



US Army Corps
of Engineers.

Public Notice

Public Notice No. **08-45**

Date: July 21, 2008

Nashville District

Application No. 2008-01081

Please address all comments to:
Nashville District Corps of Engineers, Regulatory Branch
3701 Bell Road, Nashville, TN 37214

JOINT PUBLIC NOTICE
US ARMY CORPS OF ENGINEERS
and
TENNESSEE VALLEY AUTHORITY

SUBJECT: Proposed Wetland Fill, Channel Relocation, and
Culvert Construction for State Route 15 (U.S. 64)
Improvements in Giles County, Tennessee

TO ALL CONCERNED: The application described below has been
submitted for a Department of the Army Permit pursuant to
Section 404 of the Clean Water Act (CWA) for the discharge
of fill material into waters of the United States, and a
Tennessee Valley Authority (TVA) permit pursuant to **Section
26a of the TVA Act**. Before a permit can be issued,
certification must be provided by the state of Tennessee,
pursuant to **Section 401(1)(1) of the CWA**, that applicable
water quality standards will not be violated. The applicant
has applied for the required water quality certification by
separate application.

APPLICANT: Tennessee Department of Transportation
Environmental Planning and Permits Division
Suite 900, J.K. Polk Building
505 Deaderick Street
Nashville, Tennessee 37243

LOCATION and DESCRIPTION: Wetlands, Weakley Creek, Agnew
Creek, Richland Creek, and Various Unnamed Tributaries;
tributaries to Elk River Mile 42.6R, along existing State
Route 15, in Giles County, Tennessee (Pulaski and Bodenham
Quads)

Site 1 (WTL-9): Station 450+40 to 452+50; Wetland impact
(lat 35.2120; lon 87.0864). The proposed work at this site
involves permanent wetland impact of 0.180 acres.

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Site 2 (STR-1): Sta. 453+73; Weakley Branch (lat 35.2267; lon 87.1430). The proposed work at this site involves replacement of existing structure with a proposed 2 @ 8' by 4' box culvert for a length of 192' with a 17' transition at the inlet.

Site 3 (WTL-1; WTL-2; WTL-3): Sta. 466+60 to 488+35; Wetlands (lat 35.2190, lon 87.1319). The proposed work at this site involves wetland impact of three areas for a total permanent impact of 0.102 acres.

Site 4 (STR-2): Sta. 489+00; Agnew Creek (lat 35.2201; lon 87.1328). The proposed work at this site involves replacing an existing bridge with a two 3-span bridge.

Site 5 (STR-4): Sta 593+25 to 598+25; Unnamed Tributary to Richland Creek (lat 35.2175; lon 87.1231). The proposed work at this site would involve channel relocation of 530' of existing stream length within a new, open channel 505' long.

Site 6 (STR-3): Sta 592+21; Richland Creek (lat 35.2175; lon 87.1231). The proposed work at this site involves replacing an existing bridge with a new 4-span bridge.

Site 7 (WTL-4): Sta 606+25 to 606+50; Wetland (lat 35.2106; lon 87.0957). The proposed work at this site involves permanent wetland fill of 0.020 acres.

Site 8 (WTL-5): Sta 629+65 to 633+80; Wetland (lat 35.2120; lon 87.0864). The proposed work at this site involves permanent wetland impacts of 0.580 acres and temporary wetland impacts of 0.210.

Site 9 (WTL-8): Sta 644+65 to 445+40; Wetland (lat 35.2117; lon 87.0831). The proposed work at this site involves permanent wetland impacts of 0.100 acres and temporary wetland impacts of 0.020 acres.

Site 10 (STR-5): Sta 645+16; Richland Creek Branch (lat 35.2118; lon 87.0832). The proposed work at this site involves a structure extension from existing 60' of 8' by 6' box culvert to the proposed 182' of 8' by 6' box culvert. Also, proposed stream relocation of 81' of existing stream at the structure outlet.

Site 11 (STR-6): Sta 653+79; Richland Creek Branch (lat 35.2120; lon 87.0830). The proposed work at this site involves removing existing box culvert and replacing it with a proposed 132' of 10' by 5' box culvert. Also, proposed

stream transition of 34' with riprap at the culvert outlet and 36' at the culvert inlet.

Site 12 (STR-7): Sta 677+34; Richland Creek Branch (lat 35.2075; lon 87.0690). The proposed work at this site involves removing an existing box culvert and replacing it with a proposed 152' of 10' by 5' box culvert. Also, proposed stream transition of 22' at the culvert outlet and 33' with riprap at the inlet.

Site 13 (STR-8): Sta 689+80; Richland Creek Branch (lat 35.2069; lon 87.0675). The proposed work at this site involves extending the existing 50' long 6' by 6' box culvert to a proposed 100' long, with a proposed stream transition of 20' at the outlet.

Site 14 (STR-9): Sta 703+30.81, Richland Creek Branch (lat 35.2085, lon 87.0731). The proposed work at this site involves removing the existing 24' by 13' arch culvert and replacing it with proposed 2 @ 12' by 12' slab bridge, with a stream transition of 36' at the outlet.

The applicant designed the new channels to match original substrate and existing conditions of the original channels and involve tree planting to replace riparian vegetation. The permanent wetland impacts (0.977 acres total) would be mitigated by debiting 3.91 acres (4:1 ratio) at the Coffee County Wetland Mitigation Bank. Proposed impacts (stream loss and/or encapsulation) to the streams would be mitigated by payment of \$12,600 to the Tennessee In-Lieu Fee Stream Mitigation Program.

The proposed alignment utilizes the existing alignment of SR-15 to the extent possible. The purpose of the proposed work would allow the highway upgrade to handle the continual growth of traffic, improve the existing design deficiencies, and improve public safety in this area.

Plans of the proposed work are attached to this notice.

The decision whether to issue a permit will be based on an evaluation of the probable impacts including cumulative impacts of the activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the work must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the work will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental

concerns, wetlands, cultural values, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people. In addition, the evaluation of the impact of the activity on the public interest will include application of the guidelines promulgated by the Administrator, Environmental Protection Agency, under authority of Section 404(b)(1) of the CWA (40 CFR Part 230). A permit will be granted unless the District Engineer determines that it would be contrary to the public interest.

The Corps of Engineers is soliciting comments from the public; federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition, or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

An Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) have been prepared for the proposed project by the Federal Highway Administration (FHWA).

TDOT prepared an Archaeological Survey for the proposed SR-15 project and submitted the information to the Tennessee Historical Commission (THC). After THC's review of the information, they concurred with TDOT's determination that the project area contains three historical properties that are potentially eligible for listing in the National Register of Historic (NRHP) Places. These sites will be subjected to Phase II archaeological testing and a determination of eligibility for listing in the NRHP will be made. Upon receipt of the Phase II report, the Corps will consult with THC on eligibility of the historical properties. Copies of this notice are being sent to the office of the State Historic Preservation Officer.

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The applicant has previously coordinated the proposed project with the U.S. Fish and Wildlife Service (USFWS). USFWS responded by letter dated February 19, 2008, stating that reviewed a Biological Assessment prepared for the project and likely affects on gray bats (*Myotis grisescens*). The assessment indicated that the Richland Creek bridge would only be removed during the gray bat hibernation period (i.e., between November 15 and March 15). After review of the assessment, USFWS stated the assessment is adequate and supports the conclusion of not likely to adversely affect, with which they concur. Thus, USFWS believes that the requirements of Section 7 of the Endangered Species Act have been fulfilled. Therefore, initiation of formal consultation procedures with the USFWS is not planned at this time.

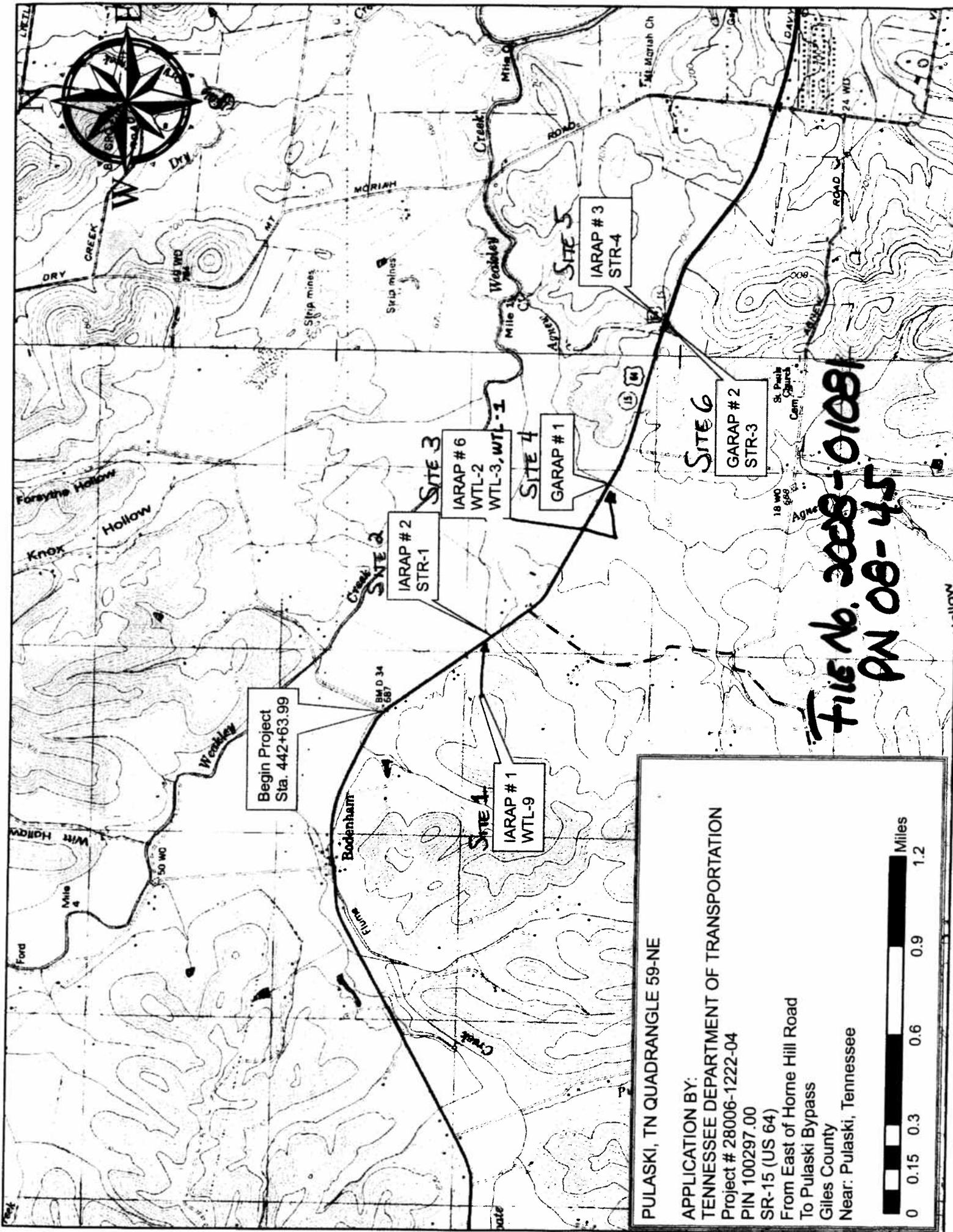
Other federal, state, and/or local approvals required for the proposed work are as follows:

Tennessee Valley Authority (TVA) approval is required under Section 26a of the TVA Act for the proposed work. TVA issued the required 26a permit for the proposed project on July 9, 2008.

Water Quality Certification from the state of Tennessee, Department of Environment and Conservation, is required for the proposed work in accordance with Section 401(a)(1) of the Clean Water Act.

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing.

Written statements received in this office on or before August 20, 2008, will become a part of the record and will be considered in the determination. Any response to this notice should be directed to the Regulatory Branch, Attention: Amy Robinson, at the above address, telephone (615) 369-7509. If you received this notice by mail and wish to view all of the diagrams, visit our web site at: <http://www.lrn.usace.army.mil/cof/notices.htm>, or contact Amy Robinson at the above address or phone number.



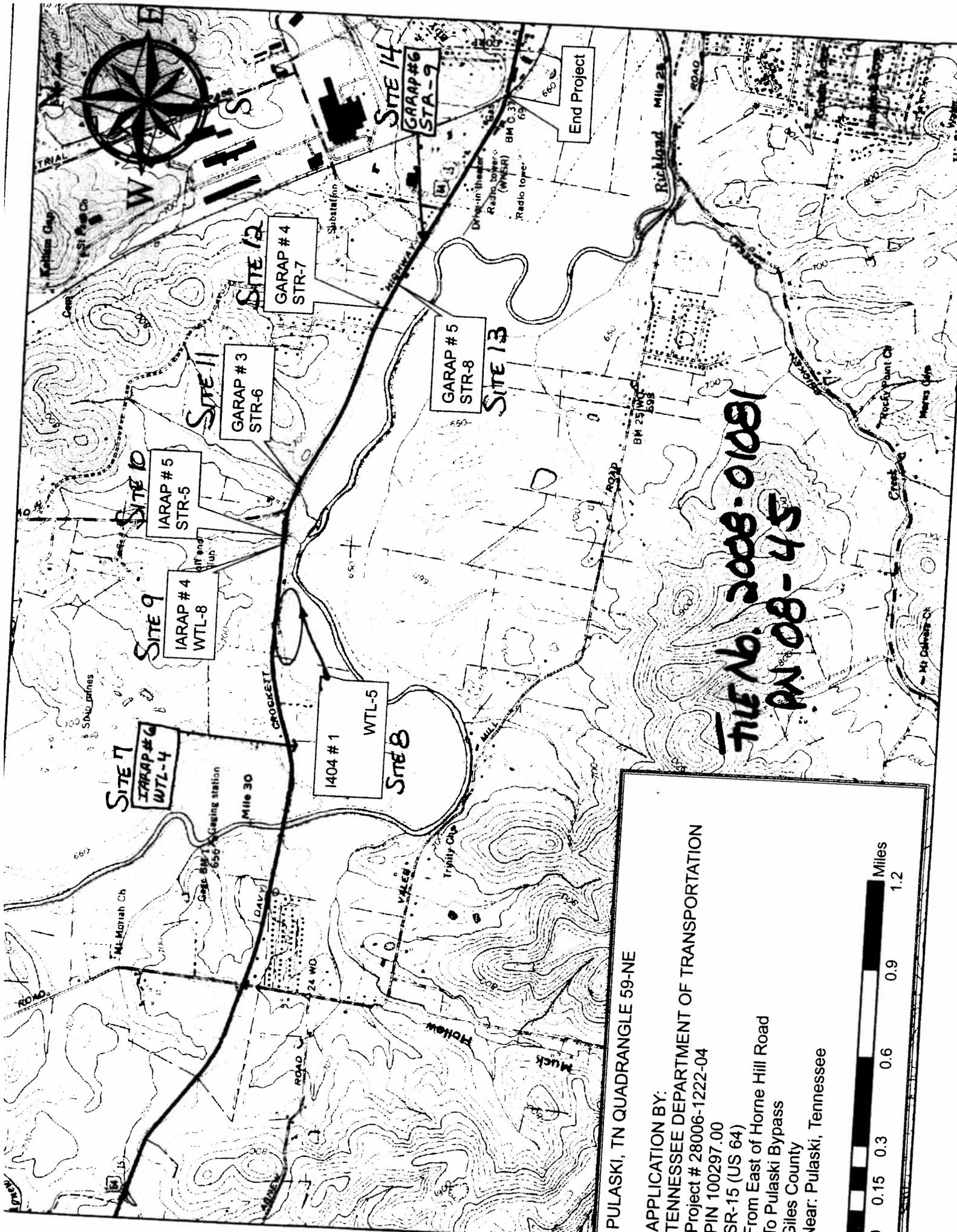
Begin Project
Sta. 442+63.99

File No. 2008-01081
PN 08-45

PULASKI, TN QUADRANGLE 59-NE

APPLICATION BY:
 TENNESSEE DEPARTMENT OF TRANSPORTATION
 Project # 28006-1222-04
 PIN 100297.00
 SR-15 (US 64)
 From East of Horne Hill Road
 To Pulaski Bypass
 Giles County
 Near: Pulaski, Tennessee

0 0.15 0.3 0.6 0.9 1.2
Miles



FILE NO. 2008-01081
 PIN 08-45

PULASKI, TN QUADRANGLE 59-NE

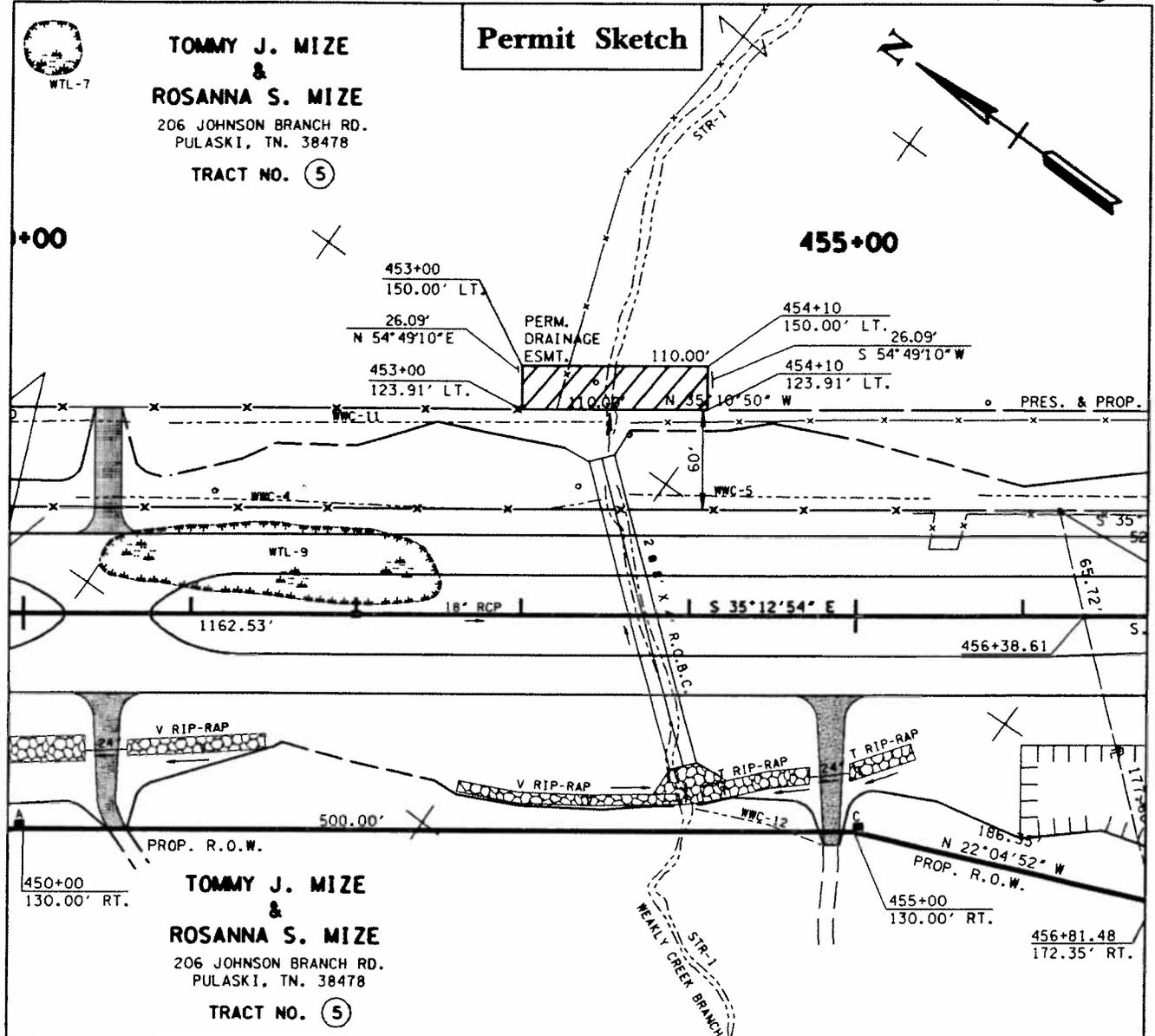
APPLICATION BY:
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 PIN 100297.00
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 To Pulaski Bypass
 Giles County
 Near: Pulaski, Tennessee

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IARAP # 1

IARAP # 2

SITES 1 AND 2

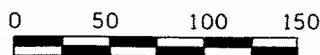


WELAND MITIGATION NOTES

PERMANENT WETLAND IMPACTS WILL BE MITIGATED IN THE COFFEE COUNTY WETLAND MITIGATION BANK AT A 4:1 RATIO.

NOTE: RIP-RAP AT STRUCTURE OUTLET AND INLET SHALL BE PLACED AS TO MIMIC THE EXISTING CONTOURS OF THE STREAM CHANNEL. THE TOP OF THE PROPOSED RIP-RAP SHALL BE AT THE GRADE WITH THE BOTTOM OF THE EXISTING STREAM CHANNEL.

WETLAND IMPACTS	
	AREA OF PERMANENT IMPACT
WTL-9	0.180 AC
TOTALS	0.180 AC



APPLICATION BY:
 TENNESSEE DEPARTMENT OF TRANSPORTATION
 PE * 28006-1222-04 TDOT PIN *100297.00
 SR 15 (FROM EAST OF HORNE HILL RD. TO PULASKI BYPASS)
 PURPOSE: GRADE, DRAIN, STRUCTURES & PAVING
 GILES COUNTY, NEAR PULASKI, TENN.
 BODENHAM, TENN. 59-NW & PULASKI, TENN. 59-NE
 STA. 451+50 (WTL-9) & STA. 453+73 (STR-1)

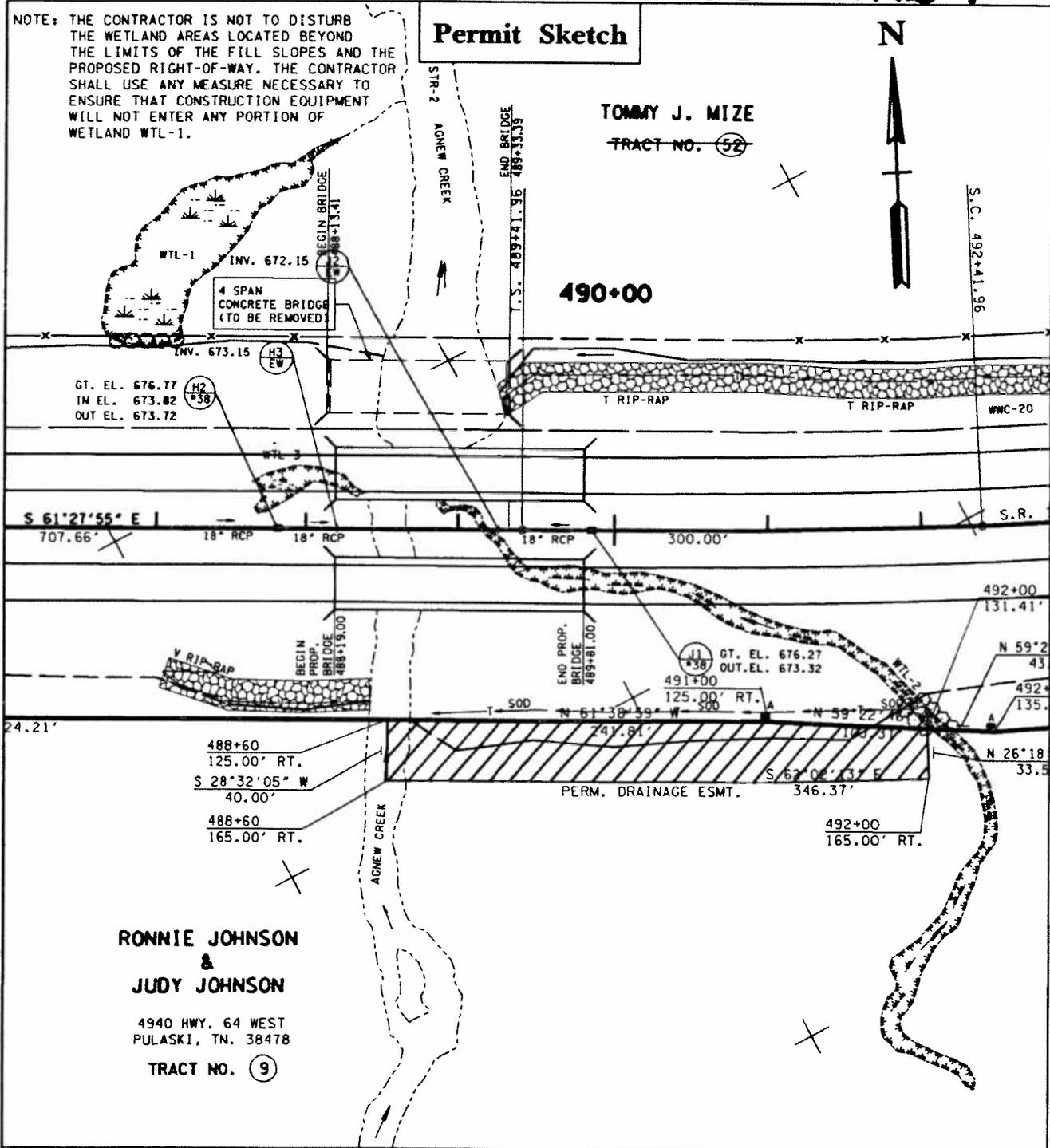
DATE: 01/02/08

REVISED: / /

SHEET 1 OF 3.

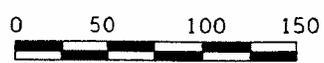
PN 08-45
 File No. 2008-01081

SITES 3 AND 7



WETLAND IMPACTS

	AREA OF PERMANENT IMPACT	AREA OF TEMPORARY IMPACT
WTL - 1	0.000 AC	0.005 AC
WTL - 2	0.075 AC	0.005 AC
WTL - 3	0.022 AC	0.000 AC
TOTALS	0.097 AC	0.010 AC

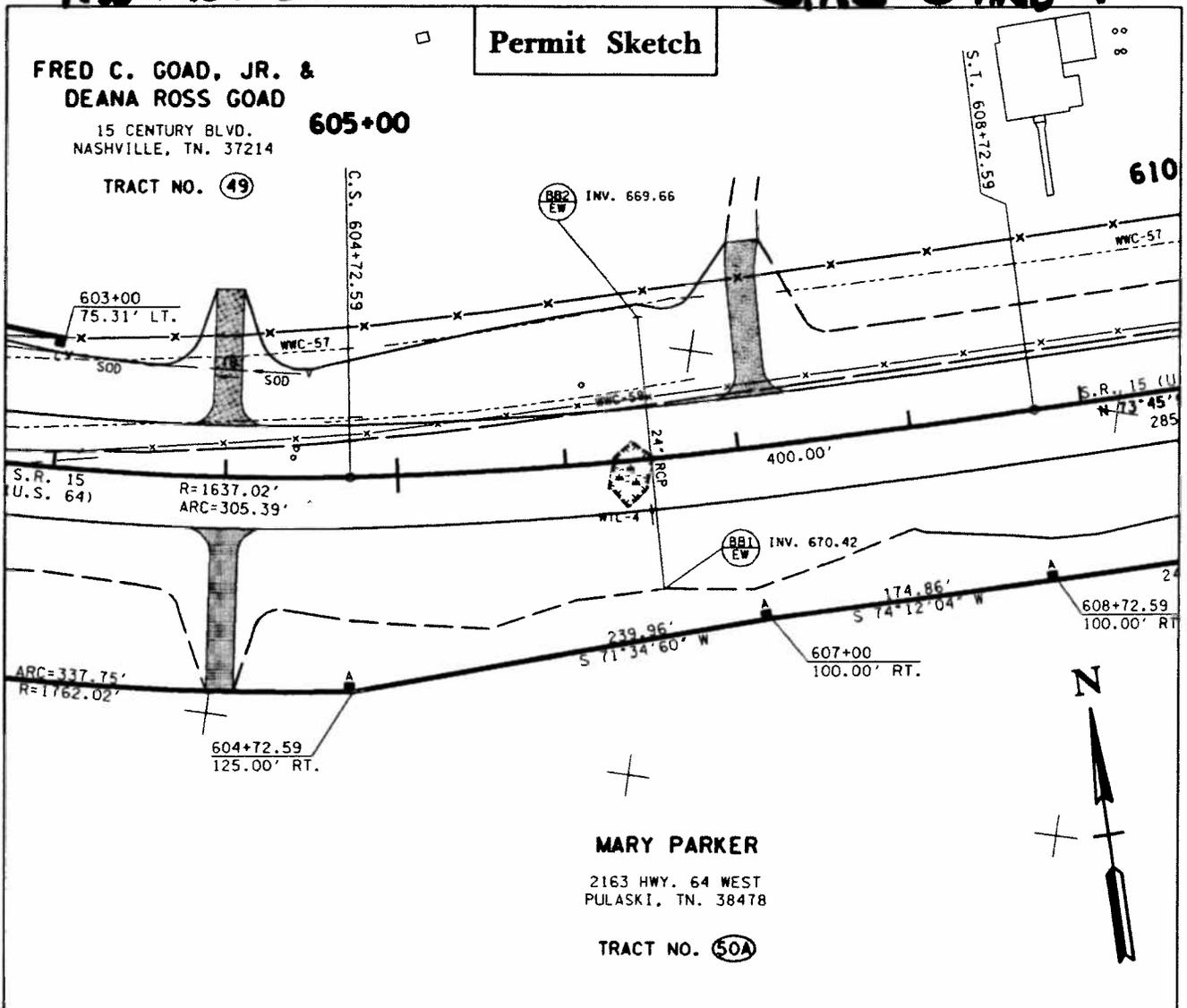


TRAP #6

APPLICATION BY:
 TENNESSEE DEPARTMENT OF TRANSPORTATION
 PE * 28006-1222-04 TDOT PIN *100297.00
 SR 15 (FROM EAST OF HORNE HILL RD. TO PULASKI BYPASS)
 PURPOSE: GRADE, DRAIN, STRUCTURES & PAVING
 GILES COUNTY, NEAR PULASKI, TENN.
 BODENHAM, TENN. 59-NW & PULASKI, TENN. 59-NE
 STA. 489+00 (WTL-1, 2 & 3)

PN 08-45
 FILE NO. 2008-01081

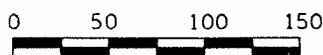
SITES 3 AND 7



WETLAND MITIGATION NOTES

PERMANENT WETLAND IMPACTS
 WILL BE MITIGATED IN THE
 COFFEE COUNTY WETLAND
 MITIGATION BANK AT A 4:1 RATIO.

WETLAND IMPACTS		
	AREA OF PERMANENT IMPACT	AREA OF TEMPORARY IMPACT
WTL-4	0.020 AC	0.000 AC
TOTALS	0.020 AC	0.000 AC



IAAAP #6

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 TENNESSEE DEPARTMENT OF TRANSPORTATION
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 TO PULASKI BYPASS)
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 GILES COUNTY, NEAR PULASKI, TENN.
 BODENHAM, TENN. 59-NW & PULASKI, TENN. 59-NE
 STA. 607+00 (WTL-4)

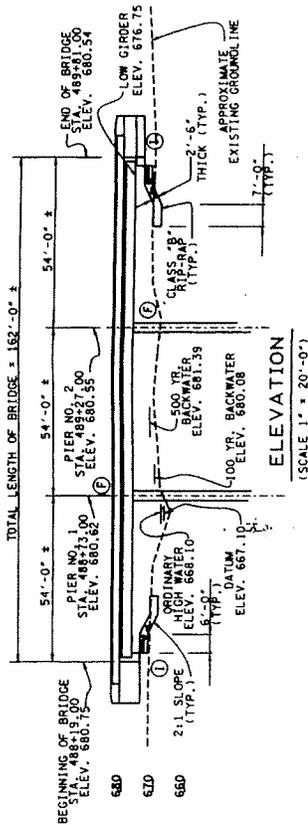
DATE: 01/02/08

REVISED: / /

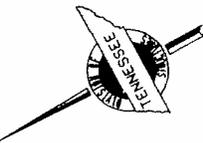
SHEET 4 OF 5

PE. NO.	23008-1222-04
PROJECT NO.	YEAR
2000	REVISIONS
NO.	DATE
BY	CHKD
DATE	DATE

① DENOTES: INTEGRAL
 ② DENOTES: FIXED

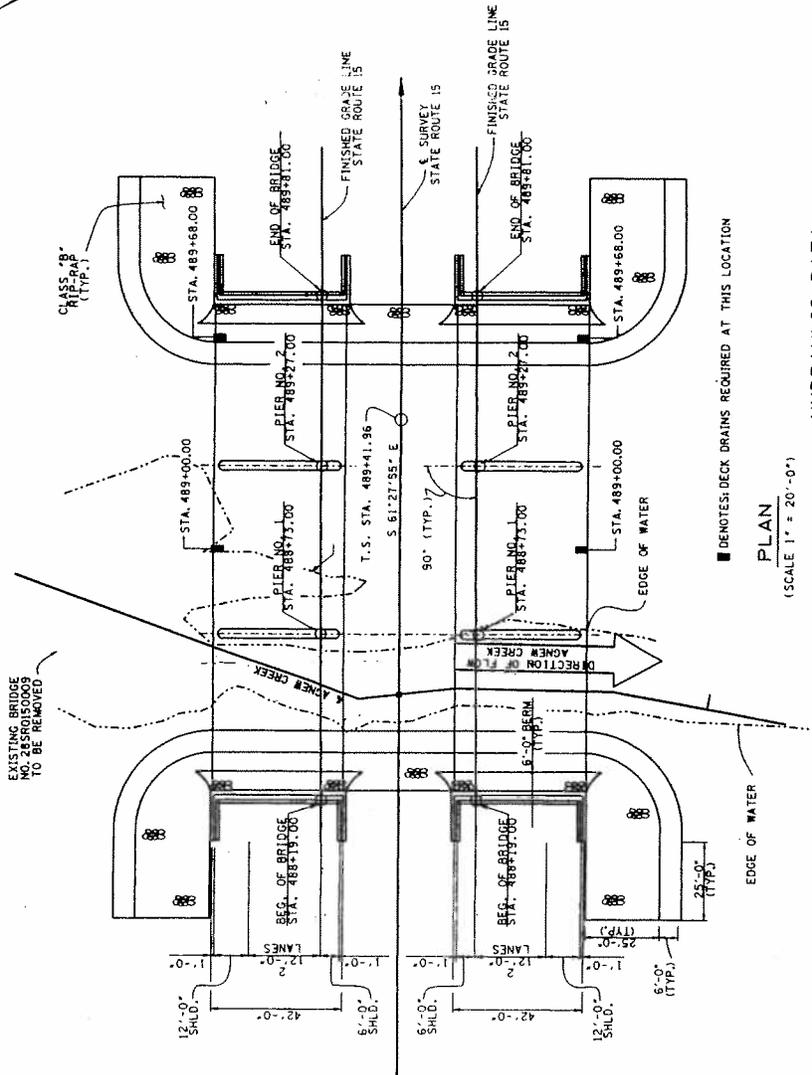


EXISTING BRIDGE NO. 28SR015000 TO BE REMOVED



GENERAL NOTES

- 1) SPECIFICATIONS: STANDARD ROAD AND BRIDGE SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION, MARCH 1995 EDITION.
- 2) LOADINGS: HS 20-44 (DEAD LOADS) TO INCLUDE 33 LB./FT. FOR FUTURE OVERLAY)
- 3) DESIGN SPECIFICATIONS: AASHTO, 1992 EDITION WITH ADDENDA INCLUDING THE STANDARD SPECIFICATIONS FOR SEISMIC DESIGN OF HIGHWAY BRIDGES (SEISMIC PERFORMANCE CATEGORY "A" WITH ACCELERATION COEFFICIENT 0.075).
- 4) CONCRETE: CLASS "A" $f'c = 3000$ PSI, BRIDGE DECK CLASS "D" $f'c = 4000$ PSI
- 5) REINFORCING STEEL: TO BE ASTM A615 GRADE 60, EPOXY COAT ALL SLAB STEEL
- 6) SUPERSTRUCTURE: TO CONSIST OF 4 SPANS PRESTRESSED PRECAST TYPE II I-BEAM WITH COMPOSITE DECK SLAB.
- 7) USE STD-1-1 PARAPET
- 8) END OF BRIDGE DRAINS NOT REQUIRED.
- 9) MAINTAIN TRAFFIC ON EXISTING STRUCTURE.
- 10) BRIDGE DECK DRAINS ARE REQUIRED. (CURB OPENING TYPE)
- 11) TEXTURE COATING: TO BE MOUNTAIN GREY (36440) EXCEPT TRAFFIC FACE AND TOP OF PARAPET TO BE OFF-WHITE (37886).
- 12) FINISHED ROAD SURFACE SHALL BE CLASS "B" IN ACCORDANCE WITH SPECIAL PROVISIONS FOR BRIDGES.
- 13) EXISTING BRIDGE NO. 28-15-565 AND APPROACHES TO BE REMOVED TO NATURAL GROUND BETWEEN STATIONS 488+19.00 AND 489+61.00.
- 14) SEE SMO27 AND FOUNDATION DATA REPORT RECOMMENDATIONS FOR FOOTING PLACEMENT
- 15) ANY EXCAVATION OF STREAM CHANNEL AREA (E.G. FOR RIP-RAP OR PIER PLACEMENT) SHALL BE COMPLETED PRIOR TO CONSTRUCTION AND ACCOMPLISHED DURING LOW FLOW CONDITION. SAND BAG BERM DIVERSION PIPE WITH SAND BAG DAM AT PIPE INLET OR IN SOME CASES COFFERDAMS.



HYDRAULIC DATA
 TOTAL DRAINAGE AREA = 13.6 SQ. MI.
 DESIGN FLOOD DISCHARGE = 201 CFS
 DESIGN FLOOD VELOCITY = 9.9 FT/S
 WATER AREA PROVIDED BELOW ELEV. 679.58 = 722.6 SQ.FT.
 100 YEAR VELOCITY = 9.9 FT/S
 ROADWAY OVERLAPPING ELEV. 680.58 FT. @ ELEV. 680.08 FT.
 500 YR. DISCHARGE 3419 CFS @ ELEV. 681.39

PLAN
 (SCALE 1" = 20'-0")

42'-0" ROADWAY WITH STD-1-1 RAIL
 AOT (2021) = 13590
 DESIGN SPEED = 60 MPH

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 HYDRAULIC LAYOUT
 STATE ROUTE 15
 OVER AGNEW CREEK
 BRIDGE I.D. #28SR015000
 STATION 489+00.00
 GILES COUNTY
 2000

CORRECT *Edward P. Woodruff*
 ENGINEER

P.I. STA. 481+80.00	ELEV. 686.45	-1.50%	P.I. STA. 491+00.00	ELEV. 680.70
P.I. STA. 500+20.00	ELEV. 691.05	+2.00%		

1840' V.C.

GRADE SKETCH

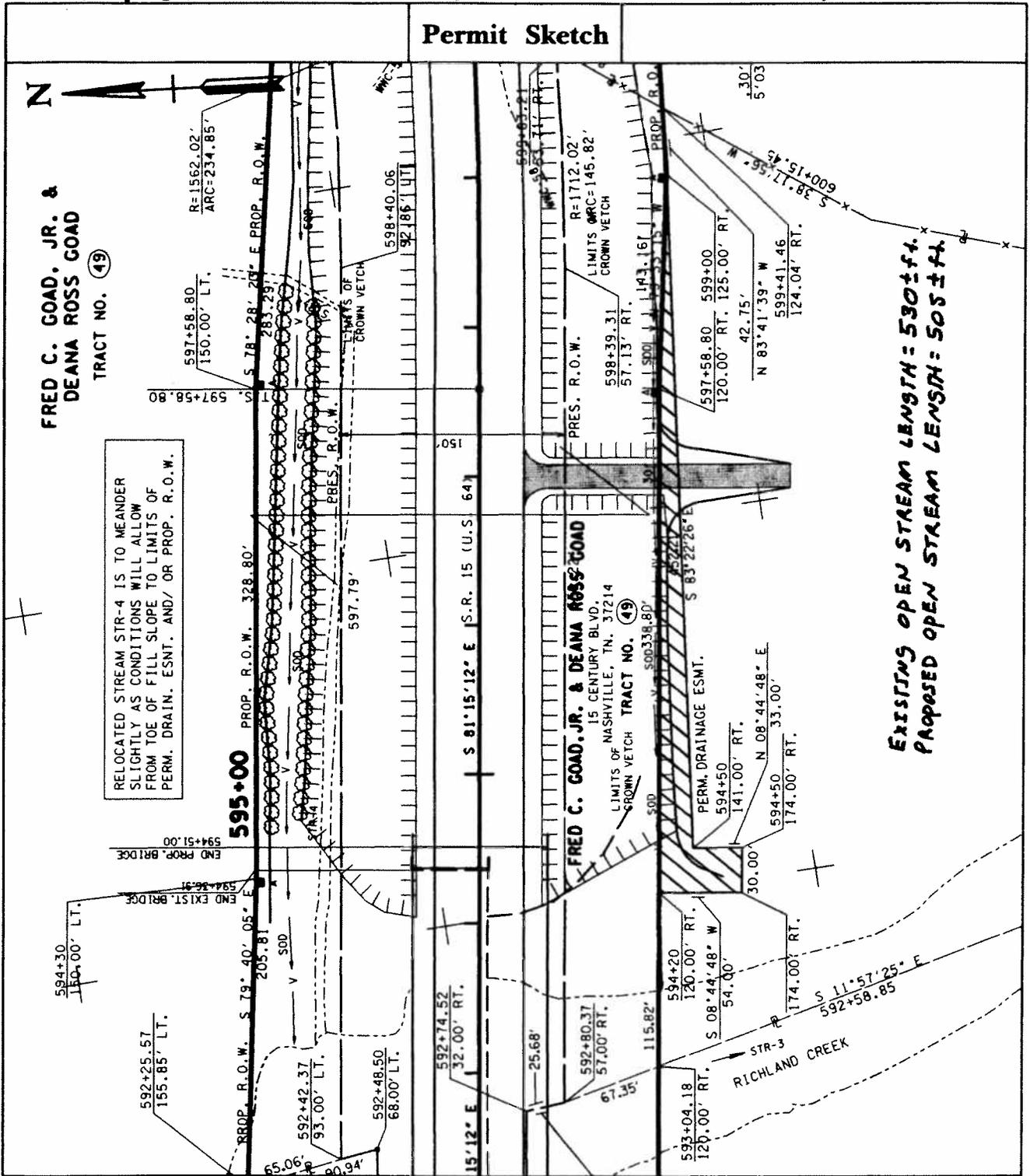
**File No. 2008-01081
 PN 08-45**

SITE 4

DATE	1-30
DATE	1-30
DATE	1-30

PN 08-45
 File No. 2008-01081

SITE 5



EXISTING OPEN STREAM LENGTH = 530 ± ft.
 PROPOSED OPEN STREAM LENGTH = 505 ± ft.

RELOCATED STREAM STR-4 IS TO MEANDER SLIGHTLY AS CONDITIONS WILL ALLOW FROM TOE OF FILL SLOPE TO LIMITS OF PERM. DRAIN. ESNT. AND/OR PROP. R.O.W.

IARAP # 3



APPLICATION BY:
 TENNESSEE DEPARTMENT OF TRANSPORTATION
 PE * 28006-1222-04 TDOT PIN *100297.00
 SR 15 (FROM EAST OF HORNE HILL RD.
 TO PULASKI BYPASS)
 PURPOSE: GRADE, DRAIN, STRUCTURES & PAVING
 GILES COUNTY, NEAR PULASKI, TENN.
 BODENHAM, TENN. 59-NW & PULASKI, TENN. 59-NE
 STA. 595+00 (STR-4)

DATE: 01/02/08

REVISED: / /

SHEET 1 OF 3

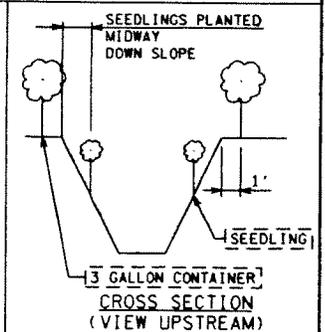
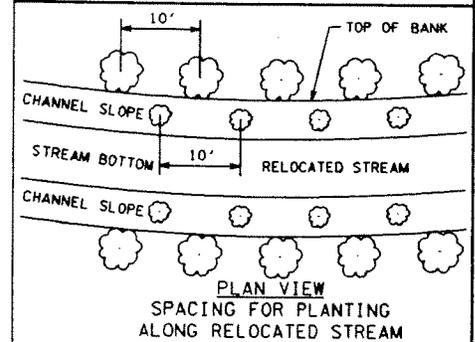
Permit Sketch

Permit Sketch

CHANNEL RELOCATION SEQUENCE AND IMPLEMENTATION
 NOTES FOR RELOCATED STREAM CHANNELS

1. THE NEW CHANNEL SHALL BE EXCAVATED AND STABILIZED DURING A LOW-WATER PERIOD. RIPRAP (ONLY AS SHOWN ON PLANS), SEEDING, AND SOD SHALL BE INSTALLED IMMEDIATELY FOLLOWING CHANNEL COMPLETION. TREES SHALL BE INSTALLED IN THE FIRST PLANTING SEASON FOLLOWING CHANNEL EXCAVATION. WATER SHALL BE DIVERTED INTO THE NEW CHANNEL ONLY AFTER IT IS COMPLETELY STABILIZED, AND ONLY DURING A LOW-WATER PERIOD. STABILIZED MEANS THAT ALL SPECIFIED ROCK AND EROSION CONTROL BLANKET OR FLEXIBLE CHANNEL LINER IS IN PLACE, AND SEEDING AND SOD ARE IN PLACE AND ESTABLISHED.
2. CHANNEL RELOCATION SEQUENCE:
 - A. FLAG EDGE OF THE NEW CHANNEL TOP BANK PRIOR TO CLEARING. DO NOT CLEAR LARGE TREES IN POSITION TO SHADE THE NEW CHANNEL. LEAVE AS MANY TREES AND SHRUBS AS POSSIBLE BETWEEN TOE OF THE NEW HIGHWAY SLOPE AND THE STREAM.
 - B. EXCAVATE THE NEW CHANNEL $\frac{1}{2}$ IN THE DRY $\frac{1}{2}$ BY LEAVING AREAS OF UNDISTURBED EARTH (DIVERSION BERMS) IN PLACE AT BOTH ENDS.
 - C. SHAPE CHANNEL TO SPECIFICATIONS SHOWN. REMOVE LOOSE SOILS AND DEBRIS.
 - D. PLACE TOPSOIL, EROSION CONTROL BLANKET OR FLEXIBLE CHANNEL LINER, SEED AND SOD AS SPECIFIED.
 - E. REMOVE DIVERSION BERMS. BEGINNING WITH THE MOST DOWNSTREAM, BANKS AND BOTTOM ELEVATION OF THE OLD CHANNEL SHOULD TRANSITION SMOOTHLY INTO THE NEW CHANNEL. THE ELEVATIONS OF THE NEW CHANNEL BOTTOM AT EACH END OF THE RELOCATION SEQUENCE SHOULD MATCH THE ELEVATIONS OF THE EXISTING CHANNEL, AND A STEADY PERCENT SLOPE SHOULD BE MAINTAINED THROUGHOUT THE RELOCATED CHANNEL CENTERLINE OR AS SPECIFIED.
 - F. INSTALL TREES ACCORDING TO STANDARD SPECIFICATIONS SECTION 802.
3. ONLY RIPRAP SHOWN ON PLANS SHOULD BE USED IN THE RELOCATED CHANNEL REACH. ANY OTHER PROPOSED RIPRAP SHOULD BE COORDINATED WITH THE ENVIRONMENTAL DIVISION THROUGH THE TDOT HEADQUARTERS CONSTRUCTION OFFICE.
4. REQUESTS BY ANY AGENCY THAT WOULD REQUIRE THE MODIFICATION OF CHANNELS, DITCHES, ELEVATIONS, RIPRAP OR ANY OTHER STREAM MITIGATION ITEMS ASSOCIATED WITH THE CHANNEL RELOCATIONS SHALL BE REFERRED TO THE TDOT ENVIRONMENTAL DIVISION VIA THE HEADQUARTERS CONSTRUCTION OFFICE FOR COORDINATION WITH ALL INVOLVED AGENCIES AND TDOT DIVISIONS.

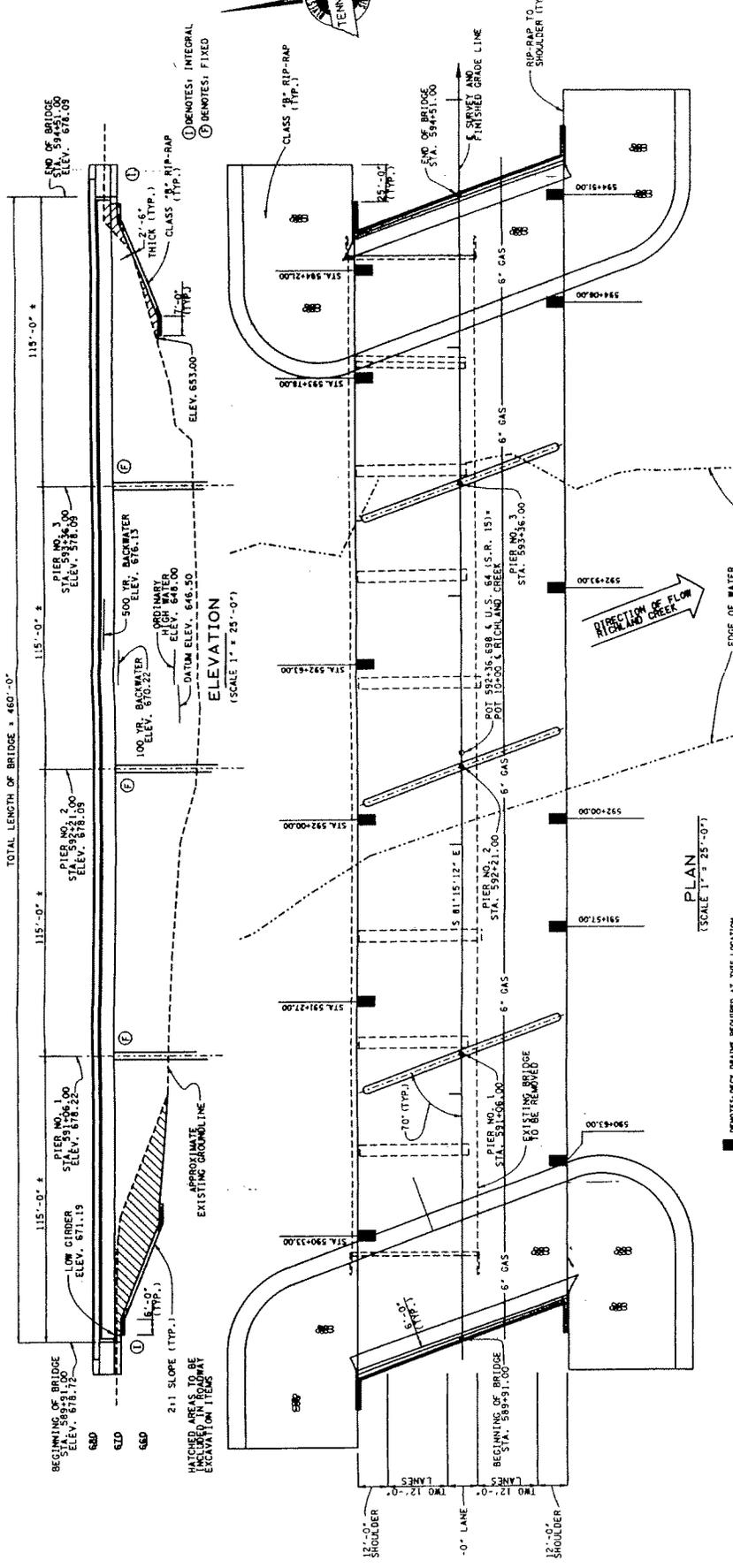
TREE SPECIES	
DESCRIPTION	QTY.
(FRAXINUS PENNSYLVANICA, GREEN ASH, 3 GAL. CONTAINER)	15
(SALIX NIGRA, BLACK WILLOW, 3 GAL. CONTAINER)	15
(ACER RUBRUM, RED MAPLE, 3 GAL. CONTAINER)	14
(ACER SACCHARINUM, SILVER MAPLE, 3 GAL. CONTAINER)	14
(PLATANUS OCCIDENTALIS, SYCAMORE, 3 GAL. CONTAINER)	14



IARAP # 3

APPLICATION BY:
 TENNESSEE DEPARTMENT OF TRANSPORTATION
 PE * 28006-1222-04 TDOT PIN *100297.00
 SR 15 (FROM EAST OF HORNE HILL RD.
 TO PULASKI BYPASS)
 PURPOSE: GRADE, DRAIN, STRUCTURES & PAVING
 GILES COUNTY, NEAR PULASKI, TENN.
 BODENHAM, TENN. 59-NW & PULASKI, TENN. 59-NE
 STA. 595+00 (STR-4)

PROJECT NO.	28006-1222-04
YEAR	2000
SHEET NO.	
REVISIONS	
DATE	
BY	
CHECKED BY	
DATE	



84'-0" ROADWAY WITH STD-1-1 RAIL
DESIGN SPEED = 60 MPH
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

HYDRAULIC LAYOUT
STATE ROUTE 15
OVER RICHLAND CREEK
BRIDGE I.D. #28SR0150011
STATION 592+21.00
GILES COUNTY
2000

DATE: 1-20-01
DRAWN BY: J. H. HARRIS
CHECKED BY: J. H. HARRIS

1) SPECIFICATIONS: STANDARD ROAD AND BRIDGE SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION, MARCH 1995 EDITION, (OR FUTURE OVERLAY)

2) LOADING: HS 20-44 (DEAD LOADS TO INCLUDE 33 LB/FT. OVERLAY)

3) STANDARD SPECIFICATIONS FOR SEISMIC DESIGN OF HIGHWAY BRIDGES, (SEISMIC PERFORMANCE CATEGORY WITH ACCELERATION COEFFICIENT 1)

4) CONCRETE: CLASS "A" F_c = 3000 PSI. BRIDGE DECK CLASS "D" F_c = 4000 PSI

5) REINFORCING STEEL: TO BE ASTM A615 GRADE 60. EPOXY COAT ALL SLAB STEEL

6) SUPERSTRUCTURE TO CONSIST OF 4 SPANS PRESTRESSED PRECAST 65" BUILT-UP I BEAMS WITH 12" PARAPET

7) USE STD-1-1 PARAPET

8) EMO OF BRIDGE DRAINS NOT REQUIRED.

9) MAINTAIN TRAFFIC BY STAGE CONSTRUCTION.

10) BRIDGE DECK DRAINS ARE REQUIRED. (CURB OPENING TYPE)

11) TEXTURE COATING TO BE MOUNTAIN GREY (36440) EXCEPT TRAFFIC FACE AND TOP OF PARAPET

12) PARAPET RISE SHALL BE CLASS 19 RIP-RAP IN ACCORDANCE WITH SPECIAL PROVISION 709 AND SHALL BE PAID FOR UNDER ITEM 709-05.0X.

13) EXISTING BRIDGE NO. 28-15-7.49 AND APPROACHES TO BE REMOVED TO NATURAL GROUND BETWEEN STATIONS 593+91.00 AND 594+51.00.

14) FILL EXCAVATION OF STREAM CHANNEL AREA AHEAD OF RIP-RAP OR PIER PLACEMENT SHALL BE SEPARATED FROM FLOWING WATER AND ACCOMPLISHED DURING LOW FLOW CONDITIONS. THIS SHALL BE ACCOMPLISHED BY USE OF ALUMINUM PILING WITH SAND BAG DAM AT PIPE INLET OR IN SOME CASES COFFERDAMS.

GENERAL NOTES

GRADE SKETCH

200' V.C.	
ELEV. 618.09	0.00%
P.C. STA. 591+00.00	
ELEV. 618.09	0.00%
P.T. STA. 592+00.00	
ELEV. 618.09	0.00%
P.C. STA. 604+50.00	
ELEV. 618.09	0.00%

HYDRAULIC DATA

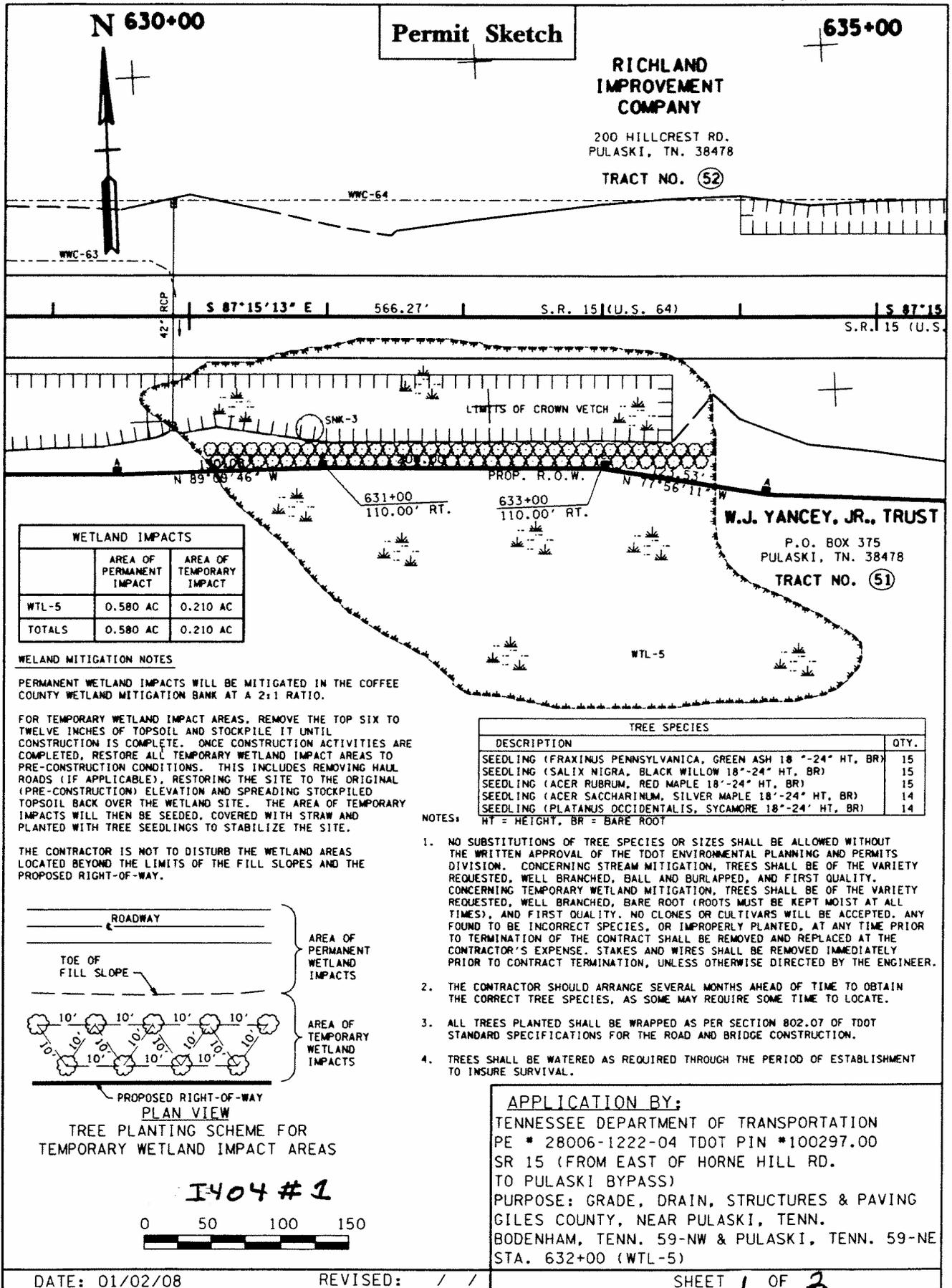
TOTAL DRAINAGE AREA = 366.50 AC.
TOTAL DESIGN DISCHARGE = 94,484 CFS
WATER AREA INCLUDED = 1.00 AC.
WATER AREA EXCLUDED = 668.83 AC
100 YEAR VELOCITY = 9.22 FT/S
ROADWAY OVERTOPPING ELEV. = 678.0 FT. @ ELEV. 670.22 FT.
500 YR. DISCHARGE 148,891 CFS @ ELEV. 676.13

GRADE SKETCH

DATE: 1-20-01
DRAWN BY: J. H. HARRIS
CHECKED BY: J. H. HARRIS

FILE NO. 2008-01081
PN 08-45
SITE 6

FILE No. 2008-0108 PN08-45 SITE 8



Permit Sketch

RICHLAND IMPROVEMENT COMPANY

200 HILLCREST RD.
PULASKI, TN. 38478

TRACT NO. 52

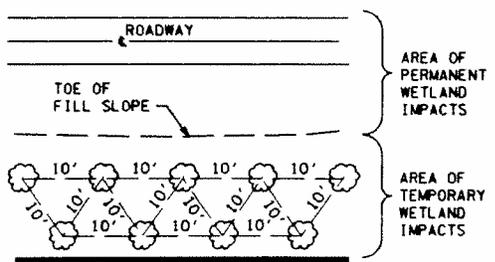
WETLAND IMPACTS		
	AREA OF PERMANENT IMPACT	AREA OF TEMPORARY IMPACT
WTL-5	0.580 AC	0.210 AC
TOTALS	0.580 AC	0.210 AC

WETLAND MITIGATION NOTES

PERMANENT WETLAND IMPACTS WILL BE MITIGATED IN THE COFFEE COUNTY WETLAND MITIGATION BANK AT A 2:1 RATIO.

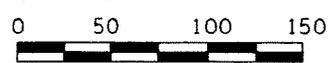
FOR TEMPORARY WETLAND IMPACT AREAS, REMOVE THE TOP SIX TO TWELVE INCHES OF TOPSOIL AND STOCKPILE IT UNTIL CONSTRUCTION IS COMPLETE. ONCE CONSTRUCTION ACTIVITIES ARE COMPLETED, RESTORE ALL TEMPORARY WETLAND IMPACT AREAS TO PRE-CONSTRUCTION CONDITIONS. THIS INCLUDES REMOVING HALL ROADS (IF APPLICABLE), RESTORING THE SITE TO THE ORIGINAL (PRE-CONSTRUCTION) ELEVATION AND SPREADING STOCKPILED TOPSOIL BACK OVER THE WETLAND SITE. THE AREA OF TEMPORARY IMPACTS WILL THEN BE SEEDED, COVERED WITH STRAW AND PLANTED WITH TREE SEEDLINGS TO STABILIZE THE SITE.

THE CONTRACTOR IS NOT TO DISTURB THE WETLAND AREAS LOCATED BEYOND THE LIMITS OF THE FILL SLOPES AND THE PROPOSED RIGHT-OF-WAY.



PROPOSED RIGHT-OF-WAY
PLAN VIEW
TREE PLANTING SCHEME FOR
TEMPORARY WETLAND IMPACT AREAS

I404 # 1



TREE SPECIES		
DESCRIPTION		QTY.
SEEDLING (FRAXINUS PENNSYLVANICA, GREEN ASH 18"-24" HT, BR)		15
SEEDLING (SALIX NIGRA, BLACK WILLOW 18"-24" HT, BR)		15
SEEDLING (ACER RUBRUM, RED MAPLE 18"-24" HT, BR)		15
SEEDLING (ACER SACCHARINUM, SILVER MAPLE 18"-24" HT, BR)		14
SEEDLING (PLATANUS OCCIDENTALIS, SYCAMORE 18"-24" HT, BR)		14

- NOTES:
- NO SUBSTITUTIONS OF TREE SPECIES OR SIZES SHALL BE ALLOWED WITHOUT THE WRITTEN APPROVAL OF THE TDOT ENVIRONMENTAL PLANNING AND PERMITS DIVISION. CONCERNING STREAM MITIGATION, TREES SHALL BE OF THE VARIETY REQUESTED, WELL BRANCHED, BALL AND BURLAPPED, AND FIRST QUALITY. CONCERNING TEMPORARY WETLAND MITIGATION, TREES SHALL BE OF THE VARIETY REQUESTED, WELL BRANCHED, BARE ROOT (ROOTS MUST BE KEPT MOIST AT ALL TIMES), AND FIRST QUALITY. NO CLONES OR CULTIVARS WILL BE ACCEPTED. ANY FOUND TO BE INCORRECT SPECIES, OR IMPROPERLY PLANTED, AT ANY TIME PRIOR TO TERMINATION OF THE CONTRACT SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE. STAKES AND WIRES SHALL BE REMOVED IMMEDIATELY PRIOR TO CONTRACT TERMINATION, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
 - THE CONTRACTOR SHOULD ARRANGE SEVERAL MONTHS AHEAD OF TIME TO OBTAIN THE CORRECT TREE SPECIES, AS SOME MAY REQUIRE SOME TIME TO LOCATE.
 - ALL TREES PLANTED SHALL BE WRAPPED AS PER SECTION 802.07 OF TDOT STANDARD SPECIFICATIONS FOR THE ROAD AND BRIDGE CONSTRUCTION.
 - TREES SHALL BE WATERED AS REQUIRED THROUGH THE PERIOD OF ESTABLISHMENT TO INSURE SURVIVAL.

APPLICATION BY:
TENNESSEE DEPARTMENT OF TRANSPORTATION
PE * 28006-1222-04 TDOT PIN *100297.00
SR 15 (FROM EAST OF HORNE HILL RD. TO PULASKI BYPASS)
PURPOSE: GRADE, DRAIN, STRUCTURES & PAVING
GILES COUNTY, NEAR PULASKI, TENN.
BODENHAM, TENN. 59-NW & PULASKI, TENN. 59-NE
STA. 632+00 (WTL-5)

DATE: 01/02/08

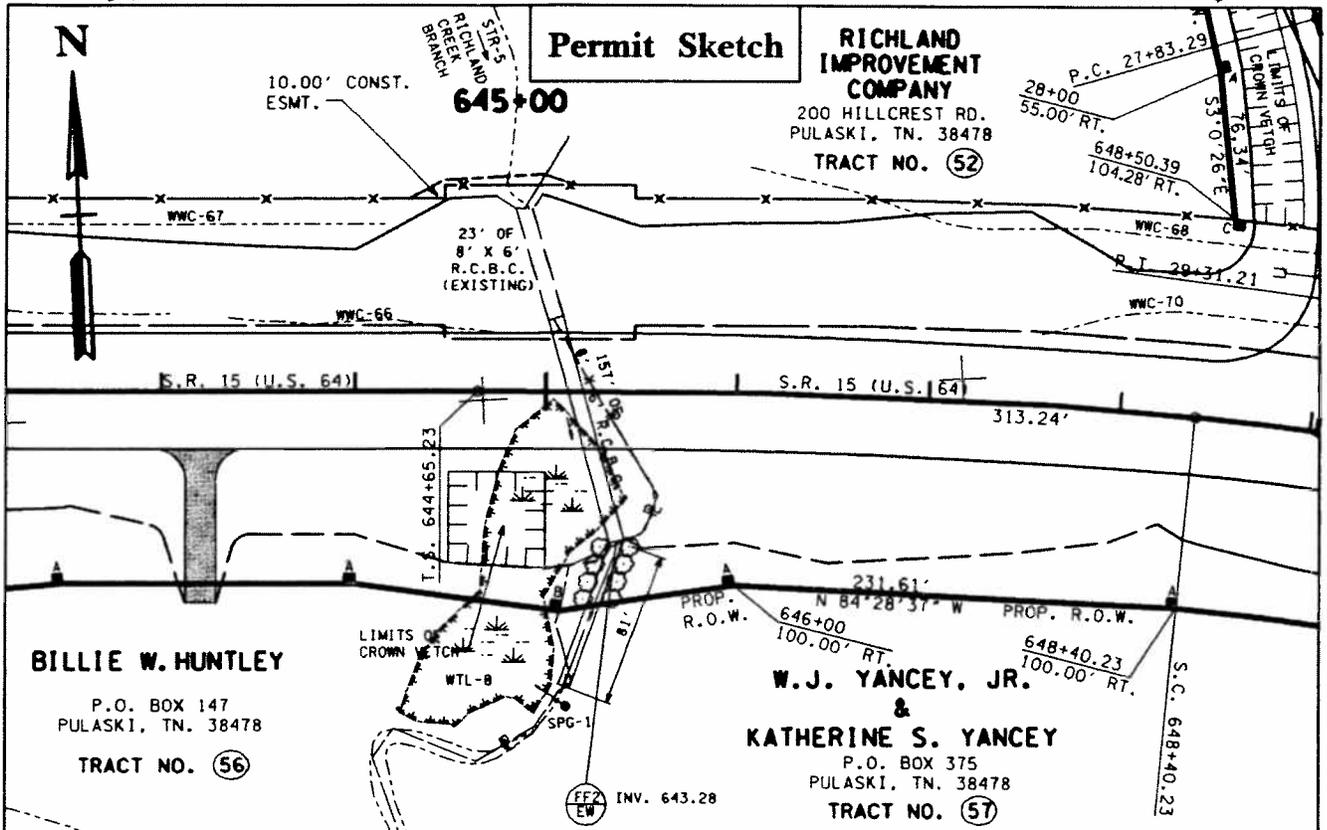
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SHEET 1 OF 2

AN 08-45

FILE NO. 2008-01081

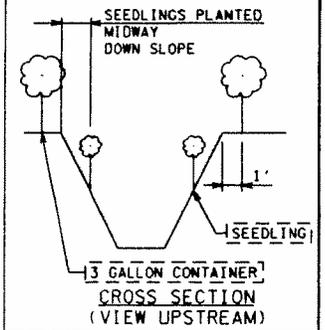
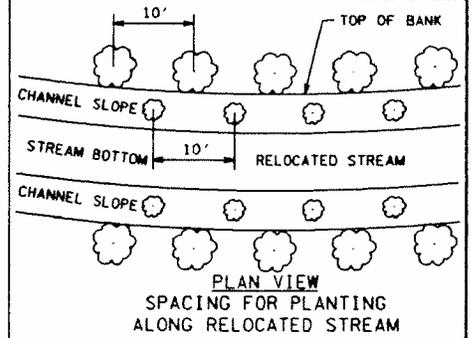
SITES 9 AND 10



CHANNEL RELOCATION SEQUENCE AND IMPLEMENTATION NOTES FOR RELOCATED STREAM CHANNELS

- THE NEW CHANNEL SHALL BE EXCAVATED AND STABILIZED DURING A LOW-WATER PERIOD. RIPRAP (ONLY AS SHOWN ON PLANS), SEEDING, AND SOD SHALL BE INSTALLED IMMEDIATELY FOLLOWING CHANNEL COMPLETION. TREES SHALL BE INSTALLED IN THE FIRST PLANTING SEASON FOLLOWING CHANNEL EXCAVATION. WATER SHALL BE DIVERTED INTO THE NEW CHANNEL ONLY AFTER IT IS COMPLETELY STABILIZED, AND ONLY DURING A LOW-WATER PERIOD. STABILIZED MEANS THAT ALL SPECIFIED ROCK AND EROSION CONTROL BLANKET OR FLEXIBLE CHANNEL LINER IS IN PLACE, AND SEEDING AND SOD ARE IN PLACE AND ESTABLISHED.
- CHANNEL RELOCATION SEQUENCE:
 - FLAG EDGE OF THE NEW CHANNEL TOP BANK PRIOR TO CLEARING. DO NOT CLEAR LARGE TREES IN POSITION TO SHADE THE NEW CHANNEL. LEAVE AS MANY TREES AND SHRUBS AS POSSIBLE BETWEEN TOE OF THE NEW HIGHWAY SLOPE AND THE STREAM.
 - EXCAVATE THE NEW CHANNEL 1/2 IN THE DRY BY LEAVING AREAS OF UNDISTURBED EARTH (DIVERSION BERMS) IN PLACE AT BOTH ENDS.
 - SHAPE CHANNEL TO SPECIFICATIONS SHOWN. REMOVE LOOSE SOILS AND DEBRIS.
 - PLACE TOPSOIL, EROSION CONTROL BLANKET OR FLEXIBLE CHANNEL LINER. SEED AND SOD AS SPECIFIED.
 - REMOVE DIVERSION BERMS. BEGINNING WITH THE MOST DOWNSTREAM, BANKS AND BOTTOM ELEVATION OF THE OLD CHANNEL SHOULD TRANSITION SMOOTHLY INTO THE NEW CHANNEL. THE ELEVATIONS OF THE NEW CHANNEL BOTTOM AT EACH END OF THE RELOCATION SEQUENCE SHOULD MATCH THE ELEVATIONS OF THE EXISTING CHANNEL, AND A STEADY PERCENT SLOPE SHOULD BE MAINTAINED THROUGHOUT THE RELOCATED CHANNEL CENTERLINE OR AS SPECIFIED.
 - INSTALL TREES ACCORDING TO STANDARD SPECIFICATIONS SECTION 802.
- ONLY RIPRAP SHOWN ON PLANS SHOULD BE USED IN THE RELOCATED CHANNEL REACH. ANY OTHER PROPOSED RIPRAP SHOULD BE COORDINATED WITH THE ENVIRONMENTAL DIVISION THROUGH THE TDOT HEADQUARTERS CONSTRUCTION OFFICE.
- REQUESTS BY ANY AGENCY THAT WOULD REQUIRE THE MODIFICATION OF CHANNELS, DITCHES, ELEVATIONS, RIPRAP OR ANY OTHER STREAM MITIGATION ITEMS ASSOCIATED WITH THE CHANNEL RELOCATIONS SHALL BE REFERRED TO THE TDOT ENVIRONMENTAL DIVISION VIA THE HEADQUARTERS CONSTRUCTION OFFICE FOR COORDINATION WITH ALL INVOLVED AGENCIES AND TDOT DIVISIONS.

EXISTING LENGTH = 301'
 PROPOSED LENGTH = 263'



IARAP # 4
 IARAP # 5

TREE SPECIES	
DESCRIPTION	QTY.
(FRAXINUS PENNSYLVANICA, GREEN ASH, 3 GAL. CONTAINER)	2
(SALIX NIGRA, BLACK WILLOW, 3 GAL. CONTAINER)	2
(ACER RUBRUM, RED MAPLE, 3 GAL. CONTAINER)	2
(ACER SACCHARINUM, SILVER MAPLE, 3 GAL. CONTAINER)	1
(PLATANUS OCCIDENTALIS, SYCAMORE, 3 GAL. CONTAINER)	1



APPLICATION BY:
 TENNESSEE DEPARTMENT OF TRANSPORTATION
 PE # 28006-1222-04 TDOT PIN #100297.00
 SR 15 (FROM EAST OF HORNE HILL RD. TO PULASKI BYPASS)
 PURPOSE: GRADE, DRAIN, STRUCTURES & PAVING
 GILES COUNTY, NEAR PULASKI, TENN.
 BODENHAM, TENN. 59-NW & PULASKI, TENN. 59-NE
 STA. 645+16 (STR-5)

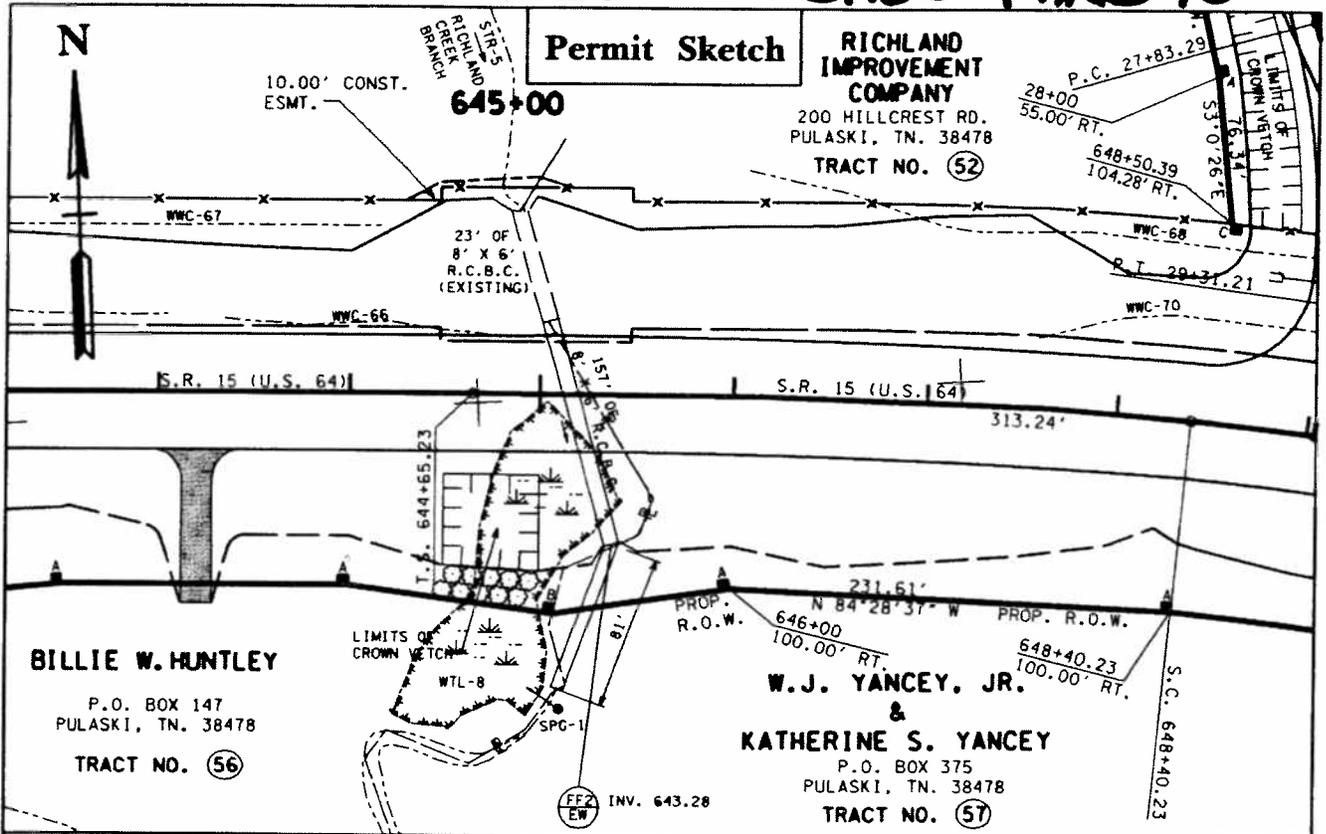
DATE: 01/02/08

REVISED: / /

SHEET 2 OF 4

PN 08-45
 File No. 2008-01081

SITES 9 AND 10

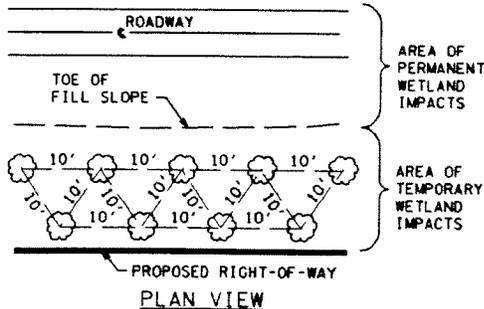


WETLAND MITIGATION NOTES

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PLAN VIEW
 TREE PLANTING SCHEME FOR
 TEMPORARY WETLAND IMPACT AREAS

WETLAND IMPACTS		
	AREA OF PERMANENT IMPACT	AREA OF TEMPORARY IMPACT
WTL-8	0.100 AC	0.020 AC
TOTALS	0.100 AC	0.020 AC

IARAP #4
 IARAP #5

TREE SPECIES		QTY.
DESCRIPTION		
SEEDLING (FRAXINUS PENNSYLVANICA, GREEN ASH 18"-24" HT, BR)		2
SEEDLING (SALIX NIGRA, BLACK WILLOW 18"-24" HT, BR)		2
SEEDLING (ACER RUBRUM, RED MAPLE 18"-24" HT, BR)		2
SEEDLING (ACER SACCHARINUM, SILVER MAPLE 18"-24" HT, BR)		2
SEEDLING (PLATANUS OCCIDENTALIS, SYCAMORE 18"-24" HT, BR)		2

NOTES:

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 BODENHAM, TENN. 59-NW & PULASKI, TENN. 59-NE
 STA. 645+00 (WTL-8) (SPG-1)

DATE: 01/02/08

REVISED: / /

SHEET 1 OF 4