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NO PROJECT COMMITMENTS SHEET INCLUDED IN THIS SET OF PLANS

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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 CIVIL ENGINEERING MANAGER I: BRIAN K. EGLI, P.E.
 DESIGNED BY BARGE, WAGGONER, SUMNER & CANNON, INC.
 DESIGNER MARRIS T. JONES CHECKED BY LANDEL BILBREY, P.E.
 P.E. NO. 05078-4201-04
 PIN NO. 120313.00
 THIS PROJECT IS TO BE BRACKETED WITH PIN NO. 117622.00

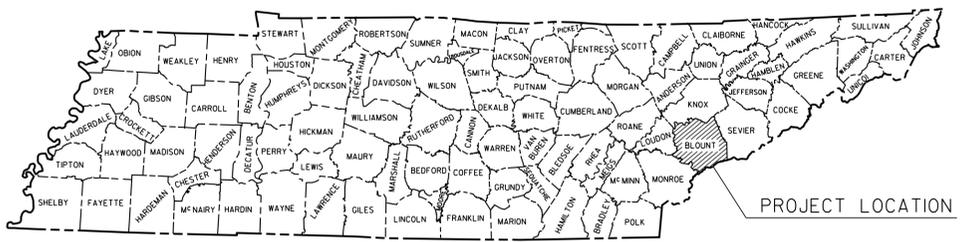
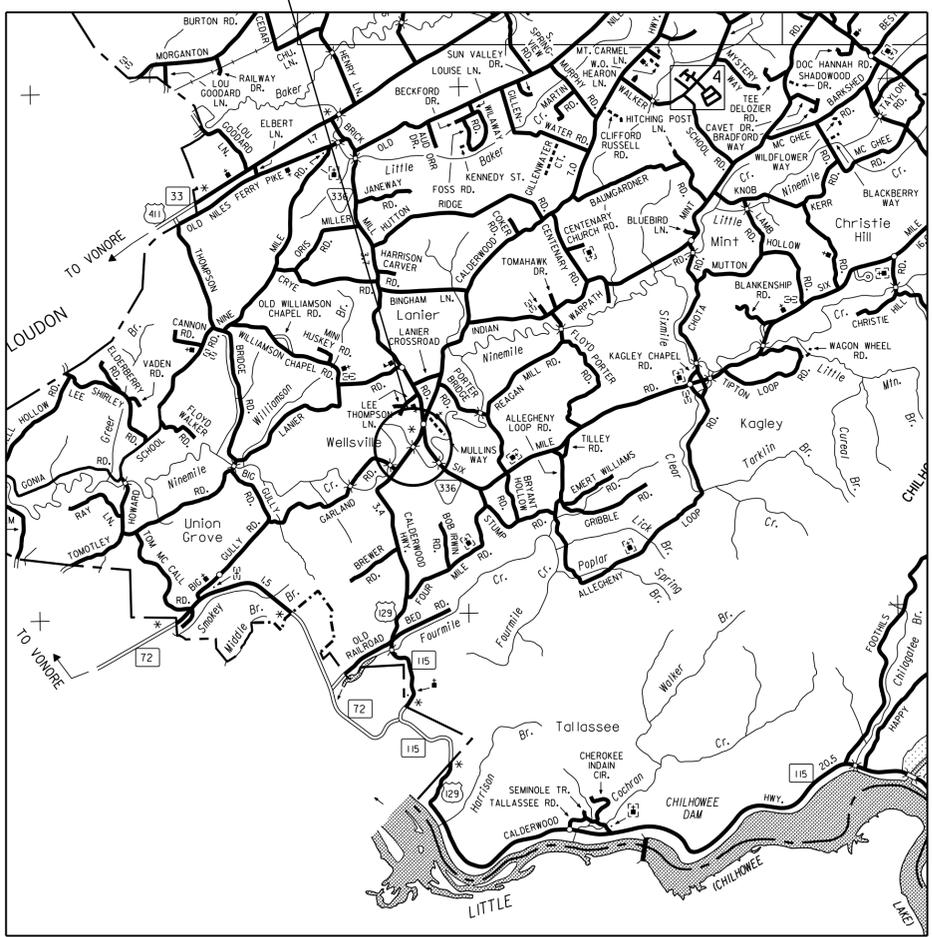
STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION BUREAU OF ENGINEERING

BLOUNT COUNTY

STATE ROUTE 115 OVER NINE MILE CREEK

BRIDGE REPAIR

BRIDGE NO. 05-SRI15-03.15



LIST OF DRAWINGS

DWG. NO.	LAST REV. DATE	DRAWING
BR-117-168		LAYOUT OF BRIDGE TO BE REPAIRED
BR-117-169		GENERAL NOTES AND ESTIMATED BRIDGE QUANTITIES
BR-117-169A		BRIDGE GENERAL NOTES
BR-117-170		SUPERSTRUCTURE
BR-117-171		SUPERSTRUCTURE REPAIR DETAILS
BR-117-172		STRUCTURAL STEEL REPAIR DETAILS
BR-117-173		CURB REPAIR DETAILS
BR-117-174		ABUTMENT NOS. 1 AND 2 REPAIR DETAILS
BR-117-175		ABUTMENT NOS. 1 AND 2 REPAIR DETAILS
BR-117-176		BENT REPAIR DETAILS
BR-117-177		BENT REPAIR DETAILS
BR-117-178		MISCELLANEOUS REPAIR DETAILS

* LIST OF REFERENCE DRAWINGS

DWG. NO.	DRAWING
B-II-32 THRU B-II-34	EXISTING BRIDGE PLANS
B-II-32A THRU B-II-32F	BRIDGE REPAIR PLANS - 1988

* DENOTES: THESE DRAWINGS ARE TO BE PRINTED WITH PLANS.

BRIDGE NO. 05-SRI15-03.15
(STATE ROUTE 115 OVER NINE MILE CREEK)
ADT (2014) = 1,070
POSTED SPEED = 50 M.P.H.

**UNOFFICIAL
SET**

NOT FOR
BIDDING

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

DATE _____

APPROVED: [Signature]
JOHN SCHROER, COMMISSIONER

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED: _____
DIVISION ADMINISTRATOR DATE _____

GENERAL NOTES:

SPECIFICATIONS:

STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, TENNESSEE DEPARTMENT OF TRANSPORTATION, (JANUARY 1, 2015 EDITION)

LOADING:

HS20-44 LIVE LOADING, SEISMIC ZONE B ACCELERATION COEFFICIENT Z=0.10

DESIGN SPECIFICATIONS:

AASHTO STANDARD SPECIFICATIONS, 17TH EDITION WITH ADDENDA

CONCRETE:

TO BE CLASS "A" (CAST IN PLACE), $f_c=3,000$ psi, EXCEPT AS NOTED OTHERWISE.

STRUCTURAL STEEL:

STRUCTURAL STEEL SHALL COMFORM TO AASHTO M270 GRADE 36 (ASTM A709 GRADE 36) UNLESS OTHERWISE NOTED.

CONCRETE CURING

ALL CONCRETE IN REPAIR AREAS SHALL BE CURED ACCORDING TO THE STANDARD SPECIFICATIONS.

REINFORCING STEEL:

SHALL BE ASTM A615 GRADE 60 UNLESS NOTED OTHERWISE (EPOXY COAT ALL SLAB STEEL). SEE SECTION 604 & 907 OF THE STANDARD SPECIFICATIONS.

SHOP DRAWINGS:

SEE SECTION 105.2 OF THE STANDARD SPECIFICATIONS. A COPY SHALL ALSO BE SUBMITTED TO THE DIVISION OF STRUCTURES, BRIDGE INSPECTION AND REPAIR OFFICE.

REQUIREMENTS AND RESTRICTIONS FOR PHASE CONSTRUCTION:

AT LEAST ONE 9 FOOT TRAFFIC LANE SHALL BE MAINTAINED AT ALL TIMES.

FORMS AND FALSEWORK:

CONCRETE FORM WORK, FALSEWORK, AND TEMPORARY SUPPORTS SHALL BE REMOVED FROM THE JOB SITE AFTER WORK IS COMPLETED. COST OF FORMS, FALSEWORK, AND TEMPORARY SUPPORT SHALL BE INCLUDED IN ITEMS BID ON. THIS WORK SHALL BE COMPLETED BEFORE FINAL PAYMENT IS APPROVED.

NOTE:

THE CONTRACTOR IS SOLELY RESPONSIBLE FOR SUPPORTING THE BEAMS TO PREVENT DAMAGE DUE TO TWISTING OR OVERTURNING DURING ALL PHASES OF CONSTRUCTION. IT IS STRONGLY RECOMMENDED THAT THE TEMPORARY ERECTION DIAPHRAGMS BE INSTALLED AND THE PERMANENT INTERMEDIATE DAPHRAGMS BE POURED AND CURED PRIOR TO PLACING ANY LOADS ON THE GIRDERS. HOWEVER, TEMPORARY ERECTION DIAPHRAGMS AND PERMANENT INTERMEDIATE DIAPHRAGMS MUST BE IN PLACE IN THE SPAN AT THE TIME THE SLAB IS POURED IN SAID SPAN.

SPECIAL NOTE FOR UTILITIES:

CARE SHALL BE TAKEN WHILE REMOVING AND REPAIRING BRIDGE COMPONENTS SO AS NOT TO DISTURB OR DAMAGE ANY UTILITIES.

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, AS SPECIFIED, TO REMOVE UNSOUND CONCRETE. SAWING OR CUTTING OF THE CONCRETE IS ACCEPTABLE SO LONG AS ANY SPECIFIED PROJECTION OF THE EXISTING REINFORCEMENT IS MAINTAINED. ALL DEVICES PROPOSED FOR CONCRETE DEMOLITION SHALL MEET THE APPROVAL OF THE ENGINEER.

DEMOLITION, REPAIR, OR REHABILITATION OF BRIDGES:

THE CONTRACTOR SHALL VERIFY THAT AN ASBESTOS SURVEY HAS BEEN COMPLETED PRIOR TO ANY DEMOLITION, REPAIR OR REHABILITATIONS ACTIVITIES (NOT INCLUDING ASPHALT MILLING OR OVERLAY).

ASBESTOS-CONTAINING MATERIALS (ACM) ABATEMENT IS THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE COMPLETED PRIOR TO ANY DEMOLITION, REPAIR OR REHABILITATION OF BRIDGES. ABATEMENT SHOULD BE ACCOMPLISHED PER SP202ACM SPECIAL PROVISION REGARDING REMOVAL OF ASBESTOS-CONTAINING 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.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING A NOTICE TO TDEC, DIVISION OF AIR POLLUTION CONTROL TEN (10) DAYS IN ADVANCE OF ANY ACM ABATEMENT, DEMOLITION, OR MAJOR REPAIR INVOLVING THE REMOVAL/REPLACEMENT OF A STRUCTURAL COMPONENT.

APPROVAL OF MATERIALS:

NO FABRICATION SHALL BE STARTED UNTIL ALL THE MATERIALS INVOLVED HAVE BEEN APPROVED BY THE TENNESSEE DEPARTMENT OF TRANSPORTATION, DIVISION OF MATERIALS AND TESTS WITH A COPY OF THE TEST REPORTS ALSO GOING TO THE TENNESSEE DEPARTMENT OF TRANSPORTATION, DIVISION OF STRUCTURES, BRIDGE INSPECTION AND REPAIR OFFICE.

SPECIAL NOTES TO CONTRACTOR:

CONTRACTOR SHALL USE EXTREME CARE AND TAKE ANY MEASURE NECESSARY TO INSURE THAT NO DEBRIS IS DROPPED INTO THE STREAM BELOW. THIS SHALL BE ACCOMPLISHED BY THE USE OF BASKETS, NETTING, WRAPPING, WORK PLATFORM, OR OTHER SIMILARLY EFFECTIVE MEANS. ANY DEBRIS WHICH IS ALLOWED TO DROP ON THE BANKS BELOW THE BRIDGE SHALL NOT BE ALLOWED TO ENTER THE WATER AND SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR. COST OF REMOVING AND DISPOSING OF DEBRIS SHALL BE INCLUDED IN OTHER ITEMS BID.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STABILITY OF THE STRUCTURE DURING CONSTRUCTION. DESIGN CALCULATIONS AND DETAILS OF THE TEMPORARY SUPPORT SYSTEM OR FALSEWORK REQUIRED SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND SHALL MEET WITH THE FULL SATISFACTION OF THE ENGINEER BEFORE ANY DEMOLITION IS BEGUN. BRACING PLAN TO BE SEALED BY A PROFESSIONAL ENGINEER REGISTERED TO PRACTICE ENGINEERING IN THE STATE OF TENNESSEE. COST OF LABOR AND MATERIALS FOR STABILIZATION OF THE STRUCTURE SHALL BE INCLUDED IN ITEM NO. 602-10.05, BRACING REPAIRS, L.S.

A CONTAINMENT SYSTEM SHALL BE IN PLACE DURING REPAIR ACTIVITIES INCLUDING, BUT NOT LIMITED TO, SANDBLASTING, PAINTING, TEXTURE COATING, CONCRETE CUTTING, WASHING, ETC. TO PREVENT DUST, SPRAY, PAINT, OR OTHER SIMILAR WASTE MATERIALS FROM ENTERING BIG CREEK. COST OF CONTAINMENT SYSTEM TO BE INCLUDED IN OTHER ITEMS.

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

ANY DAMAGE TO EXISTING STRUCTURES TO BE LEFT IN PLACE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

PROJECT NO.	YEAR	SHEET NO.	
05078-4201-04	2015	2	
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION

ESTIMATED BRIDGE QUANTITIES			
ITEM NO.	DESCRIPTION	UNIT	TOTAL QUANTITY
	204-09.01 COFFERDAM (BENT 2)	LS	1
	204-09.02 COFFERDAM (BENT 3)	LS	1
	204-09.03 COFFERDAM (BENT 4)	LS	1
(1) *	602-10.20 BOLTS	EA.	60
(11)	602-10.05 BRACING REPAIRS	LS	1
(2)	602-10.32 STRUCTURAL STEEL (REPAIRS)	LB.	988
(3)	603-02.01 REPAINTING EXISTING STEEL STRUCTURES (BRIDGE NO. 05-SR115-03.15)	LS	1
(4)	603-05.20 CONTAINMENT & DISPOSAL OF WASTE (BRIDGE NO. 05-SR115-03.15)	LS	1
(5)	604-03.01 CLASS "A" CONCRETE (BRIDGES)	C.Y.	37
(6) *	604-10.05 CONCRETE	S.F.	56
(7)	604-10.14 REMOVE EXISTING WEARING SURFACE	LS	1
	604-10.18 REINFORCING STEEL (REPAIRS)	LB.	1,151
*	604-10.30 BRIDGE DECK REPAIRS (FULL DEPTH OF SLAB)	S.Y.	30
(8)	604-10.42 CONCRETE REPAIRS	C.F.	36
*	604-10.50 BRIDGE DECK REPAIRS (PARTIAL DEPTH OF SLAB)	S.Y.	80
(9)	604-10.54 CONCRETE REPAIRS	S.F.	57
*	604-10.58 EPOXY INJECTION (INJECTION)	GAL.	1
*	604-10.62 EPOXY INJECTION REPAIR (COMPLETE AND IN PLACE)	L.F.	5
(10) *	606-24.12 TEMPORARY SHEET PILES	S.F.	200
	617-01 BRIDGE DECK SEALANT	S.Y.	424

* DENOTES: ITEM CAN BE INCREASED, DECREASED OR ELIMINATED AS DIRECTED BY THE ENGINEER.

FOOTNOTES:

- ① INCLUDES ALL LABOR AND MATERIALS FOR REPLACEMENT OF DETERIORATED RIVETS. SIZES AND LOCATIONS AS NOTED IN PLANS. INCLUDES COST OF BOLTS, NUTS, AND WASHERS.
- ② ALL LABOR, EQUIPMENT AND MATERIALS NECESSARY FOR THE REMOVAL AND REPLACEMENT OF STRUCTURAL STEEL MEMBERS INCLUDING ANY BOLTS, ANGLES, AND POST BRACKET, ETC. TO COMPLETE REPAIRS AS SHOWN IN THE PLANS.
- ③ INCLUDES ALL LABOR AND MATERIALS NECESSARY FOR THE SURFACE PREPARATION AND PAINTING OF ALL NEW AND THE EXISTING STRUCTURAL STEEL, BEARINGS, NEW ANGLES AND POST BRACKET ASSEMBLY AS SHOWN ON DRAWING BR-117-176 AND BR-117-177 FOR AN APPROXIMATE WEIGHT OF 115,288 LBS. SEE SURFACE PREPARATION AND PAINTING NOTES ON THIS SHEET.
- ④ INCLUDES ALL CONTAINMENT AND DISPOSAL OF ALL WASTE GENERATED DURING CLEANING AND PAINTING OF STRUCTURAL STEEL.
- ⑤ INCLUDES COST OF ALL CONCRETE, EXCAVATION, FORMING, LABOR AND ANY MISCELLANEOUS MATERIALS NECESSARY TO COMPLETE THE REPAIRS FOR THE LIMITS SHOWN ON DWG. NO. BR-117-174 AND BR-117-175. ALL WORK MUST MEET WITH THE FULL SATISFACTION OF THE ENGINEER.
- ⑥ INCLUDES ALL LABOR AND MATERIALS TO PLACE HIGH EARLY STRENGTH CONCRETE FOR REPAIR AREAS NOTED IN PLANS.
- ⑦ INCLUDES ALL LABOR AND MATERIALS NECESSARY FOR THE REMOVAL AND DISPOSAL OF THE EXISTING ASPHALT OVERLAY (APPROX. 8½").
- ⑧ INCLUDES ALL COST FOR LABOR FOR REMOVING PORTIONS OF EXISTING CURBS, BLAST CLEANING EXISTING REINFORCING STEEL, PLACING HIGH EARLY STRENGTH CONCRETE AND ALL MISCELLANEOUS MATERIALS NECESSARY TO COMPLETE CURB REPAIRS AS SHOWN IN THE PLANS.

FOOTNOTES (CONT'D):

- ⑨ INCLUDES ALL LABOR AND MATERIALS TO PLACE A POLYMER MODIFIED CEMENTITIOUS STRUCTURAL PATCHING MATERIAL FOR REPAIR AREAS NOTED IN THE PLANS.
- ⑩ INCLUDES ALL LABOR AND MATERIALS NECESSARY FOR THE INSTALLATION OF TEMPORARY SHEET PILING DURING CONSTRUCTION OF REINFORCED CONCRETE UNDER BASE OF ABUTMENTS. SEE SHEET BR-117-175.
- ⑪ INCLUDES ALL NECESSARY TEMPORARY SUPPORT OF THE STRUCTURE FOR THE DURATION OF THE PROJECT. BRACING PLANS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES AND
ESTIMATED BRIDGE QUANTITIES
STATE ROUTE 115 OVER
NINE MILE CREEK
BRIDGE NO. 05-SR15-03.15
BLOUNT COUNTY
2015

SPECIAL NOTES TO CONTRACTOR (CONT'D):

THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND QUANTITIES BEFORE ORDERING ANY MATERIALS.

THE CONTRACTOR SHALL CHECK LOCATION OF ALL EXISTING SUBSTRUCTURES AND VERIFY SPAN LENGTHS BEFORE ORDERING STEEL.

SOME HAND REMOVAL OF SOIL DEPOSITED ON CONCRETE REDESTALS AT BENTS MAY BE REQUIRED TO ACCESS BENT COLUMNS FOR CLEANING AND PAINTING. COST TO BE INCLUDED IN OTHER ITEMS.

CONTRACTOR SHALL COORDINATE WITH PROPERTY OWNER REGARDING REMOVAL OF EXISTING FENCE WITHIN R.O.W. LIMITS.

SPECIAL NOTE:

ANY CONSTRUCTION WITHIN THE STREAM CHANNEL SHALL BE SEPARATED FROM FLOWING WATER, AND ACCOMPLISHED DURING LOW FLOW CONDITIONS. THIS SHALL BE ACCOMPLISHED BY THE USE OF FLUMES, DIVERSION CHANNEL WITH SAND BAG BERM, DIVERSION PIPE, OR IN SOME CASES COFFERDAMS.

CLEANING AND PAINTING:

ALL STRUCTURAL STEEL SHALL BE CLEANED AND PAINTED. BLAST CLEANING SHALL BE IN ACCORDANCE WITH SECTION 603.05(B). BLAST CLEANING SHALL REMOVE ALL OF THE EXISTING PAINT SYSTEM AND LOOSE NON-ADHERENT ZINC PRIMER. NO EXISTING TOP COAT SHALL REMAIN AFTER BLAST CLEANING. BLAST CLEANING SHALL REMOVE ALL RUST IN AREAS TO BE PAINTED. AREAS OF VISIBLE OR EXPOSED STEEL SHALL BE CLEANED TO SSPC-SP10 (NEAR WHITE BLAST CLEAN) CONDITION.

ALL AREAS OF EXPOSED STEEL SHALL BE SPOT PRIMED IMMEDIATELY AFTER CLEANING TO PREVENT RE-RUSTING. AREAS SHALL BE RE-CLEANED IF RUSTING OCCURS BEFORE PRIMING.

PAINT SYSTEM SHALL BE SYSTEM "A" IN ACCORDANCE WITH SUB SECTION 603.06(B). COLOR OF THE FINISH COAT SHALL COMPLY WITH FEDERAL STANDARD 595b, FEDERAL SPECIFICATION 24110, (BRIGHT GREEN). SEE SECTIONS 603 AND 910 OF THE STANDARD SPECIFICATIONS.

THE SAME MANUFACTURER MUST SUPPLY ALL PRODUCTS USED IN THE COATING SYSTEM, INCLUDING THINNERS.

CLEANING AND PAINTING OF BEARINGS:

ALL STEEL BEARINGS SHALL BE CLEANED IN ACCORDANCE WITH TENNESSEE STANDARD SPECIFICATIONS SECTION 603.05(b). CLEANING SHALL REMOVE ALL RUST, SCALE LOOSE PAINT AND DIRT. AFTER CLEANING, THE BEARINGS SHALL BE PAINTED WITH AN APPROVED EPOXY MASTIC PAINT APPLIED AT A MINIMUM DRY FILM THICKNESS OF 4.0 MILS. THE COLOR OF THE EPOXY MASTIC SHALL BE COMPLY WITH FEDERAL STANDARD 595b, FEDERAL SPECIFICATION 24110 (BRIGHT GREEN)..

SEE THE TENNESSEE DEPARTMENT OF TRANSPORTATION'S QUALIFIED PRODUCTS LIST FOR ACCEPTABLE BRANDS OF EPOXY MASTIC. ALL PRODUCTS INCLUDING THINNERS, MUST BE SUPPLIED BY THE SAME MANUFACTURER.

APPLICATION:

THE COATING APPLICATOR SHALL FOLLOW THE MANUFACTURER'S PRINTED INSTRUCTIONS AND SHALL HAVE THESE INSTRUCTIONS ON SITE DURING COURSE OF THE WORK.

WORKER PROTECTION:

OUR MAINTENANCE RECORDS INDICATE THAT THIS BRIDGE WAS ORIGINALLY PAINTED WITH MATERIALS CONTAINING LEAD AND/OR CHROMATES AND OVER COATED WITH UNIVERSAL PRIMER AND HIGH BUILD ALIPHATIC POLYURETHANE TOP COAT. THE CONTRACTOR SHALL BE REQUIRED TO TAKE ALL MANDATORY SAFEGUARDS PRESCRIBED BY THE STATE AND FEDERAL LAW FOR BOTH THE WORKER'S PROTECTIONS AND HAZARDOUS MATERIALS DISPOSAL.

CONTAINMENT AND DISPOSAL:

OUR RECORDS SHOW THAT THIS BRIDGE HAS OR HAS HAD LEAD/ CHROMATE PAINT APPLIED TO IT DURING ITS HISTORY; THEREFORE, THE CONTRACTOR SHALL ASSUME THAT REMNANTS ON THE BRIDGE ALONG WITH THE POSSIBILITY OF THE PRESENCE OF MILL SCALE. CONTRACTOR SHALL BID ACCORDINGLY.

BOLTS:

ALL BOLTS SHALL BE HIGH TENSILE STRENGTH BOLTS (ASTM A-325) UNLESS NOTED OTHERWISE. SIZE TO BE AS NOTED ON PLANS. SEE AASHTO SPECIFICATIONS; ARTICLE 11.5.6 DIVISION II. EXISTING CONTACT SURFACE SHALL BE CLEANED TO SSPC-SP10 SPECIFICATIONS PRIOR TOP ATTACHMENT OF NEW MEMBERS.

QUICK SET PATCHING MATERIAL:

QUICK-SET PATCHING MATERIAL SHALL BE A POLYMER MODIFIED CEMENTIOUS MATERIAL. SEE TDOT QUALIFIED PRODUCTS LIST 13, SECTION B.6, FOR ACCEPTABLE MATERIALS.

SEASONAL LIMITATIONS NOTE:

THE SWALLOW NESTS CANNOT BE DISTURBED WHILE EGGS OR YOUNG ARE PRESENT IN THE NEST. THE APPROXIMATE DATE FOR NESTING ACTIVITIES BEGINNING IS MAY 1 AND THE FLEDGLING FOR THE CLIFF SWALLOW IS JULY, 15. NOTE THAT THESE ARE APPROXIMATE DATES AND NESTING COULD OCCUR EARLIER AND LAST UNTIL LATER. THE DATES ARE FOR GUIDANCE ONLY AND THE EMPHASIS IS ON THE PRESENCE OR ABSENCE OF EGGS OR YOUNG, NOT THE DATES. THE CONTRACTOR CANNOT DISTURB THE SWALLOWS OR NESTS AS LONG AS EGGS AND/OR YOUNG ARE PRESENT. THE USFWS HAS GIVEN THE DATE OF JULY 15 AS THE TYPICAL TIME WHEN YOUNG SHOULD BE LEAVING THE NEST. HOWEVER, THIS DATE COULD BE UP TO A MONTH OR MORE LATER DEPENDING ON WHEN THE SWALLOWS ACTUALLY LAY THEIR EGGS. IF THE BIRDS ARE PRESENT AND EGGS OR YOUNG ARE IN THE NEST, THEY ARE NOT TO BE DISTURBED UNTIL THE YOUNG LEAVE THE NESTS. IF WORK BEGINS PRIOR TO THE BIRDS NESTING, THE CONTRACTOR CAN REMOVE THE NESTS AND TAKE MEASURES TO PREVENT THE SWALLOWS FROM BUILDINGS NESTS AND WORK THROUGHOUT THE NESTING SEASON. THIS COULD BE INSTALLATION OF NETTING, TARPS OR JUST HAVING SOMEBODY AVAILABLE TO REMOVE THE NESTS BEFORE THE BIRDS CAN LAY EGGS IN THEM.

WELDING:

SEE SECTION 602 OF THE STANDARD SPECIFICATIONS.

SEE CURRENT EDITION OF THE AASHTO/AWS D1.5 BRIDGE WELDING CODE. CONTRACTOR IS TO SUBMIT WELDING PROCEDURE SPECIFICATIONS (BASED ON SUCCESSFUL TEST RESULTS AS RECORDED IN A PROCEDURE QUALIFICATION TEST RECORD. SEE AASHTO/AWS D1.5 SECTION 1.9 AND SECTION 5 (QUALIFICATION)) AND WELDER CERTIFICATIONS TO THE ENGINEER FOR REVIEW BEFORE WELDING WILL BE ALLOWED. WELDER CERTIFICATION SHALL INCLUDE PROOF OF CONTINUOUS WORK USING THE SPECIFIED WELDING PROCESS.

WELDING PROCEDURE SPECIFICATIONS ARE NOT REQUIRED FOR TEMPORARY WELDS; STAY-IN-PLACE METAL DECKING IS CONSIDERED TEMPORARY.

THE WELDING PROCEDURE SPECIFICATIONS SHOULD BE ON SITE FOR WELDER AND INSPECTOR REVIEW.

WELDING IS TO BE DONE BY THE CERTIFIED WELDER; SUPERVISION OF NON-CERTIFIED WELDER IS NOT PERMITTED. TDOT HAS THE OPTION OF HAVING THE WELDER RECERTIFIED IF QUESTIONABLE WORK IS OBSERVED; COST OF THIS RECERTIFICATION IS TO BE PAID FOR BY THE CONTRACTOR.

WELDER QUALIFICATION POSITIONS FOR FILLET AND GROOVE WELDS: FLAT (F), HORIZONTAL (H), VERTICAL (V), OVERHEAD (OH), SEE FIG 5.4 OR FIG 5.5 IN AASHTO/AWS D1.5 FOR POSITION LIMITS.

QUALIFICATION TEST		TYPE OF WELD AND POSITION OF WELDING QUALIFIED PLATE	
WELD	POSITION	GROOVE	FILLET
GROOVE	1G	F	F,H
	2G	F,H	F,H
	3G	F,H,V	F,H,V
	4G	F,OH	F,H,OH
	3G AND 4G	ALL	ALL
FILLET	1F		F
	2F		F,H
	3F		F,H,V
	4F		F, H,OH
	3F AND 4F		ALL

FROM TABLE 5.7, WELDER QUALIFICATION – TYPE AND POSITION LIMITATIONS,, AASHTO/AWS/D1.5.

PROJECT NO.	YEAR	SHEET NO.	
05078-4201-04	2015		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION

4/28/2015 F:\35\35034\3503420\Bri\lgbl\3503420_GEN001.dgn

DESIGNED BY M. JONES DATE 03/14
 DRAWN BY M. JONES DATE 03/14
 SUPERVISED BY L. BILBREY DATE 03/14
 CHECKED BY L. BILBREY DATE 03/14



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

BRIDGE GENERAL NOTES
STATE ROUTE 115 OVER
NINE MILE CREEK
BRIDGE NO. 05-SRI15-03.15
BLOUNT COUNTY
2015

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	05078-4201-04	2A

ESTIMATED ROADWAY QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	
	209-05	SEDIMENT REMOVAL	C.Y.	2
*	209-08.02	TEMPORARY SILT FENCE (WITH BACKING)	L.F.	550
	209-09.03	SEDIMENT FILTER BAG (15' X 15')	EACH	1
(1)	303-10.01	MINERAL AGGREGATE (SIZE 57)	TON	14
	307-01.08	ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING B-M2	TON	50
(2)	411-01.10	ACS MIX (PG64-22) GRADING D	TON	80
	411-12.05	SCORING FOR CENTERLINE RUMBLE (4IN WIDTH-24IN SPACING)	L.M.	0.2
	415-01.02	COLD PLANING BITUMINOUS PAVEMENT	S.Y.	775
	705-02.02	SINGLE GUARDRAIL (TYPE 2)	L.F.	150
	705-04.07	TAN ENERGY ABSORBING TERM (NCHRP 350, TL3)	EACH	4
	705-04.09	EARTH PAD FOR TYPE 38 GR END TREATMENT	EACH	4
(3)	705-08.51	PORTABLE IMPACT ATTENUATOR NCHRP350 TL-3	EACH	2
	706-01	GUARDRAIL REMOVED	L.F.	328
	706-05	GUARDRAIL ADJUSTMENT	L.F.	324
	707-08.11	HIGH-VISIBILITY CONSTRUCTION FENCE	L.F.	250
	712-01	TRAFFIC CONTROL	LS	1
	712-02.02	INTERCONNECTED PORTABLE BARRIER RAIL	L.F.	330
	712-04.01	FLEXIBLE DRUMS (CHANNELIZING)	EACH	4
(4)	712-04.50	PORTABLE BARRIER RAIL DELINEATOR	EACH	16
	712-06	SIGNS (CONSTRUCTION)	S.F.	328
(5)	712-09.01	REMOVABLE PAVEMENT MARKING LINE	L.F.	1230
(6)	716-05.01	PAINTED PAVEMENT MARKING (4" LINE)	L.M.	0.2
(6)	716-05.05	PAINTED PAVEMENT MARKING (STOP LINE)	L.F.	24
	716-13.01	SPRAY THERMO PVMT MRKNG (60 mil) (4IN LINE)	L.M.	0.6
	717-01	MOBILIZATION	LS	1
	730-40	TEMPORARY TRAFFIC SIGNAL SYSTEM	EACH	1
(1)	740-10.03	GEOTEXTILE (TYPE III)(EROSION CONTROL)	S.Y.	100

* ITEM CAN BE INCREASED, DECREASED, OR ELIMINATED AS DIRECTED BY THE ENGINEER.

FOOTNOTES:

- (1) FOR USE WITH SEDIMENT FILTER BAG
- (2) INCLUDES COST OF 0.70 TONS OF BITUMINOUS MATERIAL FOR TACK COAT. RATE SHALL BE 0.10 GAL/S.Y. FOR MILLED SURFACES AND 0.07 GAL/S.Y. BETWEEN LIFTS OF NEW ASPHALT.
- (3) THIS ITEM SHALL BE A PORTABLE ENERGY ASORBING TERMINAL MEETING THE REQUIREMENTS OF NCHRP 350 FOR TEST LEVEL 3. EXAMPLES WOULD BE A QUAD-GUARD, A REACT 350, OR A TRACC. THE PAY ITEM WILL INCLUDE FURNISHING AND INSTALLING ALL COMPONENTS AS SHOWN ON THE MANUFACTURER'S DRAWING.
- (4) SHALL BE WHITE
- (5) SHALL BE YELLOW AND USED TO ELIMINATE ANY PASSING ZONE WITHIN 1,000 FT OF STOP BAR AT SOUTHEAST END OF BRIDGE
- (6) FOR TEMPORARY TRAFFIC CONTROL

UTILITY OWNERS

ELECTRICAL: CITY OF MARYVILLE ELECTRIC DEPARTMENT
332 HOME AVENUE
MARYVILLE, TN 37801
(865) 273-3334
JAMES BOND - CELL (865) 250-9421

WATER/
SEWER: CITY OF MARYVILLE UTILITIES
332 HOME AVENUE
MARYVILLE, TN 37801
(865) 273-3304
JESSIE MCWHORTER - (865) 273-3303

SOUTHERN BLOUNT COUNTY UTILITY DISTRICT
808 W. LAMAR ALEXANDER PKWY.
MARYVILLE, TN 37860
(865) 982-3560
A.L. SCOTT - CELL (865)924-6107

GAS: ATMOS
1639 ROBERT C. JACKSON DRIVE
MARYVILLE, TN 37801
(865) 379-8608
DAVID SWECKER - CELL (865) 567-5303

TELEPHONE &
FIBER OPTIC: AT&T
1-800-351-1111
OR
1-800-252-1133

CABLE: CHARTER COMMUNICATIONS
1774 HENRY G. LANE ST.
MARYVILLE, TN 37801
(865) 273-2773
ANSIL SUFFRIDGE - CELL (865) 206-4080

XFINITY (COMCAST)
5720 ASHEVILLE HWY.
KNOXVILLE, TN 37924
(865) 862-5061
JOSH JONES - CELL (865) 719-7590

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BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ESTIMATED
ROADWAY
QUANTITIES

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	05078-4201-04	2B

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.

GUARDRAIL

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

UTILITIES

- (6) 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.
- (7) 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.
- (8) 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.
- (9) 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.

- (10) 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.

MISCELLANEOUS

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

PAVEMENT MARKINGS

S.R. 115 (CALDERWOOD HIGHWAY)

- (12) 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.

LANE SHIFTS

- (13) BEFORE OPENING THE LANE SHIFT TO TRAFFIC, THE TRANSITIONAL MARKINGS ON THE EXISTING ROADWAY MUST BE IN PLACE. THESE MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM 716-05.01, PAINTED PAVMENT MARKING (4" LINE), L.M. ALL EXISTING MARKINGS IN THE AREA OF THESE TRANSITIONAL MARKINGS SHALL BE OBLITERATED AND ALL EXISTING RAISED PAVEMENT MARKERS SHALL BE REMOVED TO ELIMINATE CONFLICTING MARKINGS. REMOVAL OF THE EXISTING CONFLICTING MARKINGS AND RAISED PAVEMENT MARKERS WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COST WILL BE INCLUDED IN ITEM NO. 712-01 TRAFFIC CONTROL, LUMP SUM.

PAVEMENT

PAVING

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

CONSTRUCTION WORK ZONE & TRAFFIC CONTROL

- (15) ADVANCED WARNING SIGNS SHALL NOT BE DISPLAYED MORE THAN FORTY-EIGHT (48) HOURS BEFORE PHYSICAL CONSTRUCTION BEGINS. SIGNS MAY BE ERECTED UP TO ONE WEEK BEFORE NEEDED, IF THE SIGN FACE IS FULLY COVERED.
- (16) 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.
- (17) A LONG TERM BUT SPORADIC USE WARNING SIGN, SUCH AS A FLAGGER SIGN, MAY REMAIN IN PLACE WHEN NOT REQUIRED PROVIDED THE SIGN FACE IS FULLY COVERED.
- (18) TRAFFIC CONTROL DEVICES SHALL NOT BE DISPLAYED OR ERECTED UNLESS RELATED CONDITIONS ARE PRESENT NECESSITATING WARNING.
- (19) 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.

- (20) 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.
- (21) ALL DETOUR AND CONSTRUCTION SIGNING SHALL BE IN STRICT ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

EROSION PREVENTION AND SEDIMENT CONTROL

DISTURBED AREA

- (22) AREAS TO BE UNDISTURBED SHALL BE CLEARLY MARKED IN THE FIELD BEFORE CONSTRUCTION ACTIVITIES BEGIN.
- (23) PRE-CONSTRUCTION VEGETATIVE GROUND COVER SHALL NOT BE DESTROYED, REMOVED OR DISTURBED (I.E. CLEARING AND GRUBBING INITIATED) MORE THAN 15 CALENDAR DAYS PRIOR TO GRADING OR EARTH MOVING ACTIVITIES UNLESS THE AREA IS MULCHED, SEEDED WITH MULCH, OR OTHER TEMPORARY COVER IS INSTALLED.
- (24) CLEARING, GRUBBING, AND OTHER DISTURBANCE TO RIPARIAN VEGETATION SHALL BE LIMITED TO THE MINIMUM NECESSARY FOR SLOPE CONSTRUCTION AND EQUIPMENT OPERATIONS. EXISTING VEGETATION SHOULD BE PRESERVED TO THE MAXIMUM EXTENT POSSIBLE. UNNECESSARY VEGETATION REMOVAL IS PROHIBITED.
- (25) ALL DISTURBED AREAS SHALL BE PROPERLY STABILIZED AS SOON AS PRACTICABLE. PRIORITY SHALL BE GIVEN TO FINISHING OPERATIONS AND PERMANENT EPSC MEASURES OVER TEMPORARY EPSC MEASURES ON ALL PROJECTS.
- (26) CONSTRUCTION SHALL BE SEQUENCED AND STAGED TO MINIMIZE THE EXPOSURE TIME OF GRADED OR DENUDED SOIL AREAS, PRESERVE TOPSOIL, AND MINIMIZE SOIL COMPACTION.

SEDIMENT CONTROL

- (27) EPSC MEASURES SHALL BE INSTALLED AND FUNCTIONAL PRIOR TO ANY EARTH MOVING OPERATIONS, AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD.
- (28) THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN A PROACTIVE METHOD TO PREVENT THE OFF-SITE MIGRATION OR DEPOSIT OF SEDIMENT ON ROADWAYS USED BY THE GENERAL PUBLIC. IF SEDIMENT ESCAPES THE CONSTRUCTION SITE, OFF-SITE ACCUMULATIONS OF SEDIMENT THAT HAVE NOT REACHED A STREAM MUST BE REMOVED AT A FREQUENCY 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.

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**ROADWAY
GENERAL
NOTES**

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	05078-4201-04	2C

GENERAL NOTES

EROSION PREVENTION AND SEDIMENT CONTROL

SEDIMENT CONTROL

- (29) WATER PUMPED FROM WORK AREAS AND EXCAVATION MUST BE HELD IN SETTLING BASINS OR TREATED BY FILTRATION OR CHEMICAL TREATMENT PRIOR TO ITS DISCHARGE INTO SURFACE WATERS. ALL PHYSICAL AND/OR CHEMICAL TREATMENT WILL BE APPLIED IN ACCORDANCE WITH MANUFACTURER'S GUIDELINES AND FULLY DESCRIBED IN THE EPSC PLANS. 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.
- (30) IF PERMANENT OR TEMPORARY VEGETATION IS TO BE USED AS AN EPSC MEASURE, THEN THE TIMING OF PLANTING OF VEGETATION SHALL BE SHOWN IN THE SWPPP. DELAYING PLANTING OF COVER VEGETATION UNTIL WINTER MONTHS OR DRY MONTHS SHOULD BE AVOIDED, IF POSSIBLE.
- (31) OFFSITE VEHICLE TRACKING OF SEDIMENTS AND THE GENERATION OF DUST SHALL BE MINIMIZED. A STABILIZED CONSTRUCTION ACCESS (A POINT OF ENTRANCE/EXIT TO THE CONSTRUCTION PROJECT) SHALL BE PROVIDED, AS NEEDED, TO REDUCE THE TRACKING OF MUD AND DIRT ONTO PUBLIC ROADS BY CONSTRUCTION VEHICLES.
- (32) TEMPORARY EPSC MEASURES MAY BE REMOVED AT THE BEGINNING OF THE WORKDAY, BUT MUST BE REPLACED AT THE END OF THE WORKDAY.

STREAM/WETLAND

- (33) SOIL MATERIALS MUST BE PREVENTED FROM ENTERING WATERS OF THE STATE/U.S. EPSC MEASURES TO PROTECT WATER QUALITY MUST 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 STREAM BANKS IN CLEARED AREAS TO PREVENT SEDIMENT MIGRATION INTO STREAMS IN ACCORDANCE WITH TDOT STANDARDS. THEY MUST BE INSTALLED ON THE CONTOUR, ENTRENCHED AND STAKED, AND EXTEND THE WIDTH OF THE AREA TO BE CLEARED.
- (34) INSTREAM EPSC DEVICES REQUIRE THE ENVIRONMENTAL DIVISION'S PERMITS SECTION REVIEW AND MUST BE PROCESSED BY THE PERMITS SECTION TO OBTAIN TDEC, USACE, AND TVA PERMITS.
- (35) THE OPERATION OF EQUIPMENT IN WATERS OF THE STATE/U.S., INCLUDING WETLANDS, SHALL BE ONLY AS SHOWN ON THE PROJECT PLANS AND/OR AS SO SPECIFIED IN THE ARAP/401, SECTION 404 PERMIT(S) AND/OR TVA26(A), IF APPLICABLE. ANY ADDITIONAL PERMITS REQUIRED BY THE CONTRACTOR'S METHOD OF OPERATION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN, AFTER RECEIVING THE APPROVAL OF TDOT ENVIRONMENTAL DIVISION.
- (36) THE WIDTH OF THE FILL ASSOCIATED WITH TEMPORARY CROSSINGS SHALL BE LIMITED TO THE MINIMUM NECESSARY FOR THE ACTUAL CROSSING.
- (37) STREAM BEDS SHALL NOT BE USED AS TRANSPORTATION ROUTES FOR CONSTRUCTION EQUIPMENT. TEMPORARY CROSSINGS MUST BE LIMITED TO ONE POINT PER STREAM AND EPSC MEASURES MUST BE USED WHERE THE STREAM BANKS ARE DISTURBED. WHERE THE STREAMBED IS NOT COMPOSED OF BEDROCK, A PAD OF CLEAN ROCK MUST 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 MUST BE COMPLETELY REMOVED IN THEIR ENTIRETY AFTER THE WORK IS COMPLETED AND THE AFFECTED AREAS RETURNED TO THEIR PREEXISTING ELEVATION. ALL TEMPORARY CROSSINGS MUST BE CONSTRUCTED IN ACCORDANCE WITH STD. DWG. EC-STR-25 UNLESS SPECIFICALLY ADDRESSED IN THE EPSC PLANS. ALTERNATIVELY, PLACING A TEMPORARY BRIDGE (BAILEY BRIDGE OR EQUIVALENT, TIMBERS, ETC.) FROM TOP OF BANK TO TOP OF BANK OR THE APPROPRIATE USE OF BARGES AT THE CROSSING TO AVOID DISTURBANCE OF THE STREAMBED IS AN ACCEPTABLE OPTION.

- (38) HEAVY EQUIPMENT WORKING IN WETLANDS MUST BE PLACED ON MATS, OR OTHER MEASURES MUST BE TAKEN TO MINIMIZE SOIL DISTURBANCE UNLESS SPECIFICALLY ADDRESSED IN THE EPSC PLANS. ANY MATS AND OTHER MEASURES USED FOR HEAVY EQUIPMENT MUST BE REMOVED IN THEIR ENTIRETY AFTER THE WORK IS COMPLETED.

- (39) WETLANDS SHALL NOT BE USED AS EQUIPMENT STORAGE, STAGING, OR TRANSPORTATION AREAS, UNLESS PROVIDED FOR IN THE PLANS.

SPECIES

- (40) 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. THE SWPPP SHALL BE MODIFIED TO INCLUDE EPSC MEASURES TO PREVENT NEGATIVE IMPACTS TO LEGALLY PROTECTED STATE OR FEDERAL FAUNA OR FLORA OR AS INDICATED IN THE ECOLOGICAL STUDIES OR ON THE PERMIT(S).

INSPECTION, MAINTENANCE, REPAIR

- (41) EPSC CONTROLS WILL BE MAINTAINED IN ACCORDANCE WITH TDOT STANDARD DRAWINGS AND GOOD ENGINEERING PRACTICES.
- (42) INSPECTION, REPAIR, AND MAINTENANCE OF EPSC MEASURES/ STRUCTURES IS TO BE PERFORMED ON A REGULAR BASIS. SEDIMENT SHALL BE REMOVED FROM SEDIMENT CONTROL STRUCTURES WHEN THE DESIGN CAPACITY HAS BEEN REDUCED BY FIFTY PERCENT (50%). DURING SEDIMENT REMOVAL, THE CONTRACTOR SHALL TAKE CARE TO ENSURE THAT STRUCTURAL COMPONENTS OF EPSC MEASURES ARE NOT DAMAGED AND THUS MADE INEFFECTIVE. IF DAMAGE DOES OCCUR, THE CONTRACTOR SHALL REPAIR THE STRUCTURES AT THE CONTRACTOR'S OWN EXPENSE.
- (43) SEDIMENT REMOVED FROM SEDIMENT CONTROL STRUCTURES SHALL BE PLACED AND BE TREATED IN A MANNER SO THAT THE SEDIMENT IS CONTAINED WITHIN THE PROJECT LIMITS AND DOES NOT MIGRATE INTO WATERS OF THE STATE/U.S. COST FOR THIS TREATMENT IS TO BE INCLUDED IN PRICE BID FOR ITEM NO. 209-05 SEDIMENT REMOVAL, C.Y.

MATERIALS

- (44) WASTE AND BORROW AREAS SHALL BE LOCATED IN NON-WETLAND AREAS AND ABOVE THE 100-YEAR, FEDERAL EMERGENCY MANAGEMENT AGENCY FLOODPLAIN. BORROW AND WASTE DISPOSAL AREAS SHALL NOT AFFECT ANY WATERS OF THE STATE/U.S. UNLESS THESE AREAS ARE SPECIFICALLY COVERED BY AN ARAP, 404, OR NPDES PERMIT, OBTAINED SOLELY BY THE CONTRACTOR.

LITTER, DEBRIS, WASTE, PETROLEUM

- (45) THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN A PROACTIVE METHOD TO PREVENT LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION WASTES FROM ENTERING WATERS OF THE STATE/U.S. THESE MATERIALS WILL BE PICKED UP AND REMOVED FROM STORMWATER EXPOSURE PRIOR TO ANTICIPATED STORM EVENTS. AFTER USE, MATERIALS USED FOR EPSC WILL BE REMOVED FROM THE SITE.
- (46) 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 (NFPA). APPROPRIATE CONTAINMENT MEASURES FOR THESE AREAS SHALL BE USED. 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.

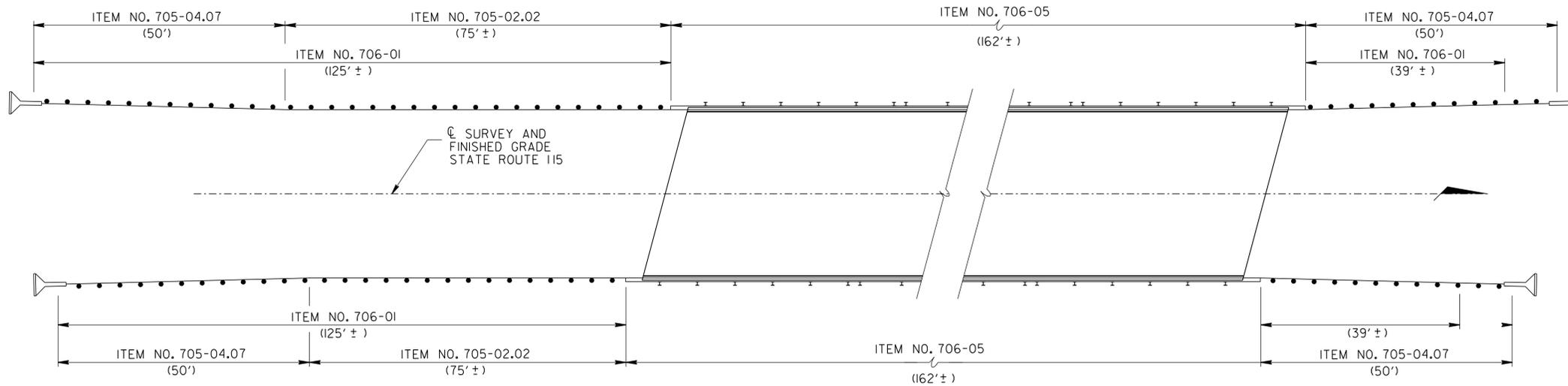
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DEPARTMENT OF TRANSPORTATION

ROADWAY
GENERAL
NOTES

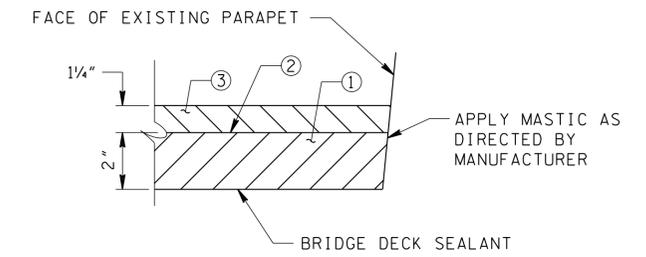
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	05078-4201-04	2D



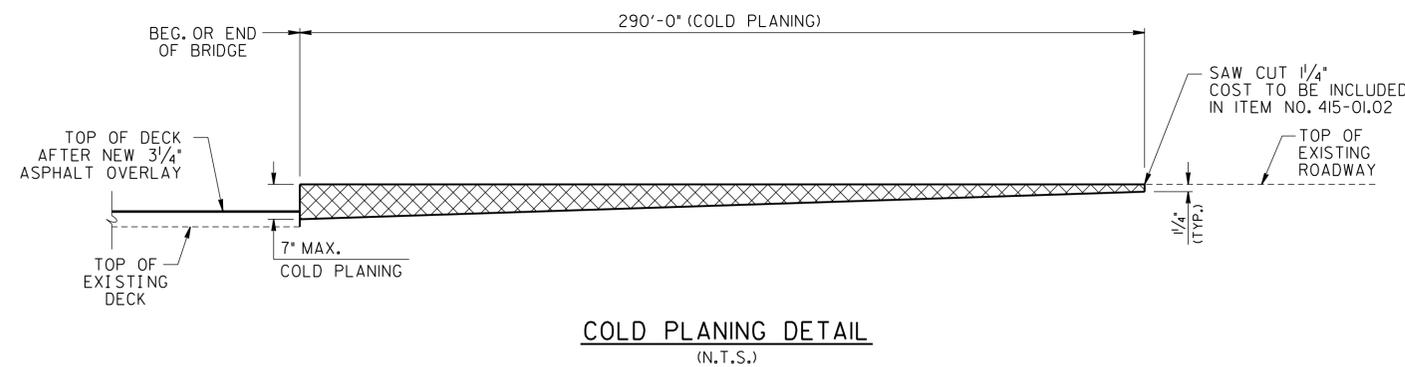
GUARDRAIL PLAN
(N.T.S.)

NOTES

1. ALL COST TO REMOVE EXISTING GUARDRAIL SHALL BE INCLUDED IN ITEM NO 706-01.
2. COLD PLANING MAY BE MORE OR LESS DEPENDING UPON CROSS SLOPES OF THE ROADWAYS. HOWEVER, 1/4" SAW CUT AT BEGINNING OF TRANSITION SHALL BE MAINTAINED.
3. IF COLD PLANING UNCOVERS BASE STONE, MINERAL AGGREGATE, TYPE A BASE, GRADING D MATERIAL SHALL BE ADDED IN A MINIMUM OF ONE 6" COMPACTED LIFT. AN APPLICATION OF PRIME COAT SHALL BE PLACED BETWEEN THE BASE STONE AND ANY ASPHALT AT A RATE OF 0.35 GAL/SY. ALL COST TO EXCAVATE BASE STONE, INSTALL GRADING D MATERIAL, AND APPLY PRIME COAT SHALL BE INCLUDED IN THE BID FOR OTHER ITEMS.
4. SEE SECTION 906.04 FOR DETAILS OF BRIDGE DECK SEALANT AND MASTIC.



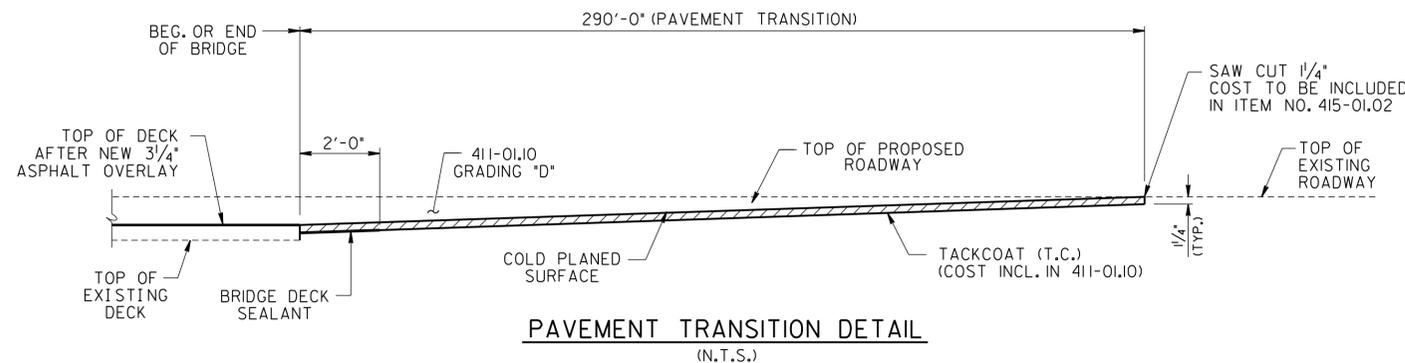
BRIDGE DECK SEALANT DETAIL
(TYP.)



COLD PLANING DETAIL
(N.T.S.)

PAVEMENT SCHEDULE

①	BITUMINOUS PLANT MIX (BINDER) (2" THICK) 307-01.08, ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING B-M2
②	BITUMINOUS TACK COAT TO BE INCLUDED IN OTHER ITEMS
③	BITUMINOUS SURFACE MIX (1/4" THICK) 411-01.10, ACS MIX (PG64-22) GRADING D



PAVEMENT TRANSITION DETAIL
(N.T.S.)

NOTE: SEE SECTIONS 617 AND 906.04 OF THE TENNESSEE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

ESTIMATED GUARDRAIL QUANTITIES

SINGLE GUARDRAIL (TYPE 2) (L.F.) 705-02.02	TAN ENERGY ABSORBING TERMINAL (NCHRP 350, TL3) (EACH) 705-04.07	GUARDRAIL REMOVED, (L.F.) 706-01	GUARDRAIL ADJUSTED (L.F.) 706-05
150	4	328	324

SEALED BY

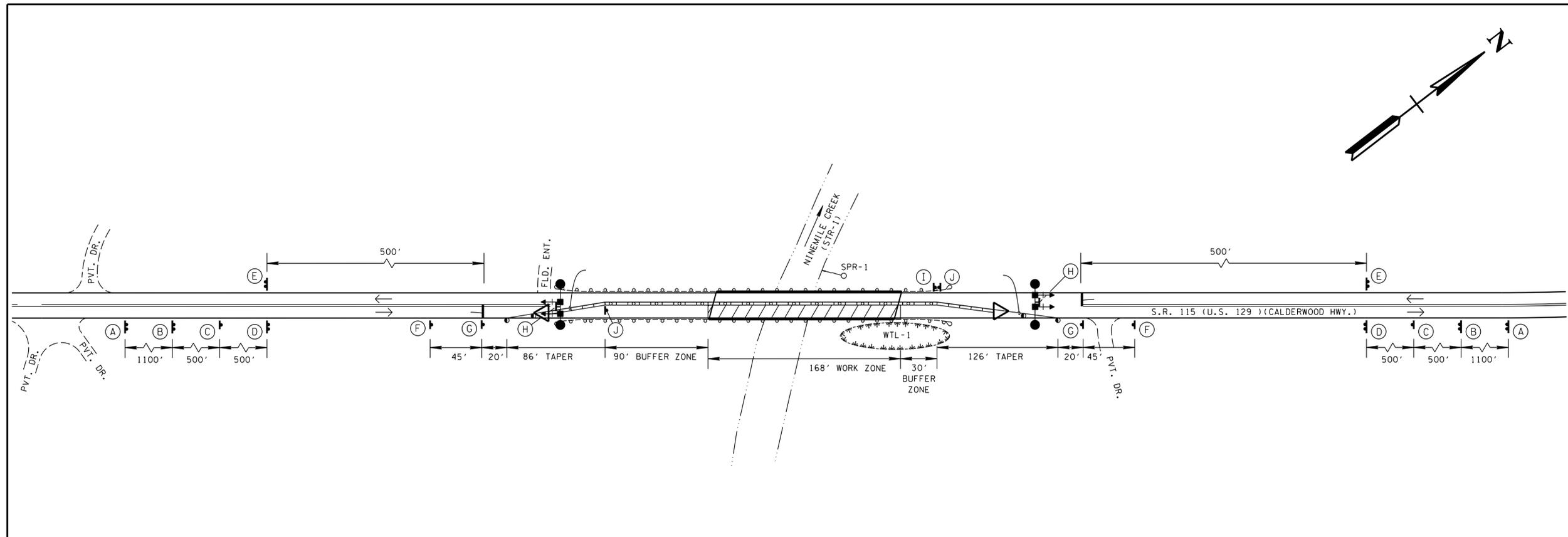
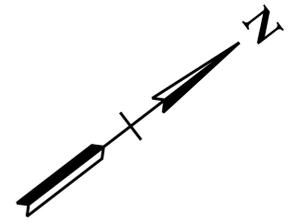
UNOFFICIAL SET

NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

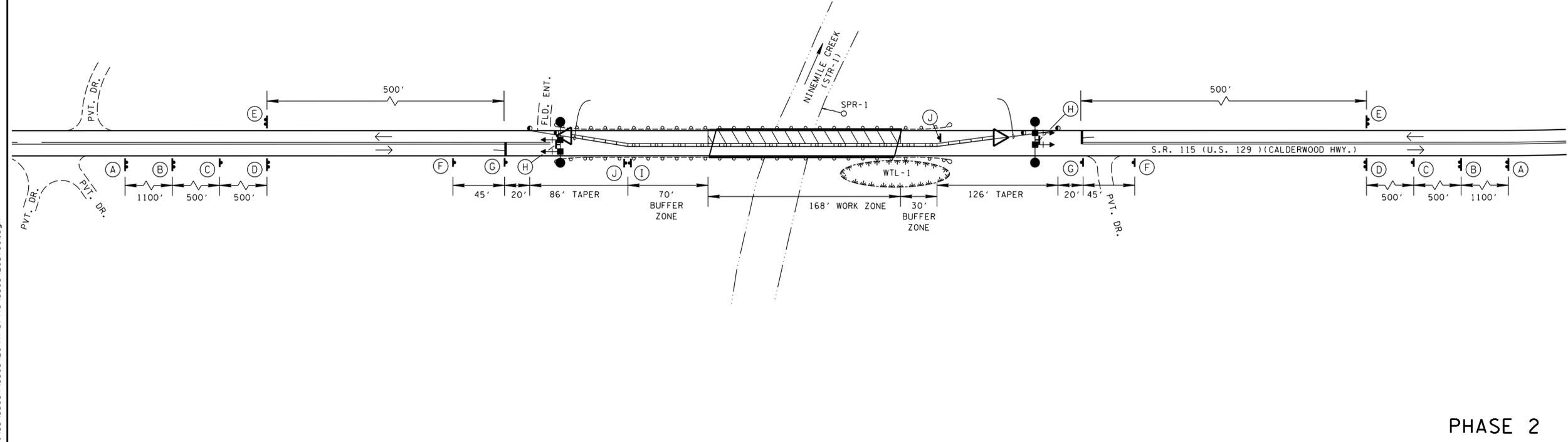
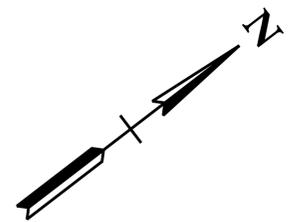
GUARDRAIL PLAN AND PAVEMENT TRANSITION DETAILS

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2015	05078-4201-04	3A



LOCATIONS AND LIMITS OF SPR-1 AND WTL-1 ARE APPROXIMATE. CONTRACTOR SHALL CONTACT TDOT ECOLOGY FOR EXACT LOCATIONS AND LIMITS CONTRACTOR SHALL USE ANY MEASURE NECESSARY TO ENSURE THAT CONSTRUCTION EQUIPMENT OR DEBRIS WILL NOT ENTER ANY PORTION OF SPR-1, STR-1 AND WTL-1 AND THAT THE SPRING, STREAM AND WETLAND AND SURROUNDING VEGETATION WILL NOT BE DISTURBED AND ARE PROTECTED FROM SEDIMENT AND OTHER POLLUTANTS.

PHASE 1



UNOFFICIAL SET
NOT FOR BIDDING

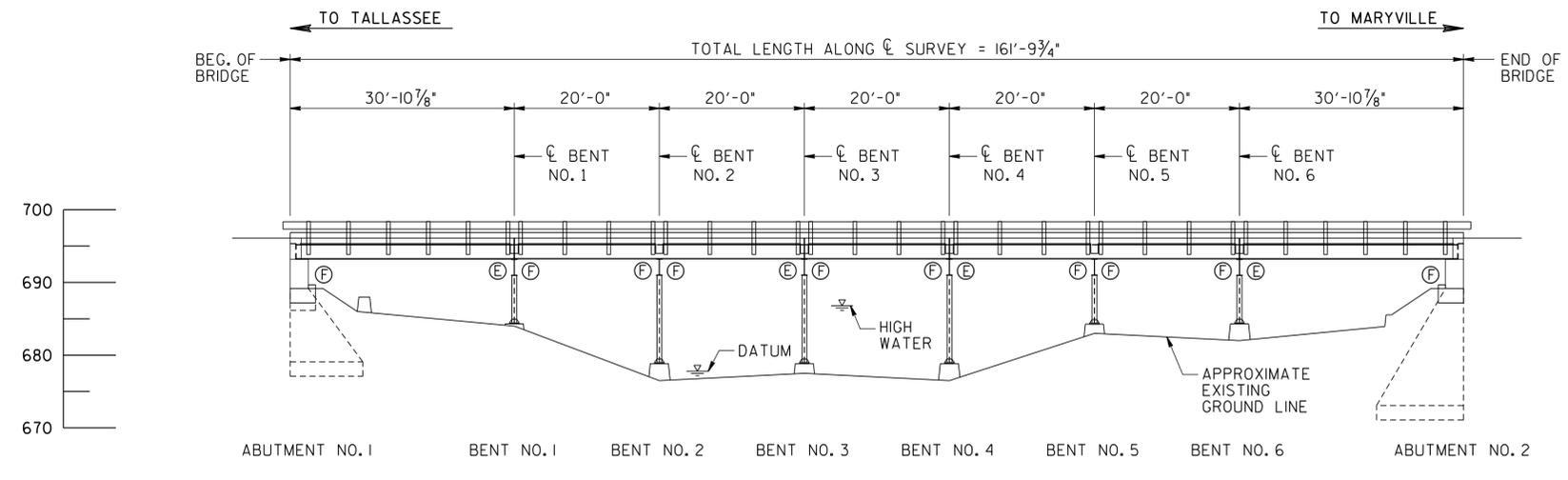
DESIGNED BY: [Signature]
DATE: 4/29/2015

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN
S.R. 115 OVER NINEMILE CREEK
SCALE: 1" = 50'

PHASE 2

PROJECT NO.	YEAR	SHEET NO.	
05078-4201-04	2015		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



ELEVATION

ⓔ DENOTES: EXPANSION
 ⓕ DENOTES: FIXED
 NOTE: EXISTING AND PROPOSED SUPPORT CONDITIONS TO REMAIN THE SAME.

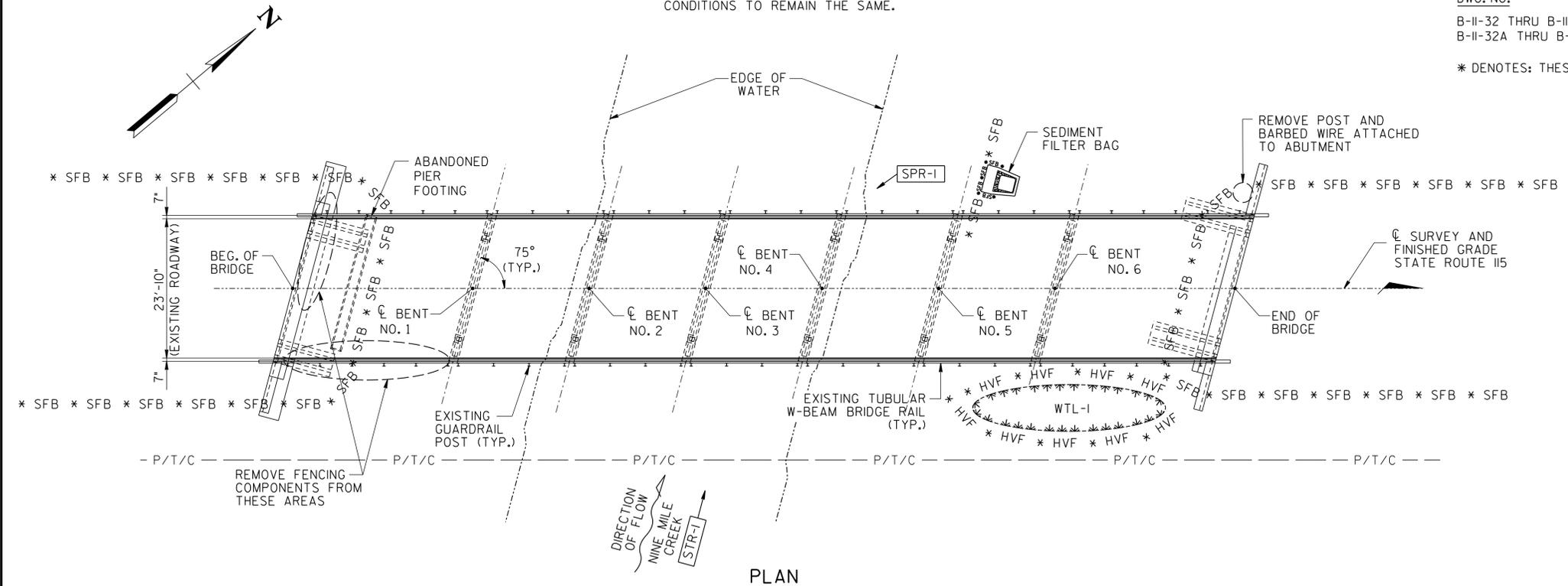
LIST OF DRAWINGS

DWG. NO.	LAST REV. DATE	DRAWING
BR-117-168		LAYOUT OF BRIDGE TO BE REPAIRED
BR-117-169		GENERAL NOTES AND ESTIMATED BRIDGE QUANTITIES
BR-117-169A		BRIDGE GENERAL NOTES
BR-117-170		SUPERSTRUCTURE
BR-117-171		SUPERSTRUCTURE REPAIR DETAILS
BR-117-172		STRUCTURAL STEEL REPAIR DETAILS
BR-117-173		CURB REPAIR DETAILS
BR-117-174		ABUTMENT NOS. 1 AND 2 REPAIR DETAILS
BR-117-175		ABUTMENT NOS. 1 AND 2 REPAIR DETAILS
BR-117-176		BENT REPAIR DETAILS
BR-117-177		BENT REPAIR DETAILS
BR-117-178		MISCELLANEOUS REPAIR DETAILS

*** LIST OF REFERENCE DRAWINGS**

DWG. NO.	DRAWING
B-II-32 THRU B-II-34	EXISTING BRIDGE PLANS
B-II-32A THRU B-II-32F	BRIDGE REPAIR PLANS - 1988

* DENOTES: THESE DRAWINGS ARE TO BE PRINTED WITH PLANS.

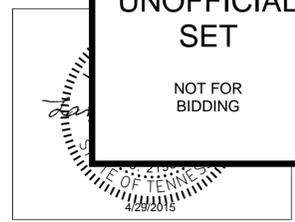


PLAN

GENERAL SCOPE OF WORK

1. PROVIDE REQUIRED TRAFFIC CONTROL TO MAINTAIN AT LEAST ONE 9'-0" LANE OF TRAFFIC AT ALL TIMES ON THE EXISTING BRIDGE.
2. PROVIDE SPALL REPAIRS WITH HIGH EARLY STRENGTH CONCRETE AND POLYMER MODIFIED CEMENTITIOUS MATERIAL AT ABUTMENTS AND EDGES OF DECK AND CURBS.
3. REMOVE EXISTING CEMENT BAGS AT ABUTMENTS AND INSTALL REINFORCED CONCRETE TO PREVENT UNDERMINING OF THE ABUTMENTS.
4. CUT BRUSH AND TREES WITHIN THE EXISTING ROW NEAR THE BRIDGE. THIS WORK TO BE ACCOMPLISHED AND PAID FOR PER STANDARD SPECIFICATIONS SECTION 201.03 AND 201.05.
5. REMOVE AND REPLACE DAMAGED GUSSET PLATE ANGLES AT BENT NOS. 3, 4, AND 6 AS SHOWN IN THE PLANS.
6. BLAST CLEAN AND PAINT ALL SUPERSTRUCTURE AND BENT STRUCTURAL STEEL INCLUDING BRIDGE GUARDRAIL POSTS AND PLATE AND ANGLE BRACKETS CONNECTING POSTS TO BEAMS. GUARDRAIL WILL NOT BE PAINTED.
7. BLAST CLEAN AND PAINT EXISTING BEARINGS.
8. REMOVE EXISTING ASPHALT OVERLAY FOR ENTIRE LENGTH OF BRIDGE AND APPROACH TRANSITIONS. REPAIR EXISTING CONCRETE DECK FOR FULL AND PARTIAL DEPTHS AS SHOWN IN DETAIL ON SHEET NO. BR-XX-XX. INSTALL NEW DECK SEAL AND 3/4" ASPHALT OVERLAY ON THE BRIDGE AND ASPHALT IN THE TRANSITIONS.
9. EPOXY INJECT CRACKED CONCRETE AT BENT NO. 2.
10. REMOVE FENCING AND GATE BENEATH BRIDGE IN SPAN 1, AND POST AND BARBED WIRE AT ABUTMENT NO. 2.
11. REMOVE AND REPLACE DIAPHRAGMS AND EXISTING BITUMINOUS EXPANSION JOINTS AT BENTS 1, 3, 4 AND 6.
12. CLEAN AND MAINTAIN BRIDGE DRAINS.
13. REPAIR OR REPLACE CONCRETE CURBS AS SHOWN IN PLANS.
14. REMOVE AND DISPOSE OF DRIFT DEBRIS AT INLET SIDE IN SPANS 4 AND 5.
15. INSTALL NEW TYPE 38 GUARDRAIL TERMINALS AT BRIDGE ENDS.

UNOFFICIAL SET
 NOT FOR BIDDING



2014 ADT = 1,070
 POSTED SPEED LIMIT = 50 M.P.H.
 STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

LAYOUT OF BRIDGE TO BE REPAIRED
 STATE ROUTE 115 OVER
 NINE MILE CREEK
 BRIDGE NO. 05-SR15-03.15
 BLOUNT COUNTY
 2015

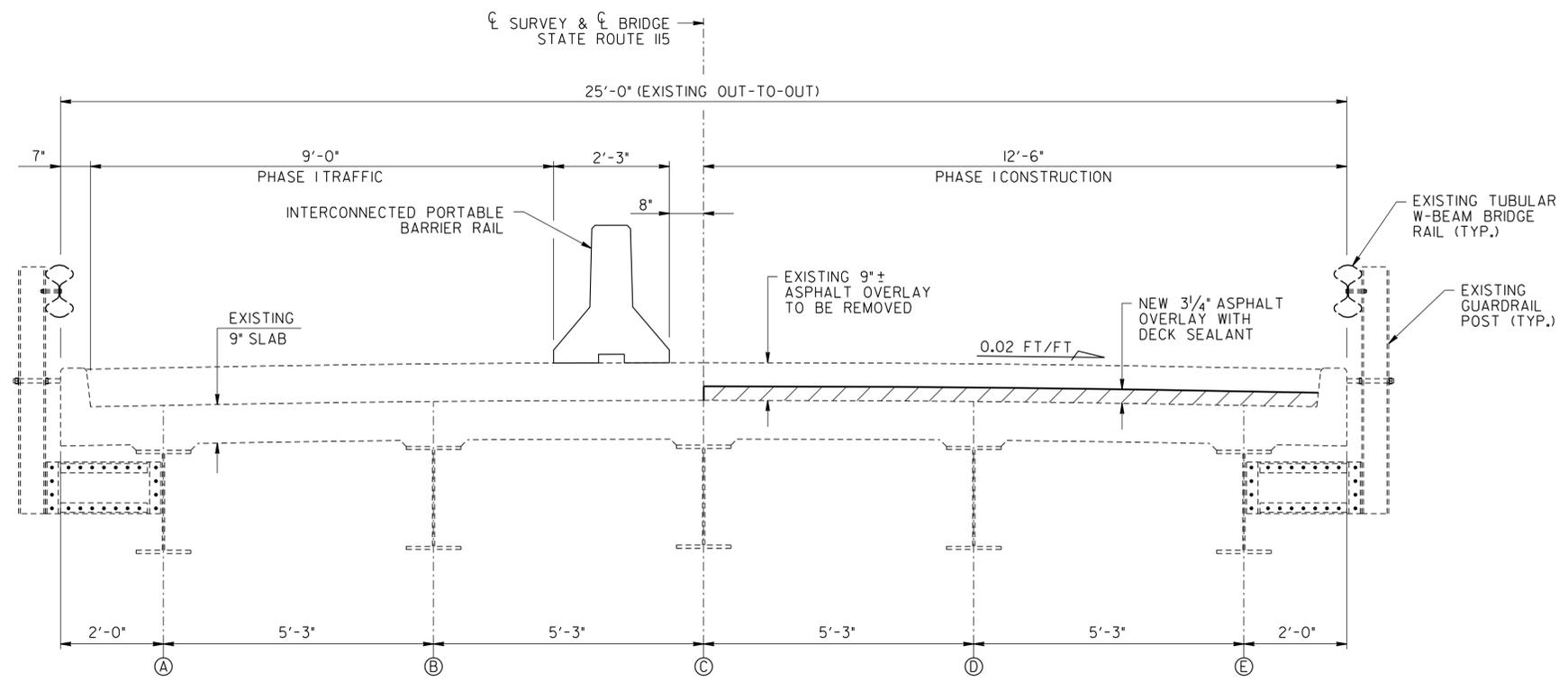
TOTAL DISTURBED AREA 3,500 S.F. (0.08 ACRES)

BR-117-168

4/28/2015 F:\35\35034\35034201\BR-117-168.dgn

DESIGNED BY M. JONES DATE 03/14
 DRAWN BY M. JONES DATE 03/14
 SUPERVISED BY L. BILBREY DATE 03/14
 CHECKED BY L. BILBREY DATE 03/14

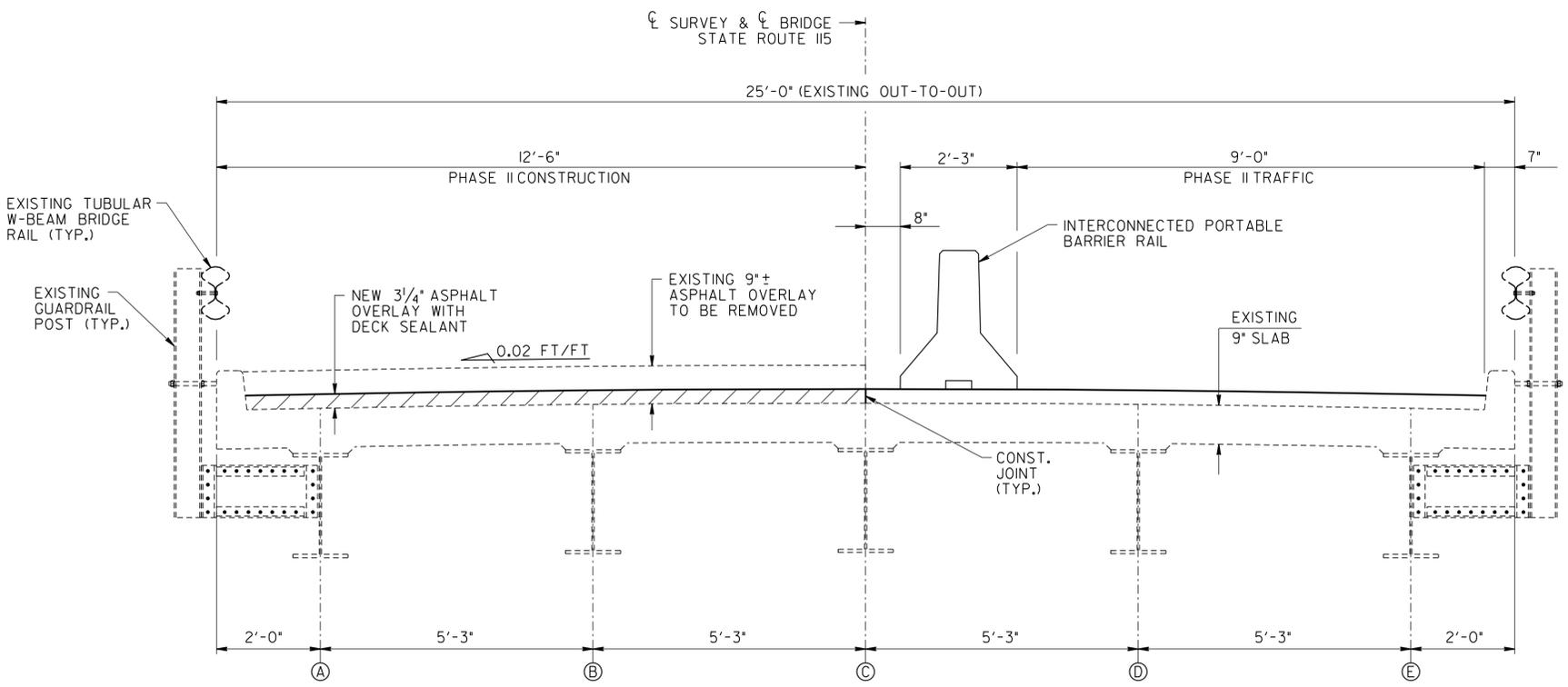
PROJECT NO.	YEAR	SHEET NO.	
05078-4201-04	2015		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



TYPICAL SECTION - PHASE I CONSTRUCTION

(LOOKING FORWARD ON SURVEY)

▨ DENOTES: LIMITS OF NEW 3/4" ASPHALT OVERLAY WITH DECK SEALANT



TYPICAL SECTION - PHASE II CONSTRUCTION

(LOOKING FORWARD ON SURVEY)

UNOFFICIAL SET
 NOT FOR BIDDING

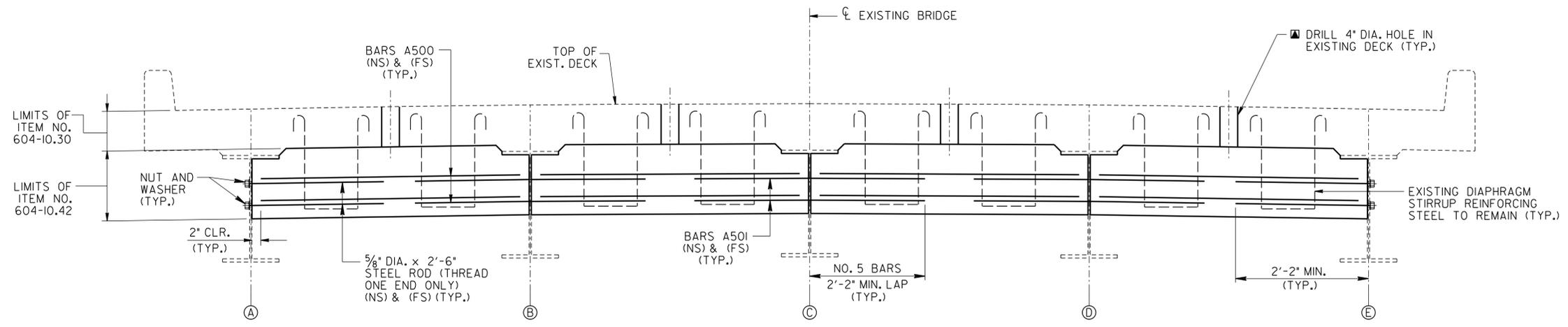
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE
STATE ROUTE 115 OVER
NINE MILE CREEK
BRIDGE NO. 05-SR115-03.15
BLOUNT COUNTY
2015

4/29/2015 F:\35\35034\35034201-04\Bridges\3503420_SUP001.dgn

DESIGNED BY M. JONES DATE 03/14
 DRAWN BY M. JONES DATE 03/14
 SUPERVISED BY L. BILBREY DATE 03/14
 CHECKED BY L. BILBREY DATE 03/14

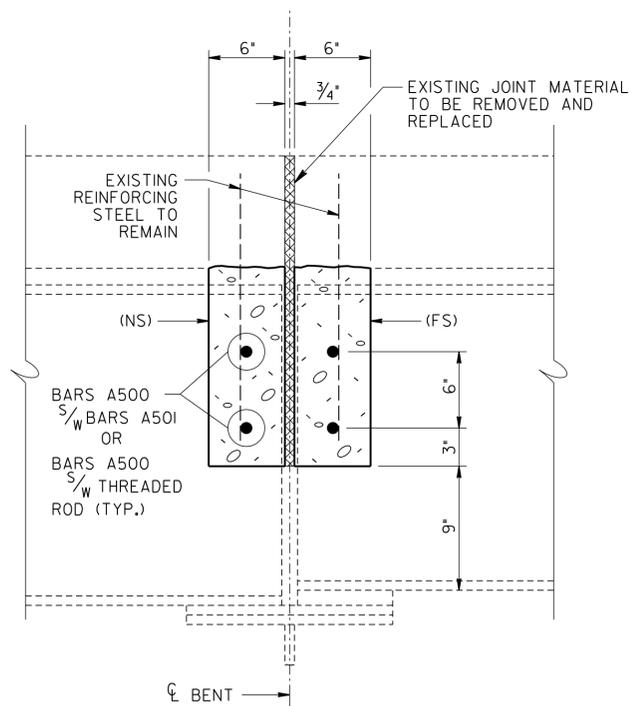
PROJECT NO.	YEAR	SHEET NO.	
05078-4201-04	2015		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



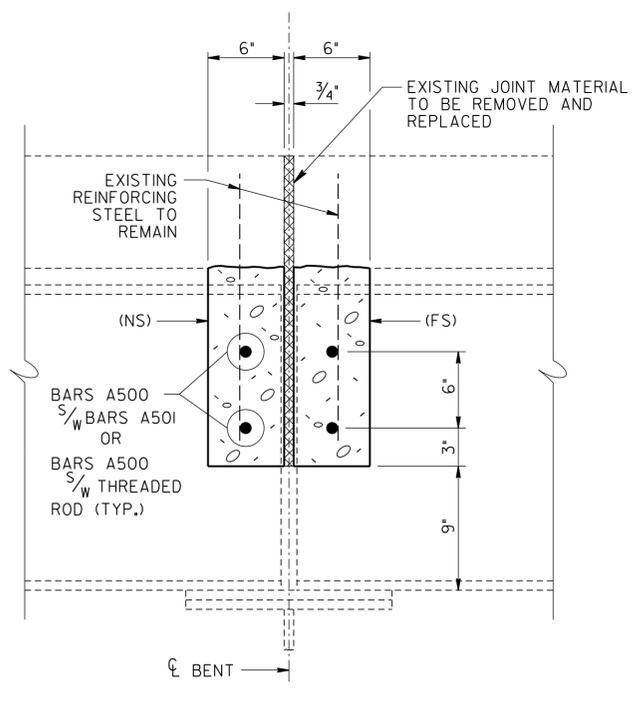
DIAPHRAGM REPAIR DETAIL
 (LOOKING FORWARD ON SURVEY)
 (TYP.) @ BENT NOS. 1, 3, 4, & 6

NOTES

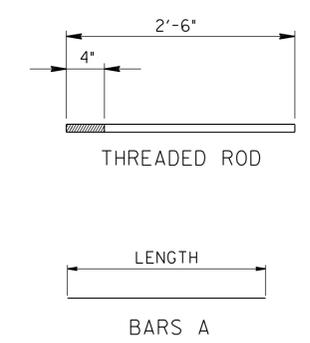
- NOTE: CONTRACTOR SHALL REMOVE ALL EXISTING DIAPHRAGM CONCRETE AT BENT NOS. 1, 3, 4 AND 6. EXISTING TIE RODS SHALL BE REMOVED AND REPLACED WITH REINFORCEMENT SHOWN IN DIAPHRAGM REPAIR DETAIL AT THE FIELD ENGINEER'S DISCRETION. EXISTING DIAPHRAGM STIRRUP REINFORCEMENT IS TO REMAIN IN PLACE. ALL REMAINING EXISTING STEEL SHALL BE COMPLETELY CLEANED, STRAIGHTENED (IF NECESSARY), AND INCORPORATED INTO THE NEW CONSTRUCTION. ANY REINFORCEMENT DAMAGED DURING CONCRETE REMOVAL SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. THE COST OF CONCRETE REMOVAL AND PLACEMENT OF HIGH EARLY STRENGTH CONCRETE IS TO BE PAID UNDER ITEM 604-10.42, CONCRETE REPAIRS, C.F.
- NOTE: THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE STABILITY OF THE STRUCTURE DURING REPAIRS.
- DENOTES: OMIT HOLE IF FULL DEPTH DECK REPAIRS ARE REQUIRED AT THE DIAPHRAGM LOCATION.



SECTION THRU DIAPHRAGM
 (TYP.) @ BENT NOS. 1 & 6



SECTION THRU DIAPHRAGM
 (TYP.) @ BENT NOS. 3 & 4



ESTIMATED SUPERSTRUCTURE REPAIRS

LOCATION OF REPAIR	ITEM NO. 604-10.42 APPROX. REPAIR AREAS (C.F.)	ITEM NO. 604-10.18 REINFORCING STEEL (REPAIRS) (LB.)
OVER BENT NO. 1	26	158
OVER BENT NO. 3	26	158
OVER BENT NO. 4	26	158
OVER BENT NO. 6	26	158

DIAPHRAGM STEEL PER BENT

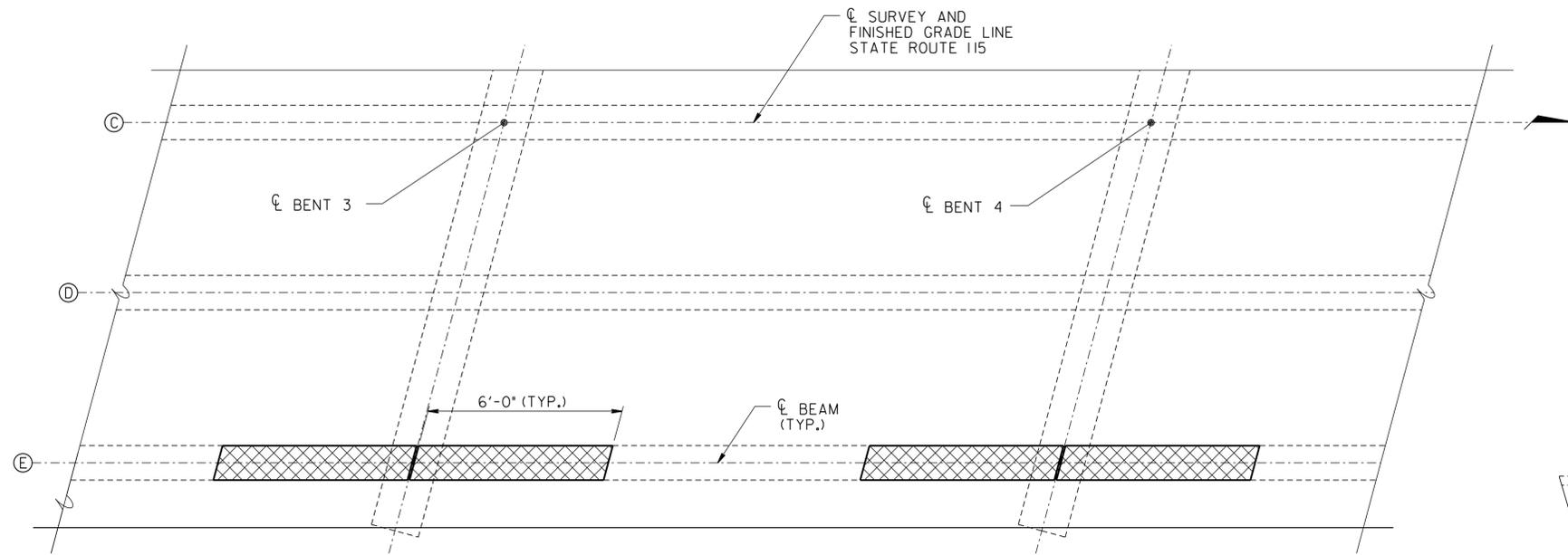
BAR	LOCATION	SIZE	NO. REQ'D	LENGTH
A500	DIAPHRAGM	5	16	4'-11"
A501	DIAPHRAGM	5	12	4'-5"
THREADED ROD	DIAPHRAGM	5	8	2'-6"

UNOFFICIAL SET
 NOT FOR BIDDING

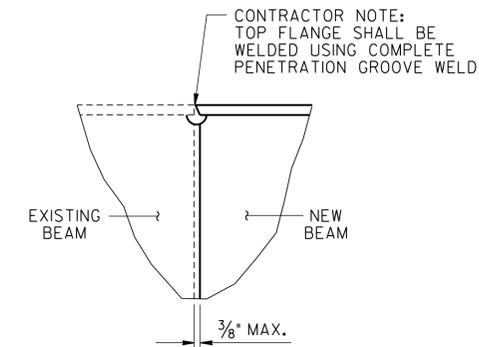
STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 SUPERSTRUCTURE REPAIR DETAILS
 STATE ROUTE 115 OVER
 NINE MILE CREEK
 BRIDGE NO. 05-SRI15-03.15
 BLOUNT COUNTY
 2015

DESIGNED BY M. JONES DATE 03/14
 DRAWN BY M. JONES DATE 03/14
 SUPERVISED BY L. BILBREY DATE 03/14
 CHECKED BY L. BILBREY DATE 03/14

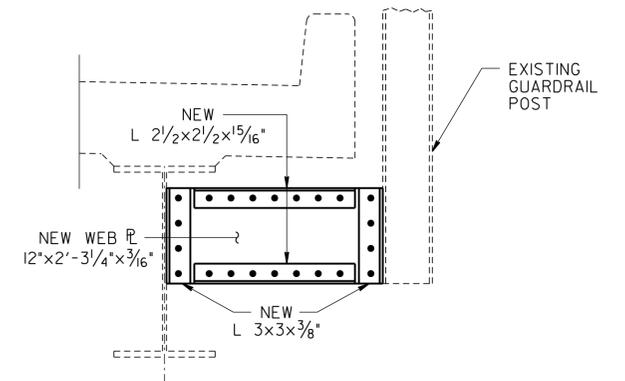
PROJECT NO.	YEAR	SHEET NO.	
05078-4201-04	2015		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



PART-PAN
(SHOWING LOCATIONS OF BEAM REPAIR)
(N.T.S.)



DETAIL "W"

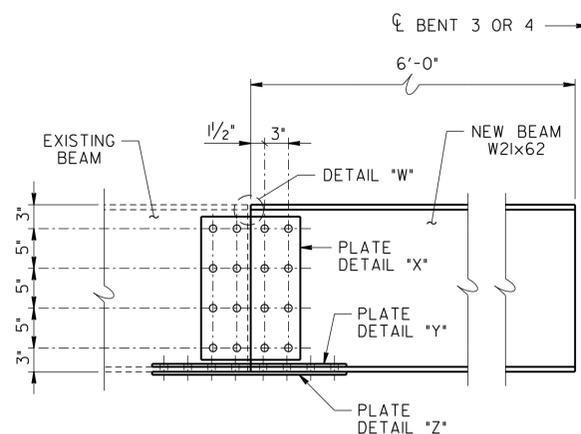


GUARDRAIL POST ATTACHMENT ASSEMBLY

(ASSEMBLY NO. 4, SPAN 3, RIGHT SIDE)
(1 REQ'D)

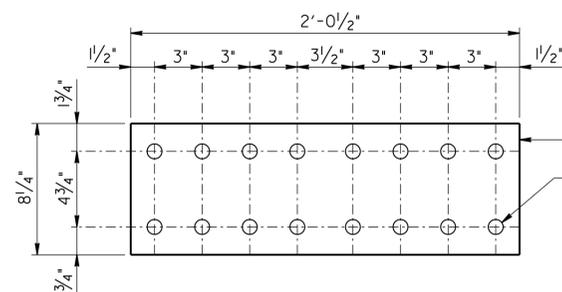
NOTE: FIELD DRILL HOLES IN NEW GUARDRAIL POST ASSEMBLY TO MATCH EXISTING RIVET LOCATIONS.

NOTE: REPLACE ALL RIVETS IN GUARDRAIL POST ASSEMBLY WITH 3/4" DIA. BOLTS.

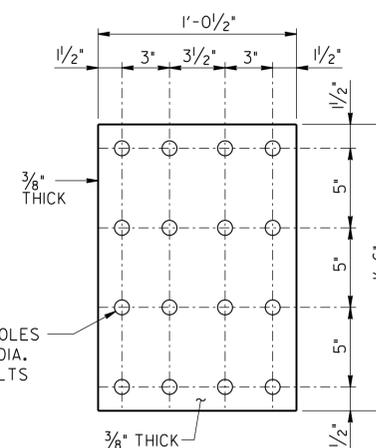


WEB REINFORCEMENT DETAIL @ BEAM "E"

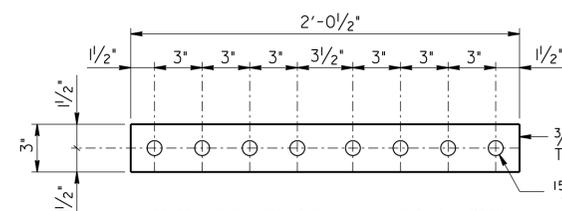
(TYP.) @ BENT 3 & 4)
(SYMMETRICAL ABOUT CL BENT)



SPLICE PLATE DETAIL "Z"
(8 REQ'D)

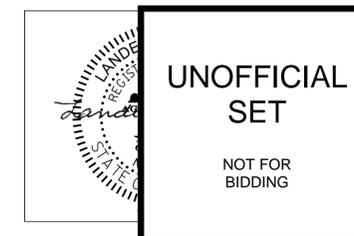


SPLICE PLATE DETAIL "X"
(8 REQ'D)



SPLICE PLATE DETAIL "Y"
(8 REQ'D)

NOTE: CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING BRIDGERAIL SUPPORT FROM ORIGINAL BEAM END AND REINSTALLING SUPPORT ON NEW BEAM END USING NEW A325 BOLTS IN FIELD DRILLED HOLES IN NEW BEAM END TO MATCH HOLES IN EXISTING SUPPORT. COST OF REINSTALLING EXISTING BRIDGERAIL CONNECTORS TO THE NEW BEAM ENDS TO BE INCLUDED IN ITEM 602-10.32, STRUCTURAL STEEL (REPAIRS), LB. ALL WORK MUST MEET WITH THE FULL SATISFACTION OF THE ENGINEER.



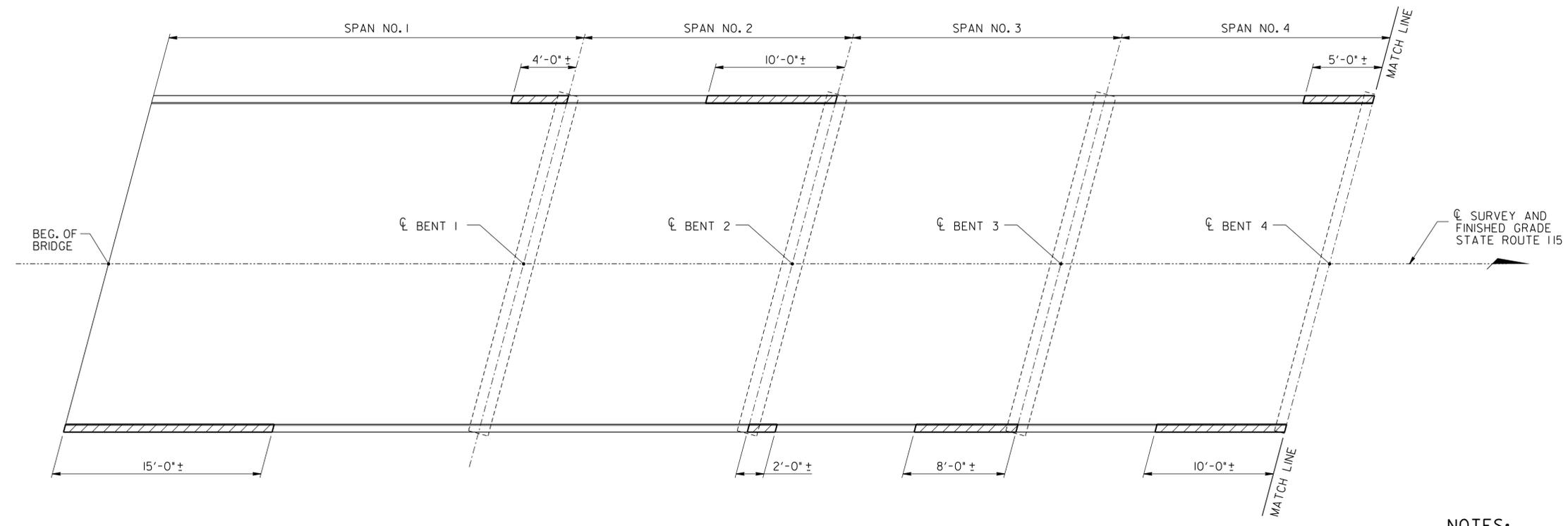
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL REPAIR DETAILS
STATE ROUTE 115 OVER
NINE MILE CREEK
BRIDGE NO. 05-SRI15-03.15
BLOUNT COUNTY
2015

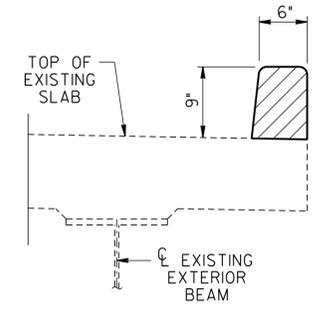
4/28/2015
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DESIGNED BY M. JONES DATE 03/14
DRAWN BY M. JONES DATE 03/14
SUPERVISED BY L. BILBREY DATE 03/14
CHECKED BY L. BILBREY DATE 03/14

PROJECT NO.	YEAR	SHEET NO.	
05078-4201-04	2015		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



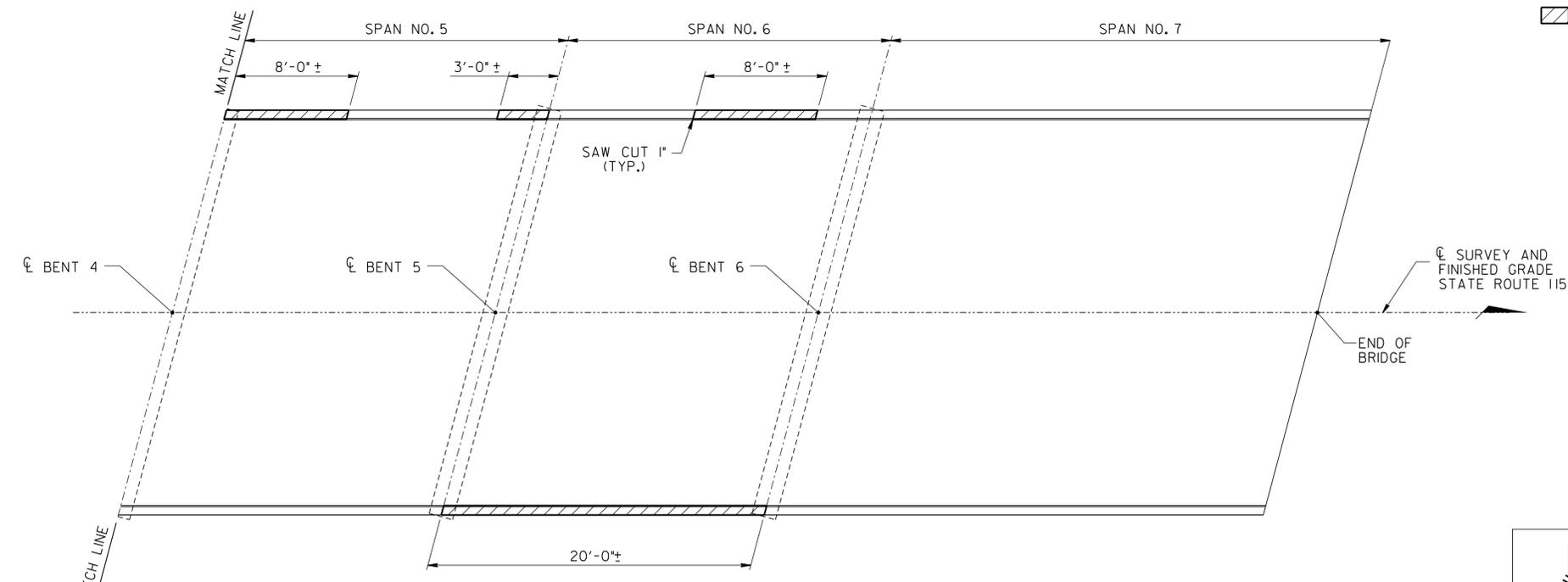
PART-PLAN



CURB REPAIR DETAIL
(LIMITS OF CURB REPAIR)

NOTES:

- NOTE: ALL WORK MUST MEET THE FULL SATISFACTION OF THE ENGINEER.
- NOTE: THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE STABILITY OF THE STRUCTURE DURING REPAIRS.
- ▨ DENOTES: AREAS OF DETERIORATED CONCRETE TO BE SAW CUT 1", REMOVED, AND REPOURED. EXTREME CARE SHALL BE TAKEN SO AS NOT TO DAMAGE EXISTING REINFORCING STEEL WHEN REMOVING PORTIONS OF CURBS. BEFORE POURING NEW CURBS ALL EXISTING REINFORCING STEEL TO BE BLAST CLEANED.
- NOTE: COST OF REMOVING PORTIONS OF THE EXISTING CURBS, BLAST CLEANING EXISTING REINFORCING STEEL, HIGH EARLY STRENGTH CONCRETE (F_c=3,000 PSI), LABOR, AND ALL MISCELLANEOUS MATERIALS NECESSARY TO COMPLETE REPAIRS TO THE CURBS TO BE INCLUDED UNDER ITEM NO. 604-10.42, (CONCRETE REPAIRS, C.F.)



PART-PLAN

ESTIMATED SUPERSTRUCTURE REPAIRS

LOCATION OF REPAIR	ITEM NO. 604-10.42 CONCRETE REPAIRS, (C.F.)
SPAN NO. 1	7
SPAN NO. 2	4
SPAN NO. 3	4
SPAN NO. 4	6
SPAN NO. 5	4
SPAN NO. 6	11
SPAN NO. 7	-

UNOFFICIAL SET
 NOT FOR BIDDING

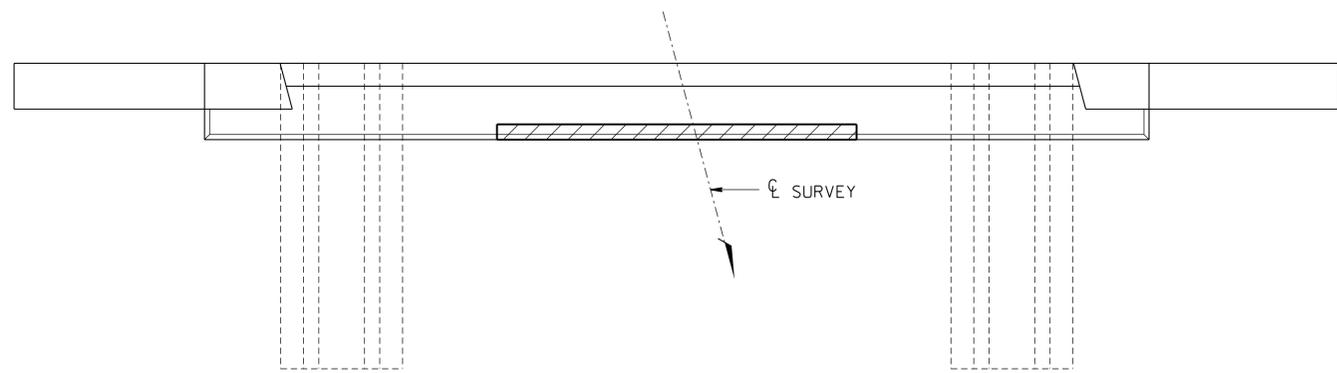
STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

 CURB REPAIR DETAILS
 STATE ROUTE 115 OVER
 NINE MILE CREEK
 BRIDGE NO. 05-SR115-03.15
 BLOUNT COUNTY
 2015

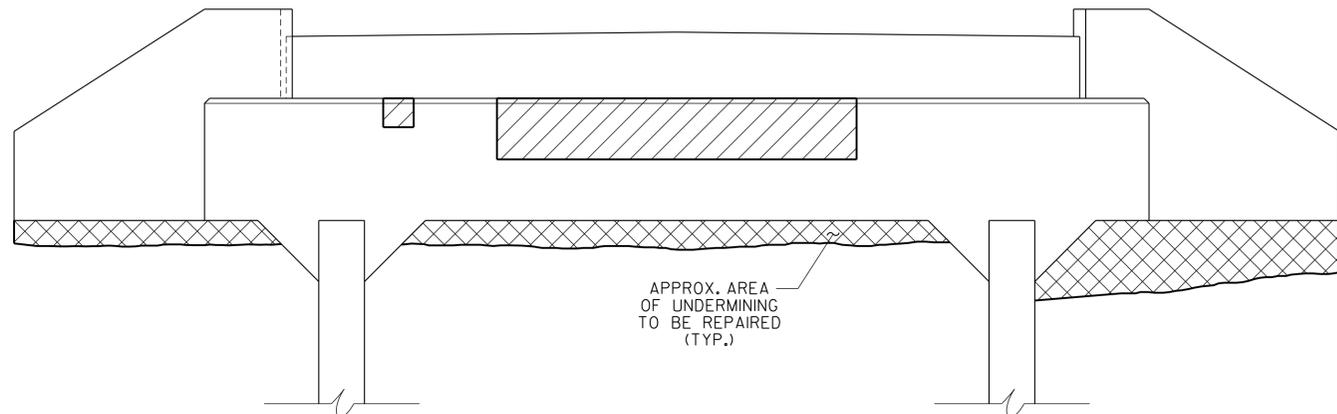
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DESIGNED BY M. JONES DATE 03/14
 DRAWN BY M. JONES DATE 03/14
 SUPERVISED BY L. BILBREY DATE 03/14
 CHECKED BY L. BILBREY DATE 03/14

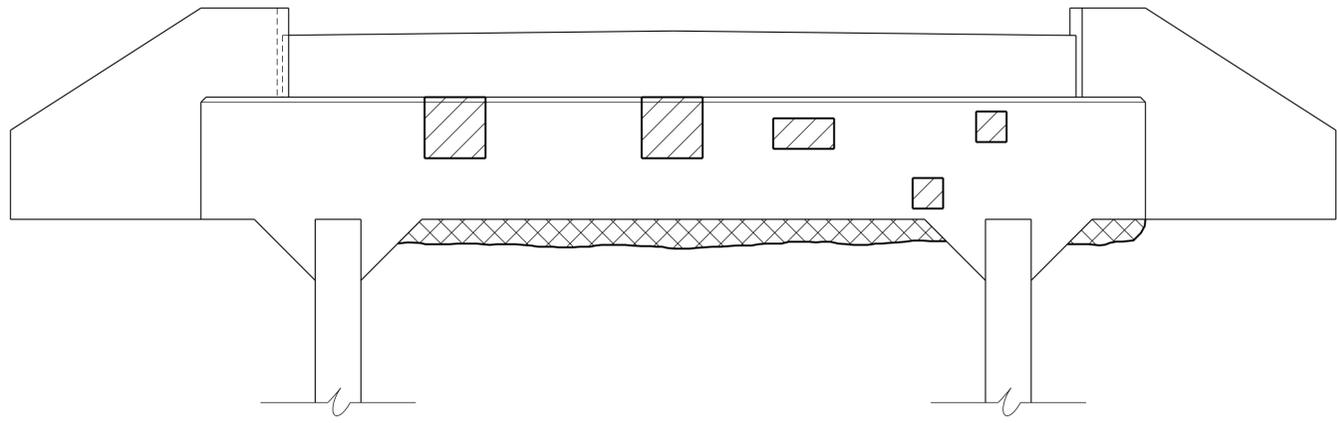
PROJECT NO.	YEAR	SHEET NO.	
05078-4201-04	2015		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



PLAN - ABUT. NO. 1



ELEVATION - ABUT. NO. 1
(LOOKING BACK ON SURVEY)



ELEVATION - ABUT. NO. 2
(LOOKING FORWARD ON SURVEY)

NOTES:

ALL WORK MUST MEET THE FULL SATISFACTION OF THE ENGINEER.
THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE STABILITY OF THE STRUCTURE DURING REPAIRS.

- ⊠ DENOTES: APPROXIMATE AREA OF UNDERMINING TO BE REPAIRED. SEE REPAIR DETAILS AND NOTES ON DWG. NO. BR-117-175.
- ▨ DENOTES: APPROXIMATE AREA TO BE REPAIRED UNDER ITEM NO. 604-10.05 AND/OR 604-10.54. SEE REPAIR DETAILS ON DWG. NO. BR-117-178.

ESTIMATED ABUTMENT REPAIRS

LOCATION OF REPAIR	ITEM NO. 604-10.05 AND/OR 604-10.54 APPROX. REPAIR AREAS (S.F.)
ABUT. NO. 1	32
ABUT. NO. 2	12

UNOFFICIAL SET
 NOT FOR BIDDING



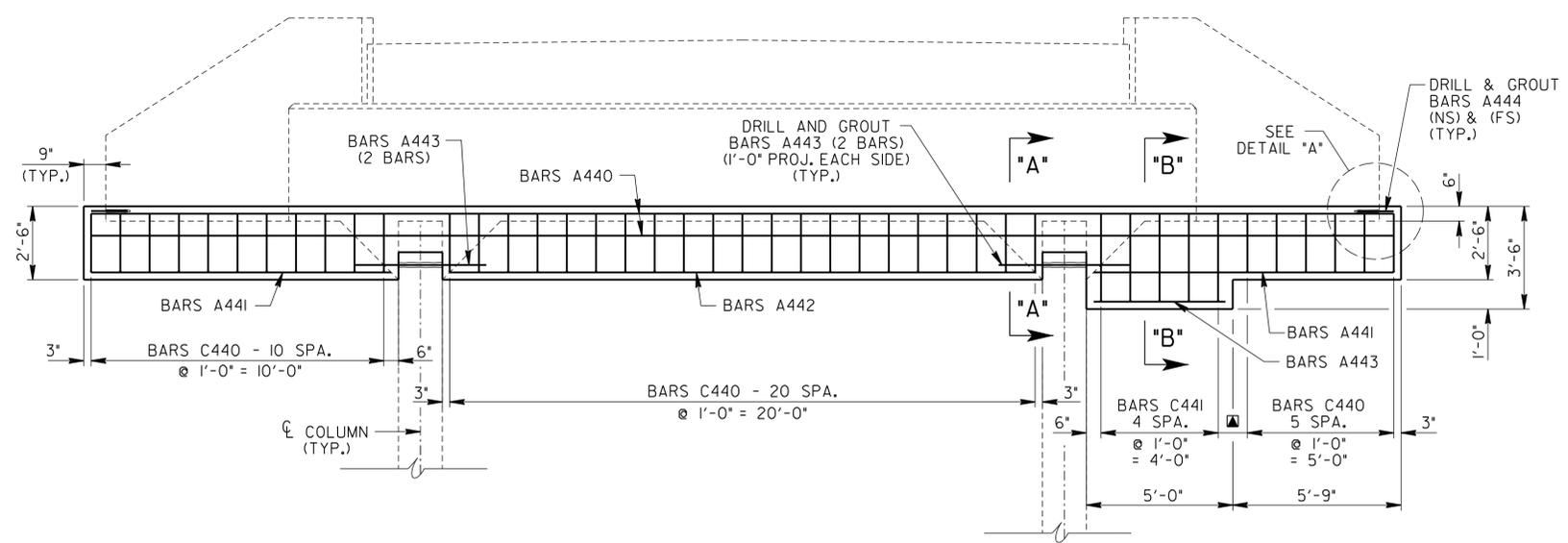
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ABUTMENT NOS. 1 AND 2 REPAIR DETAILS
STATE ROUTE 115 OVER
NINE MILE CREEK
BRIDGE NO. 05-SR115-03.15
BLOUNT COUNTY
2015

4/28/2015 F:\35\35034\35034201\Br\lgd\35034201-ABT001.dgn

DESIGNED BY M. JONES DATE 03/14
 DRAWN BY M. JONES DATE 03/14
 SUPERVISED BY L. BILBREY DATE 03/14
 CHECKED BY L. BILBREY DATE 03/14

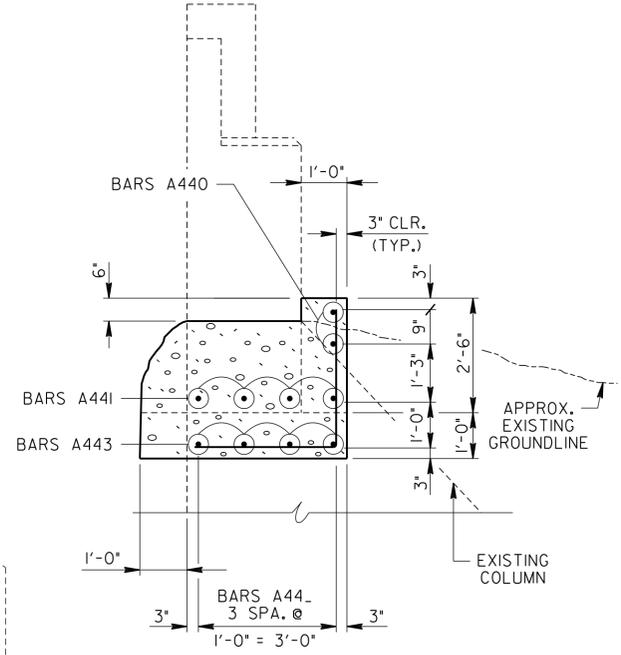
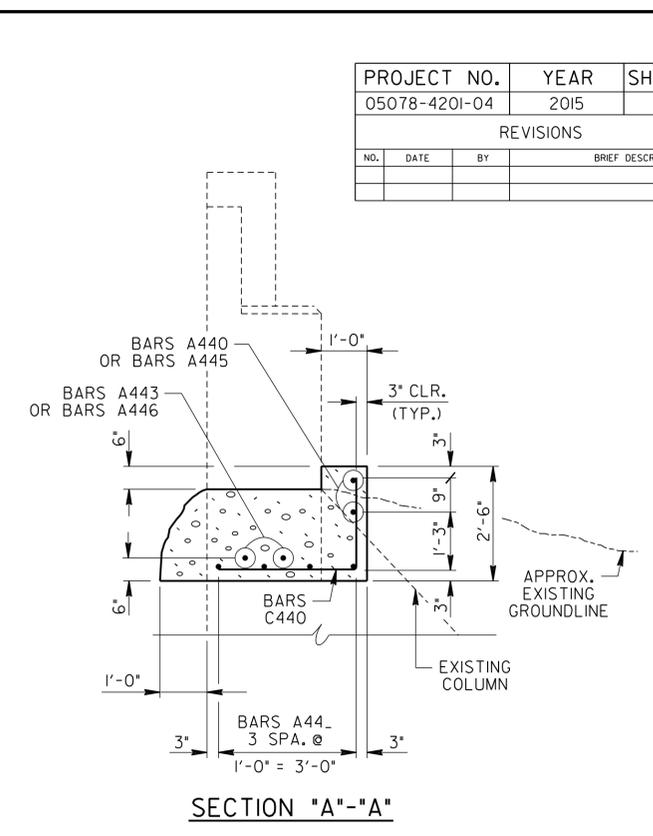
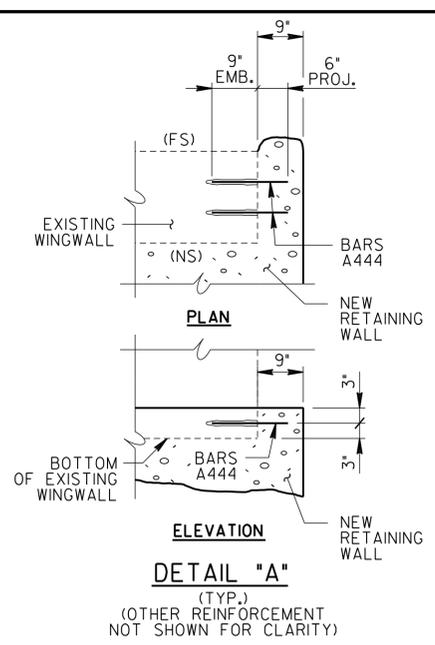
PROJECT NO.	YEAR	SHEET NO.	
05078-4201-04	2015		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



ELEVATION DETAIL @ ABUTMENT NO. 1
(LOOKING BACK ON SURVEY)

NOTE: BACKWALL NOT SHOWN IN ELEVATION DETAIL VIEW FOR CLARITY.

(NS) DENOTES: NEAR SIDE
(FS) DENOTES: FAR SIDE
▲ DENOTES: 1'-0"



ESTIMATED ABUTMENT QUANTITIES

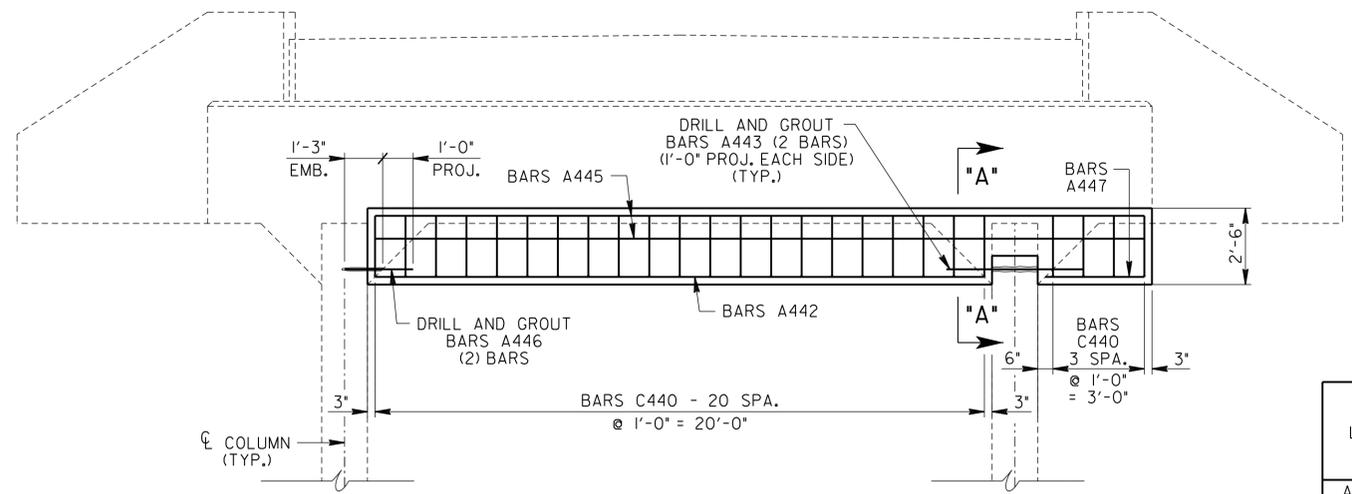
LOCATION	ITEM NO. 604-03.01 CLASS "A" CONCRETE (BRIDGES) C.Y.	ITEM NO. 604-10.18 REINFORCING STEEL (REPAIRS) LB.
ABUT. NO. 1	24	342
ABUT. NO. 2	13	177

BILL OF STEEL - ABUTMENT NO. 1

BAR	LOCATION	SIZE	NO. REQ'D	BENDING DIMENSIONS				LENGTH
				A	B	C	D	
A440	RETAINING WALL	4	2					44'-6"
A441	RETAINING WALL	4	8					10'-3"
A442	RETAINING WALL	4	4					20'-0"
A443	RETAINING WALL	4	8					4'-6"
A444	RETAINING WALL	4	4					1'-3"
C440	RETAINING WALL	4	38	3'-0"	2'-0"			5'-0"
C441	RETAINING WALL	4	5	3'-0"	3'-0"			3'-6"

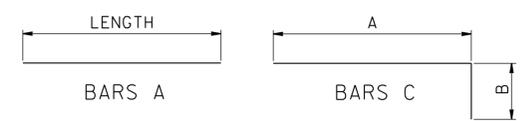
BILL OF STEEL - ABUTMENT NO. 2

BAR	LOCATION	SIZE	NO. REQ'D	BENDING DIMENSIONS				LENGTH
				A	B	C	D	
A442	RETAINING WALL	4	4					20'-0"
A443	RETAINING WALL	4	2					4'-6"
A445	RETAINING WALL	4	2					25'-3"
A446	RETAINING WALL	4	2					2'-3"
A447	RETAINING WALL	4	4					3'-3"
C440	RETAINING WALL	4	25					5'-0"



ELEVATION DETAIL @ ABUTMENT NO. 2
(LOOKING FORWARD ON SURVEY)

NOTE: BACKWALL NOT SHOWN IN ELEVATION DETAIL VIEW FOR CLARITY.



NOTES:

NOTE: COST OF ALL CONCRETE, EXCAVATION, FORMING, LABOR AND ANY MISCELLANEOUS MATERIALS NECESSARY TO COMPLETE THE REPAIRS, FOR THE LIMITS SHOWN, SHALL BE PAID FOR UNDER ITEM NO. 604-03.01, CLASS "A" CONCRETE (BRIDGES), C.Y. ALL WORK MUST MEET WITH THE FULL SATISFACTION OF THE ENGINEER.

NOTE: COST OF ALL REINFORCING STEEL SHALL BE INCLUDED UNDER ITEM NO. 604-10.18, REINFORCING STEEL (REPAIRS), LBS.

NOTE: CONTRACTOR HAS THE OPTION OF USING HIGH EARLY STRENGTH CONCRETE IN LIEU OF THE CLASS "A" F'c = 3,000 P.S.I. CONCRETE.

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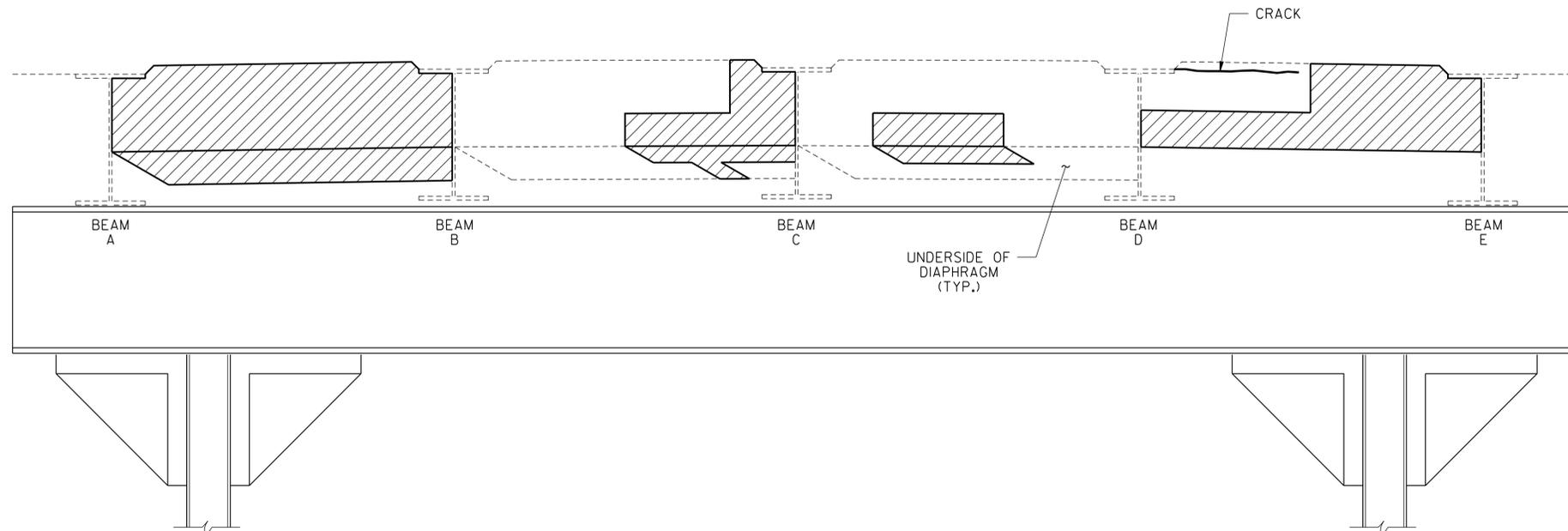
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ABUTMENT NOS. 1 AND 2 REPAIR DETAILS
STATE ROUTE 115 OVER
NINE MILE CREEK
BRIDGE NO. 05-SR15-03.15
BLOUNT COUNTY
2015

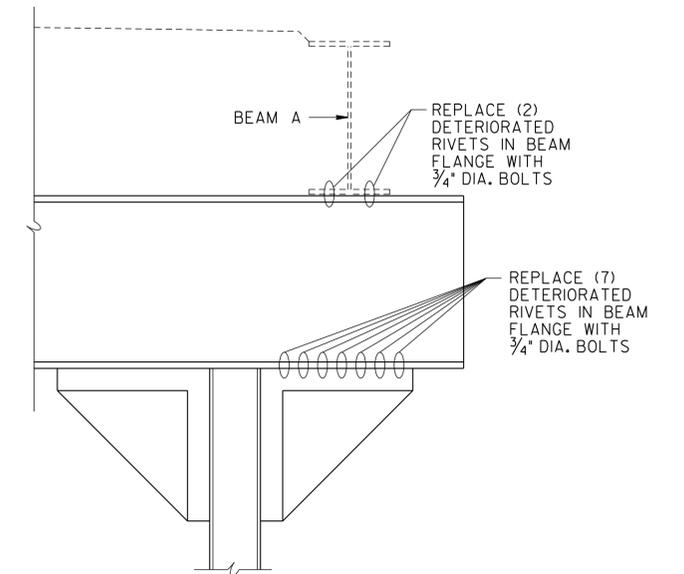
DESIGNED BY M. JONES DATE 03/14
DRAWN BY M. JONES DATE 03/14
SUPERVISED BY L. BILBREY DATE 03/14
CHECKED BY L. BILBREY DATE 03/14

4/28/2015
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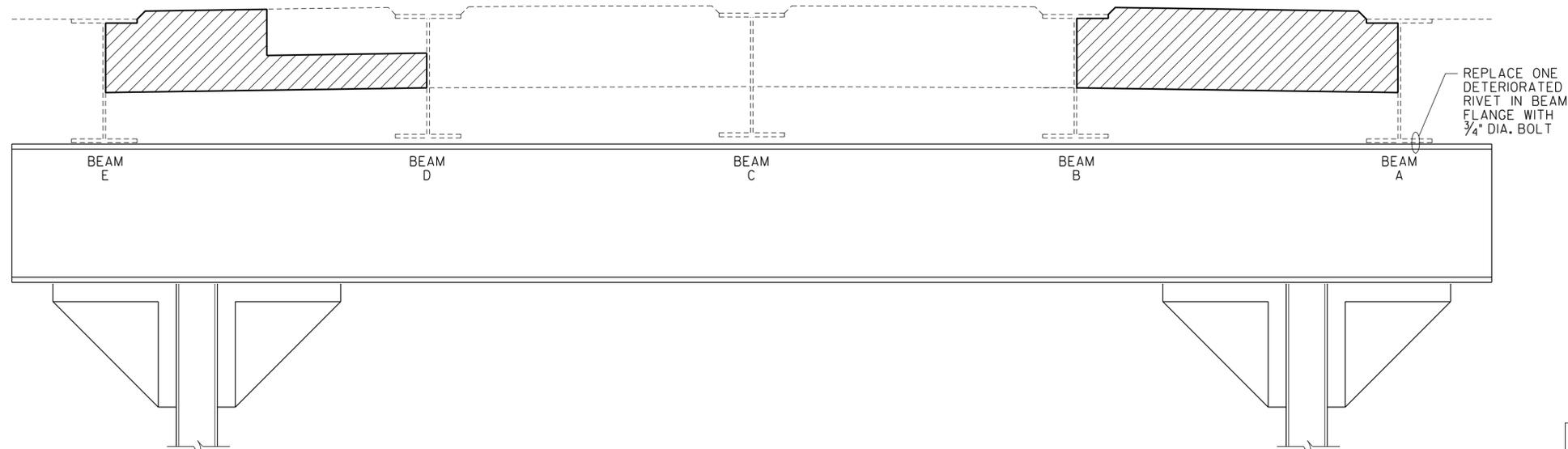
PROJECT NO.	YEAR	SHEET NO.	
05078-420I-04	2015		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



ELEVATION - BENT 2
(LOOKING FORWARD ON SURVEY)



PART-ELEVATION - BENT 1
(LOOKING BACK ON SURVEY)



ELEVATION - BENT 2
(LOOKING BACK ON SURVEY)

- DENOTES: APPROXIMATE AREA TO BE REPAIRED UNDER ITEM NO. 604-10.05 AND/OR 604-10.54. SEE REPAIR DETAILS ON DWG. NO. BR-117-178.
- NOTE: THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE STABILITY OF THE STRUCTURE DURING REPAIRS.
- DENOTES: CRACK TO BE EPOXY INJECTED. QUANTITIES AND LOCATIONS GIVEN ARE APPROXIMATE, AND CAN BE INCREASED, DECREASED, OR ELIMINATED AS DIRECTED BY THE ENGINEER. SEE EPOXY INJECTION NOTES ON DWG. NO. BR-117-178.
- NOTE: THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE STABILITY OF THE STRUCTURE DURING REPAIRS.

ESTIMATED BENT REPAIRS

LOCATION OF REPAIR	ITEM NO. 602-10.20 BOLTS (EACH)	ITEM NO. 604-10.05 AND/OR 604-10.54 APPROX. REPAIR AREAS (S.F.)	ITEM NO. 604-10.62 APPROX. REPAIR AREAS (L.F.)
BENT NO. 1	9	-	-
BENT NO. 2	-	30	5

UNOFFICIAL SET

NOT FOR BIDDING

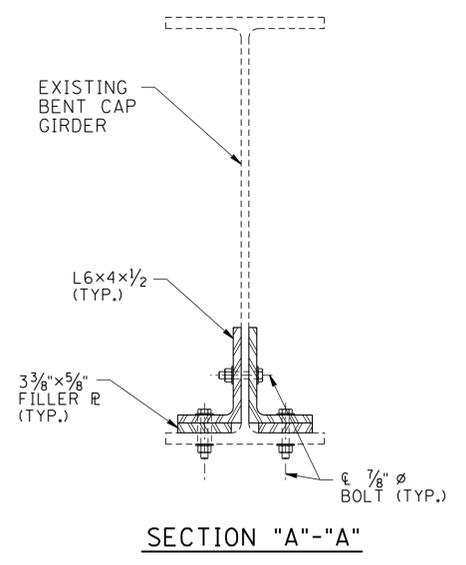
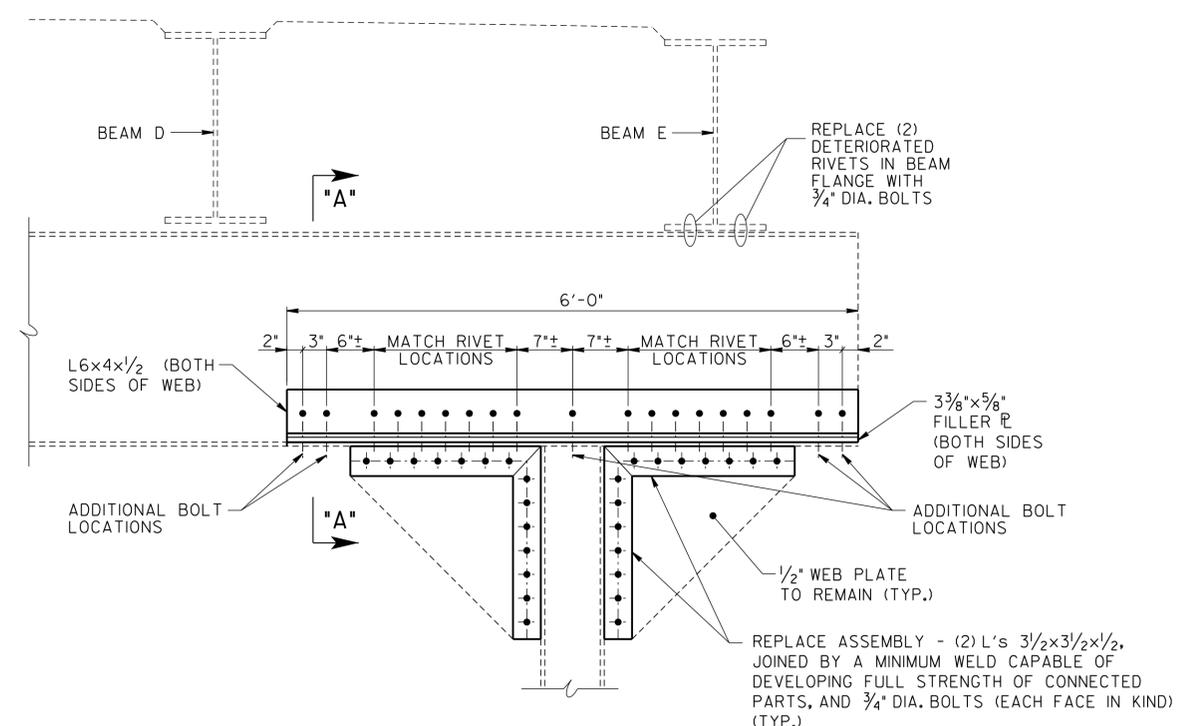
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

BENT REPAIR DETAILS
STATE ROUTE 115 OVER
NINE MILE CREEK
BRIDGE NO. 05-SR15-03.15
BLOUNT COUNTY
2015

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DESIGNED BY M. JONES DATE 03/14
 DRAWN BY M. JONES DATE 03/14
 SUPERVISED BY L. BILBREY DATE 03/14
 CHECKED BY L. BILBREY DATE 03/14

PROJECT NO.	YEAR	SHEET NO.	
05078-4201-04	2015		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



NOTES:

- ▨ DENOTES: APPROXIMATE AREA TO BE REPAIRED UNDER ITEM NO. 604-10.05 AND/OR 604-10.54. SEE REPAIR DETAILS ON DWG. NO. BR-117-178.
- NOTE: THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE STABILITY OF THE STRUCTURE DURING REPAIRS.
- NOTE: ALL BOLTS TO BE ASTM A325 UNLESS OTHERWISE NOTED.

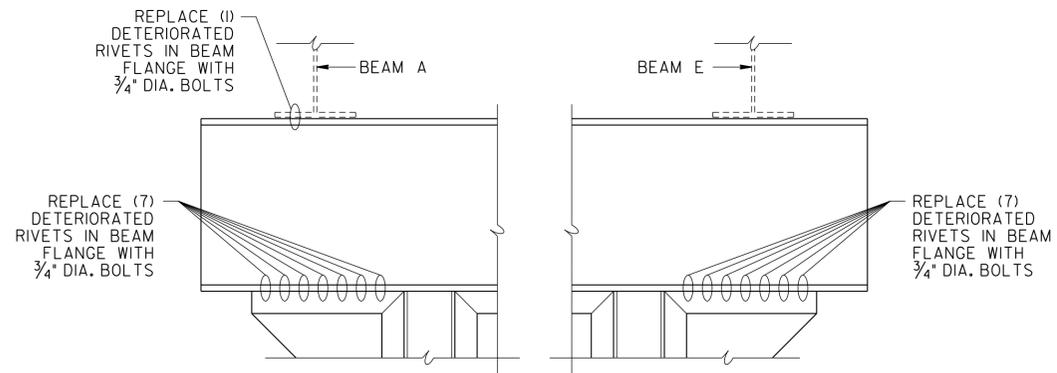
ESTIMATED BENT REPAIRS

LOCATION OF REPAIR	ITEM NO. 602-10.20 BOLTS (EACH)	ITEM NO. 604-10.05 AND/OR 604-10.54 APPROX. REPAIR AREAS (S.F.)
BENT NO. 5	-	3
BENT NO. 6	47	-

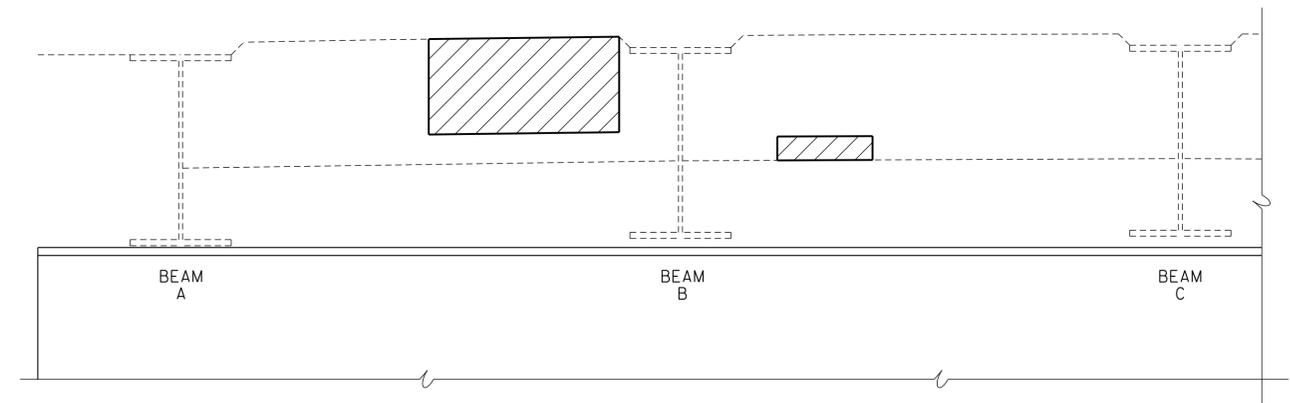
BENT CAP WEB REPAIR

(BENT NOS. 3 & 4 - LOOKING FORWARD ON SURVEY)

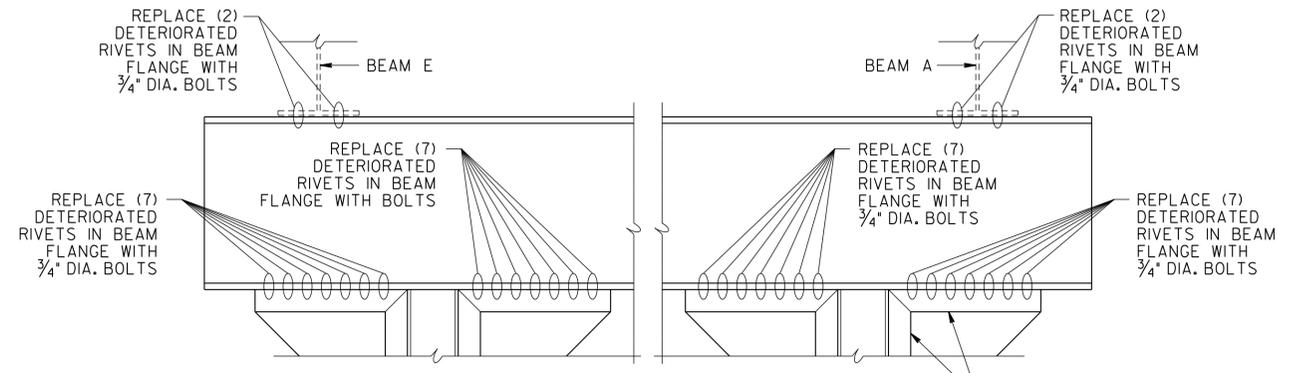
NOTE: HAND REMOVAL OF SOIL DEPOSITED ON PEDESTAL AT BENT NO. 4 MAY BE NECESSARY TO ACCESS BENT COLUMNS FOR CLEANING AND PAINTING.



PART-ELEVATION - BENT 6
(LOOKING FORWARD ON SURVEY)



PART-ELEVATION - BENT 5
(LOOKING FORWARD ON SURVEY)



PART-ELEVATION - BENT 6
(LOOKING BACK ON SURVEY)

REPLACE (2) L's 3/2x3/2x1/2 WITH 3/4" DIA. BOLTS (EACH FACE IN KIND) (TYP.)

UNOFFICIAL SET
NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

BENT REPAIR DETAILS
STATE ROUTE 115 OVER
NINE MILE CREEK
BRIDGE NO. 05-SRI15-03.15
BLOUNT COUNTY
2015

4/28/2015 F:\35\35034\35034201\Br\lgd\35034201_BNT002.dgn

DESIGNED BY M. JONES DATE 03/14
DRAWN BY M. JONES DATE 03/14
SUPERVISED BY L. BILBREY DATE 03/14
CHECKED BY L. BILBREY DATE 03/14

SPECIAL NOTES FOR EPOXY INJECTION

UNLESS OTHERWISE NOTED, THE INTENT OF THIS SPECIFICATION IS FOR DESIGNATED CRACKS TO BE INJECTED THEIR FULL LENGTH AND DEPTH.

DESIGNATED CRACKS SHALL BE INJECTED WITH AN APPROVED EPOXY RESIN ADHESIVE FILLING ALL VOIDS FOR THE CRACK DEPTH OR THICKNESS OF THE MEMBER. THE EPOXY RESIN ADHESIVE SHALL BE ON THE CURRENT QUALIFIED PRODUCTS LIST MAINTAINED BY THE DIVISION OF MATERIALS AND TEST. ALL CRACKS SHALL BE INJECTED USING AN ADHESIVE SUITABLE FOR THE FIELD CONDITIONS (CRACK WIDTH, TEMPERATURE, HUMIDITY, ETC.) RECOMMENDED BY THE ADHESIVE MANUFACTURER AS SHOWN ON MATERIAL DATA SHEETS. FOLLOWING INJECTION, ALL INJECTION PORTS AND CAPPING MATERIAL SHALL BE REMOVED FROM EXPOSED SURFACES LEAVING THE SURFACE SMOOTH AND FLUSH WITH THE SURROUNDING CONCRETE SURFACES.

THE CONTRACTOR SHALL HAVE SUFFICIENT EXPERIENCE AND TRAINING TO PERFORM THE EPOXY INJECTION IN ACCORDANCE WITH THESE PLANS. PRIOR TO PERFORMING ANY WORK, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A WRITTEN PROCEDURE FOR PERFORMING THE EPOXY INJECTION. THE PROCEDURE SHALL DESCRIBE IN DETAIL HOW THE WORK WILL BE PERFORMED. THE PROCEDURE SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING INFORMATION.

- 1) DESCRIPTION OF EQUIPMENT.
 - A. THE INJECTION EQUIPMENT SHALL BE OF THE TYPE THAT MIXES ADHESIVE COMPONENTS AT THE INJECTION HEAD.
 - B. THE INJECTION EQUIPMENT SHALL BE CAPABLE OF DISCHARGING MIXED ADHESIVE AT ANY PRESSURE UP TO 300 PSI. THE INJECTION EQUIPMENT SHALL BE EQUIPPED WITH GAUGES WHICH CAN MEASURE THE INJECTION PRESSURE AND VOLUME.
- 2) EQUIPMENT CALIBRATION PROCEDURES AND SCHEDULE.
- 3) MATERIALS TO BE USED (INCLUDING MANUFACTURER DATA SHEETS).
 - A. CAPPING MATERIAL
 - B. EPOXY ADHESIVE (TYPE TO BE APPROPRIATE FOR CRACK SIZES TO BE INJECTED).
- 4) PORT SPACING
 - A. PORT SPACING SHALL NOT BE LESS THAN THE THICKNESS OF THE CONCRETE IN THAT LOCATION.
- 5) INJECTION SEQUENCE
 - A. INJECTION SHALL PROCEED FROM LOWER END OF CRACK ALONG ADJACENT PARTS.
 - B. SKIPPING OF PORTS DURING INJECTION SHALL NOT BE ALLOWED.

THE CONTRACTOR SHALL HAVE THE MANUFACTURER'S INSTRUCTIONS FOR PROPORTIONING AND MIXING AVAILABLE AT THE JOB SITE AT ALL TIMES AND SHALL ENSURE THAT THE EQUIPMENT IS SUPPLYING THE MIXED ADHESIVE IN THE CORRECT PROPORTIONS.

TO ENSURE PROPER MIXING AND PROPORTIONING, SAMPLES SHALL BE TAKEN FROM THE INJECTOR HEAD AT THE START OF EACH WORKDAY AND EACH TIME THE ADHESIVE RESERVOIRS ARE REFILLED. THE SAMPLES SHALL BE IN A TEST CUP. THE SAMPLE SHALL BE MONITORED TO ENSURE THAT THE CURE TIME IS IN COMPLIANCE WITH THE MANUFACTURER'S DATA SHEETS. IF THE SAMPLES DO NOT CURE IN THE SPECIFIED TIME THEN THE EQUIPMENT USED TO PRODUCE THE SAMPLE SHALL NOT BE USED UNTIL THE PROBLEM IS CORRECTED.

CORE SAMPLES SHALL BE TAKEN AS VERIFICATION OF THE QUALITY OF WORK. THE CONTRACTOR SHALL TAKE ONE (1) ONE (1) INCH DIAMETER (FULL DEPTH OF CONCRETE AT LOCATION CORED) CORE SAMPLE STARTING WITH THE FIRST REPAIR LOCATION THEN EVERY THIRD REPAIR LOCATION AFTERWARDS. WORK SHALL NOT PROCEED UNTIL THE CORE SAMPLE IS TAKEN AND ACCEPTED. ALL CORE SAMPLES AND HOLES SHALL BE INDEXED FOR FUTURE REFERENCE. THE ENGINEER SHALL DESIGNATE ALL LOCATIONS TO BE CORED. IF ANY CORES SHOW UNACCEPTABLE RESULTS, ALL WORK SHALL BE STOPPED UNTIL THE CONTRACTOR SUBMITS A PROPOSAL FOR CORRECTING UNACCEPTABLE WORK.

THE INITIAL CORE WILL ALSO SERVE TO QUALIFY THE FOREMAN FOR THIS WORK. IF AT ANY TIME A NEW FOREMAN IS USED, HE SHALL BE QUALIFIED WITH A CORE SAMPLE.

THE CONTRACTOR, AT HIS EXPENSE, SHALL REPAIR ALL CORE HOLES WITH AN APPROVED CEMENTITIOUS PATCHING MATERIAL.

CORE SAMPLES SHALL BE VISUALLY INSPECTED TO CONFIRM THAT CRACKS ARE COMPLETELY FILLED WITH ADHESIVE. ANY CORE HAVING LESS THAN 95% OF THE CRACK FILLED WITH ADHESIVE SHALL BE CONSIDERED UNACCEPTABLE AND BE REJECTED.

CORE SAMPLES SHALL BE TESTED FOR BOND STRENGTH. SAMPLES MAY BE FRACTURED BY HAMMER BLOW TO CRACK AREA OR THROWN AT A HARD SURFACE. IF ADHESIVE FAILURE OCCURS BEFORE CONCRETE FAILURE, THE CORE SHALL BE CONSIDERED UNACCEPTABLE AND REJECTED.

PAYMENT FOR EPOXY INJECTION CRACK REPAIR SHALL BE MADE UNDER ITEM NUMBERS 604-10.62, EPOXY INJECTION REPAIR (COMPLETE AND IN PLACE), L.F., AND 604-10.58, EPOXY INJECTION (INJECTION), GAL.

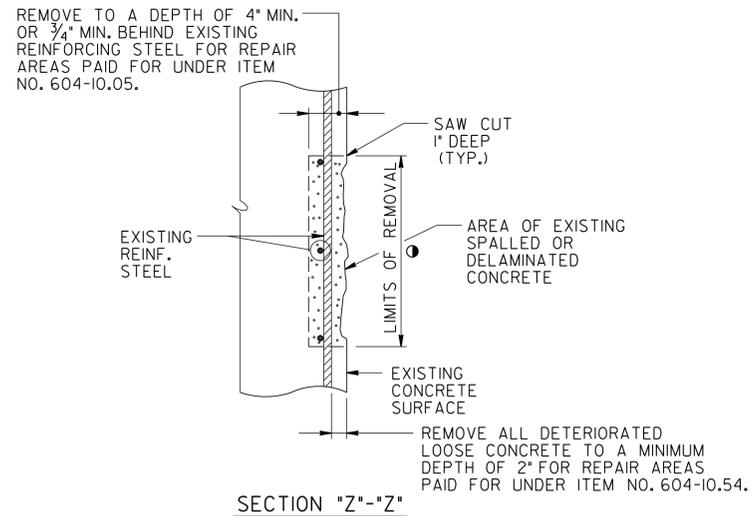
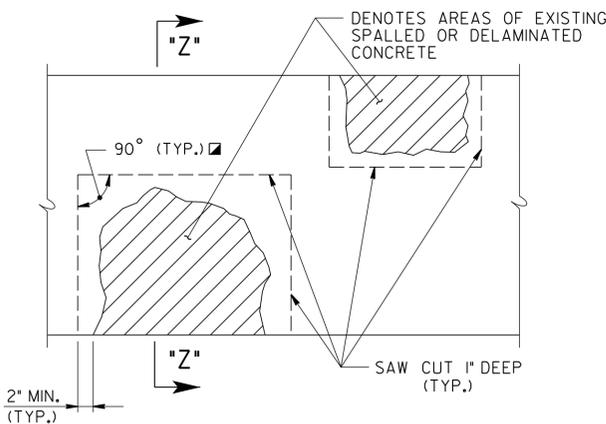
PRICE BID FOR ITEM NUMBER 604-10.62, EPOXY INJECTION REPAIR (COMPLETE AND IN PLACE), L.F., SHALL INCLUDE COST OF ALL LABOR AND MATERIALS (EXCEPT ADHESIVE) FOR GRINDING FOR SURFACE PREPARATION, CRACK PREPARATION, CAPPING, INJECTION OF ADHESIVE, ALL SAMPLING AND TESTING, REMOVAL OF CAPPING MATERIAL AND PORTS, AND OTHER INCIDENTALS. CRACKS SHALL BE MEASURED FOR PAYMENT ALONG THE LENGTH OF THE VISIBLE SURFACE CRACK.

PRICE BID FOR ITEM NUMBER 604-10.58, EPOXY INJECTION (INJECTION), GAL., SHALL INCLUDE COST FOR ADHESIVE MATERIAL INJECTED ONLY.

NO PAYMENT SHALL BE MADE FOR REWORK DEEMED NECESSARY BY FAILURE OF ADHESIVE SAMPLES OR CORE SAMPLES.

ALL WORK INCLUDING SAMPLING AND TESTING SHALL BE IN THE PRESENCE OF THE ENGINEER OR HIS REPRESENTATIVE OR CONTRACT INSPECTORS. ANY WORK DONE WITHOUT INSPECTORS PRESENT SHALL NOT BE PAID FOR. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH WEEKLY SCHEDULES OF WORK TO BE PERFORMED. SCHEDULES SHALL BE SUBMITTED AT LEAST THREE (3) DAYS IN ADVANCE OF WORK TO BE DONE. THE ENGINEER SHALL BE NOTIFIED OF ANY CHANGE IN THE SCHEDULE A MINIMUM OF TWENTY-FOUR (24) HOURS IN ADVANCE OF CHANGE.

DESIGNED BY M. JONES DATE 03/14
 DRAWN BY M. JONES DATE 03/14
 SUPERVISED BY L. BILBREY DATE 03/14
 CHECKED BY L. BILBREY DATE 03/14



DETAIL SHOWING AREAS OF EXISTING SPALLED OR DELAMINATED CONCRETE SURFACES TO BE REMOVED AND REPAIRED

- DENOTES: LIMITS AND LOCATION OF REPAIRS TO BE DESIGNATED BY THE ENGINEER.
- ◻ DENOTES: SAW CUT EXISTING CONCRETE SURFACES SO AS TO OBTAIN SQUARED CORNERS.

NOTE: EXTREME CARE SHALL BE TAKEN WHEN REMOVING THE EXISTING SPALLED OR DELAMINATED CONCRETE SO AS NOT TO DAMAGE THE EXISTING REINFORCING STEEL. ALL EXPOSED EXISTING REINFORCING STEEL SHALL RECEIVE A COMPLETE CLEANING TO REMOVE ALL RUST. ALL EXISTING REINFORCEMENT SHALL REMAIN IN PLACE AND INCORPORATED INTO THE NEW CONSTRUCTION. ALL WORK MUST MEET WITH THE FULL APPROVAL OF THE ENGINEER.

THE ENGINEER SHALL HAVE THE OPTION OF DESIGNATING A SPALLED OR DELAMINATED AREA TO BE REPAIRED UNDER ITEM NO. 604-10.05 OR 604-10.54. PATCHING MATERIAL FOR ITEM NO. 604-10.05 SHALL BE HIGH EARLY STRENGTH CONCRETE. PATCHING MATERIAL FOR ITEM NO. 604-10.54 SHALL BE A POLYMER MODIFIED CEMENTITIOUS STRUCTURAL PATCHING MATERIAL. SEE T.D.O.T. QUALIFIED PRODUCTS LIST 13, SECTION B.6.

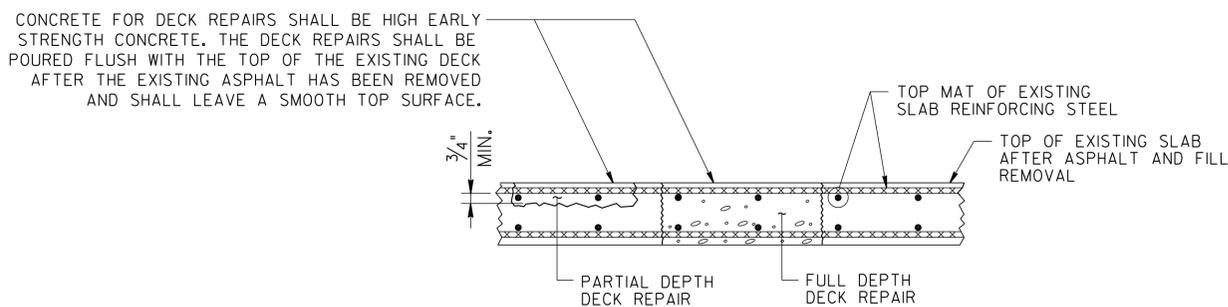
NOTE: PNEUMATICALLY PLACED CONCRETE IS NOT ALLOWED.

COST OF SAW CUTTING, REMOVING SPALLED OR DELAMINATED CONCRETE, CLEANING, PATCHING MATERIAL, LABOR AND ANY MISCELLANEOUS MATERIALS NECESSARY TO COMPLETE THE REPAIRS AS SHOWN TO BE INCLUDED IN ITEM NO. 604-10.54, CONCRETE REPAIRS, S.F. OR ITEM NO. 604-10.05, CONCRETE, S.F.

THE ENGINEER SHALL DESIGNATE ALL SPALLED OR DELAMINATED CONCRETE REPAIR AREAS IN THE FIELD. QUANTITIES GIVEN ARE APPROXIMATE. ITEM NO. 604-10.05 AND 604-10.54 CAN BE INCREASED, DECREASED, OR ELIMINATED AS DIRECTED BY THE ENGINEER.

POWER HAND DRIVEN TOOLS USED FOR REMOVAL OF UNSOUND CONCRETE ARE SUBJECT TO THE FOLLOWING RESTRICTIONS:

1. PNEUMATIC HAMMERS HEAVIER THAN THE 35 LB. CLASS SHALL NOT BE USED.
2. CHIPPING HAMMERS OF THE 15 LB. CLASS SHALL BE USED TO REMOVE CONCRETE FROM BEHIND REINFORCING STEEL.



DETAIL SHOWING FULL AND PARTIAL DEPTH DECK REPAIR

NOTE: CONCRETE FOR DECK REPAIRS SHALL BE HIGH EARLY STRENGTH CONCRETE F'c=3,000 PSI @ 18 HOUR STRENGTH. TRAFFIC SHALL NOT BE PERMITTED ON ANY REPAIR AREA UNTIL TEST SPECIMENS ATTAIN A COMPRESSIVE STRENGTH OF 3,000 PSI MINIMUM AND THE CONCRETE HAS BEEN IN PLACE A MINIMUM OF EIGHTEEN (18) HOURS.

NOTE: REMOVE CONCRETE IN ALL DELAMINATED AREAS TO A DEPTH OF 3/4" BELOW THE TOP BAR OF THE TOP MAT OF REINFORCING STEEL. ALL REINFORCING STEEL IN AREAS OF DECK REPAIR SHALL BE COMPLETELY CLEANED. AREAS OF CONCRETE REMOVAL SHALL BE DESIGNATED BY PERSONNEL FROM THE BRIDGE REPAIR OFFICE. INSPECTIONS TO DETERMINE AREAS OF DECK REPAIR SHALL BE SCHEDULED WITH THE BRIDGE REPAIR OFFICE AT LEAST THREE (3) DAYS IN ADVANCE. DECK REPAIR WILL BE PAID FOR UNDER ITEM NO. 604-10.50, BRIDGE DECK REPAIR (PARTIAL DEPTH OF SLAB), AND ITEM NO 604-10.30 BRIDGE DECK REPAIR (FULL DEPTH OF SLAB). DURING PARTIAL DEPTH REPAIRS, SHOULD DETERIORATED CONCRETE BE ENCOUNTERED WHICH APPEARS TO RUN FULL DEPTH IN THE SLAB, THE ENGINEER MAY DESIGNATE THESE AREAS TO BE REPAIRED UNDER ITEM NO. 604-10.30. POWER DRIVEN HAND TOOLS USED FOR THE REMOVAL OF UNSOUND CONCRETE IN MAKING PARTIAL AND FULL DEPTH REPAIRS ARE SUBJECT TO THE FOLLOWING RESTRICTIONS:
 1) PNEUMATIC HAMMERS FOR 1) PARTIAL DEPTH REPAIR AREAS, FULL DEPTH REPAIR AREAS, AND ALL DECK REPAIR AREAS OVER BEAMS WILL BE RESTRICTED TO 60 POUND CLASS.
 2) CHIPPING HAMMERS OF THE 15 POUND CLASS SHALL BE USED TO REMOVE CONCRETE FROM BENEATH ANY REINFORCING STEEL.

NOTE: ITEM NO. 604-10.50 CAN BE INCREASED, DECREASED, OR ELIMINATED AS DIRECTED BY THE ENGINEER.

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STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 MISCELLANEOUS REPAIR DETAILS
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