Appendix B
Water Quality Certification

TENNESSEE DEPARTMENT OF ENVIRONMENT & CONSERVATION
Division of Water Pollution Control
401 Church Street
7th Floor, L & C Building
Nashville, TN 37243-1534

§401 Water Quality Certification
State of Tennessee Aquatic Resource Alteration Permit
Joint Public Notice 03.10
NRS File # 02.454, ACOE#20020 1957
TDOT Project #46045-1201-04

Pursuant to §401 of the *Federal Clean Water Act* (33 U.S.C. §1341), the State of Tennessee is required to certify whether the activity described below will violate applicable water quality standards. Accordingly, the Division of Water Pollution Control requires reasonable assurance that the activity will not violate provisions of *The Tennessee Water Quality Control Act of 1977* (T.C.A. § 69-3-101 et seq.) or of §§ 301, 302, 303, 306 or 307 of the *Federal Clean Water Act.*

Subject to conformance with approved plans, specifications, and other information submitted in support of the referenced application, the State of Tennessee hereby certifies the proposed activity pursuant to 33 U.S.C.§1341. This shall serve as authorization pursuant to T.C.A. § 69-3-101 et. seq.

AUTHORIZATION IS HEREBY GRANTED TO:
Mr. John Hewitt, P.E
C. E. Manager, Environmental Permits Section
Tennessee Department of Transportation
Environmental Planning & Permits Division
Suite 900 JK Polk Building
505 Deaderick Street
Nashville, TN 37243-0338

PROJECT DESCRIPTION: TDOT will widen 4.85 miles of State Route 91 along the existing alignment for public use from North of West Main Street (SR 34/SR 67 to North of Cole Springs Road (Wills Road) in Mountain City, Johnson County, TN. The construction will consist of four (12') lanes. Construction involves the loss of 4015' of stream due to encapsulation within culverts, channel changes and stream loss. Construction also includes the permanent filling of 1.38 acres of wetlands and temporary impacts to 0.08 acres of wetlands for construction and haul roads. Specific activities affecting aquatic resources are included in Table 1 attached:

LOCATION: State Route 91 From US-421 (SR34-67) To North of Cole Springs Road, Johnson County, TN, Johnson Hollow Branch, Wills Branch, and Drystone Branch Watersheds and associated wetlands.

TDOT PROJECT# 46045-1201-04

EFFECTIVE DATE: August 7, 2003

EXPIRATION DATE: August 7, 2008

SPECIAL CONDITIONS:
The work shall be accomplished in conformance with the approved plans, specifications, data and other information submitted in support of the above application and the limitations, requirements, and conditions set forth herein.

1) **Mitigation/Stream Relocations**: The mitigation for stream channel changes during construction of State Route 91 will include the replacement of canopy by the planting of native trees as shown in the previously submitted permit sketches. These trees are to be a minimum of 1.5" –2" caliper, balled and burlapped specimens. These larger trees will be planted in a single staggered row on 20' centers. These trees will also be planted in the relocated areas where presently minimal to no canopy exists to provide a better buffer and canopy along the relocated stream lengths as shown in the plans.

2) No substitutions will be accepted for any of these tree species without written permission of the Environmental Planning and Permits Division. No cultivars for any of these species will be accepted. All planted trees and shrubs shall have achieved a minimum 80% survival rate, as compared to the initial number planted, by the end of first two years after planting. If the 80% survival rate is not met, the replacement of trees will be implemented at the end of the 2 years in order to achieve the 80% survival rate.

3) **Relocated Stream Construction:** The morphology and geometry of the impacted channel sections will also be approximated in the relocated channel sections as closely as possible with regard to the existing available right –of –way, and or topography along the project alignment.

4) **Culvert bottoms** shall be placed below the surface of the stream substrate, as open –bottom culverts are not feasible due to a lack of bedrock substrate present at this site.

5) **Mitigation/Wetland Losses**: TDOT will mitigate the 1.38 acres of permanent wetland loss by debiting 2.76 acres from available credits at the Shady Valley Wetland Mitigation Bank. The temporary impact to 0.08 acres of wetlands will be mitigated by returning the areas to their original elevations and seeding with perennial rye grass and mulching.

6) Grading or excavation shall not take place in flowing waters. Grading or excavation and fill activities shall be separated from the water column. All surface water flowing toward the grading or excavation work shall be diverted through utilization of cofferdams, berms, or temporary channels. Temporary diversion channels must be protected by non-erodible material and lined to the expected high water level. Cofferdams must be constructed of sandbags, clean rock, steel sheeting or other non-erodible material. Excavated material must be removed to a location that will prevent its re-entry into the any waters of the State. All stockpiles must be temporarily seeded and separated from the waters by entrenched silt fence. The silt fence must be maintained at all times.

7) Temporary erosion and sedimentation control measures must be used throughout the construction period. Effective erosion control must be installed along the base of all fills and cuts, on the down hill side of stock piled soil, and along stream banks in cleared or graded areas to prevent sedimentation into streams. Controls shall be repaired and maintained as necessary. Measures shall include, but not be limited to the use of entrenched fabric filter fence, entrenched staked straw bales, sediment basins, berms, dams, brush barriers, fiber mats, netting, gravel, mulches, grasses, slope drains, etc.

8) All work shall be carried out in such a manner as will prevent violations of water quality criteria as stated in Rule 1200-4-3.03 of the Rules of the Tennessee Department of Environment and Conservation. This includes but is not limited to the prevention of any discharge, which causes a condition in which visible solids, bottom deposits, or turbidity impairs the usefulness of waters of the State for any of the uses, designated by Rule 1200-4-4. These uses include fish and aquatic life, livestock watering and wildlife, recreation, irrigation, industrial water supply, and domestic water supply.

9) All disturbed areas shall be covered with mulch within 30 days of attainment of final grade and seeded with an appropriate combination of annual grains and grasses, legumes, and perennial grasses necessary to achieve a vegetative cover against erosion. **Appropriate plant material and seeds will not include any species which are included in the Invasive Exotic Pest Plants in Tennessee List as revised in May 2001, by the Tennessee Exotic Pest Plant Council. (www.se-eppc.org).** Lime and fertilizer shall be applied as needed. Temporary seeding and mulching shall be applied where final grade is not yet achieved. Under no circumstances shall soil slopes be left exposed for greater than 30 days.

10) Appropriate steps shall be taken to ensure that petroleum products or other chemical pollutants are prevented from entering waters of the state. All spills must be reported immediately to the appropriate emergency management agency. Measures shall be taken immediately to prevent the pollution of waters of the State, including groundwater.

11) **The applicant is responsible to convey all terms and conditions of this permit to the contractor(s). A copy of this permit along with approved plans must be present on site during all phases of construction.**

This does not obviate requirements of other federal, state or local laws. In particular, work shall not commence until the applicant has received the federal §404 permit from the U. S. Army, Corps of Engineers or §26a permit from the Tennessee Valley Authority where necessary. The State of Tennessee reserves the right to modify or revoke this permit or to seek modification or revocation should the State determine that the activity results in more than an insignificant violation of applicable water quality criteria or violation of the Act. Failure to comply with permit terms may result in penalty in accordance with § 69-3-115 of the Act.
An appeal of this action may be made to the Water Quality Control Board. In order to appeal, a petition requesting a hearing before the Board must be filed within 30 days after receipt of the permit action. In such petition, each contention should be stated in numbered paragraphs that describe how the proposed activity would be lawful and the action of the state is inappropriate.

The petition must be prepared on 8½" by 11" paper, addressed to the Water Quality Control Board and filed in duplicate at the following address: Paul E. Davis, Director, Division of Water Pollution Control, 6th Floor L & C Annex, 401 Church Street, Nashville, Tennessee 37243-1534. Any hearing would be in accordance with T.C.A. §69-3-110 and 4-5-301 et seq.

Questions concerning this Aquatic Resources Alteration Permit should be addressed to Jennifer Sincerely.

for Paul E. Davis
Director WPC

11 / Aug / 2003.
DATE

TENNESSEE DEPARTMENT OF ENVIRONMENT & CONSERVATION
DIVISION OF WATER POLLUTION CONTROL
401 CHURCH STREET
7TH FLOOR L & C ANNEX
NASHVILLE, TENNESSEE 37243-1534

January 25, 2006

State of Tennessee
Department of Transportation
Environmental Planning and Permits Division
Suite 900, J. K Polk Bldg.
505 Deaderick Street
Nashville, TN 37243-0334

RE: **Modification of Approved Plans.**
SR-91 (Project#46045-1201-04), Johnson County, (NRS02.454/NRS-04.420).

Dear Mr. Hewitt:

We have reviewed your request to withdraw impacts previously authorized under this project as IARAP#6 and use that mitigation to address stream impacts involving the installation of 144 ft. of rock buttress in a spring channel from Station 16+351+/- (Lt) to Sta. 16+385+/- (Lt). The impacts to the spring channel can be covered under the terms and conditions of the *General Permit the Construction and Removal of Minor Road Crossings*. The installation of the rock buttress and the elimination of the originally permitted stream impacts would be considered de minimus under water quality standards. The requested amendments to NRS02.454 are hereby approved.

The work may also require authorization from the U. S. Army Corps of Engineers. They may be reached at 615-369-7506. **This authorization is valid for the duration of the original permit.** If you need additional information or clarification, please contact Brian Canada at 615-532-0660.

Sincerely,

Daniel C. Eagar
Manager, Division of Water Pollution Control
Natural Resources Section

CC: Johnson City Environmental Field Office
US Army Corps of Engineers, Nashville District, Regulatory Division attn: Rueben Hernandez
TVA
File

TENNESSEE DEPARTMENT OF ENVIRONMENT & CONSERVATION
DIVISION OF WATER POLLUTION CONTROL
7TH FLOOR L & C ANNEX
401 CHURCH STREET
NASHVILLE, TN 37243-1534

March 21, 2002

Ron Gatlin
Chief, Regulatory Branch
Nashville District, Corps of Engineers
3701 Bell Road
Nashville, TN 37214-2260

SUBJECT: §401 Water Quality Certification
Issuance, Re issuance, and Modification of Nationwide Permits

Dear Mr. Gatlin:

Pursuant to §401 of the *Federal Clean Water Act* (33 U.S.C. §1341), the State of Tennessee is required to certify whether the activities authorized by the proposed nationwide general permits, Federal Register Tuesday, January 15, 2002, Volume 67, No. 10, will violate applicable water quality standards. Accordingly, the Division of Water Pollution Control requires reasonable assurance that the activities will not violate provisions of the *Tennessee Water Quality Control Act of 1977* (T.C.A. § 69-3-101 et seq.) or of §§ 301, 302, 303, 306 or 307 of the *Clean Water Act*.

The Tennessee Water Quality Control Act of 1977 (*Act*) requires permits for certain activities also regulated by § 404 and authorized by the proposed nationwide permits. The Division has developed certain general permits pursuant to the *Act* which authorize activities that generally correspond with the activities authorized by the nationwides. Most require written notification to the Division along with written authorization, although some do not. Where notification to the Division *is not* required, certification is provided in the ensuing text under the general terms and conditions contained in the States' general permit. Where notification to the Division *is* required, or an individual permit under the *Act* is otherwise required, the State is issuing certification under the one provision that the Corps notify the permittee regarding their responsibilities to comply with other federal, state and local laws as directed below.

Also, not all of the proposed nationwides have a corresponding general permit under state law. Where no general permit exists under the Act, or the Division has determined that issuance of a general permit may result in violation, the Division must deny the nationwide general permit.

The Division hereby issues §401 water quality certification for the following nationwide general permits in waters of the U. S. within the State of Tennessee, in accordance with the conditions stated, and provided that the applicant is notified in a conspicuous fashion that the nationwide permit authorization does not obviate the requirements of other federal, state, or local permits, approvals, or authorizations, specifically including permit requirements of *The Tennessee Water Quality Control Act of 1977*:

3. Maintenance
4. Fish and Wildlife Harvesting, Enhancement, and Attraction Devices and Activities
7. Outfall Structures and Maintenance

12. Utility Line Activities

13. Bank Stabilization [1]

[1] Where the activity is not located within water resource development project lands and waters, including flowage easement, managed by the Tennessee Valley Authority or the U. S. Army Corps of Engineers.

14. Linear Transportation Crossings

15. U. S. Coast Guard Approved Bridges

16. Return Water from Upland Contained Disposal Areas

17. Hydropower Projects

20. Oil Spill Cleanup

22. Removal of Vessels

23. Approved Categorical Exclusions

25. Structural Discharges

27. Stream and Wetland Restoration Activities

30. Moist Soil Management for Wildlife

32. Completed Enforcement Actions

33. Temporary Construction, Access and Dewatering

34. Cranberry Production Activities

36. Boat Ramps [3]

[3] Where the activity is not located within water resource development project lands and waters, including flowage easement, managed by the Tennessee Valley Authority or the U. S. Army Corps of Engineers.

37. Emergency Watershed Protection and Rehabilitation

38. Cleanup of Hazardous and Toxic Waste

42. Recreational Facilities

The Division hereby issues §401 water quality certification for the following nationwide permits, in accordance with the provisions and general terms and conditions of the State's corresponding general permits (attached):

5. Scientific Measurement Devices

6. Survey Activities

13. Bank Stabilization [4]; *General Permit for Bank Stabilization*

[4] Where the activity is located within water resource development project lands and waters, including flowage easement, managed by the Tennessee Valley Authority or the U. S. Army Corps of Engineers.

[4] Where the work is performed and maintained in accordance with a bio-engineering plan developed or approved by the United States Department of Agriculture, Natural Resource Conservation Service, or where recognized bio-engineering techniques are used and no work is done instream with mechanized equipment.

18. Minor Discharges [5]; *General Permit for Minor Dredging*

[5] Where the activity is located within water resource development project lands and waters, including flowage easement, managed by the Tennessee Valley Authority or the U. S. Army Corps of Engineers.

19. Minor Dredging [6]; *General Permit for Minor Dredging*

[6] Where the activity is located within water resource development project lands and waters, including flowage easement, managed by the Tennessee Valley Authority or the U. S. Army Corps of Engineers.

21. Surface Coal Mining Activities

36. Boat Ramps [7]; *General Permit for Launching Ramps*

[7] Where the activity is located within water resource development project lands and waters, including flowage easement, managed by the Tennessee Valley Authority or the U. S. Army Corps of Engineers.

The Division hereby **denies** §401 water quality certification for the following nationwide permits:

29. Single Family Housing

31. Maintenance of Existing Flood Control Projects

39. Residential, Commercial, and Institutional Developments

40. Agricultural Activities

41. Reshaping Existing Drainage Ditches

43. Stormwater Management Facilities

44. Mining Activities

Thank you for your consideration. If we can be of assistance please contact Daniel Eagar at 532-0708.

Sincerely,

Daniel C Eagar

Paul E. Davis
Director, Division of Water Pollution Control

cc: Tom Welborn; E.P.A. Atlanta, GA.
Dan Sherry, T.W.R.A., Nashville, TN
Lee Barclay, F.W.S., Cookeville, TN

Appendix C
Memorandum of Agreement Submitted Pursuant to 36 CFR 800

MEMORANDUM OF AGREEMENT
Submitted Pursuant to 36 CFR Part 800

WHEREAS, the Tennessee Valley Authority (TVA) and the U.S. Army Corps of Engineers (USACE) are considering issuing permits to the Tennessee Department of Transportation (TDOT), for proposed improvements to State Route 91 between the project termini of Mountain City (State Route 34/67 (US 421) at existing SR 91) and Laurel Bloomery (SR 91 at Cold Springs Road/Wills Road), Johnson County, Tennessee (Project); and

WHEREAS, TVA and USACE have considered 10 alternatives, including No Action, for construction of a roadway between the two project termini, and evaluated these alternatives for impacts to historic properties; and

WHEREAS, the evaluation of project alternatives was undertaken to determine whether impacts to historic properties that would result from TDOT's proposed roadway could be avoided, minimized, or mitigated; and

WHEREAS, TVA, USACE, and TDOT have provided extensive opportunities for public comments as to the impacts of project alternatives on historic properties; and

WHEREAS, a comparison of the impacts of project alternatives on historic properties is discussed in the Environmental Assessment (State Route 91 Improvements between US 421 and Cold Springs Road [Wills Road]) which will be made a part of this Agreement, and

WHEREAS, TVA has determined that all reasonable alternatives for the Project will have an adverse effect upon the Wills Historic District and the Johnson Hollow Historic District, which are eligible for listing in the National Register of Historic Places (National Register), and has consulted with the Tennessee State Historic Preservation Officer (TN-SHPO) pursuant to 36 CFR 800, regulations of the Advisory Council on Historic Preservation (Advisory Council) implementing Section 106 of the National Historic Preservation Act (16 U.S.C. 470f); and

Whereas, TVA has evaluated alternatives that will minimize impacts to the Johnson Hollow Historic District and Wills Historic District, but will still adversely affect both districts; and

WHEREAS, TVA has agreed to act as the lead Federal agency pursuant to Part 800.2(a)(2) of the Advisory Council's regulations; and

WHEREAS, TVA has afforded the Advisory Council an opportunity to comment on the Project and its effects on historic properties; and

WHEREAS, the TDOT has participated in the consultation and has been invited to sign this agreement document; and

WHEREAS, Becky Johnson, as a representative of the owner of the Alfred Johnson Farm in the Johnson Hollow Historic District, has participated in the consultation and has been invited to concur with this agreement document; and

WHEREAS, TDOT initiated construction activity prior to initiation of federal Section 106 consultation, resulting in the filling of a farm pond and sedimentation of another farm pond, and adverse visual and operational impacts to the Alfred Johnson Farm; and

WHEREAS, as a consequence of Project activity the Flora Edward Johnson (Rebecca Johnson) Tenant house and outbuildings associated with the Flora Edward Johnson Tenant house on the Alfred Johnson Farm in the Johnson Hollow Historic District were razed; and

WHEREAS, the Alfred Johnson Farm was listed in the National Register on July 1, 1998 and the Alfred Johnson Farm, including the Flora Edward Johnson Tenant House and associated outbuildings, was documented in a 1998 National Register Nomination;

NOW THEREFORE, TVA, the Tennessee SHPO, and TDOT agree that the Project shall be implemented in accordance with the following stipulations in order to take into account the effect of the Project on the historic properties.

STIPULATIONS

TVA will ensure that the following measures are carried out by TDOT for the alternative approved by TVA and USACE:

1. MEASURES TO MINIMIZE HARM. Under the proposed action alternative, TDOT has proposed to build the Project partly on new location that affects both the historic districts. TDOT will implement design features for the proposed route that minimize harm to the historic districts and historic properties within the districts. These design features include a minimum cross-section of two twelve-foot traffic lanes with climbing lanes (three lane cross section) and eight-foot shoulders within a minimum 164-foot right-of-way and will include at-grade intersections at Johnson Hollow Road. The section of the Project located within the historic districts will be landscaped to complement the natural trees and growth of the area to minimize the visual effects. To this end, TDOT will implement a landscaping plan along the proposed roadway through both the Johnson Hollow Historic District and the Wills Historic District. The landscaping plan will be developed in consultation with the TN-SHPO and consulting parties and will be submitted to the SHPO for review and comment prior to implementation.

2. DURATION OF THE MEMORANDUM OF AGREEMENT: If any of the stipulations contained within this Memorandum of Agreement have not been implemented within seven (7) calendar years after execution of this Memorandum of Agreement, the parties hereto shall review this Memorandum of Agreement to determine whether revisions are needed. If revisions are needed, the parties to this Memorandum of Agreement will consult in accordance with 36 CFR 800, Subpart B, to make such revisions.

3. DISCOVERY OF ADDITIONAL HISTORIC PROPERTIES. If during construction and implementation of the project, additional historic properties are discovered, TDOT will stop construction and contact TVA, USACE, SHPO, and consulting parties. The agencies, in consultation with consulting parties, will determine whether additional mitigation measures are needed.

4. TERMINATION: If TVA or the TN-SHPO determines that the terms of this Memorandum of Agreement cannot be implemented, or that TVA has not abided by the terms of the agreement document, the parties shall first consult to seek ways in

which the provisions of the agreement document can be implemented. These ways may be codified in amendments to the agreement. If, after due consultation, TVA and the TN-SHPO are unable to reach an agreement on ways in which the provisions of the agreement document can be implemented, then either party may terminate this Memorandum of Agreement. If this agreement is terminated, the TVA shall either execute another Memorandum of Agreement under Section 800.6(c)(1) or request the comments of the Advisory Council under Section 800.7(a).

5. DISPUTE RESOLUTION: TDOT will provide each of the design elements or plans enumerated in Stipulation 1 above to the TN-SHPO for review and comments. Should the TN-SHPO object within thirty days to any plans or specifications provided pursuant to this Memorandum of Agreement, TDOT will consult with the TN-SHPO to resolve the objection. If TVA determines that the objections cannot be resolved, TVA will forward all documentation relevant to the dispute to the Advisory Council, and request the further comments of the Advisory Council pursuant to 36 CFR 800.6(b).

6. COPIES: The Agency Official shall provide each signatory and consulting party with a copy of any Memorandum of Agreement executed for the Project.

Execution of this Agreement document by TVA, the Tennessee SHPO, and TDOT, its subsequent acceptance by the Advisory Council and implementation of its terms, evidence that TVA has fulfilled its obligations under Section 106 of the National Historic Preservation Act by taking into account the effects of the Project on historic properties.

SIGNATORIES:

TENNESSEE VALLEY AUTHORITY

BY: _____ DATE: 11-28-05
Kathryn J. Jackson, Executive Vice-President
River System Operations and Environment

TENNESSEE STATE HISTORIC PRESERVATION OFFICER

BY: _____ DATE: 12/1/05

INVITED SIGNATORIES:

TENNESSEE DEPARTMENT OF TRANSPORTATION

BY: _____ DATE: _____

UNITED STATES ARMY CORPS OF ENGINEERS

BY: _____ DATE: 10 FEB 06

CONCURRENCE BY OTHERS:

BECKY JOHNSON

BY: _____ DATE: _____

MAYOR, MOUNTAIN CITY, TENNESSEE

BY: Larry Burnette DATE: 3-16-06

MAYOR, JOHNSON COUNTY, TENNESSEE

BY: Rick Joyner DATE: 03/16/2006

CONCURRENCE BY OTHERS:

BECKY JOHNSON

BY: Becky Johnson DATE: 7/12/06

MAYOR, MOUNTAIN CITY, TENNESSEE

BY: _____ DATE: _____

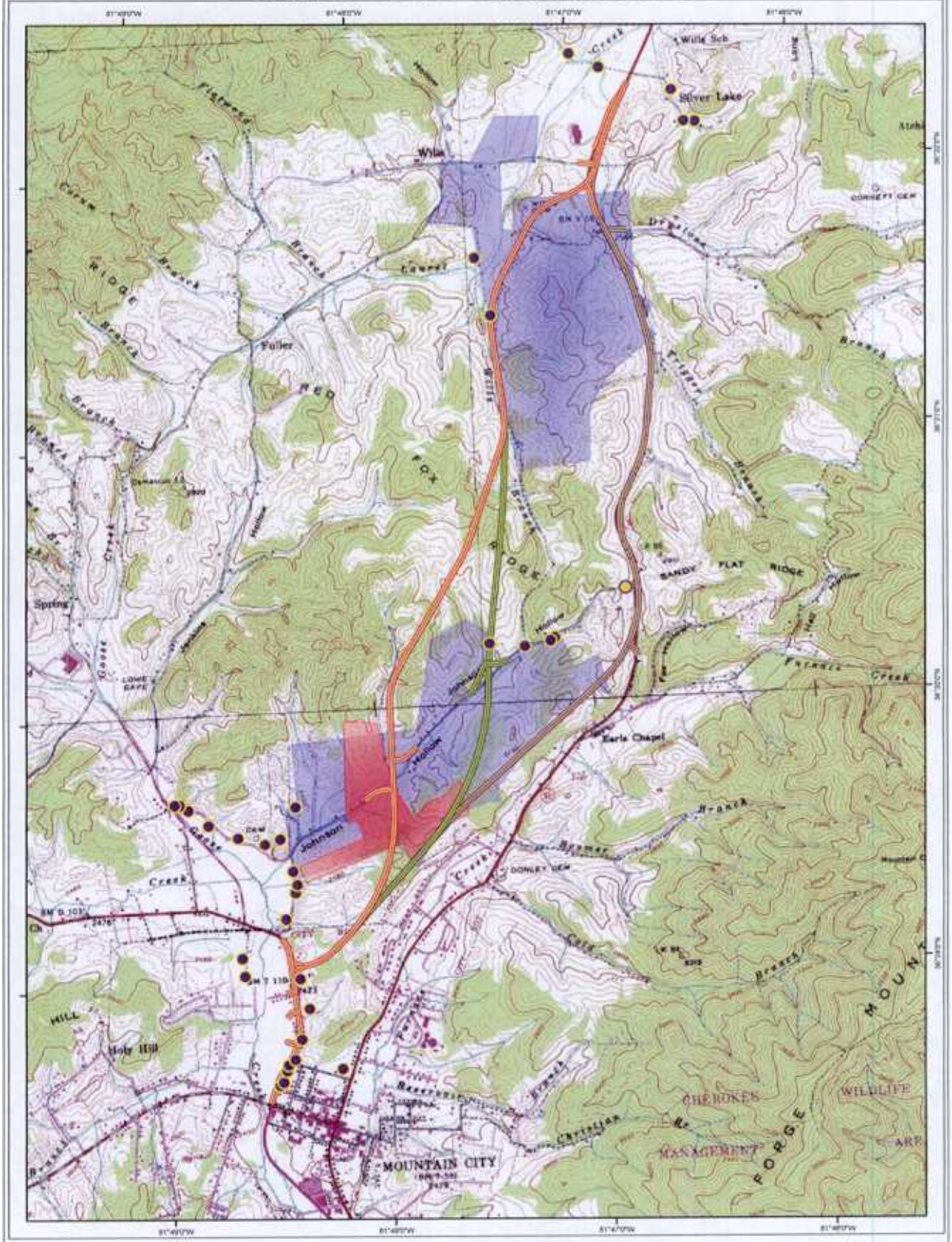
MAYOR, JOHNSON COUNTY, TENNESSEE

BY: _____ DATE: _____

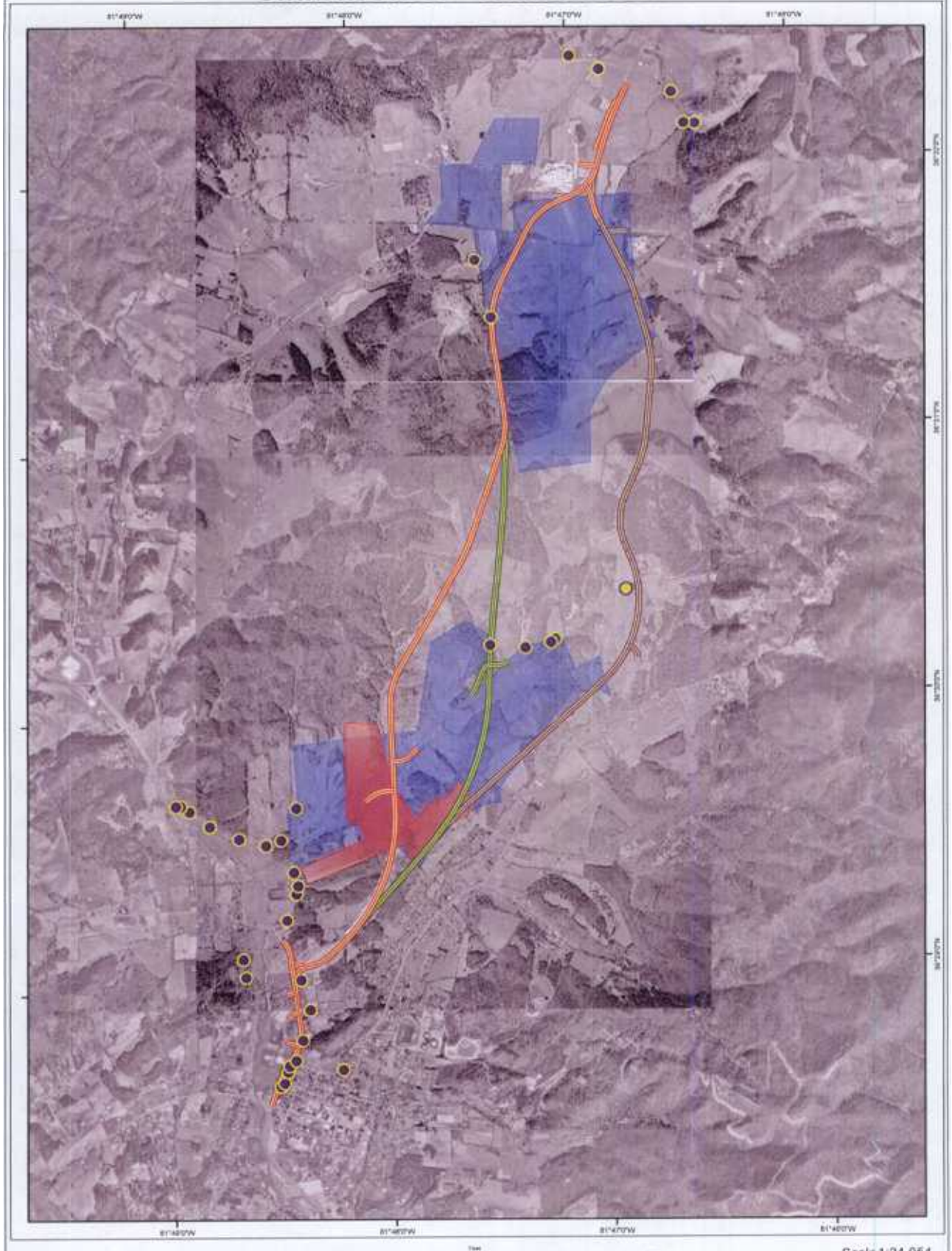
Appendix D

Maps

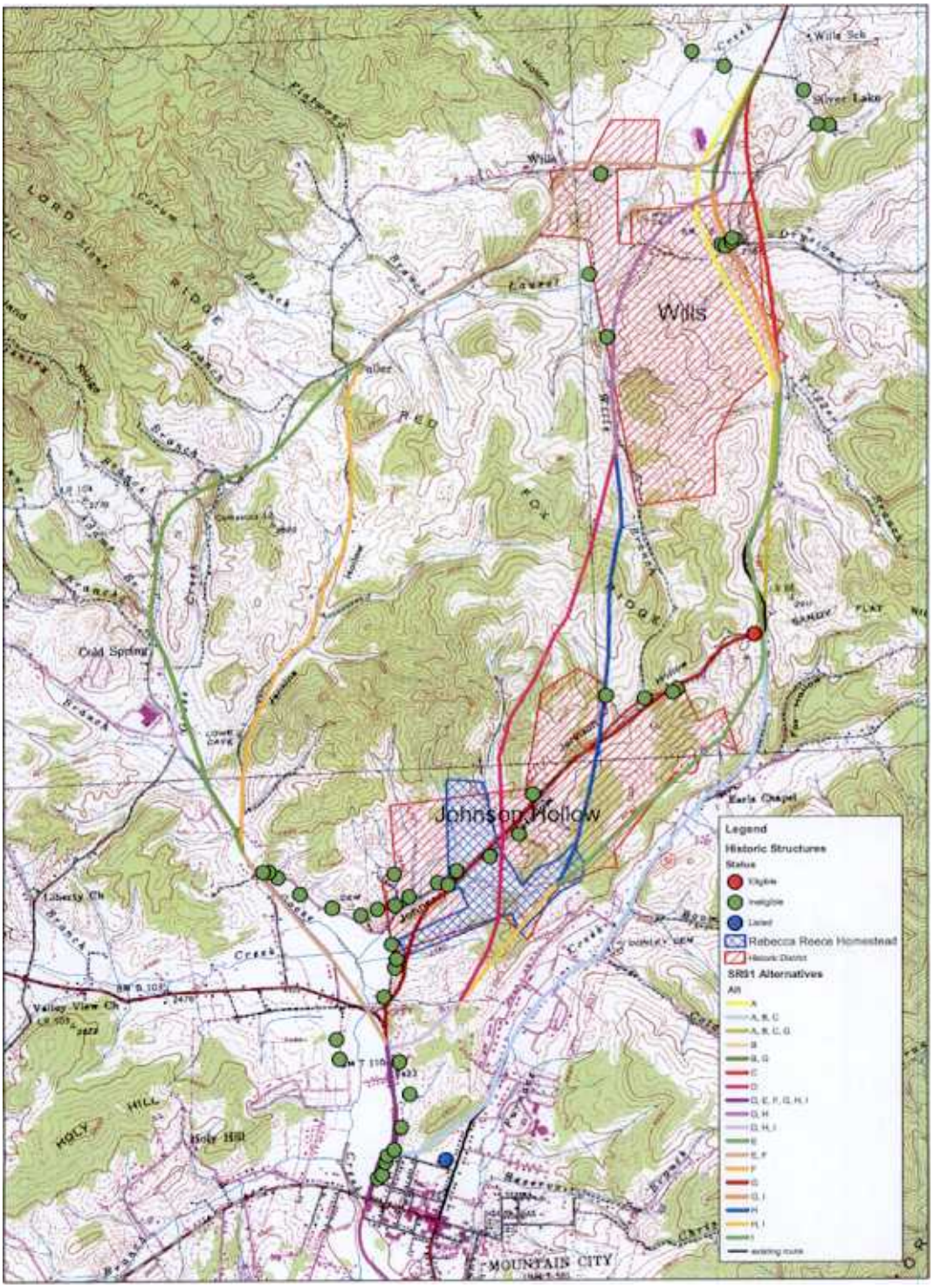
STATE ROUTE 91 ~ JOHNSON COUNTY



STATE ROUTE 91 ~ JOHNSON COUNTY

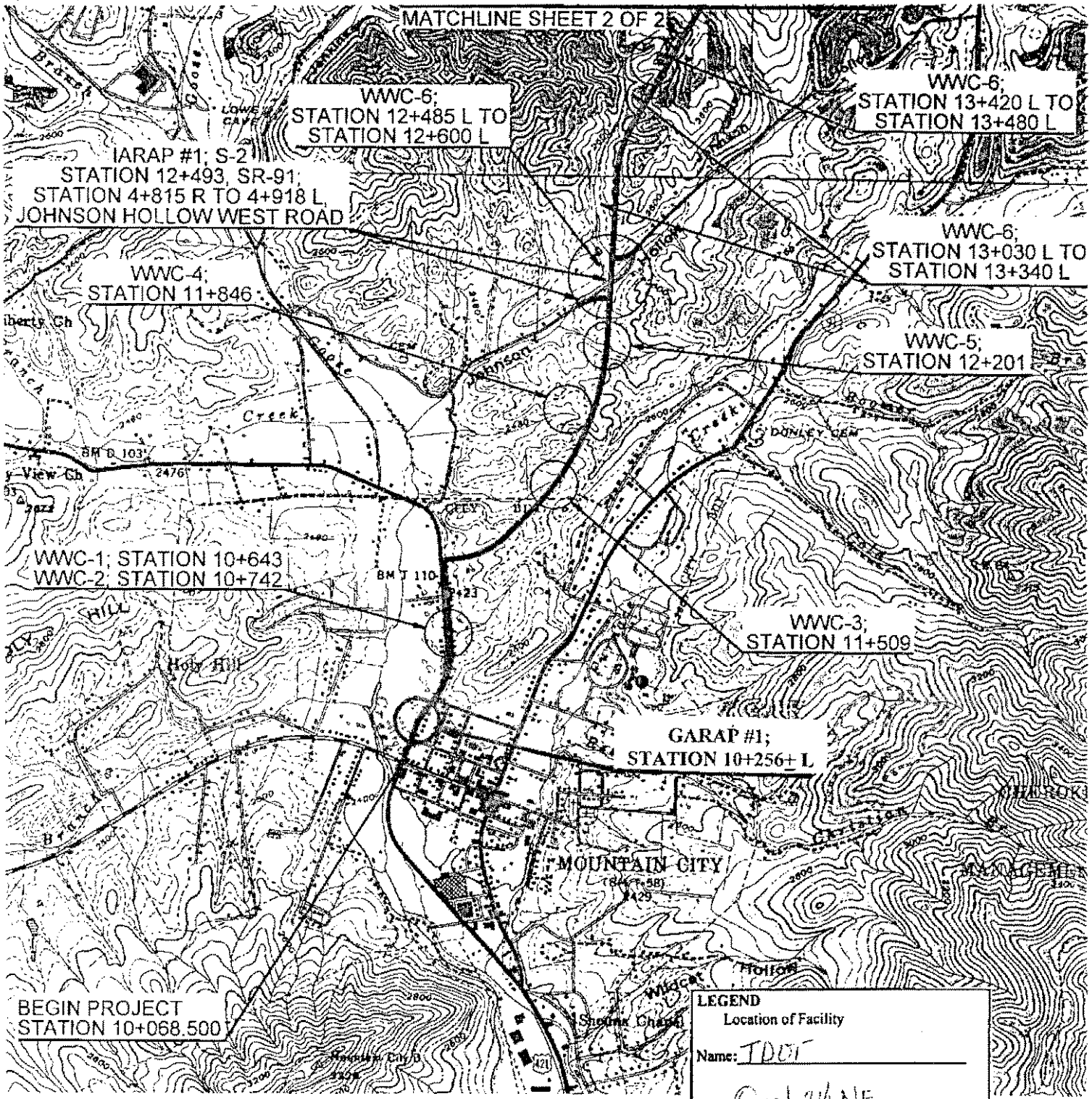


SR91 Alternatives and Cultural Resources
DRAFT MAP



0 0.25 0.5 1 1.5 2 Miles

N
W E
S



MOUNTAIN CITY, TN QUADRANGLE 214-NE

APPLICATION BY:
TENNESSEE DEPARTMENT OF
TRANSPORTATION
PE # 46045-1201-04
PIN # 100939.00
SR-91
From U.S. 421 (S.R. 34/S.R. 67)
intersection in Mountain City to 0.540 km
North of Cole Springs Road (Wills Road)
Johnson County
Near: Mountain City

SCALE 1 : 24000

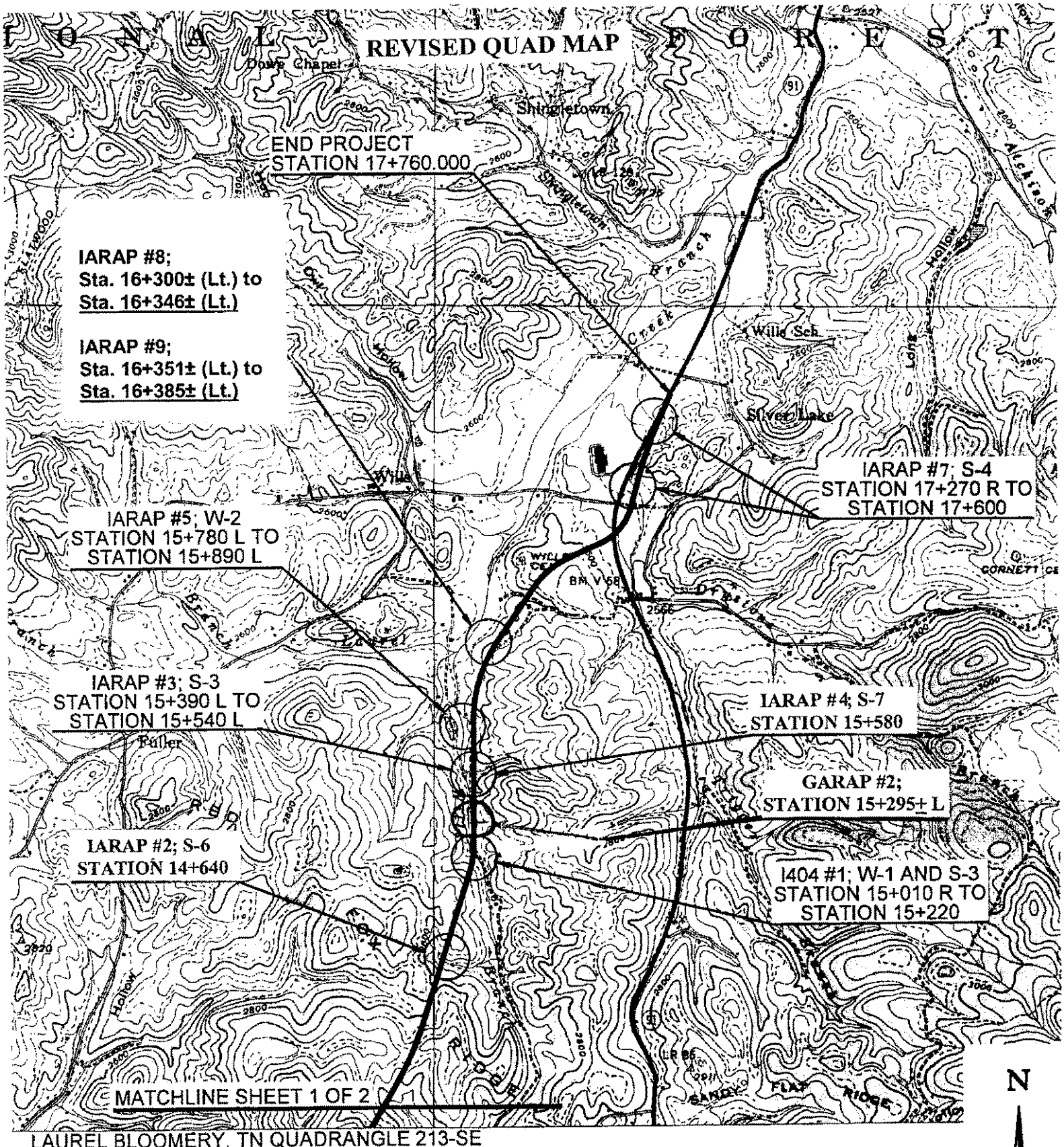
1000 0 1000 2000 3000 4000 FEET

0 .5 1.0 KILOMETER

CONTOUR INTERVAL 40 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

SHEET 1 OF 2

N



LAUREL BLOOMERY, TN QUADRANGLE 213-SE

APPLICATION BY:
TENNESSEE DEPARTMENT OF
TRANSPORTATION
PE # 46045-1201-04
PIN # 100939.00
SR-91
From U.S. 421 (S.R. 34/S.R. 67)
intersection in Mountain City to 0.540 km
North of Cole Springs Road (Wills Road)
Johnson County
Near: Mountain City

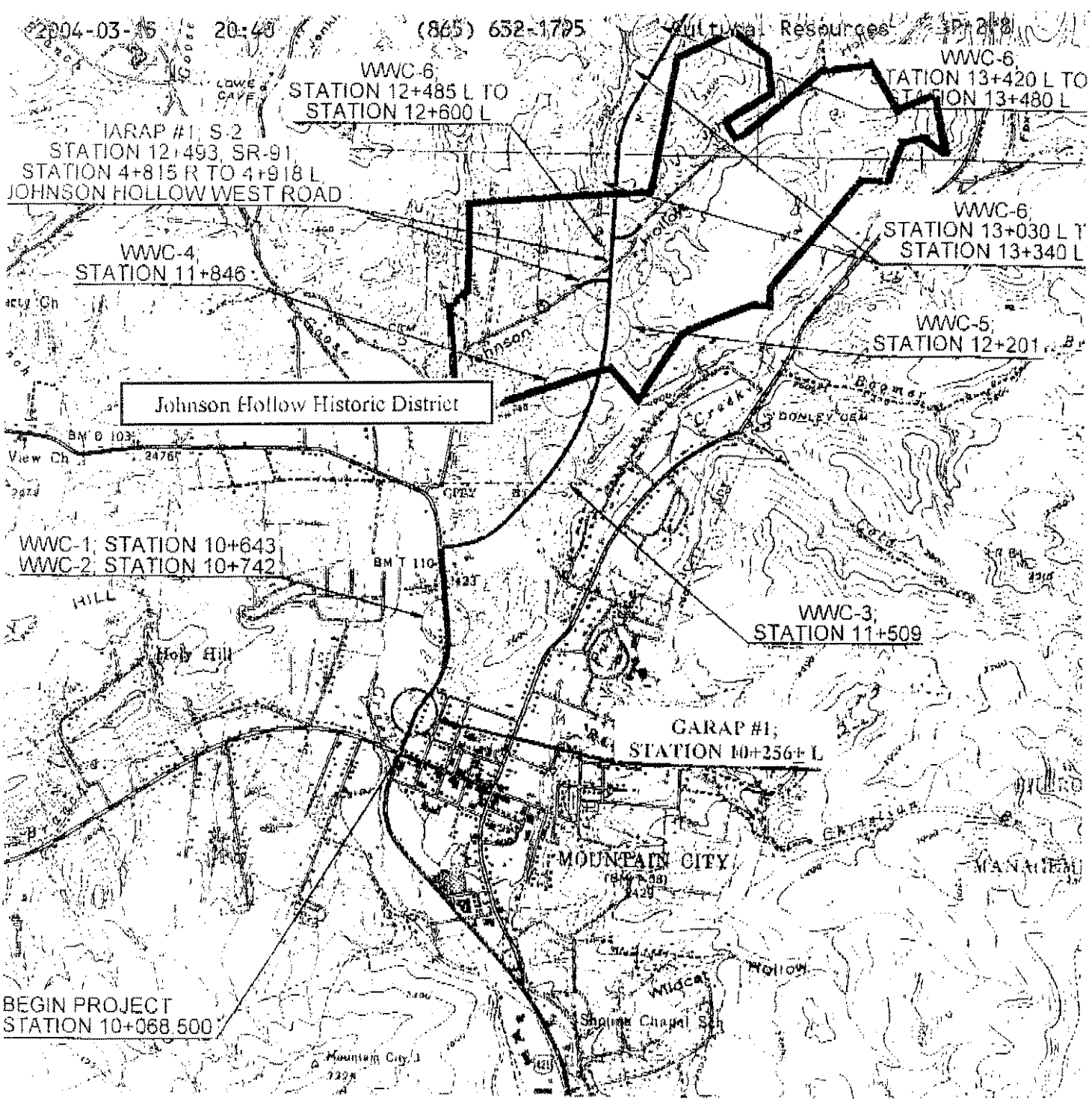
SCALE 1 : 24000

1000 0 1000 2000 3000 4000 FEET

0 .5 1.0 KILOMETER

CONTOUR INTERVAL 40 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

SHEET 2 OF 2



MOUNTAIN CITY, TN QUADRANGLE 214-NE

APPLICATION BY:
TENNESSEE DEPARTMENT OF
TRANSPORTATION
PE # 46045-1201-04
PIN # 100939.00
SR-91
From U.S. 421 (S.R. 34/S.R. 67)
Intersection in Mountain City to 0.540 km
North of Cole Springs Road (Wills Road)
Johnson County
Near: Mountain City

SCALE 1 : 24000

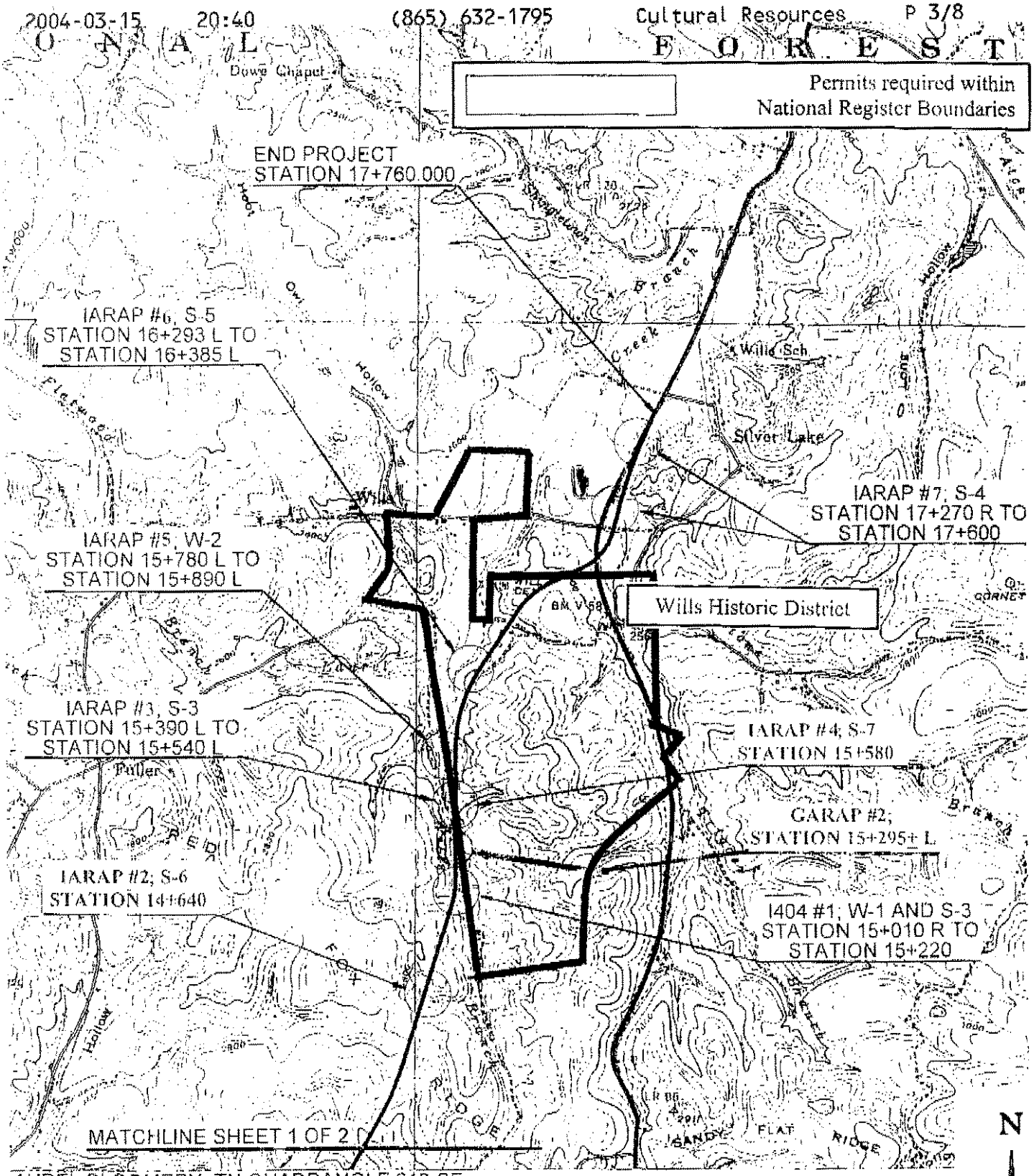
1000 0 1000 2000 3000 4000 FEET

0 .5 1.0 KILOMETER

CONTOUR INTERVAL 40 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

SHEET 1 OF 2

N



AUREL BLOOMERY, TN QUADRANGLE 213-SE

APPLICATION BY:
ENNESSEE DEPARTMENT OF
RANSPORTATION
E # 46045-1201-04
IN # 100939.00
R-91
rom U.S. 421 (S.R. 34/S.R. 67)
ntersection in Mountain City to 0.540 km
lorth of Cole Springs Road (Wills Road)
ohnson County
lear Mountain City

SCALE 1 : 24000
1000 0 1000 2000 3000 4000 FEET
0 .5 1.0 KILOMETER

CONTOUR INTERVAL 40 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

SHEET 2 OF 2