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PUBLIC WORKS
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GENERAL NOTES
URTON LANE OVER
NORFOLK SOUTHERN RAILROAD

Revisions

Vertical Scale: N/A

Horizontal Scale: As Shown

Date: 8/5/14
Job Number: 2750

Sheet

1

of 2

GENERAL NOTES

POURING SEQUENCE

THE POURING SEQUENCE OF THE SLAB MAY NOT BE CHANGED WITHOUT APPROVAL OF THE DESIGNER.

SHOP DRAWINGS

SUBMIT SHOP DRAWINGS THAT ARE REQUIRED BY THE PLANS AND SPECIFICATIONS DIRECTLY TO THE CONSULTANT BY E-MAIL IN PDF FORM. IF CHANGES IN THE DESIGN PLANS ARE PROPOSED BY A FABRICATOR OR SUPPLIER, SUBMIT THOSE CHANGES TO THE CONSULTANT.

PILE POINTS

PILE POINTS ARE REQUIRED. THE POINTS SHALL BE THE TYPE FOR KEYING INTO A SLOPING ROCK SURFACE. PILE POINTS SHALL BE IN ACCORDANCE WITH SUBSECTION 604.03.04 (c) OF THE STANDARD SPECIFICATIONS.

STAY-IN-PLACE METAL FORMS

THE USE OF STAY-IN-PLACE METAL FORMWORK FOR THE BRIDGE DECK IS PERMITTED PROVIDED THE CORRUGATIONS ARE FILLED WITH STYROFOAM.

TEMPORARY CONSTRUCTION CLEARANCE

ENSURE ALL FALSEWORK, BRACING OR FORMS HAVE A MINIMUM VERTICAL CLEARANCE OF 23 FEET ABOVE THE TOP OF HIGHEST RAIL AND A MINIMUM HORIZONTAL CLEARANCE OF 12 FEET MEASURED PERPENDICULAR TO THE CENTERLINE OF THE NEAREST TRACK.

BEAM ERECTION

CONTRACTOR WILL BE REQUIRED TO PREPARE A SUBMITTAL PACKAGE THAT INCLUDES, BUT NOT LIMITED TO: PLAN SHEETS, LOCATION OF CRANES, PICK LOCATIONS, OPERATING RADII, CRANE CHARTS, BOOM PLANS, DATA SHEETS, WEIGHTS OF PICKS, ETC.

TEMPORARY BRIDGE FLOORING

THE CONTRACTOR SHALL PROVIDE TEMPORARY BRIDGE FLOORING DURING THE CONSTRUCTION OF PORTIONS OF SPANS WHICH CROSS THE NORFOLK SOUTHERN RAILROAD TRACKS. THE PURPOSE IS TO PROVIDE FALL PROTECTION TO WORKERS IN SITUATIONS WHERE THE DANGER FROM A FALL IS COMPOUNDED BY TRAFFIC BELOW AND TO PROVIDE PROTECTION TO THE TRAFFIC. TEMPORARY FLOORING SHALL BE INSTALLED AS SOON AS PRACTICABLE AFTER BEAMS ARE SET. THE TEMPORARY FLOORING SHALL EXTEND ACROSS THE TRACKS LOCATED BELOW.

THE DESIGN LOAD FOR TEMPORARY BRIDGE FLOORING SHALL CONSIST OF THE SUM OF DEAD LOAD AND VERTICAL LOADS. LIVE LOADS SHALL BE 50 psf. FOR HORIZONTAL SURFACES PLUS THE WEIGHT OF ANY DISMANTLED MATERIAL WHICH IS ALLOWED TO FALL ON THE TEMPORARY FLOORING. THE DESIGN OF THE TEMPORARY FLOORING SHALL BE SUBMITTED WITH THE FALSEWORK DESIGN AND SHALL BE SUBJECT FOR REVIEW BY THE ENGINEER.

NO SEPARATE MEASUREMENT OR PAYMENT WILL BE MADE FOR PROVIDING AND SUBSEQUENTLY REMOVING TEMPORARY BRIDGE FLOORING AS THIS IS CONSIDERED INCIDENTAL TO THE CONTRACT. THE REQUIREMENT FOR TEMPORARY BRIDGE FLOORING IS WAIVED WHEN STAY-IN-PLACE DECK FORMS ARE USED

BLASTING

BLASTING WILL NOT BE PERMITTED ON OR NEAR NORFOLK SOUTHERN TRACKAGE.

ALL WORK ON, OVER, UNDER, OR ADJACENT TO NORFOLK SOUTHERN RIGHT-OF-WAY SHALL BE DONE IN ACCORDANCE WITH THE NORFOLK SOUTHERN "SPECIAL PROVISIONS FOR THE PROTECTION OF RAILWAY INTERESTS".

"ONE CALL" SERVICES DO NOT LOCATE BURIED RAILROAD SIGNAL AND COMMUNICATION LINES. THE CONTRACTOR SHALL CONTACT THE RAILROAD'S REPRESENTATIVE TWO (2) DAYS IN ADVANCE OF THOSE PLACES WHERE EXCAVATION, PILE DRIVING, OR HEAVY LOADS MAY DAMAGE RAILROAD UNDERGROUND LINES ON RAILROAD PROPERTY. UPON REQUEST FROM THE CONTRACTOR OR AGENCY, RAILROAD SIGNAL FORCES WILL LOCATE AND PAINT MARK OR FLAG RAILROAD UNDERGROUND SIGNAL, COMMUNICATION, AND POWER LINES IN THE AREA TO BE DISTURBED FOR THE CONTRACTOR. THE CONTRACTOR SHALL AVOID EXCAVATION OR OTHER DISTURBANCE OF THESE LINES WHICH ARE CRITICAL TO THE SAFETY OF THE RAILROAD AND THE PUBLIC. IF DISTURBANCE OR EXCAVATION IS REQUIRED NEAR A BURIED RAILROAD SIGNAL, COMMUNICATION, OR POWER LINE, THE LINE SHALL BE POTHOLED MANUALLY WITH CAREFUL HAND EXCAVATION BY THE CONTRACTOR AND PROTECTED BY THE CONTRACTOR DURING THE COURSE OF THE DISTURBANCE UNDER THE SUPERVISION AND DIRECTION OF A RAILROAD SIGNAL REPRESENTATIVE.

ALL UTILITY INSTALLATIONS OR RELOCATIONS THAT ARE REQUIRED IN CONJUNCTION WITH THIS PROJECT CAN BE INSTALLED OR RELOCATED AS PART OF THE PROJECT PROVIDED THE CONSTRUCTION IS PERFORMED BY THE PROJECT CONTRACTOR OR PROJECT CONTRACTOR'S SUBCONTRACTOR. HOWEVER, THE UTILITY MUST SUBMIT AN APPLICATION FOR THE INSTALLATION OR RELOCATION TO AECOM FOR APPROPRIATE HANDLING FOR LICENSE AGREEMENT AND APPLICABLE FEES.

CONSTRUCTION IDENTIFICATION

THE NAMES OF THE PRIME CONTRACTOR AND THE SUB-CONTRACTOR SHALL BE IMPRINTED IN THE CONCRETE WITH 1 INCH LETTERS AT A LOCATION DESIGNATED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH ALL PLANS, EQUIPMENT AND LABOR NECESSARY TO DO THE WORK FOR WHICH NO DIRECT PAYMENT WILL BE MADE.

UTILITIES

THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ANY AND ALL EXISTING UTILITIES PRIOR TO EXCAVATION OF MATERIAL OR INSTALLATION OF GUARDRAIL OR OTHER CONSTRUCTION ACTIVITIES THAT MAY INVOLVE UTILITIES (OVERHEAD OR UNDERGROUND).

VERIFYING FIELD CONDITIONS

THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS BEFORE ORDERING MATERIAL. NEW MATERIAL THAT IS UNSUITABLE BECAUSE OF VARIATIONS IN THE EXISTING STRUCTURE SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

SPECIFICATIONS

ALL REFERENCES TO THE STANDARD SPECIFICATIONS ARE TO THE 2012 EDITION OF THE KENTUCKY DEPARTMENT OF HIGHWAYS STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, INCLUDING CURRENT SUPPLEMENTALS.

ALL REFERENCES TO THE AASHTO SPECIFICATIONS ARE TO THE 6th EDITION (2012) OF THE AASHTO LFRD SPECIFICATIONS FOR HIGHWAY BRIDGES, WITH 2010 INTERIMS.

DESIGN LOAD

THIS BRIDGE IS DESIGNED FOR HL-93 LIVELOAD. FUTURE WEARING SURFACE = 25 PSF.

THIS BRIDGE IS DESIGNED FOR A WIND LOAD BASED ON A WIND VELOCITY OF 100 MPH.

DESIGN METHOD

ALL REINFORCED CONCRETE MEMBERS ARE DESIGNED BY THE LOAD AND RESISTANCE FACTOR DESIGN (LFRD) METHOD AS SPECIFIED IN THE CURRENT AASHTO SPECIFICATIONS.

MATERIALS DESIGN SPECIFICATIONS

FOR CLASS "A" REINFORCED CONCRETE: F'C = 3500 PSI
FOR CLASS "AA" REINFORCED CONCRETE: F'C = 4000 PSI
FOR STEEL REINFORCEMENT: Fy = 60000 PSI
FOR PILING: Fy = 50000 PSI
FOR PRESTRESS CONCRETE: F'C = 8000 PSI

CONCRETE

CLASS "AA" CONCRETE IS TO BE USED THROUGHOUT THE SLAB, BARRIERS, WINGWALLS, AND DIAPHRAGMS. ALL OTHER CONCRETE, SHALL BE CLASS "A".

MATERIAL SPECIFICATIONS

ASTM OR AASHTO SPECIFICATIONS AS DESIGNATED BELOW SHALL GOVERN THE FOLLOWING MATERIALS FURNISHED:

STRUCTURAL STEEL ASTM A36/ AASHTO M 183
SHEET LEAD AND PIG LEAD ASTM B29-79
STEEL REINFORCEMENT ASTM A615 GRADE 60
BOLTS ASTM A325

REINFORCEMENT

DIMENSIONS SHOWN FROM THE FACE OF CONCRETE TO BARS ARE CLEAR DISTANCES UNLESS OTHERWISE SHOWN. SPACING OF BARS IS FROM CENTER TO CENTER OF BARS.

ANY REINFORCING BARS DESIGNATED BY THE SUFFIX "s" IN A "BILL OF REINFORCEMENT" SHALL BE CONSIDERED A STIRRUP FOR PURPOSES OF BAR BEND DIAMETERS.

ALL REINFORCING BARS DESIGNATED BY SUFFIX "E" IN THE PLANS SHALL BE EPOXY COATED IN ACCORDANCE WITH SECTION 811.10 OF THE STANDARD SPECIFICATIONS.

BEVELED EDGES

ALL EXPOSED EDGES SHALL BE BEVELED 3/4" UNLESS OTHERWISE SHOWN.

COMPLETION OF THE STRUCTURE

THE CONTRACTOR IS REQUIRED TO COMPLETE THE STRUCTURE IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. MATERIAL, LABOR OR CONSTRUCTION OPERATIONS, NOT OTHERWISE SPECIFIED, ARE TO BE INCLUDED IN THE BID ITEM MOST APPROPRIATE TO THE WORK INVOLVED. THIS MAY INCLUDE COFFERDAMS, SHORING, EXCAVATIONS, BACKFILLING, REMOVAL OF ALL OR PARTS OF EXISTING STRUCTURES, PHASE CONSTRUCTION, INCIDENTAL MATERIALS, LABOR, OR ANYTHING ELSE REQUIRED TO COMPLETE THE STRUCTURE

DIMENSIONS

DIMENSIONS ARE FEET AND INCHES UNLESS OTHERWISE SHOWN. DIMENSIONS ARE FOR A NORMAL TEMPERATURE OF 60 DEGREES FAHRENHEIT. LAYOUT DIMENSIONS ARE HORIZONTAL MEASUREMENTS. STATIONING IS SHOWN IN FEET AND ELEVATIONS ARE IN FEET.

TEMPORARY SUPPORTS

TEMPORARY SUPPORTS OR SHORING WILL NOT BE PERMITTED UNDER THE GIRDERS WHEN POURING THE CONCRETE FLOOR SLAB OR WHEN TAKING "TOP OF BEAM" ELEVATIONS.

PILING

PILES SHALL BE GRADE 50 STEEL
PILES SHALL BE DRIVEN TO REFUSAL.

TEST PILES SHALL BE DRIVEN WHERE DESIGNATED ON THE PLANS TO DETERMINE THE LENGTH OF PILE REQUIRED.

ALL TEST PILES SHALL BE ACCURATELY LOCATED SO THAT THEY MAY BE USED IN THE FINISHED STRUCTURE.

THE PILES CAN BE DRIVEN TO BEDROCK IF A MINIMUM PENETRATION OF 10 FEET BELOW THE BOTTOM OF THE PILE CAP CAN BE ACCOMPLISHED. IF THE DEPTH TO BEDROCK IS LESS THAN 10 FEET BELOW THE BOTTOM OF THE PILE CAP, PRE-DRILLING INTO THE BEDROCK WILL BE NECESSARY TO ATTAIN THE REQUIRED PENETRATION DEPTH NECESSARY TO SEAT THE PILES. ONCE THE PILE IS PLACED IN THE HOLE, BACKFILL WITH SAND OR PEA GRAVEL. A TEMPORARY CASING MAY BE REQUIRED TO PREVENT COLLAPSE OF THE HOLE. THE CASING SHALL BE REMOVED, AS THE HOLE IS BEING BACKFILLED. PILES SHALL BE DRIVEN TO VERIFY REFUSAL AFTER BACKFILLING OPERATIONS ARE COMPLETE. THE COST OF ALL MATERIALS, LABOR AND EQUIPMENT NEEDED TO PRE-DRILL AND BACKFILL THE HOLES SHALL BE INCLUDED IN THE PRICE PER LINEAR FOOT FOR PRE-DRILLING FOR PILES.

PRE-DRILLING MAY BE REQUIRED TO MEET THE MINIMUM PILE TIP EMBEDMENT.

PILES LENGTHS MAY VARY DRASTICALLY FROM PILE TO PILE.

PILES SHALL BE DRIVEN TO PRACTICAL REFUSAL. FOR DETERMINING PRACTICAL REFUSAL FOR POINT-BEARING STEEL H-PILES, WE RECOMMEND USING CASE 1.

FILE NAME: V:\14900 URTON LANE RAILROAD BRIDGE\URTON LANE OVER NORFOLK-SOUTHERN RRA\FINAL\DRAWINGS\24 X 36 FRAME SHEET.DGN

USER: jlopez
DATE PLOTTED: January 16, 2015

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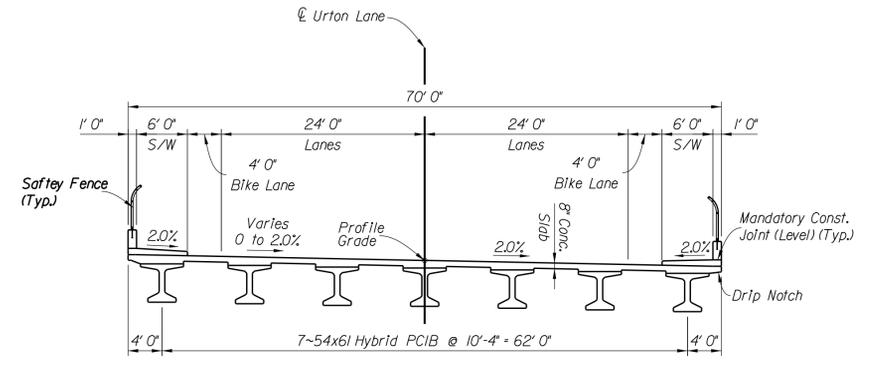
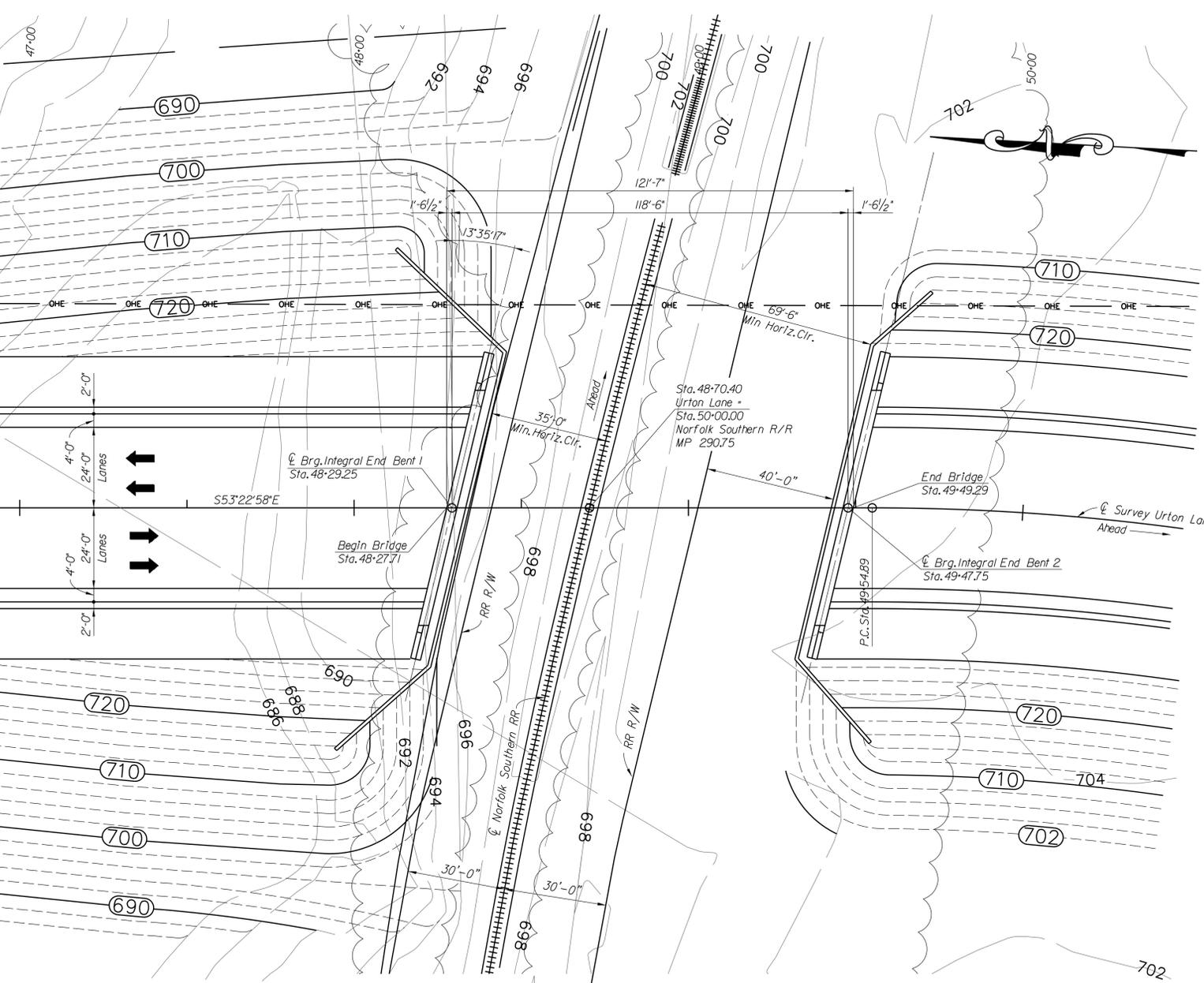
MicroStation v8.11.7.443

FILE NAME: V:\4900 URTON LANE RAILROAD BRIDGE\URTON LANE OVER NORFOLK-SOUTHERN RAILROAD\DRAWINGS\LAYOUT PLAN REVISED ALIGNMENT.DGN

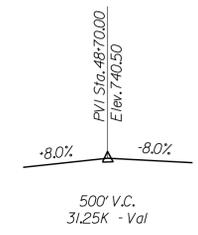
USER: fjkach
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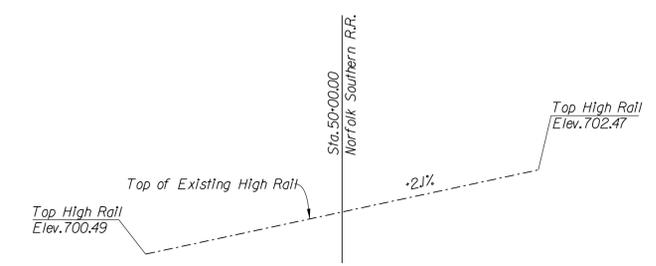
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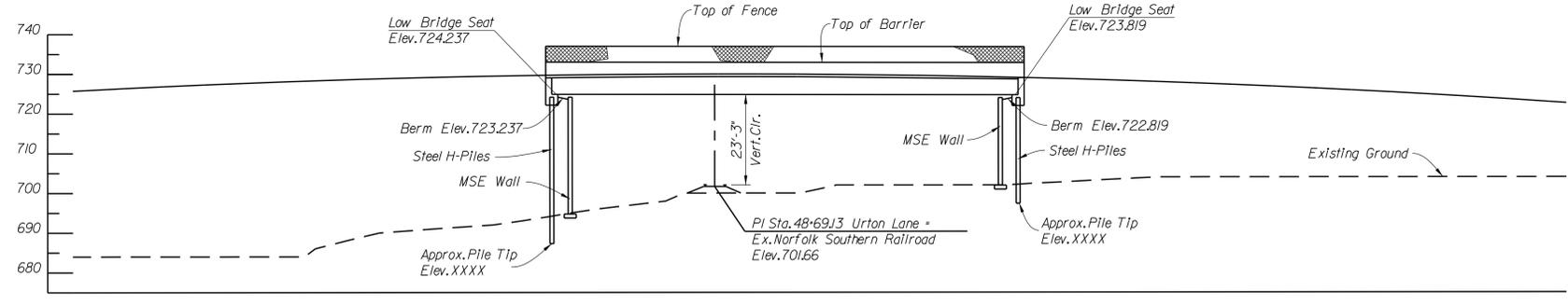
TYPICAL SECTION



PROFILE GRADE URTON LANE

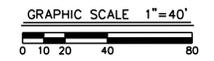


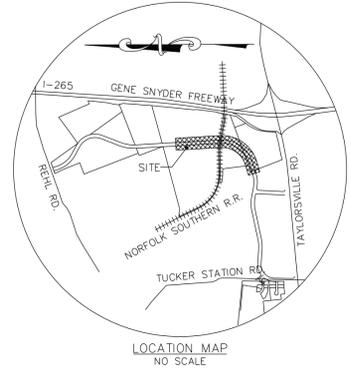
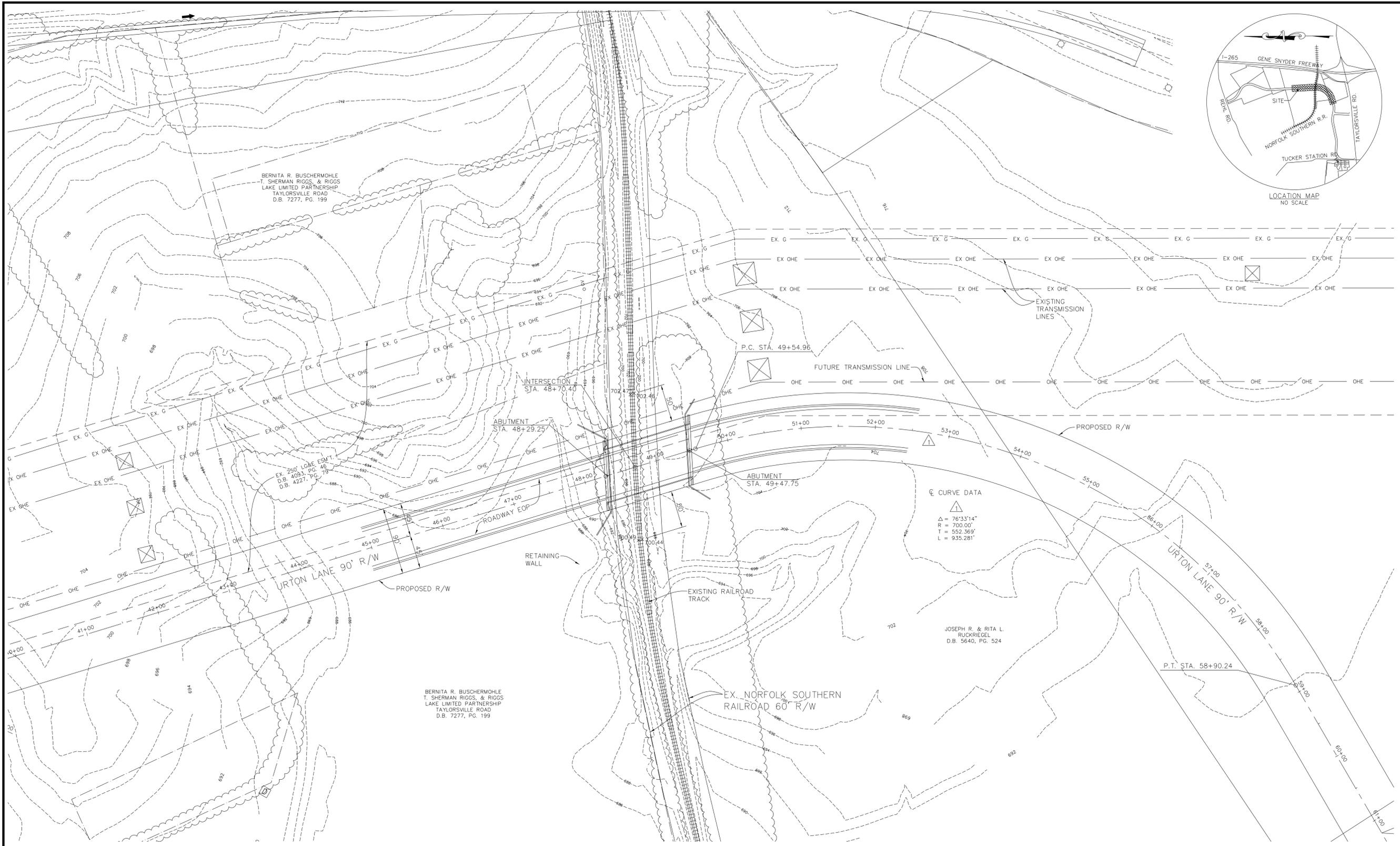
PROFILE GRADE NORFOLK SOUTHERN RAILROAD



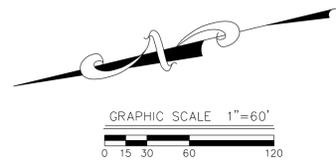
SECTION ALONG

Single Span: 118'-6", 54x61 Hybrid PCI B, Continuous for Live Load
KY HL-93 Loading, 78'-0" Out to Out of Shoulders at Bridge
13'35'17" Skew, 56'-0" Bridge Roadway Width, 2:1 Fill Slopes





CURVE DATA
 $\Delta = 76^{\circ}33'14''$
 $R = 700.00'$
 $T = 552.369'$
 $L = 935.281'$



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CONCEPTUAL LAYOUT PLAN
 URTON CORRIDOR (TAYLORSVILLE RD. TO REHL RD.)
 OPTION A

Revisions	DATE	DESCRIPTION
1/23/15	UPDATED	ROADWAY STATIONING

Vertical Scale: N/A

Horizontal Scale: 1"=60'

Date: 11/11/14
Job Number: 2750

Sheet
1
 of 1

PROFESSIONAL ENGINEER'S SEAL

ENGINEER: DAVID HANSEL

