

ITEM NO.	DESCRIPTION	UNIT	BRIDGE NO. 1 (33-3609-1.08)	BRIDGE NO. 2 (33-3609-1.13)	TOTAL
604-04.02	APPLIED TEXTURE FINISH (EXISTING STRUCTURES)	SY	670	675	1345
604-05.31	BRIDGE DECK GROOWING (MECHANICAL)	SY	863	879	1742
604-10.07	CONCRETE HEMOVAL	LS	0.5	0.5	1
604-10.14	REMOVE EXISTING WEARING SURFACE	LS	0.5	0.5	130.
604-10.18	RENFORCING STEEL (REPAIRS)	1.8	24,468	24,442 647	48,956
604-10.44	EXPANSION JOINT REPAIR	U	150	152	302
604-10.54	CONCRETE REPAIRS	SF	68	41	109
604-10.58	EPOXY INJECTION (INJECTION)	GAL	3	3	6
604-10.62	EPOXY INJECTION REPAIR (COMPLETE AND IN PLACE)	U	111	125	236
604-10.85	CLASS "B" CONCRETE (OVERLAY)	CY	156	159	315
606-02.03	STEEL PILES (10 INCH)	UF :	180	180	360
620-10.01	CONCRETE PARAPET (BRIDGERAL REPLACEMENT)	LF	225	230	455

FOOTNOTES

- ① INCLUDES COST OF ALL LABOR AND MATERIALS TO TEXTURE COAT SUPERSTRUCTURE AND SUBSTRUCTURES AS SHOWN IN THE DETAIL ON DWG. 88-73-46. FOR DETAILS AND NOTES, SEE DWG. 88-73-46.
- (2) INCLUDES COST OF ALL LABOR AND MATERIALS TO GROOVE THE NEW CONCRETE DECK WITHIN 1'-0' OF THE TOE OF THE PARAPET FOR THE FULL BROCK LENGTH.
- ③ NOLIDES COST OF ALL LABOR AND MATERIALS TO REMOVE EXISTING CONCRETE CURB, CONCRETE MEDIAN, CONCRETE AND ALLMINIAN BRIDGERIAL AND COMPLETELY CLEAVING ANY REINFORDING STEEL TO REMAIN. FOR NOTES AND DETAILS SEE DWG. NO.'S BB_73_39 AND BB_73_ST.
- (4) NCLUDES COST OF ALL LABOR AND MATERIALS TO REMOVE AND DISPOSE OF 5"(±) OF EXISTING ASPHALT WEARING SURFACE MEASURED FOR THE FULL BRIDGE LENGTH. FOR DETAILS AND NOTES SEE SHEET NO. 28 AND DWG. 88-73-39.
- ▲③ PROCLUPES THE COST OF ALL LABOR AND MATERALS TO PLACE EPOXY CONTED REPROPRIORS STEEL AND MEDIANICAL THREADED CONNECTIONS RECURED FOR THE ARM 4% CONCRETE OVERLAY, MEDIANE AND ENDPOSTS. FOR DETAILS AND NOTES SEE DWG, NO. 28E-27-46, BE-27-3-42, NO. 8E-27-3-45.
- INCLUDES COST OF ALL LABOR AND MATERIALS REQUIRED TO INSTALL AN EXPANSION JOINT BETWEEN THE BRIDGE DECK AND ASPHALT APPROACHES. FOR DETAILS AND NOTES, SEE DWG, NO BR-73-35.
- (*) INCLUDES COST OF ALL LABOR AND WATERIALS TO REPAIR SPALLED AREAS OF CONCRETE ON BEAMS, BENTS AND ABUTMENTS WITH QUICK-SET PATCHING WATERIAL FOR DETAILS AND BOTES SEE DWGS. NO. BR-73-65 AND BR-73-45.
- 1 INCLUDES ALL COSTS TO PROVDE ADHESIVE MATERIAL INJECTED ONLY, FOR DETAILS AND NOTES SEE DWG. NO. 887-73-43.
- (9) INCLIDES ALL COSTS EXCEPT ADHESIVE TO REPAIR CRACKS IN PRESTRESSED CONCRETE BOX BEAMS, BENTS AND ABUTMENTS USING EPOXY INJECTION. FOR DETAILS AND NOTES SEE DWG. 88-73-43 AND 8R-73-44.
- (MINCLUDES THE COST OF ALL LABOR, MATERIAL AND EQUIPMENT REQUIRED TO PLACE NEW CONCRETE OVERLAY AND MEDIAN, FOR DETAILS AND NOTES SEE DWG. NO.'S 88-73-40 88-73-41. AND 88-73-42.
- () INCLUDES COST OF ALL LABOR AND MATERIALS REQUIRED TO WISTALL 38 HP10x42 STEEL PILES FOR CONCRETE END BLOCKS IN THE NEW EXPANSION JOINTS AT ABUTMENTS. FOR DETAILS AND NOTES, SEE DWG. NO BR-73-45.
- ② INCLUDES COST OF ALL LABOR AND MATCRIALS TO INSTALL NEW CONCRETE PARAPET, AND END POSTS. FOR NOTES AND DETAILS SEE DWG. NO.'S BR.-73-19, BR.-73-40, BR.-73-46, AND STD-1-1.
- @ ITEMS SHALL BE BID AS CONTINGENCY AND MAY BE INCREASED, DECREASED OR ELIMINATED AS DIRECTED BY THE ENGINEER.

GENERAL NOTES

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

DESIGN SPECIFICATIONS: AASHTD 2002 17TH EDITION

REINFORCING STEEL SEE THE STANDARD SPECIFICATIONS.

MEDIAGICAL RAS SPICIES. BUST BE ON THE APPROVED UST MAINTAINED BY THE DIVISION OF WITERIAS AND HISTS. THE BAR SPICES TRAIL MEET AMOND STANDARD SPICIES FOR MEDIANIZAL CONNECTION. WHEN PROVY COATING IS REQUIRED, THE EXPOSED THREADS SHALL BE REPAINED LATTER AND PROVY COATING WHEN RECORDED NO LUDWIC ALL DATOR AND MATERIAS RECESSARY FOR COMPLETE INSTALLATION, SHALL BE INCLUDED IN THE UNIT PRICE BD FOR ITEM MO. 604-10.18, 138

SHOP DRAWINGS. SHALL BE SUBMITTED ACCORDING TO SPECIAL PROVISION NO. 105A, SHOP DRAWINGS SHALL BE SUB-MITTED TO THE BRIDGE REPAIR OFFICE OF THE DIMISION OF STRUCTURES.

CONCRETE: SHALL BE CLASS "A" CONCRETE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

BRIDGE DECK_CONCRETE: SHALL BE CLASS "O" CONCRETE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

BRDDE_DECK_SURFACE FRASH: SHALL BE IN ACCORDANCE WITH METHOD (C) IN SUBSECTION 604.23 OF THE STANDARD SPECIFICATIONS.

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

CIMALIDAY: THE CONTRACTOR SHALL HARE SPECIAL CARE TO PROTECT ANY PARTS OF THE STRUCTURE THAT ARE NOT TO BE REMOVED SPECOPICALLY. THE CONTRACTOR IS NOT ALLOWED TO USE A HORALIZE RAM MOVINTED ON A BENEFIT OF CONCERT ERMOVER. PREDIATOR MANUFED MAY BE USED TO REMOVE UNDOING CONCERT. OF THAT YE DEPOSIT OF CONCERT SHAPE AND ANY MOVE OWNERS MAY BE USED TO REMOVE UNDOING CONCERT. OF PARTHAL DEPTH OF CONCERT SHAPE REMOVEL, AND ANY MOVE OWNERS AS ANY SPECIFIED PROJECTION OF THE STRUCTURE OLDSS. SAME OF CULTIMO OF THE CONCERTS AS LONG AS ANY SPECIFIED PROJECTION OF THE STRUCTURE OLDSS. SAME OF CULTIMO OF THE CONCERTS AS LONG AS ANY SPECIFIED PROJECTION OF THE STRUCTURE OF CONCERTS AS LONG AS ANY SPECIFIED PROJECTION OF THE STRUCTURE OF CONCERTS AS LONG AS ANY SPECIFIED PROJECTION OF THE STRUCTURE OF CONCERTS AS LONG AS ANY SPECIFIED PROJECTION OF THE STRUCTURE OF CONCERTS AS LONG AS ANY SPECIFIED PROJECTION OF THE STRUCTURE OF CONCERTS AS LONG AS ANY SPECIFIED PROJECTION OF THE STRUCTURE OF CONCERTS AS LONG AS ANY SPECIFIED PROJECTION OF THE STRUCTURE OF CONCERTS AS LONG AS ANY SPECIFIED PROJECTION OF THE STRUCTURE OF TH

IGN EARLY STRUCTURE CONCRETE. THE MAY TO MEET THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS, CLASS 'EXCEPT THE CENTRY CONCRETE AND SHALL BE A MANUAL OF THE BIS. THE MATER CARRY THATIO SHALL BE A MAXIMUM OF NO FLY ASH REPLACEMENT MILL BE PRIMITED, AND THE MANUAL BE DAY COMPRESSIVE STRUCTURE SHALL BE JOSO P ORDITO, SHALL MOTHER ON ANY OF THE REPRESENCE STRUCTURE STATEMENT COMPRESSIVE STRUCTURE AND THE COMPRESSIVE STRUCTURE AND THE STRUCTURE OF THE STRUCTURE STRUCTURE AND THE STRUCTURE STRUCTURE STRUCTURE AND THE STRUCTURE STRUCTUR OF 3000 P.S.I. MINIMUM AND THE CONCRETE HAS BEEN IN PLACE A MINIMUM OF TEN (10) DAYS

CONCRETE AND PATCHING MATERIAL: ALL CONCRETE AND PATCHING MATERIALS SHALL NOT BE PLACED BY PNEUMATIC

LANE CLOSURES FOR 1-24

ALL LANE CLOSURES ON 1+24 SHALL BE DONE ON THE WEEKEND (8:00PM FRIDAY TO 5:00AM MONDAY) LANES SHALL BE CLOSED FOR A TOTAL OF 8 WEEKENDS.

	NUMBER OF WEEKENDS		
BRIDGE NUMBER	EASTBOUND	WESTBOUND	
(1) 33-3609-1.08	4		
(2) 33-3609-1.13		4	

SPECIAL NOTES FOR 1-24:

THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE SHELDING WATERIALS TO PROTECT MOTORIST FROM DEBRIS AND/OR OTHER WATERIALS THAT MAY BE A HAZARD OR PRODUCE HAZARDOUS CONDITIONS TO THE PUBLIC.

THE CONTRACTOR SHALL NOT BE ALLOWED TO INTERRUPT INTERSTATE TRAFFIC FLOW AND SHALL MAINTAIN ALL LANES OF TRAFFIC IN EACH DIRECTION ON THE FOLLOWING DAYS:

+49315

- A) OFFICIAL STATE HOUDAYS

 B) FRDAY AT 6:00 A.M. UN'IL TUESDAY AT 7:00 P.M., IF A STATE HOUDAY OCCURS OR IS OBSERVED ON MONDAY.
- C) THURSDAY AT 6:00 A.M. UNTIL MONDAY AT 7:00 P.M., IF A STATE HOUDAY OCCURS OR IS OBSERVED ON FRIDAY.

ALL COST INCURRED IN THE REMOVAL RESETTING OR DESCURING OF TRAFFIC CONTROL DEVICES DUE TO NIGHTHINE LIMITATIONS OR BETWEEN YARROUS PHASES OF TRAFFIC CONTROL. SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM NO. 712—01, TRAFFIC CONTROL. AN EXCEPTION TO THIS IS THE RESETTING OF PORTABLE BARRIER RAL FROM PHASE I TO PHASE 2 ON SPRING CREDX ROAD. SEE DWG. 88—73—39 FOR LOCATIONS OF PORTABLE BARRIER RAL (SEE FORDINGTE TO THAN 0. 712—02.02).

ALL COST INCURRED FOR ANY TEMPORARY REMOVAL AND REATFACHMENT OF GUARDRAIL AT BRIDGE ENDS SHALL BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS OF CONSTRUCTION.

ALL WORK ON THE BROCK WILL BE ACCOMPUSHED WITH RESPECT TO THE SAFETY OF MOTORISTS BELOW, SPECIAL CARE SHALL BE TAKEN TO SHIELD MOTORISTS PASSING BELOW THE BROCK FROM THE POSSIBILITY OF FALLING OR FLYWO DERBS DURING ALL PHASES OF THE ACTURE REPAIR WORK. THE CONTRACTOR SO TO PROVIDE DETAILS OF HIS SAFETY APPRAINS TO THE CHORDER A WINNING OF SEVEN (7) DAYS PRIOR TO COMMENCING WORK ON THE BROCK MATERIALS USED FOR THE SAFETY OF THE MOTORISTS, AS WELL AS THE FORMING SYSTEM FOR FILL DECK WORK, SHALL MAINTAIN THE MINING.

ALL SIGNS MUST BE MAINTAINED FOR THE DURATION OF THE PROJECT, SIGNS MAY NEED TO BE RELOCATED AT APPROPRIATE TIMES AT THE DIRECTION OF ENGINEER. COSTS ASSOCIATED WITH THE RELOCATION WHEN DIRECTED.

THE DEPARTMENT SHALL RESERVE THE RIGHT TO REOPEN LANES AS NECESSARY WHEN TRAFFIC CONDITIONS ARE DECIMED UNACCEPTABLE (EXCESSAVE QUEUE LENGTHS AND DELAY TIMES). THE CONTRACTOR SHALL BE REQUIRED TO FULLY COOPERATE WITH THE PROJECT SUPPLYINGOR WHEN REQUESTED TO MAKE.

MESSAGE BOARDS SHALL BE USED NEAR INTERCHANGES AND/OR OTHER DESCNATED AREAS IN ADVANCE OF DIE WORK ZONE TO ALBEIT MOTORISTS OF POSSIBLE DELAYS AND RECOMMEND THE USE OF ALTERNATE ROUTES. THE MESSAGE'S SHALL BE UPD. TED AS OFTEN AS MORESSARY SO, THAT MOTORISTS OFTEN AND ADVANCED THAT AND ADVANCATION, MESSAGE BOARDS SHALL BE RECORATED AS INCESSARY AS THE WORK PROPRESSARY SO, THAT MOTORISTS RECOMED TO DELIVERY AND BOARD SHALL BE RECORATED AS INCESSARY AS THE WORK PROPRESSARY SO, THE OWNER PROPRESSARY SHALL BE WELLDED TO DELAY AND SHALL BE WELLDED THE OWNERS AS CREATED AS MORE FOLDER OF MANUES AT ANY TIME DUE OF TO CHARGE AS MORE COUNCES AND REQUIRE CHARGES AND REQUIRE CHARGES AND PROCURE CHARGES AT MANY TIME DUE TO CHARGE AS THE CONTINUES AS THE COUNCIL AND THE PART OF THE WORK MILL NOT BE PAID FOR DIRECTLY, BUT SHALL BE INCLUDED IN OTHER ITEMS OF WINDS.

33003-4157-04			YEAR	SHEET NO.
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-				
	03-4	103-4157-	03-4157-04	03-4157-04 2005 REVISIONS

UTILITIES NEAR PROJECT LOCATION

POWER

ELECTRIC POWER BOARD OF CHATTANOOGA P.D. BOX 182255 CHATTANOOGA, TN. 37422 CAVO WADE

PH: (423) 648-3348

ATLANTA GAS LIGHT COMPANY P.O. BOX 4589 #10 PEACHTREE PLACE, NE (30309) ATLANTA, GA 30302 ROB HEMBREE PH: (404) 584-3363

CITY OF RED BANK 3117 DAYTON BLVD. P.O. BOX 15069 RED BANK, TN. 37415 MAYOR HOWARD COTTER SEWER:

SEWER:

CITY OF CHATTANOOGA CITY HALL EAST 11TH

BELL SOUTH 330 M. L. KING BEVD. CHATTANOOGA, TN. 37403 MS. BRENDA ELUS TELEPHONE

PH: (423) 752-9018 TENNESSEE AMERICAN WATER COM-P.O. BOX 6338 CHATTANOOGA, IN. 37401 MONTY BISHOP WATER: PH: (423) 755-7629



DEPARTMENT OF TRANSPORTATION

ESTIMATED BRIDGE QUANTITIES AND GENERAL NOTES

SPRING CREEK ROAD

BRIDGE NO. 33-3609-1.08 BRIDGE NO. 33-3609-1.13

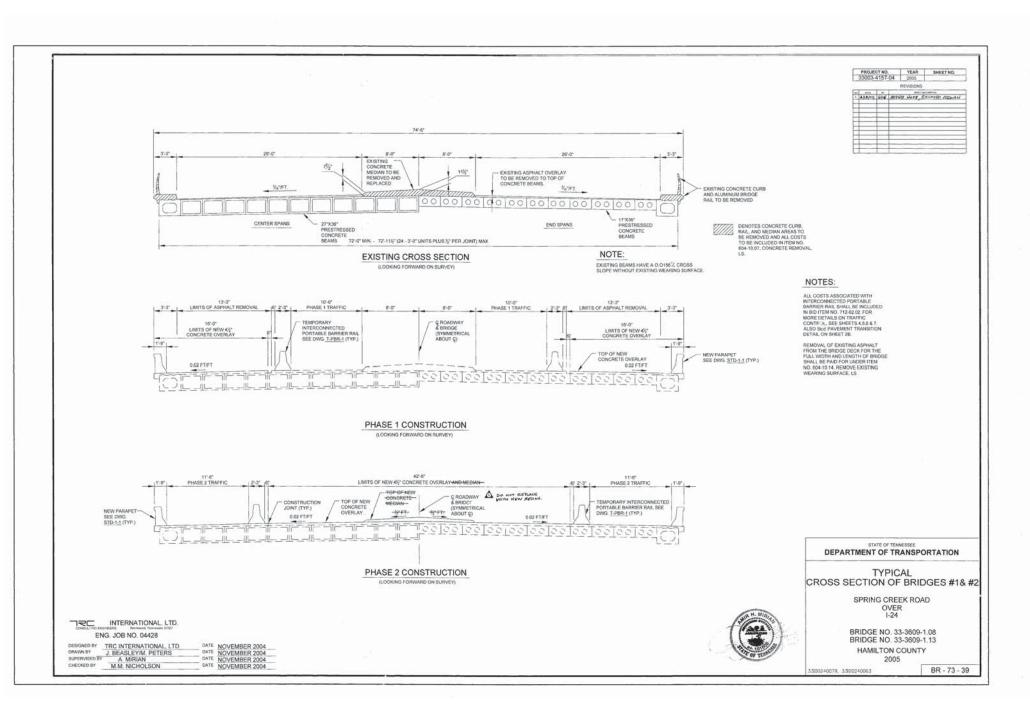
HAMILTON COUNTY 2005

BR - 73 - 38

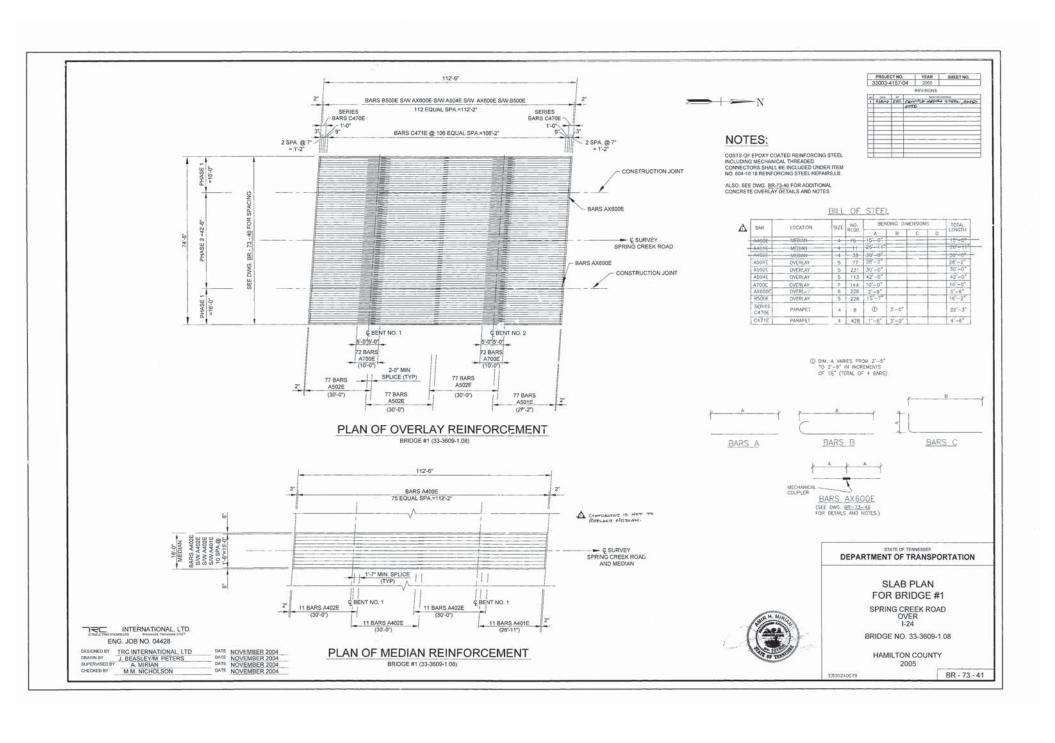
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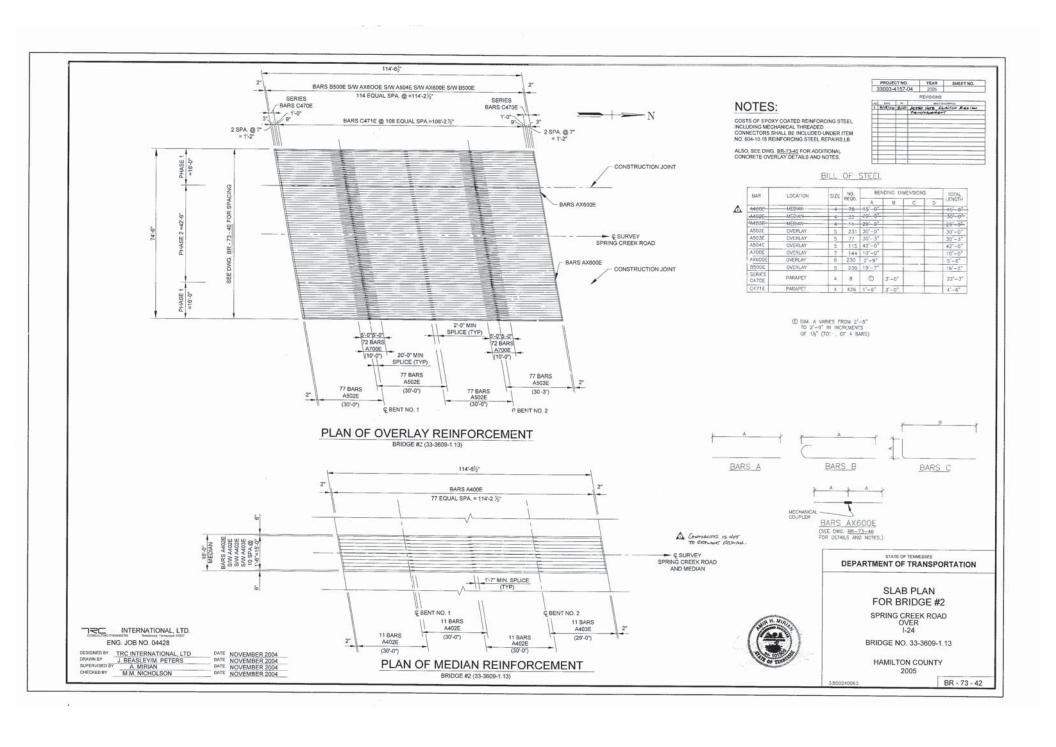
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THE PARAPET SHALL NOT BE POUR ALL COSTS ASSOCIATED WITH THE CLASS TO CONCRETE (OVERLAY), C THREADED CONNECTORS SHALL BE CONCRETE OVERLAY SHALL HAVE A COSTS OF ALL LABOR AND ANY MISS EXISTING CONCRETE MEDIAN, EXIST REMOTECNING STEEL TO REMAIN SH -THE MEDIAN-SHALL BE POURED-AFT ALL EASTING CORRESPONDED REMOTORE 40 REMOTE PALL TRUST -10 REMOTE PALL TRU	CELLANEOUS ITEMS FOR REMOVING THE EXISTING CONCRETE CURB, ING CONCRETE AND ALUMINUM BRIDGE RAIL, AND COMPLETELY CLEANING ANY ALL BE INCLUDED IN TEM NO 306-1007, CONCRETE REMOVAL, L.S. ERTHE NEW+1/Y-CONGRETE DEGK OVERLAY-IS POURED AND SURED— MENT INDICATE D'O TO REMAIN STALT BE CAREFULLY PRESERVED AND COMPLETELY CLEA BET PARAPET, INCLUDING EPOXY COATED BEINFORCING STEEL, FORMING, LABOR AND LETE PARAPET, BET ARAPETS. SHALL BE PAID FOR IMPRO TEMPS OF 100 TO FOR THE PARAPETS. SHALL BE PAID FOR IMPRO THE NOT 700-10 TIL CONCRETE		PROJECT NO. YEAR SHEET NO. \$3003-4157-04 2005 REVENUE SEE FEMILIES SEE FEMILIES SEED SETTLE.
21:3" TO G		101.01	
21:3" TO Q PHASE 2 CONSTRUCTION (TOTAL OF 42-4	5)	PHASE 1 CONSTRUCTION	
BARS A502E SW A502E SW A502E SW A501E OR 21 SPACES @ 12" = 21'-0"	A503E 3* 3*	BARS A502E SW A502E SW A502E SW A501 15 SPACES @ 12" = 15"-0"	E OR A503E 5" 4"
6" BARS A700E 20 SPACES @ 12" = 20-0"	8, 8,	BARS A700E 14 SPACES @ 12" = 14'-0"	1'-3" / NEW PARAPET SEE DIVIG. STD-1-1
BARS AAA02E SW AA02E	BARS BSODE SAW AMSODE SAW ASSOLE SAW AMSODE SAW BSODE. SEE PLAN VIEW ON DIVING. BR. 73 - 41 AND BR. 73 - 42	CONSTRUCTION JOINT MECHANICAL THREADED BAR CONNECTOR, FOR DETALS AND NOTES SEE DWG, BR. 73 - 46. 0.02 FIFF	18' 9 CONDUIT SHALL BE NOTALLED FOR EXISTING LIGHTING COSTS SHALL BE INCLUDED IN ITEMS BID ON. DARS BATE AS SHOWN ON DWG STD-1-1 SHALL BE REFLACED BY BARS CATE IN ORDER TO BE EMBED IN CONCRETE OVERLAY SIAB SEE DWG, BAT2-6-4 FOR ENDROST NOTES AND DETAILS.
	11		
EXISTING #4 DOWELS TO BE PRESERVED, CLEANED AND PROJECT INTO NEW CONCRETE JACIDAN		SEE DWG. BR - 73 - 39 FOR CLEANED	84 DOWELS 9° AND BENT OVERLAY
3000.00	CROSS SECTION (LOOKING FORWARD ON SURVEY) (SHOWING CONCRETE OVERLAY REINFOINCEMENT)		DEPARTMENT OF TRANSPORTATION
	◆ DENOTES: LONGITUDINAL BARS PLACED OVER THE BENTS. SEE DWG BR. 73.44 AND BR. 73.42 FOR PLAN VIEW AND BILL OF STEEL	NOTE: EXISTING BEAMS HAVE A 0.0156 % CROSS SLOPE WITHOUT EXISTING WEARING SURFACE.	CONCRETE OVERLAY DETAILS OF BRIDGES #1& #2 SPRING CREEK ROAD OVER 1-24
INTERNATIONAL, LTD CORRETTED STREET ENG. JOB NO. 04428 DESIGNED BY TRC INTERNATIONAL LTD DRIVEN BY JEESSLEYM PETERS SUPERVISED BY M. MIRIAN CHECKER BY M. M. M. M. MIRIAN CHECKER BY M.			BRIDGE NO. 33-3609-1.08 BRIDGE NO. 33-3609-1.13 HAMILTON COUNTY 2005
			33(00240079, 33(00240063 BR - 73 - 40





SPECIAL NOTES FOR EPOXY INJECTION

ALL VISIBLE CRACKS LOCATED IN THE FOLLOWING AREAS SHALL BE PRESSURE INJECTED: 1) THE PRESTRESSED BOX BEAMS

INLESS OTHERWISE NOTED, THE INTENT OF THIS SPECIFICATION IS FOR DESIGNATED CRACKS TO BE INJECTED THUR RIFULL LENGTH AND DEPTH

DESIGNATED CRACKS SHALL BE INJECTED WITH AN APPROVED EPOXY RESP. ADHESIVE FILLING ALL VOIDS FOR THE FULL CRACK DEPTH OR THICKNESS. TO DAMAGE PRESTRESSING STRANDS. OF THE REMORET. THE EPOLY RESIN ADHESINE SHALL BE ON THE CONFIEND PRODUCTS USE MAINTAINED BY THE DIVISION OF METHOD.

OF THE REMORET. THE EPOLY RESIN ADHESINE SHALL BE ON THE CONFIEND TO ADHESINE OF THE DIVISION OF METHOD.

AND TESTS. ALL CRACKS SHALL BE INSECUED USING ADHESINE SUTTABLE FOR THE FIELD CONTINUOUS (GRACK WIDTH, TEMPERATURE, HUMIDIT, ETC.)

RECOMMENDED BY THE ADHESINE ADMINISTRATOR AS SHOUND ON METERIAL DATA SHEETS. FOLLOWING SILECTION, MUECTION PORTS SHALL BE REMOVED. IN ADDITION, 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

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)
- B) EPOXY ADHESIVE (TYPE TO BE APPROPRIATE FOR CRACK SIZES TO BE INJECTED.)
- A) PORT SPACING SHALL NOT BE LESS THAN THE THICKNESS OF THE CONCRETE AT THAT LOCATION.
- 5) INJECTION SEQUENCE

REAM B

BEAM

BEAM I

BEAM R

BEAM T

REAMV G BEAM X

M.M. NICHOLSON

CHECKED BY

- 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. SAMPLES SHALL BE TAKEN 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 PRODUCE THE SAMPLE SHALL NOT BE USED UNTIL THE PROBLEM IS CORRECTED.

NOVEMBER 2004

DATE NOVEMBER 2004

LOCATION OF PRESTRESSING STRAND REPAIRS. SEE THIS SHEET FOR NOTES AND DETAILS

CORE SAMPLES SHALL BE TAKEN AS VERIFICATION OF THE QUALITY OF WORK. THE CONTRACTOR SHALL TAKE ONE (1) ONE AND A HALF (1.5") INCH DIAMETER. (FULL DEPTH OF CONCRETE AT LOCATION CORED) CORE SAMPLE STARTING WITH THE FIRST REPAIR LOCATION THEN EVERY 3RD 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, COCATIONS TO BE CORED. IF ANY CORES SHOW MACCEPTABLE RESULTS, ALL WORK SHALL BE STOPPED UNTIL THE CONTRACTOR SUBMITS A PROPOSAL FOR CORRECTING UNACCEPTABLE WORK, CORE SAMPLES WILL NOT BE REQUIRED ON PRESTRESSED BOX BEAMS SO NOT

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

THE CONTRACTOR 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 \$5% OF THE CRACK FILLED WITH ADHESIVE SHALL BE CONSIDERED UNACCEPTABLE AND BE REJECTED

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

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, GALLON.

PRICE BID FOR ITEM NUMBER 504-10.62, 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 REPAIR OF CORE HOLES, REMOVAL OF CAPPING MATERIAL AND PORTS, AND OTHER INCIDENTALS. CRACKS SHALL BE MEASURED FOR PAYMENT ALONG

PRICE BID FOR ITEM NUMBER 604-10.58, EPOXY INJECTION (INJECTION), GALLON, 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.

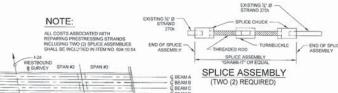
ALL WORK INCLUDING SAMPLING AND TESTING SHALL BE PERFORMED IN THE PRESENCE OF THE ENGINEER OR HIS REPRESENTATIVE OR CONTRACT INSPECTORS. ANY WORK DONE WITHOUT INSPECTORS PRESENT SHALL NOT BE PAID FOR. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH WERKLY SCHEDULES OF WORK TO BE PERFORMED. SCHEDULES SHALL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



YEAR SHEET NO

REVISIONS

33003-4157-04 2005



CONSTRUCTION PROCEDURE FOR PREPARING DAMAGED PRESTRESSED BEAMS

- 1. THE PROJECT ENGINEER FROM THE DEPARTMENT OF TRANSPORTATION WILL MARK EXACT LOCATIONS OF REPAIR AREA BEFORE ANY WORK IS COMMENCED.
- 2. SAW CUT CONCRETE % TO OBTAIN SQUARE AREAS AND REMOVE PORTIONS OF THE PRESTRESSED BEAM AS SHOWN IN THESE PLANS TO INSURE THAT SOUND CONCRETE IS REACHED IN ALL AREAS.

TOTALS

- 3. ASSEMBLE SPLICE, LOCATING SPLICE SLEEVES AND STRAND GRIPS TO ALLOW SEATING OF THE STRAND GRIPS AND SUFFICIENT THREAD LENGTHS IN THE SPLICE SLEEVES.
- 4. TORQUE LUBRICATED SPLICE SLEEVE TO APPROXIMATELY 14,000 POUNDS. THE STRAND GRIPS MUST BE PREVENTED FROM ROTATION DURING TORQUIRS. SEE SINGLE STRAND SPLICE DETAIL ON THIS SHEET. ONE STRAND IN TWO LOCATIONS (BEAM A SPAN 2 OVER BE LANGES) IS TO BE SPLICED. SEE LOCATION OF STRANDS TO BE REPAIRED ON THIS SHEET.
- 5. FORM AND POUR REPAIR AREA SHOWN ON THIS SHEET TO ORIGINAL BEAM LINES USING f_0 = 5,000 PSI CONCRETE. AGGREGATE USED SHALL BE SIZE NO. 8 MAXIMUM. EXPOSED REINFORCEMENT BARS AND STRANDS SHALL BE CLEANED AS NEEDED.



BRIDGE NO. 33-3609-1.13 - 10% O.D. VOIDS 10" | 1'-4" | 10" 31 11-97 3 41/2 2:3" 41/2 (SPANS # 1 & # 3) (SPAN # 2)

TYPICAL SECTIONS OF BOX BEAMS

- END OF BRIDGE OF BRIDGE

SPAN #1

EPOXY INJECT CRACKS. THESE AREAS SHALL BE GROUND SMOOTH TO EXPOSED PRESTRESSI STRA

G BENT NO 2 END OF BRIDGE

STRANDS OR REINFORCING STEEL SHALL BE REMOVED TO A MINIMUM DEPTH OF 1/2".

DENOTES AREAS OF SPALLED CONCRETE TO BE REPAIRED
WHIT QUICK-SET PATCHING MATERIAL COST
TO BE NOLUDED IN ITEM NO 604-1054
SEE DWS BR-73-44 FOR ADDITIONAL NOTES AND

DEPARTMENT OF TRANSPORTATION

EPOXY INJECTION NOTES AND BEAM REPAIR DETAILS

> SPRING CREEK ROAD OVER 1-24

BRIDGE NO. 33-3609-1.08 BRIDGE NO. 33-3609-1.13

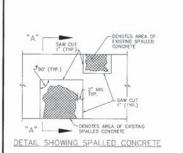
HAMILTON COUNTY 2005

BR - 73 - 43



C BENG JO. 1

PLAN



DENOTES EXISTING SPALLING TO BE REPAIRED

PENDING ALL DITERPORATED AND LODGE CONCRETE
TO A MARMAN DEPTH OF 2" OF TO SOUND CONCRETE
FOR CONCRETE REPAIR AREAS PAIR FOR UNDER HEM
NO. 604-10.54, CONCRETE REPAIRS, 5F.

NO. 604-10.5

NOTES:

*SAW OUT EXISTING CONCRETE SURFACES SO AS TO OBTAIN A SQUARE AREA. EDGES SHALL NOT BE FEATHERED OR TAPERED.

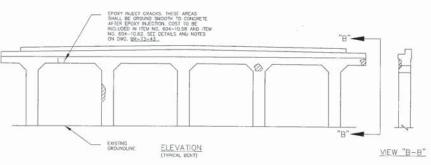
DURING SAW OUT OPERATION, CONTRACTOR TO FIELD VERIFY CONCRETE COVER TO PREVENT DAMAGE TO EXISTING STEEL RENFORCEMENT.

COST OF SAW CUTTING, REMOVING SPALLED CONCRETE, COMPLETELY CLEANING REINFORCING STEEL, NEW CHICK-SET PATCHING MATERIAL, LABOX, AND ANY MISCELLANDUS MATERIALS NECESSARY TO COMPLETE NEW REPARAS AS SHOWN TO BE INCLUDED IN 11EW NO. 664-1034, CONCRETE REPARAS, SY.

CONTRACTOR TO TAKE EXTREME CARE WHEN REMOVING SPALLED AND DETERIORATED CONCRETE, SO AS NOT TO DAMAGE EXISTING REINFORCING STEEL ALL EXISTING REINFORCING STEEL SHALL BE COMPLETELY CLEANED BEFORE PLACED NEW CONCRETE.

ITEM NO. 604-10.54 SHALL BE BID WITH THE CONTINGENCY THAT THIS ITEM MAY BE INCREASED, DECREASED, OR ELIMINATED AS DIRECTED BY THE ENGINEER.

PROJECT NO. 33003-4157-04			YEAR	SHEET NO.
			2005	
			REVISIONS	
100	243	81	9567.0	ISCN/TON
+		-		
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+				
+				
7				
-	-			
+				



DENOTES: AREAS OF SPALLED CONCRETE TO BE REPAIRED WITH QUICK-SET PATCHOR MATERIAL, COST TO BE NICLUSED IN 1TEM NO. 664-10.54. SEE DETAILS AND NOTES FOR SPALLED CONCRETE ON THIS SHEET.

	C	ONCRETE REPAIR SCHEDULE	S
LOCATION OF REPAIR		ITEM NO. 604-10.54 CONCRETE REPAIRS, SF.	ITEM NO. 604-10.62 EPOXY INJECTION REPAIR (COMPLETE AND IN PLACE) LE
BRIDGE # 1 (33-3609-1.08)	BENT NO.1	10	6
	BENT NO.2	8	15
	TOTAL	18	21
BRIDGE # 2 (33-3609-1.13)	BENT NO.1	10	10
	BENT NO.2	3	20
	TOTAL	14	30

INTERNATIONAL, LTD.
ENG. JOB NO. 04428

 DESIGNED BY
 TRC INTERNATIONAL, LTD
 DATE
 NOVEMBER 2004

 DRANN BY
 J. BEASLEYM PETERS
 DATE
 NOVEMBER 2004

 SUPERNASED BY
 A. MIRIAN
 DATE
 NOVEMBER 2004

 CHECKED BY
 M.M. NICHOLSON
 DATE
 NOVEMBER 2004

TYPICAL BENT REPAIR DETAILS



ELEVATION (TYPICAL ABUTWENT)



DENOTES: AREAS OF SPALLED CONCRETE TO BE REPARED WITH OUICE-SET PATCHING MATERIAL COST TO BE INCLUDED AT ITEM NO. 604-10.54. SEE DETAILS AND NOTES TOR SPALLED CONCRETE. ON THIS SHEET.

	CC	ONCRETE REPAIR SCHEDULE	RS
LOCATION OF REPAIR		TEM NO. 604-10.54 CONCRETE REPAIRS, SF.	FPOXY INJECTION REPAIR (COMPLETE AND IN PLACE) LF
BRIDGE # 1	ABUT, NO.1	3	15
(33-3609-1.08)	ABUT, NO.2	1	25
	TOTAL	4	40
BRIDGE # 2 (33-3609-1.13)	ABUT, NO.1	1	20
	S.ON ,TUBA		30
	TOTAL	2	50

TYPICAL ABUTMENT REPAIR DETAILS

DEPARTMENT OF TRANSPORTATION

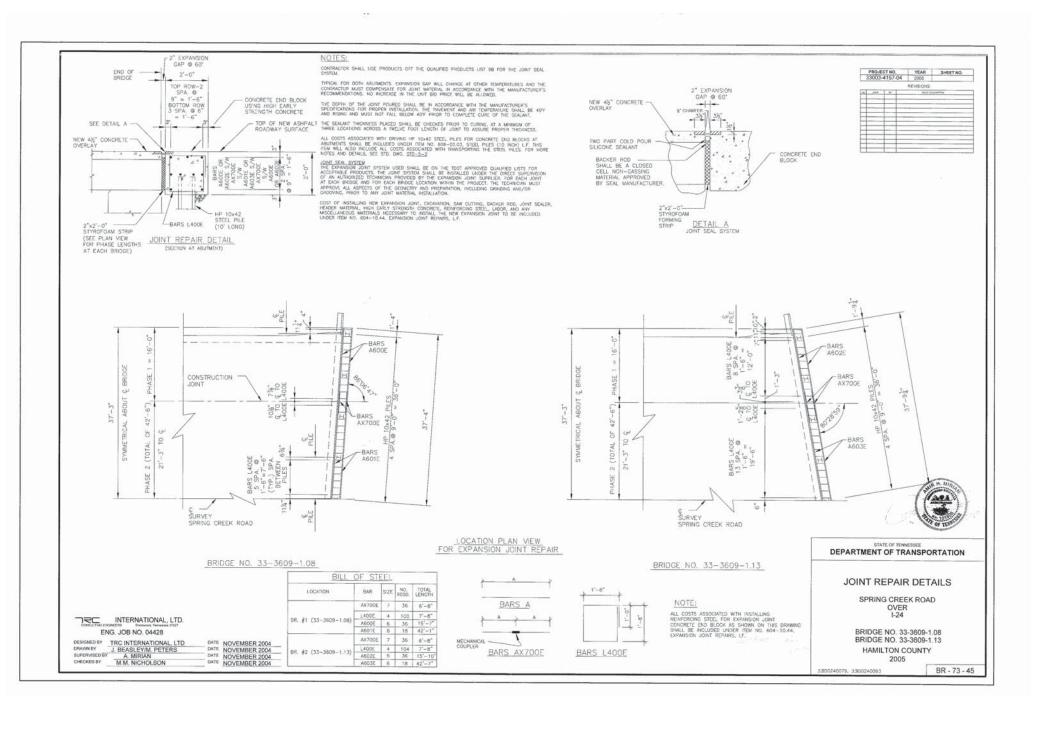
BRIDGE REPAIR DETAILS

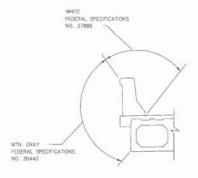
SPRING CREEK ROAD OVER I-24

BRIDGE NO. 33-3609-1.08 BRIDGE NO. 33-3609-1.13 HAMILTON COUNTY

3300240079, 3300240063

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APPLIED TEXTURE FINISH DETAIL

IN ADDITION TO THE SURFACE SHOWN IN THIS DETAIL, ALL EXPOSED SURFACES OF THE ABUTMENTS, WINGWALLS, WINGWOSTS, AND BENTS SHALL RECEIVE AN APPLIED TEXTURE FINISK.

THE CONTRACTOR SHALL CLEAN ALL SURFACES TO RECEIVE APPLIED TEXTURE COATING, ALL CLEANING SHALL BE SATISFACTORY TO THE ENGINEER PRIOR TO APPLYING THE TEXTURE COATING.

THE APPLED TEXTURE FINISH COLOR FOR BRIDGE SHALL BE SHILLIAR TO MOUNTAIN CRAY, FEDERAL SPECIFICATIONS NO. SEED, FEDERAL STANDARD SPECIFICATIONS NO. SEED, FEDERAL STANDARD THE PARAPET SHALL BE WHITE, FEDERAL SPECIFICATION NO. 37886. A COLOR SAMPLE SHALL BE SUBMITTED TO THE DIGHTER FOR APPROVING LAYER COLATIONS MAY BE OBTAINED FROM APPROVING LEXITER COLATIONS MAY BE OBTAINED FROM THE TIBER SEED DEPARTMENT OF TRANSPORTATION DIMENSIONE SHEEKALS AND ESTANDARD SHEEKALS AND SEED.

NO TEXTURE FINISH SHALL BE APPLIED PRIOR TO COMPLETION OF PAVING AND HAULING OPERATIONS AT BRIDGE SITE.

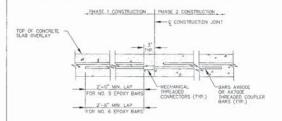
COSTS ASSOCIATED WITH CLEANING, FURNISHING AND APPLYING TEXTURE COATING AND ALL LABOR AND NECESSARY MATERIALS SHALL BE INCLUDED IN ITEM NO. 804-04.02. APPLIED TEXTURE FINISH (EXISTING

SEE SHEETS 4 THRU 7 FOR TRAFFIC CONTROL FOR TEXTURE COATING. SEE SPECIAL NOTES ON DWG. 8E-73-38 RECARDING LANE CLOSURES FOR INTERSTALE 24.

THE CONTRACTOR SHALL REMOVE THE "SPRING CREEK ROAD" SIGNS FROM THE SIDES OF THE BRIDGE DECK PRIOR TO TEXTURE COATING AND REPLACE AFTER TEXTURE, COATING.

INTERNATIONAL, LTD. ENG. JOB NO. 04428

DATE NOVEMBER 2004
DATE NOVEMBER 2004
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DATE NOVEMBER 2004

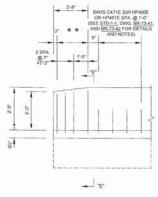


PROJECT NO. YEAR SHEET NO. 33003-4157-04 2005

MECHANICAL THREADED BAR CONNECTOR DETAIL

(528 MECHANICAL THREADED CONNECTORS REG'D.) SHOWING TRANSVERSE REINFORGING STEEL SPLICING WITH MECHANICAL THREADED CONNECTORS.

NOTE:
COST OF 456 MECHANICAL THREADED CONNECTIONS FOR THE MEN 45° CONNECTE OMERIAN TO BE INCLUDED UNDER TEN NO.
604-10 IR. RENYOTONIC STEEL (REPARK) LOS COST OF 72 MICHANICAL THREADED CONNECTIONS FOR THE NEW CHPANICAL
JOHN TO BE INCLUDED UNDER TEN NO. 604-10 44, EXPANSION JOHN REPARKS, UT. SEE DETAILS AND NOTES ON UNIG.
BR. 73.40, BR. 73.41. BR. 73.42 AND BR. 73.45.





ELEVATION VIEW OF ENDPOST

SECTION "E-E"

ENDPOST REPAIR DETAIL

THE ENDPOST SHOWN ON STANDARD DWG, NO. <u>\$10</u>—1—] SHALL BE MODIFIED TO BE INTEGRAL WITH SLAB AS SHOWN ABOVE. SERRES BANS AFFOE SHALL BE REPLACED BY SURES BARS CAFOE. ALSO, BARS BAFOE AND BATIE SHALL BE REPLACED BY CAFTE. COST OF THESE BARS TO BE INCLUDED IN THE PRICE BO FOR ITEM NO. 804—10.18. REINFORCING STEEL (REPAIRS), LB. SEE BILL OF STEEL ON DWG. NO. BR—75—41 AND BR—73—42.

* *DENOTES SERIES BARS C470E.

ALL REMAINING REINFORDING STEEL FOR ENDPOST AND PARAPET AS SHOWN ON $\underline{STD=1=1}$, EXCEPT BARS C470E AND BARS C470E AS NOTED ABOVE, SHALL BE INCLUDED IN COST FOR ITEM NO. $\underline{620-10.01}$, CONGRETE PARAPET (BROGGERAL REPLACEMENT), UF.



DEPARTMENT OF TRANSPORTATION

BRIDGE REPAIR DETAILS

SPRING CREEK ROAD OVER 1-24

BRIDGE NO. 33-3609-1.08 BRIDGE NO. 33-3609-1.13

HAMILTON COUNTY

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