



April 11, 1991

Federal Express #9253425506

Ms. Trudy Bell
Florida Department of
Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2449

RECEIVED
MET. RES. MGMT.
APR 12 1991

Re: Hardee Power Station PA 89-25
Hardee/Pebbledale Transmission Line
Post Certification Submittal

2-rolls of plans

Dear Ms. Bell:

Pursuant to the Florida Department of Environmental Regulation letter received on February 22, 1991, and subsequent meeting with you on March 7, 1991, Tampa Electric Company (TEC) is hereby submitting the additional information requested by the Bureau of Wetlands Resource Management concerning the above referenced project. As a result of several meetings with the current property owners, minor realignments of the transmission line ROW have occurred, and have been addressed in this submittal.

The following and enclosed information is provided in response to the items requested by the Department.

1. The Bureau of Wetlands Resource Management (Bureau) was unable to determine compliance with conditions XXXII(A) 1, 2, 4, and 5, due to the quality of aerials submitted.

Enclosed are several types of aerial photography which exceed the requirements of Condition of Certification XXIX, page 24. As discussed in the March 7, 1991 meeting, the conditions requires aerials of 1:400 scale showing the proposed ROW selected. TEC is submitting two sets of the original 1:200 scale aerials with the certified corridor denoted by a thick line (when feasible to locate the corridor on the drawing). Also submitted is a set of supplemental aerials showing the transmission line ROW and pole locations printed from the original aerial mylars for additional reference and clarity. The third set of aerials are from Polk County 1:400 scale drawings covering sheets 12 through 19 of the submittal, with the centerline of the transmission line shown as a thick black line. Finally, the figures initially submitted with the narrative also show the ROW selected, access roads, poles, pads, and jurisdictional

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areas delineated. Therefore, the requirements of this condition, and additional request of the Department, have been provided.

2. **Condition XXXII(A)1 - Avoid impacting wetlands within the certified corridor wherever practicable. When necessary and feasible, spans should be varied or maximized to accomplish this.**

This condition has been accomplished by using an average span of 500 feet or greater, where necessary. As a result, for approximately 16 miles of transmission line project, only 0.01 acres of filling and 0.26 acres of mesic tree clearing is proposed. All other wetland areas are being avoided by spanning.

3. **Condition XXXII(A)2 - Utilize existing adjacent public road for access wherever practicable.**

This condition has been accomplished by locating the majority of the transmission line along existing public roads or previously established mine access roads.

4. **Condition XXXII(A)4 - Prior to clearing activities within any ROW, an endangered species survey must be performed. The results shall be submitted to FDER, FG&F, and USF&W. Also, if in wetlands, the appropriate water management district should be notified. If any species are affected, steps shall be taken to avoid or minimize impacts.**

As included in the original submittal, an endangered species survey was performed and submitted, as required. Attached are copies of proof of submittal or approval, as requested.

5. **Condition XXXII(A)5 - After ROWs are selected, an archeological survey shall be conducted and submitted to the Division of Historical Resources (DHR).**

As included in the original submittal, an archeological survey was performed and submitted as required. Attached are copies of proof of submittal or approval, as requested.

6. **FDER jurisdictional boundaries must be shown, including the IMC mitigation site at Whiskey Store Creek.**

Internal ditches in mined lands which may be subject to FDER jurisdiction, have been noted for informational purposes. FDER jurisdictional ditches and wetland limits are shown on the figures included with the submittal package. The transmission line will completely span Whiskey Store Creek, as shown on Figure 29 of this narrative.

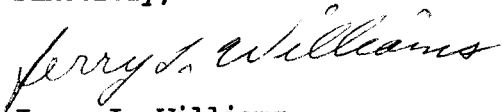
Ms. Trudy Bell
April 11, 1991
Page 3

As noted in the original submittal, the area south of Bradley Junction (Station 525+00 to Station 545+00), is permitted to be mined under FDER permit No. 531498599. As a result of planned mining activities and recent discussions with the current land owner, the transmission line has been realigned by moving to within 20 feet of the eastern edge of the transmission line ROW at the aforementioned stations, to accommodate the permitted mining activities. Clearing activities along this segment will be limited to the area shown on figures 27 and 28.

As noted in the meeting on March 7, 1991, this project is subject to an extremely tight schedule, and TEC would greatly appreciate your assistance in reviewing this information so we may begin construction. Also, please note, an Army Corps of Engineers permit and SWFWMD approval for the majority of this project, has been received to date.

Please call if you have any questions concerning this project and submitted information.

Sincerely,



Jerry L. Williams
Director
Environmental

sn/EE490

Enclosure

cc/enc: Hamilton S. Oven, FDER-Tallahassee



January 16, 1991

Mr. Douglas B. Bailey
Assistant Director
Office of Environmental Services
Florida Game and Freshwater
Fish Commission
Farris Bryant Building
620 South Meridian Street
Tallahassee, FL 32399-1600

Mr. Robert Stetler
Environmental Administrator
Water Management
Southwest District
Florida Department of
Environmental Regulation
4520 Oak Fair Boulevard
Tampa, FL 33610-7347

Mr. David L. Ferrell
Field Supervisor
United States Fish and
Wildlife Services
P.O. Box 2676
Vero Beach, FL 32961-2676

Re: Hardee Power Station
Conditions of Certification (PA 89-25)
Hardee/Pebbledale Transmission Line ROW
Ecological Survey

Gentlemen:

Please find enclosed one copy of the ecological survey of Tampa Electric Company's Hardee to Pebbledale transmission line ROW. This survey was conducted in accordance with the requirements stated in the Conditions of Certification (Condition XXXII A.4.) for the Hardee Power Station (PA 89-25).

Should you have any questions or comments, please call.

Sincerely,

Patrick A. Ho
Manager
Environmental Planning

sn/HH410.BCC

Enclosure

cc/enc: Mr. H.S. Oven, Jr., P.E.
FDER - Tallahassee
Mr. W.A. Hartmann, P.E.
SWFWMD

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PR 36.8

FLORIDA GAME AND FRESH WATER FISH COMMISSION

WILLIAM G. BOSTICK, JR.
Winter Haven

DON WRIGHT
Orlando

THOMAS L. HIRES, SR.
Lake Wales

MRS. GILBERT W. HUMPHREY
Miccosukee

JOE MARLIN HILLIARD
Clewiston

ROBERT M. BRANTLY, Executive Director
ALLAN L. EGBERT, Ph.D., Assistant Executive Director



FARRIS BRYANT BUILDING
620 South Meridian Street
Tallahassee, Florida 32399-1600
(904) 488-1960

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March 11, 1991

MAR 15 1991

ENVIRONMENTAL
STANDARD

Mr. Patrick A. Ho, Manager
Environmental Planning
Tampa Electric Company
P.O. Box 111
Tampa, FL 33601-0111

RE: Hardee Power Station, Conditions
of Certification (PA 89-25),
Hardee/Pebbledale Transmission
Line ROW Ecological Survey

Dear Mr. Ho:

The Office of Environmental Services of the Florida Game and Fresh Water Fish Commission has reviewed the referenced Ecological Survey and offers no comments.

If I may provide any additional assistance in this matter, please let me know.

Sincerely,

Douglas B. Bailey

Douglas B. Bailey, Assistant Director
Office of Environmental Services

DBB/tgw
ENV 2-11-2/3

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MAR 15 1991
ENVIRONMENTAL
STANDARD



FR 36.8

FLORIDA DEPARTMENT OF STATE

Jim Smith
Secretary of State

DIVISION OF HISTORICAL RESOURCES

R.A. Gray Building
500 South Bronough

Tallahassee, Florida 32399-0250

Director's Office

Telecopier Number (FAX)

(904) 488-1480

(904) 488-3353

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JAN 22 1991
STAMP

January 11, 1991

Mr. Patrick A. Ho
Tampa Electric Company
P.O. box 111
Tampa, FL 33601-0111

In Reply Refer To:
Laura A. Kammerer
Historic Sites
Specialist
(904) 487-2333
Project File No. 903766

RE: Cultural Resource Assessment Review Request
*An Archaeological Survey of the Tampa Electric Company
Hardee Power Station Right-of-Way in Polk and Hardee
Counties, Florida. Michael S. Garner and J. Raymond
Williams, October 1990.*

Dear Mr. Ho:

In accordance with the procedures contained in 36 C.F.R., Part 800 ("Protection of Historic Properties"), we have reviewed the above referenced survey report, and find it to be sufficient. We note that one previously unrecorded, prehistoric archaeological site, 8PO1686, a lithic scatter, was encountered and evaluated. This office has reviewed the survey data submitted for this site and concurs with the archaeologist's determination that the site is not eligible for listing in the National Register of Historic Places.

Therefore, on the basis of the negative findings, it is the opinion of this agency that the proposed Hardee Power Station right-of-way project is unlikely to affect any sites listed, or eligible for listing, in the National Register, or otherwise of national, state, or local significance. The project may proceed without further involvement with this agency.

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Mr. Patrick A. Ho
January 11, 1991
Page 2

If you have any questions concerning our comments, please do not hesitate to contact us. Your interest in protecting Florida's archaeological and historic resources is appreciated.

Sincerely,



George W. Percy, Director
Division of Historical Resources
and

State Historic Preservation Officer

GWP/lak

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electrical transmission. These include wind, temperature, fire, and proximity of vegetation. Also considered are wire sway, vibration, sag and voltage. The project design meets the National Electric Safety Code.

No wetland mitigation is proposed for this project as currently designed. Encroachments to jurisdictional and regulated wetlands have been minimized to 0.01 acres, and consists of a single 0.01 acre ditch filling with culvert. Two other wetland alterations will occur. Specifically, these are tree clearing areas which total 0.26 acres of mesic tree loss. Tree clearing will involve the cutting of the tree at ground level without disturbance of the root system. These wetland areas are located immediately southwest of Bradley Junction at station 530+00 and station 540+00.

This minimal wetland impact has been accomplished as a result of the concern and priority given to an environmentally sensitive design, particularly in an effort to avoid wetland areas. The encroachments that are proposed will not adversely impact existing wetland quality and function. In addition, TEC will complete the removal of nuisance exotic vegetation throughout the length of the 16 mile ROW, particularly in existing wetland areas. This will provide an additional compensation for the few wetland encroachments and alterations caused by the project. TEC believes that because this environmentally sensitive design has resulted in minimal wetland encroachments (0.01 acres) and nominal environmental alterations (0.26 acres), there should be no wetland mitigation required.

IV. ENVIRONMENTAL ASSESSMENT

It is important to note that except for one encroachment area, all wetland fill activities are in non-jurisdictional or non-regulated wetlands. Two wetland alteration areas are located in FDER jurisdictional wetlands. It is TEC's understanding from FDER that the two alteration areas have been previously delineated and approved for dredge and fill activities associated with normal mining operations (FDER Permit No. 531498599). This occurs at the wetlands located at

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Station 530+00 and 540+00. Each wetland fill/alteration area is referenced by station numbers located on the plan/profile exhibits. Table 2 presents a summation of wetland encroachments for the entire project. The following are wetland characterizations at each wetland encroachment area.

Station 10+50 and 15+50

The wetland proposed for encroachment at these two sites is a ditch excavated in mined soils vegetated with cattails (*Typha* sp.), primrose willow (*Ludwigia* sp.) and pennywort (*Hydrocotyle umbellata*). No regulatory agency jurisdiction will be asserted by COE and SWFWMD on this active mine area. Both encroachments are necessary for establishment of an adequate pad area around the power poles. Ditch flow will be maintained by culvert placement under both pads in the existing ditch location (fig 1).

Station 80+70 and 90+70

The wetland proposed for encroachment is a ditch excavated in Domona fine sand and mined soils. Vegetation within the ditch includes cattail, primrose willow and pennywort. No regulatory agency jurisdiction will be asserted by the environmental agencies on this active mine area. In this area the ditch is proposed to be relocated approximately 10 feet westward for station 80+70 and 30 feet westward for station 90+70 to provide an adequate pad area for power pole placement and maintenance (fig 5).

Station 164+50 and 169+20

The two wetland ditches proposed for encroachment are excavated in mined soils and dominated by Carolina willow (*Salix caroliniana*), smartweed (*Polygonum hydropiperoides*), elderberry (*Sambucus canadensis*), spatterdock (*Nuphar luteum*) and lesser grasses and sedges. No regulatory agency jurisdiction will be asserted by the environmental agencies on these historically mined areas. These two areas are proposed

for access road crossings which will be culverted to maintain ditch flows (fig 9).

Station 183+00 and 188+00

The wetland proposed for impact is a shrub dominated ditch overlying mined soils. Vegetation is predominantly Carolina willow and wax myrtle (*Myrica cerifera*). No regulatory agency jurisdiction will be asserted on this historically mined area. In both of the encroachment areas the ditch will be rerouted to the east allowing the establishment of an adequate pad area for power pole placement and maintenance (fig 10).

Station 308+50

The wetland area proposed for encroachment is a ditch system associated with both sides of a railroad grade. The area lies in historically mined soils. The vegetation is dominated by wax myrtle and primrose willow (*Ludwigia peruviana*). No regulatory agency jurisdiction will be asserted on this area (fig 16).

Station 490+00

No wetland encroachment is proposed at the South Prong Alafia River. A 900' power pole span will preclude any dredge and fill activity, and necessitate only upland tree removal and minor wetland shrub trimming. No access road is proposed through this wetland area (fig 25).

Station 526+00

No wetland encroachment or alteration is proposed at this shallow, shrub dominated marsh. The powerline access road will exit the corridor and use Highway 37 to the north. This marsh is part of a larger FDER wetland which extends westward beyond the corridor boundary. The area is characterized by primrose willow, infrequent Carolina willow and lesser herbaceous species. (fig 27).

Station 530+00

No encroachment is proposed for this shallow wet prairie characterized by smooth cordgrass, and a cluster of approximately 20-30 young red maple trees in the northeast wetland quadrant. The powerpole and pad, and the access road will be located outside of the FDER wetland. Tree clearing of .07 acres will occur within the wetland to remove the sparse cover of red maple saplings. No vehicle or construction equipment activities will occur in the wetland.

Station 540+00

No wetland encroachment is proposed for this marginal mesic hardwood wetland. This area has been previously altered by the placement of Highway 37 and a culvert which limits inundation. Canopy species include predominantly laurel oak (*Quercus laurifolia*), with infrequent red maple (*Acer rubrum*), sweet bay (*Magnolia virginiana*) and slash pine (*Pinus elliotii*). The understory is spike rush with extensive areas of leaf litter. The powerpole and pad, and the access road will be located outside of the FDER wetland. Tree clearing of .19 acres will occur within the wetland to remove the tree cover. No vehicle or construction equipment activities will occur in the wetland.

Station 524+45, 529+00, 534+00, 539+00 and 545+00

Five separate access roads will be placed from Highway 37 to the powerpole pads located at these station locations. At each point the access roads will cross an existing roadside ditch to

enter the project corridor. The ditch is characterized by St. Augustine grass, beggars tick (*Bidens* sp.), and infrequent sedges and rushes. To the south the ditch supports primrose willow and some larger herbaceous species, an indication of seasonal or periodic inundation. All five ditch crossings will be designed with a culvert to maintain flows along the roadway.

Station 570+00

The wetland proposed for encroachment is a large ditch which connects a historic natural tributary north of Bradley Junction to state waters. This area was excavated in Smyrna fine sand and is separate from historic mining activities. The area has become vegetated with primrose willow, elderberry and lesser herbaceous species. The ditch is FDER jurisdictional and unregulated by the COE and SWFWMD. It is TEC's understanding from FDER that this ditch will be abandoned as a result of a previously approved permit. The dredge and fill permit for this rerouting approved the eventual filling of this ditch and reestablishment of flows through the historic natural tributary (fig 29).

Station 765+00 to 805+00

This length of ROW is located within an active phosphate mining area which is currently being filled by the property owner. The area will be brought to a suitable elevation for establishment of the access road and ROW. This work is currently being conducted by the property owner and will be completed prior to construction of the transmission line. Although this area is presently inundated, no regulatory agency jurisdiction will be asserted by the environmental agencies on this active mine area.

For areas of naturally occurring conditions the groundwater tables have been estimated based on SCS Soil Survey data. Mined areas

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generally have similar groundwater table elevations as those provided by the SCS.

V. STORMWATER DESIGN

The 100 year flood plain has been provided on the flood maps included in exhibits 7-11. Impact to those areas of floodplain encroachment is negligible. Hydroperiods will remain unaffected in areas where the flood plain may be crossed. This will be accomplished by creating a hydraulic connection from the flood plain area to the severed area.

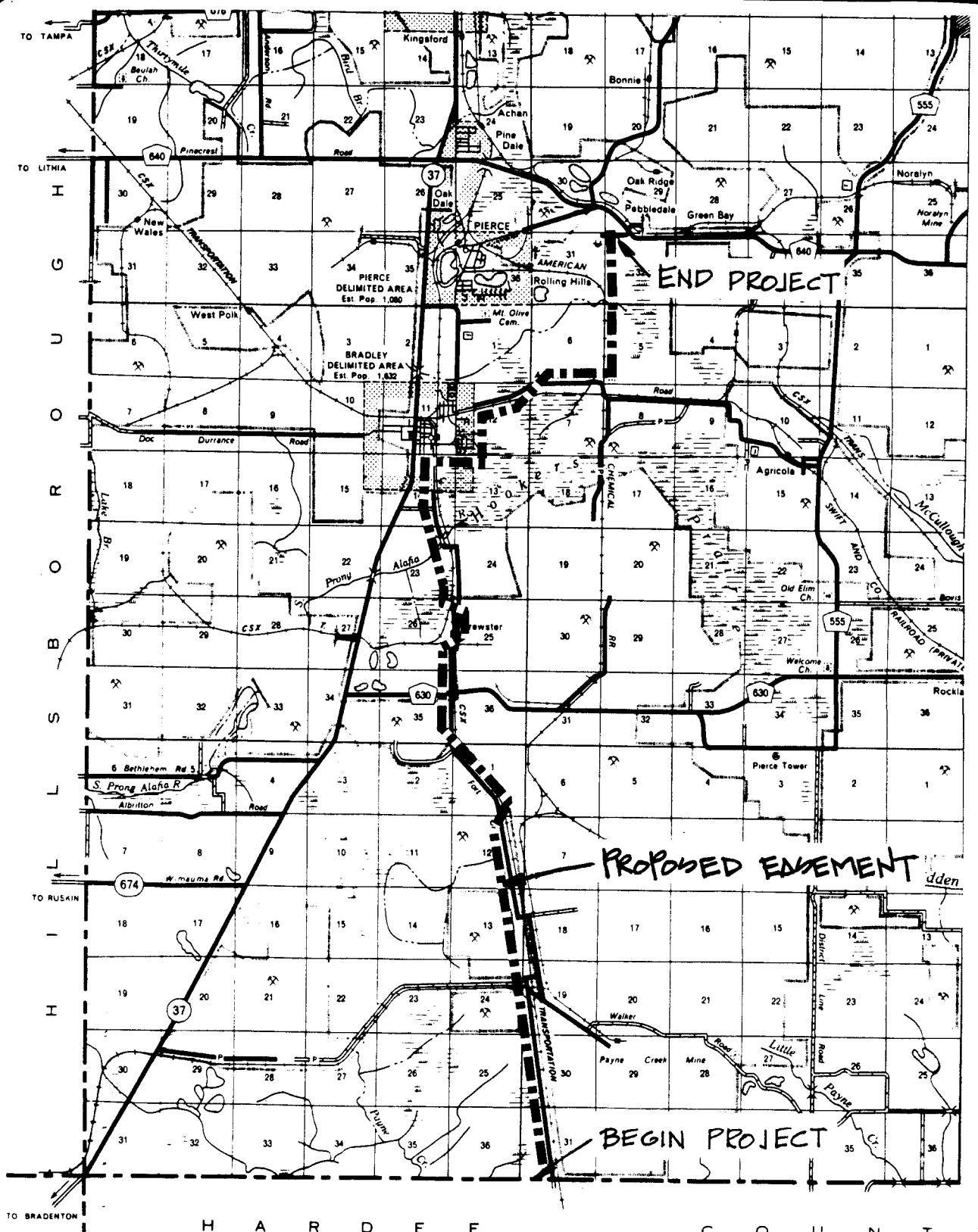
At Station 570+00, the existing ditch will be culverted to provide an access road to the construction sites. The culvert has been sized based on maintaining existing hydraulic characteristics of the ditch. Figures 42 and 43 indicate a proposed 58"x 91" elliptical concrete pipe culvert for the crossing. This pipe will provide an equivalent cross sectional area based on the existing conditions of the ditch (see Table 3).

VI. CONSTRUCTION PREPARATIONS

The construction process associated with power pole placement will occur between April 1991 and December, 1991. Where applicable, the construction process will occur within wetlands which are not inundated or at seasonally low levels, thereby greatly minimizing the potential for water quality degradation. Disturbance to natural vegetation will be kept to a minimum to reduce the potential for erosion. Control measures will be utilized as required to prevent erosion during construction (see exhibit 12 and 13). Routine maintenance of the easement will be designed to minimize ground cover disturbance, and therefore reduce the potential for erosion during operation of the transmission line.

VII. CONSTRUCTION PROCESS

Prior to the placement of the power poles, the entire easement will be cleared of trees, brush and scrub growth except within wetlands.



DAMES & MOORE

CIVIL ENGINEERING/WATER RESOURCES/WASTE MANAGEMENT
 ENVIRONMENTAL SERVICES/GEOTECHNICAL ENGINEERING/
 PLANNING/LANDSCAPE ARCHITECTURE
 ONE NORTH DALE MABRY SUITE 700
 TAMPA, FLORIDA 33609
 TAMPA (813) 875-1115 PINELLAS (813) 443-6827

SOURCE: COUNTY MAPS

EXHIBIT 1

APR 12 1991

RES. MGR

Handwritten signature: Howard Subrah
Handwritten initials: HZ

T32S T31S

SCALE 1:24000

R23E

PROPOSED TRANSMISSION LINE

Brewster

MLE 5

BM 143

EXIST. BALD EAGLE NEST

EASEMENT SHIFTED TO EAST TO AVOID EAGLE NEST

MLE - MATCH LINE EXHIBIT

QUAD MAP



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Environmental Services/Geotechnical Engineering

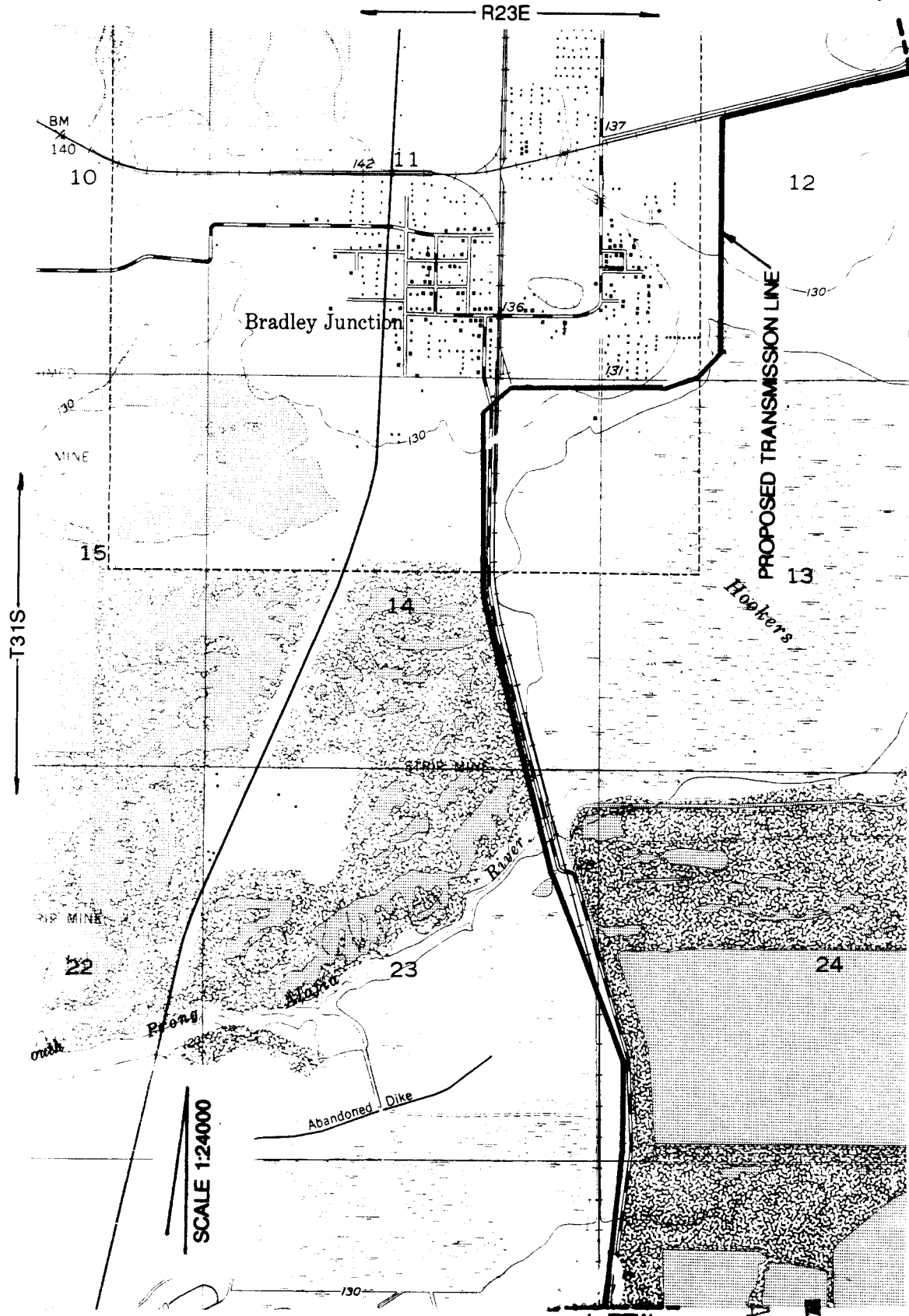
One North Dale Mabry Suite Seven Hundred Tampa, Florida 33609

SOURCE : USGS

EXHIBIT 4

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4/23/91
K. J. [unclear]
[unclear]

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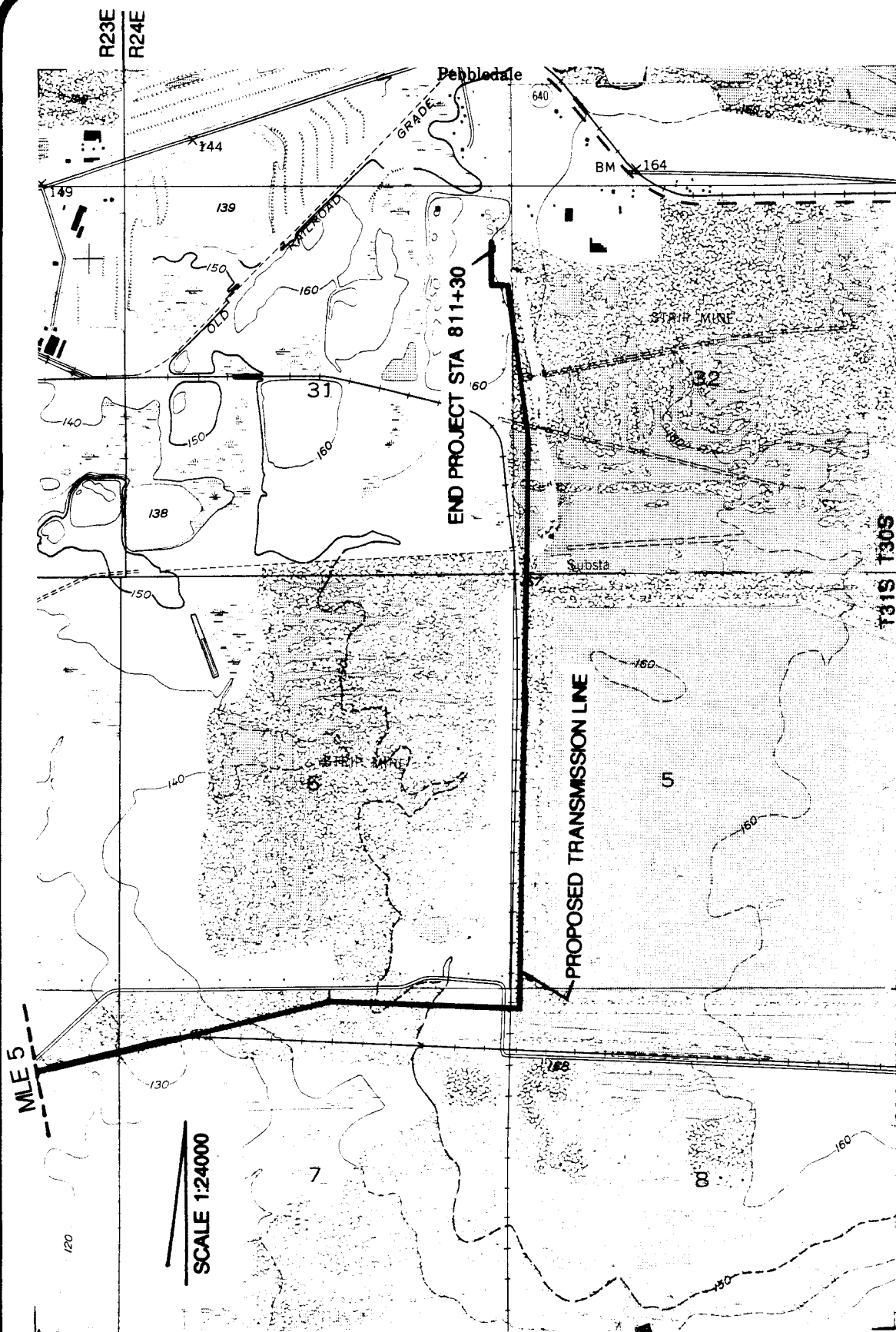
QUAD MAP

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 One North Dale Mabry Suite Seven Hundred Tampa, Florida 33609



SOURCE : USGS



MLE - MATCH LINE EXHIBIT

QUAD MAP

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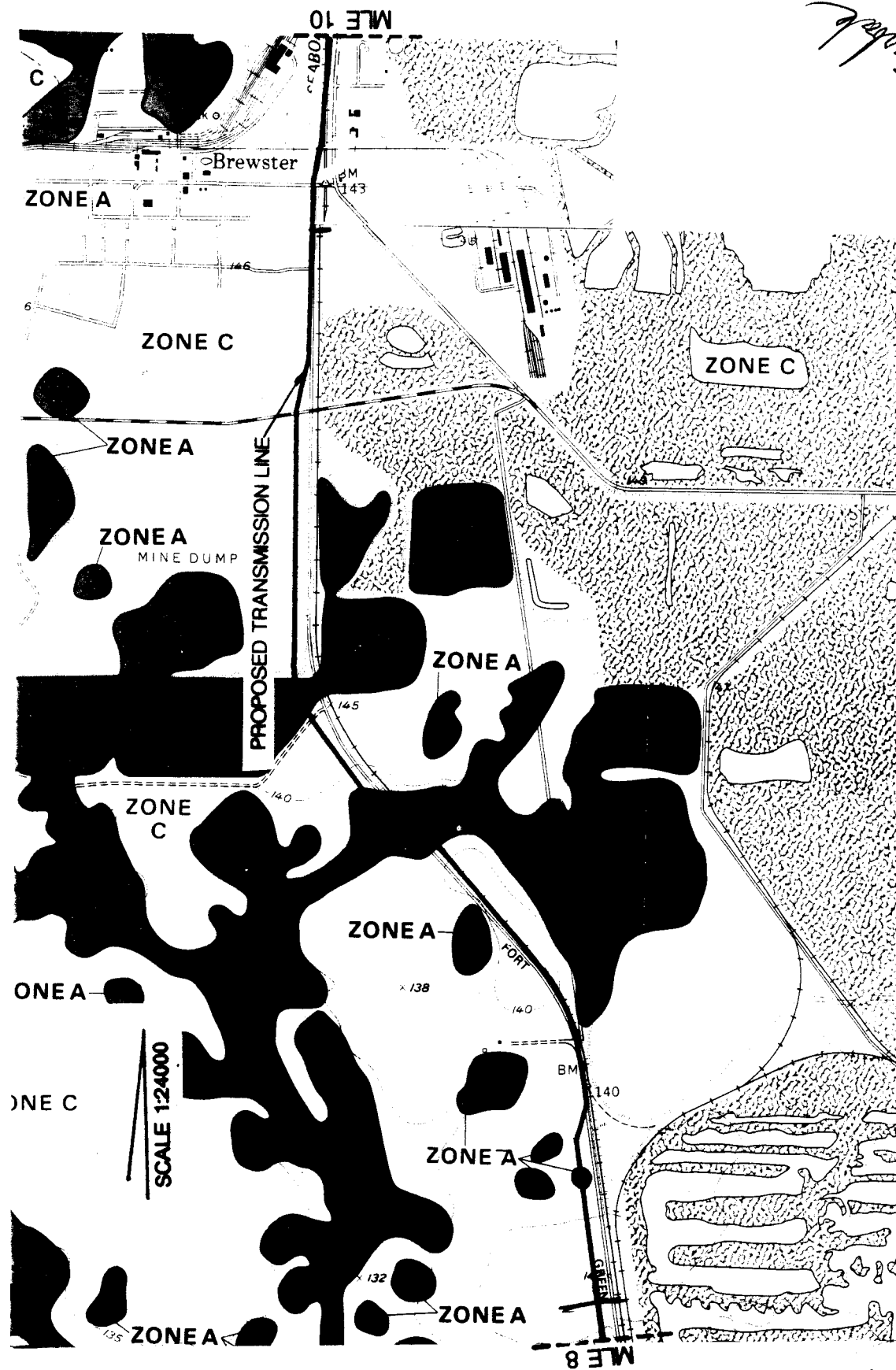
One North Dale Mabry Suite Seven Hundred Tampa, Florida 33609



SOURCE: USGS

EXHIBIT 6

Handwritten: 4/17/91



Handwritten signature and date:
 4/3/91
 [Signature]

SOURCE : FEMA

EXHIBIT 9

MLE - MATCH LINE EXHIBIT

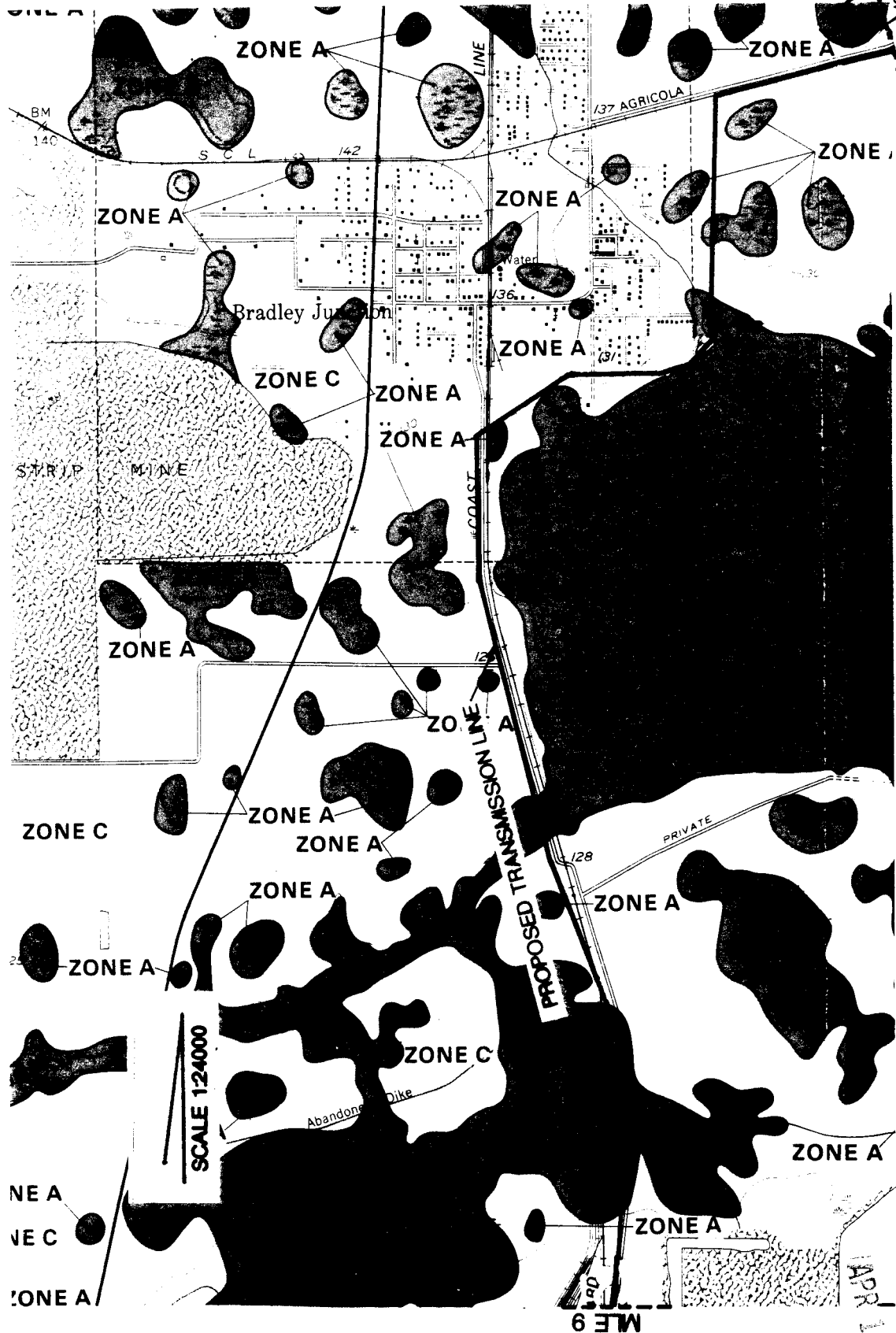
FLOOD MAP

Dames & Moore

Civil Engineering/Water Resources/Waste Management/Planning
 Environmental Services/Geotechnical Engineering
 One North Dale Mabry Suite Seven Hundred Tampa, Florida 33609



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FLOOD MAP

Dames & Moore
 Civil Engineering/Water Resources/Waste Management/Planning
 Environmental Services/Geotechnical Engineering
 One North Dale Mabry Suite Seven Hundred Tampa, Florida 33609

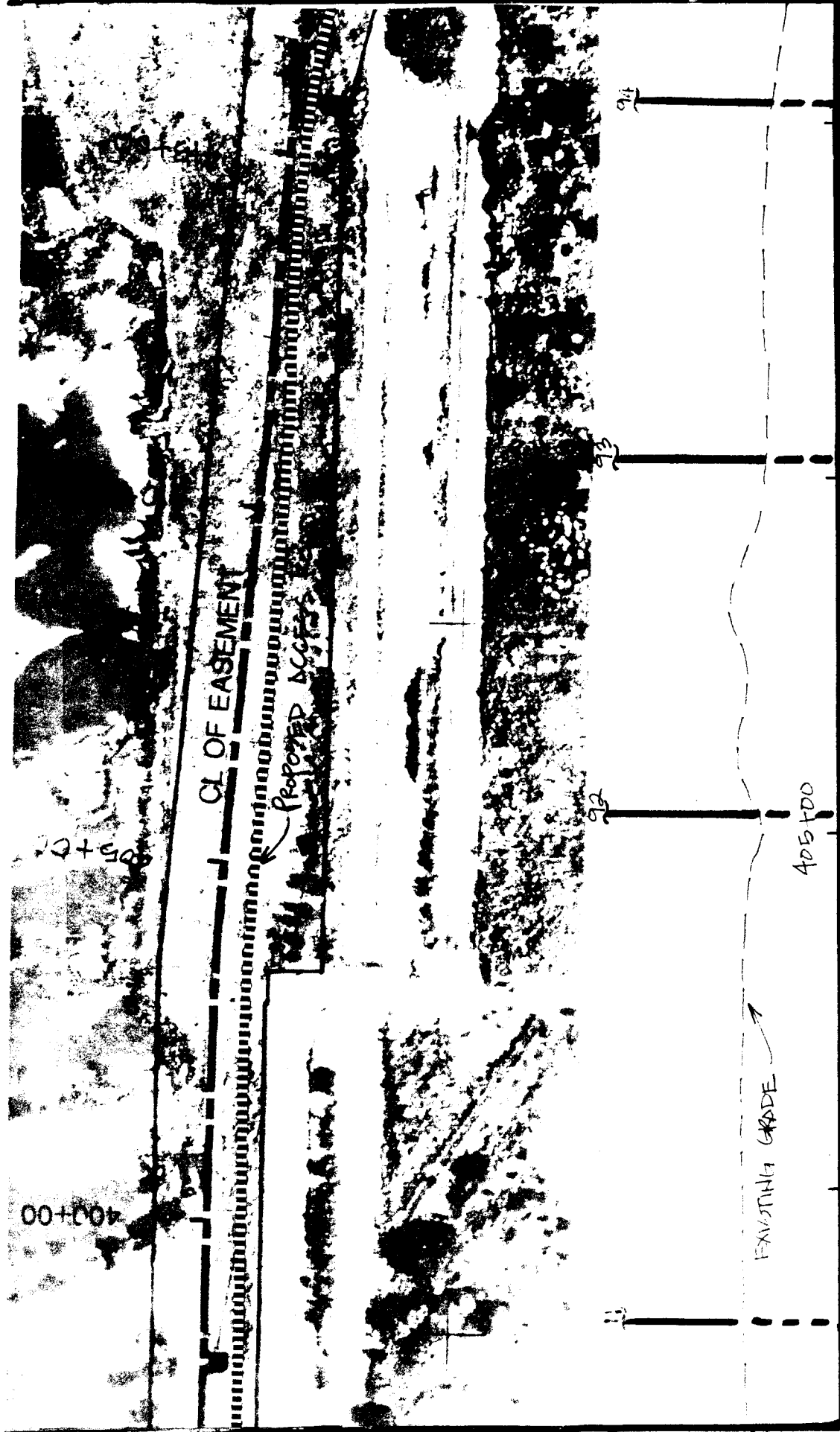


SOURCE: FEMA

MATCH LINE

FIGURE 22

140



SCALE

HORIZ. 1"=200'

VERT. 1"=10'

PLAN/PROFILE

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ENVIRONMENTAL SERVICES/GEOTECHNICAL ENGINEERING/
PLANNING/LANDSCAPE ARCHITECTURE
ONE NORTH DALE MABRY, SUITE 700
TAMPA, FLORIDA 33609
TAMPA (813) 875-1115 PINEHILLS (813) 443-6827

DATE: RES. MGMT.
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MATCH LINE

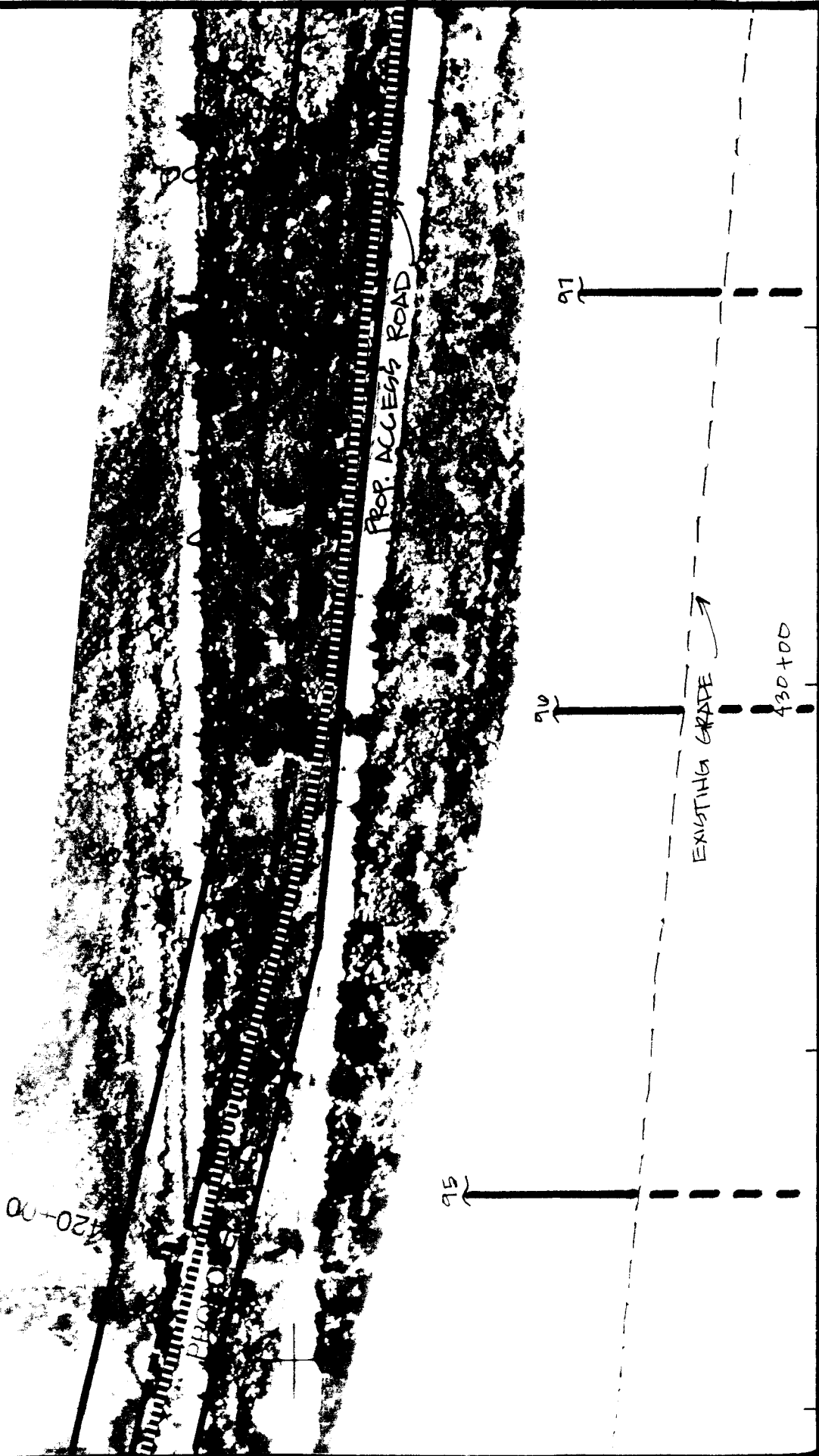
FIGURE 20

FIGURE 21

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K
K

MATCH LINE FIGURE 23

420+00



SCALE

HORIZ. 1"=200'

VERT. 1"=10'

PLAN/PROFILE

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ONE NORTHDALE MARBY SUITE 700
TAMPA, FLORIDA 33609
TAMPA (813) 875-1115 PINELLAS (813) 443-6871

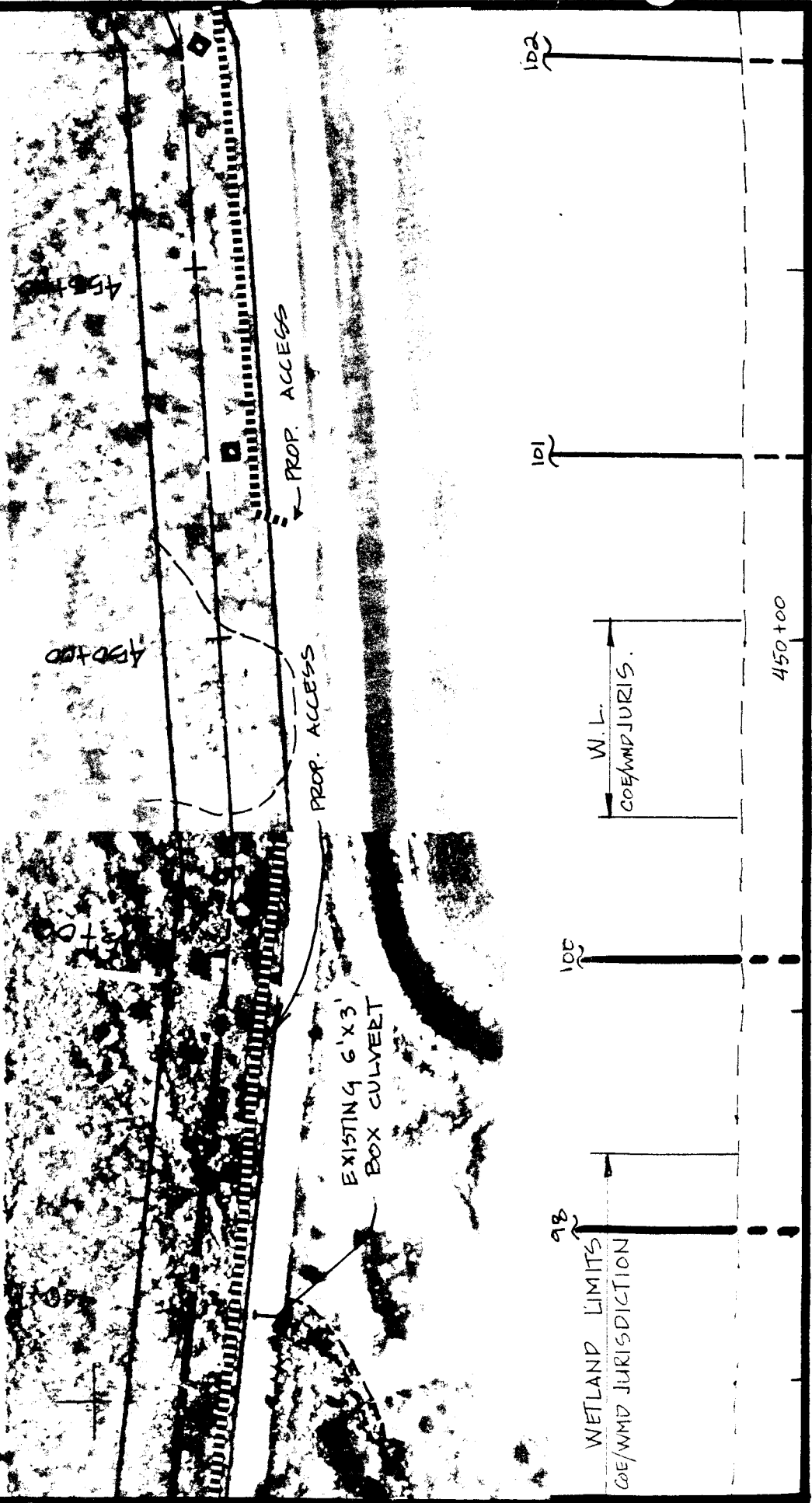
FIGURE 28

4/12/91
JMS
JMS

MATCH LINE FIGURE 22

MATCH LINE FK RE 24

North



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DAMES & MOORE

SCALE

HORIZ. 1"=200'
VERT. 1"=10'

PLAN/PROFILE

DAMES & MOORE

CIVIL ENGINEERING/WATER RESOURCES/WASTE MANAGEMENT
ENVIRONMENTAL SERVICES/GEOTECHNICAL ENGINEERING/
PLANNING/LANDSCAPE ARCHITECTURE
ONE NORTH DALE MARRY SUITE 700
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TAMPA (813) 875-1115 PINELLAS (813) 443-6827

FIGURE 23