STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
ENVIRONMENTAL DIVISION
SUITE 900, JAMES K. POLK BUILDING
505 DEADERICK STREET
NASHVILLE, TENNESSEE 37243-1402
(615) 741-3655

JOHN C. SCHROER
COMMISSIONER

BILL HASLAM
GOVERNOR

October 24, 2014

Mr. Jim McAdoo, Permit Section
TN Department of Environment and Conservation
Division of Water Pollution Control
11th Floor William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue
Nashville, Tennessee 37243

RE: NOI and SWPPP Submittals for TDOT Construction Activities

Dear Mr. McAdoo:

We request coverage under the General NPDES Permit for Discharges of Storm Water Associated with Construction Activities for the subject project. Enclosed is the Notice of Intent (NOI) for Construction Activity – Storm Water Discharges and one hard copy and one electronic copy on CD of the site-specific Storm Water Pollution Prevention Plan (SWPPP).

Project # 74003-1160-44, PIN 107338.00
Interstate 65, Proposed Interchange, Existing State Route 109 to I-65
Robertson – Sumner Counties

By copy of this letter, we are sending three hard copies of the permits and documentation binder and one CD of this SWPPP to the Region Construction Office (one copy for the contractor).

Please forward our office the Notice of Coverage (NOC) for this project as soon as it becomes available. Please contact me at (615)741-6830 if I can be of any assistance.

Sincerely,

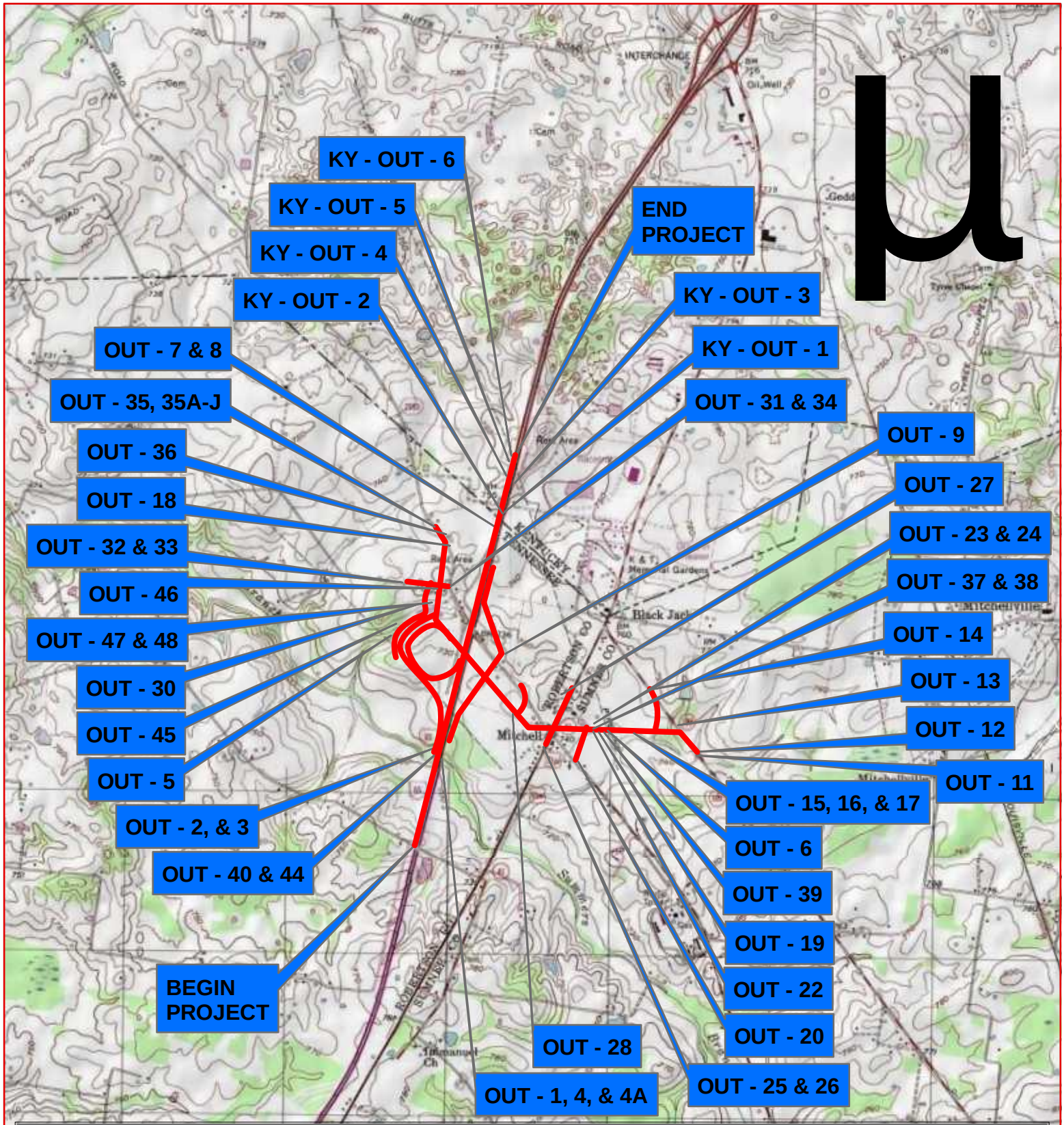
Laura Chandler

Laura Chandler
Environmental Permits Section

Enclosures

JLH: ARM: LHC: pc

Enclosures for:
cc:
Mr. Mike Brown, Region 3 Construction (CD)
Reading File, NPDES File



PORTLAND, TN AND FRANKLIN, KY QUADRANGLE 309SE & NE

APPLICATION BY:
TENNESSEE DEPARTMENT OF TRANSPORTATION
Project # 74003-1160-44
PIN 107338.00
I-65; Proposed Interchange, Existing SR-109 to I-65
Roberston and Sumner, TN and Simpson, KY Counties

Miles
0 0.2 0.4 0.8 1.2 1.6

Documentation and Permits Binder

I-65; Proposed Interchange, Existing SR-109 to I-65

Project No.: 74003-1160-44

PIN: 107338.00

Robertson and Sumner County, Tennessee

Prepared for and by:
Tennessee Department of Transportation – TDOT

Content Checklist

DOCUMENTS AND PERMITS BINDER

CHECKLIST

PROJECT NAME: I-65; Proposed Interchange, Existing SR-109 to I-65
PIN: 107338.00
PROJECT NO.: 74003-1160-44
COUNTY: Robertson and Sumner

1. ☒ INDEX OF REVISIONS

2. ☒ RAINFALL RECORD SHEETS

3. ☒ EPSC INSPECTION REPORTS AND DELEGATION OF AUTHORITY

4. ☒ NOI TENNESSEE, ☒ NOI KENTUCKY, ☐ NOC TENNESSEE, AND ☐ NOC KENTUCKY

5. ☒ BLANK NOT TENNESSEE AND ☒ BLANK NOT KENTUCKY

6. ☒ TENNESSEE CONSTRUCTION GENERAL PERMIT (CGP) AND ☒ KENTUCKY CONSTRUCTION GENERAL PERMIT (CGP)

7. ENVIRONMENTAL PERMITS
   7.1 ☒ PERMIT APPLICATION LETTER
   7.2 PERMITS
   a. ☒ TDEC ARAP
   b. ☒ CORPS OF ENGINEERS (COE)
   c. ☐ TVA 26A
   d. ☒ OTHER

8. ☒ ECOLOGY REPORT

9. TRAINING CERTIFICATIONS

   TDEC LEVEL I
   a. ☐ EPSC INSPECTOR
   b. ☐ TDOT PROJECT SUPERVISOR
   c. ☐ TDOT PROJECT SUPERVISOR MANAGER
   d. ☐ CONTRACTOR PROJECT SUPERVISOR

   TDEC LEVEL II
   e. ☐ TDOT PROJECT SUPERVISOR MANAGER

10. TMDL INFORMATION REQUIRED

   a. ☐ Yes

   b. ☒ No

1. Index of Revisions

Index of SWPPP Revisions					
Revision #	Date	Revision Description	Revision on EC Sheet #	Signature of Contractor	Signature of TDOT Project Supervisor

2. Rainfall Record Sheets

State/US Route or Road Name: _____

TDOT Construction No.: _____ TDOT Contract No.: _____

TDOT EPSC Inspection Monthly Rainfall Data Log – _____

Date	Day of Week[1]	Predicted Precipitation (%)[2]	Rainfall Gauge 1 (in)	Rainfall Gauge 2 (in)	Rainfall Gauge 3 (in)	Rainfall Gauge 4 (in)	Rainfall Gauge 5 (in)	Rainfall Gauge 6 (in)	Duration (hr)

[1] Day of Week= Su,M,Tu,W,Th,F,Sa

[2] Predicted Precipitation Source: _____
Southern Regional Climate Center (SRCC); R = Gauge Removed

NOAA Atlas 14, Volume 2, Version 3
Location name: Portland, Tennessee, US*
Latitude: 36.6319°, Longitude: -86.5738°
Elevation: 729 ft*
* source: Google Maps

POINT PRECIPITATION FREQUENCY ESTIMATES

G.M. Bonnin, D. Martin, B. Lin, T. Parzybok, M.Yekta, and D. Riley

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.379 (0.348-0.415)	0.444 (0.408-0.487)	0.509 (0.466-0.557)	0.561 (0.513-0.614)	0.624 (0.568-0.684)	0.671 (0.607-0.736)	0.716 (0.644-0.786)	0.757 (0.675-0.834)	0.808 (0.714-0.892)	0.846 (0.741-0.936)
10-min	0.606 (0.556-0.663)	0.710 (0.652-0.779)	0.815 (0.746-0.893)	0.897 (0.821-0.983)	0.994 (0.905-1.09)	1.07 (0.967-1.17)	1.14 (1.02-1.25)	1.20 (1.07-1.32)	1.28 (1.13-1.41)	1.33 (1.17-1.48)
15-min	0.757 (0.696-0.829)	0.893 (0.820-0.979)	1.03 (0.944-1.13)	1.14 (1.04-1.24)	1.26 (1.15-1.38)	1.35 (1.22-1.48)	1.44 (1.29-1.58)	1.51 (1.35-1.67)	1.61 (1.42-1.78)	1.67 (1.47-1.85)
30-min	1.04 (0.954-1.14)	1.23 (1.13-1.35)	1.47 (1.34-1.60)	1.65 (1.51-1.80)	1.87 (1.70-2.05)	2.04 (1.84-2.24)	2.20 (1.98-2.42)	2.36 (2.10-2.60)	2.56 (2.26-2.83)	2.71 (2.37-3.00)
60-min	1.29 (1.19-1.42)	1.55 (1.42-1.70)	1.88 (1.72-2.06)	2.14 (1.96-2.35)	2.49 (2.26-2.73)	2.76 (2.50-3.03)	3.03 (2.73-3.33)	3.31 (2.95-3.64)	3.67 (3.25-4.06)	3.95 (3.46-4.38)
2-hr	1.53 (1.41-1.67)	1.82 (1.68-1.99)	2.20 (2.02-2.40)	2.51 (2.30-2.73)	2.92 (2.66-3.18)	3.25 (2.95-3.55)	3.59 (3.24-3.93)	3.94 (3.53-4.32)	4.41 (3.91-4.86)	4.79 (4.19-5.28)
3-hr	1.67 (1.53-1.82)	1.98 (1.82-2.17)	2.40 (2.20-2.63)	2.74 (2.50-2.99)	3.20 (2.91-3.50)	3.57 (3.23-3.91)	3.96 (3.57-4.34)	4.37 (3.90-4.79)	4.93 (4.34-5.43)	5.37 (4.68-5.93)
6-hr	2.03 (1.85-2.26)	2.41 (2.20-2.68)	2.92 (2.65-3.25)	3.35 (3.04-3.72)	3.95 (3.55-4.39)	4.45 (3.97-4.95)	4.98 (4.41-5.55)	5.54 (4.85-6.18)	6.33 (5.46-7.09)	6.98 (5.95-7.82)
12-hr	2.42 (2.20-2.69)	2.89 (2.62-3.20)	3.50 (3.17-3.88)	4.02 (3.63-4.46)	4.75 (4.26-5.27)	5.35 (4.77-5.94)	6.00 (5.29-6.67)	6.68 (5.83-7.43)	7.64 (6.56-8.54)	8.44 (7.14-9.48)
24-hr	2.99 (2.79-3.20)	3.56 (3.33-3.83)	4.34 (4.06-4.67)	4.99 (4.64-5.36)	5.89 (5.47-6.33)	6.63 (6.13-7.12)	7.41 (6.81-7.96)	8.23 (7.51-8.86)	9.39 (8.48-10.1)	10.3 (9.23-11.2)
2-day	3.57 (3.31-3.86)	4.26 (3.96-4.61)	5.22 (4.84-5.64)	6.01 (5.57-6.49)	7.15 (6.58-7.72)	8.08 (7.40-8.74)	9.07 (8.25-9.82)	10.1 (9.14-11.0)	11.6 (10.4-12.7)	12.8 (11.3-14.1)
3-day	3.78 (3.52-4.08)	4.51 (4.20-4.87)	5.52 (5.12-5.95)	6.33 (5.88-6.83)	7.49 (6.91-8.08)	8.43 (7.74-9.09)	9.42 (8.60-10.2)	10.5 (9.48-11.3)	11.9 (10.7-13.0)	13.1 (11.7-14.3)
4-day	4.00 (3.72-4.30)	4.77 (4.44-5.14)	5.81 (5.41-6.26)	6.66 (6.18-7.17)	7.84 (7.24-8.43)	8.79 (8.09-9.45)	9.78 (8.95-10.5)	10.8 (9.82-11.7)	12.3 (11.1-13.3)	13.5 (12.0-14.6)
7-day	4.77 (4.45-5.15)	5.69 (5.31-6.14)	6.95 (6.47-7.49)	7.99 (7.42-8.60)	9.46 (8.75-10.2)	10.7 (9.81-11.5)	11.9 (10.9-12.8)	13.3 (12.1-14.3)	15.2 (13.6-16.4)	16.7 (14.9-18.2)
10-day	5.45 (5.11-5.84)	6.50 (6.09-6.97)	7.86 (7.35-8.41)	8.94 (8.34-9.56)	10.4 (9.70-11.2)	11.6 (10.8-12.4)	12.9 (11.8-13.8)	14.1 (12.9-15.1)	15.9 (14.4-17.1)	17.2 (15.6-18.6)
20-day	7.39 (6.96-7.87)	8.76 (8.25-9.33)	10.4 (9.75-11.0)	11.6 (10.9-12.3)	13.2 (12.4-14.1)	14.5 (13.5-15.4)	15.7 (14.6-16.7)	16.9 (15.7-18.0)	18.5 (17.1-19.8)	19.7 (18.1-21.1)
30-day	9.05 (8.54-9.59)	10.7 (10.1-11.3)	12.5 (11.8-13.2)	13.9 (13.1-14.7)	15.7 (14.8-16.7)	17.2 (16.1-18.2)	18.6 (17.3-19.7)	19.9 (18.6-21.2)	21.7 (20.1-23.1)	23.1 (21.3-24.6)
45-day	11.3 (10.7-11.9)	13.3 (12.6-14.0)	15.3 (14.5-16.2)	16.9 (16.0-17.8)	18.9 (17.8-20.0)	20.4 (19.2-21.6)	21.9 (20.5-23.1)	23.3 (21.8-24.7)	25.1 (23.4-26.6)	26.4 (24.5-28.1)
60-day	13.6 (12.9-14.3)	16.0 (15.1-16.8)	18.3 (17.4-19.3)	20.0 (19.0-21.1)	22.2 (21.0-23.4)	23.8 (22.5-25.1)	25.3 (23.9-26.7)	26.7 (25.1-28.2)	28.4 (26.7-30.0)	29.6 (27.7-31.4)

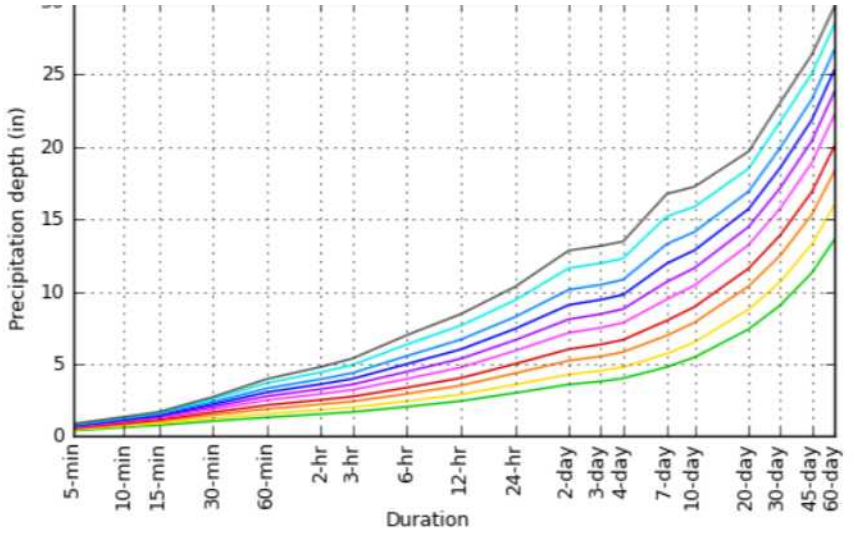
[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

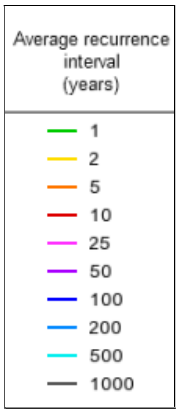
Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

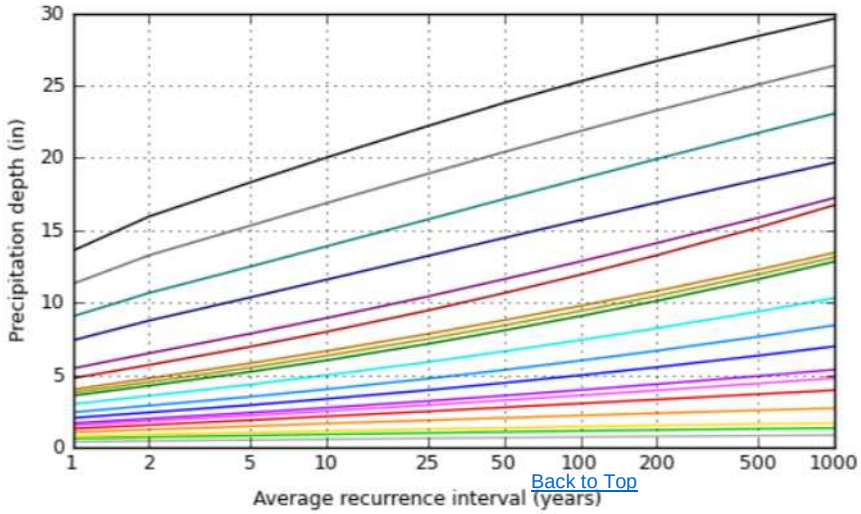
Please refer to NOAA Atlas 14 document for more information.

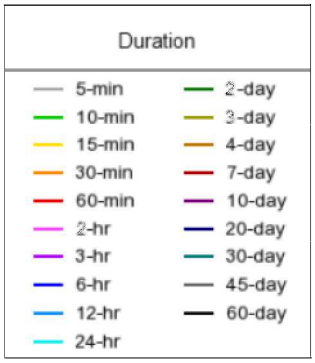
Back to Top

PF graphical









Back to Top

Maps & aerials

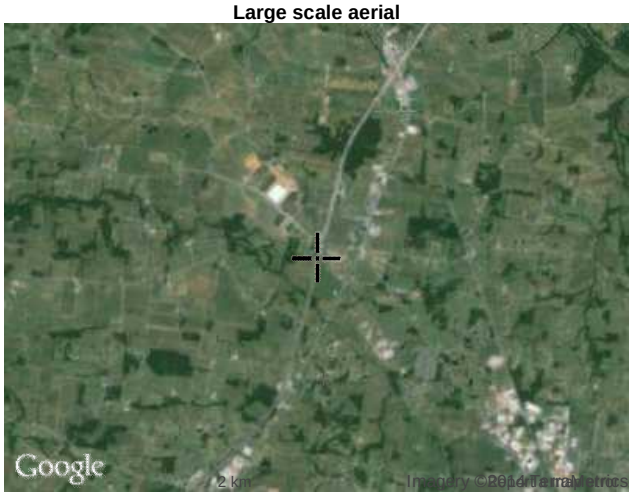
NOAA Atlas 14, Volume 2, Version 3 Created (GMT): Thu Oct 2 13:22:48 2014

Small scale terrain

Large scale terrain

Large scale map

Large scale aerial



Back to Top

US Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service
Office of Hydrologic Development
1325 East West Highway
Silver Spring, MD 20910

3. EPSC Inspection Reports

TENNESSEE DEPARTMENT OF TRANSPORTATION
EROSION PREVENTION & SEDIMENT CONTROL (EPSC) INSPECTION REPORT

EPSC Inspection Schedule (circle one): 1st Weekly or 2nd Weekly Date of Inspection:_____

Site or Project Name (State Route (SR) / US Route or Road Name and Description):			Are corrective actions required by this inspection report (Yes /No):			Current approximate disturbed acreage:
County(ies):	TDOT PIN:	NPDES Tracking Number: TNR	Number of New Corrective Actions/Deficiencies:	Number of Recurring Corrective Actions/Deficiencies:	Number of New Sediment Releases:	Number of Un-Corrected Sediment Releases:
TDOT Project No.:	TDOT Contract No.:	Contractor:				

Please check the box if the following items are on-site:

☐ Notice of Coverage (NOC) ☐ Stormwater Pollution Prevention Plan (SWPPP) ☐ Twice Weekly Inspection Documentation ☐ Site Contact Information ☐ Rain Gauge(s)

☐ Off-site Reference Rain Gauge Location:_____ Has daily rainfall been checked/documented on the TDOT Monthly Rainfall Log? ☐Yes ☐No

Best Management Practices (BMPs) **Are the Erosion Prevention and Sediment Controls (EPSCs) functioning correctly:** If "No," see attached page(s) for description.				TDOT/Contractor Agrees with EPSC Inspection Report: NO or YES. If No, Explain and initial comment:
1.	Are all applicable (EPSCs) installed and maintained per the SWPPP?	☐Yes	☐No	
2.	Are EPSC's functioning correctly at all disturbed areas/material storage areas per section 4.1.5 of the CGP?	☐Yes	☐No	
3.	Are EPSC's functioning correctly at outfall/discharge points such that there is no objectionable color contrast in the receiving stream, and no other water quality impacts per section 5.3.2 of the CGP?	☐Yes	☐No	
4.	Are EPSC's functioning correctly at ingress/egress points such that there is no evidence of track out?	☐Yes	☐No	
5.	If construction activity at any location on-site has temporarily/permanently ceased, was the area stabilized within 14 days per section 3.5.3.2 of the CGP? If, "No," refer to the attached page(s) for each location and measures taken to stabilize the area(s).	☐Yes	☐No	
6.	Have pollution prevention measures been installed, implemented, and maintained to minimize the discharge of pollutants from equipment and vehicle washing, wheel and wash water and other wash waters per section 4.1.5 of the CGP? If "No," refer to the attached page(s) for measures to be implemented to address deficiencies.	☐Yes	☐No	
7.	If applicable, have discharges from dewatering activities been managed by appropriate controls per Section 4.1.4 of the CGP? If "No," refer to the attached page(s) for measures to be implemented to address deficiencies.	☐N/A ☐Yes	☐No	
8.	If a concrete washout facility is located on site, is it clearly identified on the project and maintained? If "No," refer to the attached page(s) for measures to be implemented to address deficiencies.	☐N/A ☐Yes	☐No	(Additional pages may be attached, if needed)

Certification and Signature (must be signed by the certified inspector and the permittees per Sections 3.5.8.2 (g) and 7.7.2 of the CGP)

This document was prepared in accordance with a system designed to assure that qualified personnel properly gathered and evaluated information presented. Based on my inquiry of the person(s) who manage the system, or those persons directly responsible for gathering the information, I certify that inspections of storm water discharge points (outfalls) and of erosion and sediment controls have been performed and recorded. I certify that erosion and sediment controls in the drainage area of the identified outfall were installed as planned and designed in working order as recorded in the table above. I certify, under penalty of law that this document and all attachments were prepared by me, or under my direction or supervision. The submitted information is to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment. As specified in Tennessee Code annotated section 39-16-702(a) (4), this declaration is made under penalty of perjury.	EPSC Inspector Name, Title and Company (print or type): TN EPSC Certification No.:	Signature:	Date:
	Contractor (Secondary Permittee) Name and Title (print or type):	Signature:	Date:
	TDOT Project Supervisor or Designee (Primary Permittee) Name and Title (print or type):	Signature:	Date:

State/US Route or Road Name: _____ TDOT Project No.: _____ TDOT Contract No.: _____ Date of Inspection: _____

Outfall Name or Station No.	Rain Gauge No.	Approx. Station No. From/To	LT, RT, or CL	Date Last Disturbed	Date of Stabilization and Code T=Temporary P=Permanent	Existing EPSC Control Measures Codes *	Current Condition Codes *	Objectionable Color Contrast Discharge to Receiving Stream or Other Water Quality Impacts? Y, N, N/A	Corrective Action(s) or Comment(s)

EROSION PREVENTION AND SEDIMENT CONTROL MEASURE CODES

1. Temporary Silt Fence
2. Temporary Diversion Berm or Ditch
3. Temporary Slope Drain
4. Rock Check Dams
5. Brush Barrier
6. Sediment Removal
7. Rock Filter Ring / Rock Ring
8. Sand Bags
9. Sediment Trap / Basin
10. Temporary Sediment Filter Bag / Dewatering
11. Polyethylene Sheeting
12. Machined Rip Rap
13. Geotextile
14. Permanent Seeding with Mulch or Sod
15. Temporary Seeding with Mulch
16. Temporary Mulching
17. Erosion Control Blanket
18. Flexible Channel Liner
19. Catch Basin / Storm Inlet Protection
20. Riprap Outlet Structure
21. Riprap Energy / Velocity Dissipater
22. Curb, Gutter, or Storm Sewer Protection
23. Temporary Construction Exit / Entrance
24. Temporary Stream Crossing
25. Turbidity Barrier / Silt Boom
26. Temporary Stream Diversion
27. Preserve Natural Resource / Buffer Zone
28. Mineral Aggregate Base on Subgrade
29. Excess Dirt Removed from Rdwy. Daily
30. Haul Roads Dampened for Dust Control
31. Ditch Liner
32. Rock Silt Screen
33. Temporary Silt Fence with Backing
34. Enhanced Silt Fence
35. Sediment Tube
36. Sediment Dam
37. Concrete Washout, other pollution issues
38. Berm (soil, riprap, rock)
39. Gabion
40. Sheet Piling
41.
42.

CONDITION CODES

A Active (Under Construction)
C Cleaning Needed-Maintenance
FM Future Maintenance
FS Final Stabilized
I Increase Measures
R Repair and/or Replace-Maintenance
RO Repeat Occurrence
SR Sediment Release
S Stable (No Action Needed)
U Upgrade Needed (Failure Noted)
W Too Wet to Work Conditions
Other (#1): _____
Other (#2): _____
Other (#3): _____

CONSTRUCTION DIVISION
EPSC DELEGATION OF AUTHORITY

In accordance with Section 7.7.3 (Duly Authorized Representative) of the *Tennessee General NPDES Permit for Discharges of Stormwater Associated with Construction Activities*, I _____ (print name of TDOT project supervisor), delegate the reporting responsibility of coordination with the erosion prevention and sediment control (EPSC) inspection services consultant for TDOT contract # _____ to:

Name: _____ (print name of TDOT delegate)

Title: _____

Address: _____

_____

_____

Phone No.: _____

Email Address: _____

I am providing delegation of authority as stated above and confirm that the TDOT delegate stated above has direct knowledge of the subject project and the ability to discuss the reports and recommendations from the EPSC inspection services consultant on the subject project directly to the contractor.

_____ (signature of TDOT Project Supervisor)

_____ (signature of TDOT delegate)

_____ (date)

The EPSC Delegation of Authority shall be submitted to the local TDEC WPC Environmental Field Office (EFO) address (see table below) for record keeping. A copy shall be placed within the on-site SWPPP Documentation and Permits Binder.

EFO	Street Address	Zip Code	EFO	Street Address	Zip Code
Memphis	8383 Wolf Lake Drive, Bartlett	38133	Cookeville	1221 South Willow Ave.	38506
Jackson	1625 Hollywood Drive	38305	Chattanooga	540 McCallie Avenue STE 550	37402
Nashville	711 R S Gass Boulevard	37243	Knoxville	3711 Middlebrook Pike	37921
Columbia	1421 Hampshire Pike	38401	Johnson City	2305 Silverdale Road	37601

4. NOI & NOC

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION
Division of Water Resources
William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Ave., 11th Floor, Nashville, TN 37243
1-888-891-8332 (TDEC)

Notice of Intent (NOI) for General NPDES Permit for Stormwater Discharges from Construction Activities (TNR100000)

Site or Project Name:	**PIN 107338.00, PE #74003-1160-44**			**Existing NPDES Tracking Number: TNR**	
Street Address or Location:	Portland, TN			Start date:	January 2015
				Estimated end date:	January 2020
Site Activity Description:	I-65; Proposed Interchange, Existing SR-109 to I-65			Latitude (dd.dddd):	36.6319
				Longitude (dd.dddd):	-86.5738
County(ies):	Robertson and Sumner	MS4 Jurisdiction:	TDOT	Acres Disturbed:	120.0
				Total Acres:	185.4

Does a topographic map show dotted or solid blue lines ☒ and/or wetlands ☒ on or adjacent to the construction site?
If wetlands are located on-site and may be impacted, attach wetlands delineation report.
If an Aquatic Resource Alteration Permit has been obtained for this site, what is the permit number? ARAP permit No.: Pending

Receiving waters: Summers Branch and Unnamed Tributaries to Summers Branch

Attach the SWPPP with the NOI	☒ SWPPP Attached	Attach a site location map	☒ Map Attached

Site Owner/Developer Entity (*Primary Permittee*)**:** (person, company, or legal entity that has operational or design control over construction plans and specifications):
Tennessee Department of Transportation

Site Owner/Developer Signatory (V.P. level/higher - signs certification below): (individual responsible for site): Jim Ozment		Signatory's Title or Position (V.P. level/higher - signs certification below): Director - Environmental Divsion	
Mailing Address: 900 James K. Polk Bldg., 505 Deaderick Street		City: Nashville	State:TN Zip:37243-0334
Phone: (615) 741-5373	Fax: (615) 741-1098	E-mail: Environmental.NPDES.TDOT@tn.gov	

Optional Contact: Anthony Myers		Title or Position: Senior Transportation Project Specialist	
Mailing Address: 900 James K. Polk Bldg., 505 Deaderick Street		City: Nashville	State:TN Zip: 37243-0334
Phone: (615) 532-9945	Fax: (615) 741-1098	E-mail: Anthony.Myers@tn.gov	

Owner or Developer Certification (must be signed by president, vice-president or equivalent, or ranking elected official) (Primary Permittee)

I certify under penalty of law that this document and all attachments were prepared by me, or under my direction or supervision. The submitted information is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury.

Owner or Developer Name; (print or type) Jim Ozment	Signature:	Date:

Contractor(s) Certification (must be signed by president, vice-president or equivalent, or ranking elected official) (Secondary Permittee)

I certify under penalty of law that I have reviewed this document, any attachments, and the SWPPP referenced above. Based on my inquiry of the construction site owner/developer identified above and/or my inquiry of the person directly responsible for assembling this NOI and SWPPP, I believe the information submitted is accurate. I am aware that this NOI, if approved, makes the above-described construction activity subject to NPDES permit number TNR100000, and that certain of my activities on-site are thereby regulated. I certify under penalty of law that this document and all attachments were prepared by me, or under my direction or supervision. The submitted information is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury.

Contractor company name (print or type):			
Contractor signatory (print/type): (V.P. level or higher)		Signature:	Date:
Mailing Address:		City:	State: Zip:
Phone: ( )	Fax: ( )	E-mail:	

Other Contractor company name (print or type):			
Other Contractor signatory (print/type): (V.P. level or higher)		Signature:	Date:
Mailing Address:		City:	State: Zip:
Phone: ( )	Fax: ( )	E-mail:	

OFFICIAL STATE USE ONLY

Received Date:	Reviewer:	Field Office:	Permit Number **TNR**	Exceptional TN Water:
Fee(s):	T & E Aquatic Flora and Fauna:		Impaired Receiving Stream:	Notice of Coverage Date:

Notice of Intent (NOI) for General NPDES Permit for Stormwater Discharges from Construction Activities (TNR100000)

Purpose of this form A completed notice of intent (NOI) must be submitted to obtain coverage under the Tennessee General NPDES Permit for Discharges of Stormwater Associated with Construction Activity (permit). **Requesting coverage under this permit means that an applicant has obtained and examined a copy of this permit, and thereby acknowledges applicant's claim of ability to be in compliance with permit terms and conditions.** This permit is required for stormwater discharge(s) from construction activities including clearing, grading, filling and excavating (including borrow pits) of one or more acres of land. This form should be submitted at least 30 days prior to the commencement of land disturbing activities, or no later than 48 hours prior to when a new operator assumes operational control over site specifications or commences work at the site.

Permit fee (see table below) must accompany the NOI and is based on total acreage to be disturbed by an entire project, including any associated construction support activities (e.g. equipment staging yards, material storage areas, excavated material disposal areas, borrow or waste sites). There is no fee for sites less than 1 acre.

Acres Disturbed	= or > 150 acres	= or > 50 < 150 acres	= or > 5 < 50 acres	= or > 1 < 5 acres
Fee	$7,500	$4,000	$1,000	$250

Who must submit the NOI form? Per Section 2 of the permit, all site operators must submit an NOI form. "Operator" for the purpose of this permit and in the context of stormwater associated with construction activity means any person associated with a construction project who meets either or both of the following two criteria: (1) The person has operational or design control over construction plans and specifications, including the ability to make modifications to those plans and specifications. This person is typically the owner or developer of the project or a portion of the project (e.g. subsequent builder), or the person that is the current land owner of the construction site. This person is considered the primary permittee; or (2) The person has day-to-day operational control of those activities at a project which are necessary to ensure compliance with a SWPPP for the site or other permit conditions. This person is typically a contractor or a commercial builder who is hired by the primary permittee, and is considered a secondary permittee.

Owners, developers and all contractors that meet the definition of the operator in subsection 2.2 of the permit shall apply for permit coverage on the same NOI, insofar as possible. After permit coverage has been granted to the primary permittee, any subsequent NOI submittals must include the site's previously assigned permit tracking number and the project name. The comprehensive site-specific SWPPP shall be prepared in accordance with the requirements of part 3 of the permit and must be submitted with the NOI unless the NOI being submitted is to only add a contractor (secondary permittee) to an existing coverage.

Notice of Coverage The division will review the NOI for completeness and accuracy and prepare a notice of coverage (NOC). Stormwater discharge from the construction site is authorized as of the effective date of the NOC.

Complete the form Type or print clearly, using ink and not markers or pencil. Answer each item or enter "NA," for not applicable, if a particular item does not fit the circumstances or characteristics of your construction site or activity. If you need additional space, attach a separate piece of paper to the NOI form. **The NOI will be considered incomplete without a permit fee, a map, and the SWPPP.**

Describe and locate the project Use the legal or official name of the construction site. If a construction site lacks street name or route number, give the most accurate geographic information available to describe the location (reference to adjacent highways, roads and structures; e.g. intersection of state highways 70 and 100). Latitude and longitude (expressed in decimal degrees) of the center of the site can be located on USGS quadrangle maps. The quadrangle maps can be obtained at the USGS World Wide Web site: http://www.usgs.gov/; latitude and longitude information can be found at numerous other web sites. Attach a copy of a portion of a 7.5 minute quad map, showing location of site, with boundaries at least one mile outside the site boundaries. Provide estimated starting date of clearing activities and completion date of the project, and an estimate of the number of acres of the site on which soil will be disturbed, including borrow areas, fill areas, stockpiles and the total acres. For linear projects, give location at each end of the construction area.

MS4 Jurisdiction: If this construction site is located within a Municipal Separate Storm Sewer System (MS4), please list name of MS4. A current list of MS4s in Tennessee may be found at http://www.tn.gov/environment/wpc/stormh2o/docs/MS4s_Jan2012.pdf

Give name of the receiving waters Trace the route of stormwater runoff from the construction site and determine the name of the river(s), stream(s), creek(s), wetland(s), lake(s) or any other water course(s) into which the stormwater runoff drains. Note that the receiving water course may or may not be located on the construction site. If the first water body receiving construction site runoff is unnamed ("unnamed tributary"), determine the name of the water body that the unnamed tributary enters.

ARAP permit may be required **If your work will disturb or cause alterations of a stream or wetland, you must obtain an appropriate Aquatic Resource Alteration Permit (ARAP).** If you have a question about the ARAP program or permits, contact your local Environmental Field Office (EFO).

Submitting the form and obtaining more information Note that this form must be signed by the company President, Vice-President, or a ranking elected official in the case of a municipality, for details see subpart 2.5. For more information, contact your local EFO at the toll-free number 1-888-891-8332 (TDEC). Submit the completed NOI form (keep a copy for your records) to the TDEC Nashville, TN address below, addressed to **Attention: Stormwater NOI Processing**.

Tennessee Department of Environment and Conservation
Division of Water Resources
Attn: Storm Water NOI Processing
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor
Nashville, TN 37243

Kentucky Pollutant Discharge Elimination (KPDES)

Notice of intent (NOI) for coverage of Storm Water Discharge Associated with Construction Activities Under the KPDES Storm Water General Permit KYR100000

Submission of this Notice of Intent constitutes notice that the party identified in the section I of this form intends to be authorized by a KPDES permit issued for storm water discharges associated with construction activity. Becoming a permittee obligates such discharger to comply with the terms and conditions of the permit.

I. Facility Operator Information

Operator Name(s) (*)	Tennessee Department of Transportation	Phone(*)	615-741-5373		
Mailing Address(*)	900 James K. Polk Bldg., 505 Deaderick Street	Status of Owner/Operator	State		
City(*)	Nashville	State(*)	Tennessee	Zip (*)	37243-0334

II. Facility/Site Location Information

Name of Project (*)	I-65; Proposed Interchange, Existing SR-109 to I-65	Physical Address (*)	Franklin, KY	City (*)	Franklin
State(*)	Tennessee	Zip(*)	42134	County (*)	Simpson
Latitude (Decimal Degrees) (*)	36.6319 DMS to DD Converter	Longitude (Decimal Degrees) (*)	-86.5738	SIC Code (*)	1611

III. Site Activity Information

a. For single projects provide the following information:

Total Number of acres in project:	7
Total Number of acres to be disturbed:	4
Anticipated Start Date	January 2015
Anticipated Completion Date	January 2020

b. For common plans of development provide the following information:

Total number of acres in project	N/A	
Number of individual lots in development, if applicable		
Number of lots to be developed		
Total acreage of lots intended to be developed		
Total acreage intended to be disturbed		
Number of acres intended to be disturbed at any one time		
Anticipated start date		
Anticipated completion date		
List Contractor(s)	Add New	Company Name(*)

IV. If the permitted site discharges to a water body the following information is required

a:

Name of Receiving Water (*)	N/A
Anticipated number of discharge points	
Location of Anticipated discharge points	Add New | Latitude(s) | Longitude(s)
Receiving Water Body Stream-Use Designation	☐ Cold Water Aquatic Habitat ☐ Domestic Water Supply ☐ Outstanding State Resource Water ☐ Primary Contact Recreation ☐ Secondary Contact Recreation ☐ Warm Water Aquatic Habitat
Antidegradation Categorization	

b:

Name of Receiving Water	

Anticipated number of discharge points	
Location of Anticipated discharge points	Latitude(s) Longitude(s) Add New
Receiving Water Body Stream-Use Designation	☐ Cold Water Aquatic Habitat ☐ Domestic Water Supply ☐ Outstanding State Resource Water ☐ Secondary Contact Recreation ☐ Primary Contact Recreation ☐ Warm Water Aquatic Habitiat
Antidegradation Categorization	

V. If the permitted site discharges to a MS4 the following information is required

Name of MS4	N/A
Number of discharge points to the MS4	
Location of each discharge point	Latitude(s) Longitude(s) Add New
Date of application/notification to the MS4 for construction site permit coverage	

VI. Construction activities in or along a water body

Will the project require construction activities in a water body or the riparian zone?	No
If Yes, describe scope of activity	
Is a Clean Water Act 404 permit required?	No
Is a Clean Water Act 401 Water Quality Certification required?	No

VII. NOI Preparer Information

First Name (*)	Jim	Middle Initial		Last Name (*)	Ozment
Mailing Address (*)	900 James K. Polk Bldg., 505 Deaderick Street	City (*)	Nashville	State (*)	Tennessee
Zip(*)	37243-0334	Phone (*)	615-741-5373	eMail Address (*)	Environmental.NPDES.TDOT@tn.gov

VIII. Attachment(s)

Topographic map(*)	Upload File(s)	Upload Location Map
Supplemental Information	Upload File(s)	Upload SWPPP Sheets, Construction Plans, and Completed SWPPP Doc and Permits Binder

IX. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. By submitting data, this transmission constitutes my signature and I am responsible for any and all content submitted either by me or by the people I represent.

Signature (*)		First Name (*)			
Middle Initial		Last Name (*)		Date (*)	
Contact eMail Address (*)		Contact Phone (*)			

Save for Future Retrieval | Submit Final Version to DEP

WHO MUST FILE A NOTICE OF INTENT (NOI) FORM

Federal law at 40 CFR Part 122 prohibits point source discharges of stormwater associated with industrial activity to a water body of the Commonwealth of Kentucky without a Kentucky Pollutant Discharge Elimination System (KPDES) permit. The operator of an industrial activity that has such a storm water discharge must submit a NOI to obtain coverage under the KPDES Storm Water General Permit. If you have questions about whether you need a permit under the KPDES Storm Water program, or if you need information as to whether a particular program is administered by the state agency, call the **Storm Wa Contact, Operational Permits Section, Kentucky Division of Water at (502) 564-3410.**

WHERE TO FILE NOI FORM

Operational Permits Section SWP Branch,
Division of Water 200 Fair Oaks Lane
Frankfort, KY 40601

Electronic NOI-SWCAs are to be submitted a minimum of seven (7) working days prior to commencement of construction related activities. Paper NOI-SWCAs are to be submitted a minimum of

thirty (30) working days prior to commencement of construction related activities.

COMPLETING THE FORM

Enter information in the appropriate areas only. (*) denotes a required field. Enter N/A (Not Applicable) for fields that are required but do not apply to your submission. If you have any questions regarding th completion of this form call the **Storm Water Contact, Operational Permits Section, at (502) 564-3410.**

SECTION I - FACILITY OPERATOR INFORMATION

Operator Name(s): Enter the name or names of all operators applying for coverage under KYR10 using this NOI.
Mailing Address, City, State, and Zip Code: Provide the mailing address of the primary operator
Phone No.: Provide the telephone numbers of the person who is responsible for the operation.
Status of Owner/Operator: Select the appropriate legal status of the operator of the facility from the dropdown list.
Federal
Public (other than federal or state)
State
Private

SECTION II - FACILITY/SITE LOCATION INFORMATION

Name of Project: Provide the name of the project.
Physical Address, City, State, Zip Code and County: Provide the physical address of the project.
Latitude/Longitude: Provide the general site latitude and longitude of the operation.
SIC Code: Enter the Standard Industrial Code for the project

SECTION III - SITE ACTIVITY INFORMATION

For single projects provide the following information:

Total number of acres in project: Indicate the total acreage of the project including both disturbed and undisturbed areas.
Total number of acres to be disturbed: Indicate the total number of acres of the project to be disturbed.
Anticipated start date: Indicate the approximate date of when construction activities will begin.
Anticipated completion date: Indicated the approximate date of when final stabilization will be achieved.

For common plans of development provide the following information:

Total number of acres in project: Indicate the total acreage of the project including both disturbed and undisturbed areas.
Number of individual lots in development, if applicable: Indicate the number of individual lots or unit in the common plan of development
Number of lots to be developed: Indicate the number of lots that you intend to develop.
Total acreage of lots intended to develop: Indicate the total acreage of the lots you intend to develop.
Total acreage intended to disturb: Indicate the total acreage of the lots you intend to disturb
Number of acres intended to disturb at any one time: Indicate the maximum number of acres to be disturbed at any one time.
Anticipated start date: Indicate the approximate date of when construction activities will begin.
Anticipated completion date: Indicated the approximate date of when final stabilization will be achieved.
List of contractors: Provide the names of all known contractors that will be working on site.

SECTION IV – IF THE PERMITTED SITE DISCHARGES TO A WATER BODY THE FOLLOWING INFORMATION IS REQUIRED

Name of Receiving Water: Provide the names of the each water body receiving discharges from the site. Provide only official USGS names do not provide local names.
Anticipated number of discharge points: Indicate the number of discharge points to each receiving water body.
Location of anticipated discharge points: Provide the latitude and longitude of each discharge point. Add points as necessary.
Receiving Water Body Stream Use Designation: Check all appropriate boxes.
Antidegradation Categorization: Select from the drop down box one of the following:
Outstanding National Resource Water
Exceptional Water
High Quality Water
Impaired Water

SECTION V – IF THE PERMITTED SITE DISCHARGES TO A MS4 THE FOLLOWING INFORMATION IS REQUIRED

Name of MS4: Provide the name of the MS4 to which the activity will discharge.
Number of discharge points to the MS4: Indicate the number of discharge points.
Location of each discharge point: Provide the latitude and longitude of each discharge point. Add points as necessary
Date of application/notification to the MS4 for construction site permit coverage: Indicate the date the MS4 has or will be notified.

SECTION VI – CONSTRUCTION ACTIVITIES IN OR ALONG A WATER BODY

Will the project require construction activities in a water body or the riparian zone: Select Yes or No from the drop down box. **If Yes, describe scope of activity:** Provide a brief description of the activi (ies) that will take place in the water body or the riparian zone.

Is a Clean Water Act 404 permit required: Select Yes or No from the drop down box.
Is a Clean Water Act 401 Water Quality Certification required: Select Yes or No from the drop down box.

SECTION VII – NOI PREPARER INFORMATION

Provide the name, mailing address, telephone number and eMail address of the person preparing the NOI.

SECTION VIII –Attachments

Attach a USGS topographic map indicating the location of the activity and the proposed discharge points.

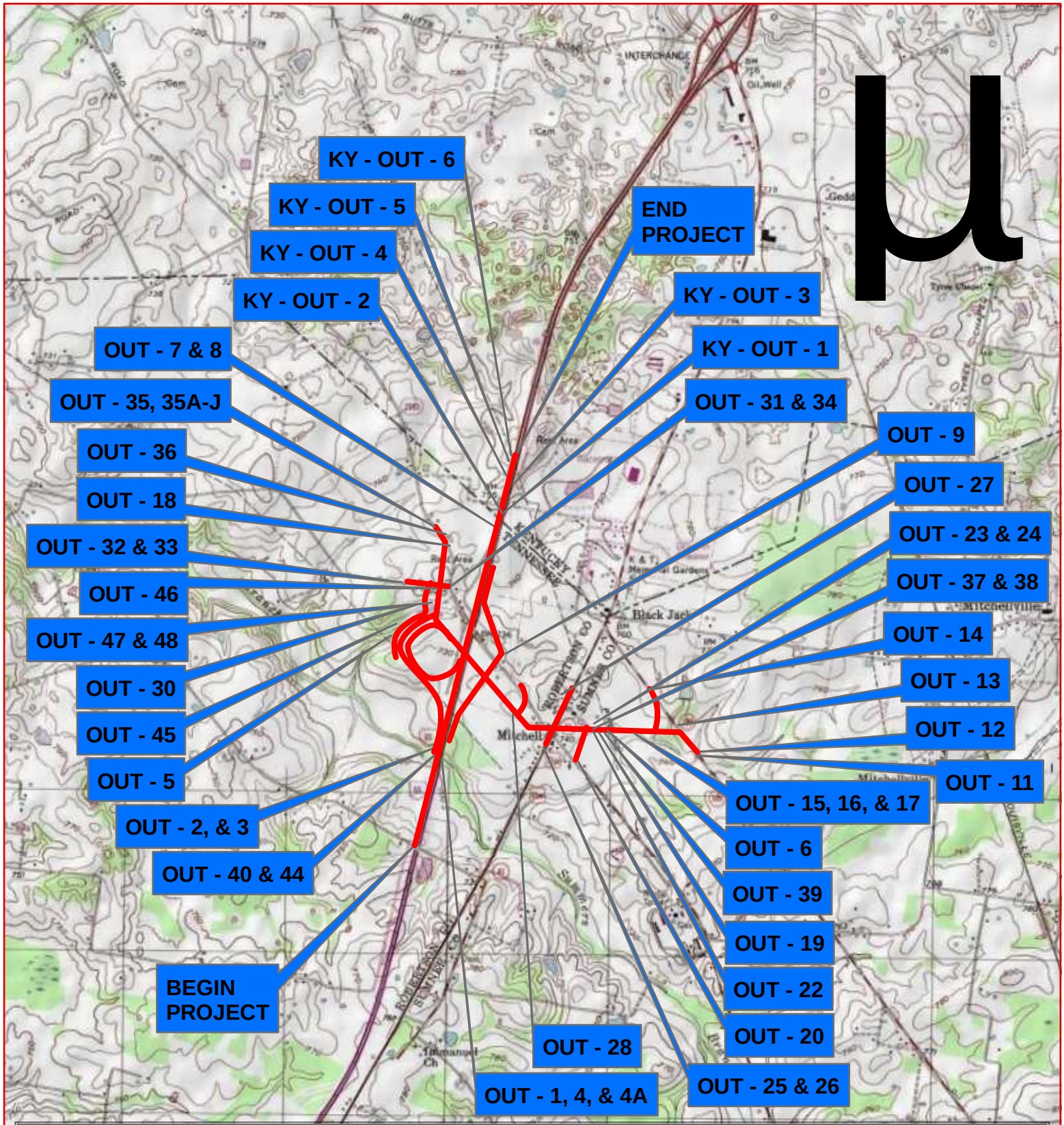
SECTION IX – CERTIFICATION

Provide the name, mailing address, telephone number and eMail address of the person who is responsible for the activity.

Signature: Provide full name of the responsibility party. This will constitute a signature.

The NOI must be signed as follows:

Corporation: by a principal executive officer of at least the level of vice president.
Partnership or sole proprietorship: by a general partner or the proprietor respectively.



PORTLAND, TN AND FRANKLIN, KY QUADRANGLE 309SE & NE

APPLICATION BY:
TENNESSEE DEPARTMENT OF TRANSPORTATION
Project # 74003-1160-44
PIN 107338.00
I-65; Proposed Interchange, Existing SR-109 to I-65
Roberston and Sumner, TN and Simpson, KY Counties

Miles
0 0.2 0.4 0.8 1.2 1.6

5. **Blank NOT**

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION (TDEC)
Division of Water Resources
William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Ave., 11th Floor, Nashville, TN 37243
1-888-891-TDEC (8332)

Notice of Termination (NOT) for General NPDES Permit for Stormwater Discharges from Construction Activities (CGP)

This form is required to be submitted when requesting termination of coverage from the CGP. The purpose of this form is to notify the TDEC that either all stormwater discharges associated with construction activity from the portion of the identified facility where you, as an operator, have ceased or have been eliminated; or you are no longer an operator at the construction site. Submission of this form shall in no way relieve the permittee of permit obligations required prior to submission of this form. Please submit this form to the TDEC Nashville, TN address depicted below. For more information, contact your local EFO at the toll-free number 1-888-891-8332 (TDEC).

Type or print clearly, using ink.

Site or Project Name:	**NPDES Tracking Number: TNR**
Street Address or Location:	County(ies):

Name of Permittee Requesting Termination of Coverage: Tennessee Department of Transportation			
Permittee Contact Name:	Title or Position:		
Mailing Address:	City:	State:	Zip:
Phone: ( )	E-mail:		

Check the reason(s) for termination of permit coverage:

☐	Stormwater discharge associated with construction activity is no longer occurring and the permitted area has a uniform 70% permanent vegetative cover OR has equivalent measures such as rip rap or geotextiles, in areas not covered with impervious surfaces.
☐	You are no longer the operator at the construction site (i.e., termination of site-wide, primary or secondary permittee coverage).

Certification and Signature: (must be signed by president, vice-president or equivalent ranking elected official)

I certify under penalty of law that either: (a) all stormwater discharges associated with construction activity from the portion of the identified facility where I was an operator have ceased or have been eliminated or (b) I am no longer an operator at the construction site. I understand that by submitting this notice of termination, I am no longer authorized to discharge stormwater associated with construction activity under this general permit, and that discharging pollutants in stormwater associated with construction activity to waters of the United States is unlawful under the Clean Water Act where the discharge is not authorized by a NPDES permit. I also understand that the submittal of this notice of termination does not release an operator from liability for any violations of this permit or the Clean Water Act.

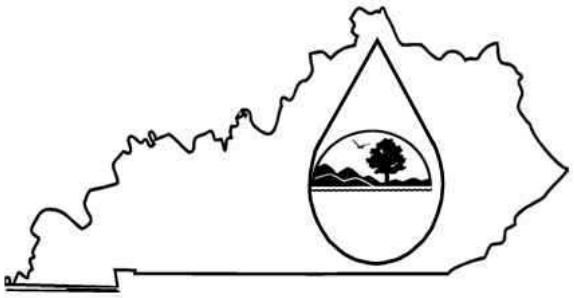
For the purposes of this certification, elimination of stormwater discharges associated with construction activity means that all stormwater discharges associated with construction activities from the identified site that are authorized by a NPDES general permit have been eliminated from the portion of the construction site where the operator had control. Specifically, this means that all disturbed soils at the portion of the construction site where the operator had control have been finally stabilized, the temporary erosion and sediment control measures have been removed, and/or subsequent operators have obtained permit coverage for the site or portions of the site where the operator had control.

I certify under penalty of law that this document and all attachments were prepared by me, or under my direction or supervision. The submitted information is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury.

Permittee name (print or type):	Signature:	Date:

Tennessee Department of Environment and Conservation
Division of Water Resources
Attn: Storm Water NOI Processing
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor
Nashville, TN 37243

KPDES FORM NOT-SW



Kentucky Pollutant Discharge Elimination System (KPDES)

NOTICE OF TERMINATION (NOT)

of Coverage Under the KPDES General Permit for Storm Water Discharges Associated with Industrial Activity

Submission of this Notice of Termination constitutes notice that the party identified in Section II of this form is no longer authorized to discharge storm water associated with industrial activity under the KPDES program.

ALL NECESSARY INFORMATION MUST BE PROVIDED ON THIS FORM.

(Please see instructions below before completing this form.)

I. PERMIT INFORMATION

KPDES Storm Water General Permit Number(*)	
Select "Yes" if you are no longer the Operator of the Facility(*)	Yes
Select "Yes" if the Storm Water Discharge is being Terminated(*)	No

II. FACILITY OPERATOR INFORMATION

Organization Name(*)		Phone(*)			
Address(*)					
City(*)		State(*)	Kentucky	Zip(*)	

III. FACILITY/SITE LOCATION INFORMATION

Name (*)		Address (*)		City (*)	
State (*)	Kentucky	Zip(*)			

Certification: I certify under penalty of law that all storm water discharges associated with industrial activity from the identified facility that are authorized by a KPDES general permit have been eliminated or that I am no longer the operator of the facility or construction site. I understand that by submitting this Notice of Termination, I am no longer authorized to discharge storm water associated with industrial activity under this general permit, and that discharging pollutants in storm water associated with industrial activity of waters of the Commonwealth is unlawful under the Clean Water Act and Kentucky Regulations where the discharge is not authorized by a KPDES permit. I also understand that the submittal of this Notice of Termination does not release an operator from liability for any violations of this permit or the Kentucky Revised Statutes.

First Name(*)		Last Name (*)	
Signature (*)		Date (*)	

Submit

INSTRUCTIONS

NOTICE OF TERMINATION (NOT) OF COVERAGE UNDER THE KPDES GENERAL PERMIT

FOR STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY

Who May File a Notice of Termination (NOT) Form

Permittees who are presently covered under the Kentucky Pollutant Discharge Elimination System (KPDES) General Permit for Storm Water Discharges Associated with Industrial Activity may submit a Notice of Termination (NOT) form when their facilities no longer have any storm water discharges associated with industrial activity as defined in the storm water regulations at 40 CFR 122.26 (b)(14), or when they are no longer the operator of the facilities.

For construction activities, elimination of all storm water discharges associated with industrial activity occurs when disturbed soils at the construction site have been finally stabilized and temporary erosion and sediment control measures have been removed or will be removed at an appropriate time, or that all storm water discharges associated with industrial activity from the construction site that are authorized by a KPDES general permit have otherwise been eliminated. Final stabilization means that all soil-disturbing activities at the site have been completed, and that a uniform perennial vegetative cover with a density of 70% of the cover for unpaved areas and areas not covered by permanent structures has been established, or equivalent permanent stabilization measures (such as the use of riprap, gabions, or geotextiles have been employed.

NOT form must be sent to the following address or submitted on-line at https://dep.gateway.ky.gov/eForms/Default.aspx?FormID=5:

Send this form to the following address:

Section Supervisor

Inventory & Data Management Section

KPDES Branch, Division of Water

14 Reilly Road, Frankfort Office Park

Frankfort, KY 40601

Completing the Form

Enter information in the appropriate areas only. (*) denotes a required field. Enter N/A (Not Applicable) for fields that are required but do not apply to your submission. If you have questions about this form, call the Storm Water Contact, Industrial Section, at (502) 564-3410.

Section I - Permit Information

Enter the existing KPDES Storm Water General Permit number assigned to the facility or site identified in Section III. If you do not know the permit number, **call the Storm Water Contact, Industrial Section at (502) 564-3410.**

Indicate your reason for submitting this Notice of Termination by selecting the appropriate value in the dropdown list:

If there has been a change of operator and you are no longer the operator of the facility or site identified in Section III, select "Yes" in the dropdown list.

If all storm water discharges at the facility or site identified in Section III have been terminated, select "Yes" in the dropdown list.

Section II - Facility Operator Information

Give the legal name of the person, firm, public organization, or any other entity that operates the facility or site described in this application. The name of the operator may or may not be the same name as the facility. The operator of the facility is the legal entity which controls the facility's operation, rather than the plant or site manager. Do not use a colloquial name. Enter the complete address and telephone number of the operator.

Section III - Facility/Site Location Information

Enter the facility's or site's official or legal name and complete address, including city, state and ZIP code. If the facility lacks a street address, indicate the state, the latitude and longitude of the facility to the nearest 15 seconds, or the quater, section, township, and range (to the nearest quarter section) of the approximate center of the site.

Section IV - Certification

Federal statutes provide for severe penalties for submitting false information on this application form. Federal regulations require this application to be signed as follows:

For a corporation: by a responsible corporate officer, which means: (i) president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions, or (ii) the manager of one or more manufacturing, production or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

For a partnership or sole proprietorship: by a general partner or the proprietor; or

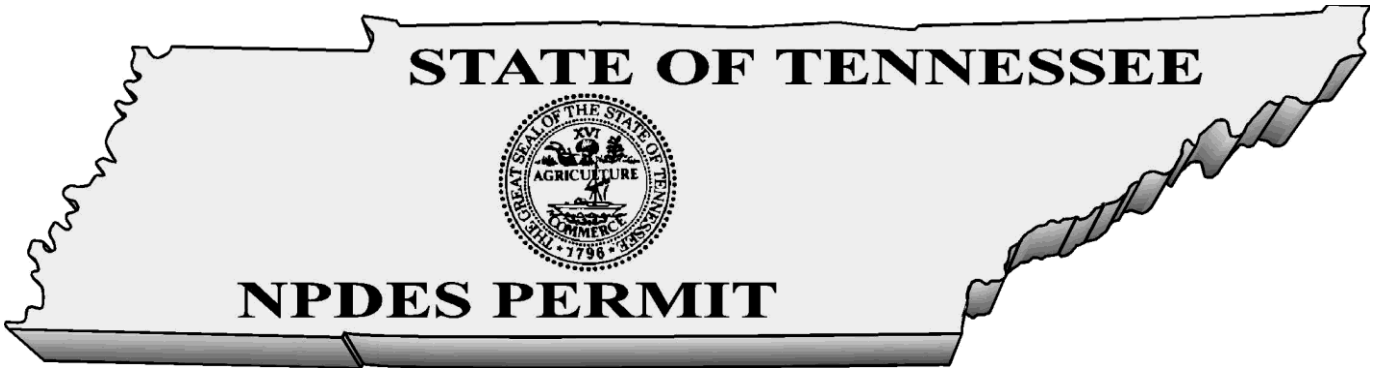
For a municipality, State, Federal, or other public facility: by either a principal executive

For a corporation: by a responsible corporate officer,which means: (i) president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions, or (ii) the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second-quarter 1980 dollars), if authroity to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

For a partnership or sole proprietorship: by a general partner or the proprietor; or

For a municipality, state, Federal, or other public facility: by either a principal executive officer or ranking elected official.

6. Construction General Permit



GENERAL NPDES PERMIT FOR DISCHARGES OF STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITIES

PERMIT NO. TNR100000

Under authority of the Tennessee Water Quality Control Act of 1977 (T.C.A. 69-3-101 et seq.) and the authorization by the United States Environmental Protection Agency under the Federal Water Pollution Control Act, as amended by the Clean Water Act of 1977 (33 U.S.C. 1251, et seq.) and the Water Quality Act of 1987, P.L. 100-4, including special requirements as provided in part 5.4 (Discharges into Impaired or Exceptional Tennessee Waters) of this general permit, operators of point source discharges of stormwater associated with construction activities into waters of the State of Tennessee, are authorized to discharge stormwater associated with construction activities in accordance with the following permit monitoring and reporting requirements, effluent limitations, and other provisions as set forth in parts 1 through 10 herein, from the subject outfalls to waters of the State of Tennessee.

This permit is issued on: **May 23, 2011**

This permit is effective on: **May 24, 2011**

This permit expires on: **May 23, 2016**

for Paul E. Davis, P.E., Director
Division of Water Pollution Control

CN-0759 RDAs 2352 and 2366

Tennessee General Permit No. TNR100000
Stormwater Discharges Associated with Construction Activities

Table of Contents

1. COVERAGE UNDER THIS GENERAL PERMIT

1.1. Permit Area

This construction general permit (CGP) covers all areas of the State of Tennessee.

1.2. Discharges Covered by this Permit

1.2.1. Stormwater discharges associated with construction activities

This permit authorizes point source discharges of stormwater from construction activities including clearing, grading, filling and excavating (including borrow pits and stockpile/material storage areas containing erodible material), or other similar construction activities that result in the disturbance of one acre or more of total land area. Projects or developments of less than one acre of land disturbance are required to obtain authorization under this permit if the construction activities at the site are part of a larger common plan of development or sale that comprise at least one acre of land disturbance. One or more site operators must maintain coverage under this permit for all portions of a site that have not been finally stabilized.

Projects or developments of less than one acre of total land disturbance may also be required to obtain authorization under this permit if:

a) the director has determined that the stormwater discharge from a site is causing, contributing to, or is likely to contribute to a violation of a state water quality standard;
b) the director has determined that the stormwater discharge is, or is likely to be a significant contributor of pollutants to waters of the state, or
c) changes in state or federal rules require sites of less than one acre that are not part of a larger common plan of development or sale to obtain a stormwater permit.

Note: Any discharge of stormwater or other fluid to an improved sinkhole or other injection well, as defined, must be authorized by permit or rule as a Class V underground injection well under the provisions of TDEC Rules, Chapter 1200-4-6.

1.2.2. Stormwater discharges associated with construction support activities

This permit also authorizes stormwater discharges from support activities associated with a permitted construction site (e.g., concrete or asphalt batch plants, equipment staging yards, material storage areas, excavated material disposal areas, borrow areas) provided all of the following are met:

a) the support activity is primarily related to a construction site that is covered under this general permit;
b) the operator of the support activity is the same as the operator of the construction site;
c) the support activity is not a commercial operation serving multiple unrelated construction projects by different operators;
d) the support activity does not operate beyond the completion of the construction activity of the last construction project it supports; and

e) support activities are identified in the Notice of Intent (NOI) and the Stormwater Pollution Prevention Plan (SWPPP). The appropriate erosion prevention and sediment controls and measures applicable to the support activity shall be described in a comprehensive SWPPP covering the discharges from the support activity areas.

TDOT projects shall be addressed in the Waste and Borrow Manual per the Statewide Stormwater Management Plan (SSWMP). Stormwater discharges associated with support activities that have been issued a separate individual permit or an alternative general permit are not authorized by this general permit. This permit does not authorize any process wastewater discharges from support activities. Process wastewater discharges from support activities must be authorized by an individual permit or other appropriate general permit.

1.2.3. Non-stormwater discharges authorized by this permit

The following non-stormwater discharges from active construction sites are authorized by this permit provided the non-stormwater component of the discharge is in compliance with section 3.5.9 below (*Pollution prevention measures for non-stormwater discharges*):

a) dewatering of work areas of collected stormwater and ground water (filtering or chemical treatment may be necessary prior to discharge);
b) waters used to wash vehicles (of dust and soil, not process materials such as oils, asphalt or concrete) where detergents are not used and detention and/or filtering is provided before the water leaves site;
c) water used to control dust in accordance with section 3.5.5 below;
d) potable water sources including waterline flushings from which chlorine has been removed to the maximum extent practicable;
e) routine external building washdown that does not use detergents or other chemicals;
f) uncontaminated groundwater or spring water; and
g) foundation or footing drains where flows are not contaminated with pollutants (process materials such as solvents, heavy metals, etc.).

All non-stormwater discharges authorized by this permit must be free of sediment or other solids and must not cause erosion of soil or the stream bank, or result in sediment impacts to the receiving stream.

1.2.4. Other NPDES-permitted discharges

Discharges of stormwater or wastewater authorized by and in compliance with a different NPDES permit (other than this permit) may be mixed with discharges authorized by this permit.

1.3. Limitations on Coverage

Except for discharges from support activities, as described in section 1.2.2 above and certain non-stormwater discharges listed in section 1.2.3 above, all discharges covered by this permit shall be composed entirely of stormwater. This permit does not authorize the following discharges:

a) Post-Construction Discharges (Permanent Stormwater Management) - Stormwater discharges associated with construction activity that originate from the construction site

after construction activities have been completed, the site has undergone final stabilization, and the coverage under this permit has been terminated.

b) Discharges Mixed with Non-Stormwater - Discharges that are mixed with sources of non-stormwater, other than discharges which are identified in section 1.2.4 above (*Other NPDES-permitted discharges*) and in compliance with section 3.5.9 below (*Pollution prevention measures for non-stormwater discharges*) of this permit.

c) Discharges Covered by Another Permit - Stormwater discharges associated with construction activity that have been issued an individual permit in accordance with subpart 7.12 below (*Requiring an Individual Permit*).

d) Discharges Threatening Water Quality - Stormwater discharges from construction sites, that the director determines will cause, have the reasonable potential to cause, or contribute to violations of water quality standards. Where such determination has been made, the discharger will be notified by the director in writing that an individual permit application is necessary as described in subpart 7.12 below (*Requiring an Individual Permit*). However, the division may authorize coverage under this permit after appropriate controls and implementation procedures have been included in the SWPPP that are designed to bring the discharge into compliance with water quality standards.

e) Discharges into Impaired Streams – This permit does not authorize discharges that would add loadings of a pollutant that is identified as causing or contributing to the impairment of a water body on the list of impaired waters. Impaired waters means any segment of surface waters that has been identified by the division as failing to support its designated classified uses. Compliance with the additional requirements set forth in sub-part 5.4 is not considered as contributing to loadings to impaired waters or degradation unless the division determines upon review of the SWPPP that there is a reason to limit coverage as set forth in paragraph d) above and the SWPPP cannot be modified to bring the site into compliance.

f) Discharges into Outstanding National Resource Waters - The director shall not grant coverage under this permit for discharges into waters that are designated by the Water Quality Control Board as Outstanding National Resource Waters (ONRWs). Designation of ONRWs are made according to TDEC Rules, Chapter 1200-4-3-.06.

g) Discharges into Exceptional Quality Waters - The director shall not grant coverage under this permit for potential discharges of pollutants which would cause degradation to waters designated by TDEC as exceptional quality waters (see sub-part 5.4 (Discharges into Impaired or Exceptional Tennessee Waters for additional permit requirements). Compliance with the additional requirements set forth in sub-part 5.4 is not considered as contributing to loadings to exceptional quality waters or degradation unless the division determines upon review of the SWPPP that there is a reason to limit coverage as set forth in paragraph d) above and the SWPPP cannot be modified to bring the site into compliance. Identification of exceptional quality waters is made according to TDEC Rules, Chapter 1200-4-3-.06.

h) Discharges Not Protective of Federal or State listed Threatened and Endangered Species, Species Deemed in Need of Management or Special Concern Species - Stormwater discharges and stormwater discharge-related activities that are not protective of legally protected listed or proposed threatened or endangered aquatic fauna or flora (or species proposed for such protection) in the receiving stream(s); or discharges or activities that would result in a "take" of a state or federal listed endangered or threatened aquatic or wildlife species deemed in need of management or special concern species, or such species' habitat. If the division finds that stormwater discharges or stormwater related activities are likely to result in any of the above effects, the director will deny the

coverage under this general permit unless and until project plans are changed to adequately protect the species.

i) Discharges from a New or Proposed Mining Operation - This permit does not cover discharges from a new or proposed mining operation.

j) Discharges Negatively Affecting a Property on the National Historic Register - Stormwater discharges that would negatively affect a property that is listed or is eligible for listing in the National Historic Register maintained by the Secretary of Interior.

k) Discharging into Receiving Waters With an Approved Total Maximum Daily Load Analysis - Discharges of pollutants of concern to waters for which there is an EPA-approved total maximum daily load (TMDL) for the same pollutant are not covered by this permit unless measures or controls that are consistent with the assumptions and requirements of such TMDL are incorporated into the SWPPP. If a specific wasteload allocation has been established that would apply to the discharge, that allocation must be incorporated into the SWPPP and steps necessary to meet that allocation must be implemented. In a situation where an EPA-approved or established TMDL has specified a general wasteload allocation applicable to construction stormwater discharges, but no specific requirements for construction sites have been identified, the permittee should consult with the division to confirm that adherence to a SWPPP that meets the requirements of this permit will be consistent with the approved TMDL. Where an EPA-approved or established TMDL has not specified a wasteload allocation applicable to construction stormwater discharges, but has not specifically excluded these discharges, adherence to a SWPPP that meets the requirements of the CGP will generally be assumed to be consistent with the approved TMDL. If the EPA-approved or established TMDL specifically precludes construction stormwater discharges, the operator is not eligible for coverage under the CGP.

1.4. Obtaining Permit Coverage

Submitting a complete NOI, a SWPPP and an appropriate permitting application fee are required to obtain coverage under this general permit. Requesting coverage under this permit means that an applicant has obtained and examined a copy of this permit, and thereby acknowledges applicant's claim of ability to comply with permit terms and conditions. Upon completing NOI review, the division will:

a) issue a notice of coverage (NOC) to the operator identified as a primary permittee on the NOI form (see subpart 1.5 below - *Effective Date of Coverage*); or
b) notify the applicant of needed changes to their NOI submittal (see section 2.6.3 below - *Application completeness*); or
c) deny coverage under this general permit (see subpart 7.12 below - *Requiring an Individual Permit*).

1.4.1. Notice of Intent (NOI)

Operators wishing to obtain coverage under this permit must submit a completed NOI in accordance with requirements of part 2 below, using the NOI form provided in Appendix A of this permit (or a copy thereof). The division will review NOIs for completeness and accuracy and, when deemed necessary, investigate the proposed project for potential impacts to the waters of the state.

1.4.2. Stormwater Pollution Prevention Plan (SWPPP)

Operators wishing to obtain coverage under this permit must develop and submit a site-specific SWPPP with the NOI. The initial, comprehensive SWPPP, developed and submitted by the site-wide permittee (typically owner/developer who applied for coverage at project commencement[1]), should address all construction-related activities from the date construction commences to the date of termination of permit coverage, to the maximum extent practicable. The SWPPP must be developed, implemented and updated according to the requirements in part 3 below (*SWPPP Requirements*) and subpart 2.3 below (*Responsibilities of Operators*). The SWPPP must be implemented prior to commencement of construction activities.

If the initial, comprehensive SWPPP does not address all activities until final stabilization of the site, an updated SWPPP or addendums to the plan addressing all aspects of current site disturbance must be prepared. An active, updated SWPPP must be in place for all disturbed portions of a site until each portion has been completed and finally stabilized.

Preparation and implementation of the comprehensive SWPPP may be a cooperative effort with all operators at a site. New operators with design and operational control of their portion of the construction site are expected to adopt, modify, update and implement a comprehensive SWPPP. Primary permittees at the site may develop a SWPPP addressing only their portion of the project, as long as the proposed Best Management Practices (BMPs) are compatible with the comprehensive SWPPP and complying with conditions of this general permit.

1.4.3. Permit application fees

The permit application fee should accompany the site-wide permittee's NOI form. The fee is based on the total acreage planned to be disturbed by an entire construction project for which the site-wide permittee is requesting coverage, including any associated construction support activities (see section 1.2.2 above). *The disturbed area* means the total area presented as part of the development (and/or of a larger common plan of development) subject to being cleared, graded, or excavated during the life of the development. The area cannot be limited to only the portion of the total area that the site-wide owner/developer initially disturbs through the process of various land clearing activities and/or in the construction of roadways, sewers and water utilities, stormwater drainage structures, etc., to make the property marketable. The site-wide owner/developer may present documentation of common areas in the project that will not be subject to disturbance at anytime during the life of the project and have these areas excluded from the fee calculation.

The application fees shall be as specified in the TDEC Rules, Chapter 1200-4-11. The application will be deemed incomplete until the appropriate application fee is paid in full. Checks for the appropriate fee should be made payable to "Treasurer, State of Tennessee." There is no additional fee for subsequent owner/operator to obtain permit coverage (see section 2.4.3 below - *New operator*), as long as the site-wide primary permittee has active permit coverage at the time of receipt of the subsequent operator's application, because the site-wide primary permittee paid the appropriate fee for the entire area of site disturbance. If a project was previously permitted, but permit coverage was terminated (see section 8.1.1 below - Termination process for primary permittees), and subsequent site disturbance or re-development occurs, the new operator must obtain coverage and pay the appropriate fee for the disturbed acreage.

[1] See sub-part 2.1 on page 7 for a definition of an site-wide permittee.

1.4.4. Submittal of a copy of the NOC and NOT to the local MS4

Permittees who discharge stormwater through an NPDES-permitted municipal separate storm sewer system (MS4) who are not exempted in section 1.4.5 below (*Permit Coverage through Qualifying Local Program*) must submit a courtesy copy of the notice of coverage (NOC), and at project completion, a copy of the signed notice of termination (NOT) to the MS4 upon their request. Permitting status of all permittees covered (or previously covered) under this general permit as well as the most current list of all MS4 permits is available at the division's DataViewer web site[2].

1.4.5. Permit Coverage through Qualifying Local Program

Coverage equivalent to coverage under this general permit may be obtained from a qualifying local erosion prevention and sediment control Municipal Separate Storm Sewer System (MS4) program. A qualifying local program (QLP) is a municipal stormwater program for stormwater discharges associated with construction activity that has been formally approved by the division. More information about Tennessee's QLP program and MS4 participants can be found at: http://tn.gov/environment/wpc/stormh2o/qlp.shtml.

If a construction site is within the jurisdiction of and has obtained a notice of coverage from a QLP, the operator of the construction activity is authorized to discharge stormwater associated with construction activity under this general permit without the submittal of an NOI to the division. The permittee is also not required to submit a SWPPP, a notice of termination or a permit fee to the division. At the time of issuance of this permit, there were no qualifying local erosion prevention and sediment control MS4 programs in Tennessee. Permitting of stormwater runoff from construction sites from federal or state agencies (including, but not limited to the Tennessee Department of Transportation (TDOT) and Tennessee Valley Authority (TVA)) and the local MS4 program itself will remain solely under the authority of TDEC.

The division may require any owner/developer or operator located within the jurisdiction of a QLP to obtain permit coverage directly from the division. The operator shall be notified in writing by the division that coverage by the QLP is no longer applicable, and how to obtain coverage under this permit.

1.5. Effective Date of Coverage

1.5.1. Notice of Coverage (NOC)

The NOC is a notice from the division to the primary permittee, which informs the primary permittee that the NOI, the SWPPP and the appropriate fee were received and accepted, and stormwater discharges from a specified area of a construction activity have been approved under this general permit. The permittee is authorized to discharge stormwater associated with construction activity as of the effective date listed on the NOC.

Assigning a permit tracking number by the division to a proposed discharge from a construction site does not confirm or imply an authorization to discharge under this permit. Correspondence

[2] http://www.tn.gov/environment/wpc/dataviewer/

with the permittee is maintained through the Site Owner or Developer listed in the NOI, not the optional contact or the secondary permittee.

If any Aquatic Resource Alteration Permits (ARAP) are required for a site in areas proposed for active construction, the NOC will not be issued until ARAP application(s) are submitted and deemed by TDEC to be complete. The treatment and disposal of wastewater (including, but not limited to sanitary wastewater) generated during and after the construction must be also addressed. The issuance of the NOC may be delayed until adequate wastewater treatment and accompanying permits are issued.

1.5.2. Permit tracking numbers

Construction sites covered under this permit will be assigned permit tracking numbers in the sequence TNR100001, TNR100002, etc. An operator presently permitted under a previous construction general permit shall be granted coverage under this new general permit. Permit tracking numbers assigned under a previous construction general permit will be retained (see section 2.4.1 below). An operator receiving new permit coverage will be assigned a new permit tracking number (see section 2.4.2 below).

2. NOTICE OF INTENT (NOI) REQUIREMENTS

2.1. Who Must Submit an NOI?

All site operators must submit an NOI form. "Operator" for the purpose of this permit and in the context of stormwater associated with construction activity means any person associated with a construction project who meets either or both of the following two criteria:

a) The person has operational or design control over construction plans and specifications, including the ability to make modifications to those plans and specifications. This person is typically the owner or developer of the project or a portion of the project (e.g. subsequent builder), or the person that is the current land owner of the construction site. This person is considered the primary permittee; or
b) The person has day-to-day operational control of those activities at a project which are necessary to ensure compliance with a SWPPP for the site or other permit conditions. This person is typically a contractor or a commercial builder who is hired by the primary permittee, and is considered a secondary permittee.

The site-wide permittee is the first primary permittee to apply for coverage at the site. There may be other primary permittees for a project, but there is only one site-wide permittee. Where there are multiple operators associated with the same project, all operators are required to obtain permit coverage. Once covered by a permit, all such operators are to be considered as co-permittees if their involvement in the construction activities affects the same project site, and are held jointly and severally responsible for complying with the permit.

2.2. Typical Construction Site Operators

2.2.1. Owner/Developer

An owner or developer(s) of a project is a primary permittee. This person has operational or design control over construction plans and specifications, including the ability to make modifications to those plans and specifications. This person may include, but is not limited to a developer, landowner, realtor, commercial builder, homebuilder, etc. An owner or developer's responsibility to comply with requirements of this permit extends until permit coverage is terminated in accordance with requirements of part 8 below.

2.2.2. Commercial builders

A commercial builder can be a primary or secondary permittee at a construction site.

A commercial builder who purchases one or more lots from an owner/developer (site-wide permittee) for the purpose of constructing and selling a structure (e.g., residential house, non-residential structure, commercial building, industrial facility, etc.) and has design or operational control over construction plans and specifications is a primary permittee for that portion of the site. A commercial builder may also be hired by the end user (e.g., a lot owner who may not be a permittee). In either case the commercial builder is considered a new operator and must submit a new NOI following requirements in section 2.4.3 below.

The commercial builder may also be hired by the primary permittee or a lot owner to build a structure. In this case, the commercial builder signs the primary permittee's NOI and SWPPP as a contractor (see section 2.2.3 below) and is considered a secondary permittee.

2.2.3. Contractors

A contractor is considered a secondary permittee. This person has day-to-day operational control of those activities at a project which are necessary to ensure compliance with a SWPPP for the site or other permit conditions (e.g., contractor is authorized to direct workers at a site to carry out activities required by the SWPPP or comply with other permit conditions).

A contractor may be, but is not limited to a general contractor, grading contractor, erosion control contractor, sub-contractor responsible for any land disturbing activities and/or erosion prevention and sediment control (EPSC) implementation/maintenance, commercial builder hired by the owner/developer, etc. The contractor may need to include in their contract with the party that hired them specific details for the contractor's responsibilities concerning EPSC measures. This includes the ability of the contractor to make EPSC modifications. The contractor should sign the NOI and SWPPP associated with the construction project at which they will be an operator.

2.3. Responsibilities of Operators

A permittee may meet one or more of the operational control components in the definition of "operator" found in subpart 2.1 above. Either section 2.3.1 or 2.3.2 below, or both, will apply depending on the type of operational control exerted by an individual permittee.

2.3.1. Permittee(s) with design control (owner/developer)

Permittee(s) with design control (i.e., operational control over construction plans and specifications) at the construction site, including the ability to make modifications to those plans and specifications (e.g., owner/developer) must:

a) Ensure the project specifications they develop meet the minimum requirements of part 3 below (stormwater pollution prevention plan - SWPPP) and all other applicable conditions;
b) Ensure that the SWPPP indicates the areas of the project where they have design control (including the ability to make modifications in specifications), and ensure all other permittees implementing and maintaining portions of the SWPPP impacted by any changes they make to the plan are notified of such modifications in a timely manner;
c) Ensure that all common facilities (i.e., sediment treatment basin and drainage structures) that are necessary for the prevention of erosion or control of sediment are maintained and effective until all construction is complete and all disturbed areas in the entire project are stabilized, unless permit coverage has been obtained and responsibility has been taken over by a new (replacement) owner/operator.
d) If parties with day-to-day operational control of the construction site have not been identified at the time the comprehensive SWPPP is initially developed, the permittee with design control shall be considered to be the responsible person until such time the supplemental NOI is submitted, identifying the new operator(s) (see section 2.4.3 below). These new operators (e.g., general contractor, utilities contractors, sub-contractors, erosion control contractors, hired commercial builders) are considered secondary permittees. The SWPPP must be updated to reflect the addition of new operators as needed to reflect operational or design control.
e) Ensure that all operators on the site have permit coverage, if required, and are complying with the SWPPP.

2.3.2. Permittee(s) with day-to-day operational control (contractor – secondary permittee)

Permittee(s) with day-to-day operational control of those activities at a project which are necessary to ensure compliance with the SWPPP for the site or other permit conditions (e.g., general contractor, utilities contractors, sub-contractors, erosion control contractors, hired commercial builders) must:

a) Ensure that the SWPPP for portions of the project where they are operators meets the minimum requirements of part 3 below (*SWPPP Requirements*) and identifies the parties responsible for implementation of control measures identified in the plan;
b) Ensure that the SWPPP indicates areas of the project where they have operational control over day-to-day activities;
c) Ensure that measures in the SWPPP are adequate to prevent erosion and control any sediment that may result from their earth disturbing activity;
d) Permittees with operational control over only a portion of a larger construction project are responsible for compliance with all applicable terms and conditions of this permit as it relates to their activities on their portion of the construction site. This includes, but is not limited to, implementation of Best Management Practices (BMPs) and other controls required by the SWPPP. Permittees shall ensure either directly or through coordination with other permittees, that their activities do not render another person's pollution control ineffective. All permittees must implement their portions of a comprehensive SWPPP.

2.4. NOI Submittal

2.4.1. Existing site

An operator presently permitted under the 2005 construction general permit shall be granted coverage under this new general permit. There will be no additional fees associated with an extension of coverage for existing sites under the new permit. The division may, at its discretion, require permittees to confirm their intent to be covered under this new general permit following its effective date through submission of an updated NOI. Should the confirmation be required and is not received, coverage under the new general permit will be terminated. Should a site with terminated coverage be unstable or construction continues, a new NOI, SWPPP and an appropriate fee must be submitted.

2.4.2. Application for new permit coverage

Except as provided in section 2.4.3 below, operators must submit a complete NOI, SWPPP and an appropriate fee in accordance with the requirements described in subpart 1.4 above. The complete application should be submitted at least 30 days prior to commencement of construction activities. The permittee is authorized to discharge stormwater associated with construction activity as of the effective date listed on the NOC. The land disturbing activities shall not start until a NOC is prepared and written approval by the division staff is obtained according to subpart 1.5 above.

2.4.3. New operator

For stormwater discharges from construction sites or portions of the sites where the operator changes (new owner), or projects where an operator is added (new contractor) after the initial NOI and comprehensive SWPPP have been submitted, the supplemental (submitted by a new contractor) or additional (submitted by a new owner) NOI should be submitted as soon as practicable, and always before the new operator commences work at the site. The supplemental NOI must reference the project name and tracking number assigned to the primary permittee's NOI.

If the site under the control of the new owner is inactive and all areas disturbed are completely stabilized, the NOI may not need to be submitted immediately upon assuming operational control. However, the division should be notified if a new operator obtains operational control at a site, but commencement of construction under the direction of the operator at the site is going to be delayed.

If upon the sale or transfer of the site's ownership does not change the signatory requirements for the NOI (see section 7.7.1 below), but the site's owner or developer's company name has changed, a new, updated NOI should be submitted to the division within 30 days of the name change. If the new operator agrees to comply with an existing comprehensive SWPPP already implemented at the site, a copy of the supplemental or modified SWPPP does not have to be submitted with the NOI. There will be no additional fees associated with the sale or transfer of ownership for existing permitted sites.

If the transfer of ownership is due to foreclosure or a permittee filing for bankruptcy proceedings, the new owner (including but not limited to a lending institution) must obtain permit coverage if the property is inactive, but is not stabilized sufficiently. If the property is sufficiently stabilized permit coverage may not be necessary, unless and until construction activity at the site resumes.

2.4.4. Late NOIs

Dischargers are not prohibited from submitting late NOIs. When a late NOI is submitted, and if the division authorizes coverage under this permit, such authorization is only for future discharges; any prior, unpermitted, discharges or permit noncompliances are subject to penalties as described in section 7.1.2 below.

2.5. Who Must Sign the NOI?

All construction site operators as defined in subsection 2.2 above (*Typical Construction Site Operators*) must sign the NOI form. Signatory requirements for a NOI are described in section 7.7.1 below. All signatures must be original. An NOI that does not bear an original signature will be deemed incomplete. The division recommends that signatures be in blue ink.

2.6. NOI Form

2.6.1. Contents of the NOI form

NOI for construction projects shall be submitted on the form provided in Appendix A of this permit, or on a copy thereof. This form and its instructions set forth the required content of the NOI. The NOI form must be filled in completely. If sections of the NOI are left blank, a narrative explaining the omission must be provided as an attachment.

Owners, developers and all contractors that meet the definition of the operator in subsection 2.2 above (*Typical Construction Site Operators*) shall apply for permit coverage on the same NOI, insofar as possible. The NOI is designed for more than one contractor (secondary permittee). The division may accept separate NOI forms from different operators for the same construction site when warranted.

After permit coverage has been granted to the primary permittee, any subsequent NOI submittals must include the site's previously assigned permit tracking number and the project name. The comprehensive site-specific SWPPP shall be prepared in accordance with the requirements of part 3 below, and must be submitted with the NOI unless the NOI being submitted is to only add a contractor (secondary permittee) to an existing coverage.

2.6.2. Construction site map

An excerpt (8 ½" by 11" or 11" by 17") from the appropriate 7.5 minute United States Geological Survey (USGS) topographic map, with the proposed construction site centered, must be included with the NOI. The entire proposed construction area must be clearly identified (outlined) on this map. The total area to be disturbed (in acres) should be included on the map. The map should outline the boundaries of projects, developments and the construction site in relation to major roads, streams or other landmarks. All outfalls where runoff will leave the property should be identified. Stream(s) receiving the discharge, and storm sewer system(s)

conveying the discharge from all site outfalls should be clearly identified and marked on the map. The map should also list and indicate the location of EPSCs that will be used at the construction site. NOIs for linear projects must specify the location of each end of the construction area and all areas to be disturbed. Commercial builders that develop separate SWPPPs that cover only their portion of the project shall also submit a site or plat map that clearly indicates the lots which they purchased and for which they are applying for permit coverage and the location of EPSCs that will be used at each lot.

2.6.3. Application completeness

Based on a review of the NOI or other available information, the division shall:

1. prepare a notice of coverage (NOC) for the construction site (see subpart 1.5 above); or
2. prepare a deficiency letter stating additional information must be provided before the NOC can be issued; or
3. deny coverage under this general permit and require the discharger to obtain coverage under an individual NPDES permit (see subpart 7.12 below).

2.7. Where to Submit the NOI, SWPPP and Permitting Fee?

The applicant shall submit the NOI, SWPPP and permitting fee to the appropriate TDEC Environmental Field Office (EFO) for the county(ies) where the construction activity is located and where stormwater discharges enters waters of the state. If a site straddles a county line of counties that are in areas of different EFOs, the operators shall send NOIs to each EFO. The permitting fee should be submitted to the EFO that provides coverage for the majority of the proposed construction activity.

A list of counties and the corresponding EFOs is provided in subpart 2.8 below. The division's Nashville Central Office will serve as a processing office for NOIs submitted by federal or state agencies (including, but not limited to the Tennessee Department of Transportation (TDOT), Tennessee Valley Authority (TVA) and the local MS4 programs).

2.8. List of the TDEC Environmental Field Offices (EFOs) and Corresponding Counties

EFO Name	List of Counties
Chattanooga	Bledsoe, Bradley, Grundy, Hamilton, Marion, McMinn, Meigs, Polk, Rhea, Sequatchie
Columbia	Bedford, Coffee, Franklin, Giles, Hickman, Lawrence, Lewis, Lincoln, Marshall, Maury, Moore, Perry, Wayne
Cookeville	Cannon, Clay, Cumberland, De Kalb, Fentress, Jackson, Macon, Overton, Pickett, Putnam, Smith, Van Buren, Warren, White
Jackson	Benton, Carroll, Chester, Crockett, Decatur, Dyer, Gibson, Hardeman, Hardin, Haywood, Henderson, Henry, Lake, Lauderdale, Madison, McNairy, Obion, Weakley
Johnson City	Carter, Greene, Hancock, Hawkins, Johnson, Sullivan, Unicoi, Washington
Knoxville	Anderson, Blount, Campbell, Claiborne, Cocke, Grainger, Hamblen, Jefferson, Knox, Loudon, Monroe, Morgan, Roane, Scott, Sevier, Union
Memphis	Fayette, Shelby, Tipton
Nashville	Cheatham, Davidson, Dickson, Houston, Humphreys, Montgomery, Robertson, Rutherford, Stewart, Sumner, Trousdale, Williamson, Wilson

TDEC may be reached by telephone at the toll-free number 1-888-891-8332 (TDEC). Local EFOs may be reached directly when calling this number from the construction site, using a land line.

3. STORMWATER POLLUTION PREVENTION PLAN (SWPPP) REQUIREMENTS

3.1. The General Purpose of the SWPPP

A comprehensive SWPPP must be prepared and submitted along with the NOI as required in section 1.4.2 above. The primary permittee must implement the SWPPP as written from commencement of construction activity until final stabilization is complete, or until the permittee does not have design or operational control of any portion of the construction site. Requirements for termination of site coverage are provided in part 8 below.

A site-specific SWPPP must be developed for each construction project or site covered by this permit. The design, inspection and maintenance of Best Management Practices (BMPs) described in SWPPP must be prepared in accordance with good engineering practices. At a minimum, BMPs shall be consistent with the requirements and recommendations contained in the current edition of the Tennessee Erosion and Sediment Control Handbook (the handbook). The handbook is designed to provide information to planners, developers, engineers, and contractors on the proper selection, installation, and maintenance of BMPs. This permit allows the use of innovative or alternative BMPs, whose performance has been documented to be equivalent or superior to conventional BMPs as certified by the SWPPP designer.

Once a definable area has been finally stabilized, the permittee may identify this area on the site-specific SWPPP. No further SWPPP or inspection requirements apply to that portion of the site (e.g., earth-disturbing activities around one of three buildings in a complex are done and the area is finally stabilized, one mile of a roadway or pipeline project is done and finally stabilized, etc).

For more effective coordination of BMPs a cooperative effort by the different operators at a site to prepare and participate in a comprehensive SWPPP is expected. Primary permittees at a site may develop separate SWPPPs that cover only their portion of the project. In instances where there is more than one SWPPP for a site, the permittees must ensure the stormwater discharge controls and other measures are compatible with one another and do not prevent another operator from complying with permit conditions. The comprehensive SWPPP developed and submitted by the primary permittee must assign responsibilities to subsequent (secondary) permittees and coordinate all BMPs at the construction site. Assignment and coordination can be done by name or by job title.

3.1.1. Registered engineer or landscape architect requirement

The narrative portion of the SWPPP may be prepared by an individual that has a working knowledge of erosion prevention and sediment controls, such as a Certified Professional in Erosion and Sediment Control (CPESC) or a person that successfully completed the "Level II Design Principles for Erosion Prevention and Sediment Control for Construction Sites" course. Plans and specifications for any building or structure, including the design of sediment basins or other sediment controls involving structural, hydraulic, hydrologic or other engineering calculations shall be prepared by a licensed professional engineer or landscape architect and

stamped and certified in accordance with the Tennessee Code Annotated, Title 62, Chapter 2 (see part 10 below) and the rules of the Tennessee Board of Architectural and Engineering Examiners. Engineering design of sediment basins and other sediment controls must be included in SWPPPs for construction sites involving drainage to an outfall totaling 10 or more acres (see subsection 3.5.3.3 below) or 5 or more acres if draining to an impaired or exceptional quality waters (see subsection 5.4.1 below).

3.1.2. Site Assessment

Quality assurance of erosion prevention and sediment controls shall be done by performing site assessment at a construction site. The site assessment shall be conducted at each outfall involving drainage totaling 10 or more acres (see subsection 3.5.3.3 below) or 5 or more acres if draining to an impaired or exceptional quality waters (see subsection 5.4.1 below), within a month of construction commencing at each portion of the site that drains the qualifying acreage of such portion of the site. The site assessment shall be performed by individuals with following qualifications:

- a licensed professional engineer or landscape architect;
- a Certified Professional in Erosion and Sediment Control (CPESC) or
- a person that successfully completed the "Level II Design Principles for Erosion Prevention and Sediment Control for Construction Sites" course.

As a minimum, site assessment should be performed to verify the installation, functionality and performance of the EPSC measures described in the SWPPP. The site assessment should be performed with the inspector (as defined in part 10 below – Definitions), and should include a review and update (if applicable) of the SWPPP. Modifications of plans and specifications for any building or structure, including the design of sediment basins or other sediment controls involving structural, hydraulic, hydrologic or other engineering calculations shall be prepared by a licensed professional engineer or landscape architect and stamped and certified in accordance with the Tennessee Code Annotated, Title 62, Chapter 2 (see part 10 below) and the rules of the Tennessee Board of Architectural and Engineering Examiners.

The site assessment findings shall be documented and the documentation kept with the SWPPP at the site. At a minimum, the documentation shall include information included in the inspection form provided in Appendix C of this permit. The documentation must contain the printed name and signature of the individual performing the site assessment and the following certification:

> *"I certify under penalty of law that this report and all attachments are, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."*

The site assessment can take the place of one of the twice weekly inspections requirement from subsection 3.5.8.2 below.

The division may require additional site assessment(s) to be performed if site inspection by division's personnel reveals site conditions that have potential of causing pollution to the waters of the state.

3.2. SWPPP Preparation and Compliance

3.2.1. Existing site

Operator(s) of an existing site presently permitted under the division's previous construction general permit shall maintain full compliance with the current SWPPP. The current SWPPP should be modified, if necessary, to meet requirements of this new general permit, and the SWPPP changes implemented no later than 12 months following the new permit effective date (**Error! Reference source not found.**), excluding the buffer zone requirements as stated in section 4.1.2 below. The permittee shall make the updated SWPPP available for the division's review upon request.

3.2.2. New site

For construction stormwater discharges not authorized under an NPDES permit as of the effective date of this permit, a SWPPP that meets the requirements of subpart 3.5 below of this permit shall be prepared and submitted along with the NOI and an appropriate fee for coverage under this permit.

3.3. Signature Requirements, Plan Review and Making Plans Available

3.3.1. Signature Requirements for a SWPPP

The SWPPP shall be signed by the operator(s) in accordance with subpart 7.7 below, and if applicable, certified according to requirements in section 3.1.1 above. All signatures must be original. A SWPPP that does not bear an original signature will be deemed incomplete. The division recommends that signatures be in blue ink.

3.3.2. SWPPP Review

The permittee shall make updated plans and inspection reports available upon request to the director, local agency approving erosion prevention and sediment control plan, grading plans, land disturbance plans, or stormwater management plans, or the operator of an MS4.

3.3.3. Making plans available

A copy of the SWPPP shall be retained on-site at the location which generates the stormwater discharge in accordance with part 6 below of this permit. If the site is inactive or does not have an onsite location adequate to store the SWPPP, the location of the SWPPP, along with a contact phone number, shall be posted on-site. If the SWPPP is located offsite, reasonable local access to the plan, during normal working hours, must be provided.

3.4. Keeping Plans Current

3.4.1. SWPPP modifications

The permittee must modify and update the SWPPP if any of the following are met:

a) whenever there is a change in the scope of the project, which would be expected to have a significant effect on the discharge of pollutants to the waters of the state and which has not otherwise been addressed in the SWPPP. If applicable, the SWPPP must be modified or updated whenever there is a change in chemical treatment methods, including the use of different treatment chemical, different dosage or application rate, or different area of application;
b) whenever inspections or investigations by site operators, local, state or federal officials indicate the SWPPP is proving ineffective in eliminating or significantly minimizing pollutants from sources identified under section 3.5.2 below of this permit, or is otherwise not achieving the general objectives of controlling pollutants in stormwater discharges associated with construction activity. Where local, state or federal officials determine that the SWPPP is ineffective in eliminating or significantly minimizing pollutant sources, a copy of any correspondence to that effect must be retained in the SWPPP;
c) to identify any new operator (typically contractor and/or subcontractor) as needed to reflect operational or design control that will implement a measure of the SWPPP (see subparts 2.1 and 2.2 above for further description of which operators must be identified); and
d) to include measures necessary to prevent a negative impact to legally protected state or federally listed fauna or flora (or species proposed for such protection – see subpart 1.3 above). Amendments to the SWPPP may be reviewed by the division, a local MS4, the EPA or an authorized regulatory agency; and
e) a TMDL is developed for the receiving waters for a pollutant of concern (siltation and/or habitat alteration).

3.5. Components of the SWPPP

The SWPPP shall include the following items, as described in sections 3.5.1 to 3.5.10 below: site description, description of stormwater runoff controls, erosion prevention and sediment controls, stormwater management, description of other items needing control, approved local government sediment and erosion control requirements, maintenance, inspections, pollution prevention measures for non-stormwater discharges, and documentation of permit eligibility related to Total Maximum Daily Loads (TMDL). The SWPPP must:

a) identify all potential sources of pollution which are likely to affect the quality of stormwater discharges from the construction site;
b) describe practices to be used to reduce pollutants in stormwater discharges from the construction site; and
c) assure compliance with the terms and conditions of this permit.

3.5.1. Site description

Each plan shall provide a description of pollutant sources and other information as indicated below:

a) a description of all construction activities at the site (not just grading and street construction);
b) the intended sequence of major activities which disturb soils for major portions of the site (e.g., grubbing, excavation, grading, utilities and infrastructure installation, etc.);
c) estimates of the total area of the site and the total area that is expected to be disturbed by excavation, grading, filling, or other construction activities;
d) a description of the topography of the site including an estimation of the percent slope and the variation in percent slope found on the site; such estimation should be on a basis of a drainage area serving each outfall, rather than an entire project;
e) any data describing the soil (data may be referenced or summarized) and how the soil type will dictate the needed control measures and how the soil may affect the expected quality of runoff from the site;
f) an estimate of the runoff coefficient of the site after construction activities are completed and how the runoff will be handled to prevent erosion at the permanent outfall and receiving stream, as well as the estimate of the percentage of impervious area before and after construction;
g) an erosion prevention and sediment control plan of the site with the proposed construction area clearly outlined. The plan should indicate the boundaries of the permitted area, drainage patterns and approximate slopes anticipated after major grading activities, areas of soil disturbance, an outline of areas which are not to be disturbed, the location of major structural and nonstructural controls identified in the SWPPP, the location of areas where stabilization practices are expected to occur, surface waters including wetlands, sinkholes, and careful identification on the site plan of outfall points intended for coverage under the general permit for stormwater discharges from the site. The erosion control plan must meet requirements stated in section 3.5.2 below;
h) a description of any discharge associated with industrial activity other than construction stormwater that originates on site and the location of that activity and its permit number;
i) identification of any stream or wetland on or adjacent to the project, a description of any anticipated alteration of these waters and the permit number or the tracking number of the Aquatic Resources Alteration Permit (ARAP) or Section 401 Certification issued for the alteration;
j) the name of the receiving water(s), and approximate size and location of affected wetland acreage at the site;
k) if applicable, clearly identify and outline the buffer zones established to protect waters of the state located within the boundaries of the project;
l) some construction projects, such as residential or commercial subdivisions and/or developments or industrial parks are subdivided. Subdivided lots are sometimes sold to new owners prior to completion of construction. The site-wide developer/owner must describe EPSC measures implemented at those lots. Once the property is sold, the new operator must obtain coverage under this permit;
m) for projects of more than 50 acres, the construction phases must be described (see subsection 3.5.3.1 below); and
n) if only a portion of the total acreage of the construction site is to be disturbed, then the protections employed to limit the disturbance must be discussed, i.e., caution fence, stream side buffer zones, etc. Limits of disturbance shall be clearly marked in the

SWPPP and areas to be undisturbed clearly marked in the field before construction activities begin.

3.5.2. Description of stormwater runoff controls

The SWPPP shall include a description of appropriate erosion prevention and sediment controls and other Best Management Practices (BMPs) that will be implemented at the construction site. The SWPPP must clearly describe each major activity which disturbs soils for major portions of the site (e.g., grubbing, excavation, grading, utilities and infrastructure installation, etc.):

a) appropriate control measures and the general timing for the measures to be implemented during construction activities; and
b) which permittee is responsible for implementation of which controls.

The SWPPP must include erosion prevention and sediment control (EPSC) plans showing the approximate location of each control measure along with a description of the timing during the construction process for implementing each measure (e.g., prior to the start of earth disturbance, as the slopes are altered and after major grading is finished). The different stages of construction (initial/major grading, installation of infrastructure, final contours, etc.) and the erosion preventions and sediment control measures that will be utilized during each stage should be depicted on multiple plan sheets (see paragraphs below). Half sheets are acceptable. One sheet showing all EPSCs that will be used during the life of the multi-phase project implementing different EPSC controls at each stage will not be considered complete.

For site disturbances less than 5 acres, at least two separate EPSC plan sheets shall be developed. At least two stages shall be identified, with associated EPSC measures addressed. The plan stages shall be addressed separately in plan sheets, with each stage reflecting the conditions and EPSC measures necessary to manage stormwater runoff, erosion and sediment during the initial land disturbance (initial grading) and the conditions and EPSC measures necessary to manage stormwater, erosion and sediment at final grading.

For site disturbances more than 5 acres, at least 3 separate EPSC plan sheets shall be developed. Three stages shall be identified. The first plan sheet should reflect the conditions and EPSC measures necessary to manage stormwater runoff, during the initial land disturbance (initial grading). The second plan sheet shall reflect the conditions and the EPSC measures necessary to manage stormwater runoff from interim land disturbance activities. The third plan sheet shall reflect the conditions and EPSC measures necessary to manage stormwater runoff, erosion and sediment at final grading.

The description and implementation of controls shall address the following minimum components, as described in sections 3.5.3, 3.5.4 and 3.5.5 below. Additional controls may be necessary to comply with section 5.3.2 below.

3.5.3. Erosion prevention and sediment controls

3.5.3.1. General criteria and requirements

a) The construction-phase erosion prevention controls shall be designed to eliminate (or minimize if complete elimination is not possible) the dislodging and suspension of soil in

water. Sediment controls shall be designed to retain mobilized sediment on site to the maximum extent practicable.

b) The design, inspection and maintenance of Best Management Practices (BMPs) described in SWPPP must be prepared in accordance with good engineering practices and, at a minimum, shall be consistent with the requirements and recommendations contained in the current edition of the Tennessee Erosion and Sediment Control Handbook. In addition, all control measures must be properly selected, installed, and maintained in accordance with the manufacturer's specifications (where applicable). All control measures selected must be able to slow runoff so that rill and gully formation is prevented. When steep slopes and/or fine particle soils are present at the site, additional physical or chemical treatment of stormwater runoff may be required. Proposed physical and/or chemical treatment must be researched and applied according to the manufacturer's guidelines and fully described in the SWPPP. If periodic inspections or other information indicates a control has been used inappropriately, or incorrectly, the permittee must replace or modify the control for relevant site situations.

c) If permanent or temporary vegetation is to be used as a control measure, then the timing of the planting of the vegetation cover must be discussed in the SWPPP. Planning for planting cover vegetation during winter months or dry months should be avoided.

d) If sediment escapes the permitted area, off-site accumulations of sediment that have not reached a stream must be removed at a frequency sufficient to minimize offsite impacts (e.g., fugitive sediment that has escaped the construction site and has collected in a street must be removed so that it is not subsequently washed into storm sewers and streams by the next rain and/or so that it does not pose a safety hazard to users of public streets). Permittees shall not initiate remediation/restoration of a stream without consulting the division first. This permit does not authorize access to private property. Arrangements concerning removal of sediment on adjoining property must be settled by the permittee with the adjoining landowner.

e) Sediment should be removed from sediment traps, silt fences, sedimentation ponds, and other sediment controls as recommended in the Tennessee Erosion and Sediment Control Handbook, and must be removed when design capacity has been reduced by 50%.

f) Litter, construction debris, and construction chemicals exposed to stormwater shall be picked up prior to anticipated storm events or before being carried off of the site by wind (e.g., forecasted by local weather reports), or otherwise prevented from becoming a pollutant source for stormwater discharges (e.g., screening outfalls, daily pick-up, etc.). After use, materials used for erosion prevention and sediment control (such as silt fence) should be removed or otherwise prevented from becoming a pollutant source for stormwater discharges.

g) Erodible material storage areas (including but not limited to overburden and stockpiles of soil etc.) and borrow pits used primarily for the permitted project and which are contiguous to the site are considered a part of the site and shall be identified on the NOI, addressed in the SWPPP and included in the fee calculation. TDOT projects shall be addressed in the Waste and Borrow Manual per the Statewide Stormwater Management Plan (SSWMP).

h) Pre-construction vegetative ground cover shall not be destroyed, removed or disturbed more than 15 days prior to grading or earth moving unless the area is seeded and/or mulched or other temporary cover is installed.

i) Clearing and grubbing must be held to the minimum necessary for grading and equipment operation. Existing vegetation at the site should be preserved to the maximum extent practicable.

j) Construction must be sequenced to minimize the exposure time of graded or denuded areas.
k) Construction phasing is required on all projects regardless of size as a major practice for minimizing erosion and limiting sedimentation. Construction must be phased to keep the total disturbed area less than 50 acres at any one time. Areas of the completed phase must be stabilized within 15 days (see subsection 3.5.3.2 below). No more than 50 acres of active soil disturbance is allowed at any time during the construction project. This includes off-site borrow or disposal areas that meet the conditions of section 1.2.2 above of this general permit.

   The 50 acre limitation does not apply to linear construction projects (such as roadway, pipeline, and other infrastructure construction activities) if the following conditions are met:

   - Where no one area of active soil disturbance is greater than 50 acres and the various areas of disturbance have distinct receiving waters; or
   - Where contiguous disturbances amount to greater than 50 acres, but no one distinct water is receiving run off from more than 50 disturbed acres; or
   - With the department's written concurrence, where more than 50 acres of disturbance is to occur and where one receiving water will receive run-off from more than 50 acres; or
   - Where no one area of active soil disturbance is greater than 50 acres and the various areas of disturbance are more than 5 miles apart.

   In order for a linear project to take advantage of the 50 acre rule exemption outlined in this paragraph, the contractor shall conduct monthly site assessments as described in section 3.1.2 above until the site is permanently stabilized.

l) Erosion prevention and sediment control measures must be in place and functional before earth moving operations begin, and must be constructed and maintained throughout the construction period. Temporary measures may be removed at the beginning of the workday, but must be replaced at the end of the workday.
m) The following records shall be maintained on or near site: the dates when major grading activities occur; the dates when construction activities temporarily or permanently cease on a portion of the site; the dates when stabilization measures are initiated; inspection records and rainfall records.
n) Off-site vehicle tracking of sediments and the generation of dust shall be minimized. A stabilized construction access (a point of entrance/exit to a construction site) shall be described and implemented, as needed, to reduce the tracking of mud and dirt onto public roads by construction vehicles.
o) Permittees shall maintain a rain gauge and daily rainfall records at the site, or use a reference site for a record of daily amount of precipitation.

3.5.3.2. Stabilization practices

The SWPPP shall include a description of interim and permanent stabilization practices, including site-specific scheduling of the implementation of the practices. Site plans should ensure that existing vegetation is preserved where attainable and that disturbed portions of the site are stabilized. Site plans should comply with buffer zone requirements (see sections 4.1.2

and 5.4.2 below), if applicable, in which construction activities, borrow and/or fill are prohibited. Stabilization practices may include: temporary seeding, permanent seeding, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of trees, preservation of mature vegetation, and other appropriate measures. Use of impervious surfaces for final stabilization in lieu of a permanent vegetative cover should be avoided where practicable. No stabilization, erosion prevention and sediment control measures are to be installed in a stream without obtaining a Section 404 permit and an Aquatic Resources Alteration Permit (ARAP), if such permits are required and appropriate.

Stabilization measures shall be initiated as soon as possible in portions of the site where construction activities have temporarily or permanently ceased. Temporary or permanent soil stabilization at the construction site (or a phase of the project) must be completed no later than 15 days after the construction activity in that portion of the site has temporarily or permanently ceased. In the following situations, temporary stabilization measures are not required:

a) where the initiation of stabilization measures is precluded by snow cover or frozen ground conditions or adverse soggy ground conditions, stabilization measures shall be initiated as soon as practicable; or
b) where construction activity on a portion of the site is temporarily ceased, and earth disturbing activities will be resumed within 15 days.

Steep slopes shall be temporarily stabilized not later than 7 days after construction activity on the slope has temporarily or permanently ceased.

Permanent stabilization with perennial vegetation (using native herbaceous and woody plants where practicable) or other permanently stable, non-eroding surface shall replace any temporary measures as soon as practicable. Unpacked gravel containing fines (silt and clay sized particles) or crusher runs will not be considered a non-eroding surface.

3.5.3.3. Structural practices

The SWPPP shall include a description of structural practices to divert flows from exposed soils, store flows or otherwise limit runoff and discharge of pollutants from exposed areas of the site. Such practices may include silt fences, earth dikes, drainage swales, sediment traps, check dams, subsurface drains, pipe slope drains, level spreaders, storm drain inlet protection, rock outlet protection, reinforced soil retaining systems, gabions, and temporary or permanent sediment basins. Structural controls shall not be placed in streams or wetlands except as authorized by a section 404 permit and/or Aquatic Resources Alteration Permit (ARAP).

Erosion prevention and sediment control measures must be prepared in accordance with good engineering practices and the latest edition of the Tennessee Erosion and Sediment Control Handbook. In addition, erosion prevention and sediment controls shall be designed to minimize erosion and maximize sediment removal resulting from a 2-year, 24-hour storm (the design storm – see part 10 below: “2-year and 5-year design storm depths and intensities”), as a minimum, either from total rainfall in the designated period or the equivalent intensity as specified on the following website http://hdsc.nws.noaa.gov/hdsc/pfds/orb/tn_pfds.html. When clay and other fine particle soils are present at the construction site, chemical treatment may be used to minimize amount of sediment being discharged.

For an on-site outfall which receives drainage from 10 or more acres, a minimum sediment basin volume that will provide treatment for a calculated volume of runoff from a 2 year, 24 hour storm and runoff from each acre drained, or equivalent control measures as specified in the Tennessee Erosion and Sediment Control Handbook, shall be provided until final stabilization of the site. A drainage area of 10 or more acres includes both disturbed and undisturbed portions of the site or areas adjacent to the site, all draining through the common outfall. Where an equivalent control measure is substituted for a sediment retention basin, the equivalency must be justified to the division. Runoff from any undisturbed acreage should be diverted around the disturbed area and the sediment basin. Diverted runoff can be omitted from the volume calculation. Sediment storage expected from the disturbed areas must be included.

All calculations of drainage areas, runoff coefficients and basin volumes must be provided in the SWPPP. The discharge structure from a sediment basin must be designed to retain sediment during the lower flows. Muddy water to be pumped from excavation and work areas must be held in settling basins or filtered or chemically treated prior to its discharge into surface waters. Water must be discharged through a pipe, well-grassed or lined channel or other equivalent means so that the discharge does not cause erosion and sedimentation. Discharged water must not cause an objectionable color contrast with the receiving stream.

3.5.4. Stormwater management

The SWPPP shall include a description of any measures that will be installed during the construction process to control pollutants in stormwater discharges that will occur after construction operations have been completed.

For projects discharging to waters considered impaired by sediment or habitat alteration due to in-channel erosion, the SWPPP shall include a description of measures that will be installed during the construction process to control pollutants and any increase in the volume of stormwater discharges that will occur after construction operations have been completed. For steep slope sites, the SWPPP shall also include a description of measures that will be installed to dissipate the volume and energy of the stormwater runoff to pre-development levels.

This permit only addresses the installation of stormwater management measures, and not the ultimate operation and maintenance of such structures after the construction activities have been completed, the site has undergone final stabilization, and the permit coverage has been terminated. Permittees are only responsible for the installation and maintenance of stormwater management measures prior to final stabilization of the site, and are not responsible for maintenance after stormwater discharges associated with construction activity have been eliminated from the site. All permittees are encouraged to limit the amount of post construction runoff, if not required by local building regulations or local MS4 program requirements, in order to minimize in-stream channel erosion in the receiving stream.

Construction stormwater runoff management practices may include: stormwater detention structures (including ponds with a permanent pool); stormwater retention structures; flow attenuation by use of open vegetated swales and natural depressions; infiltration of runoff onsite; and sequential systems (which combine several practices).

Velocity dissipation devices shall be placed at discharge locations and along the length of any outfall channel to provide a non-erosive velocity flow from the structure to the receiving stream so that the natural physical and biological characteristics and functions of the stream are

maintained and protected (e.g., there should be no significant changes in the hydrological regime of the receiving water). The SWPPP shall include an explanation of the technical basis used to select the velocity dissipation devices to control pollution where flows exceed pre-development levels. The Tennessee Erosion and Sediment Control Handbook provides measures that can be incorporated into the design or implemented on site to decrease erosive velocities. An Aquatic Resources Alteration Permit (ARAP) may be required if such velocity dissipation devices installed would alter the receiving stream and/or its banks.

3.5.5. Other items needing control

a) No solid materials, including building materials, shall be placed in waters of the state, except as authorized by a section 404 permit and/or Aquatic Resources Alteration Permit (ARAP)(see part 9 below).
b) For installation of any waste disposal systems on site, or sanitary sewer or septic system, the SWPPP shall identify these systems and provide for the necessary EPSC controls. Permittees must also comply with applicable state and/or local waste disposal, sanitary sewer or septic system regulations for such systems to the extent these are located within the permitted area.
c) The SWPPP shall include a description of construction and waste materials expected to be stored on-site. The SWPPP shall also include a description of controls used to reduce pollutants from materials stored on site, including storage practices to minimize exposure of the materials to stormwater, and spill prevention and response.
d) A description of stormwater sources from areas other than construction and a description of controls and measures that will be implemented at those sites.
e) A description of measures necessary to prevent "taking" of legally protected state or federal listed threatened or endangered aquatic fauna and/or critical habitat (if applicable). The permittee must describe and implement such measures to maintain eligibility for coverage under this permit.

3.5.6. Approved local government sediment and erosion control requirements

Permittees must comply with any additional erosion prevention, sediment controls and stormwater management measures required by a local municipality or permitted MS4 program.

3.5.7. Maintenance

The SWPPP shall describe procedures to ensure that vegetation, erosion and sediment control measures, buffer zones, and other protective measures identified in the site plan are kept in good and effective operating condition. Maintenance needs identified in inspections or by other means shall be accomplished before the next storm event, but in no case more than 7 days after the need is identified.

3.5.8. Inspections

3.5.8.1. Inspector training and certification

Inspectors performing the required twice weekly inspections must have an active certification by completing the "Fundamentals of Erosion Prevention and Sediment Control Level I" course. A copy of the certification or training record for inspector certification should be kept on site.

3.5.8.2. Schedule of inspections

a) Inspections described in paragraphs b, c and d below, shall be performed at least twice every calendar week. Inspections shall be performed at least 72 hours apart. Where sites or portion(s) of construction sites have been temporarily stabilized, or runoff is unlikely due to winter conditions (e.g., site covered with snow or ice) or due to extreme drought, such inspection only has to be conducted once per month until thawing or precipitation results in runoff or construction activity resumes. Inspection requirements do not apply to definable areas that have been finally stabilized, as described in subpart 3.1 above. Written notification of the intent to change the inspection frequency and the justification for such request must be submitted to the local Environmental Field Office, or the division's Nashville Central Office for projects of the Tennessee Department of Transportation (TDOT) and the Tennessee Valley Authority (TVA). Should the division discover that monthly inspections of the site are not appropriate due to insufficient stabilization measures or otherwise, twice weekly inspections shall resume. The division may inspect the site to confirm or deny the notification to conduct monthly inspections.
b) Qualified personnel, as defined in section 3.5.8.1 above (provided by the permittee or cooperatively by multiple permittees) shall inspect disturbed areas of the construction site that have not been finally stabilized, areas used for storage of materials that are exposed to precipitation, structural control measures, locations where vehicles enter or exit the site, and each outfall.
c) Disturbed areas and areas used for storage of materials that are exposed to precipitation shall be inspected for evidence of, or the potential for, pollutants entering the site's drainage system. Erosion prevention and sediment control measures shall be observed to ensure that they are operating correctly.
d) Outfall points (where discharges leave the site and/or enter waters of the state) shall be inspected to determine whether erosion prevention and sediment control measures are effective in preventing significant impacts to receiving waters. Where discharge locations are inaccessible, nearby downstream locations shall be inspected. Locations where vehicles enter or exit the site shall be inspected for evidence of offsite sediment tracking.
e) Based on the results of the inspection, any inadequate control measures or control measures in disrepair shall be replaced or modified, or repaired as necessary, before the next rain event, but in no case more than 7 days after the need is identified.
f) Based on the results of the inspection, the site description identified in the SWPPP in accordance with section 3.5.1 above and pollution prevention measures identified in the SWPPP in accordance with section 3.5.2 above shall be revised as appropriate, but in no case later than 7 days following the inspection. Such modifications shall provide for timely implementation of any changes to the SWPPP, but in no case later than 14 days following the inspection.
g) All inspections shall be documented on the Construction Stormwater Inspection Certification form provided in Appendix C of this permit for all construction sites. An alternative inspection form may be used as long as the form contents and the inspection certification language are, at a minimum, equivalent to the division's form (Appendix C) and the permittee has obtained a written approval from the division to use the alternative form. Inspection documentation will be maintained on site and made available to the division upon request. Inspection reports must be submitted to the division within 10 days of the request. If the division requests the Construction Stormwater Inspection Certification form to be submitted, the submitted form must contain the printed name and

signature of the trained certified inspector and the person who meets the signatory requirements of section 7.7.2 below of this permit.

h) Trained certified inspectors shall complete inspection documentation to the best of their ability. Falsifying inspection records or other documentation or failure to complete inspection documentation shall result in a violation of this permit and any other applicable acts or rules.

i) Subsequent operator(s) (primary permittees) who have obtained coverage under this permit should conduct twice weekly inspections, unless their portion(s) of the site has been temporarily stabilized, or runoff is unlikely due to winter conditions or due to extreme drought as stated in paragraph a) above. The primary permittee (such as a developer) is no longer required to conduct inspections of portions of the site that are covered by a subsequent primary permittee (such as a home builder).

3.5.9. Pollution prevention measures for non-stormwater discharges

Sources of non-stormwater listed in section 1.2.3 above of this permit that are combined with stormwater discharges associated with construction activity must be identified in the SWPPP. The plan shall identify and ensure the implementation of appropriate pollution prevention measures for the non-stormwater component(s) of the discharge. Any non-stormwater must be discharged through stable discharge structures. Estimated volume of the non-stormwater component(s) of the discharge must be included in the design of all impacted control measures.

3.5.10. Documentation of permit eligibility related to Total Maximum Daily Loads (TMDL)

The SWPPP must include documentation supporting a determination of permit eligibility with regard to waters that have an approved TMDL for a pollutant of concern, including:

a) identification of whether the discharge is identified, either specifically or generally, in an approved TMDL and any associated wasteload allocations, site-specific requirements, and assumptions identified for the construction stormwater discharge;
b) summaries of consultation with the division on consistency of SWPPP conditions with the approved TMDL, and
c) measures taken to ensure that the discharge of TMDL identified pollutants from the site is consistent with the assumptions and requirements of the approved TMDL, including any specific wasteload allocation that has been established that would apply to the construction stormwater discharge.

4. CONSTRUCTION AND DEVELOPMENT EFFLUENT GUIDELINES

4.1. Non-Numeric Effluent Limitations

Any point source authorized by this general permit must achieve, at a minimum, the effluent limitations representing the degree of effluent reduction attainable by application of best practicable control technology (BPT) currently available and is described in sections 4.1.1 through 4.1.7 below.

4.1.1. Erosion Prevention and Sediment Controls

Design, install and maintain effective erosion prevention and sediment controls to minimize the discharge of pollutants. At a minimum, such controls must be designed, installed and maintained to:

(1) Control stormwater volume and velocity within the site to minimize soil erosion;
(2) Control stormwater discharges, including both peak flow rates and total stormwater volume, to minimize erosion at outlets and to minimize downstream channel and streambank erosion;
(3) Minimize the amount of soil exposed during construction activity;
(4) Minimize the disturbance of steep slopes;
(5) Eliminate (or minimize if complete elimination is not possible) sediment discharges from the site. The design, installation and maintenance of erosion prevention and sediment controls must address factors such as the design storm (see sub-section 3.5.3.3 above) and soil characteristics, including the range of soil particle sizes expected to be present on the site;
(6) Provide and maintain natural buffers around surface waters, direct stormwater to vegetated areas to increase sediment removal and maximize stormwater infiltration, unless infeasible (see section 4.1.2 below); and
(7) Minimize soil compaction and, unless infeasible, preserve topsoil.

4.1.2. Buffer zone requirements

Buffer zone requirements in this section apply to all streams adjacent to construction sites, with an exception for streams designated as impaired or Exceptional Tennessee waters (see section 5.4.2 below). A 30-foot natural riparian buffer zone adjacent to all streams at the construction site shall be preserved, to the maximum extent practicable, during construction activities at the site. The water quality buffer zone is required to protect waters of the state (e.g., perennial and intermittent streams, rivers, lakes, wetlands) located within or immediately adjacent to the boundaries of the project, as identified using methodology from Standard Operating Procedures for Hydrologic Determinations (see rules to implement a certification program for Qualified Hydrologic Professionals, TN Rules Chapter 0400-40-17). Buffer zones are not primary sediment control measures and should not be relied on as such. Rehabilitation and enhancement of a natural buffer zone is allowed, if necessary, for improvement of its effectiveness of protection of the waters of the state. The buffer zone requirement only applies to new construction sites, as described in section 2.4.2 above.

The riparian buffer zone should be preserved between the top of stream bank and the disturbed construction area. The 30-feet criterion for the width of the buffer zone can be established on an average width basis at a project, as long as the minimum width of the buffer zone is more than 15 feet at any measured location.

Every attempt should be made for construction activities not to take place within the buffer zone. BMPs providing equivalent protection to a receiving stream as a natural riparian zone may be used at a construction site. Such equivalent BMPs shall be designed to be as effective in protecting the receiving stream from effects of stormwater runoff as a natural riparian zone. A justification for use and a design of equivalent BMPs shall be included in the SWPPP. Such equivalent BMPs are expected to be routinely used at construction projects typically located adjacent to surface waters. These projects include, but are not limited to: sewer line construction,

roadway construction, utility line or equipment installation, greenway construction, construction of a permanent outfall or a velocity dissipating structure, etc.

This requirement does not apply to any valid Aquatic Resources Alteration Permit (ARAP), or equivalent permits issued by federal authorities. Additional buffer zone requirements may be established by the local MS4 program.

4.1.2.1. Buffer zone exemption based on existing uses

Buffer zones as described in section 4.1.2 above shall not be required to portions of the buffer where certain land uses exist and are to remain in place according to the following:

1. A use shall be considered existing if it was present within the buffer zone as of the date of the Notice of Intent for coverage under the CGP. Existing uses shall include, but not be limited to, buildings, parking lots, roadways, utility lines and on-site sanitary sewage systems. Only the portion of the buffer zone that contains the footprint of the existing land use is exempt from buffer zones. Activities necessary to maintain uses are allowed provided that no additional vegetation is removed from the buffer zone.

2. If an area with an existing land use is proposed to be converted to another use or the impervious surfaces located within the buffer area are being removed buffer zone requirements shall apply.

4.1.2.2. Pre-Approved Sites

Construction activity at sites that have been pre-approved before February 1, 2010, are exempt from the buffer requirements of section 4.1.2 above. Evidence of pre-approval for highway projects shall be a final right-of-way plan and for other construction projects, the final design drawings with attached dated, written approval by the local, state or federal agency with authority to approve such design drawings for construction.

4.1.3. Soil stabilization

Stabilization of disturbed areas must, at a minimum, be initiated immediately whenever any clearing, grading, excavating or other earth disturbing activities have temporarily or permanently ceased on any portion of the site, and will not resume for a period exceeding 14 calendar days. Soil stabilization (temporary or permanent) of those of disturbed areas must be completed as soon as possible, but not later than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased. In arid, semiarid, and drought-stricken areas where initiating vegetative stabilization measures immediately is infeasible, alternative stabilization measures (such as, but not limited to: properly anchored mulch, soil binders, matting) must be employed.

4.1.4. Dewatering

Discharges from dewatering activities, including discharges from dewatering of trenches and excavations, are prohibited unless managed by appropriate controls. Appropriate controls include, but are not limited to: weir tank, dewatering tank, gravity bag filter, sand media particulate filter, pressurized bag filter, cartridge filter or other control units providing the level of treatment necessary to comply with permit requirements.

4.1.5. Pollution prevention measures

The permittee must design, install, implement, and maintain effective pollution prevention measures to minimize the discharge of pollutants. At a minimum, such measures must be designed, installed, implemented and maintained to:

(1) Minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge;
(2) Minimize the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste and other materials present on the site to precipitation and to stormwater; and
(3) Minimize the discharge of pollutants from spills and leaks and implement chemical spill and leak prevention and response procedures.

4.1.6. Prohibited discharges

The following discharges are prohibited:

(1) Wastewater from washout of concrete, unless managed by an appropriate control;
(2) Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials;
(3) Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance; and
(4) Soaps or solvents used in vehicle and equipment washing.

4.1.7. Surface outlets

When discharging from basins and impoundments, utilize outlet structures that only withdraw water from near the surface of the basin or impoundment, unless infeasible.

5. SPECIAL CONDITIONS, MANAGEMENT PRACTICES, AND OTHER NON-NUMERIC LIMITATIONS

5.1. Releases in Excess of Reportable Quantities

The discharge of hazardous substances or oil in the stormwater discharge(s) from a facility shall be prevented or minimized in accordance with the applicable stormwater pollution prevention plan for the facility. This permit does not relieve the permittee of the reporting requirements of 40 CFR 117 and 40 CFR 302. Where a release containing a hazardous substance in an amount

equal to or in excess of a reportable quantity established under either 40 CFR 117 or 40 CFR 302 occurs during a 24 hour period:

a) the permittee is required to notify the National Response Center (NRC) (800-424-8802) and the Tennessee Emergency Management Agency (emergencies: 800-262-3300; non-emergencies: 800-262-3400) in accordance with the requirements of 40 CFR 117 or 40 CFR 302 as soon as he or she has knowledge of the discharge;
b) the permittee shall submit, within 14 days of knowledge of the release, a written description of: the release (including the type and estimate of the amount of material released), the date that such release occurred, the circumstances leading to the release, what actions were taken to mitigate effects of the release, and steps to be taken to minimize the chance of future occurrences, to the appropriate Environmental Field Office (see subpart 2.8 above); and
c) the SWPPP required under part 3 above of this permit must be updated within 14 days of knowledge of the release: to provide a description of the release, the circumstances leading to the release, and the date of the release. This can be accomplished by including a copy of a written description of the release as described in the paragraph b) above. In addition, the SWPPP must be reviewed to identify measures to prevent the reoccurrence of such releases and to respond to such releases, and the plan must be modified where appropriate.

5.2. Spills

This permit does not authorize the discharge of hazardous substances or oil resulting from an on-site spill.

5.3. Discharge Compliance with State Water Quality Standards

5.3.1. Violation of Water Quality Standards

This permit does not authorize stormwater or other discharges that would result in a violation of a state water quality standard (the TDEC Rules, Chapters 1200-4-3, 1200-4-4). Such discharges constitute a violation of this permit.

Where a discharge is already authorized under this permit and the division determines the discharge to cause or contribute to the violation of applicable state water quality standards, the division will notify the operator of such violation(s). The permittee shall take all necessary actions to ensure future discharges do not cause or contribute to the violation of a water quality standard and shall document these actions in the SWPPP.

5.3.2. Discharge quality

a) The construction activity shall be carried out in such a manner that will prevent violations of water quality criteria as stated in the TDEC Rules, Chapter 1200-4-3-.03. This includes but is not limited to the prevention of any discharge that 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 for that water body by TDEC Rules, Chapter 1200-4-4. Construction activity carried out in the manner required by this permit shall be considered compliance with the TDEC Rules, Chapter 1200-4-3-.03.
b) There shall be no distinctly visible floating scum, oil or other matter contained in the stormwater discharge.
c) The stormwater discharge must not cause an objectionable color contrast in the receiving stream.
d) The stormwater discharge must result in no materials in concentrations sufficient to be hazardous or otherwise detrimental to humans, livestock, wildlife, plant life, or fish and aquatic life in the receiving stream. This provision includes species covered under subpart 1.3 above.

5.4. Discharges into Impaired or Exceptional Tennessee Waters

5.4.1. Additional SWPPP/BMP Requirements for discharges into impaired or exceptional TN Waters

Discharges that would add loadings of a pollutant that is identified as causing or contributing to an impairment of a water body on the list of impaired waters, or which would cause degradation to waters designated by TDEC as Exceptional Tennessee waters are not authorized by this permit (see subpart 1.3 above). To be eligible to obtain and maintain coverage under this permit, the operator must satisfy, at a minimum, the following additional requirements for discharges into waters impaired by siltation (or discharges upstream of such waters and because of the proximity to the impaired segment and the nature of the discharge is likely to contribute pollutants of concern in amounts measurable in the impaired segment that may affect the impaired waters) and for discharges to waters identified by TDEC as Exceptional Tennessee waters (or discharges upstream of such waters and because of the proximity to the exceptional segment and the nature of the discharge is likely to contribute pollutants of concern in amounts measurable in the exceptional segment that may affect the Exceptional Tennessee waters):

a) The SWPPP must certify that erosion prevention and sediment controls used at the site are designed to control storm runoff generated by a 5-year, 24-hour storm event (the design storm - see part 10 below: "2-year and 5-year design storm depths and intensities"), as a minimum, either from total rainfall in the designated period or the equivalent intensity as specified on the following website http://hdsc.nws.noaa.gov/hdsc/pfds/orb/tn_pfds.html. When clay and other fine particle soils are found on sites, additional physical or chemical treatment of stormwater runoff may be used.
b) The SWPPP must be prepared by a person who, at a minimum, has completed the department's Level II Design Principles for Erosion Prevention and Sediment Control for Construction Sites course. This requirement goes in effect 24 months following the new permit effective date. A copy of the certification or training record for inspector certification should be included with the SWPPP.

c) The permittee shall perform inspections described in section 3.5.8 above at least twice every calendar week. Inspections shall be performed at least 72 hours apart.
d) The permittee must certify on the form provided in Appendix C of this permit whether or not all planned and designed erosion prevention and sediment controls are installed and in working order. The form must contain the printed name and signature of the inspector and the certification must be executed by a person who meets the signatory requirements of section 7.7.2 below of this permit. The record of inspections must be kept at the construction site with a copy of the SWPPP. For record retention requirements, see part 6 below.
e) In the event the division finds that a discharger is complying with the SWPPP, but contributing to the impairment of receiving stream, then the discharger will be notified by the director in writing that the discharge is no longer eligible for coverage under the general permit. The permittee may update the SWPPP and implement the necessary changes designed to eliminate further impairment of the receiving stream. If the permittee does not implement the SWPPP changes within 7 days of receipt of notification, the permittee will be notified in writing that continued discharges must be covered by an individual permit (see subpart 7.12 below). To obtain the individual permit, the operator must file an individual permit application (EPA Forms 1 and 2F). The project must be stabilized immediately until the SWPPP is updated and the individual permit is issued. Only discharges from earth disturbing activities necessary for stabilization are authorized to continue until the individual permit is issued.
f) For an on-site outfall in a drainage area of a total of 5 or more acres, a minimum temporary (or permanent) sediment basin volume that will provide treatment for a calculated volume of runoff from a 5 year, 24 hour storm and runoff from each acre drained, or equivalent control measures as specified in the Tennessee Erosion and Sediment Control Handbook, shall be provided until final stabilization of the site. A drainage area of 5 or more acres includes both disturbed and undisturbed portions of the site or areas adjacent to the site, all draining through the common outfall. Where an equivalent control measure is substituted for a sediment retention basin, the equivalency must be justified. Runoff from any undisturbed acreage should be diverted around the disturbed area and the sediment basin and, if so, can be omitted from the volume calculation. Sediment storage expected from the disturbed areas must be included and a marker installed signifying a cleanout need.
g) The director may require revisions to the SWPPP necessary to prevent a negative impact to legally protected state or federally listed aquatic fauna, their habitat, or the receiving waters.

5.4.2. Buffer zone requirements for discharges into impaired or exceptional TN waters

For sites that contain and/or are adjacent to a receiving stream designated as impaired or Exceptional Tennessee waters a 60-foot natural riparian buffer zone adjacent to the receiving stream shall be preserved, to the maximum extent practicable, during construction activities at the site. The water quality buffer zone is required to protect waters of the state (e.g., perennial and intermittent streams, rivers, lakes, wetlands) located within or immediately adjacent to the boundaries of the project, as identified using methodology from Standard Operating Procedures for Hydrologic Determinations (see rules to implement a certification program for Qualified Hydrologic Professionals , TN Rules Chapter 0400-40-17). Buffer zones are not primary sediment control measures and should not be relied on as such. Rehabilitation and enhancement of a natural buffer zone is allowed, if necessary, for improvement of its effectiveness of

protection of the waters of the state. The buffer zone requirement only applies to new construction sites, as described in section 2.4.2 above.

The natural buffer zone should be established between the top of stream bank and the disturbed construction area. The 60-feet criterion for the width of the buffer zone can be established on an average width basis at a project, as long as the minimum width of the buffer zone is more than 30 feet at any measured location.

Every attempt should be made for construction activities not to take place within the buffer zone. BMPs providing equivalent protection to a receiving stream as a natural riparian zone may be used at a construction site. Such equivalent BMPs shall be designed to be as effective in protecting the receiving stream from effects of stormwater runoff as a natural buffer zone. A justification for use and a design of equivalent BMPs shall be included in the SWPPP. Such equivalent BMPs are expected to be routinely used at construction projects typically located adjacent to surface waters. These projects include, but are not limited to: sewer line construction, roadway construction, utility line or equipment installation, greenway construction, construction of a permanent outfall or a velocity dissipating structure, etc.

This requirement does not apply to an area that is being altered under the authorization of a valid Aquatic Resources Alteration Permit (ARAP), or equivalent permits issued by federal authorities. Additional natural buffer zone requirements may be established by the local MS4 program.

5.4.2.1. Buffer zone exemption based on existing uses

Buffer zones as described in section 5.4.2 above shall not be required to portions of the buffer where certain land uses exist and are to remain in place according to the following:

1. A use shall be considered existing if it was present within the buffer zone as of the date of the Notice of Intent for coverage under the CGP. Existing uses shall include, but not be limited to, buildings, parking lots, roadways, utility lines and on-site sanitary sewage systems. Only the portion of the buffer zone that contains the footprint of the existing land use is exempt from buffer zones. Activities necessary to maintain uses are allowed provided that no additional vegetation is removed from the buffer zone.

2. If an area with an existing land use is proposed to be converted to another use or the impervious surfaces located within the buffer area are being removed buffer zone requirements shall apply.

5.4.3. Pre-Approved sites

Construction activity at sites that have been pre-approved before June 16, 2005, are exempt from the design storm requirements of section 5.4.1 a) and e) above and the buffer requirements of section 5.4.2 above. Evidence of pre-approval for highway projects shall be a final right-of-way plan and for other construction projects, the final design drawings with attached dated, written approval by the local, state or federal agency with authority to approve such design drawings for construction.

6. RETENTION, ACCESSIBILITY AND SUBMISSION OF RECORDS

6.1. Documents

The permittee shall retain copies of stormwater pollution prevention plans and all reports required by this permit, and records of all data used to complete the NOI and the NOT to be covered by this permit, for a period of at least three years from the date the notice of termination is submitted. This period may be extended by written request of the director.

6.2. Accessibility and Retention of Records

The permittee shall retain a copy of the SWPPP required by this permit (including a copy of the permit) at the construction site (or other local location accessible to the director and the public) from the date construction commences to the date of termination of permit coverage. Permittees with day-to-day operational control over pollution prevention plan implementation shall have a copy of the SWPPP available at a central location onsite for the use of all operators and those identified as having responsibilities under the plan whenever they are on the construction site. Once coverage is terminated, the permittee shall maintain a copy of all records for a period of three years.

6.2.1. Posting information at the construction site

The permittee shall post a notice near the main entrance of the construction site accessible to the public with the following information:

a) a copy of the NOC with the NPDES permit tracking number for the construction project;
b) name, company name, E-mail address (if available), telephone number and address of the project site owner/operator or a local contact person;
c) a brief description of the project; and
d) the location of the SWPPP (see section 3.3.3 above).

The notice must be maintained in a legible condition. If posting this information near a main entrance is infeasible due to safety concerns, or not accessible to the public, the notice shall be posted in a local public building. If the construction project is a linear construction project (e.g., pipeline, highway, etc.), the notice must be placed in a publicly accessible location near where construction is actively underway and moved as necessary. This permit does not provide the public with any right to trespass on a construction site for any reason, including inspection of a site. This permit does not require that permittees allow members of the public access to a construction site.

The permittee shall also retain following items/information in an appropriate location on-site:

a) a rain gauge;
b) a copy of twice weekly inspection reports;
c) a documentation of quality assurance site assessments, if applicable (see section 3.1.2 above); and
d) a copy of the site inspector's Fundamentals of Erosion Prevention and Sediment Control Level 1 certification.

6.3. Electronic Submission of NOIs, NOTs and Reports

If the division notifies dischargers (directly by mail or E-mail, by public notice, or by making information available on the world wide web) of electronic forms or other report options that become available at a later date (e.g., electronic submission of forms), the operators may take advantage of those options to satisfy the NOI, NOT and other report notification requirements.

7. STANDARD PERMIT CONDITIONS

7.1. Duty to Comply

7.1.1. Permittee's duty to comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Tennessee Water Quality Control Act (TWQCA) and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

7.1.2. Penalties for violations of permit conditions

Pursuant to T.C.A. § 69-3-115 of The Tennessee Water Quality Control Act of 1977, as amended:

a) any person who violates an effluent standard or limitation or a water quality standard established under this part (T.C.A. § 69-3-101, et. seq.); violates the terms or conditions of this permit; fails to complete a filing requirement; fails to allow or perform an entry, inspection, monitoring or reporting requirement; violates a final determination or order of the board, panel or commissioner; or violates any other provision of this part or any rule or regulation promulgated by the board, is subject to a civil penalty of up to ten thousand dollars ($10,000) per day for each day during which the act or omission continues or occurs;
b) any person unlawfully polluting the waters of the state or violating or failing, neglecting, or refusing to comply with any of the provisions of this part (T.C.A. § 69-3-101, et. seq.) commits a Class C misdemeanor. Each day upon which such violation occurs constitutes a separate offense;
c) any person who willfully and knowingly falsifies any records, information, plans, specifications, or other data required by the board or the commissioner, or who willfully and knowingly pollutes the waters of the state, or willfully fails, neglects or refuses to comply with any of the provisions of this part (T.C.A. § 69-3-101, et. seq.) commits a Class E felony and shall be punished by a fine of not more than twenty-five thousand dollars ($25,000) or incarceration, or both.

7.1.3. Civil and criminal liability

Nothing in this permit shall be construed to relieve the discharger from civil or criminal penalties for noncompliance. Notwithstanding this permit, the discharger shall remain liable for any damages sustained by the State of Tennessee, including but not limited to fish kills and losses of aquatic life and/or wildlife, as a result of the discharge to any surface or subsurface waters. Additionally, notwithstanding this permit, it shall be the responsibility of the discharger to

conduct stormwater discharge activities in a manner such that public or private nuisances or health hazards will not be created. Furthermore, nothing in this permit shall be construed to preclude the State of Tennessee from any legal action or relieve the discharger from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or the Federal Water Pollution Control Act.

7.1.4. Liability under state law

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable local, state or federal law.

7.2. Continuation of the Expired General Permit

Permittees shall maintain coverage under this general permit until a new general permit is issued. Permittees who choose not to maintain coverage under the expired general permit, or are required to obtain an individual permit, must submit an application (U.S. EPA NPDES Forms 1 and 2F and any other applicable forms) at least 180 days prior to expiration of this general permit. Permittees who are eligible and choose to be covered by the new general permit must submit an NOI by the date specified in that permit. Facilities that have not obtained coverage under this permit by the permit expiration date cannot become authorized to discharge under the continued permit.

Operator(s) of an existing site permitted under the division's 2005 construction general permit shall maintain full compliance with the existing SWPPP. The existing SWPPP should be modified, if necessary, to meet requirements of this new general permit, and the SWPPP changes implemented no later than 12 months following the new permit effective date. The permittee shall make the updated SWPPP available for the division's review upon request.

7.3. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

7.4. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.

7.5. Duty to Provide Information

The permittee shall furnish to the division or an authorized representative of the division, within a time specified by the division, any information that the division may request to determine compliance with this permit or other information relevant to the protection of the waters of the state. The permittee shall also furnish to the division, upon request, copies of records required to be kept by this permit.

7.6. Other Information

When the permittee becomes aware that he or she failed to submit any relevant facts or submitted incorrect information in the Notice of Intent or in any other report to the director, he or she shall promptly submit such facts or information.

7.7. Signatory Requirements

All Notices of Intent (NOIs), stormwater pollution prevention plans (SWPPPs), requests for termination of permit coverage (NOTs), Construction Stormwater Inspection Certifications, Construction Stormwater Monitoring Report forms, reports, certifications or information either submitted to the director or the operator of a large or medium municipal separate storm sewer system and/or any other information either submitted to the division, or that this permit requires be maintained by the permittee, shall be signed as described in sections 7.7.1 and 7.7.2 below and dated.

7.7.1. Signatory requirements for a Notice of Intent (NOI)[3]

NOI shall be signed as follows:

a) For a corporation, by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

(i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or
(ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated site including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

NOTE: The division does not require specific assignments or delegations of authority to responsible corporate officers. The division will presume that these responsible corporate officers have the requisite authority to sign permit applications unless the corporation has notified the director to the contrary. Corporate procedures governing authority to sign permit applications may provide for assignment or delegation to applicable corporate positions rather than to specific individuals.

b) For a partnership or sole proprietorship, by a general partner or the proprietor, respectively.

[3] As specified in 40 CFR 122.22(a)(1)-(3) [48 FR 14153, Apr. 1, 1983, as amended at 48 FR 39619, Sept. 1, 1983; 49 FR 38047, Sept. 29, 1984; 50 FR 6941, Feb. 19, 1985; 55 FR 48063, Nov. 16, 1990; 65 FR 30907, May 15, 2000]

c) For a municipality, state, federal, or other public agency, by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:

(i) the chief executive officer of the agency, or
(ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

7.7.2. Signatory requirements for reports and other items

SWPPPs, Construction Stormwater Inspection Certification forms, reports, certifications or other information submittals required by the permit and other information requested by the division, including but not limited to Notice of Violation responses, shall be signed by a person described in section 7.7.1 above, or by a duly authorized representative of that person.

7.7.3. Duly authorized representative

For a purpose of satisfying signatory requirements for reports (see section 7.7.2 above), a person is a duly authorized representative only if:

a) the authorization is made in writing by a person described in section 7.7.1 above;
b) the authorization specifies either an individual or a position having responsibility for the overall operation of the regulated site or activity such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company; a duly authorized representative may thus be either a named individual or any individual occupying a named position and,
c) the written authorization is submitted to the director or an appropriate EFO (see section 2.8 above). The written authorization shall be a written document including the name of the newly authorized person and the contact information (title, mailing address, phone number, fax number and E-mail address) for the authorized person. The written authorization shall be signed by the newly authorized person accepting responsibility and by the person described in section 7.7.1 above delegating the authority.

7.7.4. Changes to authorization

If an authorization under sections 7.7.1 above or 7.7.3 above is no longer accurate because a different individual or position has responsibility as the primary or secondary permittee, but the company name (permittee name) remains the same, a new NOI and SWPPP certification shall be submitted to an appropriate EFO (see section 2.8 above) and signed by the new party who meets signatory authority satisfying the requirements of sections 7.7.1 above or 7.7.3 above . The NOI shall include the new individual's information (title, mailing address, phone number, fax number and E-mail address), the existing tracking number and the project name.

7.7.5. Signatory requirements for primary permittees

Primary permittees required to sign an NOI and SWPPP because they meet the definition of an operator (see subpart 2.2 above) shall sign the following certification statement on the NOI and SWPPP:

> "*I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.*"

7.7.6. Signatory requirements for secondary permittees

Secondary permittees (typically construction contractors) required to sign an NOI and SWPPP because they meet the definition of an operator but who are not primarily responsible for preparing an NOI and SWPPP, shall sign the following certification statement on the NOI and SWPPP:

> *"I certify under penalty of law that I have reviewed this document, any attachments, and the SWPPP referenced above. Based on my inquiry of the construction site owner/developer identified above and/or my inquiry of the person directly responsible for assembling this NOI and SWPPP, I believe the information submitted is accurate. I am aware that this NOI, if approved, makes the above-described construction activity subject to NPDES permit number TNR100000, and that certain of my activities on-site are thereby regulated. I am aware that there are significant penalties, including the possibility of fine and imprisonment for knowing violations, and for failure to comply with these permit requirements."*

7.8. Penalties for Falsification of Reports

Knowingly making any false statement on any report or form required by this permit may result in the imposition of criminal penalties as provided for in Section 309 of the Clean Water Act and in T.C.A. §69-3-115 of the Tennessee Water Quality Control Act.

7.9. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject to Section 311 of the Clean Water Act or Section 106 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA).

7.10. Property Rights

The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges, nor does it authorize any injury to private property nor any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. The issuance of this permit does not authorize trespassing or discharges of stormwater or non-stormwater across private property.

7.11. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

7.12. Requiring an Individual Permit

7.12.1. Director can require a site to obtain an individual permit

The director may require any person authorized by this permit to apply for and/or obtain an individual NPDES permit in order to obtain adequate protection of designated uses of a receiving stream. Any interested person may petition the director in writing to take action under this paragraph, but must include in their petition the justification for such an action. Where the director requires a discharger authorized to discharge under this permit to apply for an individual NPDES permit, the director shall notify the discharger in writing that an individual permit application is required. This notification will include a brief statement of the reasons for this decision, an application form, a statement setting a deadline for the discharger to file the application, and a statement that coverage under this general permit shall terminate upon the effective date of an individual NPDES permit or denial of coverage under an individual permit. The notification may require stabilization of the site and suspend coverage under this general permit until the individual permit is issued. Individual permit applications shall be submitted to the appropriate Environmental Field Office of the division as indicated in subpart 2.8 above of this permit. The director may grant additional time to submit the application upon request of the applicant. If a discharger fails to submit in a timely manner an individual NPDES permit application as required by the director under this paragraph, then the applicability of this permit to the discharger will be terminated at the end of the day specified by the director for application submittal.

If the decision to require an individual NPDES permit precedes the issuance of coverage under this general permit, earth disturbing activities cannot begin until the individual permit is issued.

7.12.2. Permittee may request individual permit instead of coverage under this general permit

Any discharger authorized by this permit may request to be excluded from the coverage of this permit by applying for an individual permit. Any discharger that knowingly cannot abide by the terms and conditions of this permit must apply for an individual permit. In such cases, the permittee shall submit an individual application in accordance with the requirements of 40 CFR 122.26(c)(1)(ii), with reasons supporting the request, to the appropriate division's Environmental Field Office. The request may be granted by issuance of an individual permit, or alternative general permit, if the reasons cited by the permittee are adequate to support the request.

7.12.3. Individual permit terminates general permit

When an individual NPDES permit is issued to a discharger otherwise subject to this permit, or the discharger is authorized to discharge under an alternative NPDES general permit, the applicability of this permit to the discharger is terminated on the effective date of the individual permit or the date of authorization of coverage under the alternative general permit, whichever the case may be. When an individual NPDES permit is denied to an owner or operator otherwise subject to this permit, or the owner or operator is denied for coverage under an alternative NPDES general permit, the applicability of this permit to the individual NPDES permittee is terminated on the date of such denial, unless otherwise specified by the director. Coverage under the Tennessee Multi-Sector General Permit for the Discharge of Stormwater from an Industrial Activity (TMSP) will not be considered as an alternative general permit under this section without being specified by the director.

7.13. Other, Non-Stormwater, Program Requirements

No condition of this permit shall release the permittee from any responsibility or requirements under other environmental statutes or regulations.

7.14. Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related equipment) which are installed or used by the permittee to achieve compliance with the conditions of this permit and with the requirements of stormwater pollution prevention plans.

Proper operation and maintenance also includes adequate laboratory quality assurance and quality control procedures. Proper operation and maintenance requires the operation of backup or auxiliary facilities or similar systems, installed by a permittee, when determined by the permittee or the division to be necessary to achieve compliance with the conditions of the permit.

7.15. Inspection and Entry

The permittee shall allow authorized representatives of the Environmental Protection Agency, the director or an authorized representative of the commissioner of TDEC, or, in the case of a construction site which discharges through a municipal separate storm sewer, an authorized representative of the MS4 receiving the discharge, upon the presentation of credentials and other documents as may be required by law:

a) to enter upon the permittee's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this permit;
b) to have access to and copy at reasonable times, any records that must be kept under the conditions of this permit; and
c) to inspect any facilities or equipment (including monitoring and control equipment).

7.16. Permit Actions

This permit may be issued, modified, revoked, reissued or terminated for cause in accordance with this permit and the applicable requirements of T.C.A. § 69-3-108. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

8.1.1. Termination of builder and contractor coverage

8. REQUIREMENTS FOR TERMINATION OF COVERAGE

8.1. Termination of Developer and Builder Coverage

8.1.1. Termination process for primary permittees

Primary permittees wishing to terminate coverage under this permit must submit a completed notice of termination (NOT) form, provided in Appendix B of this permit (or copy thereof). Primary permittees who abandon the site and fail to submit the NOT will be in violation of this permit. Signs notifying the public of the construction activity shall be in place until the NOT form has been submitted. Primary permittees may terminate permit coverage only if the conditions described in items 1, 2 or 3 below occur at the site:

1. All earth-disturbing activities at the site are completed and, if applicable, construction support activities permitted under section 1.2.2 above, and the following requirements are met:

   (a) For any areas that
   - were disturbed during construction,
   - are not covered over by permanent structures, and
   - over which the permittee had control during the construction activities

   the requirements for final vegetative or non-vegetative stabilization described in sub-section 3.5.3.2 above are met;

   (b) The permittee has removed and properly disposed of all construction materials, waste and waste handling devices, and have removed all equipment and vehicles that were used during construction, unless intended for long-term use following termination of permit coverage;

   (c) The permittee has removed all stormwater controls that were installed and maintained during construction, except those that are intended for long-term use following termination of permit coverage;

(d) The permittee has removed all potential pollutants and pollutant-generating activities associated with construction, unless needed for long-term use following termination of permit coverage; and

(e) The permittee must identify who is responsible for ongoing maintenance of any stormwater controls left on the site for long-term use following termination of permit coverage; or

2. The permittee has transferred control of all areas of the site for which he is responsible (including, but not limited to, infrastructure, common areas, stormwater drainage structures, sediment control basin, etc.) under this permit to another operator, and that operator has submitted an NOI and obtained coverage under this permit; or

3. The permittee obtains coverage under an individual or alternative general NPDES permit.

8.1.2. NOT review

The division will review NOTs for completeness and accuracy and, when necessary, investigate the proposed site for which the NOT was submitted. Upon completing the NOT review, the division will:

1) prepare and transmit a notification that a NOT form was received;
2) notify the applicant of needed changes to their NOT submittal; or
3) deny a request for termination of coverage under this general permit.

The division retains the right to deny termination of coverage under this general permit upon receipt of the NOT. If the local Environmental Field Office has information indicating that the permit coverage is not eligible for termination, written notification will be provided that permit coverage has not been terminated. The notification will include a summary of existing deficiencies. When the site meets the termination criteria, the NOT should be re-submitted.

If any permittee files for bankruptcy or the site is foreclosed on by the lender, the permittee should notify the division of the situation so that the division may assess the site to determine if permit coverage should be obtained by any other person or whether other action is needed.

8.2. Termination of Builder and Contractor Coverage

8.2.1. Termination process for secondary permittees

Secondary permittees (builders/contractors) must request termination of coverage under this permit by submitting an NOT when they are no longer an operator at the construction site. Secondary permittees receive coverage under this permit, but are not normally mailed a Notice of Coverage. Consequently, the division may, but is not required to, notify secondary permittees that their notice of termination has been received. If the division has reason to believe that the secondary permittee's NOT should not have been submitted, the division will deny the secondary permittee's NOT in writing, with specific reasons as to why the NOT should not have been submitted.

8.3. NOT certification

The NOT and the following certification must be signed in accordance with subpart 7.7 above (Signatory Requirements) of this permit:

> *"I certify under penalty of law that either: (a) all stormwater discharges associated with construction activity from the portion of the identified facility where I was an operator have ceased or have been eliminated or (b) I am no longer an operator at the construction site. I understand that by submitting this notice of termination, I am no longer authorized to discharge stormwater associated with construction activity under this general permit, and that discharging pollutants in stormwater associated with construction activity to waters of the United States is unlawful under the Clean Water Act where the discharge is not authorized by a NPDES permit. I also understand that the submittal of this notice of termination does not release an operator from liability for any violations of this permit or the Clean Water Act."*

8.4. Where to Submit a Notice of Termination (NOT)?

The NOT shall be submitted to the Environmental Field Office (EFO) which issued the NOC to the primary permittee. A list of counties and the corresponding EFOs is provided in subpart 2.8 above. The appropriate permit tracking number must be clearly printed on the form.

9. Aquatic Resource Alteration Permits (ARAP)

Alterations to channels or waterbodies (stream, wetland and/or other waters of the state) that are contained on, traverse through or are adjacent to the construction site, may require an Aquatic Resources Alteration Permit (ARAP) (http://www.tn.gov/environment/permits/arap.shtml). It is the responsibility of the developer to provide a determination of the water's status[4]. This determination must be conducted using methodology from Standard Operating Procedures for Hydrologic Determinations (see rules to implement a certification program for Qualified Hydrologic Professionals , TN Rules Chapter 0400-40-17). The permittee can make an assumption that streams/wetlands are present at the site in order to expedite the permit process. In some cases, issuance of coverage under the CGP may be delayed or withheld if the appropriate ARAP has not been obtained. At a minimum, any delay in obtaining an ARAP for water body alteration associated with the proposed project must be adequately addressed in the SWPPP prior to issuance of an NOC**.** Failure to obtain an ARAP prior to any actual alteration may result in enforcement action for the unauthorized alteration.

10. DEFINITIONS

"**2-year and 5-year design storm depths and intensities**" The estimated design rainfall amounts, for any return period interval (i.e., 2-yr, 5-yr, 25-yr, etc,) in terms of either 24-hour depths or intensities for any duration, can be found by accessing the following NOAA National Weather Service Atlas 14 data for Tennessee:

[4] The EPA considers inventorying a site's natural features is a technique called fingerprinting. More info can be found in EPA's document - EPA's Developing Your SWPPP – A Guide for Construction Sites (EPA-833-R-06-004 May 2007)

http://hdsc.nws.noaa.gov/hdsc/pfds/orb/tn_pfds.html. Other data sources may be acceptable with prior written approval by TDEC Water Pollution Control.

"Best Management Practices" ("BMPs") means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants to waters of the state. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

"Borrow Pit" is an excavation from which erodible material (typically soil) is removed to be fill for another site. There is no processing or separation of erodible material conducted at the site. Given the nature of activity and pollutants present at such excavation, a borrow pit is considered a construction activity for the purpose of this permit.

"**Buffer Zone**" is a strip of dense undisturbed perennial native vegetation, either original or re-established, that borders streams and rivers, ponds and lakes, wetlands, and seeps. Buffer zones are established for the purposes of slowing water runoff, enhancing water infiltration, and minimizing the risk of any potential nutrients or pollutants from leaving the upland area and reaching surface waters. Buffer zones are most effective when stormwater runoff is flowing into and through the buffer zone as shallow sheet flow, rather than in concentrated form such as in channels, gullies, or wet weather conveyances. Therefore, it is critical that the design of any development include management practices, to the maximum extent practical, that will result in stormwater runoff flowing into and through the buffer zone as shallow sheet flow. Buffer zones are established for the primary purpose of protecting water quality and maintaining a healthy aquatic ecosystem in receiving waters.

"Clearing" in the definition of discharges associated with construction activity, typically refers to removal of vegetation and disturbance of soil prior to grading or excavation in anticipation of construction activities. Clearing may also refer to wide area land disturbance in anticipation of non-construction activities; for instance, clearing forested land in order to convert forestland to pasture for wildlife management purposes. Clearing, grading and excavation do not refer to clearing of vegetation along existing or new roadways, highways, dams or power lines for sight distance or other maintenance and/or safety concerns, or cold planing, milling, and/or removal of concrete and/or bituminous asphalt roadway pavement surfaces. The clearing of land for agricultural purposes is exempt from federal stormwater NPDES permitting in accordance with Section 401(1)(1) of the 1987 Water Quality Act and state stormwater NPDES permitting in accordance with the Tennessee Water Quality Control Act of 1977 (T.C.A. 69-3-101 et seq.).

"Commencement of construction" The initial disturbance of soils associated with clearing, grading, or excavating activities or other construction activities.

"Common plan of development or sale" is broadly defined as any announcement or documentation (including a sign, public notice or hearing, sales pitch, advertisement, drawing, permit application, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating construction activities may occur on a specific plot. A common plan of development or sale identifies a situation in which multiple areas of disturbance are occurring on contiguous areas. This applies because the activities may take place at different times, on different schedules, by different operators.

"Control measure" As used in this permit, refers to any Best Management Practice (BMP) or other method used to prevent or reduce the discharge of pollutants to waters of the state.

"CWA" means the Clean Water Act of 1977 or the Federal Water Pollution Control Act (33 U.S.C. 1251, et seq.)

"**Department**" means the Department of Environment and Conservation.

"Director" means the director, or authorized representative, of the Division of Water Pollution Control of the State of Tennessee, Department of Environment and Conservation.

"Discharge of stormwater associated with construction activity" As used in this permit, refers to stormwater point source discharges from areas where soil disturbing activities (e.g., clearing, grading, excavation, etc.), or construction materials or equipment storage or maintenance (e.g., earth fill piles, fueling, waste material etc.) are located.

"**Division**" means the Division of Water Pollution Control of the State of Tennessee, Department of Environment and Conservation.

"**Final Stabilization**" means that all soil disturbing activities at the site have been completed and one of the three following criteria is met:

a. A uniform (e.g., evenly distributed, without large bare areas) perennial vegetative cover with a uniform density of at least 70 percent of the (preferably) native vegetative cover for the area has been established on all unpaved areas and areas not covered by permanent structures, and all slopes and channels have been permanently stabilized against erosion, or

b. Equivalent permanent stabilization measures (such as the use of riprap; permanent geotextiles, hardened surface materials including concrete, asphalt, gabion baskets, or Reno mattresses) have been employed, or

c. For construction projects on land used for agricultural or silvicultural purposes, final stabilization may be accomplished by returning the disturbed land to its preconstruction agricultural or silvicultural use.

"Exceptional Tennessee waters" are surface waters of the State of Tennessee that satisfy characteristics of exceptional Tennessee waters as listed Chapter 1200-4-3-.06 of the official compilation - Rules and Regulations of the State of Tennessee. Characteristics include waters designated by the Water Quality Control Board as Outstanding National Resource Waters (ONRW); waters that provide habitat for ecologically significant populations of certain aquatic or semi-aquatic plants or animals; waters that provide specialized recreational opportunities; waters that possess outstanding scenic or geologic values; or waters where existing conditions are better than water quality standards.

"**Impaired waters**" (unavailable conditions waters) means any segment of surface waters that has been identified by the division as failing to support one or more classified uses. For the purpose of this permit, pollutants of concern include, but are not limited to: siltation (silt/sediment) and habitat alterations. Based on the most recent assessment information available

to staff, the division will notify applicants and permittees if their discharge is into, or is affecting, impaired waters. Resources to be used in making this determination include biennial compilations of impaired waters, databases of assessment information, updated GIS coverages (http://tnmap.tn.gov/wpc/), and the results of recent field surveys. GIS coverages of the streams and lakes not meeting water quality standards, plus the biennial list of impaired waters, can be found at http://tn.gov/environment/wpc.

"Improved sinkhole" is a natural surface depression that has been altered in order to direct fluids into the hole opening. Improved sinkhole is a type of injection well regulated under the Underground Injection Control (UIC) program. Underground injection constitutes an intentional disposal of waste waters in natural depressions, open fractures, and crevices (such as those commonly associated with weathering of limestone).

"Inspector" An inspector is a person that has successfully completed (has a valid certification from) the "Fundamentals of Erosion Prevention and Sediment Control Level I" course or equivalent course. An inspector performs and documents the required inspections, paying particular attention to time-sensitive permit requirements such as stabilization and maintenance activities. An inspector may also have the following responsibilities:

a) oversee the requirements of other construction-related permits, such as Aquatic Resources Alteration Permit (ARAP) or Corps of Engineers permit for construction activities in or around waters of the state;
b) update field SWPPPs;
c) conduct pre-construction inspection to verify that undisturbed areas have been properly marked and initial measures have been installed; and
d) inform the permit holder of activities that may be necessary to gain or remain in compliance with the CGP and other environmental permits.

"Linear Project" – is a land disturbing activity as conducted by an underground/overhead utility or highway department, including but not limited to any cable line or wire for the transmission of electrical energy; any conveyance pipeline for transportation of gaseous or liquid substance; any cable line or wire for communications; or any other energy resource transmission ROW or utility infrastructure, e.g., roads and highways. Activities include the construction and installation of these utilities within a corridor. Linear project activities also include the construction of access roads, staging areas, and borrow/spoil sites associated with the linear project. Land disturbance specific to the development of a residential and/or commercial subdivision or high-rise structures is not considered a linear project.

"Monthly" refers to calendar months.

"**Municipal Separate Storm Sewer System**" or "**MS4**" is defined at 40 CFR §122.26(b)(8) to mean a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains):

1. Owned and operated by a state, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to state law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under state law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States;

2. Designed or used for collecting or conveying stormwater;
3. Which is not a combined sewer; and
4. Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR §122.2.

"NOI" means notice of intent to be covered by this permit (see part 2 above of this permit.)

"NOT" means notice of termination (see part 8 above of this permit).

"**Operator**" for the purpose of this permit and in the context of stormwater associated with construction activity, means any person associated with a construction project that meets either of the following two criteria:

a) This person has operational or design control over construction plans and specifications, including the ability to make modifications to those plans and specifications. This person is typically the owner or developer of the project or a portion of the project, and is considered the primary permittee; or

b) This person has day-to-day operational control of those activities at a project which are necessary to ensure compliance with a SWPPP for the site or other permit conditions. This person is typically a contractor or a commercial builder who is hired by the primary permittee, and is considered a secondary permittee.

It is anticipated that at different phases of a construction project, different types of parties may satisfy the definition of "operator."

"Point source" means any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include introduction of pollutants from non point-source agricultural and silvicultural activities, including stormwater runoff from orchards, cultivated crops, pastures, range lands, and forest lands or return flows from irrigated agriculture or agricultural stormwater runoff.

"**Qualifying State, Tribal, or local erosion and sediment control program**" is one that includes, as defined in 40 CFR 122.44(s):

(i) Requirements for construction site operators to implement appropriate erosion and sediment control best management practices;
(ii) Requirements for construction site operators to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality;
(iii) Requirements for construction site operators to develop and implement a stormwater pollution prevention plan. (A stormwater pollution prevention plan includes site descriptions, descriptions of appropriate control measures, copies of approved State, Tribal or local requirements, maintenance procedures, inspection procedures, and identification of non-stormwater discharges); and
(iv) Requirements to submit a site plan for review that incorporates consideration of potential water quality impacts.

"**Quality Assurance Site Assessment**" means documented site inspection to verify the functionality and performance of the SWPPP and for determining if construction, operation and maintenance accurately comply with permit requirements, as presented in the narrative, engineering specifications; maps, plans and drawings; and details for erosion prevention, sediment control and stormwater management.

"**Registered Engineer**" and "**Registered Landscape Architect**" An engineer or landscape architect certified and registered by the State Board of Architectural and Engineer Examiners pursuant to Section 62-202, Tennessee Code Annotated, to practice in Tennessee.

"Runoff coefficient" means the fraction of total rainfall that will appear at the conveyance as runoff. Runoff coefficient is also defined as the ratio of the amount of water that is NOT absorbed by the surface to the total amount of water that falls during a rainstorm.

"**Sediment**" means solid material, both inorganic (mineral) and organic, that is in suspension, is being transported, or has been moved from the site of origin by wind, water, gravity, or ice as a product of erosion.

"Sediment basin" A temporary basin consisting of an embankment constructed across a wet weather conveyance, or an excavation that creates a basin or by a combination of both. A sediment basin typically consists of a forebay cell, dam, impoundment, permanent pool, primary spillway, secondary or emergency spillway, and surface dewatering device. The size and shape of the basin depends on the location, size of drainage area, incoming runoff volume and peak flow, soil type and particle size, land cover, and receiving stream classification (i.e., impaired, HQ, or unimpaired).

"**Sedimentation**" means the action or process of forming or depositing sediment.

"**Significant contributor of pollutants to waters of the state**" means any discharge containing pollutants that are reasonably expected to cause or contribute to an impairment of receiving stream water quality or designated uses.

"**Soil**" means the unconsolidated mineral and organic material on the immediate surface of the earth that serves as a natural medium for the growth of plants.

"**Steep Slope**" A natural or created slope of 35% grade or greater. Designers of sites with steep slopes must pay attention to stormwater management in the SWPPP to engineer runoff non-erosively around or over a steep slope. In addition, site managers should focus on erosion prevention on the slope(s) and stabilize the slope(s) as soon as practicable to prevent slope failure and/or sediment discharges from the project.

"Stormwater" means rainfall runoff, snow melt runoff, and surface runoff and drainage.

"Stormwater associated with industrial activity" is defined at 40 CFR 122.26(b)(14) and incorporated here by reference. Most relevant to this permit is 40 CFR 122.26(b)(14)(x), which relates to construction activity including clearing, grading, filling and excavation activities (including borrow pits containing erodible material). Disturbance of soil for the purpose of crop production is exempted from permit requirements, but stormwater discharges from agriculture-

related activities which involve construction of structures (e.g., barn construction, road construction, pond construction, etc.) are considered associated with industrial activity. Maintenance performed to maintain the original line and grade, hydraulic capacity, or original purpose of the facility, e.g. re-clearing, minor excavation performed around an existing structure necessary for maintenance or repair, and repaving of an existing road, is not considered a construction activity for the purpose of this permit.

"Stormwater discharge-related activities" include: activities which cause, contribute to, or result in point source stormwater pollutant discharges, including but not limited to: excavation, site development, grading and other surface disturbance activities; and measures to control stormwater including the siting, construction and operation of best management practices (BMPs) to control, reduce or prevent stormwater pollution.

"**Stormwater Pollution Prevention Plan"**(SWPPP): A written plan required by this permit that includes site map(s), an identification of construction/contractor activities that could cause pollutants in the stormwater, and a description of measures or practices to control these pollutants. It must be prepared and approved before construction begins. In order to effectively reduce erosion and sedimentation impacts, Best Management Practices (BMPs) must be designed, installed, and maintained during land disturbing activities. The SWPPP should be prepared in accordance with the Tennessee Erosion and Sediment Control Handbook. The handbook is designed to provide information to planners, developers, engineers, and contractors on the proper selection, installation, and maintenance of BMPs. The handbook is intended for use during the design and construction of projects that require erosion and sediment controls to protect waters of the state. It also aids in the development of SWPPPs and other reports, plans, or specifications required when participating in Tennessee's water quality regulations.

"Take" of an endangered species means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or attempt to engage in any such conduct.

"**Temporary stabilization**" is achieved when vegetation and/or a non-erodible surface have been established on the area of disturbance and construction activity has temporarily ceased. Under certain conditions, temporary stabilization is required when construction activities temporarily cease. However, if future construction activity is planned, permit coverage continues.

"**Total maximum daily load**" (TMDL) The sum of the individual wasteload allocations for point sources and load allocations for nonpoint sources and natural background (40 CFR 130.2(I)). TMDL is a study that: quantifies the amount of a pollutant in a stream, identifies the sources of the pollutant, and recommends regulatory or other actions that may need to be taken in order for the stream to cease being polluted. Some of the actions that might be taken are:

1.) Re-allocation of limits on the sources of pollutants documented as impacting streams. It might be necessary to lower the amount of pollutants being discharged under NPDES permits or to require the installation of other control measures, if necessary, to ensure that water quality standards will be met.
2.) For sources over which the division does not have regulatory authority, such as ordinary agricultural or forestry activities, provide information and technical assistance to other state and federal agencies that work directly with these groups to install appropriate Best Management Practices (BMPs).

Even for impacted streams, TMDL development is not considered appropriate for all bodies of water: if enforcement has already been taken and a compliance schedule has been developed; or if best management practices have already been installed for non-regulated activities, the TMDL is considered not applicable. In cases involving pollution sources in other states, the recommendation may be that another state or EPA perform the TMDL . TMDLs can also be described by the following equation:

TMDL = sum of non point sources (LA)+ sum of point sources (WLA)+ margin of safety

A list of completed TMDLs that have been approved by EPA cab found at our web site: http://tn.gov/environment/wpc/tmdl/approved.shtml

"Turbidity" is the cloudiness or haziness of a fluid caused by individual particles (suspended solids) that are generally invisible to the naked eye, similar to smoke in air.

"**Waters**" or "**waters of the state**" means any and all water, public or private, on or beneath the surface of the ground, which are contained within, flow through, or border upon Tennessee or any portion thereof except those bodies of water confined to and retained within the limits of private property in single ownership which do not combine or effect a junction with natural surface or underground waters.

"**Waste site**" is an area where material from a construction site is disposed of. When the material is erodible, such as soil, the site must be treated as a construction site.

"**Wet weather conveyances**" are man-made or natural watercourses, including natural watercourses that have been modified by channelization that flow only in direct response to precipitation runoff in their immediate locality; whose channels are at all times above the ground water table; that are not suitable for drinking water supplies; and in which hydrological and biological analyses indicate that, under normal weather conditions, due to naturally occurring ephemeral or low flow there is not sufficient water to support fish or multiple populations of obligate lotic aquatic organisms whose life cycle includes an aquatic phage of at least two months. (Rules and Regulations of the State of Tennessee, Chapter 1200-4-3-.04(3)).

11. LIST OF ACRONYMS

ARAP	Aquatic Resource Alteration Permit
BMP	Best Management Practice
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CGP	Construction General Permit
CWA	Clean Water Act
EFO	Environmental Field Office
EPA	(U.S.) Environmental Protection Agency
EPSC	Erosion Prevention and Sediment Control
MS4	Municipal Separate Storm Sewer System
NOC	Notice of Coverage
NOI	Notice of Intent
NOT	Notice of Termination
NPDES	National Pollutant Discharge Elimination System
ONRW	Outstanding National Resource Waters

POTW	Publicly Owned Treatment Works
SWPPP	Stormwater Pollution Prevention Plan
TDEC	Tennessee Department of Environment and Conservation
TDOT	Tennessee Department of Transportation
TMDL	Total Maximum Daily Load
TMSP	Tennessee Multi-Sector General Permit for the Discharge of Stormwater from an Industrial Activity
TVA	Tennessee Valley Authority
TWQCA	Tennessee Water Quality Control Act
UIC	Underground Injection Control
USGS	United States Geological Survey

(End of body of permit; appendices follow.)

APPENDIX A – Notice of Intent (NOI) Form
(next page)

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION
Division of Water Pollution Control
6th Floor Annex, L&C Tower, 401 Church Street, Nashville, Tennessee 37243
1-888-891-8332 (TDEC)

Notice of Intent (NOI) for General NPDES Permit for Stormwater Discharges from Construction Activities (TNR100000)

Site or Project Name:		**NPDES Tracking Number: TNR**
Street Address or Location:		Construction Start Date:
		Estimated End Date:
Site Description:		Latitude (dd.dddd):
		Longitude (-dd.dddd):
County(ies):	MS4 Jurisdiction:	Acres Disturbed:
		Total Acres:

Does a topographic map show dotted or solid blue lines ☐ and/or wetlands ☐ on or adjacent to the construction site?
If wetlands are located on-site and may be impacted, attach wetlands delineation report.
If an Aquatic Resource Alteration Permit has been obtained for this site, what is the permit number? ARAP Number:

Receiving waters:

Attach the SWPPP with the NOI ☐ SWPPP Attached	Attach a site location map ☐ Map Attached

Name of Site Owner or Developer (Site-Wide Permittee): (person, company, or legal entity that has operational or design control over construction plans and specifications)

Site Owner or Developer Contact Name: (individual responsible for site)		Title or Position: (the party who signs the certification below):		
Mailing Address:		City:	State:	Zip:
Phone: ( )	Fax: ( )	E-mail:		

Optional Contact:		Title or Position:		
Mailing Address:		City:	State:	Zip:
Phone: ( )	Fax: ( )	E-mail:		

Owner or Developer Certification: (must be signed by president, vice-president or equivalent, or ranking elected official) (Primary Permittee)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Owner or Developer Name: (print or type)	Signature:	Date:

Contractor(s) Certification: (must be signed by president, vice-president or equivalent, or ranking elected official) (Secondary Permittee)

I certify under penalty of law that I have reviewed this document, any attachments, and the SWPPP referenced above. Based on my inquiry of the construction site owner/developer identified above and/or my inquiry of the person directly responsible for assembling this NOI and SWPPP, I believe the information submitted is accurate. I am aware that this NOI, if approved, makes the above-described construction activity subject to NPDES permit number TNR100000, and that certain of my activities on-site are thereby regulated. I am aware that there are significant penalties, including the possibility of fine and imprisonment for knowing violations, and for failure to comply with these permit requirements.

Primary contractor name and address: (print or type)	Signature:	Date:
Other contractor name and address: (print or type)	Signature:	Date:
Other contractor name and address: (print or type)	Signature:	Date:

OFFICIAL STATE USE ONLY

Received Date:	Reviewer:	Field Office:	Permit Number **TNR**	Exceptional TN Water:
Fee(s):	T & E Aquatic Flora and Fauna:		Impaired Receiving Stream:	Notice of Coverage Date:

APPENDIX A

CONSTRUCTION ACTIVITY – STORMWATER DISCHARGES
NOTICE OF INTENT (NOI) - INSTRUCTIONS

Notice of Intent (NOI) for General NPDES Permit for Stormwater Discharges from Construction Activities (TNR100000)

Purpose of this form A completed notice of intent (NOI) must be submitted to obtain coverage under the Tennessee General NPDES Permit for Discharges of Stormwater Associated with Construction Activity (permit). **Requesting coverage under this permit means that an applicant has obtained and examined a copy of this permit, and thereby acknowledges applicant's claim of ability to be in compliance with permit terms and conditions.** This permit is required for stormwater discharge(s) from construction activities including clearing, grading, filling and excavating (including borrow pits) of one or more acres of land. This form should be submitted at least 30 days prior to the commencement of land disturbing activities, or no later than 48 hours prior to when a new operator assumes operational control over site specifications or commences work at the site.

Permit fee (see table below) must accompany the NOI and is based on total acreage to be disturbed by an entire project, including any associated construction support activities (e.g. equipment staging yards, material storage areas, excavated material disposal areas, borrow or waste sites). There is no fee for sites less than 1 acre.

Acres Disturbed	= or > 150 acres	= or > 50 < 150 acres	= or > 5 < 50 acres	= or > 1 < 5 acres
Fee	$7,500	$4,000	$1,000	$250

Who must submit the NOI form? Per Section 2 of the permit, all site operators must submit an NOI form. "Operator" for the purpose of this permit and in the context of stormwater associated with construction activity means any person associated with a construction project who meets either or both of the following two criteria: (1) The person has operational or design control over construction plans and specifications, including the ability to make modifications to those plans and specifications. This person is typically the owner or developer of the project or a portion of the project (e.g. subsequent builder), or the person that is the current land owner of the construction site. This person is considered the primary permittee; or (2) The person has day-to-day operational control of those activities at a project which are necessary to ensure compliance with a SWPPP for the site or other permit conditions. This person is typically a contractor or a commercial builder who is hired by the primary permittee, and is considered a secondary permittee.

Owners, developers and all contractors that meet the definition of the operator in subsection 2.2 of the permit shall apply for permit coverage on the same NOI, insofar as possible. After permit coverage has been granted to the primary permittee, any subsequent NOI submittals must include the site's previously assigned permit tracking number and the project name. The comprehensive site-specific SWPPP shall be prepared in accordance with the requirements of part 3 of the permit and must be submitted with the NOI unless the NOI being submitted is to only add a contractor (secondary permittee) to an existing coverage.

Notice of Coverage The division will review the NOI for completeness and accuracy and prepare a notice of coverage (NOC). Stormwater discharge from the construction site is authorized as of the effective date of the NOC.

Complete the form Type or print clearly, using ink and not markers or pencil. Answer each item or enter "NA," for not applicable, if a particular item does not fit the circumstances or characteristics of your construction site or activity. If you need additional space, attach a separate piece of paper to the NOI form. **The NOI will be considered incomplete without a permit fee, a map, and the SWPPP.**

Describe and locate the project Use the legal or official name of the construction site. If a construction site lacks street name or route number, give the most accurate geographic information available to describe the location (reference to adjacent highways, roads and structures; e.g. intersection of state highways 70 and 100). Latitude and longitude (expressed in decimal degrees) of the center of the site can be located on USGS quadrangle maps. The quadrangle maps can be obtained at the USGS World Wide Web site: http://www.usgs.gov/; latitude and longitude information can be found at numerous other web sites. Attach a copy of a portion of a 7.5 minute quad map, showing location of site, with boundaries at least one mile outside the site boundaries. Provide estimated starting date of clearing activities and completion date of the project, and an estimate of the number of acres of the site on which soil will be disturbed, including borrow areas, fill areas, stockpiles and the total acres. For linear projects, give location at each end of the construction area.

Give name of the receiving waters Trace the route of stormwater runoff from the construction site and determine the name of the river(s), stream(s), creek(s), wetland(s), lake(s) or any other water course(s) into which the stormwater runoff drains. Note that the receiving water course may or may not be located on the construction site. If the first water body receiving construction site runoff is unnamed ("unnamed tributary"), determine the name of the water body that the unnamed tributary enters.

ARAP permit may be required **If your work will disturb or cause alterations of a stream or wetland, you must obtain an appropriate Aquatic Resource Alteration Permit (ARAP).** If you have a question about the ARAP program or permits, contact your local Environmental Field Office (EFO).

Submitting the form and obtaining more information Note that this form must be signed by the company President, Vice-President, or a ranking elected official in the case of a municipality, for details see subpart 2.5. For more information, contact your local EFO at the toll-free number 1-888-891-8332 (TDEC). Submit the completed NOI form (keep a copy for your records) to the appropriate EFO for the county(ies) where the construction activity is located, addressed to **Attention: Stormwater NOI Processing**.

EFO	**Street Address**	**Zip Code**	**EFO**	**Street Address**	**Zip Code**
Memphis	8383 Wolf Lake Drive, Bartlett	38133-4119	Cookeville	1221 South Willow Ave.	38506
Jackson	1625 Hollywood Drive	38305-4316	Chattanooga	540 McCallie Avenue STE 550	37402-2013
Nashville	711 R S Gass Boulevard	37243	Knoxville	3711 Middlebrook Pike	37921
Columbia	1421 Hampshire Pike	38401	Johnson City	2305 Silverdale Road	37601

APPENDIX A

APPENDIX B – Notice of Termination (NOT) Form

(next page)

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION (TDEC)
Division of Water Pollution Control (WPC)
6th Floor Annex, L&C Tower, 401 Church Street, Nashville, Tennessee 37243
1-888-891-TDEC (8332)

Notice of Termination (NOT) for General NPDES Permit for Stormwater Discharges from Construction Activities (CGP)

This form is required to be submitted when requesting termination of coverage from the CGP. The purpose of this form is to notify the TDEC that either all stormwater discharges associated with construction activity from the portion of the identified facility where you, as an operator, have ceased or have been eliminated; or you are no longer an operator at the construction site. Submission of this form shall in no way relieve the permittee of permit obligations required prior to submission of this form. Please submit this form to the local WPC Environmental Field Office (EFO) address (see table below). For more information, contact your local EFO at the toll-free number 1-888-891-8332 (TDEC).

Type or print clearly, using ink and not markers or pencil.

Site or Project Name:	**NPDES Tracking Number: TNR**
Street Address or Location:	County(ies):

Name of Permittee Requesting Termination of Coverage:			
Permittee Contact Name :	Title or Position:		
Mailing Address:	City:	State:	Zip:
Phone: ( )	E-mail:		

Check the reason(s) for termination of permit coverage:

☐	Stormwater discharge associated with construction activity is no longer occurring and the permitted area has a uniform 70% permanent vegetative cover OR has equivalent measures such as rip rap or geotextiles, in areas not covered with impervious surfaces.
☐	You are no longer the operator at the construction site (i.e., termination of site-wide, primary or secondary permittee coverage).

Certification and Signature: (must be signed by president, vice-president or equivalent ranking elected official)

I certify under penalty of law that either: (a) all stormwater discharges associated with construction activity from the portion of the identified facility where I was an operator have ceased or have been eliminated or (b) I am no longer an operator at the construction site. I understand that by submitting this notice of termination, I am no longer authorized to discharge stormwater associated with construction activity under this general permit, and that discharging pollutants in stormwater associated with construction activity to waters of the United States is unlawful under the Clean Water Act where the discharge is not authorized by a NPDES permit. I also understand that the submittal of this notice of termination does not release an operator from liability for any violations of this permit or the Clean Water Act.

For the purposes of this certification, elimination of stormwater discharges associated with construction activity means that all disturbed soils at the portion of the construction site where the operator had control have been finally stabilized, the temporary erosion and sediment control measures have been removed, and/or the site or portions of the site have obtained permit coverage by subsequent operators or that all stormwater discharges associated with construction activities from the identified site that are authorized by a NPDES general permit have otherwise been eliminated from the portion of the construction site where the operator had control.

Permittee name (print or type):	Signature:	Date:

EFO	**Street Address**	**Zip Code**	**EFO**	**Street Address**	**Zip Code**
Memphis	8383 Wolf Lake Drive, Bartlett, TN	38133	Cookeville	1221 South Willow Ave.	38506
Jackson	1625 Hollywood Drive	38305	Chattanooga	540 McCallie Avenue STE 550	37402
Nashville	711 R S Gass Boulevard	37243	Knoxville	3711 Middlebrook Pike	37921
Columbia	1421 Hampshire Pike	38401	Johnson City	2305 Silverdale Road	37601

APPENDIX C – Twice-Weekly Inspection Report Form
(next page)

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION (TDEC)
Division of Water Pollution Control (WPC)
6th Floor Annex, L&C Tower, 401 Church Street, Nashville, Tennessee 37243
1-888-891-8332 (TDEC)

General NPDES Permit for Stormwater Discharges from Construction Activities (CGP)

CGP Inspection Worksheet for Twice-Weekly Inspections of Erosion Prevention and Sediment Controls

Site or Project Name:		**NPDES Tracking Number: TNR**
Primary Permittee Name:		Date of Inspection:
Current approximate disturbed acreage:	Has daily rainfall been documented? ☐Yes ☐ No	Name of Inspector:
Current weather/site conditions:		Inspector's TNEPSC Certification Number:

Please check the box if the following items are on-site:

☐ Notice of Coverage (NOC) ☐ Stormwater Pollution Prevention Plan (SWPPP) ☐ Twice weekly inspection documentation

☐ Site contact information ☐ Rain Gage ☐ Off-site Reference Rain Gage Location: _____

Best Management Practices (BMPs):

Are the Erosion Prevention and Sediment Controls (EPSCs) functioning correctly in the following locations:			
1.	Disturbed areas/material storage areas	☐Yes	☐No
2.	Outfall points (or nearest accessible downstream point if an outfall is inaccessible)	☐Yes	☐No
3.	Construction ingress/egress points	☐Yes	☐No

If the answer is "No" for any of the above, please describe the problem and corrective actions to be taken. Otherwise, describe any pertinent observations:

4.	Are (EPSCs) installed and maintained in the field per SWPPP? If "No", describe below.	☐Yes	☐No
5.	Have site discharges caused an objectionable color contrast in the receiving stream (Permit section 5.3.2)? If "Yes", describe below the measures implemented to eliminate contrast.	☐Yes	☐No
6.	Have discharges from dewatering activities been managed by appropriate controls per Section 4.1.4 of the Permit? If "No", describe below the measures to be implemented to achieve compliance.	☐Yes	☐No
7.	If construction activity at any location on-site has temporarily/permanently ceased, was the area stabilized within 15 days per Section 3.5.3.2? If, "No", describe below each location and measures taken to stabilize the area(s).	☐Yes	☐No
8.	Are non-stormwater discharges (per Section 1.2.3) and housekeeping measures such as storing chemicals, construction related debris litter, oils, fuels, building products, truck wash (per Section 3.5.3.1 (f) and (g)) being properly managed? If "No", describe below the measures to be implemented to achieve compliance.	☐Yes	☐No
9.	If a concrete washout facility is located on site, is it clearly identified on the project and maintained? If "No", describe below the measures to be implemented to achieve compliance. ☐ N/A	☐Yes	☐No
10.	Have all previous deficiencies been addressed? If not, describe the remaining deficiencies. ☐ Check if deficiencies/corrective measures have been reported on a previous form.	☐Yes	☐No

Certification and Signature (must be signed by the certified inspector and the permittee per Sections 3.5.8.2 (g) and 7.7.2 of the CGP)

I certify under penalty of law that this report and all attachments are, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Inspector Name and Title (print or type):	Signature:	Date:
Permittee Name and Title (print or type):	Signature:	Date:

CGP Inspection Worksheet for Twice-Weekly Inspections of Erosion Prevention and Sediment Controls

Purpose of this form/ Instructions

An inspection, as described in section 3.5.8.2.of the General Permit for Stormwater Discharges from Construction Activities ("Permit"), shall be performed at least twice every calendar week and documented on this form. Inspections shall be performed at least 72 hours apart. Where sites or portion(s) of construction sites have been temporarily stabilized, or runoff is unlikely due to winter conditions (e.g., site covered with snow or ice), such inspection only has to be conducted once per month until thawing results in runoff or construction activity resumes.

Inspectors performing the required twice weekly inspections must have an active certification by completing the "Fundamentals of Erosion Prevention and Sediment Control Level I" course. (http://www.tnepsc.org/). A copy of the certification or training record for inspector certification should be kept on site.

Qualified personnel, as defined in section 3.5.8.1 of the Permit (provided by the permittee or cooperatively by multiple permittees) shall inspect disturbed areas of the construction site that have not been finally stabilized, areas used for storage of materials that are exposed to precipitation, structural control measures, locations where vehicles enter or exit the site, and each outfall.

Disturbed areas and areas used for storage of materials that are exposed to precipitation shall be inspected for evidence of, or the potential for, pollutants entering the site's drainage system. Erosion prevention and sediment control measures shall be observed to ensure that they are operating correctly.

Outfall points (where discharges leave the site and/or enter waters of the state) shall be inspected to determine whether erosion prevention and sediment control measures are effective in preventing significant impacts to receiving waters. Where discharge locations are inaccessible, nearby downstream locations shall be inspected. Locations where vehicles enter or exit the site shall be inspected for evidence of offsite sediment tracking.

Based on the results of the inspection, any inadequate control measures or control measures in disrepair shall be replaced or modified, or repaired as necessary, before the next rain event if possible, but in no case more than 7 days after the need is identified.

Based on the results of the inspection, the site description identified in the SWPPP in accordance with section 3.5.1 of the Permit and pollution prevention measures identified in the SWPPP in accordance with section 3.5.2 of the Permit, shall be revised as appropriate, but in no case later than 7 days following the inspection. Such modifications shall provide for timely implementation of any changes to the SWPPP, but in no case later than 14 days following the inspection.

All inspections shall be documented on this Construction Stormwater Inspection Certification form. Alternative inspection forms may be used as long as the form contents and the inspection certification language are, at a minimum, equivalent to the division's form and the permittee has obtained a written approval from the division to use the alternative form. Inspection documentation will be maintained on site and made available to the division upon request. Inspection reports must be submitted to the division within 10 days of the request. If the division requests the Construction Stormwater Inspection Certification form to be submitted, the submitted form must contain the printed name and signature of the trained certified inspector and the person who meets the signatory requirements of section 7.7.2 of the Permit.

Trained certified inspectors shall complete inspection documentation to the best of their ability. Falsifying inspection records or other documentation or failure to complete inspection documentation shall result in a violation of this permit and any other applicable acts or rules.

(This page intentionally left blank)

KPDES

KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM

PERMIT

PERMIT NO.: KYR100000
AI NO.: 35050

AUTHORIZATION TO DISCHARGE UNDER THE KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM (KPDES)

Pursuant to Authority in KRS 224,

Stormwater Discharges Associated with Construction Activities

is authorized to discharge from a facility located at

Within any of the 120 counties of the Commonwealth of Kentucky

to receiving waters named

Those water bodies of the Commonwealth that comprise the Mississippi and Ohio River basins and sub-basins within the political and geographic boundaries of Kentucky

in accordance with effluent limitations, monitoring requirements and other conditions set forth in this permit.

This permit shall become effective on

This permit and the authorization to discharge shall expire at midnight,

{Signature}

Date Signed

Peter T. Goodmann, Director
Division of Water

THIS KPDES PERMIT CONSISTS OF THE FOLLOWING SECTIONS.

SECTION 1
COVERAGE

1. COVERAGE

This permit may cover both large and small sites with stormwater discharges associated with construction activities that meet the eligibility requirements of this permit. Construction and construction-related activities refer to the actual earth disturbing construction activities and those activities supporting the construction project such as construction materials or equipment storage or maintenance (e.g., fill piles, borrow area, concrete truck washout, fueling), measures used to control the quality for stormwater associated with construction activity, or other industrial stormwater directly related to the construction process (e.g., concrete or asphalt batch plants).

1.1. Eligibility

This permit applies to stormwater discharges associated with construction activities disturbing individually one (1) acre or more, including, in the case of a common plan of development, contiguous construction activities that cumulatively equal one (1) acre or more of disturbance. Non-contiguous construction activities (i.e. activities separate by at least 0.25 miles) that disturb more than one (1) acre or more shall be considered independent activities. The Kentucky Division of Water (DOW) is also making this permit available for stormwater discharges from any other construction activity, including those disturbing less than one acre, designated by DOW based on the potential for contribution to a violation of a water quality standard or for significant contribution of pollutants to waters of the Commonwealth.

1.2. Exclusions

The following are excluded from coverage under this general permit:

1) Are conducted at or on properties that have obtained an individual KPDES permit for the discharge of other wastewaters which requires the development and implementation of a Best Management Practices (BMP) plan;
2) Any operation that the DOW determines an individual permit would better address the discharges from that operation;
3) Any project that discharges to an Impaired Water listed in the most recent Integrated Report, §305(b) as impaired for sediment and for which an approved TMDL has been developed.

1.3. Permitting Action

This is a reissuance of a general KPDES permit to address stormwater runoff associated construction activities conducted in the Commonwealth of Kentucky.

This KYR10 will replace all previous versions of KYR10 issued by DOW. The conditions and requirements contained herein shall supersede the conditions and requirements of all previous versions except as delineated within the permit.

SECTION 2
PERMIT REQUIREMENTS

2. PERMIT REQUIREMENTS

This section of the permit establishes the non-numeric requirements that are applicable to exposed areas associated with construction activity for all facilities authorized to discharge by this permit. The nonnumeric requirements should minimize the discharge of pollutants resulting from precipitation events.

2.1. Stormwater Pollution Prevention Plan (SWPPP)

The permittee shall develop a Stormwater Pollution Prevention Plan (SWPPP) and implement the SWPPP at the commencement of construction disturbance. All operators working on this project are required to comply with the SWPPP or obtain separate coverage under this permit. For KYTC projects, the Best Management Practices Plan shall serve as the SWPPP.

The SWPPP shall include erosion prevention measures, sediment controls measures, and other site management practices necessary to prevent the discharge of sediment and other pollutants into waters of the Commonwealth that are adequately protective to minimize receiving waters from being degraded and failing to supportive their designated uses. These sediment controls measures including retention basins, erosion control measures, and other site management practices are required to be properly selected based on site-specific conditions, and installed and maintained to effectively minimize such discharges for storm events up to an including a 2-year, 24-hour event. Permittees are encouraged to design the site, the erosion prevention measures, sediment controls measures, and other site management practices with an eye toward minimizing post-construction stormwater runoff, including facilitating the use of low-impact technologies.

KYTC projects shall, at a minimum, utilize the Kentucky 2008 Standards Specifications for Road and Bridge Construction published by the Transportation Cabinet, Department of Highways, as a means of establishing sediment controls measures, erosion control measures, and other site management practices for this permit coverage.

The Stormwater Pollution Prevention Plan (SWPPP) shall contain the following:

1. A site description that identifies sources of pollution to stormwater discharges associated with construction activity on site; and
2. A description of the erosion prevention measures, sediment controls measures, and other site management practices used at the site to prevent or reduce pollutants in stormwater discharges to ensure compliance with the terms and conditions of this permit. All stormwater controls shall be developed and implemented in accordance with sound practices and shall be developed specific to the site. The goal of these devices should be 80% removal of Total Suspended Solids that exceed predevelopment levels. (For purposes of guidance/technical assistance, the reader is referred to the Kentucky Erosion Prevention and Sediment Control Field Guide and the (Draft) Kentucky Best Management Practices Technical Manual located on DOW's Stormwater Webpage at: http\\www.water.ky.gov/permitting/wastewaterpermitting/KPDES/storm/)
3. For a common plan of development a comprehensive SWPPP shall be prepared that addresses all construction activities within the common plan of development. Each individual site operator shall be a signatory of the SWPPP and shall not conduct activities that are not consistent with the SWPPP or result in the failure or ineffectiveness of the sediment controls measures, erosion control measures, and other site management practices implemented. Otherwise, an operator not utilizing the SWPPP for the common plan of development shall seek coverage under this permit or an individual permit and develop a SWPPP for those separate activities.

2.1.1. Site Description

The SWPPP shall be based on an accurate assessment of the potential for generating and discharging pollutants from the site. Hence, this permit requires a description of the site and intended construction activities in the SWPPP in order to provide a better understanding of the characteristics of the site runoff. At a minimum, the SWPPP shall describe the nature of the construction activity, including:

1. the function of the project (e.g., box store, strip mall, shopping mall, school, electrical transmission line, oil or natural gas pipeline, factory, industrial park, residential development, transportation construction, etc.);
2. the intended significant activities, presented sequentially, that will disturb soil over major portions of the site (e.g., grubbing, excavation, grading);
3. estimates of the total area of the site and the total area of the site that is expected to be disturbed by excavation, grading or other activities, including off-site borrow/fill areas; and
4. a description of the water quality classification of the receiving water(s).

2.1.2. Site Map

The SWPPP shall contain a legible site map of sufficient scale to depict the following:

1. Property boundary of the project. If subdivided, show all lots and indicate on which lots construction activities will occur;
2. Anticipated drainage patterns and slopes after major grading activities including impervious structures;
3. Areas of soil disturbance and areas that will not be disturbed including fill and borrow areas;
4. Locations and types of sediment control measures, erosion control measures, planned stabilization measures, and other site management practices;
5. Locations of surface waters, including wetlands, and riparian zones;
6. Locations of karst features such as sinkholes, springs, etc.;
7. Locations of discharge points;
8. Locations of equipment storage areas, materials storage areas including but not limited to top soil; storage, fuels, fertilizers, herbicides, etc.;
9. Location of concrete wash out areas, waste management areas, area of site egress;
10. If applicable, locations where final stabilization has been accomplished and no further construction-phase permit requirements apply; and
11. Other major features and potential pollutant sources.

For KYTC projects which have Roadway Plans, locations of BMPs may be recorded and off-set as the BMPs are installed.

2.1.3. Other Industrial Activities

The SWPPP shall provide a description of any discharge associated with industrial activity other than construction (including stormwater discharges from dedicated asphalt plants, concrete plants, etc.) and the location of that activity on the construction site.

2.1.4. Documentation of Stormwater Controls to Reduce Pollutants

The SWPPP shall include:

1. Documentation of the erosion prevention measures, sediment controls measures, and other site management practices designed to site-specific conditions that will be implemented to reduce the pollutants in stormwater discharges from the site and assure compliance with the conditions of the permit.
2. It is imperative that stabilization be employed as soon as practicable in critical areas. Erosion prevention measures, sediment controls measures, and other site management practices shall be properly selected based on site-specific conditions, and installed and maintained in accordance with sound sediment controls, erosion prevention, or other site management practices and relevant manufacturers' specifications.

3. The use of erosion control measures is widely recognized as minimizing the time that bare soil is exposed, preventing the detachment of soil, and reducing the mobilization and transportation of soil particles off site. Selection of erosion control measures will depend on site-specific conditions (e.g. topography, soil types). The SWPPP shall include a description of the general location of, and how and where the following erosion controls measures will be implemented:
    a. The plan to minimize disturbance and the period of time the disturbed area is exposed without stabilization practices, including:
        i. Minimizing the overall area of disturbed acreage;
        ii. Phasing construction so that only a portion of the site is disturbed at any one time; or
        iii. Scheduling clearing and grading events to reduce the probability that bare soils will be exposed to rainfall.
    b. Managing stormwater flows on the site to avoid stormwater contact with disturbed areas through use of:
        i. Diversion berms;
        ii. Conveyance channels;
        iii. Vegetated buffers;
        iv. Slope drains; or
        v. Other adequately protective alternate practices.
    c. Using energy dissipation approaches to prevent high velocity runoff and concentrated flows that are erosive, by:
        i. Use of vegetated filter strips; or
        ii. Other adequately protective alternate practices.
    d. The practices to be used to minimize exposure of bare soils by covering and stabilization, including:
        i. Vegetative stabilization with annual grasses or other plants;
        ii. Geotextiles;
        iii. Straw;
        iv. Rolled erosion control mats or other products;
        v. Mulch; or
        vi. Other adequately protective alternate practices.
4. Sediment control measures are used to control and trap sediment that is entrained in stormwater runoff. The SWPPP shall include a description of how and where the following sediment controls measures will be implemented:
    a. Sediment Barriers
        i. Silt fences constructed with filter fabric;
        ii. Fiber rolls; or
        iii. Other adequately protective alternate practices
    b. Slope Protection
        i. Tread tracking;
        ii. Erosion blankets;
        iii. Mulching; or
        iv. Other adequately protective alternate practices
    c. Conduit/Ditch Protection
        i. Inlet protection;
        ii. Outlet protection;
        iii. Other adequately protective alternate practices
    d. Stabilizing Drainage Ditches
        i. Check dams;

ii. Lining deep ditches; or
iii. Other protective equivalent practices

e. Sediment trapping devices used to settle out sediment eroded from disturbed areas, including:
   i. Sediment traps;
   ii. Basins; or
   iii. Any performance enhancement practices that will be used, such as:
      1. Baffles;
      2. Skimmers;
      3. Electro coagulation;
      4. Filtration;
      5. Chemically enhanced settling (e.g. polymers); or
      6. Other adequately protective alternate practices; or
   iv. Other adequately protective alternate practices.

f. Perimeter controls, such as:
   i. Silt fences;
   ii. Berms;
   iii. Swales; or
   iv. Other adequately protective alternate practices.

5. Other Construction and Development Site Management Practices. Construction activity generates a variety of wastes and wastewater, including concrete truck rinsate, municipal solid waste, trash, and other pollutants.
   a. Construction materials shall be handled, stored, maintained, and disposed of properly to avoid contamination of runoff to the maximum extent practicable and as noted below.
   b. The SWPPP shall describe which practices will be implemented to manage Construction and Development Site wastes and prevent or minimize discharges to surface water, including:
      i. Protecting construction materials, chemicals, and lubricants from exposure to rainfall;
      ii. Preventing litter, construction debris, and construction chemicals from entering receiving water.
      iii. Limiting exposure of freshly placed concrete to exposure to rainfall that results in runoff;
      iv. Segregating stormwaters and other wastewaters from fuels, lubricants, sanitary wastes, and other chemicals such as pesticides, herbicides, and fertilizers to prevent runoff being contaminated;
      v. Neat and orderly storage of chemicals, pesticides, herbicides, fertilizers and fuels that are being stored on the site;
      vi. Prompt collection and management of trash and sanitary waste;
      vii. Prompt cleanup of spills of liquids and solid materials that could pose a pollutant risk;
      viii. Regular removal of off-site accumulations of sediment to minimize the potential for discharge; and
      ix. Other adequately protective alternate practices.
6. A description of all intended alternate protective practices substituting for those practices required by the permit and a demonstration that the alternate practices are adequately protective, including how the substitute practices implement acceptable mitigation measures.
7. A description of the intended sequence of major stormwater controls and an implementation schedule in relation to the construction process.
8. A description of interim and permanent stabilization practices, including a schedule of their implementation.

9. The proposed location(s) of off-site equipment storage, material storage, waste storage and borrow/fill areas.
10. A proposed construction schedule as a means for the operator(s) and KDOW to determine applicability and implementation status of SWPPP requirements.
11. An explanation of practices employed to reduce pollutants from construction-related materials that are stored on site, including:
    a. A description of said construction materials (with updates as appropriate);
    b. A description of pollutant sources from areas untouched by construction; and
    c. A description of stormwater controls that will be implemented in those areas.

2.1.5. Maintenance of Stormwater Controls

Erosion prevention measures, sediment controls measures, and other site management practices are required to be maintained in an effective, operating condition. The permittee shall develop a schedule of maintenance activities to ensure the proper function of these devices. The EPA *recommends* that sediment control devices be maintained at no more than 1/3 capacity to allow for sediment capture.

If site inspections identify sediment controls measures, erosion control measures, and other site management practices that are not operating effectively or otherwise require maintenance, maintenance shall be performed, before the next storm event. If maintenance before the next storm event is impracticable, the required maintenance shall be completed as soon as possible.

2.1.6. Non-Stormwater Discharge Management

The SWPPP shall identify appropriate pollution prevention measures for each of the following eligible non-stormwater wastestreams. These non-stormwater components of the discharge are authorized under this permit only when combined with stormwater discharges associated with construction activity.

1. Discharges from fire-fighting activities;
2. Fire hydrant flushing;
3. Waters used for vehicle washing where detergents are not used;
4. Water used for dust control;
5. Potable water including uncontaminated water-line flushing;
6. Routine external building wash down that does not use detergents;
7. Pavement wash waters where spills or leaks or toxic or hazardous materials have not occurred (unless all spilled material has been removed) and where detergents are not used;
8. Landscape irrigation;
9. Clean, non-turbid water-well discharges of groundwater; and
10. Construction dewatering provided the requirements of this permit are met.

2.1.7. Inspections – Permittee Conducted

1. Permittees shall provide for regular inspections of the site. For purposes of this part, DOW defines “regularly” to mean either
    a. At least once every seven (7) calendar days, or
    b. At least once every fourteen (14) calendar days, and within 24 hours after any storm event of 0.5 inch or greater. (DOW recommends that the permit holder perform a “walk through” inspection of the construction site before anticipated storm events.)
2. For areas of the site that have undergone temporary or final stabilization inspections shall be conducted at least once a month until the coverage is terminated.
3. Inspections shall be performed by personnel knowledgeable and skilled in assessing conditions at the construction site that could impact stormwater quality and assessing the effectiveness of

erosion prevention measures, sediment controls measures, and other site management practices chosen to control the quality of the stormwater discharges. Inspectors shall have training in stormwater construction management such as KEPSC, CEPSC, CPSWQ, TNEPSC, CESSWI, or other similar training.

4. Inspectors shall conduct visual inspections to determine:
    a. Whether erosion prevention measures, sediment controls measures, and other site management practices are:
        i. properly installed;
        ii. properly maintained;
        iii. effective in minimizing discharges to the receiving water; and
    b. Whether excessive pollutants are entering the drainage system.
5. Visual inspections shall comprise, at a minimum:
    a. Erosion prevention measures;
    b. Sediment controls measures;
    c. Other site management practices and points of site egress;
    d. Disturbed areas;
    e. Areas used for storage of materials exposed to precipitation;
    f. Discharge points shall be inspected to ascertain whether erosion prevention measures, sediment controls measures, other site management practices and points of site egress are effective in preventing impacts to waters of the Commonwealth. This can be done by inspecting the receiving water bodies for evidence of new erosion and/or the introduction of newly deposited sediment or other pollutants; and
    g. If discharge points are inaccessible, then nearby downstream locations shall be inspected.
    h. For linear construction activities (e.g., utility line installation, pipeline construction), representative inspections are acceptable. This permit allows for inspection of the project 0.25 miles above and below each point where a roadway, undisturbed right-of-way, or other similar feature intersects the construction site and allows access to the construction site.
6. Inspection reports shall be prepared for all inspections and shall be retained with the SWPPP. Inspection reports should include:
    a. The date and time of inspection;
    b. The name and title of the inspector;
    c. A synopsis of weather information for the period since the last inspection (or since commencement of construction activity of the initial inspection performed) including a best estimate of the beginning of each storm event, the duration of each storm event, and the approximate amount of rainfall for each storm event (in inches);
    d. Weather conditions and a description of any discharges occurring at the time of the inspection;
    e. Location(s) of discharges of sediment or other pollutants from the site;
    f. Location(s) of sediment controls measures, erosion control measures, or other site management practices that require maintenance;
    g. Location(s) of any erosion prevention measures, sediment controls measures, or other site management practices that failed to operate as designed or proved inadequate for a particular location;
    h. Location(s) where additional erosion prevention measures, sediment controls measures, or other site management practices are needed that did not exist at the time of the

inspection;

i. Identify any actions taken in response to inspection findings; and

j. Identify any incidents of non-compliance with the SWPPP.

k. If no incidents of non-compliance with the SWPPP were identified, the report shall contain a certification that the site is in compliance with the SWPPP.

l. The inspection report shall be signed in accordance with the signatory requirements in 401 KAR 5:060, Section 4.

2.1.8. Maintaining an Updated Plan

1. Stormwater Pollution Prevention Plans (SWPPPs) shall be revised whenever erosion prevention measures, sediment controls measures, or other site management practices are significantly modified in response to a change in design, construction method, operation, maintenance procedure, etc., that may cause a significant effect on the discharge of pollutants to receiving waters or municipal separate storm sewer systems.
2. For KYTC projects, the BMP Plan shall be revised whenever erosion prevention measures, sediment controls measures, or other site management practices are modified in response to a change in design, construction method, operation, maintenance procedure, etc., that may cause a significant effect on the discharge of pollutants to receiving waters or municipal separate storm sewer systems. The location of BMPs shall be documented in the daily work report for the highway construction project.
3. The SWPPP shall be amended if inspections or investigations by site staff or by local, state, or federal officials determine that the existing sediment controls measures, erosion control measures, or other site management practices are ineffective in eliminating or significantly minimizing pollutants in stormwater discharges from the construction site.
4. If an inspection reveals design inadequacies, the site description and sediment controls measures, erosion control measures, or other site management practices identified in the SWPPP shall be revised.
5. All necessary modifications to the SWPPP shall be made within seven (7) calendar days following the inspection unless granted an extension of time by DOW.
6. If existing sediment controls measures, erosion control measures, or other site management practices need to be modified or if additional sediment controls measures, erosion control measures, or other site management practices are necessary, implementation shall be completed before the next storm event whenever practicable. If implementation before the next storm event is impracticable, the situation should be documented in the SWPPP and the changes shall be implemented as soon as practicable.

2.1.9. Signature, Plan Review, and Making Plans Available

1. The SWPPP shall be signed and certified in accordance with the signatory requirements in 401 KAR 5:065, Section 1(11).
2. For KYTC projects, the BMP Plan shall be signed and certified in accordance with the signatory requirements in 401 KAR 5:065, Section 1(11).
3. A current copy of the SWPPP shall be readily available on the construction site from the date of project initiation to the date of Notice of Termination.
4. The person with day-to-day operational control over the plan's implementation shall keep a copy of the SWPPP readily available whenever on site (a central location accessible by all on-site operators is sufficient for sites that are part of a common plan of development).
5. If an on-site location is unavailable to store the SWPPP when no personnel are present, notice of the plan's location shall be posted near the main entrance at the construction site.

6. The permittee shall make the SWPPP available to DOW or its authorized representative for review and copying during on-site inspection.
7. The permittee shall make the SWPPP available, upon request, to the Environmental Protection Agency and other federal agencies or their contractor, and local governmental agencies and officials approving sediment and erosion plans, grading plans or stormwater management plans; including the operator of a MS4 receiving discharges from the site.

2.2. Minimize Size and Duration of Disturbance

The permittee shall at all times minimize disturbance and the period of time that the disturbed area is exposed without stabilization practices. In critical areas erosion prevention measures such as erosion control mats/blankets, mulch, or straw blown in and stabilized with tackifiers or by treading, etc shall be implemented on disturbed areas within 24 hours or as soon as practical after completion of disturbance/grading or following cessation of activities.

2.3. Stabilization Requirements

Final stabilization practices on those portions of the project where construction activities have permanently ceased shall be initiated within fourteen (14) days of the date of activity cessation. Final stabilization shall be initiated on any site where construction activities have been suspended for more than 180 days. In such cases final stabilization practices shall be implemented as soon as practical but not later than 14 days after the 180^{th} day of suspended activities.

Temporary stabilization practices on those portions of the project where construction activities have temporarily ceased shall be initiated within fourteen (14) days of the date of activity cessation.

2.4. Buffer Zones

For discharges to receiving waters categorized as High Quality Waters or Impaired Waters (for non-construction related impairment) permittees are required maintain at a minimum a 25-foot buffer zone between any disturbance and all edges of the receiving water as means of providing adequate protection to receiving waters.

For discharges to receiving waters designated as Coldwater Aquatic Habitat or Outstanding State Resource Water, categorized as an Outstanding National Resource Water or Exceptional Water, or has been listed in the most recently approved Integrated Water Quality 305(b) Report to Congress as an Impaired Water (sediment impaired) for which an approved TMDL has not been developed for pollutants of concern that may be discharged from the facility permittees are required maintain at a minimum a 50-foot buffer zone between any disturbance and all edges of the receiving water as means of providing adequate protection to receiving waters.

If the buffer zone between any disturbance and the edge of the receiving water on all edges of the water body cannot be maintained, adequately protective alternate practices may be employed. The SWPPP shall explain any alternate practices and how these practices are adequately protective. Such cases include but are not limited to stream crossings and dredge and fill areas. In these cases the permittee shall minimize disturbances in the buffer zones by using hand held or other low-impact equipment.

SECTION 3

NOTICE OF INTENT (NOI-SWCA) REQUIREMENTS

3. Notice of Intent (NOI-SWCA) Requirements

An NOI-SWCA shall be submitted by all operators seeking authorization under this permit for stormwater discharges from any construction site. If the project is part of a larger common plan of development, each operator is required to obtain coverage for each site, individually or collectively, unless a single operator is developing the entire project. Those persons or activities requiring an individual stormwater permit **shall not** use the NOI-SWCA. Those persons seeking an individual permit must use the KPDES program Form 1 and Form F located at**:**

http://dep.ky.gov/formslibrary/Pages/default.aspx

3.1. Contents

Form NOI-SWCA requires the following information:

1. Facility Operator Information
    a. Names of All Operators co-permitting under this NOI
    b. Contact information for all operators, including:
        i. Mailing Address
        ii. Telephone Number
        iii. Status of Operators (federal, state, public, or private)
        iv. Contact Name
    c. Email address
2. Facility/Site Location Information
    a. Name of Project
    b. Physical Location/Address
    c. Site Latitude (decimal degrees)
    d. Site Longitude (decimal degrees)
    e. County
    f. Nearest Community, if applicable
3. Site Activity Information
    a. For single projects provide following information:
        i. Total number of acres in project
        ii. Total number of acres to be disturbed
        iii. Anticipated start date
        iv. Anticipated completion date
4. If the permitted site discharges to a water body the following information is required:
    a. Name of Receiving Water(s)
    b. Anticipated number of discharge points
    c. Location (Latitude and Longitude in decimal degrees) of anticipated discharge points
5. If the permitted site discharges to an MS4 the following information is required:
    a. Name of MS4
    b. Number of discharge points to the MS4
    c. Latitude and Longitude location (decimal degrees) of each discharge point
    d. Date of application or notification to the MS4 for construction site permit coverage
6. Construction activities in or along a water body

    Will the project require construction activities in a water body or the riparian zone?

a. If yes, describe the scope of the activity including how many linear feet of water body and acres of riparian zone will be impacted?
b. Is a Clean Water Act §404 permit (individual or nationwide) required?
c. Is a Clean Water Act §401 Water Quality Certification? (Individual or general) required?

7. Certification

The NOI-SWCA contains a certification that all information provided on the NOI and the attachments is correct and accurate. Following the certification is a signature block for the authorized agent, including the agents name and title, telephone number and date. Note the signature requirements of the NOI-SWCA shall be consistent with the requirements of 401 KAR 5:060, Section 11.

8. NOI Preparer Information

a. Name of the person who completed the NOI
b. Contact information of the person who completed the NOI, including:
   i. Mailing Address
   ii. Telephone Number
   iii. Email address

9. Attachments – Site Map

A legible map of appropriate scale sufficient to clearly illustrate the following:

a. Property boundary of the project;
b. Areas to be disturbed;
c. Location of anticipated discharge points; and
d. Location of receiving waters.

For KYTC projects, the roadway plan shall substitute for the topographic map.

3.2. NOI Submission Requirements and Deadlines

For new projects, those projects commencing construction activities after the effective date of this KYR10, applicants must file using the electronic web based NOI submission system that will allow the applicant to complete and submit the NOI-SWCA form online. Applicants can access this system at the following web address: https://dep.gateway.ky.gov/eForms/default.aspx?FormID=7. When using this system the applicant shall complete and submit the eNOI-SWCA a minimum of seven (7) days before the proposed date for commencement of construction activities.

For ongoing projects, DOW will extend coverage for a period of one (1) year from the effective date of this renewal. Projects that will not achieve final stabilization by this date are required to submit a Coverage Extension form to extend coverage under this general permit. Ongoing Projects include those that obtained coverage under the KYR10 prior to July 31, 2014.

DOW will not process any NOI that is incomplete, inaccurate, or in an incorrect format.

3.3. Small Construction Activity Waiver

The Phase II rule allows for the exclusion of certain sources the necessity of obtaining a permit based on a demonstration of the lack of impact on water quality. There are waivers available only to small construction activities; large construction activities are not eligible. An applicant wishing to take advantage of one of these waivers must provide a certification of eligibility and supporting documentation.

3.3.1. Rainfall Erosivity Waiver

This waiver applies to those small construction activities where and when negligible rainfall/runoff erosivity is expected. To qualify for this waiver the applicant must calculate the R factor for the proposed

project. If the calculation produces an R factor of less than 5, then the site is eligible for the waiver and a certification may be filed with DOW. To calculate the R Factor the operator shall follow the procedures outlined in EPA's Fact Sheet 3.1 titled Storm Water Phase II Final Rule, Construction Rainfall Erosivity Waiver. These procedures are presented in the following pages for the applicant's convenience.

The R Factor is calculated using the Revised Universal Soil Loss Equation (RUSLE) developed by the U.S. Department of Agriculture (USDA). The USDA has established estimates of annual erosivity values (R) for sites throughout the country. The R Factors are surrogate measures of the impact that rainfall has on erosion from a particular site. These R Factors have been mapped using isoerodent contours (Figure 2). Table 1 is the Erosivity Index Table developed by the USDA to illustrate how annual erosivity is distributed throughout the year. The table is presented in two week increments. The Erosivity Index Zone Map in Figure 1 may be used to determine in which zone a project located. .

3.3.1.1. Calculating the "R Factor"

Step 1: The applicant must estimate the expected date of commencement of construction activities and the expected date that final stabilization will be achieved.

Step 2: Using Figure 1 determine the Erosivity Index Zone for your project location. There are five such zones in Kentucky (104, 105, 106, 109 and 110).

Step 3: Referring to Table 1, locate the 15 day periods that correspond to the dates determined in Step 1. Table 1 has been truncated to present only those Erosivity Index Zones in Kentucky.

Step 4: Subtract the value corresponding to the start date from the value corresponding to the end date to find the %EI for your site. If the project starts in one calendar year and ends in the next, the %EI must be calculated from the start date to December 30 and from January 1 to the end date. The results of these two calculations are then added to get the total %EI for the project. The %EI can not exceed 100%

Step 5: Using Figure 2 interpolate between the annual isoerodent values for your area. The following table provides the high and the low isoerodent values for the five Erosivity Index Zones in Kentucky

Erosivity Index Zone	Isoerodent Range	
	Low	High
104	125	175
105	150	250
106	200	225
109	150	175
110	125	150

Step 6: Multiply the %EI by the isoerodent value determined in Step 5. This is the resultant R Factor for your project. To qualify for this waiver the R Factor must be less than 5.

If the resultant R Factor for your project is less than 5 then to obtain the waiver you must file with DOW a certification using EPA's Low Erosivity Waiver Certification (available at the following web address: http://www.epa.gov/npdes/pubs/construction_waiver_form.pdf)

Figure 1. Erosivity Index Zone Map

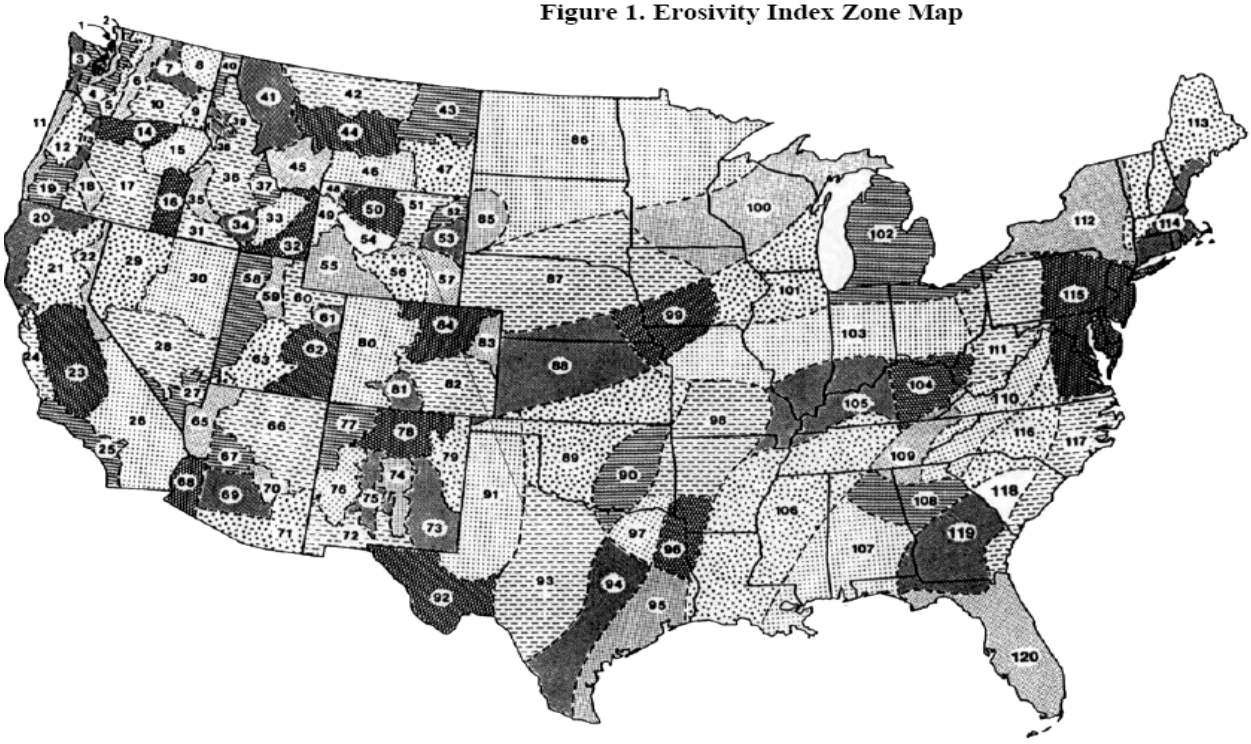
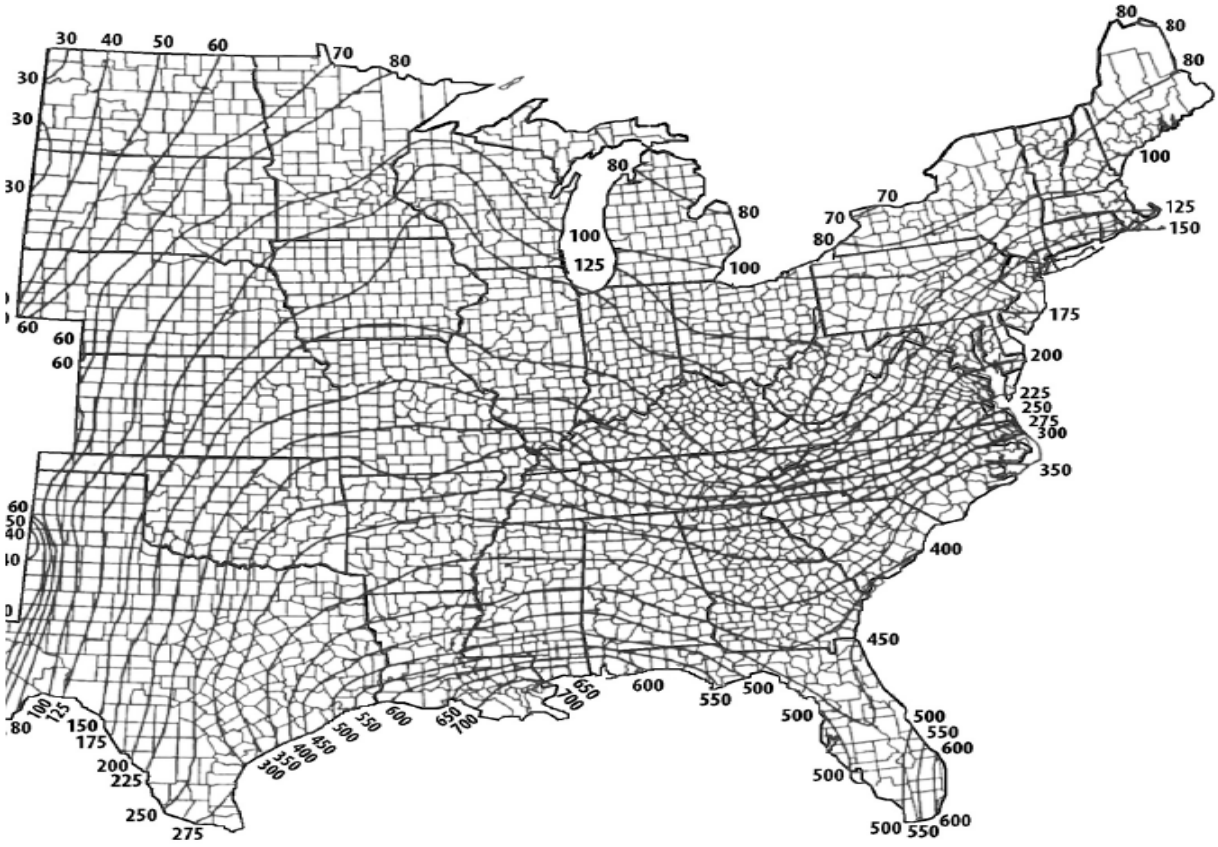


Table 1. Erosivity Index Table

EI#	Jan 1-15	Jan 16-31	Feb 1-15	Feb 16-29	Mar 1-15	Mar 16-31	Apr 1-15	Apr 16-30	May 1-15	May 16-31	Jun 1-15	Jun 16-30	Jul 1-15	Jul 16-31	Aug 1-15	Aug 16-31	Sep 1-15	Sep 16-31	Oct 1-15	Oct 16-31	Nov 1-15	Nov 16-31	Dec 1-15	Dec 16-31
104	0	2	3	5	7	10	13	16	19	23	27	34	44	54	63	72	80	85	89	91	93	95	96	98
105	0	1	3	6	9	12	16	21	26	31	37	43	50	57	64	71	77	81	85	88	91	93	95	97
106	0	3	6	9	13	17	21	27	33	38	44	49	55	61	67	71	75	78	81	84	86	90	94	97
109	0	3	6	10	13	16	19	23	26	29	33	39	47	58	68	75	80	83	86	88	90	92	95	97
110	0	1	3	5	7	9	12	15	18	21	25	29	36	45	56	68	77	83	88	91	93	95	97	99

Figure 2. Isoerodent Map of the Eastern U.S.



3.3.2. TMDL Waivers

This waiver applies to those small construction activities which plan to discharge to a receiving stream where an EPA established or approved TMDL addresses pollutant(s) of concern (sediment – total suspended solids, turbidity or siltation) and has determined that controls on stormwater discharges from the small construction activities are not needed to protect water quality. The applicant must determine if such a TMDL exists for the water of the Commonwealth to which the discharge will occur. If such a TMDL does exist, then the site is eligible for the waiver and a certification may be filed with DOW. The certification shall contain the following information:

1. Name, address and telephone number of the construction site operator(s);
2. Name (or other identifier), address, county and latitude/longitude of the construction project or site;
3. Estimated construction start and completion dates, and total acreage to be disturbed;
4. The name of the water body(s) that would be receiving stormwater discharges from your construction project;
5. The name and approval date of the TMDL;
6. A statement, signed and date by an authorized representative as provided in 401 KAR 5:065, Section 2(11), that certifies that the construction activity will take place and that the stormwater discharges will occur, within the drainage addressed by the TMDL.

3.3.3. Equivalent Analysis Waiver

This waiver applies to those small construction activities where the operator develops an equivalent analysis that determines pollutant of concern allocations for his site or determines that no such allocations are necessary to protect water quality. This analysis requires the operator to develop a wasteload allocation for the site based on the existing in-stream concentrations, expected growth in pollutant concentrations from all sources, and a margin of safety. If the operator performs an equivalent analysis and wasteload allocation, then the site is eligible for the waiver and a certification may be filed with DOW. The certification shall contain the following information:

1. Name, address and telephone number of the construction site operator(s);
2. Name (or other identifier), address, county and latitude/longitude of the construction project or site;
3. Estimated construction start and completion dates, and total acreage to be disturbed;
4. The name of the water body(s) that would be receiving stormwater discharges from your construction project;
5. Your equivalent analysis;
6. A statement, signed and date by an authorized representative as provided in 401 KAR 5:060, Section 4, that certifies that the construction activity will take place and that the stormwater discharges will occur, within the drainage addressed by the TMDL.

3.3.4. Certification Submittal Deadlines

Waiver certifications shall be submitted a minimum of 30 days prior to the proposed commencement of construction activities.

SECTION 4
OTHER REQUIREMENTS

4. Other Requirements

4.1. Authorization to Discharge

Authorization to discharge under the terms of this general permit shall be effective upon the issuance of written notification by the DOW. DOW will provide this written notification electronically to the email provided on the NOI-SWCA.

4.2. Termination of Coverage

All existing coverages shall be terminated by DOW effective one (1) year after the effective date of this KYR10 unless the permittee submits a Coverage Extension form.

When one or more of the following conditions have been met operators shall submit a completed Notice of Termination (NOT) to DOW:

1. Final stabilization has been achieved on all portions of the site for which the permittee is responsible;
2. Another permittee has assumed control over all areas of the site that have not been finally stabilized;
3. Coverage under an individual KPDES permit has been obtained.

For new projects that do not submit a Notice of Termination (NOT) as described above, termination of coverage will occur automatically two (2) years after authorization to discharge is granted unless the operator submits a Coverage Extension form.

4.3. In-Stream Treatment or Disposal Facilities

This permit does not authorize the construction or use of in-stream treatment or disposal facilities (sediment ponds, hollow fills, valley fills, etc.). Such authorization is within the jurisdiction of the U.S. Army Corps of Engineers and is implemented through the Clean Water Act §404 permitting program. A §404 permit action also requires the issuance of a Clean Water Act §401 Water Quality Certification by the Kentucky Division of Water. This certification shall be obtained on a site-specific basis as the U.S. Army Corps of Engineers §404 Nationwide permit does not provide automatic Clean Water Act §401 Water Quality Certification coverage for areas that impact more than 200 linear feet of stream or one (1) acre of wetlands. The conditions of the Clean Water Act §404 permit and the §401 Water Quality Certification shall be incorporated into the SWPPP.

4.4. Schedule of Compliance

For new projects the facility will comply with the requirements of this permit by the date of authorization to discharge under this permit.

For ongoing projects existing SWPPPs and BMPs shall be deemed in compliance with the requirements of this permit. However should DOW take enforcement action regarding the failure of a SWPPP and/or BMPs to protect water quality the permit holder may be required to make changes to the SWPPP and/or BMPs.

4.5. Reopener Clause

This permit shall be modified, or alternatively revoked and reissued, to comply with any applicable effluent standard or limitation issued or approved in accordance with 401 KAR 5:050 through 5:080, if the effluent standard or limitation so issued or approved:

1. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
2. Controls any pollutant not limited in the permit.

The permit as modified or reissued under this paragraph shall also contain any other requirements of KRS Chapter 224 when applicable.

4.6. Retention of Records

The permit requires that all required records and reports be retained, including SWPPPs and information used to complete the NOI, for at least three (3) years from the termination of coverage or expiration of the permit.

4.7. Antidegradation

For those discharges subject to the provisions of 401 KAR 10:030, Section 1(3)(b)5, the permittee shall install, operate, and maintain wastewater treatment facilities consistent with those required by Section 2.4.

4.8. Continuation of Expiring Permit

In the event the permit expires prior to reissuance by DOW, the conditions and requirements of this version of KYR10 shall continue in effect until DOW reissues the permit. However, new or expanded coverages cannot be authorized until the permit is reissued.

4.9. Other Permits

This permit has been issued under the provisions of KRS Chapter 224 and regulations promulgated pursuant thereto. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits or licenses required by this Cabinet and other state, federal, and local agencies.

SECTION 5
STANDARD CONDITIONS

5. STANDARD CONDITIONS

5.1. Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of KRS Chapter 224 and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. Any person who violates applicable statutes or who fails to perform any duty imposed, or who violates any determination, permit, administrative regulation, or order of the cabinet promulgated pursuant thereto shall be liable for a civil penalty as provided at KRS 224.99.010.

5.2. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for a new permit.

5.3. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

5.4. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

5.5. Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

5.6. Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

5.7. Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege.

5.8. Duty to Provide Information

The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish to the Director upon request, copies of records required to be kept by this permit.

5.9. Inspection and Entry

The permittee shall allow the Director or an authorized representative (including an authorized contractor acting as a representative of the Director), upon presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
4. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by KRS 224, any substances or parameters at any location.

5.10. Monitoring and Records

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
2. Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five (5) years (or longer as required by 401 KAR 5:065, Section 2(10), the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time.
3. Records of monitoring information shall include:
    a. The date, exact place, and time of sampling or measurements;
    b. The individual(s) who performed the sampling or measurements;
    c. The date(s) analyses were performed;
    d. The individual(s) who performed the analyses;
    e. The analytical techniques or methods used; and
    f. The results of such analyses.
4. Monitoring must be conducted according to test procedures approved under 401 KAR 5:065, Section 2(8) unless another method is required under 401 KAR 5:065, Section 2(9) or (10).
5. KRS 224.99-010 provides that any person who knowingly violates KRS 224.70-110 or other enumerated statutes, or who knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall be guilty of a Class D felony and, upon conviction, shall be punished by a fine of not more than twenty-five thousand dollars ($25,000), or by imprisonment for not less than one (1) year or more than five (5), or both. Each day upon which a violation occurs shall constitute a separate violation.

5.11. Signatory Requirement

1. All applications, reports, or information submitted to the Director shall be signed and certified pursuant to 401 KAR 5:060, Section 4.
2. KRS 224.99-010 provides that any person who knowingly provides false information in any document filed or required to be maintained under KRS Chapter 224 shall be guilty of a Class D felony and upon conviction thereof, shall be punished by a fine not to exceed twenty-five thousand dollars ($25,000), or by imprisonment, or by fine and imprisonment, for each separate violation. Each day upon which a violation occurs shall constitute a separate violation.

5.12. Reporting Requirements

5.12.1. Planned Changes

The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in KRS 224.16-050;

2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under KRS 224.16-050; or
3. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

5.12.2. Anticipated Noncompliance

The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

5.12.3. Transfers

This permit is not transferable to any person except after notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under KRS 224; see 401KAR 5:070, Section 5; in some cases, modification or revocation and reissuance is mandatory.

5.12.4. Monitoring Reports

Monitoring results shall be reported at the intervals specified elsewhere in this permit.

1. Monitoring results must be reported on a DMR or forms provided or specified by the Director for reporting results of monitoring of sludge use or disposal practices.
2. If the permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 401 KAR 5:065, Section 2(8), or another method required for an industry-specific waste stream under 401 KAR 5:065, Section 2(9) or (10), the results of such monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Director.
3. Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Director in the permit.

5.12.5. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than fourteen (14) days following each schedule date.

5.12.6. Twenty-Four Hour Reporting

1. The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within twenty-four (24) hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within five (5) days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
2. (The following shall be included as information which must be reported within twenty-four (24) hours under this paragraph.

    a. Any unanticipated bypass which exceeds any effluent limitation in the permit.
    b. Any upset which exceeds any effluent limitation in the permit.
    c. Violation of a maximum daily discharge limitation for any of the pollutants listed by the Director in the permit to be reported within twenty-four (24) hours.

3. The Director may waive the written report on a case-by-case basis for reports under paragraph ii of this section if the oral report has been received within twenty-four (24) hours.

5.12.7. Other Noncompliance

The permittee shall report all instances of noncompliance not reported under Sections 5.12.4, 5.12.5, and 5.12.6 at the time monitoring reports are submitted. The reports shall contain the information listed in Section 7.12.6.

5.12.8. Other Information

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information.

5.13. Bypass

5.13.1. Definitions

1. Bypass means the intentional diversion of waste streams from any portion of a treatment facility.
2. Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

5.13.2. Bypass Not Exceeding Limitations

The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Sections 5.13.3 and 5.13.4.

5.13.3. Notice

1. Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.
2. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Section 5.12.6.

5.13.4. Prohibition of Bypass

1. Bypass is prohibited, and the Director may take enforcement action against a permittee for bypass, unless:
    a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
    b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
    c. The permittee submitted notices as required under Section 7.13.3.
2. The Director may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed above in Section 7.13.3.

5.14. Upset

5.14.1. Definition

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

5.14.2. Effect of an Upset

An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of Section 5.14.3 are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

5.14.3. Conditions Necessary for a Demonstration of Upset

A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

1. An upset occurred and that the permittee can identify the cause(s) of the upset;
2. The permitted facility was at the time being properly operated;
3. The permittee submitted notice of the upset as required in Section 5.12.6; and
4. The permittee complied with any remedial measures required under Section 5.4.

5.14.4. Burden of Proof

In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

7. Environmental Permits

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
ENVIRONMENTAL DIVISION
SUITE 900, JAMES K. POLK BUILDING
505 DEADERICK STREET
NASHVILLE, TENNESSEE 37243-1402
(615) 741-3655

JOHN C. SCHROER
COMMISSIONER

BILL HASLAM
GOVERNOR

July 15, 2014

Mr. Jimmy Smith
Natural Resource Section
Tennessee Department of Environment and Conservation
11th Floor William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue
Nashville, Tennessee 37243

Subject: Project # 74003-1160-44
PIN 107338.00
Interstate 65
Proposed Interchange,
Existing State Route 109 to Interstate 65
Robertson-Sumner Counties

Dear Mr. Smith:

The Tennessee Department of Transportation is proposing to construct a new interchange on Interstate 65 near the existing Lake Springs Road crossing in Robertson and Sumner Counties. The project will include relocating State Route 109 from existing State Route 109 east of I-65 to I-65 just south of the existing Lake Springs Road crossing. A new interchange will be constructed at I-65 and the Relocated SR-109 alignment. As part of the new interchange configuration, Vaughn Road will be extended eastward to connect to the Relocated State Route 109 at the new I-65 terminus. Also included within the project scope are the crossing/impact of three (3) streams, and two (2) wetlands. The project scope also includes all associated drainage improvements. The total proposed length of roadway construction, utilities, and improvements equals 3.75 miles. In accordance with T.C.A. 69-3-108(b), this office is submitting form CN-1091 identifying where permits may be needed.

The primary purpose of the proposed project will be to provide improved interstate access in the area that is compatible with local and regional goals and objectives. The new interchange will provide safe and adequate transportation facilities for traffic projected to be general by the existing and anticipated population and employment growth in the project vicinity, some of which is directly associated with industrial developments in the immediate area.

In addition, and in accordance with the notification requirements of the U.S. Army Corps of Engineers, we are submitting this pre-construction notification and requesting concurrence that

location numbers 2, 3, and 3A, as described within the enclosed feature impact tables, meet the criteria of the nationwide permit identified.

Please refer to the enclosed feature impact and summary tables for detailed information regarding environmental feature locations, proposed environmental feature impacts and mitigation, required environmental permits, FEMA floodplain designations, etc.

We propose to mitigate the permanent wetland impacts by debiting, at a 2:1 ratio, 0.77 acres from available wetland credits at the Harpeth Wetland Mitigation Bank. A debit sheet is enclosed.

As mitigation for 215 ft. (215 ft. x 1.0) of stream encapsulation and length losses, we propose a payment of $51,600.00. As mitigation for 163 ft. (217 ft. x 0.75) of rip-rap, we propose a payment of $ 39,120.00. A total payment of $ 90,720.00 is proposed to the In-Lieu Fee Stream Mitigation Program. **Please cite this payment to the TWRF in your permits.**

Efforts were made during the planning and design phases of this project to avoid impacts to waters of the U.S. and waters of the State to the extent practicable, and to minimize impacts that were not avoidable. Mitigation for these impacts has been proposed on the project site, where practicable.

A coordination email from the USFWS dated July 25, 2011, stated endangered species collection records do not indicate that federally listed or proposed endangered or threatened species occur within the present study area at this time. A copy of the Tennessee Wildlife Resources Agency consultation letter has been included for your use. A search of the TDEC, Division of Natural Areas, July 2, 2014, indicated there are two records of listed species within a 4 mile radius. Please refer to the attached species information for more information.

In a letter dated June 3, 2008, the TN-SHPO state that the area of potential effect for the subject project contains no archaeological resources eligible for listing in the National Register of Historic Places.

In a letter dated June 2, 2008, the TN-SHPO state that the area of potential effect for the subject project contains no cultural resources eligible for listing in the National Register of Historic Places.

In addition to the impacts referenced above, we are requesting that the Tennessee Department of Environment and Conservation and the Corps of Engineers include approval for all proposed outfall structures (ditches, pipes, etc.) associated with the proposed project in your permits.

It is the opinion of this office that all other aspects of the project not specifically mentioned in this letter meet the criteria for the General Permit for Wet Weather Conveyances. Please refer to the enclosed Form G for more information.

By copy of this letter, we are also requesting that the TDEC and the Corps of Engineers please include approval of a potential temporary stream crossing at each location in your permits. Temporary crossings will be located within right-of-way or easements. Copies of TDOT Standard Drawings EC-STR-25 (Temporary Road Stabilization and Temporary Culvert Crossing), EC-STR-31 (Temporary Diversion Channels), EC-STR-31A (Temporary Diversion Channel Design), and EC-STR-32 (Temporary Diversion Culverts) are enclosed for your information and use.

This project is currently scheduled for the September 24, 2014 turn-in. We would greatly appreciate your initial review and request for additional information needed, or issuance of the public notice, within 15 days of receipt of our application; and issuance of the permits as soon as possible.

If you have any questions or we can be of further assistance please contact me at (615)532-9945 or Laura Chandler at (615)741-6830.

Sincerely,

Anthony Myers
Natural Resources Office, Environmental Permits Section

Enclosures

JLH: ARM: LHC

cc: Mr. Jimmy Smith, TDEC
Ms. Tammy Turley, USACE, Nashville District

ec:
Ms. Jeanene Woodruff, TDEC
Mr. Jay Norris, HQ (Region 3) Construction Office
Ms. Lori Lange, Region 3 Project Development
Mr. Mike Brown, Region 3 Construction
Ms. Kim Bramlett, Region 3 Construction
Mr. David Sizemore, Region 3 Environmental Coordinator
Mr. Dennis Crumby, Region 3 Ecology Section
Mr. Matt Richards, HQ Ecology Section *
Mr. Benjamin Brown, HQ Ecology Section
Mr. Ronnie Porter, Program Operations Office **
Mr. Trent Thomas, TDOT Compliance
Mr. John Hewitt, Natural Resources Office
Permit File

FEATURE SUMMARY TABLE:

Location Information					Impact Description						Mitigation Description						
Location #	Feature Name	Latitude	Longitude	Stationing	Brief Impact Description	Impact Acreage to Waters of the US (ac.)	Total Existing Stream Length (ft.)	Total Proposed Stream Length (ft.)	Temporary Wetland Impact Area (ac.)	Permanent Wetland Impact Area (ac.)	In-Kind Stream Replace. Length (ft.)	Encapsul. Length @ 1.0 Ratio (ft.)	Stream Length Losses @ 1.0 Ratio (ft.)	Rip-rap Length @ 0.75 Ratio (ft.)	Canopy Length Losses @ 0.50 Ratio (ft.)	Total In-Lieu Fee	Wetland Debit (ac.)
Location #1	Summers Branch (STR-1)	36.6255	-86.5755	Sta. 1831+00 (I-65)	Culvert Extension	0.06	280	280	-	-	-	211	-	-	-	$50,640	-
Location #1A	Summers Branch (STR-1)	36.6255	-86.5755	Sta. 1831+00 (I-65)	Utility Crossing		-	-	-	-	-	-	-	-	-	-	-
Location #2	Wetland (WTL-1)	36.6232	-86.5583	Sta. 330+65 to Sta. 332+56	Permanent Impact		-	-	0.000	0.175	-	-	-	-	-	-	0.35
Location #3	Wetland (WTL-2)	36.6243	-86.561	Sta. 339+50 Lt. to Sta. 341+42 Lt.	Permanent Impact	0.025	-	-	0.000	0.208	-	-	-	-	-	-	0.42
Location #3A	Unnamed Tributary to Summers Branch (STR-3)	36.6245	-86.5615	Sta. 341+51 to Sta. 343+50	Stream Relocation		221	217	-	-	0	0	4	163	-	$40,080	-
Location #4	Stream (STR-2)	36.6253	-86.5636	Sta. 348+65 (SR 109)	Box Bridge	0.001	262	262	-	-	-	-	-	-	-	-	-
Location #4A	Stream (STR-2)	36.6253	-86.5636	Sta. 348+65 (SR-109)	Utility Crossing		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
Project Totals:							**763**	**759**	**0.000**	**0.383**	**0**	**211**	**4**	**163**	**0**	**$90,720**	**0.77**

WET WEATHER CONVEYANCE SUMMARY TABLE:							
Location Information				Impact Description			
Feature Name	Latitude	Longitude	Stationing	Brief Impact Description	Total Existing Feature Length (ft.)	Total Proposed Feature Length (ft.)	Total Feature Impact Area (ac.)
WWC-1	36.6335	-86.5765	Sta.35+10 (Lake Springs Road)	Encapsulation	85	87	0.016
WWC-1	36.6339	-86.5747	Sta.17+00 (Frontage Rd)	Encapsulation	132	132	0..02
WWC-1	36.6391	-86.5719	Sta. 398+00 (SR-109)	Relocation	154	415	0.028
WWC-2	36.6315	-86.5741	Sta. 466+40 - Sta. 470+08 (Ramp H)	Encapsulation	448	446	0.015
WWC-2	36.6313	-86.5731	Sta. 1845+00 - Sta. 1851+00 (I-65)	Relocation	1411	1276	0.065
WWC-2	36.6314	-86.5725	Sta. 204+50 (Ramp C)	Encapsulation	290	282	0.010
WWC-3	36.6296	-86.576	Sta. 306+60 Rt (Ramp E)	Not Impacted	N/A	N/A	N/A
WWC-4	36.6299	-86.5746	Sta. 1845+00 - Sta.1846+01 (I-65)	Length loss	112	0	0.002
WWC-6	36.625	-86.5627	Sta. 344+70 Lt. to Sta. 346+70 Lt. (SR-109)	Length loss	440	227	0.010
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
				Project Totals:	**3072**	**2865**	**0.146**

(Summary Table - ONLY WWCs)

FEATURE IMPACT TABLE:	Location #1 / STR-1 (Summers Brnach)
Location Information	
Location #	Location #1
Feature Name:	STR-1 (Summers Brnach)
Latitude:	36.6255
Longitude:	-86.5755
Stationing:	Sta. 1831+00
FEMA Floodplain Designation (if Zone AE, please enclose No-Rise Certification):	Zone A
Permits Required - TDEC:	ARAP: Does not fit criteria under GARAP because of cumulative impacts. Will cause more than de minimis degradation to water quality at this location.
Permits Required - Corps:	Non-Notification - Nationwide #14: This roadway crossing meets all of the following criteria required for non-notification under Nationwide #14: • Discharge results in the loss of less than a tenth of an acre • Does not affect a special aquatic site • Does not affect federally listed species • Does not affect historic properties All conditions of the Nationwide #14 General Permit will be followed during construction.
Permits Required - TVA:	N/A
CN-1091 Section 6: Project Description	
6.1: Narrative description of project scope	Extend Existing Culvert
6.2: USGS Topographic Map	Please see enclosed
6.3: Resource photographs	Please refer to photographs 1 through 2 in the enclosed Environmental Boundaries Report
6.4: Existing feature characteristics	Existing Structure: 185 ft. of 3 @ 15 ft. by 10 ft. box culvert (to remain) Existing Open Stream: 95 ft. Total Existing Length: 280 ft. Please refer to the enclosed Environmental Boundaries Report for more information.
6.5: Proposed feature characteristics	Proposed structure extension: 26 ft. of 3 @ 15 ft. by 10 ft. box culvert Proposed open stream: 68 ft. (includes 35 ± ft. of rip-rap at the inlet and 30 ± ft. rip-rap at the outlet.) Total proposed structure length: 211 ± ft. Total proposed length: 280 ft. In addition to the impact listed above, we are requesting that the Tennessee Department of Environment and Conservation include approval for all proposed outfall structures (ditches, pipes, etc) associated with the proposed bridge crossing in your permit.
* Impact acreage to waters of the US (acres):	0.06 acres
6.6: Wetland delineation documentation	N/A
6.7: Water resource hydrologic and jurisdictional determination documentation	Please refer to the enclosed Environmental Boundaries Report
CN-1091 Section 7: Project Rationale	
Description of the need for the proposed activity, alternatives, and impact minimization	Please refer to the enclosed cover letter for project rationale
CN-1091 Section 8: Technical Information	
8.1: Detailed plans, specifications, etc. included for present conditions and proposed activity	Please see enclosed
8.2: Sequencing of events and construction methods for proposed activity and compensatory mitigation	1. EPSC measures will be installed. Please refer to the enclosed EPSC sheets (107 through 107B). 2. For the construction method at this location, please refer to the enclosed note sheet (2U-2X), present layout (5), proposed layout (5A), profile (5B), and culvert cross-section (72)
* Proposed impact mitigation:	STREAMS: IN-LIEU FEE As mitigation for 211 ft. (211 ft. x 1.0) of stream encapsulation, we propose a payment of $50,640.00. Please cite this payment to the TWRF in your permits.
8.3: Depiction and narrative of EPSC measures	Please refer to the enclosed plan set, sheets 107 through 107B, for the EPSC plan sheets
CN-1091 Section 9: Water Resources Degradation (select one)	
My activity, as proposed, will not cause measurable degradation to water quality	
My activity, as proposed, will only cause de minimis degradation to water quality	
My activity, as proposed, will cause more than de minimis degradation to water quality (if selected, must complete Sections 10 and 11 below)	**X**
Unsure / need more information	
CN-1091 Section 10: Detailed Alternative Analysis	
10.1: Analysis of reasonable alternatives	**A full culvert replacement was considered, however, it was determined a extension would be feasible and miniminze impacts to the stream. A no build option was also considered. See Environmental Assessment Sheet S-1 through S-3 for more detailed alternative information.**
10.2: Discussion of social and economic consequences	**The primary purpose of the I-65 Interchange project would be to provide improved interstate access in the area that is compatible with local and regional goals and objectives. The new interchange would provide safe and adequate transportation facilities for traffic projected to be generated by the existing and anticipated population and employment growth in the project vicinity, some of which is directly associated with industrial developments in the immediate area.**
10.3: Demonstration that degradation from alternative will not violate WQ criteria	**The stream encapsulation that result from this proposed impact at this location will be mitigated via in-lieu fees that will be paid to the TSMP.**
CN-1091 Section 11: Compensatory Mitigation	
11.1: Detailed discussion of proposed compensatory mitigation	**As mitigation 211 ft. (211 ft. x 1.0) of stream encapsulation, we propose a payment of $50,640.00. A total payment of $50,640.00 is proposed to the In-Lieu Fee Stream Mitigation Program. Please cite this payment to the TSMP in your permits.**
11.2: Description of how compensatory mitig. will result in no net loss of resource value	**The in-lieu fees that are to be paid to the TSMP as mitigation for the proposed stream length losses should ensure continued resource value improvement at off-site stream mitigation sites, within the area.**
11.3: Detailed monitoring plan	**Monitoring for compensatory mitigation site to be determined by the TSMP.**
11.4: Long-term protection measures for compensatory mitigation site	**Long term protection measures for the compensatory mitigation sites to be determined by the TSMP.**

FEATURE IMPACT TABLE:	Location # 1A / STR-1 (Summers Branch)
Location Information	
Location #	Location # 1A
Feature Name:	STR-1 (Summers Branch)
Latitude:	36.6255
Longitude:	-86.5755
Stationing:	Sta. 1831+00
FEMA Floodplain Designation (if Zone AE, please enclose No-Rise Certification):	Zone A
Permits Required - TDEC:	ARAP: Meets the General ARAP criteria for the **Utility Line Crossings**. Will only cause de minimis degradation to water quality.
Permits Required - Corps:	Non-Notification - Nationwide #12: This utility crossing meets all of the following criteria required for non-notification under Nationwide #12: • A section 10 permit is not required • Mechanized land clearing in forested wetlands for the ROW is not occurring • Discharge results in the loss of less than a tenth of an acre • Utility line does not exceed 500 linear feet in waters of the US AND does not run parallel to a stream bed within jurisdictional area All conditions of the Nationwide #12 General Permit will be followed during construction.
Permits Required - TVA:	N/A
CN-1091 Section 6: Project Description	
6.1: Narrative description of project scope	Utility Crossing (Water Line)
6.2: USGS Topographic Map	Please see enclosed
6.3: Resource photographs	Please refer to photographs 1 through 2 in the enclosed Environmental Boundaries Report
6.4: Existing feature characteristics	Existing Utility line to be abandoned or removed. (Water)
6.5: Proposed feature characteristics	Utility line abandoned
* Impact acreage to waters of the US (acres):	0.001
6.6: Wetland delineation documentation	N/A
6.7: Water resource hydrologic and jurisdictional determination documentation	Please refer to the enclosed Environmental Boundaries Report
CN-1091 Section 7: Project Rationale	
Description of the need for the proposed activity, alternatives, and impact minimization	Please refer to the enclosed cover letter for project rationale
CN-1091 Section 8: Technical Information	
8.1: Detailed plans, specifications, etc. included for present conditions and proposed activity	Please see enclosed
8.2: Sequencing of events and construction methods for proposed activity and compensatory mitigation	1. EPSC measures will be installed. Please refer to the enclosed EPSC sheets (107 through 107B). 2. For the construction method at this location, please refer to the enclosed note sheet (2U-2X), present layout (5), proposed layout (5A), profile (5B), and culvert cross-section (72)
* Proposed impact mitigation:	MITIGATION NOT REQUIRED N/A
8.3: Depiction and narrative of EPSC measures	Please refer to the enclosed plan set, sheets 107 through 107B, for the EPSC plan sheets
CN-1091 Section 9: Water Resources Degradation (select one)	
My activity, as proposed, will not cause measurable degradation to water quality	X
My activity, as proposed, will only cause de minimis degradation to water quality	
My activity, as proposed, will cause more than de minimis degradation to water quality (if selected, must complete Sections 10 and 11 below)	
Unsure / need more information	
CN-1091 Section 10: Detailed Alternative Analysis	
10.1: Analysis of reasonable alternatives	**N/A**
10.2: Discussion of social and economic consequences	**N/A**
10.3: Demonstration that degradation from alternative will not violate WQ criteria	**N/A**
CN-1091 Section 11: Compensatory Mitigation	
11.1: Detailed discussion of proposed compensatory mitigation	**N/A**
11.2: Description of how compensatory mitig. will result in no net loss of resource value	**N/A**
11.3: Detailed monitoring plan	**N/A**
11.4: Long-term protection measures for compensatory mitigation site	**N/A**

FEATURE IMPACT TABLE:	Location #2 / WTL-1 (Wetland)
Location Information	
Location #	Location #2
Feature Name:	WTL-1 (Wetland)
Latitude:	36.6232°
Longitude:	86.5583°
Stationing:	Sta. 330+65 to Sta. 332+56
FEMA Floodplain Designation (if Zone AE, please enclose No-Rise Certification):	Zone A
Permits Required - TDEC:	ARAP: Does not fit criteria under GARAP because of cumulative impacts. Will cause more than de minimis degradation to water quality at this location.
Permits Required - Corps:	Impacts at this site exceed one tenth of an acre, impacts wetlands or special aquatic site; therefore, Pre-Construction Notification is required.
Permits Required - TVA:	N/A
CN-1091 Section 6: Project Description	
6.1: Narrative description of project scope	Wetland Impact
6.2: USGS Topographic Map	Please see enclosed
6.3: Resource photographs	Please refer to photograph 16 in the enclosed Environmental Boundaries Report
6.4: Existing feature characteristics	
6.5: Proposed feature characteristics	Proposed Permanent Impact: 0.175 Ac
* Impact acreage to waters of the US (acres):	0.175 Ac
6.6: Wetland delineation documentation	Please refer to the enclosed Environmental Boundaries Report
6.7: Water resource hydrologic and jurisdictional determination documentation	N/A
CN-1091 Section 7: Project Rationale	
Description of the need for the proposed activity, alternatives, and impact minimization	Please refer to the enclosed cover letter for project rationale
CN-1091 Section 8: Technical Information	
8.1: Detailed plans, specifications, etc. included for present conditions and proposed activity	Please see enclosed
8.2: Sequencing of events and construction methods for proposed activity and compensatory mitigation	**1. EPSC measures will be installed. Please refer to the enclosed EPSC sheets (118 through 118B).** **2. For the construction method at this location, please refer to the enclosed note sheet (2U-2X), present layout (15), and proposed layout (15A).**
* Proposed impact mitigation:	We propose to mitigate the permanent wetland impacts by debiting, at a 2:1 ratio, 0.35 acres from available wetland credits at the Harpeth Wetland Mitigation Bank. A debit sheet is enclosed.
8.3: Depiction and narrative of EPSC measures	Please refer to the enclosed plan set, sheets 118 through 118B, for the EPSC plan sheets
CN-1091 Section 9: Water Resources Degradation (select one)	
My activity, as proposed, will not cause measurable degradation to water quality	
My activity, as proposed, will only cause de minimis degradation to water quality	
My activity, as proposed, will cause more than de minimis degradation to water quality (if selected, must complete Sections 10 and 11 below)	**X**
Unsure / need more information	
CN-1091 Section 10: Detailed Alternative Analysis	
10.1: Analysis of reasonable alternatives	**Due to the chosen alignment, the proposed wetland impact could not be avoided. During the design phase, we requested the designer tighten the slopes as much as possible to minimize the impacts at this location. Construction limits have been limited to 15 ft. beyond the slope to avoid impacted more wetland than necessary. Please see the enclosed Environmental Assessment and Finding of No Significant Impact for additional information on the alternatives considered.**
10.2: Discussion of social and economic consequences	**The primary purpose of the I-65 Interchange project would be to provide improved interstate access in the area that is compatible with local and regional goals and objectives. The new interchange would provide safe and adequate transportation facilities for traffic projected to be generated by the existing and anticipated population and employment growth in the project vicinity, some of which is directly associated with industrial developments in the immediate area.**
10.3: Demonstration that degradation from alternative will not violate WQ criteria	**The permanent wetland impact that results from the proposed impact at this location will be mitigated vie the Harpeth Wetland Mitigation Bank.**
CN-1091 Section 11: Compensatory Mitigation	
11.1: Detailed discussion of proposed compensatory mitigation	**We propose to mitigate the permanent wetland impacts by debiting, at a 2:1 ratio, 0.35 acres from available wetland credits at the Harpeth Wetland Mitigation Bank. A debit sheet is enclosed.**
11.2: Description of how compensatory mitig. will result in no net loss of resource value	**The credits to be purchased through the Harpeth Wetland Migitation Bank as mitigation for the proposed wetland impact should ensure continued resource value improvement at off-site wetland mitigation sites, within the area.**
11.3: Detailed monitoring plan	**Monitoring for compensatory mitigation site to be determined by the Harpeth Wetland Mitigation Bank.**
11.4: Long-term protection measures for compensatory mitigation site	**Long term protection measures for the compensatory mitigation sites to be determined by the Harpeth Wetland Mitigation Bank.**

FEATURE IMPACT TABLE:	Location #3 / WTL-2 (Wetland)
Location Information	
Location #	Location #3
Feature Name:	WTL-2 (Wetland)
Latitude:	36.6243°
Longitude:	86.5610°
Stationing:	Sta. 339+50 Lt. to Sta. 341+42 Lt.
FEMA Floodplain Designation (if Zone AE, please enclose No-Rise Certification):	Zone A
Permits Required - TDEC:	ARAP: Does not fit criteria under GARAP because of cumulative impacts. Will cause more than de minimis degradation to water quality at this location.
Permits Required - Corps:	Impacts at this site exceed one tenth of an acre, impacts wetlands or special aquatic site;
Permits Required - TVA:	N/A
CN-1091 Section 6: Project Description	
6.1: Narrative description of project scope	Wetland Impact
6.2: USGS Topographic Map	Please see enclosed
6.3: Resource photographs	Please refer to photograph 17 in the enclosed Environmental Boundaries Report
6.4: Existing feature characteristics	
6.5: Proposed feature characteristics	Proposed Permanent Impact: 0.208 Ac
* Impact acreage to waters of the US (acres):	N/A
6.6: Wetland delineation documentation	Please refer to the enclosed Environmental Boundaries Report
6.7: Water resource hydrologic and jurisdictional determination documentation	N/A
CN-1091 Section 7: Project Rationale	
Description of the need for the proposed activity, alternatives, and impact minimization	Please refer to the enclosed cover letter for project rationale
CN-1091 Section 8: Technical Information	
8.1: Detailed plans, specifications, etc. included for present conditions and proposed activity	Please see enclosed
8.2: Sequencing of events and construction methods for proposed activity and compensatory mitigation	**1. EPSC measures will be installed. Please refer to the enclosed EPSC sheets (118 through 119B).** **2. For the construction method at this location, please refer to the enclosed note sheet (2U-2X), present layout (15-16), and proposed layout (15A-16A).**
* Proposed impact mitigation:	We propose to mitigate the permanent wetland impacts by debiting, at a 2:1 ratio, 0.42 acres from available wetland credits at the Harpeth Wetland Mitigation Bank. A debit sheet is enclosed.
8.3: Depiction and narrative of EPSC measures	Please refer to the enclosed plan set, sheets 118 through 119B, for the EPSC plan sheets
CN-1091 Section 9: Water Resources Degradation (select one)	
My activity, as proposed, will not cause measurable degradation to water quality	
My activity, as proposed, will only cause de minimis degradation to water quality	
My activity, as proposed, will cause more than de minimis degradation to water quality (if selected, must complete Sections 10 and 11 below)	**X**
Unsure / need more information	
CN-1091 Section 10: Detailed Alternative Analysis	
10.1: Analysis of reasonable alternatives	**Due to the chosen alignment, the proposed wetland impact could not be avoided. During the design phase, we requested the designer tighten the slopes as much as possible to minimize the impacts at this location. Construction limits have been limited to 15 ft. beyond the slope to avoid impacted more wetland than necessary. Please see the enclosed Environmental Assessment and Finding of No Significant Impact for additional information on the alternatives considered.**
10.2: Discussion of social and economic consequences	**The primary purpose of the I-65 Interchange project would be to provide improved interstate access in the area that is compatible with local and regional goals and objectives. The new interchange would provide safe and adequate transportation facilities for traffic projected to be generated by the existing and anticipated population and employment growth in the project vicinity, some of which is directly associated with industrial developments in the immediate area.**
10.3: Demonstration that degradation from alternative will not violate WQ criteria	**The permanent wetland impact that results from the proposed impact at this location will be mitigated vie the Harpeth Wetland Mitigation Bank.**
CN-1091 Section 11: Compensatory Mitigation	
11.1: Detailed discussion of proposed compensatory mitigation	**We propose to mitigate the permanent wetland impacts by debiting, at a 2:1 ratio, 0.42 acres from available wetland credits at the Harpeth Wetland Mitigation Bank. A debit sheet is enclosed.**
11.2: Description of how compensatory mitig. will result in no net loss of resource value	**The credits to be purchased through the Harpeth Wetland Migitation Bank as mitigation for the proposed wetland impact should ensure continued resource value improvement at off-site wetland mitigation sites, within the area.**
11.3: Detailed monitoring plan	**Monitoring for compensatory mitigation site to be determined by the Harpeth Wetland Mitigation Bank.**
11.4: Long-term protection measures for compensatory mitigation site	**Long term protection measures for the compensatory mitigation sites to be determined by the Harpeth Wetland Mitigation Bank.**

FEATURE IMPACT TABLE:	Location 3A / STR-3 (Unnamed Tributary to Summers Branch)
Location Information	
Location #	Location 3A
Feature Name:	STR-3 (Unnamed Tributary to Summers Branch)
Latitude:	36.6245°
Longitude:	86.5615°
Stationing:	Sta. 341+50.88 to Sta. 343+50.00
FEMA Floodplain Designation (if Zone AE, please enclose No-Rise Certification):	Zone A
Permits Required - TDEC:	ARAP: Does not fit criteria under GARAP because of cumulative impacts. Will cause more than de minimis degradation to water quality at this location.
Permits Required - Corps:	Pre-Construction Notification- Nationwide #14: Impacts at this site exceed one tenth of an acre, impacts wetlands or special aquatic site; therefore, Pre-Construction Notification is required.
Permits Required - TVA:	N/A
CN-1091 Section 6: Project Description	
6.1: Narrative description of project scope	Stream Relocation
6.2: USGS Topographic Map	Please see enclosed
6.3: Resource photographs	Please refer to photographs 14 through 15 in the enclosed Environmental Boundaries Report
6.4: Existing feature characteristics	Existing Open Stream: 221 ft.
6.5: Proposed feature characteristics	Proposed Open Stream: 217 ft. Rip-rap along stream banks for stabilization with a natural stream bottom
* Impact acreage to waters of the US (acres):	0.025
6.6: Wetland delineation documentation	N/A
6.7: Water resource hydrologic and jurisdictional determination documentation	Please refer to the enclosed Environmental Boundaries Report
CN-1091 Section 7: Project Rationale	
Description of the need for the proposed activity, alternatives, and impact minimization	Please refer to the enclosed cover letter for project rationale
CN-1091 Section 8: Technical Information	
8.1: Detailed plans, specifications, etc. included for present conditions and proposed activity	Please see enclosed
8.2: Sequencing of events and construction methods for proposed activity and compensatory mitigation	1. EPSC measures will be installed. Please refer to the enclosed EPSC sheets (119 through 119B). 2. For the construction method at this location, please refer to the enclosed note sheet (2U-2X), present layout (16), and proposed layout (16A).
* Proposed impact mitigation:	We propose to plant two rows of trees on both sides of the new channel. Live stakes shall be installed on the channel banks from the edge of low water to bankfull of the new channel The proposed stream channel has been designed to mimic existing channel characteristics (size, shape, etc.) as closely as possible. For more details, see the proposed roadway plans. As mitigation for 4 ft. (4 ft. x 1.0) of stream length losses, we propose a payment of $960.00. As mitigation for 163 ft. (217 ft. x 0.75) of rip-rap or TRM, we propose a payment of $ 39,120.00. A total payment of $40,080.00 is proposed to the In-Lieu Fee Stream Mitigation Program. Please cite this payment to the TWRF in your permits.
8.3: Depiction and narrative of EPSC measures	Please refer to the enclosed plan set, sheets 119 through 119B, for the EPSC plan sheets
CN-1091 Section 9: Water Resources Degradation (select one)	
My activity, as proposed, will not cause measurable degradation to water quality	
My activity, as proposed, will only cause de minimis degradation to water quality	
My activity, as proposed, will cause more than de minimis degradation to water quality (if selected, must complete Sections 10 and 11 below)	**X**
Unsure / need more information	
CN-1091 Section 10: Detailed Alternative Analysis	
10.1: Analysis of reasonable alternatives	**The no-build option was found unfeasible due to the increasing amount of traffic in this area. Due to the chosen alignment, the proposed relocation could not be avoided. Please see the enclosed Environmental Assessment and Finding of No Significant Impact for additional information on the alternatives considered.**
10.2: Discussion of social and economic consequences	**The primary purpose of the I-65 Interchange project would be to provide improved interstate access in the area that is compatible with local and regional goals and objectives. The new interchange would provide safe and adequate transportation facilities for traffic projected to be generated by the existing and anticipated population and employment growth in the project vicinity, some of which is directly associated with industrial developments in the immediate area.**
10.3: Demonstration that degradation from alternative will not violate WQ criteria	**The stream length loss and rip-rap that result from this proposed impact at this location will be mitigated via in-lieu fees that will be paid to the TSMP.**
CN-1091 Section 11: Compensatory Mitigation	
11.1: Detailed discussion of proposed compensatory mitigation	**As mitigation for 4 ft. (4 ft. x 1.0) of stream length losses, we propose a payment of $960.00. As mitigation for 163 ft. (217ft. x 0.75) of rip-rap or TRM, we propose a payment of $ 39,120.00. A total payment of $40,080.00 is proposed to the In-Lieu Fee Stream Mitigation Program. Please cite this payment to the TWRF in your permits.**
11.2: Description of how compensatory mitig. will result in no net loss of resource value	**The in-lieu fees that are to be paid to the TSMP as mitigation for the proposed stream length losses and rip-rap should ensure continued resource value improvement at off-site stream mitigation sites, within the area.**
11.3: Detailed monitoring plan	**Monitoring for compensatory mitigation site to be determined by the TSMP.**
11.4: Long-term protection measures for compensatory mitigation site	**Long term protection measures for the compensatory mitigation sites to be determined by the TSMP.**

FEATURE IMPACT TABLE:	Location #4 / STR-2 (Unnamed Tributary to Summers Branch)
Location Information	
Location #	Location #4
Feature Name:	STR-2 (Unnamed Tributary to Summers Branch)
Latitude:	36.6253°
Longitude:	86.5636°
Stationing:	Sta. 348+65 (SR-109)
FEMA Floodplain Designation (if Zone AE, please enclose No-Rise Certification):	Zone A
Permits Required - TDEC:	ARAP: Does not fit criteria under GARAP because of cumulative impacts. Will only cause de minimis degradation to water quality at this location.
Permits Required - Corps:	Non-Notification - Nationwide #14: This roadway crossing meets all of the following criteria required for non-notification under Nationwide #14: • Discharge results in the loss of less than a tenth of an acre • Does not affect a special aquatic site • Does not affect federally listed species • Does not affect historic properties All conditions of the Nationwide #14 General Permit will be followed during construction.
Permits Required - TVA:	N/A
CN-1091 Section 6: Project Description	
6.1: Narrative description of project scope	Stream Encapsulation
6.2: USGS Topographic Map	Please see enclosed
6.3: Resource photographs	Please refer to photographs 11 and 13 in the enclosed Environmental Boundaries Report
6.4: Existing feature characteristics	Existing open stream: 216 ft. Please refer to the enclosed Environmental Boundaries Report for more information
6.5: Proposed feature characteristics	Proposed structure: 142 ± ft. of 16 ft. by 10 ft. RCBC Proposed open stream: 74 ± ft. (Proposed rip-rap at the inlet: 27 ± ft.) (Proposed rip-rap at the outlet: 15 ± ft.) Total proposed length: 216 ± ft. Intake / Outfall Structure at Sta. 10+19 (TGT Road) Proposed 18 ft. Rip-rap for Bank Stability In addition to the impact listed above, we are requesting that the Tennessee Department of Environment and Conservation include approval for all proposed outfall structures (ditches, pipes, etc) associated with the proposed bridge crossing in your permit.
* Impact acreage to waters of the US (acres):	0.049
6.6: Wetland delineation documentation	N/A
6.7: Water resource hydrologic and jurisdictional determination documentation	Please refer to the enclosed Environmental Boundaries Report
CN-1091 Section 7: Project Rationale	
Description of the need for the proposed activity, alternatives, and impact minimization	Please refer to the enclosed cover letter for project rationale
CN-1091 Section 8: Technical Information	
8.1: Detailed plans, specifications, etc. included for present conditions and proposed activity	Please see enclosed
8.2: Sequencing of events and construction methods for proposed activity and compensatory mitigation	1. EPSC measures will be installed. Please refer to the enclosed EPSC sheets (119 through 119B). 2. For the construction method at this location, please refer to the enclosed note sheet (2U-2X), present layout (16), proposed layout (16A), and profile (16B).
* Proposed impact mitigation:	MITIGATION NOT REQUIRED N/A
8.3: Depiction and narrative of EPSC measures	Please refer to the enclosed plan set, sheets 119 through 119B, for the EPSC plan sheets
CN-1091 Section 9: Water Resources Degradation (select one)	
My activity, as proposed, will not cause measurable degradation to water quality	
My activity, as proposed, will only cause de minimis degradation to water quality	**X**
My activity, as proposed, will cause more than de minimis degradation to water quality (if selected, must complete Sections 10 and 11 below)	
Unsure / need more information	
CN-1091 Section 10: Detailed Alternative Analysis	
10.1: Analysis of reasonable alternatives	**N/A**
10.2: Discussion of social and economic consequences	**N/A**
10.3: Demonstration that degradation from alternative will not violate WQ criteria	**N/A**
CN-1091 Section 11: Compensatory Mitigation	
11.1: Detailed discussion of proposed compensatory mitigation	**N/A**
11.2: Description of how compensatory mitig. will result in no net loss of resource value	**N/A**
11.3: Detailed monitoring plan	**N/A**
11.4: Long-term protection measures for compensatory mitigation site	**N/A**

FEATURE IMPACT TABLE:	Location #4A / STR-2 (Unnamed Tributary to Summers Branch)
Location Information	
Location #	Location #4A
Feature Name:	STR-2 (Unnamed Tributary to Summers Branch)
Latitude:	36.6253°
Longitude:	86.5636°
Stationing:	Sta. 348+65 (SR-109)
FEMA Floodplain Designation (if Zone AE, please enclose No-Rise Certification):	Zone A
Permits Required - TDEC:	ARAP: Meets the General ARAP criteria for the **Utility Line Crossings**. Will only cause de minimis degradation to water quality.
Permits Required - Corps:	Non-Notification - Nationwide #12: This utility crossing meets all of the following criteria required for non-notification under Nationwide #12: • A section 10 permit is not required • Mechanized land clearing in forested wetlands for the ROW is not occurring • Discharge results in the loss of less than a tenth of an acre • Utility line does not exceed 500 linear feet in waters of the US AND does not run parallel to a stream bed within jurisdictional area All conditions of the Nationwide #12 General Permit will be followed during construction.
Permits Required - TVA:	N/A
CN-1091 Section 6: Project Description	
6.1: Narrative description of project scope	Utility Crossing (Water)
6.2: USGS Topographic Map	Please see enclosed
6.3: Resource photographs	Please refer to photographs 11 and 13 in the enclosed Environmental Boundaries Report
6.4: Existing feature characteristics	Existing Utility line to be abandoned.
6.5: Proposed feature characteristics	Proposed Water Line Crossing
* Impact acreage to waters of the US (acres):	0.001
6.6: Wetland delineation documentation	Please refer to the enclosed Environmental Boundaries Report
6.7: Water resource hydrologic and jurisdictional determination documentation	N/A
CN-1091 Section 7: Project Rationale	
Description of the need for the proposed activity, alternatives, and impact minimization	Please refer to the enclosed cover letter for project rationale
CN-1091 Section 8: Technical Information	
8.1: Detailed plans, specifications, etc. included for present conditions and proposed activity	Please see enclosed
8.2: Sequencing of events and construction methods for proposed activity and compensatory mitigation	1. EPSC measures will be installed. Please refer to the enclosed EPSC sheets (119 through 119B). 2. For the construction method at this location, please refer to the enclosed note sheet (2U-2X), present layout (16), proposed layout (16A), and profile (16B).
* Proposed impact mitigation:	MITIGATION NOT REQUIRED N/A
8.3: Depiction and narrative of EPSC measures	Please refer to the enclosed plan set, sheets 119 through 119B, for the EPSC plan sheets
CN-1091 Section 9: Water Resources Degradation (select one)	
My activity, as proposed, will not cause measurable degradation to water quality	X
My activity, as proposed, will only cause de minimis degradation to water quality	
My activity, as proposed, will cause more than de minimis degradation to water quality (if selected, must complete Sections 10 and 11 below)	
Unsure / need more information	
CN-1091 Section 10: Detailed Alternative Analysis	
10.1: Analysis of reasonable alternatives	**N/A**
10.2: Discussion of social and economic consequences	**N/A**
10.3: Demonstration that degradation from alternative will not violate WQ criteria	**N/A**
CN-1091 Section 11: Compensatory Mitigation	
11.1: Detailed discussion of proposed compensatory mitigation	**N/A**
11.2: Description of how compensatory mitig. will result in no net loss of resource value	**N/A**
11.3: Detailed monitoring plan	**N/A**
11.4: Long-term protection measures for compensatory mitigation site	**N/A**

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION
Division of Water Resources
William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 11th Floor, Nashville, Tennessee 37243
1-888-891-8332 (TDEC)

Application for Aquatic Resource Alteration Permit (ARAP) & State §401 Water Quality Permit

OFFICIAL STATE USE ONLY	Site #:		Permit #:	

Section 1. Applicant Information *(individual responsible for site, signs certification below)*

Applicant Name: Anthony Myers				
Company: Tennessee Department of Transportation		Signatory's Title or Position: Sr. Transportation Project Specialist		
Mailing Address: 505 Deaderick Street Suite 900 J.K. Polk Bldg.		City: Nashville	State: TN	Zip: 37243
Phone: (615) 532-9945	Fax: 615-741-1098	E-mail: Anthony.Myers@tn.gov		

Section 2. Alternate Contact/Consultant Information (*a consultant is not required*)

Alternate Contact Name: Laura Chandler				
Company: Tennessee Department of Transportation		Title or Position: Transportation Project Specialist		
Mailing Address: 505 Deaderick Street Suite 900 J.K. Polk Bldg.		City: Nashville	State: TN	Zip: 37243
Phone: (615) 741-6830	Fax: 615-741-1098	E-mail: Laura.Chandler@tn.gov		

Section 3. Fee *(check appropriate box and submit requisite fee with application)*

☒ No Fee Submitted ☐ Fee Submitted with Application Amount Submitted: $ ____

Current fee schedules for Aquatic Resource Alteration Permit processing may be found at the Division of Water Resources webpage at http://www.tn.gov/environment/permits/arap.shtml or by calling (615) 532-0625. Make checks payable to "Treasurer, State of Tennessee".

Section 4. Project Details *(fill in information and check appropriate boxes)*

Site or Project Name: Interstate 65		Nearest City, Town or Major Landmark: Portland
Street Address or Location: Existing State Route 109 to Interstate 65		
County(ies): Sumner	MS4 Jurisdiction: TDOT	Latitude (dd.dddd): 36.6299 Longitude (dd.dddd): -86.5746

Resource Proposed for Alteration: ✓ Stream ✓ Wetland Reservoir

Name of Water Resource: Summers Branch and Unnamed Tributary to Summers Branch

Brief Project Description (a more detailed description is required under Section 8):
See Cover Letter.

Does the proposed activity require approval from the U.S. Army Corps of Engineers, the Tennessee Valley Authority, or any other federal, state, or local government agency? ☒ Yes ☐ No

If Yes, provide the permit reference numbers: Corps of Engineers Nationwide #14 - Pending

Is the proposed activity associated with a larger common plan of development? ☐ Yes ☒ No

If Yes, submit site plans and identify the location and overall scope of the common plan of development. Plans attached? ☒ Yes ☐ No

If applicable, indicate any other federal, state, or local permit authorizations that the overall project site (common plan of development) has obtained in the past (i.e. construction general permit coverage and/or other ARAPs):
COE Nationwide #14 & TDEC CGP - pending

Section 5. Project Schedule *(fill in information and check appropriate boxes)*

Start date: 12/5/14	Estimated end date: 12/5/19

Is any portion of the activity complete now? ☐ Yes ☒ No If yes, describe the extent of the completed portion:
N/A

Application for Aquatic Resource Alteration Permit (ARAP) & State §401 Water Quality Permit

The required information in Sections 6-11 must be submitted on a separate sheet(s) and submitted in the same numbered format as presented below. If any question in not applicable, state the reason why it is not applicable.

Section 6. Project Description			**Attached** Yes	No
6.1	A narrative description of the scope of the project	Cover letter	☒	☐
6.2	USGS topographic map indicating the exact location of the project (*can be a photographic copy*)	Attached Map	☒	☐
6.3	Photographs of the resource(s) proposed for alteration with location description (*photo locations should be noted on map*)	EB	☒	☐
6.4	A narrative description of the **existing** stream and/or wetland characteristics including, but not limited to, dimensions (e.g., depth, length, average width), substrate and riparian vegetation	Environmental Boundaries	☒	☐
6.5	A narrative description of the **proposed** stream and/or wetland characteristics including, but not limited to, dimensions (e.g., depth, length, average width), substrate and riparian vegetation	Environmental Boundaries	☒	☐
6.6	In the case of wetlands, include a wetland delineation with delineation forms and site map denoting location of data points	EB	☒	☐
6.7	A copy of all hydrologic or jurisdictional determination documents issued for water resources on the project site	EB	☒	☐

Section 7. Project Rationale	Cover letter	**Attached** Yes	No
Describe the need for the proposed activity, including, but not limited to, the purpose, alternatives considered, and what will be done to avoid or minimize impacts to streams or wetlands.		☒	☐

Section 8. Technical Information		Roadway Plans	**Attached** Yes	No
8.1	Detailed plans, specifications, blueprints, or legible sketches of present site conditions and the proposed activity. Plans must be 8.5.x 11 inches. Additional larger plans may also be submitted to aid in application review. The detailed plans should be superimposed on existing and new conditions *(e.g., stream cross sections where road crossings are proposed)*		☒	☐
8.2	For both the proposed activity and compensatory mitigation, provide a discussion regarding the sequencing of events and construction methods		☒	☐
8.3	Depiction and narrative on the location and type of erosion prevention and sediment control (EPSC) measures for the proposed alterations		☒	☐

Section 9. Water Resources Degradation (degree of proposed impact) *Note that in most cases, activities that exceed the scope of the General Permit limitations are considered greater than de minimis degradation to water quality.* Cover letter

My activity, as proposed:

a. ☐ Will not cause measurable degradation to water quality
b. ☒ Will only cause de minimis degradation to water quality
c. ☒ Will cause more than de minimis degradation to water quality (*Complete additional sections 9-11)*
d. ☐ Unsure/need more information

For information and guidance on the definition of de minimis and degradation, refer to the Antidegradation Statement in Chapter 0400-40-03-.06 of the Tennessee Water Quality Criteria Rule: https://www.tn.gov/sos/rules/0400/0400-40/0400-40-03.20131216.pdf. For more information on specifics on what General Permits can cover, refer to the Natural Resources Unit webpage at http://www.tn.gov/environment/permits/arap.shtml

If you checked "c." above in Section 9, complete the following 2 sections, 10-11.

Section 10. Detailed Alternative Analysis		Cover letter	**Attached** Yes	No
10.1	Analyze all reasonable alternatives and describe the level of degradation caused by each of the feasible alternatives		☒	☐
10.2	Discuss the social and economic consequences of each alternative	NEPA Document	☒	☐
10.3	Demonstrate that the degradation associated with the preferred alternative will not violate water quality criteria for uses designated in the receiving waters, and is necessary to accommodate important economic and social development in the area		☒	☐

Application for Aquatic Resource Alteration Permit (ARAP) & State §401 Water Quality Permit

Section 11. Compensatory Mitigation			Attached Yes	Attached No
11.1	A detailed discussion of the proposed compensatory mitigation	Cover letter	☒	☐
11.2	Describe how the compensatory mitigation would result in no net loss of resource value	Proposing Wetland Mitigation Bank	☒	☐
11.3	Provide a detailed monitoring plan for the compensatory mitigation site	Proposing Wetland Mitigation Bank	☒	☐
11.4	Describe the long-term protection measures for the compensatory mitigation site *(e.g., deed restrictions, conservation easement)*	Proposing Wetland Mitigation Bank	☒	☐

Certification and Signature

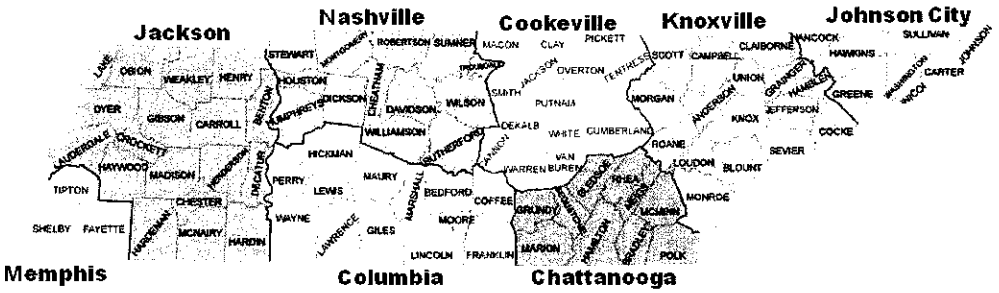
An application submitted by a corporation must be signed by a principal executive officer; from a partnership or proprietorship, by the partner or proprietor respectively; from a municipal, state, federal or other public agency or facility, the application must be signed by either a principal executive officer, ranking elected official, or other duly authorized employee.

"I certify under penalty of law that this document and all attachments were prepared by me, or under my direction or supervision. The submitted information is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury".

Anthony Myers	Sr. Transportation Project Specialist	Anthony R. Myers	July 15, 2014
Printed Name	Official Title	Signature	Date

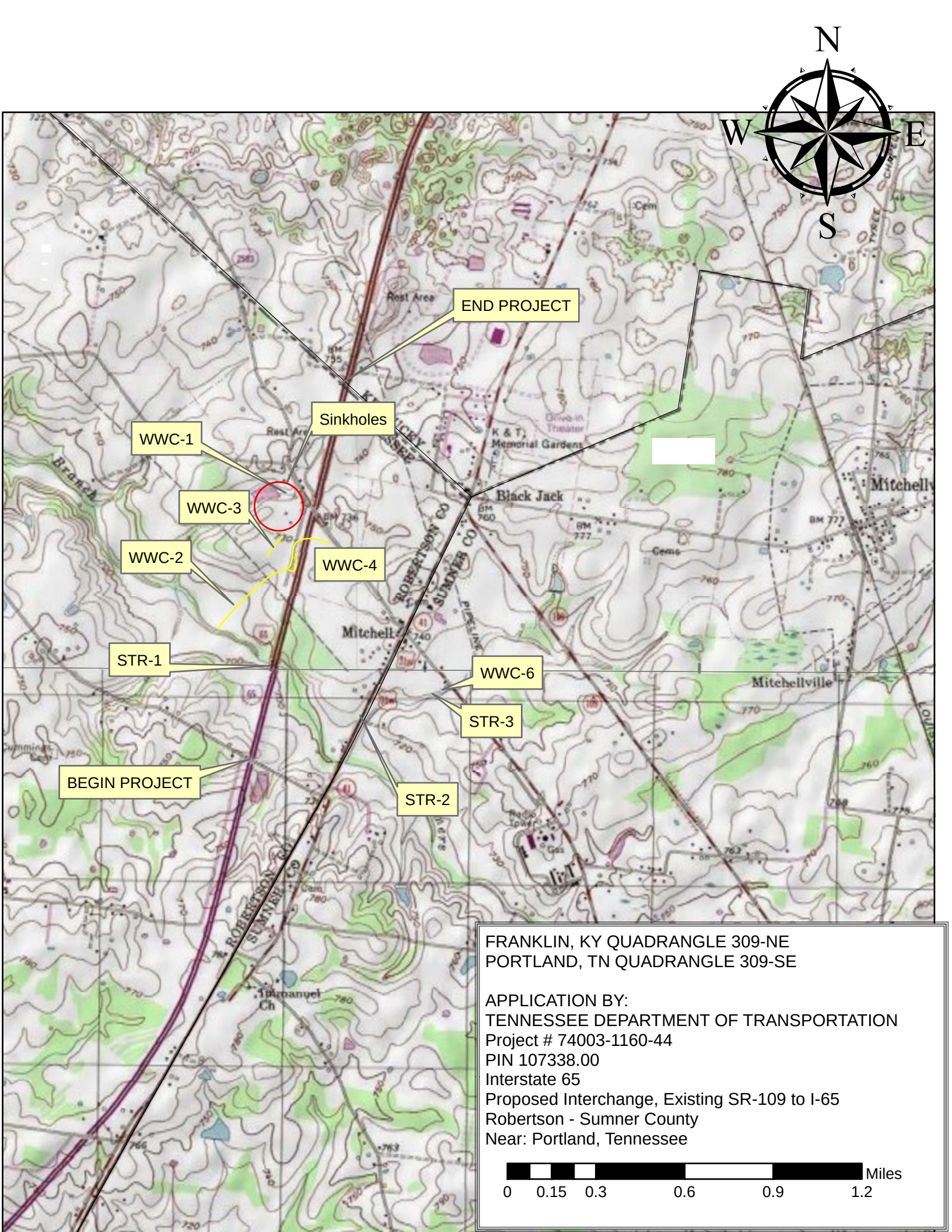
Submitting the form and obtaining more information Note that this form must be signed by the principal executive officer, partner or proprietor, or a ranking elected official in the case of a municipality; for details see **Certification and Signature** statement above. For more information, contact your local EFO at the toll-free number 1-888-891-8332 (TDEC). Submit the completed ARAP Application form (keep a copy for your records) to the appropriate EFO for the county(ies) where the ARAP activity is located, addressed to **Attention: ARAP Processing**. You may also electronically submit the complete application and all associated attachments (e.g., maps, wetland delineations and narrative portions) to water.permits@tn.gov.

EFO	Street Address	Zip Code	EFO	Street Address	Zip Code
Memphis	8383 Wolf Lake Drive, Bartlett	38133-4119	Cookeville	1221 South Willow Ave.	38506
Jackson	1625 Hollywood Drive	38305-4316	Chattanooga	540 McCallie Avenue STE 550	37402-2013
Nashville	711 R S Gass Boulevard	37243	Knoxville	3711 Middlebrook Pike	37921
Columbia	1421 Hampshire Pike	38401	Johnson City	2305 Silverdale Road	37601



OFFICIAL STATE USE ONLY

Received Date:	Permit Number:	Reviewer:	Field Office:
Fee amount paid:	T & E Aquatic Flora and Fauna:	Impaired Receiving Stream:	Application Review:
Date:			☐ Deficient Date:
Check #:	Exceptional TN Water:		☐ Complete Date:


N
W
E
S
END PROJECT
Sinkholes
WWC-1
WWC-3
WWC-2
WWC-4
STR-1
WWC-6
STR-3
STR-2
BEGIN PROJECT
Black Jack
Mitchellville
Rest Area
K & T Memorial Gardens
ROBERTSON CO
SUMNER CO
Emmanuel Ch
FRANKLIN, KY QUADRANGLE 309-NE
PORTLAND, TN QUADRANGLE 309-SE
APPLICATION BY:
TENNESSEE DEPARTMENT OF TRANSPORTATION
Project # 74003-1160-44
PIN 107338.00
Interstate 65
Proposed Interchange, Existing SR-109 to I-65
Robertson - Sumner County
Near: Portland, Tennessee
Miles
0
0.15
0.3
0.6
0.9
1.2

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
ENVIRONMENTAL DIVISION
SUITE 900, JAMES K. POLK BUILDING
505 DEADERICK STREET
NASHVILLE, TENNESSEE 37243-1402
(615) 741-3655

JOHN C. SCHROER
COMMISSIONER

BILL HASLAM
GOVERNOR

July 16, 2014

Mr. Scotty Sorrells
Tennessee Department of Environment and Conservation
Division of Water Supply
11th Floor William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue
Nashville, Tennessee 37243

Subject: Project # 74003-1160-44
PIN 107338.00
Interstate 65
Proposed Interchange, Existing SR-109
To Interstate 65
Robertson-Sumner County

Dear Mr. Sorrells:

In accordance with Tennessee Department of Environment and Conservation's Rule 1200-4-6 regarding Modification of Existing Karst Feature, this office is providing a portion of the USGS quad map for Portland, TN (309-SE) showing the location of all sinkholes, and an application for the Authorization for Class V Underground Injection Well and a half-size set of plans showing sinkhole locations and treatment plans.

The attached application is for various sinkholes located on the subject project. The treatment plan for the sinkholes is included in the plans.

The Department does not intend to utilize these sinkholes as drainage structures, other than for water currently flowing toward them under existing conditions.

If the authorization will contain any special conditions other than those contained in the enclosed materials, please provide us with a draft copy for our review, prior to your final issuance.

This project is currently scheduled for the December 2014 letting. We would greatly appreciate your initial review and request for any additional information needed, within 15 days of receipt of our application; and issuance of the permit within 90 days.

Please advise us if you have any questions or if we can be of any assistance.

Sincerely,

Anthony R. Myers

Anthony Myers
Environmental Permits Office

Enclosures

JLH: ARM: LHC: pc

cc: Mr. Jay Norris, HQ (Region 3) Construction Office
Ms. Lori Lange, Region 3 Project Development
Mr. Mike Brown, Region 3 Construction
Ms. Kim Bramlett, Region 3 Construction
Mr. David Sizemore, Region 3 Environmental Coordinator
Mr. Dennis Crumby, Region 3 Ecology Section
Mr. Trent Thomas, TDOT Compliance
Mr. John Hewitt, Natural Resources Office

TENNESSEE DEPARTMENT OF ENVIRONMENT & CONSERVATION
DIVISION OF WATER SUPPLY 6th Floor, 401 Church Street Nashville, Tennessee 37243

APPLICATION FOR AUTHORIZATION TO OPERATE A CLASS V UNDERGROUND INJECTION WELL OR STORM WATER DISCHARGE TO THE SUBSURFACE OR MODIFICATION OF A KARST FEATURE

In accordance with the provisions of Tennessee Code Annotated Section 69-3-105 and Regulations of the Tennessee Water Quality Control Board, application is hereby made to operate:

☐ **Class V Underground Injection Well** ☐ **Discharge of Storm Water into the Subsurface** ☑ **Modification of Existing Karst Feature**

Part A - General Information

Name and Address and of Facility/Well	Name and Address of Operator/Owner/Contractor
Interstate 65, Proposed Interchange with SR-109	**Tennessee Department of Transportation (see below for address)**

State	County	Telephone Number
Tennessee	**Robertson - Sumner**	**(615) 741-2612**

Location (decimal degrees) for additional points attach on separate sheet

Latitude	**36.6331**
Longitude	**86.5756**

Quadrangle Name	Ground elevation at well location
Portland, TN (309-SE)	**730**

Describe the activities conducted by the applicant which require it to obtain a Class V permit authorization

Repairs to sinkholes and/or caves encountered during roadway construction.

Type of Business
☐ Federal ☐ Public ☐ Government
☑ State ☐ Private ☐ Other

Nature of Business:
Highway system for public use.

List up to four North American Industry Classification System (NAICS) codes which best reflect the principal products or services provided by the facility

23411

Name, address, telephone number of legal contact or person responsible for the operation of the Class V injection well or facility:

Jim Ozment
505 Deaderick Street, Suite 900 James K Polk Building
Nashville, TN 37243-0334
(615) 741-2612

Is the facility located on Indian Lands?
☐ Yes ☑ No

Mode of operation
☐ continuous ☐ intermittent ☐ repair

Permit Status:
☐ a. new well or facility
☑ b. modification of existing well or facility
☐ c. reapplication for previously permitted well or facility

List all other permits or construction approvals received or applied for under any of the following programs

		Type	Date Issued	Permit Number
a	☐	Hazardous waste management program under federal or state law		
b	☐	UIC program under federal or state law		
c	☑	NPDES program under federal or state law	**Pending**	**Pending**
d	☐	Prevention of Significant Deterioration (PSD) program under federal or state law		
e	☐	Nonattainment area program under federal or state law		
f	☐	National Emission Standards for Hazardous Pollutants (NESHAPS) preconstruction approval under federal or state law		
g	☐	Ocean dumping permits under the Marine Protection Research and Sanctuaries Act		
h	☐	Dredge and fill permits under Section 404 of the Clean Water Act, 33 U.S.C. 1344		
i	☐	Comprehensive Environmental Response, Compensation and Liability Act (Federal Superfund) or Tennessee Hazardous Waste Management Act (Tennessee Superfund)		
j	☐	UST program under federal or state law		
k	☐	Groundwater Protection permits from Tennessee Division of Ground Water Protection		
l	☑	Other relevant environmental permits **ARAP, Section 404**	**Pending**	**Pending**

Part B - Facility Description

Nature, type or purpose of injection well: **No discharge to subsurface is proposed**	Description of injection well or facility, including monitoring wells and other associated structures (attach additional information or diagrams, if necessary) **N/A**
Depth of injection zone: **N/A** feet below ground level	Operating status of well or facility ☑ proposed ☐ active ☐ inactive ☐ abandoned
Date injection began (if not in operation, projected date of beginning) **12/5/14** If inactive or abandoned well, approximate date injection ceased **N/A**	Operating parameters of injection well a. fluid flow _____gpm b. fluid pressure _____psig c. fluid temperature _____Celsius d. other significant operating information (attach additional information or diagrams, if necessary): _____
For previously active facilities, give history of injection or operation **N/A**	Nature of injected fluid, including physical, chemical, biological and/or radiological properties **N/A**
Volume of injected fluid/amount of fill material per well or feature _____ gallons _____ cubic yards _____ per day _____per month _____ per year	Type of injection ☐ pump ☐ gravity ☐ fill only Description of pump(s): **N/A**
Origin of injected fluid or fill material **N/A**	Description of treatment of fluid or fill prior to injection **N/A**

Part C - Description of Area of Review

The area of review (AOR) for each authorized or permitted Class V injection well shall, unless otherwise specified by the Department, consist of the area lying within and below a one mile radius of the injection well pump site or facility, and shall include, but not be limited to surface geographic features, subsurface geology, and demographic and cultural features within the area. Attach to this part of the application a complete characterization of the AOR, including the following:

1. Description of all past and present uses of groundwater within the AOR, as documented by public record.
☐ Commercial ☑ Residential ☑ Agriculture ☐ Industrial

2. Description of general direction of groundwater movement in the AOR. _____

3. Description of the population and cultural development within the AOR, including the number of persons living within one mile of the well or facility, land uses within the AOR, and the existence of any community, state, regional or national parks, wildlife refuges, natural or wilderness areas, recreational or other public-use areas, or any other environmentally sensitive features within the area of review. ☐ Commercial ☑ Residential ☑ Agriculture ☐ Industrial ☐ Mixed

4. Identify all sources of publicly-supplied drinking water for persons living or working within the AOR. _____

5. Identify any single or multi-family residences, churches, schools, businesses or other inhabited structures within the AOR which do not have access to a public drinking water supply system locate on Attachment 1.

6. If groundwater is used for drinking water within the area of review, then identify and locate on Attachment 1, all groundwater withdrawal points within the AOR which supply public or private drinking water systems.

7. Identify any surface water bodies or features within the area of review which may be impacted by groundwater discharge to surface waters locate on Attachment 1.

8. Identify any surface water intake which supplies a public water distribution system and is located within the AOR or within three miles topographically down gradient from the well or facility. If any such intake(s) exist, then locate on Attachment 1.

Attachments

1. USGS topographic quadrangle map showing the location of the Class V injection well or facility and a one-mile radius area surrounding the well or facility.

2. Schematic diagram of the injection well showing construction details and materials of the injection well.

3. Chemical analysis data of injection fluid, if required.

4. Process description of the treatment or other process which is the source of the injection fluid, if required.

5. Procedure for operation and maintenance of the injection well or facility, if required.

6. Geologic/hydrogeologic information collected during the planning, construction and design phases of the facility and injection well.

7. Blueprints from the facility showing the injection well and portions of the facility which will or may contribute injectate to the injection well, including storm runoff waters.

8. Construction diagrams depicting erosion and sediment controls.

Part D - Signature and Certification

This application should be signed by a person having responsibility for the operation of the injection well or facility as follows:

1. For a corporation, by a responsible corporate officer (i.e., president, secretary, treasurer, vice-president, or equivalent person) who performs policy or decision making functions; or

2. The manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million if authority to sign documents has been assigned or delegated to the manager in accordance with operating procedures; or

3. For a partnership, by a general partner or the proprietor; or

4. By a duly authorized representative (a duly authorized representative may be either a named individual or any individual occupying a named position) only if:

    a. The authorization is made in writing by a person described in (1), (2), or (3) above;

    b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or well field, superintendent, or position of equivalent responsibility, or

    c. For municipality, state, federal, or other public agency by either a principal executive officer or ranking elected official.

5. The owner of the property or facility on which the injection well is located.

I certify under penalty of law I have personally examined and am familiar with the information submitted in the attached document; and based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Jim Ozment, Environmental Division Director

Name & Title (print or type)

License No.

07-16-2014

Signature

Date

Name & Title (print or type)

License No.

Signature

Date

Identifier	Station	Latitude	Longitude	Quadrangle Name	Sinkhole Treatment Plan
Sinkhole 2	Sta. 24+10 - Sta.24+75 (Frontage Road)	36.6336°	86.5751°	Portland, TN Quad 309-SE	Sinkhole Treatment Type 4
Sinkhole 1	Sta. 402+70 - Sta. 403+40 (Eubanks Road)	36.6331°	86.5756°	Portland, TN Quad 309-SE	Sinkhole Treatment Type 4
Sinkholes	Sta.397+50 - Sta. 397+95	36.6331°	86.5756°	Portland, TN Quad 309-SE	Sinkhole Treatment Type 4

quad_num	quad_nam	quad_nth	well_numb	owner_nar	cmpltn_date	cmpltn_tot	cmpltn_es	casing_fee
0309SE	PORTLAN	1	14700383	BROWN J	4/29/1970 0:00	100	3	39
0309SE	PORTLAN	1	14700406	SCOTT B	3/9/1971 0:00	145	1	46
0309SE	PORTLAN	1	14700504	SHOCKNE	6/22/1971 0:00	145	15	40
0309SE	PORTLAN	1	14700544	SCOTT B	10/10/1972 0:00	225	0	20
0309SE	PORTLAN	1	14700545	SCOTT B	10/10/1972 0:00	125	0	
0309SE	PORTLAN	1	16501477	NICHOLS(	12/18/1984 0:00	75	10	25
0309SE	PORTLAN	1	16501543	WRIGHT,	7/24/1985 0:00	125	3	57
0309SE	PORTLAN	1	16501550	BENNETT	11/1/1985 0:00	80	5	20
0309SE	PORTLAN	1	16501725	GRAHAM,	8/6/1988 0:00	105	20	44
0309SE	PORTLAN	1	16501726	GRAHAM,	8/1/1988 0:00	55	0	
0309SE	PORTLAN	1	16508034	BUNTIN BR	ANCH SPRING		675	
0309SE	PORTLAN	1	20011948	ANDERSC	3/28/2001 0:00	200		41
0309SE	PORTLAN	1	95002794	ELLIS WA	6/14/1995 0:00	165	1	31
0309SE	PORTLAN	2	16500028	CLUBBS V	4/17/1964 0:00	100	42	51
0309SE	PORTLAN	2	16500041	CHANDLE	6/3/1964 0:00	75	3	15
0309SE	PORTLAN	2	16500093	LANE R	8/29/1964 0:00	95	20	43
0309SE	PORTLAN	2	16500105	BAKER J A			0	0
0309SE	PORTLAN	2	16500164	MAGANEE	7/12/1965 0:00	100	20	66
0309SE	PORTLAN	2	16500210	HOLLAND	12/3/1966 0:00	80	30	59
0309SE	PORTLAN	2	16500322	MAZANEC	11/9/1968 0:00	118	10	53
0309SE	PORTLAN	2	16500421	TURNER	10/24/1969 0:00	55	42	55
0309SE	PORTLAN	2	16500449	ENGLAND	6/10/1970 0:00	70	15	47
0309SE	PORTLAN	2	16500456	GREGOR'	7/30/1970 0:00	70	5	42
0309SE	PORTLAN	2	16500462	JOHNSON	8/6/1970 0:00	80	2	40
0309SE	PORTLAN	2	16500468	BAKER R	8/25/1970 0:00	95	30	44
0309SE	PORTLAN	2	16500489	HOBBY O	12/1/1970 0:00	70	3	32
0309SE	PORTLAN	2	16500490	HOBDY O	11/9/1970 0:00	100	1	42
0309SE	PORTLAN	2	16500509	TUNNEY E	6/5/1970 0:00	58	10	55
0309SE	PORTLAN	2	16500528	BUNTIN C	3/12/1971 0:00	120	4	62
0309SE	PORTLAN	2	16500535	CRABTRE	4/6/1971 0:00	75	20	45
0309SE	PORTLAN	2	16500536	MCDONAL	3/15/1971 0:00	90	20	42
0309SE	PORTLAN	2	16500537	BAKER M	3/31/1971 0:00	80	20	37
0309SE	PORTLAN	2	16500594	HOBDY J	8/20/1971 0:00	120	20	59
0309SE	PORTLAN	2	16500613	BREWER	10/21/1971 0:00	170	1	41
0309SE	PORTLAN	2	16500803	LANE R.	3/6/1973 0:00	94	6	51
0309SE	PORTLAN	2	16501401	MCGREG(	7/11/1983 0:00	86	15	50
0309SE	PORTLAN	2	16501720	HUFF, TO	7/29/1988 0:00	61	8	41
0309SE	PORTLAN	2	16508032	UNKNOWN	651		50	
0309SE	PORTLAN	2	16508033	UNKNOWN	652		2	
0309SE	PORTLAN	2	20090356	COLE, TH	12/16/2008 0:00	100	5	63
0309SE	PORTLAN	2	91000117	BLACKBU	12/14/1990 0:00	78	20	49
0309SE	PORTLAN	2	92001224	KYLE, GLE	3/3/1992 0:00	175	6	83
0309SE	PORTLAN	2	94004589	NO NAME	11/5/1994 0:00	100	10	20
0309SE	PORTLAN	2	96005349	SNOW, JC	11/19/1996 0:00	270	1	62
0309SE	PORTLAN	2	98000016	CITY OF F	12/11/1997 0:00	201	200	20
0309SE	PORTLAN	3	16500136	MCCOIN E	11/5/1964 0:00	65	1	
0309SE	PORTLAN	3	16500139	PARKER E	10/15/1964 0:00	50	1	41
0309SE	PORTLAN	3	16500269	PALMER F	5/8/1968 0:00	72	1	48
0309SE	PORTLAN	3	16500477	LEE O	10/7/1970 0:00	70	8	46
0309SE	PORTLAN	3	16500515	TROUTT E	11/16/1970 0:00	110		34
0309SE	PORTLAN	3	16500600	CHIFFIN E	9/27/1971 0:00	95		91

0309SE	PORTLAN	3	16501659	STOKES (	7/15/1987 0:00	173	5	52
0309SE	PORTLAN	3	16501736	STREET, I	9/22/1988 0:00	130	10	21
0309SE	PORTLAN	3	90002490	STEWART	7/18/1990 0:00	210	6	62
0309SE	PORTLAN	3	92003612	JR FOOD	4/15/1992 0:00	16		5
0309SE	PORTLAN	3	92003613	JR FOOD	4/15/1992 0:00	16		5
0309SE	PORTLAN	3	92003614	JR FOOD	4/15/1992 0:00	16		5
0309SE	PORTLAN	3	98000009	CITY OF F	12/10/1997 0:00	301		24
0309SE	PORTLAN	3	98000010	CITY OF F	12/11/1997 0:00	281		27
0309SE	PORTLAN	3	98000015	CITY OF F	12/11/1997 0:00	142	2	27
0309SE	PORTLAN	4	14708002	SOMERVILLE BR SPR			73	
0309SE	PORTLAN	4	14708003	ROCK HOUSE SPRING			730	
0309SE	PORTLAN	4	16500612	BOWERS	10/2/1971 0:00	145	1	29
0309SE	PORTLAN	4	16500727	YOUNCE ,	9/5/1972 0:00	225	0	
0309SE	PORTLAN	4	16500799	ADCOCK I	5/7/1973 0:00	110	2	21
0309SE	PORTLAN	4	16501297	FREEDLE	8/22/1979 0:00	100	8	
0309SE	PORTLAN	4	20090952	SPARKMA	3/30/2009 0:00	225	2	48
0309SE	PORTLAN	4	20102335	MAXWELL	10/4/2010 0:00	200	0	21
0309SE	PORTLAN	5	16500134	BROWN C	10/31/1964 0:00	60	3	40
0309SE	PORTLAN	5	16500143	SPIVEY J	12/14/1964 0:00	42	30	30
0309SE	PORTLAN	5	16500262	BUSSELL	1/19/1967 0:00	150	1	40
0309SE	PORTLAN	5	16500520	ELMER RU	10/18/1970 0:00	115	5	23
0309SE	PORTLAN	5	16500575	MINK H	7/7/1971 0:00	70	20	22
0309SE	PORTLAN	5	16500621	SIRCY N	10/16/1971 0:00	75	8	42
0309SE	PORTLAN	5	16500622	ROGERS I	10/16/1971 0:00	40	10	20
0309SE	PORTLAN	5	16500751	QUALLS	7/19/1972 0:00	310	0	21
0309SE	PORTLAN	5	16500976	BOWER J	10/9/1975 0:00	84	10	21
0309SE	PORTLAN	5	16500978	COLLINS \	9/15/1975 0:00	145	1	34
0309SE	PORTLAN	5	16500983	LAMBERT	8/6/1975 0:00	95	2	21
0309SE	PORTLAN	5	16501065	LAMBERT	9/13/1976 0:00	70	20	27
0309SE	PORTLAN	5	16501570	HOOGE, VICTOR		90	20	77
0309SE	PORTLAN	5	16501600	WILLIAMS	8/18/1986 0:00	125	3	41
0309SE	PORTLAN	5	16501614	KIRKLIN, I	5/24/1986 0:00	200	1	45
0309SE	PORTLAN	5	16501759	THOMPSC	4/20/1989 0:00	45	35	24
0309SE	PORTLAN	5	16508028	UNKNOWN649			4	
0309SE	PORTLAN	5	16508029	CRUSHER SPRING			900	
0309SE	PORTLAN	5	16508030	UNKNOWN650			8	
0309SE	PORTLAN	5	16508035	SEARCY SPRING			3	
0309SE	PORTLAN	5	20013214	AVRIT, CL	8/5/2001 0:00	110	4	20
0309SE	PORTLAN	5	20030284	AVRIT, CL	12/16/2002 0:00	97		
0309SE	PORTLAN	5	20043477	CANTREL	9/16/2004 0:00	85	65	41
0309SE	PORTLAN	5	20063184	DILLARD,	6/12/2006 0:00	200	7	47
0309SE	PORTLAN	5	20064235	KIRBY, ST	9/8/2006 0:00	165	17	41
0309SE	PORTLAN	5	20064237	KIRBY, ST	9/12/2006 0:00	300	1	26
0309SE	PORTLAN	5	20111078	ARTHUR ,	5/20/2011 0:00	100	40	43
0309SE	PORTLAN	5	91002053	MCCOINS	6/12/1991 0:00	110	10	35
0309SE	PORTLAN	5	91003137	PATTON,	8/26/1991 0:00	80	7	41
0309SE	PORTLAN	5	91003508	WILSON, I	9/17/1991 0:00	74	7	25
0309SE	PORTLAN	5	92000325	ALONSO,	10/31/1991 0:00	290	0	29
0309SE	PORTLAN	5	92000664	STREET, I	2/4/1992 0:00	127	4	25
0309SE	PORTLAN	5	94003974	BOWLES,	9/22/1994 0:00	105	3	27
0309SE	PORTLAN	5	95001209	HOLLON,	3/7/1995 0:00	50	10	21
0309SE	PORTLAN	5	95001210	HOLLON,	3/9/1995 0:00	65	10	

0309SE	PORTLAN 5	95001211	ROBERTS	3/13/1995 0:00	50	10	20
0309SE	PORTLAN 5	95001268	JERNIGAN	3/24/1995 0:00	60	5	33
0309SE	PORTLAN 5	96005346	PAYTON I	11/16/1996 0:00	105	10	41
0309SE	PORTLAN 5	TN015931	HALLON, SHIRLEY				
0309SE	PORTLAN 6	16500728	PEERATT	9/7/1972 0:00	150	3	20
0309SE	PORTLAN 6	16500773	DYE W B	6/26/1973 0:00	170	3	26
0309SE	PORTLAN 6	16500801	WILKS G.	3/13/1973 0:00	135	4	26
0309SE	PORTLAN 6	16501296	FLEET DE	8/23/1979 0:00	50	13	21
0309SE	PORTLAN 6	16501449	CATCHCA	6/7/1984 0:00	150	25	54
0309SE	PORTLAN 6	16501494	SHRUM, R	5/10/1985 0:00	45	10	30
0309SE	PORTLAN 6	16501595	BEST, CH	2/20/1986 0:00	98	8	44
0309SE	PORTLAN 6	16501598	FOWLER,	7/30/1986 0:00	75		31
0309SE	PORTLAN 6	16501637	SMITH, MI	4/8/1987 0:00	100	4	41
0309SE	PORTLAN 6	16501645	MORGAN,	5/26/1987 0:00	70	10	37
0309SE	PORTLAN 6	16501646	CRUTCHE	5/29/1987 0:00	60	10	23
0309SE	PORTLAN 6	16501670	CLOUSE,	9/8/1987 0:00	61	3	45
0309SE	PORTLAN 6	16501717	GRAHAM,	7/18/1988 0:00	100	0	
0309SE	PORTLAN 6	16501723	GRAHAM,	7/23/1988 0:00	50	10	22
0309SE	PORTLAN 6	16501728	BRADLEY	8/9/1988 0:00	70	16	33
0309SE	PORTLAN 6	16501730	BRADLEY	8/5/1988 0:00	77	10	30
0309SE	PORTLAN 6	16508031	NICE SPRING			120	
0309SE	PORTLAN 6	20010126	ALBANY II	12/16/2000 0:00	305		62
0309SE	PORTLAN 6	20011705	ALBANY II	5/19/2001 0:00	100	10	41
0309SE	PORTLAN 6	20053501	DONOHO,	8/17/2005 0:00	540	7	36
0309SE	PORTLAN 6	20064828	WILCOX, I	11/27/2006 0:00	240		
0309SE	PORTLAN 6	20110752	KEY, DAN	3/31/2011 0:00	180	0	41
0309SE	PORTLAN 6	92001554	EDISON, R	4/18/1992 0:00	66	20	28
0309SE	PORTLAN 6	93001283	MATHERS	3/26/1993 0:00	113	8	54
0309SE	PORTLAN 7	16500158	RAGLAND	7/7/1965 0:00	100	1	35
0309SE	PORTLAN 7	16500159	RAGLAND	6/24/1965 0:00	75	10	35
0309SE	PORTLAN 7	16500266	MOONEYH	5/4/1968 0:00	55	3	40
0309SE	PORTLAN 7	16500398	SANDERS	7/24/1969 0:00	220	0	24
0309SE	PORTLAN 7	16500411	WHITE H		61	1	26
0309SE	PORTLAN 7	16500424	RAGLAND	9/13/1969 0:00	88	40	53
0309SE	PORTLAN 7	16500498	MCCREC/	10/30/1970 0:00	77	5	30
0309SE	PORTLAN 7	16500516	MILES H	1/8/1971 0:00	120	4	45
0309SE	PORTLAN 7	16500534	MOONEYH	4/8/1971 0:00	70	0	20
0309SE	PORTLAN 7	16500604	LONG J	8/12/1971 0:00	96	3	44
0309SE	PORTLAN 7	16500696	WILKERS(	6/22/1972 0:00	130	3	68
0309SE	PORTLAN 7	16501067	CURRY D	9/13/1976 0:00	90	5	31
0309SE	PORTLAN 7	16501228	PARKSSJI	7/1/1978 0:00	80	5	42
0309SE	PORTLAN 7	16501518	VANATTA	1/25/1985 0:00	100	6	45
0309SE	PORTLAN 7	16501750	DURETT,	7/9/1988 0:00	95	7	20
0309SE	PORTLAN 7	20041660	KNIGHT, M	5/19/2004 0:00	100	5	29
0309SE	PORTLAN 7	20073986	SCOTT, JA	10/4/2007 0:00	102		20
0309SE	PORTLAN 7	20074255	DELMOTT	9/6/2007 0:00	65	15	20
0309SE	PORTLAN 7	20083542	COCHRAN	8/28/2008 0:00	120	15	27
0309SE	PORTLAN 8	16500240	BRILEY &	1/3/1967 0:00	60	30	54
0309SE	PORTLAN 8	16500252	WHITAKE	10/3/1967 0:00	90	2	
0309SE	PORTLAN 8	16500253	BRILEY M	9/15/1967 0:00	63	6	20
0309SE	PORTLAN 8	16500267	BRILEY H	4/26/1968 0:00	71	2	37
0309SE	PORTLAN 8	16500382	BELCHER	6/10/1969 0:00	80	5	59

0309SE	PORTLAN 8	16500396	SUMMERS	7/2/1969 0:00	45	10	23
0309SE	PORTLAN 8	16500453	NABORS	7/8/1970 0:00	45	2	23
0309SE	PORTLAN 8	16500454	EDISON R	7/8/1970 0:00	53	3	24
0309SE	PORTLAN 8	16500495	KELLEY W	3/20/1970 0:00	60	4	26
0309SE	PORTLAN 8	16500496	EIDSON W	12/3/1970 0:00	63	24	26
0309SE	PORTLAN 8	16500497	BIGGS C	11/17/1970 0:00	56	5	20
0309SE	PORTLAN 8	16500590	BRILEY H	7/8/1971 0:00	100	20	42
0309SE	PORTLAN 8	16500618	SUMMERS	10/15/1971 0:00	25	5	20
0309SE	PORTLAN 8	16500620	RAY E	10/15/1971 0:00	75	10	40
0309SE	PORTLAN 8	16500717	COULBRE	9/2/1972 0:00	100	7	40
0309SE	PORTLAN 8	16500962	WORLEY	7/14/1975 0:00	60	5	23
0309SE	PORTLAN 8	16500969	GOOLSBY	6/4/1975 0:00	70	10	24
0309SE	PORTLAN 8	16501152	BRILEY C	7/13/1977 0:00	77		34
0309SE	PORTLAN 8	16501157	WHEELEF	10/5/1977 0:00			
0309SE	PORTLAN 8	16501192	ROBERTS	3/5/1978 0:00	100	4	37
0309SE	PORTLAN 8	16501193	VOOCHEE	4/28/1978 0:00			
0309SE	PORTLAN 8	16501196	DURRETT	5/9/1975 0:00			
0309SE	PORTLAN 8	16501227	PARKS J.H	7/1/1978 0:00	80	5	42
0309SE	PORTLAN 8	16501229	ROGERS,	7/10/1978 0:00			
0309SE	PORTLAN 8	16501265	HOOVER	11/13/1978 0:00	85	15	41
0309SE	PORTLAN 8	16501301	HENSLY C	6/8/1979 0:00	105	7	63
0309SE	PORTLAN 8	16501388	BELCHE, (	6/10/1983 0:00	60	10	60
0309SE	PORTLAN 8	16501441	CLAY, BRI	6/26/1984 0:00	80	10	21
0309SE	PORTLAN 8	16501493	MAULDEN	4/15/1985 0:00	65	10	20
0309SE	PORTLAN 8	16501546	ADAMS, D	1/24/1986 0:00	100	20	35
0309SE	PORTLAN 8	16501561	ODER, SU	3/31/1986 0:00	60	12	46
0309SE	PORTLAN 8	16501566	THOMSON	5/10/1986 0:00	88	10	20
0309SE	PORTLAN 8	16501578	ANDERSC	6/19/1986 0:00	60	10	
0309SE	PORTLAN 8	16501668	BROWN, \	6/22/1987 0:00	90	3	31
0309SE	PORTLAN 8	16508036	HALL TOWN	SPRING		100	
0309SE	PORTLAN 8	20010555	SMALLWC	2/24/2001 0:00	140	45	62
0309SE	PORTLAN 8	20023405	PARKS, JA	10/25/2002 0:00	70	12	58
0309SE	PORTLAN 8	20030281	TRUMBLE	12/19/2002 0:00	110	10	34
0309SE	PORTLAN 8	20031002	SALEE, TI	4/7/2003 0:00	240	0.5	41
0309SE	PORTLAN 8	20031003	CAMPLIN,	4/7/2003 0:00	165	0	22
0309SE	PORTLAN 8	20041491	PHILEBAU	4/16/2004 0:00	126	10	62
0309SE	PORTLAN 8	20082210	CAMPLIN,	6/6/2008 0:00	145	10	20
0309SE	PORTLAN 8	20101777	WASHBUF	9/1/2010 0:00	150	2.25	28
0309SE	PORTLAN 8	20111023	DRAYTON	5/9/2011 0:00	85	7	41
0309SE	PORTLAN 8	20131948	BELEHER	8/16/2013 0:00	39	30	20
0309SE	PORTLAN 8	91001884	LANE FAR	10/8/1990 0:00	100		54
0309SE	PORTLAN 8	91003801	DURRETT	11/7/1991 0:00	121	3	34
0309SE	PORTLAN 8	93004153	ALLEN, KE	9/10/1993 0:00	150	8	27
0309SE	PORTLAN 8	97002338	BRILEY, R	6/6/1997 0:00	110	8	56
0309SE	PORTLAN 8	98002840	KIBBEY, G	8/24/1997 0:00	100	8	62
0309SE	PORTLAN 9	16500055	SOCOL O	6/22/1964 0:00	90	2	40
0309SE	PORTLAN 9	16500078	BREWER	7/29/1964 0:00	73	2	40
0309SE	PORTLAN 9	16500083	BROWN L	8/13/1964 0:00	60	4	30
0309SE	PORTLAN 9	16500153	LUNDQUIS	4/27/1965 0:00	85		18
0309SE	PORTLAN 9	16500154	WILSON E	6/5/1965 0:00	30	5	7
0309SE	PORTLAN 9	16500161	RUCK J	6/9/1965 0:00	50	5	30
0309SE	PORTLAN 9	16500254	BRILEY H	8/30/1967 0:00	58	40	20

0309SE	PORTLAN	9	16500540	CATHCAR	5/13/1971 0:00	95	10	76
0309SE	PORTLAN	9	16500648	CATHCAR	2/17/1972 0:00	145	6	28
0309SE	PORTLAN	9	16500939	WHITLEY	2/18/1975 0:00	70	5	20
0309SE	PORTLAN	9	16500947	RANDOLP	3/28/1975 0:00	80	3	39
0309SE	PORTLAN	9	16500949	SMITH J.B	5/23/1975 0:00	35	2	6
0309SE	PORTLAN	9	16500953	WILSON F	4/29/1975 0:00	70	5	31
0309SE	PORTLAN	9	16500981	TUCKER (	8/8/1975 0:00	60	20	31
0309SE	PORTLAN	9	16501194	VOOHEES	4/28/1978 0:00	62	25	35
0309SE	PORTLAN	9	16501299	YOUNG S	5/30/1979 0:00	105	20	42
0309SE	PORTLAN	9	16501359	DAY JOHN R. JR.		55	5	40
0309SE	PORTLAN	9	16501387	RAGLAND	5/13/1983 0:00	46	100	40
0309SE	PORTLAN	9	16501395	DICKINSO	6/10/1983 0:00	85	14	49
0309SE	PORTLAN	9	16501426	ALFORD, /	11/7/1983 0:00	145	20	30
0309SE	PORTLAN	9	16501431	WESTERE	3/9/1984 0:00	65	27	20
0309SE	PORTLAN	9	16501432	DUNCAN,	4/13/1984 0:00	70	25	21
0309SE	PORTLAN	9	16501433	ROGERS,	4/6/1984 0:00	65	20	29
0309SE	PORTLAN	9	16501434	BLANKEN	4/19/1984 0:00	65	30	28
0309SE	PORTLAN	9	16501458	LOWDER,	9/24/1984 0:00	85	2	20
0309SE	PORTLAN	9	16501522	SWEENY,	5/7/1985 0:00	85	0	20
0309SE	PORTLAN	9	16501523	ROBERTS	5/8/1985 0:00	55	0	20
0309SE	PORTLAN	9	16501524	BLEVINS,	5/8/1985 0:00	21	0	
0309SE	PORTLAN	9	16501525	BLEVINS,	5/8/1985 0:00	45	10	20
0309SE	PORTLAN	9	16501634	JERNIGAN	4/7/1987 0:00	125	4	41
0309SE	PORTLAN	9	16508037	UNKNOWN653			2	
0309SE	PORTLAN	9	20014499	STERRY, '	10/11/2001 0:00	75	10	49
0309SE	PORTLAN	9	20020690	WARNER,	2/18/2002 0:00	100	10	29
0309SE	PORTLAN	9	20021179	PITT, CLIF	4/29/2002 0:00	105	6	41
0309SE	PORTLAN	9	20022552	STEPHEN	7/11/2002 0:00	100		
0309SE	PORTLAN	9	20022722	BRUST, C	6/20/2002 0:00	50	25	29
0309SE	PORTLAN	9	20030276	VIATONE,	11/27/2002 0:00	117	17	83
0309SE	PORTLAN	9	20042739	MORRIS, I	8/7/2004 0:00	120	7	53
0309SE	PORTLAN	9	20063185	MAULDER	6/13/2006 0:00	92	10	20
0309SE	PORTLAN	9	20070386	PITT, CLIF	1/3/2007 0:00	80	3.5	32
0309SE	PORTLAN	9	20080066	BERMAN,	11/14/2007 0:00	160	4	104
0309SE	PORTLAN	9	20111079	MCDUFFE	5/31/2011 0:00	100	50	44
0309SE	PORTLAN	9	90000291	GEORGE,	1/2/1990 0:00	70	4	46
0309SE	PORTLAN	9	90001741	RIGGS, GI	6/22/1990 0:00	90	15	20
0309SE	PORTLAN	9	93001610	MORISS, J	4/22/1993 0:00	75	8	21
0309SE	PORTLAN	9	99004137	SLUCHER	5/9/1999 0:00	68	63	43

finish_type	quality	latitude	accuracy	license_co	county_na	driller_tag_	addr_line1	inspection_	cmpltn_de
	Good	363541	S	19	ROBERTSON				78
	Bad	363614	S	98	ROBERTSON				60
	Good	363622	S	317	ROBERTSON				50
		363614	S	191	ROBERTSON				
		363614	S	191	ROBERTSON				
Open Hole	Good	363500		549	SUMNER		HGH 52		55
Open Hole		363500		191	SUMNER				80
Open Hole	Good	363500		549	SUMNER		RED RIVER		55
Open Hole	Good	363500		468	SUMNER		31 W HIGHWAY		105
		363500		468	SUMNER		31 W HIGHWAY		
	Good	363509	S	740	SUMNER				
Open Hole	Clear	363621	F	191	ROBERTS	D0042572	8951 BYR/	########	160
Open Hole				647	ROBERTS	D0013495	HUNTER RD		
	Bad	363655	S	277	SUMNER				90
	Good	363624	S	251	SUMNER				55
	Good	363508	S	55	SUMNER				80
	Good			740	SUMNER		HWY 109		
	Good	363633	S	310	SUMNER				69
	Good	363525	S	740	SUMNER				20
	Good	363633	S	277	SUMNER				112
	Good	363525	S	32	SUMNER				54
	Good	363606	S	98	SUMNER				60
	Unknown	363633	S	98	SUMNER				50
	Good	363553	S	98	SUMNER				65
	Good	363507	S	98	SUMNER				90
	Good	363510	S	98	SUMNER				60
	Good	363509	S	98	SUMNER				70
	Good	363525	S	277	SUMNER				53
	Good	363501	S	98	SUMNER				100
	Good	363509	S	471	SUMNER				50
	Good	363501	S	471	SUMNER				70
	Good	363508	S	740	SUMNER				50
	Good	363506	S	98	SUMNER				115
	Good	363529	S	98	SUMNER				120
	Good	363507	S	55	SUMNER				83
Open Hole	Good	363500		549	SUMNER		HWY 52		60
Open Hole	Good	363500		646	SUMNER		SHABA RD		56
	Unknown	363519	S	740	SUMNER				
	Good	363531	S	740	SUMNER				
Open Hole	Clear			191	SUMNER	D0087644	318 WOODS ROAD		83
	Good			549	SUMNER		WOOD RD		62
Open Hole	Good			650	SUMNER		RAPIDS ROAD		175
	Fair			566	SUMNER	D0004057			
Open Hole	Good			647	SUMNER	D0015754	BREEDER RD 154		135
Open Hole	Sulphur	363704	S	571	SUMNER	D0027682	HWY 31 W	########	27
	Good	363620	S	273	SUMNER				35
	Good	363615	S	273	SUMNER				33
	Good	363630	S	55	SUMNER				62
	Good	363614	S	98	SUMNER				47
	Good			471	SUMNER				40
	Good	363638	S	98	SUMNER				92

Open Hole	Good	363500		55	SUMNER		OFF 612S RD	80
Open Hole	Good	363500		468	SUMNER		52	100
Open Hole		363706	F	561	SUMNER		SWAMP R ########	190
Screen				607	SUMNER		HWY 109	
Screen				607	SUMNER		HWY 109	
Screen				607	SUMNER		HWY 109	
		363545	S	571	SUMNER		N RUSSEI ########	
		363546	S	571	SUMNER		N RUSSEI ########	
Open Hole	Sulphur	363539	S	571	SUMNER	D0027681	N RUSSEI ########	32
	Good	363332	S	740	ROBERTSON			
	Good	363447	S	740	ROBERTSON			
	Good	363407	S	98	SUMNER			100
		363508	S	191	SUMNER			
	Bad	363516	S	55	SUMNER			70
	Good	363452	S	191	SUMNER			90
Open Hole	Clear	363350		756	SUMNER	D0089635	5002 HIGHWAY 31 N	195
Open Hole				647	SUMNER	D0087528	1020 CLEARVIEW POINT	
	Good	363425	S	251	SUMNER			40
	Good	363320	S	310	SUMNER			34
	Good	363354	S	55	SUMNER			50
	Bad	363238	S	309	SUMNER			85
	Good	363317	S	98	SUMNER			60
	Good	363237	S	191	SUMNER			55
	Good	363234	S	191	SUMNER			30
		363423	S	15	SUMNER			
	Bad	363424	S	98	SUMNER			83
	Bad	363416	S	740	SUMNER			90
	Good	363303	S	95	SUMNER			50
	Good	363245	S	98	SUMNER			60
Slotted	Good	363410	F	566	SUMNER		BUCK PEI ########	77
Open Hole		363230		191	SUMNER		WADE ROAD	55
Open Hole		363000		191	SUMNER		DOBBIN PK	105
Open Hole		363230		646	SUMNER		HAPPY HOLLER	26
	Good	363332	S	740	SUMNER			
	Good	363340	S	740	SUMNER			
	Good	363338	S	740	SUMNER			
	Good	363318	S	740	SUMNER			
Open Hole	Clear	363405	S	222	SUMNER	D0047933	176 WEST ########	40
				756	SUMNER		176 W HARPER RD	97
Slotted	Clear			647	SUMNER	D0068529	305 NO. BROADWAY	34
Open Hole	Clear			756	SUMNER	D0074464	949 HWY 52	180
Open Hole	Clear			756	SUMNER	D0078289	159 W. HARPER RD	150
Open Hole	Clear			756	SUMNER	D0078291	159 W. HARPER RD	140
Open Hole	Clear			222	SUMNER	D0095504	154 RIGGS ROAD	80
Open Hole	Good			549	SUMNER		HOYT LANE	60
Open Hole	Good			646	SUMNER		319 JACKSON RD	40
Open Hole	Good			646	SUMNER		JACKSON RD	26
Open Hole				561	SUMNER		CRAFTON RD	
Open Hole	Iron			646	SUMNER		340 CRAFTON RD	42
Open Hole	Good			647	SUMNER	D0005555	AUSTIN BRANCH R	33
	Good	363336	F	549	SUMNER	D0011251	AUSTEN E ########	25
	Good	363335	F	549	SUMNER	D0011252	AUSTIN B ########	35

	Good	363333	F	549	SUMNER	D0011253	AUSTIN B	########	26
Slotted	Good			647	SUMNER	D0005648	BUNTIN MILL RD		21
Open Hole	Fair			647	SUMNER	D0015749	RIGGS RD 111		37
		363336	F	740	SUMNER		AUSTEN E	########	
	Good			191	SUMNER				98
	Good	363448	S	98	SUMNER				55
	Good	363328	S	55	SUMNER				55
	Bad	363433	S	191	SUMNER				45
Open Hole	Good	363230		18	SUMNER				145
Open Hole		363230		497	SUMNER		BIGGS RD		35
Open Hole	Good	363230		18	SUMNER				95
Open Hole		363230		191	SUMNER		SANGTOWN		
Open Hole		363230		191	SUMNER		AB WADE RD		75
Open Hole	Good	363000		468	SUMNER		DORRIS ROAD		50
Open Hole	Good	363230		468	SUMNER		BIGGS ROAD		40
Open Hole	Good	363230		646	SUMNER		HAPPY HOLLOW		56
		363230		468	SUMNER		109		
Open Hole	Good	363230		468	SUMNER		109		35
Open Hole	Good	363230		566	SUMNER		BOILING SPRINGS		60
Open Hole	Good	363230		566	SUMNER		BOILING SPRINGS		55
	Good	363338	S	740	SUMNER				
Open Hole				647	SUMNER	D0052377	214 KIRBY RD		200
Open Hole	Clear			647	SUMNER	D0052418	214 KIRBY RD		55
Open Hole	Clear	363341	F	756	SUMNER	D0072313	490 JACKS	########	250
				786	SUMNER	NOTAG42	1263 S RUSSELL ST		
Open Hole				647	SUMNER	D0087550	266 COLLINS ROAD		
Open Hole	Bad			646	SUMNER		161 TOM LINK RD		31
Open Hole	Good			549	SUMNER		WILSON		72
	Good	363100	S	304	SUMNER				68
	Good	363107	S	304	SUMNER				55
	Good	363207	S	277	SUMNER				35
		363147	S	98	SUMNER				
	Good	363042	S	277	SUMNER				46
	Good	363028	S	32	SUMNER				82
	Good			277	SUMNER				58
	Good	363041	S	98	SUMNER				100
		363208	S	98	SUMNER				
	Good	363030	S	55	SUMNER				83
	Bad	363043	S	191	SUMNER				75
	Bad	363000	S	98	SUMNER				70
	Good			497	SUMNER		EAST LN		70
Open Hole		363230		191	SUMNER				65
Open Hole	Good	363000		191	SUMNER		HINKLE CEMETARY		40
Open Hole	Clear	363049	F	222	SUMNER	D0063688	289 RAGL	########	60
Open Hole		363251		736	ROBERTS	D0045165	8067 GUTHRIE ROAI		50
Open Hole	Clear			756	SUMNER	D0082922	735 BOWLING BRAN		50
Open Hole	Clear	363215	M	756	SUMNER	D0086566	236 RAYM	########	70
	Good	363101	S	740	SUMNER				48
	Bad	363044	S	277	SUMNER				80
	Good	363052	S	277	SUMNER				51
	Good	363128	S	277	SUMNER				40
	Good	363200	S	98	SUMNER				61

	Bad	363009	S	98	SUMNER				28
	Bad	363025	S	98	SUMNER				30
	Good	363204	S	98	SUMNER				35
	Good	363118	S	277	SUMNER				49
	Bad	363142	S	277	SUMNER				
	Good	363127	S	277	SUMNER				43
	Good	363128	S	191	SUMNER				80
	Good	363009	S	191	SUMNER				20
	Good	363119	S	191	SUMNER				55
	Good	363032	S	191	SUMNER				90
	Good	863052	S	98	SUMNER				50
	Good	363040	S	98	SUMNER				65
	Good	363117	S	98	SUMNER				40
		363128	S	740	SUMNER		WHEELER ROAD		
	Good	363203	S	497	SUMNER				90
		363124	S	740	SUMNER		WHALLEN ROAD		
		363028	S	740	SUMNER		DEIBERT LINK		
	Good	363159	S	497	SUMNER				70
		363159	S	740	SUMNER		HARLAN/HOSLEN RD		
	Good	363121	S	15	SUMNER				75
	Good	363158	S	15	SUMNER				80
Slotted	Good	363000		497	SUMNER				45
Open Hole		363000		497	SUMNER		BRYLEY LANE		70
Open Hole		363000		497	SUMNER				45
Slotted	Good	363000		566	SUMNER		COTTON TOWN		85
Slotted	Good	363000		566	SUMNER		LAMBETH		
Open Hole		363000		497	SUMNER		LONGVIEW DR		70
Open Hole	Good	363000		561	SUMNER		NEW DEAL RD		30
Open Hole	Good	363000		549	SUMNER		CAR RENT RD		55
	Good	363030	S	740	SUMNER				
Open Hole		363006	S	647	SUMNER	D0052389	1150 HOLI	########	95
Slotted	Clear	363011	F	227	SUMNER	D0057178	1200 HOLI	########	56
Open Hole	Clear	363057	F	756	SUMNER	D0057773	471 PENN	########	100
Open Hole		363023	F	647	SUMNER	D0059228	340 PENN	########	205
Open Hole		363034	F	647	SUMNER	D0059229	375 PENN	########	
Open Hole	Clear	363141	F	756	SUMNER	D0065277	200-B WH	########	115
Open Hole	Clear	303038	M	756	SUMNER	D0086539	392 PENN	########	130
Open Hole	Clear			222	SUMNER	D0093488	180 WHEELER ROAI		40
Open Hole	Clear	363139		756	SUMNER	D0094180	BELCHER HOLLOW		70
	Cloudy			756	SUMNER	D0100936	145 BELDER HOLLO		22
Open Hole				561	SUMNER				
Open Hole				646	SUMNER		430 JAKE-LINK R		33
Open Hole	Unknown	363036	F	191	SUMNER		HALLTOW	########	90
				682	SUMNER	D0015314	76 HY		80
Open Hole	Unknown			191	SUMNER	D0027608	CLAUDE HARDIN		85
	Good	363110	S	251	SUMNER				55
	Good	363130	S	251	SUMNER				65
	Good	363212	S	251	SUMNER				25
	Good	363109	S	304	SUMNER				80
	Good	363022	S	304	SUMNER				10
	Good	363141	S	304	SUMNER				30
	Good	363057	S	277	SUMNER				58

	Good	363130	S	98	SUMNER				85
	Bad	363131	S	98	SUMNER				90
	Good	363104	S	98	SUMNER				60
	Good	363217	S	98	SUMNER				65
		363200	S	98	SUMNER				30
	Good	363042	S	98	SUMNER				60
	Good	363044	S	98	SUMNER				60
	Good			15	SUMNER		BIGGS RD		49
	Good	363056	S	15	SUMNER				80
	Good	363146	F	497	SUMNER			########	50
Open Hole	Good	363000		566	SUMNER		CENTERPOINT		40
Open Hole	Good	363000		549	SUMNER		109		65
Open Hole		363000		15	SUMNER		KARCARE RD		135
Open Hole	Good	363000		468	SUMNER		BRIGGS		40
Open Hole	Good	363039	S	468	SUMNER		BRIGGS	########	40
Open Hole	Good	363048	S	468	SUMNER		BRIGGS	########	39
Open Hole	Good	363040	S	468	SUMNER		BRIGGS	########	35
Open Hole		363000		497	SUMNER		BOILINGS		82
Open Hole		363000		120	SUMNER		P D BRANCH		
Open Hole		363000		120	SUMNER		P D BRANCH		
		363000		120	SUMNER		P D BRANCH		
Open Hole	Bad	363000		120	SUMNER		P D BRANCH		40
Open Hole		363000		191	SUMNER				50
	Good	363036	S	740	SUMNER				
Open Hole	Cloudy			222	SUMNER	D0055834	392 NORTH CENTEF		60
	Cloudy	363049	F	549	SUMNER	D0048212	130 BOILII	########	40
Open Hole				647	SUMNER	D0052519	BRANDY HOLLOW R		75
				549	SUMNER		1315 SOUTH BROADWAY		
Open Hole	Clear	363106	F	756	SUMNER	D0057744	503 WILS(	########	40
Open Hole	Clear	363023	F	756	SUMNER	D0057768	WILSON F	########	102
Slotted	Clear	363026	F	756	SUMNER	D0069030	378 PENN	########	45
Open Hole	Clear			756	SUMNER	D0074465	1110 BRANDY HOLL(		80
Open Hole	Clear			191	SUMNER	D0078986	904 A BRANDY HOLI		65
Open Hole	Clear	363050	M	756	SUMNER	D0082946	351 WILS(	########	130
Open Hole	Clear			222	SUMNER	D0095505	N CENTER POINT R(		60
Open Hole	Good			566	SUMNER		HOLLIS CHAPEL		
Open Hole	Good			468	SUMNER		A B WADE		40
Open Hole				566	SUMNER		BOG HOLLOW		60
Open Hole	Good	363015	F	641	SUMNER	D0028626	798 BRAN	########	50

cmpltn_sta	casing_typ	finish_from	finish_to_fi	inspection_	longitude	well_use	form_log
72	Steel				863624	Farm	No
	Steel				863649	Residentia	No
50	Steel				863714	Residentia	No
	Plastic				863649	Other	No
					863649	Other	No
25	Steel	25	75		863500	Residentia	No
		57	125		863500	Residentia	No
45	Steel	20	80		863500	Residentia	No
55	Steel	44	105		863500	Residentia	No
0					863500	Residentia	No
					863539		No
	Steel	41	200	029010	863653	Residentia	Yes
	Steel	31	165			Residentia	Yes
30	Plastic				863430	Residentia	No
7	Steel				863313	Residentia	No
45	Steel				863449	Residentia	No
	Steel					Residentia	No
45	Steel				863435	Residentia	No
60	Steel				863357	Residentia	No
25	Plastic				863436	Residentia	No
	Plastic				863358	Farm	No
	Steel				863413	Farm	No
	Steel				863314	Residentia	No
	Steel				863408	Residentia	No
	Steel				863409	Farm	No
	Steel				863237	Residentia	No
	Steel				863231	Residentia	No
38	Plastic				863355	Residentia	No
	Steel				863325	Residentia	No
60	Steel				863232		No
70	Steel				863328	Residentia	No
60	Steel				863427	Residentia	No
	Steel				863428	Residentia	No
	Steel				863401	Residentia	No
50	Steel				863448	Residentia	No
20	Steel	50	86		863230	Residentia	No
33		41	61		863230	Residentia	No
					863309	Residentia	No
					863246	Residentia	No
	Steel					Residentia	Yes
15						Residentia	No
80		83	175			Residentia	No
70	Steel	20	100			Residentia	No
		62	270			Residentia	No
8	Steel	20	201	018664	863401	Test	No
24					863225	Residentia	No
25	Steel				863219	Residentia	No
	Steel				863045	Residentia	No
	Steel				863216	Residentia	No
43	Steel					Residentia	No
	Steel				863214	Residentia	No

75	Steel	52	173		863000	Commerci	No
45	Steel	21	130		863000	Residentia	No
6		62	210	009017	863219	Residentia	No
	Plastic	5	15			Monitor	No
	Plastic	5	15			Monitor	No
	Plastic	5	15			Monitor	No
		20	301	026865	863100	Test	No
		27	281	026864	863101	Test	No
40	Steel	27	142	018675	863059	Test	No
					863700	Residentia	No
					863726	Residentia	No
	Steel				863516	Residentia	No
					863522	Other	No
60	Steel				863521	Residentia	No
	Steel				863525	Residentia	No
100	Galvanized				863639	Irrigation	Yes
0	Galvanized	20	200			Residentia	Yes
40	Steel				863350	Residentia	No
25	Steel				863006	Residentia	No
	Steel				863409	Residentia	No
65	Steel				863459	Residentia	No
	Steel				863316	Residentia	No
	Steel				863423	Residentia	No
	Steel				863422	Residentia	No
					863254	Residentia	No
	Steel				863256	Residentia	No
	Steel				863250	Residentia	No
	Steel				863440	Residentia	No
	Steel				863430	Residentia	No
10		77	87	010705	863244	Residentia	No
	Steel	41	125		863230	Farm	No
	Steel	20	45		862230	Residentia	No
16		24	45		863230	Residentia	No
					863259		No
					863234		No
					863238	Residentia	No
					863421	Residentia	No
30	Steel	20	70	029581	863412	Farm	Yes
						Irrigation	Yes
6	Galvanized	34	35			Commerci	Yes
40	Galvanized	47	200			Irrigation	Yes
50	Galvanized	41	165			Irrigation	Yes
100	Galvanized	26	300			Irrigation	Yes
12	Steel	43	100			Residentia	Yes
30	Steel	35	110			Residentia	No
18		41	80			Other	No
24		25	74			Farm	No
		29	290			Residentia	No
92		25	127			Residentia	No
30	Steel	27	105			Residentia	No
10	Steel	21	50	015936	863310	Residentia	No
15	Steel			015937	863308	Residentia	No

10	Steel	20	50	015932	863304	Residentia	No
15	Steel	33	63			Residentia	No
		35	105			Residentia	No
					863314		No
	Plastic					Farm	No
	Steel				863156	Residentia	No
40	Steel				863033	Residentia	No
	Steel				863100	Commerci	No
70	Steel	54	150		863000	Commerci	No
30	Steel	30	45		863000	Residentia	No
	Steel	44	98		863000	Residentia	No
	Steel	30	75		863000	Residentia	No
	Steel	41	100		863000	Residentia	No
30	Steel	37	70		863230	Residentia	No
25	Steel	23	60		863000	Residentia	No
34	Steel	45	61		863000	Residentia	No
0					863000	Residentia	No
30	Steel	22	50		863000	Residentia	No
50	Steel	33	70		863000	Residentia	No
32	Steel	30	77		863000	Residentia	No
					863228	Residentia	No
	Galvanized	62	305				Yes
20	Galvanized	41	100			Other	Yes
30	Steel	36	540	046762	863124	Farm	Yes
						Heat Pump	Yes
0	Galvanized	41	180			Residentia	Yes
18		28	66			Farm	No
70		54	113			Residentia	No
25	Steel				863528	Residentia	No
55	Steel				863529	Residentia	No
30	Plastic				863506	Farm	No
	Steel				863541	Other	No
54	Plastic				863511	Residentia	No
68	Plastic				863507	Farm	No
58	Plastic					Farm	No
50	Steel				863553	Residentia	No
	Steel				863512	Residentia	No
65	Steel				863515	Residentia	No
	Steel				863609	Residentia	No
	Steel				863445	Residentia	No
50	Steel					Residentia	No
	Steel	45	100		863000	Residentia	No
	Steel	20	95		863500	Residentia	No
50	Steel	29	100	045042	863510	Residentia	Yes
	Steel				863956	Farm	Yes
20	Galvanized	20	65			Residentia	Yes
40	Galvanized			052690	863721	Irrigation	Yes
18	Plastic	34	54		863351	Commerci	No
60					863311	Other	No
25	Plastic				863447	Residentia	No
40	Steel				863343	Commerci	No
40	Steel				863425	Residentia	No

	Steel				863328	Residentia	No
	Steel				863305	Farm	No
	Steel				863451	Residentia	No
41	Plastic				863358	Residentia	No
	Plastic				863457	Residentia	No
46	Plastic				863407	Residentia	No
	Steel				863344	Residentia	No
	Plastic				863328	Residentia	No
	Plastic				863403	Residentia	No
	Plastic				863432	Residentia	No
	Steel				863444	Residentia	No
	Steel				863327	Residentia	No
	Steel				863424	Residentia	No
					863352	Residentia	No
90	Steel				863462	Other	No
					863352	Residentia	No
					863454	Residentia	No
50	Steel				863408	Residentia	No
					863404	Farm	No
	Steel				863357	Residentia	No
	Steel				863316	Residentia	No
30	Plastic	40	60		863230	Residentia	No
	Steel	21	80		863230	Residentia	No
30	Steel	20	65		863230	Residentia	No
40	Steel	35	100		863230	Residentia	No
30	Plastic	45	60		863230	Residentia	No
40		20	88		863230	Residentia	No
20	Steel	20	60		863230	Residentia	No
40		31	90		863230	Residentia	No
					863254	Farm	No
50	Galvanizec	62	140	043094	863259	Residentia	Yes
40	Galvanizec	56	57	040983	863313	Residentia	Yes
50	Galvanizec	34	110	029711	863233	Residentia	Yes
50	Galvanizec	41	240	045043	863253	Residentia	Yes
	Galvanizec	22	165	029710	863249	Residentia	Yes
40	Galvanizec	62	126	045044	863330	Residentia	Yes
50	Galvanized			052693	863241	Residentia	Yes
30	Steel	28	150			Residentia	Yes
50	Galvanized				863351	Residentia	Yes
10	Galvanized					Residentia	Yes
		54	100			Residentia	No
27	Steel	34	121			Farm	No
	Steel	27	150	016361	863355	Residentia	No
50	Steel	56	110			Residentia	No
	Steel	62	100			Residentia	No
45	Steel				863022	Residentia	No
43	Steel				863025	Residentia	No
25	Steel				863141	Residentia	No
36	Steel				863006	Residentia	No
10	Steel				863207	Residentia	No
30	Steel				863137	Residentia	No
30	Plastic				863101	Residentia	No

	Steel				863009	Residentia	No
	Steel				863009	Residentia	No
	Steel				863104	Residentia	No
	Steel				863223	Residentia	No
	Steel				863121	Residentia	No
	Steel				863030	Residentia	No
	Steel				863109	Residentia	No
20	Steel					Residentia	No
	Steel				863040	Residentia	No
30	Plastic			053110	863007	Residentia	No
40	Steel	40	46		863000	Residentia	No
55	Steel	49	85		863000	Residentia	No
	Steel	30	145		863000	Residentia	No
40	Steel	20	65		863000	Residentia	No
40	Steel	21	70		863102	Residentia	No
40	Steel	29	65		863105	Residentia	No
24	Steel	28	65		863028	Residentia	No
	Plastic	20	85		863000	Residentia	No
		20	85		863000	Residentia	No
		20	55		863000	Residentia	No
					863000	Residentia	No
		20	45		863000	Residentia	No
	Steel	41	125		863000	Residentia	No
					863140	Residentia	No
50	Steel	49	75			Irrigation	Yes
40	Steel			029563	863041	Residentia	Yes
	Galvanized	41	105			Residentia	Yes
40							No
15	Galvanized	29	50	040980	863228	Residentia	Yes
53	Galvanized	83	117	029712	863214	Farm	Yes
	Galvanized	45	50	047063	863231	Residentia	Yes
20	Galvanized	20	92			Residentia	Yes
	Steel	32	80			Residentia	Yes
50	Galvanized	104	188	052692	863225	Residentia	Yes
20	Steel	44	100			Irrigation	Yes
4	Steel	46	70			Residentia	No
4	Steel	20	90			Residentia	No
40	Steel	21	75			Residentia	No
38	Steel	43	68	024220	863125	Residentia	No

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

Index Of Sheets

(SEE SHEET NO. 1A)

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING

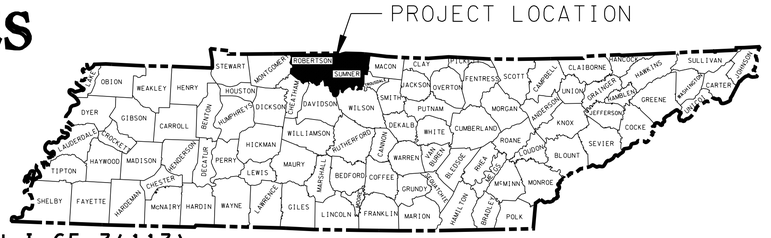
TENN.	YEAR	SHEET NO.
	2014	1
FED. AID PROJ. NO.	STP/HPP/NH-I-65-3(113)	
STATE PROJ. NO.	ROBERTSON I-65/SR-109 : 74003-2164-44 SUMNER I-65/SR-109: 83001-2143-44	
	ROBERTSON SR-41 (US-31W): 74096-2201-14 SUMNER SR-41 (US-31W): 83008-2229-14	

ROBERTSON-SUMNER COUNTIES

INTERSTATE 65 INTERCHANGE @ STATE ROUTE 109
INCLUDING I-65 WIDENING AND
S.R. 109 EXTENSION

CONSTRUCTION
GRADE, DRAIN, PAVE, BRIDGE, & SIGN

PROJECT LOCATION



STATE HIGHWAY NO. 109 F.A.H.S. NO. I-65

STP/HPP/NH-I-65-3(113)
END PROJ. NO. 74003-3164-44 ROBERTSON CO. CONST.
I-65 STA. 1905+00.00

END PROJ. NO. 74003-2164-44 R.O.W.
BEGIN PROJ. NO. 74003-2165-44 R.O.W.
I-65 STA. 1881+83.78

END PROJ. NO. 74003-2164-44
R.O.W. ROBERTSON CO.
S.R. 109 STA. 421+00.00

END PROJ. NO. 74003-3164-44
CONST. ROBERTSON CO.
S.R. 109 STA. 420+82.37

END PROJ. NO. 83008-3229-14 CONST.
STA. 1154+76.47 S.R. 41 RT. (U.S. 31W)

BEGIN PROJ. NO. 83008-3229-14 CONST.
STA. 1134+15.00 S.R. 41 RT. (U.S. 31W)

END PROJ. NO. 83008-3229-14 CONST.
STA. 1130+15.00 S.R. 41 LT. (U.S. 31W)

STP/HPP/NH-I-65-3(113)
BEGIN PROJ. NO. 74003-2164-44 R.O.W.
I-65 STA. 1831+03.82

BEGIN PROJ. NO. 83008-2229-14 R.O.W. SUMNER CO.
PROJ. NO. 74096-2201-14 R.O.W. ROBERTSON CO.
STA. 1124+59.06 S.R. 41 (U.S. 31W)

BEGIN PROJ. NO. 83008-3229-14 CONST.
STA. 1122+50.00 S.R. 41 LT. (U.S. 31W)

STP/HPP/NH-I-65-3(113)
BEGIN PROJ. NO. 74003-3164-44 ROBERTSON CO. CONST.
I-65 STA. 1813+29.95

STP/HPP/NH-I-65-3(113)
END PROJ. NO. 74003-2165-44 R.O.W.
I-65 STA. 1893+98.37

ADJACENT PROJECT
KY DEPT OF HWYS
NO. FD52 107 031W 000-006
STPR 100-1 5
3-8.1

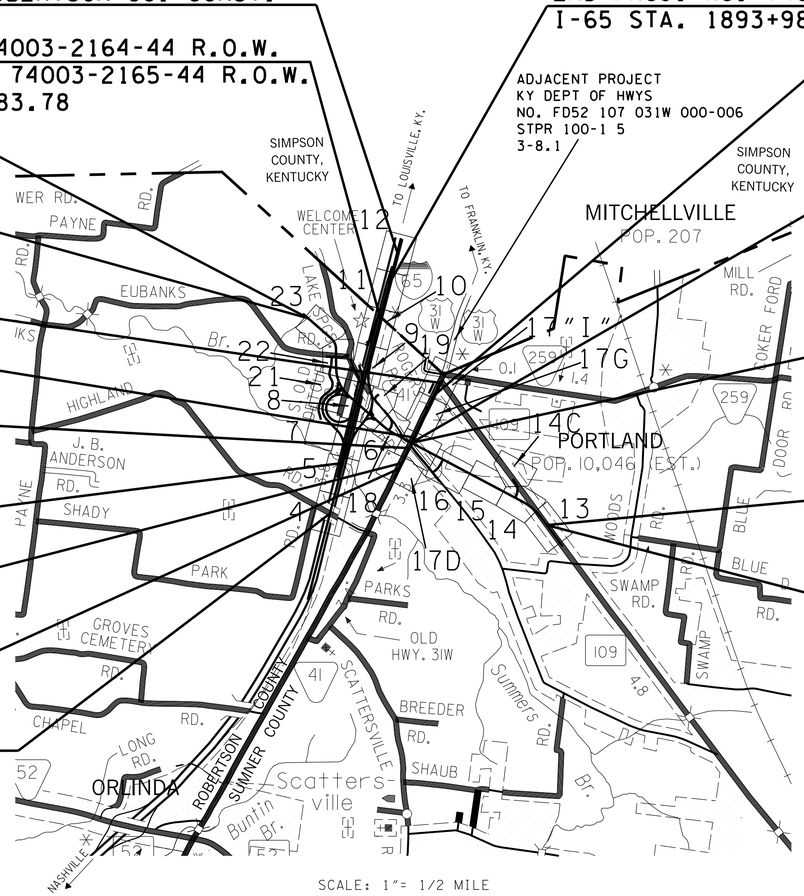
END PROJ. NO. 83008-2229-14 R.O.W. SUMNER CO.
PROJ. NO. 74096-2201-14 R.O.W. ROBERTSON CO.
STA. 1150+15.29 S.R. 41 (U.S. 31W)

END PROJ. NO. 83001-3143-44
CONST. SUMNER CO.
BEGIN PROJ. NO. 74003-3164-44
CONST. ROBERTSON CO.
STA. 362+36.28 S.R. 109

END PROJ. NO. 83001-2143-44
R.O.W. SUMNER CO.
BEGIN PROJ. NO. 74003-2164-44
R.O.W. ROBERTSON CO.
STA. 362+36.28 S.R. 109

BEGIN PROJ. NO. 83001-2143-44
R.O.W. SUMNER CO.
S.R. 109 STA. 308+02.00

BEGIN PROJ. NO. 83001-3143-44
CONST. SUMNER CO.
S.R. 109 STA. 308+00.00



SCALE: 1"= 1/2 MILE

0 0.5 1.0 1.5

ROADWAY LENGTH - I-65	1.723	MILES
ROADWAY LENGTH - S.R. 109	2.027	MILES
BRIDGE LENGTH	.	MILES
BOX BRIDGE LENGTH	.	MILES
PROJECT LENGTH	.	MILES
TOTAL LANE MILES RESURFACED	.	MILES

SPECIAL NOTES

PROPOSALS MAY BE REJECTED BY THE COMMISSIONER IF ANY OF THE UNIT PRICES CONTAINED THEREIN ARE OBVIOUSLY UNBALANCED, EITHER EXCESSIVE OR BELOW THE REASONABLE COST ANALYSIS VALUE.

THIS PROJECT TO BE CONSTRUCTED UNDER THE STANDARD SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION DATED FEBURARY 4, 2014 AND ADDITIONAL SPECIFICATIONS AND SPECIAL PROVISIONS CONTAINED IN THE PLANS AND IN THE PROPOSAL CONTRACT.

TDOT DESIGN MANAGER 1 FREDRICK MILLER, P.E.
DESIGNED BY PALMER ENGINEERING COMPANY
DESIGNER BRIAN LEE, P.E.
P.E. NO. ROBERTSON : 74003-1160-44
SUMNER : 83001-1140-44
PIN 107338.00

CONSTRUCTABILITY
FIELD
REVIEW

SEALED BY

NO EXCLUSIONS
NO EQUATIONS

SURVEY DATE: 09/22/2011

I-65 TRAFFIC DATA	
ADT (2014)	56,560
ADT (2034)	89,300
DHV (2034)	10,153
D	55 - 45
T (ADT)	29 %
T (DHV)	19 %
V	70 MPH

SR-109 TRAFFIC DATA	
ADT (2014)	10,300
ADT (2034)	19,260
DHV (2034)	2,478
D	50 - 50
T (ADT)	16 %
T (DHV)	11 %
V	70 MPH

APPROVED: Paul D. Degges
PAUL D. DEGGES, CHIEF ENGINEER

DATE:

APPROVED:
JOHN SCHROER, COMMISSIONER

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED:

DIVISION ADMINISTRATOR DATE

5/2/2014 5:01:41 PM
T:\TDOT\Robertson_I-65_SR-109\RB065-04-001.sht

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	STP/HPP/NH-I-65-3(113)	21
CONST.	2014	STP/HPP/NH-I-65-3(113)	21

N 84° 21' 43" W
754.50'
S 44° 09' 18" E
S 58° 19' 34" W
WOODS
PC 29+23.20
PT 26+82.48
50' TEXAS GAS TRANSMISSION EASEMENT
N 13° 9' 4" E
1408.53'
WOODS
PROP. R.O.W.
S 12° 54' 20" W
397.01'
S 12° 59' 41" W
SEE SOIL SHEET 138C FOR TYPICAL SINKHOLE TREATMENT
25+75.00
60.00'
PC 24+87.27
SINKHOLE 2 (FILLED WITH DEBRIS)
PROP.C.A. FENCE
458+82.00
78.00'
457+37.00
65.00'
460
D-4.5°
D-41.2'
D-31.9'
D-31.8'
D-31.7'
10.0'
19.0'
S 50° 54' 51" W
406.48'
S 50° 05' 07" W
FRONTAGE ROAD
455
315
320
350
PC 455+20.69
S 58° 19' 34" W
POT 350+00.00
POT 402+86.96
PT 453+64.12
451+70.00
93.00'
PROP.C.A. FENCE
WOVENWIRE
N 48° 46' 14" W
N 0° 25' 39" W
450
BB
NO. 74-0142
S 21° 42' 15" E
N 54° 22' 38" E
395
S 27° 54' 28" E
PERM. DRAIN. ESMT.
PC 18+05.91
PT 17+26.25
WWC-1-2.00'
17+30.00
160.00'
17+65.00
160.00'
17+00.00
78.00'
N 38° 19' 21" E
91.17'
S 15° 04' 32" W
330.24'
16+10.00
70.00'
S 10° 19' 06" E
111.95'
S 62° 05' 32" W
45.00'
17+65.00
115.00'
S 27° 54' 28" E
40.00'
18+05.00
115.00'
N 62° 05' 32" E
40.43'
TEMP.CONST.ESMT.
19+35.00
50.00'
S 13° 31' 52" W
17+65.00
75.29'
16' x 16' RCBC
S 62° 05' 32" W
39.71'
S 28° 55' 38" E
40.01'
18+05.00
74.57'
105.35'
20+50.00
40.00'
97.74'
PROP. R.O.W.
S 29° 19' 38" W
112.56'
POND PND-1 (DRAINED)
397+08.60
175.00'
PASTURE
PROP. R.O.W. & C.A. FENCE
394+20.66
148.63'
N 3° 41' 34" E
125.06'
WOVENWIRE
CULTIVATED FIELD
PASTURE
396+00.00
150.00'
S.R. 109

A N 82° 20' 58" W - 68.39'
B 393+03.90 - 81.52'
C N 3° 41' 34" E - 87.95'
D 395+11.42 - 189.24'
E N 4° 45' 11" E - 31.01'
F 395+44.81 - 202.64'
G N 4° 45' 11" E - 101.42'
H N 82° 50' 26" W - 432.99'
I N 87° 13' 25" W - 440.79'
J N 21° 11' 03" W - 157.00'
K N 21° 11' 03" W - 130.09'

STA. 450+00.00 RAMP H C.L.=
49.00' LT STA. 395+08.30 S.R. 109
N 837556.8526
E 1799394.8706
(SEE SHEETS 48-50 FOR PROFILES)

STA. 402+86.96 RAMP G C.L.=
12.00' LT STA. 453+64.12 RAMP H
N 837228.3613
E 1799296.0744

STA. 350+00.00 RAMP F C.L.=
16.00' LT STA. 319+15.15 RAMP E
N 837124.3619
E 1799306.9214

STA. 400+00.00 RAMP G C.L.=
STA. 392+88.00 S.R. 109
N 837379.0374
E 1799540.2885
(SEE SHEET 47 FOR PROFILE)

STA. 353+35.93 RAMP F C.L.=
STA. 392+16.86 S.R. 109
N 837320.0261
E 1799579.9924
(SEE SHEET 47 FOR PROFILE)

SEE SHEET NO. 2AM OR 2AN FOR RAMP CURVE DATA

21+80.00
37.00'
PT 22+16.40
32
JAMES C. ANDERSON, ETUX MARILYN K. ANDERSON
20
36
JOSEPH E. HOPKINS
35
JOSEPH E. HOPKINS
CHERYLL EVERETT JAMES
34

MATCH LINE - RAMP H
STA. 461+34.86
SEE SHEET NO. 7

MATCH LINE - RAMP E
STA. 312+82.16

MATCH LINE - RAMP E
STA. 321+52.32

MATCH LINE - S.R. 109
STA. 392+00.00
SEE SHEET NO. 8

MATCH LINE - S.R. 109
STA. 397+00.00
SEE SHEET NO. 22

CONSTRUCTABILITY FIELD REVIEW

SEALED BY

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

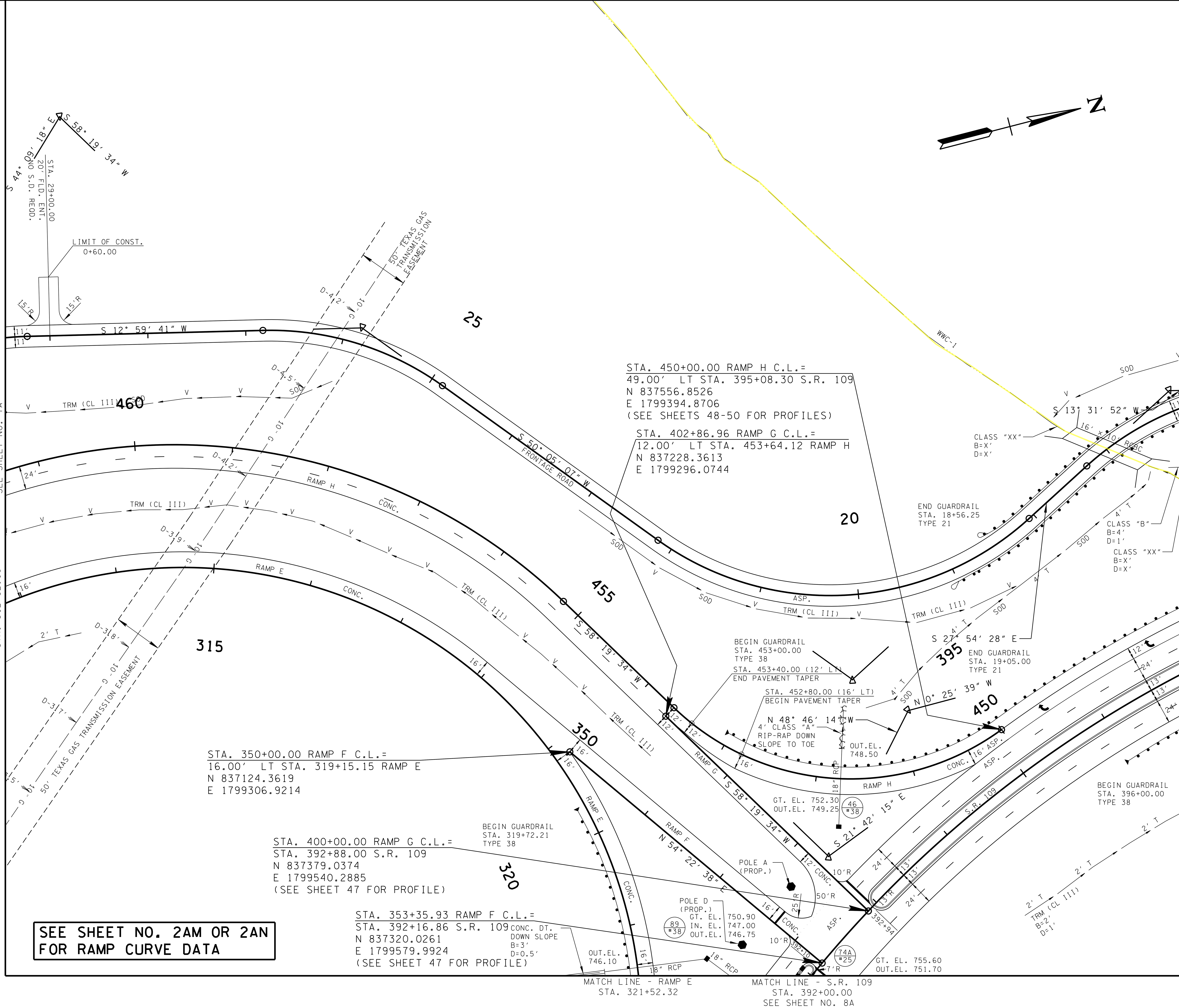
S.R. 109
STA.392+00 TO STA.397+00
RAMPS E, F, G, & H
SCALE: 1"=50'

5/2/2014 5:43:35 PM
T:\TDOT\Robertson_I-65_SR-109\RB065-04-02I.sht

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	STP/HPP/NH-I-65-3(113)	21A
CONST.	2014	STP/HPP/NH-I-65-3(113)	21A



N
S 44° 09' 18" E
S 58° 19' 34" W
STA. 29+00.00
20' FLD. ENT.
NO S.D. REQD.
LIMIT OF CONST.
0+60.00
50' TEXAS GAS TRANSMISSION EASEMENT
50' TEXAS GAS TRANSMISSION EASEMENT
25
20
460
455
315
350
320
395
450
S 12° 59' 41" W
S 50° 05' 07" W
FRONTAGE ROAD
S 58° 19' 34" W
S 13° 31' 52" W
S 27° 54' 28" E
N 0° 25' 39" W
N 48° 46' 14" W
S 21° 42' 15" E
N 54° 22' 38" E
MATCH LINE - RAMP H
STA. 461+34.86
SEE SHEET NO. 7A
MATCH LINE - RAMP E
STA. 312+82.16
STA. 450+00.00 RAMP H C.L.=
49.00' LT STA. 395+08.30 S.R. 109
N 837556.8526
E 1799394.8706
(SEE SHEETS 48-50 FOR PROFILES)
STA. 402+86.96 RAMP G C.L.=
12.00' LT STA. 453+64.12 RAMP H
N 837228.3613
E 1799296.0744
CLASS "XX"
B=X'
D=X'
END GUARDRAIL
STA. 18+56.25
TYPE 21
CLASS "B"
B=4'
D=1'
CLASS "XX"
B=X'
D=X'
BEGIN GUARDRAIL
STA. 453+00.00
TYPE 38
STA. 453+40.00 (12' LT)
END PAVEMENT TAPER
END GUARDRAIL
STA. 19+05.00
TYPE 21
STA. 452+80.00 (16' LT)
BEGIN PAVEMENT TAPER
4' CLASS "A"
RIP-RAP DOWN
SLOPE TO TOE
OUT.EL.
748.50
STA. 350+00.00 RAMP F C.L.=
16.00' LT STA. 319+15.15 RAMP E
N 837124.3619
E 1799306.9214
GT. EL. 752.30
OUT.EL. 749.25
BEGIN GUARDRAIL
STA. 396+00.00
TYPE 38
BEGIN GUARDRAIL
STA. 319+72.21
TYPE 38
STA. 400+00.00 RAMP G C.L.=
STA. 392+88.00 S.R. 109
N 837379.0374
E 1799540.2885
(SEE SHEET 47 FOR PROFILE)
POLE A
(PROP.)
POLE D
(PROP.)
GT. EL. 750.90
IN. EL. 747.00
OUT.EL. 746.75
STA. 353+35.93 RAMP F C.L.=
STA. 392+16.86 S.R. 109
N 837320.0261
E 1799579.9924
(SEE SHEET 47 FOR PROFILE)
CONC. DT.
DOWN SLOPE
B=3'
D=0.5'
OUT.EL.
746.10
GT. EL. 755.60
OUT.EL. 751.70
SEE SHEET NO. 2AM OR 2AN
FOR RAMP CURVE DATA
MATCH LINE - RAMP E
STA. 321+52.32
MATCH LINE - S.R. 109
STA. 392+00.00
SEE SHEET NO. 8A
MATCH LINE - S.R. 109
STA. 397+00.00
SEE SHEET NO. 22A
RAMP H
RAMP E
RAMP G
RAMP F
S.R. 109
TRM (CL III)
SOD
CONC.
ASP.
18" RCP
WWC-1

CONSTRUCTABILITY FIELD REVIEW

SEALED BY

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

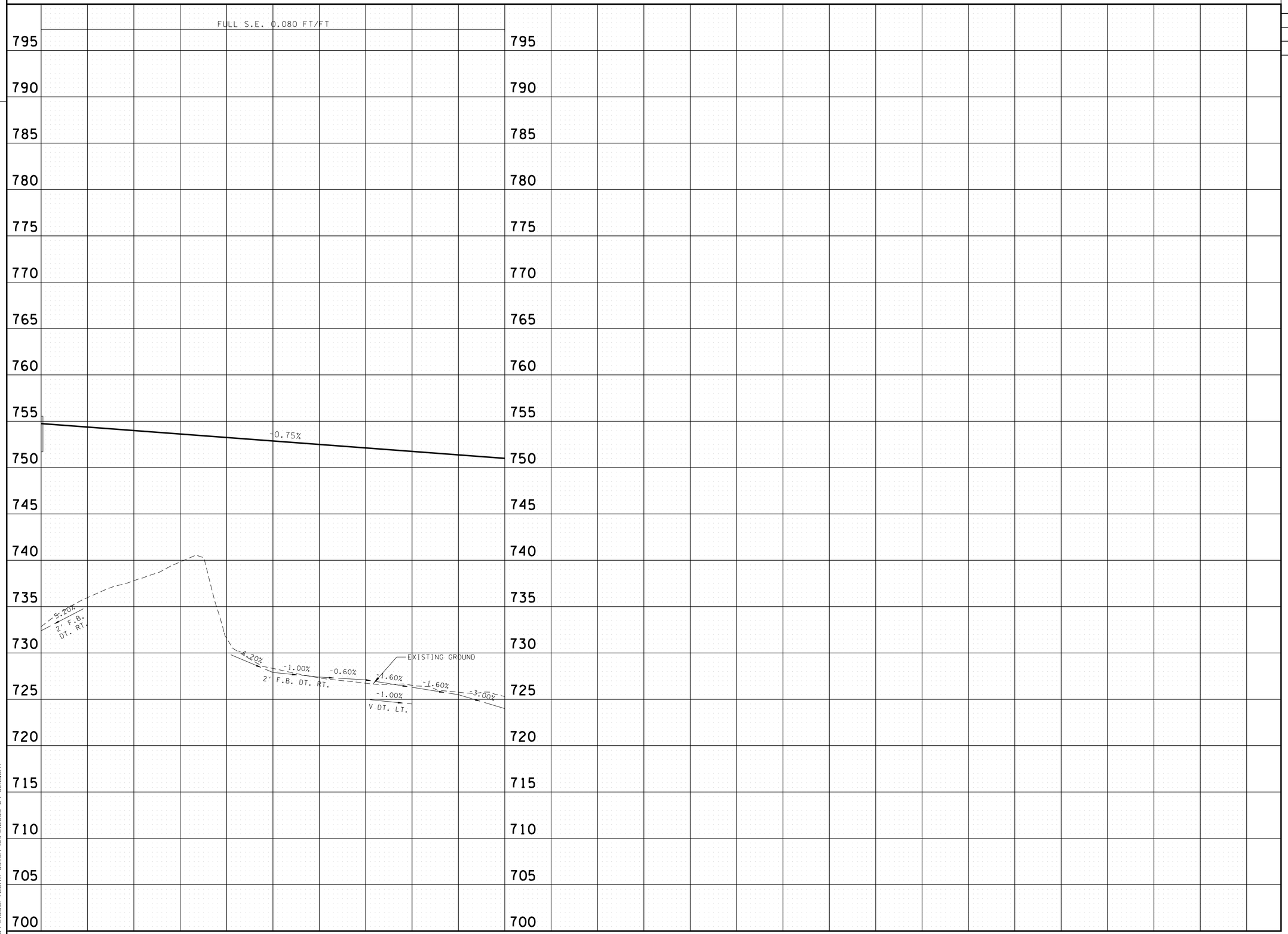
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT
S.R. 109
STA.392+00 TO STA.397+00
RAMPS E, F, G, & H
SCALE: 1"=50'

5/2/2014 5:43:37 PM
T:\TDOT\Robertson_I-65_SR-109\RB065-04-021A.sht

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	STP/HPP/NH-I-65-3(113)	21B
CONST.	2014	STP/HPP/NH-I-65-3(113)	21B



CONSTRUCTABILITY
FIELD
REVIEW

SEALED BY

SR-109

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE

STA. 392+00 TO STA. 397+00

SCALE: 1"= 50' HORIZ.
1"= 5' VERT.

5/2/2014 5:43:38 PM
T:\TDOT\Robertson_I-65_SR-109\RB065-04-02IB.sht

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

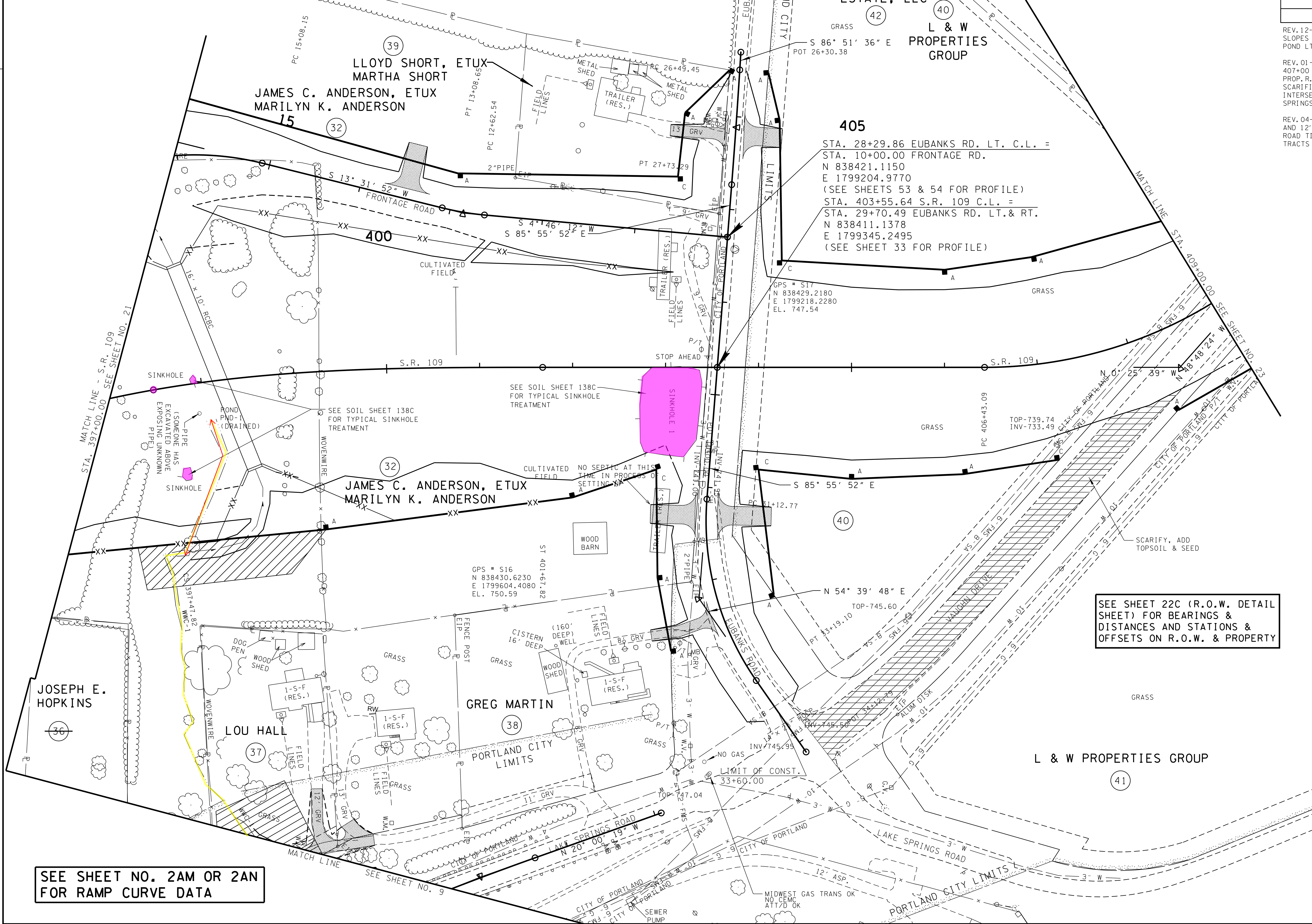
CONTROL POINTS					
POINT	NORTH	EAST	ELEV.	STATION	OFFSET
S17	838429.2180	1799218.2280	747.54	28+42.50 EUBANKS LT.	9.02' (LT)
S16	838430.6230	1799604.4080	750.59	32+36.63 EUBANKS RT.	13.78' (LT)

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	STP/HPP/NH-I-65-3(113)	22
CONST.	2014	STP/HPP/NH-I-65-3(113)	22

REV. 12-09-13: UPDATED PROP. R.O.W. & TOE OF SLOPES FOR TRACT 40. REMOVED DETENTION POND LT. STA. 407+50 TO STA. 409+00.

REV. 01-27-14: REMOVED CUL-DE-SAC RT. STA. 407+00 SR-109 ON VAUGHN DRIVE, AND UPDATED PROP. R.O.W. FOR TRACT 40 RT. EXTENDED SCARIFICATION OF VAUGHN DRIVE TO THE INTERSECTION OF VAUGHN DRIVE AND LAKE SPRINGS INTERSECTION.

REV. 04-02-14: ADDED PRIVATE DRIVE AND 12' X 6' RCBC SOUTH OF LAKE SPRINGS ROAD TIE TO S. DETOUR ROAD SERVING TRACTS 32, 36, & 37.



WOODS
N
LLOYD SHORT, ETUX
MARTHA SHORT
JAMES C. ANDERSON, ETUX
MARILYN K. ANDERSON
III REAL ESTATE, LLC
L & W PROPERTIES GROUP
405
STA. 28+29.86 EUBANKS RD. LT. C.L. =
STA. 10+00.00 FRONTAGE RD.
N 838421.1150
E 1799204.9770
(SEE SHEETS 53 & 54 FOR PROFILE)
STA. 403+55.64 S.R. 109 C.L. =
STA. 29+70.49 EUBANKS RD. LT.& RT.
N 838411.1378
E 1799345.2495
(SEE SHEET 33 FOR PROFILE)
S 86° 51' 36" E
POT 26+30.38
FRONTAGE ROAD
400
S.R. 109
SINKHOLE 1
SEE SOIL SHEET 138C FOR TYPICAL SINKHOLE TREATMENT
MATCH LINE - S.R. 109 SEE SHEET NO. 21
STA. 397+00.00
MATCH LINE STA. 409+00.00 SEE SHEET NO. 23
VAUGHN DRIVE
EUBANKS ROAD
LAKE SPRINGS ROAD
PORTLAND CITY LIMITS
SCARIFY, ADD TOPSOIL & SEED
GPS = S17
N 838429.2180
E 1799218.2280
EL. 747.54
GPS = S16
N 838430.6230
E 1799604.4080
EL. 750.59
JOSEPH E. HOPKINS
LOU HALL
GREG MARTIN
LIMIT OF CONST. 33+60.00
MATCH LINE SEE SHEET NO. 9
CONSTRUCTABILITY FIELD REVIEW
SEE SHEET 22C (R.O.W. DETAIL SHEET) FOR BEARINGS & DISTANCES AND STATIONS & OFFSETS ON R.O.W. & PROPERTY
SEE SHEET NO. 2AM OR 2AN FOR RAMP CURVE DATA

SEALED BY

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

S.R. 109
STA. 397+00 TO STA. 409+00

SCALE: 1"=50'

5/2/2014 5:43:40 PM
T:\TDOT\Robertson_I-65_SR-109\RB065-04-022.sht

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	STP/HPP/NH-I-65-3(113)	22A
CONST.	2014	STP/HPP/NH-I-65-3(113)	22A

REV. 12-09-13: REMOVED DETENTION POND LT. STA. 407+50 TO STA. 409+00.

REV. 01-27-14: REMOVED CUL-DE-SAC RT. STA. 407+00 SR-109 ON VAUGHN DRIVE.

REV. 04-02-14: ADDED PRIVATE DRIVE AND 12' X 6' RCBC SOUTH OF LAKE SPRINGS ROAD TIE TO S. DETOUR ROAD SERVING TRACTS 32, 36, & 37.

N

PORTLAND CITY

EUBANKS ROAD

S 86° 51' 36" E

7.3'

100' PVMT. & SH. TAPER

LIMIT OF CONST. 0+50.00

STA. 27+19.50
20' FLD. ENT.
30 LF OF 23"X14"
HOCP S.D. REQD.

405

STA. 28+29.86 EUBANKS RD. LT. C.L. =
STA. 10+00.00 FRONTAGE RD.
N 838421.1150
E 1799204.9770
(SEE SHEETS 53 & 54 FOR PROFILE)

STA. 403+55.64 S.R. 109 C.L. =
STA. 29+70.49 EUBANKS RD. LT.& RT.
N 838411.1378
E 1799345.2495
(SEE SHEET 33 FOR PROFILE)

MATCH LINE STA. 409+00.00 SEE SHEET NO. 23A

LIMIT OF CONST. 0+70.00

STA. 27+19.50
12' PVT. DR.
22 LF OF 23"X14"
HOCP S.D. REQD.

LIMIT OF CONST. 0+60.00

STA. 13+50.00
20' FLD. ENT.
34 LF OF 18" S.D. REQD.

BEGIN GUARDRAIL
STA. 15+75.00
TYPE 21

15

S 13° 31' 52" W
FRONTAGE ROAD

BEGIN GUARDRAIL
STA. 15+36.25
TYPE 21

CLASS "B"
B=4'
D=1'

CLASS "XX"
B=X'
D=X'

400

TRM (CL III)

S 4° 46' 12" W

S 85° 55' 52" E

CLASS "B"
B=2'
D=1'

END GUARDRAIL
STA. 400+50.00
TYPE 38

78 #25 GT. EL. 748.90
IN. EL. 745.12
OUT.EL. 745.00

79 #25 GT. EL. 748.65
IN. EL. 744.72
OUT.EL. 744.60

OUT.EL. 739.65

81 #25 GT. EL. 748.10
IN. EL. 743.12
OUT.EL. 740.10

STA. 399+38.30
BEGIN PAVEMENT TAPER

STA. 401+88.30
END PAVEMENT TAPER

16' x 10' RCBC

18" RCP

S.R. 109

20:1

STA. 405+30.00 (1' LT)
BEGIN BAY TAPER

STA. 406+90.00 (13' LT)
END BAY TAPER

240' PAVEMENT TAPER

N 0° 25' 39" W

N 48° 48' 24" W

STA. 406+90.00 (37' LT & RT)
BEGIN PAVEMENT AND
MEDIAN TAPER

SEE TDOT STD. DWG. T-M-3 FOR DETAILS ON PAINT STRIPING

MATCH LINE - S.R. 109
STA. 397+00.00 SEE SHEET NO. 21A

75 #25 GT. EL. 751.45
OUT.EL. 747.65

76 #25 GT. EL. 750.40
IN. EL. 746.62
OUT.EL. 746.50

77 #25 GT. EL. 749.40
IN .EL. 745.62
OUT.EL. 745.50

80 #25 GT. EL. 748.40
IN. EL. 744.32
OUT.EL. 744.20

CLASS "B"
B=4'
D=2.5'

TRM (CL III)
B=2'
D=1'

XX
B=X'
D=X'

END GUARDRAIL
STA. 400+00.00
TYPE 38

STA. 399+40.64 (13' RT)
BEGIN BAY TAPER

STA. 401+80.64 (1' RT)
END BAY TAPER

S 85° 55' 52" E

STA. 31+30.00
20' FLD. ENT.
32 LF OF 18"
S.D. REQD.
LIMIT OF CONST.
0+60.00

STA. 31+30.00
20' FLD. ENT.
32 LF OF 18" S.D. REQD.
LIMIT OF CONST.
0+70.00

N 54° 39' 48" E

P.I. = 0+51
Δ = 12° RT.
R = 25'

STA. 32+40.00
12' PVT. DR.
24 LF OF 18"
S.D. REQD.
LIMIT OF CONST.
0+80.00

100' PVMT. & SH. TAPER

EUBANKS ROAD

14.9'

WWC-1

LIMIT OF CONST.
0+65.00

12' PVT. DR.
23.0 LF OF 12' X 6'
RCBC S.D. REQD.

12' PVT. DR.
STA. 2+87.00
30 LF OF 18"S.D REQD.

P.I. = 2+83
Δ = 19° RT.
R = 100'

END GUARDRAIL
LT. STA. 2+82
TYPE IN-LINE

P.I. = 0+27
Δ = 14° RT.
R = 25'

36+08.78
78.06' LT.
N 838045.9427
E 1799858.0009

P.I. = 4+01
Δ = 12° LT.
R = 400'

P.I. = 5+19
Δ = 7° RT.
R = 100'

P.I. = 5+81
Δ = 82° RT.
R = 35'

PORTLAND CITY LIMITS

LIMIT OF CONST.
33+60.00

LIMIT OF CONST.
3+42.00

END GUARDRAIL
RT. STA. 2+96
TYPE 21

MATCH LINE SEE SHEET NO. 9A

LAKE SPRINGS ROAD

N 20° 00' 19" W

STA. 38+43.61 LAKE SPRINGS ROAD =
STA. 6+23.82 PRIVATE DRIVE

LAKE SPRINGS ROAD

PORTLAND CITY LIMITS

SEE SHEET NO. 2AM OR 2AN FOR RAMP CURVE DATA

CONSTRUCTABILITY FIELD REVIEW

SEALED BY

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

S.R. 109
STA. 397+00 TO STA. 409+00

SCALE: 1"=50'

5/2/2014 5:43:42 PM
T:\TDOT\Robertson_I-65_SR-109\RB065-04-022A.sht

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	STP/HPP/NH-I-65-3(113)	22B
CONST.	2014	STP/HPP/NH-I-65-3(113)	22B

S.E. RUNOFF | NORMAL CROWN | S.E. RUNOFF | FULL S.E. 0.080 FT/FT

FULL S.E. 0.080 FT/FT

STA. 397+47.82
END FULL S.E.
BEGIN S.E. RUNOFF

STA. 401+67.82
END S.E. RUNOFF
BEGIN NORMAL CROWN

STA. 403+27.67
END NORMAL CROWN
BEGIN S.E. RUNOFF

STA. 406+87.67
END S.E. RUNOFF
BEGIN FULL S.E.

OH WIRE
STA. 403+36.63
LOW WIRE EL. 765.32'
TEMP. 85° DEG.
2 POWER
1 TELEPHONE

STA. 400+75.00
#25-P C.B. @ 11' LT.
74' OF 18" RCP
SKEW 90°
ENDWALLS REQD. : TYPE ST (LT.)
STD. DWG. NOS. D-PB-1,D-CB-25P,
D-PE-18(A&B), D-PE-4
D.A. = 0.78 AC.
Q50 = 4.64 CFS
Q100 = 5.98 CFS
W.S. ELEV. (50) = 748.13(C.B.)
W.S. ELEV. (100) = 748.13(C.B.)

PROPOSED STORMSEWER		
STR	PIPE SIZE	SLOPE
S1	18" RCP	-0.80%
S2	18" RCP	-1.25%
S3	18" RCP	-1.25%
S4	18" RCP	-4.98%
S5	18" RCP	-1.04%
S6	18" RCP	-0.89%

VPC 401+75.00
EL. 747.43

VPI 403+50.00
EL. 746.12

STA. 403+55.64 = S.R. 109 ELBANKS ROAD STA. 29+70.49

VPT 405+25.00
EL. 743.14

VPC 406+50.00
EL. 741.02

VPI 407+50.00
EL. 739.32

VPT 408+50.00
EL. 736.86

XCP-S16
STA. 403+73.19, 259.30'(RT)
N 838430.6230
E 1799604.4080
ELEV 750.59
IRON PIN W/ CAP

XCP-S17
STA. 403+74.66, -126.88'(LT)
N 838429.2180
E 1799218.2280
ELEV 747.54
IRON PIN W/ CAP

MH
STA. 407+09.10
88.59' (RT)
TOP 739.74
INVERT 733.49

STA. 403+46
3" WATER

STA. 408+32
8" SA STA. 408+85
6" FMS

VC = 350.00'
K = 368
V = 70 MPH

VC = 200.00'
K = 263
V = 70 MPH

EXISTING GROUND

-0.75% -1.70% -1.70% -2.46%

1.00% V DT. LT. 2.00% 0.50% 1.50% V DT. LT. 6.00% 3.00% 4' F.B. DT. LT.

1.00% V DT. RT. 2.00% 1.00% V DT. RT. 6.50% 4.00% 6.50% V DT. RT.

9.00% 10.00% 4' F.B. DT. RT. 10.00% 15.50% 4' F.B. DT. LT. 15.50%

-11.50% DRY POND? -3.50% 1.50% 2' F.B. DT. RT. 4' F.B. DT. RT.

STATION 398+20
DRAINAGE AREA
DESIGN DISCHARGE (100 YR)
100 YR BACKWATER
100 YR VELOCITY
500 YR DISCHARGE
INLET INVERT ELEVATION
OUTLET INVERT ELEVATION
APPROACH OVERTOPPING ELEVATION
STANDARD DRAWING NUMBERS

L.F. OF 16'x10',
75° RT SKEW, RCBC
SQ. MI.
CFS
FT AT EL
FPS
CFS AT EL

75 #25 | 76 #25 | 77 #25 | 78 #25 | 79 #25 | 80 #25 | 81 #25
S5 | S6 | S1 | S2 | S3 | S4

795 790 785 780 775 770 765 760 755 750 745 740 735 730 725 720 715 710 705 700

397+00 398+00 399+00 400+00 401+00 402+00 403+00 404+00 405+00 406+00 407+00 408+00 409+00

5/2/2014 5:43:44 PM
T:\TDOT\Robertson_I-65_SR-109\RB065-04-022B.sht

CONSTRUCTABILITY FIELD REVIEW

SEALED BY

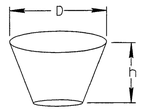
SR-109

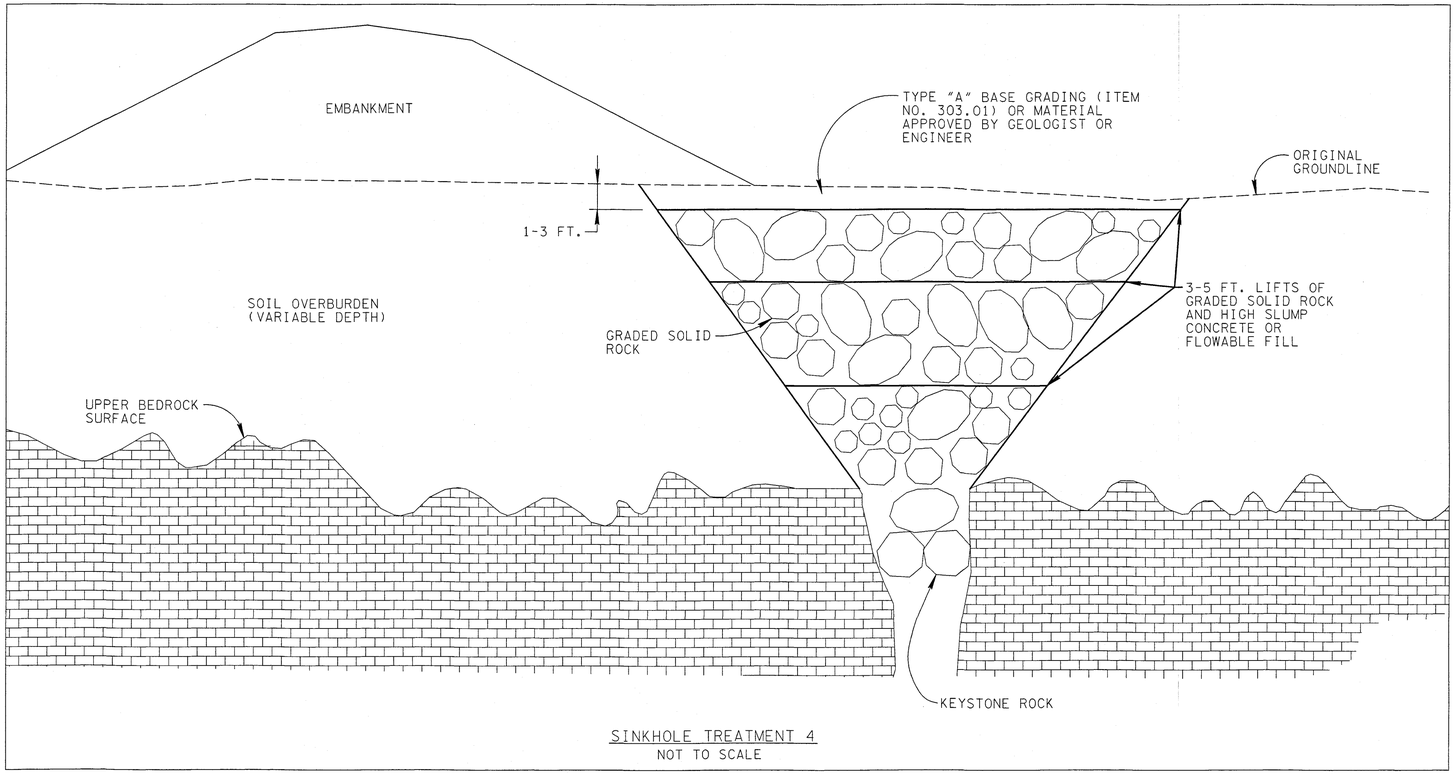
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE

STA. 397+00 TO STA. 409+00

SCALE: 1"= 50' HORIZ.
1"= 5' VERT.





TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
			138C

SINKHOLE TREATMENT 4, INACTIVE

NOTE: AFTER EXCAVATION IS COMPLETE AND ROCK OPENING IS EXPOSED, THE SITE AND TREATMENT METHOD SHALL BE APPROVED BY A REPRESENTATIVE OF THE GEOTECHNICAL ENGINEERING SECTION OF THE DIVISION OF MATERIALS AND TESTS. ANY CHANGE IN THE NO. 57 STONE FILL SHALL BE APPROVED BY A REPRESENTATIVE OF THE GEOTECHNICAL ENGINEERING SECTION OF THE DIVISION OF MATERIALS AND TESTS.

SEQUENCE OF CONSTRUCTION

1. EXCAVATE SINKHOLE TO DEFINE OPENING IN BEDROCK AS DEFINED BY THE ENGINEER OR GEOLOGIST MAKING SURE TO REMOVE ALL SOIL DEBRIS.
2. FIT THE OPENING WITH KEYSTONE ROCK, WHICH SHALL BE SUFFICIENT SIZE TO LOCK IN PLACE WITHOUT CREATING AN AIRBLOCK TO SUBSURFACE DRAINAGE.
3. ALTERNATE LAYERS OF GRADED SOLID ROCK (CLASIFICATION 203.02, BORROW EXCAVATION) (3-5 FT. IN DEPTH) AND HIGH SLUMP CONCRETE (OR FLOWABLE FILL).
   HIGH SLUMP CONCRETE SHALL BE CONCRETE WITH A SLUMP OF 7-9".

   HIGHT SLUMP CONCRETE OR FLOWABLE FILL SHALL BE APPLIED AFTER A LAYER OF GRADED SOLID ROCK UNTIL THE CONCRETE (OR FLOWABLE FILL) JUST COVERS THE GRADED ROCK LAYER. THE NEXT LAYER OF GRADED SOLID ROCK SHALL BE PLACED IMMEDIATELY AFTER THE PLACEMENT OF THE CONCRETE (OR FLOWABLE FILL). THE PURPOSE OF THIS IS TO INTERMIX THE MATERIALS. THE WORK SHALL NOT BE INTERRUPTED AFTER THE PLACEMENT OF CONCRETE (OR FLOWABLE FILL) EXCEPT FOR THE TOP LAYER. IF WORK CANNOT BE FINISHED IN A SPECIFIED INTERVAL, WORK MAY BE STOPPED ONLY AFTER A COMPLETE LAYER OF GRADED SOLID ROCK HAS BEEN PLACE.
4. AFTER THE FINAL LAYER OF CONCRETE (OR FLOWABLE FILL) HAS BEEN SET, BACKFILL TO GRADE WITH TYPE "A" BASE GRADING (ITEM NO. 303.01) OR OTHER MATERIAL APPROVED BY THE ENGINEER OR GEOLOGIST.

GRADED SOLID ROCK

BORROW EXCAVATION (GRADED SOLID ROCK) SHALL CONSIST OF THE REMOVAL AND SATISFACTORY PLACEMENT OF SOUND, NON-DEGRADABLE ROCK WITH A MAXIMUM SIZE OF 3 FEET. AT LEAST 50 PERCENT OF THE ROCK SHALL BE UNIFORMLY DISTRIBUTED BETWEEN 1 FOOT AND 3 FEET IN DIAMETER AND NO GREATER THAN 10 PERCENT SHALL BE LESS THAN 2 INCHES IN DIAMETER. THE MATERIAL SHALL BE ROUGHLY EQUI-DIMENSIONAL IN SHAPE. THIN, SLABBY MATERIAL WILL NOT BE ACCEPTED. THE CONTRACTOR SHALL BE REQUIRED TO PROCESS THE MATERIAL WITH AN ACCEPTABLE MECHANICAL SCREENING PROCESS THAT PRODUCES THE REQUIRED GRADATION. WHEN THE MATERIAL IS SUBJECTED TO FIVE ALTERATIONS OF THE SODIUM SULFATE SOUNDNESS TEST (AASHTO T 104), THE WEIGHTED PERCENTAGE OF LOSS SHALL BE NOT MORE THAN 12. THE MATERIAL SHALL BE APPROVED BY THE ENGINEER BEFORE USE.

EQUATION FOR ESTIMATING SINKHOLE VOLUME WHERE THE SIDES OF THE SINKHOLE ARE AT 1:1 SLOPES.

VOL. $1{:}1 \approx 0.13D^3 - (0.5D - h)^3$

SINKHOLE TREATMENT 4
NOT TO SCALE

SEALED BY

DANIEL D. TERRANOVA
No. 023475
9/12/14

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL SINKHOLE TREATMENT

STATE ROUTE 109
ROBERTSON-SUMNER COUNTIES

STATE OF TENNESSEE

DEPARTMENT OF ENVIRONMENT AND CONSERVATION

DIVISION OF WATER RESOURCES

William R. Snodgrass - Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor
Nashville, Tennessee 37243-1102

October 7, 2014

Anthony Myers
Tennessee Department of Transportation
505 Deaderick Street, Suite 900
Nashville, TN 37243

Subject: §401 Water Quality Certification
TDOT Application NRS 14.189
Interstate 65 and State Route 109 Interchange

Dear Mr. Myers:

We have reviewed and approved your application to construct a new interchange along Interstate 65 and to relocate State Route 109. Approved waterbody impacts include the construction of a 26-foot box culvert extension and a temporary water line crossing along Summers Branch, construction of a 142-foot box culvert and a temporary water line crossing along an unnamed tributary of Summers Branch, and the elimination of four feet and the relocation of 217 feet of an additional unnamed tributary to Summers Branch. Additional authorized waterbody impacts include 0.383 acres of fill to two wetlands and the placement of 342 feet of riprap as outlined in the approved application. The impacts to the State's resources will be offset through 217 feet of in-kind stream replacement, the purchase of 378 stream credits from the Tennessee Stream Mitigation Program, and the purchase of 0.77 wetland mitigation credits from the Tennessee Wildlife Federation, Tennessee Mitigation Fund.

It is the responsibility of the permittee to read and understand all permit conditions before the project begins. If you need any additional information or clarification, please contact me at 615-253-0709 or by e-mail at Robert.J.Wayne@tn.gov.

Sincerely,

Robert J. Wayne,
Natural Resources Unit

Enclosure: §401 Water Quality Certification

Cc: Nashville Environmental Field Office
Laura Chandler
U.S. Army Corps of Engineers, Nashville District
Bryan Price, Portland MS4 Program Manager
Howard Bradley, Robertson County MS4 Program Manager
File Copy

NRS14.189

Pursuant to §401 of *The Federal Clean Water Act* (33 U.S.C. 1341), any applicant for a Federal license or permit to conduct any activity which may result in any discharge into the waters of the U.S., shall provide the federal licensing or permitting agency a certification from the State in which the discharge originates or will originate. Accordingly, the Division of Water Resorces 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 provisions of §§301, 302, 303, 306 or 307 of *The Clean Water Act*.

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

PERMITTEE Anthony Myers
Tennessee Department of Transportation
505 Deaderick Street, Suite 900
Nashville, TN 37243

AUTHORIZED WORK: The applicant is authorized to construct a 26-foot box culvert extension and a temporary water line crossing along Summers Branch, a 142-foot box culvert and a temporary water line crossing along an unnamed tributary of Summers Branch, and to eliminate four feet and relocate 217 feet of an additional unnamed tributary to Summers Branch. Additional authorized waterbody impacts include 0.383 acres of fill to two wetlands and the placement of 342 feet of riprap as outlined in the approved application. The impacts to the State's resources will be offset through 217 feet of in-kind stream replacement, the purchase of 378 stream credits from the Tennessee Stream Mitigation Program, and the purchase of 0.77 wetland mitigation credits from the Tennessee Wildlife Federation, Tennessee Mitigation Fund.

LOCATION: Interstate 65 and State Route 109
Robertson and Sumner Counties, TN

EFFECTIVE DATE: October 7, 2014

EXPIRATION DATE: October 6, 2019

Tisha Calabrese Benton
Director, Division of Water Resources

RDA 1017 MAJOR

Contents

PART I

Authorized Work:

The applicant is authorized encapsulate 166 feet of stream, provide 217 feet of in-kind stream replacement, permanently fill four feet of stream, and permanently impact two wetlands totaling 0.383 acres.

STR-1- Summers Branch

Latitude: 36.6255 Longitude: -86.5755
STA-1831+00

a. Installation of a 26-foot box culvert extension along an existing 185-foot box culvert
b. Installation of a water utility line across Stream 1
c. Placement of 35 feet of riprap at the culvert inlet
d. Placement of 30 feet of riprap at the culvert outlet
e. Mitigation required for the 211-foot box culvert at 211 x 1 = 211 debits

STR-2- Unnamed tributary to Summers Branch

Latitude: 36.6253 Longitude: -86.5636
STA-348+65

a. Installation of a 142-foot box culvert
b. Placement of 27 feet of riprap at the culvert inlet
c. Placement of 15 feet of riprap at the culvert outlet
d. Placement of 18 feet of riprap along both banks at TGT Road Crossing
e. Installation of a water utility line across Stream 2
f. Temporary stream diversion during culvert installation

STR-3- Unnamed tributary to Summers Branch

Latitude: 36.6245 Longitude: -86.5615
STA-341+50.88 to 343+50.00

a. Elimination of 4 feet of Stream
b. Relocation of 217 feet of Stream
c. Placement of riprap along the 217-foot stream relocation
d. Planting of two rows of trees along both banks of the relocated stream
e. Planting of live stakes within the top of bank
f. Mitigation required for the 4 feet of stream elimination at 4 x 1 = 4 debits
g. Mitigation required for the 217 feet of rip rap at 217 x 0.75 = 163 debits
h. Monitoring required 217-foot stream replacement = three years

WTL-1

Latitude: 36.6232 Longitude: -86.5583
STA-330+65 to 332+56

a. Fill of 0.175 acres
b. Mitigation required at 0.175 x 2 = 0.35 acres

WTL-2

Latitude: 36.6243 Longitude: -86.5610
STA- 339+50 to 341+42

a. Fill of 0.208 acres
b. Mitigation required at 0.208 x 2 = 0.42 acres

Special Conditions:

a. Unless stated otherwise, all work shall be accomplished in conformance with the accepted plans, specifications, data and other information submitted in support of application NRS14.189.

b. Associated utility line crossings shall be accomplished in conformance with the Tennessee Department of Environment and Conservation's (TDEC) "General Permit for Utility Line Crossings."

c. The new stream channel shall not be over-widened.

d. All box culverts with more than one barrel shall be constructed in a manner which will concentrate flow into one barrel and not result in channel over widening.

e. The bottom of culverts shall be constructed below the stream bed elevation in a manner that allows natural substrate to reestablish.

f. Culverts shall not be constructed in a manner that would permanently disrupt the movement of fish and aquatic life.

g. All riprap areas shall be placed as to mimic the existing/proposed contours of the stream channel. Riprap shall be countersunk and placed at the grade with the existing stream substrate. Riprap shall not be placed in a manner that would permanently disrupt the movement of fish and aquatic life.

h. Voids within the riprap shall be filled with suitable substrate to prevent loss of stream within the riprap areas. Do not over-excavate for placement of riprap.

i. Construction and removal of bridges and culverts shall be in the dry to the maximum extent practicable, by diverting flow utilizing cofferdams, berms, and/or temporary channels or pipes. Temporary diversion channels shall be protected by non-erodible material and lines to the expected high water level.

j. The use of monofilament-type erosion control netting or blanket is prohibited.

k. This does not authorize the removal of riparian trees or shrubs along the banks of Summers Branch or any tributaries to Summers Branch. Authorization may need to be obtained through the local jurisdiction before riparian zones are modified in any way.

l. The permitte shall notify this office of project completion within thirty (30) days of completion.

m. Signs, Carsonite or similar material, shall be placed approximately every seventy-five (75) feet, on both sides of the relocated stream, clearly indicating that the area is a protected stream, and that no mowing or other disturbance is permitted within the revegetated area.

n. Invasive species may be removed along the stream relocation and within the buffer zone.

o. Permittee is responsible for any permanent reduction or loss of instream flow resulting from authorized activities.

p. If any relocated stream, riprap lined stream channel, daylighted stream, or adjoining stream channel fails to meet the assessment criteria to be classified as a stream, corrective action or additional mitigation will be required.

q. Best Management Practices (BMPs) shall be stringently implemented throughout the construction period to prevent sediments, oils, or other project-related pollutants from being discharged into Summers Branch or any of its tributaries.

r. Checkdams or other in-stream treatment are not aurthorized to be placed in Summers Branch or any of its tributaries.

s. Streambeds shall not be used as transportation routes for construction equipment. Temporary stream crossings shall be limited to one point in the construction area and EPSC measures shall be utilized where stream banks are disturbed.

t. 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 to the appropriate emergency management agency, and measures shall be taken immediately to prevent the pollution of waters of the state, including groundwater, should a spill occur.

General Conditions:

a. It is the responsibility of the applicant to convey all terms and conditions of this permit to all contractors. A copy of this permit, approved plans and any other documentation pertinent to the activities authorized by this permit shall be maintained on site at all times during periods of construction activity.

b. Work shall not commence until the applicant has received the federal §404 permit from the U. S. Army Corps of Engineers, a §26a permit from the Tennessee Valley Authority or authorization under a Tennessee NPDES Storm Water Construction Permit where necessary. The applicant is responsible for obtaining these permits.

c. The work shall be accomplished in conformance with the accepted plans, specifications, data and other information submitted in support of application NRS 14.189 and the limitations, requirements and conditions set forth herein.

d. All work shall be carried out in such a manner as will prevent violations of water quality criteria as stated in Rule 0400-40-03-.03 of the Rules of the Tennessee Department of Environment and Conservation. This includes, but is not limited to, the prevention of any discharge that 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 0400-40-04. These uses include fish and aquatic life (including trout streams and naturally reproducing trout streams), livestock watering and wildlife, recreation, irrigation, industrial water supply, domestic water supply, and navigation.

e. Impacts to waters of the state other than those specifically addressed in the plans and this permit are prohibited. All streams, springs and wetlands shall be fully protected prior, during

and after construction until the area is stabilized. Any questions, problems or concerns that arise regarding any stream, spring or wetland either before or during construction, shall be addressed to the Division of Water Resource's Nashville's Environmental Field Office (865-594-6035), or the permit coordinator in the division's Natural Resources Unit (615-532-0709).

f. Adverse impact to formally listed state or federal threatened or endangered species or their critical habitat is prohibited.

g. This permit does not authorize adverse impacts to cultural, historical or archeological features or sites.

PART II

Mitigation Requirements and Monitoring Procedures

Required Mitigation Activities

1. To mitigate for stream resource value losses resulting from the authorized project not otherwise addressed, the applicant shall purchase 378 stream mitigation in-lieu fee credits in the West Lower Cumberland Service Area from the Tennessee Stream Mitigation Program. Please be advised that the stream impacts associated with this mitigation are not authorized to proceed until the specified mitigation credits have been purchased. Payment must be made within 60 days of invoice. **Proof of credit purchase shall be submitted to this office within 30 days of payment.** With the purchase of the stream mitigation credits, legal responsibility for completion of this stream mitigation is legally transferred to the Tennessee Stream Mitigation Program.

2. To mitigate for wetland resource value losses resulting from the authorized project not otherwise addressed, the applicant shall purchase 0.77 of wetland mitigation in-lieu fee credits in the from the Harpeth Wetland Mitigation Bank. Please be advised that the wetland impacts associated with this mitigation are not authorized to proceed until the specified mitigation credits have been purchased. Payment must be made within 60 days of invoice. **Proof of credit purchase shall be submitted to this office within 30 days of payment.** With the purchase of the wetland mitigation credits, legal responsibility for completion of this wetland mitigation is legally transferred to the Tennessee Wildlife Federation, Tennessee Mitigation Fund.

Monitoring Requirements and Procedures

1. Monitoring for shall be consistent with "Level I Monitoring Requirements (3 Years)," detailed in the "Stream Mitigation Guidelines for the State of Tennessee." (http://www.tennessee.gov/environment/wpc/publications/pdf/StreamMitigationGuidelines.pdf). At a minimum monitoring reports should include:
    a. Narrative description and photos of pre-project conditions
    b. Pre-project habitat assessment
    c. Annual narrative description and photos
    d. Annual riparian vegetation survey
2. The State's Hydrologic Determination procedure shall be part of the monitoring requirements for years 1 and 3. The hydrologic assessments can be conducted anytime during year 1 and 3 from Feburary 1-April 15th.
3. The channel must meet a channel stability rating index of "good" using the Pfankuch Stability Rating procedure.
4. All protective signs which clearly indicate the area is a protected stream and no mow riparian buffer shall be monitored with represenitive photos of the signs and buffer zone included in the annual monitoing report. All protective signs shall be maintained and any missing, damaged, or illegible signs shall be replaced.

Recording of Results

a. For each measurement, sample, or photograph taken pursuant to the requirements of this permit, the permittee shall record the following information and submit in the annual monitoring reports:

    1. The exact place, date and time;
    2. The exact person(s) collecting and/or documenting the information;
    3. The dates and times any analyses were performed and by whom;
    4. The results of all required analyses; and
    5. Any other data or documentation recorded at the time of assessment

b. In the event any portion or aspect of the project does not meet the specified success criteria based on reporting and/or additional visual observations in a monitoring year, the nature and cause(s) of the resulting condition shall be investigated and documented. If it is determined that corrective actions are not warranted at the time, the rationale for the decision shall be stated. Continued monitoring of the condition or area using more detailed methodology may be appropriate and must be documented. In instances where corrective actions are necessary, a plan shall be prepared that includes proposed actions, a time schedule for activities, and revised monitoring plan.

Submission of Monitoring Results

a. The permittee shall submit the required monitoring information on an annual basis, for a term of three (3) years:

    All monitoring reports and information shall be submitted in report-form to the Division's Natural Resources Unit, William R. Snodgrass - Tennessee Tower, 312 Rosa L. Parks Avenue, Nashville, Tennessee 37243-1102. Copies shall also be provided to the appropriate Water Resource Environmental Field Office, and the U.S. Army Corps of Engineers-Nashville District Office, located at 3701 Bell Road, Nashville, Tennessee 37214.

b. The first monitoring report shall be due by October 31st of each monitoring year.

c. The applicant should notify the agency iin writing when the monitoring period is complete. Following receipt of the final report, the agency will contact the applicant (or agent) as soon as possible to schedule a site visit to confirm the completion of the compensatory mitigation site. The mitigation will not be considered complete without an on-site inspection by regulatory staff and written confirmation that the site is functioning as proposed.

Falsifying Results and/or Reports

Knowingly making any false statement on any report required by this permit or falsifying any result may result in the imposition of criminal penalties as provided for in Section 309 of the Federal Water Pollution Control Act, as amended, and in Section 69-3-115 of the Tennessee Water Quality Control Act.

Duty to Reapply

Permittee is not authorized to work after the expiration date of this permit. In order to receive authorization beyond the expiration date, the permittee shall submit such information and forms as are required to the Director of Water Resources. Such applications must be properly signed and certified.

Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State, or local laws or regulations.

Other Information

If the permittee becomes aware that he/she failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, then he/she shall promptly submit such facts or information.

Changes Affecting the Permit

Transfer/Change of Ownership

a. This permit may be transferred to another party, provided there are no activity or project modifications, no pending enforcement actions, or any other changes which might affect the permit conditions contained in the permit, by the permittee if:

b. The permittee notifies the Director of the proposed transfer at least 30 days in advance of the proposed transfer date;

c. The notice includes a written agreement between the existing and new permittees containing a specified date for transfer of permit responsibility, coverage, and contractual liability between them; and

d. The Director does not notify the current permittee and the new permittee, within 30 days, of his intent to modify, revoke, reissue, or terminate the permit, or require that a new application be filed rather than agreeing to the transfer of the permit.

e. The permittee must provide the following information to the division in their formal notice of intent to transfer ownership:

    1. the permit number of the subject permit;
    2. the effective date of the proposed transfer;
    3. the name and address of the transferor;
    4. the name and address of the transferee;
    5. the names of the responsible parties for both the transferor and transferee;
    6. a statement that the transferee assumes responsibility for the subject permit;
    7. a statement that the transferor relinquishes responsibility for the subject permit;

8. the signatures of the responsible parties for both the transferor and transferee, and;
9. a statement regarding any proposed modifications to the permitted activities or project, its operations, or any other changes which might affect the permit conditions contained in the permit.

Change of Mailing Address

The permittee shall promptly provide to the Director written notice of any change of mailing address. In the absence of such notice the original address of the permittee will be assumed to be correct.

Noncompliance

Effect of Noncompliance

All discharges shall be consistent with the terms and conditions of this permit. Any permit noncompliance constitutes a violation of applicable State and Federal laws and is grounds for enforcement action, permit termination, permit modification, or denial of permit reissuance.

Reporting of Noncompliance

24-Hour Reporting

a. In the case of any noncompliance which could cause a threat to public drinking supplies, or any other discharge which could constitute a threat to human health or the environment, the required notice of non-compliance shall be provided to the Division of Water Resources in the appropriate Environmental Field Office within 24-hours from the time the permittee becomes aware of the circumstances. (The Environmental Field Office should be contacted for names and phone numbers of environmental response personnel).

b. A written submission must be provided within five (5) days of the time the permittee becomes aware of the circumstances unless this requirement is waived by the Director on a case-by-case basis. The permittee shall provide the Director with the following information:

    1. A description of the discharge and cause of noncompliance;
    2. The period of noncompliance, including exact dates and times or, if not corrected, the anticipated time the noncompliance is expected to continue; and
    3. The steps being taken to reduce, eliminate, and prevent recurrence of the non-complying discharge.

Scheduled Reporting

For instances of noncompliance which are not reported under subparagraph a. above, the permittee shall report the noncompliance by contacting the permit coordinator, and provide all information concerning the steps taken or planned to reduce, eliminate, and prevent recurrence of the violation and the anticipated time the violation is expected to continue.

Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impact to the waters of Tennessee resulting from noncompliance with this permit, including but not limited to, accelerated or additional monitoring as necessary to determine the nature and impact of the noncompliance. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

Liabilities

Civil and Criminal Liability

Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance. Notwithstanding this permit, the permittee shall remain liable for any damages sustained by the State of Tennessee, including but not limited to fish kills and losses of aquatic life and/or wildlife, as a result of the discharge of pollutants to any surface or subsurface waters. Additionally, notwithstanding this Permit, it shall be the responsibility of the permittee to conduct its discharge activities in a manner such that public or private nuisances or health hazards will not be created.

Liability under State Law

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or the Federal Water Pollution Control Act, as amended.

This permit does not preclude requirements of other federal, state or local laws. This permit also serves as a State of Tennessee Aquatic Resource Alteration Permit (ARAP) pursuant to the Tennessee Water Quality Control Act of 1977 (T.C.A. §69-3-101 et seq.).

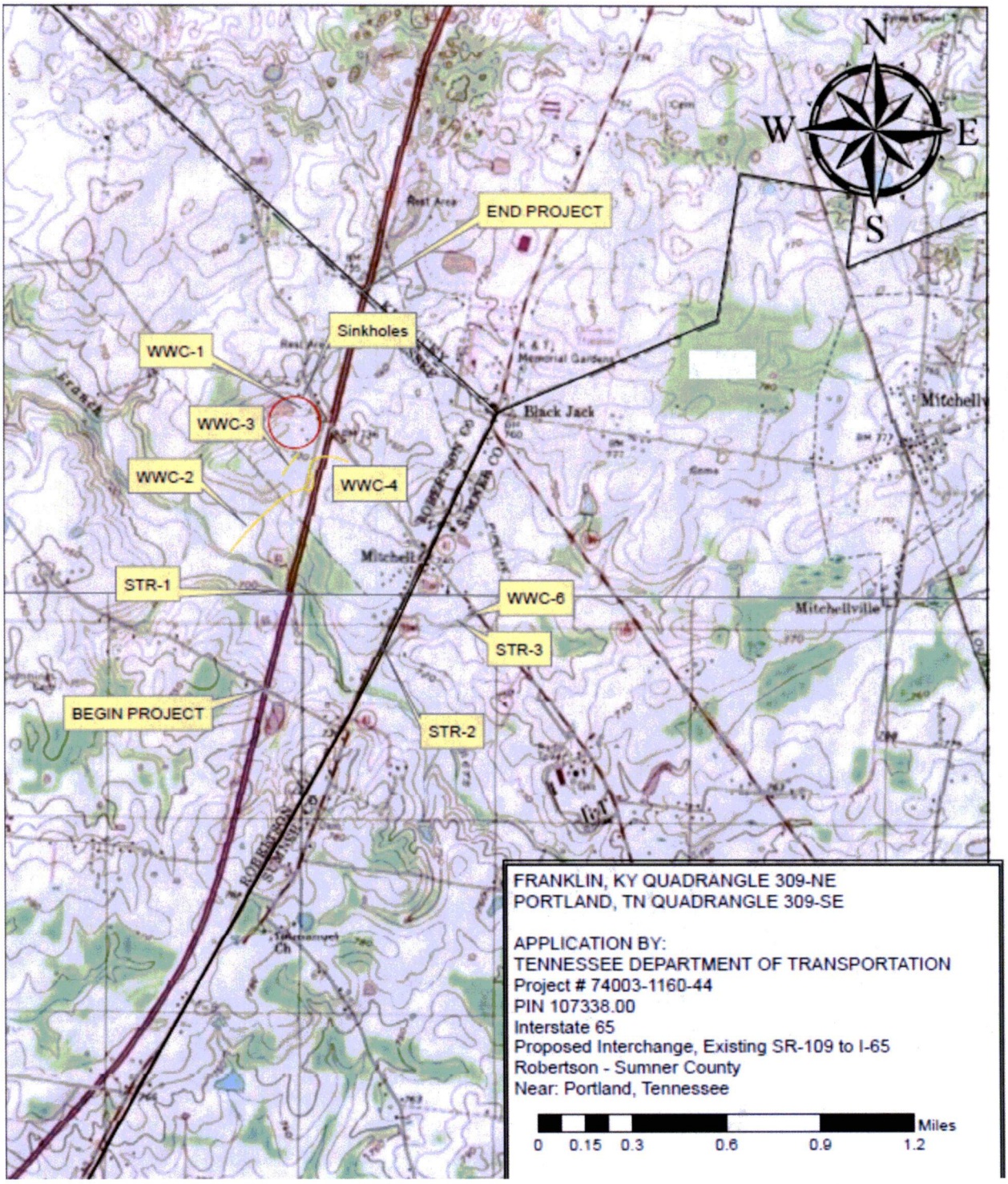
The State of Tennessee may modify, suspend or revoke this permit or seek modification or revocation should the state determine that the activity results in more than an insignificant violation of applicable water quality standards or violation of the act. Failure to comply with permit terms may result in penalty in accordance with T.C.A. §69-3-115.

An appeal of this action may be made as provided in T.C.A. §69-3-105(i) and Rule 0400-40-05-.12 by submitting a petition for appeal. This petition must be filed within THIRTY (30) DAYS after public notice of the issuance of the permit. The petition must specify what provisions are being appealed and the basis for the appeal. It should be addressed to the technical secretary of

the Tennessee Board of Water Quality, Oil and Gas at the following address: Dr. Sandra Dudley, Director, Division of Water Resources, William R. Snodgrass - Tennessee Tower, 312 Rosa L. Parks Avenue, Nashville, Tennessee 37243-1102. Any hearing would be in accordance with T.C.A. §§69-3-110 and 4-5-301 et seq.

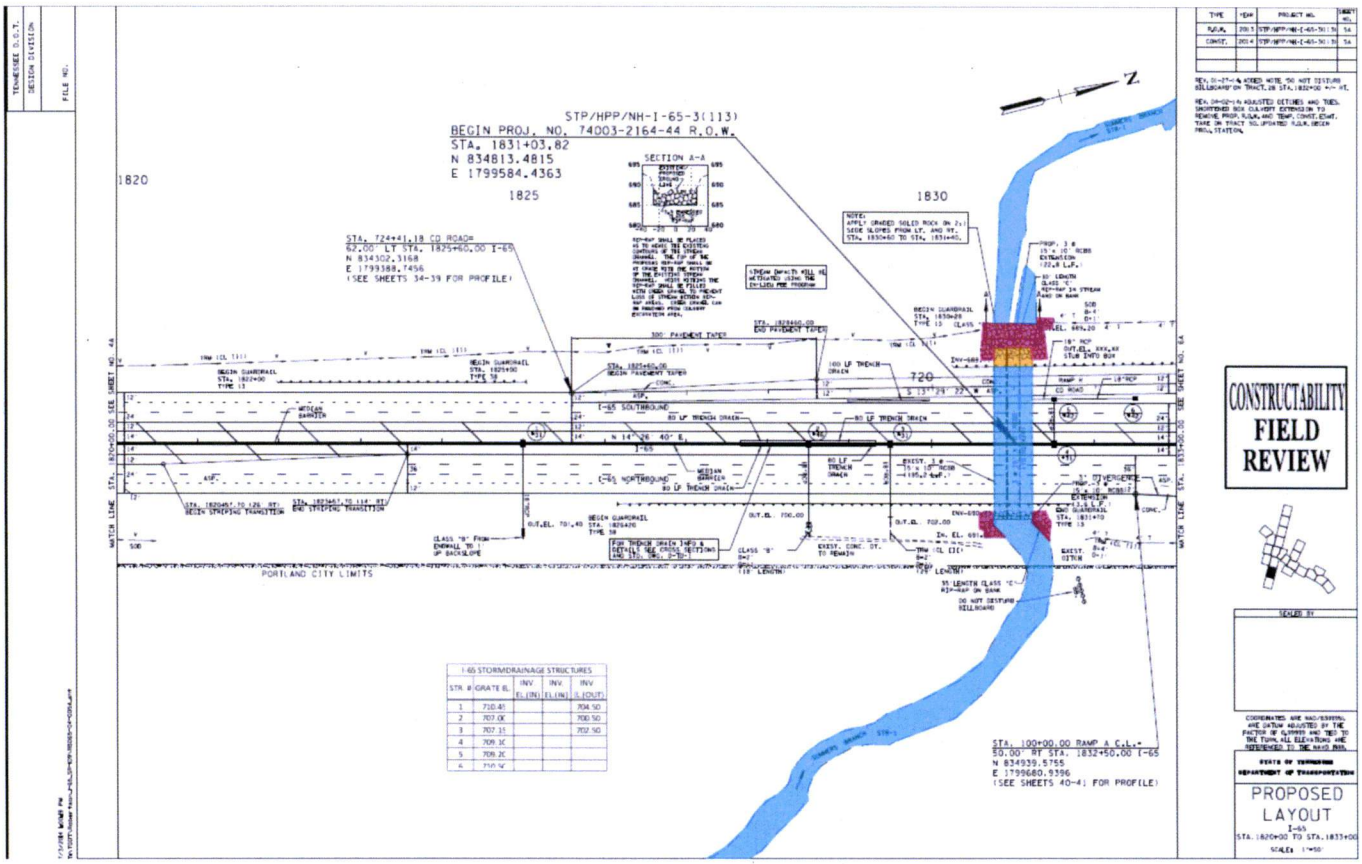
APPENDIX I

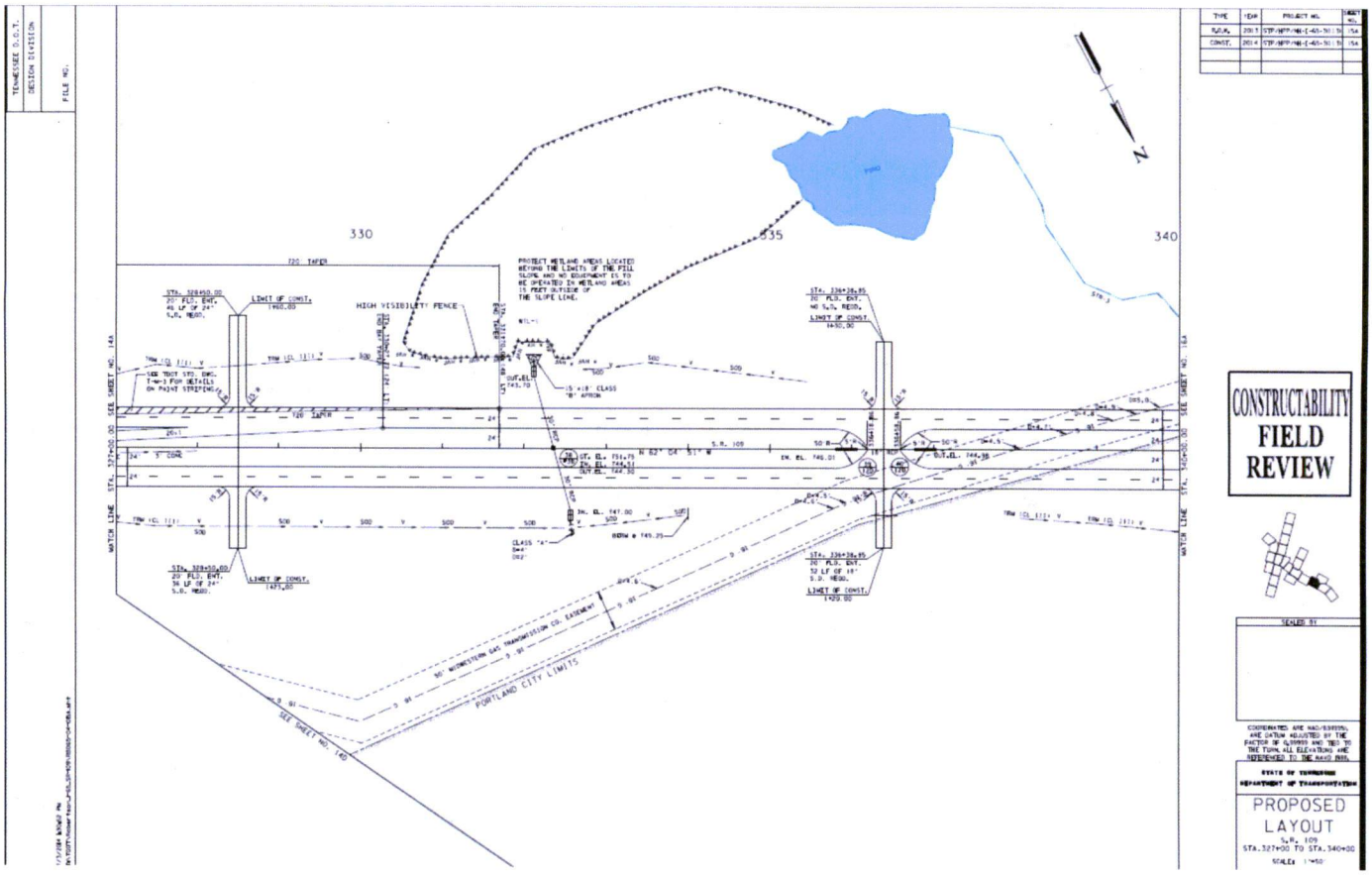
Location:

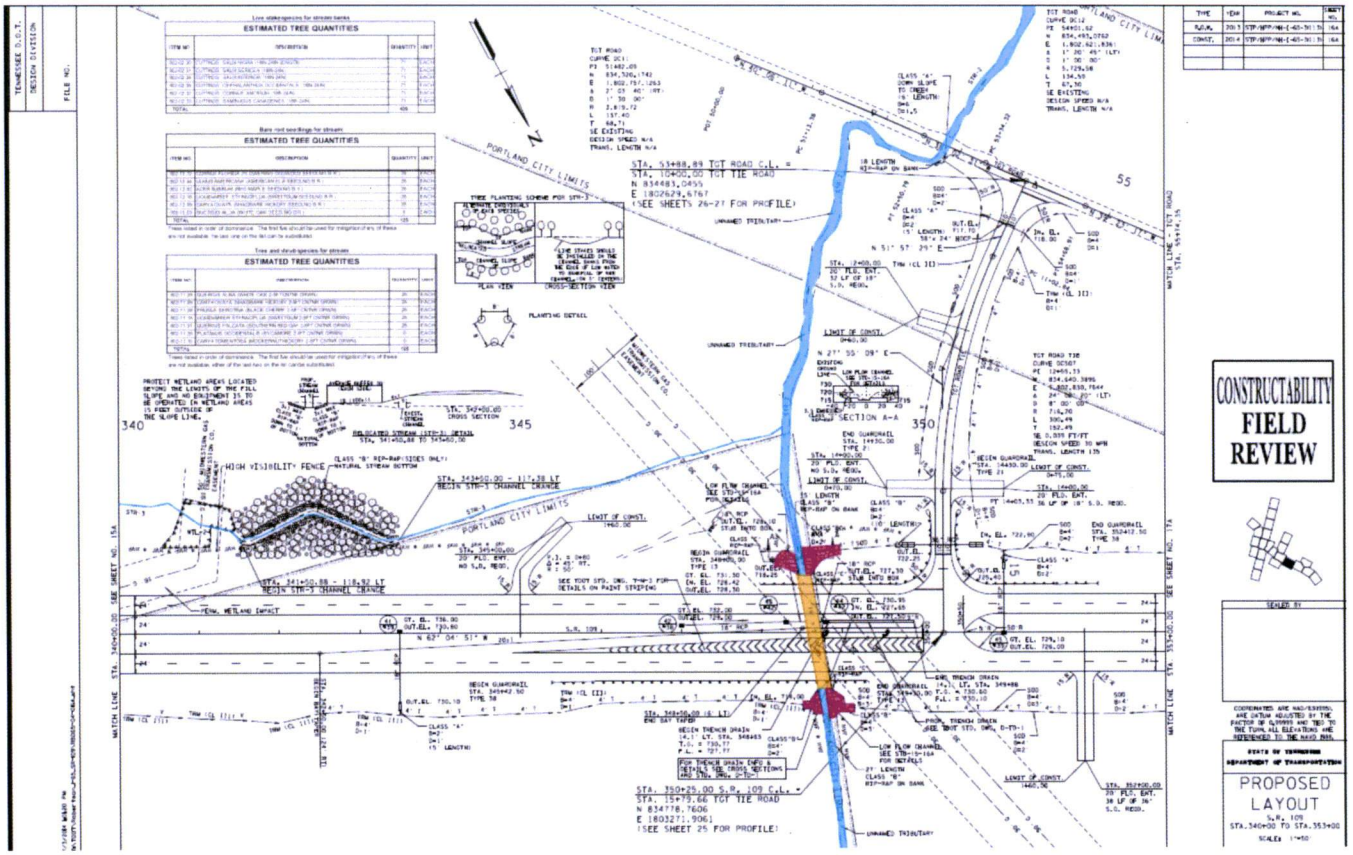

N
W
E
S
END PROJECT
Sinkholes
WWC-1
WWC-3
WWC-2
WWC-4
STR-1
WWC-6
STR-3
BEGIN PROJECT
STR-2
Black Jack
Mitchellville
FRANKLIN, KY QUADRANGLE 309-NE
PORTLAND, TN QUADRANGLE 309-SE
APPLICATION BY:
TENNESSEE DEPARTMENT OF TRANSPORTATION
Project # 74003-1160-44
PIN 107338.00
Interstate 65
Proposed Interchange, Existing SR-109 to I-65
Robertson - Sumner County
Near: Portland, Tennessee
Miles
0 0.15 0.3 0.6 0.9 1.2

Road Alignment:

Design details:




330
335
340
CONSTRUCTABILITY
FIELD
REVIEW
PROPOSED
LAYOUT
S.R. 109
STA. 327+00 TO STA. 340+00
PORTLAND CITY LIMITS


CONSTRUCTABILITY
FIELD
REVIEW
PROPOSED
LAYOUT

DEPARTMENT OF THE ARMY
NASHVILLE DISTRICT, CORPS OF ENGINEERS
Regulatory Branch
3701 Bell Road
NASHVILLE, TENNESSEE 37214

August 15, 2014

SUBJECT: File No. LRN-2014-00805; Proposed Interchange, Existing SR 109 to I-65, Robertson-Sumner Counties, TN (PIN 107338.00)

Mr. Anthony Myers
Tennessee Department of Transportation
Suite 900 James K. Polk Building
Nashville, TN 37243-1402

Dear Mr. Myers:

This refers to your recent application for a Department of the Army (DA) permit for the subject work. Please refer to the file number LRN-2014-0000805 in reference to this letter. According to the plans, the work involves the construction of a new interchange impacting three streams and two wetland areas.

Based upon the information submitted to this office, we have determined your proposed work meets the criteria of DA Nationwide Permit (NWP) 14, Linear Transportation Projects, which became effective March 19, 2012 [77 FR 10184]. The proposed work must be constructed in accordance with the enclosed plans, NWP Conditions, and mitigation payments/debits, as described in your application letter dated July 15, 2014:

- The project includes the permanent filling of 0.383 acre of wetland. TDOT will mitigate the permanent wetland impacts by debiting, at a 2:1 ratio, 0.77 acres from available wetland credits at the Harpeth Wetland Mitigation Bank. A debit sheet was provided with the application.

- A total payment of $ $90,720 is proposed to the In-Lieu Fee Stream Mitigation Program. As mitigation for 215' (215 ft. x 1.0) of stream encapsulation and length losses, TDOT will make a payment of $51,600. As mitigation for 163' (217' x 0.75) of rip-rap, TDOT will make a payment of $39,120.

This verification is valid until March 18, 2017, unless the NWP authorization is modified, suspended, or revoked. If the work has not been completed by that time, you should contact this office to obtain another permit determination in accordance with the rules and regulations in effect at that time.

In addition, you are also responsible for obtaining any other federal, state, and/or local permits, approvals, or authorizations. The State of Tennessee has not certified the required 401 certification for this NWP. In order for this NWP to be valid, you must obtain a water quality certification from the state. You must provide our office with a copy of the required certification or waiver of certification from the state prior to proceeding with the work. You must also comply with all conditions of the state certification.

If changes in the location or approved plans are necessary, revised plans shall be submitted promptly to this office for review and approval. NWP General Condition 30 requires that you submit a signed certification. Please sign and return the enclosed Compliance Certification form upon completion of the proposed activity.

If you have any questions, please contact Lisa R. Morris at the above address or telephone (615) 369-7504.

Sincerely,

Lisa R. Morris

Lisa R. Morris
Project Manager
Regulatory Branch

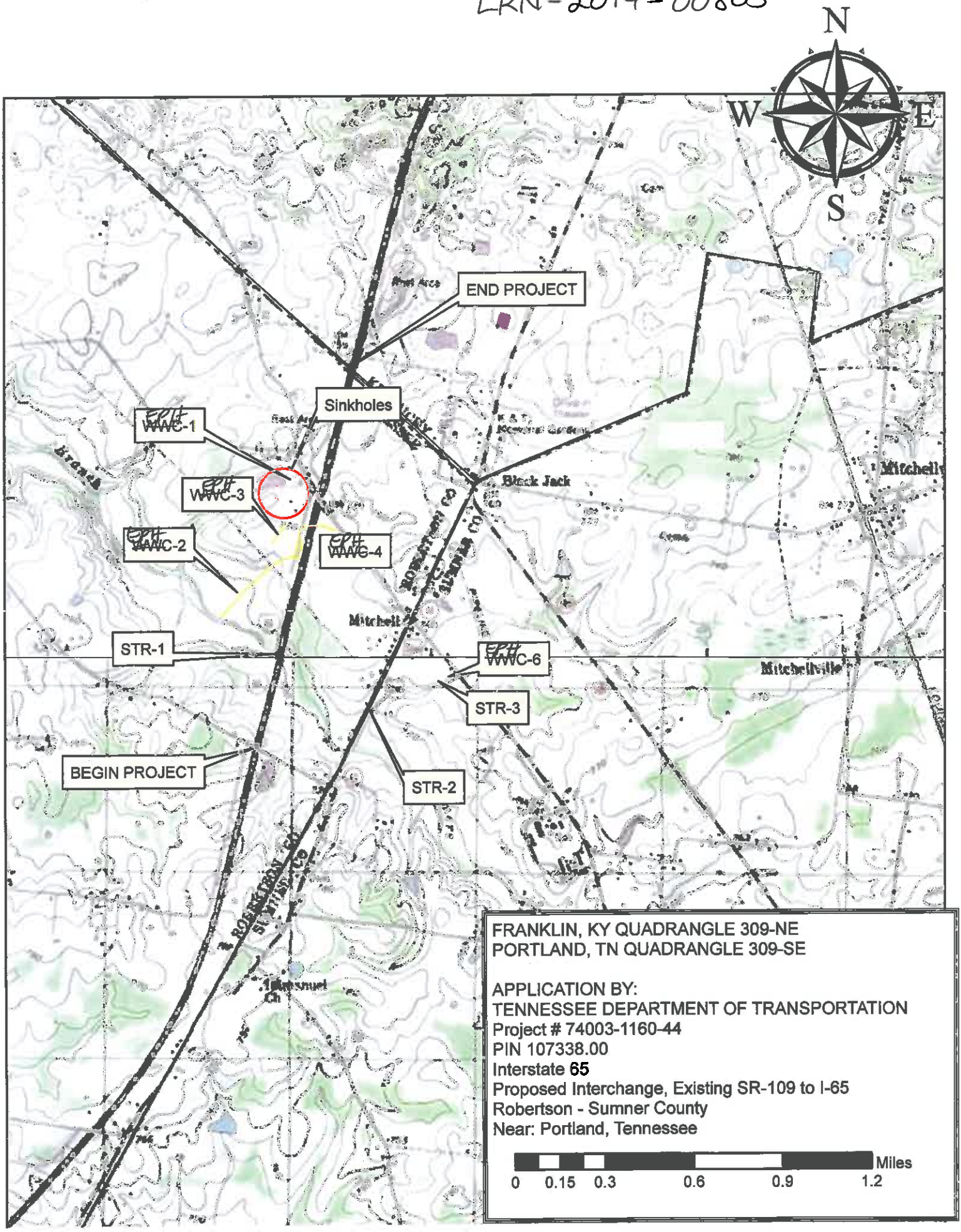
Enclosures

Copy Furnished:

Tennessee Department of Environment and Conservation
Division of Water Pollution Control
401 Church Street, L&C Annex
Nashville, TN 37243

TWF-ILF
300 Orlando Ave, Suite 200
Nashville, TN 37209

LRN-2014-00805



DEBIT SHEET, Continued
HARPETH WETLAND MITIGATION BANK

DATE	DESCRIPTION OF PROJECT TO BE MITIGATED	COUNTY	PERMIT NUMBER	ACREAGE IMPACTED	CREDITS DEBITED	REMAINING CREDITS
11-24-08	SR-373, Mooresville Hwy, construct from I-65 to SR-417 (Hopkins Ave)	Marshall	08.289	0.123	0.25	17.68
12-11-08	SR-76, US-79, reconstruct from SR-120 to Montgomery Co. Line	Stewart	2008-02155	1.36	5.44	12.24
3-13-09	SR-840, Constr from west of Leiper's Creek Rd to west of Columbia Pike (Sections 1 & 2)	Williamson	08.034	0.095	0.19	12.05
4-28-09	Credit for 25.00 acres of wetland restoration				+25.00	37.05
6/22/10	Credit for 8.659 acres of wetland restoration				+8.66	45.71
12-22-10, revised 3-9-11	SR-15, Widen from Mill Springs Branch to Waynesboro Bypass	Wayne	10.345	0.14	0.56	45.15
6/9/11 revised	SR-15, Reconstruct from Old Highway 64 to Murphy Hollow/ Little Fortyeight Creek Rd	Wayne	09.164	0.25	1.00	44.15
5/4/12	SR-253, Widen Concord Road, from Sunset Road to SR-11 (Nolensville Road)	Williamson -Davidson	12.068	0.177	0.35	43.80
11/15/12	I-65, Widen from near SR-840 to SR-248	Williamson	12.235	0.464	0.93	42.87
7/15/14	I-65 Interchange, Existing SR-109 to I-65	Robertson-Sumner		0.383	0.77	42.10

TENNESSEE D.O.T. | DESIGN DIVISION | FILE NO.

Index Of Sheets

(SEE SHEET NO. 1A)

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING

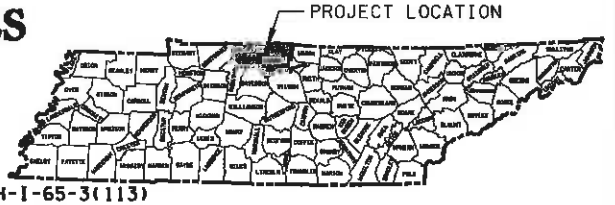
TENN.	YEAR	SHEET NO.
	2014	1
FED. AID PROJ. NO.	STP/HPP/NH-I-65-3(113)	
STATE PROJ. NO.	ROBERTSON I-65/SR-109 : 74003-2164-44 SUMNER I-65/SR-109: 83001-2143-44 ROBERTSON SR-41 (US-31W): 74096-2201-14 SUMNER SR-41 (US-31W): 83008-2229-14	

ROBERTSON-SUMNER COUNTIES

INTERSTATE 65 INTERCHANGE @ STATE ROUTE 109
INCLUDING I-65 WIDENING AND
S.R. 109 EXTENSION

CONSTRUCTION
GRADE, DRAIN, PAVE, BRIDGE, & SIGN

PROJECT LOCATION



STATE HIGHWAY NO. 109 F.A.H.S. NO. I-65

STP/HPP/NH-I-65-3(113)
END PROJ. NO. 74003-3164-44 ROBERTSON CO. CONST.
I-65 STA. 1905+00.00

END PROJ. NO. 74003-2164-44 R.O.W.
BEGIN PROJ. NO. 74003-2165-44 R.O.W.
I-65 STA. 1881+83.78

END PROJ. NO. 74003-2164-44
R.O.W. ROBERTSON CO.
S.R. 109 STA. 421+00.00

END PROJ. NO. 74003-3164-44
CONST. ROBERTSON CO.
S.R. 109 STA. 420+82.37

END PROJ. NO. 83008-3229-14 CONST.
STA. 1154+76.47 S.R. 41 RT. (U.S. 31W)

BEGIN PROJ. NO. 83008-3229-14 CONST.
STA. 1134+15.00 S.R. 41 RT. (U.S. 31W)

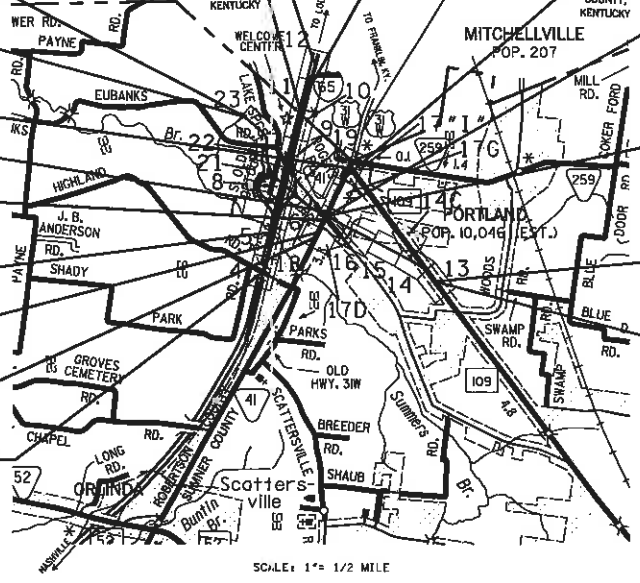
END PROJ. NO. 83008-3229-14 CONST.
STA. 1130+15.00 S.R. 41 LT. (U.S. 31W)

STP/HPP/NH-I-65-3(113)
BEGIN PROJ. NO. 74003-2164-44 R.O.W.
I-65 STA. 1831+03.82

BEGIN PROJ. NO. 83008-2229-14 R.O.W. SUMNER CO.
PROJ. NO. 74096-2201-14 R.O.W. ROBERTSON CO.
STA. 1124+59.06 S.R. 41 (U.S. 31W)

BEGIN PROJ. NO. 83008-3229-14 CONST.
STA. 1122+50.00 S.R. 41 LT. (U.S. 31W)

STP/HPP/NH-I-65-3(113)
BEGIN PROJ. NO. 74003-3164-44 ROBERTSON CO. CONST.
I-65 STA. 1813+29.95



SCALE: 1" = 1/2 MILE
0 0.5 1.0 1.5

ROADWAY LENGTH - I-65	1.723 MILES
ROADWAY LENGTH - S.R. 109	2.027 MILES
BRIDGE LENGTH	. MILES
BOX BRIDGE LENGTH	. MILES
PROJECT LENGTH	. MILES
TOTAL LANE MILES RESURFACED	. MILES

STP/HPP/NH-I-65-3(113)
END PROJ. NO. 74003-2165-44 R.O.W.
I-65 STA. 1893+98.37

END PROJ. NO. 83008-2229-14 R.O.W. SUMNER CO.
PROJ. NO. 74096-2201-14 R.O.W. ROBERTSON CO.
STA. 1150+15.29 S.R. 41 (U.S. 31W)

END PROJ. NO. 83001-3143-44
CONST. SUMNER CO.
BEGIN PROJ. NO. 74003-3164-44
CONST. ROBERTSON CO.
STA. 362+36.28 S.R. 109

END PROJ. NO. 83001-2143-44
R.O.W. SUMNER CO.
BEGIN PROJ. NO. 74003-2164-44
R.O.W. ROBERTSON CO.
STA. 362+36.28 S.R. 109

BEGIN PROJ. NO. 83001-2143-44
R.O.W. SUMNER CO.
S.R. 109 STA. 308+02.00

BEGIN PROJ. NO. 83001-3143-44
CONST. SUMNER CO.
S.R. 109 STA. 308+00.00

CONSTRUCTABILITY FIELD REVIEW

SEALED BY

NO EXCLUSIONS
NO EQUATIONS

SURVEY DATE: 09/22/2011

I-65 TRAFFIC DATA	
ADT (2014)	56,560
ADT (2034)	89,300
DHV (2034)	10,153
D	55 - 45
T (ADT)	29 X
T (DHV)	19 X
V	70 MPH

SR-109 TRAFFIC DATA	
ADT (2014)	10,300
ADT (2034)	19,260
DHV (2034)	2,478
D	50 - 50
T (ADT)	16 X
T (DHV)	11 X
V	70 MPH

APPROVED: Paul D. Degges
PAUL D. DEGGES, CHIEF ENGINEER
DATE:

APPROVED:
JOHN SCHROER, COMMISSIONER

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED:
DIVISION ADMINISTRATOR DATE

SPECIAL NOTES

PROPOSALS MAY BE REJECTED BY THE COMMISSIONER IF ANY OF THE UNIT PRICES CONTAINED THEREIN ARE OBVIOUSLY UNBALANCED, EITHER EXCESSIVE OR BELOW THE REASONABLE COST ANALYSIS VALUE.

THIS PROJECT TO BE CONSTRUCTED UNDER THE STANDARD SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION DATED FEBURARY 4, 2014 AND ADDITIONAL SPECIFICATIONS AND SPECIAL PROVISIONS CONTAINED IN THE PLANS AND IN THE PROPOSAL CONTRACT.

TDOT DESIGN MANAGER 1 FREDRICK MILLER, P.E.
DESIGNED BY PALMER ENGINEERING COMPANY
DESIGNER BRIAN LEE, P.E.
P.E. NO. ROBERTSON : 74003-1160-44
SUMNER : 83001-1140-44
PIN 107338.00

5/2/2014 8:04:4 PM
TATDOT\Robertson\I-65_SR-109\RB065-04-DGN.dgn

COMPLIANCE CERTIFICATION

YOU ARE REQUIRED TO SUBMIT THIS SIGNED CERTIFICATION REGARDING THE COMPLETED ACTIVITY AND ANY REQUIRED MITIGATION

I hereby certify that the work authorized by **Permit No.** _____, and any required mitigation was done in accordance with the Corps authorization, including any general or special conditions.

_____
Permittee Signature

_____
Date

Please note that your permitted activity is subject to a compliance inspection by an U.S. Army Corps of Engineers representative.

Submit this signed certification to the address checked below:

☐ U.S. Army Corps of Engineers
Regulatory Branch
3701 Bell Road
Nashville, TN 37214

☐ Eastern Regulatory Field Office
501 Adesa Blvd
Suite 250
Lenoir City, Tennessee 37771

☐ Western Regulatory Field Office
2042 Beltline Road, Southwest
Building C, Suite 415
Decatur, AL 35601

_____
Project Manager

US Army Corps of Engineers
Nashville District

Nationwide Permit

No. 14, Linear Transportation Projects

Activities required for the construction, expansion, modification, or improvement of linear transportation projects (e.g., roads, highways, railways, trails, airport runways, and taxiways) in waters of the United States. For linear transportation projects in non-tidal waters, the discharge cannot cause the loss of greater than ½-acre of waters of the United States. For linear transportation projects in tidal waters, the discharge cannot cause the loss of greater than ⅓-acre of waters of the United States. Any stream channel modification, including bank stabilization, is limited to the minimum necessary to construct or protect the linear transportation project; such modifications must be in the immediate vicinity of the project.

This NWP also authorizes temporary structures, fills, and work necessary to construct the linear transportation project. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. Temporary fills must be removed in their entirety and the affected areas returned to preconstruction elevations. The areas affected by temporary fills must be revegetated, as appropriate.

This NWP cannot be used to authorize non-linear features commonly associated with transportation projects, such as vehicle maintenance or storage buildings, parking lots, train stations, or aircraft hangars.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if: (1) The loss of waters of the United States exceeds $^{1}/_{10}$-acre; or (2) there is a discharge in a special aquatic site, including wetlands. (See general condition 31.)

(Sections 10 and 404)

Note: Some discharges for the construction of farm roads or forest roads, or temporary roads for moving mining equipment, may qualify for an exemption under Section 404(f) of the Clean Water Act (see 33 CFR 323.4).

US Army Corps of Engineers
Nashville District

Nationwide Permit Conditions

The following General Conditions must be followed in order for any authorization by NWP to be valid:

1. Navigation. (a) No activity may cause more than a minimal adverse effect on navigation.

(b) Any safety lights and signals prescribed by the US Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the US.

(c) The permittee understands and agrees that, if future operations by the US require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the US. No claim shall be made against the US on account of any such removal or alteration.

2. Aquatic Life Movements. No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. All permanent and temporary crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species.

3. Spawning Areas. Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.

4. Migratory Bird Breeding Areas. Activities in waters of the US that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.

5. Shellfish Beds. No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWPs 4 and 48, or is a shellfish seeding or habitat restoration activity authorized by NWP 27.

6. Suitable Material. No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see Section 307 of the Clean Water Act).

7. Water Supply Intakes. No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.

8. Adverse Effects From Impoundments. If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.

9. Management of Water Flows. To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization and storm water management activities, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

10. Fills Within 100-Year Floodplains. The activity must comply with applicable FEMA-approved state or local floodplain management requirements.

11. Equipment. Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.

12. Soil Erosion and Sediment Controls. Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the US during periods of low-flow or no-flow.

13. Removal of Temporary Fills. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

14. Proper Maintenance. Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety and compliance with applicable NWP general conditions, as well as any activity-specific conditions added by the district engineer to an NWP authorization.

15. Single and Complete Project. The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

16. Wild and Scenic Rivers. No activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency responsible for the designated Wild and Scenic River or study river (e.g., National Park Service, US Forest Service, US Fish and Wildlife Service).

17. Tribal Rights. No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

18. Endangered Species. (a) No activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify the critical habitat of such species. No activity is authorized under any NWP which "may affect" a listed species or critical habitat, unless Section 7 consultation addressing the effects of the proposed activity has been completed.

(b) Federal agencies should follow their own procedures for complying with the requirements of the ESA. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will review the documentation and determine whether it is sufficient to address ESA compliance for the NWP activity, or whether additional ESA consultation is necessary.

(c) Non-federal permittees must submit a pre-construction notification (PCN) to the district engineer if any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally-listed endangered or threatened species or designated critical habitat, the PCN must include the name(s) of the endangered or threatened species that might be affected by the proposed work or that utilize the designated critical habitat that might be affected by the proposed work. The district engineer will determine whether the proposed activity "may affect" or will have "no effect" to listed species and designated critical habitat and will notify the non-Federal applicant of the Corps' determination within 45 days of receipt of a complete PCN. In cases where the non-Federal applicant has identified listed species or critical habitat that might be affected or is in the vicinity of the project, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification the proposed activities will have "no effect" on listed species or critical habitat, or until Section 7 consultation has been completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from Corps.

(d) As a result of formal or informal consultation with the USFWS or NMFS the district engineer may add species-specific regional endangered species conditions to the NWPs.

(e) Authorization of an activity by a NWP does not authorize the "take" of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from the USFWS or the NMFS, The Endangered Species Act prohibits any person subject to the jurisdiction of the US to take a listed species, where "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The word "harm" in the definition of "take" means an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.

(f) Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the USFWS and NMFS at http://www.fws.gov/ or http://www.fws.gov/ipac and http://www.noaa.gov/fisheries.html respectively.

19. Migratory Birds and Bald and Golden Eagles. The permittee is responsible for obtaining any "take" permits required under the USFWS's regulations governing compliance with the Migratory Bird Treaty Act or the Bald and Golden Eagle Protection Act. The permittee should contact the appropriate local office of the USFWS to determine if such "take" permits are required for a particular activity.

20. Historic Properties. (a) In cases where the district engineer determines that the activity may affect properties listed, or eligible for listing, in the National Register of Historic Places, the activity is not authorized, until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.

(b) Federal permittees should follow their own procedures for complying with the requirements of Section 106 of the National Historic Preservation Act. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will review the documentation and determine whether it is sufficient to address section 106 compliance for the NWP activity, or whether additional section 106 consultation is necessary.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if the authorized activity may have the potential to cause effects to any historic properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the pre-construction notification must state which historic properties may be affected by the proposed work or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of or potential for the presence of historic resources can be sought from the State Historic Preservation Officer or Tribal Historic Preservation Officer, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). When reviewing pre-construction notifications, district engineers will comply with the current procedures for addressing the requirements of Section 106 of the National Historic Preservation Act. The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts, which may include background research, consultation, oral history interviews, sample field investigation, and field survey. Based on the information submitted and these efforts, the district engineer shall determine whether the proposed activity has the potential to cause an effect on the historic properties. Where the non-Federal applicant has identified historic properties on which the activity may have the potential to cause effects and notified the Corps, the non-Federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects or that consultation under Section 106 of the NHPA is complete.

(d) The district engineer will notify the prospective permittee within 45 days of receipt of a complete pre-construction notification whether NHPA Section 106 consultation is required. Section 106 consultation is not required when the Corps determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR §800.3(a)). If NHPA section 106 consultation is required and will occur, the district engineer will notify the non-Federal applicant that he or she cannot begin work until Section 106 consultation is completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(e) Prospective permittees should be aware that section 110k of the NHPA (16 U.S.C. 470h-2(k)) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of Section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the activity on historic properties.

21. Discovery of Previously Unknown Remains and Artifacts. If you discover any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activity authorized by this permit, you must immediately notify the district engineer of what you have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the Federal, Tribal and state coordination required to determine if the items or remains warrant recovery effort or if the site is eligible for listing in the National Register of Historic Places.

22. Designated Critical Resource Waters. Critical resource waters include, NOAA-managed marine sanctuaries and marine monuments, and National Estuarine Research Reserves. The district engineer may designate, after notice and opportunity for public comment, additional waters officially designated by a state as having particular environmental or ecological significance, such as outstanding national resource waters or state natural heritage sites. The district engineer may also designate additional critical resource waters after notice and opportunity for public comment.

(a) Discharges of dredged or fill material into waters of the US are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, 50, 51, and 52 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters.

(b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, and 38, notification is required in accordance with general condition 31, for any activity proposed in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWPs only after it is determined that the impacts to the critical resource waters will be no more than minimal.

23. Mitigation. The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that adverse effects on the aquatic environment are minimal:

(a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the US to the maximum extent practicable at the project site (i.e., on site).

(b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating for resource losses) will be required to the extent necessary to ensure that the adverse effects to the aquatic environment are minimal.

(c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse effects of the proposed activity are minimal, and provides a project-specific waiver of this requirement. For wetland losses of 1/10-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in minimal adverse effects on the aquatic environment. Compensatory mitigation projects provided to offset losses of aquatic resources must comply with the applicable provisions of 33 CFR part 332.

(1) The prospective permittee is responsible for proposing an appropriate compensatory mitigation option if compensatory mitigation is necessary to ensure that the activity results in minimal adverse effects on the aquatic environment.

(2) Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, wetland restoration should be the first compensatory mitigation option considered.

(3) If permittee-responsible mitigation is the proposed option, the prospective permittee is responsible for submitting a mitigation plan. A conceptual or detailed mitigation plan may be used by the district engineer to make the decision on the NWP verification request, but a final mitigation plan that addresses the applicable requirements of 33 CFR 332.4(c)(2) – (14) must be approved by the district engineer before the permittee begins work in waters of the US, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation (see 33 CFR 332.3(k)(3)).

(4) If mitigation bank or in-lieu fee program credits are the proposed option, the mitigation plan only needs to address the baseline conditions at the impact site and the number of credits to be provided.

(5) Compensatory mitigation requirements (e.g., resource type and amount to be provided as compensatory mitigation, site protection, ecological performance standards, monitoring requirements) may be addressed through conditions added to the NWP authorization, instead of components of a compensatory mitigation plan.

(d) For losses of streams or other open waters that require pre-construction notification, the district engineer may require compensatory mitigation, such as stream rehabilitation, enhancement, or preservation, to ensure that the activity results in minimal adverse effects on the aquatic environment.

(e) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWPs. For example, if an NWP has an acreage limit of 1/2-acre, it cannot be used to authorize any project resulting in the loss of greater than 1/2-acre of waters of the US, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that a project already meeting the established acreage limits also satisfies the minimal impact requirement associated with the NWPs.

(f) Compensatory mitigation plans for projects in or near streams or other open waters will normally include a requirement for the restoration or establishment, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, riparian areas may be the only compensatory mitigation required. Riparian areas should consist of native species. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address documented water quality or habitat loss concerns. If it is not possible to establish a riparian area on both sides of a stream, or if the waterbody is a lake or coastal waters, then restoring or establishing a riparian area along a single bank or shoreline may be sufficient. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.

(g) Permittees may propose the use of mitigation banks, in-lieu fee programs, or separate permittee-responsible mitigation. For activities resulting in the loss of marine or estuarine resources, permittee-responsible compensatory mitigation may be environmentally preferable if there are no mitigation banks or in-lieu fee programs in the area that have marine or estuarine credits available for sale or transfer to the permittee. For permittee-responsible mitigation, the special conditions of the NWP verification must clearly indicate the party or parties responsible for the implementation and performance of the compensatory mitigation project, and, if required, its long-term management.

(h) Where certain functions and services of waters of the US are permanently adversely affected, such as the conversion of a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse effects of the project to the minimal level.

24. Safety of Impoundment Structures. To ensure that all impoundment structures are safely designed, the district engineer may require non-Federal applicants to demonstrate that the structures comply with established state dam safety criteria or have been designed by qualified persons. The district engineer may also require documentation that the design has been independently reviewed by similarly qualified persons, and appropriate modifications made to ensure safety.

25. Water Quality. Where States and authorized Tribes, or EPA where applicable, have not previously certified compliance of an NWP with CWA Section 401, individual 401 Water Quality Certification must be obtained or waived (see 33 CFR 330.4(c)). The district engineer or State or Tribe may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality.

26. Coastal Zone Management. In coastal states where an NWP has not previously received a state coastal zone management consistency concurrence, an individual state coastal zone management consistency concurrence must be obtained, or a presumption of concurrence must occur (see 33 CFR 330.4(d)). The district engineer or a State may require additional measures to ensure that the authorized activity is consistent with state coastal zone management requirements.

27. Regional and Case-By-Case Conditions. The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state, Indian Tribe, or USEPA in its section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination.

28. Use of Multiple Nationwide Permits. The use of more than one NWP for a single and complete project is prohibited, except when the acreage loss of waters of the US authorized by the NWPs does not exceed the acreage limit of the NWP with the highest specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the US for the total project cannot exceed 1/3-acre.

29. Transfer of Nationwide Permit Verifications. If the permittee sells the property associated with a nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the nationwide permit verification must be attached to the letter, and the letter must contain the following statement and signature: "When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below."

_____

(Transferee)

_____

(Date)

30. Compliance Certification. Each permittee who receives an NWP verification letter from the Corps must provide a signed certification documenting completion of the authorized activity and any required compensatory mitigation. The success of any required permittee-responsible mitigation, including the achievement of ecological performance standards, will be addressed separately by the district engineer. The Corps will provide the permittee the certification document with the NWP verification letter. The certification document will include:

(a) A statement that the authorized work was done in accordance with the NWP authorization, including any general, regional, or activity-specific conditions;

(b) A statement that the implementation of any required compensatory mitigation was completed in accordance with the permit conditions. If credits from a mitigation bank or in-lieu fee program are used to satisfy the compensatory mitigation requirements, the certification must include the documentation required by 33 CFR 332.3(l)(3) to confirm that the permittee secured the appropriate number and resource type of credits; and

(c) The signature of the permittee certifying the completion of the work and mitigation.

31. Pre-Construction Notification (PCN). (a) Timing. Where required by the terms of the NWP, the prospective permittee must notify the district engineer by submitting a PCN as early as possible. The district engineer must determine if the PCN is complete within 30 calendar days of the date of receipt and, if the PCN is determined to be incomplete, notify the prospective permittee within that 30 day period to request the additional information necessary to make the PCN complete. As a general rule, district engineers will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the district engineer. The prospective permittee shall not begin the activity until either:

(1) He or she is notified in writing by the district engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or

(2) 45 calendar days have passed from the district engineer's receipt of the complete PCN and the prospective permittee has not received written notice from the district or division engineer. However, if the permittee was required to notify the Corps pursuant to general condition 18 that listed species or critical habitat might be affected or in the vicinity of the project, or to notify the Corps pursuant to general condition 20 that the activity may have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that there is "no effect" on listed species or "no potential to cause effects" on historic properties, or that any consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or Section 106 of the National Historic Preservation (see 33 CFR 330.4(g)) has been completed. Also, work cannot begin under NWPs 21, 49, or 50 until the permittee has received written approval from the Corps. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee may not begin the activity until the district engineer issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) Contents of Pre-Construction Notification: The PCN must be in writing and include the following information:

(1) Name, address and telephone numbers of the prospective permittee;

(2) Location of the proposed project;

(3) A description of the proposed project; the project's purpose; direct and indirect adverse environmental effects the project would cause, including the anticipated amount of loss of water of the US expected to result from the NWP activity, in acres, linear feet, or other appropriate unit of measure; any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity. The description should be sufficiently detailed to allow the district engineer to determine that the adverse effects of the project will be minimal and to determine the need for compensatory mitigation. Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the project and when provided results in a quicker decision. Sketches should contain sufficient detail to provide an illustrative description of the proposed activity (e.g., a conceptual plan), but do not need to be detailed engineering plans);

(4) The PCN must include a delineation of wetlands, other special aquatic sites, and waters, such as lakes and ponds, and perennial, intermittent, and ephemeral streams, on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters on the project site, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many waters of the US. The 45 day period will not start until the delineation has been submitted to or completed by the Corps, as appropriate;

(5) If the proposed activity will result in the loss of greater than 1/10-acre of wetlands and a PCN is required, the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied, or explaining why the adverse effects are minimal and why compensatory mitigation should not be required. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan.

(6) If any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, for non-Federal applicants the PCN must include the name(s) of those endangered or threatened species that might be affected by the proposed work or utilize the designated critical habitat that may be affected by the proposed work. Federal applicants must provide documentation demonstrating compliance with the Endangered Species Act; and

(7) For an activity that may affect a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, for non-Federal applicants the PCN must state which historic property may be affected by the proposed work or include a vicinity map indicating the location of the historic property. Federal applicants must provide documentation demonstrating compliance with Section 106 of the National Historic Preservation Act.

(c) Form of PCN Notification: The standard individual permit application form (Form ENG 4345) may be used, but the completed application form must clearly indicate that it is a PCN and must include all of the information required in paragraphs (b)(1) through (7) of this general condition. A letter containing the required information may also be used.

(d) Agency Coordination: (1) The district engineer will consider any comments from Federal and state agencies concerning the proposed activity's compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the project's adverse environmental effects to a minimal level.

(2) For all NWP activities that require PCN notification and result in the loss of greater than 1/2-acre of waters of the US, for NWP 21, 29, 39, 40, 42, 43, 44, 50, 51, and 52 activities that require PCN notification and will result in the loss of greater than 300 linear feet of intermittent and ephemeral stream bed, and for all NWP 48 activities that require PCN notification, the district engineer will immediately provide (e.g., via e-mail, facsimile transmission, overnight mail, or other expeditious manner) a copy of the complete PCN to the appropriate Federal or state offices (USFWS, state natural resource or water quality agency, EPA, State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Office (THPO), and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will have 10 calendar days from the date the material is transmitted to telephone or fax the district engineer notice that they intend to provide substantive, site-specific comments. The comments must explain why the agency believes the adverse effects will be more than minimal. If so contacted by an agency, the district engineer will wait an additional 15 calendar days before making a decision on the PCN notification. The district engineer will fully consider agency comments received within the specified time frame concerning the proposed activity's compliance with the terms and conditions of the NWPs, including the need for mitigation to ensure the net adverse environmental effects to the aquatic environment of the proposed activity are minimal. The district engineer will provide no response to the resource agency, except as provided below. The district engineer will indicate in the administrative record associated with each PCN notification that the resource agencies' concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur. The district engineer will consider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5.

(3) In cases of where the prospective permittee is not a Federal agency, the district engineer will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation recommendations, as required by Section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act.

(4) Applicants are encouraged to provide the Corps with either electronic files or multiple copies of PCN notifications to expedite agency coordination.

Further Information

1. District Engineers have authority to determine if an activity complies with the terms and conditions of an NWP.

2. NWPs do not obviate the need to obtain other federal, state, or local permits, approvals, or authorizations required by law.

3. NWPs do not grant any property rights or exclusive privileges.

4. NWPs do not authorize any injury to the property or rights of others.

5. NWPs do not authorize interference with any existing or proposed Federal project.

NWP

Ms. Tammy Tuley
Corps

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
ENVIRONMENTAL DIVISION
SUITE 900, JAMES K. POLK BUILDING
505 DEADERICK STREET
NASHVILLE, TENNESSEE 37243-1402
(615) 741-3655

JOHN C. SCHROER
COMMISSIONER

BILL HASLAM
GOVERNOR

July 15, 2014

LRN-2014-00805

Mr. Jimmy Smith
Natural Resource Section
Tennessee Department of Environment and Conservation
11th Floor William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue
Nashville, Tennessee 37243

Subject: Project # 74003-1160-44
PIN 107338.00
Interstate 65
Proposed Interchange,
Existing State Route 109 to Interstate 65
Robertson-Sumner Counties

Dear Mr. Smith:

The Tennessee Department of Transportation is proposing to construct a new interchange on Interstate 65 near the existing Lake Springs Road crossing in Robertson and Sumner Counties. The project will include relocating State Route 109 from existing State Route 109 east of I-65 to I-65 just south of the existing Lake Springs Road crossing. A new interchange will be constructed at I-65 and the Relocated SR-109 alignment. As part of the new interchange configuration, Vaughn Road will be extended eastward to connect to the Relocated State Route 109 at the new I-65 terminus. Also included within the project scope are the crossing/impact of three (3) streams, and two (2) wetlands. The project scope also includes all associated drainage improvements. The total proposed length of roadway construction, utilities, and improvements equals 3.75 miles. In accordance with T.C.A. 69-3-108(b), this office is submitting form CN-1091 identifying where permits may be needed.

The primary purpose of the proposed project will be to provide improved interstate access in the area that is compatible with local and regional goals and objectives. The new interchange will provide safe and adequate transportation facilities for traffic projected to be general by the existing and anticipated population and employment growth in the project vicinity, some of which is directly associated with industrial developments in the immediate area.

In addition, and in accordance with the notification requirements of the U.S. Army Corps of Engineers, we are submitting this pre-construction notification and requesting concurrence that

location numbers 2, 3, and 3A, as described within the enclosed feature impact tables, meet the criteria of the nationwide permit identified.

Please refer to the enclosed feature impact and summary tables for detailed information regarding environmental feature locations, proposed environmental feature impacts and mitigation, required environmental permits, FEMA floodplain designations, etc.

We propose to mitigate the permanent wetland impacts by debiting, at a 2:1 ratio, 0.77 acres from available wetland credits at the Harpeth Wetland Mitigation Bank. A debit sheet is enclosed.

As mitigation for 215 ft. (215 ft. x 1.0) of stream encapsulation and length losses, we propose a payment of $51,600.00. As mitigation for 163 ft. (217 ft. x 0.75) of rip-rap, we propose a payment of $ 39,120.00. A total payment of $ 90,720.00 is proposed to the In-Lieu Fee Stream Mitigation Program. **Please cite this payment to the TWRF in your permits.** 378

Efforts were made during the planning and design phases of this project to avoid impacts to waters of the U.S. and waters of the State to the extent practicable, and to minimize impacts that were not avoidable. Mitigation for these impacts has been proposed on the project site, where practicable.

A coordination email from the USFWS dated July 25, 2011, stated endangered species collection records do not indicate that federally listed or proposed endangered or threatened species occur within the present study area at this time. A copy of the Tennessee Wildlife Resources Agency consultation letter has been included for your use. A search of the TDEC, Division of Natural Areas, July 2, 2014, indicated there are two records of listed species within a 4 mile radius. Please refer to the attached species information for more information.

In a letter dated June 3, 2008, the TN-SHPO state that the area of potential effect for the subject project contains no archaeological resources eligible for listing in the National Register of Historic Places.

In a letter dated June 2, 2008, the TN-SHPO state that the area of potential effect for the subject project contains no cultural resources eligible for listing in the National Register of Historic Places.

In addition to the impacts referenced above, we are requesting that the Tennessee Department of Environment and Conservation and the Corps of Engineers include approval for all proposed outfall structures (ditches, pipes, etc.) associated with the proposed project in your permits.

It is the opinion of this office that all other aspects of the project not specifically mentioned in this letter meet the criteria for the General Permit for Wet Weather Conveyances. Please refer to the enclosed Form G for more information.

By copy of this letter, we are also requesting that the TDEC and the Corps of Engineers please include approval of a potential temporary stream crossing at each location in your permits. Temporary crossings will be located within right-of-way or easements. Copies of TDOT Standard Drawings EC-STR-25 (Temporary Road Stabilization and Temporary Culvert Crossing), EC-STR-31 (Temporary Diversion Channels), EC-STR-31A (Temporary Diversion Channel Design), and EC-STR-32 (Temporary Diversion Culverts) are enclosed for your information and use.

This project is currently scheduled for the September 24, 2014 turn-in. We would greatly appreciate your initial review and request for additional information needed, or issuance of the public notice, within 15 days of receipt of our application; and issuance of the permits as soon as possible.

If you have any questions or we can be of further assistance please contact me at (615)532-9945 or Laura Chandler at (615)741-6830.

Sincerely,

Anthony Myers
Natural Resources Office, Environmental Permits Section

Enclosures

JLH: ARM: LHC

cc: Mr. Jimmy Smith, TDEC
Ms. Tammy Turley, USACE, Nashville District

ec:
Ms. Jeanene Woodruff, TDEC
Mr. Jay Norris, HQ (Region 3) Construction Office
Ms. Lori Lange, Region 3 Project Development
Mr. Mike Brown, Region 3 Construction
Ms. Kim Bramlett, Region 3 Construction
Mr. David Sizemore, Region 3 Environmental Coordinator
Mr. Dennis Crumby, Region 3 Ecology Section
Mr. Matt Richards, HQ Ecology Section *
Mr. Benjamin Brown, HQ Ecology Section
Mr. Ronnie Porter, Program Operations Office **
Mr. Trent Thomas, TDOT Compliance
Mr. John Hewitt, Natural Resources Office
Permit File

FEATURE SUMMARY TABLE:

Location Information					Impact Description						Mitigation Description						
Location #	Feature Name	Latitude	Longitude	Stationing	Brief Impact Description	Impact Acreage to Waters of the US (ac.)	Total Existing Stream Length (ft.)	Total Proposed Stream Length (ft.)	Temporary Wetland Impact Area (ac.)	Permanent Wetland Impact Area (ac.)	In-Kind Stream Replace. Length (ft.)	Encapsul. Length @ 1.0 Ratio (ft.)	Stream Length Losses @ 1.0 Ratio (ft.)	Rip-rap Length @ 0.75 Ratio (ft.)	Canopy Length Losses @ 0.50 Ratio (ft.)	Total In-Lieu Fee	Wetland Debit (ac.)
Location #1	Summers Branch (STR-1)	36.6255	-86.5755	Sta. 1831+00 (I-65)	Culvert Extension	0.06	280	280	-	-	-	211	-	-	-	$50,640	-
Location #1A	Summers Branch (STR-1)	36.6255	-86.5755	Sta. 1831+00 (I-65)	Utility Crossing		-	-	-	-	-	-	-	-	-	-	-
Location #2	Wetland (WTL-1)	36.6232	-86.5583	Sta. 330+65 to Sta. 332+56	Permanent Impact		-	-	0.000	0.175	-	-	-	-	-	-	0.35
Location #3	Wetland (WTL-2)	36.6243	-86.561	Sta. 339+50 Lt. to Sta. 341+42 Lt.	Permanent Impact	0.025	-	-	0.000	0.208	-	-	-	-	-	-	0.42
Location #3A	Unnamed Tributary to Summers Branch (STR-3)	36.6245	-86.5615	Sta. 341+51 to Sta. 343+50	Stream Relocation		221	217	-	-	0	0	4	163	-	$40,080	-
Location #4	Stream (STR-2)	36.6253	-86.5636	Sta. 348+65 (SR 109)	Box Bridge	0.001	262	262	-	-	-	-	-	-	-	-	-
Location #4A	Stream (STR-2)	36.6253	-86.5636	Sta. 348+65 (SR-109)	Utility Crossing		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
Project Totals:							763	759	0.000	0.383	0	211	4	163	0	$90,720	0.77

FEATURE IMPACT TABLE:	Location #1 / STR-1 (Summers Brnach)
Location Information	
Location #	Location #1
Feature Name:	STR-1 (Summers Brnach)
Latitude:	36.6255
Longitude:	-86.5755
Stationing:	Sta. 1831+00
FEMA Floodplain Designation (if Zone AE, please enclose No-Rise Certification):	Zone A
Permits Required - TDEC:	ARAP: Does not fit criteria under GARAP because of cumulative impacts. Will cause more than de minimis degradation to water quality at this location.
Permits Required - Corps:	Non-Notification - Nationwide #14: This roadway crossing meets all of the following criteria required for non-notification under Nationwide #14: • Discharge results in the loss of less than a tenth of an acre • Does not affect a special aquatic site • Does not affect federally listed species • Does not affect historic properties All conditions of the Nationwide #14 General Permit will be followed during construction.
Permits Required - TVA:	N/A
CN-1091 Section 6: Project Description	
6.1: Narrative description of project scope	Extend Existing Culvert
6.2: USGS Topographic Map	Please see enclosed
6.3: Resource photographs	Please refer to photographs 1 through 2 in the enclosed Environmental Boundaries Report
6.4: Existing feature characteristics	Existing Structure: 185 ft. of 3 @ 15 ft. by 10 ft. box culvert (to remain) Existing Open Stream: 95 ft. Total Existing Length: 280 ft. Please refer to the enclosed Environmental Boundaries Report for more information.
6.5: Proposed feature characteristics	Proposed structure extension: 26 ft. of 3 @ 15 ft. by 10 ft. box culvert Proposed open stream: 68 ft. (includes 35 ± ft. of rip-rap at the inlet and 30 ± ft. rip-rap at the outlet.) Total proposed structure length: 211 ± ft. Total proposed length: 280 ft. In addition to the impact listed above, we are requesting that the Tennessee Department of Environment and Conservation include approval for all proposed outfall structures (ditches, pipes, etc) associated with the proposed bridge crossing in your permit.
* Impact acreage to waters of the US (acres):	0.06 acres
6.6: Wetland delineation documentation	N/A
6.7: Water resource hydrologic and jurisdictional determination documentation	Please refer to the enclosed Environmental Boundaries Report
CN-1091 Section 7: Project Rationale	
Description of the need for the proposed activity, alternatives, and impact minimization	Please refer to the enclosed cover letter for project rationale
CN-1091 Section 8: Technical Information	
8.1: Detailed plans, specifications, etc. included for present conditions and proposed activity	Please see enclosed
8.2: Sequencing of events and construction methods for proposed activity and compensatory mitigation	1. EPSC measures will be installed. Please refer to the enclosed EPSC sheets (107 through 107B). 2. For the construction method at this location, please refer to the enclosed note sheet (2U-2X), present layout (5), proposed layout (5A), profile (5B), and culvert cross-section (7Z)
* Proposed impact mitigation:	STREAMS: IN-LIEU FEE As mitigation for 211 ft. (211 ft. x 1.0) of stream encapsulation, we propose a payment of $50,640.00. Please cite this payment to the TWRF in your permits.
8.3: Depiction and narrative of EPSC measures	Please refer to the enclosed plan set, sheets 107 through 107B, for the EPSC plan sheets
CN-1091 Section 9: Water Resources Degradation (select one)	
My activity, as proposed, will not cause measurable degradation to water quality	
My activity, as proposed, will only cause de minimis degradation to water quality	
My activity, as proposed, will cause more than de minimis degradation to water quality (if selected, must complete Sections 10 and 11 below)	X
Unsure / need more information	
CN-1091 Section 10: Detailed Alternative Analysis	
10.1: Analysis of reasonable alternatives	**A full culvert replacement was considered, however, it was determined a extension would be feasible and miniminze impacts to the stream. A no build option was also considered. See Environmental Assessment Sheet S-1 through S-3 for more detailed alternative information.**

10.2: Discussion of social and economic consequences	**The primary purpose of the I-65 Interchange project would be to provide improved interstate access in the area that is compatible with local and regional goals and objectives. The new interchange would provide safe and adequate transportation facilities for traffic projected to be generated by the existing and anticipated population and employment growth in the project vicinity, some of which is directly associated with industrial developments in the immediate area.**
10.3: Demonstration that degradation from alternative will not violate WQ criteria	**The stream encapsulation that result from this proposed impact at this location will be mitigated via in-lieu fees that will be paid to the TSMP.**
CN-1091 Section 11: Compensatory Mitigation	
11.1: Detailed discussion of proposed compensatory mitigation	**As mitigation 211 ft. (211 ft. x 1.0) of stream encapsulation, we propose a payment of $50,640.00. A total payment of $50,640.00 is proposed to the In-Lieu Fee Stream Mitigation Program. Please cite this payment to the TSMP in your permits.**
11.2: Description of how compensatory mitig. will result in no net loss of resource value	**The in-lieu fees that are to be paid to the TSMP as mitigation for the proposed stream length losses should ensure continued resource value improvement at off-site stream mitigation sites, within the area.**
11.3: Detailed monitoring plan	**Monitoring for compensatory mitigation site to be determined by the TSMP.**
11.4: Long-term protection measures for compensatory mitigation site	**Long term protection measures for the compensatory mitigation sites to be determined by the TSMP.**

FEATURE IMPACT TABLE:	Location # 1A / STR-1 (Summers Branch)
Location Information	
Location #	Location # 1A
Feature Name:	STR-1 (Summers Branch)
Latitude:	36.6255
Longitude:	-86.5755
Stationing:	Sta. 1831+00
FEMA Floodplain Designation (if Zone AE, please enclose No-Rise Certification):	Zone A
Permits Required - TDEC:	ARAP: Meets the General ARAP criteria for the **Utility Line Crossings**. Will **only** cause de minimis degradation to water quality.
Permits Required - Corps:	Non-Notification - Nationwide #12: This utility crossing meets all of the following criteria required for non-notification under Nationwide #12: • A section 10 permit is not required • Mechanized land clearing in forested wetlands for the ROW is not occurring • Discharge results in the loss of less than a tenth of an acre • Utility line does not exceed 500 linear feet in waters of the US AND does **not** run parallel to a stream bed within jurisdictional area All conditions of the Nationwide #12 General Permit will be followed during construction.
Permits Required - TVA:	N/A
CN-1091 Section 6: Project Description	
6.1: Narrative description of project scope	Utility Crossing (Water Line)
6.2: USGS Topographic Map	Please see enclosed
6.3: Resource photographs	Please refer to photographs 1 through 2 in the enclosed Environmental Boundaries Report
6.4: Existing feature characteristics	Existing Utility line to be abandoned or removed. (Water)
6.5: Proposed feature characteristics	Utility line abandoned
* Impact acreage to waters of the US (acres):	0.001
6.6: Wetland delineation documentation	N/A
6.7: Water resource hydrologic and jurisdictional determination documentation	Please refer to the enclosed Environmental Boundaries Report
CN-1091 Section 7: Project Rationale	
Description of the need for the proposed activity, alternatives, and impact minimization	Please refer to the enclosed cover letter for project rationale
CN-1091 Section 8: Technical Information	
8.1: Detailed plans, specifications, etc. included for present conditions and proposed activity	Please see enclosed
8.2: Sequencing of events and construction methods for proposed activity and compensatory mitigation	1. EPSC measures will be installed. Please refer to the enclosed EPSC sheets (107 through 107B). 2. For the construction method at this location, please refer to the enclosed note sheet (2U-2X), present layout (5), proposed layout (5A), profile (5B), and culvert cross-section (7Z)
* Proposed impact mitigation:	MITIGATION NOT REQUIRED N/A
8.3: Depiction and narrative of EPSC measures	Please refer to the enclosed plan set, sheets 107 through 107B, for the EPSC plan sheets
CN-1091 Section 9: Water Resources Degradation (select one)	
My activity, as proposed, will not cause measurable degradation to water quality	X
My activity, as proposed, will only cause de minimis degradation to water quality	
My activity, as proposed, will cause more than de minimis degradation to water quality (if selected, must complete Sections 10 and 11 below)	
Unsure / need more information	
CN-1091 Section 10: Detailed Alternative Analysis	
10.1: Analysis of reasonable alternatives	N/A
10.2: Discussion of social and economic consequences	N/A
10.3: Demonstration that degradation from alternative will not violate WQ criteria	N/A
CN-1091 Section 11: Compensatory Mitigation	
11.1: Detailed discussion of proposed compensatory mitigation	N/A
11.2: Description of how compensatory mitig. will result in no net loss of resource value	N/A
11.3: Detailed monitoring plan	N/A
11.4: Long-term protection measures for compensatory mitigation site	N/A

FEATURE IMPACT TABLE:	Location #2 / WTL-1 (Wetland)
Location Information	
Location #	Location #2
Feature Name:	WTL-1 (Wetland)
Latitude:	36.6232°
Longitude:	86.5583°
Stationing:	Sta. 330+65 to Sta. 332+56
FEMA Floodplain Designation (if Zone AE, please enclose No-Rise Certification):	Zone A
Permits Required - TDEC:	ARAP: **Does** not fit criteria under GARAP because of cumulative impacts. **Will** cause more than de minimis degradation to water quality at this location.
Permits Required - Corps:	Impacts at this site exceed one tenth of an acre, impacts wetlands or special aquatic site; therefore, Pre-Construction Notification is required.
Permits Required - TVA:	N/A
CN-1091 Section 6: Project Description	
6.1: Narrative description of project scope	Wetland Impact
6.2: USGS Topographic Map	Please see enclosed
6.3: Resource photographs	Please refer to photograph 16 in the enclosed Environmental Boundaries Report
6.4: Existing feature characteristics	
6.5: Proposed feature characteristics	Proposed Permanent Impact: 0.175 Ac
* Impact acreage to waters of the US (acres):	0.175 Ac
6.6: Wetland delineation documentation	Please refer to the enclosed Environmental Boundaries Report
6.7: Water resource hydrologic and jurisdictional determination documentation	N/A
CN-1091 Section 7: Project Rationale	
Description of the need for the proposed activity, alternatives, and impact minimization	Please refer to the enclosed cover letter for project rationale
CN-1091 Section 8: Technical Information	
8.1: Detailed plans, specifications, etc. included for present conditions and proposed activity	Please see enclosed
8.2: Sequencing of events and construction methods for proposed activity and compensatory mitigation	**1. EPSC measures will be installed. Please refer to the enclosed EPSC sheets (118 through 118B).** **2. For the construction method at this location, please refer to the enclosed note sheet (2U-2X), present layout (15), and proposed layout (15A).**
* Proposed impact mitigation:	We propose to mitigate the permanent wetland impacts by debiting, at a 2:1 ratio, 0.35 acres from available wetland credits at the Harpeth Wetland Mitigation Bank. A debit sheet is enclosed.
8.3: Depiction and narrative of EPSC measures	Please refer to the enclosed plan set, sheets 118 through 118B, for the EPSC plan sheets
CN-1091 Section 9: Water Resources Degradation (select one)	
My activity, as proposed, will not cause measurable degradation to water quality	
My activity, as proposed, will only cause de minimis degradation to water quality	
My activity, as proposed, will cause more than de minimis degradation to water quality (if selected, must complete Sections 10 and 11 below)	**X**
Unsure / need more information	
CN-1091 Section 10: Detailed Alternative Analysis	
10.1: Analysis of reasonable alternatives	**Due to the chosen alignment, the proposed wetland impact could not be avoided. During the design phase, we requested the designer tighten the slopes as much as possible to minimize the impacts at this location. Construction limits have been limited to 15 ft. beyond the slope to avoid impacted more wetland than necessary. Please see the enclosed Environmental Assessment and Finding of No Significant Impact for additional information on the alternatives considered.**
10.2: Discussion of social and economic consequences	**The primary purpose of the I-65 interchange project would be to provide improved interstate access in the area that is compatible with local and regional goals and objectives. The new interchange would provide safe and adequate transportation facilities for traffic projected to be generated by the existing and anticipated population and employment growth in the project vicinity, some of which is directly associated with industrial developments in the immediate area.**
10.3: Demonstration that degradation from alternative will not violate WQ criteria	**The permanent wetland impact that results from the proposed impact at this location will be mitigated vie the Harpeth Wetland Mitigation Bank.**
CN-1091 Section 11: Compensatory Mitigation	
11.1: Detailed discussion of proposed compensatory mitigation	**We propose to mitigate the permanent wetland impacts by debiting, at a 2:1 ratio, 0.35 acres from available wetland credits at the Harpeth Wetland Mitigation Bank. A debit sheet is enclosed.**

11.2: Description of how compensatory mitig. will result in no net loss of resource value	**The credits to be purchased through the Harpeth Wetland Migitation Bank as mitigation for the proposed wetland impact should ensure continued resource value improvement at off-site wetland mitigation sites, within the area.**
11.3: Detailed monitoring plan	**Monitoring for compensatory mitigation site to be determined by the Harpeth Wetland Mitigation Bank.**
11.4: Long-term protection measures for compensatory mitigation site	**Long term protection measures for the compensatory mitigation sites to be determined by the Harpeth Wetland Mitigation Bank.**

FEATURE IMPACT TABLE:	Location #3 / WTL-2 (Wetland)
Location Information	
Location #	Location #3
Feature Name:	WTL-2 (Wetland)
Latitude:	36.6243°
Longitude:	86.5610°
Stationing:	Sta. 339+50 Lt. to Sta. 341+42 Lt.
FEMA Floodplain Designation (if Zone AE, please enclose No-Rise Certification):	Zone A
Permits Required - TDEC:	ARAP: Does not fit criteria under GARAP because of cumulative impacts. Will cause more than de minimis degradation to water quality at this location.
Permits Required - Corps:	Impacts at this site exceed one tenth of an acre, impacts wetlands or special aquatic site;
Permits Required - TVA:	N/A
CN-1091 Section 5: Project Description	
6.1: Narrative description of project scope	Wetland Impact
6.2: USGS Topographic Map	Please see enclosed
6.3: Resource photographs	Please refer to photograph 17 in the enclosed Environmental Boundaries Report
6.4: Existing feature characteristics	
6.5: Proposed feature characteristics	Proposed Permanent Impact: 0.208 Ac
* Impact acreage to waters of the US (acres):	N/A
6.6: Wetland delineation documentation	Please refer to the enclosed Environmental Boundaries Report
6.7: Water resource hydrologic and jurisdictional determination documentation	N/A
CN-1091 Section 7: Project Rationale	
Description of the need for the proposed activity, alternatives, and impact minimization	Please refer to the enclosed cover letter for project rationale
CN-1091 Section 8: Technical Information	
8.1: Detailed plans, specifications, etc. included for present conditions and proposed activity	Please see enclosed
8.2: Sequencing of events and construction methods for proposed activity and compensatory mitigation	**1. EPSC measures will be installed. Please refer to the enclosed EPSC sheets (118 through 119B).** **2. For the construction method at this location, please refer to the enclosed note sheet (2U-2X), present layout (15-16), and proposed layout (15A-16A).**
* Proposed impact mitigation:	We propose to mitigate the permanent wetland impacts by debiting, at a 2:1 ratio, 0.42 acres from available wetland credits at the Harpeth Wetland Mitigation Bank. A debit sheet is enclosed.
8.3: Depiction and narrative of EPSC measures	Please refer to the enclosed plan set, sheets 118 through 119B, for the EPSC plan sheets
CN-1091 Section 9: Water Resources Degradation (select one)	
My activity, as proposed, will not cause measurable degradation to water quality	
My activity, as proposed, will only cause de minimis degradation to water quality	
My activity, as proposed, will cause more than de minimis degradation to water quality (if selected, must complete Sections 10 and 11 below)	X
Unsure / need more information	
CN-1091 Section 10: Detailed Alternative Analysis	
10.1: Analysis of reasonable alternatives	**Due to the chosen alignment, the proposed wetland impact could not be avoided. During the design phase, we requested the designer tighten the slopes as much as possible to minimize the impacts at this location. Construction limits have been limited to 15 ft. beyond the slope to avoid impacted more wetland than necessary. Please see the enclosed Environmental Assessment and Finding of No Significant Impact for additional information on the alternatives considered.**
10.2: Discussion of social and economic consequences	**The primary purpose of the I-65 Interchange project would be to provide improved interstate access in the area that is compatible with local and regional goals and objectives. The new interchange would provide safe and adequate transportation facilities for traffic projected to be generated by the existing and anticipated population and employment growth in the project vicinity, some of which is directly associated with industrial developments in the immediate area.**
10.3: Demonstration that degradation from alternative will not violate WQ criteria	**The permanent wetland impact that results from the proposed impact at this location will be mitigated vie the Harpeth Wetland Mitigation Bank.**
CN-1091 Section 11: Compensatory Mitigation	
11.1: Detailed discussion of proposed compensatory mitigation	**We propose to mitigate the permanent wetland impacts by debiting, at a 2:1 ratio, 0.42 acres from available wetland credits at the Harpeth Wetland Mitigation Bank. A debit sheet is enclosed.**
11.2: Description of how compensatory mitig. will result in no net loss of resource value	**The credits to be purchased through the Harpeth Wetland Migitation Bank as mitigation for the proposed wetland impact should ensure continued resource value improvement at off-site wetland mitigation sites, within the area.**
11.3: Detailed monitoring plan	**Monitoring for compensatory mitigation site to be determined by the Harpeth Wetland Mitigation Bank.**

11.4: Long-term protection measures for compensatory mitigation site	**Long term protection measures for the compensatory mitigation sites to be determined by the Harpeth Wetland Mitigation Bank.**

FEATURE IMPACT TABLE:	Location 3A / STR-3 (Unnamed Tributary to Summers Branch)
Location Information	
Location #	Location 3A
Feature Name:	STR-3 (Unnamed Tributary to Summers Branch)
Latitude:	36.6245°
Longitude:	86.5615°
Stationing:	Sta. 341+50.88 to Sta. 343+50.00
FEMA Floodplain Designation (if Zone AE, please enclose No-Rise Certification):	Zone A
Permits Required - TDEC:	ARAP: Does not fit criteria under GARAP because of cumulative impacts. Will cause more than de minimis degradation to water quality at this location.
Permits Required - Corps:	Pre-Construction Notification- Nationwide #14: Impacts at this site exceed one tenth of an acre, impacts wetlands or special aquatic site; therefore, Pre-Construction Notification is required.
Permits Required - TVA:	N/A
CN-1091 Section 5: Project Description	
6.1: Narrative description of project scope	Stream Relocation
6.2: USGS Topographic Map	Please see enclosed
6.3: Resource photographs	Please refer to photographs 14 through 15 in the enclosed Environmental Boundaries Report
6.4: Existing feature characteristics	Existing Open Stream: 221 ft.
6.5: Proposed feature characteristics	Proposed Open Stream: 217 ft. Rip-rap along stream banks for stabilization with a natural stream bottom
* Impact acreage to waters of the US (acres):	0.025
6.6: Wetland delineation documentation	N/A
6.7: Water resource hydrologic and jurisdictional determination documentation	Please refer to the enclosed Environmental Boundaries Report
CN-1091 Section 7: Project Rationale	
Description of the need for the proposed activity, alternatives, and impact minimization	Please refer to the enclosed cover letter for project rationale
CN-1091 Section 8: Technical Information	
8.1: Detailed plans, specifications, etc. included for present conditions and proposed activity	Please see enclosed
8.2: Sequencing of events and construction methods for proposed activity and compensatory mitigation	1. EPSC measures will be installed. Please refer to the enclosed EPSC sheets (119 through 119B). 2. For the construction method at this location, please refer to the enclosed note sheet (2U-2X), present layout (16), and proposed layout (16A).
* Proposed impact mitigation:	We propose to plant two rows of trees on both sides of the new channel. Live stakes shall be installed on the channel banks from the edge of low water to bankfull of the new channel The proposed stream channel has been designed to mimic existing channel characteristics (size, shape, etc.) as closely as possible. For more details, see the proposed roadway plans. As mitigation for 4 ft. (4 ft. x 1.0) of stream length losses, we propose a payment of $960.00. As mitigation for 163 ft. (217 ft. x 0.75) of rip-rap or TRM, we propose a payment of $ 39,120.00. A total payment of $40,080.00 is proposed to the In-Lieu Fee Stream Mitigation Program. Please cite this payment to the TWRF in your permits.
8.3: Depiction and narrative of EPSC measures	Please refer to the enclosed plan set, sheets 119 through 119B, for the EPSC plan sheets
CN-1091 Section 9: Water Resources Degradation (select one)	
My activity, as proposed, will not cause measurable degradation to water quality	
My activity, as proposed, will only cause de minimis degradation to water quality	
My activity, as proposed, will cause more than de minimis degradation to water quality (if selected, must complete Sections 10 and 11 below)	X
Unsure / need more information	
CN-1091 Section 10: Detailed Alternative Analysis	
10.1: Analysis of reasonable alternatives	**The no-build option was found unfeasible due to the increasing amount of traffic in this area. Due to the chosen alignment, the proposed relocation could not be avoided. Please see the enclosed Environmental Assessment and Finding of No Significant Impact for additional information on the alternatives considered.**
10.2: Discussion of social and economic consequences	**The primary purpose of the I-65 Interchange project would be to provide improved interstate access in the area that is compatible with local and regional goals and objectives. The new interchange would provide safe and adequate transportation facilities for traffic projected to be generated by the existing and anticipated population and employment growth in the project vicinity, some of which is directly associated with industrial developments in the immediate area.**
10.3: Demonstration that degradation from alternative will not violate WQ criteria	**The stream length loss and rip-rap that result from this proposed impact at this location will be mitigated via in-lieu fees that will be paid to the TSMP.**
CN-1091 Section 11: Compensatory Mitigation	

11.1: Detailed discussion of proposed compensatory mitigation	**As mitigation for 4 ft. (4 ft. x 1.0) of stream length losses, we propose a payment of $960.00. As mitigation for 163 ft. (217ft. x 0.75) of rip-rap or TRM, we propose a payment of $ 39,120.00. A total payment of $40,080.00 is proposed to the In-Lieu Fee Stream Mitigation Program. Please cite this payment to the TWRF in your permits.**
11.2: Description of how compensatory mitig. will result in no net loss of resource value	**The in-lieu fees that are to be paid to the TSMP as mitigation for the proposed stream length losses and rip-rap should ensure continued resource value improvement at off-site stream mitigation sites, within the area.**
11.3: Detailed monitoring plan	**Monitoring for compensatory mitigation site to be determined by the TSMP.**
11.4: Long-term protection measures for compensatory mitigation site	**Long term protection measures for the compensatory mitigation sites to be determined by the TSMP.**

FEATURE IMPACT TABLE:	Location #4 / STR-2 (Unnamed Tributary to Summers Branch)
Location Information	
Location #	Location #4
Feature Name:	STR-2 (Unnamed Tributary to Summers Branch)
Latitude:	36.6253°
Longitude:	86.5636°
Stationing:	Sta. 348+65 (SR-109)
FEMA Floodplain Designation (if Zone AE, please enclose No-Rise Certification):	Zone A
Permits Required - TDEC:	ARAP: Does not fit criteria under GARAP because of cumulative impacts. Will only cause de minimis degradation to water quality at this location.
Permits Required - Corps:	Non-Notification - Nationwide #14: This roadway crossing meets all of the following criteria required for non-notification under Nationwide #14: • Discharge results in the loss of less than a tenth of an acre • Does not affect a special aquatic site • Does not affect federally listed species • Does not affect historic properties All conditions of the Nationwide #14 General Permit will be followed during construction.
Permits Required - TVA:	N/A
CN-1091 Section 6: Project Description	
6.1: Narrative description of project scope	Stream Encapsulation
6.2: USGS Topographic Map	Please see enclosed
6.3: Resource photographs	Please refer to photographs 11 and 13 in the enclosed Environmental Boundaries Report
6.4: Existing feature characteristics	Existing open stream: 216 ft. Please refer to the enclosed Environmental Boundaries Report for more information
6.5: Proposed feature characteristics	Proposed structure: 142 ± ft. of 16 ft. by 10 ft. RCBC Proposed open stream: 74 ± ft. (Proposed rip-rap at the inlet: 27 ± ft.) (Proposed rip-rap at the outlet: 15 ± ft.) Total proposed length: 216 ± ft. Intake / Outfall Structure at Sta. 10+19 (TGT Road) Proposed 18 ft. Rip-rap for Bank Stability In addition to the impact listed above, we are requesting that the Tennessee Department of Environment and Conservation include approval for all proposed outfall structures (ditches, pipes, etc) associated with the proposed bridge crossing in your permit.
* Impact acreage to waters of the US (acres):	0.049
6.6: Wetland delineation documentation	N/A
6.7: Water resource hydrologic and jurisdictional determination documentation	Please refer to the enclosed Environmental Boundaries Report
CN-1091 Section 7: Project Rationale	
Description of the need for the proposed activity, alternatives, and impact minimization	Please refer to the enclosed cover letter for project rationale
CN-1091 Section 8: Technical Information	
8.1: Detailed plans, specifications, etc. included for present conditions and proposed activity	Please see enclosed
8.2: Sequencing of events and construction methods for proposed activity and compensatory mitigation	1. EPSC measures will be installed. Please refer to the enclosed EPSC sheets (119 through 119B). 2. For the construction method at this location, please refer to the enclosed note sheet (2U-2X), present layout (16), proposed layout (16A), and profile (16B).
* Proposed impact mitigation:	MITIGATION NOT REQUIRED N/A
8.3: Depiction and narrative of EPSC measures	Please refer to the enclosed plan set, sheets 119 through 119B, for the EPSC plan sheets
CN-1091 Section 9: Water Resources Degradation (select one)	
My activity, as proposed, will not cause measurable degradation to water quality	
My activity, as proposed, will only cause de minimis degradation to water quality	X
My activity, as proposed, will cause more than de minimis degradation to water quality (if selected, must complete Sections 10 and 11 below)	
Unsure / need more information	
CN-1091 Section 10: Detailed Alternative Analysis	
10.1: Analysis of reasonable alternatives	N/A
10.2: Discussion of social and economic consequences	N/A
10.3: Demonstration that degradation from alternative will not violate WQ criteria	N/A
CN-1091 Section 11: Compensatory Mitigation	
11.1: Detailed discussion of proposed compensatory mitigation	N/A
11.2: Description of how compensatory mitig. will result in no net loss of resource value	N/A
11.3: Detailed monitoring plan	N/A
11.4: Long-term protection measures for compensatory mitigation site	N/A

FEATURE IMPACT TABLE:	Location #4A / STR-2 (Unnamed Tributary to Summers Branch)
Location Information	
Location #	Location #4A
Feature Name:	STR-2 (Unnamed Tributary to Summers Branch)
Latitude:	36.6253°
Longitude:	86.5636°
Stationing:	Sta. 348+65 (SR-109)
FEMA Floodplain Designation (if Zone AE, please enclose No-Rise Certification):	Zone A
Permits Required - TDEC:	ARAP: Meets the General ARAP criteria for the **Utility Line Crossings**. Will only cause de minimis degradation to water quality.
Permits Required - Corps:	Non-Notification - Nationwide #12: This utility crossing meets all of the following criteria required for non-notification under Nationwide #12: • A section 10 permit is not required • Mechanized land clearing in forested wetlands for the ROW is not occurring • Discharge results in the loss of less than a tenth of an acre • Utility line does not exceed 500 linear feet in waters of the US AND does not run parallel to a stream bed within jurisdictional area All conditions of the Nationwide #12 General Permit will be followed during construction.
Permits Required - TVA:	N/A
CN-1091 Section 6: Project Description	
6.1: Narrative description of project scope	Utility Crossing (Water)
6.2: USGS Topographic Map	Please see enclosed
6.3: Resource photographs	Please refer to photographs 11 and 13 in the enclosed Environmental Boundaries Report
6.4: Existing feature characteristics	Existing Utility line to be abandoned.
6.5: Proposed feature characteristics	Proposed Water Line Crossing
* Impact acreage to waters of the US (acres):	0.001
6.6: Wetland delineation documentation	Please refer to the enclosed Environmental Boundaries Report
6.7: Water resource hydrologic and jurisdictional determination documentation	N/A
CN-1091 Section 7: Project Rationale	
Description of the need for the proposed activity, alternatives, and impact minimization	Please refer to the enclosed cover letter for project rationale
CN-1091 Section 8: Technical Information	
8.1: Detailed plans, specifications, etc. included for present conditions and proposed activity	Please see enclosed
8.2: Sequencing of events and construction methods for proposed activity and compensatory mitigation	1. EPSC measures will be installed. Please refer to the enclosed EPSC sheets (119 through 119B). 2. For the construction method at this location, please refer to the enclosed note sheet (2U-2X), present layout (16), proposed layout (16A), and profile (16B).
* Proposed impact mitigation:	MITIGATION NOT REQUIRED N/A
8.3: Depiction and narrative of EPSC measures	Please refer to the enclosed plan set, sheets 119 through 119B, for the EPSC plan sheets
CN-1091 Section 9: Water Resources Degradation (select one)	
My activity, as proposed, will not cause measurable degradation to water quality	X
My activity, as proposed, will only cause de minimis degradation to water quality	
My activity, as proposed, will cause more than de minimis degradation to water quality (if selected, must complete Sections 10 and 11 below)	
Unsure / need more information	
CN-1091 Section 10: Detailed Alternative Analysis	
10.1: Analysis of reasonable alternatives	N/A
10.2: Discussion of social and economic consequences	N/A
10.3: Demonstration that degradation from alternative will not violate WQ criteria	N/A
CN-1091 Section 11: Compensatory Mitigation	
11.1: Detailed discussion of proposed compensatory mitigation	N/A
11.2: Description of how compensatory mitig. will result in no net loss of resource value	N/A
11.3: Detailed monitoring plan	N/A
11.4: Long-term protection measures for compensatory mitigation site	N/A

WET WEATHER CONVEYANCE SUMMARY TABLE:

Location Information				Impact Description			
Feature Name	Latitude	Longitude	Stationing	Brief Impact Description	Total Existing Feature Length (ft.)	Total Proposed Feature Length (ft.)	Total Feature Impact Area (ac.)
WWC-1	36.6335	-86.5765	Sta.35+10 (Lake Springs Road)	Encapsulation	85	87	0.016
WWC-1	36.6339	-86.5747	Sta.17+00 (Frontage Rd)	Encapsulation	132	132	0..02
WWC-1	36.6391	-86.5719	Sta. 398+00 (SR-109)	Relocation	154	415	0.028
WWC-2	36.6315	-86.5741	Sta. 466+40 - Sta. 470+08 (Ramp H)	Encapsulation	448	446	0.015
WWC-2	36.6313	-86.5731	Sta. 1845+00 - Sta. 1851+00 (I-65)	Relocation	1411	1276	0.065
WWC-2	36.6314	-86.5725	Sta. 204+50 (Ramp C)	Encapsulation	290	282	0.010
WWC-3	36.6296	-86.576	Sta. 306+60 Rt (Ramp E)	Not Impacted	N/A	N/A	N/A
WWC-4	36.6299	-86.5746	Sta. 1845+00 - Sta.1846+01 (I-65)	Length loss	112	0	0.002
WWC-6	36.625	-86.5627	Sta. 344+70 Lt. to Sta. 346+70 Lt. (SR-109)	Length loss	440	227	0.010
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
				Project Totals:	**3072**	**2865**	**0.146**

(Summary Table - ONLY WWCs)

STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES
William R. Snodgrass - Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor
Nashville, Tennessee 37243-1102

October 3, 2014

Mr. Jim Ozment
505 Deaderick Street Suite 900
James K. Polk Building
Nashville, Tennessee 37243-0334

RE: Proposed Interstate 65 Interchange with SR 109 TDOT Project 74003-1160-44
UIC Number ROB 0000036

Dear Mr. Ozment:

Thank you for submitting information required to obtain an Authorization By Rule for a Class V Injection Well. Enclosed you will find the approval for the Proposed Interstate 65 Interchange with SR 109 TDOT Project 74003-1160-44.

Please feel free to contact Scotty Sorrells at (615) 532-9224 or me at (615) 532-0159 regarding this correspondence.

Thank you for your cooperation.

Sincerely,

Anna Rollins

Anna Rollins
Drinking Water Unit Manager
c.c. file

STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES
William R. Snodgrass - Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor
Nashville, Tennessee 37243-1102

Authorization No. ROB 0000036

Authorization By Rule
For the operation of a Class V Injection System

In accordance with the provision of Tennessee Code Annotated section 69-3-108 and Regulations promulgated pursuant thereto:

PERMISSION IS HEREBY GRANTED TO

Mr. Jim Ozment
Proposed Interstate 65 Interchange with SR 109 TDOT Project 74003-1160-44
505 Deaderick Street Suite 900 James K. Polk Building
Nashville, Davidson County, Tennessee

FOR THE OPERATION OF

Description of system

This authorization is for three Class V Injection Wells located in the shoulder of the roadway of interstate 65 at the interchange with SR 109. The Latitude and Longitude for each injection well is recorded in Part III (I) of this authorization. The applicant wishes to use the pre-approved TDOT Sinkhole Treatment 4. This is an acceptable plan for the remediation or modification of the sinkhole(s). The Division agrees with your approach to using approved erosion and sediment control procedures as contained in the Tennessee Erosion and Sediment Control Handbook.

This authorization by rule is issued as a result of the application filed on October 3, 2014 in the office of the Tennessee Division of Water Resources (DWR) Water Quality Branch, Drinking Water Unit and in conformity with approved plans, specifications and other data submitted to the Section in support of the above application, all of which are filed with and considered as a part of this authorization together with the following named conditions and requirements.

This authorization by rule shall become effective on: October 3, 2014

This authorization by rule shall expire on: October 3, 2019

Issuance date: October 3, 2014

Anna Rollins

Anna Rollins
Division Of Water Resources
Water Quality Branch-Drinking Water Unit Manager

PART I

A. GENERAL REQUIREMENTS

All sinkholes shall be protected from sediment and contaminated surface water runoff during construction. While the area is being stabilized, sediment control and erosion protection measures should be designed, installed and maintained according to the guidelines in the Tennessee Erosion and Sediment Control Handbook.

At no time can a karst feature be used as a sediment trap. All sinkholes and other karst features are to remain free from silt and protected from erosion.

This authorization allows the operation of a Class V Underground Injection Well. The operation should be such that there is no contamination of any subsurface stream. Any runoff due to improper operation must be reported in writing to the Division of Water Resources within five (5) days of the incident. In addition, the Class V Underground Injection Well system must be operated in a manner preventing the creation of a public health hazard or a public/private nuisance.

The Division requires a minimum of seven (7) working days written advance notice before construction on any of the karst area to allow for Division personnel to be present. Failure to do so could cause the Division to seek enforcement actions toward the owner/developer.

If other karst features are discovered at any time during the clearing or construction of the property, all work around the area is to cease. Erosion control devices are to be placed and the Division is to be notified within twenty-four (24) hours of the discovery.

All groundwater discharge activities must operate in such a manner that they do not present a hazard to groundwater.

B. MONITORING PROCEDURES

1. Representative Sampling

Samples and measurements taken in compliance with the monitoring requirements specified above shall be representative of the volume and nature of the monitored discharge, and shall be taken at the following location(s):

No samples are required for this project. The application is to fill three sinkhole(s) and to direct all stormwater from this facility to surface water and thereby not allowing stormwater to be directed to any structure that discharges to a sinkhole or the subsurface.

C. DEFINITIONS AS PER DIVISION RULE

An "Injection well" means structure or device which is used for the emplacement of fluids into a subsurface stratum including, but not limited to:

a. A well used for the emplacement of fluids;

b. A subsurface fluid distribution system;

c. An improved sinkhole; or

d. Infiltration cell and any other structures or devices designed, constructed or used to emplace fluids into the subsurface, except as provided in rule 0400-45-06-.03(3).

"Pollution" means such alteration of the physical, chemical, biological, bacteriological, or radiological properties of waters of this State including, but not limited to, changes in temperature, taste, color, turbidity, or odor of the waters:

a. As will result or will likely result in harm, potential harm or detriment of the public health, safety, or welfare;

b. As will result or will likely result in harm, potential harm or detriment to the health of animals, birds, fish, or aquatic life;

c. As will render or will likely render the waters substantially less useful to domestic, municipal, industrial, agricultural, recreational, or other reasonable uses; or

d. As will leave or will likely leave the waters in such condition as to violate any standards of water quality established by Water Quality, Oil and Gas Board.

A "Sinkhole" means a naturally occurring closed depression in a karst area characterized by inward drainage (inlets) accepting runoff from the surrounding area and having no visible surface outlet.

D. REPORTING

Operation reports and any communication regarding compliance with the conditions of this authorization must be sent to:

STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES
Drinking Water Unit
William R. Snodgrass - Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor
Nashville, Tennessee 37243-1102

The first operation report is due on the 15th of the month following authorization effectiveness.

No operation reports are due at this time.

1. Additional Monitoring by Permittee

If the owner/operator monitors any pollutant at the location(s) designated herein more frequently than required by this authorization, using an approved analytical methods and laboratory from the approved certified laboratory list (list found at http://www.state.tn.us/environment/water/docs/water-supply/micro_labs.pdf,) the results of such monitoring shall be included in the calculation and reporting of the values required in the Quarterly Operation Report. Such increased frequency shall also be indicated.

2. Falsifying Reports

Knowingly making any false statement on any report required by this authorization may result in the imposition of criminal penalties as provided for in Section 69-3-115 of the Tennessee Water Quality Control Act.

E. SCHEDULE OF COMPLIANCE

Full operational level shall be attained from the effective date of this authorization.

PART II

A. GENERAL PROVISIONS

1. Duty to Reapply

The owner/operator is not authorized to discharge or modify any karst feature after the expiration date of this authorization. In order to receive authorization to discharge or modify any karst feature beyond the expiration date, the owner/operator shall submit such information and forms as are required to the Director of Water Resources (hereinafter the "Director") no later than 180 days prior to the expiration date.

2. Right of Entry

The owner/operator shall allow the Director, or authorized representatives, upon the presentation of credentials:

a. To enter upon the recipient's premises where an effluent source is located or where records are required to be kept under the terms and conditions of this authorization, and at reasonable times to copy these records;

b. To inspect at reasonable times any monitoring equipment or method or any collection, treatment, pollution management, or discharge facilities required under this authorization; and

c. To sample at reasonable times any discharge of pollutants.

3. Availability of Reports

All reports prepared in accordance with the terms of this authorization shall be available for public inspection at the offices of the Division of Water Resources.

4. Proper Operation and Maintenance

a. The owner/operator shall at all times properly operate and maintain all facilities and systems (and related appurtenances) for collection and treatment which are installed or used by the owner/operator to achieve compliance with the terms and conditions of this authorization. Proper operation and maintenance also includes adequate laboratory and process controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems which are installed by an owner/operator only when the operation is necessary to achieve compliance with the conditions of the authorization. Backup continuous pH and flow monitoring equipment are not required.

The monitoring frequency stated in this authorization shall not be construed as specifying a minimum level of operator attention to the facility. It is anticipated that visits to the facility by the operator will occur at intervals frequent enough to assure proper operation and maintenance, but in no case less than one visit per month. If discharge monitoring reports, DWR inspection reports, or other information indicates a problem with the facility, the owner/operator may be subject to enforcement action and/or the authorization may be modified to include increased parameter monitoring, increased monitoring frequency or other requirements as deemed necessary by the division to correct the problem.

b. Dilution water shall not be added to comply with discharge requirements.

5. Property Rights

The issuance of this authorization does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State, or local laws or regulations.

6. Severability

The provisions of this authorization are severable. If any provision of this authorization due to any circumstance, is held invalid, then the application of such provision to other circumstances and to the remainder of this authorization shall not be affected thereby.

7. Other Information

If the owner/operator becomes aware that he failed to submit relevant facts in an authorization application, or submitted incorrect information in a authorization application or in any report to the Director, then he shall promptly submit such facts or information.

B. CHANGES AFFECTING THE AUTHORIZATION

1. Planned Changes

The owner/operator shall give notice in writing to the Director as soon as possible of any planned physical alterations or additions to the permitted facility.

2. Authorization Modification, Revocation, or Termination

a. This authorization may be modified, revoked and reissued, or terminated for cause as described in section 69-03-108-(F) of the Tennessee Water Quality Control Act as amended.

b. The owner/operator shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this authorization, or to determine compliance with this authorization. The owner/operator shall also furnish to the Director, upon request, copies of records required to be kept by this authorization.

3. Change of Ownership

This authorization may be transferred to another person by the permittee if:

a. The owner/operator notifies the Director of the proposed transfer at least 30 days in advance of the proposed transfer date;

b. The notice includes a written agreement between the existing and new owner/operator containing a specified date for transfer of authorization responsibility, coverage, and liability between them; and

c. The Director, within thirty (30) days, does not notify the current owner/operator and the new owner/operator of his intent to modify, revoke or reissue, or terminate the authorization and to require that a new application be filed rather than agreeing to the transfer of the authorization.

4. Change of Mailing Address

The owner/operator shall promptly provide to the Director written notice of any change of mailing address. In the absence of such notice the original address of the owner/operator will be assumed to be correct.

C. NONCOMPLIANCE

If at any time the Division learns that a ground water discharge system may be in violation of The Tennessee Water Quality Control Act, the Division shall:

a. Require the injector to apply for an individual permit;

b. Order the injector to take such actions including, where required, closure of the injection well as may be necessary to prevent the violation; or

c. Take enforcement action.

1. Effect of Noncompliance

Any authorization noncompliance constitutes a violation of applicable State laws and is grounds for enforcement action, authorization termination, authorization modification, or denial of authorization reissuance.

2. Reporting of Noncompliance

a. 24-Hour Reporting

In the case of any noncompliance which could cause a threat to public drinking supplies, or any other discharge which could constitute a threat to human health or the environment, the required notice of non-compliance shall be provided to the appropriate Division environmental assistance center within twenty-four (24) hours from the time the owner/operator becomes aware of the circumstances. (The environmental field office should be contacted for names and phone numbers of emergency response personnel.)

A written submission must be provided within five (5) days of the time the owner/operator becomes aware of the circumstances unless this requirement is waived by the Director on a case-by-case basis. The owner/operator shall provide the Director with the following information:

i. A description of the discharge and cause of noncompliance;

ii. The period of noncompliance, including exact dates and times or, if not corrected, the anticipated time the noncompliance is expected to continue; and

iii. The actions being taken to reduce, eliminate, and prevent recurrence of the non complying discharge.

b. Scheduled Reporting

For such instances of noncompliance which are not reported under subparagraph 2.a., the report shall contain all information concerning the steps taken, or planned, to reduce, eliminate, and prevent recurrence of the violation and the anticipated time the violation is expected to continue.

3. Adverse Impact

The owner/operator shall take all reasonable steps to minimize any adverse impact to the waters of Tennessee resulting from noncompliance with this authorization, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge. It shall not be a defense for the owner/operator in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this authorization.

D. LIABILITIES

1. Civil and Criminal Liability

Nothing in this authorization shall be construed to relieve the owner/operator from civil or criminal penalties for noncompliance. Notwithstanding this authorization, the owner/operator shall remain liable for any damages sustained by the State of Tennessee, including but not limited to fish kills and losses of aquatic life and/or wildlife, as a result of the discharge of wastewater to any surface or subsurface waters. Additionally, notwithstanding this authorization, it shall be the responsibility of the owner/operator to conduct its wastewater treatment and/or discharge activities in a manner such that public or private nuisances or health hazards will not be created.

2. Liability Under State Law

Nothing in this authorization shall be construed to preclude the institution of any legal action or relieve the owner/operator from any responsibilities, liabilities, or penalties established pursuant to any applicable State law.

E. PLUGGING AND ABANDONMENT PLAN

The plugging and abandonment of this injection well shall be accomplished by redirection of the stormwater into a stormsewer system that will transport the stormwater away from the drainage well (sinkhole). At the time of the completion and use of the stormsewer system, the drainage well (sinkhole) shall be excavated to competent material and closed with a combination of filter fabric, large rock and compacted clay in order to not allow any subsurface discharge.

F. UPKEEP AND MAINTENANCE OF SYSTEM

The owner/operator shall be responsible for the upkeep of the treatment system. This includes, but is not limited to, the removal of silt from basins, debris removal, mowing to control excess vegetation, repairing bear spots and drop outs, and general maintenance.

PART III
OTHER REQUIREMENTS

A. GENERAL COMMENT

Extreme caution should be used in the filling and construction of commercial or residential properties on or in a sinkhole. A sinkhole by nature is an unstable geologic area, which has no permanent means of stabilization and is subject to times of movement and settling. This uncontrollable movement may cause some damage to any permanent structure placed on or around the karst feature. The State of Tennessee assumes no responsibility in potential consequences of building on or around filled depressions of any kind at any time.

B. STORMWATER AND LOCAL FLOODING

It should be noted that the Division's review of this authorization application was limited to water quality issues. The review did not include an evaluation of the property's potential to flood or of possible flooding impacts on adjacent properties due to modification of drainage patterns on karst features. The storm water management and drainage requirements of local zoning regulations should be followed.

C. LOCAL ORDINANCES

Please note that several counties and municipal governments have imposed stricter regulations on the use and treatment of karst features. Check with the local planning and zoning departments for these regulations. This authorization does not convey any authority over county or municipal governments that hold stricter regulations on karst features.

D. OWNERSHIP OF THE INJECTION POINT AND ASSOCIATED TREATMENT FACILITIES

The owner/operator shall own the injection points. A perpetual easement (properly recorded) may be accepted in lieu of ownership. Evidence of ownership of the injection points(s) and/or a copy of the perpetual easement(s) must be furnished to the division for approval prior to construction of the injection system.

The owner/operator shall at all times properly operate and maintain all facilities and systems of treatment and control which are installed or used by the owner/operator to achieve compliance with the conditions of this authorization. Proper operation and maintenance included effective performance, adequate funding, and appropriate quality assurance procedures. This includes monitoring of all closed karst features, and any devices designed to place fluid into the subsurface and any repair to the feature or structure in the future to ensure water quality standards are being met.

E. ADDITIONAL DISCHARGES

The authorization to discharge is limited to the modification of the three listed injection wells (sinkholes) on the Proposed Interstate 65 Interchange with SR 109 TDOT Project 74003-1160-44 and to the development area as shown on the application. Routing of drainage to the sinkhole from any additional development in this area will require a separate application.

F. COMPLETION OF PROJECT

According to Underground Injection Control (UIC) Rule 0400-45-6-.14 (8)(d) "Upon completion of the well, the owner or operator must certify to the Department that the well has been completed in accordance with the approved construction plan, and must submit any other additional information required". The certification must be submitted in writing to the UIC Program within (30) thirty days upon the completion/closure of the Class V well.

G. LOCATION OF AUTHORIZATION

A copy of this authorization must be kept on site until the development has been completed and must be made available to inspection personnel.

H. LOCATION OF ENVIRONMENTALLY SENSITIVE AREAS

Please be advised that this project is not located within a Source Water Protection Area or Wellhead Protection Area.

I. LOCATION OF INDIVIDUAL SINKHOLES AND OTHER KARST FEATURES

Identifier	Station	Latitude	Longitude	Quadrangle Name	Sinkhole Treatment Plan
Proposed Interstate 65 Interchange with SR 109 snk-1	402+70-403+40	36.63358	-86.57627	Franklin	TDOT preapproved sinkhole treatment 4
Proposed Interstate 65 Interchange with SR 109 snk-2	24+10-24+75	36.633611	-86.57594	Franklin	TDOT preapproved sinkhole treatment 4
Proposed Interstate 65 Interchange with SR 109 snk-3	397+50-397+95	36.634916	-86.57625	Franklin	TDOT preapproved sinkhole treatment 4

8. Ecology Report

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
ENVIRONMENTAL DIVISION
SUITE 900 - JAMES K. POLK BUILDING
505 DEADERICK STREET
NASHVILLE, TENNESSEE 37243-0334

MEMORANDUM

To: Freddy Miller
TDOT Design

From: Tim Nehus
Ecology Section

Date: 12 March 2013

Subject: ENVIRONMENTAL BOUNDARIES AND MITIGATION DESIGN FOR: **Robertson Sumner Counties; I-65 Interchange at SR-109 Including I-65 Widening and SR-109 Extension; P.E. Robertson 74003-1160-44, Sumner 83001-1140-44, PIN 107338.00**

An ecological evaluation of the subject project has been conducted with the following results:

__X___Wetlands identified: Two wetlands were identified during the survey. Both wetlands will be impacted and require mitigation. Wetland WTL1 has been surveyed and placed on the plans with permanent and temporary impacts calculated. Wetland WTL-2 needs to be surveyed and placed on the plans. The Environmental Boundaries and Mitigation forms are attached.

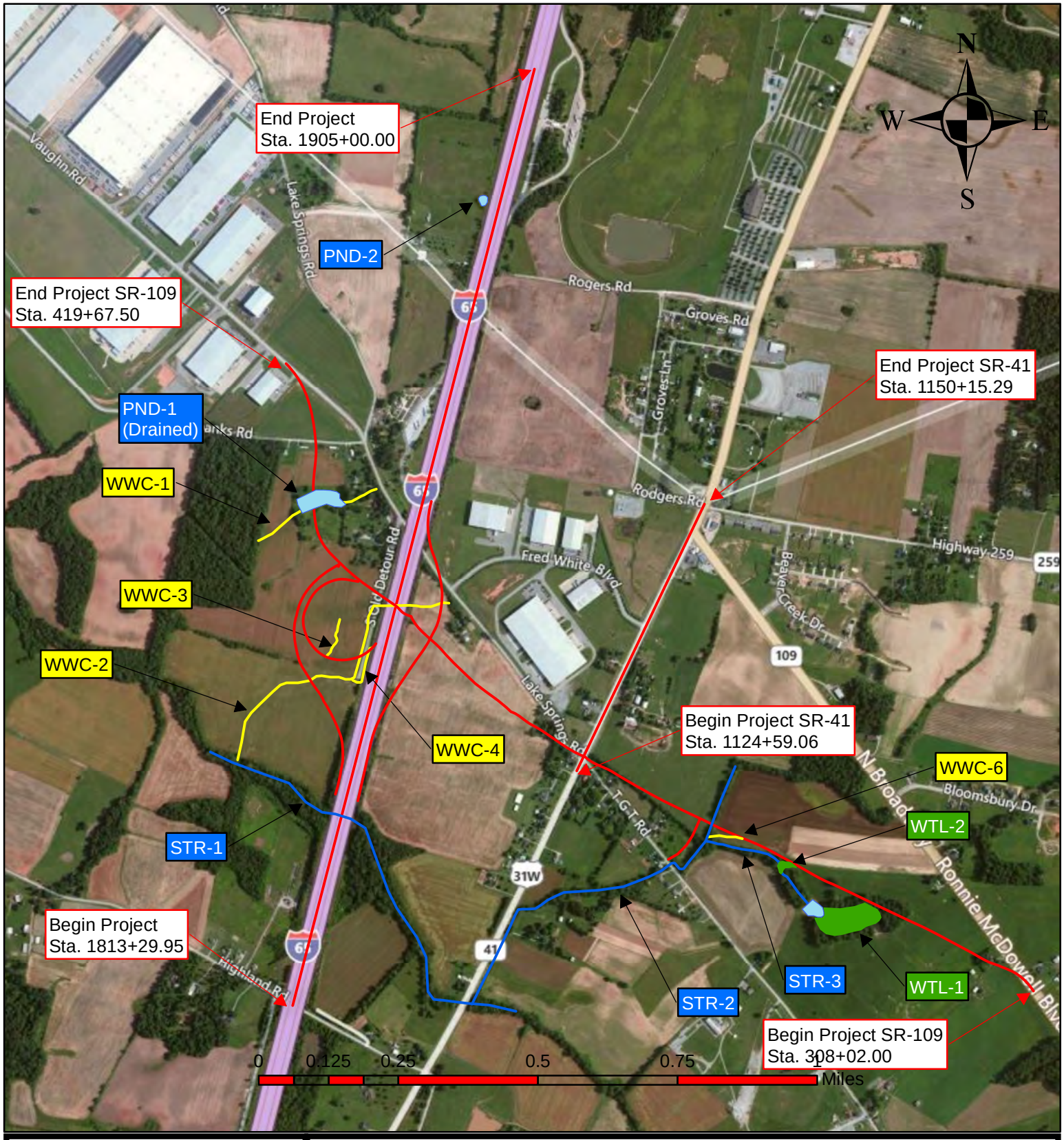
__X___Streams present: Three streams will be affected by the project. Streams STR-1 (Summers Branch) and STR-2 will be encapsulated and STR-1 will require In-lieu fee mitigation. Stream STR-3 will require relocation. The channel change is already shown on the plans and standard stream relocation notes are attached to the Mitigation Form. The Environmental Boundaries Form is also attached.

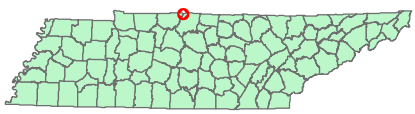
__X___Protected species not identified in project impact area: The project has been coordinated with Tennessee Department of Environment and Conservation (TDEC), Tennessee Wildlife Resources Agency (TWRA) and U.S. Fish and Wildlife Service (USFWS). The USFWS coordination was updated in 2010 and 2011 and no Indiana bat surveys are required. The TDEC database was checked for updates on 5 March 2013 and none were noted; therefore the attached Species Review Form (Form N) and all correspondence are still valid.

__X___Sinkholes present: Four sinkholes are located along the project west of I-65 and are shown on the plans. If not already done, these should be verified by geotechnical analyses.

If you have any questions or comments please contact me at Tim.Nehus@tn.gov, 615-532-5580 or Dennis Crumby at Dennis.Crumby@tn.gov, 615-253-2465. Thank you.

Copy: John Hewitt – Environmental
Melissa Portell – Survey
Project file:





Environmental Boundaries Map

Robertson-Sumner Counties, I-65 Interchange at SR-109 including I-65 Widening and SR-109 Extension

P.E. Robertson: 74003-1160-44
P.E. Sumner: 83001-1160-44
PIN 107338.00

Ecology Field Data Sheet: **Water Resources**

Project: Robertson-Sumner Counties; I-65 Interchange at SR-109, including I-65 Widening and SR-109 Extension
P.E. Robertson 74003-1160-44, P.E. Sumner 83001-1160-44, PIN 107338.00

Date of survey: 14 February 2013 **Biologist:** D. Crumby, T. Nehus **Affiliation:** TDOT

1-Station: from plans	1831+00 (I-65)
2-Map label and name	STR-1 (Summers Branch)
3-Latitude/Longitude	N36.62546; W86.57550
4-Potential impact	Crossing/encapsulation, runoff
5-Feature description:	
what is it	Perennial Stream
blue-line on topo? (y/n)	No ☐ Yes ☑
defined channel (y/n)	No ☐ Yes ☑
straight or meandering	Straight ☐ Meandering ☑
channel bottom width	30' - 40'
top of bank width	50'
bank height and slope ratio	RB=8' - 10', LB=2'
avg. gradient of stream (%)	<3
substratum	East of I-65 Bedrock, West of I-65 Cobble/gravel/sand
riffle/run/pool	20/20/60
width of buffer zone	LDB: >100' RDB: >100'
water flow	Yes
water depth	Pools = 5', Riffles = 4" - 6"
water width	30' - 40'
general water quality	Good
OHWM indicators	Wrack Lines
groundwater connection	Yes
bank stability: LDB, RDB	LDB: Stable ☑ Eroding ☐ Undercutting ☐ Slumping/Sloughing ☐ Roots Exposed ☐ RDB: Stable ☐ Eroding ☑ Undercutting ☐ Slumping/Sloughing ☐ Roots Exposed ☐
dominant species: LDB, RDB	LDB: Pin Oak, hackberry, sweetgum, boxelder, black willow RDB: Pin Oak, hackberry, sweetgum, boxelder, black willow
overhead canopy (%)	East of I-65 10%, West of I-65 75%
benthos	Yes
fish	Yes
algae or other aquatic life	None seen
habitat assessment score	Not completed
photo number (s)	1 -d/s, 2 -u/s
rainfall information	>0.5" previous 5 days
6-HUC code & name (12-digit)	Headwaters Red River (051302060101)
7-Confirmed by:	Not Required
8-Mitigation	No ☐ Yes ☑ *(include on Mitigation Form)*
9-ETW	No ☑ Yes ☐
10-303 (d) List	No ☐ Yes ☑ Habitat ☐ Siltation ☑ Other ☐
11-Assessed	No ☐ Yes ☑
12-Notes Estimate size (acres) of lake or pond if applicable; provide any pertinent information needed to better describe feature; indicate if hydrologic determination form was completed.	Encapsulation exceeds 200' - In-lieu fee mitigation will be required. Assessed as Not Supporting in 2012

Ecology Field Data Sheet: **Water Resources**

Project: Robertson-Sumner Counties; I-65 Interchange at SR-109, including I-65 Widening and SR-109 Extension
P.E. Robertson 74003-1160-44, P.E. Sumner 83001-1160-44, PIN 107338.00

Date of survey: 14 February 2013 **Biologist:** D. Crumby, T. Nehus **Affiliation:** TDOT

1-Station: from plans	398+00 (SR-109), 17+00 (Frontage Road), 35+10 (Lake Springs Road)
2-Map label and name	WWC-1
3-Latitude/Longitude	N36.63353; W86.57646
4-Potential impact	Crossing/encapsulation, runoff
5-Feature description:	
what is it	Wet Weather Conveyance
blue-line on topo? (y/n)	No ☐ Yes ☑
defined channel (y/n)	No ☐ Yes ☑
straight or meandering	Straight ☐ Meandering ☑
channel bottom width	6' - 8'
top of bank width	10' - 15'
bank height and slope ratio	5'
avg. gradient of stream (%)	
substratum	Cobble/boulder/soil/leaf litter
riffle/run/pool	N/A
width of buffer zone	LDB: 40' RDB: 40'
water flow	No
water depth	N/A
water width	N/A
general water quality	N/A
OHWM indicators	N/A
groundwater connection	No
bank stability: LDB, RDB	LDB: Stable ☑ Eroding ☐ Undercutting ☐ Slumping/Sloughing ☐ Roots Exposed ☐ RDB: Stable ☑ Eroding ☐ Undercutting ☐ Slumping/Sloughing ☐ Roots Exposed ☐
dominant species: LDB, RDB	LDB: Black Cherry, hackberry, green ash RDB: Black Cherry, hackberry, green ash
overhead canopy (%)	80%
benthos	N/A
fish	N/A
algae or other aquatic life	N/A
habitat assessment score	N/A
photo number (s)	3 down gradient, 4 up gradient
rainfall information	>0.5" previous 5 days
6-HUC code & name (12-digit)	Headwaters Red River (051302060101)
7-Confirmed by:	Not confirmed
8-Mitigation	No ☑ Yes ☐ *(include on Mitigation Form)*
9-ETW	No ☑ Yes ☐
10-303 (d) List	No ☑ Yes ☐ Habitat ☐ Siltation ☐ Other ☐
11-Assessed	No ☑ Yes ☐
12-Notes Estimate size (acres) of lake or pond if applicable; provide any pertinent information needed to better describe feature; indicate if hydrologic determination form was completed.	

Ecology Field Data Sheet: **Water Resources**

Project: Robertson-Sumner Counties; I-65 Interchange at SR-109, including I-65 Widening and SR-109 Extension
P.E. Robertson 74003-1160-44, P.E. Sumner 83001-1160-44, PIN 107338.00

Date of survey: 14 February 2013 **Biologist:** D. Crumby, T. Nehus **Affiliation:** TDOT

1-Station: from plans	1852+20 (I-65), 306+90 (Ramp E), 467+40 (Ramp H)
2-Map label and name	WWC-2
3-Latitude/Longitude	N36.63093; W86.57379
4-Potential impact	Crossing/encapsulation, runoff
5-Feature description:	
what is it	Wet Weather Conveyance
blue-line on topo? (y/n)	No ☑ Yes ☐
defined channel (y/n)	No ☐ Yes ☑
straight or meandering	Straight ☐ Meandering ☑
channel bottom width	1' - 2'
top of bank width	5'
bank height and slope ratio	3'
avg. gradient of stream (%)	
substratum	Soil/grass
riffle/run/pool	N/A
width of buffer zone	LDB: 0 RDB: 0
water flow	No
water depth	N/A
water width	N/A
general water quality	N/A
OHWM indicators	N/A
groundwater connection	No
bank stability: LDB, RDB	LDB: Stable ☑ Eroding ☐ Undercutting ☐ Slumping/Sloughing ☐ Roots Exposed ☐ RDB: Stable ☑ Eroding ☐ Undercutting ☐ Slumping/Sloughing ☐ Roots Exposed ☐
dominant species: LDB, RDB	LDB: Upland grasses RDB: Upland grasses
overhead canopy (%)	0
benthos	N/A
fish	N/A
algae or other aquatic life	N/A
habitat assessment score	N/A
photo number (s)	5 and 6 up gradient
rainfall information	>0.5" previous 5 days
6-HUC code & name (12-digit)	Headwaters Red River (051302060101)
7-Confirmed by:	Not Required
8-Mitigation	No ☑ Yes ☐ *(include on Mitigation Form)*
9-ETW	No ☑ Yes ☐
10-303 (d) List	No ☑ Yes ☐ Habitat ☐ Siltation ☐ Other ☐
11-Assessed	No ☑ Yes ☐
12-Notes Estimate size (acres) of lake or pond if applicable; provide any pertinent information needed to better describe feature; indicate if hydrologic determination form was completed.	

Ecology Field Data Sheet: **Water Resources**

Project: Robertson-Sumner Counties; I-65 Interchange at SR-109, including I-65 Widening and SR-109 Extension
P.E. Robertson 74003-1160-44, P.E. Sumner 83001-1160-44, PIN 107338.00

Date of survey: 14 February 2013 **Biologist:** D. Crumby, T. Nehus **Affiliation:** TDOT

1-Station: from plans	306+60R (Ramp E)
2-Map label and name	WWC-3
3-Latitude/Longitude	N36.62965; W86.57598
4-Potential impact	Runoff
5-Feature description:	
what is it	Wet Weather Conveyance
blue-line on topo? (y/n)	No ☑ Yes ☐
defined channel (y/n)	No ☐ Yes ☑
straight or meandering	Straight ☐ Meandering ☑
channel bottom width	2' - 5'
top of bank width	4' - 12'
bank height and slope ratio	3' - 7'
avg. gradient of stream (%)	
substratum	Soil/rock/grass
riffle/run/pool	N/A
width of buffer zone	LDB: 0 RDB: 0
water flow	No
water depth	N/A
water width	N/A
general water quality	N/A
OHWM indicators	N/A
groundwater connection	No
bank stability: LDB, RDB	LDB: Stable ☐ Eroding ☑ Undercutting ☐ Slumping/Sloughing ☐ Roots Exposed ☐ RDB: Stable ☐ Eroding ☑ Undercutting ☐ Slumping/Sloughing ☐ Roots Exposed ☐
dominant species: LDB, RDB	LDB: Upland grasses RDB: Upland grasses
overhead canopy (%)	0
benthos	N/A
fish	N/A
algae or other aquatic life	N/A
habitat assessment score	N/A
photo number (s)	7 down gradient, 8 up gradient
rainfall information	>0.5" previous 5 days
6-HUC code & name (12-digit)	Headwaters Red River (051302060101)
7-Confirmed by:	Not Required
8-Mitigation	No ☑ Yes ☐ *(include on Mitigation Form)*
9-ETW	No ☑ Yes ☐
10-303 (d) List	No ☑ Yes ☐ Habitat ☐ Siltation ☐ Other ☐
11-Assessed	No ☑ Yes ☐
12-Notes Estimate size (acres) of lake or pond if applicable; provide any pertinent information needed to better describe feature; indicate if hydrologic determination form was completed.	

Ecology Field Data Sheet: **Water Resources**

Project: Robertson-Sumner Counties; I-65 Interchange at SR-109, including I-65 Widening and SR-109 Extension
P.E. Robertson 74003-1160-44, P.E. Sumner 83001-1160-44, PIN 107338.00

Date of survey: 14 February 2013 **Biologist:** D. Crumby, T. Nehus **Affiliation:** TDOT

1-Station: from plans	301+30 (Ramp E)
2-Map label and name	WWC-4
3-Latitude/Longitude	N36.62984; W86.57459
4-Potential impact	Fill, runoff
5-Feature description:	
what is it	Wet Weather Conveyance
blue-line on topo? (y/n)	No ☑ Yes ☐
defined channel (y/n)	No ☐ Yes ☑
straight or meandering	Straight ☑ Meandering ☐
channel bottom width	1'
top of bank width	5'
bank height and slope ratio	3'
avg. gradient of stream (%)	
substratum	Soil/grass
riffle/run/pool	N/A
width of buffer zone	LDB: 0 RDB: 0
water flow	No
water depth	N/A
water width	N/A
general water quality	N/A
OHWM indicators	N/A
groundwater connection	No
bank stability: LDB, RDB	LDB: Stable ☐ Eroding ☑ Undercutting ☐ Slumping/Sloughing ☐ Roots Exposed ☐ RDB: Stable ☐ Eroding ☑ Undercutting ☐ Slumping/Sloughing ☐ Roots Exposed ☐
dominant species: LDB, RDB	LDB: Upland grasses RDB: Upland grasses
overhead canopy (%)	0
benthos	N/A
fish	N/A
algae or other aquatic life	N/A
habitat assessment score	N/A
photo number (s)	9 up gradient
rainfall information	>0.5" previous 5 days
6-HUC code & name (12-digit)	Headwaters Red River (051302060101)
7-Confirmed by:	Not Required
8-Mitigation	No ☑ Yes ☐ *(include on Mitigation Form)*
9-ETW	No ☑ Yes ☐
10-303 (d) List	No ☑ Yes ☐ Habitat ☐ Siltation ☐ Other ☐
11-Assessed	No ☑ Yes ☐
12-Notes Estimate size (acres) of lake or pond if applicable; provide any pertinent information needed to better describe feature; indicate if hydrologic determination form was completed.	

Ecology Field Data Sheet: **Water Resources**

Project: Robertson-Sumner Counties; I-65 Interchange at SR-109, including I-65 Widening and SR-109 Extension
P.E. Robertson 74003-1160-44, P.E. Sumner 83001-1160-44, PIN 107338.00

Date of survey: 14 February 2013 **Biologist:** D. Crumby, T. Nehus **Affiliation:** TDOT

1-Station: from plans	396+50 - 398+60 (Approximate) (SR-109)
2-Map label and name	PND-1
3-Latitude/Longitude	N36.63356; W86.57646
4-Potential impact	Fill
5-Feature description:	
what is it	Drained pond
blue-line on topo? (y/n)	No ☑ Yes ☐
defined channel (y/n)	No ☑ Yes ☐
straight or meandering	Straight ☐ Meandering ☐
channel bottom width	N/A
top of bank width	N/A
bank height and slope ratio	N/A
avg. gradient of stream (%)	N/A
substratum	Soil/upland grasses
riffle/run/pool	N/A
width of buffer zone	LDB: >100' RDB: >100'
water flow	No
water depth	N/A (pond has been drained)
water width	N/A (pond has been drained)
general water quality	N/A
OHWM indicators	N/A
groundwater connection	No
bank stability: LDB, RDB	LDB: Stable ☑ Eroding ☐ Undercutting ☐ Slumping/Sloughing ☐ Roots Exposed ☐ RDB: Stable ☑ Eroding ☐ Undercutting ☐ Slumping/Sloughing ☐ Roots Exposed ☐
dominant species: LDB, RDB	LDB: Upland grasses RDB: Upland grasses
overhead canopy (%)	N/A
benthos	N/A
fish	N/A
algae or other aquatic life	N/A
habitat assessment score	N/A
photo number (s)	No photo
rainfall information	>0.5" previous 5 days
6-HUC code & name (12-digit)	Headwaters Red River (051302060101)
7-Confirmed by:	Not Required
8-Mitigation	No ☑ Yes ☐ *(include on Mitigation Form)*
9-ETW	No ☑ Yes ☐
10-303 (d) List	No ☑ Yes ☐ Habitat ☐ Siltation ☐ Other ☐
11-Assessed	No ☑ Yes ☐
12-Notes Estimate size (acres) of lake or pond if applicable; provide any pertinent information needed to better describe feature; indicate if hydrologic determination form was completed.	The formation of the sinkholes noted on the plans are likely responsible for draining the pond at some time in the past.

Ecology Field Data Sheet: **Water Resources**

Project: Robertson-Sumner Counties; I-65 Interchange at SR-109, including I-65 Widening and SR-109 Extension
P.E. Robertson 74003-1160-44, P.E. Sumner 83001-1160-44, PIN 107338.00

Date of survey: 14 February 2013 **Biologist:** D. Crumby, T. Nehus **Affiliation:** TDOT

1-Station: from plans	1891+30L (I-65), 658+70R (CD Road)
2-Map label and name	PND-2
3-Latitude/Longitude	N36.64148; W86.57102
4-Potential impact	Fill
5-Feature description:	
what is it	Isolated Farm Pond
blue-line on topo? (y/n)	No ☑ Yes ☐
defined channel (y/n)	No ☑ Yes ☐
straight or meandering	Straight ☐ Meandering ☐
channel bottom width	N/A
top of bank width	N/A
bank height and slope ratio	N/A
avg. gradient of stream (%)	N/A
substratum	Silt
riffle/run/pool	N/A
width of buffer zone	LDB: 20' RDB: 20'
water flow	No
water depth	up to 5'
water width	80' Diameter
general water quality	Fair
OHWM indicators	N/A
groundwater connection	No
bank stability: LDB, RDB	LDB: Stable ☑ Eroding ☐ Undercutting ☐ Slumping/Sloughing ☐ Roots Exposed ☐ RDB: Stable ☑ Eroding ☐ Undercutting ☐ Slumping/Sloughing ☐ Roots Exposed ☐
dominant species: LDB, RDB	LDB: Eastern red cedar, black willow, hackberry RDB: Eastern red cedar, black willow, hackberry
overhead canopy (%)	<10%
benthos	Not sampled
fish	None seen
algae or other aquatic life	Filamentous green algae
habitat assessment score	N/A
photo number (s)	10
rainfall information	>0.5" previous 5 days
6-HUC code & name (12-digit)	Headwaters Red River (051302060101)
7-Confirmed by:	Not Required
8-Mitigation	No ☑ Yes ☐ *(include on Mitigation Form)*
9-ETW	No ☑ Yes ☐
10-303 (d) List	No ☑ Yes ☐ Habitat ☐ Siltation ☐ Other ☐
11-Assessed	No ☑ Yes ☐
12-Notes Estimate size (acres) of lake or pond if applicable; provide any pertinent information needed to better describe feature; indicate if hydrologic determination form was completed.	

Ecology Field Data Sheet: **Water Resources**

Project: Robertson-Sumner Counties; I-65 Interchange at SR-109, including I-65 Widening and SR-109 Extension
P.E. Robertson 74003-1160-44, P.E. Sumner 83001-1160-44, PIN 107338.00

Date of survey: 14 February 2013 **Biologist:** D. Crumby, T. Nehus **Affiliation:** TDOT

1-Station: from plans	348+60 (SR-109), 52+75 (TGT Road)
2-Map label and name	STR-2
3-Latitude/Longitude	N36.62530; W86.56356
4-Potential impact	Crossing/encapsulation, runoff
5-Feature description:	
what is it	Perennial Stream
blue-line on topo? (y/n)	No ☐ Yes ☑
defined channel (y/n)	No ☐ Yes ☑
straight or meandering	Straight ☐ Meandering ☑
channel bottom width	12' - 15'
top of bank width	20'
bank height and slope ratio	15'
avg. gradient of stream (%)	<3
substratum	Silt/sand
riffle/run/pool	20/10/70
width of buffer zone	LDB: 20' RDB: 20'
water flow	Yes
water depth	2' - 3'
water width	12'
general water quality	Fair
OHWM indicators	Clear line impressed on bank
groundwater connection	Yes
bank stability: LDB, RDB	LDB: Stable ☐ Eroding ☐ Undercutting ☑ Slumping/Sloughing ☐ Roots Exposed ☐ RDB: Stable ☐ Eroding ☑ Undercutting ☐ Slumping/Sloughing ☐ Roots Exposed ☐
dominant species: LDB, RDB	LDB: Black walnut, eastern red cedar, black cherry RDB: Black walnut, eastern red cedar, black cherry
overhead canopy (%)	80%
benthos	Yes
fish	None seen
algae or other aquatic life	Filamentous green algae
habitat assessment score	Not completed
photo number (s)	11 -u/s
rainfall information	>0.5" previous 5 days
6-HUC code & name (12-digit)	Headwaters Red River (051302060101)
7-Confirmed by:	Not Required
8-Mitigation	No ☑ Yes ☐ *(include on Mitigation Form)*
9-ETW	No ☑ Yes ☐
10-303 (d) List	No ☐ Yes ☑ Habitat ☐ Siltation ☑ Other ☐
11-Assessed	No ☐ Yes ☑
12-Notes Estimate size (acres) of lake or pond if applicable; provide any pertinent information needed to better describe feature; indicate if hydrologic determination form was completed.	Assessed as Not Supporting in 2012

Ecology Field Data Sheet: **Water Resources**

Project: Robertson-Sumner Counties; I-65 Interchange at SR-109, including I-65 Widening and SR-109 Extension
P.E. Robertson 74003-1160-44, P.E. Sumner 83001-1160-44, PIN 107338.00

Date of survey: 14 February 2013 **Biologist:** D. Crumby, T. Nehus **Affiliation:** TDOT

1-Station: from plans	344+70L - 346+70L (SR-109
2-Map label and name	WWC-6
3-Latitude/Longitude	N36.62497; W86.56273
4-Potential impact	Fill, runoff
5-Feature description:	
what is it	Wet Weather Conveyance
blue-line on topo? (y/n)	No ☑ Yes ☐
defined channel (y/n)	No ☐ Yes ☑
straight or meandering	Straight ☑ Meandering ☐
channel bottom width	1'
top of bank width	5'
bank height and slope ratio	up to 2'
avg. gradient of stream (%)	
substratum	Soil/fescue in cultivated field, rip-rap near confluence with STR-2
riffle/run/pool	N/A
width of buffer zone	LDB: 0 RDB: 0
water flow	No
water depth	N/A
water width	N/A
general water quality	N/A
OHWM indicators	N/A
groundwater connection	N/A
bank stability: LDB, RDB	LDB: Stable ☐ Eroding ☑ Undercutting ☐ Slumping/Sloughing ☐ Roots Exposed ☐ RDB: Stable ☐ Eroding ☑ Undercutting ☐ Slumping/Sloughing ☐ Roots Exposed ☐
dominant species: LDB, RDB	LDB: Fescue RDB: Fescue
overhead canopy (%)	0
benthos	N/A
fish	N/A
algae or other aquatic life	N/A
habitat assessment score	N/A
photo number (s)	12, 13 up gradient
rainfall information	>0.5" previous 5 days
6-HUC code & name (12-digit)	Headwaters Red River (051302060101)
7-Confirmed by:	Not Required
8-Mitigation	No ☑ Yes ☐ *(include on Mitigation Form)*
9-ETW	No ☑ Yes ☐
10-303 (d) List	No ☑ Yes ☐ Habitat ☐ Siltation ☐ Other ☐
11-Assessed	No ☑ Yes ☐
12-Notes Estimate size (acres) of lake or pond if applicable; provide any pertinent information needed to better describe feature; indicate if hydrologic determination form was completed.	

Ecology Field Data Sheet: **Water Resources**

Project: Robertson-Sumner Counties; I-65 Interchange at SR-109, including I-65 Widening and SR-109 Extension
P.E. Robertson 74003-1160-44, P.E. Sumner 83001-1160-44, PIN 107338.00

Date of survey: 14 February 2013 **Biologist:** D. Crumby, T. Nehus **Affiliation:** TDOT

1-Station: from plans	341+50L - 342+70L (SR-109)
2-Map label and name	STR-3
3-Latitude/Longitude	N36.62448; W86.56148
4-Potential impact	Relocation, runoff
5-Feature description:	
what is it	Perennial Stream
blue-line on topo? (y/n)	No ✓ Yes
defined channel (y/n)	No Yes ✓
straight or meandering	Straight Meandering ✓
channel bottom width	5'
top of bank width	8' - 10'
bank height and slope ratio	4'
avg. gradient of stream (%)	<3
substratum	Silt/organic debris/gravel
riffle/run/pool	20/20/60
width of buffer zone	LDB: 20' RDB: 20'
water flow	Yes
water depth	2" - 10"
water width	5'
general water quality	Fair
OHWM indicators	Wrack lines, clear line impressed on bank
groundwater connection	Y
bank stability: LDB, RDB	LDB: Stable Eroding ✓ Undercutting Slumping/Sloughing Roots Exposed RDB: Stable Eroding ✓ Undercutting Slumping/Sloughing Roots Exposed
dominant species: LDB, RDB	LDB: Hackberry, black cherry, shagbark hickory, white oak RDB: Hackberry, black cherry, shagbark hickory, white oak
overhead canopy (%)	90%
benthos	Yes
fish	No
algae or other aquatic life	Filamentous green algae
habitat assessment score	Not completed
photo number (s)	14 -d/s, 15 -u/s
rainfall information	>0.5" previous 5 days
6-HUC code & name (12-digit)	Headwaters Red River (051302060101)
7-Confirmed by:	Not Required
8-Mitigation	No Yes ✓ *(include on Mitigation Form)*
9-ETW	No ✓ Yes
10-303 (d) List	No ✓ Yes Habitat Siltation Other
11-Assessed	No ✓ Yes
12-Notes Estimate size (acres) of lake or pond if applicable; provide any pertinent information needed to better describe feature; indicate if hydrologic determination form was completed.	Stream originates below pond associated with WTL-1 and flows through WTL-2 to its confluence with STR-2. A relocation of approximately 150' will be required near Sta. 342+00 and is shown on the plans (See Mitigation Form).

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Robertson-Sumner Counties; I-65 Interchange at SR-109 Including I-65 Widening and SR-109 Extension Map Label: WTL-1

P.E. and PIN: P.E. Robertson 74003-1160-44, P.E. Sumner 83001-1160-44, PIN 107338.00 Date: 2.14.2013 Station: 331+80L (SR-109)

Investigator(s): D. Crumby, T. Nehus HUC 12 (code and name): Headwaters Red River (051302060101)

Landform (hillslope, terrace, etc.): very slight slope Local relief (concave, convex, none): None Slope (%): _____

Subregion (LRR or MLRA): LRR N Lat: N36.62320 Long: W86.55834 Datum: WGS-84

Soil Map Unit Name: Taft silt loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ✓ No _____ Hydric Soil Present? Yes ✓ No _____ Wetland Hydrology Present? Yes ✓ No _____	**Is the Sampled Area within a Wetland?** **Yes ✓ No _____**
Remarks: Photos: 16 view west Buffer (ft.): 50' Approximate Size (ac.): ~2.0 Portion Affected (permanent) (ac.): 0.150 Portion Affected (temporary) (ac.): 0.112	Confirmation (by, date): Not Required Mitigation (to be included in design): Yes Notes:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ✓ Surface Water (A1)
- ___ High Water Table (A2)
- ✓ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ✓ No _____ Depth (inches): 2"

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ✓ No _____ Depth (inches): 0

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants.

Map Label: WTL-1

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. American elm (Ulmus americana)			FACW
2. white oak (Quercus alba)			FACU
3. sycamore (Platanus occidentalis)			FACW
4. sweetgum (Liquidambar styraciflua)			FAC
5. shagbark hickory (Carya ovata)			FACU
6.			
7.			
8.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		

Herb Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	= Total Cover		

Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 60% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✓ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ✓ **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Map Label: WTL-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
12"	10YR 4/2		7.5YR 4/6	10	C	M	Silty clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** _____

Remarks:

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Robertson-Sumner Counties; I-65 Interchange at SR-109 Including I-65 Widening and SR-109 Extension Map Label: WTL-2

P.E. and PIN: P.E. Robertson 74003-1160-44, P.E. Sumner 83001-1160-44, PIN 107338.00 Date: 2.14.2013 Station: 340+50L (SR-109)

Investigator(s): D. Crumby, T. Nehus HUC 12 (code and name): Headwaters Red River (051302060101)

Landform (hillslope, terrace, etc.): very slight slope Local relief (concave, convex, none): None Slope (%): _____

Subregion (LRR or MLRA): LRR N Lat: N36.62430 Long: W86.56097 Datum: WGS-84

Soil Map Unit Name: Guthrie silt loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ✓ No _____ Hydric Soil Present? Yes ✓ No _____ Wetland Hydrology Present? Yes ✓ No _____	**Is the Sampled Area within a Wetland?** **Yes ✓ No _____**
Remarks: Photos: 17 view west Buffer (ft.): 40' Approximate Size (ac.): 0.17 Portion Affected (permanent) (ac.): .0.08 Portion Affected (temporary) (ac.): 0.07	Confirmation (by, date): Not Required Mitigation (to be included in design): Yes Notes:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ✓ Surface Water (A1)
- ___ High Water Table (A2)
- ✓ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ✓ No _____ Depth (inches): 1"

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ✓ No _____ Depth (inches): 0

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants.

Map Label: WTL-2

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. sweetgum (Liquidambar styraciflua)			FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		
Herb Stratum (Plot size:)			
1. Seedbox (Ludwigia alternifolia)			OBL
2. caric sedges (Carex sp.)			OBL
3. common rush (Juncus effusus)			FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	= Total Cover		
Woody Vine Stratum (Plot size:)			
1. blackberry			FAC
2.			
3.			
4.			
5.			
6.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ✓ **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Map Label: WTL-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
12"	10YR 4/2		5YR 4/6	30	C	M	silty clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: None observed

Depth (inches): ___

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

Index Of Sheets

SHEET NO. DESCRIPTION

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING

ROBERTSON-SUMNER COUNTIES

INTERSTATE 65 INTERCHANGE @ STATE ROUTE 109
INCLUDING I-65 WIDENING AND
S.R. 109 EXTENSION

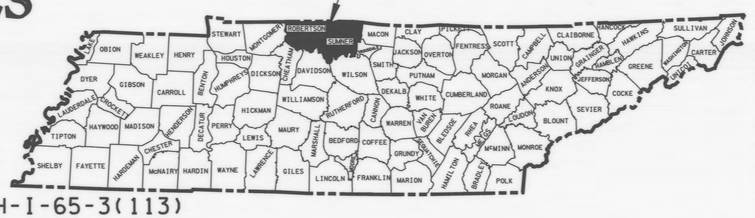
R.O.W. PLANS

STATE HIGHWAY NO. 109 F.A.H.S. NO. I-65

TENN.	YEAR	SHEET NO.
	2012	1
FED. AID PROJ. NO.	STP/HPP/NH-I-65-3(113)	
STATE PROJ. NO.	ROBERTSON I-65/SR-109 : 74003-2164-44 SUMNER I-65/SR-109: 83001-2143-44	
	ROBERTSON SR-41 (US-31W): 74096-2201-14 SUMNER SR-41 (US-31W): 83008-2229-14	

REV. 12-20-12: ADDED R.O.W. PROJECT NUMBER FOR KENTUCKY PORTION OF PROJECT.

PROJECT LOCATION



STP/HPP/NH-I-65-3(113)

END PROJ. NO. 74003-2165-44 R.O.W.
I-65 STA. 1893+98.37

END PROJ. NO. 74003-2164-44 R.O.W.
BEGIN PROJ. NO. 74003-2165-44 R.O.W.
I-65 STA. 1881+83.78

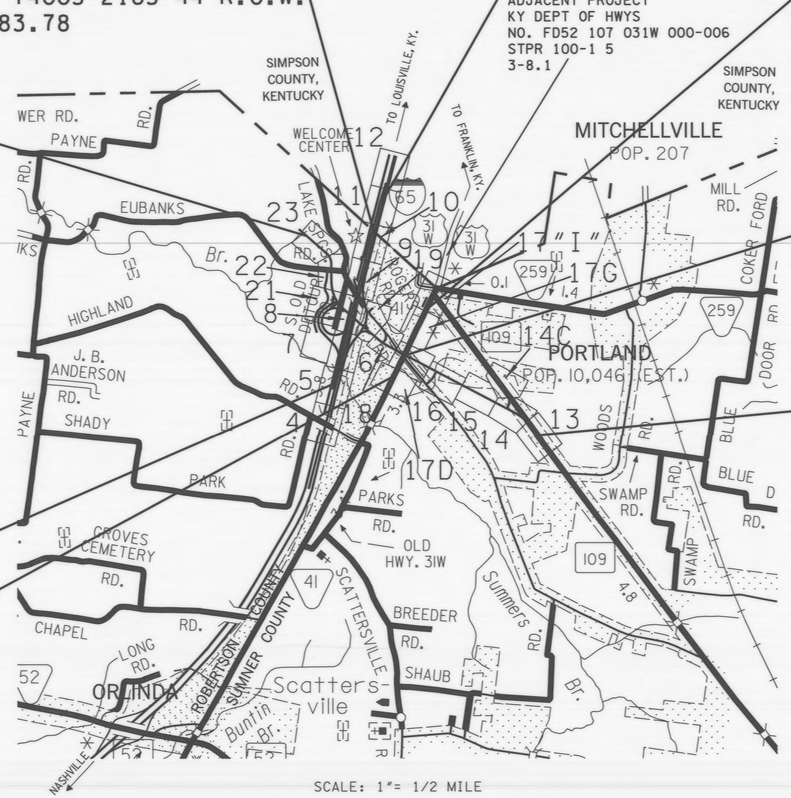
END PROJ. NO. 74003-2164-44
R.O.W. ROBERTSON CO.
S.R. 109 STA. 419+67.50

ADJACENT PROJECT
KY DEPT OF HWYS
NO. FD52 107 031W 000-006
STPR 100-1 5
3-8.1

END PROJ. NO. 83008-2229-14 R.O.W. SUMNER CO.
PROJ. NO. 74096-2201-14 R.O.W. ROBERTSON CO.
STA. 1150+15.29 S.R. 41 (U.S. 31W)

END PROJ. NO. 83001-2143-44
R.O.W. SUMNER CO.
BEGIN PROJ. NO. 74003-2164-44
R.O.W. ROBERTSON CO.
STA. 362+36.28 S.R. 109

BEGIN PROJ. NO. 83001-2143-44
R.O.W. SUMNER CO.
S.R. 109 STA. 308+02.00



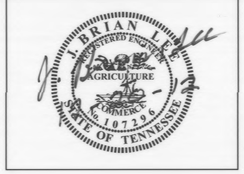
SCALE: 1"= 1/2 MILE

0 0.5 1.0 1.5

R.O.W. LENGTH - I-65	1.244 MILES
R.O.W. LENGTH - S.R. 109	2.115 MILES
R.O.W. LENGTH - S.R. 41	0.484 MILES

R.O.W. PLANS

SEALED BY



NO EXCLUSIONS
NO EQUATIONS

SURVEY DATE: 09/22/2011

I-65 TRAFFIC DATA	
ADT (2014)	56,560
ADT (2034)	89,300
DHV (2034)	10,153
D	55 - 45
T (ADT)	29 %
T (DHV)	19 %
V	70 MPH
SR-109 TRAFFIC DATA	
ADT (2014)	10,300
ADT (2034)	19,260
DHV (2034)	2,478
D	50 - 50
T (ADT)	16 %
T (DHV)	11 %
V	70 MPH

APPROVED: Paul D. Degges
PAUL D. DEGGES, CHIEF ENGINEER

DATE:

APPROVED:
JOHN SCHROER, COMMISSIONER

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED:

DIVISION ADMINISTRATOR DATE

BEGIN PROJ. NO. 74003-2164-44 R.O.W.
I-65 STA. 1828+28.57

BEGIN PROJ. NO. 83008-2229-14 R.O.W. SUMNER CO.
PROJ. NO. 74096-2201-14 R.O.W. ROBERTSON CO.
STA. 1124+59.06 S.R. 41 (U.S. 31W)

SPECIAL NOTES

PROPOSALS MAY BE REJECTED BY THE COMMISSIONER IF ANY OF THE UNIT PRICES CONTAINED THEREIN ARE OBVIOUSLY UNBALANCED, EITHER EXCESSIVE OR BELOW THE REASONABLE COST ANALYSIS VALUE.

THIS PROJECT TO BE CONSTRUCTED UNDER THE STANDARD SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION DATED MARCH 1, 2006 AND ADDITIONAL SPECIFICATIONS AND SPECIAL PROVISIONS CONTAINED IN THE PLANS AND IN THE PROPOSAL CONTRACT.

TDOT DESIGN MANAGER 1 ANITA PRICE, P.E.
DESIGNED BY PALMER ENGINEERING COMPANY
DESIGNER BRIAN LEE, P.E.
P.E. NO. ROBERTSON : 74003-1160-44
SUMNER : 83001-1140-44
PIN 107338.00

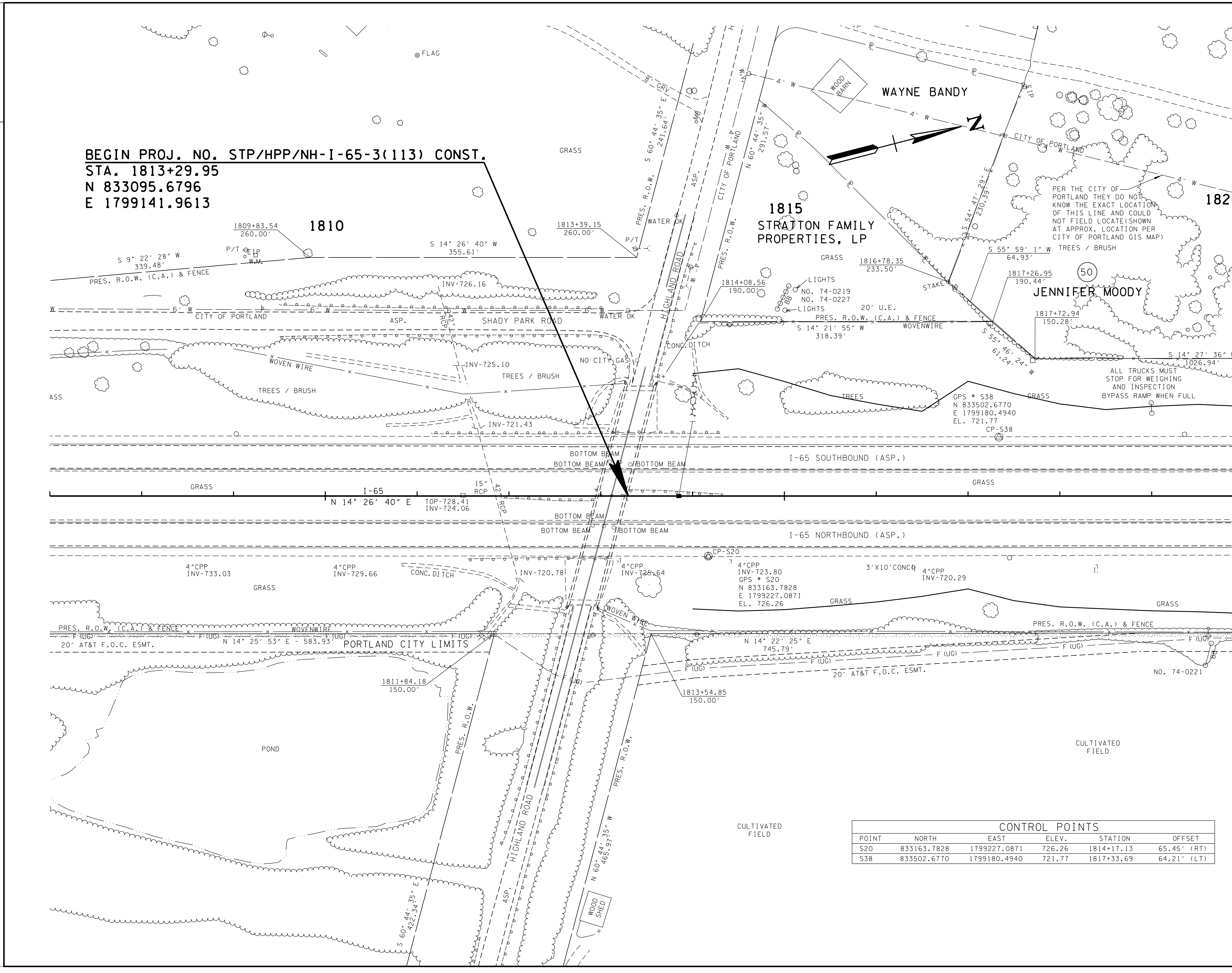
12/20/2012 10:44:23 AM
T:\TDOT\Robertson_I-65_SR-109\RB065-04-001.sht

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP/HPP/NH-I-65-3(113)	4

REV. 12-20-12: REMOVED R.O.W. NUMBER FROM CONST. FLAG.



BEGIN PROJ. NO. STP/HPP/NH-I-65-3(113) CONST.
STA. 1813+29.95
N 833095.6796
E 1799141.9613
1810
1815
1820
WAYNE BANDY
STRATTON FAMILY PROPERTIES, LP
JENNIFER MOODY
1809+83.54
260.00'
1813+39.15
260.00'
S 9° 22' 28" W
339.48'
S 14° 26' 40" W
355.61'
PRES. R.O.W. (C.A.) & FENCE
CITY OF PORTLAND
SHADY PARK ROAD
HIGHLAND ROAD
S 60° 44' 35" E
241.64'
N 60° 44' 35" W
291.57'
CITY OF PORTLAND
PRES. R.O.W.
WATER OK
WOOD BARN
S 54° 47' 29" E
230.39'
PER THE CITY OF PORTLAND THEY DO NOT KNOW THE EXACT LOCATION OF THIS LINE AND COULD NOT FIELD LOCATE(SHOWN AT APPROX. LOCATION PER CITY OF PORTLAND GIS MAP)
TREES / BRUSH
S 55° 59' 1" W
64.93'
1816+78.35
233.50'
1817+26.95
190.44'
1814+08.56
190.00'
1817+72.94
150.28'
LIGHTS
NO. 74-0219
NO. 74-0227
20' U.E.
S 14° 21' 55" W
318.39'
WOVENWIRE
S 55° 46' 24" W
61.24'
S 14° 27' 36" W
1026.94'
ALL TRUCKS MUST STOP FOR WEIGHING AND INSPECTION BYPASS RAMP WHEN FULL
INV-726.16
INV-725.10
INV-721.43
NO CITY GAS
CONC. DITCH
WOVEN WIRE
TREES / BRUSH
TREES
GRASS
GPS # S38
N 833502.6770
E 1799180.4940
EL. 721.77
CP-S38
BOTTOM BEAM
I-65 SOUTHBOUND (ASP.)
I-65
N 14° 26' 40" E
TOP-728.41
INV-724.06
15" RCP
42" RCP
I-65 NORTHBOUND (ASP.)
CP-S20
4"CPP
INV-733.03
4"CPP
INV-729.66
CONC. DITCH
INV-720.78
4"CPP
INV-725.64
4"CPP
INV-723.80
GPS # S20
N 833163.7828
E 1799227.0871
EL. 726.26
3'X10'CONC.
4"CPP
INV-720.29
PRES. R.O.W. (C.A.) & FENCE
20' AT&T F.O.C. ESMT.
N 14° 25' 53" E - 583.93'
PORTLAND CITY LIMITS
N 14° 22' 25" E
745.79'
F (UG)
NO. 74-0221
1811+84.18
150.00'
1813+54.85
150.00'
POND
CULTIVATED FIELD
S 60° 44' 35" E
422.34'
N 60° 44' 35" W
465.97'
WOOD SHED
FLAG
MATCH LINE STA. 1820+00.00 SEE SHEET NO. 5

CONTROL POINTS					
POINT	NORTH	EAST	ELEV.	STATION	OFFSET
S20	833163.7828	1799227.0871	726.26	1814+17.13	65.45' (RT)
S38	833502.6770	1799180.4940	721.77	1817+33.69	64.21' (LT)

R.O.W. PLANS

SEALED BY

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

I-65
B.O.P. TO STA. 1820+00

SCALE: 1"=50'

2/20/2012 1:26:59 PM
t:\tdot\robertson.I-65.sr-109\RB065-04-004.sht

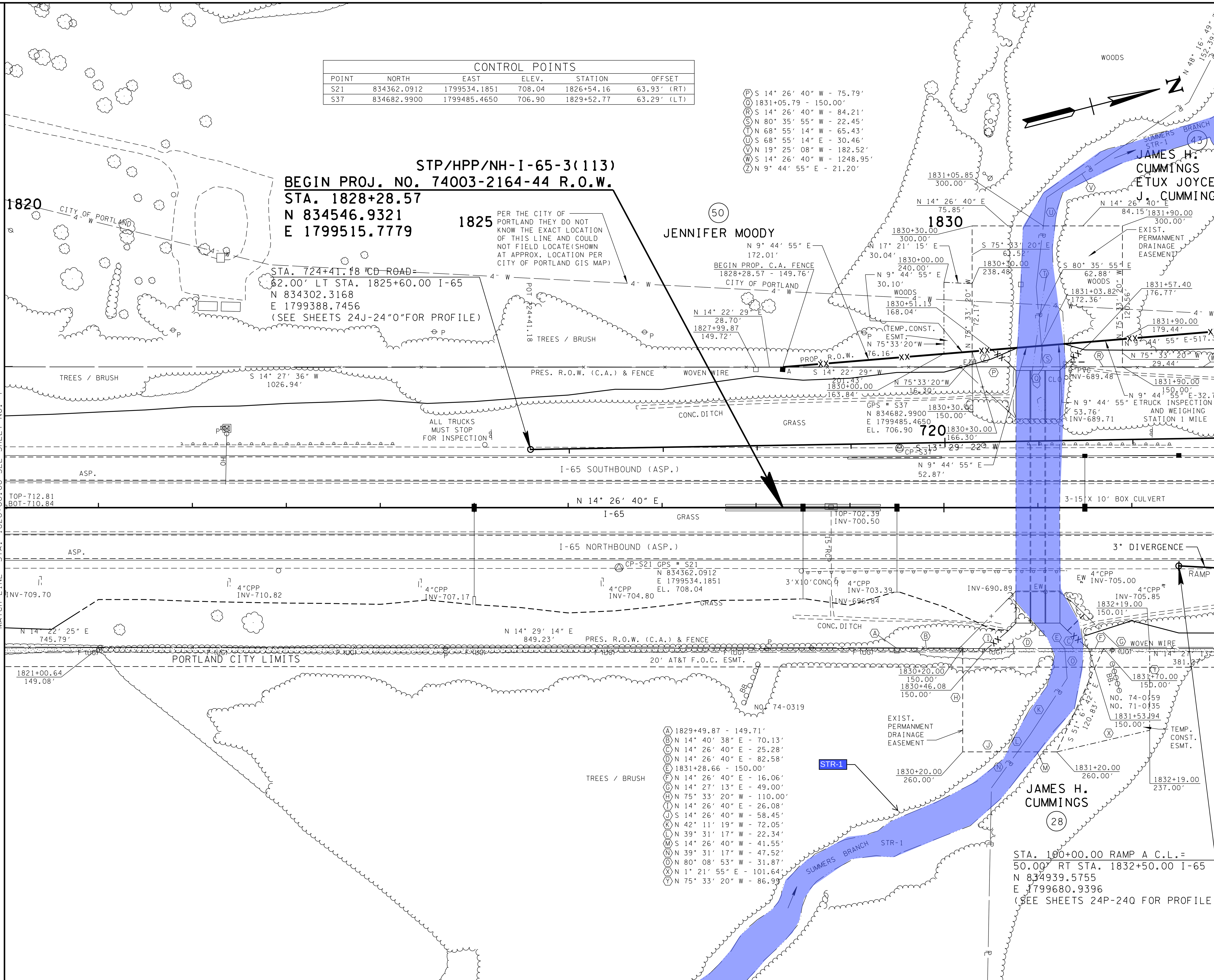
TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP/HPP/NH-I-65-3(113)	5

CONTROL POINTS

POINT	NORTH	EAST	ELEV.	STATION	OFFSET
S21	834362.0912	1799534.1851	708.04	1826+54.16	63.93' (RT)
S37	834682.9900	1799485.4650	706.90	1829+52.77	63.29' (LT)



STP/HPP/NH-I-65-3(113)
BEGIN PROJ. NO. 74003-2164-44 R.O.W.
STA. 1828+28.57
N 834546.9321
E 1799515.7779
1820
1825
1830
CITY OF PORTLAND 4" W
PER THE CITY OF PORTLAND THEY DO NOT KNOW THE EXACT LOCATION OF THIS LINE AND COULD NOT FIELD LOCATE(SHOWN AT APPROX. LOCATION PER CITY OF PORTLAND GIS MAP)
STA. 724+41.18 "CD ROAD"= 62.00' LT STA. 1825+60.00 I-65
N 834302.3168
E 1799388.7456
(SEE SHEETS 24J-24"O"FOR PROFILE)
POT 724+41.18
TREES / BRUSH
JENNIFER MOODY
50
JAMES H. CUMMINGS ETUX JOYCE J. CUMMINGS
43
JAMES H. CUMMINGS
28
WOODS
SUMMERS BRANCH STR-1
PRES. R.O.W. (C.A.) & FENCE
WOVEN WIRE
S 14° 27' 36" W 1026.94'
CONC. DITCH
GRASS
ALL TRUCKS MUST STOP FOR INSPECTION
TRUCK INSPECTION AND WEIGHING STATION 1 MILE
I-65 SOUTHBOUND (ASP.)
ASP.
TOP-712.81
BOT-710.84
N 14° 26' 40" E
I-65
TOP-702.39
INV-700.50
3-15'X 10' BOX CULVERT
I-65 NORTHBOUND (ASP.)
3° DIVERGENCE
RAMP A
CP-S21 GPS # S21 N 834362.0912 E 1799534.1851 EL. 708.04
GPS # S37 N 834682.9900 E 1799485.4650 EL. 706.90
CP-S37
720
3'X10' CONC.
4"CPP INV-710.82
4"CPP INV-707.17
4"CPP INV-704.80
4"CPP INV-703.39
INV-696.84
INV-690.89
4"CPP INV-705.00
4"CPP INV-705.85
INV-709.70
N 14° 22' 25" E 745.79'
N 14° 29' 14" E 849.23'
PORTLAND CITY LIMITS
20' AT&T F.O.C. ESMT.
1821+00.64 149.08'
NO. 74-0319
NO. 74-0159
NO. 71-0135
EXIST. PERMANENT DRAINAGE EASEMENT
TEMP. CONST. ESMT.
STR-1
STA. 100+00.00 RAMP A C.L.= 50.00' RT STA. 1832+50.00 I-65
N 834939.5755
E 1799680.9396
(SEE SHEETS 24P-24Q FOR PROFILE)
Ⓟ S 14° 26' 40" W - 75.79'
Ⓠ 1831+05.79 - 150.00'
Ⓡ S 14° 26' 40" W - 84.21'
Ⓢ N 80° 35' 55" W - 22.45'
Ⓣ N 68° 55' 14" W - 65.43'
Ⓤ S 68° 55' 14" E - 30.46'
Ⓥ N 19° 25' 08" W - 182.52'
Ⓦ S 14° 26' 40" W - 1248.95'
Ⓩ N 9° 44' 55" E - 21.20'
Ⓐ 1829+49.87 - 149.71'
Ⓑ N 14° 40' 38" E - 70.13'
Ⓒ N 14° 26' 40" E - 25.28'
Ⓓ N 14° 26' 40" E - 82.58'
Ⓔ 1831+28.66 - 150.00'
Ⓕ N 14° 26' 40" E - 16.06'
Ⓖ N 14° 27' 13" E - 49.00'
Ⓗ N 75° 33' 20" W - 110.00'
Ⓘ N 14° 26' 40" E - 26.08'
Ⓙ S 14° 26' 40" W - 58.45'
Ⓚ N 42° 11' 19" W - 72.05'
Ⓛ N 39° 31' 17" W - 22.34'
Ⓜ S 14° 26' 40" W - 41.55'
Ⓝ N 39° 31' 17" W - 47.52'
Ⓞ N 80° 08' 53" W - 31.87'
Ⓧ N 1° 21' 55" E - 101.64'
Ⓨ N 75° 33' 20" W - 86.99'
MATCH LINE STA. 1820+00.00 SEE SHEET NO. 4
MATCH LINE STA. 1833+00.00 SEE SHEET NO. 6

R.O.W. PLANS

SEALED BY

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

I-65
STA. 1820+00 TO STA. 1833+00

SCALE: 1"=50'

1/26/2012 11:51:24 AM
t:\tdot\robertson.I-65.sr-109\RB065-04-005.sht

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP/HPP/NH-I-65-3(113)	6

MATCH LINE - RAMP H
STA. 470+08.18 SEE SHEET NO. 7

MATCH LINE - RAMP E
STA. 306+54.27

43
JAMES H. CUMMINGS
ETUX JOYCE J. CUMMINGS

JAMES C. ANDERSON, ETUX
MARILYN K. ANDERSON
32

SC 471+66.74
N 44° 53' 02" W
719.30'
PROP. R.O.W. & C.A. FENCE

472+25.00
75.00'

STA. 479+35.34 RAMP H C.L.=
87.28' LT STA. 1833+56.76 I-65
N 835080.1948
E 1799563.0078
(SEE SHEETS 24X-24Z FOR PROFILE)

ST 479+35.34
CS 476+95.34

PASTURE

1835

N 16° 39' 35" W
288.94'

475

475+50.00
85.00'

PROP. R.O.W. & C.A. FENCE

N 9° 44' 55" E
517.30'

CITY OF PORTLAND

20' U.E.

1840

PER THE CITY OF PORTLAND THEY DO NOT KNOW THE EXACT LOCATION OF THIS LINE AND COULD NOT FIELD LOCATE(SHOWN AT APPROX. LOCATION PER CITY OF PORTLAND GIS MAP)

GPS = S36
N 835797.3860
E 1799771.6670
EL. 722.51

POT 710+00.98

PASTURE

1844+42.37
230.00'
OLD REST STOP
(SEWER ABANDONED)
SCARIFY, ADD
TOPSOIL & SEED
NO. ID
VISIBLE

1844+38.95
150.00'

TOP-716.40
INV-711.91
INV-711.67

8" SA

WWC-4 (CONC. WWC-2)
INV-715.29

24"RCP

N 73° 6' 12" W
80.07'

INV-715.29
WWC-4

WWC-2

305

1845

CULTIVATED FIELD

WWC-2

N 14°26'40"E
843.73'

WWC-4

N 73° 6' 45" W
928.34'

CONC. DITCH
CONC. DITCH
INV-701.10

PRES. R.O.W. (C.A.) & FENCE

WOVEN WIRE

710

N 14° 26' 40" E
1248.95'

VENT

705

GPS = S14
N 836216.1791
E 1799771.2917
EL. 720.21

PRE PASS FOLLOW IN CAB SIGNALS

S 13° 29' 22" W

S 13° 29' 22" W

GRASS

SPEED LIMIT 70

INV-714.85

CP-S36

GRASS

715

I-65 SOUTHBOUND (ASP.)

15" RCP

N 14° 26' 40" E

I-65 GRASS

TOP-709.40
INV-706.70

TOP-720.43
INV-718.14

I-65 NORTHBOUND (ASP.)

MATCH LINE STA. 1833+00.00 SEE SHEET NO. 5

MATCH LINE STA. 1846+00.00 SEE SHEET NO. 8

3° DIVERGENCE N 17° 26' 40" E

3'X6'CONC

CONC. DITCH

4"CPP
INV-708.85

REST AREA
WELCOME CENTER
1 MILE

4"CPP
INV-712.39

RAMP A

CP-S22
GPS = S22
N 835542.8011
E 1799839.4235
EL. 719.13

4"CPP
INV-716.29

4"CPP
INV-719.42

4"CPP
INV-722.35

4"CPP
INV-724.59

TREES / BRUSH

GRASS

N 14° 27' 13" E 381.27'

PRES. R.O.W. (C.A.) & FENCE

ATT CABLE

N 14° 27' 41" E
92.18'

GAS LOCATOR BOX

N 14° 25' 46" W
671.45'

PRES. R.O.W. (C.A.) & FENCE

ATT CABLE

PORTLAND CITY LIMITS

20' AT&T F.O.C. ESMT.

1836+00.27
150.07'

BEGIN PROP. C.A. FENCE
1836+00.27 - 150.07'

105

TS 104+76.66

PROP. R.O.W. & C.A. FENCE
N 22° 47' 06" E
387.48'

1844+22.75
150.31'

NO. 74-0132

JAMES H. CUMMINGS
28

SC 107+41.66

3-01

50' TEXAS GAS TRANSMISSION EASEMENT

1839+83.65
206.28'

110

N 33° 42' 06" E
231.88'

RAMP A
N 38° 00' 03" E

1842+02.56
282.75'

CS 109+90.57

CULTIVATED FIELD

N 15° 39' 17" E
120.49'

1843+23.02
285.30'

PROP. R.O.W. & C.A. FENCE
N 46° 32' 15" E
379.30'

ST 112+55.57

MATCH LINE - RAMP A
STA. 130+50.00
SEE SHEET NO. 19

CULTIVATED FIELD

D 5.6
D 5.5
D 5.2
D 5.0
D 8.4
D 11.2
D 9.2
D 6
D 4.8

CONTROL POINTS					
POINT	NORTH	EAST	ELEV.	STATION	OFFSET
S22	835542.8011	1799839.4235	719.13	1838+73.69	65.01' (RT)
S36	835797.3860	1799771.6670	722.51	1841+03.33	64.11' (LT)
S14	836216.1791	1799771.2917	720.21	1845+08.79	168.94' (LT)

SEE SHEET NO. 2K OR 2L
FOR RAMP CURVE DATA

R.O.W. PLANS

SEALED BY

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

I-65
STA.1833+00 TO STA.1846+00

SCALE: 1"=50'

11/26/2012 11:51:28 AM
t:\tdot\rrobertson\I-65_sr-109\RB065-04-006.sht

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP/HPP/NH-I-65-3(113)	7

PAUL M. GROVES,
ETUX REBECCA EARLENE GROVES,
C/O PAUL M. GROVES JR
62

JAMES C. ANDERSON,
ETUX MARILYN K.
ANDERSON
32

N 72° 26' 8" W
319.50'

N 13° 33' 52" E
970.69'

N 73° 23' 45" W
976.73'

PT 30+72.94

30
S 12° 54' 20" W
397.01'

PROP. R.O.W.
S 3° 21' 34" W
114.16'

29+50.00
38.00'

30+50.00
48.00'

31+53.43
42.91'

S 15° 27' 16" E

S 17° 38' 17" E
107.13'

S 17° 38' 17" E
132.45'

N 73° 23' 45" W
68.98'

POT 33+43.78

463+70.29
183.19'

N 13° 33' 52" E
110.06'

FRONTAGE ROAD

31+98.04
15.55'

S 12° 39' 41" W

461+50.00
100.00'

S 17° 38' 17" E
60.61'

464+15.00
195.00'
PROP. R.O.W.

PROP. C.A. FENCE

463+42.00
110.00'

N 75° 45' 32" E
95.68'

464+38.50
104.00'

464+96.00
108.50'

N 72° 13' 32" W
PROP. R.O.W.
C.A. FENCE

465

PT 465+45.50

WWC-2

WWC-3

43
JAMES H. CUMMINGS
ETUX JOYCE J. CUMMINGS

N 44° 53' 02" W
719.30'

S 44° 09' 18" E

N 73° 6' 45" W
928.34'

310

32

TS 469+26.74

470

PROP. R.O.W.
C.A. FENCE

D-4.4

D-5.2

50' TEXAS GAS TRANSMISSION EASEMENT

WWC-3 ENDS AT
CULTIVATED FIELD

WWC-3

MATCH LINE - RAMP H
STA. 470+08.18 SEE SHEET NO. 6

MATCH LINE - RAMP E
STA. 306+54.27

MATCH LINE - RAMP E
STA. 312+82.16

MATCH LINE - RAMP H
STA. 461+34.86
SEE SHEET NO. 21

R.O.W. PLANS

SEALED BY

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

RAMPS E & H

SCALE: 1"=50'

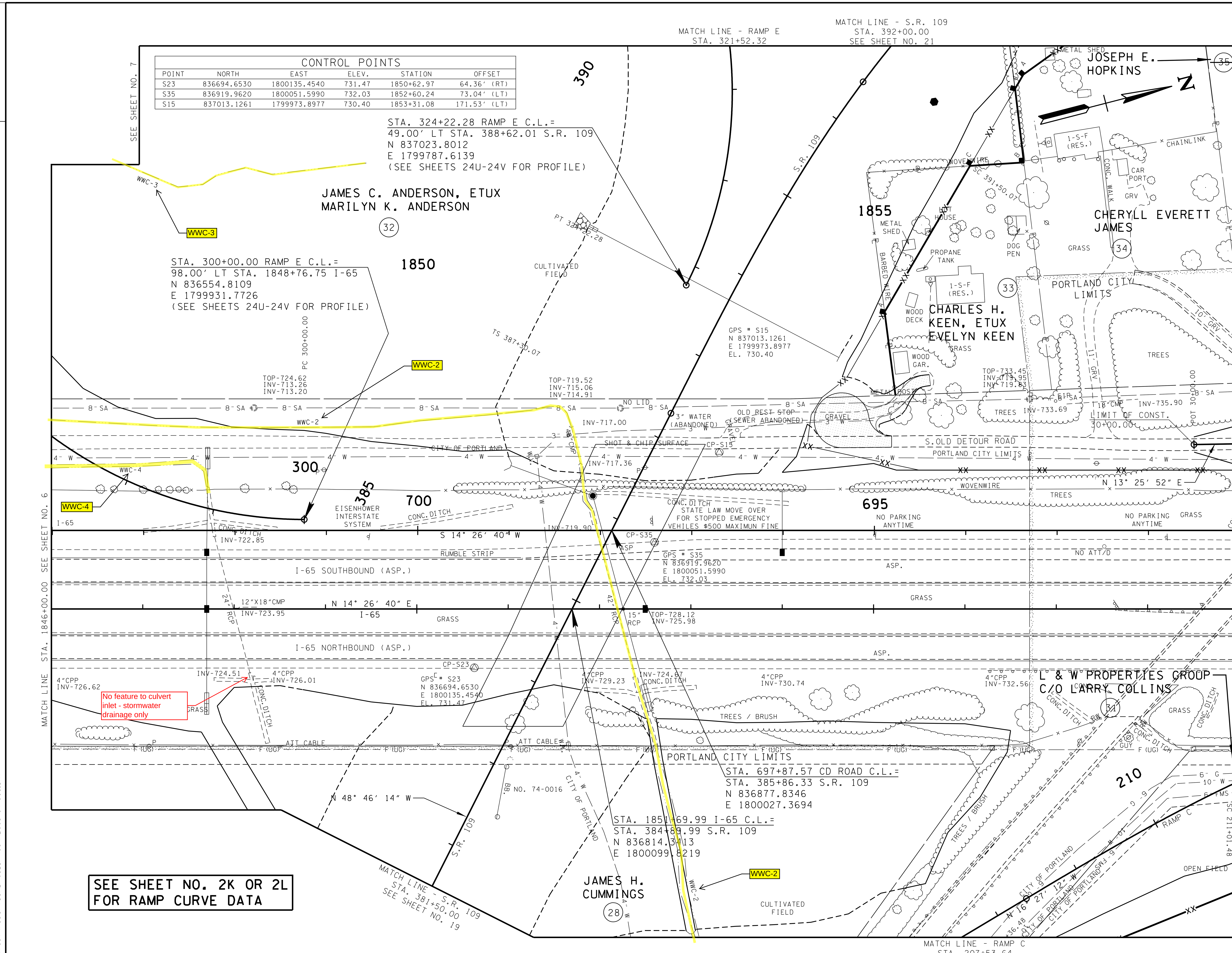
11/26/2012 11:51:32 AM
t:\tdot\robertson_i-65_sr-109\RB065-04-007.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP/HPP/NH-I-65-3(113)	8

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

CONTROL POINTS

POINT	NORTH	EAST	ELEV.	STATION	OFFSET
S23	836694.6530	1800135.4540	731.47	1850+62.97	64.36' (RT)
S35	836919.9620	1800051.5990	732.03	1852+60.24	73.04' (LT)
S15	837013.1261	1799973.8977	730.40	1853+31.08	171.53' (LT)



MATCH LINE - RAMP E
STA. 321+52.32
MATCH LINE - S.R. 109
STA. 392+00.00
SEE SHEET NO. 21
SEE SHEET NO. 7
STA. 324+22.28 RAMP E C.L.=
49.00' LT STA. 388+62.01 S.R. 109
N 837023.8012
E 1799787.6139
(SEE SHEETS 24U-24V FOR PROFILE)
JAMES C. ANDERSON, ETUX
MARILYN K. ANDERSON
32
STA. 300+00.00 RAMP E C.L.=
98.00' LT STA. 1848+76.75 I-65
N 836554.8109
E 1799931.7726
(SEE SHEETS 24U-24V FOR PROFILE)
1850
1855
CULTIVATED FIELD
WWC-3
WWC-2
WWC-4
JOSEPH E. HOPKINS
35
CHERYLL EVERETT JAMES
34
CHARLES H. KEEN, ETUX
EVELYN KEEN
33
PORTLAND CITY LIMITS
GPS # S15
N 837013.1261
E 1799973.8977
EL. 730.40
S. OLD DETOUR ROAD
EISENHOWER INTERSTATE SYSTEM
STATE LAW MOVE OVER FOR STOPPED EMERGENCY VEHILES $500 MAXIMUM FINE
S 14° 26' 40" W
N 14° 26' 40" E
I-65 SOUTHBOUND (ASP.)
I-65 NORTHBOUND (ASP.)
N 13° 25' 52" E
GPS # S35
N 836919.9620
E 1800051.5990
EL. 732.03
GPS # S23
N 836694.6530
E 1800135.4540
EL. 731.47
No feature to culvert inlet - stormwater drainage only
L & W PROPERTIES GROUP
C/O LARRY COLLINS
31
STA. 697+87.57 CD ROAD C.L.=
STA. 385+86.33 S.R. 109
N 836877.8346
E 1800027.3694
STA. 1851+69.99 I-65 C.L.=
STA. 384+89.99 S.R. 109
N 836814.3413
E 1800099.8219
N 48° 46' 14" W
JAMES H. CUMMINGS
28
MATCH LINE - S.R. 109
STA. 381+50.00
SEE SHEET NO. 19
MATCH LINE - RAMP C
STA. 207+53.64
MATCH LINE STA. 1846+00.00 SEE SHEET NO. 6
MATCH LINE STA. 1859+00.00 SEE SHEET NO. 9

SEE SHEET NO. 2K OR 2L FOR RAMP CURVE DATA

SEE SHEET 20 FOR S.R. 109 PROFILE

SEE SHEET 8C (R.O.W. DETAIL SHEET) FOR BEARINGS & DISTANCES AND STATIONS & OFFSETS ON R.O.W. & PROPERTY

R.O.W. PLANS

SEALED BY

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

I-65
STA. 1846+00 TO STA. 1859+00
SCALE: 1"=50'

9/18/2012 11:29:30 AM
t:\tdot\robertson_i-65_sr-109\RB065-04-008.sht

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP/HPP/NH-I-65-3(113)	9

MATCH LINE SEE SHEET NO. 22

WWC-1

Conveyance begins at culvert outlet

STA.36+33.72 LAKE SPRINGS ROAD
TIE TO S. OLD DETOUR ROAD
N 838098.0796
E 1799920.4600
(SEE SHEET 24H FOR PROFILE)

LIMIT OF CONST. 36+13.00

LIMIT OF CONST. 499+00.00

STA. 499+90.00 RAMP "J"
N 838037.5736
E 1800158.4406
(SEE SHEET 24AA FOR PROFILE)

STA. 561+83.10 RAMP J
N 838790.3537
E 1800368.3117

STA. 217+84.74 RAMP C C.L.=
68.30' RT STA. 1865+65.11 I-65
N 838148.4581
E 1800513.3190
(SEE SHEETS 24S-24T FOR PROFILE)

No feature to culvert inlet - Stormwater drainage only

SEE SHEET 9C (R.O.W. DETAIL SHEET) FOR BEARINGS & DISTANCES AND STATIONS & OFFSETS ON R.O.W. & PROPERTY

SEE SHEET NO. 2K OR 2L FOR RAMP CURVE DATA

CONTROL POINTS					
POINT	NORTH	EAST	ELEV.	STATION	OFFSET
S34	837849.4350	1800290.4880	737.54	1862+19.93	73.55' (LT)
S24	837820.0460	1800426.6980	737.83	1862+25.44	65.68' (RT)
S33	838757.3620	1800535.2010	742.98	1871+60.17	62.64' (LT)

R.O.W. PLANS

SEALED BY

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

I-65
STA.1859+00 TO STA.1872+00

SCALE: 1"=50'

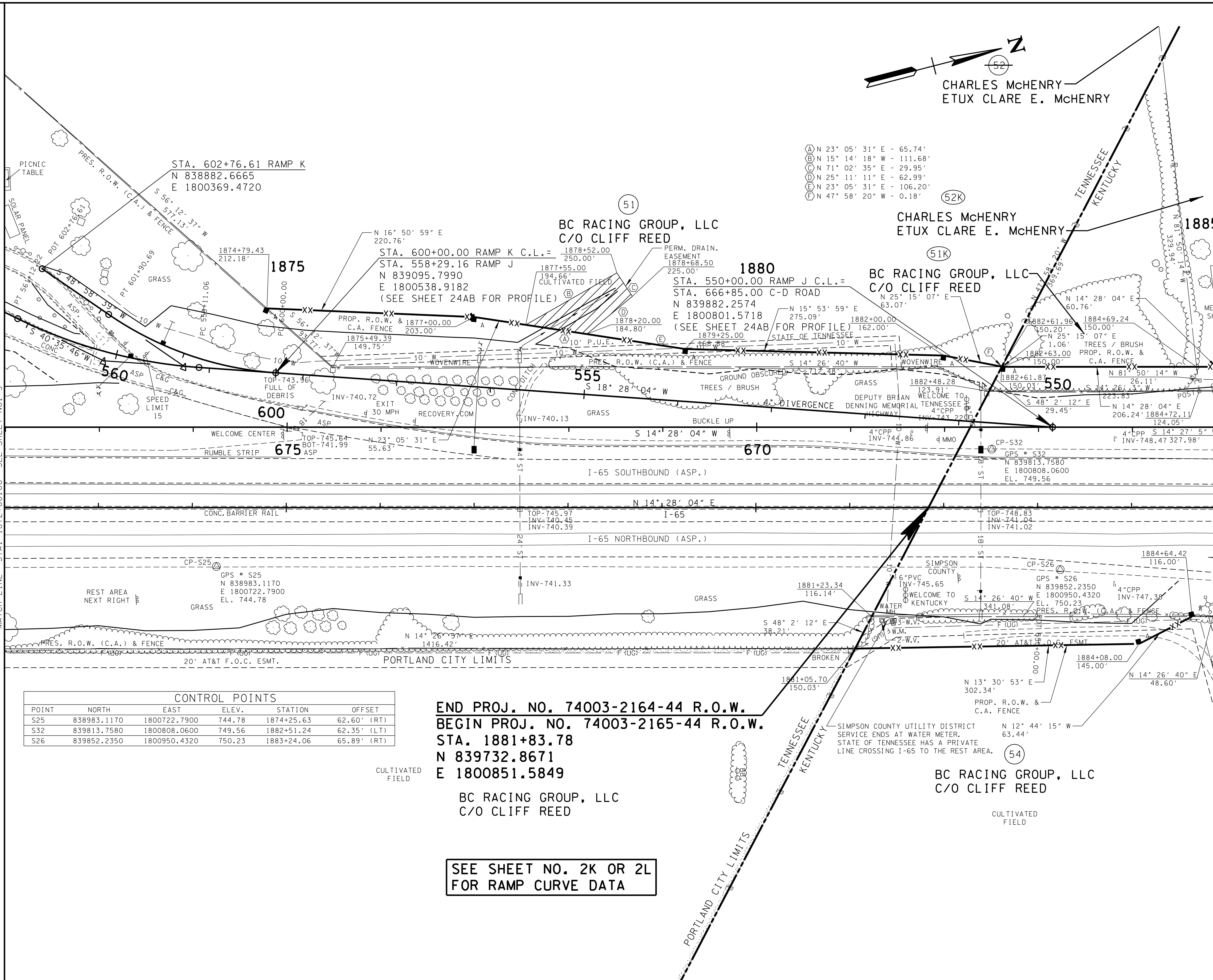
10/8/2012 9:06:59 AM
T:\TDOT\Robertson_I-65_SR-109\RB065-04-009.snt

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP/HPP/NH-I-65-3(113)	10

REV. 12-20-12: ADDED R.O.W. PROJECT NUMBER FOR KENTUCKY PORTION OF PROJECT.



N
CHARLES McHENRY
ETUX CLARE E. McHENRY
52
A N 23° 05' 31" E - 65.74'
B N 15° 14' 18" W - 111.68'
C N 71° 02' 35" E - 29.95'
D N 25° 11' 11" E - 62.99'
E N 23° 05' 31" E - 106.20'
F N 47° 58' 20" W - 0.18'
STA. 602+76.61 RAMP K
N 838882.6665
E 1800369.4720
PICNIC TABLE
SOLAR PANEL
PRES. R.O.W. (C.A.) & FENCE
S 56° 12' 37" W
577.13'
51
BC RACING GROUP, LLC
C/O CLIFF REED
52K
CHARLES McHENRY
ETUX CLARE E. McHENRY
1885
TENNESSEE
KENTUCKY
51K
BC RACING GROUP, LLC
C/O CLIFF REED
N 16° 50' 59" E
220.76'
1874+79.43
212.18'
1875
STA. 600+00.00 RAMP K C.L.=
STA. 558+29.16 RAMP J
N 839095.7990
E 1800538.9182
(SEE SHEET 24AB FOR PROFILE)
1878+52.00
250.00'
1877+55.00
194.66'
CULTIVATED FIELD
PERM. DRAIN. EASEMENT
1878+68.50
225.00'
1880
STA. 550+00.00 RAMP J C.L.=
STA. 666+85.00 C-D ROAD
N 839882.2574
E 1800801.5718
(SEE SHEET 24AB FOR PROFILE)
N 25° 15' 07" E
63.07'
N 14° 28' 04" E
60.76'
GRASS
PROP. R.O.W. & C.A. FENCE
1877+00.00
203.00'
1875+49.39
149.75'
1878+20.00
184.80'
N 15° 53' 59" E
275.09'
1882+00.00
162.00'
1879+25.00
STATE OF TENNESSEE
10' P.U.E.
1882+61.96
150.20'
N 25° 15' 07" E
1.06'
1882+63.00
150.00'
1884+69.24
150.00'
TREES / BRUSH
PROP. R.O.W. & C.A. FENCE
METAL SHED
S 48° 58' 59" W
S 40° 35' 46" W
560
ASP
C&G
CONC
SPEED LIMIT 15
TOP-743.96
FULL OF DEBRIS
INV-740.72
EXIT 30 MPH
RECOVERY.COM
600
555
S 18° 28' 04" W
WOVENWIRE
PRES. R.O.W. (C.A.) & FENCE
GROUND OBSCURED
TREES / BRUSH
S 14° 26' 40" W
712.48'
4' DIVERGENCE
DEPUTY BRIAN DENNING MEMORIAL HIGHWAY
1882+48.28
123.91'
WELCOME TO TENNESSEE
4"CPP INV-743.22
1882+61.87
150.03'
550
S 14° 26' 3" W
223.83'
S 48° 2' 12" E
29.45'
N 81° 50' 14" W
26.11'
N 14° 28' 04" E
206.24'
1884+72.11
124.05'
POST
INV-740.13
GRASS
BUCKLE UP
WELCOME CENTER
TOP-745.64
BOT-741.99
675
ASP
RUMBLE STRIP
N 23° 05' 31" E
55.63'
S 14° 28' 04" W
670
4"CPP INV-744.86
MMO
CP-S32
GPS = S32
N 839813.7580
E 1800808.0600
EL. 749.56
4"CPP
S 14° 27' 5" W
INV-748.47 327.98'
I-65 SOUTHBOUND (ASP.)
N 14° 28' 04" E
CONC. BARRIER RAIL
TOP-745.97
INV-740.45
INV-740.39
I-65
TOP-748.83
INV-741.04
INV-741.02
I-65 NORTHBOUND (ASP.)
24" ST
18" ST
CP-S25
GPS = S25
N 838983.1170
E 1800722.7900
EL. 744.78
REST AREA NEXT RIGHT
GRASS
INV-741.33
GRASS
SIMPSON COUNTY
16"PVC
INV-745.65
WELCOME TO KENTUCKY
CP-S26
GPS = S26
N 839852.2350
E 1800950.4320
EL. 750.23
1884+64.42
116.00'
4"CPP
INV-747.38
1881+23.34
116.14'
S 14° 26' 40" W
341.08'
PRES. R.O.W. (C.A.) & FENCE
S 48° 2' 12" E
38.21'
WATER MH
3-W.V.
3 W.M.
2-W.V.
N 14° 26' 37" E
1416.42'
PRES. R.O.W. (C.A.) & FENCE
20' AT&T F.O.C. ESMT.
PORTLAND CITY LIMITS
BROKEN
20' AT&T F.O.C. ESMT
1884+08.00
145.00'
N 14° 26' 40" E
48.60'
1881+05.70
150.03'
N 13° 30' 53" E
302.34'
PROP. R.O.W. & C.A. FENCE
N 12° 44' 15" W
63.44'
SIMPSON COUNTY UTILITY DISTRICT
SERVICE ENDS AT WATER METER.
STATE OF TENNESSEE HAS A PRIVATE
LINE CROSSING I-65 TO THE REST AREA.
54
BC RACING GROUP, LLC
C/O CLIFF REED
CULTIVATED FIELD
END PROJ. NO. 74003-2164-44 R.O.W.
BEGIN PROJ. NO. 74003-2165-44 R.O.W.
STA. 1881+83.78
N 839732.8671
E 1800851.5849
CULTIVATED FIELD
BC RACING GROUP, LLC
C/O CLIFF REED
TENNESSEE
KENTUCKY
PORTLAND CITY LIMITS
MATCH LINE STA. 1872+00.00 SEE SHEET NO. 9
MATCH LINE STA. 1885+00.00 SEE SHEET NO. 11

CONTROL POINTS

POINT	NORTH	EAST	ELEV.	STATION	OFFSET
S25	838983.1170	1800722.7900	744.78	1874+25.63	62.60' (RT)
S32	839813.7580	1800808.0600	749.56	1882+51.24	62.35' (LT)
S26	839852.2350	1800950.4320	750.23	1883+24.06	65.89' (RT)

SEE SHEET NO. 2K OR 2L FOR RAMP CURVE DATA

R.O.W. PLANS

SEALED BY

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

I-65
STA. 1872+00 TO STA. 1885+00

SCALE: 1"=50'

12/20/2012 1:27:04 PM
t:\tdot\rrobertson.I-65.sr-109\RB065-04-010.sht

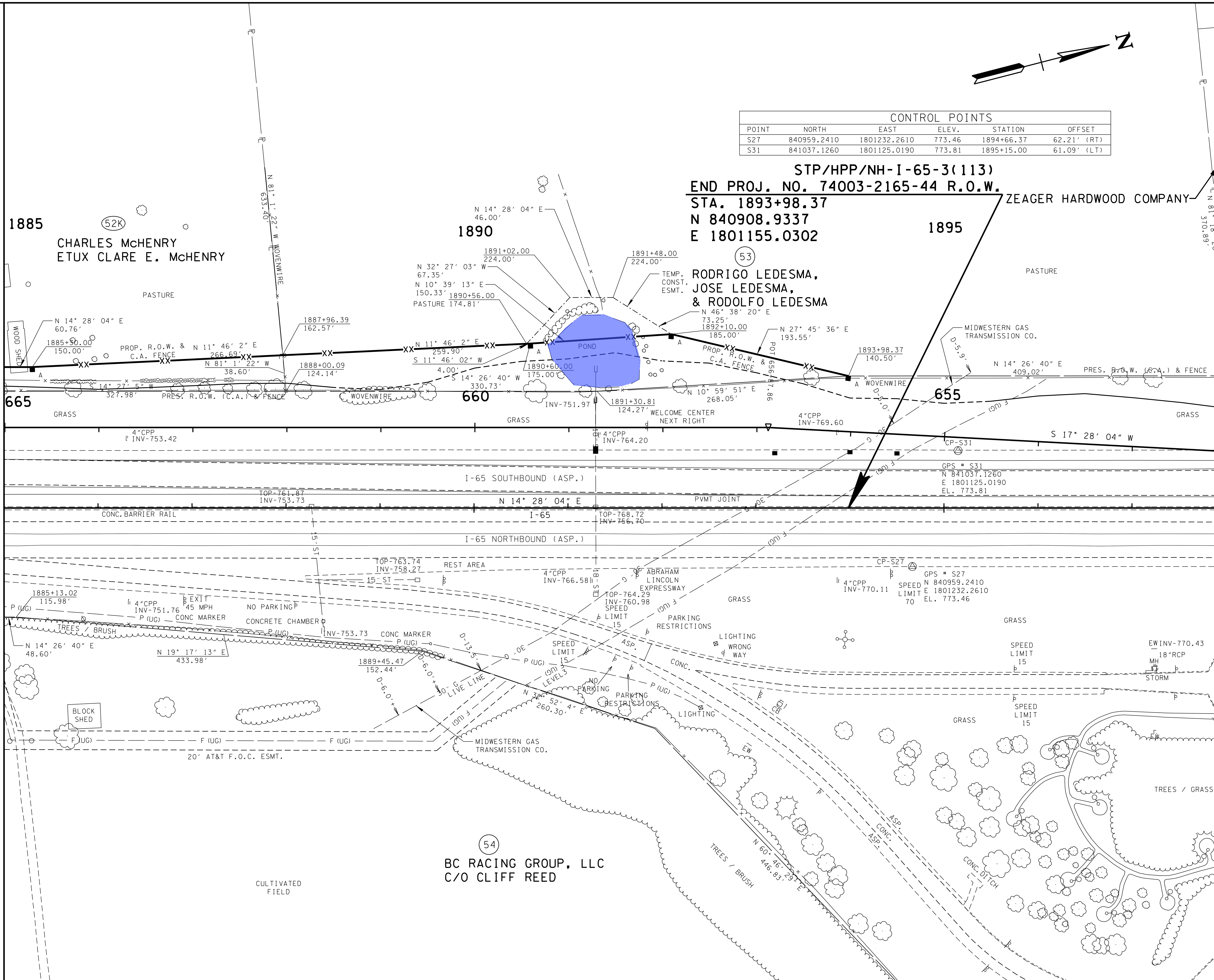
TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP/HPP/NH-I-65-3(113)	11

REV. 12-20-12: ADDED R.O.W. PROJECT NUMBER FOR KENTUCKY PORTION OF PROJECT.

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

CONTROL POINTS

POINT	NORTH	EAST	ELEV.	STATION	OFFSET
S27	840959.2410	1801232.2610	773.46	1894+66.37	62.21' (RT)
S31	841037.1260	1801125.0190	773.81	1895+15.00	61.09' (LT)



N
STP/HPP/NH-I-65-3(113)
END PROJ. NO. 74003-2165-44 R.O.W.
STA. 1893+98.37
N 840908.9337
E 1801155.0302
ZEAGER HARDWOOD COMPANY
1885
1890
1895
52K
CHARLES McHENRY
ETUX CLARE E. McHENRY
53
RODRIGO LEDESMA,
JOSE LEDESMA,
& RODOLFO LEDESMA
PASTURE
POND
TEMP. CONST. ESMT.
PROP. R.O.W. & C.A. FENCE
PRES. R.O.W. (C.A.) & FENCE
WOVENWIRE
MIDWESTERN GAS TRANSMISSION CO.
665
660
655
GRASS
WELCOME CENTER NEXT RIGHT
S 17° 28' 04" W
I-65 SOUTHBOUND (ASP.)
N 14° 28' 04" E
I-65
CONC. BARRIER RAIL
PVMT JOINT
I-65 NORTHBOUND (ASP.)
CP-S31
GPS = S31
N 841037.1260
E 1801125.0190
EL. 773.81
CP-S27
GPS = S27
N 840959.2410
E 1801232.2610
EL. 773.46
REST AREA
ABRAHAM LINCOLN EXPRESSWAY
EXIT 45 MPH
NO PARKING
CONCRETE CHAMBER
CONC MARKER
SPEED LIMIT 15
SPEED LIMIT 70
PARKING RESTRICTIONS
LIGHTING WRONG WAY
LIGHTING
TREES / BRUSH
BLOCK SHED
WOOD SHED
20' AT&T F.O.C. ESMT.
54
BC RACING GROUP, LLC
C/O CLIFF REED
CULTIVATED FIELD
TREES / GRASS
CONC. DITCH
MATCH LINE STA. 1885+00.00 SEE SHEET NO. 10
MATCH LINE STA. 1898+00.00 SEE SHEET NO. 12

R.O.W. PLANS

SEALED BY

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

I-65
STA. 1885+00 TO STA. 1898+00

SCALE: 1"=50'

2/20/2012 1:27:12 PM
t:\tdot\robertson_I-65_sr-109\RB065-04-011.sht

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP/HPP/NH-I-65-3(113)	12

N

CONTROL POINTS					
POINT	NORTH	EAST	ELEV.	STATION	OFFSET
S28	842081.9130	1801521.8240	766.93	1906+25.79	62.11' (RT)

1900 1905 1910

TREES / BRUSH

ZEAGER HARDWOOD COMPANY

CULTIVATED FIELD

CULTIVATED FIELD

53

RODRIGO LEDESMA,
JOSE LEDESMA,
& RODOLFO LEDESMA

N 81° 18' 20" W
370.89'

1898+07.39
140.67'

PRES. R.O.W. (C.A.) & FENCE

POT 650+00.00

650

STA. 650+00.00 C D ROAD =
49.35' LT STA. 1900+00.00 I-65
N 841503.8166
E 1801257.5539
(SEE SHEETS 24J-24"0" FOR PROFILE)

N 14° 26' 40" E
2175.15'

END PROJ. NO. STP/HPP/NH-I-65-3(113) CONST.
STA. 1905+00.00
N 841975.6315
E 1801430.2564

WOVENWIRE

CONC. DITCH
INV-759.13

INV-757.12

INV-758.33

GRASS

4"CPP INV-768.99

4"CPP INV-765.20

4"CPP INV-763.07

4"CPP INV-766.09

PVMT JOINT

RUMBLE STRIP

TOP-766.25
INV-758.92
INV-759.11
BOT-758.91

I-65 SOUTHBOUND (ASP.)

15" ST

N 14° 28' 04" E

RUMBLE STRIP

TOP-770.41
INV-762.65
INV-762.51

I-65

18" CMP

TOP-766.22
INV-760.75

TOP-766.29
INV-760.93

I-65 NORTHBOUND (ASP.)

18" ST

MATCH LINE STA. 1898+00.00 SEE SHEET NO. 11

PGA TOUR PLAYER
KENNY PERRY'S
COUNTRY CREEK
EXIT 2

4"CPP INV-770.02

TOP-767.46
INV-765.12

4"CPP INV-766.70

No Feature

GRASS

CP-S28

GPS * S28
N 842081.9130
E 1801521.8240
EL. 766.93

4"CPP INV-764.26

EXIT 2
HOSPITAL
NEXT RIGHT

GRASS

4"CPP INV-766.09

MERGE

KY ITS

ITS

ASP.

GRASS

INV-773.19
15"CMP

CHAINLINK

EW INV-770.33
15"RCP

MH

STORM

CONC.

P (UG)

UGP CONC MKR

P (UG)

4"CPP INV-766.90

CONC.

4"CPP INV-765.49

ITS

ITS

UGP CONC MKR

EW

EW

FLAG

GRASS

TREES / BRUSH

1-S-B (CONCESSION)

1-S-B (REST AREA)

CONC.

GRASS

GRASS

CB

MH

EW

MH

EW

EW

CONC. DITCH

R.O.W. PLANS

SEALED BY

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

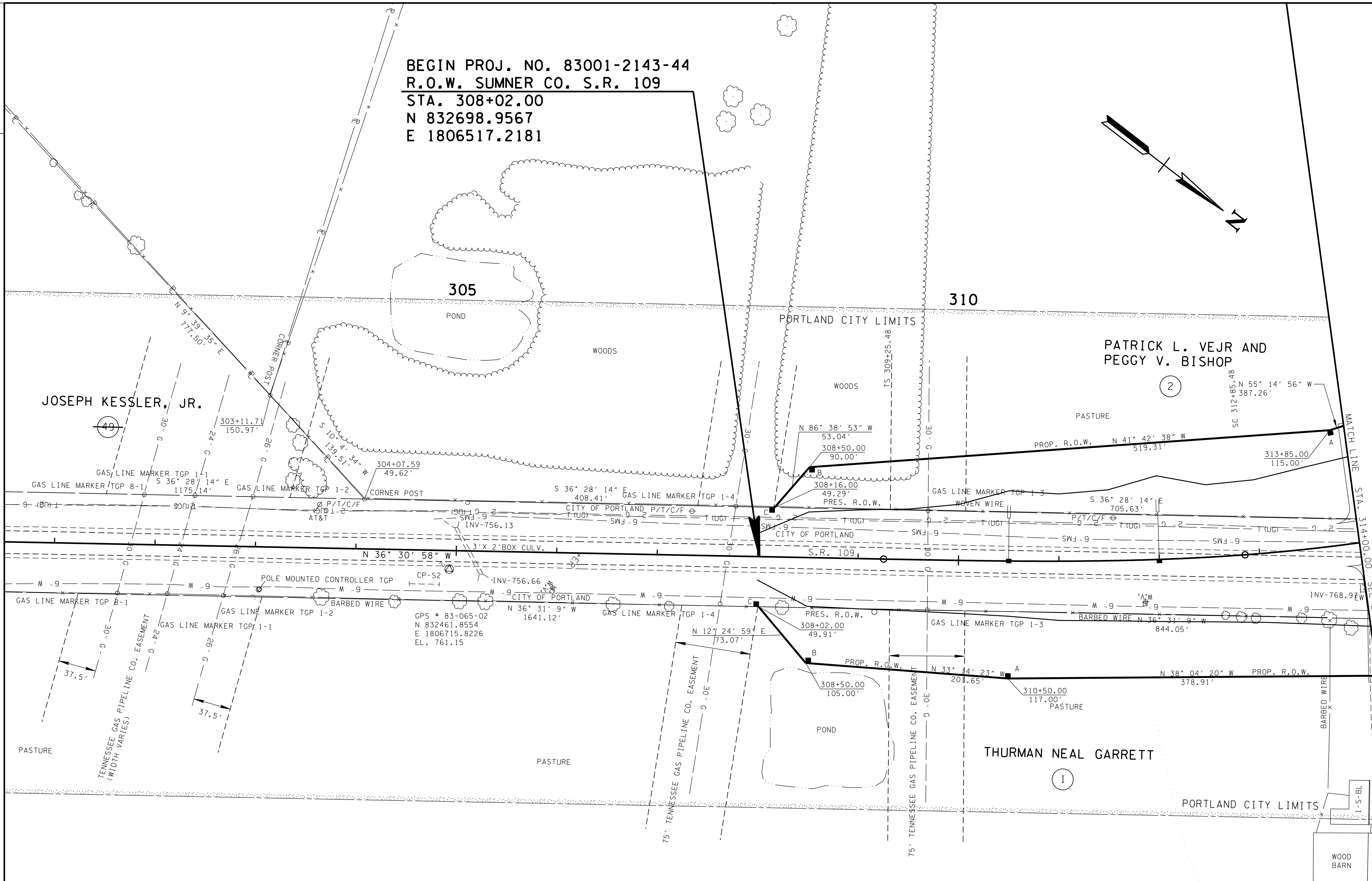
I-65
STA.1898+00 TO E.O.P.

SCALE: 1"=50'

9/18/2012 11:44:27 AM
tt\tdot\robertson_i-65_sr-109\RB065-04-012.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP/HPP/NH-I-65-3(113)	13

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.



BEGIN PROJ. NO. 83001-2143-44
R.O.W. SUMNER CO. S.R. 109
STA. 308+02.00
N 832698.9567
E 1806517.2181
N
305
310
POND
WOODS
PORTLAND CITY LIMITS
PATRICK L. VEJR AND
PEGGY V. BISHOP
2
JOSEPH KESSLER, JR.
49
PASTURE
PROP. R.O.W.
N 41° 42' 38" W
519.31'
313+85.00
115.00'
N 55° 14' 56" W
387.26'
N 86° 38' 53" W
53.04'
308+50.00
90.00'
308+16.00
49.29'
PRES. R.O.W.
303+11.71
150.97'
304+07.59
49.62'
CORNER POST
GAS LINE MARKER TGP 1-1
GAS LINE MARKER TGP 8-1
GAS LINE MARKER TGP 1-2
GAS LINE MARKER TGP 1-4
GAS LINE MARKER TGP 1-3
S 36° 28' 14" E
1175.14'
S 36° 28' 14" E
408.41'
S 36° 28' 14" E
705.63'
CITY OF PORTLAND
AT&T
WOVEN WIRE
INV-756.13
3'X 2' BOX CULV.
N 36° 30' 58" W
S.R. 109
POLE MOUNTED CONTROLLER TGP
CP-S2
INV-756.66
BARBED WIRE
N 36° 31' 9" W
1641.12'
N 36° 31' 9" W
844.05'
GPS # 83-065-02
N 832461.8554
E 1806715.8226
EL. 761.15
308+02.00
49.91'
N 12° 24' 59" E
73.07'
N 33° 14' 23" W
201.65'
308+50.00
105.00'
310+50.00
117.00'
N 38° 04' 20" W
378.91'
INV-768.91
37.5'
TENNESSEE GAS PIPELINE CO. EASEMENT (WIDTH VARIES)
75' TENNESSEE GAS PIPELINE CO. EASEMENT
THURMAN NEAL GARRETT
1
WOOD BARN
TRAIL
MATCH LINE STA. 314+00.00
SEE SHEET NO. 14

CONTROL POINTS

POINT	NORTH	EAST	ELEV.	STATION	OFFSET
S2	832461.8554	1806715.8226	761.15	304+93.26	18.53' (RT)

R.O.W. PLANS

SEALED BY

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT
S.R. 109
B.O.P. TO STA.314+00
SCALE: 1"=50'

9/18/2012 11:44:43 AM
t:\tdot\robertson.I-65.sr-109\RB065-04-013.sht

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP/HPP/NH-I-65-3(113)	14

PATRICK L. VEJR AND
PEGGY V. BISHOP
(2)

CONTROL POINTS					
POINT	NORTH	EAST	ELEV.	STATION	OFFSET
S1	833220.0714	1806172.7354	773.38	314+17.12	62.25' (RT)
S44	833564.8573	1805853.5940	774.87	318+58.35	141.71' (RT)

315

320

325

N

STA. 322+52.72 S.R. 109 C.L. =
STA. 85+00.00 OLD S.R. 109 TIE
N 833632.8824
E 1805434.3376
(SEE SHEET 24 FOR PROFILE)

PORTLAND CITY LIMITS

PROP. R.O.W.

N 55° 14' 56" W
387.26'

318+00.00
143.00'

321+65.00
157.00'

N 62° 55' 10" W
352.96'

N 57° 07' 53" W
486.82'

326+50.00
115.00'

N 67° 47' 29" W
100.50'

PROP. R.O.W.

MATCH LINE STA. 327+00.00 SEE SHEET NO. 15

MATCH LINE STA. 314+00.00 SEE SHEET NO. 13

S 36° 28' 14" E
105.63'

315+25.05
0.00'

S 36° 28' 14" E
105.91'

316+27.06
25.92'

S.R. 109

N 62° 04' 51" W

N 36° 30' 58" W

PASTURE

TRAIL

METAL BARN

1-S-BLOCK BLDG.

CS 317+77.63

ST 321+37.63

WOOD BARN

WOVEN WIRE

2-S-B (RES.)

CONNECTED TO CITY'S SAN. SEWER

PC 85+68.92

N 38° 04' 20" W
378.91'

N 36° 31' 9" W
844.05'

PROP. R.O.W.

N 45° 50' 40" W
150.13'

314+10.00
135.00'

315+50.00
140.00'

316+18.86
125.80'

N 61° 47' 52" W
75.00'

GRASS

GPS = 83-065-01
N 833220.0714
E 1806172.7354
EL. 773.38

1-S-B (RES.)

CONC. S.W.

LOT

BARBED WIRE

WOOD

BLOCK BLDG.

CONNECTED TO CITY'S SAN. SEWER

WOOD BARN

PORTLAND CITY LIMITS

S.R. 109
CURVE DC20
PI 315+39.36
N 833,291.5626
E 1,806,078.4555
Δs 25° 33' 53" (LT)
θs 5° 24' 00"
Δc 14° 45' 53" (LT)
Dc 3° 00' 00"
Rc 1,909.86
Lc 492.16
Ts 613.88
Ls 360.00
SE 0.068 FT/FT
DESIGN SPEED 60 MPH
TRANS. LENGTH 360

THURMAN NEAL GARRETT
(1)

N 36° 31' 9" W
816.09'

BARBED WIRE

GPS = S44
N 833564.8573
E 1805853.5940
EL. 774.87

SCARIFY, ADD TOPSOIL & SEED

PRES. R.O.W.

CITY OF PORTLAND

S.R. 109 TIE
CURVE DC24
PI 88+48.71
N 833,941.0042
E 1,805,597.6121
Δ 64° 26' 07" (LT)
D 12° 54' 16"
R 444.00
L 499.33
T 279.79
SE 0.037 FT/FT
DESIGN SPEED 30 MPH
TRANS. LENGTH 105

N 27° 55' 09" E

PASTURE

N 36° 30' 58" W

OLD S.R. 109 TIE

WOVEN WIRE

N 68° 55' 25" W
251.79'

PROP. R.O.W.

326+00.00
105.00'

N 57° 30' 25" W
150.48'

323+50.00
135.00'

N 11° 40' 54" E
161.63'

PROP. R.O.W.

N 22° 28' 41" W
266.23'

88+50.00
70.00'

MATCH LINE - OLD S.R. 109 TIE
STA. 89+00.00
SEE SHEET NO. 14C

R.O.W. PLANS

SEALED BY

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

S.R. 109
STA.314+00 TO STA.327+00

SCALE: 1"=50'

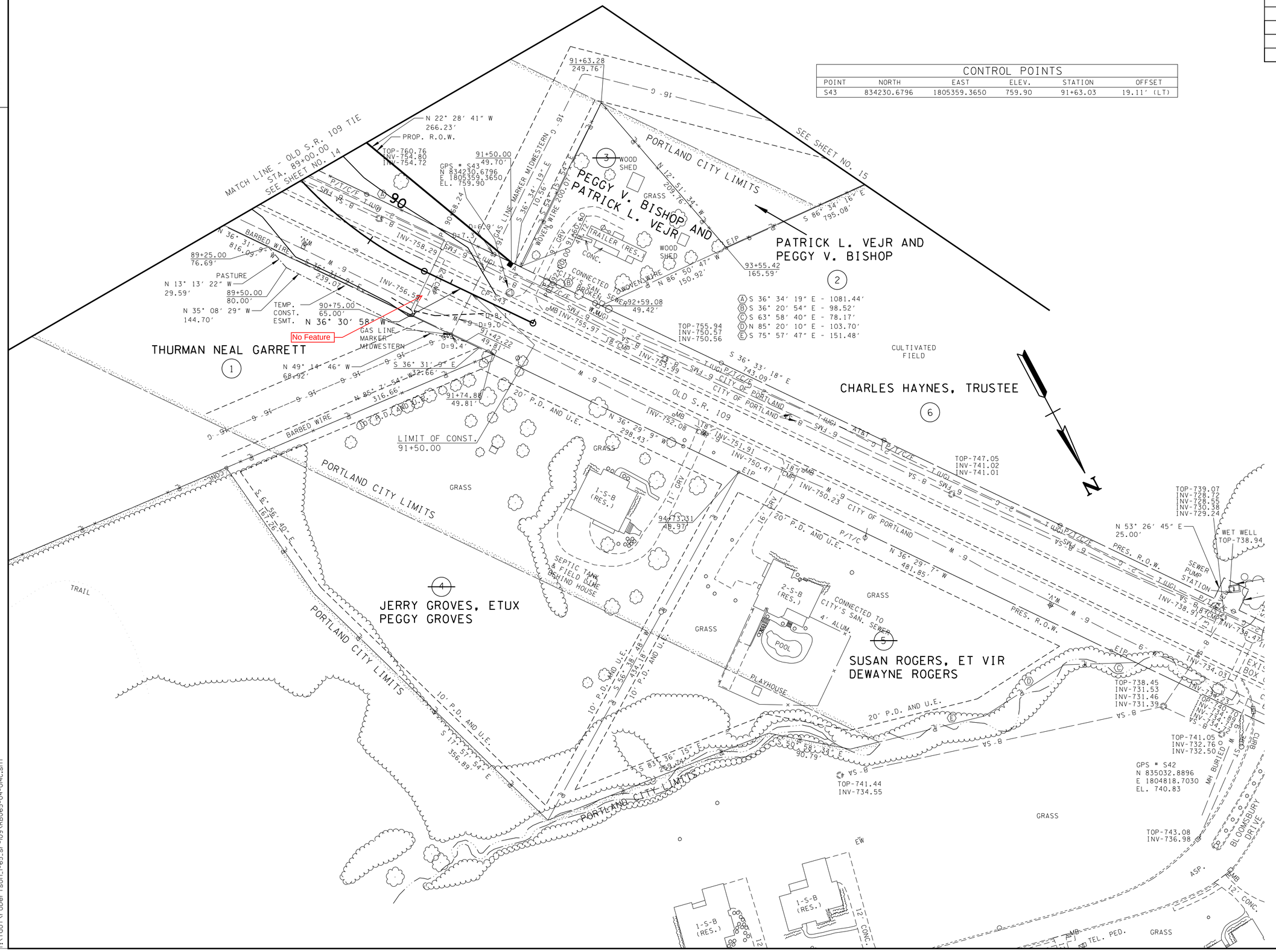
9/18/2012 11:45:01 AM
t:\tdot\robertson_I-65_sr-109\RB065-04-014.sht

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP/HPP/NH-I-65-3(113)	14C

CONTROL POINTS

POINT	NORTH	EAST	ELEV.	STATION	OFFSET
S43	834230.6796	1805359.3650	759.90	91+63.03	19.11' (LT)



R.O.W. PLANS

SEALED BY

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

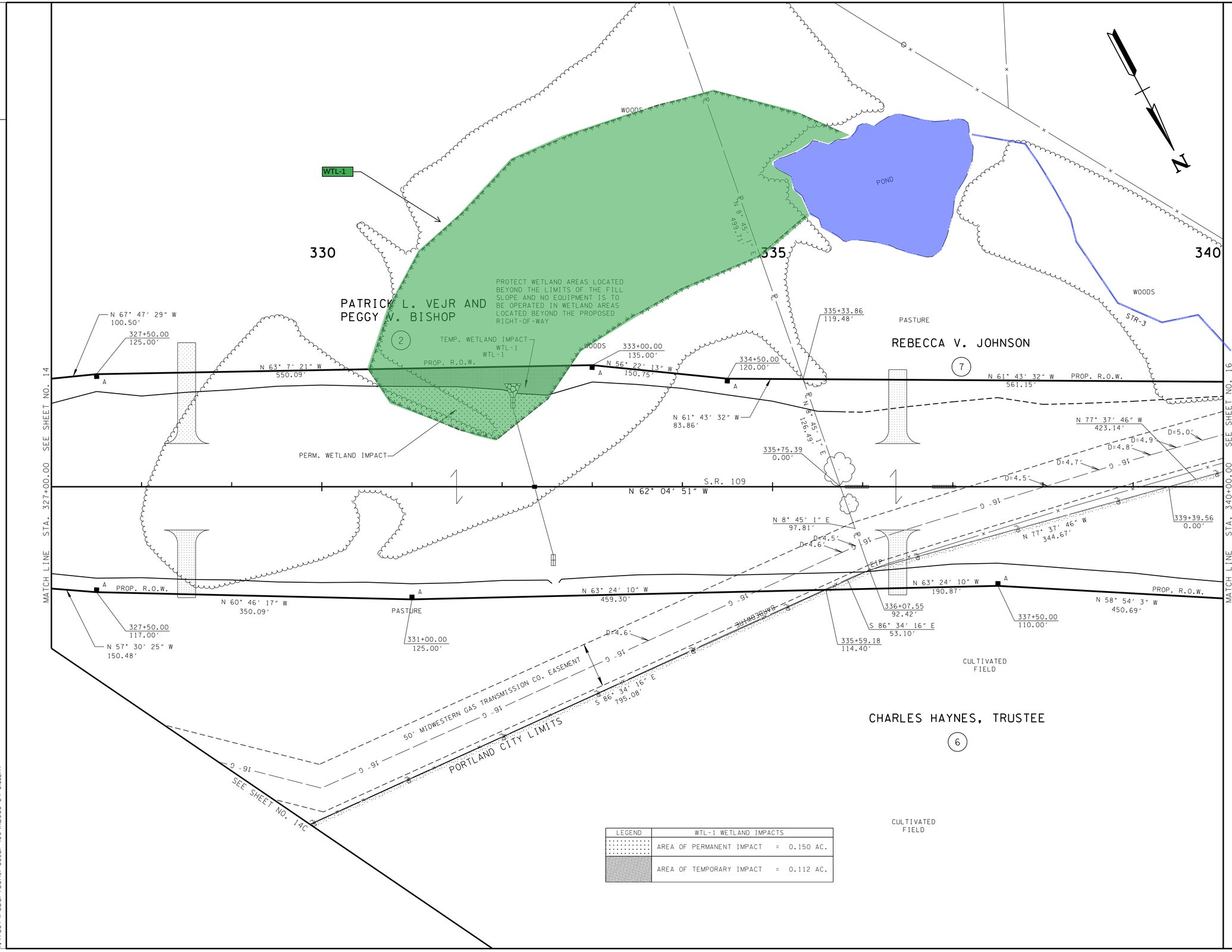
S.R. 109 TIE
STA.89+00 TO STA. 91+50

SCALE: 1"=50'

8/18/2012 11:45:16 AM
t:\dot\robertson_i-65_sr-109\RB065-04-04c.sht

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP/HPP/NH-I-65-3(113)	15



LEGEND	WTL-1 WETLAND IMPACTS
	AREA OF PERMANENT IMPACT = 0.150 AC.
	AREA OF TEMPORARY IMPACT = 0.112 AC.

R.O.W. PLANS

SEALED BY

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

S.R. 109
STA.327+00 TO STA.340+00

SCALE: 1"=50'

9/18/2012 11:45:22 AM
t:\tdot\robertson_I-65_sr-109\RB065-04-015.sht

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP/HPP/NH-I-65-3(113)	16

GPS * S12
N 834108.1081
E 1802968.6997
EL. 735.20

RONALD A. BOISVERT ETUX
SHIRLEY B. BOISVERT

ROBERT L. NICHOLS ETUX
DONNA M. NICHOLS

JOSEPH K. DOYLE

GREGORY A. SHREEVE

MELVIN STEWART, ETUX BRENDA K. STEWART

REBECCA V. JOHNSON

CHARLES HAYNES, TRUSTEE

LOU VERNE BOND

ROBERT E. FREEMAN, ETUX BEVERLY B. FREEMAN

PORTLAND CITY LIMITS

OPEN FIELD

STA. 53+88.89 TGT ROAD C.L. =
STA. 10+00.00 TGT TIE ROAD
N 834483.0455
E 1802629.6767
(SEE SHEETS 24B-24C FOR PROFILE)

STA. 350+25.00 S.R. 109 C.L. =
STA. 15+79.66 TGT TIE ROAD
N 834778.7606
E 1803271.9061
(SEE SHEET 24A FOR PROFILE)

CONTROL POINTS					
POINT	NORTH	EAST	ELEV.	STATION	OFFSET
S12	834108.1081	1802968.6997	735.20	346+53.89	734.56' (LT)

STR-2
STR-3
WTL-2
WWC-6
UNNAMED TRIBUTARY
TEMP. CONST. ESMT.
CULTIVATED FIELD
PASTURE
SPRING FLOWS TOWARD WWC-6
S.R. 109
N 62° 04' 51" W
N 51° 57' 29" E
N 27° 55' 09" E
N 39° 23' 17" W
N 40° 06' 11" W

WWC-6 enters STR-2 via an eroded rock lined channel

Remove from plans - WWC-6 does not enter STR-3

Spring not located - Remove from plans

MATCH LINE STA. 340+00.00 SEE SHEET NO. 15

MATCH LINE STA. 353+00.00 SEE SHEET NO. 17

SEE SHEET 16A FOR ALIGNMENT CURVE DATA.

SEE SHEET 16C (R.O.W. DETAIL SHEET) FOR BEARINGS & DISTANCES AND STATIONS & OFFSETS ON R.O.W. & PROPERTY

R.O.W. PLANS

SEALED BY

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

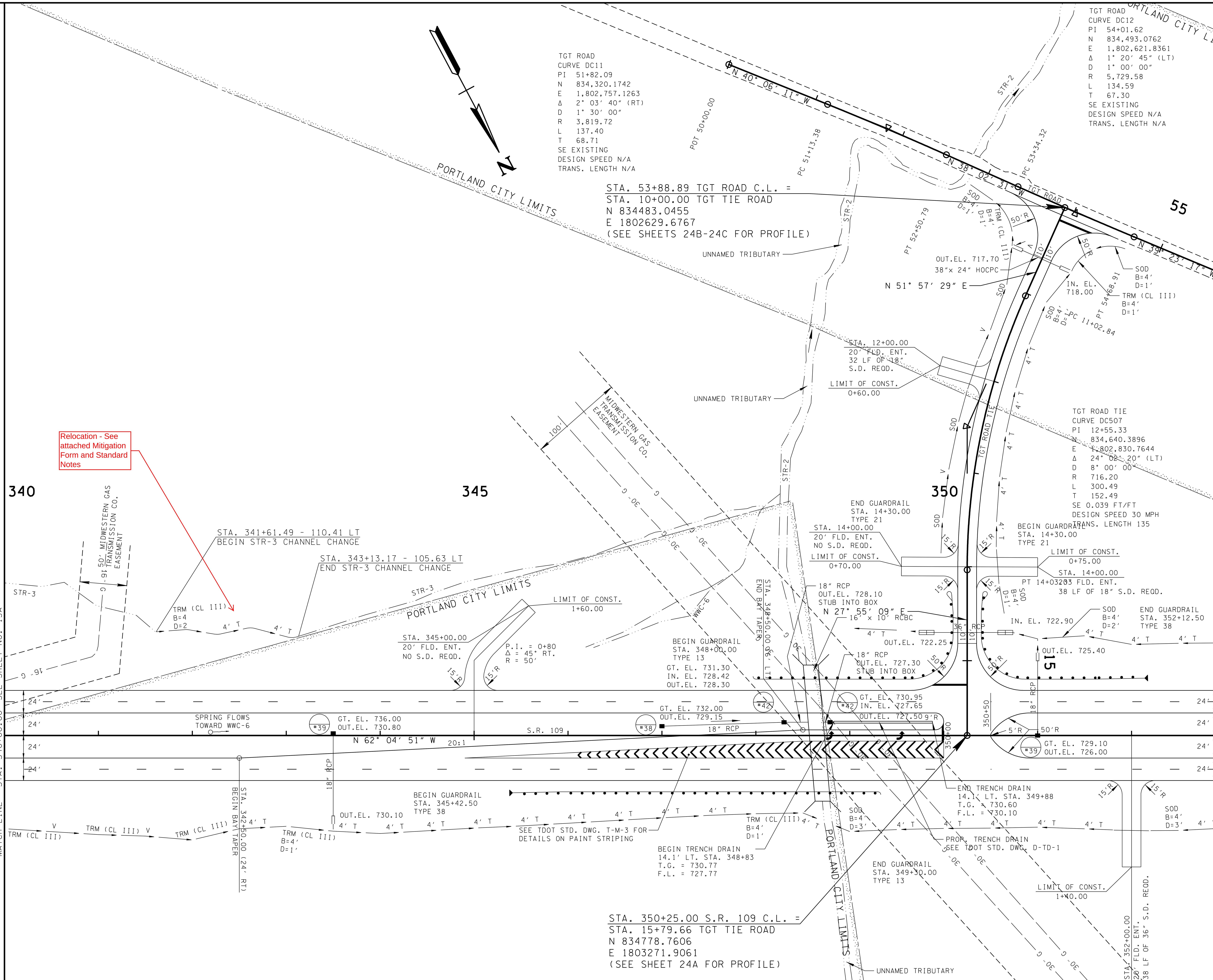
S.R. 109
STA.340+00 TO STA.353+00

SCALE: 1"=50'

9/18/2012 11:45:42 AM
t:\tdot\roberts\on_I-65_sr-109\RB065-04-016.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP/HPP/NH-I-65-3(113)	16A

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.



TGT ROAD
CURVE DC11
PI 51+82.09
N 834,320.1742
E 1,802,757.1263
Δ 2° 03' 40" (RT)
D 1° 30' 00"
R 3,819.72
L 137.40
T 68.71
SE EXISTING
DESIGN SPEED N/A
TRANS. LENGTH N/A
TGT ROAD
CURVE DC12
PI 54+01.62
N 834,493.0762
E 1,802,621.8361
Δ 1° 20' 45" (LT)
D 1° 00' 00"
R 5,729.58
L 134.59
T 67.30
SE EXISTING
DESIGN SPEED N/A
TRANS. LENGTH N/A
PORTLAND CITY LIMITS
N 40° 06' 11" W
N 38° 02' 31" W
N 39° 23' 17" W
TGT ROAD
POT 50+00.00
PC 51+13.38
PT 52+50.79
PC 53+34.32
STA. 53+88.89 TGT ROAD C.L. =
STA. 10+00.00 TGT TIE ROAD
N 834483.0455
E 1802629.6767
(SEE SHEETS 24B-24C FOR PROFILE)
UNNAMED TRIBUTARY
OUT.EL. 717.70
38"x 24" HOCPC
N 51° 57' 29" E
IN. EL. 718.00
SOD B=4' D=1'
TRM (CL III) B=4' D=1'
PT 54+68.91
PC 11+02.84
55
MATCH LINE - TGT ROAD STA. 55+74.35
STA. 12+00.00
20' FLD. ENT.
32 LF OF 18"
S.D. REQD.
LIMIT OF CONST.
0+60.00
UNNAMED TRIBUTARY
MIDWESTERN GAS TRANSMISSION CO. EASEMENT
100'
TGT ROAD TIE
CURVE DC507
PI 12+55.33
N 834,640.3896
E 1,802,830.7644
Δ 24° 02' 20" (LT)
D 8° 00' 00"
R 716.20
L 300.49
T 152.49
SE 0.039 FT/FT
DESIGN SPEED 30 MPH
TRANS. LENGTH 135
Relocation - See attached Mitigation Form and Standard Notes
340
345
350
50' MIDWESTERN GAS TRANSMISSION CO. EASEMENT
STA. 341+61.49 - 110.41 LT
BEGIN STR-3 CHANNEL CHANGE
STA. 343+13.17 - 105.63 LT
END STR-3 CHANNEL CHANGE
STR-3
TRM (CL III) B=4 D=2
PORTLAND CITY LIMITS
LIMIT OF CONST.
1+60.00
STA. 345+00.00
20' FLD. ENT.
NO S.D. REQD.
P.I. = 0+80
Δ = 45° RT.
R = 50'
END GUARDRAIL
STA. 14+30.00
TYPE 21
STA. 14+00.00
20' FLD. ENT.
NO S.D. REQD.
LIMIT OF CONST.
0+70.00
BEGIN GUARDRAIL
STA. 14+30.00
TYPE 21
LIMIT OF CONST.
0+75.00
STA. 14+00.00
PT 14+03.03
20' FLD. ENT.
38 LF OF 18" S.D. REQD.
18" RCP
OUT.EL. 728.10
STUB INTO BOX
N 27° 55' 09" E
16' x 10' RCBC
OUT.EL. 722.25
IN. EL. 722.90
SOD B=4' D=2'
END GUARDRAIL
STA. 352+12.50
TYPE 38
OUT.EL. 725.40
15
STA. 348+50.00 06' LT
END BAY TAPER
BEGIN GUARDRAIL
STA. 348+00.00
TYPE 13
GT. EL. 731.30
IN. EL. 728.42
OUT.EL. 728.30
18" RCP
OUT.EL. 727.30
STUB INTO BOX
GT. EL. 730.95
IN. EL. 727.65
OUT.EL. 727.50
SPRING FLOWS
TOWARD WWC-6
GT. EL. 736.00
OUT.EL. 730.80
GT. EL. 732.00
OUT.EL. 729.15
S.R. 109
18" RCP
N 62° 04' 51" W
20:1
GT. EL. 729.10
OUT.EL. 726.00
350+50
18" RCP
BEGIN GUARDRAIL
STA. 345+42.50
TYPE 38
OUT.EL. 730.10
STA. 342+50.00 (24' RT)
BEGIN BAY TAPER
TRM (CL III) B=4' D=1'
SEE TDOT STD. DWG. T-M-3 FOR DETAILS ON PAINT STRIPING
TRM (CL III) B=4' D=1'
SOD B=4' D=3'
END TRENCH DRAIN
14.1' LT. STA. 349+88
T.G. = 730.60
F.L. = 730.10
PROP. TRENCH DRAIN
SEE TDOT STD. DWG. D-TD-1
BEGIN TRENCH DRAIN
14.1' LT. STA. 348+83
T.G. = 730.77
F.L. = 727.77
END GUARDRAIL
STA. 349+30.00
TYPE 13
LIMIT OF CONST.
1+40.00
STA. 352+00.00
20' FLD. ENT.
38 LF OF 36" S.D. REQD.
PORTLAND CITY LIMITS
STA. 350+25.00 S.R. 109 C.L. =
STA. 15+79.66 TGT TIE ROAD
N 834778.7606
E 1803271.9061
(SEE SHEET 24A FOR PROFILE)
UNNAMED TRIBUTARY
MATCH LINE STA. 340+00.00 SEE SHEET NO. 15A
MATCH LINE STA. 353+00.00 SEE SHEET NO. 17A

9/18/2012 11:45:46 AM
t:\tdot\robertson\I-65_sr-109\RB065-04-016A.sht

R.O.W. PLANS

SEALED BY

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

S.R. 109
STA.340+00 TO STA.353+00

SCALE: 1"=50'

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP/HPP/NH-I-65-3(113)	17

MELVIN STEWART, ETUX BRENDA K. STEWART
JAMES PAUL STEWART, ETUX MONA STEWART
HOWARD HENSON, ETUX NELLIE HENSON
PORTLAND CITY LIMITS
ROBERT ALLISON, ETUX PATTI ALLISON
MATCH LINE STA. 1126+50.00 SEE SHEET NO. 17D
ANTONIO R. FITTS
GERALDINE GROVES
KYLA MORALES
DAVID A. GRAVES, SR. AND DAVID A GRAVES, JR.
GARY T. FERGUSON, ETUX JANA FERGUSON
JAMES H. CUMMINGS JR., ETUX TRESA L. CUMMINGS
JAMES H. CUMMINGS
LINDA B. WATKINS, ETAL
CLYDE E. WATKINS
DANNY STEVEN KEY
DANNY STEVEN KEY
SANDRA FREEDLE THOMERSON, VIVIAN FREEDLE HARRIS, AND GLENDA FREEDLE PIKE
A.C. BRYANT
LOU VERNE BOND
ROBERT E. FREEMAN, ETUX BEVERLY B. FREEMAN
S.R. 109 N 62° 04' 51" W
PORTLAND CITY LIMITS
L & W PROPERTIES GROUP
ROBERT E. FREEMAN, ETUX BEVERLY B. FREEMAN
L & W PROPERTIES GROUP
MICHAEL E. LOGAN, ETUX LISA D. LOGAN
KTR NASHVILLE, LLC
LAKE SPRINGS ROAD
S.R. 41 (U.S. 31 W) N 25° 19' 17" E
MATCH LINE STA. 353+00.00 SEE SHEET NO. 16
MATCH LINE STA. 366+00.00 SEE SHEET NO. 18
MATCH LINE STA. 1136+00.00 SEE SHEET NO. 17G

STA. 65+90.80 TGT ROAD C.L. =
STA. 1131+28.16 S.R. 41 LT.
N 835419.5705
E 1801877.2815

STA. 362+36.28 S.R. 109 C.L. =
STA. 1132+15.02 S.R. 41 LT & RT
N 835498.0891
E 1801914.4331
(SEE SHEETS 24D-24F FOR PROFILE)

END PROJ. NO. 83001-2143-44 SUMNER CO.
BEGIN PROJ. NO. 74003-2164-44 ROBERTSON CO.

CONTROL POINTS					
POINT	NORTH	EAST	ELEV.	STATION	OFFSET
S10	835524.3821	1801875.0927	740.15	362+83.35	4.81' (RT)

W.S. 727.67 POND
W.S. 732.00 POND

SEE SHEET 17A FOR ALIGNMENT CURVE DATA.

SEE SHEET 17C (R.O.W. DETAIL SHEET) FOR BEARINGS & DISTANCES AND STATIONS & OFFSETS ON R.O.W. & PROPERTY

R.O.W. PLANS

SEALED BY

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

S.R. 109
STA.353+00 TO STA.366+00

SCALE: 1"=50'

11/26/2012 11:51:35 AM
t:\tdot\robertson_I-65_sr-109\RB065-04-017.sht

TENNESSEE D.O.T.
DESIGN DIVISION

FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP/HPP/NH-I-65-3(113)	17D

SEE SHEET 17F (R.O.W. DETAIL SHEET) FOR BEARINGS & DISTANCES AND STATIONS & OFFSETS ON R.O.W. & PROPERTY

R.O.W. PLANS

SEALED BY

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

S.R. 41
B.O.P. TO STA.1126+50

SCALE: 1"=50'

1/26/2012 11:51:43 AM
t:\tdot\robertson_i-65_sr-109\RB065-04-017D.SHT

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP/HPP/NH-I-65-3(113)	17G

R.O.W. PLANS

SEALED BY

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

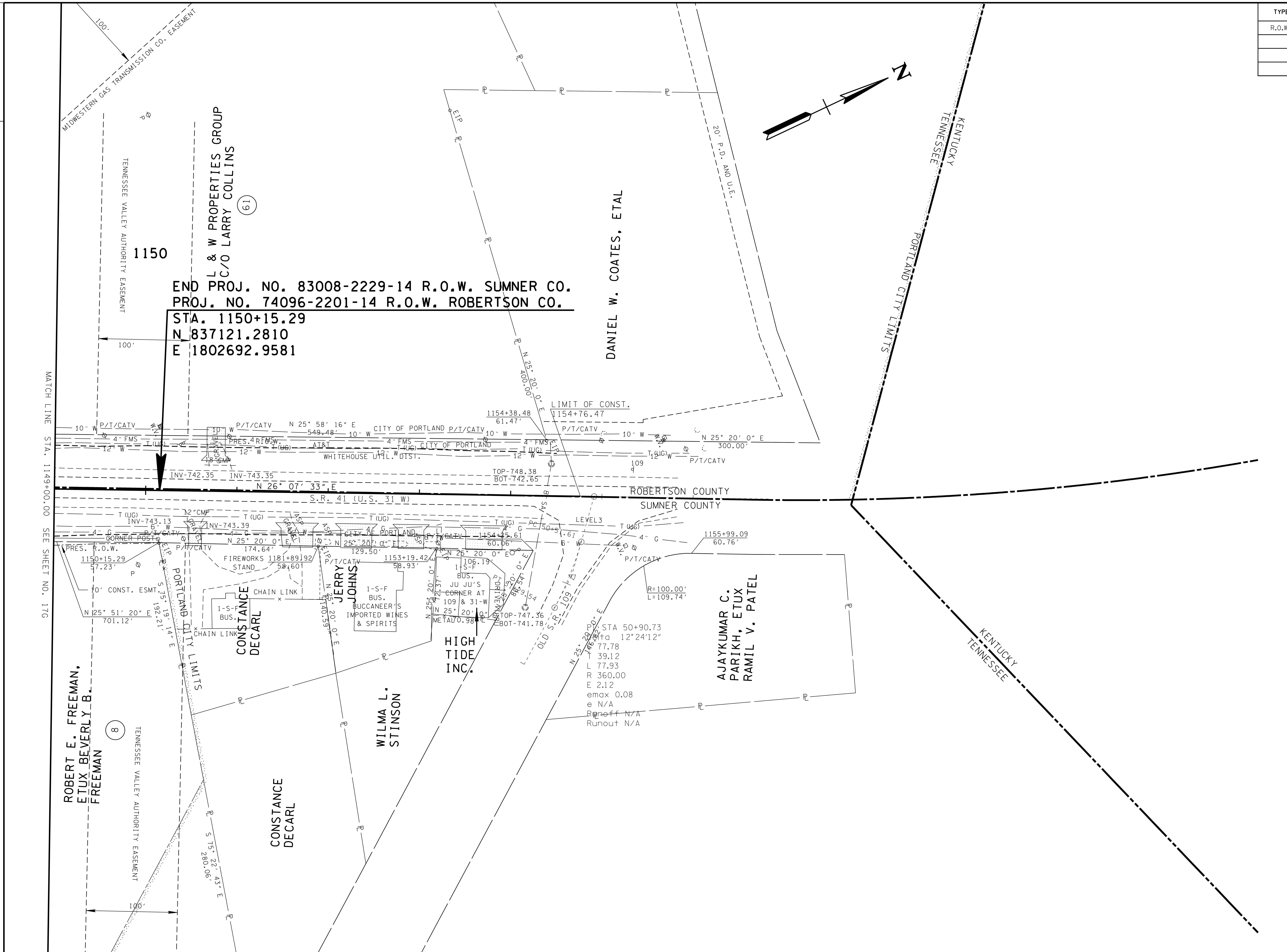
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

S.R. 41
STA.1136+00 TO STA.1149+00

SCALE: 1"=50'

9/18/2012 11:46:35 AM
t:\tdot\robertson_I-65_sr-109\RB065-04-017G.sht



TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP/HPP/NH-I-65-3(113)	17"I"

TENNESSEE D.O.T. DESIGN DIVISION

FILE NO.

R.O.W. PLANS

SEALED BY

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

S.R. 41
STA.1149+00 TO E.O.P.

SCALE: 1"=50'

11/26/2012 11:57:57 AM
t:\tdot\robertson_I-65_sr-109\RB065-04-017I.sht

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP/HPP/NH-I-65-3(113)	18

CONTROL POINTS					
POINT	NORTH	EAST	ELEV.	STATION	OFFSET
S11	835980.9791	1801454.4747	739.86	368+71.97	210.62' (RT)

STA. 371+18.00 S.R. 109 C.L. =
STA. 70+00.00 LAKE SPRINGS RD.
N 835923.3884
E 1801142.4702
(SEE SHEET 24G FOR PROFILE)

JAMES H. CUMMINGS
28

370

375

CULTIVATED FIELD

N 48° 46' 14" W

S.R. 109

MATCH LINE STA. 366+00.00 SEE SHEET NO. 17

MATCH LINE STA. 375+00.00 SEE SHEET NO. 19

LYNNE S. MOSELY
27

CAR PORT

METAL SHED

1-S-V RES.

PIPE END

GRASS

FIELD LINES

N 62° 04' 51" W

P/T

CITY OF PORTLAND GAS TO BE ABANDONED

CITY OF PORTLAND

7' CHAINLINK

LAKE SPRINGS ROAD

CP-SIT

SCARIFY, ADD TOPSOIL & SEED

GPS • SII •
N 835980.9791
E 1801454.4747
EL. 739.86

ASP.

N 34° 12' 54" E

N 37° 11' 24" W

CB

RW

1-S-BL GUARD SHED

24" RCP ELLIPICAL PIPE (UNDER CONST.)

CATCH BASIN(UNDER CONST.APPROX. LOCATION)

CURB

INV-733.78

No Feature

CULTIVATED FIELD

JAMES H. CUMMINGS
28
75

LAKE SPRINGS ROAD

KTR NASHVILLE, LLC
26

BLOCK WAREHOUSE (BUS.)

CONC.

SEE SHEET 18A FOR ALIGNMENT CURVE DATA.

SEE SHEET 18C (R.O.W. DETAIL SHEET) FOR BEARINGS & DISTANCES AND STATIONS & OFFSETS ON R.O.W. & PROPERTY

R.O.W. PLANS

SEALED BY

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

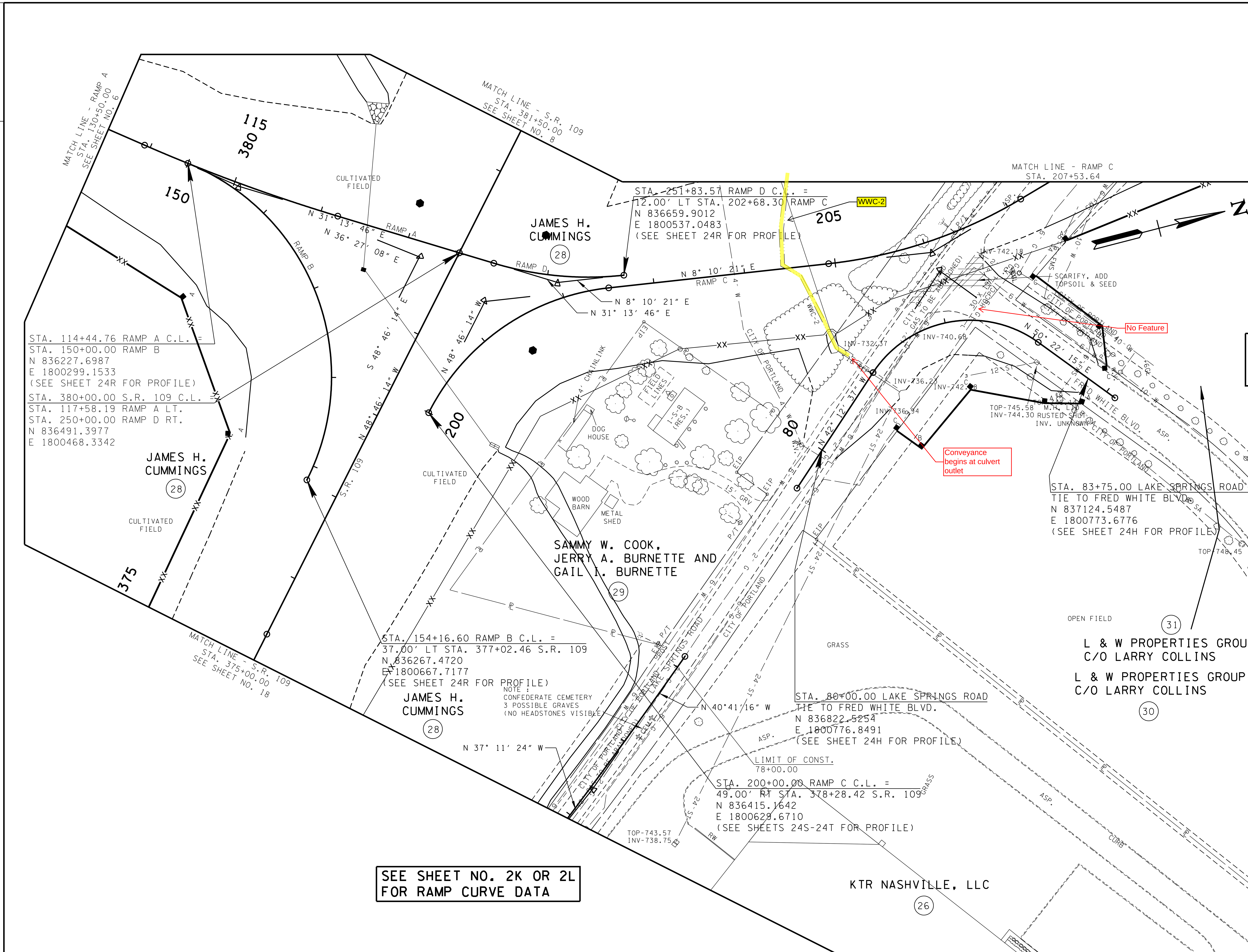
S.R. 109
STA.366+00 TO STA.375+00

SCALE: 1"=50'

9/18/2012 11:46:47 AM
t:\tdot\robertson_I-65_sr-109\RB065-04-018.sht

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP/HPP/NH-I-65-3(113)	19



MATCH LINE - RAMP A
STA. 130+50.00
SEE SHEET NO. 6
MATCH LINE - S.R. 109
STA. 381+50.00
SEE SHEET NO. 8
MATCH LINE - RAMP C
STA. 207+53.64
STA. 251+83.57 RAMP D C.L. =
12.00' LT STA. 202+68.30 RAMP C
N 836659.9012
E 1800537.0483
(SEE SHEET 24R FOR PROFILE)
WWC-2
JAMES H. CUMMINGS
28
CULTIVATED FIELD
N 31° 13' 46" E
N 36° 27' 08" E
N 8° 10' 21" E
N 48° 46' 14" W
S 48° 46' 14" W
STA. 114+44.76 RAMP A C.L. =
STA. 150+00.00 RAMP B
N 836227.6987
E 1800299.1533
(SEE SHEET 24R FOR PROFILE)
STA. 380+00.00 S.R. 109 C.L. =
STA. 117+58.19 RAMP A LT.
STA. 250+00.00 RAMP D RT.
N 836491.3977
E 1800468.3342
No Feature
Conveyance begins at culvert outlet
INV-732.37
INV-740.68
INV-736.23
INV-742.18
INV-736.94
TOP-745.58
INV-744.30 RUSTED SHUT
INV. UNKNOWN
SCARIFY, ADD TOPSOIL & SEED
N 50° 22' 15" E
N 42° 12' 37" W
FRED WHITE BLVD.
STA. 83+75.00 LAKE SPRINGS ROAD
TIE TO FRED WHITE BLVD.
N 837124.5487
E 1800773.6776
(SEE SHEET 24H FOR PROFILE)
TOP-746.45
DOG HOUSE
WOOD BARN
METAL SHED
SAMMY W. COOK,
JERRY A. BURNETTE AND
GAIL I. BURNETTE
29
OPEN FIELD
31
L & W PROPERTIES GROUP
C/O LARRY COLLINS
30
GRASS
STA. 154+16.60 RAMP B C.L. =
37.00' LT STA. 377+02.46 S.R. 109
N 836267.4720
E 1800667.7177
(SEE SHEET 24R FOR PROFILE)
NOTE:
CONFEDERATE CEMETERY
3 POSSIBLE GRAVES
(NO HEADSTONES VISIBLE)
N 40°41'16" W
N 37° 11' 24" W
STA. 80+00.00 LAKE SPRINGS ROAD
TIE TO FRED WHITE BLVD.
N 836822.5254
E 1800776.8491
(SEE SHEET 24H FOR PROFILE)
LIMIT OF CONST.
78+00.00
STA. 200+00.00 RAMP C C.L. =
49.00' RT STA. 378+28.42 S.R. 109
N 836415.1642
E 1800629.6710
(SEE SHEETS 24S-24T FOR PROFILE)
TOP-743.57
INV-738.75
LAKE SPRINGS ROAD
MATCH LINE - S.R. 109
STA. 375+00.00
SEE SHEET NO. 18
KTR NASHVILLE, LLC
26

SEE SHEET NO. 2K OR 2L FOR RAMP CURVE DATA

SEE SHEET 19C (R.O.W. DETAIL SHEET) FOR BEARINGS & DISTANCES AND STATIONS & OFFSETS ON R.O.W. & PROPERTY

R.O.W. PLANS

SEALED BY

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

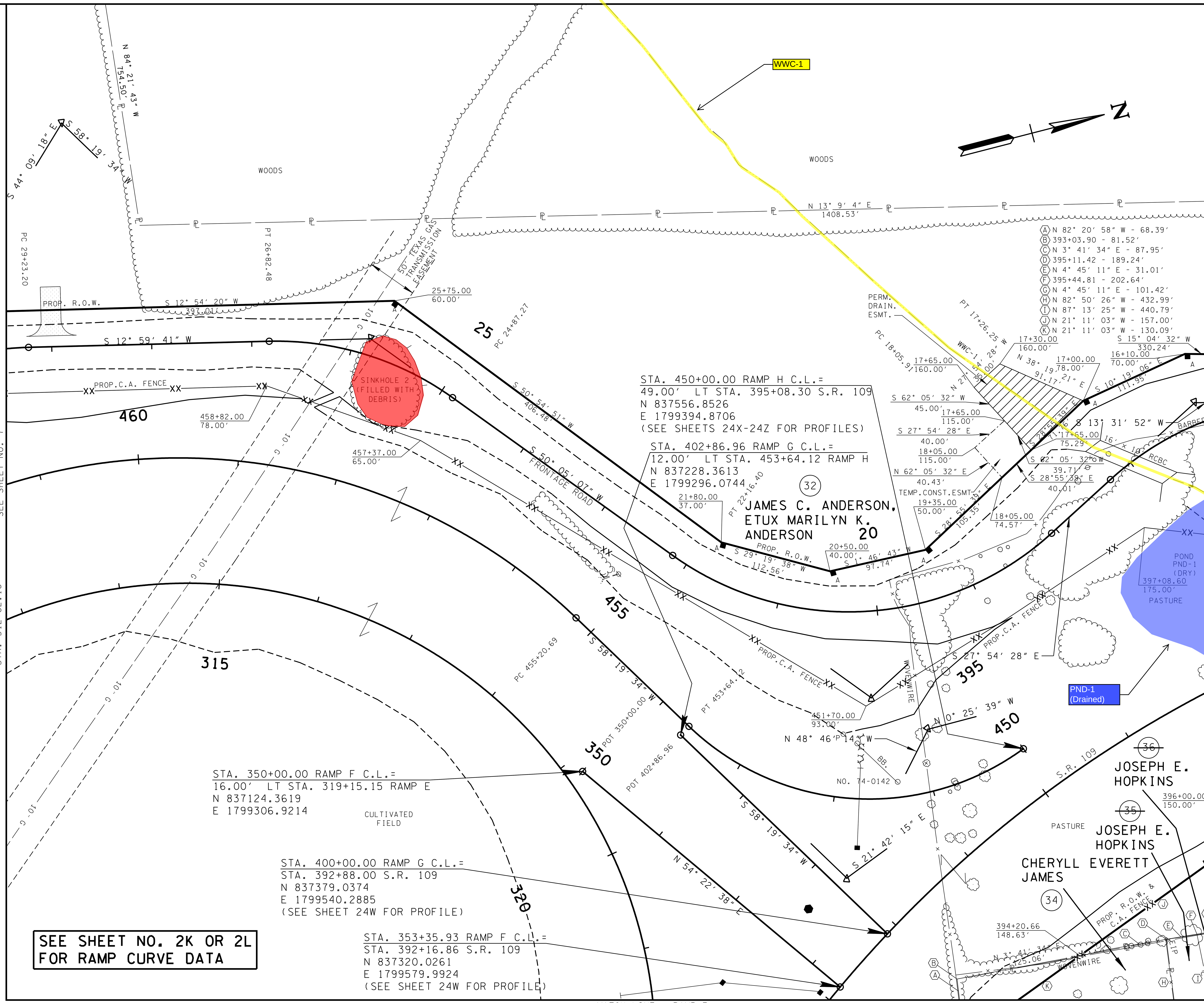
S.R. 109
STA.375+00 TO STA.381+50

SCALE: 1"=50'

9/18/2012 11:47:02 AM
t:\tdot\robertson_I-65_sr-109\RB065-04-019.sht

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP/HPP/NH-I-65-3(113)	21

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.


WWC-1
WOODS
N 13° 9' 4" E 1408.53'
PROP. R.O.W.
S 12° 54' 20" W 397.01'
S 12° 59' 41" W
50' TEXAS GAS TRANSMISSION EASEMENT
25+75.00 60.00'
SINKHOLE 2 (FILLED WITH DEBRIS)
PROP.C.A. FENCE
460
458+82.00 78.00'
457+37.00 65.00'
S 50° 54' 51" W 406.48'
S 50° 05' 07" W
FRONTAGE ROAD
STA. 450+00.00 RAMP H C.L.=
49.00' LT STA. 395+08.30 S.R. 109
N 837556.8526
E 1799394.8706
(SEE SHEETS 24X-24Z FOR PROFILES)
STA. 402+86.96 RAMP G C.L.=
12.00' LT STA. 453+64.12 RAMP H
N 837228.3613
E 1799296.0744
32
JAMES C. ANDERSON, ETUX MARILYN K. ANDERSON
20
455
315
350
395
450
STA. 350+00.00 RAMP F C.L.=
16.00' LT STA. 319+15.15 RAMP E
N 837124.3619
E 1799306.9214
CULTIVATED FIELD
STA. 400+00.00 RAMP G C.L.=
STA. 392+88.00 S.R. 109
N 837379.0374
E 1799540.2885
(SEE SHEET 24W FOR PROFILE)
STA. 353+35.93 RAMP F C.L.=
STA. 392+16.86 S.R. 109
N 837320.0261
E 1799579.9924
(SEE SHEET 24W FOR PROFILE)
SEE SHEET NO. 2K OR 2L FOR RAMP CURVE DATA
MATCH LINE - RAMP E STA. 321+52.32
MATCH LINE - S.R. 109 STA. 392+00.00 SEE SHEET NO. 8
MATCH LINE - RAMP H STA. 461+34.86 SEE SHEET NO. 7
MATCH LINE - RAMP E STA. 312+82.16
MATCH LINE - S.R. 109 STA. 397+00.00 SEE SHEET NO. 22
(A) N 82° 20' 58" W - 68.39'
(B) 393+03.90 - 81.52'
(C) N 3° 41' 34" E - 87.95'
(D) 395+11.42 - 189.24'
(E) N 4° 45' 11" E - 31.01'
(F) 395+44.81 - 202.64'
(G) N 4° 45' 11" E - 101.42'
(H) N 82° 50' 26" W - 432.99'
(I) N 87° 13' 25" W - 440.79'
(J) N 21° 11' 03" W - 157.00'
(K) N 21° 11' 03" W - 130.09'
PERM. DRAIN. ESMT.
TEMP. CONST. ESMT.
POND PND-1 (DRY)
397+08.60 175.00'
PASTURE
PND-1 (Drained)
36
JOSEPH E. HOPKINS
396+00.00 150.00'
35
JOSEPH E. HOPKINS
CHERYLL EVERETT JAMES
34
394+20.66 148.63'
S.R. 109
NO. 74-0142

R.O.W. PLANS

SEALED BY

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

S.R. 109
STA.392+00 TO STA.397+00
RAMPS E, F, G, & H
SCALE: 1"=50'

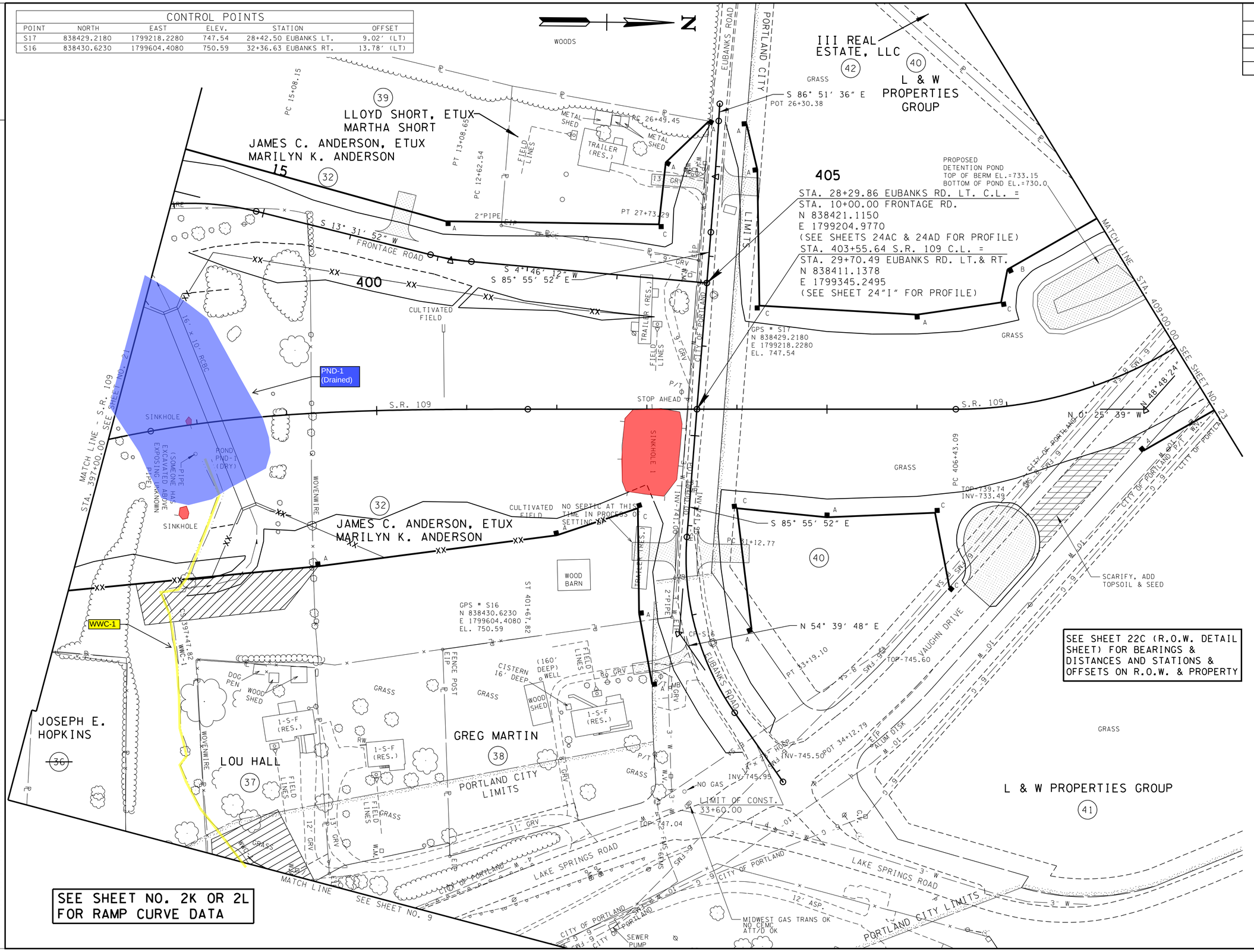
0/18/2012 9:05:21 AM
t:\tdot\robertson_i-65_sr-109\RB065-04-02i.sht

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

CONTROL POINTS					
POINT	NORTH	EAST	ELEV.	STATION	OFFSET
S17	838429.2180	1799218.2280	747.54	28+42.50 EUBANKS LT.	9.02' (LT)
S16	838430.6230	1799604.4080	750.59	32+36.63 EUBANKS RT.	13.78' (LT)

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP/HPP/NH-I-65-3(113)	22

R.O.W. PLANS



SEE SHEET 22C (R.O.W. DETAIL SHEET) FOR BEARINGS & DISTANCES AND STATIONS & OFFSETS ON R.O.W. & PROPERTY

SEALED BY

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

S.R. 109
STA.397+00 TO STA.409+00

SCALE: 1"=50'

10/8/2012 9:05:28 AM
t:\tdot\robertson_I-65_sr-109\RB065-04-022.sht

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2012	STP/HPP/NH-I-65-3(113)	23

R.O.W. PLANS

III REAL ESTATE, LLC
42

L & W PROPERTIES GROUP
40
1-S-MTL AND CONC.
INTERNATIONAL
INNOVATION
(BUS.)

410

PROPOSED
DETENTION POND
TOP OF BERM EL.=733.15
BOTTOM OF POND EL.=730.0

THE INDUSTRIAL DEVELOPMENT
BOARD CITY OF SPRINGFIELD
44
1-S-CONC.
GASTITE
(BUS.)

415

CONC.
SILOS

THE INDUSTRIAL DEVELOPMENT
BOARD CITY OF SPRINGFIELD
48

420

END PROJ. NO. 74003-2164-44
R.O.W. ROBERTSON CO.
STA. 419+67.50
N 839659.2061
E 1798484.0160

SEE SHEET NO. 22
STA. 409+00.00
MATCH LINE
MIDWEST GAS TRANS OK
VAUGHN DRIVE
CITY OF PORTLAND
CONC. RETAINING WALL
GRASS
ASP.
CONC.
GASTITE SERVICE DOCKS 1-8 VISTOR AND EMPLOYEE PARKING SIGN
GASTITE DOCKS 9-21 SHIPPING AND RECEIVING SIGN
FLAG
METAL QUEST OH SIGN (LITE)
NEW BREED TRUCK ENTRANCE SIGN
LANDSCAPING
CONC. S.W.
I-S-MTL AND CONC. METAL QUEST (BUS.)
GPS # 74-065-05
N 839279.8614
E 1798870.9579
EL. 725.77
GPS # 74-065-06
N 839774.4751
E 1798306.1977
EL. 721.75
N 48° 48' 24" W
PT 410+38.03
PROPOSED
DETENTION POND
TOP OF 5' BERM EL.=725.0
BOTTOM OF POND EL.=721.0
L & W PROPERTIES GROUP
41
THE INDUSTRIAL DEVELOPMENT BOARD CITY OF SPRINGFIELD
45
THE INDUSTRIAL DEVELOPMENT BOARD CITY OF SPRINGFIELD
47
L & W PROPERTIES GROUP
46

CONTROL POINTS					
POINT	NORTH	EAST	ELEV.	STATION	OFFSET
S5	839279.8614	1798870.9579	725.77	414+26.49	30.61' (LT)
S6	839774.4751	1798306.1977	721.75	421+77.22	30.37' (LT)

SEE SHEET 23C (R.O.W. DETAIL SHEET) FOR BEARINGS & DISTANCES AND STATIONS & OFFSETS ON R.O.W. & PROPERTY

SEALED BY

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 0.99999 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

S.R. 109
STA.409+00 TO E.O.P.

SCALE: 1"=50'

9/18/2012 11:48:02 AM
t:\tdot\robertson_I-65_sr-109\RB065-04-023.sht

Natural Resources Mitigation Sketches/Information

County: Robertson-Sumner **Route:** I-65 **LM:** N/A **PE No:** 74003-1160-44(Robertson), 83001-1160-44(Sumner) **PIN No:** 107338.00
Project Description: I-65 Interchange at SR-109 Including I-65 Widening and SR-109 Extension
Date of survey: 14 February 2013 **Biologist:** D. Crumby, T. Nehus **Affiliation:** TDOT

Station	Map label	Attachments: Marked-up plans sheet (A); notes (B); mitigation plan (C) attached	Calculate permanent & temporary wetland impacts & provide to Dennis Crumby and John Hewitt ("X")	Apply "standard" stream relocation configuration & instructions ("X")	Survey boundaries as flagged in field ("X")	General notes and/or specific changes requested
1831+00 (I-65)	STR-1 (Summers Branch)	B				Extensions to the existing encapsulation will exceed 200'; In-lieu fee mitigation will be required.
330+50L – 332+70L (SR-109)	WTL-1	B				Wetland has been surveyed, placed on the plans, and impacts have been calculated (Sheet 15). Permanent impacts = 0.15 acres, temporary impacts = 0.112 acres. Use orange fencing to exclude construction equipment from area of temporary impacts. See attached Standard On-site Mitigation for Temporary Wetland Impact Areas.
339+90L – 341+10L (SR-109)	WTL-2	B	X		X	Survey and place on plans. Calculate permanent and temporary impacts. Use orange fencing to exclude construction equipment from area of temporary impacts. Emergent wetland will not require tree planting.
341+61.49 – 343+13.17L (SR-109)	STR-3	B		X		Relocation (channel change) is shown on plans (see Sheet 16 and Sheet 16A). See attached Standard Stream Mitigation and Plans Notes.

Standard Stream Mitigation (STR-3)

Apply these measures to all applicable streams listed in the Mitigation table. Duplicate pattern, profile, and dimensions of the existing channel to the extent possible. Lines and grades of the new channel should transition smoothly from the existing channel and should transition smoothly from its beginning elevation to its tie-in elevation in the receiving stream, without profile drops or jumps. Hydraulic jumps >6 inches in the profile should be avoided. Locate the new channels in as flat an area as possible to avoid unusually high side slopes; this may require some additional right-of-way. Channel length placed in spring-boxes or culverts counts as part of the new channel length (but may require compensatory mitigation that would not be required for an open channel). Channel side slopes should mimic existing channel side slopes, unless otherwise indicated, and be stabilized using appropriate BMPs such as 700 gram coir fiber erosion control blankets; the use of rip-rap should be avoided if possible. If rip-rap is required on the banks or in the channel, the rip-rap must be embedded into the soil such that (1) the top of the rip-rap is flush with the bottom and sides of the channel, (2) the voids are filled with material similar to the original material on the sides or channel bottom, and (3) water in the channel will flow on top of the embedded riprap and soil material, to enable the water to be visible. Rip-rap placed on the side slopes should be planted with live stakes on 3-foot centers using the live stake species shown in the table below.

Plant trees and/or shrubs across the planting zone (floodplain and upland) on 8-foot centers using alternating individuals of each species. Specimens are to be two to five-foot (2-5 ft.) container grown species and/or bare root seedlings. See drawing below. The planting zone width will vary with each stream, but an average buffer zone of 30 feet on each side should be maintained for all streams except impaired and exceptional waters, which should be an average of 60 feet on each side. Live stakes should be installed on the channel banks from the edge of low water to bankfull in the new channel. The live stakes will be fresh material cut in 18” – 24” lengths and selected by species so that no one species will be comprised of more than 20% of the total composition of live stakes. See table below for list of species for all live stake plantings. The stakes will be installed on approximately three-foot centers from the edge of water to bankfull in the new channel. The stakes are to be driven in such that approximately six to 8 inches (6 – 8”) of the stake are left above ground. The bare root seedlings will be the same species as the trees, unless otherwise indicated. See tables below for species and item numbers.

Rip-rap, if required, should be limited to ends of culverts. All relocated channels and their accompanying mitigation features, including trees, are to be placed in right-of-way rather than easements; this may require acquisition of additional right-of-way. Use the following specifications for planted species.

Tree and shrub species for stream:

Item #	Description	Unit
802-11.29	*Quercus alba* (white oak) 2-5' in height, containerized	Each
802-11.09	*Carya ovata* (shagbark hickory) 2-5' in height, containerized	Each
802-11.28	*Prunus serotina* (black cherry) 2-5' in height, containerized	Each
802-11.18	*Liquidambar styraciflua* (sweetgum) 2-5' in height, containerized	Each
802-11.31	*Quercus falcata* (southern red oak) 2-5' in height, containerized	Each
802-11.26	*Platanus occidentalis* (sycamore) 2-5' in height, containerized	Each
802-11.10	*Carya tomentosa* (mockernut hickory) 2-5' in height, containerized	Each

List the trees in order of dominance. The first five should be used for mitigation; if any of these are not available, either of the last two on the list can be substituted.

Bare root seedlings for stream:

Item #	Description	Unit
802-12.12	*Cornus florida* (flowering dogwood) Seedling, BR	Each
802-12.44	*Ulmus americana* (American elm) Seedling, BR	Each
802-12.02	*Acer rubrum* (red maple) Seedling, BR	Each
802-11.18	*Liquidambar styraciflua* (sweetgum) Seedling, BR	Each
802-11.09	*Carya ovata* (shagbark hickory) Seedling, BR	Each
802-11.29	*Quercus alba* (white oak) Seedling, BR	Each
802-11.18	*Liquidambar styraciflua* (sweetgum) Seedling, BR	Each

List the trees in order of dominance. The first five should be used for mitigation; if any of these are not available, either of the last two on the list can be substituted.

Live stake species for stream banks:

Item #	Description	Unit
802-02.30	*Salix nigra* (black willow) 18-24” in length	Each
802-02.31	*Salix sericea* (silky willow) 18-24” in length	Each
802-02.34	*Salix interior* (sandbar willow) 18-24” in length	Each
802-02.35	*Cephalanthus occidentalis* (buttonbush) 18-24” in length	Each
802-02.32	*Cornus amomum* (silky dogwood) 18-24” in length	Each
802-02.33	*Sambucus canadensis* (elderberry) 18-24” in length	Each

Standard On-site Mitigation for Temporary Wetland Impact Areas (WTL-1)

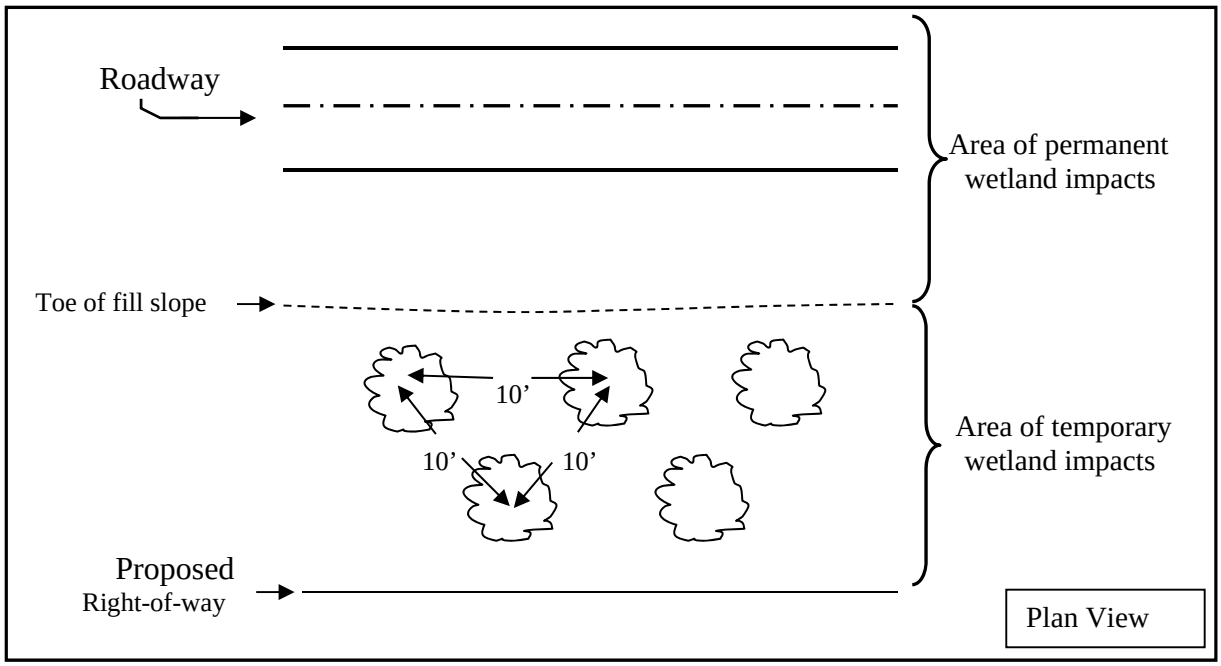
Apply these measures to all applicable temporary wetland impact areas listed in the Mitigation table. For temporary wetland impact areas, remove the top 12" of topsoil and stockpile it until construction is complete. Once construction activities are completed, restore all temporary wetland impact areas to pre-construction conditions. This includes removing haul 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 be stabilized according to standard practices. Planting will be based on notes provided by Ecology. Trees are **not** planted in emergent wetlands. Wetland areas located outside of proposed right-of-way and construction easements are to be clearly marked and not disturbed.

Tree species for temporary wetland impacts:

Item #	Description	Unit
802-12.18	Seedling: *Liquidambar styraciflua* (sweetgum) 18”-24" in height, BR	Each
802-12.26	Seedling: *Platanus occidentalis* (sycamore) 18”-24" in height, BR	Each
802-12.44	Seedling: *Ulmus americana* (American elm) 18”-24" in height, BR	Each
802-12.09	Seedling: *Carya ovata* (shagbark hickory) 18”-24" in height, BR	Each
802-12.29	Seedling: *Quercus alba* (white oak) 18”-24” in height, BR	Each

BR = Bare Root

Tree planting scheme for temporary wetland impact areas



Please place the following notes in the Special Notes section of the plans:

Topsoil is to be removed from all areas of temporary wetland impacts and stockpiled prior to construction.

Upon completion of construction activities, temporary haul roads are to be removed. Excavated material from the haul roads is to be disposed of as directed by the engineer.

Plans Notes

Please add the following information verbatim to the Final Plans:

CHANNEL RELOCATION SEQUENCE AND IMPLEMENTATION NOTES FOR RELOCATED STREAM CHANNELS (IGNORE REFERENCES TO ITEMS NOT SPECIFIED)

1. If the relocated channel flows into a proposed culvert, the new channel shall be relocated prior to installation of the culvert to ensure correct elevation levels are set for the inlet. The new channel shall be excavated and stabilized during a low-water period. Rip-rap (only as shown on plans), seeding, and/or sod shall be installed immediately following channel completion. When necessary, water must be diverted into the low-flow barrel of a culvert according to Standard Drawing 15-16A. Trees shall be installed in the first planting season following channel excavation. Planting season is considered to be between November 1 and March 31. 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, erosion control blankets, seeding, sod, or materials are in place and established. **Notify the regional biologist when water is diverted into each new channel.**

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 "in the dry" 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, seed, sod, or other material 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.

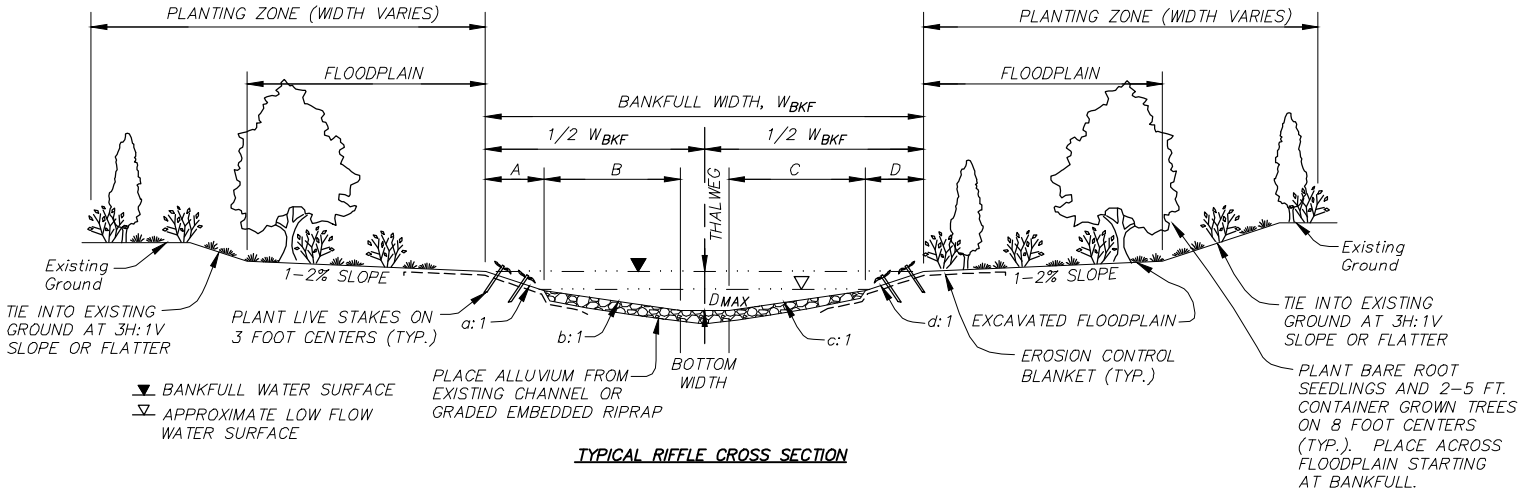
3. Only rip-rap shown on plans should be used in the relocated channel reach. Any other proposed rip-rap should be coordinated with the Environmental Division through the TDOT Construction Office.
4. Requests by any agency that would require modification of channels, elevations, rip-rap or any other stream mitigation items associated with the channel relocations shall be referred to TDOT Environmental Division via Headquarters Construction Office for coordination with all involved agencies and TDOT divisions. Tennessee Department of Environment and Conservation may make recommendations concerning erosion control via the engineer without such referral.

TREES

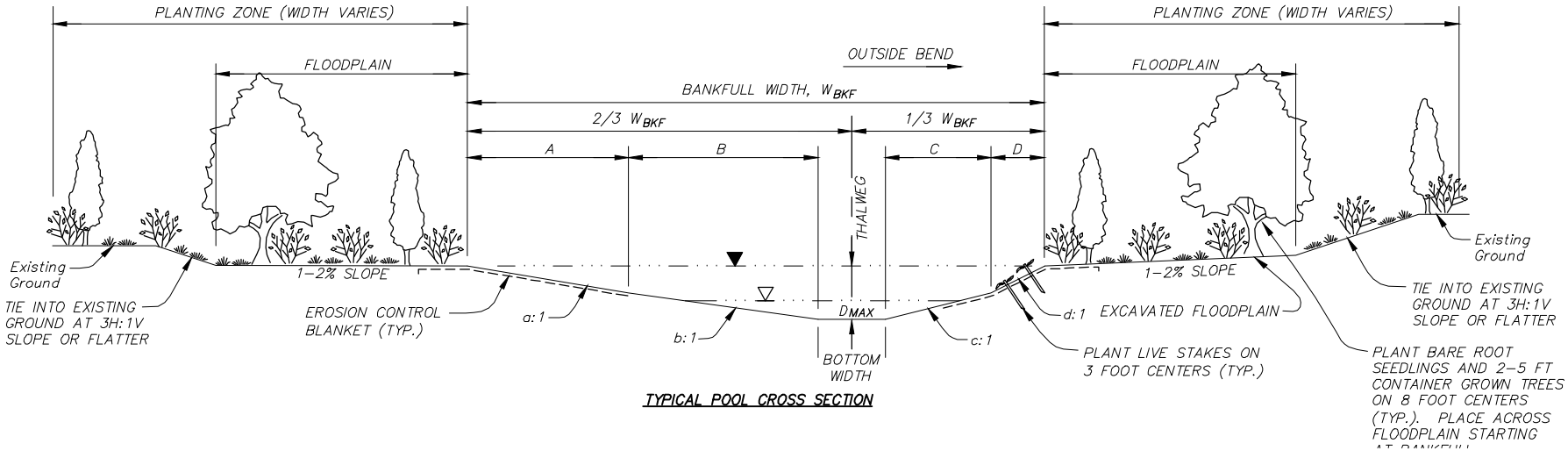
No substitutions of tree species or sizes shall be allowed without the written approval of TDOT Environmental Division. Trees shall be of the variety requested, between 2 and 5 feet in height, containerized, and first quality. Bare root trees shall be of the variety requested, well branched, and first quality. Bare roots must be kept moist at all times. 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 Environmental Division.

The contractor should arrange several months ahead of time to obtain the correct tree species, as some may require some time to locate.

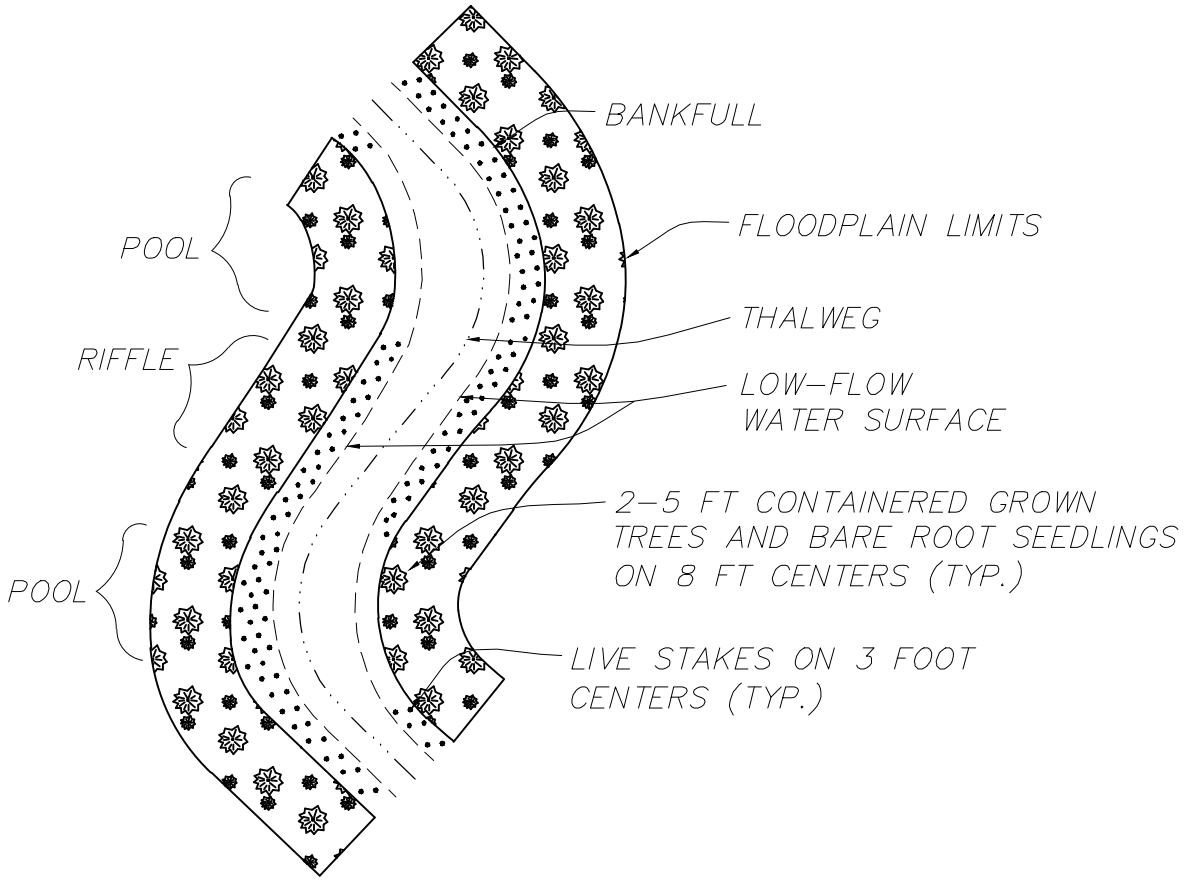
Trees shall be watered as required through the period of establishment to ensure survival.

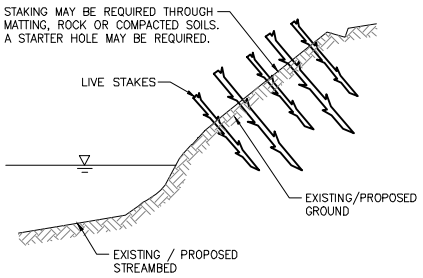


TYPICAL RIFFLE CROSS SECTION



TYPICAL POOL CROSS SECTION





NOTES:

LIVE STAKES SHALL BE EVENLY SPACED 3 FT. APART.

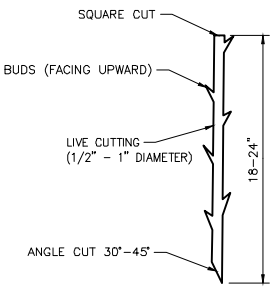
LIVE STAKES SHALL BE DRIVEN UNTIL APPROXIMATELY OF LIVE STAKE IS WITHIN GROUND.

IF STARTER HOLE IS NEEDED, MINIMIZE AIR POCKET.

UTILIZE ALL ON SITE TRANSPLANT MATERIALS MADE AVAILABLE BY THE OWNER. ONCE SOURCE OF TRANSPLANT MATERIAL HAS BEEN HARVESTED, THEN UTILIZE LIVE STAKING.

ALL MATERIALS ARE TO BE APPROVED BY ENGINEER OR ENGINEER'S ONSITE CONSTRUCTION MANAGER.

BANK STABILIZATION WITH LIVE STAKES

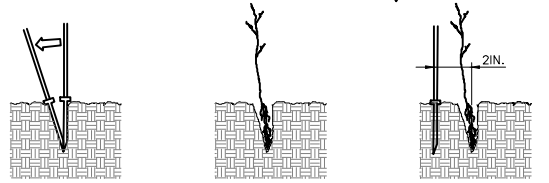


LIVE STAKE

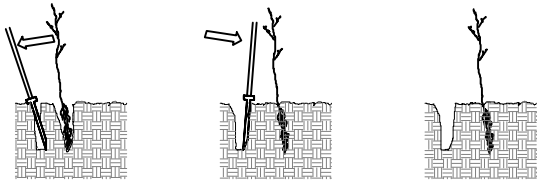
PLANTING BAG:
DURING PLANTING, SEEDLINGS SHALL BE KEPT IN A MOIST CANVAS BAG OR SIMILAR CONTAINER TO PREVENT THE ROOT SYSTEMS FROM DRYING.

KBC PLANTING BAR:
PLANTING BAR SHALL HAVE A BLADE WITH A TRIANGULAR CROSS SECTION, AND SHALL BE 12IN. LONG, 4IN. WIDE AND 1IN. THICK AT CENTER.

ROOT PRUNING:
ALL SEEDLINGS SHALL BE ROOT PRUNED, IF NECESSARY, SO THAT NO ROOTS EXTEND MORE THAN 10 INCHES (10IN.) BELOW THE ROOT COLLAR.



1. INSERT PLANTING BAR AS SHOWN AND PULL HANDLE TOWARD PLANTER.
2. REMOVE PLANTING BAR AND PLACE SEEDLING AT CORRECT DEPTH.
3. INSERT PLANTING BAR 2IN. TOWARD PLANTER FROM SEEDLING.



4. PULL HANDLE OF BAR TOWARD PLANTER, FIRMING SOIL AT BOTTOM.
5. PUSH HANDLE FORWARD FIRMING SOIL AT TOP.
6. LEAVE COMPACTION HOLE OPEN. WATER THOROUGHLY.

DIBBLE PLANTING METHOD USING THE KBC PLANTING BAR

(FOR FLOODPLAIN BUFFER PLANTING AND UPLAND BUFFER PLANTING)

NOTES:

TREE REFORESTATION SHALL BE PLANTED 6' TO 10' ON CENTER, RANDOM SPACING, AVERAGING 8' ON CENTER, APPROXIMATELY 680 PLANTS PER ACRE.

OTHER PLANTING METHOD CAN BE USED WITH THE PERMISSION OF THE PLANTING SUPERVISOR.

ALL MATERIALS ARE TO BE APPROVED BY ENGINEER OR ENGINEER'S ONSITE CONSTRUCTION MANAGER.

Photo Summary: 14 February 2013
Project Description: Robertson-Sumner Counties; I-65 Interchange at SR-109, including I-65 widening and SR-109 Extension
P.E. – Robertson 74003-1160-44, P.E. – Sumner 83001-1160-44: PIN: 107338.00

Photo 1. Downstream view of STR-1 (Summers Branch) taken from existing I-65 box culvert.

Photo 2. Upstream view of STR-1 (Summers Branch) taken from existing I-65 box culvert.

Photo 3. Down gradient view of WWC-1 taken south of Lake Springs Road.

Photo 4. Up gradient view of WWC-1 taken North of Lake Springs Road.

Photo 5. Up gradient view of WWC-2 east of I-65.

Photo 6. Up gradient view of WWC-2 west of I-65.

Photo 7. Down gradient view of WWC-3.

Photo 8. Up gradient view of WWC-3.

Photo 9. Up gradient view of WWC-4.

Photo 10. View of PND-2 west of I-65.

Photo 11. Upstream view of STR-2 near center line of proposed SR-109 Extension.

Photo 12. Up gradient view of WWC-6 (swale in cultivated field).

Photo 13. Up gradient view of WWC-6 from its confluence with STR-2.

Photo 14. Downstream view of STR-3.

Photo 15. Upstream view of STR-3.

Photo 16. View west of WTL-1.

Photo17. View west of WTL-2.

9. Training Certifications

10. TMDL Information

TMDL Information Not Required