# MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

## PLANS FOR PROPOSED STATE HIGHWAY

## JACKSON/LAFAYETTE COUNTIES

***SEGMENT 3***

***A9746 E FORK SNI-A-BAR***

***BRIDGE RFC PLANS***

KEY MAP
LOCATION OF JACKSON/LAFAYETTE COUNTIES

NOT TO SCALE

### DESIGN DESIGNATION

MO-7 TO ADAMS DAIRY PKWY.

A.A.D.T. - 2025 = 79,800
A.A.D.T. - 2050 = 95,000
D.H.V. = 5,950
T = 23%
V = 65 MPH
D = 53%

FUNCTIONAL CLASSIFICATION - INTERSTATE

ADAMS DAIRY PKWY. TO BUCKNER-TARSNEY

A.A.D.T. - 2025 = 66,900
A.A.D.T. - 2050 = 79,700
D.H.V. = 5,000
T = 23%
V = 70 MPH
D = 51%

FUNCTIONAL CLASSIFICATION - INTERSTATE

### FULLY LIMITED ACCESS RIGHT OF WAY REQUIRED

BEGINNING AND ENDING OF CONTROLLED ACCESS

NO RIGHT OF ACCESS OR CROSSING OF LINES BEARING THIS SYMBOL WILL BE PERMITTED UNDER ANY CIRCUMSTANCES.

### CONVENTIONAL SYMBOLS

(USED IN PLANS)

| | EXISTING | NEW |
|---|---|---|
| BUILDINGS AND STRUCTURES | | |
| GUARD RAIL | | |
| GUARD CABLE | | |
| CONCRETE RIGHT-OF-WAY MARKER | | |
| STEEL RIGHT-OF-WAY MARKER | | |
| LOCATION SURVEY MARKER | | |
| UTILITIES | | |
| FIBER OPTICS | -FO- | FO |
| OVERHEAD CABLE TV | -OTV- | OTV |
| UNDERGROUND CABLE TV | -UTV- | UTV |
| OVERHEAD TELEPHONE | -OT- | OT |
| UNDERGROUND TELEPHONE | -UT- | UT |
| OVERHEAD POWER | -OE- | OE |
| UNDERGROUND POWER | -UE- | UE |
| SANITARY SEWER | -S- | S |
| STORM SEWER | -SS- | SS |
| GAS | -G- | G |
| WATER | -W- | W |
| MANHOLE | SAN | |
| FIRE HYDRANT | HYD | |
| WATER VALVE | WV | |
| WATER METER | WM | |
| DROP INLET | DI | |
| DITCH BLOCK | | |
| GROUND MOUNTED SIGN | SIGN | |
| LIGHT POLE | | |
| H-FRAME POWER POLE | | |
| TELEPHONE PEDESTAL | PED | |
| FENCE | | |
| CHAIN LINK | -V- | |
| WOVEN WIRE | -X- | |
| GATE POST | | |
| BENCHMARK | BM | |

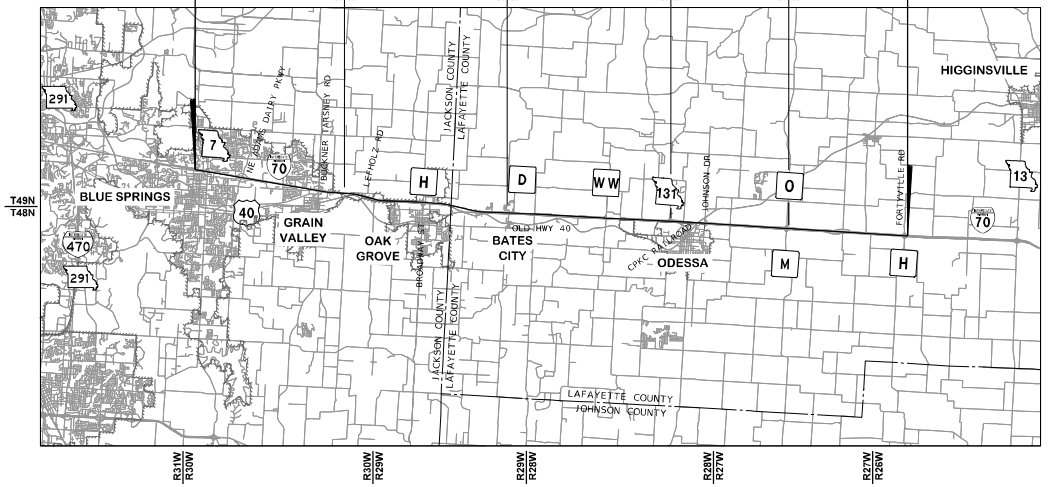
NOTE: DASHED OR OPEN SYMBOLS INDICATE EXISTING FEATURES

JOB. NO. JST0019
PAVEMENT, BRIDGE REPLACEMENT, GRADING, DRAINAGE, SIGNING, PAVEMENT MARKING

BEGIN PROJECT STA. 1300+82.71 LOG MILE: 20.2

END PROJECT STA. 5223+87.86 LOG MILE: 45.3

| SEGMENT 1 | SEGMENT 2 | SEGMENT 3 | SEGMENT 4 | SEGMENT 5 |
|---|---|---|---|---|
| STA. 1584+99.75 = STA. 2000+01.23 | STA. 2295+00.00 = STA. 3000+00.00 | STA. 3323+00.00 = STA. 4000+00.00 | STA. 4222+00.00 = STA. 5000+00.00 | |




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.

### INDEX OF SHEETS

| DESCRIPTION | SHEET NUMBER |
|---|---|

SEE 0-IN01 FOR INDEX OF SHEETS

### LENGTH OF PROJECT

| | | |
|---|---|---|
| BEGINNING OF PROJECT | STA. | 1300+82.71 |
| END OF PROJECT | STA. | 5223+87.86 |
| APPARENT LENGTH | | 134,805.85 FEET |

EQUATIONS AND EXCEPTIONS:

EQUATIONS:
1584+99.75 BK. = 2000+00.00 AHD.
2295+00.00 BK. = 3000+00.00 AHD.
3323+00.00 BK. = 4000+00.00 AHD.
4222+00.00 BK. = 5000+00.00 AHD.

EXCEPTIONS:
1323+38.44 - 1324+91.60 = -153.16 FEET
1388+08.13 - 1390+69.13 = -261.00 FEET
1531+68.32 - 1540+98.32 = -930.00 FEET

| | | |
|---|---|---|
| TOTAL CORRECTIONS | -1,344.16 | FEET |
| NET LENGTH OF PROJECT | 133,461.69 | FEET |
| STATE LENGTH | 25.277 | MILES |

STATE OF MISSOURI
GARRETT J. HUMMEL
NUMBER PE-2010020608
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY

DATE PREPARED: 5/6/2026

| ROUTE | STATE |
|---|---|
| I-70 | MO |

| DISTRICT | SHEET NO. |
|---|---|
| KC | 0-TI01 |

COUNTY: JACK/LAFA
JOB NO.: JST0019
CONTRACT ID.: 250507-C01
PROJECT NO.:
BRIDGE NO.:

REVISIONS

| NO. | APPD. BY | DATE | |
|---|---|---|---|
| 30 | GDH | 04/08/26 | NDC018 - SEG. 3 A9744 A9745 PROF. REV. |
| 31 | GDH | 04/10/26 | SEG. 3 - A9747, A9748 & A9749 RFC |
| 32 | GDH | 04/14/26 | NDC019 - SEG. 0 HORIZ. CONTROL REV. |
| HH | GDH | 04/14/26 | SEG. 3 - A9746 E FORK SNI-A-BAR FINAL |
| 33 | GDH | 04/28/26 | SEGMENT 4 - RFC PLANS |
| II | GDH | 05/06/26 | SEGMENT 4 - A9750 CPKC BRIDGE 100% |
| 34 | GDH | 05/07/26 | SEG. 3 - A9746 E FORK SNI-A-BAR RFC |

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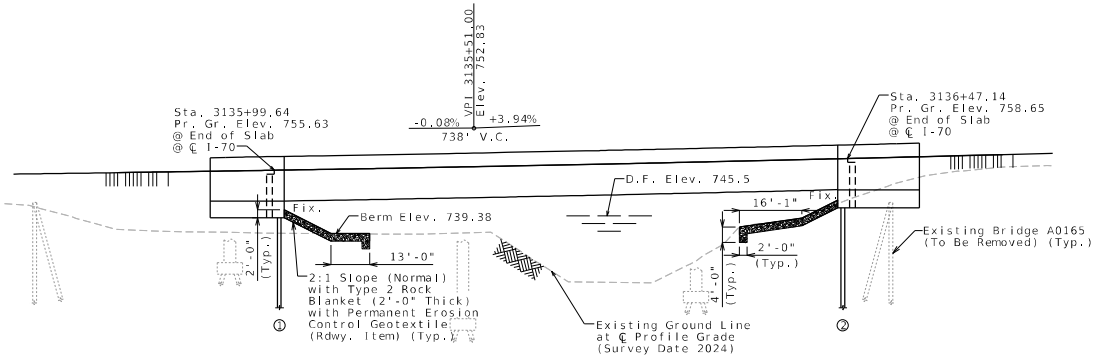
Missouri Cert. of Authority #2003007599

SEC/SUR 32 TWP 49N RGE 28W

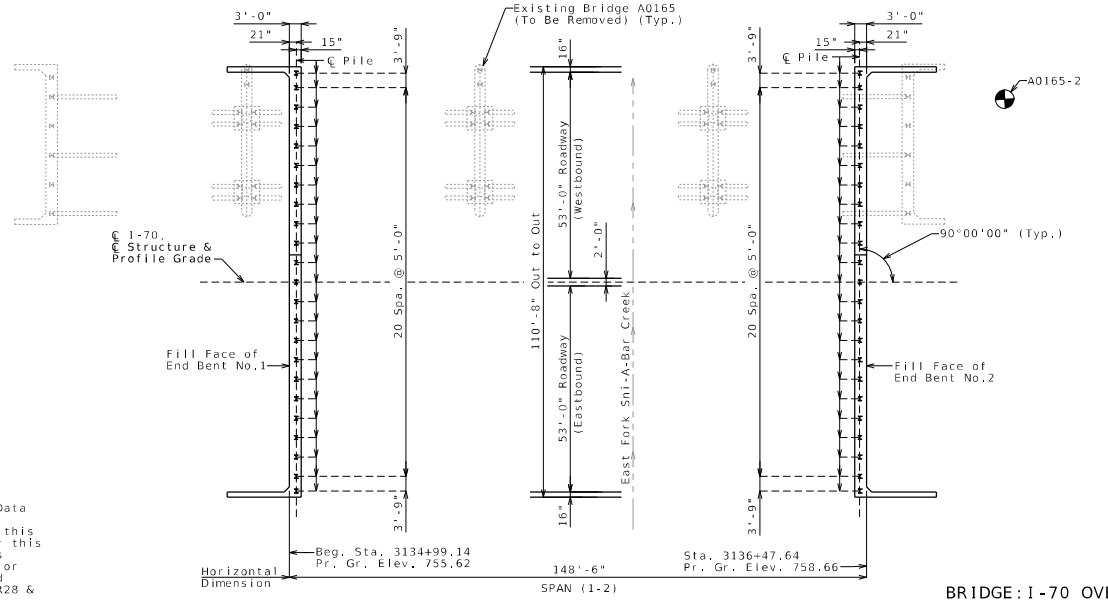
(145') PRESTRESSED CONCRETE NU-GIRDER SPAN




GENERAL ELEVATION

Roadway fill shall be completed to the final roadway section and up to the elevation of the bottom of the concrete beam within the limits of the structure and for not less than 25 feet in back of the fill face of the end bents before any piles are driven for any bents falling within the embankment section.

A0165-1




PLAN

Indicates location of borings

Notice and Disclaimer Regarding Boring Log Data

The locations of all subsurface borings for this structure are shown on the plan sheet(s) for this structure. The boring data for all locations indicated, as well as any other boring logs or other factual records of subsurface data and investigations, are shown on Sheets No. 3-BR28 & 3-BR29 and in the geotechnical report.

Designed Mar. 2026
Detailed Mar. 2026
Checked Mar. 2026

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

Sheet No. 1 of 29

BRIDGE: I-70 OVER EAST FORK SNI-A-BAR CREEK

ROUTE I-70 FROM ROUTE D TO ROUTE 131
ABOUT 2.0 MILES EAST OF ROUTE D
BEGIN STATION 3134+99.14

STATE OF MISSOURI
WYATT G. FALLET
NUMBER PE-2009042961
PROFESSIONAL ENGINEER
THIS SHEET WAS SIGNED, SEALED, AND DATED ELECTRONICALLY.

DATE PREPARED 5/7/2026
ROUTE I-70
STATE MO
DISTRICT BR
SHEET NO. 3-BR01
COUNTY LAFAYETTE
JOB NO. JST0019
CONTRACT ID. 250507-C01
PROJECT NO.
BRIDGE NO. A9746

| NO. | APPD. BY | DATE | REVISIONS |
|---|---|---|---|
| A | JMK | 01/29/26 | SEG. 3 - A9746 E FORK SNI-A-BAR TS&L |
| B | WGF | 04/14/26 | SEG. 3 - A9746 E FORK SNI-A-BAR FINAL |
| 1 | WGF | 05/07/26 | SEG. 3 - A9746 E FORK SNI-A-BAR PSFC |

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
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SEG3_B_A9746_001_JST0019_PLAN_ELEVATION.dgn 2:36:32 PM 5/7/2026

## Estimated Quantities for Slab on Concrete NU-Girder

| Item | | Total |
|---|---|---|
| Class B-2 Concrete | cu. yard | 656 |
| Reinforcing Steel (Epoxy Coated) | pound | 164,730 |

All concrete above the construction joint in the end bents is included in the Estimated Quantities for Slab on Concrete NU-Girder.

All reinforcement in the end bents is included in the Estimated Quantities for Slab on Concrete NU-Girder.

Method of forming the slab shall be as shown on the plans and in accordance with Sec 703. All hardware for forming the slab to be left in place as a permanent part of the structure shall be coated in accordance with ASTM A123 or ASTM B633 with a thickness class SC 4 and a finish type I, II, or III.

Slab shall be cast-in-place with stay-in-place corrugated steel forms. Precast prestressed panels will not be permitted.

## Hydrologic Data

| |
|---|
| Drainage Area = 33 mi |
| Design Flood Frequency = 100 years |
| Design Flood Discharge = 10,200 cfs |
| Design Flood (D.F.) Elevation = 745.5 |
| Estimated Backwater = 0.8 ft |
| Average Velocity thru Opening = 10.8 ft/s |
| Freeboard (50-year) |
| Freeboard = 4.4 ft |
| Roadway Overtopping |
| Overtopping Flood Discharge = N/A |
| Overtopping Flood Frequency = >500 years |
| 500-Yr. Flood Elevation = 748.9 |

## Foundation Data

| Type | Design Data | | Bent Number 1 | Bent Number 2 |
|---|---|---|---|---|
| Load Bearing Pile | Pile Type and Size | | HP 12x53 | HP 12x53 |
| | Number | ea | 23 | 23 |
| | Approximate Length Per Each | ft | 61 | 66 |
| | Pile Point Reinforcement | ea | All | All |
| | Min. Galvanized Penetration (Elev.) | ft | 723.16 | 725.80 |
| | Pile Driving Verification Method | | DT | DT |
| | Resistance Factor | | 0.65 | 0.65 |
| | Minimum Nominal Axial Compressive Resistance | kip | 416 | 416 |

DT = Dynamic Testing

Load Bearing Pile:
Minimum Nominal Axial Compressive Resistance = Maximum Factored Loads
Resistance Factor

All piles shall be galvanized down to the minimum galvanized penetration (elevation).

Pile point reinforcement need not be galvanized. Shop drawings will not be required for pile point reinforcement.

All piles are anticipated to be driven to refusal on rock. Review all borings for depth of rock and restrict driving as appropriate to comply with hard rock driving criteria in accordance with Sec 702. When pile refusal on rock occurs, as approved by the engineer, the minimum nominal axial compressive resistance is verified and no additional pile driving verification method is required.

The contractor shall make every effort to achieve the minimum galvanized penetration (elevation) shown on the plans for all piles. Deviations in penetration less than 5 feet of the minimum will be considered acceptable provided the contractor makes the necessary corrections to ensure the minimum penetration is achieved on subsequent piles.

Prebore to natural ground line.

## General Notes:

Design Specifications:
2020 AASHTO LRFD Bridge Design Specifications (9th Ed.)
Seismic Design Category = A (Non-seismic)
Design earthquake response spectral acceleration coefficient at 1.0 second period, $SD_1$ = 0.092g
Acceleration Coefficient (effective peak ground acceleration coefficient), As = 0.054g
Operational Importance Factor = 1.05

Design Loading:
Vehicular = HL-93
Future Wearing Surface = 35 lb/sf
Earth = 120 lb/cf, Equivalent Fluid Pressure = 45 lb/cf (Min.)
Superstructure: Non-Composite for dead load.
Composite for live load.

Design Unit Stresses:

| | |
|---|---|
| Class B Concrete (Substructure) | f'c = 3,000 psi |
| Class B-1 Concrete (Barrier) | f'c = 4,000 psi |
| Class B-2 Concrete (Superstructure, except Prestressed Girders and Barrier) | f'c = 4,000 psi |
| Reinforcing Steel (ASTM A615 Grade 60) | fy = 60,000 psi |
| Structural Steel HP Pile (ASTM A709 Grade 50) | fy = 50,000 psi |

For Prestressed Girder Stresses, See Sheet No. 3-BR15.

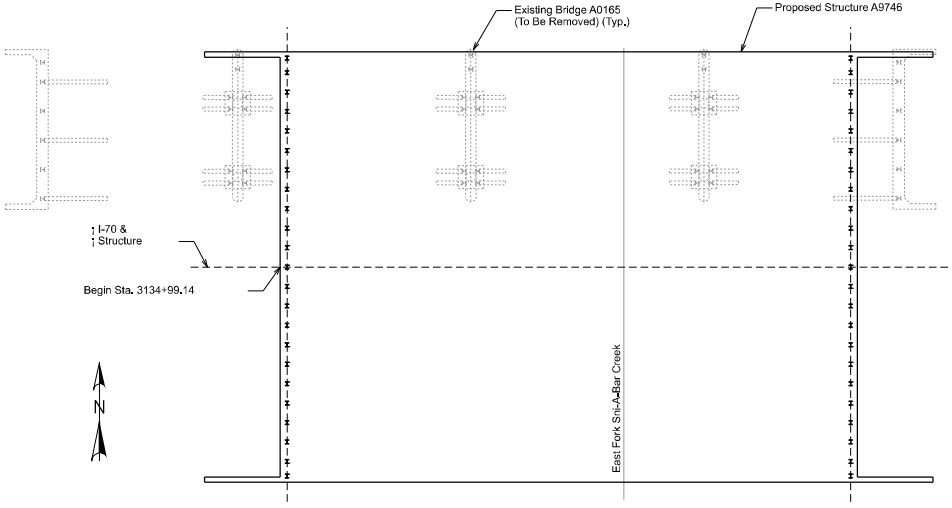
Neoprene Pads:
Neoprene bearing pads shall be 60 durometer and shall be in accordance with Sec 716.

Joint Filler:
All Joint filler shall be in accordance with Sec 1057 for preformed sponge rubber expansion and partition joint filler, except as noted.

Standard Plans:
617.10 for Type C Barrier

Reinforcing Steel:
Minimum clearance to reinforcing steel shall be 1 1/2", unless otherwise shown.
Mechanical bar splices shall be in accordance with Sec 706 or 710.
MBS refers to mechanical bar splices.

Traffic Handling:
Traffic to be maintained on structures during construction. See roadway plans for traffic control and Sheet No. 3-BR03 for staged construction details.




LOCATION SKETCH


STATE OF MISSOURI
WYATT G. FALLET
NUMBER PE-2009042961
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED, AND DATED ELECTRONICALLY.


DATE PREPARED 5/7/2026
ROUTE I-70 | STATE MO
DISTRICT BR | SHEET NO. 3-BR02
COUNTY LAFAYETTE
JOB NO. JST0019
CONTRACT ID. 250507-C01
PROJECT NO.
BRIDGE NO. A9746

| NO. | APPD. BY | DATE | REVISIONS |
|---|---|---|---|
| A | WGF | 04/14/26 | SEG. 3 - A9746 E FORK SNI-A-BAR FINAL |
| 1 | WGF | 05/07/26 | SEG. 3 - A9746 E FORK SNI-A-BAR RFC |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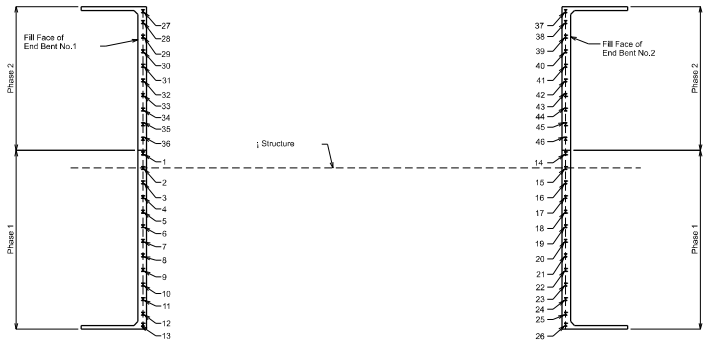


## PART PLAN SHOWING PILE NUMBERING FOR RECORDING AS-BUILT PILE DATA

### As-Built Pile Data

| Pile No. | Length in Place (ft) | PDA Nom. Axial Compressive Resistance (kips) | PDA End of Drive Blow Count (blows/in.) | Actual End of Drive Blow Count (blows/in.) | Remarks |
|---|---|---|---|---|---|
| | | | Phase 1 End Bent No. 1 | | |
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |
| 11 | | | | | |
| 12 | | | | | |
| 13 | | | | | |
| | | | Phase 1 End Bent No. 2 | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |
| 17 | | | | | |
| 18 | | | | | |

### As-Built Pile Data

| Pile No. | Length in Place (ft) | PDA Nom. Axial Compressive Resistance (kips) | PDA End of Drive Blow Count (blows/in.) | Actual End of Drive Blow Count (blows/in.) | Remarks |
|---|---|---|---|---|---|
| 19 | | | | | |
| 20 | | | | | |
| 21 | | | | | |
| 22 | | | | | |
| 23 | | | | | |
| 24 | | | | | |
| 25 | | | | | |
| 26 | | | | | |
| | | | Phase 2 End Bent No. 1 | | |
| 27 | | | | | |
| 28 | | | | | |
| 29 | | | | | |
| 30 | | | | | |
| 31 | | | | | |
| 32 | | | | | |
| 33 | | | | | |
| 34 | | | | | |
| 35 | | | | | |
| 36 | | | | | |

### As-Built Pile Data

| Pile No. | Length in Place (ft) | PDA Nom. Axial Compressive Resistance (kips) | PDA End of Drive Blow Count (blows/in.) | Actual End of Drive Blow Count (blows/in.) | Remarks |
|---|---|---|---|---|---|
| | | | Phase 2 End Bent No. 2 | | |
| 37 | | | | | |
| 38 | | | | | |
| 39 | | | | | |
| 40 | | | | | |
| 41 | | | | | |
| 42 | | | | | |
| 43 | | | | | |
| 44 | | | | | |
| 45 | | | | | |
| 46 | | | | | |

Note:
Indicate in remarks column:
A. Pile type and grade
B. Batter
C. Driven to practical refusal
D. PDA test pile
E. Minimum tip elevation controlled
(Use when actual blow count is less than PDA blow count due to minimum tip elevation requirement. A plus sign (+) shall be placed after the PDA nominal axial compressive resistance value indicating actual value is higher than PDA value.)

This sheet to be completed by MoDOT construction personnel.

Detailed Mar. 2026
Checked Mar. 2026

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



STATE OF MISSOURI
WYATT G. FALLET
NUMBER PE-2009042961
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED, AND DATED ELECTRONICALLY.

DATE PREPARED 5/7/2026

| ROUTE | STATE |
|---|---|
| I-70 | MO |
| DISTRICT | SHEET NO. |
| BR | 3-BR27 |

COUNTY LAFAYETTE
JOB NO. JST0019
CONTRACT ID. 250507-C01
PROJECT NO.
BRIDGE NO. A9746

REVISIONS

| NO. | APPD. BY | DATE | |
|---|---|---|---|
| A | WGF | 04/14/26 | SEG. 3 - A9746 E FORK SNI-A-BAR FINAL |
| 1 | WGF | 05/07/26 | SEG. 3 - A9746 E FORK SNI-A-BAR RFC |

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