Mike Meulemans

From: Mike Meulemans

Sent: Friday, July 15, 2016 12:08 PM

To: Water Permits

Cc: Michael White; R3 EnvTechOffice; Mike Brown; John Hewitt; DJ Wiseman

Subject: Storm Water Permit Application, PIN 114156.00

Attachments: 01 PIN 114156.00 cover letter.pdf; 02 PIN 114156.00 NOI.pdf

Storm Water Permit Application

PE # 41001-1148-44 PIN 114156.00 I-40 Westbound near MM161 Truck Climbing Lane Hickman & Humphries Counties

The Permits Section submits the attached cover letter and NOI for the storm water application on the above referenced project.

All of the SWPPP files have been placed on TDOT's FTP site for retrieval. To retrieve them, please follow these steps within seven days (files are deleted after this time):

- 1. Go to https://webftp.tdot.state.tn.us/
- 2. Select Business Partner
- 3. Select Receive Files
- 4. Right click the link named "Permit Application, PIN 114156.00 SWPPP.zip to Save Target As
- 5. Save to appropriate folder in your file system

If you have any questions or we can provide further assistance, please contact me or Claire Sichko at (615) 741-2613.



Michael Meulemans, P.E. | Consultant Environmental Division Natural Resources Office, Permits Section James K. Polk Building, 9th Floor 505 Deaderick Street Nashville, TN 37243 615-253-2466

Mike.Meulemans@tn.gov

Mike Meulemans

From: Mike Meulemans

Sent: Friday, July 15, 2016 12:27 PM

To: EPLANS TURNINS; TDOT PrintShopLettingInfo

Cc: TDOT.HQ Construction; TDOT EstimatingOffice; Robert Braun; Claire Sichko

Subject: PIN 114156.00, SWPPP SHEET SUBMITTAL (region 3)

Attachments: 03 PIN 114156.00_SWPPP.pdf

LETTING PLANS REVISION

PIN 114156.00 Project # 41001-1148-44 I-40 Westbound near MM161 Truck Climbing Lane Hickman & Humphries Counties

Description of Revision: SWPPP Sheets

Number of Sheets Added: 8

This email serves as notification that the subject project is being electronically submitted for the 8/19/2016 Letting Process. Please find the SWPPP Sheets attached.

ATTENTION PRINT SHOP: 1 sets of 11" X17" prints of the revised sheets only is requested for the HQ Construction Office. Please contact their office when the prints are ready to be picked up.



Michael Meulemans, P.E. | Consultant Environmental Division Natural Resources Office, Permits Section James K. Polk Building, 9th Floor 505 Deaderick Street Nashville, TN 37243 615-253-2466 Mike.Meulemans@tn.gov



ENVIRONMENTAL DIVISION

SUITE 900, JAMES K. POLK BLDG. 505 DEADERICK STREET NASHVILLE, TN 37243-0334 PHONE: 615.741.3655 FAX: 615.741.1098

LETTER OF TRANSMITTAL

TO:	Mike Brown, TDOT Region 3 Construction			
FROM:	Suite 900, Jame 505 Deaderick S	es K. Polk Building Street essee 37243-0334	nental Permits Section	
DATE:	July 15, 2016			
SUBJECT:	PIN 114156.00 Truck Climbing I	TDOT Project No. 41001-1148-44		
ATTACHED A	RE THE FOLLOW	/ING ITEM(S):		
☐ Plans		☐ Sketches	☐ Plans	
☐ Environmer	ntal Boundaries	☐ Water Quality Pe	ermits	
Other: C	D, SWPPP Sheets	, and Documentation &	Permits Binders	

COMMENTS:



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 14, 2016

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, TN 37243

RE: NOI and SWPPP Submittals for TDOT Construction Activities Project # 41001-1148-44, PIN # 114156.00 I-40 near MM161 – Truck Climbing Lane Hickman & Humphreys County

Dear Mr. McAdoo:

We request coverage under the General NPDES Permit for Discharges of Storm Water Associated with Construction Activities for the subject project. Attached is the signed Notice of Intent (NOI) for Construction Activity – Storm Water Discharges and the USGS quad map. The Storm Water Pollution Prevention Plan and the full submittal package will be available on the TDOT FTP site.

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 3 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) 741-2613 if I can be of any assistance.

Sincerely,

Claire Sichko

Environmental Permits Section

Paice Sie

Enclosures

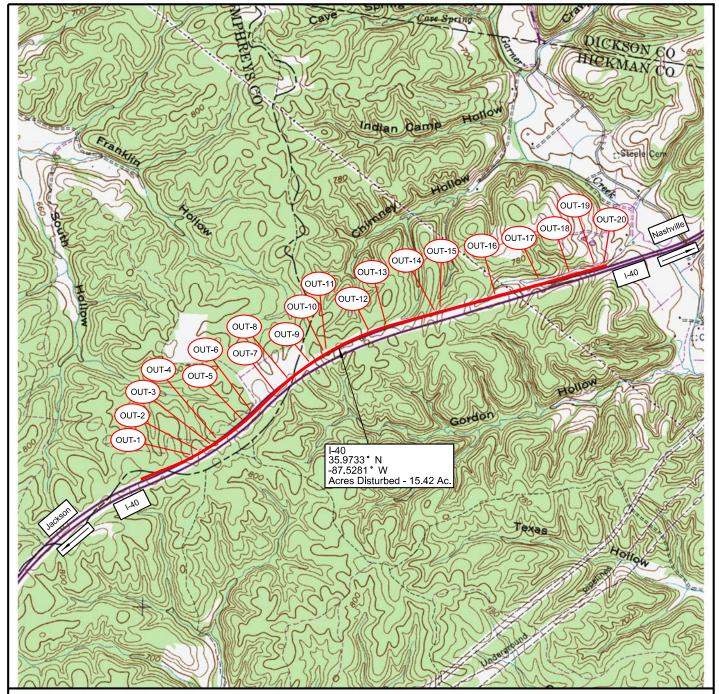
JLH: CSS: MRM

Mr. Jim McAdoo July 14, 2016 Page 2

Enclosures for:

CC:

Mr. Mike Brown, Region 3 Construction (CD)
Reading File, NPDES File



TOPOGRAPHIC MAP





SOURCE: USGS Quad Map, U.S. Geological Survey 7.5 Minute Topographic Map, Spot (40 NE) Tennessee Quadrangle



Tennessee Department of Transportation

Nashville, Tennessee

Stormwater Pollution Prevention Plan
I-40

Westbound Near Mile Marker 161 (Truck Climbing Lane)

Humphreys & Hickman Counties, Tennessee

Drawn By:	Checked By:	
DAH	JBL	
TDOT P.E. No.	TDOT PIN	
41001-1148-44	114156.00	
FED. No.	Figure	
IM/NH-40-3(149)	1	

SWPPP INDEX OF SHEETS

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1. SWPPP REQUIREMENTS (3.

- 1.1. HAS THE SWPPP TEMPLATE BEEN PREPARED BY AN INDIVIDUAL THAT HAS THE FOLLOWING CERTIFICATIONS (3.1.1)? ☑ YES □ NO (CHECK ALL THAT APPLY BELOW)

 - □ CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL (CPESC); OR
 - □ TDEC LEVEL II
- 1.2. DO THE EPSC PLANS INVOLVE STRUCTURAL DESIGN, HYDRAULIC, HYDROLOGIC OR OTHER ENGINEERING CALCULATIONS FOR EPSC STRUCTURAL MEASURES (SEDIMENT BASINS, ETC.) (3.1.1)? YES ☒ NO ☐ IF YES. HAVE THE EPSC PLANS BEEN PREPARED. STAMPED AND CERTIFIED BY A LICENSED PROFESSIONAL ENGINEER OR LANDSCAPE ARCHITECT? ☐ YES ☐ NO
- 1.3. DO THE PROJECT STORMWATER OUTFALLS DIRECTLY DISCHARGE INTO THE FOLLOWING (5.4.1)? ☐ YES ☒ NO (CHECK ALL THAT APPLY BELOW) ☐ IMPAIRED WATERS (303d FOR SILTATION OR HABITAT ALTERATION) ☐ KNOWN EXCEPTIONAL TENNESSEE WATERS (KETW)

IF YES TO SECTION 1.3, HAVE THE EPSC PLANS BEEN PREPARED BY AN
,
INDIVIDUAL WHO IS TDEC LEVEL II CERTIFIED? (5.4.1.b)
☐YES ☐ NO ☐ N/A (MAY 23, 2013 CGP EXEMPTION); AND
TES THE TWO TIMES 100 TO THE TOTAL AND

IF YES TO SECTION 1.3. HAS THE SWPPP TEMPLATE BEEN PREPARED BY AN INDIVIDUAL WHO IS TDEC LEVEL II CERTIFIED? (5.4.1.b)

□YES □ NO

2. SITE DESCRIPTION (3.5.1)

- 2.1. PROJECT LIMITS (3.5.1.a): REFER TO TITLE SHEET
- 2.2. PROJECT DESCRIPTION (3.5.1.a):

TITLE: I-40 WESTBOUND NEAR MILE MARKER 161 (TRUCK CLIMBING LANE) COUNTY: HUMPHREYS-HICKMAN

PIN: 114156.00

- 2.3. SITE MAP(S) (3.5.1.g): REFER TO TITLE SHEET
- 2.4. DESCRIPTION OF EXISTING SITE TOPOGRAPHY (3.5.1.d): REFER TO EXISTING CONTOURS SHEET(S) 19-27, DRAINAGE MAP SHEET(S) 13-13H, USGS QUAD MAP, AND THE OUTFALL TABLE IN SECTION 4.2.3.
- 2.5. MAJOR SOIL DISTURBING ACTIVITIES (3.5.1.b) (CHECK ALL THAT APPLY):
 - ☐ CLEARING AND GRUBBING

 - ☐ CUTTING AND FILLING
 - ☑ FINAL GRADING AND SHAPING
 - ☑ UTILITIES
 - ☐ OTHER (DESCRIBE): _____
- 2.6. TOTAL PROJECT AREA (3.5.1.c): 24.77 ACRES

2.7.	TOTAL AREA TO BE DISTURBED (3.5.1.c): <u>15.42</u> ACRES
	NO MORE THAN 50 ACRES OF ACTIVE SOIL DISTURBANCE IS ALLOWED AT
	ANY TIME DURING THE CONSTRUCTION OF THE PROJECT.

- 2.8. IF GREATER THAN 50 ACRES, HAS CONSTRUCTION PROJECT PHASING BEEN SPECIFIED IN SECTION 3 BELOW (3.5.3.1.k)? ☐ YES ☐ NO ☒ N/A
- 2.9. ARE THERE ANY SEASONAL LIMITATIONS ON WORK? ☐ YES ☒ NO IF YES, LIST THE CORRESPONDING PLAN SHEET: ____
- 2.10. WAS ROW FINALIZED PRIOR TO FEBRUARY 1, 2010 (4.1.2.2)? (DATE) ⊠ NO IF ROW WAS FINALIZED PRIOR TO FEBRUARY 1, 2010, THIS PROJECT IS **CONSIDERED A PRE-APPROVED SITE (4.1.2.2)**
- 2.11. ARE UTILITIES INCLUDED IN THE CONTRACT? ☐ YES ☐ NO
- 2.12. SOIL PROPERTIES (3.5.1.e)(4.1.1). SOIL PROPERTIES FOR THE PRIMARY SOILS ARE LISTED IN THE TABLE BELOW.

SOIL PROPERTIES					
PRIMARY SOIL NAME	HSG	% OF SITE	ERODIBILITY (k value)		
Bc - BODINE CHERTY SILT LOAM	А	7.9	0.24		
DIs - DICKSON SILT LOAM	C/D	22.2	0.43		
LaC - LAX SILT LOAM	С	33.8	0.49		
SeF - SENGTOWN GRAVELLY SILT LOAM	В	34.3	0.17		
SmC2 - SENGTOWN-MOUNTVIEW COMPLEX	В	1.8	0.20		

- 2.13. IS ACID PRODUCING ROCK (APR) (i.e. PYRITE) LOCATED WITHIN THE PROJECT LIMITS? ☐ YES 🖾 NO
 - 2.13.1. IF YES TO SECTION 2.13, HAVE APR LOCATIONS BEEN IDENTIFIED WITHIN THE CONSTRUCTION PLANS AND/OR THE GEOTECHNICAL REPORT? ☐ YES ☐ NO: AND
 - 2.13.2. IF YES TO SECTION 2.13.1, HAS A SPECIAL HANDLING PLAN AND/OR ADAPTIVE MANAGEMENT PLAN (AMP) BEEN PREPARED FOR THE PROJECT? ☐YES ☐ NO ☐ N/A (TDOT SP107L WILL BE APPLIED.)
- 2.14. PROJECT RUNOFF COEFFICIENTS AND AREA PERCENTAGES (3.5.1.f).

RUNOFF COEFFICIENTS FOR EXISTING CONDITIONS						
AREA TYPE AREA(AC) PERCENTAGE OF TOTAL AREA (%)			RUNOFF CN	C FACTOR		
IMPERVIOUS	98					
PERVIOUS (GRASS, FORESTS, ETC.)	94					
WEIGHTED C	69					

TYPE	YEAR	PROJECT NO.	NO.
CONST.	2016	IM/NH-40-3(149)	S-1
P.E.	2016	41 001 -1 1 48 - 44	

RUNOFF COEFFICIENTS FOR POST-CONSTRUCTION CONDITIONS						
AREA TYPE	AREA(AC)	PERCENTAGE OF TOTAL AREA (%)	RUNOFF CN	C FACTOR		
IMPERVIOUS	5.71	23	98			
SEMI-PERVIOUS (GRAVEL, RIP-RAP, ETC.)	2.45	10	90			
PERVIOUS (GRASS, FORESTS, ETC.)	16.61	67	65			
WEIGHTED C	75					

ORDER OF CONSTRUCTION ACTIVITIES (3.5.1.b, 3.5.2.a) CONSTRUCTION SHALL BE SEQUENCED AND STAGED TO: MINIMIZE THE EXPOSURE TIME OF GRADED OR DENUDED SOIL AREAS, PRESERVE TOPSOIL AND MINIMIZE SOIL COMPACTION. NO WORK SHALL BE STARTED UNTIL THE CONTRACTOR'S PLAN FOR THE STAGING OF THEIR OPERATIONS, INCLUDING THE PLAN FOR STAGING OF TEMPORARY AND PERMANENT EPSC MEASURES, HAS BEEN ACCEPTED BY THE ENGINEER. THE CONTRACTOR'S EPSC PLAN SHALL INCORPORATE AND SUPPLEMENT, AS ACCEPTABLE, THE BASIC EPSC DEVICES ON THE EPSC PLAN CONTAINED IN THE APPROVED SWPPP.

- 3.1. SPECIAL SEQUENCING REQUIREMENTS (SEE SHEETS 18)
- 3.2. INSTALL STABILIZED CONSTRUCTION EXITS.
- 3.3. INSTALL PERIMETER PROTECTION WHERE RUNOFF SHEET FLOWS FROM THE SITE.
- 3.4. INSTALL INITIAL EPSC (EROSION PREVENTION AND SEDIMENT CONTROL) MEASURES BEFORE CLEARING, GRUBBING, EXCAVATION, GRADING, CULVERT OR BRIDGE CONSTRUCTION, CUTTING, FILLING, OR ANY OTHER EARTHWORK OCCURS, EXCEPT AS SUCH WORK MAY BE NECESSARY TO INSTALL EPSC MEASURES.
- 3.5. PERFORM CLEARING AND GRUBBING (NOT MORE THAN 15 DAYS PRIOR TO GRADING OR EARTH-MOVING. REFER TO THE STABILIZATION PRACTICES BELOW.).
- 3.6. REMOVE AND STORE TOPSOIL
- 3.7. STABILIZE DISTURBED AREAS WITHIN 14 DAYS OF COMPLETING ANY STAGE AND/OR PHASE OF ACTIVITY.
- 3.8. INSTALL UTILITIES, STORM SEWERS, CULVERTS AND BRIDGE STRUCTURES.
- 3.9. INSTALL INLET AND CULVERT PROTECTION ONCE STRUCTURES ARE IN PLACE AND CAPABLE OF INTERCEPTING FLOW
- 3.10. PERFORM FINAL GRADING AND INSTALL BASE STONE.
- 3.11. COMPLETE FINAL PAVING AND SEALING OF CONCRETE.
- 3.12. INSTALL TRAFFIC CONTROL AND PROTECTION DEVICES
- 3.13. COMPLETE FINAL STABILIZATION (TOPSOIL, SEEDING, MULCH, EROSION CONTROL BLANKET, SOD. ETC.)
- 3.14. REMOVE TEMPORARY EROSION CONTROLS AND ACCUMULATED SEDIMENT FROM AREAS THAT HAVE ESTABLISHED AT LEAST 70 PERCENT UNIFORM PERMANENT VEGETATIVE COVER.
- 3.15. RE-STABILIZE AREAS DISTURBED BY REMOVAL ACTIVITIES.

4. STREAM, OUTFALL, WETLAND, TMDL AND ECOLOGY INFORMATION

- 4.1. STREAM INFORMATION
- 4.1.1. WILL CONSTRUCTION AND/OR EROSION PREVENTION AND SEDIMENT CONTROLS IMPACT ANY STREAMS WITHIN THE PROJECT LIMITS? ☐ YES ☐ NO IF YES, THE STRUCTURAL EPSC MEASURES HAVE BEEN

INCLUDED IN THE TOTAL PROJECT WETLAND IMPACTS AND HAVE BEEN INCLUDED IN THE WATER QUALITY PERMITS.

4.1.2. HAVE ANY OF THE RECEIVING WATERS LESS THAN OR EQUAL TO 1 FLOW MILE DOWN GRADIENT OF THE PROJECT LIMITS BEEN CLASSIFIED BY TDEC AS FOLLOWS (CHECK ALL THAT APPLY):

- ☐ 303d IMPAIRED FOR SILTATION
- ☐ 303d IMPAIRED FOR HABITAT ALTERATION
- ☒ KNOWN EXCEPTIONAL TENNESSEE WATERS (KETW)

SEALED BY

STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

4.1.3. RECEIVING STREAMS (3.5.1.j).

	RECEIVING STREAM INFORMATION						
NATURAL RESOURCE LABEL	NAME OF RECEIVING NATURAL RESOURCE	303d IMPAIRED FOR SILTATION OR HABITAT ALTERATION (YES OR NO)	KETW (YES OR NO)	LOCATED WITHIN PROJECT LIMITS (YES OR NO)	LOCATED WITHIN ≤ 1 FLOW MILE DOWN GRADIENT OF PROJECT LIMITS (YES OR NO)		
WWC-1 / EPH-1	UNNAMED TRIB. TO GARNERS CREEK	NO	NO	YES	YES		
WWC-2 / EPH-2	UNNAMED TRIB. TO GARNERS CREEK	NO	NO	YES	YES		
	TUMBLING CREEK	NO	YES	NO	YES		

4.1.4. ARE BUFFER ZONES REQUIRED (4.1.2, 5.4.2)? ☐ YES ☒ NO IF YES, THEY HAVE BEEN INCLUDED ON PLAN SHEET(S) _____ IF YES, CHECK THE APPROPRIATE BOX BELOW FOR SIZE OF BUFFER.

☐ 60-FEET FOR IMPAIRED AND KNOWN EXCEPTIONAL

TENNESSEE WATERS (AVERAGE WIDTH PER SIDE WITH A MINIMUM OF 30-FEET)

FOR PROJECTS THAT DISCHARGE INTO KNOWN

EXCEPTIONAL TENNESSEE WATERS OR WATERS IMPAIRED

BY SILTATION, A 60 FOOT NATURAL RIPARIAN BUFFER ZONE

ADJACENT TO AND ON BOTH SIDES OF THE RECEIVING

STREAM WITH THIS DESIGNATION SHALL BE PRESERVED TO

THE MAXIMUM EXTENT PRACTICABLE DURING

CONSTRUCTION ACTIVITIES AT THE SITE. THE 60 FOOT

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.

□ 30-FEET FOR ALL OTHER STREAMS (AVERAGE WIDTH PER SIDE WITH A MINIMUM OF 15-FEET)

A 30 FOOT NATURAL RIPARIAN BUFFER ZONE ADJACENT TO AND ON BOTH SIDES OF THE RECEIVING STREAM SHALL BE PRESERVED TO THE MAXIMUM EXTENT PRACTICABLE DURING CONSTRUCTION ACTIVITIES AT THE SITE. THE 30 FOOT 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 SHALL BE MADE FOR CONSTRUCTION ACTIVITIES NOT TO TAKE PLACE WITHIN THE BUFFER ZONES

IF NO, CHECK THE APPROPRIATE BOX BELOW.

☐ BUFFERS NOT REQUIRED (i.e. NO STREAM, WETLAND, ETC. IMPACTS)

☐ TDEC ARAP APPLIES

BUFFER ZONE REQUIREMENTS ARE NOT REQUIRED FOR PRE-

4.1.5. ARE THERE BUFFER ZONE EXEMPTIONS (4.1.2.1)? ☐ YES ☒ NO IF YES, EXISTING CONDITIONS DESCRIPTION:____

APPROVED SITES (4.1.2.2.)

4.1.6. BUFFER ZONES ARE NOT SEDIMENT CONTROL MEASURES AND SHOULD NOT BE RELIED UPON AS PRIMARY SEDIMENT CONTROL MEASURES. THE RIPARIAN BUFFER ZONE SHALL BE ESTABLISHED BETWEEN THE TOP OF THE STREAM BANK AND THE DISTURBED CONSTRUCTION AREA. EVERY ATTEMPT SHALL BE MADE FOR CONSTRUCTION ACTIVITIES NOT TO TAKE PLACE WITHIN THE BUFFER ZONES. BEST MANAGEMENT PRACTICES (BMPS) PROVIDING EQUIVALENT PROTECTION AS THE NATURAL RIPARIAN ZONE MAY BE USED. A JUSTIFICATION FOR USE AND DESIGN EQUIVALENCY SHALL BE DOCUMENTED WITHIN THE SWPPP. THE ENVIRONMENTAL AND ROADWAY DESIGN DIVISIONS SHALL REVIEW AND APPROVE THIS REVISION OF THE SWPPP BEFORE DISTURBANCE OF THE SITE PROCEEDS, UNLESS PREVIOUSLY EXEMPT IN THE NPDES CONSTRUCTION GENERAL PERMIT. WHERE ISSUED, ARAP/401 REQUIREMENTS WILL PREVAIL IF IN CONFLICT WITH THESE BUFFER ZONE REQUIREMENTS.

4.2. OUTFALL INFORMATION:

A SEDIMENT BASIN OR EQUIVALENT MEASURE(S) WILL BE PROVIDED FOR ANY OUTFALL IN A DRAINAGE AREA:

4.2.1. OF TEN ACRES OR MORE FOR AN OUTFALL(S) THAT DOES NOT DISCHARGE TO AN IMPAIRED STREAM OR KNOWN EXCEPTIONAL TENNESSEE WATERS. FOR AN OUTFALL IN A DRAINAGE AREA OF 10 ACRES OR MORE, A TEMPORARY (OR PERMANENT) SEDIMENT BASIN OR EQUIVALENT CONTROL MEASURES THAT PROVIDES STORAGE FOR A CALCULATED VOLUME OF RUNOFF FROM A MINIMUM 2-YEAR/24-HOUR STORM EVENT, SHALL BE PROVIDED UNTIL FINAL STABILIZATION OF THE SITE. THE ENVIRONMENTAL AND ROADWAY DESIGN DIVISIONS MAY BE CONTACTED TO REVIEW AND CONCUR WITH ANY REVISION OF THE EPSC PLANS OR SWPPP BEFORE DISTURBANCE OF THE OUTFALL PROCEEDS. (3.5.3.3)

OR

OF FIVE ACRES OR MORE FOR AN OUTFALL(S) THAT DISCHARGES TO AN IMPAIRED STREAM OR KNOWN EXCEPTIONAL TENNESSEE WATERS. FOR PROJECTS THAT DISCHARGE INTO KNOWN EXCEPTIONAL TENNESSEE WATERS OR WATERS IMPAIRED BY SILTATION, AN OUTFALL IN A DRAINAGE AREA OF 5 ACRES OR MORE, A TEMPORARY (OR PERMANENT) SEDIMENT BASIN THAT PROVIDES STORAGE FOR A CALCULATED VOLUME OF RUNOFF FROM A 5-YEAR/ 24-HOUR STORM EVENT AND RUNOFF FROM EACH ACRE DRAINED, OR EQUIVALENT CONTROL MEASURES, SHALL BE PROVIDED UNTIL FINAL STABILIZATION OF THE SITE. THE ENVIRONMENTAL AND ROADWAY DESIGN DIVISIONS MAY BE CONTACTED TO REVIEW AND CONCUR WITH ANY REVISION OF THE SWPPP BEFORE DISTURBANCE OF THE OUTFALL PROCEEDS. (5.4.1.f).

- 4.2.2. OUTFALL TABLE (3.5.1.d, 5.4.1.f).
 SEE SWPPP SHEET S-8 FOR OUTFALL INFORMATION.
- 4.2.3. WHERE POSSIBLE, HAS NON-PROJECT RUN-ON BEEN DIVERTED AROUND OR THROUGH THE PROJECT SO AS TO ELIMINATE CONTACT WITH DISTURBED AREAS OF THE PROJECT AND SEPARATE IT FROM PROJECT RUN-OFF THERBY REDUCING THE DRAINAGE AREA OF TO THE OUTFALLS IN THIS AREA?

 ☑ YES □ NO □ N/A
- 4.2.4. ARE EQUIVALENT MEASURES BEING SUBSTITUTED FOR A SEDIMENT BASIN(S)? ☐ YES ☐ NO ☐ N/A
- 4.2.5. HAVE ALL OUTFALLS BEEN LABELED ON THE EPSC PLAN SHEETS (3.5.1.g, 5.4.1.f)? ☑ YES ☐ NO
- 4.2.6. HAVE ALL OUTFALLS BEEN LABELED ON A USGS TOPOGRAPHIC MAP INCLUDED IN THE "DOCUMENTATION AND PERMITS" BINDER (2.6.2)? ☑YES ☐ NO
- 4.3. WETLAND INFORMATION

WILL CONSTRUCTION AND/OR EROSION AND SEDIMENT CONTROLS IMPACT ANY WETLANDS? ☐ YES ☒ NO

IF YES, THE STRUCTURAL EPSC MEASURES HAVE BEEN INCLUDED IN THE TOTAL PROJECT WETLAND IMPACTS AND HAVE BEEN INCLUDED IN THE WATER QUALITY PERMITS.

WETLAND INFORMATION					
WETLAND FROM STATION TO STATION TEMPORARY IMPACTS (AC) LABEL LT OR RT LT OR RT IMPACTS (AC)					
N/A	N/A	N/A	N/A	N/A	

- 4.4. TOTAL MAXIMUM DAILY LOADS (TMDL) INFORMATION (3.5.10)
 4.4.1. IS THIS PROJECT LOCATED IN A HUC-8 WATERSHED THAT MAINTAINS AN EPA APPROVED TMDL FOR SILTATION?

 ☑YES ☐ NO
 - 4.4.2. IF YES, IS THIS PROJECT LOCATED WITHIN A HUC-12 SUBWATERSHED WITH A WASTE LOAD ALLOCATION (WLA)?

 ☐ YES ☑ NO

IF YES, DOES THE PROJECT HAVE A DIRECT DISCHARGE TO A
303(d) LISTED STREAM FOR SILTATION OR HABITAT ALTERATION?

TYPE

CONST.

P.E.

PROJECT NO.

IM/NH-40-3(149)

41 001 -1 1 48 - 44

- 303(d) LISTED STREAM FOR SILTATION OR HABITAT ALTERATION?
 ☐ YES ☐ NO
- 4.4.4. IF YES, HAS A SUMMARY OF THE CONSULTATION LETTER BEEN INCLUDED WITH THE SWPPP DOCUMENTATION? ☐ YES ☐ NO
- 4.5. ECOLOGY INFORMATION (3.5.5.e)
 IF SPECIAL NOTES ARE PRESENT IN THE TDOT ECOLOGY REPORT, HAVE THE NOTES BEEN ADDED TO THE APPROPRIATE PLAN SHEETS?
 ☐ YES ☐ NO ☒ NO NOTES REQUIRED

IF YES, THEY HAVE BEEN INCLUDED ON PLAN SHEET(S) _____

4.6. ENVIRONMENTAL COMMITTMENTS

4.4.3.

ARE THERE ANY NOTES ON THE ENVIRONMENTAL COMMITMENT SHEET?

☐ YES ☑ NO
IF YES, THEY HAVE BEEN INCLUDED ON PLAN SHEET(S) _____

5. EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) MEASURES (3.5.3)

- 5.1. EPSC MEASURES MUST BE DESIGNED, INSTALLED AND MAINTAINED TO CONTROL STORMWATER VOLUME AND VELOCITY WITHIN THE SITE TO MINIMIZE EROSION (4.1.1).
- 5.2. EPSC MEASURES MUST CONTROL STORMWATER DISCHARGES, INCLUDING BOTH PEAK FLOWS AND TOTAL STORMWATER VOLUME, TO MINIMIZE EROSION AT OUTLETS, STREAM CHANNELS, AND STREAM BANKS. (4.1.1)
- 5.3. HAVE THE CONTROL MEASURES BEEN DESIGNED ACCORDING TO THE SIZE AND SLOPE OF THE DISTURBED DRAINAGE AREA (3.5.3.3)?

 ☑YES ☐ NO
- 5.4. THE CONTROL MEASURES HAVE, AT A MINIMUM, BEEN DESIGNED FOR THE 5-YEAR, 24 HOUR STORM EVENT (3.5.3.3, 5.4.1.a).
- 5.5. ARE THE LIMITS OF DISTURBANCE CLEARLY MARKED ON THE EPSC PLANS (3.5.1.n)? ☑ YES ☐ NO
- 5.6. HAVE STAGED EPSC PLANS BEEN PREPARED FOR THE PROJECT (3.5.2)?
 YES ☑ NO ☐ (IF YES, CHECK ONE BELOW)
 - 5.6.1. PROJECT DISTURBED AREA IS THAN LESS THAN 5 ACRES (MINIMUM OF TWO STAGES OF EPSC PLANS)
 - 5.6.2. PROJECT DISTURBED AREA IS GREATER THAN 5 ACRES (MINIMUM OF THREE STAGES OF EPSC PLANS)
- 5.7. IS ADDITIONAL PHYSICAL OR CHEMICAL TREATMENT OF STORMWATER RUNOFF NECESSARY (5.4.1.a)? ☐ YES ☒ NO
- 5.8. HAVE STEEP SLOPES (GREATER THAN 35%) BEEN MINIMALLY DISTURBED AND/OR PROTECTED BY CONVEYING RUNOFF NON-EROSIVELY AROUND OR OVER THE SLOPE (3.5.3.2) (10. "STEEP SLOPE")?

 ☑ YES ☐ NO ☐ N/A
- 5.9. ALL PHYSICAL AND/OR CHEMICAL TREATMENT WILL BE RESEARCHED, APPLIED IN ACCORDANCE WITH MANUFACTURE'S GUIDELINES AND FULLY DESCRIBED ON THE EPSC PLANS (3.5.3.1.b).
- 5.10. ALL EPSC CONTROL MEASURES WILL BE INSTALLED ACCORDING TO TDOT STANDARDS (i.e. STANDARD DRAWINGS).
- 5.11. EPSC MEASURES WILL NOT BE INSTALLED IN A STREAM WITHOUT FIRST OBTAINING APPROVAL FROM THE PERMITS SECTION.
- 5.12. DISCHARGES FROM DEWATERING ACTIVITIES ARE PROHIBITED UNLESS MANAGED BY APPROPRIATE CONTROLS THAT PROVIDE THE LEVEL OF TREATMENT (FILTRATION) NECESSARY TO COMPLY WITH PERMIT REQUIREMENTS. (4.1.4).
- 5.13. DISCHARGES FROM SEDIMENT BASINS AND IMPOUNDMENTS MUST USE OUTLET STRUCTURES THAT ONLY WITHDRAW WATER FROM NEAR THE SURFACE OF THE BASIN OR IMPOUNDMENT, UNLESS INFEASIBLE (4.1.7).

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5.14.	THE CONTROL MEASURES LISTED IN THE QUANTITIES TABLE ON SHEET
	2 & 18 HAVE BEEN SELECTED IN ACCORDANCE WITH TDOT STANDARD
	DRAWINGS AND GOOD ENGINEERING PRACTICES (3.5.3.1.b).

- 5.15. THE QUANTITIES REQUIRED FOR STABILIZED CONSTRUCTION EXITS PER TDOT STANDARDS HAVE BEEN SPECIFIED ON SHEET 2 (3.5.3.1.n).
- 5.16. AREAS TO BE UNDISTURBED SHALL BE CLEARLY MARKED IN THE FIELD BEFORE CONSTRUCTION ACTIVITIES BEGIN.
- 5.17. UNLESS OTHERWISE NOTED IN THE PLANS, THE CONTRACTOR SHALL NOT CLEAR/DISTURB ANY AREA BEYOND 15 FEET FROM SLOPE LINES OR ROW/ EASEMENT LINE, WHICHEVER IS LESSER.
- 5.18. CLEARING, GRUBBING, AND OTHER DISTURBANCE TO RIPARIAN VEGETATION SHALL BE LIMITED TO THE MINIMUM NECESSARY FOR SLOPE CONSTRUCTION AND EQUIPMENT OPERATIONS. EXISTING VEGETATION, INCLUDING STREAM AND WETLAND BUFFERS (UNLESS PERMITTED), SHOULD BE PRESERVED TO THE MAXIMUM EXTENT POSSIBLE. UNNECESSARY VEGETATION REMOVAL IS PROHIBITED.
- 5.19. EPSC MEASURES SHALL BE INSTALLED AND FUNCTIONAL PRIOR TO ANY EARTH MOVING OPERATIONS, AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD.
- 5.20. TEMPORARY EPSC MEASURES MAY BE REMOVED AT THE BEGINNING OF THE WORKDAY, BUT MUST BE REINSTALLED AT THE END OF THE WORKDAY OR BEFORE A PRECIPITATION EVENT.
- 5.21. THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN A PROACTIVE METHOD TO PREVENT THE OFF-SITE MIGRATION OR DEPOSIT OF SEDIMENT OFF THE PROJECT LIMITS (E.G. R.O.W., EASEMENTS, ETC.), INTO WATERS OF THE STATE/U.S., OR ONTO ROADWAYS USED BY THE GENERAL PUBLIC. IF SEDIMENT ESCAPES THE CONSTRUCTION SITE, OFF-SITE ACCUMULATIONS OF SEDIMENT THAT HAVE NOT REACHED A STREAM MUST BE REMOVED TO A LEVEL SUFFICIENT TO MINIMIZE OFF-SITE 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). ARRANGEMENTS CONCERNING REMOVAL OF SEDIMENT ON ADJOINING PROPERTY MUST BE SETTLED WITH THE ADJOINING PROPERTY OWNER BEFORE REMOVAL OF SEDIMENT. SEDIMENT THAT MIGRATES INTO WATERS OF THE STATE/US SHALL NOT BE REMOVED WIHTOUT GUIDANCE FROM TDOT ENVIRONMENTAL PERSONNEL.
- 5.22. OFFSITE VEHICLE TRACKING OF SEDIMENTS AND THE GENERATION OF DUST SHALL BE MINIMIZED. A STABILIZED CONSTRUCTION EXIT (A POINT OF ENTRANCE/EXIT TO THE CONSTRUCTION PROJECT) SHALL BE PROVIDED TO REDUCE THE TRACKING OF MUD AND DIRT ONTO PUBLIC ROADS BY CONSTRUCTION VEHICLES.
- 5.23. THE DEWATERING OF WORK AREAS, TRENCHES, FOUNDATIONS. EXCAVATIONS, ETC. THAT HAVE COLLECTED STORMWATER, WATER FROM VEHICLE WASH AREAS, OR GROUNDWATER SHALL BE EITHER HELD IN SETTLING BASINS OR TREATED BY FILTRATION AND/OR CHEMICAL TREATMENT PRIOR TO ITS DISCHARGE. ALL PHYSICAL AND/OR CHEMICAL TREATMENT WILL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S GUIDELINES AND FULLY DESCRIBED IN THE EPSC PLANS. WATER DISCHARGED SHALL NOT CAUSE AN OBJECTIONABLE COLOR CONTRAST WITHIN THE RECEIVING NATURAL RESOURCE. WATER MUST BE HELD IN SETTLING BASINS UNTIL AT LEAST AS CLEAR AS THE RECEIVING WATERS. SETTLING BASINS AND SEDIMENT TRAPS SHALL BE PROPERLY DESIGNED ACCORDING TO THE SIZE OF THE DRAINAGE AREAS OR VOLUME OF WATER TO BE TREATED. TREATED WATER MUST BE DISCHARGED THROUGH A PIPE OR WELL- VEGETATED OR LINED CHANNEL, SO THAT THE DISCHARGE DOES NOT CAUSE EROSION OR SEDIMENT TRANSPORT. DISCHARGES FROM BASINS AND IMPOUNDMENTS SHALL UTILIZE OUTLET STRUCTURES THAT ONLY WITHDRAW WATER FROM NEAR THE SURFACE OF THE BASIN OR IMPOUNDMENT. DISCHARGES MUST NOT CAUSE AN OBJECTIONABLE COLOR CONTRAST WITH THE RECEIVING STREAM.
- 5.24. DEWATERING STRUCTURES, SEDIMENT FILTER BAGS, SEDIMENT BASINS AND TRAPS SHALL NOT BE LOCATED CLOSER THAN 30 FEET (60 FEET DESIRABLE VEGETATIVE BUFFER) FOR IMPAIRED AND KNOWN EXCEPTIONAL TENNESSEE WATERS AND 15 FEET (30 FEET DESIRABLE VEGETATIVE BUFFER) FOR ALL OTHER FEATURES FROM THE TOP BANK

OF A STREAM, WETLAND OR OTHER NATURAL RESOURCE AND SHALL BE PROPERLY DESIGNED ACCORDING TO THE SIZE OF THE DRAINAGE AREAS OR VOLUME OF WATER TO BE TREATED.

- 5.25. DISCHARGES FROM SEDIMENT BASINS SHALL UTILIZE OUTLET STRUCTURES THAT ONLY WITHDRAW WATER FROM NEAR THE SURFACE OF THE BASIN OR IMPOUNDMENT. TREATED WATER MUST BE DISCHARGED THROUGH A PIPE, WELL- VEGETATED AND/OR LINED CHANNEL, SO THAT THE DISCHARGE DOES NOT CAUSE EROSION OR SEDIMENT TRANSPORT. WATER DISCHARGED SHALL NOT CAUSE AN OBJECTIONABLE COLOR CONTRAST WITHIN THE RECEIVING NATURAL RESOURCE.
- 5.26. STABILIZATION PRACTICES: PRE-CONSTRUCTION VEGETATIVE COVER WILL NOT BE DESTROYED, REMOVED OR DISTURBED MORE THAN 15 DAYS PRIOR TO GRADING OR EARTH MOVING UNLESS THE AREA WILL BE SEEDED AND/OR MULCHED OR OTHER TEMPORARY COVER IS INSTALLED (3.5.3.1.h).
- 5.27. STABILIZATION MEASURES WILL BE INITIATED AS SOON AS POSSIBLE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. TEMPORARY OR PERMANENT STABILIZATION WILL BE COMPLETED WITHIN 14 DAYS AFTER ACTIVITY HAS TEMPORARILY OR PERMANENTLY CEASED IN THAT AREA. PERMANENT STABILIZATION WILL REPLACE TEMPORARY MEASURES AS SOON AS PRACTICABLE (3.5.3.2).
- 5.28. PRIORITY SHALL BE GIVEN TO FINISHING OPERATIONS AND PERMANENT EPSC MEASURES OVER TEMPORARY EPSC MEASURES ON ALL PROJECTS. UNPACKED GRAVEL CONTAINING FINES (SILT AND CLAY SIZED PARTICLES) OR CRUSHER-RUN WILL NOT BE CONSIDERED A NON-ERODIBLE SURFACE
- 5.29. DELAYING THE PLANTING OF COVER VEGETATION UNTIL WINTER MONTHS OR DRY MONTHS SHOULD BE AVOIDED, IF POSSIBLE.
- 5.30. FERTILIZERS SHALL BE APPLIED ONLY IN THE AMOUNTS SPECIFIED.
 ONCE APPLIED, FERTILIZERS SHALL BE WORKED INTO THE SOIL TO LIMIT THE EXPOSURE TO STORMWATER.
- 5.31. STEEP SLOPES (3.5.3.2): STEEP SLOPES ARE DEFINED AS A NATURAL OR CREATED SLOPE OF 35% GRADE OR GREATER REGARDLESS OF HEIGHT. STEEP SLOPES SHALL BE TEMPORARILY STABILIZED NOT LATER THAN 7 DAYS AFTER CONSTRUCTION ACTIVITY ON THE SLOPE HAS TEMPORARILY OR PERMANENTLY CEASED.
- 5.32. THE STRUCTURAL EPSC MEASURES HAVE BEEN INCLUDED IN THE TOTAL PROJECT IMPACTS AND HAVE BEEN INCLUDED IN THE AQUATIC RESOURCE ALTERATION (ARAP) PERMIT OR SECTION 401 CERTIFICATION (3.5.1.i). REFER TO THE LIST OF APPLICABLE ENVIRONMENTAL PERMITS LOCATED ON SWPPP SHEET <u>S-6</u>. ALL PERMITS WILL BE MAINTAINED ON SITE IN THE "DOCUMENTATION AND PERMITS" BINDER.

6. POLYACRYLAMIDE

- 6.1. ENSURE POLYACRYLAMIDE (PAM) EMULSIONS AND POWDERS ARE OF THE ANIONIC TYPE AND MEET THE FOLLOWING REQUIREMENTS:
 - 6.1.1. MEETS THE EPA AND FDA ACRYLAMIDE MONOMER LIMITS OF EQUAL TO OR GREATER THAN 0.005% ACRYLAMIDE MONOMER.
 - 6.1.2. HAS A DENSITY OF 10% TO 55% BY WEIGHT AND A MOLECULAR WEIGHT OF 16 TO 24 MG/MOLE.
 - 6.1.3. MIXTURE IS NON-COMBUSTIBLE.
 - 6.1.4. CONTAINS ONLY MANUFACTURER'S RECOMMENDED ADDITIVES.
- 6.2. PAM SHALL BE MIXED AND APPLIED IN ACCORDANCE WITH ALL OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) MATERIAL SAFETY DATA SHEET REQUIREMENTS AND THE MANUFACTURER'S RECOMMENDATIONS FOR THE SPECIFIED USES CONFORMING TO ALL FEDERAL, STATE, AND LOCAL LAWS, RULES, AND REGULATIONS.
- 6.3. ALL VENDORS AND SUPPLIERS OF PAM, PAM MIX, OR PAM BLENDS SHALL PRESENT OR SUPPLY A WRITTEN TOXICITY REPORT WHICH VERIFIES ACCEPTABLE TOXICITY PARAMETERS WHICH MEET OR EXCEED THE EPA REQUIREMENTS FOR THE STATE AND FEDERAL WATER QUALITY STANDARDS. WHOLE EFFLUENT TESTING DOES NOT MEET THIS REQUIREMENT AS PRIMARY REACTIONS HAVE OCCURRED AND TOXIC POTENTIALS HAVE BEEN REDUCED. CATIONIC FORMS OF PAM ARE NOT ALLOWED UNDER THIS SECTION DUE TO HIGH LEVELS OF TOXICITY TO AQUATIC ORGANISMS. PAM EMULSIONS SHALL NEVER BE APPLIED DIRECTLY TO STORMWATER RUNOFF OR RIPARIAN WATERS DUE TO

SURFACTANT TOXICITY. THE CONTRACTOR MUST SEEK THE APPROVAL OF THE EPSC DESIGN ENGINEER AND TDOT IF CHITOSAN IS PROPOSED FOR USE ON THIS PROJECT.

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- 6.4. ALL VENDORS AND SUPPLIERS OF PAM, PAM MIX, OR PAM BLENDS SHALL SUPPLY WRITTEN "SITE SPECIFIC" TESTING RESULTS DEMONSTRATING THAT A PERFORMANCE OF 95% OR GREATER REDUCTION OF NTU OR TSS FROM STORMWATER DISCHARGES.
- 6.5. EMULSION BATCHES SHALL BE MIXED FOLLOWING RECOMMENDATIONS OF THE TESTING LABORATORY THAT DETERMINES THE PROPER PRODUCT AND RATE TO MEET SITE REQUIREMENTS. APPLICATION METHOD SHALL ENSURE UNIFORM COVERAGE TO THE TARGET AREA. EMULSIONS SHALL NEVER BE APPLIED DIRECTLY TO STORMWATER RUNOFF OR RIPARIAN WATERS.
- 6.6. PAM POWDER MAY BE APPLIED BY A HAND OR MECHANICAL SPREADER. MIXING PAM POWDER WITH DRY SILICA SAND WILL AID IN SPREADING.
- 6.7. PREMIXING OF PAM POWDER INTO FERTILIZER, SEED, OR OTHER SOIL AMENDMENTS IS ALLOWED WHEN SPECIFIED IN THE DESIGN PLAN. APPLICATION METHOD SHALL ENSURE UNIFORM COVERAGE TO THE TARGET AREA.
- 6.8. PAM LOGS OR BLOCKS SHALL BE APPLIED FOLLOWING SITE TESTING RESULTS TO ENSURE PROPER PLACEMENT AND PERFORMANCE AND SHALL MEET OR EXCEED STATE AND FEDERAL WATER QUALITY REQUIREMENTS.

7. UTILITY RELOCATION

- 7.1. STORMWATER WHICH COLLECTS IN THE UTILITY TRENCH SHALL BE PUMPED INTO A DEWATERING STRUCTURE OR SEDIMENT FILTER BAG AND TREATED PRIOR TO DISCHARGE.
- 7.2. SILT FENCE SHALL BE INSTALLED ON THE DOWNGRADIENT SIDE OF STOCKPILED SOIL. TRENCHING ACROSS WET WEATHER CONVEYANCES SHALL BE DONE DURING DRY CONDITIONS AND STABILIZED BY THE END OF THE WORK DAY
- 7.3. UTILITY CROSSINGS IN ENVIRONMENTAL FEATURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH TDOT STANDARDS AND NO WORK SHALL BE CONDUCTED IN FLOWING WATERS. ENVIRONMENTAL PERMITS APPLY TO UTILITIES IN THIS PROJECT. THE STATE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF THE PERMITS.
- 7.4. IT IS THE RESPONSIBILITY OF THE STATE UTILITY CONTRACTOR TO PROTECT EXPOSED EARTH FROM EROSION AND TO PROVIDE FOR CONTAINMENT OF SEDIMENT THAT MAY RESULT FROM THEIR WORK. PRIOR TO BEGINNING WORK, ADEQUATE MEASURES MUST BE IN PLACE TO TRAP ANY SEDIMENT THAT MAY TRAVEL OFF-SITE IN THE EVENT OF RAIN. DURING THE PROGRESSION OF THEIR WORK, EXPOSED EARTH AREAS SHALL BE STABILIZED AS SOON AS POSSIBLE TO PREVENT EROSION. AT NO TIME SHALL EXPOSED EARTH RESULTING FROM THEIR OPERATIONS HAVE UNPROTECTED ACCESS TO FLOWING OFF-SITE AND ENTERING WATERS OF THE STATE/U.S.
- 7.5. FOR THE INSTALLATION OF BURIED UTILITIES (PIPES AND CABLES), TRENCHES SHALL BE BACKFILLED DAILY AS CONSTRUCTION PROCEEDS. BACKFILLED TRENCHES SHALL BE SEEDED AND MULCHED OR SODDED DAILY IF POSSIBLE, BUT NO LATER THAN SEVEN DAYS AFTER BEING BACKFILLED. ANY TEMPORARY SPOILS OF EXCAVATED EARTH SHALL BE LOCATED WITHIN TDOT EPSC MEASURES OR RECEIVE SEPARATE EPSC MEASURES. IF TRENCHES ARE NOT BACKFILLED OVERNIGHT, APPROPRIATE EPSC MEASURES WILL BE INSTALLED BY THE STATE UTILITY CONTRACTOR UNTIL SUCH TIME AS THE TRENCH IS BACKFILLED.
- 7.6. IN REGARD TO EPSC, TDEC REGULATIONS APPLY TO THE STATE UTILITY CONTRACTORS ON THIS PROJECT. THE STATE CONTRACTOR IS RESPONSIBLE FOR EPSC MEASURES RELATED TO UTILITY CONSTRUCTION INCLUDED IN THE STATE CONTRACT.
- 7.7. TRENCHES FORMED FOR THE INSTALLATION OF BURIED UTILITIES MAY CAUSE STORMWATER RUNOFF TO CONCENTRATE AT THE TRENCH LINE. ADDITIONAL EPSC MEASURES MAY BE REQUIRED TO BE INSTALLED AS APPROVED BY THE TDOT PROJECT ENGINEER.
- 7.8. FOR THE INSTALLATION OF UNDERGROUND UTILITIES OUTSIDE OF THE TDOT RIGHT-OF-WAY, EPSC MEASURES SHALL BE INSTALLED PRIOR TO CLEARING (TRENCHING AND ASSOCIATED BLASTING) IN THOSE AREAS

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NECESSARY TO PREVENT SEDIMENT FROM LEAVING THE CONSTRUCTION AREA. THESE EPSC MEASURES SHALL REMAIN UNTIL THE BACKFILLED TRENCH IS STABILIZED WITH FINAL VEGETATIVE COVER.

- 7.9. THE UTILITY CONTRACTOR SHALL RESTORE ALL AFFECTED WET WEATHER CONVEYANCES TO THE EXISTING TOPOGRAPHIC CONDITIONS AS APPROVED BY THE TDOT RESPONSIBLE PARTY.
- 7.10. THE UTILITY CONTRACTOR WILL PROVIDE APPROPRIATE EPSC MEASURES TO REPLACE ONSITE EPSC MEASURES REMOVED TO FACILITATE THE INSTALLATION OF UTILITIES. REPLACEMENT OF EPSC MEASURES WILL BE COORDINATED WITH THE TDOT ENGINEER BEFORE COMMENCING WORK.

8. MAINTENANCE AND INSPECTION

- 8.1. INSPECTION PRACTICES (3.5.8)
 - 8.1.1. PROJECT EPSC INSPECTORS AND SUPERVISORS (INCLUDING TDOT STAFF, CONSULTANTS AND CONTRACTOR STAFF) RESPONSIBLE FOR THE INSPECTION, IMPLEMENTATION, MAINTENANCE. AND/OR REPAIR OF EPSC MEASURES SHALL SUCCESSFULLY COMPLETE THE TDEC "LEVEL 1 FUNDAMENTALS OF EROSION PREVENTION AND SEDIMENT CONTROL FOR CONSTRUCTION SITES" COURSE AND ANY RECERTIFICATION COURSES AS REQUIRED.
 - 8.1.2. THE TDOT CONSTRUCTION SUPERVISOR (OR THEIR DESIGNEE)
 AND THE CONTRACTOR'S SITE SUPERINTENDENT ARE
 RESPONSIBLE FOR INSPECTIONS. MAINTENANCE AND REPAIR
 ACTIVITIES ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE
 TDOT CONSTRUCTION SUPERVISOR OR THEIR DESIGNEE SHALL
 COMPLETE THE EPSC INSPECTION REPORTS AND DISTRIBUTE
 COPIES PER THE CONTRACT.
 - 8.1.3. EPSC CONTROLS SHALL BE INSPECTED TO VERIFY MEASURES HAVE BEEN INSTALLED AND MAINTAINED IN ACCORDANCE WITH TDOT STANDARD DRAWINGS, SPECIFICATIONS, AND GOOD ENGINEERING PRACTICES. EPSC INSPECTIONS SHALL BE DOCUMENTED ON THE TDOT EPSC INSPECTION REPORT.
 - 8.1.4. OUTFALL POINTS SHALL BE INSPECTED TO ASCERTAIN WHETHER EPSC MEASURES ARE EFFECTIVE IN PREVENTING EROSION AND CONTROLLING SEDIMENT INCLUDING SIGNIFICANT IMPACTS TO SURROUNDING NATURAL RESOURCES AND ADJACENT PROPERTY OWNERS. WHERE DISCHARGE LOCATIONS ARE INACCESSIBLE, NEARBY DOWN GRADIENT LOCATIONS SHALL BE INSPECTED. LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFF-SITE ROADWAY SEDIMENT TRACKING.
 - 8.1.5. UPON CONCLUSION OF THE INSPECTIONS, EPSC MEASURES FOUND TO BE INEFFECTIVE SHALL BE REPAIRED, REPLACED, OR MODIFIED BEFORE THE NEXT RAIN EVENT, IF POSSIBLE, BUT IN NO CASE MORE THAN 24 HOURS AFTER THE INSPECTION OR WHEN THE CONDITION IS IDENTIFIED. IF THE REPAIR, REPLACEMENT OR MODIFICATION IS NOT PRACTICAL WITHIN THE 24 HOUR TIMEFRAME, WRITTEN DOCUMENTATION PROVIDED BY THE CONTRACTOR SHALL BE PLACED IN THE FIELD DIARY AND EPSC INSPECTION REPORT. AN ESTIMATED REPAIR, REPLACEMENT OR MODIFICATION SCHEDULE SHALL BE DOCUMENTED WITHIN 24 HOURS AFTER IDENTIFICATION.
 - 8.1.6. INSPECTION, REPAIR, AND MAINTENANCE OF EPSC MEASURES SHALL BE PERFORMED ON A REGULAR BASIS. SEDIMENT SHALL BE REMOVED FROM SEDIMENT CONTROL STRUCTURES WHEN THE DESIGN CAPACITY HAS BEEN REDUCED BY FIFTY PERCENT (50%). DURING SEDIMENT REMOVAL, THE CONTRACTOR SHALL TAKE STEPS TO ENSURE THAT STRUCTURAL COMPONENTS OF EPSC MEASURES ARE NOT DAMAGED AND THUS MADE INEFFECTIVE. IF DAMAGE DOES OCCUR, THE CONTRACTOR SHALL REPAIR THE EPSC MEASURES AT THE CONTRACTOR'S OWN EXPENSE.
 - 8.1.7. SEDIMENT REMOVED FROM SEDIMENT CONTROL STRUCTURES SHALL BE PLACED AND TREATED IN A MANNER SO THAT THE SEDIMENT IS CONTAINED WITHIN THE PROJECT LIMITS, DOES NOT MIGRATE INTO FEATURES REMOVED FROM, AND DOES NOT MIGRATE ONTO ADJACENT PROPERTIES AND/OR INTO WATERS OF THE STATE/U.S. COST FOR THIS TREATMENT SHALL BE

INCLUDED IN PRICE BID FOR ITEM NO. 209-05 SEDIMENT REMOVAL. C.Y.

- 8.1.8. INSPECTIONS WILL BE CONDUCTED AT LEAST TWICE EVERY CALENDAR WEEK AND AT LEAST 72 HOURS A PART (3.5.8.2.a). A CALENDAR WEEK IS DEFINED AS SUNDAY THROUGH SATURDAY. QUALITY ASSURANCE AUDITS OF TDOT EPSC, NPDES AND WATER QUALITY PERMIT REQUIREMENTS SHALL BE PERFORMED PER THE TDOT ENVIRONMENTAL COMPLIANCE OFFICE.
- 8.1.9. THE FREQUENCY OF EPSC INSPECTIONS MAY BE REDUCED TO ONCE A MONTH (I.E. EXTREME DROUGHT CONDITIONS, FROZEN GROUND, ETC.) WITH WRITTEN NOTIFICATION BY THE TDOT REGIONAL ENGINEER TO TDEC NASHVILLE CENTRAL OFFICE AND SUBSEQUENT TDEC APPROVAL. WRITTEN NOTIFICATION MUST INCLUDE THE INTENT TO CHANGE FREQUENCY AND JUSTIFICATION (3.5.8.2.a).
- 8.1.10. ALL DISTURBED AREAS OF THE SITE THAT HAVE NOT BEEN FINALLY STABILIZED, AREAS USED FOR MATERIAL STORAGE THAT ARE EXPOSED TO PRECIPITATION, STRUCTURAL CONTROL MEASURES, AND LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE, AND EACH OUTFALL WILL BE INSPECTED (3.5.8.2.b).
- 8.1.11. THE INSPECTOR WILL OVERSEE THE REQUIREMENTS OF OTHER CONSTRUCTION-RELATED WATER QUALITY PERMITS (I.E. TDEC ARAP, USACE SECTION 404, AND TVA SECTION 26a PERMITS) FOR CONSTRUCTION ACTIVITIES AROUND WATERS OF THE STATE (10 "INSPECTOR").
- 8.1.12. THE SWPPP WILL BE REVISED AS NECESSARY BASED ON THE RESULTS OF THE INSPECTION. REVISION(S) WILL BE RECORDED WITHIN 7 DAYS OF THE INSPECTION. REVISION(S) WILL BE IMPLEMENTED WITHIN 14 DAYS OF THE INSPECTION (3.8.5.2.e AND 3.8.5.2.f).
- 8.1.13. THE INSPECTOR SHALL CONDUCT PRE-CONSTRUCTION INSPECTIONS TO VERIFY AREAS THAT ARE NOT TO BE DISTURBED HAVE BEEN MARKED IN THE SWPPP AND IN THE FIELD BEFORE LAND DISTURBANCE ACTIVITIES BEGIN AND INITIAL MEASURES HAVE BEEN INSTALLED (10 "INSPECTOR") (3.5.1.n).
- 8.1.14. DOCUMENTATION OF INSPECTIONS WILL BE MAINTAINED ON SITE IN THE "DOCUMENTATION AND PERMITS" BINDER. REPORTS WILL BE SUBMITTED TO THE TDOT PROJECT SUPERVISOR PER THE CONTRACT.
- 8.1.15. THESE INSPECTION REQUIREMENTS DO NOT APPLY TO DEFINABLE AREAS OF THE SITE THAT HAVE MET FINAL STABILIZATION REQUIREMENTS AND HAVE BEEN NOTED IN THE SWPPP.
- 8.1.16. TRAINED CERTIFIED INSPECTORS SHALL COMPLETE INSPECTION 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 (3.8.5.2.H).

8.2. DULY AUTHORIZED REPRESENTATIVE (7.7.3)

THE PROJECT SUPERVISOR MAY DELEGATE AN INDIVIDUAL AND/OR CONSULTANT TO SIGN EPSC INSPECTIONS REPORTS. FOR SATISFYING SIGNATORY REQUIREMENTS FOR EPSC INSPECTION REPORTS, THE PROJECT SUPERVISOR AND NEWLY AUTHORIZED INDIVIDUAL ACCEPTING RESPONSIBILITY MUST PERFORM THE FOLLOWING:

- 8.2.1. COMPLETE AND SIGN THE TDOT CONSTRUCTION DIVISION EPSC DELEGATION OF AUTHORITY.
- 8.2.2. SUBMIT THE EPSC DELEGATION OF AUTHORITY TO THE LOCAL TDEC EFO.

8.3. MAINTENANCE PRACTICES (3.5.3.1 AND 3.5.7)

8.3.1. ALL CONTROLS WILL BE MAINTAINED IN GOOD AND EFFECTIVE OPERATING ORDER. NECESSARY REPAIRS OR MAINTENANCE WILL BE ACCOMPLISHED BEFORE THE NEXT STORM EVENT AND IN NO CASE MORE THAN 24 HOURS AFTER THE NEED IS IDENTIFIED. IN A CASE WHERE THE ACTIVITY IS DEEMED IMPRACTICABLE, ANY SUCH CONDITIONS WILL BE DOCUMENTED (3.5.8.2.e).

8.3.2.	ALL CONTROLS WILL BE MAINTAINED IN ACCORDANCE WITH TDOT
	STANDARD DRAWINGS AND GOOD ENGINEERING PRACTICES.
	(3.5.3.1.b)

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- 8.3.3. SEDIMENT WILL BE REMOVED FROM SEDIMENT TRAPS, SILT FENCE, SEDIMENT BASINS, AND OTHER CONTROLS WHEN THE DESIGN CAPACITY HAS BEEN REDUCED BY 50% (3.5.3.1.e).
- 8.3.4. CHECK DAMS WILL BE INSPECTED FOR STABILITY. SEDIMENT WILL BE REMOVED WHEN DEPTH REACHES ONE-HALF (½) THE HEIGHT OF THE DAM.
- 8.3.5. LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS EXPOSED TO STORMWATER WILL BE PICKED UP AND REMOVED FROM STORMWATER EXPOSURE PRIOR TO ANTICIPATED STORM EVENTS OR BEFORE BEING CARRIED OFF OF THE SITE BY WIND, OR OTHERWISE PREVENTED FROM BECOMING A POLLUTANT SOURCE FOR STORMWATER DISCHARGES. AFTER USE, MATERIALS USED FOR EROSION CONTROL WILL BE REMOVED (3.5.3.1.f).
- 8.3.6. ALL SEEDED AREAS WILL BE CHECKED FOR BARE SPOTS, EROSION WASHOUTS, AND VIGOROUS GROWTH FREE OF SIGNIFICANT WEED INFESTATIONS.
- 8.3.7. THE TDOT PROJECT SUPERVISOR OR THEIR DESIGNEE AND THE CONTRACTOR'S SITE SUPERINTENDENT ARE RESPONSIBLE FOR INSPECTIONS. MAINTENANCE AND REPAIR ACTIVITIES ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE TDOT PROJECT SUPERVISOR OR THEIR DESIGNEE WILL COMPLETE THE INSPECTION REPORTS AND DISTRIBUTE COPIES PER THE CONTRACT.

9. SITE ASSESSMENTS (3.1.2)

QUALITY ASSURANCE SITE ASSESSMENTS OF EROSION PREVENTION AND SEDIMENT CONTROLS SHALL BE PERFORMED ACCORDING TO THE TDOT ENVIRONMENTAL DIVISION COMPREHENSIVE INSPECTIONS OFFICE GUIDELINES.

10. STORMWATER MANAGEMENT (3.5.4)

- 10.1. STORMWATER MANAGEMENT WILL BE HANDLED BY TEMPORARY CONTROLS OUTLINED IN THIS SWPPP AND ANY PERMANENT CONTROLS NEEDED TO MEET PERMANENT STORMWATER MANAGEMENT NEEDS IN THE POST CONSTRUCTION PERIOD. PERMANENT CONTROLS WILL BE SHOWN ON THE PLANS AND NOTED AS PERMANENT.
- 10.2. DESCRIBE ANY SPECIFIC POST-CONSTRUCTION MEASURES THAT WILL CONTROL VELOCITY, POLLUTANTS, AND/OR EROSION (3.5.1.F, 3.5.4):

 CONCRETE SWALE DITCH, RIP-RAP USED FOR OUTLET PROTECTION, AND GRADED SOLID ROCK FILL FOR SLOPE STABIZATION.

10.3. OTHER ITEMS NEEDING CONTROL (3.5.5)

CONSTRUCTION MATERIALS: THE FOLLOWING MATERIALS OR SUBSTANCES ARE EXPECTED TO BE PRESENT ON THE SITE DURING THE CONSTRUCTION PERIOD. (CHECK ALL THAT APPLY).

- ☑ LUMBER, GUARDRAIL, TRAFFIC CONTROL DEVICES
- □ CONCRETE WASHOUT
- ☑ CONCRETE AND CORRUGATED METAL PIPES
- ⋈ MINERAL AGGREGATES, ASPHALT
- ☑ EARTH
- ☑ LIQUID TRAFFIC STRIPING MATERIALS, PAINT
- ☑ ROCK
- □ CURING COMPOUND
- ☐ OTHER

THESE MATERIALS WILL BE HANDLED AS NOTED IN THIS SWPPP.

10.4. WASTE MATERIALS (3.5.5.b)

WASTE MATERIAL (EARTH, ROCK, ASPHALT, CONCRETE, ETC.) NOT REQUIRED FOR THE CONSTRUCTION OF THE PROJECT WILL BE DISPOSED OF BY THE CONTRACTOR IN ACCORDANCE WITH THE TDOT CONSTRUCTION CONTRACT AND FEDERAL AND STATE REGULATIONS. IMPACTS TO WATERS OF THE STATE/U.S. SHALL BE AVOIDED IF POSSIBLE. IF UNAVOIDABLE, THE CONTRACTOR WILL OBTAIN ANY AND ALL NECESSARY PERMITS INCLUDING, BUT NOT LIMITED TO NPDES, AQUATIC RESOURCES ALTERATION PERMIT(S) CORPS OF ENGINEERS SECTION 404 PERMITS, AND TVA SECTION 26A PERMITS TO DISPOSE OF WASTE MATERIALS.

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10.4.1. HAZARDOUS WASTE (3.5.5.c) (7.9)

ALL HAZARDOUS WASTE MATERIALS WILL BE DISPOSED OF IN A MANNER WHICH IS COMPLIANT WITH LOCAL OR STATE REGULATIONS. SITE PERSONNEL WILL BE INSTRUCTED IN THESE PRACTICES, AND THE INDIVIDUAL DESIGNATED AS THE CONTRACTOR'S ON-SITE REPRESENTATIVE WILL BE RESPONSIBLE FOR SEEING THAT THESE PRACTICES ARE FOLLOWED. THE CONTRACTOR WILL OBTAIN ANY AND ALL NECESSARY PERMITS TO DISPOSE OF HAZARDOUS MATERIAL.

10.4.2. SANITARY WASTE (3.5.5.b)

PORTABLE SANITARY FACILITIES WILL BE PROVIDED ON ALL CONSTRUCTION SITES. SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS IN A TIMELY MANNER BY A LICENSED WASTE MANAGEMENT CONTRACTOR OR AS REQUIRED BY ANY LOCAL REGULATIONS. THE CONTRACTOR WILL OBTAIN ANY AND ALL NECESSARY PERMITS TO DISPOSE OF SANITARY WASTE.

10.4.3. OTHER MATERIALS

THE FOLLOWING MATERIALS OR SUBSTANCES ARE EXPECTED TO BE PRESENT ON THE SITE DURING THE CONSTRUCTION PERIOD. (CHECK ALL THAT APPLY).

- ☐ FERTILIZERS AND LIME
- ☑ PESTICIDES AND/OR HERBICIDES
- ☐ DIESEL AND GASOLINE

THESE MATERIALS WILL BE HANDLED AS NOTED IN THIS SWPPP.

11. NON-STORMWATER DISCHARGES (3.5.9)

- 11.1. THE FOLLOWING NON-STORMWATER DISCHARGES ARE ANTICIPATED DURING THE COURSE OF THIS PROJECT (CHECK ALL THAT APPLY):
 - DEWATERING OF WORK AREAS OF COLLECTED STORMWATER AND GROUND WATER
 - WATERS USED TO WASH VEHICLES (OF DUST AND SOIL) WHERE DETERGENTS ARE NOT USED AND DETENTION AND/OR FILTERING IS PROVIDED BEFORE THE WATER LEAVES THE SITE
 - ☑ WATER USED TO CONTROL DUST (3.5.3.1.n)
 - ☑ POTABLE WATER SOURCES INCLUDING WATERLINE FLUSHINGS FROM WHICH CHLORINE HAS BEEN REMOVED TO THE MAXIMUM EXTENT PRACTICABLE
 - ☑ UNCONTAMINATED GROUNDWATER OR SPRING WATER
 - ☐ FOUNDATION OR FOOTING DRAINS WHERE FLOWS ARE NOT CONTAMINATED WITH POLLUTANTS

- 11.2. ALL ALLOWABLE NON-STORMWATER DISCHARGES WILL BE DIRECTED TO STABLE DISCHARGE STRUCTURES PRIOR TO LEAVING THE SITE. FILTERING OR CHEMICAL TREATMENT MAY BE NECESSARY PRIOR TO DISCHARGE.
- 11.3. THE DESIGN OF ALL IMPACTED EPSC MEASURES RECEIVING FLOW FROM ALLOWABLE NON-STORMWATER DISCHARGES MUST BE DESIGNED TO HANDLE THE VOLUME OF THE NON-STORMWATER COMPONENT.
- 11.4. WASH DOWN OR WASTE DISCHARGE OF CONCRETE TRUCKS WILL NOT BE PERMITTED ON-SITE UNLESS PROPER SETTLEMENT AREAS HAVE BEEN PROVIDED IN ACCORDANCE WITH BOTH STATE AND FEDERAL REGULATIONS.
- 11.5. ARE ANY DISCHARGES ASSOCIATED WITH INDUSTRIAL (NON-CONSTRUCTION STORMWATER) ACTIVITY EXPECTED (3.5.1.h)?

 ☐ YES ☑ NO

 IF YES, SPECIFY THE LOCATION OF THE ACTIVITY AND ITS PERMIT

NUMBER: ____

12. SPILL PREVENTION, MANAGEMENT AND NOTIFICATION (3.5.5.c, 5.1)

12.1. SPILL PREVENTION (3.5.5.c)

CONTRACTOR'S BULK FUEL AND PETROLEUM PRODUCTS STORED ON-SITE OR ADJACENT TO THE R.O.W. IN ABOVE GROUND STORAGE TANKS WITH AGGREGATE STORAGE CAPACITY IN EXCESS OF 1,320 GALLONS SHALL HAVE SECONDARY CONTAINMENT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING A SPILL PREVENTION CONTROL AND COUNTERMEASURE (SPCC) PLAN AS REQUIRED BY LAW AND BE SOLELY RESPONSIBLE FOR OBTAINING ANY NECESSARY LOCAL, STATE, AND FEDERAL PERMITS. THE SPCC PLAN AND/OR PERMITS SHALL BE KEPT ON-SITE AND A COPY PROVIDED TO THE TDOT CONSTRUCTION SUPERVISOR.

12.2. MATERIAL MANAGEMENT

12.2.1. HOUSEKEEPING

ONLY NEEDED PRODUCTS WILL BE STORED ON-SITE BY THE CONTRACTOR. EXCEPT FOR BULK MATERIALS THE CONTRACTOR WILL STORE ALL MATERIALS UNDER COVER AND IN APPROPRIATE CONTAINERS. PRODUCTS MUST BE STORED IN ORIGINAL CONTAINERS AND LABELED. MATERIAL MIXING WILL BE CONDUCTED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. WHEN POSSIBLE, ALL PRODUCTS WILL BE USED COMPLETELY BEFORE PROPERLY DISPOSING OF THE CONTAINER OFF SITE. THE MANUFACTURER'S DIRECTIONS FOR DISPOSAL OF MATERIALS AND CONTAINERS WILL BE FOLLOWED. THE CONTRACTOR'S SITE SUPERINTENDENT WILL INSPECT MATERIALS STORAGE AREAS REGULARLY TO ENSURE PROPER USE AND DISPOSAL. DUST GENERATED WILL BE CONTROLLED IN AN ENVIRONMENTALLY SAFE MANNER. VEGETATION AREAS NOT ESSENTIAL TO THE CONSTRUCTION PROJECT WILL BE PRESERVED AND MAINTAINED AS NOTED ON THE PLANS.

12.2.2. HAZARDOUS MATERIALS

PRODUCTS WILL BE KEPT IN ORIGINAL CONTAINERS UNLESS THE CONTAINER IS NOT RESEALABLE. ORIGINAL LABELS AND MATERIAL SAFETY DATA SHEETS WILL BE RETAINED IN A SAFE PLACE TO RELAY IMPORTANT PRODUCT INFORMATION. IF SURPLUS PRODUCT MUST BE DISPOSED OF, MANUFACTURER'S LABEL DIRECTIONS FOR DISPOSAL WILL BE FOLLOWED MAINTENANCE AND REPAIR OF ALL EQUIPMENT AND VEHICLES INVOLVING OIL CHANGES, HYDRAULIC SYSTEM DRAIN DOWN, DE-GREASING OPERATIONS, FUEL TANK DRAIN DOWN AND REMOVAL, AND OTHER ACTIVITIES WHICH MAY RESULT IN THE ACCIDENTAL RELEASE OF CONTAMINANTS WILL BE CONDUCTED ON AN IMPERVIOUS SURFACE AND UNDER COVER DURING WET WEATHER TO PREVENT THE RELEASE OF CONTAMINANTS ONTO THE GROUND. WHEEL WASH WATER WILL BE COLLECTED AND ALLOWED TO SETTLE OUT SUSPENDED SOLIDS PRIOR TO DISCHARGE. WHEEL WASH WATER WILL NOT BE DISCHARGED DIRECTLY INTO ANY STORMWATER SYSTEM OR STORMWATER TREATMENT SYSTEM. POTENTIAL PH-MODIFYING MATERIALS SUCH AS: BULK CEMENT, CEMENT KILN DUST, FLY ASH, NEW CONCRETE WASHINGS AND CURING WATERS, CONCRETE PUMPING. AND MIXER WASHOUT WATERS WILL BE COLLECTED ON SITE AND MANAGED TO PREVENT CONTAMINATION OF STORMWATER RUNOFF.

12.3. PRODUCT SPECIFIC PRACTICES

- 12.3.1. PETROLEUM PRODUCTS: ALL ON-SITE VEHICLES WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE. PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED.
- 12.3.2. FERTILIZERS: FERTILIZERS WILL BE APPLIED ONLY IN THE AMOUNTS SPECIFIED BY TDOT. ONCE APPLIED, FERTILIZERS WILL BE WORKED INTO THE SOIL TO LIMIT THE EXPOSURE TO STORMWATER. FERTILIZERS WILL BE STORED IN AN ENCLOSED AREA UNDER COVER. THE CONTENTS OF PARTIALLY USED FERTILIZER BAGS WILL BE TRANSFERRED TO SEALABLE CONTAINERS TO AVOID SPILLS.
- 12.3.3. PAINTS: ALL CONTAINERS WILL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. THE EXCESS WILL BE DISPOSED OF ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS AND APPLICABLE STATE AND LOCAL REGULATIONS.
- 12.3.4. CONCRETE TRUCKS: CONTRACTORS WILL PROVIDE DESIGNATED TRUCK WASHOUT AREAS ON THE SITE. THESE AREAS MUST BE SELF CONTAINED AND NOT CONNECTED TO ANY STORMWATER OUTLET OF THE SITE. UPON COMPLETION OF CONSTRUCTION WASHOUT AREAS WILL BE PROPERLY STABILIZED.

12.4. SPILL MANAGEMENT

12.4.1. IN ADDITION TO THE PREVIOUS HOUSEKEEPING AND MANAGEMENT PRACTICES, THE FOLLOWING PRACTICES WILL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP IF NECESSARY.

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- 12.4.2. FOR ALL HAZARDOUS MATERIALS STORED ON SITE, THE MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEAN UP WILL BE CLEARLY POSTED. SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATIONS OF THE INFORMATION AND CLEANUP SUPPLIES.
- 12.4.3. APPROPRIATE CLEANUP MATERIALS AND EQUIPMENT WILL BE MAINTAINED BY THE CONTRACTOR IN THE MATERIALS STORAGE AREA ON-SITE AND UNDER COVER. AS APPROPRIATE, EQUIPMENT AND MATERIALS MAY INCLUDE ITEMS SUCH AS BOOMS, DUST PANS, MOPS, RAGS, GLOVES, GOGGLES, KITTY LITTER, SAND, SAWDUST, AND PLASTIC AND METAL TRASH CONTAINERS SPECIFICALLY FOR CLEAN UP PURPOSES.
- 12.4.4. ALL SPILLS WILL BE CLEANED IMMEDIATELY AFTER DISCOVERY AND THE MATERIALS DISPOSED OF PROPERLY. THE SPILL AREA WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.
- 12.4.5. THE CONTRACTOR'S RESPONSIBLE PARTY WILL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT THE SITE SUPERINTENDENT HAS HAD APPROPRIATE TRAINING FOR HAZARDOUS MATERIALS HANDLING, SPILL MANAGEMENT, AND CLEANUP.
- 12.4.6. IF SPILLS REPRESENT AN IMMINENT THREAT OF ESCAPING THE SITE AND ENTERING RECEIVING WATERS, PERSONNEL WILL RESPOND IMMEDIATELY TO CONTAIN THE RELEASE AND NOTIFY THE SUPERINTENDENT AFTER THE SITUATION HAS BEEN STABILIZED.
- 12.4.7. IF AN OIL SHEEN IS OBSERVED ON SURFACE WATER (E.G. SETTLING PONDS, DETENTION PONDS, SWALES), ACTION WILL BE TAKEN IMMEDIATELY TO REMOVE THE MATERIAL CAUSING THE SHEEN. THE CONTRACTOR WILL USE APPROPRIATE MATERIALS TO CONTAIN AND ABSORB THE SPILL. THE SOURCE OF THE OIL SHEEN WILL ALSO BE IDENTIFIED AND REMOVED OR REPAIRED AS NECESSARY TO PREVENT FURTHER RELEASES.
- 12.4.8. IF A SPILL OCCURS THE CONTRACTOR'S SITE SUPERINTENDENT SHALL BE RESPONSIBLE FOR COMPLETING THE SPILL REPORTING FORM AND FOR REPORTING THE SPILL TO THE TDOT CONSTRUCTION SUPERVISOR AND/OR PROJECT ENGINEER. ALL SPILLS MUST BE REPORTED TO THE APPROPRIATE AGENCY, AND MEASURES SHALL BE TAKEN IMMEDIATELY TO PREVENT THE POLLUTION OF WATERS OF THE STATE/U.S., INCLUDING GROUNDWATER, SHOULD A SPILL OCCUR.
- 12.4.9. APPROPRIATE CLEANUP MATERIALS AND EQUIPMENT SHALL BE MAINTAINED BY THE CONTRACTOR IN THE MATERIALS STORAGE AREA ON-SITE AND UNDER COVER. SPILL RESPONSE EQUIPMENT SHALL BE INSPECTED AND MAINTAINED BY THE CONTRACTOR AS NECESSARY TO REPLACE ANY MATERIALS USED IN SPILL RESPONSE ACTIVITIES.

12.5. SPILL NOTIFICATION (5.1)

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:

- 12.5.1. THE TDOT PROJECT SUPERVISOR IS RESPONSIBLE FOR NOTIFYING THE REGIONAL ENVIRONMENTAL COORDINATOR OR ASSISTANT REGIONAL ENVIRONMENTAL COORDINATOR AS SOON AS HE OR SHE HAS KNOWLEDGE OF THE DISCHARGE.
- 12.5.2. THE TDOT REGIONAL ENVIRONMENTAL COORDINATOR WILL NOTIFY THE LOCAL TDEC ENVIRONMENTAL FIELD OFFICE AND ANY OTHER APPLICABLE REGULATORY AGENCIES WITHIN 24 HOURS OF THE SPILL.
- 12.5.3. A WRITTEN DESCRIPTION OF THE RELEASE, DATE OF RELEASE AND CIRCUMSTANCES LEADING TO THE RELEASE, WHAT ACTIONS WERE TAKEN TO MITIGATE EFFECTS OF THE RELEASE, AND STEPS TAKEN TO MINIMIZE THE CHANCE OF FUTURE OCCURRENCES WILL BE SUBMITTED TO THE APPROPRIATE TDEC

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ENVIRONMENTAL FIELD OFFICE WITHIN 14 DAYS OF KNOWLEDGE OF THE RELEASE.

12.5.4. THE SWPPP MUST BE MODIFIED WITHIN 14 DAYS OF KNOWLEDGE OF THE RELEASE PROVIDING A DESCRIPTION OF THE RELEASE, CIRCUMSTANCES LEADING TO THE RELEASE, AND THE DATE OF RELEASE. THE SWPPP WILL BE REVIEWED AND MODIFIED AS NECESSARY TO IDENTIFY MEASURES TO PREVENT THE REOCCURRENCE OF SUCH RELEASES AND TO RESPOND TO SUCH RELEASES.

13. RECORD-KEEPING

13.1. REQUIRED RECORDS

TDOT OR THEIR DESIGNEE WILL MAINTAIN AT THE SITE THE FOLLOWING RECORDS OF CONSTRUCTION ACTIVITIES (3.5.3.1.m) (6.2.1):

- 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
- RECORDS EPSC INSPECTION REPORTS AND CORRECTIVE MEASURES
- RECORDS OF QUALITY ASSURANCE SITE ASSESSMENTS
- COPY OF SITE EPSC INSPECTOR'S TDEC LEVEL 1 CERTIFICATION

13.2. RAINFALL MONITORING PLAN (3.5.3.1.o):

13.2.1. EQUIPMENT

AT A MINIMUM, THE CONTRACTOR WILL INSTALL A FENCE POST TYPE RAIN GAUGE TO MEASURE RAINFALL. THE STANDARD FENCE POST RAIN GAUGE WILL BE A WEDGE-SHAPED GAUGE THAT MEASURES UP TO 6 INCHES OF RAINFALL. AN ENGLISH SCALE WILL BE PROVIDED ON ONE FACE, WITH A METRIC SCALE ON THE OTHER FACE. GRADUATION WILL BE PERMANENTLY MOLDED IN DURABLE WEATHER-RESISTANT PLASTIC. THE MINIMUM GRADUATION WILL BE 0.01 INCH (OR 0.1MM). AN ALUMINUM BRACKET WITH SCREWS MAY BE USED TO MOUNT THE GAUGE ON A WOODEN SUPPORT.

13.2.2. LOCATION

THE RAIN GAUGE WILL BE LOCATED AT OR ALONG THE PROJECT SITE, AS DEFINED IN THE NOI OF THE NPDES PERMIT, IN AN OPEN AREA SUCH THAT THE MEASUREMENT WILL NOT BE INFLUENCED BY OUTSIDE FACTORS (I.E. OVERHANGS, GUTTER, TREES, ETC). AT LEAST ONE RAIN GAUGE PER LINEAR MILE IS REQUIRED ALONG (AS MEASURED ALONG THE CENTERLINE OF THE PRIMARY ALIGNMENT) THE PROJECT WHERE CLEARING, GRUBBING, EXCAVATION, GRADING, CUTTING OR FILLING IS ACTIVELY PERFORMED, OR EXPOSED SOIL HAS NOT YET BEEN PERMANENTLY STABILIZED.

13.2.3. METHODS

RAINFALL MONITORING WILL BE INITIATED PRIOR TO CLEARING, GRUBBING, EXCAVATION, GRADING, CUTTING, OR FILLING, EXCEPT AS SUCH MINIMAL CLEARING MAY BE NECESSARY TO INSTALL A RAIN GAUGE IN AN OPEN AREA. THE RAIN GAUGE WILL BE CHECKED FOR OPERATIONAL SOUNDNESS DAILY (DURING NORMAL BUSINESS HOURS) IN WET TIMES AND WEEKLY IN DRY TIMES. GAUGES WILL BE REPAIRED OR REPLACED ON THE SAME DAY IF FOUND TO BE NON-OPERATIONAL OR MISSING.

- 13.2.4. EACH RAIN GAUGE WILL BE READ (FOR DETAILED RECORDS OF RAINFALL) AND EMPTIED AFTER EVERY RAINFALL EVENT OCCURRING ON THE PROJECT SITE AT APPROXIMATELY THE SAME TIME OF THE DAY (DURING NORMAL BUSINESS HOURS). DURING PERIODS OF DRY CONDITIONS, IT WILL NOT BE NECESSARY TO READ THE RAIN GAUGE EVERY DAY. IN LIEU OF THIS REQUIREMENT ON WEEKENDS AND ON STATE HOLIDAYS, THE RAIN GAUGES CAN BE EMPTIED THE NEXT BUSINESS DAY AND A REFERENCE SITE USED FOR A RECORD OF DAILY AMOUNT OF PRECIPITATION FOR THOSE DAYS. A REFERENCE SITE IS THE DOCUMENTATION FROM THE CLOSEST GAUGE WITHIN PROXIMITY OF THE PROJECT FROM A RECOGNIZED SOURCE SUCH AS THE NOAA NATIONAL WEATHER SERVICE.
- 13.2.5. DETAILED RECORDS WILL BE RECORDED OF RAINFALL EVENTS INCLUDE DATES, AMOUNTS OF RAINFALL, AND THE APPROXIMATE DURATION (OR THE STARTING AND ENDING TIMES). THE RAINFALL RECORDS SHALL BE RECORDED ON THE TDOT RAINFALL RECORD SHEET AND SHALL BE MAINTAINED IN THE "DOCUMENTATION AND PERMITS" BINDER.

- 13.2.6. IF, IN THE EVENT THAT THE RAINFALL EVENT IS STILL IN PROGRESS AT THE DAILY RECORDING TIME, THE GAUGE WILL BE EMPTIED AND THE RECORD WILL INDICATE THAT THE STORM EVENT WAS STILL IN PROGRESS.
- 13.2.7. RAIN GAUGE INFORMATION (DETAILED RECORDS), INCLUDING THE LOCATION OF THE NEAREST OUTFALL, WILL BE RECORDED ON THE EPSC INSPECTION REPORT FORMS AT THE TIME OF MEASUREMENT.

13.3. KEEPING PLANS CURRENT (3.4)

TDOT OR THEIR DESIGNEE WILL MODIFY AND UPDATE THE SWPPP WHEN ANY OF THE FOLLOWING CONDITIONS APPLY:

- WHENEVER THERE IS A CHANGE IN THE SCOPE OF THE PROJECT THAT 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;
- 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 CONSTRUCTION ACTIVITY SOURCES, 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;
- WHEN ANY NEW OPERATOR AND/OR SUB-OPERATOR IS ASSIGNED OR RELIEVED OF THEIR RESPONSIBILITY TO IMPLEMENT A PORTION OF THE SWPPP;
- TO PREVENT A NEGATIVE IMPACT TO LEGALLY PROTECTED STATE OR FEDERALLY LISTED OR PROPOSED THREATENED OR ENDANGERED AQUATIC FAUNA;
- WHEN THERE IS A CHANGE IN CHEMICAL TREATMENT METHODS INCLUDING: USE OF DIFFERENT TREATMENT CHEMICALS, DIFFERENT DOSAGE OR APPLICATION RATES OR A DIFFERENT AREA OF APPLICATION NOT SPECIFIED ON THE EPSC PLANS.

ALL SWPPP REVISION(S) SHALL BE RECORDED WITHIN 7 DAYS BY THE PROJECT EPSC INSPECTOR.

- 13.4. WHEN A TMDL IS DEVELOPED FOR THE RECEIVING WATERS FOR A POLLUTANT OF CONCERN (SILTATION AND/OR HABITAT ALTERATION), CONSTRUCTION SHALL NOTIFY THE PERMITS SECTION FOR PROPER COORDINATION.
- 13.5. THE EPSC PLAN IS TO SERVE AS AN INITIAL GUIDE FOR SITE PERSONNEL AS THE CONSTRUCTION PROCESS DEVELOPS. IT MUST BE AMENDED. MODIFIED, AND UPDATED WHENEVER EPSC INSPECTIONS INDICATE, OR WHERE STATE OR FEDERAL REGULATORY OFFICIALS DETERMINE EPSC MEASURES ARE PROVING INEFFECTIVE IN ELIMINATING OR SIGNIFICANTLY MINIMIZING POLLUTANT SOURCES OR ARE OTHERWISE NOT ACHIEVING THE GENERAL OBJECTIVES OF CONTROLLING POLLUTANTS IN STORMWATER DISCHARGES ASSOCIATED WITH THE CONSTRUCTION ACTIVITY. THE STAGES DEPICTED IN THE EPSC PLANS MAY NOT COINCIDE WITH THE ACTUAL STAGES OF CONSTRUCTION ESTABLISHED BY THE CONTRACTOR DURING CONSTRUCTION. THUS MODIFICATIONS WILL BE REQUIRED TO ENSURE THE EPSC PLAN IS MAINTAINED TO DEPICT CURRENT SITE CONDITIONS. IT SHOULD BE MAINTAINED SUCH THAT IT WILL ALWAYS REFLECT THE MEASURES THAT ARE INSTALLED DURING THE VARIOUS STAGES OF CONSTRUCTION. IT IS IMPRACTICAL TO DETERMINE ALL THE INTERMEDIATE PHASES OF CONSTRUCTION THAT WILL OCCUR, THUS THESE DOCUMENTS WILL HAVE TO BE UPDATED THROUGHOUT THE LIFE OF THE CONSTRUCTION PROJECT. THE ENVIRONMENTAL DIVISION MAY BE CONTACTED FOR GUIDANCE ON SPECIFIC SWPPP NEEDS. A COPY OF ANY REGULATORY CORRESPONDENCE REGARDING THE EFFECTIVENESS OF THE SWPPP OR EPSC CONTROLS SHALL BE RETAINED IN THE SWPPP.

13.6. MAKING PLANS ACCESSIBLE

13.6.1. TDOT WILL RETAIN A COPY OF THIS SWPPP (INCLUDING A COPY OF THE "DOCUMENTATION AND PERMITS" BINDER AT THE CONSTRUCTION SITE (OR OTHER LOCATION ACCESSIBLE TO TDEC AND THE PUBLIC) FROM THE DATE CONSTRUCTION COMMENCES TO THE DATE OF FINAL STABILIZATION. TDOT WILL HAVE A COPY OF THE SWPPP AVAILABLE AT THE LOCATION WHERE WORK IS OCCURRING ON-SITE FOR THE USE OF OPERATORS AND THOSE IDENTIFIED AS HAVING

RESPONSIBILITIES UNDER THE SWPPP WHENEVER THEY ARE ON THE CONSTRUCTION SITE (6.2).

- 13.6.2. PRIOR TO THE INITIATION OF LAND DISTURBING ACTIVITIES AND UNTIL THE SITE HAS MET THE FINAL STABILIZATION CRITERIA, TDOT OR THEIR DESIGNEE WILL POST A NOTICE NEAR THE MAIN ENTRANCE OF THE CONSTRUCTION SITE WITH THE FOLLOWING INFORMATION (3.3.3) (6.2.1):
 - A COPY OF THE NOTICE OF COVERAGE (NOC) WITH THE NPDES PERMIT NUMBER FOR THE PROJECT;
 - THE INDIVIDUAL NAME, COMPANY NAME, E-MAIL ADDRESS (IF APPLICABLE) AND TELEPHONE NUMBER OF THE LOCAL PROJECT SITE OWNER AND OPERATOR CONTACT;
 - A BRIEF DESCRIPTION OF THE PROJECT; AND
 - THE LOCATION OF THE SWPPP.
- 13.6.3. ALL INFORMATION DESCRIBED IN SECTION 10.3.2 MUST BE MAINTAINED IN LEGIBLE CONDITION. IF POSTING THIS INFORMATION NEAR A MAIN ENTRANCE IS INFEASIBLE DUE TO SAFETY CONCERNS, THE NOTICE SHALL BE POSTED IN A LOCAL BUILDING. THE NOTICE MUST BE PLACED IN A PUBLICLY ACCESSIBLE LOCATION WHERE CONSTRUCTION IS ACTIVELY UNDERWAY AND MOVED AS NECESSARY.

13.7. NOTICE OF TERMINATION (8.0)

- 13.7.1. WHEN ALL STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES THAT ARE AUTHORIZED BY THE PERMIT ARE ELIMINATED BY FINAL STABILIZATION, THE TDOT REGIONAL ENGINEER WILL SUBMIT A NOTICE OF TERMINATION (NOT) THAT IS SIGNED IN ACCORDANCE WITH THE PERMIT TO THE TDEC CENTRAL OFFICE IN NASHVILLE, TN.
- 13.7.2. FOR THE PURPOSES OF THE CERTIFICATION REQUIRED BY THE NOT, THE ELIMINATION OF STORMWATER DISCHARGES ASSOCIATED WITH THE CONSTRUCTION ACTIVITY MEANS THE FOLLOWING:
 - ALL EARTH-DISTURBING ACTIVITIES ON THE SITE ARE COMPLETED AND ALL DISTURBED SOILS AT THE PORTION OF THE CONSTRUCTION SITE WHERE THE OPERATOR HAD CONTROL HAVE BEEN FINALLY STABILIZED: AND
 - ALL CONSTRUCTION MATERIALS, WASTE AND WASTE HANDLING DEVICES, AND ALL EQUIPMENT, AND VEHICLES THAT WERE USED DURING CONSTRUCTION HAVE BEEN REMOVED AND PROPERLY DISPOSED; AND
 - ALL STORMWATER CONTROLS THAT WERE INSTALLED AND MAINTAINED DURING CONSTRUCTION, EXCEPT THOSE THAT ARE INTENDED FOR LONG-TERM USE FOLLOWING TERMINATION OF PERMIT COVERAGE, HAVE BEEN REMOVED; AND
 - ALL POTENTIAL POLLUTANTS AND POLLUTANT GENERATING ACTIVITIES ASSOCIATED WITH CONSTRUCTION HAVE BEEN REMOVED; AND
 - THE PERMITTEE HAS IDENTIFIED WHO IS RESPONSIBLE FOR ONGOING MAINTENANCE OF ANY STORMWATER CONTROLS LEFT ON THE SITE FOR LONG-TERM USE FOLLOWING TERMINATION OF PERMIT COVERAGE; AND
 - TEMPORARY EPSC MEASURES HAVE BEEN OR WILL BE REMOVED AT AN APPROPRIATE TIME TO ENSURE FINAL STABILIZATION IS MAINTAINED; AND
 - 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.

13.8. RETENTION OF RECORDS (6.2)

TDOT WILL RETAIN COPIES OF THE SWPPP, ALL REPORTS REQUIRED BY THE PERMIT, AND RECORDS OF ALL DATA USED TO COMPLETE THE NOTICE OF INTENT FOR THE PROJECT FOR A PERIOD OF AT LEAST THREE (3) YEARS FROM THE DATE THE NOT WAS FILED.

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14. SITE WIDE/PRIMARY PERMITTEE CERTIFICATION (7.7.5)

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.

In 0m5
THORIZED DOT PERSONNEL SIGNATURE (3.3.1)
JIM OZMENT
PRINTED NAME
ENVIRONMENTAL DIVISION DIRECTOR
TITLE
07-15-2016

15. SECONDARY PERMITTEE (OPERATOR) CERTIFICATION (7.7.6)

DATE

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.

AUTHORIZED OPERATOR (CONTRACTOR) SIGNATURE (3.3.1)
PRINTED NAME
PRINTED NAIVIE
TITLE
DATE

TYPE YEAR PROJECT NO. SHEET NO.

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16. ENVIRONMENTAL PERMITS (9.0)

LIST ALL ENVIRONMENTAL PERMITS AND EXPIRATION DATES FOR PROJECT (TO BE COMPLETED AT THE ENVIRONMENTAL PRECONSTRUCTION MEETING BY TDOT CONSTRUCTION OR THEIR DESIGNEE):

ENVIRONMENTAL PERMITS							
PERMIT	YES OR NO	PERMIT OR TRACKING NO.	EXPIRATION DATE*				
TDEC ARAP							
CORPS OF ENGINEERS (USACE)							
TVA 26A							
TDEC CGP							
OTHER:							

^{*}THE TDOT ENVIRONMENTAL DIVISION MUST BE NOTIFIED SIX MONTHS PRIOR TO PERMIT EXPIRATION DATE.

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STATE OF TENNESSEE

DEPARTMENT OF TRANSPORTATION

YPE	YEAR	PROJECT NO.	SHEET NO.
NST.	2016	IM/NH-40-3(149)	S-8
.E.	2016	41 001 -1 1 48-44	

4.2.2 OUTFALL TABLE (3.5.1.d, 5.4.1.f)

EPSC STAGE	OUTFALL LABEL	SUB OUT-FALL	STATION CL, LT OR RT	SLOPE WITHIN ROW (%)	STAGE 1 (P1) DRAINAGE AREA (AC)	STAGE 2 (P2) DRAINAGE AREA (AC)	STAGE 3 (P3) DRAINAGE AREA (AC)	SEDIMENT BASIN OR EQUIVALENT MEASURE(S) (YES, NO OR N/A)	RECEIVING NATURAL RESOURCE NAME OR LABEL	COMMENTS
1-3	OUT-1		637+05 LT	10	3.9	3.9	3.9	N/A		
1-3	OUT-2		639+02 LT	4.7	1.7	1.7	1.7	N/A		
1-3	OUT-3		641+90 LT	0.39	0.25	0.25	0.25	N/A		
1-3	OUT-4		643+70 LT	5.3	3.8	3.8	3.8	N/A		
1-3	OUT-5		650+30 LT	0.38	0.4	0.4	0.4	N/A		
1-3	OUT-6		652+90 LT	3.7	0.5	0.5	0.5	N/A		
1-3	OUT-7		659+30 LT	4.6	0.7	0.7	0.7	N/A		
1-3	OUT-8		663+15 LT	2.3	1.0	1.0	1.0	N/A		
1-3	OUT-9		668+75 LT	3.9	0.23	0.23	0.23	N/A	WWC-1 / EPH-1	
1-3	OUT-10		672+50 LT	12	0.19	0.19	0.19	N/A	WWC-1 / EPH-1	
1-3	OUT-11		673+05 LT	20	0.31	0.31	0.31	N/A	WWC-1 / EPH-1	
1-3	OUT-12		682+70 LT	2.5	4.0	4.0	4.0	N/A		
1-3	OUT-13		686+40 LT	2.2	0.49	0.49	0.49	N/A		
1-3	OUT-14		697+00 LT	2	0.42	0.42	0.42	N/A		
1-3	OUT-15		698+25 LT	10	1.7	1.7	1.7	N/A		
1-3	OUT-16		710+00 LT	0.5	4.1	4.1	4.1	N/A		
1-3	OUT-17		719+80 LT	16	9.0	9.0	9.0	YES	WWC-2 / EPH-2	APPROX. 7 ACRES FROM NON-DISTURBE AREAS
1-3	OUT-18		726+00 LT	30	0.84	0.84	0.84	N/A	WWC-2 / EPH-2	7 11 (27 (0
1-3	OUT-19		731+50 LT	30	0.68	0.68	0.68	N/A	WWC-2 / EPH-2	
1-3	OUT-20		733+50 LT	36	0.87	0.87	0.87	N/A	WWC-2 / EPH-2	
				+						

STATE OF TENNESSEE

DEPARTMENT OF TRANSPORTATION

SEALED BY

^{*} SEE COMMENTS SECTION FOR ADDITIONAL INFORMATION REGARDING DRAINAGE AREA.

FILE NO

Index Of Sheets
SHEET NAME

TITLE SHEET
TYPICAL SECTIONS AND PAVEMENT SCHEDULE
PROPERTY MAPS

PRESENT LAYOUTS
PROPOSED LAYOUTS
PROFILES

DRAINAGE MAPS
CULVERT CROSS-SECTIONS
EROSIONS PREVENTION AND SEDIMENT CONTROL NOTES
EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) PLANS
ROADWAY CROSS SECTIONS

SHEET NO.

3, 3A - 3H

4 - 12

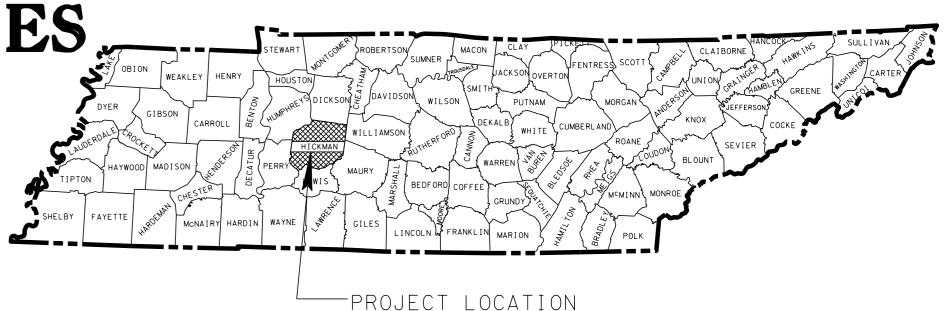
19 - 36 37 - 115 STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING

4A - 12A 4B - 12B 13, 13A - 13H HICKMAN&HUMPHREYS COUNTIES

WESTBOUND NEAR MILE MARKER 161 (TRUCK CLIMBING LANE)

RIGHT OF WAY

STATE HIGHWAY NO. I40 F.A.H.S. NO. 40



41001-1148-44 BEGIN PROJECT NO. IM/NH-40-3(149) STA. 625+60.00 R.O.W. HICKMAN CO. L.M. 0.22

N 601398.6041 E 1518971.8030 Milliown Person St. 1980 And 1

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 JANUARY 1, 2015 AND ADDITIONAL SPECIFICATIONS AND SPECIAL PROVISIONS CONTAINED IN THE PLANS AND IN THE PROPOSAL CONTRACT.

CHECKED BY <u>BRADLEY MARTIN</u>

R.O.W. PROJECT LENGTH

SCALE: 1"= 5280'

2.053 MILES

41001-1148-44 END PROJECT NO. IM/NH-40-3(149)

STA. 733+99.67 R.O.W. HICKMAN CO. L.M. 1.33 N 601692.8445

E 1520041.1295

TO NASHVILLE

SEALED BY

SEALED BY

AGRICULTURE

R.O.W.

FIELD

NO EXCLUSIONS
NO EQUATIONS

TRAFFIC	DATA
ADT (2015)	16578
ADT (2035)	19895
DHV (2035)	1790
D	90 - 100
T (ADT)	40 %
T (DHV)	30 %
V	70 MPH

APPROVED: PAUL D. DEGGES, CHIEF ENGINEER

DATE:



U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED:

DIVISION ADMINISTRATOR

DATE

TDOT ROAD SP. SV. 2 <u>Robert Braun, P.E.</u>

DESIGNER <u>SHANNON HENRY</u>

P.E. NO. 41001-1148-44 (DESIGN)

PIN NO.<u>114156.00</u>

SURVEY DATE: 10-29-2012

sktop/D backup/PROJECTS/HickmanCounty/140WTruckCl

Index Of Sheets SEE SHEET IA

STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION BUREAU OF ENGINEERING

TENN. 2016 FED. AID PROJ. NO. IM/NH-40-3(149) 41001-3151-44 STATE PROJ. NO.

HUMPHREYS-HICKMAN COUNTIES

I - 40WESTBOUND NEAR MILE MARKER 161 (TRUCK CLIMBING LANE)

CONSTRUCTION

STATE HIGHWAY NO. 140 F.A.H.S. NO. 40

41001-3151-44

BEGIN PROJECT NO. IM/NH-40-3(149)

STA. 625+60.00 CONST. HICKMAN CO. L.M. 0.22 N 597767.5131 E 1512230,4991



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.

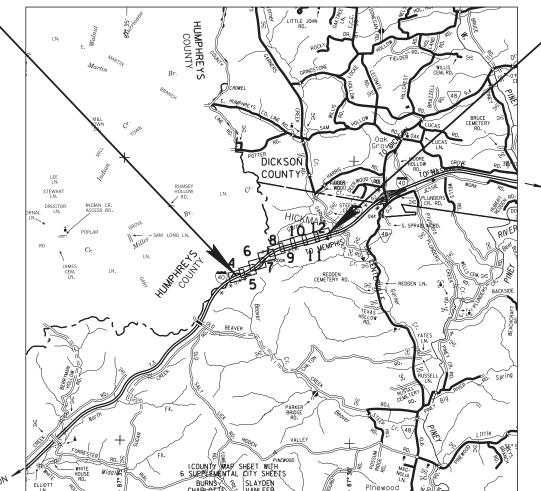
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TDOT ROAD C.E. MANAGER 1 ROBERT BRAUN, P.E.

DESIGNER SHANNON HENRY, P.E. CHECKED BY DONNIE SIRICHANTO, P.E.

P.E. NO. 41001-1148-44 (DESIGN)

PIN NO. 114156.00



SCALE: 1"= 5280

ROADWAY LENGTH BRIDGE LENGTH BOX BRIDGE LENGTH PROJECT LENGTH

2.053 MILES 0.000 MILES 0.000 MILES 2.053 MILES 41001-3151-44

-PROJECT LOCATION

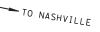
END PROJECT NO. IM/NH-40-3(149)

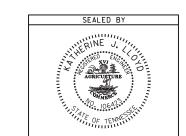
STA. 733+99.67 CONST.

HICKMAN CO. L.M. 1.33

N 602225.5196

E 1521927.4490





NO EXCLUSIONS NO EQUATIONS

	TRAFFIC	DATA
ADT	(2016)	16430
ADT	(2036)	19720
DHV	(2036)	1656
D		50 - 50
T (A	DT)	44 %
T (D	HV)	29 %
٧		70 MPH

PAUL D. DEGGES, CHIEF ENGINEER

DATE:

JOHN SCHROER, COMMISSIONER

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION APPROVED: DIVISION ADMINISTRATOR DATE

SURVEY DATE: 10-29-2012

ROADWAY INDEX

STANDARD ROADWAY DRAWINGS

SHEET NAME	SHEET NO.
TITLE SHEET	1
ROADWAY INDEX AND STANDARD ROADWAY DRAWINGS	1A
STANDARD ROADWAY DRAWINGS	1A1
STANDARD TRAFFIC OPERATIONS DRAWINGS	1A2
ESTIMATED ROADWAY QUANTITIES	2
TYPICAL SECTIONS AND PAVING SCHEDULE	2A
TYPICAL SECTIONS AND DETAILS	2A1
GENERAL NOTES	2B - 2C
SPECIAL NOTES	2D
TABULATED QUANTITIES	2E
RIGHT-OF-WAY NOTES, UTILITY NOTES and UTILITY OWNERS	3
PROPERTY MAP(S) AND RIGHT-OF-WAY ACQUISITION TABLE(S)	3A - 3I
PRESENT LAYOUT(S)	4 – 12
PROPOSED LAYOUT(S)	4A – 12A
PROPOSED PROFILE(S)	4B – 12B
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EROSION PREVENTION & SEDIMENT CONTROL (EPSC) NOTES	18
EROSION PREVENTION & SEDIMENT CONTROL (EPSC) LEGEND & TABULATION	10
EROSION PREVENTION & SEDIMENT CONTROL (EPSC) PLANS	
TRAFFIC CONTROL NOTES	
TRAFFIC CONTROL PLANS	
SOILS SHEET(S)	38, 38A - 38X
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STORM WATER POLLUTION PREVENTION PLAN (SWPPP) INDEX	S-1
UTILITIES INDEX	U1-1
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RD-L-2	09-05-01	STANDARD LEGEND FOR UTILITY INSTALLATIONS
RD-L-5	05-01-08	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL
RD-L-6	03-30-10	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL
RD-L-7	05-24-12	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL
TYPICAL S	ECTIONS	AND DESIGN CRITERIA
RD01-TS-2A	10-15-02	DESIGN STANDARDS 4 AND 6 LANE COLLECTOR HIGHWAYS WITH DEPRESSED MEDIANS
RD01-SE-3	10-15-02	RURAL SUPERELEVATION DETAILS
SLOPE DE	VELOPME	NT
RD01-S-11	04-04-03	DESIGN AND CONSTRUCTION DETAILS FOR ROADSIDE SLOPE DEVELOPMENT
RD01-S-11A	10-15-02	ROADSIDE DITCH DETAILS FOR DESIGN AND CONSTRUCTION
UNDERDRA	AINS	
RD-UD-4	01-25-16	UNDERDRAIN LATERAL DETAILS
RD-UD-6	12-18-94	LATERAL UNDERDRAIN ENDWALL DETAIL FOR 1:1 & 2:1 SLOPES
RD-UD-7	12-18-94	LATERAL UNDERDRAIN ENDWALL DETAIL FOR 3:1 & 4:1 SLOPES
RD-UD-8		LATERAL UNDERDRAIN ENDWALL DETAIL FOR 5:1 SLOPES

DESCRIPTION

STANDARD LEGEND

STANDARD ABBREVIATIONS

CULVERTS AND FLUMES			
D-PB-1	01-02-13	STANDARD DETAILS FOR CONCRETE PIPE INSTALLATION	
D-PB-2	01-29-14	STANDARD DETAILS FOR FLEXIBLE PIPE INSTALLATION	
D-PB-3		INDUCED TRENCH SOIL EMBANKMENT FOR PIPE CULVERT INSTALLATION	

SLOPES

12-18-94 LATERAL UNDERDRAIN ENDWALL DETAIL FOR 6:1

5,	ΑF	ET	Υ	CRO	SS	DRAIN	END	WALLS	

PIPE CULVERTS AND ENDWALLS

D-PE-18A	01-06-15	18" CONCRETE ENDWALL CROSS DRAIN
D-PE-18B		18" CONCRETE ENDWALL CROSS DRAIN
D-PE-99	11-01-13	PIPE GRATE & SKEWED CONNECTION DETAILS FOR "U"

PROTECTED ENDWALLS

DWG.

RD-A-1

RD-L-1

RD-UD-9

REV.

12-18-99

10-26-94

ROADWAY DESIGN

D-PE-1	02-12-76	TYPE "A" CONCRETE ENDWALL (2:1 SLOPE, 36" TO 78"
D-PE-4	02-03-16	STRAIGHT TYPE CONCRETE ENDWALL
D-PE-9	04-25-90	CONCRETE ENDWALLS TYPE "B" (FOR ROUND & SIDE TAPERED INLETS, PIPE SIZES 15" TO 78", ALL SKEWS.
		2:1 AND 4:1 SLOPES) 1976

DWG.	REV.	DESCRIPTION
D-PE-9A	10-25-82	GENERAL DIMENSIONS QUANTITIES, ROUND PIPE CONCRETE ENDWALLS TYPE "B" (PIPE SIZES 15" TO 78", ALL SKEWS, 2:1 AND 4:1 SLOPES) 1976
D-PE-9B		GENERAL DIMENSIONS AND QUANTITIES, SIDE TAPER INLETS, CONCRETE ENDWALLS TYPE "B" (PIPE SIZES 15" TO 78", ALL SKEWS, 2:1 AND 4:1 SLOPES) 1976
D-PE-9C		BILL OF STEEL (SHEET 1 OF 4) CONCRETE ENDWALLS TYPE "B" (FOR CONCRETE ROUND AND SIDE TAPERED INLET, PIPE SIZES 15" TO 78", ALL SKEWS, 2:1 SLOPE) 1976
D-PE-9D		BILL OF STEEL (SHEET 2 OF 4) CONCRETE ENDWALLS TYPE "B" (FOR CONCRETE ROUND AND SIDE TAPERED INLET, PIPE SIZES 15" TO 78", ALL SKEWS, 4:1 SLOPE) 1976
JUNCTION	BOXES	
D- IRS-1	08-01-12	STANDARD 32" X 32" SOLIARE CONCRETE NO. 1

D-JBS-1	08-01-12	STANDARD 32" X 32" SQUARE CONCRETE NO. 1 JUNCTION BOX
D-JBS-2	08-01-12	STANDARD 4' X 4' SQUARE CONCRETE NO. 2 JUNCTION BOX

ROADWAY AND PAVEMENT APPURTENANCES

CONCRETE PAVEMENT

RP-J-9	02-02-12	CONTRACTION AND CONSTRUCTION JOINTS FOR
		CONCRETE DAVEMENT

SAFETY DEVICES AND FENCES

CLEAR ZONE AND SAFETY PLANS

3-62-1		CLEAR ZONE CRITERIA
S-PL-1		SAFETY PLAN AT ROADSIDE HAZARDS
S-PL-6	02-08-16	SAFETY PLAN: SAFETY HARDWARE PLACEMENT

31" GUARDRAIL

S-GR31-1	12-01-14	W-BEAM GUARDRAIL
3-GR3 I- I	12-01-14	VV-DEAM GUARDRAIL

GUARDRAIL TERMINALS

S-GRT-2	11-03-14	TYPE 38 GUARDRAIL TERMINAL
S-GRT-2P		EARTH PAD FOR TYPE 38 TERMINAL
S-GRT-4	04-23-15	TYPE 13 GUARDRAIL TERMINAL (TRAILING

GUARDRAIL ANCHORS

S-GRA-3	05-01-15	GUARDRAIL ANCHOR FOR TYPE 21, 13 AND IN-LINE
		TERMINALO

TERMINALS

FENCE AND RIGHT-OF-WAY MARKERS

C F 4	05 04 40	LUCITY/CIDILITY EFNOR	
S-F-1	05-24-12	HIGH VISIBILITY FENCE	



IM/NH-40-3(149)

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ROADWAY INDEX AND STANDARD ROADWAY DRAWINGS

DWG. NO. REV.	DESCRIPTION	DWG. NO. REV.	DESCRIPTION

0	012010	III II
T-M-6	06-22-12	MARKING DETAIL FOR EXPRESSWAY & FREEWAY INTERCHANGES
T-M-8	01-12-12	MARKING DETAILS FOR EXPRESSWAYS & FREEWAYS
T-M-15		ASPHALT SHOULDER RUMBLE STRIP INSTALLATION DETAILS FOR INTERSTATE AND ACCESS CONTROLLED ROUTES
WORK ZON	NES	
T-FAB-1	05-27-97	FLASHING YELLOW ARROW BOARD
T-PBR-1	06-30-09	INTERCONNECTED PORTABLE BARRIER RAIL
T-PBR-2	11-01-11	DETAIL FOR VERTICAL PANELS AND FLEXIBLE DELINEATORS
T-WZ-10	04-02-12	ADVANCE ROAD WORK SIGNING ON HIGHWAYS AND FREEWAYS
T-WZ-15	04-02-12	INTERIOR LANE CLOSURE ON FREEWAYS OR EXPRESSWAYS
T-WZ-16	03-13-09	LANE SHIFT ON DIVIDED HIGHWAYS AND FREEWAYS
T-WZ-18	03-13-09	SHOULDER CLOSURE DETAIL FOR FREEWAYS AND DIVIDED HIGHWAYS
T-WZ-21	03-15-11	LANE CLOSURE WITH LEFT HAND MERGE AND LANE SHIFT
EROSION F	PREVENTI	ON AND SEDIMENT CONTROL
DEWATER	ING DEVIC	CES
EC-STR-2	08-01-12	SEDIMENT FILTER BAGS
SLOPE DE	VICES	
EC-STR-3B	08-01-12	SILT FENCE
EC-STR-3C	08-01-12	SILT FENCE WITH WIRE BACKING
EC-STR-3E	04-01-08	SILT FENCE FABRIC JOINING DETAILS
EC-STR-8	06-10-14	FILTER SOCK
EC-STR-27	08-01-12	TEMPORARY SLOPE DRAIN AND BERM
EC-STR-34	08-01-12	EROSION CONTROL BLANKET FOR SLOPE INSTALLATION
DITCH DEV	/ICES	
EC-STR-6	08-01-12	ROCK CHECK DAM
EC-STR-6A	08-01-12	ENHANCED ROCK CHECK DAM
IN-STREAM	I DEVICES	3
EC-STR-25	08-01-12	TEMPORARY CULVERT CROSSING, CONSTRUCTION EXIT, CONSTRUCTION FORD
EC-STR-33	08-01-12	SUSPENDED PIPE DIVERSION (DOWNSTREAM)
EC-STR-33A	08-01-12	SUSPENDED PIPE DIVERSION (UPSTREAM)
EC-STR-36	08-01-12	TURF REINFORCEMENT MAT FOR CHANNEL INSTALLATION

DESCRIPTION

04-23-13 MARKING DETAILS FOR EXPRESSWAYS & FREEWAYS

DWG. NO. REV.

T-M-5

DESIGN - TRAFFIC CONTROL

PAVEMENT MARKINGS



IM/NH-40-3(149)

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

STANDARD ROADWAY DRAWINGS

1) 2) 8) 12)	105-01 201-01 202-03.01 203-01 203-02.01 203-04 203-04.02 203-06 203-10.15 204-08.01 209-02.05	CONSTRUCTION STAKES, LINES AND GRADES CLEARING AND GRUBBING REMOVAL OF ASPHALT PAVEMENT ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED) BORROW EXCAVATION (GRADED SOLID ROCK) PLACING AND SPREADING TOPSOIL STRIPPING & STOCKPILE TOPSOIL WATER	LS LS S.Y. C.Y. TON C.Y.	1 1 14453 73911 60296 2256
	201-01 202-03.01 203-01 203-02.01 203-04 203-04.02 203-06 203-10.15 204-08.01	CLEARING AND GRUBBING REMOVAL OF ASPHALT PAVEMENT ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED) BORROW EXCAVATION (GRADED SOLID ROCK) PLACING AND SPREADING TOPSOIL STRIPPING & STOCKPILE TOPSOIL	LS S.Y. C.Y. TON C.Y.	1 14453 73911 60296
	202-03.01 203-01 203-02.01 203-04 203-04.02 203-06 203-10.15 204-08.01	REMOVAL OF ASPHALT PAVEMENT ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED) BORROW EXCAVATION (GRADED SOLID ROCK) PLACING AND SPREADING TOPSOIL STRIPPING & STOCKPILE TOPSOIL	S.Y. C.Y. TON C.Y.	14453 73911 60296
	203-01 203-02.01 203-04 203-04.02 203-06 203-10.15 204-08.01	ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED) BORROW EXCAVATION (GRADED SOLID ROCK) PLACING AND SPREADING TOPSOIL STRIPPING & STOCKPILE TOPSOIL	C.Y. TON C.Y.	73911 60296
	203-02.01 203-04 203-04.02 203-06 203-10.15 204-08.01	BORROW EXCAVATION (GRADED SOLID ROCK) PLACING AND SPREADING TOPSOIL STRIPPING & STOCKPILE TOPSOIL	TON C.Y.	60296
7	203-04 203-04.02 203-06 203-10.15 204-08.01	PLACING AND SPREADING TOPSOIL STRIPPING & STOCKPILE TOPSOIL	C.Y.	
	203-04.02 203-06 203-10.15 204-08.01	STRIPPING & STOCKPILE TOPSOIL		
	203-06 203-10.15 204-08.01			2256
	203-10.15 204-08.01	TIMES	M.G.	129
	204-08.01	WASTE MATERIAL	C.Y.	49310
	A. C.	BACKFILL MATERIAL (FLOWABLE FILL)	C.Y.	270
1) 2)	709-07 05	12" TEMPORARY SLOPE DRAIN	L.F.	278
1) 2)	209-03.23	FILTER SOCK (24 INCH)	L.F.	825
1) 2)	209-05	SEDIMENT REMOVAL	C.Y.	262
1) 2)	209-08.02	TEMPORARY SILT FENCE (WITH BACKING)	L.F.	5280
	209-08.07	ROCK CHECK DAM PER	EACH	107
100	209-08.08	ENHANCED ROCK CHECK DAM	EACH	21
200000000000000000000000000000000000000	209-09.01	SANDBAGS	BAG	2655
	209-09.03	SEDIMENT FILTER BAG (15'X15')	EACH	1
1) 2) 5)	209-20.03	POLYETHYLENE SHEETING (6 MIL.MINIMUM)	S.Y.	79
1,2,0,	303-01	MINERAL AGGREGATE, TYPE A BASE, GRADING D	TON	39391
1	307-01.08	ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING B-M2	TON	1936
	307-03.01	ASPHALT CONCRETE MIX (PG76-22) (BPMB-HM) GRADING A	TON	6631
	307-03.02	PERF. GRADE ASPH. CEMENT (PG76-22) GRADING AS	TON	50
	307-03.03	AGGREGATE (BPMB-HM) GRADING AS	TON	1485
F	307-03.08	ASPHALT CONCRETE MIX (PG76-22) (BPMB-HM) GRADING B-M2	TON	1633
	402-01	BITUMINOUS MATERIAL FOR PRIME COAT (PC)	TON	41
	402-02	AGGREGATE FOR COVER MATERIAL (PC)	TON	160
-	403-01	BITUMINOUS MATERIAL FOR TACK COAT (TC)	TON	28
	411-01.07	ACS MIX (PG64-22) GRADING E SHOULDER	TON	931
18)	411-03.10	ACS MIX (PG0422) GRADING D	TON	3894
10/	411-12.01	SCORING SHOULDERS (CONTINUOUS) (16IN WIDTH)	L.M.	4.2
F	415-01.02	COLD PLANING BITUMINOUS PAVEMENT	S.Y.	37278
	607-03.02	18" CONCRETE PIPE CULVERT (CLASS III)	L.F.	40.5
1	607-05.02	24" CONCRETE PIPE CULVERT (CLASS III)	L.F.	58.5
	607-06.02	30" CONCRETE PIPE CULVERT (CLASS III)	L.F.	18.5
-	607-07.02	36" CONCRETE PIPE CULVERT (CLASS III)	L.F.	30.5
4)	611-02.10	JUNCTION BOX TYPE 1	EACH	7
/-	611-02.11	JUNCTION BOX TYPE 2	EACH	3
	611-07.01	CLASS A CONCRETE (PIPE ENDWALLS)	C.Y.	18.85
	611-07.02	STEEL BAR REINFORCEMENT (PIPE ENDWALLS)	LB.	1383
	611-07.55	18IN ENDWALL (CROSS DRAIN) 4:1	EACH	1
	611-07.56	18IN ENDWALL (CROSS DRAIN) 6:1	EACH	1
1) 2) 5)	621-03.04	30" TEMPORARY DRAINAGE PIPE	L.F.	1188
., _, ,,	621-05.02	TEMPORARY SHORING	LS	1
	703-01	CEMENT CONCRETE DITCH PAVING	C.Y.	18
-	705-02.02	SINGLE GUARDRAIL (TYPE 2)	L.F.	4494
	705-04.03	GUARDRAIL TERMINAL (TYPE 13)	EACH	7
	705-04.07	TAN ENERGY ABSORBING TERM (NCHRP 350, TL3)	EACH	6
3)	705-08.51	PORTABLE IMPACT ATTENUATOR NCHRP350 TL-3	EACH	1
- 'F	706-01	GUARDRAIL REMOVED	L.F.	2613
	707-08.11	HIGH-VISIBILITY CONSTRUCTION FENCE	L.F.	1973
1) 2) 7)	709-05.05	MACHINED RIP-RAP (CLASS A-3)	TON	200
1) 2) 6)	709-05.06	MACHINED RIP-RAP (CLASS A-1)	TON	41
1) 2) 9)	709-05.09	MACHINED RIP-RAP (CLASS C)	TON	62
, -/ -/	710-05	LATERAL UNDERDRAIN	L.F.	7900
	710-05	LATERAL UNDERDRAIN ENDWALL (1:1)	EACH	16
	710-06.10	LATERAL UNDERDRAIN ENDWALL (3:1)	EACH	3
+	710-06.12	LATERAL UNDERDRAIN ENDWALL (6:1)	EACH	23
<u></u>	10-00.10	ETILITIE ONDERDIVANT ENDITALE (U. I)	LAOIT	20

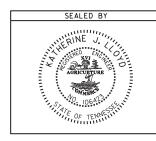
ESTIMATED ROADWAY QUANTITIES

ESTIMATED ROADWAY QUANTITIES CONT'D				
ITEM NO.	DESCRIPTION	UNIT	QUANTITY	

1				
i	712-01	TRAFFIC CONTROL	LS	1
	712-02.02	INTERCONNECTED PORTABLE BARRIER RAIL	L.F.	10840
	712-02.36	REMOVE AND RELOCATE PORTABLE BARRIER RAIL	L.F.	10840
	712-04.01	FLEXIBLE DRUMS (CHANNELIZATING)	EACH	188
	712-04.50	PORTABLE BARRIER RAIL DELINEATOR	EACH	542
	712-05.01	WARNING LIGHTS (TYPE A)	EACH	2
	712-06	SIGNS (CONSTRUCTION)	S.F.	354
	712-08.03	ARROW BOARD (TYPE C)	EACH	2
	712-08.10	MOBILE MESSAGE SIGN UNIT W/ATTENUATOR	HOUR	32
	713-02.04	DELINEATOR (MILE MARKER) & STEEL POST	EACH	2
	713-02.15	FLEXIBLE DELINEATOR (YELLOW)	EACH	155
17)	713-11.02	PERFORATED/KNOCKOUT SQUARE TUBE POST	LB.	74
	713-13.02	FLAT SHEET ALUMINUM SIGNS (0.080" THICK)	S.F.	8
	713-15	REMOVAL OF SIGNS, POSTS AND FOOTINGS	LS	1
	713-15.36	REMOVE SIGNS, SUPPORT AND FOOTING	EACH	2
	713-16.01	CHANGEABLE MESSAGE SIGN UNIT	EACH	2
	716-01.06	TEMPORARY RAISED PAVEMENT MARKER, WHITE	EACH	361
	716-01.07	TEMPORARY RAISED PAVEMENT MARKER, YELLOW	EACH	361
	716-01.23	SNWPLWBLE PVMT MRKRS (BI-DIR) (2 COLOR)	EACH	302
	716-01.30	REMOVAL OF SNOWPLOWABLE REFLECTIVE MARKER	EACH	151
	716-05.02	PAINTED PAVEMENT MARKINGS (8" BARRIER LINE)	L.F.	36210
	716-08.01	REMOVAL OF PAVEMENT MARKING (LINE)	L.F.	20117
	716-12.02	ENHANCED FLATLINE THERMO PVMT MRKNG (6IN LINE)	L.M.	6.5
	717-01	MOBILIZATION	LS	1
1)2)7)	740-10.03	GEOTEXTILE (TYPE III)(EROSION CONTROL)	S.Y.	333
1) 2)		GEOTEXTILE (TYPE IV)(STABILIZATION)	S.Y.	4885
1) 2) 13)	801-01.07	TEMPORARY SEEDING (WITH MULCH)	UNIT	262
1) 2) 15)	801-02	SEEDING (WITHOUT MULCH)	UNIT	8
1) 2) 11)		WATER (SEEDING & SODDING)	M.G.	96
1) 2)	803-01	SODDING (NEW SOD)	S.Y.	36405
1) 2) 15)	805-01.02	TURF REINFORCEMENT MAT (CLASS II)	S.Y.	871
1) 2) 14)		TURF REINFORCEMENT MAT (CLASS III)	S.Y.	980
1) 2) 16)	805-12.01	EROSION CONTROL BLANKET (TYPE I)	S.Y.	13225
10)		PROJECT MOWING	CYCL	5

NOTES

- 1) ALL QUANTITIES ARE TO BE USED AS DIRECTED BY THE ENGINEER.
- 2) SEE SUBSECTION 209.07 OF THE STANDARD SPECIFICATIONS FOR MAINTENANCE REPLACEMENT.
- 3) THIS ITEM SHALL BE A PORTABLE ENERGY ABSORBING TERMINAL MEETING THE REQUIREMENTS OF NCHRP 350 FOR TEST LEVEL 3. EXAMPLES WOULD BE A QUAD-GUARD, A REACT 350 OR A TRACC. THE PAY ITEM WILL INCLUDE FURNISHING AND INSTALLING ALL COMPONENETS AS SHOWN ON THE MANUFACTURER'S DRAWING.
- 4) AT THE ENGINEER'S DISCRETION, THE CONTRACTOR MAY SUBSTITUTE AN EQUIVALENT OR LARGER STRUCTURE PER TABLE 7-7 IN THE TDOT DRAINAGE MANUAL.
- 5) FOR USE WITH THE SUSPENDED PIPE DIVERSION.
- 6) FOR USE WITH THE TEMPORARY SLOPE DRAINS.
- 7) FOR USE WITH THE TEMPORARY CONSTRUCTION EXITS.
- 8) REFER TO SPECIAL NOTES SHEET 2F.
- 9) FOR USE AT CULVERT OUTLETS. SEE SHEETS 14 17.
- 10) ITEM INCLUDES LITTER AND TRASH REMOVAL. THIS WORK WILL NOT BE MEASURED AND PAID FOR DIRECTLY BUT WILL BE INCLUDED IN THE COST OF ITEM NO. 806-02.03, PROJECT MOWING, CYCL.
- 11) INCLUDES 27 M.G. FOR TEMPORARY SEEDING (WITH MULCH).
- 12) 313 C.Y. TO BE USED FOR TEMPORARY BERMS.
- 13) TO BE USED ON SOIL STOCKPILES.
- 14) TO BE USED OVER FILL TO BE PLACED OVER GRADED SOLID ROCK STATIONS 722+50 TO 726+00 AND STATIONS 732+00 TO 733+00.
- 15) TO BE USED IN "V" BOTTOM DITCH STA. 701+43 STA. 717+10.
- 16) TO BE USED ON 3:1 AND STEEPER SLOPES FOR TEMPORARY SOIL STABILITY UNTIL SOD IS PLACED.
- 17) USE P8 SIGN SUPPORT WITH 12.5 FEET LENGTH.
- 18) INCLUDES 2936 TONS FOR RESURFACING THE TWO EXISTING TRAFFIC LANES AND INSIDE SHOULDER.



TYPE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ESTIMATED ROADWAY OUANTITIES

GENERAL NOTES

GRADING

- ANY AREA THAT IS DISTURBED OUTSIDE LIMITS OF CONSTRUCTION DURING
 THE LIFE OF THIS PROJECT SHALL BE REPAIRED BY THE CONTRACTOR AT
 HIS EXPENSE
- (2) CERTIFICATION FOR ALL BORROW PITS MUST BE OBTAINED IN ACCORDANCE WITH SUBSECTION 107.06 OF THE STANDARD SPECIFICATIONS.
- (3) THE CONTRACTOR SHALL NOT DISPOSE OF ANY MATERIAL EITHER ON OR OFF STATE-OWNED R.O.W. IN A REGULATORY FLOOD WAY AS DEFINED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY WITHOUT APPROVAL BY SAME. ALL MATERIAL SHALL BE DISPOSED OF IN UPLAND (NON-WETLAND) AREAS AND ABOVE ORDINARY HIGH WATER OF ANY ADJACENT WATERCOURSE. THIS DOES NOT ELIMINATE THE NEED TO OBTAIN ANY OTHER LICENSES OR PERMITS THAT MAY BE REQUIRED BY ANY OTHER FEDERAL, STATE OR LOCAL AGENCY.

SEEDING AND SODDING

- (1) SOD SHALL BE PLACED AT LOCATIONS SHOWN ON THE PLANS TO PREVENT DAMAGE TO ADJACENT FACILITIES AND PROPERTY DUE TO EROSION ON ALL NEWLY GRADED CUT AND FILL SLOPES AS WORK PROGRESSES.
- (2) ITEM NO. 801-02, SEEDING (WITHOUT MULCH) AND EROSION CONTROL BLANKET SHALL BE PLACED AT LOCATIONS SHOWN ON THE PLANS AS WELL AS LOCATIONS DIRECTED BY THE ENGINEER.

GUARDRAIL

- (1) THE CONTRACTOR SHALL NOT REMOVE ANY SECTIONS OF EXISTING GUARDRAIL TO REWORK SHOULDERS OR FLATTEN SLOPES UNTIL THE ENGINEER CONCURS IN THE NECESSITY OF REMOVAL DUE TO CONSTRUCTION REQUIREMENTS AND THE APPROPRIATE WARNING DEVICES ARE INSTALLED. THE PROPOSED GUARDRAIL INCLUDING ANY ANCHOR SYSTEM, SHALL BE INSTALLED QUICKLY TO MINIMIZE TRAFFIC EXPOSURE TO ANY HAZARD. NO PAYMENT WILL BE MADE FOR A SECTION OF PROPOSED GUARDRAIL, INCLUDING ANCHORS, UNTIL IT IS COMPLETE IN PLACE
- (3) IF ANY APPROACH END OF A SECTION OF GUARDRAIL OR BRIDGE RAIL MUST TEMPORARILY BE LEFT INCOMPLETE AND EXPOSED TO TRAFFIC, THE CONTRACTOR SHALL USE TWO (2) TEMPORARY BARRICADES OR DRUMS WITH TYPE A LIGHTS AND ROUNDED END ELEMENTS AS MINIMUM MEASURES TO PROTECT TRAFFIC FROM THE HAZARD OF AN EXPOSED END. ALL COST OF FURNISHING AND INSTALLING A TEMPORARY ROUNDED END ELEMENT SHALL BE INCLUDED IN THE COST OF THE PROPOSED GUARDRAIL.

DRAINAGE

- (1) THE CONTRACTOR SHALL SHAPE DITCHES TO THE SPECIFIED DESIGN.
 THIS WORK WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE
 COST WILL BE INCLUDED IN THE COST OF OTHER ITEMS.
- (2) EXCAVATION FOR PIPE CULVERTS WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT WILL BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF PIPE (PIPE CULVERTS, STORM SEWERS, CONDUITS, ALL OTHER CULVERTS AND MINOR STRUCTURES).
- (3) THE CUTTING OF INLET AND OUTLET DITCHES WHERE SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER WILL BE MEASURED AND PAID FOR AS ITEM NO. 203-01 ROAD AND DRAINAGE EXCAVATION (UNCLASSIFIED).
- (4) WHERE A CULVERT (PIPE, SLAB OR BOX) IS MOVED TO A NEW LOCATION OTHER THAN THAT SHOWN ON THE PLANS, INCREASING OR DECREASING THE AMOUNT OF CULVERT EXCAVATION, NO INCREASE OR DECREASE IN THE AMOUNT OF PAYMENT WILL BE MADE DUE TO SUCH CHANGE.
- (5) DURING CONSTRUCTION OF DRAINAGE STRUCTURES ALL COST ASSOCIATED WITH MAINTAINING THE FLOW OF WATER AND TRAFFIC, AT THESE STRUCTURES, DURING THE PHASED CONSTRUCTION OF THIS PROJECT ARE TO BE INCLUDED IN THE UNIT PRICE OF THE DRAINAGE STRUCTURES AND TRAFFIC CONTROL ITEMS.

MISCELLANEOUS

(1) NOTHING IN THE GENERAL NOTES OR SPECIAL PROVISIONS SHALL RELIEVE THE CONTRACTOR FROM HIS RESPONSIBILITIES TOWARD THE SAFETY AND CONVENIENCE OF THE GENERAL PUBLIC AND THE RESIDENTS ALONG THE PROPOSED CONSTRUCTION AREA

PAVEMENT MARKINGS

TEMPORARY PAVEMENT MARKING ON INTERMEDIATE LAYERS

 WIDE (8 INCH) TEMPORARY PAVEMENT MARKING LINE WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 716-05.02 PAINTED PAVEMENT MARKING (8" BARRIER LINE), LIN. FT.

FINAL PAVEMENT MARKING

PERMANENT PAVEMENT LINE MARKINGS SHALL BE 6" ENHANCED FLATLINE THERMOPLASTIC INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAY'S WORK. SHORT UNMARKED SECTIONS SHALL NOT BE ALLOWED. PAVEMENT MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 716-12.02, ENHANCED FLATLINE THERMO PYMT MRKNG (6IN LINE), L.M. THE CONTRACTOR SHALL HAVE THE OPTION OF USING REFLECTORIZED PAINT INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAY'S WORK AND THEN INSTALLING THE PERMANENT MARKINGS AFTER THE PAVING OPERATION IS COMPLETED. THE TEMPORARY MARKINGS FOR THE FINAL SURFACE WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COSTS ARE TO BE INCLUDED IN THE PRICE BID FOR THE PERMANENT MARKINGS.

DETOURS, LANE SHIFTS AND MEDIAN CROSS-OVERS

- THE PAVEMENT MARKING ON I-40 FOR THE LANE SHIFT WILL BE INSTALLED AND MAINTAINED TO THE SAME STANDARDS AS FOR PERMANENT MARKINGS ON THE MAIN ROADWAY. THESE MARKINGS SHALL BE IN PLACE PRIOR TO ALLOWING TRAFFIC ONTO THE PAVEMENT. THESE PAVEMENT MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 716-05.02, L.F.
- (2) BEFORE OPENING THE LANE SHIFT TO TRAFFIC, THE TRANSITIONAL MARKINGS ON THE EXISTING ROADWAY MUST BE IN PLACE. ALL EXISTING MARKINGS IN THE AREA OF THESE TRANSITIONAL MARKINGS SHALL BE OBLITERATED AND ALL EXISTING RAISED PAVEMENT MARKERS SHALL BE REMOVED TO ELIMINATE CONFLICTING MARKINGS. REMOVAL OF THE EXISTING CONFLICTING MARKINGS AND RAISED PAVEMENT MARKERS WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COST WILL BE INCLUDED IN ITEM NO. 712-01 TRAFFIC CONTROL, LUMP SUM.

PAVEMENT

PAVING

- THE CONTRACTOR SHALL BE REQUIRED TO PAVE IN THE DIRECTION OF TRAFFIC.
- (2) THE CONTRACTOR SHALL BE REQUIRED TO COLD PLANE AND PAVE IN THE DIRECTION OF TRAFFIC.
- (3) THE CONTRACTOR SHALL ATTACH A DEVICE TO THE SCREED OF THE PAVER SUCH THAT MATERIAL IS CONFINED AT THE END GATE AND EXTRUDES THE ASPHALT MATERIAL IN SUCH A WAY THAT RESULTS IN A CONSOLIDATED WEDGE-SHAPE PAVEMENT EDGE OF APPROXIMATELY 25 TO 30 DEGREES AS IT LEAVES THE PAVER (MEASURED FROM A LINE PARALLEL TO THE PAVEMENT SURFACE.) THE DEVICE SHALL MEET THE REQUIREMENTS THAT ARE CURRENTLY SET FORTH IN SPECIAL PROVISION 407SE

GRADED SOLID ROCK

- (1) THE ROCK FILL (GRADED SOLID ROCK) MATERIAL SHALL CONSIST OF SOUND, NON-DEGRADABLE LIMESTONE OR SANDSTONE WITH A MAXIMUM SIZE OF 3'-0". AT LEAST 50% (BY WEIGHT) OF THE ROCK SHALL BE UNIFORMLY DISTRIBUTED BETWEEN 1'-0" AND 3'-0" IN DIAMETER, AND NO GREATER THAN 10% (BY WEIGHT) SHALL BE LESS THAN 2" IN DIAMETER. THE MATERIAL SHALL BE ROUGHLY EQUIDIMENSIONAL; THIN, SLABBY MATERIALS WILL NOT BE ACCEPTED. THE CONTRACTOR SHALL BE REQUIRED TO PROCESS THE MATERIAL WITH AN ACCEPTABLE MECHANICAL MEANS (A SCREENING PROCESS CAPABLE OF PRODUCING THE REQUIRED GRADATION). WHEN THE MATERIAL IS SUBJECTED TO FIVE ALTERAIONS OF THE SODIUM SULFATE SOUNDNESS TEST (AASHTO T-104). THE WEIGHTED PERCENTAGE OF LOSS SHALL NOT BE MORE THAN 12. THE MATERIAL SHALL BE APPROVED BY THE ENGINEER BEFORE USE.
- (2) THIS GRADED SOLID ROCK MATERIAL SHALL BE PLACED IN LAYERS NOT EXCEEDING FIVE FEET IN DEPTH.

SIGNING

- THE LENGTHS OF ALL SIGN SUPPORTS SHOWN ON THE SIGN SCHEDULE ARE APPROXIMATE AND ARE FOR ESTIMATING PURPOSES ONLY. THE LENGTHS WERE COMPUTED FROM THE CROSS-SECTIONS CONTAINED IN THE CONSTRUCTION PLANS. IN THE EVENT THE SUPPORT LENGTHS ARE 2 FEET SHORTER OR LONGER THAN SHOWN ON THE PLANS, THE ENGINEER SHALL VERIFY THE SUPPORT TYPE WITH THE RODDWAY DESIGN DIVISION, SIGNING AND MARKING SECTION, TELEPHONE NO. (615)-741-0982. THE CONTRACTOR SHALL VERIFY ALL SUPPORT LENGTHS AT THE SITE PRIOR TO ORDERING MATERIAL.
- (2) THE TOP OF THE SIGN FOOTINGS SHALL BE PLACED LEVEL WITH THE GROUND LINE.
- (3) AFTER THE SIGN LOCATIONS HAVE BEEN STAKED, BUT PRIOR TO ORDERING ANY MATERIAL FOR THE SUPPORTS, THERE SHALL BE A FIELD INSPECTION AND APPROVAL BY THE REGIONAL CONSTRUCTION OFFICE.
- 4) THE CONTRACTOR SHALL BE REQUIRED TO FURNISH LAYOUT DRAWINGS (3 SETS) OF ALL EXTRUDED PANEL SIGNS WITH SPACING OF ALL LETTERS, NUMERALS, SHIELDS, AND ARROWS. THE LAYOUT DRAWINGS SHALL BE SENT TO THE ROADWAY DESIGN DIVISION, SIGNING AND MARKING SECTION, SUITE 1300, J.K. POLK BUILDING, NASHVILLE, TN 37243-1402.
- (5) ALL SIGNS MARKED "TO BE REMOVED" ARE TO BE REMOVED BY THE CONTRACTOR AND PAID FOR UNDER ITEM 713-15 AND BECOME THE PROPERTY OF THE CONTRACTOR.
- (6) THE EXISTING FOOTINGS ARE TO BE REMOVED 6 INCHES BELOW GROUND LINE.
- 7) THE LETTERS, DIGITS, ARROWS, BORDERS, AND ALPHABET ACCESSORIES ON ALL FLAT SHEET SIGNS SHALL BE APPLIED BY SILK SCREENING PROCESS, EXCEPT THAT CUT-OUT DIRECT APPLIED COPY SHALL BE USED ON ALL FLAT SHEET SIGNS WITH A GREEN BACKGROUND, OR BROWN BACKGROUND.
- (8) THE LETTERS, DIGITS, ARROWS, BORDERS, AND ALPHABET ACCESSORIES ON ALL FLAT SHEET SIGNS SHALL BE APPLIED BY SILK SCREENING PROCESS.

TRAFFIC CONTROL DIRECTIONAL SIGNING

WHEN "LOGO" SIGNS ARE ON ACCESS CONTROLLED AND INTERSTATE RECONSTRUCTION AND NEW CONSTRUCTION PROJECTS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING THESE SIGNS IN FULL VIEW TO THE MOTORING PUBLIC DURING ALL PHASES OF CONSTRUCTION. THE CONTRACTOR SHALL BE HELD RESPONSIBLE TO THE DEPARTMENT FOR THE REIMBURSEMENT OF THE SIGN FACE IF IT IS DAMAGED. ALL WORK IN MOVING THESE "LOGO" SIGNS AND THE TEMPORARY SUPPORTS ARE TO BE PAID FOR UNDER ITEM NO. 712-01 AS DIRECTED BY THE ENGINEER. THE SUPPORTS FOR THE FINAL LOCATION OF THESE SIGNS WILL BE PAID FOR UNDER OTHER ITEMS OF CONSTRUCTION.

TYPE YEAR PROJECT NO. SHEET NO.

CONST. 2016 IM/NH-40-3(149) 2B



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

CONSTRUCTION WORK ZONE & TRAFFIC CONTROL

- 1) ADVANCED WARNING SIGNS SHALL NOT BE DISPLAYED MORE THAN FORTY-EIGHT (48) HOURS BEFORE PHYSICAL CONSTRUCTION BEGINS. SIGNS MAY BE ERECTED UP TO ONE WEEK BEFORE NEEDED, IF THE SIGN FACE IS FULLY COVERED.
- (2) IF THE CONTRACTOR MOVES OFF THE PROJECT, HE SHALL COVER OR REMOVE ALL UNNEEDED SIGNS AS DIRECTED BY THE ENGINEER. COSTS OF REMOVAL, COVERING, AND REINSTALLING SIGNS SHALL NOT BE MEASURED AND PAID FOR SEPARATELY, BUT ALL COSTS SHALL BE INCLUDED IN THE ORIGINAL UNIT PRICE BID FOR ITEM NO 712-06, SIGNS (CONSTRUCTION) PER SQUARE FOOT.
- (3) A LONG TERM BUT SPORADIC USE WARNING SIGN, SUCH AS A FLAGGER SIGN, MAY REMAIN IN PLACE WHEN NOT REQUIRED PROVIDED THE SIGN FACE IS FULLY COVERED.
- (4) TRAFFIC CONTROL DEVICES SHALL NOT BE DISPLAYED OR ERECTED UNLESS RELATED CONDITIONS ARE PRESENT NECESSITATING WARNING.
- USE OF BARRICADES, PORTABLE BARRIER RAILS, VERTICAL PANELS, AND DRUMS SHALL BE LIMITED TO THE IMMEDIATE AREAS OF CONSTRUCTION WHERE A HAZARD IS PRESENT. THESE DEVICES SHALL NOT BE STORED ALONG THE ROADWAY WITHIN THIRTY (30) FEET OF THE EDGE OF THE TRAVELED WAY BEFORE OR AFTER USE UNLESS PROTECTED BY GUARDRAIL, BRIDGE RAIL, AND/OR BARRIERS INSTALLED FOR OTHER PURPOSES FOR ROADWAYS WITH CURRENT ADT'S LESS THAN 1500 AND DESIGN SPEED OF LESS THAN 60 MPH. THIS DISTANCE SHALL INCREASE TO FORTY-FIVE (45) FEET FOR ROADWAYS WITH CURRENT ADT'S OF 1500 OR GREATER AND DESIGN SPEED OF 60 MPH OR GREATER OR ON THE OUTSIDE OF A HORIZONTAL CURVE. THESE DEVICES SHALL BE REMOVED FROM THE CONSTRUCTION WORK ZONE WHEN THE ENGINEER DETERMINES THEY ARE NO LONGER NEEDED. WHERE THERE IS INSUFFICIENT RIGHT-OF-WAY TO PROVIDE FOR THIS REQUIRED SETBACK, THE CONTRACTOR SHALL DETERMINE THE ALTERNATE LOCATIONS AND REQUEST THE ENGINEER'S APPROVAL TO USE THEM.
- THE CONTRACTOR SHALL NOT BE PERMITTED TO PARK ANY VEHICLES OR CONSTRUCTION EQUIPMENT DURING PERIODS OF INACTIVITY, WITHIN THIRTY (30) FEET OF THE EDGE OF PAVEMENT WHEN THE LANE IS OPEN TO TRAFFIC UNLESS PROTECTED BY GUARDRAIL, BRIDGE RAIL, AND/OR BARRIERS INSTALLED FOR OTHER PURPOSES FOR ROADWAYS WITH CURRENT ADT'S LESS THAN 1500 AND DESIGN SPEED OF LESS THAN 60 MPH. THIS DISTANCE SHALL BE INCREASED TO FORTY-FIVE (45) FEET FOR ROADWAYS WITH CURRENT ADT'S OF 1500 OR GREATER AND DESIGN SPEED OF 60 MPH OR GREATER OR ON THE OUTSIDE OF A HORIZONTAL CURVE. PRIVATELY OWNED VEHICLES SHALL NOT BE ALLOWED TO PARK WITHIN THIRTY (30) FEET OF AN OPEN TRAFFIC LANE AT ANY TIME UNLESS PROTECTED AS DESCRIBED ABOVE FOR ROADWAYS WITH CURRENT ADT'S LESS THAN 1500 AND DESIGN SPEED OF LESS THAN 60 MPH. THIS DISTANCE SHALL BE INCREASED TO FORTY-FIVE (45) FEET FOR ROADWAYS WITH CURRENT ADT'S OF 1500 OR GREATER AND DESIGN SPEED OF 60 MPH OR GREATER OR ON THE OUTSIDE OF A HORIZONTAL CURVE. WHERE THERE IS INSUFFICIENT RIGHT-OF-WAY TO PROVIDE FOR THIS REQUIRED SETBACK, THE CONTRACTOR SHALL DETERMINE THE ALTERNATE LOCATIONS AND REQUEST THE ENGINEER'S APPROVAL TO USE THEM
- (7) ALL DETOUR AND CONSTRUCTION SIGNING SHALL BE IN STRICT ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- (8) ALL DETOURS SHALL BE PAVED, STRIPED, SIGNED AND THE VERTICAL PANELS ARE TO BE IN PLACE BEFORE IT IS OPENED TO TRAFFIC.

NATURAL RESOURCES

(1) SOIL MATERIALS MUST BE PREVENTED FROM ENTERING WATERS OF THE STATE/U.S. EPSC MEASURES TO PROTECT NATURAL RESOURCES AND WATER QUALITY SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. APPROPRIATE EPSC MEASURES MUST BE INSTALLED ALONG THE BASE OF ALL FILLS AND CUTS, ON THE DOWNHILL SIDE OF STOCKPILED SOIL, AND ALONG NATURAL RESOURCES IN CLEARED AREAS TO PREVENT SEDIMENT MIGRATION INTO STREAMS, WETLANDS OR OTHER NATURAL FEATURES IN ACCORDANCE WITH TDOT STANDARDS. EPSC MEASURES SHALL BE INSTALLED ON THE CONTOUR, ENTRENCHED AND STAKED, AND EXTEND THE WIDTH OF THE AREA TO BE CLEARED.

INSPECTION, MAINTENANCE & REPAIR

) REFER TO THE STORM WATER POLLUTION AND PREVENTION PLAN SHEETS (S-1) FOR SWPPP, PERMITS, AND RECORDS NOTES.

PERMITS, PLANS & RECORDS

- (1) THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR AND OBTAIN ANY NECESSARY ENVIRONMENTAL PERMITS OR APPROVALS, INCLUDING BUT NOT LIMITED TO ARCHAEOLOGY, ECOLOGY, HISTORICAL, HAZARDOUS MATERIALS, AIR AND NOISE, TDEC ARAP/401, USACE SECTION 404, TVA SECTION 26A, AND TDEC NPDES PERMITS, FROM FEDERAL, STATE AND/OR LOCAL AGENCIES REGARDING ANY MATERIAL AND STAGING AREAS AND THE OPERATION OF ANY PROJECT-DEDICATED ASPHALT AND/OR CONCRETE PLANTS TO BE USED. ANY SUCH PERMITS SHALL BE SUPPLIED TO THE TDOT PROJECT RESPONSIBLE PARTY PRIOR TO THE USE OF THE PERMITTED AREA(S).
- (2) ANY DISAGREEMENT BETWEEN THE CONSTRUCTION PLANS, THE PROJECT AS CONSTRUCTED, AND THE PERMIT(S) ISSUED FOR THE PROJECT, SHALL BE BROUGHT TO THE ATTENTION OF THE TDOT PROJECT RESPONSIBLE PARTY. THE ENVIRONMENTAL DIVISION, DESIGN DIVISION, AND HEADQUARTERS CONSTRUCTION OFFICE SHALL BE CONTACTED IN THESE INSTANCES AND DECIDE WHICH HAS PRECEDENCE AND WHETHER PERMIT OR PLANS REVISIONS ARE NEEDED. IN GENERAL, PERMIT CONDITIONS WILL PREVAIL.
- (3) IF A CHANGE IN PROJECT SCOPE OCCURS DURING CONSTRUCTION, INCLUDING VALUE ENGINEERING, THE TDOT PERMIT SECTION SHALL BE CONTACTED TO DETERMINE WHETHER PERMIT REVISIONS ARE NEEDED. THE ROADWAY DESIGN DIVISION SHALL BE CONTACTED TO DETERMINE IF ANY PLAN REVISIONS ARE NEEDED.
- (4) THE CONTRACTOR SHALL REVIEW ALL EXISTING PERMITS TO ENSURE THAT WORK AT PERMITTED SITES DOES NOT EXCEED EXPIRATION DATE. IF WORK IS GOING TO BE CONTINUED AFTER EXPIRATION DATES, THE CONTRACTOR SHALL CONTACT THE TDOT PROJECT RESPONSIBLE PARTY TO COMMENCE PERMIT RENEWAL PROCESS
- (5) ALL WATER QUALITY PERMITS SHALL BE POSTED NEAR THE MAIN ENTRANCE OF THE CONSTRUCTION SITE ACCESSIBLE TO THE PUBLIC. THE NAME, COMPANY NAME, EMAIL ADDRESS, TELEPHONE NUMBER AND ADDRESS OF THE PROJECT SITE OWNER, OPERATOR, OR A LOCAL CONTACT PERSON WITH A BRIEF DESCRIPTION OF THE PROJECT SHALL ALSO BE POSTED. IF POSTING THIS INFORMATION NEAR A MAIN ENTRANCE IS INFEASIBLE, THE INFORMATION SHALL BE PLACED IN A PUBLICLY ACCESSIBLE LOCATION NEAR WHERE THE CONSTRUCTION IS ACTIVELY UNDERWAY AND MOVED AS NECESSARY. THIS LOCATION SHALL BE POSTED AT THE CONSTRUCTION SITE. ALL POSTINGS SHALL BE MAINTAINED IN LEGIBLE CONDITION.

GOOD HOUSEKEEPING MEASURES & WASTE DISPOSAL

- (1) THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN A PROACTIVE METHOD TO PREVENT LITTER AND CONSTRUCTION WASTES FROM ENTERING WATERS OF THE STATE/U.S. THESE MATERIALS SHALL BE REMOVED FROM STORMWATER EXPOSURE PRIOR TO ANTICIPATED STORM EVENTS OR BEFORE BEING CARRIED OFFSITE BY WIND, OR OTHERWISE PREVENTED FROM BECOMING A POLLUTANT SOURCE FOR STORMWATER DISCHARGES. AFTER USE, MATERIALS USED FOR EPSC SHALL BE REMOVED FROM THE SITE.
- (2) THE CONTRACTOR SHALL TAKE APPROPRIATE STEPS TO ENSURE THAT PETROLEUM PRODUCTS OR OTHER CHEMICAL POLLUTANTS ARE PREVENTED FROM ENTERING WATERS OF THE STATE/U.S. ALL EQUIPMENT REFUELING, SERVICING, AND STAGING AREAS SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL LAWS, RULES, REGULATIONS, AND ORDINANCES, INCLUDING THOSE OF THE NATIONAL FIRE PROTECTION ASSOCIATION. APPROPRIATE CONTAINMENT MEASURES FOR THESE AREAS SHALL BE USED.
- (3) CONTRACTORS SHALL PROVIDE DESIGNATED TRUCK WASHOUT AREAS ON THE SITE. THESE AREAS MUST BE SELF CONTAINED, NOT CONNECTED TO ANY STORMWATER OUTLET OF THE SITE, AND PROPERLY SIGNED. WASH DOWN OR WASTE DISCHARGE OF CONCRETE TRUCKS SHALL NOT BE PERMITTED ONSITE UNLESS PROPER SETTLEMENT AREAS HAVE BEEN PROVIDED IN ACCORDANCE WITH BOTH STATE AND FEDERAL REGULATIONS.
- (4) WHEEL WASH WATER SHALL BE COLLECTED AND ALLOWED TO SETTLE OUT SUSPENDED SOLIDS PRIOR TO DISCHARGE. WHEEL WASH WATER SHALL

NOT BE DISCHARGED DIRECTLY INTO ANY STORMWATER SYSTEM OR STORMWATER TREATMENT SYSTEM.

- (5) IF PORTABLE SANITARY FACILITIES ARE PROVIDED ON CONSTRUCTION SITES, SANITARY WASTE SHALL BE COLLECTED FROM THE PORTABLE UNITS IN A TIMELY MANNER BY A LICENSED WASTE MANAGEMENT CONTRACTOR OR AS REQUIRED BY ANY REGULATIONS. THE CONTRACTOR SHALL OBTAIN ANY AND ALL NECESSARY PERMITS TO DISPOSE OF SANITARY WASTE.
- (6) ONLY CONSTRUCTION PRODUCTS NEEDED SHALL BE STORED ONSITE BY THE CONTRACTOR. THE CONTRACTOR SHALL STORE ALL MATERIALS UNDER COVER AND IN APPROPRIATE CONTAINERS. PRODUCTS MUST BE STORED IN ORIGINAL CONTAINERS AND LABELED. MATERIAL MIXING SHALL BE CONDUCTED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. THE CONTRACTOR'S RESPONSIBLE PARTY SHALL INSPECT MATERIALS STORAGE AREAS REGULARLY TO ENSURE PROPER USE AND DISPOSAL.
- (7) WHEN POSSIBLE, ALL PRODUCTS SHALL BE USED COMPLETELY BEFORE PROPERLY DISPOSING OF THE CONTAINER OFFSITE. THE MANUFACTURER'S DIRECTIONS FOR DISPOSAL OF MATERIALS AND CONTAINERS SHALL BE FOLLOWED.
- (8) ALL PAINT CONTAINERS SHALL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT SHALL BE DISPOSED CF ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS AND APPLICABLE STATE AND LOCAL REGULATIONS.
- ALL HAZARDOUS WASTE MATERIALS SHALL BE DISPOSED OF IN A MANNER WHICH IS COMPLIANT WITH LOCAL OR STATE REGULATIONS. SITE PERSONNEL SHALL BE INSTRUCTED IN THESE PRACTICES, AND THE INDIVIDUAL DESIGNATED AS THE CONTRACTOR'S RESPONSIBLE PARTY SHALL BE RESPONSIBLE FOR SEEING THAT THESE PRACTICES ARE FOLLOWED. THE CONTRACTOR SHALL OBTAIN ANY AND ALL NECESSARY PERMITS TO DISPOSE OF HAZARDOUS MATERIAL.
- (10) OPEN BURNING IS PROHIBITED UNLESS IT IS SPECIFICALLY ALLOWED BY LAW. IF ALLOWED, NATURAL VEGETATION, TREES, AND UNTREATED LUMBER SHALL BE THE ONLY MATERIALS THAT CAN BE OPEN BURNED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL APPLICABLE STATE AND LOCAL PERMITS PRIOR TO ANY BURNING.
- 11) DISPOSAL OF ONSITE VEGETATION AND TREES BY CHIPPING THEM INTO MULCH IS PREFERABLE TO OPEN BURNING. THIS MULCH MAY BE USED AS AN ONSITE SOIL STABILIZATION MEASURE WHERE APPROPRIATE.
- (12) WASTE MATERIAL (EARTH, ROCK, ASPHALT, CONCRETE, ETC.) NOT REQUIRED FOR THE CONSTRUCTION OF THE PROJECT WILL BE DISPOSED OF BY THE CONTRACTOR. IMPACTS TO WATERS OF THE STATE/U.S. SHALL BE AVOIDED IF POSSIBLE. IF UNAVOIDABLE. THE CONTRACTOR WILL OBTAIN ANY AND ALL NECESSARY PERMITS INCLUDING, BUT NOT LIMITED TO NPDES, AQUATIC RESOURCES ALTERATION PERMIT(S), CORPS OF ENGINEERS SECTION 404 PERMITS, AND TVA SECTION 26A PERMITS TO DISPOSE OF WASTE MATERIALS.

SUPPORT ACTIVITIES

) MATERIALS AND STAGING AREAS SHALL NOT AFFECT ANY WATERS OF THE STATE/U.S. UNLESS THESE AREAS ARE SPECIFICALLY COVERED BY ENVIRONMENTAL PERMITS, OBTAINED SOLELY BY THE CONTRACTOR. THE CONTRACTOR SHALL REVIEW ALL EXISTING PERMITS TO ENSURE THAT WORK AT PERMITTED SITES DOES NOT EXCEED EXPIRATION DATES. IF WORK IS GOING TO BE CONTINUED AFTER EXPIRATION DATES, THE CONTRACTOR SHALL CONTACT THE TDOT PROJECT RESPONSIBLE PARTY TO COMMENCE PERMIT RENEWAL PROCESS.

TYPE YEAR PROJECT NO. SHEET NO.

CONST. 2016 IM/NH-40-3(149) 2C

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

SPECIAL NOTES

GRADING

- (1) THE GRADING TABULATIONS AND RESULTING EARTHWORK ASSOCIATED BID QUANTITIES WERE PREPARED UTILIZING AVAILABLE GEOTECHNICAL INFORMATION AND/OR REPORTS PREPARED FOR THIS PROJECT. THIS INFORMATION IS PROVIDED FOR GENERAL INFORMATION AND ESTIMATION GUIDANCE ONLY.
- (2) BORING DEPICTIONS SHOWN ON THE FOUNDATION DATA SHEETS, SOILS SHEETS, PLANS, AND CROSS-SECTIONS INDICATE SOIL AND ROCK CONDITIONS AT THE SPECIFIC BORING LOCATIONS ANY SOIL PROFILE AND/OR ROCK LINE IS INTERPRETIVE BASED ON THE JUDGMENT OF THE GEOTECHNICAL ENGINEER/GEOLOGIST. THE TRANSITION BETWEEN BORINGS AND LAYERS MAY VARY SIGNIFICANTLY DEPENDING ON THE GEOLOGIC FORMATIONS ENCOUNTERED.
- (3) TO ASSIST IN BID PREPARATION FOR EARTHWORK AND FOUNDATION CONSTRUCTION, DETAIL ROCK AND SOIL DESCRIPTION AND ON SOME PROJECTS, ROCK CORE SAMPLES ARE AVAILABLE FOR INSPECTION AT THE MATERIALS AND TESTS HEADQUARTERS AT 6601 CENTENNIAL BOULEVARD, NASHVILLE, TN OR AT THE TDOT REGION 1 BUILDING IN KNOXVILLE, TN.
- (4) THE CONTRACTOR SHALL UTILIZE ALL INFORMATION PROVIDED IN THE PLANS, CROSS-SECTIONS AND CONTRACT DOCUMENTS INCLUDING ANY SPECIAL PROVISIONS AS WELL AS UTILIZING HIS PAST EXPERIENCE WITH PROJECTS OF SIMILAR NATURE, SCOPE AND LOCATION IN PREPARATION OF HIS BID FOR EARTHWORK ITEMS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE AND PROVIDE EQUIPMENT AND MEANS NECESSARY TO CONDUCT THE EXCAVATION ACTIVITIES IN ACCORDANCE WITH PLANS AND SPECIFICATIONS.
- (5) EARTHWORK IS PAID FOR UNDER ITEM 203-01, ROAD AND DRAINAGE EXCAVATION (UNCLASSIFIED). NO ADDITIONAL PAYMENT WILL BE MADE FOR EARTHWORK QUANTITIES BASED SOLELY ON A CLAIM THAT THE QUANTITIES SHOWN IN THE GRADING TABULATION OR ELSEWHERE IN THE PLANS ARE INACCURATE WITH RESPECT TO THE TYPE OF MATERIALS ENCOUNTERED DURING CONSTRUCTION EXCEPT AS PROVIDED FOR BY SECTION 104.02 IN THE CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OR AS AMENDED IN SUPPLEMENTAL SPECIFICATIONS.

PAVEMENT RESURFACING

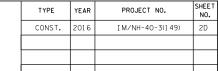
- (1) TRAFFIC WILL BE ALLOWED TO TEMPORARILY DRIVE ON THE MILLED SURFACE OF THE ROADWAY UNDER THE FOLLOWING CONDITIONS ONLY:
 - A. THE MILLED SURFACE IS FINE TEXTURED. THE FINE TEXTURE SHALL BE OBTAINED BY A MILLING MACHINE UTILIZING A MILLING HEAD WITH TEETH SPACING 3/8" OR LESS OPERATING AT LESS THAN 80 FEET PER MINUTE.
 - B. THE SURFACE SHALL BE SWEPT AND CLEANED OF ALL LOOSE MATERIALS.
 - C. THE DIFFERENCE IN ELEVATION BETWEEN THE MILLED SURFACE AND THE ADJACENT LANE SHALL NOT EXCEED 1 ½ INCHES.
 - D. THE MILLED SURFACE SHALL BE PAVED WITHIN 72 HOURS IF THE CURRENT ADT IS ≥ 70,000 OR WITHIN 96 HOURS IF THE CURRENT ADT IS < 70,000.</p>
 - E. RAIN OR INCLEMENT WEATHER IS NOT EXPECTED OR FORECASTED WITHIN 48 HOURS AFTER MILLING.
 - F. ALL APPLICABLE SIGNING IS INSTALLED IN ACCORDANCE WITH THE MUTCD. SIGNING SHALL INCLUDE MOTORCYCLE WARNING SIGNS (TN-64) PLACED IN ADVANCE OF ANY MILLED AREAS.
 - G. IF MILLED SURFACE BEGINS TO DETERIORATE, PAVING TO COVER UP DETERIORATING MILLED SURFACES SHOULD OCCUR AS DIRECTED BY THE ENGINEER DURING THE NEXT WORKING DAY. IF SEVERE DISTRESS OCCURS, IMMEDIATE RESPONSE WILL BE REQUIRED.
 - H. ONLY ONE LANE IN EACH DIRECTION SHALL HAVE A MILLED SURFACE AT ONE TIME.

SIGNING

- 1) THE LENGTHS OF ALL SIGN SUPPORTS SHOWN ARE APPROXIMATE AND ARE FOR ESTIMATING PURPOSES ONLY. THE LENGTHS WERE COMPUTED FROM THE CROSS-SECTIONS CONTAINED IN THE CONSTRUCTION PLANS. IN THE EVENT THE SUPPORT LENGTHS ARE 2 FEET SHORTER OR LONGER THAN SHOWN ON THE PLANS, THE ENGINEER SHALL VERIFY THE SUPPORT TYPE WITH THE ROADWAY DESIGN DIVISION, SIGNING AND MARKING SECTION, TELEPHONE NO. (615)-741-0982. THE CONTRACTOR SHALL VERIFY ALL SUPPORT LENGTHS AT THE SITE PRIOR TO ORDERING MATERIAL.
- (2) THE LENGTHS OF ALL SIGN SUPPORTS ARE APPROXIMATE AND ARE FOR ESTIMATING PURPOSES ONLY. THE CONTRACTOR SHALL VERIFY ALL SUPPORT LENGTHS AT THE SITE PRIOR TO ERECTION.

END OF TRAFFIC QUEUE PROTECTION

- 1) WHEN INTERSTATE LANE CLOSURES ARE PERFORMED, THE CONTRACTOR SHALL PROVIDE A MINIMUM OF TWO (2) MOBILE CHANGEABLE MESSAGE SIGN UNITS WITH MOUNTED ATTENUATOR FOR EACH TRAVELING DIRECTION IN WHICH LANES ARE CLOSED, TO PROTECT THE END OF THE TRAFFIC QUEUE.
- A. AT LEAST ONE UNIT SHALL BE POSITIONED ON THE SHOULDER UPSTREAM FROM THE END OF THE TRAFFIC QUEUE AT ALL TIMES, BUT NO FURTHER THAN ½ MILE FROM THE QUEUE.
- B. THE CHANGEABLE MESSAGE SIGN SHALL DISPLAY TWO PHASES: "STOPPED TRAFFIC AHEAD" AND "BE PREPARED TO STOP."
- C. IN THE EVENT THAT THE TRAFFIC QUEUE EXTENDS UPSTREAM BEYOND THE UNIT, A SECOND UNIT SHALL MOBILIZE IN ACCORDANCE WITH [A.]. THE DOWNSTREAM UNIT MAY DEPART WHEN THE SECOND UNIT HAS MOVED INTO POSITION.
- D. CHANGEABLE MESSAGE SIGNS AND ATTENUATORS SHALL BE IN ACCORDANCE WITH THE NCHRP REPORT 350, MUTCD, INCLUDED IN THE TDOT QUALIFIED PRODUCTS LIST, AND MOUNTED PER THE MANUFACTURER'S RECOMMENDATIONS.
- E. MOBILE CHANGEABLE MESSAGE SIGN UNITS WITH MOUNTED ATTENUATOR WILL BE PAID FOR AS ITEM NO. 712-08.10, MOBILE MESSAGE SIGN UNIT WIATTENUATOR, PER HOUR. ALL COSTS ARE TO BE INCLUDED IN THE



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

NOTES

EROSION PREVENTION AND SEDIMENT CONTROL NOTES

STREAM/WETLAND

- ANY WORK WITHIN THE STREAM CHANNEL AREA (E.G., FOR PIER FOOTING, RIP-RAP PLACEMENT, MULTI-BARREL CULVERT/BRIDGE CONSTRUCTION, ETC.) SHALL BE SEPARATED FROM FLOWING WATER OR EXPECTED FLOW PATH AND PERFORMED DURING LOW FLOW CONDITIONS. ALL ITEMS USED WITHIN THE STREAM CHANNEL AREA FOR DIVERSION OF FLOW (OR EXPECTED FLOW), UNLESS SPECIFIED IN THE PLANS, SHALL NOT BE PAID FOR DIRECTLY BUT SHALL BE INCLUDED IN THE COST OF OTHER ITEMS. THIS NOTE EXCLUDES ANY ITEMS SPECIFIED IN THE PLANS FOR THE TEMPORARY DIVERSION CHANNELS, EC-STR-31 AND TEMPORARY DIVERSION CULVERTS, EC-STR-32 FOR SINGLE BARREL CULVERT CONSTRUCTION
- A 30 FOOT NATURAL RIPARIAN BUFFER ZONE ADJACENT TO AND ON BOTH SIDES OF THE RECEIVING STREAM SHALL BE PRESERVED, TO THE MAXIMUM EXTENT PRACTICABLE, DURING CONSTRUCTION ACTIVITIES AT THE SITE. BUFFER ZONES ARE NOT SEDIMENT CONTROL MEASURES AND SHOULD NOT BE RELIED UPON AS PRIMARY SEDIMENT CONTROL MEASURES. THE RIPARIAN BUFFER ZONE SHALL BE ESTABLISHED BETWEEN THE TOP OF THE STREAM BANK AND THE DISTURBED CONSTRUCTION AREA. THE 30 FOOT 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 SHALL BE MADE FOR CONSTRUCTION ACTIVITIES NOT TO TAKE PLACE WITHIN THE BUFFER ZONES. BEST MANAGEMENT PRACTICES (BMPS) PROVIDING EQUIVALENT PROTECTION AS THE NATURAL RIPARIAN ZONE MAY BE USED. A JUSTIFICATION FOR USE AND DESIGN EQUIVALENCY SHALL BE DOCUMENTED WITHIN THE SWPPP. THE ENVIRONMENTAL AND ROADWAY DESIGN DIVISIONS SHALL REVIEW AND APPROVE THIS REVISION OF THE SWPPP BEFORE DISTURBANCE OF THE SITE PROCEEDS, UNLESS PREVIOUSLY EXEMPT IN THE NPDES CONSTRUCTION GENERAL PERMIT. WHERE ISSUED, ARAP/401 REQUIREMENTS WILL PREVAIL IF IN CONFLICT WITH THESE BUFFER ZONE REQUIREMENTS.

NPDES

- NO WORK SHALL BE STARTED UNTIL THE CONTRACTOR'S PLAN FOR THE STAGING OF THEIR OPERATIONS, INCLUDING THE PLAN FOR STAGING OF TEMPORARY AND PERMANENT EPSC MEASURES. HAS BEEN ACCEPTED BY THE ENGINEER. THE CONTRACTOR'S EPSC PLAN SHALL INCORPORATE AND SUPPLEMENT, AS ACCEPTABLE, THE BASIC EPSC DEVICES ON THE EPSC PLAN CONTAINED IN THE APPROVED SWPPP.
- THE EPSC MEASURES AND/OR PLAN SHALL DE MODIFIED AS NECESSARY SO THAT THEY ARE EFFECTIVE AT ALL TIMES THROUGHOUT THE COURSE OF THE PROJECT.
- THE ACCEPTED EPSC PLAN SHALL REQUIRE THAT EPSC MEASURES BE IN PLACE BEFORE CLEARING, GRUBBING, EXCAVATION, GRADING, CUTTING OR FILLING OCCURS, (5) EXCEPT AS SUCH WORK MAY BE NECESSARY TO INSTALL EPSC MEASURES. INCLUDING WITHOUT LIMITATION AS FOLLOWS:
 - INITIAL CLEARING AND GRUBBING SHALL BE LIMITED TO THAT NECESSARY FOR THE INSTALLATION OF APPLICABLE EPSC MEASURES IN ACCORDANCE WITH THE ACCEPTED EPSC PLAN INCORPORATED INTO THE SWPPF
 - NO OTHER CLEARING AND GRUBBING OPERATIONS SHALL BE STARTED BEFORE APPLICABLE EPSC MEASURES ARE IN PLACE IN ACCORDANCE WITH THE ACCEPTED EPSC PLAN INCORPORATED INTO THE SWPP
 - NO CULVERT OR BRIDGE CONSTRUCTION SHALL BE STARTED BEFORE APPLICABLE EPSC MEASURES ARE IN PLACE IN ACCORDANCE WITH THE ACCEPTED EPSC PLAN INCORPORATED INTO THE SWPPP
 - NO GRADING, EXCAVATION, CUTTING, FILLING, OR OTHER EARTHWORK SHALL D. BE STARTED BEFORE EPSC MEASURES ARE IN PLACE IN ACCORDANCE WITH THE ACCEPTED EPSC PLAN INCORPORATED INTO THE SWPP
- PERMANENT EPSC MEASURES SHALL BE INITIATED WITHIN 14 CALENDAR DAYS AFTER FINAL GRADING OF ANY SEQUENCE OR PHASE. TEMPORARY OR PERMANENT STABILIZATION SHALL BE INITIATED WITHIN 14 CALENDAR DAYS AFTER FINAL GRADING OR WHEN CONSTRUCTION ACTIVITIES ON A PORTION OF THE SITE ARE TEMPORARILY CEASED AND EARTH DISTURBING ACTIVITIES WILL NOT RESUME UNTIL AFTER 14 CALENDAR DAYS. PERMANENT STABILIZATION WITH PERENNIAL VEGETATION OR OTHER PERMANENTLY STABLE NON-ERODING SURFACE SHALL REPLACE ANY TEMPORARY MEASURES AS SOON AS PRACTICABLE LINPACKED GRAVEL CONTAINING FINES (SILT AND CLAY SIZED PARTICLES) OR CRUSHER-RUN WILL NOT BE CONSIDERED A NON-ERODIBLE SURFACE.
- STEEP SLOPES (A NATURAL OR CREATED SLOPE OF 35% GRADE (2.8H:1V) OR GREATER REGARDLESS OF HEIGHT) SHALL BE TEMPORARILY STABILIZED NO LATER THAN 7 CALENDAR DAYS AFTER CONSTRUCTION ACTIVITY ON THE SLOPE HAS TEMPORARILY OR PERMANENTLY CEASED.
- FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION SUPPORT ACTIVITIES, TOOT PROJECTS ARE COVERED UNDER THE "WASTE AND BORROW" MANUAL PER THE SSWMP
- EXCEPT AS OTHERWISE SPECIFIED, THERE ARE NO KNOWN SPECIAL ENVIRONMENTAL FACTORS PRESENT ON THIS PROJECT THAT INDICATE A NEED FOR SEASONAL LIMITATIONS ON THE CLEARING, GRUBBING, EXCAVATION, GRADING, CUTTING OR FILLING OPERATIONS OR ON THE TOTAL AREA OF EXPOSED SOIL

UTILITY RELOCATION

RAIN WATER WHICH COLLECTS IN THE UTILITY TRENCH SHALL BE PUMPED INTO A DEWATERING STRUCTURE OR SEDIMENT FILTER BAG AND MAINTAINED

- SILT FENCE SHALL BE INSTALLED ON THE DOWNSTREAM SIDE OF STOCKPILED SOIL TRENCHING ACROSS WET WEATHER CONVEYANCES SHALL BE DONE DURING NO FLOW CONDITIONS AND STABILIZED BY THE END OF THE WORK DAY
- IT IS THE RESPONSIBILITY OF THE STATE UTILITY CONTRACTOR INSTALLER TO PROTECT FROM EROSION EXPOSED EARTH RESULTING FROM THEIR OPERATIONS AND TO PROVIDE FOR CONTAINMENT OF SEDIMENT THAT MAY RESULT FROM THEIR WORK. PRIOR TO BEGINNING WORK, ADEQUATE MEASURES MUST BE IN PLACE TO TRAP ANY SEDIMENT THAT MAY TRAVEL OFF-SITE IN THE EVENT OF RAIN. DURING THE PROGRESSION OF THEIR WORK, EXPOSED EARTH AREAS SHALL BE STABILIZED AS SOON AS POSSIBLE TO PREVENT EROSION. AT NO TIME SHALL EXPOSED EARTH RESULTING FROM THEIR OPERATIONS HAVE UNPROTECTED ACCESS TO FLOWING OFF-SITE AND ENTERING WATERS OF THE STATE/U.S.
- FOR THE INSTALLATION OF BURIED UTILITIES (PIPES AND CABLES), TRENCHES SHALL BE BACKFILLED DAILY AS CONSTRUCTION PROCEEDS. BACKFILLED TRENCHES SHALL BE SEEDED AND MULCHED OR SODDED DAILY IF POSSIBLE, BUT NO LATER THAN SEVEN DAYS AFTER BEING BACKFILLED. ANY TEMPORARY SPOIL OF EXCAVATED EARTH SHALL BE LOCATED WITHIN TDOT EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) MEASURES OR RECEIVE SEPARATE EPSC MEASURES. IF TRENCHES ARE NOT BACKFILLED OVERNIGHT, APPROPRIATE EPSC MEASURES WILL BE INSTALLED BY THE STATE UTILITY CONTRACTOR UNTIL SUCH TIME AS THE TRENCH IS
- IN REGARD TO EROSION PREVENTION AND SEDIMENT CONTROL (EPSC), TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION (TDEC) REGULATIONS APPLY TO THE STATE UTILITY CONTRACTORS IN THIS PROJECT, THEREFORE, THE STATE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF THE STORM WATER POLLUTIONS PREVENTION PLANS (SWPPP). THE STATE CONTRACTOR IS RESPONSIBLE FOR EPSC MEASURES RELATED TO UTILITY CONSTRUCTION INCLUDED IN THE STATE CONTRACT WORK
- TRENCHES FORMED FOR THE INSTALLATION OF BURIED UTILITIES MAY CAUSE STORM WATER RUNOFF TO CONCENTRATE AT THE TRENCH LINE. ADDITIONAL EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) MEASURES MAY BE REQUIRED TO BE INSTALLED AS APPROVED BY THE TOOT PROJECT ENGINEER
- FOR THE INSTALLATION OF UNDERGROUND UTILITIES OUTSIDE OF THE TDOT RIGHT-OF-WAY, EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) SHALL BE INSTALLED PRIOR TO CLEARING (TRENCHING AND ASSOCIATED BLASTING) IN THOSE AREAS NECESSARY TO PREVENT SEDIMENT FROM LEAVING THE CONSTRUCTION AREA. THESE EPSC MEASURES SHALL REMAIN UNTIL THE BACKFILLED TRENCH IS STABILIZED WITH FINAL VECETATIVE COVER.
- THE UTILITY CONTRACTOR SHALL RESTORE ALL AFFECTED WET WEATHER CONVEYANCES TO THE EXISTING TOPOGRAPHIC CONDITIONS (AS APPROVED BY THE TDOT PROJECT ENGINEER).
- THE UTILITY CONTRACTOR WILL PROVIDE APPROPRIATE EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) MEASURES TO REPLACE IN-PLACE EPSC MEASURES REMOVED TO FACILITATE THE INSTALLATION OF UTILITIES. REPLACEMENT OF EPSC MEASURES WILL BE COORDINATED WITH THE TOOT PROJECT ENGINEER BEFORE COMMENCING WORK

		ON PREVENTION ENT CONTROL L	
	SYMBOL	ITEM	STD. DWG.
	* SFB * SFB * SFB*	SILT FENCE WITH WIRE BACKING	EC-STR-3C
		ROCK CHECK DAM (V-DITCH)	EC-STR-6
		ENHANCED ROCK CHECK DAM (V-DITCH)	EC-STR-6A
*		ENHANCED ROCK CHECK DAM (TRAPEZOIDAL DITCH)	EC-STR-6A
	©	TEMPORARY CONSTRUCTION EXIT	EC-STR-25
	пппппппп	TEMPORARY BERM	EC-STR-27
)— ③	TEMPORARY SLOPE DRAIN	EC-STR-27
	** SOCK ** SOCK **	FILTER SOCK	EC-STR-8
	555555555	TURF REINFORCEMENT MAT	EC-STR-36
		SUSPENDED PIPE DIVERSION	EC-STR-33 EC-STR-33A
	*845*845*	SEDIMENT FILTER BAG	EC-STR-2
	* HVF * HVF	HIGH VISIBILITY FENCE	S-F-1

TEMPORARY CONSTRUCTION EXITS ARE TO BE LOCATED AND PLACED WHERE DIRECTED BY THE T.D.O.T. CONSTRUCTION ENGINEER.

EROSION PREVENTION AND

	ITEM NO.	DESCRIPTION	UNIT	QUANTITY
1) 2) 6)	203-01	ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED)	C.Y.	73911
1) 2)	209-02.05	12" TEMPORARY SLOPE DRAIN	L.F.	278
1) 2)	209-03.23	FILTER SOCK (24 INCH)	L.F.	825
1) 2)	209-05	SEDIMENT REMOVAL	C.Y.	262
1) 2)	209-08.02	TEMPORARY SILT FENCE (WITH BACKING)	L.F.	5280
1) 2)	209-08.07	ROCK CHECK DAM PER	EACH	107
1) 2)	209-08.08	ENHANCED ROCK CHECK DAM	EACH	21
2) 10)	209-09.01	SANDBAGS	BAG	2655
1) 2)	209-09.03	SEDIMENT FILTER BAG (15'X15')	EACH	1
2) 10)	209-20.03	POLYETHYLENE SHEETING (6 MIL. MINIMUM)	S.Y.	79
2) 10)	621-03.04	30" TEMPORARY DRAINAGE PIPE	L.F.	1188
1) 2)	621-05.02	TEMPORARY SHORING	LS	1
2)	707-08.11	HIGH-VISIBILITY CONSTRUCTION FENCE	L.F.	1973
) 2) 5)	709-05.05	MACHINED RIP-RAP (CLASS A-3)	TON	200
1) 2) 4)	709-05.06	MACHINED RIP-RAP (CLASS A-1)	TON	41
2)11)	709-05.09	MACHINED RIP-RAP (CLASS C)	TON	62
() 2) 5)	740-10.03	GEOTEXTILE (TYPE III)(EROSION CONTROL)	S.Y.	333
1) 2)	740-10.04	GEOTEXTILE (TYPE IV)(STABILIZATION)	S.Y.	4885
1) 2) 8)	801-01.07	TEMPORARY SEEDING (WITH MULCH)	UNIT	262
) 2) 12)	801-02	SEEDING (WITHOUT MULCH)	UNIT	8
1) 2) 3)	801-03	WATER (SEEDING & SODDING)	M.G.	96
1) 2) 7)	803-01	SODDING (NEW SOD)	S.Y.	36405
) 2) 12)	805-01.02	TURF REINFORCEMENT MAT (CLASS II)	S.Y.	871
1) 2) 9)	805-01.03	TURF REINFORCEMENT MAT (CLASS III)	S.Y.	980
2) 13)	805-12.01	EROSION CONTROL BLANKET (TYPE I)	S.Y.	12550

NOTES:

- 1) ALL QUANTITIES ARE TO BE USED AS DIRECTED BY THE ENGINEER.
- 2) SEE SUBSECTION 209.07 OF THE STANDARD SPECIFICATIONS FOR MAINTENANCE REPLACEMENT.
- 3) INCLUDES 27 M.G. FOR TEMPORARY SEEDING (WITH MULCH)
- 4) FOR USE WITH THE TEMPORARY SLOPE DRAINS
- FOR USE WITH THE TEMPORARY CONSTRUCTION EXITS.
- 313 C.Y. TO BE USED FOR TEMPORARY BERMS
- 7) TO BE USED NEXT TO CONCRETE SWALE DITCH.
- TO BE USED ON SOIL STOCKPILES. TO BE USED OVER FILL TO BE PLACED OVER GRADED SOLID ROCK
- STATIONS 722+50 TO 726+00 AND STATIONS 732+00 TO 733+00.
- TO BE USED FOR TEMPORARY SUSPENDED PIPE DIVERSION.
- 11) FOR USE AT CULVERT OUTLETS. SEE SHEETS 14 17.
- TO BE USED IN "V" BOTTOM DITCH STA. 701+43 STA. 717+10. TO BE USED ON 3:1 AND STEEPER SLOPES FOR TEMPORARY SOIL STABILITY UNTIL SOD IS PLACED.

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IM/NH-40-3(149)

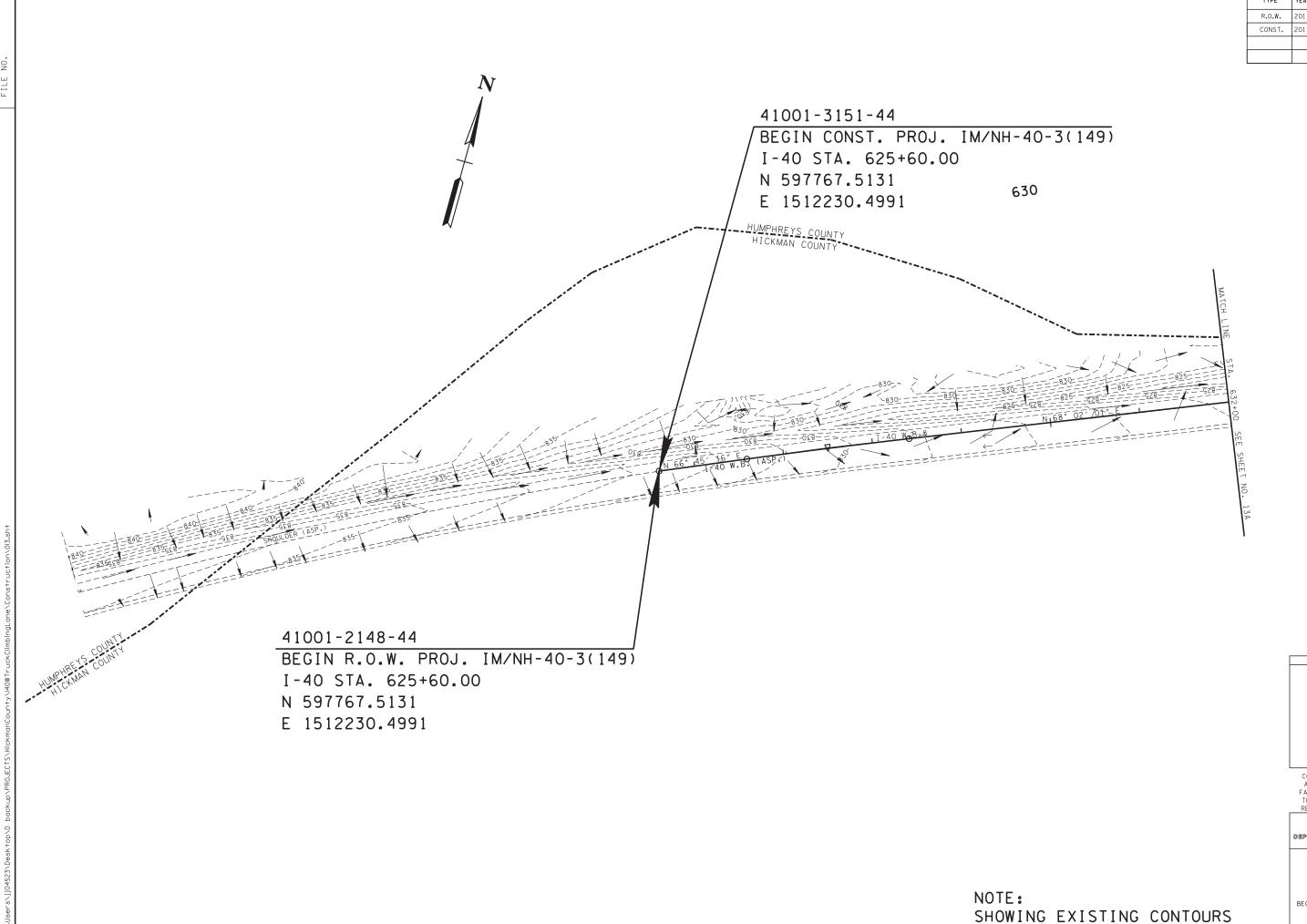
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DEPARTMENT OF TRANSPORTATION

EROSION **PREVENTION** AND SEDIMENT CONTROL NOTES



 TYPE
 YEAR
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 R.O.W.
 2015
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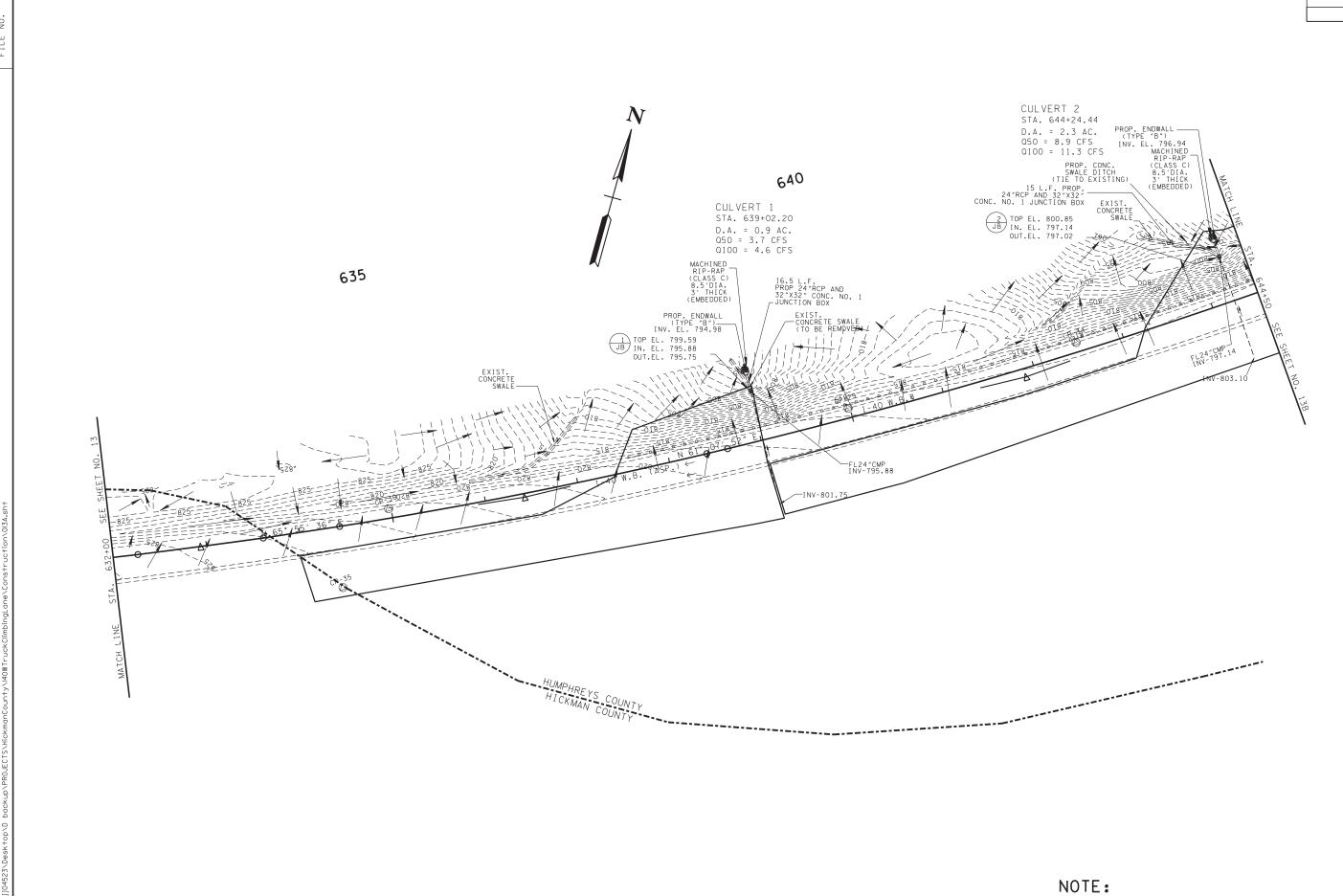
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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATI

DRAINAGE MAP

BEG. OF PROJ. TO STA. 632+00

SCALE: 1"= 50'



TYPE YEAR PROJECT NO. SHEET NO.

R.O.W. 2015 IM/NH-40-3(149) 13A

CONST. 2016 IM/NH-40-3(149) 13A



COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00008 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

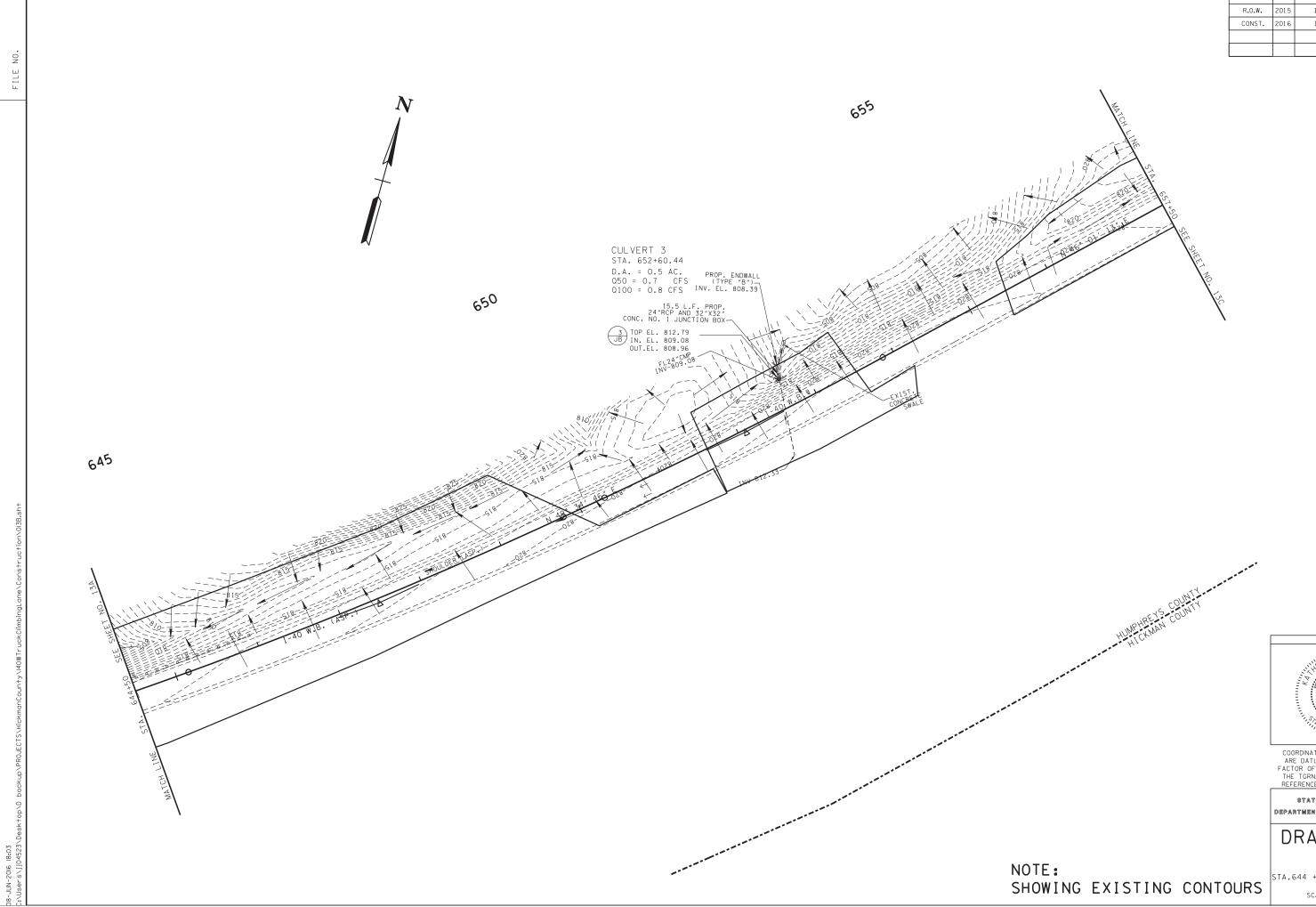
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATI

DRAINAGE MAP

STA. 632+00 TO STA. 644+50

SHOWING EXISTING CONTOURS

SCALE: 1"= 50'



 TYPE
 YEAR
 PROJECT NO.
 SHEET NO.

 R.O.W.
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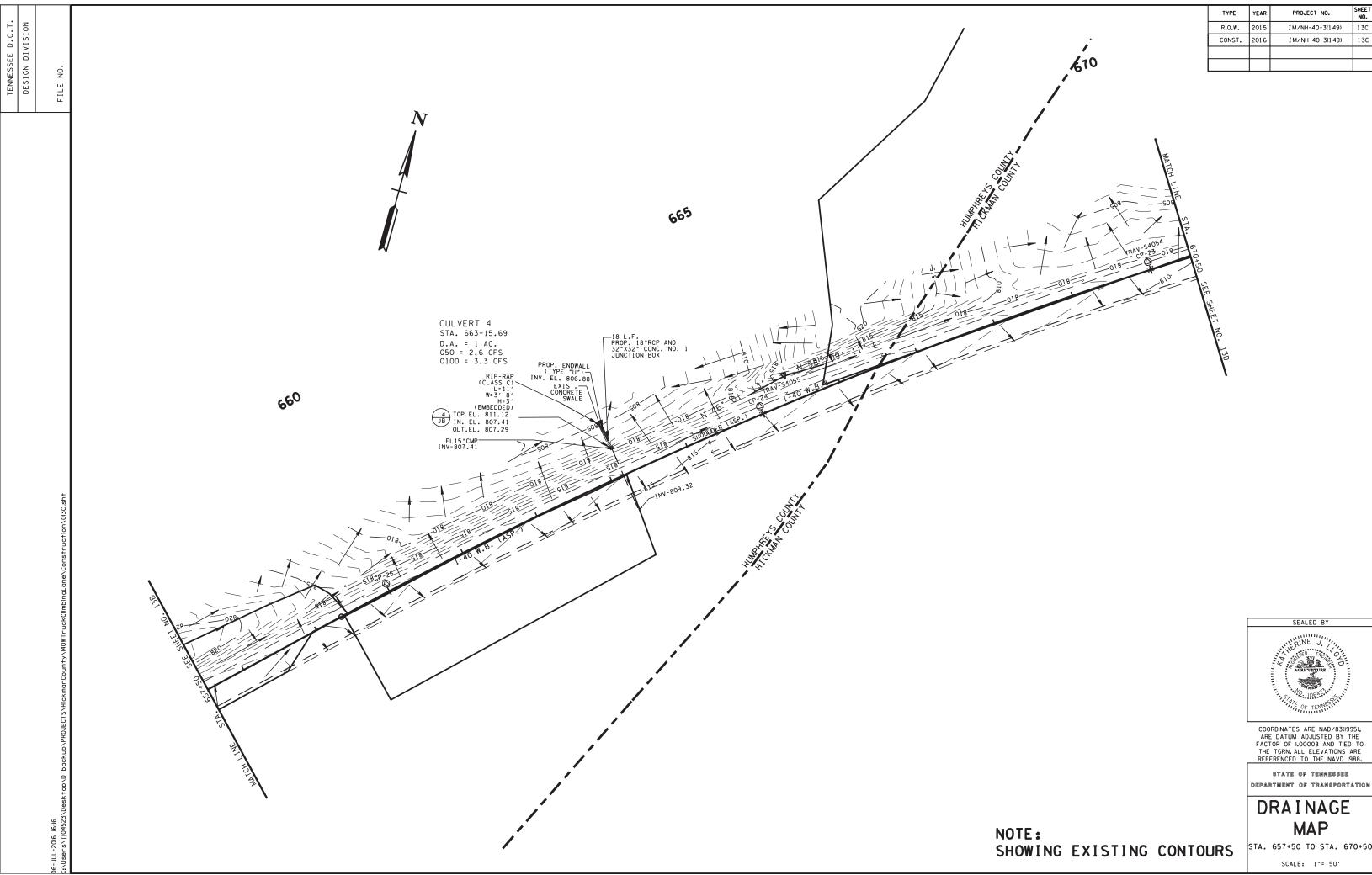
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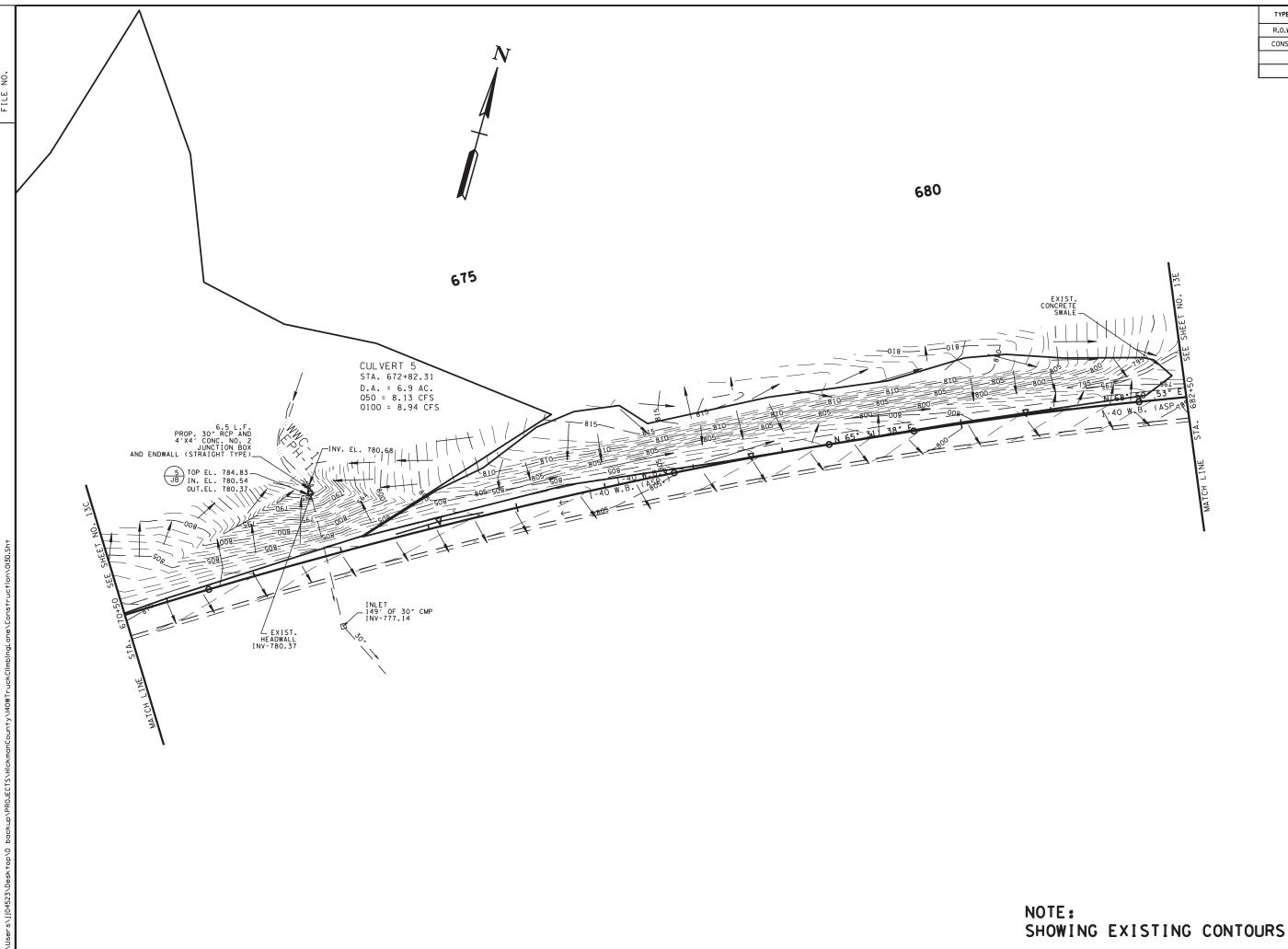
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

DRAINAGE MAP

STA.644 +50 TO STA.657 +50

SCALE: 1"= 50'





TENNESSEE D.O.T.
DESIGN DIVISION

TYPE YEAR PROJECT NO. SHEET NO.

R.O.W. 2015 IM/NH-40-3(149) 13D

CONST. 2016 IM/NH-40-3(149) 13D

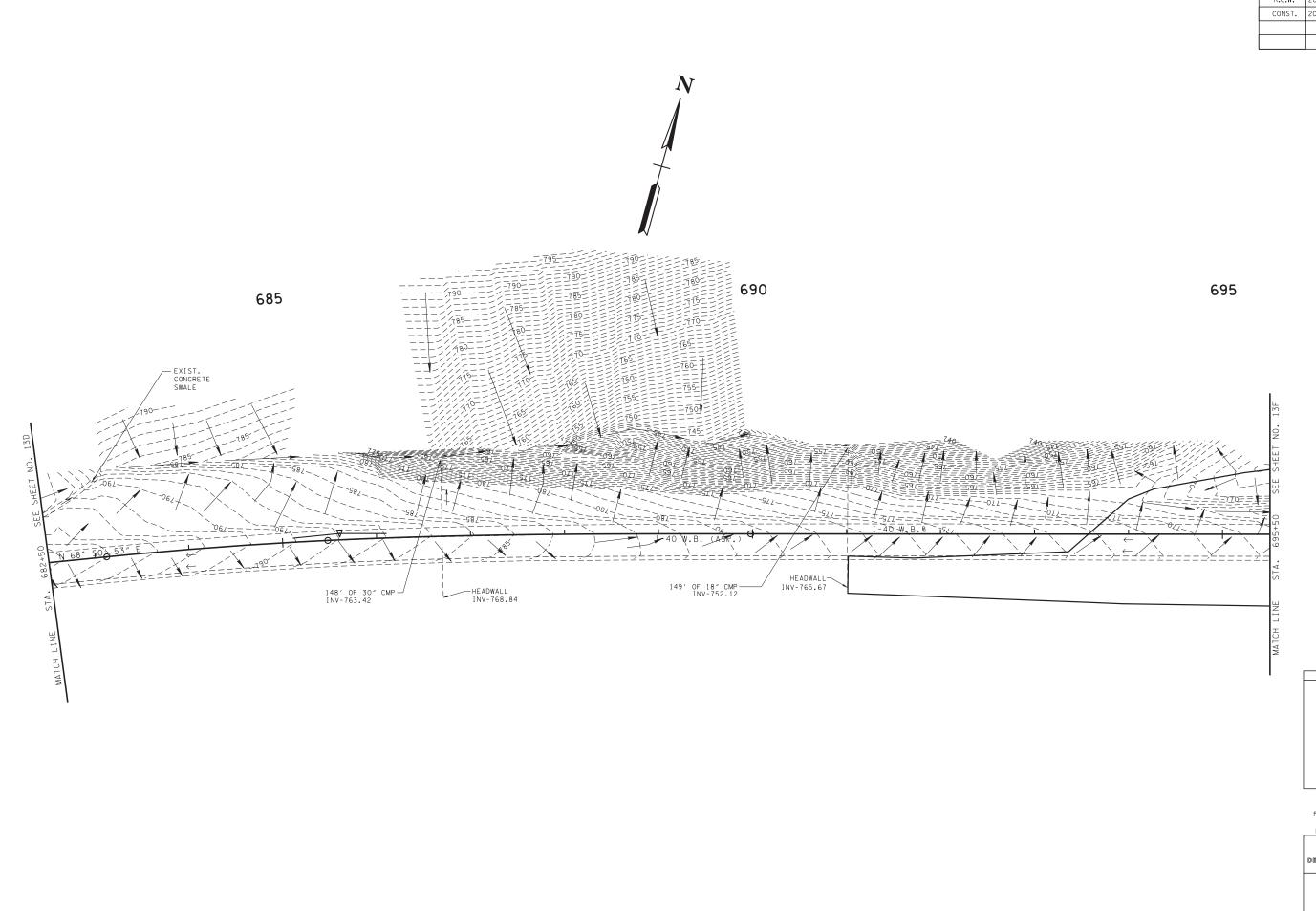


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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

DRAINAGE MAP

STA. 670+50 TO STA. 682+50 SCALE: 1"= 50'



NOTE: SHOWING EXISTING CONTOURS

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF LOCOOS AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

DEPARTMENT OF TRANSPORTATION

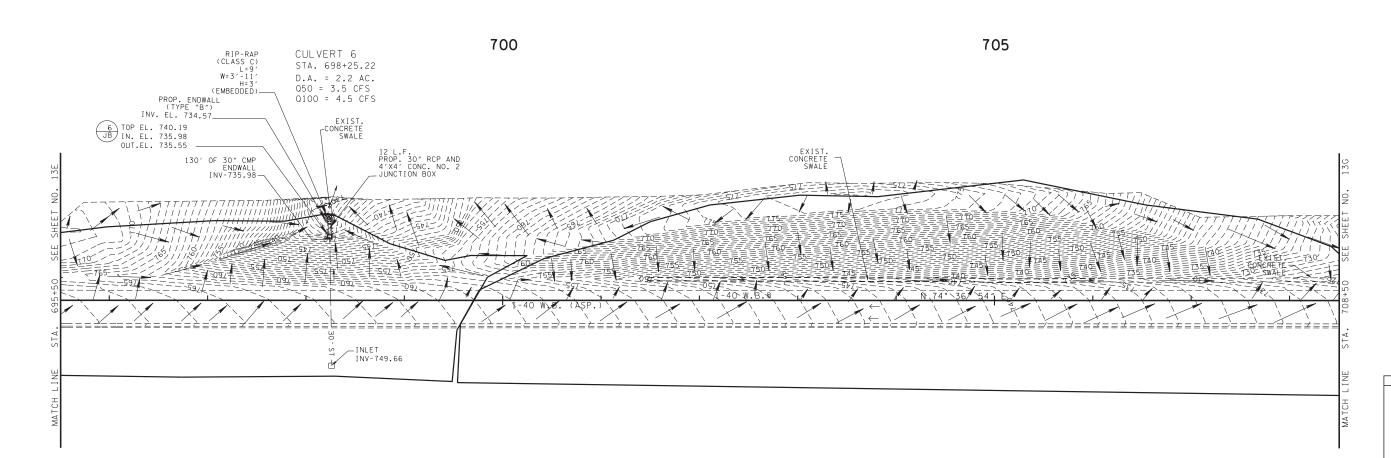
DRAINAGE MAP

STA. 682+50 TO STA. 695+50 SCALE: 1"= 50'

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0.0	DIVISION	
TENNESSEE		
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TYPE	YEAR	PROJECT NO.	NO.
R.O.W.	2015	I M/NH-40-3(149)	1 3F
CONST.	2016	IM/NH-40-3(149)	1 3F





NOTE: SHOWING EXISTING CONTOURS

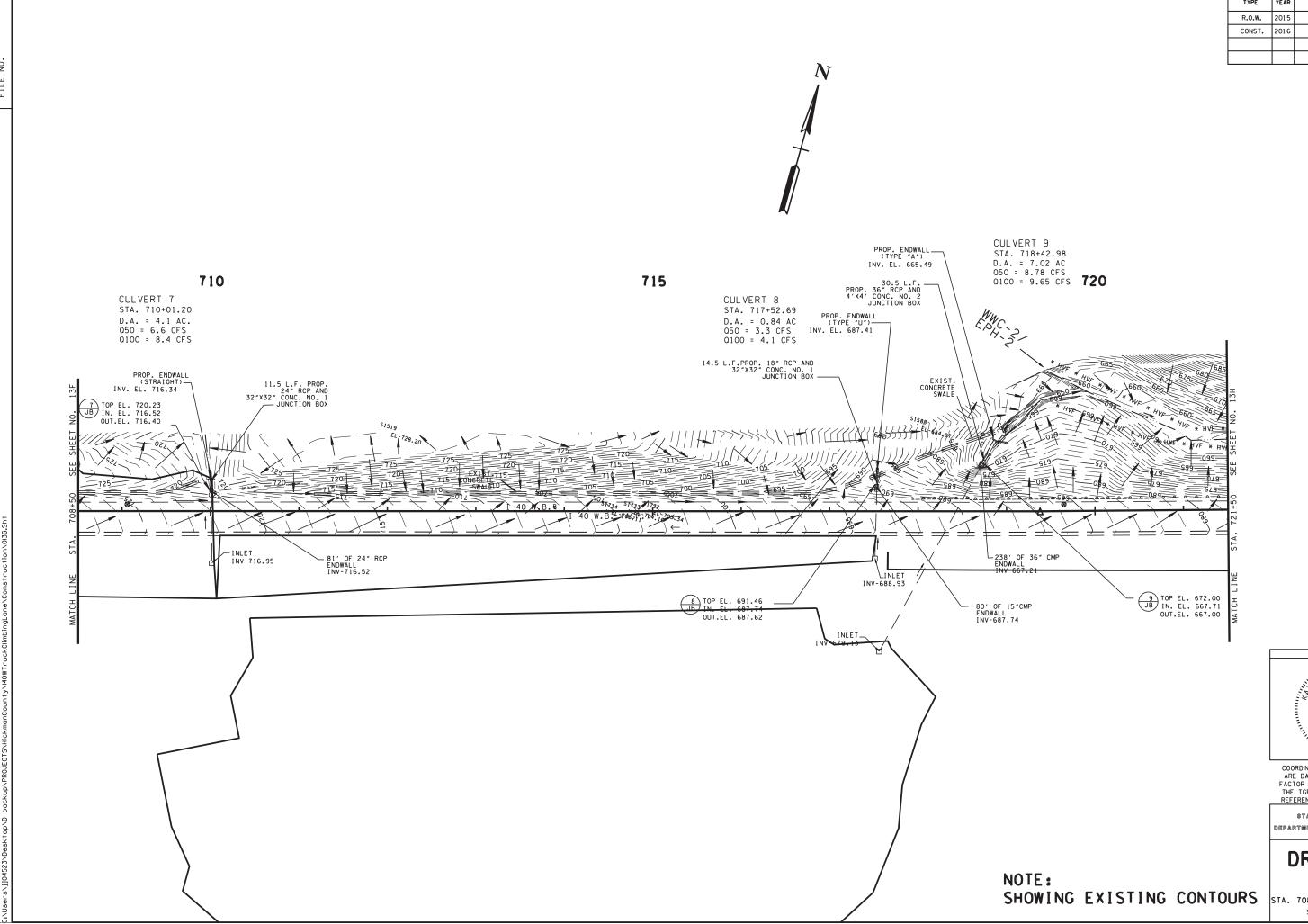


COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00008 AND TIED TO THE TORN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

DEPARTMENT OF TRANSPORTATION

DRAINAGE MAP

STA. 695+50 TO STA. 708+50 SCALE: 1"= 50'



TENNESSEE D.O.T.
DESIGN DIVISION

TYPE YEAR PROJECT NO. SHEET NO.

R.O.W. 2015 IM/NH-40-3(149) 13G

CONST. 2016 IM/NH-40-3(149) 13G

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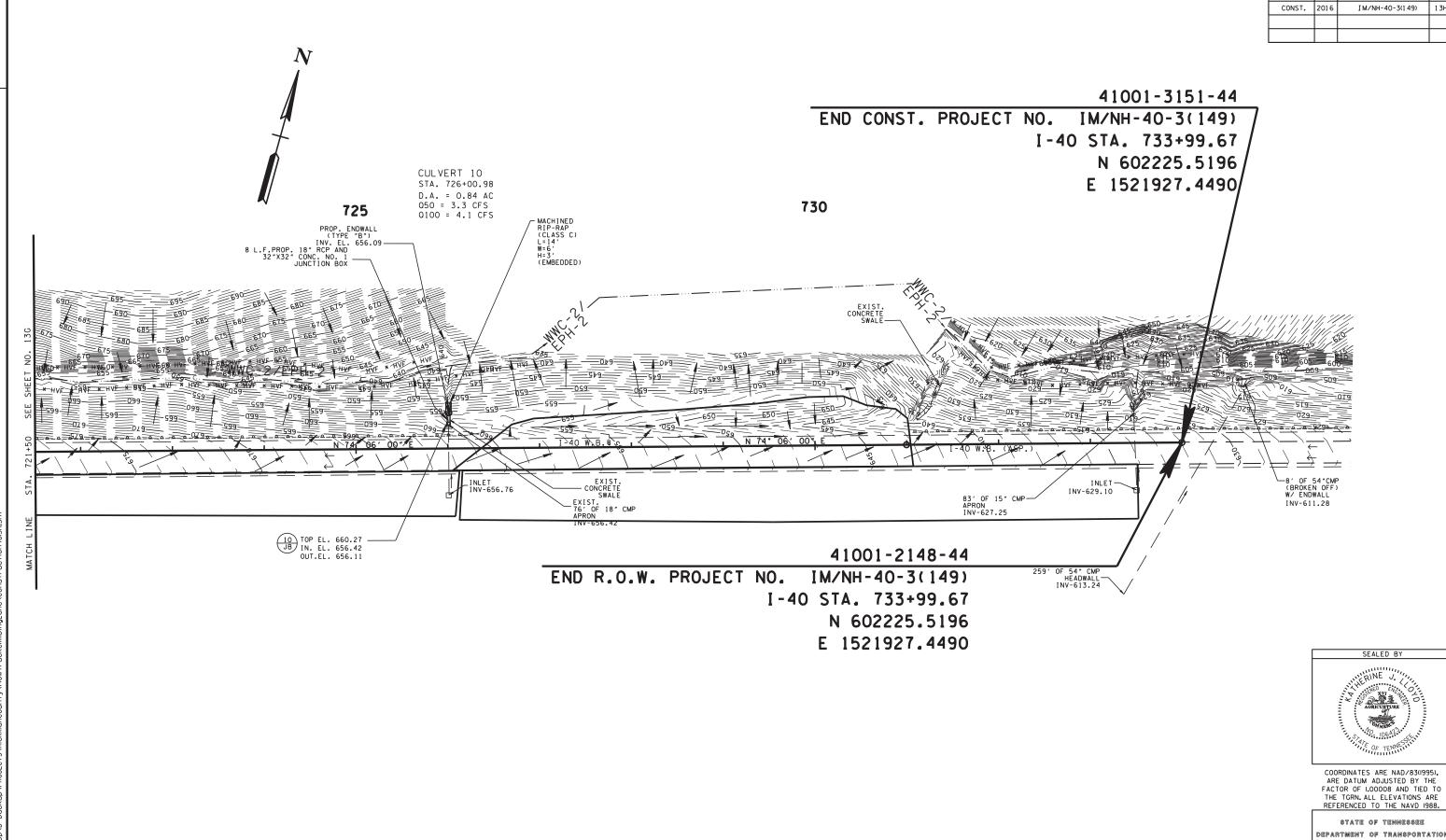
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COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF LOOOO8 AND TIED TO THE TORN, ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

DRAINAGE MAP

STA. 708+50 TO STA. 721+50 SCALE: 1"= 50'



NOTE: SHOWING EXISTING CONTOURS DRAINAGE
MAP

STA.721 +50 TO END OF PROJ. SCALE: 1"= 50' ILE

EROSION PREVENTION AND SEDIMENT CONTROL NOTES

STREAM/WETLAND

- ANY WORK WITHIN THE STREAM CHANNEL AREA (E.G., FOR PIER FOOTING, RIP-RAP PLACEMENT, MULTI-BARREL CULVERT/BRIDGE CONSTRUCTION, ETC.) SHALL BE SEPARATED FROM FLOWING WATER OR EXPECTED FLOW PATH AND PERFORMED DURING LOW FLOW CONDITIONS. ALL ITEMS USED WITHIN THE STREAM CHANNEL AREA FOR DIVERSION OF FLOW (OR EXPECTED FLOW), UNLESS SPECIFIED IN THE PLANS, SHALL NOT BE PAID FOR DIRECTLY BUT SHALL BE INCLUDED IN THE COST OF OTHER ITEMS. THIS NOTE EXCLUDES ANY ITEMS SPECIFIED IN THE PLANS FOR THE TEMPORARY DIVERSION CHANNELS, EC-STR-31 AND TEMPORARY DIVERSION CULVERTS, EC-STR-32 FOR SINGLE BARREL CULVERT CONSTRUCTION
- A 30 FOOT NATURAL RIPARIAN BUFFER ZONE ADJACENT TO AND ON BOTH SIDES OF THE RECEIVING STREAM SHALL BE PRESERVED, TO THE MAXIMUM EXTENT PRACTICABLE, DURING CONSTRUCTION ACTIVITIES AT THE SITE. BUFFER ZONES ARE NOT SEDIMENT CONTROL MEASURES AND SHOULD NOT BE RELIED UPON AS PRIMARY SEDIMENT CONTROL MEASURES. THE RIPARIAN BUFFER ZONE SHALL BE ESTABLISHED BETWEEN THE TOP OF THE STREAM BANK AND THE DISTURBED CONSTRUCTION AREA. THE 30 FOOT 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 SHALL BE MADE FOR CONSTRUCTION ACTIVITIES NOT TO TAKE PLACE WITHIN THE BUFFER ZONES. BEST MANAGEMENT PRACTICES (BMPS) PROVIDING EQUIVALENT PROTECTION AS THE NATURAL RIPARIAN ZONE MAY BE USED. A JUSTIFICATION FOR USE AND DESIGN EQUIVALENCY SHALL BE DOCUMENTED WITHIN THE SWPPP. THE ENVIRONMENTAL AND ROADWAY DESIGN DIVISIONS SHALL REVIEW AND APPROVE THIS REVISION OF THE SWPPP BEFORE DISTURBANCE OF THE SITE PROCEEDS, UNLESS PREVIOUSLY EXEMPT IN THE NPDES CONSTRUCTION GENERAL PERMIT. WHERE ISSUED, ARAP/401 REQUIREMENTS WILL PREVAIL IF IN CONFLICT WITH THESE BUFFER ZONE REQUIREMENTS.

NPDES

- NO WORK SHALL BE STARTED UNTIL THE CONTRACTOR'S PLAN FOR THE STAGING OF THEIR OPERATIONS, INCLUDING THE PLAN FOR STAGING OF TEMPORARY AND PERMANENT EPSC MEASURES. HAS BEEN ACCEPTED BY THE ENGINEER. THE CONTRACTOR'S EPSC PLAN SHALL INCORPORATE AND SUPPLEMENT, AS ACCEPTABLE, THE BASIC EPSC DEVICES ON THE EPSC PLAN CONTAINED IN THE
- THE EPSC MEASURES AND/OR PLAN SHALL BE MODIFIED AS NECESSARY SO THAT THEY ARE EFFECTIVE AT ALL TIMES THROUGHOUT THE COURSE OF THE PROJECT
- THE ACCEPTED EPSC PLAN SHALL REQUIRE THAT EPSC MEASURES BE IN PLACE BEFORE CLEARING, GRUBBING, EXCAVATION, GRADING, CUTTING OR FILLING OCCURS, EXCEPT AS SUCH WORK MAY BE NECESSARY TO INSTALL EPSC MEASURES. INCLUDING WITHOUT LIMITATION AS FOLLOWS:
 - INITIAL CLEARING AND GRUBBING SHALL BE LIMITED TO THAT NECESSARY FOR THE INSTALLATION OF APPLICABLE EPSC MEASURES IN ACCORDANCE WITH THE ACCEPTED EPSC PLAN INCORPORATED INTO THE SWPPF
 - NO OTHER CLEARING AND GRUBBING OPERATIONS SHALL BE STARTED BEFORE APPLICABLE EPSC MEASURES ARE IN PLACE IN ACCORDANCE WITH THE ACCEPTED EPSC PLAN INCORPORATED INTO THE SWPPP.
 - NO CULVERT OR BRIDGE CONSTRUCTION SHALL BE STARTED BEFORE APPLICABLE EPSC MEASURES ARE IN PLACE IN ACCORDANCE WITH THE ACCEPTED EPSC PLAN INCORPORATED INTO THE SWPPP.
 - D NO GRADING EXCAVATION CUTTING FILLING OR OTHER FARTHWORK SHALL BE STARTED BEFORE EPSC MEASURES ARE IN PLACE IN ACCORDANCE WITH THE ACCEPTED EPSC PLAN INCORPORATED INTO THE SWPPF
- PERMANENT EPSC MEASURES SHALL BE INITIATED WITHIN 14 CALENDAR DAYS AFTER FINAL GRADING OF ANY SEQUENCE OR PHASE. TEMPORARY OR PERMANENT STABILIZATION SHALL BE INITIATED WITHIN 14 CALENDAR DAYS AFTER FINAL GRADING OR WHEN CONSTRUCTION ACTIVITIES ON A PORTION OF THE SITE ARE TEMPORARILY CEASED AND EARTH DISTURBING ACTIVITIES WILL NOT RESUME UNTIL AFTER 14 CALENDAR DAYS. PERMANENT STABILIZATION WITH PERENNIAL VEGETATION 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-RUN WILL NOT BE CONSIDERED A NON-ERODIBLE SURFACE.
- STEEP SLOPES (A NATURAL OR CREATED SLOPE OF 35% GRADE (2.8H:1V) OR GREATER REGARDLESS OF HEIGHT) SHALL BE TEMPORARILY STABILIZED NO LATER THAN 7 CALENDAR DAYS AFTER CONSTRUCTION ACTIVITY ON THE SLOPE HAS TEMPORARILY OR PERMANENTLY CEASED.
- FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION SUPPORT ACTIVITIES; TDOT PROJECTS ARE COVERED UNDER THE "WASTE AND BORROW" MANUAL PER THE SSWMP
- EXCEPT AS OTHERWISE SPECIFIED, THERE ARE NO KNOWN SPECIAL ENVIRONMENTAL FACTORS PRESENT ON THIS PROJECT THAT INDICATE A NEED FOR SEASONAL LIMITATIONS ON THE CLEARING, GRUBBING, EXCAVATION, GRADING, CUTTING OR FILLING OPERATIONS OR ON THE TOTAL AREA OF EXPOSED SOIL

UTILITY RELOCATION

RAIN WATER WHICH COLLECTS IN THE UTILITY TRENCH SHALL BE PUMPED INTO A DEWATERING STRUCTURE OR SEDIMENT FILTER BAG AND MAINTAINED

- SILT FENCE SHALL BE INSTALLED ON THE DOWNSTREAM SIDE OF STOCKPILED SOIL TRENCHING ACROSS WET WEATHER CONVEYANCES SHALL BE DONE DURING NO FLOW CONDITIONS AND STABILIZED BY THE END OF THE WORK DAY
- IT IS THE RESPONSIBILITY OF THE STATE UTILITY CONTRACTOR INSTALLER TO PROTECT FROM EROSION EXPOSED EARTH RESULTING FROM THEIR OPERATIONS AND TO PROVIDE FOR CONTAINMENT OF SEDIMENT THAT MAY RESULT FROM THEIR WORK, PRIOR TO BEGINNING WORK, ADEQUATE MEASURES MUST BE IN PLACE TO TRAP ANY SEDIMENT THAT MAY TRAVEL OFF-SITE IN THE EVENT OF RAIN. DURING THE PROGRESSION OF THEIR WORK, EXPOSED EARTH AREAS SHALL BE STABILIZED AS SOON AS POSSIBLE TO PREVENT FROSION AT NO TIME SHALL EXPOSED FARTH RESULTING FROM THEIR OPERATIONS HAVE UNPROTECTED ACCESS TO FLOWING OFF-SITE AND ENTERING WATERS OF THE STATE/U.S.
- FOR THE INSTALLATION OF BURIED UTILITIES (PIPES AND CABLES), TRENCHES SHALL BE BACKFILLED DAILY AS CONSTRUCTION PROCEEDS. BACKFILLED TRENCHES SHALL BE SEEDED AND MULCHED OR SODDED DAILY IF POSSIBLE. BUT NO LATER THAN SEVEN DAYS AFTER BEING BACKFILLED. ANY TEMPORARY SPOIL OF EXCAVATED EARTH SHALL BE LOCATED WITHIN TDOT EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) MEASURES OR RECEIVE SEPARATE EPSC MEASURES. IF TRENCHES ARE NOT BACKFILLED OVERNIGHT, APPROPRIATE EPSC MEASURES WILL BE INSTALLED BY THE STATE UTILITY CONTRACTOR UNTIL SUCH TIME AS THE TRENCH IS
- IN REGARD TO EROSION PREVENTION AND SEDIMENT CONTROL (EPSC), TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION (TDEC) REGULATIONS APPLY TO THE STATE UTILITY CONTRACTORS IN THIS PROJECT, THEREFORE, THE STATE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF THE STORM WATER POLLUTIONS PREVENTION PLANS (SWPPP). THE STATE CONTRACTOR IS RESPONSIBLE FOR EPSC MEASURES RELATED TO UTILITY CONSTRUCTION INCLUDED IN THE STATE CONTRACT WORK
- TRENCHES FORMED FOR THE INSTALLATION OF BURIED UTILITIES MAY CAUSE STORM WATER RUNOFF TO CONCENTRATE AT THE TRENCH LINE. ADDITIONAL EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) MEASURES MAY BE REQUIRED TO BE INSTALLED AS APPROVED BY THE TOOT PROJECT ENGINEER.
- FOR THE INSTALLATION OF UNDERGROUND UTILITIES OUTSIDE OF THE TDOT RIGHT-OF-WAY, EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) SHALL BE INSTALLED PRIOR TO CLEARING (TRENCHING AND ASSOCIATED BLASTING) IN THOSE AREAS NECESSARY TO PREVENT SEDIMENT FROM LEAVING THE CONSTRUCTION AREA. THESE EPSC MEASURES SHALL REMAIN UNTIL THE BACKFILLED TRENCH IS STABILIZED WITH FINAL VEGETATIVE COVER.
- THE UTILITY CONTRACTOR SHALL RESTORE ALL AFFECTED WET WEATHER CONVEYANCES TO THE EXISTING TOPOGRAPHIC CONDITIONS (AS APPROVED BY THE TDOT PROJECT ENGINEER).
- THE UTILITY CONTRACTOR WILL PROVIDE APPROPRIATE EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) MEASURES TO REPLACE IN-PLACE EPSC MEASURES REMOVED TO FACILITATE THE INSTALLATION OF UTILITIES. REPLACEMENT OF EPSC MEASURES WILL BE COORDINATED WITH THE TOOT PROJECT ENGINEER BEFORE

	EROSION PREVENTION AND SEDIMENT CONTROL LEGENT			
SYMBOL	I TEM	STD. DWG.		
*SFB*SFB*SFB*	SILT FENCE WITH WIRE BACKING	EC-STR-3C		
	ROCK CHECK DAM (V-DITCH)	EC-STR-6		
•	ENHANCED ROCK CHECK DAM (V-DITCH)	EC-STR-6A		
	ENHANCED ROCK CHECK DAM (TRAPEZOIDAL DITCH)	EC-STR-6A		
	TEMPORARY CONSTRUCTION EXIT	EC-STR-25		
ппппппппп	TEMPORARY BERM	EC-STR-27		
) —	TEMPORARY SLOPE DRAIN	EC-STR-27		
** SOCK ** SOCK **	FILTER SOCK	EC-STR-8		
<u> </u>	TURF REINFORCEMENT MAT	EC-STR-36		
	SUSPENDED PIPE DIVERSION	EC-STR-33 EC-STR-33A		
* 812 * 812 * 818	SEDIMENT FILTER BAG	EC-STR-2		
* HVF * HVF	HIGH VISIBILITY FENCE	S-F-1		
	EROSION CONTROL BLANKET	EC-STR-34		

K	NOTE:	

TEMPORARY CONSTRUCTION EXITS ARE TO BE LOCATED AND PLACED WHERE DIRECTED BY THE T.D.O.T. CONSTRUCTION ENGINEER.

EROSION PREVENTION AND	
SEDIMENT CONTROL QUANTITIES	

- 1	SEDIMENT CONTROL QUANTITIES					
	ITEM NO.	DESCRIPTION	UNIT	QUANTITY		
1) 2) 6)	203-01	ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED)	C.Y.	73911		
1)2)	209-02.05	12" TEMPORARY SLOPE DRAIN	L.F.	278		
1)2)	209-03.23	FILTER SOCK (24 INCH)	L.F.	825		
1)2)	209-05	SEDIMENT REMOVAL	C.Y.	262		
1)2)	209-08.02	TEMPORARY SILT FENCE (WITH BACKING)	L.F.	5280		
1)2)	209-08.07	ROCK CHECK DAM PER	EACH	107		
1)2)	209-08.08	ENHANCED ROCK CHECK DAM	EACH	21		
1) 2) 10)	209-09.01	SANDBAGS	BAG	2655		
1)2)	209-09.03	SEDIMENT FILTER BAG (15'X15')	EACH	1		
1) 2) 10)	209-20.03	POLYETHYLENE SHEETING (6 MIL. MINIMUM)	S.Y.	79		
1) 2) 10)	621-03.04	30" TEMPORARY DRAINAGE PIPE	L.F.	1188		
1)2)	621-05.02	TEMPORARY SHORING	LS	1		
2)	707-08.11	HIGH-VISIBILITY CONSTRUCTION FENCE	L.F.	1973		
1) 2) 5)	709-05.05	MACHINED RIP-RAP (CLASS A-3)	TON	200		
1) 2) 4)	709-05.06	MACHINED RIP-RAP (CLASS A-1)	TON	41		
1) 2) 11)	709-05.09	MACHINED RIP-RAP (CLASS C)	TON	62		
1) 2) 5)	740-10.03	GEOTEXTILE (TYPE III)(EROSION CONTROL)	S.Y.	333		
1)2)	740-10.04	GEOTEXTILE (TYPE IV)(STABILIZATION)	S.Y.	4885		
1)2)8)	801-01.07	TEMPORARY SEEDING (WITH MULCH)	UNIT	262		
1) 2) 12)	801-02	SEEDING (WITHOUT MULCH)	UNIT	8		
1)2)3)	801-03	WATER (SEEDING & SODDING)	M.G.	96		
1)2)7)	803-01	SODDING (NEW SOD)	S.Y.	36405		
1) 2) 12)		TURF REINFORCEMENT MAT (CLASS II)	S.Y.	871		
	805-01.03	TURF REINFORCEMENT MAT (CLASS III)	S.Y.	980		
1) 2) 13)	805-12.01	EROSION CONTROL BLANKET (TYPE I)	S.Y.	13225		

- 1) ALL QUANTITIES ARE TO BE USED AS DIRECTED BY THE ENGINEER. 2) SEE SUBSECTION 209.07 OF THE STANDARD SPECIFICATIONS FOR
- MAINTENANCE REPLACEMENT
- 3) INCLUDES 27 M.G. FOR TEMPORARY SEEDING (WITH MULCH).
- 4) FOR USE WITH THE TEMPORARY SLOPE DRAINS
- FOR USE WITH THE TEMPORARY CONSTRUCTION EXITS.
- 6) 313 C.Y. TO BE USED FOR TEMPORARY BERMS.
- TO BE USED NEXT TO CONCRETE SWALE DITCH.
- TO BE USED ON SOIL STOCKPILES. TO BE USED OVER FILL TO BE PLACED OVER GRADED SOLID ROCK
- STATIONS 722+50 TO 726+00 AND STATIONS 732+00 TO 733+00. TO BE USED FOR TEMPORARY SUSPENDED PIPE DIVERSION.
- FOR USE AT CULVERT OUTLETS. SEE SHEETS 14 17.
- TO BE USED IN "V" BOTTOM DITCH STA, 701+43 STA, 717+10
- TO BE USED ON 3:1 AND STEEPER SLOPES FOR TEMPORARY SOIL STABILITY UNTIL SOD IS PLACED.



TYPE

R.O.W.

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2016

IM/NH-40-3(149)

IM/NH-40-3(149)

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STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

EROSION **PREVENTION** AND SEDIMENT CONTROL NOTES

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FILE N	N	
FILE FILE	41001-2148-44 BEGIN CONST. PROJ. IM/NH-40-3(149) 1-40 STA. 625+60.00 630 41001-2148-44 BEGIN R.O.W. PROJ. IM/NH-40-3(149) 1-40 STA. 625+60.00 N 597767.5131 E 1512230.4991 NOTE: ALL EPSC MEASURES ARE BE MAINTAINED AND TO REMAIN IN-PLACE PER THE ENGINEER'S DISCRETION.	NO 70
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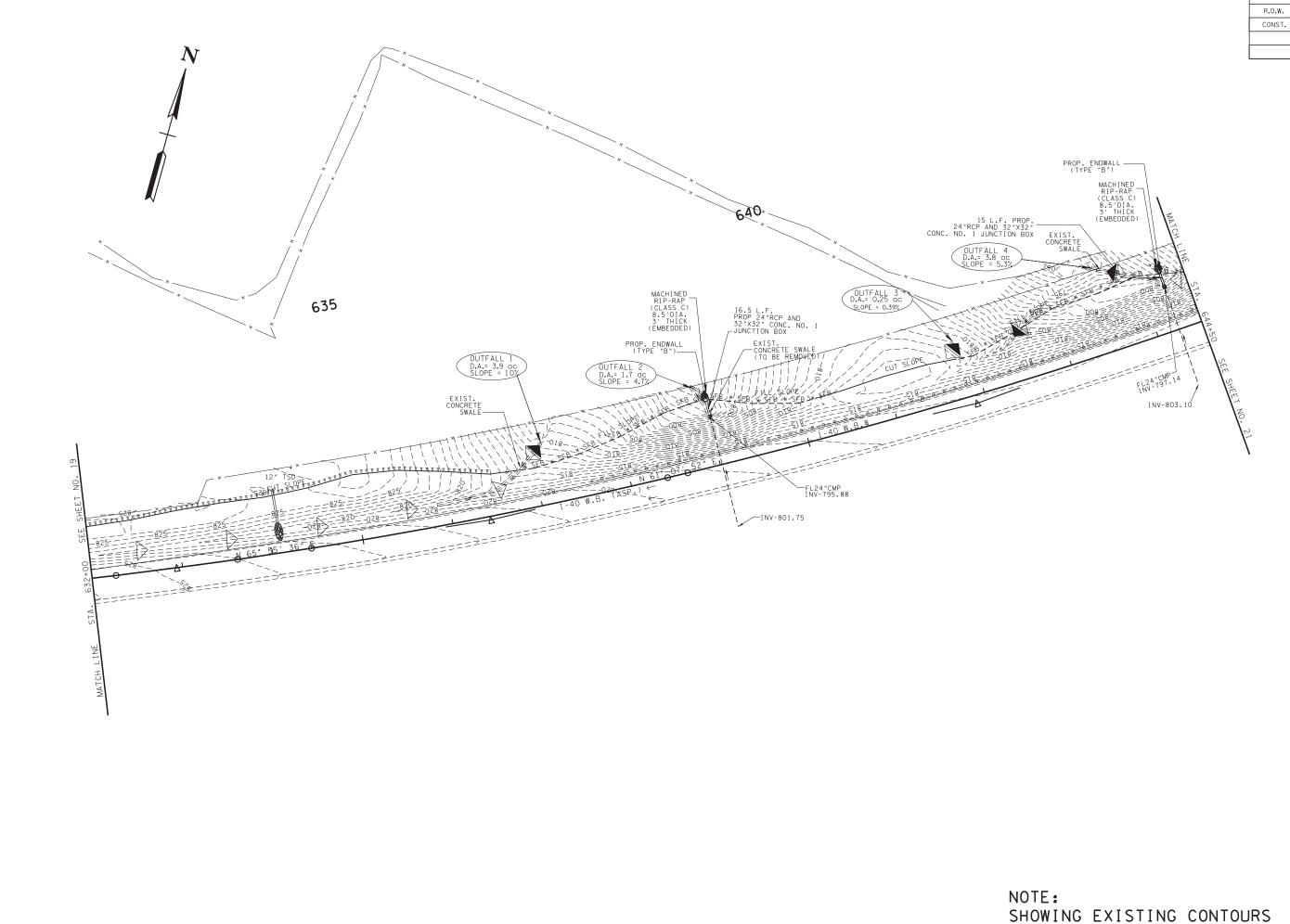
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STAGE I CLEARING AND GRUBBING

DEPARTMENT OF TRANSPORTATION

EROSION
PREVENTION
AND SEDIMENT
CONTROL PLAN
STA. 619+00 TO STA. 632+00
SCALE: 1"= 50'

NOTE: SHOWING EXISTING CONTOURS



 TYPE
 YEAR
 PROJECT NO.
 SHEET NO.

 R.O.W.
 2015
 IM/NH-40-3(149)
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 2016
 IM/NH-40-3(149)
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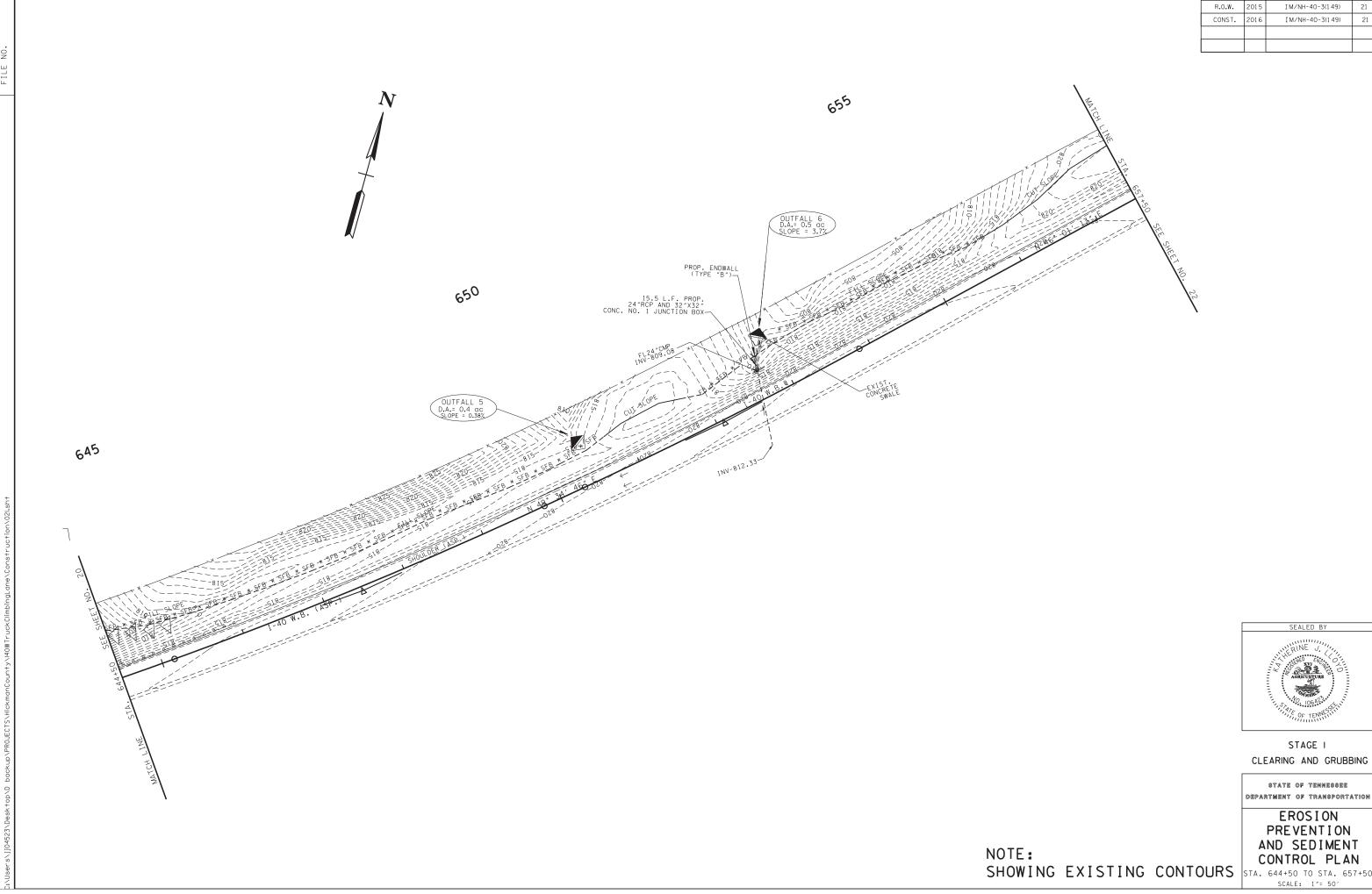
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STAGE I CLEARING AND GRUBBING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

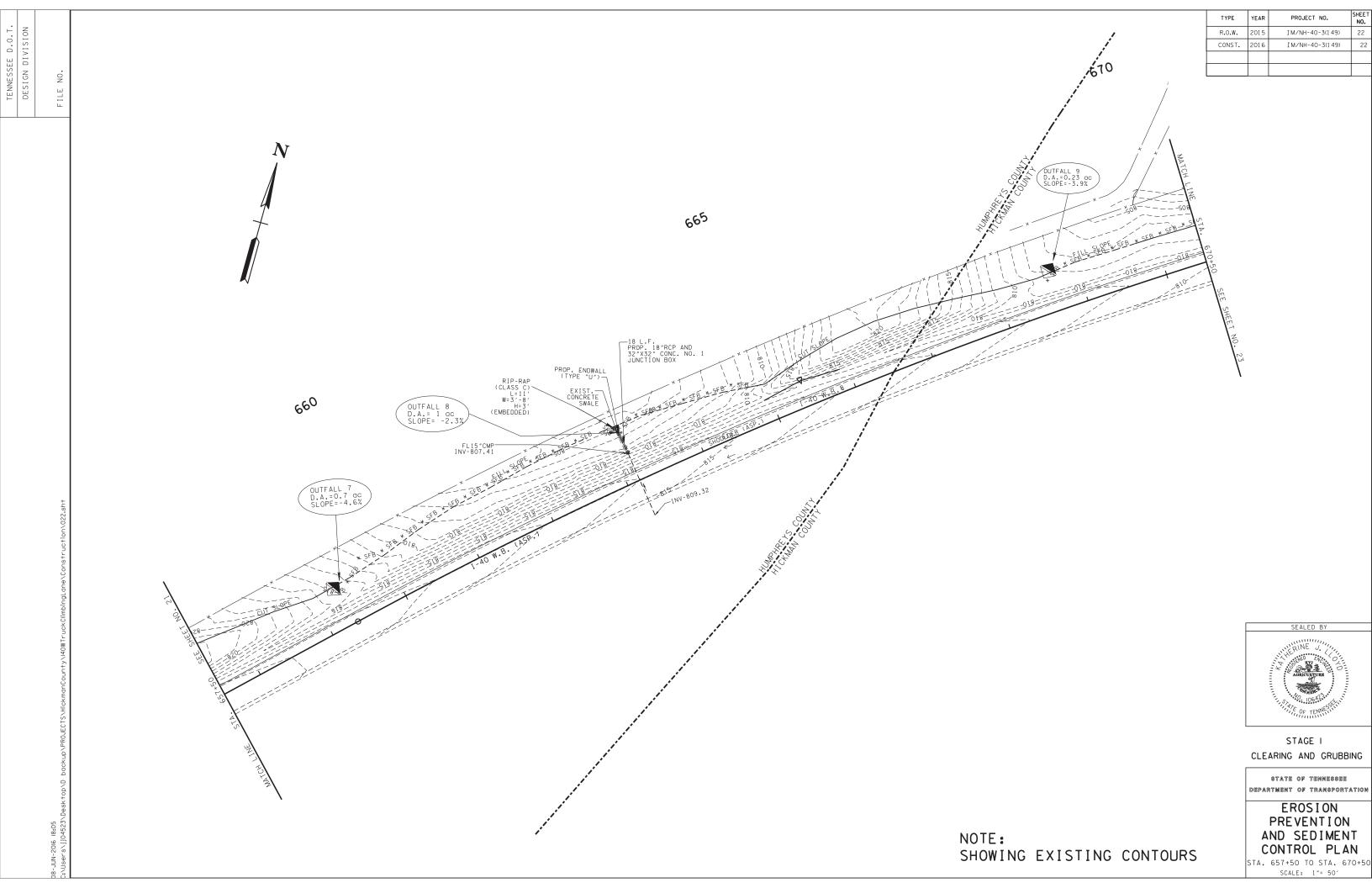
EROSION
PREVENTION
AND SEDIMENT
CONTROL PLAN

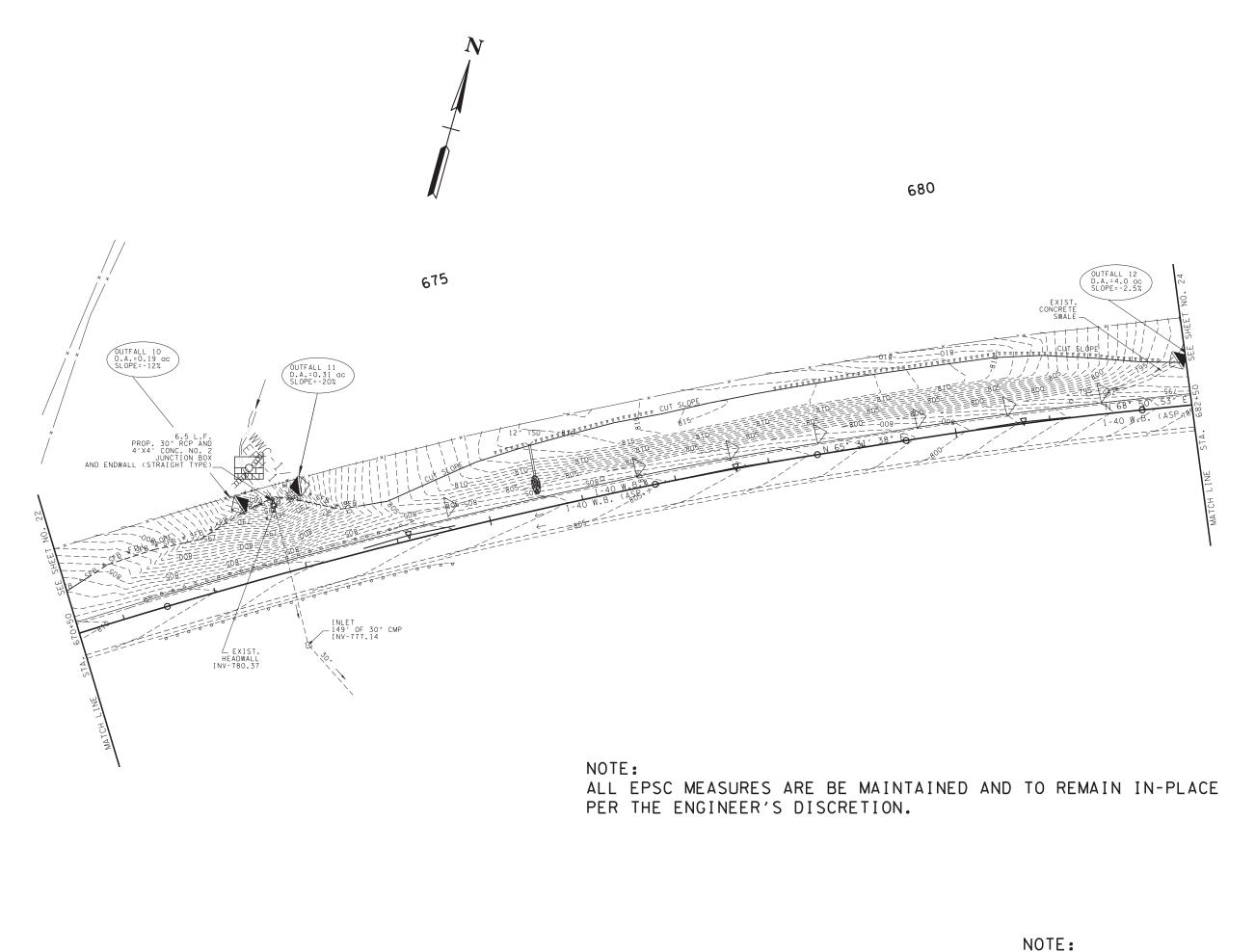
STA. 632+00 TO STA. 644+50 SCALE: 1"= 50'



STAGE I CLEARING AND GRUBBING

DEPARTMENT OF TRANSPORTATION





TYPE YEAR PROJECT NO. SHEET NO.

R.O.W. 2015 IM/NH-40-3(149) 23

CONST. 2016 IM/NH-40-3(149) 23

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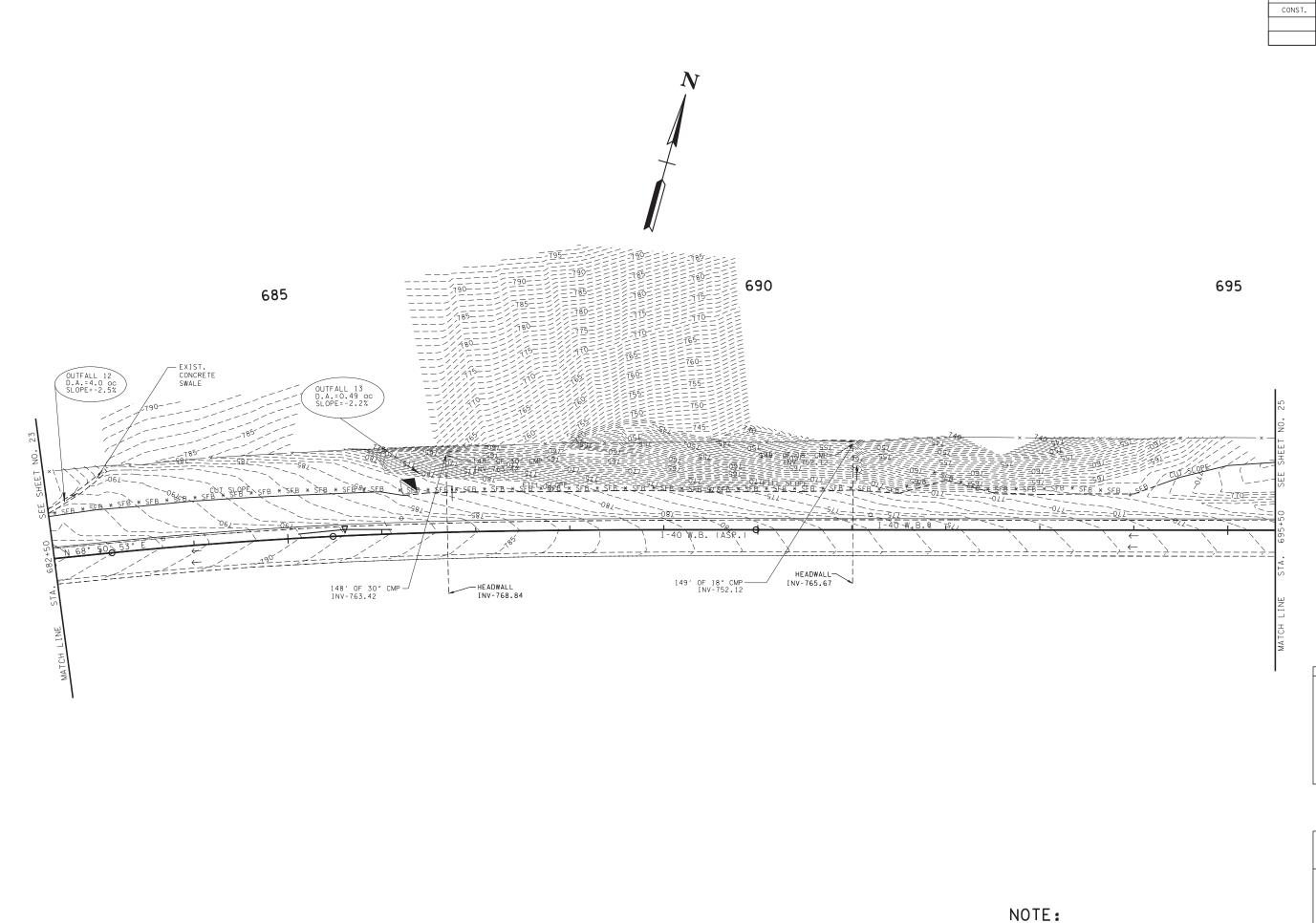
STAGE I CLEARING AND GRUBBING

STATE OF TENNESSEE

EROSION
PREVENTION
AND SEDIMENT
CONTROL PLAN

STA. 670+50 TO STA. 682+50 SCALE: 1"= 50'

SHOWING EXISTING CONTOURS



2015 IM/NH-40-3(149) 24 . 2016 IM/NH-40-3(149) 24

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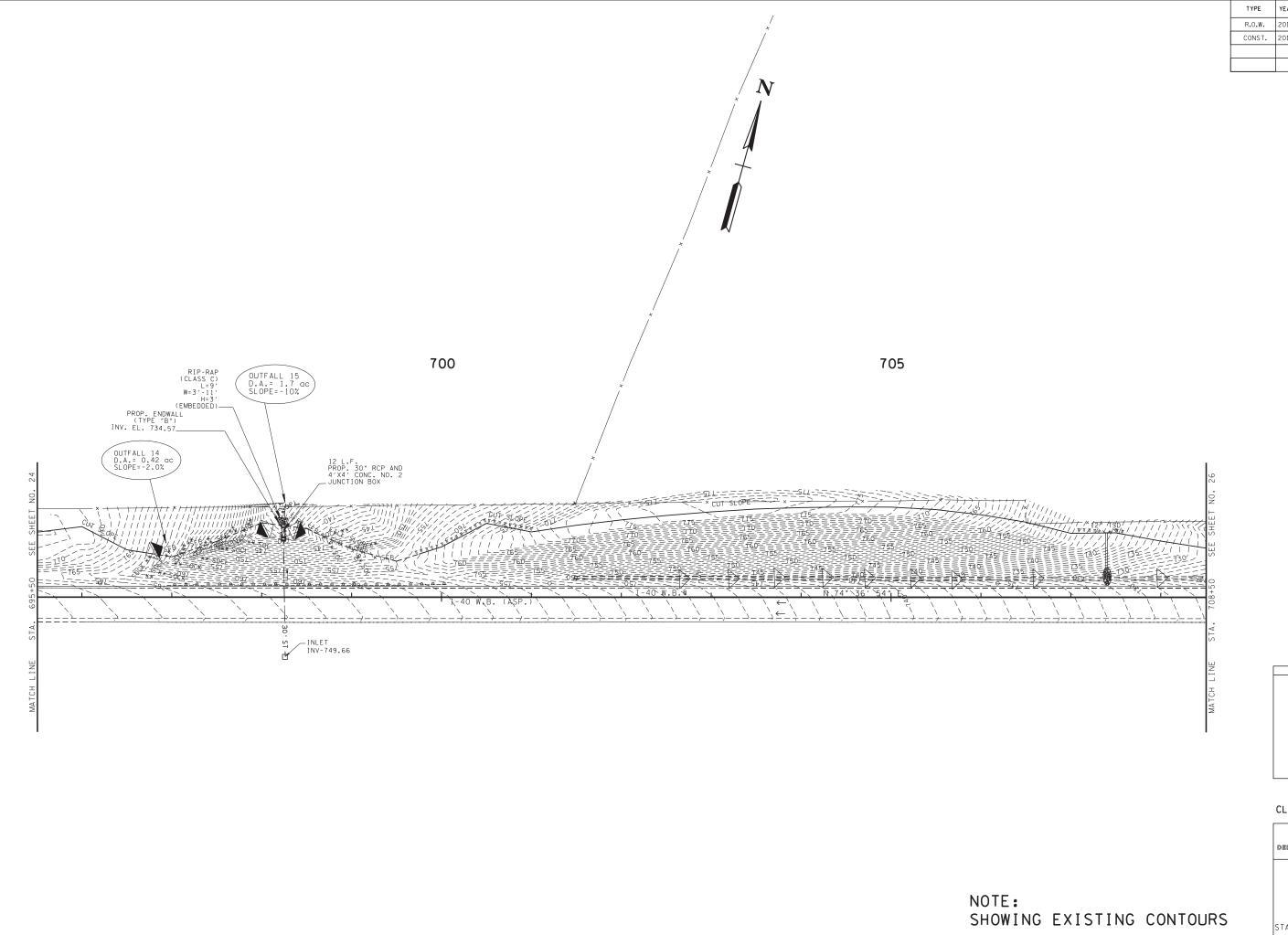
STAGE I CLEARING AND GRUBBING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION
PREVENTION
AND SEDIMENT
CONTROL PLAN

STA. 682+50 TO STA. 695+50 SCALE: 1"= 50'

SHOWING EXISTING CONTOURS



W. 2015 IM/NH-40-3(149) 25 ST. 2016 IM/NH-40-3(149) 25

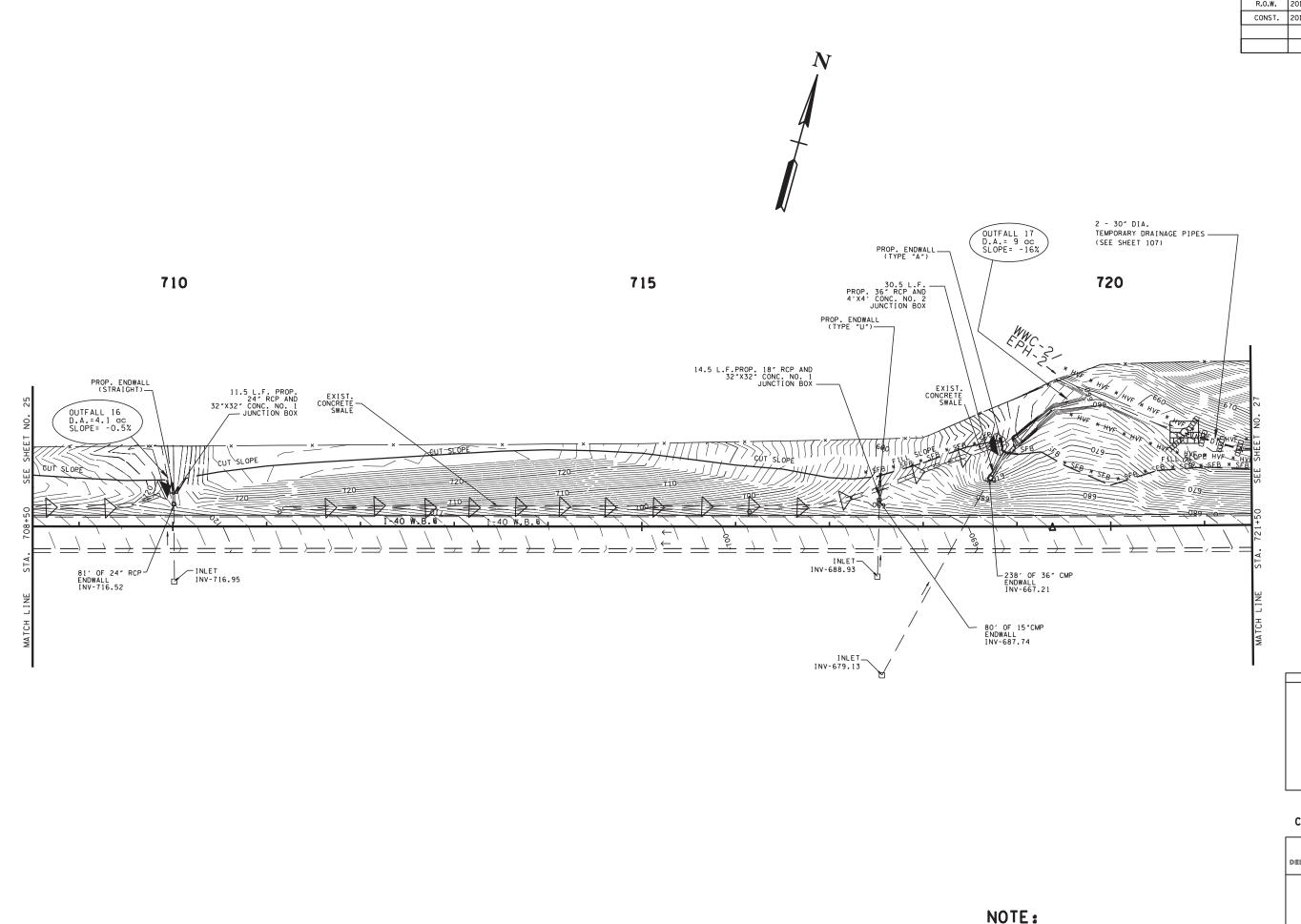
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STAGE I CLEARING AND GRUBBING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION
PREVENTION
AND SEDIMENT
CONTROL PLAN

STA. 695+50 TO STA. 708+50



 TYPE
 YEAR
 PROJECT NO.
 SHEET NO.

 R.O.W.
 2015
 JM/NH-40-3(149)
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 CONST.
 2016
 JM/NH-40-3(149)
 26

STAGE I CLEARING AND GRUBBING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION
PREVENTION
AND SEDIMENT
CONTROL PLAN

STA. 708+50 TO STA. 721+50 SCALE: 1"= 50'

SHOWING EXISTING CONTOURS

IM/NH-40-3(149) 41001-3151-44 END CONST. PROJECT NO. IM/NH-40-3(149) I-40 STA. 733+99.67 2 - 30" DIA. TEMPORARY DRAINAGE PIPES — (SEE SHEETS 115 - 116) 2 - 30" DIA. TEMPORARY DRAINAGE PIPES — (SEE SHEETS 108 - 110) RIP RAP (CLASS C) LENGTH=19' WIDTH=21' DEPTH=3.5' 730 725 - MACHINED RIP-RAP (CLASS C) L=14' W=6' H=3' (EMBEDDED) RIP RAP (CLASS C) LENGTH=19' WIDTH=21' DEPTH=3.5'

INLET INV-656.76

5k9 EXIST.
CONCRETE
SWALE
EXIST.
76' OF 18" CMP
APRON
INV-656.42 83' OF 15" CMF APRON INV-627.25 41001-2148-44 259' OF 54" CMP HEADWALL-INV-613.24 END R.O.W. PROJECT NO. IM/NH-40-3(149) I-40 STA. 733+99.67 N 602225.5196

E 1521927.4490

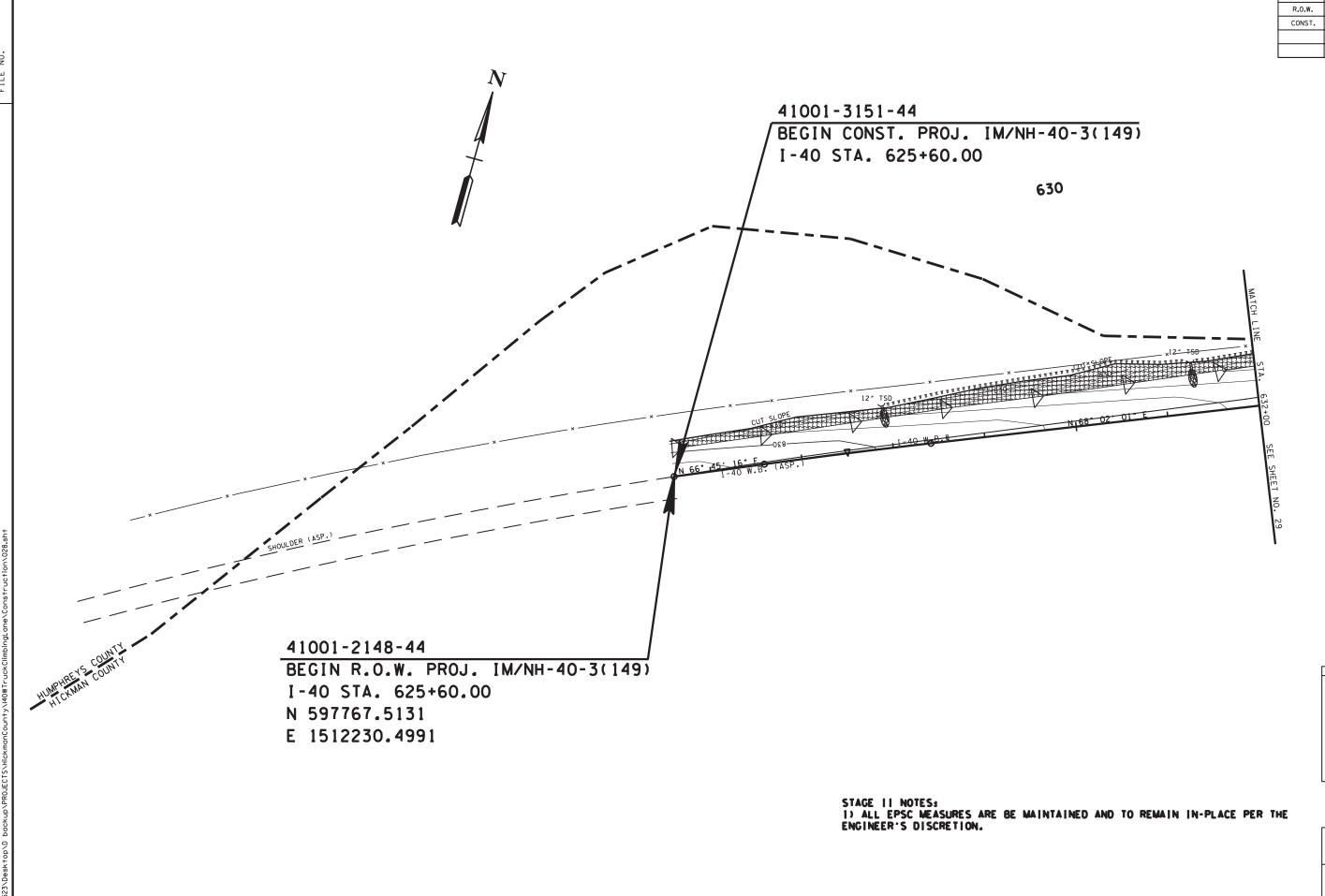
NOTE: SHOWING EXISTING CONTOURS

STAGE I CLEARING AND GRUBBING

DEPARTMENT OF TRANSPORTATION

EROSION **PREVENTION** AND SEDIMENT CONTROL PLAN

STA. 721+50 TO END OF PROJ



TYPE YEAR PROJECT NO. SHEET NO.

R.O.W. 2015 IM/NH-40-3(149) 28

CONST. 2016 IM/NH-40-3(149) 28

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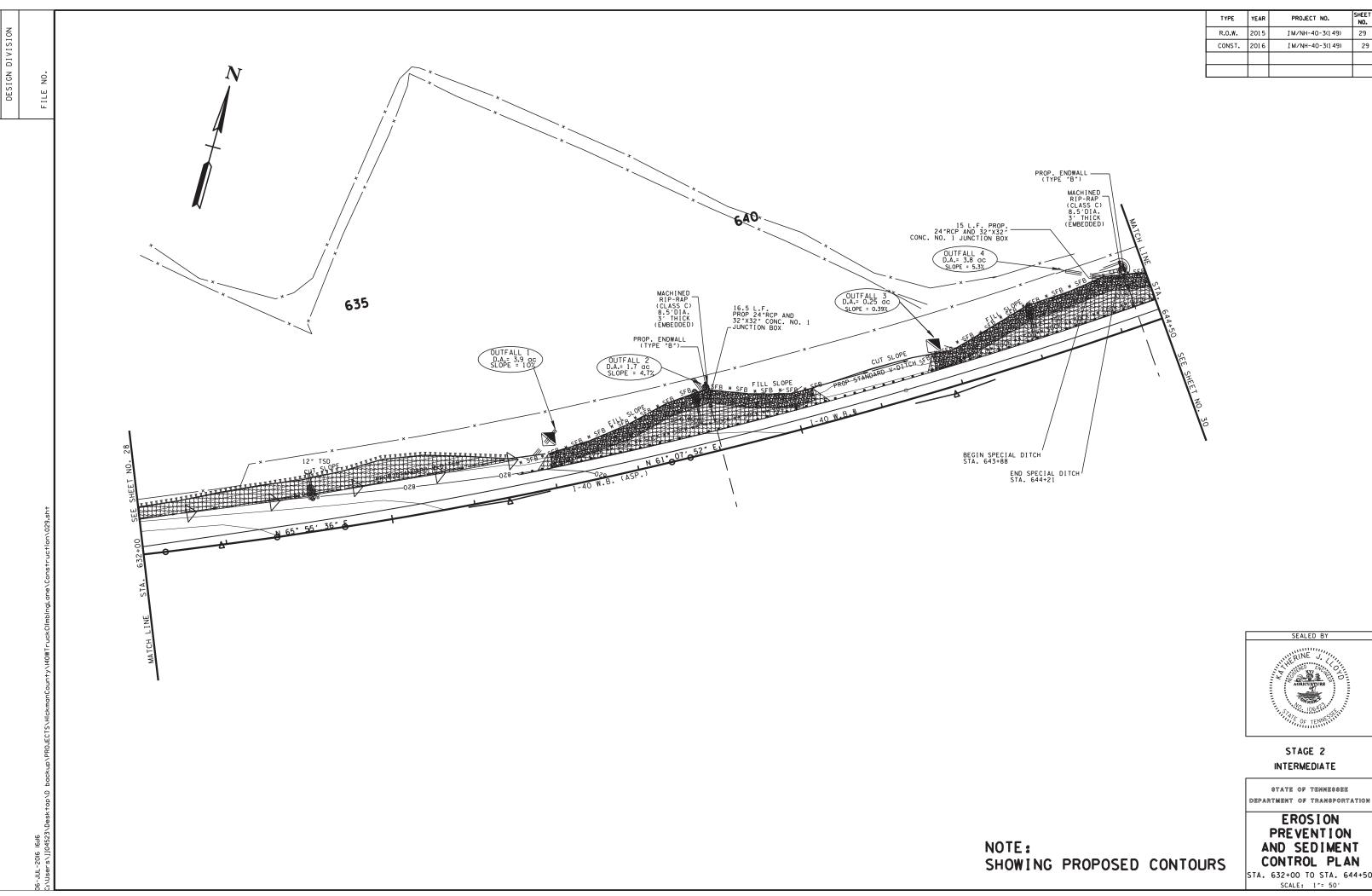
STAGE 2
INTERMEDIATE

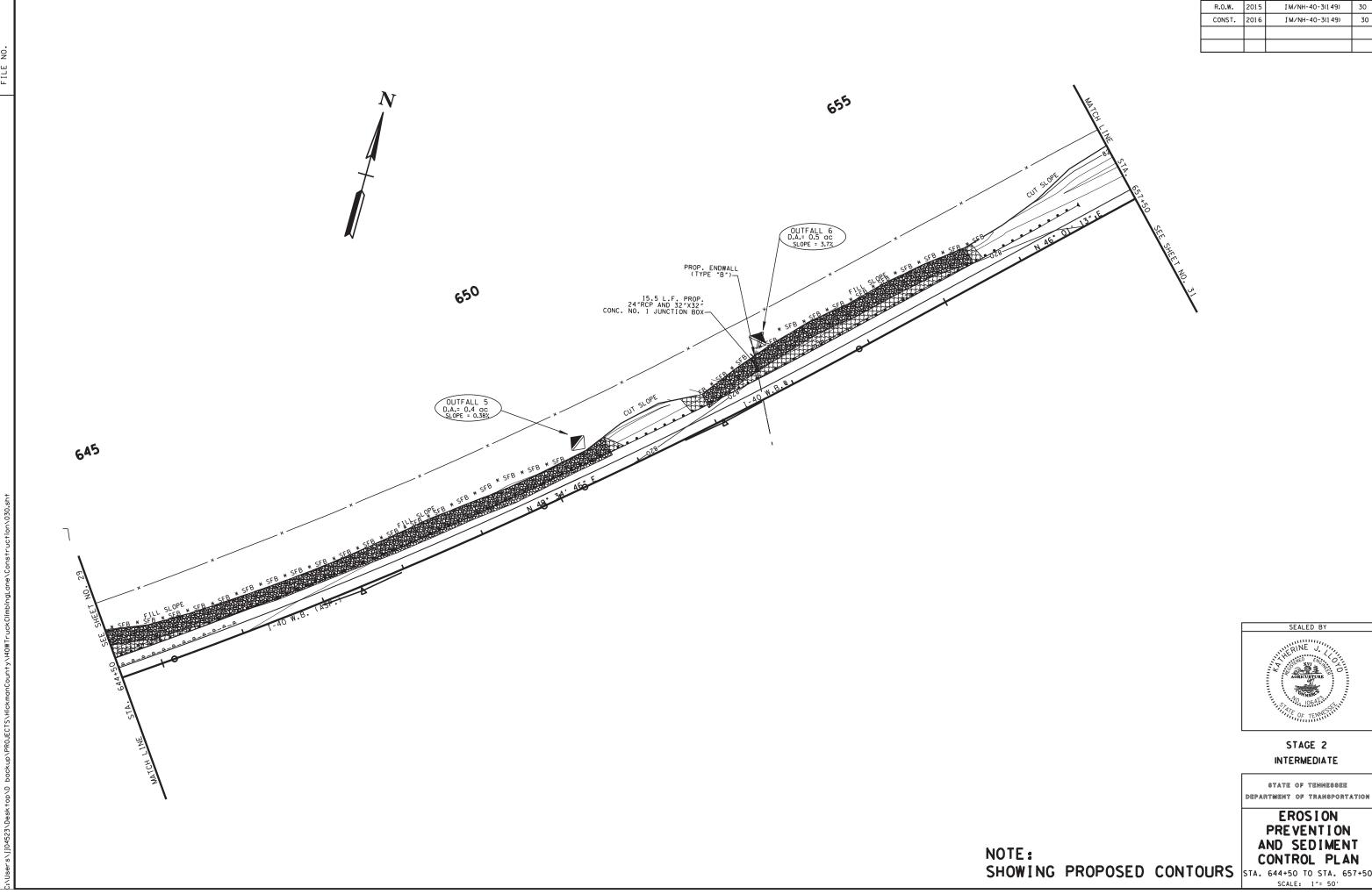
STATE OF TENNESSEE

EROSION
PREVENTION
AND SEDIMENT
CONTROL PLAN

STA. 619+00 TO STA. 632+00 SCALE: 1"= 50'

NOTE:



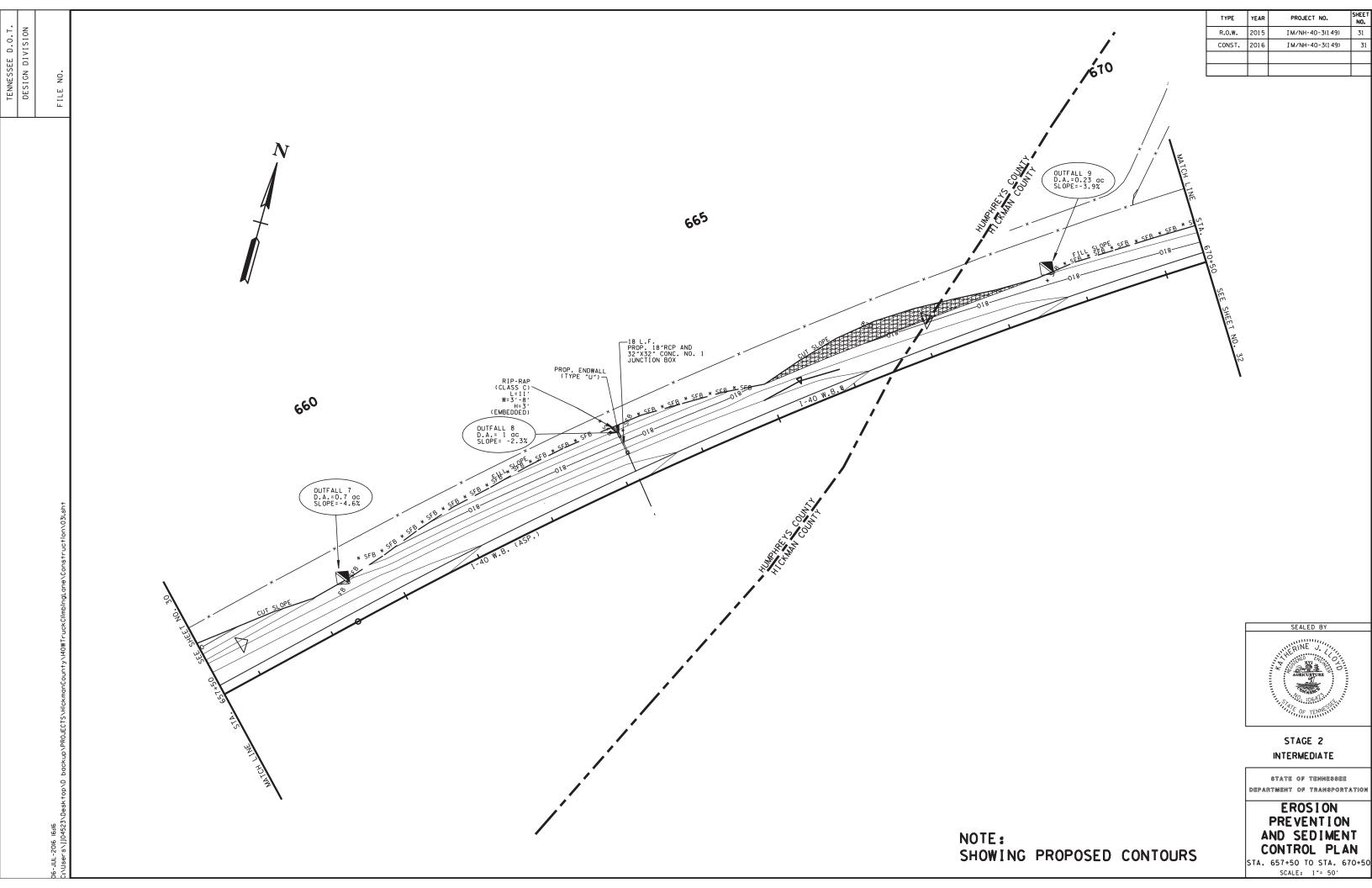


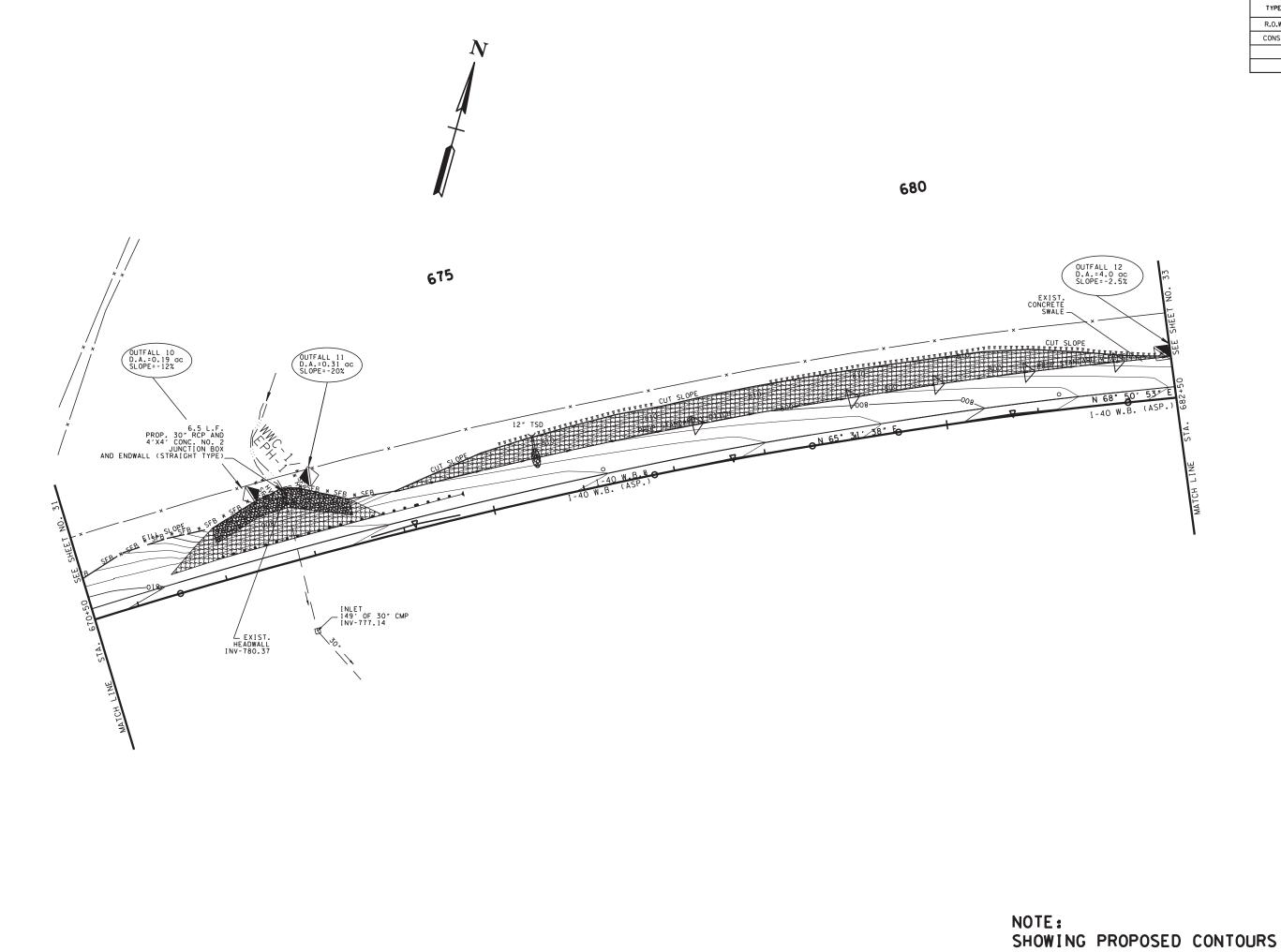
IM/NH-40-3(149)



STAGE 2 INTERMEDIATE

DEPARTMENT OF TRANSPORTATION





TYPE YEAR PROJECT NO. SHEET NO.

R.O.W. 2015 IM/NH-40-3(149) 32

CONST. 2016 IM/NH-40-3(149) 32

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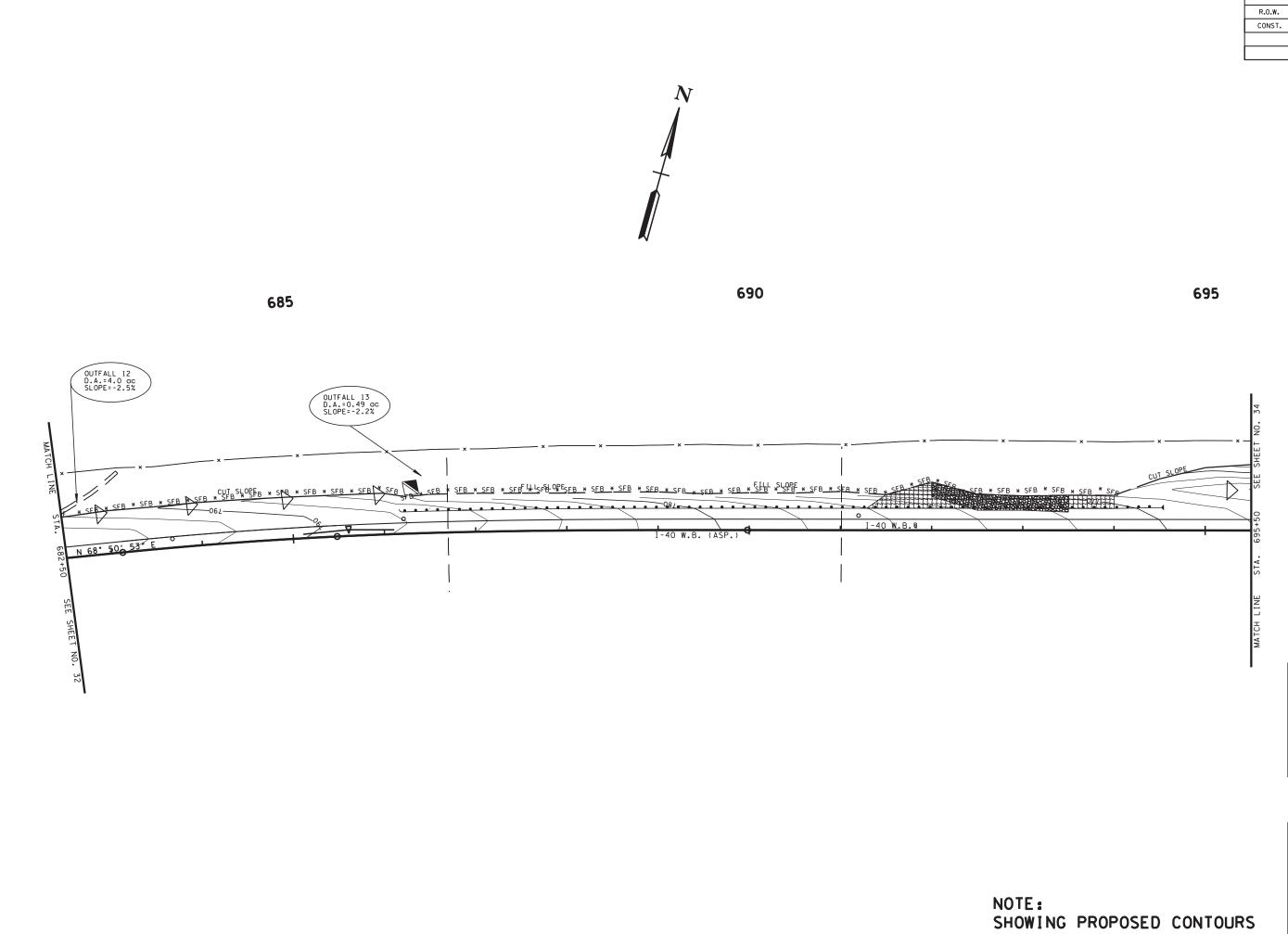
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STAGE 2
INTERMEDIATE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION
PREVENTION
AND SEDIMENT
CONTROL PLAN

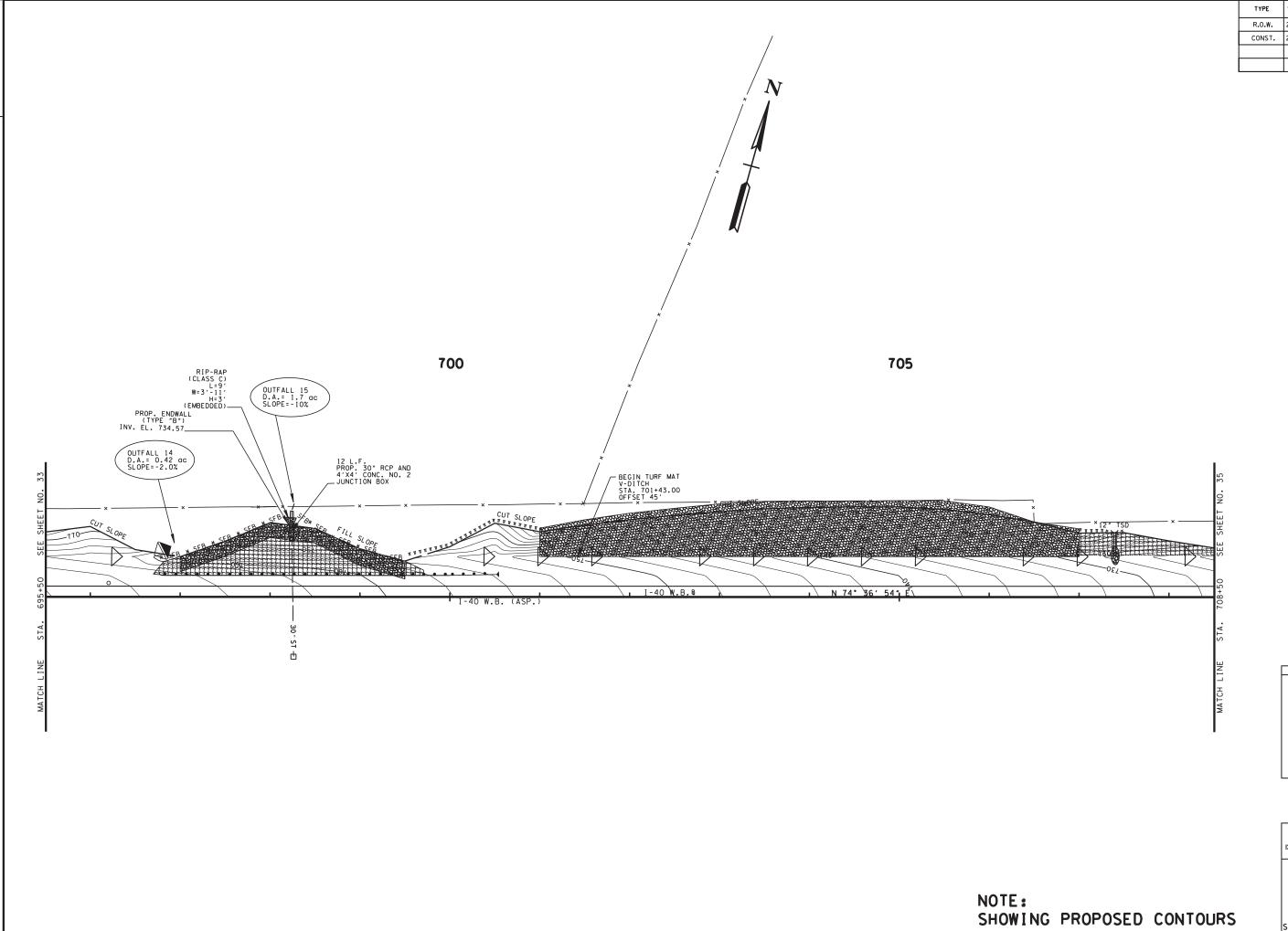
STA. 670+50 TO STA. 682+50 SCALE: 1"= 50'



STAGE 2 INTERMEDIATE DEPARTMENT OF TRANSPORTATION

IM/NH-40-3(149)

EROSION
PREVENTION
AND SEDIMENT
CONTROL PLAN
STA. 682+50 TO STA. 695+50
SCALE: 1'= 50'



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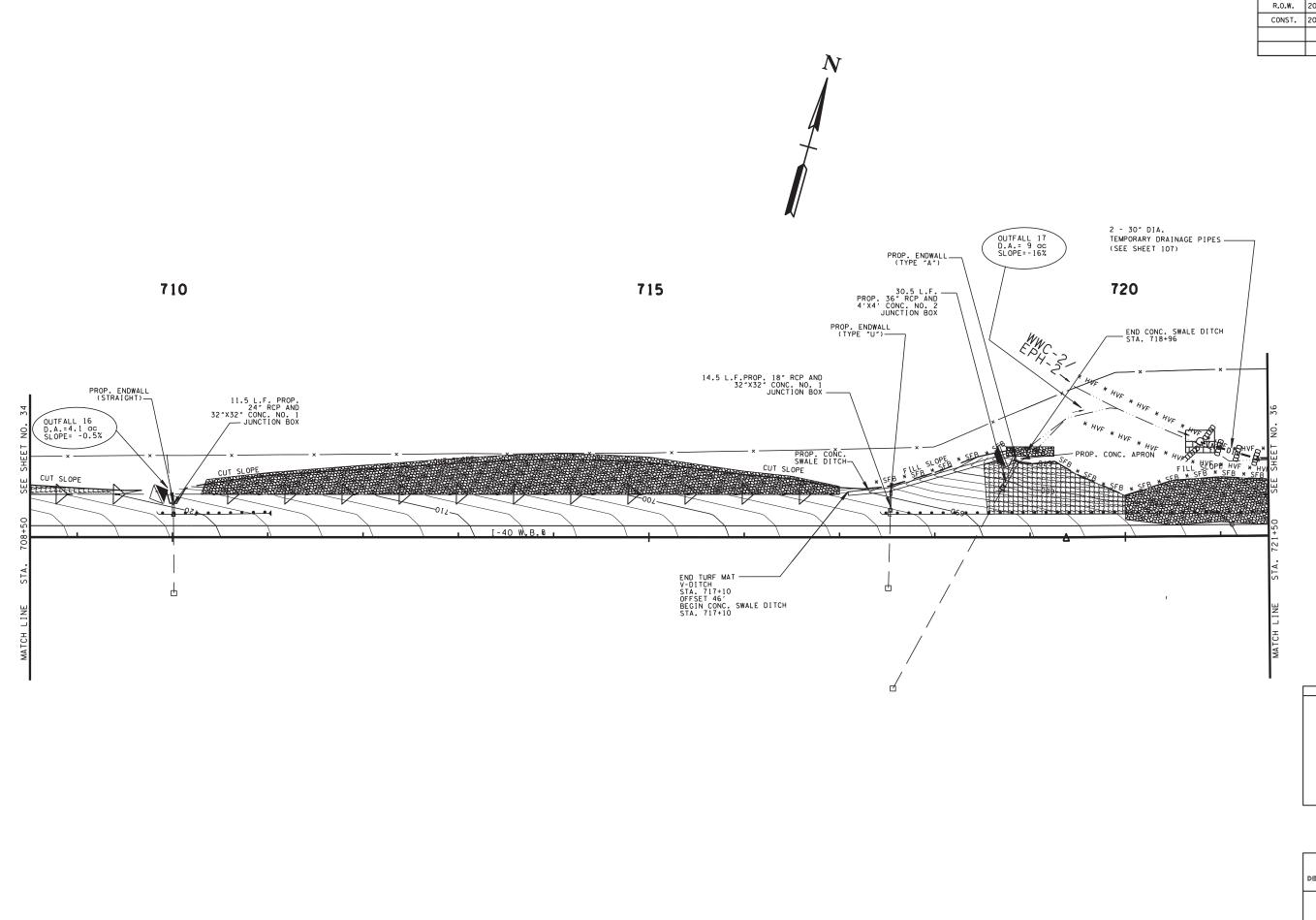
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STAGE 2
INTERMEDIATE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION
PREVENTION
AND SEDIMENT
CONTROL PLAN

STA. 695+50 TO STA. 708+50 SCALE: 1"= 50'



TYPE YEAR PROJECT NO. SHEET NO.

R.O.W. 2015 IM/NH-40-3(149) 35

CONST. 2016 IM/NH-40-3(149) 35

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STAGE 2
INTERMEDIATE

STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

EROSION
PREVENTION
AND SEDIMENT
CONTROL PLAN

STA. 708+50 TO STA. 721+50 SCALE: 1"= 50'

NOTE:

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		R.O.W. 2	2015 IM	ROJECT NO. 1/NH-40-3(149) 1/NH-40-3(149)	36 36
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FILE NO.			•		
	N				
	41001-3151-44				
	FND CONST. PROJECT NO. IM/NH-40-3(149)	1			
	OUTFALL 18 D.A.= 0.84ac SLOPE= -30% 2 - 30° DIA.				
	2 - 30" DIA. TEMPORARY DRAINAGE PIPES —— LENGTH=19' (SEE SHEETS 108 - 110) RIP RAP (CLASS C) LENGTH=19' WIDTH=21' OEFTH=3.5'—— (SEE SHEETS 115 - 116)				
	725				
	PROP. ENDWALL (TYPE "B") 8 L.F.PROP. 18" (CASS C) LENGTH:19" W-6" W-6" H-3" JUNCTION BOX RIP-RAP (CLASS C) LENGTH:19" W-6" W-6" H-3" (EMBEDDED)				
	SLOPE=-30% OUTFALL 20 D.A.=0.87 oc SLOPE=-36%				
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N40WTru	41001-2148-44 // END R.O.W. PROJECT NO. IM/NH-40-3(149)		J. J. H. F.	ZINE J.	
nCounty	I-40 STA. 733+99.67		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	GRICUSTURE	
S\Hickma	N 602225.5196 E 1521927.4490		A STATE	OF TENNESSEE	
PROJECTS		L		TAGE 2	\dashv
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k top\D		©	DEPARTMENT	OF TENNESSEE	
6:16 1523\Des.	NOTE:		PRE\	ROSION VENTION	
JL-2016 16:16 sers\jj04523\	SHOWING PROPOSED CONTOURS		CONTR	SEDIMEN ROL PLA	N
30-7L-90		s	1A. (21+5) SCAL	O TO END OF E: 1"= 50'	PKOJ

TYPE YEAR PROJECT NO. SHEE NO.

CONST. 2016 IM/NH-40-3(149) 36A



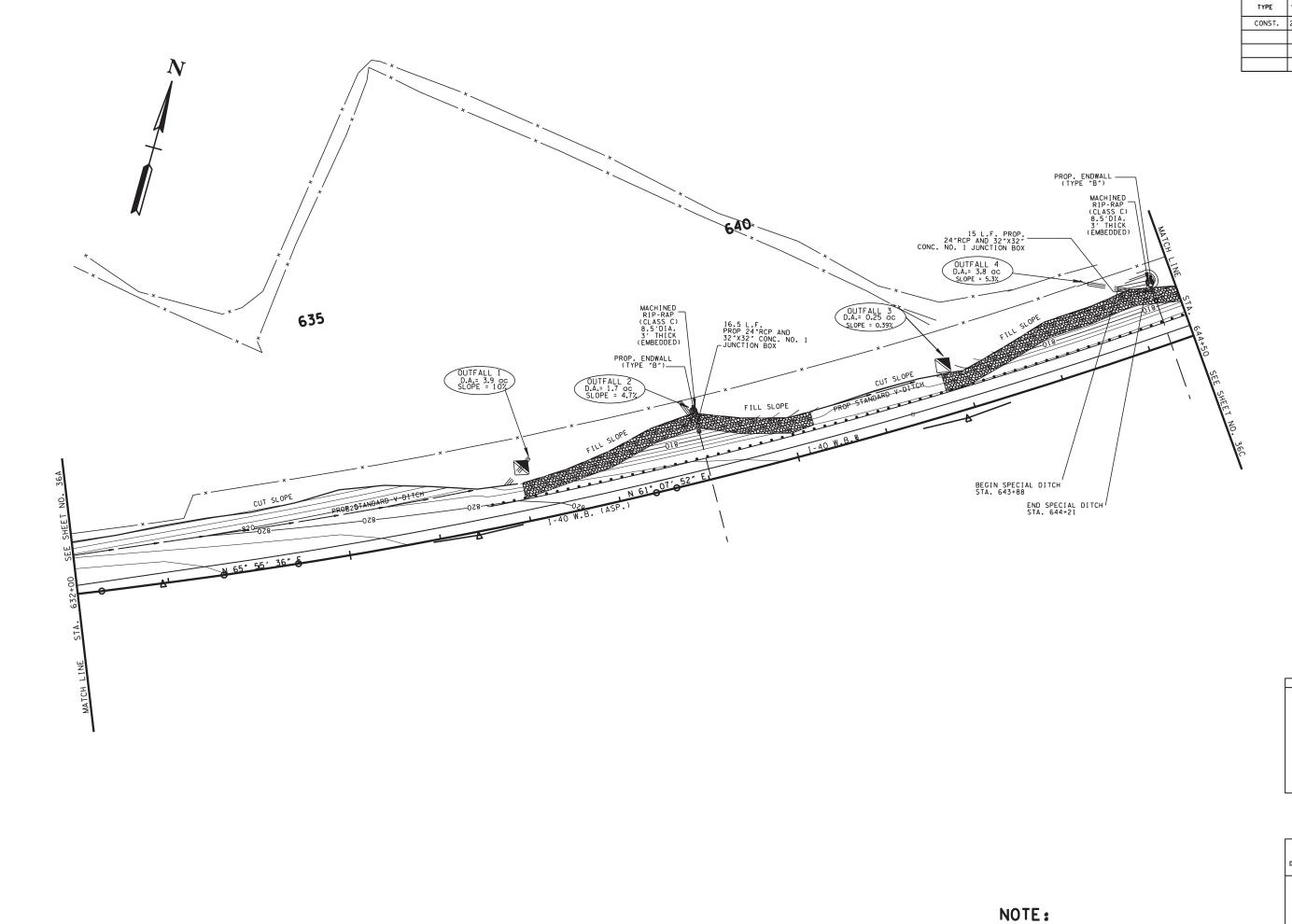
STAGE 3 Final

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATIO

EROSION
PREVENTION
AND SEDIMENT
CONTROL PLAN

STA. 619+00 TO STA. 632+00

NOTE:



36B

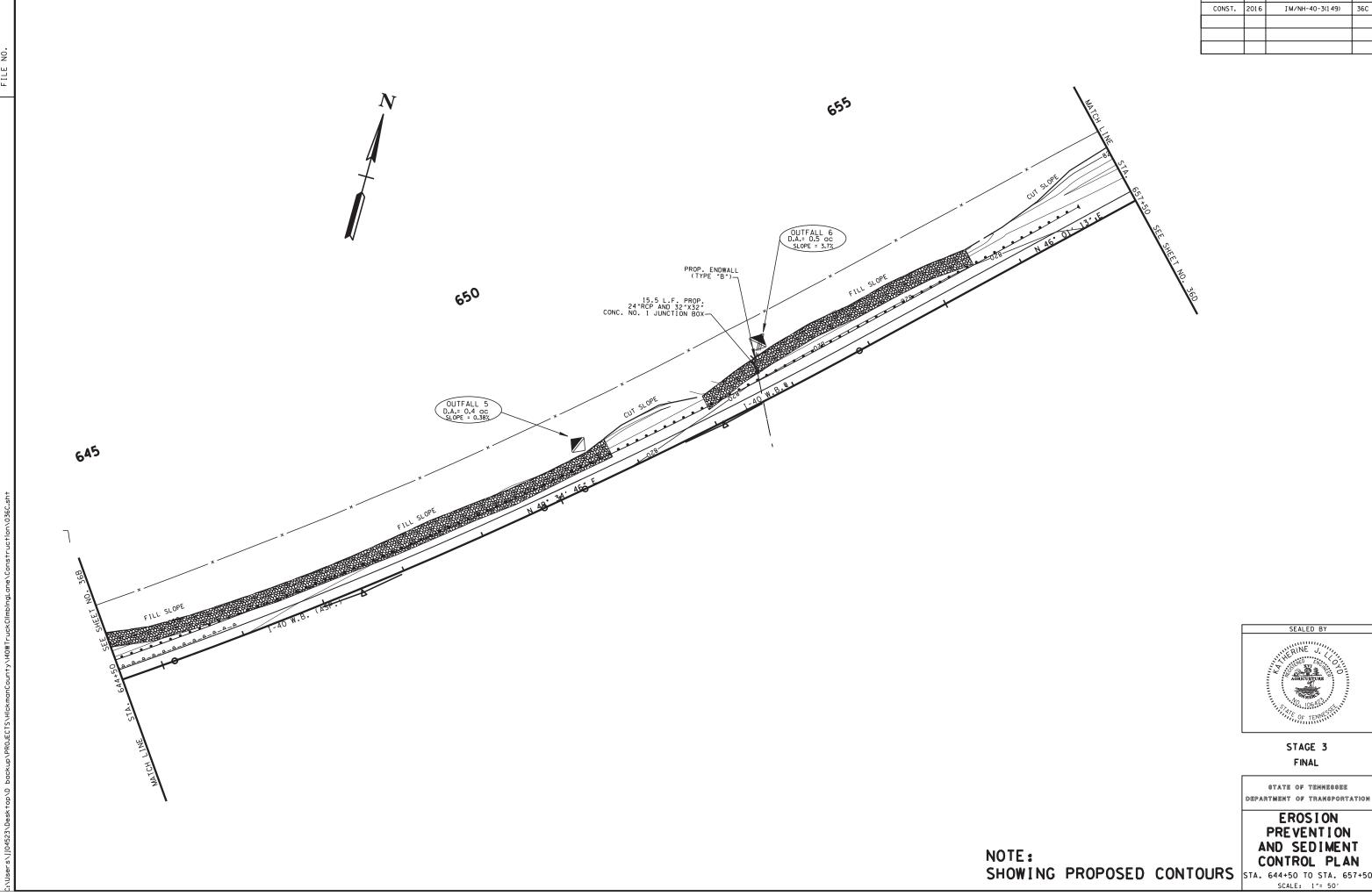
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STAGE 3 FINAL

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION
PREVENTION
AND SEDIMENT
CONTROL PLAN

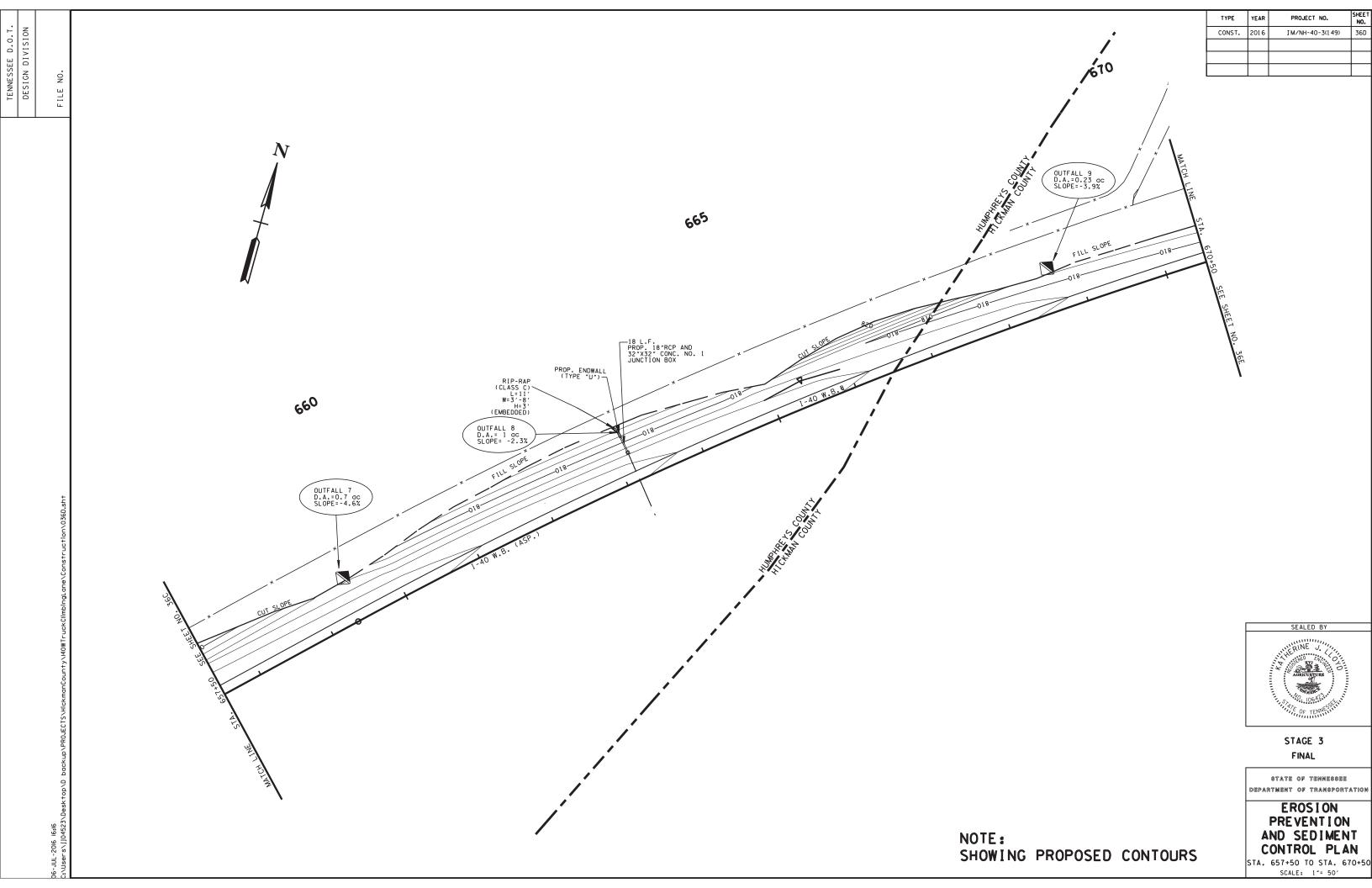
STA. 632+00 TO STA. 644+50 SCALE: 1"= 50'

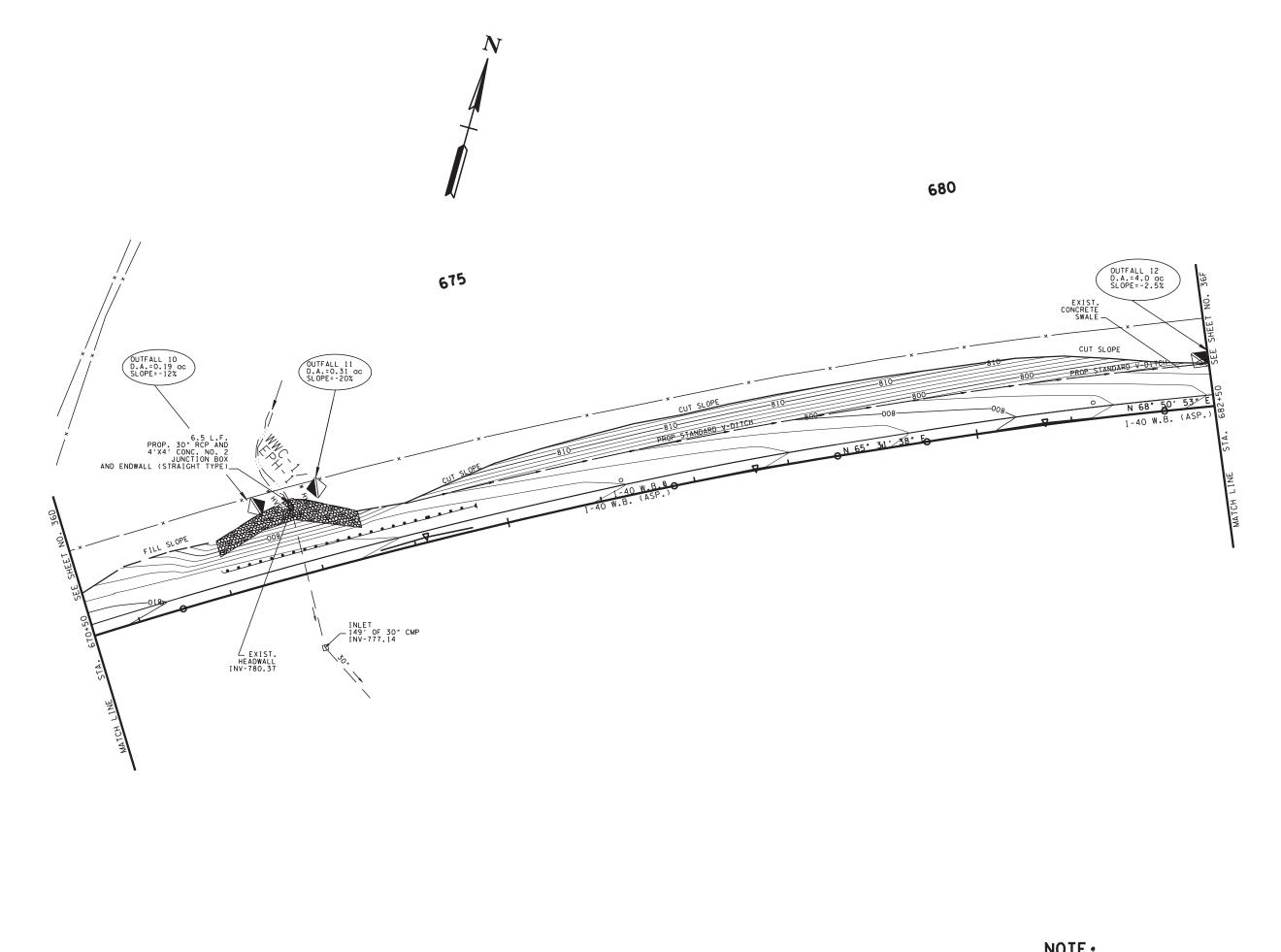


IM/NH-40-3(149)

STAGE 3 FINAL

STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION





NOTE: SHOWING PROPOSED CONTOURS



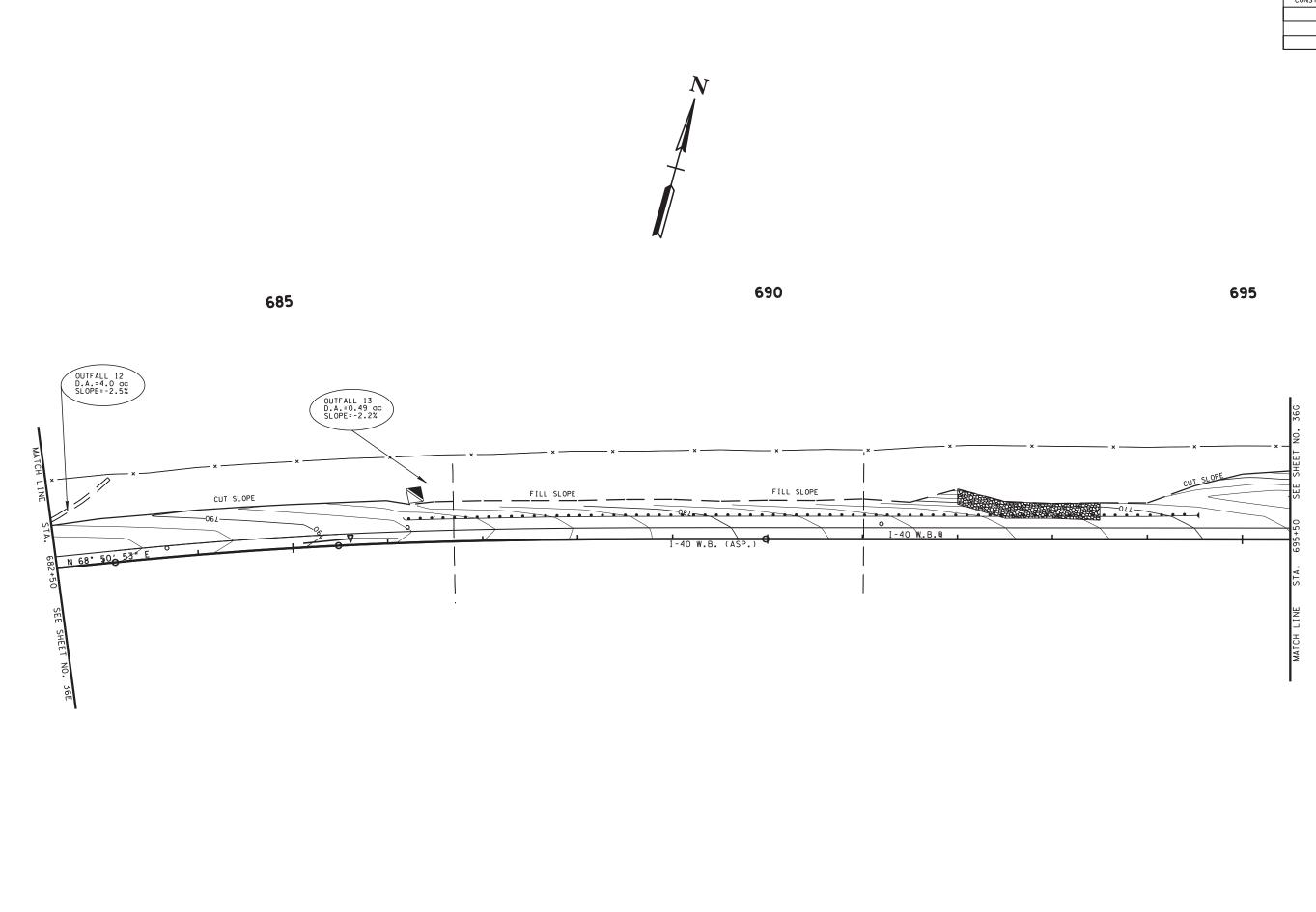
IM/NH-40-3(149)

36E

STAGE 3 FINAL

STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

EROSION
PREVENTION
AND SEDIMENT
CONTROL PLAN
STA. 670+50 TO STA. 682+50
SCALE: 1"= 50"



NOTE: SHOWING PROPOSED CONTOURS



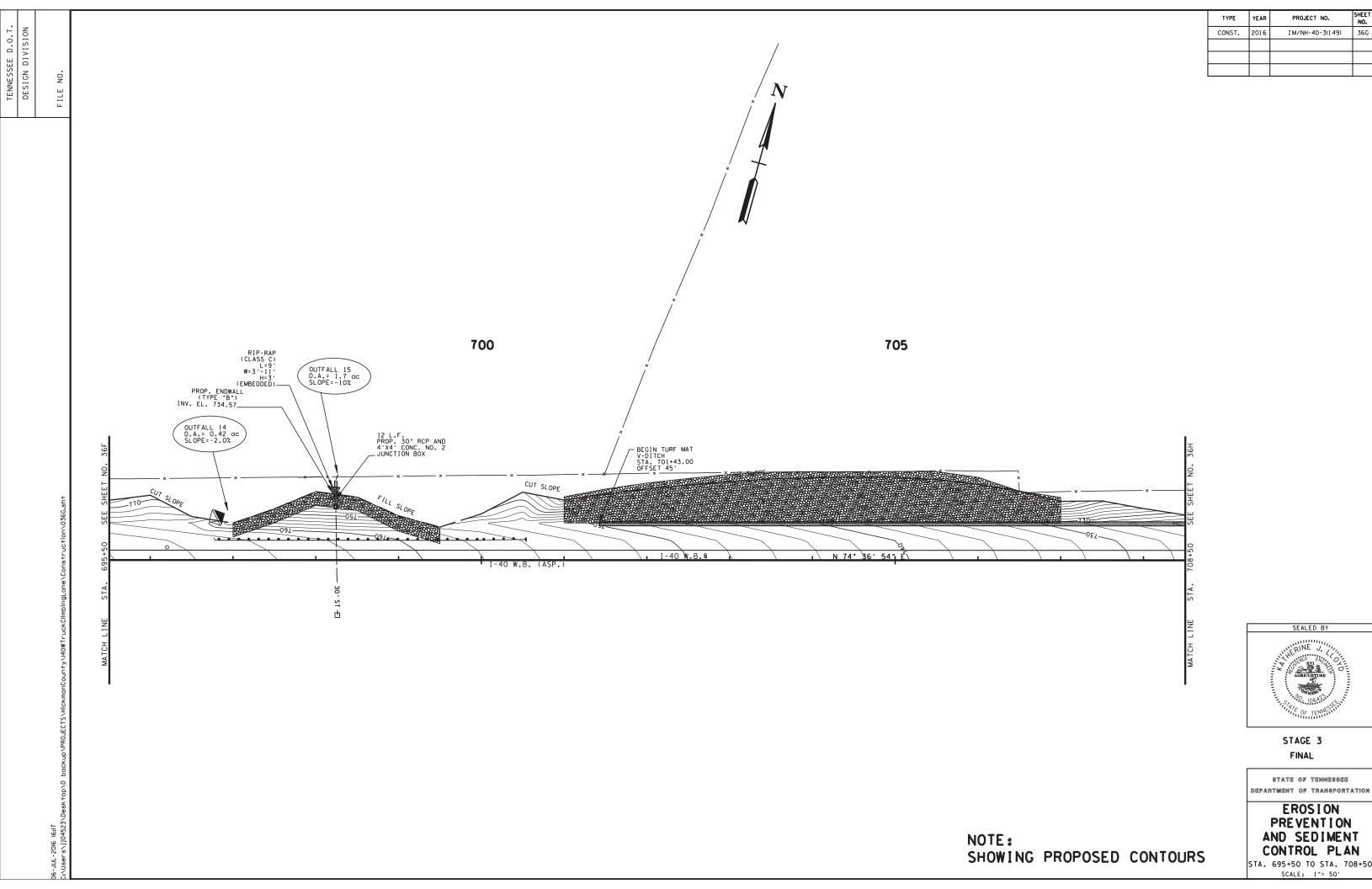
IM/NH-40-3(149)

36F

STAGE 3 FINAL

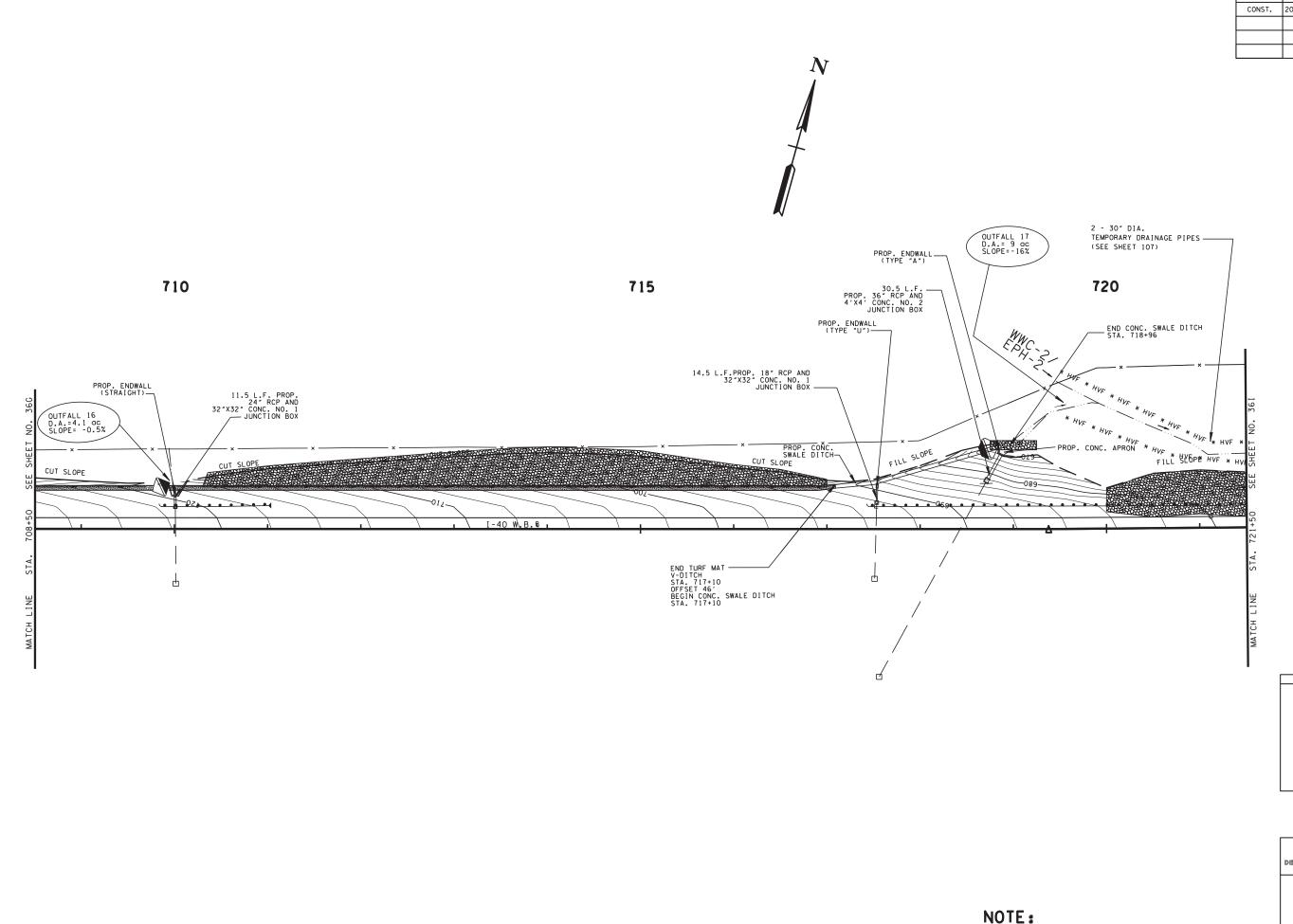
DEPARTMENT OF TRANSPORTATION

EROSION
PREVENTION
AND SEDIMENT
CONTROL PLAN
STA. 682+50 TO STA. 695+50
SCALE: 1'= 50'



SHEET NO.

36G



TENNESSEE D.O.T.
DESIGN DIVISION

TYPE YEAR PROJECT NO. SHEET NO. CONST. 2016 IM/NH-40-3(149) 36H

ANACONOME ANACONOME

STAGE 3 FINAL

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION
PREVENTION
AND SEDIMENT
CONTROL PLAN

STA. 708+50 TO STA. 721+50 SCALE: 1"= 50'

361 41001-3151-44 END CONST. PROJECT NO. IM/NH-40-3(149) I-40 STA. 733+99.67 2 - 30" DIA. TEMPORARY DRAINAGE PIPES — (SEE SHEETS 115 - 116) 2 - 30" DIA. TEMPORARY DRAINAGE PIPES — (SEE SHEETS 108 - 110) 730 725 - MACHINED RIP-RAP (CLASS C) L=14' W=6' H=3' (EMBEDDED) OUTFALL 19 D.A.=0.68 ac SLOPE=-30% 8 L.F.PROP. 18" RCP AND 32"X32" CONC. NO. 1 JUNCTION BOX N 74° 06' 00" E 41001-2148-44 END R.O.W. PROJECT NO. IM/NH-40-3(149) I-40 STA. 733+99.67 N 602225.5196 E 1521927.4490 THE WWC-2/EPH-2 SHOULD BE RETURNED TO PRE-CONSTRUCTION CONDITIONS ONCE THE TEMPORARY SUSPENDED PIPE DIVERSION IS STAGE 3 FINAL REMOVED. EPARTMENT OF TRANSPORTATION **EROSION PREVENTION** NOTE:

SHOWING PROPOSED CONTOURS

AND SEDIMENT CONTROL PLAN STA. 721+50 TO END OF PROJ



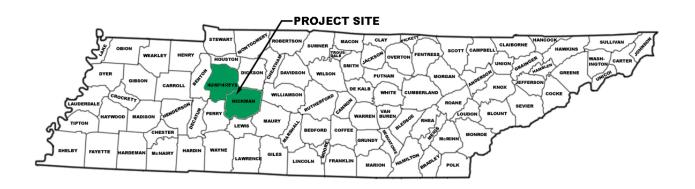
Documentation and Permits Binder

Project Name: I-40 Westbound near Mile Marker 161 (Truck Climbing Lane)

Project No.: 41001-1148-44; IM/NH-40-3(149)

PIN: 114156.00

Humphreys-Hickman Counties, Tennessee



Prepared by:
Tennessee Department of Transportation

Prepared by:
Palmer Engineering Company

Consultant Reference No.: 11055.06

Content Checklist



DOCUMENTS AND PERMITS BINDER

CHECKLIST

PIN PR	OJECT NAME: I-40 WESTBOUND NEAR MILE MARKER 161 (TRUCK CLIMBING LANE) N: 114156.00 OJECT NO.: 41001-1148-44; IM/NH-40-3(149) UNTIES: HUMPHREYS-HICKMAN
1.	☑ INDEX OF REVISIONS
2.	☑ RAINFALL RECORD SHEETS
3.	
4.	⋈ NOI AND □ NOC
5.	☑ BLANK NOT
6.	□ 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 on		Signature of TDOT				
Revision #	Date	Revision Description	EC Sheet #	Signature of Contractor	Signature of TDOT Project Supervisor				

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

2. Rainfall Record Sheets



State Route (SR) / US Route or Road Name:	TDOT Construction No.:	TDOT Contract No.:
otate route (ort) oo route or rout rame.	i DO i Odlišti učtičii i io	i DO i Golitiact No



TDOT EPSC Inspection Monthly Rainfall Data Log

Month	Year	

Date	Day of Week ¹	Predicted Precipitation (%) ²	Rainfall Gage 1 (in)	Rainfall Gage 2 (in)	Rainfall Gage 3 (in)	Rainfall Gage 4 (in)	Rainfall Gage 5 (in)	Duration (hr)
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
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25								
26								
27								
28								
29								
30								
		M Tu W Th F Sa						

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

² Predicted Precipitation Source: ______



NOAA Atlas 14, Volume 2, Version 3 Location name: Dickson, Tennessee, US* Latitude: 35.9733°, Longitude: -87.5281° Elevation: 801 ft*



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)									
Duration	1	2	5	10	25	50	100	200	500	1000
5-min	0.402 (0.372-0.439)	0.473 (0.437-0.516)	0.547 (0.504-0.596)	0.606 (0.558-0.659)	0.681 (0.624-0.742)	0.739 (0.673-0.803)	0.796 (0.721-0.867)	0.853 (0.767-0.930)	0.926 (0.823-1.01)	0.985 (0.867-1.08)
10-min	0.643 (0.594-0.701)	0.756 (0.699-0.826)	0.875 (0.807-0.954)	0.969 (0.893-1.05)	1.09 (0.994-1.18)	1.18 (1.07-1.28)	1.27 (1.15-1.38)	1.35 (1.22-1.47)	1.47 (1.30-1.60)	1.55 (1.37-1.70)
15-min	0.803 (0.742-0.876)	0.951 (0.879-1.04)	1.11 (1.02-1.21)	1.23 (1.13-1.33)	1.38 (1.26-1.50)	1.49 (1.36-1.62)	1.60 (1.45-1.74)	1.71 (1.53-1.86)	1.84 (1.64-2.02)	1.95 (1.71-2.13)
30-min	1.10 (1.02-1.20)	1.31 (1.21-1.43)	1.57 (1.45-1.72)	1.78 (1.64-1.93)	2.04 (1.87-2.22)	2.24 (2.04-2.44)	2.45 (2.22-2.67)	2.66 (2.39-2.89)	2.94 (2.61-3.21)	3.15 (2.77-3.45)
60-min	1.37 (1.27-1.50)	1.65 (1.52-1.80)	2.02 (1.86-2.20)	2.31 (2.13-2.52)	2.72 (2.49-2.96)	3.04 (2.77-3.31)	3.37 (3.05-3.68)	3.73 (3.35-4.06)	4.21 (3.74-4.60)	4.60 (4.05-5.04)
2-hr	1.59 (1.47-1.73)	1.90 (1.75-2.07)	2.32 (2.14-2.52)	2.67 (2.45-2.90)	3.15 (2.88-3.42)	3.55 (3.22-3.85)	3.96 (3.57-4.30)	4.39 (3.93-4.78)	5.00 (4.42-5.46)	5.50 (4.81-6.02)
3-hr	1.72 (1.59-1.87)	2.05 (1.90-2.23)	2.51 (2.32-2.73)	2.88 (2.65-3.13)	3.41 (3.11-3.69)	3.84 (3.49-4.17)	4.29 (3.87-4.66)	4.77 (4.27-5.19)	5.44 (4.81-5.93)	5.99 (5.24-6.55)
6-hr	2.12 (1.96-2.31)	2.53 (2.34-2.76)	3.08 (2.84-3.36)	3.54 (3.26-3.86)	4.19 (3.83-4.56)	4.73 (4.30-5.14)	5.31 (4.78-5.77)	5.91 (5.28-6.44)	6.78 (5.98-7.40)	7.48 (6.52-8.19)
12-hr	2.57 (2.38-2.79)	3.06 (2.83-3.34)	3.73 (3.44-4.07)	4.29 (3.95-4.67)	5.08 (4.64-5.52)	5.73 (5.20-6.22)	6.41 (5.78-6.97)	7.14 (6.38-7.77)	8.16 (7.21-8.90)	8.99 (7.86-9.84)
24-hr	3.14 (2.91-3.40)	3.76 (3.48-4.07)	4.58 (4.24-4.96)	5.26 (4.86-5.68)	6.20 (5.71-6.69)	6.96 (6.39-7.50)	7.75 (7.09-8.36)	8.58 (7.81-9.25)	9.73 (8.79-10.5)	10.6 (9.56-11.5)
2-day	3.74 (3.47-4.04)	4.46 (4.15-4.83)	5.46 (5.06-5.91)	6.28 (5.81-6.78)	7.42 (6.85-8.01)	8.36 (7.68-9.01)	9.34 (8.54-10.1)	10.4 (9.44-11.2)	11.8 (10.7-12.8)	13.0 (11.6-14.1)
3-day	3.98 (3.70-4.29)	4.75 (4.42-5.13)	5.80 (5.39-6.26)	6.65 (6.17-7.17)	7.83 (7.23-8.42)	8.78 (8.08-9.45)	9.77 (8.95-10.5)	10.8 (9.85-11.6)	12.2 (11.1-13.2)	13.4 (12.0-14.5)
4-day	4.22 (3.93-4.54)	5.04 (4.70-5.43)	6.14 (5.72-6.61)	7.02 (6.53-7.55)	8.23 (7.62-8.84)	9.20 (8.48-9.88)	10.2 (9.36-10.9)	11.2 (10.3-12.1)	12.6 (11.5-13.6)	13.8 (12.4-14.8)
7-day	4.97 (4.64-5.35)	5.94 (5.55-6.39)	7.24 (6.75-7.78)	8.29 (7.70-8.90)	9.74 (9.02-10.5)	10.9 (10.1-11.7)	12.2 (11.2-13.0)	13.4 (12.3-14.4)	15.2 (13.8-16.4)	16.7 (15.0-17.9)
10-day	5.67 (5.32-6.07)	6.76 (6.34-7.23)	8.15 (7.64-8.71)	9.25 (8.65-9.88)	10.7 (10.0-11.5)	11.9 (11.1-12.7)	13.1 (12.2-14.0)	14.4 (13.3-15.4)	16.0 (14.7-17.2)	17.3 (15.8-18.6)
20-day	7.74 (7.30-8.23)	9.17 (8.65-9.75)	10.8 (10.2-11.5)	12.1 (11.4-12.9)	13.7 (12.9-14.6)	15.0 (14.0-15.9)	16.2 (15.2-17.2)	17.4 (16.2-18.5)	18.9 (17.6-20.1)	20.1 (18.6-21.4)
30-day	9.47 (8.95-10.0)	11.2 (10.6-11.8)	13.1 (12.3-13.8)	14.5 (13.7-15.3)	16.3 (15.4-17.3)	17.8 (16.7-18.8)	19.1 (17.9-20.3)	20.5 (19.2-21.7)	22.2 (20.7-23.6)	23.5 (21.8-25.0)
45-day	11.9 (11.3-12.6)	14.0 (13.2-14.8)	16.1 (15.3-17.0)	17.8 (16.8-18.8)	19.8 (18.7-21.0)	21.4 (20.1-22.6)	22.9 (21.5-24.2)	24.3 (22.8-25.7)	26.1 (24.4-27.7)	27.4 (25.5-29.1)
60-day	14.3 (13.5-15.1)	16.8 (15.9-17.8)	19.3 (18.2-20.4)	21.1 (19.9-22.3)	23.4 (22.0-24.7)	25.0 (23.6-26.5)	26.6 (25.0-28.1)	28.0 (26.3-29.6)	29.8 (27.9-31.5)	31.1 (29.0-32.9)

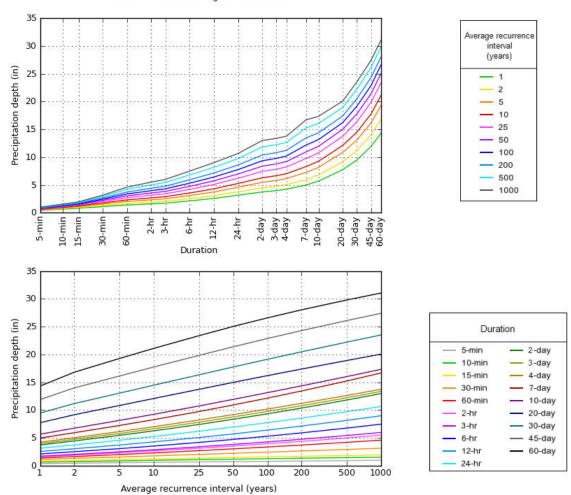
Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

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.

PF graphical

PDS-based depth-duration-frequency (DDF) curves Latitude: 35.9733°, Longitude: -87.5281°



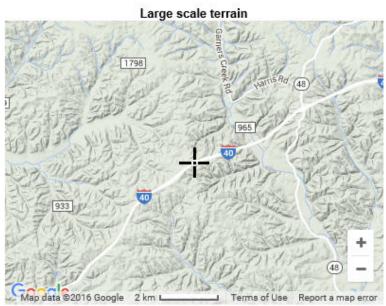
NOAA Atlas 14, Volume 2, Version 3

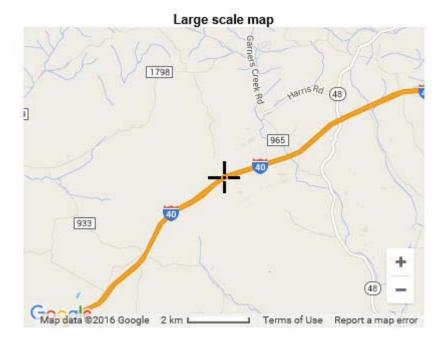
Created (GMT): Fri Jun 17 14:14:57 2016

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Maps & aerials









Back to Top

3. EPSC Inspection Reports





CONSTRUCTION DIVISION EPSC DELEGATION OF AUTHORITY

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 serv	ices 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 ar knowledge of the subject project and the ability to discus	nd confirm that the TDOT delegate stated above has direct					
inspection services consultant on the subject project dire	•					
(signat	ure of TDOT Project Supervisor)					
(signat	ure 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

	EPSC Chronological Log Sheet - Qu	arter 1 2 3 4 (Circle One)
Date and Time	Type of Visit (Rainfall Event Visit, Weekly Inspection, QA/QC meeting, Construction meeting etc.)	Representative of EPSC inspection services consultant	TDOT Project Supervisor (or designee)



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)			d Description): Are corrective actions required by this (Yes /No):						Current approximate disturbed acreage:	
County(ies):	TDOT PIN:	NPDES Tracking Number: TNR	Number of No Corrective Actions/Defice		Number of Corrective Actions/Def	•	Number of New Sediment Releases:	Number of Un-Corrected S Releases:	ediment	
TDOT Project No.:	TDOT Contract No.:	Contractor:								
Please check the box if the	ne following items are on-site:							1		
☐ Notice of Coverage (NO	C) Stormwater Pollution	on Prevention Plan (SWPPP)	Twice Weekly I	nspection	Documentat	tion [] Site Contact Inform	ation	Gauge(s)	
☐ Off-site Reference Rain	Gauge Location:		Has daily rai	infall beer	n checked/do	cumented o	on the TDOT Monthly	y Rainfall Log? ☐`	Yes □No	
Best Management Practic	es (BMPs)					TDOT/Co	ntractor Agrees wit	h FPSC Inspection	n Report:	
		Cs) functioning correctly: If "No," s	see attached page	e(s) for de	scription.		S. If No, Explain and			
	Cs) installed and maintained per the		oo anaonoa pago	□Yes			·			
		rial storage areas per section 4.1.5 of the	CGP?	□Yes						
3 Are EPSC's functioning	•	such that there is no objectionable color co		□Yes						
Are EPSC's functioning	g correctly at ingress/egress points su	ch that there is no evidence of track out?		□Yes	□No					
		/permanently ceased, was the area stabil tached page(s) for each location and mea		∐Yes						
6. pollutants from equipm	ent and vehicle washing, wheel and v	ented, and maintained to minimize the disc wash water and other wash waters per sec be implemented to address deficiencies.		□Yes	□No					
		n managed by appropriate controls per e(s) for measures to be implemented to	□N/A	∐Yes	No					
8. "No," refer to the attach	ned page(s) for measures to be impler		∐N/A	∐Yes		(Ad	ditional pages may b	pe attached, if need	ded)	
		d inspector and the permittees per Se								
assure that qualified personn information presented. Base manage the system, or those the information, I certify that i	I in accordance with a system designed properly gathered and evaluated don my inquiry of the person(s) where persons directly responsible for gainspections of storm water discharge.	thering e points TN EPSC Certification No		(print or	type):	Signature	:		Date:	
and recorded. I certify that e drainage area of the identified designed in working order as	sediment controls have been perfor rosion and sediment controls in the d outfall were installed as planned a recorded in the table above. v that this document and all attachm	Contractor (Secondary Petype):		d Title (pi	rint or	Signature	:		Date:	
were prepared by me, or und submitted information is to th accurate, and complete. I an submitting false information, imprisonment. As specified i	ler my direction or supervision. The e best of my knowledge and belief, n aware there are significant penalti including the possibility of fine and n Tennessee Code annotated section is made under penalty of periury	true, ies for TDOT Project Supervisor Name and Title (print or ty		nary Perm	nittee)	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)
- Cleaning Needed-Maintenance
- FM Future Maintenance
- FS Final Stabilized
- Increase Measures
- R Repair and/or Replace-Maintenance
- RO Repeat Occurrence
- SR Sediment Release
- Stable (No Action Needed)
- Upgrade Needed (Failure Noted)
- W Too Wet to Work Conditions

Other (#1): _	
Other (#2):	

Other (#3):

CIRCULAR LETTER

SECTION: 209-01 Number: 209.01-02

SUBJECT: EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) INSPECTION REPORT

DATE: OCTOBER 2, 2015

The inspection report and monthly rain gauge log identified in the Tennessee Department of Transportation Erosion Prevention Sediment Control (EPSC) Inspection Manual, November 14 2014 or most current version, located on the TDOT Construction Division website, shall be utilized as the standard statewide report for the evaluation of EPSC measures on all Department projects that are subject to the requirements of the NPDES General Permit for Storm Water Discharges from Construction Activities (CGP). This report should also be used to document Contractor compliance with EPSC requirements in conformance with ARAP, Corps of Engineers, and/or TVA permits. The report shall be completed according to guidance provided by the Tennessee Department of Transportation EPSC Inspection Manual, November 2014 or most current version.

CIRCULAR LETTER

SECTION: 209-01 Number: 209.01-03

SUBJECT: CONSTRUCTION RELATED SEDIMENT REMOVAL

DATE: JULY 1, 2015

This Circular Letter establishes the procedures for removal and/or stabilization of sediment discharges caused by active construction projects to non-jurisdictional areas (e.g., grassed or treed areas, wet weather conveyances, etc.), as well as jurisdictional areas (e.g., streams (including ephemeral streams), wetlands, sinkholes, etc.), within or beyond the project construction limits. Sediment caused by active construction projects must be removed and/or stabilized when it has accumulated beyond the last Erosion Prevention Sediment Control (EPSC) measure on the construction site before leaving the construction limits. Any sediment beyond the TDOT project right-of-way (ROW) is considered sediment discharge regardless of whether or not it is in a jurisdictional area. The District Operations Supervisor shall notify the Regional Environmental Coordinator (EC) immediately after it is discovered that a sediment release has occurred. The District Operations Supervisor or his/her designee shall complete all applicable information on the attached "Sediment Release Form". The District Operations Supervisor or his designee shall email the completed "Sediment Release Form" to the Regional EC, who will determine the appropriate course of action.

The Regions will only apply for activities included in the <u>TDEC General Aquatic Resources Alteration Permit (ARAP) for Sediment Removal and Stream Remediation</u>. This general permit authorizes certain stream remediation activities that serve the purpose of removing recently deposited sediment from stream beds, stream banks and riparian lands that result from construction related sediment releases from construction sites. These deposits shall be confined within areas that can be readily accessed and removed (stream restored or repaired) without additional harm to the shape or stability of the stream channel. Also, refer to standard specifications **Subsection 107.08 (Protection of Streams, Lakes and Reservoirs)** for additional information. The Nashville USACE District does not require notification of these activities since they do not regulate the removal of material from Waters of the U.S. The Memphis USACE District does not require notification prior to sediment removal activities. If TDOT sends a follow-up notification to TDEC after the sediment is removed, the Memphis USACE District would like to be copied on the notification letter. TVA does not need notification of these activities.

Attached are the Standard Operating Procedure (SOP), permit requirements, and sediment release form to use for this activity. The issuance of a permit does not authorize trespassing or discharges of storm water or non-stormwater across private property.

Work shall not commence in jurisdictional areas until TDOT has been notified by TDEC that the proposed activities may proceed under a general permit or that an individual permit has been issued. Email or verbal communication is an acceptable form of notification, if necessary.

Time is of the essence so that the extent of sediment migration is minimized and little or no delay is caused in construction progress.

Standard Operating Procedures (SOP) for Sediment Removal for Stream Remediation

Non-jurisdictional areas and waters:

Action to prevent the potential for additional discharges of sediment beyond the EPSC measures shall be started immediately. The removal and/or stabilization process for a sediment discharge in non-jurisdictional areas shall be started within twenty-four (24) hours after discovery. Since these accumulations of sediment have not yet reached a jurisdictional area, approval from the regulatory agencies is not necessary, but the terms and conditions of the <u>TDEC General ARAP</u> for the Alteration of Wet Weather Conveyances shall be followed. Removal of this sediment is the preferred method. The Regional Environmental Coordinator must approve the sediment cleanup activities if the contractor desires to stabilize and leave in place the sediment discharge. However, there cannot be a potential for the sediment to migrate into jurisdictional areas or for any other negative impact from leaving the sediment in place,

Attempts to remove and/or stabilize any off-site sediment discharges to non-jurisdictional areas outside of the ROW will require permission of the landowner. Arrangements concerning removal or stabilization of sediment on adjoining property must be settled by the contractor with the adjoining landowner before removal or stabilization can occur. If permission is not allowed, the EPSC inspector shall document the effort to remove and/or stabilize the sediment discharge in the EPSC inspection report, and the District Operation Supervisor shall contact the Regional Director of Operations, TDOT HQ Construction Office, the Regional Environmental Coordiator and the Compliance and Field Servicesof this effort.

For sediment releases beyond the last measure and off ROW, the District Operations Supervisor or designee shall complete the TDOT Sediment Release Form attached to this circular.

Jurisdictional waters:

The Regional Environmental Coordinator shall call the TDEC Environmental Field Office to report the release and go through the plan to remove and stabilize or clean up the area. Once verbal or written approval from TDEC has been given, the sediment can be removed and the area stabilized, as agreed upon with TDEC. Immediately following the sediment release and removal, the District Operations Supervisor or Regional Environmental Coordinator shall complete the TDOT Sediment Release Form attached to this circular for all sediment releases to streams and/or wetlands.

Actions to prevent the potential for additional discharges of sediment beyond the EPSC measures and into the stream or wetland shall be taken immediately. The removal and/or stabilization process of a sediment discharge in jurisdictional areas shall be started as soon as approval is received from the appropriate regulatory agencies. The Regional Environmental Coordinator shall be notified immediately after it is discovered that sediment has discharged to a

jurisdictional area. Approval by the regulatory agencies will be required for removal of all construction related sediment discharges to jurisdictional waters.

For situations where the General ARAP is not authorized for coverage, the sediment removal and/or stabilization activity must be covered by an Individual ARAP.

General ARAP:

For sediment releases covered by the TDEC General ARAP for Sediment Removal and Stream Remediation, the Regional Environmental Coordinator shall receive approval to proceed before removing the sediment deposits as well as prepare and submit an application package to the appropriate regulatory agencies. The District Operations Supervisor (or designee) or Regional Environmental Coordinator must also complete the TDOT Sediment Release Form attached to this circular.

In the event sediment releases are covered under the <u>TDEC General ARAP for Sediment Removal and Stream Remediation</u>, the following steps shall occur.

- 1. The Regional Environmental Coordinator shall be the single point of contact for this activity and shall coordinate with all regulatory agencies and TDOT personnel.
- 2. The District Operations Supervisor (or their designee) shall notify the Regional Environmental Coordinator and the Regional Director of Operations of all sediment releases with the locations of sediment release identified on site sketches or plans, an explanation why the discharge occurred, a topographic map of location(s), a completed TDEC Form CN-1091 (located on TDEC's website), a summary of the impacts, and description of what will be done to prevent the further or continued loss of sediment from the site.
- **3.** The Regional Environmental Coordinator shall notify the TDOT HQ Construction Office, the Regional Director of Operations, and the Compliance and Field Services with the information received from the District Operations Supervisor (or their designee) and the coordination efforts proposed with the regulatory agencies.
- **4.** The Regional Environmental Coordinator shall contact the TDEC Environmental Field Office to report the release and discuss removal and remediation. Once TDEC has given verbal or written approval of the removal and remediation plan, sediment removal can begin. The Regional Environmental Coordinator shall complete the TDOT Sediment Release Form attached to this circular and include all necessary information. The package of information shall then be sent to TDEC with a copy to the Compliance and Field Services.
- 5. If necessary, the Regional Environmental Coordinator may request an on-site field visit with the appropriate regulatory agencies and the District Operations Supervisor (or their designee) to determine the appropriate course of action. If, after the on-site visit, TDEC requires a more detailed plan than proposed by the Regional Environmental Coordinator or requires an Individual Permit, the Regional Environmental Coordinator shall provide the sediment release and site visit information to the TDOT Natural Resources Office for further action. A more detailed plan is known as a Sediment Assessment and Remediation Plan

- (SARP) which will be prepared, submitted to the regulatory agencies and overseen by the TDOT Natural Resources Office. In the case an Individual ARAP is required, instead of the Regions, the TDOT Natural Resources Office will be responsible for the next steps (#6 & #7 below). The TDOT Natural Resources Office shall provide this application package and regulatory approval to the Regional Environmental Coordinator in order to continue the next process step (#8).
- **6.** The District Operations Supervisor (or their designee) shall submit to the Regional Environmental Coordinator the application package, including the materials required within this Circular Letter, for each sediment release off ROW or into a jurisdictional area. These include the following items: completed TDOT Sediment Release Form, completed TDEC CN-1091 form, and the items listed in the "Permit Information Required With General ARAP Application" section below.
- 7. The Regional Environmental Coordinator shall review the application package to ensure all required information necessary for the permit acquisition is accurate and complete. The Regional Environmental Coordinator shall submit the application package to the appropriate TDEC Environmental Field Office.
- **8.** Once approval is received (either written or verbal with written follow-up) from TDEC, the Regional Environmental Coordinator shall distribute all applicable permits/approvals to the HQ Construction Office, the Compliance and Field Services and the District Operations Supervisor (or their designee).
- **9.** The District Operations Supervisor (or their designee) shall oversee the sediment removal and/or stabilization activities of the contractor until complete. If a SARP is processed by the TDOT Natural Resources Office on this project, the TDOT Natural Resources Office and the Memphis USACE shall also be involved with the coordination of this activity.
- **10.** The District Operations Supervisor (or their designee) shall notify the Regional Environmental Coordinator within two (2) calendar days after the sediment removal and /or stabilization is complete.
- **11.** At this time, the Regional Environmental Coordinator shall visit the locations identified in the application and provide written and photographic documentation of the location where removal and/or stabilization was performed. This shall also be included in the EPSC inspection report.
- 12. Within seven (7) calendar days after the completion of each activity, the Regional Environmental Coordinator shall submit the documentation above, electronic color copy via email, to the regulatory agencies, TDOT HQ Construction Office and TDOT Compliance and Field Services. An electronic color copy (e.g. .pdf) shall be sent via email and one color copy shall be mailed to TDEC. Please be aware that TDEC may impose a fee (Natural Resource Damage Assessment) to cover the damages to the affected jurisdictional area if a significant amount of damage was done to the area and total recovery of the sediment was not achieved. This fee shall only be imposed following a SARP conducted by the TDOT Natural Resources Office, in conjunction with, or approved by, TDEC.

Individual ARAP:

If the sediment release to jurisdictional waters meets one of the exceptions to the General ARAP coverage listed above, the Regional EC shall provide sediment release information to the TDOT Natural Resources Office for the application for an Individual Permit. The District Operations Supervisor or designee will also complete the TDOT Sediment Release Form attached to this circular for submittal to the Regional Environmental Coordinator.

PERMIT INFORMATION REQUIRED WITHARAP APPLICATIONS

- Cover Letter Description of the basic nature and scope of the project, including events that lead to the discharge, the characteristics of the discharge and the proposed method of sediment removal/stabilization. This application letter and any forms shall be signed by the Regional Construction Supervisor (or their designee).
- 7½-minute USGS Topographic Quadrangle Map Located in the appendix of the Storm Water Pollution Prevention Plan (SWPPP)* as the Vicinity Map or within the Water Quality Permit Application.
- **Permit Identification Numbers** Located on the NPDES Notice of Coverage (NOC), the USACE, TDEC and TVA permits.
- Latitude/Longitude In-stream location of sediment accumulation. This can be found on the internet (e.g., www.topozone.com), with a GPS unit or on the topographic quadrangle map. In the form of (Latitude XX.XXXX N, Longitude XX.XXXX W)
- Receiving Stream Located within the text of the SWPPP* or in the Ecology information within the Appendix of the SWPPP* or within the Water Quality Permit Application.
- Threatened or Endangered Species Located in the Ecology information within the appendix of the SWPPP* or within the Water Quality Permit Application.
- **Photos** Before sediment removal work (to submit with the application) and, once the work has been completed, after sediment cleanup (to submit after completion of the activity) representative photos.
- Plan sheets and/or sketches –Use Erosion Prevention and Sediment Control (EPSC) Sheet from within the Appendix of the SWPPP* to show EPSC methods being maintained. Provide sketch showing the approximate dimensions of the sediment deposit, the proposed diversion methods and any additional EPSC measures needed for sediment removal, if appropriate.
- Provide copies of the TDOT Standard Drawings, as appropriate
- **Proposed Commencement Date** Upon issuance of permit
- **Proposed Completion Date** (e.g., 30 days) from issuance of permit. The permit will state the expiration date based upon the proposed completion date. If additional time is needed after the stated expiration date within the permit, the Regional EC shall contact the regulatory agencies at least one week before the expiration date with a request for time extension and the amount of time requested.
- **Identify if the stream is listed as one of the following waters** This information is available on TDEC's website.

National Wild and Scenic Rivers in TN Tennessee's Designated State Scenic Rivers Outstanding National Resource Waters

*A SWPPP will not be provided on all projects. A SWPPP is only provided on construction projects that disturb one (1) acre or more of land.

TENNESSEE DEPARTMENT OF TRANSPORTATION EROSION PREVENTION/SEDIMENT CONTROL SEDIMENT RELEASE FORM FOR USE FOR SEDIMENT RELEASES OFF ROW AND/OR INTO STREAMS/WETLANDS

State Route (SR) / US Route or Road Name and Description:						
County(ies):	TDOT PIN:	:	NPDES Permit (NOC) #:			
Other Applicable Permits (ARAP, TVA, etc.)						
TDOT Contract No.:		Contractor:				
Date of Sediment Release:		wetland? Yes/No	e the ROW or discharge into a stream or If No, no further documentation beyond on report is required.			
TDOT/Consultant EPSC Inspector:						
Form Completed By: (TDOT Project S	Supervisor/D	esignee)	Date			
Received and Reviewed By: (Regiona	al Environme	ental Coordinator)	Date			
Forwarded to Local TDEC EFO (if app	olicable)		(Initial and Date)			
Forwarded back to Local TDOT Const	truction Offic	ce	(Initial and Date)			
			roximate stationing, which side of centerline int release to Clear Creek at Outfall 2, Sta.			
BMPs in area and if they were installe A 1.25" rain event (three hour duration working condition and installed per the	ed per the sit n) occurred o e updated ei 0% capacity.	te erosion control pla on October 1, 2009. rosion control plans Sediment-laden ru	se. Include relative rainfall totals, installed an and SWPPP requirements, etc. Example: Sediment trap above Outfall 2 was in in the SWPPP; however, 3 rock check dams noff from active cut slope exceeded check ment release into Clear Creek]			

TENNESSEE DEPARTMENT OF TRANSPORTATION EROSION PREVENTION/SEDIMENT CONTROL SEDIMENT RELEASE FORM FOR USE FOR SEDIMENT RELEASES OFF ROW AND/OR INTO STREAMS/WETLANDS

Environmental Impacts of Sediment Release: [Describe the environmental impacts of the sediment release including impacts to habitat (i.e. fish kills), dimensions of the sediment impacts, and potential impacts to Threatened and Endangered Species list in the Ecology Report and SWPPP. State if any jurisdictional waters were impacted by sediment. Example: A sediment release impacted permitted stream of Clear Creek (STR-3). The observed impacts are sediment deposition approximately 750 ft downstream and approximately 2 ft wide, culminating at log weir. Average sediment depth was 3", ranging from 12" to ½" thick. No endangered species are noted in the area and no signs of aquatic life was impacted]
Plans to Remove off-ROW Sediment: [Describe how TDOT plans on removing sediment and who will be involved in removal. Example: TDOT notified TDEC Environmental Field Office on October 2, 2009 about sediment release to Clear Creek. TDOT plans to install a sandbag cofferdam upstream of sediment release and pipe stream flow around impacted area, discharging back into stream below log weir. Sediment will be removed from stream with hand tools and disposed of per requirements outlined in project SWPPP. Once sediment is removed, sandbag cofferdam will be removed; returning flow to stream. The contractor will perform sediment removal under supervision of Region Environmental Coordinator.]
Plans to Prevent Future Impacts: [Describe additional EPSC measure or change in drainage planned (or completed) to prevent repetitive sediment release in this location. Example: EPSC measures will be increased at and above Outfall 2. Two additional rock check dams have been constructed in ditch leading to Outfall 2 and sediment trap storage capacity has been increased. In addition, seed and erosion control blanket are scheduled to be installed on the cut slope at the end of the week.] Attach Additional Information: such as Photographs and Erosion Control Plans indicating location of sediment
release. For sediment releases to jurisdictional waters that qualify for coverage under General ARAP for Sediment Removal and Stream Remediation, the TDEC CN-1091 form must also be completed.

CIRCULAR LETTER

SECTION: 209.01 Number: 209.01-04

SUBJECT: TDOT INSPECTION OF CONTRACTOR WASTE & BORROW SITES

DATE: OCTOBER 2, 2015

Effective with the June 18, 2010 Letting, Waste & Borrow Sites for TDOT projects will be subject to the requirements of the <u>Procedures for Providing Offsite Waste and Borrow on TDOT Construction Projects</u>.

After the contractor has secured approval for use of a waste and/or borrow site, he/she is responsible for performing twice weekly EPSC Inspections of that site, if applicable. The contractor must have a certified EPSC inspector as required by the TDEC Construction General Permit (CGP). The certified EPSC inspector must document the inspections on the inspection form in the CGP or on TDOT's inspection report (see CL 209.01-02).

All aspects of the oversight and inspection of Waste and Borrow sites associated with TDOT construction projects shall follow the terms and conditions of the Procedures for Providing Offsite Waste and Borrow on TDOT Construction Projects dated June 2012, or most current version.

TDOT Construction Exclusive Waste/Borrow Site Weekly EPSC Inspection Review Report

Date of Review:	County:			
TDOT Project Description:				
TDOT Contract Number:	Contractor:			
Contractor's Waste/Borrow Area Name/Description:				
Waste/Borrow NPDES Number:				
Contractor's Certified EPSC Inspector:	Inspector's Certification Number:			
Location of Contractor's Waste/Borrow Area Permits:				
Dates of Contractor's EPSC inspections (since last review):				
Name of TDOT Representative Completing Documentation Review	r:			

Instructions: This checklist covers the basic erosion prevention and sediment control and other stormwater construction requirements for Exclusive Waste/Borrow Areas used for TDOT projects. This report shall be completed weekly by the TDOT EPSC Representative verifying the documentation of the contractor's previous week's twice weekly EPSC inspection reports. Questions that are not applicable for the site must be marked as "N/A". Checks placed under the "No" column that indicate a deficiency requires a written explanation and/or a written corrective action and required completion date in the "TDOT EPSC Representative's Comments and Corrective Actions" section of this form. Both the TDOT EPSC Representative and the Contractor's Certified EPSC Inspector should sign the form immediately following each review.

General Information – Only need to complete during first review unless there are changes to report at subsequent reviews

	Yes N	o N/A	
1.			Is the waste/borrow area exclusive to the above referenced TDOT project? (If not exclusive or if exempt
			exclusive, do not complete or answer any other questions.)
2.] 🔲	Is the NOC posted on site?
3.			Are the SWPPP and other required CGP information available on site?
4.			Are rain gages present and installed per requirements?
5.			Are Streams/Wetlands/Sinkholes present on site?
6.			If 5 is "Yes", have the applicable permits been obtained for the impacts (ARAP, USACE, TVA)?
7.			If 5 is "Yes", are Streams/Wetlands/Sinkholes shown in the SWPPP with appropriate buffers noted?
8.			Do the EPSC measures shown in the SWPPP and installed in the field appear adequate for the site?
9.			Are outfall locations shown in the SWPPP? Are there outfalls in the field that aren't included in the SWPPP?
10.			Are on-site outfall drainage areas included in the SWPPP?
11.			Is a sediment basin required at any on-site outfalls per the TN CGP?
12.			If 11 is "Yes", are a sediment basin and its calculations included in the SWPPP?
13.			Does the SWPPP limit the disturbed area of the Waste/Borrow site to less than 50 acres at one time?
14.			Does the SWPPP include at least two separate EPSC plan sheets (sites disturbing < 5 acres) or at least 3
			separate EPSC plan sheets (sites disturbing > 5 acres) as required by TN CGP?

W&B Inspection Review Checklist May 2012 1

Site Specific Information - Complete during each review Yes No N/A 15. \square Have EPSC inspections been documented twice weekly and at least 72 hours apart? 16. \Box Do the EPSC inspection reports document daily rainfall for the site? 17. 🔲 🔲 🔲 Do the EPSC inspection reports document that the project outfalls have been inspected? 18. □ □ □ Did the EPSC inspection report document sediment deposits off the permitted area? 19. \square If 18 is "Yes", did the EPSC inspection report the sediment release was into a Stream or Wetland? 20. If 19 is "Yes", did the EPSC inspection report document that contractor self-reported the sediment release to TDEC EFO? 21. \square If 19 is "No", did the EPSC inspection report document that the off site sediment was removed or stabilized? 22. \square \square Have any new project outfalls been added according to the EPSC inspection reports? 23. 🗌 🗎 🗎 If 22 is "Yes", have new project outfalls been updated in the SWPPP? 24. Do the EPSC inspection reports document that EPSC measures have been installed per the SWPPP in all active areas? 25. \square \square Do the EPSC inspection reports document that the installed EPSC measures appear to be adequate for the 26. 🗌 🗎 🖺 Do the EPSC inspection reports document that the EPSC measures are being maintained according to the SWPPP and the CGP? 27. Do the EPSC inspection reports document any new EPSC measures being installed? If 27 is "Yes", has the SWPPP been updated to reflect the new EPSC measures? 28. □ □ □ Have the dates of major grading activities been documented in accordance with the SWPPP? 29. \square 30. 🗌 🗎 🗎 Have the dates when construction activities temporarily or permanently ceased been documented in accordance with the SWPPP? 31. \square \square Do the EPSC inspection reports document that disturbed areas idle for more than 14 days have been temporarily or permanently stabilized? 32. \square \square Do the EPSC inspection reports document that temporary stabilization has been applied to any areas of the site? 33. 🔲 🔲 🔲 Do the EPSC inspection reports document that permanent stabilization has been applied to any areas of the site? 34. \square Do the EPSC inspection reports document that steep slope areas have been stabilized in 7 days? 35. \square \square Do the inspection reports document the total disturbed acreage, including haul roads, stockpile areas, and other disturbances?

TDOT EPSC Representative's Comments and Corrective Actions

Signatures - Complete during each review I certify that I have completed the inspection review documented in this report. TDOT EPSC Representative's Signature Date I certify that any EPSC deficiency noted in the twice-weekly inspection report will be addressed in conformance with the requirements of the TN CGP. I also agree that items listed above are accurate and that any discrepancies to this report are listed below in the comments section. Contractor's Certified Inspector Signature Date Contractor's Certified Inspector's Comments

CIRCULAR LETTER

SECTION: 209.01 PROJECT EROSION AND SILTATION CONTROL

Number: 209.01-05

SUBJECT: UTILITIES AND ENVIRONMENTAL CONSTRUCTION PERMITS

DATE: OCTOBER 2, 2015

This circular letter addresses utility work within or adjacent to the TDOT right-of-way (ROW) and the associated environmental construction permits. The "Guidebook for Utility Relocation Related to TDOT Construction Projects" produced by the TDOT ROW Division Utilities Office contains additional information related to oversight of utility work on TDOT ROW or in TDOT Construction projects. Utilities are responsible for obtaining any needed easements or right-of-way for utility construction that extends beyond the TDOT ROW. All utility work that occurs within or adjacent to TDOT's ROW may be classified in one of the two following categories:

- 1. In Contract Moves: Utility work included in a TDOT Construction contract; or
- 2. Prior to Moves: Utility work not included in a TDOT Construction contract, including utility relocations performed by the utility prior to the beginning of a TDOT Construction contract.

The Project Supervisor should coordinate with the TDOT Regional Utility Office to determine which of these categories applies to each type of associated utility work and to obtain contact names and information for each utility. The Project Supervisor should discuss In-Contract Moves at the pre-construction meeting and at the environmental pre-construction meeting. This discussion should address areas where In-Contract Moves and Prior-To Moves extend outside the TDOT ROW. In addition, the Project Supervisor may direct the TDOT EPSC Inspector to conduct a pre-disturbance EPSC inspection before the utility work begins.

In-Contract Moves

For In-Contract Moves, the Prime Contractor for the construction project will coordinate all construction work activities (including utility work) for the contract. The utility work will be performed by either the Prime Contractor's forces or a subcontractor's forces. Any issues related to the utility construction process need to be brought to the Project Supervisor's and the Prime Contractor's attention immediately to allow for corrective action.

For In-Contract Moves, the TDOT Environmental Division's Natural Resources Office (NRO) obtains the environmental construction permits for the construction project, including the utility construction or installation work. Utility companies remain responsible for obtaining their own railroad permits, TDEC water or sewer approval permits or other operational permits for the utility facilities. The utility completes and signs the "Memorandum of Understanding (For Environmental Permits Required by Utility Construction)" (Form 2011-19) for the TDOT Right-of-Way Division. If the utility construction or installation work extends off the TDOT ROW, the utility is responsible for obtaining easements or additional right-of-way for areas adjacent to the TDOT ROW. In addition, the utility supplies the needed permit submittal information for all

utility construction or installation work to the Regional Utility Office and/or the Project Supervisor, who then provides the permit information to the TDOT NRO. Any environmental construction permit modifications or changes for In-Contract Moves should be coordinated with the TDOT NRO. The TDOT NRO will work with the regulatory agencies to obtain the permit modifications or changes.

For In-Contract Moves, the utility work cannot begin until the following steps are completed:

- (1) the TDOT project's pre-construction meeting has been completed and
- (2) notice has been given by the Prime Contractor to the TDOT Project Supervisor that utility work will commence and the Project Supervisor has approved the commencement. This notification process allows the Project Supervisor to arrange for personnel to conduct the required EPSC inspections.

The Prime Contractor will be responsible for installing the EPSC measures based on the TDOT EPSC plans and before construction starts. If the utility construction and installation extends outside the TDOT ROW, the Prime Contractor shall also be responsible for installing EPSC measures for the utility construction and installation. The TDOT EPSC plans for roadway construction may or may not be suitable or sufficient for the utility construction and installation. If installing the roadway construction EPSC measures at the time of utility relocation is not practical or suitable, the Prime Contractor may develop and submit an EPSC plan specifically for the utility relocation. Where an EPSC plan is developed specifically for utility relocation, the Prime Contractor must submit this EPSC plan to the TDOT District Operations Supervisor, or their designee, for acceptance. This specific EPSC plan for utility relocation should address utility construction and installation areas within the TDOT ROW and outside of the TDOT ROW. The cost for additional EPSC measures for specific EPSC plans for utility relocations shall be paid as increases in TDOT's roadway construction EPSC items.

EPSC inspections and Quality Assurance (QA) Audits shall include utilities in their routine inspections and assessments where the utilities are included in the Construction contract or where utility work is being performed at the same time as the construction project. The project's EPSC Inspector will be responsible for inspecting all areas included in the TDOT Construction contract. This includes roadway construction within the TDOT ROW and utility work on and off TDOT ROW. All EPSC recommendations related to utility work will be communicated to the Prime Contractor as directed by the TDOT District Operations Supervisor, or their designee, The QA Audit Team should include all areas included in the environmental construction permits in the QA Audit, including off-ROW utility work performed on utility easements or ROW. If the QA Auditor observes an issue related to the utility construction or installation work, the issue will be identified as a field observation or as a nonconformance according to the QA Audit procedures. Where necessary, the District Operations Supervisor, or their designee, will coordinate with the Prime Contractor, utility if performing the work, and/or the Regional Field Services Specialist to resolve the issue

Following construction completion, TDOT will terminate environmental construction permit coverage using TDOT's standard procedures. The utility is required to promptly complete Form DT-1716 following work completion and to submit the completed form to the Project Supervisor.

Prior-To Moves and Other Utility Work Not Included in a TDOT Construction Contract

When utility work is not included in a TDOT Construction contract, the Utility will perform the utility work separately from the construction project, but within or adjacent to TDOT's ROW. For these activities, the work will be performed by the Utility's contractor or work forces. The "Guidebook for Utility Relocation Related to TDOT Construction Projects" produced by the TDOT ROW Division Utilities Office instructs Utilities to notify TDOT Construction no less than three (3) days before beginning utility construction.

The Utility will be responsible for obtaining and complying with all environmental construction permits for Prior-To Moves and other utility work. The Utility will submit a completed and signed "Environmental Agreement for Utility Projects" form to the TDOT Right-of-Way Division prior to being released by TDOT to begin utility work on TDOT's ROW. The Utility will be responsible for installing EPSC measures and for performing EPSC inspections and other permit compliance items relative to its environmental construction permits. These projects are divided into two groups based on the following: (1) project disturbing more than one acre and (2) disturbed acreage less than one acre.

- (1) rojects disturbing more than one acre the Utility must submit a copy of the TDEC Notice of Coverage (NOC), SWPPP, any applicable water quality/resource alteration permits, and the completed "Environmental Agreement for Utility Projects" form (Form 2011-20) to the Regional Utility Office.
- (2) Projects disturbing less than one acre the Utility must submit the "Environmental Agreement for Utility Projects" form (Form 2011-20) to the Regional Utility Office.

If the utility relocation work is ongoing when the TDOT construction project begins construction, the TDOT EPSC Inspector will inspect all areas within TDOT's ROW (including utility work areas), but excluding any utility work areas that are outside the TDOT ROW. If directed by the TDOT District Operations Supervisor, or designee, and if the Utility is in agreement, the TDOT EPSC Inspector will attempt to conduct joint EPSC inspections with the Utility's EPSC Inspector. If the TDOT EPSC inspector's observations note an EPSC issue or other permit issue related to the utility work, the TDOT EPSC inspector will notify the TDOT District Operations Supervisor, or their designee, will coordinate with the Regional Utility Office and the Regional Field Services Specialist. The utility will be required to coordinate erosion control measures with the Project Supervisor in order that the Prime Contractors' erosion control and the Utility's erosion control are not disturbed, duplicated, or compromised by activities of the other.

The project's QA Auditor will begin QA Audits after the Prime Contractor starts TDOT project construction work using the QA Audit procedures. The QA Auditor will assess all areas within TDOT's ROW, but will not assess off-ROW utility work areas. If the QA Auditor observes an issue related to the utility construction or installation work at the QA Audit, the issue will be identified as a field observation or as a nonconformance according to the QA Auditor. Where necessary, the District Operations Supervisor, or their designee, will coordinate with the Right-of-Way Division Utilities Coordinator and/or the Regional Field Services Specialist to resolve the issue.

Following construction completion, the utility will be responsible for following the permit conditions to terminate the environmental construction permit coverage.

4. NOI & NOC





TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION

Division of Water Resources

William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 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	114156.00 PROJECT NO). 41001-1148-44		Existing NPDES Number: TNR	Tracking			
Street Address or I-40 Wes	tbound near Mile Marker 1	61 (Truck Climbing La	ane)	Start date: Sep 2	016			
Location:			,	Estimated end da				
Site Activity Construction	of truck climbing lane which	h includes grade, dra	in, and guardrail	n, and guardrail Latitude (dd.dddd): 35.9733 ° N				
Description:		_		Longitude (dd.de	ddd): -87.5281°	W		
County(ies): Hick	man & Humphreys	MS4	TDOT	Acres Disturbed	: 15.42			
		Jurisdiction:		Total Acres: 24.7	77			
If wetlands are located on-s If an Aquatic Resource Alte	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.: Receiving waters: Unnamed Trib. to Garner Creek within the Lower Duck River watershed							
Receiving waters: Unname	ed Trib. to Garner Creek wi	thin the Lower Duck F						
Attach the SWPPP with the		VPPP Attached	Attach a site location map	Map Attac				
	y (Primary Permittee): (pers	on, company, or legal en	ntity that has operati	onal or design cor	ntrol over const	ruction plans and		
specifications): Tennesse	e Department of Transport	ation						
Site Owner/Developer Sign below): (individual respons	atory (V.P. level/higher - signible for site): Jim Ozment	ns certification	Signatory's Title of below): Director			gns certification		
	es K. Polk Building 505 De	aderick Street	City: Nashville		State: TN	Zip: 37243-0334		
Phone: (615) 741-537) N/A	E-mail: Environmental.NPDES.TDOT@tn.gov					
Optional Contact: DJ Wise	man		Title or Position: Environmental Permits Section Manager					
Mailing Address: 900 Jam	es K. Polk Building 505 De	aderick Street	City: Nashville		State: TN	Zip: 37243-0334		
Phone: (615) 532-455	54 Fax: () N/A	E-mail: DJ.Wisen	nan@tn.gov				
Owner or Developer Certi	fication (must be signed by p	resident, vice-president	or equivalent, or rar	nking elected offic	ial) (Primary P	ermittee)		
my knowledge and belief, true,	at this document and all attachmaccurate, and complete. I am aw Tennessee Code Annotated Secti	are that there are significan	nt penalties for submitt	ing false information	n, including the p			
Owner or Developer Name;	(print or type) Jim Ozment		Signature:	20-5		Date: 07/15/16		
Contractor(s) Certification	(must be signed by presiden	t, vice-president or equi	ivalent, or ranking el	lected o fficial) (Se	econdary Permi	ttee)		
owner/developer identified above	at I have reviewed this document we and/or my inquiry of the perso oved, makes the above-described	n directly responsible for a	assembling this NOI an	nd SWPPP, I believe	the information s	submitted is accurate. I		
Contractor company name (print or type):							
Contractor signatory (print/t	ype): (V.P. level or higher)		Signature:			Date:		
Mailing Address:			City:		State:	Zip:		
Phone: ()	F	ax: ()	E-mail:					
Other Contractor company	name (print or type):							
Other Contractor signatory	(print/type): (V.P. level or high	gher)	Signature:			Date:		
Mailing Address:			City:		State:	Zip:		
Phone: ()	Fax: ()	E-mail:		<u> </u>	·		
OFFICIAL STATE USI	ONI V							
Received Date:		Field Office:	Permit Number TNR		Exceptional T	TN Water:		
Fee(s):	T & E Aquatic Flora and Fauna:		Impaired Receiving Stre	eam:	Notice of Cov	verage Date:		

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

<u>Purpose of this form</u> 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.

<u>Permit fee</u> (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).

Acres	= or > 150	= or > 50 < 150	= or > 20 < 50	= or > 5 < 20	= or > 1 < 5	Subsequent coverage*
Disturbed	acres	acres	acres	acres	acres	
Fee	\$10,000	\$6,000	\$3,000	\$1,000	\$250	\$100

^{*} Subsequent Primary Operators seeking coverage under an actively covered larger common plan of development or sale

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.

<u>Complete the form</u> 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.state.tn.us/environment/water/water-quality_storm-water.shtml

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).

<u>Submitting the form and obtaining more information</u> 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**.

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

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

<u>Purpose of this form</u> 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.

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Acres	= or > 150	= or > 50 < 150	= or > 20 < 50	= or > 5 < 20	= or > 1 < 5	Subsequent coverage*
Disturbed	acres	acres	acres	acres	acres	
Fee	\$10,000	\$6,000	\$3,000	\$1,000	\$250	\$100

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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.

<u>Complete the form</u> 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.

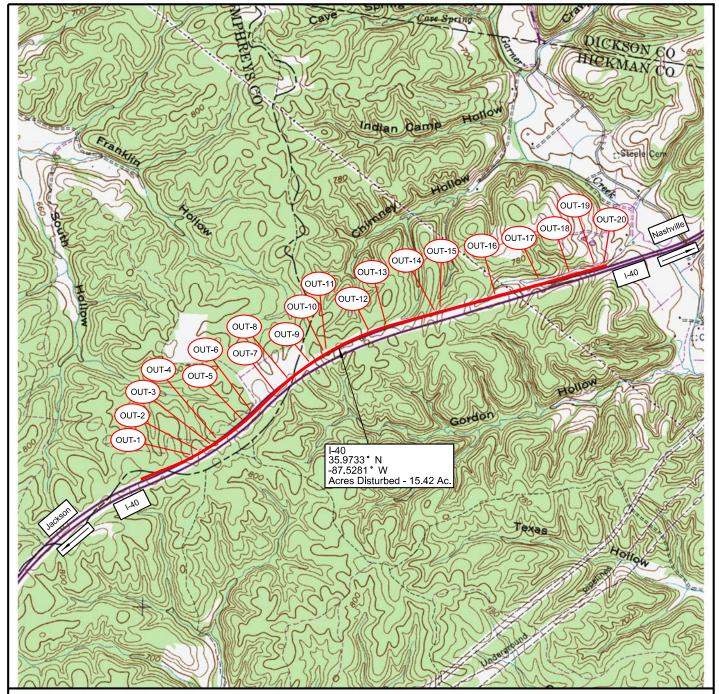
<u>MS4 Jurisdiction:</u> If this construction site is located within a Municipal Separate Storm Sewer System (MS4), please list name of MS4. A current list of MS4s in Tennessee may be found at http://www.state.tn.us/environment/water/water-quality_storm-water.shtml

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 **Resource Alteration Permit** (**ARAP**). If you have a question about the ARAP program or permits, contact your local Environmental Field Office (EFO).

<u>Submitting the form and obtaining more information</u> 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**.

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



TOPOGRAPHIC MAP





SOURCE: USGS Quad Map, U.S. Geological Survey 7.5 Minute Topographic Map, Spot (40 NE) Tennessee Quadrangle



Tennessee Department of Transportation

Nashville, Tennessee

Stormwater Pollution Prevention Plan
I-40

Westbound Near Mile Marker 161 (Truck Climbing Lane)

Humphreys & Hickman Counties, Tennessee

Drawn By:	Checked By:	
DAH	JBL	
TDOT P.E. No.	TDOT PIN	
41001-1148-44	114156.00	
FED. No.	Figure	
IM/NH-40-3(149)	1	

5. Blank NOT





TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION (TDEC)

Division of Water Resources

William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 11th Floor, 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 DWR 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.

Site or Project Name:		NPDES Tracking Number: TNR			
Street Address or Location:		County(ies):			
Nan	ne of Permittee Requesting Termination of Coverage: Tennessee [Department of Transportation			
Pern	nittee Contact Name:	Title or Position:			
Mail	ling Address:	City:	St		Zip:
Pho	ne:	E-mail:			
Che	eck 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.			permanent		
	You are no longer the operator at the construction site (i.e., termina	tion of site-wide, primary or	secondary p	permittee coverage	e).
	tification and Signature: (must be signed by president, vice-				
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 Env	vironment and Conservation	7		

Attn: Storm Water NOT Processing William R. Snodgrass Tennessee Tower 312 Rosa L. Parks Avenue, 11th Floor

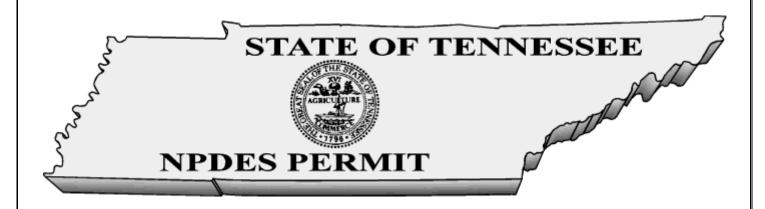
Division of Water Pollution Control, Permit Section

Nashville, TN 37243

CN-1175 (Rev. 12-14) RDA 2366

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

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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 <u>Waste and Borrow Manual</u> per the <u>Statewide</u> <u>Stormwater Management Plan (SSWMP)</u>. 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 <u>not</u> authorize the following discharges:

a) <u>Post-Construction Discharges (Permanent Stormwater Management)</u> - 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) <u>Discharges Mixed with Non-Stormwater</u> 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) <u>Discharges Covered by Another Permit</u> 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) <u>Discharges Threatening Water Quality</u> 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) <u>Discharges into Impaired Streams</u> 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 <u>impaired waters</u>. <u>Impaired waters</u> 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 <u>impaired waters</u> 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) <u>Discharges into Outstanding National Resource Waters</u> 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, <u>Chapter 1200-4-3-.06</u>.
- g) <u>Discharges into Exceptional Quality Waters</u> 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) <u>Discharges Not Protective of Federal or State listed Threatened and Endangered Species, Species Deemed in Need of Management or Special Concern Species</u> 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) <u>Discharges from a New or Proposed Mining Operation</u> This permit does not cover discharges from a new or proposed mining operation.
- j) <u>Discharges Negatively Affecting a Property on the National Historic Register</u> -Stormwater discharges that would negatively affect a property that is listed or is eligible for listing in the <u>National Historic Register</u> 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 EPAapproved 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 EPAapproved 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 commencement¹), 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, <u>Chapter 1200-4-11</u>. 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 site².

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 <u>not</u> 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 <u>Aquatic Resource Alteration Permits</u> (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. <u>Permit tracking numbers</u>

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 copermittees 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 <u>design</u> 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 <u>day-to-day operational control</u> of the construction site have not been identified at the time the comprehensive <u>SWPPP</u> 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 <u>operator(s)</u> (see section 2.4.3 below). These new <u>operators</u> (e.g., general contractor, utilities contractors, subcontractors, erosion control contractors, hired commercial builders) are considered secondary permittees. The <u>SWPPP</u> must be updated to reflect the addition of new <u>operators</u> 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 <u>day-to-day operational control</u> of those activities at a project which are necessary to ensure compliance with the <u>SWPPP</u> 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 <u>portion</u> 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 <u>Best Management Practices (BMPs)</u> and other controls required by the <u>SWPPP</u>. 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 <u>SWPPP</u>.

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 <u>United States</u> <u>Geological Survey</u> (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. <u>Application completeness</u>

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
<u>Columbia</u>	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
<u>Jackson</u>	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
<u>Knoxville</u>	Anderson, Blount, Campbell, Claiborne, Cocke, Grainger, Hamblen, Jefferson, Knox,
	Loudon, Monroe, Morgan, Roane, Scott, Sevier, Union
<u>Memphis</u>	Fayette, Shelby, Tipton
<u>Nashville</u>	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 <u>Tennessee Code Annotated</u>, Title 62, Chapter 2 (see part 10 below) and the rules of the <u>Tennessee Board of Architectural and Engineering Examiners</u>. Engineering design of sediment basins and other sediment controls must be included in <u>SWPPPs</u> 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 "<u>Level II Design Principles for Erosion Prevention and Sediment Control for Construction Sites</u>" 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. <u>New site</u>

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;
- 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 <u>Aquatic Resources Alteration Permit</u> (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;
- 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. <u>Description of stormwater runoff controls</u>

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. <u>Erosion prevention and sediment controls</u>

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 <u>Tennessee Erosion and Sediment Control Handbook</u>, 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.

- 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 <u>Aquatic Resources Alteration Permit</u> (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 <u>Tennessee Erosion and Sediment Control Handbook</u>. 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 <u>after</u> 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 <u>Aquatic Resources Alteration Permit</u> (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. <u>Inspections</u>

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 <u>Aquatic Resources Alteration Permit</u> (ARAP), or equivalent permits issued by federal authorities. Additional <u>buffer zone</u> requirements may be established by the local <u>MS4</u> 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:

- 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. <u>Dewatering</u>

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. <u>Prohibited discharges</u>

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. <u>Surface outlets</u>

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 <u>40 CFR 117</u> or <u>40 CFR 302</u> 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 onsite 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. <u>Discharge quality</u>

- 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, <u>Chapter 1200-4-3-.03</u>. 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, <u>Chapter 1200-4-4</u>. Construction activity carried out in the manner required by this permit shall be considered compliance with the TDEC Rules, <u>Chapter 1200-4-3-.03</u>.
- 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 <u>not</u> 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 <u>Level II Design Principles for Erosion Prevention and Sediment Control for Construction Sites</u> 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 <u>Fundamentals of Erosion Prevention and Sediment Control</u> 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 <u>T.C.A.</u> § 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. <u>Civil and criminal liability</u>

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. <u>Duly authorized representative</u>

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 onsite 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 <u>Section 309 of the Clean Water Act</u> and in <u>T.C.A. §69-3-115</u> 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. <u>Individual permit terminates general permit</u>

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 <u>T.C.A.</u> § 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 subsection 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. <u>Termination process for secondary permittees</u>

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 status⁴. 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 reestablished, 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 <u>GIS</u> coverages (http://tnmap.tn.gov/wpc/), and the results of recent field surveys. <u>GIS</u> 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 <u>Aquatic</u> <u>Resources Alteration Permit</u> (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 <u>State Board of Architectural and Engineer Examiners</u> 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

ONRW

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

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	g Number: T	INR
Street Address or				Construction Star	rt Date:	
Location:				Estimated End D	ate:	
Site				Latitude (dd.dddd		
Description:				Longitude (-dd.d	ddd):	
County(ies):		MS4	Acres Disturbed:			
County (105).		Jurisdiction:		Total Acres:		
Does a topographic map she If wetlands are located on-s: If an Aquatic Resource Alte	ach wetlands delineation	report.	ne construction site ARAP Numbe			
Receiving waters:						
Attach the SWPPP with the	NOI S	SWPPP Attached	Attach a site location map	Map Attac	hed	
Name of Site Owner or Deplans and specifications)	veloper (Site-Wide Permi	ttee): (person, company,	or legal entity that h	as operational or de	esign contro	l over construction
Site Owner or Developer Co	ontact Name: (individual re	sponsible for site)	Title or Position: (the party who sign	is the certific	cation below):
Mailing Address:			City:		State:	Zip:
Phone:	Fax:)	E-mail:			
Optional Contact:			Title or Position:			
Mailing Address:		City: State:		State:	Zip:	
Phone:	Fax:)	E-mail:	,		
Owner or Developer Certi	fication: (must be signed b	y president, vice-presiden	t or equivalent, or ra	anking elected office	cial) (Prima	ry Permittee)
I certify under penalty of law the qualified personnel properly garesponsible for gathering the insignificant penalties for submit	ther and evaluate the informati formation, the information sub	on submitted. Based on my mitted is, to the best of my k	inquiry of the person of mowledge and belief, t	r persons who manag rue, accurate, and co	ge the system,	or those persons directly
Owner or Developer Name:			Signature: Date:			e:
Contractor(s) Certification	: (must be signed by presid	lent, vice-president or equ	uivalent, or ranking of	elected official) (Se	econdary Pe	rmittee)
I certify under penalty of law the owner/developer identified about am aware that this NOI, if appusite are thereby regulated. I am comply with these permit requires	ve and/or my inquiry of the per proved, makes the above-descri aware that there are significant	son directly responsible for bed construction activity sul	assembling this NOI ar oject to NPDES permit	nd SWPPP, I believe number TNR100000	the informati 0, and that cer	on submitted is accurate. rtain of my activities on-
Primary contractor name and address: (print or type)		Signature: Date:		e:		
Other contractor name and address: (print or type)		Signature: Date:		e:		
Other contractor name and address: (print or type)			Signature:		Dat	e:
OFFICIAL STATE USI	EONLY					
Received Date:	Reviewer:	Field Office:	Permit Number TNR		Exceptions	al TN Water:
Fee(s):	T & E Aquatic Flora and Fauna:		Impaired Receiving Stre	eam:	Notice of	Coverage Date:

$\label{eq:APPENDIX B-Notice of Termination (NOT) Form} \\$

(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	3):			
Name of Permittee Requesting Termination of Coverage:							
Permittee Contac :	t Name		Title or Position:				
Mailing Address:			City:		State:	Zip:	
Phone:			E-mail:				
Check the reas	on(s) for termination of permit co	verage:					
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., termin	nation of site-wide, p	orimary or secondary	permittee coverag	e).	
Certification a	nd Signature: (must be signed by p	resident, vice	-president or equiv	valent ranking elect	ed 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 Aven	ue STE 550	37402	
Nashville	711 R S Gass Boulevard	37243	Knoxville	3711 Middlebrook	Pike	37921	
Columbia	1421 Hampshira Dilsa	29401	Johnson City	2205 Silvardala Da		27601	

CN-1175 (Rev. 4-11) RDAs 2399 and 2400

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

	<u> </u>						
Site or	r Project Name:	NPDES Tracking Number: TNR					
Prima	ry Permittee Name:	Date of Inspection:					
Currer	nt approximate disturbed acreage: Has daily rainfall been document \[\textstyle \texts	ted? Name of Inspector:					
Currer	nt weather/site conditions:	Inspector's TNEPSC Cert	ification Nu	umber:			
□ N	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:						
	Management Practices (BMPs):						
Are th	ne Erosion Prevention and Sediment Controls (EPSCs) functioning	g correctly in the following locations:		1			
1.	Disturbed areas/material storage areas			□Yes	□No		
2.	Outfall points (or nearest accessible downstream point if an outfall is	is inaccessible)		□Yes	□No		
3.	Construction ingress/egress points			□Yes	□No		
	answer is "No" for any of the above, please describe the proble ent observations:		,		·		
4.	Are (EPSCs) installed and maintained in the field per SWPPP? If '1	No", describe below.		Yes	□No		
5.	Have site discharges caused an objectionable color contrast in the receiving stream (Permit section 5.3.2)?				□No		
6.	If "Yes", describe below the measures implemented to eliminate con Have discharges from dewatering activities been managed by appropriate the control of the	priate controls per Section 4.1.4 of the Permi	it? If	□Yes	□No		
7.	"No", describe below the measures to be implemented to achieve confidence of the construction activity at any location on-site has temporarily/permaper Section 3.5.3.2? If, "No", describe below each location and measures to be implemented to achieve confidence of the construction of the confidence o	anently ceased, was the area stabilized within	n 15 days	□Yes	□No		
8.	Are non-stormwater discharges (per Section 1.2.3) and housekeepin related debris litter, oils, fuels, building products, truck wash (per S "No", describe below the measures to be implemented to achieve co	ng measures such as storing chemicals, construction 3.5.3.1 (f) and (g)) being properly materials.		□Yes	□No		
9.	If a concrete washout facility is located on site, is it clearly identifie describe below the measures to be implemented to achieve compliant	ed on the project and maintained? If "No",	□ N/A	□Yes	□No		
10.	Have all previous deficiencies been addressed? If not, describe the r Check if deficiencies/corrective measures have been reported or	remaining deficiencies.		□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.							
	tor Name and Title (print or type):	Signature:	Date:				
Permit	ttee 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.

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7. Environmental Permits



Claire Sichko

From: Claire Sichko

Sent: Wednesday, February 03, 2016 9:43 AM

To: Jamie Fitzpatrick; Mike Brown; David Sizemore; Vicky Forrest; Michael Horlacher; Shawn

Allen; Jim Nikahd; Shannon Henry; Robert Braun

John Hewitt; DJ Wiseman; Anthony Myers; Joe Deering; Rachel Gentry; Chuck Graves; Cc:

Trenton Thomas

Subject: USACE Non-Notification PIN 114156.00

Attachments: NWP 14, Linear Transportation Projects.pdf; General Permits WWC.pdf; PIN 114156.00

USACE Non-Notification.pdf

PE # 41001-1148-44 PIN 114156.00

I-40

Westbound near mile marker 161 (Truck Climbing Lane)

Hickman/Humphreys County

Our office reviewed the above-referenced project and determined the following:

- The loss of waters of the United States does not exceed 0.10 acre:
- The project will not discharge to a special aquatic site, including wetlands;
- The project will not adversely affect federally endangered species or historic properties; and
- The project does not contain navigable waterway.

Therefore, written authorization is not required from the Tennessee Department of Environment and Conservation (TDEC) or U.S. Army Corps of Engineers (USACE). Although the subject project does not meet the pre-construction notification threshold of the Nationwide Permit #14 (Linear Transportation Projects) or the criteria of the TDEC General Aquatic Resource Alteration Permit for Alteration of Wet Weather Conveyances, construction forces should be aware that the terms and conditions for these permits are applicable to the contract.

Please find attached the General Aquatic Resource Alteration Permit for Alteration of Wet Weather Conveyances, and the Nationwide Permit #14 (Linear Transportation Projects) terms and conditions, for reference.

If the scope of work is revised or new information becomes available indicating impacts to environmental features (e.g., streams, wetlands, springs, etc), please notify our office for further review.

It is our understanding that the proposed project will disturb more than 1.0 acre. The NPDES Notice of Coverage will be sent to you as soon as we obtain it.

If you have any questions feel free to contact me or Anthony Myers at (615) 532-9945.

Thank you,



Claire Sichko | Consultant **Environmental Division** Natural Resources Office, Permits Section James K. Polk Building, 9th Floor 505 Deaderick Street Nashville, Tennessee 37243 p. 615-741-2613 claire.sichko@tn.gov tn.gov/tdot

Tennessee Department of Environment and Conservation General Aquatic Resource Alteration Permit for the Alteration of Wet Weather Conveyances



Effective Date: April 7, 2015 **Expiration Date:** April 6, 2020

Activities Covered by this Permit

This general permit authorizes alterations to wet weather conveyances. Wet weather conveyances are defined in the Tennessee Water Quality Control Act of 1977 (Act) (T.C.A. 69-3-103(43)) as "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 above the groundwater table, 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 lotic aquatic organisms whose life cycle includes an aquatic phase of at least two months." More details on wet weather conveyances, and the rules and guidance related to identification delineation and these features of mav be found http://www.state.tn.us/environment/water/water-quality_training.shtml

In accordance with the Act (T.C.A. 69-3-108(q)), alterations to wet weather conveyances do not require submittal of an application or written authorization prior to commencement of work provided the alteration is performed in accordance with the terms and conditions listed below. Activities authorized and conducted in accordance with the conditions in this general permit shall be considered *de minimis*.

General Conditions

- 1. The activity may not result in the discharge of waste or other substances that may be harmful to humans or wildlife.
- 2. Material may not be placed in a location or manner so as to impair surface water flow into or out of any wetland area.
- 3. Sediment shall be prevented from entering other waters of the state.
- 4. Erosion and sediment controls shall be designed according to the size and slope of disturbed or drainage areas to detain runoff and trap sediment and shall be properly selected, installed, and maintained in accordance with the manufacturer's specifications and good engineering practices.
- 5. Erosion and sediment control measures shall be in place and functional before earth moving operations begin, and shall be constructed and maintained throughout the construction period. Temporary measures may be removed at the beginning of the work day, but shall be replaced at the end of the work day.
- 6. Checkdams shall be utilized where runoff is concentrated. Clean rock, log, or sandbag checkdams shall be properly constructed to detain runoff and trap sediment. Checkdams or other erosion control devices are not to be constructed in jurisdictional streams. Clean rock can be of various type and size, depending on the application. Clean rock shall not contain fines, soils or other wastes or contaminants.
- 7. Appropriate steps shall be taken to ensure that petroleum products or other chemical pollutants are prevented from entering waters of the state. All spills shall be reported to the appropriate emergency

management agency and to the division. In the event of a spill, measures shall be taken immediately to prevent pollution of waters of the state, including groundwater.

- 8. Work shall not commence until the permittee has obtained all necessary authorizations pursuant to applicable provisions of §10 of The Rivers and Harbors Act of 1899; §404 of The Clean Water Act and §26a of The Tennessee Valley Authority Act, as well as any other federal, state or local laws.
- 9. This permit does not authorize impacts to cultural, historic or archaeological features or sites.
- 10. This permit does not authorize access to private property. Arrangements concerning the use of private property shall be made with the landowner.
- 11. This permit does not authorize adverse impact to formally listed state or federal threatened or endangered species or their critical habitat.
- 12. The permittee is responsible for obtaining coverage under the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges from Construction Activities where clearing, grading or excavation results in an area of disturbance of one or more acres, or activities that result in the disturbance of less than one acre if it is part of a larger common plan of development or sale.

APPROVED:

Tisha Calabrese Benton

Director, Division of Water Resources

DATE: 4/6/15



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).

8. Ecology Report



Ecology Field Data Sheet: Water Resources

Project: Hickman County; I-40 Westbound Truck Climbing Lane at Mile Marker 159.83; P.E. 41001-0148-44,

PIN 114156.00

Date of survey: 8/01/2013 Biologist: D. Crumby, T. Nehus Affiliation: TDOT

1-Station : from plans	672+80L			
2-Map label and name	WWC-1/EPH STR-1			
3-Latitude/Longitude	N35.97302; W87.52957			
4-Potential impact	Crossing/encapsulation - extension, runoff			
5-Feature description:	on ordering of the position of			
what is it	Wet Weather Conveyance/Ephemeral Stream			
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	2' - 3'			
bank height and slope ratio	8"			
avg. gradient of stream (%)				
substratum	Gravel/cobble at culvert inlet only. Soil/leaf litter elsewhere.			
riffle/run/pool	N/A			
width of buffer zone	LDB:>30m RDB:>30m			
water flow	No			
water depth	N/A			
water width	N/A			
general water quality	N/A			
OHWM indicators	Drift Lines (leaves on ROW fence)			
groundwater connection	No			
bank stability: LDB, RDB	LDB: Stable			
dominant species: LDB, RDB	LDB: White oak, boxelder RDB: White oak, boxelder			
overhead canopy (%)	100%			
benthos	N/A			
fish	N/A			
algae or other aquatic life	N/A			
habitat assessment score	N/A			
photo number (s)	1- up gradient, 2- down gradient			
rainfall information	~0.5" previous 3 days			
6-HUC code & name (12-digit)	060400030702 (Garners Creek)			
7-Confirmed by:	Not Required			
8-Mitigation	No Y Yes (include on Mitigation Form)			
9-ETW	No Y Yes (metade on Mulgation Form)			
10-303 (d) List	No V Yes Habitat Siltation Other			
11-Assessed	No 7 Yes			
12-Notes	Very poorly defined channel within existing ROW.			
Estimate size (acres) of lake or	Very poorly defined charmer within existing NOVV.			
pond if applicable; provide any				
pertinent information needed to better describe feature; indicate				
if hydrologic determination				
form was completed.				

Hydrologic Determination Field Data Sheet

Tennessee Division of Water Pollution Control, Version 1.4

County:	Hickman	Named Waterbody:		Date/Time: 2-26-2015 10:00 AM
Assessors/Aff	filiation: D.Cru	DOT ED	Project ID: Hickman County I 40 Truck	
Site Name/Description: WWC-1 / EPH STR-1				Climbing Lane PIN 114156.00
Site Location:			672+80L	
USGS quad:	40NE (Spot, TN)	HUC (12 digit): 0	60400030702	Lat/Long: N35.97302
Previous Rair	nfall (7-days): Data in N		W87.52957	
Precipitation this Season vs. Normal: very wet wet average dry drought unknown Source of recent & seasonal precipidata: CoCoRaHs On-line Precipitation Data Reports				
Watershed Si	ze:		Photos: Yes	Number :
Soil Type(s) /	Geology:		Chert/Dirt	
Surrounding Land Use: Forested hillside adjacent to Interstate Highway and Farmland				
Degree of his	storical alteration to nat Severe	ural channel morpholo Moderate	ogy & hydrology (cir Slight	rcle one & describe fully in Notes) : Absent

Primary Field Indicators Observed

Primary Indicators	NO	YES
Hydrologic feature exists solely due to a process discharge	✓	WWC
2. Defined bed and bank absent, dominated by upland vegetation / grass	✓	WWC
3. Watercourse dry anytime during February through April 15th, under normal		WWC
precipitation / groundwater conditions		VVV
4. Daily flow and precipitation records showing feature only flows in direct response		WWC
to rainfall	V	VVVC
5. Presence of multiple populations of obligate lotic organisms with ≥ 2 month		Stream
aquatic phase	V	Otteam
6. Presence of fish (except <i>Gambusia</i>)	✓	Stream
7. Presence of naturally occurring ground water table connection	✓	Stream
8. Flowing water in channel and 7 days since last precipitation in local watershed	✓	Stream
9. Evidence watercourse has been used as a supply of drinking water	✓	Stream

NOTE: If any Primary Indicators 1-9 = "Yes", then STOP; absent directly contradictory evidence, determination is complete.

In the absence of a primary indicator, or other definitive evidence, complete the secondary indicator table on page 2 of this sheet, and provide score below.

Guidance for the interpretation and scoring of both the primary & secondary indicators is provided in TDEC-WPC Guidance For Making Hydrologic Determinations, Version 1.4

Overall Hydrologic Determination = Wet Weather Conveyance

Secondary Indicator Score (if applicable) = 13

Justification / Notes :

Rain Last 7 Days	2/25 - 0.00"	2/24 - 0.00"	2/23 - 0.00"	2/22 - 2.21"	2/21 - 1.28"	2/20 - 0.00	2/19- T

Secondary Field Indicator Evaluation

A. Geomorphology (Subtotal =) 7.5		Absent	Weak	Moderate	Strong
Continuous bed and bank	3	0	1	2	3
2. Sinuous channel	2	0	1	2	3
3. In-channel structure: riffle-pool sequences	0	0	1	2	3
4. Sorting of soil textures or other substrate	0.5	0	1	2	3
5. Active/relic floodplain	0	0	1	2	3
6. Depositional bars or benches	0.5	0	1	2	3
7. Braided channel	0	0	1	2	3
Recent alluvial deposits	0.5	0	0.5	1	1.5
9. Natural levees	0	0	1	2	3
10. Headcuts	0.5	0	1	2	3
11. Grade controls	0	0	0.5	1	1.5
12. Natural valley or drainageway	0.5	0	0.5	1	1.5
13. At least second order channel on existing USGS or NRCS map		No = 0			

B. Hydrology (Subtotal =) 2.5		Absent	Weak	Moderate	Strong
14. Subsurface flow/discharge into channel	0	0	1	2	3
15. Water in channel and >48 hours since sig. rair	n 0	0	1	2	3
16. Leaf litter in channel (January – September)	1	1.5	1	0.5	0
17. Sediment on plants or on debris	0.5	0	0.5	1	1.5
18. Organic debris lines or piles (wrack lines)	1	0	0.5	1	1.5
19. Hydric soils in stream bed or sides of channel		No = 0		•	

C. Biology (Subtotal =) 3		Absent	Weak	Moderate	Strong
20. Fibrous roots in channel 1	1	3	2	1	0
21. Rooted plants in channel 1	2	3	2	1	0
22. Crayfish in stream (exclude in floodplain)	0	0	0.5	1	1.5
23. Bivalves/mussels	0	0	1	2	3
24. Amphibians	0	0	0.5	1	1.5
25. Macrobenthos (record type & abundance)	0	0	1	2	3
26. Filamentous algae; periphyton	0	0	1	2	3
27. Iron oxidizing bacteria/fungus	0	0	0.5	1	1.5
28.Wetland plants in channel 2	0	0	0.5	1	2

¹ Focus is on the presence of upland plants. ² Focus is on the presence of aquatic or wetland plants.

Total Points =	13
	ditions, Watercourse is a Wet Weather ondary Indicator Score < 19 points

Notes :			

HABITAT ASSESSMENT FIELD DATA SHEET—HIGH GRADIENT STREAMS (FRONT)

STREAM NAME WWC-1 / EPH STR-1	LOCATION Station 672+80L (TDOT Plan Sheets)			
STATION # RIVERMILE	STREAM CLASS Ephemeral			
LAT <u>35.97302</u> LONG <u>87.52957</u>	RIVER BASIN Garners Creek (Duck River)			
STORET#	AGENCY: TDOT			
INVESTIGATORS Dennis Crumby - TDOT Tim	Nehus - CEC			
FORM COMPLETED BY D. Crumby - TDOT	DATE02/26/2016			

	Habitat	Condition Category						
	Parameter	Optimal	Suboptimal	Marginal	Poor			
	1. Epifaunal substrate favorable for epifaunal colonization and fish cover; mix of snags, submerged logs, undercut habitat; well-suited for full colonization potential; adequate habitat for maintenance of habitat; well-suited for full colonization potential; adequate habitat for maintenance of		20-40% mix of stable habitat; habitat availability less than desirable; substrate frequently disturbed or removed.	Less than 20% stable habitat; lack of habitat is obvious; substrate unstable or lacking.				
	SCORE 2	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 🗸 1 0			
n sampling reach	2. Embeddedness	Gravel, cobble, and boulder particles are 0- 25% surrounded by fine sediment. Layering of cobble provides diversity of niche space.	Gravel, cobble, and boulder particles are 25-50% surrounded by fine sediment.	Gravel, cobble, and boulder particles are 50- 75% surrounded by fine sediment.	Gravel, cobble, and boulder particles are more than 75% surrounded by fine sediment.			
ted in	score 2	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2/ 1 0			
Parameters to be evaluated in sampling reach	3. Velocity/Depth Regime	All four velocity/depth regimes present (slow-deep, slow-shallow, fast-deep, fast-shallow). Slow is < 0.3 m/s, deep is < 0.5 m.) Only 3 of the 4 regimes present (if fast-shallow is missing, score lower than if missing other regimes).		Only 2 of the 4 habitat regimes present (if fast-shallow or slow-shallow are missing, score low).	Dominated by 1 velocity/ depth regime (usually slow-deep).			
ıram	score 2	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 1 0			
P _E	4. Sediment Deposition	Little or no enlargement of islands or point bars and less than 5% of the bottom affected by sediment deposition.	Some new increase in bar formation, mostly from gravel, sand or fine sediment; 5-30% of the bottom affected; slight deposition in pools.	Moderate deposition of new gravel, sand or fine sediment on old and new bars; 30-50% of the bottom affected; sediment deposits at obstructions, constrictions, and bends; moderate deposition of pools prevalent.	Heavy deposits of fine material, increased bar development; more than 50% of the bottom changing frequently; pools almost absent due to substantial sediment deposition.			
	SCORE 16	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0			
	5. Channel Flow Status	Water reaches base of both lower banks, and minimal amount of channel substrate is exposed.	Water fills >75% of the available channel; or <25% of channel substrate is exposed.	Water fills 25-75% of the available channel, and/or riffle substrates are mostly exposed.	Very little water in channel and mostly present as standing pools.			
	SCORE 3	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0			

HABITAT ASSESSMENT FIELD DATA SHEET—HIGH GRADIENT STREAMS (BACK)

	Habitat		Conditio	Category				
	Parameter	Optimal	Suboptimal	Marginal	Poor			
	6. Channel Alteration	Channelization or dredging absent or minimal; stream with normal pattern.	Some channelization present, usually in areas of bridge abutments; evidence of past channelization, i.e., dredging, (greater than past 20 yr) may be present, but recent channelization is not present.	Channelization may be extensive; embankments or shoring structures present on both banks; and 40 to 80% of stream reach channelized and disrupted.	Banks shored with gabion or cement; over 80% of the stream reach channelized and disrupted. Instream habitat greatly altered or removed entirely.			
	SCORE 17	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0			
ling reach	7. Frequency of Riffles (or bends)	Occurrence of riffles relatively frequent; ratio of distance between riffles divided by width of the stream <7:1 (generally 5 to 7); variety of habitat is key. In streams where riffles are continuous, placement of boulders or other large, natural obstruction is important.	Occurrence of riffles infrequent; distance between riffles divided by the width of the stream is between 7 to 15.	Occasional riffle or bend; bottom contours provide some habitat; distance between riffles divided by the width of the stream is between 15 to 25.	Generally all flat water or shallow riffles; poor habitat; distance between riffles divided by the width of the stream is a ratio of >25.			
ampl	SCORE 2	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0			
Parameters to be evaluated broader than sampling reach	8. Bank Stability (score each bank) Note: determine left or right side by facing downstream.	Banks stable; evidence of erosion or bank failure absent or minimal; little potential for future problems. <5% of bank affected.	Moderately stable; infrequent, small areas of erosion mostly healed over. 5-30% of bank in reach has areas of erosion.	Moderately unstable; 30-60% of bank in reach has areas of erosion; high erosion potential during floods.	Unstable; many eroded areas; "raw" areas frequent along straight sections and bends; obvious bank sloughing; 60-100% of bank has erosional scars.			
e ev	SCORE 9_(LB)	Left Bank 10 🕠	8 7 6	5 4 3	2 1 0			
to b	SCORE 9 (RB)	Right Bank 10	8 7 6	5 4 3	2 1 0			
Parameter	9. Vegetative Protection (score each bank)	More than 90% of the streambank surfaces and immediate riparian zone covered by native vegetation, including trees, understory shrubs, or nonwoody macrophytes; vegetative disruption through grazing or mowing minimal or not evident; almost all plants allowed to grow naturally.	70-90% of the streambank surfaces covered by native vegetation, but one class of plants is not well-represented; disruption evident but not affecting full plant growth potential to any great extent; more than one-half of the potential plant stubble height remaining.	50-70% of the streambank surfaces covered by vegetation; disruption obvious; patches of bare soil or closely cropped vegetation common; less than one- half of the potential plant stubble height remaining.	Less than 50% of the streambank surfaces covered by vegetation; disruption of streambank vegetation is very high; vegetation has been removed to 5 centimeters or less in average stubble height.			
	SCORE 8 (LB)	Left Bank 10 9	7 6	5 4 3	2 1 0			
	SCORE 8 (RB)	Right Bank 10 9	√ 8 7 6	5 4 3	2 1 0			
	10. Riparian Vegetative Zone Width (score each bank riparian zone)	Width of riparian zone >18 meters; human activities (i.e., parking lots, roadbeds, clear-cuts, lawns, or crops) have not impacted zone.	Width of riparian zone 12-18 meters; human activities have impacted zone only minimally.	Width of riparian zone 6- 12 meters; human activities have impacted zone a great deal.	Width of riparian zone <6 meters: little or no riparian vegetation due to human activities.			
	SCORE 10 (LB)	Left Bank 19 9	8 7 6	5 4 3	2 1 0			
	SCORE 10(RB)							

Total Score 98

Ecology Field Data Sheet: Water Resources

Project: Hickman County; I-40 Westbound Truck Climbing Lane at Mile Marker 159.83; P.E. 41001-0148-44,

PIN 114156.00

Date of survey: 8/01/2013 Biologist: D. Crumby, T. Nehus Affiliation: TDOT

1-Station : from plans	733+40L					
2-Map label and name	WWC-2/EPH STR-2					
3-Latitude/Longitude	N35.97808; W87.5106					
4-Potential impact	Fill, relocation, runoff					
5-Feature description:						
what is it	Wet Weather Conveyance / Ephemeral Stream					
blue-line on topo? (y/n)	No Yes 🗸					
defined channel (y/n)	No Yes 🗸					
straight or meandering	Straight Meandering					
channel bottom width	8'					
top of bank width	15' - 20'					
bank height and slope ratio	8' - 10'					
avg. gradient of stream (%)						
substratum	Gravel/cobble/boulder					
riffle/run/pool	N/A					
width of buffer zone	LDB: >30m RDB: <10m					
water flow	No					
water depth	N/A					
water width	N/A					
general water quality	N/A					
OHWM indicators	Wrack Lines					
groundwater connection	No					
bank stability: LDB, RDB	LDB: Stable					
dominant species: LDB, RDB	LDB: Sugar maple, tulip poplar, ironwood, boxelder, black walnut, eastern red cedar RDB: Sugar maple, tulip poplar, ironwood, boxelder, black walnut, eastern red cedar					
overhead canopy (%)	90 - 95%					
benthos	N/A					
fish	N/A					
algae or other aquatic life	N/A					
habitat assessment score	N/A					
photo number (s)	3- d/s Sta. 725+00L, 4- u/s Sta. 725+00L, 5- d/s Sta. 733+40L, 6- u/s Sta. 733+40L					
rainfall information	~0.5" previous 3 days					
6-HUC code & name	060400030702 (Garners Creek)					
(12-digit)	000400030702 (Gamers Creek)					
7-Confirmed by:	Not Required					
8-Mitigation	No Yes (include on Mitigation Form)					
9-ETW	No ✓ Yes					
10-303 (d) List	No 🗸					
10 000 (4) 2100	Yes Habitat Siltation Other					
11-Assessed	No V Yes					
Estimate size (acres) of lake or pond if applicable; provide any pertinent information needed to better describe feature; indicate	Channel Dimensions at Sta. 725+00L - Channel Bottom=4', Top of Bank=6'-8', Bank Height=3'-5'. Substrate, bank stability, riparian vegetation, etc. all same as the channel at Sta. 733+40L. *Channel completely dry on several subsequent site visits.					
if hydrologic determination form was completed.						

Hydrologic Determination Field Data Sheet

Tennessee Division of Water Pollution Control, Version 1.4

County: Hickman	Named Waterbody:	Date/Time: 2-26-2015 11:00 AM			
Assessors/Affiliation: D. Cru	Project ID: Hickman County I-40 Truck				
Site Name/Description:	WWC-2 / EPH STR-2	Climbing Lane PIN 114156.00			
Site Location:	733+40L (TDOT Plan She	eets)			
USGS quad: 40NE (Spot, TN)	HUC (12 digit): 060400030702	Lat/Long: N35.97808			
Previous Rainfall (7-days): Data	in Notes Section Below	W87.5106			
Precipitation this Season vs. Normal Source of recent & seasonal precipitation	: very wet wet average data : CoCoRaHs On-Line Precipita	dry drought unknown ation Data Reports			
Watershed Size :	Photos: Yes	Number :			
Soil Type(s) / Geology :	Chert / Dirt				
Surrounding Land Use: Forested hillside adjacent to Interstate Highway and Farmland					
Degree of historical alteration to natural channel morphology & hydrology (circle one & describe fully in No Severe Moderate Slight Absent					

Primary Field Indicators Observed

Primary Indicators	NO	YES
Hydrologic feature exists solely due to a process discharge	✓	WWC
2. Defined bed and bank absent, dominated by upland vegetation / grass		WWC
3. Watercourse dry anytime during February through April 15th, under normal		WWC
precipitation / groundwater conditions		VVVC
4. Daily flow and precipitation records showing feature only flows in direct response		WWC
to rainfall	V	*****
5. Presence of multiple populations of obligate lotic organisms with ≥ 2 month		Stream
aquatic phase	V	Stream
6. Presence of fish (except Gambusia)	✓	Stream
7. Presence of naturally occurring ground water table connection		Stream
8. Flowing water in channel and 7 days since last precipitation in local watershed	√	Stream
Evidence watercourse has been used as a supply of drinking water	✓	Stream

NOTE: If any Primary Indicators 1-9 = "Yes", then STOP; absent directly contradictory evidence, determination is complete.

In the absence of a primary indicator, or other definitive evidence, complete the secondary indicator table on page 2 of this sheet, and provide score below.

Guidance for the interpretation and scoring of both the primary & secondary indicators is provided in TDEC-WPC Guidance For Making Hydrologic Determinations, Version 1.4

Overall Hydrologic Determination = Wet Weather Conveyance

Secondary Indicator Score (if applicable) = 17

Justification / Notes:

Rain Last 7 Days: 2/25 - 0.00" 2/24 - 0.00" 2/23 - 0.00" 2/22 - 2.21" 2/21 - 1.28" 2/20 - 0.00" 2/19 - T

Secondary Field Indicator Evaluation

A. Geomorphology (Subtotal =) 10		Absent	Weak	Moderate	Strong
Continuous bed and bank	3	0	1	2	3
2. Sinuous channel	1	0	1	2	3
3. In-channel structure: riffle-pool sequences	1	0	1	2	3
Sorting of soil textures or other substrate	2	0	1	2	3
5. Active/relic floodplain	0	0	1	2	3
6. Depositional bars or benches	1.5	0	1	2	3
7. Braided channel	0	0	1	2	3
Recent alluvial deposits	0.5	0	0.5	1	1.5
9. Natural levees	0	0	1	2	3
10. Headcuts	0	0	1	2	3
11. Grade controls	0	0	0.5	1	1.5
12. Natural valley or drainageway	1	0	0.5	1	1.5
At least second order channel on existing USGS or NRCS map		No = 0			

B. Hydrology (Subtotal =) 2.5		Absent	Weak	Moderate	Strong
14. Subsurface flow/discharge into channel	0	0	1	2	3
15. Water in channel and >48 hours since sig. rain	0	0	1	2	3
16. Leaf litter in channel (January – September)	1	1.5	1	0.5	0
17. Sediment on plants or on debris	0.5	0	0.5	1	1.5
18. Organic debris lines or piles (wrack lines)	1	0	0.5	1	1.5
19. Hydric soils in stream bed or sides of channel		No = 0		•	

	Absent	Weak	Moderate	Strong
2	3	2	1	0
2.5	3	2	1	0
0	0	0.5	1	1.5
0	0	1	2	3
0	0	0.5	1	1.5
0	0	1	2	3
0	0	1	2	3
0	0	0.5	1	1.5
0	0	0.5	1	2
	2 2.5 0 0 0 0 0 0	2 3	2 3 2 2.5 3 2 0 0 0 0.5 0 0 1 0 0 0.5 0 0 1 0 0 1 0 0 0.5	2 3 2 1 2.5 3 2 1 0 0 0.5 1 0 0 1 2 0 0 0.5 1 0 0 1 2 0 0 1 2 0 0 1 2 0 0 0.5 1

¹ Focus is on the presence of upland plants. ² Focus is on the presence of aquatic or wetland plants.

Total Points =	17
Under Normal Conditions, Watercourse is a Wet Weather Conveyance if Secondary Indicator Score < 19 points	

Vatercourse completely dry on several subsequent site visits.	

HABITAT ASSESSMENT FIELD DATA SHEET—HIGH GRADIENT STREAMS (FRONT)

STREAM NAME WWC-2/EPH STR-2	LOCATION 733+40L (TDOT Plan Sheets)	
STATION # RIVERMILE	STREAM CLASS $N_0 = 0$	
LAT 35.97808 LONG 87.5106 RIVER BASIN Garners Creek (Duck River)		
STORET#	AGENCY: TDOT	
INVESTIGATORS Dennis Crumby - TDOT Tim Nehus - CEC		
FORM COMPLETED BY D. Crumby - TDOT	DATE O2/26/2015 AM PM REASON FOR SURVEY Interstate 40 Widening	

	Habitat	Condition Category			
	Parameter	Optimal	Suboptimal	Marginal	Poor
	1. Epifaunal Substrate/ Available Cover	Greater than 70% of substrate favorable for epifaunal colonization and fish cover; mix of snags, submerged logs, undercut banks, cobble or other stable habitat and at stage to allow full colonization potential (i.e., logs/snags that are not new fall and not transient).	40-70% mix of stable habitat; well-suited for full colonization potential; adequate habitat for maintenance of populations; presence of additional substrate in the form of newfall, but not yet prepared for colonization (may rate at high end of scale).	20-40% mix of stable habitat; habitat availability less than desirable; substrate frequently disturbed or removed.	Less than 20% stable habitat; lack of habitat is obvious; substrate unstable or lacking.
	SCORE 5	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
Parameters to be evaluated in sampling reach	2. Embeddedness	Gravel, cobble, and boulder particles are 0- 25% surrounded by fine sediment. Layering of cobble provides diversity of niche space.	Gravel, cobble, and boulder particles are 25-50% surrounded by fine sediment.	Gravel, cobble, and boulder particles are 50-75% surrounded by fine sediment.	Gravel, cobble, and boulder particles are more than 75% surrounded by fine sediment.
	score 6	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
	3. Velocity/Depth Regime	All four velocity/depth regimes present (slow-deep, slow-shallow, fast-deep, fast-shallow). (Slow is < 0.3 m/s, deep is > 0.5 m.)	Only 3 of the 4 regimes present (if fast-shallow is missing, score lower than if missing other regimes).	Only 2 of the 4 habitat regimes present (if fast-shallow or slow-shallow are missing, score low).	Dominated by 1 velocity/ depth regime (usually slow-deep).
ıram	SCORE 5	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
Pa	4. Sediment Deposition	Little or no enlargement of islands or point bars and less than 5% of the bottom affected by sediment deposition.	Some new increase in bar formation, mostly from gravel, sand or fine sediment; 5-30% of the bottom affected; slight deposition in pools.	Moderate deposition of new gravel, sand or fine sediment on old and new bars; 30-50% of the bottom affected; sediment deposits at obstructions, constrictions, and bends; moderate deposition of pools prevalent.	Heavy deposits of fine material, increased bar development; more than 50% of the bottom changing frequently; pools almost absent due to substantial sediment deposition.
	SCORE 10	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
	5. Channel Flow Status	Water reaches base of both lower banks, and minimal amount of channel substrate is exposed.	Water fills >75% of the available channel; or <25% of channel substrate is exposed.	Water fills 25-75% of the available channel, and/or riffle substrates are mostly exposed.	Very little water in channel and mostly present as standing pools.
	SCORE 0	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1

HABITAT ASSESSMENT FIELD DATA SHEET—HIGH GRADIENT STREAMS (BACK)

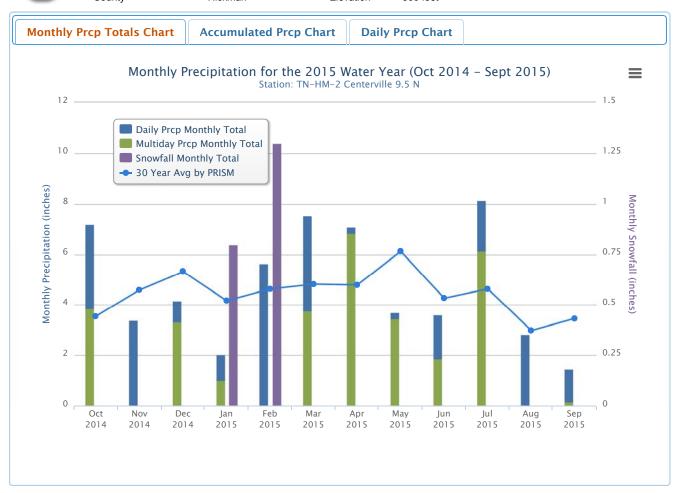
	Habitat	Habitat Condition Ca			Category		
	Parameter	Optimal	Suboptimal	Marginal	Poor		
	6. Channel Alteration	Channelization or dredging absent or minimal; stream with normal pattern.	Some channelization present, usually in areas of bridge abutments; evidence of past channelization, i.e., dredging, (greater than past 20 yr) may be present, but recent channelization is not present.	Channelization may be extensive; embankments or shoring structures present on both banks; and 40 to 80% of stream reach channelized and disrupted.	Banks shored with gabion or cement; over 80% of the stream reach channelized and disrupted. Instream habitat greatly altered or removed entirely.		
	SCORE 9	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0		
ig reach	7. Frequency of Riffles (or bends)	Occurrence of riffles relatively frequent; ratio of distance between riffles divided by width of the stream <7:1 (generally 5 to 7); variety of habitat is key. In streams where riffles are continuous, placement of boulders or other large, natural obstruction is important.	Occurrence of riffles infrequent; distance between riffles divided by the width of the stream is between 7 to 15.	Occasional riffle or bend; bottom contours provide some habitat; distance between riffles divided by the width of the stream is between 15 to 25.	Generally all flat water of shallow riffles; poor habitat; distance between riffles divided by the width of the stream is a ratio of >25.		
ampl	SCORE 9	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0		
Parameters to be evaluated broader than sampling reach	8. Bank Stability (score each bank) Note: determine left or right side by facing downstream.	Banks stable; evidence of erosion or bank failure absent or minimal; little potential for future problems. <5% of bank affected.	Moderately stable; infrequent, small areas of erosion mostly healed over. 5-30% of bank in reach has areas of erosion.	Moderately unstable; 30-60% of bank in reach has areas of erosion; high erosion potential during floods.	Unstable; many eroded areas; "raw" areas frequent along straight sections and bends; obvious bank sloughing; 60-100% of bank has erosional scars.		
e eva	SCORE 1—(LB)	Left Bank 10 9	8 7 6	5 4 3	2 1 0		
to b	SCORE <u>5</u> (RB)	Right Bank 10 9	8 7 6	5 4 3	2 1 0		
Parameters	9. Vegetative Protection (score each bank)	More than 90% of the streambank surfaces and immediate riparian zone covered by native vegetation, including trees, understory shrubs, or nonwoody macrophytes; vegetative disruption through grazing or mowing minimal or not evident; almost all plants allowed to grow naturally.	70-90% of the streambank surfaces covered by native vegetation, but one class of plants is not well-represented; disruption evident but not affecting full plant growth potential to any great extent; more than one-half of the potential plant stubble height remaining.	50-70% of the streambank surfaces covered by vegetation; disruption obvious; patches of bare soil or closely cropped vegetation common; less than one-half of the potential plant stubble height remaining.	removed to 5 centimeters or less in average stubble height.		
	SCORE 7_(LB)	Left Bank 10 9	8 7 6	5 4 3	2 1 0		
	SCORE 7 (RB)	Right Bank 10 9	8 7 6	5 4 3	2 1 0		
	10. Riparian Vegetative Zone Width (score each bank riparian zone)	Width of riparian zone >18 meters; human activities (i.e., parking lots, roadbeds, clear-cuts, lawns, or crops) have not impacted zone.	Width of riparian zone 12-18 meters; human activities have impacted zone only minimally.	Width of riparian zone 6- 12 meters; human activities have impacted zone a great deal.	Width of riparian zone <6 meters: little or no riparian vegetation due to human activities.		
	SCORE 8_(LB)	Left Bank 10 9	8 7 6	5 4 3	2 1 0		
	SCORE 5 (RB)	Right Bank 10 9	8 7 6	5 4 3	2 1 0		

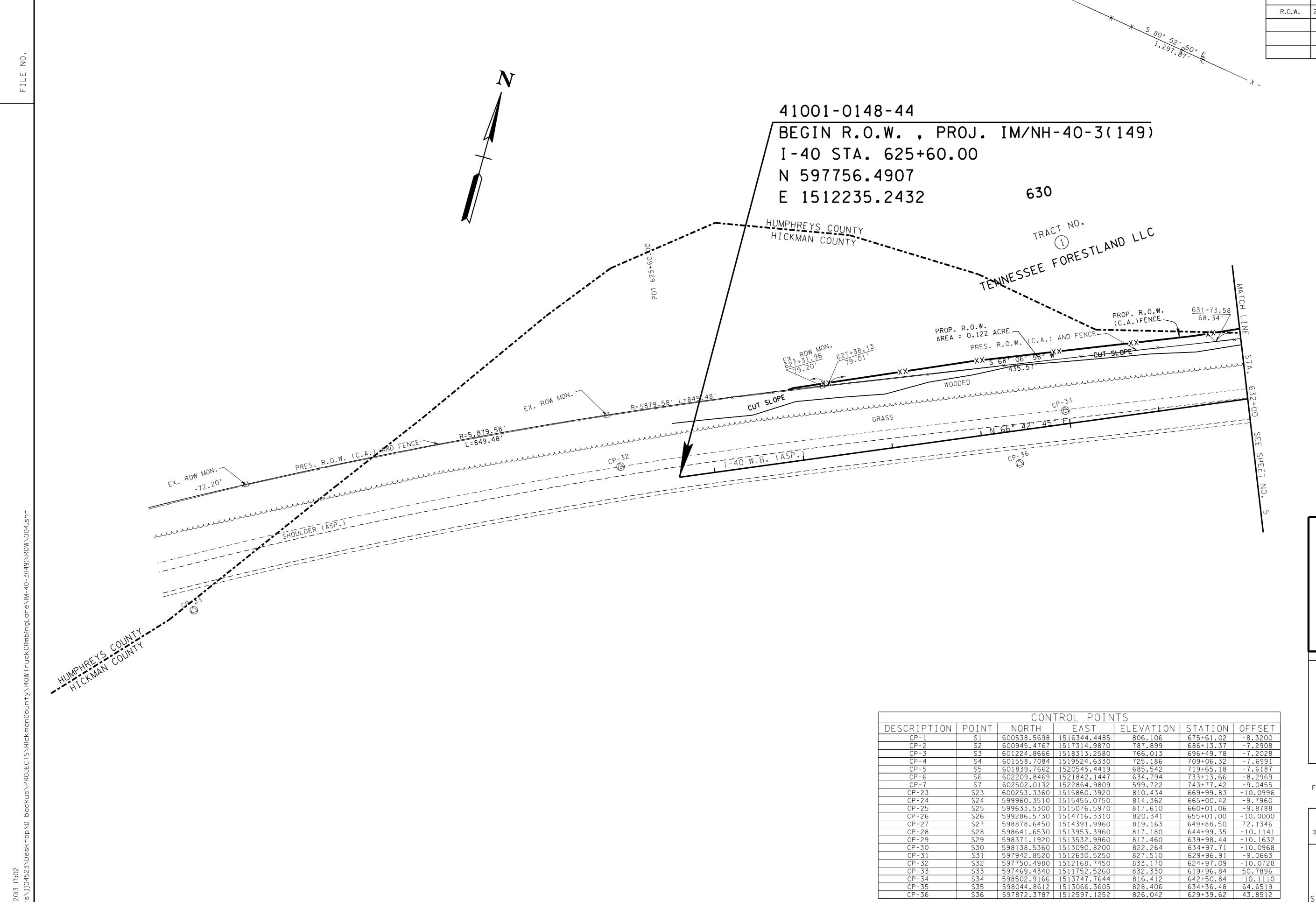
Total Score 77



2015 CoCoRaHS Water Year Summary for Station TN-HM-2

Station Number Station Name County TN-HM-2 Centerville 9.5 N Hickman Latitude Longitude Elevation 35.93 -87.4695 560 feet





R.O.W. FIELD

IM/NH-40-3(149)

SEALED BY

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00008 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

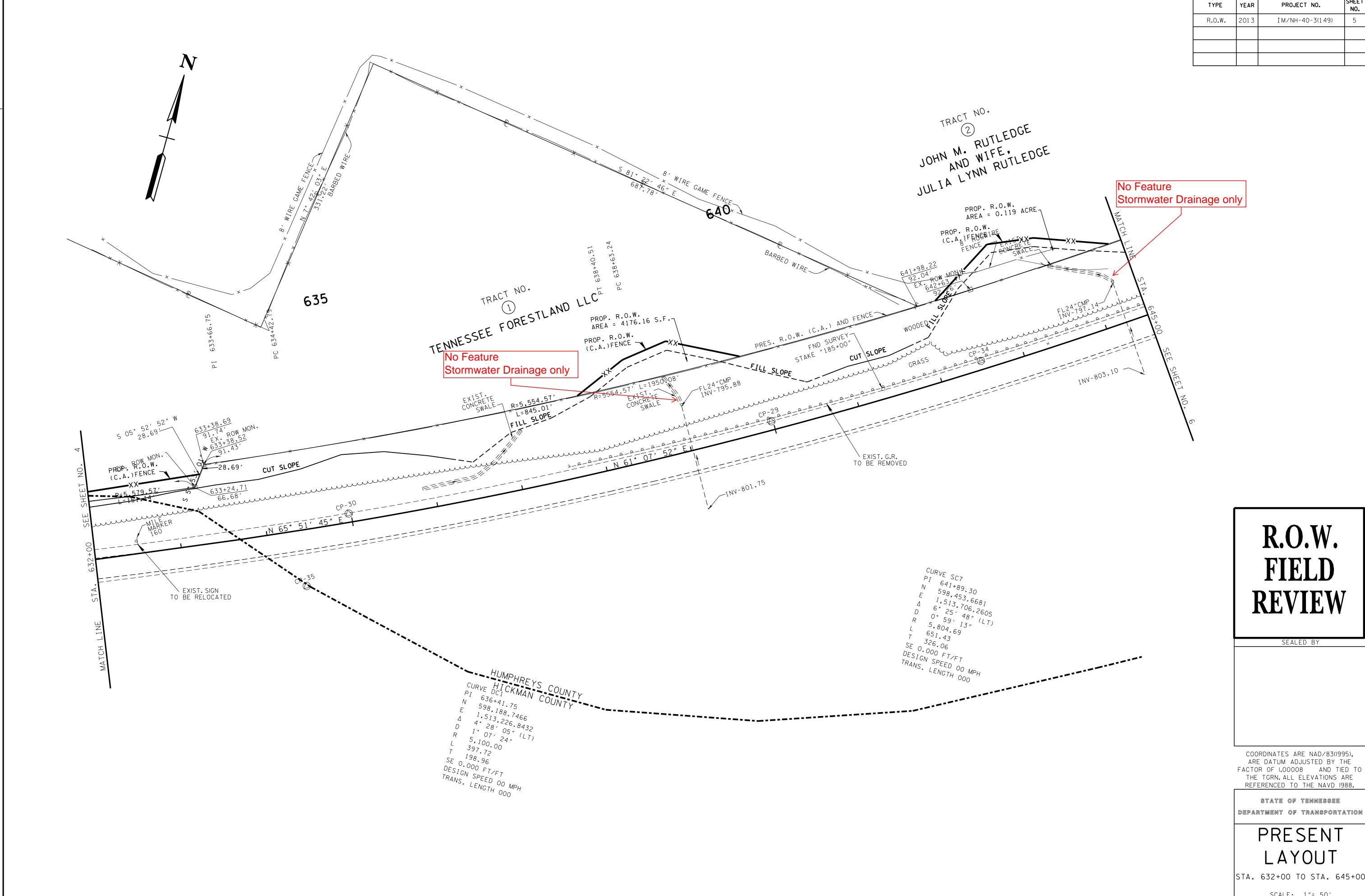
STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

> PRESENT LAYOUT

STA. 619+00 TO STA. 632+00

816.412 828.406 826.042

CP-34 CP-35 CP-36

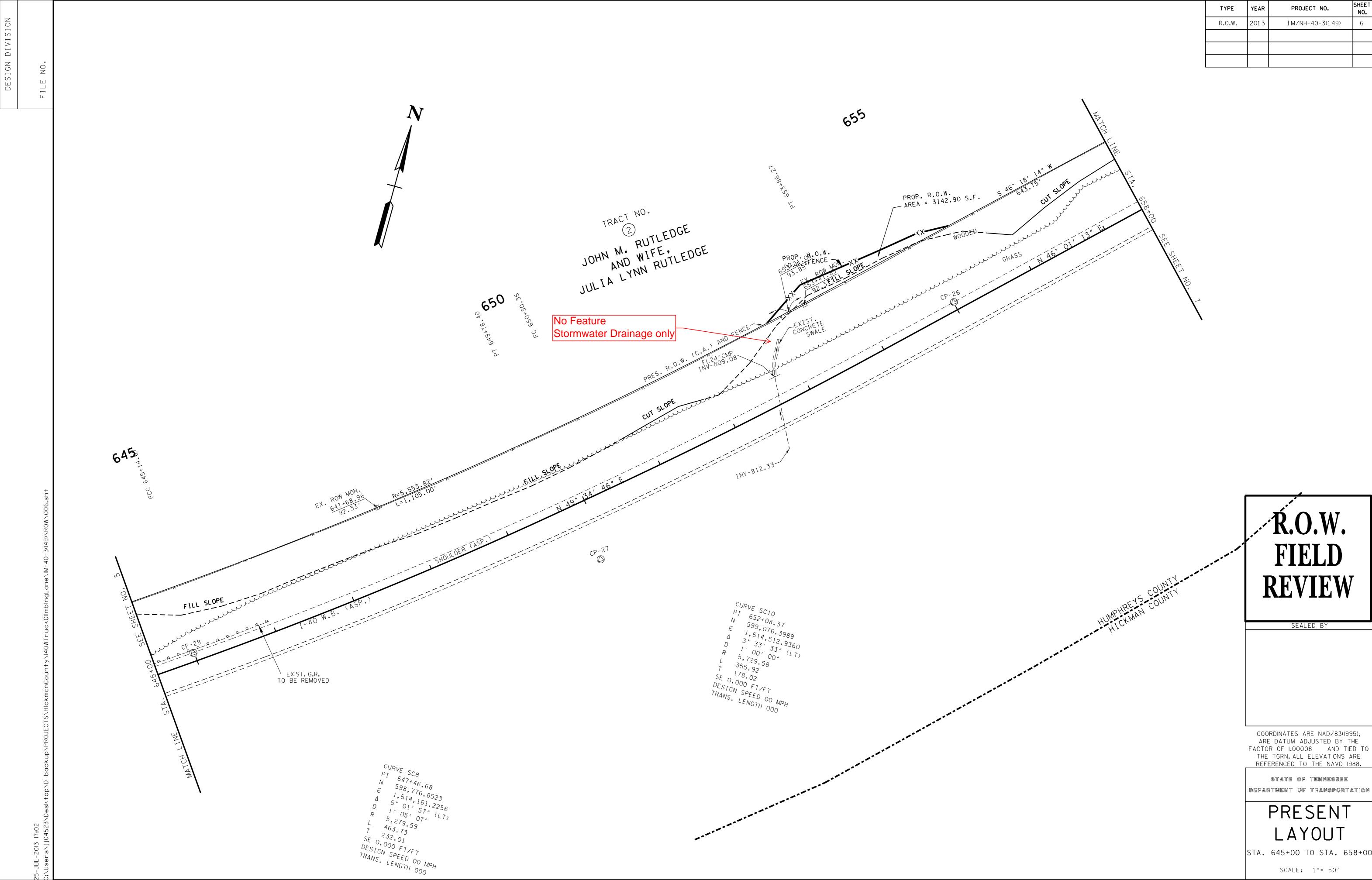


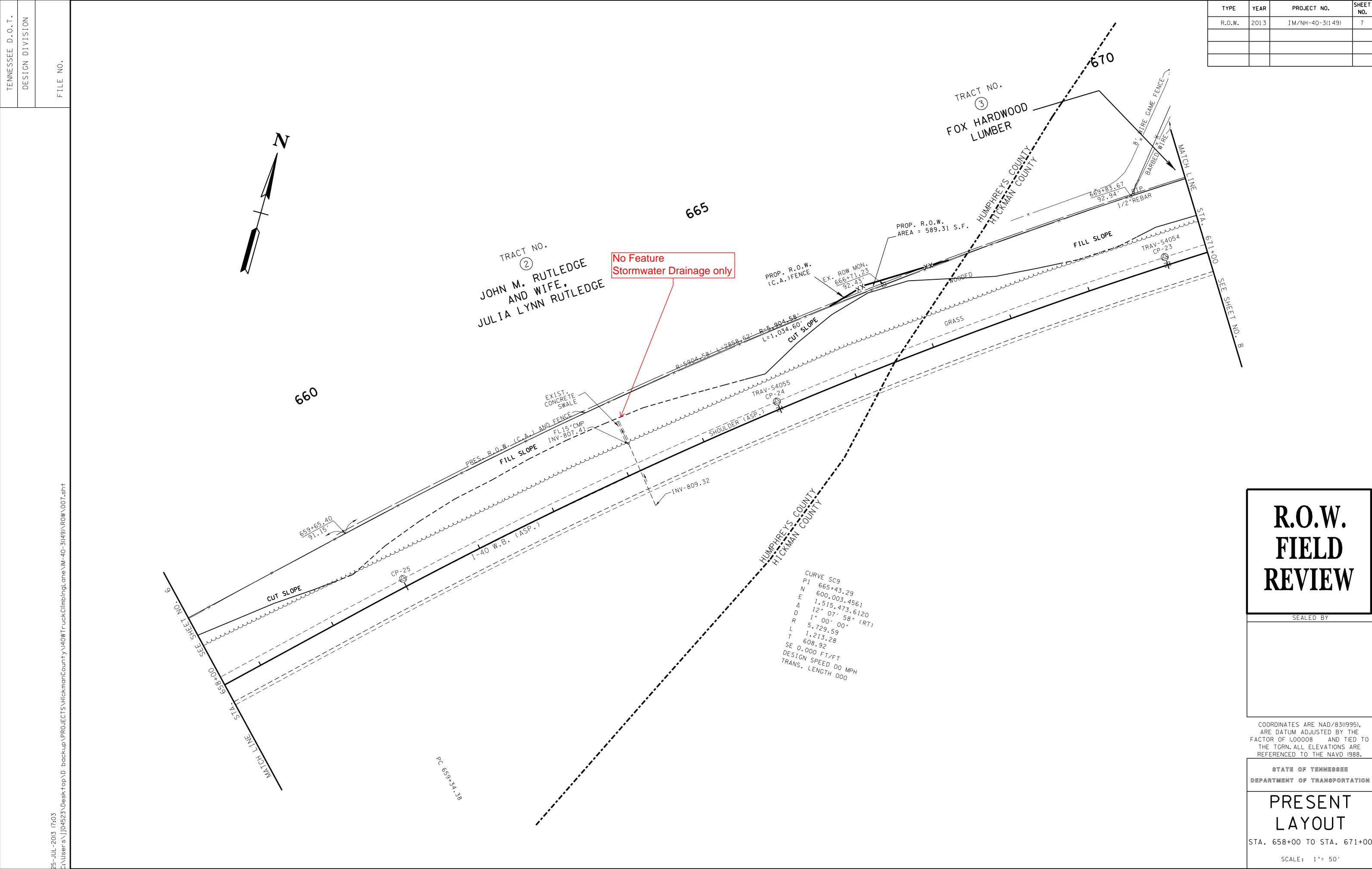
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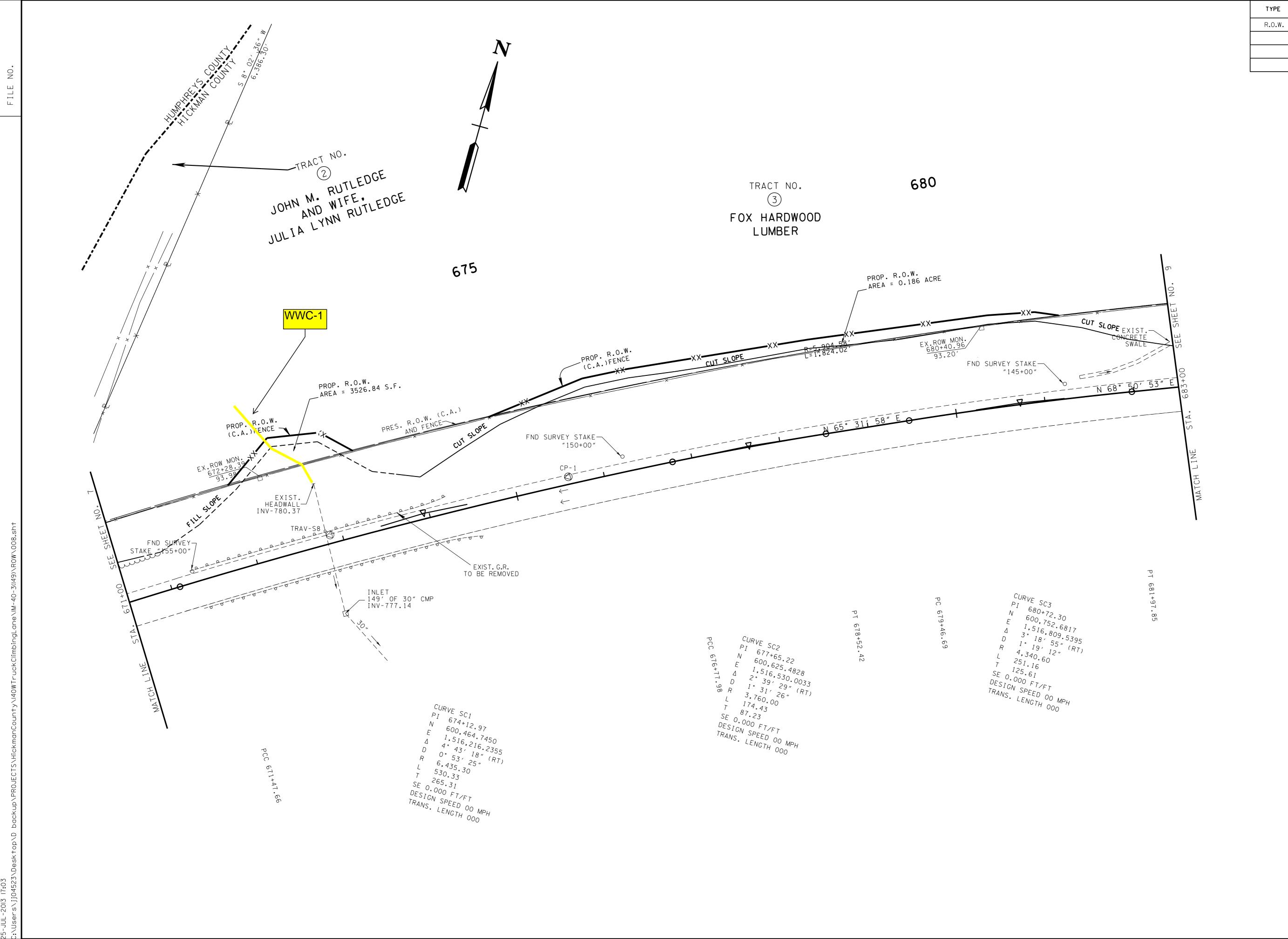
STATE OF TENNESSEE

PRESENT LAYOUT

STA. 632+00 TO STA. 645+00







R.O.W. FIELD

PROJECT NO.

IM/NH-40-3(149)

SEALED BY

REVIEW

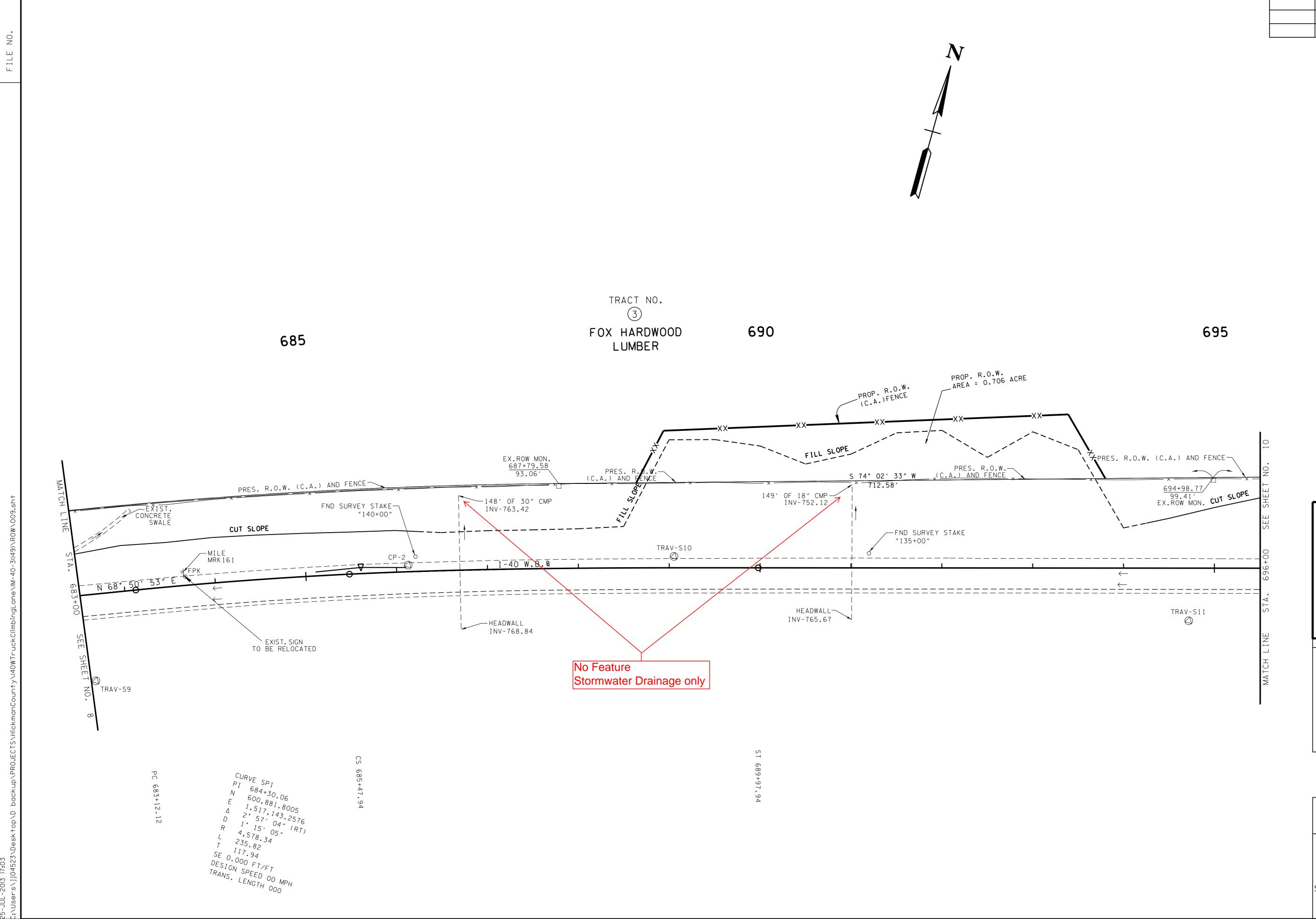
COORDINATES ARE NAD/83(1995),
ARE DATUM ADJUSTED BY THE
FACTOR OF 1.00008 AND TIED TO
THE TGRN. ALL ELEVATIONS ARE
REFERENCED TO THE NAVD 1988.

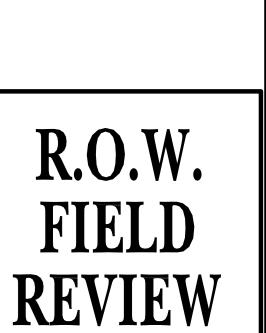
STATE OF TENNESSEE

DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

STA. 671+00 TO STA. 683+00





TYPE

R.O.W.

PROJECT NO.

IM/NH-40-3(149)

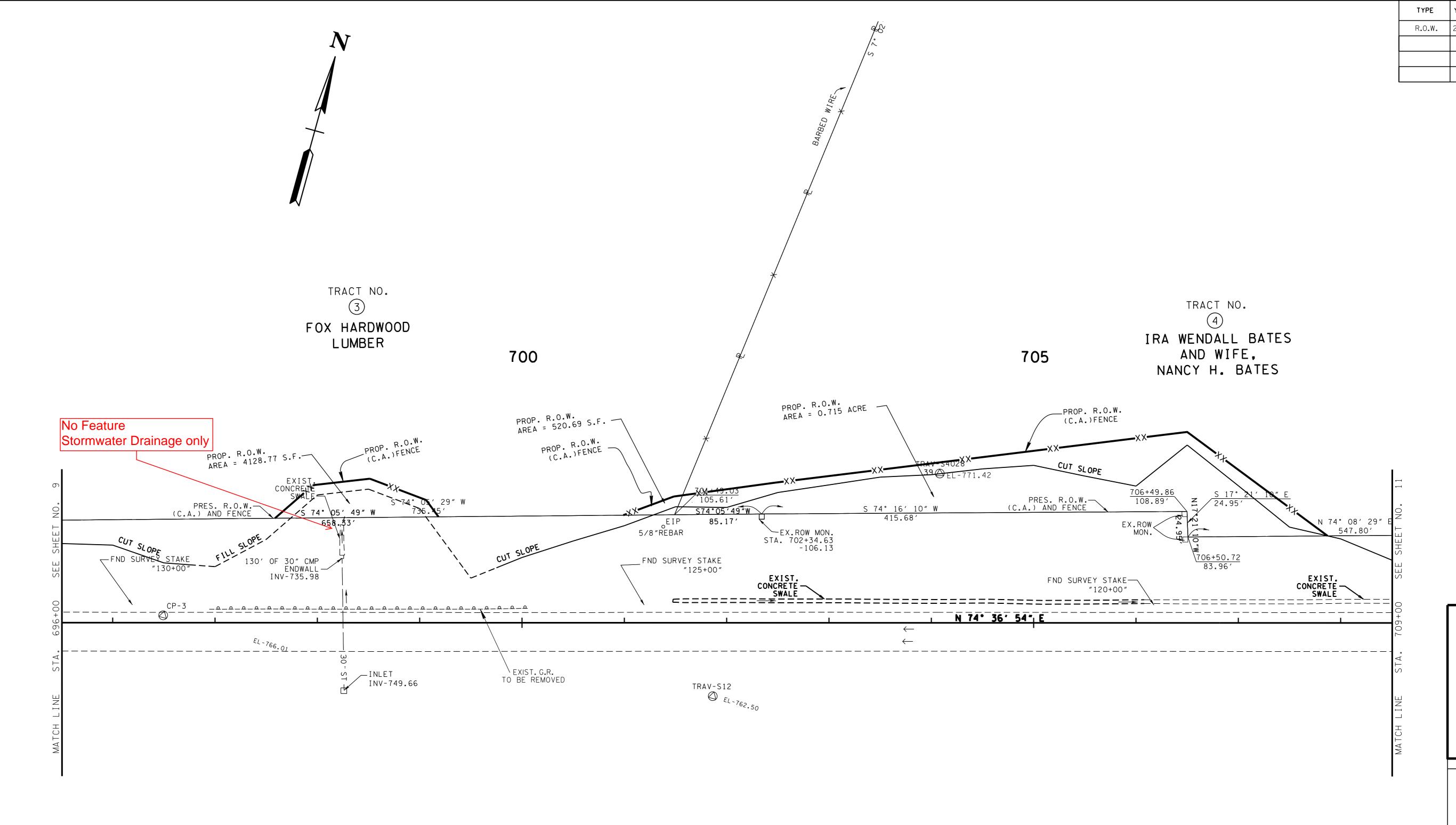
SEALED BY

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00008 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

PRESENT

LAYOUT STA. 683+00 TO STA. 696+00



R.O.W. FIELD REVIEW

PROJECT NO.

IM/NH-40-3(149)

SEALED BY

COORDINATES ARE NAD/83(1995),
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STATE OF TENNESSEE

DEPARTMENT OF TRANSPORTATION

PRESENT

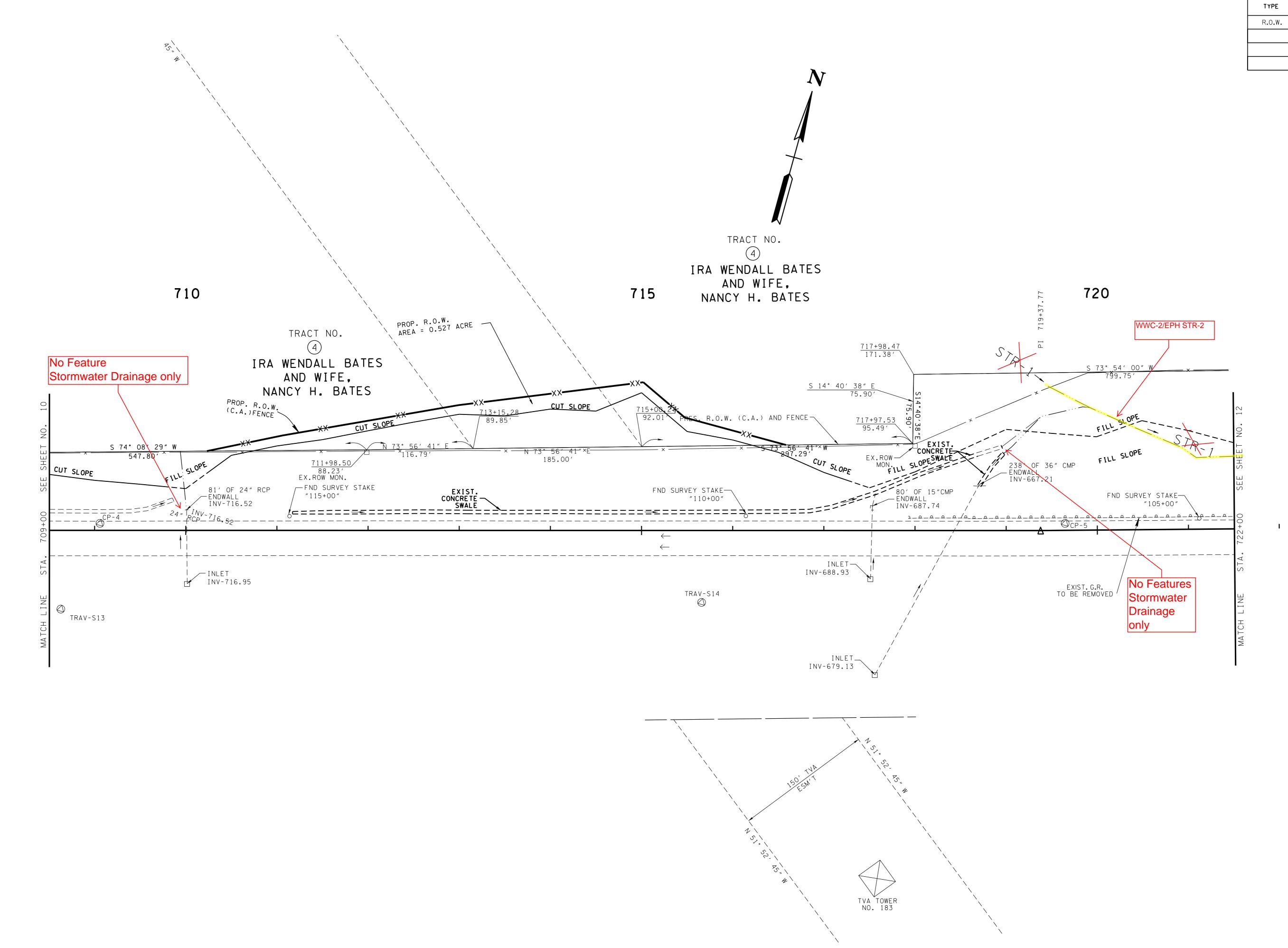
LAYOUT

STA. 696+00 TO STA. 709+00

SCALE: 1"= 50'

25-JUL-2013 17:03

FILE



R.O.W. FIELD REVIEW

PROJECT NO.

IM/NH-40-3(149)

SEALED BY

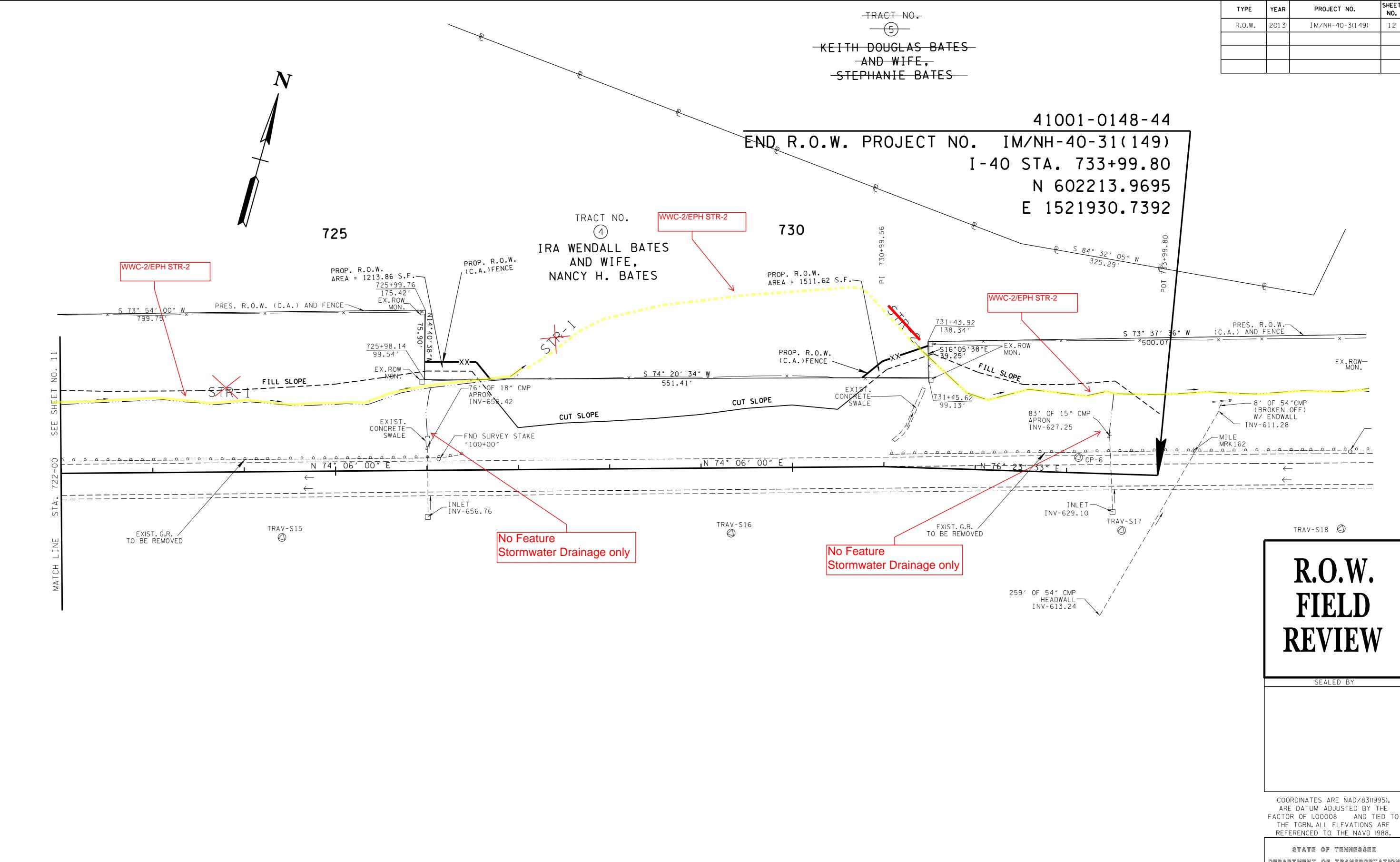
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STATE OF TENNESSEE

DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

STA. 709+00 TO STA. 722+00



DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

\$TA. 722+00 TO END OF PROJ.



Photo 1. Up-gradient view of WWC-1/EPH STR-1 from the ROW fence.



Photo 2. Down gradient view of WWC-1/EPH STR- 1 towards culvert inlet. 1

Photo Summary: 1 August 2013
Project Description: Hickman County; I-40 Westbound Truck Climbing Lane at Mile Marker 159.83
P.E.: 41001-0148-44 PIN: 114156.00



Photo 3. Down-gradient view of WWC-2/EPH STR-2 at Sta. 725+00L.



Photo 4. Up-gradient view of WWC-2/EPH STR-2 at Station 725+00L.



Photo 5. Down-gradient view of WWC-2/EPH STR-2 at Sta. 733+40L.



Photo 6. Up-gradient view of WWC-2/EPH STR-2 at Sta. 733+40L.



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

MEMORANDUM

To: Shannon Dowlen

TDOT Design

From: Tim Nehus

Ecology Section

Date: 13 August 2013

Subject: ENVIRONMENTAL BOUNDARIES AND MITIGATION DESIGN FOR: Hickman County; I-

40, Westbound Truck Climbing Lane at Mile Marker 157.83; P.E. 41001-0148-

44, PIN 114156.00

An ecological evaluation of the subject project has been conducted with the following results:

X___No Wetlands identified: There were no wetlands identified during the field survey.

X Streams present: Stream (STR-1), an unnamed tributary to Garner Creek was the only stream located during the field survey. The intermittent stream paralles I-40 to the north and two separate reaches are located within the present and proposed ROW. Plans currently indicate a total of approximately 850' of stream channel (at two locations) within proposed fill slopes. Relocations will be required if these fill slopes cannot be adjusted. The Environmental Boundaries Form, maps and marked-up plans are attached.

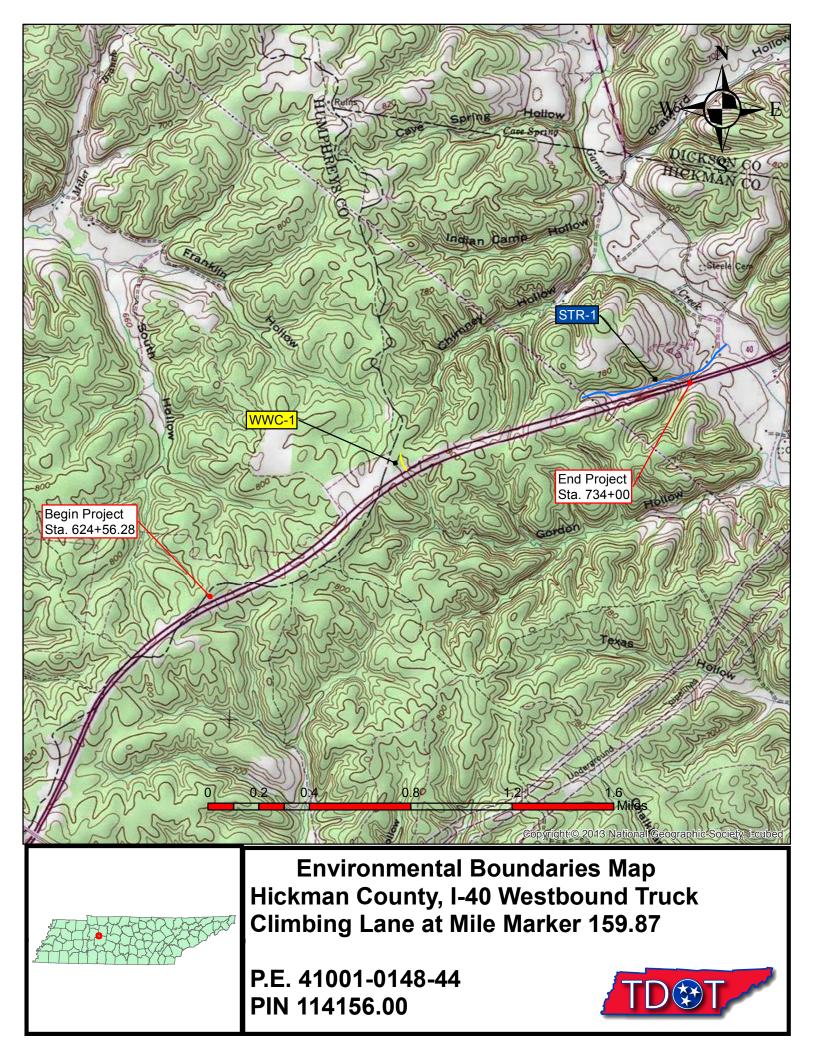
X Protected species not identified in project impact area: The project has been coordinated with the U.S. Fish and Wildlife Service (USFWS), Tennessee Division of Natural Areas (TDNA), and Tennessee Wildlife Resources Agency (TWRA). A search of the TDEC database on 13 August 2013 indicates that no state or federally listed species occur within one mile of the project. Two state listed fish and one state listed plant occur within the four mile radius. Responses from the USFWS and TWRA are expected on 30 August 2013 and will be forwarded upon arrival.

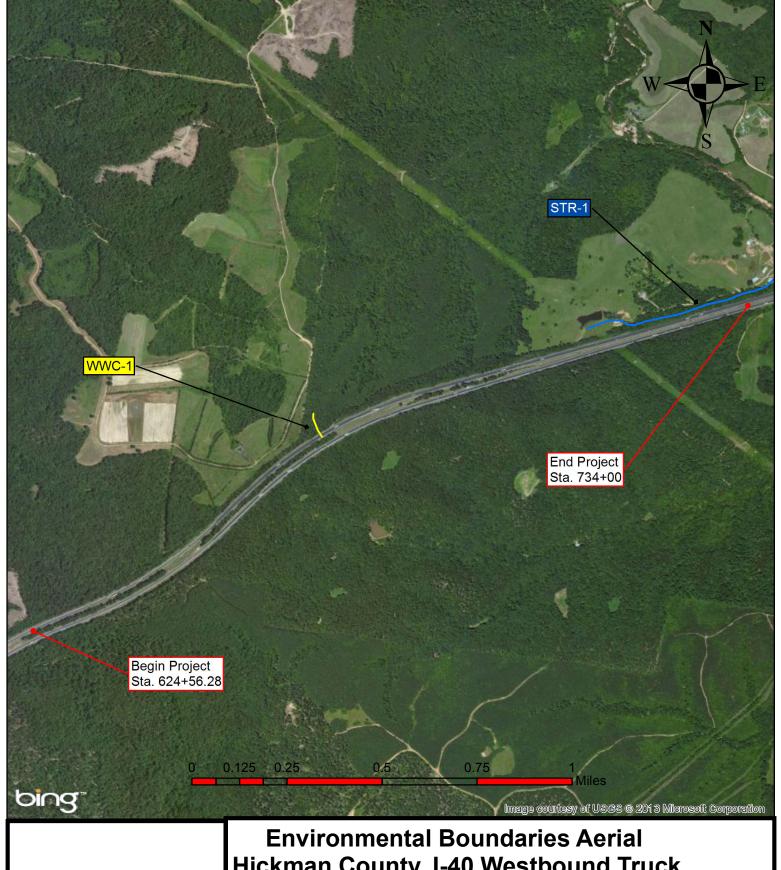
If you have any questions or comments please contact me at <u>Tim.Nehus@tn.gov</u>, 615-532-5580 or Dennis Crumby at <u>Dennis.Crumby@tn.gov</u>, 615-253-2465. Thank you.

Copy: John Hewitt – Environmental

Melissa Portell – Survey

Project file:







Hickman County, I-40 Westbound Truck Climbing Lane at Mile Marker 159.87

P.E. 41001-0148-44 PIN 114156.00



Ecology Field Data Sheet: Water Resources

Project: Hickman County; I-40 Westbound Truck Climbing Lane at Mile Marker 159.83; P.E. 41001-0148-44,

PIN 114156.00

Date of survey: 8/01/2013 Biologist: D. Crumby, T. Nehus Affiliation: TDOT

1-Station: from plans	672+80L		
2-Map label and name	WWC-1		
3-Latitude/Longitude	N35.97302; W87.52957		
4-Potential impact	Crossing/encapsulation - extension, runoff		
5-Feature description:			
what is it	Wet Weather Conveyance		
blue-line on topo? (y/n)	No V Yes		
defined channel (y/n)	No Yes /		
straight or meandering	Straight Meandering		
channel bottom width	1' - 2'		
top of bank width	2' - 3'		
bank height and slope ratio	8"		
avg. gradient of stream (%)			
substratum	Gravel/cobble at culvert inlet only. Soil/leaf litter elsewhere.		
riffle/run/pool	N/A		
width of buffer zone	LDB: >30m RDB: >30m		
water flow	No		
water depth	N/A		
water width	N/A		
general water quality	N/A		
OHWM indicators	Drift Lines (leaves on ROW fence)		
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: White oak, boxelder RDB: White oak, boxelder		
overhead canopy (%)	100%		
benthos	N/A		
fish	N/A		
algae or other aquatic life	N/A		
habitat assessment score	N/A		
photo number (s)	1- up gradient, 2- down gradient		
rainfall information	~0.5" previous 3 days		
6-HUC code & name	060400030702 (Garners Creek)		
(12-digit)	O00400030702 (Gamers Creek)		
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	Very poorly defined channel within existing ROW.		
Estimate size (acres) of lake or	very poorly defined charmer within existing NOVV.		
pond if applicable; provide any			
pertinent information needed to			
better describe feature; indicate if hydrologic determination			
form was completed.			
1			

Ecology Field Data Sheet: Water Resources

Project: Hickman County; I-40 Westbound Truck Climbing Lane at Mile Marker 159.83; P.E. 41001-0148-44,

PIN 114156.00

Date of survey: 8/01/2013 Biologist: D. Crumby, T. Nehus Affiliation: TDOT

1-Station: from plans	733+40L		
2-Map label and name	STR-1 (Unnamed Tributary to Garner Creek		
3-Latitude/Longitude	N35.97808; W87.5106		
4-Potential impact	Fill, relocation, runoff		
5-Feature description:			
what is it	Intermittent Stream		
blue-line on topo? (y/n)	No Yes 🗸		
defined channel (y/n)	No Yes 🗸		
straight or meandering	Straight Meandering		
channel bottom width	8'		
top of bank width	15' - 20'		
bank height and slope ratio	8' - 10'		
avg. gradient of stream (%)			
substratum	Gravel/cobble/boulder		
riffle/run/pool	N/A		
width of buffer zone	LDB: >30m RDB: <10m		
water flow	No		
water depth	N/A		
water width	N/A		
general water quality	N/A		
OHWM indicators	Wrack Lines		
groundwater connection	No		
bank stability: LDB, RDB	LDB: Stable		
dominant species: LDB, RDB	LDB: Sugar maple, tulip poplar, ironwood, boxelder, black walnut, eastern red cedar RDB: Sugar maple, tulip poplar, ironwood, boxelder, black walnut, eastern red cedar		
overhead canopy (%)	90 - 95%		
benthos	N/A		
fish	N/A		
algae or other aquatic life	N/A		
habitat assessment score	N/A		
photo number (s)	3- d/s Sta. 725+00L, 4- u/s Sta. 725+00L, 5- d/s Sta. 733+40L, 6- u/s Sta. 733+40L		
rainfall information	~0.5" previous 3 days		
6-HUC code & name	060400030702 (Garners Creek)		
(12-digit)	000400030702 (Gamers Creek)		
7-Confirmed by:	Not Required		
8-Mitigation	No Yes (include on Mitigation Form)		
9-ETW	No ✓ Yes		
10-303 (d) List	No 🗸		
10 000 (a) 2100	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.	Channel Dimensions at Sta. 725+00L - Channel Bottom=4', Top of Bank=6'-8', Bank Height=3'-5'. Substrate, bank stability, riparian vegetation, etc. all same as the stream at Sta. 733+40L.		

Index Of Sheets

SHEET NAME TITLE SHEET

TYPICAL SECTIONS & PAVEMENT SCHEDULE PROPERTY MAPS

PRESENT LAYOUTS PROPOSED LAYOUTS **PROFILES**

ROADWAY CROSS SECTIONS

DRAINAGE MAPS CULVERT CROSS-SECTIONS EROSION PPREVENTION AND SEDIMENT CONTROL (EPSC) PLANS TRAFFIC CONTROL PLANS

13, 13A - 13H

SHEET NO.

3.3A - 3H 4A - 12A 4B - I2B

14 - 17 18 - 36 37, 37A-37H 38 - 102

STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION BUREAU OF ENGINEERING

HICKMAN

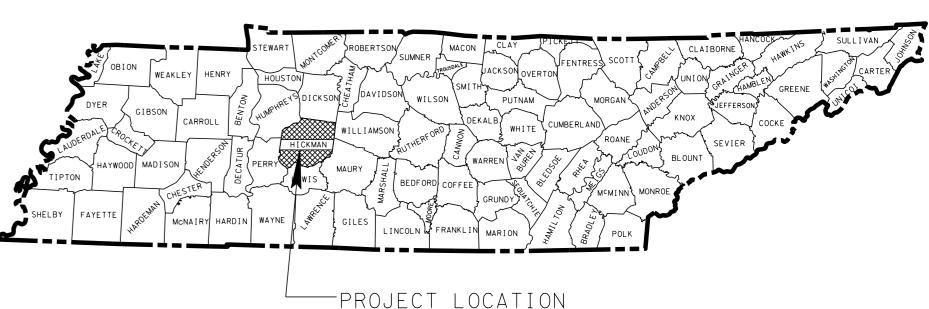
I - 40 WESTBOUND TRUCK CLIMBING LANE AT MILE MARKER 159.83

RIGHT OF WAY

STATE HIGHWAY NO. 140 F.A.H.S. NO. 40

Environmental Boundaries

SHEET NO. TENN. 2013 IM/NH-40-3(149) FED. AID PROJ. NO. 41001-0148-44 STATE PROJ. NO.



BEGIN PROJECT NO. IM/NH-40-3(149)

STA. 625+60.00 R.O.W.

HICKMAN CO. L.M. 0.185

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.

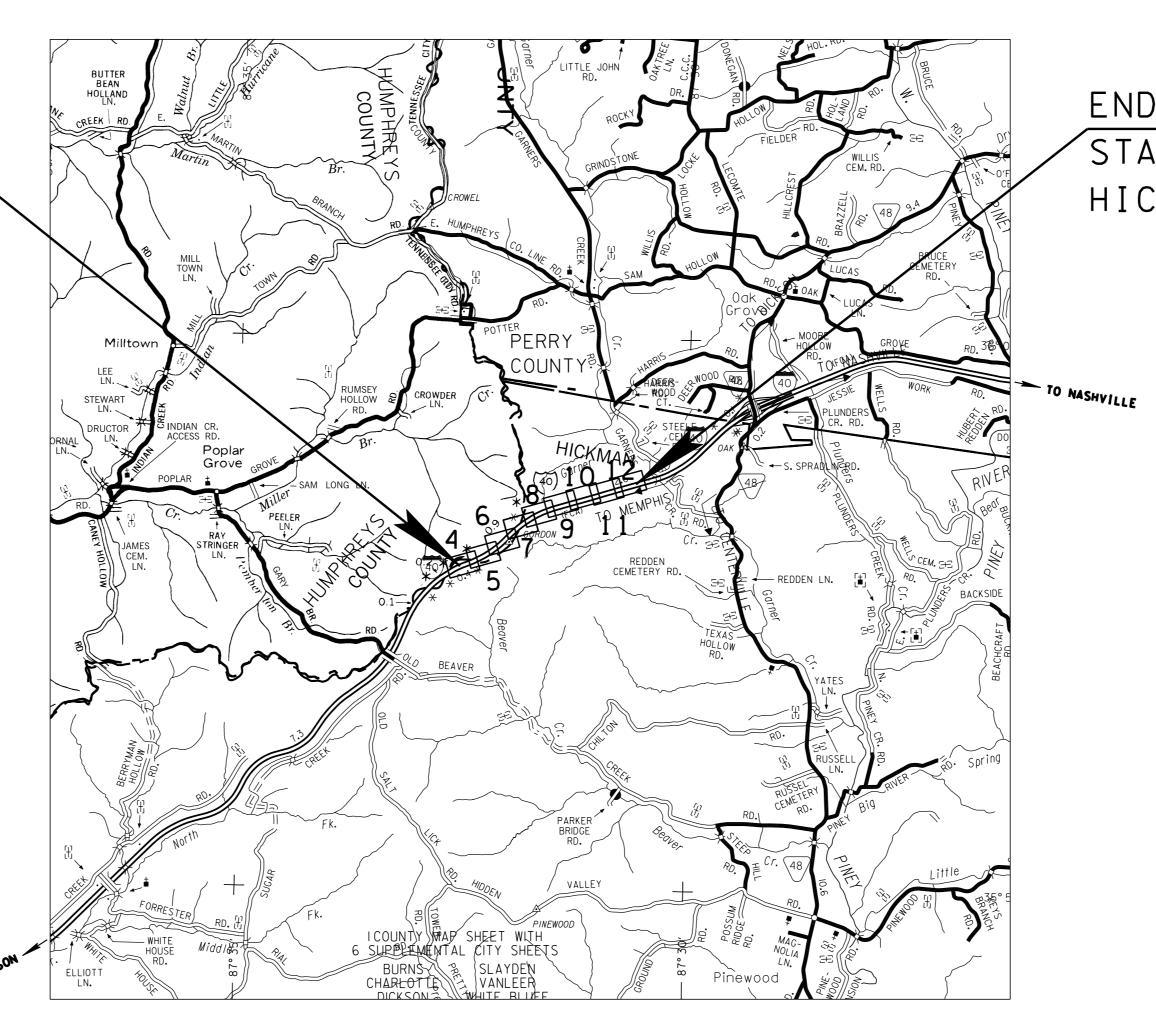
THIS PROJECT TO BE CONSTRUCTED UNDER THE STANDARD SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION DATED MARCH 1, 2006 AND ADDITIONAL SPECIFICATIONS AND SPECIAL PROVISIONS CONTAINED IN THE PLANS AND IN THE PROPOSAL CONTRACT.

TDOT C.E. MANAGER 1 SHANE HESTER, P.E.

DESIGNER <u>SHANNON HENRY</u>

(NEPA) P.E. NO<u>. 41001-0148-44</u>

PIN NO. 114156.00



SCALE: 1"= 5280'

ROADWAY LENGTH BRIDGE LENGTH BOX BRIDGE LENGTH PROJECT LENGTH

2.053 MILES 0.000 MILES 0.000 MILES 2.053 MILES

END PROJECT NO. IM/NH-40-3(149) STA. 733+99.80 R.O.W. HICKMAN CO. L.M. 1.300

> R.O.W. REVIEW

NO EXCLUSIONS NO EQUATIONS

TRAFFIC	DATA
ADT (2013)	15940
ADT (2033)	19130
DHV (2033)	1721
D	90 - 10
T (ADT)	40 %
T (DHV)	30 %
V	70 MPF

SEALED BY

APPROVED: PAUL D. DEGGES, CHIEF ENGINEER

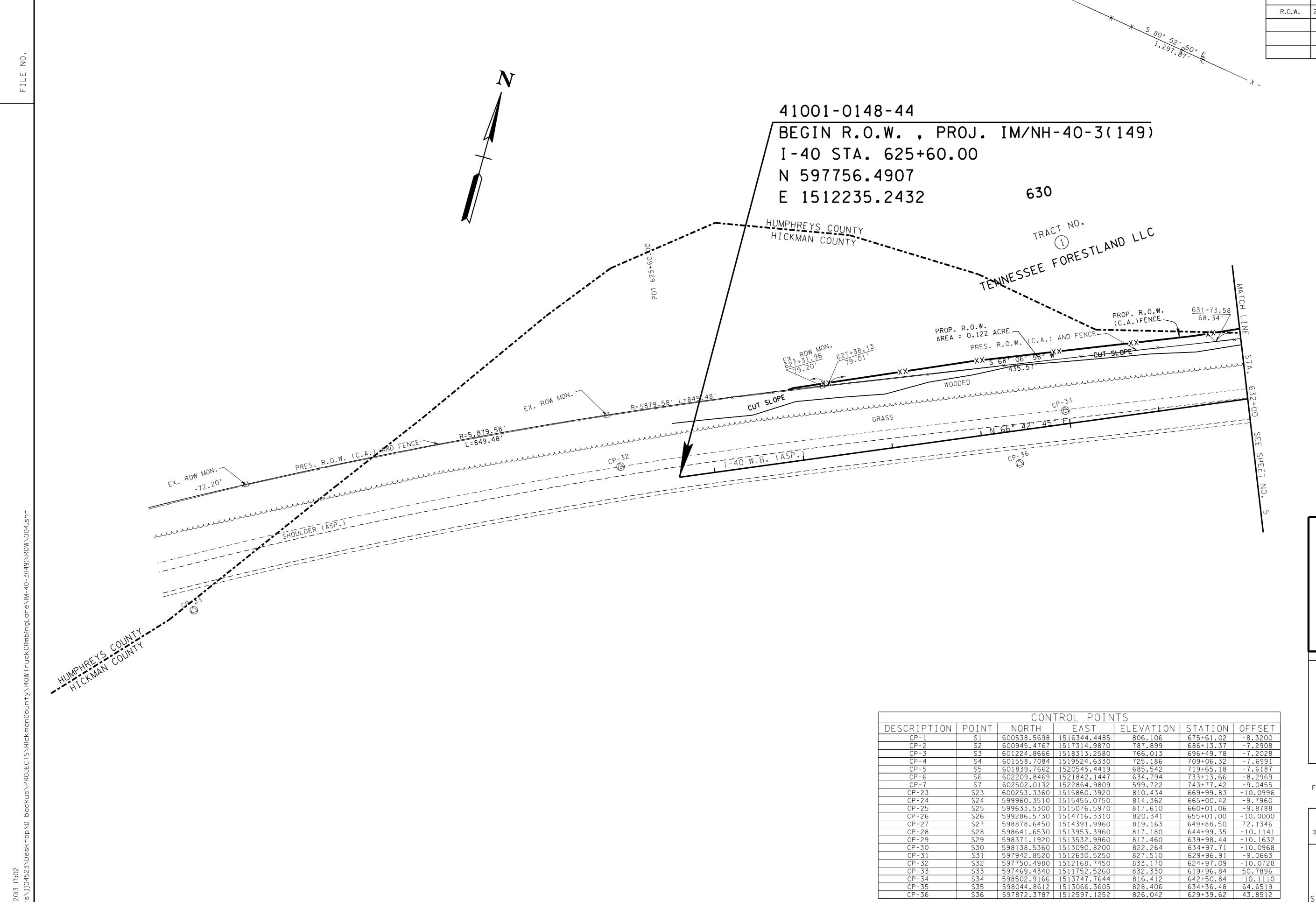
DATE:

APPROVED:

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION APPROVED: DIVISION ADMINISTRATOR DATE

RIGHT OF WAY LENGTH: 0.358 MILES SURVEY DATE: 10-29-2012

_____ CHECKED BY <u>DONNIE SIRICHANTO</u>



R.O.W. FIELD

IM/NH-40-3(149)

SEALED BY

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00008 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

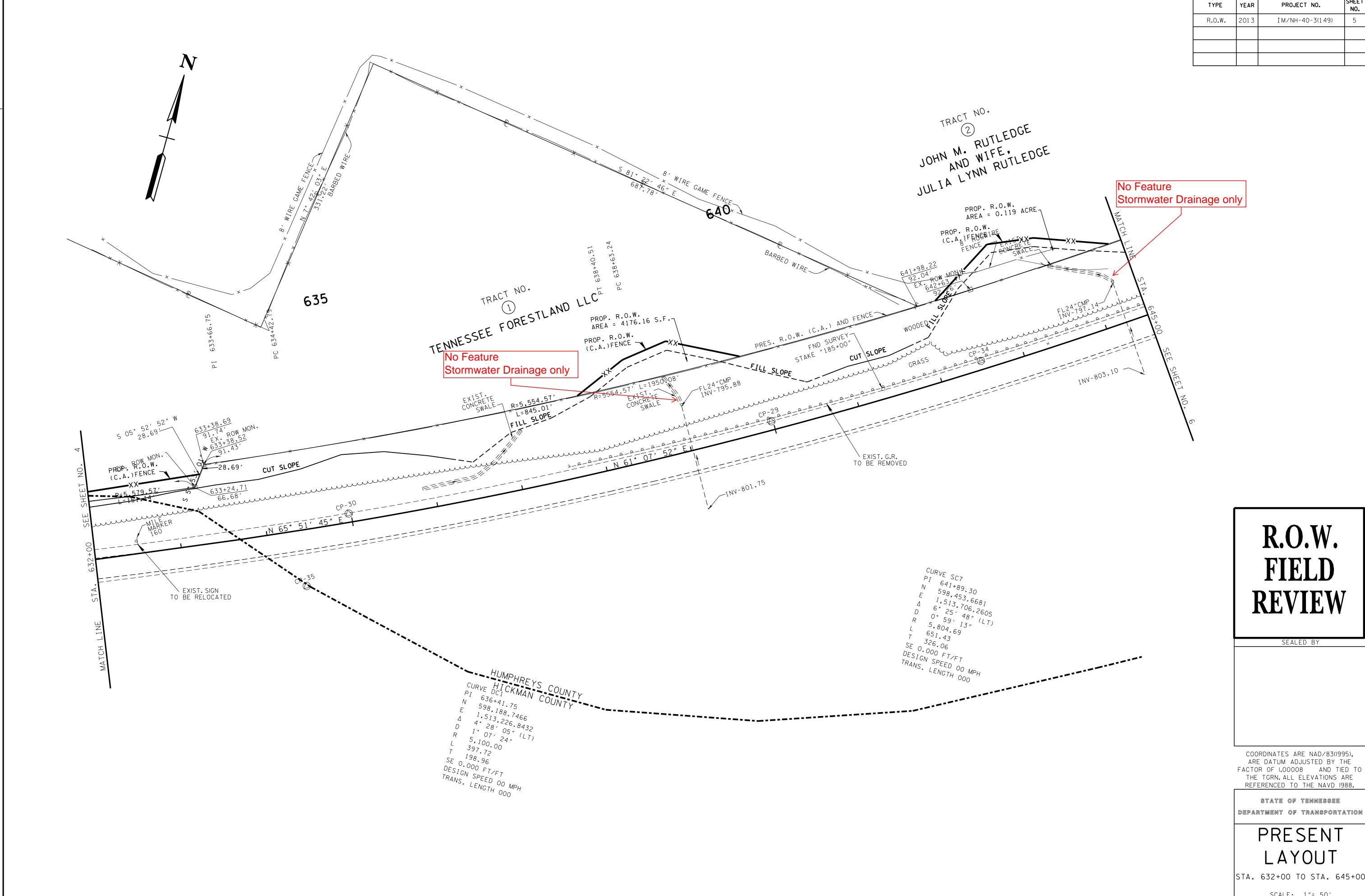
STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

> PRESENT LAYOUT

STA. 619+00 TO STA. 632+00

816.412 828.406 826.042

CP-34 CP-35 CP-36

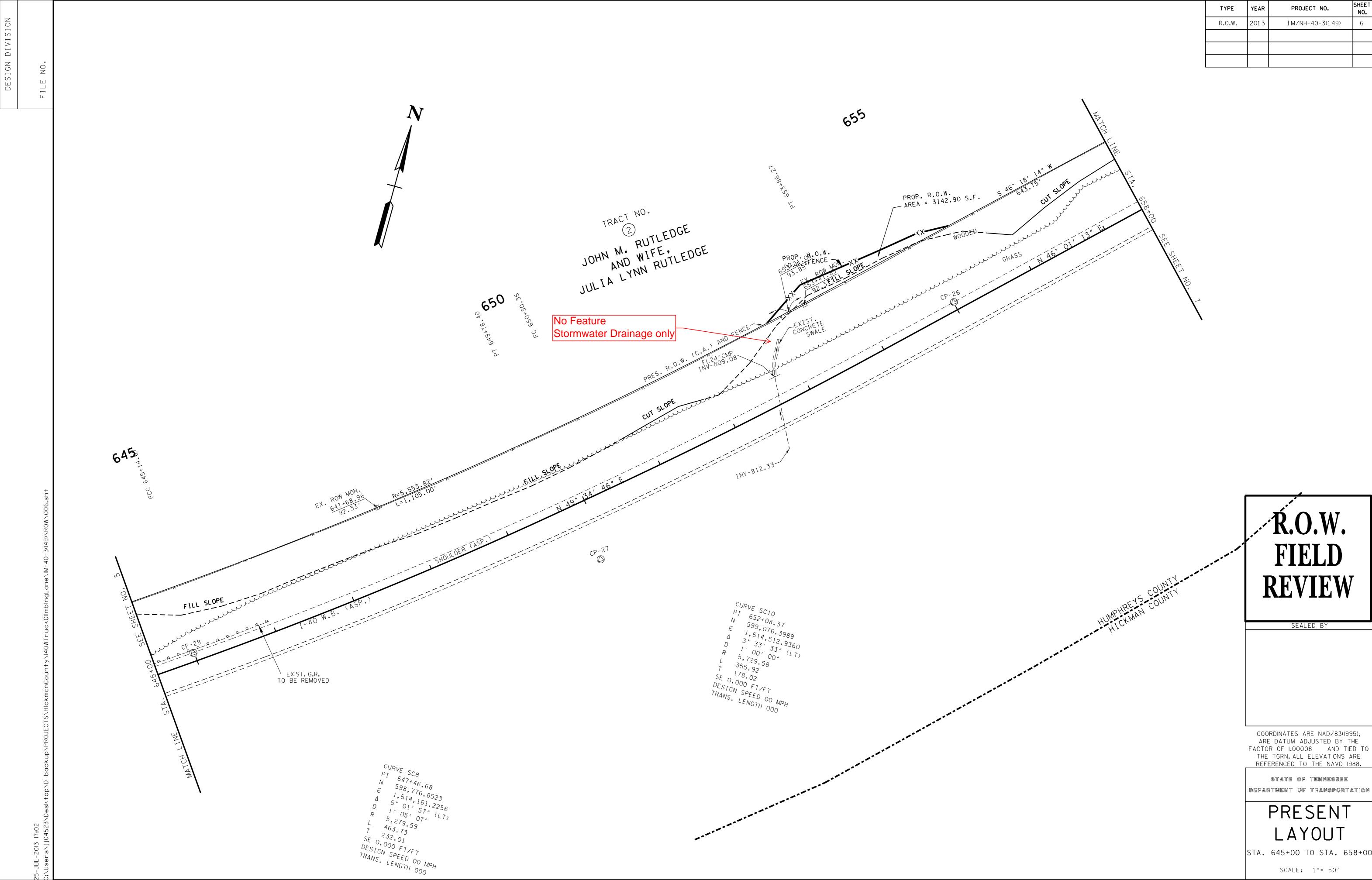


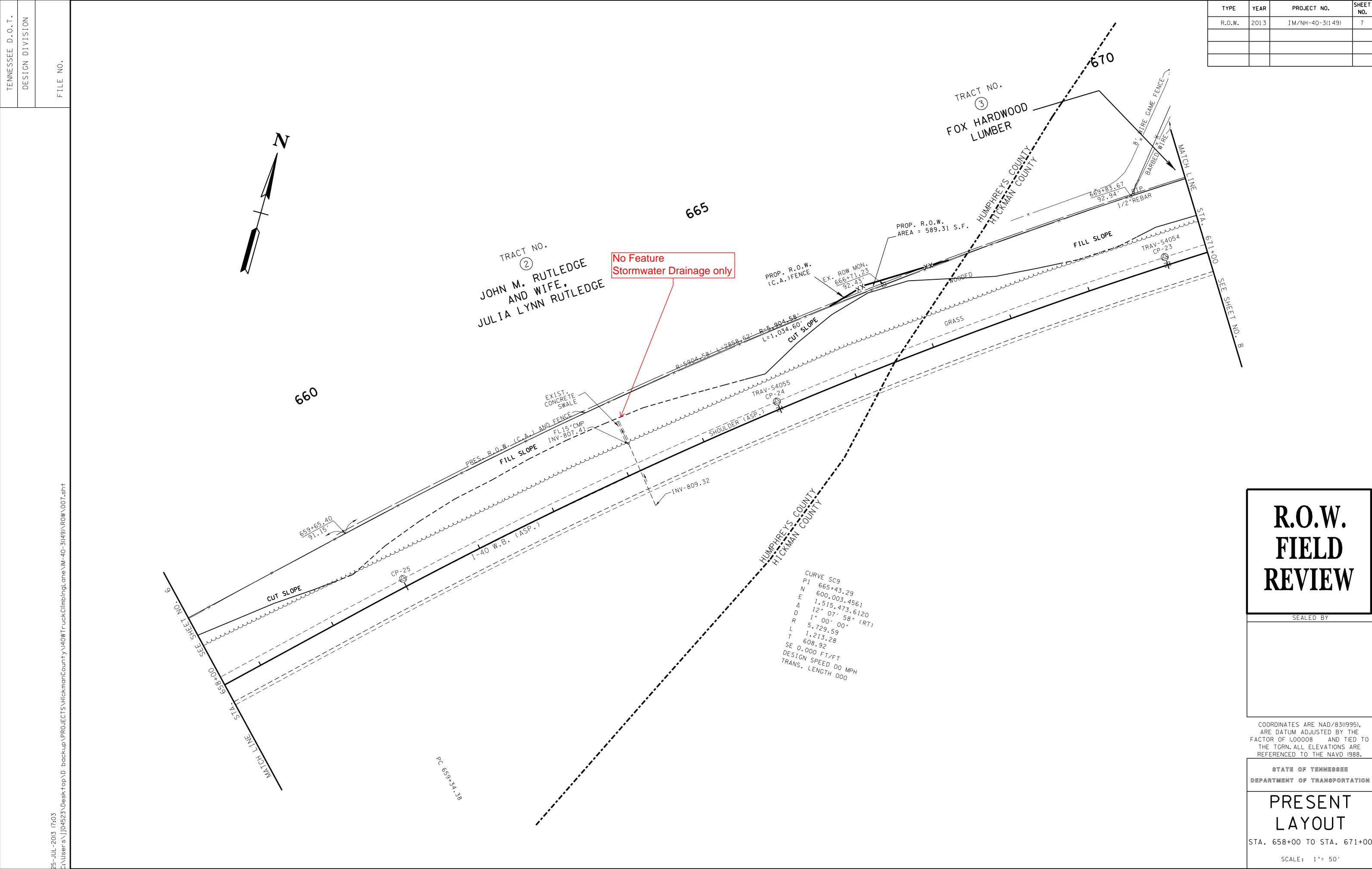
PROJECT NO. IM/NH-40-3(149)

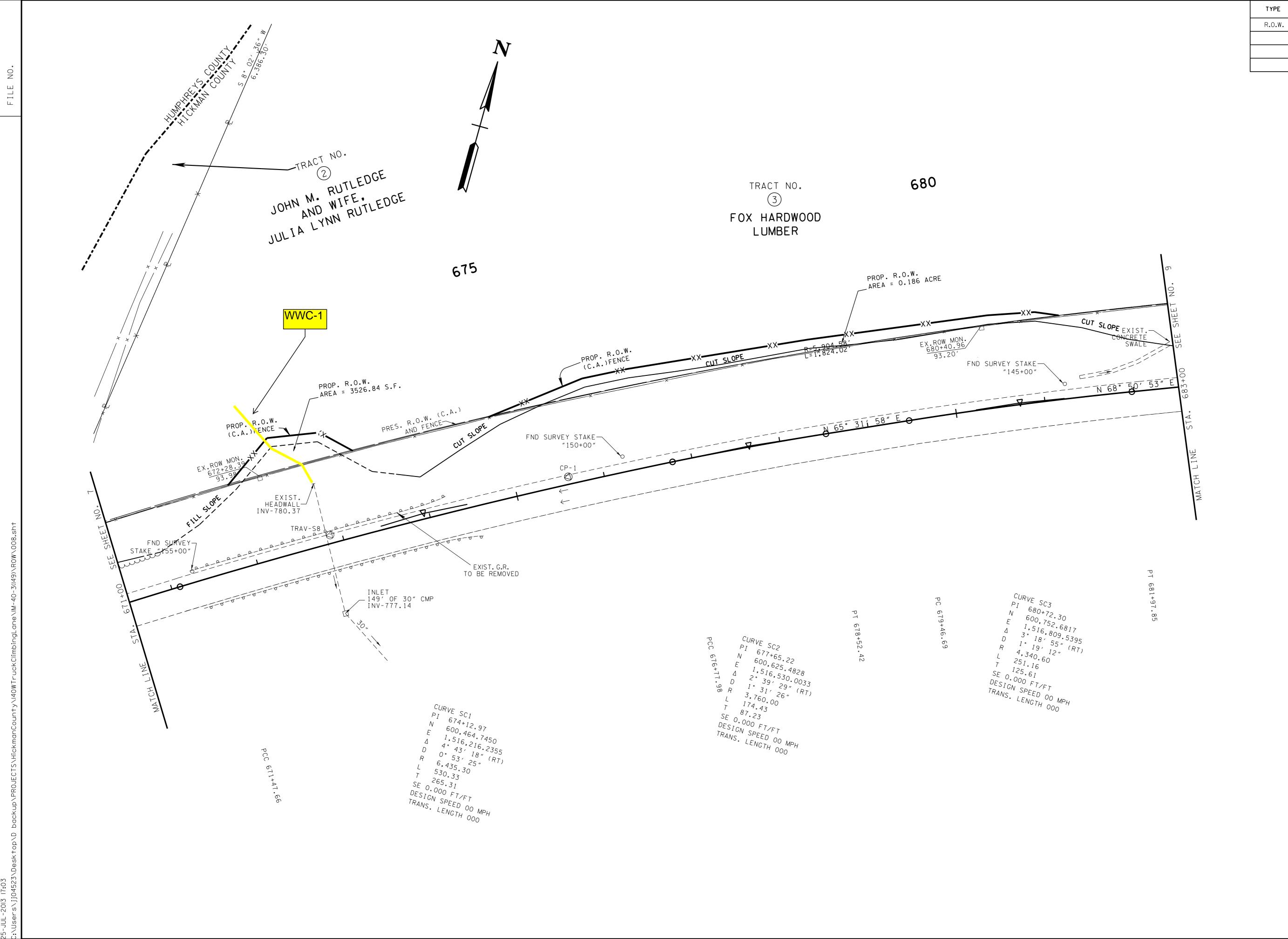
STATE OF TENNESSEE

PRESENT LAYOUT

STA. 632+00 TO STA. 645+00







R.O.W. FIELD

PROJECT NO.

IM/NH-40-3(149)

SEALED BY

REVIEW

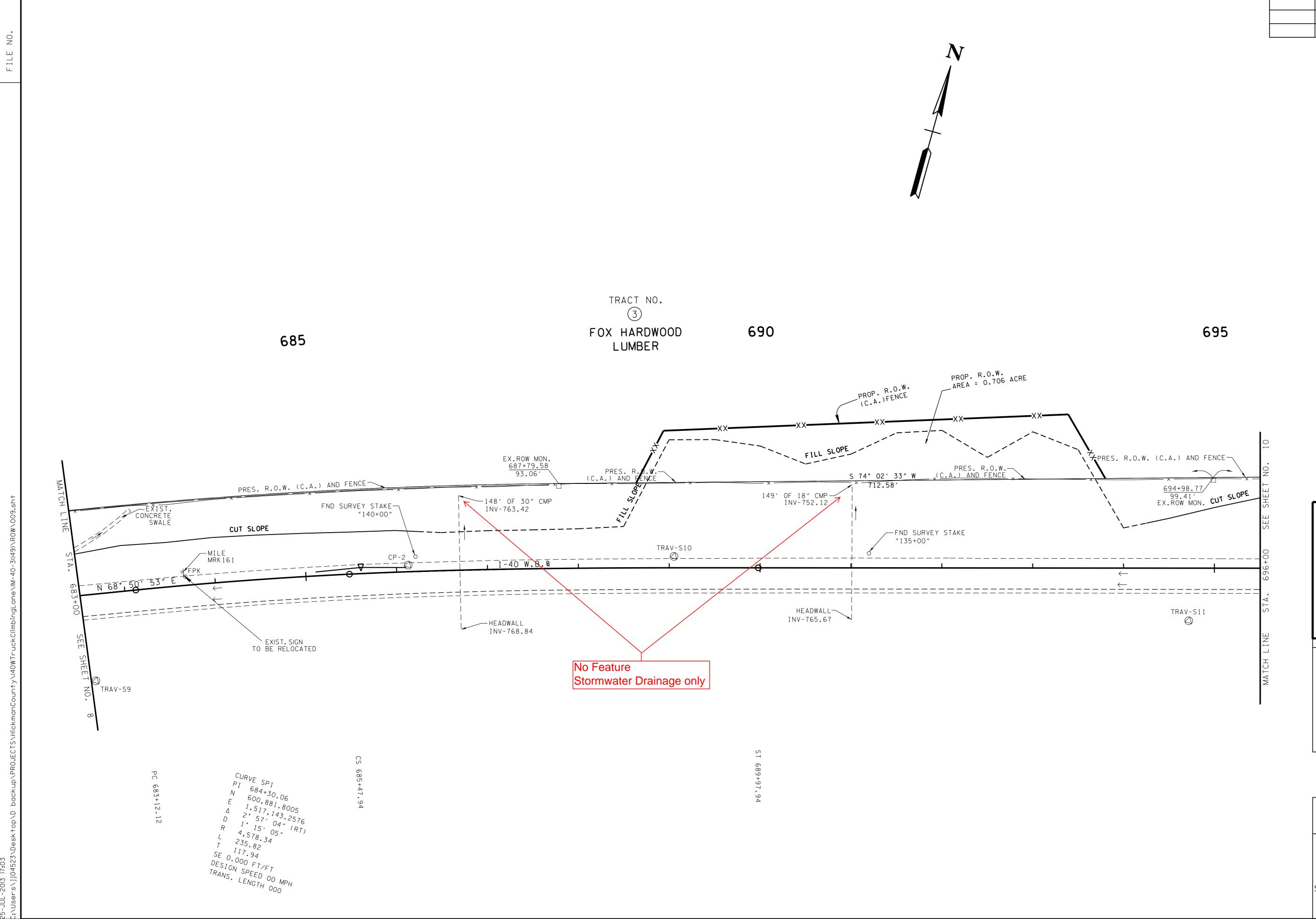
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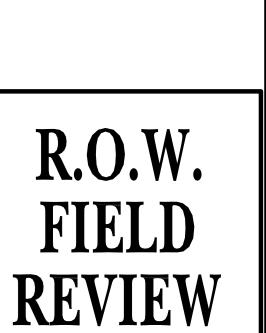
STATE OF TENNESSEE

DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

STA. 671+00 TO STA. 683+00





TYPE

R.O.W.

PROJECT NO.

IM/NH-40-3(149)

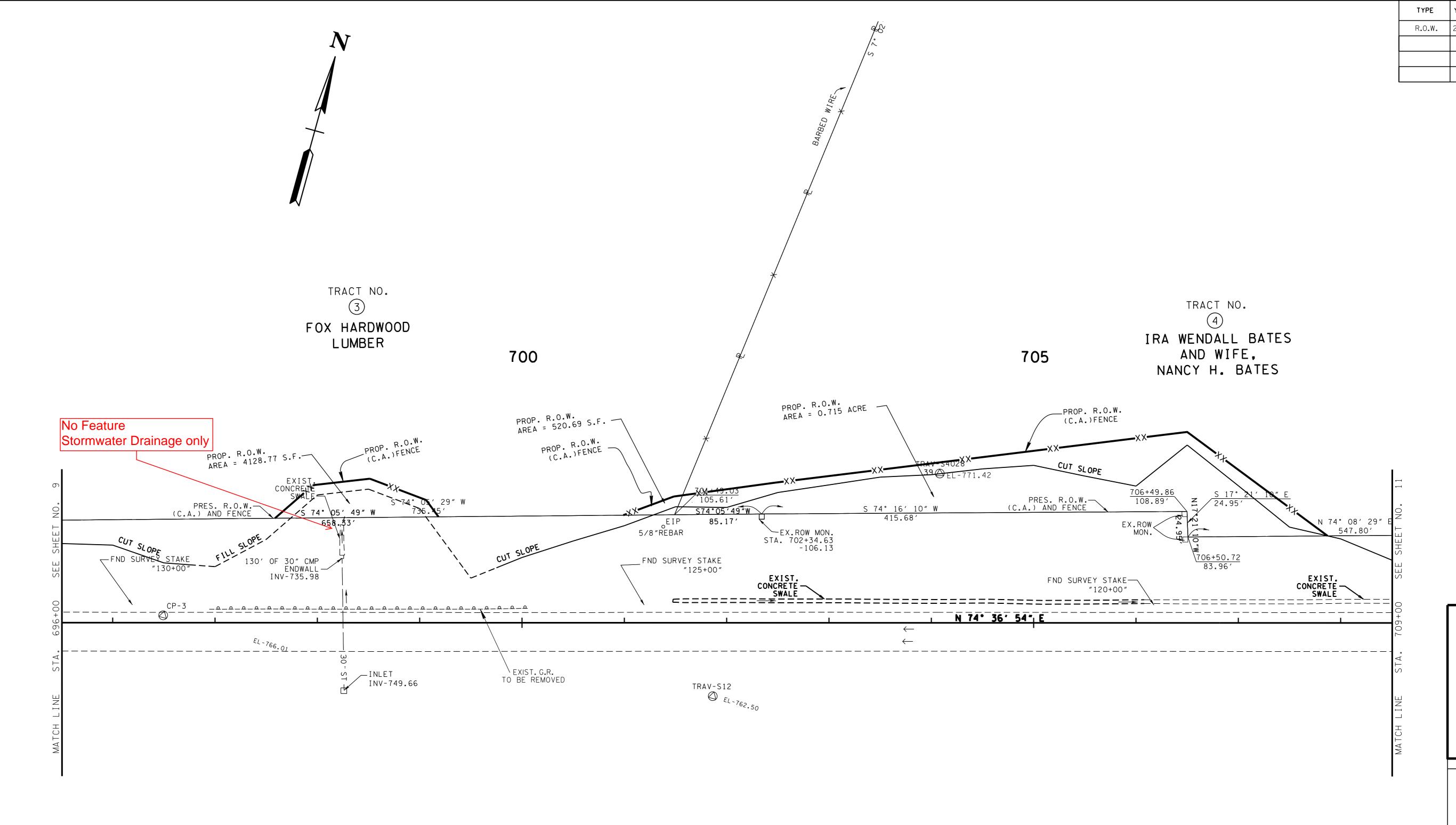
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STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

PRESENT

LAYOUT STA. 683+00 TO STA. 696+00



R.O.W. FIELD REVIEW

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STATE OF TENNESSEE

DEPARTMENT OF TRANSPORTATION

PRESENT

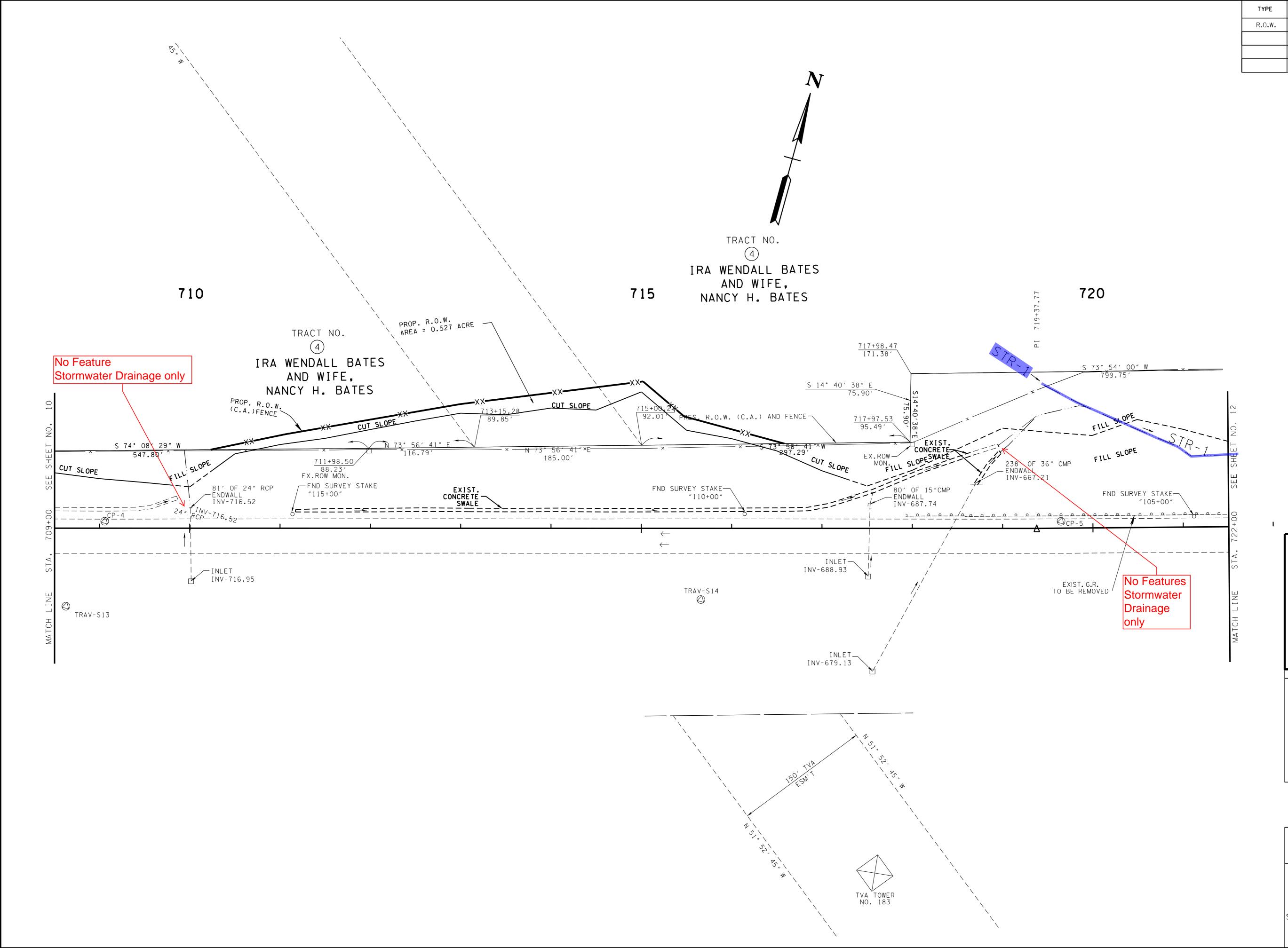
LAYOUT

STA. 696+00 TO STA. 709+00

SCALE: 1"= 50'

25-JUL-2013 17:03

FILE



R.O.W. FIELD

PROJECT NO.

IM/NH-40-3(149)

SEALED BY

REVIEW

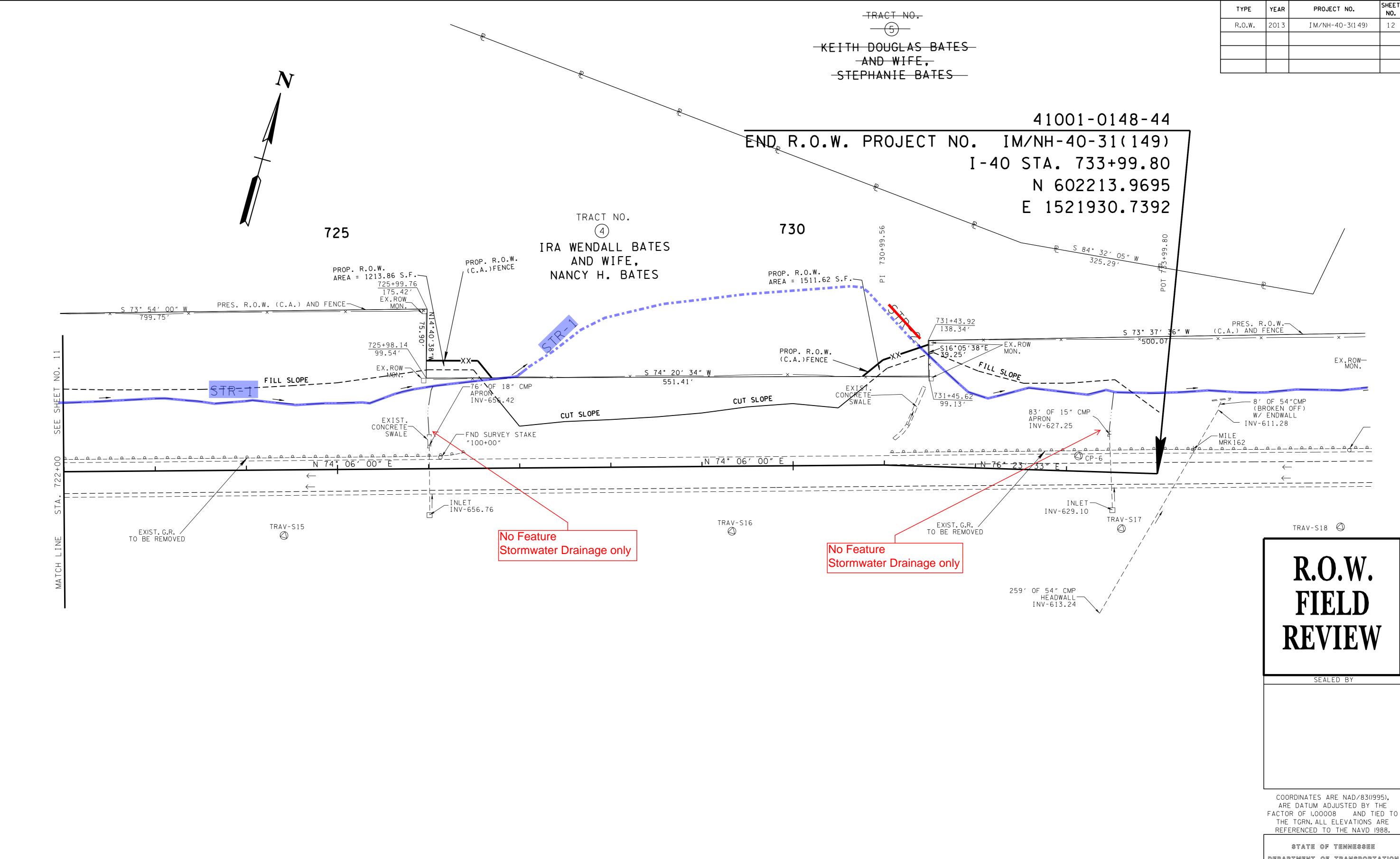
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STATE OF TENNESSEE

DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

STA. 709+00 TO STA. 722+00



DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

STA. 722+00 TO END OF PROJ.

Photo Summary: 1 August 2013 Project Description: Hickman County; I-40 Westbound Truck Climbing Lane at Mile Marker 159.83 P.E.: 41001-0148-44 PIN: 114156.00



Photo 1. Up gradient view of WWC-1 taken from ROW fence.

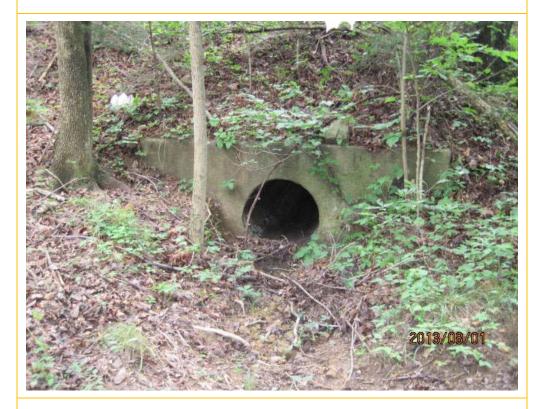


Photo 2. Down gradient view of WWC-1 toward culvert inlet.

Photo Summary: 1 August 2013 Project Description: Hickman County; I-40 Westbound Truck Climbing Lane at Mile Marker 159.83 P.E.: 41001-0148-44 PIN: 114156.00



Photo 3. Downstream view of STR-1 at Sta. 725+00L.

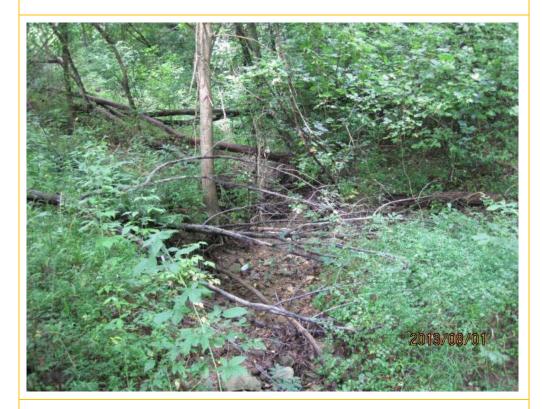


Photo 4. Upstream view of STR-1 at Sta. 725+00L.



Photo 5. Downstream view of STR-1 at Sta. 733+40L.



Photo 6. Upstream view of STR-1 at Sta. 733+40L.

9. Training Certifications



10. TMDL Information



TMDL Information Not Required

