

**WATER PERMIT NO. 6013-3**

Name of Applicant: US Fish & Wildlife Service

Address: PO Box 25486, Denver Federal Center, Denver CO

Phone: 303 236-5321

Amount of Water Claimed: 323 AF storage plus 212 AF seasonal (total 535 AF) Total Acres: NA

Source of Water Supply: runoff - Dry Creek

Water to be used for: fish & wildlife production

County: Hutchinson

Type of Waste Disposal System: NA

Location: 5 miles southeast of Parkston

PRIORITY

Date Received: 4-7-97

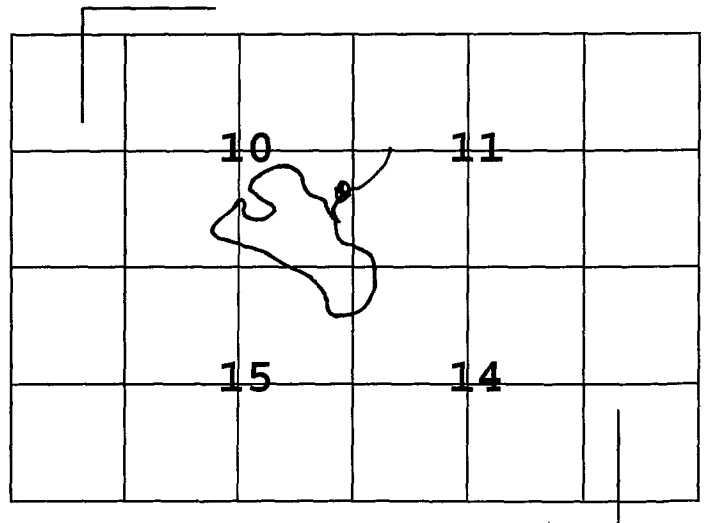
Fee: \$325

Corrected Application Received: 7-30-97 Period of Annual Use: January 1 - December 31

Remarks: Restoration of the Roth Waterfowl Production Area

Diversion Point: NE 1/4 SE 1/4 Sec 10-T98N-  
R60W

Water Impounded: E 1/2 SW 1/4, SE 1/4 Sec  
10; SW 1/4 SW 1/4 Sec 11; NW 1/4 NW 1/4  
Sec 14 and NE 1/4 NE 1/4 Sec 15; all in T98N-  
R60W



Depth of Well:

Well Driller:

Remarks:

Type of Map: plat

Prepared by: Albert E Bevilacqua

Reviewed and the Number Assigned on: 7-24-97

By: Karen Schlaak

Notice of Hearing - date to intervene: \_\_\_\_\_

**SOUTH DAKOTA  
WATER PERMIT NO. 6013-3**

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Date of first receipt of application April 7, 1997.

Date of return to applicant for corrections, amendments or changes April 7, 1997.

Date of receipt of corrected application July 30, 1997.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 6013-3 to US Fish and Wildlife Service, PO Box 25486, Denver Federal Center, Denver CO 80225 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. 6013-3 appropriates 535 acre-feet of water annually using an existing plug in a man-made ditch for a wetland restoration project. The structure impounds 323 acre-feet of water with an additional 212 acre-feet to be appropriated to offset evaporation. The ditch plug is located in the NE 1/4 SE 1/4 Section 10 with water impounded in the E 1/2 SW 1/4, SE 1/4 Section 10; SW 1/4 SW 1/4 Section 11; NW 1/4 NW 1/4 Section 14 and NE 1/4 NE 1/4 Section 15; all in T98N-R60W.
2. The water appropriated shall be used for the purpose of supplying water to provide habitat for fish & wildlife propagation and domestic 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. 6013-3 is September 15, 1997.
5. The date from which applicant may claim right is July 30, 1997.
6. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

**QUALIFICATION**

Water Permit No. 6013-3 authorizes storage of 323 acre-feet of water in the Roth Waterfowl Production Area and sufficient water annually to maintain the water level to an elevation of 1398.5 feet mean sea level.

**WATER MANAGEMENT BOARD**

By: \_\_\_\_\_

*John Hatch*  
John Hatch, Chief Engineer  
Water Rights Program  
Department of Environment and Natural Resources

**OCT 6 1997**

date





|                                                                                                                      |                                                                                 |
|----------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| • Mail to:<br>Water Rights Program<br>Joe Foss Building<br>523 E. Capitol<br>Pierre, SD 57501-3181<br>(605) 773-3352 | (office use only)                                                               |
|                                                                                                                      | No. <u>6013-3</u> Hydrologic Unit <u>10160011</u>                               |
|                                                                                                                      | Basin <u>James River</u><br>Newspaper <u>The Parkston Advance, Parkston, SD</u> |



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

Check use(s) of water:

Amended 7/30/97

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

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

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

1. Name of Applicant UNITED STATES OF AMERICA  
Fish and Wildlife Service Phone (303) 236-5321  
(check one) ☐ Owner ☐ Tenant/lessee

Mailing Address P.O. Box 25486, Denver Federal Center, Denver State CO 80225  
(Street, RR. or Box) (Zip Code)

2. Amount of water claimed \_\_\_\_\_ \*CFS or \_\_\_\_\_ \*\*GPM 535 \*\*\*AF 121  
(\*Cubic Feet per Second) (\*\*Gallons per Minute) (\*\*\*)Acre Feet - storage capacity of dam/dugout or annual use if applicable)

3. Source of water supply Surface Runoff, TRIB to James River via Dry Creek

4. Location of point of diversion (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W) Ditch Plug  
NESE Section 10, T98N R60W water impounded: E 1/2 SW 1/4, SE 1/4, sec. 10; SW 1/4 SW 1/4  
sec. 11; NW 1/4 NW 1/4 sec. 14 and NE 1/4 NE 1/4 sec. 15; all County Hutchinson  
in T98N-R60W

5. County or counties where water will be used Hutchinson

6. Annual period during which water is to be used 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) See Attached  
Environmental Assessment

323 \*\*\*~~498~~ AF Storage plus 212 AF Seasonal. Net Evaporation of 21" or 1.75' over the 121 ~~surface~~ acre marsh = ~~244~~ AF annual seasonal use. (Evap. from the National Weather Service NOAA Technical Report 33 (Free Water Surface) for Southeastern South Dakota.

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~~  
Colorado SS

County of Jefferson

I, Cheryl C. Williss, 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 Cheryl C. Williss  
Subscribed and sworn to before me this 1st day of April 1997

Judge S. Coe  
Notary Public  
My Commission expires 11/10/97

# Supplemental Information

(type or print in ink)

## 1. Well Information - Proposed Construction

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

## 2. Wastewater Disposal System Information

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

## 3. Dugout Information

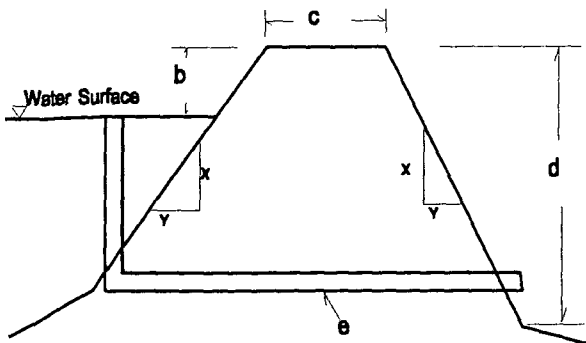
- a) Surface Dimensions \_\_\_\_\_ Depth \_\_\_\_\_
- b) Depth to water (ground surface to water level) \_\_\_\_\_

## 4. Water Storage ~~DAMS~~ Plug of man-made drainage ditch

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:  
\_\_\_\_\_  
\_\_\_\_\_

- Estimate
- b) Freeboard \_\_\_\_\_ 1'
- c) Crest Width \_\_\_\_\_ 12"  
Crest Length \_\_\_\_\_ 25'
- d) Height \_\_\_\_\_ 4'
- e) Primary Outlet Capacity \_\_\_\_\_ N/A  
If pipe, diameter \_\_\_\_\_ --
- f) Secondary Spillway Capacity \_\_\_\_\_ N/A  
Spillway Width \_\_\_\_\_ --
- g) X & Y Slope  
Upstream \_\_\_\_\_ N/A  
Downstream \_\_\_\_\_ 1.2/1
- h) Surface Area of Impoundment ~~1.2~~ acres
- i) Storage ~~323~~ ~~1000~~ Acre Feet
- j) Drainage Area Above Dam 2875 Acres





DRAFT  
ENVIRONMENTAL ASSESSMENT

ROTH WATERFOWL PRODUCTION AREA  
WETLANDS PROTECTION PROJECT

Written by: Steven A. Hicks

Lake Andes National Wildlife Refuge  
United States Fish and Wildlife Service

## TABLE OF CONTENTS

|                                                               |           |
|---------------------------------------------------------------|-----------|
| <b>I. PURPOSE AND NEED</b>                                    | <b>1</b>  |
| <b>II. ALTERNATIVES</b>                                       | <b>2</b>  |
| A. No Action                                                  | 2         |
| B. Drain the Marsh                                            | 2         |
| C. Reconstruct the Existing Road                              | 2         |
| D. Re-route the Road Around the Marsh (Preferred Alternative) | 2         |
| <b>III. AFFECTED ENVIRONMENT</b>                              | <b>3</b>  |
| A. Roth WPA                                                   | 3         |
| B. Rempfer Trust Land                                         | 3         |
| C. Wetlands                                                   | 3         |
| D. Uplands                                                    | 4         |
| E. Socioeconomic Environment                                  | 4         |
| F. Threatened and Endangered Species                          | 4         |
| G. Historic and Archaeological Resources                      | 5         |
| <b>IV. ENVIRONMENTAL CONSEQUENCES</b>                         | <b>5</b>  |
| A. No Action                                                  | 5         |
| B. Drain the Marsh                                            | 6         |
| C. Reconstruct the Existing Road                              | 6         |
| D. Re-route the Road Around the Marsh (Preferred Alternative) | 6         |
| <b>V. CONSULTATION AND COORDINATION</b>                       | <b>7</b>  |
| <b>VI. REFERENCES</b>                                         | <b>7</b>  |
| <b>Exhibit A</b>                                              | <b>9</b>  |
| <b>Exhibit B</b>                                              | <b>10</b> |
| <b>Exhibit C</b>                                              | <b>11</b> |

## I. PURPOSE AND NEED

The Roth Waterfowl Production Area (WPA) in Hutchinson County, South Dakota is a part of the National Wildlife Refuge System, administered by the U.S. Fish and Wildlife Service (FWS). This WPA was established to be managed:

"... as Waterfowl Production Areas" subject to "... all of the provisions of such Act [Migratory Bird Conservation Act] ... except the inviolate sanctuary provisions ..." 16 U.S.C. 718(c) (Migratory Bird Hunting and Conservation Stamp Act)

"... for any other management purpose, for migratory birds." 16 U.S.C. § 715d (Migratory Bird Conservation Act)

"... for conservation purposes ..." 7 U.S.C. § 2002 (Consolidated Farm and Rural Development Act)

In keeping with the above purposes, the following goals and objectives were developed to direct management on the WPA:

Preserve, restore, and enhance federally listed endangered and threatened species and the habitats on which they depend.

Provide the life requirements of waterfowl and other migratory birds.

Preserve and maintain a natural diversity and abundance of fauna and flora on Complex lands.

Preserve and maintain a wetland prairie ecosystem for plants and wildlife indigenous to the area.

Provide a range of opportunities for compatible wildlife/wildlands-oriented interpretation and recreation.

In the late 1980's, a drained 122-acre wetland on the Roth WPA was restored by plugging a drainage ditch. The high water of the restored wetland has begun to deteriorate a Township road that passes through the marsh. Recently, the County Drainage Authority advised the FWS that something must be done to improve the road or the wetland must be drained to its level before restoration, Exhibit A. The "Roth WPA Wetlands Protection Project" has been proposed as a solution to this problem. The goal of this project is to keep the marsh at the Roth Waterfowl Production Area (WPA) in its restored condition, while maintaining a good Township road through the area. Needs of the environment will be met by maintaining the marsh. Needs of the public will be met by providing a safe, useable road.

## **II. ALTERNATIVES**

### **A. No Action**

No action concerning the road would be taken by the FWS. Management of the WPA would continue.

### **B. Drain the Marsh**

The marsh would be drained by removing the ditch plug placed by the FWS in the late 1980's. Under this alternative the road would still require significant rehabilitation. The road would be maintained as it had been in the past.

### **C. Reconstruct the Existing Road**

Under this alternative the existing road would be reconstructed. Soil would be borrowed from the local area and used to increase the width and height of the road. To protect the road from erosion, rip-rap would be placed along both sides of the road. Mitigation for the loss of wetland habitat due to the increased size of the road would be required. This mitigation would need to be done by restoring local wetland areas equal in size to the added road area.

### **D. Re-route the Road Around the Marsh (Preferred Alternative)**

This action would preserve the marsh its restored condition, and the road would be rerouted around the south end of the marsh. Approximately 1,452 feet of road grade that passes through the wetland on the Roth WPA will be closed and partially removed. Soil will be removed from the grade and placed around four existing power poles spaced across the wetland basin next to the road grade. This activity will possibly disturb .25 acres within the wetland basin. The remainder of the old road grade would be cut off from the shore to create a loafing and nesting island. A new road grade, approximately 2,112 feet long, will be established to replace the road removed from the wetland. Part of the new R-O-W will be on land owned by the Rempfer Children's Trust with the remainder on FWS property. The 1,188 feet of new road to be constructed on the Rempfer property already exist as a graded trail surrounded by crop ground. This graded trail has shallow borrow ditches along both sides. The remaining 924 feet of road will be constructed on crop ground on the Roth WPA. In constructing the new road, soil will need to be borrowed from the sides of the grade. An effort will be made to design the borrowed areas no deeper than 18 inches, but may need to go 24 to 36 inches deep depending upon site conditions. A small, two or three-car pull-off parking area will be constructed along with the new road. Stock interpretive panels are available and would be erected at the new parking area. Farmed ground on the WPA, which will not be used for the road, will be seeded with a mixture of native grasses and forbs. This mixture will also be planted on the road sides. The project will be engineered to assure construction of a safe road built to acceptable standards. The existing R-O-W will be legally

closed, and a new R-O-W established along the route of the new road. The FWS will petition the State Water Board to obtain a water right for the water contained in the marsh.

A partnership consisting of interested parties has been assembled to accomplish this alternative. Members of the partnership to this point are German Township, Ducks Unlimited (DU), Pheasants Forever (Menno Chapter), the Rempfer family, First Trust South Dakota, the National Fish and Wildlife Foundation, and the U. S. Fish and Wildlife Service. The National Fish and Wildlife Foundation (NFWF) has approved a challenge grant of \$15,000 to the FWS to complete the project. This amount represents \$5,000 in NFWF Federal matching funds and \$10,000 in non-Federal challenge funds raised by the partners. Additional partners are welcome.

### III. AFFECTED ENVIRONMENT

#### A. Roth WPA

The Roth Waterfowl Production Area (WPA) comprises the bulk of the affected environment. This area is administered by the Lake Andes Wetland Management District of the U.S. Fish and Wildlife Service, as a part of the National Wildlife Refuge System. The total area of the WPA is 255.27 acres. The WPA lies in the south east corner of section 10, the south west corner of section 11, and the north east corner of section 15 of German Township, Hutchinson County, SD. The proposed project would remove the Township road from where it now crosses through the WPA and its restored wetland. Part of the road would be relocated on the very south edge of the WPA. The land where the new road is to be constructed was crop ground obtained from the Rempfer Trust in 1994. All of the crop ground where the new road grade will be built has been farmed annually for at least 50 years.

#### B. Rempfer Trust Land

Part of the project is proposed to be constructed on land owned by the Rempfer Children's Trust and administered by First Trust South Dakota. The proposed road would follow an existing semi-improved road that lies in a north/south direction along the west side of the Roth WPA in section 15. This semi-improved road has been closely surrounded by cultivated cropland for many years. The road has been traditionally used to reach farm ground and grain bins found south of a large drainage ditch that empties into the WPA.

#### C. Wetlands

The restored wetland on the Roth WPA covers approximately 122 surface acres with a volume of approximately 400 acre feet. This wetland, before restoration, was classified by the national wetlands inventory under the Cowardin et al. (1979) system as PEM/ABF, which is a palustrine, emergent / aquatic bed, semipermanently flooded wetland. This was an optimistic classification considering the ditch draining the wetland. With the restoration, the wetland is more properly classified as PEM/ABG. This shows the water regime modifier has increased in permanence to G,

intermittently exposed. The wetland is a typical "prairie pothole" believed to be formed by glaciation. These prairie wetlands are extremely productive and very attractive to both migratory and resident wildlife. They serve as breeding and nesting areas for many migratory birds and as year-round habitat for many species of resident wildlife. The road that is to be removed from the wetland bisects the basin along the section line between sections 10 and 15, T.98 N., R.60 W., 5<sup>th</sup> principal meridian.

#### D. Uplands

Upland areas affected by the proposed project are either under cultivation or used as roads at this time. The area is nearly level except where the grade will cross a man-made drainage ditch. Cultivated areas have been used to produce crops annually for at least 50 years. Soils, where the new grade is proposed, are primarily Hand loam and Prosper-Clarno loam (Johnson, 1978). These soils are both in Capability Unit I having very few restrictions in their use for agriculture. The soils are rated as fair and poor, respectively, as road fill. Both have underlying horizons that are more clay like. The soils are classified by the American Association of State Highway and Transportation Officials as A-4, A-6.

Previously cultivated areas on WPAs are generally seeded to a mixture of native grasses and forbs. Seedings are designed to replicate at least some native plants of the area. Once the plant community is established, these upland areas are used by a variety of animals.

#### E. Socioeconomic Environment

Area surrounding the Roth WPA is rural farm country. Local farmers use the road through the WPA to get to and from their fields. Heavy farm machinery will pass over the road routinely. The road is also used by persons going to and from area farm places. Emergency vehicles need to be able to travel the road in case of sickness or accident. Having a safe, passable road is important to the local community.

The road is also used by the hunting population. WPAs are open to hunting, fishing, and trapping. Having a good road through the WPA facilitates these uses.

#### F. Threatened and Endangered Species

Both State and Federal threatened and endangered species have the potential to use or are using lands of the Lake Andes Complex. The Western prairie fringed orchid is the only known endangered plant species that might exist on the Roth WPA although none have been found. The WPA is within the historic range of the endangered American burying beetle (*Nicrophorus americanus*). A survey for these beetles was done in 1996 within 20 miles of the WPA on a grassland site. None were found during that survey (Pelizza, 1996). It is unlikely that the beetle would be found in the area to be disturbed because the ground has been continually cultivated or under water (US FWS, 1993).



The project area is within the possible range of a few State threatened reptiles. These include the Northern lined snake (*Tropidoclonion lineatum lineatum*), Eastern hognose snake (*Heterodon platyrhinos*), spiny softshell (*Trionyx spiniferus*), and the False map turtle (*Graptemys pseudogeographica*). No listed reptiles have been observed on the WPA.

A remote possibility exists that some threatened or endangered fish may use the Roth. Possible State threatened species include the Northern redbelly dace (*Phoxinus eos*), trout-perch (*Percopsis omiscomaycus*), plains topminnow (*Fundulus sciadicus*), longnose sucker (*Catostomus catostomus*), sticklefin chub (*Hybopsis meeki*), sturgeon chub (*Hybopsis gelida*), and the finescale dace (*Phoxinus neogaeus*). State endangered species include the central mudminnow (*Umbra limi*), banded killifish (*Fundulus diaphanus*), and the pearl dace (*Semotilus margarita*). No State or Federal listed endangered species are known to occur in the waters of the WPA.

Several threatened or endangered birds may use the Roth WPA. Bald (*Haliaeetus leucocephalus*) and golden (*Aquila chrysaetos*) eagles may occasionally use the WPA. The whooping crane (*Grus americana*) may pass through the area during its migration. Whooping cranes inhabit shallow wetlands characterized by cattails, bulrushes, and sedges. They can also be found in grassland and cropland areas, especially during migration; however, they depend upon wetlands more than uplands for food and roosting sites. The peregrine falcon (*Falco peregrinus*) might also occasionally use the WPA. This species is an uncommon migrant in the early spring and fall with occasional sightings during the winter. Peregrine falcons will use almost any habitat type that provides hunting opportunities, particularly open areas such as wetlands, grasslands, and cropland. The WPA is within the spring migration range of the extremely rare Eskimo curlew (*Numenius borealis*). There is no history of sighting this bird at the Roth.

#### G. Historic and Archaeological Resources

A review for historic and archaeological resources is being conducted by the FWS regional archaeologist and the State historic preservation officer. No significant resources are anticipated on the site.

### IV. ENVIRONMENTAL CONSEQUENCES

#### A. No Action

Under this alternative no action by the FWS would be taken. This lack of action would allow the Township road running through the WPA to continue deteriorating. The road would likely be unsafe for travel or very costly for the Township to maintain. The County Drainage Board (County Commission) speaking for the local citizens, would be forced into action against the FWS, and insist that some action be taken to improve the road. The threat of drainage to the restored marsh would continue. Since the easiest way to alleviate most of the road problems

would be to drain the marsh that would probably happen. Consequences of draining the marsh are described in the next section.

#### B. Drain the Marsh

The marsh could be easily be drained by removing the earthen ditch plug that restored the marsh. Most wetlands benefits to the environment would be lost. The water holding capacity of the marsh would be reduced by approximately 360 acre feet. This water would flow into the James River via the Dry Creek drainage, increasing downstream flooding. Soils would erode along the path of the man-made ditch that drains the marsh. Most groundwater recharge attributed to the wetland would be negated. Sub-surface moisture availability in the soils surrounding the wetland would be reduced. A dependable water source would be lost to the area wildlife. Species dependant on water would decline in number. The WPA would become less attractive to hunters and trappers. The road, which has historically had problems associated with passing through a wetland, would continue to have those problems. The Township would continue to spend extra money to maintain this road. Allowing this wetland to be drained would lead the public to think that the FWS is not fulfilling its obligations under several executive orders and acts of congress.

#### C. Reconstruct the Existing Road

After completion of this alternative, the Township would be left with a road that still passes through a large marsh and is prone to the problems associated with this situation. A few of these problems are: continued erosion due to wave action, soft road bed due to water saturation of the substrate, trouble controlling woody vegetation along the R-O-W, danger to the public traveling a road passing through deep water. An upland area would need to be disturbed to obtain road fill material. The soil would have to come from either farm land or upland habitat on the WPA diminishing the value of whichever was chosen. It is possible that road fill material could be borrowed from an area used to create wetland acres. This may satisfy mitigation requirements for the added size of the road grade passing through the wetland.

Overall the consequences of this alternative would be positive. Most wildlife species would benefit from the continued existence of the restored marsh. Soil and water resources would be conserved. The local community would have a stable road to travel, though it would require extra maintenance to keep it that way. Hunters and trappers would have a good quality marsh to use.

#### D. Re-route the Road Around the Marsh (Preferred Alternative)

Under this alternative the marsh would be preserved in a restored state and the road moved. Water would be held for ground water recharge, subsurface moisture, and flood control. Wildlife would benefit by having a dependable water source to satisfy their needs. Waterfowl would have a safer place to nest and spend loafing time once the old road grade was cut off from the shoreline. Wetland plants would flourish under a natural water regime.

The new road would provide a permanent and safe route of travel for local persons and wildlife enthusiasts. Farmers would be more confident that they could reach their fields to work the ground and harvest the crops. The land used for the road grade on the WPA would be changed from cultivated ground to roadway. The remainder of the crop ground on the WPA is to be planted to native grasses and forbs to provide additional upland habitat for wildlife. Use of the road grade on the Rempfer land would change. This would go from a trail that does support some grassland functions to an improved gravel road. A small amount of crop land on the Rempfer property, about one or two tenths of an acre, would be converted to a road grade.

The project should not negatively affect any threatened or endangered species. Having a quality wetland on the WPA should benefit all species that are adapted to that habitat. Most species are endangered or threatened due to loss of habitat and this alternative is aimed at increasing habitat. See Exhibit B for a summary of the environmental consequences.

## **V. CONSULTATION AND COORDINATION**

Consultation and Coordination on this project began with the German Township Board and the local landowners. We have also been in contact with the Hutchinson County Drainage Administrator. As a draft document, this environmental assessment is being sent to known interested parties and project partners. A news article describing the proposed project will be provided to the Parkston, SD newspaper. That article will announce the availability of this EA.

Consultation and Coordination are also being undertaken with other government entities. A FWS compatibility determination has been made at the field level and forwarded to the regional office for approval (Exhibit C). Appropriate consultation is being done on section 7 of the Endangered Species Act. Consultation concerning cultural and archaeological matters is being done with the FWS Regional Archeologist and State Historical Preservation Officer. A Clean Water Act, Section 404 permit application will be filed with the U. S. Corps of Engineers. A water right application will be filed with the State of South Dakota. Legal closure of the existing R-O-W and opening of a new R-O-W will be sought from the Hutchinson County Commission with support from the German Township Board.

**Comments concerning this environmental assessment should be returned to Lake Andes National Wildlife Refuge, 38672 291<sup>st</sup> St., Lake Andes, SD, 57356, by April 18, 1997.**

## **VI. REFERENCES**

Cowardin, L. M., Carter, V., Golet, F. C., and LaRoe, E. T. 1979. Classification of wetlands and deepwater habitats of the United States. United States Fish and Wildlife Service, Biological Services Program; FWS/OBS-79/31. 103 pp.

Johnson, W. F. 1978. Soil survey of Hanson and Hutchinson Counties, South Dakota. United States Dept. Of Agriculture, Soil Conservation Service, in cooperation with South Dakota Agricultural Experiment Station. 129 pp.

Pelizza, C. 1996. Personal communication of unpublished survey.

US FWS. 1993. American burying beetle, fact sheet. U.S. Fish and Wildlife Service, Pierre, South Dakota. 2 pp.

Exhibit A

HUTCHINSON COUNTY

Mike Hertz  
Drainage Administrator  
Hutchinson County Courthouse  
140 Euclid Rm 125  
Olivet, SD 57052

Telephone (605) 387-4210  
Fax (605) 387-4209

Received  
APR 17 1996  
LAKE ANDES NWR

April 16, 1996

US Fish & Wildlife Service  
Rt 1 Box 77  
Lake Andes, SD 57356

To Whom It May Concern:

This letter is in reference to property owned by US Fish & Wildlife and located in SE1/4 Section 10-98-60 in Hutchinson County.

Sometime after your agency acquired this property, an earthen dike was placed across the outlet of Koth Lake, presumably to hold back more water in the slough (see attached map). Because of the dike, water backs up at a higher level than it did before and floods the township road on the south side of the slough.

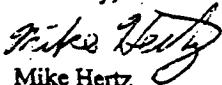
The German Township Board of Supervisors is in agreement that this is unacceptable and that your agency must do something that restores their road to its former usefulness. In remedying this situation, it would seem that you have two options. The most simple solution would be to restore the outlet to its original condition by removing the block. The second option is to leave the dike as is but sufficiently build up the road to a useable level. It is my understanding that the latter option would be acceptable to German Township.

In reviewing South Dakota's water laws and summaries of court cases, it seems pretty clear to me that German Township would have a strong legal basis from previous court decisions to successfully challenge your actions and recover damages. Obviously, formal action wouldn't be in the best interest of anyone.

For the record, a similar situation with US Fish & Wildlife land and another German Township road exists south of Koth Lake between Sections 14 and 15, but since that road is basically unimproved, the township isn't seeking any change in your management of that land.

Your prompt attention and cooperation concerning this matter would be greatly appreciated.

Sincerely,



Mike Hertz  
Hutchinson County Drainage Administrator

cc: Dean Schaefer, German Township Board Chairman

**Exhibit B****SUMMARY OF ALTERNATIVE CONSEQUENCES**

| MAJOR ISSUE               | NO ACTION | DRAIN MARSH | RECONSTRUCT ROAD | REROUTE ROAD |
|---------------------------|-----------|-------------|------------------|--------------|
| <b>WILDLIFE RESOURCES</b> |           |             |                  |              |
| T & E SPECIES             | -         | -           | +                | +            |
| WATERFOWL                 | -         | -           | +                | +            |
| SHOREBIRDS                | -         | -           | +                | +            |
| OTHER MIGRATORY BIRDS     | -         | -           | +                | +            |
| UPLAND GAME BIRDS         | -         | -           | +                | +            |
| OTHER RESIDENT SPECIES    | -         | -           | +                | +            |
| WILDLIFE DIVERSITY        | -         | -           | +                | +            |
| <b>HABITAT RESOURCES</b>  |           |             |                  |              |
| SOILS                     | -         | -           | -                | 0            |
| WATER                     | -         | -           | +                | +            |
| NATIVE PLANT DIVERSITY    | -         | -           | 0                | +            |
| HABITATS PRESERVED        | -         | -           | -                | +            |
| <b>ECONOMICS</b>          |           |             |                  |              |
| BENEFITS TO LOCAL ECONOMY | -         | -           | -                | +            |
| <b>RECREATION</b>         |           |             |                  |              |
| ENVIRONMENTAL EDUCATION   | -         | -           | 0                | +            |
| FISHING WHERE ALLOWED     | 0         | 0           | 0                | 0            |
| VISUAL AESTHETICS         | -         | -           | 0                | +            |
| TRAPPING WHERE ALLOWED    | -         | -           | +                | +            |
| HUNTING WHERE ALLOWED     | -         | -           | +                | +            |

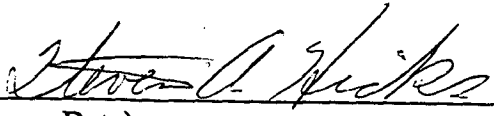
Key: "0" = No Change; "+" = Positive Effects; "-" = Negative Effects

U.S. Fish and Wildlife Service  
**REFUGE MANUAL**ADMINISTRATION

5 RM 20-Exhibit 1

COMPATIBILITY DETERMINATION

Page 1

Station Name: Lake Andes Wetland District Date Established: 1963Establishing Authority: Migratory Bird Conservation Act of 1929, Migratory Bird Hunting and Conservation Stamp Act of 1934.Purpose(s) for which Established: To preserve and improve the migratory bird production potential of the prairie pothole region of eastern South Dakota.Description of Proposed Use: Closure and partial removal of a road grade through the main wetland on the Roth WPA and construction of a new road grade outside the wetland basin on the WPA.Anticipated impacts on Refuge Purpose(s): The proposed project will maintain a 122-acre wetland on the WPA, create several nesting/loafing sites for migratory birds, and create a more sustainable and safe road for the public to travel.Determination: This use is compatible X This use is not compatible \_\_\_\_  
(Check one)The following stipulations are required to ensure compatibility: Construction will be done in an environmentally sensitive manner to avoid disturbance where possible. Native vegetation will be reestablished on disturbed areas.Justification: The proposed project will allow the 122-acre wetland on the WPA to be maintained in its restored condition. Public safety will be improved by not having a road travel through a wetland basin.Prepared by: Steven A. Hicks, ROS (Supervisory)   
(Name, Title, Signature, Date)Reviewed by: \_\_\_\_\_  
(Name, Title, Signature, Date)\_\_\_\_\_  
(Name, Title, Signature, Date)IF ADDITIONAL SPACE IS REQUIRED ATTACH CONTINUATION SHEETS  
Release: 014 May-8 1996 NATIONAL WILDLIFE REFUGE SYSTEM

8/12/97

T65

Water Permit Application No. 6013-3  
US Fish & Wildlife Service

SCS Annual Yield

Drainage Area = 2875 Ac =  
4.5 mi.<sup>2</sup>

Soils - C<sub>1</sub>A - Clarno

- T<sub>4</sub> - Tetonka

T<sub>e</sub> - Tetonka

P<sub>s</sub> - Prosper - Crossplain

P<sub>r</sub> - Prosper - Stickney

P<sub>c</sub>A - Prosper - Clarno

} Hydrologic Soil Group - B

Row crops - good condition - CN = 75-78

Small Grain - good condition - CN = 73-75

Pasture - good to fair - CN = 60-70

} Use CN = 75

$$50\% \text{ chance} = 0.58 \times 2875/12 = 140 \text{ Ac-ft.}$$

$$80\% \text{ chance} = 0.23 \times 2875/12 = 55 \text{ Ac-ft.}$$

$$10\% \text{ chance} = 2.70 \times 2875/12 = 650 \text{ Ac-ft.}$$

22-141 50 SHEETS  
22-142 100 SHEETS  
22-144 200 SHEETS

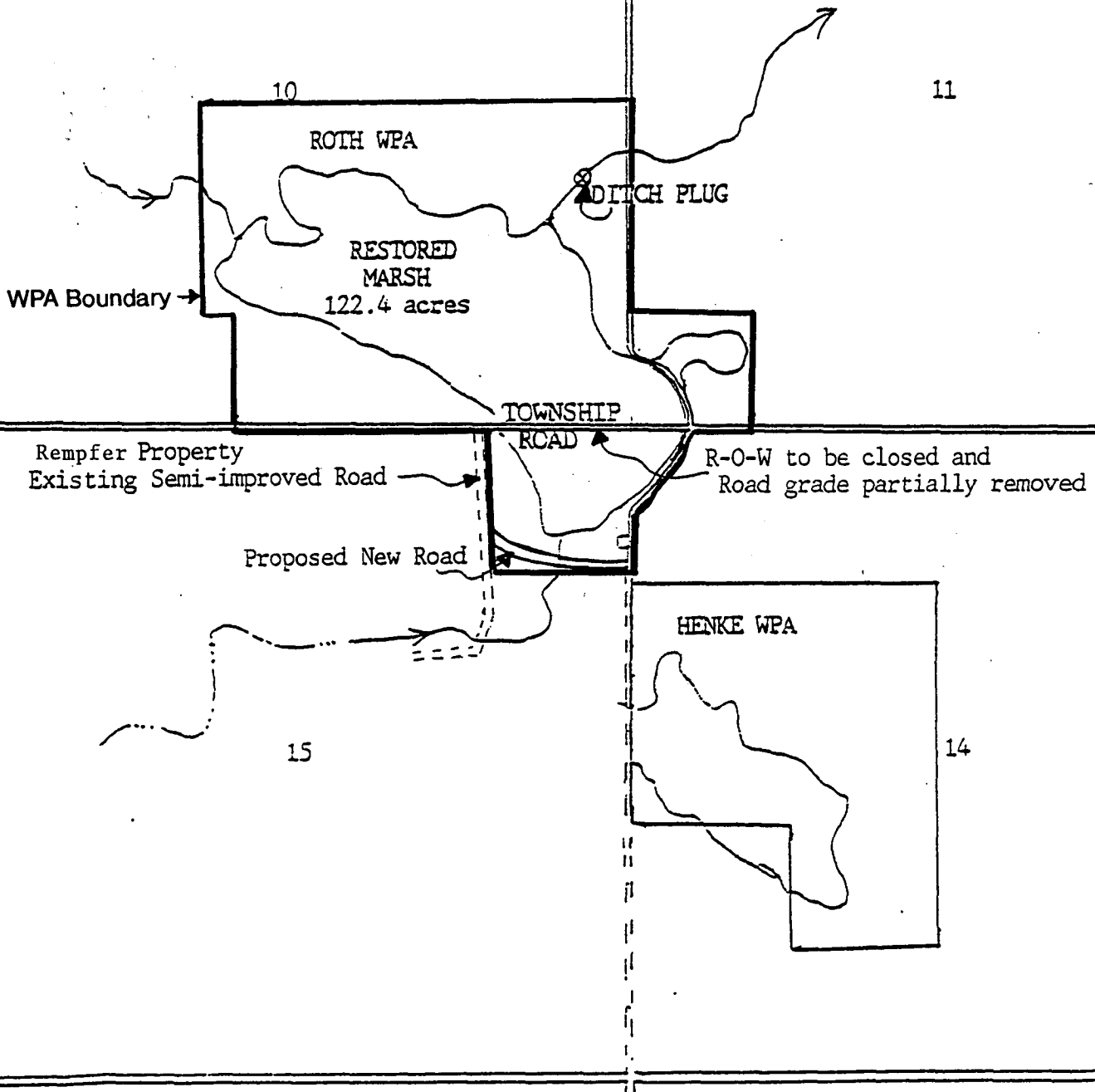




UNITED STATES OF AMERICA  
FISH AND WILDLIFE SERVICE

Water Rights Filing Map No.  
6R-SD-669-WR-P-34.0

ROTH WATERFOWL PRODUCTION AREA  
(Lake Andes Wetland Management District)  
Hutchinson County, South Dakota



ROTH WPA WETLANDS PROTECTION PROJECT

SE corner of section 10, SW corner of section 11, and NE corner of section 15, T.98N., R.60W., Hutchinson County, South Dakota.

Scale 4" = 1 mile

SAH, March 18, 1997

I, A.E. Bevilacqua, of Denver Colorado, do hereby certify that this map was prepared from notes and information obtained from an actual survey and that it correctly represents the facilities for the accompanying application.

*A.E. Bevilacqua*  
Regional Engineer

6013-3

# RECEIPT

415308

## Division of Water Rights

### South Dakota Department of Environment and Natural Resources

Pierre, \_\_\_\_\_ April 7, 1997

RECEIVED OF US Fish & Wildlife Service, P.O. Box 25486, DFC, Denver, CO 80225-0486

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

|                                                                                                                              |       |        |
|------------------------------------------------------------------------------------------------------------------------------|-------|--------|
| Fee for Application for Permit No. <u>6017-3</u> to Appropriate Water, to construct and to put water to beneficial use _____ | 325   | 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. _____                          |       |        |
| Fee for Filing Transfer Form _____                                                                                           |       |        |
| Fee for Filing Extension Request _____                                                                                       |       |        |
| Fee for _____                                                                                                                |       |        |
| _____                                                                                                                        |       |        |
| _____                                                                                                                        |       |        |
| (Any Other Work Provided by Law)                                                                                             | Total | 325 00 |

By John Hatch (Signature)  
Chief Engineer



# United States Department of the Interior

## FISH AND WILDLIFE SERVICE

Mountain-Prairie Region

IN REPLY REFER TO:

BA WTR  
WTR SD  
Mail Stop 60189

MAILING ADDRESS:  
Post Office Box 25486  
Denver Federal Center  
Denver, Colorado 80225-0486

STREET LOCATION:  
134 Union Blvd.  
Lakewood, Colorado 80228-1807

APR 01 1997



Mr. John Hatch  
Department of Environment  
and Natural Resources  
Joe Foss Building, 523 East Capitol  
Pierre, South Dakota 57501-3181

Dear Mr. Hatch:

A partnership consisting of interested parties included but not limited to: German Township, Ducks Unlimited (DU), Pheasants Forever (Menno Chapter), the Rempfer family, First Trust South Dakota, the National Fish and Wildlife Foundation, and the Fish and Wildlife Service, have entered into the Roth Waterfowl Production Area Wetlands Protection Project. Challenge Grant funds are being provided by the National Fish and Wildlife Foundation.

In addition to project construction activities, as part of this project, please find the following related water rights documents covering the restored marsh:

- (1) Form 2, Application for Permit to Appropriate Water in the State of South Dakota;
- (2) Form 2A, Supplemental Information;
- (3) Draft Environmental Assessment;
- (4) Filing Map No. 6R-SD-669-WR-P-34.0; and
- (5) Filing Fee in the amount of \$325.

Should you have any questions or require further information regarding this application, please contact Ginger Price at (303) 236-5321, extension 238.

Sincerely,

Cheryl C. Williss  
Chief, Division of Water Resources

Enclosures (5)



**DEPARTMENT of ENVIRONMENT  
and NATURAL RESOURCES**

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

April 7, 1997

US Fish & Wildlife Service  
Ginger Price  
PO Box 25486  
Denver Federal Center  
Denver CO 90225-0486

Dear Ms. Price:

Thank you for submitting your *Application for a Permit to Appropriate Water* for the project located in Section 10-T98N-R60W, Hutchinson County.

Before we can continue processing the application, please submit a written preliminary risk assessment, as well as the plans and specifications for the project.

If you have any questions, please contact Eric Gronlund or me.

Sincerely,

*Karen Schlaak*

Karen Schlaak  
Water Rights Program  
605 773-3352



# United States Department of the Interior

## FISH AND WILDLIFE SERVICE Mountain-Prairie Region

IN REPLY REFER TO:

BA WTR  
WTR SD  
Mail Stop 60189

MAILING ADDRESS:  
Post Office Box 25486  
Denver Federal Center  
Denver, Colorado 80225-0486

STREET LOCATION:  
134 Union Blvd.  
Lakewood, Colorado 80228-1807

JUL 24 1997



Mr. Eric Gronlund  
Department of Environment  
and Natural Resources  
Joe Foss Building, 523 East Capitol  
Pierre, South Dakota 57501-3181

Dear Mr. Gronlund:

As per your telephone conversation on July 24 with Ginger Price, of my staff, please find enclosed Ducks Unlimited, Inc. plans for the proposed road construction at the Roth Waterfowl Production Area in Hutchinson County, South Dakota.

Because this is in conjunction with a wetland restoration project, consisting of a low-level ditch plug in a man-made ditch to maintain a shallow marsh, no risk assessment is required.

However, the data provided by Ducks Unlimited, Inc., which is based upon survey information, differs from the data provided on our application. We ask that you modify our application accordingly.

Amount of water claimed is 535 acre feet. Evaporation over a 121 surface acre marsh for a total of 212 acre-feet seasonal use, plus 323 acre-feet storage. (Copy of Modified Forms 2 and 2A enclosed.)

If you have any questions or require further information, please contact Ginger Price at (303) 236-5321 extension 238.

Sincerely,

Cheryl C. Williss  
Chief, Water Resources Division

Enclosures

Water Rights Program - DENR  
Conversation File Documentation

NAME OF PERSON OR FILE: USFWS application for Roth WPA

ADDRESS: COUNTY:

DATE: 7/25/97 TELEPHONE:

RE: Discuss with Ginger Price on requirement for P & S and preliminary risk assessment

COMMENTS:

Mrs. Price contacted me in response to Karen Schlaak's letter, dated April 7, 1997, requesting a written preliminary risk assessment & plans and specifications for the project. Mr. Price explained that this project proposes to restore a wetland by means of a ditch plug in a drainage ditch. The height of the plug is 4 feet.

I talked to Tim Schaal and he indicated that this would not meet the definition of a dam so the risk assessment and P&S would not be necessary.

Mrs. Price indicated that she would be sending in plans for the road at the site but that these plans have little to do with the ditch plug. I told her we will proceed with processing the application.

File in Permit or other file as necessary. Use to document conversations and what the other party was told; why action or decision was made.

NAME: Eric Lundberg

REPORT ON  
WATER PERMIT APPLICATION NO. 6013-3  
US Fish and Wildlife Service  
August 12, 1997

Water Permit Application No. 6013-3 has been filed by the US Fish and Wildlife Service to appropriate 535 acre-feet of water annually (323 acre-feet storage plus 212 acre-feet seasonal) in the restored Roth Waterfowl Production Area (WPA) wetland. A ditch plug was constructed in the late 1980's in the NE 1/4 SE 1/4 of Section 10-T98N-R60W, in Hutchinson County. This application requests impoundment of water sufficient to maintain water in the restored wetland at the ditch plug elevation of 1398.5 feet mean sea level (fmsl). The water will be used to provide habitat for fish and wildlife production and domestic use.

Discussion:

In the late 1980's, a drained 122 acre wetland on the Roth WPA was restored by plugging a drainage ditch. The water in the restored wetland is now deteriorating a township road that passes through the wetland. Ducks Unlimited, Inc. and the U.S. Fish and Wildlife Service along with other local organizations including the township board have entered into an agreement to relocate the road. Ducks Unlimited has designed the road project, while the U.S. Fish and Wildlife Service agreed to file for a Water Permit on the restored wetland.

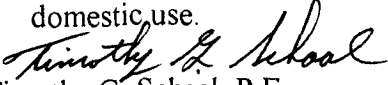
Due to the small size of the ditch plug (4 feet high) design of the structure is not subject to the requirements of the Safety of Dams Rules, Chapter 74:02:08. The restored wetland will have 121 surface acres at the designed full service level of 1398.3 fmsl and store 323 acre-feet of water. Water Permit Application No. 6013-3 requests appropriation of an additional 212 acre-feet of water to offset evaporation.

The drainage area above the restored wetland is 4.5 square miles. The annual yield for this drainage area with a 50 percent chance of occurrence, or 1 out of 2 years, is expected to be 140 acre-feet. The annual yield with a 80 percent chance of occurrence, or 8 out of 10 years, is expected to be 55 acre-feet and the annual yield with a 10 percent chance of occurrence, or 1 out of 10 years, is expected to be 650 acre-feet.

The restored Roth WPA wetland is located on an unnamed tributary to Dry Creek about 12 miles upstream of the confluence of Dry Creek and the James River. There are no existing Water Permits/Rights on the unnamed tributary or Dry Creek.

Conclusions:

1. Water Permit Application No. 6013-3 should be approved since unappropriated water is available and approval should not have any adverse effect on existing Water Permits/Rights.
2. Approval should be to store 323 acre feet of water and for sufficient water annually to maintain the water level to an elevation of 1398.5 feet mean sea level.
3. The Roth WPA wetland has been restored since the late 1980's and the Water Rights Program has not received any complaints concerning adverse effects on existing Water Permits/Rights or downstream domestic use.

  
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. 6013-3, U. S. Fish & Wildlife Service**

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. 6013-3, U. S. Fish & Wildlife Service, c/o Cheryl Williss, PO Box 25486, Denver Federal Center, Denver, CO 80225.

The Chief Engineer is recommending APPROVAL of Application No. 6013-3 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 qualification:

Water Permit No. 6013-3 authorizes storage of 323 acre-feet of water in the Roth Waterfowl Production Area and sufficient water annually to maintain the water level to an elevation of 1398.5 feet mean sea level.

See report on application for additional information.

  
JOHN HATCH, Chief Engineer  
August 13, 1997





**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.

August 14, 1997

US Fish & Wildlife Service  
%Cheryl C. Williss  
P.O. Box 25486  
Denver Federal Center  
Denver, CO 80225

Dear Ms. Williss:

Water Permit Application No. 6013-3 for fish and wildlife production 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 Parkston Advance printed at Parkston, SD (Ph # (605) 928-3111). 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

August 14, 1997

The Parkston Advance  
Box J  
Parkston, SD 57366

ATTENTION: Legal Department

Enclosed is a Notice of Hearing on Application No. 6013-3 to be published twice. Please publish the first notice on August 27, 1997, 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 US Fish & Wildlife Service, %Cheryl C. Williss, P.O. Box 25486, Denver Federal Center, Denver, CO 80225 (Ph # (303) 236-5321).

A copy of BOTH publications must be SENT to the WATER RIGHTS PROGRAM. 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 Program  
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 August 27, 1997, with the second publication 7 days later. The applicant is responsible for payment.

---

NOTICE OF APPLICATION NO. 6013-3 to Appropriate Water

Notice is given that US Fish and Wildlife Service, PO Box 25486, Denver Federal Center, Denver CO 80225 has filed an application for a water permit to appropriate 535 acre-feet of water annually using an existing plug in a man-made ditch for a wetland restoration project. The structure impounds 323 acre-feet of water with an additional 212 acre-feet to be appropriated to offset evaporation. The ditch plug is located in the NE 1/4 SE 1/4 Section 10 with water impounded in the E 1/2 SW 1/4, SE 1/4 Section 10; SW 1/4 SW 1/4 Section 11; NW 1/4 NW 1/4 Section 14 and NE 1/4 NE 1/4 Section 15; all in T98N-R60W. Water is used to provide habitat for fish and wildlife propagation and domestic use.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 6013-3 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 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 September 15, 1997.

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. Nettie H. Myers, Secretary, Department of Environment and Natural Resources.

AFFIDAVIT OF PUBLICATION

STATE OF SOUTH DAKOTA  
COUNTY OF HUTCHINSON

SCOTT E. EHLE, BEING DULY SHORN,  
SAYS: THAT THE PARKSTON ADVANCE  
IS, AND DURING ALL THE TIME HERE-  
INAFTER MENTIONED WAS, A WEEKLY  
LEGAL NEWSPAPER AS DEFINED IN SDCL  
17-2-2.1 THROUGH 17-2-2.4 INCLUSIVE,  
AS AMENDED, PUBLISHED AT  
PARKSTON, HUTCHINSON COUNTY,  
SOUTH DAKOTA BY THE PARKSTON  
ADVANCE, INC.; THAT AFFIANT IS  
AND DURING ALL OF SAID TIMES WAS,  
AN EMPLOYEE OF THE PUBLISHER OF  
SUCH NEWSPAPER AND HAS PERSONAL  
KNOWLEDGE OF THE FACTS STATED IN  
THIS AFFIDAVIT; THAT THE NOTICE,  
ORDER OR ADVERTISEMENT, A PRINTED  
COPY OF WHICH IS ATTACHED, WAS  
PUBLISHED IN SAID NEWSPAPER FOR  
2 SUCCESSIVE ISSUES, BEARING THE  
FOLLOWING DATES:

AUGUST 27, 1997  
SEPTEMBER 3, 1997

THAT THE FULL AMOUNT OF THE FEE  
CHARGED FOR PUBLISHING THE SAME,  
TO-WIT, THE SUM OF \$ 41.72,  
INURES SOLELY TO THE BENEFIT OF  
THE PUBLISHER OF SAID NEWSPAPER;  
THAT NO AGREEMENT OR UNDERSTAND-  
ING FOR THE DIVISION OF THE FEE  
HAS BEEN MADE WITH ANY PERSON,  
AND THAT NO PART OF THE FEE HAS  
BEEN AGREED TO BE PAID TO ANY  
OTHER PERSON

SUBSCRIBED AND SWORN TO BEFORE  
ME THIS 27TH DAY OF AUGUST  
A.D., 1997

NOTARY PUBLIC, COUNTY OF  
HUTCHINSON, SOUTH DAKOTA

MY COMMISSION EXPIRES

JANUARY 12, 1998 9-1-2003



NOTICE OF APPLICATION  
NO. 6013-3  
TO APPROPRIATE WATER

Notice is given that US Fish and Wildlife Services, PO Box 25486, Denver Federal Center, Denver, CO 80225 has filed an application for a water permit to appropriate 535 acre-feet of water annually using an existing plug in a man-made ditch for a wetland restoration project. The structure impounds 323 acre-feet of water with an additional 212 acre-feet to be appropriated to offset evaporation. The ditch plug is located in the NE 1/4 SE 1/4 Section 10 with water impounded in the E 1/2 SW 1/4, SE 1/4 Section 10; SW 1/4 SW 1/4 Section 11; NW 1/4 NW 1/4 Section 14 and NE 1/4 NE 1/4 Section 15; all in T98N-R60W. Water is used to provide habitat for fish and wildlife propagation and domestic use.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 6013-3 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 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 September 15, 1997.

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 Grondud at the above Water Rights Program address to request copies of information pertaining to this application. Nettie H. Myers, Secretary, Department of Environment and Natural Resources.

35-36Ac



OCT 6 1997

**DEPARTMENT of ENVIRONMENT  
and NATURAL RESOURCES**

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

US Fish and Wildlife Service  
%Cheryl C. Williss  
P.O. Box 25486  
Denver Federal Center  
Denver, CO 80225

Dear Ms. Williss:

Enclosed is Water Permit No. 6013-3 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 Program  
605 773-3352

enclosures

**PLEASE NOTE:** Certain changes may be made to your water permit usually without affecting the priority date. The location of a point of diversion may be changed or additional points of diversion may be approved if the water source remains unchanged; no additional water is appropriated; and, if irrigating, no additional land is irrigated. The change may be allowed without application or publication, if the Water Rights Program is contacted and the chief engineer makes a finding that the change does not increase the potential for interference with existing diversions.

A new water permit application is required to change water sources, increase the permitted diversion rate, or increase the irrigated acreage. If the application is approved, the water permit will receive a new priority date.

6013-3

**WATER RIGHTS PROGRAM  
FILE DOCUMENTATION**

**NAME OF PERSON OR FILE:** Steve Hicks, US Fish & Wildlife Service

**ADDRESS:** Lake Andes

**COUNTY:** Hutchinson

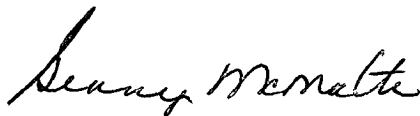
**DATE:** October 21, 1997

**RE:** Completion of Works form - Water Permit No. 6013-3

**COMMENTS:**

Mr. Hicks called concerning the "Completion of Works" form he received and wondered how to fill it out. He indicated the project has been in place since the 1980's.

I reviewed Permit No. 6013-3 and told him they should not have received the "Completion of Works" form. The form was mailed in error and could be tossed.



Genny McMath  
Environmental Scientist

## FIELD INVESTIGATION REPORT FOR PERMIT NO. 6013-3

|                                                                                          |                                                                                                                                                                                          |
|------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DATE OF INVESTIGATION:                                                                   | <b>June 18, 2002</b>                                                                                                                                                                     |
| NAME & ADDRESS OF INVESTIGATION CONTACT/<br>RELATIONSHIP TO PERMIT HOLDER, IF APPLICABLE | <b>U.S. Fish and Wildlife Service<br/>PO Box 25486<br/>Denver Federal Center<br/>Denver CO 80225</b>                                                                                     |
| NAME & ADDRESS OF PERMIT HOLDER                                                          | <b>Cheryl Williss</b>                                                                                                                                                                    |
| DIVERSION POINT LEGAL LOCATION                                                           | <b><u>ditch plug is located in the NE ¼ SE ¼ of<br/>Section 10, T98N, R60W (approximately 631<br/>feet west and 1,850 feet north of the NE corner<br/>of Section 10, T98N, R60W)</u></b> |

**WATER SUPPLY**      Source: surface water - unnamed tributary to Dry Creek

### DITCH PLUG INFORMATION:

- |                                                                                                             |                                                     |
|-------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| 1) Height to crest <b>4</b> feet                                                                            | 2) Height to primary spillway <b>none</b> feet      |
| 3) Height to secondary spillway <b>none</b> ft                                                              | 4) Crest width <b>1 - 2</b> feet                    |
| 5) Crest length <b>approx. 25</b> feet                                                                      | 6) Spillway length <b>none</b> feet                 |
| 7) Spillway width <b>none</b> feet                                                                          | 8) Approx. storage <b>323</b> ac-ft                 |
| 9) Approx. storage to crest <b>323</b> ac-ft                                                                | 10) Date constructed: <b>sometime in the 1980's</b> |
| 11) Outlet tubes: <b>none</b>                                                                               |                                                     |
| 12) Category of Dam <b>does not meet dam definition</b> 13) Inspection Sheet Completed <b>none required</b> |                                                     |

### 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 **not applicable**

### NOTES:

- I was not accompanied by US Fish and Wildlife Service personnel when I conducted this licensing investigation.
- This water permit is for the 122 acre Roth Waterfowl Production Area that was restored in the late 1980's by installing a ditch plug. The filing of the application for the water permit was precipitated by the deterioration of the township road through the wetland. With the realignment of the road, an application for a water permit was filed.
- The 5 foot diameter culvert (as designated on the map) is an inlet to the slough from the unnamed tributary. The water is impounded in place by the ditch plug.

**Permit No. 6013-3**  
**James River (10160011) - 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, June 18, 2002, made a thorough examination of the water use system constructed by United States Fish and Wildlife Service, , c/o Cheryl Williss, PO Box 25486, Denver Federal Center, Denver CO 80225 holder of Permit No. 6013-3, bearing the priority of July 30, 1997 authorizing the storage of 323 acre-feet of the waters (plus 212 acre feet annually to offset evaporation) on an unnamed tributary to Dry Creek for fish and wildlife production and domestic purposes, in Hutchinson County.

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

A. Works used to divert the water:

**Water impounded in place by a ditch plug (this is a wetland restoration project)**

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

**none**

C. Works used to apply water to beneficial use:

**equipment (irrigation)**

The system is in the following condition good. The point of diversion is located ditch plug is located in the NE ¼ SE ¼ of Section 10, T98N, R60W (approximately 630 feet west and 1,850 feet north of the NE corner of Section 10, T98N, R60W). The works are capable of diverting and conveying to the place of use storage of 323 acre-feet of water (with an additional 212 acre feet annually to offset evaporation) which is to be used for fish and wildlife propagation and domestic use. Water has been put to beneficial use to the maximum extent as follows:

**Water is impounded in the following areas of T98N, R60W:**

**SE ¼ Section 10**

**SW ¼ SW ¼ Section 11**

**NW ¼ NW ¼ Section 14**

**E ½ SW ¼ Section 10**

**NE ¼ NE ¼ Section 15**

comprising an impounded area of approximately of 127 acres of land and the license should be issued for 323 acre-feet of storage (with an additional 212 acre feet of water appropriated to offset evaporation).

Applicable permit qualifications have been complied with: Yes

Exceptions to compliance are: none      Date Report Completed: August 5, 2002

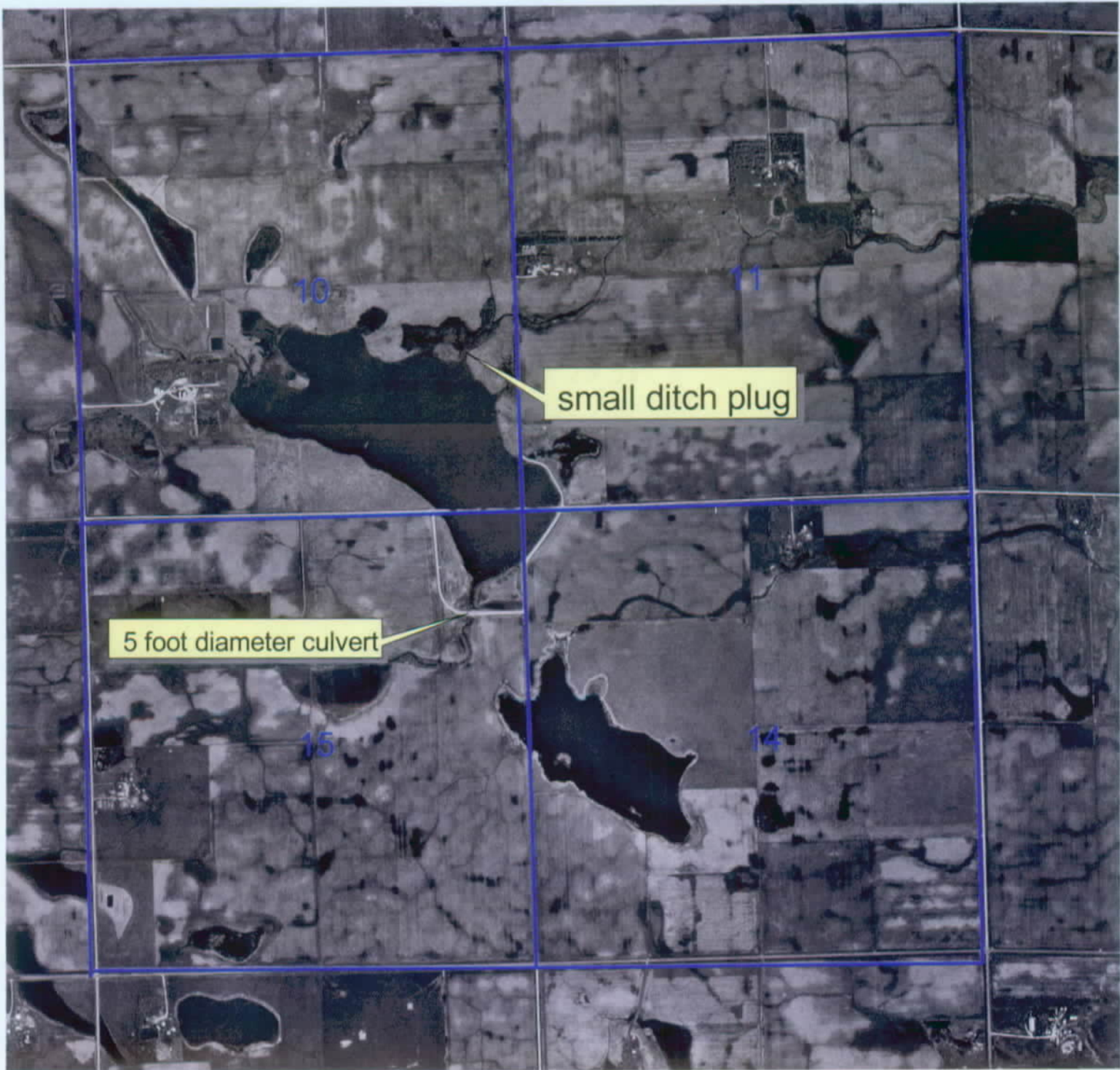


Eric Gronlund

Natural Resources Engineer

DENR, Water Rights Program





0.5 0 0.5 1 Miles

Water impound in the SE 1/4 and E 1/2 SW 1/4 Section 10,  
SW 1/4 SW1/4 Section 11, NW 1/4 NW 1/4 Section 14 and  
NE 1/4 NE 1/4 Section 15; all in T98N, R60W



*Eric Gronlund*

Eric Gronlund  
Water Rights Program  
Licensing Investigation - June 18, 2002



DEPARTMENT of ENVIRONMENT  
and NATURAL RESOURCES

JOE FOSS BUILDING  
523 EAST CAPITOL  
PIERRE, SOUTH DAKOTA 57501-3182  
[www.state.sd.us/denr](http://www.state.sd.us/denr)

August 8, 2002

6013-3

U.S. Fish and Wildlife Service  
c/o Cheryl Willis  
PO Box 25486  
Denver Federal Center  
Denver CO 80225

Dear Ms. Willis:

On June 18, 2002 the investigation of the water use system, including the extent of application of water to beneficial use, as developed under Water Permit No. 6013-3, was completed by Eric Gronlund, a staff engineer with our program. Water Permit No. 6013-3 authorized a wetland restoration project located in Section 10-T98N-R60W, Hutchinson County. The final water right document, the water license, can now be issued.

State law requires that we charge a \$50.00 fee for the investigation and issuance of the water license. Upon receipt of the \$50.00 fee, we will complete processing your water license. The check or money order for the fee should be made payable to the "Water Rights Program". Enclosed is an invoice.

The licensed water right will be similar to a property right that can not be lost as long as the water use continues and you abide by the permit requirements.

If you have any questions regarding the water permit, investigation of your water use system or payment of the fee, please contact Genny McMath with our program at (605) 773-3352.

Sincerely,

*Karen Schlaak*

Karen Schlaak  
Water Rights Program  
(605) 773-3352

enclosure



DEPARTMENT of ENVIRONMENT  
and NATURAL RESOURCES

JOE FOSS BUILDING  
523 EAST CAPITOL  
PIERRE, SOUTH DAKOTA 57501-3182  
[www.state.sd.us/denr](http://www.state.sd.us/denr)

\*\*\*\*\*  
\* INVOICE \*  
\*\*\*\*\*

Invoice No. 20411-6013-3

US Fish & Wildlife Service  
% Cheryl Willis  
PO Box 25486  
Denver Federal Center  
Denver CO 80225

---

Fee for issuance of water license Permit No. 6013-3 wetland restoration project located in  
Section 10-T98N-R60W.

\$50.00

---

**PLEASE PAY THIS AMOUNT:**

**\$50.00**

Glenda Marks  
Secretary  
Water Rights Program



# United States Department of the Interior

FISH AND WILDLIFE SERVICE  
Mountain-Prairie Region

RECEIVED

AUG 28 2002

WATER RIGHTS  
PROGRAM

IN REPLY REFER TO:

WTR BA  
WR SD  
Mail Stop 60189

MAILING ADDRESS:  
Post Office Box 25486  
Denver Federal Center  
Denver, Colorado 80225-0486

STREET LOCATION:  
134 Union Blvd.  
Lakewood, Colorado 80228-1807

AUG 26 2002

Ms. Karen Schlaak  
Department of Environment and  
Natural Resources  
Water Rights Program  
523 East Capitol  
Pierre, South Dakota 57501-3182

RE: Water Permit No. 6013-3

Dear Ms. Schlaak:

In response to your letter dated August 8, the \$50 water license inspection fee under Water Permit 6013-3, Roth Waterfowl Production Area, Hutchinson County, has been forwarded via electronic fund transfer. Upon receipt of payment, please complete processing of the water license.

If you have questions or require further information, please contact me at (303) 236-5321 extension 227.

Sincerely,

Linda Coe  
Water Rights Specialist

ELECTRONIC TRANSFER

## RECEIPT

## WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date November 19, 20 02RECEIVED OF US Fish & Wildlife Service, PO Box 25486, Denver Federal Center, Denver CO

80225-0486

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

|                                                                                                                |       |       |
|----------------------------------------------------------------------------------------------------------------|-------|-------|
| Fee for Application for Permit No. _____ to Appropriate Water, to construct and to put water to beneficial use | 50.00 |       |
| 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>6013-3</u>    |       |       |
| 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. _____                                         | 50.00 |       |
| Fee for Renewal of Well Pump Installer's License No. _____ for C.Y. _____                                      |       |       |
| This was an electronic transfer                                                                                |       |       |
| (Any Other Work Provided by Law)                                                                               | TOTAL | 50.00 |

No.

000000

By

Darlene Ebele

Chief Engineer

gm

## Verhelst, Sandy

---

**From:** Tillman, Sandy  
**Sent:** Tuesday, November 19, 2002 11:01 AM  
**To:** Verhelst, Sandy  
**Subject:** RE: 9/6 FWS wire

Go ahead and do a revenue correction voucher. I'll contact GF&P.

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

**From:** Verhelst, Sandy  
**Sent:** Tuesday, November 19, 2002 10:59 AM  
**To:** Tillman, Sandy  
**Subject:** RE: 9/6 FWS wire

It's ours. 20411-6013-3 is the water permit number. Thanks.

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

**From:** Tillman, Sandy  
**Sent:** Tuesday, November 19, 2002 9:58 AM  
**To:** Verhelst, Sandy  
**Subject:** 9/6 FWS wire

Here is the information. It looks like it was receipted in by GF&P. Let me know if this is what you are looking for. We can then contact them to correct it.

FWS TREAS 312 MISC PAY 090602 466000364141600 RMT\*IV\*20411-6013-3 \*\*  
\$50.00 09/06/2002

622091408598000000017012697630000005000466000364141600SOUTH DAKOTA DEPT OF  
061121036500258759  
705RMT\*IV\*20411-6013-3 \*\*\*\*\*INVOICE DATE: 08/29/02  
\00010258759  
822000000400182817180000000000000000002222003121036500  
1210365000000028



NOV 26 2002

**DEPARTMENT of ENVIRONMENT  
and NATURAL RESOURCES**

JOE FOSS BUILDING  
523 EAST CAPITOL  
PIERRE, SOUTH DAKOTA 57501-3182  
[www.state.sd.us/denr](http://www.state.sd.us/denr)

6013-3

US Fish & Wildlife Service  
% Cheryl Willis  
PO Box 25486  
Denver Federal Center  
Denver CO 80225

Dear Ms. Willis:

Enclosed is Water License No. 6013-3. This is the final water right document completing your process of obtaining a Water Right. Enclosed is Receipt No. 000360 in the amount of \$50.00 which you paid for the investigation and issuance of the Water License.

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

# STATE OF SOUTH DAKOTA

## WATER LICENSE NO. 6013-3

(1) U.S. Fish and Wildlife Service, c/o Cheryl Willis, PO Box 25486, Denver Federal Center, Denver CO 80225 made Application No. 6013-3, April 7, 1997 for a water permit to impound 323 acre-feet of water from an unnamed tributary to Dry Creek, Hutchinson County, South Dakota for fish & wildlife propagation and domestic purposes. Permit No. 6013-3, with a priority date of July 30, 1997 was approved September 15, 1997 and issued to the applicant for diversion of water with construction of the described water supply system completed and the application to beneficial use of said water completed.

(2) It is certified that the permit holder has complied with the provisions of South Dakota State Law relating to completion of the wetland restoration project and is entitled to impound 323 acre-feet of water for beneficial use with sufficient water annually to maintain the water level to the outlet elevation of 1398.5 feet mean sea level. The location of the ditch plug is approximately 630 feet west and 1,850 feet north of the northeast corner of **Section 10-T98N-R60W (NE ¼ SE 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 the Roth Waterfowl Production Area.

(4) Pursuant to South Dakota Water Law 46-5-30.1 U.S. Fish and Wildlife Service, c/o Cheryl Willis, PO Box 25486, Denver Federal Center, Denver CO 80225 the holder and/or owner of Water Right No. 6013-3 is issued a license to appropriate water, the right to impound 323 acre-feet of water from an unnamed tributary to Dry Creek with sufficient water annually to maintain the water level to the outlet elevation of 1398.5 feet mean sea level with a priority date of July 30, 1997 from the location specified in (2) of this license for fish & wildlife propagation and domestic purposes. This license is subject to any limitations or qualifications listed in Water Right No. 6013-3 and subject to South Dakota State Law.



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

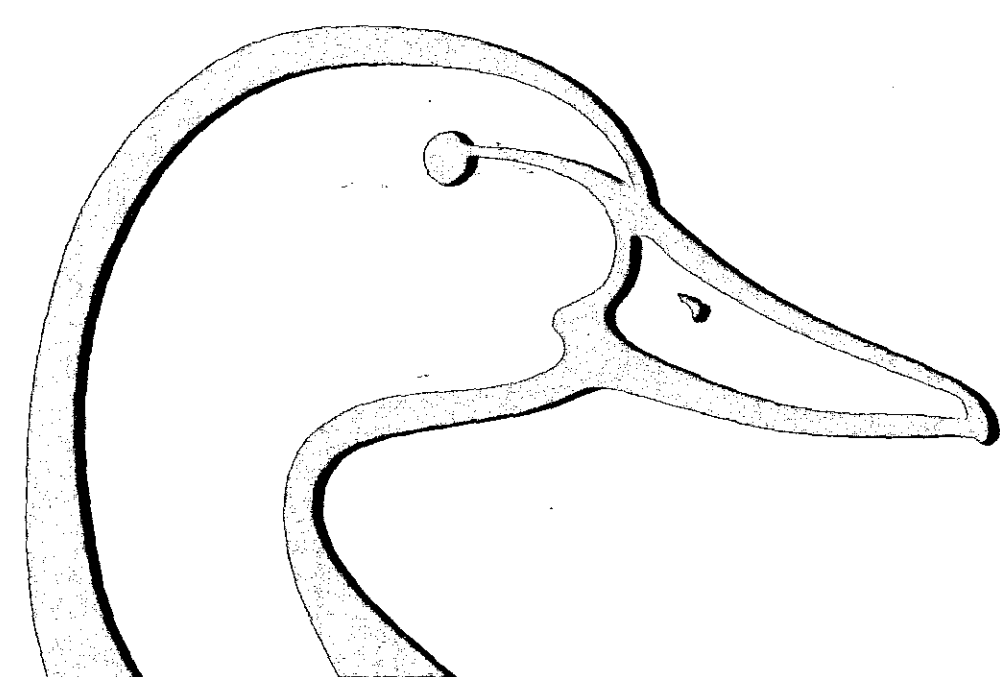
NOV 26 2002

date





# DUCKS UNLIMITED



DUCKS UNLIMITED

PROJECT

## ROTH WPA

SECTIONS 14,15 T 98 N, R 60 W,  
HUTCHINSON COUNTY, SOUTH DAKOTA

IN COOPERATION WITH

U.S. FISH & WILDLIFE SERVICE

### SPECIFICATIONS

|                         |     |
|-------------------------|-----|
| GENERAL CONDITIONS      | 101 |
| MOBILIZATION            | 201 |
| SITE PREPARATION        | 202 |
| EXCAVATION              | 203 |
| EMBANKMENT CONSTRUCTION | 204 |
| WATER                   | 205 |
| CULVERT INSTALLATION    | 207 |
| RIPRAP PLACEMENT        | 209 |
| ACCESS ROAD SURFACING   | 306 |

### PLAN INDEX

|                             |    |
|-----------------------------|----|
| VICINITY MAP                | 1  |
| PROJECT TOPOGRAPHY          | 2  |
| SITE PLAN                   | 3  |
| PLAN & PROFILE (0+00-9+00)  | 4  |
| PLAN & PROFILE (9+00-21+00) | 5  |
| PLAN & PROFILE (21+00-END)  | 6  |
| ROAD EMBANKMENT DETAILS     | 7  |
| EMBANKMENT SECTIONS         | 8  |
| POWER POLE BERMS #1 & #2    | 9  |
| POWER POLE BERMS #3 & #4    | 10 |

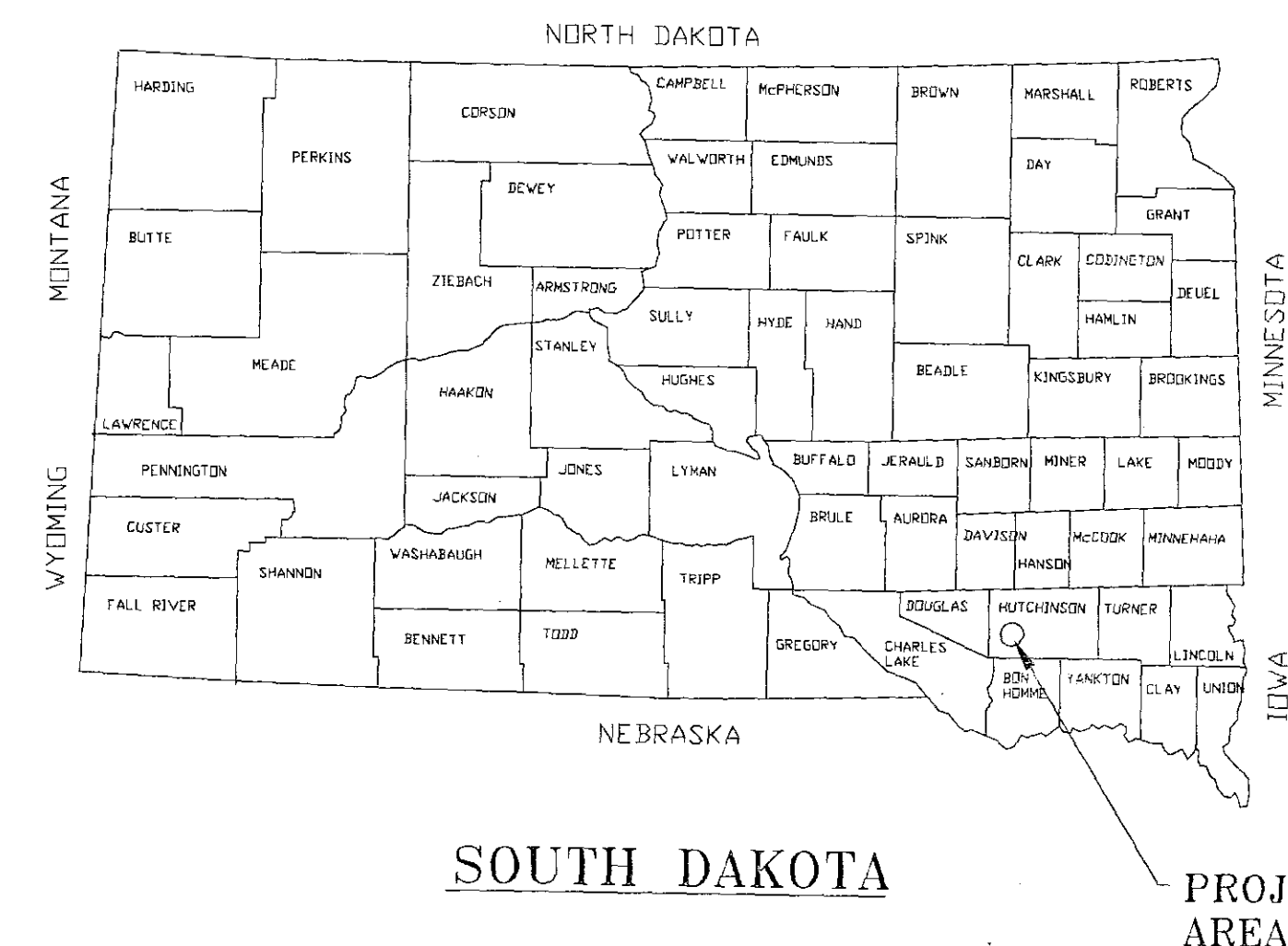
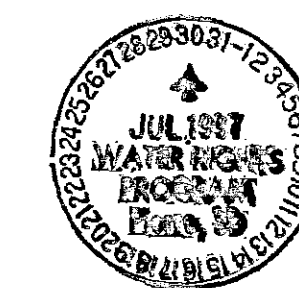
### ESTIMATED QUANTITIES

|                       |               |
|-----------------------|---------------|
| MOBILIZATION          | 1 L.S.        |
| SITE PREPARATION      | 3,200 C.Y.-P  |
| EXCAVATION            | 620 C.Y.-P    |
| EMBANKMENT (ROAD)     | 8,500 C.Y.-S* |
| WATER                 | 8 M-GAL.**    |
| CULVERT INSTALLATION  |               |
| 60"Ø CMP              | 86 L.F.       |
| 18"Ø CMP              | 96 L.F.       |
| ACCESS ROAD SURFACING | 860 C.Y.-P    |

\*INCLUDES 15% FOR SHRINKAGE  
\*\*BASED ON APPROX. 1 GAL./C.Y.

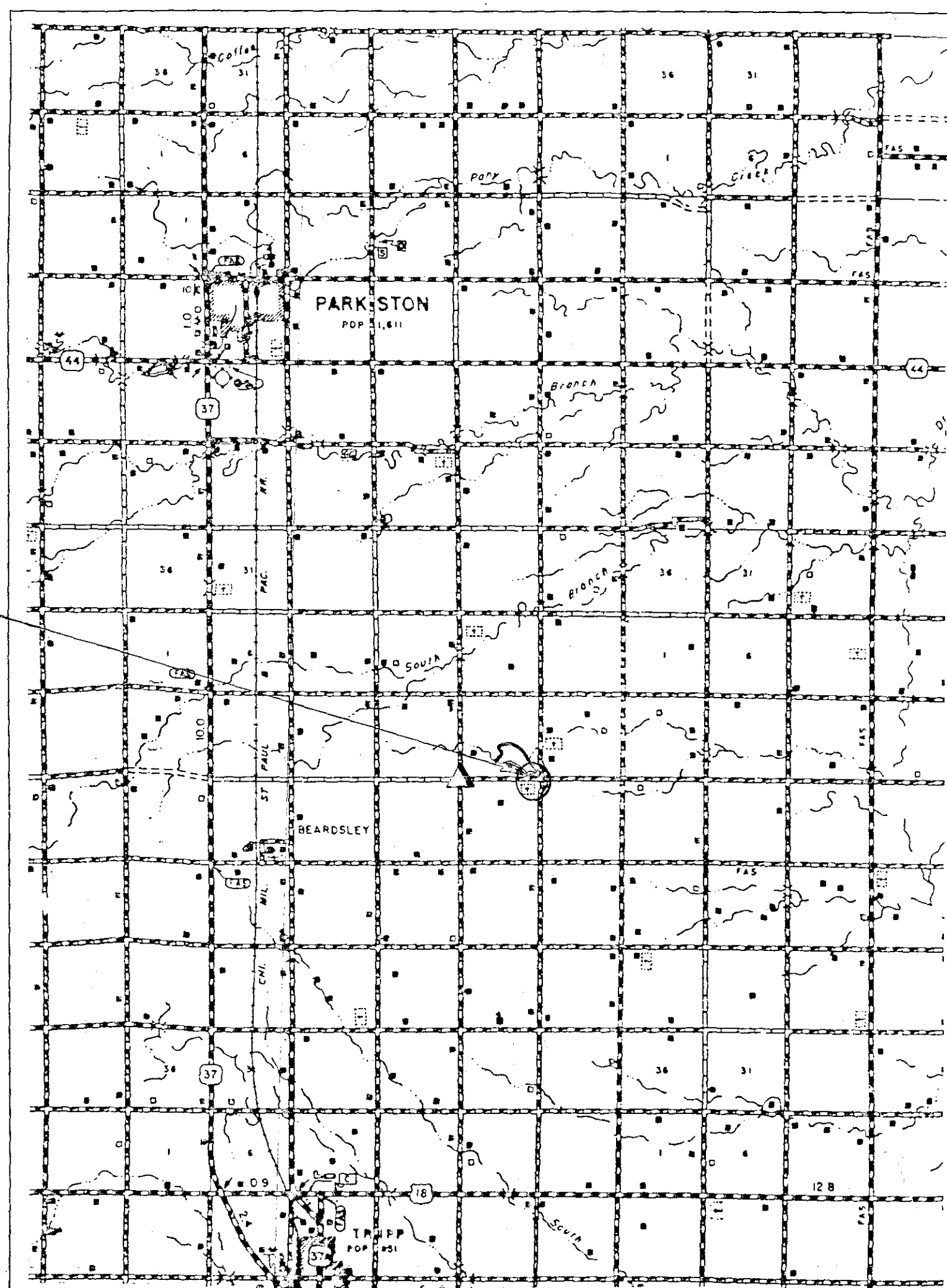
#### NOTE TO CONTRACTOR:

Staked quantities listed above are estimated quantities for design and bidding purposes. Final as-staked quantities derived from the construction staking data will establish quantities for final payment. Project construction staking and final as-staked quantity calculations have not been completed prior to the bid solicitation.



PROJECT AREA

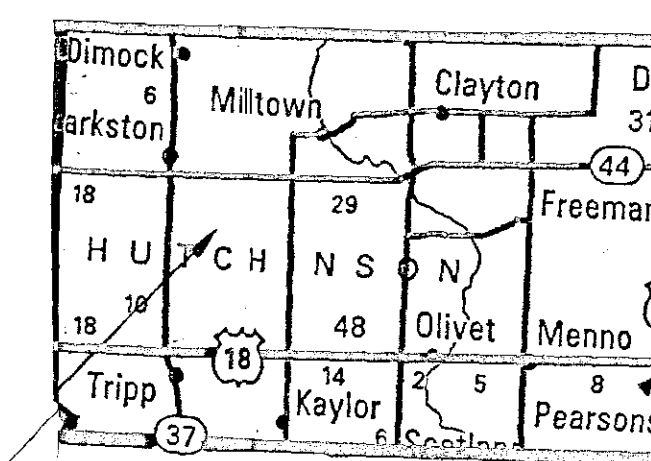
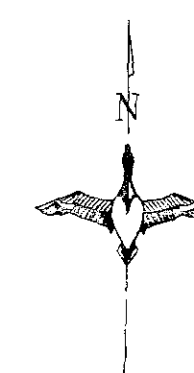
R 60 W



PROJECT SITE

T 98 N

VICINITY MAP

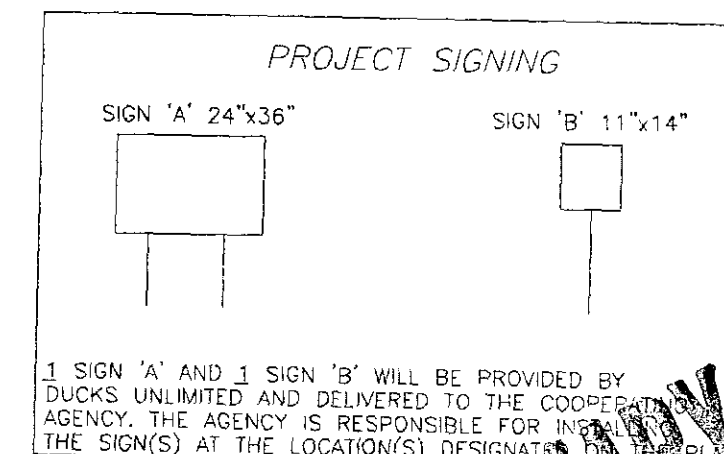


PROJECT LOCATION

HUTCHINSON COUNTY

MAP POINT '▲' IS 4 MILES SOUTH OF  
JCT. OF HWYS. 44 & 37 AT PARKSTON,  
3 MILES EAST AND 1 MILE SOUTH.

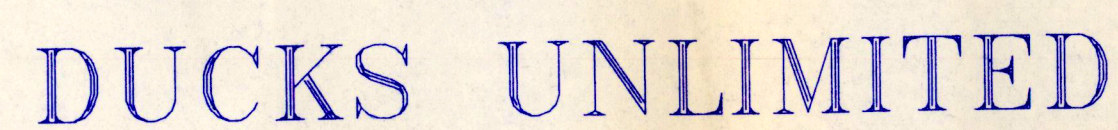
AGENCY IN CHARGE:  
STEVE HKS  
LAKE AND NWR  
605/487603



|                                                                      |                         |                     |
|----------------------------------------------------------------------|-------------------------|---------------------|
| DUCKS UNLIMITED INC.<br>GREAT PLAINS REGIONAL OFFICE<br>DATE: 7-2-97 | PROJECT NO. SD-0220-001 | DESIGNED BY: D.J.L. |
|                                                                      | ROTH WPA                | DRAWN BY: D.J.L.    |
| ET NO. 1 OF 10                                                       | VICINITY MAP            | SURVEYED BY: G.L.J. |
|                                                                      |                         | CHECKED BY:         |

6013-3





## PROJECT

ROTH WPA

SECTIONS 14,15 T 98 N, R 60 W,  
HUTCHINSON COUNTY, SOUTH DAKOTA

IN COOPERATION WITH

U.S. FISH &amp; WILDLIFE SERVICE

## SPECIFICATIONS

|                         |     |
|-------------------------|-----|
| GENERAL CONDITIONS      | 101 |
| MOBILIZATION            | 201 |
| SITE PREPARATION        | 202 |
| EXCAVATION              | 203 |
| EMBANKMENT CONSTRUCTION | 204 |
| WATER                   | 205 |
| CULVERT INSTALLATION    | 207 |
| RIPRAP PLACEMENT        | 209 |
| ACCESS ROAD SURFACING   | 306 |

## PLAN INDEX

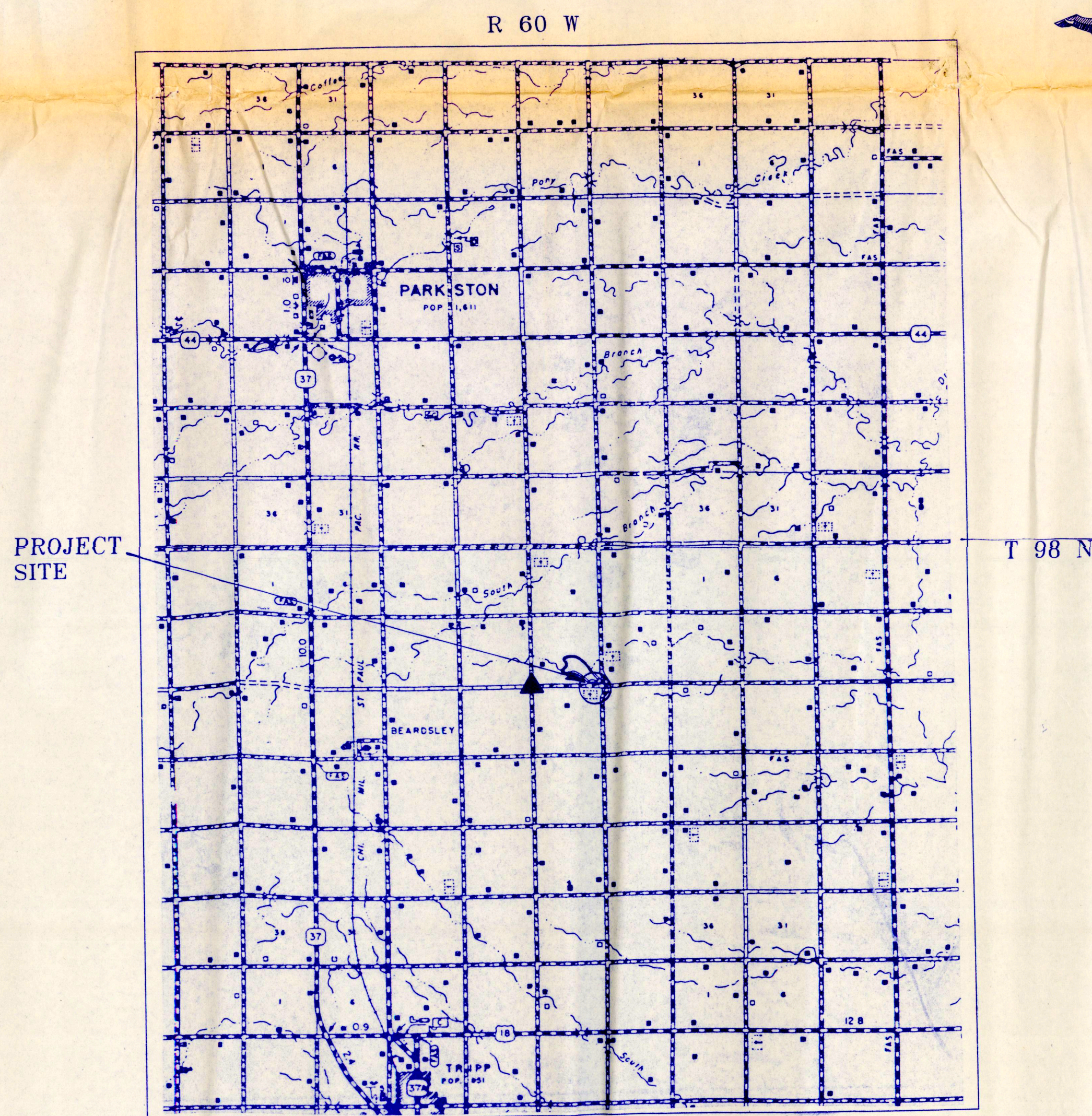
|                             |    |
|-----------------------------|----|
| VICINITY MAP                | 1  |
| PROJECT TOPOGRAPHY          | 2  |
| SITE PLAN                   | 3  |
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| PLAN & PROFILE (9+00-21+00) | 5  |
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### ESTIMATED QUANTITIES

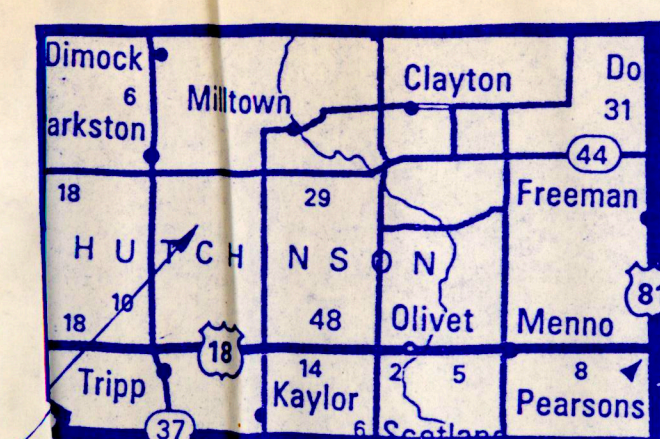
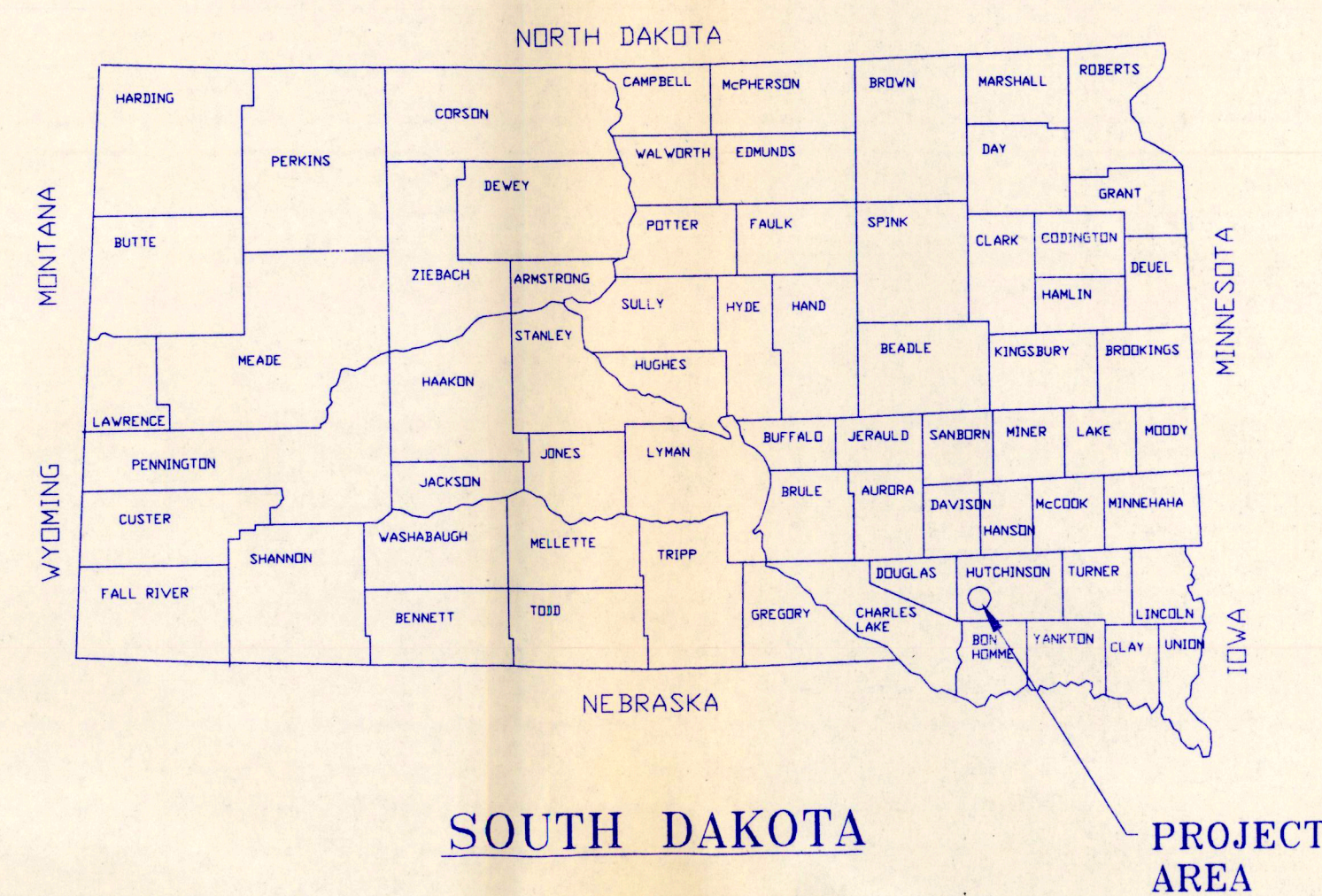
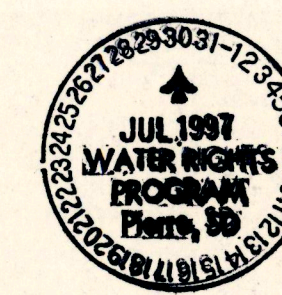
|                       |       |          |
|-----------------------|-------|----------|
| MOBILIZATION          | 1     | L.S.     |
| SITE PREPARATION      | 3,200 | C.Y.-P   |
| EXCAVATION            | 620   | C.Y.-P   |
| EMBANKMENT (ROAD)     | 8,500 | C.Y.-S*  |
| WATER                 | 8     | M-GAL.** |
| CULVERT INSTALLATION  |       |          |
| 60"Ø CMP              | 86    | L.F.     |
| 18"Ø CMP              | 96    | L.F.     |
| ACCESS ROAD SURFACING | 860   | C.Y.-P   |

\*INCLUDES 15% FOR SHRINKAGE  
\*\*BASED ON APPROX. 1 GAL./C.Y.

NOTE TO CONTRACTOR:  
Staked quantities listed above are estimated quantities for design and bidding purposes. Final as-staked quantities derived from the construction staking data will establish quantities for final payment. Project construction staking and final as-staked quantity calculations have not been completed prior to the bid solicitation.



VICINITY MAP



PROJECT LOCATION HUTCHINSON COUNTY

MAP POINT '▲' IS 4 MILES SOUTH OF  
JCT. OF HWYS. 44 & 37 AT PARKSTON,  
3 MILES EAST AND 1 MILE SOUTH.

AGENCY CONTACT  
STEVE HKS  
LAKE ARANS NWR  
605/487303

*PROJECT SIGNING*

SIGN 'A' 24"x36"



SIGN 'B' 11"x14"

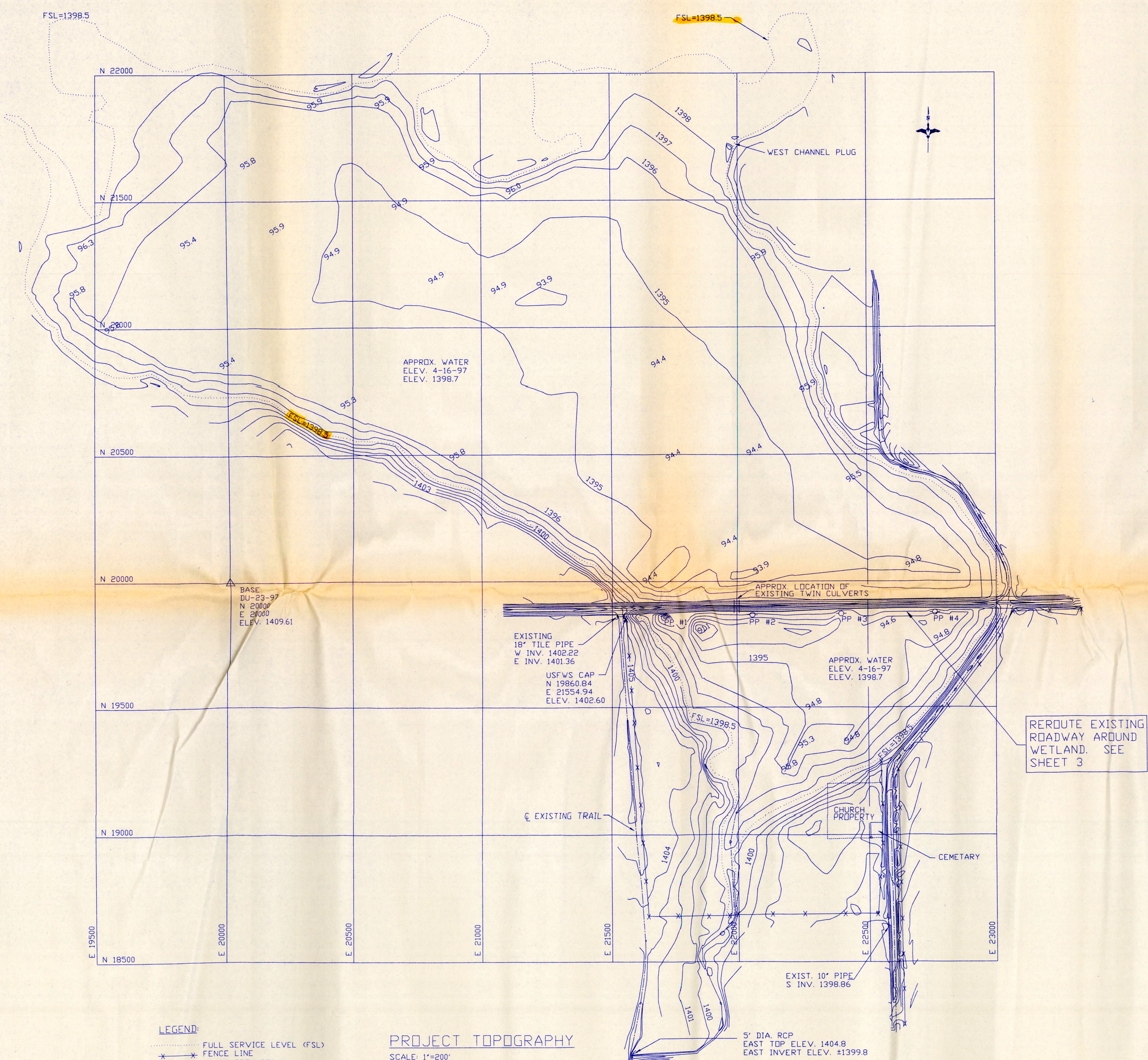
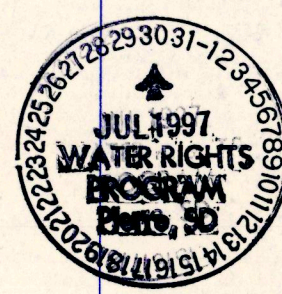


1 SIGN 'A' and 1 SIGN 'B' WILL BE PROVIDED BY DUCKS, UNLIMITED AND DELIVERED TO THE COOPERATION AGENCY. THE AGENCY IS RESPONSIBLE FOR INSTALLING THE SIGN(S) AT THE LOCATION(S) DESIGNATED ON THE PL

|                                                                                                                        |              |              |                     |
|------------------------------------------------------------------------------------------------------------------------|--------------|--------------|---------------------|
| <br><b>DUS<br/>UNITED<br/>INC</b> | PROJECT NO.  | SD-0220-001  | DESIGNED BY: D.J.L. |
|                                                                                                                        |              | ROTH WPA     | DRAWN BY: D.J.L.    |
| GREAT PLAINS REGIONICE                                                                                                 | VICINITY MAP |              | SURVEYED BY: G.L.   |
| DATE:                                                                                                                  | 1 OF         | APPROVED BY: | CHECKED BY:         |
| 7-2-97                                                                                                                 | 1 OF 10      |              |                     |

6013-3





SOILS DATA TO GO HERE

WETLAND AREA/CAPACITY DATA

| ELEVATION | ACRES (A) | CAPACITY (Ac-Ft) |
|-----------|-----------|------------------|
| 1393.9    | 0         | 0                |
| 1395.0    | 30        | 19.3             |
| 1396.0    | 85        | 80.1             |
| 1397.0    | 97        | 173.3            |
| 1398.0    | 15        | 278.9            |
| 1398.7    | 15        | 364.0            |

FULL SERVICE LEVEL (FSL) @ 1398.5  
121 ACRES @ FSL  
323 ACRE-Feet @ FSL

VERTICAL CONTROL:  
CALIBRATED FROM USCBM STAMPED 'N 146 1934' WITH A PUBLISHED ELEVATION OF 1434.64 FEET MSL. THE NAVD88 DATUM. THE NAVD29 DATUM ELEVATION IS 1433.64 FEET OR 1 FOOT LOWER. THIS IS A 2<sup>ND</sup> ORDER VERTICAL CONTROL BM.  
HORIZONTAL CONTROL:  
LOCAL DU COORDINATE WITH AZIMUTH REFERENCED TO TRUE NORTH WITH GPS OBSERVATIONS FROM TRIMBLE 4400 RECEIVERS FROM THE WGS84 ELLIPSOID.

LEGEND:  
..... FULL SERVICE LEVEL (FSL)  
\* \* \* FENCE LINE  
△ DU CONTROL POINT  
#5 REBAR W/ STAMPED CAP

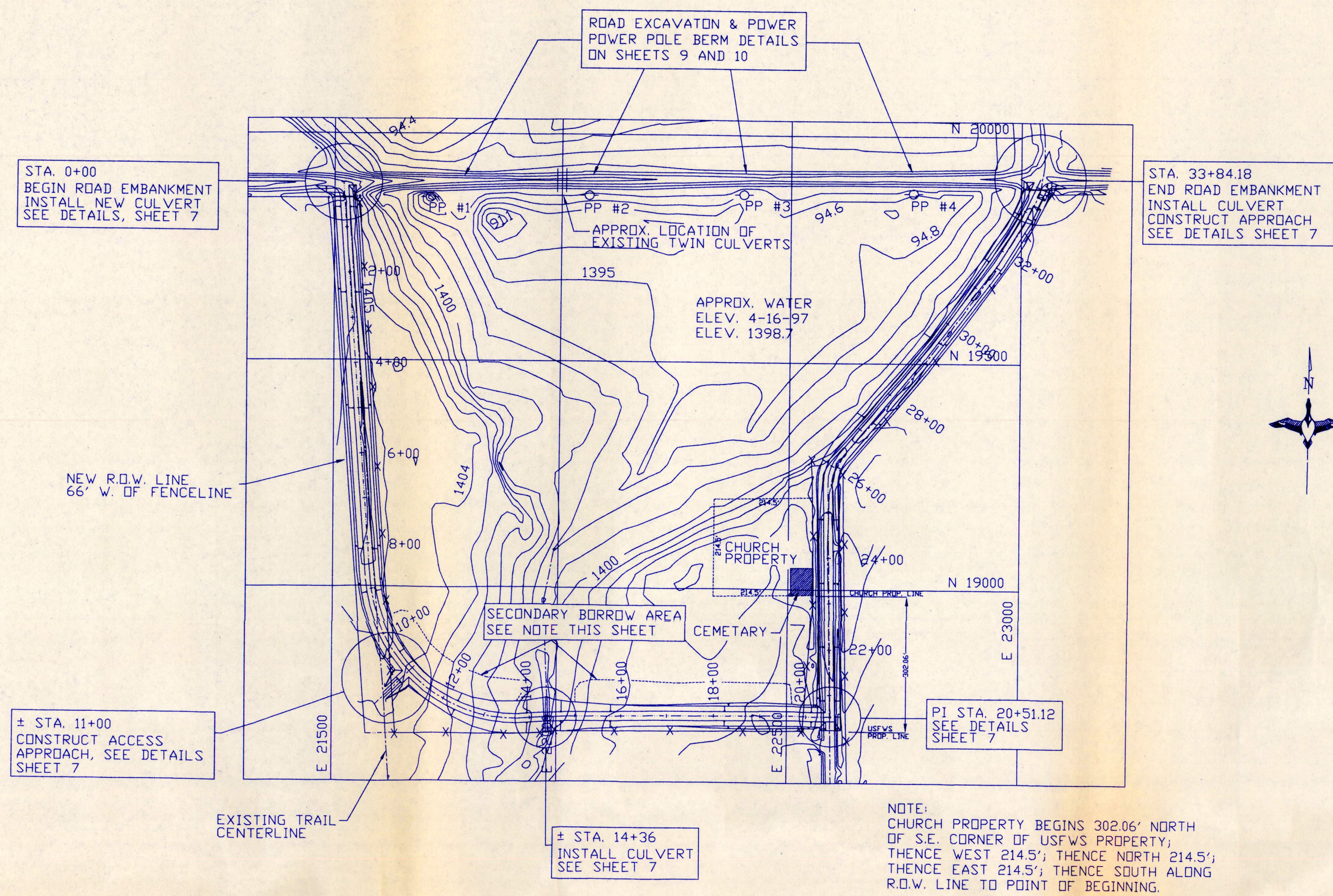
PROJECT TOPOGRAPHY  
SCALE: 1"=200'

5' DIA. RCP  
EAST TOP ELEV. 1404.8  
EAST INVERT ELEV. 1399.8

|                              |                            |                     |
|------------------------------|----------------------------|---------------------|
|                              | PROJECT NO. SD-0220-001    | DESIGNED BY: D.J.L. |
|                              | ROTH WPA                   | DRAWN BY: KB        |
| GREAT PLAINS REGIONAL OFFICE | PROJECT TOPOGRAPHY / SOILS | SURVEYED BY: G.L.J. |
| DATE: 7-2-97                 | SHEET 2 10                 | APPROVED BY: _____  |
|                              |                            | CHECKED BY: _____   |

**PRELIMINARY**

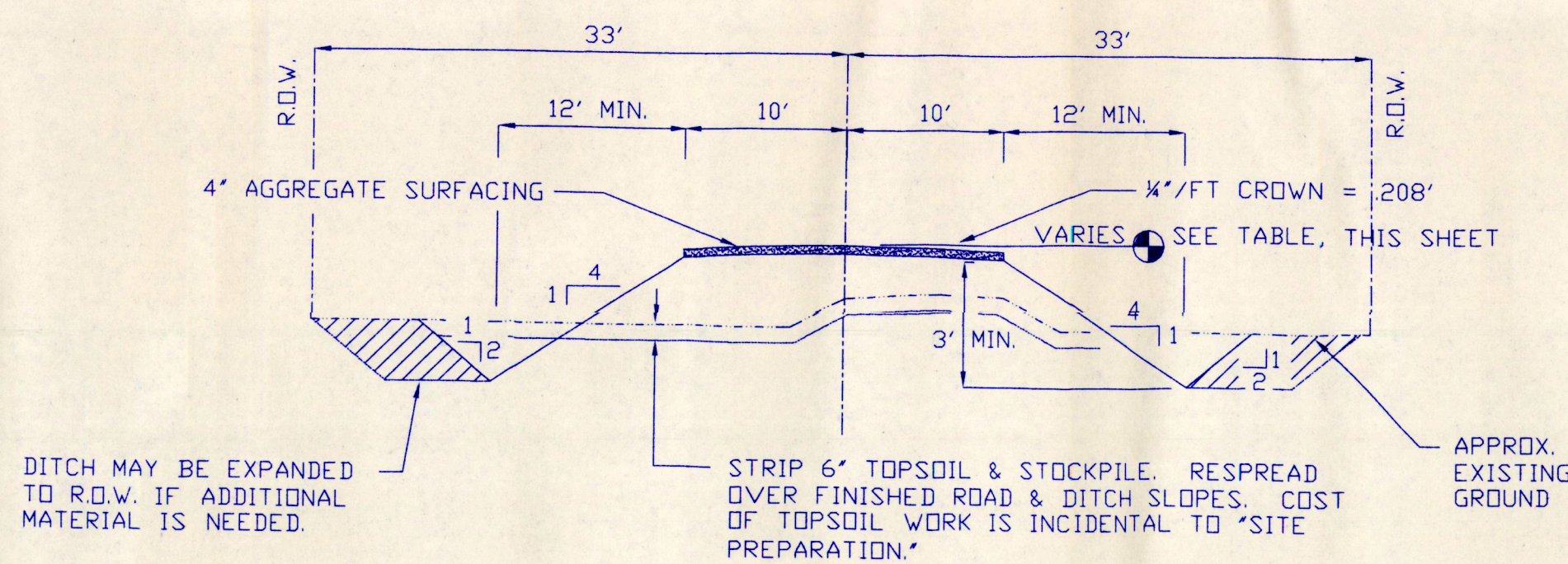




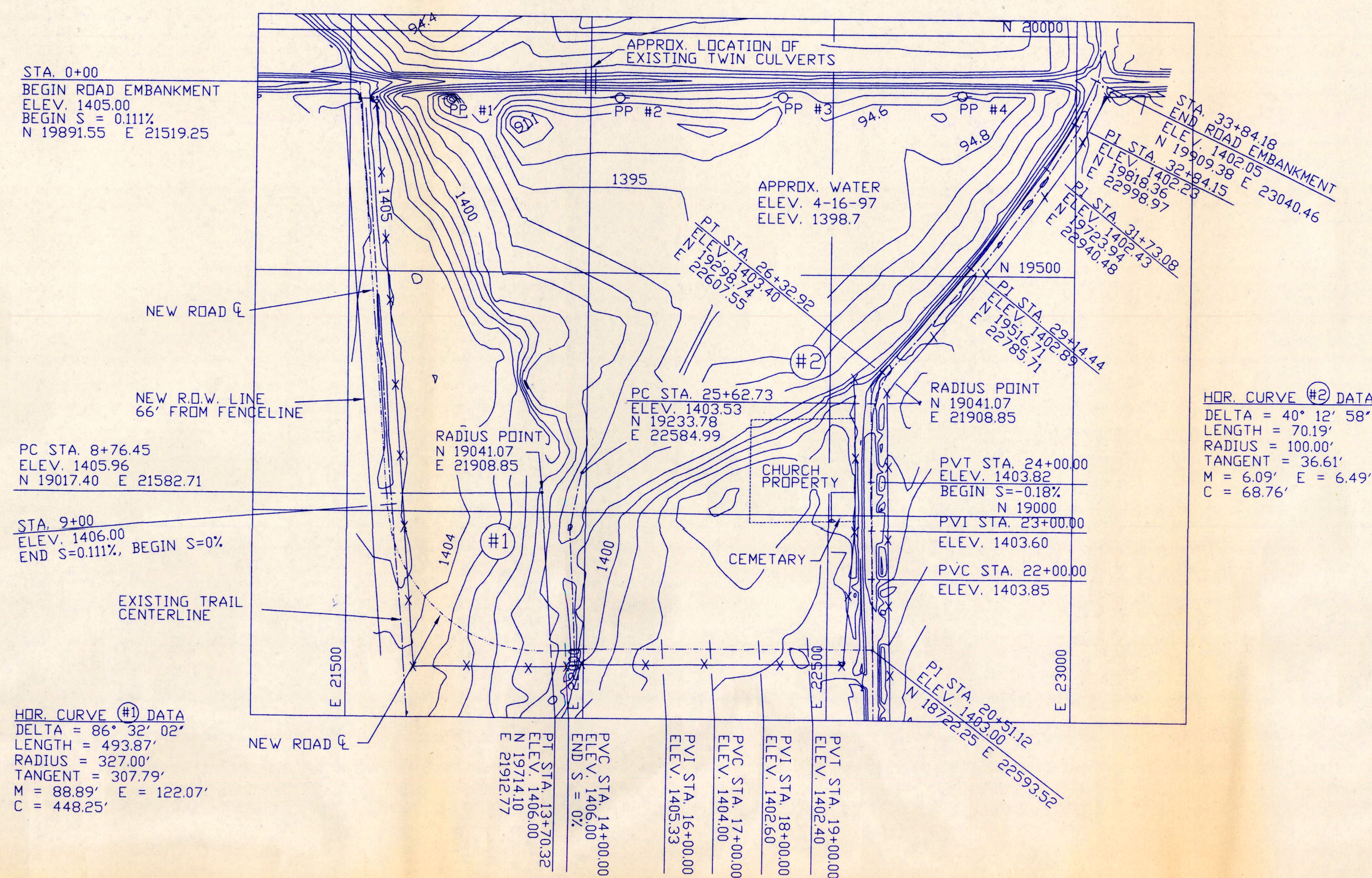
ROAD EMBANKMENT PLAN  
SCALE: 1"=200'

**BORROW AREA NOTE:**  
BORROW MATERIAL FOR THE ROAD EMBANKMENT SHALL  
BE TAKEN FROM THE DITCHES ADJACENT TO THE ROAD  
WITHIN THE RIGHT-OF-WAY, EXCEPT IN THE AREA OF  
SECONDARY BORROW AREA. (SEE ROAD EMBANKMENT  
PLAN VIEW, THIS SHEET). THE BORROW DITCH IN THIS  
AREA MAY BE EXPANDED NORTH BEYOND THE 33' R.O.W.  
WIDTH ONTO U.S. FISH & WILDLIFE SERVICE LAND AS  
APPROVED BY THE FIELD ENGINEER.

TOPSOIL SHALL BE STRIPPED FROM THE BORROW DITCHES  
AND SECONDARY BORROW AREA AND STOCKPILED. FOUR (4)'  
MIN. DEPTH TOPSOIL SHALL BE RESPREAD OVER THE ROAD  
SLOPES, BORROW DITCHES AND SECONDARY BORROW AREA  
SLOPES AND BOTTOM. THE COST OF SUCH TOPSOIL WORK  
SHALL BE CONSIDERED INCIDENTAL TO "SITE PREPARATION."



TYPICAL ROAD SECTION WITH DITCHES  
SCALE: 1"=10' HOR. 1"=5' VERT.

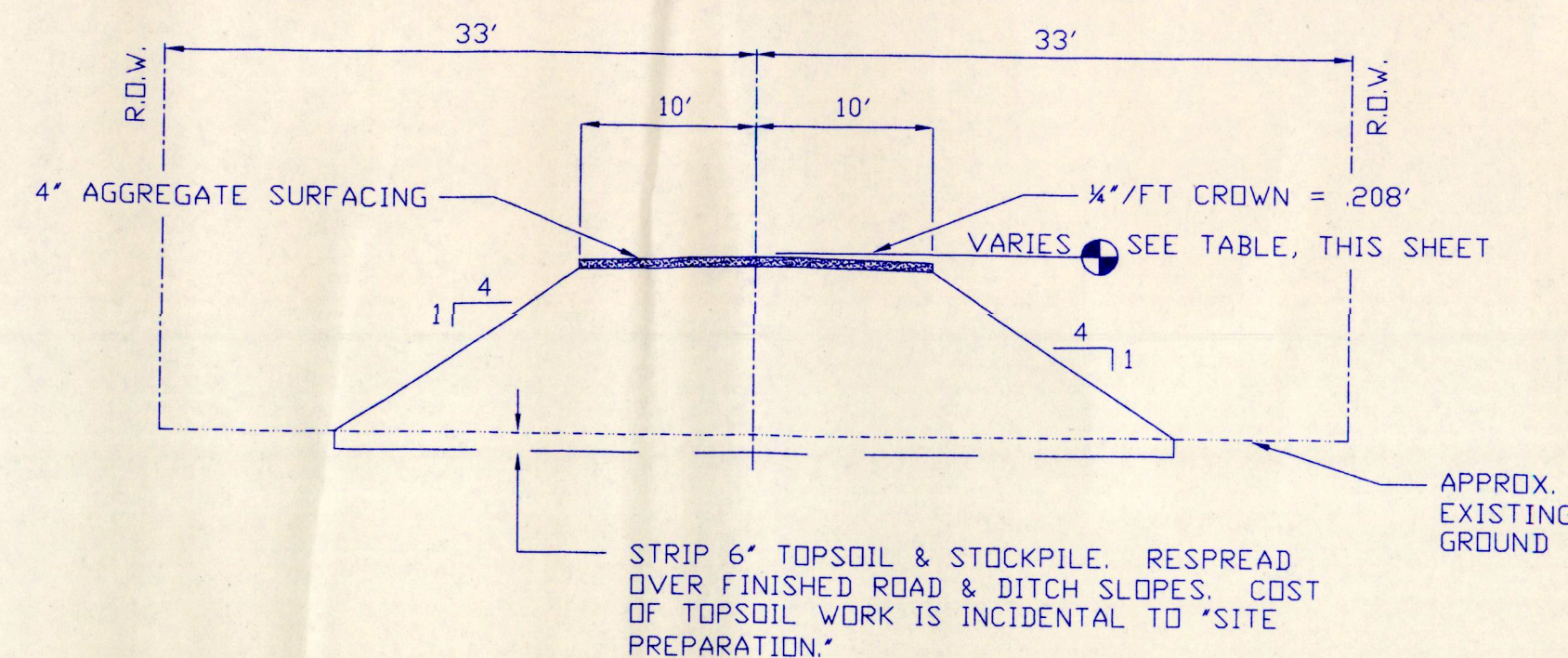


SEE SHEETS 4, 5, AND 6 FOR PLAN AND PROFILE

ROAD EMBANKMENT LAYOUT  
SCALE: 1"=200'

ROAD SURFACE ELEVATIONS  
(BEFORE GRAVEL PLACEMENT)

| STATION     | CENTERLINE | SHOULDER |
|-------------|------------|----------|
| 0+00 PI     | 1405.00    | 1404.79  |
| 1+00        | 1405.11    | 1404.90  |
| 2+00        | 1405.22    | 1405.01  |
| 3+00        | 1405.33    | 1405.12  |
| 4+00        | 1405.44    | 1405.23  |
| 5+00        | 1405.56    | 1405.35  |
| 6+00        | 1405.67    | 1405.46  |
| 7+00        | 1405.78    | 1405.57  |
| 8+00        | 1405.89    | 1405.68  |
| 8+76.45 PC  | 1406.00    | 1405.79  |
| 9+00        | 1406.00    | 1405.79  |
| 10+00       | 1406.00    | 1405.79  |
| 11+00       | 1406.00    | 1405.79  |
| 12+00       | 1406.00    | 1405.79  |
| 13+00       | 1406.00    | 1405.79  |
| 13+70.32 PT | 1406.00    | 1405.79  |
| 14+00 PVC   | 1406.00    | 1405.79  |
| 15+00       | 1405.83    | 1405.62  |
| 16+00 PVI   | 1405.33    | 1405.12  |
| 17+00 PVC   | 1404.00    | 1403.79  |
| 18+00 PVI   | 1402.60    | 1402.39  |
| 18+66.67    | 1402.33    | 1402.12  |
| 19+00 PVT   | 1402.40    | 1402.19  |
| 20+00       | 1402.80    | 1402.59  |
| 20+51.12 PI | 1403.00    | 1402.79  |
| 21+00       | 1403.20    | 1402.99  |
| 22+00 PVC   | 1403.60    | 1403.39  |
| 23+00 PVI   | 1403.85    | 1403.64  |
| 23+36.88    | 1403.87    | 1403.66  |
| 24+00 PVT   | 1403.82    | 1403.61  |
| 25+00       | 1403.63    | 1403.42  |
| 25+62.73 PC | 1403.52    | 1403.31  |
| 26+00       | 1403.45    | 1403.24  |
| 26+32.92    | 1403.39    | 1403.18  |
| 27+00       | 1403.26    | 1403.05  |
| 28+00       | 1403.08    | 1402.87  |
| 29+00       | 1402.89    | 1402.68  |
| 29+14.44 PI | 1402.87    | 1402.66  |
| 30+00       | 1402.71    | 1402.50  |
| 31+00       | 1402.52    | 1402.31  |
| 31+73.08 PI | 1402.39    | 1402.19  |
| 32+00       | 1402.34    | 1402.13  |
| 32+84.15 PI | 1402.19    | 1401.98  |
| 33+00       | 1402.15    | 1401.94  |
| 33+84.18    | 1402.00    | 1401.79  |



TYPICAL ROAD SECTION WITHOUT DITCHES  
SCALE: 1"=10' HOR. 1"=5' VERT.

DUCKS  
UNLIMITED  
INC.

GREAT PLAINS REGIONAL OFFICE

DATE: 7-2-97

SHEET NO. 3 OF 10

APPROVED BY:

APPROVED BY:

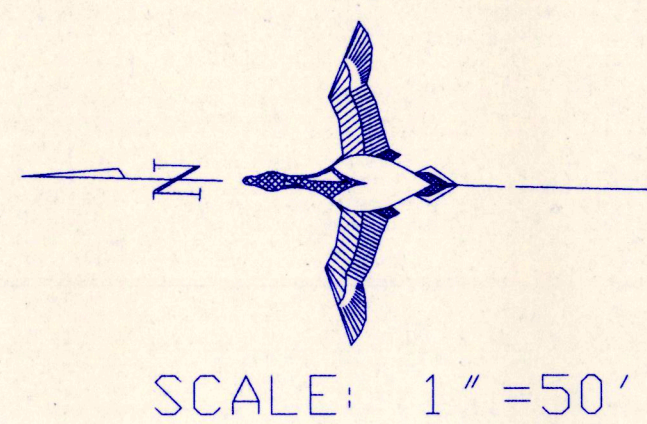
DESIGNED BY: J.L.

ROTH WPA

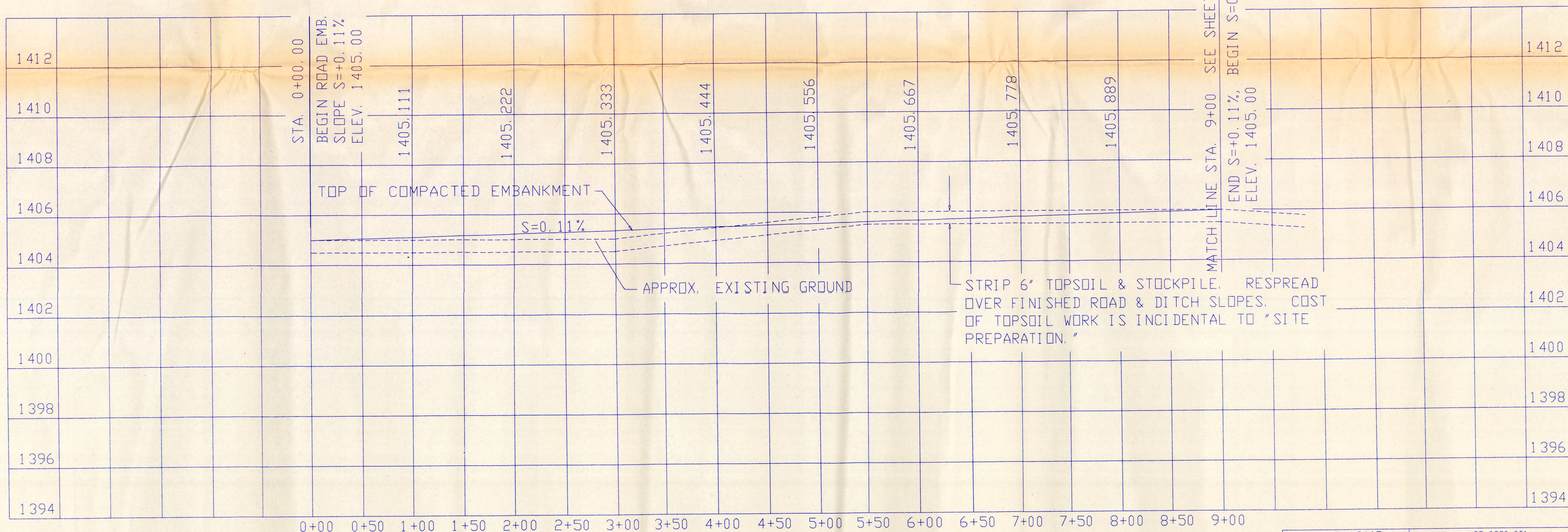
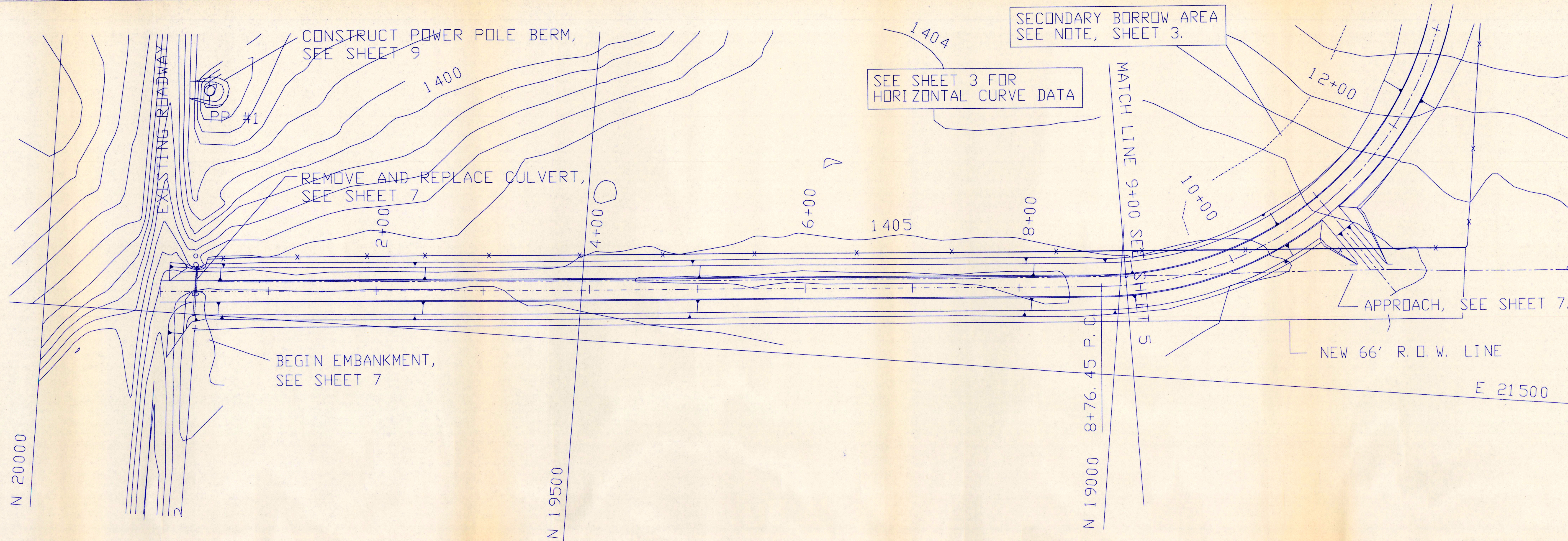
CHECKED BY: G.L.J.

PRELIMINARY





SCALE: 1"=50'

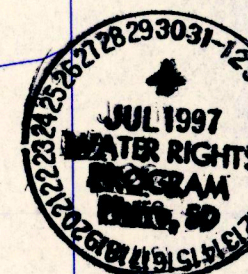


SCALE: 1"=50' HORIZ.  
1"=2' VERT.

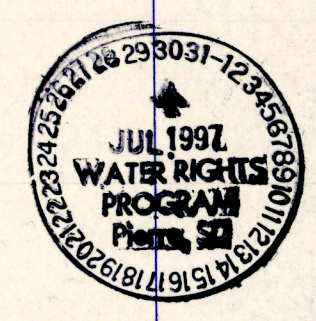
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|------------------------------|--|-------------------------|--|
|                              |  | PROJECT NO. SD-0220-001 |  |
|                              |  | ROTH WPA                |  |
| GREAT PLAINS REGIONAL OFFICE |  | DATE: 7-2-97            |  |
| SHEET NO. 4 OF 10            |  | APPROVED BY: _____      |  |
| APPROVED BY: _____           |  | APPROVED BY: _____      |  |

**PRELIMINARY**

60133







SEE SHEET 3 FOR  
HORIZONTAL CURVE DATA

SECONDARY BORROW AREA  
SEE NOTE, SHEET 3.

CHURCH  
PROPERTY

CEMETARY

N 19000

E 23000

N 18500

66' R.O.W.  
LINE

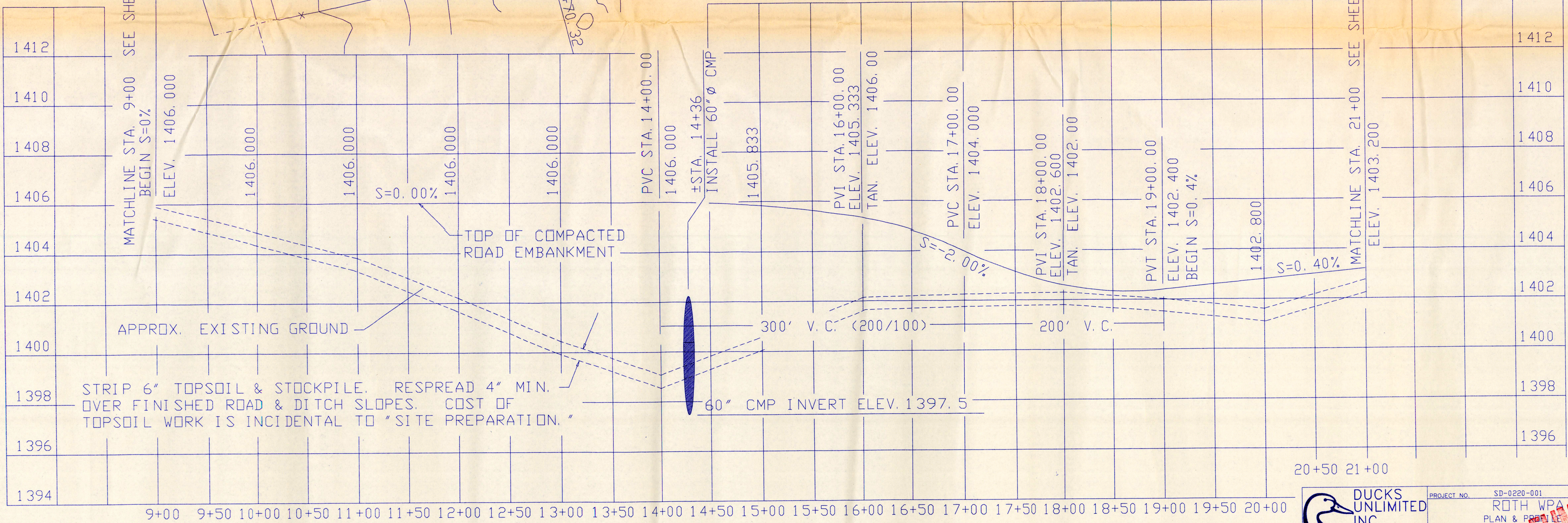
MATCHLINE STA. 9+00  
SEE SHEET 4

MATCHLINE STA. 21+00.00  
SEE SHEET 6

PI STA. 20+51.12  
SEE DETAILS  
SHEET 7

±STA. 11+00  
CONSTRUCT APPROACH  
SEE SHEET 7.

60" CMP CULVERT INSTALLATION  
SEE SHEET 7.



**DUCKS  
UNLIMITED  
INC.**  
GREAT PLAINS REGIONAL OFFICE  
DATE: 7-2-97  
SHEET NO. 5 OF 10

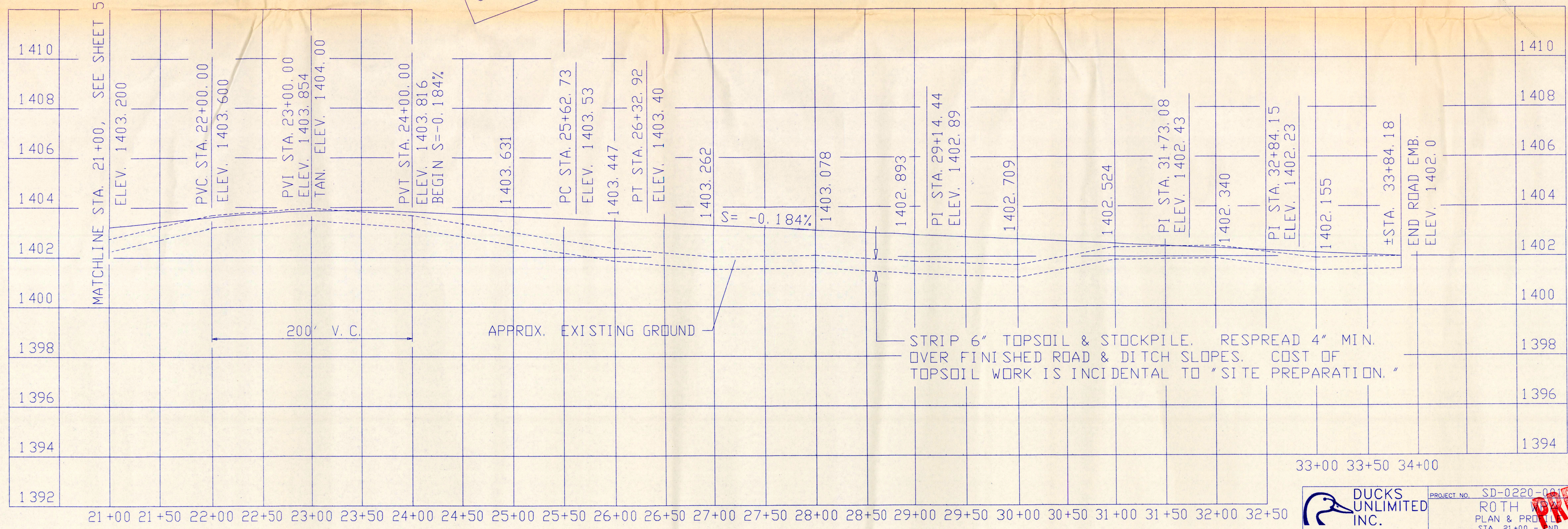
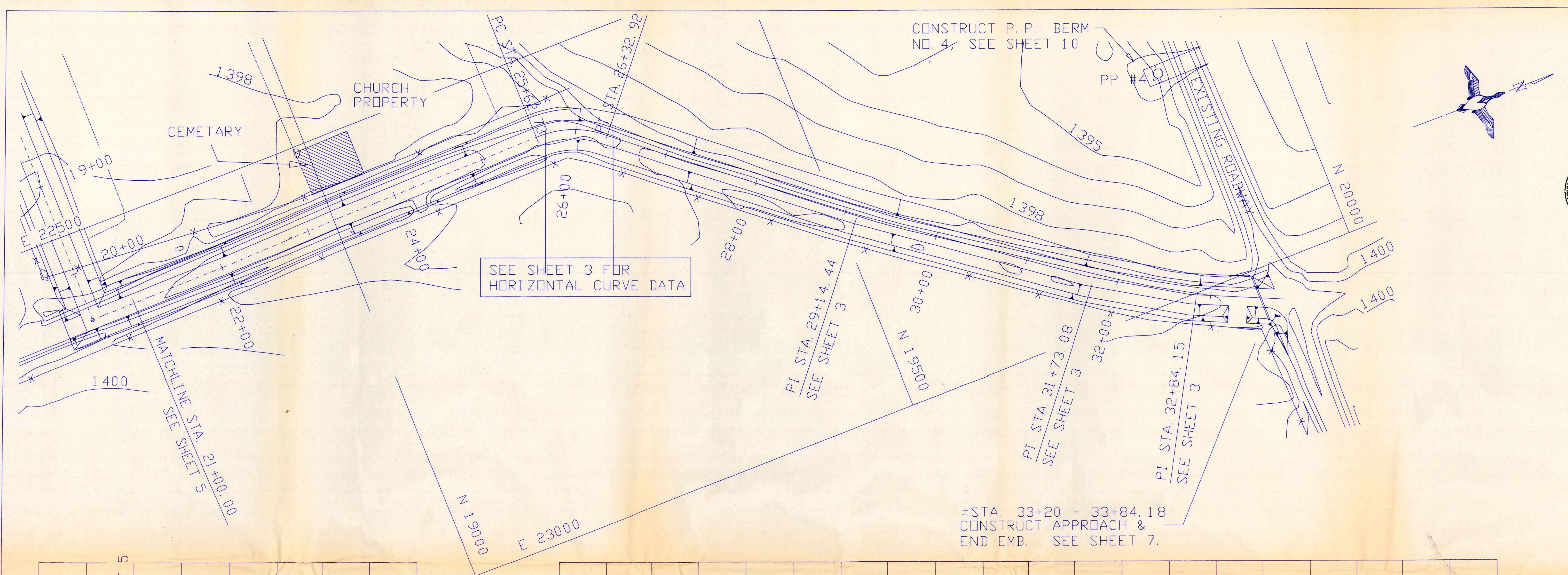
PROJECT NO. SD-0220-001  
ROTH WPA  
PLAN & PROFILE  
STA. 9+00 TO 21+00  
APPROVED BY: [Signature]  
CHECKED BY: [Signature]

DESIGNED BY: DJL  
DRAWN BY: DJL  
SURVEYED BY: GLJ  
CHECKED BY: [Signature]  
APPROVED BY: [Signature]

**PRELIMINARY**



6013-3

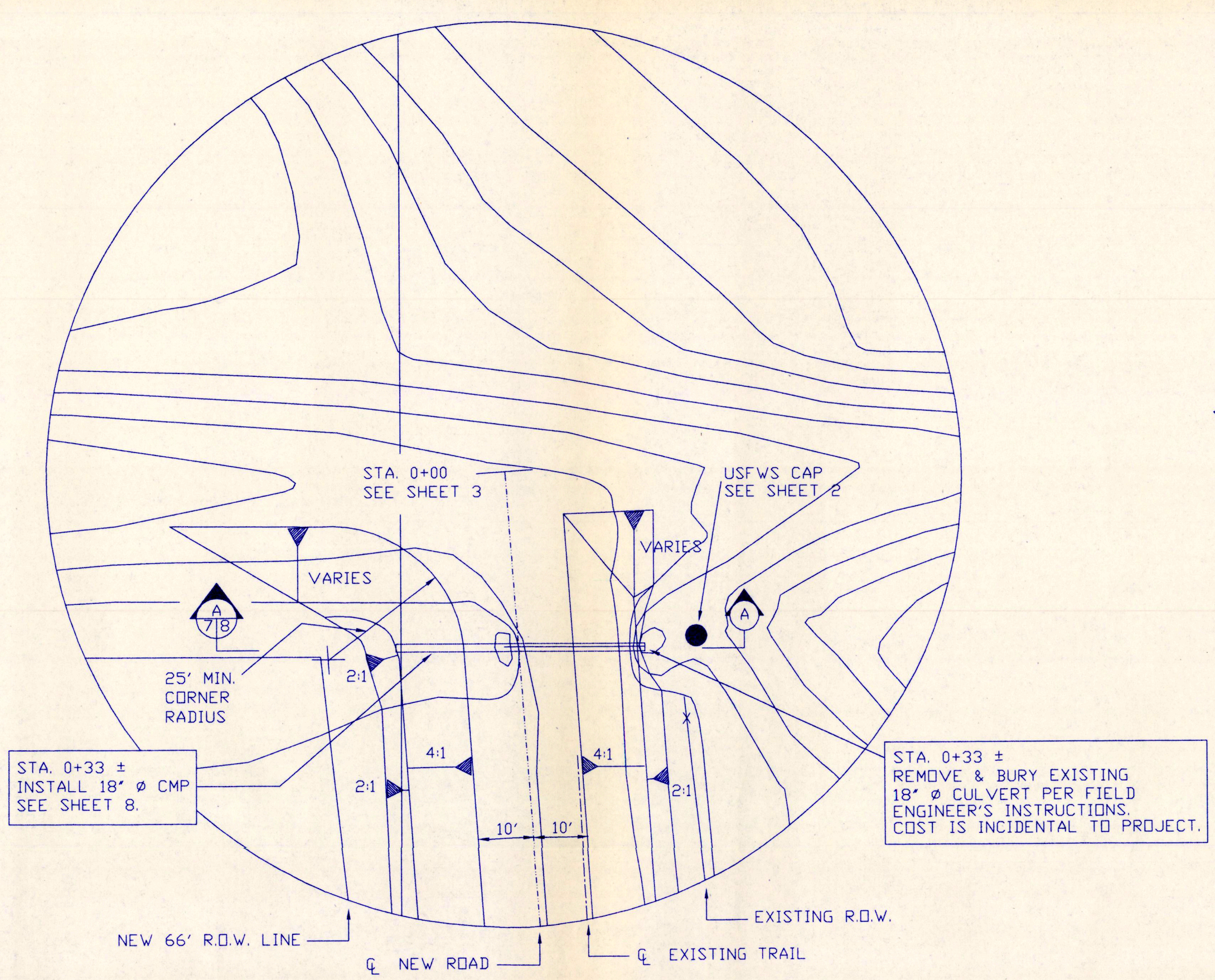
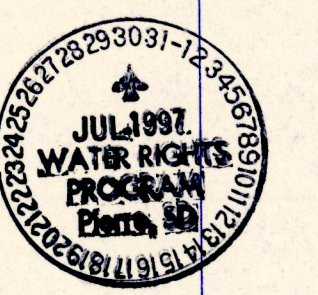


|                              |                   |                        |                 |
|------------------------------|-------------------|------------------------|-----------------|
| DUCKS UNLIMITED INC.         |                   | PROJECT NO. SD-0220-00 | DRAWN BY: DJL   |
| GREAT PLAINS REGIONAL OFFICE |                   | PLAN & PROFILE         | CHECKED BY: GLJ |
| DATE: 7-2-97                 | SHEET NO. 6 OF 10 | APPROVED BY:           | APPROVED BY:    |

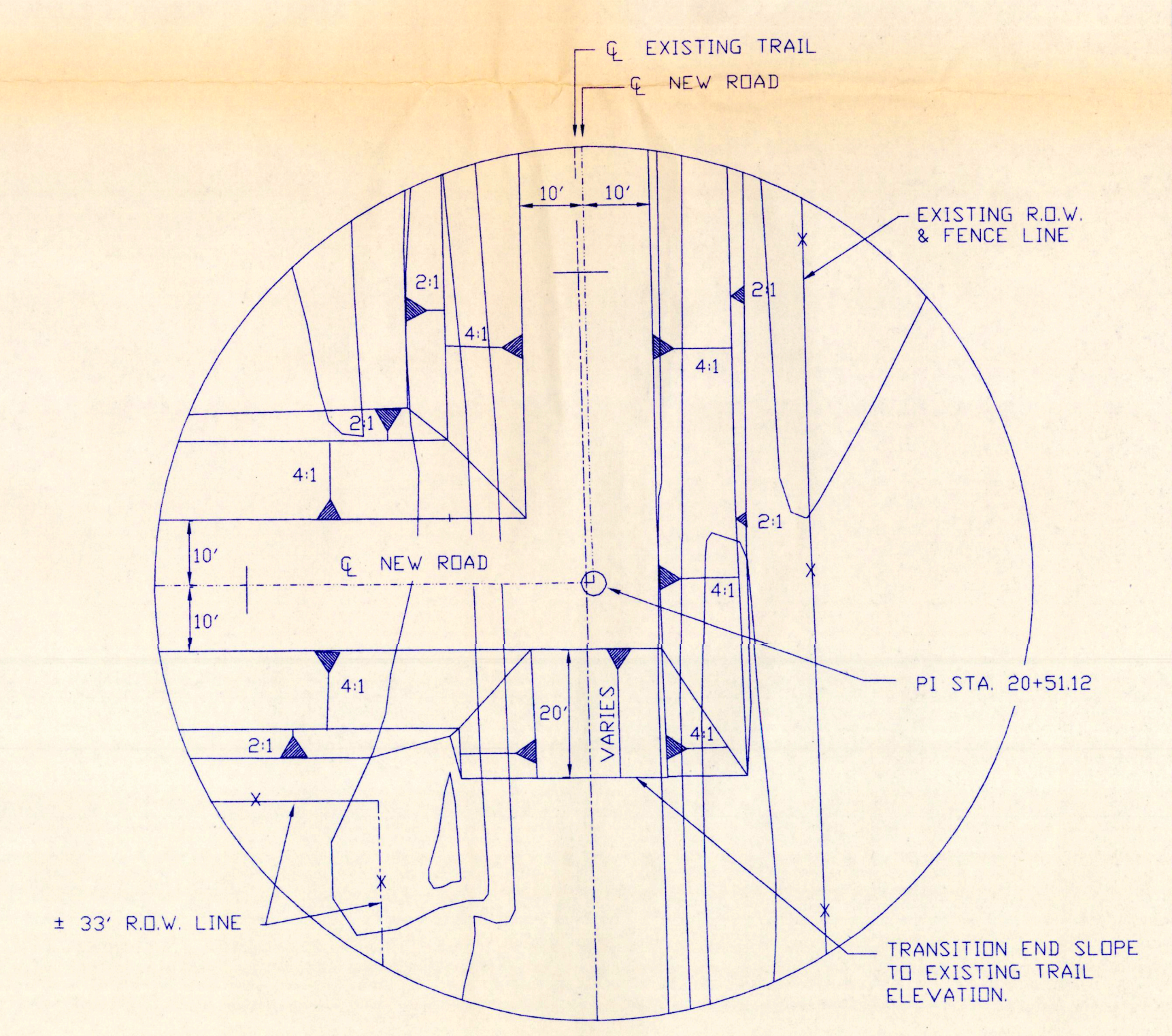
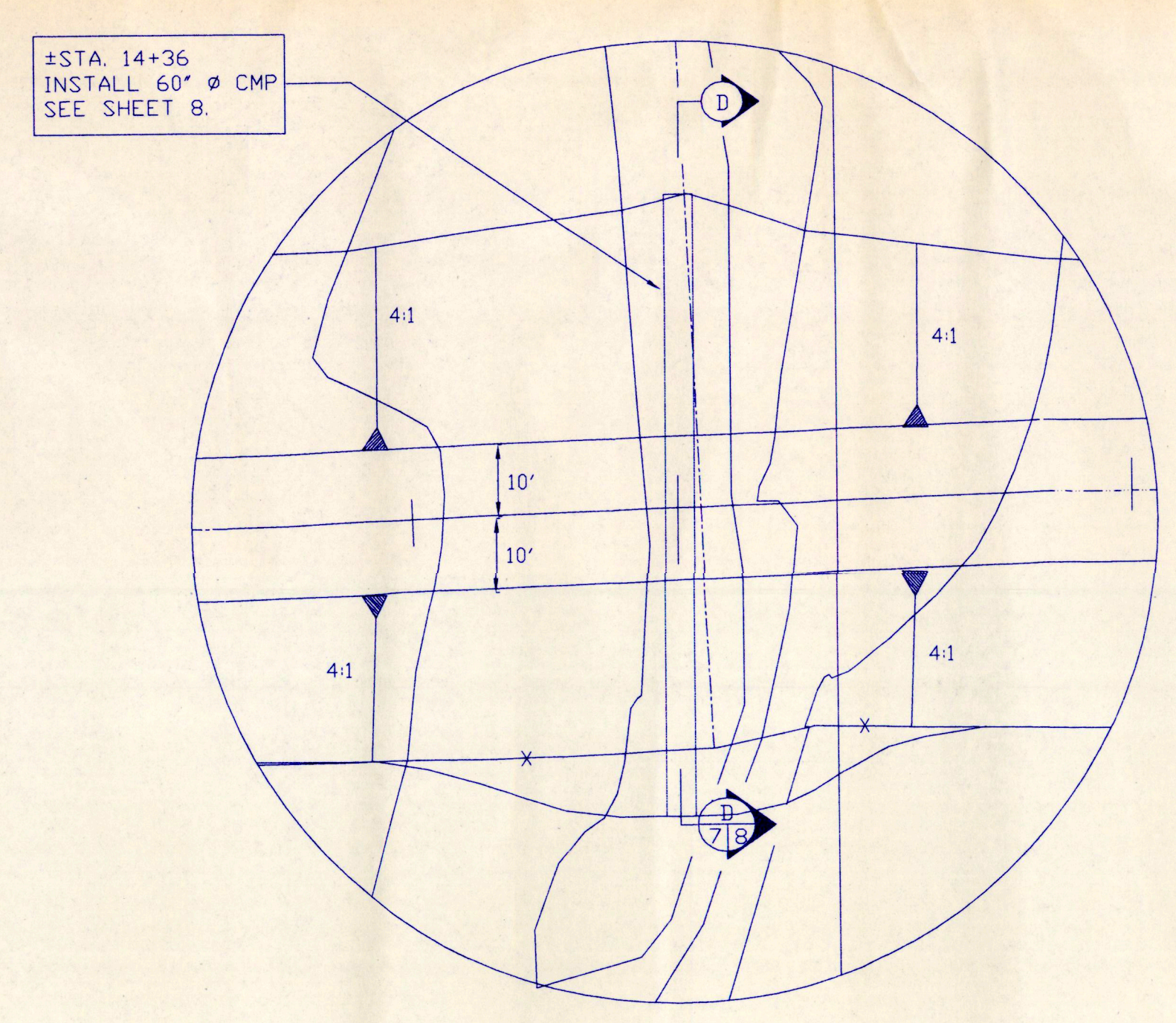
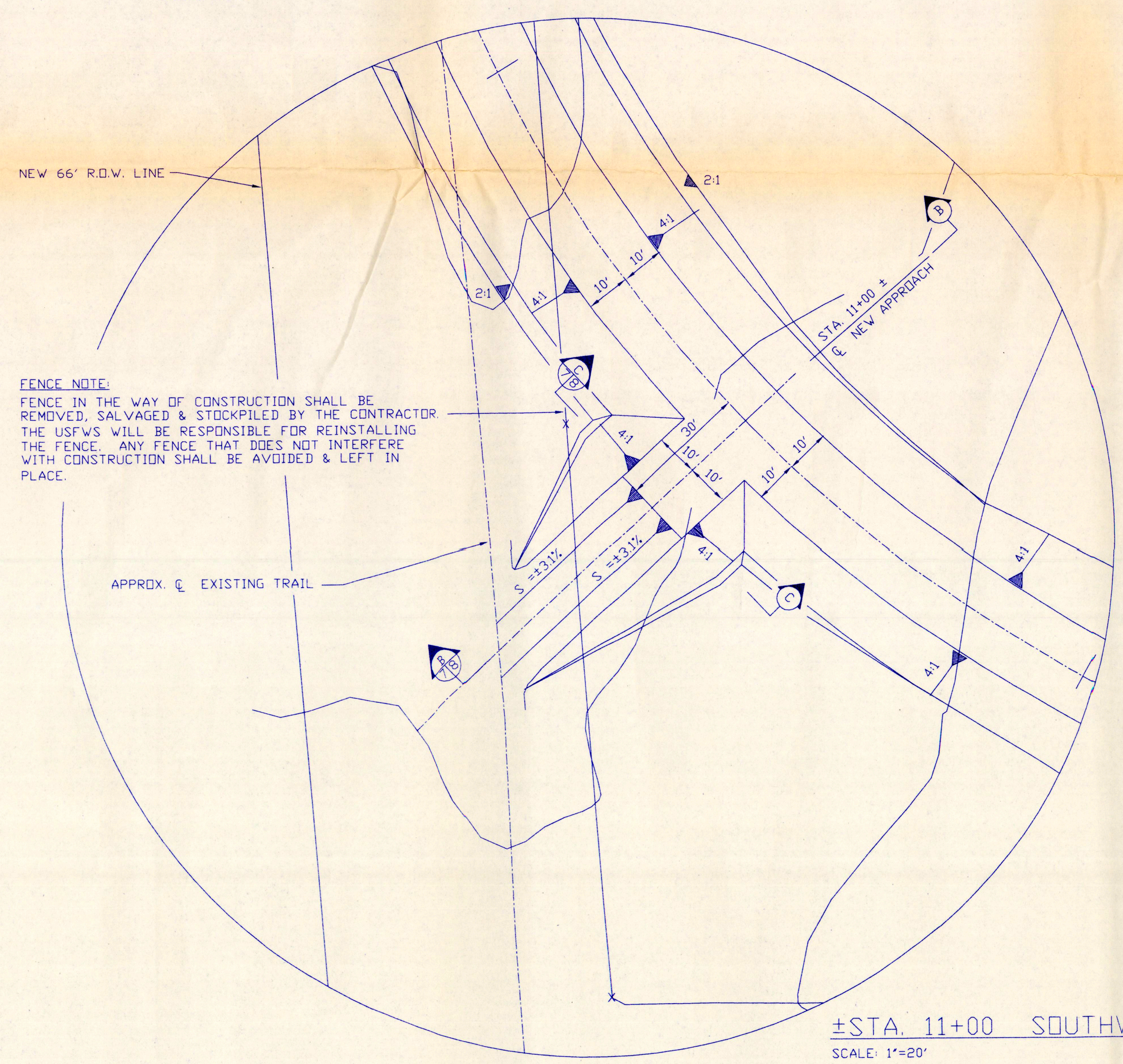
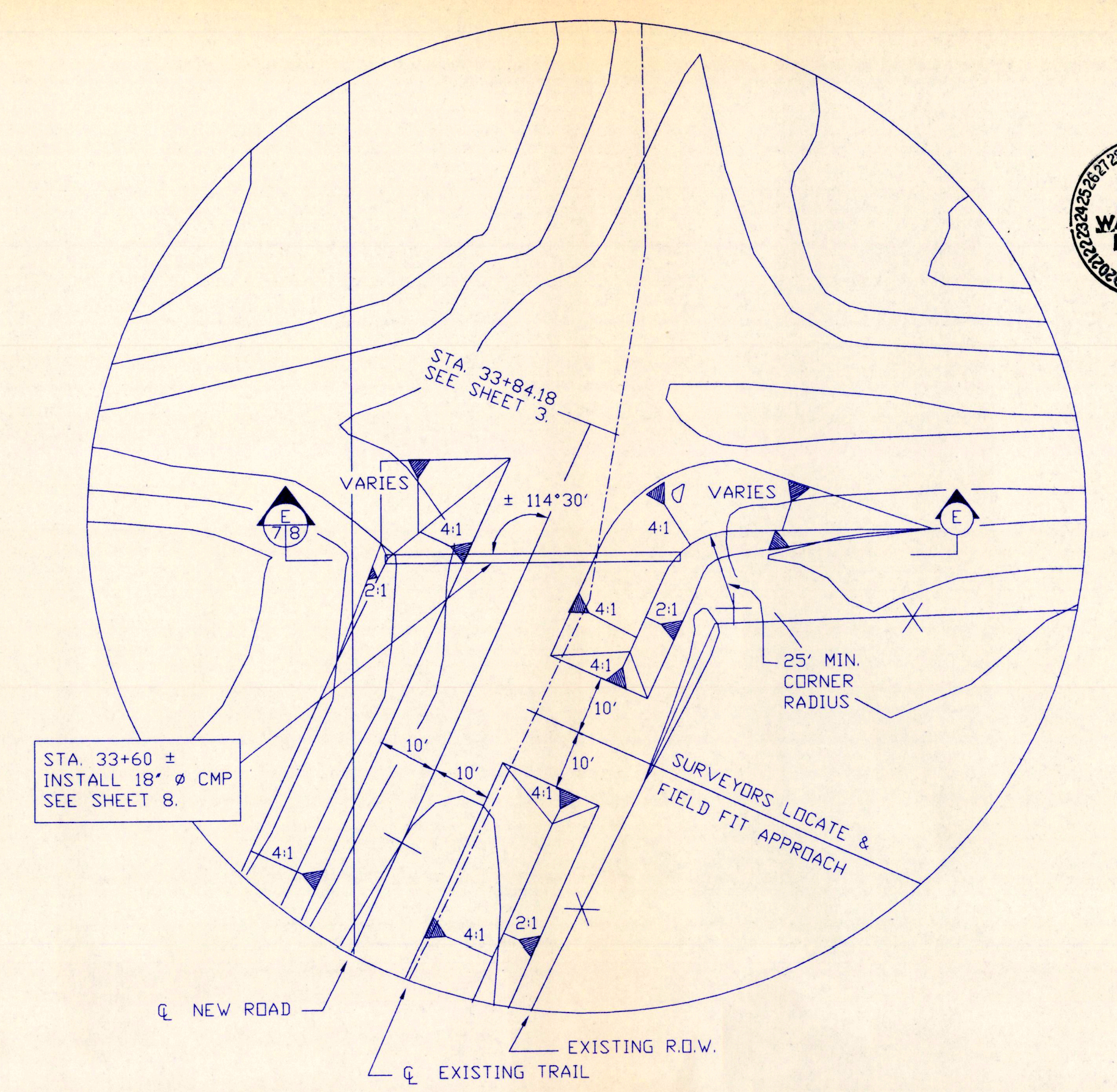
PRELIMINARY



6013-3



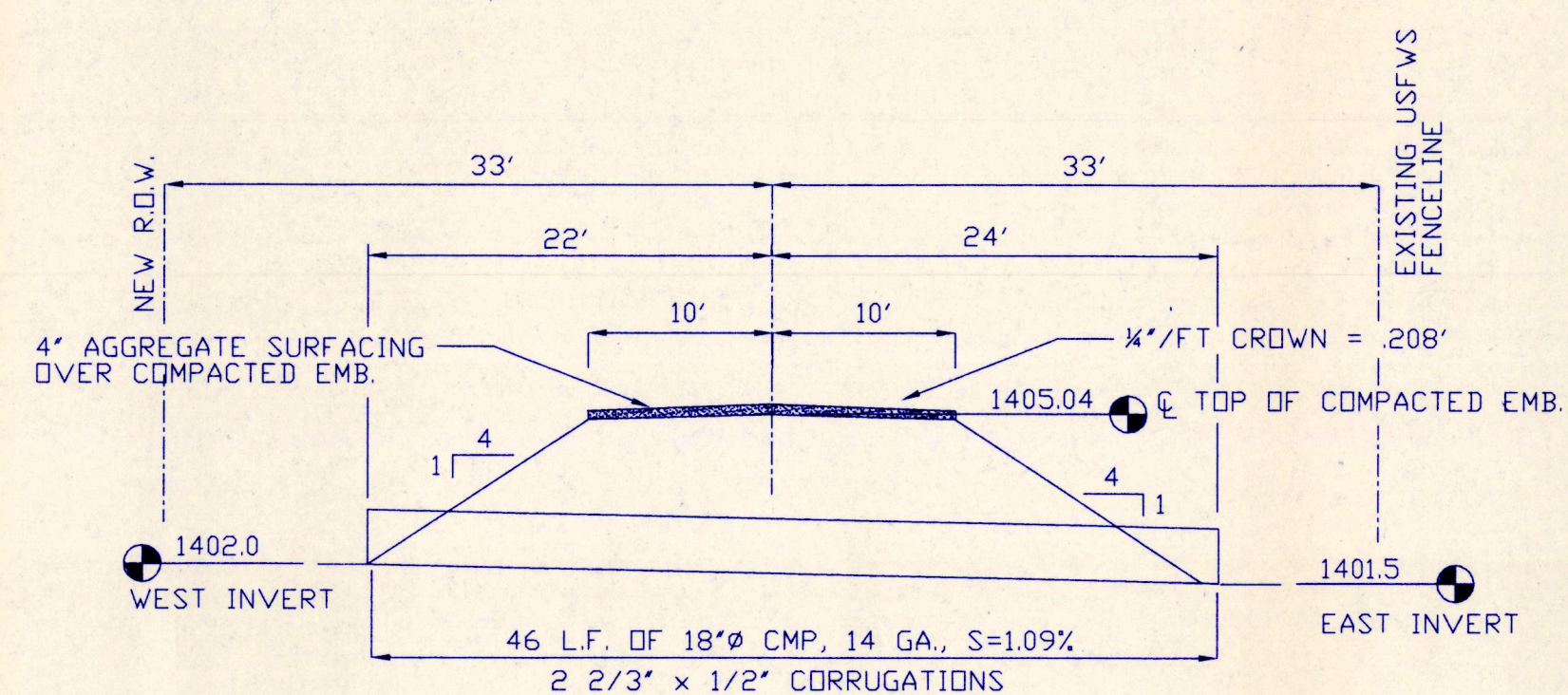
**CULVERT NOTE:**  
THE INSTALLATION OF ANY ADDITIONAL 12" Ø CULVERTS NEEDED THROUGH FIELD APPROACHES TO MAINTAIN EXISTING DRAINAGE FROM THE EAST SIDE OF THE ROAD WILL BE CONSIDERED "EXTRA WORK" AND PAID FOR AS SUCH. THIS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.



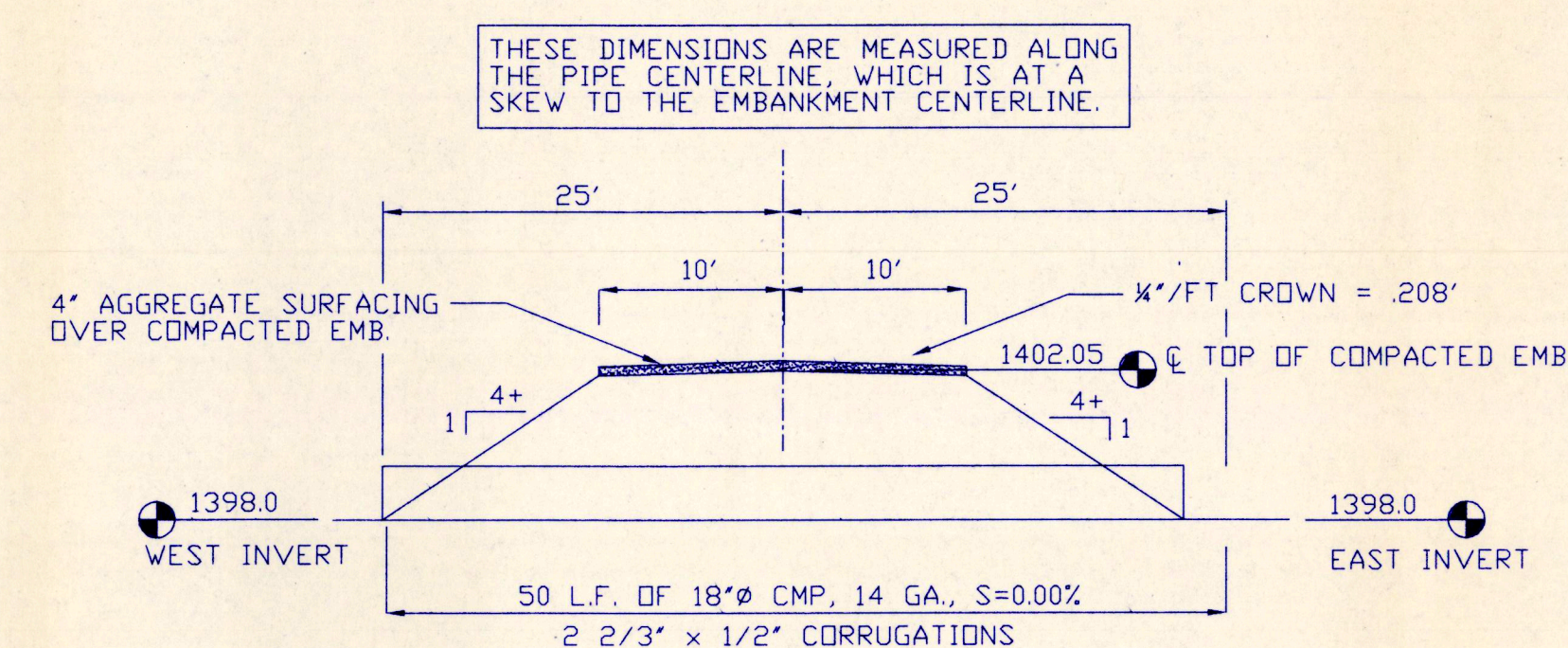
|                                  |                         |                     |
|----------------------------------|-------------------------|---------------------|
| <br>GREAT PLAINS REGIONAL OFFICE | PROJECT NO. SD-0220-001 | DESIGNED BY: D.J.L. |
|                                  | ROTH WPA                | DRAWN BY: T.J.L.    |
| DATE: 7-1-97                     | SHEET NO. 7 OF 10       | CHECKED BY: G.L.J.  |
| APPROVED BY: [Signature]         |                         |                     |

**PRELIMINARY**

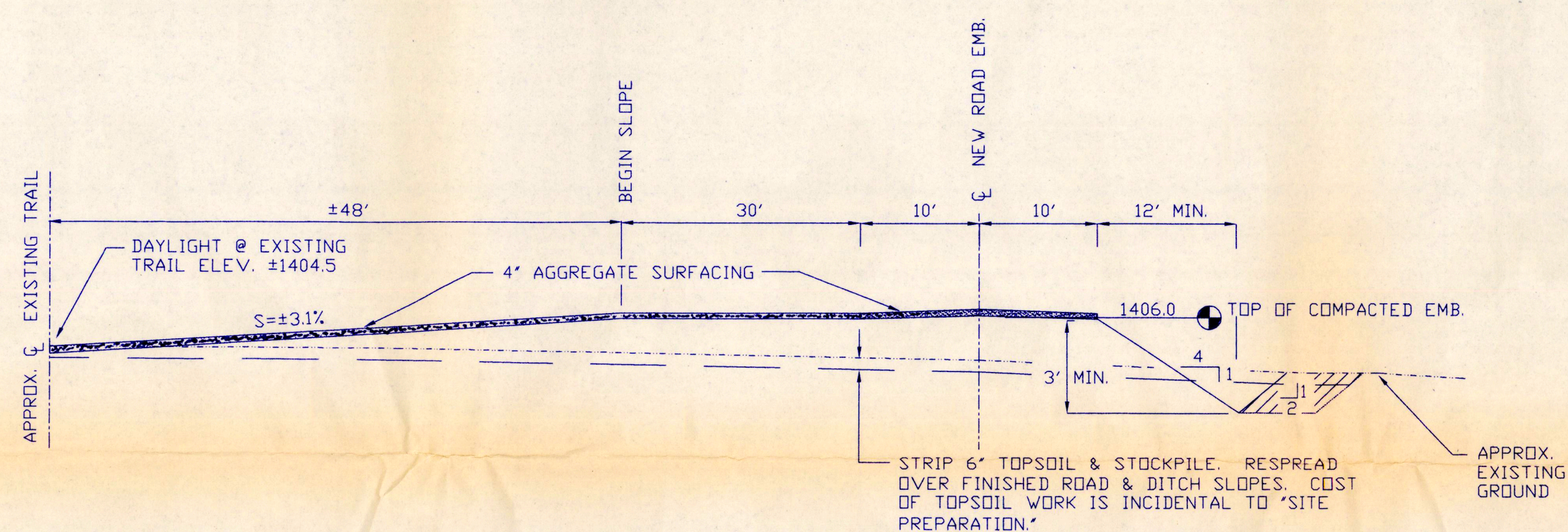




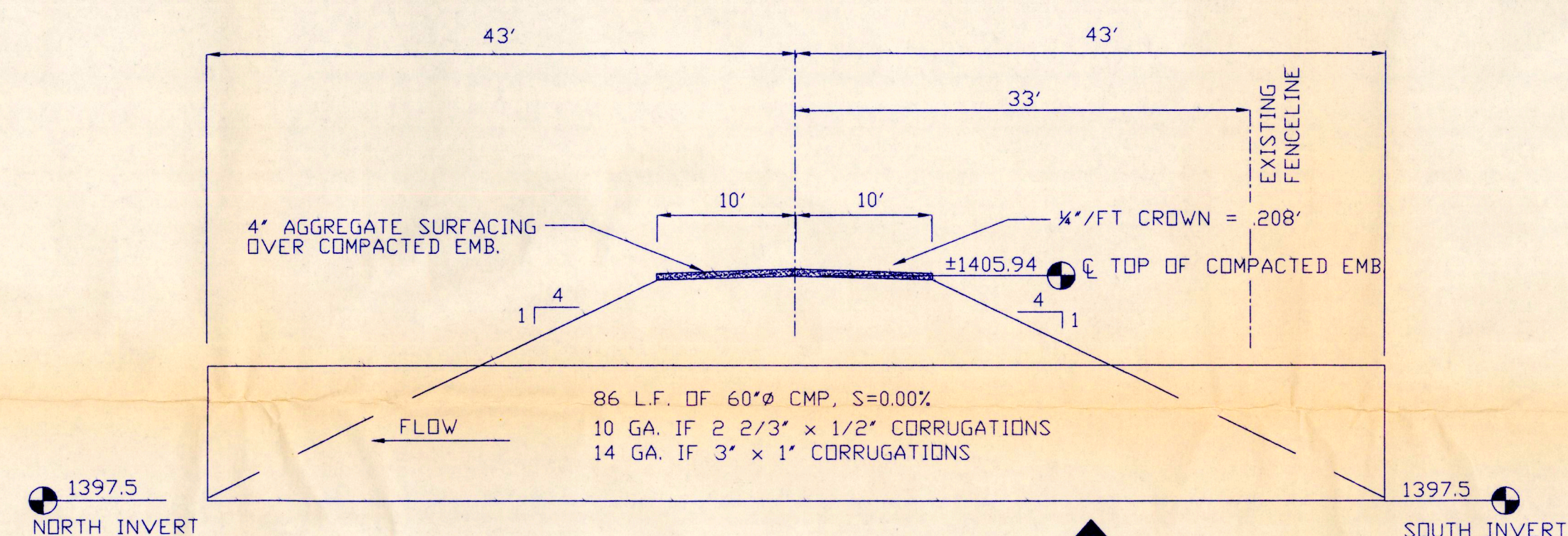
±STA.0+33 SECTION  
NTS



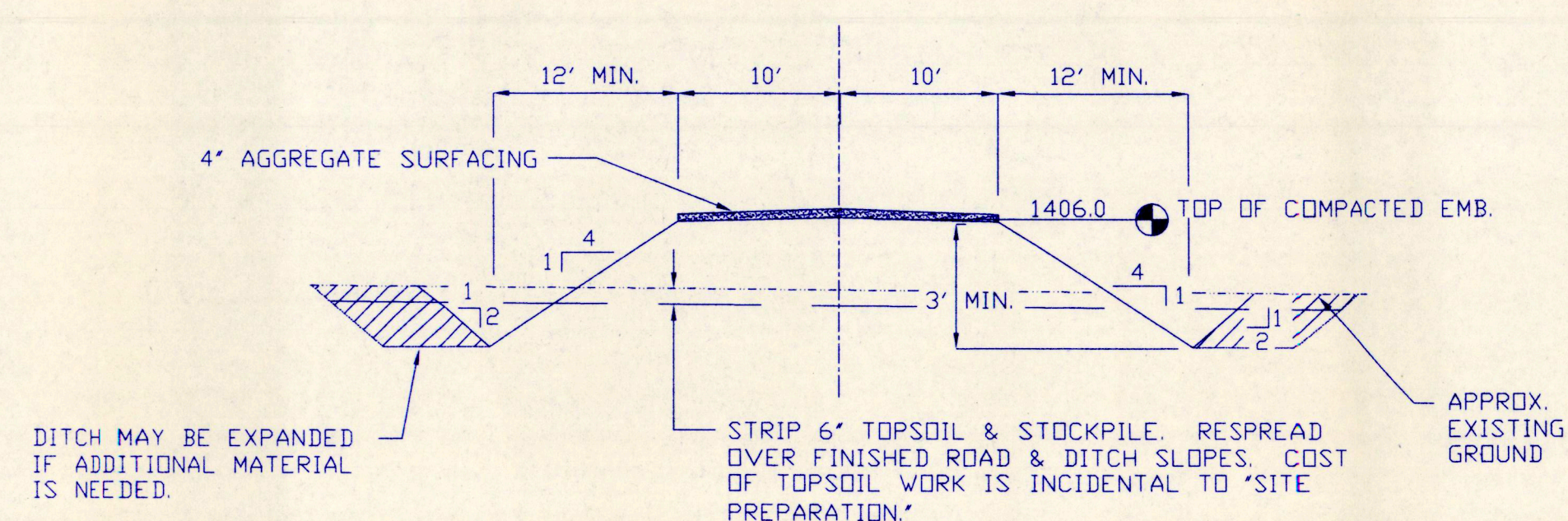
±STA.33+60 SECTION  
NTS



±STA.11+00 SW APPROACH  
NTS

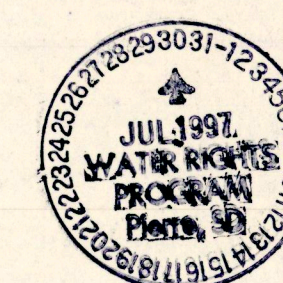


±STA.14+36 SECTION  
NTS



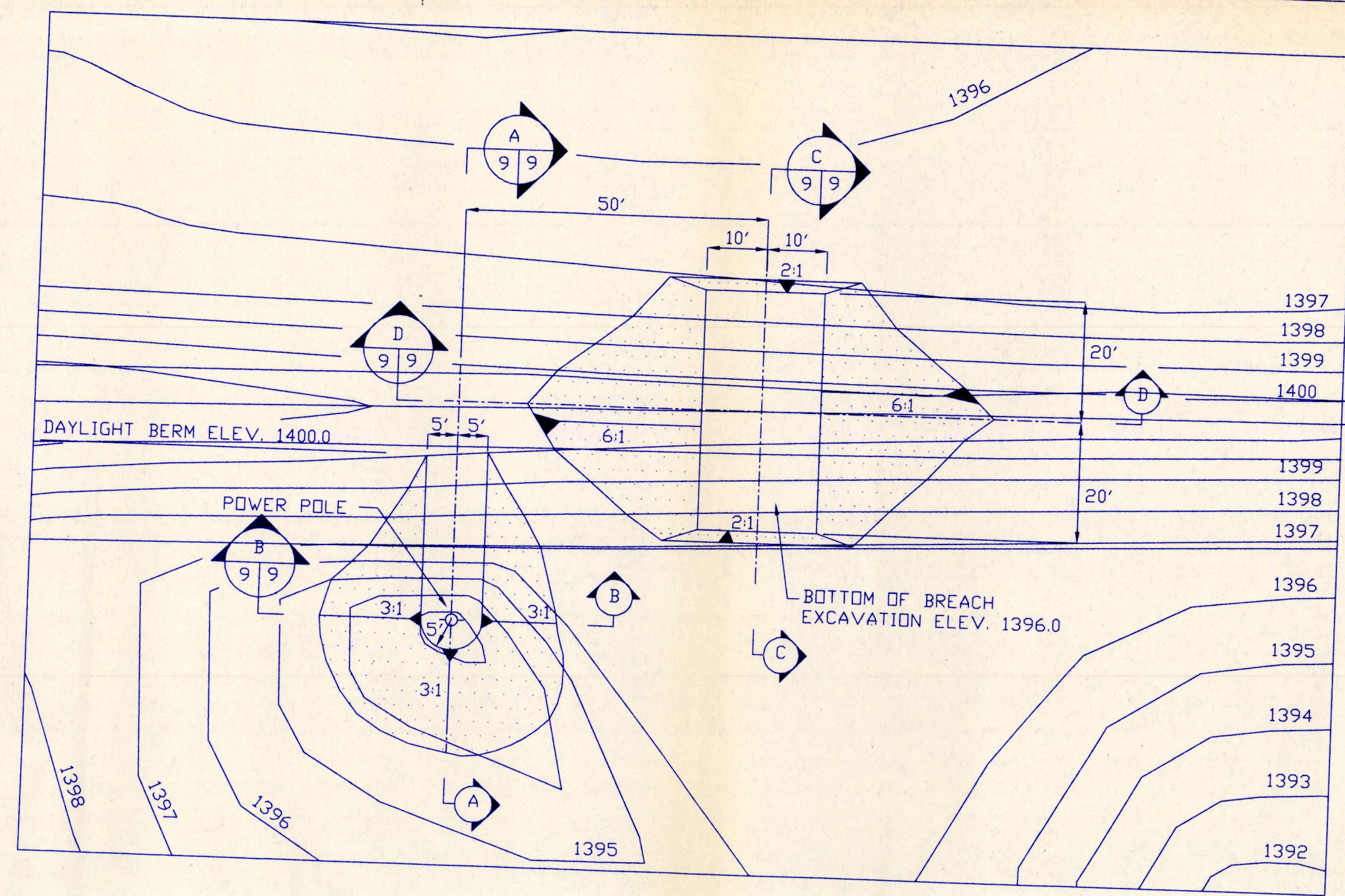
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|                                                             |                      |                     |
|-------------------------------------------------------------|----------------------|---------------------|
| <b>DUCKS UNLIMITED INC.</b><br>GREAT PLAINS REGIONAL OFFICE | PROJECT NO. SD-220-1 | DESIGNED BY: D.J.L. |
|                                                             | ROTH WPA             | DRAWN BY: D.J.L.    |
| DATE: 7-2-97                                                | SHEET NO. 8 OF 10    | CHECKED BY: GLJ.    |
| APPROVED BY:                                                |                      | APPROVED BY:        |

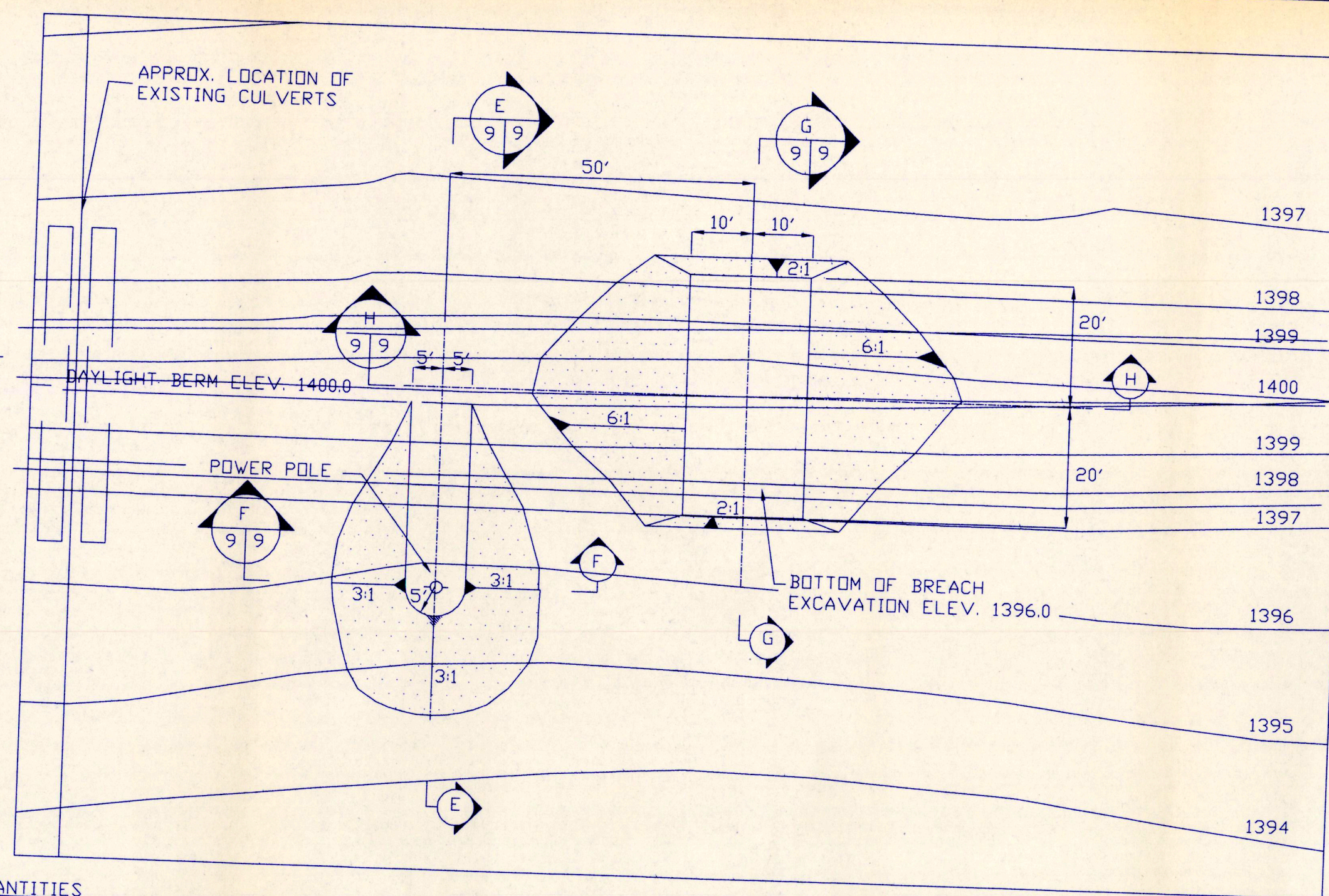


**PRELIMINARY**





POWER POLE #1 SITE PLAN  
SCALE: 1"=20'

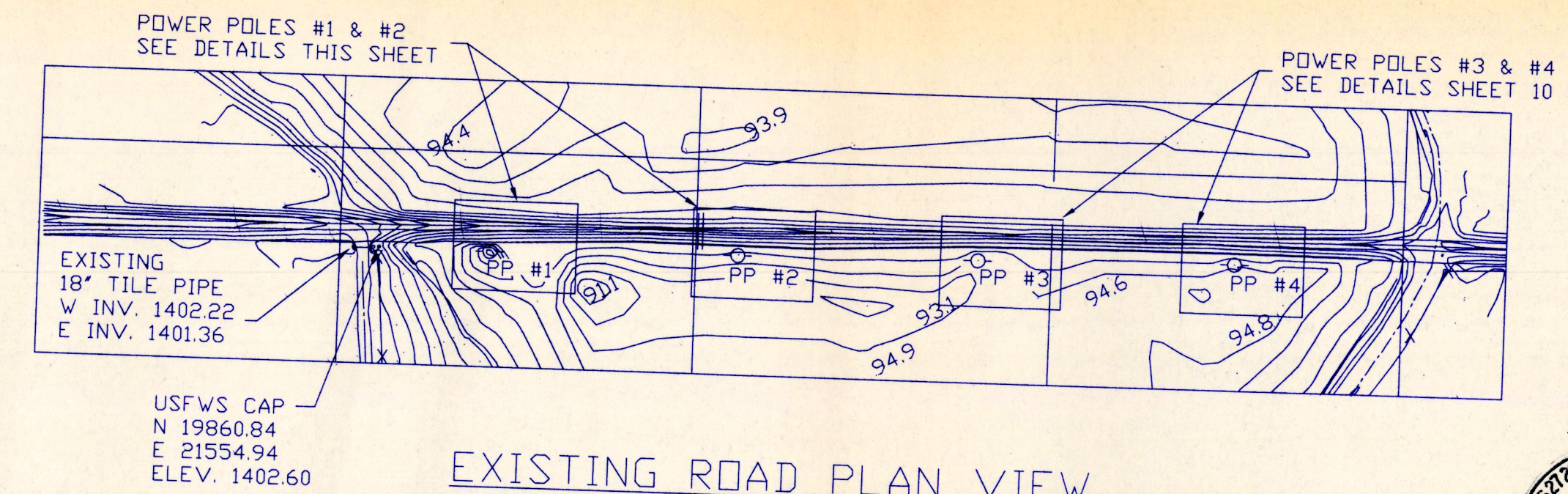


POWER POLE #2 SITE PLAN  
SCALE: 1"=20'

ESTIMATED QUANTITIES

|                  | POWER POLE #1       | POWER POLE #2       |
|------------------|---------------------|---------------------|
| SITE PREPARATION | INCIDENTAL          | INCIDENTAL          |
| EXCAVATION       | 226 C.Y.-P          | 178 C.Y.-P          |
| EMBANKMENT*      | 200 C.Y.-INCIDENTAL | 120 C.Y.-INCIDENTAL |

\*EMBANKMENT QUANTITIES INCLUDE 15% SHRINKAGE FACTOR  
SITE PREPARATION AND EMBANKMENT ARE INCIDENTAL TO 'EXCAVATION', SEE NOTE, THIS SHEET.

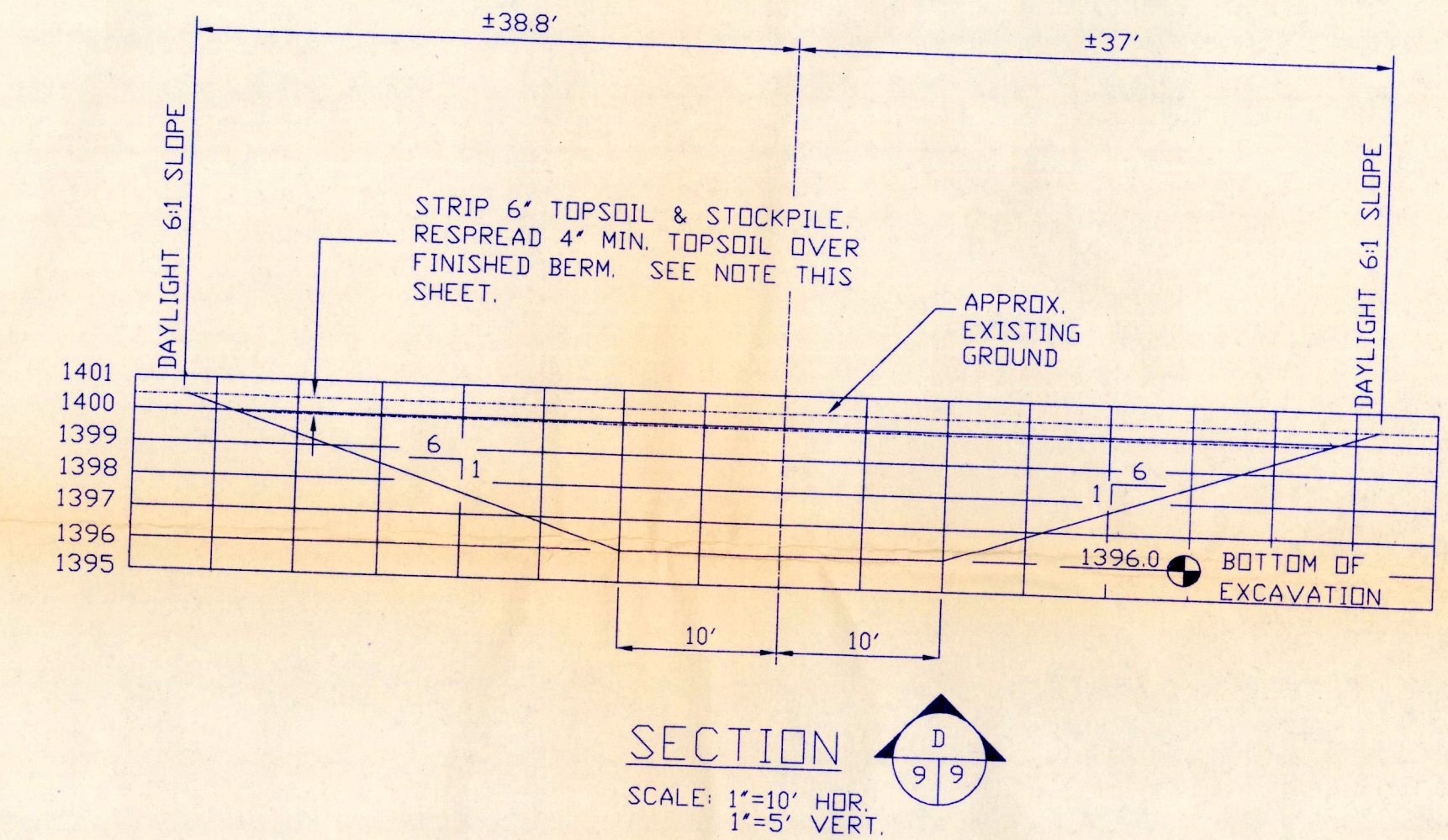
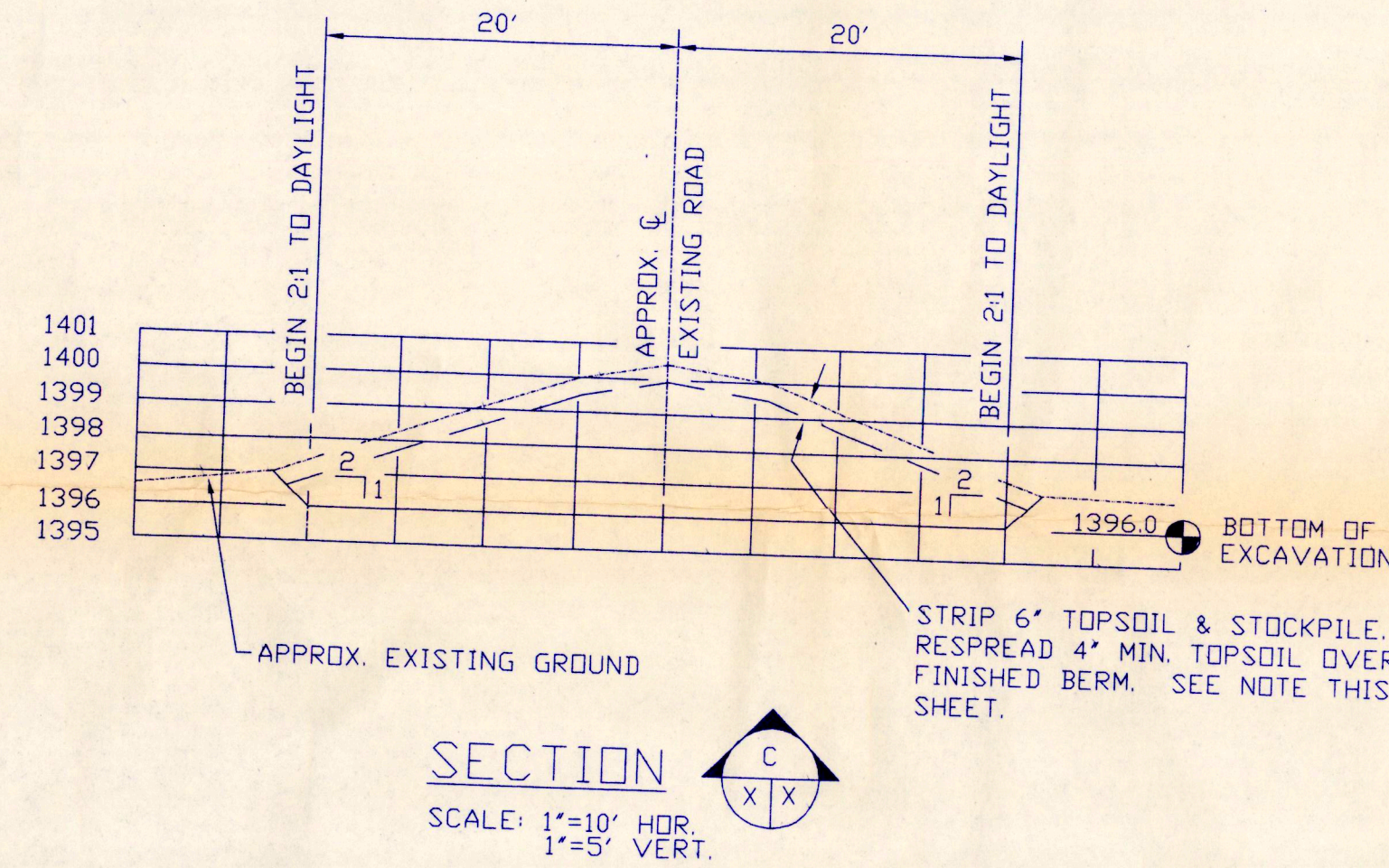
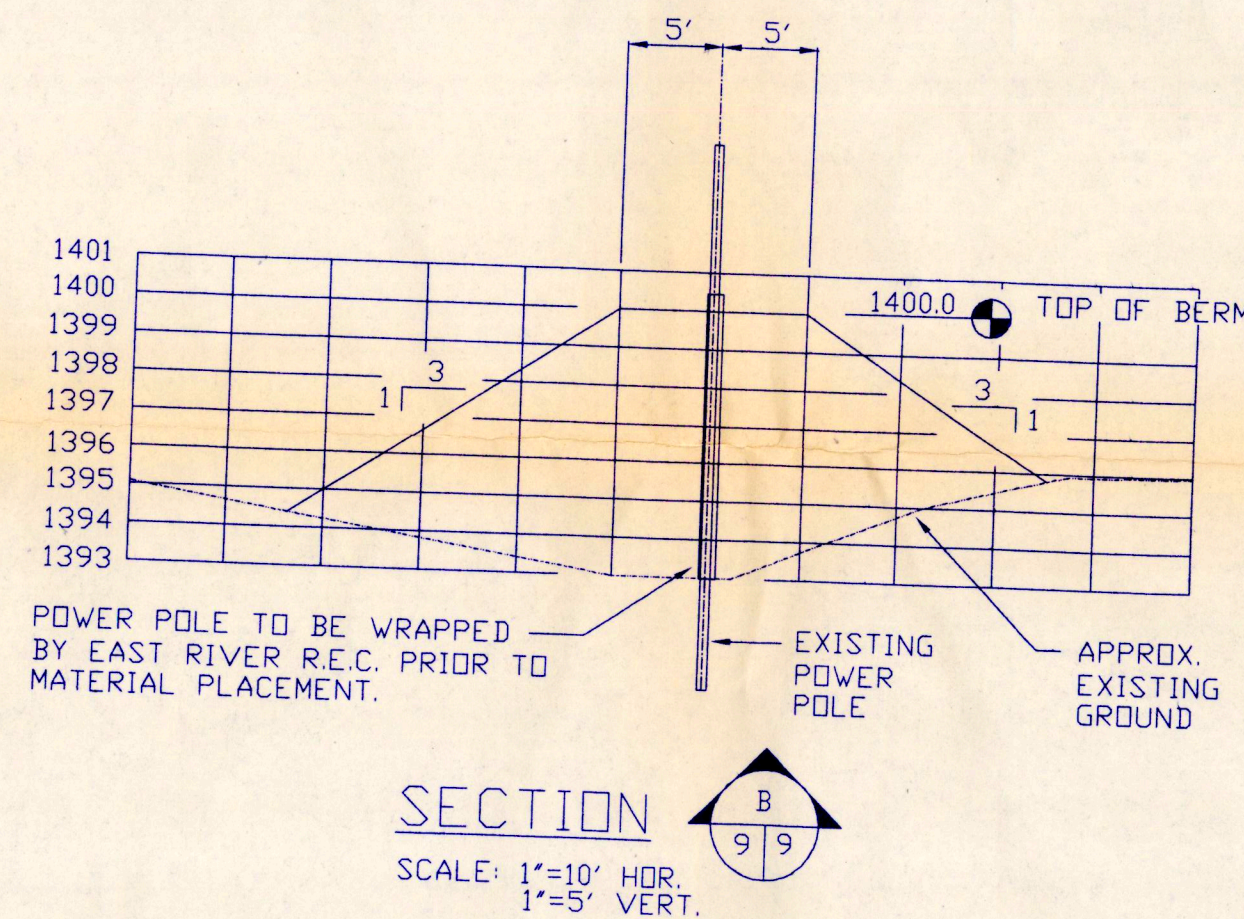
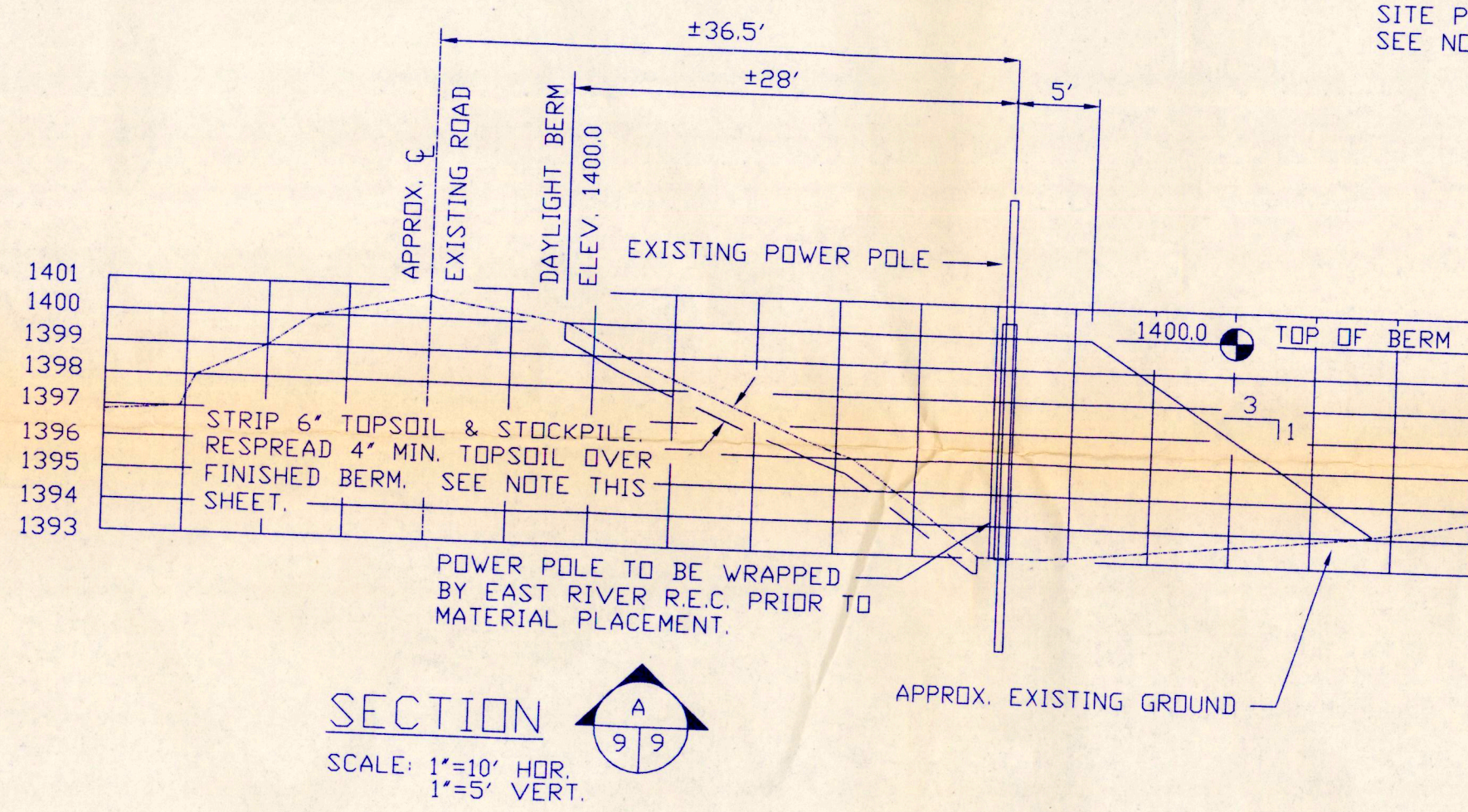


EXISTING ROAD PLAN VIEW  
SCALE: 1"=200'

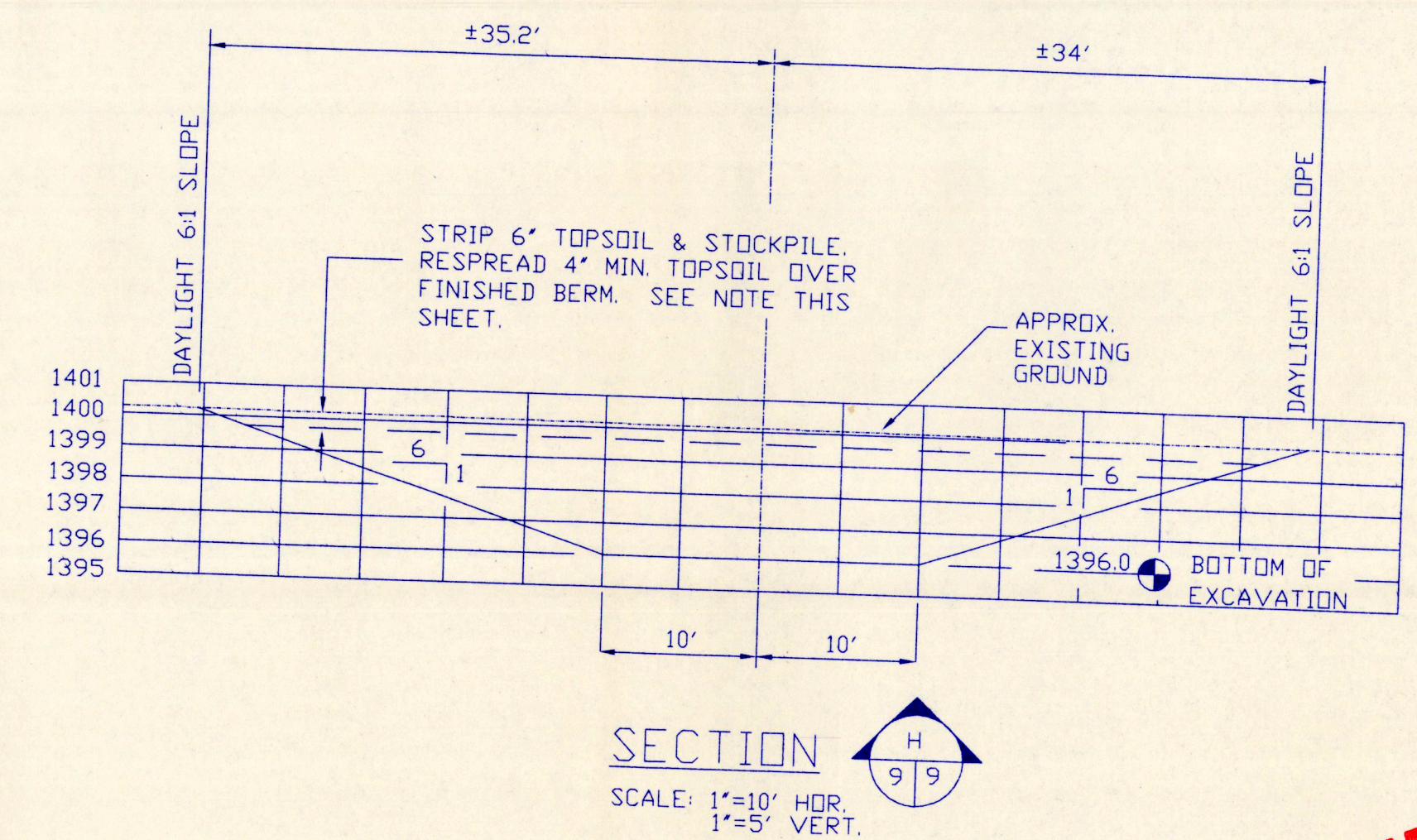
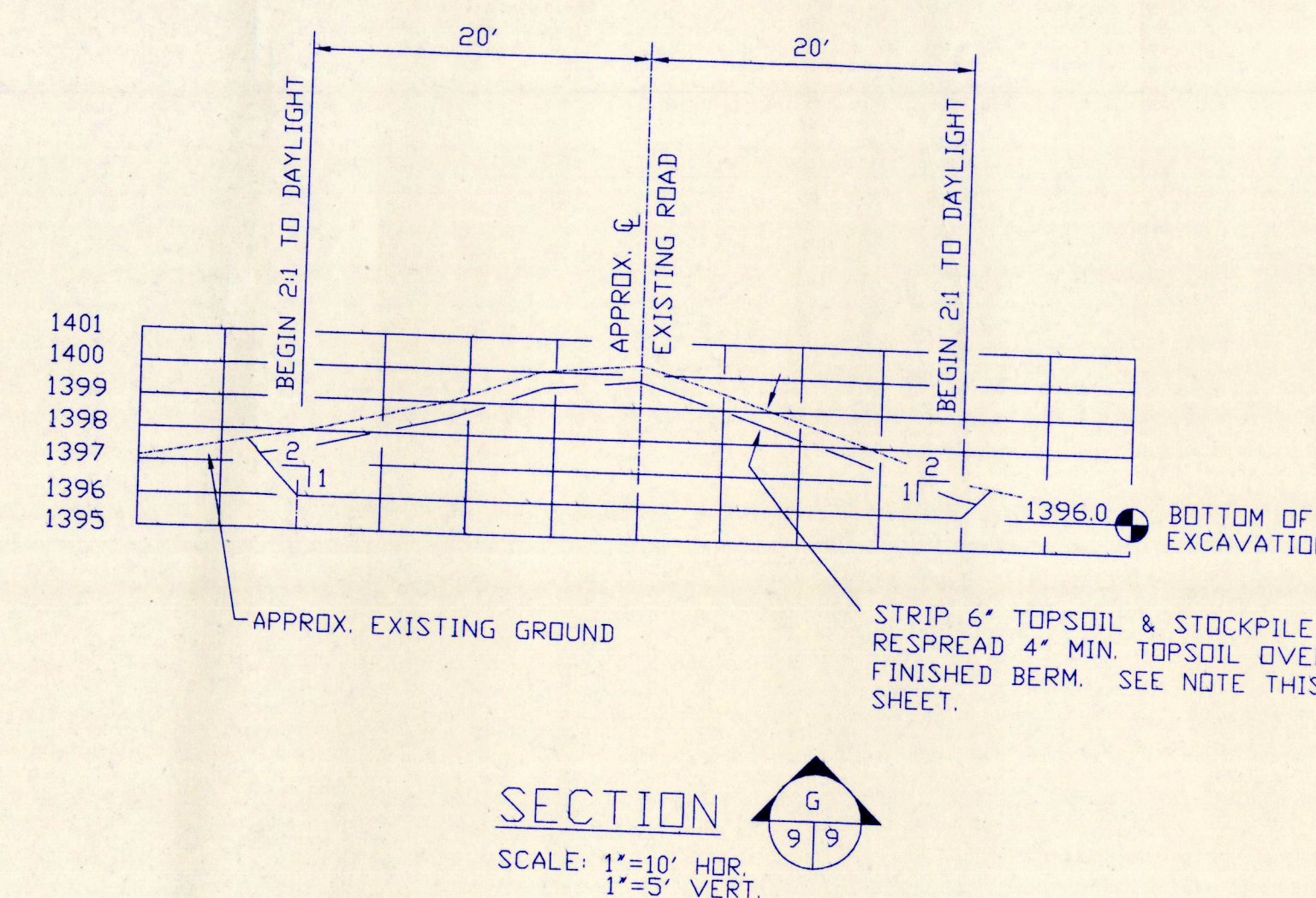
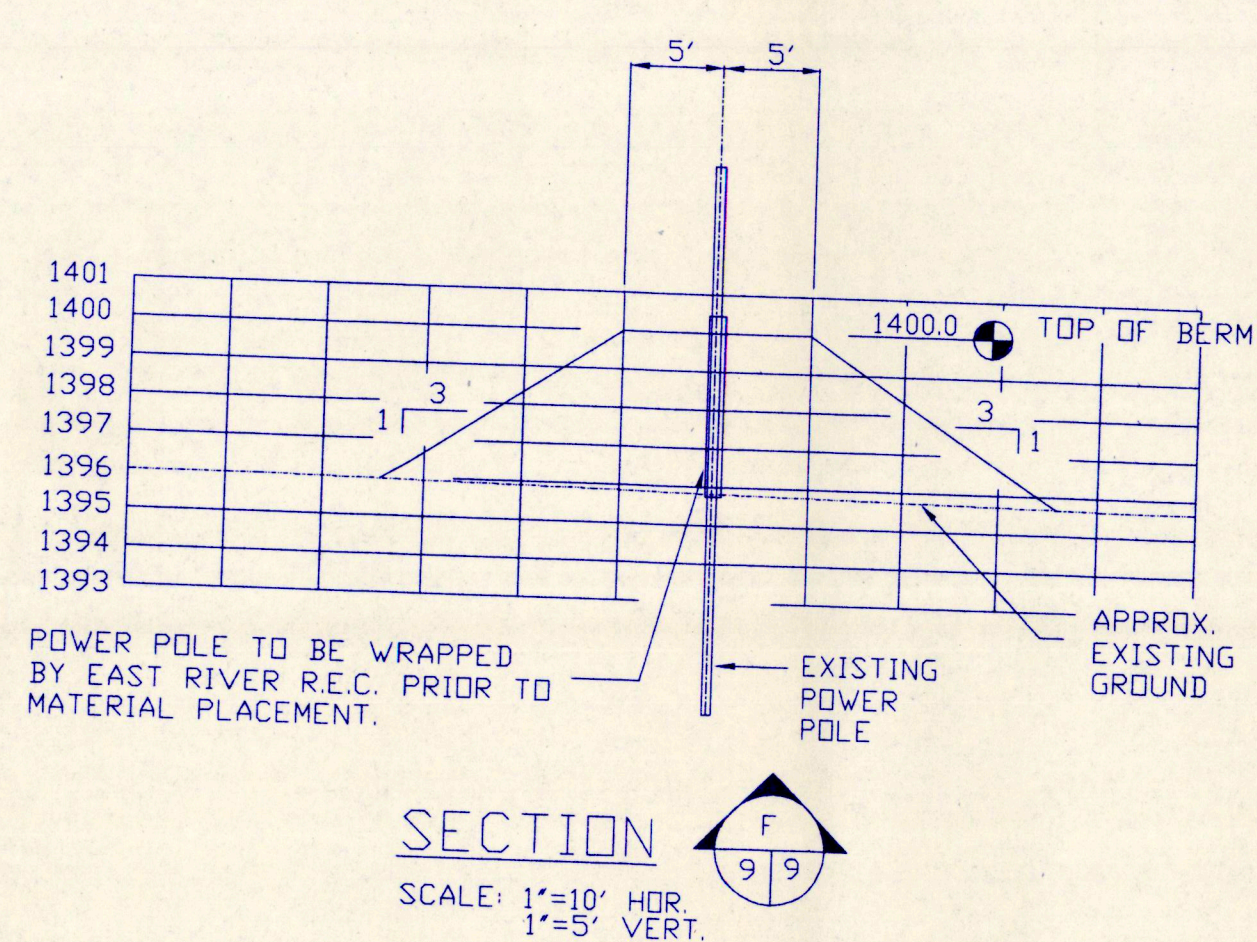
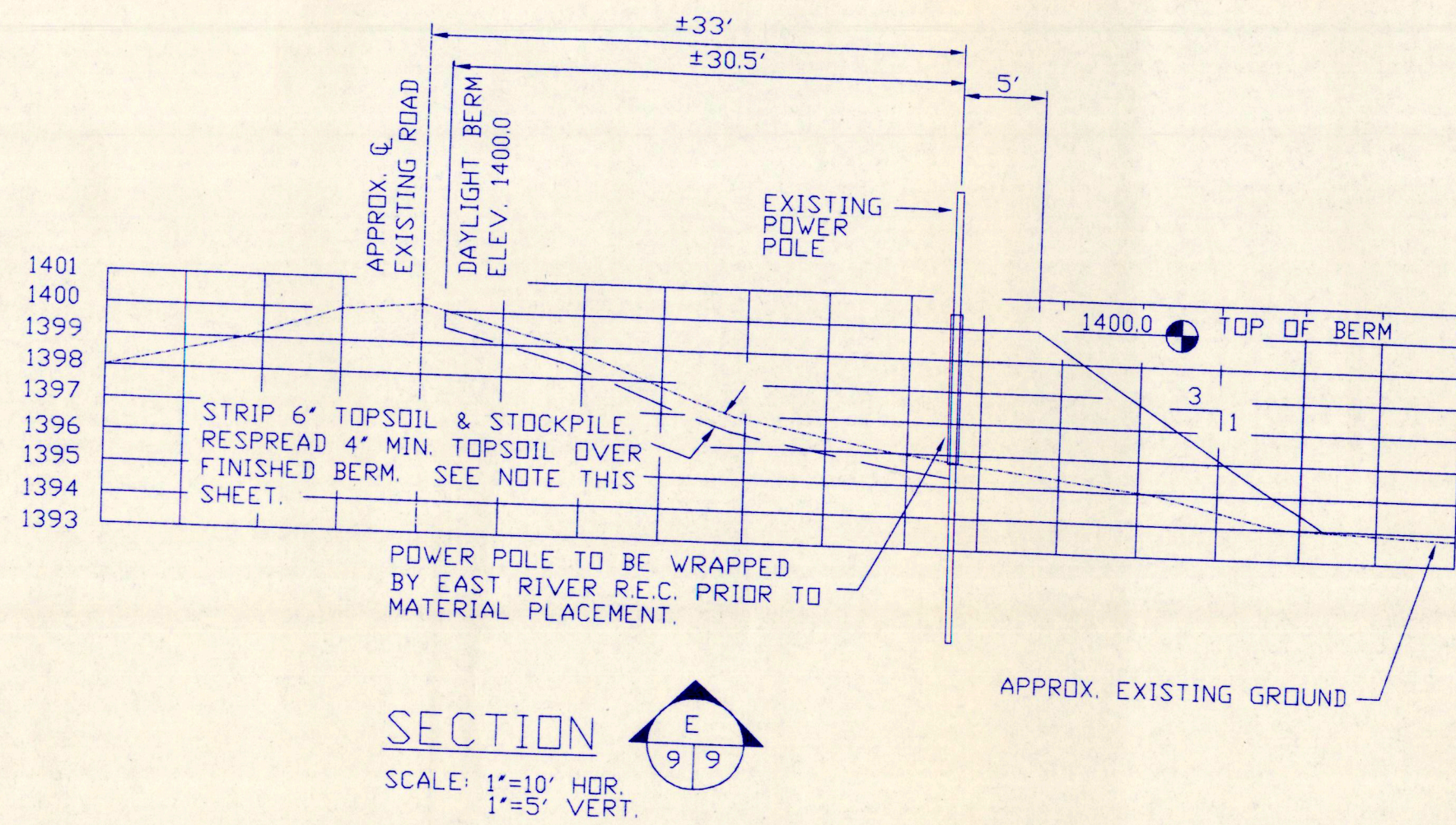
NOTE:  
CONTACT DARYL THORSON, MGR. OF ENG. AT EAST RIVER ELECTRIC POWER COOPERATIVE IN MADISON, SD (605) 256-4536 PRIOR TO ANY BERM CONSTRUCTION SO THEIR PERSONNEL CAN WRAP THE BOTTOMS OF THE POLES BEFORE ANY MATERIAL IS PLACED AROUND THEM.

THE MINIMUM BERM SECTION TO BE CONSTRUCTED AROUND THE POLE IS SHOWN. MATERIAL FOR THE BERMS SHALL BE OBTAINED FROM THE ROAD EXCAVATION. IF EXCESS MATERIAL FROM THE REQUIRED EXCAVATION IS AVAILABLE, SUCH MATERIAL SHALL BE USED TO INCREASE THE BERM WIDTH OR FLATTEN BERM SLOPES. THE COST OF BERM CONSTRUCTION SHALL BE CONSIDERED INCIDENTAL TO 'EXCAVATION'. THE EXCAVATION QUANTITY FOR PAYMENT WILL BE PAID FOR AS PLAN QUANTITY.

STRIP 6" TOPSOIL FROM ROAD SLOPES IN THE EXCAVATION AND BERM CONSTRUCTION AREAS, & STOCKPILE. RESPREAD TOPSOIL ON FINISHED BERM. COST OF SUCH TOPSOIL WORK SHALL BE CONSIDERED INCIDENTAL TO 'EXCAVATION'.



POLE ELEVATIONS NOT TO SCALE

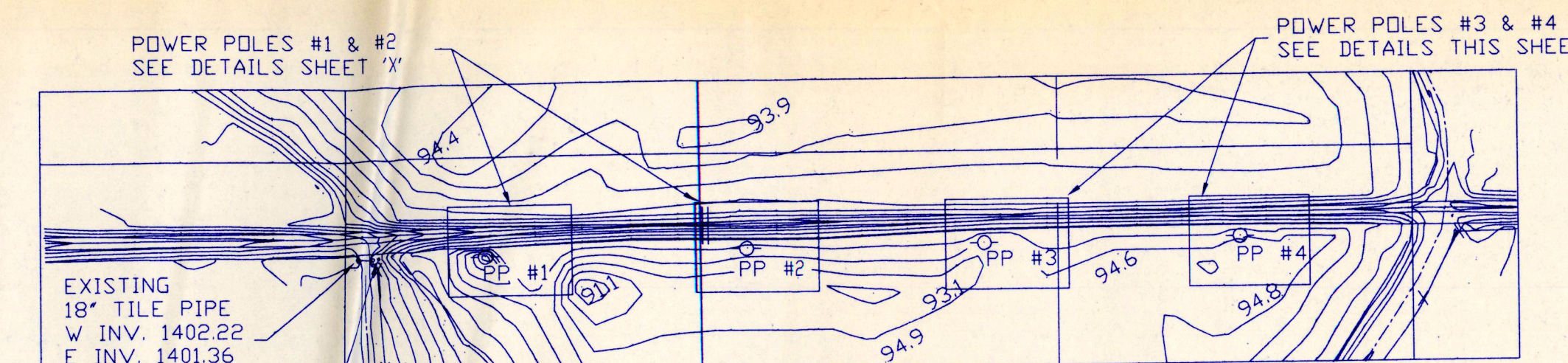
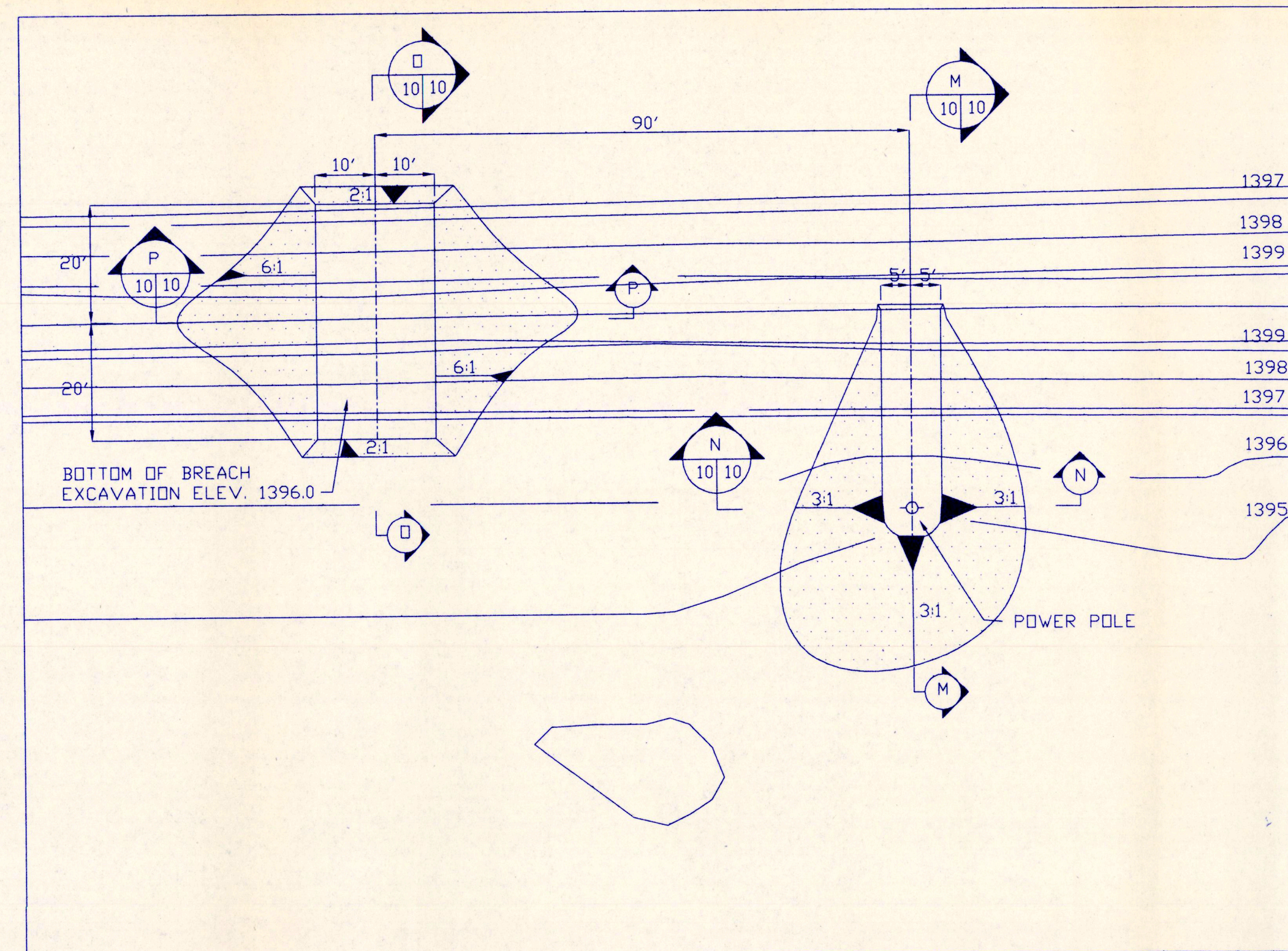
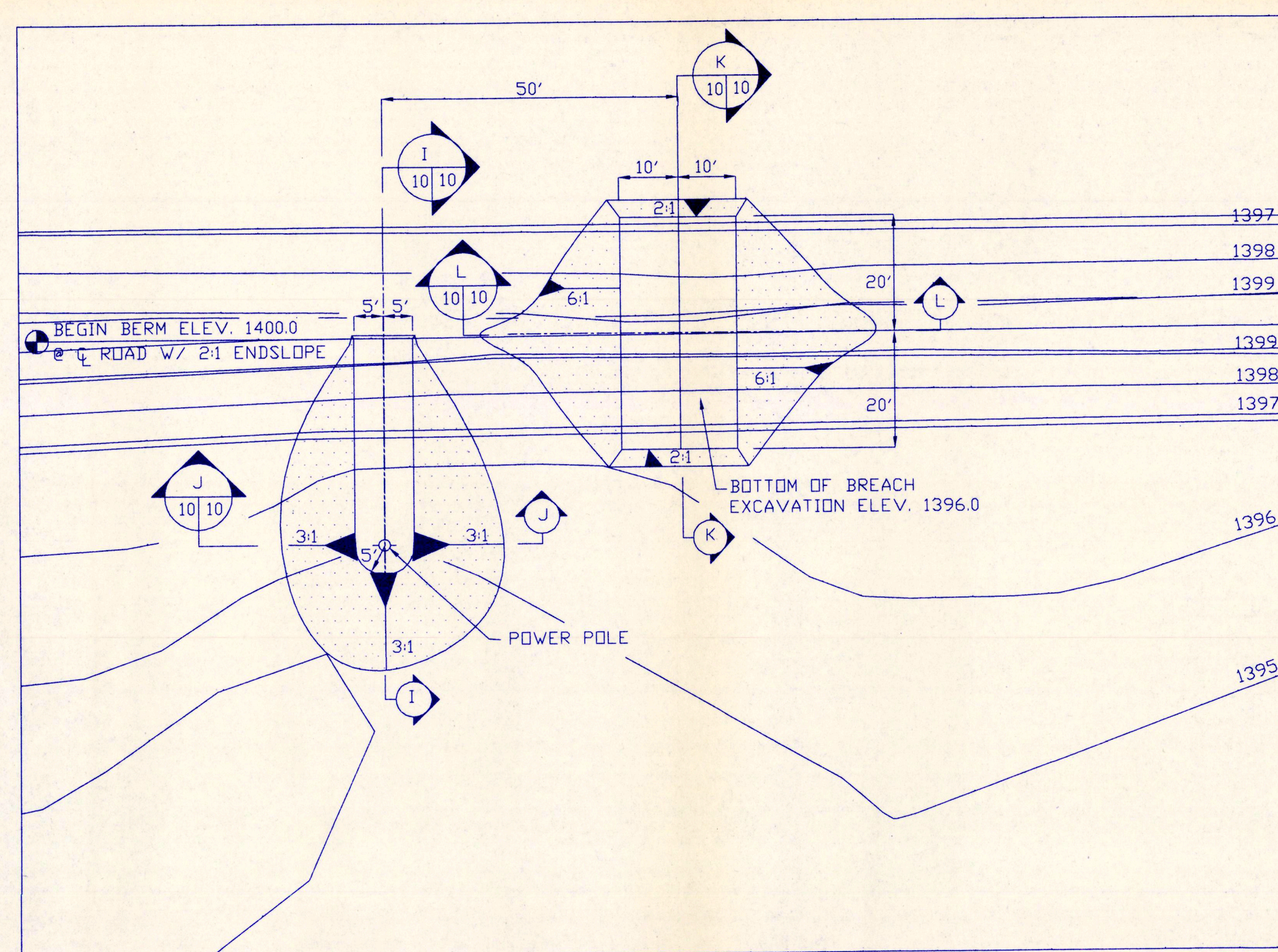


DUCKS UNLIMITED INC.  
GREAT PLAINS REGIONAL OFFICE  
DATE: 7-02-1997  
SHEET NO. 9 OF 10

PROJECT NO. SD-0220-001  
ROTH WPA  
POWER POLE BERMS & ROAD EXCAVATION  
APPROVED BY: [Signature]  
CHECKED BY: [Signature]

DESIGNED BY: D.J.L.  
DRAWN BY: D.J.L.  
SURVEYED BY: G.L.J.





EXISTING ROAD PLAN VIEW

SCALE: 1"=200'

NOTE: CONTACT DARYL THORSON, MGR. OF ENG. AT EAST RIVER ELECTRIC POWER COOPERATIVE IN MADISON, SD. (605) 256-4536 PRIOR TO ANY BERM CONSTRUCTION SO THEIR PERSONNEL CAN WRAP THE BOTTOMS OF THE POLES BEFORE ANY MATERIAL IS PLACED AROUND THEM.

THE MINIMUM BERM SECTION TO BE CONSTRUCTED AROUND THE POLE IS SHOWN. MATERIAL FOR THE BERMS SHALL BE OBTAINED FROM THE ROAD EXCAVATION. IF EXCESS MATERIAL FROM THE REQUIRED EXCAVATION IS AVAILABLE, SUCH MATERIAL SHALL BE USED TO INCREASE THE BERM WIDTH OR FLATTEN BERM SLOPES. THE COST OF BERM CONSTRUCTION SHALL BE CONSIDERED INCIDENTAL TO "EXCAVATION". THE EXCAVATION QUANTITY FOR PAYMENT WILL BE PAID FOR AS PLAN QUANTITY.

STRIP 6" TOPSOIL FROM ROAD SLOPES IN THE EXCAVATION AND BERM CONSTRUCTION AREAS, & STOCKPILE. RESPREAD TOPSOIL ON FINISHED BERM. COST OF SUCH TOPSOIL WORK SHALL BE CONSIDERED INCIDENTAL TO "EXCAVATION".

POWER POLE #3 SITE PLAN

SCALE: 1"=20'

SITE PREPARATION  
EXCAVATION  
EMBANKMENT\*

\*EMBANKMENT QUANTITIES INCLUDE 15% SHRINKAGE FACTOR  
SITE PREPARATION AND EMBANKMENT ARE INCIDENTAL TO "EXCAVATION".  
SEE NOTE, THIS SHEET.

ESTIMATED QUANTITIES

POWER POLE #3

INCIDENTAL

114 C.Y.-P

150 C.Y.(INCIDENTAL)

POWER POLE #4

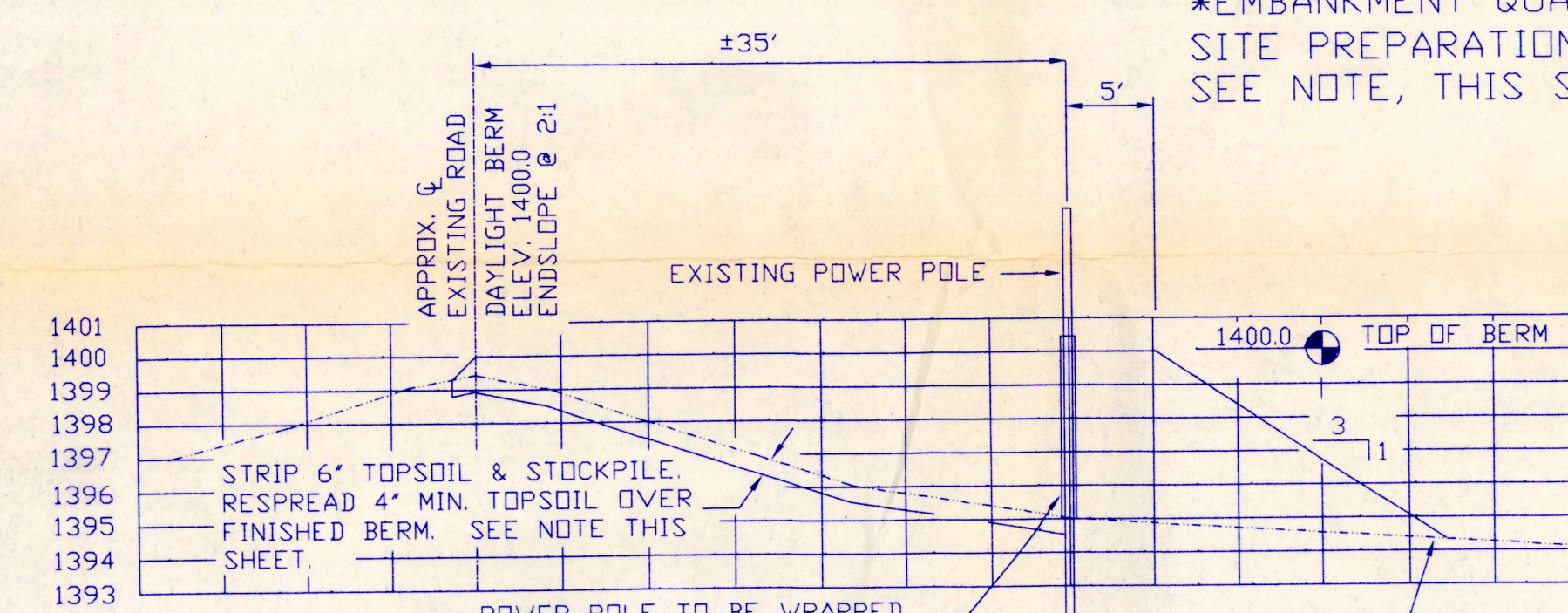
INCIDENTAL

102 C.Y.-P

140 C.Y.(INCIDENTAL)

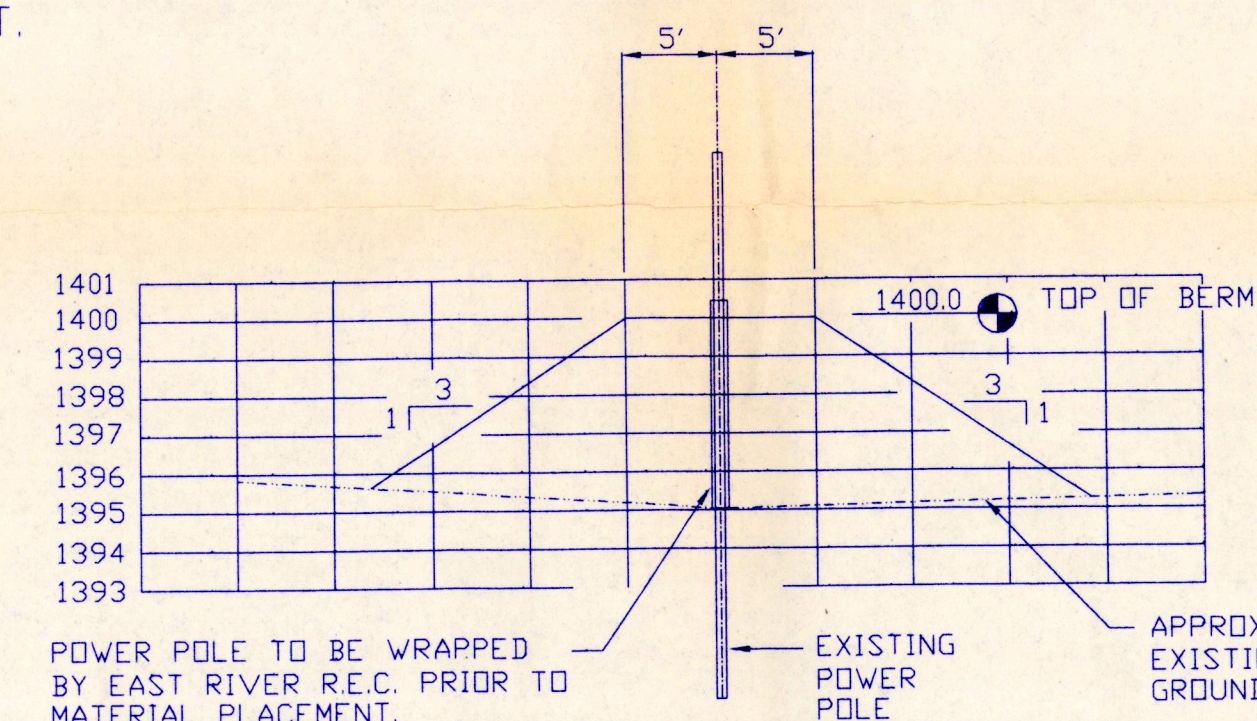
POWER POLE #4 SITE PLAN

SCALE: 1"=20'



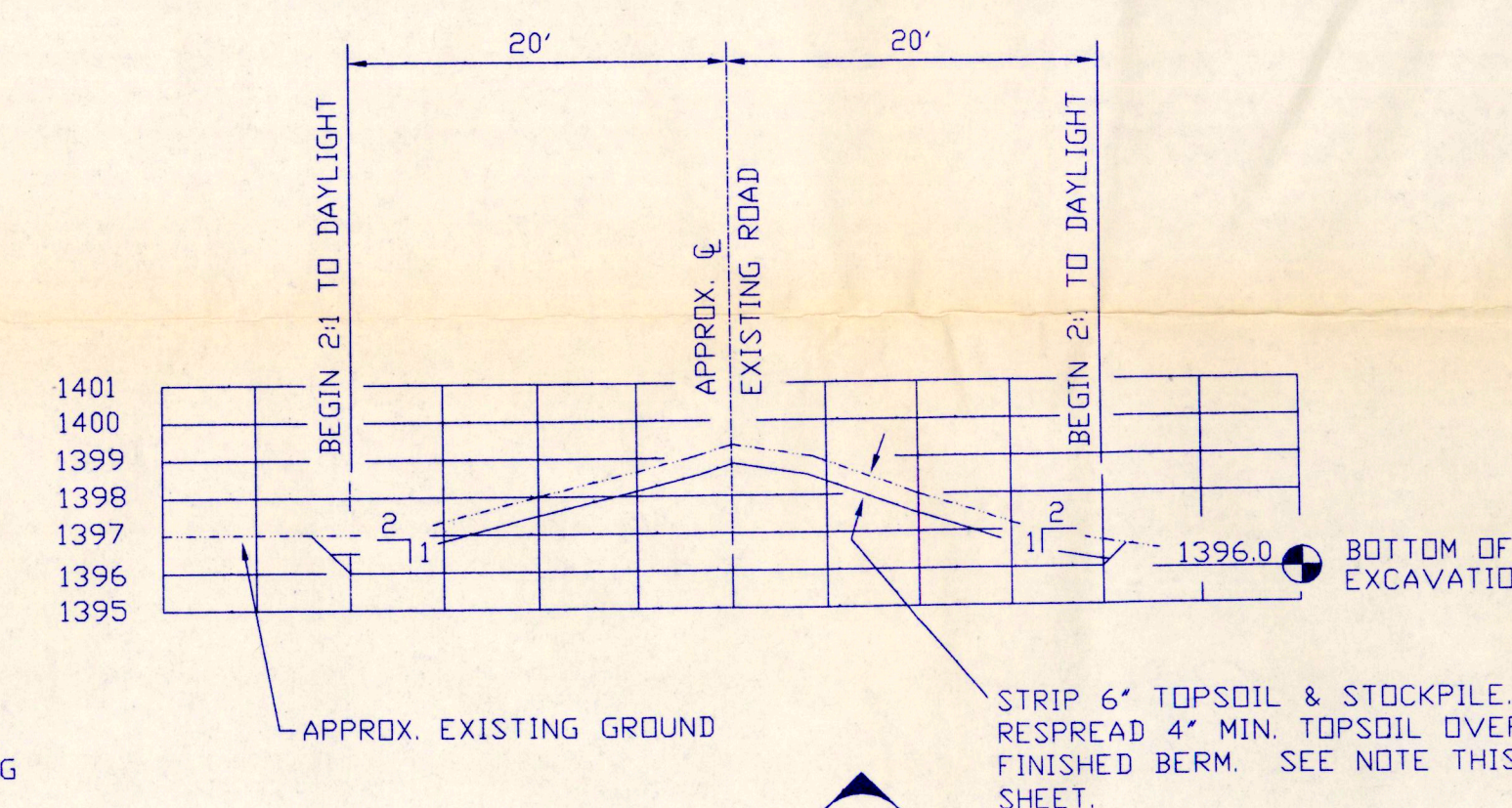
SECTION I

SCALE: 1"=10' HOR, 1"=5' VERT.



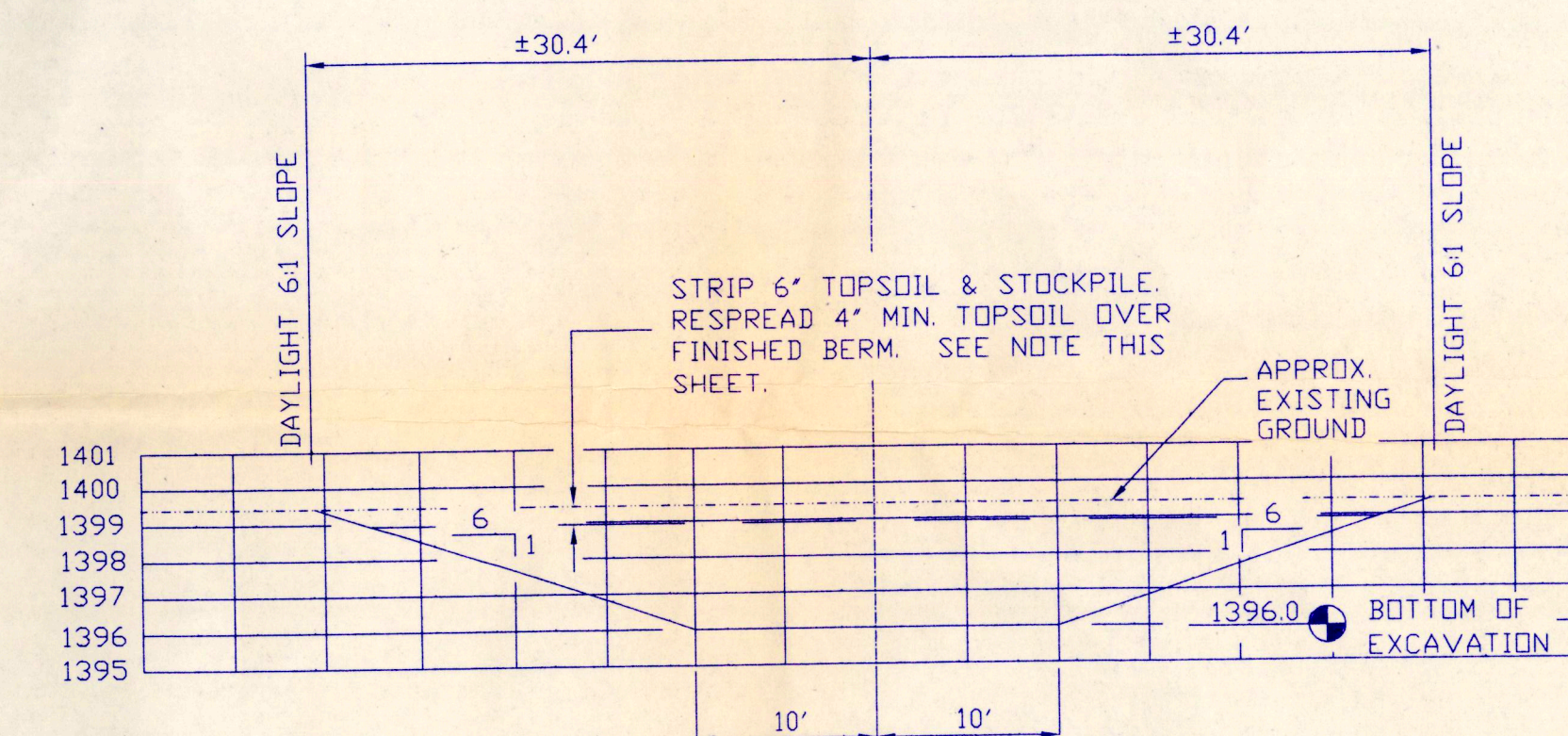
SECTION J

SCALE: 1"=10' HOR, 1"=5' VERT.



SECTION K

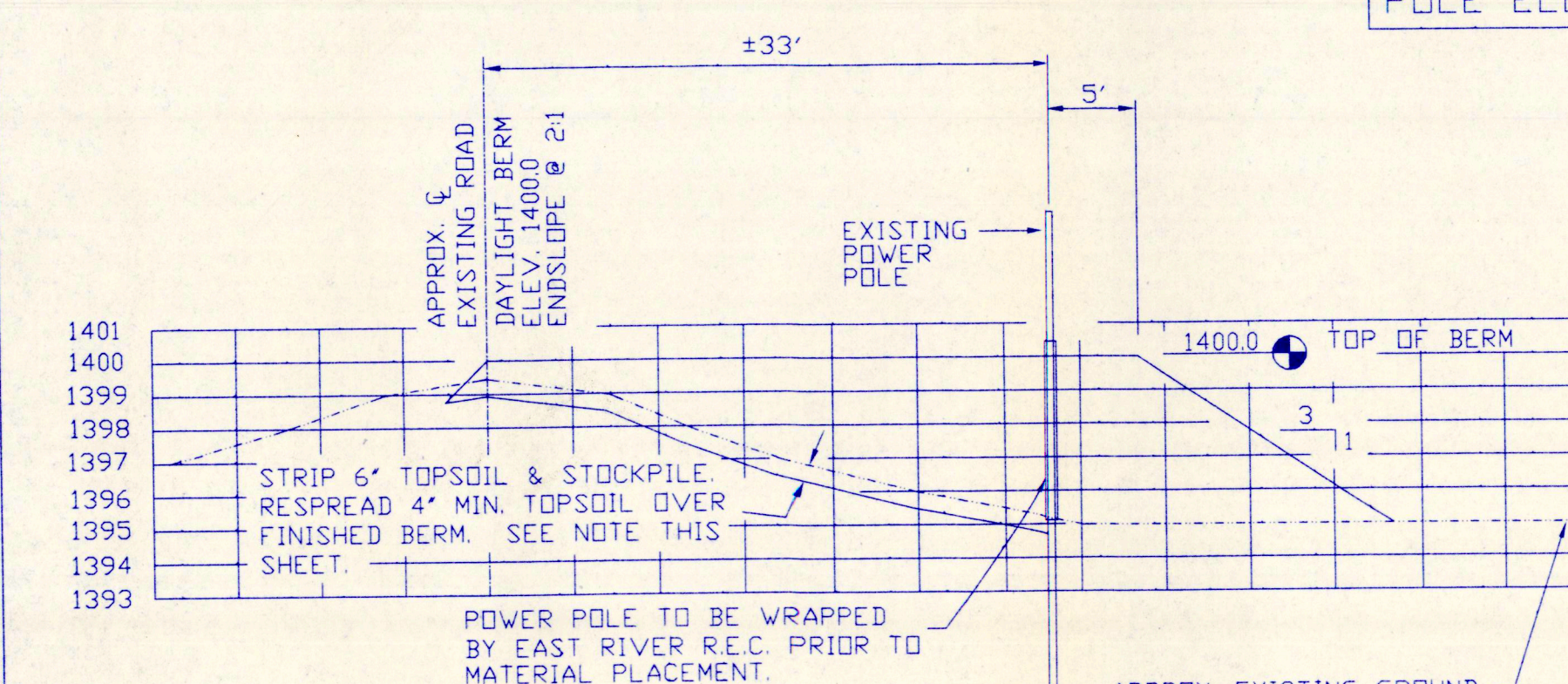
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SECTION L

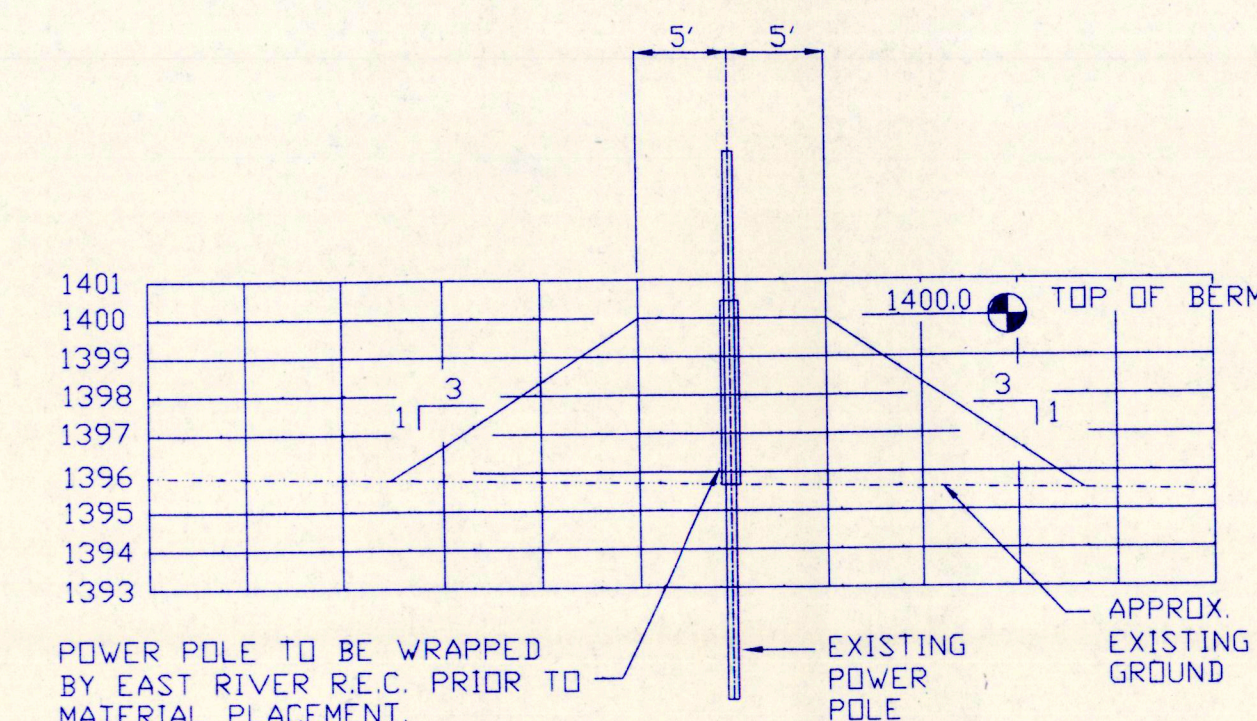
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POLE ELEVATIONS NOT TO SCALE



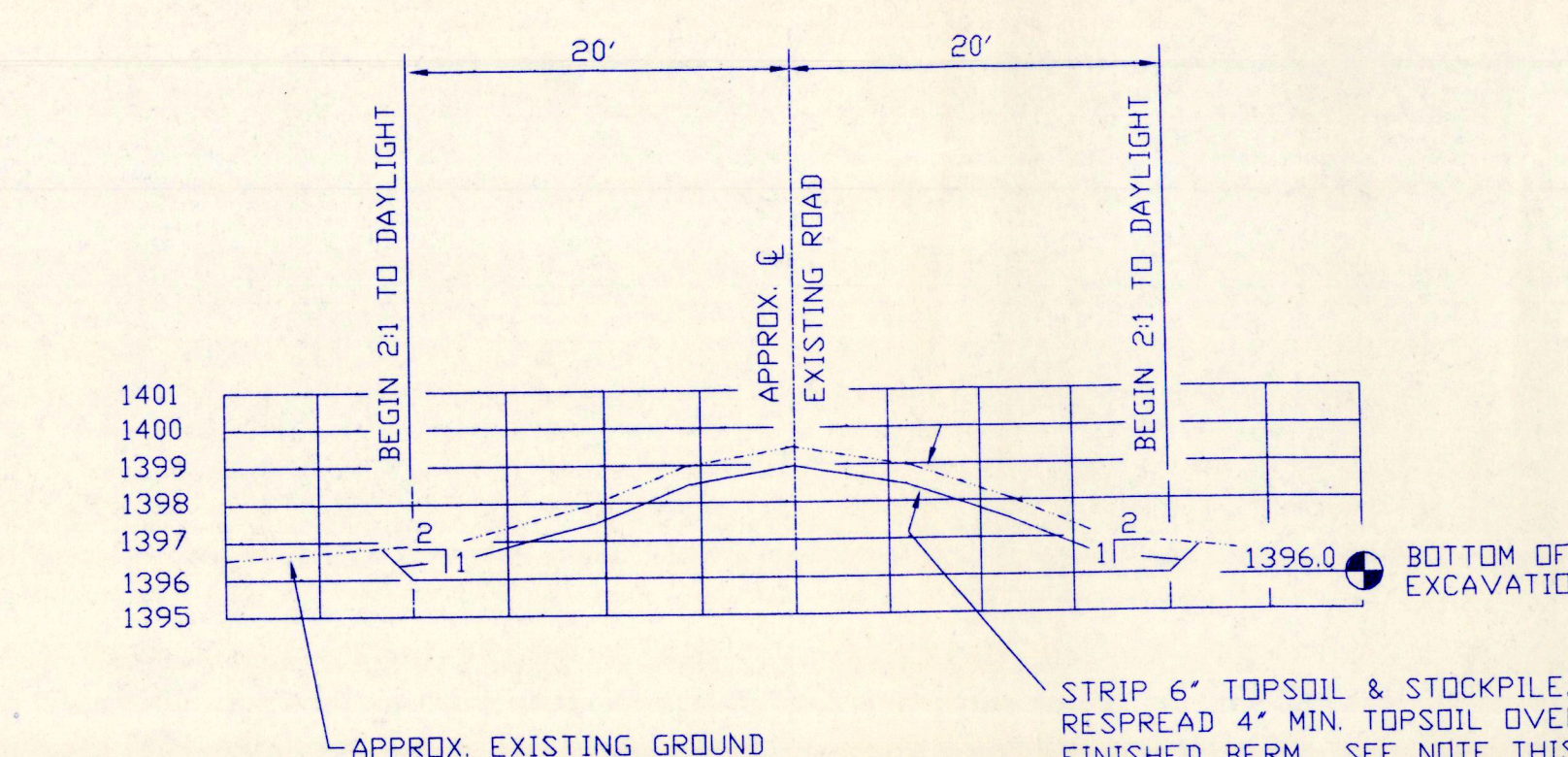
SECTION M

SCALE: 1"=10' HOR, 1"=5' VERT.



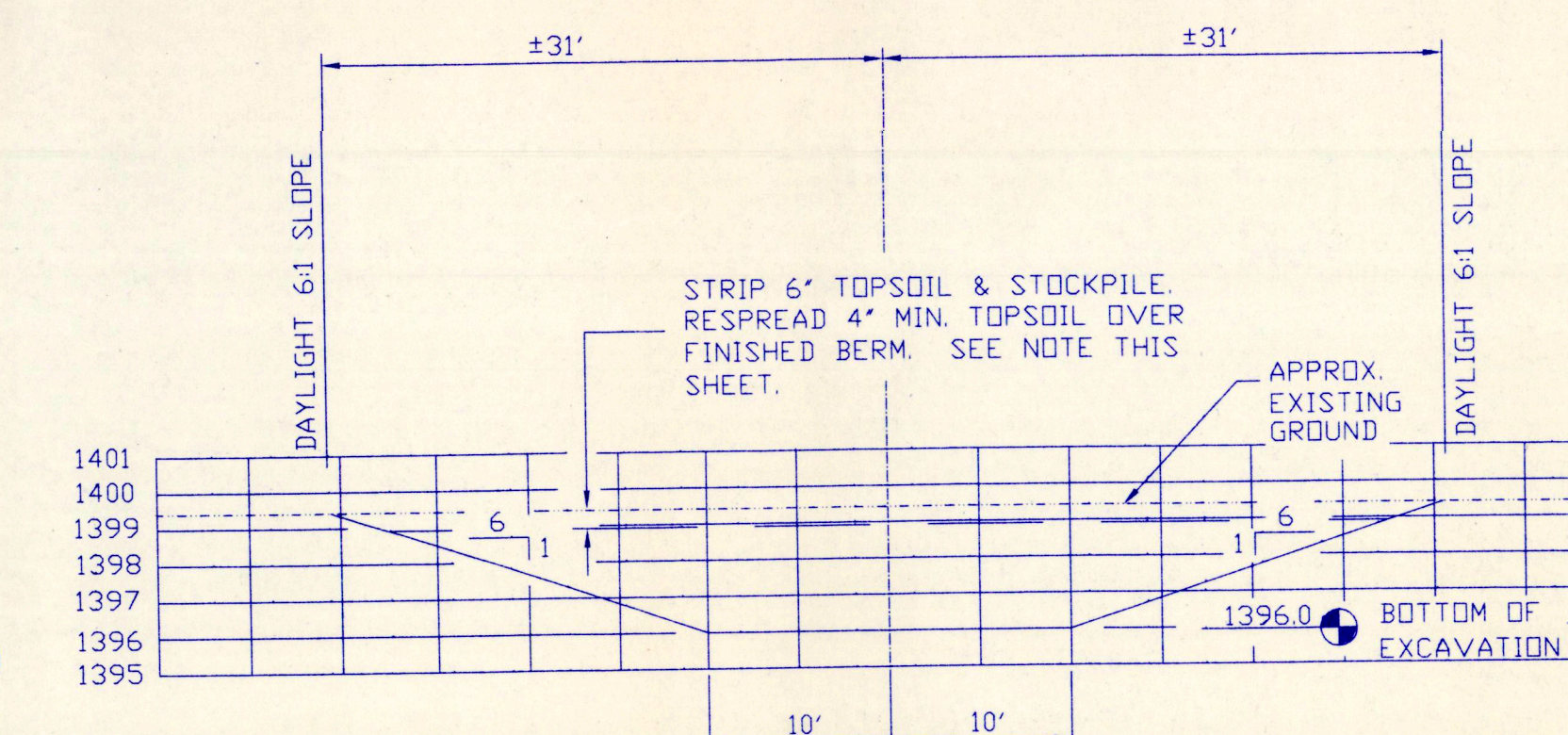
SECTION N

SCALE: 1"=10' HOR, 1"=5' VERT.



SECTION O

SCALE: 1"=10' HOR, 1"=5' VERT.



SECTION P

SCALE: 1"=10' HOR, 1"=5' VERT.

|                              |                                   |                    |
|------------------------------|-----------------------------------|--------------------|
|                              | PROJECT NO. SD-0220-001           | ROTH WPA           |
|                              | POWER POLE BERM & ROAD EXCAVATION |                    |
| GREAT PLAINS REGIONAL OFFICE | DATE: 7-02-1997                   | SHEET NO. 10 OF 10 |
| APPROVED BY:                 |                                   | CHECKED BY:        |