

Index Of Sheets

SEE SHEET IA

STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION BUREAU OF ENGINEERING

DAVIDSON COUNTY

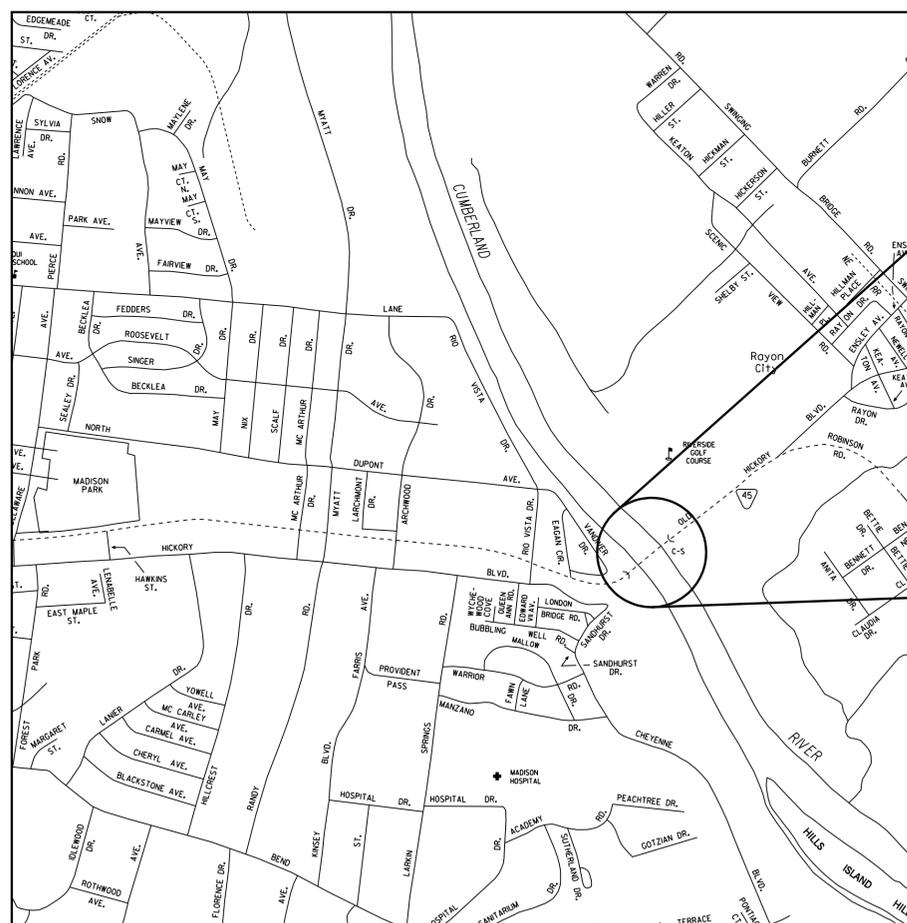
STATE ROUTE 45 OVER CUMBERLAND RIVER
BRIDGE NO. 19-SR045-9.26L
STATE ROUTE 45 OVER CUMBERLAND RIVER
BRIDGE NO. 19-SR045-9.26R

| | | |
|--------------------|---------------|-----------|
| TENN. | YEAR | SHEET NO. |
| | 2014 | 1 |
| FED. AID PROJ. NO. | | |
| STATE PROJ. NO. | 19042-4270-04 | |

REV:

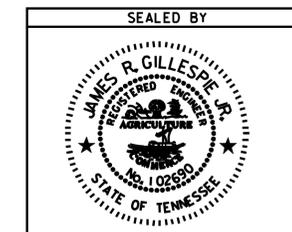


BRIDGE REPAIR



BRIDGE NO. 19-SR045-9.26L
OVER
CUMBERLAND RIVER

BRIDGE NO. 19-SR045-9.26R
OVER
CUMBERLAND RIVER



UNOFFICIAL SET
NOT FOR BIDDING

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

DATE: _____

APPROVED: John Schroer
JOHN SCHROER, COMMISSIONER

SPECIAL NOTES

PROPOSALS MAY BE REJECTED BY THE COMMISSIONER IF ANY OF THE UNIT PRICES CONTAINED THEREIN ARE OBVIOUSLY UNBALANCED, EITHER EXCESSIVE OR BELOW THE REASONABLE COST ANALYSIS VALUE.

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

TDOT C.E. MANAGER 1 OR
TDOT DESIGN MANAGER 1 BRIAN EGLI

TDOT PROJECT MANAGER TERRY MACKIE

DESIGNED BY JAMES + ASSOCIATES, INC.

DESIGNER DAVID THOMPSON, P.E. CHECKED BY JAMIE GILLESPIE, P.E.

P.E. NO. 19042-4270-04

PIN NO. 082544.01

| TRAFFIC DATA | |
|--------------|---------|
| ADT (2014) | 27,240 |
| ADT (2034) | 30,000 |
| DHV (2034) | 3,300 |
| D | 60 - 40 |
| T (ADT) | 20 % |
| T (DHV) | 13 % |
| V | 50 MPH |

ROADWAY LENGTH 0.0378 MILES
BRIDGE LENGTH 0.2311 MILES
PROJECT LENGTH 0.2690 MILES

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED: _____
DIVISION ADMINISTRATOR DATE

Index Of Sheets

| SHEET NAME | SHEET NO. |
|---|-----------|
| TITLE SHEET | 1 |
| INDEX AND STANDARD DRAWINGS | 1A |
| PROJECT COMMITMENTS | 1B |
| ESTIMATED BRIDGE QUANTITIES AND MISC.DETAILS | 2 |
| BRIDGE GENERAL AND SPECIAL NOTES | 2A |
| ESTIMATED ROADWAY QUANTITIES | 2B |
| ROADWAY GENERAL NOTES | 2C |
| ROADWAY GENERAL AND SPECIAL NOTES | 2D |
| ROADWAY DETAILS | 2E |
| EROSION CONTROL PLAN AND SPECIAL NOTES | 2F |
| TRAFFIC CONTROL SPECIAL NOTES AND QUANTITIES | 2G |
| TRAFFIC CONTROL PLAN - STATE ROUTE 45 (PHASE I AND PHASE III) | 2H |
| TRAFFIC CONTROL PLAN - STATE ROUTE 45 (PHASE II) | 2J |
| UTILITIES | 2K |

LIST OF DRAWINGS

| | DWG. NO. |
|--|------------|
| LAYOUT OF BRIDGE TO BE REPAIRED (BR. NO. 19-SR045-9.26L) | BR-115-156 |
| ESTIMATED BRIDGE QUANTITIES AND MISC.DETAILS | BR-115-157 |
| BRIDGE GENERAL AND SPECIAL NOTES | BR-115-158 |
| BRIDGE DECK THIN EPOXY OVERLAY NOTES | BR-115-159 |
| PHASING (BR. NO. 19-SR045-9.26L) | BR-115-160 |
| SUPERSTRUCTURE DETAILS - EXPANSION JOINT REPLACEMENT | BR-115-161 |
| SUPERSTRUCTURE DETAILS - CONCRETE REPAIRS (TOP OF SLAB) | BR-115-162 |
| SUPERSTRUCTURE DETAILS - CONCRETE REPAIRS (TOP OF SLAB) | BR-115-163 |
| SUPERSTRUCTURE DETAILS - CONCRETE REPAIRS (BOTTOM OF SLAB) | BR-115-164 |
| SUPERSTRUCTURE DETAILS - CONCRETE REPAIRS (BOTTOM OF SLAB) | BR-115-165 |
| SUPERSTRUCTURE DETAILS - RIGHT FACE OF PARAPET AND BRIDGERAIL REPAIR | BR-115-166 |
| SUPERSTRUCTURE DETAILS - LEFT FACE OF PARAPET AND BRIDGERAIL REPAIR | BR-115-167 |
| SUPERSTRUCTURE DETAILS - BEAM REPAIR | BR-115-168 |
| SUPERSTRUCTURE DETAILS - STRUCTURAL STEEL REPAIRS | BR-115-169 |
| SUPERSTRUCTURE DETAILS - STRUCTURAL STEEL REPAIR DETAILS | BR-115-170 |
| SUPERSTRUCTURE DETAILS - STRUCTURAL STEEL REPAIR DETAILS | BR-115-171 |
| SUPERSTRUCTURE DETAILS - STRUCTURAL STEEL REPAIR DETAILS | BR-115-172 |
| ABUTMENT NO.2 DETAILS | BR-115-173 |
| SUBSTRUCTURE DETAILS CONCRETE REPAIRS - ABUTMENT NO. 2 | |
| CONCRETE SLOPE PAVING | BR-115-174 |
| SUBSTRUCTURE DETAILS CONCRETE REPAIRS - ABUTMENT NOS. 1 AND 2 | BR-115-175 |
| SUBSTRUCTURE DETAILS CONCRETE REPAIRS - PIER NO. 1 | BR-115-176 |
| SUBSTRUCTURE DETAILS CONCRETE REPAIRS - PIER NO. 2 | BR-115-177 |
| SUBSTRUCTURE DETAILS CONCRETE REPAIRS - PIER NO. 3 | BR-115-178 |
| SUBSTRUCTURE DETAILS CONCRETE REPAIRS - BENT NOS. 1, 2 AND 3 | BR-115-179 |
| SUBSTRUCTURE DETAILS CONCRETE REPAIRS - BENT NOS. 4 AND 5 | BR-115-180 |
| REPAIR OF CONCRETE CURBS AND PAVEMENT AT BRIDGE END - ABUTMENT NO.1 | |
| AND BILL OF STEEL | BR-115-181 |
| MISCELLANEOUS CONCRETE REPAIR DETAILS | BR-115-200 |
| LAYOUT OF BRIDGE TO BE REPAIRED (BR. NO. 19-SR045-9.26R) | BR-115-182 |
| ESTIMATED BRIDGE QUANTITIES AND MISC.DETAILS | BR-115-157 |
| BRIDGE GENERAL AND SPECIAL NOTES | BR-115-158 |
| BRIDGE DECK THIN EPOXY OVERLAY NOTES | BR-115-159 |
| PHASING (BR. NO. 19-SR045-9.26R) | BR-115-183 |
| SUPERSTRUCTURE DETAILS - CONCRETE REPAIRS (TOP OF SLAB) | BR-115-184 |
| SUPERSTRUCTURE DETAILS - CONCRETE REPAIRS (TOP OF SLAB) | BR-115-185 |
| SUPERSTRUCTURE DETAILS - CONCRETE REPAIRS (BOTTOM OF SLAB) | BR-115-186 |
| SUPERSTRUCTURE DETAILS - CONCRETE REPAIRS (BOTTOM OF SLAB) | BR-115-187 |
| SUPERSTRUCTURE DETAILS - RIGHT FACE OF PARAPET AND BRIDGERAIL REPAIR | BR-115-188 |
| SUPERSTRUCTURE DETAILS - LEFT FACE OF PARAPET AND BRIDGERAIL REPAIR | BR-115-189 |
| SUPERSTRUCTURE DETAILS - BEAM REPAIR | BR-115-190 |
| SUPERSTRUCTURE DETAILS - STRUCTURAL STEEL REPAIRS | BR-115-191 |
| SUPERSTRUCTURE DETAILS - STRUCTURAL STEEL REPAIR DETAILS | BR-115-192 |
| SUBSTRUCTURE DETAILS CONCRETE REPAIRS - ABUTMENT NO. 2 | |
| CONCRETE SLOPE PAVING | BR-115-193 |
| SUBSTRUCTURE DETAILS CONCRETE REPAIRS - ABUTMENT NOS. 1 AND 2 | BR-115-194 |
| SUBSTRUCTURE DETAILS CONCRETE REPAIRS - PIER NO. 1 | BR-115-195 |
| SUBSTRUCTURE DETAILS CONCRETE REPAIRS - PIER NO. 2 | BR-115-196 |
| SUBSTRUCTURE DETAILS CONCRETE REPAIRS - PIER NO. 3 AND BENT NO. 1 | BR-115-197 |
| SUBSTRUCTURE DETAILS CONCRETE REPAIRS - BENT NOS. 2 AND 3 | BR-115-198 |
| SUBSTRUCTURE DETAILS CONCRETE REPAIRS - BENT NOS. 4 AND 5 | BR-115-199 |
| MISCELLANEOUS CONCRETE REPAIR DETAILS | BR-115-200 |

ROADWAY DESIGN STANDARDS

| DWG. NO. | REVISION DATE | DESCRIPTION |
|----------|---------------|---|
| RD-A-1 | 12-18-99 | STANDARD ABBREVIATIONS |
| RD-L-1 | 10-26-94 | STANDARD LEGEND |
| RD-L-2 | 09-05-01 | STANDARD LEGEND FOR UTILITY INSTALLATIONS |
| RD-L-5 | 05-01-08 | STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL |
| RD-L-6 | 03-30-10 | STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL |
| RD-L-7 | 05-24-12 | STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL |

DRAINAGE - CULVERTS AND ENDWALL

| DWG. NO. | REVISION DATE | DESCRIPTION |
|----------|---------------|---|
| D-PB-1 | 01-02-13 | STANDARD DETAILS CLASS "B" BEDDING AND CULVERT EXCAVATION |
| D-PB-2 | 01-29-14 | STANDARD DETAILS FOR PLASTIC PIPE INSTALLATION |

DRAINAGE - CATCH BASINS AND MANHOLES

| DWG. NO. | REVISION DATE | DESCRIPTION |
|-----------|---------------|---|
| D-CB-31R | 03-11-14 | STANDARD PRECAST CIRCULAR NO. 31 CATCH BASIN (FOR USE UNDER CONCRETE MEDIAN BARRIER WALL) |
| D-CB-38RB | 03-11-14 | STANDARD PRECAST CIRCULAR NO. 38 CATCH BASIN |

SAFETY APPURTENANCES AND FENCE

| DWG. NO. | REVISION DATE | DESCRIPTION |
|----------|---------------|---|
| S-PL-3 | | SAFETY PLAN: MINIMUM INSTALLATION AT BRIDGE ENDS |
| S-GR31-1 | | W-BEAM GUARDRAIL |
| S-GRC-1 | | GUARDRAIL CONNECTION TO BRIDGE ENDS OR BARRIER WALL |

TRAFFIC CONTROL APPURTENANCES

| DWG. NO. | REVISION DATE | DESCRIPTION |
|----------|---------------|---|
| T-FAB-1 | 05-27-97 | FLASHING YELLOW ARROW BOARD |
| T-M-1 | 11-01-11 | DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS AND MARKING ABBREVIATIONS |
| T-M-2 | 01-15-13 | DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS |
| T-S-17 | 07-19-13 | STANDARD GROUND MOUNTED SIGN USING PERFORATED/KNOCKOUT SQUARE TUBE |
| T-S-19 | 07-19-13 | STANDARD STEEL SIGN SUPPORTS |
| T-S-20 | 11-01-11 | SIGN DETAILS |
| T-S-21 | 02-28-13 | DETAILS FOR SIGNS MOUNTED ON CONCRETE MEDIAN BARRIER |
| T-PBR-1 | 06-30-09 | INTERCONNECTED PORTABLE BARRIER RAIL |
| T-WZ-10 | 04-02-12 | ADVANCE ROAD WORK SIGNING ON HIGHWAYS AND FREEWAYS |
| T-WZ-11 | 03-13-09 | ONE LANE CLOSURE DETAIL ON DIVIDED HIGHWAYS |
| T-WZ-16 | 03-13-09 | LANE SHIFT ON DIVIDED HIGHWAYS AND FREEWAYS |

EROSION PREVENTION AND SEDIMENT CONTROL

| DWG. NO. | REVISION DATE | DESCRIPTION |
|-----------|---------------|-----------------------------------|
| EC-STR-3C | 08-01-12 | SILT FENCE WITH WIRE BACKING |
| EC-STR-3E | 04-01-08 | SILT FENCE FABRIC JOINING DETAILS |
| EC-STR-6 | 08-01-12 | ROCK CHECK DAM |
| EC-STR-19 | 04-01-08 | CATCH BASIN PROTECTION |

BRIDGE APPURTENANCES

| DWG. NO. | REVISION DATE | DESCRIPTION |
|-----------|---------------|---|
| STD-1-5 | 03-26-14 | REINFORCED CONCRETE PAVEMENT AT BRIDGE ENDS - 1995 |
| STD-1-6 | 04-28-97 | BRIDGE END DRAIN DETAILS 2'X8'-7" AND 4'X8'-7" WITH PAVEMENT AT BRIDGE ENDS - 1993 |
| STD-1-7 | 08-24-11 | BRIDGE END DRAIN DETAILS 2'X8'-7" AND 4'X8'-7" WITH PAVEMENT AT BRIDGE ENDS - 1993 |
| STD-1-9 | 05-01-95 | BRIDGE END DRAIN DETAILS 4'X8'-7" WITH PAVEMENT AT BRIDGE ENDS - 1993 |
| STD-9-1 | 10-07-08 | REINFORCING BAR SUPPORT DETAILS FOR CONCRETE SLABS |
| STD-10-1 | 04-08-05 | MISCELLANEOUS ABUTMENT AND DRAINAGE DETAILS - 1971 |
| STD-11-1 | 05-01-14 | BRIDGE RAILING WITH STRUCTURAL TUBING - 1988 |
| SBR-2-115 | 01-04-96 | GENERAL NOTES AND DETAILS FOR EXPANSION JOINT REPLACEMENT CONSTRUCTION TYPES "A" THRU "J" - 1991 |
| SBR-2-116 | 01-04-96 | GENERAL NOTES AND DETAILS FOR STRIP SEAL EXPANSION JOINT REPLACEMENT CONSTRUCTION TYPES "A" THRU "J" - 1991 |
| SBR-2-118 | 05-30-96 | STRIP SEAL EXPANSION JOINT REPLACEMENT CONSTRUCTION DETAILS TYPE "C" AND TYPE "D" - 1991 |
| SBR-2-120 | 05-30-96 | STRIP SEAL EXPANSION JOINT REPLACEMENT CONSTRUCTION DETAILS TYPE "G" AND TYPE "H" - 1991 |
| SBR-2-124 | 01-04-96 | DETAILS SHOWING REPLACEMENT OF EXISTING BRIDGERAIL SYSTEM WITH NEW JERSEY SHAPE CONCRETE PARAPET AND NEW 10'-2" ENDPPOST - 1988 |
| SBR-2-125 | 11-05-01 | DETAILS SHOWING REPLACEMENT OF EXISTING BRIDGERAIL SYSTEM WITH NEW JERSEY SHAPE CONCRETE PARAPET AND NEW 10'-2" ENDPPOST - 1988 |
| SBR-2-126 | 01-04-96 | DETAILS SHOWING REPLACEMENT OF EXISTING BRIDGERAIL SYSTEM WITH NEW JERSEY SHAPE CONCRETE PARAPET AND NEW 10'-2" ENDPPOST - 1988 |
| SBR-2-136 | 11-05-01 | STANDARD DRAWING FOR REPLACING EXISTING CONCRETE ENDPPOST AND GUARDRAIL AT EXISTING BRIDGE ENDS - 1992 |

LIST OF REFERENCE DRAWINGS

| DWG. NO. | DESCRIPTION |
|---|--|
| K-15-60, K-72-11A, K-72-11B, K-72-11C, K-72-11D, AND K-80-122 | EXISTING BRIDGE PLANS (BR. NO. 19-SR045-9.26L) |
| K-72-11, K-72-11A, K-72-11B, K-72-11C, K-72-11D, AND K-72-29 THRU K-72-31 | EXISTING BRIDGE PLANS (BR. NO. 19-SR045-9.26R) |



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

BRIDGE NO. 19-SR045-9.26L
BRIDGE NO. 19-SR045-9.26R
STATE ROUTE 45 OVER
CUMBERLAND RIVER
DAVIDSON COUNTY
2014

INDEX
AND
STANDARD
DRAWINGS

| | | | |
|--------|------|---------------|-----------|
| TYPE | YEAR | PROJECT NO. | SHEET NO. |
| CONST. | 2014 | 19042-4270-04 | 1B |
| | | | |
| | | | |

PROJECT COMMITMENTS

| COMMITMENT TO | SOURCE DIVISION | DESCRIPTION | STA./LOCATION |
|---------------|--|--|---------------|
| ----- | ENVIRONMENTAL DIVISION, ENVIRONMENT | BRIDGE# 19SR0450001 (SR 45-RT OVER CUMBERLAND RIVER, 19-SR45-9.26R) HAS ASBESTOS CONTAINING MATERIAL (ACM) IN THE TELEPHONE DUCTS UNDER THE BRIDGE DECK. THESE TELEPHONE DUCTS SHALL BE PROTECTED WHILE WORKING AROUND THEM TO PREVENT RELEASING ASBESTOS INTO THE AIR. IF THE TELEPHONE CONDUITS WITH THE ACM ARE DAMAGED, ASBESTOS MITIGATION WILL BE REQUIRED IN ACCORDANCE WITH SPECIAL PROVISION 202ACM AND SHALL BE PAID FOR BY THE CONTRACTOR. STATE OF TENNESSEE ASBESTOS ACCREDITAION REQUIREMENTS (TCA 1200-01-20) MANDATE THAT ACM ABATEMENT WORK BE PERFORMED BY AN ACCREDITED FIRM (CONTRACTOR) USING ACCREDITED ABATEMENT WORKERS AND SUPERVISORS. | LM 9.26 |
| | | | |
| | | | |
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UNOFFICIAL SET
NOT FOR BIDDING



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

BRIDGE NO. 19-SR045-9.26L
BRIDGE NO. 19-SR045-9.26R
STATE ROUTE 45 OVER
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DAVIDSON COUNTY
2014

PROJECT COMMITMENTS

ESTIMATED ROADWAY QUANTITIES

| ITEM NO. | DESCRIPTION | UNIT | QUANTITY |
|---------------|---|------|----------|
| ① 105-01 | CONSTRUCTION STAKES, LINES AND GRADES | LS | 1 |
| 203-01 | ROAD AND DRAINAGE EXCAVATION (UNCLASSIFIED) | C.Y. | 27 |
| ② 203-50 | CONSTRUCTION OF HAUL ROAD | LS | 1 |
| ③ 209-05 | SEDIMENT REMOVAL | C.Y. | 40 |
| ③ 209-08.02 | TEMPORARY SILT FENCE (WITH BACKING) | L.F. | 1,029 |
| 303-01 | MINERAL AGGREGATE, TYPE A BASE, GRADING D | TON | 558 |
| 303-01.02 | GRANULAR BACKFILL (BRIDGES) | TON | 169 |
| 307-02.07 | ASPHALT CONCRETE MIX (PG70-22) (BPMB-HM) GRADING B-M2 | TON | 22 |
| 402-01 | BITUMINOUS MATERIAL FOR PRIME COAT (PC) | TON | 0.2 |
| 403-01 | BITUMINOUS MATERIAL FOR TACK COAT (TC) | TON | 3 |
| 411-02.10 | ACS MIX (PG70-22) GRADING D | TON | 569 |
| 415-01.02 | COLD PLANING BITUMINOUS PAVEMENT | S.Y. | 4,164 |
| ⑤ ④ 610-07.03 | 18-INCH PIPE DRAIN (BRIDGE DRAIN) | L.F. | 38 |
| 705-01.01 | GUARDRAIL AT BRIDGE ENDS | L.F. | 81 |
| ⑥ 705-08.51 | PORTABLE IMPACT ATTENUATOR (NCHRP 350, TL-3) | EACH | 2 |
| ⑦ 707-06.03 | REMOVAL AND RESET FENCE (CHAIN-LINK) | L.F. | 100 |
| ④ 709-01.01 | RUBBLE STONE RIP-RAP | C.Y. | 6 |
| ⑧ 712-01 | TRAFFIC CONTROL | LS | 1 |
| 712-02.02 | INTERCONNECTED PORTABLE BARRIER RAIL | L.F. | 3,700 |
| ⑨ 712-04.01 | FLEXIBLE DRUMS (CHANNELIZING) | EACH | 236 |
| 712-04.50 | PORTABLE BARRIER RAIL DELINEATOR | EACH | 156 |
| 712-05.03 | WARNING LIGHTS (TYPE C) | EACH | 57 |
| ⑩ 712-06 | SIGNS (CONSTRUCTION) | S.F. | 696 |
| 712-08.03 | ARROW BOARDS (TYPE C) | EACH | 2 |
| ⑪ 713-16.01 | CHANGEABLE MESSAGE SIGN | EACH | 4 |
| 716-05.20 | PAINTED PAVEMENT MARKING (6" LINE) | L.M. | 4.1 |
| 716-12.01 | ENHANCED FLATLINE THERMO PVMT MRKNG (4 IN LINE) | L.M. | 2 |
| 717-01 | MOBILIZATION | LS | 1 |
| ⑫ 801-01 | SEEDING (WITH MULCH) | UNIT | 7 |
| ⑬ 801-03 | WATER (SEEDING AND SODDING) | M.G. | 2 |

FOOTNOTES

- ① ALL DIMENSIONAL DETAILS SHOWN ON PLANS, INCLUDING ELEVATIONS, SHALL BE CHECKED BY THE CONTRACTOR TO ASSURE ACCURACY OF THE LAYOUT PRIOR TO CONSTRUCTION. ALL BRIDGE SUBSTRUCTURES SHALL BE CHECKED AS TO LOCATION, DIMENSIONAL LAYOUTS AND ELEVATIONS, BY MEANS OF TWO INDEPENDENT LAYOUT METHODS. ANY ERRORS AND APPARENT DISCREPANCIES FOUND IN PREVIOUS SURVEYS, OR IN EITHER THE SPECIFICATIONS OR SPECIAL PROVISIONS, SHALL BE CALLED TO THE ENGINEER'S ATTENTION BY THE CONTRACTOR IMMEDIATELY AND PRIOR TO PROCEEDING WITH WORK.
- ② THIS ITEM SHALL INCLUDE THE CONSTRUCTION, MAINTENANCE, AND REMOVAL OF THE HAUL ROAD AND RESTORATION OF THE DISTURBED AREA WITH TOPSOIL, SEED, AND STRAW.
- ③ SEE SUBSECTION 209.07 OF THE STANDARD SPECIFICATIONS FOR MAINTENANCE REPLACEMENT.
- ④ STANDARD DRAWING STD-1-7 IS TO BE USED FOR BURIAL OF THE OUTLET PIPE AND FOR END TREATMENT DETAILS.
- ⑤ COST OF CLASS "B" BEDDING MATERIAL TO BE INCLUDED IN UNIT PRICE.
- ⑥ THIS ITEM SHALL BE A PORTABLE ENERGY ABSORBING TERMINAL MEETING THE REQUIREMENTS OF NCHRP 350 FOR TEST LEVEL 3. EXAMPLES WOULD BE A OUAID-GUARD, A REACT 350 OR A TRACC. THE PAY ITEM WILL INCLUDE FURNISHING AND INSTALLING ALL COMPONENTS AS LISTED ON THE MANUFACTURERS BILL OF MATERIALS.
- ⑦ INCLUDES COST FOR REMOVING SECTION OF FENCE AT ABUTMENT NO.2 AT THE LEFT BRIDGE AND REPLACING SECTION OF FENCE WHEN THE REPAIRS ARE COMPLETE.
- ⑧ INCLUDES COST FOR REMOVAL OF EXISTING OR CONFLICTING MARKINGS. ALSO INCLUDES THE COST OF REMOVING, STORING AND REPLACING CUMBERLAND RIVER SIGN AT ABUTMENT NO.2 OF THE LEFT BRIDGE.
- ⑨ INCLUDES RELOCATION AND INSTALLATION FOR EACH PHASE OF THE CONSTRUCTION SEQUENCE: PHASE I = 81, PHASE II = 74, AND PHASE III = 81 FOR STATE ROUTE 45.
- ⑩ BASED ON SECTION 712.10 OF STANDARD SPECIFICATIONS, 279 S.F. FROM WIDE LOAD DETOUR.
- ⑪ COORDINATE WITH T.D.O.T. CONSTRUCTION DIVISION FOR LOCATION AND MESSAGE FOR CHANGEABLE MESSAGE SIGN.
- ⑫ ITEM SHALL BE BID AS A CONTINGENCY AND MAY BE INCREASED, DECREASED OR ELIMINATED AS DIRECTED BY THE ENGINEER.
- ⑬ INCLUDES 1 THOUSAND GALLONS FOR EROSION PREVENTION AND SEDIMENT CONTROL.

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ESTIMATED ROADWAY QUANTITIES

ROADWAY 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) THE CONTRACTOR SHALL NOT DISPOSE OF ANY MATERIAL EITHER ON OR OFF STATE-OWNED R.O.W. IN A REGULATORY FLOODWAY AS DEFINED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY WITHOUT APPROVAL BY SAME. ALL MATERIAL SHALL BE DISPOSED OF IN UPLAND (NON-WETLAND) AREAS AND ABOVE ORDINARY HIGH WATER OF ANY ADJACENT WATERCOURSE. THIS DOES NOT ELIMINATE THE NEED TO OBTAIN ANY OTHER LICENSES OR PERMITS THAT MAY BE REQUIRED BY ANY OTHER FEDERAL, STATE OR LOCAL AGENCY.

SEEDING AND SODDING

- (3) ITEM NO. 801-01, SEEDING (WITH MULCH), SHALL BE USED WHERE EROSION CONTROL BLANKET OR SOD ARE NOT APPLIED.

UTILITIES

- (4) 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 65-61-106 WILL BE REQUIRED.
- (5) 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 CO-OPERATE 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.
- (6) 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.
- (7) 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.
- (8) 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

- (9) 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

- (10) PERMANENT PAVEMENT LINE MARKINGS SHALL BE 4" ENHANCED FLATLINE THERMOPLASTIC INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAY'S WORK. SHORT UNMARKED SECTIONS SHALL NOT BE ALLOWED. PAVEMENT MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 716-12.01, ENHANCED FLATLINE THERMO PVMT MRKNG (4 IN 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 MARKING AFTER THE PAVING OPERATION IS COMPLETED. THE TEMPORARY MARKINGS FOR THE FINAL SURFACE WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COSTS ARE TO BE INCLUDED IN THE PRICE BID FOR THE PERMANENT MARKINGS.

DETOURS, LANE SHIFTS AND MEDIAN CROSS-OVERS

- (11) THE PAVEMENT MARKING ON THE LANE SHIFT FOR CENTERLINE, EDGELINES AND LANE LINES WILL BE INSTALLED AND MAINTAINED TO THE SAME STANDARD AS FOR PERMANENT MARKINGS ON THE MAIN ROADWAY. THESE MARKINGS SHALL BE IN PLACE PRIOR TO ALLOWING TRAFFIC ONTO THE PAVEMENT. THESE PAVEMENT MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 716-05.20, PAINTED PAVEMENT (6" LINE), L.M.
- (12) BEFORE OPENING THE LANE SHIFT TO TRAFFIC, THE TRANSITIONAL MARKINGS ON THE EXISTING ROADWAY MUST BE IN PLACE. ALL EXISTING MARKINGS IN THE AREA OF THESE TRANSITIONAL MARKINGS SHALL BE OBLITERATED AND ALL EXISTING RAISED PAVEMENT MARKERS SHALL BE REMOVED TO ELIMINATE CONFLICTING MARKINGS. REMOVAL OF THE EXISTING CONFLICTING MARKINGS AND RAISED PAVEMENT MARKERS WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COST WILL BE INCLUDED IN ITEM NO. 712-01, TRAFFIC CONTROL, LUMP SUM.

PAVING

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

RESURFACING

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

CONSTRUCTION WORK ZONE AND TRAFFIC CONTROL NOTES

- (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 OR 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 A 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) PRE-CONSTRUCTION VEGETATIVE GROUND COVER SHALL NOT BE DESTROYED, REMOVED OR DISTURBED (I.E. CLEARING AND GRUBBING INITIATED) MORE THAN 10 CALENDAR DAYS PRIOR TO GRADING OR EARTH MOVING ACTIVITIES UNLESS THE AREA IS SEEDED AND/OR MULCHED OR OTHER TEMPORARY COVER IS INSTALLED.
- (23) CLEARING, GRUBBING, AND OTHER DISTURBANCE TO RIPARIAN VEGETATION SHALL BE LIMITED TO THE MINIMUM NECESSARY FOR SLOPE CONSTRUCTION AND EQUIPMENT OPERATIONS. UNNECESSARY VEGETATION REMOVAL IS PROHIBITED.
- (24) ALL DISTURBED AREAS SHALL BE PROPERLY STABILIZED AS SOON AS PRACTICABLE. PRIORITY SHALL BE GIVEN TO FINISHING OPERATIONS AND PERMANENT EROSION PREVENTION AND SEDIMENT CONTROL MEASURES OVER TEMPORARY EROSION PREVENTION AND SEDIMENT CONTROL MEASURES ON ALL PROJECTS.

| TYPE | YEAR | PROJECT NO. | SHEET NO. |
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UNOFFICIAL SET

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

BRIDGE NO. 19-SR045-9.26L
BRIDGE NO. 19-SR045-9.26R
STATE ROUTE 45 OVER
CUMBERLAND RIVER
DAVIDSON COUNTY
2014

**ROADWAY
GENERAL NOTES**

ROADWAY GENERAL AND SPECIAL NOTES (CONT'D)

| TYPE | YEAR | PROJECT NO. | SHEET NO. |
|--------|------|---------------|-----------|
| CONST. | 2014 | 19042-4270-04 | 2D |
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SEDIMENT CONTROL

- (25) EPSC MEASURES SHALL BE INSTALLED CONCURRENTLY WITH CLEARING OPERATIONS, AND SHALL BE FUNCTIONAL PRIOR TO ANY EARTH MOVING OPERATIONS, AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD
- (26) 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.
- (27) TEMPORARY EPSC MEASURES MAY BE REMOVED AT THE BEGINNING OF THE WORKDAY, BUT MUST BE REPLACED AT THE END OF THE WORKDAY.

INSPECTION, MAINTENANCE, REPAIR

- (28) 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.
- (29) 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.
- (30) THE CONTRACTOR SHALL INSTALL A RAIN GAUGE EVERY LINEAR MILE AT ALL SITES WHERE CLEARING, GRUBBING, EXCAVATION, GRADING, CUTTING OR FILLING IS BEING ACTIVELY PERFORMED, OR EXPOSED SOIL HAS NOT YET BEEN PERMANENTLY STABILIZED. IF THE PROJECT LENGTH IS LESS THAN ONE LINEAR MILE, ONE RAIN GAUGE SHALL BE INSTALLED AT THE CENTER OF THE PROJECT OR AS INDICATED BY THE TDOT EPSC INSPECTOR. THE CONTRACTOR SHALL ENSURE THAT EACH GAUGE IS MAINTAINED IN GOOD WORKING CONDITION. TDOT AND/OR THE CONTRACTOR SHALL RECORD DAILY PRECIPITATION AND FORECASTED PERCENTAGE OF PRECIPITATION IN DETAILED RECORDS OF RAINFALL EVENTS INCLUDING DATES, AMOUNTS OF RAINFALL PER GAUGE, THE ESTIMATED DURATION (OR STARTING AND ENDING TIMES), AND FORECASTED PERCENTAGE OF PRECIPITATION FOR THE PROJECT. THIS INFORMATION SHALL BE PROVIDED TO THE ENGINEER ON A MONTHLY BASIS. THE COST FOR THE RAIN GAUGES IS TO BE INCLUDED IN THE UNIT BID PRICES FOR OTHER ITEMS. RAIN GAUGES SHALL BE AS SPECIFIED IN THE APPROVED TDOT RAINFALL MONITORING PLAN.
- (31) INSPECTION OF EPSC MEASURES SHALL BE DONE AT LEAST TWICE PER CALENDAR WEEK AT LEAST 72 HOURS APART. A CALENDAR WEEK IS DEFINED AS SUNDAY THROUGH SATURDAY. QUALITY ASSURANCE/QUALITY CONTROL SITE ASSESSMENT OF EPSC SHALL BE PERFORMED PER THE TDOT ENVIRONMENTAL DIVISION'S COMPREHENSIVE INSPECTION OFFICE GUIDELINES.
- (32) OUTFALL POINTS SHALL BE INSPECTED TO ASCERTAIN WHETHER EPSC MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO SURROUNDING WATERS. WHERE DISCHARGE LOCATIONS ARE INACCESSIBLE, NEARBY DOWNSTREAM LOCATIONS SHALL BE INSPECTED. LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFF-SITE ROADWAY SEDIMENT TRACKING.
- (33) UPON CONCLUSION OF THE INSPECTIONS, EPSC MEASURES FOUND TO BE INEFFECTIVE SHALL BE REPAIRED, REPLACED, OR MODIFIED BEFORE THE NEXT RAIN EVENT, IF POSSIBLE, BUT IN NO CASE MORE THAN 24 HOURS AFTER THE INSPECTION OR WHEN THE CONDITION IS IDENTIFIED. IF THE REPAIR, REPLACEMENT OR MODIFICATION IS NOT PRACTICAL WITHIN THE TIME FRAME, WRITTEN DOCUMENTATION MUST BE PROVIDED IN THE FIELD BOOK AND AN ESTIMATED REPAIR, REPLACEMENT OR MODIFICATION SCHEDULE SHALL BE DOCUMENTED WITHIN 24 HOURS AFTER IDENTIFICATION.

MATERIALS

- (34) 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.

SWPPP, PERMITS, PLANS, RECORDS

- (35) THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR AND OBTAIN ANY NECESSARY ENVIRONMENTAL PERMITS OR APPROVALS, INCLUDING BUT NOT LIMITED TO TDEC ARAP/401, USACE SECTION 404, TVA SECTION 26A, AND TDEC NPDES PERMITS, FROM STATE AND/OR LOCAL AGENCIES REGARDING THE OPERATION OF ANY PROJECT-DEDICATED ASPHALT AND/OR CONCRETE PLANTS.

- (36) ANY DISAGREEMENT BETWEEN THE PROJECT PLANS, THE PROJECT AS CONSTRUCTED, AND THE PERMIT(S) ISSUED FOR THE PROJECT, SHALL BE BROUGHT TO THE ATTENTION OF THE TDOT PROJECT ENGINEER, THE ENVIRONMENTAL DIVISION, DESIGN DIVISION, AND HEADQUARTERS CONSTRUCTION OFFICE SHALL BE CONTACTED IN THESE INSTANCES AND DECIDE WHICH HAS PRECEDENCE AND WHETHER PERMIT OR PLANS REVISIONS ARE NEEDED. IN GENERAL, PERMIT CONDITIONS WILL PREVAIL.
- (37) THE FOLLOWING INFORMATION SHALL BE MAINTAINED ON OR NEAR THE SITE: DATES THAT MAJOR GRADING ACTIVITIES OCCUR, DATES WHERE CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE, DATES WHEN STABILIZATION MEASURES ARE INITIATED, EPSC INSPECTION RECORDS AND PRECIPITATION RECORDS.
- (38) ALL WATER QUALITY AND STORM WATER PERMITS, INCLUDING THE LOCATION OF THE SWPPP, SHALL BE POSTED NEAR THE MAIN ENTRANCE OF THE CONSTRUCTION SITE ACCESSIBLE TO THE PUBLIC. IF POSTING THIS INFORMATION NEAR A MAIN ENTRANCE IS INFEASIBLE, THE INFORMATION SHALL BE PLACED IN A PUBLICLY ACCESSIBLE LOCATION NEAR WHERE THE CONSTRUCTION IS ACTIVELY UNDERWAY AND MOVED AS NECESSARY. THIS LOCATION SHALL BE POSTED AT THE CONSTRUCTION SITE.
- (39) IF A CHANGE IN PROJECT SCOPE OCCURS DURING CONSTRUCTION, INCLUDING VALUE ENGINEERING, THE ENVIRONMENTAL DIVISION SHALL BE CONTACTED TO DETERMINE WHETHER PERMIT REVISIONS ARE NEEDED. THE DESIGN DIVISION SHALL BE CONTACTED TO DETERMINE IF ANY PLAN REVISIONS ARE NEEDED.
- (40) PROJECT INSPECTORS AND SUPERVISORS (INCLUDING TDOT STAFF, CONSULTANTS AND CONTRACTOR STAFF) RESPONSIBLE FOR THE IMPLEMENTATION AND MAINTENANCE OF EPSC PLANS SHALL SUCCESSFULLY COMPLETE THE TDEC "LEVEL 1 - FUNDAMENTALS OF EROSION PREVENTION AND SEDIMENT CONTROL FOR CONSTRUCTION SITES" COURSE OR EQUIVALENT COURSE. A COPY OF CERTIFICATION RECORDS FOR THIS COURSE SHALL BE KEPT ON SITE AND AVAILABLE UPON REQUEST.

LITTER, DEBRIS, WASTE, PETROLEUM

- (41) 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.
- (42) 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.

SPECIAL NOTES

- (43) NO LESS THAN SEVEN (7) DAYS PRIOR TO THE CLOSURE OF LANES, THE CONTRACTOR SHALL NOTIFY THE FOLLOWING INDIVIDUALS OR AGENCIES COMPLETELY DESCRIBING THE AFFECTED ROADS AND THE APPROXIMATE DURATION OF THE CONSTRUCTION: THESE PARTIES INCLUDE, BUT ARE NOT LIMITED TO: (1) METRO NASHVILLE POLICE DEPARTMENT, (2) METRO NASHVILLE FIRE DEPARTMENT, (3) LOCAL AMBULANCE SERVICE, (4) DAVIDSON COUNTY SCHOOL SUPERINTENDENT, (5) LOCAL POSTAL SERVICE, (6) TDOT REGION 3 TRAFFIC ENGINEERING OFFICE, (7) METRO PUBLIC WORKS, AND (8) METRO TRANSIT AUTHORITY.

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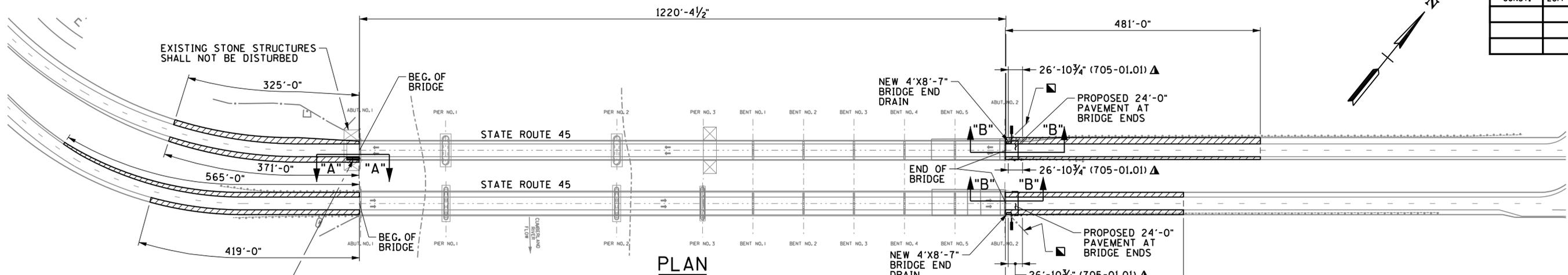


STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

BRIDGE NO. 19-SR045-9.26L
 BRIDGE NO. 19-SR045-9.26R
 STATE ROUTE 45 OVER
 CUMBERLAND RIVER
 DAVIDSON COUNTY
 2014

ROADWAY
GENERAL AND
SPECIAL NOTES

| TYPE | YEAR | PROJECT NO. | SHEET NO. |
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| CONST. | 2014 | 19042-4270-04 | 2E |
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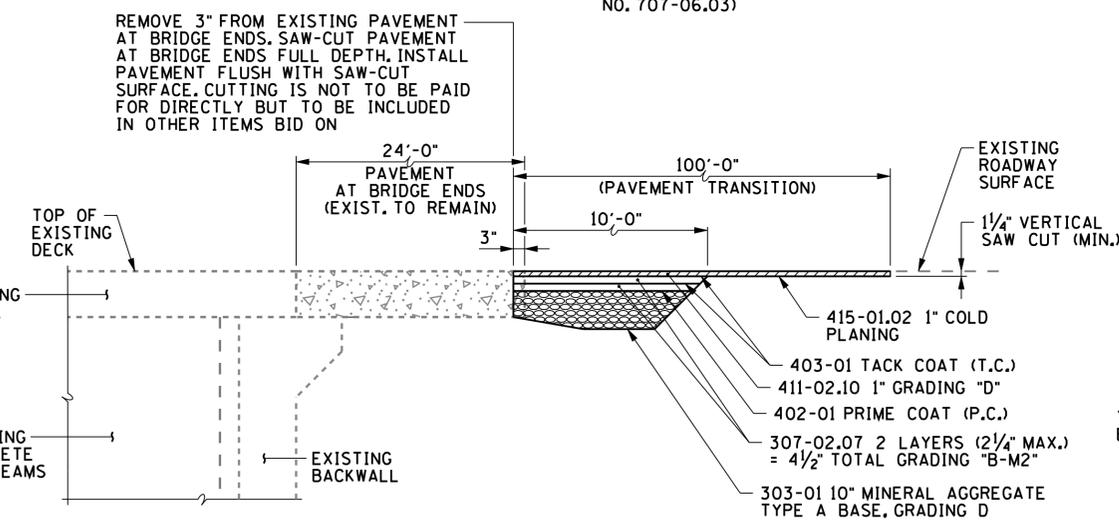
PLAN

NEW AREA OF CONCRETE CURB REPAIR AND PAVEMENT AT BRIDGE END IN ACCORDANCE WITH STD-1-5 AND SHEET BR-115-181

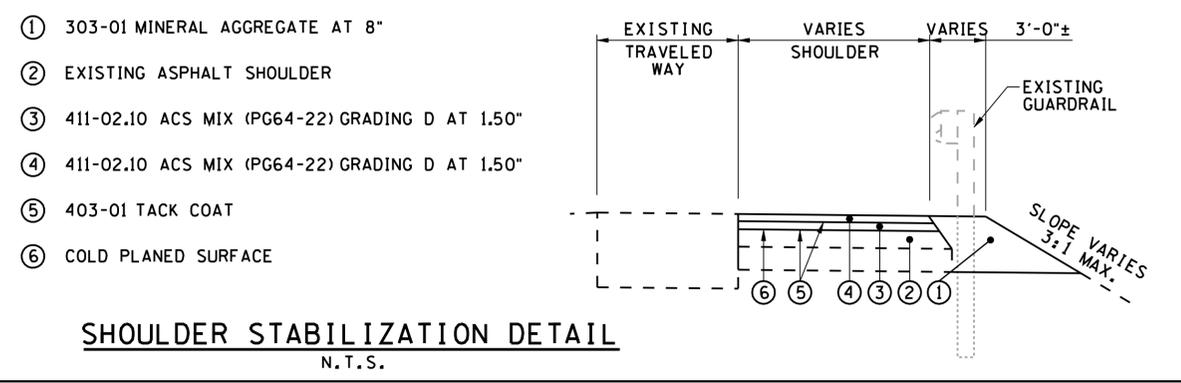
▨ DENOTES: LIMITS OF SHOULDER STABILIZATION (SEE DETAIL THIS SHEET)
 ▩ DENOTES: BRIDGE END DRAIN, FOR DETAILS SEE STD. DWG. STD-1-7
 ■ DENOTES: REMOVE PORTION OF EXISTING CHAIN LINK FENCE AND REPLACE AFTER CONSTRUCTION IS COMPLETE (ITEM NO. 707-06.03)

▲ DENOTES: NEW GUARDRAIL AT BRIDGE ENDS SHALL CONNECT TO EXISTING GUARDRAIL AND BE IN ACCORDANCE WITH STD. DWG. S-GRC-1

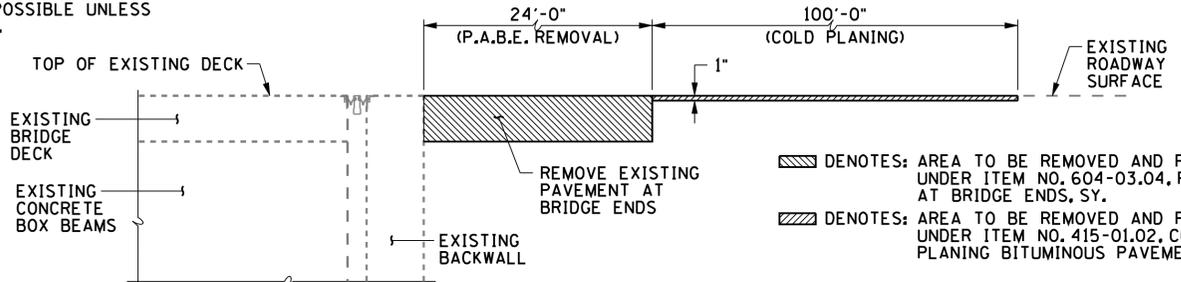
NOTE: EXISTING GUARDRAIL TO REMAIN UNDISTURBED TO THE GREATEST EXTENT POSSIBLE UNLESS OTHERWISE SHOWN ON PLANS.



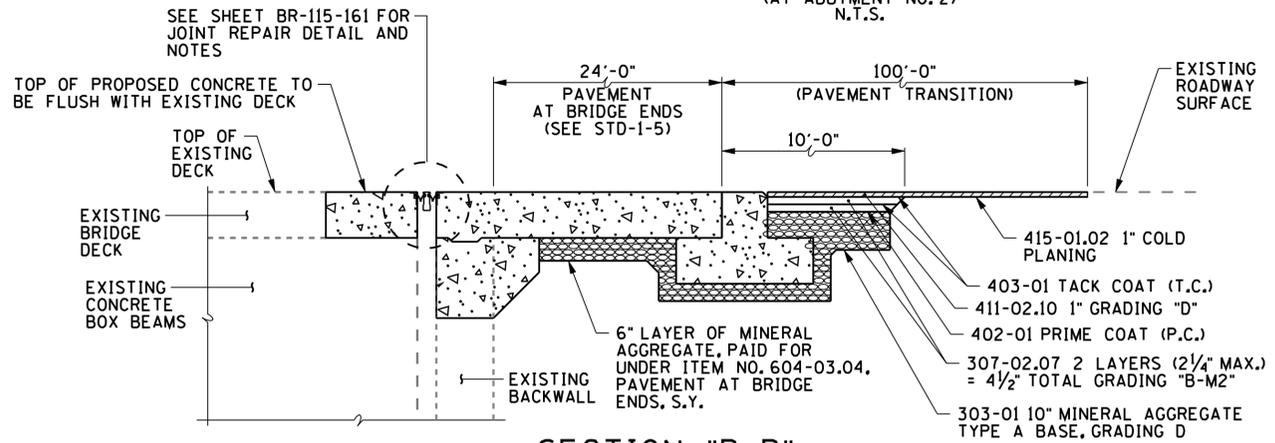
SECTION "A-A"
(AT ABUTMENT NO. 1)
N.T.S.



SHOULDER STABILIZATION DETAIL
N.T.S.



SECTION "B-B"
P.A.B.E. REMOVAL DETAIL
(AT ABUTMENT NO. 2)
N.T.S.



SECTION "B-B"
P.A.B.E. AND PAVEMENT TRANSITION DETAIL
(AT ABUTMENT NO. 2)
N.T.S.



BRIDGE NO. 19-SR045-9.26L
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STATE ROUTE 45 OVER
CUMBERLAND RIVER
DAVIDSON COUNTY
2014

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

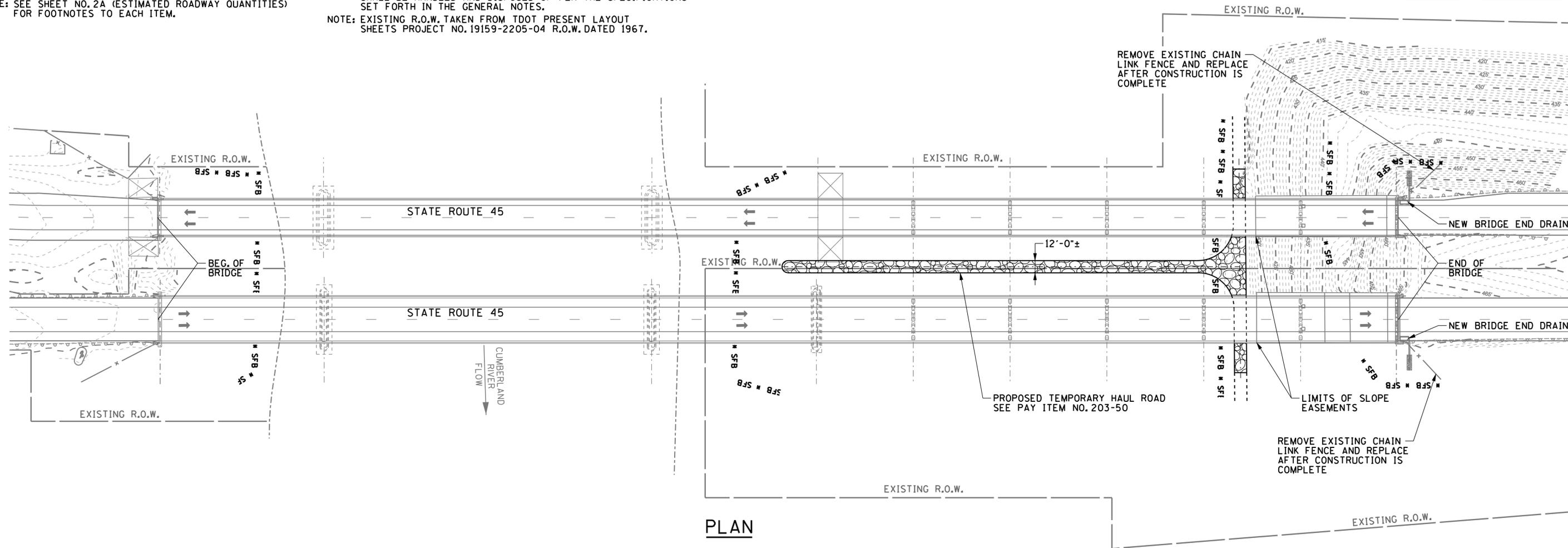
ROADWAY
DETAILS

NOTE: SILT FENCE SHALL BE INSTALLED ON EXISTING GROUND CONTOURS WITH A 1' MINIMUM UPHILL TURN ON EACH END.
 NOTE: SEEDING (WITH MULCH) SHALL BE PLACED WITH A 4' MINIMUM WIDTH AFTER REMOVAL OF THE SILT FENCE.
 NOTE: ALL WORK AND EQUIPMENT TO REMAIN INSIDE EXISTING RIGHT OF WAY.
 NOTE: SEE SHEET NO. 2A (ESTIMATED ROADWAY QUANTITIES) FOR FOOTNOTES TO EACH ITEM.

NOTE: THE CONTRACTOR SHALL TAKE APPROPRIATE MEASURES BELOW THE BRIDGE DURING THE REMOVAL OF CONCRETE FROM SUBSTRUCTURES AND DECK TO PREVENT ANY DEBRIS FROM FALLING INTO THE RIVER.
 NOTE: THE CONTRACTOR SHALL REMOVE ANY DEBRIS THAT FALLS ONTO THE AREAS BELOW THE BRIDGE, AND ANY PAINT CHIPS SHALL BE HANDLED AND DISPOSED OF PER THE SPECIFICATIONS SET FORTH IN THE GENERAL NOTES.
 NOTE: EXISTING R.O.W. TAKEN FROM TDOT PRESENT LAYOUT SHEETS PROJECT NO. 19159-2205-04 R.O.W. DATED 1967.

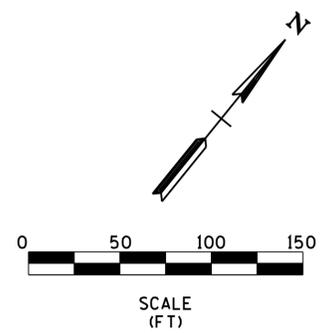
| EPSC LEGEND | | |
|-------------|------------------------------------|-----------|
| •SFB•SFB• | SILT FENCE WITH WIRE BACKING (SFB) | EC-STR-3C |

| TYPE | YEAR | PROJECT NO. | SHEET NO. |
|--------|------|---------------|-----------|
| CONST. | 2014 | 19042-4270-04 | 2F |



PLAN

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EROSION PREVENTION AND SEDIMENT CONTROL SPECIAL NOTES

STREAM/WETLAND

(1) A 30 FOOT NATURAL RIPARIAN BUFFER ZONE ADJACENT TO AND ON BOTH SIDES OF THE RECEIVING STREAM SHALL BE PRESERVED, TO THE MAXIMUM EXTENT PRACTICABLE, DURING CONSTRUCTION ACTIVITIES AT THE SITE. BUFFER ZONES ARE NOT SEDIMENT CONTROL MEASURES AND SHOULD NOT BE RELIED UPON AS PRIMARY SEDIMENT CONTROL MEASURES. THE RIPARIAN BUFFER ZONE SHALL BE ESTABLISHED BETWEEN THE TOP OF THE STREAM BANK AND THE DISTURBED CONSTRUCTION AREA. THE 30 FOOT CRITERION FOR THE WIDTH OF THE BUFFER ZONE CAN BE ESTABLISHED ON AN AVERAGE WIDTH BASIS AT A PROJECT, AS LONG AS THE MINIMUM WIDTH OF THE BUFFER ZONE IS MORE THAN 15 FEET AT ANY MEASURED LOCATION. EVERY ATTEMPT SHALL BE MADE FOR CONSTRUCTION ACTIVITIES NOT TO TAKE PLACE WITHIN THE BUFFER ZONES. BEST MANAGEMENT PRACTICES (BMPs) PROVIDING EQUIVALENT PROTECTION AS THE NATURAL RIPARIAN ZONE MAY BE USED. A JUSTIFICATION FOR USE AND DESIGN EQUIVALENCY SHALL BE DOCUMENTED WITHIN THE SWPPP. THE ENVIRONMENTAL AND ROADWAY DESIGN DIVISIONS SHALL REVIEW AND APPROVE THIS REVISION OF THE SWPPP BEFORE DISTURBANCE OF THE SITE PROCEEDS, UNLESS PREVIOUSLY EXEMPT IN THE NPDES CONSTRUCTION GENERAL PERMIT, WHERE ISSUED, ARAP/401 REQUIREMENTS WILL PREVAIL IF IN CONFLICT WITH THESE BUFFER ZONE REQUIREMENTS.

| EROSION CONTROL QUANTITIES | | | |
|----------------------------|-------------------------------------|------|----------|
| ITEM NO. | DESCRIPTION | UNIT | QUANTITY |
| 203-50 | CONSTRUCTION OF HAUL ROAD | LS | 1 |
| 209-05 | SEDIMENT REMOVAL | C.Y. | 40 |
| 209-08.02 | TEMPORARY SILT FENCE (WITH BACKING) | L.F. | 1,029 |
| 801-01 | SEEDING (WITH MULCH) | UNIT | 7 |
| 801-03 | WATER (SEEDING AND SODDING) | M.G. | 2 |

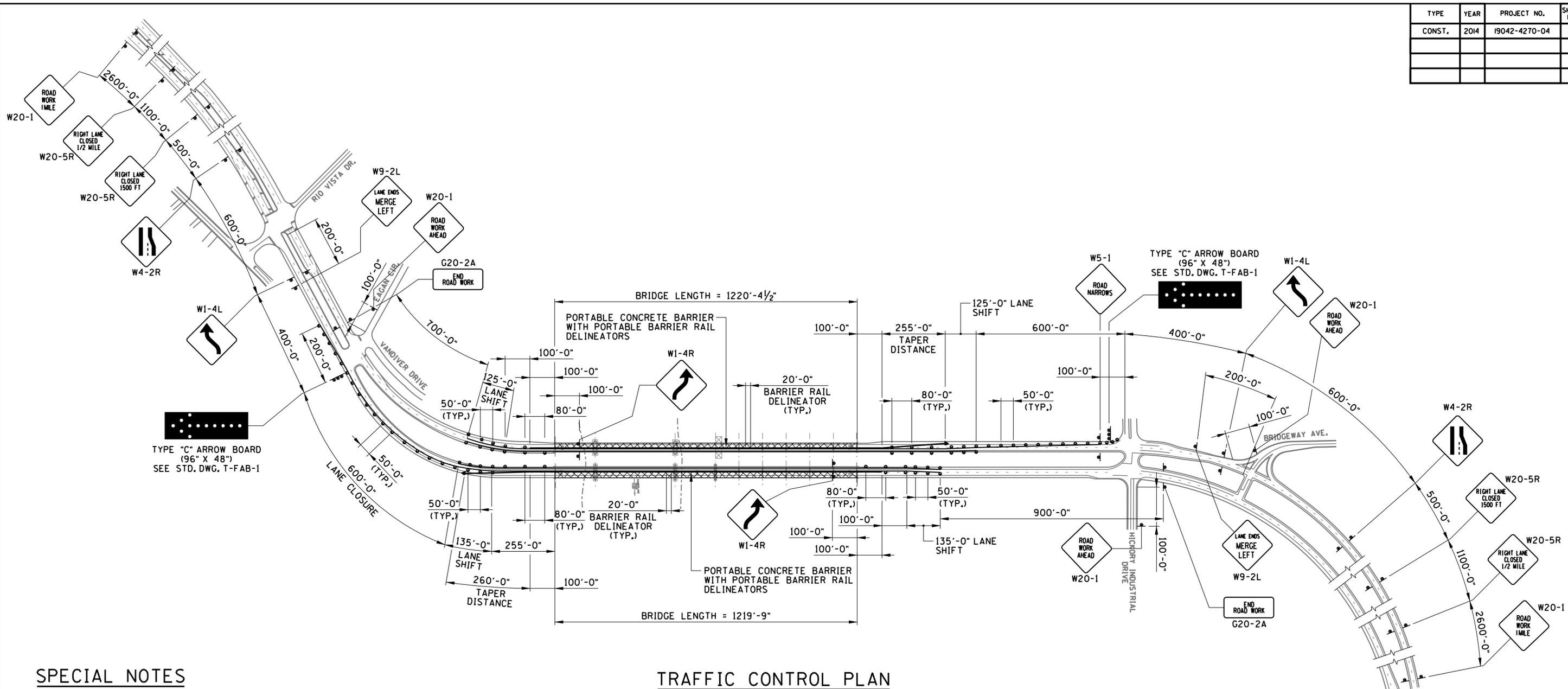
BRIDGE NO. 19-SR045-9.26L
 BRIDGE NO. 19-SR045-9.26R
 STATE ROUTE 45 OVER
 CUMBERLAND RIVER
 DAVIDSON COUNTY
 2014



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL
PLAN
AND
SPECIAL NOTES

| TYPE | YEAR | PROJECT NO. | SHEET NO. |
|--------|------|---------------|-----------|
| CONST. | 2014 | 19042-4270-04 | 2H |
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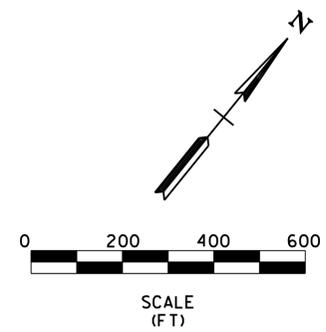
SPECIAL NOTES

1. CONTRACTOR SHALL REMOVE OR COVER ANY EXISTING STRIPING THAT CONFLICTS WITH TEMPORARY TRAFFIC CONTROL STRIPING. CONTRACTOR TO REPLACE STRIPING TO PRECONSTRUCTION DISPOSITION PRIOR TO OPENING ROAD TO NORMAL TRAFFIC.
2. COORDINATE WITH T.D.O.T. CONSTRUCTION DIVISION FOR LOCATION AND MESSAGE FOR CHANGEABLE MESSAGE SIGN.

TRAFFIC CONTROL PLAN
(PHASE I AND PHASE III)

| TRAFFIC CONTROL LEGEND | |
|------------------------|---|
| | FLEXIBLE DRUM (CHANNELIZING) |
| | SIGN (CONSTRUCTION) |
| | PSSWL PAINTED 6" SINGLE SOLID WHITE LINE |
| | PSDWL PAINTED 6" SINGLE DASHED WHITE LINE |
| | PSSYL PAINTED 6" SINGLE SOLID YELLOW LINE |
| | PORTABLE CONCRETE BARRIER (WITH BARRIER RAIL DELINEATORS) |
| | ATTENUATOR (SEE STANDARD DRAWINGS) |
| | WORK ZONE |
| | DIRECTION OF TRAFFIC |

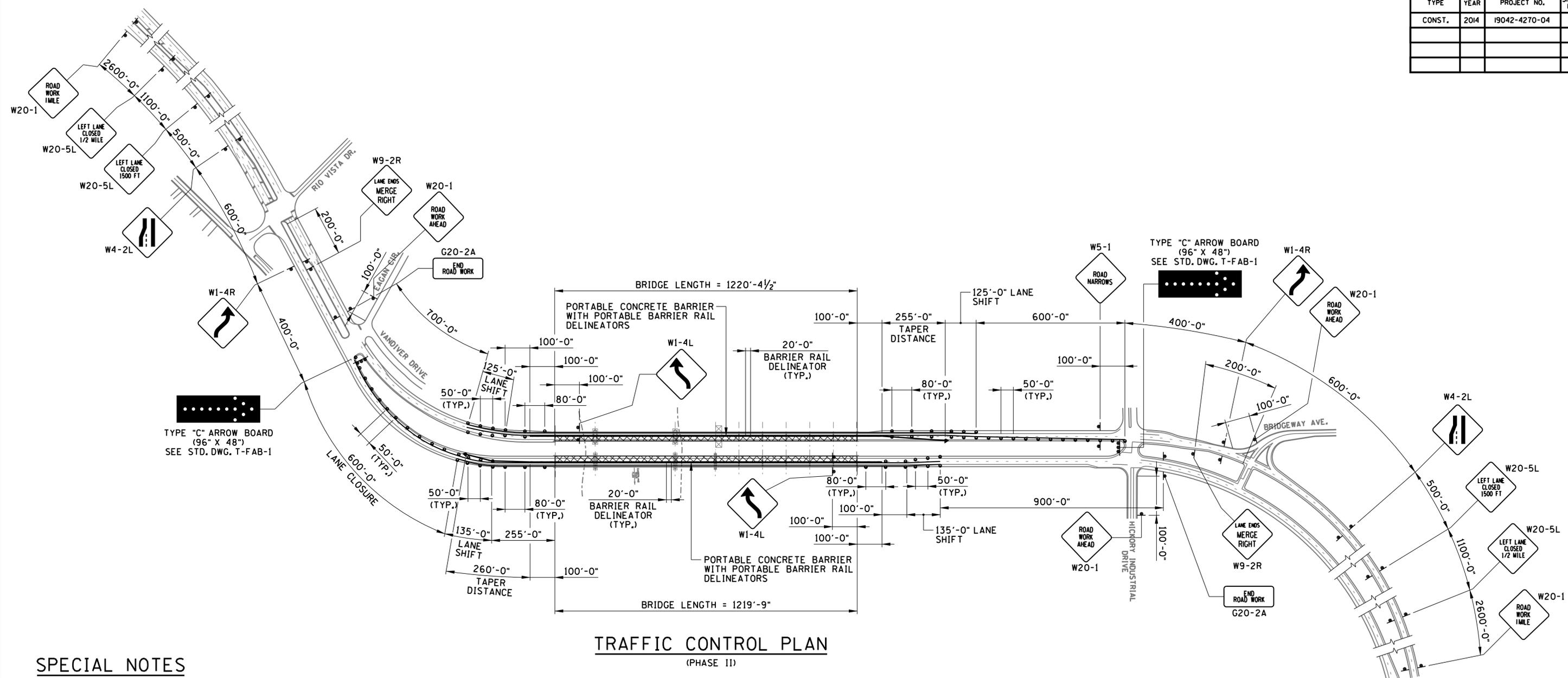
UNOFFICIAL SET
NOT FOR BIDDING



BRIDGE NO. 19-SR045-9.26L
BRIDGE NO. 19-SR045-9.26R
STATE ROUTE 45 OVER
CUMBERLAND RIVER
DAVIDSON COUNTY
2014

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
TRAFFIC CONTROL PLAN
STATE ROUTE 45
(PHASE I AND PHASE III)

| TYPE | YEAR | PROJECT NO. | SHEET NO. |
|--------|------|---------------|-----------|
| CONST. | 2014 | 19042-4270-04 | 2J |
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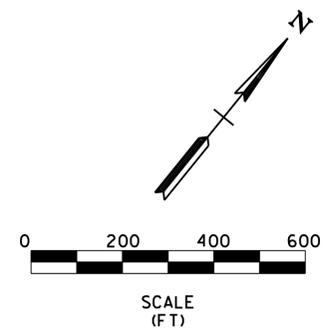
TRAFFIC CONTROL PLAN
(PHASE II)

SPECIAL NOTES

- CONTRACTOR SHALL REMOVE OR COVER ANY EXISTING STRIPING THAT CONFLICTS WITH TEMPORARY TRAFFIC CONTROL STRIPING. CONTRACTOR TO REPLACE STRIPING TO PRECONSTRUCTION DISPOSITION PRIOR TO OPENING ROAD TO NORMAL TRAFFIC.
- COORDINATE WITH T.D.O.T. CONSTRUCTION DIVISION FOR LOCATION AND MESSAGE FOR CHANGEABLE MESSAGE SIGN.

TRAFFIC CONTROL LEGEND

| | |
|--|---|
| | FLEXIBLE DRUM (CHANNELIZING) |
| | SIGN (CONSTRUCTION) |
| | PAINTED 6" SINGLE SOLID WHITE LINE |
| | PAINTED 6" SINGLE DASHED WHITE LINE |
| | PAINTED 6" SINGLE SOLID YELLOW LINE |
| | PORTABLE CONCRETE BARRIER (WITH BARRIER RAIL DELINEATORS) |
| | ATTENUATOR (SEE STANDARD DRAWINGS) |
| | WORK ZONE |
| | DIRECTION OF TRAFFIC |



UNOFFICIAL SET
NOT FOR BIDDING



BRIDGE NO. 19-SR045-9.26L
BRIDGE NO. 19-SR045-9.26R
STATE ROUTE 45 OVER
CUMBERLAND RIVER
DAVIDSON COUNTY
2014

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN
STATE ROUTE 45
(PHASE II)

REQUIRED LOCATION REQUEST INFORMATION

NAME OF CALLER
 TELEPHONE NUMBER
 BEST TIME TO CALL
 COUNTY
 TOWN
 STREET ADDRESS
 START DATE START TIME
 TYPE OF WORK
 BLASTING ?
 WORK BEING DONE BY
 WORK BEING DONE FOR

CALL THREE WORKING DAYS BEFORE YOU DIG
 1-800-351-1111
 IN NASHVILLE : 366-1987



SYSTEM INCORPORATED

UTILITY CONTACTS

| | | |
|--|--|--|
| AT&T 333 COMMERCE ST 23C142 NASHVILLE, TN 37201 DAVID HUFFAKER 615-214-4871 | METRO WATER AND SEWER 1600 2ND AVE NORTH NASHVILLE, TN 37208 STEVE MUNLEY 615-566-3846 | TDOT-ITS DIVISION 6603 CENTENNIAL BLVD. NASHVILLE, TN 37243 RAY HALLAVANT TMC OPERATIONS MANAGER 615-350-3437/3423 |
| COMCAST - DAVIDSON CO. 660 MAINSTREAM DRIVE NASHVILLE, TN 37228 615-244-5900 | NASHVILLE ELECTRIC SERVICE 1214 CHURCH ST ROOM 353 NASHVILLE, TN 37203 HANK DUNNING 615-747-3530 | PIEDMONT NATURAL GAS 83 CENTURY BLVD. NASHVILLE, TN 37214 JIM THWEATT 615-872-2389 OR DONNIE WHITTAKER 615-207-5830 (CELL) |
| MADISON SUBURBAN UTILITY DISTRICT 108 WEST WEBSTER ST MADISON, TN 37115 615-868-3201 | | |

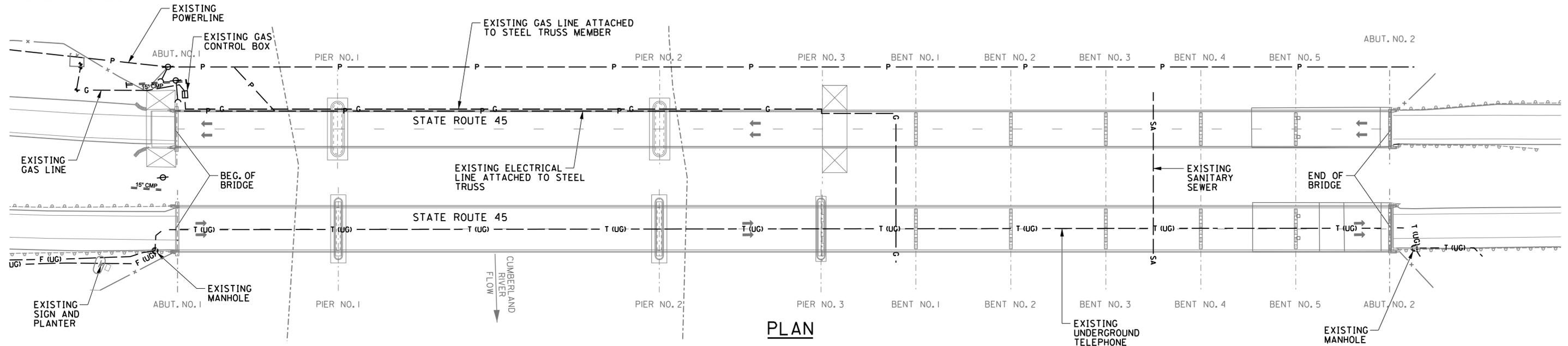
NOTE: UTILITIES INFORMATION SHOWN WAS DERIVED FROM INFORMATION PROVIDED BY UTILITY COMPANIES. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITY LOCATIONS AND SERVICES PRIOR TO ROADWAY AND BRIDGE CONSTRUCTION.

NOTE: THE CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING POLES, GUY WIRES AND ROADWAY SIGNS PRIOR TO COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE THE MOVEMENT OF SUCH SIGNS, POLES AND GUY WIRES WITH THEIR RESPECTIVE OWNERS. THE CONTRACTOR SHALL RE-SET EXISTING SIGNAGE IN ITS ORIGINAL LOCATION. THE COST OF RE-SETTING SIGNAGE WILL NOT BE PAID FOR DIRECTLY BUT WILL BE INCLUDED IN OTHER ITEMS OF CONSTRUCTION.

NOTE: CONTRACTOR SHALL USE EXTREME CAUTION WHEN OPERATING IN ANY AREA WHERE UTILITIES ARE PRESENT AND AVOID WORKING IN THESE AREAS AS MUCH AS PRACTICALLY POSSIBLE. DAMAGES TO ANY UTILITIES ARE TO BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE.

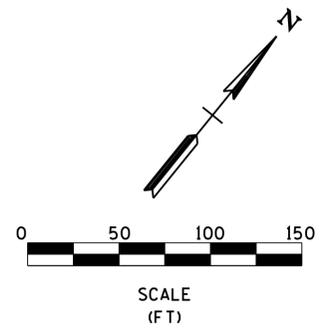
PORTIONS OF THIS DRAWING DEPICTS EXISTING CONDITIONS. LIMITS OF PROPOSED BRIDGE CONSTRUCTION MAY VARY FROM EXISTING CONDITIONS.

| TYPE | YEAR | PROJECT NO. | SHEET NO. |
|--------|------|---------------|-----------|
| CONST. | 2014 | 19042-4270-04 | 2K |
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PLAN

| LEGEND | | LINE STYLES |
|----------------------------------|-----------------------------------|--|
| MAPPING SYMBOLS AND CODES | | CABLE LINE — C — |
| [Symbol] | CATCH BASIN (CB) | CENTER LINE — CL — |
| [Symbol] | CATCH BASIN DOUBLE (DCB) | CONCRETE AREA [Symbol] |
| [Symbol] | CATCH BASIN TRIPLE (TCB) | EDGE OF WOODS LINE [Symbol] |
| [Symbol] | ELECTRIC JUNCTION BOX (EJB) | FENCE LINE — X—X—X— |
| [Symbol] | ELECTRIC METER (EM) | GAS LINE — X'—G— |
| [Symbol] | ELECTRIC TRANSFORMER (ETF) | OVERHEAD POWER LINE — P — |
| [Symbol] | FIBER OPTIC MARKER (FOM) | OVERHEAD TELEPHONE LINE — T — |
| [Symbol] | FIRE HYDRANT (FH) | OVERHEAD POWER AND TELEPHONE LINE — P—T— |
| [Symbol] | FLOOD LIGHT (FLT) | PROPERTY LINE — PL — |
| [Symbol] | FLAG POLE (FP) | SANITARY SEWER — X'—SA— |
| [Symbol] | GAS METER (GM) | STORM WATER — X'—ST— |
| [Symbol] | GUY POLE (GP) | FIBER OPTIC CABLE — F — |
| [Symbol] | GAS VALVE (GV) | UNDERGROUND FIBER OPTIC CABLE — F(UG) — |
| [Symbol] | GUY WIRE (GW) | UNDERGROUND POWER LINE — P(UG) — |
| [Symbol] | IRON PIN NEW (IR(N)) | UNDERGROUND POWER AND TELEPHONE LINE — UG—P—T— |
| [Symbol] | IRON PIN OLD (IR(O)) | UNDERGROUND TELEPHONE LINE — T(UG) — |
| [Symbol] | IRON PIPE OLD (IP(O)) | WATER LINE — X'—W— |
| [Symbol] | IRON SPIKE OLD (IS(O)) | |
| [Symbol] | LIGHT STANDARD METAL/WOOD (LS/LP) | |
| [Symbol] | MAIL BOX (MB) | |
| [Symbol] | MAN HOLE (MH) | |
| [Symbol] | MONUMENT CONCRETE OLD (MON(O)) | |
| [Symbol] | MONUMENT CONCRETE NEW (MON(N)) | |
| [Symbol] | P. K. NAIL OLD (PK(O)) | |
| [Symbol] | P. K. NAIL NEW (PK(N)) | |
| [Symbol] | LIGHT POLE WITH POWER (PP) | |
| [Symbol] | LIGHT POLE WITH TELEPHONE (T) | |
| [Symbol] | POWER MAN HOLE (PMH) | |
| [Symbol] | POWER POLE (P) | |
| [Symbol] | POWER AND TELEPHONE POLE (P/T) | |
| [Symbol] | RIGHT-OF-WAY MONUMENT (RWM) | |
| [Symbol] | SPRINKLER HEAD/VALVE (SPH, SPV) | |
| [Symbol] | SANITARY MAN HOLE (SSMH) | |
| [Symbol] | SIGN (SN) | |
| [Symbol] | STEAM MAN HOLE (STMH) | |
| [Symbol] | STORM WATER MAN HOLE (SWMH) | |
| [Symbol] | TELEPHONE POLE (T) | |
| [Symbol] | TREE | |
| [Symbol] | WATER METER (WM) | |
| [Symbol] | WATER VALVE (WV) | |



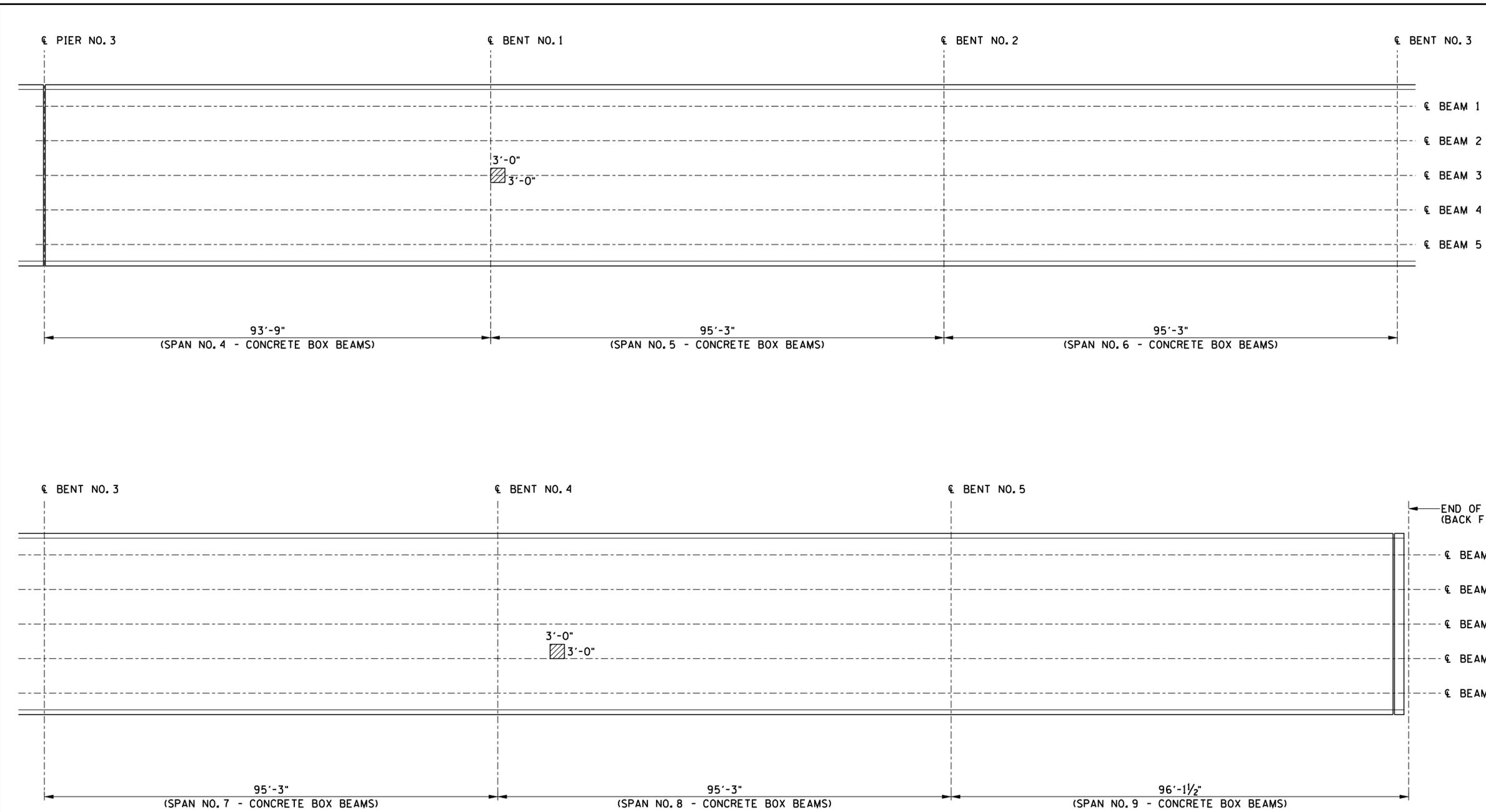
UNOFFICIAL SET
 NOT FOR BIDDING



BRIDGE NO. 19-SR045-9.26L
 BRIDGE NO. 19-SR045-9.26R
 STATE ROUTE 45 OVER
 CUMBERLAND RIVER
 DAVIDSON COUNTY
 2014

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
UTILITIES

| | | | |
|---------------|------|-----------|-------------------|
| CONST. NO. | | | |
| PROJECT NO. | YEAR | SHEET NO. | |
| 19042-4270-04 | 2014 | | |
| REVISIONS | | | |
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UNOFFICIAL SET
NOT FOR BIDDING



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
SUPERSTRUCTURE DETAILS
CONCRETE REPAIRS
(TOP OF SLAB)
BRIDGE NO. 19-SR045-9.26L
STATE ROUTE 45 OVER CUMBERLAND RIVER
DAVIDSON COUNTY
2014

NOTE: REMOVE ALL DEBRIS AROUND BENTS AND ABUTMENTS. COST IS TO BE INCLUDED IN ITEM NO. 201-07.01, REMOVAL AND DISPOSAL OF BRUSH AND TREES, L.S.

NOTE: ALL AREAS THAT CONTAIN CALCIUM DEPOSITS SHALL BE REMOVED. ANY CONCRETE THAT HAS DETERIORATED BEHIND THE DEPOSITS SHALL BE REPAIRED.

DENOTES: ESTIMATED FULL DEPTH DECK REPAIR AREA

| ESTIMATED QUANTITIES | |
|---|--|
| ITEM NO. 604-10.30 BRIDGE DECK REPAIRS (FULL DEPTH OF SLAB) S.Y. | ITEM NO. 604-10.50 BRIDGE DECK REPAIRS (PARTIAL DEPTH OF SLAB) S.Y. |
| 2 | 4 |

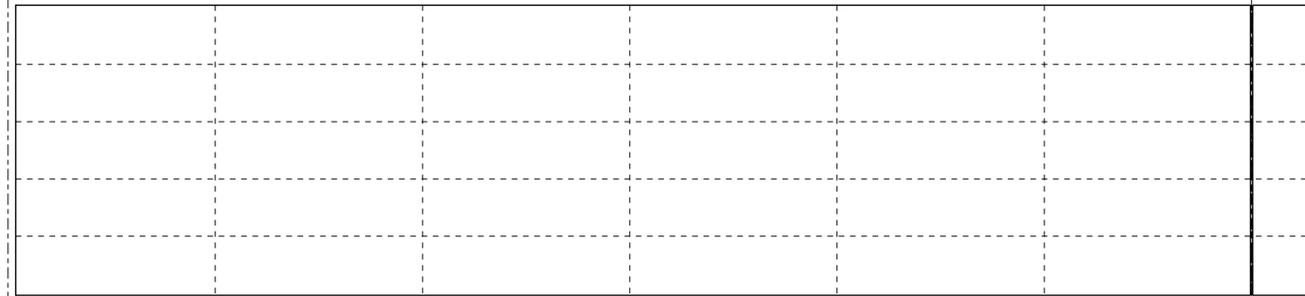
NOTE: INFORMATION AND DIMENSIONS FOR CONCRETE REPAIRS ARE PROVIDED FOR ESTIMATING ONLY. TDOT ENGINEER SHALL DELINEATE ACTUAL AREAS TO BE REPAIRED.

DESIGNED BY DAVID THOMPSON DATE _____
 DRAWN BY ANGELA MOORE DATE _____
 SUPERVISED BY DARRELL JAMES DATE _____
 CHECKED BY JAMIE GILLESPIE DATE _____



€ ABUTMENT NO. 1 BRG.

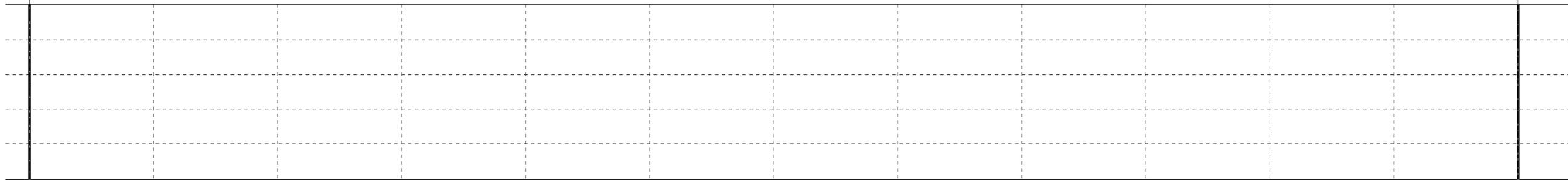
€ PIER NO. 1



163'-3"
(SPAN NO. 1 - METAL FORMS)

€ PIER NO. 1

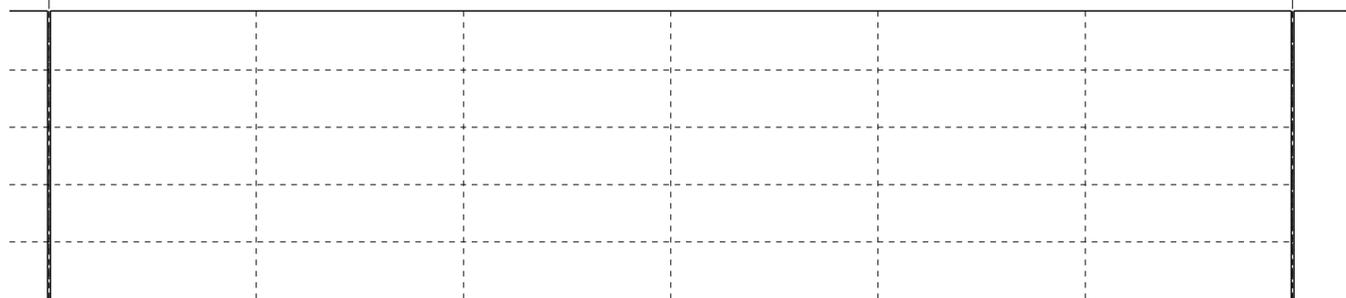
€ PIER NO. 2



323'-0"
(SPAN NO. 2 - METAL FORMS)

€ PIER NO. 2

€ PIER NO. 3



163'-3"
(SPAN NO. 3 - METAL FORMS)

CONST. NO.

| PROJECT NO. | YEAR | SHEET NO. |
|---------------|------|-----------|
| 19042-4270-04 | 2014 | |

REVISIONS

| NO. | DATE | BY | BRIEF DESCRIPTION |
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UNOFFICIAL SET

NOT FOR BIDDING

NOTE: REMOVE ALL DEBRIS AROUND BENTS AND ABUTMENTS. COST IS TO BE INCLUDED IN ITEM NO. 201-07.01, REMOVAL AND DISPOSAL OF BRUSH AND TREES, L.S.

NOTE: ALL AREAS THAT CONTAIN CALCIUM DEPOSITS SHALL BE REMOVED. ANY CONCRETE THAT HAS DETERIORATED BEHIND THE DEPOSITS SHALL BE REPAIRED.

DENOTES: ESTIMATED FULL DEPTH DECK REPAIR AREA

| ESTIMATED QUANTITIES |
|--|
| ITEM NO. 604-10.50 BRIDGE DECK REPAIRS (PARTIAL DEPTH OF SLAB) S.Y. |
| 0 |

NOTE: INFORMATION AND DIMENSIONS FOR CONCRETE REPAIRS ARE PROVIDED FOR ESTIMATING ONLY. TDOT ENGINEER SHALL DELINEATE ACTUAL AREAS TO BE REPAIRED.



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

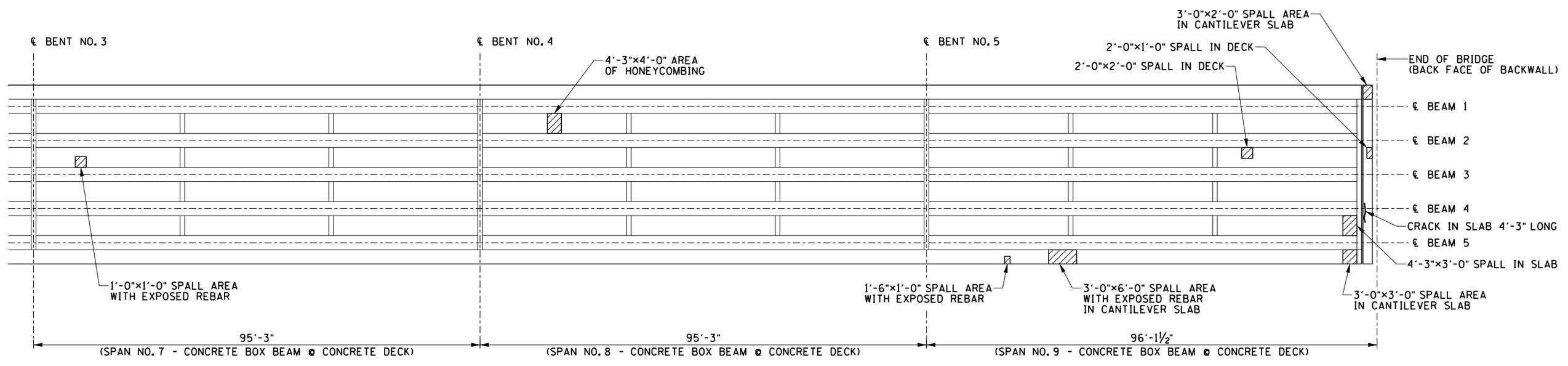
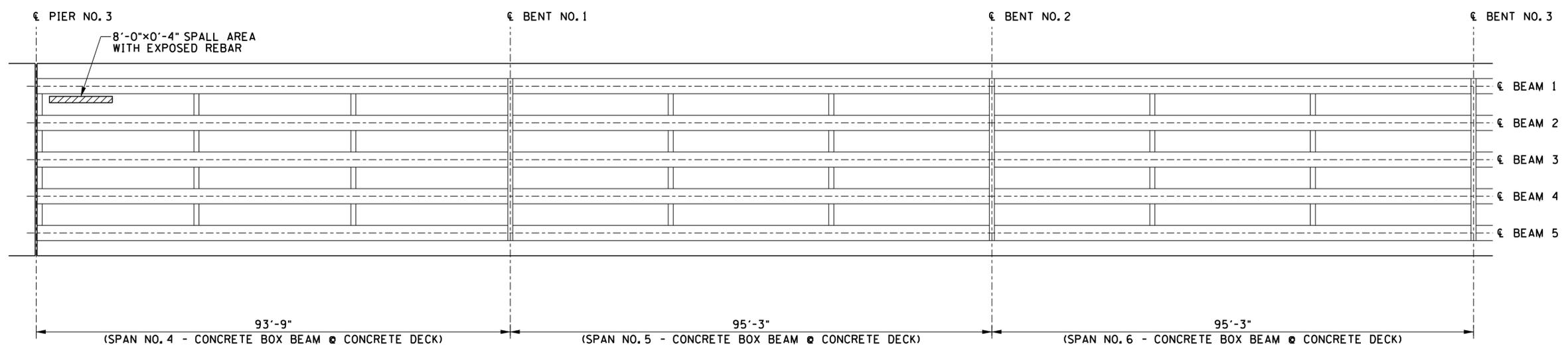
SUPERSTRUCTURE DETAILS
CONCRETE REPAIRS
(BOTTOM OF SLAB)

BRIDGE NO. 19-SR045-9.26L
STATE ROUTE 45 OVER CUMBERLAND RIVER
DAVIDSON COUNTY
2014

DESIGNED BY DAVID THOMPSON DATE _____
 DRAWN BY ANGELA MOORE DATE _____
 SUPERVISED BY DARRELL JAMES DATE _____
 CHECKED BY JAMIE GILLESPIE DATE _____



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| CONST. NO. | | | |
| PROJECT NO. | YEAR | SHEET NO. | |
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NOT FOR BIDDING

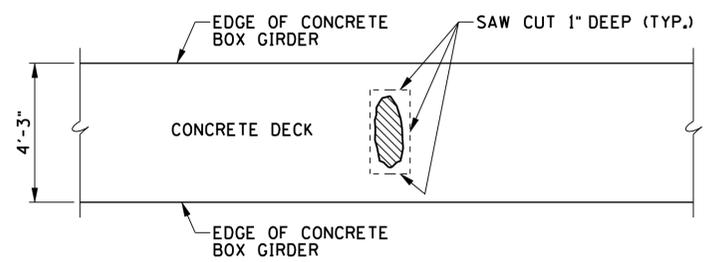
NOTE: REMOVE ALL DEBRIS AROUND BENTS AND ABUTMENTS. COST IS TO BE INCLUDED IN ITEM NO. 201-07.01, REMOVAL AND DISPOSAL OF BRUSH AND TREES, L.S.

NOTE: ALL AREAS THAT CONTAIN CALCIUM DEPOSITS SHALL BE REMOVED. ANY CONCRETE THAT HAS DETERIORATED BEHIND THE DEPOSITS SHALL BE REPAIRED.

DENOTES: VISUALLY DELAMINATED OR SPALLED AREAS FOR VERTICAL OVERHEAD CONCRETE REPAIR (BOTTOM OF SLAB)

| ESTIMATED QUANTITIES | |
|----------------------|--|
| ITEM NO. 604-10.50 | BRIDGE DECK REPAIRS (PARTIAL DEPTH OF SLAB) S.Y. |
| 4 | |

NOTE: INFORMATION AND DIMENSIONS FOR CONCRETE REPAIRS ARE PROVIDED FOR ESTIMATING ONLY. TDOT ENGINEER SHALL DELINEATE ACTUAL AREAS TO BE REPAIRED.



NOTE: SAW CUTS SHALL BE MADE AS DEEP AS 1". EXTREME CAUTION SHALL BE TAKEN TO PREVENT DAMAGE TO EXISTING REINFORCING STEEL.

NOTE: CHIPPING HAMMERS OF THE 15 POUND CLASS SHALL BE USED TO REMOVE THE CONCRETE TO A DEPTH OF 1/2" BEHIND EXPOSED REBAR AFTER DETERIORATED CONCRETE HAS BEEN REMOVED. SEE BR-115-200 FOR CONCRETE REPAIR DETAILS.

VERTICAL OVERHEAD CONCRETE REPAIR DETAIL
(VIEW FROM BELOW DECK)
(ITEM NO. 604-10.50)
(NOT TO SCALE)

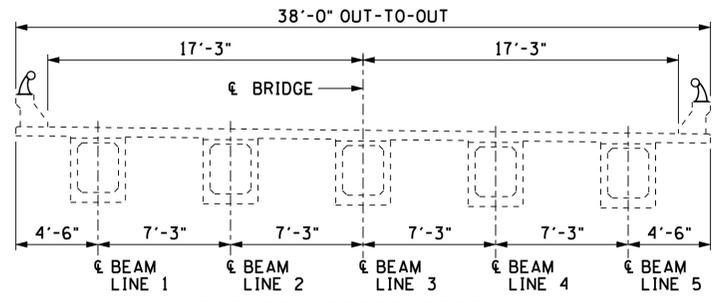


STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
SUPERSTRUCTURE DETAILS
CONCRETE REPAIRS
(BOTTOM OF SLAB)
BRIDGE NO. 19-SR045-9.26L
STATE ROUTE 45 OVER CUMBERLAND RIVER
DAVIDSON COUNTY
2014

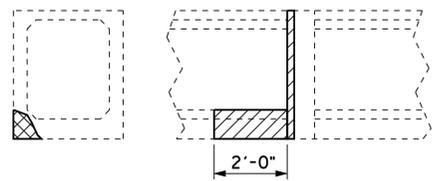
DESIGNED BY DAVID THOMPSON DATE _____
DRAWN BY ANGELA MOORE DATE _____
SUPERVISED BY DARRELL JAMES DATE _____
CHECKED BY JAMIE GILLESPIE DATE _____



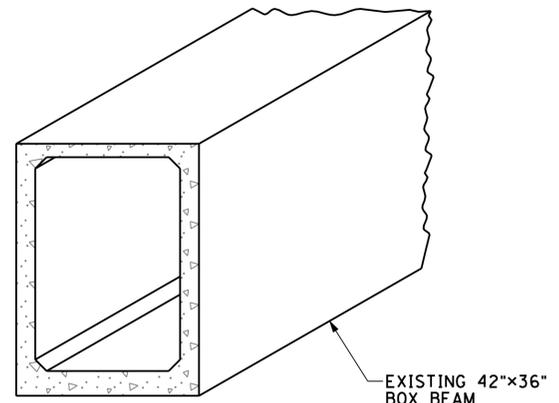
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| CONST. NO. | | | |
| PROJECT NO. | YEAR | SHEET NO. | |
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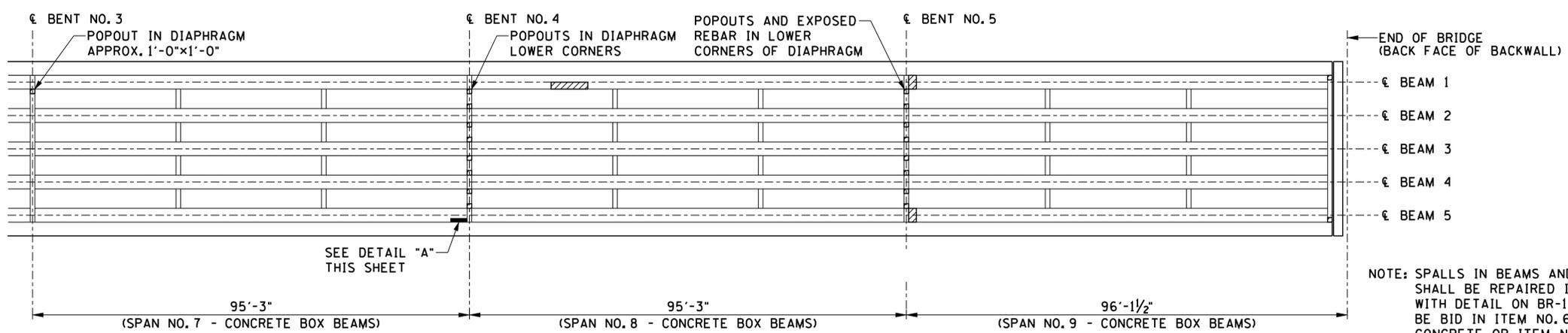
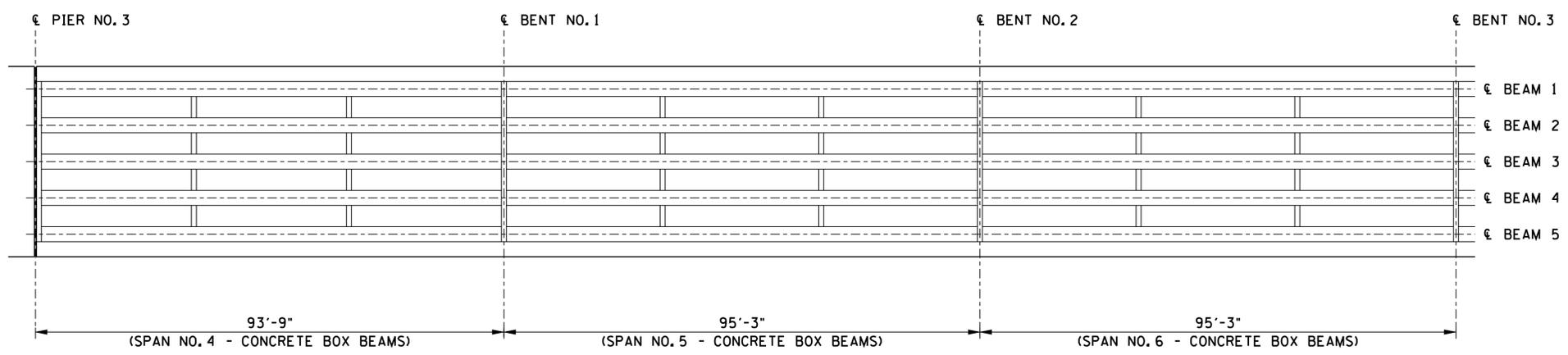
TYPICAL CROSS-SECTION
(NOT TO SCALE)



DETAIL "A" - END BEAM SPALL REPAIR
(NOT TO SCALE)



SECTION SHOWING EXISTING CONCRETE BOX BEAM
(NOT TO SCALE)



CONCRETE GIRDERS DENOTES: ESTIMATED LOCATION OF SPALL

NOTE: SPALLS IN BEAMS AND DIAPHRAGMS SHALL BE REPAIRED IN ACCORDANCE WITH DETAIL ON BR-115-200 AND SHALL BE BID IN ITEM NO. 604-10.05, CONCRETE OR ITEM NO. 604-10.54, CONCRETE REPAIRS.

UNOFFICIAL SET
NOT FOR BIDDING



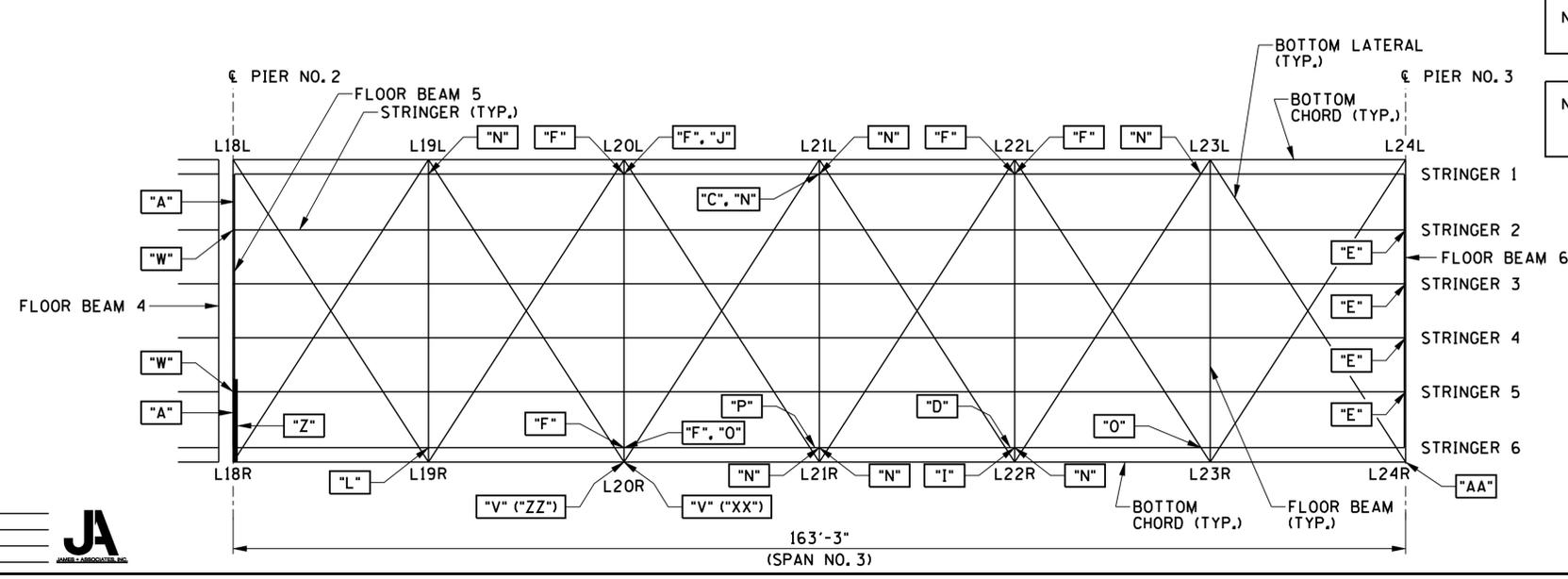
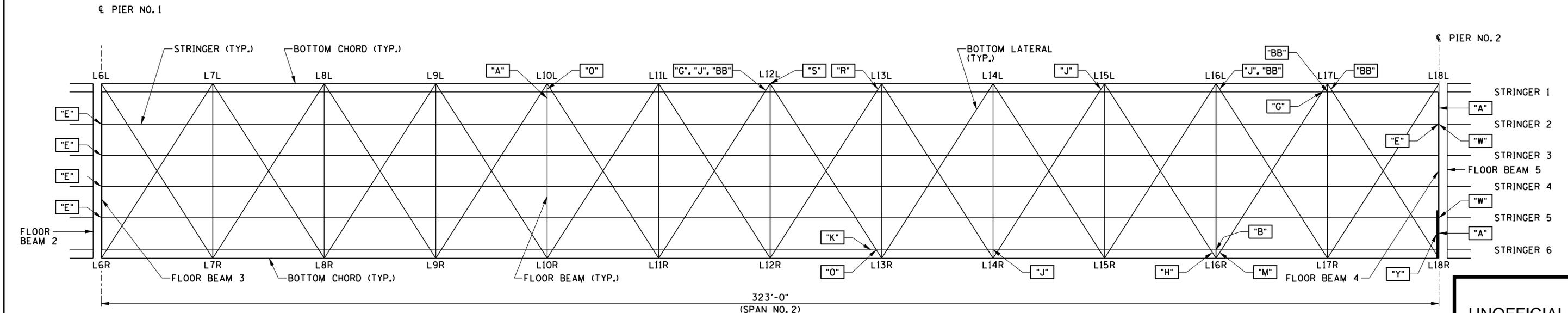
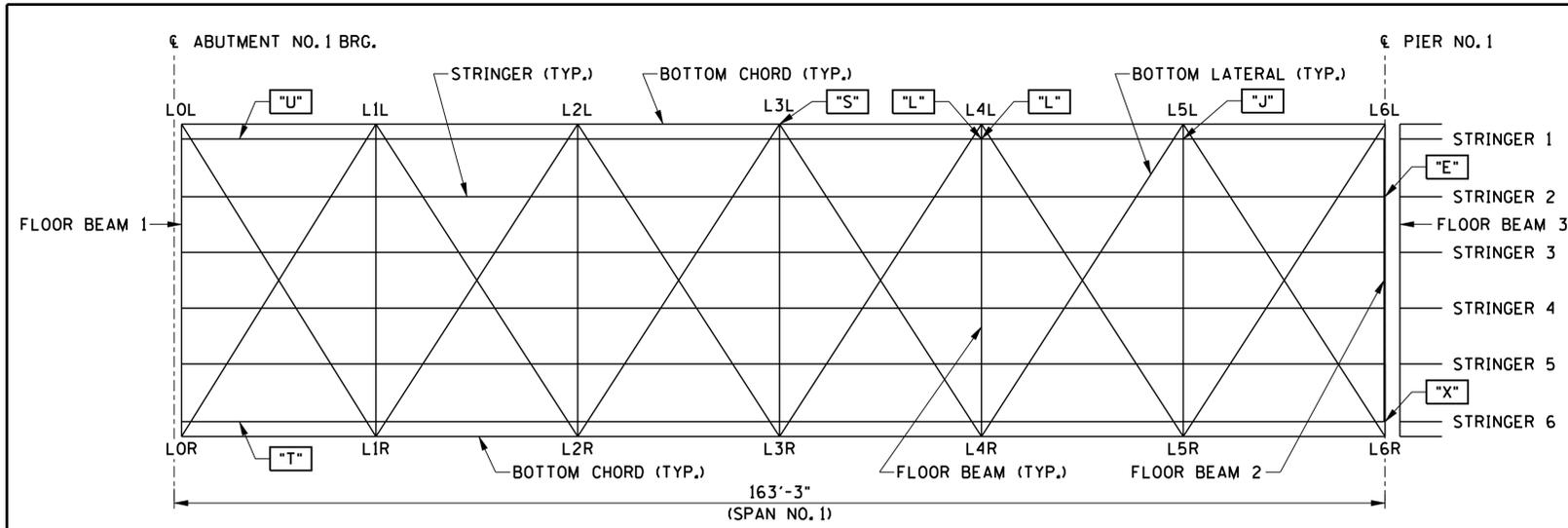
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS
BEAM REPAIR

BRIDGE NO. 19-SR045-9.26L
STATE ROUTE 45 OVER CUMBERLAND RIVER
DAVIDSON COUNTY
2014

DESIGNED BY DAVID THOMPSON DATE _____
DRAWN BY ANGELA MOORE DATE _____
SUPERVISED BY DARRELL JAMES DATE _____
CHECKED BY JAMIE GILLESPIE DATE _____





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| CONST. NO. | | | |
| PROJECT NO. | YEAR | SHEET NO. | |
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NOTE: ALL REPAIR DETAILS ("A"- "BB") ON SHEETS BR-115-170, BR-115-171 AND BR-115-172.

NOTE: ALL WORK INDICATED ON THIS SHEET SHALL BE PAID FOR IN ITEM NO. 602-10.32, STRUCTURAL STEEL (REPAIRS), LB.

UNOFFICIAL SET

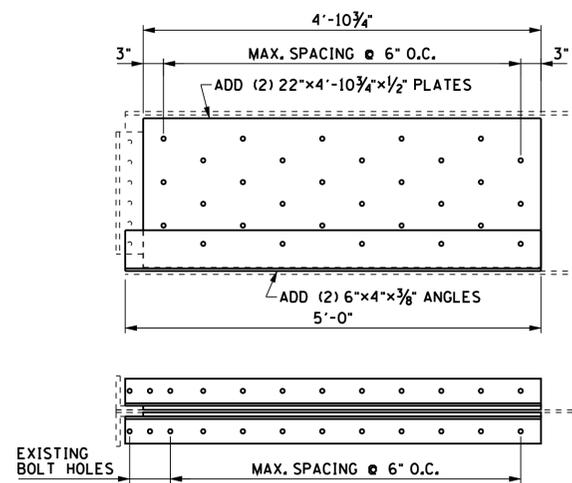
NOT FOR BIDDING



STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 SUPERSTRUCTURE DETAILS
 STRUCTURAL STEEL REPAIRS
 BRIDGE NO. 19-SR045-9.26L
 STATE ROUTE 45 OVER CUMBERLAND RIVER
 DAVIDSON COUNTY
 2014

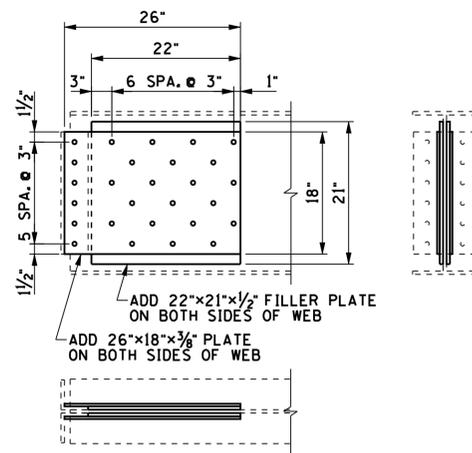
DESIGNED BY DAVID THOMPSON DATE _____
 DRAWN BY ANGELA MOORE DATE _____
 SUPERVISED BY DARRELL JAMES DATE _____
 CHECKED BY JAMIE GILLESPIE DATE _____





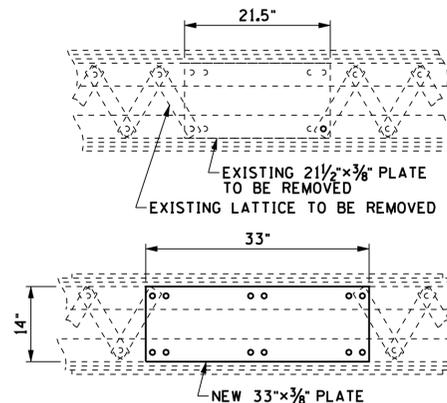
DETAIL "P" - STRINGER REPAIR
(NOT TO SCALE)

- REPLACE 5 RIVETS WITH BOLTS.
- ADD 50 BOLTS TO NEW PLATES AND ANGLES.



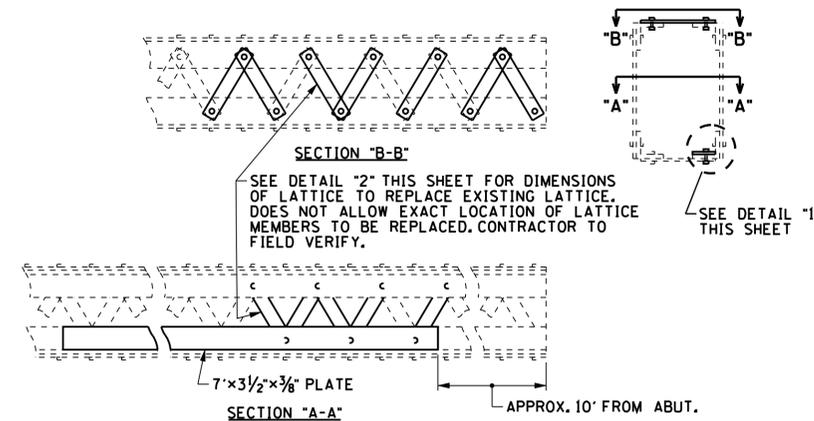
DETAIL "R" - STRINGER REPAIR
(NOT TO SCALE)

- REPLACE 6 RIVETS WITH BOLTS.
- ADD 21 BOLTS TO NEW PLATES.



DETAIL "S" - TRUSS REPAIR
(NOT TO SCALE)

- REPLACE 8 RIVETS WITH BOLTS.
- ADD 4 BOLTS.



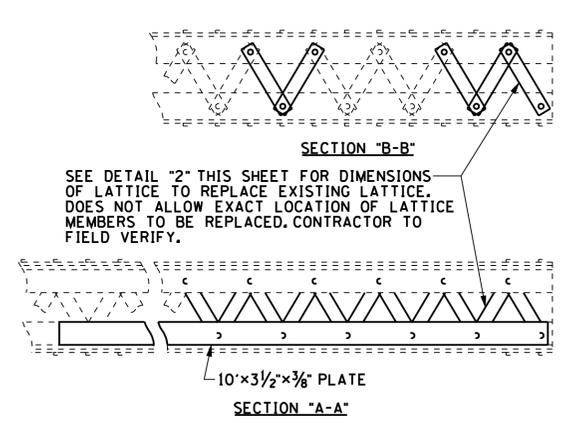
DETAIL "T" - TRUSS REPAIR
(NOT TO SCALE)

| CONST. NO. | | PROJECT NO. | | YEAR | | SHEET NO. | |
|------------|------|---------------|-------------------|------|--|-----------|--|
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NOTE: ALL WORK INDICATED ON THIS SHEET SHALL BE PAID FOR IN ITEM NO. 602-10.32, STRUCTURAL STEEL (REPAIRS), LB.

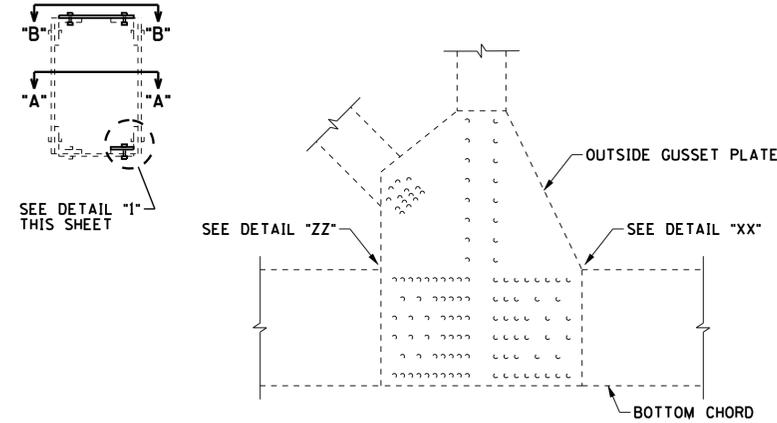
NOTE: CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND SHALL INCLUDE PLATE DIMENSIONS AND BOLT LOCATIONS.

NOTE: ALL HOLES SHALL BE DRILLED AT 15/16" AND ALL BOLTS SHALL BE 7/8".

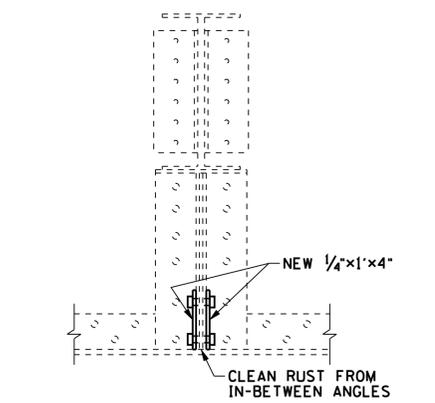


DETAIL "U" - TRUSS REPAIR
(NOT TO SCALE)

- REPLACE 19 RIVETS WITH BOLTS.

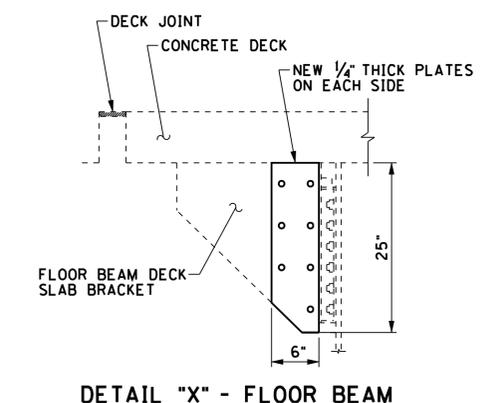


DETAIL "V" - GUSSET CONNECTION REPAIR
(NOT TO SCALE)



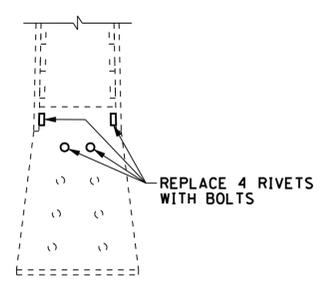
DETAIL "W" - FLOOR BEAM REPAIR
(NOT TO SCALE)

- DRILL AND ADD 2 NEW BOLTS.
- ANGLES TO BE BENT TO ORIGINAL POSITION.



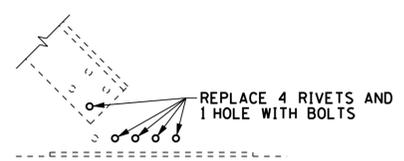
DETAIL "X" - FLOOR BEAM DECK SLAB BRACKET REPAIR
(NOT TO SCALE)

- DRILL NEW HOLES AND PLACE 7 NEW BOLTS.



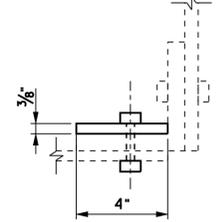
DETAIL "XX"
(NOT TO SCALE)

NOTE: DETAIL "XX" IS BETWEEN THE GUSSET PLATES ON THE OUTSIDE BOTTOM CHORD LOOKING BACK ON SURVEY.

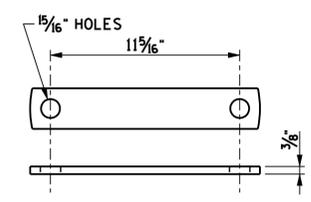


DETAIL "ZZ"
(NOT TO SCALE)

NOTE: DETAIL "ZZ" IS BETWEEN THE GUSSET PLATES ON THE OUTSIDE BOTTOM CHORD LOOKING IN TOWARD THE STRUCTURE.



DETAIL "1"
(NOT TO SCALE)



DETAIL "2"
(NOT TO SCALE)

UNOFFICIAL SET
NOT FOR BIDDING



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS
STRUCTURAL STEEL REPAIR DETAILS

BRIDGE NO. 19-SR045-9.26L
STATE ROUTE 45 OVER CUMBERLAND RIVER
DAVIDSON COUNTY
2014

DESIGNED BY DAVID THOMPSON DATE _____
DRAWN BY ANGELA MOORE DATE _____
SUPERVISED BY DARRELL JAMES DATE _____
CHECKED BY JAMIE GILLESPIE DATE _____

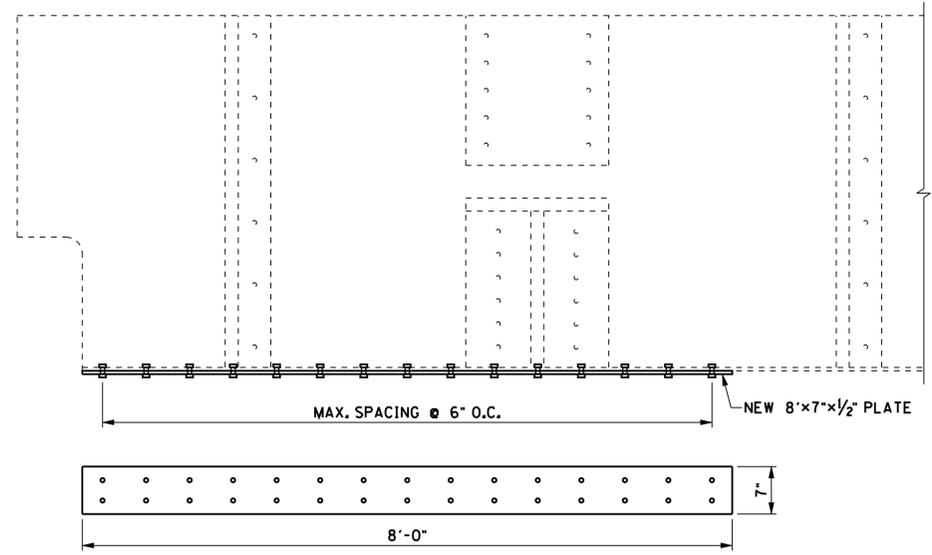


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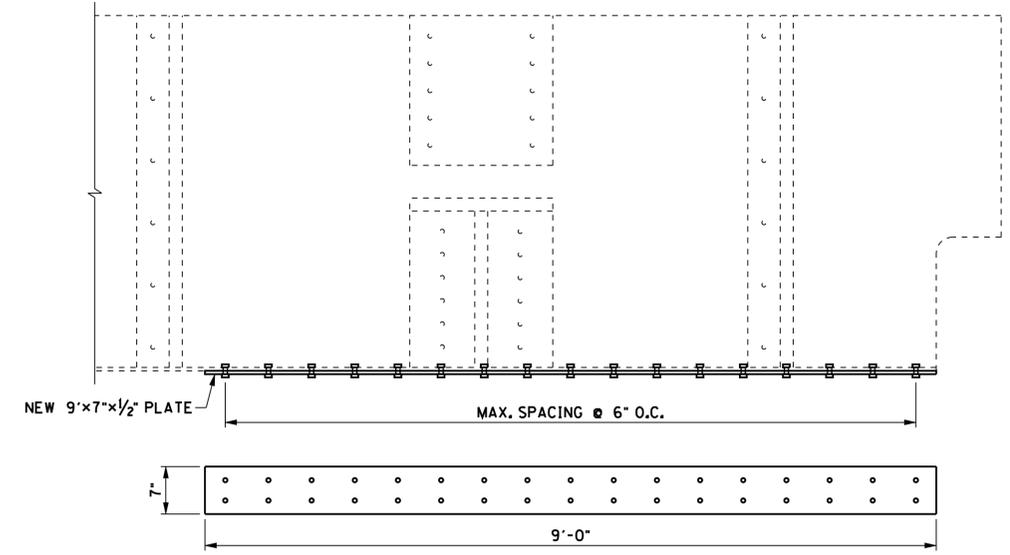
NOTE: ALL WORK INDICATED ON THIS SHEET SHALL BE PAID FOR IN ITEM NO. 602-10.32, STRUCTURAL STEEL (REPAIRS), LB.

NOTE: CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND SHALL INCLUDE PLATE DIMENSIONS AND BOLT LOCATIONS.

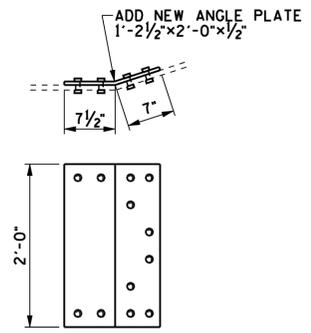
NOTE: ALL HOLES SHALL BE DRILLED AT 1/16" AND ALL BOLTS SHALL BE 1/8".



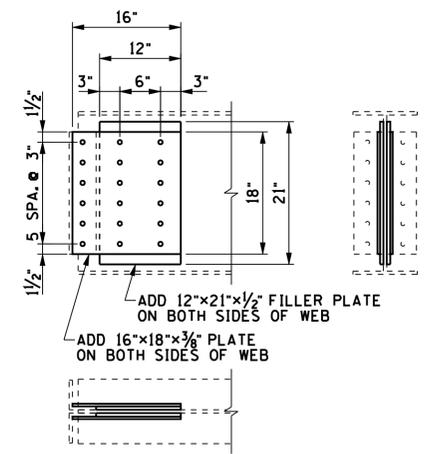
DETAIL "Y" - FLOOR BEAM FLANGE REPAIR
(NOT TO SCALE)
• DRILL NEW HOLES AND PLACE 30 NEW BOLTS.



DETAIL "Z" - FLOOR BEAM FLANGE REPAIR
(NOT TO SCALE)
• DRILL NEW HOLES AND PLACE 34 NEW BOLTS.



DETAIL "AA" - ENDPPOST ANGLE PLATE REPAIR
(NOT TO SCALE)
• REPLACE 12 BOLTS WITH NEW BOLTS.



DETAIL "BB" - STRINGER REPAIR
(NOT TO SCALE)
• REPLACE 6 RIVETS WITH BOLTS.
• ADD 12 BOLTS TO NEW PLATES.

UNOFFICIAL SET
NOT FOR BIDDING

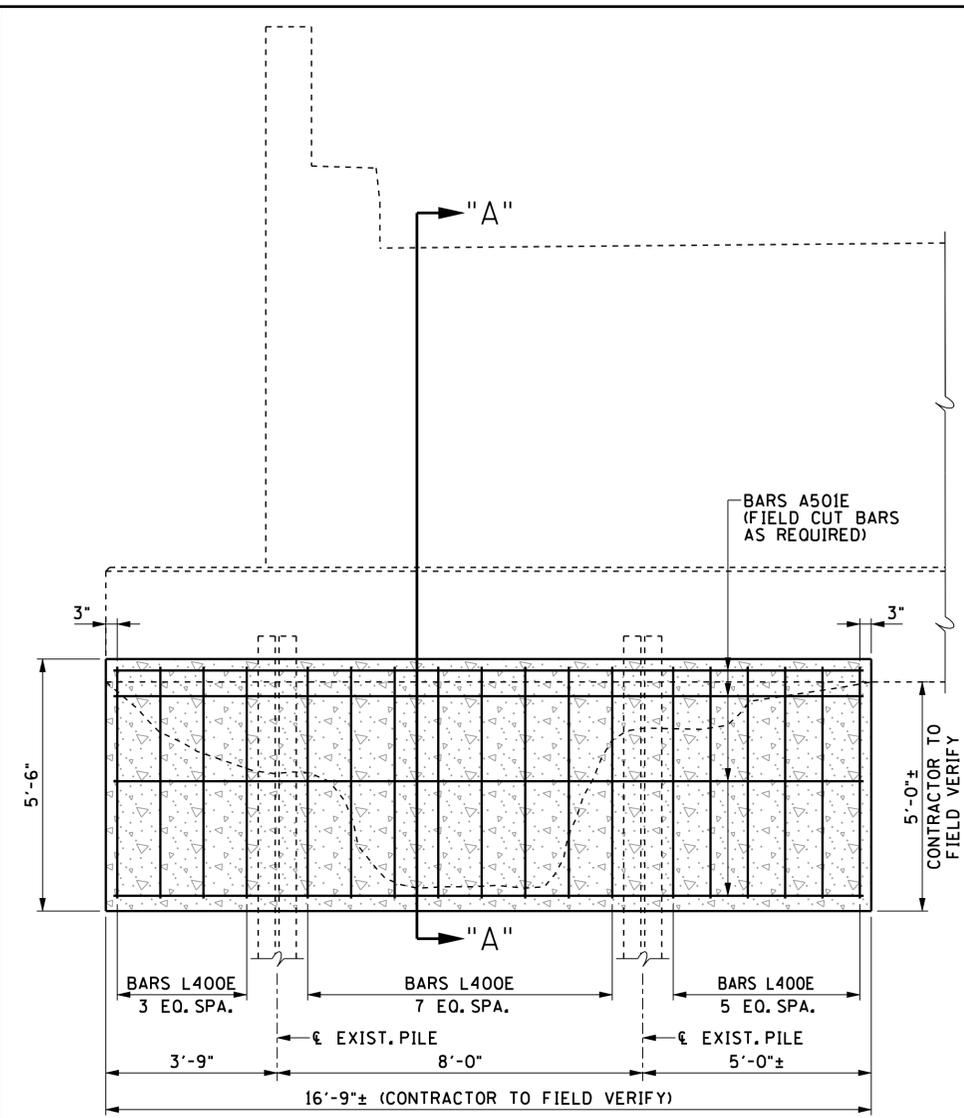


STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
SUPERSTRUCTURE DETAILS
STRUCTURAL STEEL REPAIR DETAILS
BRIDGE NO. 19-SR045-9.26L
STATE ROUTE 45 OVER CUMBERLAND RIVER
DAVIDSON COUNTY
2014

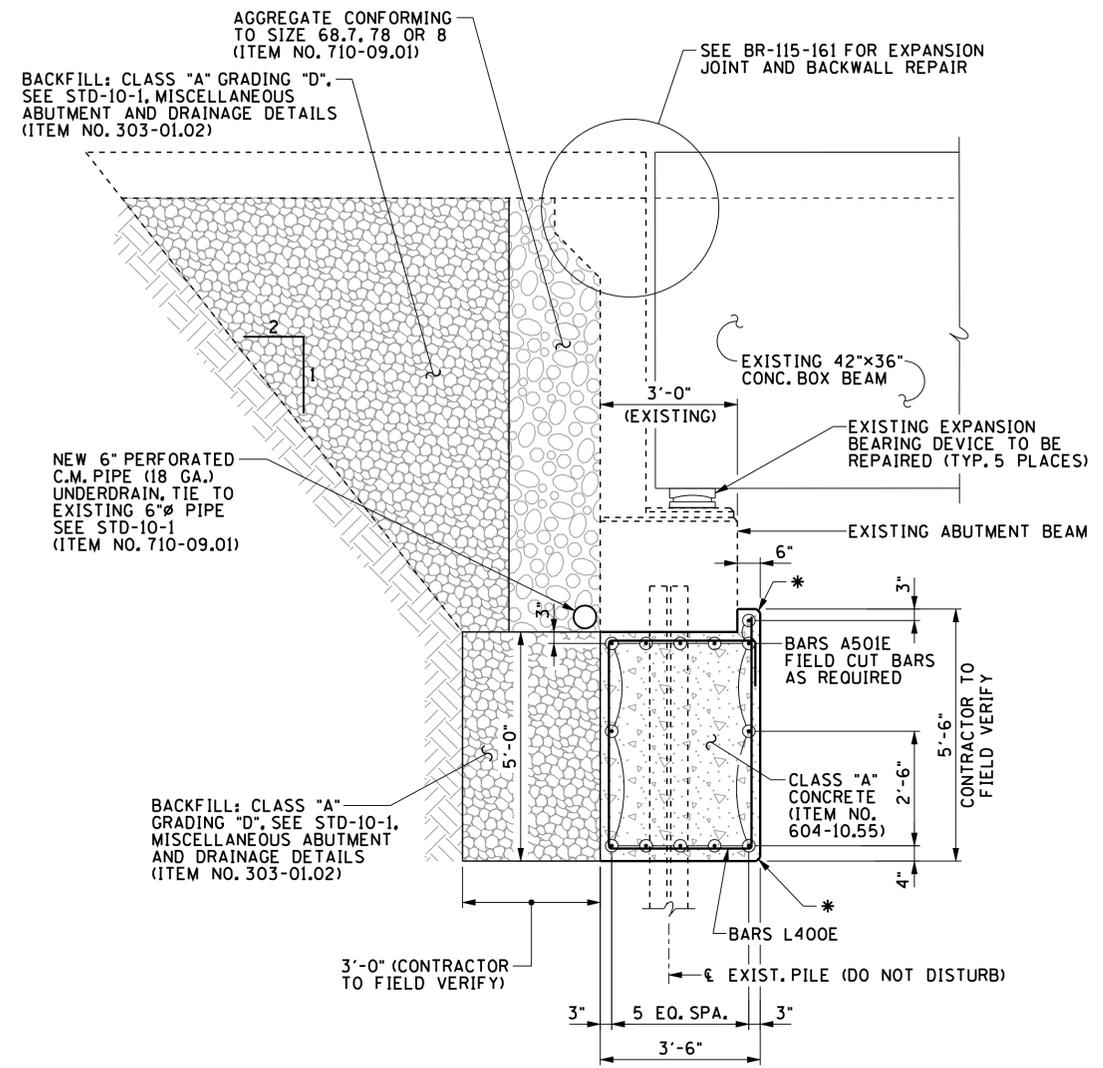
DESIGNED BY DAVID THOMPSON DATE _____
DRAWN BY ANGELA MOORE DATE _____
SUPERVISED BY DARRELL JAMES DATE _____
CHECKED BY JAMIE GILLESPIE DATE _____



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ABUTMENT NO. 2
(ELEVATION)



SECTION A-A
N.T.S.

* DENOTES: 1" CHAMFER ON FRONT CORNERS

- EXPANSION BEARING DEVICE REPAIR:**
- CONTRACTOR SHALL REPAIR ALL EXPANSION BEARING DEVICES AT ABUTMENT NO. 2 (5 TOTAL DEVICES), ITEM TO BE PAID FOR IN ITEM NO. 602-10.12, BEARING DEVICE (REPAIR), L.S. EACH BEARING DEVICE SHALL BE CLEANED, LUBRICATED AND MADE OPERABLE.
 - THE NEW POSITION OF EACH EXPANSION BEARING DEVICE IS TO BE DETERMINED AT THE TIME OF REPAIR.
 - ALL BEARINGS SHALL BE MADE OPERABLE PRIOR TO REPLACEMENT OF EXPANSION JOINT IN ITEM NO. 604-10.46.
 - ANY NECESSARY WELDING SHALL BE PERFORMED BY AN AWS CERTIFIED WELDER - SEE STANDARD SPECIFICATION SECTION 602.
 - ALL BEARING REPAIR PROCEDURES SHALL BE SUBMITTED TO THE TDOT BRIDGE REPAIR OFFICE PRIOR TO STARTING WORK.
 - FOR ADDITIONAL INFORMATION ON EXISTING BEARING DEVICES, SEE DRAWING K-15-60 DATED 1962.
 - SEE "NOTES CONCERNING JACKING OPERATIONS (19-SR045-9.26L)" ON SHEET BR-115-158.

- NOTES:**
- COST OF CLASS "A" CONCRETE, EXCAVATION, FORMING, LABOR AND ANY MISCELLANEOUS MATERIALS NECESSARY TO COMPLETE THE REPAIRS TO THE ABUTMENT FOUNDATIONS, SHALL BE PAID FOR UNDER ITEM NO. 604-10.55, CONCRETE (FOUNDATION REPAIRS), C.Y. ALL WORK MUST MEET WITH THE FULL SATISFACTION OF THE ENGINEER.
 - COST OF ALL EPOXY COATED REINFORCING STEEL SHALL BE PAID FOR UNDER ITEM NO. 604-02.03, EPOXY COATED REINFORCING STEEL, LBS. SEE BILL OF STEEL ON BR-115-181.
 - CONTRACTOR SHALL TAKE EXTREME CARE WHEN EXCAVATING SO AS NOT TO DAMAGE THE EXISTING STRUCTURE.
 - CONTRACTOR SHALL EXCAVATE THE MINIMUM AREA NECESSARY FOR REPAIR AND SHALL BE PAID FOR UNDER ITEM NO. 204-11, BRIDGE EXCAVATION (UNCLASSIFIED), C.Y. VOID SPACES BELOW THE STANDARD DEPTH OF REPAIR SHALL BE FILLED WITH CLASS "A" CONCRETE WITH NO ADDITIONAL EXCAVATION. COST TO BE INCLUDED UNDER ITEM NO. 604-10.55, CONCRETE (FOUNDATION REPAIRS).

| ESTIMATED QUANTITIES | |
|--|---|
| ITEM NO. 604-10.55 CONCRETE (FOUNDATION REPAIRS) (C.Y.) | ITEM NO. 604-02.03 EPOXY COATED REINFORCING STEEL (BRIDGES) (LB.) |
| 11 | 410 |

DESIGNED BY DAVID THOMPSON DATE _____
 DRAWN BY ANGELA MOORE DATE _____
 SUPERVISED BY DARRELL JAMES DATE _____
 CHECKED BY JAMIE GILLESPIE DATE _____



UNOFFICIAL SET
NOT FOR BIDDING



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ABUTMENT NO. 2 DETAILS

BRIDGE NO. 19-SR045-9.26L
STATE ROUTE 45 OVER CUMBERLAND RIVER
DAVIDSON COUNTY
2014

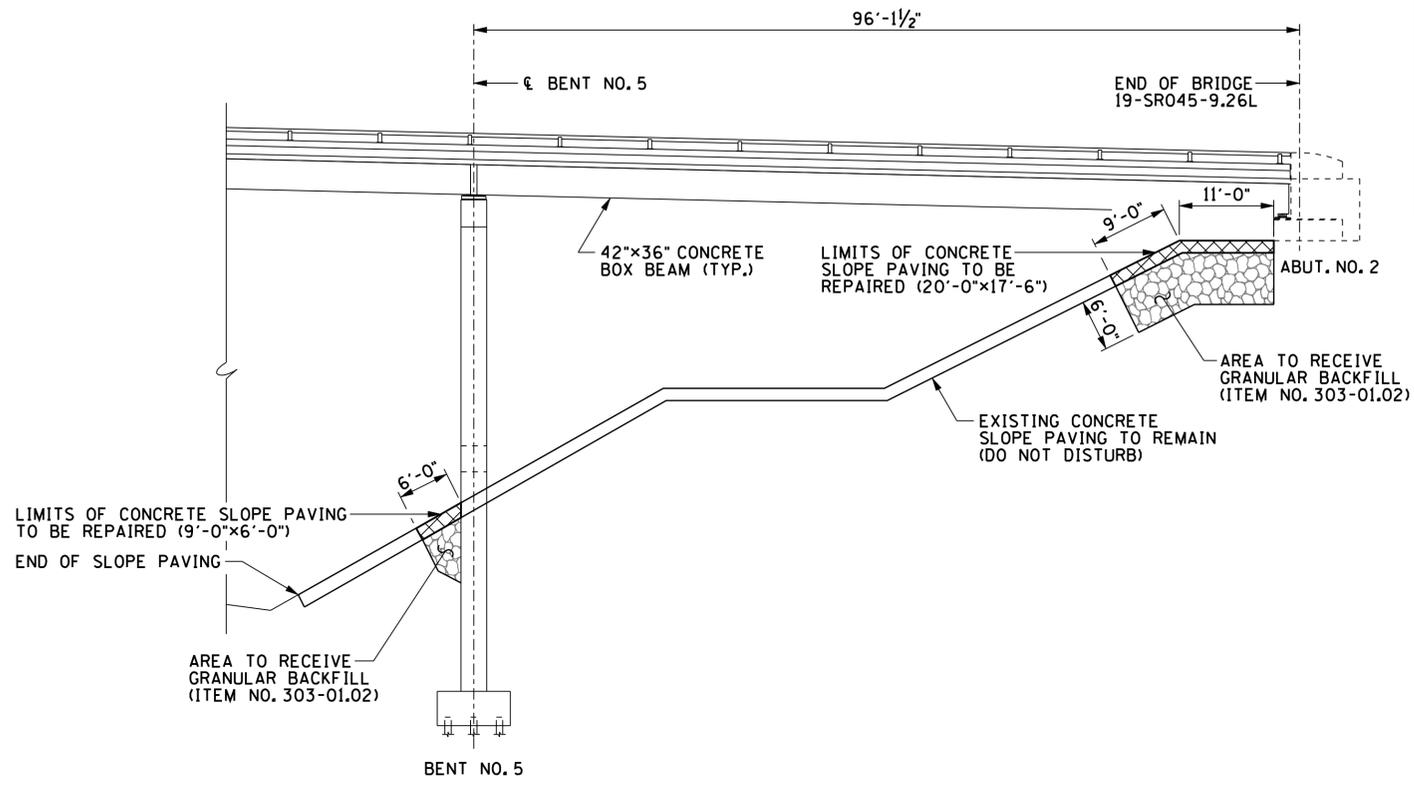
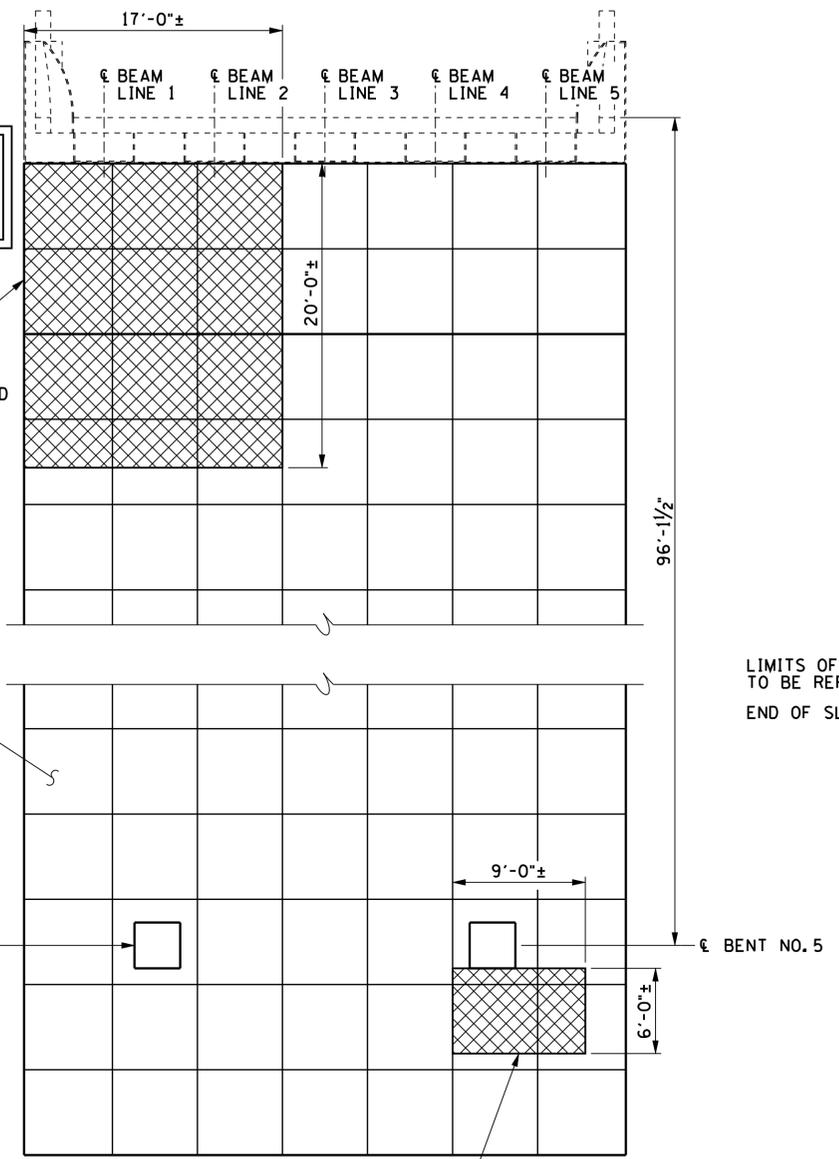
NOTE:
REMOVE ALL VEGETATION AND DEBRIS FROM CONCRETE SLOPE PAVING (ITEM NO. 201-07.01).

LIMITS OF SLOPE PAVING TO BE REMOVED AND REPLACED PER ITEM NO. 604-10.29, CONCRETE SLOPE PAVING REPAIRS, S.Y. ALL LOOSE MATERIAL SHALL BE REMOVED FROM VOID AND REPLACED WITH GRANULAR BACKFILL PER ITEM NO. 303-01.02, GRANULAR BACKFILL (BRIDGES), TONS, BEFORE SLOPE PAVING IS REPLACED.

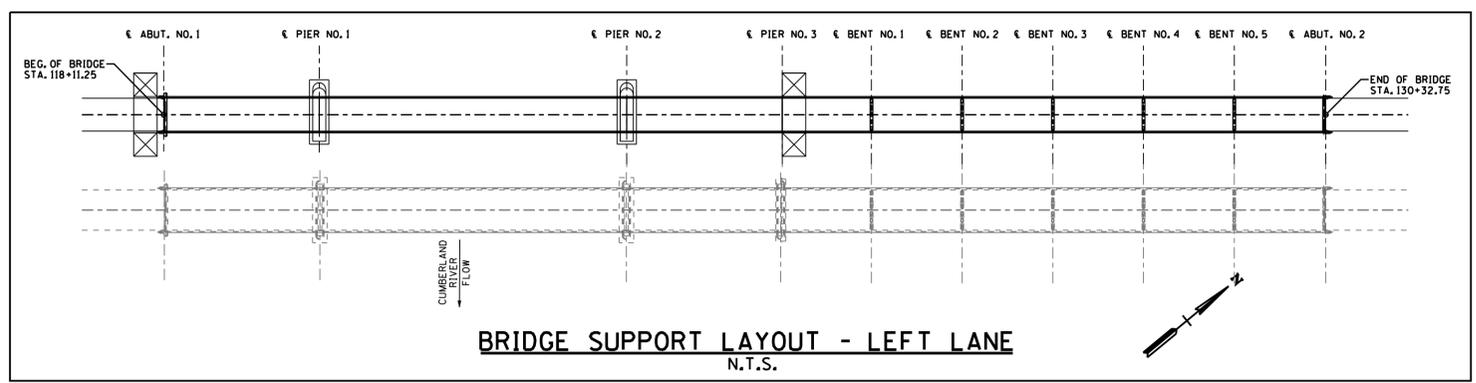
EXISTING CONCRETE SLOPE PAVING TO REMAIN (DO NOT DISTURB)

3'-0" x 3'-0" COLUMN (TYP.)

LIMITS OF SLOPE PAVING TO BE REMOVED AND REPLACED PER ITEM NO. 604-10.29, CONCRETE SLOPE PAVING REPAIRS, S.Y. ALL LOOSE MATERIAL SHALL BE REMOVED FROM VOID AND REPLACED WITH GRANULAR BACKFILL PER ITEM NO. 303-01.02, GRANULAR BACKFILL (BRIDGES), TONS, BEFORE SLOPE PAVING IS REPLACED.



ABUTMENT NO. 2
(LOOKING FORWARD ON SURVEY)



BRIDGE SUPPORT LAYOUT - LEFT LANE
N.T.S.

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| CONST. NO. | | |
| PROJECT NO. | YEAR | SHEET NO. |
| 19042-4270-04 | 2014 | |

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NOTE: INFORMATION AND DIMENSIONS FOR CONCRETE REPAIRS ARE PROVIDED FOR ESTIMATING ONLY. TDOT ENGINEER SHALL DELINEATE ACTUAL AREAS TO BE REPAIRED.

| LEGEND | |
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| DETERIORATED CONCRETE | |

UNOFFICIAL SET
NOT FOR BIDDING

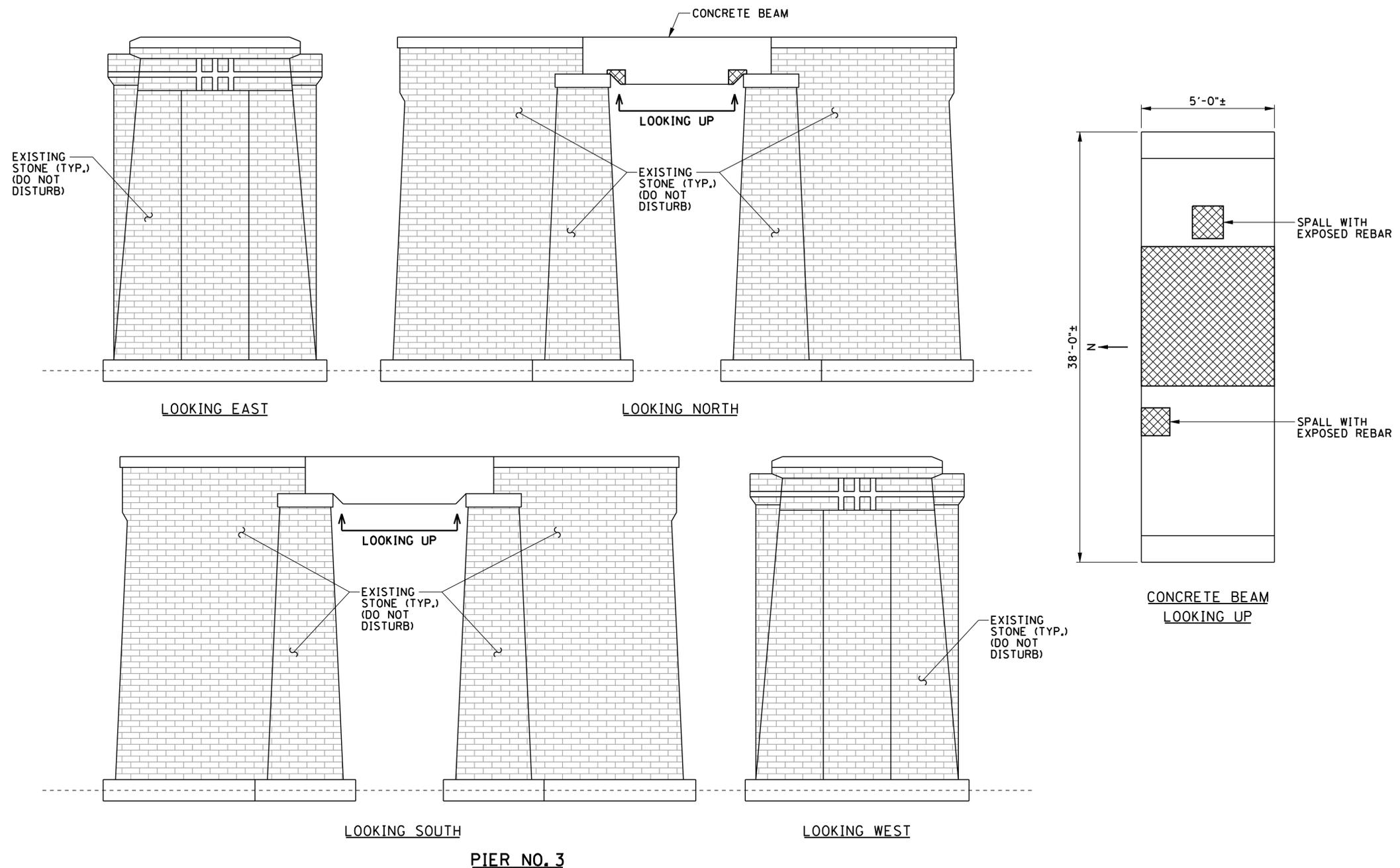


STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
SUBSTRUCTURE DETAILS
CONCRETE REPAIRS
ABUTMENT NO. 2 CONCRETE SLOPE PAVING
BRIDGE NO. 19-SR045-9.26L
STATE ROUTE 45 OVER CUMBERLAND RIVER
DAVIDSON COUNTY
2014

- NOTES:**
- (1) REMOVE ALL DEBRIS AROUND BENTS AND ABUTMENTS. COST TO BE INCLUDED IN ITEM NO. 201-07.01, REMOVAL AND DISPOSAL OF BRUSH AND TREES, L.S.
 - (2) ALL AREAS THAT CONTAIN CALCIUM DEPOSITS SHALL BE REMOVED. ANY CONCRETE THAT HAS DETERIORATED BEHIND THE DEPOSITS SHALL BE REPAIRED.
 - (3) PROPOSED CONCRETE REPAIR AREA TO BE FLUSH WITH EXISTING CONCRETE TO REMAIN.

DESIGNED BY DAVID THOMPSON DATE _____
DRAWN BY ANGELA MOORE DATE _____
SUPERVISED BY DARRELL JAMES DATE _____
CHECKED BY JAMIE GILLESPIE DATE _____





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| LEGEND | |
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| DETERIORATED CONCRETE | |
| GROUND LEVEL | |

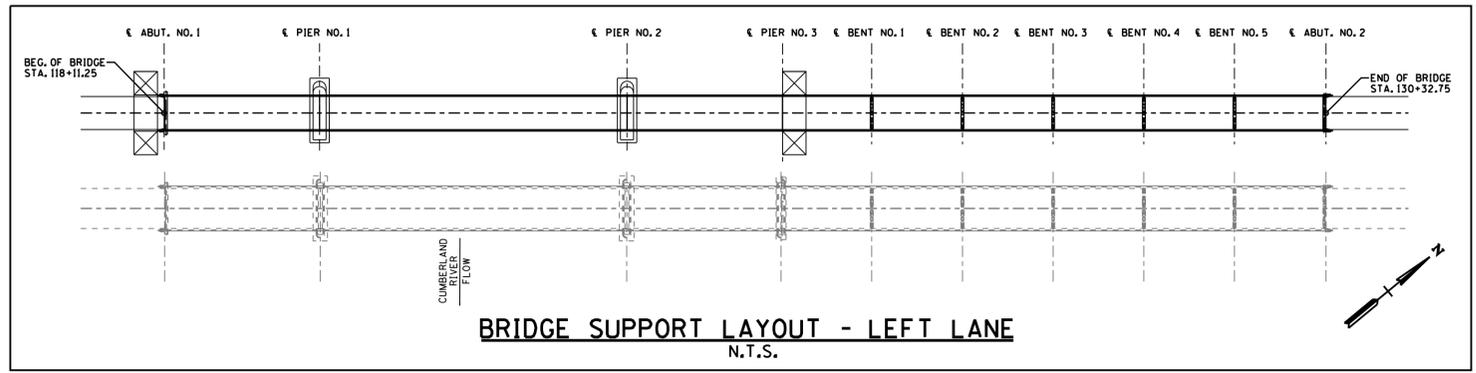
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NOT FOR BIDDING



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
SUBSTRUCTURE DETAILS
CONCRETE REPAIRS
PIER NO. 3
BRIDGE NO. 19-SR045-9.26L
STATE ROUTE 45 OVER CUMBERLAND RIVER
DAVIDSON COUNTY
2014

- NOTES:**
- (1) REMOVE ALL DEBRIS AROUND BENTS AND ABUTMENTS. COST TO BE INCLUDED IN ITEM NO. 201-07.01, REMOVAL AND DISPOSAL OF BRUSH AND TREES, L.S.
 - (2) ALL AREAS THAT CONTAIN CALCIUM DEPOSITS SHALL BE REMOVED. ANY CONCRETE THAT HAS DETERIORATED BEHIND THE DEPOSITS SHALL BE REPAIRED.

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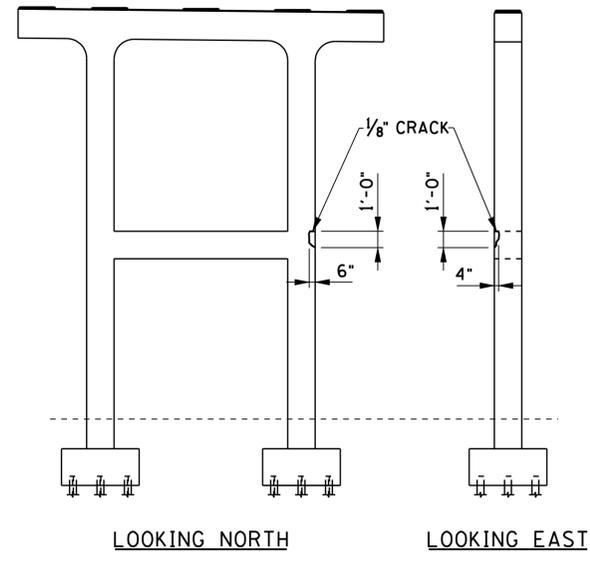
NOTE: INFORMATION AND DIMENSIONS FOR CONCRETE REPAIRS ARE PROVIDED FOR ESTIMATING ONLY. TDOT ENGINEER SHALL DELINEATE ACTUAL AREAS TO BE REPAIRED.

| LEGEND | |
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| DETERIORATED CONCRETE | |
| GROUND LEVEL | |

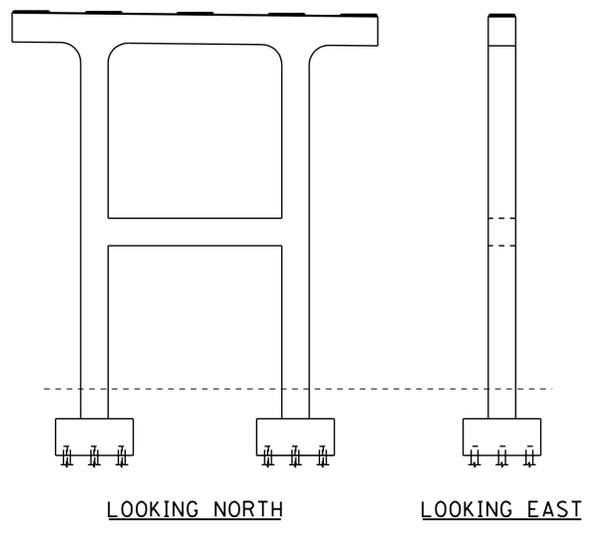
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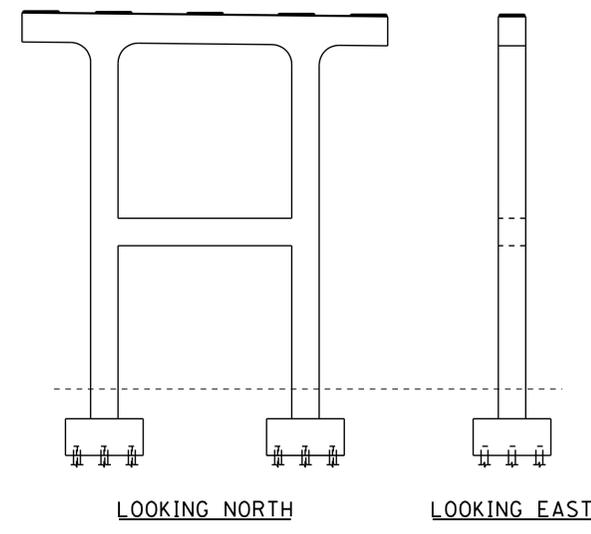
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
SUBSTRUCTURE DETAILS
CONCRETE REPAIRS
BENT NOS. 1, 2 AND 3
BRIDGE NO. 19-SR045-9.26L
STATE ROUTE 45 OVER CUMBERLAND RIVER
DAVIDSON COUNTY
2014



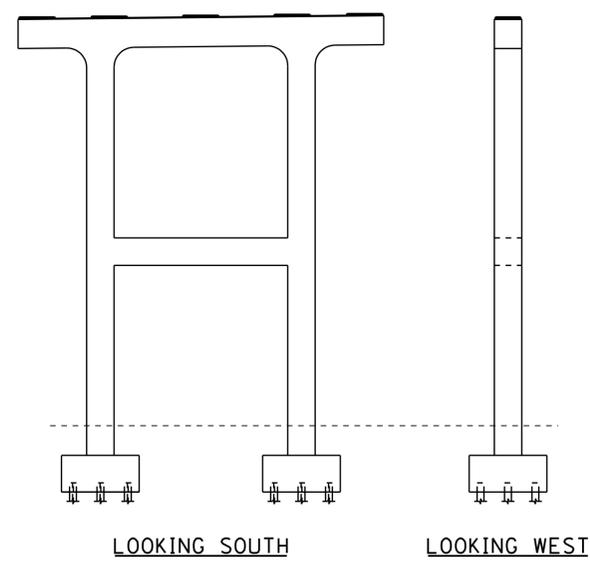
LOOKING NORTH LOOKING EAST



LOOKING NORTH LOOKING EAST

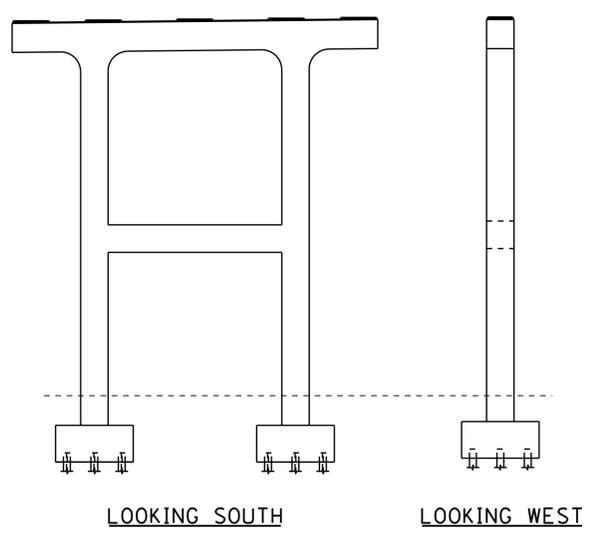


LOOKING NORTH LOOKING EAST



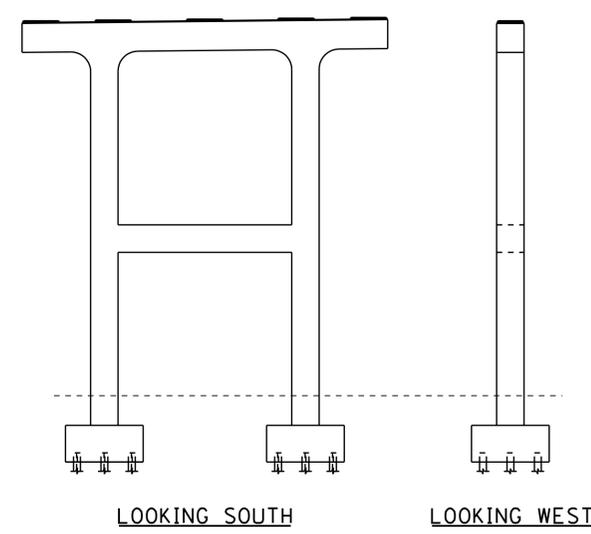
LOOKING SOUTH LOOKING WEST

BENT NO. 1



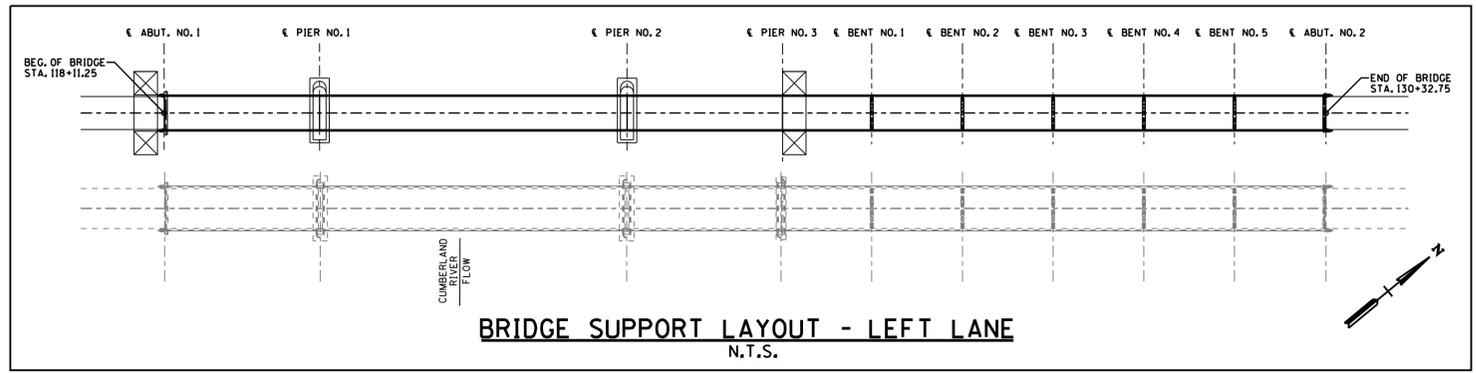
LOOKING SOUTH LOOKING WEST

BENT NO. 2



LOOKING SOUTH LOOKING WEST

BENT NO. 3



BRIDGE SUPPORT LAYOUT - LEFT LANE
N.T.S.

- NOTES:**
- (1) REMOVE ALL DEBRIS AROUND BENTS AND ABUTMENTS. COST TO BE INCLUDED IN ITEM NO. 201-07.01, REMOVAL AND DISPOSAL OF BRUSH AND TREES, L.S.
 - (2) ALL AREAS THAT CONTAIN CALCIUM DEPOSITS SHALL BE REMOVED. ANY CONCRETE THAT HAS DETERIORATED BEHIND THE DEPOSITS SHALL BE REPAIRED.

DESIGNED BY DAVID THOMPSON DATE _____
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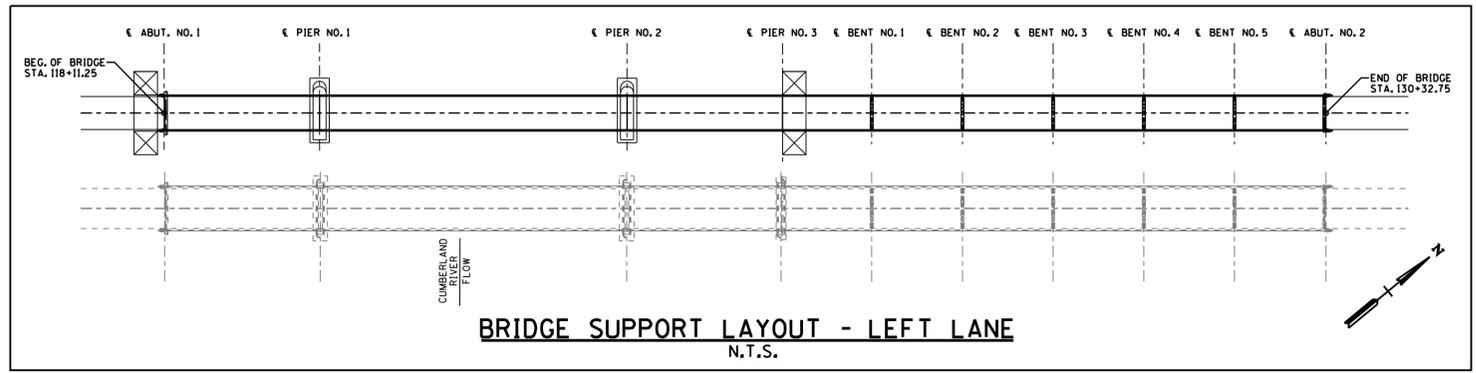
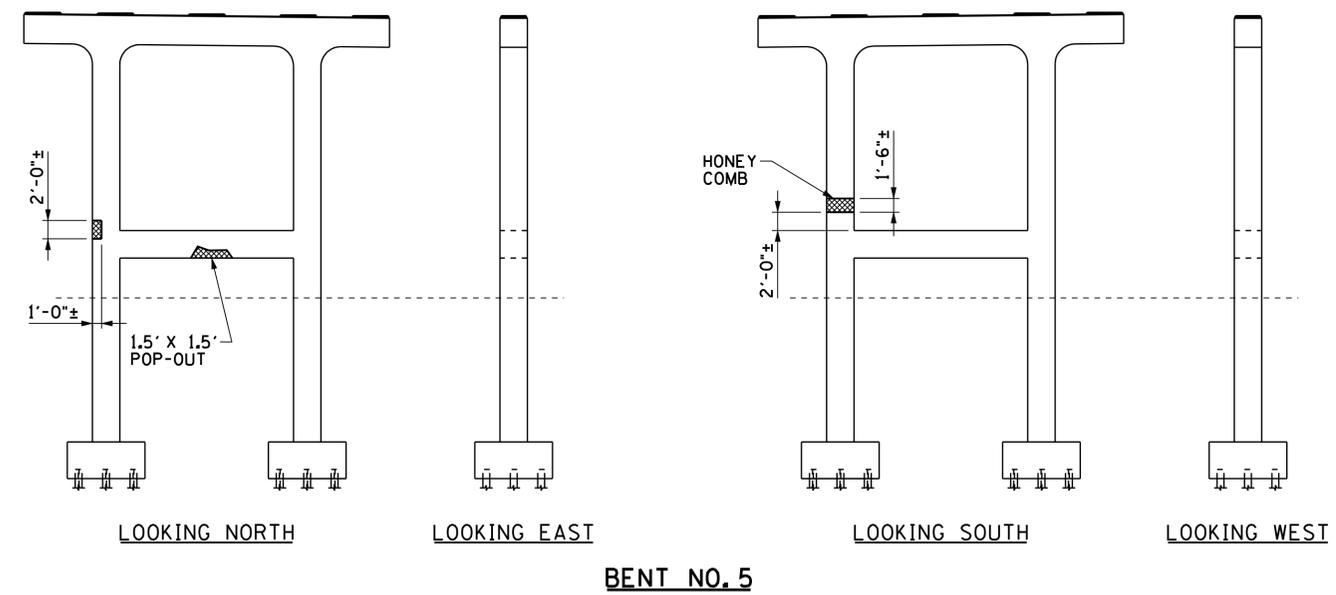
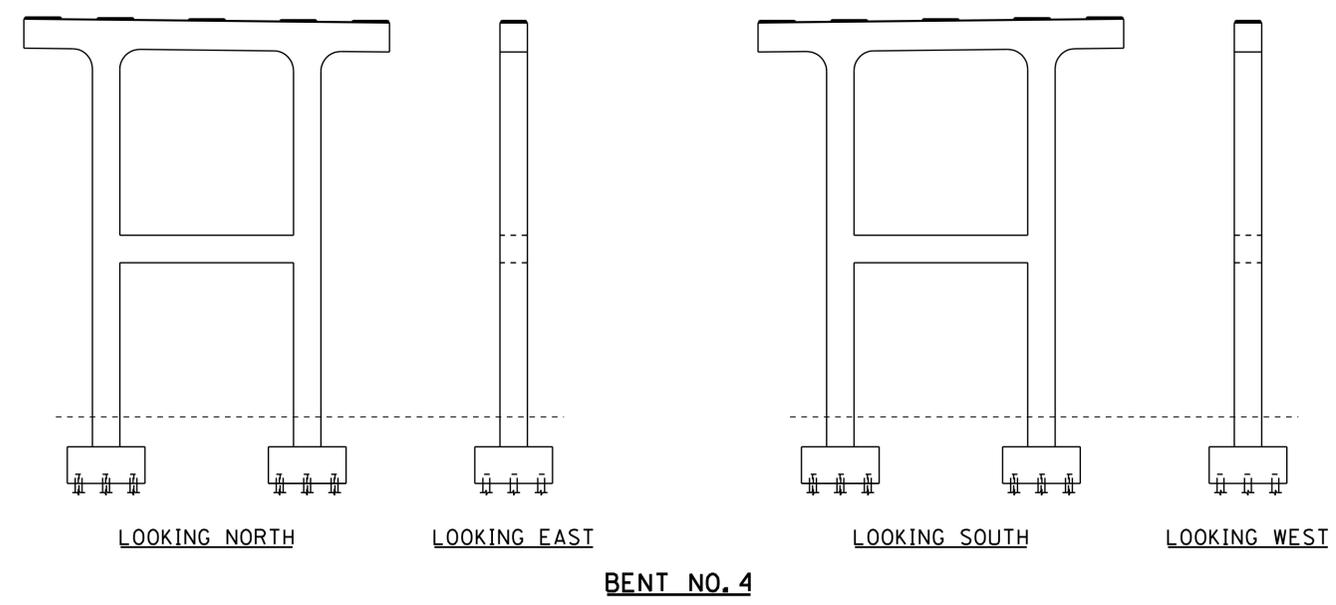


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NOTE: INFORMATION AND DIMENSIONS FOR CONCRETE REPAIRS ARE PROVIDED FOR ESTIMATING ONLY. TDOT ENGINEER SHALL DELINEATE ACTUAL AREAS TO BE REPAIRED.

| LEGEND | |
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| DETERIORATED CONCRETE | |
| GROUND LEVEL | |

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NOT FOR BIDDING

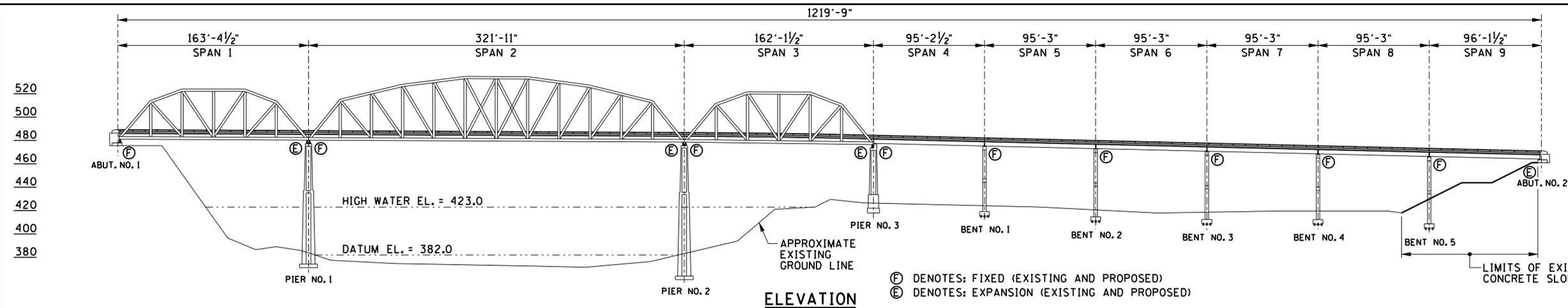


- NOTES:**
- (1) REMOVE ALL DEBRIS AROUND BENTS AND ABUTMENTS. COST TO BE INCLUDED IN ITEM NO. 201-07.01, REMOVAL AND DISPOSAL OF BRUSH AND TREES, L.S.
 - (2) ALL AREAS THAT CONTAIN CALCIUM DEPOSITS SHALL BE REMOVED. ANY CONCRETE THAT HAS DETERIORATED BEHIND THE DEPOSITS SHALL BE REPAIRED.

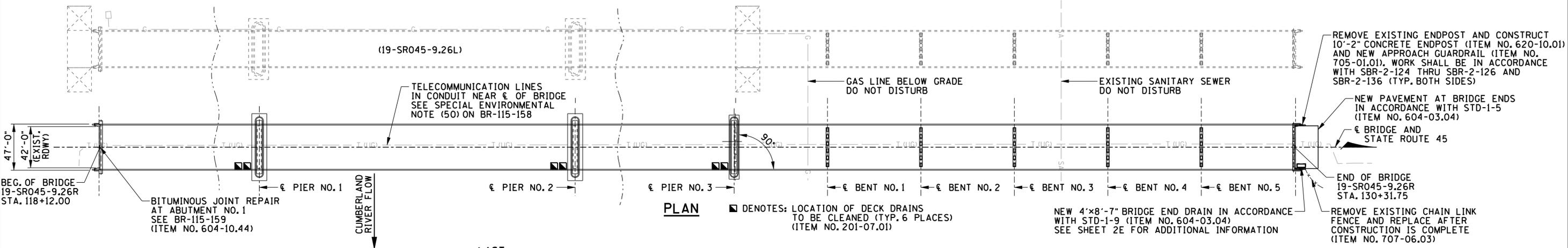
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STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 SUBSTRUCTURE DETAILS
 CONCRETE REPAIRS
 BENT NOS. 4 AND 5
 BRIDGE NO. 19-SR045-9.26L
 STATE ROUTE 45 OVER CUMBERLAND RIVER
 DAVIDSON COUNTY
 2014



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| LIST OF DRAWINGS | DWG. NO. | LAST REV. DATE |
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| LAYOUT OF BRIDGE TO BE REPAIRED (BR. NO. 19-SR045-9.26R) | BR-115-182 | |
| ESTIMATED BRIDGE QUANTITIES AND MISC. DETAILS | BR-115-157 | |
| BRIDGE GENERAL AND SPECIAL NOTES | BR-115-158 | |
| BRIDGE DECK THIN EPOXY OVERLAY NOTES | BR-115-159 | |
| PHASING (BR. NO. 19-SR045-9.26R) | BR-115-183 | |
| SUPERSTRUCTURE DETAILS - CONCRETE REPAIRS (TOP OF SLAB) | BR-115-184 | |
| SUPERSTRUCTURE DETAILS - CONCRETE REPAIRS (TOP OF SLAB) | BR-115-185 | |
| SUPERSTRUCTURE DETAILS - CONCRETE REPAIRS (BOTTOM OF SLAB) | BR-115-186 | |
| SUPERSTRUCTURE DETAILS - CONCRETE REPAIRS (BOTTOM OF SLAB) | BR-115-187 | |
| SUPERSTRUCTURE DETAILS - RIGHT FACE OF PARAPET AND BRIDGERAIL REPAIR | BR-115-188 | |
| SUPERSTRUCTURE DETAILS - LEFT FACE OF PARAPET AND BRIDGERAIL REPAIR | BR-115-189 | |
| SUPERSTRUCTURE DETAILS - BEAM REPAIR | BR-115-190 | |
| SUPERSTRUCTURE DETAILS - STRUCTURAL STEEL REPAIRS | BR-115-191 | |
| SUPERSTRUCTURE DETAILS - STRUCTURAL STEEL REPAIR DETAILS | BR-115-192 | |
| SUBSTRUCTURE DETAILS CONCRETE REPAIRS - ABUTMENT NO. 2 CONCRETE SLOPE PAVING | BR-115-193 | |
| SUBSTRUCTURE DETAILS CONCRETE REPAIRS - ABUTMENT NOS. 1 AND 2 | BR-115-194 | |
| SUBSTRUCTURE DETAILS CONCRETE REPAIRS - PIER NO. 1 | BR-115-195 | |
| SUBSTRUCTURE DETAILS CONCRETE REPAIRS - PIER NO. 2 | BR-115-196 | |
| SUBSTRUCTURE DETAILS CONCRETE REPAIRS - PIER NO. 3 AND BENT NO. 1 | BR-115-197 | |
| SUBSTRUCTURE DETAILS CONCRETE REPAIRS - BENT NOS. 2 AND 3 | BR-115-198 | |
| SUBSTRUCTURE DETAILS CONCRETE REPAIRS - BENT NOS. 4 AND 5 | BR-115-199 | |
| MISCELLANEOUS CONCRETE REPAIR DETAILS | BR-115-200 | |

- SCOPE OF WORK**
1. CONSTRUCT ENVIRONMENTAL PROTECTION.
 2. ESTABLISH TRAFFIC CONTROL TO PROVIDE ONE LANE OF TRAFFIC ON SR45 DURING CONSTRUCTION PHASES USING TEMPORARY SIGNAGE AND TRAFFIC BARRIERS.
 3. PRIOR TO BEGINNING CONSTRUCTION, SUBMIT TO TDOT BRIDGE INSPECTION OFFICE STRUCTURAL DESIGN PLANS SEALED BY A PROFESSIONAL ENGINEER SHOWING PROPOSED JACKING AND TEMPORARY BRACING OF THE BRIDGE REQUIRED TO REPAIR BEARING DEVICES.
 4. PERFORM STRUCTURAL STEEL REPAIRS TO TRUSS MEMBERS.
 5. BLAST CLEAN AND PAINT ALL EXISTING STRUCTURAL STEEL INCLUDING BEARING DEVICES AND BRIDGE DECK JOINTS.
 6. REPAIR AREAS OF DEFICIENT CONCRETE IN SUBSTRUCTURES.
 7. REPAIR AREAS OF DEFICIENT CONCRETE AND DRILL HOLES IN PRESTRESSED BEAMS.
 8. PERFORM FULL AND PARTIAL DEPTH DECK REPAIR INCLUDING AREAS OF OVERHEAD CONCRETE REPAIR TO BOTTOM OF BRIDGE DECK.
 9. CONSTRUCT PAVEMENT AT BRIDGE ENDS WITH BRIDGE END DRAIN AT ABUTMENT NO. 2.
 10. REMOVE ENDPOSTS AND CONSTRUCT 10'-2" ENDPOSTS AT ABUTMENT NO. 2.
 11. REPAIR BRIDGERAIL AND REPLACE SECTIONS OF BRIDGERAIL TUBING.
 12. APPLY NON-PENETRATING CONCRETE SEAL AT PIER NOS. 1, 2 AND 3 AND AT ABUTMENT NO. 2.
 13. CLEAN DECK DRAINS.
 14. REPLACE DAMAGED OR SUBSTANDARD GUARDRAIL AND GUARDRAIL TERMINALS.
 15. REMOVE VEGETATION FROM BRIDGE COMPONENTS.
 16. TEXTURE COAT CONCRETE SURFACES.
 17. CONSTRUCT TYPE I THIN EPOXY OVERLAY ON BRIDGE DECK.

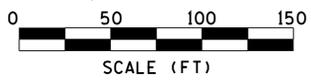
| LIST OF BRIDGE APPURTENANCES (CONT.) | DWG. NO. | LAST REV. DATE |
|--|-----------|----------------|
| STANDARD REINFORCING BAR SUPPORT DETAILS FOR CONCRETE SLABS | STD-9-1 | 10-07-08 |
| MISCELLANEOUS ABUTMENT AND DRAINAGE DETAILS | STD-10-1 | 04-08-05 |
| BRIDGE RAILING CONCRETE PARAPET WITH STRUCTURAL TUBING | STD-11-1 | 05-01-14 |
| DETAILS SHOWING REPLACEMENT OF EXISTING BRIDGERAIL SYSTEM WITH NEW JERSEY SHAPE CONCRETE PARAPET AND NEW 10'-2" ENDPOST - 1988 | SBR-2-124 | 01-04-96 |
| DETAILS SHOWING REPLACEMENT OF EXISTING BRIDGERAIL SYSTEM WITH NEW JERSEY SHAPE CONCRETE PARAPET AND NEW 10'-2" ENDPOST - 1988 | SBR-2-125 | 11-05-01 |
| DETAILS SHOWING REPLACEMENT OF EXISTING BRIDGERAIL SYSTEM WITH NEW JERSEY SHAPE CONCRETE PARAPET AND NEW 10'-2" ENDPOST - 1988 | SBR-2-126 | 01-04-96 |
| STANDARD DRAWING FOR REPLACING EXISTING CONCRETE ENDPOST AND GUARDRAIL AT EXISTING BRIDGE ENDS - 1992 | SBR-2-136 | 11-05-01 |

| LIST OF REFERENCE DRAWINGS | DWG. NO. |
|----------------------------|---|
| EXISTING BRIDGE PLANS | K-72-11, K-72-11A THRU K-72-11D, K-72-29 THRU K-72-31 |

| LIST OF BRIDGE APPURTENANCES | DWG. NO. | REV. |
|---|----------|----------|
| REINFORCED CONCRETE PAVEMENT AT BRIDGE ENDS - 1995 | STD-1-5 | 03 |
| BRIDGE END DRAIN DETAILS 2'x8'-7" AND 4'x8'-7" WITH PAVEMENT AT BRIDGE ENDS | STD-1-6 | 04 |
| BRIDGE END DRAIN DETAILS 2'x8'-7" AND 4'x8'-7" WITH PAVEMENT AT BRIDGE ENDS | STD-1-7 | 08 |
| BRIDGE END DRAIN DETAILS 4'x8'-7" WITH PAVEMENT AT BRIDGE ENDS | STD-1-9 | 05-01-95 |

| LIST OF SPECIAL PROVISIONS | DWG. NO. | LAST REV. DATE | DESCRIPTION |
|----------------------------|------------|----------------|---|
| 107CS | 02-13-2012 | | NESTING SITES OF CLIFF SWALLOWS AND BARN SWALLOWS |

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

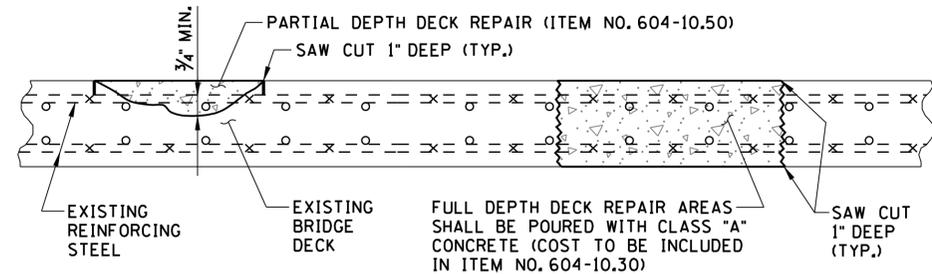
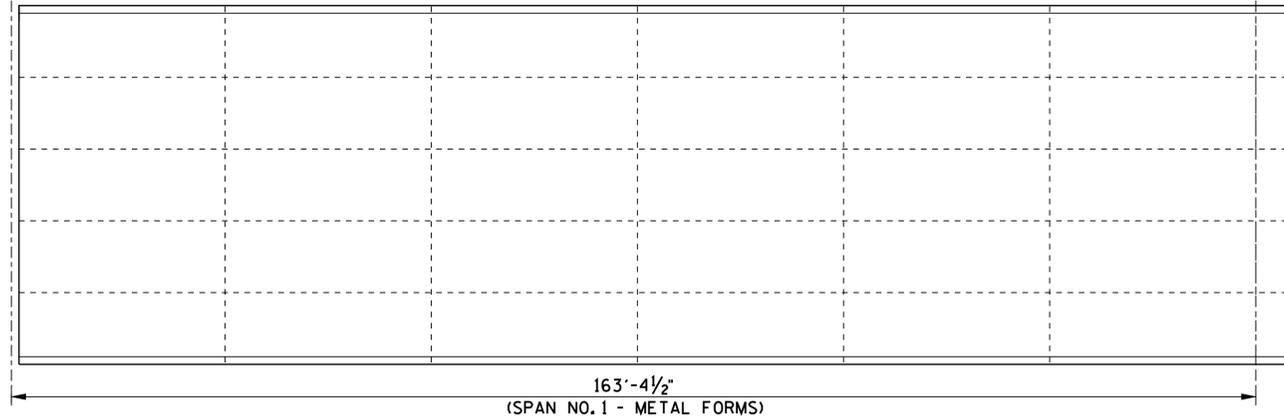
LAYOUT OF BRIDGE TO BE REPAIRED
BRIDGE NO. 19-SR045-9.26R
STATE ROUTE 45 OVER CUMBERLAND RIVER
DAVIDSON COUNTY
2014

DESIGNED BY DAVID THOMPSON DATE _____
DRAWN BY ANGELA MOORE DATE _____
SUPERVISED BY DARRELL JAMES DATE _____
CHECKED BY JAMIE GILLESPIE DATE _____



€ ABUTMENT NO.1 BRG.

€ PIER NO.1



DETAIL SHOWING FULL AND PARTIAL DECK REPAIR

(NOT TO SCALE)

NOTE: REMOVE ALL DEBRIS AROUND BENTS AND ABUTMENTS. COST TO BE INCLUDED IN ITEM NO. 201-07.01, REMOVAL AND DISPOSAL OF BRUSH AND TREES, L.S.

NOTE: ALL AREAS THAT CONTAIN CALCIUM DEPOSITS SHALL BE REMOVED, ANY CONCRETE THAT HAS DETERIORATED BEHIND THE DEPOSITS SHALL BE REPAIRED.

▨ DENOTES: ESTIMATED FULL DEPTH DECK REPAIR AREA

ESTIMATED QUANTITIES

| | |
|---|--|
| ITEM NO. 604-10.30 BRIDGE DECK REPAIRS (FULL DEPTH OF SLAB) S.Y. | ITEM NO. 604-10.50 BRIDGE DECK REPAIRS (PARTIAL DEPTH OF SLAB) S.Y. |
| 0 | 6 |

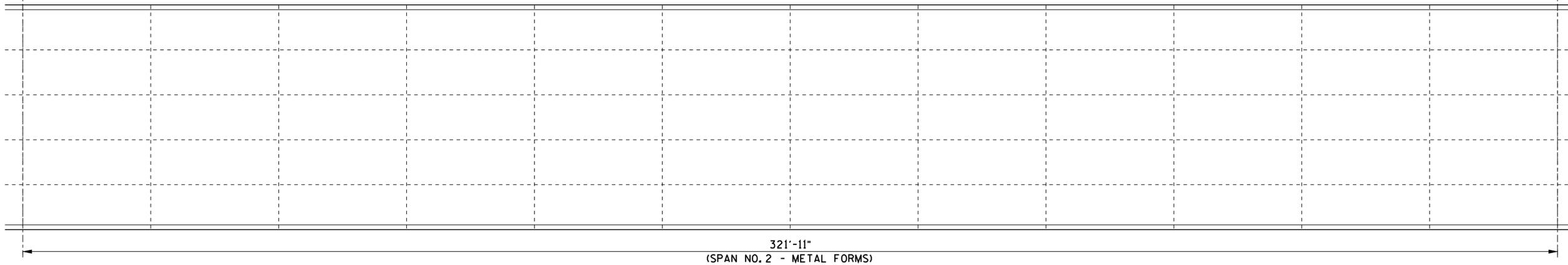
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| CONST. NO. | PROJECT NO. | YEAR | SHEET NO. |
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NOTE: INFORMATION AND DIMENSIONS FOR CONCRETE REPAIRS ARE PROVIDED FOR ESTIMATING ONLY. TDOT ENGINEER SHALL DELINEATE ACTUAL AREAS TO BE REPAIRED.

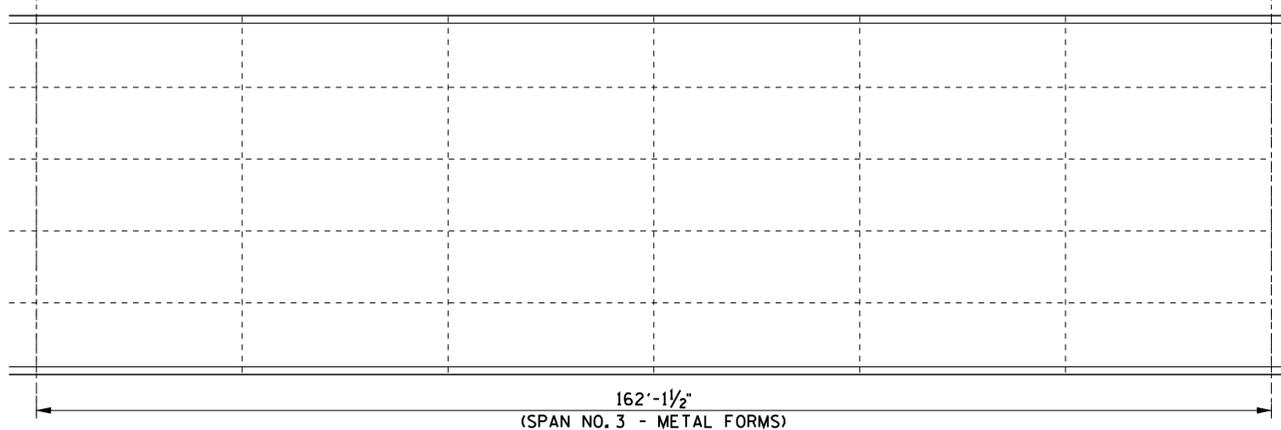
€ PIER NO.1

€ PIER NO.2



€ PIER NO.2

€ PIER NO.3



NOTES:

- REMOVE ALL DEFICIENT CONCRETE 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 WERE PERFORMED WITH THE BRIDGE REPAIR OFFICE PERSONNEL AND THE RESULTS ARE SHOWN BELOW FOR REFERENCE. DECK REPAIR WILL BE PAID FOR UNDER ITEM NO. ITEM NO. 604-10.30, BRIDGE DECK REPAIRS (FULL DEPTH OF SLAB) AND 604-10.50, BRIDGE DECK REPAIRS (PARTIAL 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) (PARTIAL DEPTH REPAIRS) PNEUMATIC HAMMERS HEAVIER THAN NOMINAL 60 POUND CLASS SHALL NOT BE USED, 2) (FULL DEPTH REPAIRS) PNEUMATIC HAMMERS HEAVIER THAN NOMINAL 90 POUND CLASS SHALL NOT BE USED, ALSO ALL DECK REPAIR OVER BEAMS WILL BE RESTRICTED TO 60 POUND PNEUMATIC HAMMERS, 3) CHIPPING HAMMERS OF THE 15 POUND CLASS SHALL BE USED TO REMOVE CONCRETE FROM BENEATH ANY REINFORCING STEEL.
- ITEM NO. 604-10.30 AND ITEM NO. 604-10.50 SHALL BE BID WITH THE CONTINGENCY THAT THIS ITEM MAY BE INCREASED, DECREASED, OR ELIMINATED AS DIRECTED BY THE ENGINEER.
- IN THE AREAS OF FULL DEPTH REPAIR, THE EXISTING BEAMS AND INTERIOR OVERHANGS MUST BE ADEQUATELY BRACED DURING CONSTRUCTION. DETAILS OF ANY TEMPORARY SUPPORT SYSTEM AND DESIGN CALCULATIONS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND SHALL MEET THE FULL SATISFACTION OF THE ENGINEER BEFORE ANY FULL OR PARTIAL DECK REPAIR IS BEGUN. COST TO BE INCLUDED IN ITEM NO. 602-10.05 BRACING.
- THE CONTRACTOR WILL PROVIDE ALL NECESSARY PROTECTIVE MEASURES TO SAFEGUARD ALL 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 OF ITEMS BID ON.
- COST OF FRAMING, CONCRETE, ABRASIVE BLASTING, LABOR AND CONCRETE REMOVAL BY PNEUMATIC HAMMERS AND ANY MISCELLANEOUS MATERIALS TO COMPLETE THE PARTIAL AND FULL DEPTH REPAIRS SHALL BE INCLUDED IN ITEM NOS. 604-10.30 AND 604-10.50.

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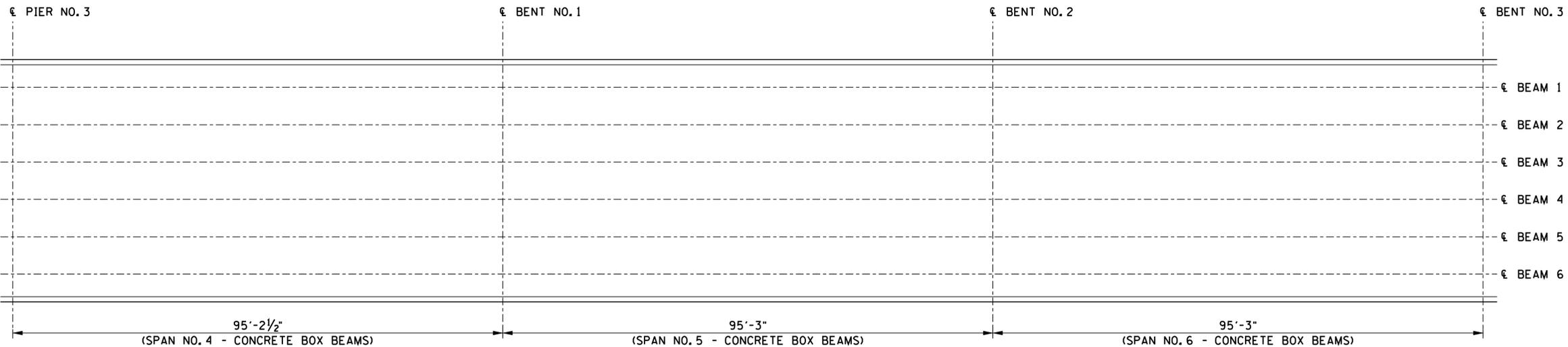
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS
CONCRETE REPAIRS
(TOP OF SLAB)

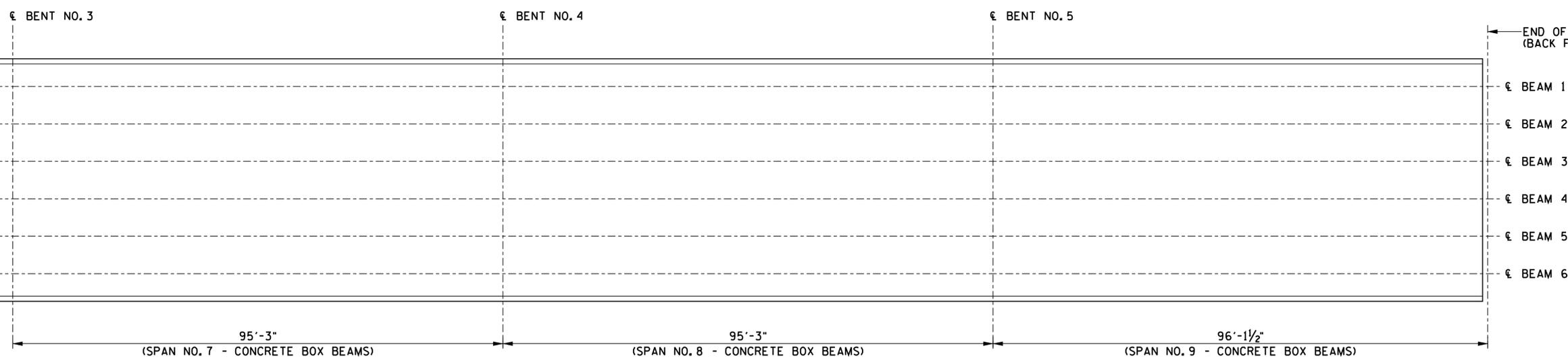
BRIDGE NO. 19-SR045-9.26R
STATE ROUTE 45 OVER CUMBERLAND RIVER
DAVIDSON COUNTY
2014

DESIGNED BY DAVID THOMPSON DATE _____
 DRAWN BY ANGELA MOORE DATE _____
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 CHECKED BY JAMIE GILLESPIE DATE _____





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NOTE: REMOVE ALL DEBRIS AROUND BENTS AND ABUTMENTS. COST TO BE INCLUDED IN ITEM NO. 201-07.01, REMOVAL AND DISPOSAL OF BRUSH AND TREES, L.S.

NOTE: ALL AREAS THAT CONTAIN CALCIUM DEPOSITS SHALL BE REMOVED. ANY CONCRETE THAT HAS DETERIORATED BEHIND THE DEPOSITS SHALL BE REPAIRED.

DENOTES: ESTIMATED FULL DEPTH DECK REPAIR AREA

| ESTIMATED QUANTITIES | |
|---|--|
| ITEM NO. 604-10.30 BRIDGE DECK REPAIRS (FULL DEPTH OF SLAB) S.Y. | ITEM NO. 604-10.50 BRIDGE DECK REPAIRS (PARTIAL DEPTH OF SLAB) S.Y. |
| 0 | 4 |

NOTE: INFORMATION AND DIMENSIONS FOR CONCRETE REPAIRS ARE PROVIDED FOR ESTIMATING ONLY. TDOT ENGINEER SHALL DELINEATE ACTUAL AREAS TO BE REPAIRED.

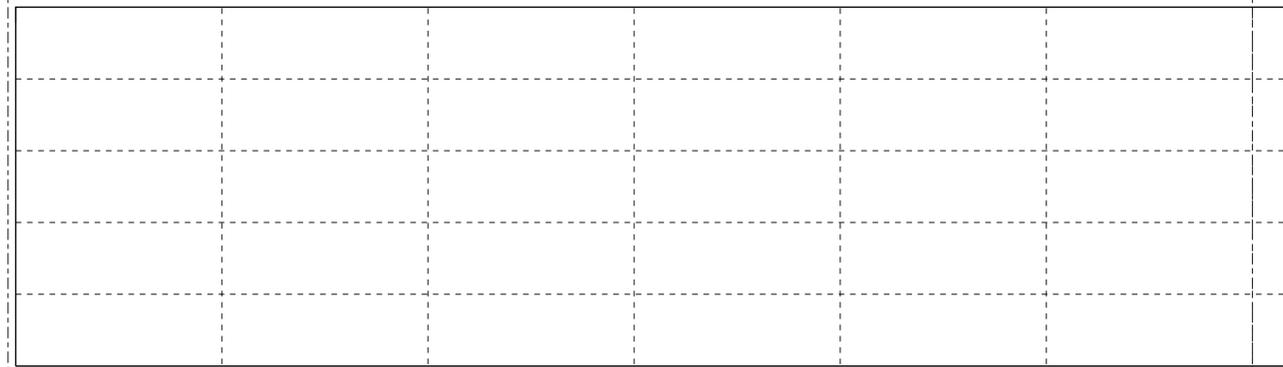
DESIGNED BY DAVID THOMPSON DATE _____
 DRAWN BY ANGELA MOORE DATE _____
 SUPERVISED BY DARRELL JAMES DATE _____
 CHECKED BY JAMIE GILLESPIE DATE _____



STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 SUPERSTRUCTURE DETAILS
 CONCRETE REPAIRS
 (TOP OF SLAB)
 BRIDGE NO. 19-SR045-9.26R
 STATE ROUTE 45 OVER CUMBERLAND RIVER
 DAVIDSON COUNTY
 2014

€ ABUTMENT NO. 1 BRG.

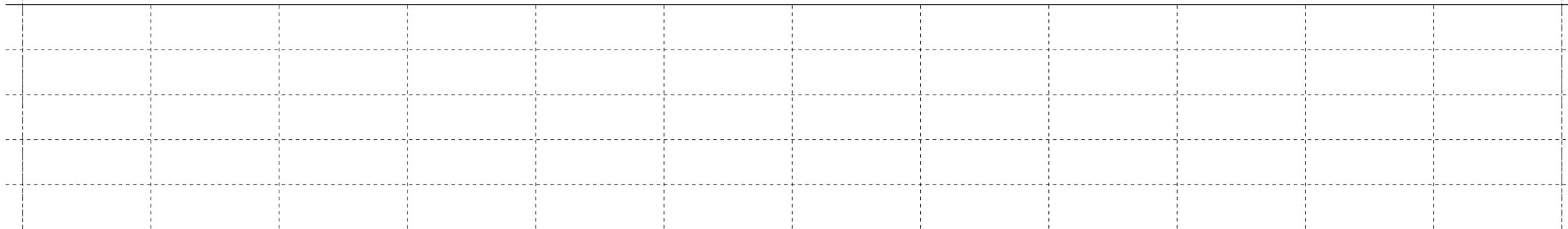
€ PIER NO. 1



163'-4 1/2"
(SPAN NO. 1 - METAL FORMS)

€ PIER NO. 1

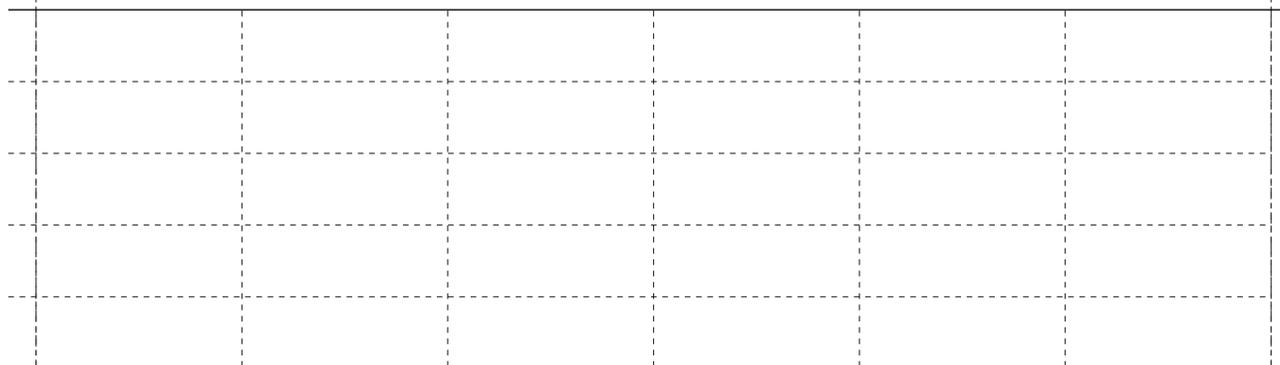
€ PIER NO. 2



321'-11"
(SPAN NO. 2 - METAL FORMS)

€ PIER NO. 2

€ PIER NO. 3



162'-1 1/2"
(SPAN NO. 3 - METAL FORMS)

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| PROJECT NO. | YEAR | SHEET NO. |
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| 19042-4270-04 | 2014 | |

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NOTE: REMOVE ALL DEBRIS AROUND BENTS AND ABUTMENTS. COST TO BE INCLUDED IN ITEM NO. 201-07.01, REMOVAL AND DISPOSAL OF BRUSH AND TREES, L.S.

NOTE: ALL AREAS THAT CONTAIN CALCIUM DEPOSITS SHALL BE REMOVED. ANY CONCRETE THAT HAS DETERIORATED BEHIND THE DEPOSITS SHALL BE REPAIRED.

▨ DENOTES: ESTIMATED FULL DEPTH DECK REPAIR AREA

| ESTIMATED QUANTITIES |
|--|
| ITEM NO. 604-10.50 BRIDGE DECK REPAIRS (PARTIAL DEPTH OF SLAB) S.Y. |
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NOTE: INFORMATION AND DIMENSIONS FOR CONCRETE REPAIRS ARE PROVIDED FOR ESTIMATING ONLY. TDOT ENGINEER SHALL DELINEATE ACTUAL AREAS TO BE REPAIRED.



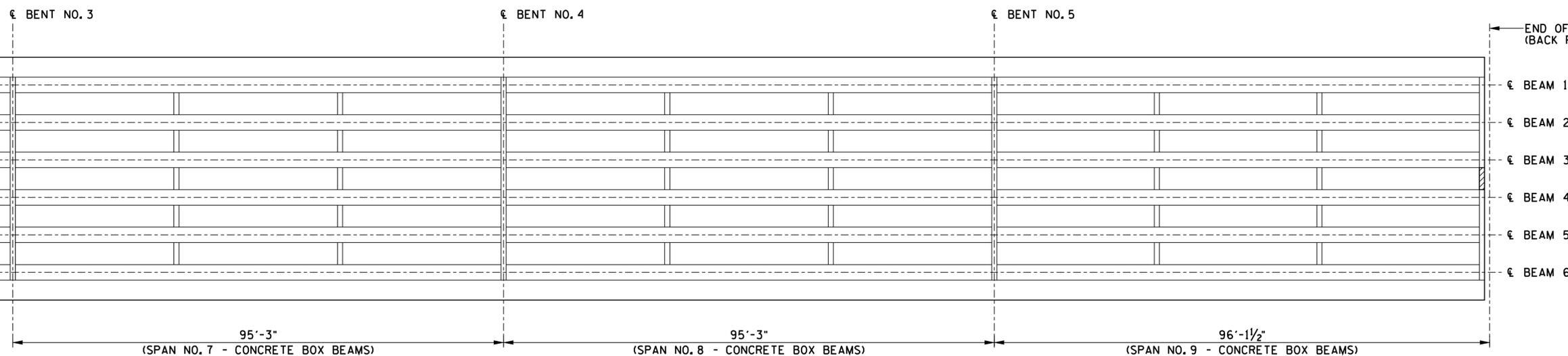
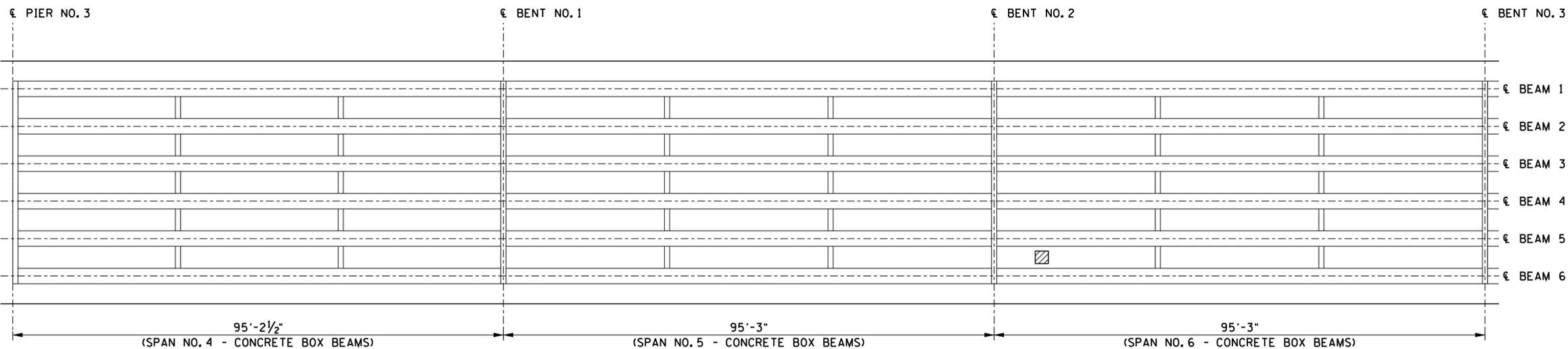
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS
CONCRETE REPAIRS
(BOTTOM OF SLAB)

BRIDGE NO. 19-SR045-9.26R
STATE ROUTE 45 OVER CUMBERLAND RIVER
DAVIDSON COUNTY
2014

DESIGNED BY DAVID THOMPSON DATE _____
 DRAWN BY ANGELA MOORE DATE _____
 SUPERVISED BY DARRELL JAMES DATE _____
 CHECKED BY JAMIE GILLESPIE DATE _____





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| PROJECT NO. | YEAR | SHEET NO. |
| 19042-4270-04 | 2014 | |

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NOTE: REMOVE ALL DEBRIS AROUND BENTS AND ABUTMENTS. COST TO BE INCLUDED IN ITEM NO. 201-07.01, REMOVAL AND DISPOSAL OF BRUSH AND TREES, L.S.

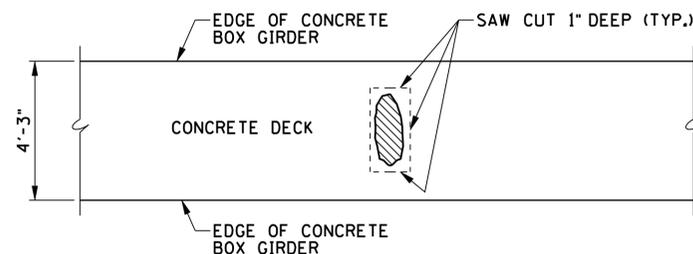
NOTE: ALL AREAS THAT CONTAIN CALCIUM DEPOSITS SHALL BE REMOVED. ANY CONCRETE THAT HAS DETERIORATED BEHIND THE DEPOSITS SHALL BE REPAIRED.

DENOTES: VISUALLY DELAMINATED OR SPALLED AREAS FOR VERTICAL OVERHEAD CONCRETE REPAIR (BOTTOM OF SLAB)

| ESTIMATED QUANTITIES |
|--|
| ITEM NO. 604-10.50 BRIDGE DECK REPAIRS (PARTIAL DEPTH OF SLAB) S.Y. |
| 1 |

NOTE: INFORMATION AND DIMENSIONS FOR CONCRETE REPAIRS ARE PROVIDED FOR ESTIMATING ONLY. TDOT ENGINEER SHALL DELINEATE ACTUAL AREAS TO BE REPAIRED.

DESIGNED BY DAVID THOMPSON DATE _____
 DRAWN BY ANGELA MOORE DATE _____
 SUPERVISED BY DARRELL JAMES DATE _____
 CHECKED BY JAMIE GILLESPIE DATE _____



NOTE: SAW CUTS SHALL BE MADE AS DEEP AS 1". EXTREME CAUTION SHALL BE TAKEN TO PREVENT DAMAGE TO EXISTING REINFORCING STEEL.
 NOTE: CHIPPING HAMMERS OF THE 15 POUND CLASS SHALL BE USED TO REMOVE THE CONCRETE TO A DEPTH OF 1/2" BEHIND EXPOSED REBAR AFTER DETERIORATED CONCRETE HAS BEEN REMOVED. SEE BR-115-200 FOR CONCRETE REPAIR DETAILS.

**VERTICAL OVERHEAD CONCRETE REPAIR DETAIL
(VIEW FROM BELOW DECK)**

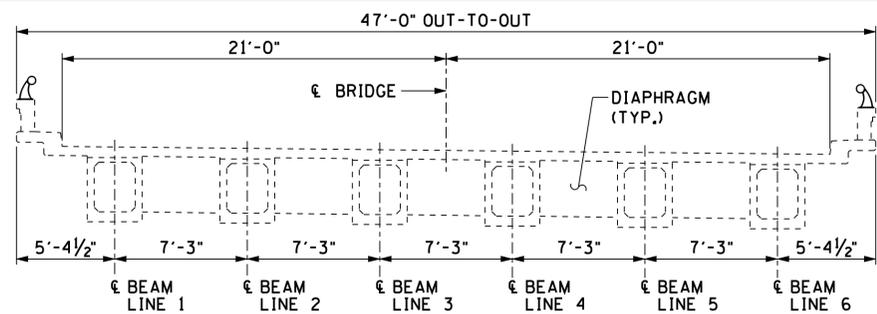
(ITEM NO. 604-10.50)
(NOT TO SCALE)



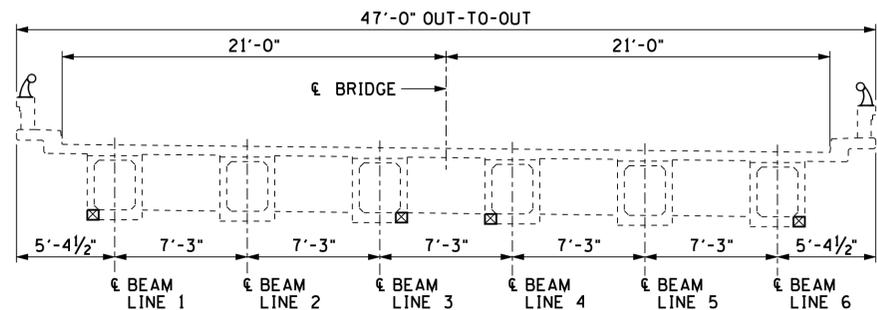
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS
CONCRETE REPAIRS
(BOTTOM OF SLAB)

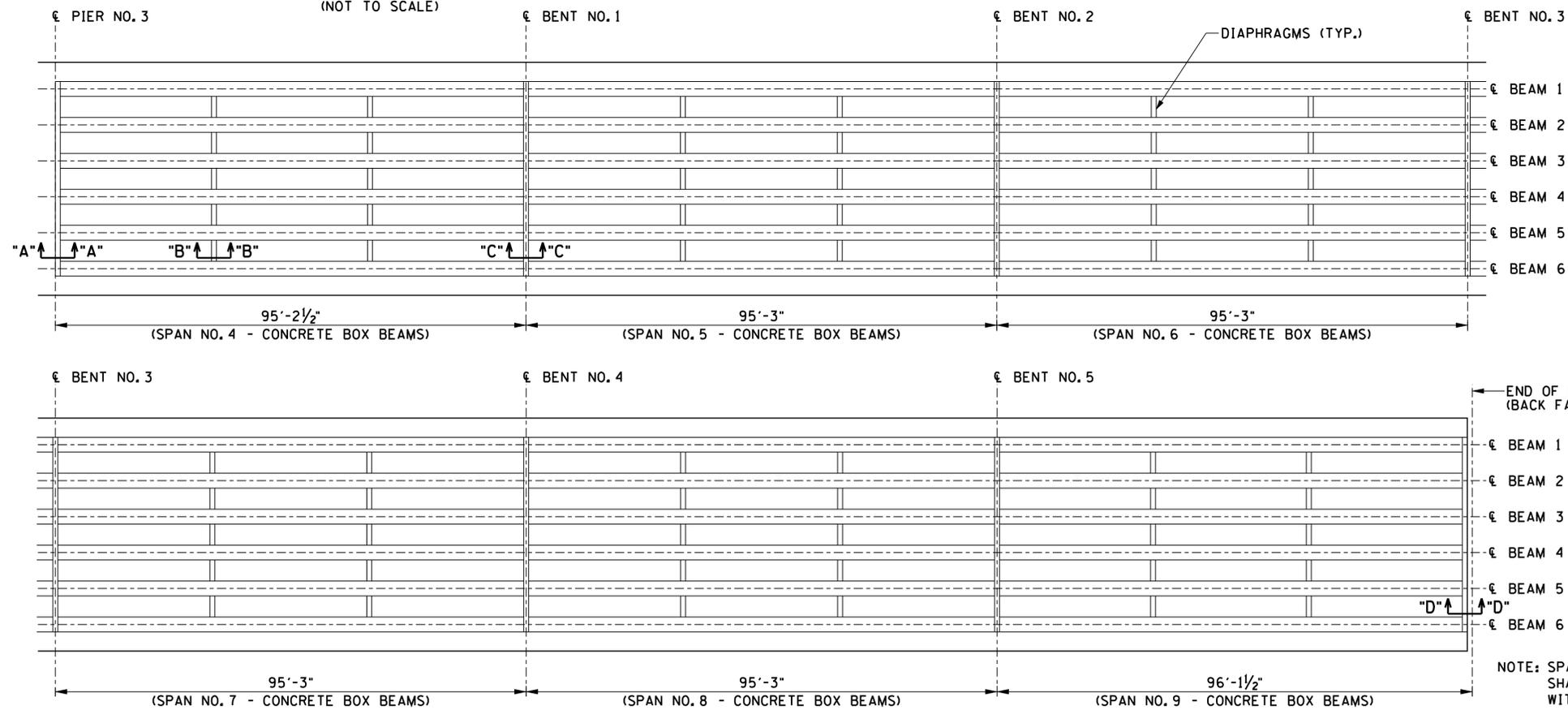
BRIDGE NO. 19-SR045-9.26R
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DAVIDSON COUNTY
2014



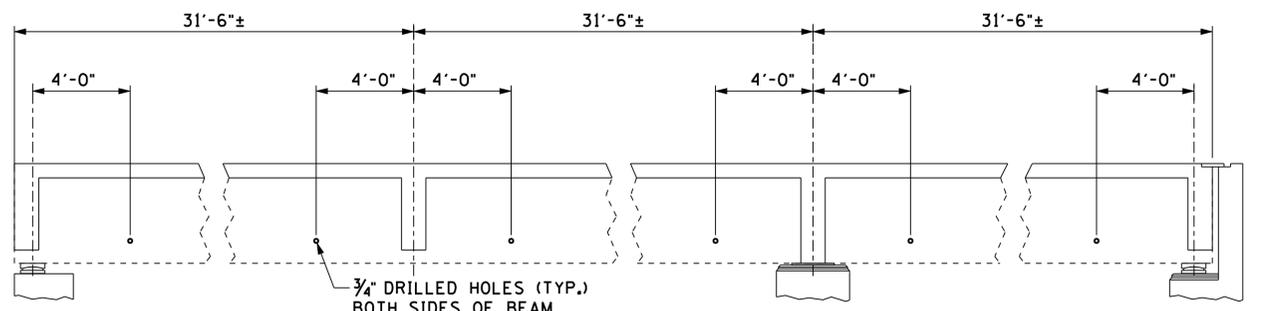
TYPICAL CROSS-SECTION
(NOT TO SCALE)



BEAM SPALL REPAIR AT ABUTMENT NO. 2
(LOOKING BACK ON SURVEY)
(NOT TO SCALE)



CONCRETE GIRDERS



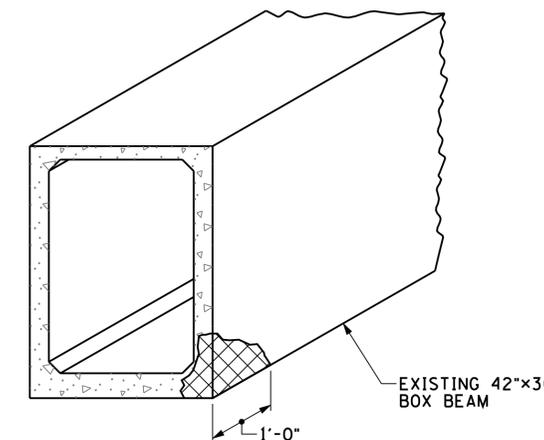
SECTION "A-A"
TYPICAL AT PIERS
(NOT TO SCALE)

SECTION "B-B"
TYPICAL AT INTERMEDIATE DIAPHRAGM
(NOT TO SCALE)

SECTION "C-C"
TYPICAL AT BENT NOS. 1 THRU 5
(NOT TO SCALE)

SECTION "D-D"
ABUTMENT NO. 2
(NOT TO SCALE)

NOTE: ALL BEAMS IN SPANS 4-9 SHALL BE DRILLED TO OBTAIN 3/4" VENT HOLES BOTH SIDES OF BEAM. NUMBER OF HOLES PER BEAM = 12 (PAY ITEM NO. 604-10.90).



SECTION SHOWING EXISTING CONCRETE BOX BEAM
(NOT TO SCALE)

UNOFFICIAL SET
NOT FOR BIDDING



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**SUPERSTRUCTURE DETAILS
BEAM REPAIR**

BRIDGE NO. 19-SR045-9.26R
STATE ROUTE 45 OVER CUMBERLAND RIVER
DAVIDSON COUNTY
2014

NOTE: SPALLS IN BEAMS AND DIAPHRAGMS SHALL BE REPAIRED IN ACCORDANCE WITH DETAIL ON BR-115-200 AND SHALL BE BID IN ITEM NO. 604-10.05, CONCRETE OR ITEM NO. 604-10.54, CONCRETE REPAIRS.

DESIGNED BY DAVID THOMPSON DATE _____
DRAWN BY ANGELA MOORE DATE _____
SUPERVISED BY DARRELL JAMES DATE _____
CHECKED BY JAMIE GILLESPIE DATE _____

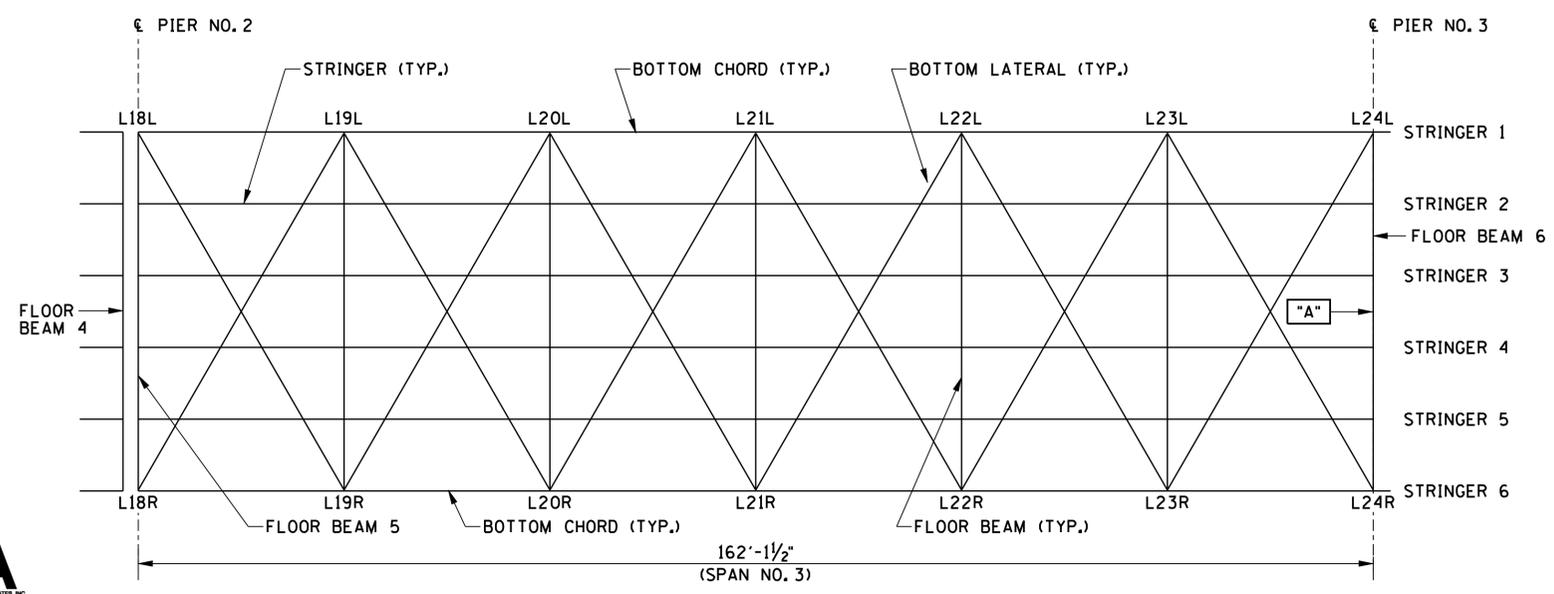
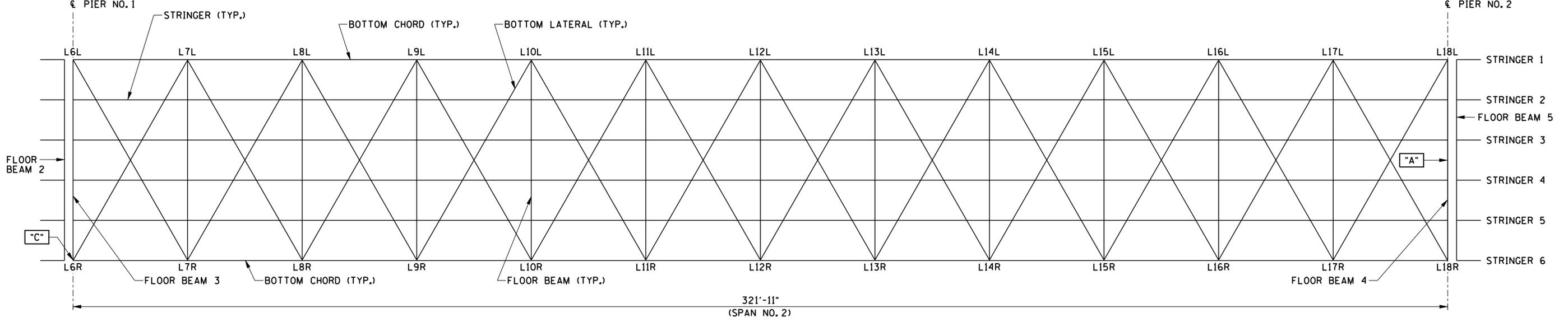
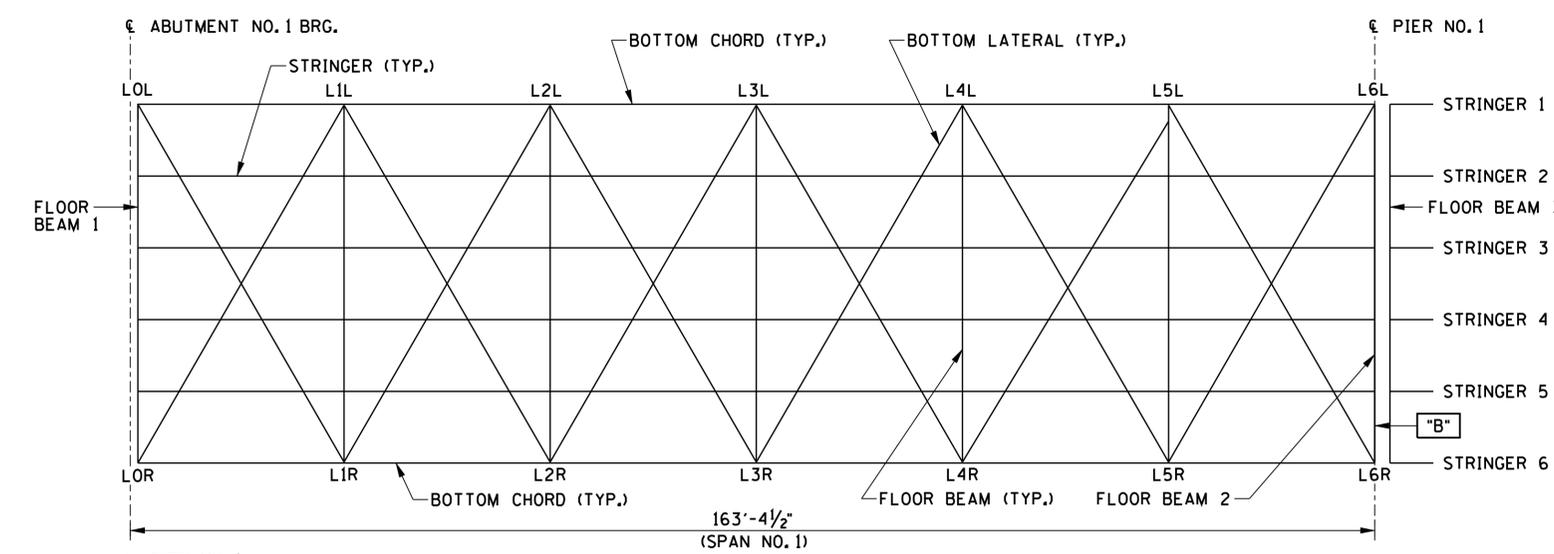


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"A" SEE DETAIL "A"
"FLOOR BEAM REPAIR"
ON BR-115-192

"B" SEE DETAIL "B"
"FLOOR BEAM REPAIR"
ON BR-115-192

"C" SEE DETAIL "C"
"FLOOR BEAM/BOTTOM LATERAL REPAIR"
ON BR-115-192



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NOT FOR
BIDDING



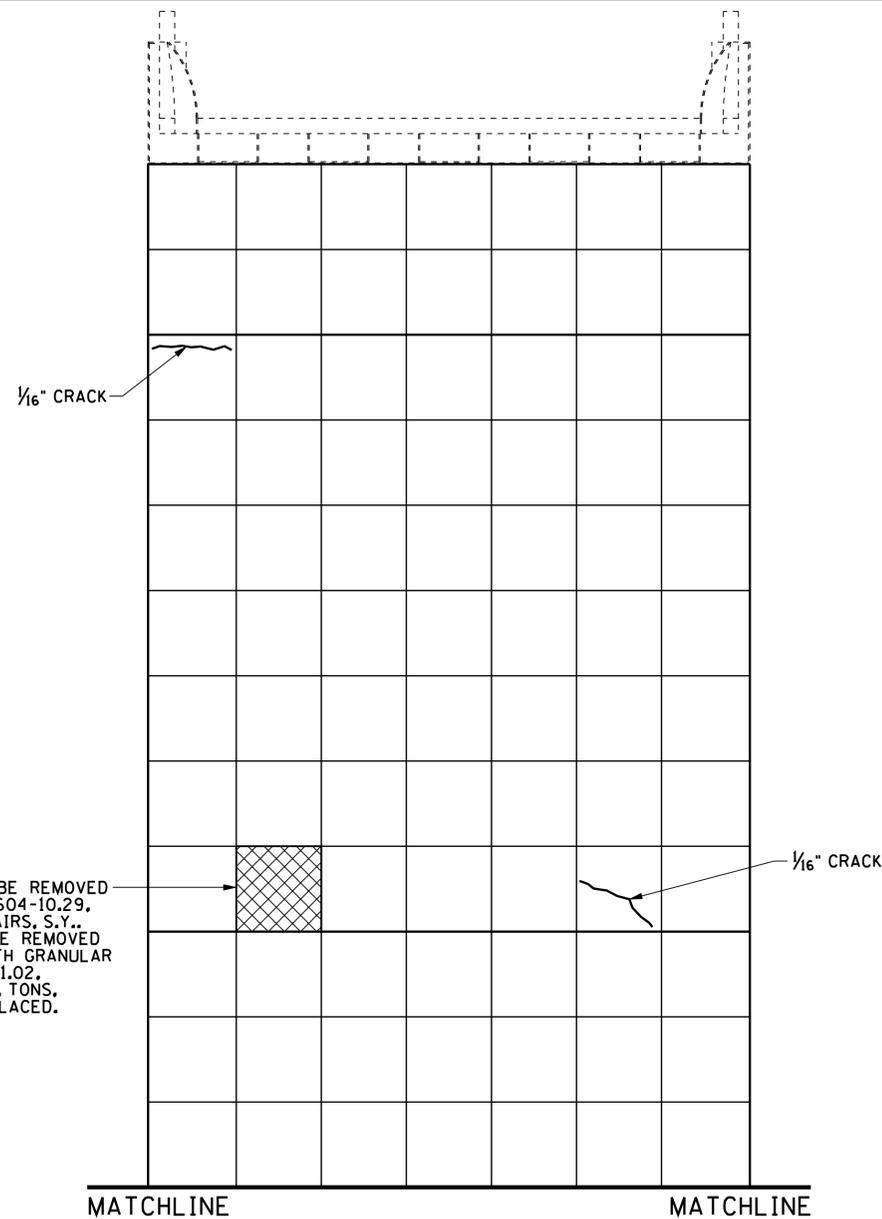
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS
STRUCTURAL STEEL REPAIRS

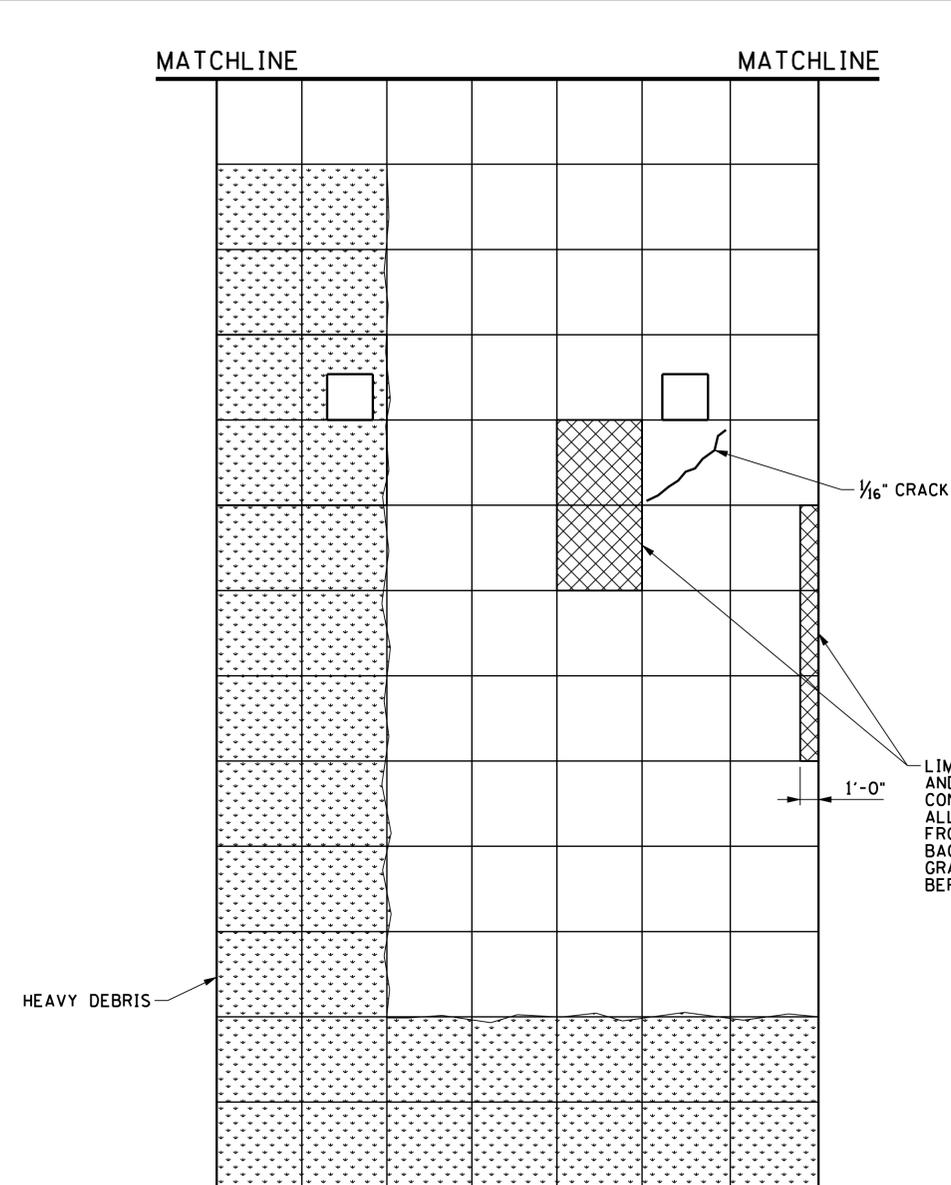
BRIDGE NO. 19-SR045-9.26R
STATE ROUTE 45 OVER CUMBERLAND RIVER
DAVIDSON COUNTY
2014

DESIGNED BY DAVID THOMPSON DATE _____
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LIMITS OF SLOPE PAVING TO BE REMOVED AND REPLACED PER ITEM NO. 604-10.29, CONCRETE SLOPE PAVING REPAIRS, S.Y.. ALL LOOSE MATERIAL SHALL BE REMOVED FROM VOID AND REPLACED WITH GRANULAR BACKFILL PER ITEM NO. 303-01.02, GRANULAR BACKFILL (BRIDGES), TONS, BEFORE SLOPE PAVING IS REPLACED.



HEAVY DEBRIS

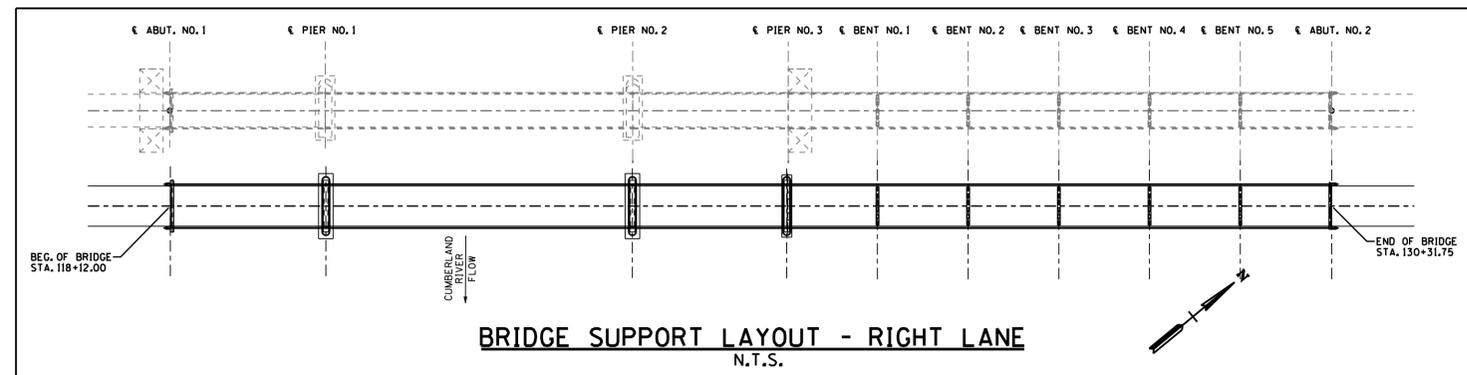
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NOTE: INFORMATION AND DIMENSIONS FOR CONCRETE REPAIRS ARE PROVIDED FOR ESTIMATING ONLY. TDOT ENGINEER SHALL DELINEATE ACTUAL AREAS TO BE REPAIRED.

| LEGEND | |
|-----------------------|--|
| DETERIORATED CONCRETE | |

LIMITS OF SLOPE PAVING TO BE REMOVED AND REPLACED PER ITEM NO. 604-10.29, CONCRETE SLOPE PAVING REPAIRS, S.Y.. ALL LOOSE MATERIAL SHALL BE REMOVED FROM VOID AND REPLACED WITH GRANULAR BACKFILL PER ITEM NO. 303-01.02, GRANULAR BACKFILL (BRIDGES), TONS, BEFORE SLOPE PAVING IS REPLACED.

ABUTMENT NO. 2
(LOOKING FORWARD ON SURVEY)



- NOTES:**
- (1) REMOVE ALL DEBRIS AROUND BENTS AND ABUTMENTS. COST TO BE INCLUDED IN ITEM NO. 201-07.01, REMOVAL AND DISPOSAL OF BRUSH AND TREES, L.S.
 - (2) ALL AREAS THAT CONTAIN CALCIUM DEPOSITS SHALL BE REMOVED. ANY CONCRETE THAT HAS DETERIORATED BEHIND THE DEPOSITS SHALL BE REPAIRED.
 - (3) PROPOSED CONCRETE REPAIR AREA TO BE FLUSH WITH EXISTING CONCRETE TO REMAIN.

DESIGNED BY DAVID THOMPSON DATE _____
 DRAWN BY ANGELA MOORE DATE _____
 SUPERVISED BY DARRELL JAMES DATE _____
 CHECKED BY JAMIE GILLESPIE DATE _____



UNOFFICIAL SET
NOT FOR BIDDING

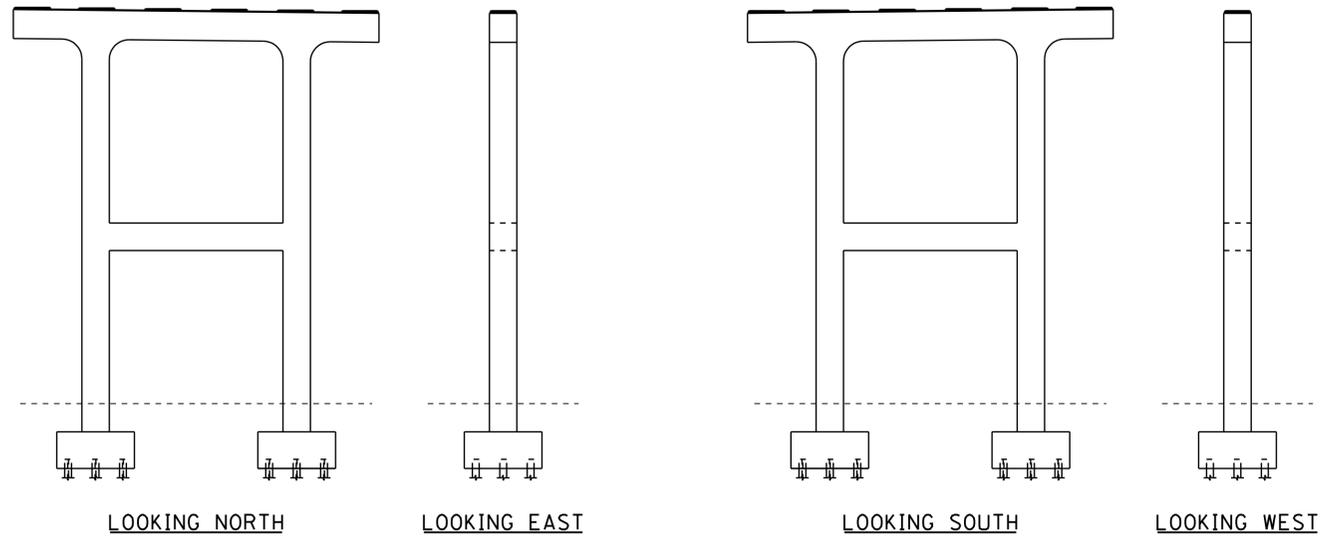


STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 SUBSTRUCTURE DETAILS
 CONCRETE REPAIRS
 ABUTMENT NO. 2 CONCRETE SLOPE PAVING
 BRIDGE NO. 19-SR045-9.26R
 STATE ROUTE 45 OVER CUMBERLAND RIVER
 DAVIDSON COUNTY
 2014

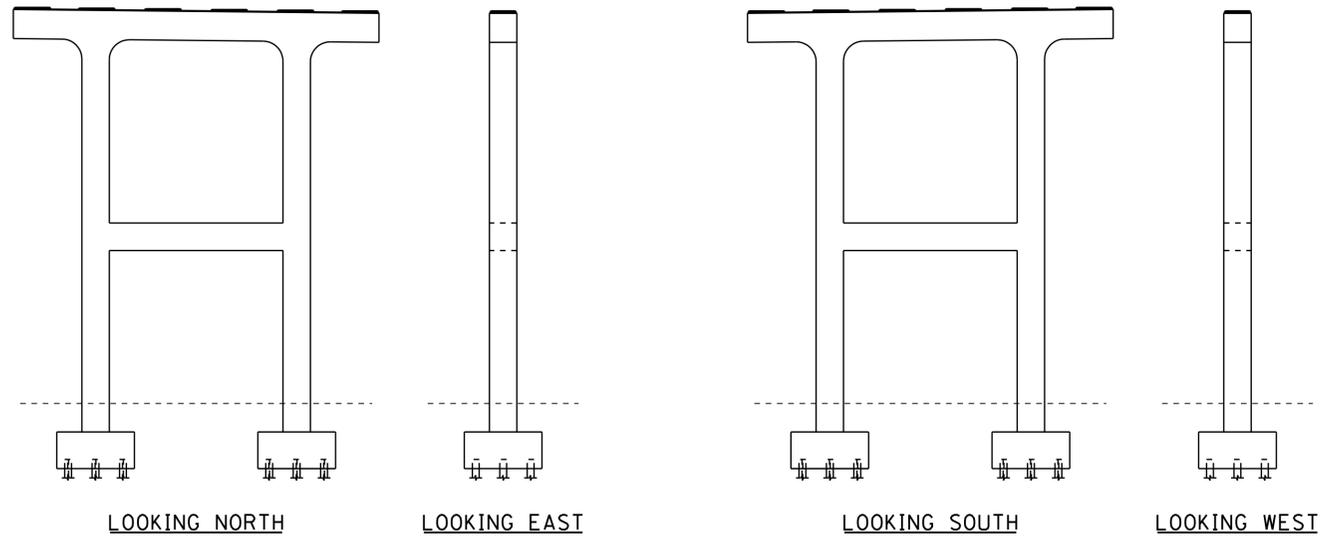
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|---------------|------|-----------|-------------------|
| CONST. NO. | | | |
| PROJECT NO. | YEAR | SHEET NO. | |
| 19042-4270-04 | 2014 | | |
| REVISIONS | | | |
| NO. | DATE | BY | BRIEF DESCRIPTION |
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NOTE: INFORMATION AND DIMENSIONS FOR CONCRETE REPAIRS ARE PROVIDED FOR ESTIMATING ONLY. TDOT ENGINEER SHALL DELINEATE ACTUAL AREAS TO BE REPAIRED.

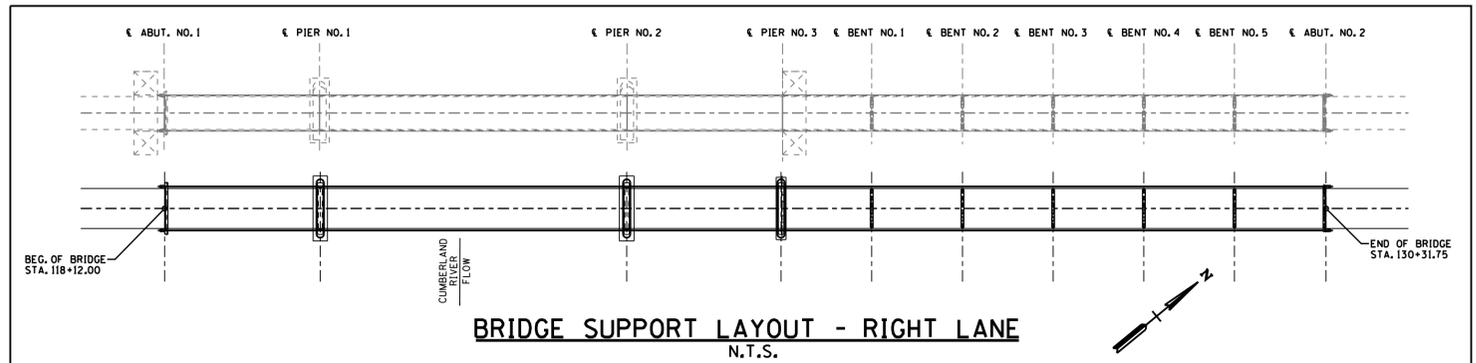
| LEGEND | |
|-----------------------|--|
| DETERIORATED CONCRETE | |
| GROUND LEVEL | |



BENT NO. 2



BENT NO. 3



BRIDGE SUPPORT LAYOUT - RIGHT LANE
N.T.S.

- NOTES:**
- (1) REMOVE ALL DEBRIS AROUND BENTS AND ABUTMENTS. COST TO BE INCLUDED IN ITEM NO. 201-07.01, REMOVAL AND DISPOSAL OF BRUSH AND TREES, L.S.
 - (2) ALL AREAS THAT CONTAIN CALCIUM DEPOSITS SHALL BE REMOVED. ANY CONCRETE THAT HAS DETERIORATED BEHIND THE DEPOSITS SHALL BE REPAIRED.

DESIGNED BY DAVID THOMPSON DATE _____
 DRAWN BY ANGELA MOORE DATE _____
 SUPERVISED BY DARRELL JAMES DATE _____
 CHECKED BY JAMIE GILLESPIE DATE _____



UNOFFICIAL SET
NOT FOR BIDDING



STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 SUBSTRUCTURE DETAILS
 CONCRETE REPAIRS
 BENT NOS. 2 AND 3
 BRIDGE NO. 19-SR045-9.26R
 STATE ROUTE 45 OVER CUMBERLAND RIVER
 DAVIDSON COUNTY
 2014

