

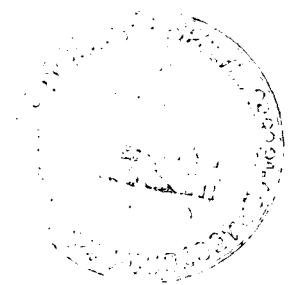
Assigned on: 1-25-95 By: Karen Schlaak

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. 5847-3 Hydrologic Unit 10160003
Basin James River
Newspaper American News, Aberdeen
(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 ☐ Industrial ☐ Other _____
(over 18 gpm)

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.) _____

- Name of Applicant Department of Game, Fish & Parks Phone (605) 773-3387
(check one) ☐ Owner ☐ Tenant/lessee
- Mailing Address 523 E. Capitol Pierre State SD 57501
(Street, RR, or Box) (City) (Zip Code)
- Amount of water claimed _____ *CFS or _____ **GPM 51.3 ***AF
(*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use if applicable)
- Source of water supply un-named tributary to Snake Creek
- Location of point of diversion (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W) SW1/4, SW1/4, Section 2
T122N, R65W Water Impounded: SW1/4, SW1/4 NW1/4 Section 2 and
portions of E1/2 Section 3-T122N-R65W County Brown
- County or counties where water will be used Brown
- Annual period during which water is to be used year-round Jan 1 - Dec 31
- 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)

See attached design report.

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, Tim Olson, 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 Tim Olson Water Permits Coordinator

Subscribed and sworn to before me this 25th day of January 19 95

Kenneth Patton
Notary Public

My Commission Expires 9/1/95

**SOUTH DAKOTA
WATER PERMIT NO. 5847-3**

Date of first receipt of application January 25, 1995.

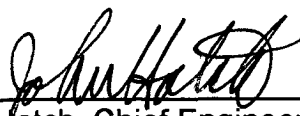
The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 5847-3 to South Dakota Department of Game, Fish and Parks, 523 E Capitol, Pierre SD 57501 authorizing the construction of the water use system and the placing of water to beneficial use subject to the following limitations, conditions and qualifications:

1. Water Permit No. 5847-3 authorizes impoundment of 51.3 acre-feet of water from an un-named tributary to Snake Creek by constructing a dam located in the SW 1/4 SW 1/4 Section 2 with water impounded in a portion of the SW 1/4, SW 1/4 NW 1/4 Section 2 and E 1/2 Section 3; all in T122N-R65W. This permit authorizes impoundment of water sufficient to maintain water at the outlet elevation of 1367.0 feet mean sea level.
2. The water appropriated shall be used for the purpose of providing habitat for fish and wildlife production and recreational use 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. 5847-3 is March 13, 1995.
5. The date from which applicant may claim right is January 25, 1995.
6. One-fifth of the construction is to be completed on or before September 13, 1997.
7. All construction is to be completed on or before March 13, 2000.
8. Water is to be put to beneficial use on or before March 13, 2004.
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. 5847-3 authorizes a dam with storage capacity of 51.3 acre-feet of water and sufficient water annually to maintain the water level to the outlet elevation of 1367.0 feet mean sea level.
2. Low flows as needed for downstream domestic use, including livestock water and prior water rights must be by-passed.

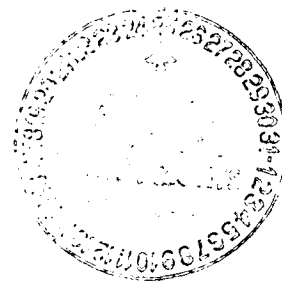
WATER MANAGEMENT BOARD

By: 
John Hatch, Chief Engineer
Water Rights Division
Department of Environment and Natural Resources

MAR 29 1995
date

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. Dugout Information Estimates

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

3. Water Storage Dams

If the proposed water use system contains one or more storage dams, please furnish the information requested below. The locations of each dam should 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

Ducks Unlimited
3502 Franklin Ave.
Bismarck, ND 58501

b) Freeboard 3.5'

c) Crest Width 12'

Crest Length 1068'

d) Height 4.6'

e) Primary Outlet Capacity see enclosed
 If Pipe, diameter rating curve

f) Secondary Spillway Capacity "
 Spillway width _____

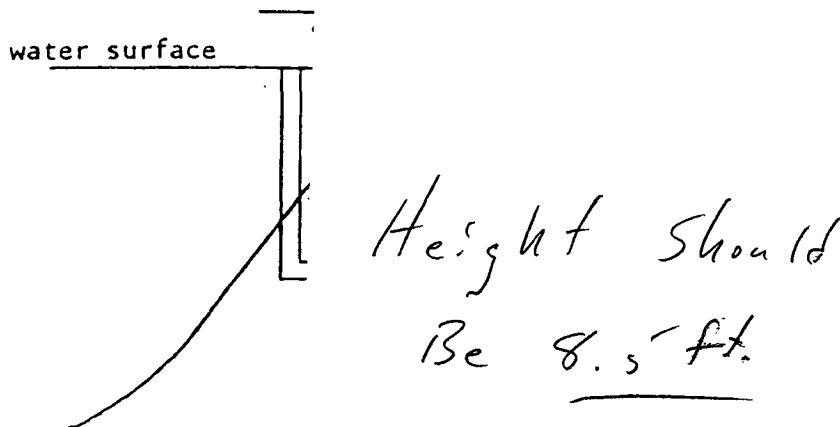
g) X & Y Slope
 Upstream 3:1

Downstream 3:1

Surface Area of Impoundment 34 acres

Storage 51.3 acre feet

Drainage area above dam 5.34 sq miles



Tim Olson
 Signature of Applicant
 Tim Olson

Water Permits Coordinator

Water Permit Application No. 5847-3
Dept. of Game Fish & Parks

Ducks Unlimited Project
Casanova GPA
Sec. 293 - T122N-R 65W

Cat. 3 Low Hazard Dam

Top of Dam Elev. - 1370.5
Spillway Elev. - 1367.0 } Height = 8.5 ft.
Bottom Elev. - 1362.0

Normal Storage Cap. - 51.3 Ac-Ft
Elev. 1367 34 Surf. Acres

Max. Storage Cap. - 238 Ac-Ft
Elev. 1370.5 70 Surf. Acres

Max. Storage x Eff. Ht. = $238 \times 8.5 = \underline{2023.43000}$: 25 yr. Flood
Min. Spillway Design

DA = 5.34 mi.²
Slope = 8 ft/mi
SE = 2.99

$$\begin{aligned} Q_{25} &= 83.4 A^{.6} S^{.44} .72 \\ &= 83.4 (5.34)^{.6} 8^{.44} 2.99^{.72} \\ &= 83.4 (2.73) (2.50) (0.45) \\ &= \underline{256 \text{ cfs}} \end{aligned}$$

20 ft. Wide Sheetpile Weir

$$\begin{aligned} Q &= C L H^{3/2} \\ &= (3)(20)(3.5)^{3/2} \\ &= \underline{393 \text{ cfs}} \end{aligned}$$

Ducks Unlimited uses TR-20 to route Q_{25} peak = 264 cfs thru the dam with Max. Elev. = 1368.97 leaving 1.53 feet of Freeboard, and Q_{100} peak = 510 cfs thru the dam with 0.63 feet of Freeboard.

Section 74:02:08:09

SCS Annual Yield

1. Topo Map - OK
2. Dam Axis Profile - OK
3. Max. X-Sec. - OK
4. Area Capacity Data - OK
5. Outlet Drawings - N/A - OK
6. Spillway Rating Curve - OK
7. Spillway Details - OK
8. Specs. - Std. - OK
9. EPP - N/A - OK

Assume CN = 70
Use Isogram No. = 2 (Low)

50% chance - 0.21 Ac-In/Ac.

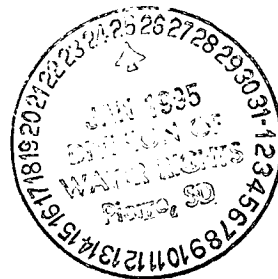
$$\begin{aligned} 0.21 \times 5.34 \times 640 &= 717.69 \text{ Ac-In} \\ &= \underline{59.80 \text{ Ac-Ft.}} \end{aligned}$$

10% chance - 1.3 Ac-In/Ac.

$$\begin{aligned} 1.3 \times 5.34 \times 640 &= 4442.8 \text{ Ac-In} \\ &= \underline{370 \text{ Ac-Ft.}} \end{aligned}$$

DESIGN REPORT

July 11, 1994



PROJECT:

CASANOVA GPA
SD-0136-002

LOCATION:

Sections 2-3, T 122 N, R 65 W
7 miles west, 3 miles south of Aberdeen
Brown County, South Dakota

MARSH DATA:

Full Service Level (FSL) @ 1367.0
34.0 Surface Acres @ FSL
51.3 Acre-Feet Capacity @ FSL

PROJECT DESCRIPTION:

The project as proposed involves the construction of a dam located on land owned by the South Dakota Department of Game, Fish and Parks. The upstream reach of the impoundment will be on private land for which the Department is obtaining a flowage easement. The embankment will be constructed across an unnamed drainage that discharges into Snake Creek via Lords Lake and eventually into the James River. The contributing watershed consists of approximately 5.34 square miles.

PRELIMINARY RISK ASSESSMENT:

The project site is located in a rural area of Brown County. No residences or other buildings are located downstream adjacent to the outlet channel. An east-west, dirt section line trail with a twin 4' high by 8' wide reinforced concrete box culvert exists immediately downstream from the proposed embankment. Approximately 5.2' of available head exists from the box culvert invert to the deck. The drainage continues approximately 2500' downstream where it intersects a railroad crossing. Another road crossing exists about 5500' downstream from the railroad.

Based on information obtained in the field, data present on the U.S.G.S. quadrangular maps, and the relative small size and capacity of the created marsh, the general public would be in no danger in the unlikely event of a dam failure. No loss of life and minimal or no economic loss would be expected. Therefore, per the classification criteria outlined in Chapter 74:02:08 "Safety of Dams," it is recommended that the proposed dam be classified as a small, low hazard, Category 3 dam. The product of the maximum storage capacity (238 acre-feet) times the effective height (8.5 feet) is 2023 which is less than 3000. Therefore, the minimum spillway design flood is a 25-year frequency per 74:02:08:07.01 and must be passed through the spillway without overtopping the embankment.

DESIGN:

In accordance with South Dakota requirement 74:02:08:07.01, the minimum spillway design flood for the proposed dam is a 25-year frequency event. The proposed dam is designed to exceed the South Dakota requirements. The primary spillway will pass flows in excess of those produced by a 100-year, 24-hour rainfall event without overtopping the embankment.

A steel sheet pile weir with a 20' long crest is proposed as the primary spillway. The structure will have removable stoplogs to provide variable control and drawdown capability. The weir crest elevation or full service level (FSL) is proposed at elevation 1367.0.

Regression equations provided in *Techniques for Estimating Flood Peaks, Volumes, and Hydrographs on Small Streams in South Dakota*¹ were used to develop flood peaks for design purposes. The Soil Conservation Service (SCS) TR-20 Hydrology program was then calibrated by adjusting the curve number to produce a peak inflow for the various design events similar to those determined using the regression equations. The curve numbers were reviewed to ensure they were realistic for the runoff event. The calibrated TR-20 model was then used to determine the discharge at various reservoir stages with respect to time. The program uses accepted procedures to develop inflow and outflow hydrographs. The primary spillway capacity was calculated by comparing discharges developed by the weir flow formula and formulas for calculating head loss through corrugated metal pipe. The emergency spillway capacity was calculated using Technical Release No. 39 *Hydraulics of Broad-Crested Spillways* developed by the SCS. A total discharge curve for the proposed dam is attached.

The following is a relationship between peak inflows, corresponding outflows, and reservoir elevations using the previously-mentioned methods of analysis:

<u>EVENT</u>	<u>PEAK INFLOWS</u>	<u>MAXIMUM WATER SURFACE ELEVATION</u>	<u>FREEBOARD AVAILABLE</u>	<u>TOTAL DISCHARGE</u>
5 YR	93 CFS	1368.07	2.43 FT	79 CFS
10 YR	157 CFS	1368.45	2.05 FT	136 CFS
25 YR	264 CFS	1368.97	1.53 FT	233 CFS
50 YR	379 CFS	1369.41	1.09 FT	334 CFS
100 YR	510 CFS	1369.87	0.63 FT	456 CFS

Primary Spillway (Weir) Crest Elevation @ 1367.0

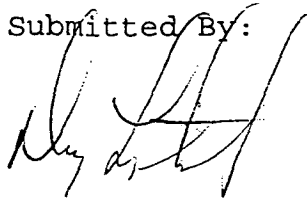
Top of Compacted Embankment Elevation @ 1370.5 + Topsoil

¹Becker, Lawrence D., U.S. Geological Survey, Water Resources Investigations 80-80, September 1980.

A preliminary set of plans is submitted with the Design Report. A set of standard construction specifications has previously been submitted to the Division of Water Rights for the purposes of permit review.

Dated: July 11, 1994

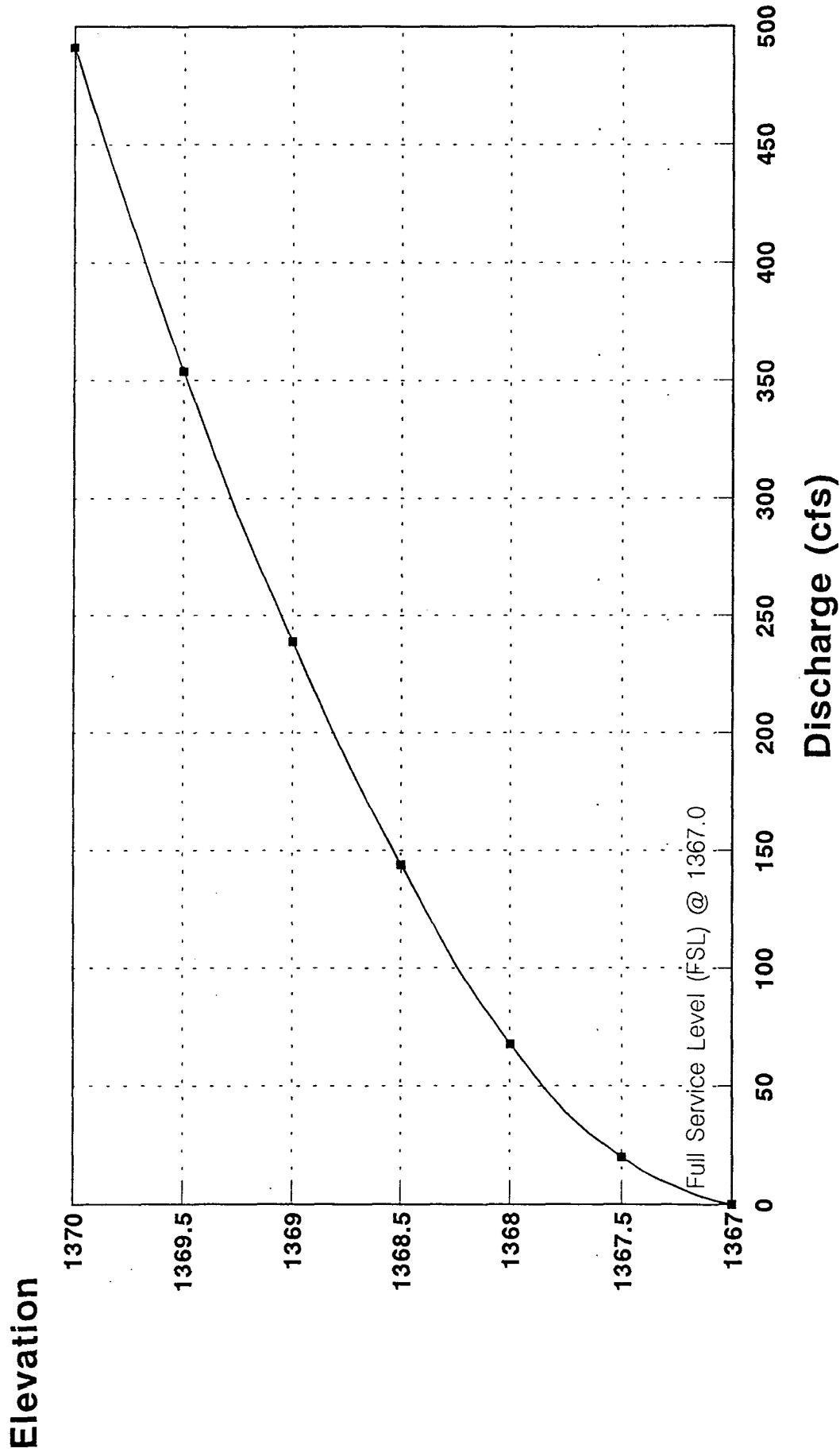
Submitted By:

A handwritten signature in dark ink, appearing to read 'Doug Lipetzky', written over the printed name below.

Doug Lipetzky, P.E
PE-4499

CASANOVA GPA

Discharge Curve For 20' Sheet Pile Weir



—■— 20' Sheet Pile Weir

EASEMENT



In consideration of the sum of \$1,500.00 and other valuable consideration, the receipt of which is hereby acknowledged, Alice M. Nereim and Norwest Bank South Dakota, National Association formerly known as First Northwestern Trust Company of South Dakota, Trustees, hereby grants and conveys to the State of South Dakota through its Department of Game, Fish and Parks an easement for right to impound waters as may be within the high water line of a marsh improvement project upon the following described land situated in the County of Brown, South Dakota, to wit:

The E1/2NE1/4 of Section 3, Township 122N, Range 65W

This easement covers or conveys the right to use five acres, more or less of the above described land. And provided that this land shall revert back to the grantor herein or to his successors whenever the tract shall be abandoned by the State of South Dakota during the period of time not to exceed thirty (30) years from date of signing.

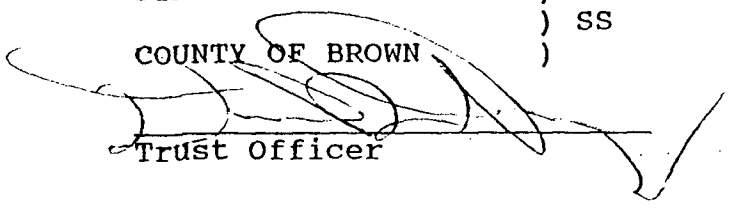
DATE:

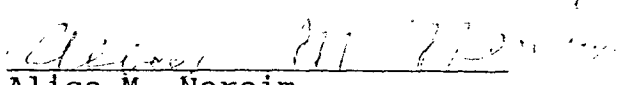
8-3-94

STATE OF SOUTH DAKOTA)

) SS

COUNTY OF BROWN)


Trust Officer


Alice M. Nereim

(SEAL) 1944
SEAL 1944
SOUTH DAKOTA

12-1-94, 1999

(SEAL)

_____, 19____

The Chairman and the Secretary of the South Dakota Game, Fish and Parks Commission have executed this Agreement on behalf of the State of South Dakota and have caused the seal of the Department of Game, Fish and Parks to be hereunto affixed on this 4th day of August, 19 94.

SOUTH DAKOTA GAME, FISH AND PARKS COMMISSION

By:

Chairman

Secretary

(SEAL)

STATE OF SOUTH DAKOTA)

COUNTY OF Brown) SS

On this 4th day of August, 19 94, before me a Notary Public in and for the State of South Dakota, personally appeared Tim Kessler and Richard Berenson known to me to be the Chairman and Secretary, respectively, of the South Dakota Game, Fish and Parks Commission, who executed the within and foregoing instrument for and on behalf of the State of South Dakota, and acknowledged to me that the State of South Dakota executed the same.

Notary Public, South Dakota

(SEAL)

My Commission expires:

EXPIRATION DATE July 18, 19 2001
115MB-314

RECEIVED

BOOK 115 PAGE 316

with Jerry

5850 E Hwy 12
Wichita, KS



DEPARTMENT OF GAME, FISH AND PARKS

Foss Building
523 East Capitol
Pierre, South Dakota 57501-3182



January 25, 1995

Mr. John Hatch, Chief Engineer
Division of Water Rights
S.D. Department of Environment and Natural Resources
Foss Building, 523 East Capitol Ave.
Pierre, SD 57501

Dear Mr. Hatch:

Attached is an application to appropriate water and supplemental materials for the construction of a small waterfowl/wildlife impoundment on the Casanova Game Production Area in Brown County. The project is a cooperative effort between GF&P and Ducks Unlimited.

Construction is planned for this coming summer, but we would like to get the project out to bid as soon as possible to ensure favorable bids from contractors. Thank you for your assistance on this matter. If you have any questions please do not hesitate to call me at 773-6208.

Sincerely,

Tim Olson
Water Permits Coordinator

encs.

REPORT ON
WATER PERMIT APPLICATION No. 5847-3
DEPARTMENT OF GAME, FISH & PARKS
February 3, 1995

Water Permit Application No. 5847-3 has been filed by the Department of Game, Fish & Parks to impound 51.3 acre-feet of water by constructing a dam on an un-named tributary to Snake Creek. The dam will be located in the SW 1/4 SW 1/4 of Section 2-T122N-R65W and will impound water in the SW 1/4, SW 1/4 NW 1/4 of Section 2 and the E 1/2 of Section 3; all in T122N-R65W. The water will be used to provide habitat for fish and wildlife production and recreational use.

Discussion:

This project is a cooperative effort between Ducks Unlimited, Inc., and the Department of Game, Fish & Parks. The project will be located on land owned by the Department of Game, Fish & Parks, except for a small portion of the impoundment located in the E1/2 NE 1/4 of Section 3-T122N-R65W. The Department has acquired a flood easement from the landowner for this portion of the project. The Casanova GPA Dam will be classified as a small size Category 3, Low Hazard dam. It has been designed by Ducks Unlimited, Inc. and the plans and specifications have been approved; although, construction can not start until Water Permit Application No. 5847-3 is approved.

The Casanova GPA Dam will be 8.5 feet high with a normal storage capacity of 51.3 acre-feet with a reservoir level at the primary spillway elevation, and a maximum storage capacity of 238 acre-feet with the 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.

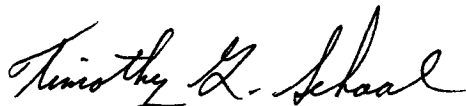
The Casanova GPA Dam is designed to have a steel sheet pile weir with a 20 foot wide crest as the primary spillway structure. The dam has a drainage area of 5.34 square miles. Ducks Unlimited uses the Soil Conservation Service TR-20 Hydrology program to route the runoff through the dam. They route a 25 year-24 hour frequency event with a peak inflow of 264 cfs through the dam with 1.53 feet of freeboard, and a 100 year-24 hour frequency event with a peak inflow of 510 cfs through the dam with 0.63 feet of freeboard.

The annual yield for this drainage area with a 50 percent chance of occurrence, or 1 out of 2 years, is expected to be approximately 60 acre-feet of water. The annual yield with a 10 percent chance of occurrence, or 1 out of 10 years, is expected to be approximately 370 acre-feet of water.

The Casanova GPA Dam will be located on an un-named tributary to Snake Creek and should have little effect on other lakes or existing Water Permits/Rights in this area. The Department of Game, Fish & Parks holds the nearest existing permit, which would be Vested Right Claim No. 1843-3 for Lords Lake. Lords Lake is located about 3 miles downstream on the same un-named tributary, in Sections 7 & 18-T122N-R64W.

Conclusions:

1. Water Permit Application No. 5847-3 should be approved since there is unappropriated water available and approval will not have any adverse effects 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. 5847-3.



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

Approved by:



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

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 5847-3, South Dakota Department of Game, Fish and Park**

Pursuant to SDCL 46-2A-2, the following is the recommendation of the Chief Engineer, Water Rights Division, Department of Environment and Natural Resources concerning Water Permit Application No. 5847-3, South Dakota Department of Game, Fish and Parks, c/o Tim Olson, Water Permits Coordinator, 523 East Capitol, Pierre, SD 57501.

The Chief Engineer is recommending APPROVAL of Application No. 5847-3 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) in the public interest with the following qualifications:

1. Water Permit No. 5847-3 authorizes a dam with storage capacity of 51.3 acre-feet of water and sufficient water annually to maintain the water level to the outlet elevation of 1367.0 feet mean sea level.
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.



JOHN HATCH, Chief Engineer
February 14, 1995



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3181

February 13, 1995

Doug Lipetzky, P.E.
Ducks Unlimited, Inc.
3502 Franklin Ave.
Bismarck, ND 58501

Dear Mr. Lipetzky:

We have reviewed the plans and specifications for the Casanova GPA Wetland Development Project located in Sections 2 & 3-T122N-R65W, in Brown County. The plans and specifications as submitted are approved. Approval of the plans and specifications does not authorize construction of the project. No construction may begin until Water Permit Application No. 5847-3 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 the Department of Game, Fish & Parks, 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 Casanova GPA Dam will be classified as a small size Category 3 dam with a dam height of 8.5 feet, a normal storage capacity of 51.3 acre-feet, and a maximum storage capacity of 238 acre-feet.

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

Sincerely,

Gale N. Selken, P.E.
Natural Resources Engineer IV
for John Hatch, Chief Engineer
Water Rights Division
(605) 773-3352

c: Tim Olson, Department of Game, Fish & Parks



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3181

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

February 16, 1995

Tim Olson, Water Permits Coordinator
SD Department of Game, Fish & Parks
523 East Capitol
Pierre, SD 57501

Dear Mr. Olson:

Water Permit Application No. 5847-3 for fish and wildlife production, and recreational 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 American News printed at Aberdeen, SD (Ph # 605-225-4100). 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
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

February 16, 1995

American News
PO Box 4430
Aberdeen, SD 57402-4430

ATTENTION: Legal Department

Enclosed is a Notice of Hearing on Application No. 5847-3 to be published twice. Please publish the first notice on February 23, 1995, 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 the South Dakota Department of Game, Fish and Parks, 523 East Capitol, Pierre, SD 57501 (Ph # 605-773-3387).

A copy of BOTH publications must be SENT to the WATER RIGHTS DIVISION. IMMEDIATELY return the FIRST publication with the FIRST Transmittal form on the bottom of this page. The first copy is needed to check the publication for errors so any corrections can be made in the second publication. Publication errors can invalidate the public notice and cause the applicant costly delays.

Please be sure the SECOND publication is returned IMMEDIATELY with the enclosed Proof of Publication form. DO NOT WAIT until the end of the month or the billing cycle. No action may be taken on the permit application until proof of publication has been received.

Sincerely,

Eric Gronlund
Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

-----CUT HERE-----
FIRST TRANSMITTAL NOTICE TO: Eric Gronlund
Water Rights Division
Joe Foss Building
Pierre SD 57501-3181

No. _____

Date _____
We are in receipt of your letter of _____ enclosing Notice of
Hearing to Appropriate Water by Application No. _____ 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 February 23, 1995, with the second publication 7 days later. The applicant is responsible for payment.

NOTICE OF APPLICATION NO. 5847-3 to Appropriate Water

Notice is given that South Dakota Department of Game, Fish and Parks, 523 East Capitol, Pierre, SD 57501 has filed an application for a water permit to impound 51.3 acre-feet of water from an un-named tributary to Snake Creek by constructing a dam located in the SW 1/4 SW 1/4 Section 2 with water impounded in a portion of the SW 1/4, SW 1/4 NW 1/4 Section 2 and E 1/2 Section 3; all in T122N-R65W. This application requests impoundment of water sufficient to maintain water at the outlet elevation of 1367.0 feet mean sea level and is to be used to provide habitat for fish and wildlife production and for recreational use.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 5847-3 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 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 Division, 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 March 13, 1995.

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 Division address to request copies of information pertaining to this application. Steven M. Pirner, Acting Secretary, Department of Environment and Natural Resources.

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
 County of Brown) ss



OK

I, Roberta Dempsey
 certify that the attached printed Notice was
 taken from the March 1st issue
of Aberdeen American News
 printed and published in Aberdeen

County of Brown and State of

South Dakota. The notice was published in
 the newspaper on the following two dates:

February 23, 1995
March 1, 1995

Cost of Printing: 1 1/2 inches at
482 per inch Total 55.43

Roberta Dempsey
 (Signature)

Receptionist
 (Title)

March 1, 1995
 (Date Signed)

(No. 821 - Feb. 23, Mar. 1 - 2T) NOTICE OF APPLICATION NO. 5847-3 to Appropriate Water

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**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3181

MAR 29 1995

Tim Olson, Water Permits Coordinator
SD Department of Game, Fish and Parks
523 E Capitol
Pierre, SD 57501

Dear Mr. Olson:

Enclosed is Water Permit No. 5847-3 authorizing construction of your water diversion system and beneficial use of the water, not exceeding the limits as specified in the Water Permit.

Also enclosed is Form 10, Notice of Completion of Works and Application of Water to Beneficial Use, which you are to complete and submit to the Chief Engineer when you have completed the system and/or have put the water to beneficial use. An inspection can then be scheduled so that the Water License may be issued, thus completing your acquisition of a Water Right.

Very truly yours,

JOHN HATCH, Chief Engineer
Water Rights Division
605 773-3352

enclosures

PLEASE NOTE: Certain changes can be made in your permit within the five year construction period, usually without affecting the priority date provided an application to amend your permit is made within the five year period - i.e. changes in location or number of diversion points (wells) or location of land to be irrigated. Well locations for wells into the same aquifer can be moved up to 660 feet without application.

Applications to amend a permit after the five year construction period will be assigned a new priority date. Applications to change water sources, to add lands or increase original diversion rates, if approved will usually receive the date of the new application as a priority date regardless of the five year construction period.



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

September 10, 2001

Mary Clawson
South Dakota State of Game Fish & Parks
Dept of Wildlife Division-District Office
5850 E Hwy 12
Aberdeen SD 57401

Dear Mary Clawson:

I have recently went out and looked at Casanova Dam. I have a question in regards to the area where the dam is impounding water. I am enclosing a map with my best guess of the area where water is being impounded. Please let me know if what I have outlined is correct or make any changes that need to be made to the impoundment area and send corrections back to me.

If you have any questions, feel free to contact me at (605) 773-3352 or via email at stacy.johnson@state.sd.us.

Sincerely,

Stacy J. Johnson
Natural Resources Project Engineer

Enclosures (1)

Permit No. 5847-3

James River - Water District

Other permit/license(s) associated with project: none

Contact Person & Address: Mary Clawson, South Dakota State of Game Fish & Parks, Dept of Wildlife Division-District Office, 5850 E Hwy 12, Aberdeen SD 57401

Report Of Examination Of Works

On, September 6, 2001, I made a thorough examination of the water use system constructed by South Dakota State of Game Fish & Parks of Dept of Wildlife Division-District Office, 5850 E Hwy 12, Aberdeen SD 57401 holder of Permit No. 5847-3, bearing the priority of January 25, 1995, authorizing the storage of 51.3 acre-feet of the waters of un-named tributary to Snake Creek for fish and wildlife production & recreational use purposes, in Brown County.

The system is in the following condition good. The point of diversion is located from the SW corner of Section 2 T122N-R65W it is 1101 feet east and 169 feet north with a longitude of -98.635442 and a latitude of 45.402945. The works are capable storing 51.3 acre-feet of water that is to be used for fish and wildlife production & recreational use purposes.

The license should be issued for 51.3 acre-feet of storage.

Review of Permit Qualifications And Regulations:

- 1) Special qualifications to permit being abided by yes
- 2) All structures, wells and lands on map yes
- 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 the Specifics of the System

Dam Information:

- | | |
|---|---|
| 1) Height to crest <u>8.5</u> feet | 2) Height to primary spillway or outlet <u>5</u> feet |
| 3) Height to secondary spillway <u>NA</u> ft | 4) Crest width <u>12</u> feet |
| 5) Crest length <u>1068</u> feet | 6) Spillway length <u>NA</u> feet |
| 7) Spillway width <u>NA</u> feet | 8) Approx. storage (normal) <u>51.3</u> ac-ft |
| 9) Approx. storage (maximum) <u>238</u> ac-ft | |

COMMENTS: Riprap located on both upstream and downstream side of dam below catwalk. Dam has good vegetation growth on it.

Stacy J. Johnson
Stacy J. Johnson

Natural Resources Project Engineer
DENR, Water Rights Program

9-20-01

Date



Section 3 T122N-R65W

Section 2 T122N-R65W

Area of impoundment water = 51.3 Acre-feet

Dam



0.5 0 0.5 Miles

Stacy J Johnson 9-20-01
Stacy J Johnson
Natural Resources Engineer
SD DENR Water Rights Program

STATE OF SOUTH DAKOTA

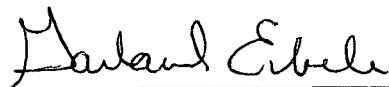
WATER LICENSE NO. 5847-3

(1) The South Dakota Department of Game, Fish and Parks, 523 E Capitol, Pierre SD 57501 made Application No. 5847-3, January 25, 1995 for a water permit to impound 51.3 acre-feet of water from an unnamed tributary to Snake Creek, Brown County, South Dakota for fish & wildlife propagation and recreational purposes. Permit No. 5847-3, with a priority date of January 25, 1995 was approved March 13, 1995 and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before March 13, 2000 and for the application to beneficial use of said water on or before March 13, 2004.

(2) It is certified that the permit holder has complied with the provisions of South Dakota State Law relating to completion of the construction of the storage dam and is entitled to impound 51.3 acre-feet of water for beneficial use with sufficient water annually to maintain the water level to the outlet elevation of 1367.0 feet mean sea level. The location of the storage dam (spillway) is 1,101 feet east and 169 feet north of the southwest corner of Section 2-T122N-R65W (SW ¼ 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 in Casanova Dam.

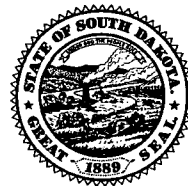
(4) Pursuant to South Dakota Water Law 46-5-30.1 the South Dakota Department of Game, Fish and Parks, 523 E Capitol, Pierre SD 57501 the holder and/or owner of Water Right No. 5847-3 is issued a license to appropriate water, the right to impound 51.3 acre-feet of water from an unnamed tributary to Snake Creek with sufficient water annually to maintain the water level to the outlet elevation of 1367.0 feet mean sea level with a priority date of January 25, 1995 from the location specified in (2) of this license for fish & wildlife propagation and recreational use. This license is subject to any limitations or qualifications listed in Water Right No. 5847-3 and subject to South Dakota State Law.



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

MAY 31 2002

date





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

MAY 31 2002

5847-3

SD Dept. of Game Fish & Parks
% Leslie Petersen
523 E. Capitol
Pierre, SD 57501

Dear Ms. Petersen:

Enclosed is Water License No. 5847-3. This is the final water right document completing your process of obtaining a Water Right.

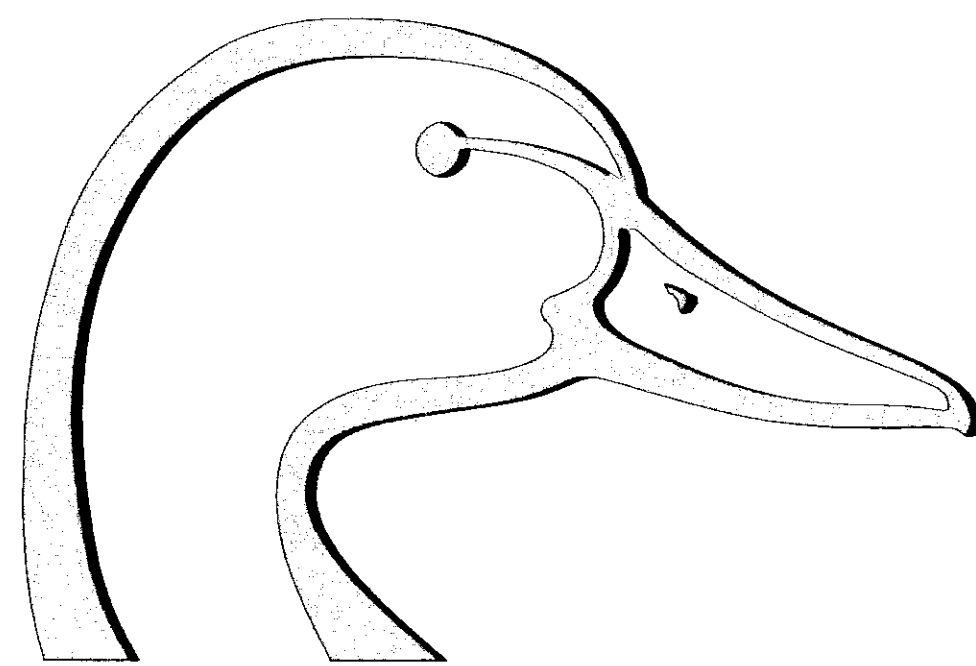
As long as you use the water beneficially, as stated in the Water License, State Water Laws provide that you have a continuing right to use the water.

Sincerely,

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

enclosures

c: Mary Clawson, GF&P, 5850 E Hwy 12, Aberdeen



DUCKS UNLIMITED

DUCKS UNLIMITED

PROJECT

CASANOVA GPA WETLAND DEVELOPMENT

SECTIONS 2 & 3, TOWNSHIP 122 NORTH, RANGE 65 WEST,
BROWN COUNTY, SOUTH DAKOTA

IN COOPERATION WITH

SOUTH DAKOTA DEPT. GAME, FISH & PARKS

SPECIFICATIONS

GENERAL CONDITIONS	101
MOBILIZATION	201
SITE PREPARATION	202
EXCAVATION	203
EMBANKMENT CONSTRUCTION	204
WATER	205
RIPRAP PLACEMENT	209
SHEET PILE MATERIAL	214
SHEET PILE INSTALLATION	215
STRUCTURAL STEEL	216

PLAN INDEX

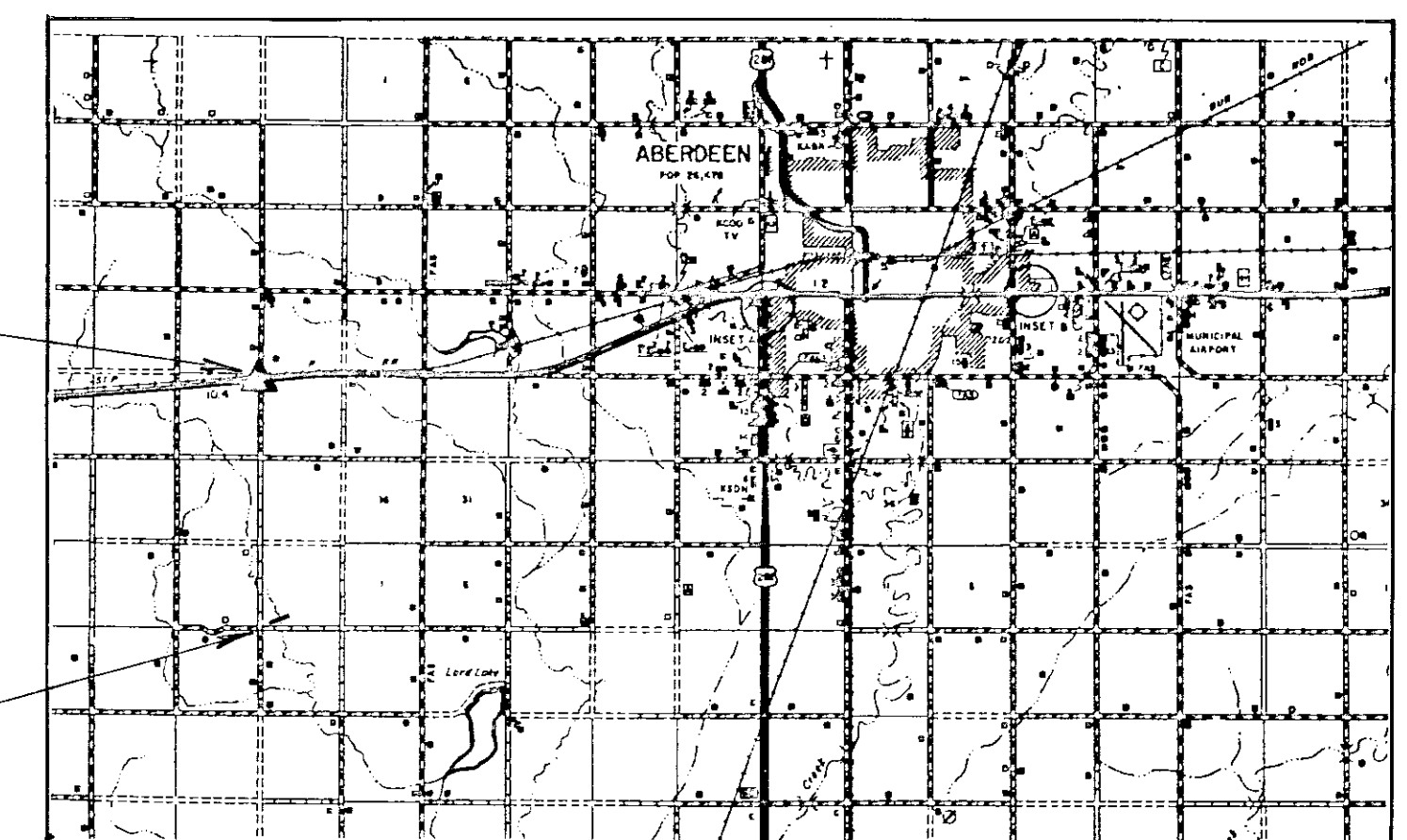
VICINITY MAP	1
PROJECT TOPOGRAPHY/ SOILS INFORMATION	2
SITE PLAN & PROFILES	3
SHEET PILE STRUCTURE DETAILS	4
SHEET PILE & CATWALK DETAILS	5

QUANTITIES

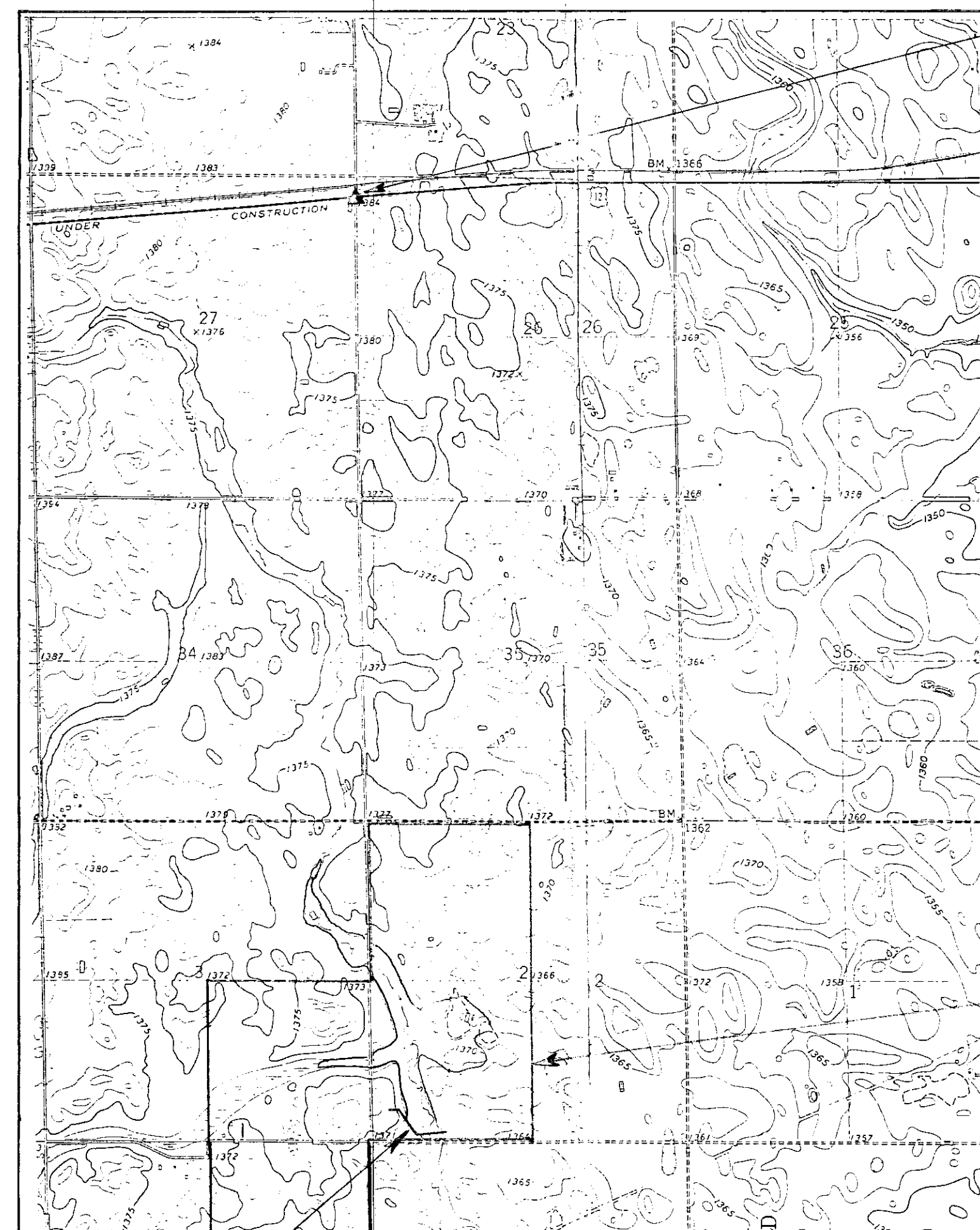
MOBILIZATION	1 L.S.
SITE PREPARATION	768 C.Y.-P
EMBANKMENT	5970 C.Y.-S*
WATER	30 M-GAL.
RIPRAP	
CLASS I	52 C.Y.-P
CLASS II	83 C.Y.-P
SHEET PILE MATERIAL	1239 S.F.-P
SHEET PILE INSTALLATION	1239 S.F.-P
STRUCTURAL STEEL	1 L.S.

*INCLUDES 15% FOR SHRINKAGE

PROJECT LOCATION



LOCATION MAP



PROJECT SITE

VICINITY MAP

SCALE: 1"=2000'

MAP POINT
APPROX. 1.5 MILES WEST OF
4-LANE TO 2-LANE TRANSITION
ON HWY. 12

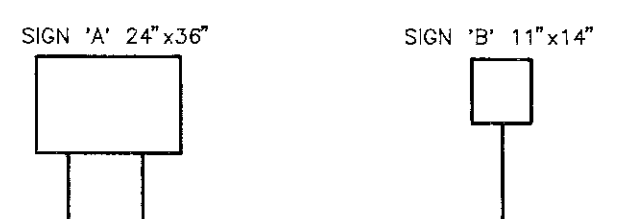
PROJECT AREA

GPA BOUNDARY /
CONSTRUCTION LIMITS

Lake Parmley and
Aberdeen West USGS
7.5 Minute Quadrangles

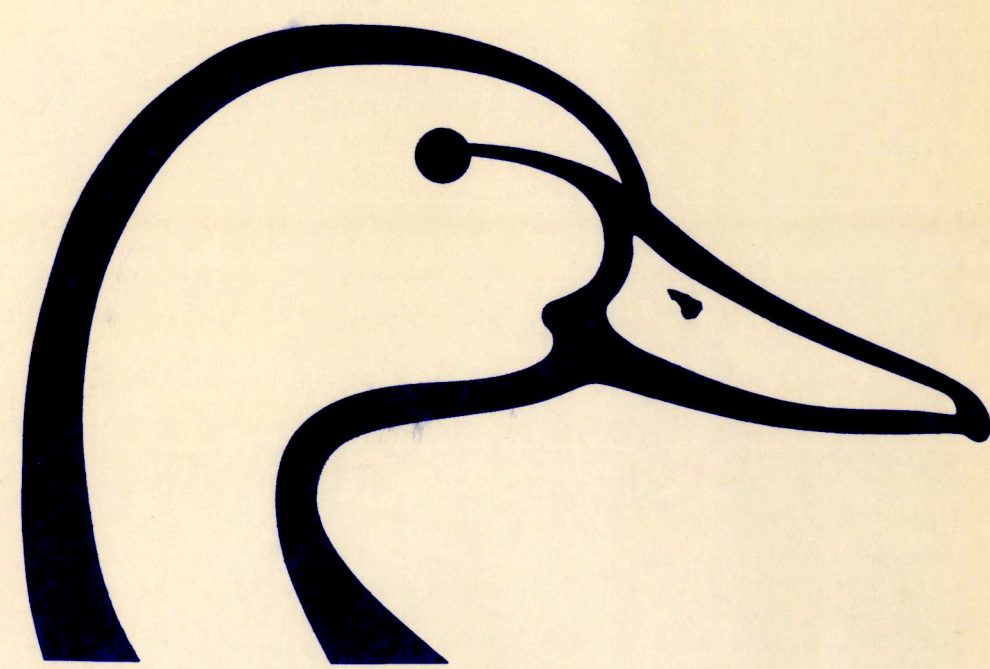
AGENCY CONTACT: JERRY STRECKFUSS
SD GAME, FISH & PARKS
605-626-2391

PROJECT SIGNING



2 SIGN 'A' AND 0 SIGN 'B' WILL BE PROVIDED BY
DUCKS UNLIMITED AND DELIVERED TO THE COOPERATING
AGENCY. THE AGENCY IS RESPONSIBLE FOR INSTALLING
THE SIGN(S) AT THE LOCATION(S) DESIGNATED ON THE PLANS.

	PROJECT NO. SD-136-2	DESIGNED BY: D.J.L.
	CASANOVA WETLAND DEVELOPMENT	DRAWN BY: JB
GREAT PLAINS REGIONAL OFFICE	VICINITY MAP	SURVEYED BY:
DATE: 8-26-94	SHEET NO. 1 OF 5	CHECKED BY:
	APPROVED BY:	



DUCKS UNLIMITED

DUCKS UNLIMITED

PROJECT

CASANOVA GPA
WETLAND DEVELOPMENTSECTIONS 2 & 3, TOWNSHIP 122 NORTH, RANGE 65 WEST,
BROWN COUNTY, SOUTH DAKOTA

IN COOPERATION WITH

SOUTH DAKOTA DEPT. GAME, FISH & PARKS

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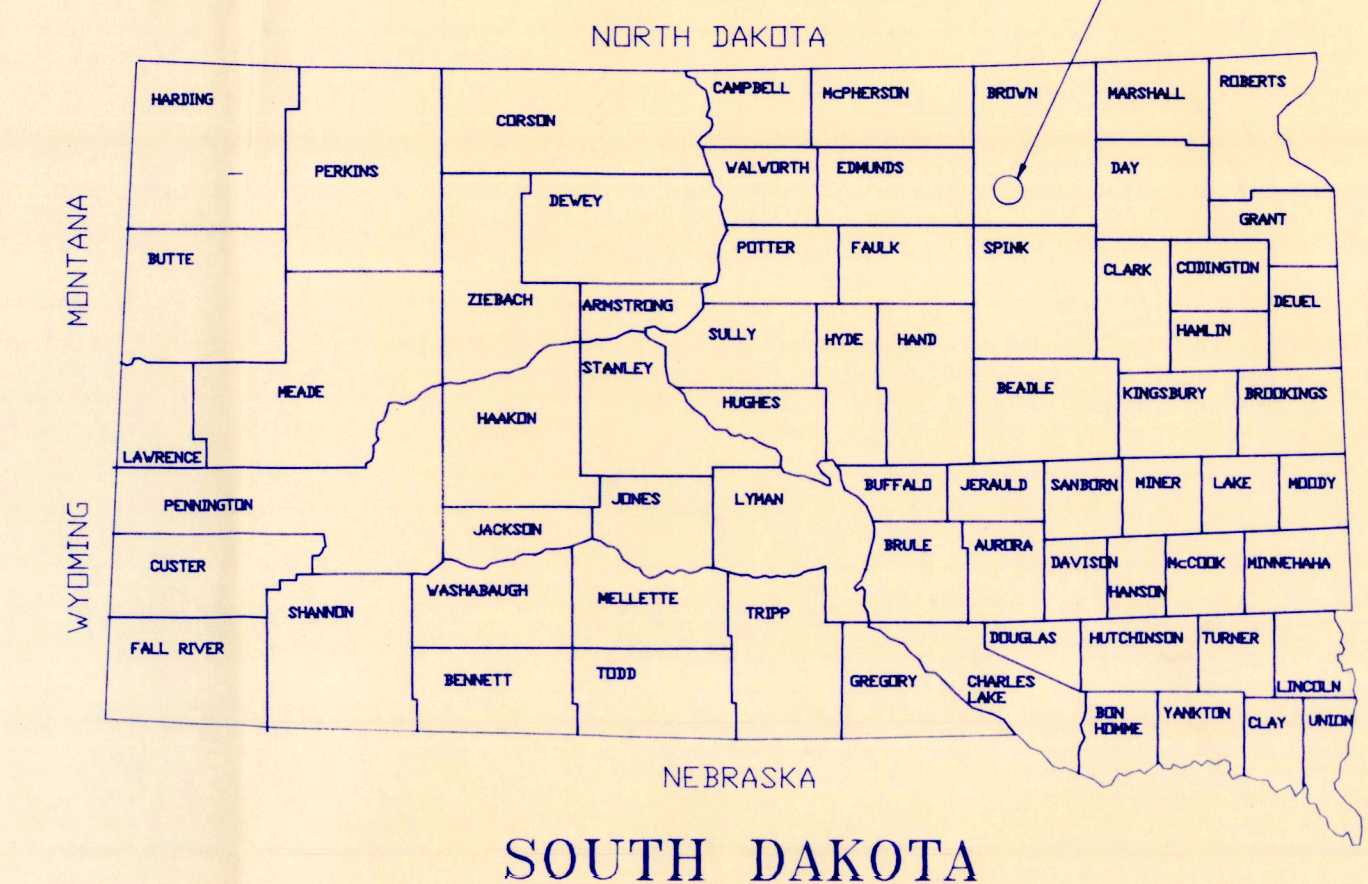
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PROJECT LOCATION



SOUTH DAKOTA



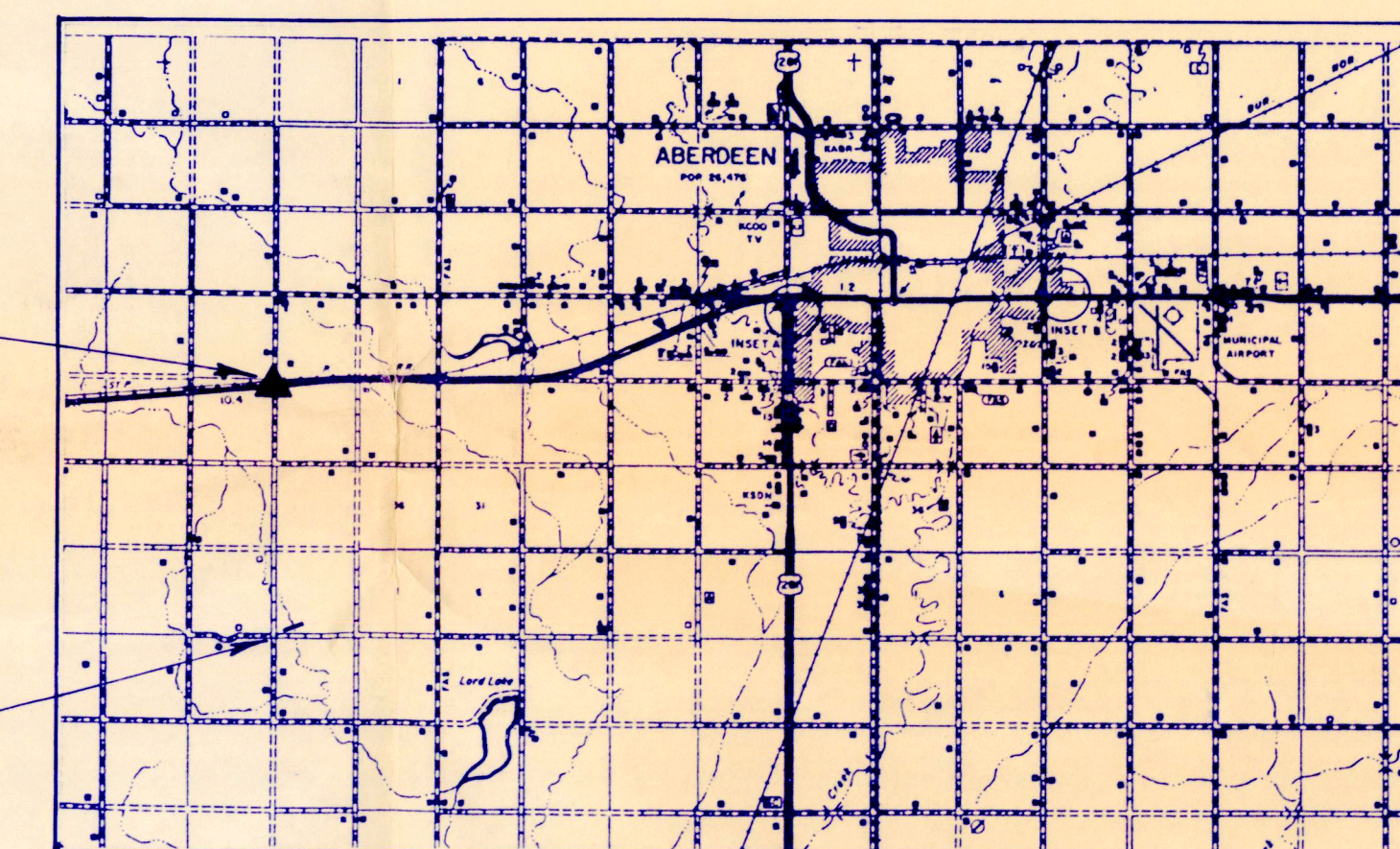
PROJECT SITE

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SCALE: 1"=2000'

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APPROX. 15 MILES WEST OF
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7.5 Minute QuadranglesLOCATION MAPAGENCY CONTACT: JERRY STRECKFUSS
SD GAME, FISH & PARKS
605-626-2391

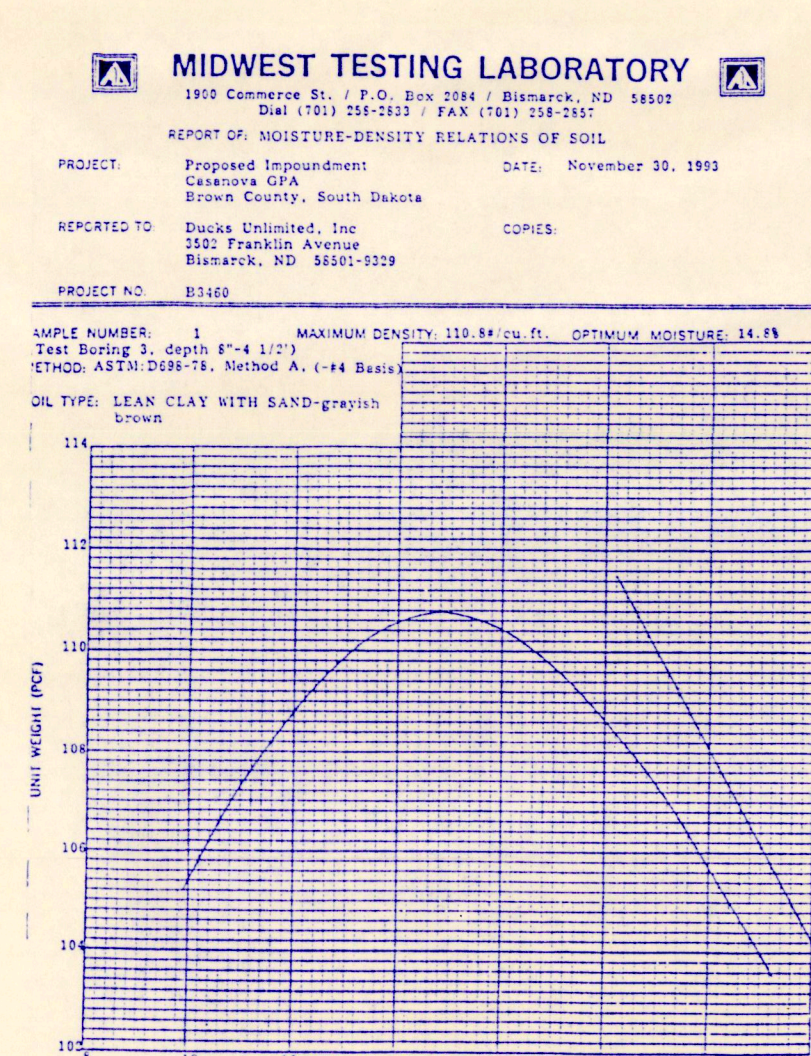
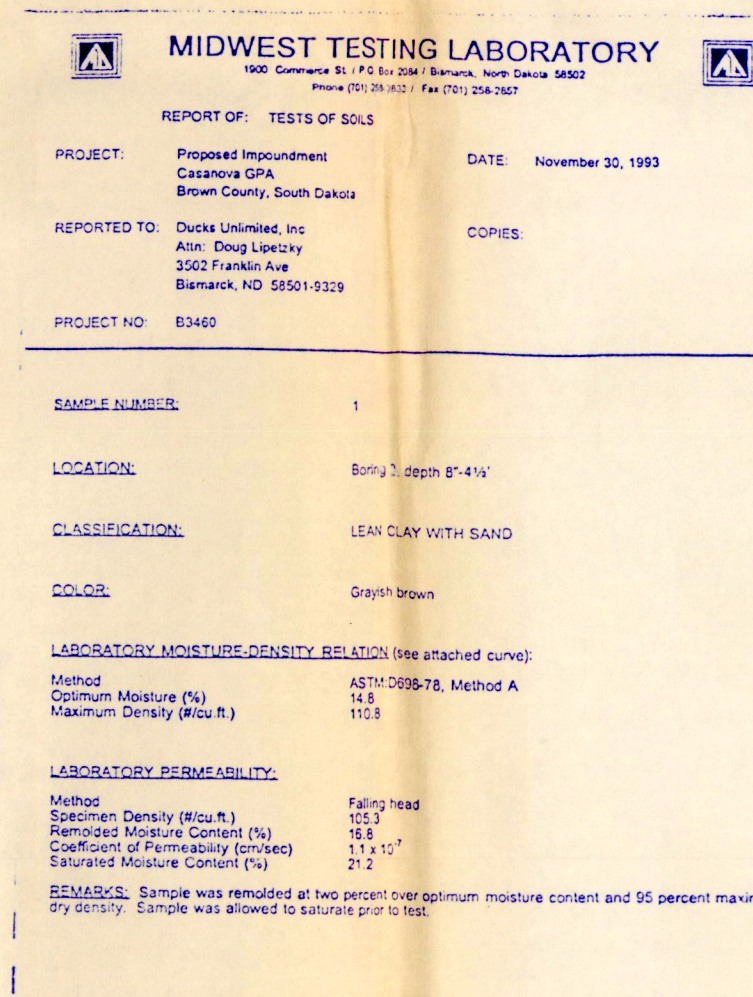
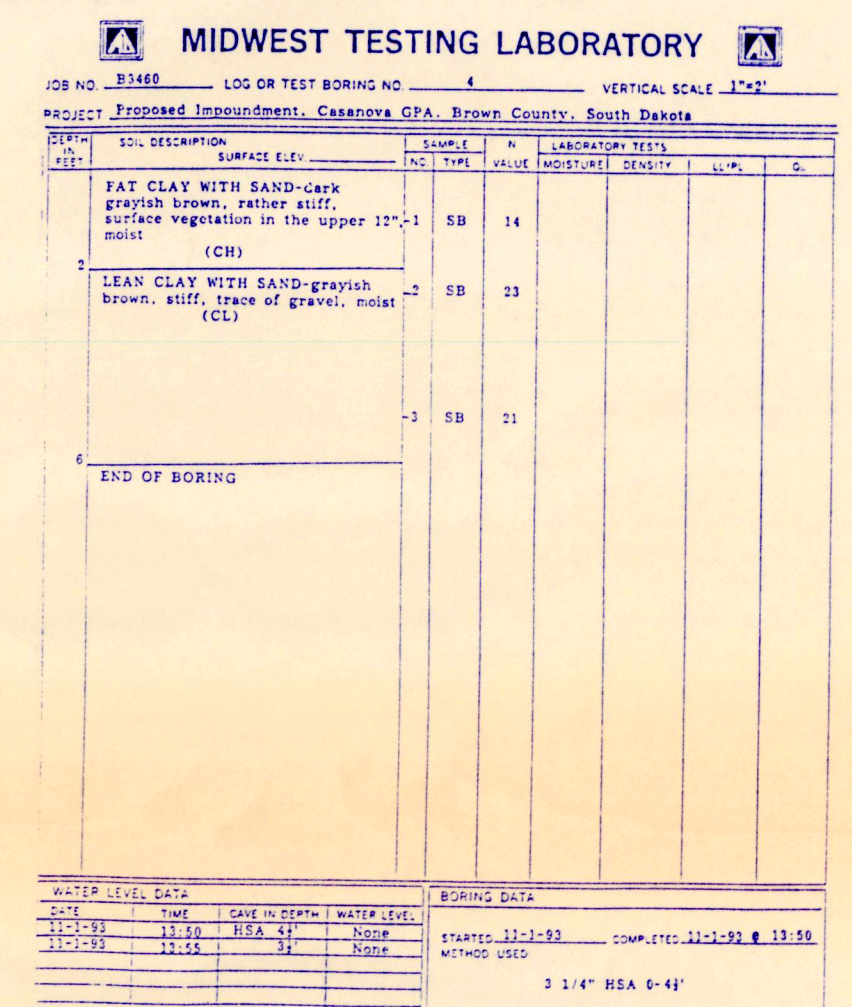
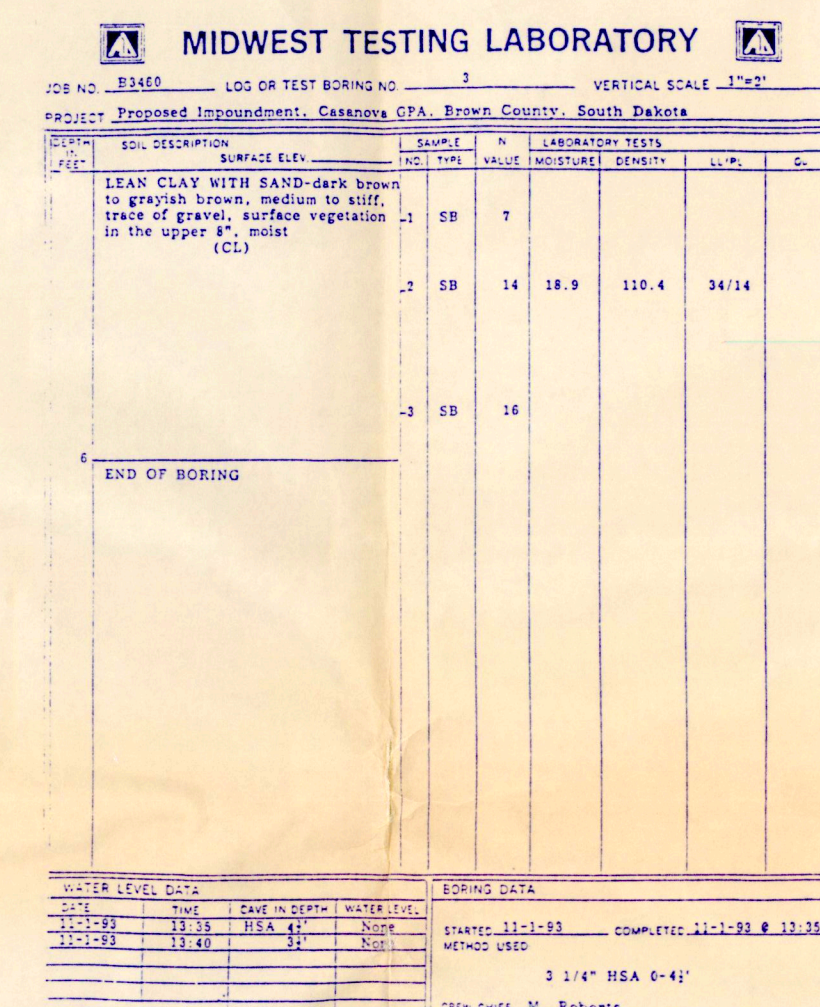
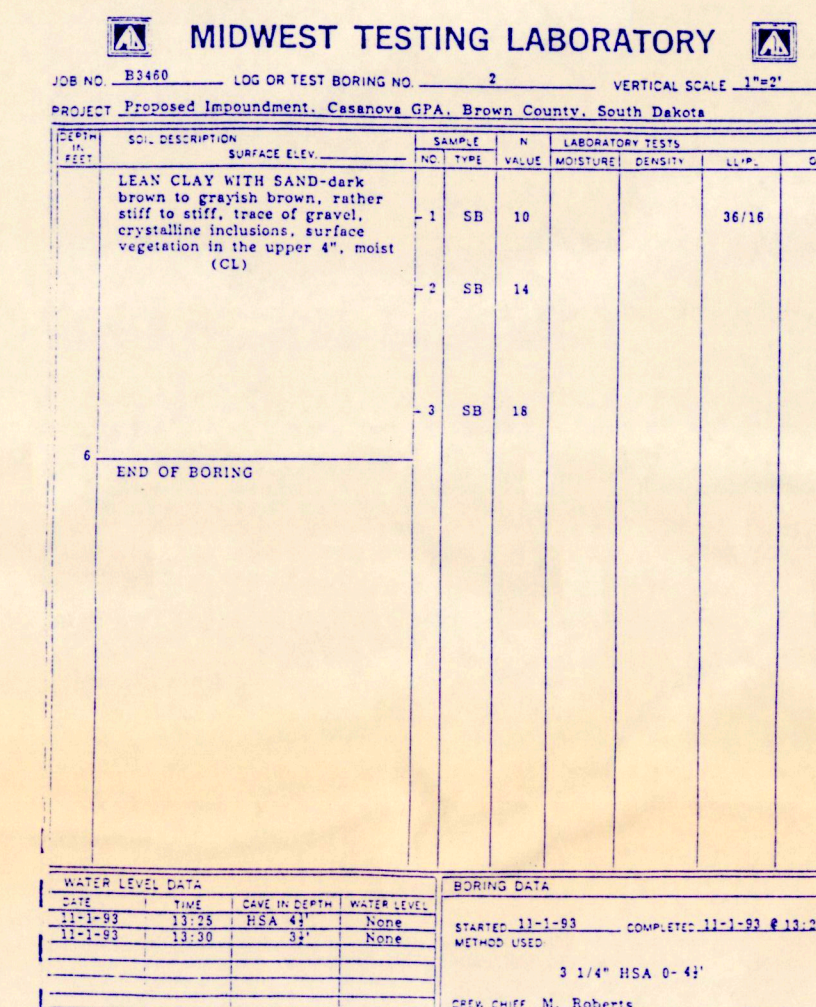
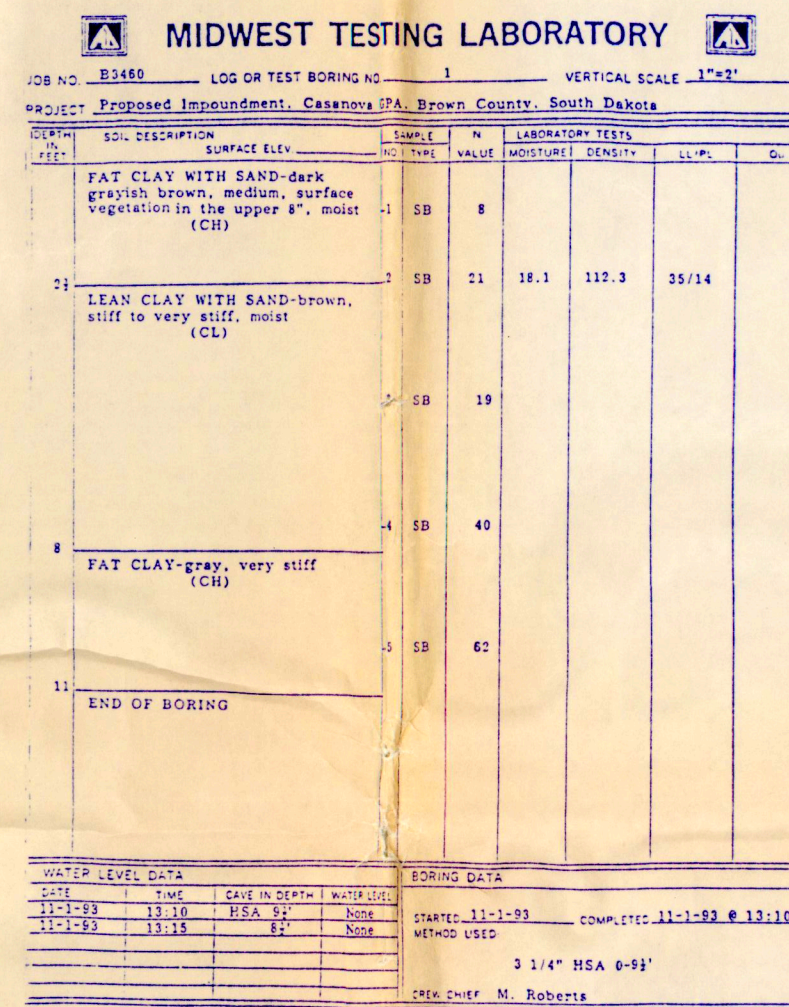
Jeffrey A. Streckfuss
JULIUS J. FETZER
SOUTH
DAKOTA

PROJECT SIGNING

SIGN 'A' 24"x36" SIGN 'B' 11"x14"

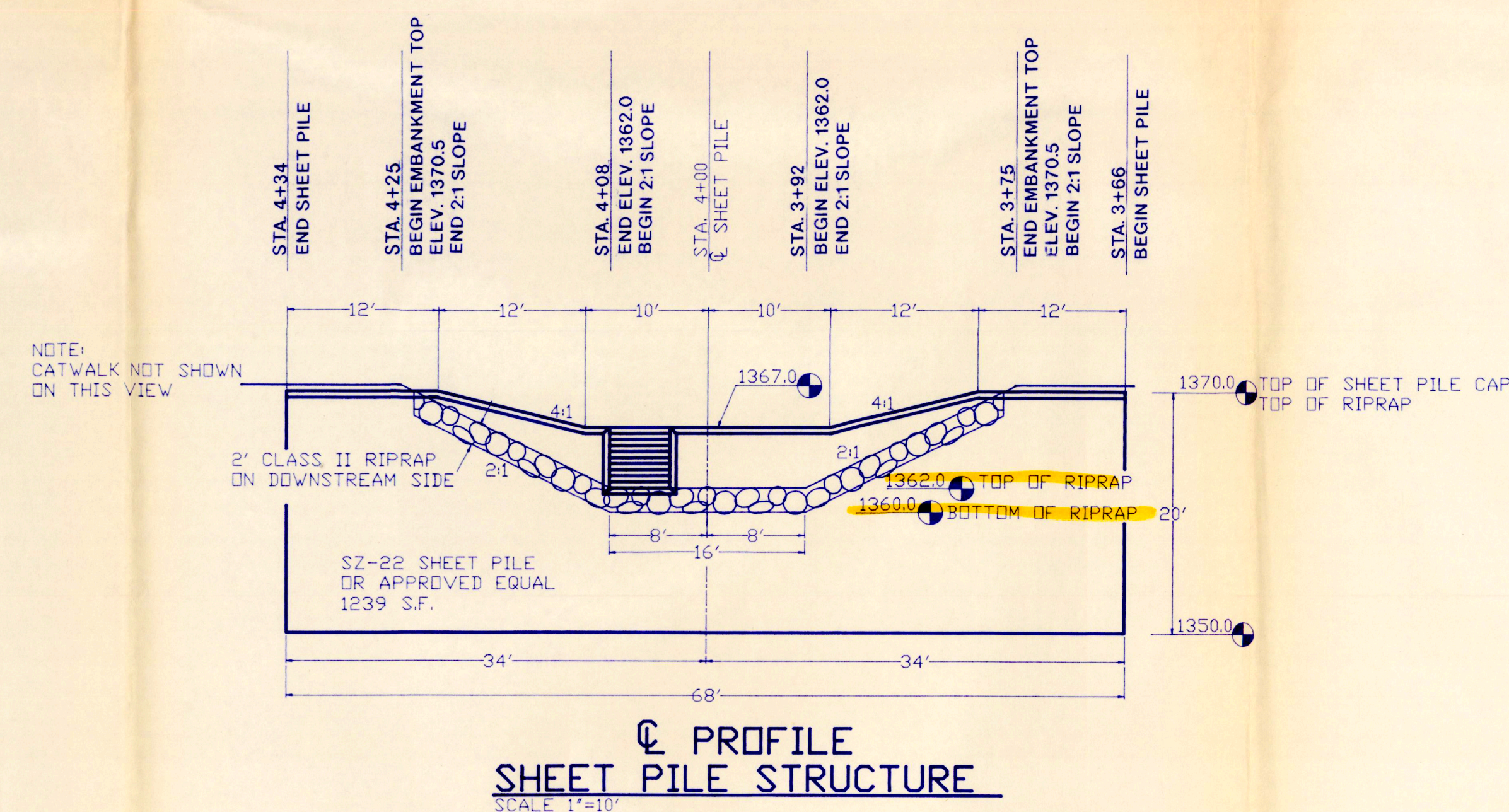
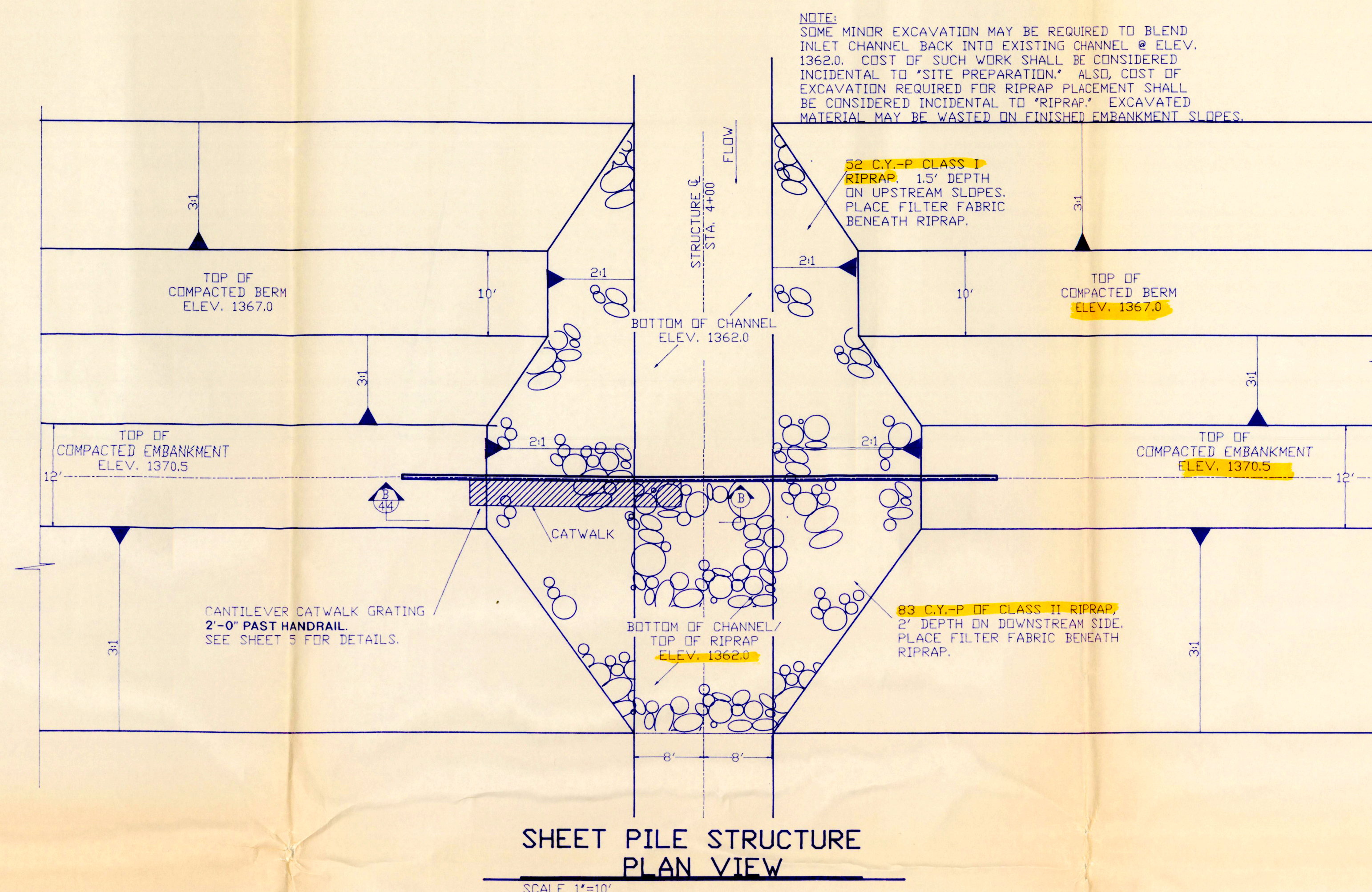
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DUCKS UNLIMITED AND DELIVERED TO THE COOPERATING
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THE SIGN(S) AT THE LOCATION(S) DESIGNATED ON THE PLANS.

DUCKS UNLIMITED INC. GREAT PLAINS REGIONAL OFFICE DATE: 8-26-94	PROJECT NO. SD-136-2 CASANOVA WETLAND DEVELOPMENT VICINITY MAP SHEET NO. 1 OF 5	DESIGNED BY: J.J.L. DRAWN BY: J.B. SURVEYED BY: APPROVED BY: <i>[Signature]</i> CHECKED BY:
---	---	---

[illegible][illegible]

VERTICAL CONTROL:
FROM TRIGONOMETRIC LEVELS RUN FROM USGS BRASS CAP STAMPED
"4 JAK 1958" WITH A PUBLISHED ELEVATION OF 1362.401 FEET.
HORIZONTAL CONTROL:
THE COORDINATES ARE LOCAL DU COORDINATES WITH THE REFERENCE
AZIMUTH DETERMINED WITH A BRUNTON COMPASS TO TRUE NORTH WITH
A 9 1/2° MAGNETIC DECLINATION ACCOUNTED FOR.

 DUCKS UNLIMITED INC.	PROJECT NO. SD-136-2		DESIGNED BY: D.J.
	CASANOVA- WETLAND DEVELOPMENT		DRAWN BY: JS
GREAT PLAINS REGIONAL OFFICE	PROJECT TOPOGRAPHY		SURVEYED BY:
DATE:	SHEET NO.	APPROVED BY:	CHECKED BY:
8-26-94	2 OF 5		



PROFILE SHEET PILE STRUCTURE

SHEET PILE SPECIFICATIONS:
MINIMUM THICKNESS: 0.375 INCHES
MIN. SECTION MODULUS: 181 IN.³ PER L.F. WALL

CANTILEVER CATWALK GRATING
& SIDE ANGLES 2'-0" PAST HANDRAIL.
SEE SHEET 5 FOR DETAILS.

TOP OF
COMPACTED
EMBANKMENT
ELEV. 1370.5

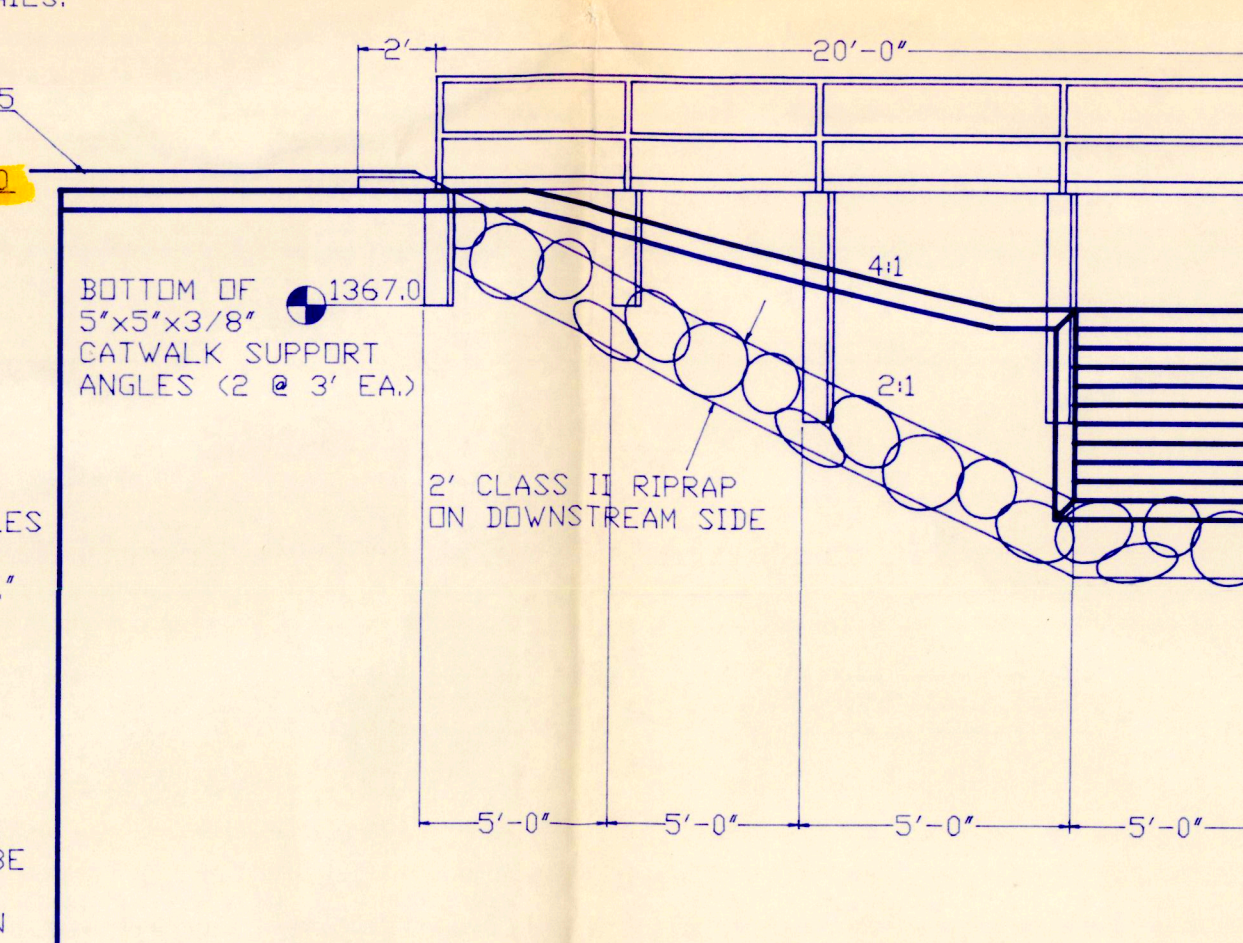
TOP OF
SHEET PILE CAP
ELEV. 1370.0

TOP OF RIPRAP

NOTE:
5'x5'x3/8" CATWALK SUPPORT ANGLES
(24 L.F. REQ'D) ARE CONSIDERED
INCIDENTAL TO "STRUCTURAL STEEL."

PAINTING NOTE:
THE HANDRAIL, GRATING, LOCKROD &
CATWALK SUPPORT ANGLES SHALL BE
PAINTED IN ACCORDANCE WITH DU
"STRUCTURAL STEEL" SPECIFICATION
#216.0.

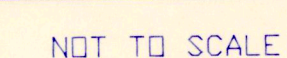
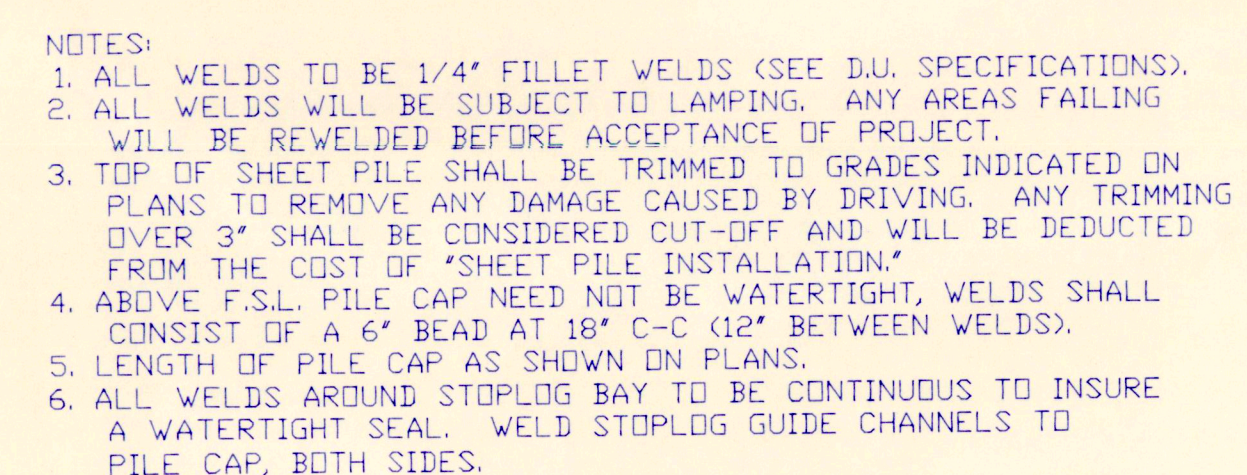
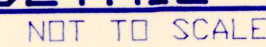
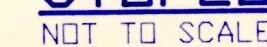
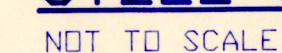
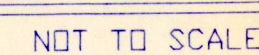
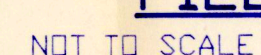
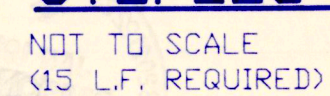
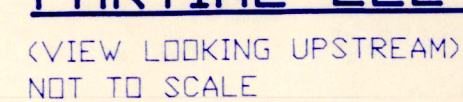
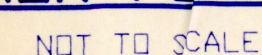
STA. 4+34
END SHEET PILE

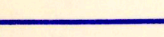


SECTION A-A

SCALE: 1"=5'

	PROJECT NO. SD-136-2		DESIGNED BY: D.J.L.
	CASANOVA- WETLAND DEVELOPMENT		DRAWN BY: B
GREAT PLAINS REGIONAL OFFICE		STRUCTURE PLAN & DETAILS	SURVEYED BY:
DATE: 8-26-94	SHEET NO. 4 OF 5	APPROVED BY:	CHECKED BY:



 DUCKS UNLIMITED INC.	PROJECT NO.	SD-136-2	DESIGNED BY:	D.J.L.
	CASANOVA- WETLAND DEVELOPMENT		DRAWN BY:	h
GREAT PLAINS REGIONAL OFFICE	SHEET PILE AND CATWALK FABRICATION DETAILS		SURVEYED BY:	
DATE:	SHEET NO.	APPROVED BY:	CHECKED BY:	APPROVED BY:
8-26-94	5 OF 5			