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Cole County, Missouri

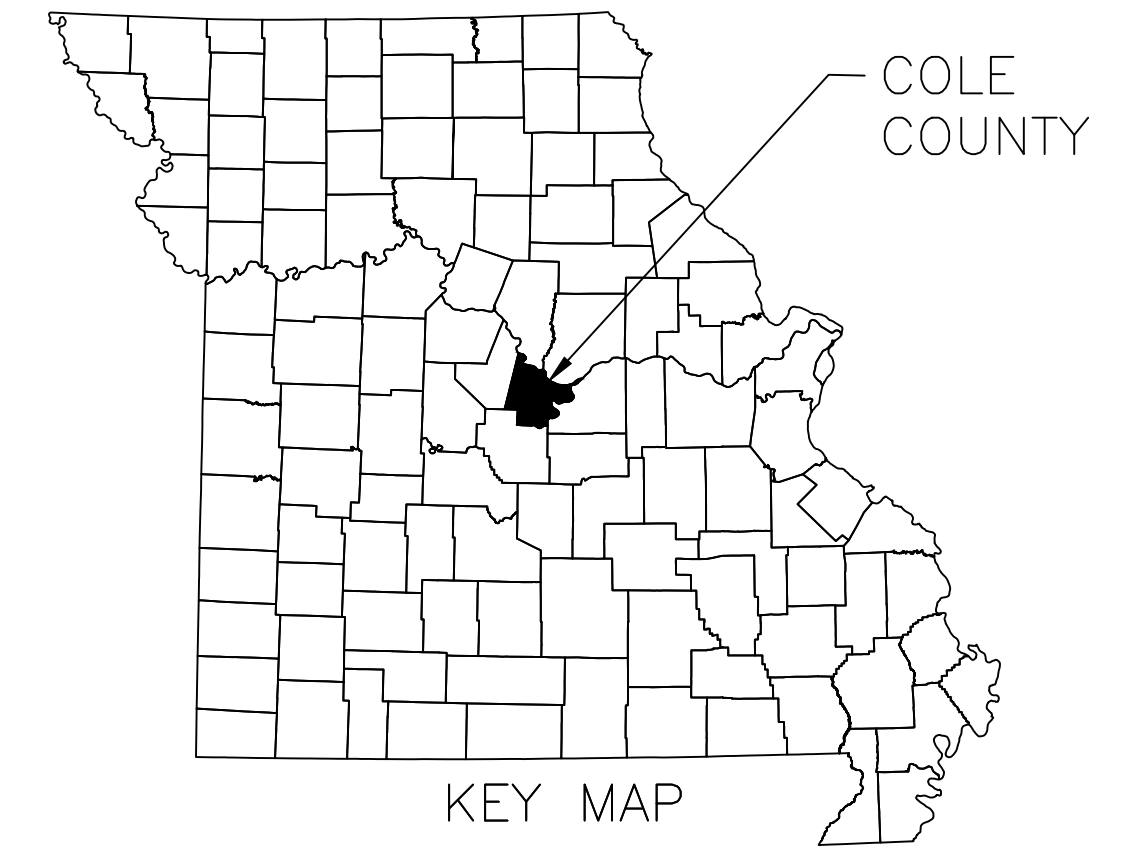
Department of Public Works



HIGH POINT ROAD

EXISTING BRIDGE NUMBER 0160015

OVER MEADOWS CREEK



UTILITY CONTACTS:

AMEREN MISSOURI ELECTRIC 800-778-9140
 CENTURYLINK 573-634-1615

CALL OR CLICK 3 DAYS BEFORE YOU DIG!

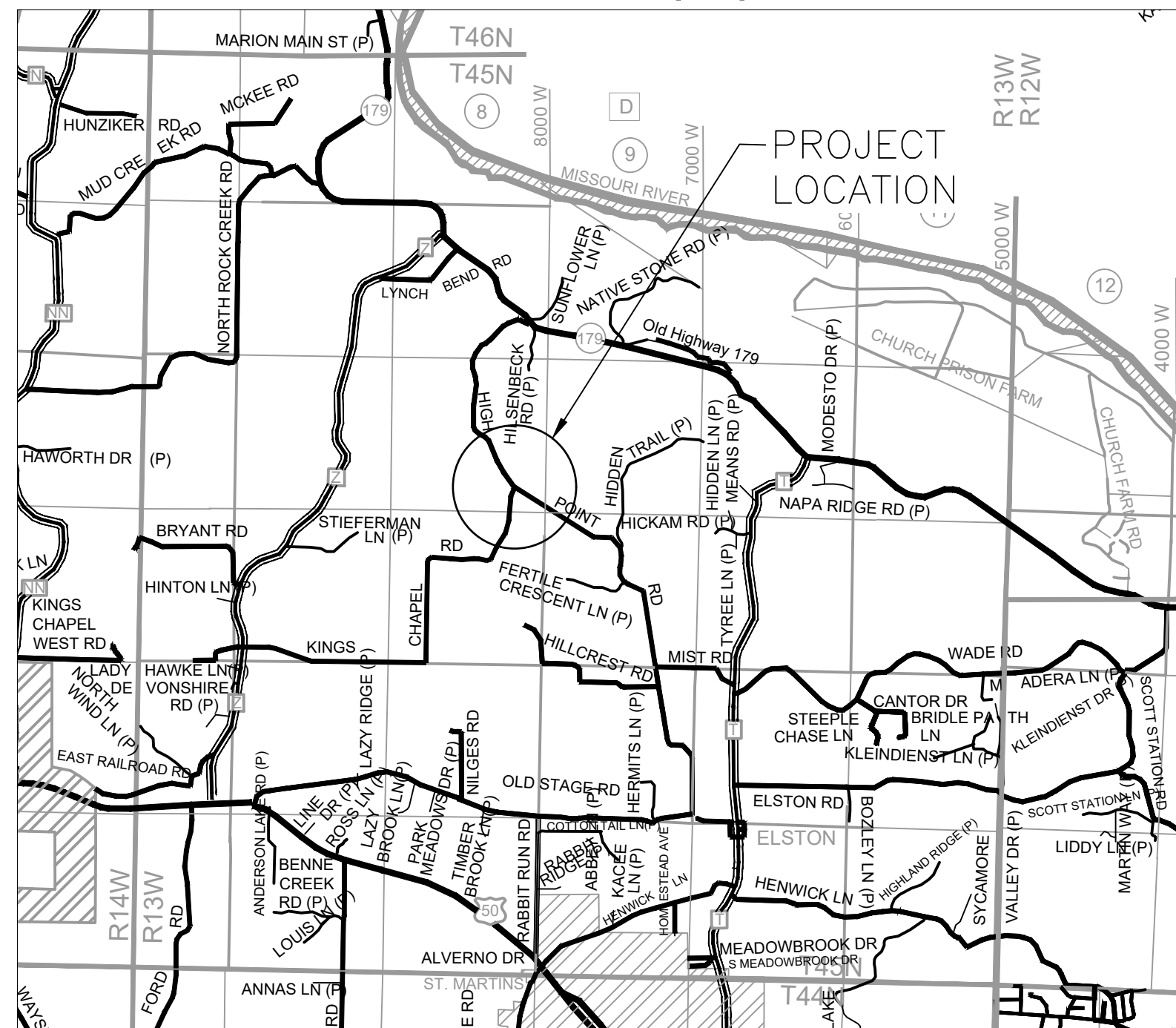
1-800-DIG-RITE OR 811
www.motcall.com

Bartlett & West
 1718 SOUTHRIDGE DRIVE, SUITE 100 - JEFFERSON CITY, MO 65109
 PHONE: 573.634.3181
 CERTIFICATE OF: www.bartlettandwest.com

LEGEND

- | | |
|---|-----------------------------------|
| ⊕ BILLBOARD | ⊕ ROOF DRAIN |
| ⊕ BORE HOLE or DRILL HOLE | ⊕ CURB INLET |
| ⊕ LANDSCAPE BOULDER | ⊕ SANITARY MANHOLE |
| ⊕ WELL | ⊕ CLEANOUT |
| ⊕ FLAG POLE | ⊕ YARD HYDRANT |
| ⊕ SATELLITE DISH | ⊕ WATER SPRINKLER |
| ⊕ POST | ⊕ WATER MANHOLE |
| ⊕ MAILBOX | ⊕ WATER METER |
| ⊕ TWO POLE SIGN | ⊕ WATER VALVE |
| ⊕ ONE POLE SIGN | ⊕ FIRE HYDRANT |
| ⊕ PARKING METER | ⊕ LIGHT |
| ⊕ STOP SIGN | ⊕ FLOOD LIGHT |
| ⊕ GAS REGULATOR | ⊕ LUMINARY (STREET LIGHT) |
| ⊕ GAS RISER | ⊕ MANHOLE COVER |
| ⊕ GAS TEST STATION | ⊕ MISCELLANEOUS TOPO ITEM |
| ⊕ GAS METER | ⊕ FINISH FLOOR |
| ⊕ GAS VALVE | ⊕ MIN. OPENING ELEV. |
| ⊕ UTILITY POLE | ⊕ STUMP |
| ⊕ GUY POLE | ⊕ SHRUB |
| ⊕ GUY ANCHOR | ⊕ DECIDUOUS TREE |
| ⊕ TELEPHONE PEDESTAL | ⊕ EVERGREEN SHRUB |
| ⊕ TELEPHONE MANHOLE | ⊕ EVERGREEN TREE |
| ⊕ CABLE TV PEDESTAL | |
| ⊕ ELECTRIC MANHOLE | SURVEY MONUMENTATION |
| ⊕ ELECTRIC METER | ⊕ BM BENCHMARK |
| ⊕ TRANSFORMER/ELECTRIC PAD | ⊕ TBM TEMPORARY BENCHMARK |
| ⊕ AIR CONDITIONER | ⊕ R/W MARKER |
| ⊕ HAND HOLE | ⊕ FOUND SURVEY MONUMENT |
| ⊕ TRAFFIC SIGNAL | ⊕ SET SURVEY MONUMENT |
| ⊕ TRAFFIC SIGNAL BOX | ⊕ SET SURVEY MONUMENT IN CONCRETE |
| ⊕ SIGNAL MANHOLE | ⊕ CALCULATED SURVEY POINT |
| ⊕ STORM MANHOLE | ⊕ CHISELED CROSS FOUND |
| ⊕ AREA INLET | ⊕ CHISELED CROSS SET |
| —OHE— OVERHEAD ELECTRIC | |
| —UGT— UNDERGROUND TELEPHONE | |
| —UGCT— UNDERGROUND CABLE AND TELEVISION | |
| —G— GAS LINE | |
| —SAN— SANITARY SEWER LINE | |
| —W— WATER LINE | |

FINAL PLANS
JANUARY 2021
FEDERAL PROJECT NO.
BRO-B026(24)



LOCATION MAP
DESIGN DATA

CONSTRUCTION BEGINNING - ENDING STATION (HIGH POINT ROAD) 8+07.42 - 12+93.12
CONSTRUCTION BEGINNING - ENDING STATION (KINGS CHAPEL ROAD) 17+68.60 - 20+00.00
PROJECT LENGTH 0.13 MILES
DESIGN SPEED 40 MPH

APPROVED BY:
COLE COUNTY, MISSOURI

COLE COUNTY PUBLIC WORKS:
ERIC LANDWEHR, P.E., COUNTY ENGINEER

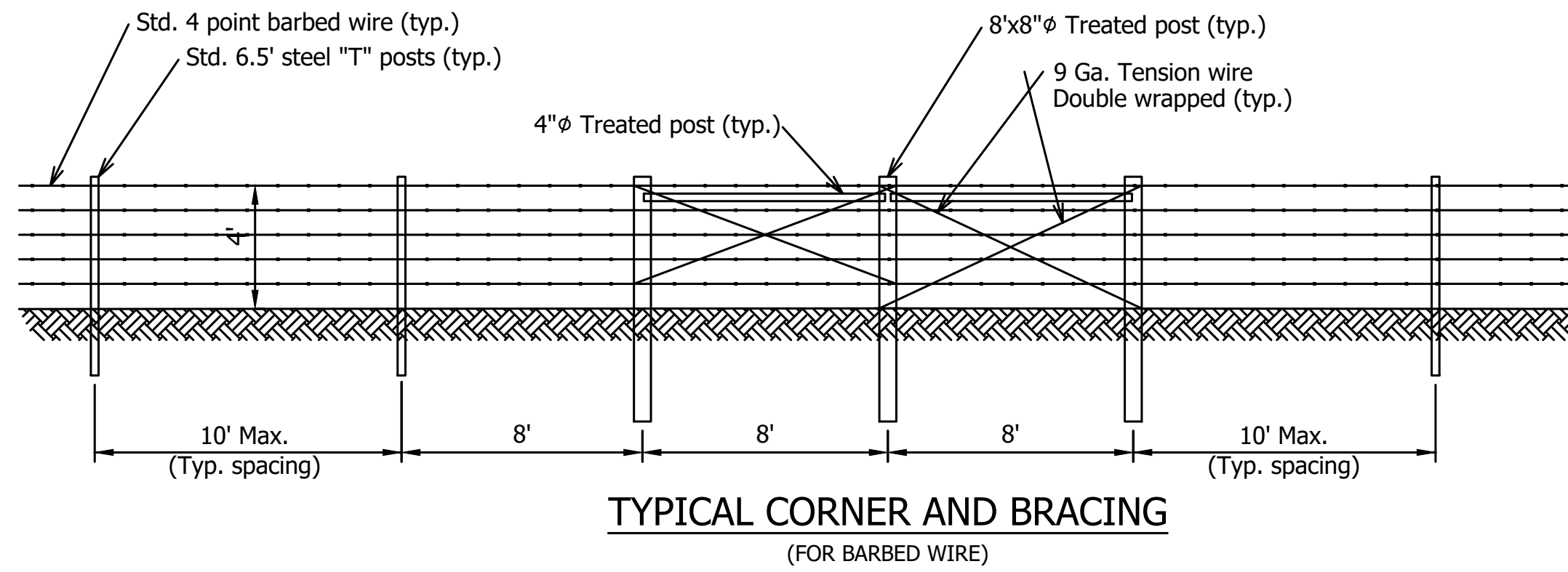
1/8/2021
DATE

TITLE SHEET
HIGH POINT ROAD BOX CULVERT REPLACEMENT
FEDERAL PROJECT NO. BRO-B026(24)
COLE COUNTY, MISSOURI

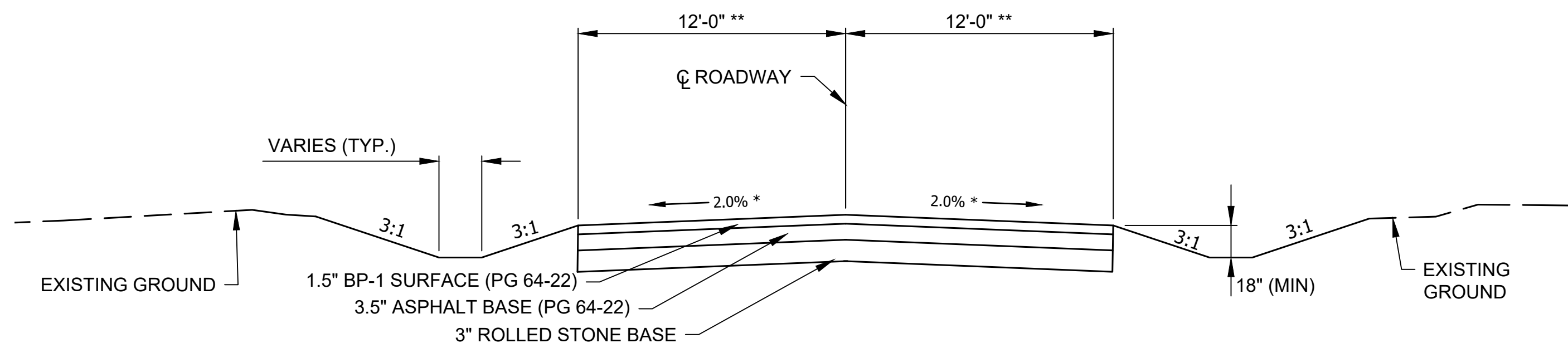
SEALED DATE:	1/29/2021
DESIGNED BY:	TDL
DRAWN BY:	TAA
APPROVED BY:	AKJ
DESIGN PROJ.:	15937.700
DATE:	JANUARY 2021
DRAWING NO.:	
SHEET NO.:	1 of 9

GENERAL NOTES

- A. VERIFYING THE LOCATIONS OF THE UNDERGROUND UTILITIES, SHOWN OR NOT SHOWN, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. ANY DAMAGE TO EXISTING OR PROPOSED FACILITIES, STRUCTURES OR UTILITIES SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE. NOTIFY MISSOURI ONE CALL FOR LOCATION OF THE UTILITIES AT LEAST 5 DAYS PRIOR TO CONSTRUCTION. UTILITY COORDINATION SHALL NOT BE A REASON FOR DELAY OR ADDITIONAL COST FOR THE PROJECT.
- B. THE CONTRACTOR SHALL IMMEDIATELY REPAIR ALL DAMAGE TO PROPERTY OUTSIDE LIMITS OF CONSTRUCTION AT THE CONTRACTOR'S EXPENSE.
- C. REPORT ANY DISCREPANCIES FOUND WITH REGARD TO EXISTING CONDITIONS OR PROPOSED DESIGN IMMEDIATELY TO THE ENGINEER.
- D. DO NOT WILLFULLY PROCEED WITH CONSTRUCTION AS DESIGNED WHERE DISCREPANCIES EXIST. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REVISIONS TO THE WORK WHEN NO NOTICE WAS GIVEN TO THE ENGINEER.
- E. THE GENERAL CONTRACTOR SHALL COORDINATE OTHER SITE RELATED OPERATIONS PERFORMED BY OTHER CONTRACTORS OR UTILITY COMPANIES TO ACCOMPLISH THE WORK.
- F. ALL WORK SHALL BE IN COMPLIANCE WITH ALL LOCAL, STATE AND FEDERAL CODES AND ORDINANCES.
- G. LEAVE AREAS OF DEMOLITION IN A NEAT AND SAFE CONDITION AT THE END OF EACH WORK DAY. CONTRACTOR SHALL BARRICADE AREAS OF DEMOLITION AS NECESSARY TO PROTECT THE GENERAL PUBLIC. MAINTAIN SAFE PUBLIC ACCESS TO RESIDENCES.
- H. LEGALLY DISPOSE OF ALL DEMOLITION ITEMS OFF SITE UNLESS NOTED TO RETURN ITEMS TO THE COUNTY.
- I. THE CONTRACTOR SHALL ACHIEVE A STABILIZED SUBGRADE PRIOR TO CONSTRUCTION OF THE ROADWAY. PAYMENT FOR THIS WORK SHALL BE CONSIDERED COMPLETELY COVERED BY THE PAY ITEM "EARTHWORK". THE CONDITION OF THE EXISTING MATERIAL AND METHOD OF ACHIEVING A STABLE BASE WILL NOT BE GROUNDS FOR ADDITIONAL PAYMENT.
- J. ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE INSTALLED PRIOR TO ANY CONSTRUCTION.
- K. ANY EXISTING TRAFFIC SIGNS THAT CONFLICT WITH TEMPORARY TRAFFIC CONTROL SHALL BE COVERED OR REMOVED, NO DIRECT PAY.
- L. LOCATION OF TRAFFIC CONTROL DEVICES ARE SUBJECT TO CHANGE AS APPROVED BY ENGINEER.
- M. PLACEMENT AND USE OF TEMPORARY TRAFFIC CONTROL SIGNS AND DEVICES SHALL BE IN ACCORDANCE WITH THE CURRENT VERSION OF THE MUTCD.
- N. LOCAL ACCESS FOR PROPERTY OWNERS SHALL BE MAINTAINED AT ALL TIMES.
- O. ALL CONSTRUCTION MATERIALS AND METHODS SHALL COMPLY WITH THE LATEST EDITION OF THE MISSOURI STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EXCEPT AS NOTED.
- P. THE CONTRACTOR SHALL MAINTAIN PROPER DRAINAGE AND EROSION CONTROL AT ALL TIMES DURING CONSTRUCTION.
- Q. MATERIALS, CONSTRUCTION REQUIREMENTS AND PAYMENT FOR BOTH FURNISHING AND PLACING TYPE 2 ROCK BLANKET SHALL BE IN ACCORDANCE WITH SEC 611.

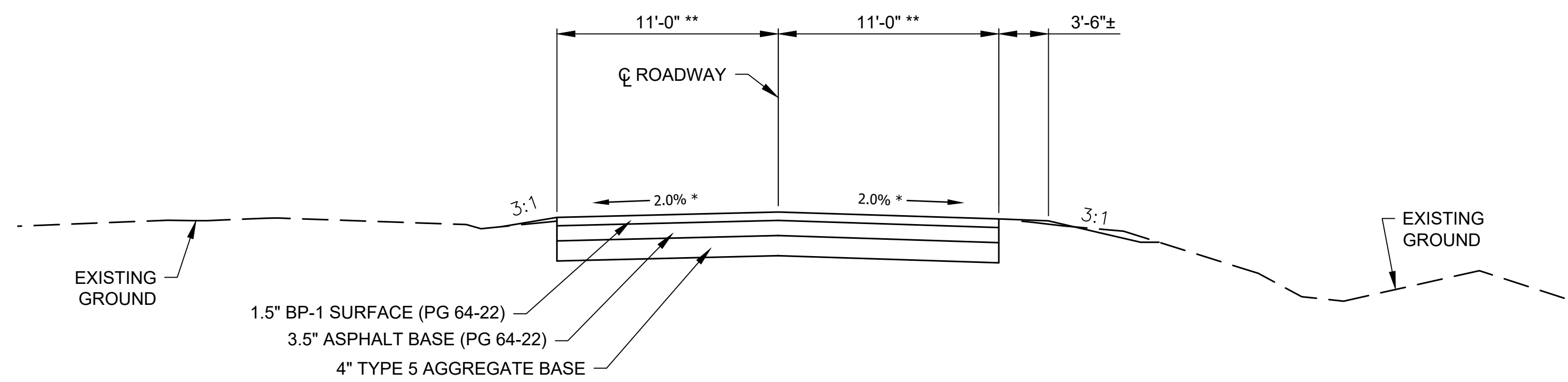


- Notes:
1. Contractor shall match existing fence type (5 strand barbed wire fence).
 2. Fence shown in this detail is the minimum required by the engineer. Actual replacement fence shall be equal to or better than the existing.
 3. Ties to existing fence require the same layout as fence corners. (Corner posts with bracing and tension wire.)
 4. Corner and bracing posts shall be buried a minimum of 4 feet or as directed by the property owner.
 5. Proposed fencing shall follow the proposed location depicted on sht. 6.
 6. Proposed fencing shall be installed before the existing fence is removed.

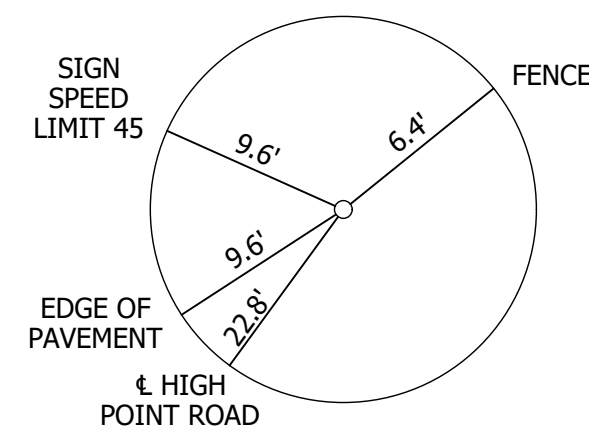


**PROPOSED TYPICAL SECTION
HIGH POINT ROAD
STA. 9+70.31 TO 11+11.85**

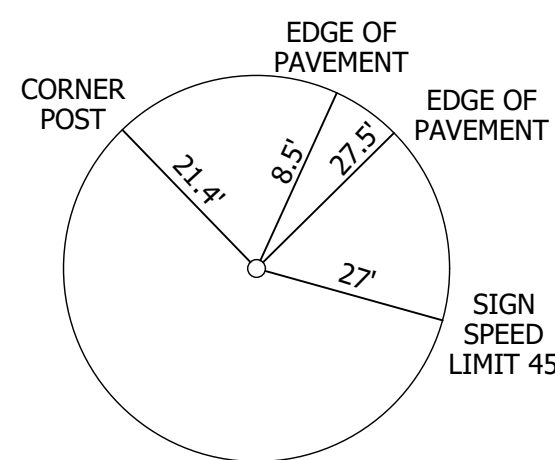
* TAPER CROSS-SLOPE OVER 50' MINIMUM.
** TAPER WIDTH TO EXISTING ROADWAY AT BOTH ENDS OF PROJECT. MAXIMUM HORIZONTAL TAPER ALLOWED IS 15:1



**PROPOSED TYPICAL SECTION
KING'S CHAPEL ROAD
STA. 19+35.41 TO 20+00.00**



CONTROL POINT 3
5/8" REBAR WITH CAP
N: 1024281.8457
E: 1683033.4889
ELEV. 601.51



CONTROL POINT 4
5/8" REBAR WITH CAP
N: 1023752.2815
E: 1683376.3301
ELEV. 601.62

CONTROL POINTS

MISSOURI COORDINATE SYSTEM OF 1983
MISSOURI STATE PLANE CENTRAL ZONE, NAVD 88
RECIPROCAL AVERAGE GRID FACTOR: 1.000088074
GRID FACTOR: 0.999911934

COORDINATES ARE GIVEN IN STATE PLANE COORDINATES

Item No.	Description	Quantity	Unit
202-20.10	Removal of Improvements	1	LS
203-99.01	Earthwork	1	LS
216-05.00	Removal of Bridges/Culverts	1	LS
304-05.06	Gravel Driveway (6" Thickness)	89	SY
304-99.05	3" Aggregate Stone Base	584	SY
401-99.05	1.5" BP-1 Surface (PG 64-22)	584	SY
401-99.25	3.5" Asphalt Base (PG 64-22)	584	SY
606-96.10	End Anchor	1	EA
607-99.02	14' Field Gate	1	EA
607-99.03	Barbed Wire Fence	80	LF
609-99.07	Type 2 Rock Ditch Liner	38	CY
611-99.07	Type 2 Rock Blanket (24" Thick)	37	CY
616-99.01	Temporary Traffic Control	1	LS
618-10.01	Mobilization	1	LS
703-40.41	Class B-1 Concrete (Culverts)	222	CY
706-10.30	Reinforcing Steel (Culverts)	28580	LB
726-13.15	15" Class III Reinforced Concrete Pipe Culvert	40	LF
732-99.01	15" RCP End Section	2	EA
805-10.00A	Seeding, Fertilizing and Mulch	0.3	AC
806-10.19	Silt Fence	111	LF
806-99.02	Rock Ditch Check (9")	3	EA

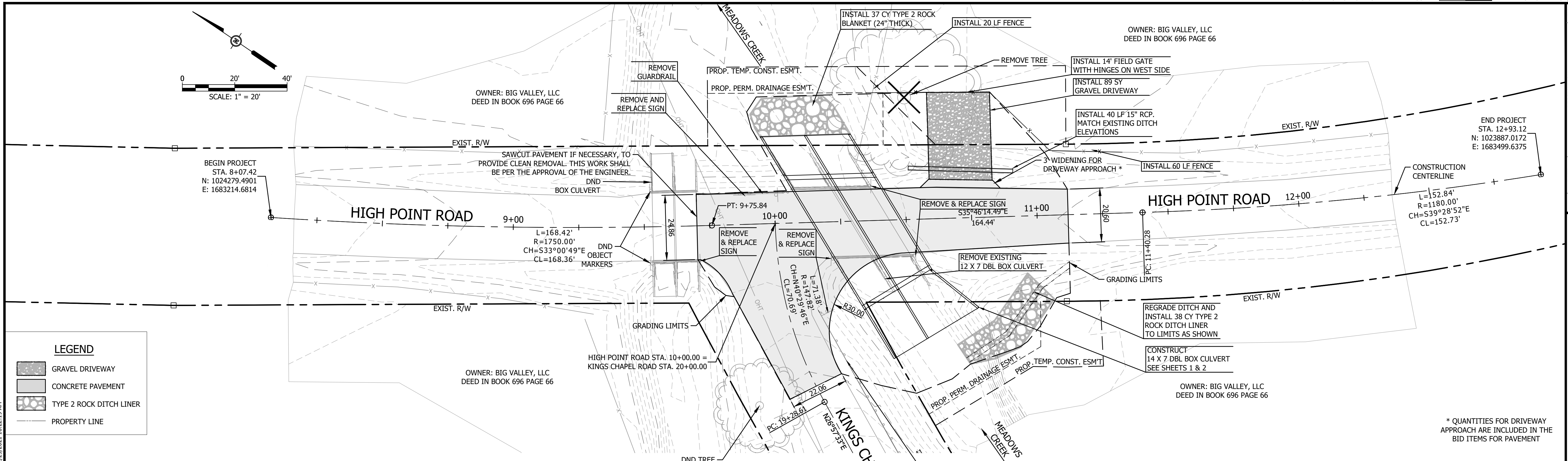
HYDROLOGIC DATA	
Drainage Area	= 2.4 sq. miles
Design Flood Frequency	= 25 years
Design Flood Discharge	= 1,480 cfs
Design Flood (D.F.) Elevation	= 598.26 at centerline bridge
Base Flood Data (100 year)	
Base Flood Elevation	= 600.00 at centerline bridge
Base Flood Discharge	= 2,080 cfs
Estimated Backwater	= 1.97 feet
Average Velocity Through Opening	= 9.55 ft/s
Freeboard (50 year)	
Freeboard	= -3.13 feet
Roadway Overtopping	
Overtopping Flood Discharge	= 2,080 cfs
Overtopping Flood Frequency	= 25 years
500 year Flood Elevation	= 601.22 at centerline bridge

**GENERAL NOTES AND
TYPICAL SECTIONS SHEET**

HIGH POINT ROAD BOX CULVERT REPLACEMENT
FEDERAL PROJECT NO. BRO-B026(24)
COLE COUNTY, MISSOURI

SEALED DATE:	1/29/2021
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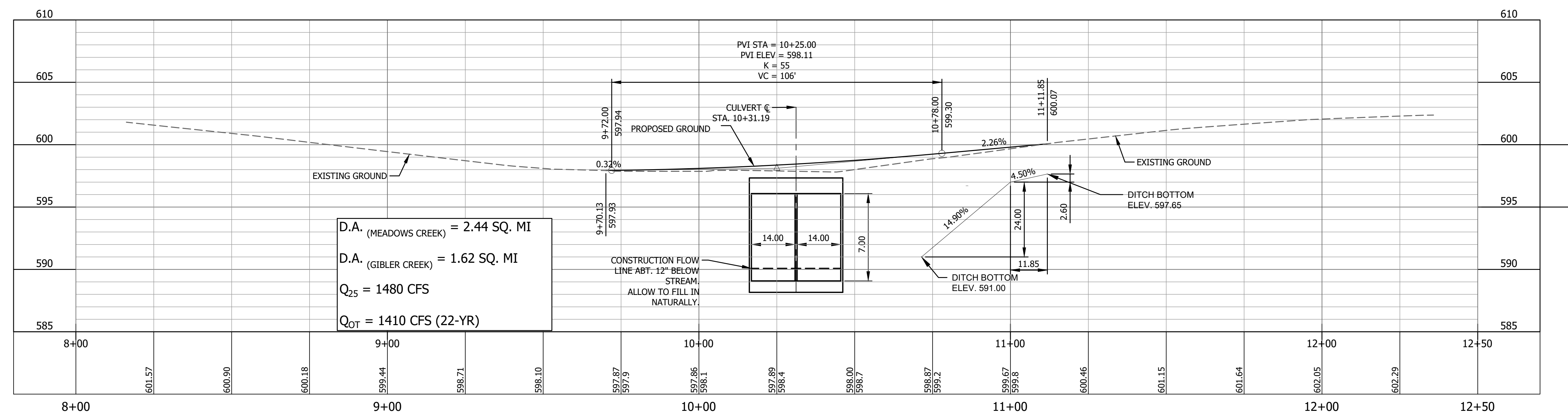
Bartlett & West
1719 SOUTHRIDGE DRIVE, SUITE 100 - JEFFERSON CITY, MO 65109
PHONE: 973.634.3181
CERTIFICATE OF QUALITY
www.bartlettandwest.com



LEGEND

- GRAVEL DRIVEWAY
- CONCRETE PAVEMENT
- TYPE 2 ROCK DITCH LINER
- PROPERTY LINE

NOTES:
 IN LOCATIONS WHERE A PROFILE IS NOT SPECIFICALLY SHOWN THE ROADWAY SHOULD BE REPLACED AT ITS EXISTING GRADE UNLESS OTHERWISE DIRECTED BY THE ENGINEER IN THE FIELD.
 ALL EXISTING SIGNS WITHIN THE PROJECT LIMITS SHOULD BE SALVAGED AND REINSTALLED AT THE COMPLETION OF THE PROJECT AS DIRECTED BY THE ENGINEER.



D.A. (MEADOWS CREEK) = 2.44 SQ. MI
 D.A. (GIBLER CREEK) = 1.62 SQ. MI
 $Q_{25} = 1480$ CFS
 $Q_{OT} = 1410$ CFS (22-YR)

DATE	DESCRIPTION

Bartlett & West
 1719 SOUTHRIDGE DRIVE, SUITE 100 - JEFFERSON CITY, MO 65109
 PHONE: 973.634.3181
 CERTIFICATE OF PROFESSIONAL ENGINEERING
 www.bartlettandwest.com

**ROADWAY PLAN AND PROFILE
 HIGH POINT ROAD
 HIGH POINT ROAD BOX CULVERT REPLACEMENT
 FEDERAL PROJECT NO. BRO-B026(24)
 COLE COUNTY, MISSOURI**

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