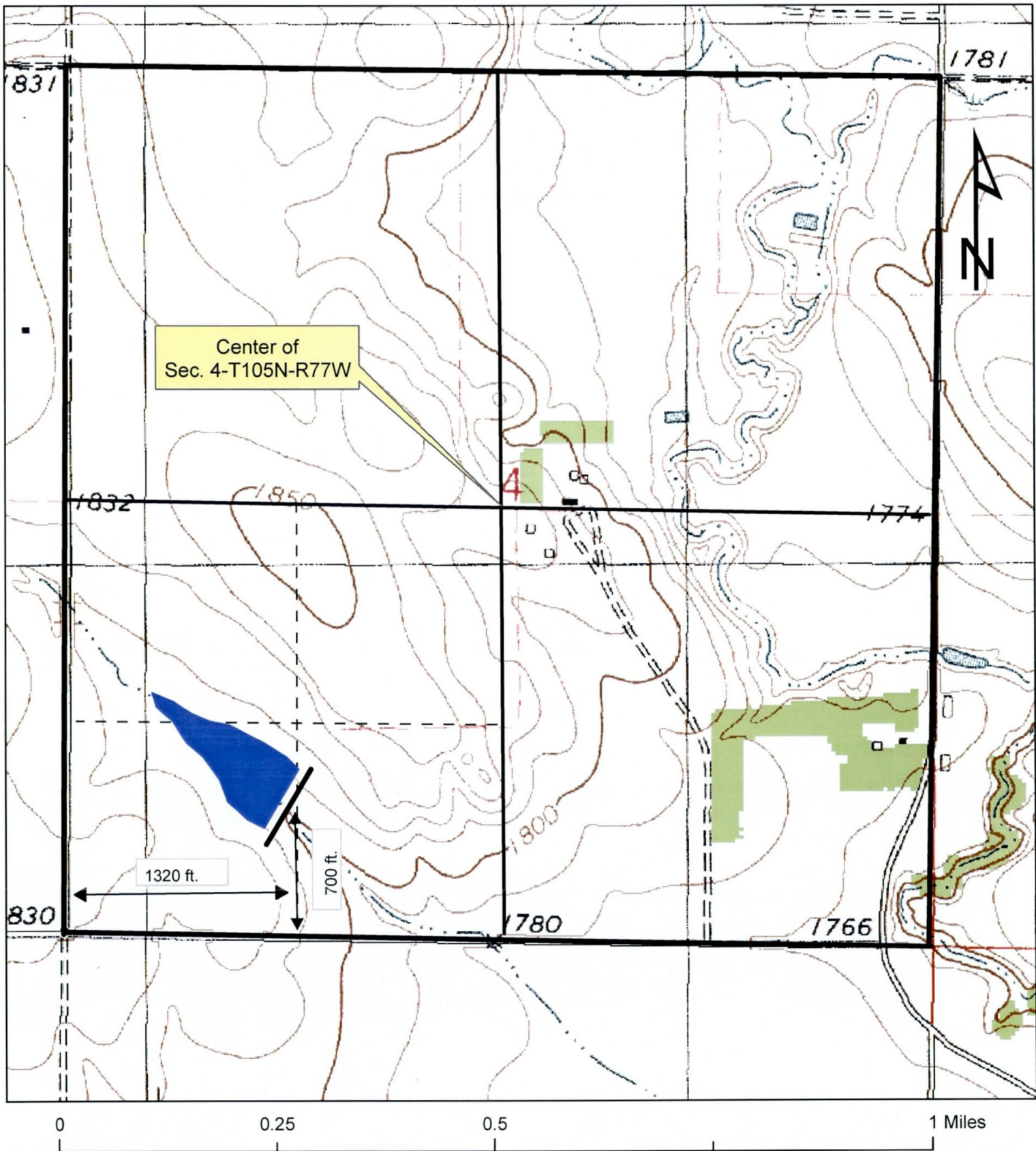
DAM INFORMATION:

- 1) Height to crest 16.4 feet
- 2) Height to primary spillway 12.4 feet
- 3) Height to secondary spillway 13.4 feet
- 4) Crest width 12 feet
- 5) Crest length 595 feet
- 6) Spillway length XXX feet
- 7) Spillway width 30 feet
- 8) Approx. storage (Normal) 38 acre-feet
- 9) Approx. storage (Maximum) 83.6 acre-feet
- 10) Date constructed: 2003

PERMIT QUALIFICATIONS AND REGULATIONS:

- 1) Soil and water permit lands agree with lands being irrigated and lands listed on permit N/A
- 2) Special qualifications to permit being abided by yes
- 3) All structures, wells and lands on map yes
- 4) Irrigation Questionnaires checked to determine if permit owner started irrigation by the end of construction period N/A

Water Permit Application No. 2503-2



Timothy G. Schaal

2/8/06

Timothy G. Schaal, P.E.
Natural Resources Engineering Specialist
DENR, Water Rights Program

STATE OF SOUTH DAKOTA
WATER LICENSE NO. 2503-2

(1) Lynn Leichtnam, Box 204, Presho SD 57568 made Application No. 2503-2, April 21, 2003 for a water permit to impound 38 acre-feet of water from runoff, Lyman County, South Dakota for fish and wildlife propagation, recreation and domestic livestock watering purposes. Permit No. 2503-2, with a priority date of April 21, 2003 was approved June 23, 2003 and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before June 23, 2008 and for the application to beneficial use of said water on or before June 23, 2012.

(2) It is certified that the permit holder has complied with the provisions of South Dakota State Law relating to construction of the storage dam and is entitled to impound 38 acre-feet of water for beneficial use with sufficient water annually to maintain the water level to the outlet elevation.

The location of the storage dam (spillway) is: 700 feet north and 1,320 feet east of the SW corner of Section 14, T105N, R77W (S ½ SW ¼).

(3) The permit holder has complied with the provisions of South Dakota State Law relating to the application of water to beneficial use for fish and wildlife propagation, recreation and domestic livestock watering purposes.

(4) Pursuant to South Dakota Water Law 46-5-30.1 Lynn Leichtnam, Box 204, Presho SD 57568 the holder and/or owner of Water Right No. 2503-2 is issued a license to appropriate water, the right to impound 38 acre-feet of runoff water with sufficient water annually to maintain the water level to the outlet elevation from the location specified in (2) of this license. Water Right No. 2503-2 carries a priority date of April 21, 2003.

This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Right No. 2503-2 and subject to the following qualifications:

- Water Right No. 2503-2 authorizes a dam with a storage capacity of 38 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

APR 07 2008

date





**DEPARTMENT of ENVIRONMENT
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PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

APR 07 2008

2503-2

Lynn Leichtnam
Box 24
Presho SD 57568

Dear Mr. Leichtnam:

Enclosed is your Water License No. 2503-2 and a copy of the map prepared by the staff engineer who conducted the field investigation. Water License No. 2503-2 is the final document which completes the 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