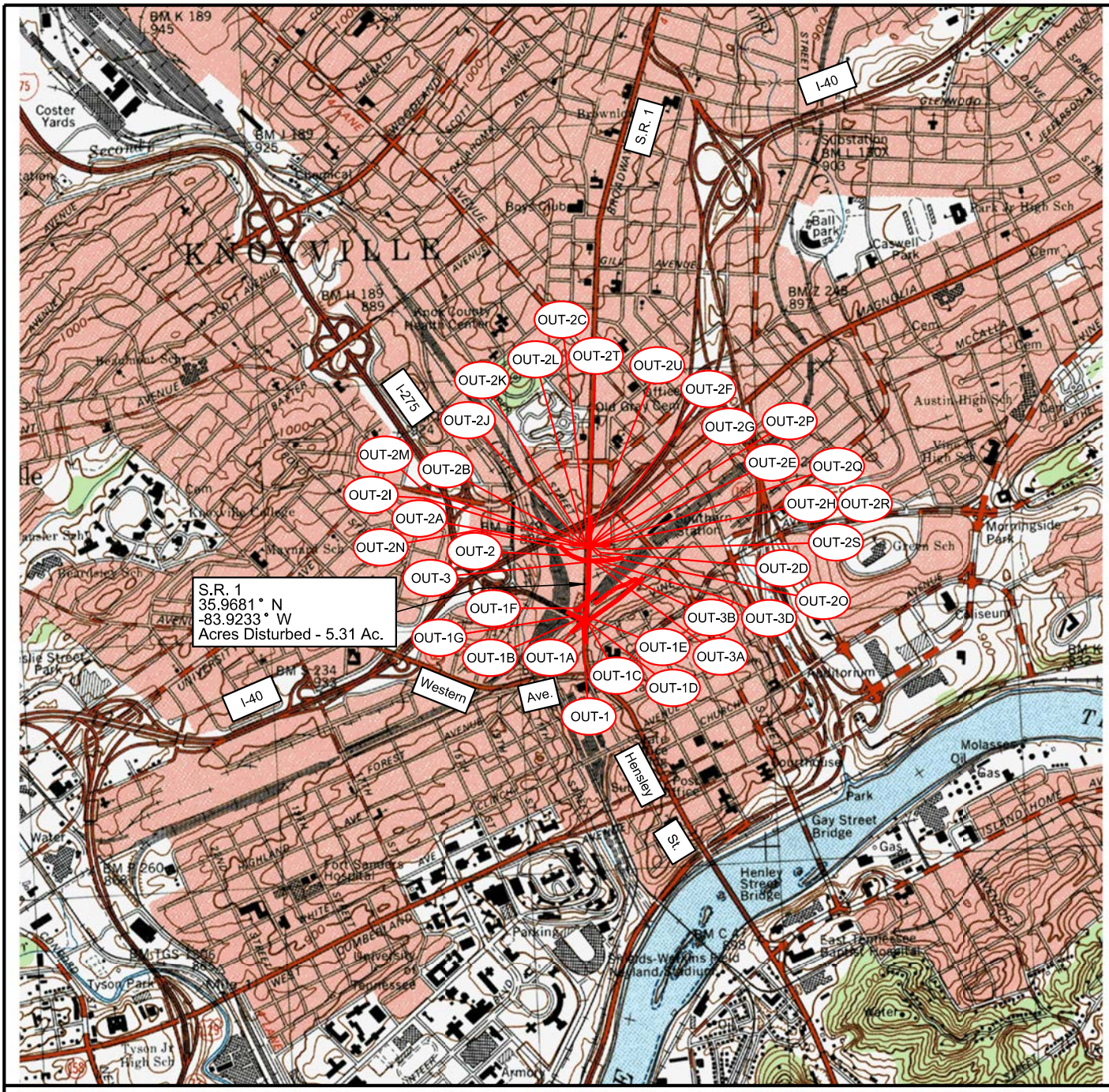

TOPOGRAPHIC MAP

N

OUT-1 Approximate Outfall Location

0 2000 4000

SCALE FEET

SOURCE: USGS Quad Map, U.S. Geological Survey 7.5 Minute Topographic Map, Knoxville (147-NW) Tennessee Quadrangle

TN TDOT Department of Transportation

Tennessee Department of Transportation

Nashville, Tennessee

Stormwater Pollution Prevention Plan

S.R. 1

Bridge over Southern Railroad

L.M. 19.47

in Knoxville (Broadway Viaduct)

Knox County, Tennessee

Drawn By:	Checked By:
DAH	JBL
TDOT P.E. No.	TDOT PIN
47010-1232-94	101623.00
FED. No.	Figure
BR-NH-1(311)	1

TENNESSEE D.O.T. | DESIGN DIVISION | FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
P.E.	2017	47010-1232-94	
CONST.	2017	BR-NH-1(311)	S-1

SWPPP INDEX OF SHEETS

NOTE: CITATIONS IN PARENTHESIS INDICATE SECTIONS OF THE CURRENT CGP.

1. SWPPP REQUIREMENTS (3.0)

1.1. HAS THE SWPPP TEMPLATE BEEN PREPARED BY AN INDIVIDUAL THAT HAS THE FOLLOWING LICENSING AND/OR CERTIFICATIONS (3.1.1)?

☒ YES (CHECK ALL THAT APPLY BELOW) OR ☐ NO

- ☒ CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL (CPESC)
- ☒ A TN LICENSED PROFESSIONAL ENGINEER OR LANDSCAPE ARCHITECT
- ☒ HAS SUCCESSFULLY COMPLETED TDEC LEVEL II COURSE

1.2. DO THE EPSC PLANS INVOLVE STRUCTURAL DESIGN, HYDRAULIC, HYDROLOGIC OR OTHER ENGINEERING CALCULATIONS FOR EPSC STRUCTURAL MEASURES (E.G. SEDIMENT BASINS) (3.1.1)? YES ☐ NO ☒

IF YES, HAVE THE EPSC PLANS BEEN PREPARED, STAMPED AND CERTIFIED BY A TN LICENSED PROFESSIONAL ENGINEER OR LANDSCAPE ARCHITECT? ☐ YES ☐ NO

1.3. DO THE PROJECT STORMWATER OUTFALLS DIRECTLY DISCHARGE INTO THE FOLLOWING (5.4.1)? ☒ YES (CHECK ALL THAT APPLY BELOW) ☐ NO

- ☒ WATERS WITH UNAVAILABLE PARAMETERS (303d FOR SILTATION OR HABITAT ALTERATION)
- ☐ EXCEPTIONAL TENNESSEE WATERS

IF YES TO SECTION 1.3, HAS THE SWPPP TEMPLATE BEEN PREPARED BY AN INDIVIDUAL THAT HAS THE FOLLOWING LICENSING AND/OR CERTIFICATIONS (5.4.1.b)?

☒ YES (CHECK ALL THAT APPLY BELOW) ☐ NO

- ☒ CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL (CPESC)
- ☒ A TN LICENSED PROFESSIONAL ENGINEER OR LANDSCAPE ARCHITECT
- ☒ HAS SUCCESSFULLY COMPLETED TDEC LEVEL II COURSE

2. SITE DESCRIPTION (3.5.1)

2.1. PROJECT LIMITS (3.5.1.h): REFER TO TITLE SHEET

2.2. PROJECT DESCRIPTION (3.5.1.a):

TITLE: S.R. 1 BRIDGE OVER SOUTHERN RAILROAD AT L.M. 19.47 IN KNOXVILLE (BROADWAY VIADUCT)
COUNTY: KNOX
PIN: 101623.00

2.3. SITE MAP(S) (2.6.2.): REFER TO TITLE SHEET

2.4. DESCRIPTION OF EXISTING SITE TOPOGRAPHY (3.5.1.d): REFER TO EXISTING CONTOURS SHEET(S) 9, 9A, 9B, DRAINAGE MAP SHEET(S) 7-7A, USGS QUAD MAP, AND THE OUTFALL TABLE IN SECTION 4.3.

2.5. MAJOR SOIL DISTURBING ACTIVITIES (3.5.1.b) (CHECK ALL THAT APPLY):

- ☒ CLEARING AND GRUBBING
- ☒ EXCAVATION
- ☒ CUTTING AND FILLING
- ☒ FINAL GRADING AND SHAPING
- ☒ UTILITIES
- ☐ OTHER (DESCRIBE): _____

2.6. TOTAL PROJECT AREA (3.5.1.c): 5.58 ACRES

2.7. TOTAL AREA TO BE DISTURBED (3.5.1.c): 5.31 ACRES

2.8. NO MORE THAN 50 ACRES OF ACTIVE SOIL DISTURBANCE IS ALLOWED AT ANY TIME DURING THE CONSTRUCTION OF THE PROJECT.

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)?

☐ YES _____ (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. SOIL PROPERTIES (3.5.1.f) (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)**
Ur - URBAN LAND	N/A	100	N/A

2.12. IS ACID PRODUCING ROCK (APR) (i.e. PYRITE) LOCATED WITHIN THE PROJECT LIMITS? ☐ YES ☒ NO

2.12.1. IF YES TO SECTION 2.13, HAVE APR LOCATIONS BEEN IDENTIFIED WITHIN THE CONSTRUCTION PLANS AND/OR THE GEOTECHNICAL REPORT? ☐ YES ☐ NO; AND

2.12.2. IF YES TO SECTION 2.12.1, 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.)

2.13. PROJECT RUNOFF COEFFICIENTS AND AREA PERCENTAGES (3.5.1.g).

RUNOFF COEFFICIENTS FOR EXISTING CONDITIONS				
AREA TYPE	**AREA(AC)**	**PERCENTAGE OF TOTAL AREA (%)**	**RUNOFF CN**	**C FACTOR**
IMPERVIOUS (ROADS, SHOULDERS, ETC.)	3.42	61		0.9
PERVIOUS	2.16	39		0.53
WEIGHTED C-FACTOR =				0.76

RUNOFF COEFFICIENTS FOR POST-CONSTRUCTION CONDITIONS				
AREA TYPE	**AREA(AC)**	**PERCENTAGE OF TOTAL AREA (%)**	**RUNOFF CN**	**C FACTOR**
IMPERVIOUS (ROADS, SHOULDERS, ETC.)	3.8	65		0.9
PERVIOUS	1.78	35		0.57
WEIGHTED C-FACTOR =				0.8

3. 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 ORDER OF CONSTRUCTION ACTIVITIES AND THE BASIC EPSC DEVICES DEPICTED ON THE EPSC PLAN CONTAINED WITHIN THE APPROVED SWPPP.

3.1. SPECIAL SEQUENCING REQUIREMENTS (SEE SHEETS 2G, 2H)

3.2. INSTALL STABILIZED CONSTRUCTION EXITS.

3.3. INSTALL PERIMETER PROTECTION WHERE RUNOFF SHEET FLOWS FROM THE SITE.

3.4. INSTALL INITIAL EPSC 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 14 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 (3.5.1.j, 3.5.1.k)

4.1.1. WILL CONSTRUCTION AND/OR EROSION PREVENTION AND SEDIMENT CONTROLS IMPACT ANY STREAMS WITHIN THE PROJECT LIMITS? ☐ YES ☒ NO

IF YES, THE IMPACT(S) HAVE BEEN INCLUDED IN THE TOTAL PROJECT IMPACTS AND HAVE BEEN INCLUDED IN THE WATER QUALITY PERMITS.

4.1.2. HAVE ANY OF THE RECEIVING STATE 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 WITH UNAVAILABLE PARAMETERS FOR SILTATION
- ☒ 303d WITH UNAVAILABLE PARAMETERS FOR HABITAT ALTERATION
- ☐ EXCEPTIONAL TENNESSEE WATERS (ETW)

4.1.3. RECEIVING WATERS OF THE STATE (3.5.1.k).

RECEIVING WATERS OF THE STATE INFORMATION					
TDOT STATE WATER LABEL FROM EBR	NAME OF RECEIVING STATE WATER	303d WITH UNAVAILABLE PARAMETERS FOR SILTATION OR HABITAT ALTERATION (YES OR NO)	ETW (YES OR NO)	LOCATED WITHIN PROJECT LIMITS (YES OR NO)	LOCATED WITHIN ≤ 1 FLOW MILE DOWN GRADIENT OF PROJECT LIMITS (YES OR NO)
N/A	SECOND CREEK	YES	NO	NO	YES

4.1.4. ARE THERE ANY WATER QUALITY RIPARIAN BUFFER ZONES REQUIRED FOR WATERS OF THE STATE? (4.1.2, 5.4.2)

☐ YES ☒ NO

BUFFER ZONE REQUIREMENTS ARE NOT REQUIRED FOR PRE-APPROVED SITES (4.1.2.2.)

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

IF YES, CHECK THE APPROPRIATE BOX BELOW FOR SIZE OF BUFFER.

- ☐ 60-FEET FOR WATERS WITH UNAVAILABLE PARAMETERS AND EXCEPTIONAL TENNESSEE WATERS (AVERAGE WIDTH PER SIDE WITH A MINIMUM OF 30-FEET).

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

STORMWATER POLLUTION PREVENTION PLAN

A 60 FOOT NATURAL WATER QUALITY RIPARIAN BUFFER ZONE ADJACENT TO AND ON BOTH SIDES OF THE RECEIVING STATE 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. IF THE CONSTRUCTION SITE ENCOMPASSES BOTH SIDES OF A STREAM, BUFFER AVERAGING CAN BE APPLIED TO BOTH SIDES, BUT MUST BE APPLIED INDEPENDENTLY.

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

A 30 FOOT NATURAL WATER QUALITY RIPARIAN BUFFER ZONE ADJACENT TO AND ON BOTH SIDES OF THE RECEIVING STATE 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. IF THE CONSTRUCTION SITE ENCOMPASSES BOTH SIDES OF A STREAM, BUFFER AVERAGING CAN BE APPLIED TO BOTH SIDES, BUT MUST BE APPLIED INDEPENDENTLY.

4.1.5. ARE THERE ANY WATER QUALITY RIPARIAN BUFFER ZONES NOT REQUIRED FOR STATE WATERS DUE TO A TDEC ARAP? (9.0)

☐ YES ☒ NO

4.1.6. ARE THERE WATER QUALITY RIPARIAN BUFFER ZONE EXEMPTIONS? (4.1.2.1) ☐ YES ☒ NO

IF YES, EXISTING CONDITIONS DESCRIPTION:_____

4.1.7. EVERY ATTEMPT SHOULD BE MADE FOR CONSTRUCTION ACTIVITIES TO NOT TAKE PLACE WITHIN THE WATER QUALITY RIPARIAN BUFFER ZONE AND FOR EXISTING FORESTED AREAS TO BE PRESERVED. (5.4.2.)

4.1.8. BECAUSE OF HEAVY SEDIMENT LOAD ASSOCIATED WITH CONSTRUCTION SITE RUNOFF, WATER QUALITY RIPARIAN BUFFER ZONES ARE NOT SEDIMENT CONTROL MEASURES AND SHOULD NOT BE RELIED UPON AS PRIMARY SEDIMENT CONTROL MEASURES. THE WATER QUALITY RIPARIAN BUFFER ZONE SHALL BE ESTABLISHED BETWEEN THE TOP OF THE STREAM BANK AND THE DISTURBED CONSTRUCTION AREA.

4.1.9. WHERE IT IS NOT PRACTICABLE TO MAINTAIN A FULL WATER QUALITY RIPARIAN BUFFER, BEST MANAGEMENT PRACTICES (BMPS) PROVIDING EQUIVALENT PROTECTION AS THE NATURAL RIPARIAN ZONE MUST 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 CGP. WHERE ISSUED, ARAP/401 REQUIREMENTS WILL PREVAIL IF IN CONFLICT WITH THESE BUFFER ZONE REQUIREMENTS.

4.2. RECEIVING WATERS OF THE UNITED STATES (WOTUS) (EPHEMERAL)

WILL CONSTRUCTION AND/OR EROSION AND SEDIMENT CONTROLS IMPACT ANY WOTUS (EPHEMERAL)? ☐ YES ☒ NO

RECEIVING WOTUS (EPHEMERAL) INFORMATION		
TDOT WOTUS LABEL	LOCATED WITHIN PROJECT LIMITS (YES OR NO)	LOCATED WITHIN 15-FT OF THE PROJECT LIMITS (YES OR NO)
N/A	N/A	N/A

4.2.1. ARE WATER QUALITY RIPARIAN BUFFER ZONES REQUIRED FOR WOTUS (4.1.2)? ☐ YES ☒ NO

IF YES, A 15 FOOT NATURAL WATER QUALITY RIPARIAN BUFFER ZONE ADJACENT TO AND ON BOTH SIDES OF THE RECEIVING EPHEMERAL STREAM IDENTIFIED AS A WOTUS (EPHEMERAL) BY THE U.S. ARMY CORPS OF ENGINEERS (USACE) OR THE ENVIRONMENTAL PROTECTION AGENCY SHALL BE PRESERVED TO THE MAXIMUM EXTENT PRACTICABLE DURING CONSTRUCTION ACTIVITIES AT THE SITE.

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

4.2.2. ARE THERE ANY WATER QUALITY RIPARIAN BUFFER ZONES NOT REQUIRED FOR WOTUS (EPHEMERAL) DUE TO A USACE PERMIT?

☐ YES ☒ NO

4.3. OUTFALL INFORMATION

4.3.1. OUTFALL TABLE (3.5.1.e). SEE SWPPP SHEET S-8 FOR OUTFALL INFORMATION.

4.3.2. HAVE ALL OUTFALLS BEEN LABELED ON THE EPSC PLAN SHEETS (3.5.1.h)? ☒ YES ☐ NO

4.3.3. HAVE ALL OUTFALLS BEEN LABELED ON A USGS TOPOGRAPHIC MAP INCLUDED IN THE "DOCUMENTATION AND PERMITS" BINDER (2.6.2)? ☒ YES ☐ NO

4.3.4. WHERE POSSIBLE, HAS NON-PROJECT RUN-ON BEEN DIVERTED AROUND OR THROUGH THE PROJECT TO ELIMINATE CONTACT WITH DISTURBED AREAS OF THE PROJECT AND SEPARATE IT FROM PROJECT RUN-OFF THEREBY REDUCING THE DRAINAGE AREA OF TO THE OUTFALLS IN THIS AREA?

☒ YES ☐ NO ☐ N/A

4.3.5. ARE EQUIVALENT MEASURES BEING SUBSTITUTED FOR A SEDIMENT BASIN(S)? ☐ YES ☐ NO ☒ N/A

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

OF TEN ACRES OR MORE FOR AN OUTFALL(S) THAT DOES NOT DISCHARGE TO A STATE STREAM WITH UNAVAILABLE PARAMETERS OR EXCEPTIONAL TENNESSEE WATERS. 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. (3.5.3.3)

OR

OF FIVE ACRES OR MORE FOR AN OUTFALL(S) THAT DISCHARGES TO A STATE STREAM WITH UNAVAILABLE PARAMETERS OR EXCEPTIONAL TENNESSEE WATERS. 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. (5.4.1.g).

IN BOTH INSTANCES, 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.

4.4. 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 IMPACTS AND IN THE WATER QUALITY PERMITS.

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

4.5. TOTAL MAXIMUM DAILY LOADS (TMDL) INFORMATION (3.5.10)

4.5.1. IS THIS PROJECT LOCATED IN A HUC-8 WATERSHED THAT MAINTAINS AN EPA APPROVED TMDL FOR SILTATION AND HABITAT ALTERATION?

☒YES ☐ NO

4.5.2. IF YES, IS THIS PROJECT LOCATED WITHIN A HUC-12 SUBWATERSHED WITH A WASTE LOAD ALLOCATION (WLA)?

☒ YES ☐ NO

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

☒ YES ☐ NO

4.5.4. IF YES, HAS A SUMMARY OF THE CONSULTATION LETTER BEEN SUBMITTED/RECEIVED?

☒ YES ☐ NO

4.6. ECOLOGY INFORMATION (3.5.5.e)

DOES THE TDOT ENVIRONMENTAL BOUNDARIES REPORT SPECIFY SPECIAL NOTES TO BE ADDED TO THE PLAN SHEETS?

☐ YES ☒ NO

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

4.7. ENVIRONMENTAL COMMITMENTS

ARE THERE ANY NOTES ON THE ENVIRONMENTAL COMMITMENT SHEET?

☒ YES ☐ NO

IF YES, THEY HAVE BEEN INCLUDED ON PLAN SHEET(S) 1C.

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 PER 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.h)? ☒ YES ☐ NO

5.6. AREAS TO BE UNDISTURBED SHALL BE CLEARLY MARKED IN THE FIELD BEFORE CONSTRUCTION ACTIVITIES BEGIN.

5.7. 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.

5.8. 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.

5.9. HAVE STAGED EPSC PLANS BEEN PREPARED FOR THE PROJECT (3.5.2)?

YES ☒ NO ☐ (IF YES, CHECK ONE BELOW)

5.9.1. ☐ PROJECT DISTURBED AREA IS THAN LESS THAN 5 ACRES (MINIMUM OF TWO STAGES OF EPSC PLANS)

5.9.2. ☒ PROJECT DISTURBED AREA IS GREATER THAN 5 ACRES (MINIMUM OF THREE STAGES OF EPSC PLANS)

5.10. STEEP SLOPES ARE DEFINED AS A NATURAL OR CREATED SLOPE OF 35% GRADE OR GREATER REGARDLESS OF HEIGHT. HAVE STEEP SLOPES 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

5.11. 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.j). REFER TO THE LIST OF APPLICABLE ENVIRONMENTAL PERMITS LOCATED ON SWPPP SHEET S-7. ALL PERMITS WILL BE MAINTAINED ON SITE WITHIN THE "DOCUMENTATION AND PERMITS" BINDER.

5.12. THE EPSC CONTROL MEASURES LISTED IN THE QUANTITIES TABLE ON SHEET 8 HAVE BEEN SELECTED IN ACCORDANCE WITH TDOT STANDARD DRAWINGS AND GOOD ENGINEERING PRACTICES (3.5.3.1.b).

5.13. EPSC MEASURES SHALL BE INSTALLED PER TDOT STANDARDS (i.e. STANDARD DRAWINGS) AND SHALL BE FUNCTIONAL PRIOR TO ANY EARTH MOVING OPERATIONS.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

STORMWATER POLLUTION PREVENTION PLAN

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5.14. EPSC MEASURES WILL NOT BE INSTALLED WITHIN A STREAM WITHOUT FIRST OBTAINING APPROVAL FROM THE PERMITS SECTION.

5.15. 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.

5.16. EPSC MEASURES LOCATED IN WOTUS (EPHEMERAL STREAMS) MUST BE CONSIDERED TEMPORARY AND SHALL BE REMOVED AT THE END OF CONSTRUCTION.

5.17. 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 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 WITHOUT GUIDANCE FROM TDOT ENVIRONMENTAL PERSONNEL.

5.18. 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.

5.19. THE QUANTITIES REQUIRED FOR STABILIZED CONSTRUCTION EXITS PER TDOT STANDARDS HAVE BEEN SPECIFIED ON SHEET 8 (3.5.3.1.n).

5.20. 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).

5.21. SETTLING BASINS AND SEDIMENT TRAPS SHALL BE PROPERLY DESIGNED PER 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.

5.22. DISCHARGES FROM SEDIMENT BASINS AND IMPOUNDMENTS 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. (4.1.7).

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 CHEMICAL TREATMENTS MUST BE APPLIED PER SECTION 6 FLOCCULANTS.

5.24. WATER DISCHARGED FROM DEWATERING ACTIVITIES SHALL NOT CAUSE AN OBJECTIONABLE COLOR CONTRAST WITHIN THE RECEIVING NATURAL RESOURCE. WATER MUST BE HELD WITHIN SETTLING BASINS UNTIL IT IS AT LEAST AS CLEAR AS THE RECEIVING WATERS.

5.25. DEWATERING STRUCTURES, SEDIMENT FILTER BAGS, SEDIMENT BASINS AND TRAPS SHALL NOT BE LOCATED CLOSER THAN 30 FEET (60 FEET DESIRABLE VEGETATIVE BUFFER) FOR WATERS WITH UNAVAILABLE PARAMETERS AND EXCEPTIONAL TENNESSEE WATERS AND 15 FEET (30 FEET DESIRABLE VEGETATIVE BUFFER) FOR ALL OTHER FEATURES FROM THE TOP BANK OF A STREAM, WOTUS (EPHEMERAL), WETLAND OR OTHER NATURAL RESOURCE AND SHALL BE PROPERLY DESIGNED PER THE SIZE OF THE DRAINAGE AREAS OR VOLUME OF WATER TO BE TREATED.

5.26. STABILIZATION PRACTICES: PRE-CONSTRUCTION VEGETATIVE COVER WILL NOT BE DESTROYED, REMOVED OR DISTURBED MORE THAN 14 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. A SOIL ANALYSIS SHALL BE PERFORMED PRIOR TO THE APPLICATION OF FERTILIZERS TO ANY PORTION OF THE STE. SOILS SHOULD BE ANALYZED FOR pH, BUFFER VALUE, PHOSPHOROUS, POTASSIUM, CALCIUM AND MAGNESIUM. SOIL SAMPLES SHOULD BE REPRESENTATIVE OF THE AREA FOR WHICH FERTILIZER WILL BE APPLIED. SAMPLE TYPE SHOULD BE COLLECTED AND ANALYZED IN ACCORDANCE WITH THE UT EXTENSION "SOIL TESTING" BROCHURE PB1061. (4.1.5.)

5.31. FERTILIZERS SHALL BE APPLIED ONLY IN THE AMOUNTS SPECIFIED FROM THE ANALYSES. ONCE APPLIED, FERTILIZERS SHALL BE WORKED INTO THE SOIL TO LIMIT THE EXPOSURE TO STORMWATER.

5.32. STEEP SLOPES SHALL BE TEMPORARILY STABILIZED NOT LATER THAN 7 DAYS AFTER CONSTRUCTION ACTIVITY ON THE SLOPE HAS TEMPORARILY OR PERMANENTLY CEASED. (3.5.3.2).

6. FLOCCULANTS (3.5.3.1.b)

IS ADDITIONAL PHYSICAL OR CHEMICAL TREATMENT OF STORMWATER RUNOFF NECESSARY (5.4.1.a)? ☐ YES ☒ NO

IF YES, THE FOLLOWING NOTES APPLY:

6.1. POLYACRYLAMIDES (PAM) SHALL BE OF THE ANIONIC OR NEUTRALLY CHARGED TYPE ONLY. PAM REQUIREMENTS ARE AS FOLLOWS:

6.1.1. CATIONIC PAM IS NOT ALLOWED BECAUSE OF ITS TOXICITY TO FISH AND AQUATIC LIFE.

6.1.2. ANIONIC AND NEUTRALLY CHARGED PAM SHALL MEET THE EPA AND FDA ACRYLAMIDE MONOMER LIMITS OF EQUAL TO OR LESS THAN 0.05% BY WEIGHT ACRYLAMIDE MONOMER.

6.1.3. ANIONIC AND NEUTRALLY CHARGED PAM SHALL HAVE A DENSITY OF 10% TO 55% BY WEIGHT AND A MOLECULAR WEIGHT OF 16 TO 24 MG/MOLES.

6.1.4. PAM MIXTURES SHALL BE NON-COMBUSTIBLE.

6.1.5. PAM SHALL CONTAIN ONLY MANUFACTURER-RECOMMENDED ADDITIVES.

6.2. 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).

6.3. FLOCCULANTS SHALL BE HANDLED IN ACCORDANCE WITH ALL OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) MATERIAL SAFETY DATA SHEET (MSDS) REQUIREMENTS AND SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS FOR THE SPECIFIED USE CONFORMING TO ALL FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS.

6.4. ALL VENDORS AND SUPPLIERS OF FLOCCULANTS SHALL PRESENT OR SUPPLY A WRITTEN TOXICITY REPORT FOR BOTH ACUTE AND CHRONIC TOXICITY TESTS WHICH VERIFIES THAT THE FLOCCULANT EXHIBITS 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.

6.5. DO NOT APPLY FLOCCULANTS DIRECTLY TO, OR WITHIN 60 FEET, OF ANY STREAMS, WETLANDS, OR OTHER NATURAL WATER RESOURCE LOCATED ON OR ADJACENT TO THE CONSTRUCTION SITE. DO NOT APPLY FLOCCULANTS DIRECTLY INTO WATERS CONTAINED WITHIN SEDIMENT PONDS OR TO SLOPES THAT PRODUCE RUNOFF DIRECTLY INTO A STREAM, WETLAND, OR OTHER NATURAL WATER RESOURCE. DO NOT APPLY FLOCCULANTS IMMEDIATELY AT A STORMWATER OUTFALL WHERE RUNOFF LEAVES THE PROJECT LIMITS.

6.6. BEFORE FLOCCULANTS CAN BE USED ON A CONSTRUCTION PROJECT, SITE-SPECIFIC SOIL SAMPLES MUST BE OBTAINED AND TESTED BY THE MANUFACTURER OR THEIR REPRESENTATIVE, TO IDENTIFY THE OPTIMUM FLOCCULANT TYPE AND APPLICATION RATE. SINCE FLOCCULANT EFFICACY IS HIGHLY DEPENDENT ON SOIL TYPE, SOIL SAMPLES WILL NEED TO BE OBTAINED FROM EACH SOIL HORIZON THAT WILL BE ACCESSED DURING EXCAVATION. FLOCCULANTS SHOULD BE APPLIED ON A CONSTRUCTION SITE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDED APPLICATION OR DOSAGE RATE. APPLICATION METHOD SHALL ENSURE UNIFORM COVERAGE TO THE TARGET AREA. DO NOT APPLY EMULSION FORMS OF FLOCCULANTS DIRECTLY TO STORMWATER RUNOFF OR TO STREAMS, WETLANDS, OR OTHER WATER RESOURCES DUE TO SURFACTANT TOXICITY.

6.7. FLOCCULANT POWDER MAY BE APPLIED BY A HAND SPREADER OR A MECHANICAL SPREADER. IF APPROVED BY THE MANUFACTURER, FLOCCULANT MAY BE MIXED WITH DRY SILICA SAND, FERTILIZER, SEED, OR OTHER SOIL AMENDMENTS TO AID IN SPREADING. FLOCCULANTS MAY ALSO BE APPLIED WITH A WATER TRUCK OR AS PART OF HYDRO-SEEDING. APPLICATION METHOD SHALL ENSURE UNIFORM COVERAGE TO THE TARGET AREA.

6.8. MANUFACTURER'S GUIDANCE SHOULD BE FOLLOWED FOR BLOCK, LOG AND SOCK SPACING CONFIGURATIONS. BEFORE FLOCCULANTS CAN BE USED ON A CONSTRUCTION PROJECT, SITE-SPECIFIC SOIL SAMPLES MUST BE OBTAINED AND TESTED BY THE MANUFACTURER OR THEIR REPRESENTATIVE, TO IDENTIFY THE OPTIMUM FLOCCULANT TYPE AND APPLICATION RATE. SINCE FLOCCULANT EFFICACY IS HIGHLY DEPENDENT ON SOIL TYPE, SOIL SAMPLES WILL NEED TO BE OBTAINED FROM EACH SOIL HORIZON THAT WILL BE ACCESSED DURING EXCAVATION. FLOCCULANTS SHOULD BE APPLIED ON A CONSTRUCTION SITE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDED APPLICATION OR DOSAGE RATE.

7. UTILITY RELOCATION

ARE UTILITIES INCLUDED IN THE CONTRACT? ☒ YES ☐ NO

IF YES, THE FOLLOWING APPLY:

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. ANY TRENCHING ACROSS WET WEATHER CONVEYANCES SHALL BE DONE DURING DRY CONDITIONS, REMOVED 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 EPSC 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 FOURTEEN 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 THE TRENCH IS BACKFILLED.

7.6. IN REGARDS 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

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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.

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.

7.11. FOR UTILITY CROSSINGS THAT UTILIZE HORIZONTAL DIRECTIONAL DRILLING THE FOLLOWING SHALL APPLY:

7.11.1. THE ENTRY AND EXIT POINTS SHALL BE AT LEAST 50 FEET FROM THE STREAM BANK OR WETLAND BOUNDARY.

7.11.2. THE DEPTH OF BORE BELOW THE STREAMBED IS SUFFICIENT TO PREVENT RELEASE OF DRILLING FLUID, BASED ON THE PARENT MATERIAL.

7.11.3. A SITE-SPECIFIC CONTINGENCY AND CONTAINMENT PLAN FOR INADVERTENT RELEASE OF DRILLING FLUID SHALL BE ESTABLISHED PRIOR TO COMMENCEMENT OF WORK. THIS PLAN SHALL BE SUBMITTED TO THE TDOT PROJECT ENGINEER AND THE TDOT ENVIRONMENTAL DIVISION PERMITS AND/OR COMPLIANCE AND FIELD SERVICES OFFICE FOR REVIEW AND APPROVAL.

8. MAINTENANCE AND INSPECTION

8.1. INSPECTION PRACTICES (3.5.8)

8.1.1. PROJECT EPSC INSPECTORS AND ENGINEERS (INCLUDING TDOT STAFF, CONSULTANTS AND CONTRACTOR STAFF) RESPONSIBLE FOR THE INSPECTION, IMPLEMENTATION, MAINTENANCE. AND/OR REPAIR OF EPSC MEASURES SHALL MEET ONE OF THE FOLLOWING REQUIREMENTS (3.5.8.1.):

8.1.1.1. SUCCESSFULLY COMPLETED THE TDOT EPSC INSPECTIONS TRAINING AND ANY RECERTIFICATION COURSE AS REQUIRED.

8.1.1.2. SUCCESSFULLY COMPLETED THE TDEC “LEVEL I - FUNDAMENTALS OF EROSION PREVENTION AND SEDIMENT CONTROL” COURSE AND ANY RECERTIFICATION COURSES AS REQUIRED.

8.1.1.3. BE A CURRENT TN LICENSED PROFESSIONAL ENGINEER OR LANDSCAPE ARCHITECT.

8.1.1.4. BE A CURRENT CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL (CPESC).

8.1.1.5. SUCCESSFULLY COMPLETED TDEC “LEVEL II – DESIGN PRINCIPLES FOR EROSION PREVENTION AND SEDIMENT CONTROL FOR CONSTRUCTION SITES” COURSE AND ANY RECERTIFICATION COURSE AS REQUIRED.

8.1.2. THE TDOT CONSTRUCTION ENGINEER (OR THEIR DULY AUTHORIZED REPRESENTATIVE) AND THE CONTRACTOR’S SITE SUPERINTENDENT ARE RESPONSIBLE FOR INSPECTIONS. MAINTENANCE AND REPAIR ACTIVITIES ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE TDOT CONSTRUCTION ENGINEER OR THEIR DULY AUTHORIZED REPRESENTATIVE SHALL COMPLETE THE EPSC INSPECTION REPORTS AND DISTRIBUTE COPIES PER THE CONTRACT.

8.1.3. 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.o).

8.1.4. 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 FORM AND THE TDEC CONSTRUCTION STORMWATER INSPECTION CERTIFICATION (TWICE-WEEKLY INSPECTIONS) FORM.

8.1.5. OUTFALL POINTS SHALL BE INSPECTED TO ASCERTAIN WHETHER EPSC MEASURES ARE EFFECTIVE IN PREVENTING EROSION AND CONTROLLING SEDIMENT INCLUDING SIGNIFICANT IMPACTS TO SURROUNDING STATE WATERS, WOTUS (EPHEMERAL), WETLANDS, OTHER 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.

8.1.6. INSPECTIONS WILL BE CONDUCTED AT LEAST TWICE EVERY CALENDAR WEEK AND AT LEAST 72 HOURS APART (3.5.8.2.a). A CALENDAR WEEK IS DEFINED AS SUNDAY THROUGH SATURDAY. QUALITY ASSURANCE INSPECTIONS OF TDOT EPSC, NPDES AND WATER QUALITY PERMIT REQUIREMENTS SHALL BE PERFORMED PER THE TDOT ENVIRONMENTAL DIVISION COMPLIANCE AND FIELD SERVICES OFFICE.

8.1.7. THE FREQUENCY OF EPSC INSPECTIONS MAY BE REDUCED TO ONCE A MONTH WHERE SITES OR PORTIONS OF SITES HAVE BEEN TEMPORARILY STABILIZED UNTIL CONSTRUCTION ACTIVITIES RESUME 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).

8.1.8. 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).

8.1.9. 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”).

8.1.10. 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 (3.5.8.2.e AND 3.5.8.2.f).

8.1.11. DOCUMENTATION OF INSPECTIONS WILL BE MAINTAINED ON SITE IN THE “DOCUMENTATION AND PERMITS” BINDER. REPORTS WILL BE SUBMITTED TO THE TDOT PROJECT ENGINEER PER THE CONTRACT.

8.1.12. 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.

8.1.13. 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 (3.5.8.2.h).

8.2. DULY AUTHORIZED REPRESENTATIVE (7.7.3)

THE PROJECT ENGINEER MAY DELEGATE AN INDIVIDUAL AND/OR CONSULTANT TO SIGN EPSC INSPECTIONS REPORTS. FOR SATISFYING SIGNATORY REQUIREMENTS FOR EPSC INSPECTION REPORTS, THE PROJECT ENGINEER AND NEWLY AUTHORIZED INDIVIDUAL ACCEPTING RESPONSIBILITY MUST COMPLETE AND SIGN THE TDOT CONSTRUCTION DIVISION EPSC DELEGATION OF AUTHORITY.

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 AND IN ACCORDANCE WITH TDOT STANDARD DRAWINGS AND GOOD ENGINEERING PRACTICES. (3.5.3.1.b)

8.3.2. MAINTENANCE AND REPAIR ACTIVITIES ARE THE RESPONSIBILITY OF THE CONTRACTOR.

8.3.3. 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. (3.5.8.2.e).

8.3.4. SEDIMENT SHALL BE REMOVED FROM SEDIMENT CONTROL STRUCTURES (SEDIMENT TRAPS, SILT FENCE, SEDIMENT BASINS, OTHER CONTROLS, ETC.) WHEN THE DESIGN CAPACITY HAS BEEN REDUCED BY FIFTY PERCENT (50%). (3.5.3.1.e).

8.3.5. 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.

8.3.6. CHECK DAMS WILL BE INSPECTED FOR STABILITY. SEDIMENT WILL BE REMOVED WHEN DEPTH REACHES ONE-HALF (½) THE HEIGHT OF THE DAM.

8.3.7. 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.

8.3.8. 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 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).

8.3.9. ALL SEEDED AREAS WILL BE CHECKED FOR BARE SPOTS, EROSION WASHOUTS, AND VIGOROUS GROWTH FREE OF SIGNIFICANT WEED INFESTATIONS.

9. SITE ASSESSMENTS (3.1.2)

QUALITY ASSURANCE SITE ASSESSMENTS OF EROSION PREVENTION AND SEDIMENT CONTROLS SHALL BE PERFORMED PER THE TDOT ENVIRONMENTAL DIVISION COMPLIANCE AND FIELD SERVICES 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 DEPICTED ON THE PLANS AND NOTED AS PERMANENT.

10.2. DESCRIBE ANY SPECIFIC POST-CONSTRUCTION MEASURES THAT WILL CONTROL VELOCITY, POLLUTANTS, AND/OR EROSION (3.5.4): SITE DRAINAGE IS IN A CLOSED SYSTEM.

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
☒ PIPE CULVERTS (I.E. CONCRETE, CORRUGATED METAL, HDPE, ETC.)
☒ MINERAL AGGREGATES, ASPHALT
☒ EARTH
☒ LIQUID TRAFFIC STRIPING MATERIALS, PAINT
☒ ROCK
☒ CURING COMPOUND
☐ EXPLOSIVES
☐ 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.

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IMPACTS TO WATERS OF THE STATE/U.S. SHALL BE AVOIDED IF POSSIBLE. IF UNAVOIDABLE, THE CONTRACTOR WILL OBTAIN 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.

10.5. 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 ALL NECESSARY PERMITS TO DISPOSE OF HAZARDOUS MATERIAL.

10.6. 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 ALL NECESSARY PERMITS TO DISPOSE OF SANITARY WASTE.

10.7. 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

☒ MACHINERY LUBRICANTS (OIL AND GREASE)

THESE MATERIALS WILL BE HANDLED AS NOTED IN THIS SWPPP.

11. <u>NON-STORMWATER DISCHARGES</u> (3.5.9)

11.1. THE FOLLOWING NON-STORMWATER DISCHARGES ARE ANTICIPATED DURING THE CONSTRUCTION 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 FLUSHING 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.

☐ OTHER: _____

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. ALL CHEMICAL TREATMENTS MUST BE APPLIED PER SECTION 6 FLOCCULANTS.

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.i)?

☐ YES ☒ NO

IF YES, SPECIFY THE LOCATION OF THE ACTIVITY AND ITS PERMIT NUMBER: _____

12. <u>SPILL PREVENTION, MANAGEMENT AND NOTIFICATION</u> (3.5.5.c, 5.1)

12.1. SPILL PREVENTION (3.5.5.c)

12.1.1. 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.

12.1.2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING A SPILL PREVENTION CONTROL AND COUNTERMEASURE (SPCC) PLAN AS REQUIRED BY TDOT SPECIAL PROVISION 107FP (REGARDING WATER QUALITY AND STORM WATER PERMITS) AND THE LAW.

12.1.3. THE CONTRACTOR SHALL 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 ENGINEER.

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 RE-SEALABLE. 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 THE SOIL ANALYSIS OR 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 PER 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

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

12.4.1. 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.

12.4.2. 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.

12.4.3. 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.

12.4.4. 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.

12.4.5. 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.

12.4.6. 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.

12.4.7. 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 ENGINEER 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.

12.4.8. 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 MORE THAN 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 ENGINEER IS RESPONSIBLE FOR NOTIFYING THE REGIONAL PROJECT DEVELOPMENT OFFICE (E.G. TRANSPORTATION ENVIRONMENTAL STUDIES SPECIALIST) AS SOON AS HE OR SHE HAS KNOWLEDGE OF THE DISCHARGE.

12.5.2. THE TDOT REGIONAL PROJECT DEVELOPMENT OFFICE WILL NOTIFY THE LOCAL TDEC ENVIRONMENTAL FIELD OFFICE AND ANY OTHER APPLICABLE REGULATORY AGENCIES WITHIN 24 HOURS OF THE SPILL.

12.5.3. IN ADDITION TO ANY FOLLOW UP NOTIFICATIONS REQUIRED BY FEDERAL LAW, A WRITTEN DESCRIPTION OF THE RELEASE, DATE

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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 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 DULY AUTHORIZED REPRESENTATIVE WILL MAINTAIN AT THE SITE THE FOLLOWING RECORDS OF CONSTRUCTION ACTIVITIES (3.5.3.1.m) (4.1.5.) (6.2.1):

13.1.1. THE DATES WHEN MAJOR GRADING ACTIVITIES OCCUR.

13.1.2. THE DATES WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE.

13.1.3. THE DATES WHEN STABILIZATION MEASURES ARE INITIATED.

13.1.4. RECORDS EPSC INSPECTION REPORTS AND CORRECTIVE MEASURES.

13.1.5. RECORDS OF QUALITY ASSURANCE SITE ASSESSMENTS.

13.1.6. COPY OF SITE EPSC INSPECTOR'S CERTIFICATION AND/OR LICENSING

13.1.7. COPY OF REQUIRED SOIL ANALYSIS

13.1.8. A COPY OF ANY REGULATORY CORRESPONDENCE REGARDING THE EFFECTIVENESS OF THE *SWPPP* OR EPSC CONTROLS.

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 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)

13.3.1. 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.

13.3.2. THE STAGES DEPICTED WITHIN 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 STAGES OF CONSTRUCTION THAT WILL OCCUR, THUS THESE DOCUMENTS MUST BE UPDATED THROUGHOUT THE LIFE OF THE CONSTRUCTION PROJECT.

13.3.3. THE TDOT EPSC INSPECTOR OR THEIR DULY AUTHORIZED REPRESENTATIVE WILL MODIFY AND UPDATE THE SWPPP WHEN ANY OF THE FOLLOWING CONDITIONS APPLY:

13.3.3.1. 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;

13.3.3.2. 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;

13.3.3.3. WHEN ANY NEW OPERATOR AND/OR SUB-OPERATOR IS ASSIGNED OR RELIEVED OF THEIR RESPONSIBILITY TO IMPLEMENT A PORTION OF THE SWPPP;

13.3.3.4. TO PREVENT A NEGATIVE IMPACT TO LEGALLY PROTECTED STATE OR FEDERALLY LISTED OR PROPOSED THREATENED OR ENDANGERED AQUATIC FAUNA;

13.3.3.5. 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.

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

13.3.3.7. 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.

13.4. MAKING PLANS ACCESSIBLE

13.4.1. 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).

13.4.2. PRIOR TO THE INITIATION OF LAND DISTURBING ACTIVITIES AND UNTIL THE SITE HAS MET THE FINAL STABILIZATION CRITERIA, TDOT OR THEIR DULY AUTHORIZED REPRESENTATIVE WILL POST A NOTICE NEAR THE MAIN ENTRANCE OF THE CONSTRUCTION SITE WITH THE FOLLOWING INFORMATION (3.3.3) (6.2.1):

13.4.2.1. A COPY OF THE NOTICE OF COVERAGE (NOC) WITH THE NPDES PERMIT NUMBER FOR THE PROJECT;

13.4.2.2. THE INDIVIDUAL NAME, COMPANY NAME, E-MAIL ADDRESS (IF APPLICABLE) AND TELEPHONE NUMBER OF THE LOCAL PROJECT SITE OWNER AND OPERATOR CONTACT;

13.4.2.3. A BRIEF DESCRIPTION OF THE PROJECT; AND

13.4.2.4. THE LOCATION OF THE SWPPP.

13.4.3. ALL INFORMATION DESCRIBED IN SECTION 13.4.2 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.

13.5. NOTICE OF TERMINATION (8.0)

13.5.1. 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.

13.5.2. FOR THE PURPOSES OF THE CERTIFICATION REQUIRED BY THE NOT, THE ELIMINATION OF STORMWATER DISCHARGES ASSOCIATED WITH THE CONSTRUCTION ACTIVITY MEANS THE

13.5.2.1. 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

13.5.2.2. 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

13.5.2.3. 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

13.5.2.4. ALL POTENTIAL POLLUTANTS AND POLLUTANT GENERATING ACTIVITIES ASSOCIATED WITH CONSTRUCTION HAVE BEEN REMOVED; AND

13.5.2.5. 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

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P.E.	2017	47010-1232-94	
CONST.	2017	BR-NH-1(311)	S-7

13.5.2.6. TEMPORARY EPSC MEASURES HAVE BEEN OR WILL BE REMOVED AT AN APPROPRIATE TIME TO ENSURE FINAL STABILIZATION IS MAINTAINED; AND

13.5.2.7. 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.

13.6. 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.

14. SITE WIDE/PRIMARY PERMITTEE CERTIFICATION (7.7.5)

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.

AUTHORIZED TDOT PERSONNEL SIGNATURE (3.3.1)

JIM OZMENT
PRINTED NAME

ENVIRONMENTAL DIVISION DIRECTOR
TITLE

2/27/2017
DATE

15. SECONDARY PERMITTEE (OPERATOR) CERTIFICATION (7.7.6)

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. AS SPECIFIED IN TENNESSEE CODE ANNOTATED SECTION 39-16-702(a)(4), THIS DECLARATION IS MADE UNDER PENALTY OF PERJURY.

AUTHORIZED TDOT PERSONNEL SIGNATURE (3.3.1)

PRINTED NAME

TITLE

DATE

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 DULY AUTHORIZED REPRESENTATIVE)**:

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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TYPE	YEAR	PROJECT NO.	SHEET NO.
P.E.	2006	STP-112 (4)	
CONST.	2012	STP-112 (4)	S-8

OUTFALL TABLE (3.5.1.d, 5.4.1.g)

EPSC STAGE	OUTFALL LABEL	SUB OUT-FALL	STATION CL, LT OR RT	SLOPE WITHIN ROW (%)	STAGE 1 DRAINAGE AREA (AC)	STAGE 2 DRAINAGE AREA (AC)	STAGE 3 DRAINAGE AREA (AC)	SEDIMENT BASIN OR EQUIVALENT MEASURE(S) (YES, NO OR N/A)	RECEIVING RESOURCE (TDOT EBR LABEL) OR OTHER	COMMENTS
1-3	OUT-1		12+80 LT	5.0	780 SF	780 SF	780 SF	N/A		
1-3	OUT-1A		13+06 LT	4.0	1375 SF	1375 SF	1375 SF	N/A		
1-3	OUT-1B		13+42 LT	4.0	2440 SF	2440 SF	2440 SF	N/A		
1-3	OUT-1C		12+86 RT	16.0	0.48	0.48	0.48	N/A		
1-3	OUT-1D		12+95 RT	14.0	1.05	1.05	1.05	N/A		
1-3	OUT-1E		13+56 RT	2.5	0.14	0.14	0.14	N/A		
2-3	OUT-1F		13+70 RT	2.0		0.15	0.15	N/A		
2-3	OUT-1G		13+55 LT	2.0		0.15	0.15	N/A		
1-3	OUT-2		80+00 LT RAILROAD “B”	5.0	4.62	4.62	4.62	N/A		
1-3	OUT-2A		60+23 RT DEPOT AVE	4.6	0.05	0.05	0.05	N/A		
1-3	OUT-2B		22+94 LT	2.2	0.46	0.46	0.46	N/A		
1-3	OUT-2C		23+37 LT	0.5	0.34	0.34	0.34	N/A		
1-3	OUT-2D		22+94 RT	3.1	0.52	0.52	0.52	N/A		
1-3	OUT-2E		62+83 RT DEPOT AVE	1.4	0.22	0.22	0.22	N/A		
1-3	OUT-2F		23+37 RT	2.2	0.20	0.20	0.20	N/A		
1-3	OUT-2G		62+67 LT DEPOT AVE	2.2	0.22	0.22	0.22	N/A		
1-3	OUT-2H		64+02 LT DEPOT AVE	1.2	2.02	2.02	2.02	N/A		
2-3	OUT-2I		61+03 RT DEPOT AVE	6.0		0.04	0.04	N/A		
2-3	OUT-2J		61+03 LT DEPOT AVE	3.9		0.05	0.05	N/A		
2-3	OUT-2K		61+53 LT DEPOT AVE	4.6		0.12	0.12	N/A		
2-3	OUT-2L		61+70 LT DEPOT AVE	3.5		0.14	0.14	N/A		
2-3	OUT-2M		61+70 RT DEPOT AVE	3.5		0.05	0.05	N/A		
2-3	OUT-2N		22+75 LT	2.2		0.46	0.46	N/A		
2-3	OUT-2O		22+75 RT	3.1		0.52	0.52	N/A		
2-3	OUT-2P		62+84 LT DEPOT AVE	2.2		0.42	0.42	N/A		
2-3	OUT-2Q		63+84 LT DEPOT AVE	1.7		0.24	0.24	N/A		
2-3	OUT-2R		64+02 LT DEPOT AVE	1.2		2.02	2.02	N/A		
2-3	OUT-2S		63+84 RT DEPOT AVE	1.4		0.22	0.22	N/A		
2-3	OUT-2T		24+71 LT	0.5		0.20	0.20	N/A		
2-3	OUT-2U		24+71 RT	0.8		0.09	0.09	N/A		
1-3	OUT-3		81+75 RT RAILROAD “B”	1.0	0.05	0.05	0.05	N/A		
1-3	OUT-3A		82+83 RT RAILROAD “B”	1.0	0.05	0.05	0.05	N/A		
1-3	OUT-3B		83+26 RT RAILROAD “B”	1.0	0.13	0.13	0.13	N/A		
1-3	OUT-3D		83+26 LT RAILROAD “B”	1.0	1.00	1.00	1.00	N/A		

ALL UNUSED FIELDS WITHIN THE OUTFALL TABLE ARE TO BE SHADED, HATCHED, OR REMOVED TO INDICATE THEIR NON-USAGE.

OUTFALL 3C HAS BEEN OMITTED.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

STORMWATER POLLUTION PREVENTION PLAN

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

Index Of Sheets

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING

KNOX COUNTY

S.R. 1: BRIDGE OVER SOUTHERN RAILROAD AT L.M. 19.47
IN KNOXVILLE (BROADWAY VIADUCT)

RIGHT-OF-WAY

STATE HIGHWAY NO. 1 F.A.H.S. NO. 1

7-10-13: CHANGED S.R. 1 ALIGNMENT, PROJECT LIMITS AND LENGTH. ADDED SHEET NO. 5D AND CHANGED SHEET NOS. 5B AND 5C.

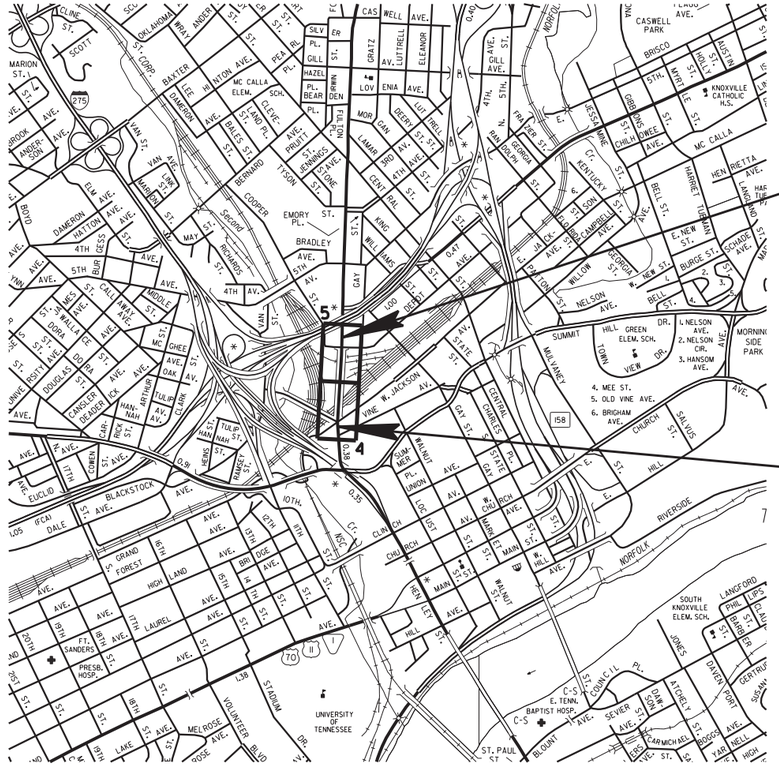
9-20-13: ADDED SHEET NO. 6B.

11-05-13: CHANGED THE NAME OF SHEET NOS. 6A AND 6B.

3-03-15: ADDED SHEET NOS. 4E AND 5E.

TENN.	YEAR	SHEET NO.
	2013	1
FED. AID PROJ. NO.	BR-STP-1(156)	
STATE PROJ. NO.	47010-2232-94	

S.R. 1 KNOX CO.



NO EXCLUSIONS
NO EQUATIONS

47010-2232-94
END PROJ. NO. BR-STP-1(156)
STA. 24+89.12 (R.O.W.)

47010-2232-94
BEGIN PROJ. NO. BR-STP-1(156)
STA. 13+94.64 (R.O.W.)

R.O.W. PLANS

SEALED BY
REBECCA HEADRICK
REGISTERED ENGINEER
Rebecca Headrick
4/03/2015
COMMERCE
STATE OF TENNESSEE

APPROVED: Paul D. Degges
PAUL D. DEGGES, CHIEF ENGINEER

DATE:

APPROVED:
JOHN SCHROER, COMMISSIONER

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 ROAD SP. SV. 2 MAYSOON HADDAD

DESIGNED BY CANNON & CANNON, INC.

DESIGNER BECKY HEADRICK, P.E. CHECKED BY ALAN CHILDERS, P.E.

P.E. NO. 47010-1232-94

PIN NO. 101623.00

TRAFFIC DATA	
ADT (2013)	16,980
ADT (2033)	18,590
DHV (2033)	2,045
D	55 - 45
T (ADT)	4 %
T (DHV)	3 %
V	35 MPH

RIGHT-OF-WAY LENGTH 0.207 MILES

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED:

DIVISION ADMINISTRATOR DATE

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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

Index Of Sheets

SEE SHEET NO. 1A FOR INDEX

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING

KNOX COUNTY

S.R. 1: BRIDGE OVER SOUTHERN RAILROAD, L.M. 19.47
IN KNOXVILLE (BROADWAY VIADUCT)

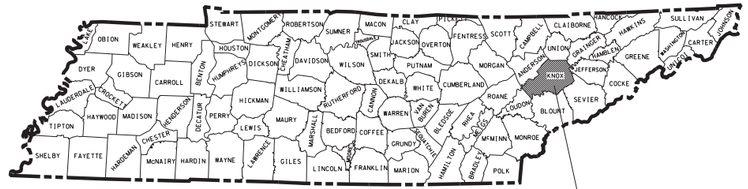
GRADE, DRAIN, BASE, PAVE,
BRIDGE, SIGNAL AND RETAINING WALL

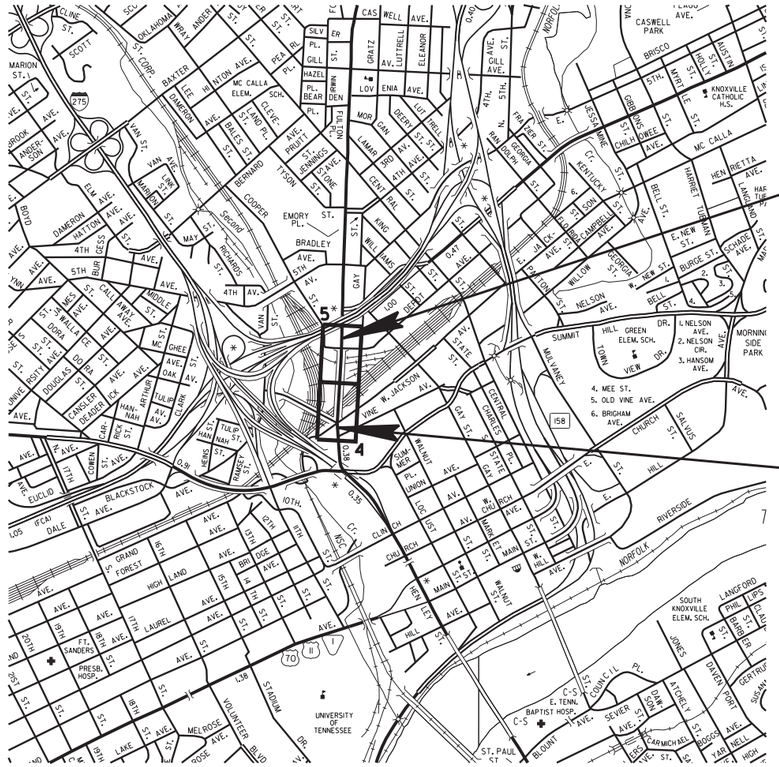
STATE HIGHWAY NO. 1 F.A.H.S. NO. 1

7-10-13: CHANGED S.R. 1 ALIGNMENT, PROJECT LIMITS AND LENGTH. ADDED SHEET NO. 5D AND CHANGED SHEET NOS. 5B AND 5C.
9-20-13: ADDED SHEET NO. 6B.
11-05-13: CHANGED THE NAME OF SHEET NOS. 6A AND 6B.
3-03-15: ADDED SHEET NOS. 4E AND 5E.
10-01-15: ADDED SHEET NOS. 4F-4H AND 9B.

TENN.	YEAR	SHEET NO.
	2017	1
FED. AID PROJ. NO.	BR-NH-1(311)	
STATE PROJ. NO.	47010-3232-94	

S.R. 1 KNOX CO.





NO EXCLUSIONS
NO EQUATIONS

ROAD TO BE CLOSED DURING CONSTRUCTION

47010-3232-94
END PROJ. NO. BR-NH-1(311)
STA. 25+12.50 (CONST.)

47010-3232-94
BEGIN PROJ. NO. BR-NH-1(311)
STA. 12+75.00 (CONST.)

SEALED BY

APPROVED: Paul D. Degges
PAUL D. DEGGES, CHIEF ENGINEER

DATE:

APPROVED:
JOHN SCHROER, COMMISSIONER

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.

TDOT ROAD SP. SV. 2 MAYSOON HADDAD

DESIGNED BY CANNON & CANNON, INC.

DESIGNER BECKY HEADRICK, P.E. CHECKED BY MAYSOON HADDAD

P.E. NO. 47010-1232-94

PIN NO. 101623.00

ROADWAY LENGTH	0.076 MILES
BRIDGE LENGTH	0.158 MILES
BOX BRIDGE LENGTH	0.000 MILES
PROJECT LENGTH	0.234 MILES

TRAFFIC DATA	
ADT (2017)	10,050
ADT (2037)	10,850
DHV (2037)	1,443
D	52 - 48
T (ADT)	3 %
T (DHV)	2 %
V	35 MPH

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED:

DIVISION ADMINISTRATOR DATE

2/7/2017 11:59:23 AM
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2017	BR-NH-1(311)	1A

S.R. 1 KNOX CO.
47010-3232-94 (CONST.)

INDEX

STANDARD ROADWAY DRAWINGS

DWG. NO	REV.	DESCRIPTION
ROADWAY DESIGN STANDARDS		
RD-A-1	12-18-99	STANDARD ABBREVIATIONS
RD-L-1	10-26-94	STANDARD LEGEND
RD-L-2	09-05-01	STANDARD LEGEND FOR UTILITY INSTALLATIONS
RD-L-3	04-15-04	STANDARD LEGEND FOR SIGNALIZATION AND LIGHTING
RD-L-4	04-15-04	STANDARD LEGEND FOR SIGNALIZATION AND LIGHTING
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
RD01-TS-6A	07-31-13	TYPICAL CURB AND GUTTER SECTIONS WITHOUT SHOULDER
RD01-TS-7A	10-15-02	DESIGN STANDARDS 2-LANE CURB & GUTTER WITH CONTINUOUS 2-WAY LEFT-TURN LANE
RD01-SE-2	10-15-02	URBAN SUPERELEVATION DETAILS
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
RD01-SD-1		INTERSECTION SIGHT DISTANCE DESIGN AND GENERAL NOTES
RD01-SD-2		INTERSECTION SIGHT DISTANCE LANDSCAPE AND OBSTRUCTION
RD01-SD-3		INTERSECTION SIGHT DISTANCE 2-LANE ROADWAYS
PIPE CULVERTS AND ENDWALLS		
D-PB-1	01-02-13	STANDARD DETAILS FOR CONCRETE PIPE INSTALLATION
CATCH BASINS AND MANHOLES		
D-CB-10LPC	08-01-12	LOW PROFILE LOWERED CURB 32" X 26" RECTANGULAR CONCRETE NO. 10LPC CATCH BASIN
D-CB-10RA	03-11-14	STANDARD PRECAST 48" CIRCULAR NO. 10 CATCH BASIN (FOR USE WITH 6" NONMOUNTABLE CURB)
D-CB-10S	03-11-14	STANDARD RECTANGULAR CONCRETE N0. 10 CATCH BASIN
D-CB-10SB	03-11-14	STANDARD 4' X 4' SQUARE CONCRETE NO. 10 CATCH BASIN
D-CB-12LP	08-01-12	LOW PROFILE 32" X 32" SQUARE CONCRETE NO. 12LP CATCH BASIN (FOR USE WITH 6” NON-MOUNTABLE CURB)
D-CB-12P	03-11-14	STANDARD PRECAST RECTANGULAR CONCRETE NO. 12 CATCH BASIN
D-CB-12RA	03-11-14	STANDARD PRECAST 48" CIRCULAR NO. 12 CATCH BASIN (FOR USE WITH 6" NONMOUNTABLE CURB)
D-CB-12RB	03-11-14	STANDARD PRECAST 60" AND 72" CIRCULAR NO. 12 CATCH BASIN (FOR USE WITH 6" NONMOUNTABLE CURB)
D-CB-12RC	03-11-14	STANDARD PRECAST 84" THRU 120" CIRCULAR NO. 12 CATCH BASIN (FOR USE WITH 6" NONMOUNTABLE CURB)
D-CB-12S	03-11-14	STANDARD RECTANGULAR CONCRETE NO. 12 CATCH BASIN
D-CB-12SB	03-11-14	STANDARD 4' X 4' SQUARE CONCRETE NO. 12 CATCH BASIN
D-CB-12SC	03-11-14	STANDARD 5'2" X 5'2" SQUARE CONCRETE NO. 12 CATCH BASIN
D-CB-12SD	03-11-14	STANDARD 7' X 7' SQUARE CONCRETE NO. 12 CATCH BASIN
D-CB-12SE	03-11-14	STANDARD 9' X 9' SQUARE CONCRETE NO. 12 CATCH BASIN
D-CB-14P	03-11-14	STANDARD PRECAST RECTANGULAR CONCRETE NO. 14 CATCH BASIN
D-CB-14RB	03-11-14	STANDARD PRECAST CIRCULAR NO. 14RB CATCH BASIN
D-CB-14S	03-11-14	STANDARD RECTANGULAR CONCRETE NO. 14 CATCH BASIN
D-CB-14SE	03-11-14	STANDARD 9' X 9' SQUARE CONCRETE NO. 14 CATCH BASIN
D-CB-42RB	03-11-14	STANDARD PRECAST CIRCULAR NO. 42 CATCH BASIN
D-CB-42S	08-01-12	STANDARD 32" X 32" SQUARE CONCRETE NO. 42 CATCH BASIN
D-CB-42SB	03-11-14	STANDARD 4' X 4' SQUARE CONCRETE NO. 42 CATCH BASIN
D-CB-42SC	03-11-14	STANDARD 5'2" X 5'2" SQUARE CONCRETE NO. 42 CATCH BASIN
D-CB-42SD	03-11-14	STANDARD 7' X 7' SQUARE CONCRETE NO. 42 CATCH BASIN
D-CB-99	05-20-14	MISCELLANEOUS DETAILS FOR RECTANGULAR STRUCTURES
D-CB-99R	03-11-14	MISCELLANEOUS DETAILS FOR ROUND STRUCTURES
D-CBB-12A	05-27-01	TYPE ‘B’ CAST IRON FRAME, GRATE & NONMOUNTABLE INLET DETAILS FOR NOS. 10, 12, 14, 16 & 17 TYPE CATCH BASINS
D-CBB-42	05-27-01	CAST IRON GRATE DETAILS FOR NOS. 42, 43 & 44 TYPE CATCH BASINS
D-MH-2	02-02-16	STANDARD MASONRY & PRECAST NO. 3 MANHOLE
D-MH-3	04-21-14	TYPICAL DESIGN OF LIDS FOR NO. 3 MANHOLE
D-MH-4	04-01-14	STANDARD NO. 3 MANHOLE CASTINGS AND STEPS
D-MH-5	04-01-14	STANDARD 5'2" X 5'2" SQUARE CONCRETE NO. 3 MANHOLE
D-MH-6	04-01-14	STANDARD 7' X 7' SQUARE CONCRETE NO. 3 MANHOLE
D-MH-7	04-01-14	STANDARD 9' X 9' SQUARE CONCRETE NO. 3 MANHOLE
D-RF-1	02-02-16	STANDARD PRECAST RISER
D-TD-1		TRENCH DRAIN

SEALED BY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

INDEX AND STANDARD DRAWINGS

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2017	BR-NH-1(311)	1B

S.R. 1 KNOX CO.
47010-3232-94 (CONST.)

STANDARD ROADWAY DRAWINGS (CONT'D.)

DWG. NO	REV.	DESCRIPTION
ROADWAY AND PAVEMENT APPURTENANCES		
RP-D-15	04-08-16	DETAILS OF STANDARD CONCRETE DRIVEWAYS
RP-D-16	04-08-16	DETAILS OF LOWERED STANDARD CONCRETE DRIVEWAYS
RP-I-5	12-18-96	EXAMPLES OF STREET & ALLEY INTERSECTIONS
RP-R-1	05-27-01	STANDARD RAMPS TO SIDE ROADS
RP-NMC-10	07-29-03	STANDARD VERTICAL (NONMOUNTABLE) CONCRETE CURBS AND CONCRETE CURBS AND GUTTERS
RP-NMC-11	02-28-02	STANDARD VERTICAL (NONMOUNTABLE) CONCRETE CURBS AND CONCRETE CURBS AND GUTTERS
RP-H-3	10-10-16	CURB RAMP AND TRUNCATED DOME SURFACE DETAIL
RP-H-5	10-10-16	PARALLEL CURB RAMP
RP-H-9	10-10-16	PARALLEL CURB RAMP IN CURVE
RP-S-7	02-05-16	DETAILS FOR STANDARD CONCRETE SIDEWALKS
W-SG-1		STANDARD GRAVITY-TYPE RETAINING WALLS
SAFETY DESIGN AND FENCES		
S-CZ-1		CLEAR ZONE CRITERIA
DESIGN – TRAFFIC CONTROL		
T-M-1	07-24-14	DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS AND MARKING ABBREVIATIONS
T-M-4	10-10-16	STANDARD INTERSECTION PAVEMENT MARKINGS
T-M-12	01-30-15	SIGNING AND PAVEMENT MARKINGS FOR BICYCLE LANES ON URBAN ROADWAYS
T-M-13		SIGNING AND PAVEMENT MARKINGS FOR BICYCLE LANES
T-M-14	11-01-11	SIGNING AND PAVEMENT MARKINGS FOR BICYCLE LANES AT INTERSECTIONS
T-FAB-1	05-27-97	FLASHING YELLOW ARROW BOARD
T-WZ-10	04-02-12	ADVANCE ROAD WORK SIGNING ON HIGHWAYS AND FREEWAYS
EROSION PREVENTION AND SEDIMENT CONTROL		
EC-STR-2	08-01-12	SEDIMENT FILTER BAG
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-19	04-01-08	CATCH BASIN PROTECTION
EC-STR-40		CATCH BASIN FILTER ASSEMBLY FOR CIRCULAR STRUCTURES
EC-STR-41		CATCH BASIN FILTER ASSEMBLY (TYPE 1)
EC-STR-41A		CATCH BASIN FILTER ASSEMBLY (TYPE 1) SLIPCOVER DETAILS
EC-STR-42		CATCH BASIN FILTER ASSEMBLY (TYPE 2)
EC-STR-42A		CATCH BASIN FILTER ASSEMBLY (TYPE 2) SLIPCOVER DETAILS
EC-STR-43		CATCH BASIN FILTER ASSEMBLY (TYPE 3)
EC-STR-43A		CATCH BASIN FILTER ASSEMBLY (TYPE 3) SLIPCOVER DETAILS
EC-STR-44		CATCH BASIN FILTER ASSEMBLY (TYPE 4)
EC-STR-44A		CATCH BASIN FILTER ASSEMBLY (TYPE 4) SLIPCOVER DETAILS
EC-STR-45		CATCH BASIN FILTER ASSEMBLY (TYPE 5)
EC-STR-45A		CATCH BASIN FILTER ASSEMBLY (TYPE 5) SLIPCOVER DETAILS
EC-STR-47		CATCH BASIN FILTER ASSEMBLY (TYPE 7)
EC-STR-47A		CATCH BASIN FILTER ASSEMBLY (TYPE 7) SLIPCOVER DETAILS
EC-STR-25	08-01-12	TEMPORARY CULVERT CROSSING, CONSTRUCTION EXIT, CONSTRUCTION FORD

STANDARD TRAFFIC OPERATIONS DRAWINGS

DWG. NO	REV.	DESCRIPTION
SIGNS		
T-S-7	02-12-91	HIGHWAY SHIELDS USED ON INTERSTATE AND U.S. NUMBERED ROUTES
T-S-8	07-15-91	HIGHWAY SHIELDS USED ON STATE NUMBERED ROUTES AND ARROWS
T-S-10	04-04-12	STANDARD MOUNTING DETAILS FLAT SHEET SIGNS ALUMINUM-STEEL DESIGN
T-S-16	07-02-15	GROUND MOUNTED ROADSIDE SIGN PLACEMENT DETAILS
T-S-17	07-02-15	STANDARD GROUND MOUNTED SIGN USING PERFORATED/KNOCKOUT SQUARE TUBE
T-S-19	07-19-15	STANDARD STEEL SIGN SUPPORTS
T-S-20	11-01-11	SIGN DETAILS
SIGNALS		
T-SG-2	06-27-16	LOOP LEAD-INS, CONDUIT AND PULL BOXES
T-SG-3A	06-27-16	ALTERNATE DETECTION DETAILS
T-SG-5	06-27-16	CONTROLLER CABINET DETAILS
T-SG-6		PEDESTRIAN SIGNAL DETAILS
T-SG-7	06-27-16	SIGNAL HEAD ASSEMBLIES
T-SG-7A		TYPICAL SIGNAL HEAD PLACEMENT APPROACHES WITH NO THROUGH MOVEMENTS
T-SG-9	06-27-16	DETAILS OF CANTILEVER SIGNAL SUPPORT
T-SG-9A	06-27-16	MISCELLANEOUS SIGNAL DETAILS
T-SG-10	06-27-16	MAST ARM POLE AND STRAIN POLES FOUNDATION DETAILS
T-SG-11	06-27-16	MAINTENANCE OF EXISTING SIGNALS DURING HIGHWAY CONSTRUCTION
T-SG-12	06-27-16	TYPICAL WIRING FOR SIGNAL HEADS AND DETECTION LOOPS
LIGHTING AND UTILITY POLES		
T-FO-2		FIBER OPTIC UNDERGROUND ENTRANCE DETAILS
T-FO-4		FIBER OPTIC PULL BOX, CABINET & POLE DETAILS

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

STANDARD DRAWINGS

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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2017	BR-NH-1(311)	1C

S.R. 1 KNOX CO.
47010-3232-94 (CONST.)

PROJECT COMMITMENTS

COMMITMENT ID	SOURCE DIVISON	DESCRIPTION	STA. / LOCATION
EDHZ0C1	Environmental Division, Hazardous Materials	To minimize the risk to construction workers, TDOT is committed to the removal of Asbestos-Containing Materials (ACM) from bridges that are being demolished, rehabilitated or repaired. ACM abatement should be completed prior to any demolition activities. Abatement should be accomplished per SP202ACM Special Provision Regarding Removal of Asbestos-Containing Materials.	SR-1 Sta. 12+75.00 to Sta. 25+12.50
		Bridge No. Bridge # 47SR0010025, SR-1 over Southern R/R, LM 19.47 in Knoxville (Broadway Viaduct), has ACM in the Transite materials and electrical wiring wrap associated with all of the utilities on the underside of the bridge, the black asphalt cements located on various parts of the bridge, the black surfacing material on the bridge sidewalk adjacent to Southern Glass and the bridge should either be sampled or assumed asbestos-containing material. See the Asbestos Inspection Report for more Details.	SR-1 Sta. 12+75.00 to Sta. 25+12.50
EDHZ0C2	Environmental Division, Hazardous Materials	State of Tennessee asbestos accreditation requirements (TCA 1200-01-20) mandate that ACM abatement work be performed by an accredited firm (contractor) using accredited abatement workers and supervisors.	SR-1 Sta. 12+75.00 to Sta. 25+12.50
		The contractor shall be resporsible for submitting a notice to the TDEC, Division of Air Pollution Control ten (10) days in advance of any ACM abatement activities. Ten day advance notice to the TDEC, Division of Air Pollution Control will be required prior to commencement of any demolition activities.	SR-1 Sta. 12+75.00 to Sta. 25+12.50
EDHZ0C3	Environmental Division, Hazardous Materials	Contaminated soil or groundwater may be encountered in some areas within this project.	SR-1 Sta. 12+75.00 to Sta. 25+12.50
		If soil is encountered that is discolored or exhibits an odor, work in the area should be stopped and the TDOT Hazardous Materials Manager should be notified at 615-532-8684.	SR-1 Sta. 12+75.00 to Sta. 25+12.50
		Any soil that is discolored or exhibits an odor should be stockpiled on 6-mil plastic and covered with plastic until characterized.	SR-1 Sta. 12+75.00 to Sta. 25+12.50
		Groundwater may be encountered and may be contaminated. If groundwater is removed it should be characterized and dispcsed of properly.	SR-1 Sta. 12+75.00 to Sta. 25+12.50
EDHZ0C4	Environmental Division, Hazardous Materials	The TDOT Environmental Division will be responsible for coordinating the sampling and disposition of the excavated material. Notify the TDOT Hazardous Materials Manager at 615-532-8684 at least two business days prior to beginning excavation.	SR-1 Sta. 12+75.00 to Sta. 25+12.50
		It is recommended that all personnel use engineered controls (rubber boots, gloves) and good hygienic practices if they must come into contact with the soil or water. Contractors should follow their company health and safety plan if contacting potentially contaminated soil or water.	SR-1 Sta. 12+75.00 to Sta. 25+12.50

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROJECT COMMITMENTS

2/7/2017 12:00:41PM
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TENNESSEE D.O.T. | DESIGN DIVISION | FILE NO.

ESTIMATED ROADWAY QUANTITIES

	ITEM NO.	DESCRIPTION	UNIT	QUANTITY
	105-01	CONSTRUCTION STAKES, LINES AND GRADES	LS	1
(1)	203-01	ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED)	C.Y.	694
	203-03	BORROW EXCAVATION (UNCLASSIFIED)	C.Y.	4105
	203-06	WATER	M.G.	12
(2)	203-50	CONSTRUCTION OF HAUL ROAD	LS	1
	209-02.05	12" TEMPORARY SLOPE DRAIN	L.F.	200
	209-03.21	FILTER SOCK (12 INCH)	L.F.	15683
	209-05	SEDIMENT REMOVAL	C.Y.	216
(5)	209-05.03	SEDIMENT FILTER BAG (15' X 15')	EACH	1
	209-40.33	CATCH BASIN PROTECTION (TYPE D)	EACH	19
	209-40.41	CATCH BASIN FILTER ASSEMBLY(TYPE 1)	EACH	2
(3)(4)	209-40.42	CATCH BASIN FILTER ASSEMBLY(TYPE 2)	EACH	2
	209-40.43	CATCH BASIN FILTER ASSEMBLY(TYPE 3)	EACH	3
	209-40.44	CATCH BASIN FILTER ASSEMBLY(TYPE 4)	EACH	4
	209-40.45	CATCH BASIN FILTER ASSEMBLY(TYPE 5)	EACH	3
	209-40.47	CATCH BASIN FILTER ASSEMBLY(TYPE 7)	EACH	3
(6)	303-01	MINERAL AGGREGATE, TYPE A BASE, GRADING D	TON	4186
	303-10.01	MINERAL AGGREGATE (SIZE 57)	TON	15
(7)	307-01.08	ASPHALT CONCRETE MIX (PG64-22) (BPNB-HM) GRADING B-M2	TON	348
(8)	307-02.01	ASPHALT CONCRETE MIX (PG70-22) (BPNB-HM) GRADING A	TON	560
(9)	307-02.08	ASPHALT CONCRETE MIX (PG70-22) (BPNB-HM) GRADING B-M2	TON	141
(10)	402-01	BITUMINOUS MATERIAL FOR PRIME COAT (PC)	TON	5
	403-01	BITUMINOUS MATERIAL FOR TACK COAT (TC)	TON	3
(11)	411-01.10	ACS MIX(PG64-22) GRADING D	TON	165
(9)	411-02.10	ACS MIX(PG70-22) GRADING D	TON	140
(12)	415-01.03	COLD PLANING BITUMINOUS PAVEMENT	C.Y.	43
(13)(14)	604-01.01	CLASS A CONCRETE (ROADWAY)	C.Y.	85
(13)	604-01.20	BOX TUBE SAFETY RAIL	L.F.	170
	607-03.02	18" CONCRETE PIPE CULVERT (CLASS III)	L.F.	574
	607-05.02	24" CONCRETE PIPE CULVERT (CLASS III)	L.F.	183
	607-06.02	30" CONCRETE PIPE CULVERT (CLASS III)	L.F.	298
(15)	611-01.02	MANHOLES, > 4' - 8' DEPTH	EACH	1
(16)	611-05.01	TRENCH DRAINS	L.F.	190
	611-10.01	CATCH BASINS TYPE 10, 0' - 4' DEPTH	EACH	1
	611-10.02	CATCH BASINS TYPE 10, > 4' - 8' DEPTH	EACH	2
	611-12.01	CATCH BASINS TYPE 12, 0' - 4' DEPTH	EACH	1
	611-12.02	CATCH BASINS TYPE 12, > 4' - 8' DEPTH	EACH	5
	611-12.03	CATCH BASINS TYPE 12, > 8' - 12' DEPTH	EACH	1
	611-12.04	CATCH BASINS TYPE 12, > 12' - 16' DEPTH	EACH	1
	611-14.02	CATCH BASINS TYPE 14, > 4' - 8' DEPTH	EACH	4
	611-42.01	CATCH BASINS TYPE 42, 0' - 4' DEPTH	EACH	2
	701-01.01	CONCRETE SIDEWALK (4 ")	S.F.	4470
(17)	701-02	CONCRETE DRIVEWAY	S.F.	308
	701-02.03	CONCRETE CURB RAMP	S.F.	842
(18)	702-01	CONCRETE CURB	C.Y.	2
	702-03	CONCRETE COMBINED CURB & GUTTER	C.Y.	75
(19)	707-01.11	CHAIN LINK FENCE (6 FOOT)	L.F.	100
(19)	707-01.13	GATE - CHAIN-LINK FENCE-6 FOOT (BRIDGE END)	EACH	1
(20)	709-05.05	MACHINED RIP-RAP (CLASS A-3)	TON	50
	709-05.06	MACHINED RIP-RAP (CLASS A-1)	TON	24
	712-01	TRAFFIC CONTROL	LS	1
	712-02.02	INTERCONNECTED PORTABLE BARRIER RAIL	L.F.	200
	712-04.01	FLEXIBLE DRUMS (CHANNELIZING)	EACH	100
	712-05.01	WARNING LIGHTS (TYPE A)	EACH	8
	712-05.03	WARNING LIGHTS (TYPE C)	EACH	100
	712-06	SIGNS (CONSTRUCTION)	S.F.	708
	712-07.03	TEMPORARY BARRICADES (TYPE III)	L.F.	210
	712-08.03	ARROW BOARD (TYPE C)	EACH	2
(21)	712-12.10	TEMPORARY CURB W/FLEXIBLE DELINEATOR	L.F.	2285
	713-11.01	"U" SECTION STEEL POSTS	LB.	33
	713-13.02	FLAT SHEET ALUMINUM SIGNS (0.080" THCK)	S.F.	44
	713-15	REMOVAL OF SIGNS, POSTS AND FOOTINGS	LS	1
(22)	713-16.41	RELOCATE SIGN	LS	1
	713-30.09	BARRIER MOUNTED SIGN SUPPORT (3"x3')	EACH	5
	716-01.21	Snwplwble Pvmt Mrkrs (Bi-Dir)(1 Color)	EACH	13
	716-01.22	Snwplwble Pvmt Mrkrs (Mono-Dir)(1 Colcr)	EACH	16
(23)	716-02.05	PLASTIC PAVEMENT MARKING (STOP LINE)	L.F.	150
(23)	716-02.06	PLASTIC PAVEMENT MARKING (TURN LANE ARROW)	EACH	3
	716-02.08	PLASTIC PAVEMENT MARKING (8" DOTTED LINE)	L.F.	82
(23)	716-02.09	PLASTIC PAVEMENT MARKING (LONGTUDINAL CROSS-WALK)	L.F.	320
(23)	716-04.13	PLASTIC PAVEMENT MARKING (BIKELANE SYMBOL & ARROW)	EACH	8
	716-04.21	GREEN TEXTURED BIKE LANE	S.Y.	13

ESTIMATED ROADWAY QUANTITIES

	ITEM NO.	DESCRIPTION	UNIT	QUANTITY
	716-05.01	PAINTED PAVEMENT MARKING (4" LINE)	L.M.	1
(24)	716-09.03	WET REFLECTIVE PAVEMENT MARKING(6" LINE)	L.M.	0.4
(24)	716-09.72	WET REFLECTIVE PAVEMENT MARKING (4"LINE)	L.M.	0.7
	716-13.01	SPRAY THERMO PVMT MRKNG (60 mil) (4IN LINE)	L.M.	0.25
	716-13.02	SPRAY THERMO PVMT MRKNG (60 mil) (6IN LINE)	L.M.	0.1
	716-13.04	SPRAY THERMO PVMT MRKNG (60 mil) (4IN DOTTED LINE)	L.F.	34
	716-13.05	SPRAY THERMO PVMT MRKNG (60 mil) (6IN DOTTED LINE)	L.F.	50
	717-01	MOBILIZATION	LS	1
	725-03.28	RAILROAD FLAGMAN	DAY	480
(25)	730-01.02	REMOVAL OF SIGNAL EQUIPMENT	EACH	1
(26)	730-02.09	SIGNAL HEAD ASSEMBLY (130 WITH BACKPLATE)	EACH	8
(27)	730-03.21	INSTALL PULL BOX (TYPE B)	EACH	4
	730-03.23	INSTALL PULL BOX (FIBER OPTIC - TYPE A)	EACH	2
	730-03.24	INSTALL PULL BOX (FIBER OPTIC - TYPE B)	EACH	2
(28)	730-05.01	ELECTRICAL SERVICE CONNECTION	EACH	1
(29)	730-08.03	SIGNAL CABLE - 7 CONDUCTOR	L.F.	575
(29)	730-08.05	SIGNAL CABLE - 12 CONDUCTOR	L.F.	835
(30)	730-12.02	CONDUIT 2" DIAMETER (PVC)	L.F.	360
	730-12.08	CONDUIT 2" DIAMETER (RGS)	L.F.	20
(30)	730-12.13	CONDUIT 2" DIAMETER (JACK AND BORE)	L.F.	1130
(31)	730-13.07	VEHICLE DETECTOR (SIREN ACTIVATED PRIORITY CONTROL)	EACH	4
(32)	730-13.08	VEHICLE DETECTOR (INTERSECTION RADAR DETECTION)	EACH	1
(29)	730-14.01	SHIELDED DETECTOR CABLE	L.F.	1110
(33)(34)	730-15.32	CABINET (EIGHT PHASE BASE MOUNTED)	EACH	1
(35)	730-16.02	EIGHT PHASE ACTUATED CONTROLLER	EACH	1
(34)	730-23.80	CANTILEVER SIGNAL SUPPORT (1 ARM @ 40')	EACH	4
	730-26.05	COUNTDOWN PEDESTRIAN SIGNAL	EACH	8
	730-26.09	PEDESTRIAN PUSHBUTTON WITH 15IN SIGN	EACH	8
(36)	730-35.06	BATTERY BACK-UP AND POWER CONDITIONER	EACH	1
(37)	740-10.03	GEOTEXTILE (TYPE III)(EROSION CONTROL)	S.Y.	188
	801-01.07	TEMPORARY SEEDING (WITH MULCH)	UNIT	17
	801-03	WATER (SEEDING & SODDING)	M.G.	21
	803-01	SODDING (NEW SOD)	S.Y.	1915

FOOTNOTES:

(1) INCLUDES 418 C.Y. FROM S.R. 1 AND 276 C.Y. FROM DEPOT AVENUE.

(2) ALL COST ASSOCIATED WITH CONSTRUCTING, ENVIRONMENTAL COMPLIANCE, MAINTENANCE, AND REMOVAL OF THE HAUL ROAD: INCLUDING BUT NOT LIMITED TO THE GRADED SOLID ROCK, GEOTEXTILE (TYPE III)(EROSION CONTROL), LABOR, AND ANY OTHER INCIDENTALS SHALL BE INCLUDED IN THE UNIT PRICE.

(3) SEE SUBSECTION 209.07 OF THE STANDARD SPECIFICATIONS FOR MAINTENANCE REPLACEMENT

(4) ALL QUANTITIES ARE TO BE USED AS DIRECTED BY THE TDOT SUPERVISOR

(5) TO BE USED AND PLACED AS DIRECTED BY THE TDOT SUPERVISOR.

(6) INCLUDES 766 TON FROM S.R. 1, 893 TON FROM DEPOT AVENUE, 27 TON FROM DRIVEWAY, AND 2500 TON FOR MAINTENANCE OF TRAFFIC.

(7) INCLUDES 188 TON FROM DEPOT AVENUE, 98 TON FROM RAILWAY PERMANENT SERVICE ROAD, AND 12 TON FROM DRIVEWAY.

(8) INCLUDES 211 TON FROM S.R. 1, 229 TON FROM DEPOT AVENUE, AND 120 TON FROM RAILWAY PERMANENT SERVICE ROAD.

(9) FROM S.R. 1.

(10) MAY BE INCREASED OR DECREASED AS DIRECTED BY THE TDOT SUPERVISOR.

(11) INCLUDES 111 TON FROM DEPOT AVENUE, 48 TON FROM RAILWAY PERMANENT SERVICE ROAD, AND 8 TON FROM DRIVEWAY.

(12) INCLUDES 31 C.Y. FROM S.R. 1 AND 12 C.Y. FROM DEPOT AVENUE

(13) TO BE USED FOR RETAINING WALL S.R. 1 (BROADWAY) STA. 22+73 +/- LT. TO DEPOT AVENUE STA. 60+40 +/- RT.

(14) ALL COST OF BUILDING, INSTALLING, AND BACKFILLING THE RETAINING WALL SHALL BE INCLUDED.

(15) S.R. 1 (BROADWAY) STA. 22+95.06, OFFSET 23.08' LT.

(16) TO BE LOCATED IN FRONT OF THE PROPOSED CURB THAT IS TO BE PLACED ON THE EXISTING PARKING LOT, TRACT NO. 10, STA. 21+43.23, OFFSET 126.65' RT. TO STA. 22+85.27, OFFSET 122.91' RT.

(17) DEPOT AVENUE STA. 61+25.00 +/- LT.

(18) TO BE PLACED ON THE EXISTING PARKING LOT, TRACT NO. 10, STA. 21+43.23, OFFSET 126.65' RT. TO STA. 22+35.27, OFFSET 122.91' RT.

(19) TO BE USED FOR BRIDGE CLOSURE.

(20) TO BE USED ON CONSTRUCTION EXIT. SEE SHEET NOS. 9A, 9D AND 9G FOR LOCATIONS.

(21) TO BECOME THE PROPERTY OF TDOT UPON PROJECT COMPLETION.

(22) REMOVE AND RELOCATE THE 4 EXISTING OVERHEAD STREET NAME SIGNS AT S.R. 1 (BROADWAY) AND DEPOT AVENUE INTERSECTION.

(23) THE CONTRACTOR MAY ELECT TO SUBSTITUTE PREFORMED PLASTIC FOR THERMOPLASTIC. PREFORMED PLASTIC SHALL BE PAID FOR AT THE SAME UNIT PRICE AS BID FOR THERMOPLASTIC.

(24) TO BE USED ON BRIDGE.

(25) COMPLETE REMOVAL OF EXISTING SIGNAL EQUIPMENT, INCLUDING SIGNAL HEADS, CABINET AND ASSOCIATED CONTENTS, AND ALL ASSOCIATED WIRING. EXISTING SIGNAL POLES SHALL BE REMOVED, EXCEPT WHEN SAID POLES HAVE ADDITIONAL USES. ALL SALVAGEABLE SIGNAL EQUIPMENT SHALL BE RETURNED TO AND BECOME THE PROPERTY OF THE CITY OF KNOXVILLE.

(26) SIGNAL HEADS TO BE MOUNTED WITH SIGNAL MOUNTING BRACKET AS SHOWN IN STD. DWG. T-SG-9.

(27) PULL BOXES SHALL HAVE "TRAFFIC" LOGO ON LID.

(28) INCLUDES CONDUIT, CABLE, AND ALL OTHER ITEMS NECESSARY TO MODIFY ELECTRICAL SERVICE CONNECTION FROM EXISTING TRAFFIC SIGNAL TO NEW TRAFFIC SIGNAL. THE CONTRACTOR WILL BE RESPONSIBLE FOR CONTACTING THE LOCAL UTILITY TO OBTAIN THE ESTIMATE FOR ANY CHARGES BY THE UTILITY FOR PROVIDING ELECTRICAL SERVICE TO THE SIGNAL CONTROLLER. THESE CHARGES SHALL BE INCLUDED IN THE PRICE BID FOR THIS ITEM FOR PAYMENT BY THE CONTRACTOR.

(29) ALL CABLE SHALL CONFORM TO IMSA STANDARDS.

(30) CONDUIT SHALL BE PVC SCHEDULE 80.

(31) THE SIGNAL SHALL BE PROVIDED WITH SONEM 2000 EMERGENCY VEHICLE PREEMPTION THAT WILL BE ACTIVATED BY THE VEHICLE SIREN. ITEM INCLUDES PREEMPT CABLE AND ALL INCIDENTALS NECESSARY FOR FULLY FUNCTIONING PREEMPTION OPERATION.

(32) INCLUDES ALL DETECTOR UNITS, WIRING, AND INCIDENTALS REQUIRED FOR FULLY FUNCTIONAL INTERSECTION DETECTION AS SHOWN IN THE PLANS. RADAR DETECTION SHALL BE WAVETRONIX SMARTSENSOR MATRIX.

(33) CABINET SHALL INCLUDE A NAZTEC BRAND MMU WITH ETHERNET PORT.

(34) INCLUDES FOUNDATION. SEE SHEET 15 FOR POLE FOUNDATION DEPTHS.

(35) CONTROLLER SHALL BE NAZTEC ATC.

(36) BATTERY BACK-UP AND POWER CONDITIONER SHALL BE BLUE EARTH WITH NICKEL-ZINC BATTERIES THAT MOUNT UNDERNEATH CABINET SHELF.

(37) INCLUDES 102 S.Y. TO BE USED ON SEDIMENT FILTER BAG AND 86 S.Y. TO BE USED ON CONSTRUCTION EXIT.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2017	BR-NH-1(311)	2A

S.R. 1 KNOX CO.
47010-3232-94 (CONST.)

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ESTIMATED ROADWAY QUANTITIES

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2017	BR-NH-1(311)	2AA

S.R. 1 KNOX CO.
47010-3232-94 (CONST.)

ESTIMATED UTILITY QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	47010-3232-94 QUANTITY
714-01.69	REMOVE CONDUCTOR	L.F.	1803
714-02.05	ENCASED CONDUIT (2-2" CONDUIT)	L.F.	126
714-03.01	DIRECT BURIAL CONDUIT CONDUIT (2" PVC, SCHEDULE 40)	L.F.	33
714-05.05	PULL BOX (13"x18"x18" QUAZITE GROUND MOUNTED)	EACH	3
714-05.06	PULL BOX (12"x12"x6" NEMA 3R)	EACH	1
714-05.46	WOOD POLE (40' CLASS 4)	EACH	1
714-06.05	CABLE (1/C # 6 AWG, XHHW, COPPER)	L.F.	7912
714-06.06	CABLE (1/C # 4 AWG, XHHW, COPPER)	L.F.	318
714-08.09	LIGHT STANDARDS (BLACK STEEL)	EACH	16
714-08.33	REMOVAL OF EXISTING COBRA HEAD LUMINAIRE	EACH	19
714-08.34	REMOVAL OF LIGHT STANDARD	EACH	17
714-09.09	LUMINAIRES (ROADWAY LED)	EACH	18
714-09.10	LUMINAIRES (WALPACK LED)	EACH	2
714-10.01	OVERHEAD CONDUCTORS (#2 TRIFLEX)	L.F.	153
714-12.01	CONTROL CENTER (CP112M)	LS	1
714-12.02	CONTROL CENTER (CP113M)	LS	1
773-26.11	REMOVE TRANSITE CONDUITS ON BRIDGE	L.F.	6195
773-26.12	REMOVE FRAME AND FILL 504 C.F. MANHOLE	EACH	6
790-01.03	POLE 30FT CLASS 4 WOOD	EACH	1
790-02.04	POLE 35FT CLASS 5 WOOD	EACH	1
790-04.04	POLE 45FT CLASS 4 WOOD	EACH	1
790-05.02	POLE 50FT CLASS 2 WOOD	EACH	4
790-06.01	POLE 55FT CLASS 1 WOOD	EACH	1
790-21.08	1Ø DEADEND 15KV	EACH	1
790-21.09	1Ø PRIMARY TAP 15KV	EACH	1
790-25.01	3Ø CROSSARM SGL 15KV	EACH	3
790-25.10	3Ø CROSSARM DBL DBL PRIM SUPPORT 15KV	EACH	1
790-25.21	3Ø CROSSARM DEADEND SGL 15KV	EACH	2
790-25.23	3Ø CROSSARM DDE 15KV	EACH	1
790-25.26	3Ø CROSSARM DDE 10FT ARMS 15KV	EACH	1
790-30.06	SECONDARY CONDUCTOR 6 AL DUPLEX	LF	95
790-30.13	SECONDARY CONDUCTOR 2 AL TRIPLEX	LF	126
790-31.11	SERVICE CONDUCTOR 2 AL TRIPLEX	LF	21
790-32.01	DOWN GUY - THROUGH BOLT TYPE	EACH	4
790-32.07	OH GUY - THROUGH BOLT TYPE	EACH	3
790-33.03	SCREW TYPE ANCHOR 6,000LB-8,000LB	EACH	2
790-33.04	SCREW TYPE ANCHOR 10,000LB-12,000LB	EACH	1
790-36.05	TRANSFER SECONDARY	EACH	3
790-36.06	TRANSFER LIGHT	EACH	4
790-40.03	OH COND 1/0 6/1 ACSR RAVEN	LF	3104
790-41.02	UG PRI COND 1/0 AL 15KV	LF	5874
790-42.07	6IN DIA GALVANIZED METAL PIPE	LF	3900
790-42.12	CONDUIT-POLE MTD-2FT SCH 80 PVC	LF	1
790-42.26	6 DUCT BANK @ 48IN-60IN DEPTH	LF	674
790-42.27	6 DUCT BANK @ 48IN-60IN DEPTH	LF	24
790-43.01	LOADBREAK ELBOW 200A 15KV	EACH	6
790-43.06	LOADBREAK JUNCTION 4 PT 200A 15KV	EACH	3
790-43.47	PRIMARY PULLBOX	EACH	2
790-46.02	1Ø TRANSFORMER CONV W/POLE MTD FUSE & LA	EACH	3
790-60.01	1Ø FUSE CUTOUT X-ARM MOUNT 15KV	EACH	3
790-68.01	POLE GROUND ROD TYPE	EACH	6
790-68.02	POLE GROND PLATE TYPE	EACH	2
790-68.11	DEAD END SHOE	EACH	8
790-69.32	ARM PIN	EACH	2
790-98.01	REMOVE WIRE	LF	7827
790-98.02	REMOVE POLES	EACH	12
790-98.03	REMOVE FRAMING/ASSOCIATED APPARATUS	EACH	38

ESTIMATED UTILITY QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	47010-3232-94 QUANTITY
791-02.04	4IN MDPE GAS MAIN	L.F.	1365
791-05.03	BORE/JACK 8IN - STEEL CASING PIPE - UNCON.	L.F.	50
791-06.02	CONNECT TO 2IN EX. PE MAIN	EACH	1
791-06.03	CONNECT TO 4IN EX. PE MAIN	EACH	4
791-07.02	4IN PE GAS VALVE ASSEMBLY	EACH	9
791-08.04	1-1/4IN SERVICE ASSEMBLY	EACH	1
791-08.06	1/2IN PE SERVICE PIPE	L.F.	20
791-08.09	1-1/4IN PE SERVICE PIPE	L.F.	205
791-08-01	1/2IN SERVICE ASSEMBLY	EACH	1
791-09.01	BRIDGE HANGER SYSTEM AND PIPE	LS	1
791-09.05	RESTORE ASPHALT	S.Y.	80
791-10.10	RETIRE GAS MAIN	EACH	1
793-13.08	4IN RGS PIPE	LF	75
793-13.12	1 DUCT FORMATION @ 36IN DEPTH	LF	75
793-14.26	UNDERGROUND TO OVERHEAD RISER	EACH	1
793-98.01	REMOVE AERAL CABLE AND WIRE	LF	128
793-98.05	RETIRE BURIED FACILITIES IN PLACE	LF	1020
793-98.07	REMOVE UNDERGROUND TO OVERHEAD RISER	EACH	1
795-01.04	6IN DIP SLIP JOINT WATER LINE	L.F.	60
795-01.06	8IN DIP SLIP JOINT WATER LINE	L.F.	675
795-01.09	12IN DIP RESTRAINED JOINT WATER LINE	L.F.	125
795-01.10	12IN DIP SLIP JOINT WATER LINE	L.F.	330
795-06.04	CONNECT TO 6IN WATER LINE	EACH	3
795-06.05	CONNECT TO 8IN WATER LINE	EACH	1
795-06.07	CONNECT TO 12IN WATER LINE	EACH	1
795-08.04	6IN GATE VALVE ASSEMBLY	EACH	1
795-08.05	8IN GATE VALVE ASSEMBLY	EACH	2
795-08.09	12IN GATE VALVE ASSEMBLY	EACH	4
795-09.13	3IN COPPER SERVICE PIPE	L.F.	20
795-09.14	3/4IN HDPE SERVICE PIPE	L.F.	80
795-09.28	3/4IN COPPER SERVICE PIPE	L.F.	80
795-11.02	FIRE HYDRANT	EACH	3
795-12.01	REMOVE FIRE HYDRANT	EACH	3
795-13.01	DI FITTINGS	LBS	2000
795-13.04	BRIDGE HANGER SYSTEM	LS	1
795-20.01	RECONNECT SERVICE ASSEMBLY	EACH	10
797-05.52	8IN PVC GRAVITY SEWER 6FT-12FT DEPTH	L.F.	30
797-05.53	8IN PVC GRAVITY SEWER 12FT-18FT DEPTH	L.F.	200
797-07.06	48IN MANHOLE 12FT-14FT DEPTH	EACH	1
797-07.07	48IN MANHOLE 14FT-16FT DEPTH	EACH	1
797-10.09	CONNECT EX 8IN SEWER TO NEW MANHOLE	EACH	3
797-10.10	CONNECT EX 10-18IN SEWER TO NEW MANHOLE	EACH	1
797-11.31	RETIREIN PLACE EXISTING SEWER 8IN-14IN	L.F.	400

NOTE: THE ESTIMATED UTILITY QUANTITIES WERE PROVIDED BY TDOT UTILITY OFFICE.

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ESTIMATED UTILITIES QUANTITIES

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TENNESSEE D.O.T. | DESIGN DIVISION | FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2017	BR-NH-1(311)	2D

S.R. 1 KNOX CO.
47010-3232-94 (CONST.)

GENERAL NOTES

GRADING

(1) 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. 803-01 SHALL BE USED ON SLOPES 3:1 OR STEEPER AND OTHER AREAS AS INDICATED IN THE PLANS THAT ARE INACCESSIBLE FOR MOWING.

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 OR CATCH BASINS 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) ALL DETOUR, ACCESS, SERVICE AND FRONTAGE ROADS SHALL BE CONSTRUCTED WITH A MINIMUM OF ONE (1) COURSE OF BASE MATERIAL BEFORE TRAFFIC IS INTERRUPTED ON EXISTING ROADS.

(2) THE CONTRACTOR SHALL BE REQUIRED TO REMOVE AND RESET MAILBOXES WHERE AND AS DIRECTED BY THE ENGINEER.

(3) 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.

ROAD CLOSURE

(1) NO LESS THAN SEVEN (7) DAYS PRIOR TO THE CLOSURE OF THE ROAD, THE CONTRACTOR SHALL NOTIFY THE FOLLOWING INDIVIDUALS OR AGENCIES COMPLETELY DESCRIBING THE AFFECTED ROADS AND THE APPROXIMATE DURATION OF THE CONSTRUCTION: THESE PARTIES INCLUDE, BUT ARE NOT LIMITED TO: (1) LOCAL LAW ENFORCEMENT OFFICE, (2) LOCAL FIRE DEPARTMENT, (3) AMBULANCE SERVICE, (4) LOCAL SCHOOL SUPERINTENDENT, (5) UNITED STATES POSTAL SERVICE, AND (6) LOCAL ROAD SUPERINTENDENT.

PAVEMENT MARKINGS

TEMPORARY PAVEMENT MARKING ON INTERMEDIATE LAYERS

(1) TEMPORARY PAVEMENT LINE MARKINGS ON INTERMEDIATE LAYERS OF PAVEMENT SHALL BE REFLECTIVE TAPE OR REFLECTORIZED PAINT INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAYS WORK. SHORT, UNMARKED SECTIONS SHALL NOT BE ALLOWED. THESE MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 716-05.01, PAINTED PAVEMENT MARKING (4" LINE), L.M.

FINAL PAVEMENT MARKING

(2) PERMANENT PAVEMENT LINE MARKINGS SHALL BE 4" 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. 716-12.01, ENHANCED FLATLINE THERMO PVMT MRKNG (4IN 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.

(3) PERMANENT PAVEMENT LINE MARKINGS SHALL BE 4" SPRAY THERMOPLASTIC (60 mil) 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. 716-13.01, SPRAY THERMO PVMT MRKNG (60 mil) (4IN 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.

PAVEMENT

PAVING

(1) THE CONTRACTOR SHALL BE REQUIRED TO COLD PLANE AND PAVE IN THE DIRECTION OF TRAFFIC.

RESURFACING

(2) WHERE DIRECTED BY THE TDOT ENGINEER, THE CONTRACTOR SHALL BE REQUIRED TO SHAPE PUBLIC SIDE ROADS, BUSINESS ENTRANCES, AND PRIVATE DRIVES, AS WELL AS CLEANING OF EXISTING DRAINS BEFORE PLACING MATERIALS. ALL COSTS ARE TO BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS OF CONSTRUCTION.

(3) ALL PUBLIC SIDE ROADS SHALL BE PAVED ONE PAVER WIDTH THROUGH THE INTERSECTION AS A MINIMUM. A SATISFACTORY TRANSITION FROM THE NEW PAVEMENT TO THE EXISTING GRADE OF THE INTERSECTING PUBLIC ROAD OR BUSINESS ENTRANCE SHALL BE PROVIDED. SHOULD THE PAVEMENT OF THE INTERSECTING PUBLIC ROAD BE DISTRESSED, THE RESURFACING WIDTH MAY BE INCREASED TO THE NORMAL RIGHT OF WAY LINE.

(4) PRIVATE DRIVEWAYS, FIELD ENTRANCES, AND BUSINESS ENTRANCES WILL BE RESURFACED A PAVER WIDTH (LANE WIDTH) AS A MINIMUM. A PAVEMENT TAPER TO TRANSITION THE NEW PAVEMENT SHALL BE REQUIRED, IT SHALL BE BASED ON AN ADDITIONAL ONE FOOT OF WIDTH PER ONE INCH DEPTH OF PAVEMENT. IF THE SHOULDER IS NARROW ENOUGH THAT THE SUM OF THE SHOULDER AND THE TRANSITION ARE LESS THAN A PAVER WIDTH, THE TRANSITION SHALL OCCUR WITHIN THE PAVER WIDTH. IF THE SUM OF THE SHOULDER AND THE TRANSITION IS GREATER THAN A PAVER WIDTH (LANE WIDTH), THE TRANSITION SHALL OCCUR OUTSIDE OF THE PAVER WIDTH.

(5) ON CURB AND GUTTER SECTIONS, PUBLIC ROAD INTERSECTIONS SHALL BE RESURFACED TO THE END OF RADIUS. A SATISFACTORY TRANSITION FROM THE NEW PAVEMENT TO THE EXISTING GRADE OF THE INTERSECTING PUBLIC ROAD SHALL BE PROVIDED.

(6) ON URBAN TYPICAL SECTIONS, (CURB AND GUTTER), RESIDENTIAL DRIVEWAYS AND BUSINESS ENTRANCES SHALL HAVE A MINIMUM WIDTH OF MATERIAL NOT LESS THAN ONE FOOT USED IN THE TRANSITION TO FEATHER THE PAVEMENT EDGE.

(7) IN ALL CASES, THE LENGTH OF THE PAVEMENT TRANSITION, THE THICKNESS AND WIDTH OF THE RESURFACING AND ANY ADDITIONAL PAVEMENT MATERIALS SHALL BE AS DIRECTED BY THE TDOT ENGINEER.

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). THE ROCK SHALL BE APPROVED BY A REPRESENTATIVE OF THE DIVISION OF MATERIALS AND TESTS BEFORE USE.

(2) THIS GRADED SOLID ROCK MATERIAL SHALL BE PLACED IN LAYERS NOT EXCEEDING FIVE FEET IN DEPTH.

SIGNING

(1) THE TOP OF THE SIGN FOOTINGS SHALL BE PLACED LEVEL WITH THE GROUND LINE.

(2) 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.

(3) 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.

(4) THE EXISTING FOOTINGS ARE TO BE REMOVED 6 INCHES BELOW GROUND LINE.

(5) 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.

(6) THE LENGTHS OF ALL SIGN SUPPORTS SHOWN ON THE SIGN SCHEDULE ARE APPROXIMATE AND ARE FOR ESTIMATING PURPOSES ONLY. THE CONTRACTOR SHALL VERIFY ALL SUPPORT LENGTHS AT THE SITE PRIOR TO ERECTION.

SIGNALIZATION

(1) EQUIPMENT AND INSTALLATION OF TRAFFIC SIGNALS SHALL COMPLY WITH TDOT STANDARD SPECIFICATIONS, SECTION 730.

(2) SALVAGEABLE EQUIPMENT SHALL BECOME THE PROPERTY OF THE CITY OF KNOXVILLE AND SHALL BE STOCKPILED AT A LOCATION DESIGNATED BY THE ENGINEER FOR PICKUP BY THE CITY OF KNOXVILLE.

(3) ANY SIGNAL HEADS, WHEN VISIBLE TO DRIVERS BUT NOT OPERATIONAL, SHALL BE COMPLETELY COVERED.

(4) SIGNAL HEADS SHALL FLASH A MINIMUM OF SEVEN (7) DAYS PRIOR TO ACTIVATION OF THE SIGNAL.

(5) THE CONTRACTOR SHALL CONTACT ERNIE PIERCE (CITY OF KNOXVILLE, 865-215-6731) A MINIMUM OF THIRTY (30) DAYS PRIOR TO ACTIVATION OF THE SIGNAL TO OBTAIN THE INITIAL SIGNAL TIMINGS.

(6) THE PROJECT ENGINEER SHALL NOTIFY THE LOCAL GOVERNMENTAL AGENCY RESPONSIBLE FOR TRAFFIC CONTROL MAINTENANCE AT LEAST ONE DAY IN ADVANCE OF THE COLD PLANING ACTIVITY AT SIGNALIZED INTERSECTIONS WHERE DETECTOR LOOPS ARE ON THE PAVEMENT. THE MAINTAINING AGENCY WILL THEN BE RESPONSIBLE FOR DISCONNECTING THE LOOP DETECTORS AND MAKING ANY NECESSARY TIMING ADJUSTMENTS IN THE SIGNAL CONTROLLER PRIOR TO THE CONSTRUCTION.

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GENERAL NOTES

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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2017	BR-NH-1(311)	2E

S.R. 1 KNOX CO.
47010-3232-94 (CONST.)

GENERAL NOTES (CONT'D.)

CONSTRUCTION WORK ZONE & TRAFFIC CONTROL

(1) ADVANCED WARNING SIGNS SHALL NCT 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 NCT REQUIRED PROVIDED THE SIGN FACE IS FULLY COVERED.

(4) TRAFFIC CONTROL DEVICES SHALL NCT BE DISPLAYED OR ERECTED UNLESS RELATED CONDITIONS ARE PRESENT NECESSITATING WARNING

(5) 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.

(6) 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.

EROSION PREVENTION AND SEDIMENT CONTROL

SEDIMENT CONTROL

(1) EPSC MEASURES SHALL BE INSTALLED AND FUNCTIONAL PRIOR TO ANY EARTH MOVING OPERATIONS, AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD EXCEPT AS SUCH WORK MAY BE NECESSARY TO INSTALL EPSC MEASURES.

(2) TEMPORARY EPSC MEASURES MAY BE REMOVED AT THE BEGINNING OF THE WORKDAY, BUT MUST BE REINSTALLED AT THE END OF THE WORKDAY OR BEFORE/DURING A PRECIPITATION EVENT.

(3) THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN A PROACTIVE METHOD TO PREVENT THE OFFSITE 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, OFFSITE 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). ARRANGEMENTS CONCERNING REMOVAL OF SEDIMENT ON ADJOINING PROPERTY MUST BE SETTLED WITH THE ADJOINING PROPERTY OWNER BEFORE REMOVAL OF SEDIMENT.

(4) 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) 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 SHALL NOT BE LOCATED CLOSER THAN 20 FEET FROM THE TOP BANK OF A STREAM. 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.

NATURAL RESOURCES

(6) 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.

(7) NEW CHANNEL CONSTRUCTION SHALL BE COMPLETED IN THE DRY AND STABILIZED FOR AT LEAST 72 HOURS PRIOR TO DIVERTING WATER FROM THE EXISTING AND/OR TEMPORARY CHANNEL.

(8) INSTREAM EPSC DEVICES REQUIRE THE TDOT ENVIRONMENTAL DIVISION, PERMITS SECTION REVIEW AND MUST BE PROCESSED BY THE PERMITS SECTION TO OBTAIN WATER QUALITY PERMITS.

(9) THE OPERATION OF EQUIPMENT IN WATERS OF THE STATE/U.S., INCLUDING WETLANDS AND EPHEMERAL, INTERMITTENT, AND PERENNIAL STREAMS, SHALL BE ONLY AS DEPICTED ON THE CONSTRUCTION PLANS AND/OR AS SO SPECIFIED IN THE WATER QUALITY PERMITS, IF APPLICABLE. ANY DISCREPANCIES BETWEEN PLANS AND PERMITS SHALL BE BROUGHT TO THE ATTENTION OF THE TDOT RESPONSIBLE PARTY AS SOON AS POSSIBLE. ADDITIONAL PERMITS REQUIRED BY THE CONTRACTOR'S METHOD OF OPERATION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN AFTER RECEIVING THE APPROVAL OF THE TDOT ENVIRONMENTAL DIVISION, PERMITS SECTION.

(10) THE WIDTH OF THE FILL ASSOCIATED WITH TEMPORARY CROSSINGS SHALL BE LIMITED TO THE MINIMUM NECESSARY FOR THE ACTUAL CROSSING, NOT TO EXCEED THE WIDTH SPECIFIED IN THE STANDARD DRAWING.

(11) STREAM BEDS SHALL NOT BE USED AS TRANSPORTATION ROUTES FOR CONSTRUCTION EQUIPMENT. TEMPORARY CULVERT CROSSINGS SHALL BE LIMITED TO ONE POINT PER STREAM AND EPSC MEASURES SHALL BE USED WHERE THE STREAM BANKS ARE DISTURBED. WHERE THE STREAMBED IS NOT COMPOSED OF BEDROCK, A PAD OF CLEAN ROCK SHALL BE USED AT THE CROSSING POINT AND CULVERTED TO PREVENT THE IMPOUNDMENT OF WATER FLOW. CLEAN ROCK IS ROCK OF VARIOUS TYPE AND SIZE, DEPENDING UPON APPLICATION, WHICH CONTAINS NO FINES, SOILS, OR OTHER WASTES OR CONTAMINANTS. OTHER MATERIALS USED FOR ALL TEMPORARY FILLS SHALL BE COMPLETELY REMOVED IN THEIR ENTIRETY AFTER THE WORK IS COMPLETED AND THE AFFECTED AREAS RETURNED TO PREEXISTING ELEVATIONS. ALL TEMPORARY CROSSINGS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. DWG. EC-STR-25 UNLESS SPECIFICALLY ADDRESSED IN THE EPSC PLANS. ALTERNATIVELY, PLACING A TEMPORARY BRIDGE (E.G. BAILEY BRIDGE OR EQUIVALENT, TIMBERS, ETC.) FROM TOP OF BANK TO TOP OF BANK OR THE APPROPRIATE USE OF BARGES AT THE CROSSING TO AVCID DISTURBANCE OF THE STREAMBED IS AN ACCEPTABLE OPTION.

(12) HEAVY EQUIPMENT WORKING IN WETLANDS WITH PERMITTED TEMPORARY IMPACTS SHALL BE PLACED ON MATS, OR OTHER MEASURES MUST BE TAKEN TO MINIMIZE SOIL DISTURBANCE AND COMPACTION UNLESS SPECIFICALLY ADDRESSED IN THE CONSTRUCTION PLANS. ANY MATS AND OTHER MEASURES USED FOR HEAVY EQUIPMENT SHALL BE REMOVED IN THEIR ENTIRETY AFTER THE WORK IS COMPLETED. ALL AFFECTED AREAS SHOULD BE RETURNED TO PRE-EXISTING CONDITIONS.

(13) WETLANDS SHALL NOT BE USED AS EQUIPMENT STORAGE, STAGING, OR TRANSPORTATION AREAS, UNLESS SPECIFICALLY PROVIDED FOR IN THE CONSTRUCTION PLANS AND PERMITS.

(14) THE CONTRACTOR SHALL TAKE APPROPRIATE STEPS BEFORE ALL CONSTRUCTION AND MAINTENANCE ACTIVITIES TO ENSURE THAT ENVIRONMENTAL FEATURES (E.G., STREAMS, WETLANDS, SPRINGS, ETC.) ARE NOT IMPACTED BEYOND PERMITTED LOCATIONS. IF THE CONTRACTOR OR TDOT INSPECTOR IS UNSURE OF THE IDENTITY OF AN ENVIRONMENTAL FEATURE, THE INSPECTOR SHALL CONTACT THE TDOT REGION ENVIRONMENTAL TECH GROUP IMMEDIATELY.

SPECIES

(15) NO ACTIVITY MAY SUBSTANTIALLY DISRUPT THE MOVEMENT OF THOSE SPECIES OF AQUATIC LIFE INDIGENOUS TO THE WATER BODY, INCLUDING THOSE SPECIES THAT NORMALLY MIGRATE THROUGH THE AREA.

INSPECTION, MAINTENANCE & REPAIR

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

EROSION PREVENTION

(17) CONSTRUCTION SHALL BE SEQUENCED AND STAGED TO MINIMIZE THE EXPOSURE TIME OF GRADED OR DENUDED SOIL AREAS, PRESERVE TOPSOIL, AND MINIMIZE SOIL COMPACTION.

(18) THE ACCEPTED EPSC PLAN SHALL REQUIRE THAT EPSC MEASURES BE IN PLACE 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.

(19) NO WORK SHALL BE STARTED UNTIL THE CONTRACTOR'S PLAN FOR THE STAGING OF OPERATIONS, INCLUDING THE PLAN FOR STAGING OF TEMPORARY AND PERMANENT EPSC MEASURES, HAS BEEN ACCEPTED BY THE TDOT RESPONSIBLE PARTY. THE CONTRACTOR'S EPSC PLAN SHALL INCORPORATE AND SUPPLEMENT, AS ACCEPTABLE, THE BASIC EPSC DEVICES ON THE EPSC PLAN.

(20) TEMPORARY STABILIZATION SHALL BE INITIATED WITHIN 14 CALENDAR DAYS 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 MEASURES IN DISTURBED AREAS SHALL BE INITIATED WITHIN 14 CALENDAR DAYS AFTER FINAL GRADING OF ANY PHASE OF CONSTRUCTION.

(21) STEEP SLOPES SHALL BE TEMPORARILY STABILIZED NOT LATER THAN 7 DAYS AFTER CONSTRUCTION ACTIVITY ON THE SLOPE HAS TEMPORARILY OR PERMANENTLY CEASED. STEEP SLOPES ARE DEFINED AS A NATURAL OR CREATED SLOPE OF 35% GRADE OR GREATER REGARDLESS OF HEIGHT.

(22) PERMANENT STABILIZATION WILL REPLACE TEMPORARY MEASURES AS SOON AS PRACTICABLE. PRIORITY SHALL BE GIVEN TO FINISHING OPERATIONS AND PERMANENT EPSC MEASURES OVER TEMPORARY EPSC MEASURES ON ALL PROJECTS.

(23) TEMPORARY OR PERMANENT STABILIZATION MUST BE FREE OF FINES (SILT AND CLAY SIZED PARTICLES). UNPACKED GRAVEL CONTAINING FINES OR CRUSHER-RUN WILL NOT BE CONSIDERED SUFFICIENT STABILIZATION.

(24) DELAYING THE PLANTING OF COVER VEGETATION UNTIL WINTER MONTHS OR DRY MONTHS SHOULD BE AVOIDED.

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GENERAL NOTES

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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2017	BR-NH-1(311)	2F

S.R. 1 KNOX CO.
47010-3232-94 (CONST.)

GENERAL NOTES (CONT'D.)

EROSION PREVENTION AND SEDIMENT CONTROL (CONT'D.)

PERMITS, PLANS, RECORDS

(25) 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/CR 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).

(26) 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.

(27) 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.

(28) 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

(29) 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

(30) 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.

(31) 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.

(32) 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.

(33) 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.

(34) 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.

(35) 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.

(36) 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.

(37) ALL PAINT CONTAINERS SHALL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT SHALL BE DISPOSED OF ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS AND APPLICABLE STATE AND LOCAL REGULATIONS.

(38) 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.

(39) 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.

(40) 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.

(41) 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

(42) 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.

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 1/2 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.

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.

SEALED BY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES
AND
SPECIAL NOTES

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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2017	BR-NH-1(311)	2G

S.R. 1 KNOX CO.
47010-3232-94 (CONST.)

SPECIAL NOTES (CONT'D.)

SIGNALIZATION

(1) THE DESIGN OF TRAFFIC SIGNAL SUPPORT POLES, MAST ARMS, STRAIN POLES, ETC. SHALL BE IN CONFORMANCE WITH THE AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, CURRENT EDITION. OVERHEAD CANTILEVERED TRAFFIC SIGNAL STRUCTURES SHALL BE DESIGNED FOR FATIGUE CATEGORY 1.

(2) ALL CIRCULAR AND ARROW INDICATIONS WITHIN ALL VEHICULAR SIGNAL HEADS PROPOSED FOR THIS PROJECT SHALL CONSIST OF AN LED (LIGHT EMITTING DIODE) SIGNAL MODULE UNLESS OTHERWISE NOTED IN THE PLANS.

(3) ALL PEDESTRIAN TRAFFIC CONTROL INDICATIONS, WHERE CALLED FOR, SHALL CONSIST OF LED MODULES DISPLAYING "WALKING PERSON" AND "HAND" SYMOBLS, ALONG WITH A PEDESTRIAN INTERVAL COUNTDOWN DISPLAY, WITHIN THE SAME FACE UNLESS OTHERWISE NOTED IN THE PLANS.

(4) CIRCULAR INDICATIONS SHALL MEET "ITE VTCSH-LED CIRCULAR SIGNAL SUPPLEMENT" FOR EXPANDED/EXTENDED VIEW.

(5) PEDESTRIAN INDICATIONS SHALL MEET "ITE PTCSI PART 2".

(6) SIGNAL HEADS SHALL HAVE ITE COMPLIANT INCANDESCENT-LOOK LED MODULES.

(7) INCANDESCENT OR SCREW-IN MODULES ARE NOT ACCEPTABLE.

(8) COMPATIBILITY WITH CONFLICT MONITORS AND LOAD SWITCHES SHALL BE TESTED AND CONFIRMED.

(9) LOCATIONS OF SIGNAL POLES AND PULL BOXES ARE APPROXIMATE AND CAN BE ADJUSTED UP TO 2 FEET IN THE FIELD TO AVOID UTILITY CONFLICT, SUBJECT TO THE APPROVAL OF THE TDOT INSPECTOR. THE MAST ARM AND POLE LENGTH TO BE FIELD VERIFIED PRIOR TO FABRICATION. IF ANY POLES ARE RELOCATED, THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER TO PROVIDE ADDITIONAL SIDEWALK OR PEDESTAL POLES TO MAINTAIN ADA ACCESSIBILITY TO PUSHBUTTONS.

(10) ALL DETECTION SHALL BE WAVETRONIX SMARTSENSOR MATRIX. RADAR DETECTION UNITS SHALL BE PLACED IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS.

(11) NEW POLES AND ARMS SHALL BE BLACK POWDER COAT.

(12) THE SIGNAL CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE CITY SIGNAL MAINTENANCE SUPERVISOR, ALLEN ARNETT, AT 865-215-6730 OR 865-215-6100 TO OBTAIN WIRING COLOR-CODE FOR 12-POSITION QUICK DISCONNECTS REQUIRED BY THE CITY.

(13) THE SIGNAL CONTRACTOR IS RESPONSIBLE FOR CONTACTING AND DELIVERING THE CONTROLLER AND SIGNAL MONITOR TO THE CITY SIGNAL MAINTENANCE SUPERVISOR, ALLEN ARNETT, AT 865-215-6730 OR 865-215-6100 FOR TESTING AND PROGRAMMING, A MINIMUM OF 14 WORKING DAYS PRIOR TO PLACING THE SIGNAL IN STOP-AND-GO OPERATION.

(14) ALL SIGNAL CABLE SHALL BE INTERNATIONAL MUNICIPAL SIGNAL ASSOCIATION (IMSA) APPROVED CABLE:

A. TRAFFIC SIGNAL CABLE SHALL BE IMSA SPECIFICATION 20-2, 12-CONDUCTOR STRANDED WIRE.

B. PEDESTRIAN SIGNAL CABLE SHALL BE IMSA SPECIFICATION 20-2, 7-CONDUCTOR SHIELDED STRANDED WIRE.

C. PEDESTRIAN PUSHBUTTON CABLE SHALL BE IMSA SPECIFICATION 50-2, 2-CONDUCTOR STRANDED WIRE.

D. RADAR DETECTOR WIRE SHALL BE PER MANUFACTURER'S SPECIFICATIONS.

E. PRE-EMPT CALBE SHALL BE PER MANUFACTURER'S SPECIFICATIONS.

(15) THE SIGNAL SHALL BE PROVIDED WITH SONEM 2000 EMERGENCY VEHICLE PREEMPTION THAT WILL BE ACTIVATED BY THE VEHICLE SIREN.

(16) THE SIGNAL CONTRACTOR SHALL NOTIFY THE CITY IN WRITING UPON COMPLETION OF ALL WORK REGARDING THE SIGNAL INSTALLATION.

(17) THE SIGNAL CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE SIGNAL UNTIL THE FINAL APPROVAL IS PROVIDED TO THE CITY TO ASSUME MAINTENANCE OF THE SIGNAL.

(18) ALL SIGNAL POLES SHALL BE PROVIDED WITH HANDHOLE COVER, POLE CAPS, ANCHOR BOLT COVERS, THREADED OPENINGS FOR CABLE NIPPLE AND WEATHERHEADS.

(19) PROVIDE SPARE 2" CONDUIT IN POLES A AND C FOR STREET LIGHT CIRCUIT.

EROSION PREVENTION AND SEDIMENT CONTROL

PROJECT COMMITMENTS

(1) SEE PROJECT COMMITMENTS, SHEET 1C, FOR DETAILS RELATING TO SPECIAL ENVIRONMENTAL COMMITMENTS REQUIRED BY THIS PROJECT.

JACKSON AVENUE CONSTRUCTION ENTRANCE

(1) ALL COST ASSOCIATED WITH CONSTRUCTING, ENVIRONMENTAL COMPLIANCE, REMOVAL AND MAINTENANCE OF THE CONSTRUCTION ENTRANCE: INCLUDING BUT LIMITED TO THE GRADED SOLID ROCK, GEOTEXTILE (TYPEIII) (EROSION CONTROL), LABOR, AND ANY OTHER INCIDENTALS SHALL BE INCLUDED IN THE UNIT PRICE FOR ITEM NO. 203-50

(2) THE CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED OF SOUND, NON-DESTRUCTABLE SANDSTONE OR LIMESTONE WITH A MAXIMUM SIZE OF 3 FEET.

(3) IT IS THE CONTRACTOR'S RESPONSIBILITY TO DESIGN THE CONSTRUCTION ENTRANCE FOR HYDRAULIC CONDITIONS AT THE SITE.

HAZARDOUS MATERIALS

(1) HISTORIC PETROLEUM CONTAMINATION EXISTS ONSITE. SOILS WERE TESTED AND ARE BELOW TDEC REGULATORY LEVELS. IF THERE ARE CONCERNS REGARDING ODORS AT THE TIME OF CONSTRUCTION, THE CONTRACTOR CAN CONTACT THE HAZMAT SECTION OF THE ENVIRONMENTAL DIVISION. GROUNDWATER IS CONTAMINATED WITH MINOR AMOUNTS OF BENZENE, A GASOLINE-RELATED COMPOUND. IF GROUNDWATER IS ENCOUNTERED DURING CONSTRUCTION, NOTIFY THE HAZMAT SECTION FOR DISPOSAL: 615-253-2470.

RAILROAD

(1) THE CONTRACTOR SHALL NOT, FOR ANY REASON, STORE CONSTRUCTION EQUIPMENT UPON NOR STORE OR DUMP WASTE CONSTRUCTION MATERIALS UPON THE RAILROAD'S RIGHT-OF-WAY.

(2) THE CONTRACTOR SHALL CONDUCT HIS WORK SO AS TO PROTECT THE RAILROAD'S TRACK FACILITIES AND PROPERTY FROM DAMAGE. THE CONTRACTOR SHALL NOTIFY THE RAILROAD OF ANY WORK BY THE CONTRACTOR WITHIN 25 FEET OF THE RAILROAD'S RIGHT-OF-WAY FOR THE RAILROAD TO DETERMINE FLAGGING NEEDS.

(3) SEE NORFOLK SOUTHERN SPECIAL PROVISIONS FOR FLAGGING AND INSURANCE REQUIREMENTS.

(4) THE CONTRACTOR SHALL COORDINATE HIS WORK ON OR ADJACENT TO RAILROAD RIGHT-OF-WAY WITH THE FOLLOWING REPRESENTATIVES OF THE RAILROAD:

MR. SHANE THOMASON – DIVISION ENGINEER
NORFOLK SOUTHERN RAILWAY
CENTRAL DIVISION OFFICE
7208 OLD RUTLEDGE PIKE
KNOXVILLE, TN 37914
PHONE: (865) 521-1409
E-MAIL: Shane.Thomason@nscorp.com

MR. ELLIS MAYS, ENGINEER – PUBLIC IMPROVEMENTS
NORFOLK SOUTHERN RAILWAY
1200 PEACHTREE STREET, NE
ATLANTA, GA 30309
PHONE: (404) 529-1256
EMAIL: Ellis.Mays@nscorp.com

(5) NORFOLK SOUTHERN LOCAL SIGNAL SUPERVISOR SHOULD BE NOTIFIED IN ADVANCE OF ANY CONSTRUCTION ACTIVITY NEAR THE CROSSING SO THAT NORFOLK SOUTHERN MAY LOCATE AND PROTECT FACILITIES.

SOUTHERN GLASS BUILDING

(1) TDOT WILL CONDUCT A SITE VISIT OF EACH UNIT IN THE SOUTHERN GLASS BUILDING BEFORE CONSTRUCTION BEGINS TO TAKE PHOTOGRAPHS, VIDEO, ETC. OF THE CURRENT CONDITIONS FOR COMPARISON IF COMPLAINTS ARE FILED DURING OR AFTER CONSTRUCTION.

(2) THE CONTRACTOR SHALL TAKE EXTREME CARE IN PROTECTING THE SOUTHERN GLASS BUILDING, BY INSTALLING A PROTECTIVE BARRIER AROUND THE BUILDING'S SIDE THAT IS EXPOSED TO THE BRIDGE CONSTRUCTION. THE USE OF THIS BARRIER SHALL BE LIMITED TO TIMES WHEN THE CONTRACTOR IS WORKING AROUND THE SOUTHERN GLASS BUILDING. THE CONTRACTOR SHALL TAKE GREAT CARE IN MINIMIZING ANY VISUAL RESTRICTIONS TO THE SOUTHERN GLASS BUILDING. ANY DAMAGES INCURRED TO THE BUILDING OR PROPERTY SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE IN A TIMELY MATTER. COST OF THE BARRIER, MATERIAL INSTALLATION AND REMOVAL SHALL NOT BE MEASURED AND PAID FOR SEPARATELY, BUT THE COSTS SHALL BE INCLUDED IN THE COST OF OTHER ITEMS.

(3) THE CONTRACTOR SHALL MAKE PROVISIONS TO MONITOR VIBRATIONS AT THE SOUTHERN GLASS BUILDING. THIS MONITORING SHALL BE DONE INDEPENDENTLY OF TDOT'S MONITORING. ALL DATA RESULTS SHALL BE SUBMITTED TO TDOT ON A QUARTERLY BASIS. THE COST OF THE MONITORING AND ALL ASSOCIATED ITEMS WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COST WILL BE INCLUDED IN THE COST OF OTHER ITEMS.

(4) THE CONTRACTOR SHALL PROVIDE THE SOUTHERN GLASS BUILDING HOME OWNERS ASSOCIATION WITH A 2 WEEK WRITTEN NOTICE OF THEIR INTENT TO REMOVE ALL ITEMS WITHIN THE PROPOSED RIGHT-OF-WAY AND CONSTRUCTION EASEMENTS AND OF ANY UPCOMING MILESTONES. THE CONTRACTOR WILL COORDINATE, RESOLVE ISSUES AND PERIODICALLY MEET WITH THE SOUTHERN GLASS BUILDING HOME OWNERS ASSOCIATION. TDOT WILL PERIODICALLY SEND EMAIL UPDATES TO THE SOUTHERN GLASS BUILDING HOME OWNERS ASSOCIATION REGARDING FUTURE CONSTRUCTION SEQUENCING.

SCOPE OF WORK

(1) THIS PROJECT INCLUDES THE GRADING, DRAINAGE, BASE, AND PAVEMENT FOR S.R. 1 (BROADWAY) TO LINES AND GRADES AS INDICATED ON THE PLAN, PROFILE, AND TYPICAL CROSS SECTION SHEETS OR AS DIRECTED BY THE TDOT SUPERVISOR.

(2) CONSTRUCTION OF A BRIDGE WITH A SUPERSTRUCTURE CONSISTING OF 5 SPANS OF CONTINUOUS STEEL WELDED PLATE GIRDERS (60" WEB) AND 3 SPANS OF CONTINUOUS PRECAST PRESTRESSED CONCRETE BOX BEAMS (18" X 36") WITH COMPOSITE CONCRETE DECK SLAB.

(3) CONSTRUCTION OF A SIDE ROAD (DEPOT AVENUE) TO LINES AND GRADES AS INDICATED ON THE PLANS OR AS DIRECTED BY THE TDOT SUPERVISOR.

(4) CONSTRUCTION OF A RETAINING WALL ON THE SOUTHWEST CORNER OF THE INTERSECTION OF S.R. 1 (BROADWAY) AND DEPOT AVENUE AS INDICATED ON THE PLANS OR AS DIRECTED BY THE TDOT SUPERVISOR.

(5) INSTALLATION OF A COMPLETE NEW SIGNAL SYSTEM AT THE INTERSECTION OF S.R. 1 (BROADWAY) AND DEPOT AVENUE AS INDICATED ON THE PLANS OR AS DIRECTED BY THE TDOT SUPERVISOR.

(6) CONSTRUCTION OF ALL DRAINAGE STRUCTURES, APPLICATION OF EROSION PREVENTION AND SEDIMENT CONTROL DEVICES, SODDING, PAVEMENT MARKINGS, SIGNING, INSTALLATION OF TRAFFIC CONTROL DEVICES, AND OTHER DESIGN FEATURES INDICATED ON THE PLANS OR AS DIRECTED BY THE TDOT SUPERVISOR.

SEALED BY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SPECIAL NOTES
AND
SCOPE OF WORK

TENNESSEE D.O.T. | DESIGN DIVISION | FILE NO.

UTILITY OWNERS

ELECTRIC: KUB (POWER)
ATTN. GABRIEL J. BOLAS, PE
P.O. BOX 59017
KNOXVILLE, TN 37950
PHONE: (865)524-2911
FAX: (865)558-2436
DIR: (865)558-2100

GAS: KUB (GAS)
ATTN. GABRIEL J. BOLAS, PE
P.O. BOX 59017
KNOXVILLE, TN 37950
PHONE: (865)524-2911
FAX: (865)558-2436
DIR: (865)558-2100

WATER: KUB (WATER)
ATTN. GABRIEL J. BOLAS, PE
P.O. BOX 59017
KNOXVILLE, TN 37950
PHONE: (865)524-2911
FAX: (865)558-2436
DIR: (865)558-2100

SEWER: KUB (SEWER)
ATTN. GABRIEL J. BOLAS, PE
P.O. BOX 59017
KNOXVILLE, TN 37950
PHONE: (865)524-2911
FAX: (865)558-2436
DIR: (865)558-2100

TELEPHONE: AT&T (BELL SOUTH)
ATTN. VAUGHN JONES
9733 PARKSIDE DRIVE
KNOXVILLE, TN 37922
PHONE: (865)539-8579
FAX: (865)470-8519

CABLE: XFINITY (COMCAST)
ATTN. ARCHIE BAKER
5720 ASHEVILLE HIGHWAY
KNOXVILLE, TN 37924
PHONE: (865)862-5060
FAX: (865)862-5098

FIBER OPTIC: SPRINT COMMUNICATION
ATTN. STEVE THOMPSON
411 HUGER STREET
COLUMBIA, SC 29201
PHONE: (404)649-2355
CELL: (678)852-2726

12-01-11: REMOVED PROPOSED DRAINAGE, SLOPE AND CONSTRUCTION EASEMENTS, AND UPDATED THE PROPOSED R.O.W. AND R.O.W. ACQUISITION TABLE FOR TRACT NO. 11 ACCORDINGLY.
ADDED PROPERTY OWNER JEAN WELLMAN HOUGH AND DEED BOOK 1221 AND PAGE 930 TO TRACT NO. 11.
ADDED DEED BOOK 2007 AND PAGE 201 TO TRACT NO. 12.
REMOVED R.O.W. ACQUISITION TABLE FOOTNOTE NO. 1 AND MADE FOOTNOTE NO. 2 FOOTNOTE NO. 1.

7-13-12: ADDED TRACT NO. 7, AND FOOTNOTE NO. 2 FOR TRACT NO. 7.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	BR-STP-1(156)	3A
CONST.	2017	BR-NH-1(311)	3A

S.R. 1 KNOX CO.
47010-2232-94 (R.O.W.)
47010-3232-94 (CONST.)

R.O.W. ACQUISITION TABLE

TRACT NO.	PROPERTY OWNERS	COUNTY RECORDS				TOTAL AREA (ACRES)			AREA TO BE ACQUIRED (ACRES)			AREA REMAINING (ACRES)		EASEMENT (SQUARE FEET)			
		TAX MAP NO.	PARCEL NO.	DEED BK.	PAGE	LEFT	RIGHT	TOTAL	LEFT	RIGHT	TOTAL	LEFT	RIGHT	AERIAL ③	PERM. DRAINAGE	SLOPE	CONST. ①
1	~~COLT PROPERTIES~~	~~94L~~	~~B-16~~	~~20020430~~	~~0090033~~	~~0.122~~											
2	~~KNOXVILLE'S COMMUNITY DEVELOPMENT CORPORATION~~	~~94L~~	~~C-1.02~~	~~1944~~	~~443~~		~~0.122~~										
3	~~COLT PROPERTIES~~	~~94L~~	~~B-16.01~~	~~20020430~~	~~0090032~~	~~0.540~~											
		~~94L~~	~~B-8~~	~~20020430~~	~~0090031~~												
		~~94L~~	~~B-7~~	~~20020430~~	~~0090031~~												
		~~94L~~	~~B-6~~	~~20020430~~	~~0090031~~												
4	~~SUMMIT TOWERS II, L.P.~~	~~94L~~	~~C-1.01~~	~~20030627~~	~~0121021~~		~~2.498~~										
5	~~CRABTREE PROPERTIES, LLC.~~	~~94E~~	~~J-48~~	~~20050627~~	~~0104702~~		~~0.888~~										
6	~~ROBERT A. KEENER~~	~~94L~~	~~B-2~~	~~1875~~	~~624~~	~~0.217~~											
② 7	SOUTHEASTERN GLASS BLDG. LLC	94E	J-6	20080128	0056589		0.299										4300 ④
8	SMITH & HAMMAKER ENTERPRISES, INC.	94E	L-9	20050314	0072110	4.223	0.194		0.418 *	0.194 **	0.612	3.805	0.000				
9	SMITH & HAMMAKER ENTERPRISES, INC.	94E	L-8	20050314	0072110	0.619			1670 ***		1670 S.F.	0.581				755	2235
9S	SMITH & HAMMAKER ENTERPRISES, INC.	94E	L-8	20050314	0072110										2100		
10	DEPOT PROPERTIES, INC.	94E	K-14	2112	434		1.297			0.245	0.245		1.052			140	1865
		94E	K-14.01	2112	434												
11	WILLIAM EUGENE MONDAY, III; JEAN WELLMAN HOUGH	94E	L-7	1634	872	0.369			0.121		0.121	0.248					
		94E	L-7	1221	930												
12	CAREY R. WALLACE ETAL	94E	K-1	20040610	0113637		0.415			1905 S.F.	1905 S.F.		0.371			650	1,400
		94E	K-1	2007	201												
13	~~AT&T COMMUNICATIONS~~	~~94E~~	~~K-2~~	~~1806~~	~~1050~~		~~1.273~~										
14	~~CLIFFORD E. GOSS, JR., & WIFE CHERIE PIERCY GOSS~~	~~94E~~	~~L-4~~	~~19990820~~	~~0014982~~	~~0.179~~											
15	NORFOLK SOUTHERN RAILWAY COMPANY													0.547 AC.			1.263 AC. ⑤
16	~~LATCHMAN N PERSAUD~~	~~94E~~	~~L-6~~	~~20021220~~	~~0054654~~	~~0.061~~											
17	~~ROBERT A KEENER~~	~~94L~~	~~B-3~~	~~1544~~	~~956~~	~~0.212~~											
18	~~CITY OF KNOXVILLE~~	~~94E~~	~~J-5.02~~	~~20151211~~	~~0035303~~												
19	CITY OF KNOXVILLE	94E	J-5.03	20151211	0035303												2870 ⑥
20	CITY OF KNOXVILLE	94E	J-4	20151211	0035303												2375 ⑥
21	ERNIE AND PAMELA H. GROSS	94E	J-3	2022	506												3410 ⑥
22	CITY OF KNOXVILLE	94E	J-2	20151211	0035303												0.052 AC. ⑥
23	CITY OF KNOXVILLE	94E	J-1.01	20091230	0043876												0.274 AC. ⑥
24	CITY OF KNOXVILLE	94E	J-1	20151211	0035303												0.056 AC. ⑥

* TRACT NO. 8 - INCLUDES 4,928 S.F. FOR PROP. RAILROAD R.O.W. (REQUIRED R.O.W. FOR NORFOLK SOUTHERN RAILWAY COMPANY)
** TRACT NO. 8 - INCLUDES 268 S.F. FOR PROP. RAILROAD R.O.W. (REQUIRED R.O.W. FOR NORFOLK SOUTHERN RAILWAY COMPANY)
*** TRACT NO. 9 - INCLUDES 530 S.F. FOR PROP. RAILROAD R.O.W. (REQUIRED R.O.W. FOR NORFOLK SOUTHERN RAILWAY COMPANY)

① TO BE USED FOR WORKING ROOM.

② FOR IMPAIRED ACCESS.

③ REQUIRED R.O.W. BY AERIAL EASEMENT TO TDOT FROM NORFOLK SOUTHERN RAILWAY COMPANY.

④ FOR BUILDING EXTERIOR PROTECTION ALONG WEST AND NORTH FACADE.

⑤ FOR CONSTRUCTION STAGING AREA. INCLUDES 46,330 S.F. FROM LOCATION 1, 5,320 SF FOR LOCATION 2 AND 3,385 SF FOR LOCATION 3.

⑥ FOR JACKSON AVENUE CONSTRUCTION ENTRANCE.

DISTURBED AREA

IN BETWEEN SLOPE LINES	2.713 (AC)
15 FOOT WIDE STRIP (OUTSIDE SLOPE LINES)	0.495 (AC)
LOCATION 1 STAGING AREA CONSTRUCTION EASEMENT	1.064 (AC)
LOCATION 2 STAGING AREA CONSTRUCTION EASEMENT	0.122 (AC)
LOCATION 3 STAGING AREA CONSTRUCTION EASEMENT	0.078 (AC)
JACKSON AVE. CONST. ENTRANCE (SLOPE LINES + 15 FT. WIDE STRIP)	0.839 (AC)
TOTAL DISTURBED AREA	5.311 (AC)

UTILITY NOTES

(1) THE LOCATIONS OF UTILITIES SHOWN WITHIN THESE PLANS ARE APPROXIMATE ONLY. EXACT LOCATIONS SHALL BE DETERMINED IN THE FIELD BY CONTACTING THE UTILITY COMPANIES INVOLVED. NOTIFICATION BY CALLING THE TENNESSEE ONE CALL SYSTEM, INC., AT 1-800-351-1111 AS REQUIRED BY TCA 65-31-106 WILL BE REQUIRED.

(2) UNLESS OTHERWISE NOTED, ALL UTILITY ADJUSTMENTS WILL BE PERFORMED BY THE UTILITY OR IT'S REPRESENTATIVE. THE CONTRACTOR AND UTILITY OWNERS WILL BE REQUIRED TO COOPERATE WITH EACH OTHER IN ORDER TO EXPEDITE THE WORK REQUIRED BY THIS CONTRACT. ON CONTRACTS WHERE CONSTRUCTION STAKES, LINES, AND GRADES ARE CONTRACT ITEMS, THE CONTRACTOR WILL BE REQUIRED TO PROVIDE RIGHT-OF-WAY OR SLOPE STAKES, DITCH OR STREAM BED GRADES, OR OTHER ESSENTIAL SURVEY STAKING TO PREVENT CONFLICTS WITH THE HIGHWAY CONSTRUCTION. FREQUENTLY, THIS WILL BE REQUIRED AS THE FIRST ITEM OF WORK AND AT ANY LOCATION ON THE PROJECT DIRECTED BY THE ENGINEER.

(3) THE CONTRACTOR WILL PROVIDE ALL NECESSARY PROTECTIVE MEASURES TO SAFEGUARD EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION OF THIS PROJECT. IN THE EVENT THAT SPECIAL EQUIPMENT IS REQUIRED TO WORK OVER AND AROUND THE UTILITIES, THE CONTRACTOR WILL BE REQUIRED TO FURNISH SUCH EQUIPMENT. THE COST OF PROTECTING UTILITIES FROM DAMAGE AND FURNISHING SPECIAL EQUIPMENT WILL BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS OF CONSTRUCTION.

(4) PRIOR TO SUBMITTING HIS BID, THE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR CONTACTING OWNERS OF ALL AFFECTED UTILITIES IN ORDER TO DETERMINE THE EXTENT TO WHICH UTILITY RELOCATIONS AND/OR ADJUSTMENTS WILL HAVE UPON THE SCHEDULE OF WORK FOR THE PROJECT. WHILE SOME WORK MAY BE REQUIRED 'AROUND' UTILITY FACILITIES THAT WILL REMAIN IN PLACE, OTHER UTILITY FACILITIES MAY NEED TO BE ADJUSTED CONCURRENTLY WITH THE CONTRACTOR'S OPERATIONS. ADVANCE CLEAR CUTTING MAY BE REQUIRED BY THE ENGINEER AT ANY LOCATION WHERE CLEARING IS CALLED FOR IN THE SPECIFICATIONS AND CLEAR CUTTING IS NECESSARY FOR A UTILITY RELOCATION. ANY ADDITIONAL COST WILL BE INCLUDED IN THE UNIT PRICE BID FOR THE CLEARING ITEM SPECIFIED IN THE PLANS.

(5) THE CONTRACTOR SHALL NOTIFY EACH INDIVIDUAL UTILITY OWNER OF HIS PLAN OF OPERATION IN THE AREA OF THE UTILITIES. PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL CONTACT THE UTILITY OWNERS AND REQUEST THEM TO PROPERLY LOCATE THEIR RESPECTIVE UTILITY ON THE GROUND. THIS NOTIFICATION SHALL BE GIVEN AT LEAST THREE (3) BUSINESS DAYS PRIOR TO COMMENCEMENT OF OPERATIONS AROUND THE UTILITY IN ACCORDANCE WITH TCA 65-31-106.

RIGHT-OF-WAY NOTES

(1) IT IS INTENDED THAT ALL BUILDINGS AND/OR PORTIONS OF BUILDINGS THAT ARE WITHIN THE PROPOSED RIGHT-OF-WAY AND/OR EASEMENT LINES FOR THE PROJECT BE REMOVED THERE FROM IN THE PROCESS OF RIGHT-OF-WAY ACQUISITION. IF ANY SUCH BUILDINGS OR IMPROVEMENTS ARE NOT REMOVED IN THE COURSE OF RIGHT-OF-WAY ACQUISITION, THE CIVIL ENGINEERING MANAGER 2, DESIGN DIVISION AND THE CIVIL ENGINEERING MANAGER 1, REGIONAL DESIGN OFFICE, ARE TO BE NOTIFIED IN SUFFICIENT TIME TO PERMIT HAVING SUCH REMOVALS DESIGNATED AS A PART OF THE CONSTRUCTION CONTRACT.

(2) ALL RAMPS MUST CONFORM TO THE DEPARTMENT'S "POLICY ON FINANCING CONSTRUCTION OF PUBLIC ROAD INTERSECTIONS AND DRIVEWAYS ON HIGHWAY RESURFACING, RECONSTRUCTION AND CONSTRUCTION PROJECTS ON NEW LOCATIONS", THE MANUAL ON RULES AND REGULATIONS FOR CONSTRUCTING DRIVEWAYS ON STATE HIGHWAY RIGHT-OF-WAY, STANDARD DRAWING RP-R-1, AND OTHER ACCEPTED DESIGN AND SAFETY STANDARDS.

(3) EXISTING PAVED DRIVEWAY PER TRACT REMAINDER WILL BE REPLACED IN KIND TO A TOUCHDOWN POINT.

(4) WHERE THE EXISTING DRIVEWAY IS UNPAVED AND THE PROPOSED DRIVEWAY EXCEEDS 7 PERCENT IN GRADE, EACH DRIVEWAY WILL BE PAVED TO A TOUCHDOWN POINT OR UNTIL THE GRADE IS LESS THAN 7 PERCENT.

(5) WHERE THE EXISTING DRIVEWAY IS UNPAVED AND THE PROPOSED DRIVEWAY IS LESS THAN 7 PERCENT IN GRADE, EACH DRIVEWAY WILL BE PAVED A SHOULDER WIDTH FROM THE EDGE OF PAVEMENT AND THE REMAINDER OF THAT DRIVEWAY REPLACED IN KIND TO A TOUCHDOWN POINT.

(6) ANY NECESSARY PAVING OF DRIVEWAYS WILL BE DONE DURING PAVING OPERATIONS ON THE MAIN ROADWAY.

(7) NEW DRIVEWAYS PROVIDED IN THE PLANS WILL BE PAVED BASED ON THE 7 PERCENT CRITERIA. THOSE 7 PERCENT OR STEEPER IN GRADE WILL BE PAVED AND THOSE FLATTER THAN 7 PERCENT WILL BE COVERED WITH BASE STONE.

RIGHT-OF-WAY NOTES (CONT'D.)

(8) ON PROJECTS WITHOUT CURB AND GUTTER THAT ARE ON STATE ROUTES, IT WILL BE THE RESPONSIBILITY OF THE OWNER TO SECURE A PERMIT AND TO CONSTRUCT ADDITIONAL DRIVEWAYS AND FIELD ENTRANCES OTHER THAN THOSE PROVIDED IN THE PLANS.

(9) ON PROJECTS WITH CURB AND GUTTER THAT ARE ON STATE ROUTES, IT WILL BE THE RESPONSIBILITY OF THE OWNER TO SECURE A PERMIT. AFTER THE PERMIT HAS BEEN GRANTED, THE DEPARTMENT WILL CONSTRUCT THE DRIVEWAY OR FIELD ENTRANCE THROUGH THE CURB AND SIDEWALK, PROVIDED THE CURB AND SIDEWALK HAVE NOT BEEN CONSTRUCTED. IT WILL BE THE RESPONSIBILITY OF THE PROPERTY OWNER TO CONSTRUCT THE DRIVEWAY OR FIELD ENTRANCE FROM BACK OF SIDEWALK TO TOUCHDOWN POINT FOR ANY ADDITIONAL DRIVEWAYS OR FIELD ENTRANCES OTHER THAN THOSE PROVIDED IN THE PLANS.

(10) EASEMENT REQUIRED FOR THE RAILROAD CROSSING IS TO BE OBTAINED BY THE UTILITIES ENGINEER BY PROVISIONS CONTAINED IN THE CROSSING AGREEMENT NEGOTIATED WITH THE RAILROAD.

7-10-13: CHANGED S.R. 1 ALIGNMENT AND ACQUISITION TABLE ACCORDINGLY.

9-20-13: UPDATED PROPOSED R.O.W. AND R.O.W. ACQUISITION TABLE FOR TRACT NO. 10 ACCORDINGLY.

11-05-13: ADDED TRACT NO. 15 AND CHANGED OWNER NAME.
UPDATED R.O.W. ACQUISITION TABLE TO INCLUDE AERIAL EASEMENT.
UPDATED TRACT NO. 10 CONSTRUCTION EASEMENT.
UPDATED FOOTNOTES AND ADDED FOOTNOTE NO. 3.

12-03-13: ADDED TRACT NO. 5 AND CHANGED OWNER NAME.
ADDED PROPOSED CONSTRUCTION EASEMENT ON TRACT NO. 5 AND ADDED FOOTNOTE NO. 4.

9-16-14: ADDED PROP. DRAINAGE EASEMENT TRACT NO. 9S.

3-03-15: ADDED PROPOSED CONSTRUCTION EASMENTS ON TRACT NO. 15 AND ADDED FOOTNOTE NO. 5.
UPDATED TELEPHONE CONTACT.

9-11-15: ELIMINATED TRACT NO. 5.
MOVED FOOTNOTE NO. 4 FROM TRACT NO. 5 TO TRACT NO. 7 AND UPDATED FOOTNOTE NO. 4.
ADDED PROPOSED CONSTRUCTION EASEMENT TO TRACT NO. 7.

10-01-15: ADDED TRACT NOS. 18-23 AND FOOTNOTE NO. 6.
UPDATED AT&T CONTACT AND PHONE NUMBER.

1-15-16: ADDED TRACT NO. 24 AND UPDATED PROPERTY OWNER ON TRACT NOS. 18 THRU 20 AND 22.
UPDATED DEED BOOK AND PAGE ON TRACT NOS. 18 THRU 20 AND 22 THRU 24, AND PARCEL ON TRACT NOS. 23 AND 24.
UPDATED TRACT NO. 22 CONSTRUCTION EASEMENT.

8-12-16: UPDATED PROPOSED CONSTRUCTION EASEMENT ON TRACT NO. 15 AND FOOTNOTE NO. 5.

1-12-17: ADDED DISTURBED AREA CHART.

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COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00010 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

R.O.W. NOTES, R.O.W. ACQUISITION TABLE, UTILITY OWNERS & UTILITY NOTES

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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	BR-STP-1(156)	7
CONST.	2017	BR-NH-1(311)	7

S.R. 1 KNOX CO.
47010-2232-94 (R.O.W.)
47010-3232-94 (CONST.)

7-10-13: CHANGED S.R. 1 ALIGNMENT AND ALL ASSOCIATED ITEMS.

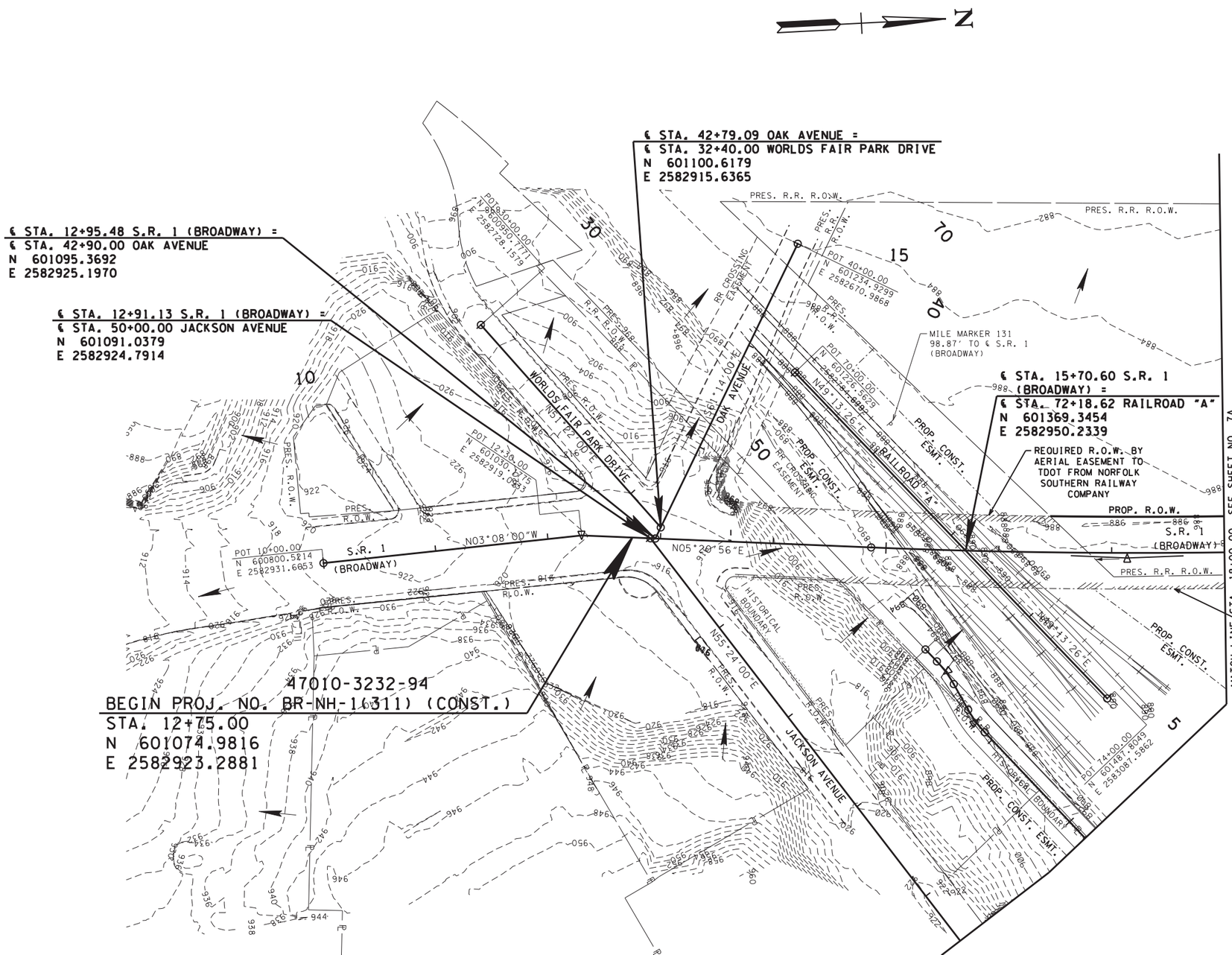
11-05-13: UPDATED LABELS FOR RAILWAY EASEMENT. DELETED NOTE REGARDING EASEMENT FOR RAILROAD CROSSING.

12-03-13: ADDED TRACT NO. 5.
ADDED PROPOSED CONSTRUCTION EASEMENT ON TRACT NO. 5.

3-03-15: ADDED PROPOSED CONSTRUCTION EASEMENTS ON TRACT NO. 15.

9-11-15: ELIMINATED TRACT NO. 5.

10-01-15: ADDED TRACT NOS. 18-20 AND UPDATED PROPERTY LINES ON NORTH SIDE OF TRACT NOS. 7 AND 18-20.
EXTENDED JACKSON AVENUE AND ADDED JACKSON AVENUE CONSTRUCTION ENTRANCE AND CORRESPONDING PROPOSED CONSTRUCTION EASEMENT.



S.R. 1 CURVE 1	
PI	17+13.89
N	601,511.9643
E	2,582,964.2012
Δ	4° 32' 17" (LT)
D	1° 00' 00"
R	5,729.58
L	453.82
T	227.03
SE	N.C.
TRANS. LENGTH	N/A
DESIGN SPEED	35 MPH
PC	14+86.87
PT	19+40.68
AHEAD TAN	N00°48'38"E

JACKSON AVE. CONST. ENT. CURVE 6	
PI	6+21.82
N	601,369.7728
E	2,583,102.3077
Δ	14° 07' 14" (RT)
D	57° 17' 45"
R	100.00
L	24.65
T	12.39
PC	6+09.43
PT	6+34.08
BACK TAN	S49°31'07"W
AHEAD TAN	S63°38'21"W

JACKSON AVE. CONST. ENT. CURVE 7	
PI	6+72.82
N	601,347.0688
E	2,583,056.4922
Δ	14° 23' 12" (LT)
D	57° 17' 45"
R	100.00
L	25.11
T	12.62
PC	6+60.20
PT	6+85.31
BACK TAN	S63°38'21"W
AHEAD TAN	S49°15'09"W

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

DRAINAGE MAP

STA. 12+75.00 TO STA. 18+00.00

SCALE: 1"=50'

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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	BR-STP-1(156)	7A
CONST.	2017	BR-NH-1(311)	7A

S.R. 1 KNOX CO.
47010-2232-94 (R.O.W.)
47010-3232-94 (CONST.)

12-01-11: REMOVED PROPOSED DRAINAGE, SLOPE AND CONSTRUCTION EASEMENTS, AND UPDATED THE PROPOSED R.O.W. ON TRACT NO. 11.
ADDED WYE TRACK LABEL TO RAILROAD "B".
UPDATED THE LINE STYLE OF THE PROPERTY LINES ON TRACT NO. 11.

7-10-13: CHANGED S.R. 1 ALIGNMENT AND ALL ASSOCIATED ITEMS.

9-20-13: CHANGED PROPOSED R.O.W. ON TRACT NO. 10.
UPDATED/ADDED CUT AND FILL LINES FOR PROPOSED RAILROAD TEMP. AND PERM. ALLEYS.
UPDATED DEPOT AVE./PERM. ALLEY INTERSECTION FLAG.

11-05-13: UPDATED/ADDED LABELS FOR RAILWAY EASEMENT AND R.O.W.
UPDATED INTERSECTION FLAG AT DEPOT AVENUE AND RAILWAY PERMANENT SERVICE ROAD.
DELETED NOTE REGARDING EASEMENT FOR RAILROAD CROSSING.
UPDATED PROPOSED CONSTRUCTION EASEMENT ON TRACT NO. 10.

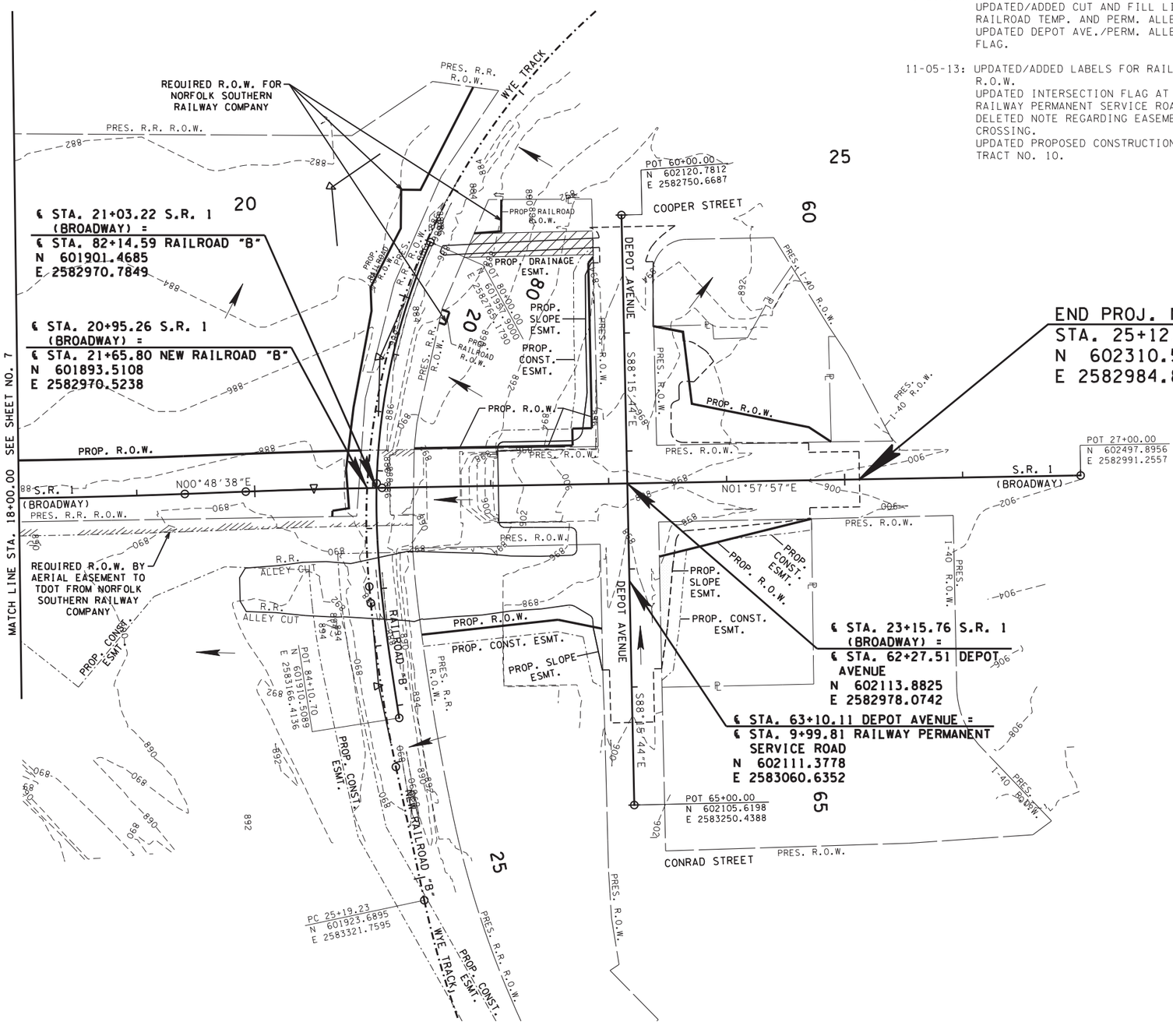
7-25-14: REMOVED RAILWAY TEMP. ASPHALT ALLEY AT STA. 62+70.12+/-, RT.

9-16-14: ADDED PROP. DRAINAGE EASEMENT TRACT NO. 9S.
UPDATED DEPOT AVENUE SLOPE LINE LT. SIDE STA. 60+95.18 TO STA. 61+63.57, AND RT. SIDE STA. 62+49.35 TO STA. 63+10.11.

3-03-15: ADDED PROPOSED CONSTRUCTION EASEMENTS ON TRACT NO. 15.

8-12-16: UPDATED NORTHEAST CONSTRUCTION EASEMENT ON TRACT NO. 15.

1-12-17: UPDATED NEW RAILROAD "B" WYE TRACK ALIGNMENT.



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

DRAINAGE MAP

STA. 18+00.00 TO STA. 25+12.50

SCALE: 1"=50'

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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

EROSION PREVENTION AND SEDIMENT CONTROL NOTES

UTILITY RELOCATION

(1) STORMWATER WHICH COLLECTS IN THE UTILITY TRENCH SHALL BE PUMPED INTO A DEWATERING STRUCTURE OR SEDIMENT FILTER BAG AND TREATED PRIOR TO DISCHARGE.

(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.

(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.

(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 OFFSITE 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 OFFSITE AND ENTERING WATERS OF THE STATE/U.S.

(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.

(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) 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 RESPONSIBLE PARTY.

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

(9) THE UTILITY CONTRACTOR SHALL RESTORE ALL AFFECTED WET WEATHER CONVEYANCES TO THE EXISTING TOPOGRAPHIC CONDITIONS AS APPROVED BY THE TDOT RESPONSIBLE PARTY.

(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 RESPONSIBLE PARTY BEFORE COMMENCING WORK.

RAILROAD ENVIRONMENTAL

(1) THE CONTRACTOR SHALL MAINTAIN A COMPLETE AND COMPREHENSIVE EPSC PLAN AND SWPPP TO PREVENT ROADWAY AND/OR CONSTRUCTION SEDIMENT OR DEBRIS AND ANY PETROLEUM BASED PRODUCTS OR CHLORINATED SOLVENTS, PAINTS OR COATINGS ETC. FROM FALLING ONTO THE RAILROAD'S RIGHT-OF-WAY AND/OR FROM ENTERING THE DRAINAGE DITCHES OR DRAINAGE STRUCTURES OF THE RAILROAD, AND ANY SEDIMENT OR DEBRIS OR PETRCLEUM BASED PRODUCTS OR CHLORINATED SOLVENTS, ETC. THAT DO ENTER SUCH DRAINAGE AREAS OF THE RAILROAD'S RIGHT-OF-WAY ARE TO BE REMOVED IN ACCORDANCE WITH RULES SET FORTH BY NORFOLK SOUTHERN AND AT THE CONTRACTOR'S EXPENSE.

RAILROAD EROSION PREVENTION AND SEDIMENT CONTROL

(1) THE CONTRACTOR SHALL ESTABLISH A PROACTIVE METHOD TO PREVENT THE OFF-SITE MIGRATION OR DEPOSIT OF SEDIMENT ON ROADWAYS USED BY THE GETNERAL PUBLIC AND NORFOLK SOUTHERN RAILROAD PROPERTY AND DITCHES.

(2) EXISTING NORFOLK SOUTHERN RAILROAD PROPERTY AND DITCHES MUST BE MAINTAINED AT ALL TIMES THROUGHOUT THE CONSTRUCTION PERIOD. AFTER THE CONSTRUCTION HAS BEEN COMPLETED ALL EROSION, SILTATION, AND CONSTRUCTION DEBRIS MUST BE REMOVED AND THE DITCHES RESTORED FOR SATISFACTORY FLOW.

EROSION PREVENTION AND SEDIMENT CONTROL LEGEND		
SYMBOL	ITEM	STD. DWG.
* SFB SFB SFB SFB	SEDIMENT FILTER BAG	EC-STR-2
** SOCK ** SOCK **	FILTER SOCK	EC-STR-8
D	CATCH BASIN PROTECTION (TYPE D)	EC-STR-19
TCE	TEMPORARY CONSTRUCTION EXIT	EC-STR-25
	TEMPORARY SLOPE DRAIN	EC-STR-27
1	CATCH BASIN FILTER ASSEMBLY (TYPE 1)	EC-STR-41
2	CATCH BASIN FILTER ASSEMBLY (TYPE 2)	EC-STR-42
3	CATCH BASIN FILTER ASSEMBLY (TYPE 3)	EC-STR-43
4	CATCH BASIN FILTER ASSEMBLY (TYPE 4)	EC-STR-44
5	CATCH BASIN FILTER ASSEMBLY (TYPE 5)	EC-STR-45
7	CATCH BASIN FILTER ASSEMBLY (TYPE 7)	EC-STR-47

*TO BE USED AND PLACED AS DIRECTED BY THE ENGINEER.

EROSION PREVENTION AND SEDIMENT CONTROL QUANTITIES

	ITEM NO.	DESCRIPTION	UNIT	QUANTITY
	203-01	ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED)	C.Y.	694
	209-02.05	12" TEMPORARY SLOPE DRAIN	L.F.	200
	209-03.21	FILTER SOCK (12 INCH)	L.F.	15683
	209-05	SEDIMENT REMOVAL	C.Y.	216
	209-09.03	SEDIMENT FILTER BAG (15' X 15')	EACH	1
	209-40.33	CATCH BASIN PROTECTION (TYPE D)	EACH	19
	209-40.41	CATCH BASIN FILTER ASSEMBLY(TYPE 1)	EACH	2
	209-40.42	CATCH BASIN FILTER ASSEMBLY(TYPE 2)	EACH	2
	209-40.43	CATCH BASIN FILTER ASSEMBLY(TYPE 3)	EACH	3
	209-40.44	CATCH BASIN FILTER ASSEMBLY(TYPE 4)	EACH	4
	209-40.45	CATCH BASIN FILTER ASSEMBLY(TYPE 5)	EACH	3
	209-40.47	CATCH BASIN FILTER ASSEMBLY(TYPE 7)	EACH	3
(1)	303-10.01	MINERAL AGGREGATE (SIZE 57)	TON	15
(2)	709-05.05	MACHINED RIP-RAP (CLASS A-3)	TON	50
	709-05.05	MACHINED RIP-RAP (CLASS A-1)	TON	24
(3)	740-10.03	GEOTEXTILE (TYPE III)(EROSION CONTROL)	S.Y.	188
	801-01.07	TEMPORARY SEEDING (WITH MULCH)	UNIT	17
	801-03	WATER (SEEDING & SODDING)	M.G.	21
	803-01	SODDING (NEW SOD)	S.Y.	1915

FOOTNOTES:
(1) TO BE USED ON SEDIMENT FILTER BAG.
(2) TO BE USED ON CONSTRUCTION EXIT.
(3) 102 S.Y. TO BE USED ON SEDIMENT FILTER BAG AND 86 S.Y. TO BE USED ON CONSTRUCTION EXIT.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	BR-STP-1(156)	8
CONST.	2017	BR-NH-1(311)	8

S.R. 1 KNOX CO.
47010-2232-94 (R.O.W.)
47010-3232-94 (CONST.)

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SPECIAL EROSION PREVENTION AND SEDIMENT CONTROL NOTES

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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	BR-STP-1(156)	9
CONST.	2017	BR-NH-1(311)	9

S.R. 1 KNOX CO.
47010-2232-94 (R.O.W.)
47010-3232-94 (CONST.)

7-10-13: CHANGED S.R. 1 ALIGNMENT AND ALL ASSOCIATED ITEMS.

11-05-13: UPDATED LABELS FOR RAILWAY EASEMENT.

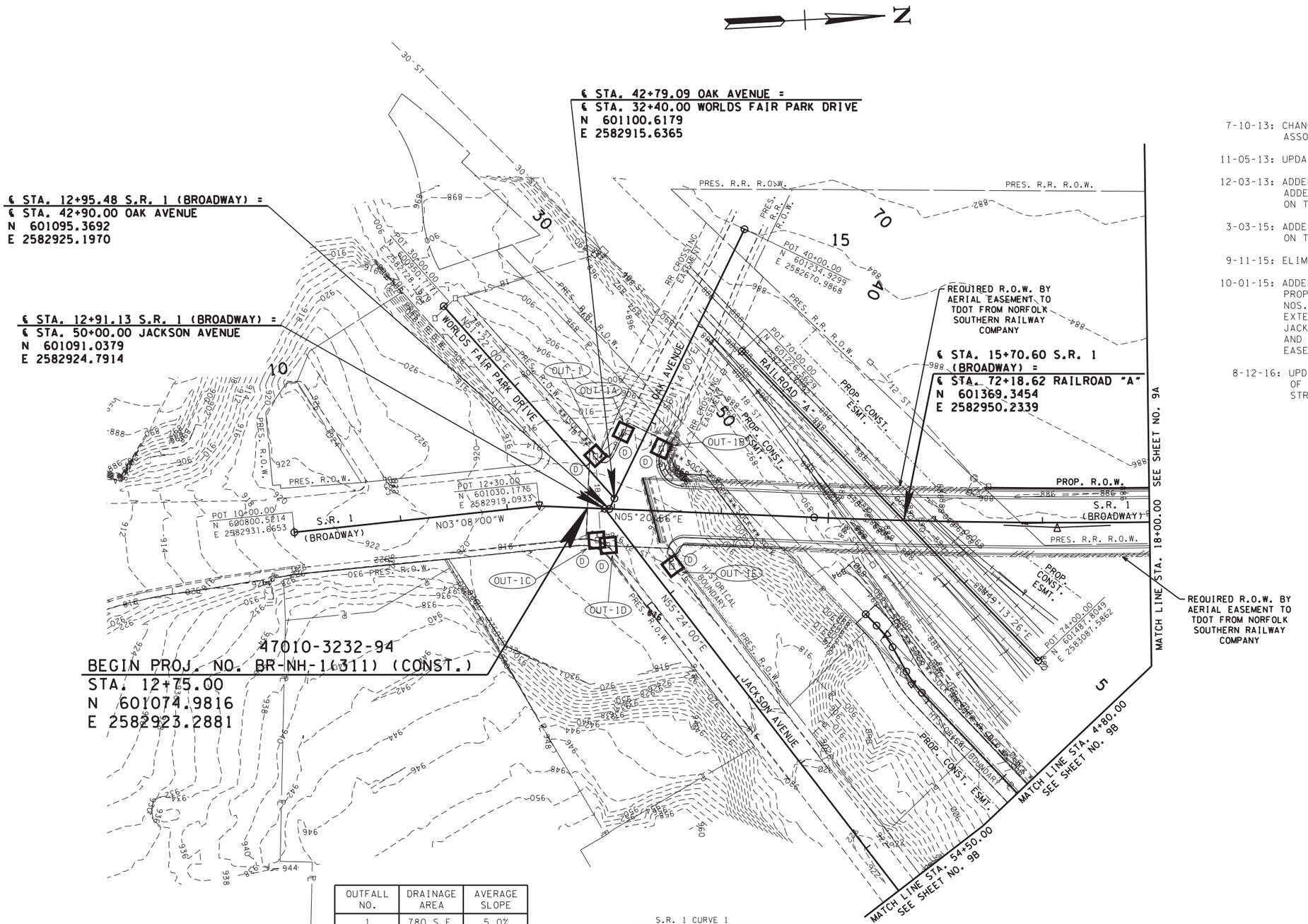
12-03-13: ADDED TRACT NO. 5.
ADDED PROPOSED CONSTRUCTION EASEMENT ON TRACT NO. 5.

3-03-15: ADDED PROPOSED CONSTRUCTION EASEMENTS ON TRACT NO. 15.

9-11-15: ELIMINATED TRACT NO. 5.

10-01-15: ADDED TRACT NOS. 18-20 AND UPDATED PROPERTY LINES ON NORTH SIDE OF TRACT NOS. 7 AND 18-20.
EXTENDED JACKSON AVENUE AND ADDED JACKSON AVENUE CONSTRUCTION ENTRANCE AND CORRESPONDING PROPOSED CONSTRUCTION EASEMENT.

8-12-16: UPDATED PAVEMENT WIDTH SOUTHEAST END OF PROJECT AND PROPOSED DRAINAGE STRUCTURE NO. 3.



OUTFALL NO.	DRAINAGE AREA	AVERAGE SLOPE
1	780 S.F.	5.0%
1A	1375 S.F.	4.0%
1B	2440 S.F.	4.0%
1C	0.48 AC.	16.0%
1D	1.05 AC.	14.0%
1E	0.14 AC.	2.5%

NOTE: (OUT-X) APPROXIMATE OUTFALL LOCATION

S.R. 1 CURVE 1

PI	17+13.89
N	601,511.9643
E	2,582,964.2012
Δ	4° 32′ 17″ (LT)
D	1° 00′ 00″
R	5,729.58
L	453.82
T	227.03
SE	N.C.
TRANS. LENGTH	N/A
DESIGN SPEED	35 MPH
PC	14+86.87
PT	19+40.68
AHEAD TAN	N00°48′38″E

JACKSON AVE. CONST. ENT. CURVE 6

PI	6+21.82
N	601,369.7728
E	2,583,102.3077
Δ	14° 07′ 14″ (RT)
D	57° 17′ 45″
R	100.00
L	24.65
T	12.39
PC	6+09.43
PT	6+34.08
BACK TAN	S49°31′07″W
AHEAD TAN	S63°38′21″W

JACKSON AVE. CONST. ENT. CURVE 7

PI	6+72.82
N	601,347.0688
E	2,583,056.4922
Δ	14° 23′ 12″ (LT)
D	57° 17′ 45″
R	100.00
L	25.11
T	12.62
PC	6+60.20
PT	6+85.31
BACK TAN	S63°38′21″W
AHEAD TAN	S49°15′09″W

SEALED BY

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00010 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION & SEDIMENT CONTROL (EPSC) PLANS

STA. 12+75.00 TO STA. 18+00.00
SCALE: 1"=50'

STAGE 1: CLEARING AND PRELIMINARY GRADING

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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	BR-STP-1(156)	9A
CONST.	2017	BR-NH-1(311)	9A

S.R. 1 KNOX CO.
47010-2232-94 (R.O.W.)
47010-3232-94 (CONST.)

12-01-11: REMOVED PROPOSED DRAINAGE, SLOPE AND CONSTRUCTION EASEMENTS, AND UPDATED THE PROPOSED R.O.W. ON TRACT NO. 11.
ADDED WYE TRACK LABEL TO RAILROAD "B".
UPDATED THE LINE STYLE OF THE PROPERTY LINES ON TRACT NO. 11.

7-10-13: CHANGED S.R. 1 ALIGNMENT AND ALL ASSOCIATED ITEMS.

9-20-13: CHANGED PROPOSED R.O.W. ON TRACT NO. 10.
UPDATED/ADDED PROPOSED RAILROAD TEMP. AND PERM. ALLEYS AND CORRESPONDING CUT AND FILL LINES.
UPDATED EROSION PREVENTION AND SEDIMENT CONTROL ITEMS ACCORDINGLY.
UPDATED DEPOT AVE./PERM. ALLEY INTERSECTION FLAG.

11-05-13: UPDATED/ADDED LABELS FOR RAILWAY EASEMENT AND R.O.W.
UPDATED INTERSECTION FLAG AT DEPOT AVENUE AND RAILWAY PERMANENT SERVICE ROAD.
UPDATED PROPOSED CONSTRUCTION EASEMENT ON TRACT NO. 10.
UPDATED RAILROAD AND ROADWAY DRAINAGE.
UPDATED EROSION PREVENTION AND SEDIMENT CONTROL ITEMS AS NEEDED.

7-25-14: REMOVED RAILWAY TEMP. ASPHALT ALLEY AT STA. 62+70.12+/-, RT.

9-16-14: ADDED PROP. DRAINAGE EASEMENT TRACT NO. 9S.
UPDATED DEPOT AVENUE SLOPE LINE LT. SIDE STA. 60+95.18 TO STA. 61+63.57, AND RT. SIDE STA. 62+49.35 TO STA. 63+10.11.
UPDATED ROADWAY DRAINAGE AND EROSION PREVENTION AND SEDIMENT CONTROL ITEMS ACCORDINGLY.
REMOVED RETAINING WALL S.R. 1 (BROADWAY) STA. 22+73 +/- RT. TO DEPOT AVENUE STA. 62+98 +/- RT.

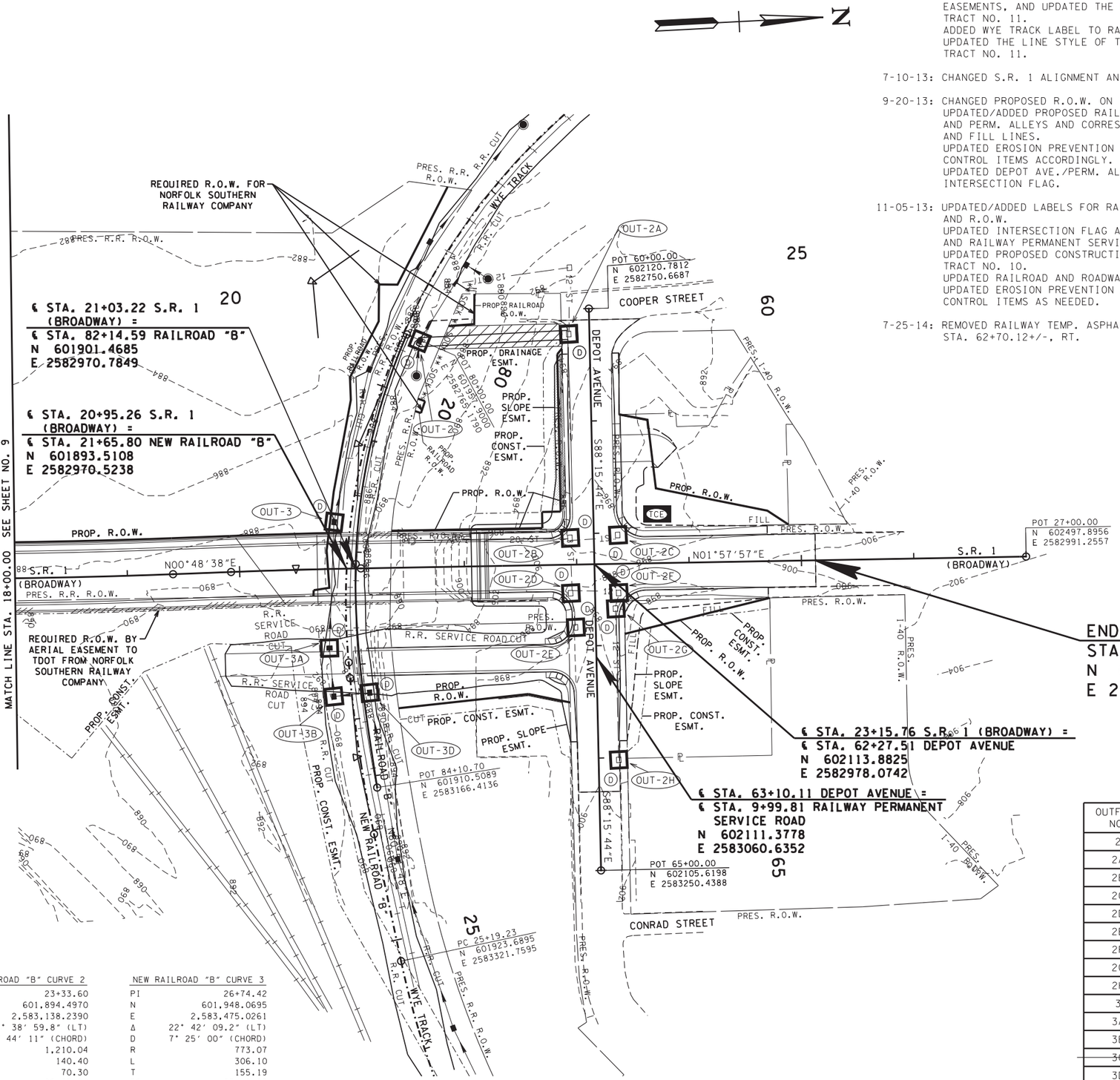
3-03-15: ADDED PROPOSED CONSTRUCTION EASEMENTS ON TRACT NO. 15.

8-12-16: UPDATED PAVEMENT WIDTHS AND ASSOCIATED DRAINAGE, PROPOSED RAILROAD DRAINAGE AND EROSION PREVENTION AND SEDIMENT CONTROL ITEMS.
UPDATED NORTHEAST CONSTRUCTION EASEMENT ON TRACT NO. 15.
UPDATED EXISTING RAILROAD TRACKS.

1-12-17: UPDATED NEW RAILROAD "B" WYE TRACK ALIGNMENT AND RAILROAD DRAINAGE.

S.R. 1 CURVE 1	
PI	17+13.89
N	601,511.9643
E	2,582,964.2012
Δ	4° 32′ 17″ (LT)
D	1° 00′ 00″
R	5,729.58
L	453.82
T	227.03
SE	N.C.
TRANS. LENGTH	N/A
DESIGN SPEED	35 MPH
PC	14+86.87
PT	19+40.68
BACK TAN	N05°20′56″E

S.R. 1 CURVE 2	
PI	20+50.13
N	601,848.4023
E	2,582,968.9615
Δ	1° 09′ 19″ (RT)
D	1° 00′ 00″
R	5,729.58
L	115.53
T	57.77
SE	N.C.
TRANS. LENGTH	N/A
DESIGN SPEED	35 MPH
PC	19+92.36
PT	21+07.89



NEW RAILROAD "B" CURVE 1	
PI	19+75.05
N	601,876.8195
E	2,582,714.4060
Δ	60° 44′ 50.9″ (LT)
D	9° 53′ 39″ (CHORD)
R	579.81
L	613.97
T	339.81
PC	16+35.24
PT	22+49.21
BACK TAN	S31°38′27.2″E
AHEAD TAN	N87°36′41.9″E

NEW RAILROAD "B" CURVE 2	
PI	23+33.60
N	601,894.4970
E	2,583,138.2390
Δ	6° 38′ 59.8″ (LT)
D	4° 44′ 11″ (CHORD)
R	1,210.04
L	140.40
T	70.30
PC	22+63.30
PT	24+03.70
BACK TAN	N87°36′41.9″E
AHEAD TAN	N80°57′42.2″E

NEW RAILROAD "B" CURVE 3	
PI	26+74.42
N	601,948.0695
E	2,583,475.0261
Δ	22° 42′ 09.2″ (LT)
D	7° 25′ 00″ (CHORD)
R	773.07
L	306.10
T	155.19
PC	25+19.23
PT	28+25.33
BACK TAN	N80°57′42.2″E
AHEAD TAN	N58°15′33.0″E

OUTFALL NO.	DRAINAGE AREA	SLOPE
2	4.62 AC.	5.0%
2A	0.05 AC.	4.6%
2B	0.46 AC.	2.2%
2C	0.34 AC.	0.5%
2D	0.52 AC.	3.1%
2E	0.22 AC.	1.4%
2F	0.20 AC.	2.2%
2G	0.22 AC.	2.2%
2H	2.02 AC.	1.2%
3	0.05 AC.	1.0%
3A	0.05 AC.	1.0%
3B	0.13 AC.	1.0%
~~3C~~	~~0.10 AC.~~	~~1.0%~~
3D	1.00 AC.	1.0%

NOTE: OUT-X APPROXIMATE OUTFALL LOCATION

SEALED BY

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00010 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION & SEDIMENT CONTROL (EPSC) PLANS

STA. 18+00.00 TO
STA. 25+12.50
SCALE: 1"=50'

STAGE 1: CLEARING AND PRELIMINARY GRADING

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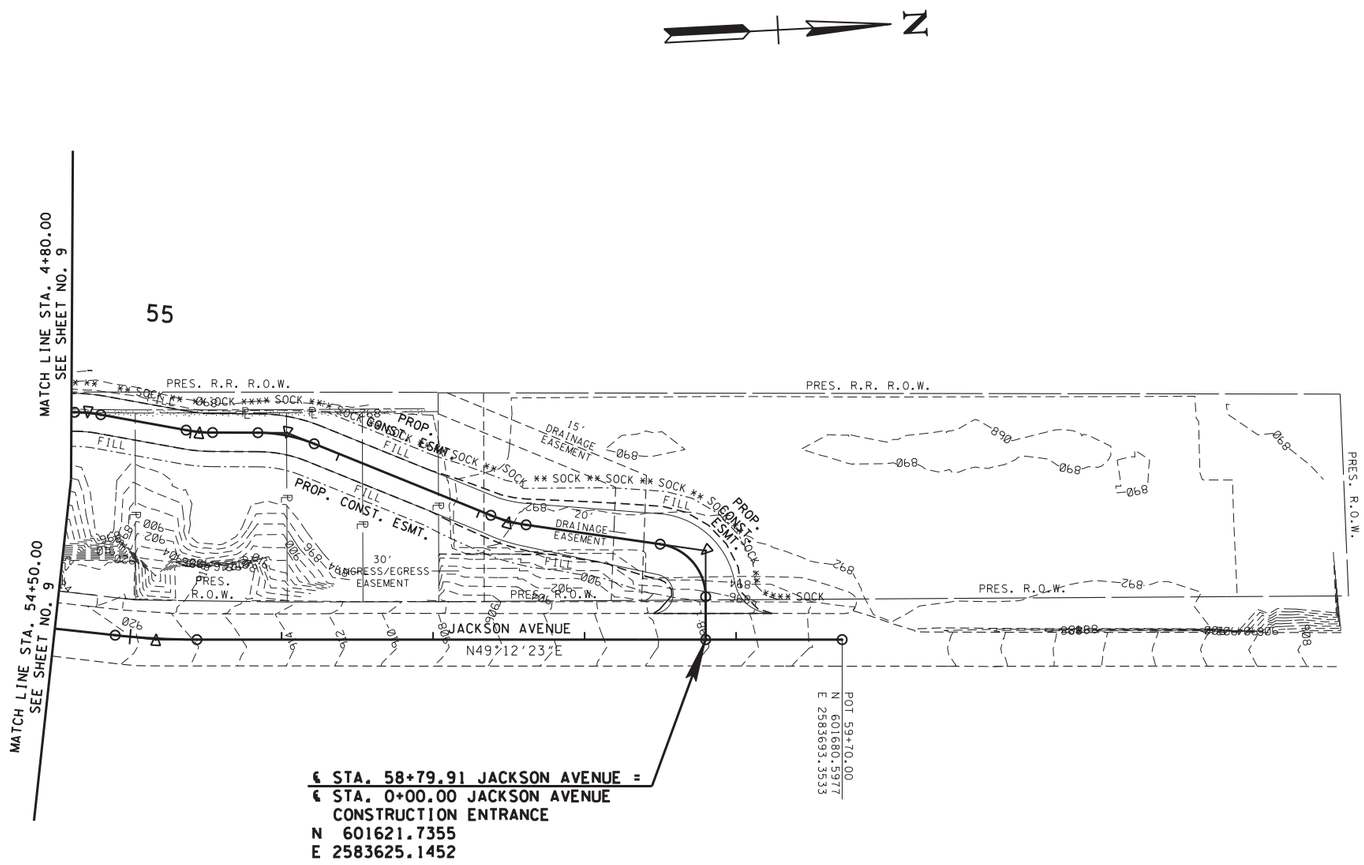
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
R.O.W.	2013	BR-STP-1(156)	9B
CONST.	2017	BR-NH-1(311)	9B

S.R. 1 KNOX CO.
47010-2232-94 (R.O.W.)
47010-3232-94 (CONST.)

10-01-15: ADDED SHEET.
1-15-16: ADDED TRACT NO. 24.



JACKSON AVENUE CURVE 1	
PI	55+17.12
N	601,384.6820
E	2,583,350.4528
Δ	6° 11' 37" (LT)
D	11° 27' 33"
R	500
L	54.05
T	27.05
SE	N/A
TRANS. LENGTH	N/A
DESIGN SPEED	N/A
PC	54+90.07
PT	55+44.12
BACK TAN	N55°24'00"E

JACKSON AVE. CONST. ENT. CURVE 1	
PI	0+58.68
N	601,666.1605
E	2,583,586.8074
Δ	81° 48' 03" (LT)
D	163° 42' 08"
R	35.00
L	49.97
T	30.32
PC	0+28.36
PT	0+78.33
BACK TAN	N40°47'37"W
AHEAD TAN	S57°24'20"W

JACKSON AVE. CONST. ENT. CURVE 2	
PI	1+79.88
N	601,595.1246
E	2,583,475.7081
Δ	13° 50' 56" (RT)
D	57° 17' 45"
R	100.00
L	24.17
T	12.14
PC	1+67.74
PT	1+91.91
BACK TAN	S57°24'20"W
AHEAD TAN	S71°15'16"W

JACKSON AVE. CONST. ENT. CURVE 3	
PI	3+36.97
N	601,544.6019
E	2,583,326.8351
Δ	21° 50' 54" (LT)
D	57° 17' 45"
R	100.00
L	38.13
T	19.30
PC	3+17.67
PT	3+55.81
BACK TAN	S71°15'16"W
AHEAD TAN	S49°24'22"W

JACKSON AVE. CONST. ENT. CURVE 4	
PI	3+94.52
N	601,506.8535
E	2,583,282.7836
Δ	10° 03' 04" (RT)
D	57° 17' 45"
R	100.00
L	17.54
T	8.79
PC	4+60.51
PT	4+77.86
BACK TAN	S59°27'27"W
AHEAD TAN	S49°31'07"W

JACKSON AVE. CONST. ENT. CURVE 5	
PI	4+69.21
N	601,468.8742
E	2,583,218.4171
Δ	9° 56' 19" (LT)
D	57° 17' 45"
R	100.00
L	17.35
T	8.69
PC	4+60.51
PT	4+77.86
BACK TAN	S59°27'27"W
AHEAD TAN	S49°31'07"W

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION & SEDIMENT CONTROL (EPSC) PLANS

STA. 54+50.00 TO STA. 59+70.00
SCALE: 1"=50'

STAGE 1: CLEARING AND PRELIMINARY GRADING

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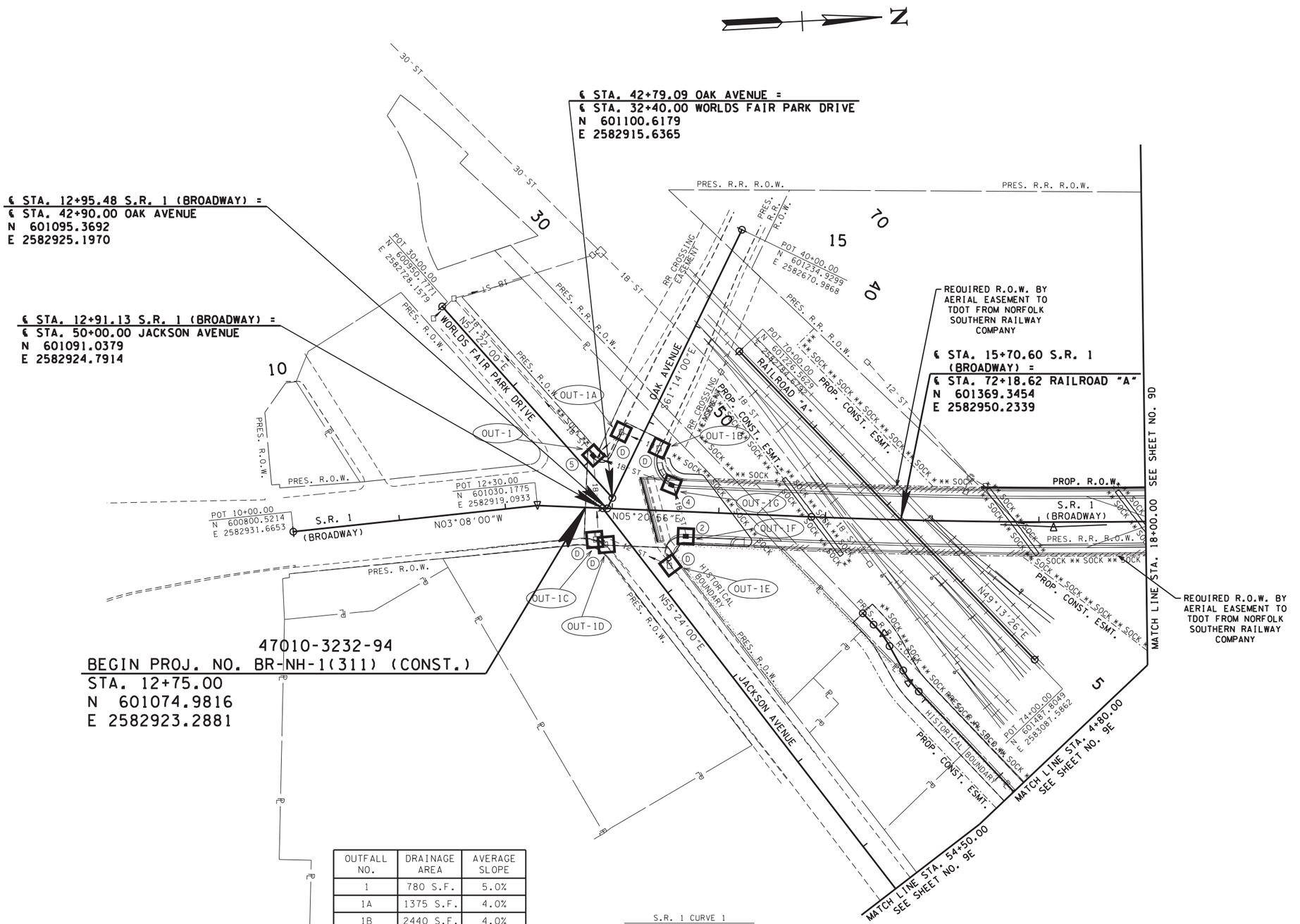
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2017	BR-NH-1(311)	9C

S.R. 1 KNOX CO.
47010-3232-94 (CONST.)



OUTFALL NO.	DRAINAGE AREA	AVERAGE SLOPE
1	780 S.F.	5.0%
1A	1375 S.F.	4.0%
1B	2440 S.F.	4.0%
1C	0.48 AC.	16.0%
1D	1.05 AC.	14.0%
1E	0.14 AC.	2.5%
1F	0.15 AC.	2.0%
1G	0.15 AC.	2.0%

NOTE: (OUT-X) APPROXIMATE OUTFALL LOCATION

S.R. 1 CURVE 1	
PI	17+13.89
N	601,511.9643
E	2,582,964.2012
Δ	4° 32′ 17″ (LT)
D	1° 00′ 00″
R	5,729.58
L	453.82
T	227.03
SE	N.C.
TRANS. LENGTH	N/A
DESIGN SPEED	35 MPH
PC	14+86.87
PT	19+40.68
AHEAD TAN	N00°48′38″E

JACKSON AVE. CONST. ENT. CURVE 6	
PI	6+21.82
N	601,369.7728
E	2,583,102.3077
Δ	14° 07′ 14″ (RT)
D	57° 17′ 45″
R	100.00
L	24.65
T	12.39
PC	6+09.43
PT	6+34.08
BACK TAN	S49°31′07″W
AHEAD TAN	S63°38′21″W

JACKSON AVE. CONST. ENT. CURVE 7	
PI	6+72.82
N	601,347.0688
E	2,583,056.4922
Δ	14° 23′ 12″ (LT)
D	57° 17′ 45″
R	100.00
L	25.11
T	12.62
PC	6+60.20
PT	6+85.31
BACK TAN	S63°38′21″W
AHEAD TAN	S49°15′09″W

SEALED BY

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION & SEDIMENT CONTROL (EPSC) PLANS

STA. 12+75.00 TO STA. 18+00.00
SCALE: 1"=50'

STAGE 2: INTERIM CONSTRUCTION

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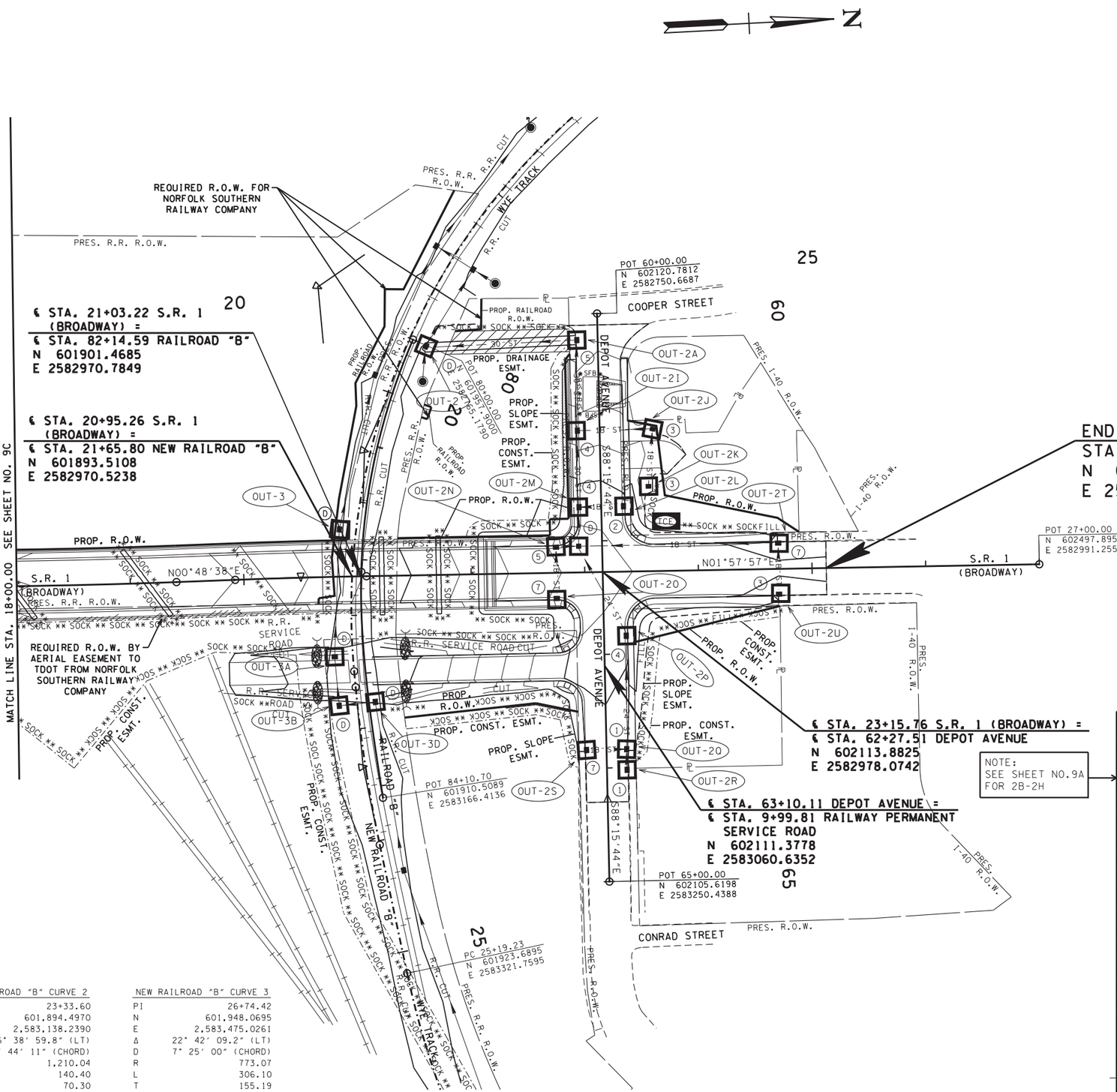
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2017	BR-NH-1(311)	9D

S.R. 1 KNOX CO.
47010-3232-94 (CONST.)

S.R. 1 CURVE 1	
PI	17+13.89
N	601,511.9643
E	2,582,964.2012
Δ	4° 32′ 17″ (LT)
D	1° 00′ 00″
R	5,729.58
L	453.82
T	227.03
SE	N.C.
TRANS. LENGTH	N/A
DESIGN SPEED	35 MPH
PC	14+86.87
PT	19+40.68
BACK TAN	N05°20′56″E

S.R. 1 CURVE 2	
PI	20+50.13
N	601,848.4023
E	2,582,968.9615
Δ	1° 09′ 19″ (RT)
D	1° 00′ 00″
R	5,729.58
L	115.53
T	57.77
SE	N.C.
TRANS. LENGTH	N/A
DESIGN SPEED	35 MPH
PC	19+92.36
PT	21+07.89



47010-3232-94
END PROJ. NO. BR-NH-1(311) (CONST.)
STA. 25+12.50
N 602310.5060
E 2582984.8234

NEW RAILROAD "B" CURVE 1	
PI	19+75.05
N	601,876.8195
E	2,582,714.4060
Δ	60° 44′ 50.9″ (LT)
D	9° 53′ 39″ (CHORD)
R	579.81
L	613.97
T	339.81
PC	16+35.24
PT	22+49.21
BACK TAN	S31°38′27.2″E
AHEAD TAN	N87°36′41.9″E

NEW RAILROAD "B" CURVE 2	
PI	23+33.60
N	601,894.4970
E	2,583,138.2390
Δ	6° 38′ 59.8″ (LT)
D	4° 44′ 11″ (CHORD)
R	1,210.04
L	140.40
T	70.30
PC	22+63.30
PT	24+03.70
BACK TAN	N87°36′41.9″E
AHEAD TAN	N80°57′42.2″E

NEW RAILROAD "B" CURVE 3	
PI	26+74.42
N	601,948.0695
E	2,583,475.0261
Δ	22° 42′ 09.2″ (LT)
D	7° 25′ 00″ (CHORD)
R	773.07
L	306.10
T	155.19
PC	25+19.23
PT	28+25.33
BACK TAN	N80°57′42.2″E
AHEAD TAN	N58°15′33.0″E

NOTE: (OUT-X) APPROXIMATE OUTFALL LOCATION

NOTE: SEE SHEET NO.9A FOR 2B-2H

OUTFALL NO.	DRAINAGE AREA	AVERAGE SLOPE
2	4.62 AC.	--
2A	0.05 AC.	4.6%
2I	0.04 AC.	6.0%
2J	0.05 AC.	3.9%
2K	0.12 AC.	4.6%
2L	0.14 AC.	3.5%
2M	0.05 AC.	3.5%
2N	0.46 AC.	2.2%
2O	0.52 AC.	3.1%
2P	0.42 AC.	2.2%
2Q	0.24 AC.	1.7%
2R	2.02 AC.	1.2%
2S	0.22 AC.	1.4%
2T	0.20 AC.	0.5%
2U	0.09 AC.	0.8%
3	0.05 AC.	1.0%
3A	0.05 AC.	1.0%
3B	0.13 AC.	1.0%
3C	0.10 AC.	1.0%
3D	1.00 AC.	1.0%

SEALED BY

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION & SEDIMENT CONTROL (EPSC) PLANS

STA. 18+00.00 TO STA. 25+12.50
SCALE: 1"=50'

STAGE 2: INTERIM CONSTRUCTION

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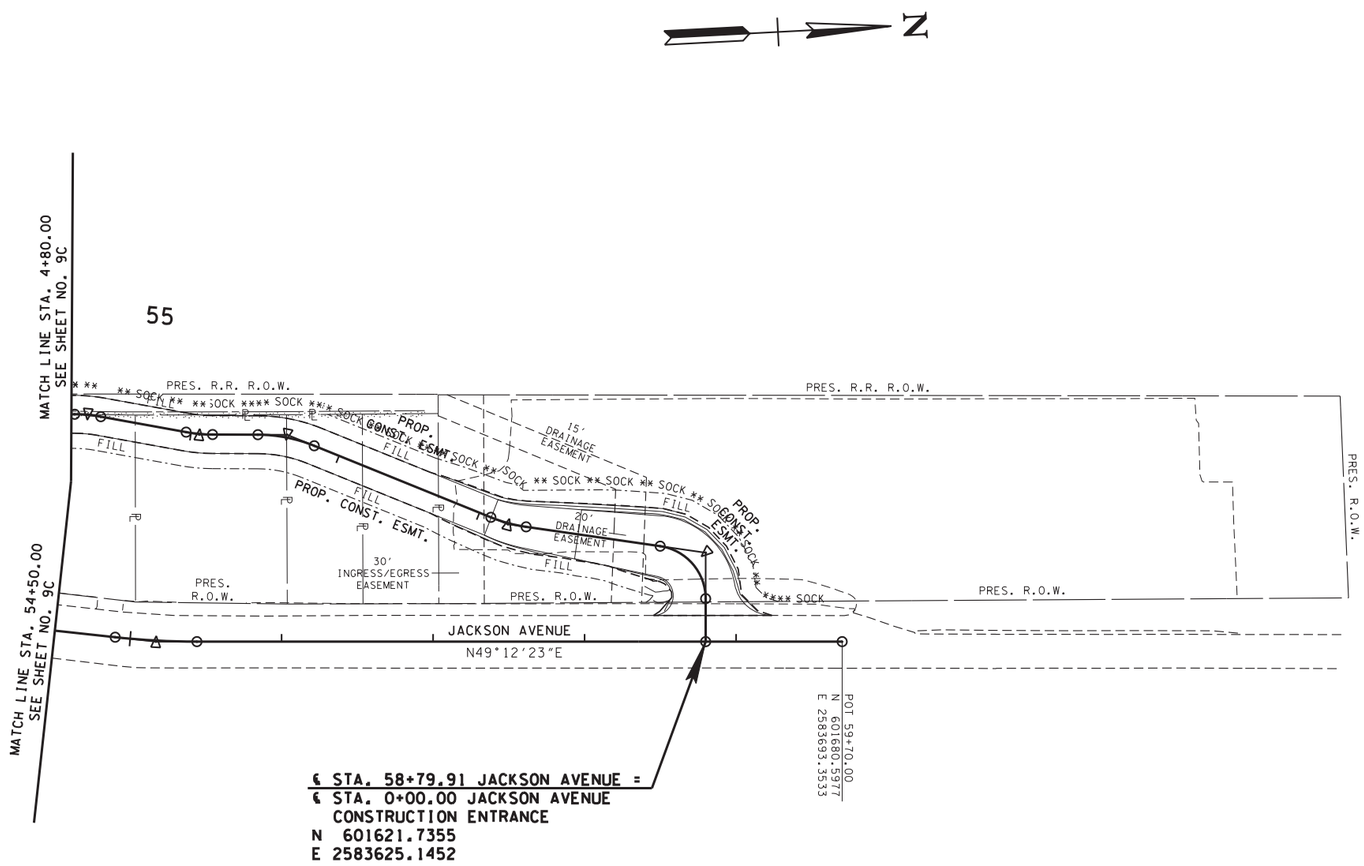
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2017	BR-NH-1(311)	9E

S.R. 1 KNOX CO.
47010-3232-94 (CONST.)



JACKSON AVENUE CURVE 1	
PI	55+17.12
N	601,384.6820
E	2,583,350.4528
Δ	6° 11' 37" (LT)
D	11° 27' 33"
R	500
L	54.05
T	27.05
SE	N/A
TRANS. LENGTH	N/A
DESIGN SPEED	N/A
PC	54+90.07
PT	55+44.12
BACK TAN	N55°24'00"E

JACKSON AVE. CONST. ENT. CURVE 1	
PI	0+58.68
N	601,666.1605
E	2,583,586.8074
Δ	81° 48' 03" (LT)
D	163° 42' 08"
R	35.00
L	49.97
T	30.32
PC	0+28.36
PT	0+78.33
BACK TAN	N40°47'37"W
AHEAD TAN	S57°24'20"W

JACKSON AVE. CONST. ENT. CURVE 2	
PI	1+79.88
N	601,595.1246
E	2,583,475.7081
Δ	13° 50' 56" (RT)
D	57° 17' 45"
R	100.00
L	24.17
T	12.14
PC	1+67.74
PT	1+91.91
BACK TAN	S57°24'20"W
AHEAD TAN	S71°15'16"W

JACKSON AVE. CONST. ENT. CURVE 3	
PI	3+36.97
N	601,544.6019
E	2,583,326.8351
Δ	21° 50' 54" (LT)
D	57° 17' 45"
R	100.00
L	38.13
T	19.30
PC	3+17.67
PT	3+55.81
BACK TAN	S71°15'16"W
AHEAD TAN	S49°24'22"W

JACKSON AVE. CONST. ENT. CURVE 4	
PI	3+94.52
N	601,506.8535
E	2,583,282.7836
Δ	10° 03' 04" (RT)
D	57° 17' 45"
R	100.00
L	17.54
T	8.79
PC	3+85.72
PT	4+03.27
BACK TAN	S49°24'22"W
AHEAD TAN	S59°27'27"W

JACKSON AVE. CONST. ENT. CURVE 5	
PI	4+69.21
N	601,468.8742
E	2,583,218.4171
Δ	9° 56' 19" (LT)
D	57° 17' 45"
R	100.00
L	17.35
T	8.69
PC	4+60.51
PT	4+77.86
BACK TAN	S59°27'27"W
AHEAD TAN	S49°31'07"W

SEALED BY

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00010 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION & SEDIMENT CONTROL (EPSC) PLANS

STA. 54+50.00 TO
STA. 59+70.00
SCALE: 1"=50'

STAGE 2: INTERIM CONSTRUCTION

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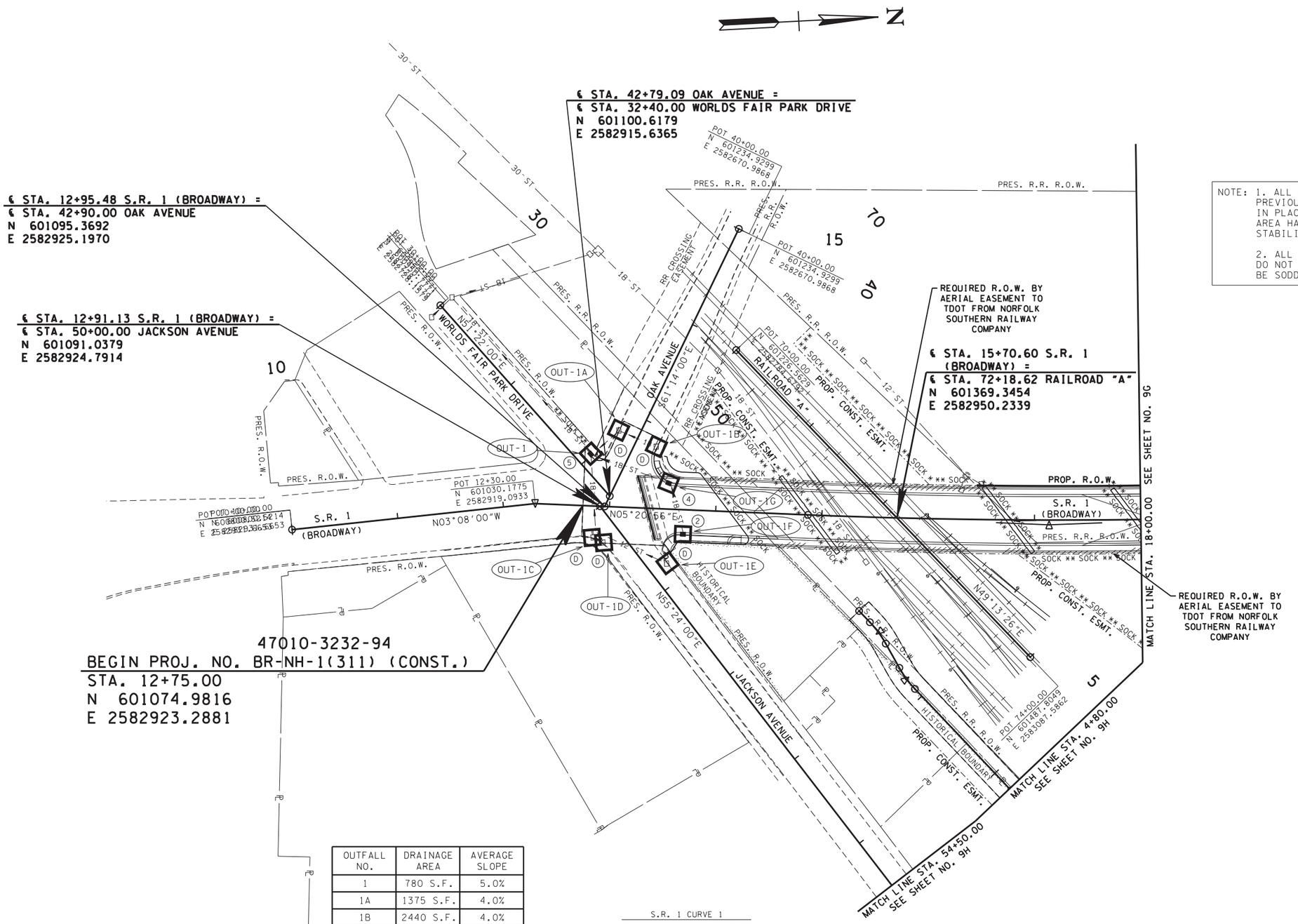
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2017	BR-NH-1(311)	9F

S.R. 1 KNOX CO.
47010-3232-94 (CONST.)



NOTE: 1. ALL EPSC MEASURES FROM THE PREVIOUS STAGE ARE TO REMAIN IN PLACE UNTIL THE SURROUNDING AREA HAS BEEN PERMANENTLY STABILIZED.

2. ALL DISTURBED AREAS THAT DO NOT HAVE PAVEMENT SHALL BE SODDED.

OUTFALL NO.	DRAINAGE AREA	AVERAGE SLOPE
1	780 S.F.	5.0%
1A	1375 S.F.	4.0%
1B	2440 S.F.	4.0%
1C	0.48 AC.	16.0%
1D	1.05 AC.	14.0%
1E	0.14 AC.	2.5%
1F	0.15 AC.	2.0%
1G	0.15 AC.	2.0%

NOTE: (OUT-X) APPROXIMATE OUTFALL LOCATION

S.R. 1 CURVE 1	
PI	17+13.89
N	601,511.9643
E	2,582,964.2012
Δ	4° 32′ 17″ (LT)
D	1° 00′ 00″
R	5,729.58
L	453.82
T	227.03
SE	N.C.
TRANS. LENGTH	N/A
DESIGN SPEED	35 MPH
PC	14+86.87
PT	19+40.68
AHEAD TAN	N00°48′38″E

JACKSON AVE. CONST. ENT. CURVE 6	
PI	6+21.82
N	601,369.7728
E	2,583,102.3077
Δ	14° 07′ 14″ (RT)
D	57° 17′ 45″
R	100.00
L	24.65
T	12.39
PC	6+09.43
PT	6+34.08
BACK TAN	S49°31′07″W
AHEAD TAN	S63°38′21″W

JACKSON AVE. CONST. ENT. CURVE 7	
PI	6+72.82
N	601,347.0688
E	2,583,056.4922
Δ	14° 23′ 12″ (LT)
D	57° 17′ 45″
R	100.00
L	25.11
T	12.62
PC	6+60.20
PT	6+85.31
BACK TAN	S63°38′21″W
AHEAD TAN	S49°15′09″W

SEALED BY

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION & SEDIMENT CONTROL (EPSC) PLANS

STA. 12+75.00 TO STA. 18+00.00
SCALE: 1"=50'

STAGE 3: FINAL STABILIZATION

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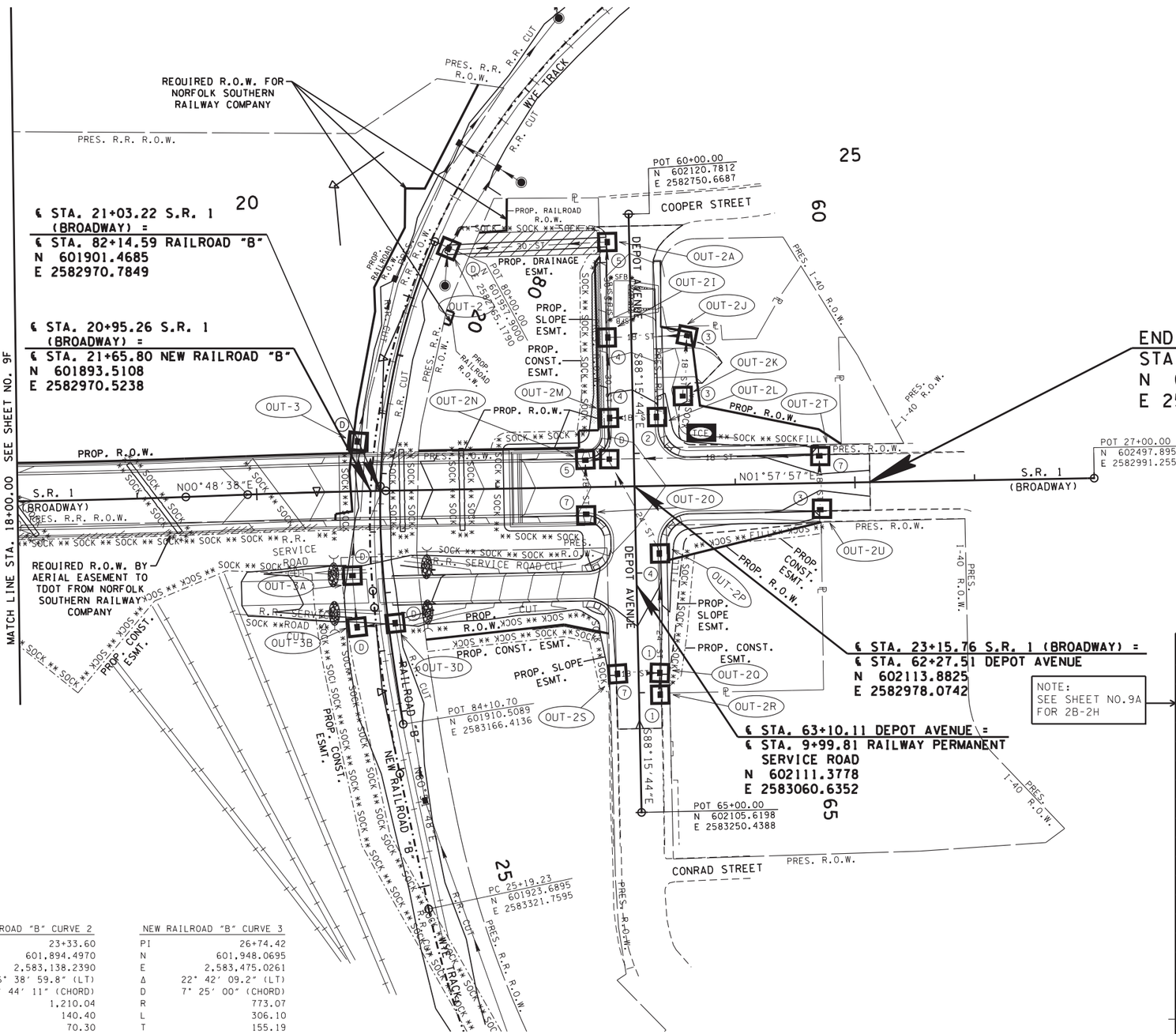
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2017	BR-NH-1(311)	9C

S.R. 1 KNOX CO.
47010-3232-94 (CONST.)

S.R. 1 CURVE 1	
PI	17+13.89
N	601,511.9643
E	2,582,964.2012
Δ	4° 32′ 17″ (LT)
D	1° 00′ 00″
R	5,729.58
L	453.82
T	227.03
SE	N.C.
TRANS. LENGTH	N/A
DESIGN SPEED	35 MPH
PC	14+86.87
PT	19+40.68
BACK TAN	N05°20′56″E

S.R. 1 CURVE 2	
PI	20+50.13
N	601,848.4023
E	2,582,968.9615
Δ	1° 09′ 19″ (RT)
D	1° 00′ 00″
R	5,729.58
L	115.53
T	57.77
SE	N.C.
TRANS. LENGTH	N/A
DESIGN SPEED	35 MPH
PC	19+92.36
PT	21+07.89



47010-3232-94
END PROJ. NO. BR-NH-1(311) (CONST.)
STA. 25+12.50
N 602310.5060
E 2582984.8234

NOTE: 1. ALL EPSC MEASURES FROM THE PREVIOUS STAGE ARE TO REMAIN IN PLACE UNTIL THE SURROUNDING AREA HAS BEEN PERMANENTLY STABILIZED.

2. ALL DISTURBED AREAS THAT DO NOT HAVE PAVEMENT SHALL BE SODDED.

NOTE: SEE SHEET NO.9A FOR 2B-2H

OUTFALL NO.	DRAINAGE AREA	AVERAGE SLOPE
2	4.62 AC.	--
2A	0.05 AC.	4.6%
2I	0.04 AC.	6.0%
2J	0.05 AC.	3.9%
2K	0.12 AC.	4.6%
2L	0.14 AC.	3.5%
2M	0.05 AC.	3.5%
2N	0.46 AC.	2.2%
2O	0.52 AC.	3.1%
2P	0.42 AC.	2.2%
2Q	0.24 AC.	1.7%
2R	2.02 AC.	1.2%
2S	0.22 AC.	1.4%
2T	0.20 AC.	0.5%
2U	0.09 AC.	0.8%
3	0.05 AC.	1.0%
3A	0.05 AC.	1.0%
3B	0.13 AC.	1.0%
~~3C~~	~~0.10 AC.~~	~~1.0%~~
3D	1.00 AC.	1.0%

NEW RAILROAD "B" CURVE 1	
PI	19+75.05
N	601,876.8195
E	2,582,714.4060
Δ	60° 44′ 50.9″ (LT)
D	9° 53′ 39″ (CHORD)
R	579.81
L	613.97
T	339.81
PC	16+35.24
PT	22+49.21
BACK TAN	S31°38′27.2″E
AHEAD TAN	N87°36′41.9″E

NEW RAILROAD "B" CURVE 2	
PI	23+33.60
N	601,894.4970
E	2,583,138.2390
Δ	6° 38′ 59.8″ (LT)
D	4° 44′ 11″ (CHORD)
R	1,210.04
L	140.40
T	70.30
PC	22+63.30
PT	24+03.70
BACK TAN	N87°36′41.9″E
AHEAD TAN	N80°57′42.2″E

NEW RAILROAD "B" CURVE 3	
PI	26+74.42
N	601,948.0695
E	2,583,475.0261
Δ	22° 42′ 09.2″ (LT)
D	7° 25′ 00″ (CHORD)
R	773.07
L	306.10
T	155.19
PC	25+19.23
PT	28+25.33
BACK TAN	N80°57′42.2″E
AHEAD TAN	N58°15′33.0″E

NOTE: (OUT-X) APPROXIMATE OUTFALL LOCATION

STAGE 3: FINAL STABILIZATION

SEALED BY

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION & SEDIMENT CONTROL (EPSC) PLANS

STA. 18+00.00 TO STA. 25+12.50
SCALE: 1"=50'

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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2017	BR-NH-1(311)	9H

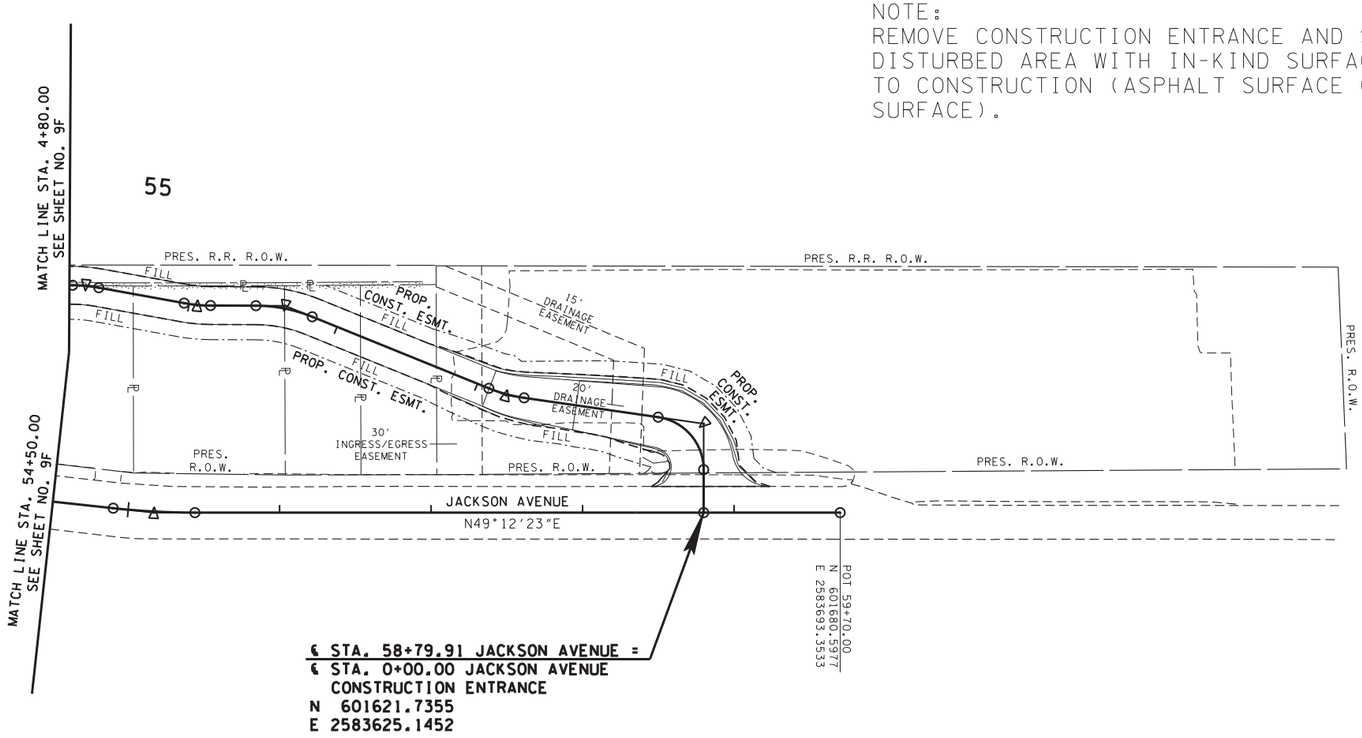
S.R. 1 KNOX CO.
47010-3232-94 (CONST.)

N

NOTE:
REMOVE CONSTRUCTION ENTRANCE AND STABILIZE DISTURBED AREA WITH IN-KIND SURFACE PRIOR TO CONSTRUCTION (ASPHALT SURFACE OR STONE SURFACE).

NOTE: 1. ALL EPSC MEASURES FROM THE PREVIOUS STAGE ARE TO REMAIN IN PLACE UNTIL THE SURROUNDING AREA HAS BEEN PERMANENTLY STABILIZED.

2. ALL DISTURBED AREAS THAT DO NOT HAVE PAVEMENT SHALL BE SODDED.



JACKSON AVENUE CURVE 1	
PI	55+17.12
N	601,384.6820
E	2,583,350.4528
Δ	6° 11' 37" (LT)
D	11° 27' 33"
R	500
L	54.05
T	27.05
SE	N/A
TRANS. LENGTH	N/A
DESIGN SPEED	N/A
PC	54+90.07
PT	55+44.12
BACK TAN	N55°24'00"E

JACKSON AVE. CONST. ENT. CURVE 1	
PI	0+58.68
N	601,666.1605
E	2,583,586.8074
Δ	81° 48' 03" (LT)
D	163° 42' 08"
R	35.00
L	49.97
T	30.32
PC	0+28.36
PT	0+78.33
BACK TAN	N40°47'37"W
AHEAD TAN	S57°24'20"W

JACKSON AVE. CONST. ENT. CURVE 2	
PI	1+79.88
N	601,595.1246
E	2,583,475.7081
Δ	13° 50' 56" (RT)
D	57° 17' 45"
R	100.00
L	24.17
T	12.14
PC	1+67.74
PT	1+91.91
BACK TAN	S57°24'20"W
AHEAD TAN	S71°15'16"W

JACKSON AVE. CONST. ENT. CURVE 3	
PI	3+36.97
N	601,544.6019
E	2,583,326.8351
Δ	21° 50' 54" (LT)
D	57° 17' 45"
R	100.00
L	38.13
T	19.30
PC	3+17.67
PT	3+55.81
BACK TAN	S71°15'16"W
AHEAD TAN	S49°24'22"W

JACKSON AVE. CONST. ENT. CURVE 4	
PI	3+94.52
N	601,506.8535
E	2,583,282.7836
Δ	10° 03' 04" (RT)
D	57° 17' 45"
R	100.00
L	17.54
T	8.79
PC	3+85.72
PT	4+03.27
BACK TAN	S49°24'22"W
AHEAD TAN	S59°27'27"W

JACKSON AVE. CONST. ENT. CURVE 5	
PI	4+69.21
N	601,468.8742
E	2,583,218.4171
Δ	9° 56' 19" (LT)
D	57° 17' 45"
R	100.00
L	17.35
T	8.69
PC	4+60.51
PT	4+77.86
BACK TAN	S59°27'27"W
AHEAD TAN	S49°31'07"W

SEALED BY

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EROSION PREVENTION & SEDIMENT CONTROL (EPSC) PLANS

STA. 54+50.00 TO STA. 59+70.00

SCALE: 1"=50'

STAGE 3: FINAL STABILIZATION

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