ESTIMATED BRIDGE QUANTITIES

ITEM NO.	DESCRIPTION	I-40 OVER OAKDALE ROAD (NFA 1203)	OAKDALE ROAD (NFA 1203) OVER I-40	UNIT	TOTAL QUANTITY
204-08.01	BACKFILL MATERIAL (FLOWABLE FILL)	-	(14) 18	C.Y.	18
604-03.02	STEEL BAR REINFORCEMENT (BRIDGES)	88	-	LB.	88
604-04.02	APPLIED TEXTURE FINISH (EXISTING STRUCTURES)	(1) 1,243	(15) 162	S.Y.	1,405
604-10.05	CONCRETE	(2) 83	(16) 120	S.F.	203
604-10.14	REMOVE EXISTING WEARING SURFACE	(3) 1	-	L.S.	1
604-10.18	REINFORCING STEEL (REPAIRS)	(4) 609	-	LB.	609
604-10.26	BRACING	(5) 1	-	EACH	1
604-10.30	BRIDGE DECK REPAIRS (FULL DEPTH OF SLAB)	(6) 150	(17) 10	S.Y.	160
604-10.42	CONCRETE REPAIRS	(7) 195	-	C.F.	195
604-10.50	BRIDGE DECK REPAIRS (PARTIAL DEPTH OF SLAB)	(6) 200	(17) 20	S.Y.	220
604-10.54	CONCRETE REPAIRS	(8) 83	(18) 120	S.F.	203
604-10.58	EPOXY INJECTION (INJECTION)	(9) 0.5	(19) 0.5	GAL.	1
604-10.62	EPOXY INJECTION REPAIR (COMPLETE AND IN PLACE)	(10) 22	(20) 12	L.F.	34
604-10.90	MISCELLANEOUS BRIDGE ITEMS	(11) 0.5	(21) 0.5	L.S.	1
617-01	BRIDGE DECK SEALANT	(12) 824	(22) 864	S.Y.	1,688
920-08.18	TEMPORARY SHORING	(13) 1	-	L.S.	1

FOOTNOTES (I-40 OVER OAKDALE ROAD (NFA 1203):

(1) INCLUDES ALL LABOR AND MATERIALS NECESSARY FOR THE APPLICATION OF ALL TEXTURE COATING FOR FULL LENGTH OF BRIDGE AS SHOWN IN DETAIL ON THIS SHEET AND ALL EXPOSED ABUTMENT AND BENT SURFACES. ALSO INCLUDES SURFACE PREPARATION USING A HIGH PRESSURE WATER WASH TO REMOVE ALL LOOSE COATINGS, FLAKING AND OTHER FOREIGN SUBSTANCES TO THE FULL SATISFACTION OF THE ENGINEER.

(2) INCLUDES ALL LABOR AND HIGH EARLY STRENGTH CONCRETE TO REPAIR CONCRETE SURFACE DEFECTS ON ABUTMENTS, BENTS, CANTILEVERS AND ENDPOSTS. SEE DETAILS ON DWG. NOS. BR-79-4, BR-79-8 AND BR-79-9.

(3) INCLUDES COST OF ALL LABOR AND MATERIALS REQUIRED TO REMOVE AND DISPOSE OF THE EXISTING ASPHALT WEARING SURFACE (APPROX. DEPTH = $6\frac{1}{2}$"±) WITHIN THE LIMITS OF THE BRIDGE. ALL COSTS FOR LABOR AND MATERIALS REQUIRED FOR THE REPAIR OF ANY DAMAGE DONE TO ANY PART OF THE EXISTING BRIDGE DURING THE ASPHALT REMOVAL OPERATION SHALL BE SOLELY THE CONTRACTORS.

(4) INCLUDES ALL LABOR AND EPOXY COATED REINFORCING STEEL REQUIRED FOR THE NEW ABUTMENT BACKWALLS. SEE BILL OF STEEL ON DWG. NO. BR-79-7.

(5) INCLUDES ALL LABOR AND MATERIALS NECESSARY FOR TEMPORARILY BRACING THE BRIDGE DECK IN THE CENTER BAY OF THE SUPERSTRUCTURE DURING PHASED FULL DEPTH DECK REPAIRS. ALTERNATE PLANS OF ANY TEMPORARY SUPPORT SYSTEM OR FALSEWORK REQUIRED MAY BE PREPARED BY A TENNESSEE LICENSED PROFESSIONAL ENGINEER AND SUBMITTED TO THE STRUCTURES DIVISION OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION FOR REVIEW. THE PLANS SHALL MEET WITH THE FULL SATISFACTION OF T.D.O.T. BEFORE ANY REPAIRS ARE BEGUN. SEE DETAILS AND NOTES ON DWG. NO. BR-79-4.

(6) INCLUDES ALL QUANTITIES FOR FULL OR PARTIAL DEPTH DECK REPAIRS AS SHOWN IN DETAIL ON DWG. NOS. BR-79-4 AND BR-79-10.

(7) INCLUDES ALL HIGH EARLY STRENGTH CONCRETE TO REPAIR DIAPHRAGMS AND BACKWALLS AT ABUTMENTS. SEE DETAILS AND NOTES ON DWG. NOS. BR-79-4, BR-79-5, BR-79-6 AND BR-79-7.

(8) INCLUDES ALL LABOR AND POLYMER MODIFIED CEMENTITIOUS STRUCTURAL PATCHING MATERIAL TO REPAIR CONCRETE SPALLS ON ABUTMENTS, BENTS, CANTILEVERS AND ENDPOSTS. SEE DETAILS ON DWG. NOS. BR-79-4, BR-79-8 AND BR-79-9.

(9) INCLUDES ALL COST FOR FURNISHING INJECTED ADHESIVE MATERIAL REQUIRED FOR EPOXY INJECTION.

(10) INCLUDES COST OF ALL LABOR AND MATERIALS (EXCEPT ADHESIVE) FOR GRINDING FOR SURFACE PREPARATION, CRACK PREPARATION, CAPPING, INJECTION OF ADHESIVE, ALL SAMPLING AND TESTING, REMOVAL OF CAPPING MATERIAL AND PORTS, AND OTHER INCIDENTALS. CRACKS SHALL BE MEASURED FOR PAYMENT ALONG THE LENGTH OF THE VISIBLE SURFACE CRACK. SEE DETAILS AND NOTES ON DWG. NOS. BR-79-4 AND BR-79-8.

(11) INCLUDES ALL LABOR AND MATERIALS NECESSARY FOR ANY EXCAVATION AND PLACEMENT OF CLASS "A" CONCRETE TO REPAIR FILL SETTLEMENT AT ABUTMENT NO. 1. SEE DETAIL AND NOTES ON DWG. NO. BR-79-8.

(12) INCLUDES BRIDGE DECK SEALANT MEMBRANE TO BE PLACED DIRECTLY ON THE EXISTING CONCRETE DECK. SEE BRIDGE DECK SEALANT DETAIL ON SHEET 2B.

(13) INCLUDES ALL LABOR, MATERIALS AND ANY SLOPE PAVEMENT DEMOLITION AND RECONSTRUCTION UNDER THE BRIDGE NECESSARY FOR TEMPORARILY SHORING THE BRIDGE DECK CANTILEVER AND CONCRETE DECK BEAMS DURING FULL DEPTH DECK REPAIRS. PLANS OF ANY TEMPORARY SUPPORT SYSTEM OR FALSEWORK REQUIRED SHALL BE PREPARED BY A TENNESSEE LICENSED PROFESSIONAL ENGINEER AND SUBMITTED TO THE STRUCTURES DIVISION OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION FOR REVIEW. THE PLANS SHALL MEET WITH THE FULL SATISFACTION OF T.D.O.T. BEFORE ANY REPAIRS ARE BEGUN. SEE DETAILS AND NOTES ON DWG. NO. BR-79-4.

FOOTNOTES (OAKDALE ROAD (NFA 1203) OVER I-40):

(14) INCLUDES ALL LABOR AND MATERIALS NECESSARY FOR THE PLACEMENT OF FLOWABLE FILL TO REPAIR AREAS OF FILL SETTLEMENT OR EROSION UNDER THE PAVEMENT AT BRIDGE ENDS AT ABUTMENT NO. 1. SEE NOTES ON DWG. BR-79-11.

(15) INCLUDES ALL LABOR AND MATERIALS NECESSARY FOR THE APPLICATION OF ALL TEXTURE COATING FOR FULL LENGTH OF BRIDGE AS SHOWN IN DETAIL ON THIS SHEET. ALSO INCLUDES SURFACE PREPARATION USING A HIGH PRESSURE WATER WASH TO REMOVE ALL LOOSE COATING, FLAKING AND OTHER FOREIGN SUBSTANCES TO THE FULL SATISFACTION OF THE ENGINEER.

(16) INCLUDES ALL LABOR AND HIGH EARLY STRENGTH CONCRETE TO REPAIR CONCRETE SURFACE DEFECTS ON ABUTMENTS, BENTS, PARAPETS AND ENDPOSTS. SEE DETAILS ON DWG. NOS. BR-79-12, BR-79-13 AND BR-79-14.

(17) INCLUDES ALL QUANTITIES FOR FULL OR PARTIAL DEPTH DECK REPAIRS AS SHOWN IN DETAIL ON DWG. NOS. BR-79-10 AND BR-79-4.

(18) INCLUDES ALL LABOR AND POLYMER MODIFIED CEMENTITIOUS STRUCTURAL PATCHING MATERIAL TO REPAIR CONCRETE SPALLS ON ABUTMENTS, BENTS, PARAPETS AND ENDPOSTS. SEE DETAILS ON DWG. NOS. BR-79-12, BR-79-13 AND BR-79-14.

(19) INCLUDES ALL COST FOR FURNISHING INJECTED ADHESIVE MATERIAL REQUIRED FOR EPOXY INJECTION.

(20) INCLUDES COST OF ALL LABOR AND MATERIALS (EXCEPT ADHESIVE) FOR GRINDING FOR SURFACE PREPARATION, CRACK PREPARATION, CAPPING, INJECTION OF ADHESIVE, ALL SAMPLING AND TESTING, REMOVAL OF CAPPING MATERIAL AND PORTS, AND OTHER INCIDENTALS. CRACKS SHALL BE MEASURED FOR PAYMENT ALONG THE LENGTH OF THE VISIBLE SURFACE CRACK. SEE DETAILS AND NOTES ON DWG. NOS. BR-79-12, BR-79-13 AND BR-79-14.

(21) INCLUDES ALL LABOR AND MATERIALS NECESSARY FOR ANY EXCAVATION AND PLACEMENT OF CLASS "A" CONCRETE TO REPAIR FILL SETTLEMENT AT ABUTMENT NO. 2. SEE DETAIL AND NOTES ON DWG. NO. BR-79-13.

(22) INCLUDES BRIDGE DECK SEALANT MEMBRANE TO BE PLACED DIRECTLY ON THE EXISTING CONCRETE DECK. SEE BRIDGE DECK SEALANT DETAIL ON SHEET 2B.

GENERAL NOTES

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

DESIGN SPECIFICATIONS: AASHTO 2002 EDITION WITH ADDENDA.

CONCRETE: SHALL BE CLASS "A", f'c = 3,000 PSI EXCEPT AS NOTED OTHERWISE.

SPECIAL NOTE FOR HIGH EARLY STRENGTH CONCRETE - FOR DECK AND BACKWALL REPAIRS: CONCRETE SHALL BE HIGH EARLY STRENGTH CONCRETE WITH A COMPRESSIVE STRENGTH OF 3,000 PSI AT 18 HOURS. THE CONTRACTOR SHALL PROVIDE PROOF PRIOR TO BEGINNING WORK THAT THE PROPOSED CONCRETE MIX WILL OBTAIN REQUIRED PROPERTIES. PROOF SHALL BE PROVIDED BY AN INDEPENDENT TESTING COMPANY AND SUBMITTED TO THE MATERIALS AND TEST DIVISION OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION FOR APPROVAL. TRAFFIC SHALL NOT BE PERMITTED ON ANY OF THE REPAIR AREAS UNTIL TEST SPECIMENS ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI AND THE CONCRETE HAS BEEN IN PLACE A MINIMUM OF 18 HOURS.

HIGH EARLY STRENGTH CONCRETE: THE MIX TO MEET THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS, CLASS "A", EXCEPT THE CEMENT CONTENT SHALL BE A MINIMUM OF 714 LBS., THE WATER CEMENT RATIO SHALL BE A MAXIMUM OF 0.40, NO FLY ASH REPLACEMENT WILL BE PERMITTED AND THE MINIMUM 28 DAY COMPRESSIVE STRENGTH SHALL BE 3,500 PSI.

CONCRETE CURING: ALL CONCRETE IN REPAIR AREAS TO BE CURED ACCORDING TO THE STANDARD SPECIFICATIONS UNLESS SPECIFIED OTHERWISE.

CONCRETE OR PATCHING MATERIAL: CONCRETE OR PATCHING MATERIALS SHALL NOT BE PLACED BY PNEUMATIC METHODS.

CONCRETE FINISH: SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. ONLY SURFACES DESIGNATED ON PLANS SHALL RECEIVE AN APPLIED TEXTURED FINISH.

REINFORCING STEEL: SEE THE STANDARD SPECIFICATIONS.

DEMOLITION: THE CONTRACTOR SHALL TAKE SPECIAL CARE TO PROTECT ANY PARTS OF THE STRUCTURE THAT ARE NOT TO BE REMOVED SPECIFICALLY. THE CONTRACTOR IS NOT ALLOWED TO USE A HYDRAULIC RAM MOUNTED ON A BACKHOE (COMMONLY CALLED A HOE RAM) OR OTHER SIMILARLY HEAVY EQUIPMENT FOR CONCRETE REMOVAL. PNEUMATIC HAMMERS MAY BE USED TO REMOVE UNSOUND CONCRETE. PNEUMATIC HAMMERS FOR PARTIAL DEPTH REPAIR AREAS, FULL DEPTH REPAIR AREAS AND ALL DECK REPAIR AREAS OVER BEAMS WILL BE RESTRICTED TO 60 POUND CLASS. SAWING OR CUTTING OF THE CONCRETE IS ACCEPTABLE SO LONG AS ANY SPECIFIED PROJECTION OF THE EXISTING REINFORCING STEEL IS MAINTAINED. ALL DEVICES PROPOSED FOR CONCRETE DEMOLITION SHALL MEET THE APPROVAL OF THE ENGINEER.

SHOP DRAWINGS: SHALL BE SUBMITTED ACCORDING TO SPECIAL PROVISION NO. 105A, SHOP DRAWINGS SHALL BE SUBMITTED TO THE BRIDGE REPAIR OFFICE OF THE DIVISION OF STRUCTURES.

PATCHING MATERIAL: WHERE INDICATED PATCHING MATERIAL SHALL BE A POLYMER MODIFIED CEMENTITIOUS STRUCTURAL PATCHING MATERIAL. SEE T.D.O.T. QUALIFIED PRODUCTS LIST 13, SUBLIST F, FOR ACCEPTABLE PATCHING MATERIALS.

GROUTED BARS IN DRILLED HOLES: HORIZONTALLY DRILLED HOLES SHALL BE DRILLED $\frac{1}{2}$" IN DIAMETER LARGER THAN THE BAR, CLEANED, PACKED WITH NON-SHRINK GROUT AND THE BAR ROTATED (NOT DRIVEN) TO ITS SEAT. VERTICALLY DRILLED HOLES SHALL BE DRILLED $\frac{1}{4}$" IN DIAMETER LARGER THAN THE BAR, CLEANED, PACKED WITH EPOXY GROUT AND BAR DRIVEN TO ITS SEAT. ALL GROUTING MATERIAL SHALL BE APPROVED BY T.D.O.T. MATERIALS AND TESTS.

SPECIAL IMPORTANT NOTE FOR CONCRETE DECK CURING: CURING OF FULL DEPTH DECK REPAIRS SHOWN ON DWG. NO. BR-79-4 SHALL BE 12 HOURS OF MOIST CURING BY BURLAP MATS AND SOAKER HOSES IN ACCORDANCE WITH THE SPECIFICATIONS AND 6 HOURS OF DRY CURING. MOIST CURING SHALL BE STRICTLY ENFORCED BY THE ENGINEER AND ANY ALTERNATE METHOD PROPOSED BY THE CONTRACTOR SHALL BE SUBMITTED TO THE STRUCTURES DIVISION OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION FOR REVIEW AND APPROVAL BEFORE ANY REPAIRS ARE BEGUN. NO TRAFFIC WILL BE ALLOWED ON THE REPAIR AREAS UNTIL THE CONCRETE HAS ATTAINED A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI.

NOTE: ANY AREA THAT IS DISTURBED OUTSIDE THE LIMITS OF THE CONSTRUCTION DURING THE LIFE OF THE PROJECT SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.

TEXTURE COATING NOTES

NOTE: THE CONTRACTOR SHALL USE CONTAINMENT SCREENS OR OTHER MEASURES AS NECESSARY TO PREVENT ANY TEXTURE COATING FROM ENTERING THE ENVIRONMENT. CONTAINMENT MEASURES SHALL BE APPROVED BY THE ENGINEER AND COST SHALL BE INCLUDED IN ITEMS BID ON.

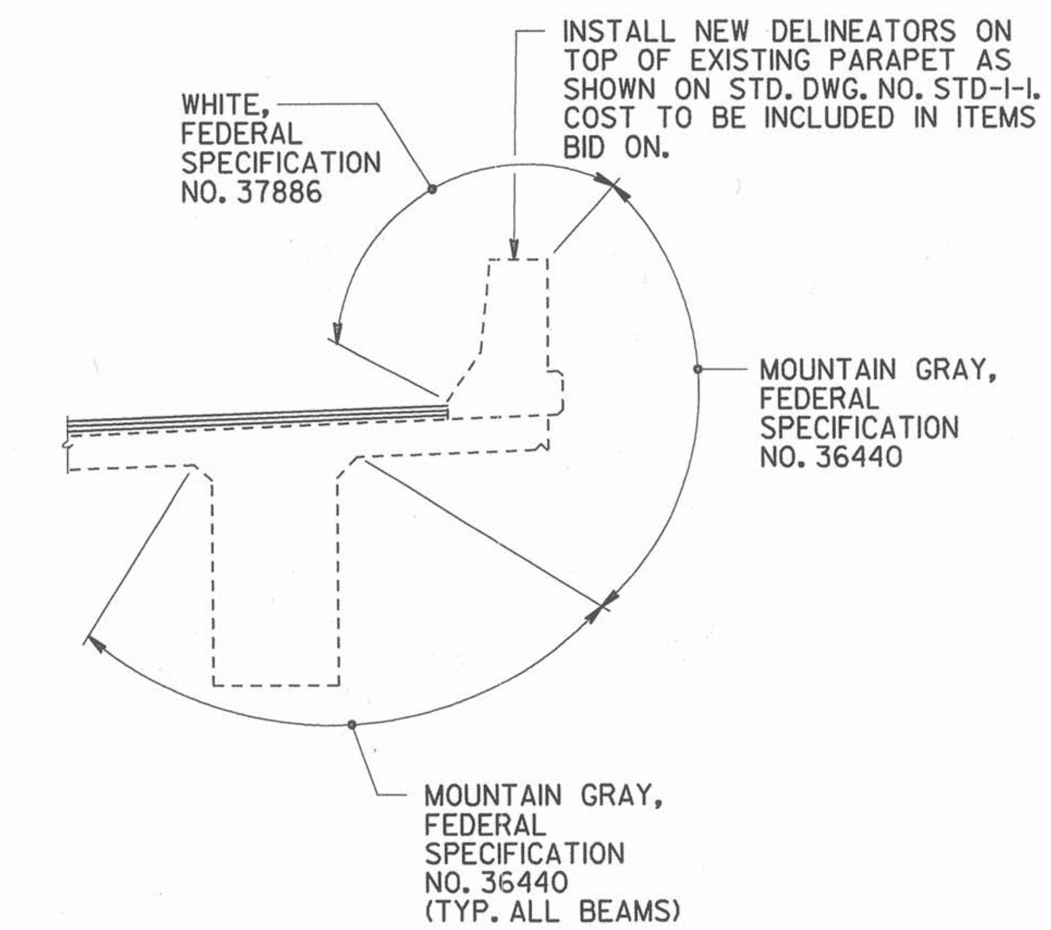
NOTE: THE EXISTING SURFACES THAT ARE TO RECEIVE A TEXTURE FINISH SHALL BE FREE OF ALL EFFLORESCENCE, FLAKING, COATING, RUST, DIRT, OIL, MOLD AND OTHER FOREIGN SUBSTANCE AND TO BE CLEANED TO THE SATISFACTION OF THE ENGINEER USING A HIGH PRESSURE WASH. COST TO BE INCLUDED IN ITEM NO. 604-04.02.

NOTE: THE WASTE WATER FROM THE PRESSURE WASHING OPERATION SHALL BE COLLECTED AND FILTERED. THE COLLECTED WASTE WATER SHALL NOT BE RELEASED INTO THE ENVIRONMENT UNTIL IT IS CLEAR. ALL SOLID DEBRIS FROM THE PRESSURE WASHING OPERATION SHALL BE COLLECTED AND DISPOSED OF IN AN APPROPRIATE MANNER.

PROJECT NO.	YEAR	SHEET NO.
73100-4104-04	2007 (1)	2

REVISIONS

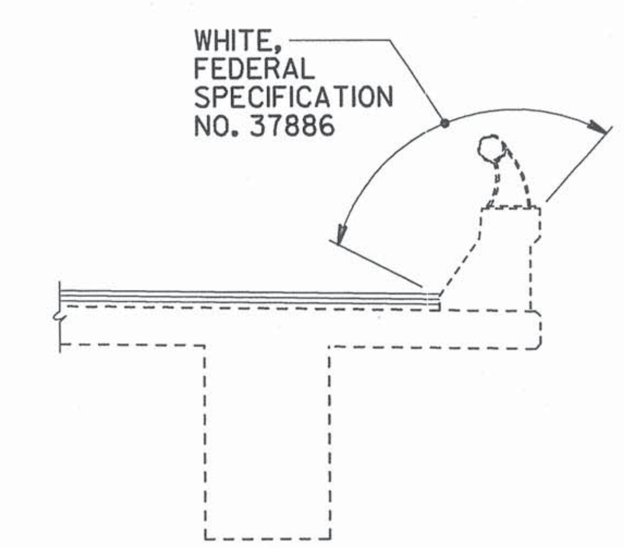
NO.	DATE	BY	BRIEF DESCRIPTION
1		RC	REVISED DATE



TEXTURE COATING DETAIL

(INTERSTATE 40 OVER OAKDALE ROAD (NFA 1203)

NOTE: COST OF TEXTURE COATING SHALL BE INCLUDED IN ITEM NO. 604-04.02, AND INCLUDES PARAPETS, ENDPOSTS, CANTILEVERS, BEAMS AND ALL EXPOSED ABUTMENT AND BENT SURFACES.



TEXTURE COATING DETAIL

(OAKDALE ROAD (NFA 1203) OVER INTERSTATE 40)

NOTE: COST OF TEXTURE COATING SHALL BE INCLUDED IN ITEM NO. 604-04.02, AND INCLUDES PARAPETS AND ENDPOSTS.

NOTE: EXISTING ALUMINUM TUBING AND POST TO BE COVERED DURING TEXTURED FINISH TO PREVENT OVERSPRAY. COST TO BE INCLUDED IN OTHER ITEMS BID ON.

DESIGNED BY	BILBREY, JEKABSONS	DATE	1/06
DRAWN BY	t. wilson	DATE	1/06
SUPERVISED BY	BILBREY, BARTHOLOMEW	DATE	1/06
CHECKED BY	JEKABSONS	DATE	1/06

ERIKS W. JEKABSONS REGISTERED ENGINEER AGRICULTURE COMMERCE NO. 109916 STATE OF TENNESSEE 2/24/06

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES AND ESTIMATED BRIDGE QUANTITIES
INTERSTATE 40 OVER OAKDALE ROAD (NFA 1203)
BRIDGE NO. 73-I40-1.08
OAKDALE ROAD (NFA 1203) OVER INTERSTATE 40
BRIDGE NO. 73-1203-1.54
ROANE COUNTY
2007 (1)

BR-79-2

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