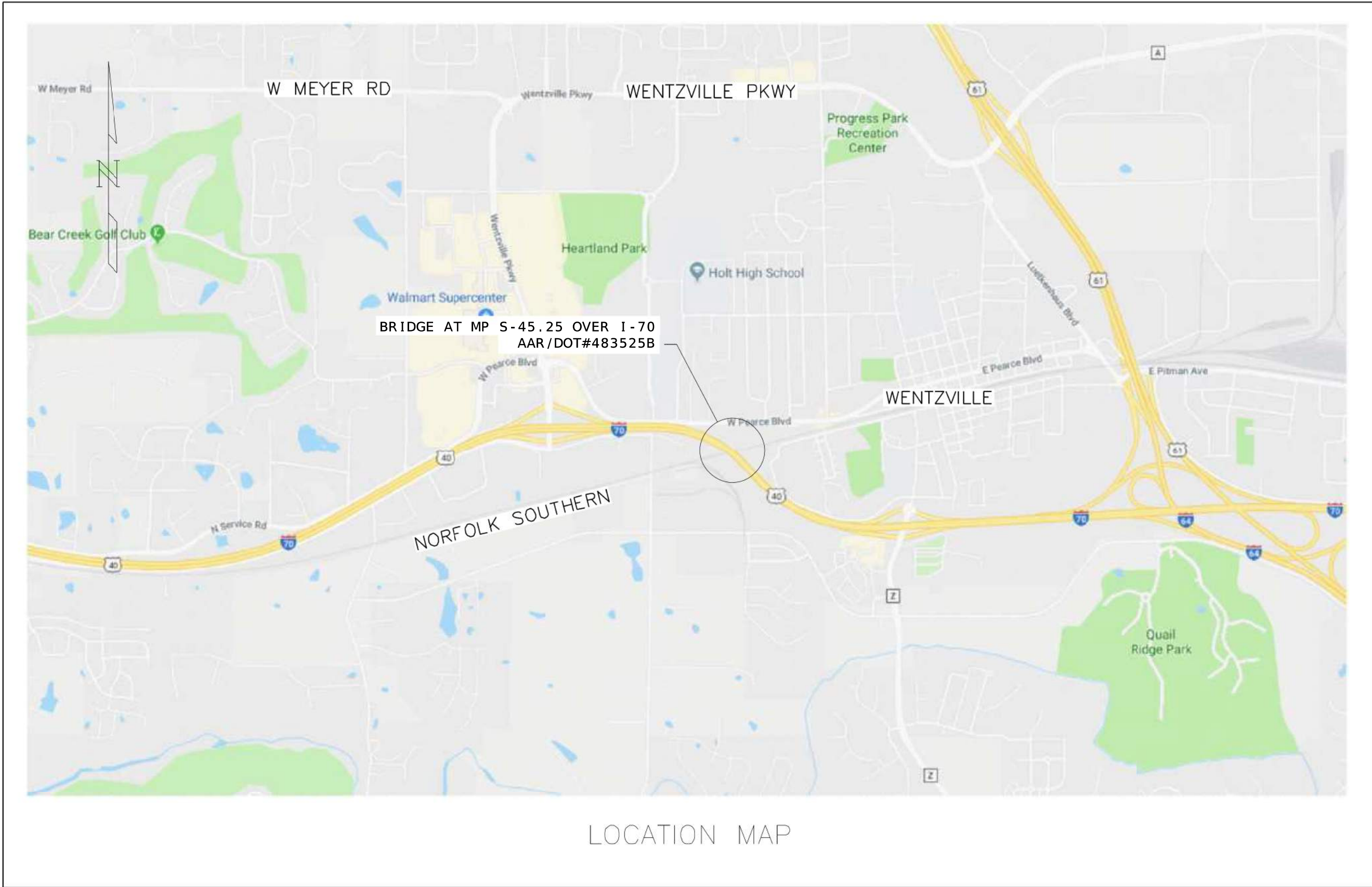


MISSOURI HIGHWAYS AND TRANSPORTATION COMISSION
PLANS FOR PROPOSED
NSRR SHOOFLY BRIDGE AT MP S-45.25
OVER I-70
WENTZVILLE, MO

NOT FOR CONSTRUCTION



LOCATION MAP

GENERAL INFORMATION

Owner:
MR. D.S. Starling
Engineer Public Improvements
Bridges and Structures
Norfolk Southern Corporation
1200 Peachtree Street NE
Atlanta, GA 30309
Telephone: (470)-463-6721
Email: douglas.starling@nscorp.com

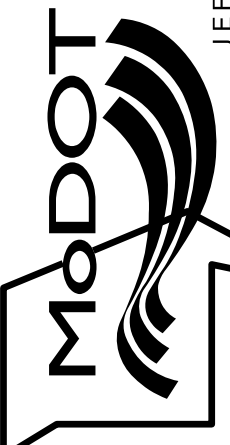



THE EXISTENCE AND APPROXIMATE LOCATION OF UTILITY FACILITIES KNOWN TO EXIST, AS SHOWN ON THE PLANS, ARE BASED ON THE BEST INFORMATION AVAILABLE TO THE COMMISSION AT THIS TIME. THIS INFORMATION IS PROVIDED BY THE COMMISSION "AS-IS" AND THE COMMISSION EXPRESSLY DISCLAIMS ANY REPRESENTATION OR WARRANTY AS TO THE COMPLETENESS, ACCURACY, OR SUITABILITY OF THE INFORMATION FOR ANY USE. RELIANCE UPON THIS INFORMATION IS DONE AT THE RISK AND PERIL OF THE USER, AND THE COMMISSION SHALL NOT BE LIABLE FOR ANY DAMAGES THAT MAY ARISE FROM ANY ERROR IN THE INFORMATION. IT IS, THEREFORE, THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE, LOCATION AND STATUS OF ANY FACILITY. SUCH VERIFICATION INCLUDES DIRECT CONTACT WITH THE LISTED UTILITIES.

Detailed January 2025
Checked January 2025

Note: This drawing is not to scale. Follow dimensions.

Sheet 1 of 8

NOT FOR CONSTRUCTION

DATE PREPARED 1/30/2025	
ROUTE I - 70	STATE MO
DISTRICT BR	SHEET NO. B01 - 01
COUNTY ST. CHARLES	
JOB NO. JST0020	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A5801T	
DESCRIPTION	
DATE	
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
 105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	
	
 715 KIRK DRIVE KANSAS CITY, MO 64105-1310 CERTIFICATE OF AUTHORITY NO. 001270	
 601 MONROE ST., SUITE 201 - JEFFERSON CITY, MO 65101 PHONE 872-630-3181 WWW.BARTLETTWEST.COM	

GENERAL NOTES

CONSTRUCTION SPECIFICATIONS

Provide materials and perform work in accordance with the following. Where discrepancies exist between these requirements, the more stringent shall govern:

- NSRR-PPM: Norfolk Southern Railway Public Projects Manual, 2022, including appendices
- AREMA: American Railway Engineering and Maintenance-of-Way Association, 2023
- MODOT CMS: July 2024 Missouri Standard Specifications for Highway Construction
- Norfolk Southern Railway Standard Specifications for Materials and Construction, current edition
- Norfolk Southern Railway Quality Assurance Specifications for Ties and Timber

NORFOLK SOUTHERN RAILROAD COORDINATION AND MAINTENANCE-OF-WAY

The construction program will require close coordination and cooperation with Norfolk Southern personnel for all operations that involve track work and rail service. The time of specific track closing, openings, switching and other required rail, tie and ballast work in all cases shall be also subject to Norfolk Southern approval.

All work to be performed on, over, under, or adjacent to the railroad right-of-way shall comply with Norfolk Southern Railway Company ("Railroad", "NSR", or "NS") Public Projects Manual (Appendix E, Special Provisions for the Protection of Railway Interests, and Appendix H1, Overhead Grade Separation Design Criteria). When in conflict with other project specifications the most stringent one shall apply.

The contractor shall not commence any work on railroad right-of-way until they have complied with the conditions presented on the NS Public Projects Manual (Appendix E, Special Provisions for the Protection of Railway Interests).

The contractor shall so arrange and conduct work so that there will be no interference with railroad operations. Whenever work is liable to affect the operations or safety of trains, the methods of doing such work shall be submitted to the railroad engineer for approval, but such approval shall not relieve the contractor from any liability.

All proposed submittals required either by MODOT CMS or the NSRR-PPM shall be submitted to NSRR for review and approval.

All work for the ballast, rails, ties and incidental track metal work for the tracks will be furnished and placed by Norfolk Southern.

The contractor shall maintain a construction clearance of 10 feet horizontally (for elements below top of rail) from the centerline of tracks and 22 feet vertically from a point of level with the top of the higher rail at all times. Clearance of 14 feet horizontally shall be provided to any temporary works installed above the top of rail, except as indicated by these plans or approved by NSRR.

The designated Norfolk Southern Railroad contact for this project is as follows:

Mr. D.S. Starling
Engineer Public Improvements
Bridges and Structures
Norfolk Southern Corporation
1200 Peachtree Street NE
Atlanta, GA 30309
Phone: (470) 463-6721
Email: douglas.starling@nscorp.com

For projects requiring more than 30 consecutive days of flagging, contractor shall provide the flagman a small work area with a desk/counter and chair within the field/site trailer, including the use of bathroom facilities, where the flagman can check in/out with the project, as well as to the flagman's home terminal. The work area should provide access to two (2) electrical outlets for recharging radio(s), and a laptop computer; and have the ability to print off needed documentation and orders as needed at the field/site trailer. This should aid in maximizing the flagman's time and efficiency on the project.

NORFOLK SOUTHERN RAILROAD COORDINATION AND MAINTENANCE-OF-WAY (CONTINUED)

The railroad will be provided as-built drawings showing the actual clearances as constructed. depth, size, and location of all foundation components shall be shown on the drawings (see NS Public Projects Manual, appendix H1, section 8a).

"ONE CALL" Services do not locate buried railroad signal and communications lines. The contractor shall contact the railroad's representative 2 days in advance of work at those places where excavation, pile driving, or heavy loads may damage the railroad's underground facilities. Upon request from the contractor or sponsor, railroad forces will locate and paint mark or flag the railroad's underground facilities, the contractor shall avoid excavation or other disturbance of these facilities. If disturbance or excavation is required near a buried railroad facility, the contractor shall coordinate with the railroad to have the facility potholed manually with careful hand excavation. The facility shall be protected by the contractor during the course of the disturbance under the supervision and direction of the railroad's representative. (see NS Public Projects Manual, appendix e, section 3.d).

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 sub-contractor. However, the utility must submit an application for the installation or relocation to Railpros or appropriate handling for license agreement and applicable fees. For utility applications go to: www.nscorp.com / about ns real estate / learn about our services / wire / pipeline and fiber optics projects. Note: license agreement must be executed prior to utility being installed or relocated.

DIMENSIONS AND BOUNDARIES

All dimensions shown are horizontal unless notes otherwise. Superstructure dimensions shown are given at a temperature of 65° F.

EXCAVATION

The contractor is responsible for the stability of all excavated slopes. Direct surface runoff away from the excavation. Groundwater levels may fluctuate seasonally as a function of precipitation and other hydrological factors. Therefore, there may be considerable change in the water table or the presence of water where not previously encountered. Perform all excavations in accordance with OSHA Standards for shoring. Excavation and shoring shown in these plans assume an OSHA Type B soil (to be confirmed by the contractor).

Excavate according to construction sequences drawings and notes. Do not over excavate.

DESIGN SPECIFICATIONS

The design was completed in accordance with the following design standards:

- AREMA, chapters 8, 9 & 15
- NSRR-PPM Appendix H.2 "Underpass Grade Separation Design Criteria"
- Reinforced concrete pier design as per AREMA, Chapter 8, table 8-2-5, load factor design.
- Structural steel design as per AREMA chapter 15, allowable stress design.
- Design live load: Cooper E-80 including alternate live load on 4 axles. design speed of 60 mph - freight.
- Live load distribution: to steel superstructure members per AREMA 15-1.3.4
- Impact load: rolling equipment without hammer blow. Steel superstructure per AREMA chapter 15-1.3.5
- Fatigue analysis is based on AREMA 15-1.3.13.

DESIGN DATA

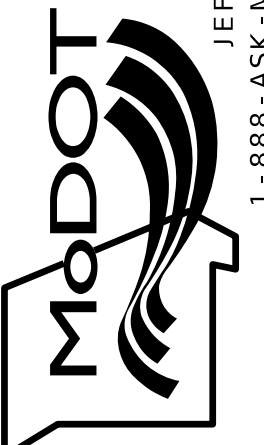



CONCRETE
Substructure concrete shall obtain a 28 day compressive strength of 4000 psi (minimum) (abutments piers, footings and foundations)

Chamfer all exposed concrete edges and corners 3/4" except as noted.

Reinforcing steel shall be ASTM A615, grade 60, except as noted. Fabrication to be in accordance with AREMA, chapter 8.

All construction joints shown on these plans shall be required unless shown as optional. Construction joints permitted except as shown on the plans, or where written approval from the engineer has been obtained.

STRUCTURAL STEEL
Superstructure steel shall be astm A709, grade 50W unless otherwise noted. All structural bolts shall be astm F3125 grade A325. All washers shall be astm F436 and all nuts shall be heavy hex astm A563. Anchor rods shall be ASTM F1554 grade.

DATE PREPARED 1/30/2025	
ROUTE I-70	STATE MO
DISTRICT BR	SHEET NO. B01-02
COUNTY ST. CHARLES	
JOB NO. JST0020	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A5801T	
DESCRIPTION	
DATE	
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
<div><div>105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)</div></div>	
<div></div>	
<div><div>715 KIRK DRIVE KANSAS CITY, MO 64105-1310 CERTIFICATE OF AUTHORITY NO. 001270</div></div>	<div><div>601 MONROE ST., SUITE 201 - JEFFERSON CITY, MO 65101 PHONE 872-63-3181 CERTIFICATE OF AUTHORITY WWW.BARTLETTWEST.COM</div></div>

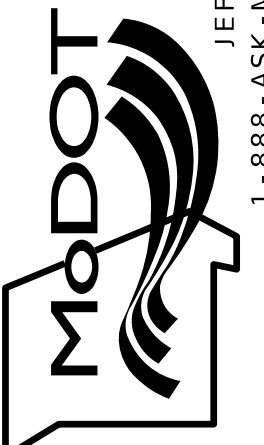





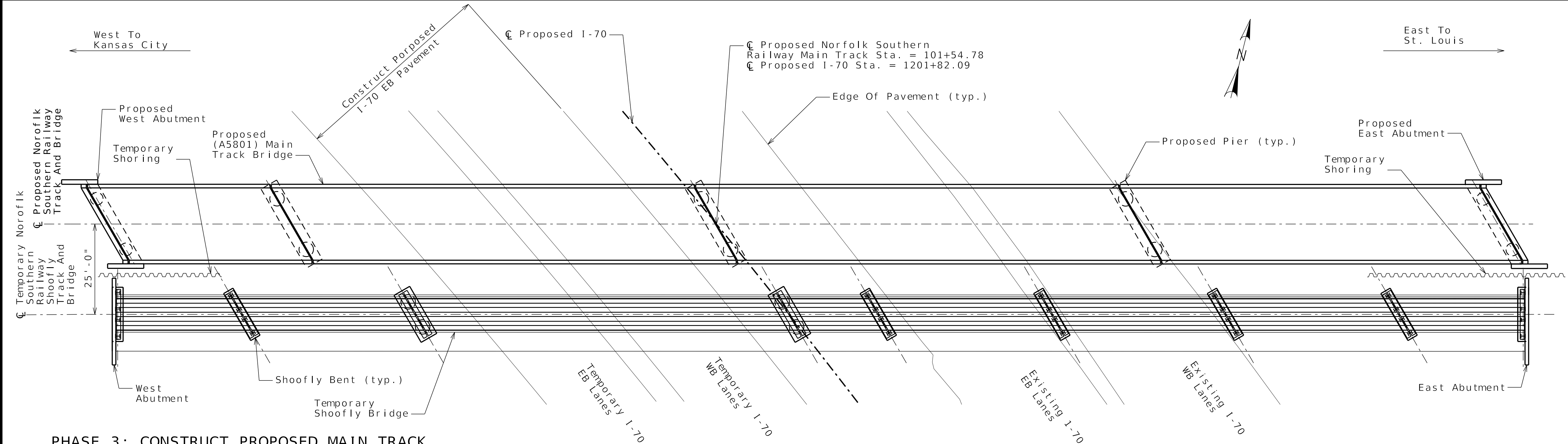
Site Plan
Not for Construction

Detailed January 2025
Checked January 2025

Note: This drawing is not to scale. Follow dimensions.

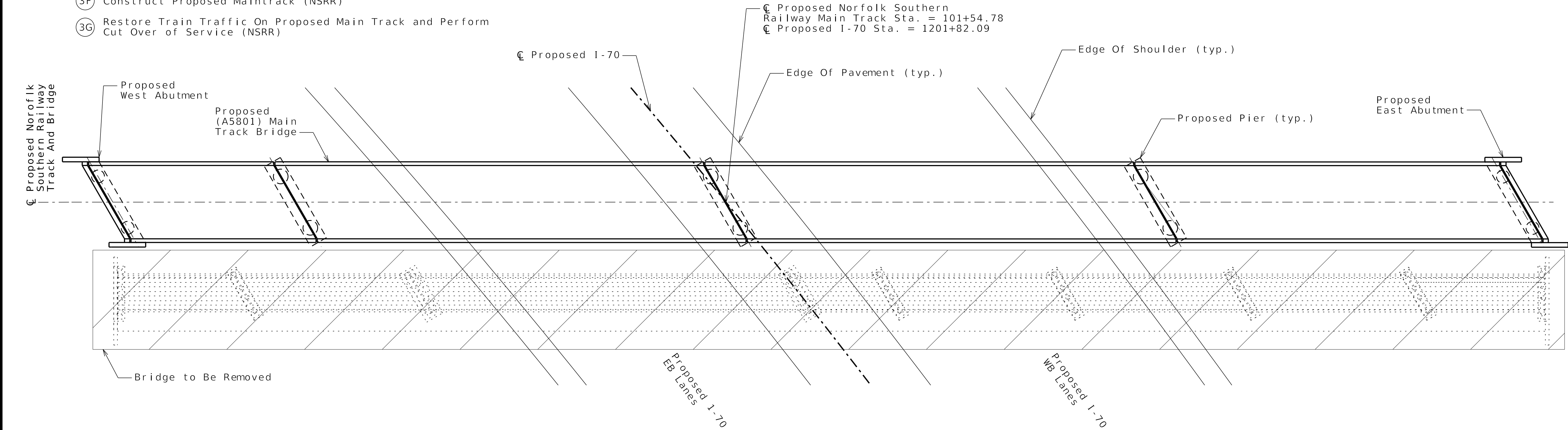
Sheet 3 of 8

DATE PREPARED 1/30/2025	
ROUTE I - 70	STATE MO
DISTRICT BR	SHEET NO. B01-03
COUNTY ST. CHARLES	
JOB NO. JST0020	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A5801T	
DESCRIPTION	
DATE	
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
	
105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	
	
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**PHASE 3: CONSTRUCT PROPOSED MAIN TRACK
NORFOLK SOUTHERN BRIDGE**

- 3A Construct Proposed EB Lanes and Shift two-way I-70 Traffic.
- 3B Install Drilled Shafts
- 3C Construct Concrete Abutments And Caps
- 3D Install Steel Girders For Superstructure
- 3E Construct CIP Concrete Deck
- 3F Construct Proposed Maintrack (NSRR)
- 3G Restore Train Traffic On Proposed Main Track and Perform Cut Over of Service (NSRR)



**Staged Construction Phasing
PHASE 3 & 4**

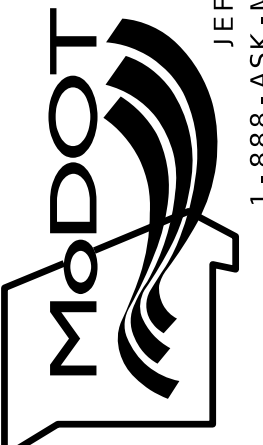

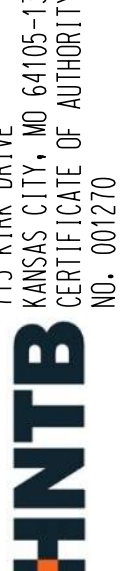

Phase 4: Remove Shoofly Bridge

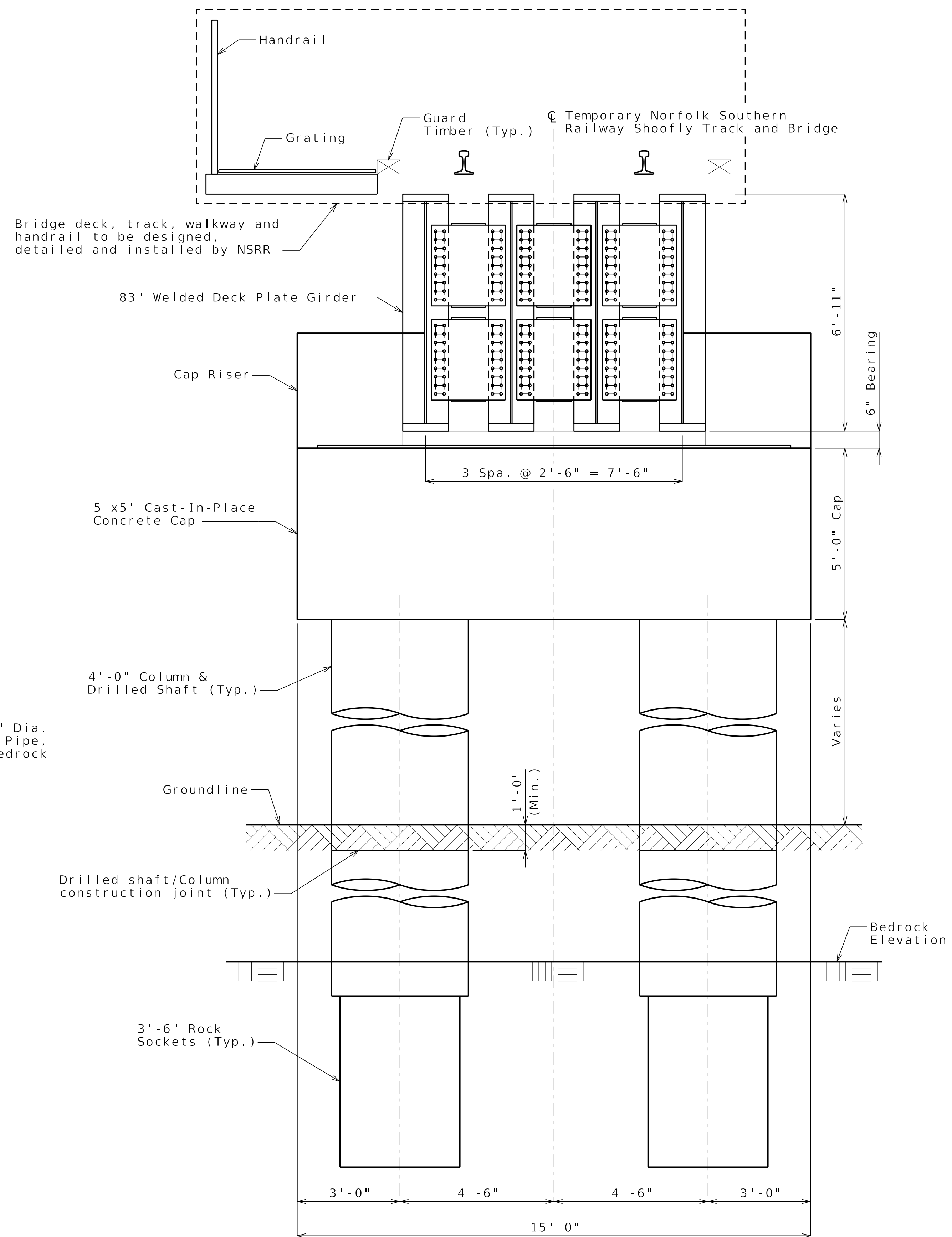
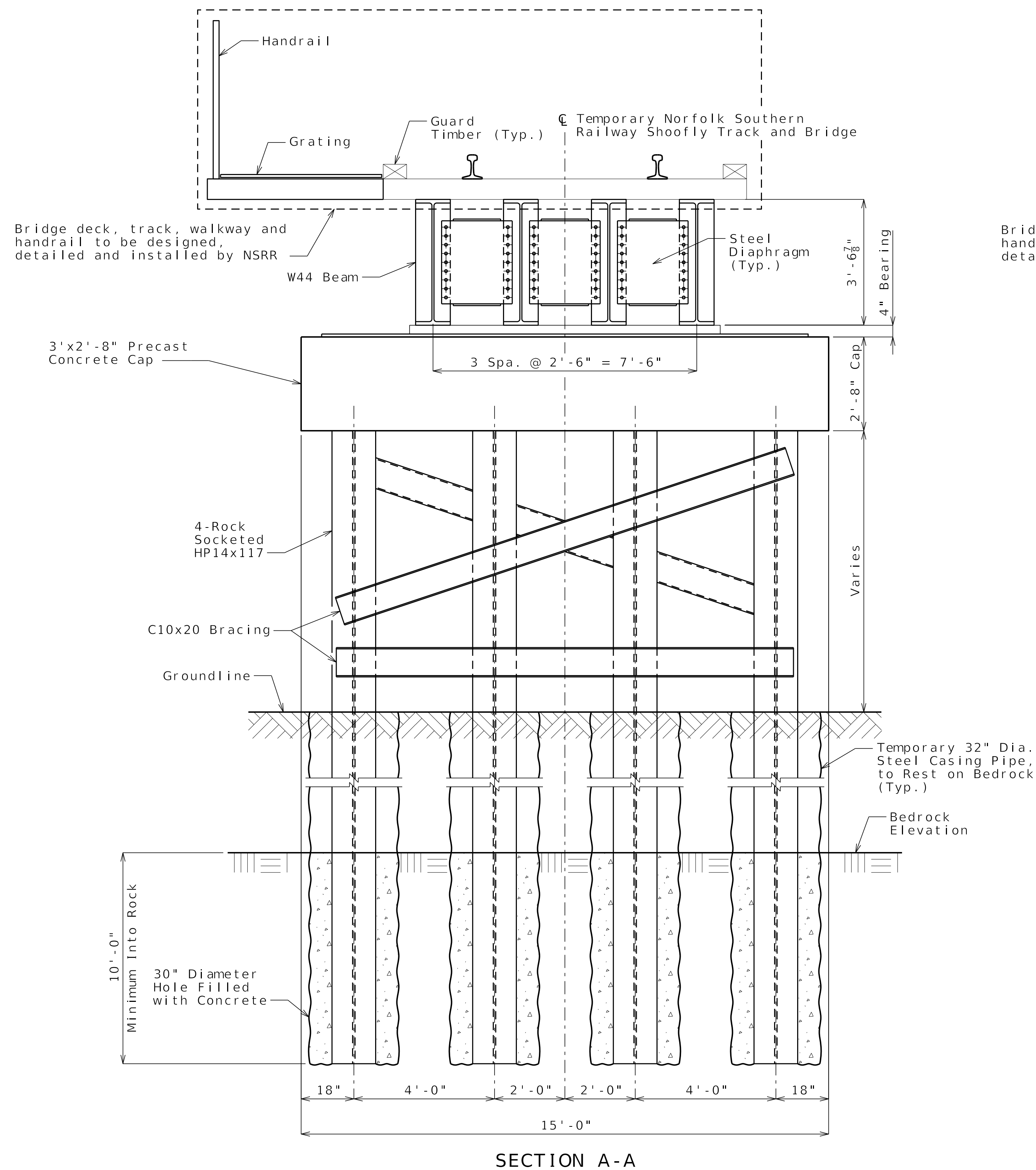
- 4A Remove Temporary Shoofly Bridge

Detailed January 2025
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Sheet 5 of 8

DATE PREPARED 1/30/2025	
ROUTE I-70	STATE MO
DISTRICT BR	SHEET NO. B01-05
COUNTY ST. CHARLES	
JOB NO. JST0020	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A5801T	
DESCRIPTION	
DATE	
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
	
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Detailed January 2025
Checked January 2025

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Sheet 7 of 8

NORFOLK SOUTHERN RAILWAY SHOOFLY OVER I-70
BRIDGE SECTIONS

DATE PREPARED	
1/30/2025	
ROUTE	STATE
I - 70	MO
DISTRICT	SHEET NO.
BR	2

COUNTY
ST. CHARLES
JOB NO.
JST0020
CONTRACT ID.

PROJECT NO.

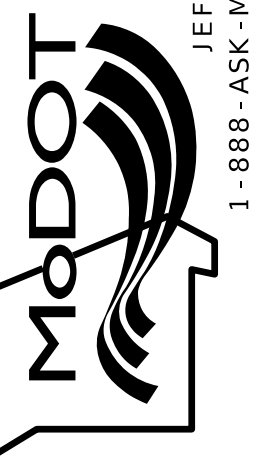
BRIDGE NO.
A5801T

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MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

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JEFFERSON CITY, MO 65102
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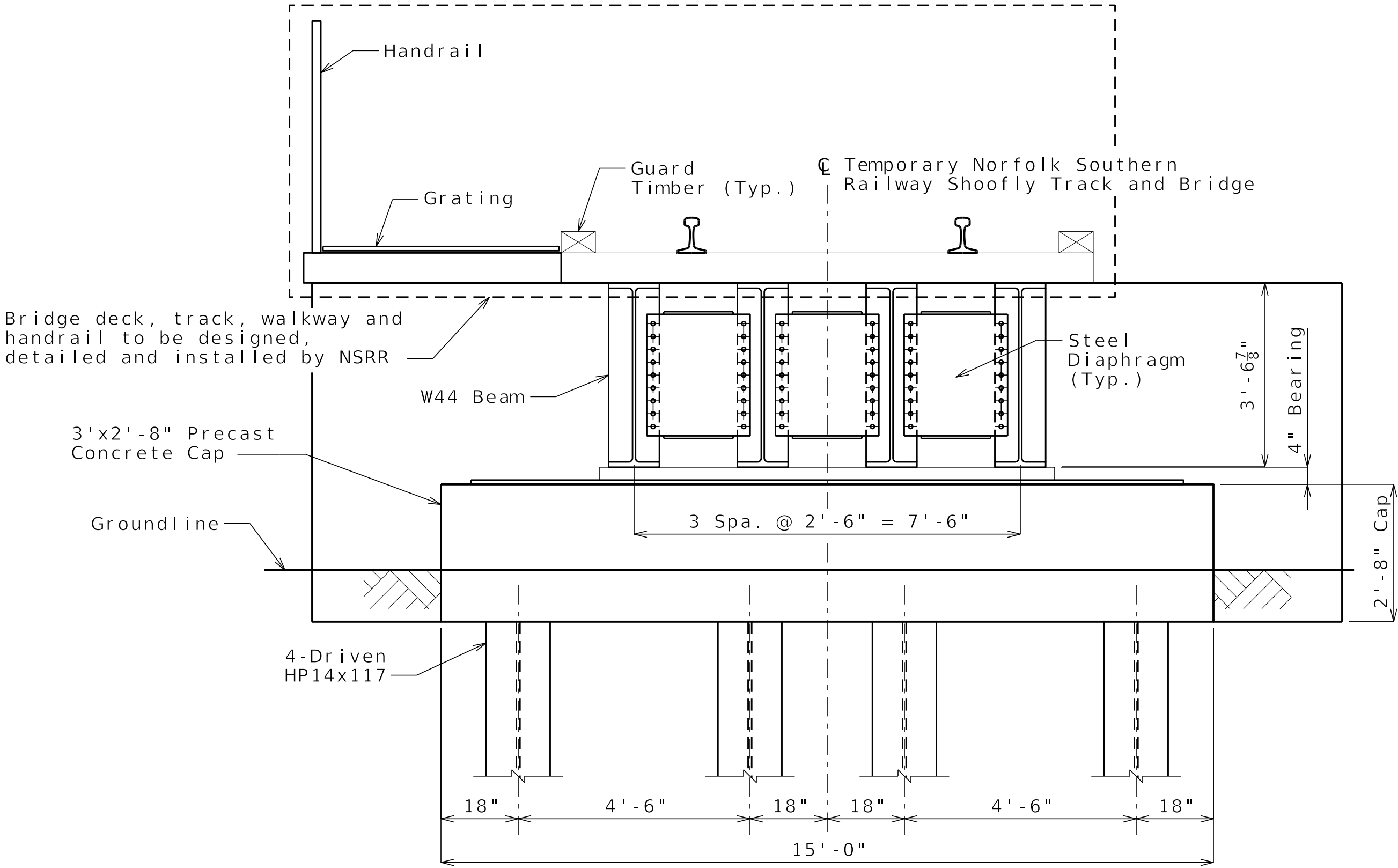
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



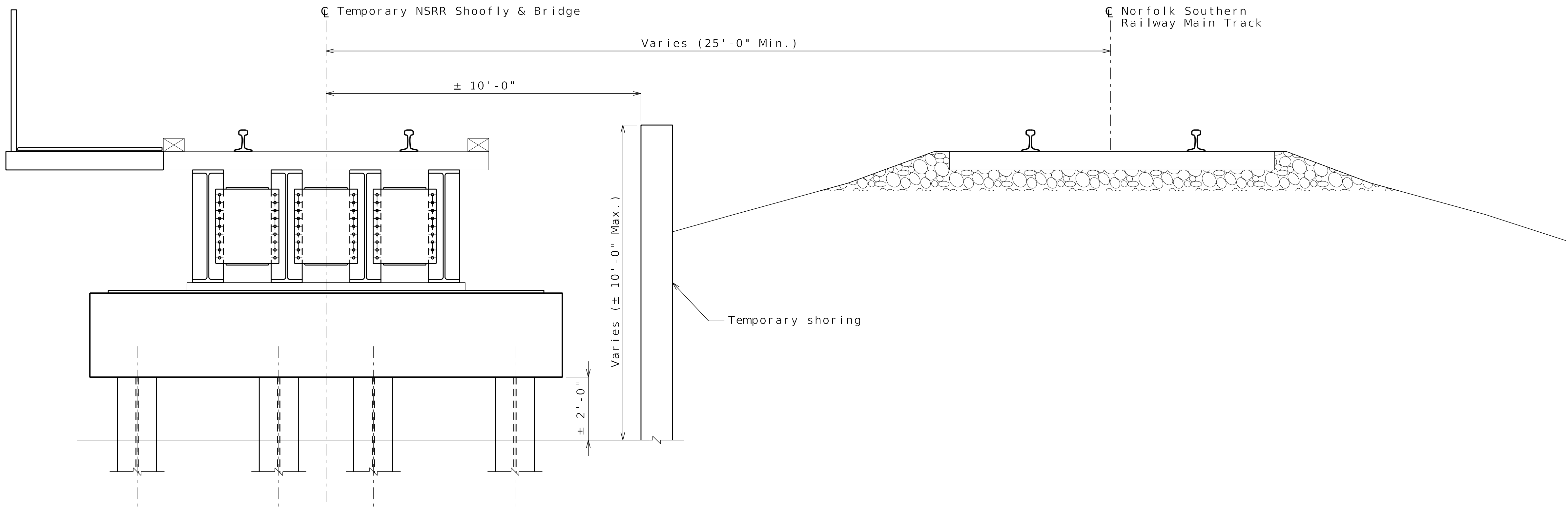
HNTB 715 K IRK DRIVE
 KANSAS CITY, MO 64105-1310
 CERTIFICATE OF AUTHORITY
 NO. 001270

Bartlett & West
 501 MONROE ST., SUITE 201 • JEFFERSON CITY, MO 65101
 PHONE 573-466-5000 • FAX 573-466-5007 • ENGINEERING
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601 MONROE ST, SUITE 201 - JEFFERSON CITY, MO 65101
PHONE 573-634-3181
CERTIFICATE OF AUTHORITY NO. 0007167 - ENGINEERING
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SECTION C-C



SECTION D-D

DATE PREPARED 1/30/2025	
ROUTE I-70	STATE MO
DISTRICT BR	SHEET NO. 3
COUNTY ST. CHARLES	
JOB NO. JST0021	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A5801T	
DESCRIPTION	
DATE	
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
MoDOT 105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	
IMPROVE 70 ALLIANCE	
HNTB 715 KIRK DRIVE KANSAS CITY, MO 64105-1310 CERTIFICATE OF AUTHORITY NO. 001270	
Bartlett & West 601 MONROE ST., SUITE 201 - JEFFERSON CITY, MO 65101 PHONE 572-630-3181 FAX 572-630-3181 WWW.BARTLETTWEST.COM	