DESIGN DESIGNATION

A.A.D.T. - 2025 = 30,840

A.A.D.T. - 2045 = 45,820

T = 8%

V = 35 M.P.H.

FUNCTIONAL CLASSIFICATION-OTHER PRINCIPAL ARTERIAL

NORMAL RIGHT OF WAY TO BE ACQUIRED

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	D	
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

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

PLANS FOR PROPOSED STATE HIGHWAY

JACKSON COUNTY SECTIONS 30 & 31, T49N, R30W

KEY MAP
LOCATION OF JACKSON COUNTY

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
TITLE SHEET	1
TYPICAL SECTIONS (TS) (12 SHEETS)	2
QUANTITIES (QU) (15 SHEETS)	3
PLAN SHEETS (PP)	4-20
RIGHT OF WAY SHEETS (RW)	21-37
COORDINATE POINTS (CP)	38-40
SPECIAL SHEETS (SS)	41-60
TRAFFIC CONTROL (TC)	61-67
EROSION CONTROL SHEETS (EC)	68-76
LIGHTING (LT)	77-78
SIGNALS (SG)	79-132
ITS (ITS)	133-138
PAVEMENT MARKING (PM)	139-144
SIGNING (SN)	145-147
CULVERT SECTIONS (CS)	148-155
BRIDGE DRAWINGS (B)	
A9505	1-7
L09835	1-3
L09836	1
CROSS SECTIONS (XS)	1-20

LENGTH OF PROJECT

BEGINNING OF PROJECT	STA. 0+22.50
END OF PROJECT	STA. 82+80.00
APPARENT LENGTH	8,257.50 FEET

EQUATIONS AND EXCEPTIONS:

STA. 30+70.90 BK = STA. 30+71.37 AH

TOTAL CORRECTIONS	0.47	FEET
NET LENGTH OF PROJECT	8,257.03	FEET
STATE LENGTH	1.564	MILES
FOR INFORMATION ONLY ESTIMATED DISTURBED ACRES	2.1	ACRES

REID BRENNEN CATT NUMBER PE-2010019516

REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
10/2/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	1

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

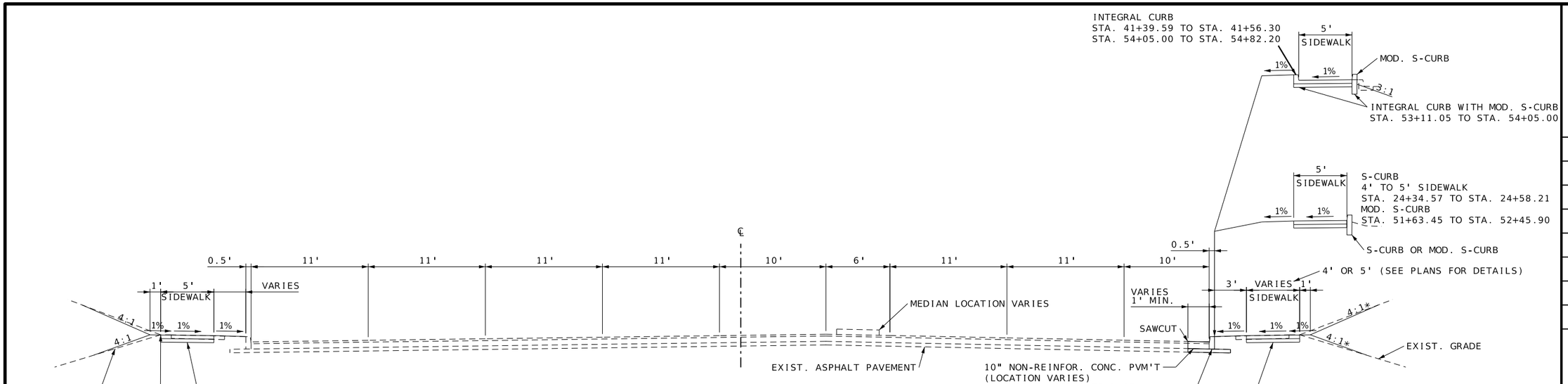
BRIDGE NO.

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

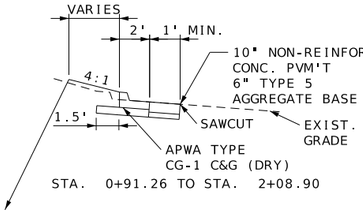
olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592



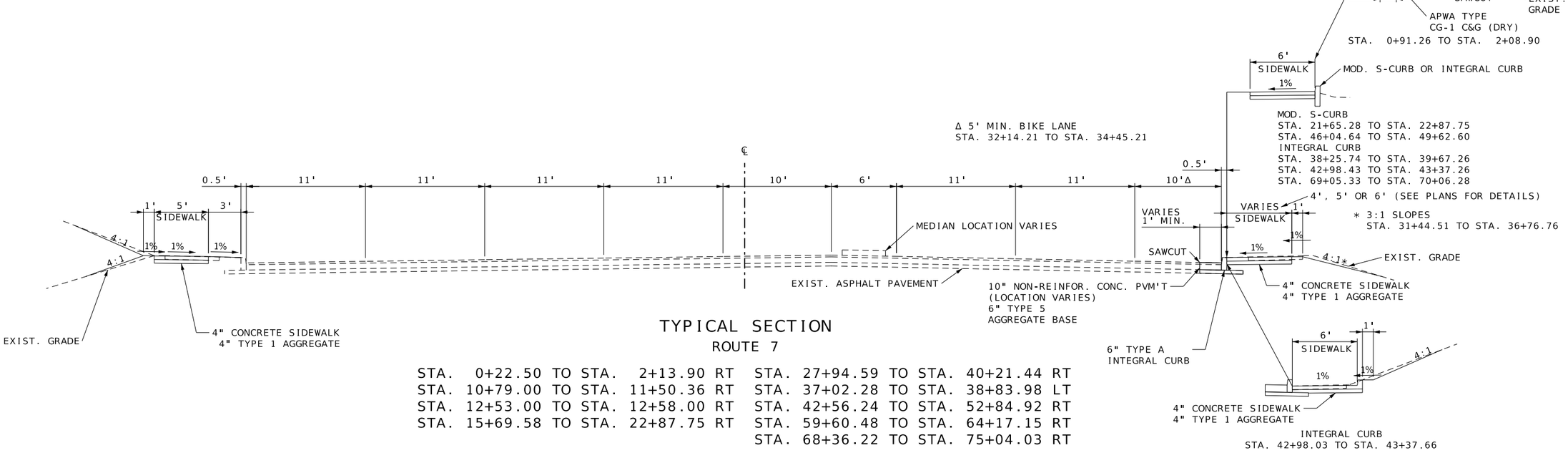
TYPICAL SECTION
ROUTE 7

STA. 22+87.75 TO STA. 26+28.90 RT
STA. 27+08.51 TO STA. 27+94.59 RT
STA. 40+21.44 TO STA. 42+56.24 RT
STA. 39+82.83 TO STA. 40+81.97 LT
STA. 52+84.92 TO STA. 56+67.12 RT
STA. 56+86.51 TO STA. 57+01.51 RT
STA. 57+53.29 TO STA. 58+18.29 RT
STA. 58+79.04 TO STA. 59+60.48 RT
STA. 82+01.72 TO STA. 82+80.00 LT
STA. 68+01.15 TO STA. 68+36.22 RT

* 3:1 SLOPES
STA. 28+55.48 TO STA. 29+38.34
STA. 39+75.00 TO STA. 40+76.56
STA. 53+73.37 TO STA. 54+89.17



STA. 0+91.26 TO STA. 2+08.90



* 3:1 SLOPES
STA. 31+44.51 TO STA. 36+76.76

TYPICAL SECTION
ROUTE 7

STA. 0+22.50 TO STA. 2+13.90 RT
STA. 10+79.00 TO STA. 11+50.36 RT
STA. 12+53.00 TO STA. 12+58.00 RT
STA. 15+69.58 TO STA. 22+87.75 RT
STA. 27+94.59 TO STA. 40+21.44 RT
STA. 37+02.28 TO STA. 38+83.98 LT
STA. 42+56.24 TO STA. 52+84.92 RT
STA. 59+60.48 TO STA. 64+17.15 RT
STA. 68+36.22 TO STA. 75+04.03 RT

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
10/2/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	2

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

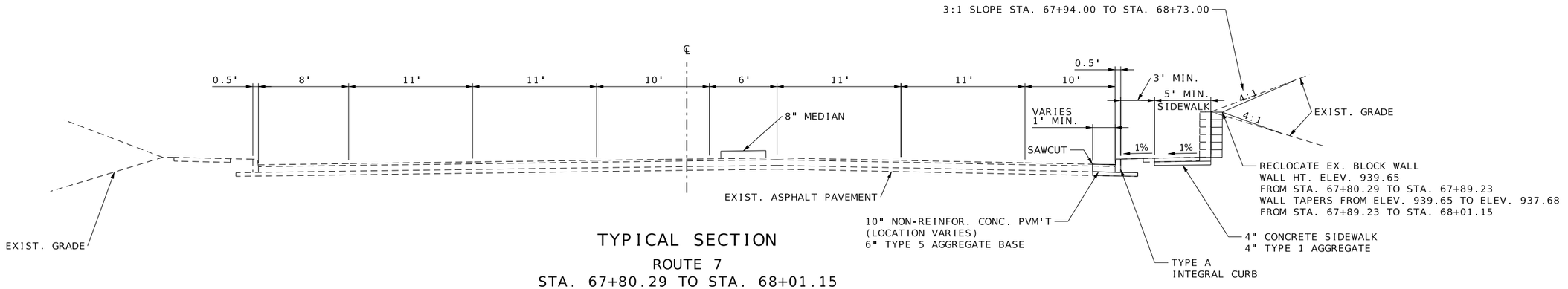
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

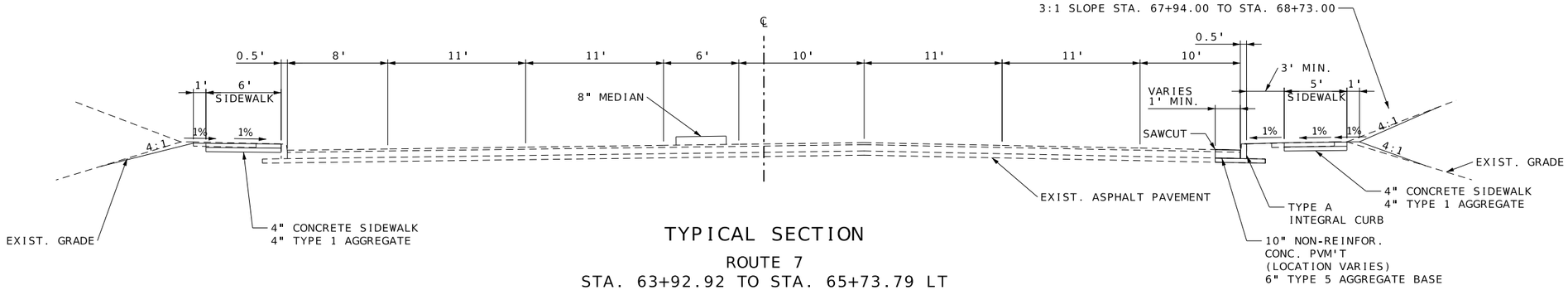
olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

TYPICAL SHEET
1 OF 12



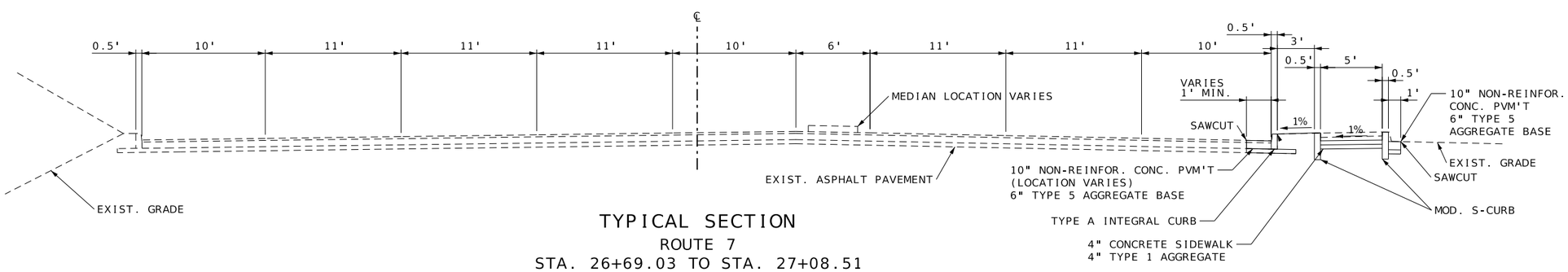
TYPICAL SECTION

ROUTE 7
STA. 67+80.29 TO STA. 68+01.15



TYPICAL SECTION

ROUTE 7
STA. 63+92.92 TO STA. 65+73.79 LT
STA. 64+17.15 TO STA. 64+30.09 RT
STA. 65+00.46 TO STA. 65+34.55 RT
STA. 66+98.37 TO STA. 67+80.29 RT
STA. 81+71.62 TO STA. 82+01.72 RT



TYPICAL SECTION

ROUTE 7
STA. 26+69.03 TO STA. 27+08.51

TYPICAL SHEET
2 OF 12

REID
BRENNEN CATT
NUMBER
PE-2010019516

REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
10/3/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	2

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

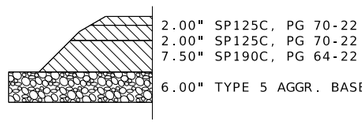
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

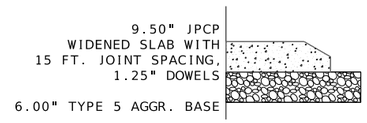
olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

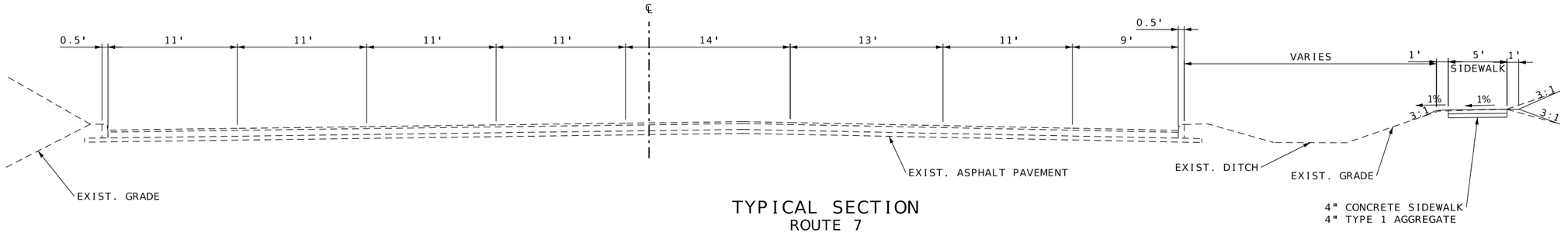
F:\2022\03001-03500\022-03371\40-Design\Microstation\JKU0010\plan_sheets\02 Typical\002_TS_02_JKU0010_I5.dgn 7:41:30 AM 10/3/2025

NOTE:
CROSS SECTIONS AND EARTHWORK IN THIS PROJECT ARE BASED ON THE CONCRETE OPTION. CONTRACTOR IS RESPONSIBLE FOR MAKING ANY ADJUSTMENTS WITH NO EXTRA PAY IF ASPHALT OPTION IS USED.

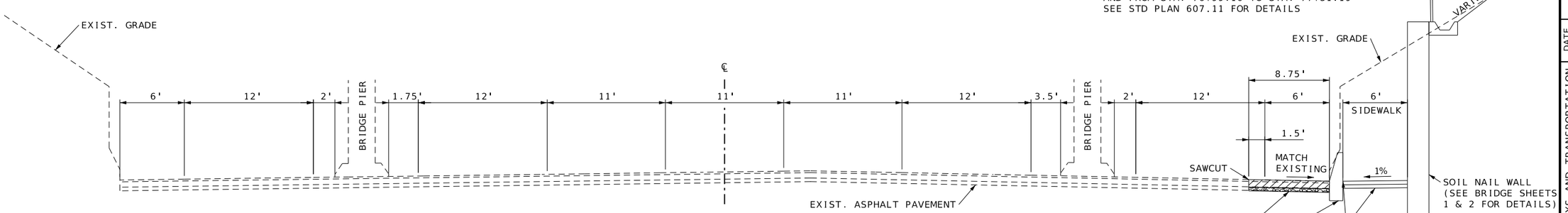
ROUTE 7 OPTIONAL PAVEMENT DESIGN







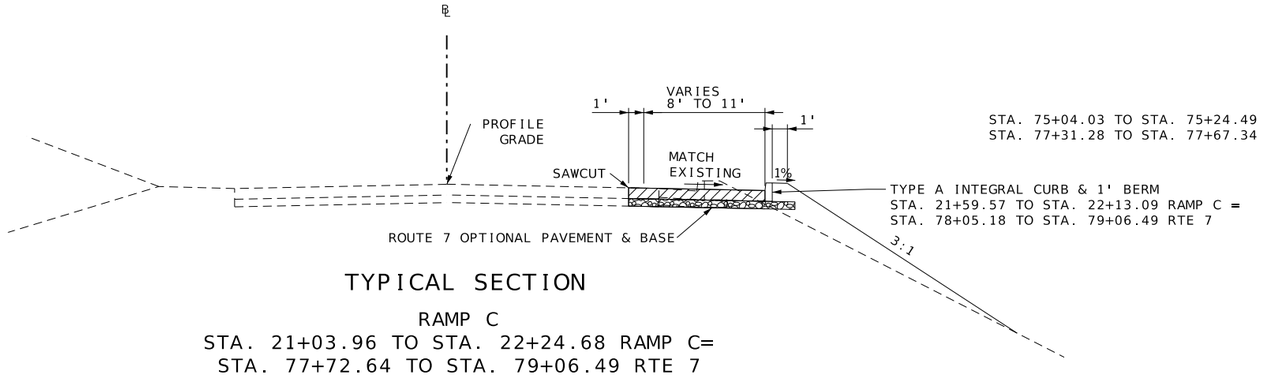
TYPICAL SECTION
ROUTE 7
STA. 78+08.97 TO STA. 81+66+62



5' TALL CHAIN LINK FENCE
FROM STA. 75+24.49 TO STA. 75+79.25
AND FROM STA. 76+99.10 TO STA. 77+31.19
SEE STD PLAN 607.11 FOR DETAILS

STA. 75+04.03 TO STA. 75+24.49 - 6:1 SLOPE
STA. 77+31.28 TO STA. 77+67.34 - 3:1 SLOPE W/ 6' DITCH SECTION

TYPICAL SECTION
ROUTE 7
STA. 75+04.03 TO STA. 77+67.34



TYPICAL SECTION
RAMP C
STA. 21+03.96 TO STA. 22+24.68 RAMP C=
STA. 77+72.64 TO STA. 79+06.49 RTE 7

TYPICAL SHEET
3 OF 12

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
10/2/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	2

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

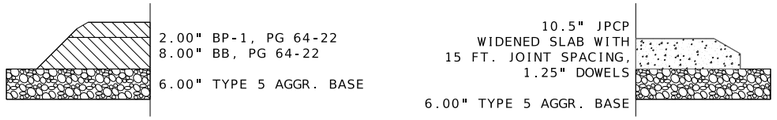
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

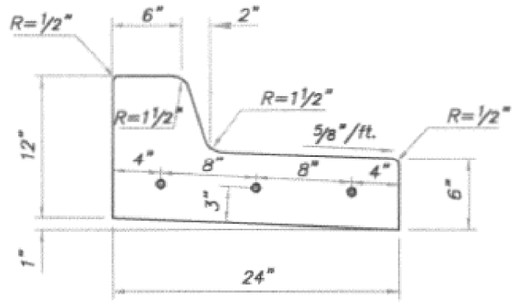
F:\2022\03001-03500\022-03371\40-Design\Microstation\JKU0010\plan_sheets\02 Typical\002_TS_03_JKU0010_I5.dgn 6:36:04 PM 10/2/2025

SOUTH OUTER ROAD OPTIONAL PAVEMENT DESIGN

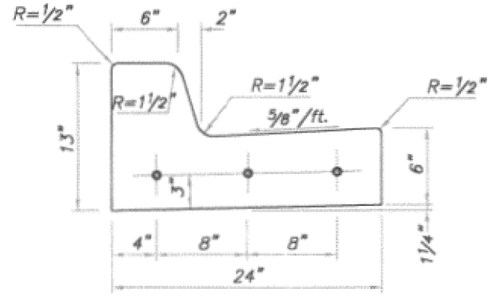


ASPHALT FACTORS	
MATERIAL	TONS/CY
BP-1, PG 64-22	1.948

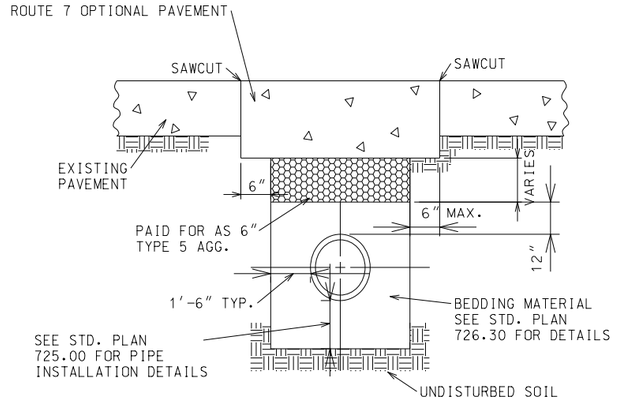
TACK COAT APPLICATION RATE
0.10 GAL/YD² (UNDILUTED)



APWA STRAIGHT BACK DRY CURB & GUTTER
(TYPE CG-1 DRY)



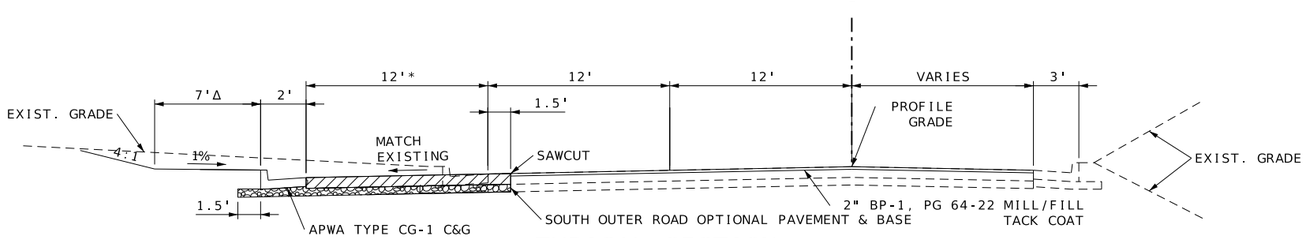
APWA STRAIGHT BACK CURB & GUTTER
(TYPE CG-1)



PAVEMENT REPAIR DETAIL FOR PIPE INSTALLATIONS

STA. 0+72.90 TO STA. 0+98.95
℄ I-70_RAMP_D
STA. 21+39.93 TO STA. 21+54.18
℄ I-70_RAMP_C

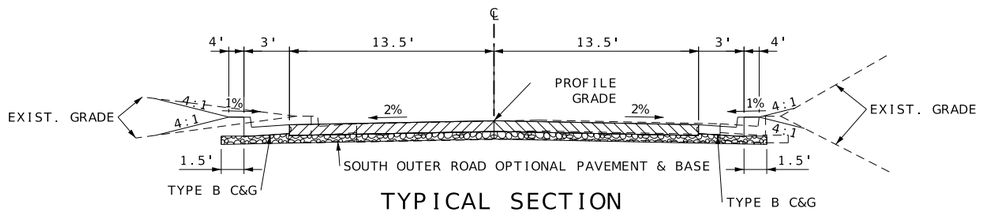
SEE CULVERT SECTION SHEETS FOR DETAILS.



TYPICAL SECTION

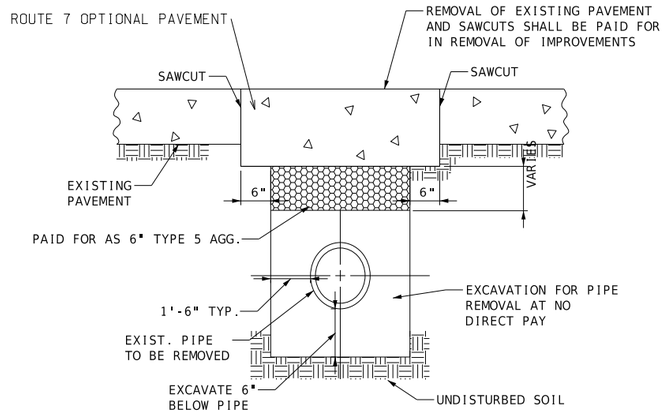
SOUTH OUTER ROAD
STA. 0+37.50 TO STA. 3+20.00 RT. (OPTIONAL PVM'T)
STA. 0+37.47 TO STA. 3+84.00 (MILL/FILL)

* TRANSITION 12.00' TO 0.00' FROM STA. 1+99.64 TO STA. 3+10.83 RT.
Δ TRANSITION BERM WIDTH FROM 7' TO 4' STA. 1+80.00 TO STA. 2+00.00
BERM WIDTH 4' FROM STA. 2+00.00 TO STA. 2+46.00
TRANSITION BERM WIDTH FROM 4' TO 1' STA. 2+46.00 TO STA. 2+66.00
BERM WIDTH 1' FROM STA. 2+66.00 TO STA. 3+84.00



TYPICAL SECTION

MOCK AVENUE
STA. 0+03.29 TO STA. 0+99.43 (OPTIONAL PVM'T)
STA. 0+99.43 TO STA. 1+12.39 (PAVED APPROACH)



NOTE:
FOR EXISTING PAVEMENT ONLY. PAVEMENT REPAIR NOT ALLOWED ON NEW PAVEMENT.

PAVEMENT REPAIR DETAIL FOR EXISTING PIPE REMOVAL

STA. 21+65.48 TO STA. 21+70.14
℄ I-70_RAMP_C

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
10/2/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	2

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

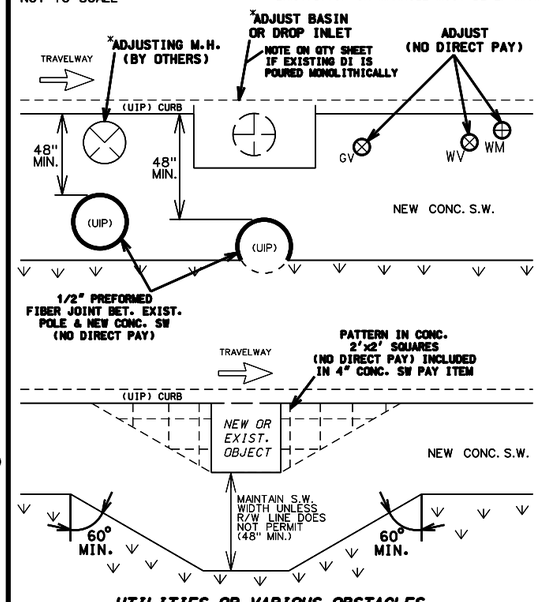
olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

F:\2022\03001-03500\022-03371\40-Design\Microstation\JKU0010\plan_sheets\02 Typical\002_TS_04_JKU0010_I5.dgn 6:36:06 PM 10/2/2025

1. CONCRETE SIDEWALK, CURB RAMP AND DETECTABLE WARNING DEVICE (TRUNCATED DOMES) DETAILS SHALL CONFORM TO ADA REQUIREMENTS UNLESS NOTED OTHERWISE IN THESE PLANS. FOR SIDEWALK JOINT AND CURB DETAILS, SEE STANDARD PLAN 609.00.
2. TINTED CONCRETE SHALL NOT BE USED. TRUNCATED DOMES SHALL BE OF A COLOR CONTRASTING WITH UNTINTED CONCRETE AND APPROVED BY THE ENGINEER. TRUNCATED DOMES ARE REQ'D. AT STREET INTERSECTIONS AND COMMERCIAL ENTRANCES WITH TRAFFIC CONTROL ONLY. (STOP/YIELD SIGNS OR SIGNALS)
3. CONCRETE SHALL BE IN ACCORDANCE WITH SEC. 608 & SEC. 609. CURING COMPOUND SHALL BE TRANSPARENT.
4. ALL CONCRETE SIDEWALK AND CURB RAMP/TRANSITION/LANDING AREAS SHALL BE 4" THICK, WITH THE EXCEPTION OF THE BOTTOM TRANSITION WHICH TIES INTO THE EXISTING PAVED APPROACH AND ROADWAY. THIS TRANSITION, OR LANDING AREA, MUST BE 8" THICK IF IT FALLS WITHIN THE RADIUS OF THE APPROACH AND SITS AT THE BACK OF CURB OF THE ROADWAY. ALL CONCRETE SIDEWALK AND CURB RAMP/TRANSITION/LANDING AREAS SHALL BE ON 4" TYPE 1 AGGREGATE BASE.
5. AGGREGATE BASE DENSITY - CONTRACTOR SHALL EXERCISE GOOD COMPACTIVE EFFORT AS APPROVED BY THE ENGINEER. DENSITY REQUIREMENTS BY NUCLEAR METHOD WILL NOT BE REQUIRED DUE TO WORK AREA CONSTRAINTS.
6. CONCRETE CURB RAMP - WIDTH = 5' MIN. LENGTH = 5' MIN. TO 15' PREFERRED MAX. (16' MAX.)
   RUNNING SLOPE = >5% (MIN.) TO 8.33% (MAX.) UNIFORMLY DOWN THE LENGTH OF THE RAMP.

   CONCRETE LANDING - WIDTH = TO MATCH PROPOSED CURB RAMP AND SIDEWALK WIDTH LENGTH = 5' MIN.
   SLOPE IN ALL DIRECTIONS = 1% PREFERRED (2% MAX.) UNLESS TIED TO ROADWAY EXCEPTION.
7. ALL EXISTING UTILITIES SHALL BE USED IN PLACE UNLESS OTHERWISE NOTED. ALL MANHOLE OR VALVE COVER, ETC. ELEVATIONS SHALL BE ADJUSTED AS REQUIRED IF THEY ARE LOCATED WITHIN THE IMPROVEMENT AREA.
8. "PREFORMED FIBER JOINT" SHALL BE IN ACCORDANCE WITH SEC. 1057 FOR PREFORMED FIBER JOINT EXPANSION JOINT FILLER.
9. REINFORCING STEEL TIE BARS SHALL BE IN ACCORDANCE WITH SECTION 706. ALL REINFORCING STEEL SHALL BE EPOXY COATED AND USED AS APPROVED BY THE ENGINEER. WHERE TIE BARS ARE USED, THE CONCRETE SHALL BE 8" THICK (NO DIRECT PAY).
10. CONSTRUCTION AND LENGTH OF EACH CURB RAMP INCLUDING LANDINGS AND TRANSITION AREAS SHALL BE AS SHOWN ON THE PLANS UNLESS DIFFERING FIELD CONDITIONS ARE FOUND OR AS APPROVED BY THE ENGINEER. CURB RAMP CROSS SLOPES SHALL BE 1% PREFERRED (2% MAX.) TOWARD THE STREET. CURB RAMPS ARE TO BE FORMED UP AND HAVE A TRUE AND STRAIGHT LINE.
11. SIDEWALK AND CONCRETE CURB SHALL BE POURED MONOLITHICALLY. THE CONTRACTOR SHALL MATCH EXISTING GROUND SLOPES ADJACENT TO THE CURB RAMPS OR USE AN ALTERNATE METHOD APPROVED BY THE ENGINEER.
12. S-CURB 12"-30" HIGH (MODIFIED S-CURB) WILL REQUIRE #4 REINFORC. BARS ON MAX. 12" CENTERS - SEE DETAIL (NO DIRECT PAY)
13. SODDED SLOPES AT EDGES OF SIDEWALK OR S-CURB SHOULD BE GRADED TO BE 6:1 MIN.

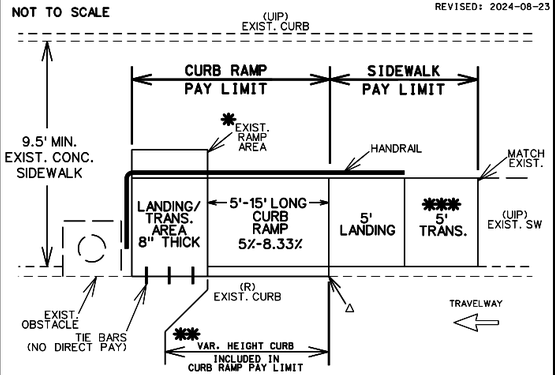
NOT TO SCALE



UTILITIES OR VARIOUS OBSTACLES

NO UTILITY POLES ARE ALLOWED IN THE RAMP LIMITS, BUT ARE PERMITTED IN THE LANDING AREAS AND SIDEWALK WITH A MINIMUM OF 4' CLEARANCE AROUND THE POLE

NOT TO SCALE — REVISED: 2024-08-23



△ MATCH EXIST CURB

✱ FILL IN WHERE EXIST. RAMP WAS. SIZE WILL VARY. (SEE TYPICAL SHEET)

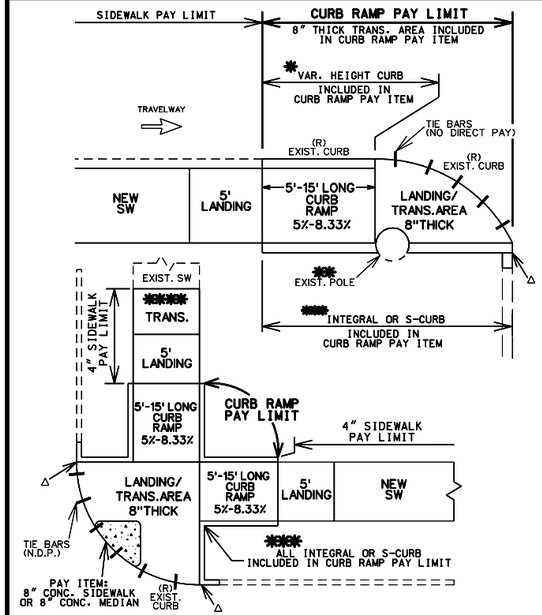
✱✱ VAR. HEIGHT CURB ALONG ROADSIDE MAY BE CONSTRUCTED MONOLITHIC OR SEPERATE DEPENDING ON CONST. OPERATIONS.

✱✱✱ TRANSITION PANEL(S) TO BLEND CROSS SLOPE DISCREPENCY WARP RATE NOT TO EXCEED 0.5% PER FT

HANDRAIL 2' OFF E.O.P (SEE HANDRAIL STANDARDS)

CURB RAMP - IN EXISTING 9.5'+ WIDE SW

PAY LIMITS



△ MATCH EXIST CURB HEIGHT. OPTIONAL 1' TIE-IN TO EXIST CURB

✱ VAR. HEIGHT CURB ALONG ROADSIDE MAY BE CONST. MONOLITHIC OR SEP. DEPENDING ON CONST. OPERATIONS.

✱✱ NO UTILITY POLES ARE ALLOWED IN THE RAMP LIMITS, BUT ARE PERMITTED IN THE LANDING AND TRANSITION AREAS.

✱✱✱ TYPE OF CURB WILL DEPEND ON FIELD CONDITIONS.

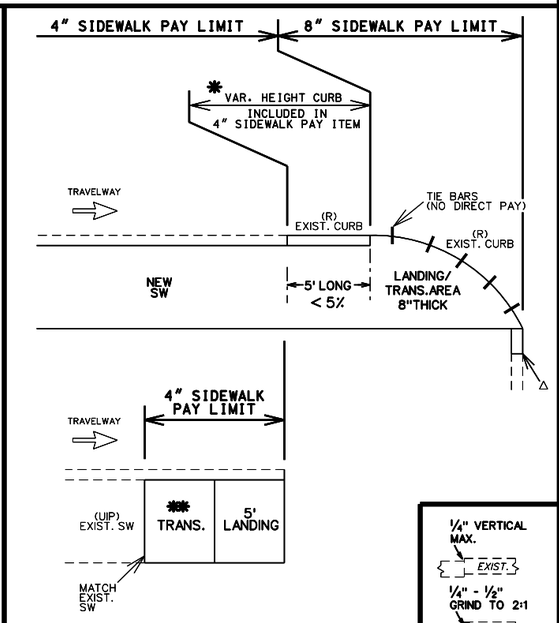
✱✱✱✱ TRANSITION PANEL(S) TO BLEND CROSS SLOPE DISCREPENCY WARP RATE NOT TO EXCEED 0.5% PER FT

CURB RAMP

PAY LIMITS

WHEN RAMP AREA IS LONGER THAN 5'AND BETW. 5%-8.33% GRADE.IT IS CONSIDERED A CURB RAMP

NOT TO SCALE



△ MATCH EXIST CURB HEIGHT (1' TAPER FROM SIDEWALK UP TO EXIST CURB HEIGHT)

✱ VAR. HEIGHT CURB ALONG ROADSIDE MAY BE CONSTRUCTED MONOLITHIC OR SEPERATE DEPENDING ON CONST. OPERATIONS. DOWEL TO EXIST. GUTTER/PAVEMENT (NO DIRECT PAY).

✱✱ TRANSITION PANEL(S) TO BLEND CROSS SLOPE DISCREPENCY WARP RATE NOT TO EXCEED 0.5% PER FT

SIDEWALK

PAY LIMITS

WHEN RAMP AREA IS LESS THAN 5% GRADE. IT IS CONSIDERED SIDEWALK

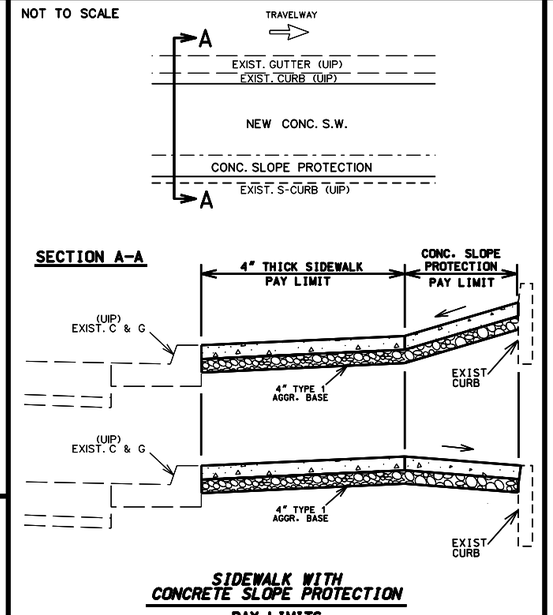
NOT TO SCALE

OVER ¾" REPLACE PANEL(S)

JOINT GRINDING

TRIP HAZARDS 622-99.03

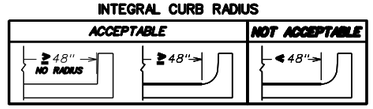
NOT TO SCALE



SIDEWALK WITH CONCRETE SLOPE PROTECTION

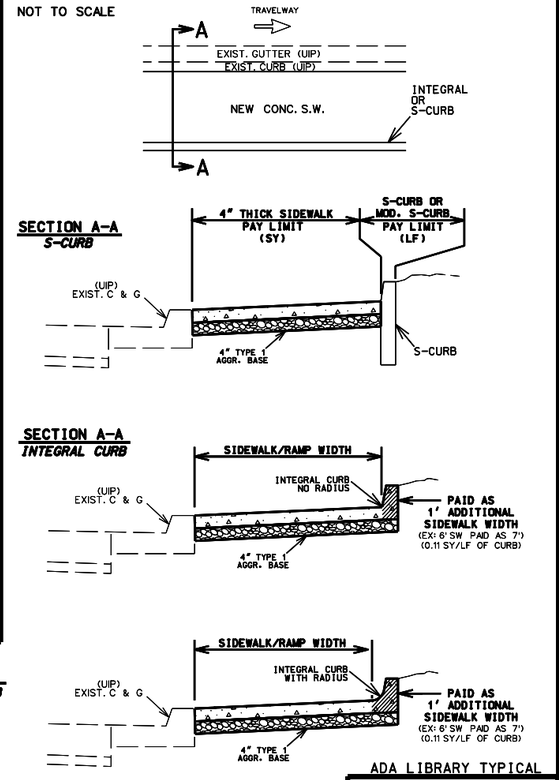
PAY LIMITS

INTEGRAL CURB RADIUS



SECTION A-A
INTEGRAL CURB WITH RADIUS

NOT TO SCALE



ADA LIBRARY TYPICAL

SIDEWALK & RAMP WITH CURB

PAY LIMITS

REID BRENNEN CATT-ENGINEER MO# PE-2010019516

DATE PREPARED: 8/1/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	2

COUNTY: JACKSON

JOB NO.: JKU0010

CONTRACT ID.:

PROJECT NO.:

BRIDGE NO.:

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

TYPICAL SHEET
SHEET 5 OF 12

REVISED: 2025-02-25

TYPE 1-A

LENGTH (LF)	8			12			16			REMARKS
WIDTH (LF)	4	5	6	4	5	6	4	5	6	
TRUNCATED DOMES SF	–	22.0	24.0	–	22.0	24.0	–	22.0	24.0	
CURB RAMP SY	–	10.9	13.1	–	13.6	16.3	–	16.2	19.3	
CONC. SIDEWALK SY	–	5.6	6.3	–	5.6	6.4	–	4.9	5.7	
TYPE 1 AGGREGATE SY	–	16.5	19.4	–	19.2	22.7	–	21.1	25.0	
ADA LINEAR GRADING LF	–	28.0	28.0	–	34.5	34.5	–	38.0	38.0	
SODDING SY	–	7.4	7.8	–	8.4	8.7	–	9.1	9.5	

TYPE 1-B

LENGTH (LF)	8			12			16			REMARKS
WIDTH (LF)	4	5	6	4	5	6	4	5	6	
TRUNCATED DOMES SF	–	10.0	12.0	–	10.0	12.0	–	10.0	12.0	
CURB RAMP SY	–	8.8	10.3	–	11.5	13.4	–	14.1	16.5	
CONC. SIDEWALK SY	–	5.6	6.4	–	5.6	6.4	–	4.9	5.7	
TYPE 1 AGGREGATE SY	–	14.4	16.7	–	17.1	19.8	–	19.0	22.1	
ADA LINEAR GRADING LF	–	22.0	22.0	–	26.5	26.5	–	30.0	30.0	
SODDING SY	–	11.5	11.7	–	13.5	13.5	–	15.0	15.2	

TYPE 1-C

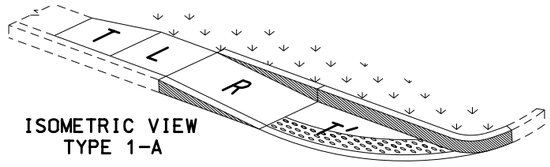
LENGTH (LF)	8			12			16			REMARKS
WIDTH (LF)	4	5	6	4	5	6	4	5	6	
TRUNCATED DOMES SF	–	18.0	24.0	–	18.0	24.0	–	18.0	24.0	
CURB RAMP SY	–	18.6	22.8	–	24.0	29.0	–	29.3	35.3	
CONC. SIDEWALK SY	–	11.2	12.8	–	11.2	12.8	–	9.8	11.4	
TYPE 1 AGGREGATE SY	–	29.8	35.6	–	35.2	41.8	–	39.1	46.7	
ADA LINEAR GRADING LF	–	42.0	50.0	–	57.0	61.0	–	67.0	72.0	
SODDING SY	–	11.0	11.3	–	13.0	13.3	–	14.5	14.9	

TYPE 1-D

LENGTH (LF)	8			12			16			REMARKS
WIDTH (LF)	4	5	6	4	5	6	4	5	6	
TRUNCATED DOMES SF	–	18.0	24.0	–	18.0	24.0	–	18.0	24.0	
CURB RAMP SY	–	14.8	19.0	–	20.1	25.2	–	25.5	31.4	
CONC. SIDEWALK SY	–	11.2	12.8	–	11.2	12.8	–	9.8	11.4	
TYPE 1 AGGREGATE SY	–	26.0	31.8	–	31.3	38.0	–	35.3	42.8	
ADA LINEAR GRADING LF	–	43.0	46.0	–	52.0	55.0	–	59.0	62.0	
SODDING SY	–	13.3	13.6	–	16.0	16.9	–	18.6	19.3	

TYPE 1-E

LENGTH (LF)	8			12			16			REMARKS
WIDTH (LF)	4	5	6	4	5	6	4	5	6	
TRUNCATED DOMES SF	–	14.0	16.0	–	14.0	16.0	–	14.0	16.0	
CURB RAMP SY	–	15.5	19.0	–	20.8	25.2	–	26.2	31.4	
CONC. SIDEWALK SY	–	11.2	12.8	–	11.2	12.8	–	9.8	11.4	
TYPE 1 AGGREGATE SY	–	26.7	31.8	–	32.0	38.0	–	36.0	42.8	
ADA LINEAR GRADING LF	–	43.0	46.0	–	52.0	55.0	–	59.0	62.0	
SODDING SY	–	18.4	18.8	–	22.4	22.8	–	25.6	25.9	



ISOMETRIC VIEW
TYPE 1-A

T'- IS TO BE 8" THICK AT ALL PAVED APPROACHES AND STREETS IF WITHIN THE RADIUS. PAID FOR AS CONCRETE CURB RAMP

T - TRANSITION TO EXISTING SW OR PAVED APPROACH (LANDING PREFERED AT PAVED APPROACH IF CONDITIONS ALLOW)

* - T IS STILL NEEDED EVEN IF THE EXISTING SIDEWALK IS THE SAME WIDTH AS THE NEW SIDEWALK.(IT WILL BLEND THE EXIST XSLOPE INTO THE NEW LANDING XSLOPE)

L - LANDING

R - RAMP

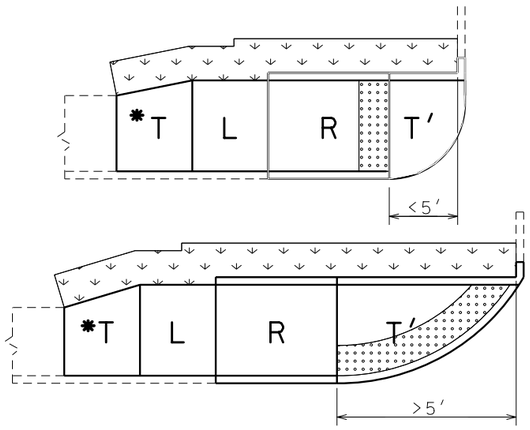
- CURB RAMP PAY LIMITS

- SOD SLOPE 6:1 MIN.

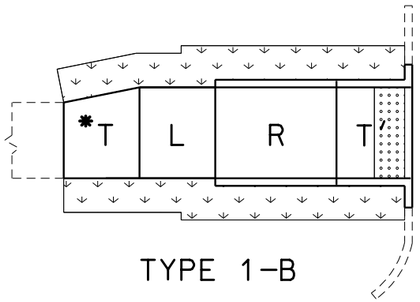
- TRUNCATED DOME LOCATION IF DIST. IS <5' OR >5'

TRUNCATED DOMES ARE USED ONLY AT STREETS & ENTRANCES UTILIZING YIELD / STOP SIGNS OR SIGNALS

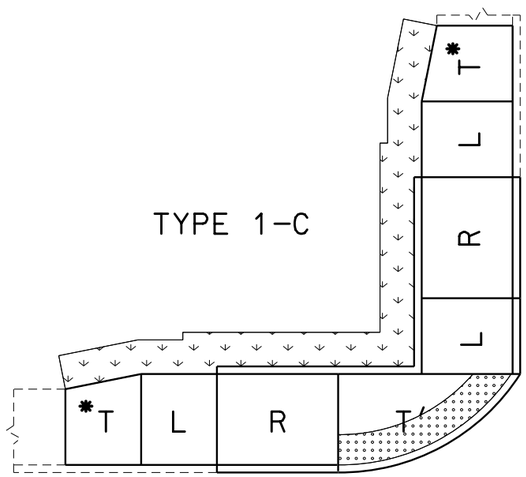
NOTE:
QUANTITIES ARE CALCULATED BY AREA AND MAY NOT MATCH EXACT FIELD CONDITIONS.



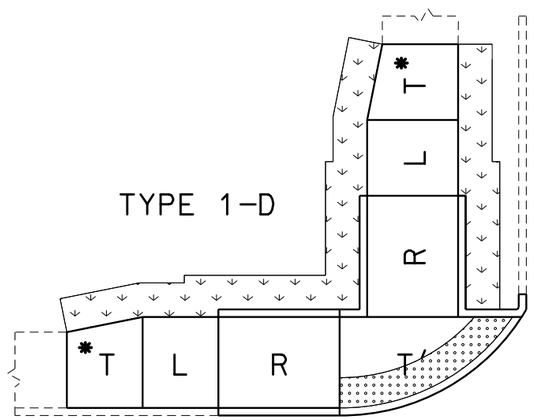
TYPE 1-A



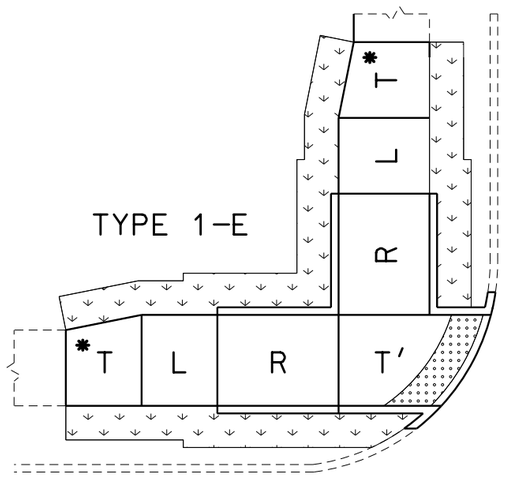
TYPE 1-B



TYPE 1-C



TYPE 1-D



TYPE 1-E

ADA LIBRARY TYPICAL

TYPE 1

PERPENDICULAR CURB RAMPS

TYPICAL SHEET 6 OF 12

REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
8/1/2025

ROUTE 7 | STATE MO
DISTRICT KC | SHEET NO. 2
COUNTY JACKSON
JOB NO. JKU0010
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DESCRIPTION | DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

PARALLEL – TYPE 2

TYPE 2-A

LENGTH (LF)	8			12			16			REMARKS
WIDTH (LF)	4	5	6	4	5	6	4	5	6	
TRUNCATED DOMES SF	–	10.0	10.0	–	10.0	10.0	–	10.0	10.0	
CURB RAMP SY	–	9.1	10.6	–	11.8	13.7	–	14.4	16.8	
CONC. SIDEWALK SY	–	5.6	6.4	–	4.9	5.7	–	4.9	5.7	
TYPE 1 AGGREGATE SY	–	14.7	17.0	–	16.7	19.4	–	19.3	22.5	
ADA LINEAR GRADING LF	–	26.0	26.0	–	29.0	29.0	–	33.0	33.0	
SODDING SY	–	8.0	8.3	–	8.6	8.8	–	9.6	9.8	

TYPE 2-B

LENGTH (LF)	8			12			16			REMARKS
WIDTH (LF)	4	5	6	4	5	6	4	5	6	
TRUNCATED DOMES SF	–	10.0	10.0	–	10.0	10.0	–	10.0	10.0	
CURB RAMP SY	–	11.8	13.3	–	14.5	16.4	–	17.2	19.5	
CONC. SIDEWALK SY	–	5.6	6.4	–	4.9	5.7	–	4.9	5.7	
TYPE 1 AGGREGATE SY	–	17.4	19.7	–	19.4	22.1	–	22.1	25.2	
ADA LINEAR GRADING LF	–	26.0	26.0	–	29.0	29.0	–	33.0	33.0	
SODDING SY	–	13.8	14.1	–	15.1	15.5	–	17.1	17.5	

TYPE 2-C

LENGTH (LF)	8			12			16			REMARKS
WIDTH (LF)	4	5	6	4	5	6	4	5	6	
TRUNCATED DOMES SF	–	10.0	10.0	–	10.0	10.0	–	10.0	10.0	
CURB RAMP SY	–	16.4	18.7	–	21.7	24.9	–	27.0	31.2	
CONC. SIDEWALK SY	–	11.2	12.8	–	9.8	11.4	–	9.8	11.4	
TYPE 1 AGGREGATE SY	–	27.6	31.5	–	31.5	36.3	–	36.8	42.6	
ADA LINEAR GRADING LF	–	41.0	41.0	–	47.0	47.0	–	55.0	55.0	
SODDING SY	–	12.3	12.5	–	13.6	13.9	–	15.6	15.9	

TYPE 2-D

LENGTH (LF)	8			12			16			REMARKS
WIDTH (LF)	4	5	6	4	5	6	4	5	6	
TRUNCATED DOMES SF	–	10.0	10.0	–	10.0	10.0	–	10.0	10.0	
CURB RAMP SY	–	16.8	19.2	–	22.2	25.4	–	27.5	31.6	
CONC. SIDEWALK SY	–	11.2	12.8	–	9.8	11.4	–	9.8	11.4	
TYPE 1 AGGREGATE SY	–	28.0	32.0	–	32.0	36.8	–	37.3	43.0	
ADA LINEAR GRADING LF	–	41.0	41.0	–	47.0	47.0	–	55.0	55.0	
SODDING SY	–	20.2	20.3	–	22.4	23.2	–	26.4	27.2	

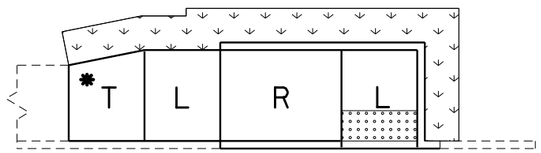
TYPE 2-E

LENGTH (LF)	8			12			16			REMARKS
WIDTH (LF)	4	5	6	4	5	6	4	5	6	
TRUNCATED DOMES SF	–	10.0	10.0	–	10.0	10.0	–	10.0	10.0	
CURB RAMP SY	–	10.8	11.5	–	13.2	14.4	–	15.7	17.3	
CONC. SIDEWALK SY	–	5.6	6.7	–	5.0	6.0	–	5.0	6.0	
TYPE 1 AGGREGATE SY	–	16.4	18.2	–	18.2	20.4	–	20.7	23.3	
ADA LINEAR GRADING LF	–	22.5	22.5	–	26.5	26.5	–	30.5	30.5	
SODDING SY	–	–	–	–	–	–	–	–	–	
HANDRAIL LF	–	–	–	–	–	–	–	–	–	SEE STANDARDS FOR LENGTH

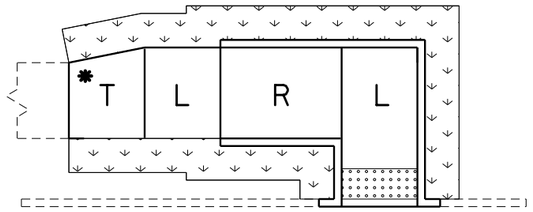
TYPE 2-F

LENGTH (LF)	8			12			16			REMARKS
WIDTH (LF)	4	5	6	4	5	6	4	5	6	
TRUNCATED DOMES SF	–	10.0	10.0	–	10.0	10.0	–	10.0	10.0	
CURB RAMP SY	–	15.5	17.1	–	20.4	23.1	–	25.5	28.9	
CONC. SIDEWALK SY	–	11.2	13.4	–	10.0	12.0	–	10.0	12.0	
TYPE 1 AGGREGATE SY	–	26.7	30.5	–	30.4	35.1	–	35.5	40.9	
ADA LINEAR GRADING LF	–	39.0	39.0	–	47.0	47.0	–	55.0	55.0	
SODDING SY	–	–	–	–	–	–	–	–	–	
HANDRAIL LF	–	–	–	–	–	–	–	–	–	SEE STANDARDS FOR LENGTH

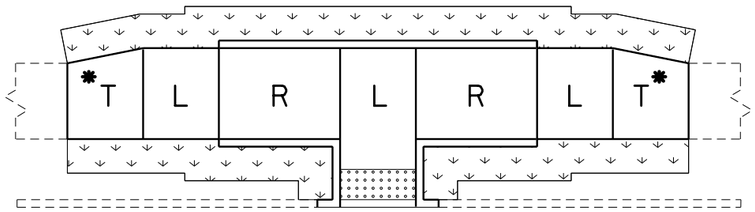
NOTE:
QUANTITIES ARE CALCULATED BY AREA AND MAY NOT MATCH EXACT FIELD CONDITIONS.



TYPE 2-A



TYPE 2-B



TYPE 2-D

** 3.5' LANDING EXTENSION REQ'D. FOR INSTALLATION OF FUTURE OR NEW PED. PUSH BUTTON

NOTE: SEE STANDARDS FOR ALL PED. PUSH BUTTON LOCATIONS

- TRUNCATED DOMES

TRUNCATED DOMES ARE USED ONLY AT STREETS & ENTRANCES UTILIZING YIELD / STOP SIGNS OR SIGNALS

T – TRANSITION TO EXISTING SW

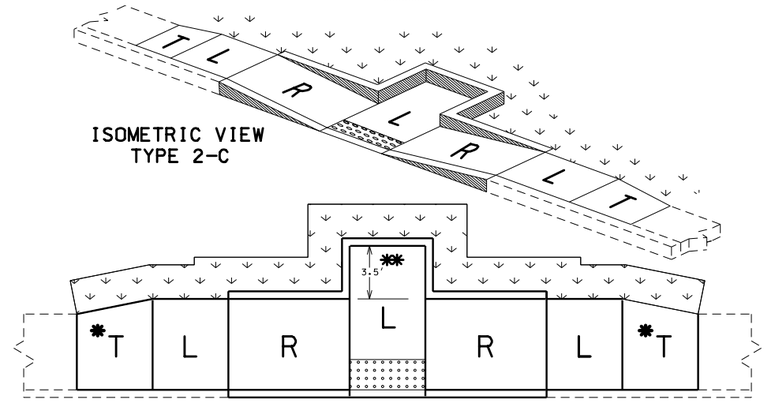
* – T IS STILL NEEDED EVEN IF THE EXISTING SIDEWALK IS THE SAME WIDTH AS THE NEW SIDEWALK.(IT WILL BLEND THE EXIST XSLOPE INTO THE NEW LANDING XSLOPE)

L – LANDING

R – RAMP

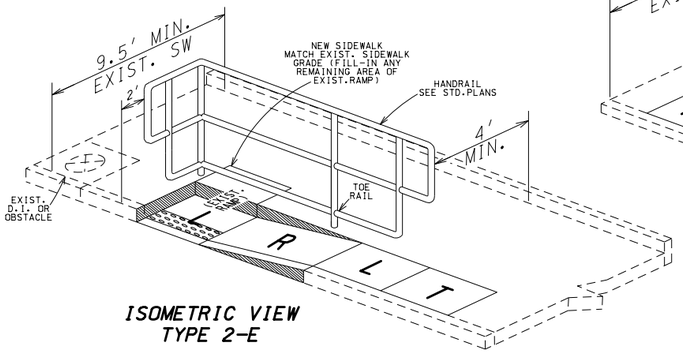
- SOD SLOPE 6:1 MIN.

- CURB RAMP PAY LIMITS

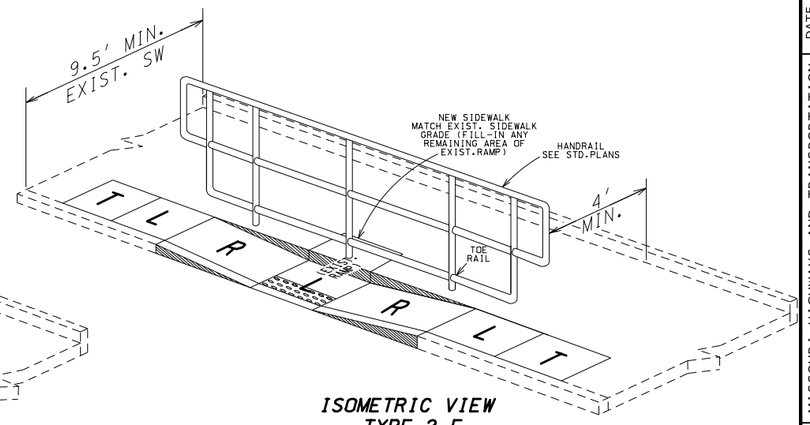


ISOMETRIC VIEW
TYPE 2-C

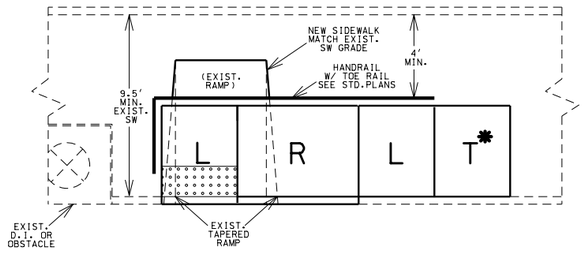
TYPE 2-C



ISOMETRIC VIEW
TYPE 2-E



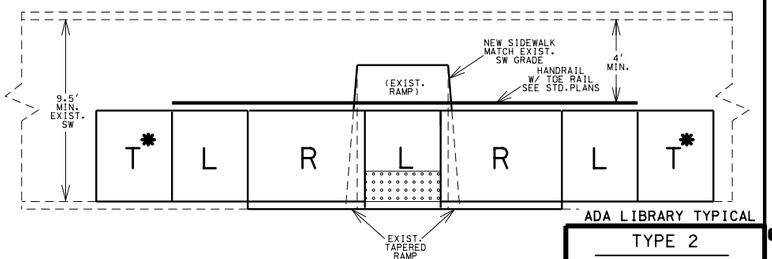
ISOMETRIC VIEW
TYPE 2-F



TYPE 2-E

USE ONLY WHEN TYPE 2-F IS UNABLE TO BE CONSTRUCTED DUE TO AN EXIST. D.I. OR OTHER OBSTACLE

SEE STANDARDS FOR HANDRAIL SPECS



TYPE 2-F

SEE STANDARDS FOR HANDRAIL SPECS

ADA LIBRARY TYPICAL

TYPE 2
PARALLEL CURB RAMPS

TYPICAL SHEET 7 OF 12

REVISED: 2022-05-18

REID BRENNEN CATT-ENGINEER MO# PE-2010019516

DATE PREPARED 8/1/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	2

COUNTY: JACKSON

JOB NO.: JKU0010

CONTRACT ID.:

PROJECT NO.:

BRIDGE NO.:

DATE	DESCRIPTION

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

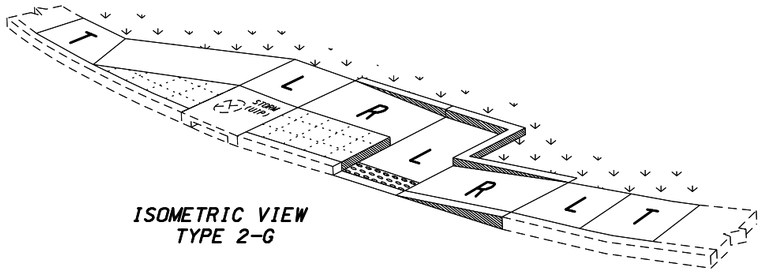
PARALLEL – TYPE 2 (cont'd.)

TYPE 2-G

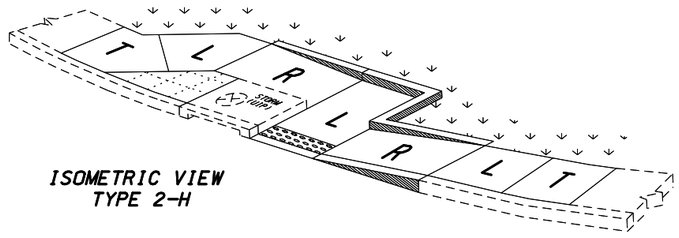
LENGTH (LF)	8			12			16			REMARKS
WIDTH (LF)	4	5	6	4	5	6	4	5	6	
TRUNCATED DOMES SF	–	12.0	12.0	–	10.0	10.0	–	10.0	10.0	
CURB RAMP SY	–	15.7	18.0	–	20.8	23.7	–	25.8	30.2	
CONC. SIDEWALK SY	–	21.4	25.0	–	17.6	20.3	–	15.2	17.5	
TYPE 1 AGGREGATE SY	–	37.1	43.0	–	38.4	44.0	–	41.0	47.7	
ADA LINEAR GRADING LF	–	52.0	52.0	–	54.0	54.0	–	58.0	58.0	
SODDING SY	–	13.6	13.6	–	13.7	13.5	–	14.5	14.9	

TYPE 2-H

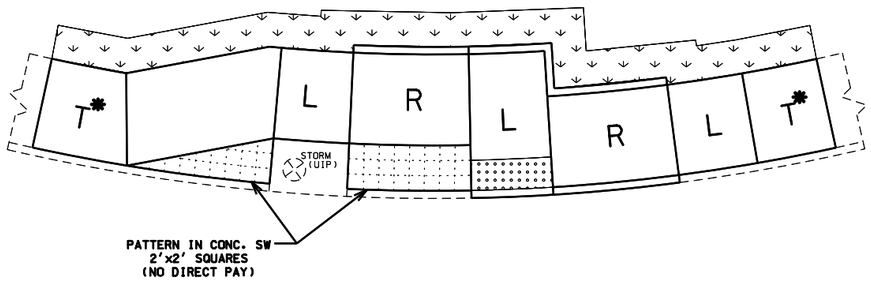
LENGTH (LF)	8			12			16			REMARKS
WIDTH (LF)	4	5	6	4	5	6	4	5	6	
TRUNCATED DOMES SF	–	12.0	12.0	–	10.0	10.0	–	10.0	10.0	
CURB RAMP SY	–	15.7	18.0	–	21.0	24.5	–	26.9	31.4	
CONC. SIDEWALK SY	–	13.2	16.0	–	12.0	14.2	–	12.0	14.4	
TYPE 1 AGGREGATE SY	–	28.9	34.0	–	33.0	38.6	–	38.9	45.8	
ADA LINEAR GRADING LF	–	42.0	42.0	–	49.0	49.0	–	55.0	55.0	
SODDING SY	–	11.1	11.2	–	12.5	12.5	–	14.5	14.9	



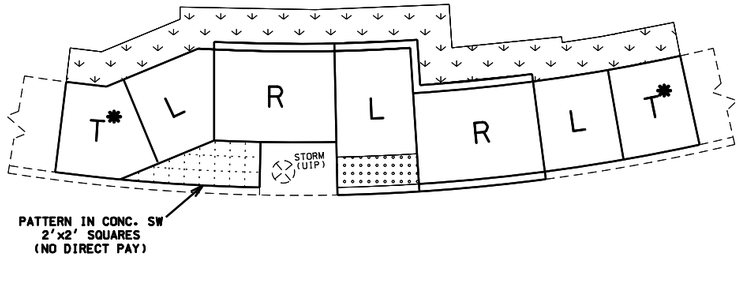
ISOMETRIC VIEW
TYPE 2-G



ISOMETRIC VIEW
TYPE 2-H



TYPE 2-G



TYPE 2-H

T* – IS STILL NEEDED EVEN IF THE EXISTING SIDEWALK IS THE SAME WIDTH AS THE NEW SIDEWALK.(IT WILL BLEND THE EXIST XSLOPE INTO THE NEW LANDING XSLOPE)

REVISED: 2022-05-18

T – TRANSITION TO EXISTING SW

L – LANDING

R – RAMP

– SOD SLOPE 6:1 MIN.

– TRUNCATED DOME LOCATION, IF DIST. IS <5' OR > 5'

TRUNCATED DOMES ARE USED ONLY AT STREETS & ENTRANCES UTILIZING YIELD / STOP SIGNS OR SIGNALS

– CURB RAMP PAY LIMITS

– INCLUDED IN 4" CONC. SIDEWALK PAY LIMIT

NOTE:
QUANTITIES ARE CALCULATED BY AREA AND MAY NOT MATCH EXACT FIELD CONDITIONS.

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
8/1/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	2

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

ADA LIBRARY TYPICAL

TYPE 2

PARALLEL CURB RAMPS

DIAGONAL – TYPE 3

TYPE 3-A

LENGTH (LF)	8			12			16			REMARKS
WIDTH (LF)	4	5	6	4	5	6	4	5	6	
TRUNCATED DOMES SF	–	24.0	28.0	–	20.6	25.0	–	20.6	25.0	
CURB RAMP SY	–	24.4	27.0	–	26.9	31.2	–	32.2	37.4	
CONC. SIDEWALK SY	–	11.2	12.8	–	9.8	11.4	–	9.8	11.4	
TYPE 1 AGGREGATE SY	–	35.6	39.8	–	36.7	42.6	–	42.0	48.8	
ADA LINEAR GRADING LF	–	51.0	51.0	–	59.0	59.0	–	67.0	67.0	
SODDING SY	–	11.6	11.4	–	12.9	12.9	–	14.9	14.9	
8"SW OR MED STRIP SY	–	3.0	2.2	–	3.0	2.2	–	3.0	2.2	

TYPE 3-B

LENGTH (LF)	8			12			16			REMARKS
WIDTH (LF)	4	5	6	4	5	6	4	5	6	
TRUNCATED DOMES SF	–	24.0	28.0	–	20.6	25.0	–	20.6	25.0	
CURB RAMP SY	–	22.0	26.3	–	25.9	31.2	–	31.2	37.4	
CONC. SIDEWALK SY	–	11.2	12.8	–	9.8	11.4	–	9.8	11.4	
TYPE 1 AGGREGATE SY	–	33.2	39.1	–	35.7	42.6	–	41.0	48.8	
ADA LINEAR GRADING LF	–	51.0	51.0	–	59.0	59.0	–	67.0	67.0	
SODDING SY	–	15.2	15.3	–	17.1	17.5	–	20.1	20.5	
8"SW OR MED STRIP SY	–	1.5	1.5	–	1.5	1.5	–	1.5	1.5	

TYPE 3-C

LENGTH (LF)	8			12			16			REMARKS
WIDTH (LF)	4	5	6	4	5	6	4	5	6	
TRUNCATED DOMES SF	–	20.0	24.0	–	20.0	24.0	–	20.0	24.0	
CURB RAMP SY	–	20.7	26.8	–	25.1	31.5	–	30.4	37.7	
CONC. SIDEWALK SY	–	11.2	12.8	–	9.8	11.4	–	9.8	11.4	
TYPE 1 AGGREGATE SY	–	31.9	39.6	–	34.9	42.9	–	40.2	49.1	
ADA LINEAR GRADING LF	–	51.0	51.0	–	58.0	58.0	–	67.0	67.0	
SODDING SY	–	18.8	19.3	–	21.3	22.1	–	25.3	26.1	
8"SW OR MED STRIP SY	–	1.0	1.6	–	1.0	1.6	–	1.0	1.6	

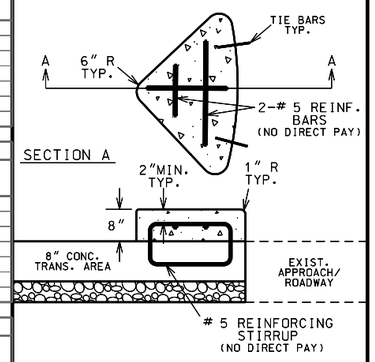
TYPE 3-D

LENGTH (LF)	8			12			16			REMARKS
WIDTH (LF)	4	5	6	4	5	6	4	5	6	
TRUNCATED DOMES SF	–	24.0	28.0	–	22.4	26.5	–	22.4	26.5	
CURB RAMP SY	–	15.9	19.1	–	17.7	21.4	–	20.4	24.5	
CONC. SIDEWALK SY	–	5.6	6.4	–	4.9	5.7	–	4.9	5.7	
TYPE 1 AGGREGATE SY	–	21.5	25.5	–	22.6	27.1	–	25.3	30.2	
ADA LINEAR GRADING LF	–	31.0	31.0	–	34.0	34.0	–	38.0	38.0	
SODDING SY	–	12.6	12.9	–	13.5	14.0	–	15.5	16.0	
8"SW OR MED STRIP SY	–	1.0	0.8	–	1.0	0.8	–	1.0	0.8	

TYPE 3-E

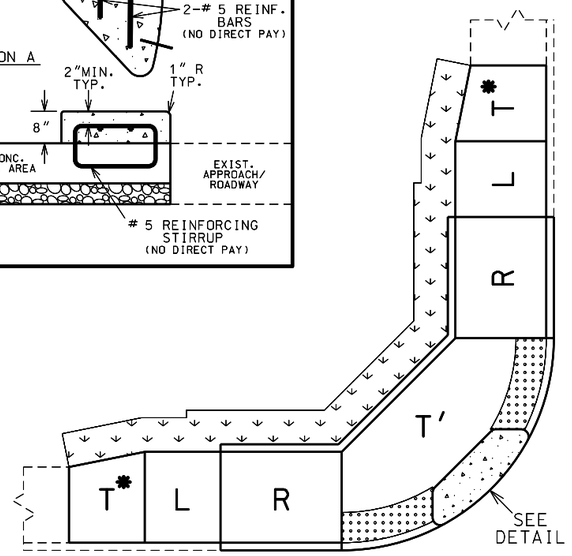
LENGTH (LF)	8			12			16			REMARKS
WIDTH (LF)	4	5	6	4	5	6	4	5	6	
TRUNCATED DOMES SF	–	20.0	24.0	–	20.0	24.0	–	20.0	24.0	
CURB RAMP SY	–	17.2	19.8	–	17.7	21.4	–	20.4	24.5	
CONC. SIDEWALK SY	–	8.4	10.7	–	7.3	9.4	–	7.3	9.4	
TYPE 1 AGGREGATE SY	–	25.6	30.5	–	25.0	30.8	–	27.7	33.9	
ADA LINEAR GRADING LF	–	30.0	30.0	–	35.5	35.5	–	39.5	39.5	
SODDING SY	–	12.4	12.4	–	12.9	13.3	–	14.9	15.3	
8"SW OR MED STRIP SY	–	1.6	1.6	–	1.6	1.6	–	1.6	1.6	

– DETAIL – 8" SIDEWALK OR 8" MEDIAN STRIP



T′ – IS TO BE 8" THICK AT ALL PAVED APPROACHES AND STREETS IF WITHIN THE RADIUS. PAID FOR AS CONCRETE CURB RAMP

NOTE:
QUANTITIES ARE CALCULATED BY AREA AND MAY NOT MATCH EXACT FIELD CONDITIONS.



TYPE 3-A

T – TRANSITION TO EXISTING SW OR PAVED APPROACH (LANDING PREFERED IF CONDITIONS ALLOW)

T* – IS STILL NEEDED EVEN IF THE EXISTING SIDEWALK IS THE SAME WIDTH AS THE NEW SIDEWALK.(IT WILL BLEND THE EXIST XSLOPE WITH THE NEW LANDING XSLOPE)

L – LANDING

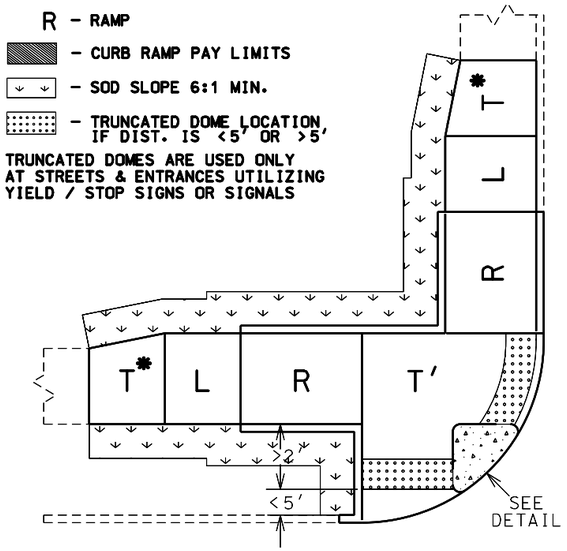
R – RAMP

– CURB RAMP PAY LIMITS

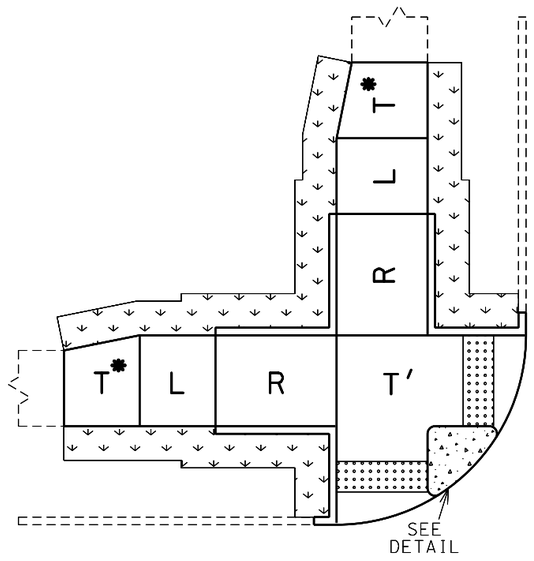
– SOD SLOPE 6:1 MIN.

– TRUNCATED DOME LOCATION, IF DIST. IS <5′ OR >5′

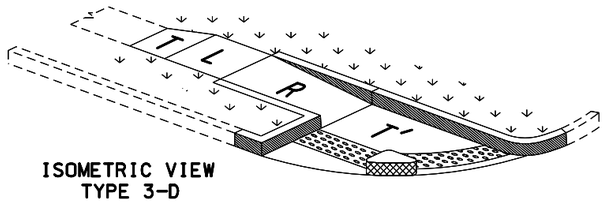
TRUNCATED DOMES ARE USED ONLY AT STREETS & ENTRANCES UTILIZING YIELD / STOP SIGNS OR SIGNALS



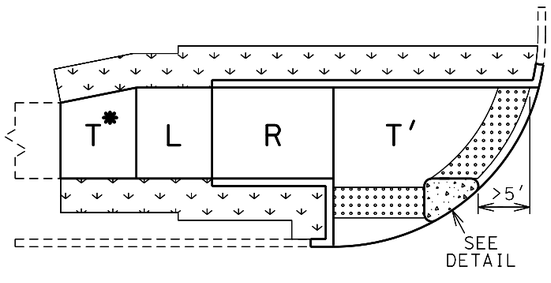
TYPE 3-B



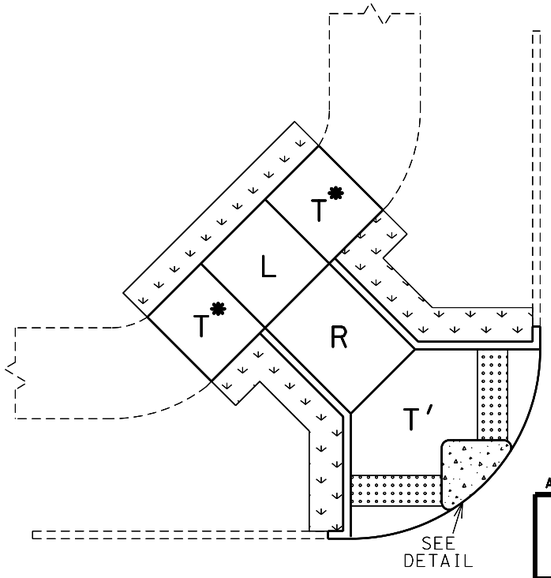
TYPE 3-C



ISOMETRIC VIEW TYPE 3-D



TYPE 3-D



TYPE 3-E

REVISED: 2022-05-18

REID BRENNEN CATT-ENGINEER MO# PE-2010019516

DATE PREPARED 8/1/2025

ROUTE 7 | STATE MO

DISTRICT KC | SHEET NO. 2

COUNTY JACKSON

JOB NO. JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION | DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

ADA LIBRARY TYPICAL

TYPE 3
DIAGONAL CURB RAMPS

TYPICAL SHEET 9 OF 12

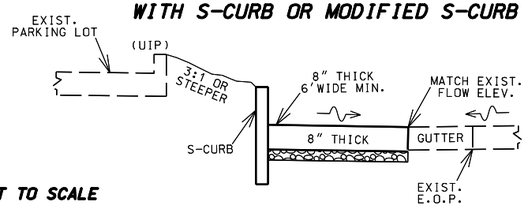
REVISED: 2022-05-16

NOTES FOR MODIFIED SIDEWALK:

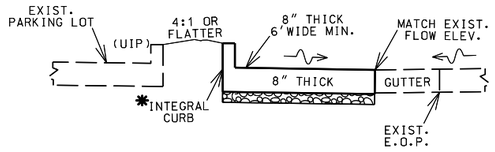
1. REMOVE EXIST. CURB & RAISED ISLAND WITHIN LIMITS SHOWN.
2. AREA INSIDE FINAL CURB TO BE REPAIRED OR REPLACED WITH EXISTING SURFACE MATERIAL. GRADE TO DRAIN.
3. CONSTRUCT 8" THICK CONC. SIDEWALK FLUSH WITH EXIST. CONC. PAVED APPROACH.
4. CONSTRUCT CURB ADJACENT TO MODIFIED SIDEWALK.
5. MODIFIED SIDEWALK PAID FOR AS 8" SIDEWALK.
6. 6' MINIMUM WIDTH.
7. NO DIRECT PAY FOR SAW CUTS AND TIE BARS (ON 12" CENTERS MAX.)
8. TRUNCATED DOMES ARE USED ONLY AT STREETS & ENTRANCES UTILIZING STOP SIGNS OR SIGNALS.
9. X-SLOPE 1% PREFERRED (2% MAX.)
10. USE S-CURB IF CONSTRUCTING CURB ON R/W LINE.

✱ INTEGRAL CURB IS PAID FOR WITH THE 8" CONC. SIDEWALK PAY ITEM.
INTEGRAL CURB IS PAID AS 1' ADDITIONAL SIDEWALK WIDTH (EX. 6'SIDEWALK PAID AS 7')
(0.11 SY/LF OF CURB)

SECTION A-A
WITH S-CURB OR MODIFIED S-CURB



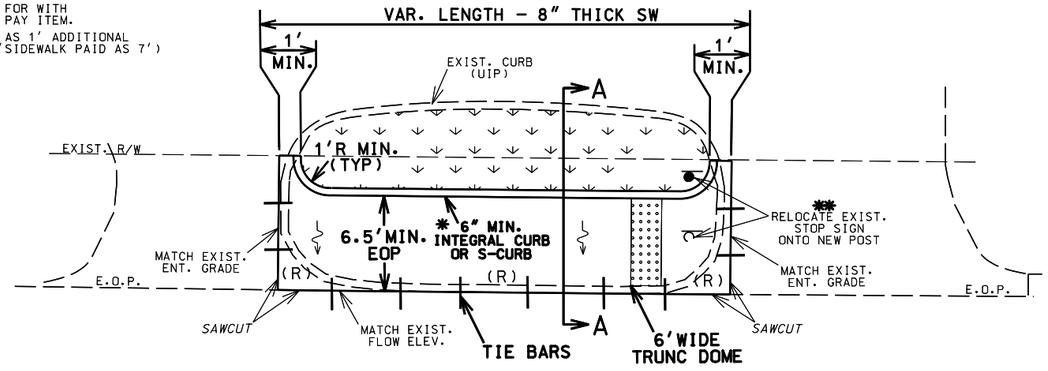
SECTION A-A
WITH INTEGRAL CURB



NOT TO SCALE

TYPICAL MODIFIED SIDEWALK
8" THICK

✱✱ TRUNCATED DOMES ARE USED ONLY AT STREETS & ENTRANCES UTILIZING STOP/YIELD SIGNS OR SIGNALS.

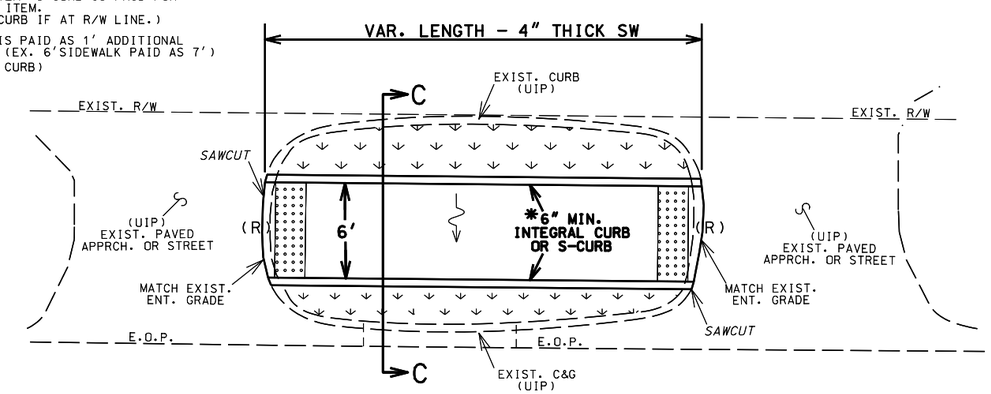


NOTES FOR CUT-THRU SIDEWALK:

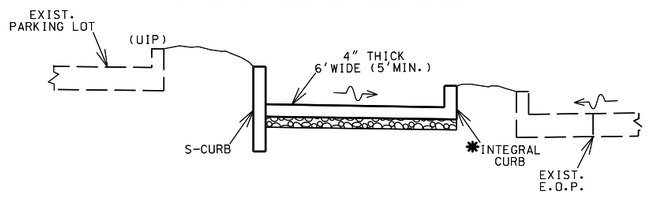
1. REMOVE EXIST. CURB & RAISED ISLAND WITHIN LIMITS SHOWN.
2. AREA INSIDE FINAL CURB TO BE REPAIRED OR REPLACED WITH EXISTING SURFACE MATERIAL. GRADE TO DRAIN.
3. CONSTRUCT 4" THICK CONC. SIDEWALK FLUSH WITH EXIST. CONC. PAVED APPROACH.
4. CONSTRUCT CURB ON BOTH SIDES ADJACENT TO SIDEWALK.
5. CUT-THRU SIDEWALK PAID FOR AS 4" SIDEWALK.
6. 6' PREFERRED WIDTH (5' MIN.)
7. SAW CUTS (NO DIRECT PAY).
8. TRUNCATED DOMES ARE USED ONLY AT STREETS & ENTRANCES UTILIZING STOP SIGNS OR SIGNALS.
9. X-SLOPE 1% PREFERRED (2% MAX.)
10. USE S-CURB IF CONSTRUCTING CURB ON R/W LINE.

✱ INTEGRAL CURB IS PAID FOR AS 4" CONC. SIDEWALK PAY ITEM. S-CURB IS PAID FOR AS ITS OWN PAY ITEM.
(ALWAYS USE S-CURB IF AT R/W LINE.)
INTEGRAL CURB IS PAID AS 1' ADDITIONAL SIDEWALK WIDTH (EX. 6'SIDEWALK PAID AS 7')
(0.11 SY/LF OF CURB)

TYPICAL CUT-THRU SIDEWALK



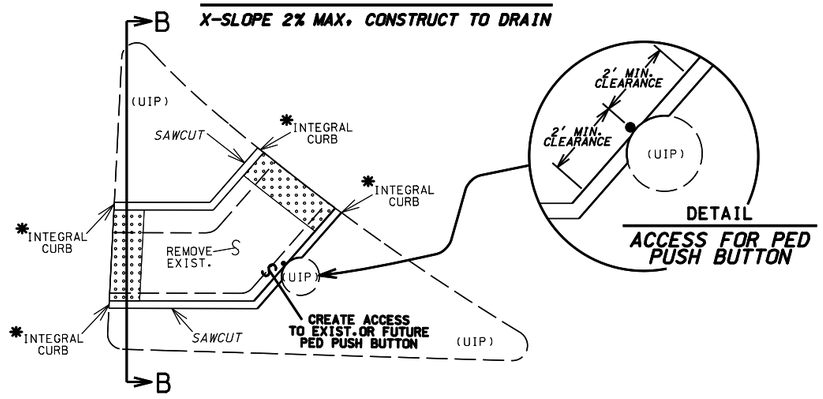
SECTION C-C
WITH S-CURB OR INTEGRAL



NOT TO SCALE

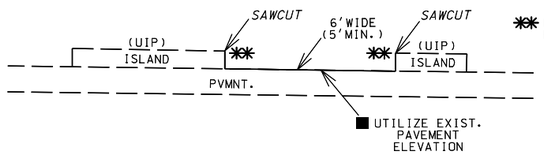
NOT TO SCALE

TYPICAL ISLAND CUT-THRU SIDEWALK
X-SLOPE 2% MAX. CONSTRUCT TO DRAIN



DETAIL
ACCESS FOR PED PUSH BUTTON

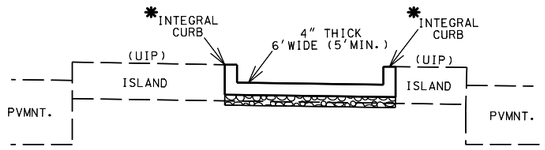
SECTION B-B
ISLAND CUT-THRU SIDEWALK FOR EXISTING 'PINNED-ON' ISLAND



■ SMALL QTY. HAS BEEN INCLUDED FOR 8" THICK SIDEWALK TO ADDRESS ANY UNFORSEEN PVMNT. REPAIRS OR DIFFERENCES IN ELEVATION. (UNDERRUN IF FIELD CONDITIONS DO NOT WARRANT)

✱✱ NO INTEGRAL CURB, AGGR. OR LIN. GRADING REQUIRED IF THE ISLAND IS 'PINNED-ON'

SECTION B-B
ISLAND CUT-THRU SIDEWALK



✱ INTEGRAL CURB IS PAID FOR WITH THE 4" CONC. SIDEWALK PAY ITEM.
INTEGRAL CURB IS PAID AS 1' ADDITIONAL SIDEWALK WIDTH (EX. 6'SIDEWALK PAID AS 7')
(0.11 SY/LF OF CURB)

ADA LIBRARY TYPICAL

MODIFIED SIDEWALK AND SIDEWALK CUT-THRUs

TYPICAL SHEET 10 OF 12

REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED: 8/1/2025
ROUTE: 7 | STATE: MO
DISTRICT: KC | SHEET NO.: 2
COUNTY: JACKSON
JOB NO.: JKU0010
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.:

DESCRIPTION | DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

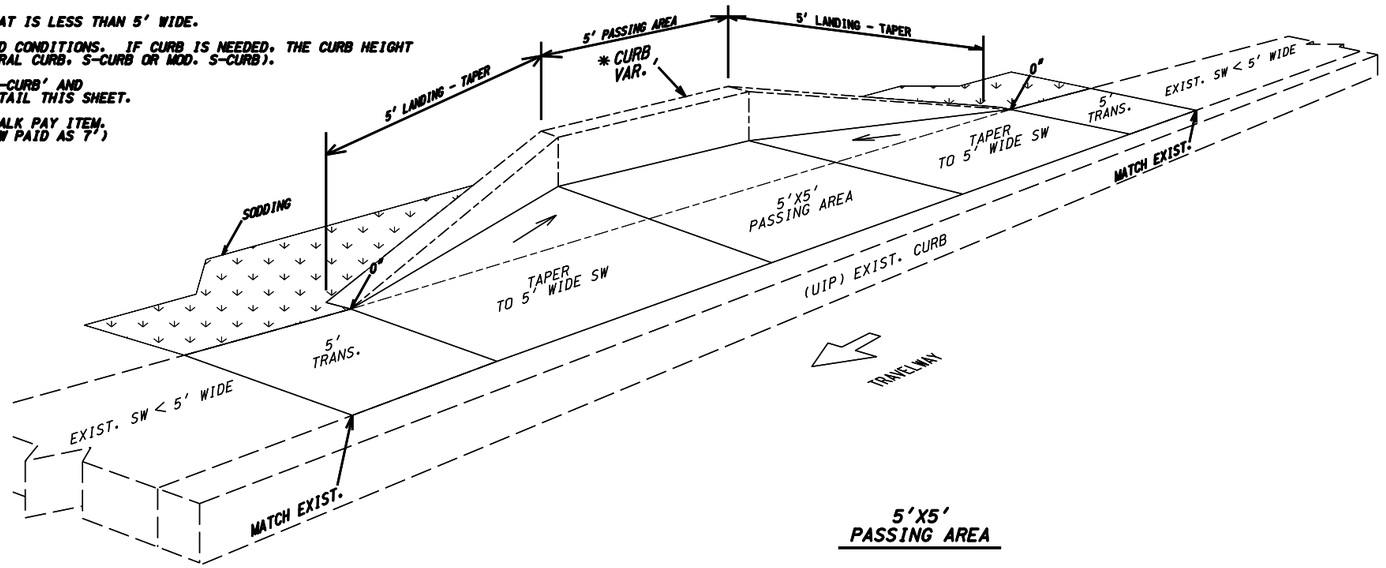
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

REVISED: 2024-01-18

NOTES:

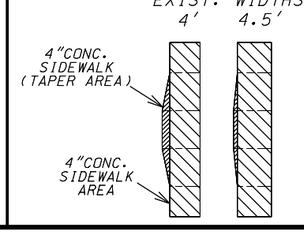
1. PASSING AREA REQUIRED EVERY 200' ON SIDEWALK THAT IS LESS THAN 5' WIDE.
2. * CURB MAY OR MAY NOT BE NEEDED DEPENDING ON FIELD CONDITIONS. IF CURB IS NEEDED, THE CURB HEIGHT WILL VARY DEPENDING ON FIELD CONDITIONS. (INTEGRAL CURB, S-CURB OR MOD. S-CURB).
3. S-CURB OVER 12" TALL IS PAID FOR AS 'MODIFIED S-CURB' AND REQUIRES REINFORCEMENT (NO DIRECT PAY). SEE DETAIL THIS SHEET.
4. ** INTEGRAL CURB IS PAID FOR IN THE 4" CONC. SIDEWALK PAY ITEM. PAID AS 1' ADDITIONAL SIDEWALK WIDTH. (EX. 6' SW PAID AS 7') (0.11 SY/LF OF CURB)



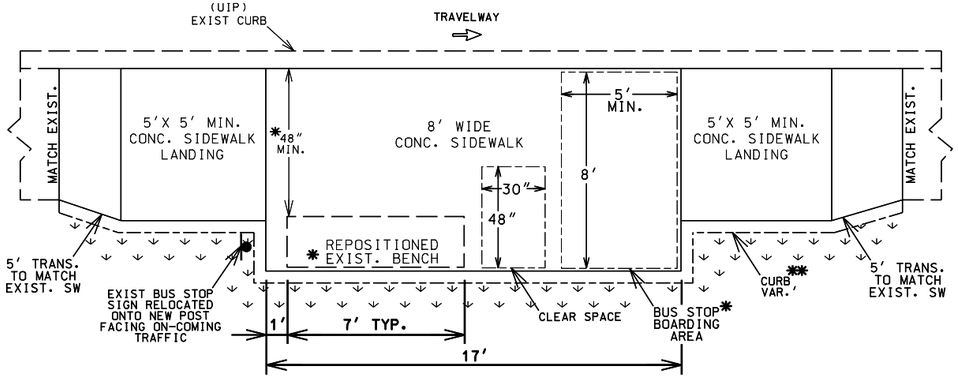
5'X5' PASSING AREA

NOT TO SCALE

QUANTITIES FOR PASSING AREAS				
EXISTING SW WIDTH			4'	4.5'
4" CONC. SIDEWALK (TAPER)		SY	1.3	0.7
TYPE 1 AGGREGATE		SY	1.3	0.7
4" CONC. SIDEWALK		SY	10.4	11.7
TYPE 1 AGGREGATE		SY	10.4	11.7
INTEGRAL CURB	**	SY	2.0	2.0
TYPE 1 AGGREGATE		SY	1.0	1.0
S-CURB		LF	17.2	16.0
MODIFIED S-CURB		LF	17.2	16.0
SODDING		SY	53.0	53.0
LINEAR GRADING		LF	25.0	25.0



BUS STOP WITH BENCH



NOTES:

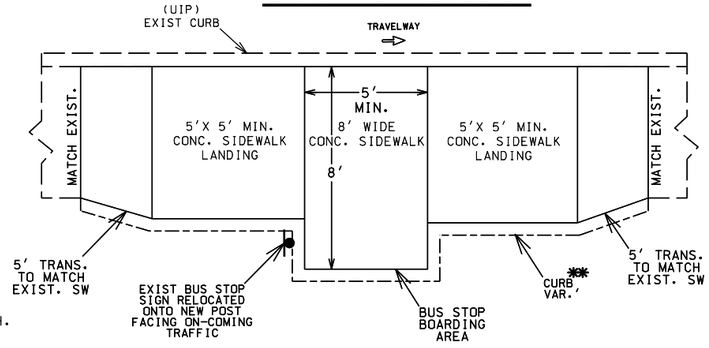
* 1. THE REPOSITIONED BENCH SHALL NOT BE PLACED ON THE 5'X8' BUS STOP BOARDING AREA. PLACE THE BACK OF THE BENCH AT THE BACK EDGE OF THE CONC. PAD TO PROVIDE MAX.CLEARANCE.

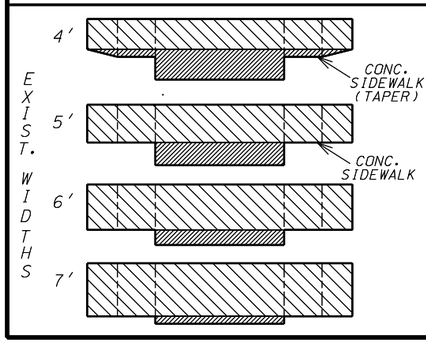
** 2. CURB USAGE DEPENDS ON FIELD CONDITIONS. IF CURB IS NEEDED DUE TO CUT, THE CURB HEIGHT WILL VARY DEPENDING ON FIELD CONDITIONS. (INTEGRAL CURB, S-CURB OR MOD. S-CURB).

3. S-CURB OVER 12" TALL IS PAID FOR AS 'MODIFIED S-CURB' AND REQUIRES REINFORCEMENT (NO DIRECT PAY). SEE DETAIL THIS SHEET.

*** 4. INTEGRAL CURB IS PAID FOR IN THE 4" CONC. SIDEWALK PAY ITEM. INTEGRAL CURB PAID AS 1' ADDITIONAL SIDEWALK WIDTH. (EX. 6'SW PAID AS 7') (0.11 SY/LF OF CURB)

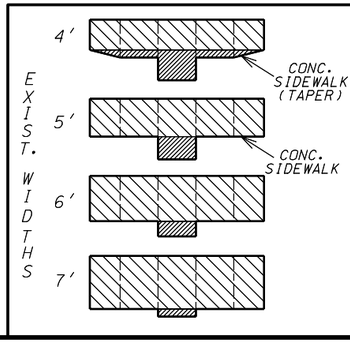
BUS STOP WITHOUT BENCH





QUANTITIES FOR BUS STOPS WITH BENCH					
EXISTING SW WIDTH		4'	5'	6'	7'
4" CONC. SIDEWALK (TAPER)	SY	9.3	5.8	3.9	1.9
TYPE 1 AGGREGATE	SY	9.3	5.8	3.9	1.9
4" CONC. SIDEWALK	SY	16.5	20.4	24.3	28.2
TYPE 1 AGGREGATE	SY	16.5	20.4	24.3	28.2
INTEGRAL CURB ***	SY	5.4	3.4	3.2	2.9
TYPE 1 AGGREGATE	SY	2.7	1.7	1.6	1.5
S-CURB	LF	43.5	27.0	25.0	23.0
MODIFIED S-CURB	LF	43.5	27.0	25.0	23.0
SODDING	SY	10.6	10.4	9.8	9.4
LINEAR GRADING	LF	37.0	37.0	37.0	37.0

NOT TO SCALE



QUANTITIES FOR BUS STOPS – NO BENCH					
EXISTING SW WIDTH		4'	5'	6'	7'
4" CONC. SIDEWALK (TAPER)	SY	3.9	1.8	1.3	0.7
TYPE 1 AGGREGATE	SY	3.9	1.8	1.3	0.7
4" CONC. SIDEWALK	SY	10.4	12.9	15.5	18.0
TYPE 1 AGGREGATE	SY	10.4	12.9	15.5	18.0
INTEGRAL CURB ***	SY	3.8	2.0	1.8	1.6
TYPE 1 AGGREGATE	SY	1.9	1.0	0.9	0.8
S-CURB	LF	31.0	15.0	13.0	11.0
MODIFIED S-CURB	LF	31.0	15.0	13.0	11.0
SODDING	SY	7.6	7.4	6.8	6.4
LINEAR GRADING	LF	25.0	25.0	25.0	25.0

ADA LIBRARY TYPICAL

PASSING AREAS AND BUS STOPS

TYPICAL SHEET 11 OF 12

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
8/1/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	2

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

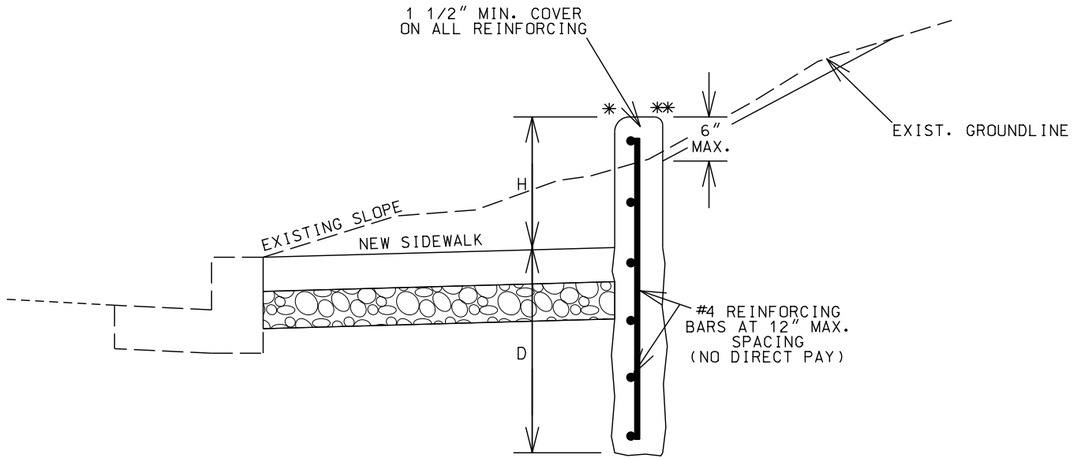
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

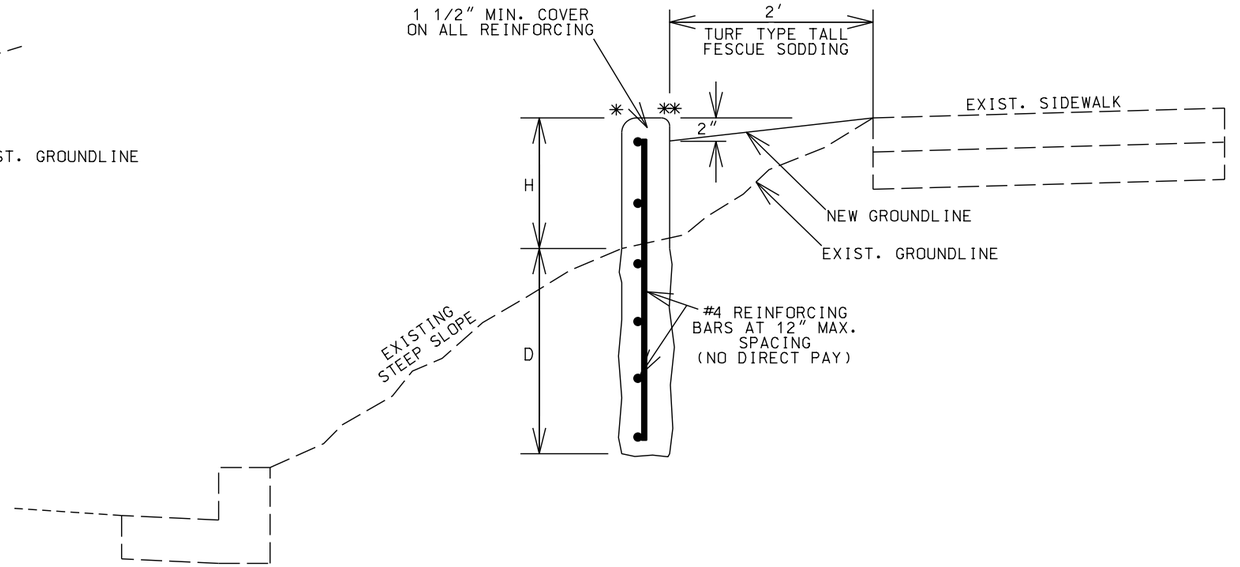
olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

CREATED: 2023-11-16
REVISED: 2024-02-13

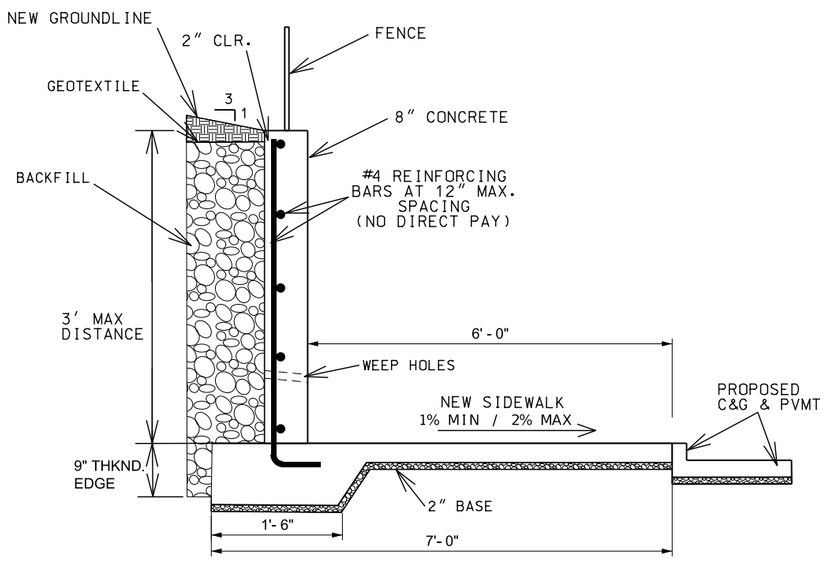
✳ ROUND TO 3/4" RADIUS
✳✳ ROUND TO 1/4" RADIUS
H = 2'-6" MAX. (30")
D = BURY DEPTH (FORMING NOT REQUIRED)
THIS SHALL BE 18 INCHES OR "H" WHICHEVER IS GREATER.
VERTICAL REINFORCING LENGTHS VARY AS NEEDED.
DEPTH MAY BE REDUCED IF KEYED 6" IN ROCK

MODIFIED S-CURB
> 12" TALL (2'-6" MAX.)





NOT TO SCALE



MODIFIED S-CURB
> 12" TALL (3'-0" MAX.)
POURED CONCRETE SIDEWALK WALL

NOT TO SCALE

ADA LIBRARY TYPICAL

MODIFIED S-CURB

TYPICAL SHEET
12 OF 12

REID BRENNEN CATT
NUMBER
PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
8/1/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	2

COUNTY
JACKSON
JOB NO.
JKU0010
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

MOBILIZATION
1 LUMP SUM

CONTRACTOR FURNISHED SURVEYING AND STAKING
1 LUMP SUM

ADDITIONAL MOBILIZATION FOR SEEDING
4 EACH

REMOVAL OF IMPROVEMENTS				
SHEET	STA.	STA.	LOCATION	DESCRIPTION
4	00+23.34	00+29.34	ROUTE 7 LT	6' CURB REMOVAL & SAWCUT
4	00+28.36	00+32.61	ROUTE 7 LT	6' CURB REMOVAL & SAWCUT
4	00+22.50	00+28.50	ROUTE 7 RT	6' CURB REMOVAL & SAWCUT
4	00+27.34	00+31.56	ROUTE 7 RT	6' CURB REMOVAL & SAWCUT
4	00+42.48	00+50.06	ROUTE 7 LT	9' CURB REMOVAL, 12' SAWCUT
4	00+61.36	00+65.66	ROUTE 7 LT	5' SAWCUT
4	00+61.36	00+75.38	ROUTE 7 LT	9 SY SIDEWALK
4	00+72.98	00+75.38	ROUTE 7 LT	5' SAWCUT
4	00+43.23	00+55.45	ROUTE 7 RT	17' CURB REMOVAL, 20' SAWCUT
4	00+63.55		ROUTE 7 RT	1 SIGN, 1 POST REMOVE & REPLACE
4	00+80.71	02+01.86	ROUTE 7 RT	154' CURB & GUTTER
4	00+80.71	02+01.86	ROUTE 7 RT	110 SY PAVEMENT
4	00+80.71	02+01.86	ROUTE 7 RT	130' SAWCUT
4	00+90.49	01+12.70	ROUTE 7 RT	PARTIAL RETAINING WALL
4	01+24.18	02+08.85	ROUTE 7 RT	RETAINING WALL
4	01+38.43		ROUTE 7 RT	1 SIGN, 1 POST REMOVE & REPLACE
4	02+08.81	02+13.81	ROUTE 7 RT	3 SY SIDEWALK
4	02+13.81		ROUTE 7 RT	7' SAWCUT
6	09+28.98	09+54.93	ROUTE 7 RT	PARTIAL RETAINING WALL
6	09+54.93		ROUTE 7 RT	1' SAWCUT
6	10+70.98		ROUTE 7 RT	5' SAWCUT
6	10+70.98	10+99.15	ROUTE 7 RT	16 SY SIDEWALK
6	10+80.98	10+88.98	ROUTE 7 RT	8' CURB & GUTTER
6	10+80.98	11+47.37	ROUTE 7 RT	66' SAWCUT
6	10+88.98	11+39.37	ROUTE 7 RT	63 SY ENTRANCE PAVEMENT
6	10+99.53	11+28.94	ROUTE 7 RT	29' SAWCUT
6	11+29.20	11+57.36	ROUTE 7 RT	17 SY SIDEWALK
6	11+39.37	11+47.37	ROUTE 7 RT	8' CURB & GUTTER
6	11+57.36		ROUTE 7 RT	6' SAWCUT
6	12+53.00		ROUTE 7 RT	6' SAWCUT
6	12+53.00	12+58.00	ROUTE 7 RT	3 SY SIDEWALK
6	12+58.00		ROUTE 7 RT	6' SAWCUT
7	15+69.59		ROUTE 7 RT	5' SAWCUT
7	15+69.59	16+03.50	ROUTE 7 RT	19 SY SIDEWALK
7	15+79.60	16+01.50	ROUTE 7 RT	24' CURB & GUTTER
7	15+79.60	16+69.03	ROUTE 7 RT	89' SAWCUT
7	15+96.06	16+49.06	ROUTE 7 RT	65 SY ENTRANCE PAVEMENT
7	16+03.43	16+03.52	ROUTE 7 RT	4' CURB & GUTTER
7	16+03.52	16+33.98	ROUTE 7 RT	31' SAWCUT
7	16+33.98	16+69.03	ROUTE 7 RT	41' CURB & GUTTER
7	16+83.87		ROUTE 7 RT	PULL BOX REMOVE & REPLACE
7	17+06.45		ROUTE 7 RT	1 SIGN, 1 POST REMOVE & REPLACE
7	17+60.47		ROUTE 7 RT	1 SIGN, 1 POST REMOVE & REPLACE
7	18+42.84	19+10.59	ROUTE 7 RT	68' SAWCUT
7	18+42.84	18+47.77	ROUTE 7 RT	5' CURB & GUTTER
7	18+47.77	19+01.21	ROUTE 7 RT	43 SY ENTRANCE PAVEMENT
7	18+55.09	18+60.88	ROUTE 7 RT	12' CURB & GUTTER
7	18+60.88	18+91.06	ROUTE 7 RT	30' SAWCUT
7	18+90.49	19+10.59	ROUTE 7 RT	26' CURB & GUTTER
1 LUMP SUM				

REMOVAL OF IMPROVEMENTS				
SHEET	STA.	STA.	LOCATION	DESCRIPTION
8	19+52.02		ROUTE 7 RT	1 SIGN, 1 POST REMOVE & REPLACE
8	19+92.31		ROUTE 7 RT	PULL BOX REMOVE & REPLACE
8	20+88.60	21+65.29	ROUTE 7 RT	77' SAWCUT
8	20+88.60	21+03.57	ROUTE 7 RT	25' CURB & GUTTER
8	20+96.60	21+57.29	ROUTE 7 RT	49 SY ENTRANCE PAVEMENT
8	21+03.57	21+50.04	ROUTE 7 RT	47' SAWCUT
8	21+46.65	21+65.29	ROUTE 7 RT	25' CURB & GUTTER
8	22+28.80		ROUTE 7 RT	1 SIGN, 1 POST REMOVE & REPLACE
8	22+75.12		ROUTE 7 RT	1 SIGN, 1 POST REMOVE & REPLACE
8	22+92.47		ROUTE 7 RT	PULL BOX REMOVE & REPLACE
8	23+11.73	23+75.69	ROUTE 7 RT	64' SAWCUT
8	23+11.73	23+20.79	ROUTE 7 RT	11' CURB & GUTTER
8	23+11.73	23+75.69	ROUTE 7 RT	66 SY ENTRANCE PAVEMENT
8	23+21.73	23+22.37	ROUTE 7 RT	7' CURB & GUTTER
8	23+21.82	23+63.00	ROUTE 7 RT	41' SAWCUT
8	23+63.00	23+75.69	ROUTE 7 RT	22' CURB & GUTTER
8	23+72.86		ROUTE 7 RT	TREE
8	23+93.76	24+46.41	ROUTE 7 RT	53' SAWCUT
8	23+93.76	24+04.14	ROUTE 7 RT	20' CURB & GUTTER
8	23+93.76	24+46.41	ROUTE 7 RT	52 SY ENTRANCE PAVEMENT
8	23+99.36		ROUTE 7 RT	1 SIGN, 1 POST REMOVE & REPLACE
8	24+04.14	24+37.84	ROUTE 7 RT	34' SAWCUT
8	24+37.84	24+46.41	ROUTE 7 RT	21' CURB & GUTTER
9	24+46.41	25+10.56	ROUTE 7 RT	64' SAWCUT
9	24+46.41	24+55.92	ROUTE 7 RT	18' CURB & GUTTER
9	24+46.41	25+10.56	ROUTE 7 RT	57 SY ENTRANCE PAVEMENT
9	24+55.92	25+01.50	ROUTE 7 RT	51' SAWCUT
9	24+99.36	25+14.88	ROUTE 7 RT	31' CURB & GUTTER
9	25+63.55		ROUTE 7 RT	1 SIGN, 1 POST REMOVE & REPLACE
9	25+88.53		ROUTE 7 RT	SIGNAL PULL BOX
9	26+08.46		ROUTE 7 RT	SIGNAL POLE BASE
9	26+11.26	26+28.28	ROUTE 7 RT	20' CURB & GUTTER
9	26+14.18		ROUTE 7 RT	SIGNAL PULL BOX
9	26+19.62	26+28.61	ROUTE 7 LT	9' CURB & GUTTER, 13' SAWCUT
9	26+19.13	26+23.49	ROUTE 7 LT	64' SAWCUT
9	26+19.13	26+39.88	ROUTE 7 LT	97 SY ENTRANCE PAVEMENT
9	26+20.34	26+36.74	ROUTE 7 LT	42' CURB & GUTTER
9	26+23.49	26+33.96	ROUTE 7 LT	11' CURB & GUTTER
9	26+27.14		ROUTE 7 LT	SIGNAL POLE BASE
9	26+38.08		ROUTE 7 LT	14' CURB & GUTTER
9	26+33.96	26+38.22	ROUTE 7 LT	9 SY SIDEWALK
9	26+34.67	26+38.47	ROUTE 7 LT	4' SAWCUT
9	26+36.74	26+39.88	ROUTE 7 LT	73' SAWCUT
9	26+69.64	26+78.00	ROUTE 7 RT	10' CURB & GUTTER
9	26+72.94		ROUTE 7 RT	SIGNAL CONTROLLER CABINET R&R
9	26+81.66	27+10.46	ROUTE 7 RT	44' CURB & GUTTER
9	26+81.25	27+51.24	ROUTE 7 RT	70' SAWCUT
9	26+81.68	27+61.97	ROUTE 7 RT	51 SY ENTRANCE PAVEMENT
9	26+85.16		ROUTE 7 RT	SIGNAL POLE
9	26+91.75		ROUTE 7 RT	SIGNAL EQUIPMENT REMOVE & REPLACE
9	26+98.92	27+61.97	ROUTE 7 RT	64' SAWCUT
9	27+51.22	27+61.98	ROUTE 7 RT	16' CURB & GUTTER
9	27+61.21		ROUTE 7 RT	1 SIGN, 1 POST REMOVE & REPLACE
9	27+81.85		ROUTE 7 RT	1 SIGN, 1 POST REMOVE & REPLACE
9	27+94.74		ROUTE 7 RT	SHRUB
1 LUMP SUM				

REMOVAL OF IMPROVEMENTS				
SHEET	STA.	STA.	LOCATION	DESCRIPTION
9	28+04.54	28+65.36	ROUTE 7 RT	62' SAWCUT
9	28+04.54	28+14.68	ROUTE 7 RT	15' CURB & GUTTER
9	28+04.54	28+65.36	ROUTE 7 RT	47 SY ENTRANCE PAVEMENT
9	28+08.83		ROUTE 7 RT	SHRUB
9	28+13.85	28+55.41	ROUTE 7 RT	42' SAWCUT
9	28+55.34	28+65.36	ROUTE 7 RT	15' CURB & GUTTER
9	28+64.35		ROUTE 7 RT	SHRUB
9	28+71.03		ROUTE 7 RT	SHRUB
9	28+77.15		ROUTE 7 RT	SHRUB
9	28+89.87		ROUTE 7 RT	1 SIGN, 1 POST REMOVE & REPLACE
9	28+90.10		ROUTE 7 RT	SHRUB
9	29+07.08		ROUTE 7 RT	SHRUB
9	29+14.20		ROUTE 7 RT	SHRUB
9	29+26.72		ROUTE 7 RT	2 SIGNS, 1 POST REMOVE & REPLACE
9	29+26.95		ROUTE 7 RT	SHRUB
9	29+28.85	30+08.43	ROUTE 7 RT	81' SAWCUT
9	29+28.85	29+38.47	ROUTE 7 RT	15' CURB & GUTTER
9	29+28.85	29+38.47	ROUTE 7 RT	74 SY ENTRANCE PAVEMENT
9	29+38.47	29+98.42	ROUTE 7 RT	60' SAWCUT
9	29+98.42	30+08.43	ROUTE 7 RT	16' CURB & GUTTER
10	30+29.02	30+75.50	ROUTE 7 RT	48' SAWCUT
10	30+29.02	30+39.55	ROUTE 7 RT	15' CURB & GUTTER
10	30+29.02	30+75.50	ROUTE 7 RT	26 SY ENTRANCE PAVEMENT
10	30+38.96	30+58.85	ROUTE 7 RT	20' SAWCUT
10	30+58.85	30+75.50	ROUTE 7 RT	21' CURB & GUTTER
10	31+05.80		ROUTE 7 RT	1 SIGN, 1 POST REMOVE & REPLACE
10	31+01.02	31+81.60	ROUTE 7 RT	81' SAWCUT
10	31+01.02	31+28.38	ROUTE 7 RT	43' CURB & GUTTER
10	31+16.57	31+71.10	ROUTE 7 RT	73 SY ENTRANCE PAVEMENT
10	31+18.83		ROUTE 7 RT	BUSH
10	31+23.51		ROUTE 7 RT	BUSH
10	31+28.38	31+58.59	ROUTE 7 RT	30' SAWCUT
10	31+58.59	31+81.60	ROUTE 7 RT	35' CURB & GUTTER
10	31+72.82		ROUTE 7 RT	BUSH
10	32+16.08		ROUTE 7 LT	SIGNAL POLE
10	32+27.96		ROUTE 7 RT	SIGNAL PULL BOX
10	32+36.63	33+02.35	ROUTE 7 RT	67' SAWCUT
10	32+36.63	32+48.57	ROUTE 7 RT	20' CURB & GUTTER
10	32+36.63	32+94.85	ROUTE 7 RT	56 SY ENTRANCE PAVEMENT
10	32+37.10		ROUTE 7 RT	SIGNAL POLE
10	32+48.57	32+84.93	ROUTE 7 RT	36' SAWCUT
10	32+66.05	32+69.35	ROUTE 7 RT	3 SY MEDIAN
10	32+84.93	33+02.35	ROUTE 7 RT	26' CURB & GUTTER
10	32+93.66		ROUTE 7 RT	LIGHTING POLE
10	32+97.74		ROUTE 7 RT	SIGNAL PULL BOX
10	32+86.93	33+16.54	ROUTE 7 LT	3 SY PAVEMENT
10	32+86.93	33+16.54	ROUTE 7 LT	49' SAWCUT
10	32+88.04	32+95.56	ROUTE 7 LT	11 SY SIDEWALK
10	32+88.42	32+88.46	ROUTE 7 LT	2' CURB & GUTTER
10	32+92.08	33+16.54	ROUTE 7 LT	33' CURB & GUTTER
10	32+91.63	32+95.73	ROUTE 7 LT	4' SAWCUT
10	32+97.95		ROUTE 7 LT	SIGNAL POLE
10	33+00.35		ROUTE 7 RT	SIGNAL POLE
10	33+03.87		ROUTE 7 LT	SIGNAL POLE
1 LUMP SUM				

EARTHWORK						
SHEET	STA.	STA.	LOCATION	UNCLASSIFIED EXCAVATION (CY)	COMPACTING EMBANKMENT (CY)	COMPACTING IN CUT (STA)
XS-7 TO XS-10	75+04.46	77+68.25	RTE 7 RT	186	149	2.6
XS-11	00+00.00	1+80.03	RAMP C RT	82	66	1.8
XS-15 TO XS-19	00+04.33	03+65.78	S OUTER RD	500	400	3.6
XS-20	00+03.29	01+12.39	MOCK AVE	206	165	1.1
			TOTAL	974	780	9.1

CLASS 1 EXCAVATION			
STA.	STA.	LOCATION	(CY)
75+24.49	77+31.28	ROUTE 7 RT.	495
		TOTAL	495

SEE BRIDGE SHEETS FOR SOIL NAIL WALL DETAILS (A9505)

SUMMARY OF QUANTITIES
SHEET 1 OF 15

REID BRENNEN CATT NUMBER PE-2010019516

REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
10/2/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	3

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

REMOVAL OF IMPROVEMENTS				
SHEET	STA.	STA.	LOCATION	DESCRIPTION
10	33+62.77		ROUTE 7 RT	2 SIGNS, 1 POST REMOVE & REPLACE
10	34+01.60		ROUTE 7 RT	1 SIGN, 1 POST REMOVE & REPLACE
10	34+29.51	35+39.03	ROUTE 7 RT	110' SAWCUT
10	34+29.51	34+71.23	ROUTE 7 RT	56' CURB & GUTTER
10	34+45.73	35+22.90	ROUTE 7 RT	108 SY PAVEMENT
10	34+47.60		ROUTE 7 RT	FIBER PULL BOX REMOVE & REPLACE
10	34+71.23	34+97.21	ROUTE 7 RT	26' SAWCUT
10	34+97.21	35+39.03	ROUTE 7 RT	56' CURB & GUTTER
11	35+88.04		ROUTE 7 RT	1 SIGN, 1 POST REMOVE & REPLACE
11	36+32.49	37+12.85	ROUTE 7 RT	80' SAWCUT
11	36+32.49	36+55.02	ROUTE 7 RT	31' CURB & GUTTER
11	36+85.75		ROUTE 7 RT	FIBER PULL BOX REMOVE & REPLACE
11	36+48.43	37+05.08	ROUTE 7 RT	44 SY ENTRANCE PAVEMENT
11	36+55.02	36+95.99	ROUTE 7 RT	42' SAWCUT
11	36+95.99	37+12.85	ROUTE 7 RT	22' CURB & GUTTER
11	37+05.92		ROUTE 7 RT	2 SIGNS, 1 POST REMOVE & REPLACE
11	37+40.53		ROUTE 7 RT	1 SIGN, 1 POST REMOVE & REPLACE
11	36+84.91	37+64.41	ROUTE 7 LT	81' SAWCUT
11	36+84.91	37+10.70	ROUTE 7 LT	42' CURB & GUTTER
11	36+84.91	37+64.41	ROUTE 7 LT	110 SY PAVEMENT
11	37+02.84	37+06.90	ROUTE 7 LT	4' SAWCUT
11	37+10.70	37+38.83	ROUTE 7 LT	28' SAWCUT
11	37+38.83	37+64.41	ROUTE 7 LT	41' CURB & GUTTER
11	37+71.01		ROUTE 7 LT	1 SIGN, 1 POST REMOVE & REPLACE
11	37+57.90	38+28.75	ROUTE 7 RT	71' SAWCUT
11	37+57.90	37+75.91	ROUTE 7 RT	23' CURB & GUTTER
11	37+66.20	38+20.34	ROUTE 7 RT	43 SY ENTRANCE PAVEMENT
11	37+75.91	38+12.07	ROUTE 7 RT	36' SAWCUT
11	38+12.07	38+28.75	ROUTE 7 RT	24' CURB & GUTTER
11	38+36.10		ROUTE 7 RT	1 SIGN, 1 POST REMOVE & REPLACE
11	38+07.91	38+69.94	ROUTE 7 LT	63' SAWCUT
11	38+07.91	38+17.74	ROUTE 7 LT	17' CURB & GUTTER
11	38+07.91	38+69.94	ROUTE 7 LT	61 SY ENTRANCE PAVEMENT
11	38+17.74	38+58.10	ROUTE 7 LT	40' SAWCUT
11	38+51.10	38+69.94	ROUTE 7 LT	13' CURB & GUTTER REMOVAL
11	38+57.83	38+83.84	ROUTE 7 LT	15 SY SIDEWALK
11	38+83.84		ROUTE 7 LT	5' SAWCUT
11	39+01.63		ROUTE 7 RT	SIGNAL PULL BOX REMOVE & REPLACE
11	39+01.80	39+59.26	ROUTE 7 RT	59' SAWCUT
11	39+01.80	39+59.26	ROUTE 7 RT	65 SY ENTRANCE PAVEMENT
11	39+01.80	39+11.05	ROUTE 7 RT	19' CURB & GUTTER
11	39+11.05	39+53.35	ROUTE 7 RT	49' SAWCUT
11	39+53.35	39+59.26	ROUTE 7 RT	22' CURB & GUTTER
11	39+82.37		ROUTE 7 LT	5' SAWCUT
11	39+82.37	39+97.37	ROUTE 7 LT	8 SY SIDEWALK
11	39+97.37		ROUTE 7 LT	5' SAWCUT
11	40+11.56		ROUTE 7 LT	5' SAWCUT
11	40+11.56	40+76.56	ROUTE 7 LT	38 SY SIDEWALK
11	40+50.63	40+63.01	ROUTE 7 LT	12' CURB & GUTTER
11	40+46.99	40+78.14	ROUTE 7 RT	42' SAWCUT
11	40+46.99	40+78.14	ROUTE 7 RT	37' CURB & GUTTER
11	40+50.65		ROUTE 7 LT	46' SAWCUT
11	40+59.46		ROUTE 7 RT	SIGNAL MANHOLE REMOVE & REPLACE
11	40+66.73		ROUTE 7 RT	SIGNAL PULL BOX REMOVE & REPLACE
11	40+72.36		ROUTE 7 RT	PYLON SIGN
1 LUMP SUM				

REMOVAL OF IMPROVEMENTS				
SHEET	STA.	STA.	LOCATION	DESCRIPTION
12	41+10.56	41+73.50	ROUTE 7 RT	91' SAWCUT
12	41+10.56	42+31.25	ROUTE 7 RT	95 SY PAVEMENT
12	41+18.85	41+22.51	ROUTE 7 RT	4' SAWCUT
12	41+18.85	41+25.09	ROUTE 7 RT	5 SY SIDEWALK
12	41+59.78		ROUTE 7 RT	4'X2' GRATE INLET
12	41+59.78		ROUTE 7 RT	3', 12" RCP
12	41+69.81	41+81.95	ROUTE 7 RT	12' CURB
12	41+73.50	42+31.25	ROUTE 7 RT	58' SAWCUT
12	41+82.50	42+17.56	ROUTE 7 RT	36' SAWCUT
12	42+17.56	42+31.25	ROUTE 7 RT	11' CURB & GUTTER
12	42+61.31	42+74.51	ROUTE 7 RT	6 SY SIDEWALK
12	42+62.85	42+69.27	ROUTE 7 RT	11' CURB
12	42+62.73	42+73.67	ROUTE 7 RT	15' CURB
12	42+65.46	43+07.81	ROUTE 7 RT	43' SAWCUT
12	42+65.46	43+07.81	ROUTE 7 RT	35 SY ENTRANCE PAVEMENT
12	42+74.18	42+98.02	ROUTE 7 RT	24' SAWCUT
12	42+98.02	43+37.66	ROUTE 7 RT	48' CURB
12	42+97.63		ROUTE 7 RT	19 SY SIDEWALK
12	43+02.80	43+35.64	ROUTE 7 RT	67' CURB
12	43+28.94	43+71.62	ROUTE 7 RT	44' SAWCUT
12	43+28.94	43+71.62	ROUTE 7 RT	34 SY ENTRANCE PAVEMENT
12	43+37.66	43+61.53	ROUTE 7 RT	24' SAWCUT
12	43+37.66	43+75.07	ROUTE 7 RT	18' CURB
12	43+67.20	43+75.91	ROUTE 7 RT	14' CURB
12	43+61.19	43+75.91	ROUTE 7 RT	6 SY SIDEWALK
12	44+89.82	45+39.65	ROUTE 7 RT	51' SAWCUT
12	44+89.82	44+99.77	ROUTE 7 RT	17' CURB & GUTTER
12	44+89.82	45+39.65	ROUTE 7 RT	42 SY ENTRANCE PAVEMENT
12	44+89.82	45+29.69	ROUTE 7 RT	30' SAWCUT
12	45+29.69	45+39.65	ROUTE 7 RT	17' CURB & GUTTER
13	46+45.29		ROUTE 7 RT	1 SIGN, 1 POST REMOVE & REPLACE
13	46+46.92	47+06.94	ROUTE 7 RT	61' SAWCUT
13	46+46.92	47+06.94	ROUTE 7 RT	49 SY ENTRANCE PAVEMENT
13	46+46.92	46+56.80	ROUTE 7 RT	14' CURB & GUTTER
13	46+56.80	46+97.06	ROUTE 7 RT	40' SAWCUT
13	46+98.26	47+06.94	ROUTE 7 RT	10' CURB & GUTTER
13	47+90.54	48+02.81	ROUTE 7 RT	LANDSCAPING
13	48+28.28		ROUTE 7 RT	1 SIGN, 1 POST REMOVE & REPLACE
13	48+43.33	48+55.45	ROUTE 7 RT	LANDSCAPING
13	48+81.47	49+44.68	ROUTE 7 RT	64' SAWCUT
13	48+81.47	49+44.68	ROUTE 7 RT	49 SY ENTRANCE PAVEMENT
13	48+81.47	48+94.42	ROUTE 7 RT	18' CURB & GUTTER
13	48+94.42	49+34.73	ROUTE 7 RT	40' SAWCUT
13	49+34.73	49+44.68	ROUTE 7 RT	15' CURB & GUTTER
13	50+65.59	51+74.92	ROUTE 7 RT	110' SAWCUT
13	50+65.59	50+75.68	ROUTE 7 RT	25' CURB & GUTTER
13	50+65.59	51+20.23	ROUTE 7 RT	72 SY ENTRANCE PAVEMENT
13	50+75.68	51+06.70	ROUTE 7 RT	31' SAWCUT
13	51+22.00		ROUTE 7 RT	1 SIGN, 1 POST REMOVE & REPLACE
13	51+06.70	51+32.87	ROUTE 7 RT	54' CURB & GUTTER
13	51+20.23	51+74.92	ROUTE 7 RT	63 SY ENTRANCE PAVEMENT
13	51+32.87	51+68.95	ROUTE 7 RT	39' SAWCUT
13	51+68.95	51+74.92	ROUTE 7 RT	24' CURB & GUTTER
1 LUMP SUM				

REMOVAL OF IMPROVEMENTS				
SHEET	STA.	STA.	LOCATION	DESCRIPTION
14	51+92.75		ROUTE 7 RT	2 SIGNS, 1 POST REMOVE & REPLACE
14	52+24.30	52+63.08	ROUTE 7 RT	109' SAWCUT
14	52+24.30	52+63.08	ROUTE 7 RT	57 SY PAVEMENT
14	52+24.30	52+49.74	ROUTE 7 RT	27' CURB & GUTTER
14	52+57.71		ROUTE 7 RT	31' CURB & GUTTER
14	52+98.97	53+08.97	ROUTE 7 LT	68' SAWCUT
14	52+98.97	53+14.53	ROUTE 7 LT	60 SY ENTRANCE PAVEMENT
14	53+02.97	53+07.13	ROUTE 7 LT	5 SY SIDEWALK
14	53+02.97	53+13.95	ROUTE 7 LT	21' CURB & GUTTER
14	53+02.66	53+11.31	ROUTE 7 LT	13' CURB & GUTTER
14	53+14.53		ROUTE 7 LT	28' SAWCUT
14	53+06.04		ROUTE 7 LT	1 SIGN, 1 POST REMOVE & REPLACE
14	53+09.14	53+26.59	ROUTE 7 LT	23' SAWCUT
14	53+10.10	53+26.59	ROUTE 7 LT	4' CURB & GUTTER
14	53+08.55	53+31.28	ROUTE 7 RT	29' SAWCUT
14	53+09.71	53+31.28	ROUTE 7 RT	25' CURB & GUTTER
14	53+13.46	53+72.33	ROUTE 7 RT	62' SAWCUT
14	53+13.63	53+71.84	ROUTE 7 RT	60' CURB & GUTTER
14	53+13.84	53+72.30	ROUTE 7 RT	7 SY PAVEMENT
14	53+67.47		ROUTE 7 RT	1 SIGN, 1 POST REMOVE & REPLACE
14	54+49.53		ROUTE 7 RT	2 SIGNS, 1 POST REMOVE & REPLACE
14	54+73.14	55+35.42	ROUTE 7 RT	64' SAWCUT
14	54+73.14	55+35.42	ROUTE 7 RT	49 SY ENTRANCE PAVEMENT
14	54+73.14	54+91.28	ROUTE 7 RT	22' CURB & GUTTER
14	54+91.28	55+20.00	ROUTE 7 RT	29' SAWCUT
14	55+20.00	55+35.42	ROUTE 7 RT	20' CURB & GUTTER
14	55+66.77	56+56.04	ROUTE 7 RT	90' SAWCUT
14	55+66.77	56+56.04	ROUTE 7 RT	92 SY ENTRANCE PAVEMENT
14	55+66.77	55+81.38	ROUTE 7 RT	22' CURB & GUTTER
14	55+81.38	56+04.84	ROUTE 7 RT	23' SAWCUT
14	56+04.84	56+14.02	ROUTE 7 RT	24' CURB & GUTTER
14	56+14.02	56+43.07	ROUTE 7 RT	29' SAWCUT
14	56+43.07	56+56.04	ROUTE 7 RT	21' CURB & GUTTER
14	56+43.96	56+67.08	ROUTE 7 RT	12 SY SIDEWALK
14	56+67.08		ROUTE 7 RT	5' SAWCUT
14	56+86.51		ROUTE 7 RT	5' SAWCUT
14	56+86.51	57+01.51	ROUTE 7 RT	8 SY SIDEWALK
14	57+01.51		ROUTE 7 RT	5' SAWCUT
15	57+53.29		ROUTE 7 RT	5' SAWCUT
15	57+53.29	58+18.29	ROUTE 7 RT	36 SY SIDEWALK
15	58+18.29		ROUTE 7 RT	5' SAWCUT
15	58+79.04		ROUTE 7 RT	5' SAWCUT
15	58+79.04	59+02.15	ROUTE 7 RT	12 SY SIDEWALK
15	58+92.16	58+96.86	ROUTE 7 RT	14' CURB & GUTTER
15	58+92.16	59+10.14	ROUTE 7 RT	26' SAWCUT
15	58+96.93	59+08.79	ROUTE 7 RT	13' CURB & GUTTER
15	59+45.92	59+62.92	ROUTE 7 RT	26' SAWCUT
15	59+47.24	59+62.92	ROUTE 7 RT	21' CURB & GUTTER
15	59+90.42		ROUTE 7 RT	2 SIGNS, 3 POSTS
15	59+88.10	60+39.43	ROUTE 7 RT	53' SAWCUT
15	59+88.10	60+39.43	ROUTE 7 RT	39 SY ENTRANCE PAVEMENT
15	59+88.10	59+98.65	ROUTE 7 RT	18' CURB
15	59+98.65	60+29.48	ROUTE 7 RT	31' SAWCUT
15	60+29.58	60+39.43	ROUTE 7 RT	14' CURB & GUTTER
1 LUMP SUM				

SUMMARY OF QUANTITIES
SHEET 2 OF 15

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER MO# PE-2010019516

DATE PREPARED
8/1/2025

ROUTE 7 | STATE MO
DISTRICT KC | SHEET NO. 3
COUNTY JACKSON
JOB NO. JKU0010
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DATE	DESCRIPTION

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

REMOVAL OF IMPROVEMENTS				
SHEET	STA.	STA.	LOCATION	DESCRIPTION
15	60+87.20	60+89.36	ROUTE 7	1 SY MEDIAN END
15	60+87.20		ROUTE 7	4' SAWCUT
15	61+12.16	61+70.56	ROUTE 7 RT	60' SAWCUT
15	61+12.16	61+70.56	ROUTE 7 RT	45 SY ENTRANCE PAVEMENT
15	61+12.16	61+22.06	ROUTE 7 RT	16' CURB
15	61+22.12	61+57.18	ROUTE 7 RT	35' SAWCUT
15	61+57.21	61+70.56	ROUTE 7 RT	20' CURB
15	62+25.55		ROUTE 7 RT	1 SIGN, 1 POST REMOVE & REPLACE
16	62+74.88	63+38.44	ROUTE 7 RT	65' SAWCUT
16	62+74.88	62+87.56	ROUTE 7 RT	20' CURB & GUTTER
16	62+79.81	63+38.44	ROUTE 7 RT	50 SY ENTRANCE PAVEMENT
16	62+82.80		ROUTE 7 RT	2 SIGNS, 3 POSTS
16	62+87.56	63+28.44	ROUTE 7 RT	41' SAWCUT
16	63+28.44	63+38.44	ROUTE 7 RT	16' CURB & GUTTER
16	64+01.47	64+29.61	ROUTE 7 RT	15 SY SIDEWALK
16	64+29.10	64+29.49	ROUTE 7 RT	3' CURB
16	63+92.92		ROUTE 7 LT	6' SAWCUT
16	63+92.92	64+26.46	ROUTE 7 LT	20 SY SIDEWALK
16	64+02.92	64+14.71	ROUTE 7 LT	12' CURB & GUTTER
16	64+02.92	64+80.93	ROUTE 7 LT	78' SAWCUT
16	64+11.80		ROUTE 7 LT	SIGNAL PULL BOX
16	64+14.71	64+71.28	ROUTE 7 LT	75 SY ENTRANCE PAVEMENT
16	64+25.95	64+28.97	ROUTE 7 LT	15' CURB & GUTTER
16	64+28.97	64+54.84	ROUTE 7 LT	26' SAWCUT
16	64+54.84	64+61.34	ROUTE 7 LT	17' CURB & GUTTER
16	64+60.75	65+73.86	ROUTE 7 LT	59 SY SIDEWALK
16	65+00.46		ROUTE 7 RT	5' SAWCUT
16	65+00.46	65+32.27	ROUTE 7 RT	20 SY SIDEWALK
16	65+19.08	65+34.30	ROUTE 7 RT	35' SAWCUT
16	65+19.09	65+34.30	ROUTE 7 RT	9 SY PAVEMENT
16	65+19.09	65+31.24	ROUTE 7 RT	15' CURB & GUTTER
16	65+32.19	65+32.28	ROUTE 7 RT	2' CURB & GUTTER
16	65+47.69		ROUTE 7 LT	2 SIGNS, 1 POST REMOVE & REPLACE
16	65+56.67	66+15.25	ROUTE 7 LT	59' SAWCUT
16	65+56.67	65+64.88	ROUTE 7 LT	8' CURB
16	65+64.88	66+15.25	ROUTE 7 LT	45 SY ENTRANCE PAVEMENT
16	65+72.40	65+74.63	ROUTE 7 LT	3' CURB
16	65+72.40	66+07.52	ROUTE 7 LT	37' SAWCUT
16	66+07.52	66+15.25	ROUTE 7 LT	17' CURB
16	66+85.43		ROUTE 7 RT	5' SAWCUT
16	66+85.43	67+20.09	ROUTE 7 RT	30 SY SIDEWALK
16	67+10.90	67+15.28	ROUTE 7 RT	5' SAWCUT
16	67+09.13	67+24.83	ROUTE 7 RT	25' SAWCUT
16	67+09.13	67+23.47	ROUTE 7 RT	21' CURB & GUTTER
17	68+04.42		ROUTE 7 LT	SIGNAL POLE
1 LUMP SUM				

REMOVAL OF IMPROVEMENTS				
SHEET	STA.	STA.	LOCATION	DESCRIPTION
17	67+73.26	38+02.38	ROUTE 7 RT	43' SAWCUT
17	67+74.76	67+91.82	ROUTE 7 RT	29' CURB & GUTTER
17	67+75.06	67+79.04	ROUTE 7 RT	5' SAWCUT
17	67+74.72	68+72.81	ROUTE 7 RT	83 SY SIDEWALK
17	67+79.56	68+01.21	ROUTE 7 RT	BLOCK WALL REMOVE & REPLACE
17	67+84.65		ROUTE 7 RT	SIGNAL POLE
17	67+99.82	68+06.80	ROUTE 7 RT	13' CURB
17	68+01.75	68+11.62	ROUTE 7 RT	11' CURB
17	68+60.10	69+17.42	ROUTE 7 RT	58' SAWCUT
17	68+60.10	69+17.42	ROUTE 7 RT	57 SY ENTRANCE PAVEMENT
17	68+60.10	68+70.30	ROUTE 7 RT	10' CURB & GUTTER
17	68+72.52	68+74.14	ROUTE 7 RT	8' CURB & GUTTER
17	68+74.14	69+03.39	ROUTE 7 RT	29' SAWCUT
17	69+03.39	69+06.37	ROUTE 7 RT	9' CURB & GUTTER
17	69+05.84	69+15.26	ROUTE 7 RT	4 SY SIDEWALK
17	69+10.16	69+17.42	ROUTE 7 RT	8' CURB & GUTTER
17	69+29.41	70+50.86	ROUTE 7 RT	122' SAWCUT
17	69+29.41	69+44.38	ROUTE 7 RT	23' CURB & GUTTER
17	69+29.41	69+95.60	ROUTE 7 RT	67 SY ENTRANCE PAVEMENT
17	69+44.38	69+79.45	ROUTE 7 RT	35' SAWCUT
17	69+79.45	70+07.72	ROUTE 7 RT	46' CURB & GUTTER
17	69+94.83		ROUTE 7 RT	1 SIGN, 1 POST REMOVE & REPLACE
17	69+95.50	70+50.86	ROUTE 7 RT	63 SY ENTRANCE PAVEMENT
17	70+07.72	70+40.62	ROUTE 7 RT	33' SAWCUT
17	70+22.95	70+23.97	ROUTE 7 RT	13' CURB & GUTTER
17	70+40.62	70+42.45	ROUTE 7 RT	9' CURB & GUTTER
17	70+41.89	71+86.82	ROUTE 7 RT	81 SY SIDEWALK
17	70+46.80	70+50.86	ROUTE 7 RT	4' CURB & GUTTER
17	71+44.83	71+49.78	ROUTE 7 RT	5' SAWCUT
17	71+59.86	72+57.16	ROUTE 7 RT	98' SAWCUT
17	71+59.86	71+74.36	ROUTE 7 RT	15' CURB
17	71+67.98	72+34.54	ROUTE 7 RT	86 SY ENTRANCE PAVEMENT
17	71+85.98	71+96.21	ROUTE 7 RT	18' CURB & GUTTER
17	71+96.21	72+25.62	ROUTE 7 RT	29' SAWCUT
17	72+25.62	72+57.16	ROUTE 7 RT	49' CURB & GUTTER
17	72+85.88	74+94.83	ROUTE 7 RT	400 SY PAVEMENT
17	72+85.88	74+94.83	ROUTE 7 RT	118 SY 8" CONC. MEDIAN
18	74+28.69		ROUTE 7	SIGNAL POLE
18	74+85.22		ROUTE 7	SIGNAL POLE
18	75+79.74		ROUTE 7	SIGNAL POLE
18	77+25.34	77+65.95	ROUTE 7	21 SY PAVEMENT
18	77+44.42		ROUTE 7	SIGNAL POLE
18	73+91.42	74+65.35	ROUTE 7 RT	88' SAWCUT
18	73+91.42	74+30.62	ROUTE 7 RT	41' CURB
18	74+43.33	74+70.35	ROUTE 7 RT	41' CURB
18	74+44.21	75+14.67	ROUTE 7 RT	78' X 24" RCP
18	00+48.68	00+74.36	I-70 RAMP D LT	26' SAWCUT
18	00+56.86	00+67.83	I-70 RAMP D LT	11' CURB & GUTTER
18	00+57.83	00+67.48	I-70 RAMP D	18' SAWCUT
18	00+57.83	00+68.54	I-70 RAMP D	11 SY MEDIAN
18	00+63.83	00+68.54	I-70 RAMP D	13' SAWCUT
18	00+74.36	00+91.88	I-70 RAMP D	40' SAWCUT
18	00+86.25	00+98.95	I-70 RAMP D	36' SAWCUT
18	01+05.81		I-70 RAMP D RT	1 SIGN, 1 POST
18	73+91.42	79+06.46	ROUTE 7 RT	499 SY PAVEMENT
18	75+02.83	77+71.52	ROUTE 7 RT	269' SAWCUT
18	75+16.43		ROUTE 7 RT	5' X 3' GRATE INLET
18	75+04.89	75+33.07	ROUTE 7 RT	28' CURB & GUTTER
1 LUMP SUM				

REMOVAL OF IMPROVEMENTS				
SHEET	STA.	STA.	LOCATION	DESCRIPTION
18	75+22.39		ROUTE 7 RT	SIGNAL PULL BOX
18	75+25.06		ROUTE 7 RT	LIGHTING POLE
18	75+30.71		ROUTE 7 RT	SIGNAL CONTROLLER CABINET
18	75+33.07	77+29.92	ROUTE 7 RT	RETAINING WALL
18	75+44.24		ROUTE 7 RT	TREE
18	77+25.51		ROUTE 7 RT	SIGNAL EQUIPMENT
18	77+32.19		ROUTE 7 RT	SIGNAL CONTROLLER CABINET
18	77+29.92	77+68.07	ROUTE 7 RT	48' CURB & GUTTER
18	77+44.44		ROUTE 7 RT	SIGNAL PULL BOX
18	77+45.21		ROUTE 7 RT	2 SIGNS, 1 POST
18	77+43.88	78+25.92	ROUTE 7 RT	83' X 18" RCP
18	77+56.07		ROUTE 7 RT	SIGNAL POLE
18, 19	78+06.78	78+67.41	ROUTE 7 RT	1302 SF CONCRETE DITCH
18	21+04.47	21+41.28	I-70 RAMP C RT	46' SAWCUT
18	21+41.28	21+50.55	I-70 RAMP C	28' SAWCUT
18	21+46.93	21+56.60	I-70 RAMP C	29' SAWCUT
18	21+46.93	21+65.48	I-70 RAMP C RT	20' SAWCUT
18	21+65.48	21+64.32	I-70 RAMP C	32' SAWCUT
18	21+70.25	21+71.54	I-70 RAMP C	35' SAWCUT
18	21+70.25	21+90.22	I-70 RAMP C LT	20' SAWCUT
18	21+71.54	22+24.68	I-70 RAMP C RT	122' SAWCUT
18	21+73.12	21+87.29	I-70 RAMP C	11 SY MEDIAN
18	21+79.73		I-70 RAMP C	5 SIGNS, 1 POST
18	21+79.45		I-70 RAMP C RT	2 SIGNS, 1 POST
19	79+04.21		ROUTE 7 RT	2 SIGNS, 1 POST REMOVE & REPLACE
19	81+78.22	82+71.85	ROUTE 7 RT	95' SAWCUT
19	81+78.22	82+71.85	ROUTE 7 RT	148 SY PAVEMENT
19	81+78.22	82+03.54	ROUTE 7 RT	40' CURB & GUTTER
19	82+03.54	82+45.12	ROUTE 7 RT	42' SAWCUT
19	82+45.12	82+46.56	ROUTE 7 RT	10' CURB & GUTTER
19	82+45.10	82+57.61	ROUTE 7 RT	11 SY SIDEWALK
19	82+55.77		ROUTE 7 RT	SIGNAL EQUIPMENT
19	82+40.22	82+69.41	ROUTE 7 LT	63' SAWCUT
19	82+40.22	82+69.41	ROUTE 7 LT	30 SY PAVEMENT
19	82+44.10	82+49.07	ROUTE 7 LT	5' SAWCUT
19	82+44.15	82+69.49	ROUTE 7 LT	40' CURB & GUTTER
19	82+44.10	82+82.77	ROUTE 7 LT	35 SY SIDEWALK
19	82+48.54	82+51.37	ROUTE 7 LT	9' CURB
19	82+52.71	82+70.33	ROUTE 7 LT	23' CURB
19	82+55.19	82+70.42	ROUTE 7 LT	16' CURB
1 LUMP SUM				

SUMMARY OF QUANTITIES
SHEET 3 OF 15

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
10/2/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	3

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

REMOVAL OF IMPROVEMENTS				
SHEET	STA.	STA.	LOCATION	DESCRIPTION
20	00+33.77	03+25.00	S OUTER ROAD LT	384' SAWCUT
20	00+33.77	03+25.00	S OUTER ROAD LT	121 SY PAVEMENT
20	00+51.35	01+91.94	S OUTER ROAD LT	244 SY PAVEMENT
20	00+51.35	01+63.77	S OUTER ROAD LT	159' SAWCUT
20	66+52.94	66+91.92	ROUTE 7 LT	39' CURB & GUTTER
20	00+41.91	03+25.00	S OUTER ROAD LT	320' CURB & GUTTER
20	00+92.81		S OUTER ROAD LT	CURB INLET
20	01+56.33		S OUTER ROAD LT	1 SIGN, 1 POST REMOVE & REPLACE
20	02+06.60		S OUTER ROAD LT	CURB INLET
20	01+94.62	02+06.66	S OUTER ROAD LT	16' X 12" RCP
20	02+09.65	03+22.39	S OUTER ROAD LT	121' X 18" CMP
20	02+23.77		S OUTER ROAD LT	1 SIGN, 1 POST REMOVE & REPLACE
20	02+48.97		S OUTER ROAD LT	2 SIGNS, 1 POST REMOVE & REPLACE
20	00+03.29	00+69.58	MOCK AVE RT	69' CURB & GUTTER
20	00+03.29	00+35.59	MOCK AVE LT	42' CURB & GUTTER
20	00+03.29	00+85.90	MOCK AVE	401 SY PAVEMENT
20	00+59.62	00+78.76	MOCK AVE	81' CURB & GUTTER
20	00+76.40		MOCK AVE LT	3' X 2' GRATE INLET
20	00+76.40	00+87.14	MOCK AVE	29' X 12" RCP
20	00+87.14		MOCK AVE RT	3' X 2' GRATE INLET
1 LUMP SUM				

OPTIONAL PAVEMENT						
SHEET	STA.	STA.	LOCATION	ROUTE 7 OPTIONAL PAVEMENT (SY)	S. OUTER ROAD OPTIONAL PAVEMENT (SY)	TYPE 5 AGGREGATE BASE (6 IN.) (SY)
18	0+72.90	0+98.95	I-70 RAMP D	45.3		45.3
18	72+85.88	74+94.83	ROUTE 7	281.7		281.7
18	75+01.15	77+71.52	ROUTE 7	274.0		274.0
18	77+25.34	77+65.95	ROUTE 7	21.3		21.3
18	00+00.00	01+33.28	I-70 RAMP C	187.0		187.0
18	21+41.28	21+56.60	I-70 RAMP C	18.5		18.5
18	21+64.32	21+65.48	I-70 RAMP C	22.2		22.2
20	0+37.47	3+25.00	S. OUTER ROAD		475.3	475.3
20	0+03.29	0+99.43	MOCK AVE CL		288.4	288.4
			TOTAL	850.0	763.7	1613.7
			PAY TOTAL	850	764	1614

MEDIAN					
SHEET	STA.	STA.	LOCATION	8 IN. CONCRETE MEDIAN STRIP (SY)	3 IN. CONCRETE MEDIAN STRIP (SY)
4	2+71.67	2+82.30	ROUTE 7 LT		10.4
9	26+16.44	26+21.53	ROUTE 7 RT	0.6	
11	40+59.36	40+62.17	ROUTE 7 RT	0.2	
14	53+17.71	53+21.09	ROUTE 7 RT	0.3	
15	60+87.22	65+11.02	ROUTE 7 LT	177.4	
17	67+68.12	67+78.87	ROUTE 7 LT	10.4	
17	67+68.38	67+81.67	ROUTE 7 LT	14.5	
17	67+83.88	67+89.72	ROUTE 7 LT	6.3	
17	67+74.72	67+80.01	ROUTE 7 RT	3.6	
17	67+76.23	67+84.48	ROUTE 7 RT	3.5	
18	72+85.88	74+91.10	ROUTE 7 LT	118.3	
18	77+25.26	77+27.77	ROUTE 7 LT	1.1	
18	77+99.38	78+32.55	ROUTE 7	57.4	
18	77+62.62	77+68.26	ROUTE 7 RT	0.4	
18	21+65.23	21+73.55	RAMP C	4.3	
18	21+77.43	21+88.35	RAMP C	11.6	
19	82+45.03	82+53.56	RTE 7 LT	3.1	
19	82+59.56	82+68.49	RTE 7 LT	2.6	
19	82+51.30	82+54.06	ROUTE 7 RT	0.4	
			TOTAL	416.0	10.4

PAVEMENT								
SHEET	STA.	STA.	LOCATION	2" BP-1 PG 64-22 (TON)	TACK COAT (GAL)	CONCRETE PAVEMENT (10 IN. NON-REINF.) (SY)	COLDMILLING BIT. PAVEMENT (3' OR LESS) (SY)	TYPE 5 AGG. BASE (6 IN.) (SY)
4	00+42.48	00+49.57	RTE 7 LT			1.3		1.3
4	00+43.23	00+55.45	RTE 7 RT			2.6		2.6
9	26+10.35	26+30.07	RTE 7 RT			2.5		2.5
9	26+19.77	26+28.61	RTE 7 LT			1.0		1.0
9	26+67.89	26+78.21	RTE 7 RT			1.4		1.4
9	26+81.68	27+08.52	RTE 7 RT			3.0		3.0
10	30+68.63	31+14.72	RTE 7 RT			5.0		5.0
10	31+75.74	32+36.62	RTE 7 RT			6.8		6.8
10	32+86.92	33+16.54	RTE 7 LT			5.0		5.0
10	32+99.85	34+45.94	RTE 7 RT			21.1		21.1
10	34+45.21	35+23.03	RTE 7 RT			123.4		123.4
11	36+84.91	37+64.41	RTE 7 LT			109.3		109.3
11	40+50.65	40+83.47	RTE 7 LT			4.9		4.9
11	40+46.99	40+78.14	RTE 7 RT			4.3		4.3
12	41+11.98	41+73.50	RTE 7 RT			36.9		36.9
12	43+07.81	43+28.94	RTE 7 RT			2.3		2.3
14	52+24.30	52+62.38	RTE 7 RT			83.6		83.6
14	52+98.97	53+00.84	RTE 7 LT			12.0		12.0
14	53+08.55	53+31.28	RTE 7 RT			2.9		2.9
14	53+09.14	53+26.59	RTE 7 LT			2.1		2.1
15	58+92.16	59+08.83	RTE 7 RT			2.2		2.2
15	59+46.92	59+64.92	RTE 7 RT			2.3		2.3
16	65+19.22	65+34.30	RTE 7 RT			8.8		8.8
16	67+09.82	67+24.83	RTE 7 RT			2.4		2.4
17	67+73.26	68+02.38	RTE 7 RT			4.3		4.3
18	73+91.53	74+71.64	RTE 7 RT			10.9		10.9
19	81+78.22	82+71.85	RTE 7 RT			148.3		148.3
19	82+41.06	82+69.41	RTE 7 LT			31.1		31.1
20	00+37.47	03+84.00	S OUTER RD	198.2	183.1		1831.3	
			TOTAL	198.2	183	641.7	1831.3	641.7
			PAY TOTAL	198.2	183	641.7	1831	642

SUMMARY OF QUANTITIES
SHEET 4 OF 15

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
10/2/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	3

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

SIDEWALK

SHEET	STA.	STA.	LOCATION	CONCRETE CURB RAMP (SY)	TRUNCATED DOMES (SF)	CONCRETE SIDEWALK, 4" (SY)	TYPE 1 AGG BASE (4 IN.) (SY)	ADA LINEAR GRADING (LF)
4	00+22.39	00+31.56	ROUTE 7 RT		20.0	9.1	9.1	9
4	00+23.34	00+32.61	ROUTE 7 LT		20.0	9.2	9.2	9
4	00+44.22	00+52.70	ROUTE 7 LT	3.9	10.0		3.9	8
4	00+45.03	00+60.44	ROUTE 7 RT	12.4	10.0		12.4	15
4	00+48.33	00+67.48	ROUTE 7 LT			12.3	12.3	19
4	00+56.33	02+13.81	ROUTE 7 RT			105.5	105.5	157
6	10+78.98	10+84.03	ROUTE 7 RT			3.5	3.5	5
6	10+83.98	10+98.35	ROUTE 7 RT	8.6			8.6	14
6	11+29.81	11+45.38	ROUTE 7 RT	10.4			10.4	16
6	11+45.37	11+50.36	ROUTE 7 RT			3.3	3.3	5
6	12+53.00	12+58.00	ROUTE 7 RT			3.3	3.3	5
7	15+69.59	15+87.65	ROUTE 7 RT			12.5	12.5	18
7	15+87.67	16+00.73	ROUTE 7 RT	7.1			7.1	13
7	16+40.41	16+77.03	ROUTE 7 RT	25.3			25.3	37
7	16+77.01	18+45.84	ROUTE 7 RT			113.8	113.8	169
7	18+45.82	18+60.40	ROUTE 7 RT	9.6			9.6	15
8	18+91.55	19+09.09	ROUTE 7 RT	12.0			12.0	18
8	19+09.07	20+91.59	ROUTE 7 RT			123.0	123.0	183
8	20+91.61	21+05.55	ROUTE 7 RT	7.9			7.9	14
8	21+47.93	21+65.29	ROUTE 7 RT	12.3			12.3	17
8	21+65.28	23+11.73	ROUTE 7 RT			95.3	95.3	146
8	23+11.71	23+21.74	ROUTE 7 RT	6.8			6.8	10
8	23+63.24	24+03.94	ROUTE 7 RT			20.8	20.8	41
8	24+35.09	24+57.82	ROUTE 7 RT			9.5	9.5	23
9	24+99.05	25+11.92	ROUTE 7 RT	9.5			9.5	13
9	25+11.88	26+10.90	ROUTE 7 RT			56.7	56.7	99
9	26+10.41	26+29.33	ROUTE 7 RT	13.5	26.9		13.5	19
9	26+20.04	26+37.80	ROUTE 7 LT	26.2	10.0		26.2	18
9	26+31.27	26+38.83	ROUTE 7 LT	7.8			7.8	8
9	26+32.51	26+38.47	ROUTE 7 LT			5.9	5.9	6
9	26+69.48	27+09.83	ROUTE 7 RT	21.7	18.6		21.7	40
9	27+51.25	27+68.52	ROUTE 7 RT	12.7			12.7	17
9	27+68.52	27+99.59	ROUTE 7 RT			18.9	18.9	31
9	27+99.59	28+14.17	ROUTE 7 RT	9.6			9.6	15
9	28+55.83	28+71.37	ROUTE 7 RT	10.4			10.4	16
9	28+71.37	29+21.85	ROUTE 7 RT			33.9	33.9	50
9	29+21.85	29+37.98	ROUTE 7 RT	10.9			10.9	16
9	29+98.90	30+13.39	ROUTE 7 RT	9.4			9.4	14
9	30+13.39	30+21.98	ROUTE 7 RT			5.5	5.5	9
10	30+21.98	30+38.45	ROUTE 7 RT	10.8			10.8	16
10	30+59.39	30+75.94	ROUTE 7 RT	10.8			10.8	17
10	30+75.94	30+98.65	ROUTE 7 RT			15.0	15.0	23
10	30+98.65	31+27.15	ROUTE 7 RT	20.0			20.0	29
10	31+62.70	31+85.01	ROUTE 7 RT	14.7			14.7	22
10	31+85.01	32+20.62	ROUTE 7 RT			23.8	23.8	36
10	32+20.62	32+47.53	ROUTE 7 RT	19.4	21.9		19.4	27
10	32+86.02	33+06.29	ROUTE 7 RT	13.4	27.7		13.4	20
10	32+90.42	33+00.85	ROUTE 7 LT	16.0	14.3		16.0	10
10	32+91.42	32+96.35	ROUTE 7 LT			5.3	5.3	5
10	33+06.29	34+29.21	ROUTE 7 RT			81.9	81.9	123
10	34+29.21	34+63.46	ROUTE 7 RT	19.0	34.9		19.0	34
10	35+05.42	35+31.28	ROUTE 7 RT	16.7	29.3		16.7	26
10	35+31.28	36+32.49	ROUTE 7 RT			67.6	67.6	101
11	36+32.48	36+57.02	ROUTE 7 RT	18.4			18.4	25
11	36+96.21	37+09.85	ROUTE 7 RT	9.1			9.1	14
11	37+01.81	37+10.86	ROUTE 7 LT	11.1	10.0		11.1	9
11	37+02.81	37+06.90	ROUTE 7 LT			4.5	4.5	4
11	37+09.85	37+57.90	ROUTE 7 RT			32.4	32.4	48
11	37+38.75	37+54.97	ROUTE 7 LT	15.1	10.0		15.1	16
11	37+51.70	38+02.06	ROUTE 7 LT			27.3	27.3	50
11	37+57.90	37+75.35	ROUTE 7 RT	12.1			12.1	17
11	38+02.06	38+17.73	ROUTE 7 LT	11.2			11.2	16
11	38+11.22	38+25.73	ROUTE 7 RT	9.6			9.6	15
11	38+25.73	38+97.29	ROUTE 7 RT			52.5	52.5	72
11	38+58.02	38+73.84	ROUTE 7 LT	11.3			11.3	16
11	38+73.84	38+83.84	ROUTE 7 LT			5.6	5.6	10
11	38+97.29	39+13.24	ROUTE 7 RT	8.4			8.4	16
11	39+50.36	39+66.39	ROUTE 7 RT	8.5			8.5	16
11	39+66.39	40+49.36	ROUTE 7 RT			45.3	45.3	83
			SUBTOTAL 1	503.6	263.6	1003.2	1506.8	2253

ENTRANCES

SHEET	STA.	STA.	LOCATION	PAVED APPROACH 8 IN. (SY)	TYPE 1 AGG. BASE (4 IN.) (SY)	ADA LINEAR GRADING (LF)
6	10+88.98	11+39.37	ROUTE 7 RT	64.7	64.7	50.4
7	15+87.67	16+58.03	ROUTE 7 RT	77.3	77.3	70.4
7	18+50.84	19+01.09	ROUTE 7 RT	44.8	44.8	50.3
8	20+96.60	21+57.29	ROUTE 7 RT	51.6	51.6	60.7
8	23+11.73	23+75.69	ROUTE 7 RT	68.7	68.7	64.0
8	23+93.76	24+46.41	ROUTE 7 RT	52.3	52.3	52.6
9	24+46.41	25+10.56	ROUTE 7 RT	59.1	59.1	64.2
9	26+98.92	27+61.97	ROUTE 7 RT	50.9	50.9	63.0
9	28+04.54	28+65.36	ROUTE 7 RT	49.2	49.2	60.8
9	29+28.85	30+08.43	ROUTE 7 RT	76.6	76.6	79.6
10	30+29.02	30+68.63	ROUTE 7 RT	28.2	28.2	39.6
10	31+14.72	31+75.74	ROUTE 7 RT	92.3	92.3	61.0
10	32+36.62	32+99.85	ROUTE 7 RT	86.8	86.8	63.2
11	36+48.49	37+04.85	ROUTE 7 RT	46.2	46.2	56.4
11	37+65.90	38+20.73	ROUTE 7 RT	42.1	42.1	54.8
11	38+07.91	38+69.94	ROUTE 7 LT	62.5	62.5	62.0
11	39+05.29	39+58.39	ROUTE 7 RT	41.6	41.6	53.1
12	41+73.50	42+31.25	ROUTE 7 RT	44.5	44.5	57.8
12	42+65.45	43+07.81	ROUTE 7 RT	28.6	28.6	42.4
12	43+28.94	43+71.62	ROUTE 7 RT	28.8	28.8	42.7
12	44+89.82	45+39.65	ROUTE 7 RT	36.0	36.0	49.8
13	46+46.92	47+06.94	ROUTE 7 RT	46.2	46.2	60.0
13	48+84.47	49+44.68	ROUTE 7 RT	46.2	46.2	60.2
13	50+65.59	51+20.23	ROUTE 7 RT	75.2	75.2	54.6
13	51+20.23	51+72.92	ROUTE 7 RT	66.0	66.0	52.7
14	54+73.14	55+35.42	ROUTE 7 RT	43.4	43.4	62.3
14	55+66.78	56+56.04	ROUTE 7 RT	72.2	72.2	89.3
15	59+88.09	60+39.43	ROUTE 7 RT	36.9	36.9	51.3
15	61+12.16	61+67.48	ROUTE 7 RT	41.3	41.3	55.3
16	62+79.98	63+38.44	ROUTE 7 RT	45.5	45.5	58.5
16	64+10.92	64+72.93	ROUTE 7 LT	79.3	79.3	62.0
16	65+64.67	66+15.25	ROUTE 7 LT	46.2	46.2	50.6
20	00+65.98	00+91.24	MOCK AVE CL	21.5	21.5	25.3
20	00+99.43	01+12.39	MOCK AVE CL	53.0	53.0	13.0
17	68+60.10	69+17.42	ROUTE 7 RT	59.9	59.9	57.3
17	69+29.41	69+95.50	ROUTE 7 RT	70.2	70.2	66.1
17	69+95.50	70+50.86	ROUTE 7 RT	66.1	66.1	55.4
17	71+67.98	72+47.19	ROUTE 7 RT	45.7	45.7	79.2
			TOTAL	2047.6	2047.6	2151.9
			PAY TOTAL	2047.6	2048	2152

SUMMARY OF QUANTITIES
SHEET 5 OF 15

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
10/2/2025

ROUTE 7 | STATE MO
DISTRICT KC | SHEET NO. 3
COUNTY JACKSON
JOB NO. JKU0010
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DESCRIPTION | DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

SIDEWALK

SHEET	STA.	STA.	LOCATION	CONCRETE CURB RAMP (SY)	TRUNCATED DOMES (SF)	CONCRETE SIDEWALK, 4" (SY)	TYPE 1 AGG BASE (4 IN.) (SY)	ADA LINEAR GRADING (LF)
11	39+82.38	39+97.37	ROUTE 7 LT			8.4	8.4	15
11	40+11.60	40+81.97	ROUTE 7 LT			43.9	43.9	70
11	40+49.36	40+71.14	ROUTE 7 RT	14.0	28.7		14.0	22
11	40+53.36	40+60.36	ROUTE 7 LT	3.6	10.0		3.6	7
11	40+54.36	40+79.01	ROUTE 7 RT			18.3	18.3	25
12	41+16.97	41+39.59	ROUTE 7 RT	14.7	18.0		14.7	23
12	41+18.85	41+34.09	ROUTE 7 RT			15.0	15.0	15
12	41+39.59	41+82.45	ROUTE 7 RT			24.3	24.3	43
12	42+17.56	42+29.79	ROUTE 7 RT	8.8			8.8	12
12	42+29.79	42+60.45	ROUTE 7 RT			17.0	17.0	31
12	42+60.45	42+73.91	ROUTE 7 RT	8.0			8.0	13
12	42+98.56	43+37.13	ROUTE 7 RT			22.4	22.4	39
12	43+61.96	43+80.40	ROUTE 7 RT	11.6			11.6	18
12	43+80.40	44+84.81	ROUTE 7 RT			68.5	68.5	104
12	44+84.81	44+99.27	ROUTE 7 RT	9.8			9.8	14
12	45+30.17	45+47.65	ROUTE 7 RT	12.4			12.4	17
12	45+47.65	46+38.91	ROUTE 7 RT			60.8	60.8	91
13	46+38.91	46+55.96	ROUTE 7 RT	10.4			10.4	17
13	46+97.69	47+14.94	ROUTE 7 RT	11.4			11.4	17
13	47+14.94	48+76.47	ROUTE 7 RT			117.9	117.9	162
13	48+76.47	48+93.58	ROUTE 7 RT	11.5			11.5	17
13	49+35.57	49+51.68	ROUTE 7 RT	10.3			10.3	16
13	49+51.68	50+60.59	ROUTE 7 RT			73.1	73.1	109
13	50+60.59	50+75.17	ROUTE 7 RT	9.4			9.4	15
13	51+07.24	51+32.48	ROUTE 7 RT			14.7	14.7	25
13	51+64.25	51+79.91	ROUTE 7 RT	10.5			10.5	16
14	51+79.91	52+19.34	ROUTE 7 RT			25.9	25.9	39
14	52+19.34	52+45.19	ROUTE 7 RT	16.1	19.0		16.1	26
14	53+02.97	53+14.38	ROUTE 7 RT			72.0	72.0	11
14	53+09.49	53+26.59	ROUTE 7 RT	13.2	10.2		13.2	17
14	53+10.81	53+27.09	ROUTE 7 RT	9.6	27.6		9.6	16
14	53+26.14	54+88.78	ROUTE 7 RT			105.7	105.7	163
14	55+22.07	55+79.10	ROUTE 7 RT			23.8	23.8	57
14	56+44.10	56+57.08	ROUTE 7 RT	7.3			7.3	13
14	56+57.08	56+67.12	ROUTE 7 RT			4.7	4.7	10
14	56+86.50	57+01.51	ROUTE 7 RT			8.3	8.3	15
15	57+53.27	58+18.28	ROUTE 7 RT			36.4	36.4	65
15	58+79.04	58+89.04	ROUTE 7 RT			6.7	6.7	10
			SUBTOTAL 2	192.6	113.5	767.8	960.4	1395

SIDEWALK

SHEET	STA.	STA.	LOCATION	CONCRETE CURB RAMP (SY)	TRUNCATED DOMES (SF)	CONCRETE SIDEWALK, 4" (SY)	TYPE 1 AGG BASE (4 IN.) (SY)	ADA LINEAR GRADING (LF)
15	58+89.04	59+07.69	ROUTE 7 RT	12.2			12.2	19
15	59+47.42	59+72.91	ROUTE 7 RT	18.2			18.2	25
15	59+72.91	59+80.10	ROUTE 7 RT			4.4	4.4	7
15	59+80.10	59+97.83	ROUTE 7 RT	11.0			11.0	18
15	60+29.62	60+47.40	ROUTE 7 RT	10.5			10.5	18
15	60+47.40	61+04.16	ROUTE 7 RT			31.3	31.3	57
15	61+04.16	61+21.99	ROUTE 7 RT	10.5			10.5	18
15	61+57.53	61+75.49	ROUTE 7 RT	10.8			10.8	18
15	61+75.49	62+71.98	ROUTE 7 RT			53.3	53.3	96
16	62+71.98	62+87.85	ROUTE 7 RT	10.1			10.1	16
16	63+29.27	63+46.44	ROUTE 7 RT	10.6			10.6	17
16	63+46.44	64+30.10	ROUTE 7 RT			55.0	55.0	84
16	63+92.92	64+02.92	ROUTE 7 LT			6.8	6.8	10
16	64+02.92	64+25.37	ROUTE 7 LT	14.9			14.9	22
16	64+58.46	64+80.93	ROUTE 7 LT	14.8			14.8	22
16	64+80.93	65+56.67	ROUTE 7 LT			50.6	50.6	76
16	65+00.46	65+10.46	ROUTE 7 RT			5.6	5.6	10
16	65+10.46	65+32.82	ROUTE 7 RT	19.4			19.4	22
16	65+56.67	65+74.16	ROUTE 7 LT	12.1			12.1	17
16	66+85.37	66+95.72	ROUTE 7 RT			5.5	5.5	10
16	66+95.29	67+21.63	ROUTE 7 RT	24.9	10.0		24.9	26
16	67+06.99	67+15.28	ROUTE 7 RT			5.5	5.5	8
17	67+74.38	68+01.04	ROUTE 7 RT	26.6	20.0		26.6	27
17	67+75.06	67+84.74	ROUTE 7 RT			8.1	8.1	10
17	68+01.04	68+55.74	ROUTE 7 RT			32.9	32.9	55
17	69+05.30	69+42.14	ROUTE 7 RT			20.7	20.7	37
17	69+81.77	70+06.12	ROUTE 7 RT			14.0	14.0	24
17	70+41.33	70+60.86	ROUTE 7 RT	13.2			13.2	20
17	70+60.86	71+62.98	ROUTE 7 RT			67.4	67.4	102
17	71+62.98	71+87.06	ROUTE 7 RT	14.0			14.0	24
17	72+25.19	72+44.97	ROUTE 7 RT	12.5			12.5	20
17	72+44.97	74+44.50	ROUTE 7 RT			128.9	128.9	200
18	74+40.27	74+56.35	ROUTE 7 RT	13.3	11.9		13.3	16
18	74+65.89	74+81.60	ROUTE 7 RT		24.0			16
18	75+04.03	75+14.96	ROUTE 7 RT	7.2	12.0		7.2	11
18	75+14.96	77+55.76	ROUTE 7 RT			160.5	160.5	241
18	77+55.76	77+68.26	ROUTE 7 RT	8.5	12.0		8.5	13
18	77+82.24	77+91.80	ROUTE 7 RT		24.0	5.4	5.4	10
18	78+06.18	81+84.58	ROUTE 7 RT		12.1	240.1	240.1	378
19	81+84.57	82+01.48	ROUTE 7 RT	11.8	12.3		11.8	17
19	82+44.10	82+52.30	ROUTE 7 LT			21.4	21.4	8
19	82+47.34	82+60.06	ROUTE 7 RT	10.6	24.6		10.6	13
19	82+52.30	82+70.77	ROUTE 7 LT	14.7	11.8		14.7	18
19	82+70.73	82+80.77	ROUTE 7 LT			5.6	5.6	10
			SUBTOTAL 3	312.4	174.7	923.0	1235.4	1886
			SUBTOTAL 2	192.6	113.5	767.8	960.4	1395
			SUBTOTAL1	503.6	263.6	1003.2	1506.8	2253
			TOTAL	1008.6	551.8	2694.0	3703.0	5534
			PAY TOTAL	1008.6	552	2694.0	3702	5534

SLOPE PROTECTION

SHEET	STA.	STA.	LOCATION	SLOPE PROTECTION (SY)
18	75+78.04	76+98.79	RTE 7 RT	127.5
			TOTALS	127.5

BARRIER

SHEET	STA.	STA.	LOCATION	TYPE H BARRIER W/ FOOTING (LF)
18	75+04.46	77+68.26	RTE 7 RT	264
			TOTAL	264

SUMMARY OF QUANTITIES
SHEET 6 OF 15

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
10/2/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	3

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION | DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

CURB AND GUTTER

SHEET	STA.	STA.	LOCATION	6" TYPE A INTEG. CURB (LF)	MOD. CONCRETE GUTTER TYPE A (LF)	MOD. CONCRETE GUTTER TYPE B (LF)	TYPE A GUTTER (LF)	CURB AND GUTTER TYPE B (LF)	TYPE S CURB (6 IN AND UNDER) (LF)	MOD. S CURB (OVER 6 IN) (LF)	APWA 2 FT C&G (LF)	STEEL PLATE (SF)	TYPE 5 AGG BASE (6 IN.) (SY)
4	00+53.53	00+58.81	RTE 7 LT		5							12.5	
4	00+43.21	00+44.96	RTE 7 LT	2									0.4
4	00+48.57	00+50.06	RTE 7 LT	2									0.4
4	00+44.38	00+45.69	RTE 7 RT	2									0.4
4	00+49.16	00+56.33	RTE 7 RT	9									2.0
4	00+23.34	00+28.71	RTE 7 LT						16				
4	00+28.84	00+32.61	RTE 7 LT						12				
4	00+22.39	00+27.68	RTE 7 RT						16				
4	00+28.00	00+31.56	RTE 7 RT						12				
4	00+91.14	02+08.86	RTE 7 RT							119			
6	09+28.98	09+54.94	RTE 7 RT							26			
8	21+47.95	22+87.75	RTE 7 RT							140			
8	24+35.06	24+57.24	RTE 7 RT						22				
9	26+69.70	27+08.51	RTE 7 RT							40			
9	26+77.91	26+98.20	RTE 7 RT							20			
9	26+10.26	26+11.76	RTE 7 RT	2									0.4
9	26+16.67	26+21.53	RTE 7 RT	5									1.1
9	26+19.62	26+21.09	RTE 7 LT	2									0.4
9	26+26.40	26+27.78	RTE 7 LT	2									0.4
9	26+27.85	26+28.90	RTE 7 RT	2									0.4
9	26+69.03	26+70.15	RTE 7 RT	2									0.4
9	26+76.80	26+78.81	RTE 7 RT	2									0.4
10	32+88.42	32+94.85	RTE 7 LT	19									4.2
10	32+99.85	33+16.54	RTE 7 LT	18									4.0
10	34+61.84	34+71.21	RTE 7 RT	22									4.9
10	34+97.21	35+06.99	RTE 7 RT	22									4.9
11	36+84.91	37+08.90	RTE 7 LT	30									6.7
11	37+10.35	37+10.70	RTE 7 LT	6									1.3
11	37+38.83	37+39.26	RTE 7 LT	6									1.3
11	37+40.73	37+64.42	RTE 7 LT	30									6.7
11	37+54.73	38+02.04	RTE 7 LT						47				
11	38+25.74	38+93.76	RTE 7 RT	66									14.7
11	40+50.63	40+54.36	RTE 7 LT	4									0.9
11	40+59.36	40+63.01	RTE 7 LT	4									0.9
11	40+46.99	40+54.36	RTE 7 RT	7									1.6
11	40+49.36	40+72.98	RTE 7 RT						35				
11	40+60.71	40+74.15	RTE 7 RT						26				
11	40+59.36	40+62.17	RTE 7 RT	3									0.7
11	40+69.43	40+76.75	RTE 7 RT	13									2.9
12	41+11.84	41+18.50	RTE 7 RT	28									6.2
12	41+25.93	41+56.30	RTE 7 RT						30				
12	41+24.95	41+73.50	RTE 7 RT	49									10.9
12	43+07.81	43+28.94	RTE 7 RT	21									4.7
12	46+04.64	46+56.17	RTE 7 RT							52			
13	46+97.69	48+93.79	RTE 7 RT							196			
13	49+35.36	49+62.60	RTE 7 RT							27			
13	51+07.24	51+32.48	RTE 7 RT							25			
14	51+63.92	52+45.69	RTE 7 RT							83			
14	52+24.19	52+38.21	RTE 7 RT	15									3.3
14	52+45.19	52+57.38	RTE 7 RT	50									11.1
14	53+09.44	53+26.59	RTE 7 LT							120			
14	53+09.71	53+11.47	RTE 7 RT	3									0.7
14	53+17.71	53+21.09	RTE 7 RT	4									0.9
14	53+26.09	53+31.29	RTE 7 RT	5									1.1
14	53+09.44	53+26.59	RTE 7 LT							120			
14	53+11.05	54+20.79	RTE 7 RT							110			
15	58+92.16	59+02.04	RTE 7 RT	11									2.4
15	59+07.07	59+08.79	RTE 7 RT	4									0.9
15	59+47.24	59+48.71	RTE 7 RT	3									0.7
15	59+54.14	59+64.90	RTE 7 RT	11									2.4
15	64+29.10	64+29.60	RTE 7 RT	2									0.4
15	64+29.45	64+29.49	RTE 7 RT	1									0.2
16	65+19.08	65+31.03	RTE 7 RT	15									3.3
			SUBTOTAL 1	504	5	0	0	0	216	1078	0	12.5	111.6

SUMMARY OF QUANTITIES
SHEET 7 OF 15

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER MO# PE-2010019516

DATE PREPARED 10/2/2025
ROUTE 7 | STATE MO
DISTRICT KC | SHEET NO. 3
COUNTY JACKSON
JOB NO. JKU0010
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DESCRIPTION | DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

CURB AND GUTTER

SHEET	STA.	STA.	LOCATION	6" TYPE A INTEG. CURB (LF)	MOD. CONCRETE GUTTER TYPE A (LF)	MOD. CONCRETE GUTTER TYPE B (LF)	TYPE A GUTTER (LF)	CURB AND GUTTER TYPE B (LF)	TYPE S CURB (6 IN AND UNDER) (LF)	MOD. S CURB (OVER 6 IN) (LF)	APWA 2 FT C&G (LF)	STEEL PLATE (SF)	TYPE 5 AGG BASE (6 IN.) (SY)
16	65+32.28	65+32.32	RTE 7 RT	3									0.7
16	67+09.13	67+16.81	RTE 7 RT	10									2.2
16	67+21.03	67+23.47	RTE 7 RT	5									1.1
17	67+74.76	67+74.88	RTE 7 RT	2									0.4
17	67+76.23	67+84.21	RTE 7 RT	12									2.7
17	67+89.10	68+02.38	RTE 7 RT	13									2.9
18	73+91.42	74+44.50	RTE 7 RT	58									12.9
18	74+56.00	74+70.35	RTE 7 RT	24									5.3
18	75+04.51	75+24.49	RTE 7 RT						24				
18	75+24.50	77+31.28	RTE 7 RT			207							72.8
18	77+31.28	77+66.53	RTE 7 RT						37				
18	78+05.18	78+06.85	RTE 7 RT	3									0.7
18	78+11.08	78+13.26	RTE 7 RT	3									0.7
19	78+21.08	78+42.71	RTE 7 RT				20						13.3
19	78+23.01	79+06.49	RTE 7 RT	87									19.3
19	81+78.24	81+97.58	RTE 7 RT	22									4.9
19	82+00.92	82+03.54	RTE 7 RT	12									2.7
19	82+45.12	82+47.90	RTE 7 RT	12									2.7
19	82+51.30	82+54.06	RTE 7 RT	4									0.9
19	82+59.06	82+71.86	RTE 7 RT	13									2.9
19	82+44.15	82+54.06	RTE 7 LT	24									5.3
19	82+59.06	82+69.49	RTE 7 LT	11									2.4
20	00+40.97	03+25.00	S OUTER RD LT								361		140.4
20	00+03.29	01+12.39	MOCK AVE LT					109					54.5
20	00+03.29	00+65.98	MOCK AVE RT					63					31.5
20	00+91.24	01+09.40	MOCK AVE RT					23					11.5
			SUBTOTAL 1	504	5	0	0	0	216	1078	0	12.5	111.6
			SUBTOTAL 2	318	0	207	20	195	61	0	361	0.0	384.7
			TOTAL	822	5	207	20	195	277	1078	361	13	496.3
			PAY TOTAL	822	5	207	20	195	277	1078	361	13	496.3

FENCE

SHEET	STA.	STA.	LOCATION	CHAIN-LINK FENCE (60 IN.) (LF)	CHAIN-LINK FENCE (RETAINING WALLS) (60 IN.) (LF)
4	0+91.14	2+08.86	RTE 7 RT		
17	67+80.79	68+01.22	RTE 7 RT		
18	75+24.5	75+79.2	RTE 7 RT		55
18	76+99.15	77+31.28	RTE 7 RT		32
18	78+19.72	78+31.64	RTE 7 RT	26	
19	78+36.48	78+51.83	RTE 7 RT	30	
			TOTAL	56	87

REBUILD EXISTING MCDONALDS SMALL BLOCK WALL
105 SF

UTILITY ADJUSTMENT	
WATER VALVE & MANHOLE HEIGHT ADJUSTMENT (EA)	
WATER VALVES	27
SAN. MANHOLES	3
TOTAL	30

SUMMARY OF QUANTITIES
SHEET 8 OF 15

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER MO# PE-2010019516
DATE PREPARED 10/8/2025
ROUTE 7 | STATE MO
DISTRICT KC | SHEET NO. 3
COUNTY JACKSON
JOB NO. JKU0010
CONTRACT ID.
PROJECT NO.
BRIDGE NO.
DESCRIPTION | DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

PIPE CULVERTS

FROM STRUCTURE	STA.	LOCATION	TO STRUCTURE	STA.	LOCATION	SHEET NO.	PIPE COLLAR TYPE A (EA)	GROUP A PIPE 15 IN. (LF)	GROUP A PIPE 18 IN. (LF)	GROUP A PIPE 24 IN. (LF)	GROUP A F.E.S. 15 IN. (EA)	GROUP A F.E.S. 18 IN. (EA)	GROUP A F.E.S. 24 IN. (EA)	8FT X 4FT RCB W/ WINGWALLS (LF)	CL. 3 EXC. (CY)	CL. 4 EXC. (CY)
EXIST. PIPE	75+16.83	RTE 7 RT	75S1	75+14.81	RTE 7 RT	149	1		10						11	
75S1	75+14.81	RTE 7 RT	74F1	1+07.37	RAMP D RT	150				72			1		155	
77S1	77+42.81	RTE 7 RT	78F1	78+20.17	RTE 7 RT	151			82			1			87	
RCB	00+42.25	SDWLK TRAIL BL				151								14		25
78T2	78+94.67	RTE 7 RT	78T1	78+83.68	RTE 7 RT	152		6							1	
78T1	78+83.68	RTE 7 RT	78F1	78+72.41	RTE 7 RT	152		15			1				9	
0T4	00+89.36	S OUTER RD LT	0M1	00+38.37	S OUTER RD LT	153		52							26	
0T1	00+97.96	MOCK AVE RT	0T2	00+97.96	MOCK AVE LT	153		33							15	
3T1	03+13.70	S OUTER RD LT	2T1	02+12.38	S OUTER RD LT	154			108						48	
EXIST. PIPE	3+22.15	S OUTER RD LT	3T1	3+13.70	S OUTER RD LT	154	1		6						3	
0T3	0+50.47	MOCK AVE LT	2T1	2+12.38	S OUTER RD LT	155		20							12	
2T1	2+12.38	S OUTER RD LT	EXIST. PIPE	2+03.50	S OUTER RD LT	155	1		14						6	
0T2	0+97.96	MOCK AVE LT	0T3	0+50.47	MOCK AVE LT	155		45							21	
						TOTAL	3	171	220	72	1	1	1	14	394	25

DRAINAGE STRUCTURES

STRUCTURE NO.	SHEET NO.	LOCATION	STA.	OFFSET	PRECAST DROP INLET TYPE A 4FT X 2FT (LF)	PRECAST DROP INLET TYPE T 2.5FT X 3FT (LF)	PRECAST DROP INLET TYPE T 5FT X 3FT (LF)	PRECAST DROP INLET TYPE S-3 5FT X 3FT (LF)	48" MANHOLE (LF)	TYPE 1B MANHOLE FRAME & COVER (EA)	TYPE 3 MANHOLE FRAME & COVER (EA)	CURVED VANE GRATE AND FRAME 4FT X 2FT (EA)	GRATE & BEARING PLATE 5FT-1IN. X 3FT-1IN. (EA)	CL. 3 EXC. (CY)
34A1	148	RTE 7 RT	34+42.34	37.00	3.30							1		9
41T1	148	RTE 7 RT	41+59.98	40.00	2.75							1		11
75S1	149	RTE 7 RT	75+14.81	80.00				5.71					1	16
77S1	151	RTE 7 RT	77+42.81	70.00				3.51					1	14
78T1	152	RTE 7 RT	78+83.68	56.00			5.50				1			16
78T2	152	RTE 7 RT	78+94.67	55.27			5.40				1			17
0T4	153	S OUTER RD LT	00+89.36	34.07			4.50				1			15
0M1	153	S OUTER RD LT	00+38.37	38.02					4.25	1				14
0T1	153	MOCK AVE RT	00+97.96	14.00		4.12					1			9
0T2	153	MOCK AVE LT	00+97.96	14.00		4.32					1			9
2T1	154	S OUTER RD LT	02+12.38	35.20			3.95				1			12
3T1	154	S OUTER RD LT	03+13.70	22.09			4.09				1			12
0T3	155	MOCK AVE LT	0+50.47	16.50		5.12					1			11
				TOTAL	6.05	13.56	23.44	9.22	4.25	1	8	2	2	165
				PAY TOTAL	6	14	33		4	1	8	2	2	165

UTILITY ADJUSTMENT

SHEET	STA.	LOCATION	ADJUSTING JUNCTION BOX TOP (EA)
4	53+04.86	ROUTE 7 LT	1
		TOTAL	1

SUMMARY OF QUANTITIES
SHEET 9 OF 15

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER MO# PE-2010019516

DATE PREPARED 8/1/2025

ROUTE 7 | STATE MO
DISTRICT KC | SHEET NO. 3
COUNTY JACKSON
JOB NO. JKU0010
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DESCRIPTION | DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

EROSION CONTROL

SHEET	STA.	STA.	LOCATION	PHASE	SEDIMENT TRAP		ROCK DITCH CHECK	CURB INLET CHECK	SILT FENCE	SOD	SEDIMENT REMOVAL	TYPE 3B EROSION CONTROL BLANKET	TYPE 3 TURF REINFORCEMENT MAT
					EXCAVATION (CY)	ROCK (CY)	(LF)	(EA)	(LF)	(SY)	(CY)	(CY)	(SY)
68	1+89.99		I-70 RAMP D	INITIAL	5	5					1		
68	21+10.44		I-70 RAMP C	INITIAL	5	5					1		
70	34+42.69		ROUTE 7 RT	CONSTRUCTION				1			1		
70	41+60.69		ROUTE 7 RT	CONSTRUCTION				1			1		
71	0+89.81		S OUTER RD LT	CONSTRUCTION				1			1		
71	2+15.15		S OUTER RD LT	CONSTRUCTION				1			1		
71	3+16.83		S OUTER RD LT	CONSTRUCTION				1			1		
71	0+48.61		MOCK AVE LT	CONSTRUCTION				1			1		
71	0+90.10		MOCK AVE RT	CONSTRUCTION				1			1		
71	00+88.71		MOCK AVE LT	CONSTRUCTION				1			1		
71	0+89.87		I-70 RAMP D	CONSTRUCTION			20				1		
71	1+55.07		I-70 RAMP D	CONSTRUCTION			20				1		
71	21+48.91		I-70 RAMP C	CONSTRUCTION			20				1		
72	21+71.93		I-70 RAMP C	CONSTRUCTION			20				1		
72	78+83.83		ROUTE 7 RT	CONSTRUCTION				1			1		
72	78+95.74		ROUTE 7 RT	CONSTRUCTION				1			1		
69	0+50.84	0+89.86	ROUTE 7 RT	CONSTRUCTION					58		1		
69	2+06.80	2+15.63	ROUTE 7 RT	CONSTRUCTION					18		1		
70	27+50.87	28+13.85	ROUTE 7 RT	CONSTRUCTION					63		1		
70	28+55.41	29+38.47	ROUTE 7 RT	CONSTRUCTION					83		1		
70	29+98.42	30+38.96	ROUTE 7 RT	CONSTRUCTION					41		1		
70	30+58.85	30+68.85	ROUTE 7 RT	CONSTRUCTION					10		1		
70	30+68.44	31+28.34	ROUTE 7 RT	CONSTRUCTION					59		1		
70	31+58.72	32+48.58	ROUTE 7 RT	CONSTRUCTION					92		1		
70	32+85.99	34+68.49	ROUTE 7 RT	CONSTRUCTION					200		2		
70	35+01.73	36+55.02	ROUTE 7 RT	CONSTRUCTION					162		2		
71	53+73.79	54+91.26	ROUTE 7 RT	CONSTRUCTION					119		2		
71	66+52.94	68+82.87	ROUTE 7 RT	CONSTRUCTION					360		4		
71	69+02.88	69+44.37	ROUTE 7 RT	CONSTRUCTION					42		1		
71	69+79.44	70+07.71	ROUTE 7 RT	CONSTRUCTION					28		1		
71	73+90.80	74+39.04	ROUTE 7 RT	CONSTRUCTION					68		1		
71	74+41.21	74+52.66	ROUTE 7 RT	CONSTRUCTION					12		1		
72	77+81.71	78+17.05	ROUTE 7 RT	CONSTRUCTION					40		1		
72	78+44.40	78+69.19	ROUTE 7 RT	CONSTRUCTION					25		1		
72	78+58.05	81+62.42	ROUTE 7 RT	CONSTRUCTION					356		4		
72	78+78.77	79+08.34	ROUTE 7 RT	CONSTRUCTION					32		1		
73	00+15.74	00+26.93	ROUTE 7 RT	FINAL						13			
73	00+16.11	00+28.03	ROUTE 7 LT	FINAL						16			
73	00+28.19	00+34.88	ROUTE 7 RT	FINAL						5			
73	00+29.34	00+37.81	ROUTE 7 LT	FINAL						6			
73	0+40.44	0+64.42	ROUTE 7 LT	FINAL						18			
73	0+48.94	0+72.89	ROUTE 7 LT	FINAL						15			
73	0+44.38	2+13.92	ROUTE 7 RT	FINAL						28			
73	10+79.19	10+99.01	ROUTE 7 RT	FINAL						3			
73	11+29.36	11+50.36	ROUTE 7 RT	FINAL						7			
73	15+69.58	16+03.52	ROUTE 7 RT	FINAL						9			
73	16+33.98	18+60.88	ROUTE 7 RT	FINAL						42			
73	18+91.06	21+05.41	ROUTE 7 RT	FINAL						36			
73	22+87.77	23+21.79	ROUTE 7 RT	FINAL						6			
73	22+87.83	23+18.4	ROUTE 7 RT	FINAL						8			
73	23+65.74	24+01.7	ROUTE 7 RT	FINAL						11			
73	23+63.08	24+04.05	ROUTE 7 RT	FINAL						16			
74	24+34.9	24+46.15	ROUTE 7 RT	FINAL						3			
74	24+37.13	24+56.15	ROUTE 7 RT	FINAL						5			
74	25+01.83	26+11.26	ROUTE 7 RT	FINAL						38			
74	26+19.41	26+29.87	ROUTE 7 RT	FINAL						2			
74	26+15.75	26+31.38	ROUTE 7 LT	FINAL						17			
74	26+23.49	26+34.57	ROUTE 7 LT	FINAL						12			
74	26+26.94	26+37.17	ROUTE 7 LT	FINAL						5			
74	26+68.07	26+81.26	ROUTE 7 RT	FINAL						3			
74	26+77.91	27+07.63	ROUTE 7 RT	FINAL						7			
74	27+51.24	28+14.16	ROUTE 7 RT	FINAL						33			
74	27+54.01	28+11.23	ROUTE 7 RT	FINAL						12			
74	28+55.41	29+38.47	ROUTE 7 RT	FINAL						43			
				SUBTOTAL 1	10	10	80	10	1868	419	45	0	0

SUMMARY OF QUANTITIES
SHEET 10 OF 15

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
10/2/2025

ROUTE 7 | STATE MO
DISTRICT KC | SHEET NO. 3
COUNTY JACKSON
JOB NO. JKU0010
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DESCRIPTION | DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

EROSION CONTROL

SHEET	STA.	STA.	LOCATION	PHASE	SEDIMENT TRAP EXCAVATION (CY)	SEDIMENT TRAP ROCK (CY)	ROCK DITCH CHECK (LF)	CURB INLET CHECK (EA)	SILT FENCE (LF)	SOD (SY)	SEDIMENT REMOVAL (CY)	TYPE 3B EROSION CONTROL BLANKET (CY)	TYPE 3 TURF REINFORCEMENT MAT (SY)
74	29+98.42	30+38.96	ROUTE 7 RT	FINAL						10			
74	30+58.85	31+29.73	ROUTE 7 RT	FINAL						120			
74	31+58.72	32+48.58	ROUTE 7 RT	FINAL						58			
74	32+84.93	34+71.23	ROUTE 7 RT	FINAL						46			
74	32+88.31	32+94.35	ROUTE 7 LT	FINAL						8			
74	32+95.73	33+16.54	ROUTE 7 LT	FINAL						14			
74	34+97.21	36+57.02	ROUTE 7 RT	FINAL						64			
74	36+84.85	37+08.69	ROUTE 7 LT	FINAL						25			
74	37+06.9	37+10.7	ROUTE 7 LT	FINAL						7			
74	36+95.99	37+75.91	ROUTE 7 RT	FINAL						11			
74	37+38.83	38+17.74	ROUTE 7 LT	FINAL						36			
74	37+51.7	38+14.41	ROUTE 7 LT	FINAL						18			
74	38+11.18	39+13.44	ROUTE 7 RT	FINAL						14			
74	38+57.98	38+83.83	ROUTE 7 LT	FINAL						9			
74	38+61.37	38+81.58	ROUTE 7 LT	FINAL						6			
74	39+49.44	40+72.98	ROUTE 7 RT	FINAL						48			
74	40+21.04	40+53.86	ROUTE 7 RT	FINAL						8			
74	40+60.71	40+74.15	ROUTE 7 RT	FINAL						6			
74	39+82.36	39+97.37	ROUTE 7 LT	FINAL						8			
74	39+82.4	39+97.4	ROUTE 7 LT	FINAL						7			
74	40+11.8	40+54.36	ROUTE 7 LT	FINAL						32			
74	40+11.62	40+76.56	ROUTE 7 LT	FINAL						15			
74	40+59.36	40+79.64	ROUTE 7 LT	FINAL						16			
74	41+11.88	41+28.09	ROUTE 7 RT	FINAL						23			
74	41+20.72	41+36.34	ROUTE 7 RT	FINAL						10			
74	41+25.93	41+80.21	ROUTE 7 RT	FINAL						15			
74	42+17.56	42+74.45	ROUTE 7 RT	FINAL						11			
74	42+20.27	42+56.24	ROUTE 7 RT	FINAL						10			
74	42+98.02	43+37.66	ROUTE 7 RT	FINAL						8			
74	43+61.53	44+99.62	ROUTE 7 RT	FINAL						31			
74	46+97.08	48+94.42	ROUTE 7 RT	FINAL						44			
74	49+34.73	50+75.68	ROUTE 7 RT	FINAL						73			
75	51+06.7	51+32.87	ROUTE 7 RT	FINAL						12			
75	51+63.92	52+57.38	ROUTE 7 RT	FINAL						69			
75	51+84.92	52+37.16	ROUTE 7 RT	FINAL						16			
75	53+08.97	53+35.53	ROUTE 7 LT	FINAL						86			
75	53+09.71	54+89.37	ROUTE 7 RT	FINAL						87			
75	53+26.59	54+82.2	ROUTE 7 RT	FINAL						41			
75	55+21.02	55+79.94	ROUTE 7 RT	FINAL						10			
75	55+26.04	55+75.33	ROUTE 7 RT	FINAL						14			
75	56+43.07	56+67.14	ROUTE 7 RT	FINAL						2			
75	56+48.52	56+67.08	ROUTE 7 RT	FINAL						5			
75	58+79.02	59+01.24	ROUTE 7 RT	FINAL						6			
75	58+79.05	59+08.79	ROUTE 7 RT	FINAL						9			
75	59+60.98	59+98.65	ROUTE 7 RT	FINAL						13			
75	60+29.48	61+22.12	ROUTE 7 RT	FINAL						30			
75	61+57.53	62+27.89	ROUTE 7 RT	FINAL						35			
75	64+17.14	64+29.49	ROUTE 7 RT	FINAL						4			
				SUBTOTAL 2	0	0	0	0	0	1250	0	0	0

SUMMARY OF QUANTITIES
SHEET 11 OF 15

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
10/2/2025

ROUTE 7 | STATE MO
DISTRICT KC | SHEET NO. 3
COUNTY JACKSON
JOB NO. JKU0010
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DESCRIPTION | DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

EROSION CONTROL													
SHEET	STA.	STA.	LOCATION	PHASE	SEDIMENT TRAP		ROCK DITCH CHECK	CURB INLET CHECK	SILT FENCE	SOD	SEDIMENT REMOVAL	TYPE 3B EROSION CONTROL BLANKET	TYPE 3 TURF REINFORCEMENT MAT
					EXCAVATION (CY)	ROCK (CY)	(LF)	(EA)	(LF)	(SY)	(CY)	(SY)	(SY)
75	63+28.44	64+29.61	ROUTE 7 RT	FINAL						42			
75	63+93.16	64+28.96	ROUTE 7 LT	FINAL						23			
75	64+54.84	65+73.99	ROUTE 7 LT	FINAL						69			
75	65+00.46	65+30.76	ROUTE 7 RT	FINAL						10			
75	65+00.46	65+32.28	ROUTE 7 RT	FINAL						7			
75	66+05.55	66+15.25	ROUTE 7 LT	FINAL						4			
75	66+52.94	68+84.15	ROUTE 7 LT	FINAL						479			
75	66+88.96	67+06.37	ROUTE 7 LT	FINAL						5			
75	67+03.48	67+47.79	ROUTE 7 LT	FINAL						14			
75	66+98.71	67+16.28	ROUTE 7 RT	FINAL						10			
75	66+98.37	67+10.9	ROUTE 7 RT	FINAL						5			
75	67+09.55	67+23.47	ROUTE 7 RT	FINAL						10			
75	67+80.32	68+74.14	ROUTE 7 RT	FINAL						63			
75	67+89.6	68+36.22	ROUTE 7 RT	FINAL						21			
75	69+03.39	69+44.38	ROUTE 7 RT	FINAL						10			
75	69+79.45	70+07.69	ROUTE 7 RT	FINAL						8			
75	70+40.62	71+44.83	ROUTE 7 RT	FINAL						27			
75	71+49.76	71+87.54	ROUTE 7 RT	FINAL						6			
75	72+24.86	74+70.35	ROUTE 7 RT	FINAL								143	
75	74+15.21	74+42.51	ROUTE 7 RT	FINAL									84
75	75+04.42	75+79.02	ROUTE 7 RT	FINAL								49	
75	76+97.15	77+67.01	ROUTE 7 RT	FINAL								56	
75	77+31.34	77+65.97	ROUTE 7 RT	FINAL									16
76	77+81.31	82+03.54	ROUTE 7 RT	FINAL								179	
76	78+11.44	81+97.13	ROUTE 7 RT	FINAL								138	
76	78+22.14	79+06.67	ROUTE 7 RT	FINAL								75	
76	82+44.14	82+47.7	ROUTE 7 LT	FINAL						2			
76	82+45.12	82+60.56	ROUTE 7 RT	FINAL						5			
76	82+49.06	82+80.6	ROUTE 7 LT	FINAL						7			
76	82+68.49	82+80.77	ROUTE 7 LT	FINAL						5			
				SUBTOTAL 1	10	10	80	10	1868	419	45	0	0
				SUBTOTAL 2	0	0	0	0	0	1250	0	0	0
				SUBTOTAL 3	0	0	0	0	0	832	0	640	100
				TOTAL	10	10	80	10	1868	2501	45	640	100

SEEDING AND MULCHING						
SHEET	STA.	STA.	LOCATION	COOL SEASON GRASS SEEDING (AC)	TEMPORARY SEEDING (AC)	MULCHING (AC)
76	72+25.62	74+70.35	ROUTE 7 RT	0.03	0.01	0.04
76	74+15.21	74+42.51	ROUTE 7 RT	0.02	0.01	0.03
76	75+04.42	75+79.02	ROUTE 7 RT	0.01	0	0.01
76	76+97.15	77+67.01	ROUTE 7 RT	0.01	0	0.01
$EC10$	77+81.31	82+03.54	ROUTE 7 RT	0.04	0.01	0.05
$EC10$	78+11.44	81+97.13	ROUTE 7 RT	0.03	0.01	0.04
$EC10$	78+22.14	79+06.67	ROUTE 7 RT	0.02	0.01	0.03
			TOTAL	0.2	0.1	0.3

ROCK LINING							
SHEET NO.	STA.	STA.	LOCATION	LENGTH (FT)	WIDTH (FT)	DEPTH (FT)	ROCK LINING (CY)
150	01+09.42	01+09.95	RAMP D	14	6	1	3
151	21+13.75	21+29.26	RAMP C	20	14	2.5	26
151	21+70.46	21+84.46	RAMP C	*	*	1	13
						TOTAL	42

SUMMARY OF QUANTITIES
SHEET 12 OF 15

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
10/2/2025

ROUTE 7 | STATE MO
DISTRICT KC | SHEET NO. 3
COUNTY JACKSON
JOB NO. JKU0010
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DESCRIPTION | DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

PAVEMENT MARKING

STA.	STA.	LOCATION	CLASS 1 PAINT, TYPE P BEADS					CLASS 2, TYPE L BEADS		PREFORMED THERMOPLASTIC						REMARKS
			4" SOLID WHITE (L.F.)	4" SOLID YELLOW (L.F.)	8" DOTTED EXTENSION WHITE (L.F.)	12" DIAGONAL WHITE (L.F.)	24" DIAGONAL YELLOW (L.F.)	6" SOLID WHITE (L.F.)	6" SOLID YELLOW (L.F.)	24" WHITE (STOP BAR) (L.F.)	24" WHITE (MIDBLOCKS) (L.F.)	LEFT/RIGHT ARROW (EA.)	THROUGH ARROW (EA.)	BIKE LANE ARROW (EA.)	SHARROW ARROW (EA.)	
0+00	7+75	Route 7	203		247					45	120	2	1		1	
7+75	15+50	Route 7														
15+50	23+25	Route 7														
23+25	31+00	Route 7								51	132					
31+00	38+75	Route 7		476				162		46	126	2	1			
38+75	46+50	Route 7									126					
46+50	54+25	Route 7								41	144					
54+25	62+00	Route 7		110				310	460			1				
62+00	69+75	Route 7		387			10	483	310	75	168	3				
69+75	77+50	Route 7	93							11	42	1		2		
77+50	85+25	Route 7						344		82	180			1		
0+00	2+50	Outer Road	716	378		35						4	1			
2+50	5+00	Outer Road	130	260						45		1				
SUB TOTAL			1142	1611	62	35	10	1299	770	396	1038	14	3	3	1	
TOTAL			1142	1611	62	35	10	1299	770	1434		14	3	3	1	

BID ITEMS - TRAFFIC SIGNAL (JKU0010)

ITEM NO	ITEM	QUANTITY	UNIT	ROUTE 40	WALNUT	MAIN	VESPER	R.D. MIZE	MOCK	I-70 EB	I-70WB	SHAW
9020213	SIGNAL HEAD, TYPE 3S	6	EACH			3				3		
9020513	SIGNAL HEAD, TYPE 3B	24	EACH			6				9	9	
9020514	SIGNAL HEAD, TYPE 4B	5	EACH			3						2
9020515	SIGNAL HEAD, TYPE 5B	0	EACH									
9020811	SIGNAL HEAD, TYPE 1S, PEDESTRIAN	28	EACH	2	4	4	4	4	4	2	2	2
9020833	SH-FLAT SHEET-SIGNAL SIGN	67.5	S.F.			52.5						15
9020834	SIGNAL SIGN, MOUNTING HARDWARE	8	EACH			6						2
9022651	LUMINAIRE, LED-A	2	EACH			2						
9022704	POST SIGNAL, 4'	1	EACH					1				
9022708	POST SIGNAL, 8'	14	EACH	1	3	2	3	2		1	2	
9022715	POST SIGNAL, 15'	4	EACH						2	2		
9023120	POST, TYPE CL, 20'	0	EACH									
9023130	POST, TYPE CL, 30'	1	EACH			1						
9023155	POST, TYPE CL, 55'	1	EACH			1						
9023225	POST, TYPE C, 25'	0	EACH									
9023230	POST, TYPE C, 30'	1	EACH							1		
9023255	POST, TYPE C, 55'	1	EACH							1		
9029902	POST, TYPE C, 70'	1	EACH							1		
9023340	POST, TYPE B, LONGEST ARM 40'	1	EACH								1	
9023355	POST, TYPE B, LONGEST ARM 55'	1	EACH								1	
9023455	POST, TYPE BL, LONGEST ARM 55'	1	EACH		1							
9024283	CONTROLLER ASSEMBLY HOUSING, NEMA TS2 CONTROLLER	3	EACH			1				1	1	
9024921	ACCESSIBLE PEDESTRIAN SIGNAL	28	EACH	2	4	4	4	4	4	2	2	2
9024975	VIDEO DETECTION SYSTEM	4	EACH		1	1				1	1	
9025200	CONDUIT, 2 IN., TRENCH WITH TRACER WIRE	699	L.F.			18				162	519	
9025300	CONDUIT, 3 IN., TRENCH WITH TRACER WIRE	519	L.F.	12	61	106	54	73	41	84	74	14
9027300	CONDUIT, 3IN., PUSHED WITH TRACER WIRE	1031	L.F.			250	159			352	270	
9028204	CABLE, 4AWG 1C	671	L.F.			17				154	500	
9028219	CABLE, 10AWG 1C	70	L.F.			70						
9028302	CABLE, 12 AWG 2C	430	L.F.			430						
9028308	CABLE, 16AWG 2C	4420	L.F.	310	470	500	920	730	650	250	140	450
9028310	CABLE, 16AWG 5C	4260	L.F.	310	470	510	930	800	650	260	140	190
9028311	CABLE, 16AWG 7C	7090	L.F.			1790	1890			1700	1350	360
9028811	PULL BOX, PREFORMED CLASS 2	12	EACH			3	2			4	3	
9028812	PULL BOX, PREFORMED CLASS 3	3	EACH			1				1	1	
9029100	BASE, CONCRETE	39.48	C.Y.	0.44	1.32	9.44	1.32	0.88	1.76	13.73	10.15	0.44
9029902	MISC UPS	2	EACH							1	1	
9029902	MISC APS PUSH BUTTON	28	EACH	2	4	4	4	4	4	2	2	2
9029902	CCTV CAMERA ASSEMBLY	1	EACH							1		
9029903	MISC EVP CABLE	1890	L.F.		340	300				590	660	
9029901	OGL SIGNAL COORDINATION	1	LUMP SUM					1				

PAVEMENT MARKING REMOVALS

	PAVEMENT MARKING (L.F.)	PAVEMENT MARKING SYMBOL (EA.)
	2310	3
TOTAL	2310	3

SUMMARY OF QUANTITIES
SHEET 13 OF 15

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856
DATE PREPARED 10/6/2025
ROUTE 7 | STATE MO
DISTRICT KC | SHEET NO. 3
COUNTY JACKSON
JOB NO. JKU0010
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

DESCRIPTION | DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

ITS FIBER											
Sheet No	Routing			Conduit		Cabling		Pullbox			Comments
				Trenched	Pushed	Fiber Optic Cable	Tracer				
				3" Conduit	3" Conduit	18SM / 6 MM	Wire*				
	From	To	C 2 C	910-52.01	902.73.01	902-83.54	*No Direct Pay	Type	Sta.	Off.	
ITS2								2	16+83.94	40.7' RT.	Remove and Replace
ITS2								2	19+92.64	40.6' RT.	Remove and Replace
ITS2								2	22+92.45	40.2' RT.	Remove and Replace
ITS2								2	25+88.52	42.7' RT.	Remove and Replace
ITS2								2	26+91.96	45.5' RT.	Remove and Replace
ITS2	FIB	SIG	24	20			25				
ITS3								2	32+28.23	40.7' RT.	Install New
ITS3	FIB	FIB	91		87		96				
ITS3								2	33+19.16	43.2' RT.	Remove and Replace
ITS3								2	34+47.70	43.5' RT.	Remove and Replace
ITS3								2	36+38.73	43.1' RT.	Remove and Replace
ITS3								2	39+01.53	43.0' RT.	Remove and Replace
ITS3								2	40+44.38	45.0' RT.	Remove and Replace
ITS3								2	42+36.96	42.7' RT.	Remove and Replace
ITS3								2	43+98.80	42.8' RT.	Remove and Replace
ITS4								2	47+09.67	43.1' RT.	Remove and Replace
ITS4								2	49+61.84	42.1' RT.	Remove and Replace
ITS4								2	50+24.47	40.1' RT.	Remove and Replace
ITS4								2	52+25.21	44.8' RT.	Remove and Replace
ITS4	FIB	SIG	26	22			27				
ITS5								2	66+92.34	45.8' RT.	Remove and Replace
ITS5	FIB	SIG	29	25			30				
ITS5								2	72+65.37	45.2' RT.	Remove and Replace
ITS5								2	74+11.89	102.8' RT.	Remove and Replace
ITS5								2	75+12.98	85.3' RT.	Remove and Replace
ITS5	FIB	SIG	15	11			16				
ITS5								2	77+44.28	58.1' RT.	Remove and Replace
ITS5	FIB	FIB	242	238		254	254				
ITS6								2	80+48.54	50.0' RT.	Remove and Replace
ITS6								2	81+80.92	49.8' RT.	Remove and Replace
ITS6	FIB	SIG	8	4			8				
			TOTAL	**320**	**87**	**254**	**456***	**24**			

SUMMARY OF QUANTITIES
SHEET 14 OF 15

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED
10/6/2025

ROUTE 7 | STATE MO
DISTRICT KC | SHEET NO. 3
COUNTY JACKSON
JOB NO. JKU0010
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DESCRIPTION | DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

EFFECTIVE: 07-01-2025

SIGN	SIZE IN.	AREA SQ.FT.	QTY EACH	TOTAL AREA SQ.FT.	QTY RELOC EACH	TOTAL RELOC SQ.FT.	SIGN NUM.	DESCRIPTION
WARNING SIGNS								
WO1-1L	48X48	16.00						TURN (SYMBOL LEFT ARROW)
WO1-1R	48X48	16.00						TURN (SYMBOL RIGHT ARROW)
WO1-2L	48X48	16.00						CURVE (SYMBOL LEFT ARROW)
WO1-2R	48X48	16.00						CURVE (SYMBOL RIGHT ARROW)
WO1-3L	48X48	16.00						REVERSE TURN (SYMBOL LEFT ARROW)
WO1-3R	48X48	16.00						REVERSE TURN (SYMBOL RIGHT ARROW)
WO1-4L	48X48	16.00						REVERSE CURVE (SYMBOL LEFT ARROW)
WO1-4R	48X48	16.00						REVERSE CURVE (SYMBOL RIGHT ARROW)
WO1-4bL	48X48	16.00						DOUBLE ARROW REVERSE CURVE (SYMBOL LT ARROWS)
WO1-4bR	48X48	16.00						DOUBLE ARROW REVERSE CURVE (SYMBOL RT ARROWS)
WO1-4cL	48X48	16.00						TRIPLE ARROW REVERSE CURVE (SYMBOL LT ARROWS)
WO1-4cR	48X48	16.00						TRIPLE ARROW REVERSE CURVE (SYMBOL RT ARROWS)
WO1-6	60X30	12.50						HORIZONTAL ARROW (SYMBOL)
WO1-6a	72X36	18.00						HORIZ. ARROW (SYMBOL ON PERMANENT BARRICADE)
WO1-7	60X30	12.50						DOUBLE HEAD HORIZONTAL ARROW (SYMBOL)
WO1-7a	72X36	18.00						DOUBLE HEAD HORIZ. ARROW (SYMBOL ON PERM. BARR.)
WO1-8	18X24	3.00						CHEVRON (SYMBOL)
WO1-8a	30X36	7.50						CHEVRON (SYMBOL FOR DIVIDED HIGHWAYS)
WO3-1	48X48	16.00						STOP AHEAD (SYMBOL)
WO3-2	48X48	16.00						YIELD AHEAD (SYMBOL)
WO3-3	48X48	16.00						SIGNAL AHEAD (SYMBOL)
WO3-4	48X48	16.00	2	32				BE PREPARED TO STOP
WO3-5	48X48	16.00						SPEED LIMIT AHEAD
WO4-1L	48X48	16.00						MERGE (SYMBOL FROM LEFT)
WO4-1R	48X48	16.00						MERGE (SYMBOL FROM RIGHT)
WO4-1aL	48X48	16.00						MERGE (ARROW SYMBOL)
WO4-1aR	48X48	16.00	2	32				MERGE (ARROW SYMBOL)
WO5-1	48X48	16.00						ROAD/BRIDGE/RAMP NARROWS
WO5-3	48X48	16.00						ONE LANE BRIDGE
WO5-5	48X48	16.00						NARROW LANES
WO6-1	48X48	16.00						DIVIDED HIGHWAY (SYMBOL)
WO6-2	48X48	16.00						DIVIDED HIGHWAY END (SYMBOL)
WO6-3	48X48	16.00						TWO WAY TRAFFIC (SYMBOL)
WO7-3a	30X24	5.00						NEXT XX MILES (PLAQUE)
WO8-1	48X48	16.00						BUMP
WO8-2	48X48	16.00						DIP
WO8-3	48X48	16.00						PAVEMENT ENDS
WO8-4	48X48	16.00						SOFT SHOULDER
WO8-5	48X48	16.00						SLIPPERY WHEN WET (SYMBOL)
WO8-6	48X48	16.00						TRUCK CROSSING (WITH FLAGS)
WO8-6c	48X48	16.00						TRUCK ENTRANCE
WO8-7	36X36	9.00						LOOSE GRAVEL
WO8-7a	36X36	9.00						FRESH OIL/LOOSE GRAVEL
WO8-9	48X48	16.00						LOW SHOULDER
WO8-11	48X48	16.00						UNEVEN LANES
WO8-12	48X48	16.00						NO CENTER LINE
WO8-15	48X48	16.00						GROOVED PAVEMENT
WO8-15P	30X24	5.00						MOTORCYCLE (PLAQUE)
WO8-17	48X48	16.00						SHOULDER DROP-OFF (SYMBOL)
WO8-17P	30X24	5.00						SHOULDER DROP-OFF (PLAQUE)
W10-1	42RND.	9.62						RAILROAD CROSSING
WO12-1	24X24	4.00	2	8				DOUBLE DOWN ARROW (SYMBOL)
WO12-2	48X48	16.00						LOW CLEARANCE (SYMBOL)
W012-2X	24X18	3.00						LOW CLEARANCE (PLAQUE)
WO12-2a	84X24	14.00						OVERHEAD LOW CLEARANCE (FEET AND INCHES)
WO12-4	120X60	50.00						LOW CLEARANCE XX FT XX IN XX MILES AHEAD
WO12-5	120X60	50.00						WIDTH RESTRICTION XX FT XX IN XX MILES AHEAD
WO13-1	30X30	6.25						ADVISORY SPEED (PLAQUE)
WO16-2	30X24	5.00						XXX FEET (PLAQUE)
WO16-3	30X24	5.00						X MILE (PLAQUE)
WO20-1	48X48	16.00	12	192				ROAD/BRIDGE/RAMP WORK AHEAD
WO20-2	48X48	16.00						DETOUR AHEAD
WO20-3	48X48	16.00						ROAD CLOSED AHEAD
WO20-4	48X48	16.00						ONE LANE ROAD AHEAD
WO20-5	48X48	16.00	2	32				RIGHT/CENTER/LEFT LANE CLOSED AHEAD
WO20-5a	48X48	16.00						2 RIGHT/CENTER/LEFT LANES CLOSED AHEAD
WO20-6a	48X48	16.00	2	32				RIGHT/CENTER/LEFT LANE CLOSED
WO20-7a	48X48	16.00						FLAGGER (SYMBOL, WITH FLAGS)
WO21-2	36X36	9.00						FRESH OIL
WO21-5	48X48	16.00						SHOULDER WORK AHEAD
WO22-1	48X48	16.00						BLASTING ZONE AHEAD
WO22-2	42X36	10.50						TURN OFF 2-WAY RADIO AND PHONE
WO22-3	42X36	10.50						END BLASTING ZONE
GO22-1	21X15	2.19	2	4.38				WET PAINT (ARROW PIVOTS)

SIGN	SIZE IN.	AREA SQ.FT	QTY EACH	TOTAL SQ.FT.	QTY RELOC EACH	TOTAL RELOC SQ.FT.	SIGN NUM.	DESCRIPTION
GUIDE SIGNS								
E05-1	36X48	12.00						GORE EXIT
E05-2	48X36	12.00						EXIT OPEN
E05-2a	48X36	12.00						EXIT CLOSED
GO20-1	60X24	10.00	2	20				ROAD WORK NEXT XX MILES
GO20-2	48X24	8.00	2	16				END ROAD WORK
GO20-4	36X18	4.50						PILOT CAR FOLLOW ME
GO20-4a	42X30	8.75						PILOT CAR IN USE WAIT & FOLLOW
GO20-4a	18X12	1.50						PILOT CAR IN USE WAIT & FOLLOW
GO20-5aP	36X24	6.00						WORK ZONE (PLAQUE)
MO4-8a	24X18	3.00						END DETOUR
MO4-9L	48X36	12.00						DETOUR (LEFT ARROW)
MO4-9R	48X36	12.00						DETOUR (RIGHT ARROW)
MO4-9P	48X12	4.00						STREET NAME (PLAQUE)
MO4-10L	48X18	6.00						DETOUR (ARROW LEFT)
MO4-10R	48X18	6.00						DETOUR (ARROW RIGHT)
REGULATORY SIGNS								
R1-1	48X48	13.25						STOP
R1-2	48TRI.	6.93						YIELD
R1-2a	36X36	9.00						TO ONCOMING TRAFFIC (PLAQUE)
R1-3P	30X12	2.50						ALL WAY (PLAQUE)
R2-1	36X48	12.00						SPEED LIMIT XX
R3-1	48X48	16.00						NO RIGHT TURN (SYMBOL)
R3-2	48X48	16.00						NO LEFT TURN (SYMBOL)
R3-3	36X36	9.00						NO TURNS
R3-4	48X48	16.00						NO U-TURN (SYMBOL)
R3-7L	30X30	6.25						LEFT LANE MUST TURN LEFT
R3-7R	30X30	6.25	4	25				RIGHT LANE MUST TURN RIGHT
R4-1	36X48	12.00						DO NOT PASS
R4-2	36X48	12.00						PASS WITH CARE
R4-8a	36X48	12.00						KEEP LEFT (HORIZONTAL ARROW)
R4-7a	36X48	12.00						KEEP RIGHT (HORIZONTAL ARROW)
R5-1	30X30	6.25						DO NOT ENTER
R5-1a	36X24	6.00						WRONG WAY
R6-1L	54X18	6.75						ONE WAY ARROW (LEFT)
R6-1R	54X18	6.75						ONE WAY ARROW (RIGHT)
R6-2L	24X30	5.00						ONE WAY (LEFT)
R6-2R	24X30	5.00						ONE WAY (RIGHT)
R9-9	24X12	2.00						SIDEWALK CLOSED
R9-11L	24X18	3.00						SIDEWALK CLOSED AHEAD, (ARROW LEFT) CROSS HERE
R9-11R	24X18	3.00						SIDEWALK CLOSED AHEAD, (ARROW RIGHT) CROSS HERE
R10-6	24X36	6.00						STOP HERE ON RED (45^ ARROW)
R11-2	48X30	10.00						ROAD CLOSED
R11-3a	60X30	12.50						ROAD CLOSED XX MILES AHEAD LOCAL TRAFFIC ONLY
R11-4	60X30	12.50						ROAD CLOSED TO THRU TRAFFIC
CONST-3A	60X48	20.00						FINE SIGN
CONST-3X	56X12	4.67						SPEEDING/PASSING (PLATE)
MISCELLANEOUS SIGNS								
CONST-5	48X36	12.00	2	24				POINT OF PRESENCE
CONST-5	96X48	32.00						POINT OF PRESENCE
CONST-7	48X24	8.00	2	16				RATE OUR WORK ZONE
CONST-7	72X36	18.00						RATE OUR WORK ZONE
CONST-8	48X36	12.00	4	48				WORK ZONE NO PHONE ZONE
W20-5b	48x48	16.00	2	32				BIKE LANE CLOSED AHEAD
R9-20	30x30	6.25	2	12.5				ALLOW USE OF FULL LANE
W9-5a	48x48	16.00	2	32				BICYCLE MERGE
M6-2PL	30x21	4.38	2	8.76				UPWARD ARROW PLAQUE
R3-5	36x30	7.50	1	7.5				RIGHT-ONLY

616-10.05 CONSTRUCTION SIGNS	TOTAL	575
616-10.10 RELOCATED SIGNS	TOTAL	0

ITEM NUMBER	TOTAL QTY	DESCRIPTION
6122008		IMPACT ATTENUATOR 40 MPH (SAND BARRELS)
6122009		IMPACT ATTENUATOR 45 MPH (SAND BARRELS)
6122010		IMPACT ATTENUATOR 50 MPH (SAND BARRELS)
6122012		IMPACT ATTENUATOR 55 MPH (SAND BARRELS)
6122014		IMPACT ATTENUATOR 60 MPH (SAND BARRELS)
6122017		IMPACT ATTENUATOR 65 MPH (SAND BARRELS)
6122019		IMPACT ATTENUATOR 70 MPH (SAND BARRELS)
6122020		REPLACEMENT SAND BARREL
6122030		IMPACT ATTENUATOR (RELOCATION)
6123000A		TRUCK OR TRAILER MOUNTED ATTENUATOR (TMA)
6161012		BUOYS (BOATS KEEP OUT)
6161013		BUOYS (NO WAKE)
6161014		SPECIAL SIGN ASSEMBLY (BOATS KEEP OUT)
6161020		CHANNELIZER (DRUM-LIKE)
6161022		CHANNELIZER (CONE)
6161025	150	CHANNELIZER (TRIM LINE)
6161026		CHANNELIZER (VERTICAL PANEL)
6161030	10	TYPE III MOVEABLE BARRICADE
6161033		DIRECTION INDICATOR BARRICADE
6161040	2	FLASHING ARROW PANEL
6161047		TYPE III OBJECT MARKER
6161055		SEQUENTIAL FLASHING WARNING LIGHT
6161070		TUBULAR MARKER
6161095		RADAR SPEED ADVISORY SYSTEM
6161096		CHANGEABLE MESSAGE SIGN, COMMISSION FURNISHED/RETAINED
6161098A		CHANGEABLE MESSAGE SIGN W/O COMM. INTERFACE - CONTRACTOR FURNISHED/RETAINED
6161099	4	CHANGEABLE MESSAGE SIGN WITH COMM. INTERFACE - CONTRACTOR FURNISHED/RETAINED
6162000A		WORK ZONE TRAFFIC SIGNAL SYSTEM
6162002		TEMPORARY LONG-TERM RUMBLE STRIPS
6173600D		TEMPORARY TRAFFIC BARRIER CONTRACTOR FURNISHED/RETAINED
6173700B		TEMPORARY TRAFFIC BARRIER CONTRACTOR FURNISHED/COMMISSION RETAINED
6173706		TEMP. TRAFFIC BARRIER STIFFNESS TRANSITION CONTRACTOR FURNISHED/RETAINED
6174000A		TEMP. TRAFFIC BARRIER HEIGHT TRANSITION COMMISSION FURNISHED/RETAINED
6175010A		RELOCATING TEMPORARY TRAFFIC BARRIER
6175011B		RELOCATING TEMP. TRAFFIC BARRIER ANCHORED
6175013		RELOCATING TEMP. TRAFFIC BARRIER STIFFNESS
6175020A		RELOCATING TEMPORARY TRAFFIC BARRIER HEIGHT
6208064A		TEMPORARY RAISED PAVEMENT MARKER
9029400	1	TEMPORARY TRAFFIC SIGNALS
9029401		TEMPORARY TRAFFIC SIGNALS AND LIGHTING

SUMMARY OF QUANTITIES
SHEET 15 OF 15

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED 10/6/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	3

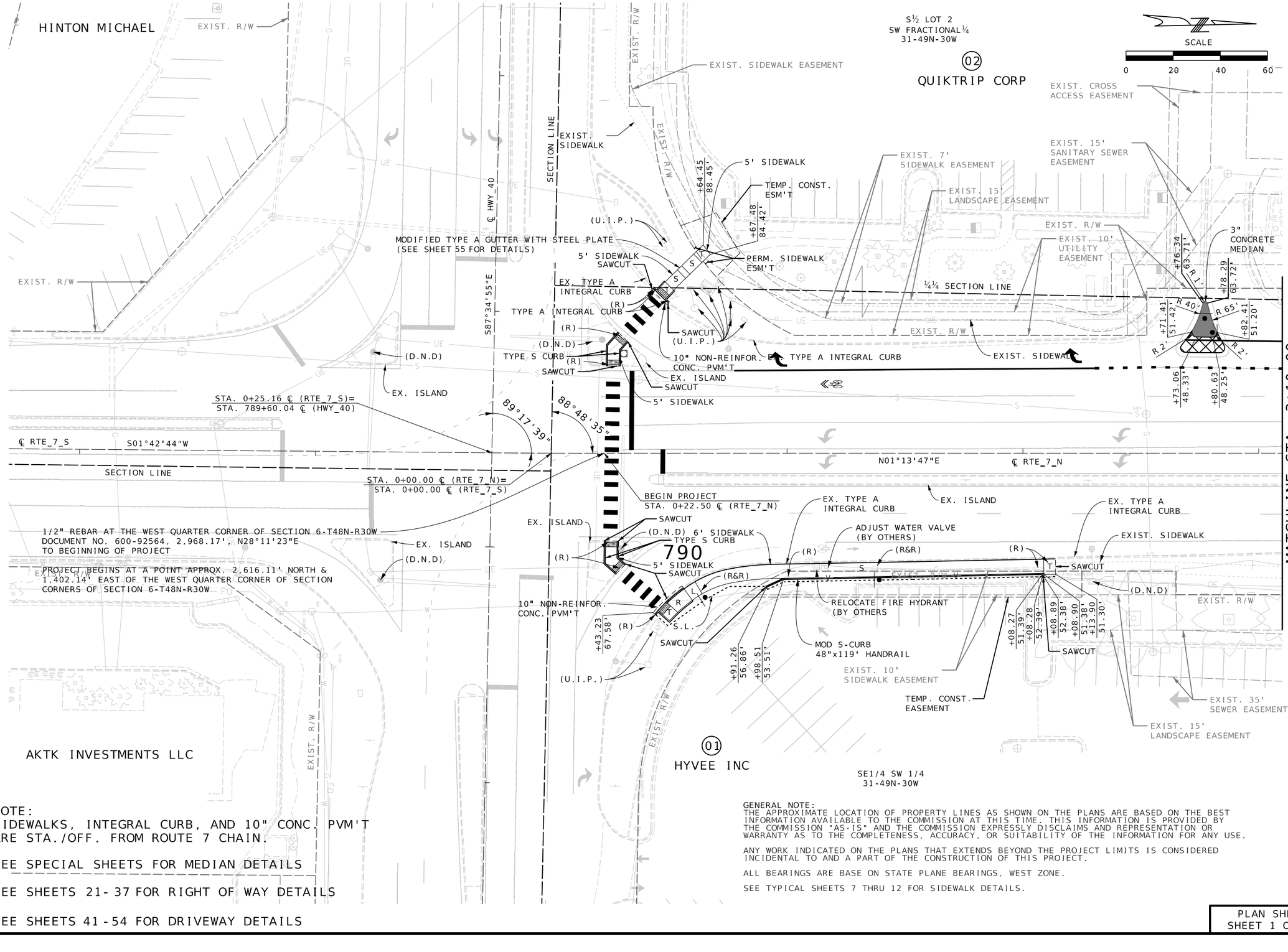
COUNTY JACKSON
JOB NO. JKU0010
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DATE	DESCRIPTION

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592



NOTE:
SIDEWALKS, INTEGRAL CURB, AND 10" CONC. PVM'T ARE STA./OFF. FROM ROUTE 7 CHAIN.

SEE SPECIAL SHEETS FOR MEDIAN DETAILS

SEE SHEETS 21-37 FOR RIGHT OF WAY DETAILS

SEE SHEETS 41-54 FOR DRIVEWAY DETAILS

GENERAL NOTE:
THE APPROXIMATE LOCATION OF PROPERTY LINES 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 AND REPRESENTATION OR WARRANTY AS TO THE COMPLETENESS, ACCURACY, OR SUITABILITY OF THE INFORMATION FOR ANY USE.

ANY WORK INDICATED ON THE PLANS THAT EXTENDS BEYOND THE PROJECT LIMITS IS CONSIDERED INCIDENTAL TO AND A PART OF THE CONSTRUCTION OF THIS PROJECT.

ALL BEARINGS ARE BASE ON STATE PLANE BEARINGS, WEST ZONE.

SEE TYPICAL SHEETS 7 THRU 12 FOR SIDEWALK DETAILS.

PLAN SHEET
SHEET 1 OF 17

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER MO# PE-2010019516

DATE PREPARED
8/1/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	4

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

VRE STORAGE BLUE SPRINGS LLC

S½ LOT 2
SW FRACTIONAL¼
31-49N-30W

EXIST. 30'
ELECTRIC EASEMENT

SCALE
0 20 40 60

RR R/W

EXIST. 10'
UTILITY EASEMENT

EXIST. R/W

EXIST. 10'
UTILITY EASEMENT

EXIST. R/W

5

¼¼ SECTION LINE

(U.I.P.) EXISTING SIDEWALK

MATCHLINE STA. 3+10.00

℄ RTE_7_N

N01°13'47"E

MATCHLINE STA. 8+50.00

RR R/W

(U.I.P.) EXISTING SIDEWALK

(U.I.P.) EXISTING SIDEWALK

EXIST. 50'
ELECTRIC EASEMENT

EXIST. R/W

EXIST. R/W

EXIST. 20'
SEWER EASEMENT

EXIST. 15'
LANDSCAPE EASEMENT

RR R/W

01
HYVEE INC

KANSAS CITY
SOUTHERN RAILROAD

NOTE:
SEE SHEETS 21- 37 FOR RIGHT OF WAY DETAILS

SEE SHEETS 41 - 54 FOR DRIVEWAY DETAILS

SE¼ SW¼
31-49N-30W

EXIST. 50'
ELECTRIC EASEMENT

PLAN SHEET
SHEET 2 OF 17

REID BRENNEN CATT NUMBER PE-2010019516

REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
8/1/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	5

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

FOG B LLC

S½ LOT 2
SW FRACTIONAL¼
31-49N-30W

FOG B LLC

FOG B LLC

RIAZ & TRIVEDI LLC

SCALE
0 20 40 60

N½ LOT 2
SW FRACTIONAL¼
31-49N-30W

PROPERTY LINE
RR R/W

SW SOUTH AVE

EXIST. R/W

EXIST. R/W

EXIST. R/W

(D.N.D.)

EXIST. R/W

10

¼¼ SECTION LINE

MATCHLINE STA. 8+50.00

MATCHLINE STA. 13+90.00

N01°13'47"E ℄ RTE_7_N

EX. TYPE A INTEGRAL CURB
(R)
SAWCUT
+28.98
46.92'
+54.94
46.98'
EX. WALL
EX. SIDEWALK
SAWCUT
(R)
T R T
+79.00
46.28'
INTEGRAL CURB
5.25' SIDEWALK
TEMP. CONST. ESM'T
(D.N.D.)
S.L.
SAWCUT
SAWCUT
(R)
T R T
SAWCUT
+50.36
47.07'
6' SIDEWALK
EX. TYPE A
INTEGRAL CURB
(R)
SAWCUT
S
SAWCUT
EX. SIDEWALK
+53.00
46.98'
(D.N.D.)
+58.00
47.02'
EXIST. R/W
(D.N.D.)
EXIST. R/W
EXIST. R/W
EXIST. 15'
UTILITY
EASEMENT
EXIST.
R/W
EXIST. R/W
(U.I.P.) EXISTING SIDEWALK
MOD. S-CURB
EXIST. 15'
UTILITY EASEMENT
PAVED APPROACH RT.
STA. 11+14.23
8.39% GRADE
EXIST. 30'
INGRESS-EGRESS
EASEMENT

SCOTT VICTOR ROBIN
& JANICE

03
THE SQUEAKY CLEAN
CAR WASH LLC

04
FICHMAN KENNETH B
& ROSE D-TR

SE 1/4, SW 1/4
31-49N-30W

NE 1/4, SW 1/4
31-49N-30W

NOTE:
SEE SHEETS 21- 37 FOR RIGHT OF WAY DETAILS

SEE SHEETS 41 - 54 FOR DRIVEWAY DETAILS

PLAN SHEET
SHEET 3 OF 17

REID
BRENNEN CATT
NUMBER
PE-2010019516

REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
8/1/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	6

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

MoDOT

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

PETER J FINK SR
FAMILY LIMITED PTP

STANLEY PACK POST 499
OF THE AMERICAN LEGION

N½ LOT 2
SW FRACTIONAL¼
31-49N-30W

GLORY CHRIST CROSS
TRANSPORTATION LLC

SCALE
0 20 40 60

15

EXIST. R/W

¼¼ SECTION LINE

MATCHLINE STA. 13+90.00

MATCHLINE STA. 19+30.00

N01°13'47"E

℄ RTE_7_N

(U.I.P.)

EX. TYPE A
INTEGRAL CURB

EXIST. SIDEWALK

ADJUST WATER VALVE
(BY OTHERS)

6' SIDEWALK

(D.N.D.)

SAWCUT

+69.58
48.65' RT.

4.5'
SIDEWALK

S.L.

(R)

(R&R)

PAVED APPROACH RT.
STA. 16+18.94
5.89% GRADE

TEMP. CONST. ESM'T

EXIST. 15'
UTILITY EASEMENT

EXIST. 10'
UTILITY EASEMENT

SAWCUT LINE

PAVED APPROACH RT.
STA. 18+75.86
3.60% GRADE

EXIST.
INGRESS-
EGRESS
EASEMENT

PRUNE LIMBS
FROM TREES
(NO DIRECT PAY)

05
ALDI INC

06
AUTO ZONE INC

NE 1/4, SW 1/4
31-49N-30W

07
BURGE INVESTMENT
GROUP LLC

08
FELDMAN DANIEL
W TRUSTEE

09
QUARTER
KING
LLC

NOTE:
SEE SHEETS 21- 37 FOR RIGHT OF WAY DETAILS

SEE SHEETS 41 - 54 FOR DRIVEWAY DETAILS

PLAN SHEET
SHEET 4 OF 17

REID
BRENNEN CATT
NUMBER
PE-2010019516

REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
10/2/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	7

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

CONTEMPORARY HAIR DESIGN LLC

HUBERT HOMES LLC

MCNEW LELAND E

MCNEW LELAND E

N½ LOT 2
NW FRACTIONAL¼
31-49N-30W

EWAN JAMES E-TRUSTEE

SCALE
0 20 40 60

305 HWY 7
BLUE SPRINGS LLC

20

EXIST. R/W

¼¼ SECTION LINE

℄ RTE_7_N N01°13'47"E

MATCHLINE STA. 19+30.00

MATCHLINE STA. 24+70.00

(R&R)
EX. TYPE A INTEGRAL CURB
6' SIDEWALK
5' SIDEWALK
(U.I.P.)
C&G
SAWCUT
C&G
6' SIDEWALK
(R&R)
EX. TYPE A INTEGRAL CURB
5' SIDEWALK
(R&R)
SAWCUT
S-CURB
4' SIDEWALK
(R)
S.L.
EXIST. R/W
(R&R)
(D.N.D.)
(D.N.D.)
(R)
(D.N.D.)
S.L.
(D.N.D.)
(R)
S.L.
(D.N.D.)
(D.N.D.)
(R)
S.L.
ADJUST WATER VALVE (BY OTHERS)
SAWCUT
(D.N.D.)
SAWCUT
+78.53 47.34'
+83.53 46.35'
+65.28 47.05'
+87.75 47.06'
+97.75 49.11'
+86.26 49.14'
+87.99 48.14'
+92.99 48.14'
+94.72 49.14'
+34.57 48.15'
+58.21 48.15'

EXIST. 15' UTILITY EASEMENT

PAVED APPROACH RT.
STA. 21+26.79
6.19% GRADE

TEMP. CONST. ESM'T

MOD. S-CURB

PAVED APPROACH RT.
STA. 23+42.42
7.56% GRADE

5' SIDEWALK

PAVED APPROACH RT.
STA. 24+19.22
7.52% GRADE

EXIST. 10' UTILITY EASEMENT

09
QUARTER KING LLC

08
FELDMAN DANIEL W TRUSTEE

NE 1/4, SW 1/4
31-49N-30W

10
FELDMAN DANIEL W TRUSTEE

11
MAHON DIANA

NOTE:
SEE SHEETS 21- 37 FOR RIGHT OF WAY DETAILS

SEE SHEETS 41 - 54 FOR DRIVEWAY DETAILS

PLAN SHEET
SHEET 5 OF 17

REID BRENNEN CATT
NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
8/1/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	8

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

EXIST. SIDEWALK

N½ LOT 2
SW FRACTIONAL¼
31-49N-30W

(15)
AJ PARTNERSHIP LLC

RAMIREZ FAMILY PARTNERSHIP LTD

S½ LOT 2
NW FRACTIONAL¼
31-49N-30W

Q3 PROPERTIES LLC

SCALE
0 20 40 60

SAWCUT
+34.57
140.37'
EXIST. R/W
TEMP. CONST. ESM'T
5.8' SIDEWALK
S.L.
(R)
℄ WALNUT_ST
PAVED APPROACH LT.
STA. 1+66.18
-9.76% GRADE

CP# 5009
STA. 28+28.89, 49.17' LT.
CHAIN (RTE_7_N)
EL. 947.49

25
30

PROPOSED R/W
5' SIDEWALK
+27.78
47.20'
EXIST. R/W
CP# 5009
+19.62
43.28'
10" NON-REINFORCED
CONCRETE PAVEMENT
SAWCUT

MATCHLINE STA. 24+70.00
MATCHLINE STA. 30+10.00

STA. 26+49.14 ℄ (RTE_7_N)=
STA. 2+63.52 ℄ (WALNUT_ST)
¼¼ SECTION LINE
88°44'2"
¼ SECTION LINE
N01°13'47"E ℄ RTE_7_N

8 IN. CONC.
MEDIAN STRIP
10" NON-REINFORCED
CONCRETE PAVEMENT
+77.91
43.87'
+78.81
43.46'
10" NON-REINFORCED
CONCRETE PAVEMENT
(R&R)
MOD. S-CURB
INTEGRAL CURB
5' SIDEWALK
+07.63
43.60'
5' SIDEWALK
EX. TYPE A
INTEGRAL CURB
6' SIDEWALK
(D.N.D.)
6' SIDEWALK
6' SIDEWALK
SAWCUT
(R&R)
(D.N.D.)
+10.26
41.48'
+28.90
51.09'
+69.03
50.70'
+71.18
49.44'
+08.51
50.59'
+94.59
41.05'
TEMP. CONST. ESM'T
(U.I.P.) EX. CURB
P.S.
RELOCATE FIRE HYDRANT
(BY OTHERS)
RELOCATE WATER VALVE
(BY OTHERS)
NEW R/W
ADJUST WATER METER
(BY OTHERS)
(R&R) GRAVEL AROUND SIDEWALK

PAVED APPROACH RT.
STA. 24+78.76
4.88% GRADE
PAVED APPROACH RT.
STA. 27+30.52
3.30% GRADE
PAVED APPROACH RT.
STA. 28+34.89
5.75% GRADE
PAVED APPROACH RT.
STA. 29+68.52
3.29% GRADE

(11)
MAHON
DIANA

NE 1/4, SW 1/4
31-49N-30W

℄ WALNUT_ST
S87°30'15"E

(12)
PHAN THUY HANG THI

SE 1/4, NW 1/4
31-49N-30W

(13)
MONDELLO ANGELO & ENZO

(14)
SAMRANY
VICKY
DIANE
TRUST

NOTE:
SIDEWALKS, INTEGRAL CURB, AND 10" CONC. PVM'T ARE STA./OFF. FROM ROUTE 7 CHAIN.

SEE SPECIAL SHEETS FOR MEDIAN DETAILS.

SEE SHEETS 21- 37 FOR RIGHT OF WAY DETAILS

SEE SHEETS 41-54 FOR DRIVEWAY DETAILS

PLAN SHEET
SHEET 6 OF 17

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
10/2/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	9

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

S½ LOT 2
NW FRACTIONAL¼
31-49N-30W

℄ RTE_7_N
PI 31+29.38
PC 30+79.92
PT 31+78.84
Δ 0°59'25.5" (RT)
D 1°0'4.3"
L 98.92' (ARC)
T 49.46'
R 5,722.71'

℄ MAIN_ST S87°45'47"E

EXIST. R/W

EXIST. SIDEWALK

SAWCUT

+95.73
79.02'

+86.92
68.88'

+88.42
68.90'

(R)

TEMP. CONST. ESM'T

PROPOSED R/W

SAWCUT

TYPE A INTEGRAL CURB

EXIST. R/W

+16.54
41.34'

+16.54
39.84'

10" NON-REINFOR.
CONC. PVM'T

(R)

TYPE A INTEGRAL CURB

SAWCUT

EX. TYPE A
INTEGRAL CURB

90°1'1"

¼¼ SECTION LINE

N01°13'47"E

PC STA 30+79.92 R2

PT STA 31+78.84 R2

EQUATION:
STA 30+70.90 BK =
STA 30+71.37 AH

TYPE A INTEGRAL CURB

10" NON-REINFOR.
CONC. PVM'T

STA. 32+63.13 ℄ (RTE_7_N)=
STA. 5+64.71 ℄ (MAIN_ST)

6' SIDEWALK

SAWCUT

+14.21
35.50'

(R)

(R)

N02°13'13"E ℄ RTE_7_N

STA. 3+76.45 ℄ (LAKEVIEW_DR)=
STA. 34+84.04 ℄ (RTE_7_N)

10" NON-REINFOR.
CONC. PVM'T

TYPE A INTEGRAL CURB

6' SIDEWALK

INLET 34A1
(R&R) SEE
ITS PLANS

+45.84
35.53'

SAWCUT

90°2'26"

6' SIDEWALK

TYPE A INTEGRAL CURB

+23.03
39.63'

+23.03
40.63'

MATCHLINE STA. 30+10.00

MATCHLINE STA. 35+50.00

ADJUST WATER VALVE
(BY OTHERS)

EX. TYPE A
INTEGRAL CURB

6' SIDEWALK

SAWCUT

+68.63
40.12'

+68.63
39.50'

10" NON-REINFOR.
CONC. PVM'T

TYPE A INTEGRAL CURB

6' SIDEWALK

(R)

(R&R)

(R)

(R)

(R)

(R)

S.L.

+68.71
48.73'

+74.16
48.77'

+74.17
46.94'

(R) BUSH
(D.N.D.)

(D.N.D.)

(D.N.D.)

(D.N.D.)
DRAIN

S.L.
TEMP. CONST. ESM'T

S.L.

+14.34
43.00'

(D.N.D.)

(R&R)

(D.N.D.)

(D.N.D.)

S.L.

(D.N.D.)

EXIST. R/W

TYPE A INTEGRAL CURB

SAWCUT

10" NON-REINFOR.
CONC. PVM'T

(D.N.D.)

(D.N.D.)

S.L.

EXIST.
R/W

TEMP.
CONST.
ESM'T

PAVED APPROACH RT.
STA. 30+48.64
4.73% GRADE

PAVED APPROACH RT.
STA. 31+44.51
10.63% GRADE

PAVED APPROACH RT.
STA. 32+66.75
0.59% GRADE

N87°44'21"W ℄ LAKEVIEW_DR

SE 1/4, NW 1/4
31-49N-30W

(20) MERCANTILE BANK OF KC

(14) SAMRANY VICKY
DIANE TRUST

(16) 104 SW STATE ROUTE 7 LLC

(17) RHC ASSOCIATES

(18) HUBER JUDY YVONNE

(19) HEALTH
PLAZA LLC

SCALE
0 20 40 60

NOTE:
SIDEWALKS, INTEGRAL CURB, AND 10" CONC. PVM'T ARE STA./OFF. FROM ROUTE 7 CHAIN.
SEE SPECIAL SHEETS FOR MEDIAN DETAILS.

SEE SHEETS 21-37 FOR RIGHT OF WAY DETAILS

SEE SHEETS 41-54 FOR DRIVEWAY DETAILS

SEE SHEETS 148-155 FOR DRAINAGE DETAILS

PLAN SHEET
SHEET 7 OF 17

REID BRENNEN CATT
NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
10/2/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	10

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

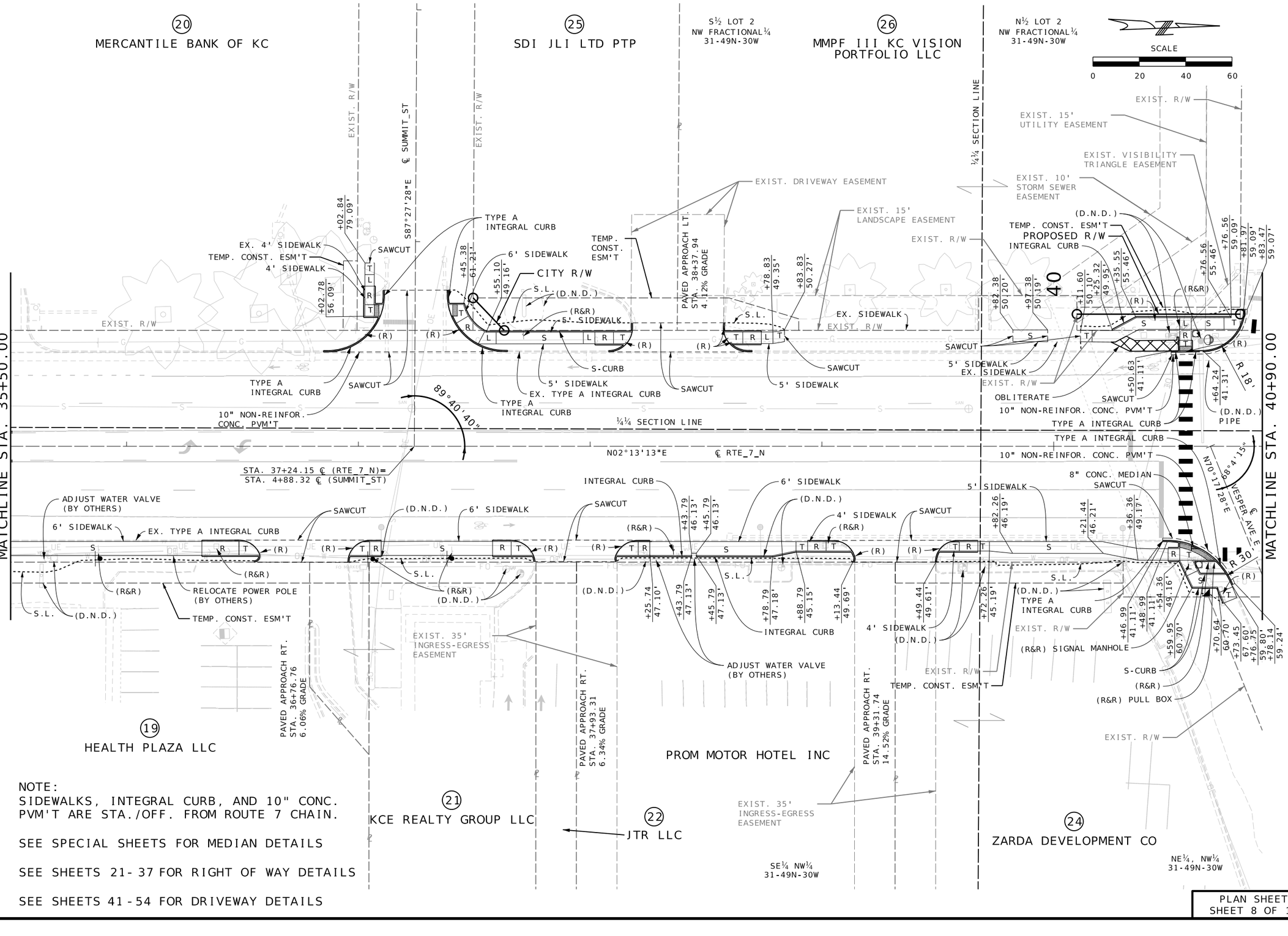
BRIDGE NO.

DATE	DESCRIPTION

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592



NOTE:
SIDEWALKS, INTEGRAL CURB, AND 10" CONC. PVM'T ARE STA./OFF. FROM ROUTE 7 CHAIN.

SEE SPECIAL SHEETS FOR MEDIAN DETAILS

SEE SHEETS 21 - 37 FOR RIGHT OF WAY DETAILS

SEE SHEETS 41 - 54 FOR DRIVEWAY DETAILS

PLAN SHEET
SHEET 8 OF 17

REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
8/1/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	11

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION | DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

UNITED MISSOURI CITY BANK

N½ LOT 2
NW FRACTIONAL¼
31-49N-30W

SHOW ME COMMERCIAL
LAND DEV ENT LLC

SCALE
0 20 40 60

℄ VESPER_AVE_W

S87°27'11"E

S87°27'04"E

℄ ZAUN_AVE

5

45

EXIST. 5'
UTILITY EASEMENT

EXIST. R/W

EXIST. R/W

EXIST. R/W

MATCHLINE STA. 40+90.00

MATCHLINE STA. 46+30

STA. 41+09.06 ℄ (VESPER_AVE_W)=
STA. 41+00.00 ℄ (RTE_7_N)

89°40'24"

¼¼ SECTION LINE

STA. 3+66.72 ℄ (ZAUN_AVE)=
STA. 44+27.01 ℄ (RTE_7_N)

89°40'16"

N02°13'13"E

℄ RTE_7_N

TYPE A INTEGRAL CURB
INTEGRAL CURB
5' SIDEWALK
INTEGRAL CURB
(D.N.D.)
R 25'
EXIST. R/W
(D.N.D.)
PROPOSED R/W
TYPE A INTEGRAL CURB
10" NON-REINFOR. CONC. PVM'T
EXIST. R/W
℄ VESPER_AVE_E
N70°17'28"E
EXIST. R/W

+10.33 38.17'
+28.59 49.17'
+39.59 44.19'
+36.83 41.17'
+10.33 66.17'
+22.51 64.17'
+33.59 64.17'
+11.98 75.39'
+13.39 74.87'
+56.30 43.67'
+56.48 38.17'
+56.48 34.17'
+33.59 49.17'

INLET 41T1
SAWCUT
10" NON-REINFORCED CONCTETE PAVEMENT
SAWCUT
5' SIDEWALK (R&R)
INTEGRAL CURB
5' SIDEWALK
(R)
(D.N.D.)
(R)
(U.I.P.) EX. CURB
ADJUST WATER VALVE (BY OTHERS)
+63.48 38.17'
+63.48 38.17'
+73.50 38.17'
+73.50 41.17'
+46.24 49.17'
+56.24 46.11'
+33.59 49.17'

SAWCUT
5' SIDEWALK
10" NON-REINFORCED CONCTETE PAVEMENT
TYPE A INTEGRAL CURB
(R)
(D.N.D.)
S.L.
(D.N.D.)
EXIST. 15' LIGHTING EASEMENT
INTEGRAL CURB
+07.81 39.61'
+28.94 39.64'

SAWCUT
(R)
(D.N.D.)
ADJUST WATER VALVE (BY OTHERS)
(R)
(R&R)
(D.N.D.)
6' SIDEWALK
(R)
EXIST. R/W
S.L.
(D.N.D.)
(D.N.D.)

EX. TYPE A INTEGRAL CURB
SAWCUT
6' SIDEWALK
S.L.
(D.N.D.)
(D.N.D.)
+04.64 47.14'
MOD. S-CURB
(D.N.D.)

PAVED APPROACH RT.
STA. 42+00.03
5.02% GRADE

PAVED APPROACH RT.
STA. 42+85.15
8.43% GRADE

PAVED APPROACH RT.
STA. 43+49.60
5.52% GRADE

DO NOT DISTURB THIS PROPERTY

PAVED APPROACH RT.
STA. 45+14.73
2.69% GRADE

EXIST. 15' SEWER EASEMENT

EXIST. 24' ACCESS EASEMENT

EXIST. 30' INGRESS-EGRESS EASEMENT

(27)
BFS RETAIL & COMMERCIAL OPERATIONS LLC

WENDY OLD FASHIONED HAMBURGER

(29)
NORTHRIDGE ENTERPRISE LLC

(30)
SKJD LLC

NE 1/4, NW 1/4
31-49N-30W

NOTE:
SEE SHEETS 21- 37 FOR RIGHT OF WAY DETAILS

SEE SHEETS 41 - 54 FOR DRIVEWAY DETAILS

SEE SHEETS 148-155 FOR DRAINAGE DETAILS

PLAN SHEET
SHEET 9 OF 17

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
8/1/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	12

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

PBJ REALTY LLC

COMMERCE BANK OF KANSAS CITY

NORTH WEST 7 LLC

SCALE
0 20 40 60

BANK
JACOMO

N½ LOT 2
NW FRACTIONAL¼
31-49N-30W

℄ B_ST

S87°26'08"E

EXIST. R/W

EXIST. R/W

50

MATCHLINE STA. 46+30.00

MATCHLINE STA. 51+70.00

90°23'39"

¼¼ SECTION LINE

N02°13'13"E

℄ RTE_7_N

STA. 47+76.36 ℄ (RTE_7_N)=
STA. 4+20.08 ℄ (B_ST)

ADJUST WATER VALVE
(BY OTHERS)

6' SIDEWALK

SAWCUT

(R&R)

6' SIDEWALK

(R&R)

REMOVE
LANDSCAPING

EX. TYPE A INTEGRAL CURB

SAWCUT

(R&R)

6' SIDEWALK

(R&R)

SAWCUT

6' SIDEWALK

6' SIDEWALK

+63.45
49.20'

ADJUST WATER VALVE
(BY OTHERS)

MOD.
S-CURB

(D.N.D.)

MOD. S-CURB

(R&R)

(D.N.D.)

(D.N.D.)

(D.N.D.)

+62.60
47.08'

EXIST. R/W

S.L.

TEMP. CONST. ESM'T

S.L.

MOD. S-CURB

(D.N.D.)

MOD. S-CURB

(R&R)

RELOCATE POWER
POLE (BY OTHERS)

(D.N.D.)

MOD. S-CURB

PAVED APPROACH RT.
STA. 46+76.93
3.98% GRADE

PAVED APPROACH RT.
STA. 49+14.57
5.44% GRADE

PAVED APPROACH RT.
STA. 50+91.12
-6.63% GRADE

PAVED APPROACH RT.
STA. 51+48.38
-3.04% GRADE

BLUE SPRINGS FIRST LLC

NE½, NW½
31-49N-30W

(32)
27B PROPERTIES, LLC

(33)
ROTTINGHAUS
REAL ESTATE
LLC

NOTE:
SEE SHEETS 21- 37 FOR RIGHT OF WAY DETAILS

SEE SHEETS 41 - 54 FOR DRIVEWAY DETAILS

PLAN SHEET
SHEET 10 OF 17

REID
BRENNEN CATT
NUMBER
PE-2010019516

REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
10/2/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	13

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

N½ LOT 2
NW FRACTIONAL¼
31-49N-30W

BANK JACOMO

10" NON-REINFOR. CONC. PVM'T

EXIST. PERMANENT EASEMENT

EXIST. SIDEWALK

N87°19'00"W

SECTION LINE +98.97 162.15'
+02.97 162.14'
+08.97 162.13'
+09.44 148.52'

℄ RD_MIZE_W
+98.84 108.14'
+02.84 108.13'

T
S
(R)
(R&R)

2' C&G
SAWCUT
TYPE MOD. S-CURB
10" NON-REINFOR. CONC. PVM'T
6' SIDEWALK
EXIST. 6' GAS EASEMENT

+07.28 83.17'
+08.78 83.17'

(D.N.D.)

ADJUSTNG INLET TOP

+07.24 64.15'

EXIST. R/W

4.5' SIDEWALK

R 20'
R 19'
L
R
T

PROPOSED R/W
CP# 5013
TEMP. CONST. ESM'T

6' SIDEWALK

+07.24 64.15'
+07.89 60.62'

+10.19 48.19'
+09.14 47.12'
+26.59 39.55'
+26.59 41.13'
+26.09 47.10'

10" NON-REINFOR. CONC. PVM'T
SAWCUT

STA. 52+84.58 ℄ (RTE_7_N)=
STA. 0+00.00 ℄ (RD_MIZE_W)

89°32'13"

POT STA 53+46.76 R2

MATCHLINE STA. 51+70.00

37

KAVASSO INVESTMENTS
& BERZERKER LLC

S½ LOT 2
SW FRACTIONAL¼
30-49N-30W

CP# 5013
STA. 53+36.78, 57.75' LT.
CHAIN (RTE_7_N)
EL. 934.39

EXIST. 5' UTILITY EASEMENT

BEZERKER LLC

HONEYBEE REALTY LLC

SCALE
0 20 40 60

55

EXIST. R/W

¼¼ SECTION LINE

N02°13'13"E

℄ RTE_7_N

ADJUST WATER VALVE (BY OTHERS)

TYPE A INTEGRAL CURB

SAWCUT

+24.30 36.19'

10" NON-REINFOR. CONC. PVM'T

(D.N.D.)

MOD. S-CURB

(R)

(R&R)

+84.92 41.16'

5' SIDEWALK

TEMP. CONST.ESM'T

(D.N.D.)

+24.19 41.14'
+26.19 41.18'

+53.08 63.83'

EXIST. R/W

PROPOSED R/W

TEMP. CONST. ESM'T

+57.50 86.58'
+57.38 96.58'
+62.38 96.64'

R 28'

TYPE A INTEGRAL CURB

(R)

(D.N.D.)

+63.08 36.19'

8" CONC.

SAWCUT
MEDIAN

+09.71 51.44'
+08.55 50.49'
+45.90 49.18'

R 24'

+29.29 41.14'

TYPE A INTEGRAL CURB
10" NON-REINFOR. CONC. PVM'T

+31.28 39.63'
+31.29 41.13'
+26.09 44.16'

5' SIDEWALK

(R)

(R&R)

EXIST. R/W

+11.05 49.80'

(D.N.D.)

MOD. S-CURB

SIDEWALK RUNNING SLOPE 0.45% FROM STA. 52+26.10 TO STA. 54+73.13

EX. BLOCK WALL

+05.00 49.53'

S.L.

(D.N.D.)

TEMP. CONST. ESM'T

RELOCATE PWR POLE (BY OTHERS)

ADJUST WATER METER (BY OTHERS)

EX. TYPE A INTEGRAL CURB
INTEGRAL CURB

+82.20 43.62'

SAWCUT

4' SIDEWALK

(R)

(R&R)

(D.N.D.)

PAVED APPROACH RT.
STA. 55+05.64
6.72% GRADE

PAVED APPROACH RT.
STA. 55+92.86
9.86% GRADE

TRIM JUNIPER BEDS OFF SIDEWALK AREA (NO DIRECT PAY)
TRIM JUNIPER OFF SIDEWALK

SAWCUT

4' SIDEWALK

(R)

(D.N.D.)

EXIST. SIDEWALK
5' SIDEWALK

(D.N.D.)

+67.12 49.28'
+86.51 49.16'
+01.51 49.10'

EX. SIDEWALK
(D.N.D.)

RELOCATE WATER METER (BY OTHERS)

EXIST. INGRESS-EGRESS EASEMENT

PAVED APPROACH RT.
STA. 56+28.55
0.35% GRADE

MATCHLINE STA. 57+10.00

N01°36'05"E

℄ RD_MIZE_E

S87°46'47"E

33

ROTTINGHAUS REAL ESTATE LLC

NE1/4, NW1/4
31-49N-30W

34

LEGACY MIDWEST INVESTMENTS LLC

LENHART FAUENBERG LLP

SE1/4, SW1/4
30-49N-30W

HIGHWAY 7 RETAIL LLC

NOTE:
SIDEWALKS, INTEGRAL CURB, AND 10" CONC. PVM'T ARE STA./OFF. FROM ROUTE 7 CHAIN.

SEE SPECIAL SHEETS FOR MEDIAN DETAILS

SEE SHEETS 21- 37 FOR RIGHT OF WAY DETAILS

SEE SHEETS 41 - 54 FOR DRIVEWAY DETAILS

PLAN SHEET
SHEET 11 OF 17

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
10/2/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	14

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

HONEYBEE REALTY LLC

S½ LOT 2
SW FRACTIONAL¼
30-49N-30W

BEZERKER LLC

CLARK JAMES & CHRISTINE

EXIST. INGRESS/EGRESS AND CROSS EASEMENT

EXIST. ACCESS EASEMENT

EXIST. 4.5' WATER LINE EASEMENT

EXIST. 10' UTILITY EASEMENT

EXIST. R/W

60

℄ HEARNES_AVE

N88°27'17"W

SCALE
0 20 40 60

MATCHLINE STA. 57+10.00

MATCHLINE STA. 62+50.00

U.I.P. EXISTING RAISED MEDIAN

SAWCUT

+87.22
7.17'

89°56'38"

(R)

8" CONC. MEDIAN

¼¼ SECTION LINE

℄ RTE_7_N

N01°36'05"E

STA. 61+35.52 ℄ (RTE_7_N)=
STA. 0+00.00 ℄ (HEARNS_AVE)

+87.20
3.66'

EXIST. SIDEWALK

EX. TYPE A INTEGRAL CURB

5' SIDEWALK

RELOCATE UTILITY BOX (BY OTHERS)

(R&R)

T L R T

T R S R T

T R T S T R T

+53.29
49.30'

+18.29
49.28'

+79.04
49.24'

+60.48
49.24'

+60.49
46.19'

(D.N.D.)

U.I.P. EXISTING DRIVE ENTRANCE

EXIST. INGRESS-EGRESS EASEMENT

PAVED APPROACH RT.
STA. 60+13.92
-6.64% GRADE

PAVED APPROACH RT.
STA. 61+40.30
-5.22% GRADE

HIGHWAY 7 RETAIL LLC

PRB HOLDINGS LLC

SE1/4, SW1/4
30-49N-30W

NOTE:
SEE SHEETS 21- 37 FOR RIGHT OF WAY DETAILS

SEE SHEETS 41 - 54 FOR DRIVEWAY DETAILS

PLAN SHEET
SHEET 12 OF 17

REID BRENNEN CATT NUMBER PE-2010019516

REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
10/2/2025

ROUTE 7 | STATE MO

DISTRICT KC | SHEET NO. 15

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

SCALE
0 20 40 60

CLARK JAMES
& CHRISTINE

EXIST. 10'
UTILITY EASEMENT

41
SOSA JUAN BERNAL &
BERNAL CARMINA

S½ LOT 2
SW FRACTIONAL¼
30-49N-30W

42
D&M INVESTMENTS
1 LLC

43
SWOPE CLAY M
DONNA J-TRUSTEES

N½ LOT 2
SW FRACTIONAL¼
SECTION 30
30-49N-30W

¼¼ SECTION LINE

EXIST. R/W

EXIST. 10'
UTILITY EASEMENT

PAVED APPROACH LT.
STA. 64+41.90
11.35% GRADE

PAVED APPROACH LT.
STA. 65+89.96
18.88% GRADE

EXIST. 20'
SANITARY SEWER
AND UTILITY EASEMENT

INLET
0T4

SOUTH OUTER ROAD

MATCHLINE STA. 62+50.00

MATCHLINE STA. 67+55.00

TEMP. CONST. ESM'T
(D.N.D.)
(D.N.D.)
(R&R)
+92.92
46.90'
EX. SIDEWALK
6' SIDEWALK
SAWCUT
ADJUST SAN. MANHOLE
(BY OTHERS)
8" CONC. MEDIAN
SAWCUT
+11.02
6.50'
+11.01
2.47'
TEMP. CONST. ESM'T
(D.N.D.)
ADJUST HYDRANT
(BY OTHERS)
(R&R)
6' SIDEWALK
PAVED APPROACH LT.
STA. 65+89.96
18.88% GRADE
TEMP.
CONST.
ESM'T
(D.N.D.)
ADJUST WATER METER
(BY OTHERS)
SAWCUT
U.I.P. EXISTING RAISED MEDIAN
(R)
SEE PLAN SHEET
17 OF 17 FOR
MOCK AVE. DETAILS
MANHOLE 0M1
90°1'42"
90°58'18"
℄ RTE_7_N
N01°36'05"E
(R)
STA. 67+44.05 ℄ (RTE 7 N)=
STA. 0+00.00 ℄ ( )
STA. 67+45.94 ℄ (RTE 7 N)=
STA. 0+00.00 ℄ (MOCK_AVE)

EXIST. 11' GRADING
& SIDEWALK EASEMENT
SAWCUT
5' SIDEWALK
(R)
(D.N.D.)
+88.60
49.70'
PAVED APPROACH RT.
STA. 63+07.83
0.69% GRADE
5' SIDEWALK
(R)
EX. TYPE A
INTEGRAL CURB
EXIST. R/W
+28.07
49.53'
+12.13
49.16'
(D.N.D.)
(D.N.D.)
+17.16
41.20'
(D.N.D.)
(R)
(R)
+12.13
60.94'
+30.09
60.96'
EX. 5' SIDEWALK
EXIST. CROSS
ACCESS EASEMENT
(D.N.D.) TEMP. CONST. ESM'T
+26.08
50.69'
+19.08
44.01'
+19.22
42.02'
+21.08
44.14'
10" NON-REINFOR. CONC. PVM'T
TYPE A INTEGRAL CURB
SAWCUT
R 12'
+34.55
42.33'
+30.26
56.69'
(D.N.D.)
5' SIDEWALK
(D.N.D.)
SAWCUT
+00.46
61.00'
(D.N.D.)
+23.46
56.00'
+25.41
61.00'
+26.03
53.75'
+32.28
58.37'
+34.30
58.41'
PERM. SIDEWALK
ESM'T
ADJUST WATER METER
(BY OTHERS)
EXIST. SIDEWALK
5' SIDEWALK
(R&R)
SAWCUT
+09.13
46.73'
+09.82
45.40'
TYPE A
INTEGRAL CURB
10" NON-REINFOR.
CONC. PVM'T
R 32'
SAWCUT
+08.37
56.33'
+08.82
57.21'
+23.47
61.46'
+24.83
60.18'
SAWCUT
PERM. UTILITY &
SIDEWALK, & TRAFFIC
SIGNAL EQUIPMENT ESM'T
(D.N.D.)
+10.90
75.68'
EXIST. 25'
LANDSCAPE EASEMENT
EXIST. 10' GRADING,
UTILITY & SIDEWALK EASEMENT
EX. 5' SIDEWALK
⊥ S87°25'44"E
℄ MOCK_AVE
EXIST. 10'
PRIVATE SEWER
EASEMENT
EXIST. 10' GRADING,
UTILITY &
SIDEWALK EASEMENT
NE¼ SW¼
SECTION 30
30-49N-30W
EXIST. R/W

PRB HOLDINGS LLC

39
LAKSHMI-KAMETARO LLC

SE1/4, SW1/4
30-49N-30W

40
MOJACK LLC

NOTE:
SIDEWALKS, INTEGRAL CURB, AND 10" CONC. PVM'T ARE STA./OFF. FROM ROUTE 7 CHAIN.

SEE SPECIAL SHEETS FOR MEDIAN DETAILS

SEE SHEETS 21- 37 FOR RIGHT OF WAY DETAILS

SEE SHEETS 41 - 54 FOR DRIVEWAY DETAILS

PLAN SHEET
SHEET 13 OF 17

REID
BRENNEN CATT
NUMBER
PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
10/2/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	16

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

METCALF 91 BLB LLC

N½ LOT 2
SW FRACTIONAL¼
30-49N-30W

KK USA LLC

BLUE CREEK
CAPITAL LLC

SCALE
0 20 40 60

SOUTH OUTER ROAD

EXIST. R/W

EX. C&G

EX. TYPE A
INTEGRAL CURB

EXIST. 15'
STORM SEWER
EASEMENT

EXIST. 10'
UTILITY EASEMENT

EXIST. UTILITY
EASEMENT

ADJUSTING
MANHOLE

(D.N.D.)

EXIST. 15'
WATER EASEMENT

EXIST. 15'
SANITARY SEWER
EASEMENT

EXIST. 10'
UTILITY
EASEMENT

70

MATCHLINE STA. 67+55.00

MATCHLINE STA. 72+95.00

2" MILL/FILL

8" CONC.
MEDIAN

U.I.P. GRATE INLET

10" NON-REINFOR. CONC. PVM'T

¼¼ SECTION LINE

℄ RTE_7_N

N01°36'05"E

TYPE A INTEGRAL CURB
(D.N.D.)

EX. TYPE A INTEGRAL CURB

NEW R/W

5' SIDEWALK

6' SIDEWALK

INTEGRAL CURB

4' SIDEWALK

SAWCUT

TEMP. CONST. ESM'T

EXIST. 15'
LANDSCAPE EASEMENT

ADJUST MANHOLE
(BY OTHERS)

(D.N.D.)
SIGN BASE

RELOCATE EX. BLOCK WALL

(U.I.P)

3" CONC. MEDIAN
(TAPER BACK TO 0"
AT BACK OF C&G)

PAVED APPROACH RT.
STA. 68+88.77
7.39% GRADE

PAVED APPROACH RT.
STA. 69+61.92
9.75% GRADE

PAVED APPROACH RT.
STA. 70+15.34
8.01% GRADE

PAVED APPROACH RT.
STA. 70+32.30
9.22% GRADE

PAVED APPROACH RT.
STA. 72+10.18
4.79% GRADE

EXIST. DETENTION
BASIN EASEMENT

EXIST. 25'
ACCESS EASEMENT

EXIST. 15'
UTILITY
EASEMENT

EXIST. R/W

EXIST. 15' GRADING,
CONSTRUCTION, LANDSCAPE
AND SIDEWALK EASEMENT

(44) MCDONALDS REAL ESTATE
CO OF COLUMBIA MD

(45) MOCK PLAZA LLC

(46) TRB BLUE SPRINGS LLC

PAULMIKE REALTY
CO LLC

NE¼ SW¼
30-49N-30W

NOTE:
SEE SHEETS 21- 37 FOR RIGHT OF WAY DETAILS

SEE SHEETS 41 - 54 FOR DRIVEWAY DETAILS

PLAN SHEET
SHEET 14 OF 17

REID
BRENNEN CATT
NUMBER
PE-2010019516

REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
10/2/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	17

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

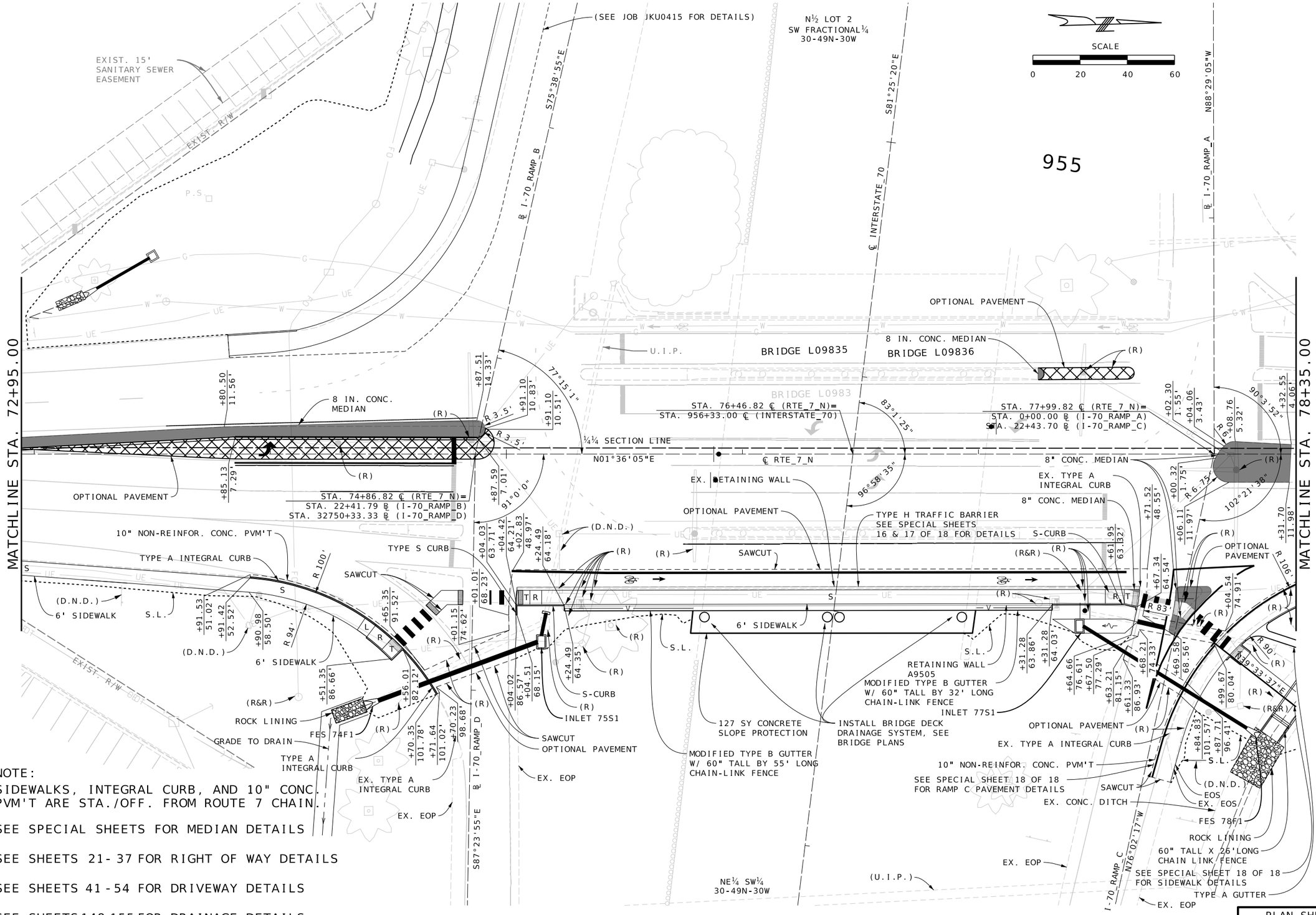
DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592



NOTE:

SIDEWALKS, INTEGRAL CURB, AND 10" CONC. PVM'T ARE STA./OFF. FROM ROUTE 7 CHAIN.

SEE SPECIAL SHEETS FOR MEDIAN DETAILS

SEE SHEETS 21- 37 FOR RIGHT OF WAY DETAILS

SEE SHEETS 41 - 54 FOR DRIVEWAY DETAILS

SEE SHEETS 148-155 FOR DRAINAGE DETAILS

PLAN SHEET
SHEET 15 OF 17

REID BRENNEN CATT NUMBER PE-2010019516

REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
8/1/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	18

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

N½ LOT 2
SW FRACTIONAL¼
30-49N-30W

S½ LOT 2
NW FRACTIONAL¼
30-49N-30W

¼ SECTION LINE

¼¼ SECTION LINE

MATCHLINE STA. 78+35.00

80

SCALE
0 20 40 60

EXIST. R/W

EXIST. 8.33'
LANDSCAPE EASEMENT

49
QUIKTRIP CORPORATION

EX. TYPE
A CURB

EXIST. INGRESS-
EGRESS EASEMENT

EX. TYPE A CURB

SHAW PKWY

+41.06
67.15'
+44.15
67.05'
+49.07
84.75'
+49.06
79.75'
+52.55
70.38'

SAWCUT

TEMP. ESM'T

PROP. R/W

(D.N.D.)

+47.95'
59.93'
+53.43
60.42'

+64.97
49.93'
+80.73
50.00'

EXIST. 12'
GAS EASEMENT

EXIST. 15'
LANDSCAPE SETBACK

EXIST. 15'
WATERLINE
EASEMENT

EXIST. R/W

(D.N.D.)

TYPE A INTEGRAL CURB

10" NON-REINFOR. CONC. PVM'T

8" CONC. MEDIAN

INTEGRAL
CURB

(R)

(D.N.D.)

SAWCUT

ADJUST SIGNAL BOX

EX. SIDEWALK

8" CONC. MEDIAN

EX. TYPE A CURB

+40.22
39.04'
+54.06
48.94'
+59.06
45.99'

+69.41
38.29'
+69.49
41.29'

5' SIDEWALK

TYPE A INTEGRAL CURB

U.I.P.

N01°36'05"E

℄ RTE_7_N

TYPE A INTEGRAL CURB

END PROJECT
STA 82+80.00

(U.I.P.)

INTEGRAL CURB

TYPE A INTEGRAL CURB

5' SIDEWALK

SAWCUT

INTEGRAL CURB
(R)

8" CONC. MEDIAN

EX. TYPE A
INTEGRAL CURB

+76.62
54.80'
+71.62
49.81'
+76.62
49.80'

(R&R)

(D.N.D.)

EXIST. R/W

(R)

8" CONC. MEDIAN

TEMP. ESM'T

SEE SPECIAL SHEET
14 OF 19 FOR DETAILS

PERM. SIDEWALK ESM'T

(D.N.D.)

10" NON-REINFOR. CONC. PVM'T
SEE SPECIAL SHEET 18 OF 18 FOR DETAILS

EX. TYPE
A CURB

SAWCUT

SAWCUT

(R)

EX. EOS

TYPE A
INTEGRAL
CURB

S.L.

(R&R)

INLET 78T2

INLET 78T1

FES 78F1

8'X 4' REINFORCED CONCRETE BOX W/ WINGWALLS

60" TALL X 30' LONG CHAIN LINK FENCE

(U.I.P.)

EX. TYPE A INTEGRAL CURB

(D.N.D.)

(D.N.D.)

(U.I.P.)

S.L.

5' SIDEWALK

S.L.

5' SIDEWALK
SEE SPECIAL SHEET 18 OF 19 FOR DETAILS

EX. TYPE A
INTEGRAL CURB

ADJUST STORM SEWER
MANHOLE

SAWCUT

10" NON-
REINFOR.
CONC. PVM'T

SHAW PKWY

EXIST. R/W

(D.N.D.)

EX. LANDSCAPING

EX. LANDSCAPING

NE 1/4 SW 1/4
30-49N-30W

EX. EOP

EX. EOP

NW JEFFERSON ST.

SE 1/4 NW 1/4
30-49N-30W

EXIST. R/W

EXIST. R/W

48
CASEYS MARKETING COMPANY

NOTE:

SIDEWALKS, INTEGRAL CURB, AND 10" CONC. PVM'T ARE STA./OFF. FROM ROUTE 7 CHAIN.

SEE SPECIAL SHEETS FOR MEDIAN DETAILS

SEE SHEETS 21- 37 FOR RIGHT OF WAY DETAILS

SEE SHEETS 41 - 54 FOR DRIVEWAY DETAILS

SEE SHEETS 148-155 FOR DRAINAGE DETAILS

PLAN SHEET
SHEET 16 OF 17

REID
BRENNEN CATT
NUMBER
PE-2010019516

REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
10/2/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	19

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

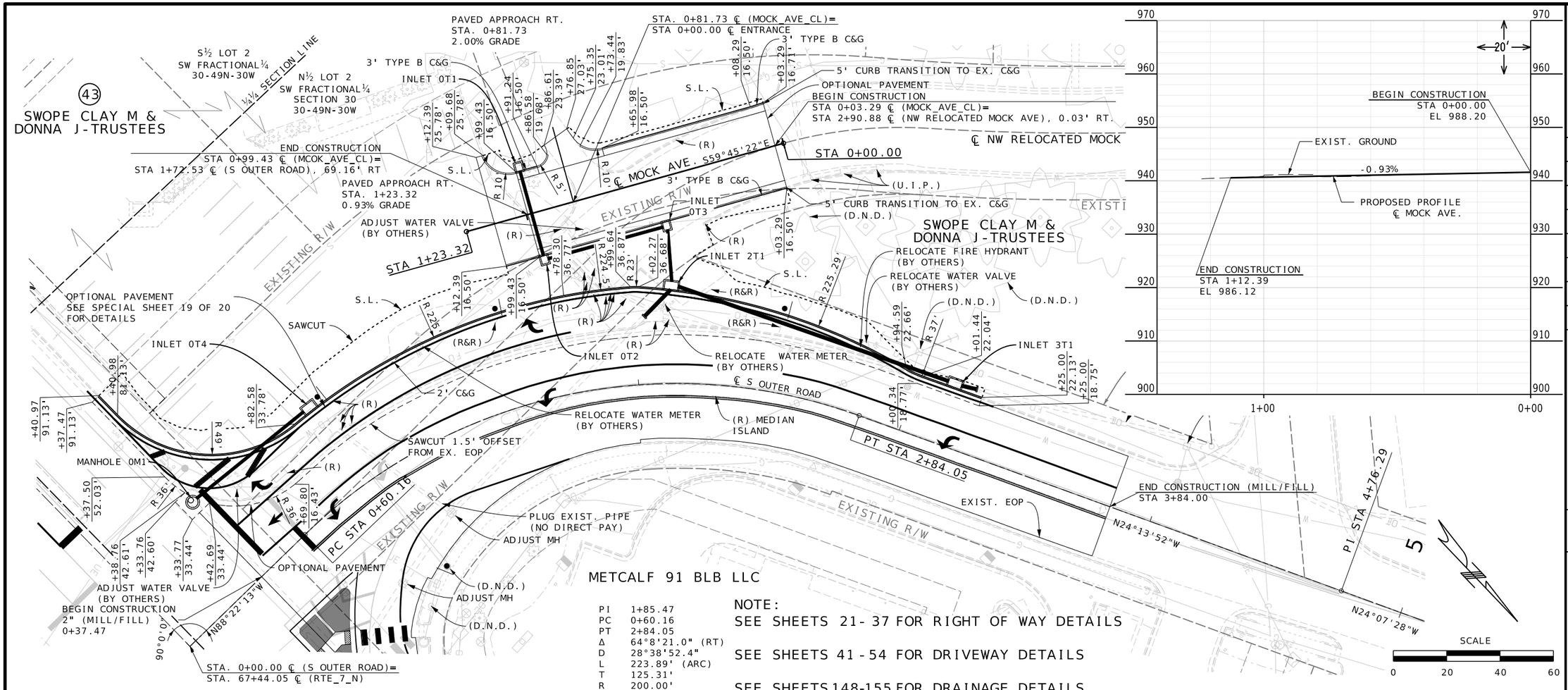
DATE	DESCRIPTION

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592



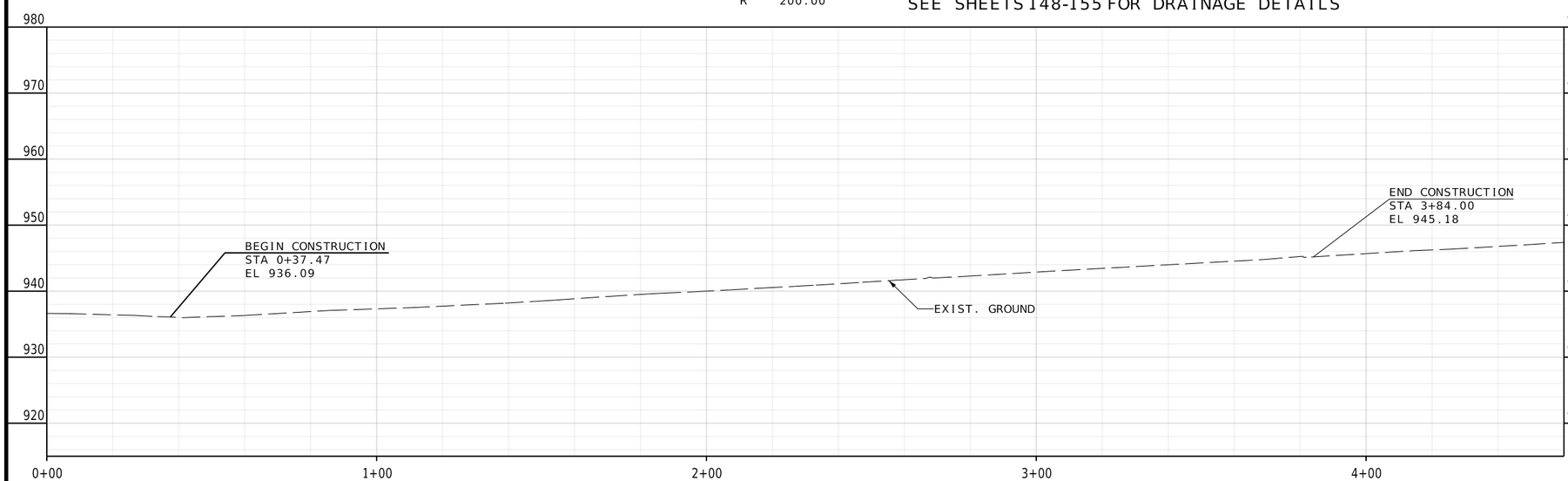
PI	1+85.47
PC	0+60.16
PT	2+84.05
Δ	64°8'21.0" (RT)
D	28°38'52.4"
L	223.89' (ARC)
T	125.31'
R	200.00'

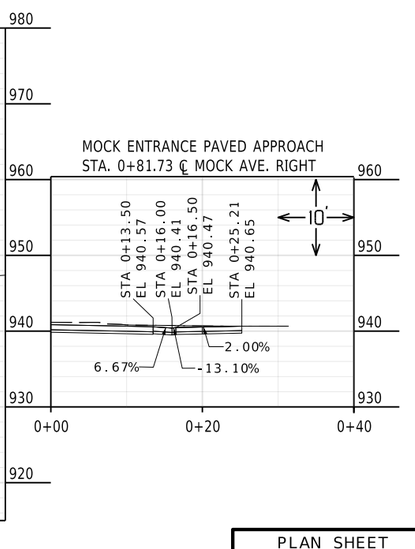
NOTE:

SEE SHEETS 21- 37 FOR RIGHT OF WAY DETAILS

SEE SHEETS 41 - 54 FOR DRIVEWAY DETAILS

SEE SHEETS 148-155 FOR DRAINAGE DETAILS





PLAN SHEET
SHEET 17 OF 17

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER MO# PE-2010019516

DATE PREPARED 10/2/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	20

COUNTY JACKSON

JOB NO. JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

SEE SHEETS NO. 4-20
FOR ROADWAY DETAILS

SCALE
0 20 40 60

EXIST. R/W

HINTON MICHAEL
NO ACQUISITION

EXIST. R/W

EXIST. R/W

EXIST. SIDEWALK EASEMENT

EXIST. R/W

S½ LOT 2
SW FRACTIONAL¼
31-49N-30W

02
QUIKTRIP CORP
11 SF PERM. ESM'T
345 SF TEMP. ESM'T.
2.66 ACRES REMAINING

EXIST. CROSS
ACCESS EASEMENT

EXIST. 7'
SIDEWALK EASEMENT

EXIST. 15'
SANITARY SEWER
EASEMENT

EXIST. 15'
LANDSCAPE EASEMENT

EXIST. R/W

EXIST. 10'
UTILITY
EASEMENT

¼¼ SECTION LINE

EXIST. R/W

SECTION LINE

℄ HWY_40

S87°34'55"E

+54.96
96.55'

+60.67
86.85'

+61.47
87.63'

+70.00
102.00'

TEMP. CONST.
ESM'T

+66.75
81.61'

+80.00
85.00'

PERM. SIDEWALK
ESM'T

+65.39
80.28'

+70.00
74.77'

STA. 0+25.16 ℄ (RTE_7_S)=
STA. 789+60.04 ℄ (HWY_40)

89°17'39"

88°48'35"

℄ RTE_7_S

S01°42'44"W

SECTION LINE

STA. 0+00.00 ℄ (RTE_7_N)=
STA. 0+00.00 ℄ (RTE_7_S)

BEGIN PROJECT
STA. 0+22.50 ℄ (RTE_7_N)

N01°13'47"E

℄ RTE_7_N

MATCHLINE STA. 3+10.00

1/2" REBAR AT THE WEST QUARTER CORNER OF SECTION 6-T48N-R30W
DOCUMENT NO. 600-92564, 2,968.17', N28°11'23"E
TO BEGINNING OF PROJECT

EXIST. PROJECT BEGINS AT A POINT APPROX. 2,616.11' NORTH &
1,402.14' EAST OF THE WEST QUARTER CORNER OF SECTION
CORNERS OF SECTION 6-T48N-R30W

790

+81.15
61.00'

EXIST. R/W

EXIST. 10'
SIDEWALK EASEMENT

TEMP. CONST.
EASEMENT

+25.00
61.00'

+25.00
50.00'

EXIST. R/W

EXIST. 15'
LANDSCAPE EASEMENT

EXIST. 35'
SEWER EASEMENT

01
HYVEE INC
1,487 SF TEMP. ESM'T.
8.86 ACRES REMAINING

SE1/4 SW 1/4
31-49N-30W

AKTK INVESTMENTS LLC
NO ACQUISITION

EXIST. R/W

EXIST. R/W

STATION AND OFFSETS FOR NEW R/W, PERMANENT EASEMENTS AND TEMPORARY EASEMENTS ARE FROM EXISTING ROUTE 7 CHAIN.

GENERAL NOTE:
THE APPROXIMATE LOCATION OF PROPERTY LINES 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 AND REPRESENTATION OR WARRANTY AS TO THE COMPLETENESS, ACCURACY, OR SUITABILITY OF THE INFORMATION FOR ANY USE.

NEW RIGHT OF WAY LIMITS FOR THIS PROJECT EXTEND FROM STA. 26+19.00 TO STA. 82+81.00 ROUTE 7, A DISTANCE OF 1.07 MILES. PERMANENT EASEMENTS FROM STA. 67+00.00 TO STA. 67+09.50 ROUTE 7, A DISTANCE OF 0.002 MILES. TEMPORARY CONSTRUCTION EASEMENTS FROM STA. 0+55.00 TO STA. 82+86.00 ROUTE 7, A DISTANCE OF 1.56 MILES.

ANY WORK INDICATED ON THE PLANS THAT EXTENDS BEYOND THE PROJECT LIMITS IS CONSIDERED INCIDENTAL TO AND A PART OF THE CONSTRUCTION OF THIS PROJECT.

ALL BEARINGS ARE BASE ON STATE PLANE BEARINGS, WEST ZONE.

RIGHT OF WAY
SHEET 1 OF 17

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
8/1/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	21

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

SEE SHEETS NO. 4-20
FOR ROADWAY DETAILS

VRE STORAGE BLUE
SPRINGS LLC
NO ACQUISITION

S½ LOT 2
SW FRACTIONAL¼
31-49N-30W

EXIST. 30'
ELECTRIC EASEMENT

SCALE
0 20 40 60

RR R/W

EXIST. 10'
UTILITY EASEMENT

EXIST. R/W

EXIST. 10'
UTILITY EASEMENT

EXIST. R/W

5

¼¼ SECTION LINE

MATCHLINE STA. 3+10.00

℄ RTE_7_N

N01°13'47"E

MATCHLINE STA. 8+50.00

RR R/W

EXIST. 50'
ELECTRIC EASEMENT

EXIST. R/W

EXIST. 20'
SEWER EASEMENT

EXIST. 15'
LANDSCAPE EASEMENT

EXIST. R/W

RR R/W

01
HYVEE INC
SEE SHEET 21

SE¼ SW¼
31-49N-30W

EXIST. 50'
ELECTRIC EASEMENT

KANSAS CITY
SOUTHERN RAILROAD
NO ACQUISITION

RIGHT OF WAY
SHEET 2 OF 17

REID BRENNEN CATT
NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
10/2/2025

ROUTE 7 | STATE MO
DISTRICT KC | SHEET NO. 22
COUNTY JACKSON
JOB NO. JKU0010
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DESCRIPTION | DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

SEE SHEETS NO. 4-20
FOR ROADWAY DETAILS

FOG B LLC
NO ACQUISITION

S½ LOT 2
SW FRACTIONAL¼
31-49N-30W

FOG B LLC
NO ACQUISITION

FOG B LLC
NO ACQUISITION

RIAZ & TRIVEDI LLC
NO ACQUISITION

SCALE
0 20 40 60

N½ LOT 2
SW FRACTIONAL¼
31-49N-30W

PROPERTY LINE
RR R/W

EXIST. R/W

10

¼¼ SECTION LINE

SW S AVE

EXIST. R/W

EXIST. R/W

EXIST. R/W

MATCHLINE STA. 8+50.00

MATCHLINE STA. 13+90.00

N01°13'47"E ℄ RTE_7_N

¼¼ SECTION LINE

EXIST. R/W

T R T

+70.00 50.00'
+70.00 64.00'

+23.09 50.00'
+22.78 64.00'

+60.00 50.00'
+60.00 64.00'

TEMP. CONST. ESM'T

EXIST. 15'
UTILITY EASEMENT

EXIST. 30'
INGRESS-EGRESS
EASEMENT

EXIST. R/W

EXIST. 15'
UTILITY
EASEMENT

EXIST.
R/W

SCOTT VICTOR ROBIN
& JANICE
NO ACQUISITION

SEE PLAN SHEETS FOR ROADWAY DETAILS.

03
THE SQUEAKY CLEAN
CAR WASH LLC

741 SF TEMP. ESM'T.
1.18 AC REMAINING

SE 1/4, SW 1/4
31-49N-30W

04
FICHMAN KENNETH B
& ROSE D-TR

519 SF TEMP. ESM'T.
1.06 AC REMAINING

NE 1/4, SW 1/4
31-49N-30W

RIGHT OF WAY
SHEET 3 OF 17

REID
BRENNEN CATT
NUMBER
PE-2010019516

REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
8/1/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	23

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

SEE SHEETS NO. 4-20
FOR ROADWAY DETAILS

PETER J FINK SR
FAMILY LIMITED PTP
NO ACQUISITION

STANLEY PACK POST 499
OF THE AMERICAN LEGION
NO ACQUISITION

N½ LOT 2
SW FRACTIONAL¼
31-49N-30W

GLORY CHRIST CROSS
TRANSPORTATION LLC
NO ACQUISITION

SCALE
0 20 40 60

15

EXIST. R/W

¼¼ SECTION LINE

MATCHLINE STA. 13+90.00

MATCHLINE STA. 19+30.00

N01°13'47"E

℄ RTE_7_N

EXIST. 15'
UTILITY EASEMENT

TEMP. CONST. ESM'T

+65.00 50.00'
+65.00 55.00'
+84.07 62.00'
+84.22 55.00'
+84.34 50.00'

TEMP. CONST. ESM'T

EXIST. 10'
UTILITY EASEMENT

+29.01 62.00'
+29.10 58.00'
+29.28 50.00'

TEMP. CONST. ESM'T

EXIST. 15'
UTILITY EASEMENT

EXIST. R/W

+63.01 50.00'
+62.84 58.00'
+88.88 58.00'
+89.05 50.00'

EXIST. 15'
UTILITY EASEMENT

EXIST.
INGRESS-
EGRESS
EASEMENT

05
ALDI INC
96 SF TEMP. ESM'T.
3.19 AC REMAINING

NE 1/4, SW 1/4
31-49N-30W

06
AUTO ZONE INC
1739 SF TEMP. ESM'T.
1.00 AC REMAINING

07
BURGE INVESTMENT
GROUP LLC
1070 SF TEMP. ESM'T.
0.41 AC REMAINING

08
FELDMAN DANIEL
W TRUSTEE
1809 SF TEMP. ESM'T.
6.22 AC REMAINING

09
QUARTER
KING
LLC
1600 SF TEMP. ESM'T.
0.62 AC REMAINING

RIGHT OF WAY
SHEET 4 OF 17

REID
BRENNEN CATT
NUMBER
PE-2010019516

REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
8/1/2025

ROUTE 7 | STATE MO
DISTRICT KC | SHEET NO. 24
COUNTY JACKSON
JOB NO. JKU0010
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DESCRIPTION | DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

SEE SHEETS NO. 4-20
FOR ROADWAY DETAILS

CONTEMPORARY HAIR DESIGN LLC
NO ACQUISITION

HUBERT HOMES LLC
NO ACQUISITION

MCNEW LELAND E
NO ACQUISITION

MCNEW LELAND E
NO ACQUISITION

N½ LOT 2
NW FRACTIONAL¼
31-49N-30W

EWAN JAMES E-TRUSTEE
NO ACQUISITION

SCALE
0 20 40 60

305 HWY 7
BLUE SPRINGS LLC
NO ACQUISITION

20

EXIST. R/W

MATCHLINE STA. 19+30.00

¼¼ SECTION LINE

℄ RTE_7_N N01°13'47"E

MATCHLINE STA. 24+70.00

EXIST. R/W

TEMP. CONST. ESM'T

+89.02
50.00'

+88.83
58.00'

EXIST. 15'
UTILITY EASEMENT

TEMP. CONST. ESM'T

+89.16
50.00'

+88.97
58.00'

TEMP. CONST. ESM'T

+43.16
50.00'

+42.97
58.00'

EXIST. 10'
UTILITY EASEMENT

09
QUARTER KING LLC
SEE SHEET 24

08
FELDMAN DANIEL W TRUSTEE
SEE SHEET 24

NE 1/4, SW 1/4
31-49N-30W

10
FELDMAN DANIEL W TRUSTEE
1232 SF TEMP. ESM'T.
0.68 AC REMAINING

11
MAHON
DIANA
SEE SHEET
26

RIGHT OF WAY
SHEET 5 OF 17

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
8/1/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	25

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

SEE SHEETS NO. 4-20
FOR ROADWAY DETAILS

N½ LOT 2
SW FRACTIONAL¼
31-49N-30W

(15)
AJ PARTNERSHIP LLC
200 SF NEW R/W
1140 SF TEMP. ESM'T.
0.47 AC REMAINING

RAMIREZ FAMILY PARTNERSHIP LTD
NO ACQUISITION

S½ LOT 2
NW FRACTIONAL¼
31-49N-30W

Q3 PROPERTIES LLC
NO ACQUISITION

SCALE
0 20 40 60

CP# 5009
STA. 28+28.89, 49.17' LT.
CHAIN (RTE_7_N)
EL. 947.49

TEMP. CONST. ESM'T
+26.00 144.00'
+32.31 144.00'
+16.00 125.00'
+30.77 74.00'
+16.00 54.00'
+16.00 50.00'
EXIST. R/W
℄ WALNUT_ST
PROP. R/W
CP# 5009
25
30
MATCHLINE STA. 24+70.00
MATCHLINE STA. 30+10.00
STA. 26+49.14 ℄ (RTE_7_N)=
STA. 2+63.52 ℄ (WALNUT_ST)
¼¼ SECTION LINE
N01°13'47"E ℄ RTE_7_N
88°44'2"
¼ SECTION LINE
+00.00 50.00'
+07.83 58.00'
+17.63 68.00'
+77.64 68.00'
+79.57 66.00'
+95.00 50.00'
+88.77 66.00'
+89.12 50.00'
+79.12 50.00'
+78.76 66.00'
P.S.
TEMP. CONST. ESM'T

(11)
MAHON
DIANA
162 SF NEW R/W
1287 SF TEMP. ESM'T.
0.56 AC REMAINING

NE 1/4, SW 1/4
31-49N-30W

S87°30'15"E ℄ WALNUT_ST

(12)
PHAN THUY HANG THI
153 SF NEW R/W
1627 SF TEMP. ESM'T.
0.37 AC REMAINING

SE 1/4, NW 1/4
31-49N-30W

(13)
MONDELLO ANGELO & ENZO
3040 SF TEMP. ESM'T.
0.70 AC REMAINING

(14)
SAMRANY
VICKY
DIANE
TRUST
SEE SHEET
10

STATION AND OFFSETS FOR NEW R/W, PERMANENT EASEMENTS AND TEMPORARY EASEMENTS ARE FROM EXISTING ROUTE 7 CHAIN.

RIGHT OF WAY
SHEET 6 OF 17

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
8/1/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	26

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET, IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

SEE SHEETS NO. 4-20
FOR ROADWAY DETAILS

℄ RTE_7_N
PI 31+29.38
PC 30+79.92
PT 31+78.84
Δ 0°59'25.5" (RT)
D 1°0'4.3"
L 98.92' (ARC)
T 49.46'
R 5,722.71'

S½ LOT 2
NW FRACTIONAL¼
31-49N-30W

S87°45'47"E

℄ MAIN_ST

20
MERCANTILE BANK OF KC
150 SF NEW R/W
330 SF TEMP. ESM'T.
1.81 AC REMAINING

SCALE
0 20 40 60

EXIST. R/W

+98.15
80.00'
+08.15
80.00'

PROP. R/W

TEMP.
CONST.
ESM'T

5

35

EXIST. R/W

+08.14
50.00'

90°1'1"

¼¼ SECTION LINE

PC STA 30+79.92 R2

PT STA 31+78.84 R2

MATCHLINE STA. 30+10.00

N01°13'47"E

EQUATION:
STA 30+70.90 BK =
STA 30+71.37 AH

STA. 32+63.13 ℄ (RTE_7_N)=
STA. 5+64.71 ℄ (MAIN_ST)

N02°13'13"E ℄ RTE_7_N

STA. 3+76.45 ℄ (LAKEVIEW_DR)=
STA. 34+84.04 ℄ (RTE_7_N)

90°2'26"

MATCHLINE STA. 35+50.00

S L R T

T L S L R T

T R L S L R T

T L S L R T

T L

00.05
90.69'
+68.64
66.00'
+68.39
75.58'

TEMP. CONST. ESM'T

+70.15
50.00'
+70.24
75.98'
+70.20
65.99'

+10.00
50.00'
+10.00
56.00'

+88.99
66.00'
+89.00
56.00'
+89.00
50.00'

EXIST. R/W

+09.00
50.00'
+09.00
59.00'

EXIST.
R/W

TEMP.
CONST.
ESM'T

HUBER JUDY YVONNE
NO ACQUISITION

℄ LAKEVIEW_DR

N87°44'21"W

14
SAMRANY VICKY
DIANE TRUST
1439 SF TEMP. ESM'T.
0.29 AC REMAINING

16
104 SW STATE ROUTE 7 LLC
2593 SF TEMP. ESM'T.
0.67 AC REMAINING

17
RHC ASSOCIATES
474 SF NEW R/W
1426 SF TEMP. ESM'T.
0.78 AC REMAINING

SE 1/4, NW 1/4
31-49N-30W

19
HEALTH
PLAZA LLC
SEE SHEET 11

STATION AND OFFSETS FOR NEW R/W, PERMANENT EASEMENTS AND
TEMPORARY EASEMENTS ARE FROM EXISTING ROUTE 7 CHAIN

RIGHT OF WAY
SHEET 7 OF 17

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
8/1/2025

ROUTE 7 | STATE MO
DISTRICT KC | SHEET NO. 27
COUNTY JACKSON
JOB NO. JKU0010
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DESCRIPTION | DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

SEE SHEETS NO. 4-20
FOR ROADWAY DETAILS

(20)
MERCANTILE BANK OF KC
SEE SHEET 10

(25)
SDI JLI LTD PTP
94 SF NEW R/W
1140 SF TEMP. ESM'T.
0.49 AC REMAINING

S½ LOT 2
NW FRACTIONAL¼
31-49N-30W

(26)
MMPF III KC VISION
PORTFOLIO LLC
493 SF NEW R/W
809 SF TEMP. ESM'T.
1.51 AC REMAINING

N½ LOT 2
NW FRACTIONAL¼
31-49N-30W

SCALE
0 20 40 60

MATCHLINE STA. 35+50.00

MATCHLINE STA. 40+90.00

EXIST. R/W

℄ SUMMIT_ST

S87°27'28"E

EXIST. R/W

¼¼ SECTION LINE

EXIST. DRIVEWAY EASEMENT

EXIST. 15' LANDSCAPE EASEMENT

EXIST. 15' UTILITY EASEMENT

EXIST. VISIBILITY TRIANGLE EASEMENT

EXIST. 10' STORM SEWER EASEMENT

EXIST. R/W

TEMP. CONST. ESM'T

NEW R/W

TEMP. CONST. ESM'T

TEMP. CONST. ESM'T

EXIST. R/W

EXIST. R/W

EXIST. R/W

PROP. R/W

89°40'40"

STA. 37+24.15 ℄ (RTE_7_N)=
STA. 4+88.32 ℄ (SUMMIT_ST)

N02°13'13"E ℄ RTE_7_N

11°55'45"

℄ VESPER_AVE_E
N70°17'28"E

TEMP. CONST. ESM'T

EXIST. R/W

EXIST. R/W
TEMP. CONST. ESM'T

EXIST. R/W

EXIST. 35' INGRESS-EGRESS EASEMENT

EXIST. 35' INGRESS-EGRESS EASEMENT

EXIST. R/W

PROM MOTOR HOTEL INC
NO ACQUISITION

(19)
HEALTH PLAZA LLC
1530 SF TEMP. ESM'T.
1.13 AC REMAINING

(21)
KCE REALTY GROUP LLC
879 SF TEMP. ESM'T.
0.35 AC REMAINING

(22)
JTR LLC
158 SF TEMP. ESM'T.
0.73 AC REMAINING

SE¼ NW¼
31-49N-30W

(24)
ZARDA DEVELOPMENT CO
885 SF TEMP. ESM'T.
1.32 AC REMAINING

NE¼, NW¼
31-49N-30W

STATION AND OFFSETS FOR NEW R/W, PERMANENT EASEMENTS AND TEMPORARY EASEMENTS ARE FROM EXISTING ROUTE 7 CHAIN.

RIGHT OF WAY
SHEET 8 OF 17

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
8/1/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	28

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

SEE SHEETS NO. 4-20
FOR ROADWAY DETAILS

UNITED MISSOURI CITY BANK
NO ACQUISITION

N½ LOT 2
NW FRACTIONAL¼
31-49N-30W

SHOW ME COMMERCIAL
LAND DEV ENT LLC
NO ACQUISITION

SCALE
0 20 40 60

℄ VESPER_AVE_W

S87°27'11"E

S87°27'04"E

℄ ZAUN_AVE

5

45

EXIST. 5'
UTILITY EASEMENT

EXIST. R/W

EXIST. R/W

EXIST. R/W

MATCHLINE STA. 40+90.00

MATCHLINE STA. 46+30

89°40'24"

89°40'16"

¼¼ SECTION LINE

STA. 3+66.72 ℄ (ZAUN_AVE)=
STA. 44+27.01 ℄ (RTE_7_N)

N02°13'13"E

℄ RTE_7_N

STA. 6+09.06 ℄ (VESPER_AVE_W)=
STA. 41+00.00 ℄ (RTE_7_N)

+34.50
50.00'

PROP. R/W

TEMP. CONST. ESM'T

TEMP. CONST. ESM'T

+22.73
70.00'

+30.00
69.00'

+34.50
65.00'

+39.00
70.00'

+39.00
58.00'

+55.58
50.00'

+55.58
58.00'

+28.00
50.00'

+28.00
58.00'

+04.64
50.00'

+04.64
58.00'

EXIST. 15'
LIGHTING EASEMENT

EXIST. 15'
SEWER EASEMENT

EXIST. 24'
ACCESS EASEMENT

EXIST. 30' INGRESS-
EGRESS EASEMENT

℄ VESPER_AVE_E
N70°17'28"E

EXIST.
R/W

(27)
BFS RETAIL & COMMERCIAL
OPERATIONS LLC
68 SF NEW R/W
1045 SF TEMP. ESM'T.
0.49 AC REMAINING

WENDY OLD FASHIONED
HAMBURGER
NO ACQUISITION

NE 1/4, NW 1/4
31-49N-30W

(29)
NORTHRIDGE
ENTERPRISE LLC
NO ACQUISITION

(30)
SKJD LLC
613 SF TEMP. ESM'T.
0.41 AC REMAINING

STATION AND OFFSETS FOR NEW R/W, PERMANENT EASEMENTS AND
TEMPORARY EASEMENTS ARE FROM EXISTING ROUTE 7 CHAIN.

RIGHT OF WAY
SHEET 9 OF 17

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
10/2/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	29

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

SEE SHEETS NO. 4-20
FOR ROADWAY DETAILS

PBJ REALTY LLC
NO ACQUISITION

COMMERCE BANK OF KANSAS CITY
NO ACQUISITION

N½ LOT 2
NW FRACTIONAL¼
31-49N-30W

NORTH WEST 7 LLC
NO ACQUISITION

SCALE
0 20 40 60

BANK
JACOMO
NO ACQUISITION

℄ B_ST

S87°26'08"E

EXIST. R/W

EXIST. R/W

50

MATCHLINE STA. 46+30.00

MATCHLINE STA. 51+70.00

90°23'39"

¼¼ SECTION LINE

N02°13'13"E

℄ RTE_7_N

STA. 47+76.36 ℄ (RTE_7_N)=
STA. 4+20.08 ℄ (B_ST)

EXIST. R/W

TEMP. CONST. ESM'T

TEMP. CONST. ESM'T

TEMP. CONST. ESM'T

+55.35
58.00'
+55.36
50.00'

+70.00
58.00'
+70.00
66.00'

+30.01
66.00'

+30.03
62.00'
+30.09
50.00'

BLUE SPRINGS FIRST LLC
NO ACQUISITION

NE½, NW½
31-49N-30W

(32)
27B PROPERTIES, LLC

1878 SF TEMP. ESM'T.
0.80 AC REMAINING

(33)
ROTTINGHAUS
REAL ESTATE
LLC
SEE SHEET 31

RIGHT OF WAY
SHEET 10 OF 17

REID BRENNEN CATT
NUMBER
PE-2010019516

REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
8/1/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	30

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

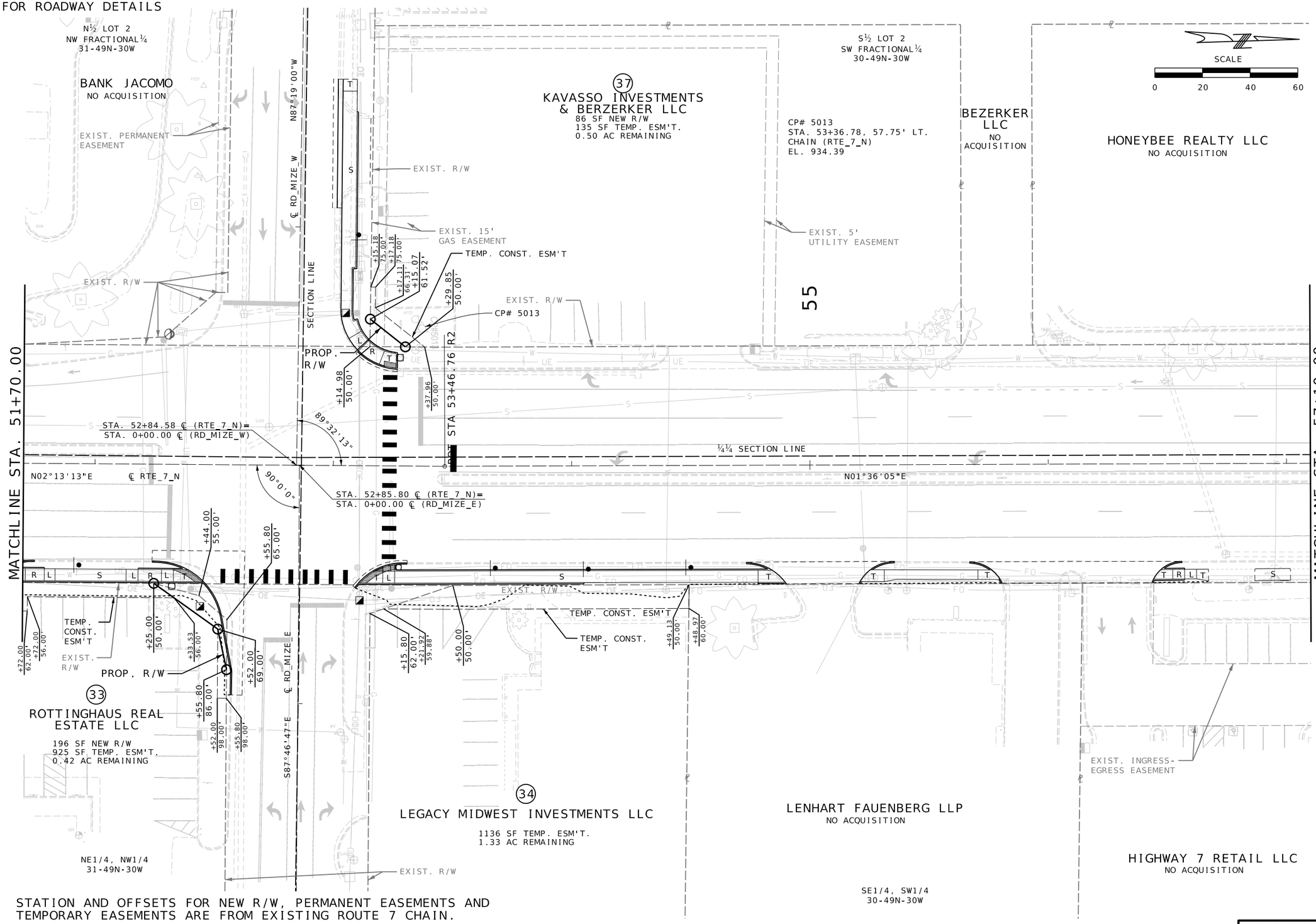
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

SEE SHEETS NO. 4-20
FOR ROADWAY DETAILS



STATION AND OFFSETS FOR NEW R/W, PERMANENT EASEMENTS AND TEMPORARY EASEMENTS ARE FROM EXISTING ROUTE 7 CHAIN.

RIGHT OF WAY
SHEET 11 OF 17

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED 8/1/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	31

COUNTY: JACKSON
JOB NO.: JKU0010
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.:

DESCRIPTION | DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

SEE SHEETS NO. 4-20
FOR ROADWAY DETAILS

HONEYBEE REALTY LLC
SEE SHEET 14

S½ LOT 2
SW FRACTIONAL¼
30-49N-30W

EXIST. INGRESS/EGRESS AND CROSS EASEMENT

BEZERKER LLC
SEE SHEET 14

EXIST. ACCESS EASEMENT

EXIST. 4.5' WATER LINE EASEMENT

EXIST. 10' UTILITY EASEMENT

EXIST. R/W

EXIST. INGRESS/EGRESS AND CROSS EASEMENT

60

℄ HEARNES_AVE

N88°27'17"W

SCALE
0 20 40 60

CLARK JAMES & CHRISTINE
NO ACQUISITION

EXIST. R/W

MATCHLINE STA. 57+10.00

89°56'38"

¼¼ SECTION LINE

℄ RTE_7_N

N01°36'05"E

STA. 61+35.52 ℄ (RTE_7_N)=
STA. 0+00.00 ℄ (HEARNS_AVE)

MATCHLINE STA. 62+50.00

S

T L R T

T R S R T

T R T S T R T

T R T

EXIST. R/W

EXIST. INGRESS-EGRESS EASEMENT

HIGHWAY 7 RETAIL LLC
NO ACQUISITION

PRB HOLDINGS LLC
NO ACQUISITION

SE1/4, SW1/4
30-49N-30W

SEE PLAN SHEETS FOR ROADWAY DETAILS.

RIGHT OF WAY
SHEET 12 OF 17

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
8/1/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	32

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

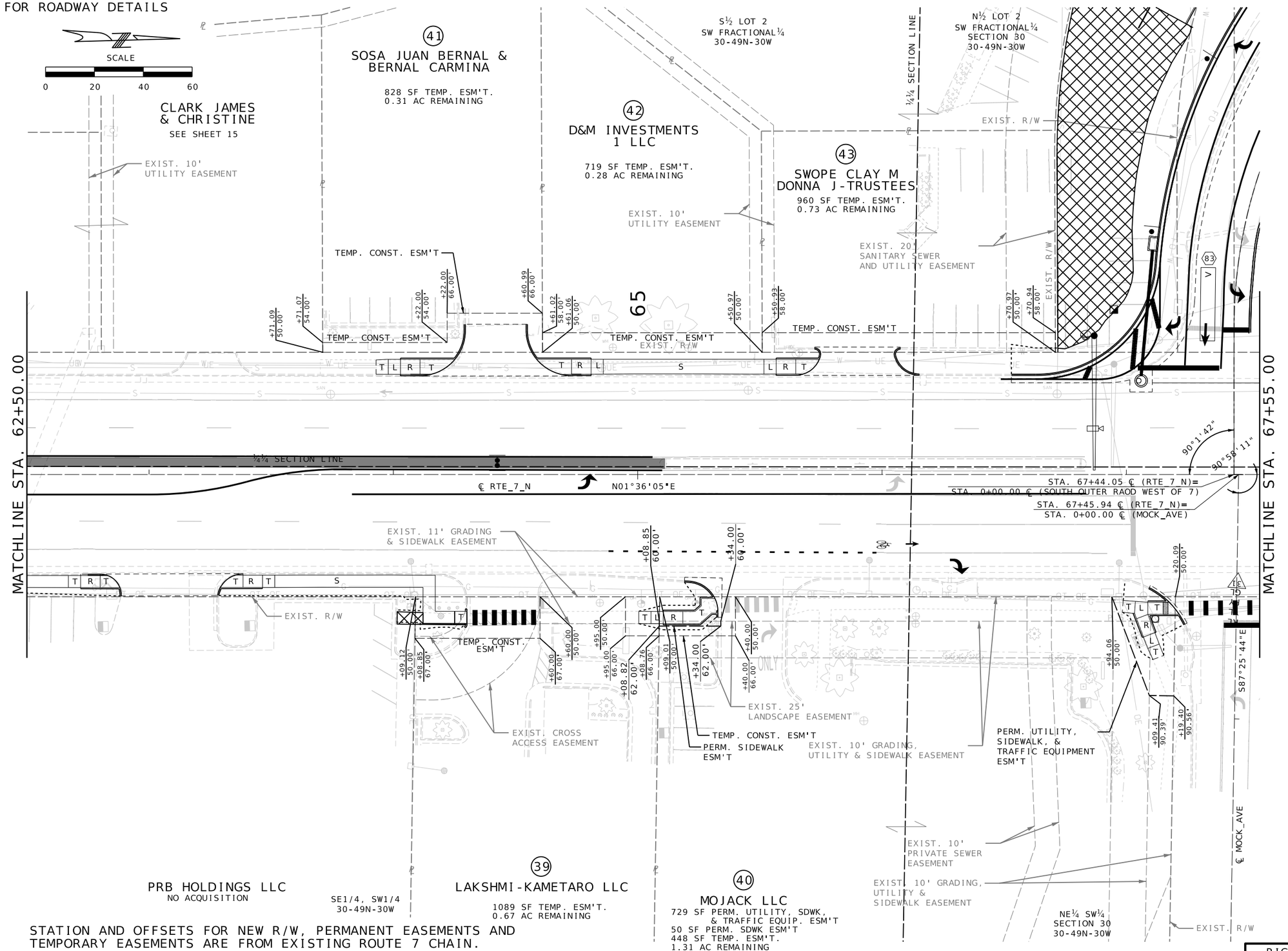
DATE	DESCRIPTION

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

SEE SHEETS NO. 4-20
FOR ROADWAY DETAILS



STATION AND OFFSETS FOR NEW R/W, PERMANENT EASEMENTS AND TEMPORARY EASEMENTS ARE FROM EXISTING ROUTE 7 CHAIN.

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
8/1/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	33

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

SEE SHEETS NO. 4-20
FOR ROADWAY DETAILS

SOUTH OUTER ROAD

EXIST. R/W

EX. C&G

METCALF 91 BLB LLC
NO ACQUISITION

N½ LOT 2
SW FRACTIONAL¼
30-49N-30W

KK USA LLC
NO ACQUISITION

SCALE
0 20 40 60

EXIST. 15'
STORM SEWER
EASEMENT

EXIST. 10'
UTILITY EASEMENT

BLUE CREEK
CAPITAL LLC
NO ACQUISITION

EXIST. UTILITY
EASEMENT

EXIST. R/W

EXIST. 15'
WATER EASEMENT

EXIST. 15'
SANITARY SEWER
EASEMENT

EXIST. 10'
UTILITY
EASEMENT

EXIST. R/W

70

MATCHLINE STA. 67+55.00

MATCHLINE STA. 72+95.00

¼¼ SECTION LINE

℄ RTE_7_N

N01°36'05"E

+79.72
50.00'

R 20.00'

+74.75
62.84'

+74.45
79.84'

+80.59
79.94'

+84.00
80.00'

+88.00
58.00'

+20.00
50.00'

+67.00
60.00'

+19.16
50.00'

+19.00
60.00'

+05.06
60.00'

+05.25
50.00'

+68.00
50.00'

+68.00
60.00'

+87.00
50.00'

+81.00
53.00'

+23.80
53.00'

+23.81
50.00'

NEW R/W

TEMP. CONST. ESM'T

TEMP. CONST. ESM'T

TEMP. CONST. ESM'T

EXIST. 15'
LANDSCAPE EASEMENT

EXIST. R/W

EXIST. R/W

EXIST. 15' GRADING,
CONSTRUCTION, LANDSCAPE
AND SIDEWALK EASEMENT

EXIST. DETENTION
BASIN EASEMENT

EXIST. 25'
ACCESS EASEMENT

EXIST. 25'
ACCESS EASEMENT

EXIST. 15'
UTILITY
EASEMENT

(44)
MCDONALDS REAL ESTATE
CO OF COLUMBIA MD

425 SF NEW R/W
2014 SF TEMP. ESM'T.
1.32 AC REMAINING

(45)
MOCK PLAZA LLC

861 SF TEMP. ESM'T.
3.71 AC REMAINING

NE¼ SW¼
30-49N-30W

(46)
TRB BLUE SPRINGS LLC

810 SF TEMP. ESM'T.
0.71 AC REMAINING

PAULMIKE REALTY
CO LLC
NO ACQUISITION

STATION AND OFFSETS FOR NEW R/W, PERMANENT EASEMENTS AND
TEMPORARY EASEMENTS ARE FROM EXISTING ROUTE 7 CHAIN.

RIGHT OF WAY
SHEET 14 OF 17

REID
BRENNEN CATT
NUMBER
PE-2010019516

REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
8/1/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	34

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

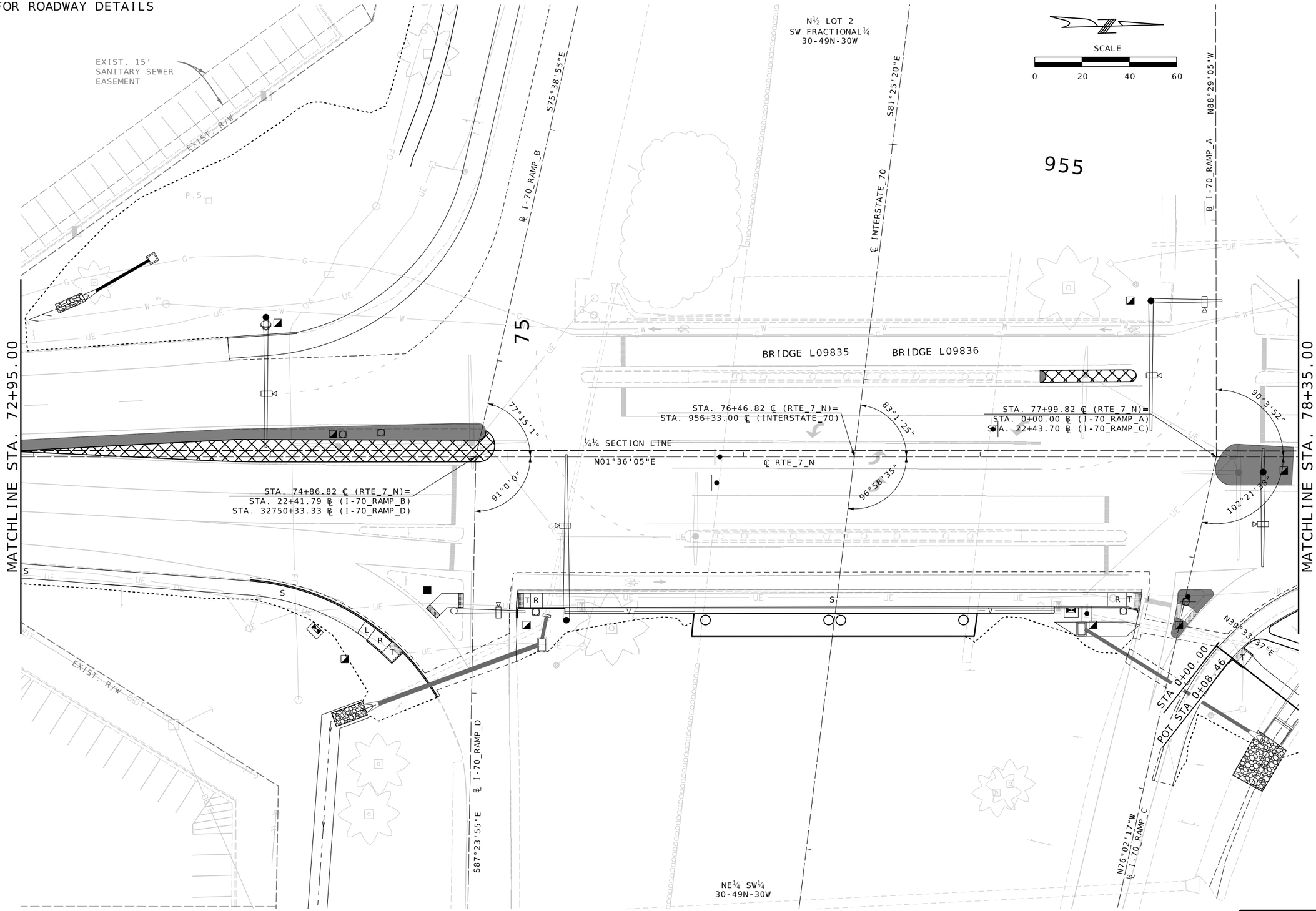
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

SEE SHEETS NO. 4-20
FOR ROADWAY DETAILS



RIGHT OF WAY
SHEET 15 OF 17

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
8/1/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	35

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

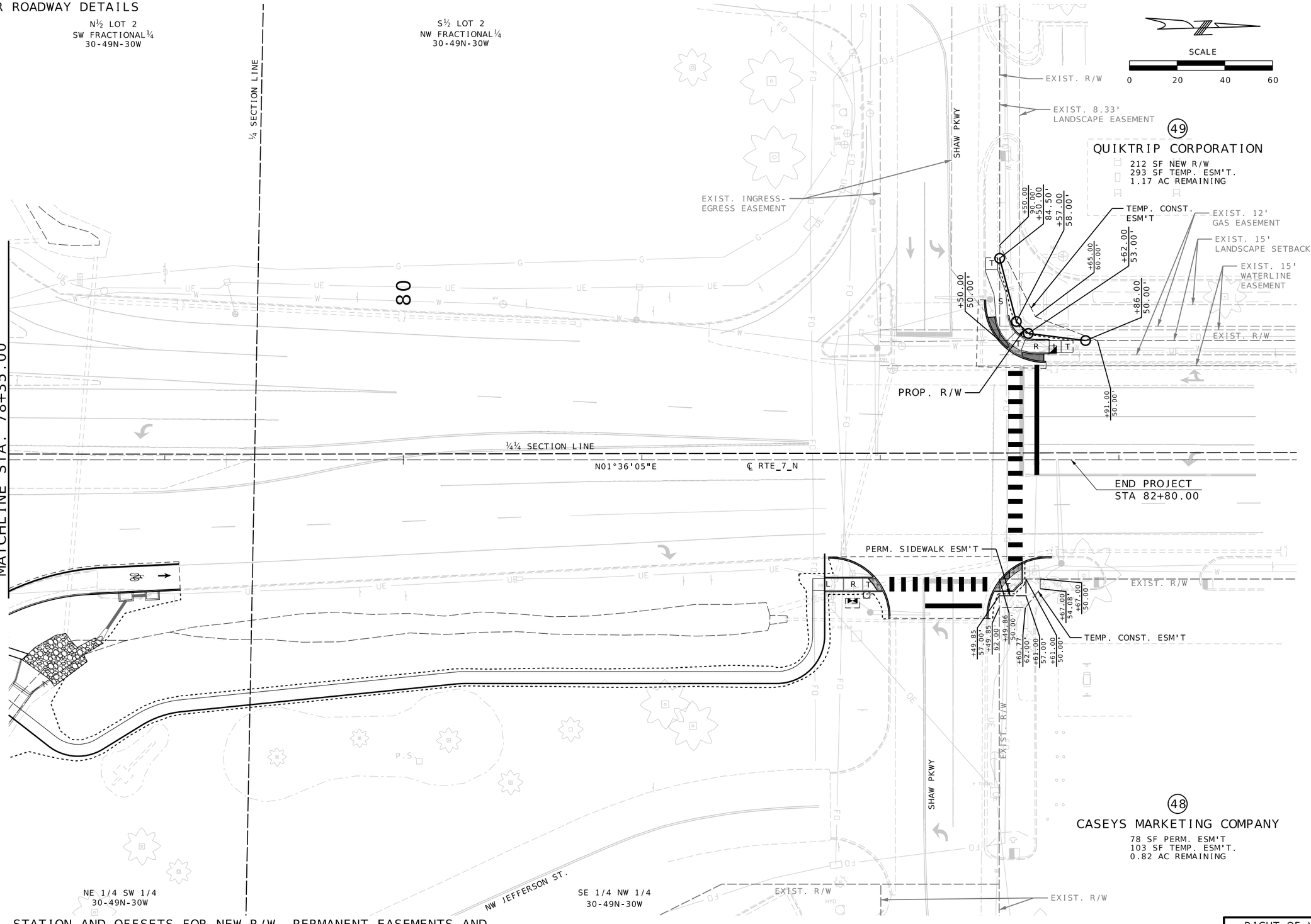
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

SEE SHEETS NO. 4-20
FOR ROADWAY DETAILS



STATION AND OFFSETS FOR NEW R/W, PERMANENT EASEMENTS AND TEMPORARY EASEMENTS ARE FROM EXISTING ROUTE 7 CHAIN.

RIGHT OF WAY
SHEET 16 OF 17

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
8/1/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	36

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

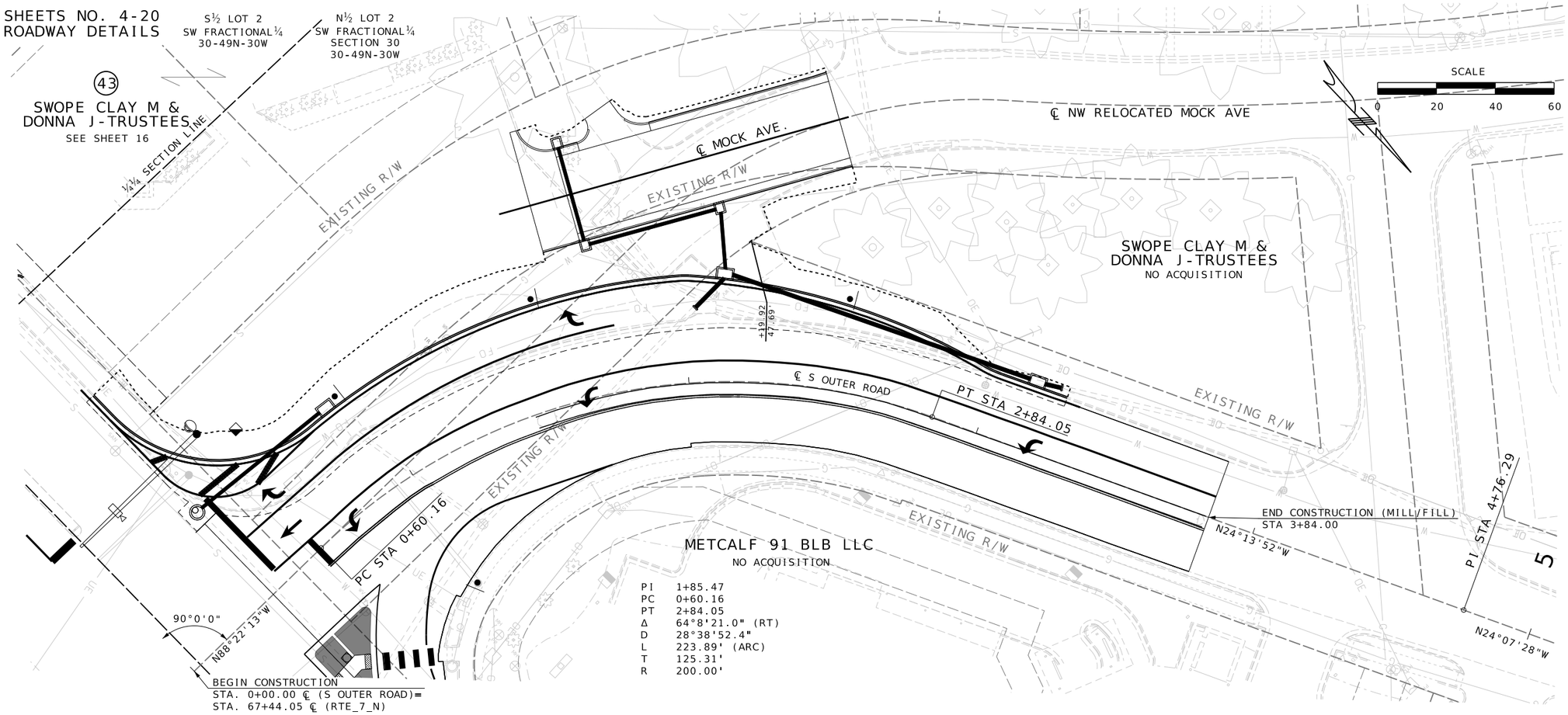
DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

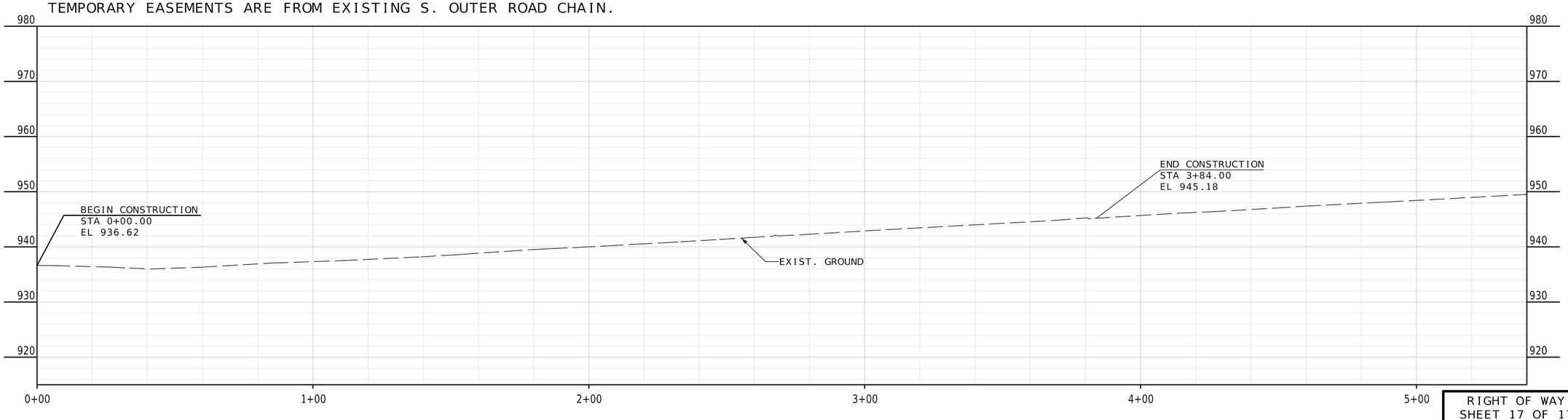
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

SEE SHEETS NO. 4-20
FOR ROADWAY DETAILS



STATION AND OFFSETS FOR NEW R/W, PERMANENT EASEMENTS AND TEMPORARY EASEMENTS ARE FROM EXISTING S. OUTER ROAD CHAIN.



RIGHT OF WAY
SHEET 17 OF 17

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
10/2/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	37

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

ALL PROJECT COORDINATES HAVE BEEN PROJECTED FROM THE MISSOURI STATE PLANE COORDINATE (SPC) SYSTEM OF 1983 USING AN AVERAGE PROJECT PROJECTION (GRID TO GROUND) FACTOR. TO GET BACK TO STATE PLANE COORDINATES, MULTIPY THE PROJECT COORDINATES BY THE AVERAGE GRID FACTOR AS SHOWN IN THE "REFERENCE CONTROL INFORMATION" PORTION OF THIS TABLE.

PROJECT COORDINATE INFORMATION

COORDINATE SYSTEM	STATE PLANE, MISSOURI WEST
HORIZONTAL DATUM	NAD 1983
VERTICAL DATUM	NAVD 1988
GEOID MODEL	JACKSON COUNTY
ELEVATIONS DETERMINED BY	GPS OBSERVATIONS
PROJECT PROJECTION FACTOR	1.00009161

REFERENCE CONTROL INFORMATION

COORDINATE SYSTEM	NAD 1983
CONTROL STATION	JA140
DESIGNATION	JA140
CORS_ID	
PID	95140
LATITUDE	39°01'38.76519"
LONGITUDE	94°14'41.81026"
NORTHING (M)	317525.857
EASTING (M)	872084.48
ZONE	WEST
PROJECT AVERAGE GRID FACTOR	0.99990840

EXAMPLE OF PROJECT COORDINATE TO S.P.C.

PROJECT NORTHING X AVERAGE GRID FACTOR
= STATE PLANE NORTHING
PROJECT EASTING X AVERAGE GRID FACTOR
= STATE PLANE EASTING

EXAMPLE: CONTROL POINT #5005
N 1035387.37 X 0.99990840 = N 1035292.53
E 2854734.11 X 0.99990840 = E 2854472.62

LINEAR UNIT CONVERSION

1 METER = 3.280833333 US SURVEY FEET (USFT)

COORDINATE POINT LISTING

SHEET NO	STATION	LOCATION	OFFSET (USFT)	MODIFIED STATE PLANE (GROUND) NORTHING (US SURVEY FT)	EASTING (US SURVEY FT)	ELEVATION (US SURVEY FT)	DESCRIPTION	GPK POINT ID
PROJECT CONTROL POINTS								
—	801+60.68	RTE 40	-98.9	1,035,387.37	2,854,734.41	917.14	CP#5005 - SET 1/2" REBAR W/ CONTROL POINT CAP	
9	28+28.89	RTE 7	-49.17'	1,038,030.46	2,853,594.69	947.49	CP#5009 - SET 1/2" REBAR W/ CONTROL POINT CAP	
14	53+36.78	RTE 7	-57.75	1,040,537.36	2,853,678.09	934.39	CP#5013 - SET 1/2" REBAR W/ CONTROL POINT CAP	
—	86+34.29	RTE 7	46.47	1,043,830.04	2,853,874.51	984.49	CP#5017 - SET 1/2" REBAR W/ CONTROL POINT CAP	
ALIGNMENTS								
RTE_7_S								
	0+00.00	℄		1,035,201.1664	2,853,583.1354		BEGIN ALIGNMENT RTE_7_S	
	8+50.00	℄		1,034,351.5459	2,853,557.7375		END ALIGNMENT RTE_7_S	
HWY_40								
	780+00.00	℄		1,035,216.5204	2,852,623.2017		BEGIN ALIGNMENT HWY_40	
	792+73.06	℄		1,035,162.8114	2,853,895.1237		PC POINT	
	801+34.85	LT	155.16	1,035,126.4531	2,854,756.1500		PI POINT Δ = 40°49'34.91" LT	
				1,037,476.4120	2,853,992.8194		CC POINT	
	809+23.09	℄		1,035,661.8532	2,855,431.4537		PT POINT	
	813+92.56	℄		1,035,953.5154	2,855,799.3291		END ALIGNMENT HWY_40	
RTE_7_N								
	0+00.00	℄		1,035,201.1664	2,853,583.1354		BEGIN ALIGNMENT RTE_7_N	
	30+70.90	℄		1,038,271.3591	2,853,649.0398		STATION EQUATION BK	
	30+71.35	℄		1,038,271.3591	2,853,649.0398		STATION EQUATION AH	
	30+79.92	℄		1,038,279.9232	2,853,649.2236		PC POINT	
	31+29.38	RT	0.214	1,038,329.3750	2,853,650.2852		PI POINT Δ = 0°59'25.54" RT	
				1,038,157.1085	2,859,370.6121		CC POINT	
	31+78.84	℄		1,038,378.8011	2,853,652.2013		PT POINT	
	53+46.76	℄		1,040,545.0965	2,853,736.1847		PI POINT Δ = 0°37'7.33" LT	
	88+00.00	℄		1,043,996.9850	2,853,832.6915		END ALIGNMENT RTE_7_N	
SOUTH OUTER ROAD WEST OF 7								
	0+00.00	℄		1,041,941.8380	2,853,775.2344		BEGIN ALIGNMENT SOUTH OF OUTER ROAD WEST OF 7	
	0+60.16	℄		1,041,943.5491	2,853,715.0978		PC POINT	
	1+85.47	RT	36.02	1,041,947.1132	2,853,589.8366		PI POINT Δ = 64°8'21" RT	
				1,042,143.4682	2,853,720.7862		CC POINT	
	2+84.05	℄		1,042,061.3849	2,853,538.4066		PT POINT	
	4+76.29	℄		1,042,236.6912	2,853,459.5068		PI POINT Δ = 0°6'23.95" LT	
	5+14.57	℄		1,042,271.6216	2,853,443.8639		PC POINT	
	5+80.38	LT	6.60	1,042,331.5442	2,853,416.6372		PI POINT Δ = 22°53'43.86" LT	
				1,042,137.1708	2,853,147.9543		CC POINT	
	6+44.45	℄		1,042,376.1532	2,853,368.2425		PT POINT	
	7+00.00	℄		1,042,413.8064	2,853,327.3940		END ALIGNMENT SOUTH OF OUTER ROAD WEST OF 7	
INTERSTATE_70								
	943+50.00	℄		1,043,035.6190	2,852,531.8155		BEGIN ALIGNMENT INTERSTATE_70	
	968+00.00	℄		1,042,670.1916	2,854,954.4097		END ALIGNMENT INTERSTATE_70	
I-70_RAMP_A								
	0+00.00	℄		1,042,997.1946	2,853,804.7397		BEGIN ALIGNMENT I-70_RAMP_A	
	6+58.81	℄		1,043,014.6164	2,853,146.1601		PC POINT	
	7+77.06	RT	3.657	1,043,017.7435	2,853,027.9507		PI POINT Δ = 7°5'10" RT	
				1,044,923.7779	2,853,196.6644		CC POINT	
	8+95.01	℄		1,043,035.4291	2,852,911.0299		PT POINT	
	12+98.01	℄		1,043,095.7019	2,852,512.5626		END ALIGNMENT I-70_RAMP_A	
I-70_RAMP_B								
	7+00.64	℄		1,043,015.7025	2,852,292.5628		BEGIN ALIGNMENT I-70_RAMP_B	
	11+00.64	℄		1,042,955.8784	2,852,688.0638		PC POINT	
	12+15.79	RT	2.891	1,042,938.6570	2,852,801.9159		PI POINT Δ = 5°45'8.95" RT	
				1,040,689.8104	2,852,345.2943		CC POINT	
	13+30.74	℄		1,042,910.1107	2,852,913.4685		PT POINT	
	22+41.79	℄		1,042,684.3167	2,853,795.9924		END ALIGNMENT I-70_RAMP_B	

COORDINATE POINT SHEET
SHEET 1 OF 3

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED: 10/2/2025
ROUTE: 7 | STATE: MO
DISTRICT: KC | SHEET NO.: 38
COUNTY: JACKSON
JOB NO.: JKU0010
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.:

DESCRIPTION | DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

ALL PROJECT COORDINATES HAVE BEEN PROJECTED FROM THE MISSOURI STATE PLANE COORDINATE (SPC) SYSTEM OF 1983 USING AN AVERAGE PROJECT PROJECTION (GRID TO GROUND) FACTOR. TO GET BACK TO STATE PLANE COORDINATES, MULTIPY THE PROJECT COORDINATES BY THE AVERAGE GRID FACTOR AS SHOWN IN THE "REFERENCE CONTROL INFORMATION" PORTION OF THIS TABLE.

PROJECT COORDINATE INFORMATION

COORDINATE SYSTEM	STATE PLANE, MISSOURI WEST
HORIZONTAL DATUM	NAD 1983
VERTICAL DATUM	NAVD 1988
GEOID MODEL	JACKSON COUNTY
ELEVATIONS DETERMINED BY	GPS OBSERVATIONS
PROJECT PROJECTION FACTOR	1.00009161

REFERENCE CONTROL INFORMATION

COORDINATE SYSTEM	NAD 1983
CONTROL STATION	JA140
DESIGNATION	JA140
CORS_ID	
PID	95140
LATITUDE	39°01'38.76519"
LONGITUDE	94°14'41.81026"
NORTHING (M)	317525.857
EASTING (M)	872084.48
ZONE	WEST
PROJECT AVERAGE GRID FACTOR	0.99990840

EXAMPLE OF PROJECT COORDINATE TO S.P.C.

PROJECT NORTHING X AVERAGE GRID FACTOR
= STATE PLANE NORTHING
PROJECT EASTING X AVERAGE GRID FACTOR
= STATE PLANE EASTING

EXAMPLE: CONTROL POINT #5005
N 1035387.37 X 0.99990840 = N 1035292.53
E 2854734.11 X 0.99990840 = E 2854472.62

LINEAR UNIT CONVERSION

1 METER = 3.280833333 US SURVEY FEET (USFT)

COORDINATE POINT LISTING

SHEET NO	STATION	LOCATION	OFFSET (USFT)	MODIFIED STATE PLANE (GROUND) NORTHING (US SURVEY FT)	EASTING (US SURVEY FT)	ELEVATION (US SURVEY FT)	DESCRIPTION	GPK POINT ID
ALIGNMENTS								
I-70_RAMP_C								
	11+10.62	℄		1,042,733.5990	2,854,906.4563		BEGIN ALIGNMENT I-70_RAMP_C	
	12+17.90	RT	2.51	1,042,749.6436	2,854,800.3846		PI POINT Δ = 5°21'40" RT	
				1,044,999.1834	2,855,249.1520		CC POINT	
	13+25.02	℄		1,042,775.5285	2,854,696.2760		PT POINT	
	22+43.70	℄		1,042,997.1842	2,853,804.7394		END ALIGNMENT I-70_RAMP_C	
I-70_RAMP_D								
	0+00.00	℄		1,042,684.3167	2,853,795.9924		BEGIN ALIGNMENT I-70_RAMP_D	
	8+83.43	℄		1,042,644.2195	2,854,678.5101		PC POINT	
	9+83.52	RT	2.621	1,042,639.6766	2,854,778.4984		PI POINT Δ = 6°0'0" RT	
				1,040,736.3285	2,854,591.8252		CC POINT	
	10+83.43	℄		1,042,624.7069	2,854,877.4641		END ALIGNMENT I-70_RAMP_D	
MOCK_AVE_CL								
	0+00.00	℄		1,041,969.9404	2,853,485.0783		BEGIN ALIGNMENT MOCK_AVE_CL	
	1+23.32	℄		1,041,907.8240	2,853,591.6169		END ALIGNMENT MOCK_AVE_CL	
SDWK_TRAIL_BL								
	0+00.00	℄		1,042,994.9271	2,853,884.6272		BEGIN ALIGNMENT SDWK_TRAIL_BL	
	0+8.46	℄		1,043,001.4470	2,853,890.0134		PI POINT	
	0+65.30	℄		1,043,045.2707	2,853,926.2164		PC POINT	
	0+79.21	RT	4.360	1,043,055.9932	2,853,935.0743		PI POINT Δ = 69°37'46.93" LT	
				1,043,058.0085	2,853,910.7973		CC POINT	
	0+89.61	℄		1,043,068.0295	2,853,928.1057		PT POINT	
	1+08.62	℄		1,043,084.4854	2,853,918.5782		PC POINT	
	1+17.82	LT	1.044	1,043,092.4478	2,853,913.9683		PI POINT Δ = 25°54'25.36" RT	
				1,043,104.5274	2,853,953.1950		CC POINT	
	1+26.71	℄		1,043,101.6241	2,853,913.3005		PT POINT	
	2+42.17	℄		1,043,216.7819	2,853,904.9198		PC POINT	
	2+44.18	LT	0.051	1,043,218.7903	2,853,904.7737		PI POINT Δ = 5°45'49.77" RT	
				1,043,219.6853	2,853,944.8143		CC POINT	
	2+46.19	℄		1,043,220.8031	2,853,904.8299		PT POINT	
	3+76.68	℄		1,043,351.2430	2,853,908.4767		PC POINT	
	3+96.69	LT	8.290	1,043,371.2428	2,853,909.0359		PI POINT Δ = 90°1'17.82" LT	
				1,043,351.8019	2,853,888.4844		CC POINT	
	4+08.11	℄		1,043,371.7944	2,853,889.0358		PT POINT	
	4+42.60	℄		1,043,372.7454	2,853,854.5552		END ALIGNMENT SDWK_TRAIL_BL	
NW RELOCATED MOCK AVE								
	0+60.16			1,041,943.5491	2,853,715.0978		BEGIN ALIGNMENT NW RELOCATED MOCK AVE	
	2+13.05			1,041,947.8976	2,853,562.2715		PC POINT	
	2+84.92			1,041,949.9418	2,853,490.4277		PI POINT Δ = 47°44'14.83" RT	
				1,042,110.2616	2,853,566.8914		CC POINT	
	3+48.38			1,042,004.4861	2,853,443.6235		PRC POINT	
	4+40.56			1,042,074.4410	2,853,383.5956		PI POINT Δ = 11°2'24.40" LT	
				1,041,383.3514	2,852,719.7699		CC POINT	
	5+32.17			1,042,131.6062	2,853,311.2825		PT POINT	
	6+00.00			1,042,173.6733	2,853,258.0682		END ALIGNMENT NW RELOCATED MOCK AVE	

COORDINATE POINT SHEET
SHEET 2 OF 3

REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED: 10/2/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	39

COUNTY: JACKSON
JOB NO.: JKU0010
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.:

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

ALL PROJECT COORDINATES HAVE BEEN PROJECTED FROM THE MISSOURI STATE PLANE COORDINATE (SPC) SYSTEM OF 1983 USING AN AVERAGE PROJECT PROJECTION (GRID TO GROUND) FACTOR. TO GET BACK TO STATE PLANE COORDINATES, MULTIPY THE PROJECT COORDINATES BY THE AVERAGE GRID FACTOR AS SHOWN IN THE "REFERENCE CONTROL INFORMATION" PORTION OF THIS TABLE.

PROJECT COORDINATE INFORMATION

COORDINATE SYSTEM	STATE PLANE, MISSOURI WEST
HORIZONTAL DATUM	NAD 1983
VERTICAL DATUM	NAVD 1988
GEOID MODEL	JACKSON COUNTY
ELEVATIONS DETERMINED BY	GPS OBSERVATIONS
PROJECT PROJECTION FACTOR	1.00009161

REFERENCE CONTROL INFORMATION

COORDINATE SYSTEM	NAD 1983
CONTROL STATION	JA140
DESIGNATION	JA140
CORS_ID	
PID	95140
LATITUDE	39°01'38.76519"
LONGITUDE	94°14'41.81026"
NORTHING (M)	317525.857
EASTING (M)	872084.48
ZONE	WEST
PROJECT AVERAGE GRID FACTOR	0.99990840

EXAMPLE OF PROJECT COORDINATE TO S.P.C.

PROJECT NORTHING X AVERAGE GRID FACTOR
= STATE PLANE NORTHING
PROJECT EASTING X AVERAGE GRID FACTOR
= STATE PLANE EASTING

EXAMPLE: CONTROL POINT #5005
N 1035387.37 X 0.99990840 = N 1035292.53
E 2854734.11 X 0.99990840 = E 2854472.62

LINEAR UNIT CONVERSION

1 METER = 3.280833333 US SURVEY FEET (USFT)

COORDINATE POINT LISTING

SHEET NO	STATION	LOCATION	OFFSET (USFT)	MODIFIED STATE PLANE (GROUND) NORTHING (US SURVEY FT)	EASTING (US SURVEY FT)	ELEVATION (US SURVEY FT)	DESCRIPTION	GPK POINT ID
ALIGNMENTS								
RAMPC_PVMT_BL								
	0+00.00	℄		1,042,966.2124	2,853,940.5066		BEGIN ALIGNMENT RAMPC PVMT BL	
	0+14.85	℄		1,042,970.6089	2,853,926.3225		PC POINT	
	0+92.19	LT	25.02	1,044,993.5074	2,853,852.4457		PI POINT Δ = 71°42'15.02" RT	
				1,043,072.8455	2,853,958.0114		CC POINT	
	1+48.80	℄		1,043,070.8380	2,853,850.9951		PT POINT	
	1+80.03	℄		1,043,102.0610	2,853,850.4094		END ALIGNMENT RAMPC PVMT BL	
S_OUTER_RD_EOP								
	0+00.00	℄		1,041,847.5258	2,853,733.5690		BEGIN ALIGNMENT S OUTER RD EOP	
	0+14.33	℄		1,041,861.8478	2,853,733.9653		PC POINT	
	0+61.61	RT	18.55	1,041,909.1137	2,853,735.2730		PI POINT Δ = 85°40'10.06" LT	
				1,041,863.2583	2,853,682.9848		CC POINT	
	0+90.58	℄		1,041,913.9867	2,853,688.2408		PRC POINT	
	1+47.64	LT	7.18	1,041,919.8671	2,853,631.4862		PI POINT Δ = 28°42'15.82" RT	
				1,042,135.7993	2,853,711.2230		CC POINT	
	2+02.30	℄		1,041,952.2836	2,853,584.5306		PCC POINT	
	2+14.83	LT	0.35	1,041,959.4900	2,853,574.2699		PI POINT Δ = 6°26'48.57" RT	
				1,042,134.3599	2,853,712.4007		CC POINT	
	2+27.34	℄		1,041,967.7977	2,853,564.8894		PCC POINT	
	2+28.77	LT	0.05	1,041,968.7457	2,853,563.8188		PI POINT Δ = 7°47'28.07" RT	
				1,041,983.5187	2,853,578.8123		CC POINT	
	2+30.19	℄		1,041,969.8302	2,853,562.8867		PCC POINT	
	2+83.59	LT	6.3	1,042,010.3209	2,853,528.0837		PI POINT Δ = 26°53'44.61" RT	
				1,042,115.3785	2,853,732.2215		CC POINT	
	3+35.01	℄		1,042,062.1756	2,853,515.3620		PCC POINT	
	3+38.65	RT	0.17	1,042,065.7090	2,853,514.4952		PI POINT Δ = 10°39'32.16" LT	
				1,042,052.8832	2,853,477.4853		CC POINT	
	3+42.27	℄		1,042,069.0211	2,853,512.9898		PT POINT	
	3+71.03	℄		1,042,095.1715	2,853,501.0065		END ALIGNMENT S OUTER RD EOP	

COORDINATE POINT SHEET
SHEET 3 OF 3

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED 10/2/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	40

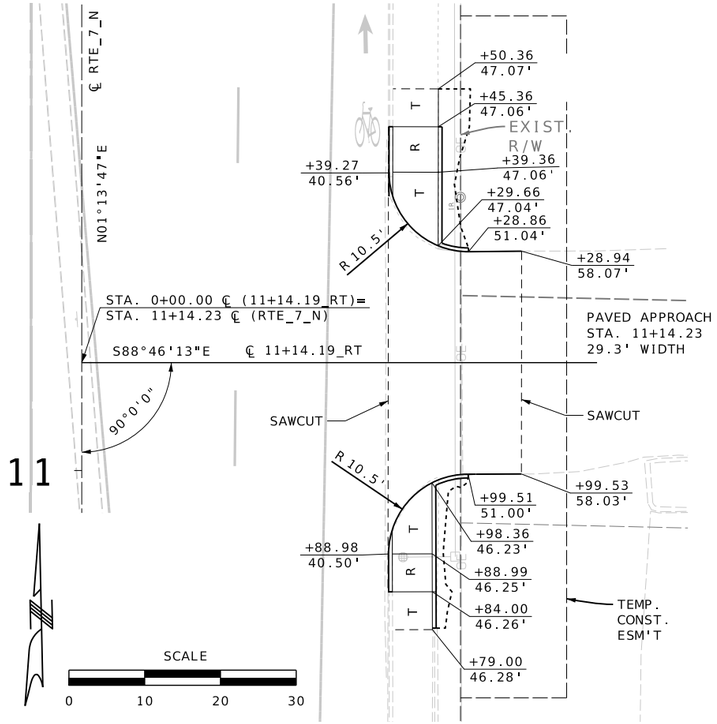
COUNTY: JACKSON
JOB NO.: JKU0010
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.:

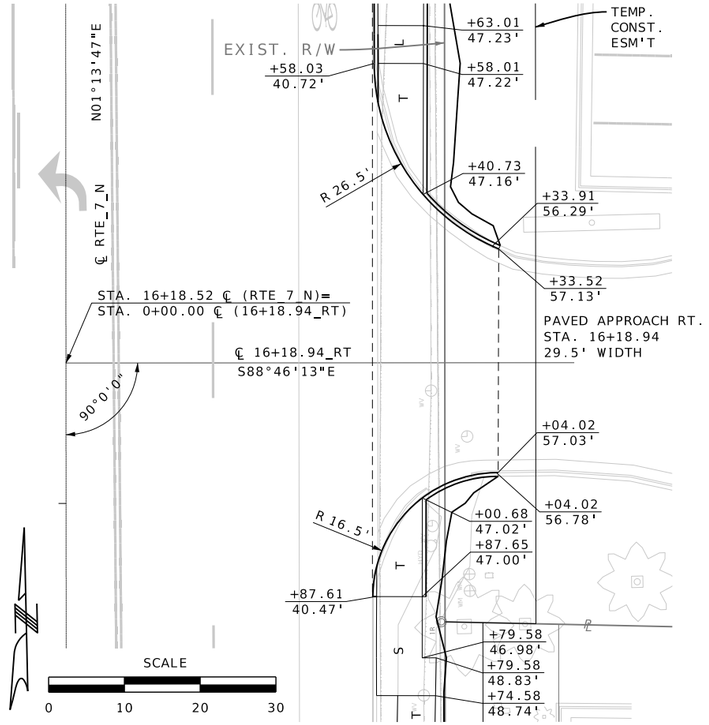
DESCRIPTION	DATE

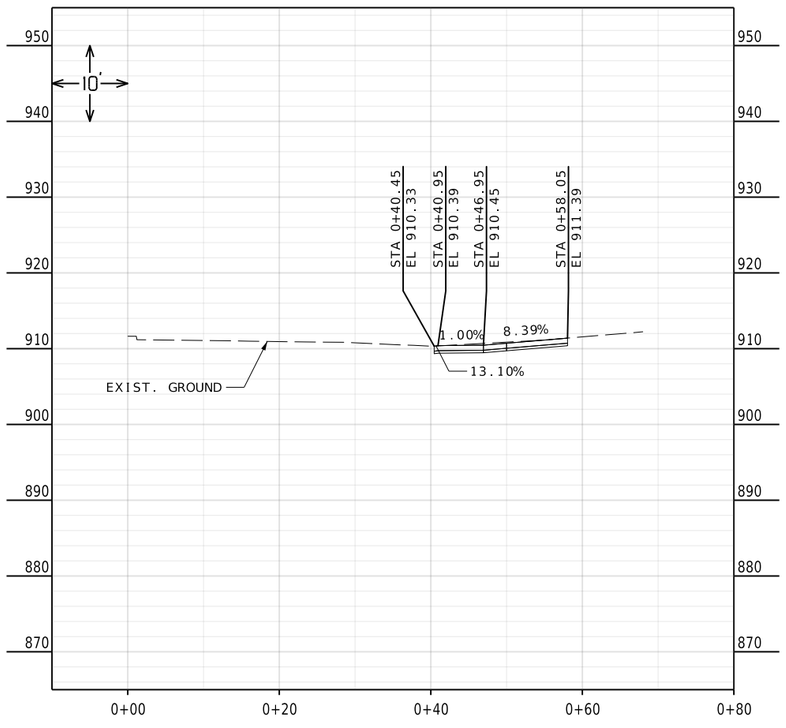
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

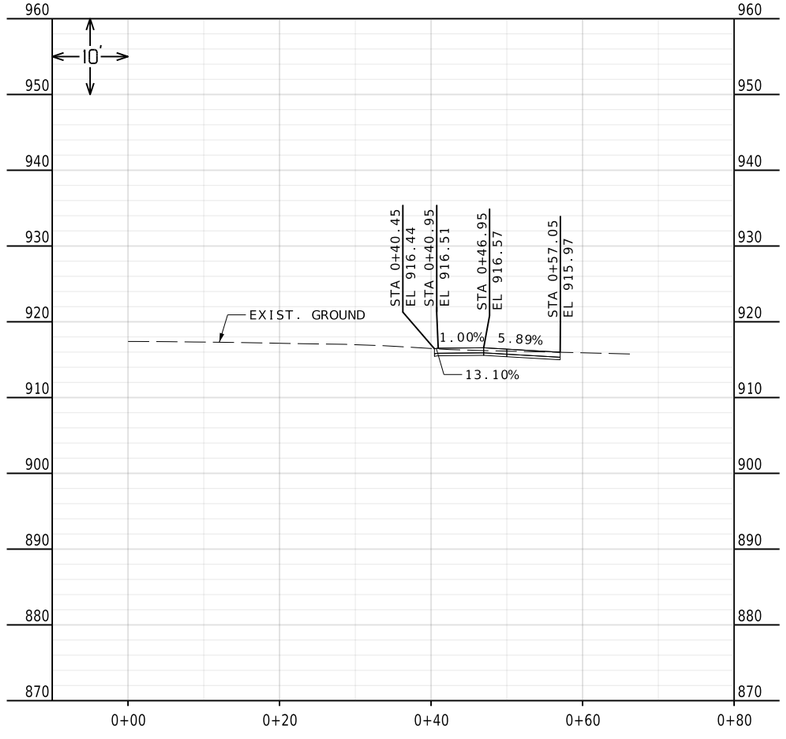
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592









960 960

11

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
8/1/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	41

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

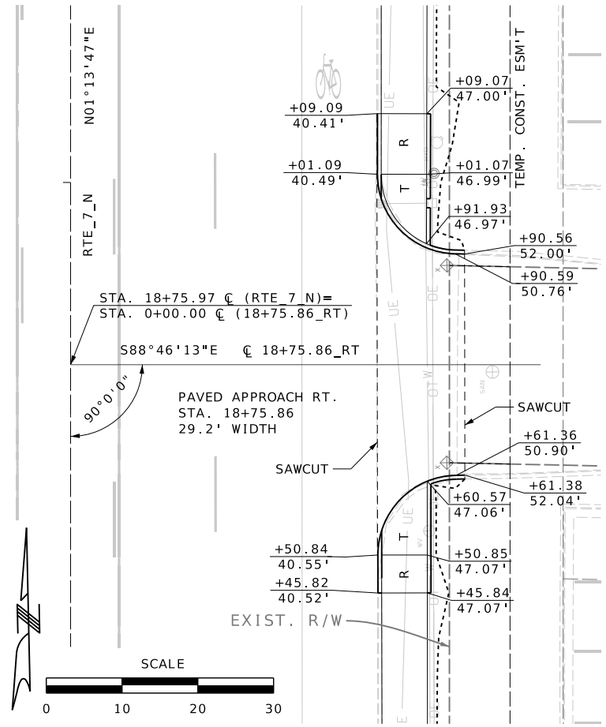
DATE	DESCRIPTION

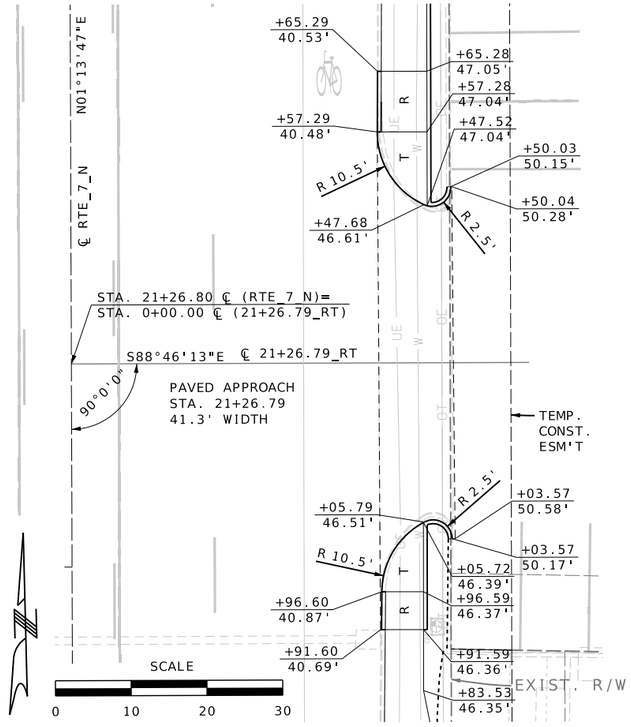
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

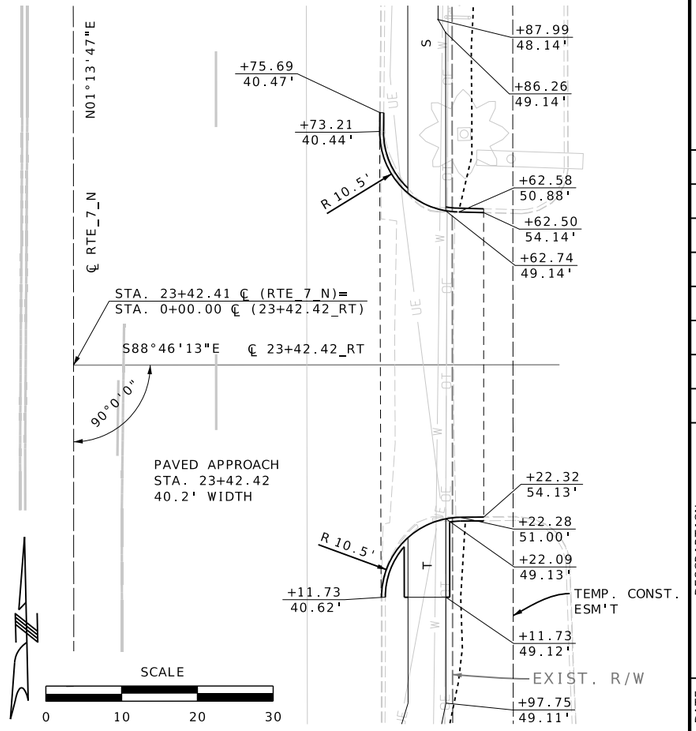
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

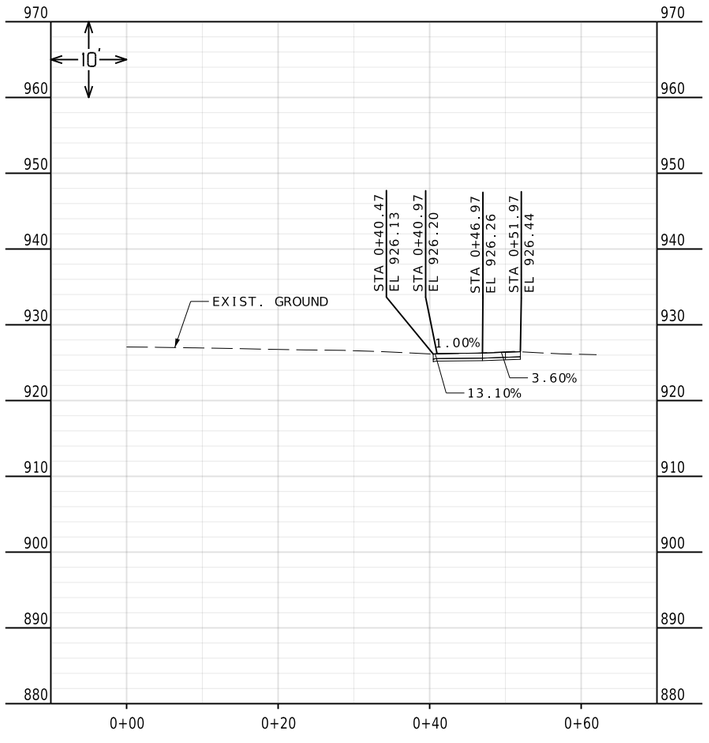
olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

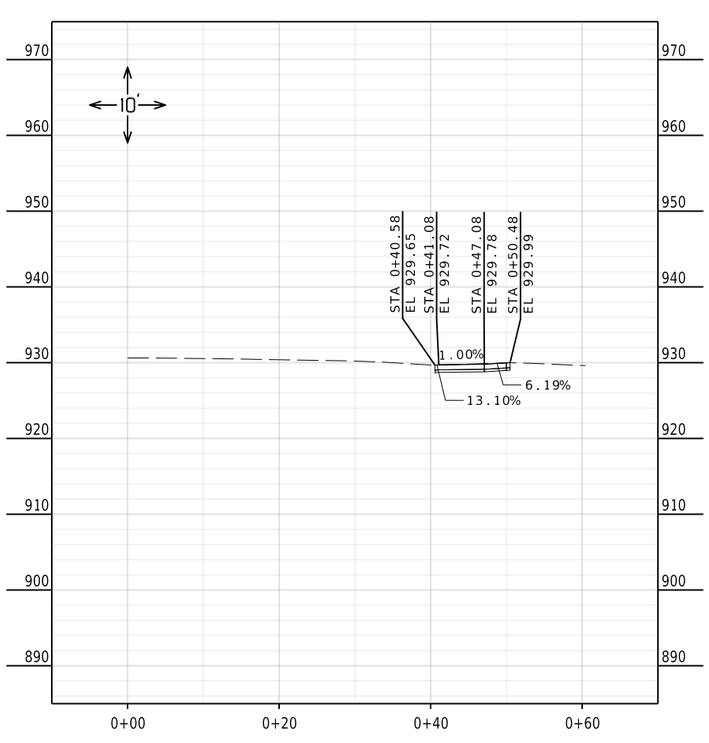
SPECIAL SHEET
SHEET 1 OF 20

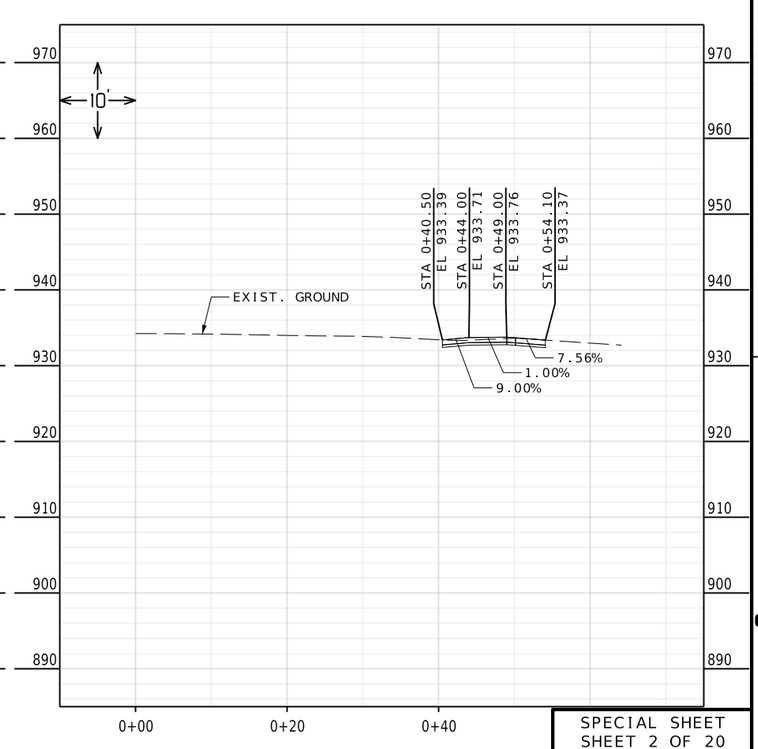












SPECIAL SHEET
SHEET 2 OF 20

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
8/1/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	42

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

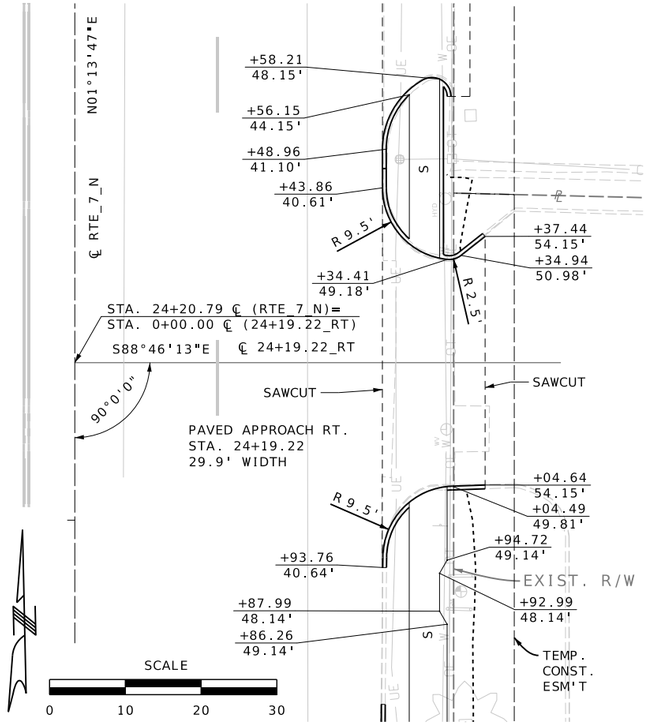
DATE	DESCRIPTION

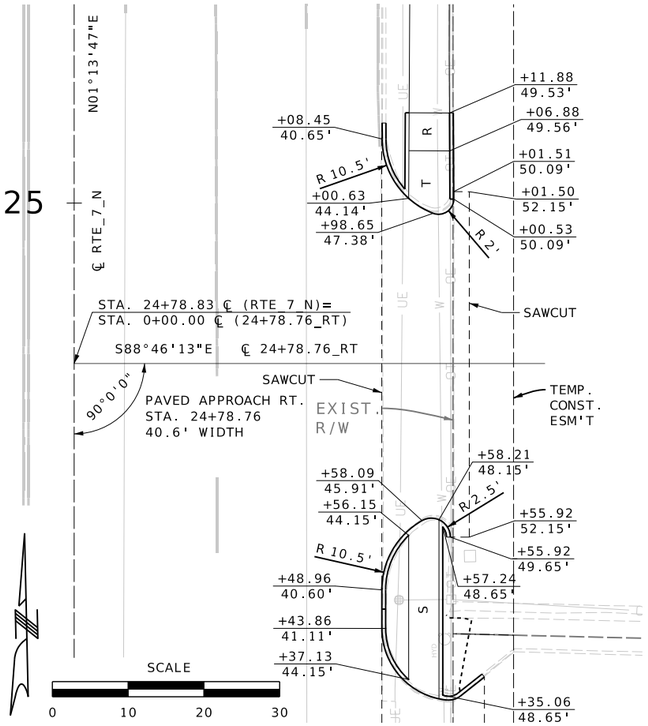
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

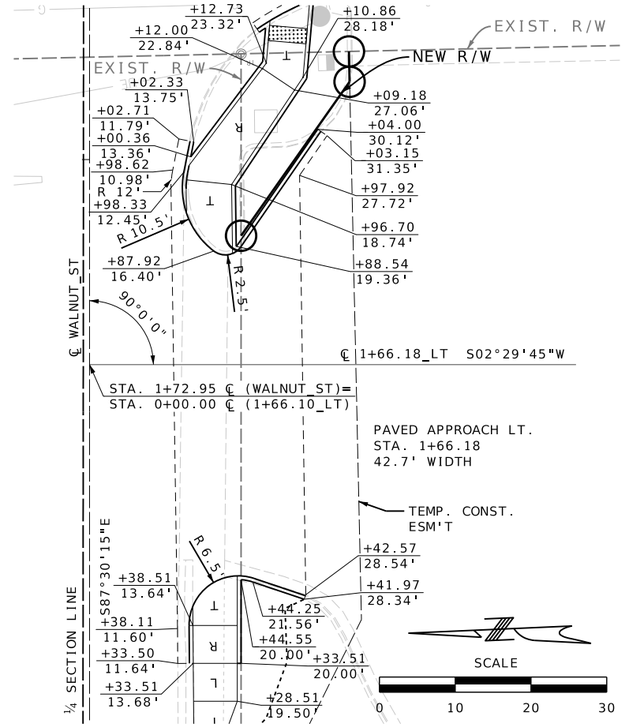
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

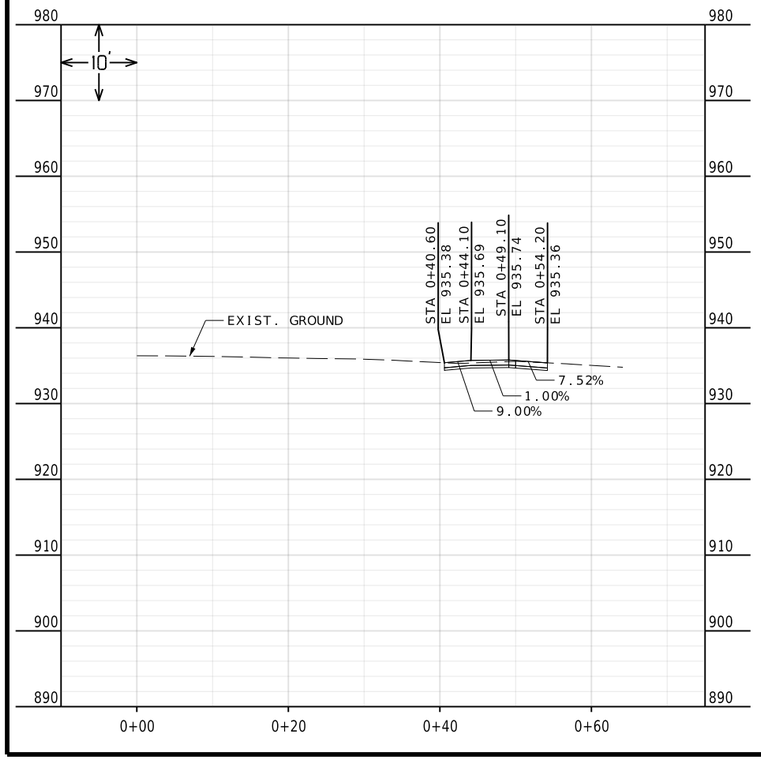
olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

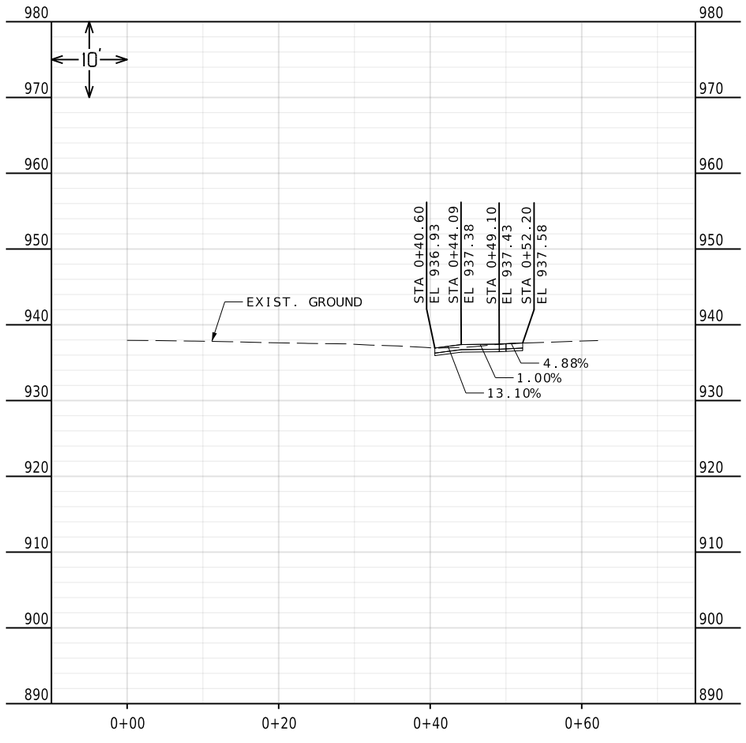
F:\2022\03001-03500\022-03371\40-Design\Microstation\JKU0010\plan_sheets\07 Special Sheets\042_SS_02_ENTRANCE_JKU0010_I10.dgn 12:31:25 PM 8/1/2025

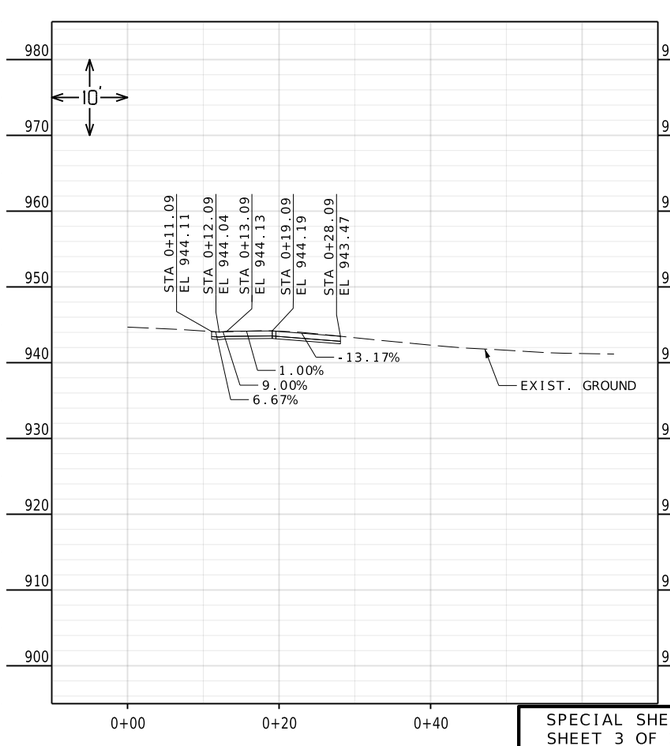












SPECIAL SHEET
SHEET 3 OF 20

REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
8/1/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	43

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION

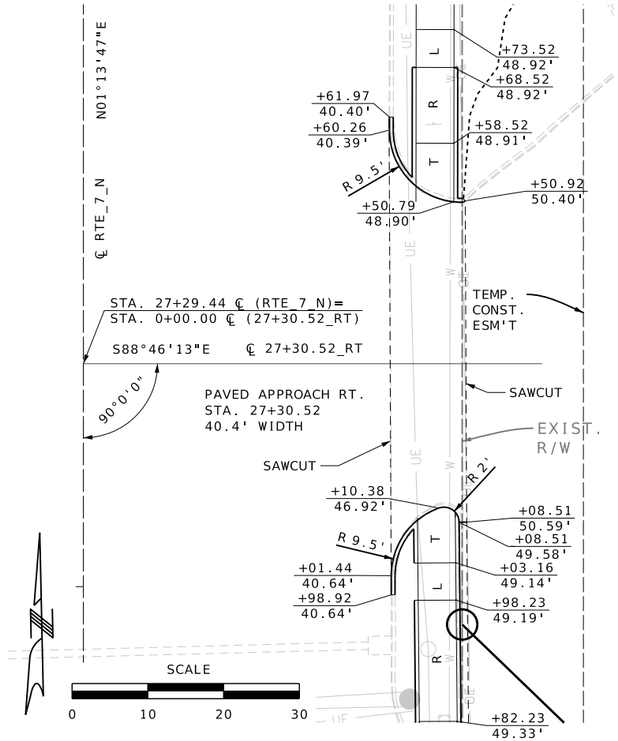
DATE

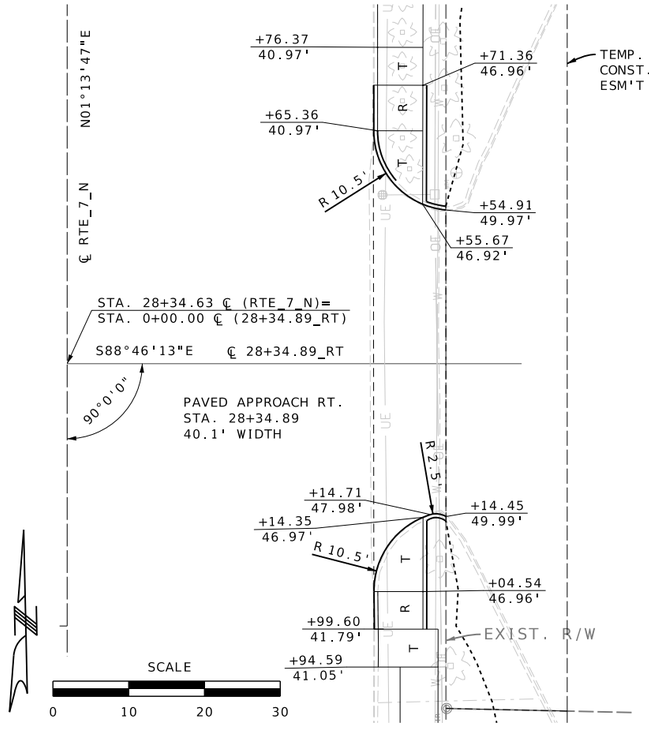
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

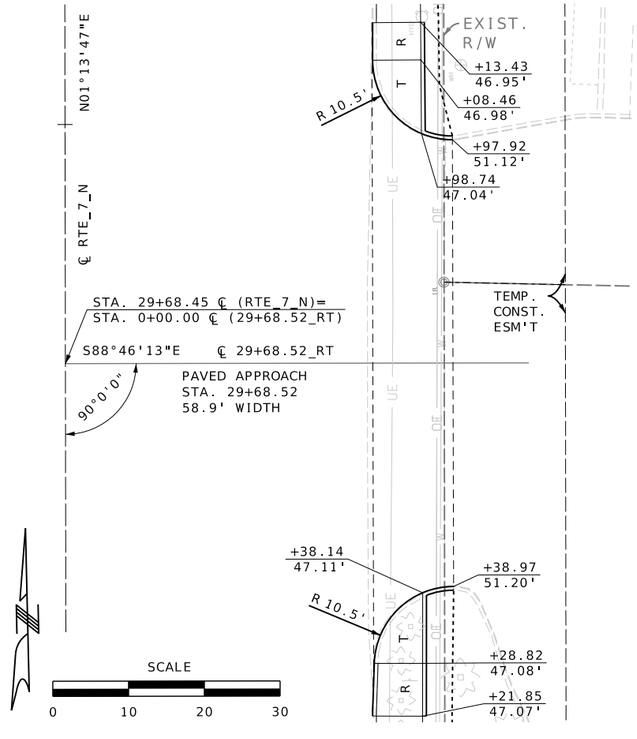
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

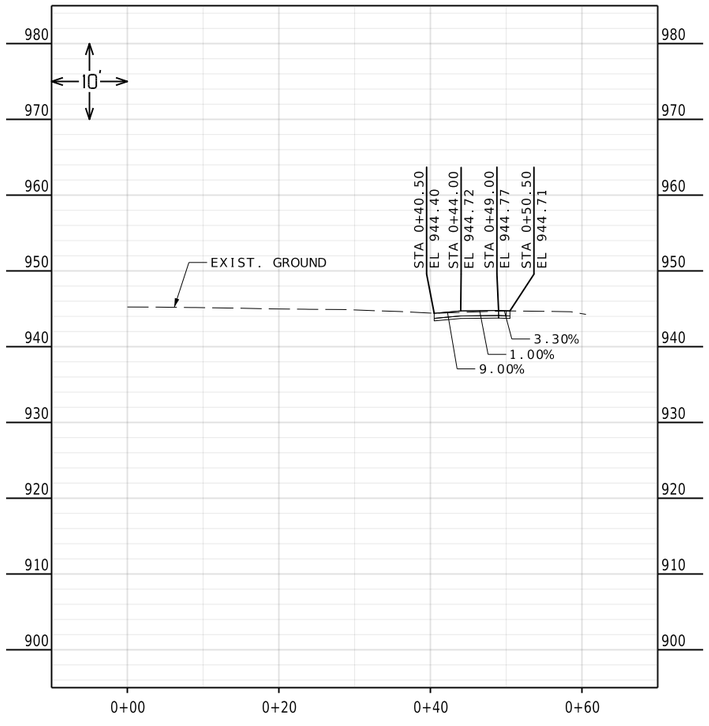
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

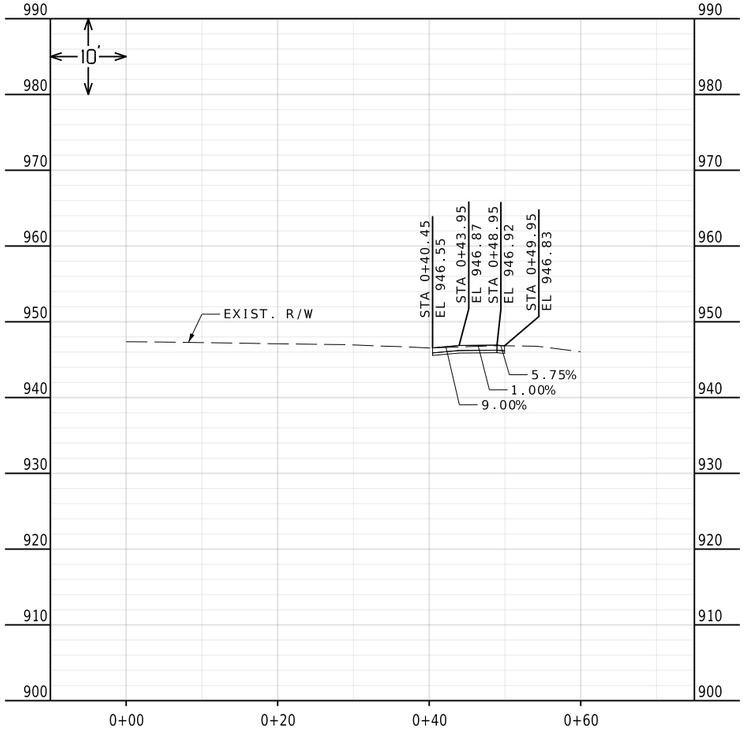
olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

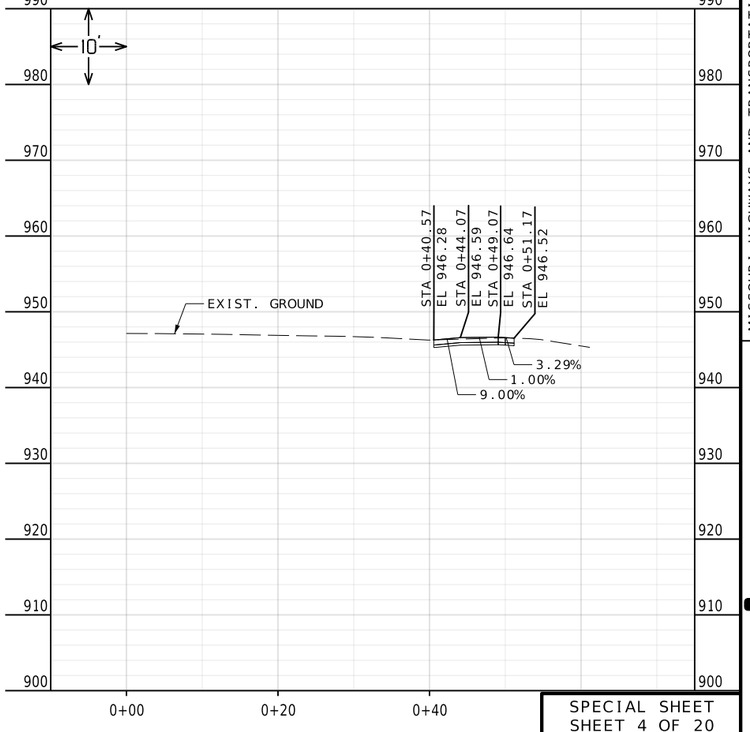












REID BRENNEN CATT NUMBER PE-2010019516

REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
10/2/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	44

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

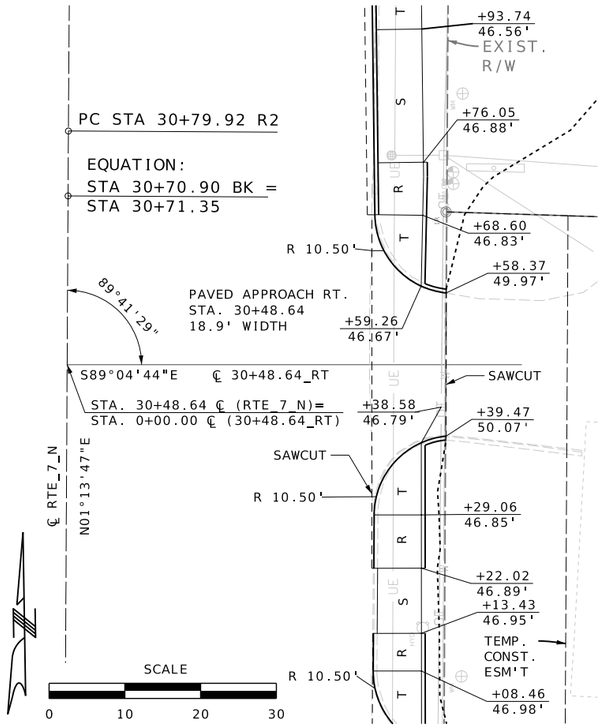
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

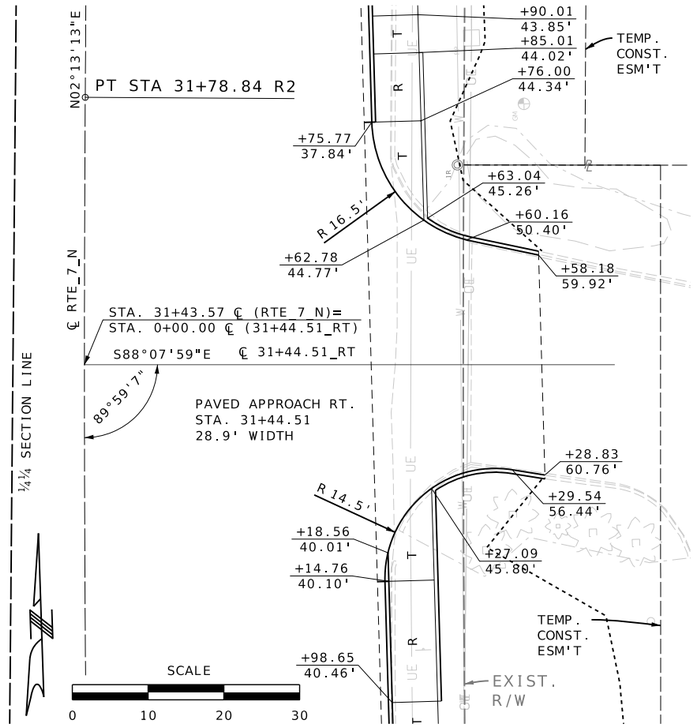
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

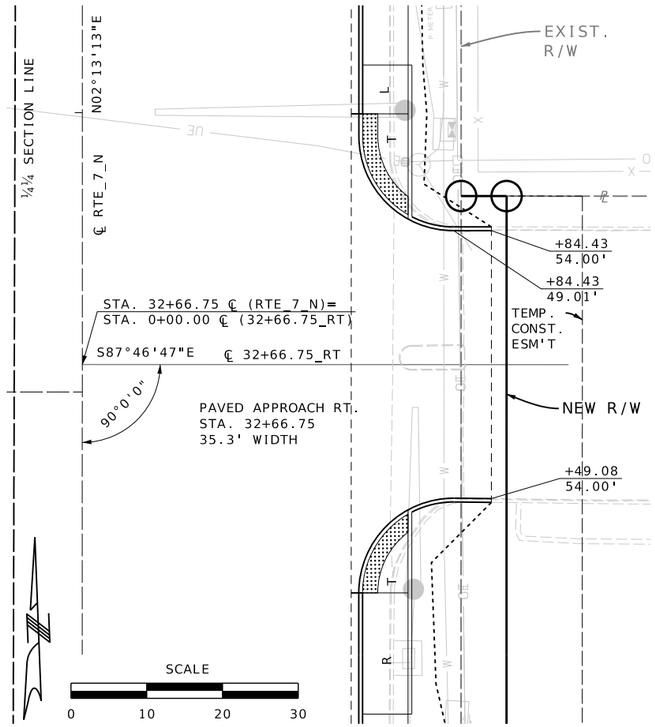
olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

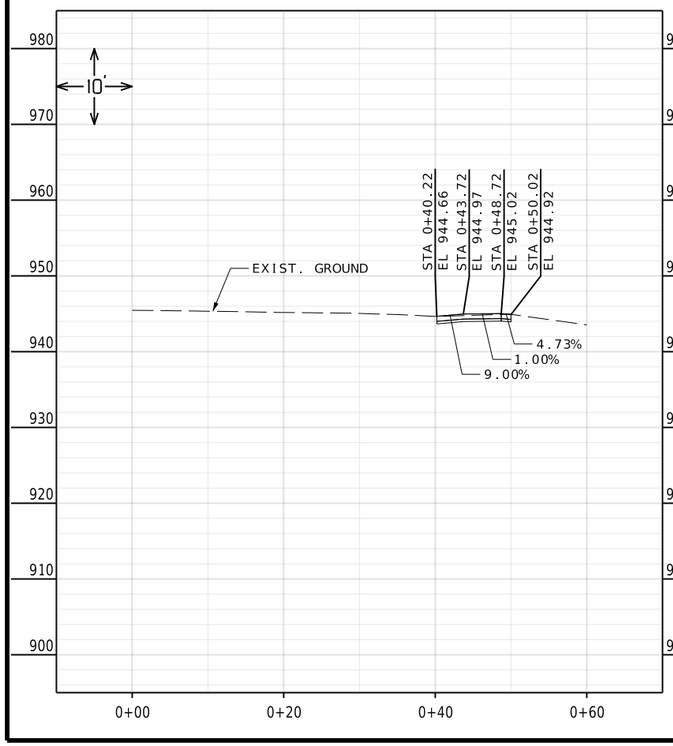
SPECIAL SHEET
SHEET 4 OF 20

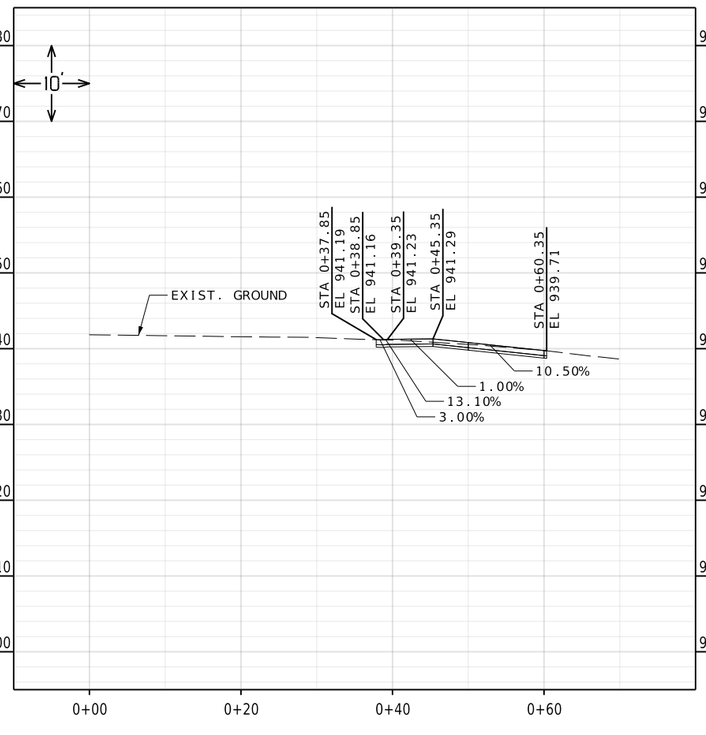
F:\2022\03001-03500\022-03371\40-Design\Microstation\JKU0010\plan_sheets\07 Special Sheets\044_SS_04_ENTRANCE_JKU0010_110.dgn 6:40:41 PM 10/2/2025

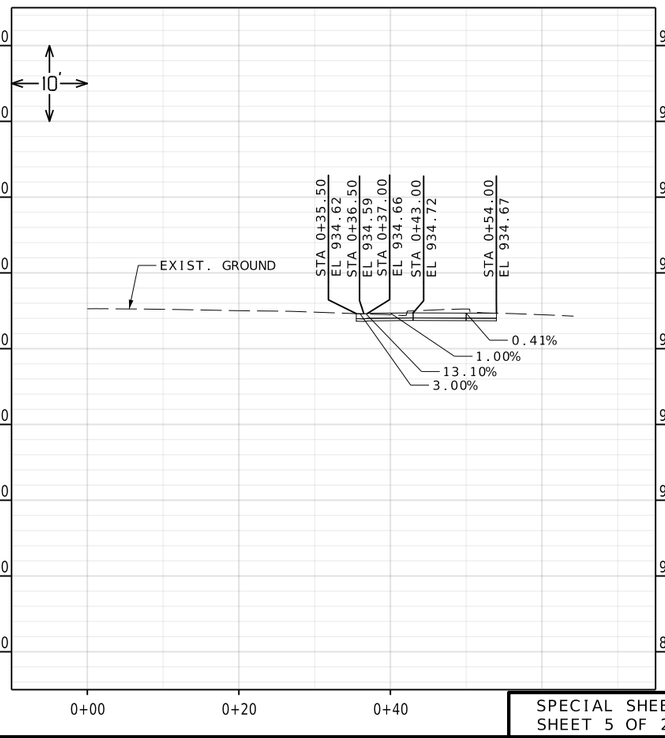












SPECIAL SHEET
SHEET 5 OF 20

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
10/2/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	45

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

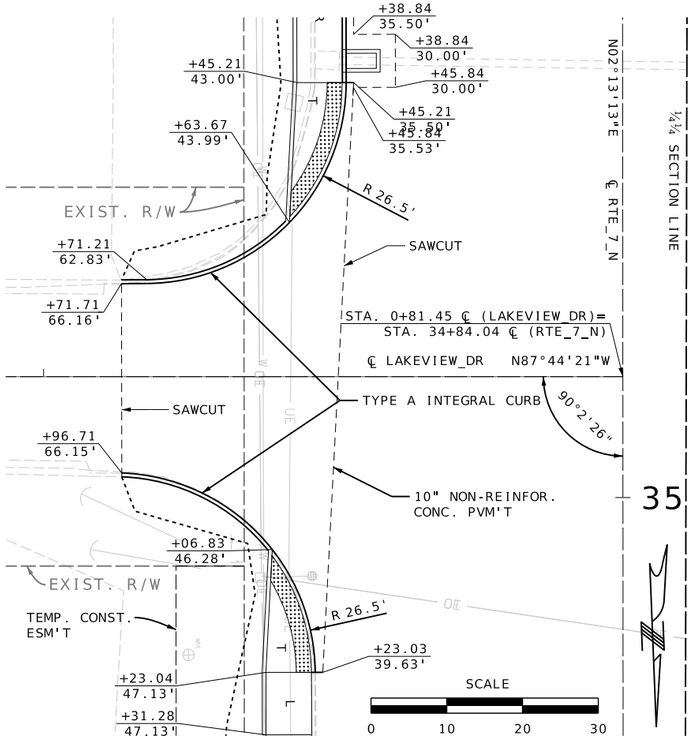
DATE	DESCRIPTION

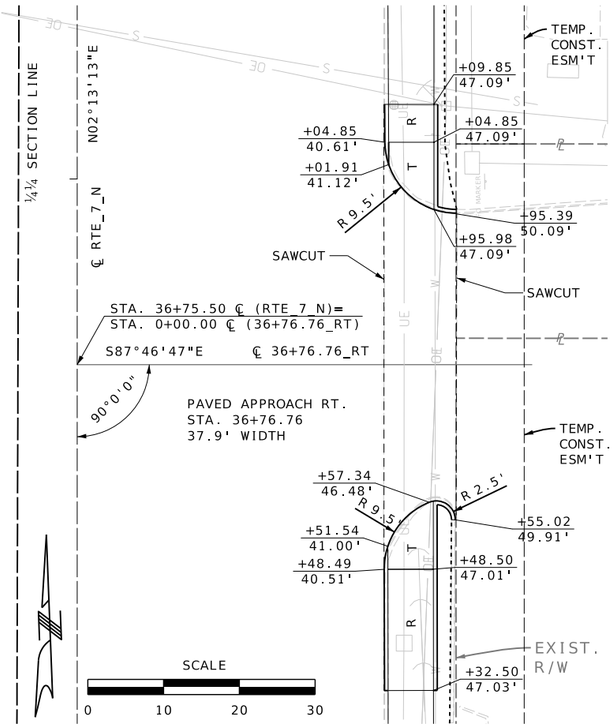
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

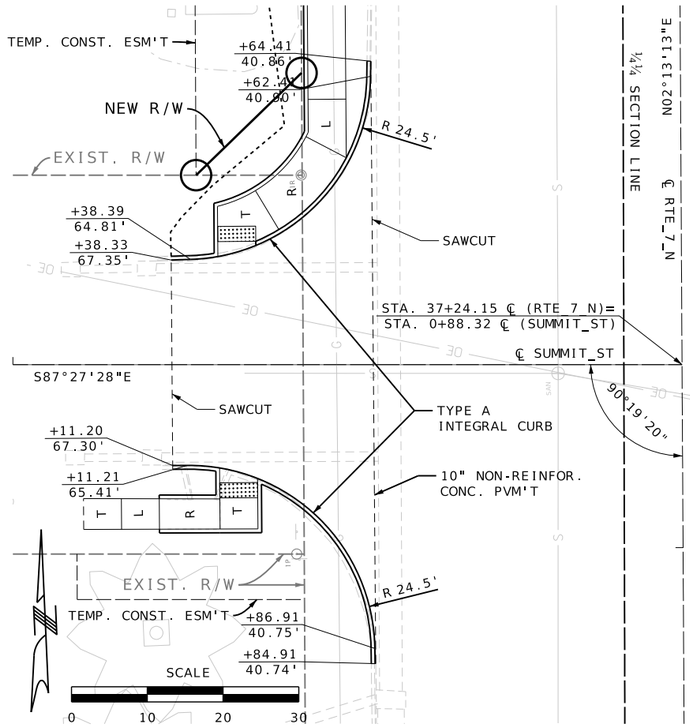
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

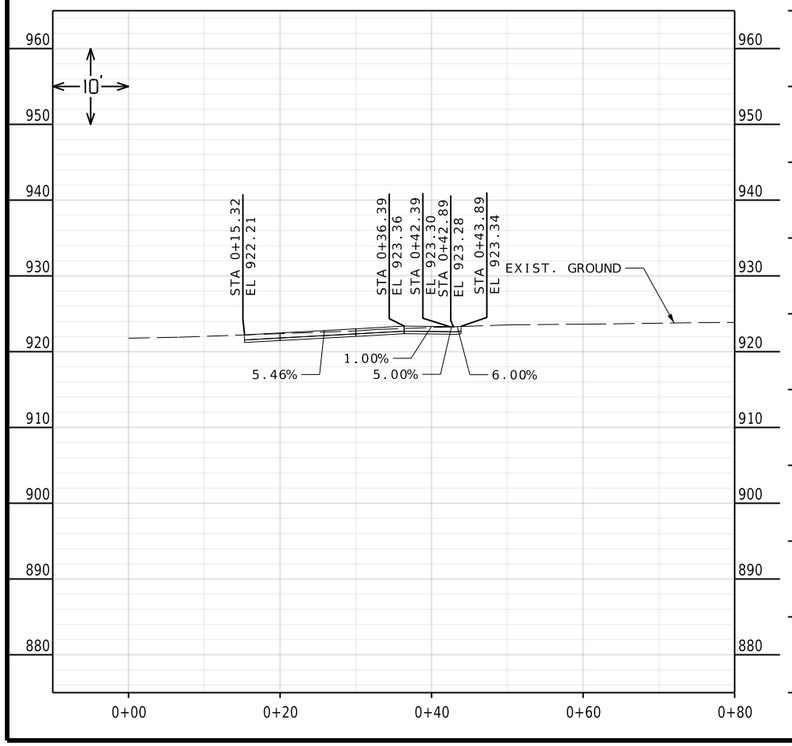
olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

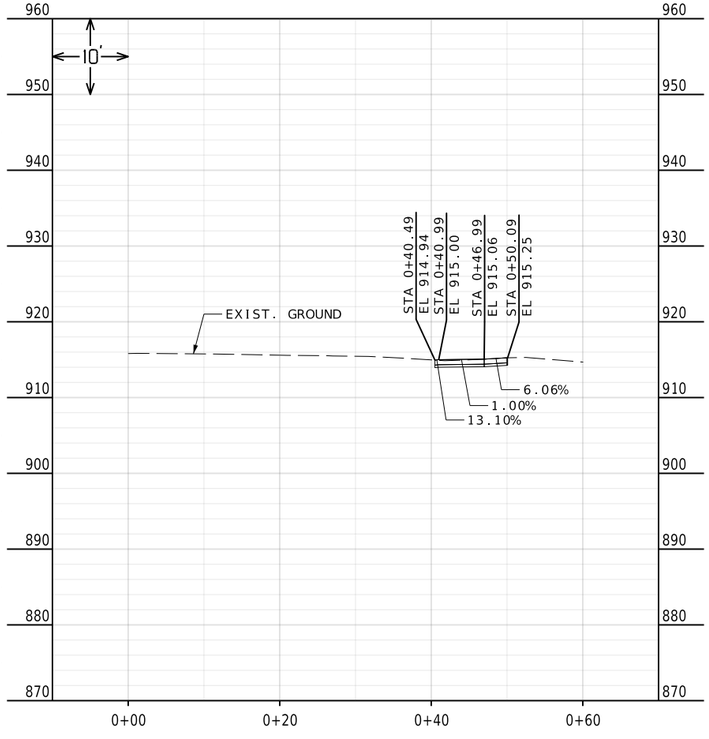
F:\2022\03001-03500\022-03371\40-Design\Microstation\JKU0010\plan_sheets\07 Special Sheets\045_SS_05_ENTRANCE_JKU0010_I10.dgn 6:40:51 PM 10/2/2025

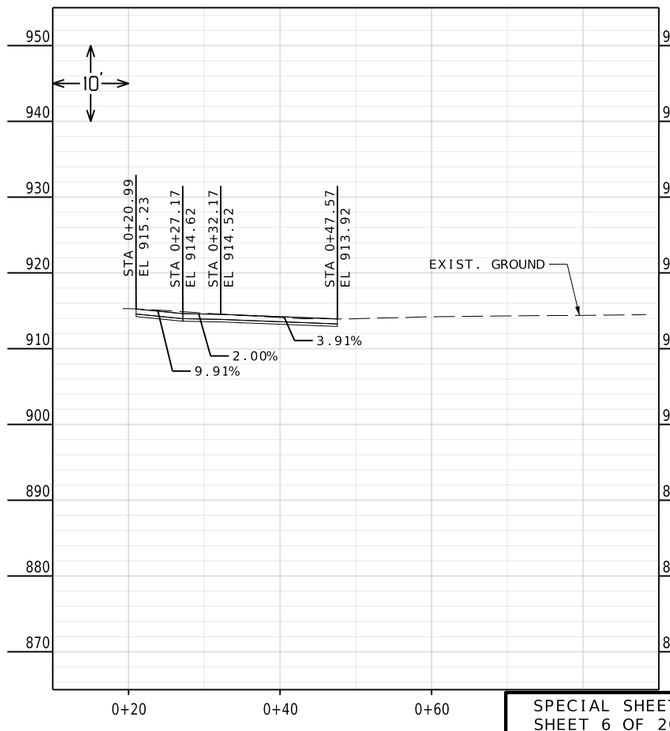












REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
8/1/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	46

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

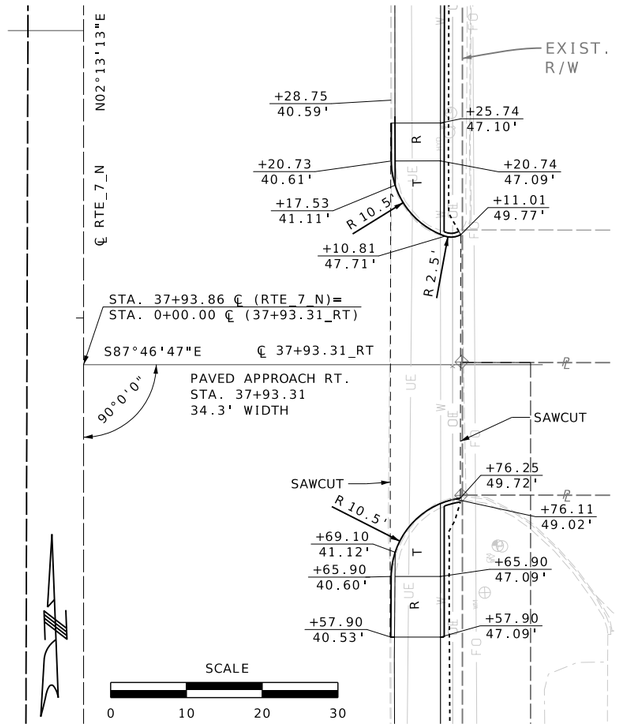
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

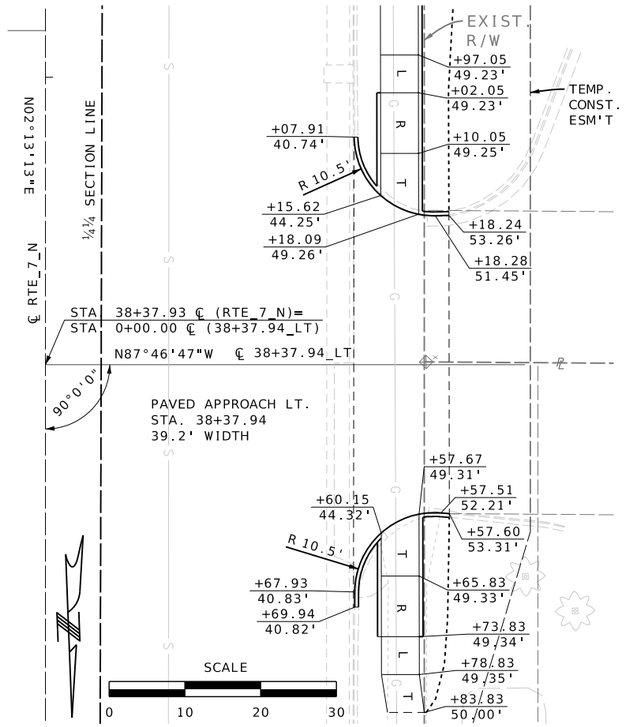
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

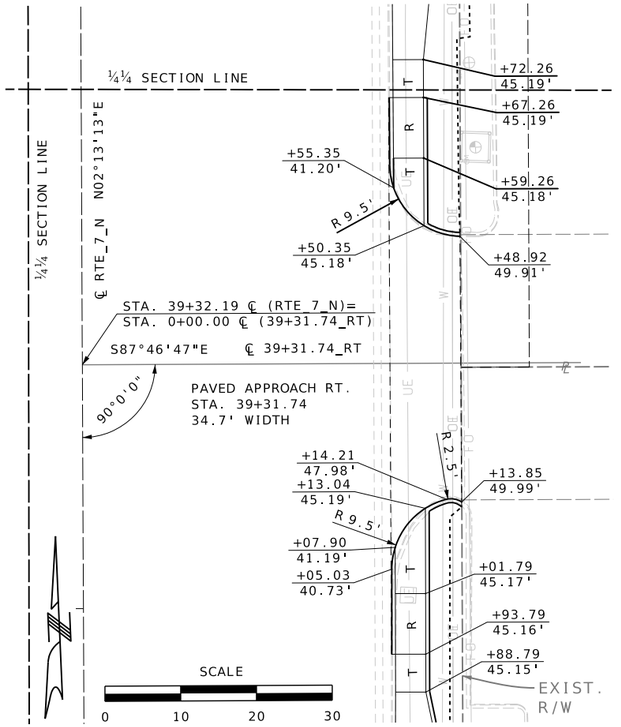
olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

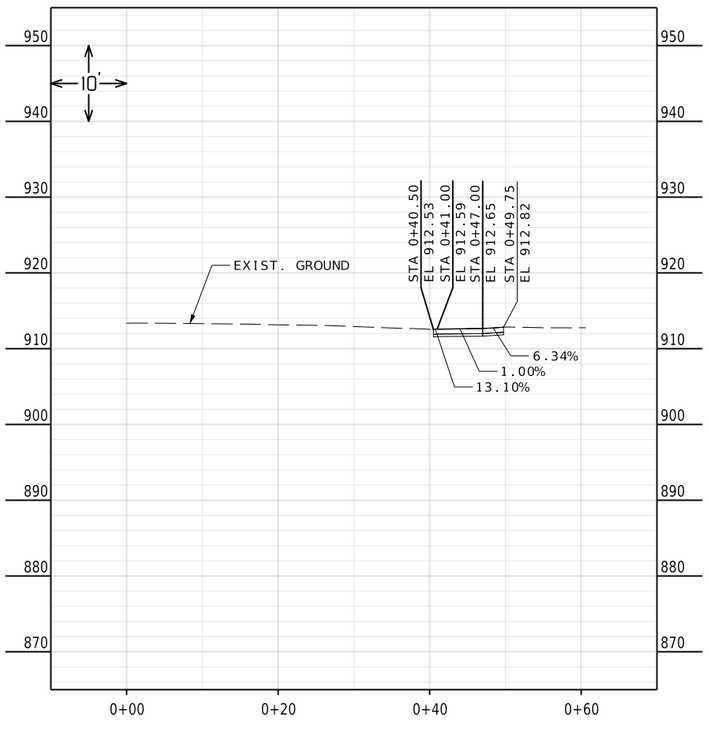
SPECIAL SHEET
SHEET 6 OF 20

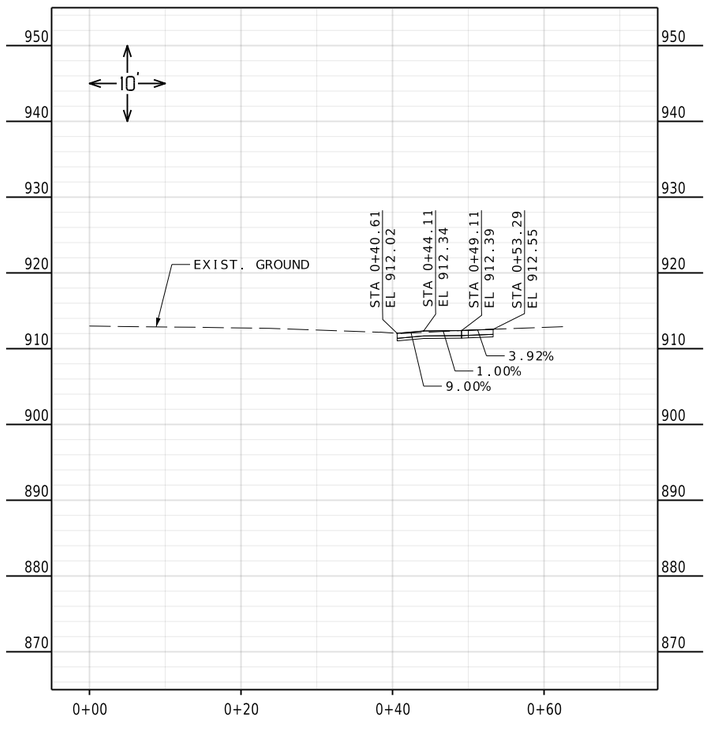
F:\2022\03001-03500\022-03371\40-Design\Microstation\JKU0010\plan_sheets\07 Special Sheets\046_SS_06_ENTRANCE_JKU0010_I10.dgn 12:32:16 PM 8/1/2025

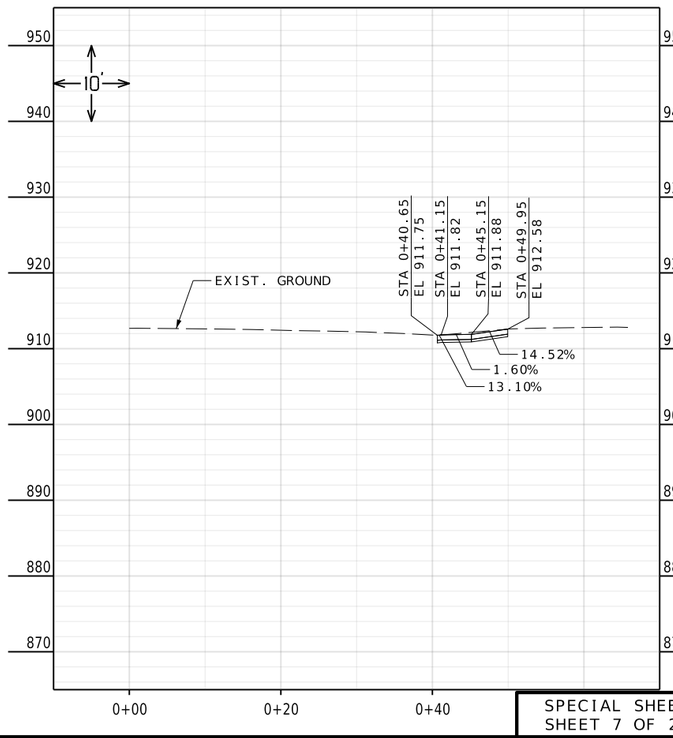












SPECIAL SHEET
SHEET 7 OF 20

REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
8/1/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	47

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

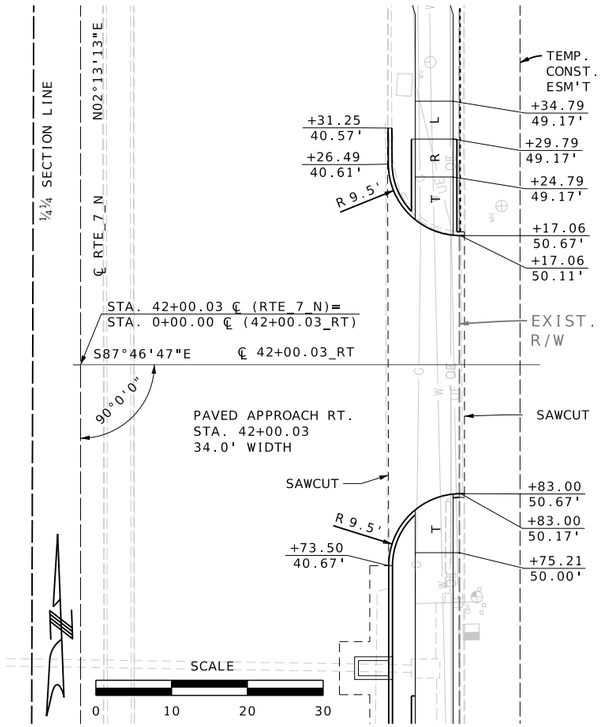
BRIDGE NO.

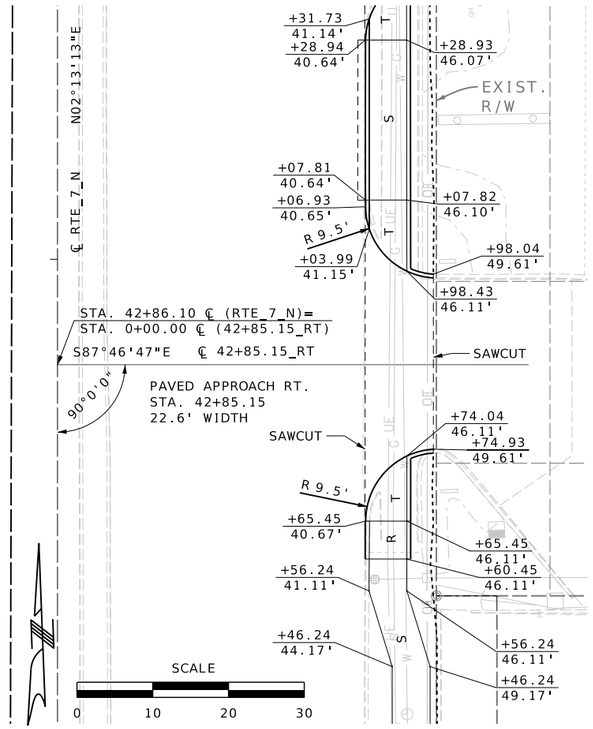
DESCRIPTION	DATE

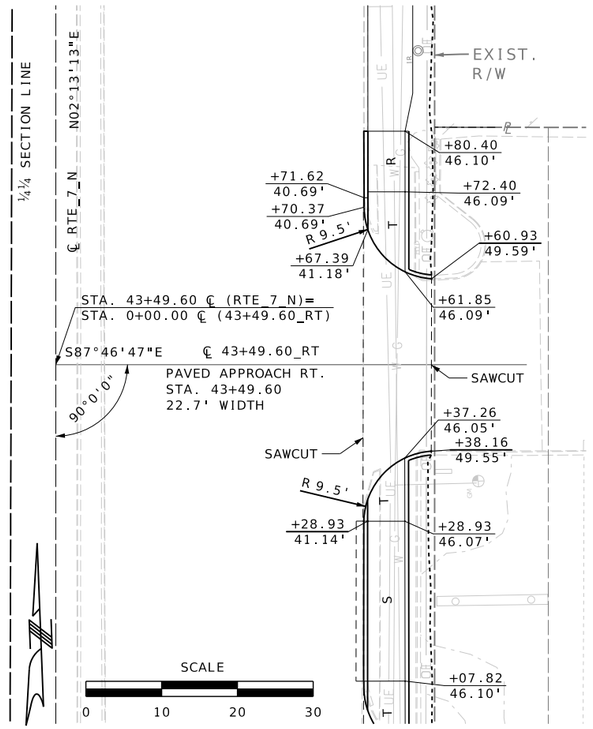
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

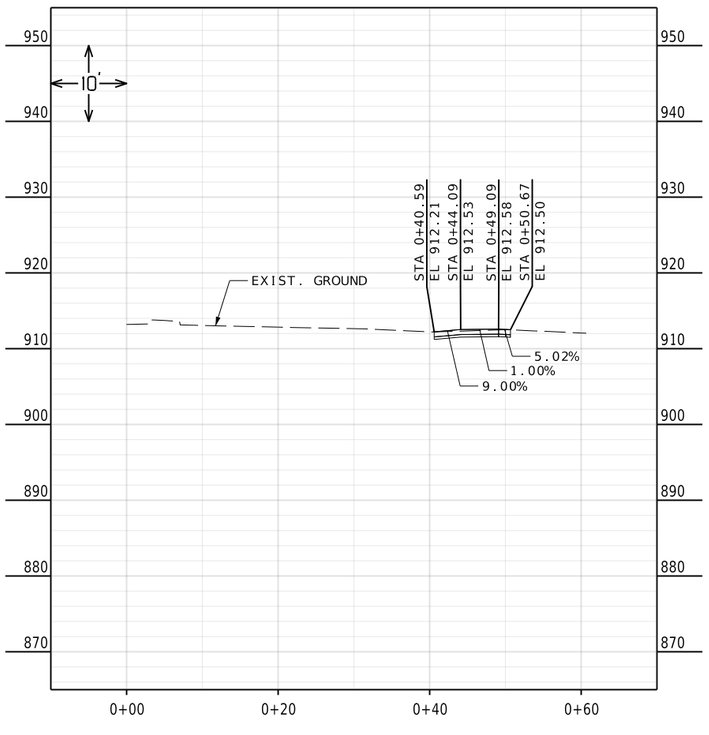
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

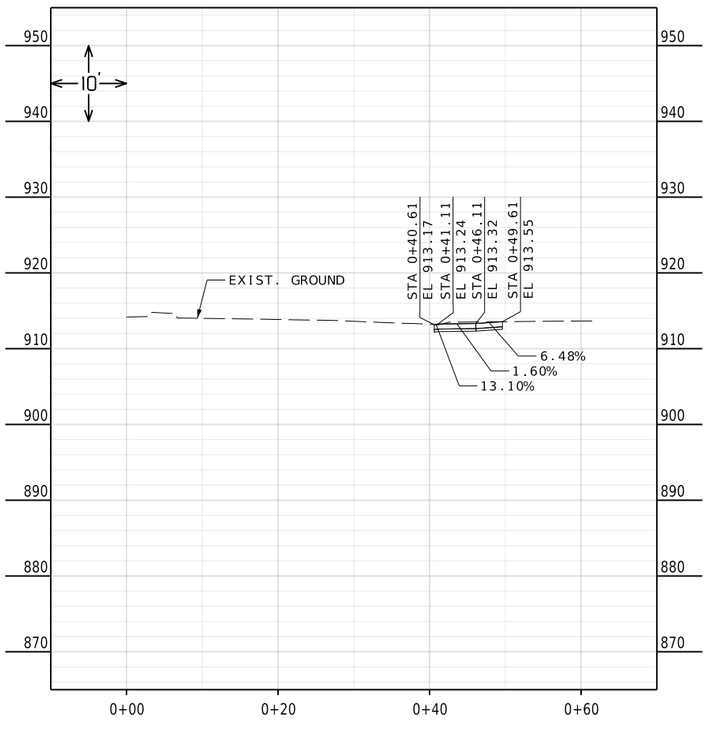
olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

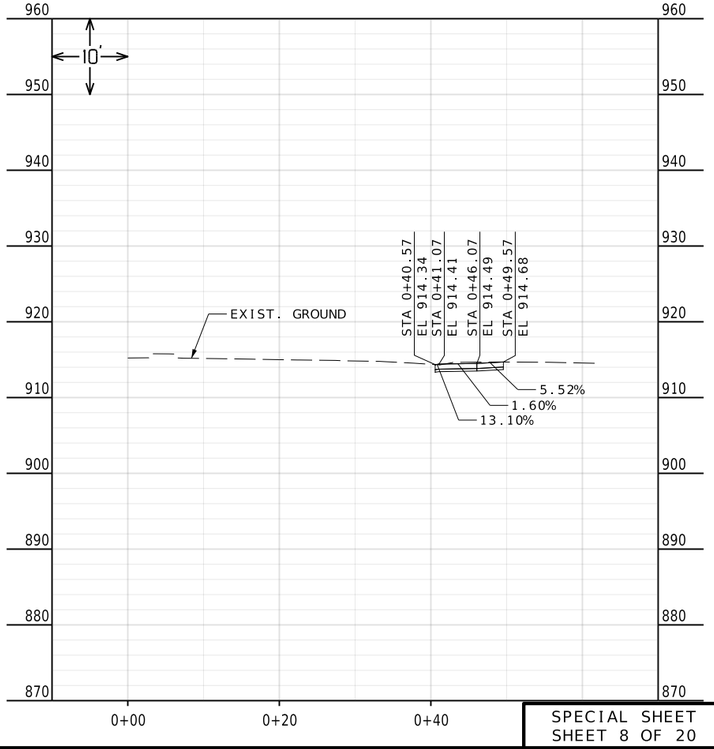












SPECIAL SHEET
SHEET 8 OF 20

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
8/1/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	48

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

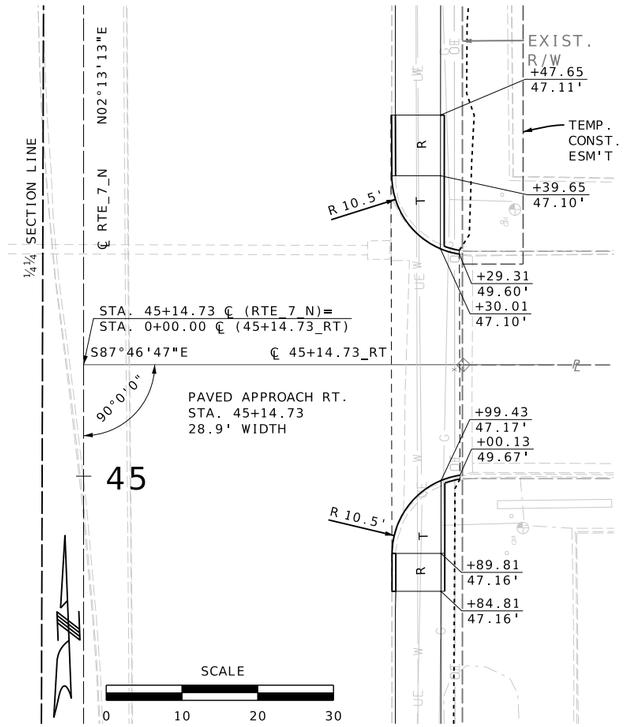
BRIDGE NO.

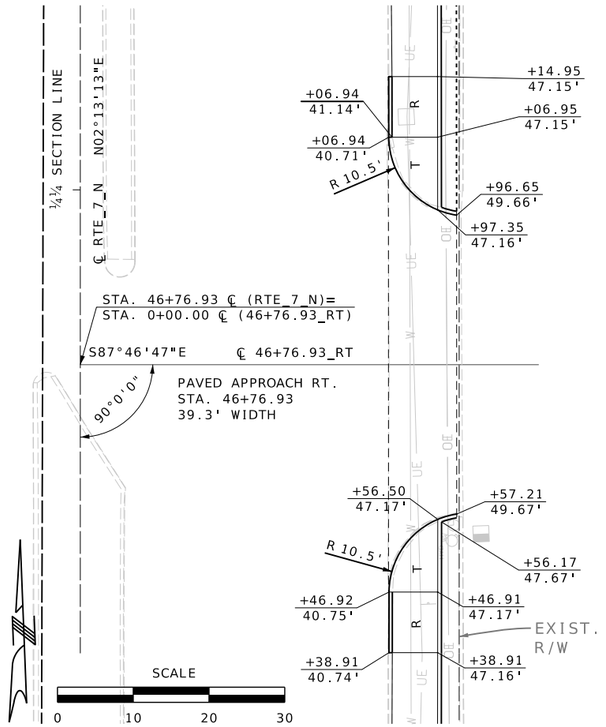
DATE	DESCRIPTION

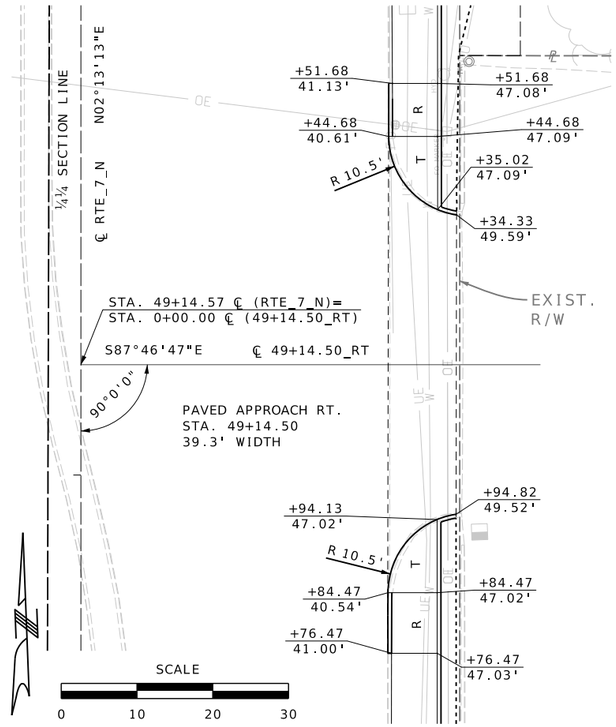
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

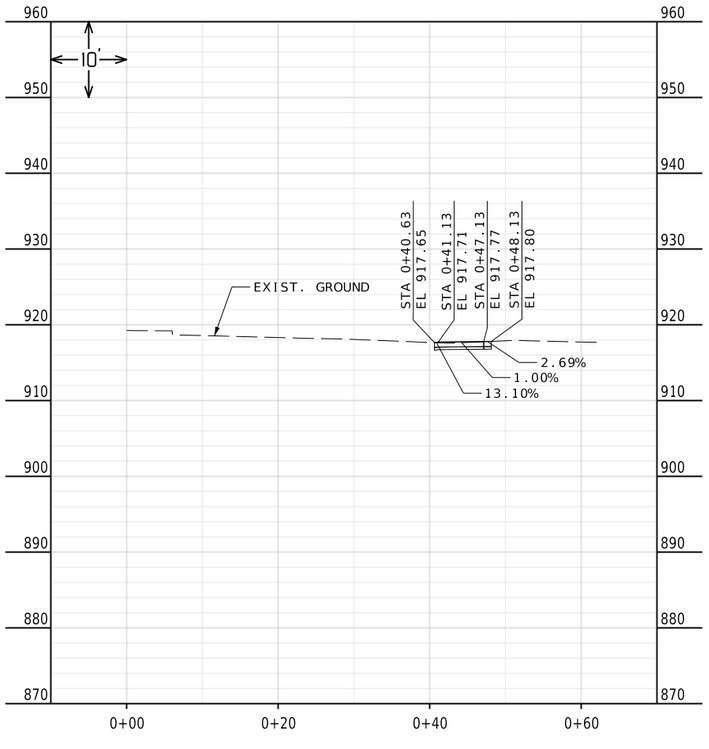
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

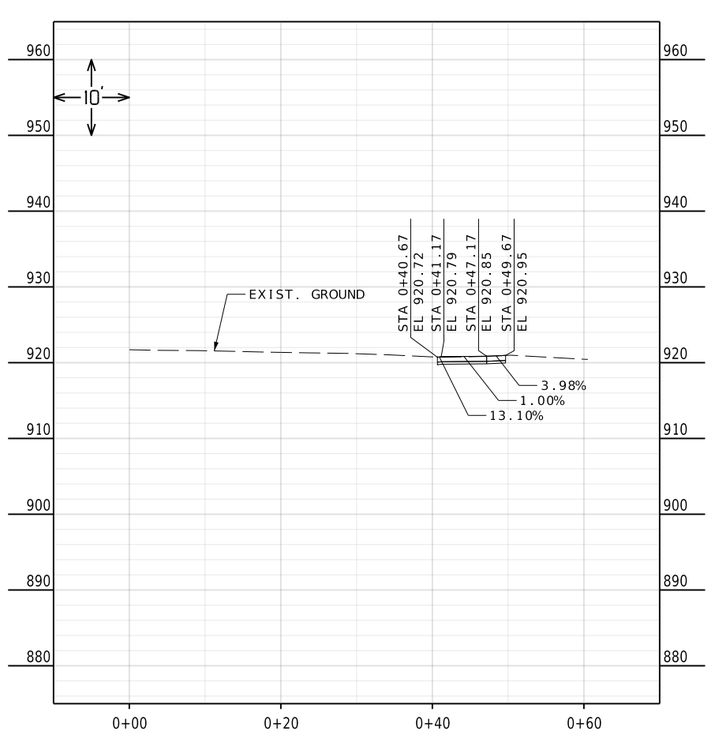
olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

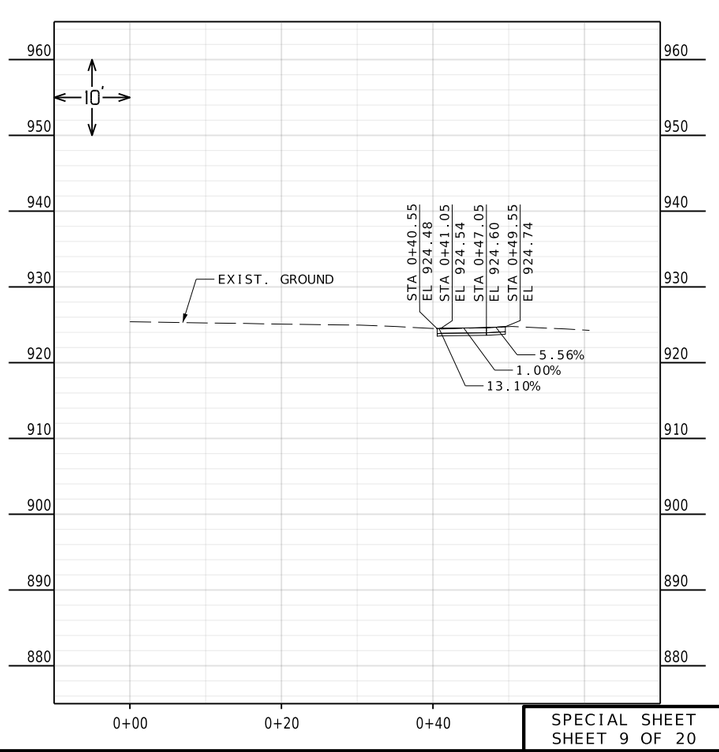












REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER MO# PE-2010019516

DATE PREPARED
10/2/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	49

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

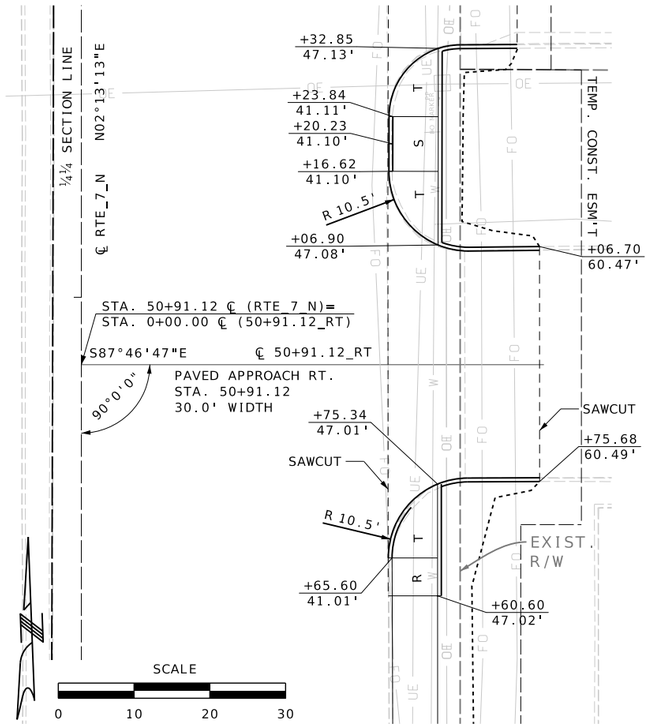
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

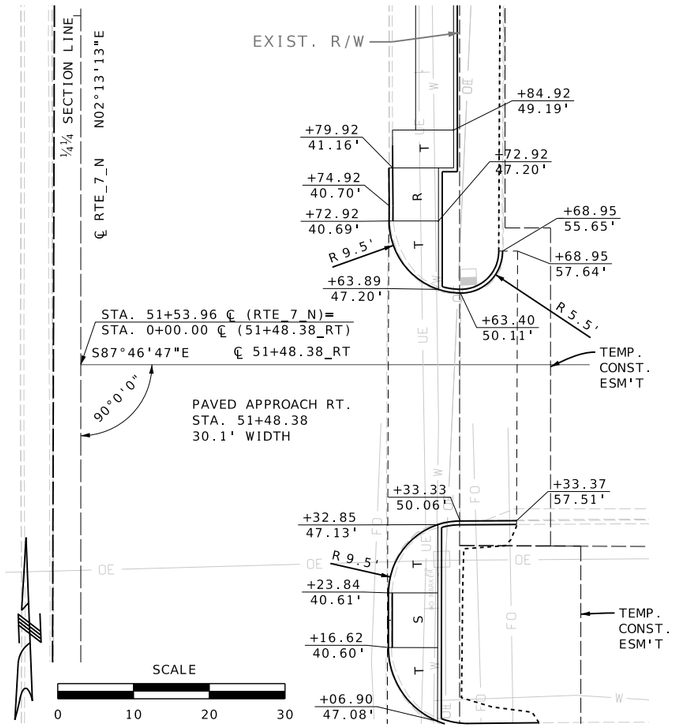
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

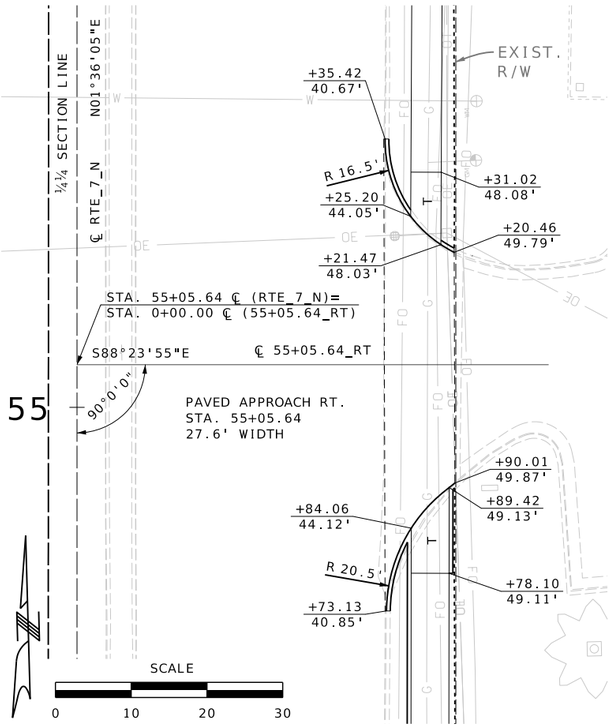
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

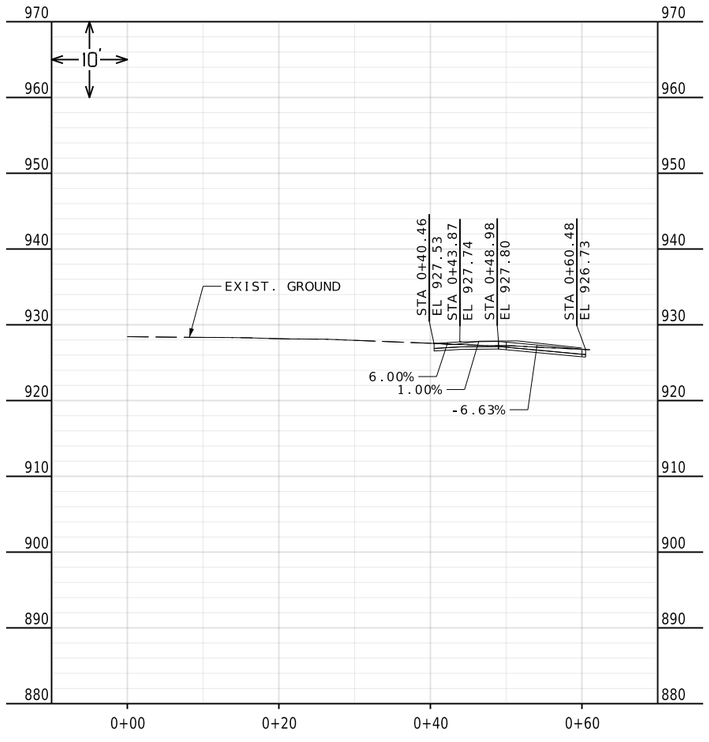
olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

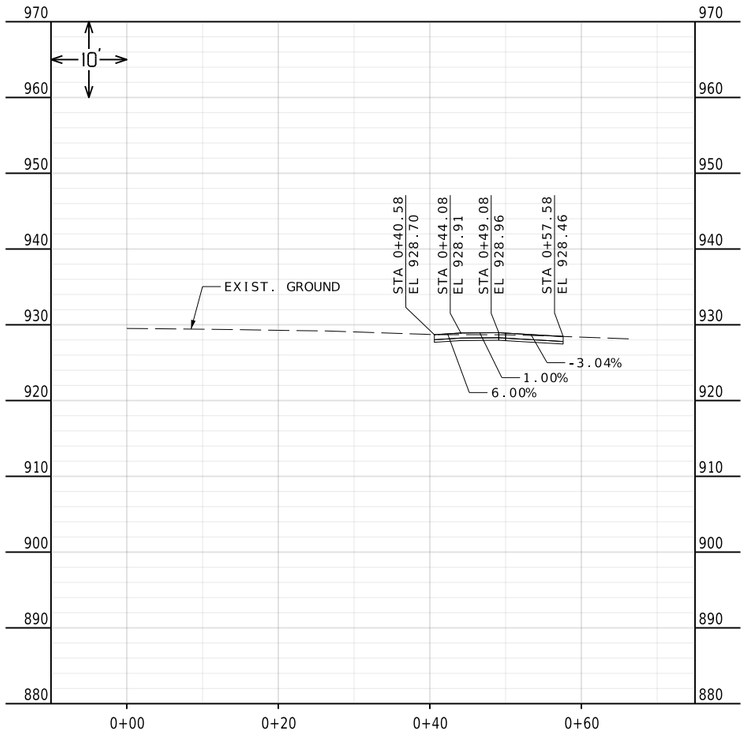
SPECIAL SHEET
SHEET 9 OF 20

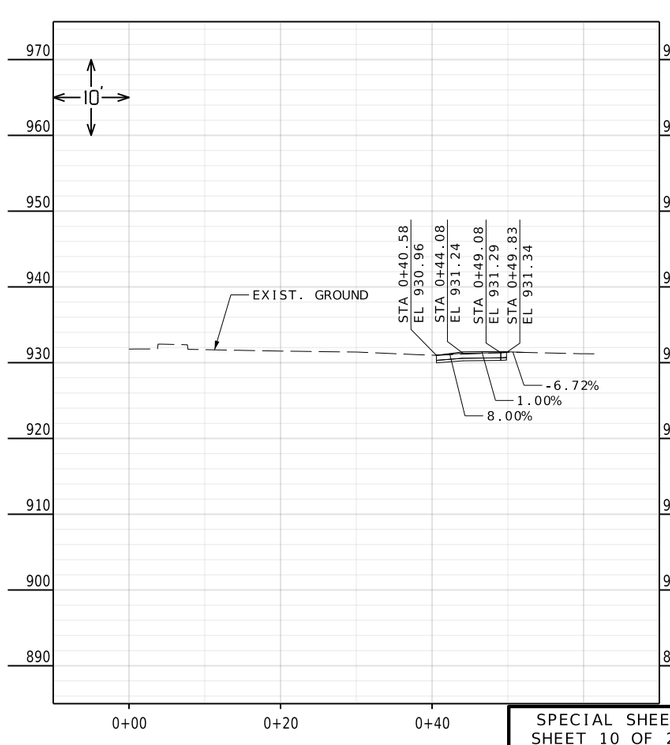












55

SPECIAL SHEET
SHEET 10 OF 20

REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
10/2/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	50

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

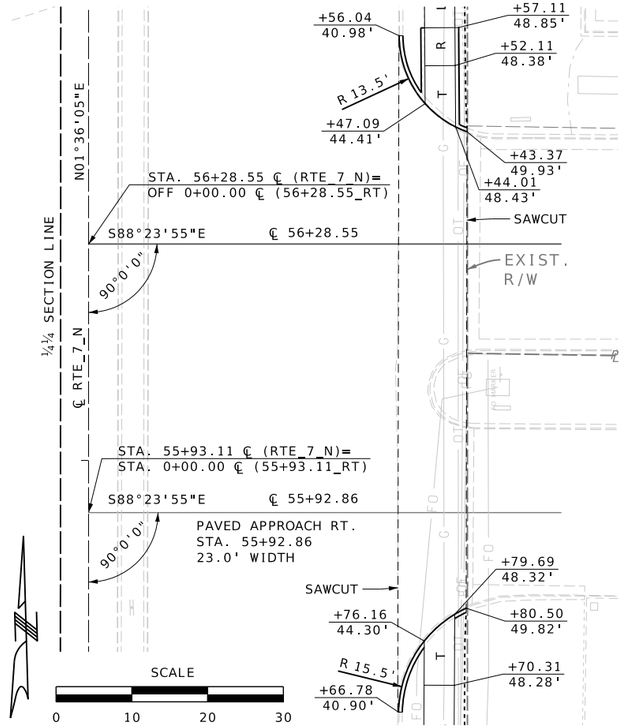
BRIDGE NO.

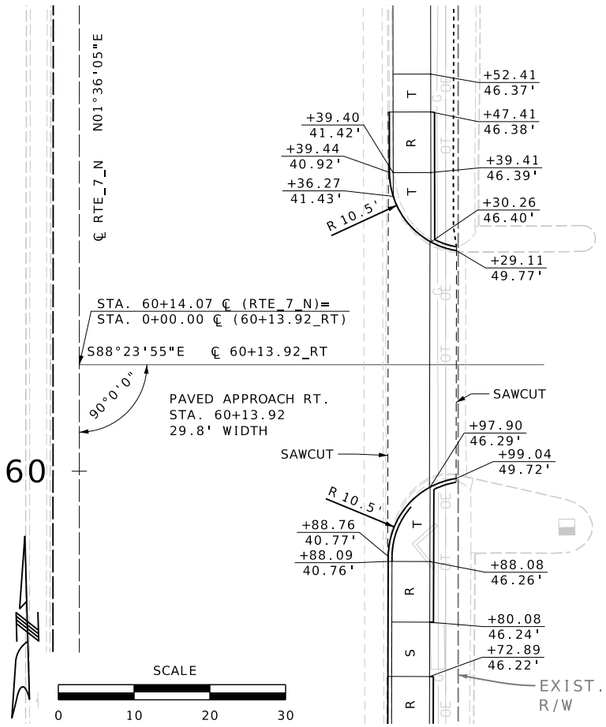
DESCRIPTION	DATE

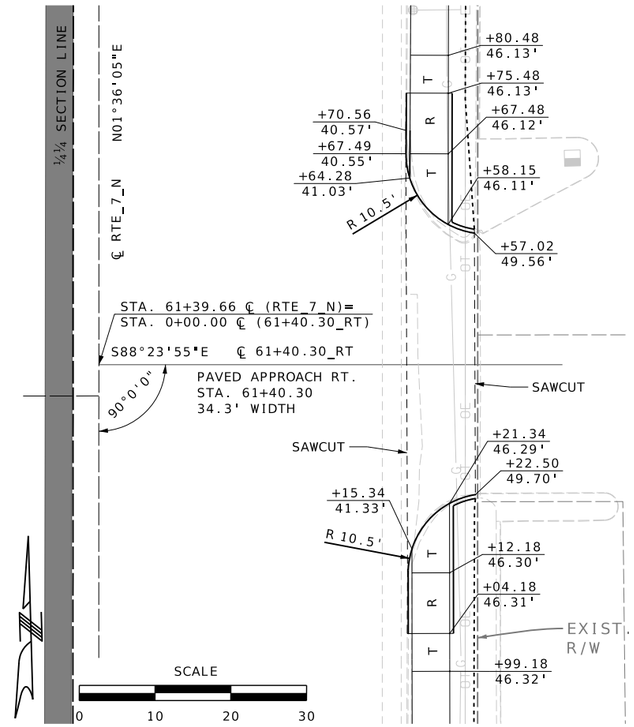
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

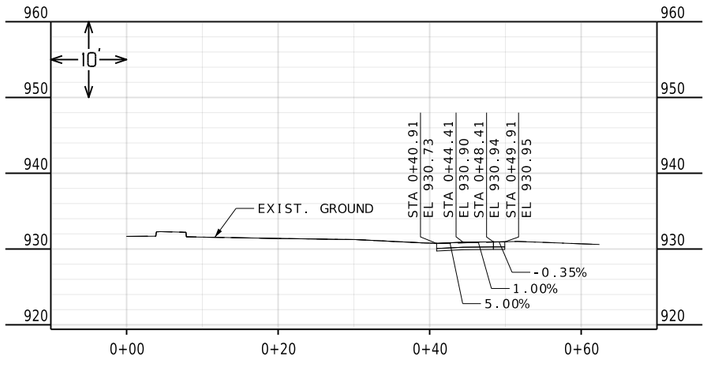
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

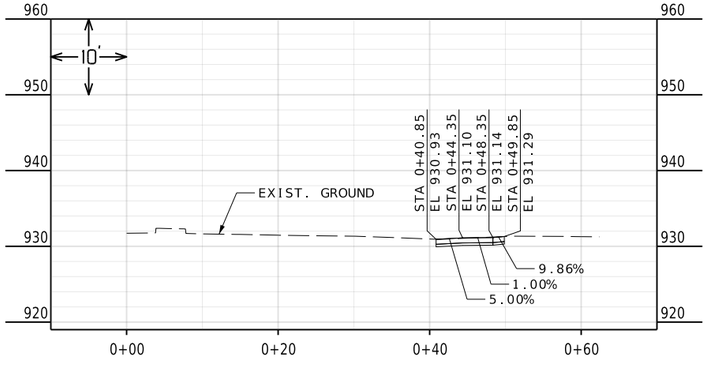
olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

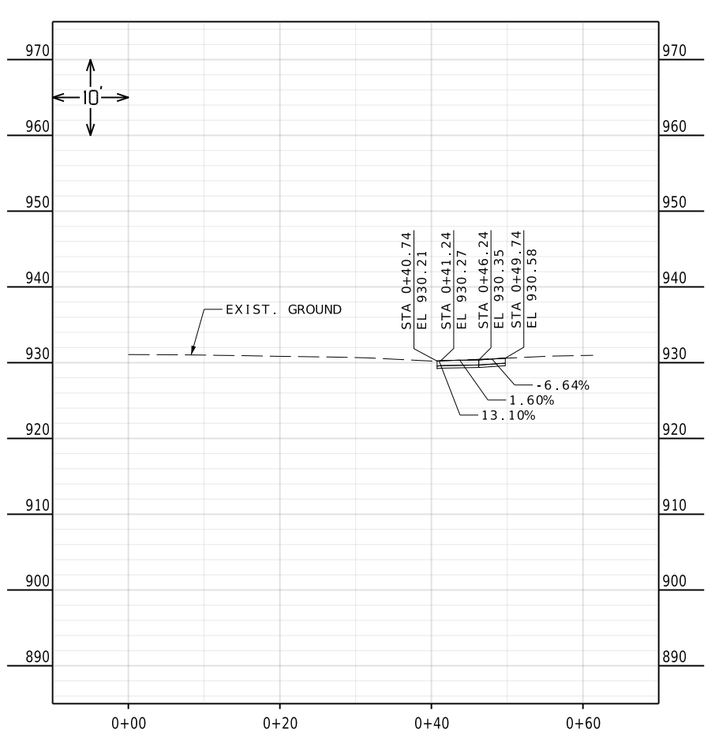


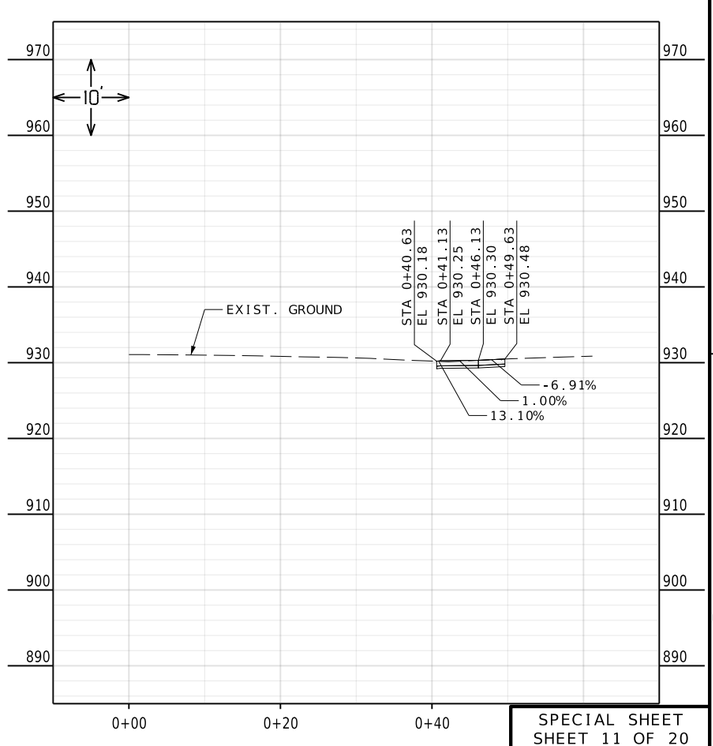












REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER MO# PE-2010019516

DATE PREPARED 8/1/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	51

COUNTY JACKSON

JOB NO. JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

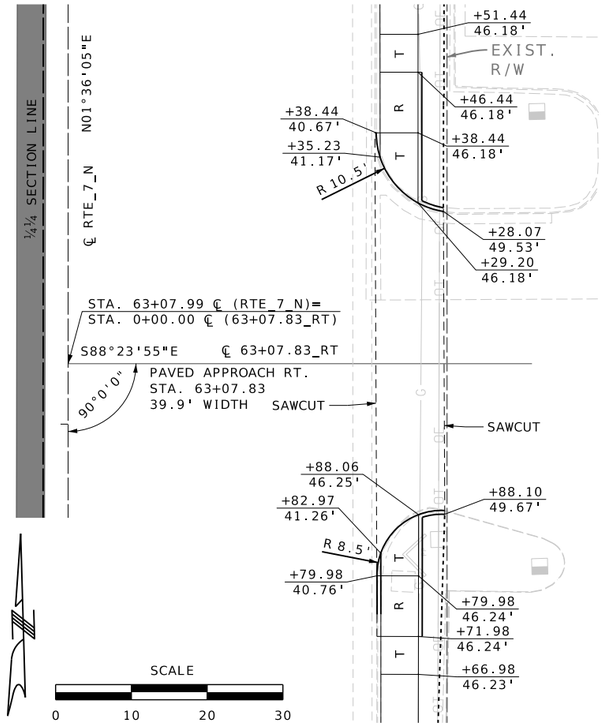
DESCRIPTION	DATE

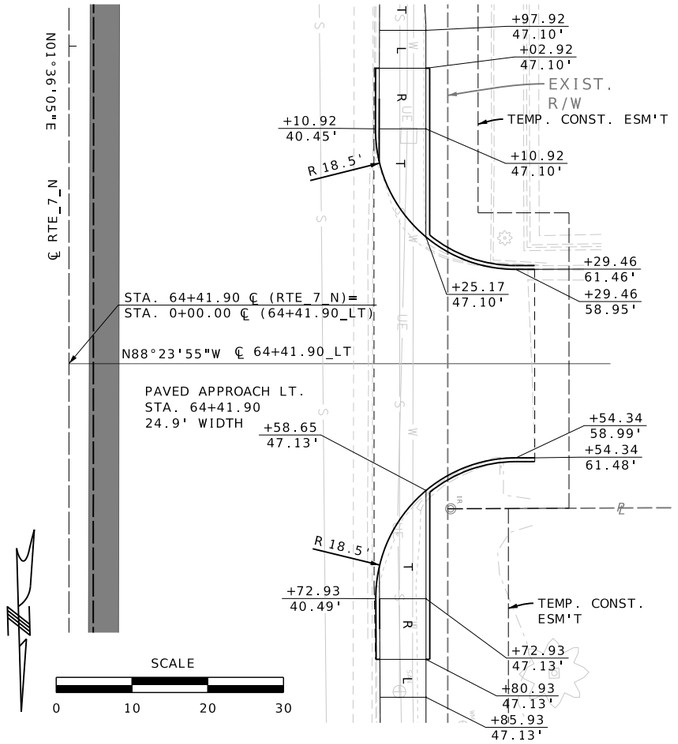
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

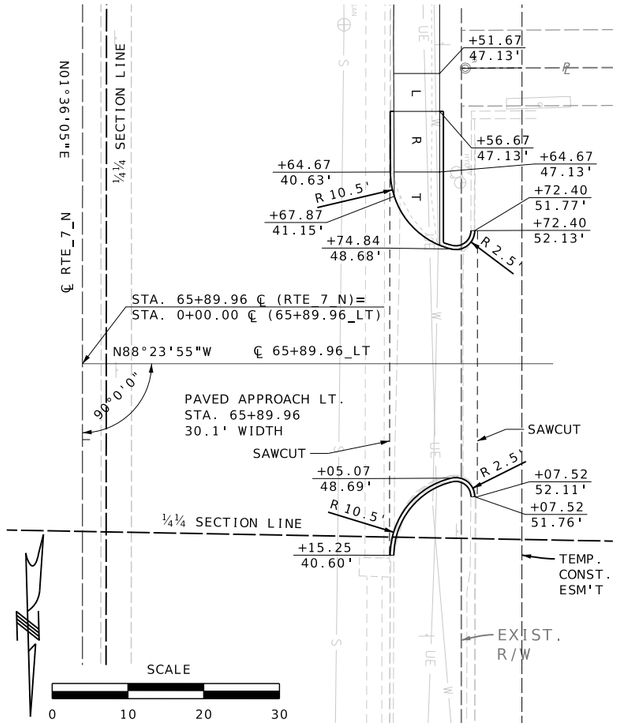
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

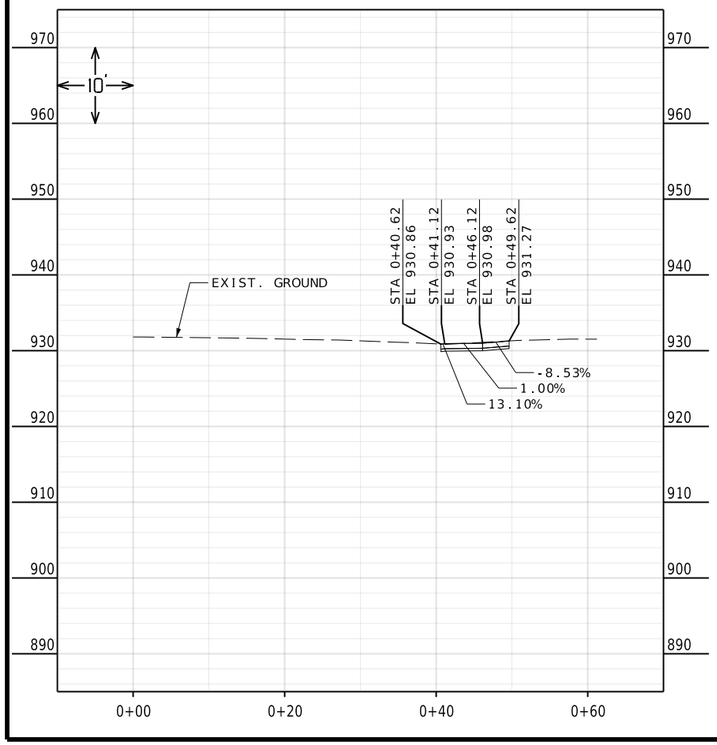
olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

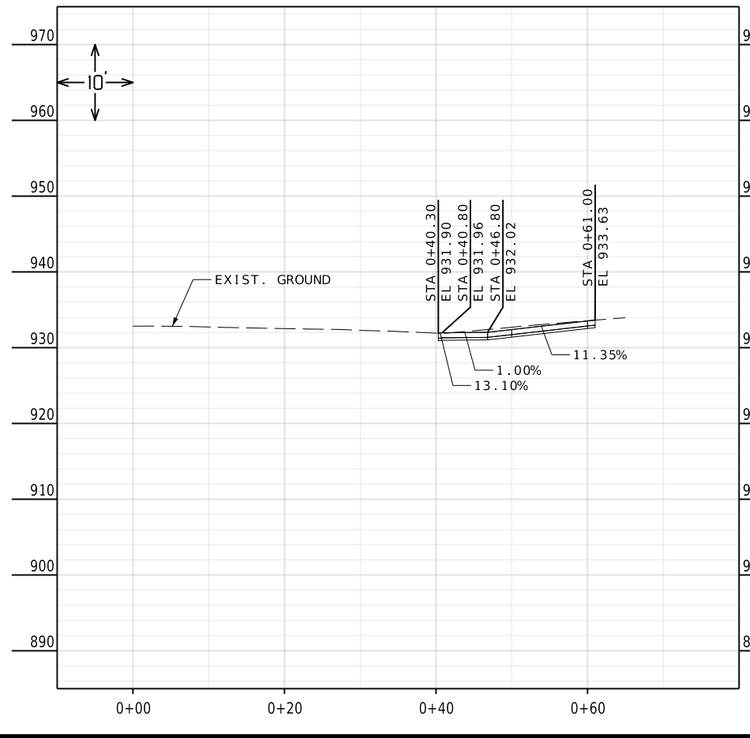
SPECIAL SHEET
SHEET 11 OF 20

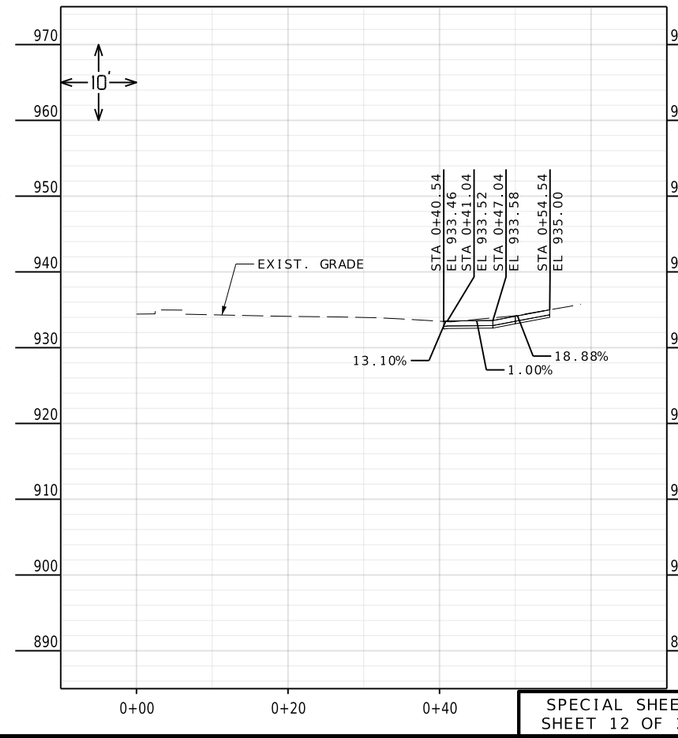












SPECIAL SHEET
SHEET 12 OF 20

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
8/1/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	52

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

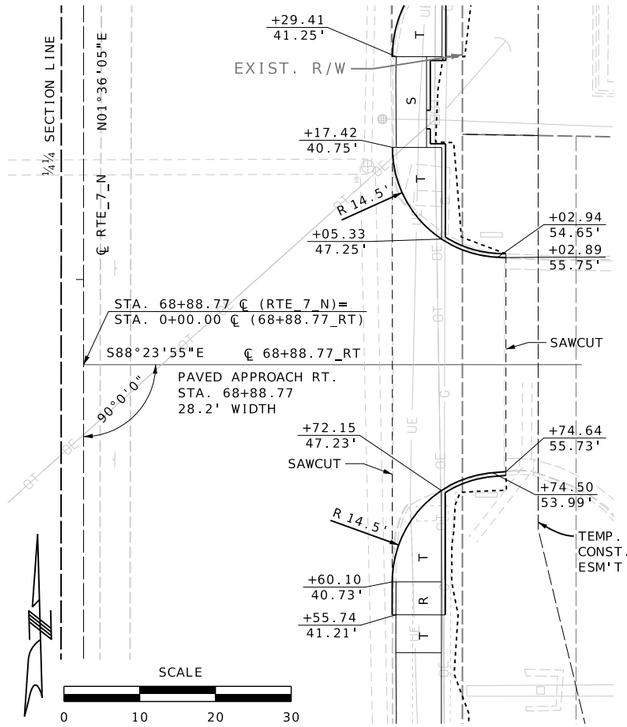
BRIDGE NO.

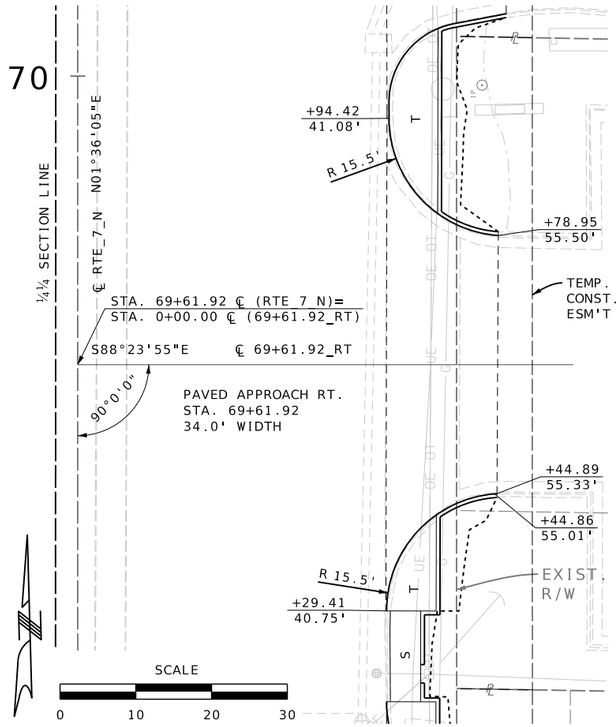
DESCRIPTION	DATE

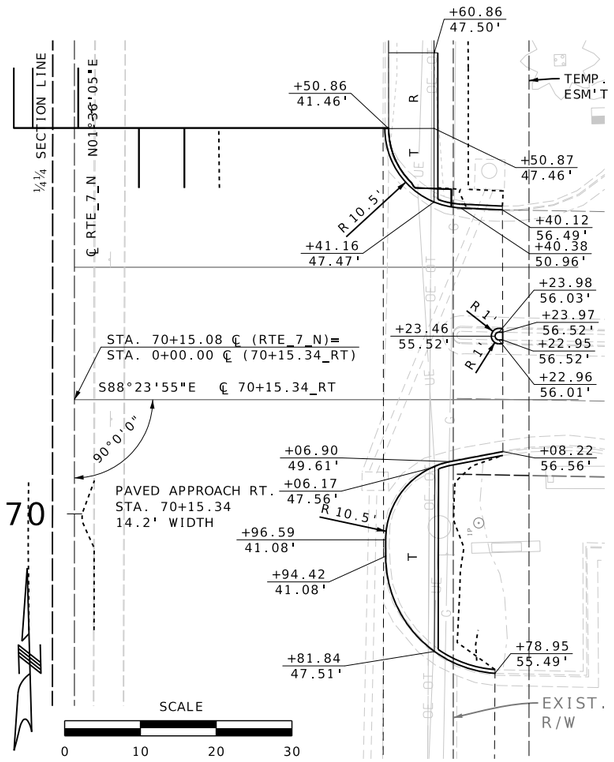
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

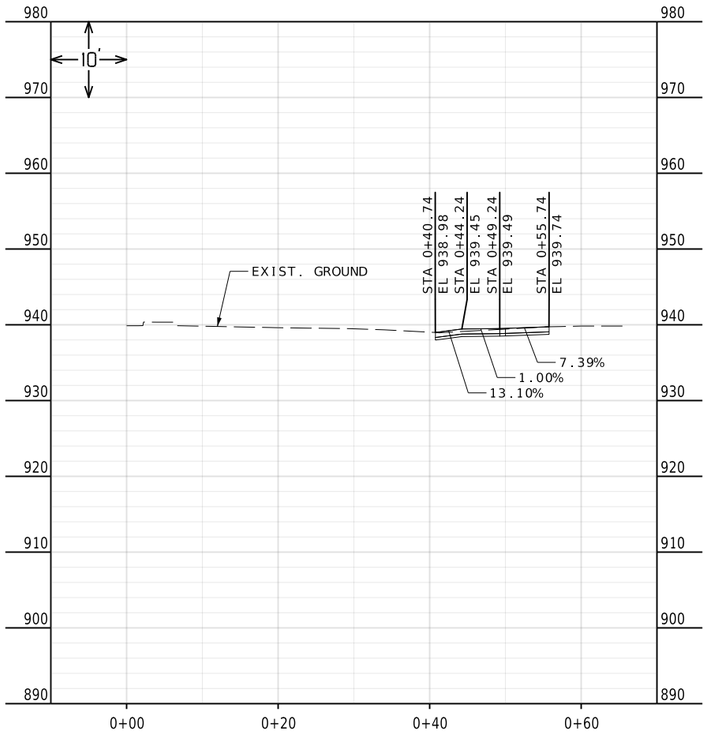
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

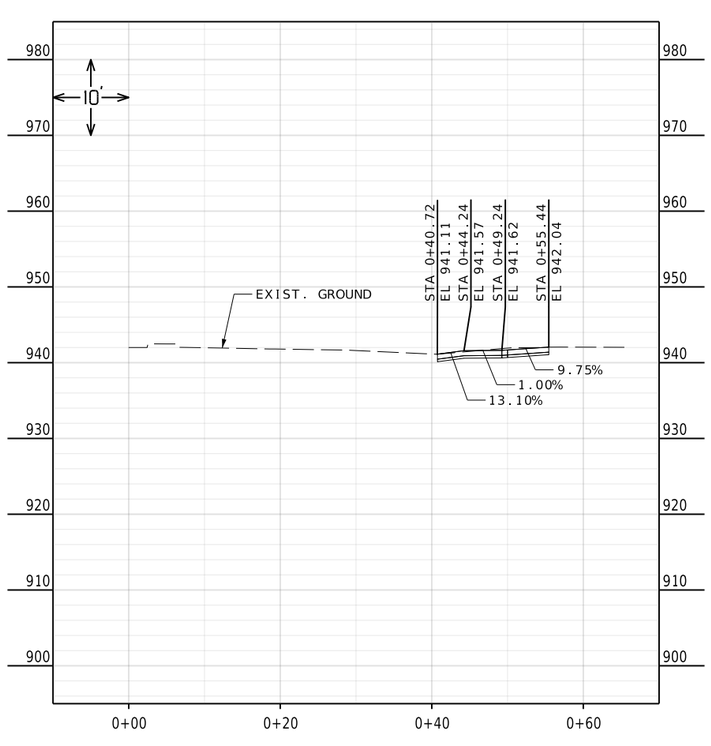
olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

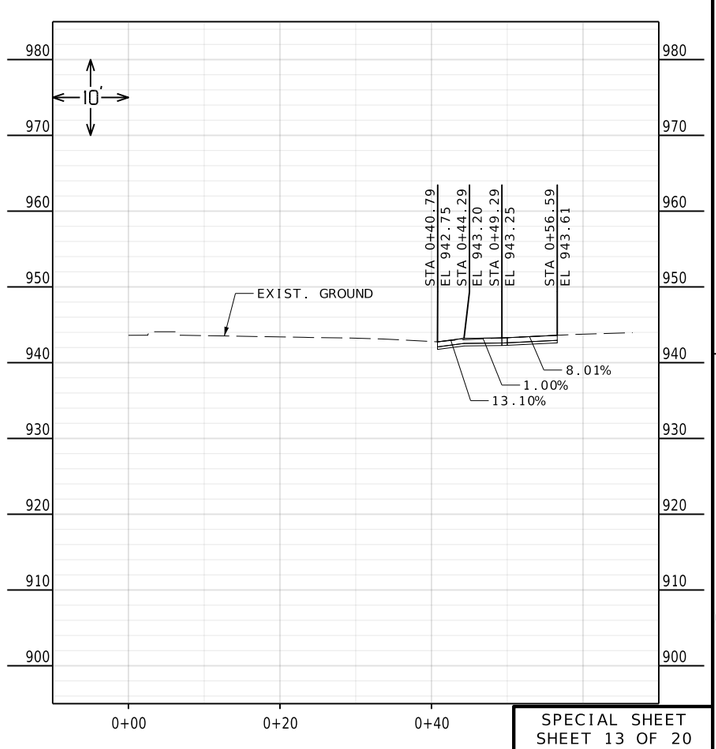












REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
10/2/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	53

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

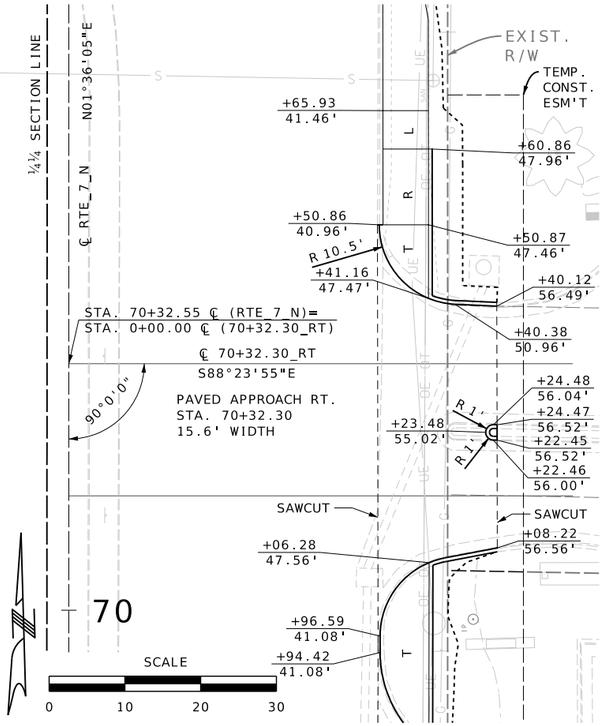
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

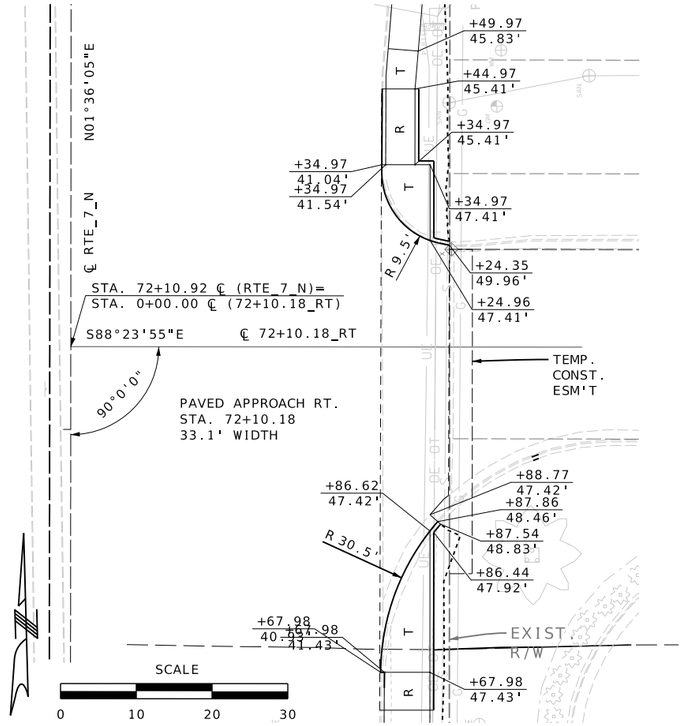
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

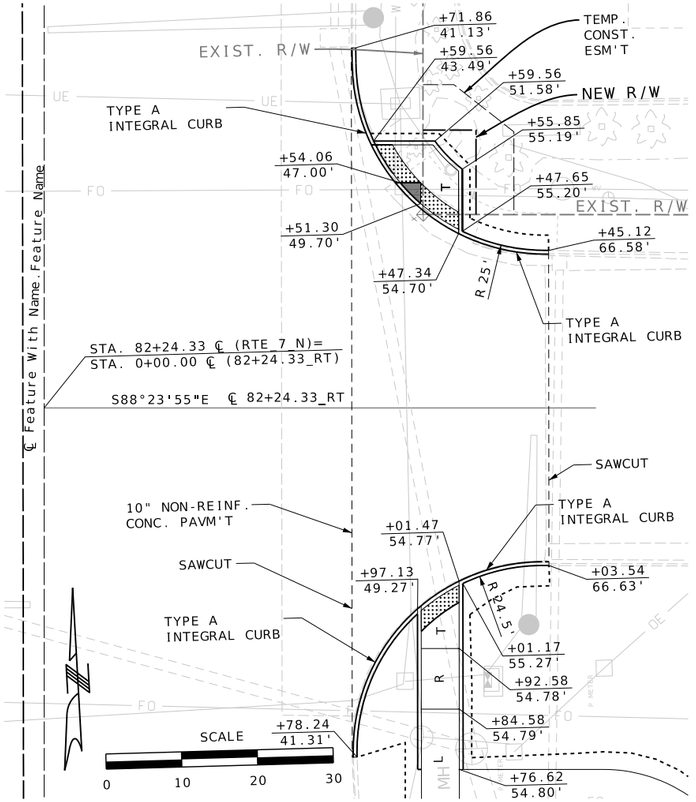
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

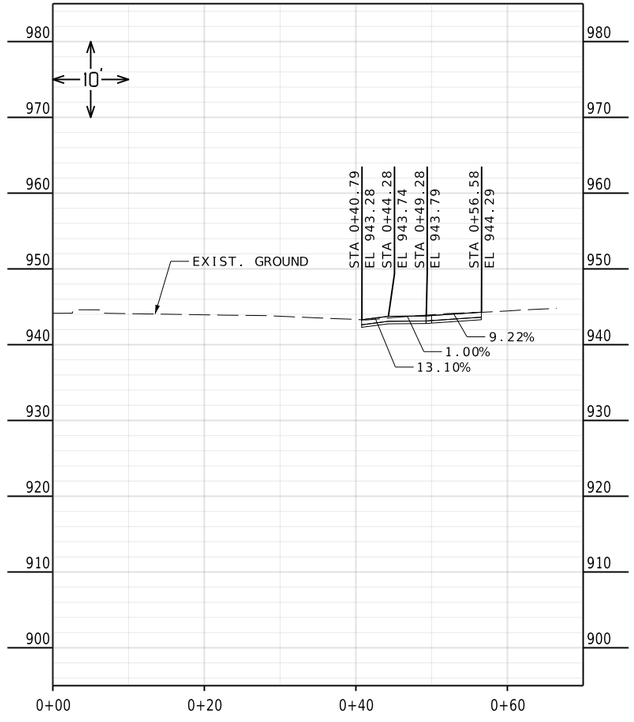
olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

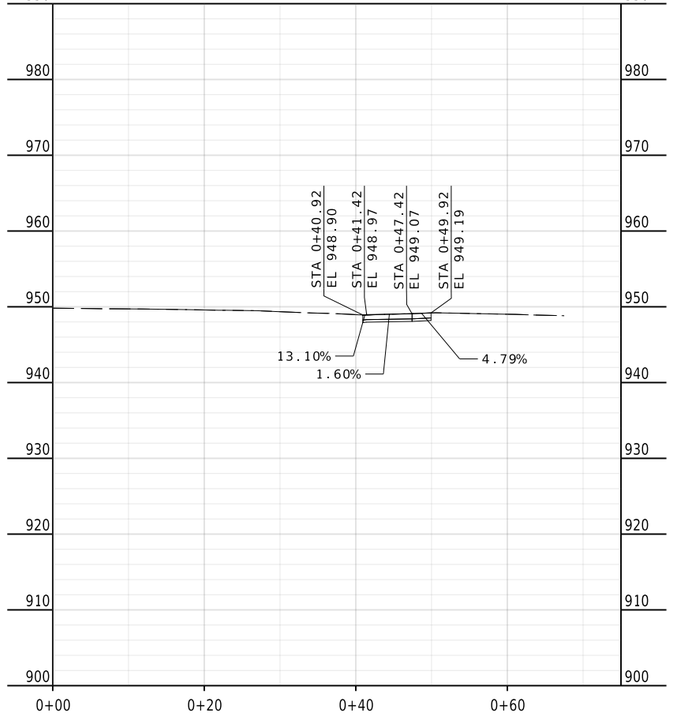
SPECIAL SHEET
SHEET 13 OF 20

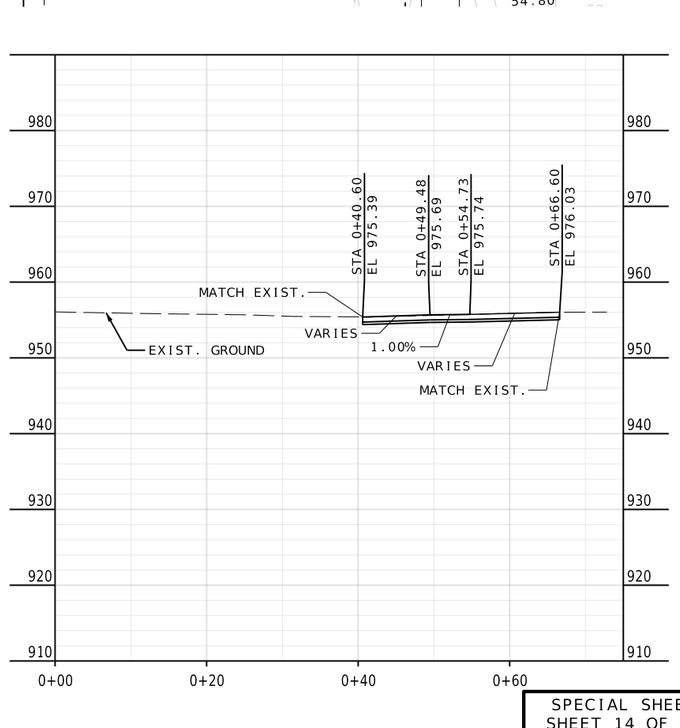












SPECIAL SHEET
SHEET 14 OF 20

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
10/2/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	54

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

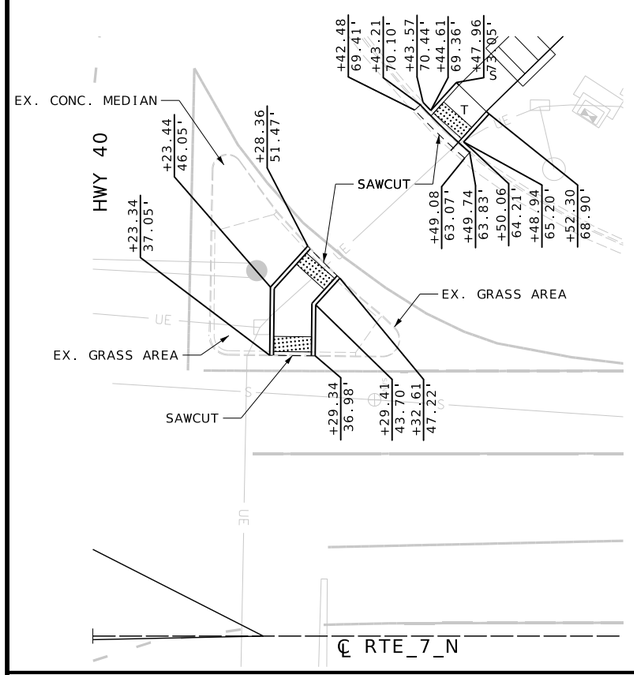
BRIDGE NO.

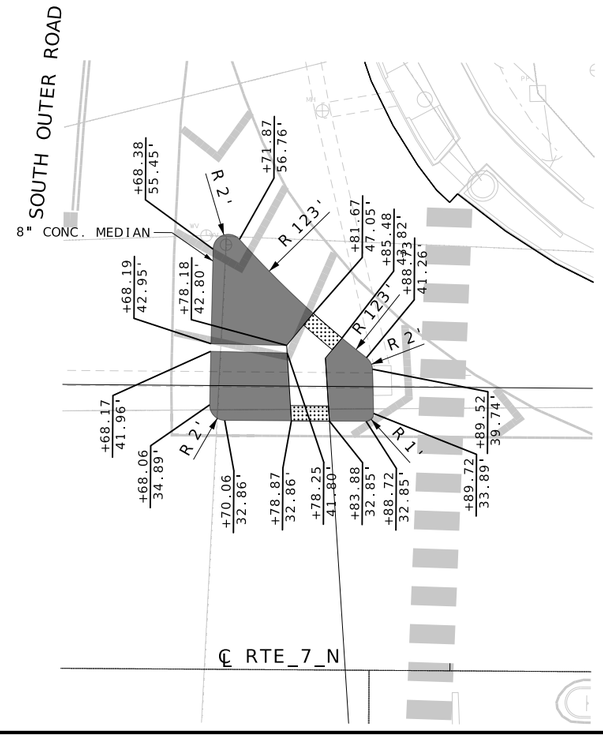
DESCRIPTION	DATE

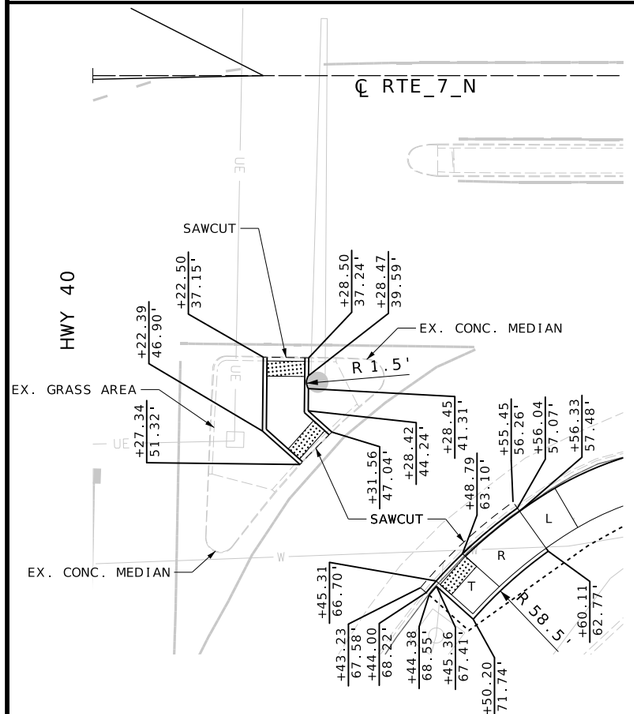
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

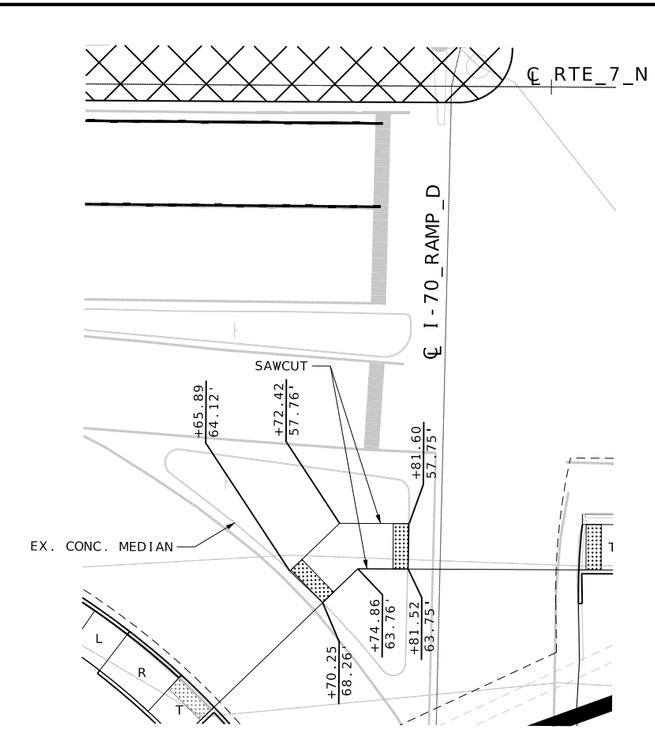
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

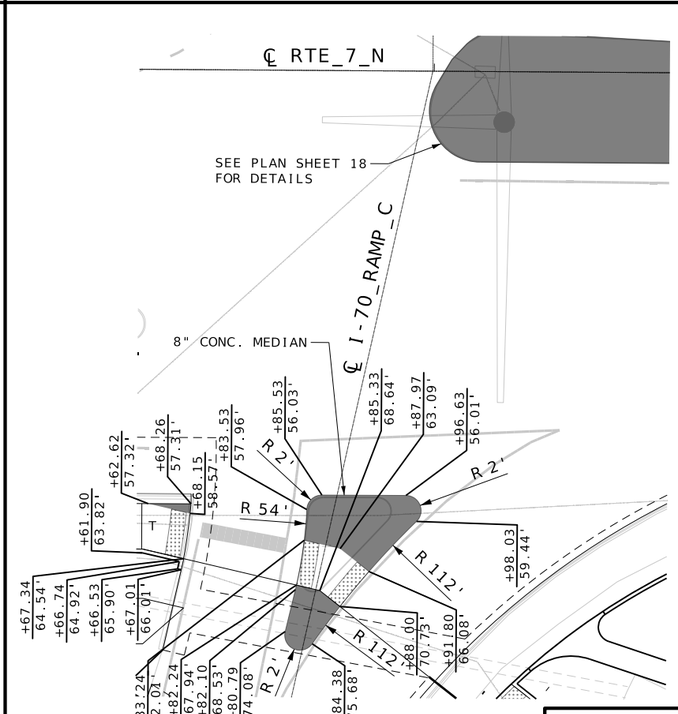
olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592











MEDIAN
SPECIAL SHEET
SHEET 15 OF 20

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
8/1/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	55

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

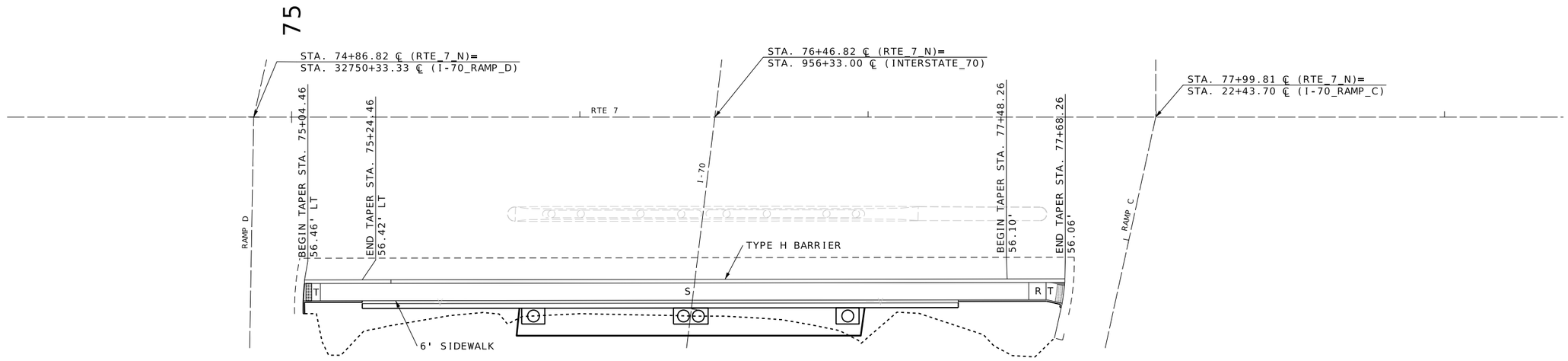
BRIDGE NO.

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

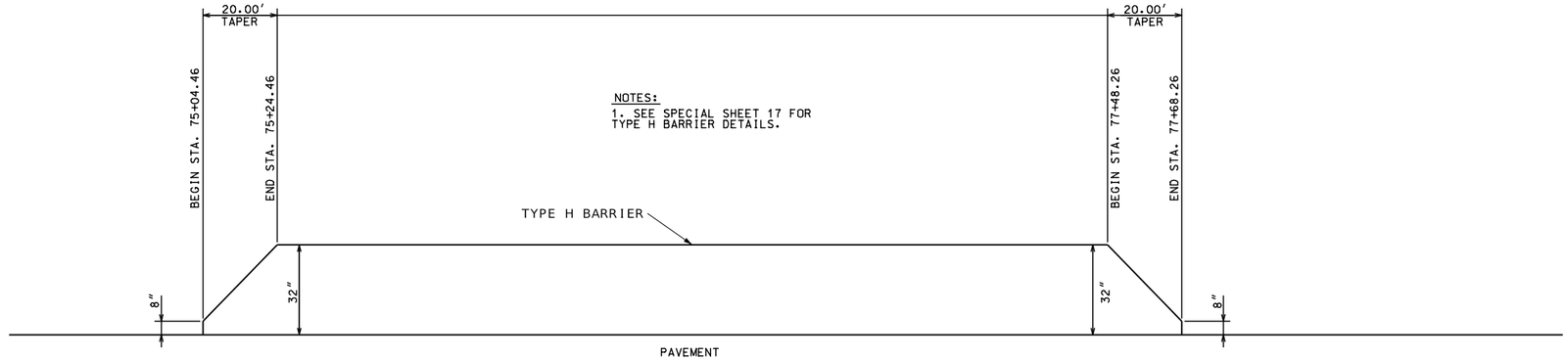
olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592



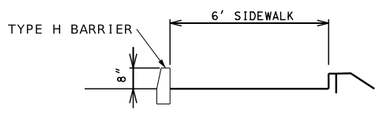
PLAN VIEW OF TYPE H BARRIER

SCALE

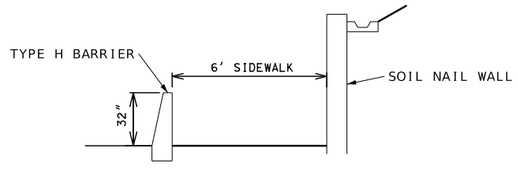
0 20 40 60



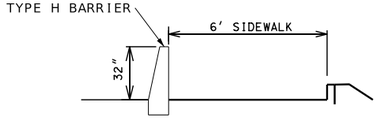
PROFILE VIEW OF TYPE H BARRIER



END VIEW OF TYPE H BARRIER
STA. 75+04.46 & STA. 77+68.26



SECTION VIEW OF TYPE H BARRIER
STA. 75+34.46 & STA. 77+39.26



SECTION VIEW OF TYPE H BARRIER
STA. 77+39.26

NOT TO SCALE

SPECIAL SHEET
TYPE H BARRIER DETAIL
SHEET 16 OF 20

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
8/1/2025

ROUTE 7 | STATE MO
DISTRICT KC | SHEET NO. 56
COUNTY JACKSON
JOB NO. JKU0010
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

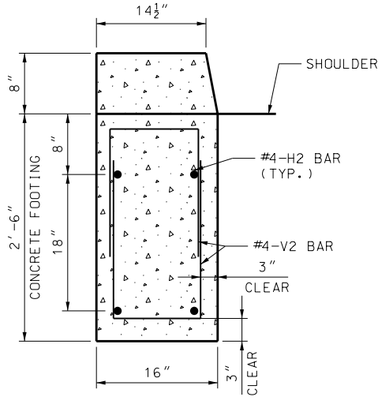
DESCRIPTION | DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

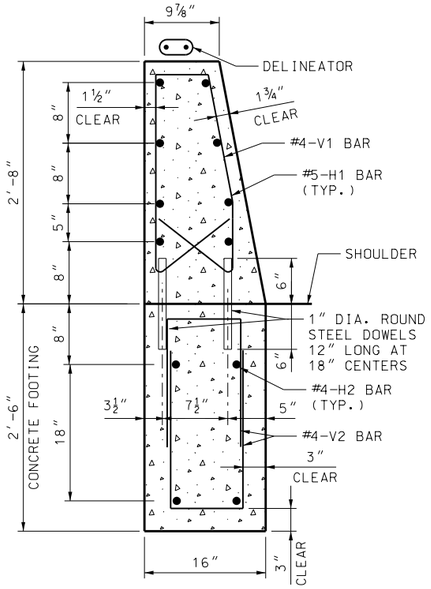
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

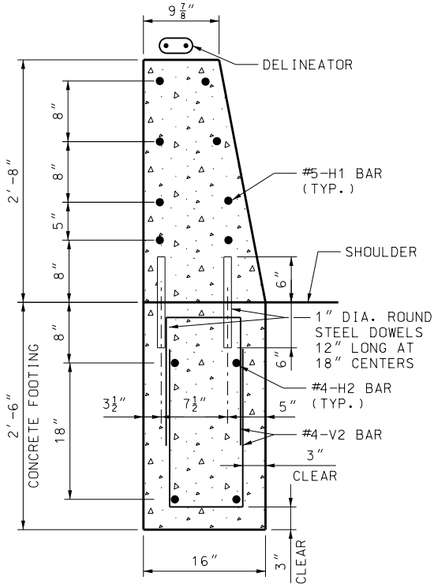
F:\2022\03001-03500\022-03371\40-Design\Microstation\JKU0010\plan_sheets\07 Special Sheets\056_SS_16_TYPE_H_BARRIER_JKU0010_I20.dgn 12:34:04 PM 8/1/2025



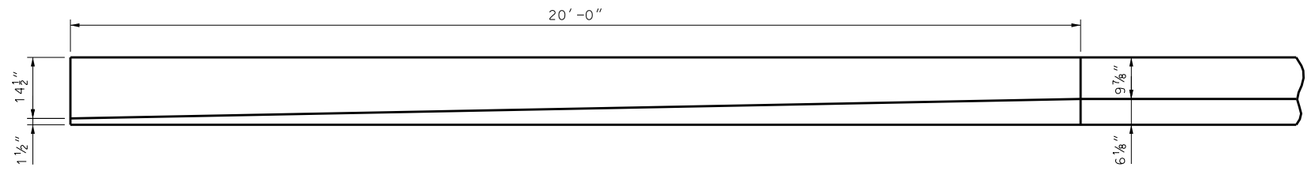
SECTION A-A



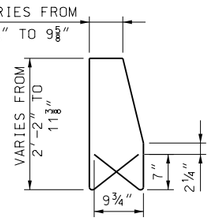
SECTION B-B



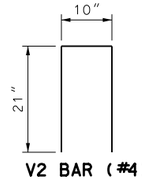
SECTION C-C



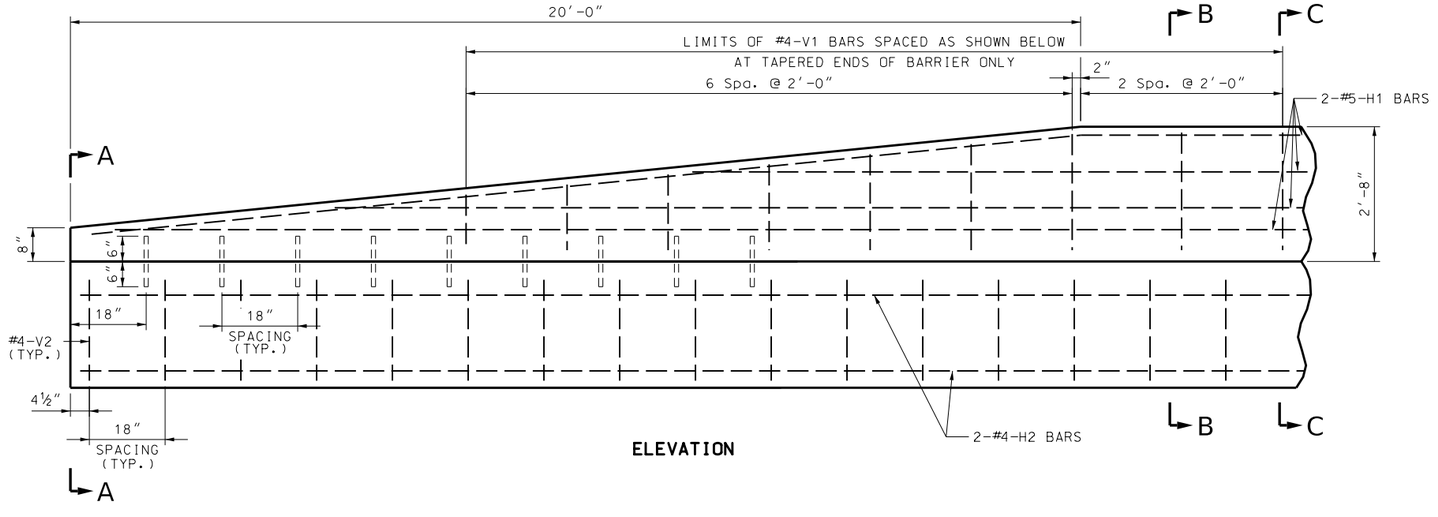
PLAN



V1 BAR (#4)



V2 BAR (#4)



ELEVATION

TYPE H BARRIER

NOTES:

TOP OF BARRIER CURB SHALL BE BUILT PARALLEL TO GRADE WITH BARRIER CURB JOINTS NORMAL TO GRADE.

ALL EXPOSED EDGES OF BARRIER CURB HALL HAVE EITHER A 1/2-INCH RADIUS OR A 3/8-INCH BEVEL, UNLESS OTHERWISE NOTED.

PAYMENT FOR ALL CONCRETE AND REINFORCEMENT, COMPLETE IN PLACE, WILL BE CONSIDERED COMPLETELY COVERED BY THE CONTRACT UNIT PRICE FOR TYPE H BARRIER WITH FOOTING PER LINEAR FOOT.

CONCRETE IN THE BARRIER CURB SHALL BE CLASS B-1.

MEASUREMENT OF BARRIER CURB IS TO THE NEAREST LINEAR FOOT FOR EACH STRUCTURE, MEASURED ALONG THE TOP OF SLAB AT ROADWAY FACE.

CONCRETE TRAFFIC BARRIER DELINEATORS SHALL BE PLACED ON TOP OF THE BARRIER CURB AS SHOWN ON MISSOURI STANDARD PLANS 617.10 AND IN ACCORDANCE WITH SEC 617. DELINEATORS ON BRIDGES WITH TWO-LANE, TWO-WAY TRAFFIC SHALL HAVE RETROREFLECTIVE SHEETING ON BOTH SIDES. CONCRETE TRAFFIC BARRIER DELINEATORS WILL BE CONSIDERED COMPLETELY COVERED BY THE CONTRACT UNIT PRICE FOR TYPE H BARRIER WITH FOOTING PER LINEAR FOOT.

ALL REINFORCEMENT SHALL BE GRADE 60 EPOXY COATED.

BAR SPLICES SHALL BE A MINIMUM OF 24 TIMES THE NOMINAL DIAMETER OF THE BAR.

MINIMUM CLEARANCE TO REINFORCING STEEL SHALL BE 1½", UNLESS OTHERWISE SHOWN.

ANY METHOD DEVICES BY THE CONTRACTOR AND APPROVED BY THE ENGINEER THAT WILL ASSURE THE LONGITUDINAL REINFORCING STEEL WILL BE POSITION ± ½ INCH AS DIMENSIONED WILL BE SATISFACTORY.

THE BARRIER SHALL NOT BE USED TO SUPPORT HIGHWAY LIGHTING POLES.

THIS BARRIER SHALL NOT BE USED FOR BRIDGE ROADWAY APPLICATIONS.

SAWED JOINTS SHALL BE SPACED AT 15'-0". SEE STANDARD PLANS FOR SAWED JOINT DETAIL.

BARRIER SHALL BE USED ONLY AT LOCATIONS SHOWN ON PLANS.

8 REINFORCING BARS WITH AN EPOXY ANCHOR SYSTEM MAY BE SUBSTITUTED FOR SMOOTH 1" DIAMETER ROUND STEEL DOWELS.

FOR CONCRETE TRAFFIC BARRIER DELINEATION DETAILS SEE MODOT STD PLAN 903.03.

IF FORMS ARE USED FOR CONCRETE FOOTING CONSTRUCTION, PLACE BACKFILL AROUND THE COMPLETED FOOTING. CONCRETE FOOTING WILL BE CONSIDERED COMPLETELY COVERED BY THE CONTRACT UNIT PRICE FOR TYPE H BARRIER WITH FOOTING PER LINEAR FOOT. (NO DIRECT PAY.)

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
8/1/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	57

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

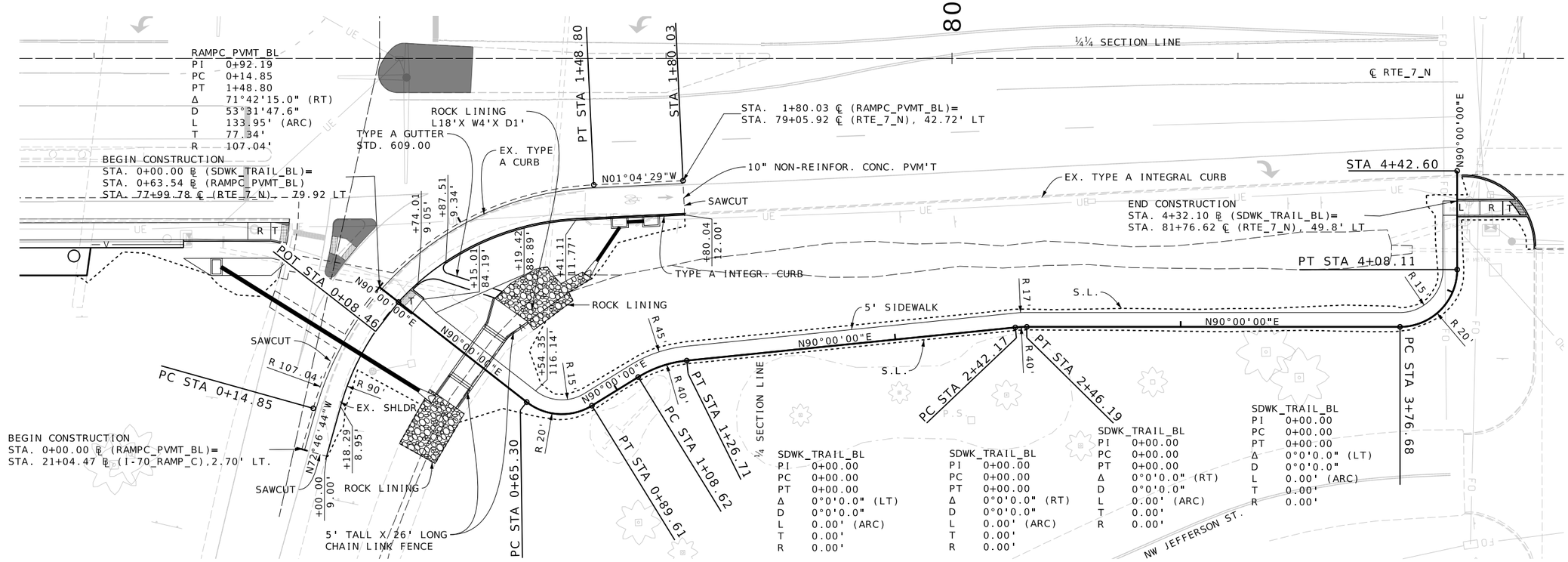
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

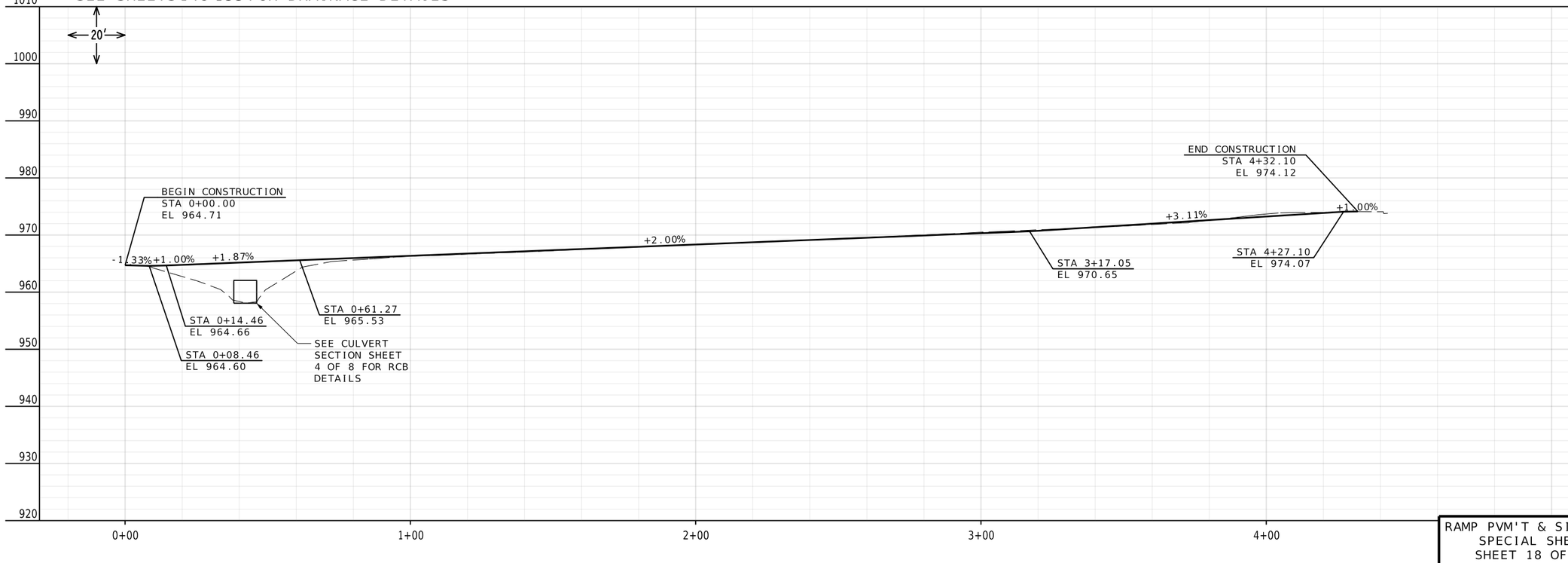
olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

SPECIAL SHEET
TYPE H BARRIER DETAILS
SHEET 17 OF 20

F:\2022\03001-03500\022-03371\40-Design\Microstation\JKU0010\plan_sheets\07 Special Sheets\057_SS_17_TYPE_H_BARRIER_STD_JKU0010_I20.dgn



SEE SHEETS 148-155 FOR DRAINAGE DETAILS



RAMP PVM'T & SIDEWALK
SPECIAL SHEET
SHEET 18 OF 20

REID BRENNEN CATT NUMBER PE-2010019516

REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
10/2/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	58

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

F:\2022\03001-03500\022-03371\40-Design\Microstation\JKU0010\plan_sheets\07 Special Sheets\058_SS_18_RAMP_PVMT_TRAIL_JKU0010_I20.dgn 6:41:32 PM 10/2/2025

℄ S_OUTER_RD_EOP	
PI	0+61.61
PC	0+14.33
PT	0+90.58
Δ	85°40'10.1" (LT)
D	112°20'40.8"
L	76.26' (ARC)
T	47.28'
R	51.00'

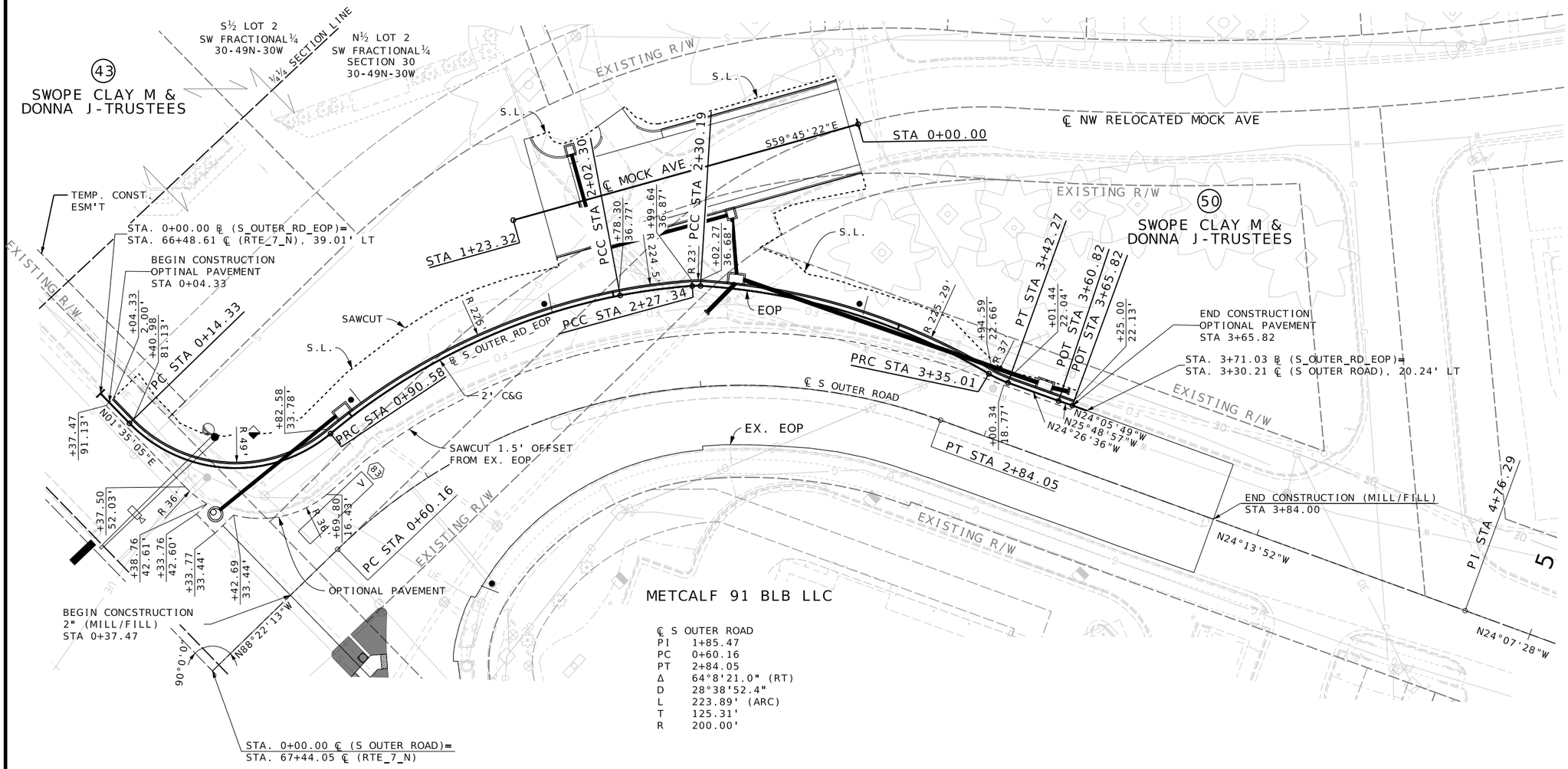
℄ S_OUTER_RD_EOP	
PI	1+47.64
PC	0+90.58
PT	2+02.30
Δ	28°42'15.8" (RT)
D	25°41'35.4"
L	111.72' (ARC)
T	57.06'
R	223.00'

℄ S_OUTER_RD_EOP	
PI	2+14.83
PC	2+02.30
PT	2+27.34
Δ	6°26'48.6" (RT)
D	25°45'6.7"
L	25.03' (ARC)
T	12.53'
R	222.49'

℄ S_OUTER_RD_EOP	
PI	2+28.77
PC	2+27.34
PT	2+30.19
Δ	7°47'28.1" (RT)
D	272°50'13.4"
L	2.86' (ARC)
T	1.43'
R	21.00'

℄ S_OUTER_RD_EOP	
PI	2+83.59
PC	2+30.19
PT	3+35.01
Δ	26°53'44.6" (RT)
D	25°39'35.2"
L	104.82' (ARC)
T	53.39'
R	223.29'

℄ S_OUTER_RD_EOP	
PI	3+38.65
PC	3+35.01
PT	3+42.27
Δ	10°39'32.2" (LT)
D	146°54'44.1"
L	7.26' (ARC)
T	3.64'
R	39.00'



SEE SHEETS 21- 37 FOR RIGHT OF WAY DETAILS
SEE SHEETS 41 - 54 FOR DRIVEWAY DETAILS
SEE SHEETS 148-155 FOR DRAINAGE DETAILS

SOUTH OUTER ROAD
SPECIAL SHEET
SHEET 19 OF 20

REID BRENNEN CATT
NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
10/2/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	59

COUNTY
JACKSON
JOB NO.
JKU0010
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DATE	DESCRIPTION

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

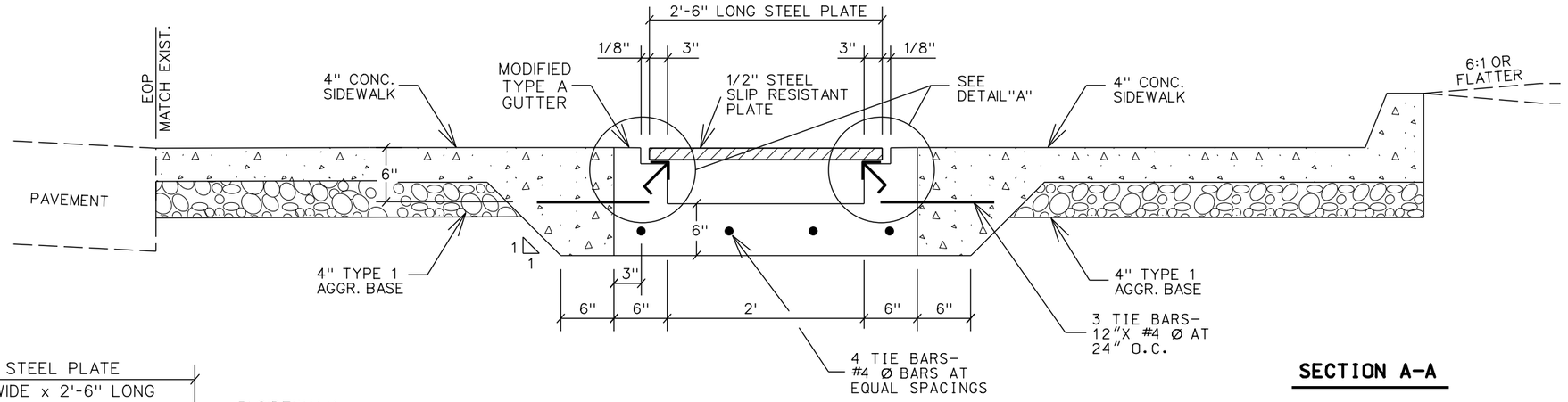
olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

F:\2022\03001-03500\022-03371\40-Design\Microstation\JKU0010\plan_sheets\07 Special Sheets\059_SS_19_S_OUTER_RD_JKU0010_I20.dgn 6:41:36 PM 10/2/2025

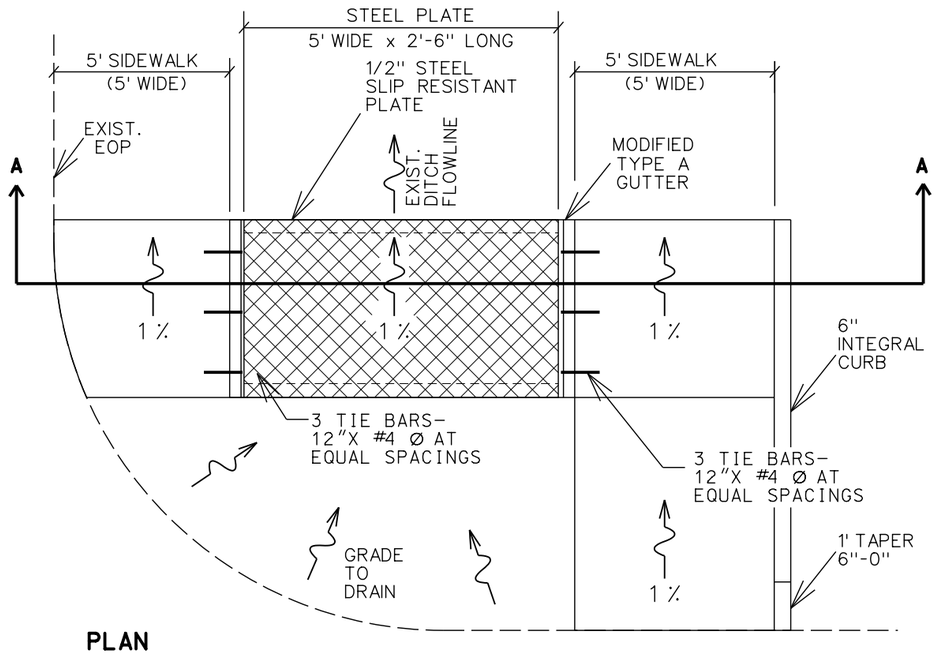
REVISED: XX-XX-XXXX

NOTES:

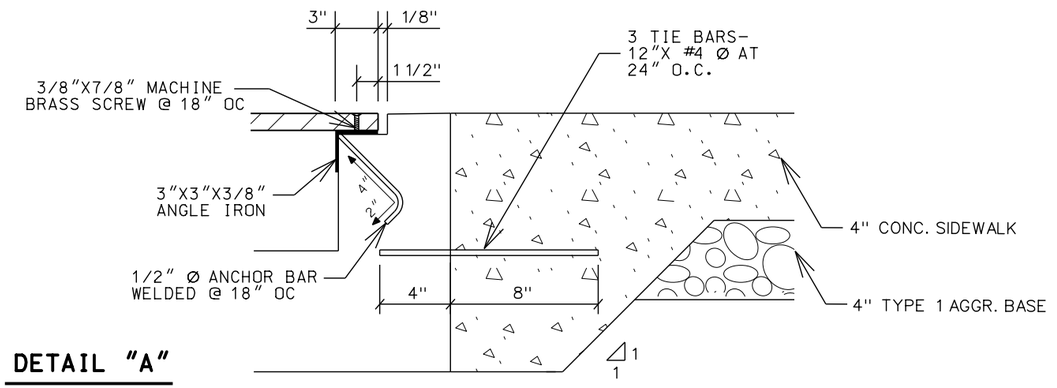
1. THE 1/2" STEEL SLIP-RESISTANT PLATE SHALL HAVE A MIN. STATIC COEFFICIENT OF FRICTION OF 0.6.
2. FLATHEAD BRASS MACHINE SCREWS 3/8" x 7/8". HOLES SHALL BE DRILLED AND TAPPED IN THE FIELD AT INTERVALS NOT TO EXCEED 18" CENTER TO CENTER (NO DIRECT PAY).
3. ALL REINFORCING STEEL BARS SHALL BE EPOXY COATED (NO DIRECT PAY).
4. ALL REINFORCING STEEL, ANCHOR BARS, ANGLE IRON, SCREWS, AND 'T' SUPPORTS SHALL BE INCIDENTAL (NO DIRECT PAY).



SECTION A-A



PLAN



DETAIL "A"

NOT TO SCALE

STA. 0+50.00 LT.

MODIFIED TYPE A GUTTER W/ STEEL PLATE

SPECIAL SHEET
SHEET 20 OF 20

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
8/1/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	60

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

SPACING AND TAPER LENGTHS FOR WORK ZONE SIGNS, CHANNELIZERS AND CONCRETE BARRIER

SIGN SPACING FOR ADVANCE SIGN SERIES (1)		
PERMANENT POSTED SPEED MPH	UNDIVIDED HIGHWAYS	DIVIDED HIGHWAYS
0-35	200'	200'
40-45	350'	500'
50-55	500'	1000'
60-70	1000'	SA - 1000' SB - 1500' SC - 2640'

TAPER LENGTHS AND END TREATEMENTS FOR CONCRETE BARRIER				
PERMANENT POSTED SPEED MPH	MINIMUM LANE TAPER LENGTH (2)			END TREATMENT (3)
	10'	11'	12'	
<40	160'	168'	176'	BARRIER HEIGHT TRANSITION
>40	160'	168'	176'	APPROVED CRASH CUSHION

TAPER LENGTHS AND SPACING FOR CHANNELIZERS							
PERMANENT POSTED SPEED MPH	MINIMUM LANE TAPER LENGTH			MINIMUM SHOULDER TAPER LENGTH BASED ON 10' SHOULDER	BUFFER LENGTH FT.	MAXIMUM CHANNELIZER SPACING	
	10'	11'	12'			THROUGH TAPER	THROUGH WORK AREA
0-35	205'	225'	245'	70'	280'	35'	40'
40-45	450'	495'	540'	150'	400'	40'	80'
50-55	550'	605'	660'	185'	560'	50'	80'
60-70	700'	770'	840'	235'	840'	60'	120'

NOTE:
SEE STANDARD PLAN 616.10 FOR TEMPORARY TRAFFIC CONTROL DEVICES.

NOTES:

(1) SPACING BETWEEN SIGNS AND SPACING BETWEEN LAST SIGN AND FLAGGER, BEGINNING OF TAPER, OF SIGNED CONDITION MAY BE ADJUSTED BY INCREASING TO ACCOMMODATE FIELD CONDITIONS AND VISIBILITY.

(2) TAPER LENGTHS SHOWN INCLUDE LENGTH REQUIRED FOR LANE AND 10' SHOULDER.

(3) CONCRETE BARRIER MAY BE INSTALLED AT AND 8:1 FLARE RATE FROM THE SHOULDER POINT TO THE LIMITS OF THE CLEAR ZONE WHERE THE SIDE SLOPE IS 6:1 OR FLATTER. CONTRACTOR MY PROVIDE CONCRETE BARRIER AT OWN EXPENSE. INCIDENTAL TO PROJECT.

GENERAL NOTES:

1. AS WITH ALL CONSTRUCTION ACTIVITIES TRAFFIC SITUATIONS ARE SUBJECT TO CHANGE. THE CONTRACTOR SHALL BE AWARE THAT ALL TEMPORARY TRAFFIC CONTROL SHALL CONFORM TO THE STANDARDS OUTLINED IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.) THE MISSOURI STANDARD PLANS FOR HIGHWAY CONSTRUCTION, SECTION 600 AND SHALL FOLLOW THE GUIDELINES IN THE MODOT 'TRAFFIC CONTROL FOR FIELD OPERATIONS MANUAL'.

2. A TOTAL OF FOUR (4) PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE SUPPLIED AND PLACED ROADSIDE OF EACH APPROACH TO THE WORK ZONE, INCLUDING ROUTE 7 (NORTH & SOUTH PROJECT LIMITS), I-70 EB AT ROUTE 7 EXIST RAMP, AND ROUTE 7 (SOUTH OF I-70). A MINIMUM OF FOURTEEN (14) DAYS IN ADVANCE OF ANY TURNING RESTRICTIONS, LANE CLOSURES, OR DETOURS REQUIRED BY THE TEMPORARY TRAFFIC CONTROL.

3. PLACE A 'ROAD WORK AHEAD' SIGN ON THE APPROACH TO ALL INTERSECTIONS WHERE THE ADVANCE SIGNING FOR THE TEMPORARY TRAFFIC CONTROL EXTENDS PAST THAT INTERSECTION.

4. NOTIFY, MODOT RESIDENT ENGINEER AT 816-347-4143 (OFFICE) 48-HOURS IN ADVANCE OF ANY LANE CLOSURE OR ROADWAY CLOSURE.

5. ALL EXISTING SIGNS SHALL BE USED IN PLACE. ADJUSTED AND/OR COVERED AS CONDITIONS REQUIRE.

6. REFER TO MODOT STANDARD PLANS 619.10J. SHEETS 1-3 FOR "PAVEMENT EDGE TREATMENT" DETAILS. THE CONTRACTOR SHALL BE REQUIRED TO FOLLOW THIS STANDARD DURING WORKING AND NON-WORKING HOURS.

7. ALL STATIONING, DISTANCES, AND SPACING OF WORK ZONES DEVICES ARE APPROXIMATE AND MAY BE REVISED AS APPROVED BY ENGINEER.

8. TYPE III MOVEABLE BARRICADES TO BE LOCATED AS APPROVED BY THE ENGINEER TO FIT FIELD CONDITIONS.

9. FIRST ORDER OF WORK ON ALL PHASES SHALL BE PLACEMENT OF ALL WORK ZONE WARNING DEVICES AND SIGNS AS NOTED.

10. SIGNS SHALL REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETED OR AS APPROVED BY THE ENGINEER.

11. SIGNS LEFT IN PLACE OVERNIGHT MUST BE MOUNTED AT 7' MINIMUM.

12. ALTERNATE TRAFFIC CONTROL MAY BE USED AS NEEDED AT THE APPROVAL OF THE ENGINEER.

13. SPEED LIMIT SIGNS INDICATING THE NORMAL SPEED LIMIT SHALL BE INSTALLED AT THE END OF THE WORK ZONE, NO FURTHER WORK ZONES WILL BE ENCOUNTERED WITHIN THE NEXT 1/2 MILE.

14. TEMPORARY SPEED LIMIT SIGNS SHALL BE COVERED OR REMOVED WHEN THE CONDITIONS REQUIRING REDUCED SPEEDS DO NOT EXIST.

15. NO DIRECT PAYMENT WILL BE MADE FOR RELOCATION OF CHANNELIZERS OR CONSTRUCTION SIGNS.

16. DISTANCE MAY BE ADJUSTED (INCREASED, TYPICALLY) ACCORDING TO FIELD CONDITIONS.

17. REFER TO MODOT STANDARD PLAN, 612.20 FOR SAND FILLED IMPACT ATTENUATORS AND 617.20 FOR TEMPORARY CONCRETE TRAFFIC BARRIER.

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED
10/6/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	61

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

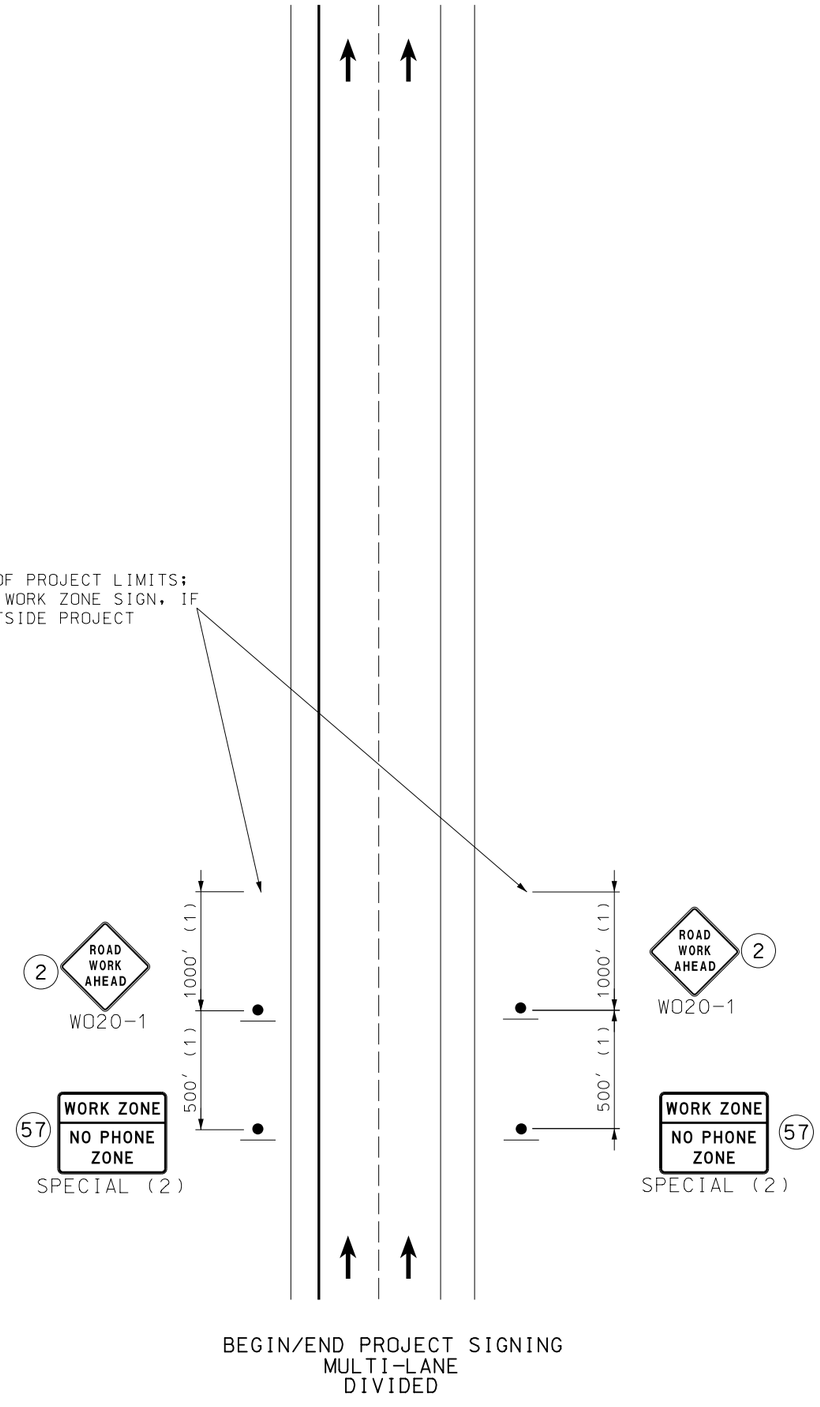
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

F:\2022\03001-03500\022-03371\40-Design\Microstation\JKU0010\plan_sheets\08 Traffic Control\061_TC_01_JKU0010_I30.dgn 4:43:16 PM 10/6/2025

NOT TO SCALE



BEGIN/END PROJECT SIGNING
MULTI-LANE
DIVIDED

BEGINNING PROJECT SIGNING NOTES:

ANY EXISTING SIGNING THAT CONFLICTS WITH THE TRAFFIC CONTROL SIGNING SHALL BE COMPLETELY COVERED OR REMOVED.

(1) DISTANCE MAY BE ADJUSTED ACCORDING TO FIELD CONDITIONS. WHERE TRAFFIC BACKUPS ARE EXPECTED BEYOND THE ADVANCED WARNING AREA, ADDITIONAL SIGNING MAY BE NEEDED.

(2) THE "WORK ZONE ON PHONE ZONE" SIGN IS PLACED A MINIMUM OF 500 FEET BEFORE THE ROAD WORK AHEAD SIGN.

JEREMY
SCOTT STRETZ
NUMBER
PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED
10/6/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	62

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE
DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

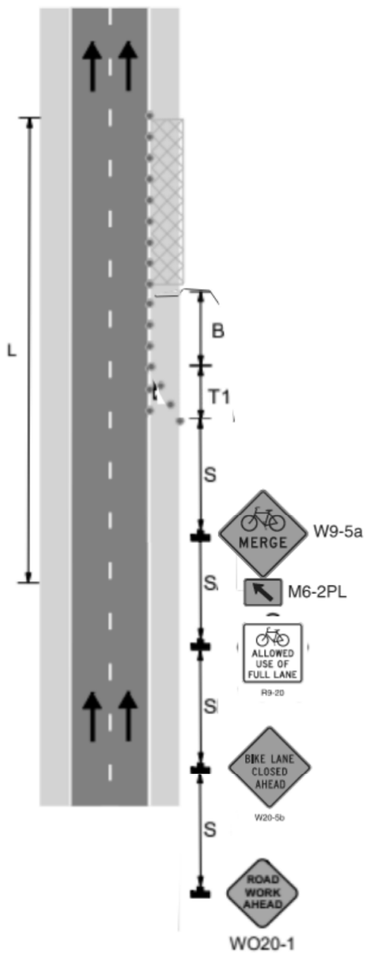
olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

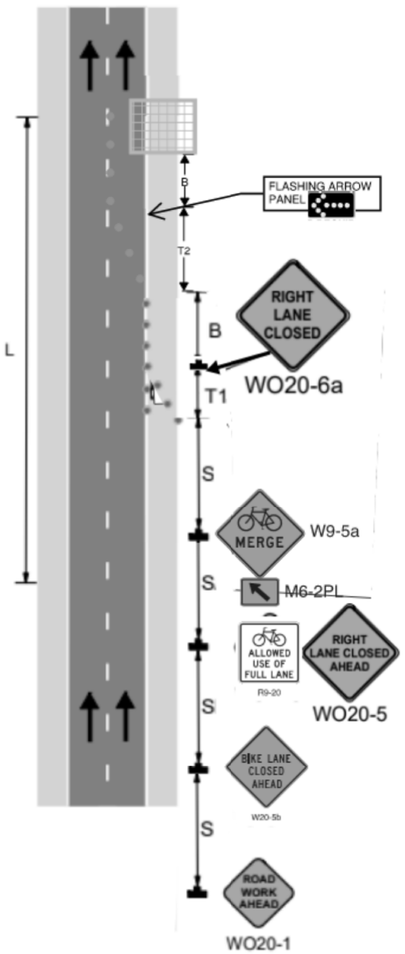
TRAFFIC CONTROL
SHEET 2 OF 7

NOT TO SCALE

SHOULDER AND LANE CLOSURE WORK ALONG ROUTE 7 - STANDARD DETAILS

- Channelizer
- Sign
- Flashing Arrow Panel
- Protective Vehicle
- Truck Mounted Attenuator (TMA)
- Work Space





NOTES:

(1). SEE TRAFFIC CONTROL SHEET 1 FOR WORK ZONE SPEED LIMIT GUIDELINES.

(2). SEE TRAFFIC CONTROL SHEET 1 FOR SIGN SPACING, DEVICE SPACING AND CHANNELIZING TAPER LENGTHS.

(3). FOR SIGNALIZED INTERSECTIONS, ADJUSTMENTS MAY NEED TO BE MADE TO SIGNAL PHASING, TIMING, INDICATIONS OR DETECTOR SETTINGS.

(4). REMOVE AND/OR MODIFY EXISTING PAVEMENT MARKING AS NEEDED.

(5). PAVEMENT MARKING AND BARRICADES OPTIONAL FOR SHORT TERM OPERATIONS.

(6). TEMPORARY PAVEMENT MARKING REQUIRED WITH LONG TERM LANE CLOSURES.

(7). FOR SHORT TERM OPERATIONS, WHERE IT IS NOT FEASIBLE TO MODIFY PAVEMENT MARKING, A 10' DEVICE SPACING IS USED WHERE TRAFFIC IS GUIDED ACROSS DOUBLE YELLOW LINES OR OTHER CONFLICTING PAVEMENT MARKINGS. ALL OTHER SPACINGS ARE ONE HALF OF THE SPACING SHOWN ON TRAFFIC CONTROL SHEET 1.

SPEED	SIGN SPACING (ft.)	TAPER LENGTH (ft.)		RECOMMENDED	CHANNELIZER SPACING (ft.)	
Permanent Posted (mph)	Divided (S)	Shoulder (1) (T1)	Lane (2) (T2)	Buffer Length (ft.) (B)	Tapers	Buffer/ Work Areas
0-35	200	70	-	250	35	40
40-45	500	150	-	360	40	80
50-55	1000	185	-	495	50	80
60-70	SA - 1000 SB - 1500	235	-	730	60	120

1. Shoulder taper length based on 10 ft. (standard shoulder width) offset. 2. Lane taper length b ased on 12 ft. (standard lane width) offset.

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED 10/6/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	63

COUNTY: JACKSON

JOB NO.: JKU0010

CONTRACT ID.:

PROJECT NO.:

BRIDGE NO.:

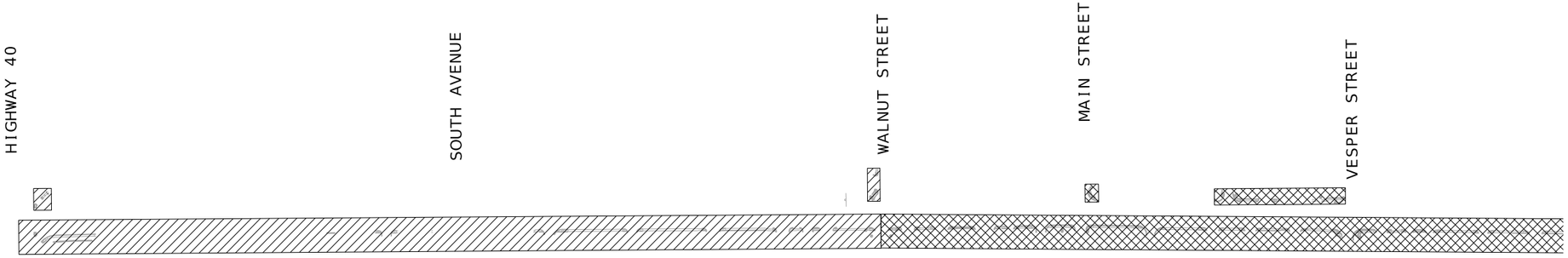
DESCRIPTION	DATE

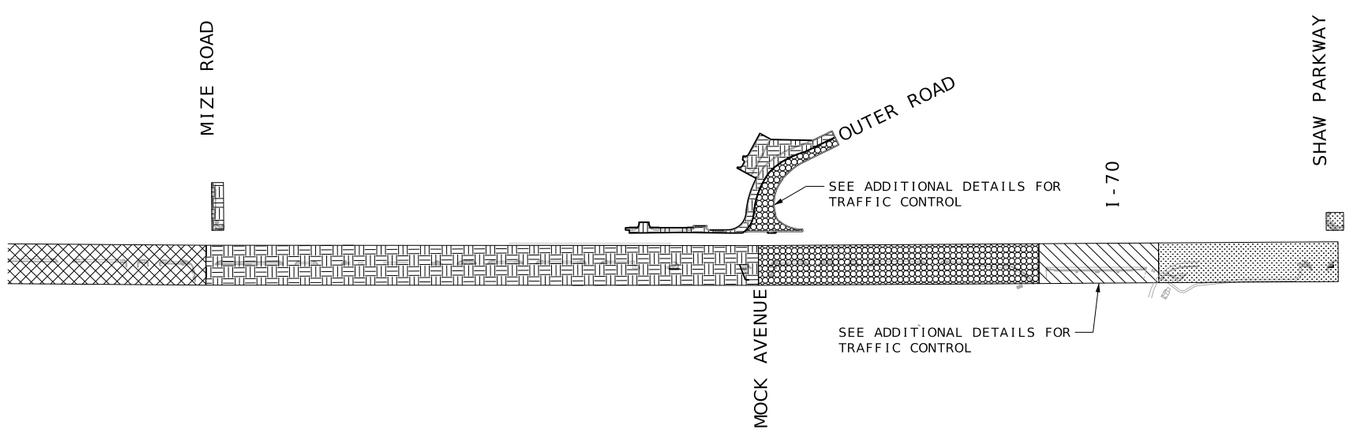
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

F:\2022\03001-03500\022-03371\40-Design\Microstation\JKU0010\plan_sheets\08 Traffic Control\063_TC_03_JKU0010_I30.dgn 4:43:59 PM 10/6/2025





CONSTRUCTION SEQUENCING

PHASE 1: PARTIAL CLOSURE OF OUTERMOST NORTHBOUND LANE, INCLUDING BIKE LANE. WORK SHOULD BE SEGMENTED AS SHOWN TO LIMIT LENGTH OF CLOSURE. ACCESS POINTS AFFECTED BY CLOSURE SHALL BE PROVIDED TEMPORARY ACCESS THROUGHOUT PROJECT DURATION. FOLLOW STANDARD DETAILS FOR SHORT-TERM SHOULDER AND LANE CLOSURES.

PHASE 2: PARTIAL CLOSURE OF OUTERMOST NORTHBOUND LANE. NORTHBOUND TRAFFIC WILL BE RESTRICTED TO ONE NORTHBOUND LANE, INCLUDING EASTBOUND LEFT TO NORTHBOUND THROUGH TRAFFIC AT THE INTERCHANGE. FOLLOW STANDARD DETAILS FOR SHORT-TERM SHOULDER AND LANE CLOSURES.

PHASE 3: MEDIAN WORK, REFER TO STANDARD DETAILS FOR LANE CLOSURES REQUIRED WITH MEDIAN INSTALLATION WORK. NOT DEPECTED IN EXHIBIT PROVIDED).

PHASE 1 - HIGHWAY 40 TO MOCK AVE

- PHASE 1A - HIGHWAY 40 TO WALNUT ST
- PHASE 1B - WALNUT ST TO MIZE RD + OUTER ROAD MEDIAN REMOVAL
- PHASE 1C - MIZE RD TO MOCK AVE + OUTER ROAD WIDENING

PHASE 2 - MOCK AVE TO SHAW PKWY

- PHASE 2A - MOCK AVE TO I-70 EB RAMP + OUTER ROAD PAVING
- PHASE 2B - I-70 WB RAMP TO SHAW PKWY
- PHASE 2C - I-70 EB RAMP TO I-70 WB RAMP

LEGEND

- PHASE 1A
- PHASE 1B
- PHASE 1C
- PHASE 2A
- PHASE 2B
- PHASE 2C

SCALE

0 200 400 600 800 1000

TRAFFIC CONTROL
SHEET 4 OF 7

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED
10/6/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	64

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

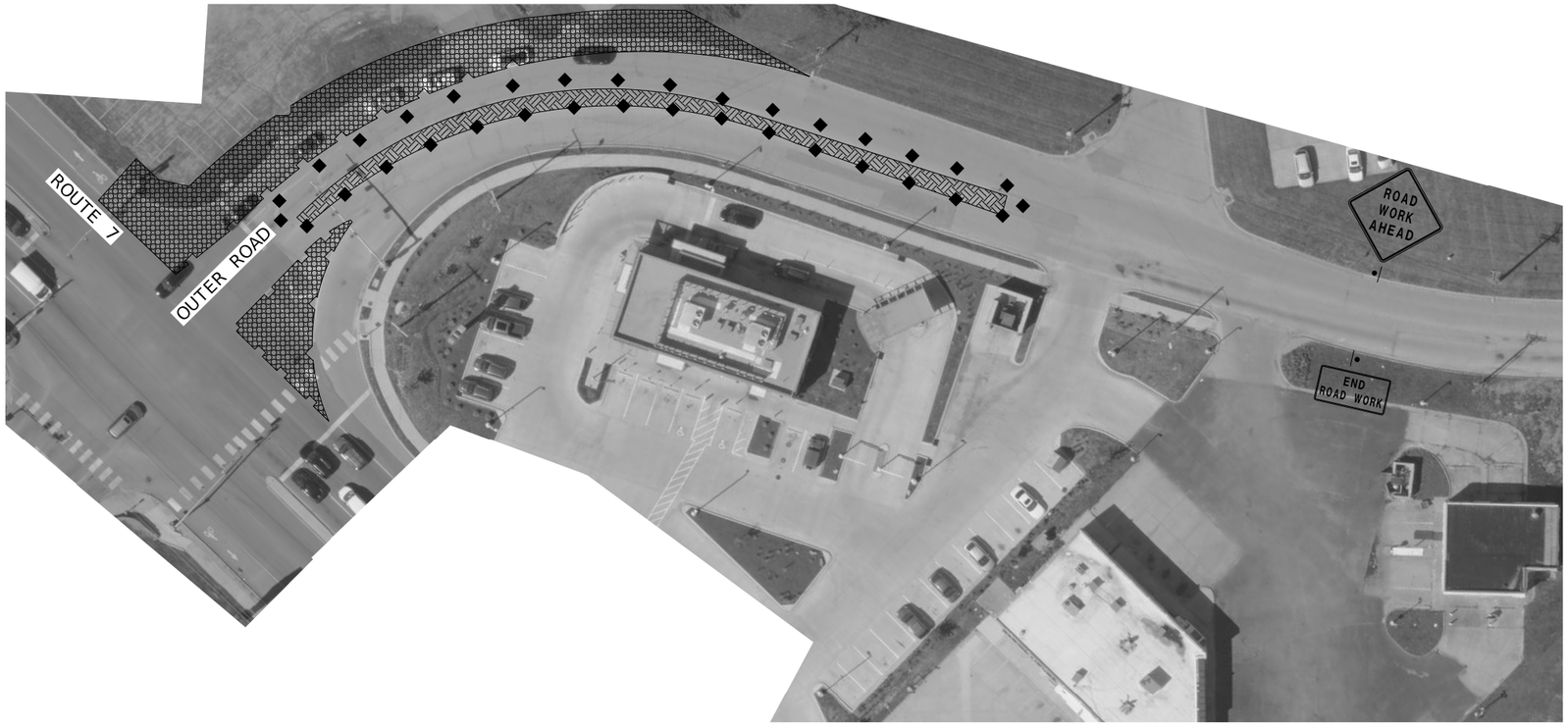
BRIDGE NO.

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

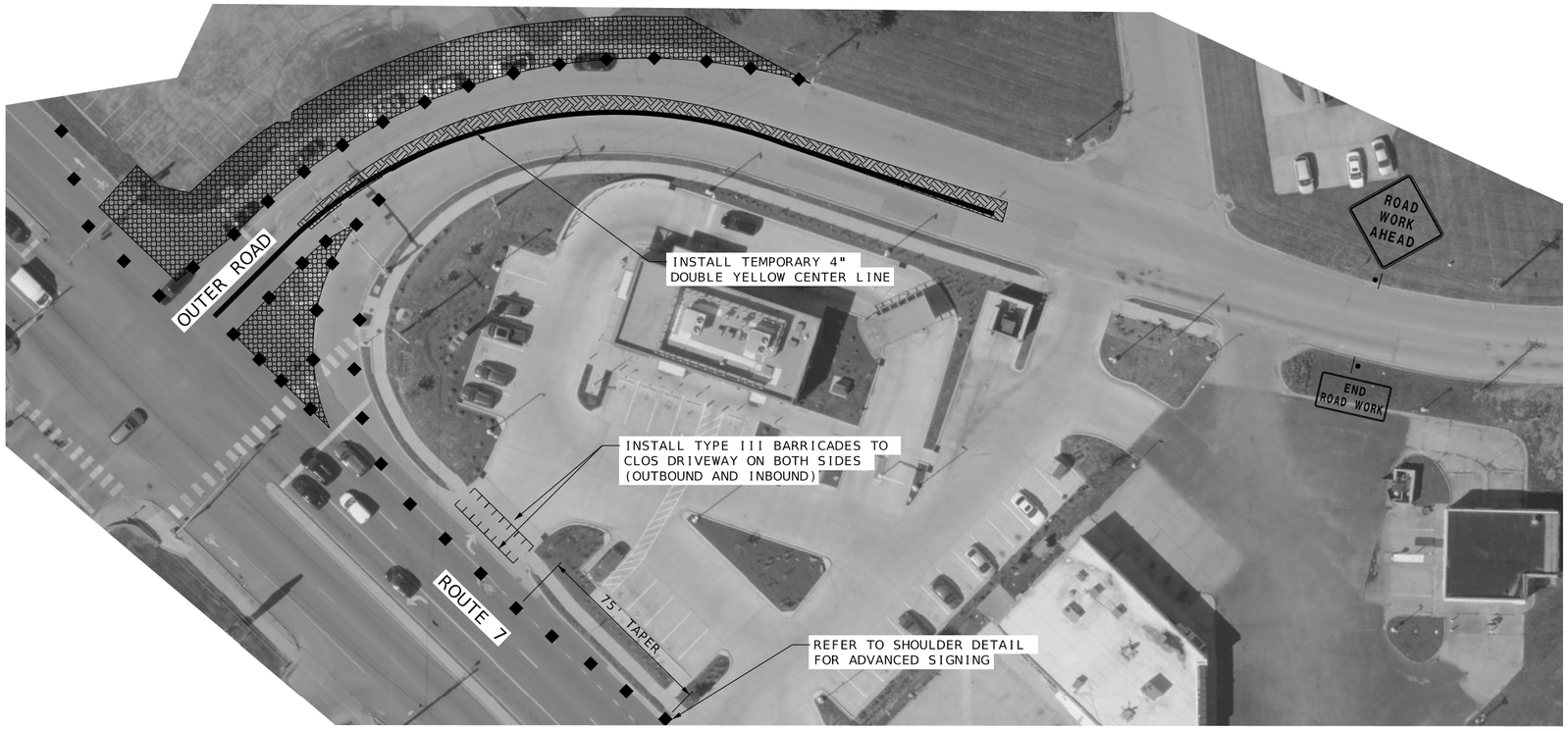


TRAFFIC CONTROL LEGEND

- SIGN (SINGLE SIDED)
- SIGN (DOUBLE SIDED)
- CHANNELIZER
- BARRICADE
- CHANGEABLE MESSAGE BOARD
- PHASE 1C
- PHASE 2A

SCALE

0 30 60 90



TRAFFIC CONTROL
SHEET 5 OF 7

JEREMY SCOTT STRETZ NUMBER PE-2017023856

JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED
10/6/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	65

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

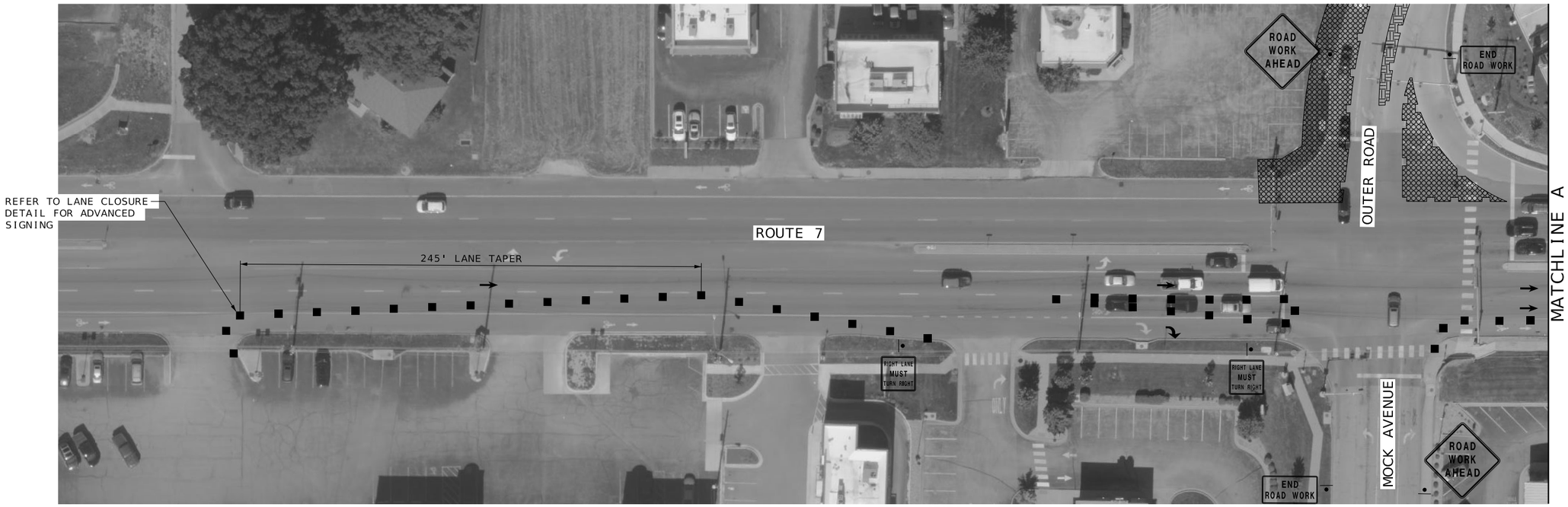
DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

F:\2022\03001-03500\022-03371\40-Design\Microstation\JKU0010\plan_sheets\08 Traffic Control\065_TC_05_JKU0010_I30.dgn 4:44:50 PM 10/6/2025



TRAFFIC CONTROL LEGEND

- SIGN (SINGLE SIDED)
- SIGN (DOUBLE SIDED)
- CHANNELIZER
- BARRICADE
- CHANGEABLE MESSAGE BOARD

SCALE

0 30 60 90

TRAFFIC CONTROL
SHEET 6 OF 7

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED
10/6/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	66

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

F:\2022\03001-03500\022-03371\40-Design\Microstation\JKU0010\plan_sheets\08 Traffic Control\066_TC_06_JKU0010_I30.dgn 4:46:02 PM 10/6/2025

TRAFFIC CONTROL LEGEND

- SIGN (SINGLE SIDED)
- SIGN (DOUBLE SIDED)
- CHANNELIZER
- BARRICADE
- CHANGEABLE MESSAGE BOARD

SCALE

0 30 60 90

JEREMY SCOTT STRETZ NUMBER PE-2017023856

JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED
10/6/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	67

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

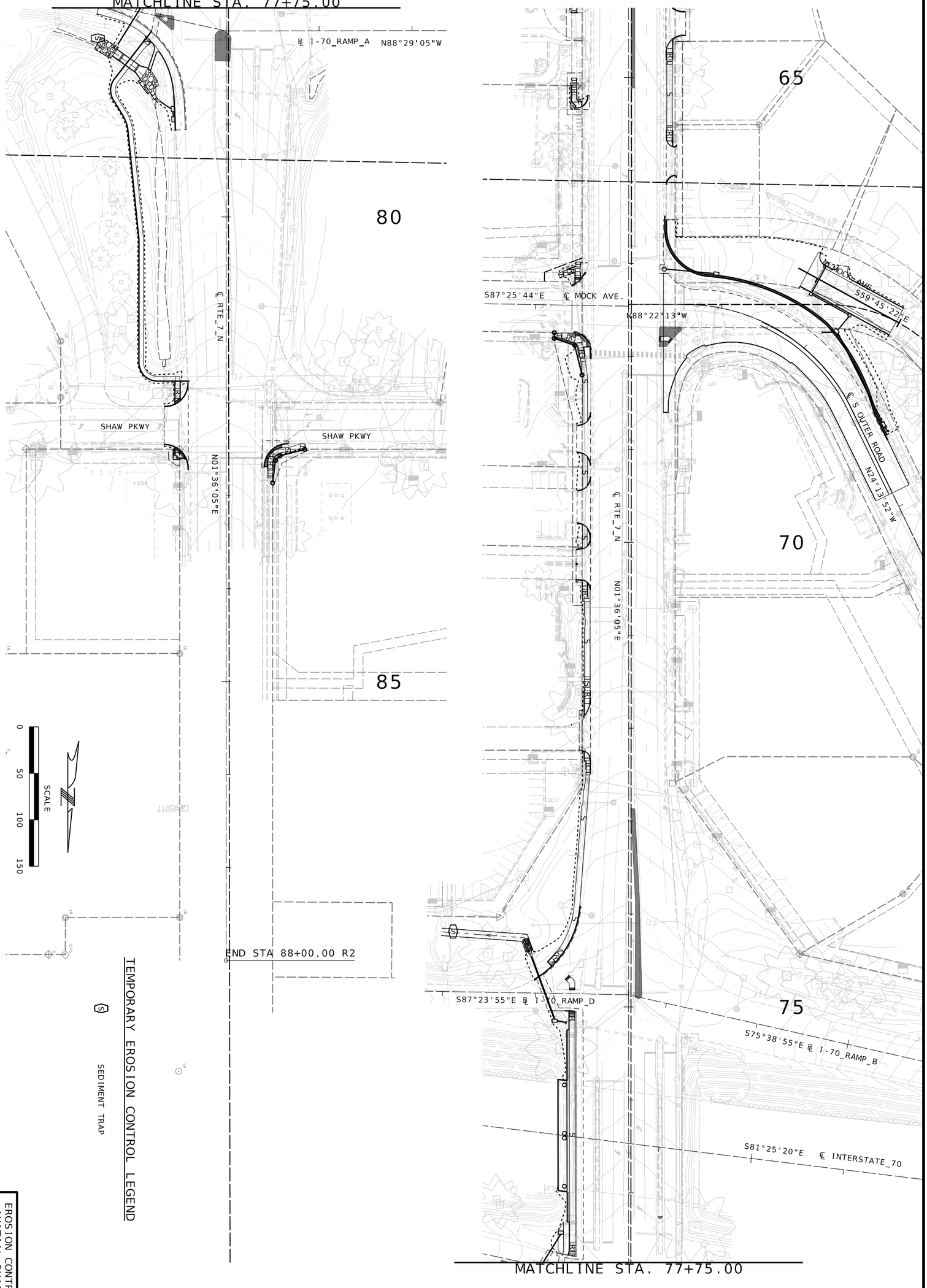
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

TRAFFIC CONTROL
SHEET 7 OF 7

F:\2022\03001-03500\022-03371\40-Design\Microstation\JKU0010\plan_sheets\08 Traffic Control\067_TC_07_JKU0010_I30.dgn 4:46:40 PM 10/6/2025



TEMPORARY EROSION CONTROL LEGEND

SEDIMENT TRAP

EROSION CONTROL
INITIAL PHASE
SHEET 1 OF 9

olsson
1301 BURLINGTON STREET, SUITE. 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

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

DATE	DESCRIPTION

BRIDGE NO.

PROJECT NO.

CONTRACT ID.
JKU0010

JOB NO.

COUNTY
JACKSON

DISTRICT
KC

SHEET NO.
68

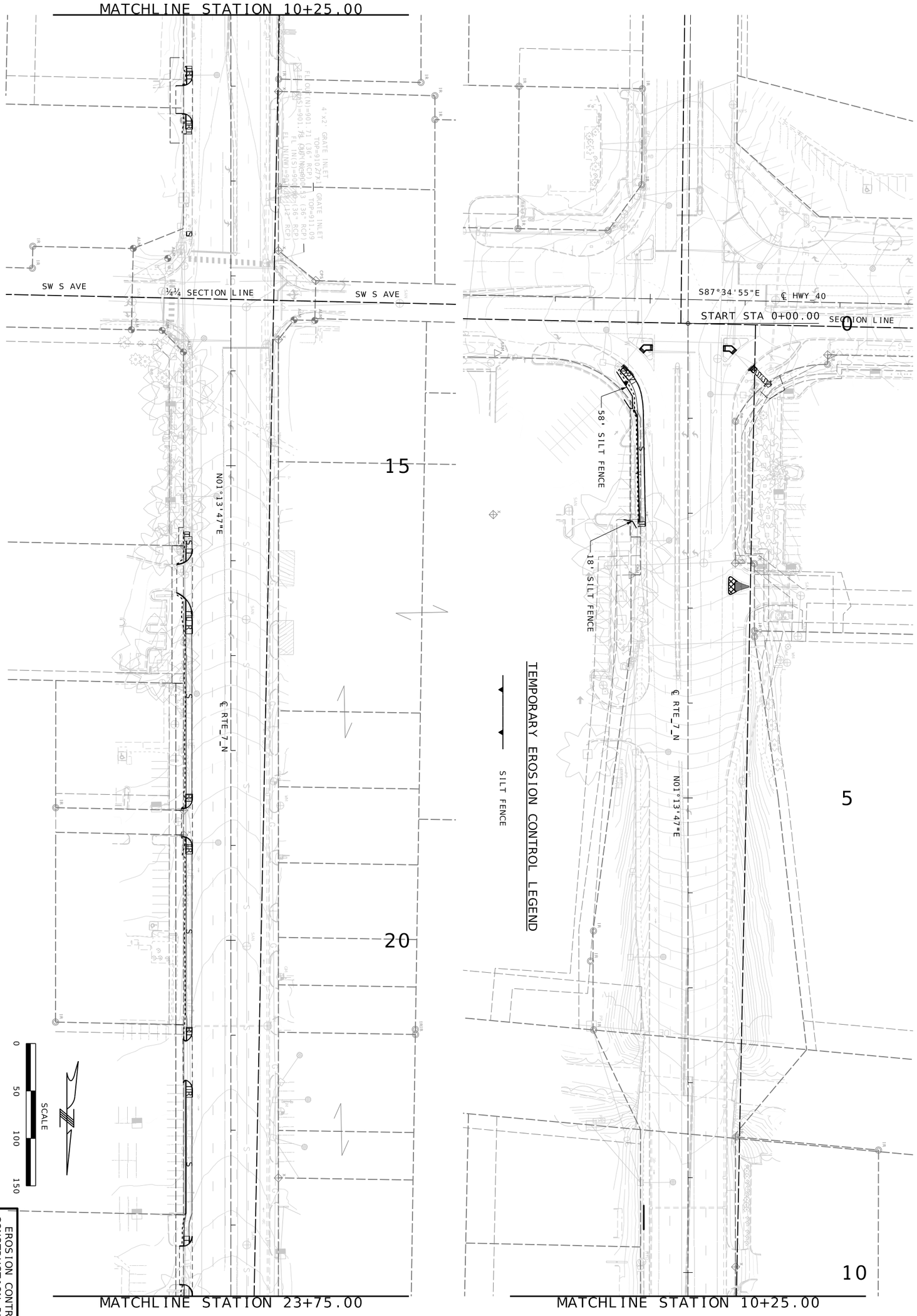
ROUTE
7

STATE
MO

DATE PREPARED
8/1/2025

RED BRENKEN CATT
PROFESSIONAL ENGINEER
MO# PE-2010019516

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.



EROSION CONTROL
CONSTRUCTION PHASE
SHEET 2 OF 9

olsson
1301 BURLINGTON STREET, SUITE. 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

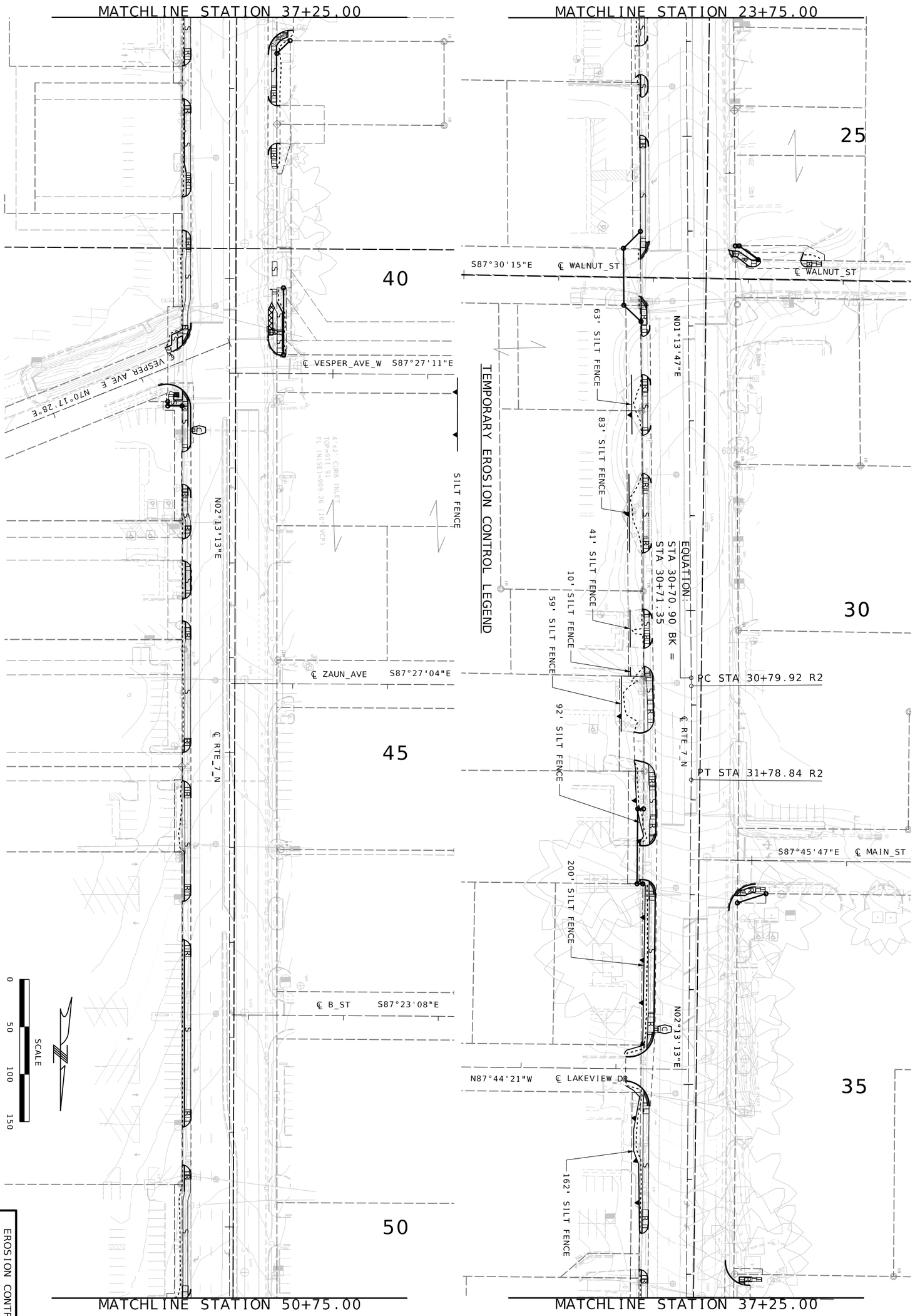
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
MoDOT
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

DATE	DESCRIPTION

BRIDGE NO.
PROJECT NO.
CONTRACT ID. JKU0010
JOB NO. JACKSON
COUNTY KC
DISTRICT 7
ROUTE MO
STATE
SHEET NO. 69
DATE PREPARED 8/1/2025

RED BRENNEN CATT
PROJECT ENGINEER
MO# PE-2010019516

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.



EROSION CONTROL
CONSTRUCTION PHASE
SHEET 3 OF 9

olsson
1301 BURLINGTON STREET, SUITE. 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

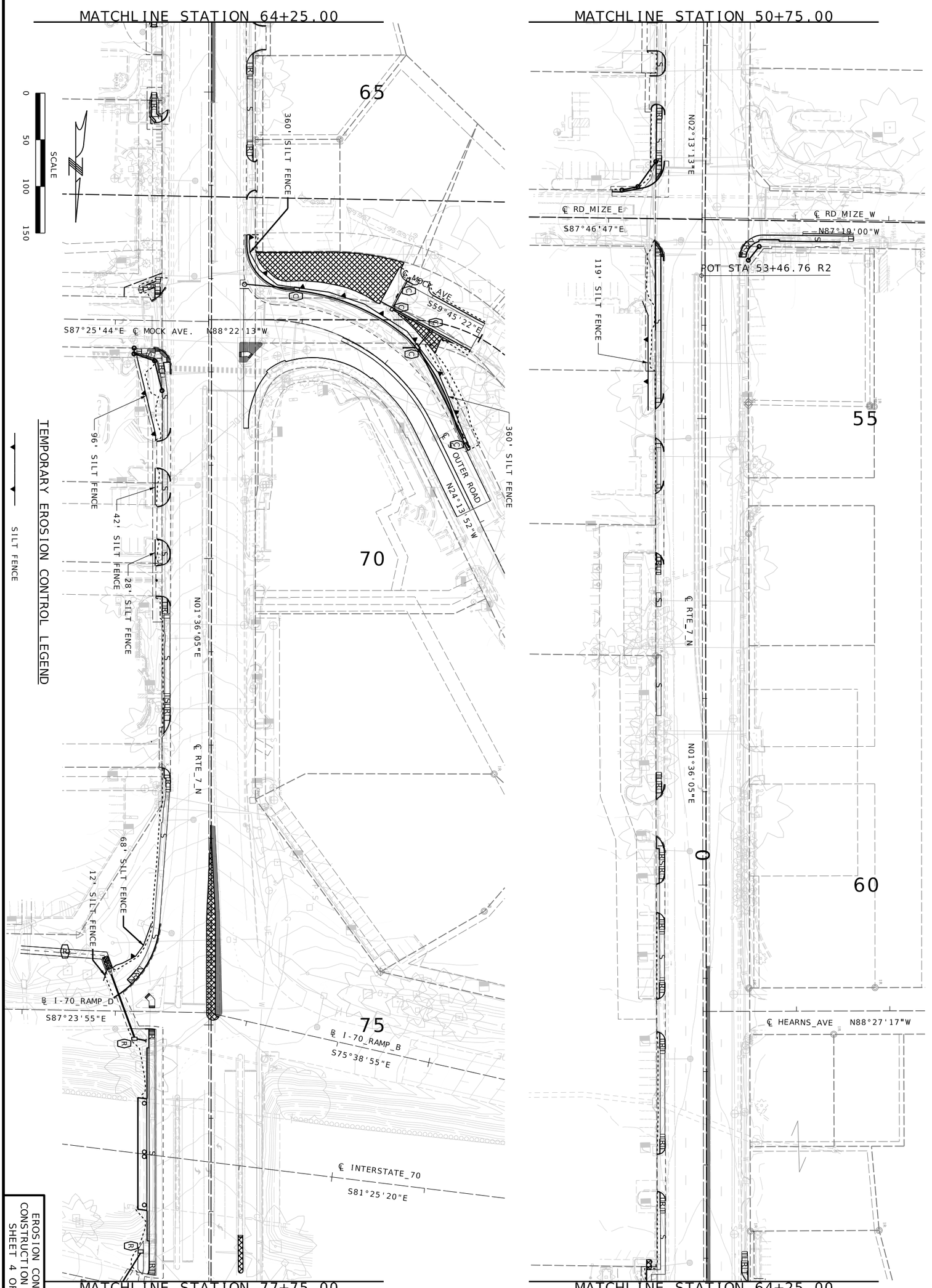
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
MoDOT
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

DATE	DESCRIPTION

BRIDGE NO.
PROJECT NO.
CONTRACT ID. JKU0010
JOB NO.
COUNTY JACKSON
DISTRICT KC
ROUTE 7
STATE MO
SHEET NO. 70
DATE PREPARED 8/1/2025

RED BRENNEN CATT PROJECT ENGINEER
MO# PE-2010019516

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.



EROSION CONTROL
CONSTRUCTION PHASE
SHEET 4 OF 9

olsson
1301 BURLINGTON STREET, SUITE. 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
MoDOT
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

DATE	DESCRIPTION

BRIDGE NO.
PROJECT NO.
CONTRACT ID. JKU0010
JOB NO.
COUNTY JACKSON
DISTRICT KC
ROUTE 7
STATE MO
SHEET NO. 71
DATE PREPARED 8/1/2025

RED BRENNEN CATT PROJECT MGR PE-2010019516

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

TEMPORARY EROSION CONTROL LEGEND

SILT FENCE

SCALE

0 50 100 150

EROSION CONTROL
CONSTRUCTION PHASE
SHEET 5 OF 9

REID BRENNEN CATT NUMBER PE-2010019516

REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
8/1/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	72

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

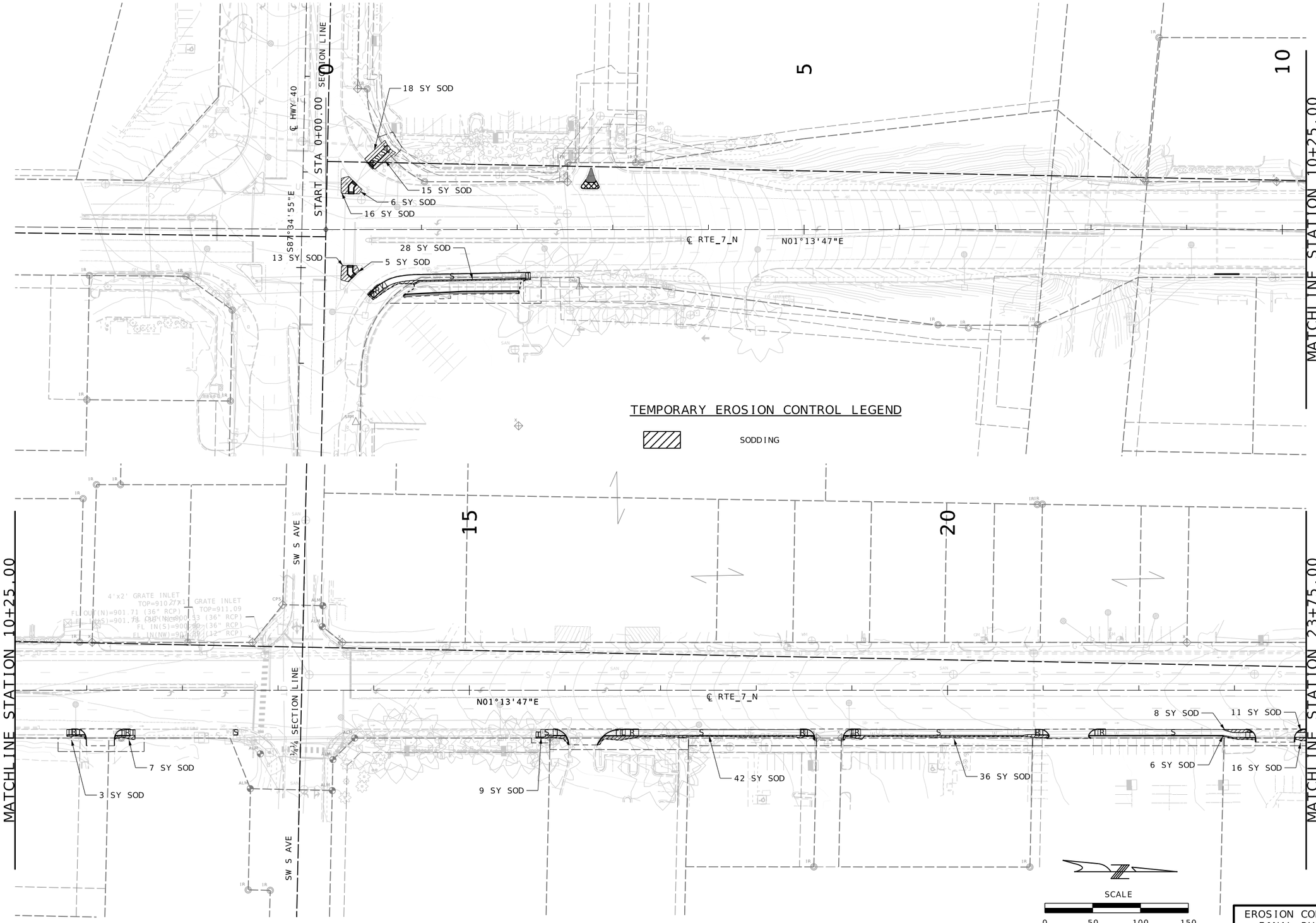
DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592



EROSION CONTROL
FINAL PHASE
SHEET 6 OF 9

REID BRENNEN CATT NUMBER PE-2010019516

REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
10/2/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	73

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

TEMPORARY EROSION CONTROL LEGEND

SODDING

MATCHLINE STATION 23+75.00

MATCHLINE STATION 37+25.00

MATCHLINE STATION 50+75.00

12 SY SOD
17 SY SOD
5 SY SOD
11 SY SOD
5 SY SOD
38 SY SOD
3 SY SOD
2 SY SOD
16 SY SOD
7 SY SOD
3 SY SOD
12 SY SOD
33 SY SOD
43 SY SOD
10 SY SOD
120 SY SOD
58 SY SOD
47 SY SOD
14 SY SOD
8 SY SOD
7 SY SOD
25 SY SOD
64 SY SOD
11 SY SOD
36 SY SOD
18 SY SOD
9 SY SOD
6 SY SOD
8 SY SOD
15 SY SOD
7 SY SOD
32 SY SOD
16 SY SOD
8 SY SOD
15 SY SOD
6 SY SOD
10 SY SOD
14 SY SOD
11 SY SOD
48 SY SOD
10 SY SOD
23 SY SOD
11 SY SOD
8 SY SOD
31 SY SOD
36 SY SOD
44 SY SOD
73 SY SOD

℄ WALNUT_ST
℄ MAIN_ST
℄ LAKEVIEW_DR
℄ VESPER_AVE_W
℄ VESPER_AVE_E
℄ ZAUN_AVE
℄ B_ST
℄ RTE_7_N

PC STA 30+79.92 R2
PT STA 31+78.84 R2

S87°30'15"E
N01°13'47"E
S87°45'47"E
N02°13'13"E
N87°44'21"W
S87°27'11"E
S87°27'04"E
S87°23'08"E
N02°13'13"E
N70°17'28"E

EQUATION:
STA 30+70.90 BK =
STA 30+71.35

4'x2' CURB INLET
TOP=911.91
FL IN(SE)=909.26 (10" VCP)

25 30 35 40 45 50

SCALE
0 50 100 150

EROSION CONTROL
FINAL PHASE
SHEET 7 OF 9

REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED 10/2/2025
ROUTE 7 | STATE MO
DISTRICT KC | SHEET NO. 74
COUNTY JACKSON
JOB NO. JKU0010
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DESCRIPTION | DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

MATCHLINE STATION 50+75.00

MATCHLINE STATION 64+25.00

MATCHLINE STATION 77+75.00

℄ RD_M1ZE_W

N87°19'00"W

86 SY SOD

POT STA 53+46.76 R2

55

60

℄ HEARNS_AVE

N88°27'17"W

23 SY SOD

N02°13'13"E

16 SY SOD

12 SY SOD

69 SY SOD

℄ RD_M1ZE_E

S87°46'47"E

87 SY SOD

41 SY SOD

10 SY SOD

14 SY SOD

2 SY SOD

℄ RTE_7_N

5 SY SOD

N01°36'05"E

6 SY SOD

9 SY SOD

13 SY SOD

30 SY SOD

35 SY SOD

42 SY SOD

4 SY SOD

TEMPORARY EROSION CONTROL LEGEND

SODDING

TYPE 3B EROSION CONTROL BLANKET

15 SY SOD

℄ MOCK AVE.

S59°45'22"E

13 SY SOD

℄ S OUTER ROAD

N24°13'52"W

479 SY SOD

65

70

75

℄ I-70_RAMP_B

S75°38'55"E

℄ INTERSTATE_70

S81°25'20"E

23 SY SOD

69 SY SOD

STA 0+60.10

4 SY SOD

9 SY SOD

10 SY SOD

21 SY SOD

℄ RTE_7_N

N01°36'05"E

7 SY SOD

5 SY SOD

10 SY SOD

63 SY SOD

10 SY SOD

8 SY SOD

27 SY SOD

6 SY SOD

S87°25'44"E

℄ MOCK AVE

N88°22'13"W

143 SY TYPE 3B EROSION CONTROL BLANKET

1+09.42

84 SY TURF REINFORCEMENT MAT

1+09.42

℄ I-70_RAMP_D

S87°23'55"E

49 SY TYPE 3B EROSION CONTROL BLANKET

72 SY TYPE 3B EROSION CONTROL BLANKET

21+11

SCALE

0 50 100 150

EROSION CONTROL
FINAL PHASE
SHEET 8 OF 9

REID BRENNEN CATT NUMBER PE-2010019516

REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
10/2/2025

ROUTE 7 | STATE MO

DISTRICT KC | SHEET NO. 75

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION

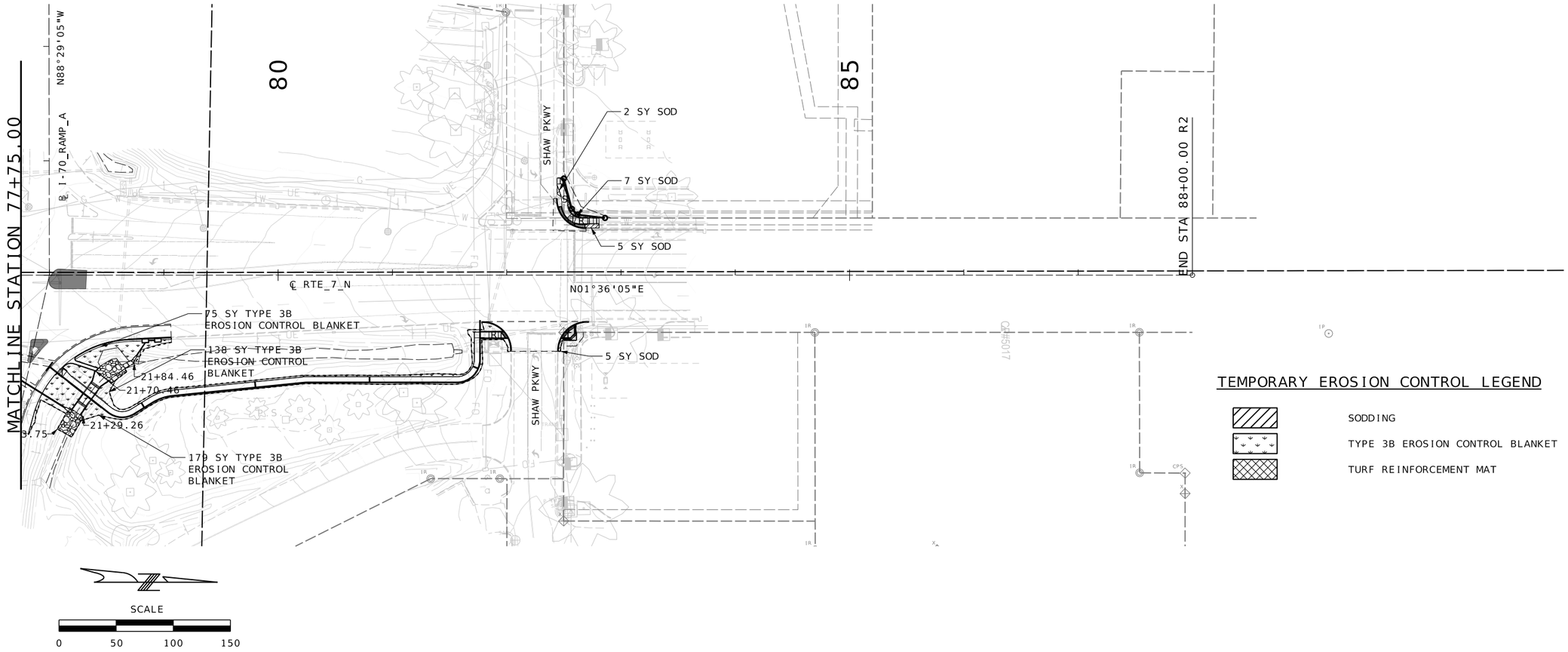
DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592



TEMPORARY EROSION CONTROL LEGEND

- SODDING
- TYPE 3B EROSION CONTROL BLANKET
- TURF REINFORCEMENT MAT

EROSION CONTROL
FINAL PHASE
SHEET 9 OF 9

REID BRENNEN CATT NUMBER PE-2010019516

REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
8/1/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	76

COUNTY
JACKSON

JOB NO.
JKU0415

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

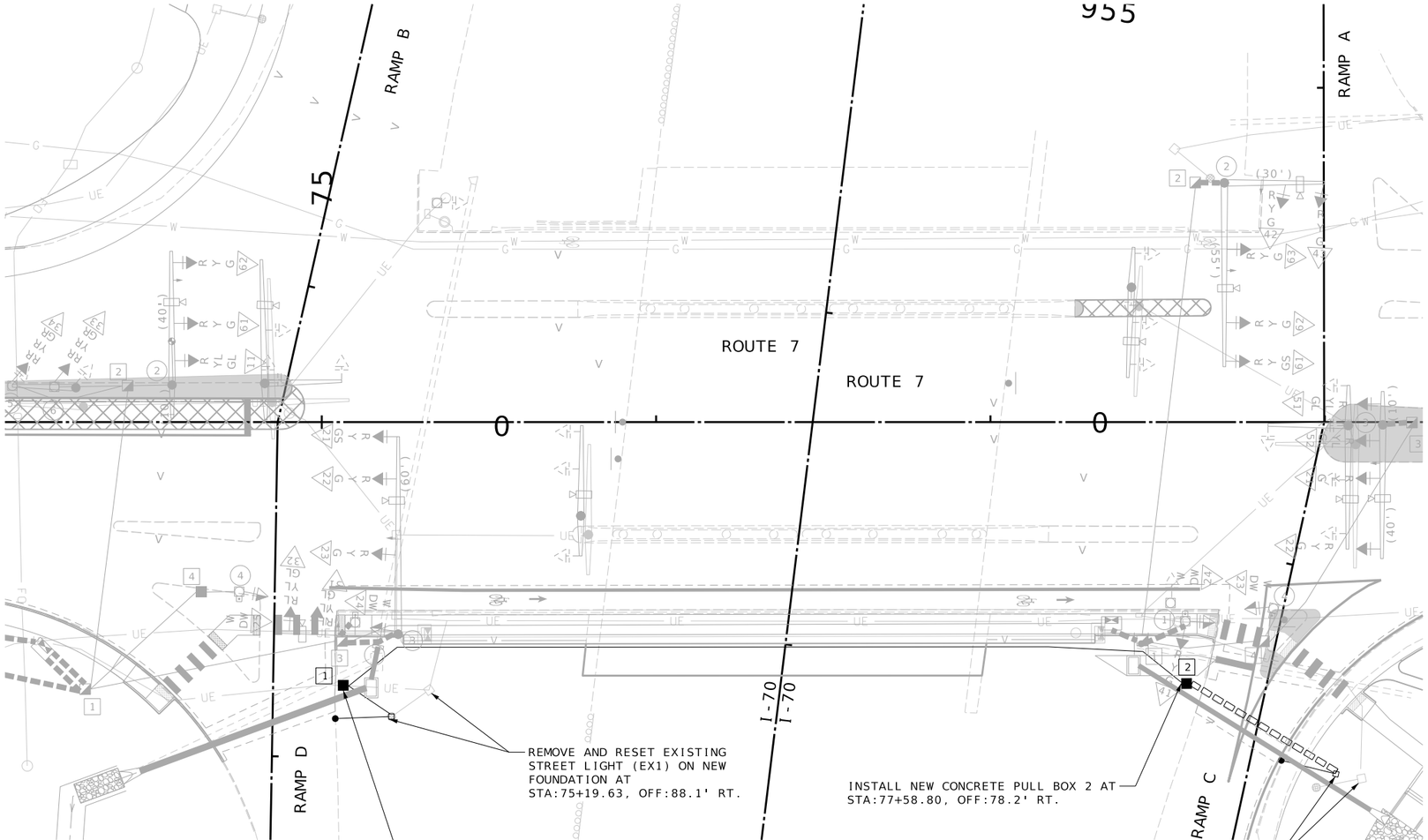
DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592



LIGHTING LEGEND

	CONTROLLER, LIGHTING		LED-A LUMINAIRE
	CONTROLLER, LIGHTING (EXISTING)		LED-B LUMINAIRE
	WOOD POST		LED-C LUMINAIRE
	POWER SUPPLY	P.S.	POWER SOURCE
JCT	JUNCTION BOX		PULL BOX (EXISTING)
	PULL BOX CONCRETE TYPE 1		PULL BOX CONCRETE TYPE 2
	PULL BOX PREFORMED TYPE 1		PULL BOX PREFORMED TYPE 2
	CONDUIT, RIGID (TRENCH)		CONDUIT, RIGID (PUSHED)
M	CONDUIT, RIGID (MEDIAN)	B	CONDUIT, RIGID (BRIDGE)
	CONDUIT, RIGID (EXISTING)		CABLE-CONDUIT (EXISTING)
			CABLE-CONDUIT

SCALE
0 20 40 60

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED
10/6/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	77

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

LIGHTING
SHEET 1 OF 2

HIGHWAY LIGHTING

SH. NUM.	POLE NO.	ROADWAY	STATION	OFFSET	POLE FOUNDATION 45 FT M.H. (EACH) 9018245	CABLE, 10 AWG 1 CONDUCTOR, POLE AND BRACKET (LF) 9017110	RELOCATED POLE (EACH) 9011010	NOTES
1	EX1	ROUTE 7	75+19.63	88.1' RT.	1	90	1	REMOVE & RESET ON NEW FOUNDATION
1	EX2	ROUTE 7	78+02.54	105.1' RT.	1	90	1	REMOVE & RESET ON NEW FOUNDATION
TOTAL					2	180	2	

CABLE AND CABLE CONDUIT

SH. NUM.	CIRCUIT	FROM	TO	CTR. TO CTR.	CABLE-CONDUIT 1 IN., 2 CONDUCTORS (AND 1 BARE NEUTRAL) 8 AWG (LF) 9017407	TRENCHING, TYPE I (LF) 9015010
1	1	BOX 1	EX1	22	28	22
1	1	EX1	BOX 2	250	256	250
1	1	BOX 2	EX2	65	71	
SUBTOTAL					355	272
5% FOR SNAKING					18	X
TOTAL					380	272

POWER CABLE & RIGID CONDUIT

SH. NUM.	ROADWAY	FROM	TO	CTR. TO CTR.	CONDUIT, 4 IN. RIGID PUSHED (LF) 9014004
1	1	BOX 2	EX2	65	63
TOTAL					63

PREFORMED PULL BOXES

SH. NUM.	PULL BOX NO.	ROADWAY	STA.	OFF.	PULLBOX, CONCRETE CLASS 1 (EACH) 9016110
1	BOX 1	ROUTE 7	75+06.45	78.9' RT.	1
1	BOX 2	ROUTE 7	77+58.80	78.2' RT.	1
TOTAL					2

JEREMY SCOTT STRETZ NUMBER PE-2017023856

JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED
10/8/2025

ROUTE 7 | STATE MO

DISTRICT KC | SHEET NO. 78

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

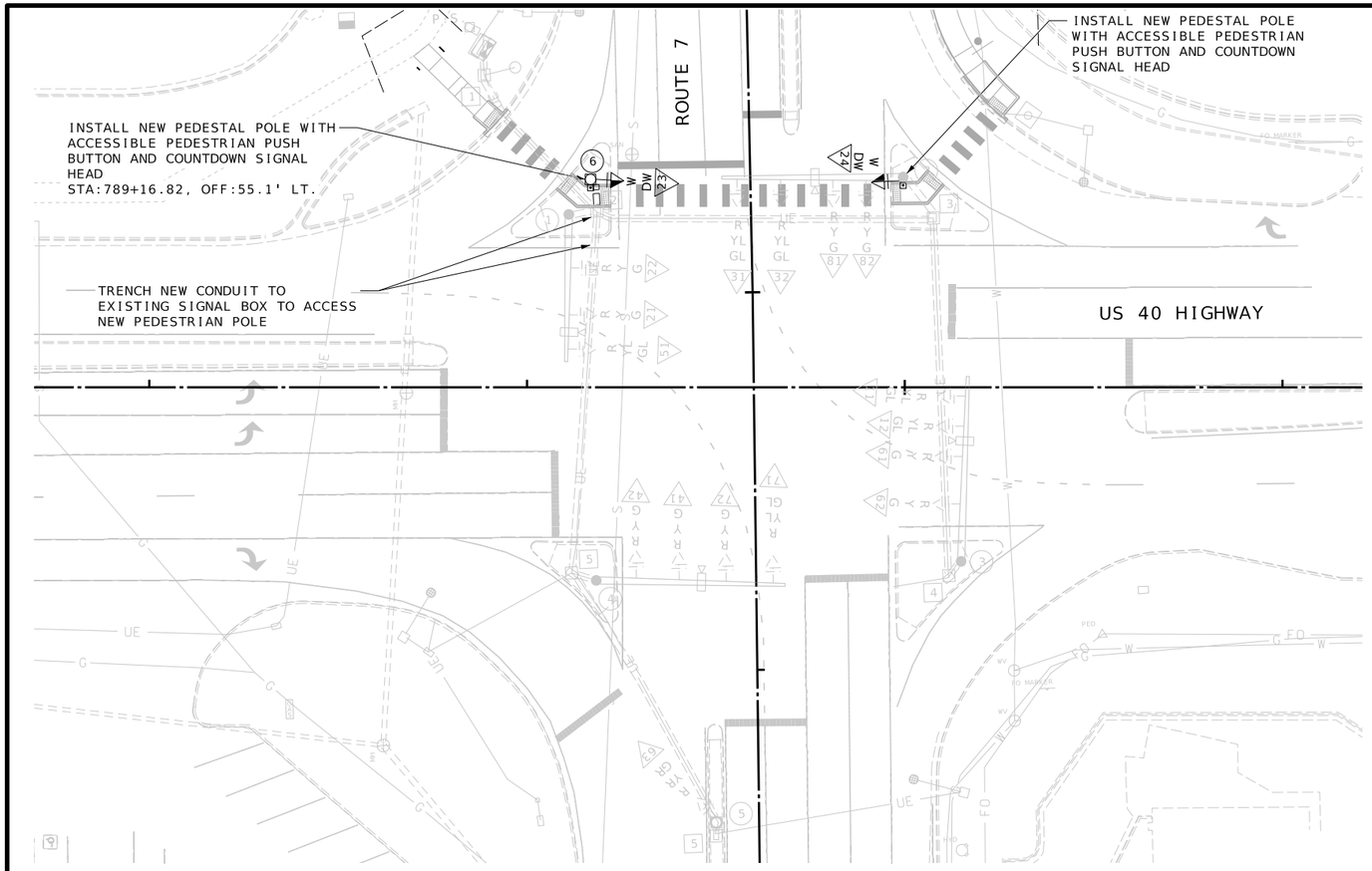
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

LIGHTING
SHEET 2 OF 2



TRAFFIC SIGNALS LEGEND

CONTROLLER	CCTV CAMERA	6 X 6 LOOP DETECTOR
CONTROLLER (EXISTING)	VIDEO DETECTOR	6 X 15 LOOP DETECTOR
JUNCTION BOX	PUSH BUTTON DETECTOR	30 X 6 LOOP DETECTOR
POWER SUPPLY	PREFORMED PULL BOX TYPE 1	CONDUIT MEDIAN
WOOD POST	PREFORMED PULL BOX TYPE 2	CONDUIT PUSHED
SIGNAL HEAD (OPT LIM CONV)	CONCRETE PULL BOX TYPE 1	CONDUIT BRIDGE
SIGNAL HEAD (OPT LIM)	CONCRETE PULL BOX TYPE 2	CONDUIT EXISTING
SIGNAL HEAD (PEDESTRIAN)	ITS PULL BOX TYPE 2	CONDUIT TRENCHED
SIGNAL HEAD (STANDARD)	ITS PULL BOX TYPE 5	SPAN WIRE
		MAST ARM - TYPE A BASE
		MAST ARM - TYPE C BASE
		MAST ARM - TYPE F BASE

R	RED BALL
Y	YELLOW BALL
G	GREEN BALL
RL	RED LEFT ARROW
YL	YELLOW LEFT ARROW
GL	GREEN LEFT ARROW
S	STRAIGHT GREEN ARROW
RR	RIGHT RED ARROW
YR	YELLOW RIGHT ARROW
GR	GREEN RIGHT ARROW

ALL 12" LENS WITH TUNNEL VISOR

SCALE
0 20 40 60

NOTES:
1.) ALL TRAFFIC SIGNAL CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE MISSOURI STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, SECTION 902 (TRAFFIC SIGNALS), UNLESS OTHERWISE NOTED.

2.) THE CONTRACTOR SHALL STAKE LOCATIONS WHERE POLES, BOXES, AND THE CONTROLLER ARE TO BE INSTALLED. STAKED LOCATIONS SHALL BE REVIEWED AND APPROVED BY THE ENGINEER PRIOR TO PLACEMENT OF EQUIPMENT. SERVICE BOXES AND CONDUIT RUNS ARE APPROXIMATE AND MAY BE FIELD ADJUSTED TO CLEAR OBSTRUCTIONS AND FACILITATE WIRING, AS APPROVED BY THE ENGINEER.

3.) CONDUITS UNDER ANY NEW PAVEMENT SHALL EITHER BE TRENCHED PRIOR TO PAVEMENT CONSTRUCTION OR BORED FOLLOWING PAVEMENT CONSTRUCTION. CONDUITS UNDER ANY EXISTING PAVEMENT, INCLUDING SIDEWALKS AND DRIVEWAYS, SHALL BE BORED WITHOUT DISTURBANCE TO THE EXISTING PAVEMENT

40 HIGHWAY & ROUTE 7

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED: 10/6/2025
ROUTE: 7 | STATE: MO
DISTRICT: KC | SHEET NO.: 79
COUNTY: JACKSON
JOB NO.: JKU0010
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.:

DESCRIPTION | DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

SIGNAL PLAN
SHEET 1 OF 54

EFFECTIVE: 07/01/2018

| POST NUMBER | PULL BOX NUMBER | LOCATION: APPROACH | LOCATION: STATION | LOCATION: OFFSET | BASE: A 9 | A 9.5 | A 10 | A 10.5 | A 11 | A 12 | F 9 | F 9.5 | F 10 | F 10.5 | F 11 | F 12 | C | CONCRETE** (CU. YDS.) | PULL BOX: PREFORMED CLASS 1 | CLASS 2 | CLASS 3 | CLASS 5 | CONCRETE STANDARD | DOUBLE, TYPE A | DOUBLE, TYPE B | DRAIN TYPE* I | II A | II B | II C | POST: TOP MOUNT POST 8 FT. | 15 FT. | TYPE C & CL: ARM LENGTH 25' | 30' | 40' | 55' | SIGNAL SPACING B | C | D | D' | SIGN SPACING B | C | D | D' | TYPE B & BL: ARM LENGTH E | K | E | K | E | K | LEFT ARM E: SIGNAL SPACING F | G | H | H' | SIGN SPACING F | G | H | H' | RIGHT ARM K: SIGNAL SPACING L | M | N | N' | SIGN SPACING L | M | N | N' | INCLUDED ANGLE | LUMINAIRE BRACKET ARM* 4 FT. | 6 FT. | 8 FT. | 10 FT. | 12 FT. | 15 FT. |
|---|---|---

EFFECTIVE: 10-01-2015

NOTE - QUANTITIES SHOWN FOR INFORMATION ONLY

REFER TO SUMMARY OF QUANTITIES SHEET 11 OF 13
FOR BID ITEMS ASSOCIATED WITH SIGNALS

CONDUIT (WITH #14 TRACER WIRE)

FROM	TO	CENTER TO CENTER DISTANCE	LOOP DET.	TRENCH				PUSHED			MEDIAN			ON STRUCTURE			REMARKS
			1"	2"	3"	4"		2"	3"	4"	2"	3"	4"	2"	3"		
CONT	BOX 1	7'															
BOX 1	BOX 2	48'															
BOX 2	POLE 1	9'			11'												
BOX 2	BOX 3	90'															
BOX 3	POLE 2	14'															
SUBTOTALS					11'												
TOTALS					12'												

CABLE

FROM	TO	CENTER TO CENTER DISTANCE	POWER		CONTROL				CLOSED LOOP INTERCONNECT	LUMINAIRE		DETECTOR		FIBER		REMARKS
					2c #16	2c #16	5c #16	3c #16	3 PAIR #16	CONTROL 2c #12	POLE & BRACKET 1c #10	1c #14 IN DUCT	2c #14 LEAD-IN CABLE	SINGLE-MODE	MULTI-MODE	
CONT	P23	64				93	94									
CONT	P24	159				194	195									
SUBTOTALS						287	289									
TOTALS						310	310									

INTERSECTION ROUTE 7 & 40 HIGHWAY

D-37B

SIGNAL PLAN
SHEET 3 OF 54

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED
10/6/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	81

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION | DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

F:\2022\03001-03500\022-03371\40-Design\Microstation\JKU0010\plan_sheets\11 Signals\081_SG_03_SIGNAL_JKU0010_11.dgn 4:47:52 PM 10/6/2025

EFFECTIVE 04-01-2018

POWER SUPPLY

LOCATION			POWER SUPPLY ASSEMBLY		CIRCUIT BREAKER TRIP RATING*				LIGHTING CONTROL * (ON POWER SUPPLY)		SERVICE POLE	
					CONTROLLER		POWER SUPPLY DISCONNECT					
APPROACH	STATION	OFFSET	DRAWING 902.15	DRAWING	AUXILIARY BREAKER	CONT & SIGNAL LAMPS	MAIN BREAKER		120 VOLT CONTROL CABINET	MAIN BREAKER	CONTRACT FURNISH	UTILITY COMPANY
							SIGNALS	LIGHTING				
EXISTING			Type 2		15 Amps	40 Amps	Amps	Amps	SEE LIGHTING PLANS	SEE LIGHTING PLANS Amps	Cl. Ft.	EVERGY
			Type		15 Amps	40 Amps	Amps	Amps		Amps	Cl. Ft.	

CONTROLLER ASSEMBLY AND AUXILIARY EQUIPMENT

LOCATION			SYSTEM MASTER (CLOSED LOOP)		ACTUATED		ON-OFF* SWITCH TYPE		COORDINATION INTERFACE *					TIME * CLOCK	NEMA CABINET TYPE *			170 CABINET TYPE *		170 SOFTWARE *		UNINTERRUPTIBLE POWER SUPPLY
									12C/7C HARDWIRE (1)		TIME BASE	CLOSED LOOP		FIBER								
APPROACH	STATION	OFFSET	NEMA	170	ECONOLITE COBALT	170	I	II	MASTER	LOCAL		NEMA	170			E	EV	DOUBLE	332	336S	BITRAN	WAPITI	902-99.02
EXISTING																							

NEMA DETECTOR ASSIGNMENT

		CARD POSITION							
		1	2	3	4	5	6	7	8
CHANNEL	1			VIDEO					
	2								

TOTAL NUMBER OF DETECTOR CARDS(2-CHANNEL) = (2)

DETECTOR SCHEDULE

DETECTOR NUMBER	APPROACH	TYPE				
		PUSH BUTTON (1)	INDUCTION LOOP			VIDEO
			STANDARD	DELAY/ EXTEND *	CALL UNIT *	
23	23	1				
24	24	1				
TOTAL		2				

* ITEMS FOR WHICH SEPARATE PAYMENT WILL NOT BE MADE.

(1) ALL PUSH BUTTONS SHALL BE APS AND UTLIZE A 4-WIRE CONTROL SYSTEM WITH CONTROL UNIT IN THE CABINET. EACH INDIVIDUAL HEAD WITH WIRING BETWEEN PUSH BUTTON AND PEDESTRIAN SIGNAL HEAD. CONTROL UNIT, MOUNTING BRACKETS, SIGN, AND ASSOCIATED WIRING BETWEEN PUSH BUTTON AND PEDESTRIAN SIGNAL HEAD SHALL BE SUBSIDIARY TO OTHER BID ITEMS.

NEMA LOAD SWITCH ASSIGNMENTS

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ø1 R Ø1 Y Ø1 G	Ø2 R Ø2 Y Ø2 G	Ø3 R Ø3 Y Ø3 G	Ø4 R Ø4 Y Ø4 G	Ø5 R Ø5 Y Ø5 G	Ø6 R Ø6 Y Ø6 G	Ø7 R Ø7 Y Ø7 G	Ø8 R Ø8 Y Ø8 G	Ø2P DW - Ø2P W	- - -	- - -	- - -				

SIGNS

QUANTITY	MUTCD SIGN NUMBER	SIZE	AREA	SIGN TOTAL AREA ITEM NO. 90208.33	SIGNAL SIGN MOUNTING HARDWARE ITEM NO. 90208.34
		INCHES	SQ.FT.	SQ.FT.	EA.
	R10-10L	24 X 30	5.0	0.0	
	R10-10R	24 X 30	5.0	0.0	
	R3-5L	30 X 36	7.5	0.0	
	R3-5R	30 X 36	7.5	0.0	
	R3-5A	30 X 36	7.5	0.0	
	R3-6L	30 X 36	7.5	0.0	
	R3-6R	30 X 36	7.5	0.0	
	R3-2	24 X 24	4.0	0.0	
	R3-1	24 X 24	4.0	0.0	
	R3-3	24 X 24	4.0	0.0	
	R3-4	36 X 36	9.0	0.0	
	R10-5	24 X 30	5.0	0.0	
	R10-12	24 X 30	5.0	0.0	
	R10-12A	25 X 30	5.0	0.0	
	D3-1 (ROUTE 7)***	90 X 18	11.3	0.0	
	D3-1 (MAIN STREET)***	72 X 18	9.0	0.0	
	R10-3E (L)	9 X 15	0.95	(INTEGRATED WITH BUTTON)	
	R10-3E (R)	9 X 15	0.95	(INTEGRATED WITH BUTTON)	
	R10-3E	9 X 15	0.9	0.0	
	R10-11A	24 X 30	7.5	0.0	
	R10-13	36 X 24	6.0	0.0	
	R10-27A	30 X 36	7.5	0.0	
	R10-15R	30 X 36	7.5	0.0	
			SUBTOTAL	0.0	0
			TOTAL	0.0	0

NOTE - QUANTITIES SHOWN FOR INFORMATION ONLY

REFER TO SUMMARY OF QUANTITIES SHEET 11 OF 13
FOR BID ITEMS ASSOCIATED WITH SIGNALS

ROUTE 7 & 40 HIGHWAY
INTERSECTION

D-37C
SIGNAL PLAN
SHEET 4 OF 54

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED 10/6/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	82

COUNTY JACKSON
JOB NO. JKU0010
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

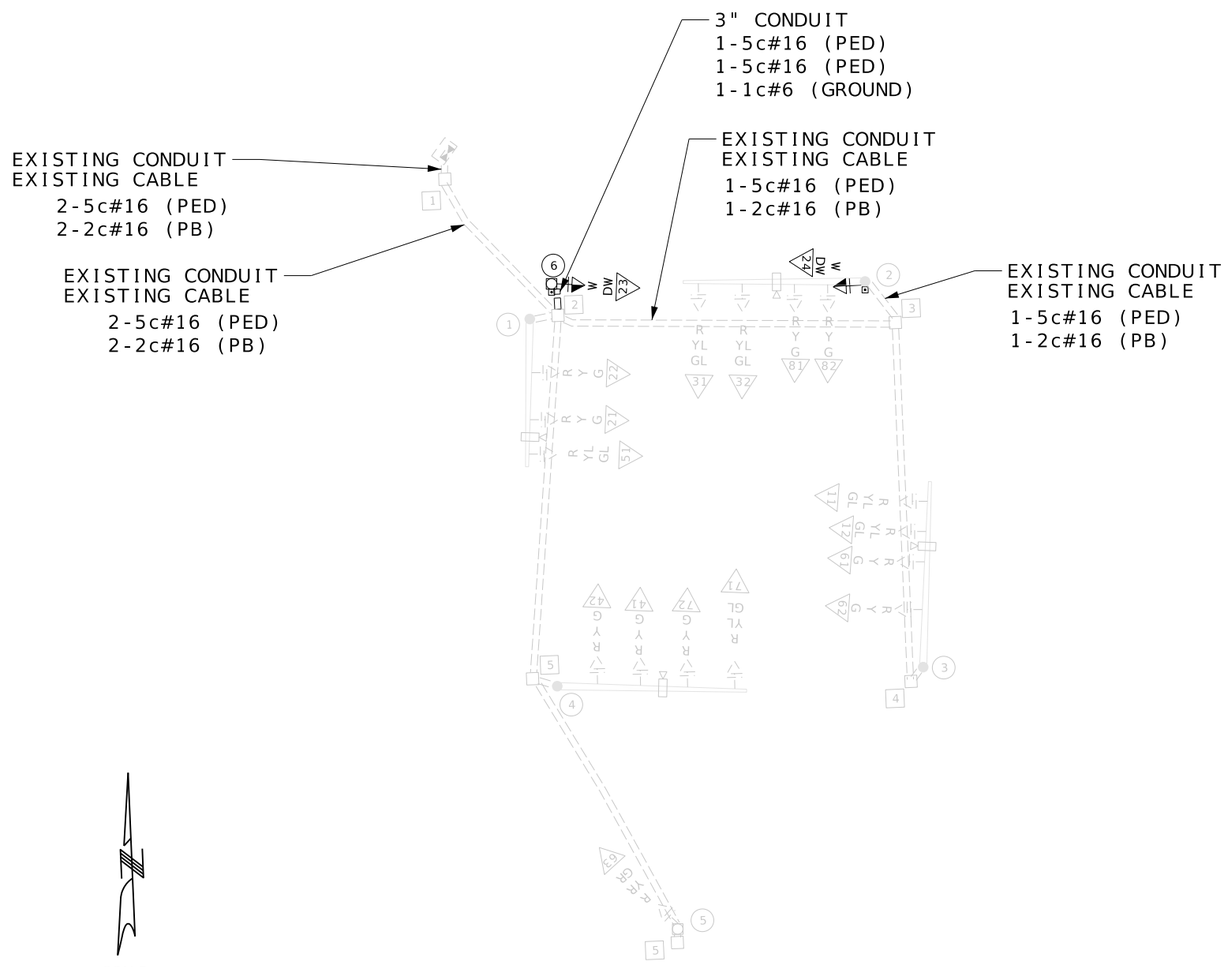
DESCRIPTION	DATE

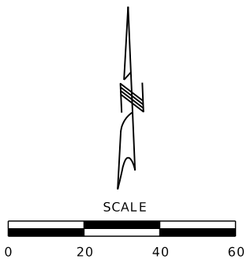
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

WIRING DIAGRAM





LEGEND

3"	CONDUIT CONTAINING CABLE WITH SIZE
	CABLE
X-Xc	MULTI-CONDUCTOR CABLE #16 AWG (UNLESS OTHERWISE INDICATED)
LIC	#14 AWG DETECTOR LEAD-IN CABLE (2C TWISTED SHIELDED)
X	PULL BOX WITH NUMBER
(X)	POST WITH NUMBER
(X)	POST WITH MAST ARM
(X)	POST WITH MAST ARM AND LUMINAIRE
X	DETECTOR WITH NUMBER
— X	SIGNAL HEAD WITH NUMBER
	SIGNAL CONTROLLER
	POWER SUPPLY
	LIGHTING CONTROLLER

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

DATE PREPARED: 10/6/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	83

COUNTY: JACKSON
JOB NO.: JKU0010
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.:

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

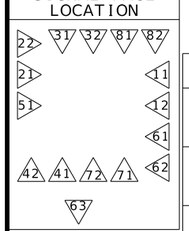
olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

ROTUE 7 & 40 HIGHWAY
INTERSECTION

D-37D
SIGNAL PLAN
SHEET 5 OF 54

EFFECTIVE 12/01/2017

SIGNAL FACE LOCATION



TRAFFIC PHASING AND COLOR SEQUENCE - ACTUATED CONTROLLERS

	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 6	PHASE 7	PHASE 8	PED Ø2	
FACE NUMBERS	11 12	21 22	31 32	41 42	51	61 62 63	71 72	81 82	23	FACE NUMBERS
									24	
SIGNAL INDICATIONS R	RL RL	R R	R R	R R	R	R R R	RL RL	R R	DW	R
SIGNAL INDICATIONS Y	YL YL	Y Y	YL YL	Y Y	YL	Y Y YRt	YL YL	Y Y		Y
SIGNAL INDICATIONS FYA										FYA
SIGNAL INDICATIONS G	GL GL	GS GS	GL GL	G G	GL	G G GRt	GL GL	GS GS	W	G
DETECTOR ASSIGNMENTS	11 12	21 22	31 32	41 42	51	61 62 63	71 72			DETECTOR ASSIGNMENTS
DETECTOR ASSIGNMENTS (PEDS. ONLY)									23 24	
OVERLAP PARENT PHASES										

	PHASE 1	PHASE 2	PHASE 3	PHASE 4
RING 1				
RING 2				
	PHASE 5	PHASE 6	PHASE 7	PHASE 8

BARRIER

RING STRUCTURE

IF CALLED, ALL NON-CONFLICTING PHASES SHALL COMBINE AND TIME CONCURRENTLY. TIME TO BE DETERMINED BY THE ENGINEER AT SIGNAL TURN ON AND SET IN THE CONTROLLER BY THE CONTRACTOR.

LEGEND

- ACTUATED VEHICULAR MOVEMENT
- PARTIALLY RESTRICTED ACTUATED VEHICULAR MOVEMENT
- NON-ACTUATED VEHICULAR MOVEMENT
- PARTIALLY RESTRICTED NON-ACTUATED VEHICULAR MOVEMENT
- ACTUATED PEDESTRIAN MOVEMENT
- NON-ACTUATED PEDESTRIAN MOVEMENT
- VEHICLE STOPPED
- FDW — FLASHING DON'T WALK
- W — WALK
- DW — DON'T WALK
- R/W — RIGHT OF WAY INTERVAL
- YRt — YELLOW RIGHT ARROW
- RT. — GREEN RIGHT ARROW
- LY -YL — YELLOW LEFT ARROW
- L — GREEN LEFT ARROW
- S — GREEN STRAIGHT AHEAD ARROW
- G — CIRCULAR GREEN
- Y — CIRCULAR YELLOW
- R — CIRCULAR RED
- RL — RED LEFT ARROW
- Ø — TRAFFIC PHASE
- AO — ALL OTHERS
- FR — FLASHING RED
- FY — FLASHING CIRCULAR YELLOW
- FYL — FLASHING YELLOW LEFT ARROW

FLASHING OPERATION	
ALL MOVEMENTS	FR
	FY

CONTROLLER TYPE	NEMA

TRAFFIC SIGNAL CONTROL OPERATION

INTERSECTION OF

ROUTE 7 & 40 HIGHWAY

D-38A

SIGNAL PLAN
SHEET 6 OF 54

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED 10/6/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	84

COUNTY JACKSON

JOB NO. JKU0010

CONTRACT ID.

PROJECT NO.

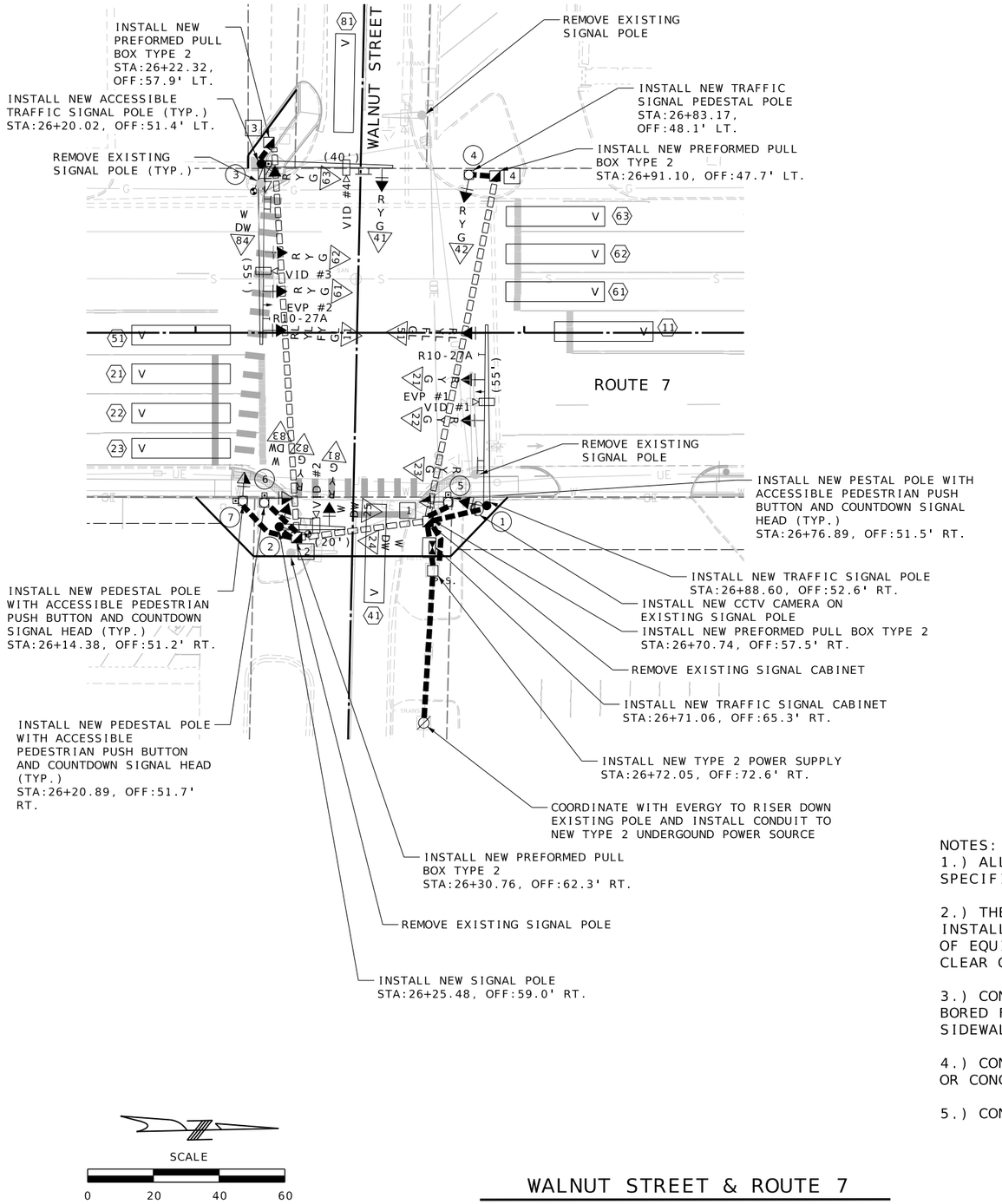
BRIDGE NO.

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592



SCALE

0 20 40 60

WALNUT STREET & ROUTE 7

TRAFFIC SIGNALS LEGEND

CONTROLLER	CCTV CAMERA	6 X 6 LOOP DETECTOR
CONTROLLER (EXISTING)	VIDEO DETECTOR	6 X 15 LOOP DETECTOR
JUNCTION BOX	PUSH BUTTON DETECTOR	30 X 6 LOOP DETECTOR
POWER SUPPLY	PREFORMED PULL BOX TYPE 1	CONDUIT MEDIAN
WOOD POST	PREFORMED PULL BOX TYPE 2	CONDUIT PUSHED
SIGNAL HEAD (OPT LIM CONV)	CONCRETE PULL BOX TYPE 1	CONDUIT BRIDGE
SIGNAL HEAD (OPT LIM)	CONCRETE PULL BOX TYPE 2	CONDUIT EXISTING
SIGNAL HEAD (PEDESTRIAN)	ITS PULL BOX TYPE 2	CONDUIT TRENCHED
SIGNAL HEAD (STANDARD)	ITS PULL BOX TYPE 5	SPAN WIRE
	EVP	MAST ARM - TYPE A BASE
	V VIDEO DETECTION ZONE	TYPE C BASE
		MAST ARM - TYPE F BASE
		MAST ARM - LUMINAIRE WITH ARM
		MAST ARM - STREET NAME SIGN

R	RED BALL
Y	YELLOW BALL
G	GREEN BALL
RL	RED LEFT ARROW
YL	YELLOW LEFT ARROW
FYL	FLASHING YELLOW LEFT ARROW
GL	GREEN LEFT ARROW
S	STRAIGHT GREEN ARROW
RR	RIGHT RED ARROW
YR	YELLOW RIGHT ARROW
GR	GREEN RIGHT ARROW

ALL 12" LENS WITH TUNNEL VISOR

NOTES:

1.) ALL TRAFFIC SIGNAL CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE MISSOURI STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, SECTION 902 (TRAFFIC SIGNALS), UNLESS OTHERWISE NOTED.

2.) THE CONTRACTOR SHALL STAKE LOCATIONS WHERE POLES, BOXES, AND THE CONTROLLER ARE TO BE INSTALLED. STAKED LOCATIONS SHALL BE REVIEWED AND APPROVED BY THE ENGINEER PRIOR TO PLACEMENT OF EQUIPMENT. SERVICE BOXES AND CONDUIT RUNS ARE APPROXIMATE AND MAY BE FIELD ADJUSTED TO CLEAR OBSTRUCTIONS AND FACILITATE WIRING, AS APPROVED BY THE ENGINEER.

3.) CONDUITS UNDER ANY NEW PAVEMENT SHALL EITHER BE TRENCHED PRIOR TO PAVEMENT CONSTRUCTION OR BORED FOLLOWING PAVEMENT CONSTRUCTION. CONDUITS UNDER ANY EXISTING PAVEMENT, INCLUDING SIDEWALKS AND DRIVEWAYS, SHALL BE BORED WITHOUT DISTURBANCE TO THE EXISTING PAVEMENT.

4.) CONDUIT, PULL BOXES, AND POLE BASES SHALL MAINTAIN AT LEAST 4' SETBACK FROM NEW GUARDRAIL OR CONCRETE BARRIER.

5.) CONTROLLER CABINET DOOR MUST OPEN AWAY FROM INTERSECTION.

SIGNAL PLAN
SHEET 7 OF 54

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED 10/6/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	85

COUNTY JACKSON
JOB NO. JKU0010
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

EFFECTIVE: 07/01/2018

| POST NUMBER | PULL BOX NUMBER | LOCATION | | | BASE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PULL BOX | | | | | | | | | | POST | | | | | | | | | | | | | | | | | | |

EFFECTIVE: 10-01-2015

NOTE - QUANTITIES SHOWN FOR INFORMATION ONLY

REFER TO SUMMARY OF QUANTITIES SHEET 11 OF 13
FOR BID ITEMS ASSOCIATED WITH SIGNALS

CONDUIT (WITH #14 TRACER WIRE)

FROM	TO	CENTER TO CENTER DISTANCE	LOOP DET.	TRENCH			PUSHED			MEDIAN			ON STRUCTURE		REMARKS
			1"	2"	3"	4"	2"	3"	4"	2"	3"	4"	2"	3"	
Ø	PS	38		42											
PS	CONT	7		11											
CONT	BOX 1	8			24										2 Cond.
BOX 1	POLE 1	19			21										
BOX 1	POLE 5	8			10										
BOX 1	BOX 2	40						39							
BOX 2	POLE 2	6			10										
BOX 2	POLE 6	15			17										
BOX 2	POLE 7	21			23										
BOX 2	BOX 3	121						120							
BOX 3	POLE 3	7			11										
BOX 1	BOX 4	107						106							
BOX 4	POLE 4	8			10										
SUBTOTALS				53	126			265							
TOTAL				56	132			278							

CABLE

FROM	TO	CENTER TO CENTER DISTANCE	POWER		CONTROL				LUMINAIRE		DETECTOR				CAMERA/RADAR		REMARKS
			1c-3#4	1c-3#8	2c #16	5c #16	7c #16	3c #16	CONTROL 2c #12	POLE & BRACKET 1c #10	1c #14 IN DUCT	2c #14 LEAD-IN CABLE	EVP CABLE	VIDEO CABLE *	CCTV CABLE	RADAR CABLE	
Ø	PS	38	42														
PS	CONT	7	11														
CONT	51	80					115										
CONT	21	65					100										
CONT	22	12					15										
CONT	23	27					54										
CONT	VID 1	59												98			
CONT	EVP 1	62											97				
CONT	CCTV	27													65		
CONT	P24	16			39	40											
CONT	81	69					110										
CONT	82	54					87										
CONT	VID 2	66												111			
CONT	LUM 2	61			84				84	33							
CONT	P25	63			92	93											
CONT	P83	69			98	99											
CONT	11	227					274										
CONT	61	215					262										
CONT	62	12					15										
CONT	63	176					215										
CONT	VID 3	209												260			
CONT	LUM 3	183			212				212	33							
CONT	EVP 2	176											223				
CONT	P84	176			211	212											
CONT	41	213					260										
CONT	VID 4	202												253			
	42	123					156										
SUBTOTALS			53		736	444	1663		296	66			320	722	65		
TOTAL			60		780	470	1750		320	70			340	760	70		

INTERSECTION ROUTE 7 & WALNUT STREET

D-37B

SIGNAL PLAN
SHEET 9 OF 54

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED 10/6/2025

ROUTE 7 | STATE MO
DISTRICT KC | SHEET NO. 87
COUNTY JACKSON
JOB NO. JKU0010
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DESCRIPTION | DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

F:\2022\03001-03500\022-03371\40-Design\Microstation\JKU0010\plan_sheets\11 Signals\087_SG_09_SIGNAL_JKU0010_I1.dgn 4:49:23 PM 10/6/2025

EFFECTIVE 04-01-2018

POWER SUPPLY

LOCATION			POWER SUPPLY ASSEMBLY		CIRCUIT BREAKER TRIP RATING*				LIGHTING CONTROL * (ON POWER SUPPLY)		SERVICE POLE	
					CONTROLLER		POWER SUPPLY DISCONNECT					
APPROACH	STATION	OFFSET	DRAWING 902.15	DRAWING	AUXILIARY BREAKER	CONT & SIGNAL LAMPS	MAIN BREAKER		120 VOLT CONTROL CABINET	MAIN BREAKER	CONTRACT FURNISH	UTILITY COMPANY
							SIGNALS	LIGHTING				
ROUTE 7	26+72.05	72.6' RT.	Type 2		15 Amps	40 Amps	Amps	Amps		Amps	Cl. Ft.	EVERGY
			Type		15 Amps	40 Amps	Amps	Amps		Amps	Cl. Ft.	

CONTROLLER ASSEMBLY AND AUXILIARY EQUIPMENT

LOCATION			SYSTEM MASTER (CLOSED LOOP)		ACTUATED		ON-OFF* SWITCH		COORDINATION INTERFACE *					TIME * CLOCK	NEMA CABINET TYPE *			170 CABINET TYPE *		170 SOFTWARE *		UNINTERRUPTIBLE POWER SUPPLY
							TYPE		12C/7C HARDWIRE (1)		TIME BASE	CLOSED LOOP		FIBER								902-99.02
APPROACH	STATION	OFFSET	NEMA	170	NEMA	170	I	II	MASTER	LOCAL		NEMA	170			E	EV	DOUBLE	332	336S	BITRAN	WAPITI	
ROUTE 7	26+71.06	72.6' RT.			1									1			1					1

NEMA DETECTOR ASSIGNMENT

		CARD POSITION							
		1	2	3	4	5	6	7	8
CHANNEL	1			VIDEO					
	2								

TOTAL NUMBER OF DETECTOR CARDS(2-CHANNEL) =

DETECTOR SCHEDULE

DETECTOR NUMBER	APPROACH	TYPE				
		PUSH BUTTON (1)	INDUCTION LOOP			VIDEO CAMERA
			STANDARD	DELAY/ EXTEND *	CALL UNIT *	
VIDEO 1	NB ROUTE 7					1
VIDEO 2	EB WALNUT					1
VIDEO 3	SB ROUTE 7					1
VIDEO 4	WB WALNUT					1
24	24	1				
25	25	1				
83	83	1				
84	84	1				
TOTAL		4				

* ITEMS FOR WHICH SEPARATE PAYMENT WILL NOT BE MADE.

(1) ALL PUSH BUTTONS SHALL BE APS AND UTLIZE A 2-WIRE CONTROL SYSTEM WITH CONTROL UNIT IN THE CABINET.

(2) CONTROL UNIT SHALL OPERATE IN MODE G. COMPACT MODE FOR FLASHING YELLOW ARROW.

MISCELLANEOUS BID ITEMS

BID ITEM	UNIT	QUANTITY
VIDEO DETECTION SYSTEM	EACH	1
CCTV CAMERA ASSEMBLY	EACH	1

NEMA LOAD SWITCH ASSIGNMENTS

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ø1 R Ø1 Y Ø1 G	Ø2 R Ø2 Y Ø2 G	- - -	Ø4 R Ø4 Y Ø4 G	Ø5 R Ø5 Y Ø5 G	Ø6 R Ø6 Y Ø6 G	- - -	Ø8 R Ø8 Y Ø8 G	Ø2P DW Ø1 FYA Ø2P W	- - -	- Ø5 FYA -	Ø8P DW - Ø8P W				

SIGNS

QUANTITY	MUTCD SIGN NUMBER	SIZE	AREA	SIGN TOTAL AREA ITEM NO. 90208.33	SIGNAL SIGN MOUNTING HARDWARE ITEM NO. 90208.34
		INCHES	SQ.FT.	SQ.FT.	EA.
	R10-10L	24 X 30	5.0	0.0	
	R10-10R	24 X 30	5.0	0.0	
	R3-5L	30 X 36	7.5	0.0	
	R3-5R	30 X 36	7.5	0.0	
	R3-5A	30 X 36	7.5	0.0	
	R3-6L	30 X 36	7.5	0.0	
	R3-6R	30 X 36	7.5	0.0	
	R3-2	24 X 24	4.0	0.0	
	R3-1	24 X 24	4.0	0.0	
	R3-3	24 X 24	4.0	0.0	
	R3-4	36 X 36	9.0	0.0	
	R10-5	24 X 30	5.0	0.0	
	R10-12	24 X 30	5.0	0.0	
	R10-12A	25 X 30	5.0	0.0	
2	D3-1 (ROUTE 7)***	60 X 18	7.5	15.0	2
2	D3-1 (WALNUT STREET)***	90 X 18	11.3	22.5	2
	R10-3E (L)	9 X 15	0.95	(INTEGRATED WITH BUTTON)	
	R10-3E (R)	9 X 15	0.95	(INTEGRATED WITH BUTTON)	
	R10-3E	9 X 15	0.9	0.0	
	R10-11A	24 X 30	7.5	0.0	
	R10-13	36 X 24	6.0	0.0	
2	R10-27A	30 X 36	7.5	15.0	2
	R10-15R	30 X 36	7.5	0.0	
			SUBTOTAL	52.5	6
			TOTAL	52.5	6

NOTE - QUANTITIES SHOWN FOR INFORMATION ONLY

REFER TO SUMMARY OF QUANTITIES SHEET 11 OF 13
FOR BID ITEMS ASSOCIATED WITH SIGNALS

ROUTE 7 & WALNUT STREET
INTERSECTION

D-37C
SIGNAL PLAN
SHEET 10 OF 54

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED 10/6/2025
ROUTE 7 | STATE MO
DISTRICT KC | SHEET NO. 88
COUNTY JACKSON
JOB NO. JKU0010
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DESCRIPTION | DATE

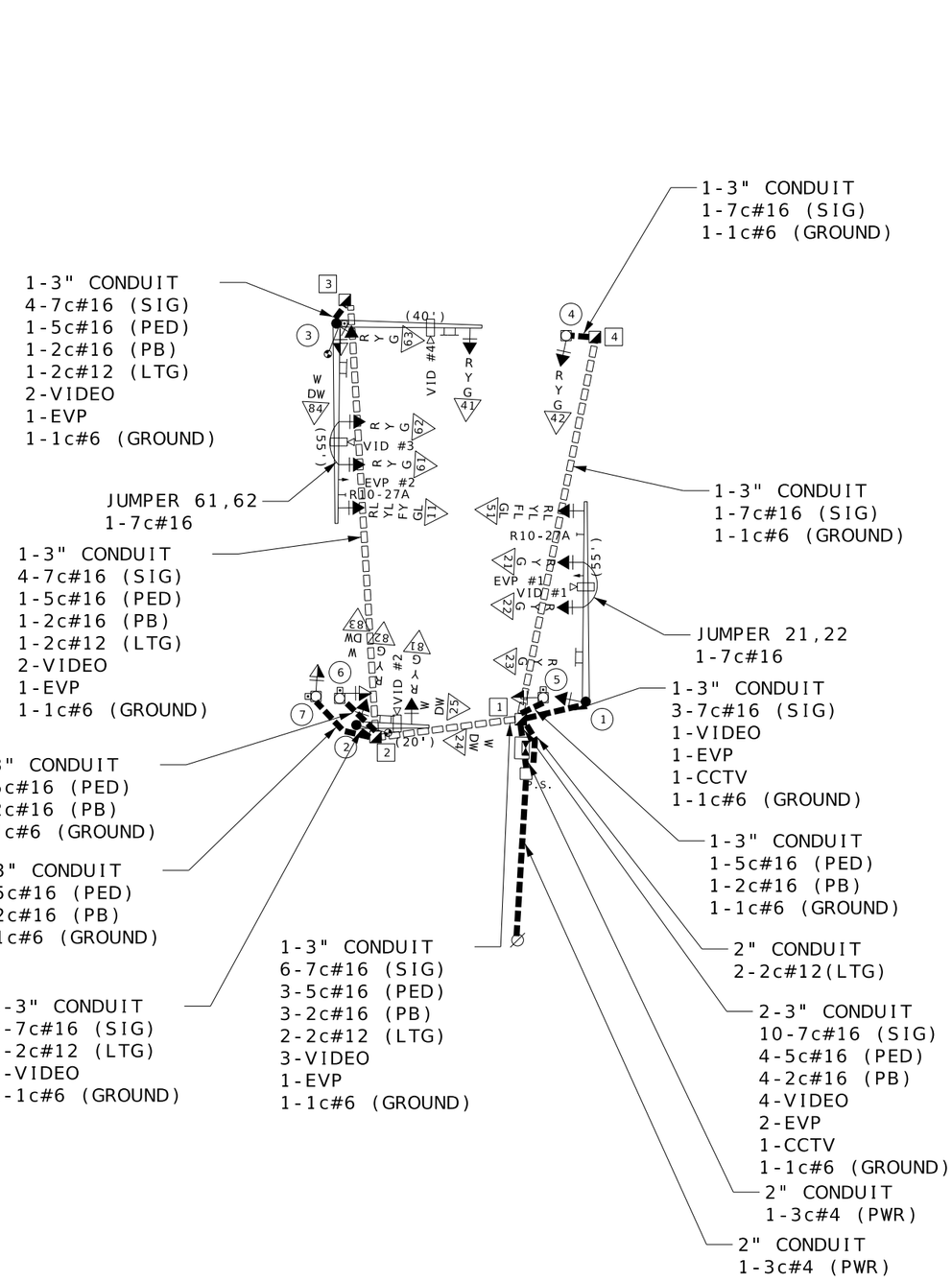
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

F:\2022\03001-03500\022-03371\40-Design\Microstation\JKU0010\plan_sheets\11 Signals\088_SG_10_SIGNAL_JKU0010_11.dgn 4:49:53 PM 10/6/2025

WIRING DIAGRAM



LEGEND

3"	CONDUIT CONTAINING CABLE WITH SIZE
	CABLE
X-Xc	MULTI-CONDUCTOR CABLE #16 AWG (UNLESS OTHERWISE INDICATED)
LIC	#14 AWG DETECTOR LEAD-IN CABLE (2C TWISTED SHIELDED)
X	PULL BOX WITH NUMBER
(X)	POST WITH NUMBER
(X)	POST WITH MAST ARM
(X)	POST WITH MAST ARM AND LUMINAIRE
X	DETECTOR WITH NUMBER
— X	SIGNAL HEAD WITH NUMBER
	SIGNAL CONTROLLER
	POWER SUPPLY
	LIGHTING CONTROLLER

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED: 10/6/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	89

COUNTY: JACKSON
JOB NO.: JKU0010
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.:

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

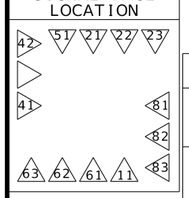
olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

ROUTE 7 & WALNUT STREET
INTERSECTION

D-37D
SIGNAL PLAN
SHEET 11 OF 54

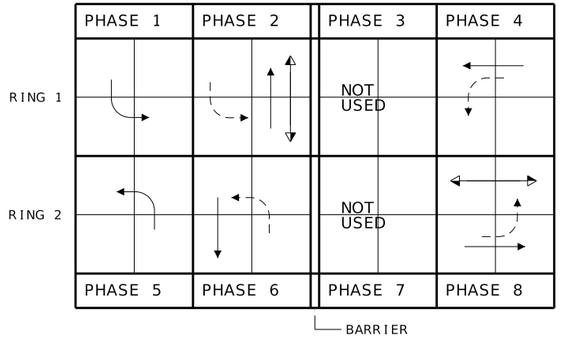
EFFECTIVE 12/01/2017

SIGNAL FACE LOCATION



TRAFFIC PHASING AND COLOR SEQUENCE - ACTUATED CONTROLLERS

	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 6	PHASE 7	PHASE 8	PED Ø2 OVERLAP	PED Ø4	PED Ø6 OVERLAP	PED Ø8	
FACE NUMBERS	11	21 22	NOT USED	41	51	61 62	NOT USED	81	24 11		51	83	FACE NUMBERS
		23		42		63			25			84	
SIGNAL INDICATIONS R	RL	R R		R	RL	R R		R	DW			DW	R
SIGNAL INDICATIONS Y	YL	Y Y		Y	YL	Y Y		Y					Y
SIGNAL INDICATIONS FYA									FYA		FYA		FYA
SIGNAL INDICATIONS G	GL	G G		G	GL	G G		G	W			W	G
DETECTOR ASSIGNMENTS	11	21 22		41	51	61 62		81					DETECTOR ASSIGNMENTS
DETECTOR ASSIGNMENTS (PEDS. ONLY)									24 25			83 84	
OVERLAP PARENT PHASES									2		6		



RING STRUCTURE

IF CALLED, ALL NON-CONFLICTING PHASES SHALL COMBINE AND TIME CONCURRENTLY. TIME TO BE DETERMINED BY THE ENGINEER AT SIGNAL TURN ON AND SET IN THE CONTROLLER BY THE CONTRACTOR.

LEGEND

- ACTUATED VEHICULAR MOVEMENT
- PARTIALLY RESTRICTED ACTUATED VEHICULAR MOVEMENT
- NON-ACTUATED VEHICULAR MOVEMENT
- PARTIALLY RESTRICTED NON-ACTUATED VEHICULAR MOVEMENT
- ACTUATED PEDESTRIAN MOVEMENT
- NON-ACTUATED PEDESTRIAN MOVEMENT
- VEHICLE STOPPED
- FDW — FLASHING DON'T WALK
- W — WALK
- DW — DON'T WALK
- R/W — RIGHT OF WAY INTERVAL
- YRt — YELLOW RIGHT ARROW
- RT. — GREEN RIGHT ARROW
- LY -YL — YELLOW LEFT ARROW
- L — GREEN LEFT ARROW
- S — GREEN STRAIGHT AHEAD ARROW
- G — CIRCULAR GREEN
- Y — CIRCULAR YELLOW
- R — CIRCULAR RED
- RL — RED LEFT ARROW
- Ø — TRAFFIC PHASE
- AO — ALL OTHERS
- FR — FLASHING RED
- FY — FLASHING CIRCULAR YELLOW
- FYL — FLASHING YELLOW LEFT ARROW

FLASHING OPERATION	
ALL MOVEMENTS	FR
	FY

CONTROLLER TYPE	NEMA

TRAFFIC SIGNAL CONTROL OPERATION

INTERSECTION OF

ROUTE 7 & WALNUT STREET

D-38A

SIGNAL PLAN
SHEET 12 OF 54

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED 10/6/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	90

COUNTY JACKSON

JOB NO. JKU0010

CONTRACT ID.

PROJECT NO.

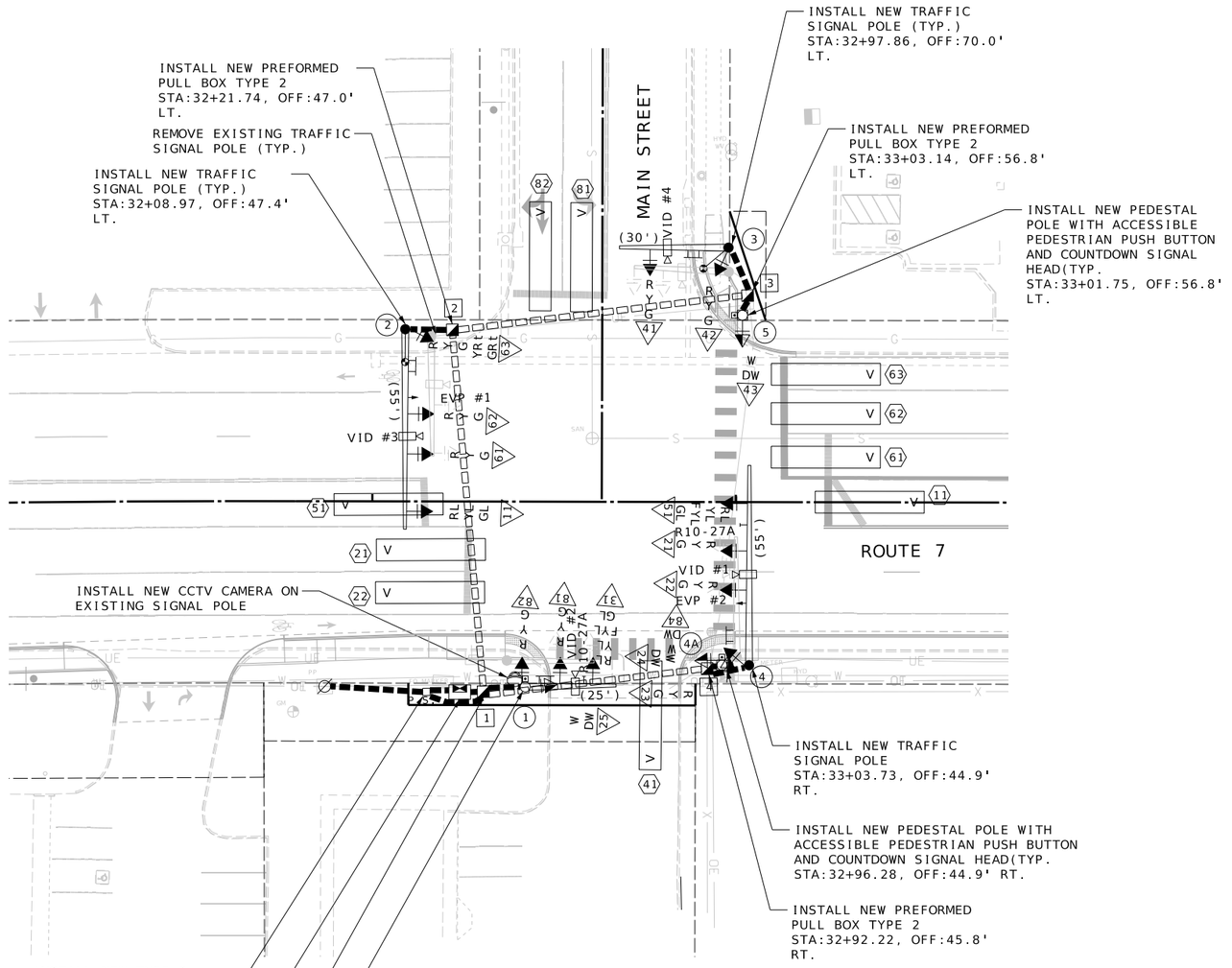
BRIDGE NO.

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592



SCALE

0 20 40 60

MAIN STREET & ROUTE 7

TRAFFIC SIGNALS LEGEND

CONTROLLER	CCTV CAMERA		6 X 6 LOOP DETECTOR
CONTROLLER (EXISTING)	VIDEO DETECTOR		6 X 15 LOOP DETECTOR
JUNCTION BOX	PUSH BUTTON DETECTOR		30 X 6 LOOP DETECTOR
POWER SUPPLY	PREFORMED PULL BOX TYPE 1		CONDUIT MEDIAN
WOOD POST	PREFORMED PULL BOX TYPE 2		CONDUIT PUSHED
SIGNAL HEAD (OPT LIM CONV)	CONCRETE PULL BOX TYPE 1		CONDUIT BRIDGE
SIGNAL HEAD (OPT LIM)	CONCRETE PULL BOX TYPE 2		CONDUIT EXISTING
SIGNAL HEAD (PEDESTRIAN)	ITS PULL BOX TYPE 2		CONDUIT TRENCHED
SIGNAL HEAD (STANDARD)	ITS PULL BOX TYPE 5		SPAN WIRE
	EVP		MAST ARM - TYPE A BASE
	V VIDEO DETECTION ZONE		TYPE C BASE
			MAST ARM - TYPE F BASE
			MAST ARM - LUMINAIRE WITH ARM
			MAST ARM - STREET NAME SIGN

R	RED BALL
Y	YELLOW BALL
G	GREEN BALL
RL	RED LEFT ARROW
YL	YELLOW LEFT ARROW
FYL	FLASHING YELLOW LEFT ARROW
GL	GREEN LEFT ARROW
S	STRAIGHT GREEN ARROW
RR	RIGHT RED ARROW
YR	YELLOW RIGHT ARROW
GR	GREEN RIGHT ARROW

ALL 12" LENS WITH TUNNEL VISOR

NOTES:

1.) ALL TRAFFIC SIGNAL CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE MISSOURI STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, SECTION 902 (TRAFFIC SIGNALS), UNLESS OTHERWISE NOTED.

2.) THE CONTRACTOR SHALL STAKE LOCATIONS WHERE POLES, BOXES, AND THE CONTROLLER ARE TO BE INSTALLED. STAKED LOCATIONS SHALL BE REVIEWED AND APPROVED BY THE ENGINEER PRIOR TO PLACEMENT OF EQUIPMENT. SERVICE BOXES AND CONDUIT RUNS ARE APPROXIMATE AND MAY BE FIELD ADJUSTED TO CLEAR OBSTRUCTIONS AND FACILITATE WIRING, AS APPROVED BY THE ENGINEER.

3.) CONDUITS UNDER ANY NEW PAVEMENT SHALL EITHER BE TRENCHED PRIOR TO PAVEMENT CONSTRUCTION OR BORED FOLLOWING PAVEMENT CONSTRUCTION. CONDUITS UNDER ANY EXISTING PAVEMENT, INCLUDING SIDEWALKS AND DRIVEWAYS, SHALL BE BORED WITHOUT DISTURBANCE TO THE EXISTING PAVEMENT.

4.) CONDUIT, PULL BOXES, AND POLE BASES SHALL MAINTAIN AT LEAST 4' SETBACK FROM NEW GUARDRAIL OR CONCRETE BARRIER.

5.) CONTROLLER CABINET DOOR MUST OPEN AWAY FROM INTERSECTION.

SIGNAL PLAN
SHEET 13 OF 54

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED 10/6/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	91

COUNTY: JACKSON
JOB NO.: JKU0010
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.:

DESCRIPTION | DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

EFFECTIVE: 07/01/2018

| POST NUMBER | PULL BOX NUMBER | LOCATION | | | BASE | | |

EFFECTIVE: 10-01-2015

NOTE - QUANTITIES SHOWN FOR INFORMATION ONLY

REFER TO SUMMARY OF QUANTITIES SHEET 11 OF 13
FOR BID ITEMS ASSOCIATED WITH SIGNALS

CONDUIT (WITH #14 TRACER WIRE)

FROM	TO	CENTER TO CENTER DISTANCE	LOOP DET.	TRENCH			PUSHED			MEDIAN			ON STRUCTURE		REMARKS
			1"	2"	3"	4"	2"	3"	4"	2"	3"	4"	2"	3"	
Ø	PS	24		28											
PS	CONT	13		17											
CONT	BOX 1	7			22										2 Cond.
BOX 1	POLE 1	11			15										
BOX 1	BOX 2	100						98							
BOX 2	POLE 2	13			17										
BOX 2	BOX 3	82						80							
BOX 3	POLE 3	14			18										
BOX 3	POLE 5	6			8										
BOX 1	BOX 4	62						60							
BOX 4	POLE 4	11			15										
BOX 4	POLE 4A	4			6										
PS	BOX1	18		32											
SUBTOTALS				77	101			238							
TOTAL				81	106			250							

CABLE

FROM	TO	CENTER TO CENTER DISTANCE	POWER		CONTROL				LUMINAIRE		DETECTOR				CAMERA/RADAR		REMARKS
			1c-3#4	1c-3#8	2c #16	5c #16	7c #16	3c #16	CONTROL 2c #12	POLE & BRACKET 1c #10	1c #14 IN DUCT	2c #14 LEAD-IN CABLE	EVP CABLE	VIDEO CABLE *	CCTV CABLE	RADAR CABLE	
Ø	PS	24	28														
PS	CONT	13	17														
CONT	31	32					67										
CONT	81	21					56										
CONT	82	18					45										
CONT	VID 2	28												67			
CONT	P25	18			41	42											
CONT	CCTV	18													62		
CONT	11	170					211										
CONT	61	155					196										
CONT	62	12					15										
CONT	63	120					153										
CONT	VID 3	150												195			
PS	LUM 1	133							156	66							
CONT	EVP 1	139											139				
CONT	41	225					272										
CONT	42	203					242										
CONT	VID 4	220												271			
PS	LUM 2	216							245	66							
CONT	P43	195			230	231											
CONT	51	124					165										
CONT	21	112					153										
CONT	22	12					15										
CONT	23	80					113										
CONT	VID 1	105												150			
CONT	EVP 2	97											138				
CONT	P24	73			102	103											
	P44	73			102	103											
SUBTOTALS			45		475	479	1703		401	132			277	683	62		
TOTAL			50		500	510	1790		430	140			300	720	70		

INTERSECTION ROUTE 7 & MAIN STREET

D-37B

SIGNAL PLAN
SHEET 15 OF 54

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED 10/6/2025

ROUTE 7 | STATE MO
DISTRICT KC | SHEET NO. 93
COUNTY JACKSON
JOB NO. JKU0010
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DESCRIPTION | DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

F:\2022\03001-03500\022-03371\40-Design\Microstation\JKU0010\plan_sheets\11 Signals\093_SG_15_SIGNAL_JKU0010_I1.dgn 4:59:20 PM 10/6/2025

EFFECTIVE 04-01-2018

POWER SUPPLY

LOCATION			POWER SUPPLY ASSEMBLY		CIRCUIT BREAKER TRIP RATING*				LIGHTING CONTROL * (ON POWER SUPPLY)		SERVICE POLE	
					CONTROLLER		POWER SUPPLY DISCONNECT					
APPROACH	STATION	OFFSET	DRAWING 902.15	DRAWING	AUXILIARY BREAKER	CONT & SIGNAL LAMPS	MAIN BREAKER		120 VOLT CONTROL CABINET	MAIN BREAKER	CONTRACT FURNISH	UTILITY COMPANY
							SIGNALS	LIGHTING				
ROUTE 7	32+17.99	52.4' RT.	Type 2		15 Amps	40 Amps	Amps	Amps		Amps	Cl. Ft.	EVERGY
			Type		15 Amps	40 Amps	Amps	Amps		Amps	Cl. Ft.	

CONTROLLER ASSEMBLY AND AUXILIARY EQUIPMENT

LOCATION			SYSTEM MASTER (CLOSED LOOP)		ACTUATED		ON-OFF* SWITCH		COORDINATION INTERFACE *					TIME * CLOCK	NEMA CABINET TYPE *			170 CABINET TYPE *		170 SOFTWARE *		UNINTERRUPTIBLE POWER SUPPLY
							TYPE		12C/7C HARDWIRE (1)		TIME BASE	CLOSED LOOP										902-99.02
APPROACH	STATION	OFFSET	NEMA	170	NEMA	170	I	II	MASTER	LOCAL		NEMA	170	FIBER		E	EV	DOUBLE	332	336S	BITRAN	WAPITI	
ROUTE 7	32+24.16	52.4' RT			1									1			1						1

NEMA DETECTOR ASSIGNMENT

		CARD POSITION							
		1	2	3	4	5	6	7	8
CHANNEL	1			VIDEO					
	2								

TOTAL NUMBER OF DETECTOR CARDS(2-CHANNEL) =

DETECTOR SCHEDULE

DETECTOR NUMBER	APPROACH	TYPE				
		PUSH BUTTON (1)	INDUCTION LOOP			VIDEO CAMERA
			STANDARD	DELAY/ EXTEND *	CALL UNIT *	
VIDEO 1	NB ROUTE 7					1
VIDEO 2	EB MAIN					1
VIDEO 3	SB ROUTE 7					1
VIDEO 4	WB MAIN					1
24	24	1				
25	25	1				
43	43	1				
44	44	1				
TOTAL		4				

* ITEMS FOR WHICH SEPARATE PAYMENT WILL NOT BE MADE.

(1) ALL PUSH BUTTONS SHALL BE APS AND UTLIZE A 2-WIRE CONTROL SYSTEM WITH CONTROL UNIT IN THE CABINET.

(2) CONTROL UNIT SHALL OPERATE IN MODE G. COMPACT MODE FOR FLASHING YELLOW ARROW.

MISCELLANEOUS BID ITEMS

BID ITEM	UNIT	QUANTITY
VIDEO DETECTION SYSTEM	EACH	1
CCTV CAMERA ASSEMBLY	EACH	1

NEMA LOAD SWITCH ASSIGNMENTS

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ø1 R Ø1 Y Ø1 G	Ø2 R Ø2 Y Ø2 G	Ø3 R Ø3 Y Ø3 G	Ø4 R Ø4 Y Ø4 G	Ø5 R Ø5 Y Ø5 G	Ø6 R Ø6 Y Ø6 G	Ø7 R Ø7 Y Ø7 G	Ø8 R Ø8 Y Ø8 G	Ø2P DW Ø2P W	Ø4P DW Ø4P W	- Ø5 FYA -	- - -	Ø6 YRt - Ø6 GRt			

SIGNS

QUANTITY	MUTCD SIGN NUMBER	SIZE	AREA	SIGN TOTAL AREA ITEM NO. 90208.33	SIGNAL SIGN MOUNTING HARDWARE ITEM NO. 90208.34
		INCHES	SQ.FT.	SQ.FT.	EA.
	R10-10L	24 X 30	5.0	0.0	
	R10-10R	24 X 30	5.0	0.0	
	R3-5L	30 X 36	7.5	0.0	
	R3-5R	30 X 36	7.5	0.0	
	R3-5A	30 X 36	7.5	0.0	
	R3-6L	30 X 36	7.5	0.0	
	R3-6R	30 X 36	7.5	0.0	
	R3-2	24 X 24	4.0	0.0	
	R3-1	24 X 24	4.0	0.0	
	R3-3	24 X 24	4.0	0.0	
	R3-4	36 X 36	9.0	0.0	
	R10-5	24 X 30	5.0	0.0	
	R10-12	24 X 30	5.0	0.0	
	R10-12A	25 X 30	5.0	0.0	
2	D3-1 (ROUTE 7)***	60 X 18	7.5	15.0	2
2	D3-1 (MAIN STREET)***	90 X 18	11.3	22.5	2
	R10-3E (L)	9 X 15	0.95	(INTEGRATED WITH BUTTON)	
	R10-3E (R)	9 X 15	0.95	(INTEGRATED WITH BUTTON)	
	R10-3E	9 X 15	0.9	0.0	
	R10-11A	24 X 30	7.5	0.0	
	R10-13	36 X 24	6.0	0.0	
2	R10-27A	30 X 36	7.5	15.0	2
	R10-15R	30 X 36	7.5	0.0	
			SUBTOTAL	52.5	6
			TOTAL	52.5	6

NOTE - QUANTITIES SHOWN FOR INFORMATION ONLY

REFER TO SUMMARY OF QUANTITIES SHEET 11 OF 13
FOR BID ITEMS ASSOCIATED WITH SIGNALS

ROUTE 7 & MAIN STREET
INTERSECTION

D-37C
SIGNAL PLAN
SHEET 16 OF 54

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED 10/6/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	94

COUNTY JACKSON
JOB NO. JKU0010
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

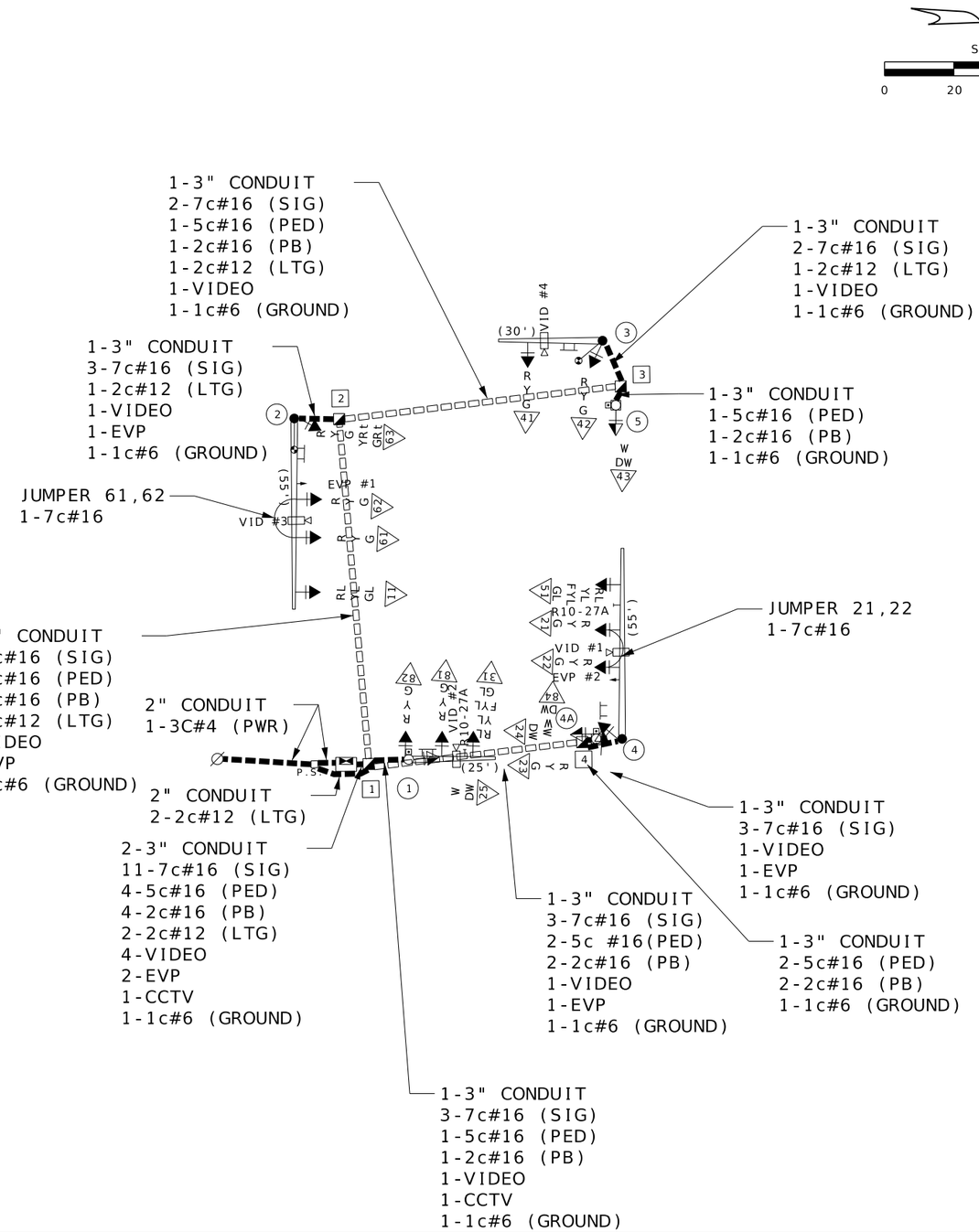
DESCRIPTION | DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

WIRING DIAGRAM



LEGEND

3"	CONDUIT CONTAINING CABLE WITH SIZE
	CABLE
X-Xc	MULTI-CONDUCTOR CABLE #16 AWG (UNLESS OTHERWISE INDICATED)
LIC	#14 AWG DETECTOR LEAD-IN CABLE (2C TWISTED SHIELDED)
X	PULL BOX WITH NUMBER
(X)	POST WITH NUMBER
(X)	POST WITH MAST ARM
(X)	POST WITH MAST ARM AND LUMINAIRE
X	DETECTOR WITH NUMBER
—X	SIGNAL HEAD WITH NUMBER
	SIGNAL CONTROLLER
	POWER SUPPLY
	LIGHTING CONTROLLER

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED: 10/6/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	95

COUNTY: JACKSON
JOB NO.: JKU0010
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.:

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

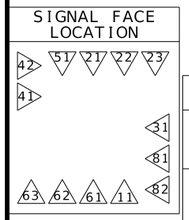
olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

MAIN STREET & ROUTE 7
INTERSECTION

D-37D
SIGNAL PLAN
SHEET 17 OF 54

EFFECTIVE 12/01/2017

SIGNAL FACE LOCATION

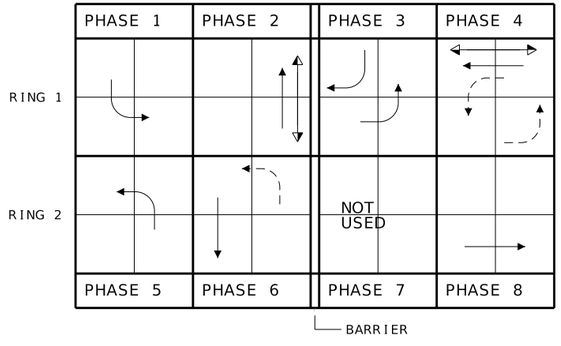


TRAFFIC PHASING AND COLOR SEQUENCE - ACTUATED CONTROLLERS

	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 6	PHASE 7	PHASE 8	PED Ø2	PED Ø4			
							NOT USED			OVERLAP	OVERLAP		OVERLAP
FACE NUMBERS	11	21 22	31	41	51	61 62		81	24	43 31	51		63
		23		42		63		82	25	44			
SIGNAL INDICATIONS R	RL	R R	RL	R	RL	R R		R	DW	DW			
SIGNAL INDICATIONS Y	YL	Y Y	YL	Y	YL	Y Y		Y					YRt
SIGNAL INDICATIONS FYA										FYA	FYA		
SIGNAL INDICATIONS G	GL	G G	GL	G	GL	G G		G	W	W			GRt
DETECTOR ASSIGNMENTS	11	21 22	31	41	51	61 62		81					
DETECTOR ASSIGNMENTS (PEDS. ONLY)									24 25	43 44			
OVERLAP PARENT PHASES										4	6		3

FACE NUMBERS	SIGNAL INDICATIONS	
	R	
	Y	
	FYA	
	G	

DETECTOR ASSIGNMENTS



RING STRUCTURE

IF CALLED, ALL NON-CONFLICTING PHASES SHALL COMBINE AND TIME CONCURRENTLY. TIME TO BE DETERMINED BY THE ENGINEER AT SIGNAL TURN ON AND SET IN THE CONTROLLER BY THE CONTRACTOR.

LEGEND

- ACTUATED VEHICULAR MOVEMENT
- PARTIALLY RESTRICTED ACTUATED VEHICULAR MOVEMENT
- NON-ACTUATED VEHICULAR MOVEMENT
- PARTIALLY RESTRICTED NON-ACTUATED VEHICULAR MOVEMENT
- ACTUATED PEDESTRIAN MOVEMENT
- NON-ACTUATED PEDESTRIAN MOVEMENT
- VEHICLE STOPPED
- FDW — FLASHING DON'T WALK
- W — WALK
- DW — DON'T WALK
- R/W — RIGHT OF WAY INTERVAL
- YRt — YELLOW RIGHT ARROW
- RT. — GREEN RIGHT ARROW
- LY -YL — YELLOW LEFT ARROW
- L — GREEN LEFT ARROW
- S — GREEN STRAIGHT AHEAD ARROW
- G — CIRCULAR GREEN
- Y — CIRCULAR YELLOW
- R — CIRCULAR RED
- RL — RED LEFT ARROW
- Ø — TRAFFIC PHASE
- AO — ALL OTHERS
- FR — FLASHING RED
- FY — FLASHING CIRCULAR YELLOW
- FYL — FLASHING YELLOW LEFT ARROW

FLASHING OPERATION	
ALL MOVEMENTS	FR
	FY

CONTROLLER TYPE	NEMA

TRAFFIC SIGNAL CONTROL OPERATION

INTERSECTION OF

ROUTE 7 & MAIN STREET

D-38A

SIGNAL PLAN
SHEET 18 OF 54

JEREMY SCOTT STRETZ
NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED 10/6/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	96

COUNTY JACKSON

JOB NO. JKU0010

CONTRACT ID.

PROJECT NO.

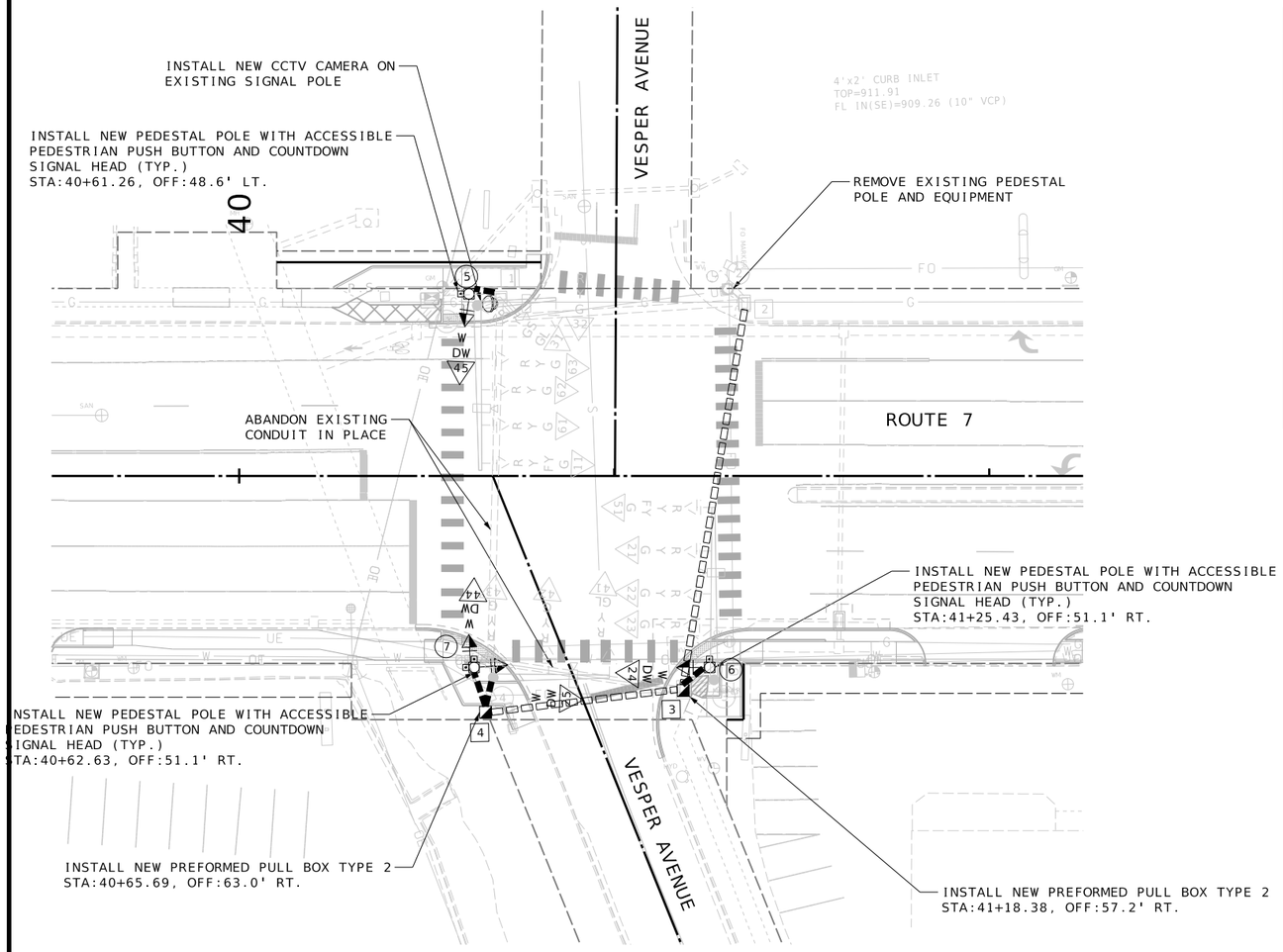
BRIDGE NO.

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592



TRAFFIC SIGNALS LEGEND

CONTROLLER	CCTV CAMERA	6 X 6 LOOP DETECTOR
CONTROLLER (EXISTING)	VIDEO DETECTOR	6 X 15 LOOP DETECTOR
JUNCTION BOX	PUSH BUTTON DETECTOR	30 X 6 LOOP DETECTOR
POWER SUPPLY	PREFORMED PULL BOX TYPE 1	CONDUIT MEDIAN
WOOD POST	PREFORMED PULL BOX TYPE 2	CONDUIT PUSHED
SIGNAL HEAD (OPT LIM CONV)	CONCRETE PULL BOX TYPE 1	CONDUIT BRIDGE
SIGNAL HEAD (OPT LIM)	CONCRETE PULL BOX TYPE 2	CONDUIT EXISTING
SIGNAL HEAD (PEDESTRIAN)	ITS PULL BOX TYPE 2	CONDUIT TRENCHED
SIGNAL HEAD (STANDARD)	ITS PULL BOX TYPE 5	SPAN WIRE
	EVP	MAST ARM - TYPE A BASE
	V VIDEO DETECTION ZONE	TYPE C BASE
		MAST ARM - TYPE F BASE
		MAST ARM - LUMINAIRE WITH ARM
		MAST ARM - STREET NAME SIGN

R	RED BALL
Y	YELLOW BALL
G	GREEN BALL
RL	RED LEFT ARROW
YL	YELLOW LEFT ARROW
GL	GREEN LEFT ARROW
S	STRAIGHT GREEN ARROW
RR	RIGHT RED ARROW
YR	YELLOW RIGHT ARROW
GR	GREEN RIGHT ARROW

ALL 12" LENS WITH TUNNEL VISOR

NOTES:
1.) ALL TRAFFIC SIGNAL CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE MISSOURI STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, SECTION 902 (TRAFFIC SIGNALS), UNLESS OTHERWISE NOTED.

2.) THE CONTRACTOR SHALL STAKE LOCATIONS WHERE POLES, BOXES, AND THE CONTROLLER ARE TO BE INSTALLED. STAKED LOCATIONS SHALL BE REVIEWED AND APPROVED BY THE ENGINEER PRIOR TO PLACEMENT OF EQUIPMENT. SERVICE BOXES AND CONDUIT RUNS ARE APPROXIMATE AND MAY BE FIELD ADJUSTED TO CLEAR OBSTRUCTIONS AND FACILITATE WIRING, AS APPROVED BY THE ENGINEER.

3.) CONDUITS UNDER ANY NEW PAVEMENT SHALL EITHER BE TRENCHED PRIOR TO PAVEMENT CONSTRUCTION OR BORED FOLLOWING PAVEMENT CONSTRUCTION. CONDUITS UNDER ANY EXISTING PAVEMENT, INCLUDING SIDEWALKS AND DRIVEWAYS, SHALL BE BORED WITHOUT DISTURBANCE TO THE EXISTING PAVEMENT.

SCALE
0 20 40 60

VESPER AVENUE & ROUTE 7

SIGNAL PLAN
SHEET 19 OF 54

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856
DATE PREPARED 10/6/2025
ROUTE 7 | STATE MO
DISTRICT KC | SHEET NO. 97
COUNTY JACKSON
JOB NO. JKU0010
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

DESCRIPTION | DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

F:\2022\03001-03500\022-03371\40-Design\Microstation\JKU0010\plan_sheets\11 Signals\097_SG_19_SIGNAL_JKU0010_I20.dgn 5:00:29 PM 10/6/2025

EFFECTIVE: 07/01/2018

POST NUMBER	PULL BOX NUMBER	LOCATION: APPROACH	LOCATION: STATION	LOCATION: OFFSET	BASE: A (9)	BASE: A (9.5)	BASE: A (10)	BASE: A (10.5)	BASE: A (11)	BASE: A (12)	BASE: F (9)	BASE: F (9.5)	BASE: F (10)	BASE: F (10.5)	BASE: F (11)	BASE: F (12)	BASE: C	BASE: CONCRETE** (CU.YDS.)	PULL BOX: PREFORMED CLASS 1	PULL BOX: PREFORMED CLASS 2	PULL BOX: PREFORMED CLASS 3	PULL BOX: PREFORMED CLASS 5	PULL BOX: CONCRETE STANDARD	PULL BOX: CONCRETE DOUBLE, TYPE A	PULL BOX: CONCRETE DOUBLE, TYPE B	PULL BOX: DRAIN TYPE* I	PULL BOX: DRAIN TYPE* II A	PULL BOX: DRAIN TYPE* II B	PULL BOX: DRAIN TYPE* II C	POST: TOP MOUNT POST 8 FT.	POST: TOP MOUNT POST 15 FT.
5		VESPER AVE	40+61.26	48.6' LT.													1	0.44												1	
6		ROUTE 7	41+25.43	51.1' RT.													1	0.44												1	
7		VESPER AVE	40+62.63	51.1' RT.													1	0.44												1	
	3	VESPER AVE	41+18.38	57.2' RT.																1						1					
	4	ROUTE 7	40+65.69	63.0' RT.																1						1					
SUBTOTAL																	1.32		2										3	
TOTAL																	1.32		2										3	

POST: TYPE C & CL ARM LENGTH A	A	A	A	SIGNAL SPACING B	C	D	D'	SIGN SPACING B	C	D	D'	TYPE B & BL ARM LENGTH E	K	E	K	E	K	LEFT ARM E SIGNAL SPACING F	G	H	H'	LEFT ARM E SIGN SPACING F	G	H	H'	RIGHT ARM K SIGNAL SPACING F	G	H	H'	RIGHT ARM K SIGN SPACING F	G	H	H'	INCLUDED ANGLE	LUMINAIRE BRACKET ARM* 4 FT.	6 FT.	8 FT.	10 FT.	12 FT.	15 FT.

SIGNAL HEADS: SPAN NUMBER	POST NUMBER	FACE NUMBER	LUMINAIRE LED
	5	45	
	6	24	
	7	25	
		44	
SUBTOTAL			
TOTAL			

INDICATIONS* 12" LENS CONVENTIONAL R	Y	YL	YRt	FY	FYR	G	S	L	Rt	PED.	12" LENS OPTICAL LIMITING R	RL	Y	YL	YRt	FYL	G	S	L	Rt	VISORS* 12" LENS	PED.	LOUVERS* A	B	C	D	E	F
										1												1						
										1												1						
										1												1						
										1												1						

BACKPLATE* LENSES 1	2	3	4	5	RETROREFLECTIVE BACKPLATE* LENSES 1	2	3	4	5	BRACKET* TYPE I	II	III	ONE-FACE SECTION 1 - T	S	C	B	3 - T	S	C	B	4 - T	S	C	B	5 - T	S	C	B	TWO-FACE SECTION 11 - T	S	C	B	33 - T	S	C	B	34 - S	B	35 - S	B	44 - S	B	45 - S	B
										1																																	
										1																																	
										1																																	
										1																																	

SUBTOTAL 8" CONVENTIONAL	
SUBTOTAL 12" CONVENTIONAL	
SUBTOTAL COMBINATION OL & CONV	
TOTAL 8" CONVENTIONAL	
TOTAL 12" CONVENTIONAL	
TOTAL COMBINATION OL & CONV	

REMARKS

ALL LENGTHS AND SPACINGS ARE IN FEET UNLESS OTHERWISE INDICATED.

* ITEMS FOR WHICH SEPARATE PAYMENT WILL NOT BE MADE.

** SEE STANDARD PLANS 902.10 AND 902.30 FOR CONCRETE REQUIREMENTS ON BASES.

*** USE D3-16 FOR ONE LINE. USE D3-18 FOR TWO LINE.

SIGNAL STRUCTURES WHICH WILL EXCEED THE DIMENSION LIMITS SHOWN ON STANDARD PLAN SHEETS IN SECTION 902 AND ANY OTHER INSTALLATION WHERE THE DETAILS OF CONSTRUCTION ARE NOT FURNISHED IN THE CONTRACT PLANS, SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER IN ACCORDANCE WITH THE 2001 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, 4TH EDITION, AND LATEST INTERIMS. THE STRUCTURE SHALL BE DESIGNED AS IMPORTANCE CATEGORY I FOR FATIGUE WITH A 50-YEAR DESIGN LIFE. THE CONTRACTOR SHALL SUBMIT A SET OF SHOP DETAIL DRAWINGS INCLUDING WELD PROCEDURE SPECIFICATIONS AND DESIGN COMPUTATIONS FOR MODOT RECORDS AND REFERENCE. THE SUBMITTED DRAWINGS AND CALCULATIONS SHALL BE SIGNED AND SEALED IN ACCORDANCE WITH THE LAWS RELATING TO ARCHITECTS AND PROFESSIONAL ENGINEERS (CHAPTER 327, RSMO.), AND SHALL INCLUDE A TITLE BLOCK OR SUMMARY SHEET WHICH LISTS AND CERTIFIES THAT THE PRODUCT MEETS ALL OF THE SPECIFIED DESIGN CRITERIA.

NOTE - QUANTITIES SHOWN FOR INFORMATION ONLY

REFER TO SUMMARY OF QUANTITIES SHEET 11 OF 13
FOR BID ITEMS ASSOCIATED WITH SIGNALS

ROUTE 7 & VESPER AVENUE
INTERSECTION

LEGEND
T - TOP MOUNT
S - SIDE MOUNT
C - SPANWIRE MOUNT
B - MAST ARM MOUNT

D-37A

SIGNAL PLAN
SHEET 20 OF 54

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED
10/6/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	98

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

F:\2022\03001-03500\022-03371\40-Design\Microstation\JKU0010\plan_sheets\11 Signals\098_SG_20_SIGNAL_JKU0010_11.dgn 5:00:34 PM 10/6/2025

EFFECTIVE: 10-01-2015

NOTE - QUANTITIES SHOWN FOR INFORMATION ONLY

REFER TO SUMMARY OF QUANTITIES SHEET 11 OF 13
FOR BID ITEMS ASSOCIATED WITH SIGNALS

CONDUIT (WITH #14 TRACER WIRE)

FROM	TO	CENTER TO CENTER DISTANCE	LOOP DET.	TRENCH			PUSHED			MEDIAN			ON STRUCTURE		REMARKS
			1"	2"	3"	4"	2"	3"	4"	2"	3"	4"	2"	3"	
CONT	BOX 1	18													
BOX 1	POLE 1	7													
BOX 1	POLE 5	9			11										
BOX 1	BOX 2	67													
BOX 2	POLE 2	6													
BOX 2	BOX 3	105						103							
BOX 3	POLE 3	9													
BOX 3	POLE 6	10			12										
BOX 3	BOX 4	50						48							
BOX 4	POLE 4	10			12										
BOX 4	POLE 7	14			16										
SUBTOTALS				51			151								
TOTAL				54			159								

CABLE

FROM	TO	CENTER TO CENTER DISTANCE	POWER		CONTROL				CLOSED LOOP INTERCONNECT	LUMINAIRE		DETECTOR			CAMERA/RADAR		REMARKS
			1c-3#4	1c-3#8	2c #16	5c #16	7c #16	3c #16	3 PAIR #16	CONTROL 2c #12	POLE & BRACKET 1c #10	1c #14 IN DUCT	2c #14 LEAD-IN CABLE	VIDEO CABLE *	CCTV CABLE	RADAR CABLE	
CONT	CCTV	25													69		
CONT	P45	27			50	51											
CONT	51	199					291										
CONT	21	199					280										
CONT	22	199					12										
CONT	23	199					261										
CONT	VID 3	199												279			
CONT	P24	200			235	236											
CONT	41	250					334										
CONT	42	250					318										
CONT	43	250					295										
CONT	VID 4	250												328			
CONT	P25	254			295	296											
CONT	P44	254			295	296											

EFFECTIVE 04-01-2018

POWER SUPPLY

LOCATION			POWER SUPPLY ASSEMBLY		CIRCUIT BREAKER TRIP RATING*				LIGHTING CONTROL * (ON POWER SUPPLY)		SERVICE POLE	
					CONTROLLER		POWER SUPPLY DISCONNECT					
APPROACH	STATION	OFFSET	DRAWING 902.15	DRAWING	AUXILIARY BREAKER	CONT & SIGNAL LAMPS	MAIN BREAKER		120 VOLT CONTROL CABINET	MAIN BREAKER	CONTRACT FURNISH	UTILITY COMPANY
							SIGNALS	LIGHTING				
			Type 2		15 Amps	40 Amps	Amps	Amps	SEE LIGHTING PLANS	SEE LIGHTING PLANS Amps	Cl. Ft.	
			Type		15 Amps	40 Amps	Amps	Amps		Amps	Cl. Ft.	

CONTROLLER ASSEMBLY AND AUXILIARY EQUIPMENT

LOCATION			SYSTEM MASTER (CLOSED LOOP)		ACTUATED		ON-OFF* SWITCH TYPE		COORDINATION INTERFACE *					TIME * CLOCK	NEMA CABINET TYPE *			170 CABINET TYPE *		170 SOFTWARE *		UNINTERRUPTIBLE POWER SUPPLY
									12C/7C HARDWIRE (1)		TIME BASE	CLOSED LOOP		FIBER								
APPROACH	STATION	OFFSET	NEMA	170	ECONOLITE COBALT	170	I	II	MASTER	LOCAL		NEMA	170			E	EV	DOUBLE	332	336S	BITRAN	WAPITI	902-99.02

NEMA DETECTOR ASSIGNMENT

		CARD POSITION							
		1	2	3	4	5	6	7	8
CHANNEL	1		VIDEO						
	2								

TOTAL NUMBER OF DETECTOR CARDS(2-CHANNEL) =

DETECTOR SCHEDULE

DETECTOR NUMBER	APPROACH	TYPE				
		PUSH BUTTON (1)	INDUCTION LOOP			VIDEO
			STANDARD	DELAY/ EXTEND *	CALL UNIT *	
24	24	1				
25	25	1				
44	44	1				
45	45	1				
TOTAL		4				

* ITEMS FOR WHICH SEPARATE PAYMENT WILL NOT BE MADE.

(1) ALL PUSH BUTTONS SHALL BE APS AND UTLIZE A 4-WIRE CONTROL SYSTEM WITH CONTROL UNIT IN THE CABINET. EACH INDIVIDUAL HEAD WITH WIRING BETEWWN PUSHBUTTON AND PEDESTRIAN SIGNAL HEAD. CONTROL UNIT, MOUNTING BRACKETS, SIGN AND ASSOCIATED WIRING BETWEEN PUSH BUTTON AND PEDESTRIAN SIGNAL HEAD SHALL BE SUBSIDIARY TO OTHER BID ITEMS.

(2) CONTROL UNIT SHALL OPERATE IN MODE G. COMPACT MODE FOR FLASHING YELLOW ARROW.

MISCELLANEOUS BID ITEMS

BID ITEM	UNIT	QUANTITY
CCTV CAMERA ASSEMBLY	EACH	1

NEMA LOAD SWITCH ASSIGNMENTS

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ø1 R Ø1 Y Ø1 G	Ø2 R Ø2 Y Ø2 G	Ø3 R Ø3 Y Ø3 G	Ø4 R Ø4 Y Ø4 G	Ø5 R Ø5 Y Ø5 G	Ø6 R Ø6 Y Ø6 G	- - -	- - -	Ø2P W Ø1 FYA Ø2P DW	Ø4P W Ø4 FYA Ø4P DW	- Ø5 FYA -	- - -	- - -	- - -	- - -	- - -

SIGNS

QUANTITY	MUTCD SIGN NUMBER	SIZE	AREA	SIGN TOTAL AREA ITEM NO. 90208.33	SIGNAL SIGN MOUNTING HARDWARE ITEM NO. 90208.34
		INCHES	SQ.FT.	SQ.FT.	EA.
	R10-10L	24 X 30	5.0	0.0	
	R10-10R	24 X 30	5.0	0.0	
	R3-5L	30 X 36	7.5	0.0	
	R3-5R	30 X 36	7.5	0.0	
	R3-5A	30 X 36	7.5	0.0	
	R3-6L	30 X 36	7.5	0.0	
	R3-6R	30 X 36	7.5	0.0	
	R3-2	24 X 24	4.0	0.0	
	R3-1	24 X 24	4.0	0.0	
	R3-3	24 X 24	4.0	0.0	
	R3-4	36 X 36	9.0	0.0	
	R10-5	24 X 30	5.0	0.0	
	R10-12	24 X 30	5.0	0.0	
	R10-12A	25 X 30	5.0	0.0	
	D3-1 (ROUTE 7)***	? X 18	7.5	0.0	
	D3-1 (VESPER AVENUE)***	? X 18	11.3	0.0	
	R10-3E (L)	9 X 15	0.9	(INTEGRATED WITH BUTTON)	
	R10-3E (R)	9 X 15	0.9	(INTEGRATED WITH BUTTON)	
	R10-3E	9 X 15	0.9	0.0	
	R10-11A	24 X 30	7.5	0.0	
	R10-13	36 X 24	6.0	0.0	
	R10-27A	30 X 36	7.5	0.0	
	R10-15R	30 X 36	7.5	0.0	
			SUBTOTAL		
			TOTAL		

NOTE - QUANTITIES SHOWN FOR INFORMATION ONLY

REFER TO SUMMARY OF QUANTITIES SHEET 11 OF 13
FOR BID ITEMS ASSOCIATED WITH SIGNALS

ROUTE 7 & VESPER AVENUE
INTERSECTION

D-37C
SIGNAL PLAN
SHEET 22 OF 54

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED 10/6/2025
ROUTE 7 | STATE MO
DISTRICT KC | SHEET NO. 100
COUNTY JACKSON
JOB NO. JKU0010
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DESCRIPTION | DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

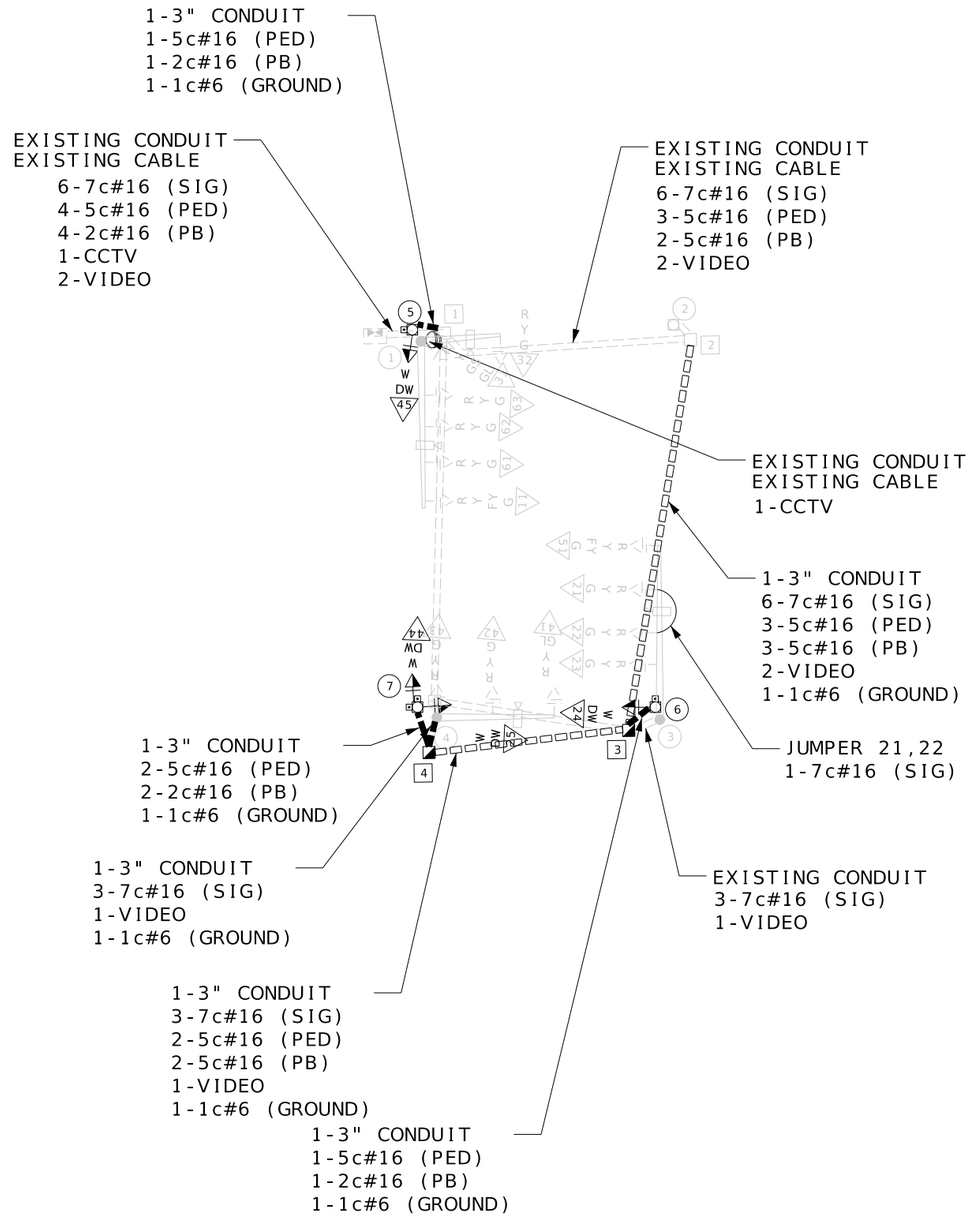
olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

F:\2022\03001-03500\022-03371\40-Design\Microstation\JKU0010\plan_sheets\11 Signals\100_SG_22_SIGNAL_JKU0010_11.dgn 5:01:36 PM 10/6/2025

WIRING DIAGRAM

SCALE

0 20 40 60



LEGEND

3"	CONDUIT CONTAINING CABLE WITH SIZE
	CABLE
X-Xc	MULTI-CONDUCTOR CABLE #16 AWG (UNLESS OTHERWISE INDICATED)
LIC	#14 AWG DETECTOR LEAD-IN CABLE (2C TWISTED SHIELDED)
X	PULL BOX WITH NUMBER
X	POST WITH NUMBER
X	POST WITH MAST ARM
X	POST WITH MAST ARM AND LUMINAIRE
X	DETECTOR WITH NUMBER
X	SIGNAL HEAD WITH NUMBER
	SIGNAL CONTROLLER
	POWER SUPPLY
	LIGHTING CONTROLLER

JEREMY SCOTT STRETZ NUMBER PE-2017023856

JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED
10/6/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	101

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

ROUTE 7 & VESPER AVENUE

INTERSECTION

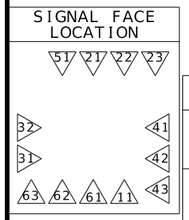
D-37D

SIGNAL PLAN
SHEET 23 OF 54

F:\2022\03001-03500\022-03371\40-Design\Microstation\JKU0010\plan_sheets\11 Signals\101_SG_23_SIGNAL_JKU0010_I20.dgn 5:02:00 PM 10/6/2025

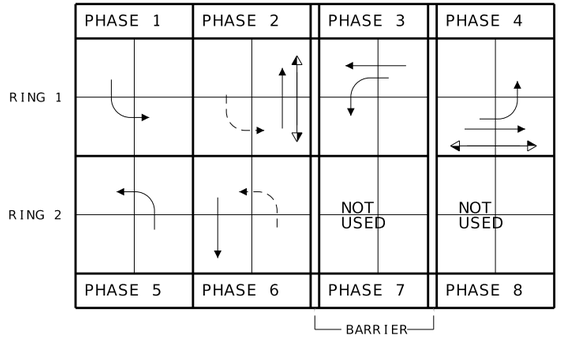
EFFECTIVE 12/01/2017

SIGNAL FACE LOCATION



TRAFFIC PHASING AND COLOR SEQUENCE - ACTUATED CONTROLLERS

	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 6	PHASE 7	PHASE 8	PED Ø2 OVERLAP	PED Ø4	PED Ø6 OVERLAP	PED Ø8	
							NOT USED	NOT USED				NOT USED	
FACE NUMBERS	11	21 22	31 32	41 42	51	61 62			24 11	44	51		FACE NUMBERS
		23		43		63			25	45			
SIGNAL INDICATIONS R	RL	R R	R R	R R	RL	R R			DW	DW			R
SIGNAL INDICATIONS Y	YL	Y Y	Y Y	Y Y	YL	Y Y							Y
SIGNAL INDICATIONS FYA											FYA		FYA
SIGNAL INDICATIONS G	GL	G G	GS G	G G	GL	G G			W	W			G
			GL										
DETECTOR ASSIGNMENTS	11	21 22	31 32	41 42	51	61 62							DETECTOR ASSIGNMENTS
DETECTOR ASSIGNMENTS (PEDS. ONLY)									24 25	44 45			
OVERLAP PARENT PHASES									2		6		



RING STRUCTURE

IF CALLED, ALL NON-CONFLICTING PHASES SHALL COMBINE AND TIME CONCURRENTLY. TIME TO BE DETERMINED BY THE ENGINEER AT SIGNAL TURN ON AND SET IN THE CONTROLLER BY THE CONTRACTOR.

LEGEND

- ACTUATED VEHICULAR MOVEMENT
- PARTIALLY RESTRICTED ACTUATED VEHICULAR MOVEMENT
- NON-ACTUATED VEHICULAR MOVEMENT
- PARTIALLY RESTRICTED NON-ACTUATED VEHICULAR MOVEMENT
- ACTUATED PEDESTRIAN MOVEMENT
- NON-ACTUATED PEDESTRIAN MOVEMENT
- VEHICLE STOPPED
- FDW — FLASHING DON'T WALK
- W — WALK
- DW — DON'T WALK
- R/W — RIGHT OF WAY INTERVAL
- YRt — YELLOW RIGHT ARROW
- RT. — GREEN RIGHT ARROW
- LY -YL — YELLOW LEFT ARROW
- L — GREEN LEFT ARROW
- S — GREEN STRAIGHT AHEAD ARROW
- G — CIRCULAR GREEN
- Y — CIRCULAR YELLOW
- R — CIRCULAR RED
- RL — RED LEFT ARROW
- Ø — TRAFFIC PHASE
- AO — ALL OTHERS
- FR — FLASHING RED
- FY — FLASHING CIRCULAR YELLOW
- FYL — FLASHING YELLOW LEFT ARROW

FLASHING OPERATION	
ALL MOVEMENTS	FR
	FY

CONTROLLER TYPE	NEMA

TRAFFIC SIGNAL CONTROL OPERATION

INTERSECTION OF

ROUTE 7 & VESPER AVENUE

D-38A

SIGNAL PLAN
SHEET 24 OF 54

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED 10/6/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	102

COUNTY JACKSON

JOB NO. JKU0010

CONTRACT ID.

PROJECT NO.

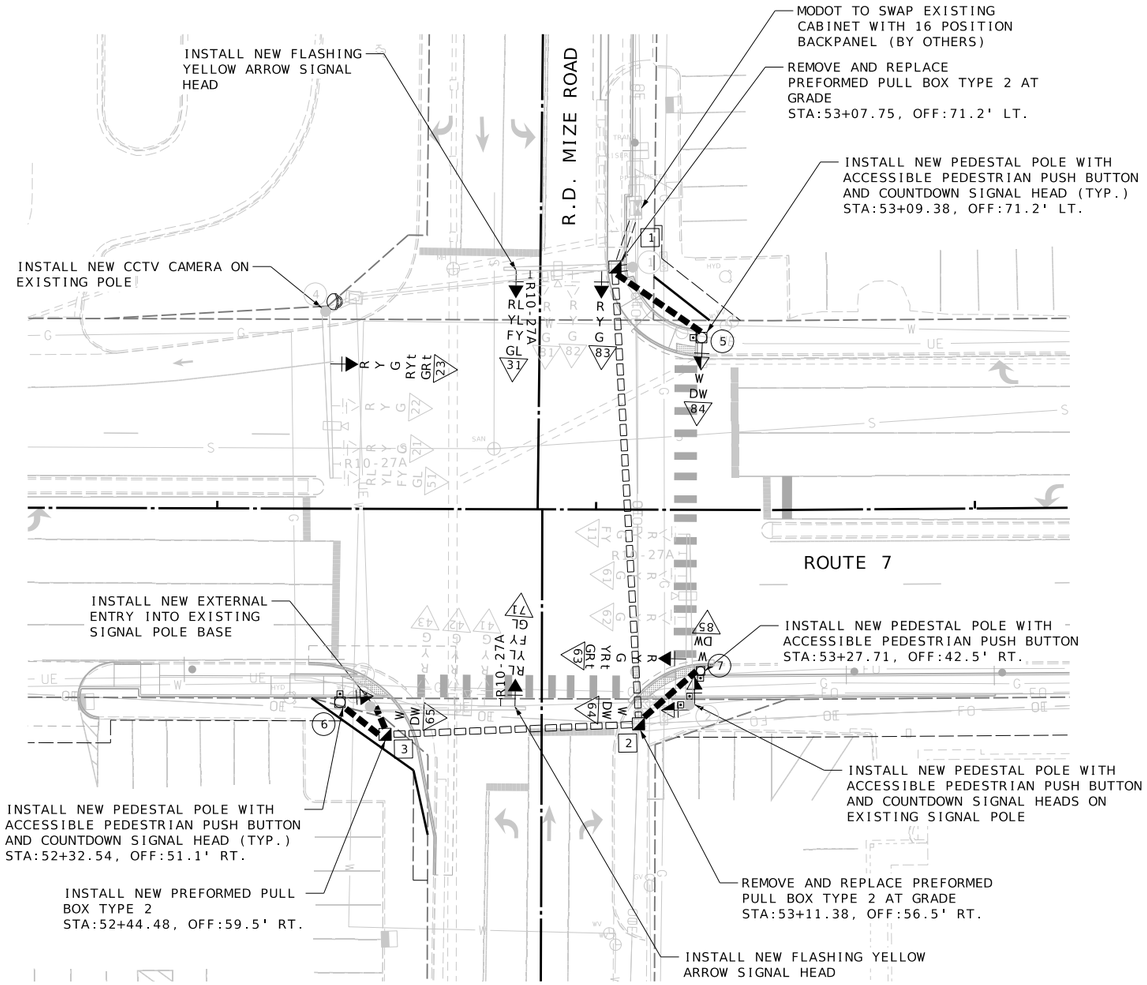
BRIDGE NO.

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592



SCALE

0 20 40 60

R.D. MIZE ROAD & ROUTE 7

TRAFFIC SIGNALS LEGEND

- CONTROLLER
- CONTROLLER (EXISTING)
- JUNCTION BOX
- POWER SUPPLY
- WOOD POST
- SIGNAL HEAD (OPT LIM CONV)
- SIGNAL HEAD (OPT LIM)
- SIGNAL HEAD (PEDESTRIAN)
- SIGNAL HEAD (STANDARD)
- CCTV CAMERA
- VIDEO DETECTOR
- PUSH BUTTON DETECTOR
- PREFORMED PULL BOX TYPE 1
- PREFORMED PULL BOX TYPE 2
- CONCRETE PULL BOX TYPE 1
- CONCRETE PULL BOX TYPE 2
- ITS PULL BOX TYPE 2
- ITS PULL BOX TYPE 5
- 6 X 6 LOOP DETECTOR
- 6 X 15 LOOP DETECTOR
- 30 X 6 LOOP DETECTOR
- CONDUIT MEDIAN
- CONDUIT PUSHED
- CONDUIT BRIDGE
- CONDUIT EXISTING
- CONDUIT TRENCHED
- SPAN WIRE
- MAST ARM - TYPE A BASE
- MAST ARM - TYPE C BASE
- MAST ARM - TYPE F BASE

R	RED BALL
Y	YELLOW BALL
G	GREEN BALL
RL	RED LEFT ARROW
YL	YELLOW LEFT ARROW
GL	GREEN LEFT ARROW
S	STRAIGHT GREEN ARROW
RR	RIGHT RED ARROW
YR	YELLOW RIGHT ARROW
GR	GREEN RIGHT ARROW

ALL 12" LENS WITH TUNNEL VISOR

NOTES:

1.) ALL TRAFFIC SIGNAL CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE MISSOURI STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, SECTION 902 (TRAFFIC SIGNALS), UNLESS OTHERWISE NOTED.

2.) THE CONTRACTOR SHALL STAKE LOCATIONS WHERE POLES, BOXES, AND THE CONTROLLER ARE TO BE INSTALLED. STAKED LOCATIONS SHALL BE REVIEWED AND APPROVED BY THE ENGINEER PRIOR TO PLACEMENT OF EQUIPMENT. SERVICE BOXES AND CONDUIT RUNS ARE APPROXIMATE AND MAY BE FIELD ADJUSTED TO CLEAR OBSTRUCTIONS AND FACILITATE WIRING, AS APPROVED BY THE ENGINEER.

3.) CONDUITS UNDER ANY NEW PAVEMENT SHALL EITHER BE TRENCHED PRIOR TO PAVEMENT CONSTRUCTION OR BORED FOLLOWING PAVEMENT CONSTRUCTION. CONDUITS UNDER ANY EXISTING PAVEMENT, INCLUDING SIDEWALKS AND DRIVEWAYS, SHALL BE BORED WITHOUT DISTURBANCE TO THE EXISTING PAVEMENT.

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED 10/6/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	103

COUNTY JACKSON

JOB NO. JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

SIGNAL PLAN
SHEET 25 OF 54

EFFECTIVE: 07/01/2018

| POST NUMBER | PULL BOX NUMBER | LOCATION: APPROACH | LOCATION: STATION | LOCATION: OFFSET | BASE: A (9) | BASE: A (9.5) | BASE: A (10) | BASE: A (10.5) | BASE: A (11) | BASE: A (12) | BASE: F (9) | BASE: F (9.5) | BASE: F (10) | BASE: F (10.5) | BASE: F (11) | BASE: F (12) | BASE: C | CONCRETE** (CU.YDS.) | PULL BOX: PREFORMED CLASS 1 | PREFORMED CLASS 2 | PREFORMED CLASS 3 | PREFORMED CLASS 5 | CONCRETE STANDARD | CONCRETE DOUBLE, TYPE A | CONCRETE DOUBLE, TYPE B | DRAIN TYPE* I | DRAIN TYPE* II A | DRAIN TYPE* II B | DRAIN TYPE* II C | TOP MOUNT POST 4 FT. | TOP MOUNT POST 8 FT. | TYPE C & CL ARM LENGTH A | A | A | A | TYPE C & CL SIGNAL SPACING B | C | D | D' | TYPE C & CL SIGN SPACING B | C | D | D' | TYPE B & BL ARM LENGTH E | K | E | K | E | K | TYPE B & BL LEFT ARM E SIGNAL SPACING F | G | H | H' | TYPE B & BL LEFT ARM E SIGN SPACING F | G | H | H' | TYPE B & BL RIGHT ARM K SIGNAL SPACING F | G | H | H' | TYPE B & BL RIGHT ARM K SIGN SPACING F | G | H | H' | INCLUDED ANGLE | LUMINAIRE BRACKET ARM* 4 FT. | 6 FT. | 8 FT. | 10 FT. | 12 FT. | 15 FT. |
|---|---|---

EFFECTIVE: 10-01-2015

NOTE - QUANTITIES SHOWN FOR INFORMATION ONLY

REFER TO SUMMARY OF QUANTITIES SHEET 11 OF 13
FOR BID ITEMS ASSOCIATED WITH SIGNALS

CONDUIT (WITH #14 TRACER WIRE)

FROM	TO	CENTER TO CENTER DISTANCE	LOOP DET.	TRENCH			PUSHED			MEDIAN			ON STRUCTURE		REMARKS
			1"	2"	3"	4"	2"	3"	4"	2"	3"	4"	2"	3"	
CONT	BOX 1	17													
BOX 1	POLE 1	5													
BOX 1	POLE 5	30			32										
BOX 1	BOX 4	69													
BOX 4	POLE 4	9													
BOX 1	BOX 2	121						120							
BOX 2	POLE 2	15													
BOX 2	POLE 7	21			23										
BOX 2	BOX 3	67						67							
BOX 3	POLE 3	9			11										
BOX 3	POLE 6	15			17										

EFFECTIVE 04-01-2018

POWER SUPPLY

LOCATION			POWER SUPPLY ASSEMBLY		CIRCUIT BREAKER TRIP RATING*				LIGHTING CONTROL * (ON POWER SUPPLY)		SERVICE POLE	
					CONTROLLER		POWER SUPPLY DISCONNECT					
APPROACH	STATION	OFFSET	DRAWING 902.15	DRAWING	AUXILIARY BREAKER	CONT & SIGNAL LAMPS	MAIN BREAKER		120 VOLT CONTROL CABINET	MAIN BREAKER	CONTRACT FURNISH	UTILITY COMPANY
							SIGNALS	LIGHTING				
			Type 2		15 Amps	40 Amps	Amps	Amps	SEE LIGHTING PLANS	SEE LIGHTING PLANS Amps	Ci. Ft.	EVERGY
			Type		15 Amps	40 Amps	Amps	Amps		Amps	Ci. Ft.	

CONTROLLER ASSEMBLY AND AUXILIARY EQUIPMENT

LOCATION			SYSTEM MASTER (CLOSED LOOP)		ACTUATED		ON-OFF* SWITCH TYPE		COORDINATION INTERFACE *					TIME * CLOCK	NEMA CABINET TYPE *			170 CABINET TYPE *		170 SOFTWARE *		UNINTERRUPTIBLE POWER SUPPLY
									12C/7C HARDWIRE (1)		TIME BASE	CLOSED LOOP										
APPROACH	STATION	OFFSET	NEMA	170	NEMA	170	I	II	MASTER	LOCAL		NEMA	170	FIBER		E	EV	DOUBLE	332	336S	BITRAN	WAPITI	902-99.02
EXISTING	EXISTING	EXISTING			1									1			1						1

NEMA DETECTOR ASSIGNMENT

		CARD POSITION							
		1	2	3	4	5	6	7	8
CHANNEL	1		VIDEO						
	2								

TOTAL NUMBER OF DETECTOR CARDS(2-CHANNEL) = (2)

DETECTOR SCHEDULE

DETECTOR NUMBER	APPROACH	TYPE				
		PUSH BUTTON (1)	INDUCTION LOOP			VIDEO
			STANDARD	DELAY/ EXTEND *	CALL UNIT *	
64	64	1				
65	65	1				
84	84	1				
85	85	1				
TOTAL		4				

* ITEMS FOR WHICH SEPARATE PAYMENT WILL NOT BE MADE

(1) ALL PUSH BUTTONS SHALL BE APS AND UTLIZE A 4-WIRE CONTROL SYSTEM WITH CONTROL UNIT IN THE CABINET.

(2) CONTROL UNIT SHALL OPERATE IN MODE G. COMPACT MODE FOR FLASHING YELLOW ARROW.

MISCELLANEOUS BID ITEMS

BID ITEM	UNIT	QUANTITY
CCTV CAMERA ASSEMBLY	EACH	1

NEMA LOAD SWITCH ASSIGNMENTS

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ø1 R Ø1 Y Ø1 G	Ø2 R Ø2 Y Ø2 G	Ø3 R Ø3 Y Ø3 G	Ø4 R Ø4 Y Ø4 G	Ø5 R Ø5 Y Ø5 G	Ø6 R Ø6 Y Ø6 G	Ø7 R Ø7 Y Ø7 G	Ø8 R Ø8 Y Ø8 G	- Ø1 FYA -	- Ø3 FYA -	Ø6P DW Ø5 FYA Ø6P W	Ø8P DW Ø7 FYA Ø8P W	Ø2 - Ø2 YRt Ø2 GRt		Ø6 - Ø6 YRt Ø6 GRt	

SIGNS

QUANTITY	MUTCD SIGN NUMBER	SIZE	AREA	SIGN TOTAL AREA ITEM NO. 90208.33	SIGNAL SIGN MOUNTING HARDWARE ITEM NO. 90208.34
		INCHES	SQ.FT.	SQ.FT.	EA.
	R10-10L	24 X 30	5.0	0.0	
	R10-10R	24 X 30	5.0	0.0	
	R3-5L	30 X 36	7.5	0.0	
	R3-5R	30 X 36	7.5	0.0	
	R3-5A	30 X 36	7.5	0.0	
	R3-6L	30 X 36	7.5	0.0	
	R3-6R	30 X 36	7.5	0.0	
	R3-2	24 X 24	4.0	0.0	
	R3-1	24 X 24	4.0	0.0	
	R3-3	24 X 24	4.0	0.0	
	R3-4	36 X 36	9.0	0.0	
	R10-5	24 X 30	5.0	0.0	
	R10-12	24 X 30	5.0	0.0	
	R10-12A	25 X 30	5.0	0.0	
	D3-1 (ROUTE 7)***	?X 18	7.5	0.0	
	D3-1 (RD MIZE)***	?X 18	11.3	0.0	
	R10-3E (L)	9 X 15	0.95	(INTEGRATED WITH BUTTON)	
	R10-3E (R)	9 X 15	0.95	(INTEGRATED WITH BUTTON)	
	R10-3E	9 X 15	0.9	0.0	
	R10-11A	24 X 30	7.5	0.0	
	R10-13	36 X 24	6.0	0.0	
2	R10-27A	30 X 36	7.5	15.0	2
	R10-15R	30 X 36	7.5	0.0	
	R10-10a	30 X 36	7.5	0.0	
			SUBTOTAL	15.0	2
			TOTAL	15.0	2

NOTE - QUANTITIES SHOWN FOR INFORMATION ONLY

REFER TO SUMMARY OF QUANTITIES SHEET 11 OF 13
FOR BID ITEMS ASSOCIATED WITH SIGNALS

ROUTE 7 & R.D. MIZE ROAD
INTERSECTION

D-37C
SIGNAL PLAN
SHEET 28 OF 54

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED 10/6/2025
ROUTE 7 | STATE MO
DISTRICT KC | SHEET NO. 106
COUNTY JACKSON
JOB NO. JKU0010
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

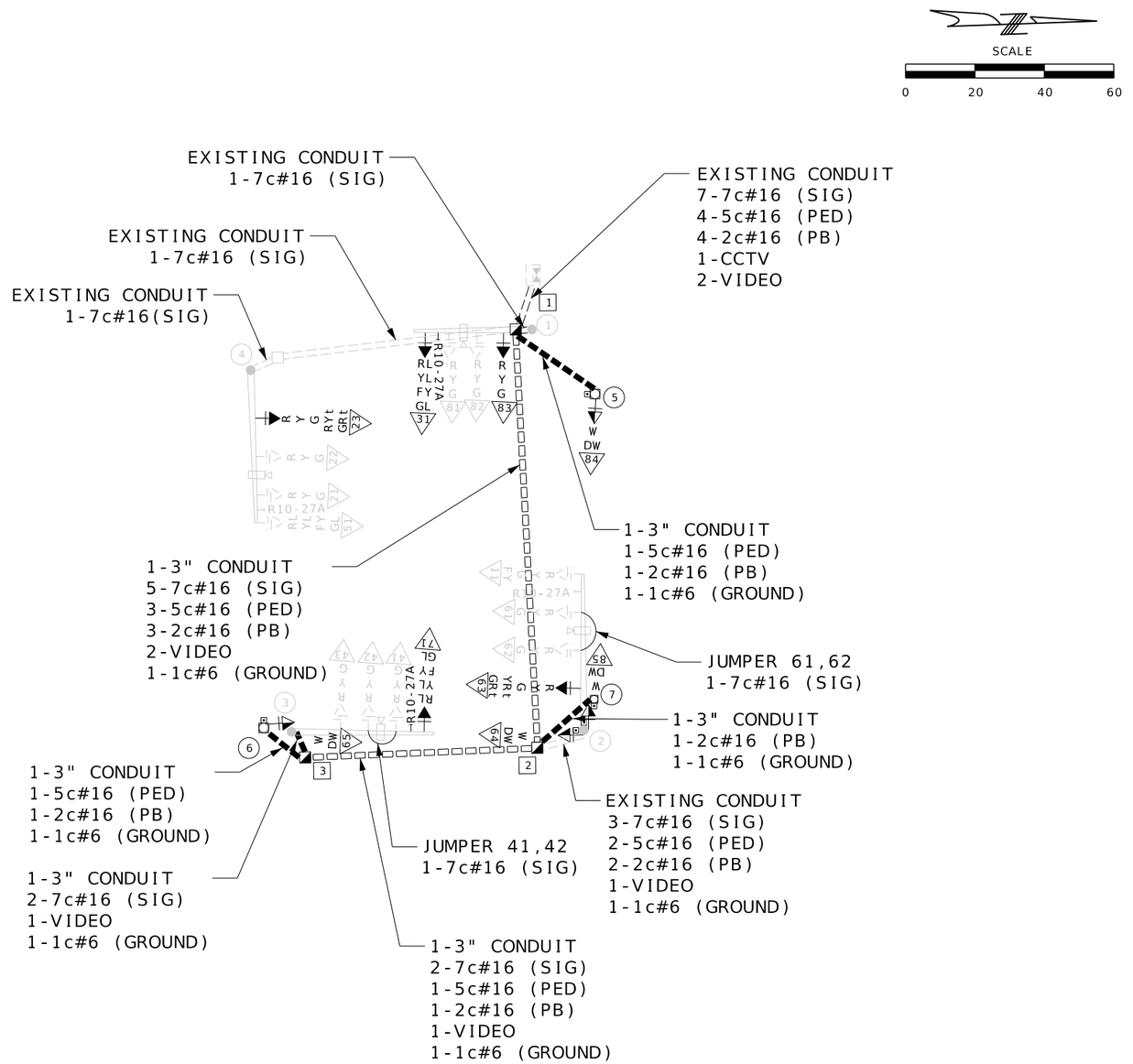
DESCRIPTION | DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

WIRING DIAGRAM



LEGEND

3"	CONDUIT CONTAINING CABLE WITH SIZE
	CABLE
X-Xc	MULTI-CONDUCTOR CABLE #16 AWG (UNLESS OTHERWISE INDICATED)
LIC	#14 AWG DETECTOR LEAD-IN CABLE (2C TWISTED SHIELDED)
X	PULL BOX WITH NUMBER
(X)	POST WITH NUMBER
(X)	POST WITH MAST ARM
(X)	POST WITH MAST ARM AND LUMINAIRE
X	DETECTOR WITH NUMBER
— X	SIGNAL HEAD WITH NUMBER
	SIGNAL CONTROLLER
	POWER SUPPLY
	LIGHTING CONTROLLER

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED 10/6/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	107

COUNTY: JACKSON
JOB NO.: JKU0010
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.:

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

DESCRIPTION | DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

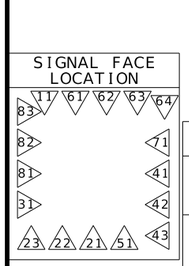
ROUTE 7 & R.D. MIZE ROAD
INTERSECTION

D-37D
SIGNAL PLAN
SHEET 29 OF 54

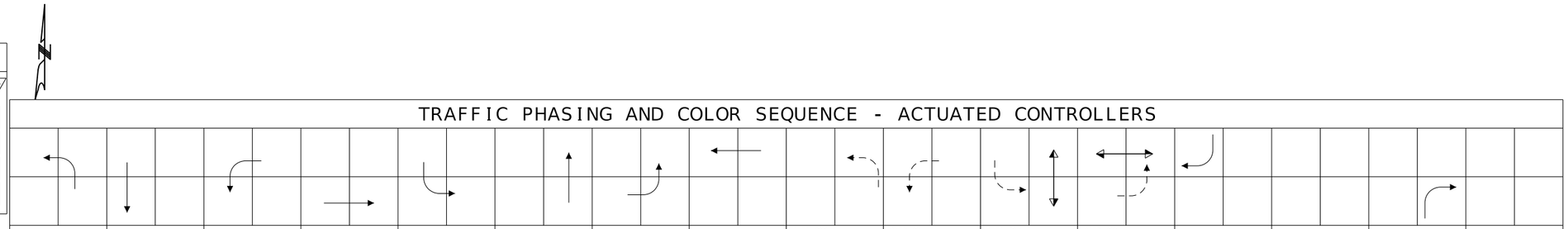
F:\2022\03001-03500\022-03371\40-Design\Microstation\JKU0010\plan_sheets\11 Signals\107_SG_29_SIGNAL_JKU0010_120.dgn 5:03:47 PM 10/6/2025

EFFECTIVE 12/01/2017

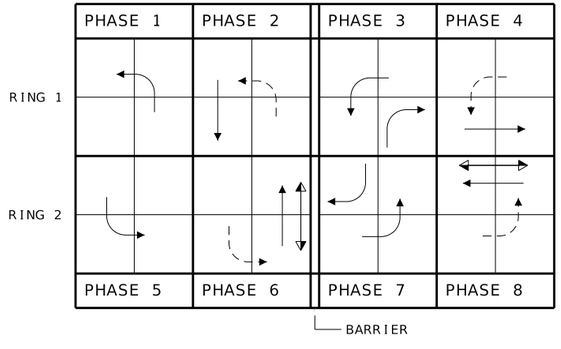
SIGNAL FACE LOCATION



TRAFFIC PHASING AND COLOR SEQUENCE - ACTUATED CONTROLLERS



	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 6	PHASE 7	PHASE 8	PED Ø2	PED Ø4 OVERLAP	PED Ø6 OVERLAP	PED Ø8	OVERLAP	OVERLAP	
FACE NUMBERS	11	21 22 23	31	41 42 43	51	61 62 63	71	81 82	11	31	64 51 65	84 71 85	23	64	FACE NUMBERS
SIGNAL INDICATIONS R	RL	R R	RL	R R	RL	R R R	RL	R R			DW	DW			R
SIGNAL INDICATIONS Y	YL	Y Y	YL	Y Y	YL	Y Y Y	YL	Y Y					YRt	YRt	Y
SIGNAL INDICATIONS FYA									FYA	FYA	FYA	FYA			FYA
SIGNAL INDICATIONS G	GL	G G	GL	G G	GL	G G GR	GL	G G			W	W	GRt	GRt	G
DETECTOR ASSIGNMENTS	11	21 22	31	41 42	51	61 62 63	71	81 82							DETECTOR ASSIGNMENTS
DETECTOR ASSIGNMENTS (PEDS. ONLY)											64 65	84 85			
OVERLAP PARENT PHASES									2	4	6	8	7	3	



RING STRUCTURE

IF CALLED, ALL NON-CONFLICTING PHASES SHALL COMBINE AND TIME CONCURRENTLY. TIME TO BE DETERMINED BY THE ENGINEER AT SIGNAL TURN ON AND SET IN THE CONTROLLER BY THE CONTRACTOR.

LEGEND

- ACTUATED VEHICULAR MOVEMENT
- PARTIALLY RESTRICTED ACTUATED VEHICULAR MOVEMENT
- NON-ACTUATED VEHICULAR MOVEMENT
- PARTIALLY RESTRICTED NON-ACTUATED VEHICULAR MOVEMENT
- ACTUATED PEDESTRIAN MOVEMENT
- NON-ACTUATED PEDESTRIAN MOVEMENT
- VEHICLE STOPPED
- FDW — FLASHING DON'T WALK
- W — WALK
- DW — DON'T WALK
- R/W — RIGHT OF WAY INTERVAL
- YRt — YELLOW RIGHT ARROW
- RT. — GREEN RIGHT ARROW
- LY-YL — YELLOW LEFT ARROW
- L — GREEN LEFT ARROW
- S — GREEN STRAIGHT AHEAD ARROW
- G — CIRCULAR GREEN
- Y — CIRCULAR YELLOW
- R — CIRCULAR RED
- RL — RED LEFT ARROW
- Ø — TRAFFIC PHASE
- AO — ALL OTHERS
- FR — FLASHING RED
- FY — FLASHING CIRCULAR YELLOW
- FYL — FLASHING YELLOW LEFT ARROW

FLASHING OPERATION	
ALL MOVEMENTS	FR
	FY

CONTROLLER TYPE	NEMA

TRAFFIC SIGNAL CONTROL OPERATION

INTERSECTION OF

ROUTE 7 & R.D. MIZE ROAD

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED 10/6/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	108

COUNTY JACKSON

JOB NO. JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

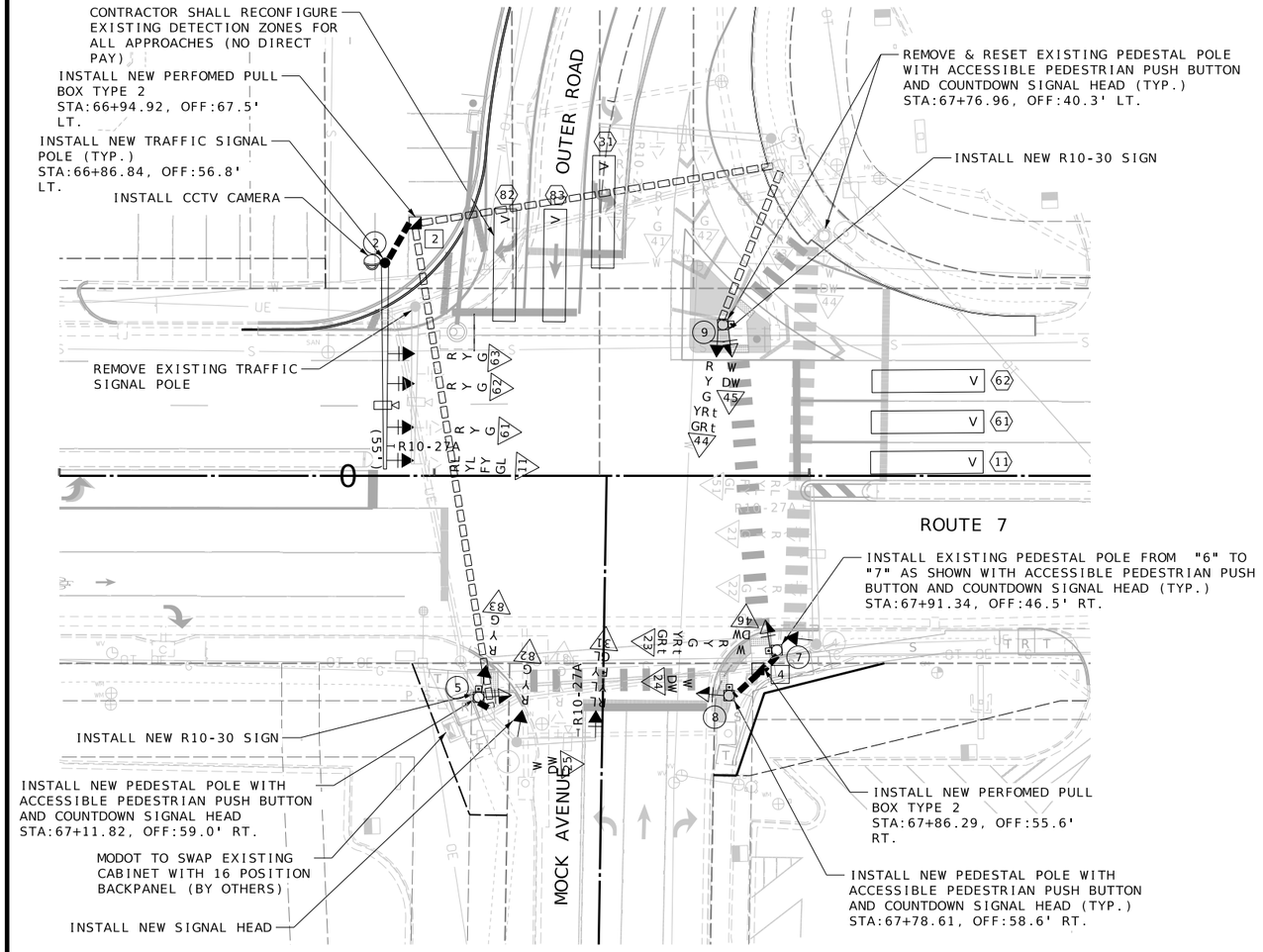
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

D-38A

SIGNAL PLAN
SHEET 30 OF 54


CONTRACTOR SHALL RECONFIGURE EXISTING DETECTION ZONES FOR ALL APPROACHES (NO DIRECT PAY)
INSTALL NEW PERFOMED PULL BOX TYPE 2
STA:66+94.92, OFF:67.5' LT.
INSTALL NEW TRAFFIC SIGNAL POLE (TYP.)
STA:66+86.84, OFF:56.8' LT.
INSTALL CCTV CAMERA
REMOVE EXISTING TRAFFIC SIGNAL POLE
REMOVE & RESET EXISTING PEDESTAL POLE WITH ACCESSIBLE PEDESTRIAN PUSH BUTTON AND COUNTDOWN SIGNAL HEAD (TYP.)
STA:67+76.96, OFF:40.3' LT.
INSTALL NEW R10-30 SIGN
OUTER ROAD
ROUTE 7
INSTALL EXISTING PEDESTAL POLE FROM "6" TO "7" AS SHOWN WITH ACCESSIBLE PEDESTRIAN PUSH BUTTON AND COUNTDOWN SIGNAL HEAD (TYP.)
STA:67+91.34, OFF:46.5' RT.
INSTALL NEW R10-30 SIGN
INSTALL NEW PEDESTAL POLE WITH ACCESSIBLE PEDESTRIAN PUSH BUTTON AND COUNTDOWN SIGNAL HEAD
STA:67+11.82, OFF:59.0' RT.
MODOT TO SWAP EXISTING CABINET WITH 16 POSITION BACKPANEL (BY OTHERS)
INSTALL NEW SIGNAL HEAD
INSTALL NEW PERFOMED PULL BOX TYPE 2
STA:67+86.29, OFF:55.6' RT.
INSTALL NEW PEDESTAL POLE WITH ACCESSIBLE PEDESTRIAN PUSH BUTTON AND COUNTDOWN SIGNAL HEAD (TYP.)
STA:67+78.61, OFF:58.6' RT.
MOCK AVENUE
R10-27A
R10-27A
R10-27A

EFFECTIVE: 07/01/2018

POST NUMBER	PULL BOX NUMBER	LOCATION: APPROACH	LOCATION: STATION	LOCATION: OFFSET	BASE: A (9, 9.5, 10, 10.5, 11, 12)	BASE: F (9, 9.5, 10, 10.5, 11, 12)	BASE: C	BASE: CONCRETE** (CU.YDS.)	PULL BOX: PREFORMED CLASS 1	PREFORMED CLASS 2	PREFORMED CLASS 3	PREFORMED CLASS 5	CONCRETE STANDARD	CONCRETE DOUBLE, TYPE A	CONCRETE DOUBLE, TYPE B	DRAIN TYPE* I	DRAIN TYPE* II A	DRAIN TYPE* II B	DRAIN TYPE* II C	TOP MOUNT POST 8 FT.	TOP MOUNT POST 15 FT.	TYPE C & CL: ARM LENGTH	TYPE C & CL: SIGNAL SPACING	TYPE C & CL: SIGN SPACING	TYPE B & BL: ARM LENGTH	TYPE B & BL: LEFT ARM E: SIGNAL SPACING	TYPE B & BL: LEFT ARM E: SIGN SPACING	TYPE B & BL: RIGHT ARM K: SIGNAL SPACING	TYPE B & BL: RIGHT ARM K: SIGN SPACING	INCLUDED ANGLE	LUMINAIRE BRACKET ARM*: 4 FT.	6 FT.	8 FT.	10 FT.	12 FT.	15 FT.
2		ROUTE 7	66+86.84	56.8' LT.	10.5: 1			3.27														55: 1	B: 32 C: 12 D: 11	B: 18 C: 51												
5		ROUTE 7	67+11.82	59.0' RT.			1	0.44													15 FT.: 1																
7		MOCK AVE	67+91.34	46.5' RT.			1	0.44																												
8		ROUTE 7	67+78.61	58.6' RT.			1	0.44																												
9		ROUTE 7	67+76.96	40.3' LT.			1	0.44													15 FT.: 1															
	2	ROUTE 7	66+94.92	67.5' LT.						8 FT.: 1						I: 1																				
	4	ROUTE 7	67+86.29	55.6' RT.						8 FT.: 1						I: 1																				
SUBTOTAL								5.03		2	0										0	2	1													
TOTAL								5.03		2	0										0	2	1													

SIGNAL HEADS

SPAN NUMBER	POST NUMBER	FACE NUMBER	LUMINAIRE LED	INDICATIONS*: 12" LENS CONVENTIONAL (R, RL, Y, YL, YRt, FYL, FYR, G, GL, S, L, Rt, PED.)	INDICATIONS*: 12" LENS OPTICAL LIMITING (R, RL, Y, YL, YRt, FYL, G, S, L, Rt)	VISORS*: 12" LENS	VISORS*: PED.	LOUVERS* (A, B, C, D, E, F)	BACKPLATE* LENSES (1, 2, 3, 4, 5)	RETROREFLECTIVE BACKPLATE* LENSES (1, 2, 3, 4, 5)	BRACKET* TYPE (I, II, III)	ONE-FACE SECTION (1-, 3-, 4-, 5-)	TWO-FACE SECTION (11-, 33-, 34-, 35-, 44-, 45-)
	1	31		R: 1 Y: 1 YL: 1 FYL: 1 G: 1	12" LENS: 4				4: 1		I: 1	1-: T	4-: B: 1
		82		R: 1 Y: 1 G: 1	12" LENS: 3				3: 1		I: 1	4-: B: 1	
	9	44		R: 1 Y: 1 YL: 1 G: 1 PED.: 1	12" LENS: 5				5: 1		I: 1	5-: B: 1	
		45		PED.: 1			PED.: 1				I: 1	1-: T	
	2	11		R: 1 Y: 1 YL: 1 G: 1	12" LENS: 4				4: 1		I: 1	4-: B: 1	
		61		R: 1 Y: 1 G: 1	12" LENS: 3				3: 1		I: 1	4-: B: 1	
		62		R: 1 Y: 1 G: 1	12" LENS: 3				3: 1		I: 1	4-: B: 1	
		63		R: 1 Y: 1 G: 1	12" LENS: 3				3: 1		I: 1	4-: B: 1	
	7	46		PED.: 1			PED.: 1				I: 1	1-: T	
	8	24		PED.: 1			PED.: 1				I: 1	1-: T	
	5	25		PED.: 1			PED.: 1				I: 1	1-: T	
		83		R: 1 Y: 1 G: 1	12" LENS: 3				3: 1		I: 1	4-: B: 1	
	4	23		R: 1 Y: 1 YL: 1 G: 1	12" LENS: 5				5: 1		I: 1	5-: B: 1	
SUBTOTAL													
TOTAL													

	ONE-FACE SECTION	TWO-FACE SECTION
SUBTOTAL 8" CONVENTIONAL		
SUBTOTAL 12" CONVENTIONAL	4- B: 4 5- B: 2	11- B: 2
SUBTOTAL COMBINATION OL & CONV		
TOTAL 8" CONVENTIONAL		
TOTAL 12" CONVENTIONAL	4- B: 4 5- B: 2	11- B: 2
TOTAL COMBINATION OL & CONV		

REMARKS

ALL LENGTHS AND SPACINGS ARE IN FEET UNLESS OTHERWISE INDICATED.

* ITEMS FOR WHICH SEPARATE PAYMENT WILL NOT BE MADE.

** SEE STANDARD PLANS 902.10 AND 902.30 FOR CONCRETE REQUIREMENTS ON BASES.

*** USE D3-16 FOR ONE LINE. USE D3-18 FOR TWO LINE.

SIGNAL STRUCTURES WHICH WILL EXCEED THE DIMENSION LIMITS SHOWN ON STANDARD PLAN SHEETS IN SECTION 902 AND ANY OTHER INSTALLATION WHERE THE DETAILS OF CONSTRUCTION ARE NOT FURNISHED IN THE CONTRACT PLANS, SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER IN ACCORDANCE WITH THE 2001 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, 4TH EDITION, AND LATEST INTERIMS. THE STRUCTURE SHALL BE DESIGNED AS IMPORTANCE CATEGORY I FOR FATIGUE WITH A 50-YEAR DESIGN LIFE. THE CONTRACTOR SHALL SUBMIT A SET OF SHOP DETAIL DRAWINGS INCLUDING WELD PROCEDURE SPECIFICATIONS AND DESIGN COMPUTATIONS FOR MODOT RECORDS AND REFERENCE. THE SUBMITTED DRAWINGS AND CALCULATIONS SHALL BE SIGNED AND SEALED IN ACCORDANCE WITH THE LAWS RELATING TO ARCHITECTS AND PROFESSIONAL ENGINEERS (CHAPTER 327, RSMO.), AND SHALL INCLUDE A TITLE BLOCK OR SUMMARY SHEET WHICH LISTS AND CERTIFIES THAT THE PRODUCT MEETS ALL OF THE SPECIFIED DESIGN CRITERIA.

NOTE - QUANTITIES SHOWN FOR INFORMATION ONLY

REFER TO SUMMARY OF QUANTITIES SHEET 11 OF 13
FOR BID ITEMS ASSOCIATED WITH SIGNALS

ROUTE 7 & OUTER ROAD/MOCK AVENUE
INTERSECTION

LEGEND
T - TOP MOUNT
S - SIDE MOUNT
C - SPANWIRE MOUNT
B - MAST ARM MOUNT

D-37A
SIGNAL PLAN
SHEET 32 OF 54

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED: 10/6/2025
ROUTE: 7 | STATE: MO
DISTRICT: KC | SHEET NO.: 110
COUNTY: JACKSON
JOB NO.: JKU0010
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.:

DESCRIPTION | DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

EFFECTIVE: 10-01-2015

NOTE - QUANTITIES SHOWN FOR INFORMATION ONLY

REFER TO SUMMARY OF QUANTITIES SHEET 11 OF 13
FOR BID ITEMS ASSOCIATED WITH SIGNALS

CONDUIT (WITH #14 TRACER WIRE)

FROM	TO	CENTER TO CENTER DISTANCE	LOOP DET.	TRENCH			PUSHED			MEDIAN			ON STRUCTURE		REMARKS
			1"	2"	3"	4"	2"	3"	4"	2"	3"	4"	2"	3"	
CONT	BOX 1	12													
BOX 1	POLE 1	11													
BOX 1	POLE 5	5													
BOX 1	BOX 2	132						262							
BOX 2	POLE 2	13			17										
BOX 2	BOX 3	98						97							
BOX 3	POLE 3	8													
BOX 3	POLE 6	22													
BOX 3	POLE 9	45						47							
BOX 1	BOX 4	74													
BOX 4	POLE 4	17													
BOX 4	POLE 7	7			9										
BOX 4	POLE 8	11			13										

EFFECTIVE 04-01-2018

POWER SUPPLY

LOCATION			POWER SUPPLY ASSEMBLY		CIRCUIT BREAKER TRIP RATING*				LIGHTING CONTROL * (ON POWER SUPPLY)		SERVICE POLE	
					CONTROLLER		POWER SUPPLY DISCONNECT					
APPROACH	STATION	OFFSET	DRAWING 902.15	DRAWING	AUXILIARY BREAKER	CONT & SIGNAL LAMPS	MAIN BREAKER		120 VOLT CONTROL CABINET	MAIN BREAKER	CONTRACT FURNISH	UTILITY COMPANY
							SIGNALS	LIGHTING				
			Type 2		15 Amps	40 Amps	Amps	Amps	SEE LIGHTING PLANS	SEE LIGHTING PLANS Amps	Cl. Ft.	
			Type		15 Amps	40 Amps	Amps	Amps		Amps	Cl. Ft.	

CONTROLLER ASSEMBLY AND AUXILIARY EQUIPMENT

LOCATION			SYSTEM MASTER (CLOSED LOOP)		ACTUATED		ON-OFF* SWITCH		COORDINATION INTERFACE *						TIME * CLOCK	NEMA CABINET TYPE *			170 CABINET TYPE *		170 SOFTWARE *		UNINTERRUPTIBLE POWER SUPPLY
							TYPE		12C/7C HARDWIRE (1)		TIME BASE	CLOSED LOOP		FIBER									902-99.02
APPROACH	STATION	OFFSET	NEMA	170	NEMA	170	I	II	MASTER	LOCAL		NEMA	170			E	EV	DOUBLE	332	336S	BITRAN	WAPITI	
ROTUE 7	67+04.96	67.7' RT.			1									1			1						1

NEMA DETECTOR ASSIGNMENT

		CARD POSITION							
		1	2	3	4	5	6	7	8
CHANNEL	1			VIDEO					
	2								

TOTAL NUMBER OF DETECTOR CARDS(2-CHANNEL) =

DETECTOR SCHEDULE

DETECTOR NUMBER	APPROACH	TYPE				
		PUSH BUTTON (1)	INDUCTION LOOP			VIDEO
			STANDARD	DELAY/ EXTEND *	CALL UNIT *	
45,46	ROUTE 7	2				
24,25	MOCK AVENUE	2				
TOTAL		4				

* ITEMS FOR WHICH SEPARATE PAYMENT WILL NOT BE MADE.

(1) ALL PUSH BUTTONS SHALL BE APS AND UTLIZE A 2-WIRE CONTROL SYSTEM WITH CONTROL UNIT IN THE CABINET.

(2) CONTROL UNIT SHALL OPERATE IN MODE G. COMPACT MODE FOR FLASHING YELLOW ARROW.

MISCELLANEOUS BID ITEMS

BID ITEM	UNIT	QUANTITY
CCTV CAMERA ASSEMBLY	EACH	1

NEMA LOAD SWITCH ASSIGNMENTS

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ø1 R Ø1 Y Ø1 G	Ø2 R Ø2 Y Ø2 G	Ø3 R Ø3 Y Ø3 G	Ø4 R Ø4 Y Ø4 G	Ø5 R Ø5 Y Ø5 G	Ø6 R Ø6 Y Ø6 G	Ø7 R Ø7 Y Ø7 G	Ø8 R Ø8 Y Ø8 G	Ø2P DW Ø1 FYA Ø2P W	Ø4P DW Ø3 FYA Ø4P W	- Ø5 FYA -	- Ø7 FYA -	- Ø2 YRt Ø2 GRt		- Ø6 YRt Ø6 GRt	

SIGNS

QUANTITY	MUTCD SIGN NUMBER	SIZE	AREA	SIGN TOTAL AREA ITEM NO. 90208.33	SIGNAL SIGN MOUNTING HARDWARE ITEM NO. 90208.34
		INCHES	SQ.FT.	SQ.FT.	EA.
	R10-10L	24 X 30	5.0	0.0	
	R10-10R	24 X 30	5.0	0.0	
	R3-5L	30 X 36	7.5	0.0	
	R3-5R	30 X 36	7.5	0.0	
	R3-5A	30 X 36	7.5	0.0	
	R3-6L	30 X 36	7.5	0.0	
	R3-6R	30 X 36	7.5	0.0	
	R3-2	24 X 24	4.0	0.0	
	R3-1	24 X 24	4.0	0.0	
	R3-3	24 X 24	4.0	0.0	
	R3-4	36 X 36	9.0	0.0	
	R10-5	24 X 30	5.0	0.0	
	R10-12	24 X 30	5.0	0.0	
	R10-12A	25 X 30	5.0	0.0	
	D3-1 (ROUTE 7)***	? X 18	7.5	0.0	
1	D3-1 (MOCK AVENUE)***	? X 18	11.3	11.3	1
	R10-3E (L)	9 X 15	0.95	(INTEGRATED WITH BUTTON)	
	R10-3E (R)	9 X 15	0.95	(INTEGRATED WITH BUTTON)	
	R10-3E	9 X 15	0.9	0.0	
	R10-11A	24 X 30	7.5	0.0	
	R10-13	36 X 24	6.0	0.0	
1	R10-27A	30 X 36	7.5	7.5	1
2	R10-30	30 X 36	7.5	15.0	2
			SUBTOTAL	33.8	4
			TOTAL	33.8	4

NOTE - QUANTITIES SHOWN FOR INFORMATION ONLY

REFER TO SUMMARY OF QUANTITIES SHEET 11 OF 13
FOR BID ITEMS ASSOCIATED WITH SIGNALS

ROUTE 7 & OUTER ROAD/MOCK AVENUE
INTERSECTION

D-37C
SIGNAL PLAN
SHEET 34 OF 54

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED 10/6/2025
ROUTE 7 | STATE MO
DISTRICT KC | SHEET NO. 112
COUNTY JACKSON
JOB NO. JKU0010
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

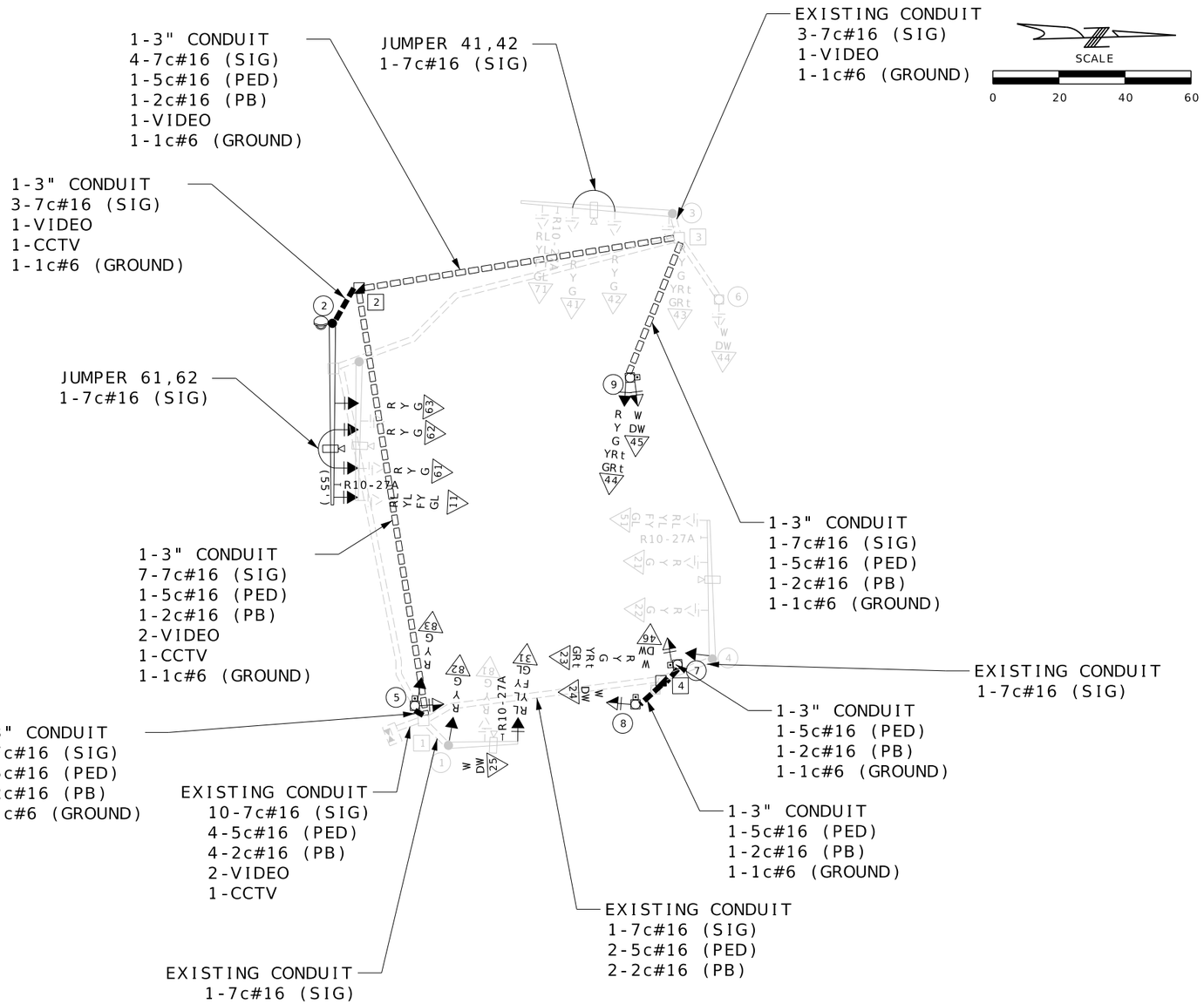
DESCRIPTION | DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

WIRING DIAGRAM



LEGEND

3"	CONDUIT CONTAINING CABLE WITH SIZE
	CABLE
X-Xc	MULTI-CONDUCTOR CABLE #16 AWG (UNLESS OTHERWISE INDICATED)
LIC	#14 AWG DETECTOR LEAD-IN CABLE (2C TWISTED SHIELDED)
X	PULL BOX WITH NUMBER
(X)	POST WITH NUMBER
(X)	POST WITH MAST ARM
(X)	POST WITH MAST ARM AND LUMINAIRE
X	DETECTOR WITH NUMBER
—X	SIGNAL HEAD WITH NUMBER
	SIGNAL CONTROLLER
	POWER SUPPLY
	LIGHTING CONTROLLER

JEREMY SCOTT STRETZ NUMBER PE-2017023856

JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED
10/6/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	113

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

OUTER ROAD/MOCK AVENUE & ROUTE 7

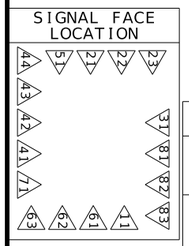
INTERSECTION

D-37D

SIGNAL PLAN
SHEET 35 OF 54

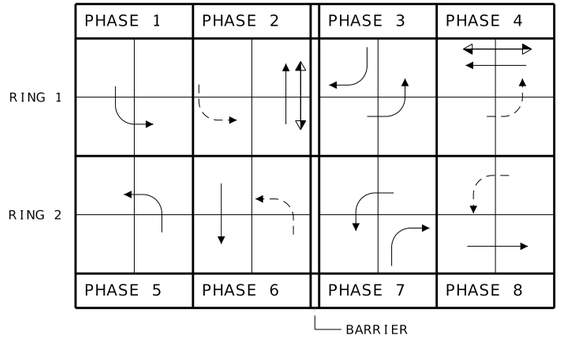
EFFECTIVE 12/01/2017

SIGNAL FACE LOCATION



TRAFFIC PHASING AND COLOR SEQUENCE - ACTUATED CONTROLLERS

	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 6	PHASE 7	PHASE 8	PED Ø2 OVERLAP	PED Ø4 OVERLAP	PED Ø6 OVERLAP	PED Ø8 OVERLAP	OVERLAP	OVERLAP	
FACE NUMBERS	11	21 22 23	31	41 42 44 43	51	61 62 63	71	81 82 83	24 11 25	45 31 46	51	71	23	63	FACE NUMBERS
SIGNAL INDICATIONS R	RL	R R R	RL	R R R	RL	R R R	RL	R R R	DW	DW					R
SIGNAL INDICATIONS Y	YL	Y Y Y	YL	Y Y Y	YL	Y Y Y	YL	Y Y Y					YRt	YRt	Y
SIGNAL INDICATIONS FYA									FYA	FYA	FYA	FYA			FYA
SIGNAL INDICATIONS G	GL	G G G	GL	G G G	GL	G G GR	GL	G G G	W	W			GRt	GRt	G
DETECTOR ASSIGNMENTS	11	21 22 22	31	41 42 42	51	61 62 63	71	81 82 82							DETECTOR ASSIGNMENTS
DETECTOR ASSIGNMENTS (PEDS. ONLY)									24 25			45 46			
OVERLAP PARENT PHASES									2	4	6	8	3	7	



RING STRUCTURE

IF CALLED, ALL NON-CONFLICTING PHASES SHALL COMBINE AND TIME CONCURRENTLY. TIME TO BE DETERMINED BY THE ENGINEER AT SIGNAL TURN ON AND SET IN THE CONTROLLER BY THE CONTRACTOR.

LEGEND

- ACTUATED VEHICULAR MOVEMENT
- PARTIALLY RESTRICTED ACTUATED VEHICULAR MOVEMENT
- NON-ACTUATED VEHICULAR MOVEMENT
- PARTIALLY RESTRICTED NON-ACTUATED VEHICULAR MOVEMENT
- ACTUATED PEDESTRIAN MOVEMENT
- NON-ACTUATED PEDESTRIAN MOVEMENT
- VEHICLE STOPPED
- FDW — FLASHING DON'T WALK
- W — WALK
- DW — DON'T WALK
- R/W — RIGHT OF WAY INTERVAL
- YRt — YELLOW RIGHT ARROW
- RT. — GREEN RIGHT ARROW
- LY -YL — YELLOW LEFT ARROW
- L — GREEN LEFT ARROW
- S — GREEN STRAIGHT AHEAD ARROW
- G — CIRCULAR GREEN
- Y — CIRCULAR YELLOW
- R — CIRCULAR RED
- RL — RED LEFT ARROW
- Ø — TRAFFIC PHASE
- AO — ALL OTHERS
- FR — FLASHING RED
- FY — FLASHING CIRCULAR YELLOW
- FYL — FLASHING YELLOW LEFT ARROW

FLASHING OPERATION	
ALL MOVEMENTS	FR
	FY

CONTROLLER TYPE	NEMA

TRAFFIC SIGNAL CONTROL OPERATION

INTERSECTION OF

ROUTE 7 & OUTER ROAD/MOCK AVE

D-38A

SIGNAL PLAN
SHEET 36 OF 54

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED 10/6/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	114

COUNTY JACKSON

JOB NO. JKU0010

CONTRACT ID.

PROJECT NO.

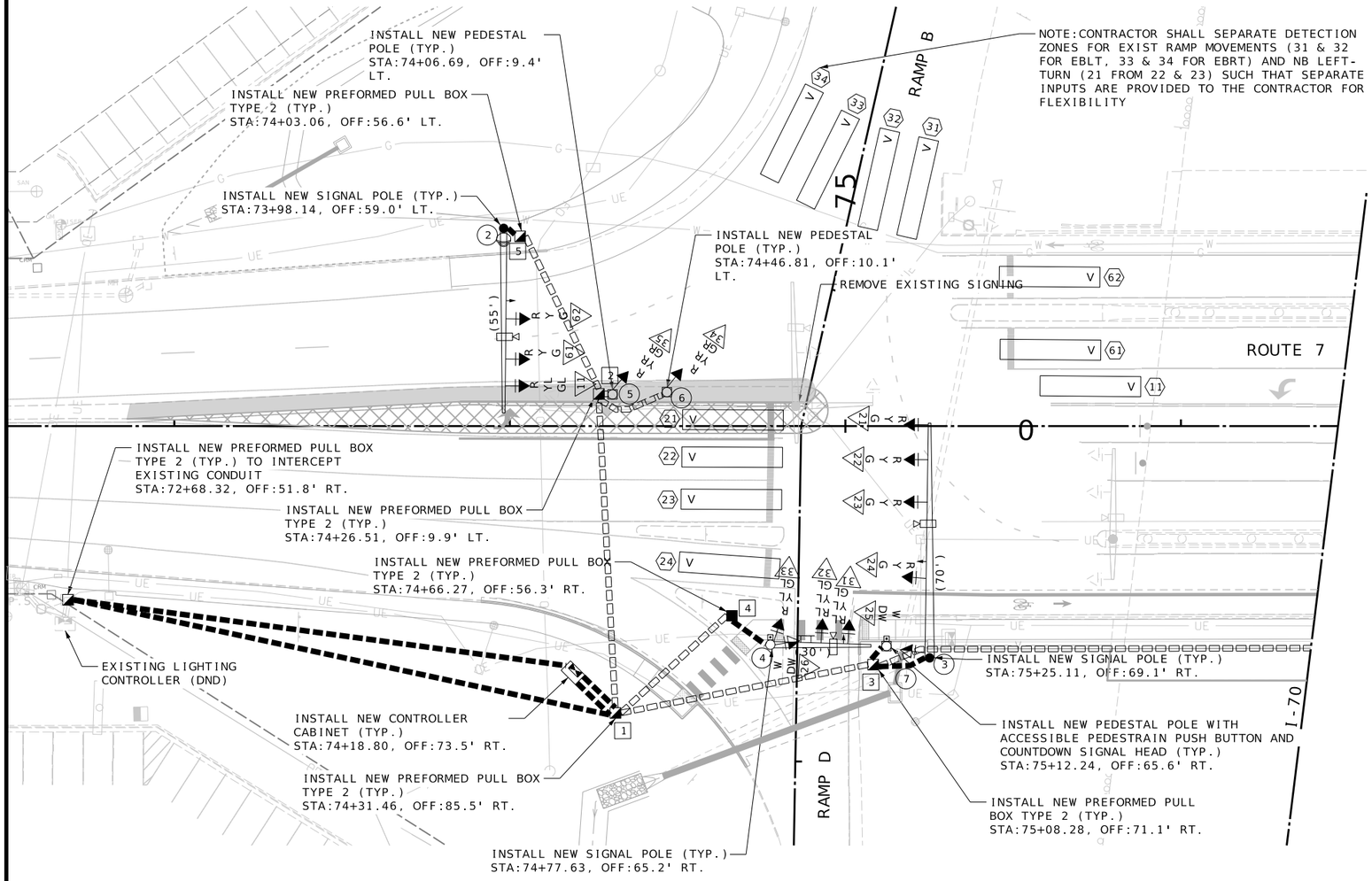
BRIDGE NO.

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592



R	RED BALL
Y	YELLOW BALL
G	GREEN BALL
RL	RED LEFT ARROW
YL	YELLOW LEFT ARROW
GL	GREEN LEFT ARROW
S	STRAIGHT GREEN ARROW
RR	RIGHT RED ARROW
YR	YELLOW RIGHT ARROW
GR	GREEN RIGHT ARROW

ALL 12" LENS WITH TUNNEL VISOR

TRAFFIC SIGNALS LEGEND

CONTROLLER	CCTV CAMERA	6 X 6 LOOP DETECTOR
CONTROLLER (EXISTING)	VIDEO DETECTOR	6 X 15 LOOP DETECTOR
JUNCTION BOX	PUSH BUTTON DETECTOR	30 X 6 LOOP DETECTOR
POWER SUPPLY	PREFORMED PULL BOX TYPE 1	CONDUIT MEDIAN
WOOD POST	PREFORMED PULL BOX TYPE 2	CONDUIT PUSHED
SIGNAL HEAD (OPT LIM CONV)	CONCRETE PULL BOX TYPE 1	CONDUIT BRIDGE
SIGNAL HEAD (OPT LIM)	CONCRETE PULL BOX TYPE 2	CONDUIT EXISTING
SIGNAL HEAD (PEDESTRIAN)	ITS PULL BOX TYPE 2	CONDUIT TRENCHED
SIGNAL HEAD (STANDARD)	ITS PULL BOX TYPE 5	SPAN WIRE
		MAST ARM - TYPE A BASE
		MAST ARM - TYPE C BASE
		MAST ARM - TYPE F BASE

NOTES:

1.) ALL TRAFFIC SIGNAL CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE MISSOURI STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, SECTION 902 (TRAFFIC SIGNALS), UNLESS OTHERWISE NOTED.

2.) THE CONTRACTOR SHALL STAKE LOCATIONS WHERE POLES, BOXES, AND THE CONTROLLER ARE TO BE INSTALLED. STAKED LOCATIONS SHALL BE REVIEWED AND APPROVED BY THE ENGINEER PRIOR TO PLACEMENT OF EQUIPMENT. SERVICE BOXES AND CONDUIT RUNS ARE APPROXIMATE AND MAY BE FIELD ADJUSTED TO CLEAR OBSTRUCTIONS AND FACILITATE WIRING, AS APPROVED BY THE ENGINEER.

3.) CONDUITS UNDER ANY NEW PAVEMENT SHALL EITHER BE TRENCHED PRIOR TO PAVEMENT CONSTRUCTION OR BORED FOLLOWING PAVEMENT CONSTRUCTION. CONDUITS UNDER ANY EXISTING PAVEMENT, INCLUDING SIDEWALKS AND DRIVEWAYS, SHALL BE BORED WITHOUT DISTURBANCE TO THE EXISTING PAVEMENT.

4.) CONDUIT, PULL BOXES, AND POLE BASES SHALL MAINTAIN AT LEAST 4' SETBACK FROM NEW GUARDRAIL OR CONCRETE BARRIER.

5.) CONTROLLER CABINET DOOR MUST OPEN AWAY FROM INTERSECTION.

B/D RAMPS & ROUTE 7

SCALE
0 20 40 60

SIGNAL PLAN
SHEET 37 OF 54

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED 10/6/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	115

COUNTY JACKSON
JOB NO. JKU0010
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DESCRIPTION | DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

POST NUMBER	PULL BOX NUMBER	LOCATION: APPROACH	LOCATION: STATION	LOCATION: OFFSET	BASE: A: 9	A: 9.5	A: 10	A: 10.5	A: 11	A: 12	F: 9	F: 9.5	F: 10	F: 10.5	F: 11	F: 12	C	CONCRETE** (CU.YDS.)	PULL BOX: PREFORMED: CLASS 1	CLASS 2	CLASS 3	CLASS 5	CONCRETE: STANDARD	DOUBLE, TYPE A	DOUBLE, TYPE B	DRAIN TYPE*: I	II: A	B	C
		CABINET																1.93											
2		ROUTE 7	74+98.14	59.0' LT.						1								3.67											
3		ROUTE 7	75+25.11	69.1' RT.						1								3.67											
4		ROUTE 7	74+77.63	65.2' RT.												1		3.14											
5		RAMP B	74+06.69	9.4' LT.													1	0.44											
6		RAMP B	74+46.81	10.1' LT.													1	0.44											
7		ROUTE 7	75+12.24	65.6' RT.													1	0.44											
	1	RAMP B	74+31.46	85.5' RT.																	1					1			
	2	ROUTE 7	74+26.51	9.9' LT.																1						1			
	3	ROUTE 7	75+08.28	71.1 RT.																1						1			
	4	ROUTE 7	74+66.27	56.3' RT.																1						1			
	5	ROUTE 7	74+03.06	56.6' LT.																1						1			
				SUBTOTAL														13.73		4	1								
				TOTAL														13.73		4	1								

POST: TOP MOUNT POST: 8 FT.	15 FT.	TYPE C & CL: ARM LENGTH: 70	55	30	A	SIGNAL SPACING: B	C	D	D'	SIGN SPACING: B	C	D	D'	TYPE B & BL: ARM LENGTH: A	B	C	D	E	K	LEFT ARM E: SIGNAL SPACING: F	G	H	H'	SIGN SPACING: F	G	H	H'	RIGHT ARM K: SIGNAL SPACING: F	G	H	H'	SIGN SPACING: F	G	H	H'	INCLUDED ANGLE	LUMINAIRE BRACKET ARM*: 4 FT.	6 FT.	8 FT.	10 FT.	12 FT.	15 FT.
			1			27	12	8		1																														
		1				24	22	13	10	1																														
				1		16	11			1																														
	1																																								
	1																																								
1																																									
1	2	1																																							

SIGNAL HEADS: SPAN NUMBER	POST NUMBER	FACE NUMBER	LUMINAIRE LED	INDICATIONS*: 12" LENS CONVENTIONAL: R	Y	YL	YRt	FYL	FYR	G	GL	GR	GS	S	L	R:	PED.	12" LENS OPTICAL LIMITING: R	RL	Y	YL	YRt	FYL	G	S	L	Rt	VISORS*: 12" LENS	PED.	LOUVERS*: A	B	C	D	E	F	BACKPLATE*: LENSES: 1	2	3	4	5	RETROREFLECTIVE BACKPLATE*: LENSES: 1	2	3	4	5	BRACKET*: TYPE: I	II	III
	2	11		1		1					1																	3								1									1		
		61		1	1					1																	3								1									1		
		62		1	1					1																	3								1									1		
	3	21		1	1								1														3								1									1		
		22		1	1					1																	3								1									1		
		23		1	1					1																	3								1									1		
		24		1	1					1																	3								1									1		
		25															1												1								1									1		
	4	31		1		1					1																	3								1									1		
		32		1		1					1																	3								1									1		
		33		1			1					1																3								1									1		
		26															1												1								1									1		
	5	34		1		1					1																	3								1									1		
	6	35		1		1					1																	3								1									1		

NOTE - QUANTITIES SHOWN FOR INFORMATION ONLY

REFER TO SUMMARY OF QUANTITIES SHEET 11 OF 13
FOR BID ITEMS ASSOCIATED WITH SIGNALS

CONDUIT (WITH #14 TRACER WIRE)

FROM	TO	CENTER TO CENTER DISTANCE	LOOP DET.	TRENCH			PUSHED			MEDIAN			ON STRUCTURE		REMARKS
			1"	2"	3"	4"	2"	3"	4"	2"	3"	4"	2"	3"	
Ø	PS	8		12											
PS	CONT	150		154											
CONT	BOX 1	16			40										2 COND.
BOX 1	BOX 2	95						94							
BOX 2	BOX 5	55						54							
BOX 5	POLE 2	6			10										
BOX 2	POLE 6	12						16							
BOX 2	POLE 5	27						31							
BOX 1	BOX 4	46						45							
BOX 4	POLE 4	14						18							
BOX 1	BOX 3	78						77							
BOX 3	POLE 3	17			21										
BOX 4	POLE 7	7			9										
SUBTOTALS				154	80			335							
TOTAL				162	84			352							

CABLE

FROM	TO	CENTER TO CENTER DISTANCE	POWER		CONTROL				LUMINAIRE		DETECTOR				CAMERA/RADAR		REMARKS
			1c-3#4	1c-3#8	2c #16	5c #16	7c #16	3c #16	CONTROL 2c #12	POLE & BRACKET 1c #10	1c #14 IN DUCT	2c #14 LEAD-IN CABLE	EVP CABLE	VIDEO CABLE *	CCTV CABLE	RADAR CABLE	
Ø	PS	8	12														
PS	CONT	150	154														
CONT	11	219					266										
CONT	61	217					268										
CONT	62	12					15										
CONT	OPT 2	194											241				
CONT	VID 2	205												256			
CONT	CCTV	172													228		
CONT	34	138					171										
CONT	35	123					156										
CONT	31	102					143										
CONT	32	12					15										
CONT	33	76					109										
CONT	OPT 4	97											138				
CONT	VID 4	95												140			
CONT	P26	76			105	106											
CONT	21	180					221										
CONT	22	170					211										
CONT	23	12					15										
CONT	24	24					27										
CONT	P25	111				141											
CONT	OPT 3	140											181				
CONT	VID 3	151												196			
CONT	P25	101			130												
SUBTOTALS			154		235	247	1617		0	0			560	592	228		
TOTAL			154		250	260	1700		0	0			590	630	240		

INTERSECTION ROUTE 7 & B/D RAMPS

D-37B

SIGNAL PLAN
SHEET 39 OF 54

F:\2022\03001-03500\022-03371\40-Design\Microstation\JKU0010\plan_sheets\11 Signals\117_SG_39_SIGNAL_JKU0010_I1.dgn 5:07:07 PM 10/6/2025

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED 10/6/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	117

COUNTY JACKSON
JOB NO. JKU0010
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DESCRIPTION | DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

EFFECTIVE 04-01-2018

POWER SUPPLY

LOCATION			POWER SUPPLY ASSEMBLY		CIRCUIT BREAKER TRIP RATING*				LIGHTING CONTROL * (ON POWER SUPPLY)		SERVICE POLE	
					CONTROLLER		POWER SUPPLY DISCONNECT					
APPROACH	STATION	OFFSET	DRAWING 902.15	DRAWING	AUXILIARY BREAKER	CONT & SIGNAL LAMPS	MAIN BREAKER		120 VOLT CONTROL CABINET	MAIN BREAKER	CONTRACT FURNISH	UTILITY COMPANY
							SIGNALS	LIGHTING				
EXISTING			Type 2		15 Amps	40 Amps	Amps	Amps	SEE LIGHTING PLANS	SEE LIGHTING PLANS Amps	Cl. Ft.	EVERGY
			Type		15 Amps	40 Amps	Amps	Amps		Amps	Cl. Ft.	

CONTROLLER ASSEMBLY AND AUXILIARY EQUIPMENT

LOCATION			SYSTEM MASTER (CLOSED LOOP)		ACTUATED		ON-OFF* SWITCH TYPE		COORDINATION INTERFACE *						TIME * CLOCK	NEMA CABINET TYPE *			170 CABINET TYPE *		170 SOFTWARE *		UNINTERRUPTIBLE POWER SUPPLY
									12C/7C HARDWIRE (1)		TIME BASE	CLOSED LOOP		FIBER									902-99.02
APPROACH	STATION	OFFSET	NEMA	170	NEMA	170	I	II	MASTER	LOCAL		NEMA	170			E	EV	DOUBLE	332	336S	BITRAN	WAPITI	
ROUTE 7	74+18.80	73.5' RT.			1									1			1						1

NEMA DETECTOR ASSIGNMENT

		CARD POSITION							
		1	2	3	4	5	6	7	8
CHANNEL	1			VIDEO					
	2								

TOTAL NUMBER OF DETECTOR CARDS(2-CHANNEL) = (2)

DETECTOR SCHEDULE

DETECTOR NUMBER	APPROACH	TYPE				
		PUSH BUTTON (1)	INDUCTION LOOP			VIDEO
			STANDARD	DELAY/ EXTEND *	CALL UNIT *	
24,25	RAMP D	2				
21,22	ROUTE 7					1
23,24	ROUTE 7					
11	ROUTE 7					1
61,62	ROUTE 7					
31,32	RAMP B					1
33,34	RAMP B					
TOTAL		2				

* ITEMS FOR WHICH SEPARATE PAYMENT WILL NOT BE MADE.

(1) ALL PUSH BUTTONS SHALL BE APS AND UTLIZE A 2-WIRE CONTROL SYSTEM WITH CONTROL UNIT IN THE CABINET.

MISCELLANEOUS BID ITEMS

BID ITEM	UNIT	QUANTITY
VIDEO DETECTION SYSTEM	EACH	1

NEMA LOAD SWITCH ASSIGNMENTS

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ø1 R Ø1 Y Ø1 G	Ø2 R Ø2 Y Ø2 G	Ø3 R Ø3 Y Ø3 G	Ø4 R Ø4 Y Ø4 G	Ø5 R Ø5 Y Ø5 G	Ø6 R Ø6 Y Ø6 G	Ø7 R Ø7 Y Ø7 G	Ø8 R Ø8 Y Ø8 G	Ø2P W Ø1 FYA Ø2P DW	Ø4P W Ø3 FYA Ø4P DW	- Ø5 FYA -	- Ø7 FYA -				

SIGNS

QUANTITY	MUTCD SIGN NUMBER	SIZE	AREA	SIGN TOTAL AREA ITEM NO. 90208.33	SIGNAL SIGN MOUNTING HARDWARE ITEM NO. 90208.34
		INCHES	SQ.FT.	SQ.FT.	EA.
	R10-10L	24 X 30	5.0	0.0	
	R10-10R	24 X 30	5.0	0.0	
	R3-5L	30 X 36	7.5	0.0	
	R3-5R	30 X 36	7.5	0.0	
	R3-5A	30 X 36	7.5	0.0	
	R3-6L	30 X 36	7.5	0.0	
	R3-6R	30 X 36	7.5	0.0	
	R3-2	24 X 24	4.0	0.0	
	R3-1	24 X 24	4.0	0.0	
	R3-3	24 X 24	4.0	0.0	
	R3-4	36 X 36	9.0	0.0	
	R10-5	24 X 30	5.0	0.0	
	R10-12	24 X 30	5.0	0.0	
	R10-12A	25 X 30	5.0	0.0	
	D3-1 (ROUTE 7)***	60 X 18	7.5	0.0	
	D3-1 (I-70 EB AMPS)***	90 X 18	11.3	0.0	
	R10-3E (L)	9 X 15	0.95	(INTEGRATED WITH BUTTON)	
	R10-3E (R)	9 X 15	0.95	(INTEGRATED WITH BUTTON)	
	R10-3E	9 X 15	0.9	0.0	
	R10-11A	24 X 30	7.5	0.0	
	R10-13	36 X 24	6.0	0.0	
	R10-27A	30 X 36	7.5	0.0	
	R10-15R	30 X 36	7.5	0.0	
			SUBTOTAL	0.0	0
			TOTAL	0.0	0

NOTE - QUANTITIES SHOWN FOR INFORMATION ONLY

REFER TO SUMMARY OF QUANTITIES SHEET 11 OF 13
FOR BID ITEMS ASSOCIATED WITH SIGNALS

ROUTE 7 & B/D RAMPS
INTERSECTION

D-37C
SIGNAL PLAN
SHEET 40 OF 54

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED 10/6/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	118

COUNTY JACKSON
JOB NO. JKU0010
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

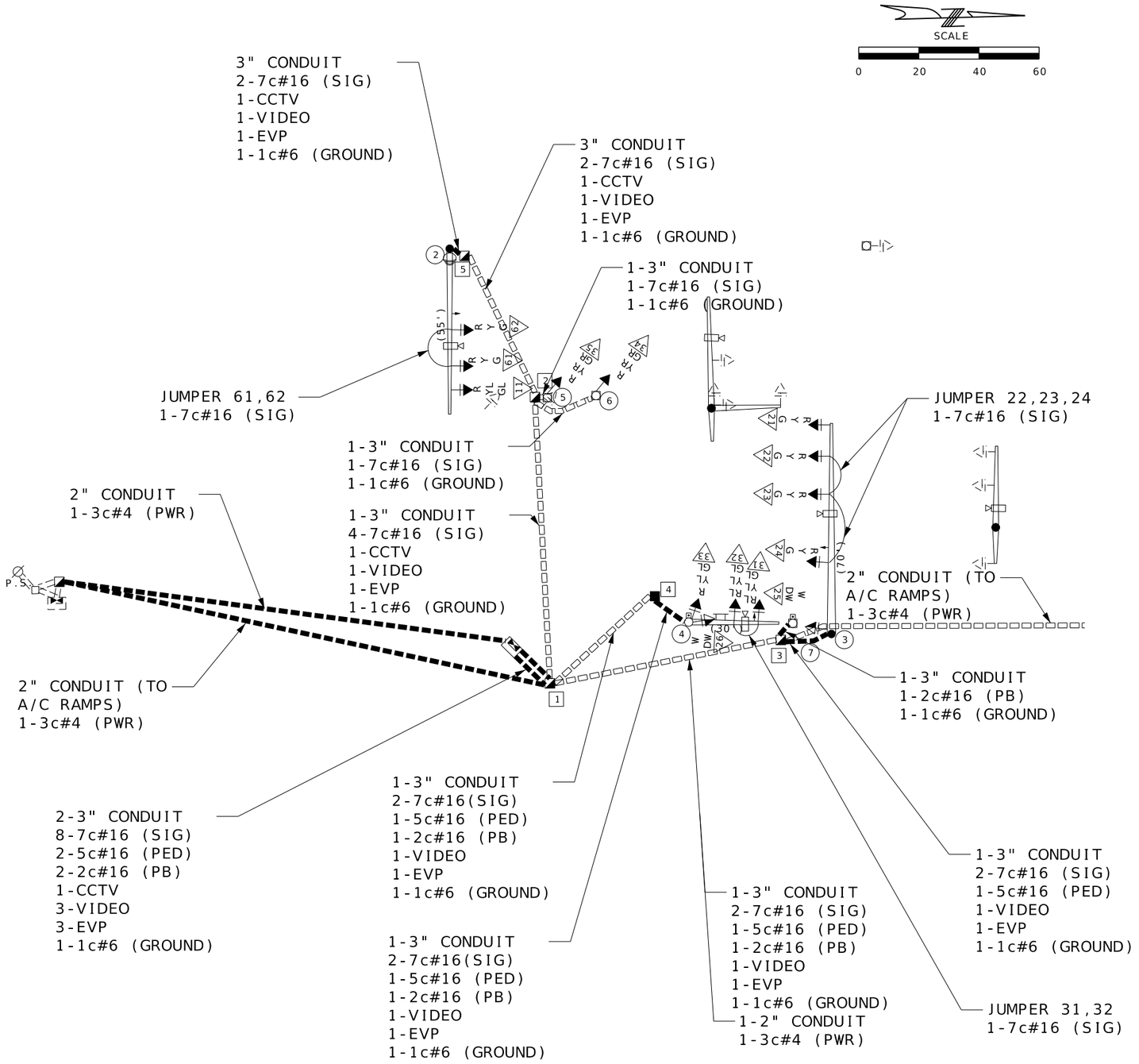
DESCRIPTION | DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

WIRING DIAGRAM



LEGEND

3"	CONDUIT CONTAINING CABLE WITH SIZE
	CABLE
X-Xc	MULTI-CONDUCTOR CABLE #16 AWG (UNLESS OTHERWISE INDICATED)
LIC	#14 AWG DETECTOR LEAD-IN CABLE (2C TWISTED SHIELDED)
X	PULL BOX WITH NUMBER
(X)	POST WITH NUMBER
(X)	POST WITH MAST ARM
(X)	POST WITH MAST ARM AND LUMINAIRE
X	DETECTOR WITH NUMBER
—X	SIGNAL HEAD WITH NUMBER
	SIGNAL CONTROLLER
	POWER SUPPLY
	LIGHTING CONTROLLER

B/D RAMPS & ROUTE 7

INTERSECTION

D-37D

SIGNAL PLAN
SHEET 41 OF 54

JEREMY SCOTT STRETZ NUMBER PE-2017023856

JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED
10/6/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	119

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

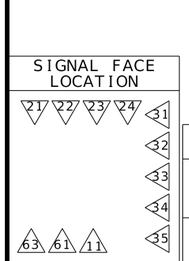
olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

F:\2022\03001-03500\022-03371\40-Design\Microstation\JKU0010\plan_sheets\11 Signals\119_SG_41_SIGNAL_JKU0010_120.dgn 5:08:14 PM 10/6/2025

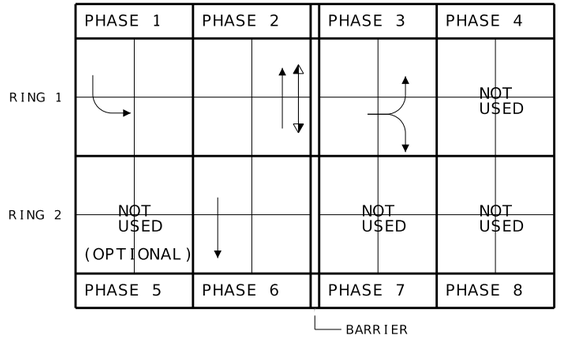
EFFECTIVE 12/01/2017

TRAFFIC PHASING AND COLOR SEQUENCE - ACTUATED CONTROLLERS

SIGNAL FACE LOCATION



	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 6	PHASE 7	PHASE 8	PED Ø2	PED Ø4	PED Ø6	PED Ø8	PED Ø8	OVERLAP A	
				NOT USED	NOT USED		NOT USED	NOT USED		NOT USED	NOT USED	NOT USED			
FACE NUMBERS	11	21 22 23 24 31 32 33 34				61 62			24					33 34	FACE NUMBERS
									25					35	
SIGNAL INDICATIONS R	RL	R R R R RL RL R R				R R			W					R R	R
SIGNAL INDICATIONS Y	YL	Y Y Y Y YL YL YR YR				Y Y								YRt YRt	Y
SIGNAL INDICATIONS FYA									DW						FYA
SIGNAL INDICATIONS G	GL	G G G G GL GL GR GR				G G								GRt GRt	G
DETECTOR ASSIGNMENTS	11	21 22 23	31 32 33 34			61 62									DETECTOR ASSIGNMENTS
DETECTOR ASSIGNMENTS (PEDS. ONLY)									24 25						
OVERLAP PARENT PHASES														5	



RING STRUCTURE

IF CALLED, ALL NON-CONFLICTING PHASES SHALL COMBINE AND TIME CONCURRENTLY. TIME TO BE DETERMINED BY THE ENGINEER AT SIGNAL TURN ON AND SET IN THE CONTROLLER BY THE CONTRACTOR.

LEGEND

- ACTUATED VEHICULAR MOVEMENT
- PARTIALLY RESTRICTED ACTUATED VEHICULAR MOVEMENT
- NON-ACTUATED VEHICULAR MOVEMENT
- PARTIALLY RESTRICTED NON-ACTUATED VEHICULAR MOVEMENT
- ACTUATED PEDESTRIAN MOVEMENT
- NON-ACTUATED PEDESTRIAN MOVEMENT
- VEHICLE STOPPED
- FDW — FLASHING DON'T WALK
- W — WALK
- DW — DON'T WALK
- R/W — RIGHT OF WAY INTERVAL
- YRt — YELLOW RIGHT ARROW
- RT. — GREEN RIGHT ARROW
- LY -YL — YELLOW LEFT ARROW
- L — GREEN LEFT ARROW
- S — GREEN STRAIGHT AHEAD ARROW
- G — CIRCULAR GREEN
- Y — CIRCULAR YELLOW
- R — CIRCULAR RED
- RL — RED LEFT ARROW
- Ø — TRAFFIC PHASE
- AO — ALL OTHERS
- FR — FLASHING RED
- FY — FLASHING CIRCULAR YELLOW
- FYL — FLASHING YELLOW LEFT ARROW

FLASHING OPERATION	
ALL MOVEMENTS	FR
	FY

CONTROLLER TYPE	NEMA

TRAFFIC SIGNAL CONTROL OPERATION

INTERSECTION OF

ROUTE 7 & B/D RAMPS

D-38A

SIGNAL PLAN
SHEET 42 OF 54

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED 10/6/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	120

COUNTY JACKSON

JOB NO. JKU0010

CONTRACT ID.

PROJECT NO.

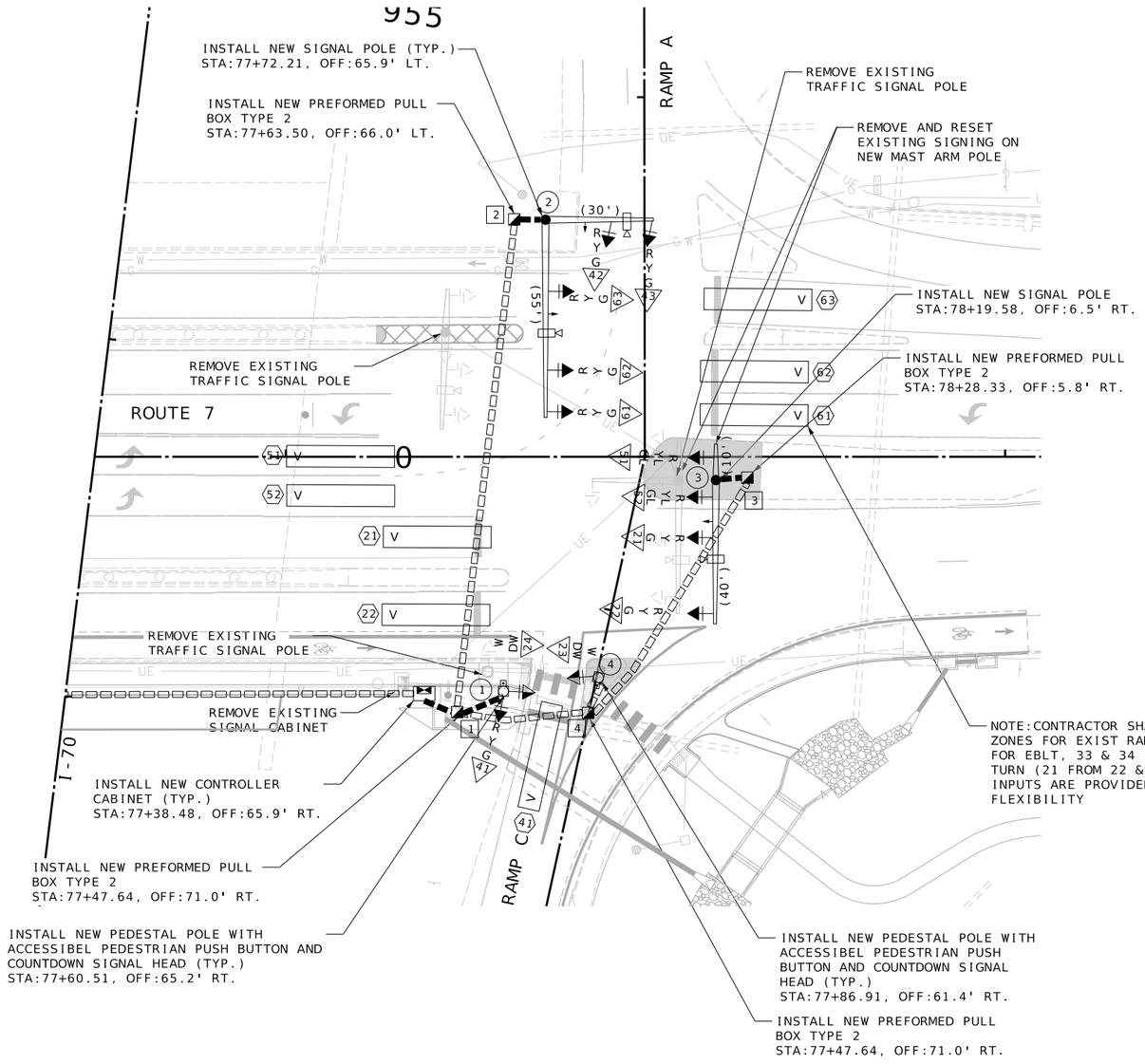
BRIDGE NO.

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592



SCALE
0 20 40 60

A/C RAMPS & ROUTE 7

TRAFFIC SIGNALS LEGEND

CONTROLLER	CCTV CAMERA	6 X 6 LOOP DETECTOR	
CONTROLLER (EXISTING)	VIDEO DETECTOR	6 X 15 LOOP DETECTOR	
JUNCTION BOX	PUSH BUTTON DETECTOR	30 X 6 LOOP DETECTOR	
POWER SUPPLY	PREFORMED PULL BOX TYPE 1	CONDUIT MEDIAN	
WOOD POST	PREFORMED PULL BOX TYPE 2	CONDUIT PUSHED	
SIGNAL HEAD (OPT LIM CONV)	CONCRETE PULL BOX TYPE 1	CONDUIT BRIDGE	
SIGNAL HEAD (OPT LIM)	CONCRETE PULL BOX TYPE 2	CONDUIT EXISTING	
SIGNAL HEAD (PEDESTRIAN)	ITS PULL BOX TYPE 2	CONDUIT TRENCHED	
SIGNAL HEAD (STANDARD)	ITS PULL BOX TYPE 5	SPAN WIRE	
		MAST ARM - TYPE A BASE	
		MAST ARM - TYPE C BASE	
		MAST ARM - TYPE F BASE	

R	RED BALL
Y	YELLOW BALL
G	GREEN BALL
RL	RED LEFT ARROW
YL	YELLOW LEFT ARROW
GL	GREEN LEFT ARROW
S	STRAIGHT GREEN ARROW
RR	RIGHT RED ARROW
YR	YELLOW RIGHT ARROW
GR	GREEN RIGHT ARROW

ALL 12" LENS WITH TUNNEL VISOR

NOTES:
1.) ALL TRAFFIC SIGNAL CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE MISSOURI STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, SECTION 902 (TRAFFIC SIGNALS), UNLESS OTHERWISE NOTED.

2.) THE CONTRACTOR SHALL STAKE LOCATIONS WHERE POLES, BOXES, AND THE CONTROLLER ARE TO BE INSTALLED. STAKED LOCATIONS SHALL BE REVIEWED AND APPROVED BY THE ENGINEER PRIOR TO PLACEMENT OF EQUIPMENT. SERVICE BOXES AND CONDUIT RUNS ARE APPROXIMATE AND MAY BE FIELD ADJUSTED TO CLEAR OBSTRUCTIONS AND FACILITATE WIRING, AS APPROVED BY THE ENGINEER.

3.) CONDUITS UNDER ANY NEW PAVEMENT SHALL EITHER BE TRENCHED PRIOR TO PAVEMENT CONSTRUCTION OR BORED FOLLOWING PAVEMENT CONSTRUCTION. CONDUITS UNDER ANY EXISTING PAVEMENT, INCLUDING SIDEWALKS AND DRIVEWAYS, SHALL BE BORED WITHOUT DISTURBANCE TO THE EXISTING PAVEMENT.

4.) CONDUIT, PULL BOXES, AND POLE BASES SHALL MAINTAIN AT LEAST 4' SETBACK FROM NEW GUARDRAIL OR CONCRETE BARRIER.

5.) CONTROLLER CABINET DOOR MUST OPEN AWAY FROM INTERSECTION.

SIGNAL PLAN
SHEET 43 OF 54

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED: 10/6/2025
ROUTE: 7 | STATE: MO
DISTRICT: KC | SHEET NO.: 121
COUNTY: JACKSON
JOB NO.: JKU0010
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.:

DATE	DESCRIPTION

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

EFFECTIVE: 07/01/2018

POST NUMBER	PULL BOX NUMBER	LOCATION: APPROACH	LOCATION: STATION	LOCATION: OFFSET	BASE: A 9	A 9.5	A 10	A 10.5	A 11	A 12	F 9	F 9.5	F 10	F 10.5	F 11	F 12	C	CONCRETE** (CU.YDS.)	PULL BOX: PREFORMED CLASS 1	CLASS 2	CLASS 3	CLASS 5	CONCRETE: STANDARD	DOUBLE, TYPE A	DOUBLE, TYPE B	DRAIN TYPE* I	II A	II B	II C	TOP MOUNT POST 8 FT.	15 FT.
		CABINET																1.93													
1		RAMP C	77+60.51	65.2' RT.													1	0.44												1	
2		ROUTE 7	77+72.21	65.9' LT.						1								3.67													
3		ROUTE 7	78+19.58	6.5' RT.						1								3.67													
4		RAMP C	77+86.91	61.4' RT.													1	0.44												1	
	1	RAMP C	77+47.64	71.0' RT.																	1					1					
	2	ROUTE 7	77+63.50	66.0' LT.																1						1					
	3	ROUTE 7	78+28.33	5.8' RT.																1						1					
	4	RAMP C	77+47.64	71.0' RT.																1						1					
SUBTOTAL																		10.15		3	1								2	
TOTAL																		10.15		3	1								2	

POST NUMBER	PULL BOX NUMBER	TYPE C & CL: ARM LENGTH A	A	A	A	SIGNAL SPACING B	C	D	D'	SIGN SPACING B	C	D	D'	TYPE B & BL: ARM LENGTH 10	30	40	55	E	K	LEFT ARM E: SIGNAL SPACING F	G	H	H'	SIGN SPACING F	G	H	H'	RIGHT ARM K: SIGNAL SPACING F	G	H	H'	SIGN SPACING F	G	H	H'	INCLUDED ANGLE	LUMINAIRE BRACKET ARM* 4 FT.	6 FT.	8 FT.	10 FT.	12 FT.	15 FT.
1																																										
2															1		1				20	22	11		11				18	12							90						
3														1		1				7				3				5	16	37		1										
4																																											
	1																																										
	2																																										
	3																																										
	4																																										
SUBTOTAL														1	1	1	1																									
TOTAL														1	1	1	1																									

SIGNAL HEADS

| SPAN NUMBER | POST NUMBER | FACE NUMBER | LUMINAIRE LED | INDICATIONS* 12" LENS CONVENTIONAL R | Y | YL | YRt | FYL | FYR | G | GL | GS | S | L | Rt | PED. | 12" LENS OPTICAL LIMITING R | RL | Y | YL | YRt | FYL | G | S | L | Rt | VISORS* 12" LENS | PED. | LOUVERS* A | B | C | D | E | F | BACKPLATE* LENSES 1 | 2 | 3 | 4 | 5 | RETROREFLECTIVE BACKPLATE* LENSES 1 | 2 | 3 | 4 | 5 | BRACKET* TYPE I | II | III | ONE-FACE SECTION 1 - T | S | C | B | 3 - T | S | C | B | 4 - T | S | C | B | 5 - T | S | C | B | TWO-FACE SECTION 11 - T | S | C | B | 33 - T | S | C | B | 34 - S | B | 35 - S | B | 44 - S | B | 45 - S | B |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---

EFFECTIVE: 10-01-2015

NOTE - QUANTITIES SHOWN FOR INFORMATION ONLY

REFER TO SUMMARY OF QUANTITIES SHEET 11 OF 13
FOR BID ITEMS ASSOCIATED WITH SIGNALS

CONDUIT (WITH #14 TRACER WIRE)

FROM	TO	CENTER TO CENTER DISTANCE	LOOP DET.	TRENCH			PUSHED			MEDIAN			ON STRUCTURE		REMARKS
			1"	2"	3"	4"	2"	3"	4"	2"	3"	4"	2"	3"	
Ø	PS	8													
PS	CONT	490		494											
CONT	BOX 1	11			30										
BOX 1	POLE 1	12			14										
BOX 1	BOX 4	38						37							
BOX 4	POLE 4	5						7							
BOX 4	BOX 3	77						76							
BOX 3	POLE 3	9			13										
BOX 1	BOX 2	138						137							
BOX 2	POLE 2	9			13										
SUBTOTALS				494	70			257							
TOTAL				519	74			270							

CABLE

FROM	TO	CENTER TO CENTER DISTANCE	POWER		CONTROL				LUMINAIRE		DETECTOR				CAMERA/RADAR		REMARKS
			1c-3#4	1c-3#8	2c #16	5c #16	7c #16	3c #16	CONTROL 2c #12	POLE & BRACKET 1c #10	1c #14 IN DUCT	2c #14 LEAD-IN CABLE	ITS CABLE	VIDEO CABLE *	CCTV CABLE	RADAR CABLE	
Ø	PS	8															
PS	CONT	490	500														
CONT	P24	23			46	47											
CONT	41						68										
CONT	P23	54			83	84											
CONT	51	142					189										
CONT	52	12					15										
CONT	21	24					27										
CONT	22	172					219										
CONT	LUM 3	135							164	33							
CONT	VID 3	157												208			
CONT	OPT 3	147											194				
CONT	61	211					252										
CONT	62	200					241										
CONT	63	24					27										
CONT	VID 4	190												235			
CONT	OPT 4	184											225				
CONT	42	12					15										
CONT	43	188					229										
CONT	VID 2	181												226			
CONT	OPT 2	169											210				
SUBTOTALS			500		129	131	1282		164	33			629	669			
TOTAL			500		140	140	1350		180	40			660	710			

D-37B

SIGNAL PLAN
SHEET 45 OF 54

INTERSECTION ROUTE 7 & A/C RAMPS

F:\2022\03001-03500\022-03371\40-Design\Microstation\JKU0010\plan_sheets\11 Signals\123_SG_45_SIGNAL_JKU0010_I1.dgn 5:09:34 PM 10/6/2025

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED
10/6/2025

ROUTE 7 | STATE MO
DISTRICT KC | SHEET NO. 123
COUNTY JACKSON
JOB NO. JKU0010
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DESCRIPTION | DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

EFFECTIVE 04-01-2018

POWER SUPPLY

LOCATION			POWER SUPPLY ASSEMBLY		CIRCUIT BREAKER TRIP RATING*				LIGHTING CONTROL * (ON POWER SUPPLY)		SERVICE POLE	
					CONTROLLER		POWER SUPPLY DISCONNECT					
APPROACH	STATION	OFFSET	DRAWING 902.15	DRAWING	AUXILIARY BREAKER	CONT & SIGNAL LAMPS	MAIN BREAKER		120 VOLT CONTROL CABINET	MAIN BREAKER	CONTRACT FURNISH	UTILITY COMPANY
							SIGNALS	LIGHTING				
EXISTING			Type 2		15 Amps	40 Amps	Amps	Amps	SEE LIGHTING PLANS	SEE LIGHTING PLANS Amps	Cl. Ft.	EVERGY
			Type		15 Amps	40 Amps	Amps	Amps		Amps	Cl. Ft.	

CONTROLLER ASSEMBLY AND AUXILIARY EQUIPMENT

LOCATION			SYSTEM MASTER (CLOSED LOOP)		ACTUATED		ON-OFF* SWITCH TYPE		COORDINATION INTERFACE *						TIME * CLOCK	NEMA CABINET TYPE *			170 CABINET TYPE *		170 SOFTWARE *		UNINTERRUPTIBLE POWER SUPPLY
									12C/7C HARDWIRE (1)		TIME BASE	CLOSED LOOP		FIBER									902-99.02
APPROACH	STATION	OFFSET	NEMA	170	NEMA	170	I	II	MASTER	LOCAL		NEMA	170			E	EV	DOUBLE	332	336S	BITRAN	WAPITI	
ROUTE 7	74+18.80	73.5' RT.			1									1			1						1

NEMA DETECTOR ASSIGNMENT

		CARD POSITION							
		1	2	3	4	5	6	7	8
CHANNEL	1		VIDEO						
	2								

TOTAL NUMBER OF DETECTOR CARDS(2-CHANNEL) =

DETECTOR SCHEDULE

DETECTOR NUMBER	APPROACH	TYPE				
		PUSH BUTTON (1)	INDUCTION LOOP			VIDEO
			STANDARD	DELAY/ EXTEND *	CALL UNIT *	
23,24	RAMP C	2				
61	ROUTE 7					1
62,63	ROUTE 7					
51,52	ROUTE 7					1
21,22	ROUTE 7					
41	RAMP C					1
TOTAL		2				

* ITEMS FOR WHICH SEPARATE PAYMENT WILL NOT BE MADE.

(1) ALL PUSH BUTTONS SHALL BE APS AND UTLIZE A 2-WIRE CONTROL SYSTEM WITH CONTROL UNIT IN THE CABINET.

MISCELLANEOUS BID ITEMS

BID ITEM	UNIT	QUANTITY
VIDEO DETECTION SYSTEM	EACH	1

NEMA LOAD SWITCH ASSIGNMENTS

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ø1 R Ø1 Y Ø1 G	Ø2 R Ø2 Y Ø2 G	Ø3 R Ø3 Y Ø3 G	Ø4 R Ø4 Y Ø4 G	Ø5 R Ø5 Y Ø5 G	Ø6 R Ø6 Y Ø6 G	Ø7 R Ø7 Y Ø7 G	Ø8 R Ø8 Y Ø8 G	Ø2P W Ø1 FYA Ø2P DW	Ø4P W Ø3 FYA Ø4P DW	- Ø5 FYA -	- Ø7 FYA -				

SIGNS

QUANTITY	MUTCD SIGN NUMBER	SIZE	AREA	SIGN TOTAL AREA ITEM NO. 90208.33	SIGNAL SIGN MOUNTING HARDWARE ITEM NO. 90208.34
		INCHES	SQ.FT.	SQ.FT.	EA.
	R10-10L	24 X 30	5.0	0.0	
	R10-10R	24 X 30	5.0	0.0	
	R3-5L	30 X 36	7.5	0.0	
	R3-5R	30 X 36	7.5	0.0	
	R3-5A	30 X 36	7.5	0.0	
	R3-6L	30 X 36	7.5	0.0	
	R3-6R	30 X 36	7.5	0.0	
	R3-2	24 X 24	4.0	0.0	
	R3-1	24 X 24	4.0	0.0	
	R3-3	24 X 24	4.0	0.0	
	R3-4	36 X 36	9.0	0.0	
	R10-5	24 X 30	5.0	0.0	
	R10-12	24 X 30	5.0	0.0	
	R10-12A	25 X 30	5.0	0.0	
	D3-1 (ROUTE 7)***	60 X 18	7.5	0.0	
	D3-1 (I-70 WB RAMPS)***	90 X 18	11.3	0.0	
	R10-3E (L)	9 X 15	0.95	(INTEGRATED WITH BUTTON)	
	R10-3E (R)	9 X 15	0.95	(INTEGRATED WITH BUTTON)	
	R10-3E	9 X 15	0.9	0.0	
	R10-11A	24 X 30	7.5	0.0	
	R10-13	36 X 24	6.0	0.0	
	R10-27A	30 X 36	7.5	0.0	
	R10-15R	30 X 36	7.5	0.0	
	R10-10a	30 X 36	7.5	0.0	
			SUBTOTAL	0.0	0
			TOTAL	0.0	0

NOTE - QUANTITIES SHOWN FOR INFORMATION ONLY

REFER TO SUMMARY OF QUANTITIES SHEET 11 OF 13
FOR BID ITEMS ASSOCIATED WITH SIGNALS

ROUTE 7 & A/C RAMPS
INTERSECTION

D-37C
SIGNAL PLAN
SHEET 46 OF 54

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED 10/6/2025
ROUTE 7 | STATE MO
DISTRICT KC | SHEET NO. 124
COUNTY JACKSON
JOB NO. JKU0010
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DESCRIPTION | DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

WIRING DIAGRAM

SCALE
0 20 40 60

JUMPER 41,42
1-7c#16 (SIG)

1-3" CONDUIT
3-7c#16 (SIG)
2-VIDEO
2-EVP
1-1c#6 (GROUND)

JUMPER 62,63
1-7c#16 (SIG)

1-3" CONDUIT
1-5c#16 (PED)
1-2c#16 (PB)
1-1c#6 (GROUND)

1-3" CONDUIT
3-7c#16 (SIG)
2-VIDEO
2-EVP
1-1c#6 (GROUND)

2" CONDUIT (TO A/C RAMPS)
1-3c#4 (PWR)

1-3" CONDUIT
1-7c#16 (SIG)
1-5c#16 (PED)
1-2c#16 (PB)
1-1c#6 (GROUND)

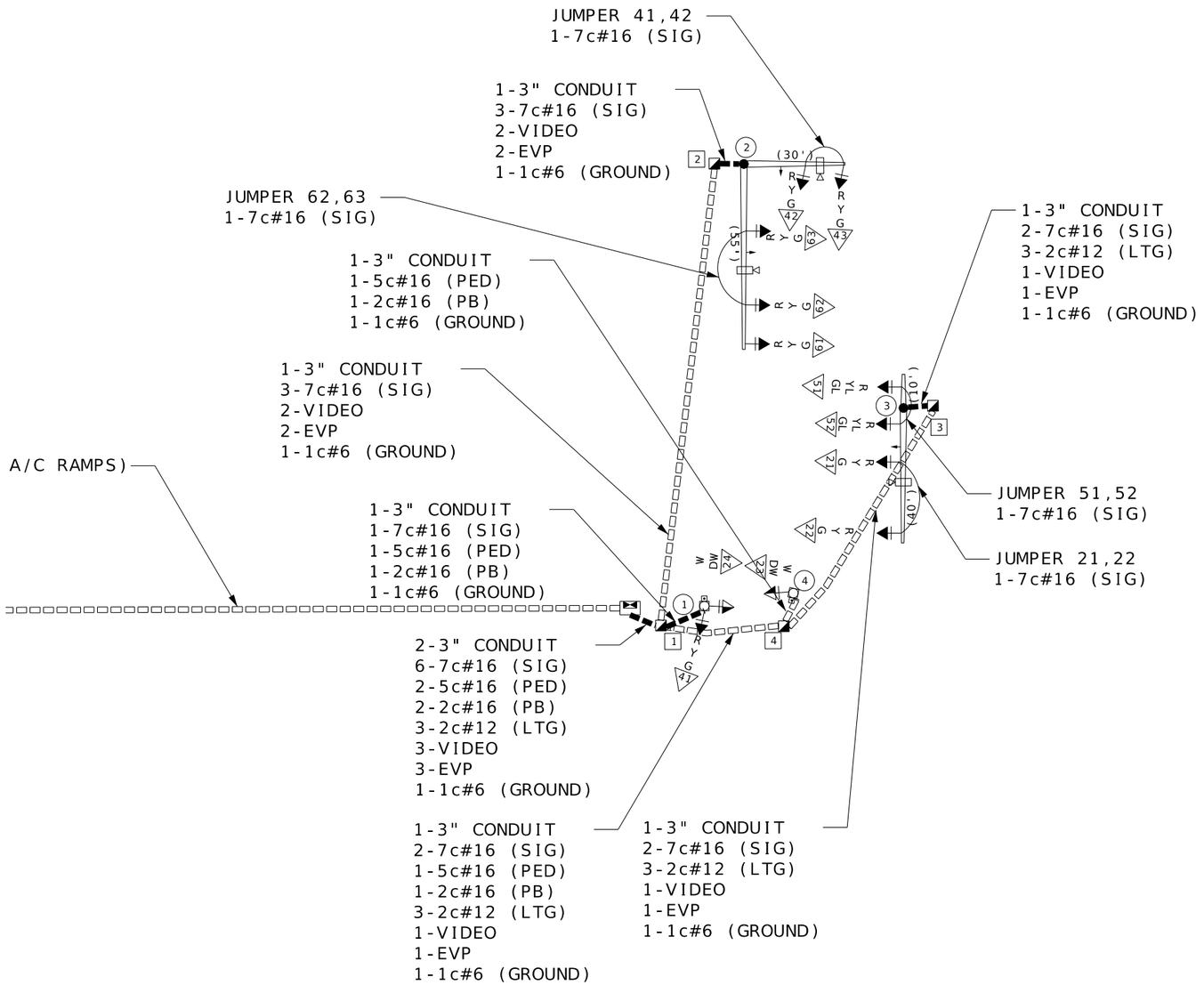
2-3" CONDUIT
6-7c#16 (SIG)
2-5c#16 (PED)
2-2c#16 (PB)
3-2c#12 (LTG)
3-VIDEO
3-EVP
1-1c#6 (GROUND)

1-3" CONDUIT
2-7c#16 (SIG)
1-5c#16 (PED)
1-2c#16 (PB)
3-2c#12 (LTG)
1-VIDEO
1-EVP
1-1c#6 (GROUND)

1-3" CONDUIT
2-7c#16 (SIG)
3-2c#12 (LTG)
1-VIDEO
1-EVP
1-1c#6 (GROUND)

JUMPER 51,52
1-7c#16 (SIG)

JUMPER 21,22
1-7c#16 (SIG)



LEGEND

3"	CONDUIT CONTAINING CABLE WITH SIZE
	CABLE
X-Xc	MULTI-CONDUCTOR CABLE #16 AWG (UNLESS OTHERWISE INDICATED)
LIC	#14 AWG DETECTOR LEAD-IN CABLE (2C TWISTED SHIELDED)
X	PULL BOX WITH NUMBER
(X)	POST WITH NUMBER
(X)	POST WITH MAST ARM
(X)	POST WITH MAST ARM AND LUMINAIRE
X	DETECTOR WITH NUMBER
X	SIGNAL HEAD WITH NUMBER
	SIGNAL CONTROLLER
	POWER SUPPLY
	LIGHTING CONTROLLER

A/C RAMPS & ROUTE 7
INTERSECTION

D-37D
SIGNAL PLAN
SHEET 47 OF 54

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED
10/6/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	125

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

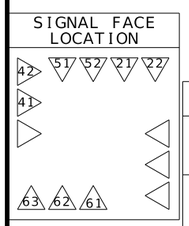
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

F:\2022\03001-03500\022-03371\40-Design\Microstation\JKU0010\plan_sheets\11 Signals\125_SG_47_SIGNAL_JKU0010_I20.dgn 5:10:39 PM 10/6/2025

EFFECTIVE 12/01/2017

SIGNAL FACE LOCATION



TRAFFIC PHASING AND COLOR SEQUENCE - ACTUATED CONTROLLERS

	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 6	PHASE 7	PHASE 8	PED Ø2	PED Ø4	PED Ø6	PED Ø8	OVERLAP A
	NOT USED		NOT USED				NOT USED	NOT USED		NOT USED	NOT USED	NOT USED	
FACE NUMBERS		21 22		41 42	51 52	61 62 63			23 24				51 52
SIGNAL INDICATIONS R		R R		R R	R R	R R R			W				R R
SIGNAL INDICATIONS Y		Y Y		Y Y	YL YL	Y Y Y							YL YL
SIGNAL INDICATIONS FYA									DW				
SIGNAL INDICATIONS G		G G		G G	GL GL	G G GR							GL GL
DETECTOR ASSIGNMENTS		21 22		41 42	51 52	61 62 63							
DETECTOR ASSIGNMENTS (PEDS. ONLY)									23 24				
OVERLAP PARENT PHASES													5 15

FACE NUMBERS
SIGNAL INDICATIONS
R
Y
FYA
G
DETECTOR ASSIGNMENTS

	PHASE 1	PHASE 2	PHASE 3	PHASE 4
RING 1	NOT USED		NOT USED	
RING 2			NOT USED	NOT USED
	PHASE 5	PHASE 6	PHASE 7	PHASE 8

NOTE - PHASE 15 (OVERLAP A) OPTIONAL TO RE-RUN NBLT PHASE

BARRIER

RING STRUCTURE

IF CALLED, ALL NON-CONFLICTING PHASES SHALL COMBINE AND TIME CONCURRENTLY. TIME TO BE DETERMINED BY THE ENGINEER AT SIGNAL TURN ON AND SET IN THE CONTROLLER BY THE CONTRACTOR.

LEGEND

- ACTUATED VEHICULAR MOVEMENT
- PARTIALLY RESTRICTED ACTUATED VEHICULAR MOVEMENT
- NON-ACTUATED VEHICULAR MOVEMENT
- PARTIALLY RESTRICTED NON-ACTUATED VEHICULAR MOVEMENT
- ACTUATED PEDESTRIAN MOVEMENT
- NON-ACTUATED PEDESTRIAN MOVEMENT
- VEHICLE STOPPED
- FDW — FLASHING DON'T WALK
- W — WALK
- DW — DON'T WALK
- R/W — RIGHT OF WAY INTERVAL
- YRt — YELLOW RIGHT ARROW
- RT. — GREEN RIGHT ARROW
- LY -YL — YELLOW LEFT ARROW
- L — GREEN LEFT ARROW
- S — GREEN STRAIGHT AHEAD ARROW
- G — CIRCULAR GREEN
- Y — CIRCULAR YELLOW
- R — CIRCULAR RED
- RL — RED LEFT ARROW
- Ø — TRAFFIC PHASE
- AO — ALL OTHERS
- FR — FLASHING RED
- FY — FLASHING CIRCULAR YELLOW
- FYL — FLASHING YELLOW LEFT ARROW

FLASHING OPERATION	
ALL MOVEMENTS	FR
	FY

CONTROLLER TYPE	NEMA

TRAFFIC SIGNAL CONTROL OPERATION
INTERSECTION OF
ROUTE 7 & A/C RAMPS

D-38A

SIGNAL PLAN
SHEET 48 OF 54

JEREMY SCOTT STRETZ NUMBER PE-2017023856

JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED
10/6/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	126

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

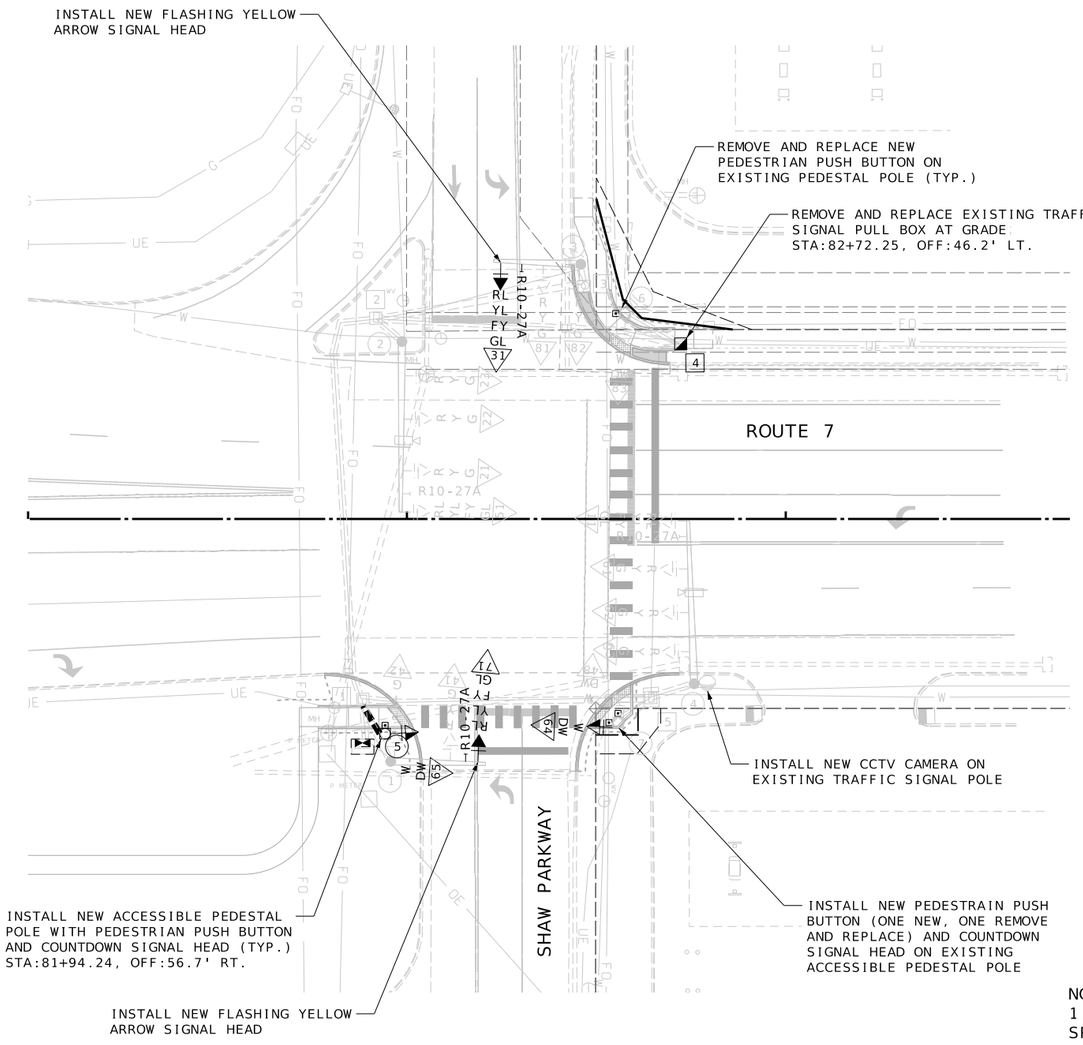
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

F:\2022\03001-03500\022-03371\40-Design\Microstation\JKU0010\plan_sheets\11 Signals\126_SG_48_SIGNAL_JKU0010_I1.dgn 5:10:43 PM 10/6/2025



TRAFFIC SIGNALS LEGEND

CONTROLLER	CCTV CAMERA	6 X 6 LOOP DETECTOR	
CONTROLLER (EXISTING)	VIDEO DETECTOR	6 X 15 LOOP DETECTOR	
JCT JUNCTION BOX	PUSH BUTTON DETECTOR	30 X 6 LOOP DETECTOR	
POWER SUPPLY	PREFORMED PULL BOX TYPE 1	CONDUIT MEDIAN	
WOOD POST	PREFORMED PULL BOX TYPE 2	CONDUIT PUSHED	
SIGNAL HEAD (OPT LIM CONV)	CONCRETE PULL BOX TYPE 1	CONDUIT BRIDGE	
SIGNAL HEAD (OPT LIM)	CONCRETE PULL BOX TYPE 2	CONDUIT EXISTING	
SIGNAL HEAD (PEDESTRIAN)	ITS ITS PULL BOX TYPE 2	CONDUIT TRENCHED	
SIGNAL HEAD (STANDARD)	ITS ITS PULL BOX TYPE 5	SPAN WIRE	
		MAST ARM - TYPE A BASE	
		MAST ARM - TYPE C BASE	
		MAST ARM - TYPE F BASE	

R	RED BALL	ALL 12" LENS WITH TUNNEL VISOR
Y	YELLOW BALL	
G	GREEN BALL	
RL	RED LEFT ARROW	
YL	YELLOW LEFT ARROW	
GL	GREEN LEFT ARROW	
S	STRAIGHT GREEN ARROW	
RR	RIGHT RED ARROW	
YR	YELLOW RIGHT ARROW	
GR	GREEN RIGHT ARROW	

NOTES:

1.) ALL TRAFFIC SIGNAL CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE MISSOURI STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, SECTION 902 (TRAFFIC SIGNALS), UNLESS OTHERWISE NOTED.

2.) THE CONTRACTOR SHALL STAKE LOCATIONS WHERE POLES, BOXES, AND THE CONTROLLER ARE TO BE INSTALLED. STAKED LOCATIONS SHALL BE REVIEWED AND APPROVED BY THE ENGINEER PRIOR TO PLACEMENT OF EQUIPMENT. SERVICE BOXES AND CONDUIT RUNS ARE APPROXIMATE AND MAY BE FIELD ADJUSTED TO CLEAR OBSTRUCTIONS AND FACILITATE WIRING, AS APPROVED BY THE ENGINEER.

3.) CONDUITS UNDER ANY NEW PAVEMENT SHALL EITHER BE TRENCHED PRIOR TO PAVEMENT CONSTRUCTION OR BORED FOLLOWING PAVEMENT CONSTRUCTION. CONDUITS UNDER ANY EXISTING PAVEMENT, INCLUDING SIDEWALKS AND DRIVEWAYS, SHALL BE BORED WITHOUT DISTURBANCE TO THE EXISTING PAVEMENT.

SCALE

0 20 40 60

SHAW PARKWAY & ROUTE 7

SIGNAL PLAN
SHEET 49 OF 54

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED 10/6/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	127

COUNTY: JACKSON
JOB NO.: JKU0010
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.:

DATE	DESCRIPTION

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

EFFECTIVE: 07/01/2018

POST NUMBER	PULL BOX NUMBER	LOCATION: APPROACH	LOCATION: STATION	LOCATION: OFFSET	BASE: A: 9	A: 9.5	A: 10	A: 10.5	A: 11	A: 12	F: 9	F: 9.5	F: 10	F: 10.5	F: 11	F: 12	C	CONCRETE** (CU.YDS.)	PULL BOX: PREFORMED: CLASS 1	CLASS 2	CLASS 3	CLASS 5	CONCRETE: STANDARD	DOUBLE, TYPE A	DOUBLE, TYPE B	DRAIN TYPE*: I	II: A	B	C	TOP MOUNT POST: 8 FT.	15 FT.
1		EXSITING																													
3		EXSITING																													
4		EXSITING																													
5		SHAW PKWY	81+94.24	56.7' RT.													1	0.44												1	
	4	SHAW PKWY	82+72.25	46.2' LT.																1						1					
SUBTOTAL																		0.44		1									1	
TOTAL																		0.44		1									1	

POST NUMBER	TYPE C & CL: ARM LENGTH: A	A	A	A	SIGNAL SPACING: B	C	D	D'	SIGN SPACING: B	C	D	D'	TYPE B & BL: ARM LENGTH: E	K	E	K	E	K	LEFT ARM E: SIGNAL SPACING: F	G	H	H'	SIGN SPACING: F	G	H	H'	RIGHT ARM K: SIGNAL SPACING: F	G	H	H'	SIGN SPACING: F	G	H	H'	INCLUDED ANGLE	LUMINAIRE BRACKET ARM*: 4 FT.	6 FT.	8 FT.	10 FT.	12 FT.	15 FT.
1					23																																		
3					21																																		
4																																							
5																																							
	4																																						
SUBTOTAL																																							
TOTAL																																							

SIGNAL HEADS

| SPAN NUMBER | POST NUMBER | FACE NUMBER | LUMINAIRE LED | INDICATIONS*: 8" LENS CONVENTIONAL: R | RL | Y | YL | YRt | FYL | FYR | G | GL | S | L | Rt | FED. | 12" LENS CONVENTIONAL: R | RL | Y | YL | YRt | FYL | G | S | L | Rt | VISORS*: 12" LENS | PED. | LOUVERS*: A | B | C | D | E | F | BACKPLATE*: LENSES: 1 | 2 | 3 | 4 | 5 | RETROREFLECTIVE BACKPLATE*: LENSES: 1 | 2 | 3 | 4 | 5 | BRACKET*: TYPE: I | II | III | ONE-FACE SECTION: 1 - T | S | C | B | 3 - T | S | C | B | 4 - T | S | C | B | 5 - T | S | C | B | TWO-FACE SECTION: 11 - T | S | C | B | 33 - T | S | C | B | 34 - S | B | 35 - S | B | 44 - S | B | 45 - S | 3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---

EFFECTIVE: 10-01-2015

NOTE - QUANTITIES SHOWN FOR INFORMATION ONLY

REFER TO SUMMARY OF QUANTITIES SHEET 11 OF 13
FOR BID ITEMS ASSOCIATED WITH SIGNALS

CONDUIT (WITH #14 TRACER WIRE)

FROM	TO	CENTER TO CENTER DISTANCE	LOOP DET.	TRENCH			PUSHED			MEDIAN			ON STRUCTURE		REMARKS
			1"	2"	3"	4"	2"	3"	4"	2"	3"	4"	2"	3"	
CONT	BOX 1	12													
BOX 1	POLE 1	18													
BOX 1	POLE 5	11			13										
BOX 1	BOX 2	110													
BOX 2	POLE 2	9													
BOX 2	BOX 3	56													
BOX 3	POLE 3	6													
BOX 2	BOX 4	81													
BOX 4	POLE 6	17													
BOX 1	BOX 5	76													
BOX 5	POLE 4	12													
BOX 5	POLE 7	11													
SUBTOTALS					13										
TOTAL					14										

CABLE

FROM	TO	CENTER TO CENTER DISTANCE	POWER		CONTROL				CLOSED LOOP INTERCONNECT	LUMINAIRE		DETECTOR			CAMERA/RADAR		REMARKS
			1c-3#4	1c-3#8	2c #16	5c #16	7c #16	3c #16	3 PAIR #16	CONTROL 2c #12	POLE & BRACKET 1c #10	1c #14 IN DUCT	2c #14 LEAD-IN CABLE	VIDEO CABLE *	CCTV CABLE	RADAR CABLE	
CONT	71	53					88										
CONT	P65	23			46	47											
CONT	31	205					252										
CONT	P83	220			255												
CONT	CCTV	100													150		
CONT	P64	99			128	129											
SUBTOTALS					429	176	340								150		
TOTAL					450	190	360								160		

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED: 10/6/2025

ROUTE	STATE
7	MO

DISTRICT	SHEET NO.
KC	129

COUNTY: JACKSON
JOB NO.: JKU0010
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.:

DESCRIPTION | DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

D-37B

SIGNAL PLAN
SHEET 51 OF 54

INTERSECTION ROUTE 7 & SHAW PARKWAY

F:\2022\03001-03500\022-03371\40-Design\Microstation\JKU0010\plan_sheets\11 Signals\129_SG_51_SIGNAL_JKU0010_11.dgn 5:11:29 PM 10/6/2025

EFFECTIVE 04-01-2018

POWER SUPPLY

LOCATION			POWER SUPPLY ASSEMBLY		CIRCUIT BREAKER TRIP RATING*				LIGHTING CONTROL * (ON POWER SUPPLY)		SERVICE POLE	
					CONTROLLER		POWER SUPPLY DISCONNECT					
APPROACH	STATION	OFFSET	DRAWING 902.15	DRAWING	AUXILIARY BREAKER	CONT & SIGNAL LAMPS	MAIN BREAKER		120 VOLT CONTROL CABINET	MAIN BREAKER	CONTRACT FURNISH	UTILITY COMPANY
							SIGNALS	LIGHTING				
EXISTING			Type 2		15 Amps	40 Amps	Amps	Amps		Amps	Cl. Ft.	EVERGY
			Type		15 Amps	40 Amps	Amps	Amps		Amps	Cl. Ft.	

CONTROLLER ASSEMBLY AND AUXILIARY EQUIPMENT

LOCATION			SYSTEM MASTER (CLOSED LOOP)		ACTUATED		ON-OFF* SWITCH TYPE		COORDINATION INTERFACE *					TIME * CLOCK	NEMA CABINET TYPE *			170 CABINET TYPE *		170 SOFTWARE *		UNINTERRUPTIBLE POWER SUPPLY
									12C/7C HARDWIRE (1)		TIME BASE	CLOSED LOOP		FIBER								902-99.02
APPROACH	STATION	OFFSET	NEMA	170	ECONOLITE COBALT	170	I	II	MASTER	LOCAL		NEMA	170			E	EV	DOUBLE	332	336S	BITRAN	WAPITI	
EXISTING																						

NEMA DETECTOR ASSIGNMENT

		CARD POSITION							
		1	2	3	4	5	6	7	8
CHANNEL	1			VIDEO					
	2								

TOTAL NUMBER OF DETECTOR CARDS(2-CHANNEL) =

DETECTOR SCHEDULE

DETECTOR NUMBER	APPROACH	TYPE				
		PUSH BUTTON (1)	INDUCTION LOOP			VIDEO
			STANDARD	DELAY/ EXTEND *	CALL UNIT *	
64,65	SHAW PARKWAY	2				
83,84	ROUTE 7	2				
TOTAL		4				

* ITEMS FOR WHICH SEPARATE PAYMENT WILL NOT BE MADE.

(1) ALL PUSH BUTTONS SHALL BE APS AND UTLIZE A 4-WIRE CONTROL SYSTEM WITH CONTROL UNIT IN THE CABINET. EACH INDIVIDUAL HEAD WITH WIRING BETWEEN PUSH BUTTON AND PEDESTRIAN SIGNAL HEAD, CONTROL UNIT, MOUNTING BRACKETS, SIGN AND ASSOCIATED WIRING BETWEEN PUSH BUTTON AND PEDESTRIAN SIGNAL HEAD SHALL BE SUBSIDIARY TO OTHER BID ITEMS.

(2) CONTROL UNIT SHALL OPERATE IN MODE G. COMPACT MODE FOR FLASHING YELLOW ARROW.

NEMA LOAD SWITCH ASSIGNMENTS

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ø1 R Ø1 Y Ø1 G	Ø2 R Ø2 Y Ø2 G	Ø3 R Ø3 Y Ø3 G	Ø4 R Ø4 Y Ø4 G	Ø5 R Ø5 Y Ø5 G	Ø6 R Ø6 Y Ø6 G	Ø7 R Ø7 Y Ø7 G	Ø8 R Ø8 Y Ø8 G	- Ø1 FYA -	- Ø3 FYA -	Ø6P DW Ø5 FYA Ø6P W	Ø8P DW Ø7 FYA Ø8P W				

SIGNS

QUANTITY	MUTCD SIGN NUMBER	SIZE	AREA	SIGN TOTAL AREA ITEM NO. 90208.33	SIGNAL SIGN MOUNTING HARDWARE ITEM NO. 90208.34
		INCHES	SQ.FT.	SQ.FT.	EA.
	R10-10L	24 X 30	5.0	0.0	
	R10-10R	24 X 30	5.0	0.0	
	R3-5L	30 X 36	7.5	0.0	
	R3-5R	30 X 36	7.5	0.0	
	R3-5A	30 X 36	7.5	0.0	
	R3-6L	30 X 36	7.5	0.0	
	R3-6R	30 X 36	7.5	0.0	
	R3-2	24 X 24	4.0	0.0	
	R3-1	24 X 24	4.0	0.0	
	R3-3	24 X 24	4.0	0.0	
	R3-4	36 X 36	9.0	0.0	
	R10-5	24 X 30	5.0	0.0	
	R10-12	24 X 30	5.0	0.0	
	R10-12A	25 X 30	5.0	0.0	
	D3-1 (ROUTE 7)***	? X 18	7.5	0.0	
	D3-1 (SHAW PARKWAY)***	? X 18	11.3	0.0	
	R10-3E (L)	9 X 15	0.95	(INTEGRATED WITH BUTTON)	
	R10-3E (R)	9 X 15	0.95	(INTEGRATED WITH BUTTON)	
	R10-3E	9 X 15	0.9	0.0	
	R10-11A	24 X 30	7.5	0.0	
	R10-13	36 X 24	6.0	0.0	
2	R10-27A	30 X 36	7.5	15.0	2
	R10-15R	30 X 36	7.5	0.0	
			SUBTOTAL	15.0	2
			TOTAL	15.0	2

NOTE - QUANTITIES SHOWN FOR INFORMATION ONLY

REFER TO SUMMARY OF QUANTITIES SHEET 11 OF 13
FOR BID ITEMS ASSOCIATED WITH SIGNALS

ROUTE 7 & SHAW PARKWAY
INTERSECTION

D-37C
SIGNAL PLAN
SHEET 52 OF 54

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED
10/6/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	130

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

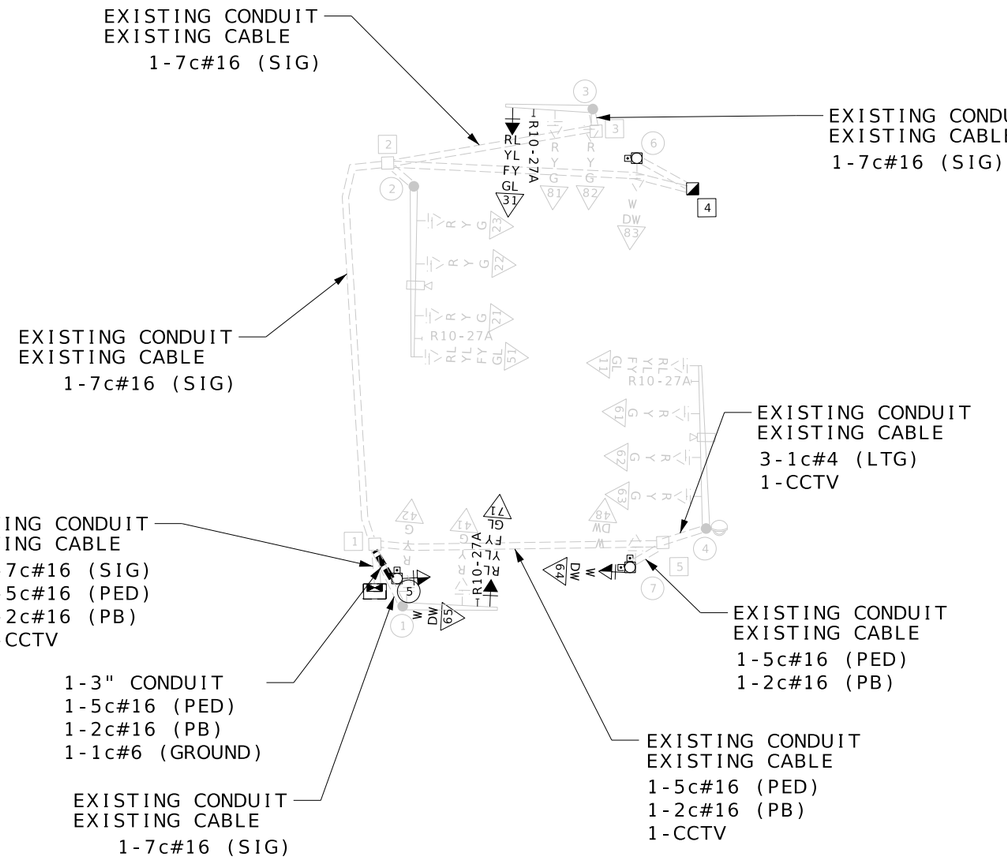
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

WIRING DIAGRAM

SCALE

0 20 40 60



LEGEND

3"	CONDUIT CONTAINING CABLE WITH SIZE
	CABLE
X-Xc	MULTI-CONDUCTOR CABLE #16 AWG (UNLESS OTHERWISE INDICATED)
LIC	#14 AWG DETECTOR LEAD-IN CABLE (2C TWISTED SHIELDED)
X	PULL BOX WITH NUMBER
(X)	POST WITH NUMBER
(X)	POST WITH MAST ARM
(X)	POST WITH MAST ARM AND LUMINAIRE
X	DETECTOR WITH NUMBER
— X	SIGNAL HEAD WITH NUMBER
	SIGNAL CONTROLLER
	POWER SUPPLY
	LIGHTING CONTROLLER

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

DATE PREPARED 10/6/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	131

COUNTY: JACKSON

JOB NO.: JKU0010

CONTRACT ID.:

PROJECT NO.:

BRIDGE NO.:

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

SHAW PARKWAY & ROUTE 7

INTERSECTION

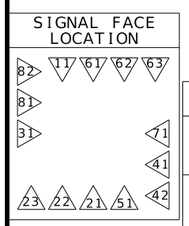
D-37D

SIGNAL PLAN
SHEET 53 OF 54

F:\2022\03001-03500\022-03371\40-Design\Microstation\JKU0010\plan_sheets\11 Signals\131_SG_53_SIGNAL_JKU0010_I20.dgn 5:12:22 PM 10/6/2025

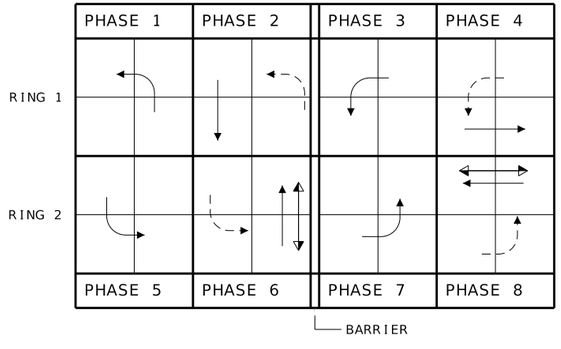
EFFECTIVE 12/01/2017

SIGNAL FACE LOCATION



TRAFFIC PHASING AND COLOR SEQUENCE - ACTUATED CONTROLLERS

	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 6	PHASE 7	PHASE 8	PED Ø2 OVERLAP	PED Ø4 OVERLAP	PED Ø6 OVERLAP	PED Ø8 OVERLAP	
FACE NUMBERS	11	21 22 23	31	41 42 43	51	61 62 63	71	81 82	11	31	64 51 65	84 71 85	FACE NUMBERS
SIGNAL INDICATIONS R	RL	R R	RL	R R	RL	R R R	RL	R R			DW	DW	R
SIGNAL INDICATIONS Y	YL	Y Y	YL	Y Y	YL	Y Y Y	YL	Y Y					Y
SIGNAL INDICATIONS FYA									FYA	FYA	FYA	FYA	FYA
SIGNAL INDICATIONS G	GL	G G	GL	G G	GL	G G GR	GL	G G			W	W	G
DETECTOR ASSIGNMENTS	11	21 22	31	41 42	51	61 62 63	71	81 82					DETECTOR ASSIGNMENTS
DETECTOR ASSIGNMENTS (PEDS. ONLY)											64 65	84 85	
OVERLAP PARENT PHASES									2	4	6	8	



RING STRUCTURE

IF CALLED, ALL NON-CONFLICTING PHASES SHALL COMBINE AND TIME CONCURRENTLY. TIME TO BE DETERMINED BY THE ENGINEER AT SIGNAL TURN ON AND SET IN THE CONTROLLER BY THE CONTRACTOR.

LEGEND

- ACTUATED VEHICULAR MOVEMENT
- PARTIALLY RESTRICTED ACTUATED VEHICULAR MOVEMENT
- NON-ACTUATED VEHICULAR MOVEMENT
- PARTIALLY RESTRICTED NON-ACTUATED VEHICULAR MOVEMENT
- ACTUATED PEDESTRIAN MOVEMENT
- NON-ACTUATED PEDESTRIAN MOVEMENT
- VEHICLE STOPPED
- FDW — FLASHING DON'T WALK
- W — WALK
- DW — DON'T WALK
- R/W — RIGHT OF WAY INTERVAL
- YRt — YELLOW RIGHT ARROW
- RT. — GREEN RIGHT ARROW
- LY -YL — YELLOW LEFT ARROW
- L — GREEN LEFT ARROW
- S — GREEN STRAIGHT AHEAD ARROW
- G — CIRCULAR GREEN
- Y — CIRCULAR YELLOW
- R — CIRCULAR RED
- RL — RED LEFT ARROW
- Ø — TRAFFIC PHASE
- AO — ALL OTHERS
- FR — FLASHING RED
- FY — FLASHING CIRCULAR YELLOW
- FYL — FLASHING YELLOW LEFT ARROW

FLASHING OPERATION	
ALL MOVEMENTS	FR
	FY

CONTROLLER TYPE	NEMA

TRAFFIC SIGNAL CONTROL OPERATION
INTERSECTION OF
ROUTE 7 & SHAW PARKWAY

D-38A

SIGNAL PLAN
SHEET 54 OF 54

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED 10/6/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	132

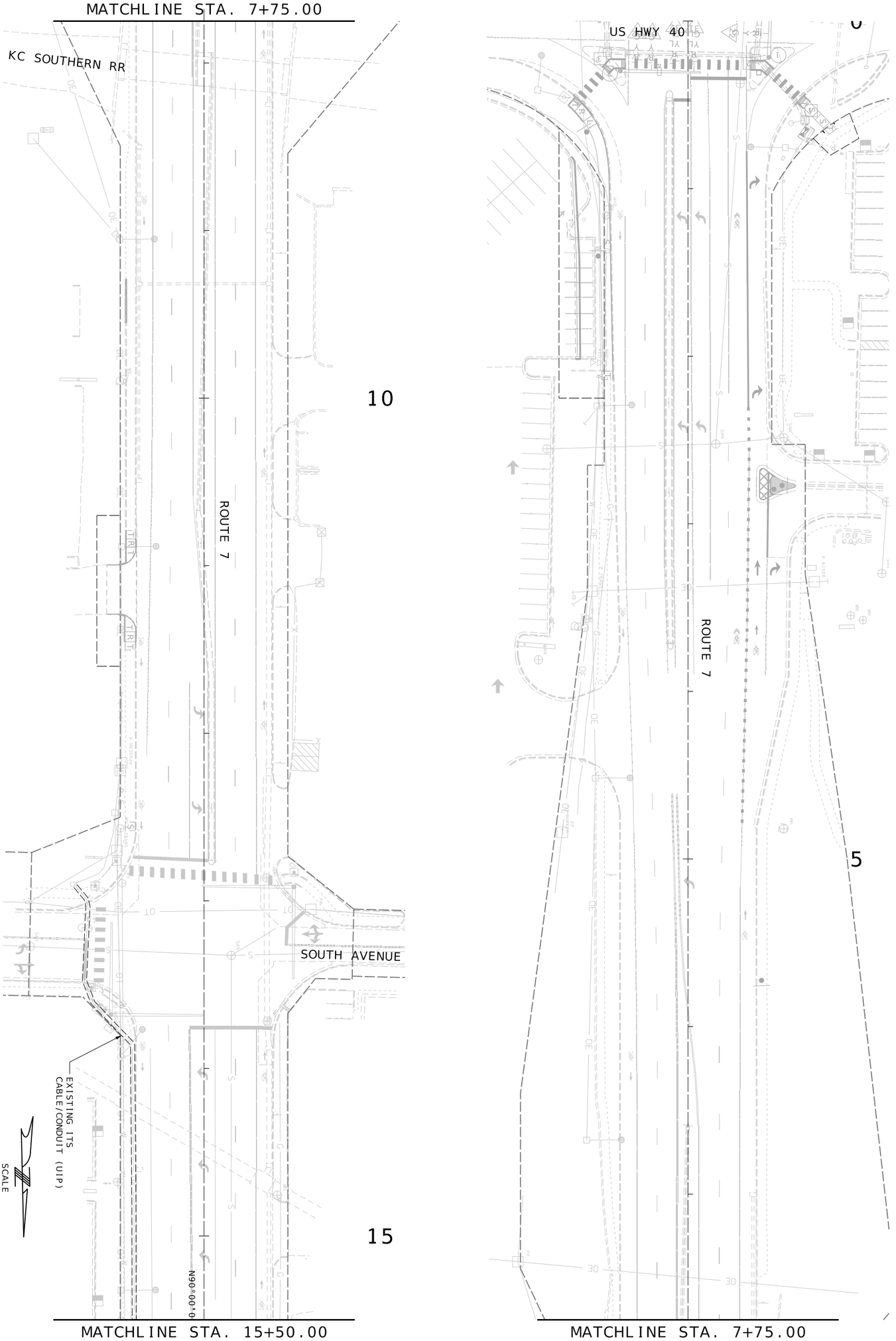
COUNTY JACKSON
JOB NO. JKU0010
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592



F:\2022\03001-035001022-03371\40-Design\Microstation\JKU0010\plan_sheets\11 Signals\ITS\133_ITS_01_JKU0010_130.dgn 5:13:11 PM 10/6/2025

ITS
SHEET 1 OF 6

olsson
1301 BURLINGTON STREET, SUITE. 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

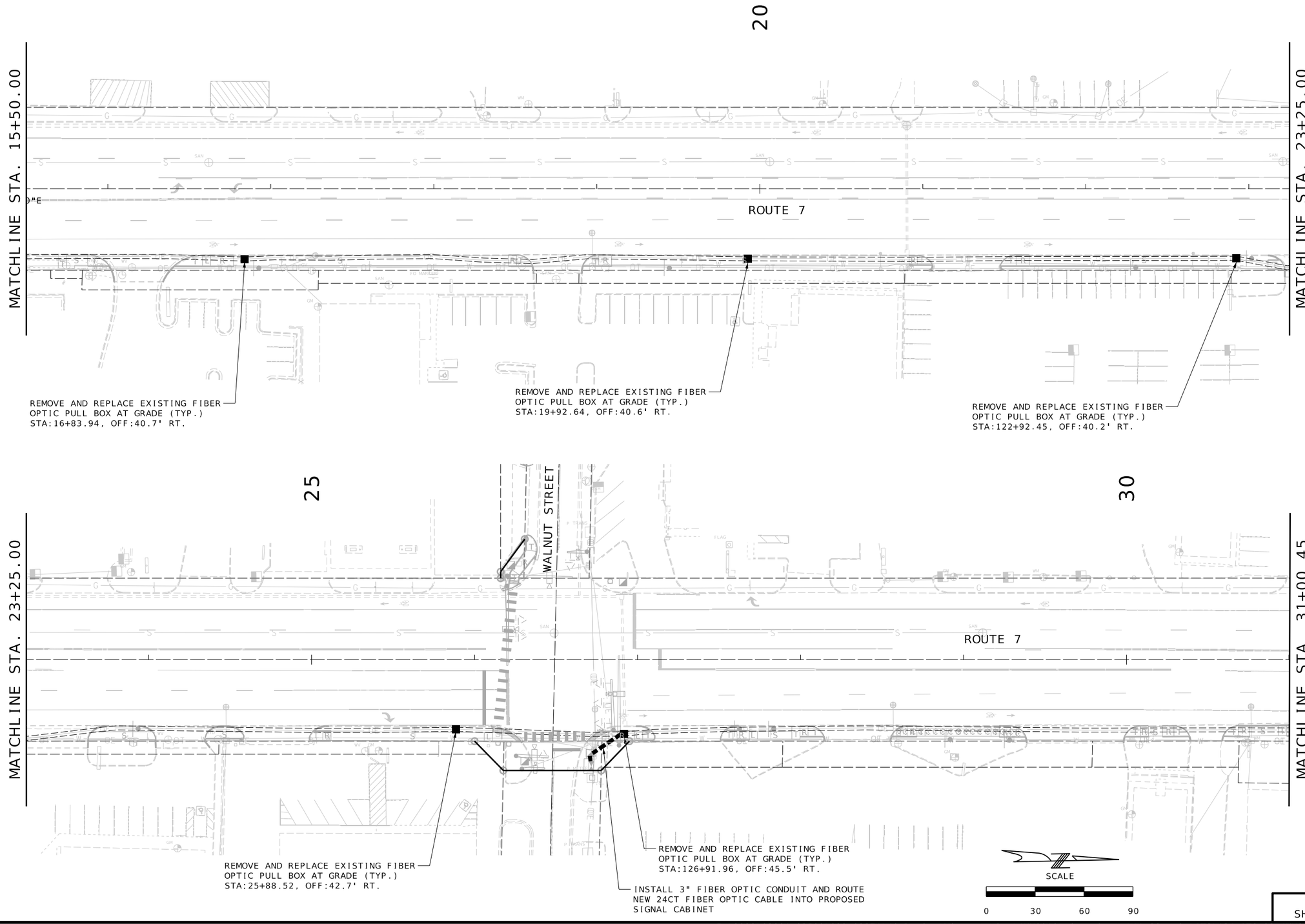
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
MoDOT
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

DATE	DESCRIPTION

BRIDGE NO.
PROJECT NO.
CONTRACT ID.
JOB NO. JKU0010
COUNTY JACKSON
DISTRICT KC
SHEET NO. 133
ROUTE 7
STATE MO
DATE PREPARED 10/6/2025

JEREMY SCOTT STREITZ-ENGINEER
MO# PE-2017023856
NUMBER PE-2017023856
JEREMY SCOTT STREITZ

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.



JEREMY SCOTT STRETZ NUMBER PE-2017023856

JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED
10/6/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	134

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

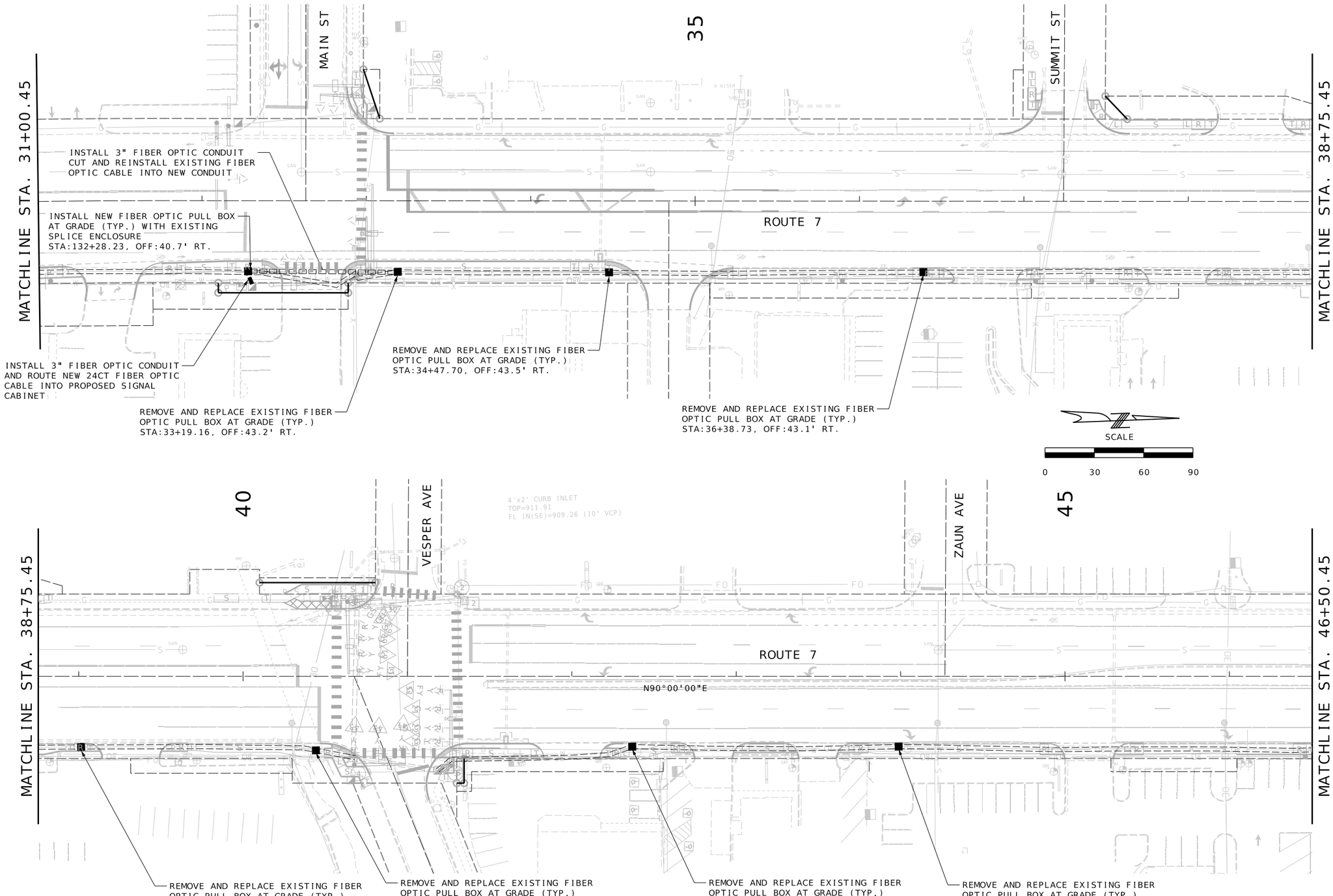
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

ITS
SHEET 2 OF 6

F:\2022\03001-03500\022-03371\40-Design\Microstation\JKU0010\plan_sheets\11 Signals\ITS\134_ITS_02_JKU0010_130.dgn 5:13:20 PM 10/6/2025



ITS
SHEET 3 OF 6

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED
10/6/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	135

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

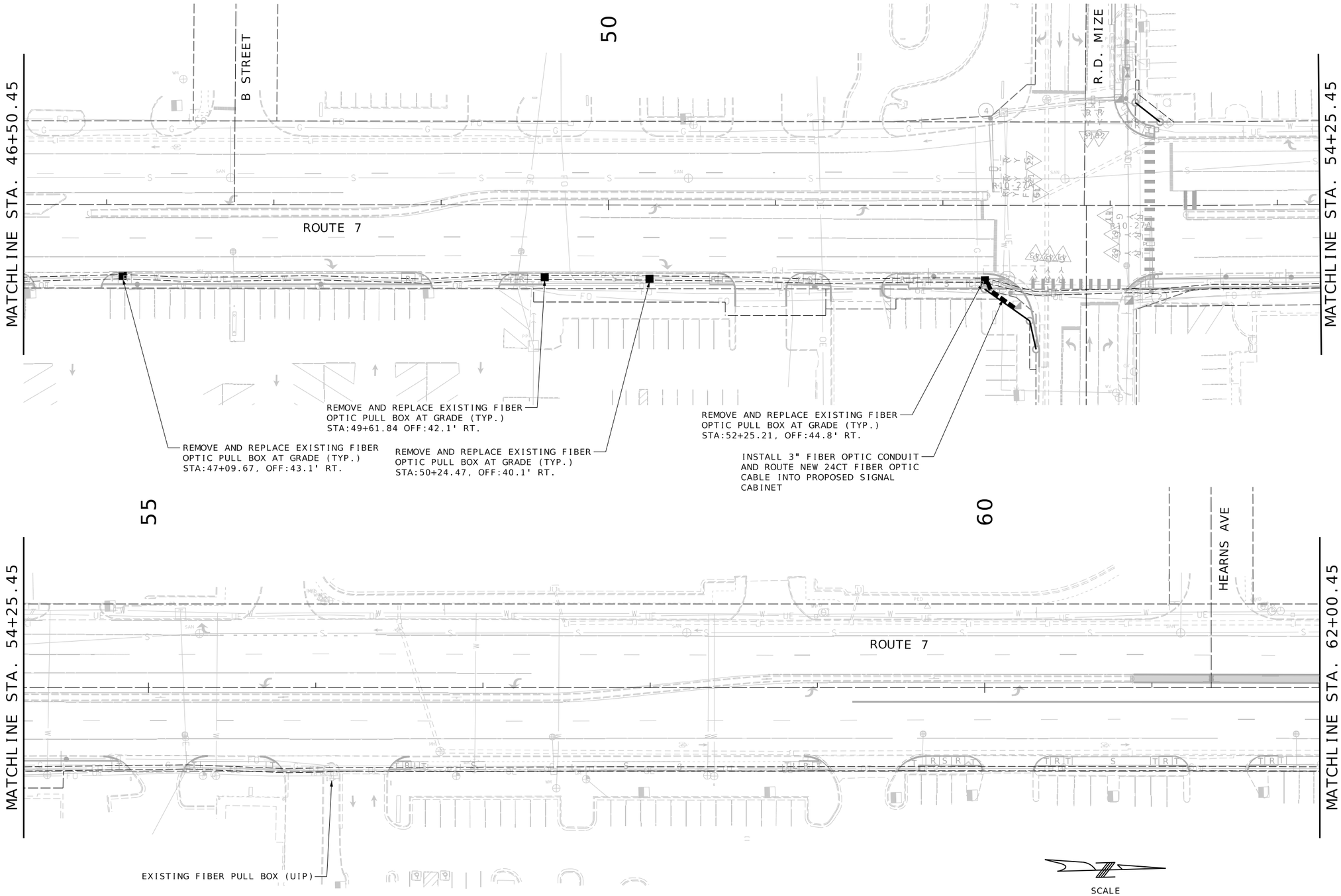
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

F:\2022\03001-03500\022-03371\40-Design\Microstation\JKU0010\plan_sheets\11 Signals\ITS\135_ITS_03_JKU0010_I30.dgn 5:13:25 PM 10/6/2025



JEREMY SCOTT STRETZ NUMBER PE-2017023856

JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED
10/6/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	136

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

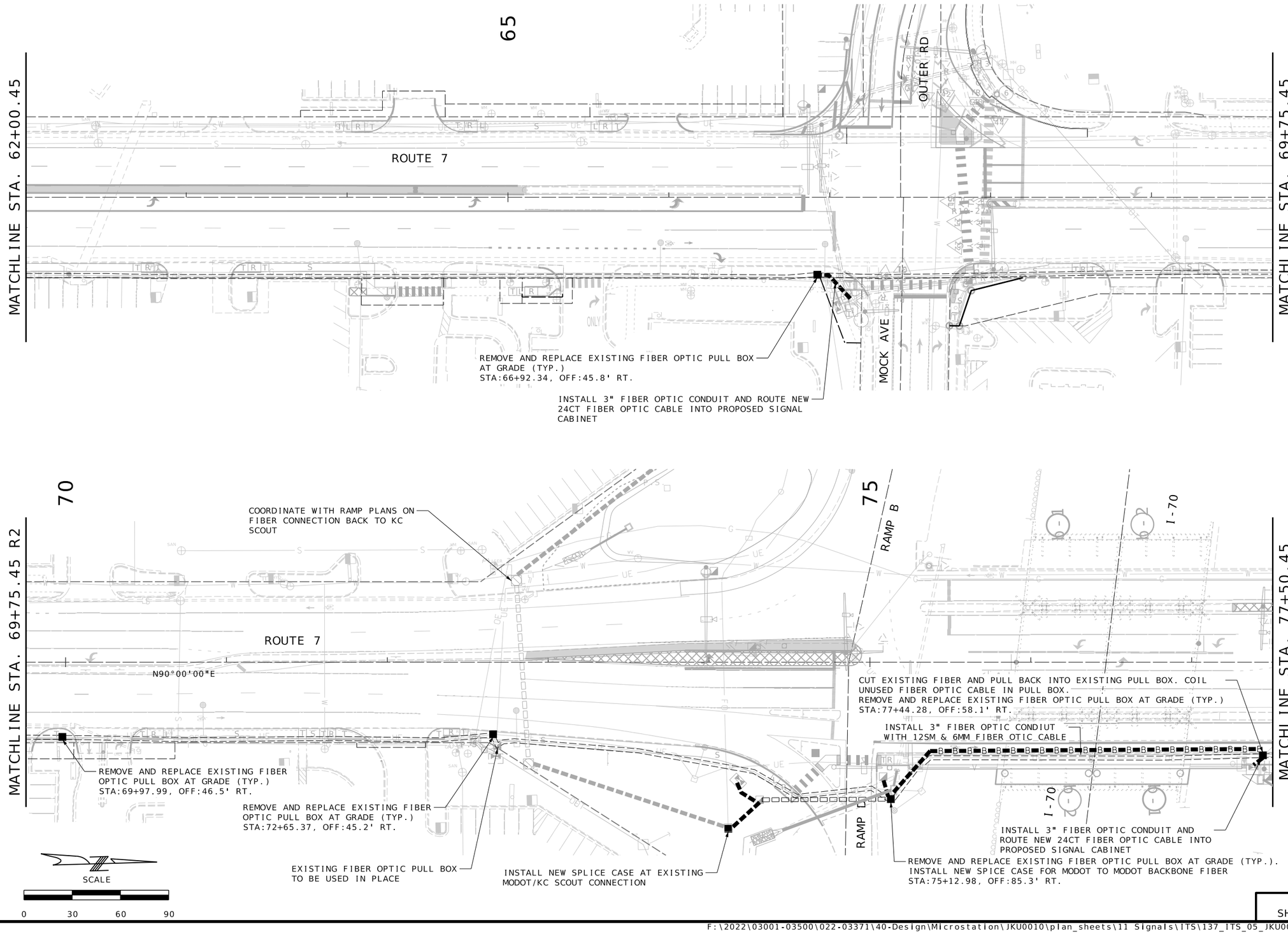
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

ITS
SHEET 4 OF 6

F:\2022\03001-03500\022-03371\40-Design\Microstation\JKU0010\plan_sheets\11 Signals\ITS\136_ITS_04_JKU0010_130.dgn 5:13:31 PM 10/6/2025



JEREMY SCOTT STRETZ NUMBER PE-2017023856

JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED
10/6/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	137

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

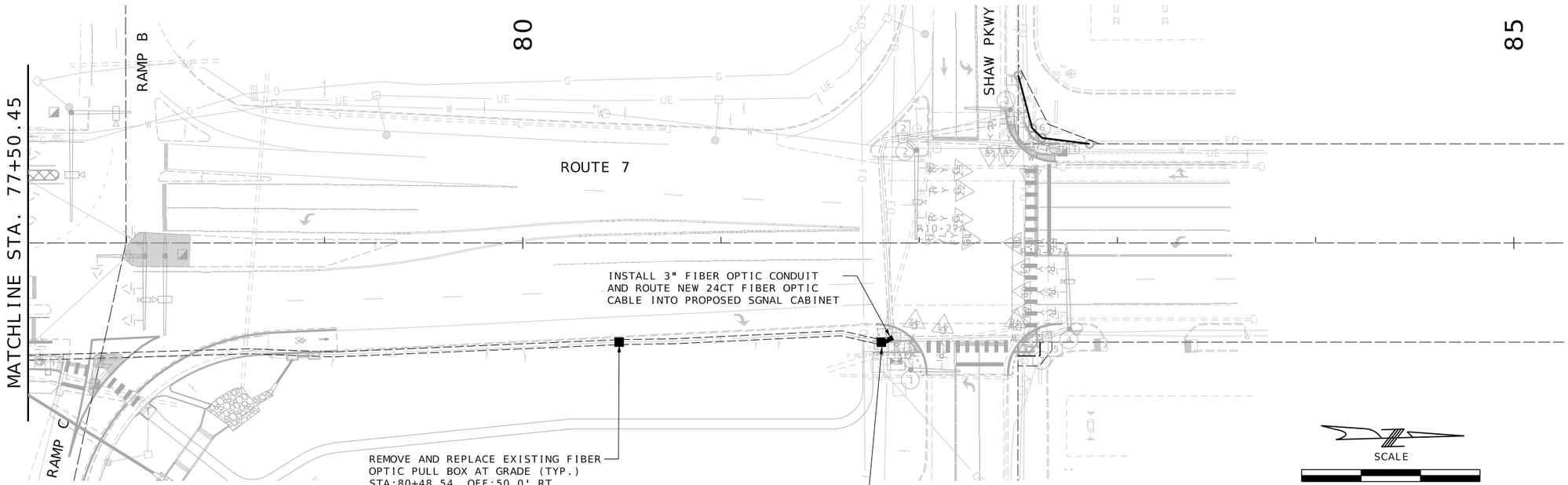
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

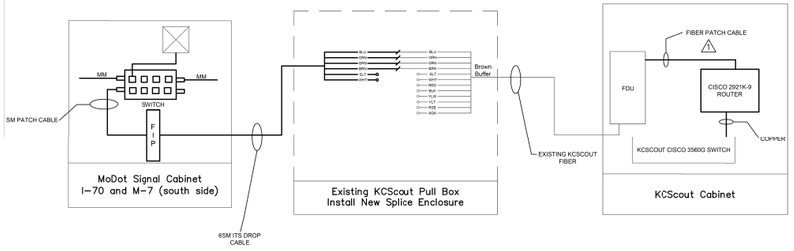
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

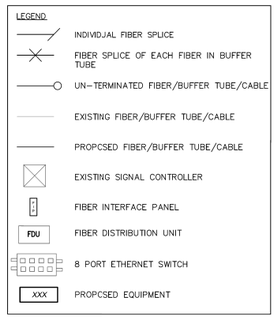
olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

ITS
SHEET 5 OF 6

F:\2022\03001-03500\022-03371\40-Design\Microstation\JKU0010\plan_sheets\11 Signals\ITS\137_ITS_05_JKU0010_I30.dgn 5:13:38 PM 10/6/2025





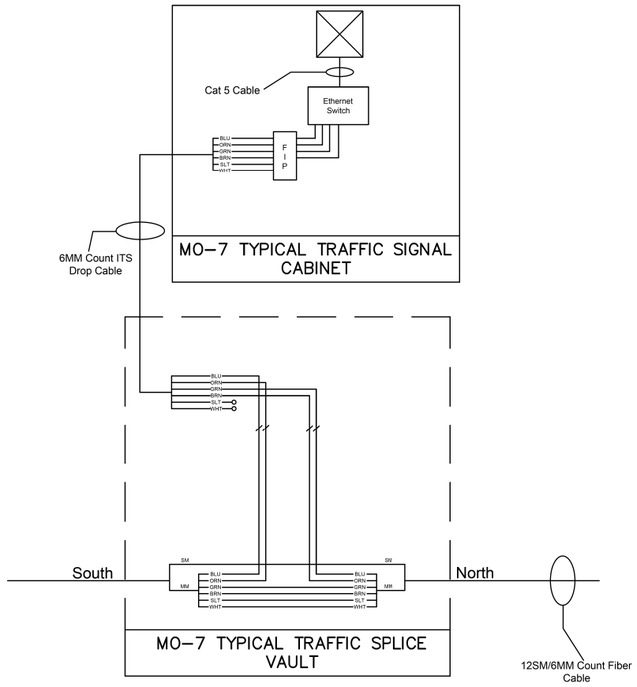


NOTES:

1. CONTRACTOR TO TERMINATE THE BLUE & ORANGE FIBERS IN BROWN BUFFER TUBE IN EXISTING FDU IN KCSCOUT CABINET.

2. CONTRACTOR TO SUPPLY PATCH CABLES AND CAT 5 ETHERNET CABLES IN CABINET.

3. CONTRACTOR TO COORDINATE WITH KCSCOUT STAFF FOR ACCESS TO KCSCOUT EQUIPMENT. CONTRACTOR SHALL NOT WORK ON KCSCOUT SYSTEM WITHOUT NOTICE TO KCSCOUT STAFF.



ITS
SHEET 6 OF 6

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED
10/6/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	138

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

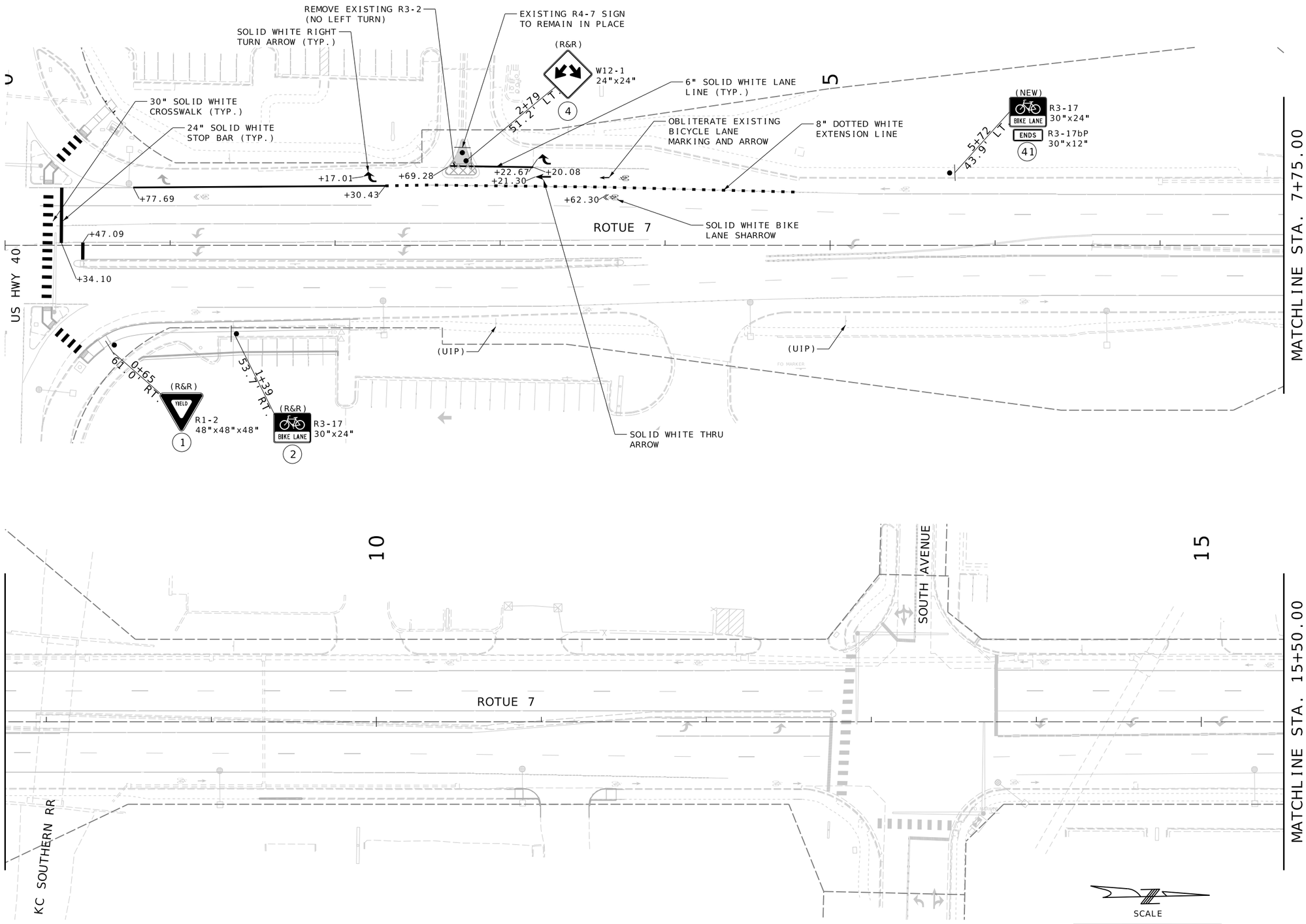
BRIDGE NO.

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592



PAVEMENT MARKING & SIGNING
SHEET 1 OF 6

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED
10/6/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	139

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

20

MATCHLINE STA. 15+50.00

ROUTE 7

MATCHLINE STA. 23+25.00

(UIP)

16+91
48.6' RT.

(R&R)
NO PARKING ANY TIME
R7-1
24"x30"
3

(R)
ADOPTER NAME
D14-1

19+53
48.5' RT.

(R&R)
W11-1
36"x36"
AHEAD
R3-17aP
24"x8"
5

(R&R)
NO PARKING ANY TIME
R7-1
24"x30"
6

22+79
48.2' RT.

23+02
42.8' RT.

(R&R)
W11-1
36"x36"
SHARE THE ROAD
W16-1P
30"x18"
7

25

30

WALNUT STREET

24" SOLID WHITE CROSSWALK (TYP.)

MATCHLINE STA. 23+25.00

MATCHLINE STA. 31+00.45

ROUTE 7

+05.90

(UIP)

23+92
42.4' RT.

RIGHT TURN YIELD TO BIKES REMOVE AND RESET
R4-4
36"x30"
8

+64.97

+47.91

24" SOLID WHITE STOP BAR (TYP.)

27+61
42.3' RT.

REMOVE AND RESET BY OTHERS

(R&R)
BIKE LANE
R3-17
24"x18"
9

28+90
42.7' RT.

29+27
42.2' RT.

(R&R)
SPEED LIMIT 35
R2-1
36"x48"
10

(R&R)
W11-1
36"x36"
SHARE THE ROAD
W16-1P
30"x18"
11

SCALE
0 30 60 90

PAVEMENT MARKING & SIGNING
SHEET 2 OF 6

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED
10/6/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	140

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

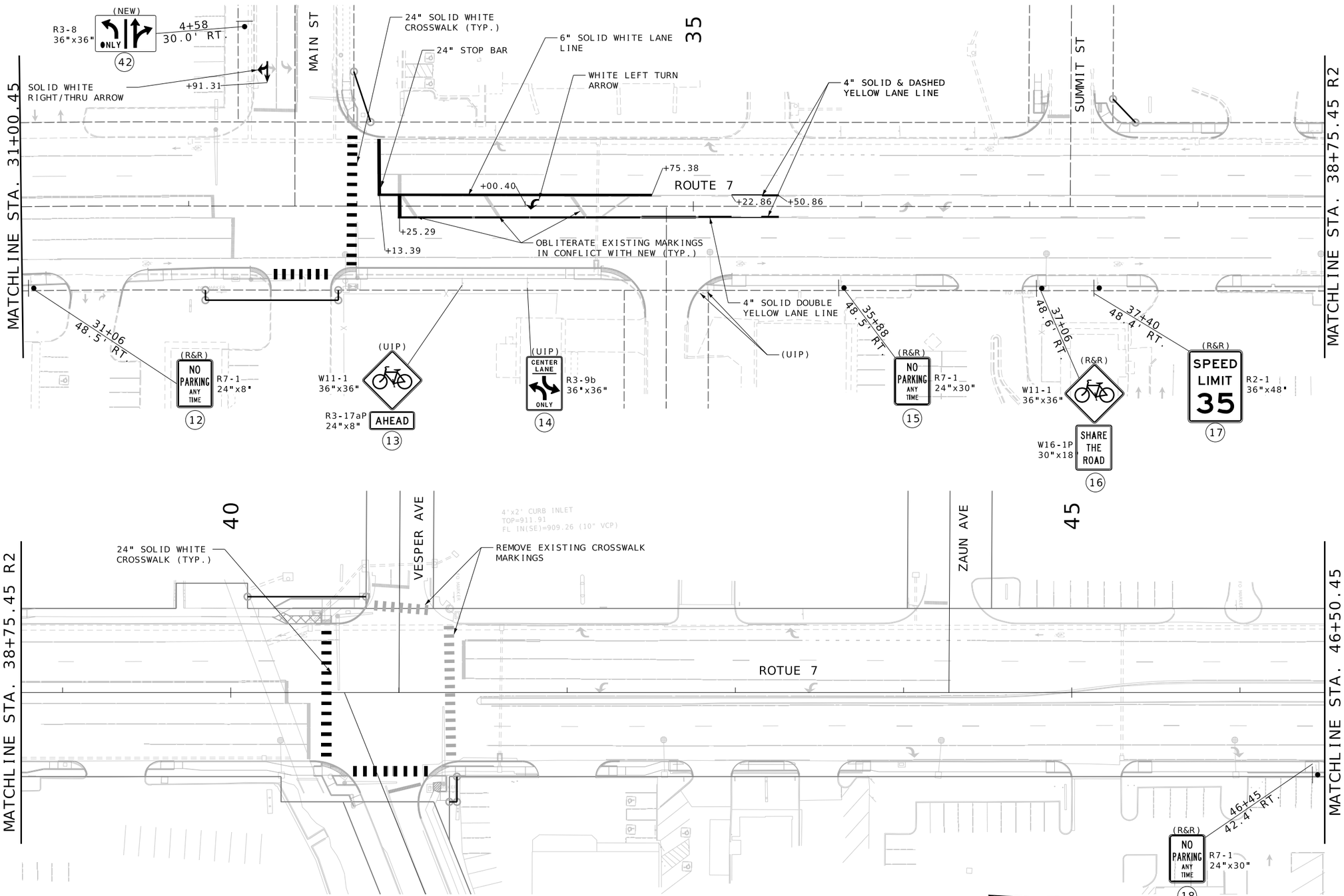
DATE	DESCRIPTION

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592



SCALE

0 30 60 90

PAVEMENT MARKING & SIGNING
SHEET 3 OF 6

JEREMY SCOTT STRETZ NUMBER PE-2017023856

JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED
10/6/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	141

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION

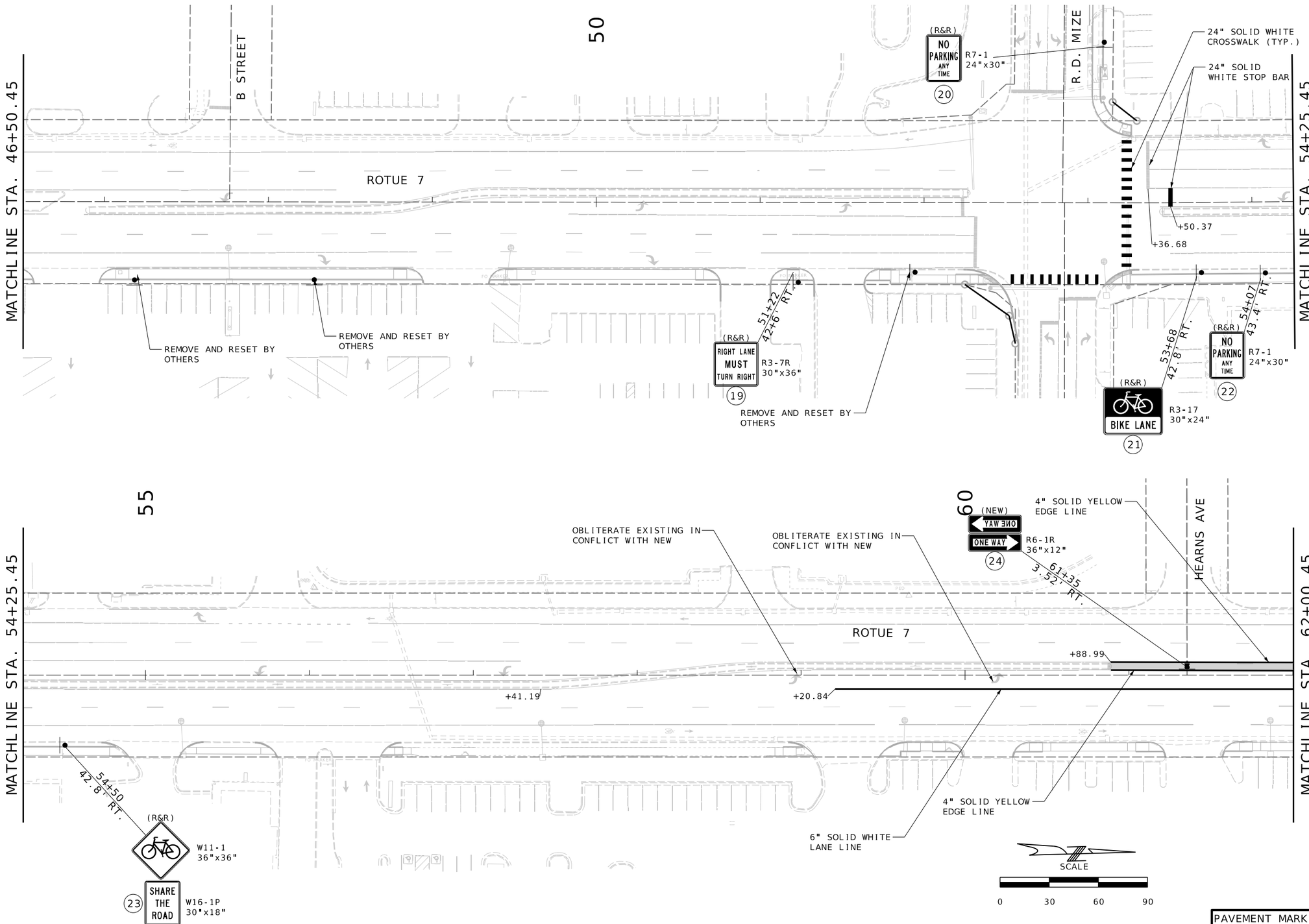
DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592



PAVEMENT MARKING & SIGNING
SHEET 4 OF 6

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED: 10/6/2025
ROUTE: 7 | STATE: MO
DISTRICT: KC | SHEET NO.: 142
COUNTY: JACKSON
JOB NO.: JKU0010
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.:

DESCRIPTION | DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

SCALE
0 30 60 90

MATCHLINE STA. 62+00.45

MATCHLINE STA. 69+75.45

MATCHLINE STA. 69+75.45

MATCHLINE STA. 77+50.45

ROUTE 7

ROTUE 7

OUTER RD

MOCK AVE

RAMP B

RAMP D

I-70

65

70

4" SOLID YELLOW EDGE LINE

6" SOLID WHITE LANE LINE

6" SOLID YELLOW EDGE LINE

24" WHITE MID BLOCKS

SOLID WHITE LEFT TURN ARROW

24" WHITE CROSSHATCH AT 45°

WHITE RIGHT TURN ARROW

WHITE LEFT TURN ARROW

WHITE THROUGH ARROW

SIGN TO BE REMOVED AND RESET BY OTHERS

4" SOILD WHITE LANE LINE (TYP.)

4" DOUBLE YELLOW LANE LINE (TYP.)

4" SOLID WHITE EDGE LINE (TYP.)

24" SOLID WHITE CROSSWALK (TYP.)

24" SOLID WHITE STOP BAR (TYP.)

OBLITERATE EXISTING MARKINGS IN CONFLICT WITH NEW

REMOVE EXISTING BRIDGE MOUNT AND INSTALL NEW SIGNS ON NEW BRIDGE MOUNTS

SEE PROJECT JKU0415 FOR PAVEMENT MARKING DETAILS

REMOVE EXISTING SIGN AND INSTALL NEW SIGN ON EXISTING BRIDGE MOUNT

4" SOLID YELLOW EDGE LINE

6" SOLID WHITE EDGE LINE

SOLID WHITE BIKE LANE SYMBOL (TYP.)

24" SOLID WHITE MID BLOCKS

(UIP)

(NEW) ONE WAY R6-1R 36"x12" (27) 4.73' RT. 63+23

(NEW) ONE WAY R6-1R 36"x12" (28) 4.73' RT. 64+42

(NEW) ONE WAY R6-1R 36"x12" (26) 4.73' RT. 63+03

(R) BIKE LANE R3-17 30"x24" (25)

(R&R) R3-17 30"x24" BIKE LANE M6-3 21"x15" M6-4 21"x15" (29) 0+93 36.8' LT.

(30) NEW R3-8 SIGN 30"X48" 2+49 31.5' LT.

(NEW) YIELD R1-2 48"x48" (32) 0+98 42.9' RT.

(NEW) OM1-1 18"x18" (31) 67+86 36.5' LT.

(NEW) WEST 70 ONLY D15-1 96"x60" (37)

(NEW) WEST 70 ONLY D15-1 96"x60" (38)

(NEW) EAST 70 ONLY D15-1 48"x84" (39)

(40) REMOVE AND REPLACE EXISTING R3-5a SIGN

(R) MoDOT ADOPT-A-HIGHWAY Litter Cleanup ADOPTER NAME (33) D14-1

(R&R) ONE WAY R6-1L 36"x12" (34) 77+45 66.3' RT.

+62.41 +68.30 +68.25 +82.65 +77.07 +63.28 +24.62 +62.99 +04.67 +52.41 +38.04 +50.49 +63.10 +66.67 +92.70 +04.50 +99.54 +29.43 +09.27 +20.81 +96.76 +97.75 +16.03 +06.05 +83.56 +10.03 +08.56 +83.60 +39.59 +72.78 +03.09 +77.69 +85.93 +84.81 +87.69 +67.46 +25.21

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED 10/6/2025

ROUTE 7 | STATE MO

DISTRICT KC | SHEET NO. 143

COUNTY JACKSON

JOB NO. JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

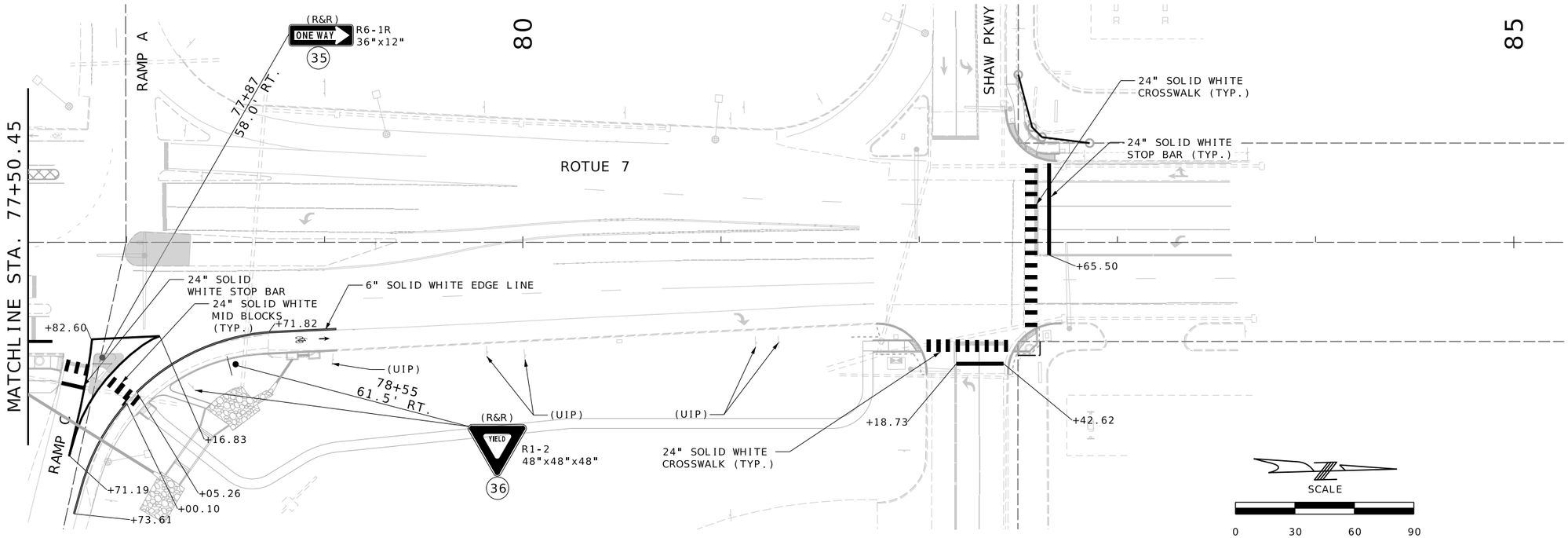
DESCRIPTION | DATE

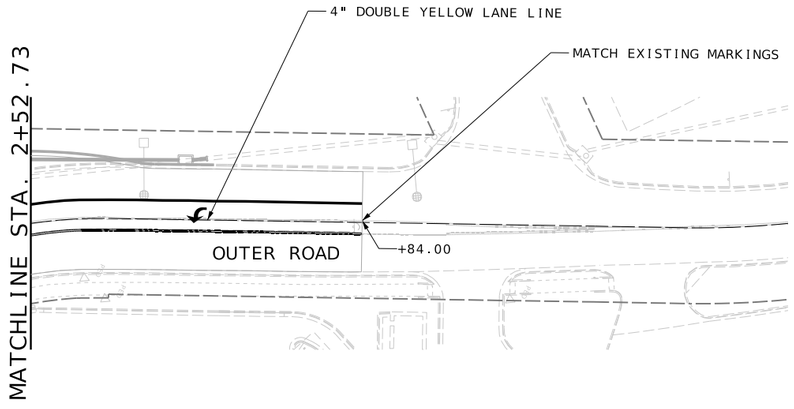
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

PAVEMENT MARKING SHEET 5 OF 6





PAVEMENT MARKING
SHEET 6 OF 6

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED
10/6/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	144

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

SIGNS					PIPE POST*						STEEL POST*						BACKING BARS** 2" x 3/8" BARS @ 2.55 LBS PER FT				TOTAL ITEM NO. 9031210	U-CHANNEL POST ITEM NO. 9031254	PERFORATED SQUARE STEEL TUBE POST 2.5 IN.						CONCRETE FOOTINGS EMBEDDED	CONCRETE FOOTINGS BOLT DOWN
SIGN NO.	SIGN SIZE	STATION	HORZ CLEAR IF NOT STD	LOCATION	SIGN DTL. SHT. NO.	PIPE SIZE	POST NO. 1	POST NO. 2	LBS PER FT	TOTAL ITEM NO. 9031220	POST DES NO.	POST NO. 1	POST NO. 2	POST NO. 3	LBS PER FT	TOTAL	NO. EACH	LGTH	TOTAL	TOTAL			POST NO. 1	POST NO. 2	TOTAL ITEM NO. 9031280	2.25" INSERT 16 FT ITEM NO. 9031272A	ANCHORS DRIVEN 7-GA. ITEM NO. 9031281	ANCHORS CONCRETE 7-GA. ITEM NO. 9031285	BREAKWAY ASSEMBLY	ITEM NO. 9031010	ITEM NO. 9031020
						IN.	LF	LF		LBS		LF	LF	LF		LBS		IN.	LF	LBS	LBS	LF	LF	LF				EACH	CY	CY
1	48''X48''X48''	0+65	61.0' RT.	Route 7																			16		16			1			
2	24''X18''	1+39	53.7' RT.	Route 7																			16		16			1			
3	24''X30''	16+91	48.6' RT.	Route 7																			16		16			1			
4	30''X24''	17+60	47.4' RT.	Route 7																			16		16			1			
5	ASSEMBLY	19+53	48.5' RT.	Route 7																			16		16			1			
6	24''X30''	22+79	48.2 RT.	Route 7																			16		16			1			
7	ASSEMBLY	22+75	42.8' RT.	Route 7																			16		16			1			
8	36''X30''	23+42	42.4' RT.	Route 7																			16		16			1			
9	24''X18''	27+61	42.3' RT.	Route 7																			16		16			1			
10	36''X48''	28+90	42.7' RT.	Route 7																			16		16			1			
11	ASSEMBLY	29+27	42.2' RT.	Route 7																			16		16			1			
12	24''X30''	31+06	48.5' RT.	Route 7																			16		16			1			
13	ASSEMBLY	33+63	48.8' RT.	Route 7																			16		16			1			
14	36''X36''	34+02	48.7' RT.	Route 7																			16		16			1			
15	24''X30''	35+88	48.5' RT.	Route 7																			16		16			1			
16	ASSEMBLY	37+06	48.6' RT.	Route 7																			16		16			1			
17	36''X48''	37+40	48.4' RT.	Route 7																			16		16			1			
18	24''X30''	46+45	42.4' RT.	Route 7																			16		16			1			
19	30''X36''	51+22	42.6' RT.	Route 7																			16		16			1			
20	24''X30''	53+09	47.91' RT	Route 7																			16		16			1			
21	24''X18''	53+68	42.8' RT.	Route 7																			16		16			1			
22	24''X30''	54+07	43.4' RT.	Route 7																			16		16			1			
23	ASSEMBLY	54+50	42.8' RT.	Route 7																			16		16			1			
24	32''X12''	61+35	3.52' RT.	Route 7																			16		16			1			
25	24''X18''	62+26	42.7' RT.	Route 7																			16		16			1			
26	36''X12''	63+03	4.73' RT	Route 7																			16		16			1			
27	36''X12''	63+23	4.73' RT.	Route 7																			16		16			1			
28	36''X12''	64+42	4.73' RT.	Route 7																			16		16			1			
29	ASSEMBLY	0+93	36.8' LT.	Route 7																			16		16			1			
30	30''X48''	2+49	31.5' LT.	Route 7																			16		16			1			
31	18''X18''	67+86	36.5' LT.	Route 7																			16		16			1			
32	48''X48''X48''	0+98	42.9' RT.	Route 7																			16		16			1			
33	30''X24''	69+96	42.8' RT.	Route 7																			16		16			1			
34	36''X12''	77+45	66.3' RT.	Route 7																			16		16			1			
35	36''X12''	77+88	59.1' RT.	Route 7																			16		16			1			
36	48''X48''X48''	78+52	52.8' RT.	Route 7																			16		16			1			
SUBTOTAL																									576			36			
TOTAL																									576			36			

✳ BREAKAWAY ASSEMBLY IS INCIDENTAL FOR PIPE AND STRUCTURAL STEEL POSTS
✳✳ REFER TO MODOT DETAIL 903.03BL FOR INSTALLATION OF DELINEATORS

ROUND PIPE POST AND FOOTING DATA TABLE

NOM. SIZE	WEIGHT		STUB LENGTH	FOOTING		CONCRETE
(IN.)	LBS/FT	LBS/IN		DIA.	DEPTH	C.Y.
2½	5.79	0.48	4'- 3½"	12"	4'-6"	0.13
3	7.58	0.63	4'- 3½"	12"	4'-6"	0.13
4	10.79	0.90	5'- 3½"	18"	5'-6"	0.36

POST AND FOOTING DATA TABLE

POST					FOOTING								
POST DES. NO.	NOM. SIZE	WEIGHT LBS/FT	WEIGHT LBS/IN	STUB LENGTH	DIA.	LEVEL GROUND DEPTH	LEVEL GROUND C.Y.	6:1 GRADE DEPTH	6:1 GRADE C.Y.	4:1 GRADE DEPTH	4:1 GRADE C.Y.	3:1 OR 2:1 GRADE DEPTH	3:1 OR 2:1 GRADE C.Y.
1	W6	9.0	0.75	3'-0"	15"	3'-0"	0.14	3'-2"	0.15	3'-3"	0.16	3'-6"	0.17
2	W6	15.0	1.25	4'-0"	24"	4'-0"	0.47	4'-2"	0.50	4'-3"	0.51	4'-6"	0.54
3	W8	18.0	1.50	4'-6"	28"	4'-6"	0.71	4'-8"	0.73	4'-9"	0.74	5'-0"	0.78
4	W10	22.0	1.83	5'-0"	36"	5'-0"	1.31	5'-2"	1.36	5'-3"	1.39	5'-6"	1.45
5	W10	26.0	2.17	5'-0"	36"	5'-0"	1.31	5'-3"	1.37	5'-5"	1.43	5'-9"	1.52
6	W12	35.0	2.92	5'-6"	36"	5'-6"	1.44	5'-9"	1.52	5'-11"	1.56	6'-3"	1.65

SIGNING
SHEET 1 OF 3

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED 10/6/2025
ROUTE 7 | STATE MO
DISTRICT KC | SHEET NO. 145
COUNTY JACKSON
JOB NO. JKU0010
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DESCRIPTION | DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

STANDARD SIGN ASSEMBLIES

SIGN NO.	STATION	LOCATION	SH	SH	SH	SH	SH	SH	SH	SH	SH	SH	SH	SH	SH	SH	SH	SH	SH	SH	SH	ST	ST
			TRUCK	SPEED LIMIT	ONLY	ONLY	HEAVY LANE MUST TURN RIGHT			BIKE LANE	AHEAD	ENDS	BEGIN RIGHT TURN LANE YIELD HERE			NO TURNS		SHARE THE ROAD				WEST	EAST
			48"X48"X48"	36"X48"	36"X30"	36"X36"	30"X36"	30"X48"	36"X36'	24"X18"	24"X8"	30"X12"	36"X30"	36"X12"	36'X12"	24"X30"	36"X36"	30"X18"	21"X15'	21"X15"	18"X18"	93"X60"	48"X84"
			R1-2	R2-1	R3-5a	R3-5	R3-7R	R3-8	R3-8	R3-17	R3-17aP	R3-17bP	R4-4	R6-1L	R6-1R	R7-1	W11-1	W16-1P	M6-3	M6-4	OM1-1	D15-1	D15-1
1	0+65	Route 7	1																				
2	1+39	Route 7								1													
3	16+91	Route 7														1							
4	17+60	Route 7																					
5	19+53	Route 7									1						1						
6	22+79	Route 7														1							
7	22+75	Route 7															1	1					
8	23+42	Route 7											1										
9	27+61	Route 7								1													
10	28+90	Route 7		1																			
11	29+27	Route 7															1	1					
12	31+06	Route 7														1							
13	33+63	Route 7									1						1						
14	34+02	Route 7				1																	
15	35+88	Route 7														1							
16	37+06	Route 7															1	1					
17	37+40	Route 7		1																			
18	46+45	Route 7														1							
19	51+22	Route 7					1																
20	53+09	Route 7														1							
21	53+68	Route 7								1													
22	54+07	Route 7														1							
23	54+50	Route 7															1	1					
24	61+35	Route 7													1								
25	62+26	Route 7								1													
26	63+03	Route 7													1								
27	63+23	Route 7													1								
28	64+42	Route 7													1								
29	0+93	Route 7								1									1	1			
30	2+49	Route 7						1															
31	67+86	Route 7																			1		
32	0+98	Route 7	1																				
34	77+45	Route 7												1									
35	77+88	Route 7													1								
36	78+52	Route 7	1																				
37	MOUNTED ON I-70 BRIDGE OVERPASS ALONG ROUTE 7																					1	
38																						1	
39																							1
40					1																		
41	5+72	Route 7										1											
42	4+58	MAIN ST							1														
		TOTAL	3	2	1	1	1	1	1	5	2	1	1	1	5	7	6	4	1	1	1	2	1

SIGNING
SHEET 2 OF 3

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED
10/6/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	146

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

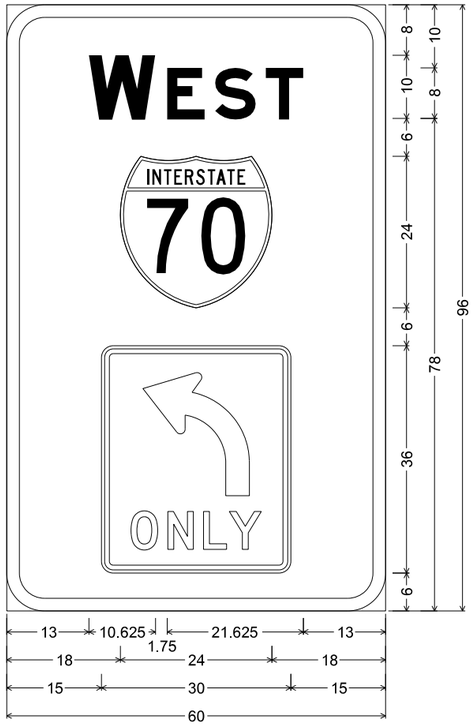
BRIDGE NO.

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

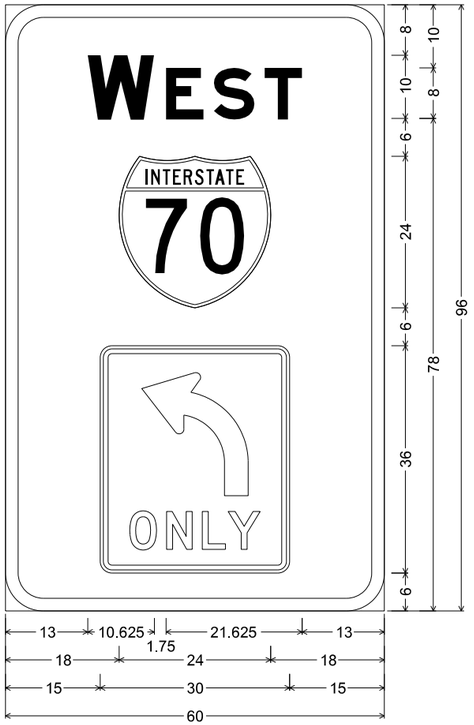
olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592



D15-1 ST-STRUCTURAL;
6.000" Radius, 2.000" Border, White on, Green;
"WEST", E Mod; Interstate 70 12.000" C;
R3-5L_Decal;
Table of letter and object lefts

W	E	S	T
13.000	25.375	33.000	41.000

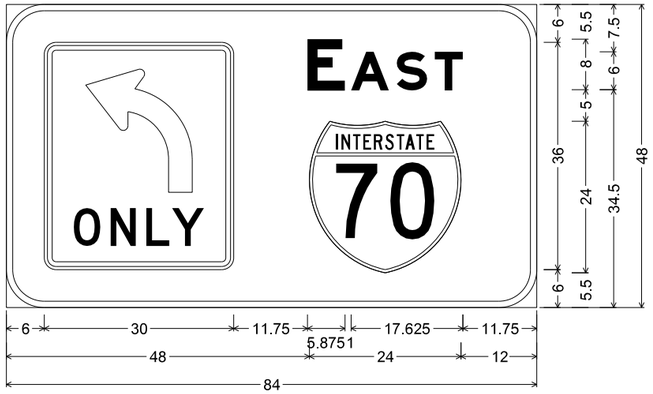
18.000
15.000



D15-1 ST-STRUCTURAL;
6.000" Radius, 2.000" Border, White on, Green;
"WEST", E Mod; Interstate 70 12.000" C;
R3-5L_Decal;
Table of letter and object lefts

W	E	S	T
13.000	25.375	33.000	41.000

18.000
15.000



D15-1 ST-STRUCTURAL;
6.000" Radius, 1.000" Border, White on, Green;
R3-5L Decal; "EAST", E Mod; Interstate 70 12.000" C;
Table of letter and object lefts

	E	A	S	T
6.000	47.750	54.625	61.875	67.875

48.000

SIGN SUMMARY

STANDARD SIGN OR SPECIAL SIGN NO.	SIGN DETAIL SHEET NO.	NO. EACH	SIZE, TYPE & SQUARE FEET		
			SIZE	FLAT SHEET SH ITEM NO. 9035004A	STRUCTURAL ST ITEM NO. 9035011A
R1-2	STD.	3	48"X48"X48"	20.8	
R2-1	STD.	2	36"X48"	24.0	
R3-5	STD.	1	36"X48"	12.0	
R3-5a	STD.	1	36"X30"	7.5	
R3-7R	STD.	1	30"X36"	7.5	
R3-8	STD.	2	30"X48"	19.0	
R3-17	STD.	6	24"X18"	18.0	
R3-17aP	STD.	2	24"X8"	2.7	
R3-17bP	STD.	1	30"X12"	2.5	
R4-4	STD.	1	36"X30"	7.5	
R6-1L	STD.	1	36"X12"	3.0	
R6-1R	STD.	5	36"X12"	15.0	
R7-1	STD.	7	24"X30"	35.0	
W11-1	STD.	6	36"X36"	54.0	
W12-1	STD.	1	24"X24"	4.0	
W16-1P	STD.	4	30"X18"	15.0	
M6-3	STD.	1	21"X15"	2.2	
M6-4	STD.	1	21"X15"	2.2	
OM1-1	STD.	1	18"X18"	2.3	
D15-1	3	2	60"X96"		80.0
D15-1	3	1	84"X48"		28.0
SUBTOTAL				254.2	108.0
TOTAL			TOTAL	254	108

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED
10/6/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	147

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

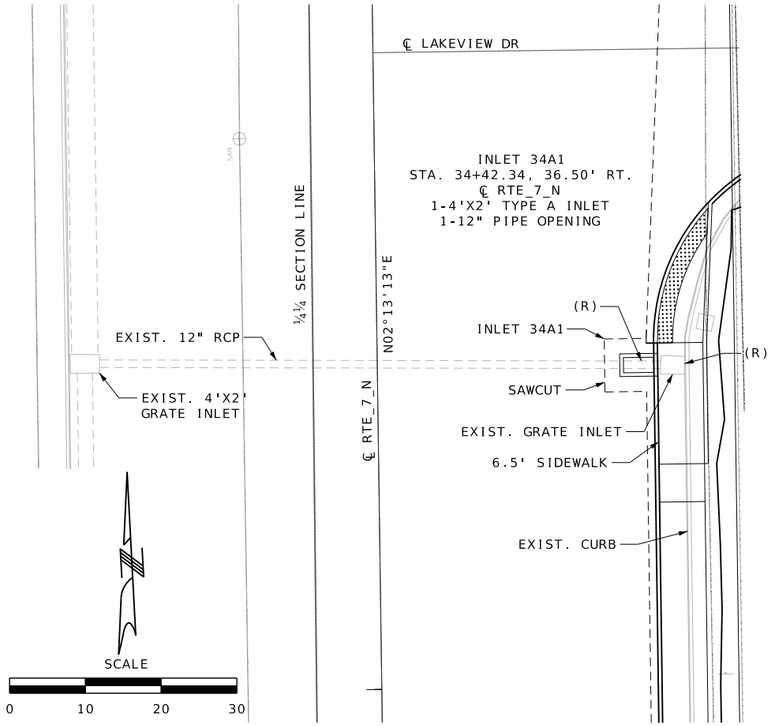
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

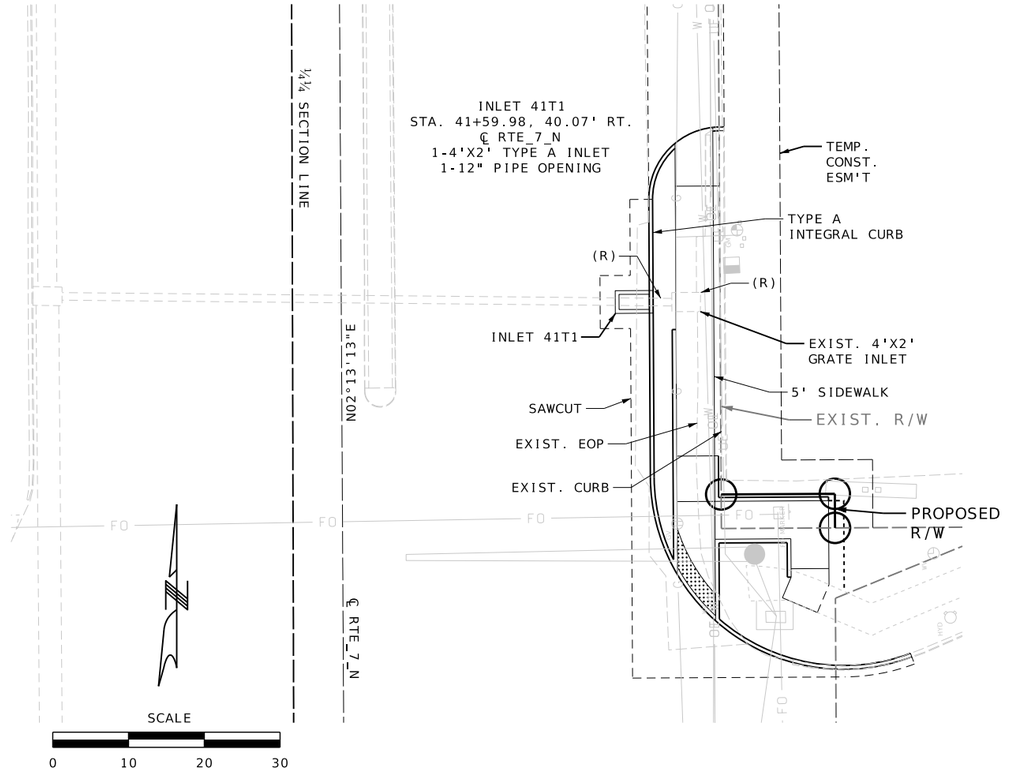
DESCRIPTION

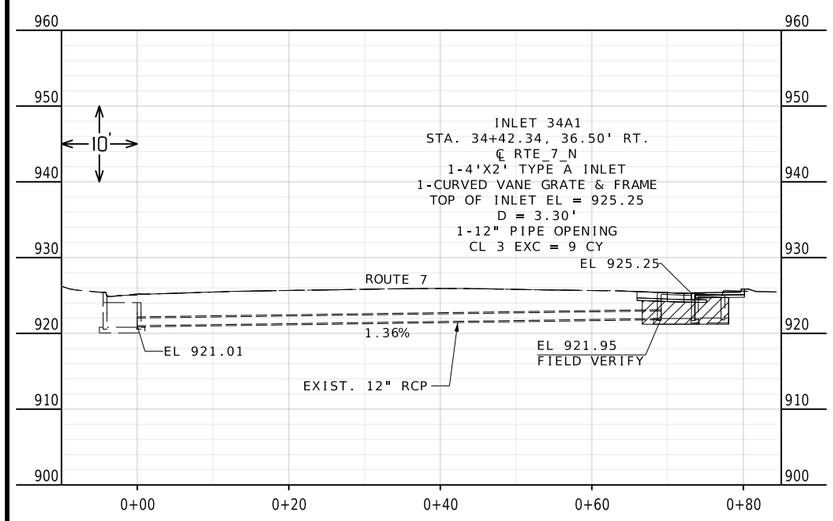
DATE

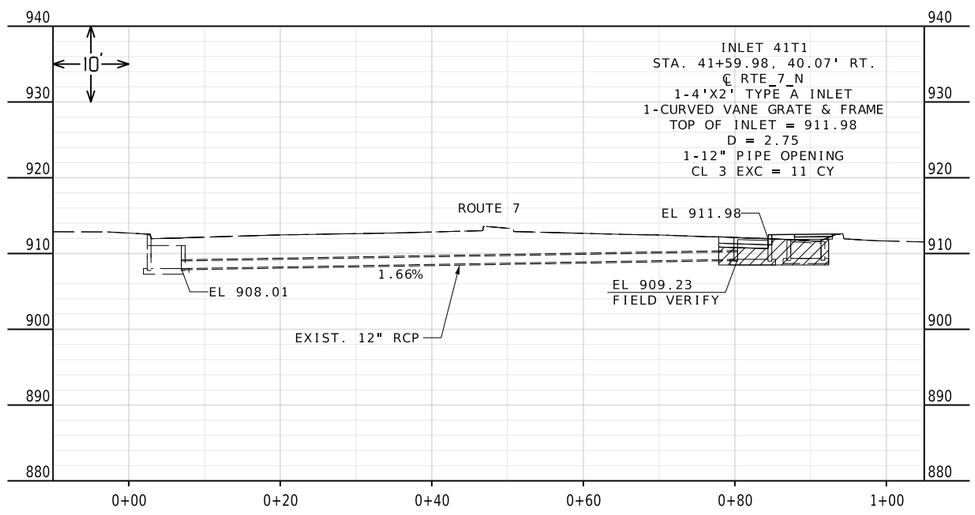
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592









NOTE:
SEE STANDARD PLANS
614.11 FOR CURVED VANE GRATE AND FRAME
726.30 FOR RIGID INSTALLATION METHODS - ALL PIPES
731.10 FOR PRECAST DROP INLET

CULVERT SECTION
SHEET 1 OF 8

REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
8/1/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	148

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

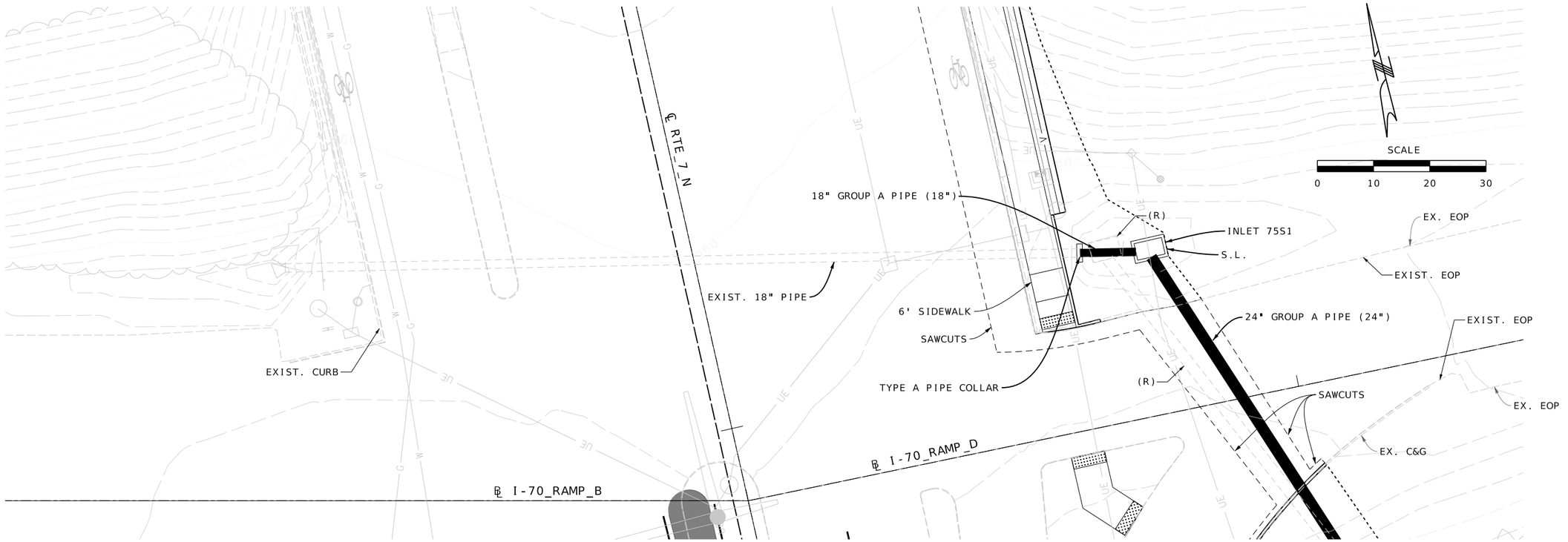
BRIDGE NO.

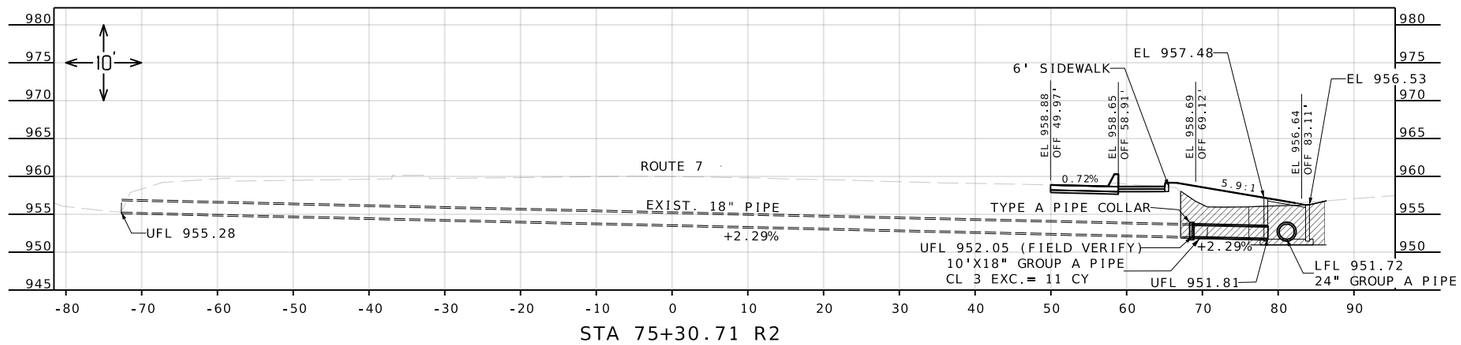
DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592





STA 75+30.71 R2

INLET 75S1
STA. 75+14.81, 79.81' RT.
℄ RTE_7_N
1-5'X3' TYPE S-3 INLET
1-GRATE & BEARING PLATE
TOP OF INLET EL.= 957.48
D= 5.71'
1-18" PIPE OPENING
1-24" PIPE OPENING
CL 3 EXC.= 16 CY

NOTE:
SEE STANDARD PLANS
604.40 PIPE COLLARS
614.10 FOR GRATES AND BEARING PLATES
726.30 FOR RIGID INSTALLATION METHODS - ALL PIPES
731.10 FOR PRECAST DROP INLET

CULVERT SECTION
SHEET 2 OF 8

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
8/1/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	149

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

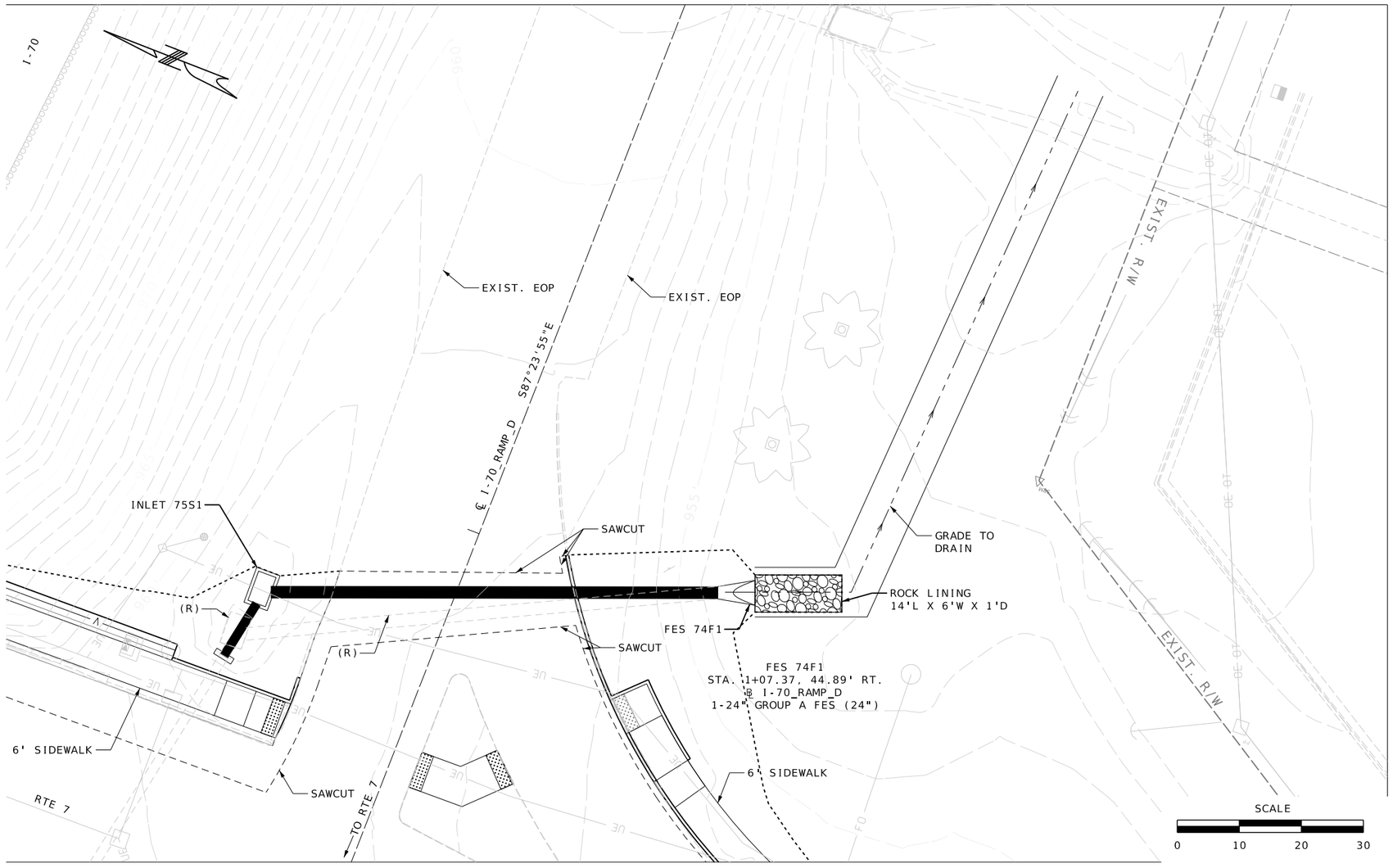
DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

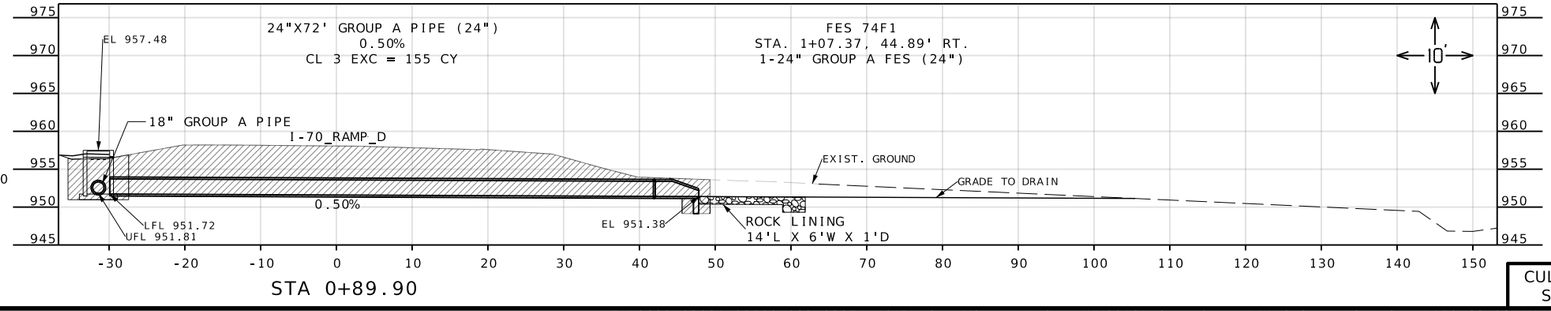
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

F:\2022\03001-03500\022-03371\40-Design\Microstation\JKU0010\plan_sheets\14 Culvert Sections\149_CS_02_JKU0010_I10.dgn 1:01:36 PM 8/1/2025



INLET 75S1
STA. 75+14.81, 79.81' RT.
℄ RTE_7_N
1-5'X3' TYPE S-3 INLET
1-GRATE & BEARING PLATE
TOP OF INLET EL.= 957.48
D= 5.71'
1-18" PIPE OPENING
1-24" PIPE OPENING
SEE STD. PLANS 614.10 & 731.10
CL 3 EXC.= 16 CY



STA 0+89.90

NOTES:
SEE STANDARD PLANS
609.70 FOR ROCK LINING FOR CULVERT OUTLETS
614.10 FOR GRATES AND BEARING PLATES
726.30 FOR RIGID INSTALLATION METHODS - ALL PIPES
731.10 FOR PRECAST DROP INLET
732.00 FOR FLARED END SECTION

CULVERT SECTION
SHEET 3 OF 8

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
8/1/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	150

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

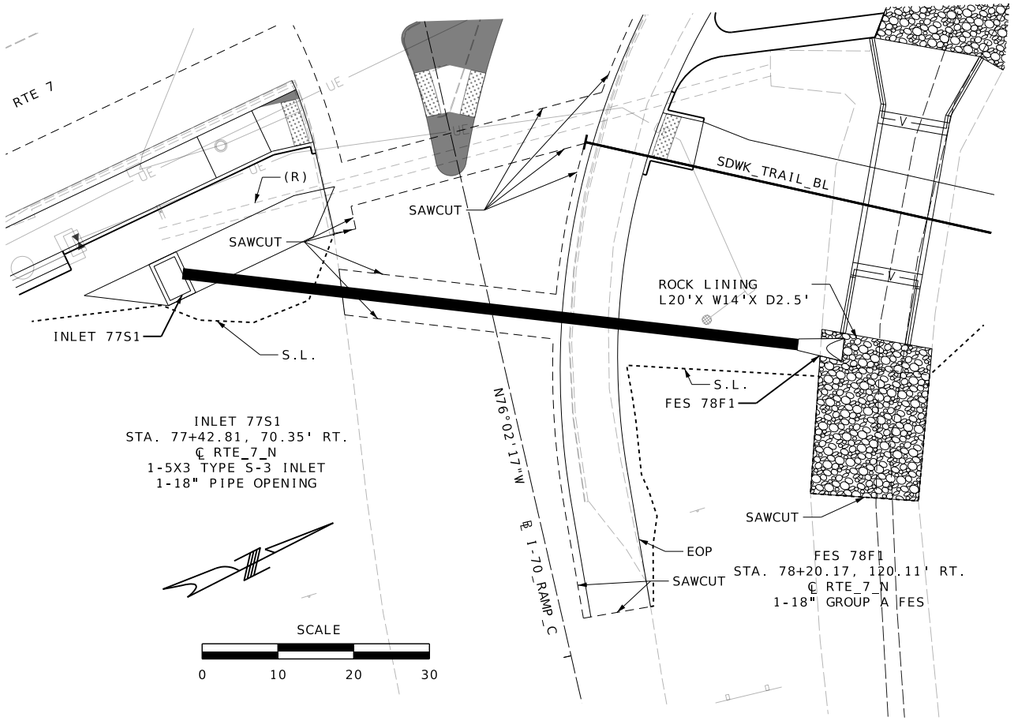
BRIDGE NO.

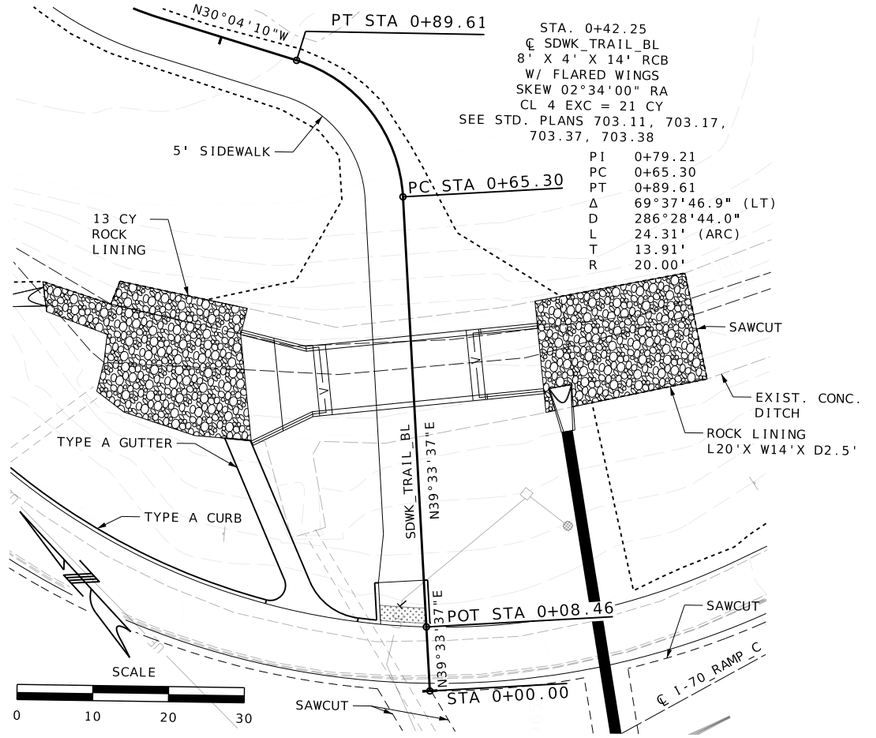
DESCRIPTION	DATE

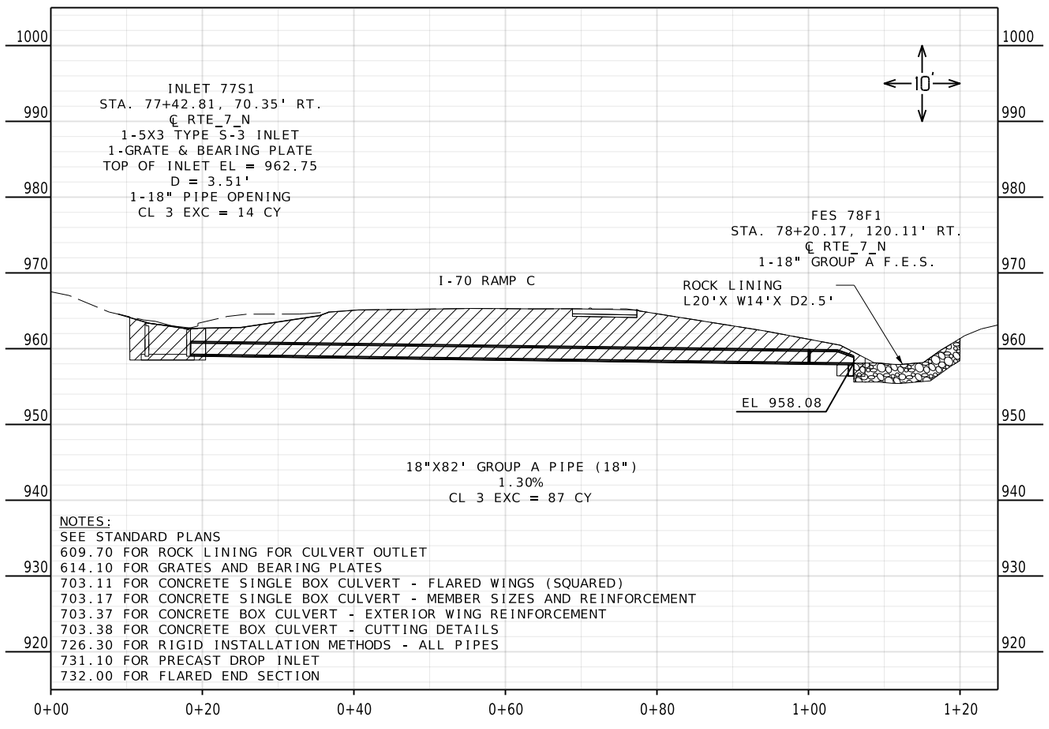
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

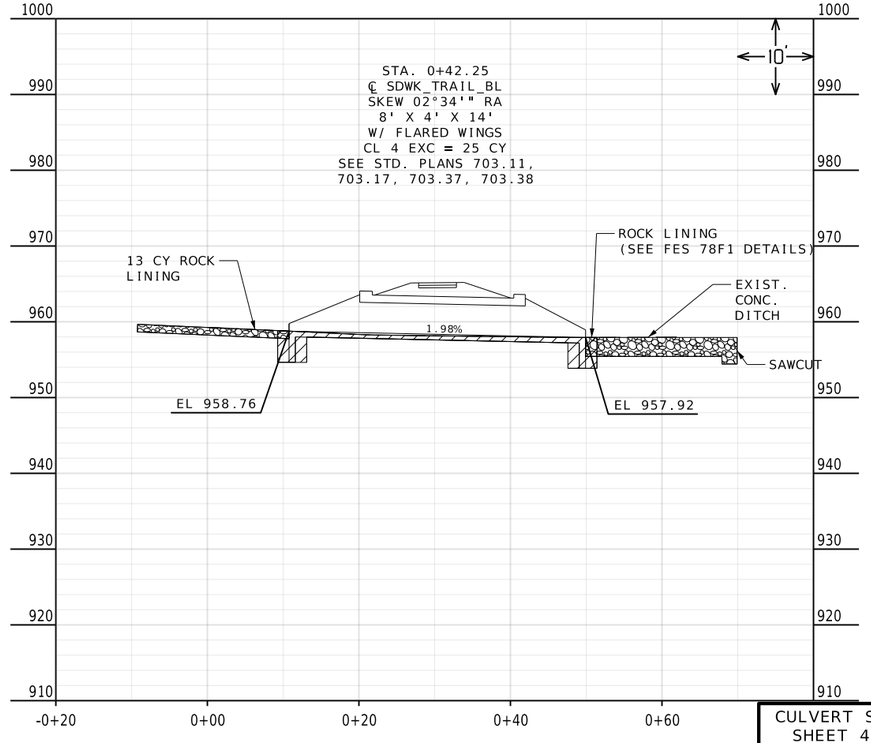
olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592







NOTES:
SEE STANDARD PLANS
609.70 FOR ROCK LINING FOR CULVERT OUTLET
614.10 FOR GRATES AND BEARING PLATES
703.11 FOR CONCRETE SINGLE BOX CULVERT - FLARED WINGS (SQUARED)
703.17 FOR CONCRETE SINGLE BOX CULVERT - MEMBER SIZES AND REINFORCEMENT
703.37 FOR CONCRETE BOX CULVERT - EXTERIOR WING REINFORCEMENT
703.38 FOR CONCRETE BOX CULVERT - CUTTING DETAILS
726.30 FOR RIGID INSTALLATION METHODS - ALL PIPES
731.10 FOR PRECAST DROP INLET
732.00 FOR FLARED END SECTION



CULVERT SECTION
SHEET 4 OF 8

REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
8/1/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	151

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION

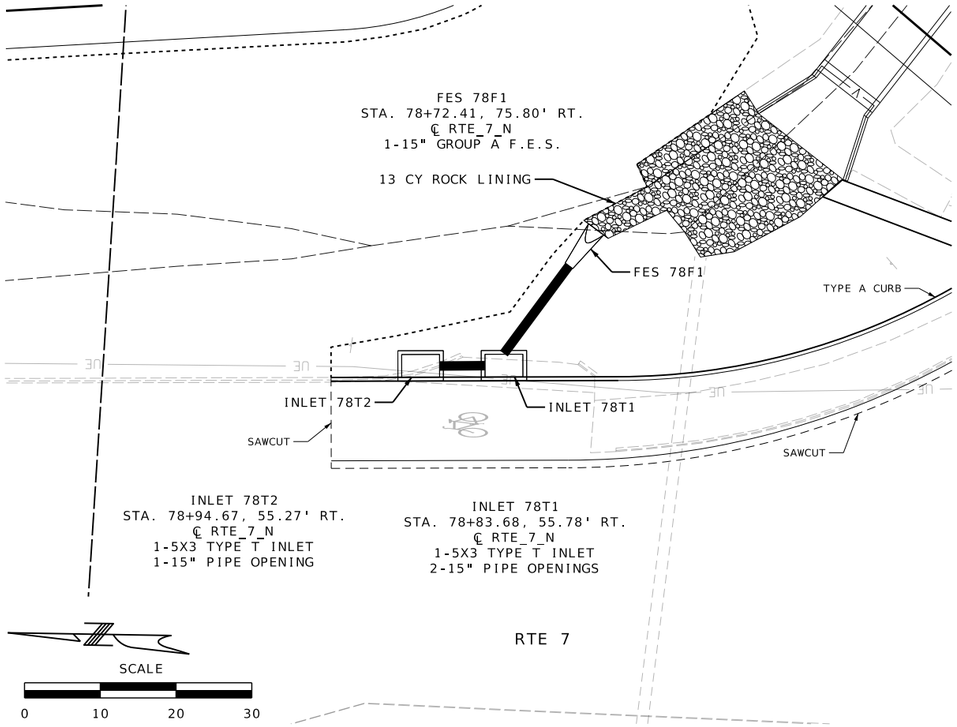
DATE

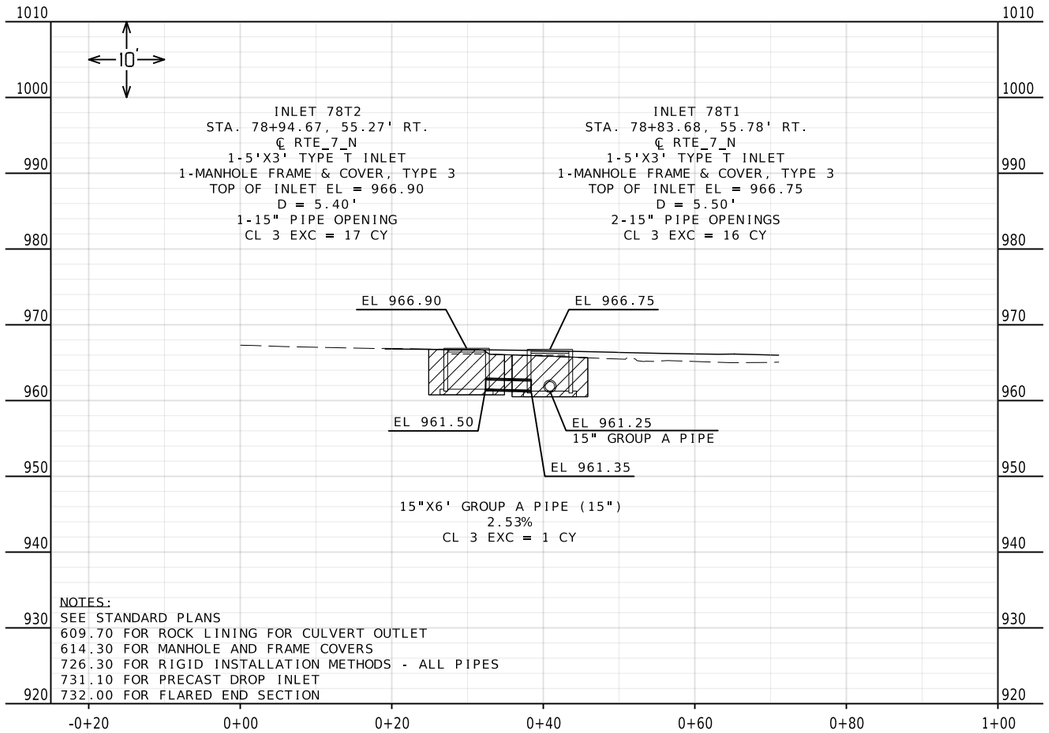
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

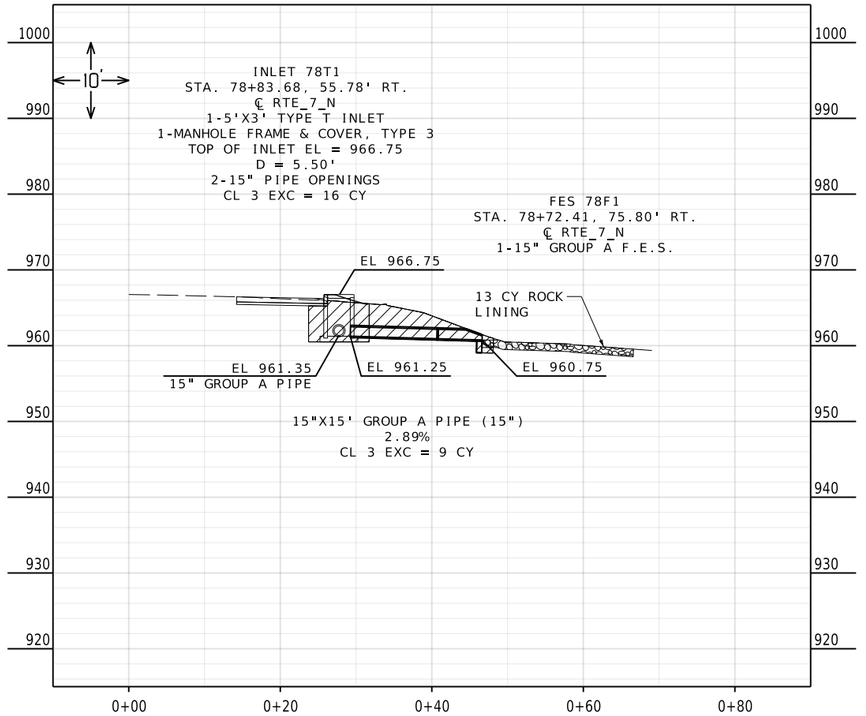
olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

F:\2022\03001-03500\022-03371\40-Design\Microstation\JKU0010\plan_sheets\14 Culvert Sections\151_CS_04_JKU0010_I10.dgn 1:01:50 PM 8/1/2025





NOTES:
SEE STANDARD PLANS
609.70 FOR ROCK LINING FOR CULVERT OUTLET
614.30 FOR MANHOLE AND FRAME COVERS
726.30 FOR RIGID INSTALLATION METHODS - ALL PIPES
731.10 FOR PRECAST DROP INLET
732.00 FOR FLARED END SECTION



CULVERT SECTION
SHEET 5 OF 8

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
8/1/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	152

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

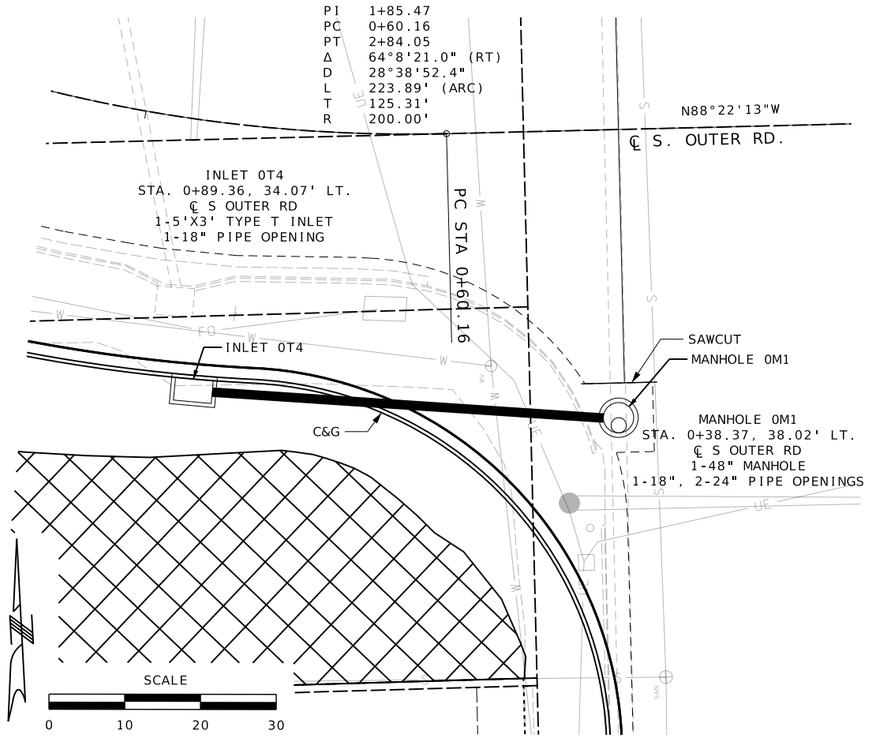
BRIDGE NO.

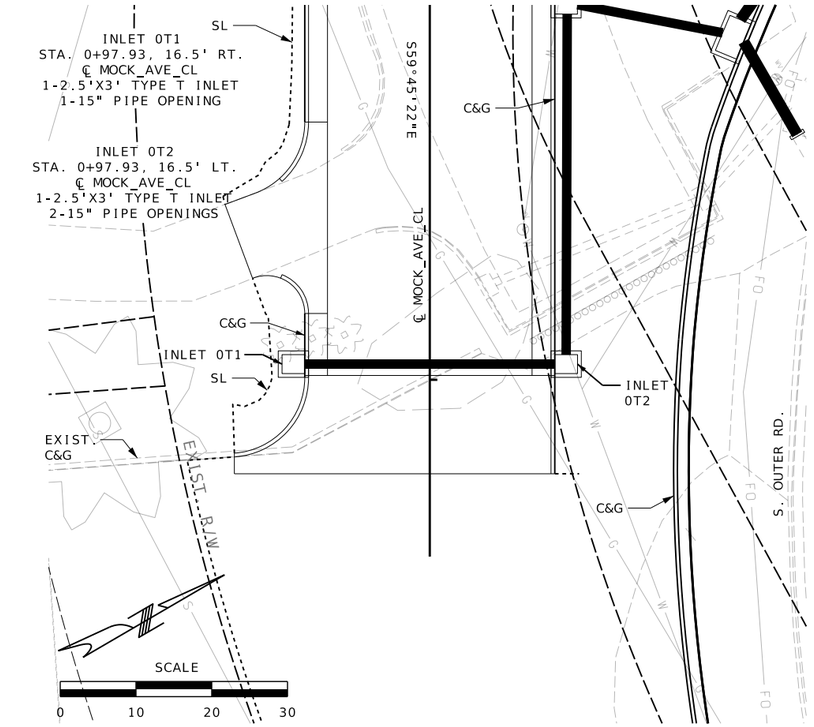
DATE	DESCRIPTION

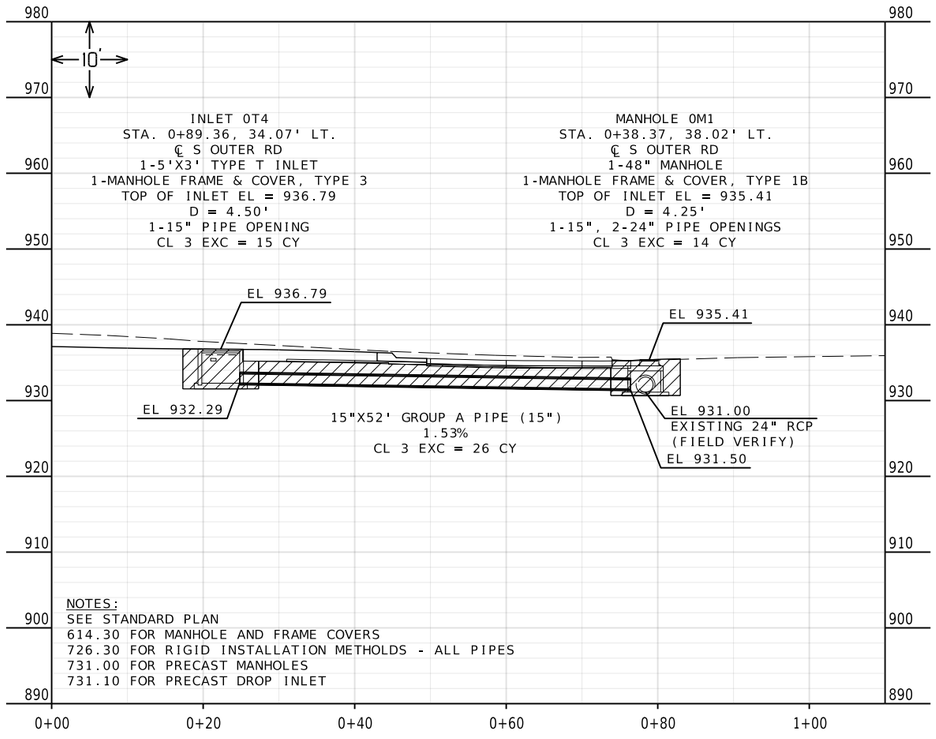
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

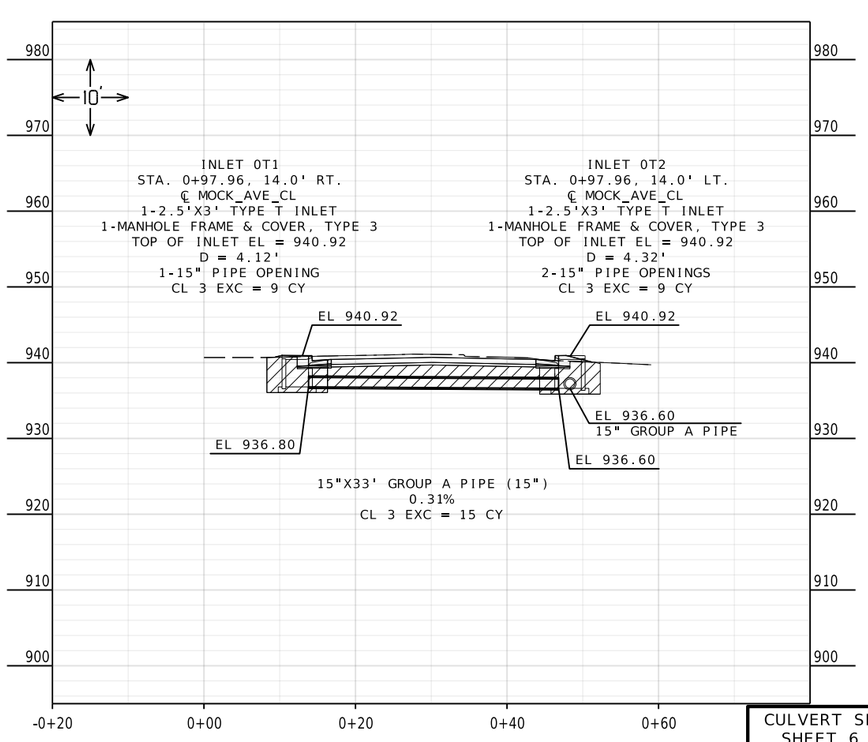
olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592







NOTES:
SEE STANDARD PLAN
614.30 FOR MANHOLE AND FRAME COVERS
726.30 FOR RIGID INSTALLATION METHOLDS - ALL PIPES
731.00 FOR PRECAST MANHOLES
731.10 FOR PRECAST DROP INLET



CULVERT SECTION
SHEET 6 OF 8

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
8/1/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	153

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

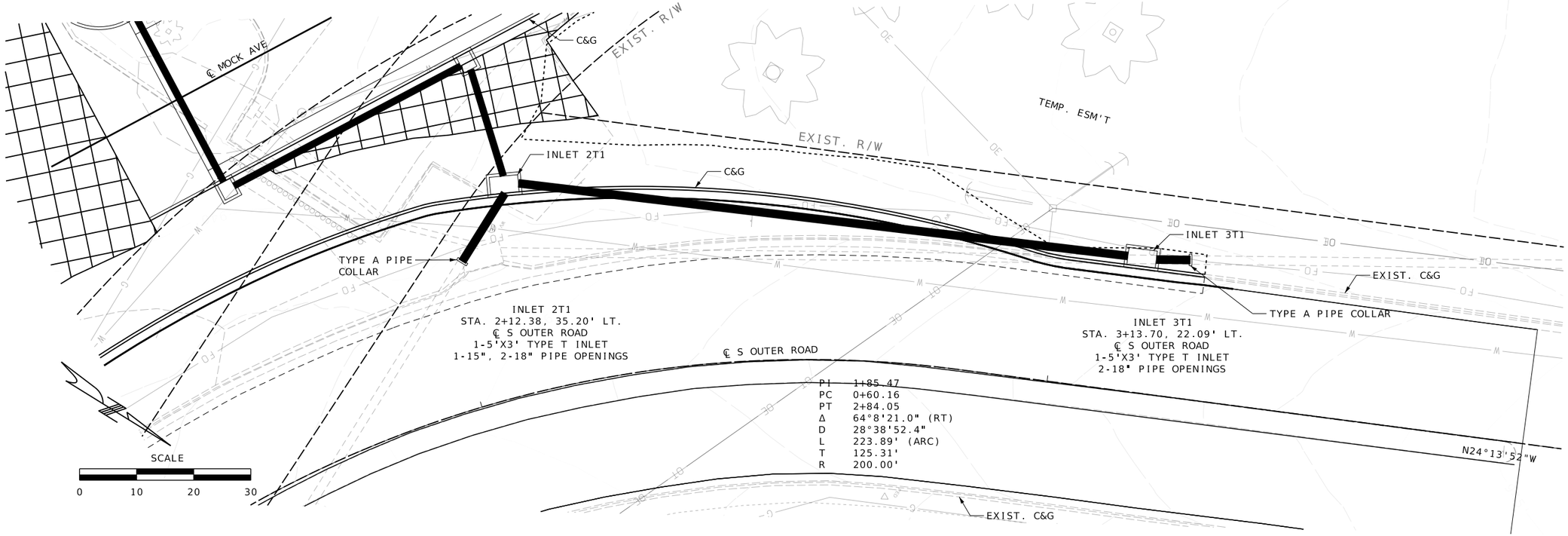
DESCRIPTION

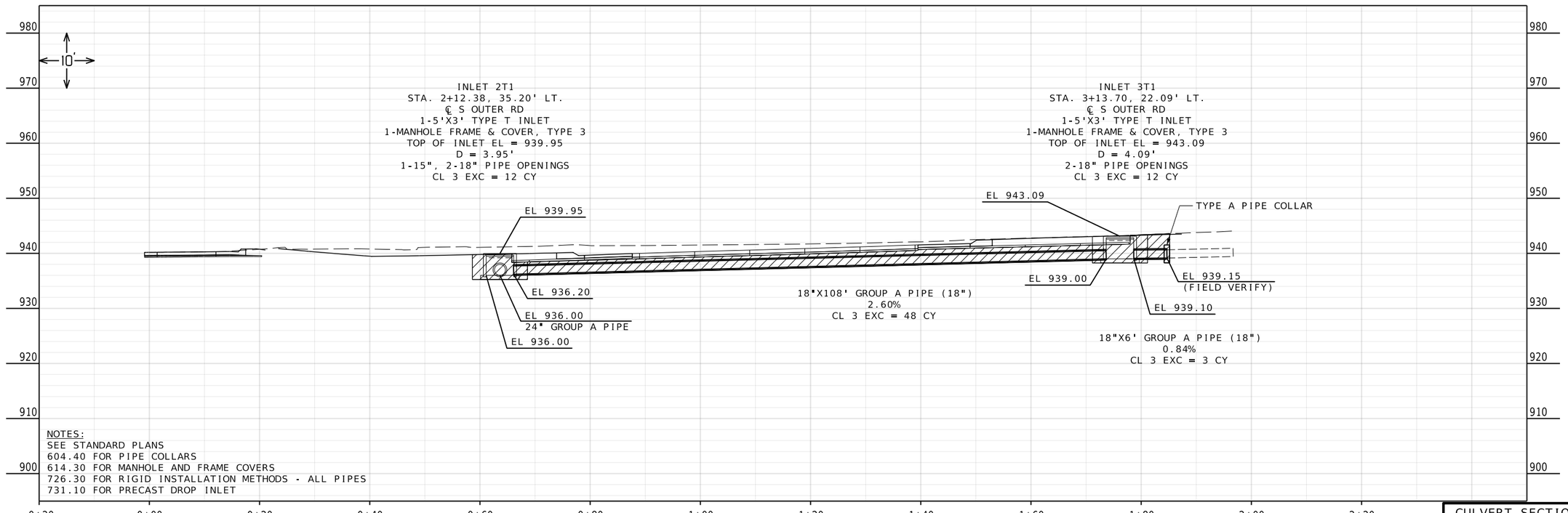
DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592





NOTES:
SEE STANDARD PLANS
604.40 FOR PIPE COLLARS
614.30 FOR MANHOLE AND FRAME COVERS
726.30 FOR RIGID INSTALLATION METHODS - ALL PIPES
731.10 FOR PRECAST DROP INLET

CULVERT SECTION
SHEET 7 OF 8

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
8/1/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	154

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

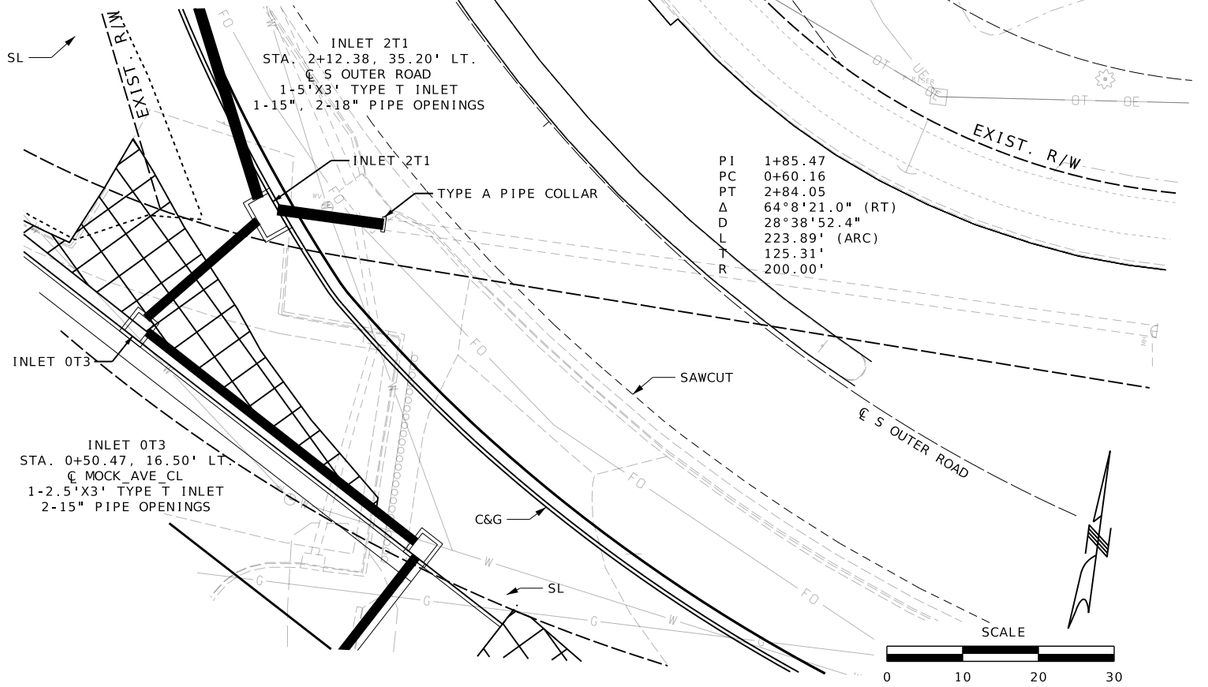
BRIDGE NO.

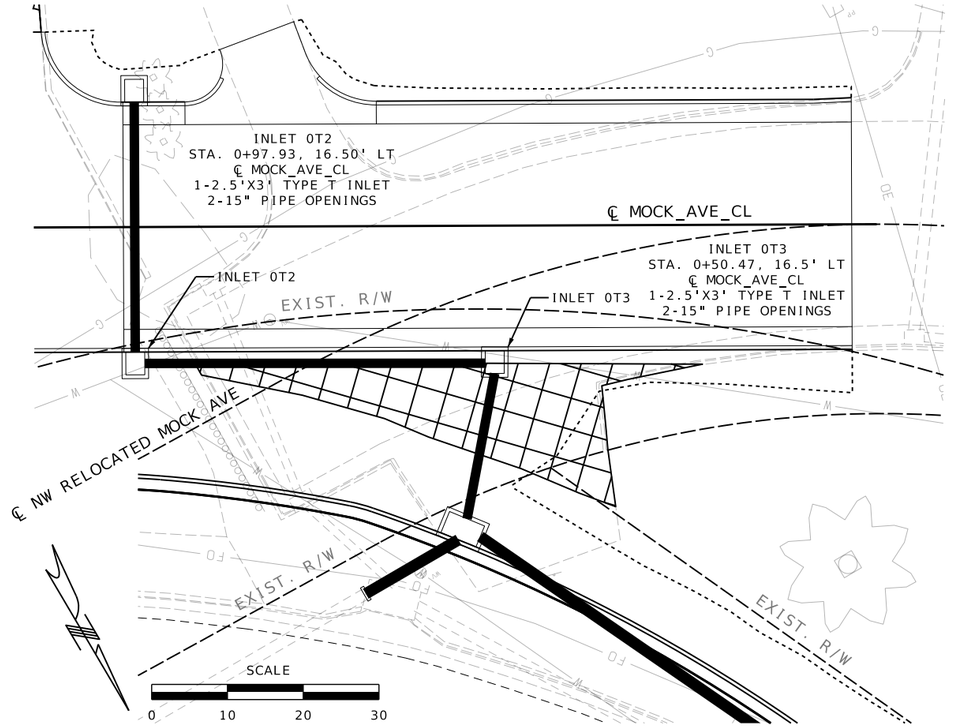
DESCRIPTION	DATE

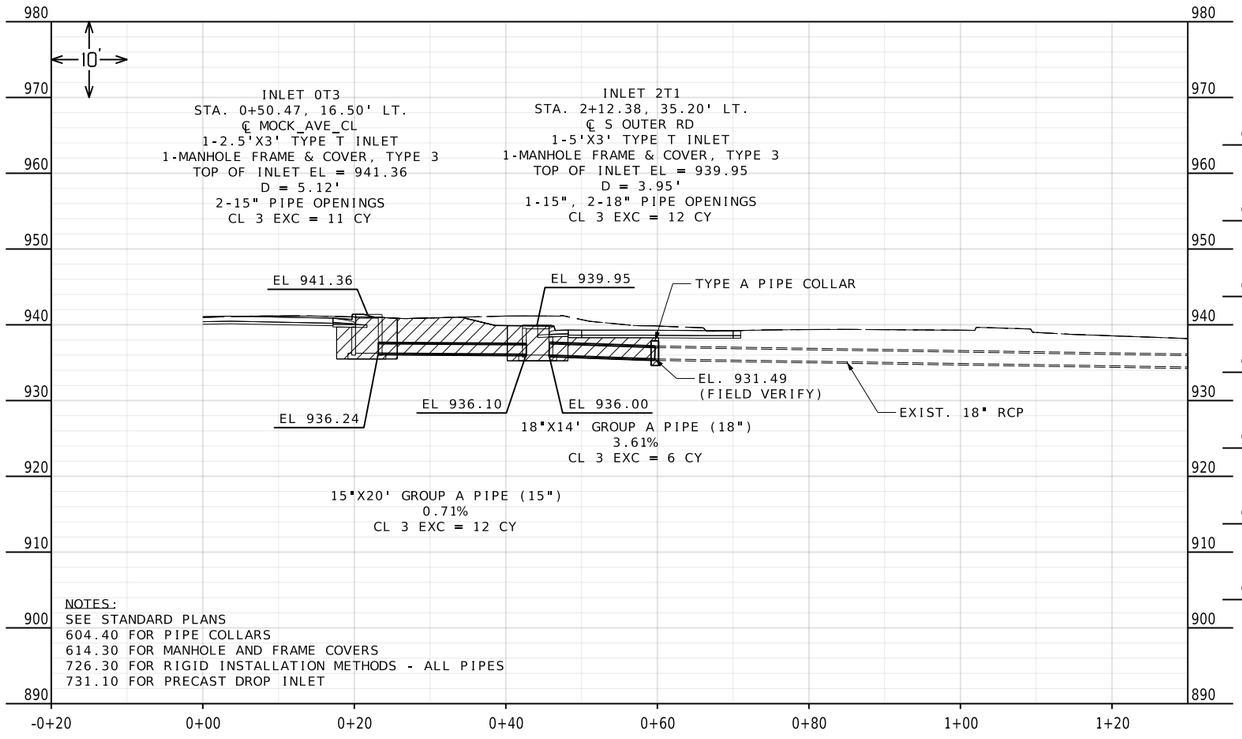
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

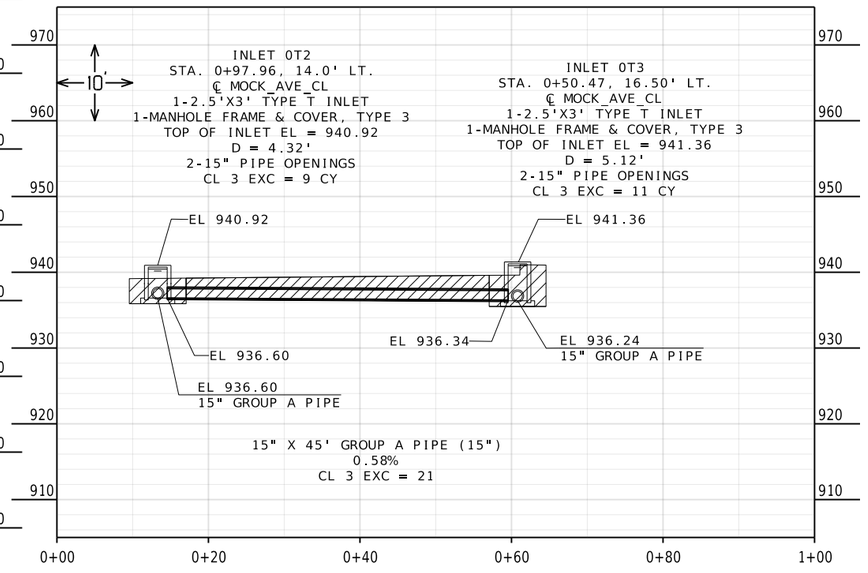
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592









CULVERT SECTION
SHEET 8 OF 8

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED 8/1/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	155

COUNTY: JACKSON
JOB NO.: JKU0010
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.:

DESCRIPTION | DATE

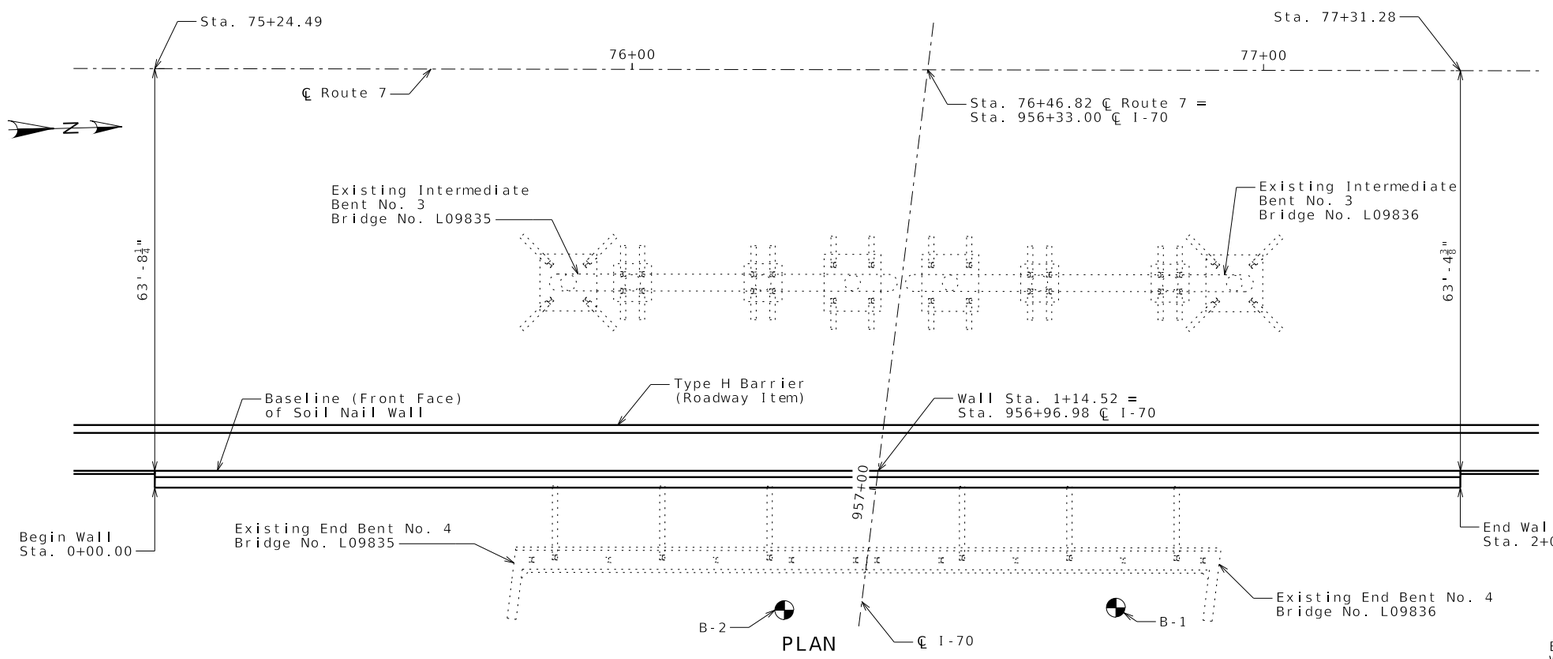
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

SEC/SUR 30 TWP 49N RGE 30W

207' SOIL NAIL WALL



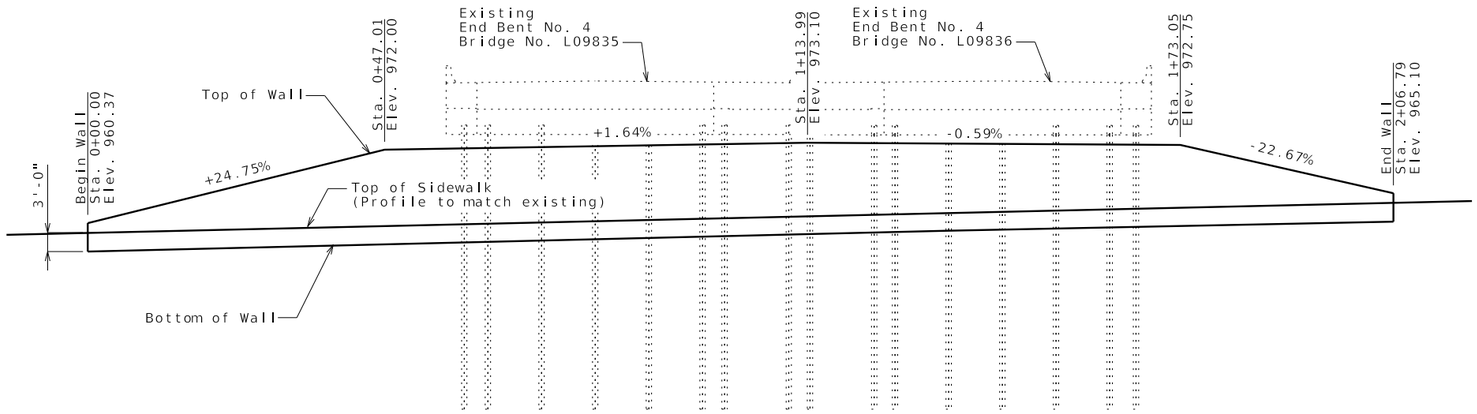
PLAN

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 performed by the department for the design of the project, are shown on Sheet(s) No. 7 and may be included in the Electronic Bridge Deliverables. They will also be available from the Project Contact upon written request. No greater significance or weight should be given to the boring data depicted on the plan sheets than is given to the subsurface data available from the district or elsewhere.

The Commission does not represent or warrant that any such boring data accurately depicts the conditions to be encountered in constructing this project. A contractor assumes all risks it may encounter in basing its bid prices, time or schedule of performance on the boring data depicted here or those available from the district, or on any other documentation not expressly warranted, which the contractor may obtain from the Commission.



ELEVATION

Looking at fill face of wall.

Note:
For additional General Notes and Estimated Quantities, see Sheet No. 2.

General Notes:

Design Specifications:
2020 AASHTO LRFD Bridge Design Specifications (9th Ed.)
Seismic Design Category = A

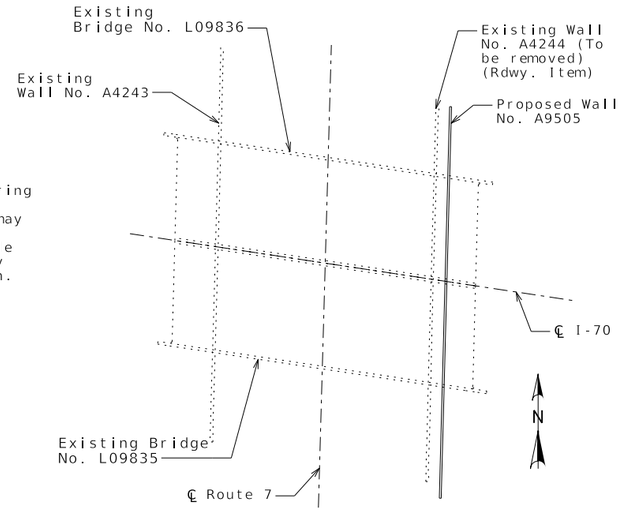
Design References:
2015 Geotechnical Engineering Circular No. 7 Soil Nail Walls Reference Manual, Report No. FHWA-NHI-14-007

Design Loading:
Earth = 125 lb/cf
Active Earth Pressure Coefficient = 0.50
Live Load Surcharge = 250 lb/sf

Design Soil Parameters:
Ultimate Friction Angle = 25°
Ultimate Cohesion = 50 psi
Ultimate Bond Strength = 7 psi

Design Unit Stresses:

Shotcrete (ASTM C109)	f'c = 3,000 psi
Class B Concrete	f'c = 3,000 psi
Soil Nail Grout (ASTM C109)	f'c = 3,000 psi
Reinforcing Steel (ASTM A615 Grade 60)	fy = 60,000 psi
Soil Nail Bar (Grade 60)	fy = 60,000 psi
Bearing Plate (ASTM A709 Grade 36)	fy = 36,000 psi
Welded Wire Reinforcement (ASTM A1064 Grade 65)	fy = 65,000 psi



LOCATION SKETCH

CP#5017-SET 1/2" REBAR W/CONTROL POINT CAP
STA. 86+34.29, 46.47' RT, ELEV. 984.49

RETAINING WALL ALONG RIGHT SIDE OF ROUTE 7

ROUTE 7 FROM ROUTE 40 TO ROUTE 78
ABOUT 1.5 MILES NORTH OF ROUTE 40
BEGINNING STATION 75+24.49

STATE OF MISSOURI
ROBERT R. SHERWOOD
NUMBER PE-2025018558
PROFESSIONAL ENGINEER
8/13/2025

DATE PREPARED 8/13/2025
ROUTE 7 | STATE MO
DISTRICT BR | SHEET NO. 1
COUNTY JACKSON
JOB NO. JKU0010
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9505

DESCRIPTION | DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

Designed Dec. 2024
Detailed Jan. 2025
Checked Jan. 2025

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

F:\2022\03001-03500\022-03371\40-Design\Microstation\JKU0010\plan_sheets\17 Retaining Wall Sheets\B_A9505_001_JKU0010.dgn 7:46:36 AM 8/13/2025

General Notes (Cont.):

Reinforcing Steel:
All bar reinforcement shall be epoxy coated. All welded wire reinforcement shall be either epoxy coated or galvanized.

Minimum clearance to reinforcing steel shall be 1 1/2", unless otherwise shown.

Excavation:
Excavation quantities and pay items are given on the roadways plans.

Excavation near the wall face requires special care and effort compared to general excavation. The contractor is responsible for maintaining stable slopes above and below the soil nail wall.

No general excavation open cuts steeper than 1:1 shall be made within 15 feet in front of the soil nail wall.

Miscellaneous:
Contractor shall verify the dimensions of the existing bridge foundations prior to fabrication and installation of the soil nails.

The contractor shall be solely responsible to coordinate the construction of the wall with the roadway construction and ensure that the roadway construction, resulting or existing obstructions, shall not impact the performance of the soil nail wall.

Outline of existing work is indicated by light dashed lines. Heavy lines indicate new work.

All nail head elements shall be galvanized.

Soil nail bars shall be epoxy coated.

Nuts shall be in accordance with ASTM A563, Grade B, hexagonal, and fitted with beveled washer or spherical seat to provide uniform bearing.

Soil nails may be continuously threaded bars or reinforcing bars with cut threads. If reinforcing bars with cut threads are used, the next larger bar size above that shown shall be provided at no additional cost.

Soil nail bar lengths indicated in the plans are drilled (bond) lengths. Actual total nail bar lengths are greater than the drilled length.

Concrete and masonry protective coating shall be applied on all exposed concrete areas in accordance with Sec 711.

Sacrificial graffiti protective coating shall be applied on all exposed concrete areas in accordance with Sec 711.

Soil Nail Installation:
Soil nail holes shall be drilled without loss of ground and without endangering previously installed soil nails. This may involve casing the holes or other methods of protection from caving. The contractor shall select the drilling and grouting methods necessary to meet these requirements.

At the contractor's option, nails may be drilled and installed through a temporary stabilizing berm.

Following the drilling, the bar shall be placed into the hole and grouted from the bottom of the hole to the surface in one continuous operation. Centralizers shall be installed at no more than 8 foot intervals and within 18 inches of each end of the nail. Continuously agitate grout and deliver grout to holes free from lumps and undispersed cement. Control pressure to prevent soil heaves.

A systematic program of observation shall be conducted by the contractor during construction to determine the affect of construction on adjacent nails to protect them from damage. Communication between holes as evidenced by grout eruptions will not be allowed and will require modification of the drilling method.

Observation shall be conducted by the contractor to document depths of installation and angle of installation of all soil nails. Test reports and installation logs shall be provided to the engineer.

Construction Sequence:
Wall shall be built in horizontal top down sequence.

The following wall construction sequence for each excavation lift shall be completed prior to initiating work on the next excavation lift unless otherwise approved by the engineer:

1. Verify the location of the existing bridge end bents.
2. Install pre-production verification test nails at locations shown on Sheet No. 3.
3. Excavate to rough grade.
4. Trim to final wall face excavation line or to stabilizing berm (if used).
5. Drill, install, and grout nails. Trim stabilization berm (if used) to final wall face excavation line.
6. Install geocomposite drain strip and weep holes.
7. Place reinforcement and apply initial shotcrete facing.
8. Perform nail pullout tests after shotcrete and nail grout have attained their specified strengths.

Construct the final wall facing and gutter following completion of the full height of the initial shotcrete facing.

Inspection and Monitoring:
Verification testing shall be performed on sacrificial nails prior to production nail installation and in accordance with the Job Special Provisions. Verification tests shall be preformed at locations, nail lengths, and verification test loads indicated in the plans.

Proof testing shall be performed on a minimum of 5 percent of the production soil nails in accordance with the Job Special Provisions. Proof tests shall be performed at the frequency and loads indicated in the plans.

Creep shall be monitored at the load increments specified in the proof and verification test loading schedules. Nail movement shall be measured and recorded in accordance with the proof and verification test loading and schedules and their respective notes. Maintain load increments during the verification nail creep test within two percent of the intended load. Maintain all other load increments within five percent of the intended load.

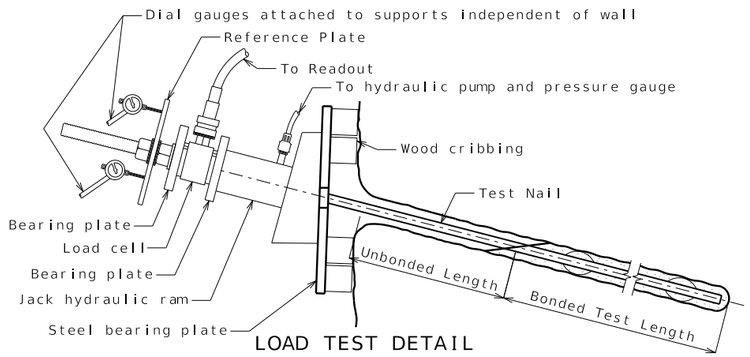
All nail testing shall occur after the grout has set for 3 days.

The contractor shall provide jack and pressure gauge calibrated within one year and the calibration curve shall be available to testing personnel. Contractor to provide field personnel, chair, bar extensions, gauges and other miscellaneous testing items. Test results shall be submitted to the engineer for review.

The contractor shall document with photographs the condition of adjacent existing structures, pavement, and utilities prior to beginning soil nail wall construction. Photographs shall be submitted to the engineer prior to beginning work.

Monitoring of ground settlement and soil nail wall movement shall be surveyed by the contractor. Should excessive or sudden increase in ground settlement or soil nail wall movement be detected, the contractor shall immediately notify the engineer.

The soil nails have been designed for native clay and previously placed fill. Observation shall be made during construction to ensure that the nails are embedded in the assumed material. If materials are found to be different than assumed in the design, the engineer shall be notified, and nail lengths and placement may be revised prior to continued nail installation.



LOAD TEST DETAIL

Verification load test shown, proof load test similar, except load cell is not required.
See Test Load Summary tables for unbonded lengths and bonded test lengths.

Estimated Quantities

Item		Total
Soil Nail Wall System	sq. foot	2,561
Concrete and Masonry Protection System	lump sum	1
Sacrificial Graffiti Protection System	lump sum	1

Estimated Quantities for Soil Nail Wall System *

Item		Total
Initial Shotcrete Facing	sq. foot	2,250
Soil Nail Bars	each	117
Final Concrete Facing	cu. yard	60.7
Reinforcing Steel (Epoxy Coated)	pound	9,190
Strip Drain	linear foot	547
Proof Test	each	7
Verification Test	each	2

* For information only. Items in this table will be considered completely covered by the contract unit price for Soil Nail Wall System.

Verification Test Load Summary

Frequency	Unbonded Length (ft)	Bonded Length (ft)	Verification Test Load (kips)
(1)	3	10	16

Verification Test Loading Schedule

Load	Hold Time (Minutes) (3)
AL (2)	1
0.13*VTL	10 (Record Soil Nail Movement at 1,2,5,10)
0.25*VTL	10 (Record Soil Nail Movement at 1,2,5,10)
0.38*VTL	10 (Record Soil Nail Movement at 1,2,5,10)
0.50*VTL	10 (Record Soil Nail Movement at 1,2,5,10)
0.63*VTL	10 (Record Soil Nail Movement at 1,2,5,10)
0.75*VTL (Creep Test)	60 (Record Soil Nail Movement at 1,2,5,10,20,30,50,60)
0.88*VTL	10
1.00*VTL	10
AL (2)	1 (4)

Proof Test Load Summary

Frequency	Minimum Unbonded Length (ft) (6)	Bonded Length (ft)	Proof Test Load (kips)
(5)	3	10	12

Proof Test Loading Schedule

Load	Hold Time (Minutes) (9)
AL (7)	1
0.17*PTL	Unit movement stabilizes
0.33*PTL	Unit movement stabilizes
0.50*PTL	Unit movement stabilizes
0.67*PTL	Unit movement stabilizes
0.83*PTL	Unit movement stabilizes
1.0*PTL (Creep Test)(8)	10 (Record Soil Nail Movement at 1,2,5,10)
AL (7)	1

AL = Alignment Load
VTL = Verification Test Load
PTL = Proof Test Load

(1) Locations shown on Elevation Showing Soil Nail Locations on Sheet No. 3.
(2) Alignment load shall be 0.025*VTL
(3) Measure soil nail movement after each load increment has been achieved and at each time step indicated in the table.
(4) Record permanent soil nail movement
(5) A minimum of 5 percent of the production soil nails in each row and at least 1 production nail per row or as directed by the engineer.
(6) Proof test unbonded length is temporary.
(7) Alignment load shall be less than or equal to 0.025*PTL
(8) If the nail movement measured between 1 and 10 minutes exceeds 0.04 inches, PTL shall be maintained for 50 more minutes and movements shall be recorded at 20, 30, 50, and 60 minutes. Record permanent soil movement.
(9) Measure times after the target load has been attained in each increment.

STATE OF MISSOURI
ROBERT R. SHERWOOD
NUMBER PE-2025018558
7/24/2025
PROFESSIONAL ENGINEER

DATE PREPARED 7/24/2025
ROUTE 7 | STATE MO
DISTRICT BR | SHEET NO. 2
COUNTY JACKSON
JOB NO. JKU0010
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9505

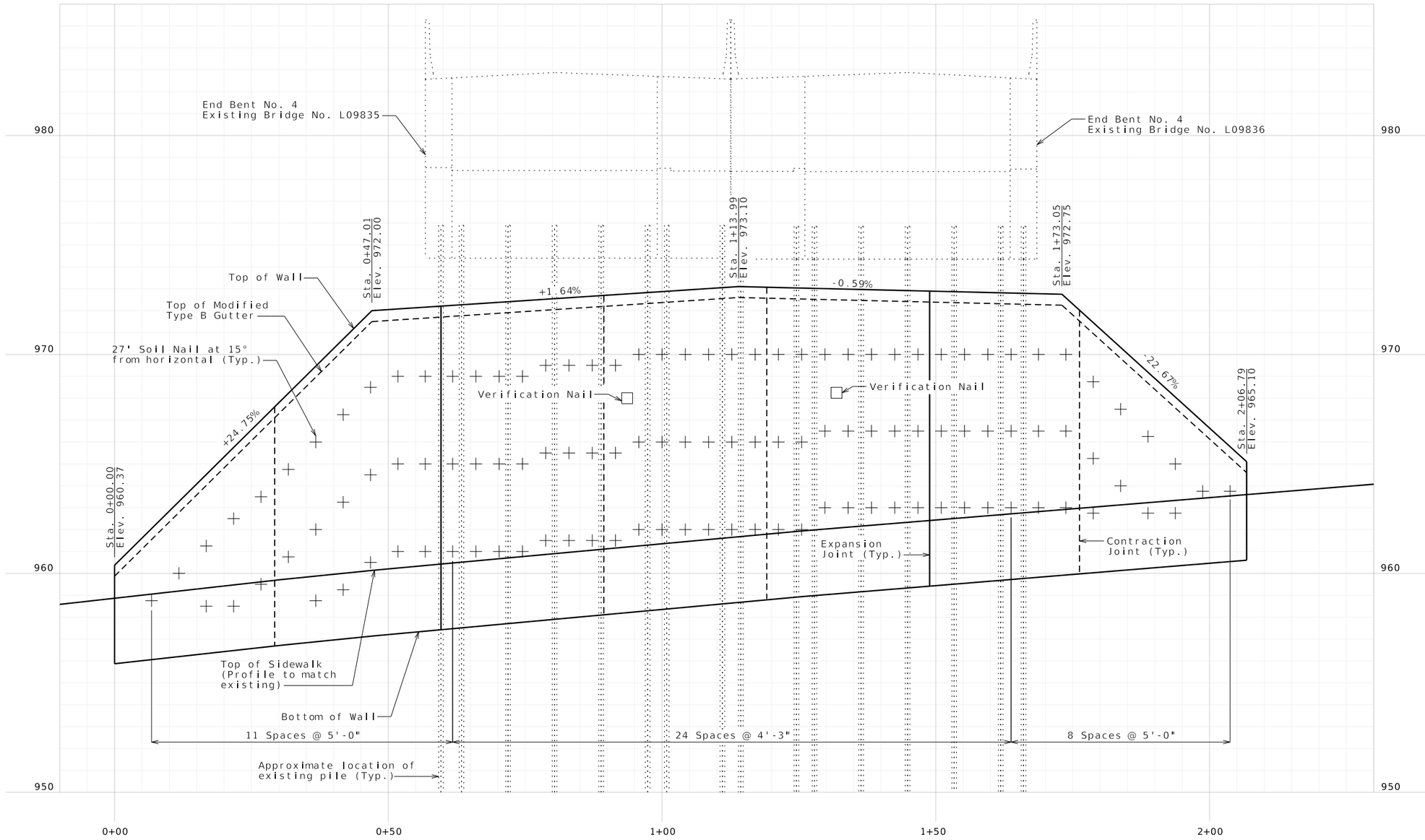
DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

\\oa.ad.oaconsulting.com\fnts-ns1\projects\2022\03001-03500\022-03371\40-Design\Microstation\JKU0010\plan_sheets\17 Retaining Wall Sheets\B_A9505_002_JKU0010.dgn 1:00:30 PM 7/24/2025



ELEVATION SHOWING SOIL NAIL LOCATIONS

Looking at fill face of wall.
Fence and drainage system not shown for clarity.

Detailed Jan. 2025
Checked Jan. 2025

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

\\oa.ad.oaconsulting.com\fnts-ns1\projects\2022\03001-03500\022-03371\40-Design\Microstation\JKU0010\plan_sheets\17 Retaining Wall Sheets\B_A9505_003_JKU0010.dgn 1:00:34 PM 7/24/2025

STATE OF MISSOURI
ROBERT R. SHERWOOD
NUMBER PE-2025018558
7/24/2025
PROFESSIONAL ENGINEER

DATE PREPARED
7/24/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
BR	3

COUNTY
JACKSON

JOB NO.
JKU0010

CONTRACT ID.

PROJECT NO.

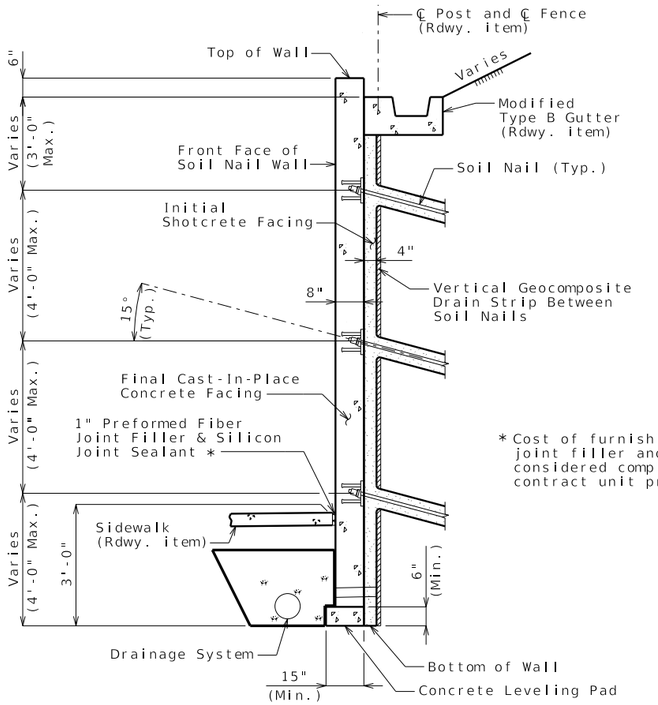
BRIDGE NO.
A9505

DATE	DESCRIPTION

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

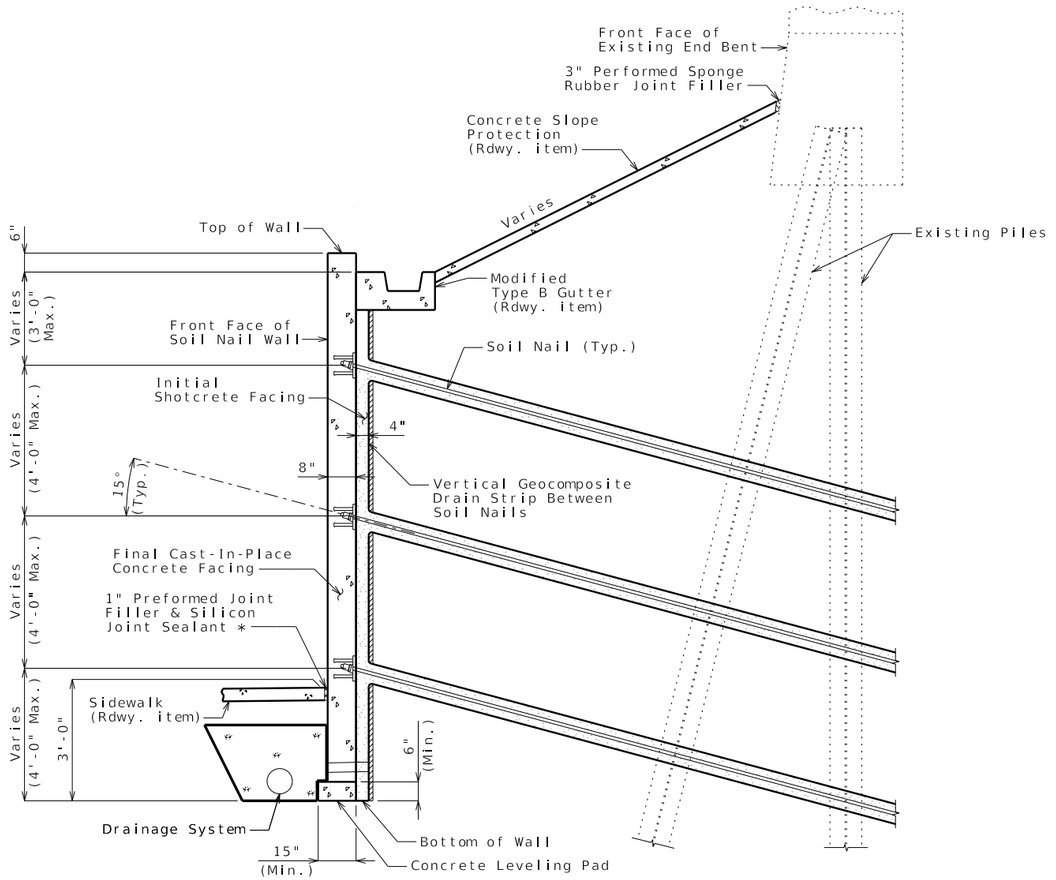
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

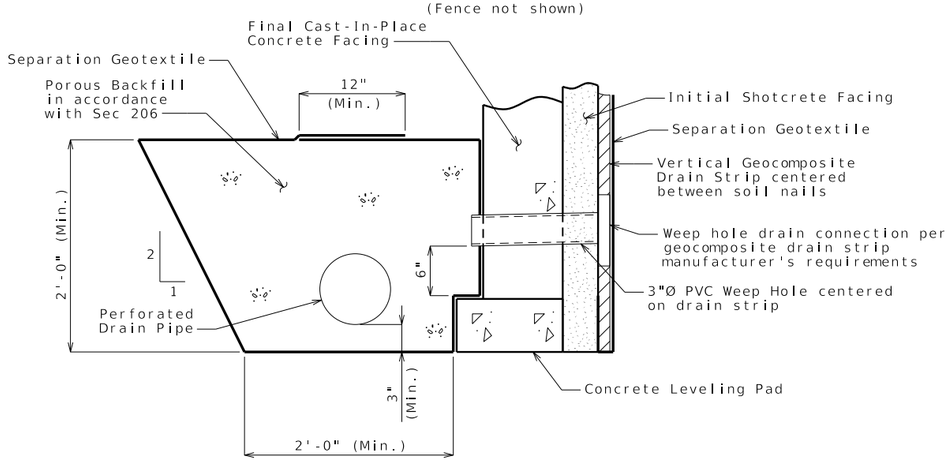


TYPICAL SECTION THRU SOIL NAIL WALL
(Fence not shown)

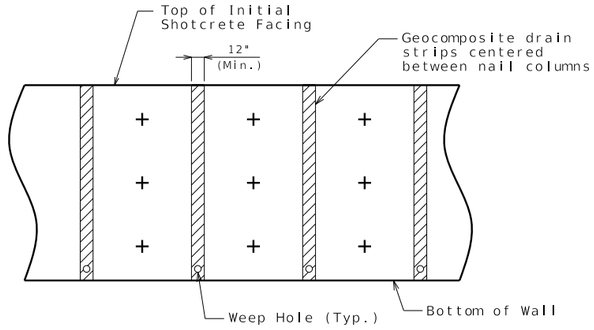
* Cost of furnishing and installing joint filler and sealant will be considered completely covered by the contract unit price for other items.



TYPICAL SECTION THRU SOIL NAIL WALL UNDER BRIDGE



DRAINAGE SYSTEM DETAIL



PART ELEVATION SHOWING DRAIN STRIPS

Notes:

Drain pipe shall be sloped 1 to 2 percent.

Drain pipe may be either 8-inch diameter corrugated polyvinyl chloride (PVC) or 8-inch diameter corrugated polyethylene (PE) drain pipe.

Perforated pipe shall be placed along the full length of the soil nail wall. Unperforated pipe shall be used from the end of the wall to the outlet

Drain shall outlet into Inlet 75S1. The contractor shall coordinate the drain installation through the inlet wall.

The cost of all labor and materials necessary to install the drainage system will be considered completely covered by the contract unit price for Soil Nail Wall System.

SOIL NAIL WALL TYPICAL SECTIONS

Detailed Jan. 2025
Checked Jan. 2025

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

F:\2022\03001-03500\022-03371\40-Design\Microstation\JKU0010\plan_sheets\17 Retaining Wall Sheets\B_A9505_004_JKU0010.dgn 1:00:36 PM 7/24/2025

STATE OF MISSOURI
ROBERT R. SHERWOOD
NUMBER PE-2025018558
7/24/2025
PROFESSIONAL ENGINEER

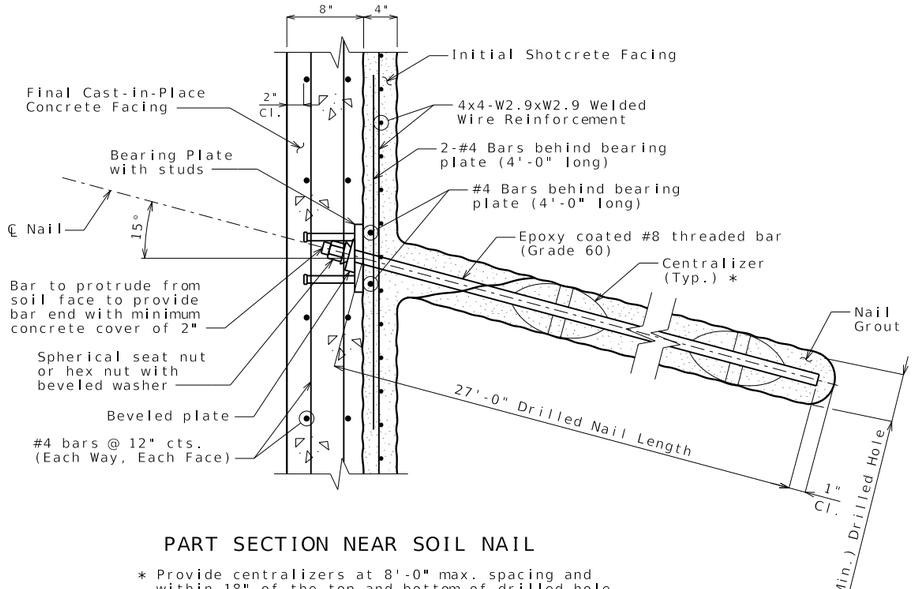
DATE PREPARED: 7/24/2025
ROUTE: 7 | STATE: MO
DISTRICT: BR | SHEET NO.: 4
COUNTY: JACKSON
JOB NO.: JKU0010
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.: A9505

DESCRIPTION | DATE | REV.

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

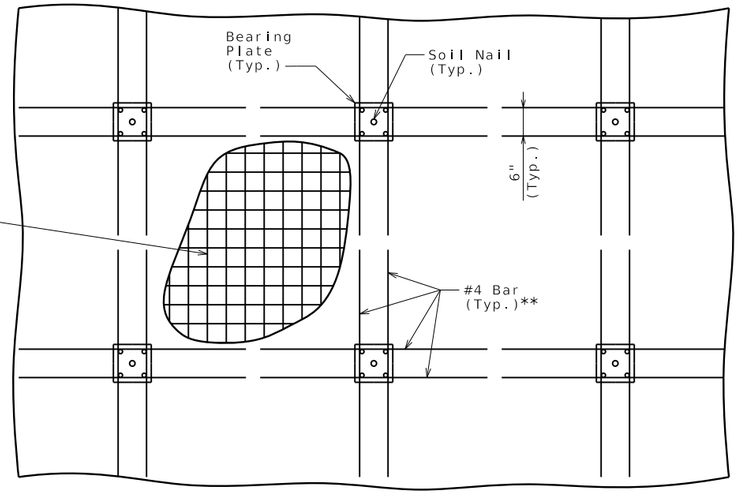
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592



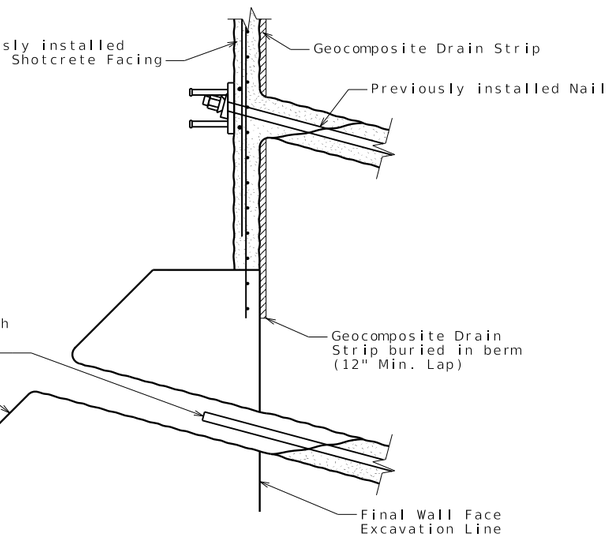
PART SECTION NEAR SOIL NAIL

* Provide centralizers at 8'-0" max. spacing and within 18" of the top and bottom of drilled hole

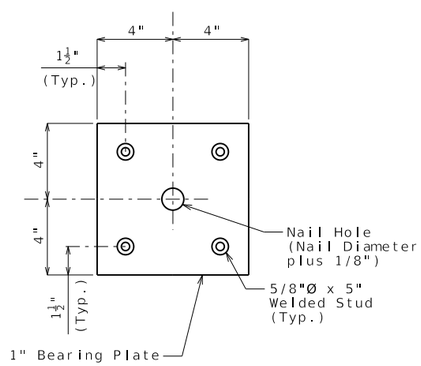


INITIAL SHOTCRETE FACING REINFORCEMENT

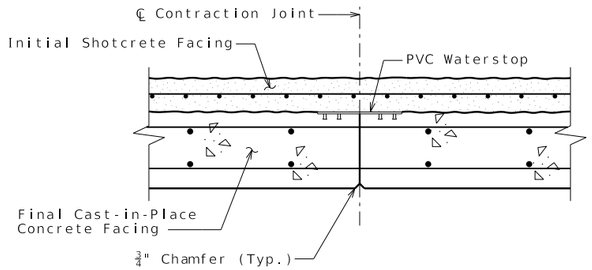
** 4'-0" long, centered behind bearing plate



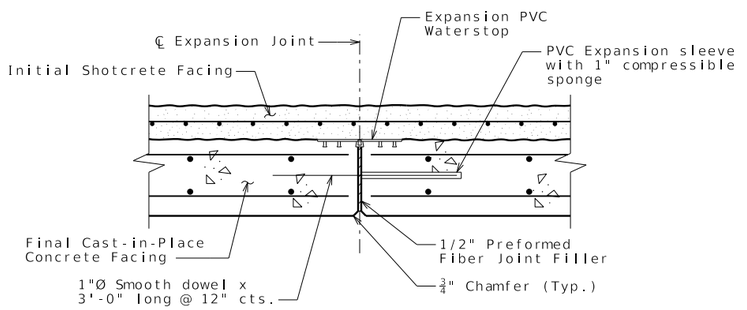
OPTIONAL TEMPORARY BERM



BEARING PLATE DETAIL



CONTRACTION JOINT DETAIL



EXPANSION JOINT DETAIL

Notes:

Lap #4 bars in the final concrete facing a minimum of 34 inches.

Lap welded wire fabric in the initial shotcrete facing a minimum of 12 inches.

For locations of contraction joints and expansion joints, see Sheet No. 3.

SOIL NAIL WALL DETAILS

Detailed Jan. 2025
Checked Jan. 2025

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

STATE OF MISSOURI
ROBERT R. SHERWOOD
NUMBER PE-2025018558
8/13/2025
PROFESSIONAL ENGINEER

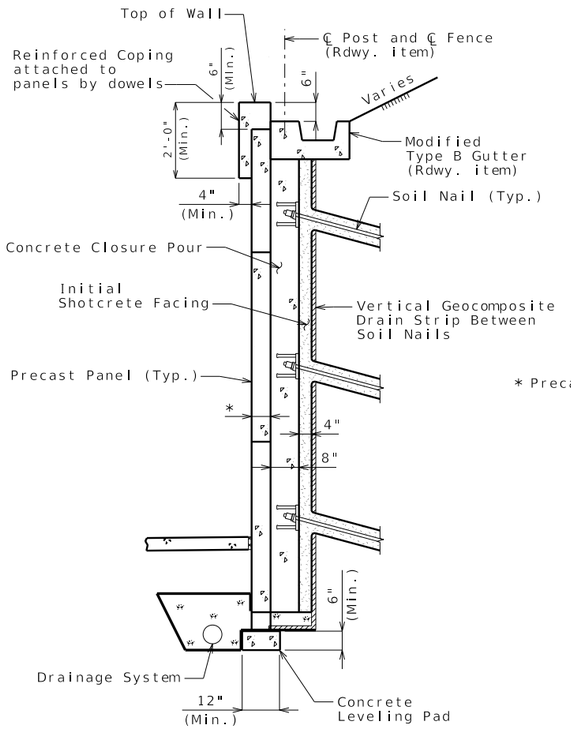
DATE PREPARED 8/13/2025
ROUTE 7 | STATE MO
DISTRICT BR | SHEET NO. 5
COUNTY JACKSON
JOB NO. JKU0010
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9505

DESCRIPTION | DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

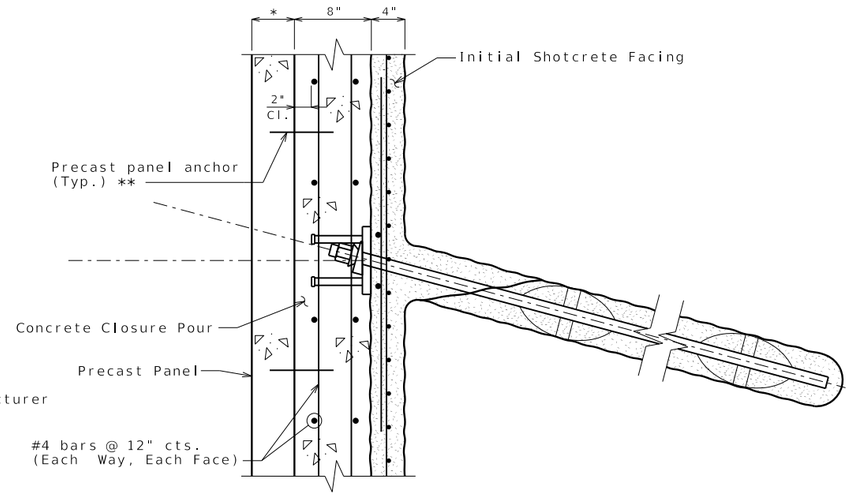
olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592



TYPICAL SECTION THRU SOIL NAIL WALL WITH OPTIONAL PRECAST FACING

For additional information, see Typical Section Thru Soil Nail Wall on Sheet No. 4.

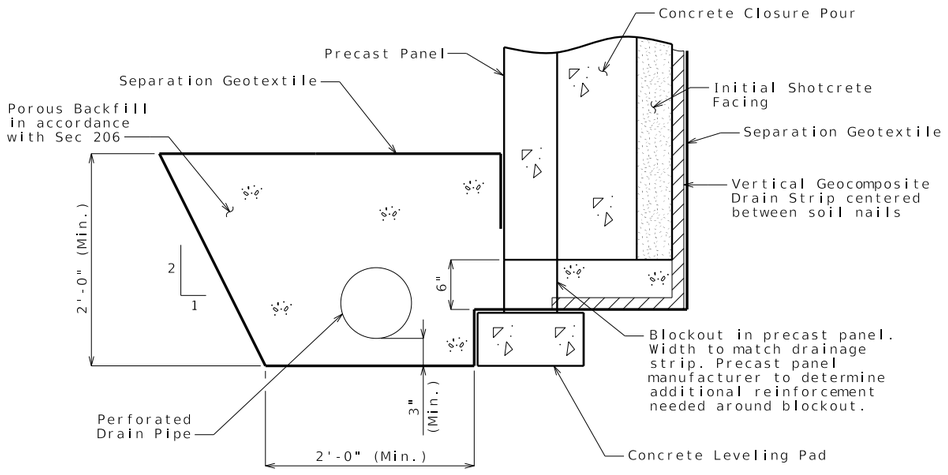
* Precast panel thickness per manufacturer



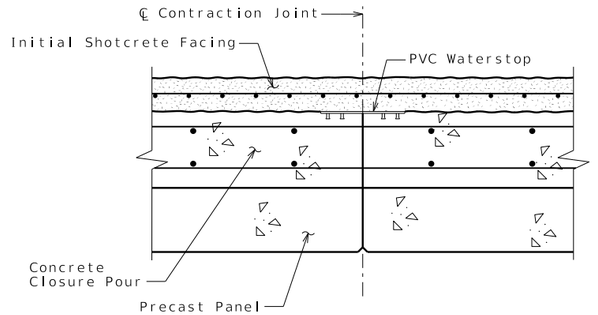
PART SECTION NEAR SOIL NAIL WITH OPTIONAL PRECAST FACING

For additional information, see Part Section Near Soil Nail on Sheet No. 5.

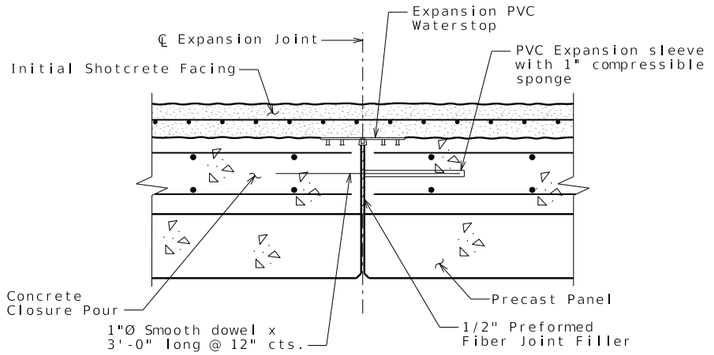
** Precast panel anchorage to be determined by panel manufacturer



DRAINAGE SYSTEM DETAIL



CONTRACTION JOINT DETAIL



EXPANSION JOINT DETAIL

OPTIONAL PRECAST FACING DETAILS

Notes:

Precast panel and cast-in-place concrete coping reinforcement shall be epoxy coated.

Lap #4 bars in the closure pour a minimum of 34 inches.

Precast panel manufacturer shall be responsible for the design of precast panels, precast panel anchorage, and cast-in-place coping.

Contraction and expansion joints shall align with joints between precast panels. Contractor may adjust joint locations shown on the plans to coordinate with precast panel dimensions. Show joint locations on shop drawings. Contractions joints shall be spaced at approximately 30 feet. Expansion joints shall be spaced at approximately 90 feet. Contraction and expansion joints shall be located a minimum of 2 feet from from soil nails.

Contractor to submit shop drawings showing precast panels and cast-in-place concrete coping for review and approval before ordering material.

Cost of all labor and material necessary to install the precast panel facing and cast-in-place coping, complete in place, shall be considered completely covered by the contract unit price for Soil Nail Wall System.

STATE OF MISSOURI
ROBERT R. SHERWOOD
NUMBER PE-2025018558
7/24/2025
PROFESSIONAL ENGINEER

DATE PREPARED 7/24/2025
ROUTE 7 | STATE MO
DISTRICT BR | SHEET NO. 6
COUNTY JACKSON
JOB NO. JKU0010
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9505

DESCRIPTION | DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

Detailed Jan. 2025
Checked Jan. 2025

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

SOIL BORING NUMBER: B-1

Page 1 of 1

PROJECT Route 7
DRILLING FIRM PPI **DRILLER** Eric Porter
LOGGED BY Zachary Boyd
STATION/OFFSET - / - -
SURFACE ELEVATION 982.0'

N/E 1042871.8 / 2853886.4
LAT / LONG 39.030271, -94.271381
DATE STARTED 09/25/2024
DATE COMPLETED 09/25/2024
GW DEPTH N/A

Rig Type CME-550X
Tooling
Surface Elevation 982.0'

Depth (ft)	Elevation (ft)	Graphic Log	Visual Classification and Remarks	Depth of Sample (ft)	Sample Number	Sample Graphic	Blow Counts (N/Refusal)	REC / RQD	Atterberg Limits (LL-PL-PI)	Moisture Content (%)	Dry Density (PCF)	% Fines	Compressive Strength
			CONCRETE 1.1										
	980		FILL, reddish brown, stiff to very stiff, moist, LEAN CLAY (CL)	3.5 ft									
5					J-1		4-5-7 (12)	72	45-18-27	21.9			
	975			8 ft									
10				10 ft	U-1			100		22.8	104		4.395
			10.5										
	970		FILL, gray, stiff, moist, LEAN CLAY (CL) 11.0		J-2		4-5-8 (13)	100	49-19-30	22.6		98.2	
			FILL, reddish brown, stiff to very stiff, moist, FAT CLAY (CH)	13.5 ft									
15			14' Color change to dark gray		J-3		3-4-5 (9)	100		23			
	965			18 ft									
					U-2			100	51-19-32	23.7			
20				20 ft	J-4		4-7-10 (17)	100					
	960			23.5 ft									
			24.0		J-5		4-6-7 (13)	100					
25			Dark gray, stiff, moist, FAT CLAY (CH)	28 ft									
	955				U-3			100					
30				30 ft	J-6		4-5-5 (10)	100	42-19-23	26.5		98.4	
	950			33.5 ft									
35					J-7		4-8-8 (16)	100					
	945			38 ft									
			38' Change to firm		U-4			100		27.6	97.1		2.004
40			39.5' becomes very moist 40.0										
			40' Boring Terminated										

Depth	Comment
39.5	Water encountered @ 39.5' on 09/25
-	-

SOIL BORING NUMBER: B-2

Page 1 of 1

PROJECT Route 7
DRILLING FIRM PPI **DRILLER** Eric Porter
LOGGED BY Zachary Boyd
STATION/OFFSET - / - -
SURFACE ELEVATION 982.0'

N/E 1042819.3 / 2853885.4
LAT / LONG 39.030119, -94.271413
DATE STARTED 09/24/2024
DATE COMPLETED 09/24/2024
GW DEPTH N/A

Rig Type CME-550X
Tooling
Surface Elevation 982.0'

Depth (ft)	Elevation (ft)	Graphic Log	Visual Classification and Remarks	Depth of Sample (ft)	Sample Number	Sample Graphic	Blow Counts (N/Refusal)	REC / RQD	Atterberg Limits (LL-PL-PI)	Moisture Content (%)	Dry Density (PCF)	% Fines	Compressive Strength
			CONCRETE 0.9										
	980		FILL, brown and gray, firm, moist, LEAN CLAY (CL)	3 ft									
5			5.0	5 ft	U-1			25		27.4			0.727
	975		FILL, reddish brown, stiff, moist, LEAN CLAY (CL)		J-1		2-2-4 (6)	67	45-19-26	25.1			
10			10.5	10 ft									
	970		FILL, gray, stiff, moist, LEAN CLAY (CL) 11.0		J-2		3-5-7 (12)	83		24.3			
			FILL, reddish brown, soft to stiff, moist, FAT CLAY (CH)	13 ft									
15			13.5 Very moist, some free water	15 ft	U-2			96	54-18-36				
	965		16.0		J-3		4-6-9 (15)	100					
			FILL, dark gray, very stiff, moist, FAT CLAY (CH)	20 ft									
20					J-4		5-8-9 (17)	100	53-19-34	24.3			99.4
	960		21' Color change reddish brown/gray	23 ft									
			24.0	25 ft	U-3			100					
25			Dark gray, soft to stiff, moist, FAT CLAY (CH)		J-5		4-7-11 (18)	100	50-21-29	23.6			
	955			30 ft									
30					J-6		5-7-10 (17)	100					
	950			33 ft									
35				35 ft	U-4			100					
	945				J-7		3-3-4 (7)	100	53-18-35	35.6			
				38.5 ft									
40			40.0		J-8		3-4-6 (10)	100					
			40' Boring terminated										

Depth	Comment
-	-
-	-

BORING DATA

Note: For locations of borings, see Sheet No. 1.

Detailed Jan. 2025
Checked Jan. 2025

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

Sheet No. 7 of 7

F:\2022\03001-03500\022-03371\40-Design\Microstation\JKU0010\plan_sheets\17 Retaining Wall Sheets\B_A9505_007_JKU0010.dgn 7:46:45 AM 8/13/2025

STATE OF MISSOURI
ROBERT R. SHERWOOD
NUMBER PE-2025018558
8/13/2025
PROFESSIONAL ENGINEER

DATE PREPARED 8/13/2025
ROUTE 7 STATE MO
DISTRICT BR SHEET NO. 7
COUNTY JACKSON
JOB NO. JKU0010
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9505

DESCRIPTION | DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

U.I.P AND MODIFY EXISTING (44'-68'-44') CONTINUOUS COMPOSITE WIDE FLANGE BEAM SPANS (SKEW: 7° R.A.)

SEC/SUR 30 TWP 49N RGE 30W

General Notes:

Drainage System:
All pipes, elbows, reducers, fittings and all other drainage components shall be Reinforced Thermosetting Resin Pipe (RTRP).

Cost of furnishing and installing all drain pipes, fittings, supports, and other miscellaneous items, complete in place, will be considered completely covered by the contract unit price for Drainage System (On Structure).

Pipe hangers and all miscellaneous hardware for the drainage system shall be galvanized.

Cost of furnishing and installing cone expansion anchor will be considered completely covered by the contract unit price for Drainage System (On Structure).

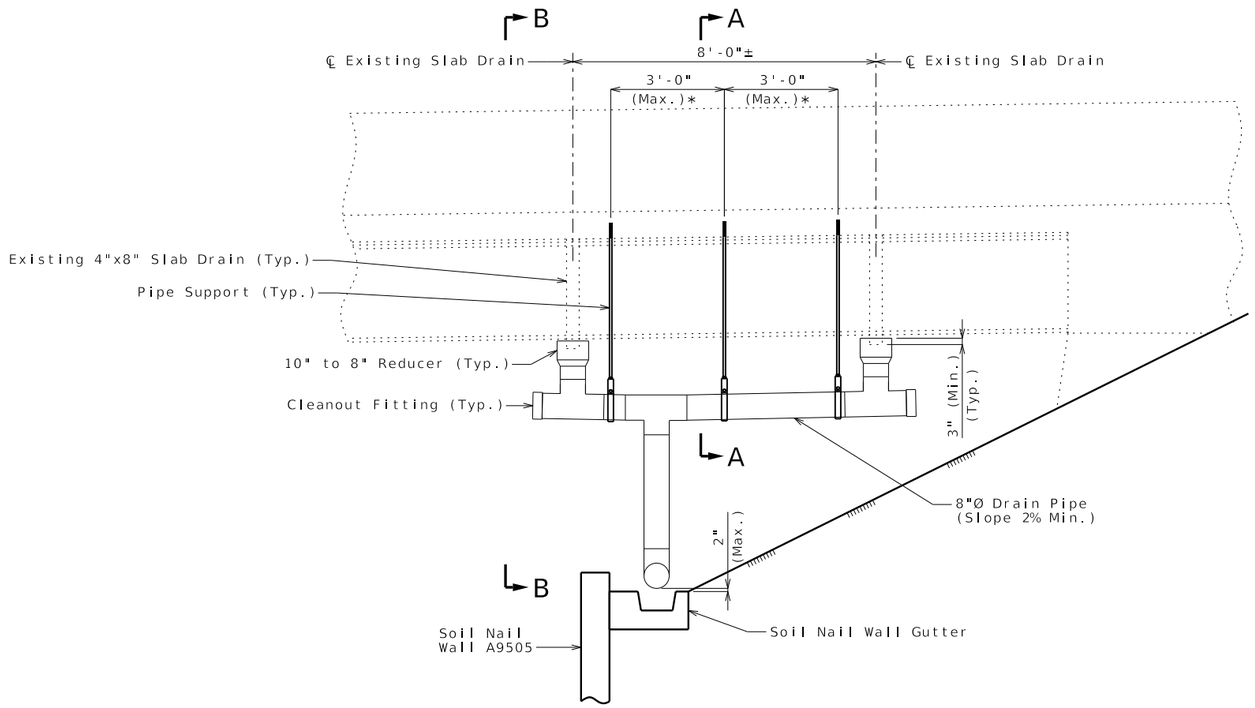
The 3/4" diameter cone expansion anchors shall have a minimum ultimate pullout strength of 12,000 lbs. in concrete with f'c = 4,000 psi.

Traffic Handling:
Traffic to be maintained on structure during construction.

Miscellaneous:
Outline of existing work is indicated by light dashed lines. Heavy lines indicate new work.

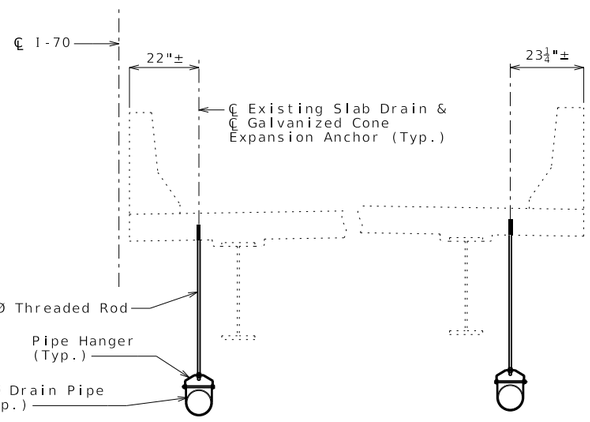
Contractor shall verify all dimensions in field before finalizing the shop drawings.

Estimated Quantities		
Item		Total
Fabricated Sign Support Brackets	lump sum	1
Drainage System (On Structure)	lump sum	1

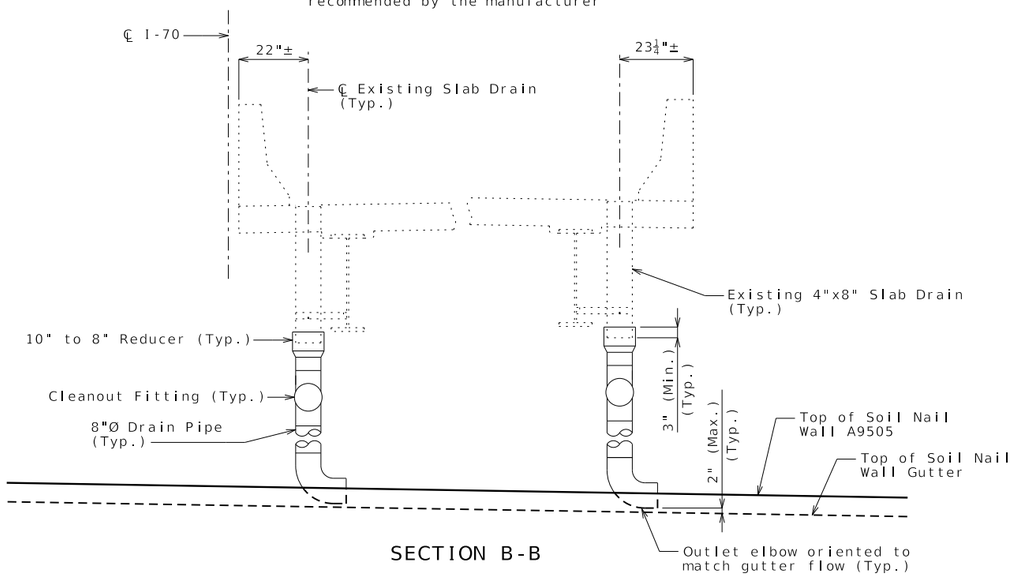


PART ELEVATION NEAR END BENT NO. 4

* Final pipe support spacing shall be as recommended by the manufacturer



SECTION A-A



SECTION B-B

REPAIRS TO BRIDGE: ROUTE I-70 EB OVER ROUTE 7

ROUTE 7 FROM ROUTE 40 TO ROUTE 78
ABOUT 1.5 MILES NORTH OF ROUTE 40
BEGINNING STATION 955+57.17± (Match existing)

GRANT C. LUCKENBILL NUMBER PE-2012018100
8-13-25
GRANT C. LUCKENBILL-ENGINEER
MO# PE-2012018100

DATE PREPARED 8/13/2025
ROUTE I-70 | STATE MO
DISTRICT BR | SHEET NO. 1
COUNTY JACKSON
JOB NO. JKU0010
CONTRACT ID.
PROJECT NO.
BRIDGE NO. L09835

DESCRIPTION | DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

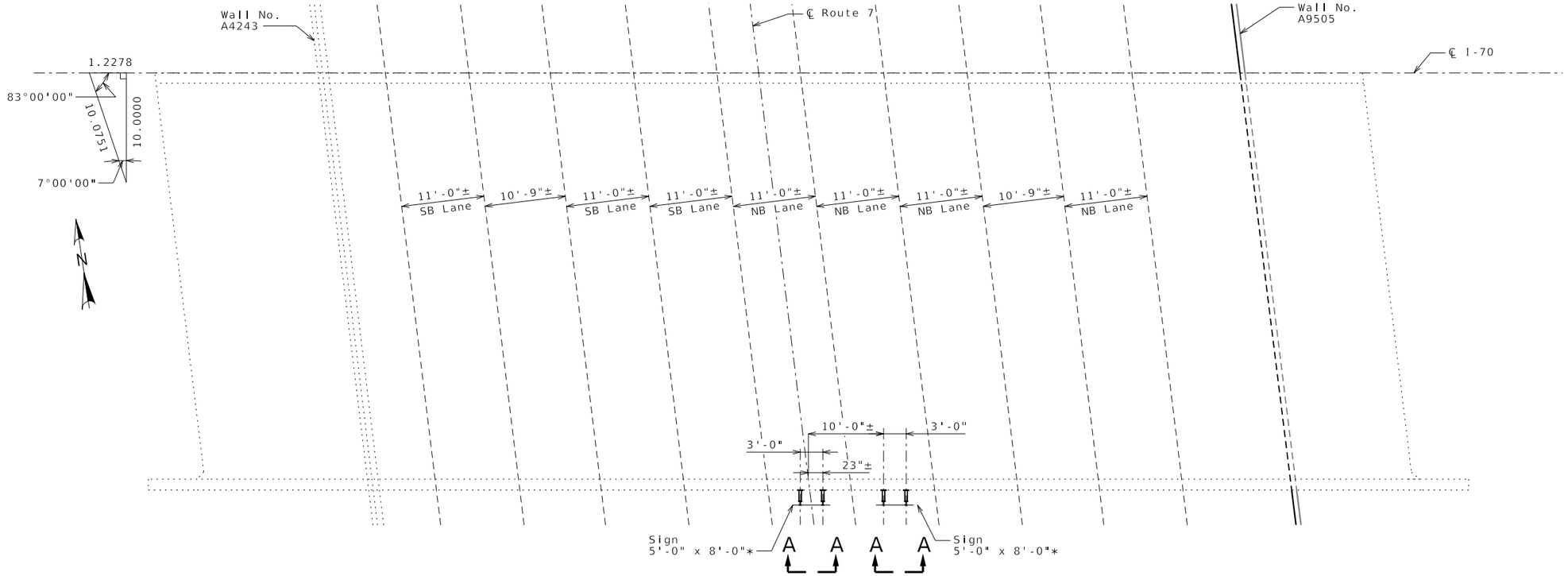
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

REV.

Detailed Jan. 2025
Checked Jan. 2025

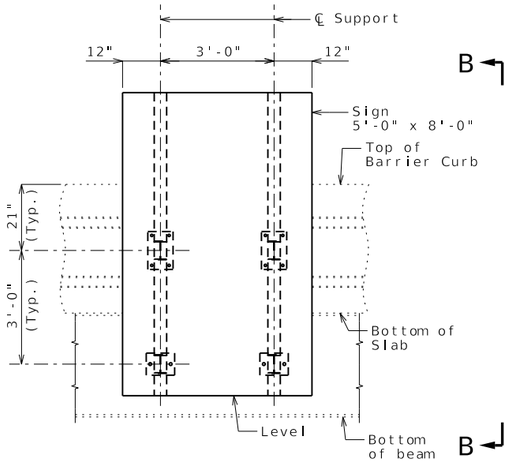
Note: This drawing is not to scale. Follow dimensions.

F:\2022\03001-03500\022-03371\40-Design\Microstation\JKU0010\plan_sheets\16 Bridge Sheets\B_L09835_001_JKU0010.dgn 7:48:37 AM 8/13/2025



PLAN

∗ Centered over lane



Note: Bridge slope @ sign = +1.35%

ELEVATION A-A

Note:

For Section B-B, see Sheet No. 3.

Notes:

Longitudinal dimensions are horizontal.

Center and level sign on brackets.

The contractor shall verify all dimensions in field before ordering materials.

Existing sign support over northbound turn lanes to be removed. Removal of existing sign support will be considered completely covered the contract lump sum price for Fabricated Sign Support Brackets.

The cost of furnishing and erecting the sign supports, including the concrete anchors, complete in place, will be considered completely covered by the contract unit price for Fabricated Sign Support Brackets per lump sum.

The cost of furnishing and erecting the sign boards, including attaching hardware, complete in place, will be paid for as a Roadway Item.

SIGN SUPPORT PLAN

Detailed Jan. 2025
Checked Jan. 2025

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

GRANT C. LUCKENBILL NUMBER PE-2012018100
8-13-25
GRANT C. LUCKENBILL-ENGINEER
MO# PE-2012018100

DATE PREPARED 8/13/2025
ROUTE I-70 | STATE MO
DISTRICT BR | SHEET NO. 2
COUNTY JACKSON
JOB NO. JKU0010
CONTRACT ID.
PROJECT NO.
BRIDGE NO. L09835

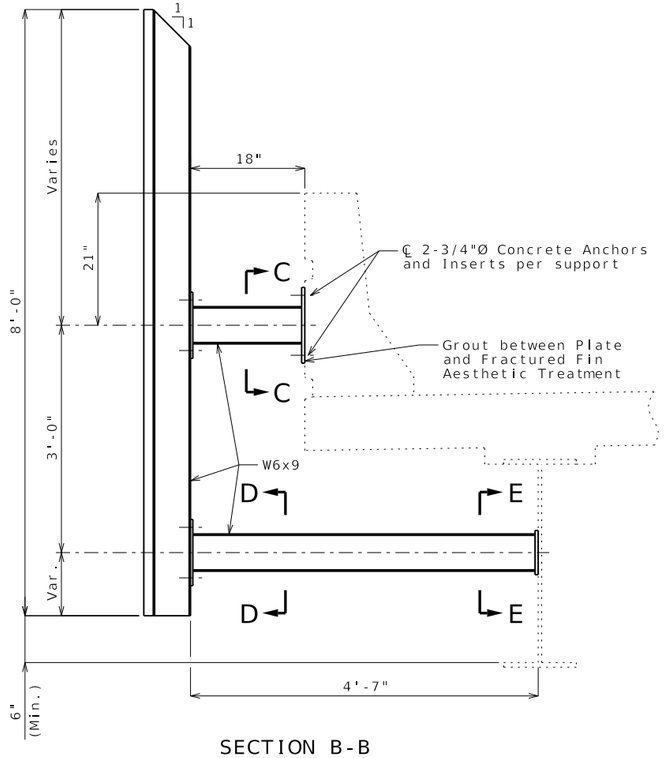
DESCRIPTION | DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

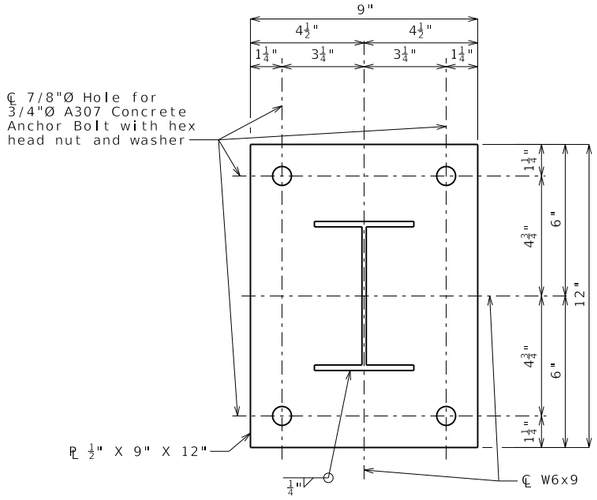
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

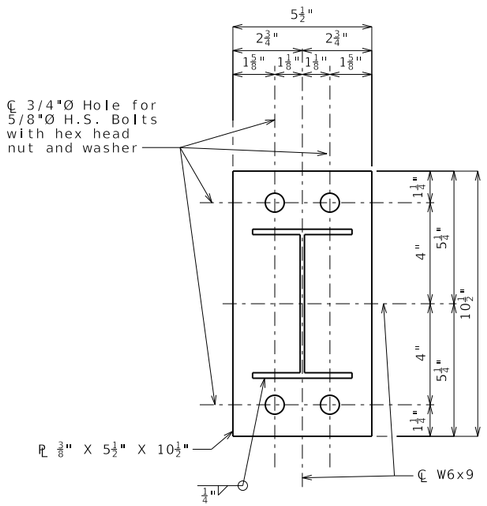
REV.



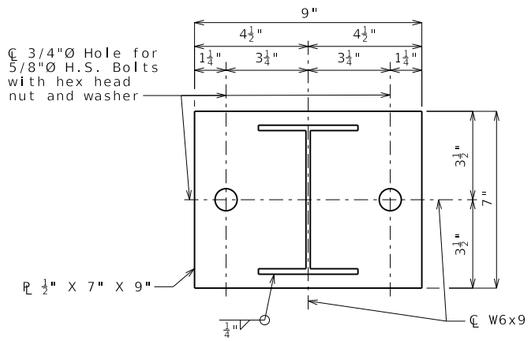
SECTION B-B



SECTION C-C



SECTION D-D



SECTION E-E

Notes:

For location of Section B-B, see Sheet No. 2.

All bolts, nuts and washers shall be galvanized.

All structural steel shall be ASTM A709, Grade 36, galvanized.

Cost of furnishing and installing cone expansion anchor will be considered completely covered by the contract unit price for Fabricated Sign Support Brackets.

The 3/4" diameter cone expansion anchors shall have a minimum ultimate pullout strength of 12,000 lbs. in concrete with f'c = 4000 psi.

Resin anchors shall not be used.

Threaded inserts shall provide a safe working load in tension of 2200 lbs. each and shear of 1990 lbs. each.

Bolt threads shall be burred after sign has been erected.

FABRICATED SIGN SUPPORT BRACKETS

Detailed Jan. 2025
Checked Jan. 2025

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

Sheet No. 3 of 3

GRANT C. LUCKENBILL NUMBER PE-2012018100
8-13-25
GRANT C. LUCKENBILL-ENGINEER
MO# PE-2012018100

DATE PREPARED 8/13/2025

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

COUNTY JACKSON

JOB NO. JKU0010

CONTRACT ID.

PROJECT NO.

BRIDGE NO. L09835

REV.	DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

U.I.P AND MODIFY EXISTING (44'-68'-44') CONTINUOUS COMPOSITE WIDE FLANGE BEAM SPANS (SKEW: 7° R.A.)

SEC/SUR 30 TWP 49N RGE 30W

General Notes:

Drainage System:
All pipes, elbows, reducers, fittings and all other drainage components shall be Reinforced Thermosetting Resin Pipe (RTRP).

Cost of furnishing and installing all drain pipes, fittings, supports, and other miscellaneous items, complete in place, will be considered completely covered by the contract unit price for Drainage System (On Structure).

Pipe hangers and all miscellaneous hardware for the drainage system shall be galvanized.

Cost of furnishing and installing cone expansion anchor will be considered completely covered by the contract unit price for Drainage System (On Structure).

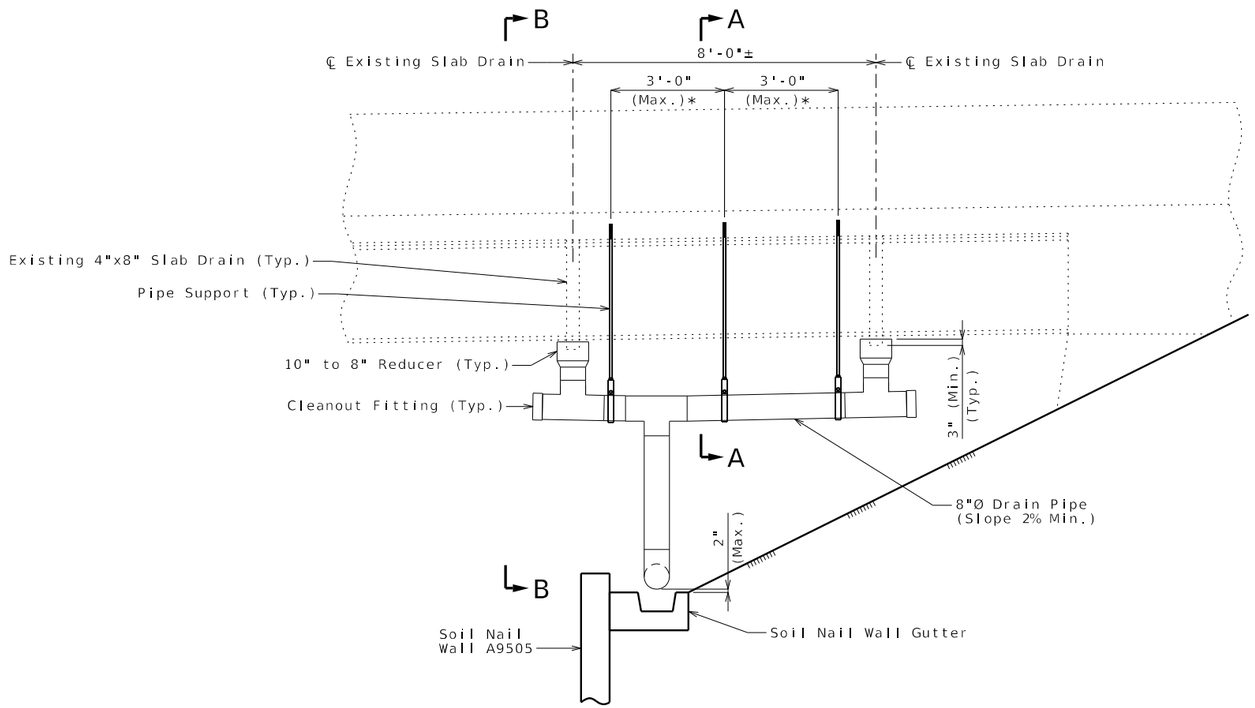
The 3/4" diameter cone expansion anchors shall have a minimum ultimate pullout strength of 12,000 lbs. in concrete with f'c = 4,000 psi.

Traffic Handling:
Traffic to be maintained on structure during construction.

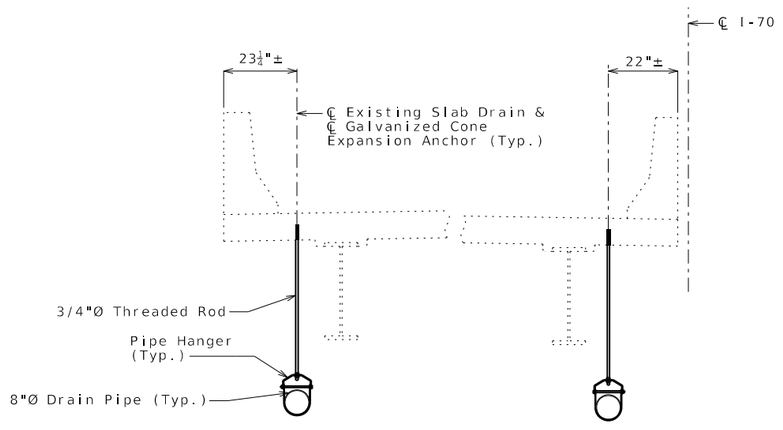
Miscellaneous:
Outline of existing work is indicated by light dashed lines. Heavy lines indicate new work.

Contractor shall verify all dimensions in field before finalizing the shop drawings.

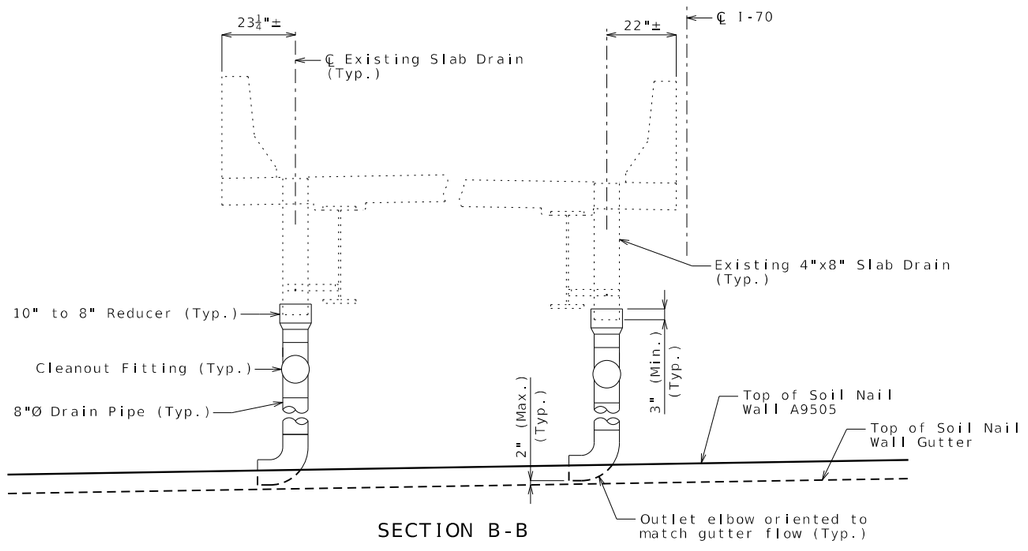
Estimated Quantities		
Item		Total
Drainage System (On Structure)	lump sum	1



PART ELEVATION NEAR END BENT NO. 4
* Final pipe support spacing shall be as recommended by the manufacturer



SECTION A-A



SECTION B-B

REPAIRS TO BRIDGE: ROUTE I-70 WB OVER ROUTE 7

ROUTE 7 FROM ROUTE 40 TO ROUTE 78
ABOUT 1.5 MILES NORTH OF ROUTE 40
BEGINNING STATION 955+49.31± (Match existing)

Detailed Jan. 2025
Checked Jan. 2025

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

Digitally signed by Grant Luckenbill
Date: 2025.08.13 10:01:32-05'00'
GRANT C. LUCKENBILL NUMBER PE-2012018100
13-25
GRANT C. LUCKENBILL-ENGINEER
MO# PE-2012018100

DATE PREPARED 8/13/2025
ROUTE I-70 | STATE MO
DISTRICT BR | SHEET NO. 1
COUNTY JACKSON
JOB NO. JKU0010
CONTRACT ID.
PROJECT NO.
BRIDGE NO. L09836

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

DESCRIPTION | DATE | REV.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

DESIGN DESIGNATION

A.A.D.T. - 2025 = 10,584

A.A.D.T. - 2045 = 15,727

T = 8%

V = 40 M.P.H.

FUNCTIONAL CLASSIFICATION-INTERSTATE

NO RIGHT OF WAY TO BE ACQUIRED

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	D	
DITCH BLOCK		
GROUND MOUNTED SIGN	SIGN	
LIGHT POLE		
H-FRAME POWER POLE	PED	
TELEPHONE PEDESTAL		
FENCE		
CHAIN LINK	-V-	
WOVEN WIRE	-X-	
GATE POST		
BENCHMARK	BM	

NOTE: DASHED OR OPEN SYMBOLS INDICATE EXISTING FEATURES

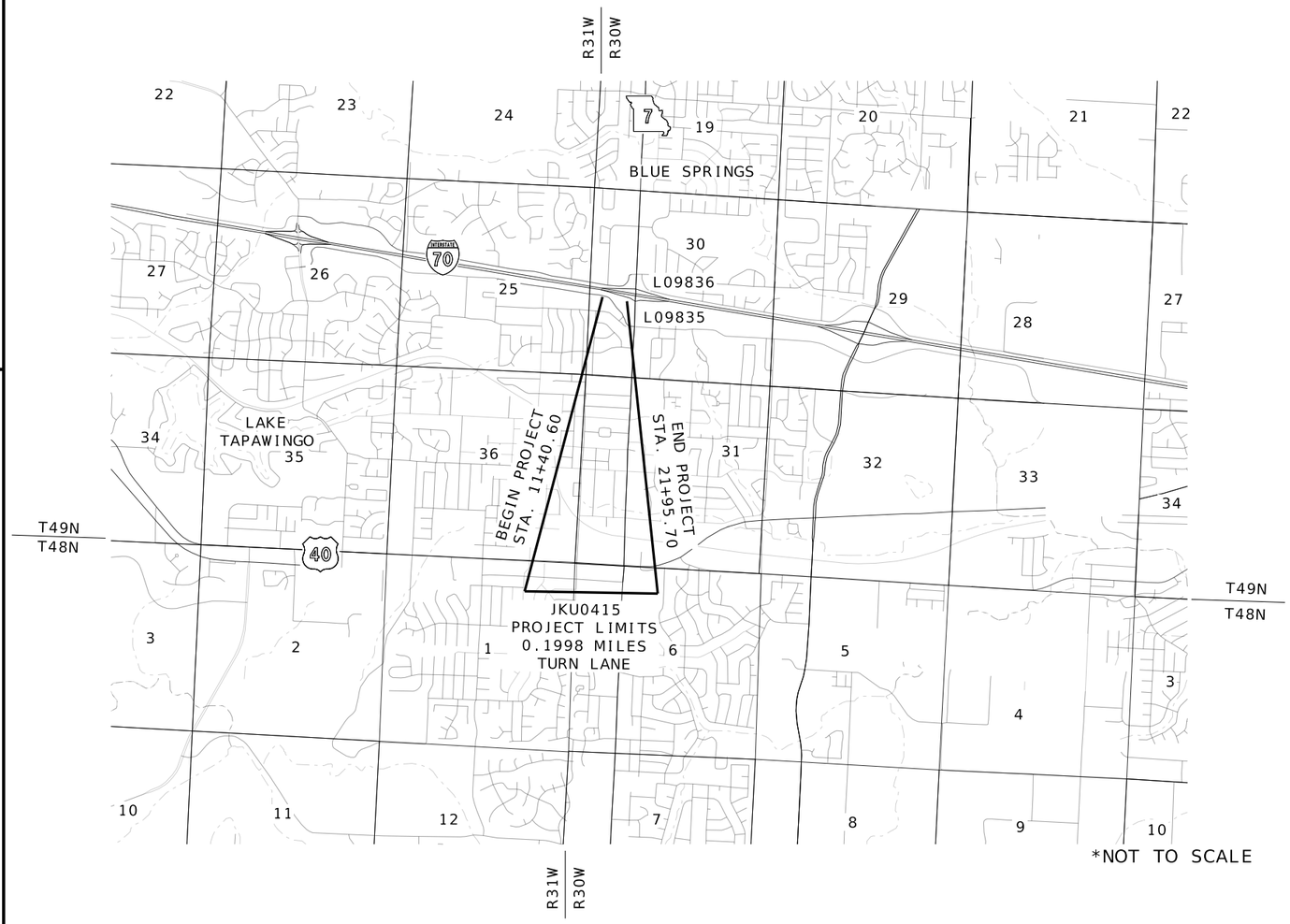
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

PLANS FOR PROPOSED

STATE HIGHWAY

JACKSON COUNTY
SECTION 30
T49N, R30W

KEY MAP
LOCATION OF JACKSON COUNTY



*NOT TO SCALE

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
TITLE SHEET	1
TYPICAL SECTION (TS) (2 SHEETS)	2
QUANTITIES (QU) (4 SHEETS)	3
PLAN-PROFILE (PP)	4-6
COORDINATE POINTS (CP)	7
SPECIAL SHEETS (SS)	8-12
TRAFFIC CONTROL SHEETS (TC)	13-19
EROSION CONTROL SHEETS (EC)	20-22
LIGHTING (LT)	23-24
FIBER (ITS)	25
SIGNING (SN)	26-27
PAVEMENT MARKING (PM)	28
CULVERT SECTIONS (CS)	29-30
CROSS SECTIONS (XS)	1-14

LENGTH OF PROJECT

BEGINNING OF PROJECT	STA. 11+40.60
END OF PROJECT	STA. 21+95.70
APPARENT LENGTH	1055.10 FEET
EQUATIONS AND EXCEPTIONS:	
TOTAL CORRECTIONS	0.0 FEET
NET LENGTH OF PROJECT	1055.10 FEET
STATE LENGTH	0.1998 MILES
FOR INFORMATION ONLY ESTIMATED DISTURBED ACRES	1.7 ACRES

REID BRENNEN CATT NUMBER PE-2010019516

REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
10/3/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	1

COUNTY
JACKSON

JOB NO.
JKU0415

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

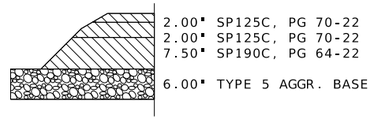
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

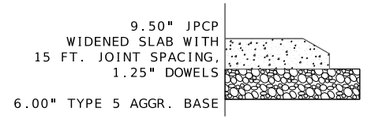
olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

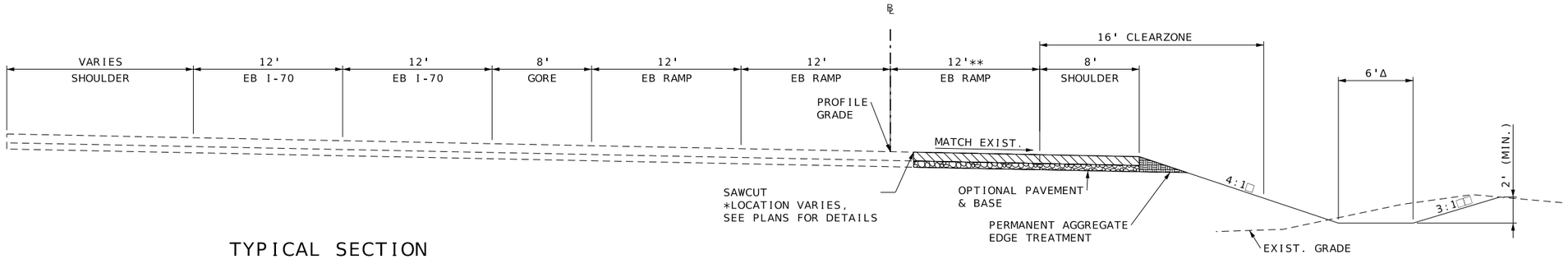
NOTE:
CROSS SECTIONS AND EARTHWORK IN THIS PROJECT ARE BASED ON THE CONCRETE OPTION. CONTRACTOR IS RESPONSIBLE FOR MAKING ANY ADJUSTMENTS WITH NO EXTRA PAY IF ASPHALT OPTION IS USED.

PERMANENT AGGREGATE EDGE TREATMENT FACTOR
1.40 TONS/CY

I-70 RAMP OPTIONAL PAVEMENT DESIGN







TYPICAL SECTION

I-70 EB OFF RAMP B
STA. 11+40.60 TO STA. 21+24.61 RT.

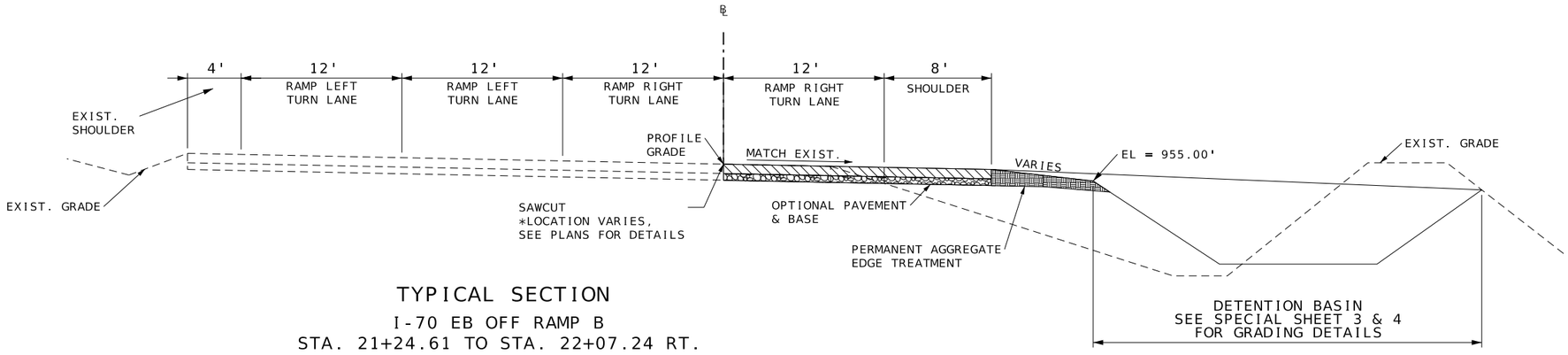
* TRANSITION 0.00' TO 12.00' FROM STA. 14+55.12 TO STA. 15+55.16 RT.

** 0' TO 24' FROM STA. 11+40.60 TO STA. 13+40.60
24' FROM STA. 13+40.60 TO STA. 21+95.70

□ 7:1 TO 4:1 FROM STA. 11+40.60 TO STA. 12+90.00
3:1 TO 6:1 FROM STA. 20+24.59 TO STA. 21+24.59

□□ 3.5:1 TO 3:1 FROM STA. 11+40.60 TO STA. 12+40.75

Δ 5' FROM STA. 11+40.60 TO STA. 16+50.00
5' TO 6' FROM STA. 16+50.00 TO STA. 17+50.00
6' FROM STA. 17+50.00 TO STA. 21+95.70



TYPICAL SECTION

I-70 EB OFF RAMP B
STA. 21+24.61 TO STA. 22+07.24 RT.

PERMANENT AGGREGATE EDGE TREATMENT
ALTERNATE PAVEMENT
MAINLINE BASE
SHOULDERS

NOT TO SCALE

TYPICAL SHEET
1 OF 2

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
10/3/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	2

COUNTY
JACKSON

JOB NO.
JKU0415

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

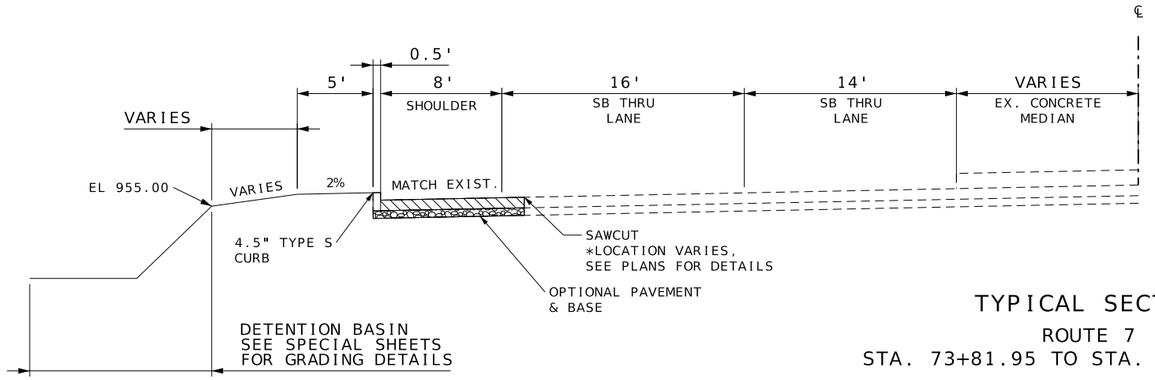
DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

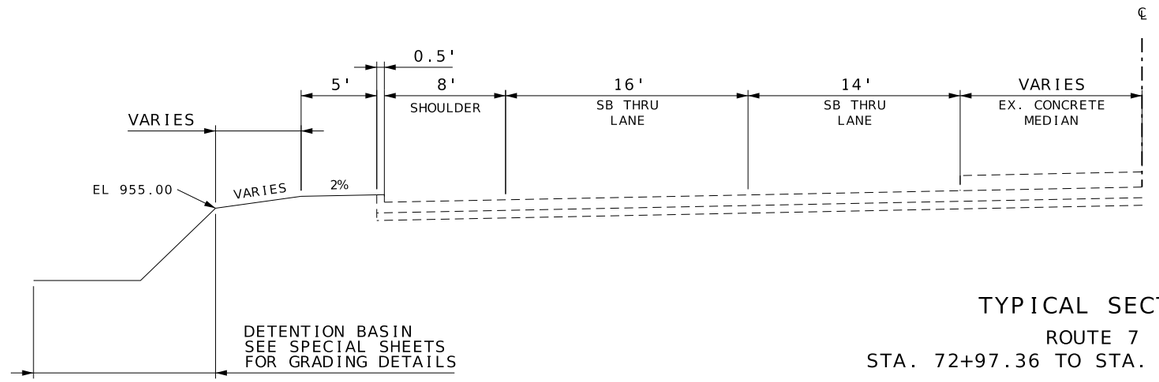
olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

PERMANENT AGGREGATE EDGE TREATMENT FACTOR
1.40 TONS/CY



TYPICAL SECTION

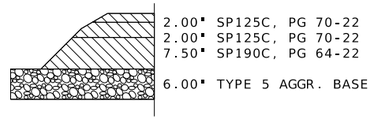
ROUTE 7
STA. 73+81.95 TO STA. 74+11.12 RT.

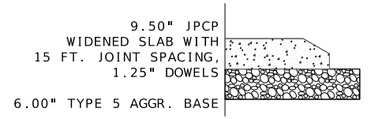


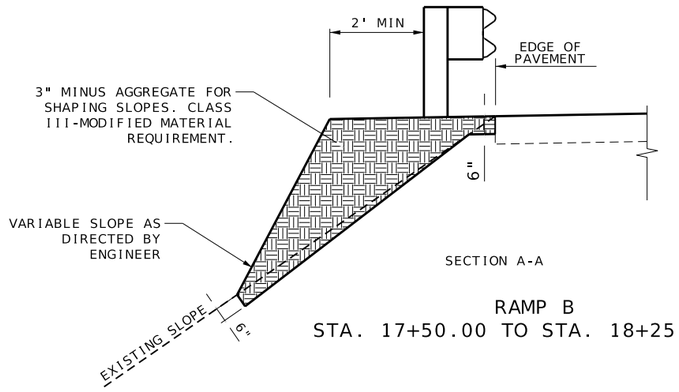
TYPICAL SECTION

ROUTE 7
STA. 72+97.36 TO STA. 73+81.95 RT.

I-70 RAMP OPTIONAL PAVEMENT DESIGN

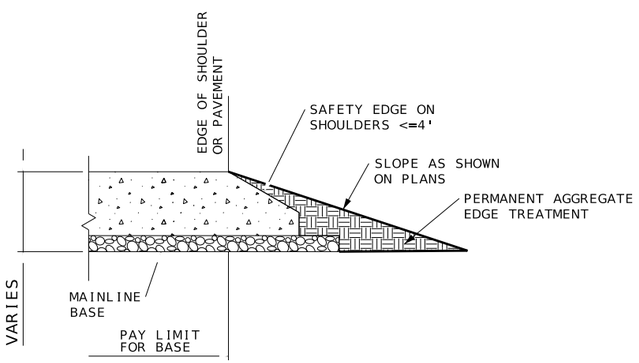




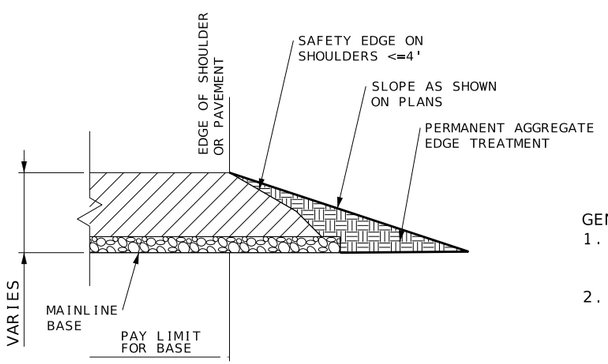


RAMP B

STA. 17+50.00 TO STA. 18+25.00 LT



PCC PAVEMENT



HMA PAVEMENT

PERMANENT AGGREGATE EDGE TREATMENT
ALTERNATE PAVEMENT
MAINLINE BASE
SHOULDERS

NOT TO SCALE

GENERAL NOTE:
1. PERMANENT AGGREGATE EDGE TREATMENT WILL BE PAID FOR UNDER PAY ITEM 3049910 PER TON.
2. SEE STANDARD PLAN 401.00C FOR SAFETY EDGE ITEMS.

TYPICAL SHEET
2 OF 2

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
10/3/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	2

COUNTY
JACKSON

JOB NO.
JKU0415

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

F:\2022\03001-03500\022-03371\40-Design\Microstation\JKU0415\plan_sheets\02 Typcials\002_TS_02_JKU0415_I1.dgn 1:51:35 PM 10/3/2025

MOBILIZATION
1 LUMP SUM

CONTRACTOR FURNISHED SURVEYING AND STAKING
1 LUMP SUM

ADDITIONAL MOBILIZATION FOR SEEDING
4 EACH

CLEARING AND GRUBBING
1 ACRE

REMOVAL OF IMPROVEMENTS				
SHEET	STA.	STA.	LOCATION	DESCRIPTION
4	11+40.6		RAMP B RT	8' SAWCUT
4	11+40.6	22+05.9	RAMP B RT	1071' SAWCUT
4	15+38.37		RAMP B RT	LIGHT POLE; FOOTING
5	16+66.44		RAMP B RT	SCOUT PULL BOX; REMOVE & REPLACE
5	16+86.65		RAMP B RT	FLARED END SECTION
5	18+34.48		RAMP B RT	SIGN MAST ARM, BASE, 2 SIGNS
5	19+09.56		RAMP B RT	1 SIGN, 1 POST
5	19+78.91		RAMP B RT	TREE
5	20+23.87		RAMP B RT	TREE
5	20+46.31		RAMP B RT	TREE
5	20+79.62		RAMP B RT	TREE
6	21+08.18		RAMP B RT	1 SIGN, 2 POSTS
6	21+25.33		RAMP B RT	LIGHT POLE; FOOTING
6	21+47.67		RAMP B RT	SCOUT PULL BOX
6	21+80.26		RAMP B RT	SCOUT PULL BOX
6	22+05.9	22+24.94	RAMP B RT	74' SAWCUT
6	22+15.56	22+24.94	RAMP B RT	10' SAWCUT
6	73+74.04		RTE 7 LT	UTILITY STRUCTURE
6	73+25.64		RTE 7 LT	TREE
1 LUMP SUM				

CURB				
SHEET	STA.	STA.	LOCATION	TYPE S CURB (6 IN AND UNDER) (LF)
6	73+81.95	74+11.12	RTE 7 LT	29
			TOTAL	29

OPTIONAL PAVEMENT					
SHEET	STA.	STA.	LOCATION	I-70 RAMP OPTIONAL PAVEMENT (SY)	6" TYPE 5 AGGREGATE BASE (SY)
4	11+40.6	22+24.94	I-70_RAMP_B RT	2835	2835
			TOTALS	2835	2835

INLET					
STRUCTURE NO.	STA.	LOCATION	SHEET NO.	SPECIAL S-1 INLET (EA)	CL. 3 EXC. (CY)
73S1	73+46.98	RTE 7 LT	30	1	5
SEE SPECIAL SHEET 2 OF 5			TOTAL	1	5

PERMANENT AGGREGATE EDGE TREATMENT						
SHEET	STA.	STA.	LOCATION	WIDTH (FT)	DEPTH (IN)	QUANTITY (TON)
4	11+40.6	22+07.24	RAMP B RT	6	17.5	246.7
					TOTAL	246.7

EROSION CONTROL											
SHEET	STA.	STA.	LOCATION	PHASE	SEDIMENT TRAP EXCAVATION (CY)	SEDIMENT TRAP ROCK (CY)	ALTERNATE DITCH CHECK (LF)	ROCK DITCH CHECK (LF)	SEDIMENT REMOVAL (CY)	TYPE 3B EROSION CONTROL BLANKET (SY)	TURF REINFORCEMENT MAT (SY)
20	11+41.74		RAMP B RT	INITIAL	5	5			1		
20	21+18.34		RAMP B RT	INITIAL	5	5			1		
20	22+19.65		RAMP B RT	INITIAL	5	5			1		
21	12+19.25		RAMP B RT	CONSTRUCTION			14		1		
21	13+05.33	14+42.17	RAMP B RT	CONSTRUCTION			56		4		
21	15+19.85		RAMP B RT	CONSTRUCTION			14		1		
21	16+36.31	20+93.51	RAMP B RT	CONSTRUCTION			266		19		
21	21+93.39		RAMP B RT	CONSTRUCTION				32	3		
22	11+40.67	22+39.89	RAMP B RT	FINAL					0	4233	
22	11+40.92	21+22.18	RAMP B RT	FINAL					0		591
22	21+26.28	21+91.97	RAMP B RT	FINAL					0		441
				TOTAL	15	15	350	32	31	4233	1032

PIPE CULVERTS											
FROM STRUCTURE	STA.	LOCATION	TO STRUCTURE	STA.	LOCATION	SHEET NO.	PIPE COLLAR TYPE A (EA)	GROUP A PIPE 15 IN. (LF)	GROUP A F.E.S. 15 IN. (EA)	CL. 3 EXC. (CY)	ROCK LINING (CY)
EX. PIPE	16+89.65	RAMP B RT	16F1	16+90.39	RAMP B RT	29	1	6	1	3	2
73S1	73+48.84	RTE 7 LT	73F1	73+21.12	RTE 7 LT	30		22	1	11	2
						TOTAL	1	28	2	14	4

SEEDING AND MULCHING						
SHEET	STA.	STA.	LOCATION	COOL SEASON GRASS SEEDING (AC)	TEMPORARY SEEDING (AC)	MULCHING (AC)
4	11+40.74	22+41.08	RAMP B RT	1.1	0.3	1.4
			TOTAL	1.1	0.3	1.4

GUARDRAIL							
SHEET	STA.	STA.	LOCATION	MGS GUARDRAIL (LF)	TYPE A CRASHWORTHY END TERMINAL (MASH) (EA)	MGS END ANCHOR (EA)	SHAPING SLOPES CLASS III (100 FT)
5	17+50.00	18+25.00	RAMP B LT	12.5	1	1	1
5	17+50.00	18+25.00	RAMP B rT	12.5	1	1	1
			TOTAL	25	2	2	2

EARTHWORK						
SHEET	STA.	STA.	LOCATION	UNCLASSIFIED EXCAVATION (CY)	COMPACTING EMBANKMENT (CY)	COMPACTING IN CUT (STA.)
4	11+40.60	21+24.49	I-70_RAMP_B RT	1860	1488	9.8
6	0+00.00	1+91.35	RAMP_B_RADIUS_BL	210	168	1.9
6	20+98.32	22+11.97	DETENTION BASIN	976	781	1.1
			TOTAL	3046	2437	12.8

SUMMARY OF QUANTITIES
SHEET 1 OF 4

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
10/6/2025

ROUTE 7 | STATE MO
DISTRICT KC | SHEET NO. 3
COUNTY JACKSON
JOB NO. JKU0415
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DESCRIPTION | DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

FIBER OPTIC CABLE & CONDUIT

ITS SHEET NUMBER	ROADWAY	CABLE, 24 SINGLE MODE FIBER OPTIC	DETECTOR (INDUCTION LOOP)	CABLE, LEAD-IN	CONDUIT, 2" HDPE-IN TRENCH (LF)	CONDUIT, 3" HDPE-IN TRENCH (LF)	CONDUIT, 3" HDPE PUSHED (LF)	#14 TRACER WIRE * SUBSIDIARY	REMARKS
		9108352	9104980	9108510	9105200	9105201	9107201	-	
1	RAMP B	1240	2	670	520	930	330	1780	
	TOTAL	1240	2	670	520	930	330	1780	
	COIL / SLACK	500							
	USE	1740	2	670	520	930	330	1780	

PULLBOX

ITS SHEET NUMBER	PULL BOX NO.	ROADWAY	STA.	OFF.	KC Scout Fiber Optic Splice Vault	Standard Concrete Pull Box
1	1	RAMP B	11+44.93	26.4' RT.		1
1	2	RAMP B	16+49.77	44.5' RT.		1
1	3	RAMP B	20+96.94	80.0' RT.	1	
1	4	RAMP B	22+37.92	212.6' RT.	1	
1	5	ROUTE 7	72+80.52	95.3' RT.	1	
				TOTAL	3	2

SUMMARY OF QUANTITIES
SHEET 2 OF 4

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED 10/7/2025
ROUTE 7 | STATE MO
DISTRICT KC | SHEET NO. 3
COUNTY JACKSON
JOB NO. JKU0415
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DESCRIPTION | DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH: (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

PAVEMENT MARKING									
STA.	STA.	LOCATION	CLASS 2 PAINT, TYPE L BEADS				PREFORMED THERMOPLASTIC		REMARKS
			6" SOLID WHITE (L.F.)	6" INTERMITTENT WHITE (L.F.)	6" SOLID YELLOW (L.F.)	12" DOTTED WHITE (L.F.)	24" SOLID WHITE (L.F.)	LEFT/RIGHT ARROW (EA.)	
9+00.64	15+50.64	RAMP B	410	212		60			
15+50.64	22+00.64	RAMP B	1845	158	548		60	12	
SUB TOTAL:			2255	370	548	60	60	12	
TOTAL:			2625		548	60	60	12	

BID ITEMS - TRAFFIC SIGNAL (JKU0415)												
ITEM NO	ITEM	QUANTITY	UNIT	ROUTE 40	WALNUT	MAIN	VESPER	R.D. MIZE	MOCK	I-70 EB	I-70WB	SHAW
9020213	SIGNAL HEAD, TYPE 3S	5	EACH	0	4	0	0	1	0	0	0	0
9020513	SIGNAL HEAD, TYPE 3B	11	EACH	0	6	0	0	0	5	0	0	0
9020514	SIGNAL HEAD, TYPE 4B	6	EACH	0	2	0	0	2	2	0	0	0
9020515	SIGNAL HEAD, TYPE 5B	5	EACH	0	0	1	0	2	2	0	0	0
9020811	SIGNAL HEAD, TYPE 1S, PEDESTRIAN	0	EACH	0	0	0	0	0	0	0	0	0
9020833	SH-FLAT SHEET-SIGNAL SIGN	86.3	S.F.	0	52.5	0	0	0	33.8	0	0	0
9020834	SIGNAL SIGN, MOUNTING HARDWARE	10	EACH	0	6	0	0	0	4	0	0	0
9022651	LUMINAIRE, LED-A	2	EACH	0	2	0	0	0	0	0	0	0
9022704	POST SIGNAL, 4'	0	EACH	0	0	0	0	0	0	0	0	0
9022708	POST SIGNAL, 8'	2	EACH	0	1	0	0	0	0	0	0	1
9022715	POST SIGNAL, 15'	0	EACH	0	0	0	0	0	0	0	0	0
9023120	POST, TYPE CL, 20'	1	EACH	0	1	0	0	0	0	0	0	0
9023130	POST, TYPE CL, 30'	0	EACH	0	0	0	0	0	0	0	0	0
9023155	POST, TYPE CL, 55'	0	EACH	0	0	0	0	0	0	0	0	0
9023225	POST, TYPE C, 25'	1	EACH	0	0	1	0	0	0	0	0	0
9023230	POST, TYPE C, 30'	0	EACH	0	0	0	0	0	0	0	0	0
9023255	POST, TYPE C, 55'	3	EACH	0	1	1	0	0	1	0	0	0
9029902	POST, TYPE C, 70'	0	EACH	0	0	0	0	0	0	0	0	0
9023340	POST, TYPE B, LONGEST ARM 40'	0	EACH	0	0	0	0	0	0	0	0	0
9023355	POST, TYPE B, LONGEST ARM 55'	0	EACH	0	0	0	0	0	0	0	0	0
9023455	POST, TYPE BL, LONGEST ARM 55'	0	EACH	0	0	0	0	0	0	0	0	0
9024283	CONTROLLER ASSEMBLY HOUSING, NEMA TS2 CONTROLLER	2	EACH	0	0	0	0	1	1	0	0	0
9024921	ACCESSIBLE PEDESTRIAN SIGNAL	0	EACH	0	0	0	0	0	0	0	0	0
9024975	VIDEO DETECTION SYSTEM	0	EACH	0	0	0	0	0	0	0	0	0
9025200	CONDUIT, 2 IN., TRENCH WITH TRACER WIRE	119	L.F.	0	56	63	0	0	0	0	0	0
9025300	CONDUIT, 3 IN., TRENCH WITH TRACER WIRE	85	L.F.	0	71	0	0	14	0	0	0	0
9027300	CONDUIT, 3IN., PUSHED WITH TRACER WIRE	900	L.F.	0	278	0	0	196	426	0	0	0
9028204	CABLE, 4AWG 1C	93	L.F.	0	60	33	0	0	0	0	0	0
9028219	CABLE, 10AWG 1C	140	L.F.	0	70	70	0	0	0	0	0	0
9028302	CABLE, 12 AWG 2C	320	L.F.	0	320	0	0	0	0	0	0	0
9028308	CABLE, 16AWG 2C	0	L.F.	0	0	0	0	0	0	0	0	0
9028310	CABLE, 16AWG 5C	0	L.F.	0	0	0	0	0	0	0	0	0
9028311	CABLE, 16AWG 7C	5500	L.F.	0	1750	0	0	1380	2370	0	0	0
9028811	PULL BOX, PREFORMED CLASS 2	8	EACH	0	3	0	0	3	2	0	0	0
9028812	PULL BOX, PREFORMED CLASS 3	1	EACH	0	1	0	0	0	0	0	0	0
9029100	BASE, CONCRETE	19.95	C.Y.	0	11.27	5.41	0	0	3.27	0	0	0
9029902	MISC UPS	4	EACH	0	1	1	0	1	1	0	0	0
9029902	MISC APS PUSH BUTTON	0	EACH	0	0	0	0	0	0	0	0	0
9029902	CCTV CAMERA ASSEMBLY	6	EACH	0	1	1	1	1	1	0	0	1
9029903	MISC EVP CABLE	0	L.F.	0	0	0	0	0	0	0	0	0
9029901	OGL SIGNAL COORDINATION	0	LUMP SUM	0								

SUMMARY OF QUANTITIES
SHEET 3 OF 4

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED 10/8/2025
ROUTE 7 | STATE MO
DISTRICT KC | SHEET NO. 3
COUNTY JACKSON
JOB NO. JKU0415
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DESCRIPTION | DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

EFFECTIVE: 07-01-2025

SIGN	SIZE IN.	AREA SQ.FT.	QTY EACH	TOTAL AREA SQ.FT.	QTY RELOC EACH	TOTAL RELOC SQ.FT.	SIGN NUM.	DESCRIPTION
WARNING SIGNS								
WO1-1L	48X48	16.00						TURN (SYMBOL LEFT ARROW)
WO1-1R	48X48	16.00						TURN (SYMBOL RIGHT ARROW)
WO1-2L	48X48	16.00						CURVE (SYMBOL LEFT ARROW)
WO1-2R	48X48	16.00						CURVE (SYMBOL RIGHT ARROW)
WO1-3L	48X48	16.00						REVERSE TURN (SYMBOL LEFT ARROW)
WO1-3R	48X48	16.00						REVERSE TURN (SYMBOL RIGHT ARROW)
WO1-4L	48X48	16.00						REVERSE CURVE (SYMBOL LEFT ARROW)
WO1-4R	48X48	16.00						REVERSE CURVE (SYMBOL RIGHT ARROW)
WO1-4bL	48X48	16.00						DOUBLE ARROW REVERSE CURVE (SYMBOL LT ARROWS)
WO1-4bR	48X48	16.00						DOUBLE ARROW REVERSE CURVE (SYMBOL RT ARROWS)
WO1-4cL	48X48	16.00						TRIPLE ARROW REVERSE CURVE (SYMBOL LT ARROWS)
WO1-4cR	48X48	16.00						TRIPLE ARROW REVERSE CURVE (SYMBOL RT ARROWS)
WO1-6	60X30	12.50						HORIZONTAL ARROW (SYMBOL)
WO1-6a	72X36	18.00						HORIZ. ARROW (SYMBOL ON PERMANENT BARRICADE)
WO1-7	60X30	12.50						DOUBLE HEAD HORIZONTAL ARROW (SYMBOL)
WO1-7a	72X36	18.00						DOUBLE HEAD HORIZ. ARROW (SYMBOL ON PERM. BARR.)
WO1-8	18X24	3.00						CHEVRON (SYMBOL)
WO1-8a	30X36	7.50						CHEVRON (SYMBOL FOR DIVIDED HIGHWAYS)
WO3-1	48X48	16.00						STOP AHEAD (SYMBOL)
WO3-2	48X48	16.00						YIELD AHEAD (SYMBOL)
WO3-3	48X48	16.00						SIGNAL AHEAD (SYMBOL)
WO3-4	48X48	16.00						BE PREPARED TO STOP
WO3-5	48X48	16.00						SPEED LIMIT AHEAD
WO4-1L	48X48	16.00						MERGE (SYMBOL FROM LEFT)
WO4-1R	48X48	16.00						MERGE (SYMBOL FROM RIGHT)
WO4-1aL	48X48	16.00						MERGE (ARROW SYMBOL)
WO4-1aR	48X48	16.00	1	16				MERGE (ARROW SYMBOL)
WO5-1	48X48	16.00	1	16				ROAD/BRIDGE/RAMP NARROWS
WO5-3	48X48	16.00						ONE LANE BRIDGE
WO5-5	48X48	16.00						NARROW LANES
WO6-1	48X48	16.00						DIVIDED HIGHWAY (SYMBOL)
WO6-2	48X48	16.00						DIVIDED HIGHWAY END (SYMBOL)
WO6-3	48X48	16.00						TWO WAY TRAFFIC (SYMBOL)
WO7-3a	30X24	5.00						NEXT XX MILES (PLAQUE)
WO8-1	48X48	16.00						BUMP
WO8-2	48X48	16.00						DIP
WO8-3	48X48	16.00						PAVEMENT ENDS
WO8-4	48X48	16.00						SOFT SHOULDER
WO8-5	48X48	16.00						SLIPPERY WHEN WET (SYMBOL)
WO8-6	48X48	16.00						TRUCK CROSSING (WITH FLAGS)
WO8-6c	48X48	16.00						TRUCK ENTRANCE
WO8-7	36X36	9.00						LOOSE GRAVEL
WO8-7a	36X36	9.00						FRESH OIL/LOOSE GRAVEL
WO8-9	48X48	16.00						LOW SHOULDER
WO8-11	48X48	16.00						UNEVEN LANES
WO8-12	48X48	16.00						NO CENTER LINE
WO8-15	48X48	16.00						GROOVED PAVEMENT
WO8-15P	30X24	5.00						MOTORCYCLE (PLAQUE)
WO8-17	48X48	16.00						SHOULDER DROP-OFF (SYMBOL)
WO8-17P	30X24	5.00						SHOULDER DROP-OFF (PLAQUE)
W10-1	42RND.	9.62						RAILROAD CROSSING
WO12-1	24X24	4.00	1	4				DOUBLE DOWN ARROW (SYMBOL)
WO12-2	48X48	16.00						LOW CLEARANCE (SYMBOL)
W012-2X	24X18	3.00						LOW CLEARANCE (PLAQUE)
WO12-2a	84X24	14.00						OVERHEAD LOW CLEARANCE (FEET AND INCHES)
WO12-4	120X60	50.00						LOW CLEARANCE XX FT XX IN XX MILES AHEAD
WO12-5	120X60	50.00						WIDTH RESTRICTION XX FT XX IN XX MILES AHEAD
WO13-1	30X30	6.25						ADVISORY SPEED (PLAQUE)
WO16-2	30X24	5.00						XXX FEET (PLAQUE)
WO16-3	30X24	5.00						X MILE (PLAQUE)
WO20-1	48X48	16.00	6	96				ROAD/BRIDGE/RAMP WORK AHEAD
WO20-2	48X48	16.00						DETOUR AHEAD
WO20-3	48X48	16.00						ROAD CLOSED AHEAD
WO20-4	48X48	16.00						ONE LANE ROAD AHEAD
WO20-5	48X48	16.00	1	16				RIGHT/CENTER/LEFT LANE CLOSED AHEAD
WO20-5a	48X48	16.00						2 RIGHT/CENTER/LEFT LANES CLOSED AHEAD
WO20-6a	48X48	16.00	1	16				RIGHT/CENTER/LEFT LANE CLOSED
WO20-7a	48X48	16.00						FLAGGER (SYMBOL, WITH FLAGS)
WO21-2	36X36	9.00						FRESH OIL
WO21-5	48X48	16.00						SHOULDER WORK AHEAD
WO22-1	48X48	16.00						BLASTING ZONE AHEAD
WO22-2	42X36	10.50						TURN OFF 2-WAY RADIO AND PHONE
WO22-3	42X36	10.50						END BLASTING ZONE
GO22-1	21X15	2.19	2	4.38				WET PAINT (ARROW PIVOTS)

SIGN	SIZE IN.	AREA SQ.FT.	QTY EACH	TOTAL SQ.FT.	QTY RELOC EACH	TOTAL RELOC SQ.FT.	SIGN NUM.	DESCRIPTION
GUIDE SIGNS								
E05-1	36X48	12.00						GORE EXIT
E05-2	48X36	12.00						EXIT OPEN
E05-2a	48X36	12.00						EXIT CLOSED
GO20-1	60X24	10.00						ROAD WORK NEXT XX MILES
GO20-2	48X24	8.00	2	16				END ROAD WORK
GO20-4	36X18	4.50						PILOT CAR FOLLOW ME
GO20-4a	42X30	8.75						PILOT CAR IN USE WAIT & FOLLOW
GO20-4a	18X12	1.50						PILOT CAR IN USE WAIT & FOLLOW
GO20-5aP	36X24	6.00						WORK ZONE (PLAQUE)
MO4-8a	24X18	3.00						END DETOUR
MO4-9L	48X36	12.00						DETOUR (LEFT ARROW)
MO4-9R	48X36	12.00						DETOUR (RIGHT ARROW)
MO4-9P	48X12	4.00						STREET NAME (PLAQUE)
MO4-10L	48X18	6.00						DETOUR (ARROW LEFT)
MO4-10R	48X18	6.00						DETOUR (ARROW RIGHT)
REGULATORY SIGNS								
R1-1	48X48	13.25						STOP
R1-2	48TRI.	6.93						YIELD
R1-2a	36X36	9.00						TO ONCOMING TRAFFIC (PLAQUE)
R1-3P	30X12	2.50						ALL WAY (PLAQUE)
R2-1	36X48	12.00						SPEED LIMIT XX
R3-1	48X48	16.00						NO RIGHT TURN (SYMBOL)
R3-2	48X48	16.00						NO LEFT TURN (SYMBOL)
R3-3	36X36	9.00						NO TURNS
R3-4	48X48	16.00						NO U-TURN (SYMBOL)
R3-7L	30X30	6.25						LEFT LANE MUST TURN LEFT
R3-7R	30X30	6.25	2	12.5				RIGHT LANE MUST TURN RIGHT
R4-1	36X48	12.00						DO NOT PASS
R4-2	36X48	12.00						PASS WITH CARE
R4-8a	36X48	12.00						KEEP LEFT (HORIZONTAL ARROW)
R4-7a	36X48	12.00						KEEP RIGHT (HORIZONTAL ARROW)
R5-1	30X30	6.25						DO NOT ENTER
R5-1a	36X24	6.00						WRONG WAY
R6-1L	54X18	6.75						ONE WAY ARROW (LEFT)
R6-1R	54X18	6.75						ONE WAY ARROW (RIGHT)
R6-2L	24X30	5.00						ONE WAY (LEFT)
R6-2R	24X30	5.00						ONE WAY (RIGHT)
R9-9	24X12	2.00						SIDEWALK CLOSED
R9-11L	24X18	3.00						SIDEWALK CLOSED AHEAD, (ARROW LEFT) CROSS HERE
R9-11R	24X18	3.00						SIDEWALK CLOSED AHEAD, (ARROW RIGHT) CROSS HERE
R10-6	24X36	6.00						STOP HERE ON RED (45^ ARROW)
R11-2	48X30	10.00						ROAD CLOSED
R11-3a	60X30	12.50						ROAD CLOSED XX MILES AHEAD LOCAL TRAFFIC ONLY
R11-4	60X30	12.50						ROAD CLOSED TO THRU TRAFFIC
CONST-3A	60X48	20.00						FINE SIGN
CONST-3X	56X12	4.67						SPEEDING/PASSING (PLATE)
MISCELLANEOUS SIGNS								
CONST-5	48X36	12.00	2	24				POINT OF PRESENCE
CONST-5	96X48	32.00						POINT OF PRESENCE
CONST-7	48X24	8.00	2	16				RATE OUR WORK ZONE
CONST-7	72X36	18.00						RATE OUR WORK ZONE
CONST-8	48X36	12.00	2	24				WORK ZONE NO PHONE ZONE
W20-5b	48x48	16.00	1	16				BIKE LANE CLOSED AHEAD
R9-20	30x30	6.25	1	6.25				ALLOW USE OF FULL LANE
W9-5a	48x48	16.00	1	16				BICYCLE MERGE
M6-2PL	30x21	4.38	1	4.38				UPWARD ARROW PLAQUE

616-10.05 CONSTRUCTION SIGNS	TOTAL
	304

616-10.10 RELOCATED SIGNS	TOTAL
	0

ITEM NUMBER	TOTAL QTY	DESCRIPTION
6122008		IMPACT ATTENUATOR 40 MPH (SAND BARRELS)
6122009		IMPACT ATTENUATOR 45 MPH (SAND BARRELS)
6122010		IMPACT ATTENUATOR 50 MPH (SAND BARRELS)
6122012		IMPACT ATTENUATOR 55 MPH (SAND BARRELS)
6122014		IMPACT ATTENUATOR 60 MPH (SAND BARRELS)
6122017		IMPACT ATTENUATOR 65 MPH (SAND BARRELS)
6122019		IMPACT ATTENUATOR 70 MPH (SAND BARRELS)
6122020		REPLACEMENT SAND BARREL
6122030		IMPACT ATTENUATOR (RELOCATION)
6123000A	1	TRUCK OR TRAILER MOUNTED ATTENUATOR (TMA)
6161012		BUOYS (BOATS KEEP OUT)
6161013		BUOYS (NO WAKE)
6161014		SPECIAL SIGN ASSEMBLY (BOATS KEEP OUT)
6161020		CHANNELIZER (DRUM-LIKE)
6161022		CHANNELIZER (CONE)
6161025	125	CHANNELIZER (TRIM LINE)
6161026		CHANNELIZER (VERTICAL PANEL)
6161030	5	TYPE III MOVEABLE BARRICADE
6161033		DIRECTION INDICATOR BARRICADE
6161040	2	FLASHING ARROW PANEL
6161047		TYPE III OBJECT MARKER
6161055		SEQUENTIAL FLASHING WARNING LIGHT
6161070		TUBULAR MARKER
6161095		RADAR SPEED ADVISORY SYSTEM
6161096		CHANGEABLE MESSAGE SIGN, COMMISSION FURNISHED/RETAINED
6161098A		CHANGEABLE MESSAGE SIGN W/O COMM. INTERFACE - CONTRACTOR FURNISHED/RETAINED
6161099	2	CHANGEABLE MESSAGE SIGN WITH COMM. INTERFACE - CONTRACTOR FURNISHED/RETAINED
6162000A		WORK ZONE TRAFFIC SIGNAL SYSTEM
6162002		TEMPORARY LONG-TERM RUMBLE STRIPS
6173600D		TEMPORARY TRAFFIC BARRIER CONTRACTOR FURNISHED/RETAINED
6173700B		TEMPORARY TRAFFIC BARRIER CONTRACTOR FURNISHED/COMMISSION RETAINED
6173706		TEMP. TRAFFIC BARRIER STIFFNESS TRANSITION CONTRACTOR FURNISHED/RETAINED
6174000A		TEMP. TRAFFIC BARRIER HEIGHT TRANSITION COMMISSION FURNISHED/RETAINED
6175010A		RELOCATING TEMPORARY TRAFFIC BARRIER
6175011B		RELOCATING TEMP. TRAFFIC BARRIER ANCHORED
6175013		RELOCATING TEMP. TRAFFIC BARRIER STIFFNESS
6175020A		RELOCATING TEMPORARY TRAFFIC BARRIER HEIGHT
6208064A		TEMPORARY RAISED PAVEMENT MARKER
9029400		TEMPORARY TRAFFIC SIGNALS
9029401		TEMPORARY TRAFFIC SIGNALS AND LIGHTING
9029401		TEMPORARY TRAFFIC SIGNALS AND LIGHTING

SUMMARY OF QUANTITIES
SHEET 4 OF 4

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED 10/7/2025

ROUTE 7 | STATE MO

DISTRICT KC | SHEET NO. 3

COUNTY JACKSON

JOB NO. JKU0415

CONTRACT ID.

PROJECT NO.

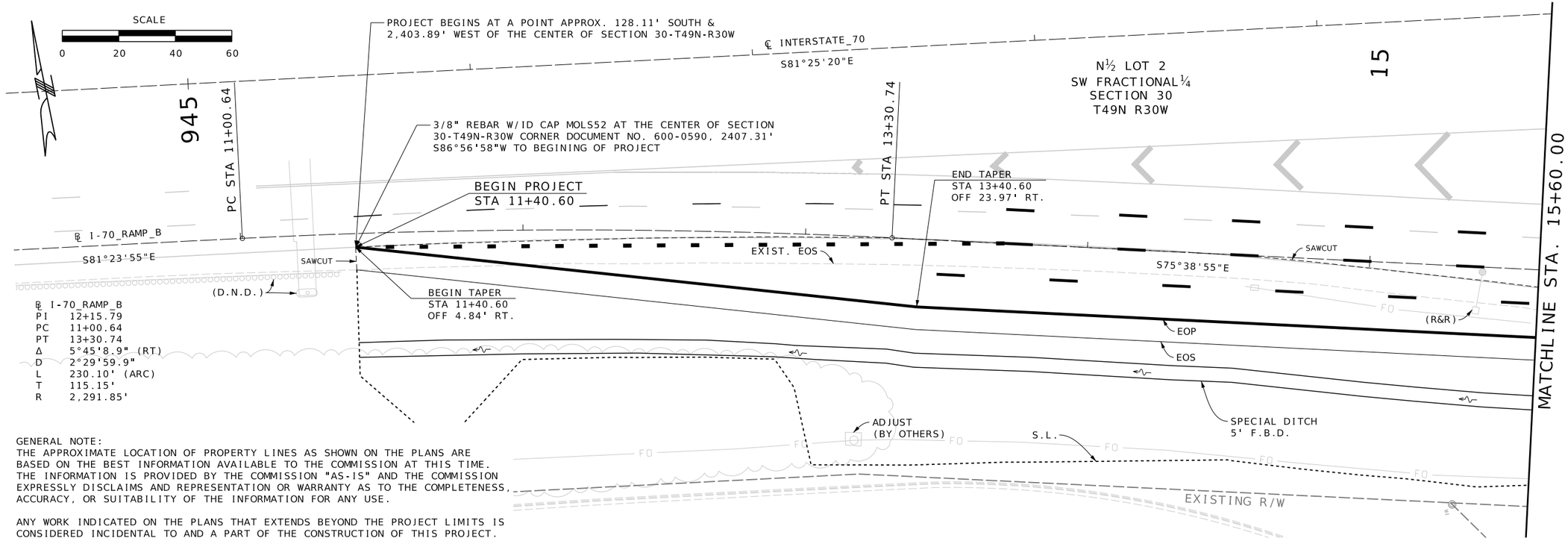
BRIDGE NO.

DATE	DESCRIPTION

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

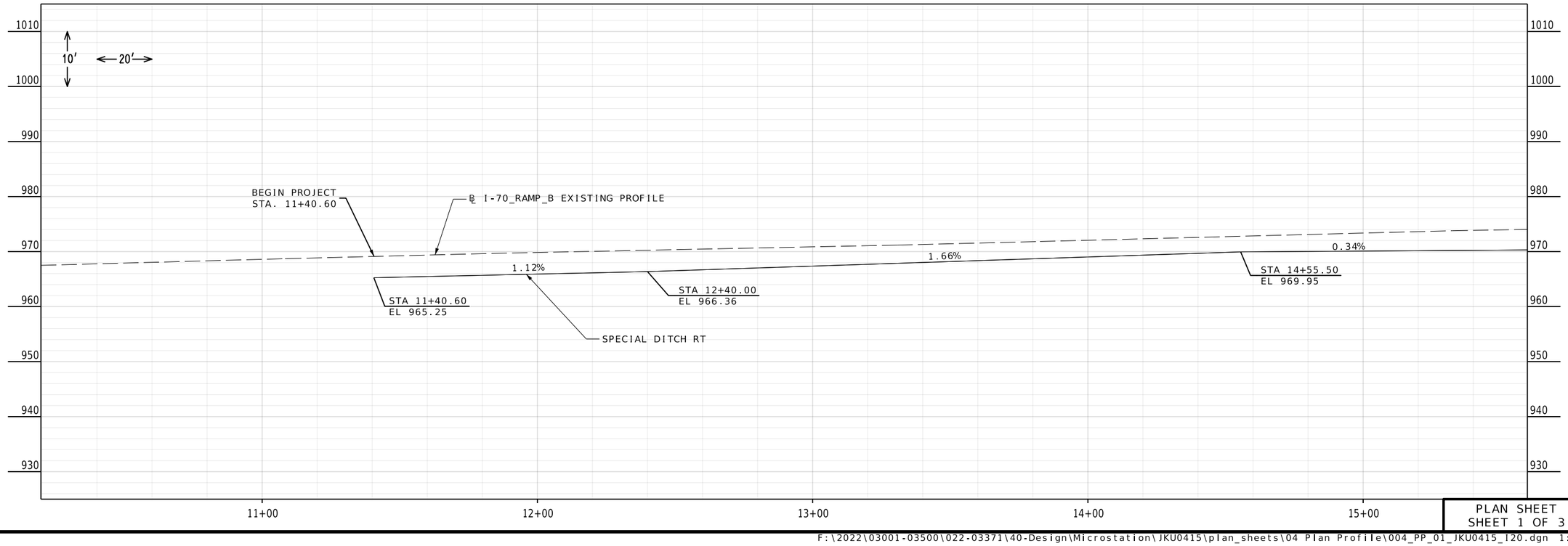


℄ I-70_RAMP_B
PI 12+15.79
PC 11+00.64
PT 13+30.74
Δ 5°45'8.9" (RT)
D 2°29'59.9"
L 230.10' (ARC)
T 115.15'
R 2,291.85'

GENERAL NOTE:
THE APPROXIMATE LOCATION OF PROPERTY LINES AS SHOWN ON THE PLANS ARE BASED ON THE BEST INFORMATION AVAILABLE TO THE COMMISSION AT THIS TIME. THE INFORMATION IS PROVIDED BY THE COMMISSION "AS-IS" AND THE COMMISSION EXPRESSLY DISCLAIMS AND REPRESENTATION OR WARRANTY AS TO THE COMPLETENESS, ACCURACY, OR SUITABILITY OF THE INFORMATION FOR ANY USE.

ANY WORK INDICATED ON THE PLANS THAT EXTENDS BEYOND THE PROJECT LIMITS IS CONSIDERED INCIDENTAL TO AND A PART OF THE CONSTRUCTION OF THIS PROJECT.

ALL BEARINGS ARE BASED ON STATE PLANE BEARINGS, WEST ZONE.



PLAN SHEET
SHEET 1 OF 3

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
10/3/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	4

COUNTY
JACKSON

JOB NO.
JKU0415

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

SCALE
0 20 40 60

N½ LOT 2
SW FRACTIONAL¼
SECTION 30
T49N R30W

FES 16F1
STA. 16+91.25, 50.61' RT
℄ I-70_RAMP_B
SKEW 03°38'54" RA
15"X6' GROUP A PIPE (15")
1-15" GROUP A F.E.S.

STA. 17+50.00 TO STA. 18+25.00 LT
℄ I-70_RAMP_B
BUILD 12.5' MGS GUARDRAIL, 1 TYPE A
CRASHWORTHY END TERMINAL (MASH),
1 MGS END ANCHOR

MATCHLINE STA. 15+60.00

MATCHLINE STA. 21+00.00

(D.N.D.)
(U.I.P.)
℄ I-70_RAMP_B
S75°38'55"E
SAWCUT
EOP
EXIST. EOS
EOS
(R)
(R&R) BY OTHERS
(R&R)
TYPE A PIPE COLLAR
SPECIAL DITCH
5' F.B.D.
FES 16F1
ROCK LINING
S.L.
6' F.B.D.
EXISTING R/W

STA. 17+50.00 TO STA. 18+25.00 RT
℄ I-70_RAMP_B
BUILD 12.5' MGS GUARDRAIL, 1 TYPE A
CRASHWORTHY END TERMINAL (MASH),
1 MGS END ANCHOR

10' ← 20' →

15" GROUP A PIPE (15")
℄ I-70_RAMP_B EXISTING PROFILE
0.34%
-3.03%
2.00%
3.81%
-3.03%
STA 16+19.15
EL 970.50
LFL 968.38
STA 17+00.00
EL 968.05
SPECIAL DITCH RT
STA 18+50.00
EL 965.05
STA 20+50.00
EL 957.43

1010 1000 990 980 970 960 950 940 930 920

16+00 17+00 18+00 19+00 20+00

PLAN SHEET
SHEET 2 OF 3

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
10/3/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	5

COUNTY
JACKSON

JOB NO.
JKU0415

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION | DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

F:\2022\03001-03500\022-03371\40-Design\Microstation\JKU0415\plan_sheets\04 Plan Profile\005_PP_02_JKU0415_I20.dgn 1:51:49 PM 10/3/2025

MATCHLINE STA. 21+00.00

N½ LOT 2
SW FRACTIONAL¼
SECTION 30
T49N R30W

EXIST. 15' SANITARY SEWER ESM'T

EXIST. 10' UTILITY ESM'T

DETENTION BASIN

EXISTING R/W

RAMP_B_RADIUS_BL
PI 0+73.37
PC 0+00.00
PT 1+26.59
Δ 72°32'35.4" (RT)
D 57°18'15.6"
L 126.59' (ARC)
T 73.37'
R 99.99'

+25.14 32.01'

EXIST. EOS

℄ I-70_RAMP_B S75°38'55"E

R 92'

R 100'

INLET 73S1

S.L.

FES 73F1

(D.N.D.)

ADJUST WATER VALVE (BY OTHERS)

+81.95 50.62'

+11.13 52.41'

EOS

EOP

SAWCUT

SAWCUT

S02°37'15"E

℄ RAMP_B_RADIUS_BL

4.5" S-CURB

TAPER CURB 1'

PT STA 1+26.59

END PROJECT
STA 21+95.70

ROCK DITCH LINING WITH TOE WALL

STA. 2+30.67 ℄ (RAMP_B_RADIUS_BL)=
STA. 72+95.50 ℄ (RTE_7_N), OFF 35.14' LT

¼¼ SECTION LINE

℄ RTE_7_N N01°36'05"E

FES 73F1
STA. 73+24.71, 69.41' RT
℄ RTE_7_N
1-15" GROUP A F.E.S.

INLET 73S1
STA. 73+52.25, 85.27' RT
℄ RTE_7_N
1-3'X3' SPECIAL S-1 INLET
SEE SPECIAL SHEET 2 OF 5
1-15" PIPE OPENING

STA. 0+00.00 ℄ (RAMP_B_RADIUS_BL)=
STA. 21+24.59 ℄ (I-70_RAMP_B, OFF 24.00' LT

955

S81°25'20"E ℄ INTERSTATE_70

SCALE
0 20 40 60

102°44'59"

STA. 22+41.79 ℄ (I-70_RAMP_B)=
STA. 74+86.82 ℄ (RTE_7_N)
STA. 0+00.00 ℄ (I-70_RAMP_D)

BRIDGE L0983

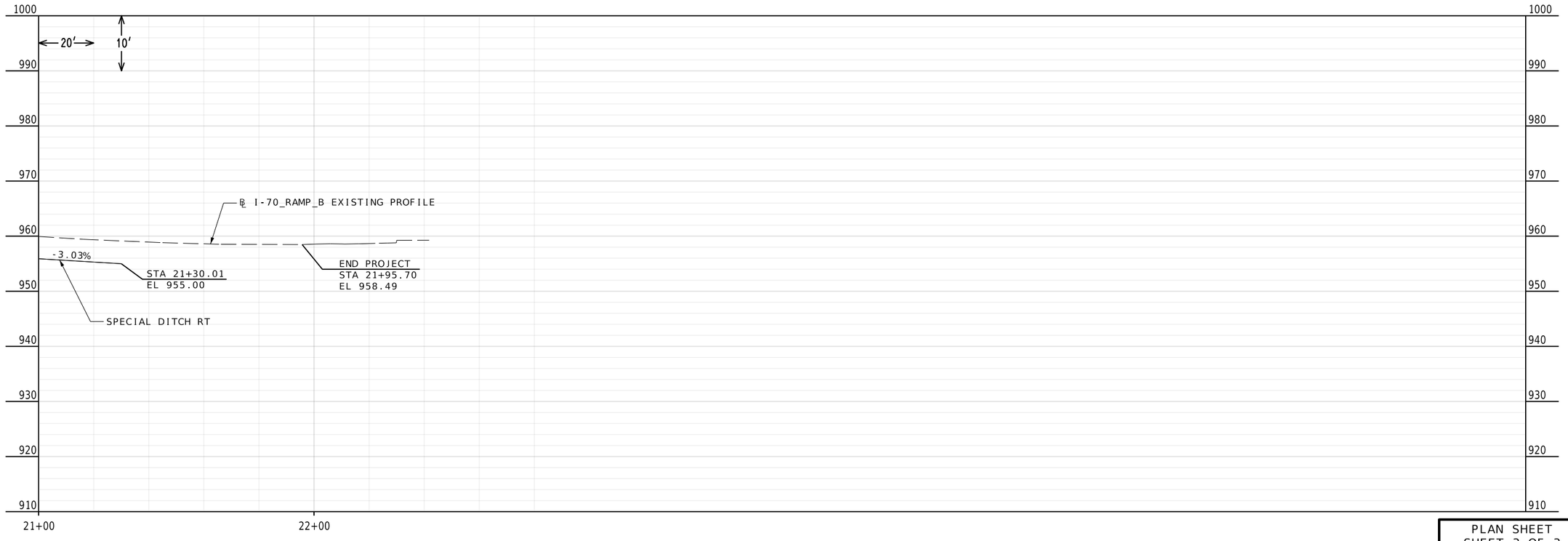
91°0'0"

83°1'25"

STA. 956+33.00 ℄ (INTERSTATE_70)=
STA. 76+46.82 ℄ (RTE_7_N)

S87°23'55"E ℄ I-70_RAMP_D

75



PLAN SHEET
SHEET 3 OF 3

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
10/3/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	6

COUNTY
JACKSON

JOB NO.
JKU0415

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

F:\2022\03001-03500\022-03371\40-Design\Microstation\JKU0415\plan_sheets\04 Plan Profile\006_PP_03_JKU0415_I20.dgn 1:51:53 PM 10/3/2025

ALL PROJECT COORDINATES HAVE BEEN PROJECTED FROM THE MISSOURI STATE PLANE COORDINATE (SPC) SYSTEM OF 1983 USING AN AVERAGE PROJECT PROJECTION (GRID TO GROUND) FACTOR. TO GET BACK TO STATE PLANE COORDINATES, MULTIPY THE PROJECT COORDINATES BY THE AVERAGE GRID FACTOR AS SHOWN IN THE "REFERENCE CONTROL INFORMATION" PORTION OF THIS TABLE.

PROJECT COORDINATE INFORMATION

COORDINATE SYSTEM	STATE PLANE, MISSOURI WEST
HORIZONTAL DATUM	NAD 1983
VERTICAL DATUM	NAVD 1988
GEOID MODEL	JACKSON COUNTY
ELEVATIONS DETERMINED BY	GPS OBSERVATIONS
PROJECT PROJECTION FACTOR	1.00009161

REFERENCE CONTROL INFORMATION

COORDINATE SYSTEM	NAD 1983
CONTROL STATION	JA140
DESIGNATION	JA140
CORS_ID	
PID	95140
LATITUDE	39°01'38.76519"
LONGITUDE	94°14'41.81026"
NORTHING (M)	317525.857
EASTING (M)	872084.48
ZONE	WEST
PROJECT AVERAGE GRID FACTOR	0.99990840

EXAMPLE OF PROJECT COORDINATE TO S.P.C.

PROJECT NORTHING X AVERAGE GRID FACTOR
= STATE PLANE NORTHING
PROJECT EASTING X AVERAGE GRID FACTOR
= STATE PLANE EASTING

EXAMPLE: CONTROL POINT #5005
N 1035387.37 X 0.99990840 = N 1035292.53
E 2854734.11 X 0.99990840 = E 2854472.62

LINEAR UNIT CONVERSION

1 METER = 3.280833333 US SURVEY FEET (USFT)

COORDINATE POINT LISTING

SHEET NO	STATION	LOCATION	OFFSET (USFT)	MODIFIED STATE PLANE (GROUND) NORTHING (US SURVEY FT)	EASTING (US SURVEY FT)	ELEVATION (US SURVEY FT)	DESCRIPTION	GPK POINT ID
PROJECT CONTROL POINTS								
	801+60.68	RTE 40	-98.9	1,035,387.37	2,854,734.41	917.14	CONTROL - GPS 5005 1/2" REBAR W/ CONTROL POINT CAP	
	28+28.71	RTE 7	-50	1,038,030.46	2,853,594.69	947.49	CONTROL - GPS 5009 1/2" REBAR W/ CONTROL POINT CAP	
	53+36.78	RTE 7	-57.75	1,040,537.36	2,853,678.09	934.39	CONTROL - GPS 5013 1/2" REBAR W/ CONTROL POINT CAP	
	86+34.29	RTE 7	46.47	1,043,830.04	2,853,874.51	984.49	CONTROL - GPS 5017 1/2" REBAR W/ CONTROL POINT CAP	
ALIGNMENTS								
RTE_7_N								
	0+00.00	℄		1,035,201.1664	2,853,583.1354		BEGIN ALIGNMENT RTE_7_N	
	30+70.90	℄		1,038,271.3591	2,853,649.0398		STATION EQUATION BK	
	30+71.35	℄		1,038,271.3591	2,853,649.0398		STATION EQUATION AH	
	30+79.92	℄		1,038,279.9232	2,853,649.2236		PC POINT	
	31+29.38	RT	0.214	1,038,329.3750	2,853,650.2852		PI POINT Δ = 00°59'25.54" RT	
				1,038,157.1085	2,859,370.6121		CC POINT	
	31+78.84	℄		1,038,378.8011	2,853,652.2013		PT POINT	
	53+46.76	℄		1,040,545.0965	2,853,736.1847		PI POINT Δ = 00°37'7.33" LT	
	88+00.00	℄		1,043,996.9850	2,853,832.6915		END ALIGNMENT RTE_7_N	
INTERSTATE_70								
	943+50.00	℄		1,043,035.6190	2,852,531.8155		BEGIN ALIGNMENT INTERSTATE_70	
	968+00.00	℄		1,042,670.1916	2,854,954.4097		END ALIGNMENT INTERSTATE_70	
I-70_RAMP_A								
	0+00.00	℄		1,042,997.1946	2,853,804.7397		BEGIN ALIGNMENT I-70_RAMP_A	
	6+58.81	℄		1,043,014.6164	2,853,146.1601		PC POINT	
	7+77.06	RT	3.657	1,043,017.7435	2,853,027.9507		PI POINT Δ = 07°05'010.00" RT	
				1,044,923.7779	2,853,196.6644		CC POINT	
	8+95.01	℄		1,043,035.4291	2,852,911.0299		PT POINT	
	12+98.01	℄		1,043,095.7019	2,852,512.5626		END ALIGNMENT I-70_RAMP_A	
I-70_RAMP_B								
	7+00.64	℄		1,043,015.7025	2,852,292.5628		BEGIN ALIGNMENT I-70_RAMP_B	
	11+00.64	℄		1,042,955.8784	2,852,688.0638		PC POINT	
	12+15.79	RT	2.891	1,042,938.6570	2,852,801.9159		PI POINT Δ = 05°45'08.95" RT	
				1,040,689.8104	2,852,345.2943		CC POINT	
	13+30.74	℄		1,042,910.1107	2,852,913.4685		PT POINT	
	22+41.79	℄		1,042,684.3167	2,853,795.9924		END ALIGNMENT I-70_RAMP_B	
I-70_RAMP_C								
	11+10.62	℄		1,042,733.5990	2,854,906.4563		BEGIN ALIGNMENT I-70_RAMP_C	
	12+17.90	RT	2.51	1,042,749.6436	2,854,800.3846		PI POINT Δ = 05°21'40.00" RT	
				1,044,999.1834	2,855,249.1520		CC POINT	
	13+25.02	℄		1,042,775.5285	2,854,696.2760		PT POINT	
	22+43.70	℄		1,042,997.1842	2,853,804.7394		END ALIGNMENT I-70_RAMP_C	
I-70_RAMP_D								
	0+00.00	℄		1,042,684.3167	2,853,795.9924		BEGIN ALIGNMENT I-70_RAMP_D	
	8+83.43	℄		1,042,644.2195	2,854,678.5101		PC POINT	
	9+83.52	RT	2.621	1,042,639.6766	2,854,778.4984		PI POINT Δ = 06°00'00.00" RT	
				1,040,736.3285	2,854,591.8252		CC POINT	
	10+83.43	℄		1,042,624.7069	2,854,877.4641		END ALIGNMENT I-70_RAMP_D	
RAMP_B_RADIUS_BL								
	0+00.00	℄		1,042,690.1147	2,853,676.4957		BEGIN ALIGNMENT RAMP_B_RADIUS_BL PC POINT	
	0+73.37	LT	24.032	1,042,671.3139	2,853,747.4161		PI POINT Δ = 72°32'35.42" RT	
				1,042,593.4679	2,853,650.8750		CC POINT	
	1+26.59	℄		1,042,598.0199	2,853,750.7564		PT POINT	
	2+30.67	℄		1,042,494.0533	2,853,755.5151		END ALIGNMENT RAMP_B_RADIUS_BL	

COORDINATE POINT SHEET
SHEET 1 OF 1

REID BRENNEN CATT NUMBER PE-2010019516
REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED 10/3/2025
ROUTE 7 | STATE MO
DISTRICT KC | SHEET NO. 7
COUNTY JACKSON
JOB NO. JKU0415
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

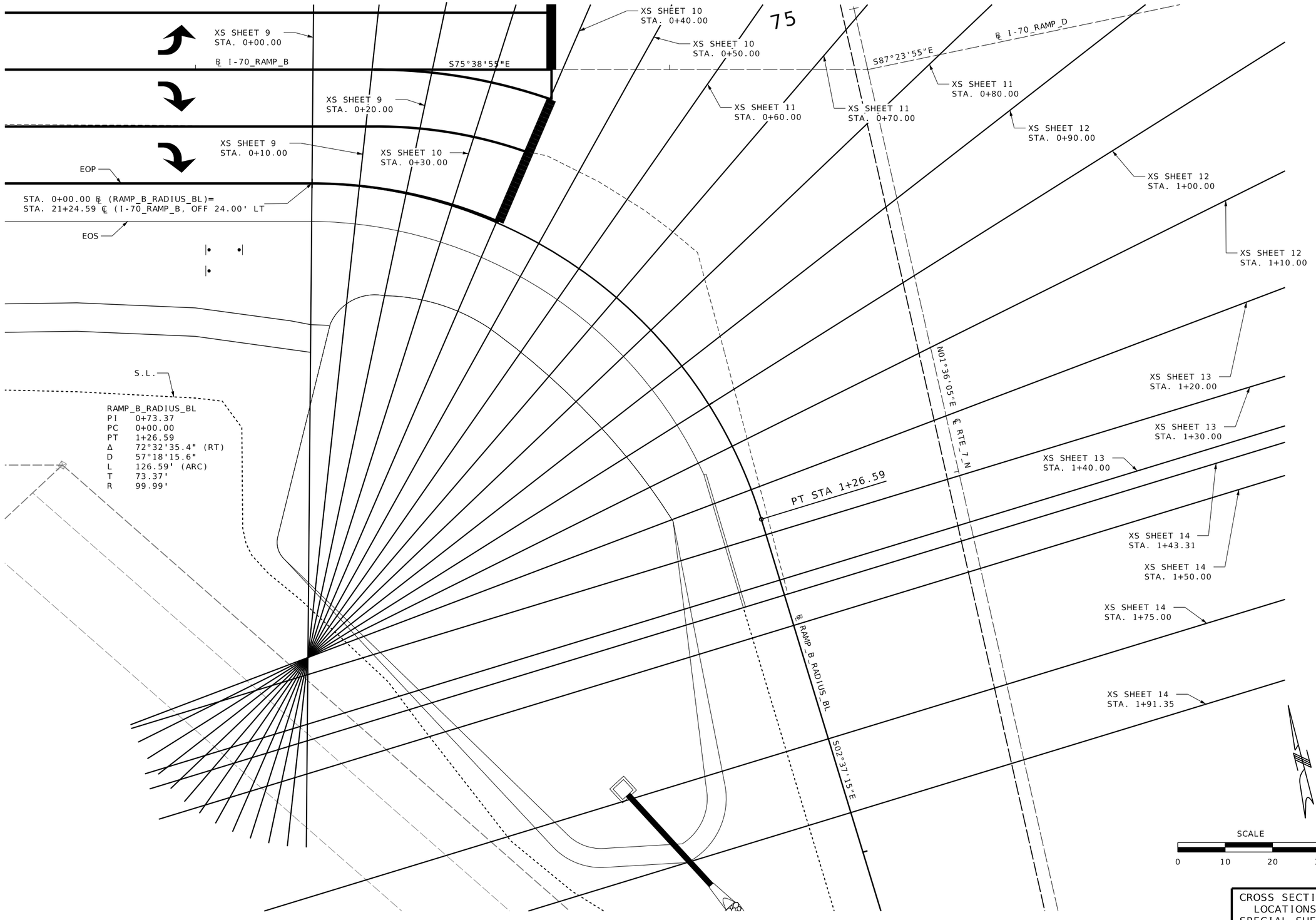
DESCRIPTION | DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

F:\2022\03001-03500\022-03371\40-Design\Microstation\JKU0415\plan_sheets\07 Coordinate Points\007_CP_1_JKU0415_I1.dgn 1:51:54 PM 10/3/2025



CROSS SECTION LOCATIONS
SPECIAL SHEET
SHEET 1 OF 5

REID BRENNEN CATT
NUMBER PE-2010019516

REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
10/3/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	8

COUNTY
JACKSON

JOB NO.
JKU0415

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

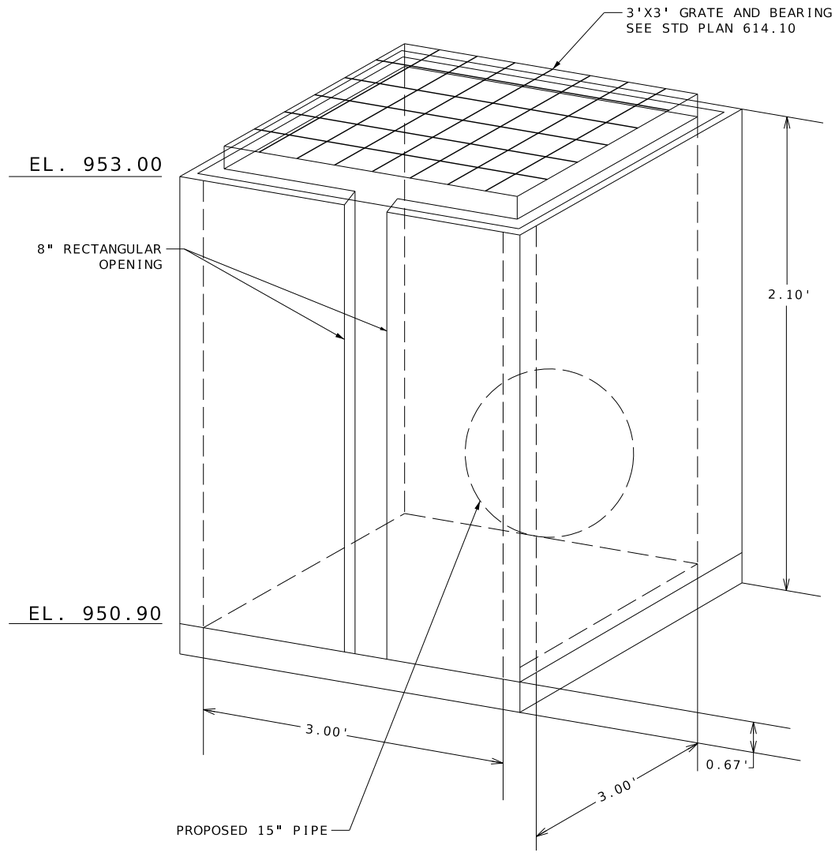
DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.



3'X3' SPECIAL TYPE S-1 INLET DETAIL

NOT TO SCALE

NOTE:
1. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL.
2. GRATE & BEARING PLATE IS TO BE INCLUDED IN THE PRICE OF THE INLET.

SPECIAL S-1 INLET
SPECIAL SHEET
SHEET 2 OF 5

REID BRENNEN CATT
NUMBER
PE-2010019516

REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
10/3/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	9

COUNTY
JACKSON

JOB NO.
JKU0415

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

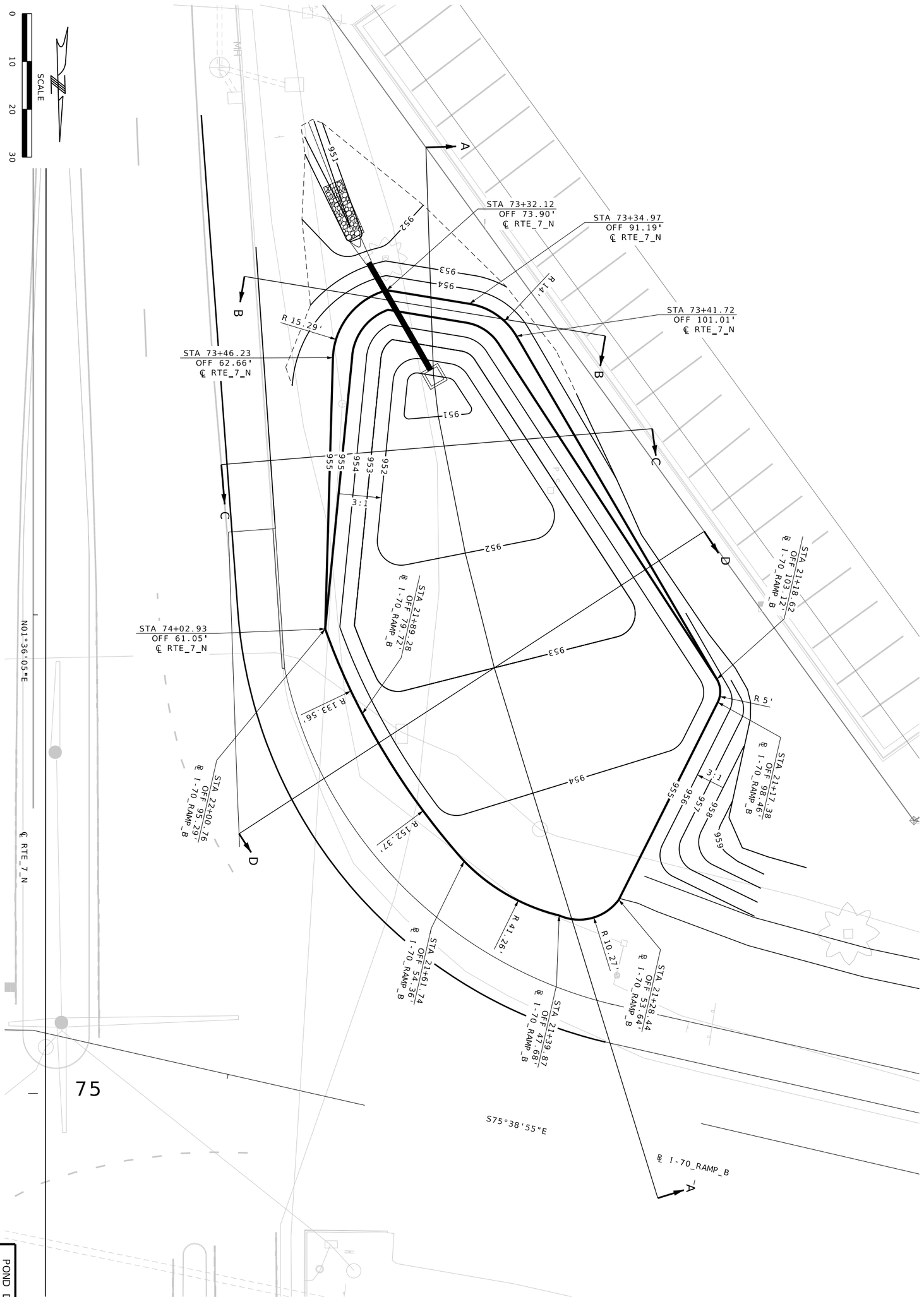
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

olsson

1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592



POND DETAIL
SPECIAL SHEET
SHEET 3 OF 5

olsson
1301 BURLINGTON STREET, SUITE. 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

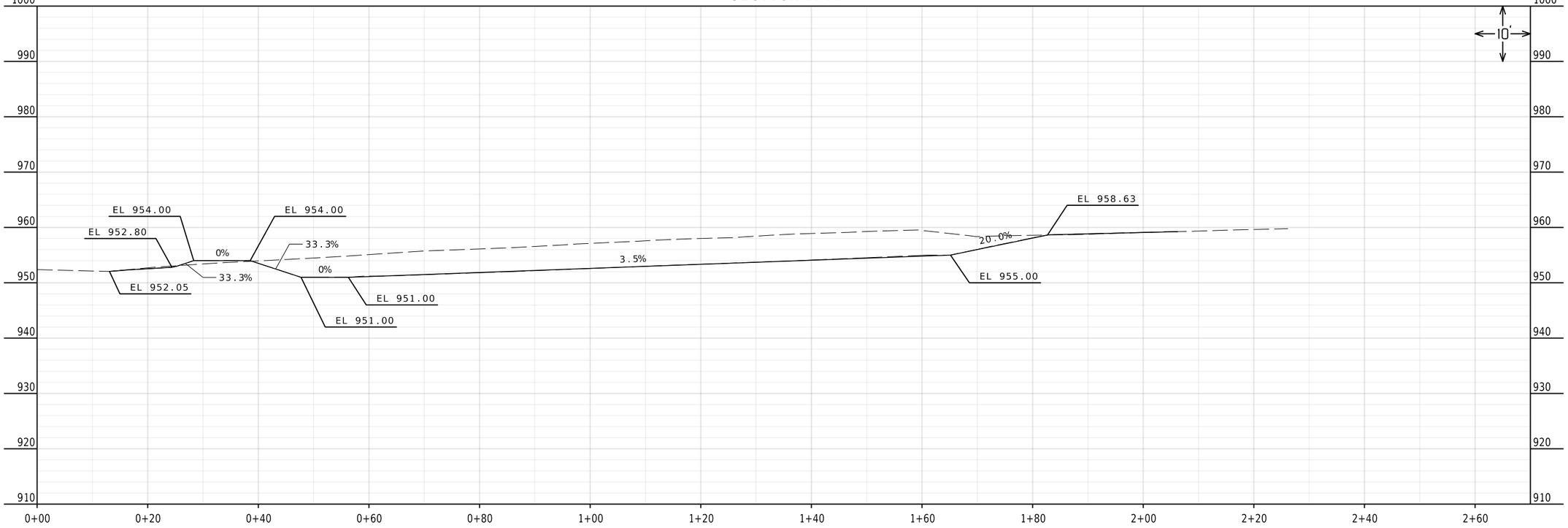
DATE	DESCRIPTION

BRIDGE NO.
PROJECT NO.
CONTRACT ID.
JOB NO. JKU0415
COUNTY JACKSON
DISTRICT KC
SHEET NO. 10
ROUTE 7
STATE MO
DATE PREPARED 10/3/2025

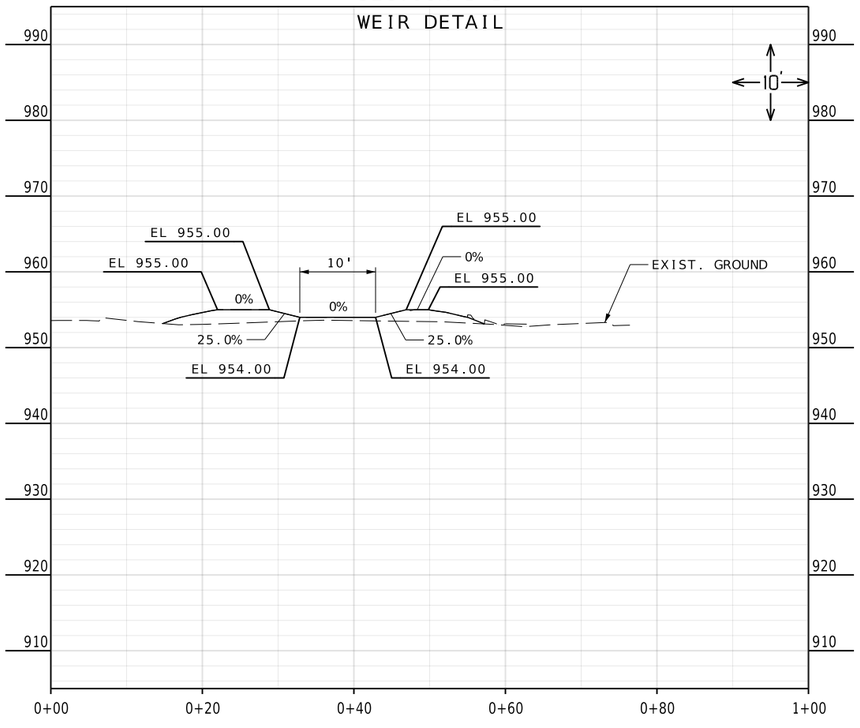
RED BRENKEN CATT
PROJECT MANAGER
MO# PE-2010019516

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

SECTION A-A



SECTION B-B
WEIR DETAIL



SPECIAL SHEET
SHEET 4 OF 5

REID BRENNEN CATT NUMBER PE-2010019516

REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
10/3/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	11

COUNTY
JACKSON

JOB NO.
JKU0415

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

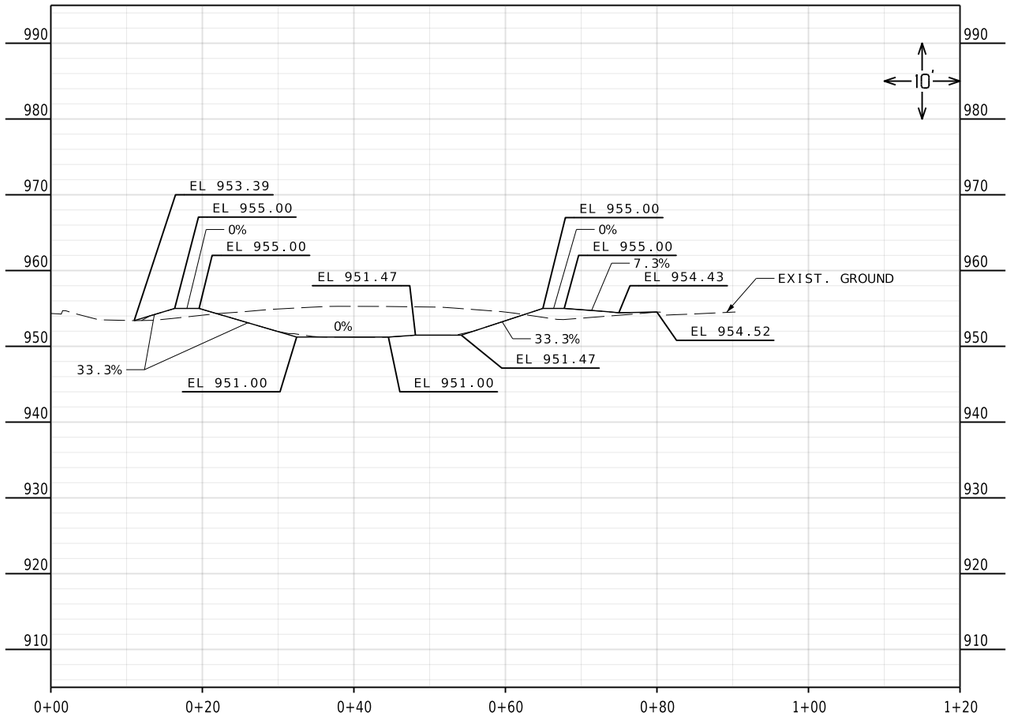
DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

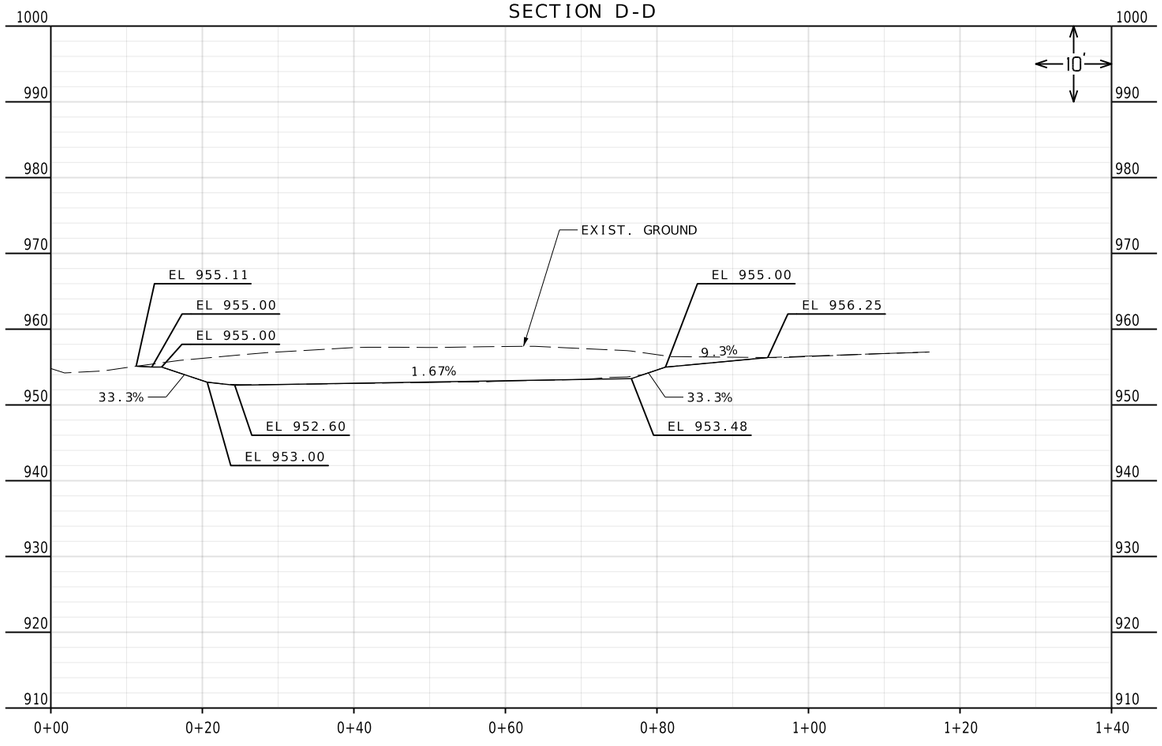
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

SECTION C-C



SECTION D-D



SPECIAL SHEET
SHEET 5 OF 5

REID BRENNEN CATT NUMBER PE-2010019516

REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
10/3/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	12

COUNTY
JACKSON

JOB NO.
JKU0415

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

SPACING AND TAPER LENGTHS FOR WORK ZONE SIGNS, CHANNELIZERS AND CONCRETE BARRIER

SIGN SPACING FOR ADVANCE SIGN SERIES (1)		
PERMANENT POSTED SPEED MPH	UNDIVIDED HIGHWAYS	DIVIDED HIGHWAYS
0-35	200'	200'
40-45	350'	500'
50-55	500'	1000'
60-70	1000'	SA - 1000' SB - 1500' SC - 2640'

TAPER LENGTHS AND END TREATEMENTS FOR CONCRETE BARRIER				
PERMANENT POSTED SPEED MPH	MINIMUM LANE TAPER LENGTH (2)			END TREATMENT (3)
	10'	11'	12'	
<40	160'	168'	176'	BARRIER HEIGHT TRANSITION
>40	160'	168'	176'	APPROVED CRASH CUSHION

TAPER LENGTHS AND SPACING FOR CHANNELIZERS							
PERMANENT POSTED SPEED MPH	MINIMUM LANE TAPER LENGTH			MINIMUM SHOULDER TAPER LENGTH BASED ON 10' SHOULDER	BUFFER LENGTH FT.	MAXIMUM CHANNELIZER SPACING	
	10'	11'	12'			THROUGH TAPER	THROUGH WORK AREA
0-35	205'	225'	245'	70'	280'	35'	40'
40-45	450'	495'	540'	150'	400'	40'	80'
50-55	550'	605'	660'	185'	560'	50'	80'
60-70	700'	770'	840'	235'	840'	60'	120'

NOTE:
SEE STANDARD PLAN 616.10 FOR TEMPORARY TRAFFIC CONTROL DEVICES.

NOTES:

(1) SPACING BETWEEN SIGNS AND SPACING BETWEEN LAST SIGN AND FLAGGER, BEGINNING OF TAPER, OF SIGNED CONDITION MAY BE ADJUSTED BY INCREASING TO ACCOMMODATE FIELD CONDITIONS AND VISIBILITY.

(2) TAPER LENGTHS SHOWN INCLUDE LENGTH REQUIRED FOR LANE AND 10' SHOULDER.

(3) CONCRETE BARRIER MAY BE INSTALLED AT AND 8:1 FLARE RATE FROM THE SHOULDER POINT TO THE LIMITS OF THE CLEAR ZONE WHERE THE SIDE SLOPE IS 6:1 OR FLATTER. CONTRACTOR MY PROVIDE CONCRETE BARRIER AT OWN EXPENSE. INCIDENTAL TO PROJECT.

GENERAL NOTES:

1. AS WITH ALL CONSTRUCTION ACTIVITIES TRAFFIC SITUATIONS ARE SUBJECT TO CHANGE. THE CONTRACTOR SHALL BE AWARE THAT ALL TEMPORARY TRAFFIC CONTROL SHALL CONFORM TO THE STANDARDS OUTLINED IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.) THE MISSOURI STANDARD PLANS FOR HIGHWAY CONSTRUCTION, SECTION 600 AND SHALL FOLLOW THE GUIDELINES IN THE MODOT 'TRAFFIC CONTROL FOR FIELD OPERATIONS MANUAL'.

2. A TOTAL OF FOUR (4) PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE SUPPLIED AND PLACED ROADSIDE OF EACH APPROACH TO THE WORK ZONE, INCLUDING ROUTE 291, HAMBLEN, AND ROUTE 50. A MINIMUM OF FOURTEEN (14) DAYS IN ADVANCE OF ANY TURNING RESTRICTIONS, LANE CLOSURES, OR DETOURS REQUIRED BY THE TEMPORARY TRAFFIC CONTROL.

3. PLACE A 'ROAD WORK AHEAD' SIGN ON THE APPROACH TO ALL INTERSECTIONS WHERE THE ADVANCE SIGNING FOR THE TEMPORARY TRAFFIC CONTROL EXTENDS PAST THAT INTERSECTION.

4. NOTIFY, MODOT RESIDENT ENGINEER AT 816-607-2118 (OFFICE) 48-HOURS IN ADVANCE OF ANY LANE CLOSURE OR ROADWAY CLOSURE.

5. ALL EXISTING SIGNS SHALL BE USED IN PLACE. ADJUSTED AND/OR COVERED AS CONDITIONS REQUIRE.

6. REFER TO MODOT STANDARD PLANS 619.10J. SHEETS 1-3 FOR "PAVEMENT EDGE TREATMENT" DETAILS. THE CONTRACTOR SHALL BE REQUIRED TO FOLLOW THIS STANDARD DURING WORKING AND NON-WORKING HOURS.

7. ALL STATIONING, DISTANCES, AND SPACING OF WORK ZONES DEVICES ARE APPROXIMATE AND MAY BE REVISED AS APPROVED BY ENGINEER.

8. TYPE III MOVEABLE BARRICADES TO BE LOCATED AS APPROVED BY THE ENGINEER TO FIT FIELD CONDITIONS.

9. FIRST ORDER OF WORK ON ALL PHASES SHALL BE PLACEMENT OF ALL WORK ZONE WARNING DEVICES AND SIGNS AS NOTED.

10. SIGNS SHALL REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETED OR AS APPROVED BY THE ENGINEER.

11. SIGNS LEFT IN PLACE OVERNIGHT MUST BE MOUNTED AT 5' MINIMUM.

12. ALTERNATE TRAFFIC CONTROL MAY BE USED AS NEEDED AT THE APPROVAL OF THE ENGINEER.

13. SPEED LIMIT SIGNS INDICATING THE NORMAL SPEED LIMIT SHALL BE INSTALLED AT THE END OF THE WORK ZONE, NO FURTHER WORK ZONES WILL BE ENCOUNTERED WITHIN THE NEXT 1/2 MILE.

14. TEMPORARY SPEED LIMIT SIGNS SHALL BE COVERED OR REMOVED WHEN THE CONDITIONS REQUIRING REDUCED SPEEDS DO NOT EXIST.

15. NO DIRECT PAYMENT WILL BE MADE FOR RELOCATION OF CHANNELIZERS OR CONSTRUCTION SIGNS.

16. DISTANCE MAY BE ADJUSTED (INCREASED, TYPICALLY) ACCORDING TO FIELD CONDITIONS.

17. REFER TO MODOT STANDARD PLAN, 612.20 FOR SAND FILLED IMPACT ATTENUATORS AND 617.20 FOR TEMPORARY CONCRETE TRAFFIC BARRIER.

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED
10/7/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	13

COUNTY
JACKSON

JOB NO.
JKU0415

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

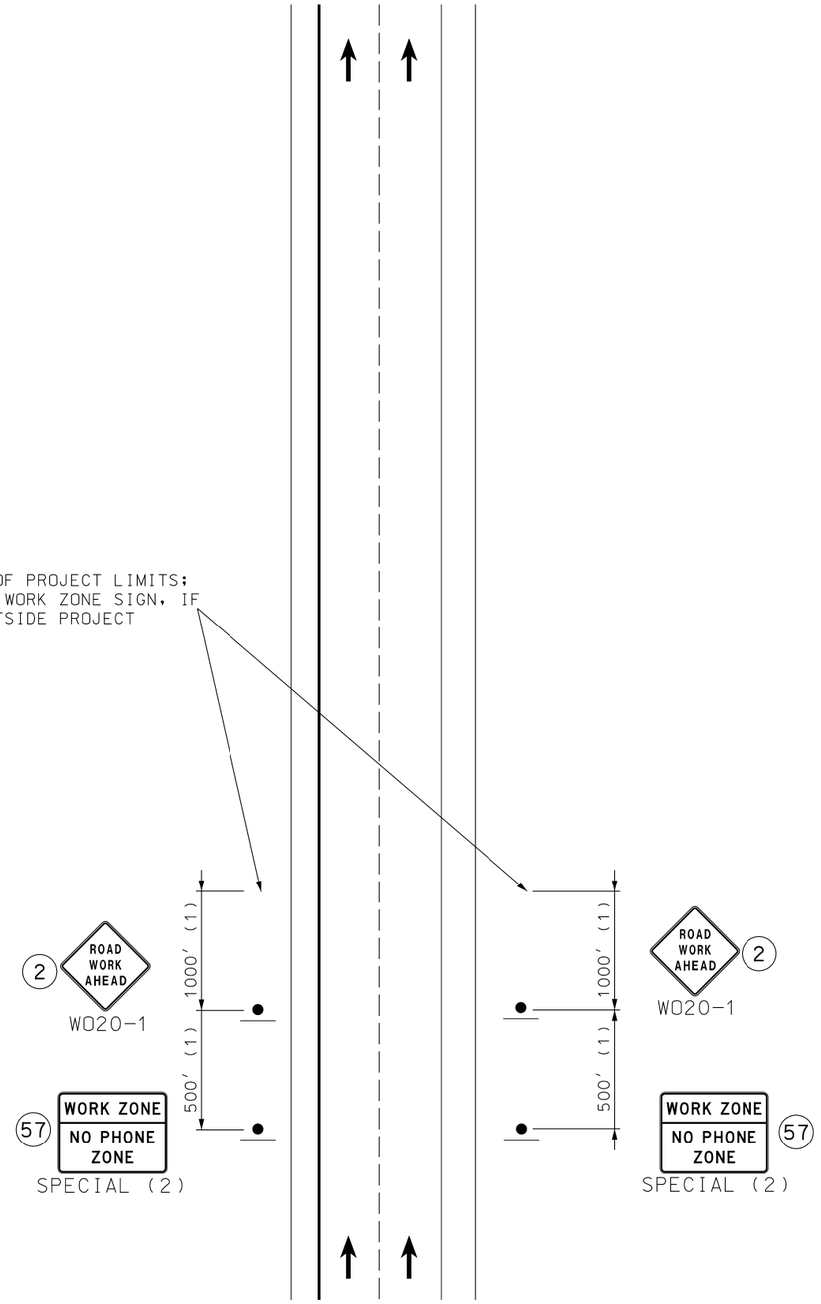
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

TRAFFIC CONTROL
SHEET 1 OF 7

NOT TO SCALE



BEGIN/END PROJECT SIGNING
MULTI-LANE
DIVIDED

BEGINNING PROJECT SIGNING NOTES:

ANY EXISTING SIGNING THAT CONFLICTS WITH THE TRAFFIC CONTROL SIGNING SHALL BE COMPLETELY COVERED OR REMOVED.

(1) DISTANCE MAY BE ADJUSTED ACCORDING TO FIELD CONDITIONS. WHERE TRAFFIC BACKUPS ARE EXPECTED BEYOND THE ADVANCED WARNING AREA, ADDITIONAL SIGNING MAY BE NEEDED.

(2) THE "WORK ZONE ON PHONE ZONE" SIGN IS PLACED A MINIMUM OF 500 FEET BEFORE THE ROAD WORK AHEAD SIGN.

JEREMY SCOTT STRETZ NUMBER PE-2017023856

JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED
10/7/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	14

COUNTY
JACKSON

JOB NO.
JKU0415

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

BY	DATE	DESCRIPTION

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

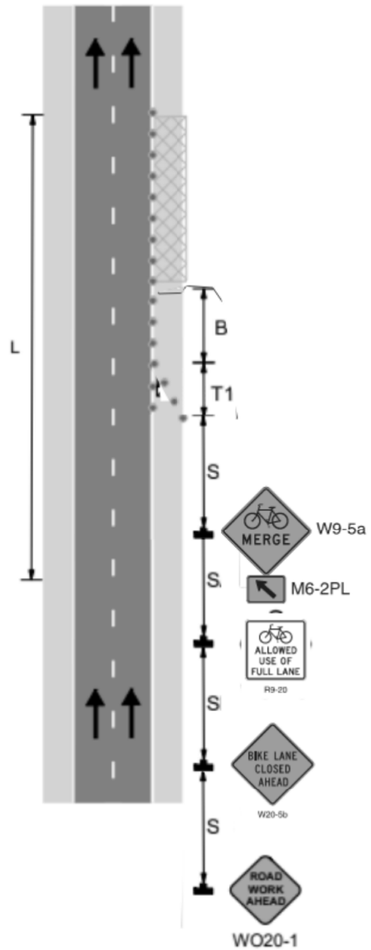
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

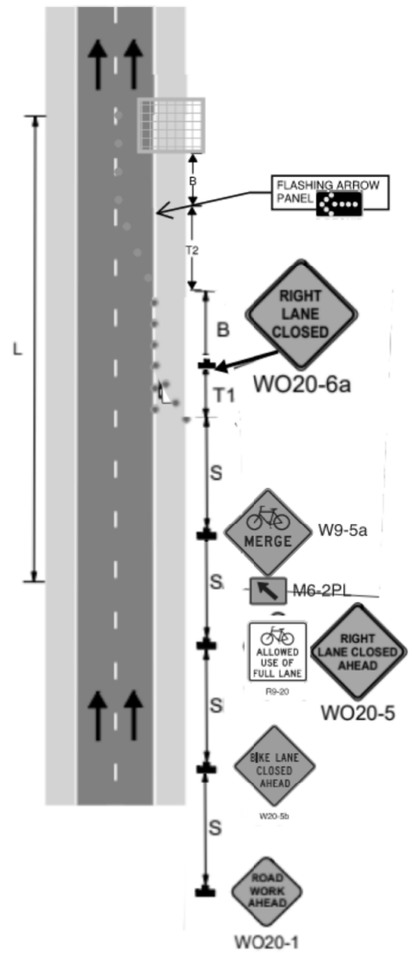
olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

TRAFFIC CONTROL
SHEET 2 OF 7

NOT TO SCALE

SHOULDER AND LANE CLOSURE WORK ALONG ROUTE 7 - STANDARD DETAILS





NOTES:

(1). SEE TRAFFIC CONTROL SHEET 1 FOR WORK ZONE SPEED LIMIT GUIDELINES.

(2). SEE TRAFFIC CONTROL SHEET 1 FOR SIGN SPACING, DEVICE SPACING AND CHANNELIZING TAPER LENGTHS.

(3). FOR SIGNALIZED INTERSECTIONS, ADJUSTMENTS MAY NEED TO BE MADE TO SIGNAL PHASING, TIMING, INDICATIONS OR DETECTOR SETTINGS.

(4). REMOVE AND/OR MODIFY EXISTING PAVEMENT MARKING AS NEEDED.

(5). PAVEMENT MARKING AND BARRICADES OPTIONAL FOR SHORT TERM OPERATIONS.

(6). TEMPORARY PAVEMENT MARKING REQUIRED WITH LONG TERM LANE CLOSURES.

(7). FOR SHORT TERM OPERATIONS, WHERE IT IS NOT FEASIBLE TO MODIFY PAVEMENT MARKING, A 10' DEVICE SPACING IS USED WHERE TRAFFIC IS GUIDED ACROSS DOUBLE YELLOW LINES OR OTHER CONFLICTING PAVEMENT MARKINGS. ALL OTHER SPACINGS ARE ONE HALF OF THE SPACING SHOWN ON TRAFFIC CONTROL SHEET 1.

SPEED	SIGN SPACING (ft.)	TAPER LENGTH (ft.)		RECOMMENDED	CHANNELIZER SPACING (ft.)	
Permanent Posted (mph)	Divided (S)	Shoulder (1) (T1)	Lane (2) (T2)	Buffer Length (ft.) (B)	Tapers	Buffer/ Work Areas
0-35	200	70	-	250	35	40
40-45	500	150	-	360	40	80
50-55	1000	185	-	495	50	80
60-70	SA - 1000 SB - 1500	235	-	730	60	120

1. Shoulder taper length based on 10 ft. (standard shoulder width) offset. 2. Lane taper length b ased on 12 ft. (standard lane width) offset.

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED
10/7/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	15

COUNTY
JACKSON

JOB NO.
JKU0415

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

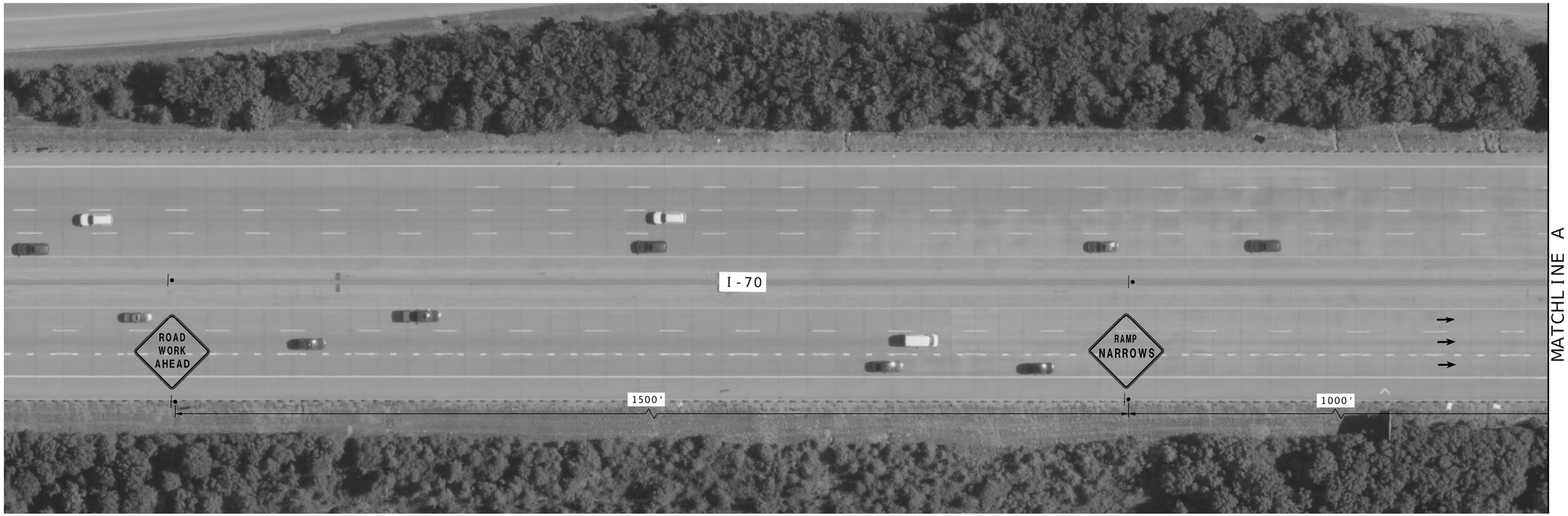
DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

F:\2022\03001-03500\022-03371\40-Design\Microstation\JKU0415\plan_sheets\09 Traffic Control\015_TC_03_JKU0415_I30.dgn 10:18:11 AM 10/7/2025

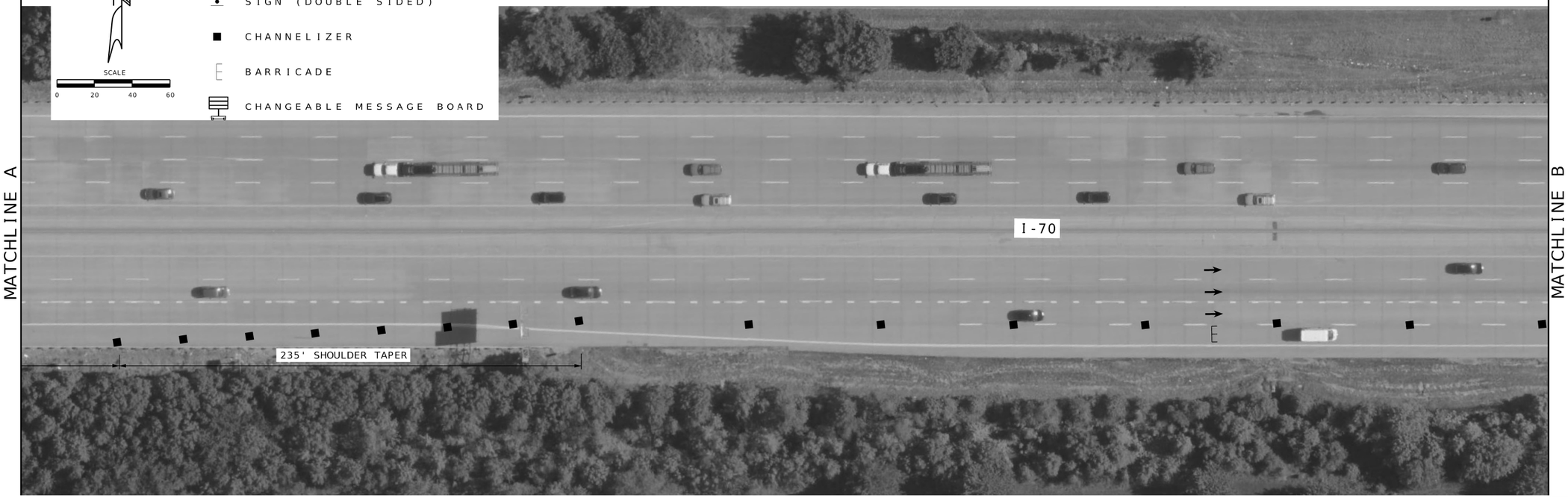


MATCHLINE A

TRAFFIC CONTROL LEGEND

- SIGN (SINGLE SIDED)
- SIGN (DOUBLE SIDED)
- CHANNELIZER
- BARRICADE
- CHANGEABLE MESSAGE BOARD

SCALE
0 20 40 60



MATCHLINE A

MATCHLINE B

TRAFFIC CONTROL
SHEET 4 OF 7

JEREMY SCOTT STRETZ NUMBER PE-2017023856

JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED
10/7/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	16

COUNTY
JACKSON

JOB NO.
JKU0415

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

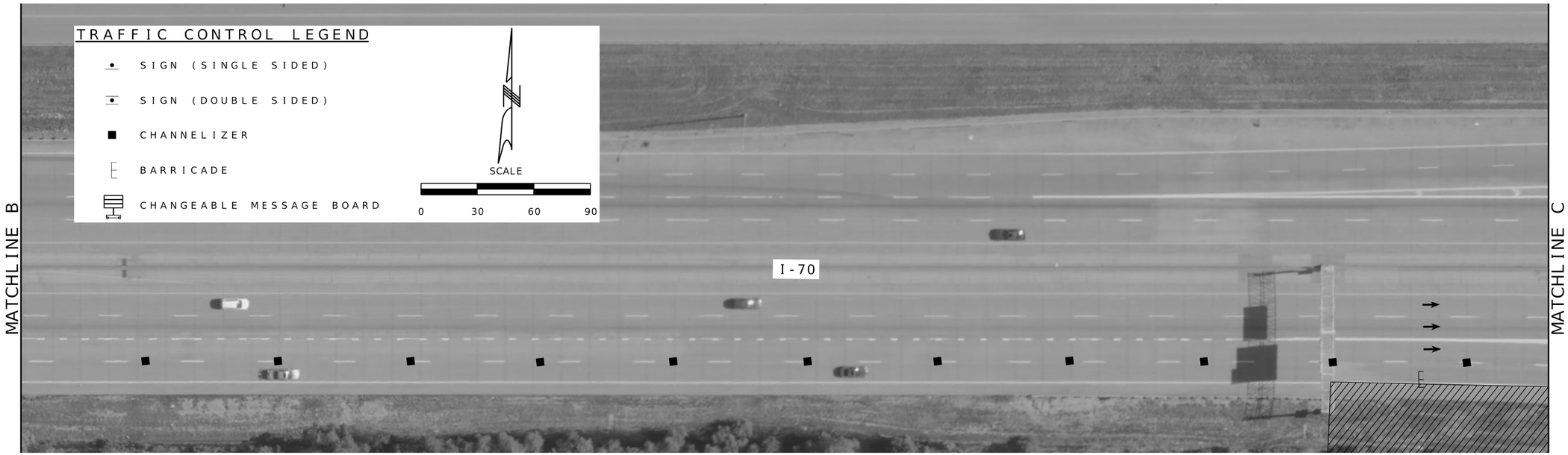
F:\2022\03001-03500\022-03371\40-Design\Microstation\JKU0415\plan_sheets\09 Traffic Control\016_TC_04_JKU0415_I30.dgn 10:19:11 AM 10/7/2025

TRAFFIC CONTROL LEGEND

- SIGN (SINGLE SIDED)
- SIGN (DOUBLE SIDED)
- CHANNELIZER
- BARRICADE
- CHANGEABLE MESSAGE BOARD

SCALE

0 30 60 90



JEREMY SCOTT STRETZ NUMBER PE-2017023856

JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED
10/7/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	17

COUNTY
JACKSON

JOB NO.
JKU0415

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

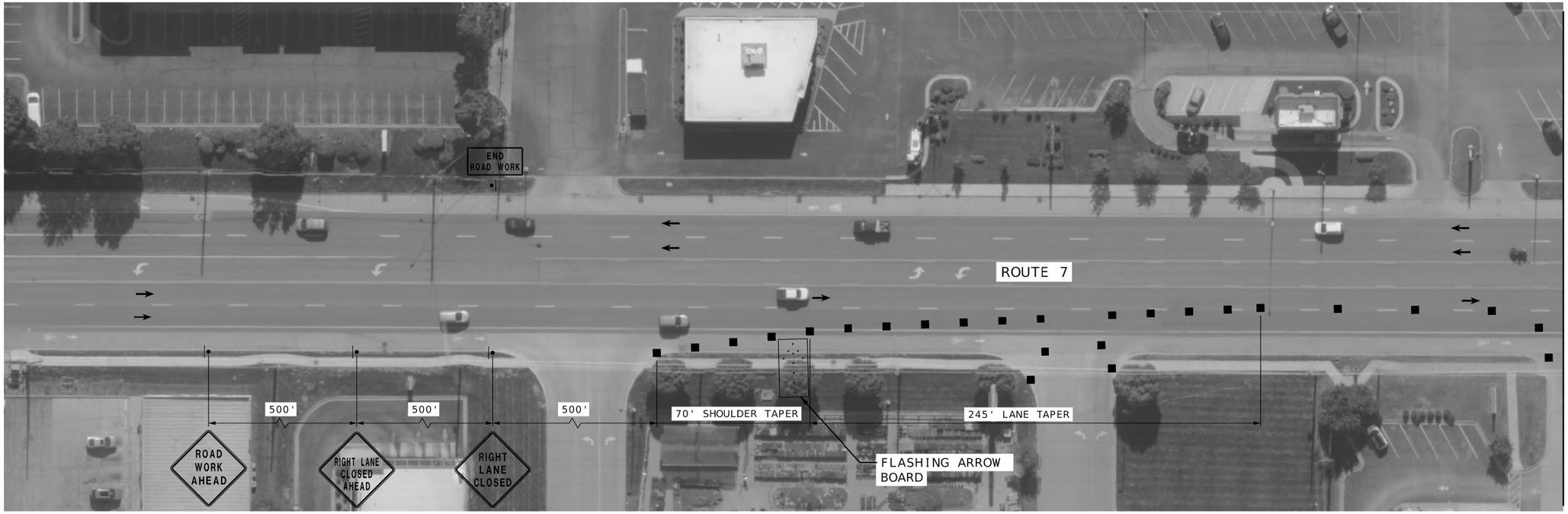
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

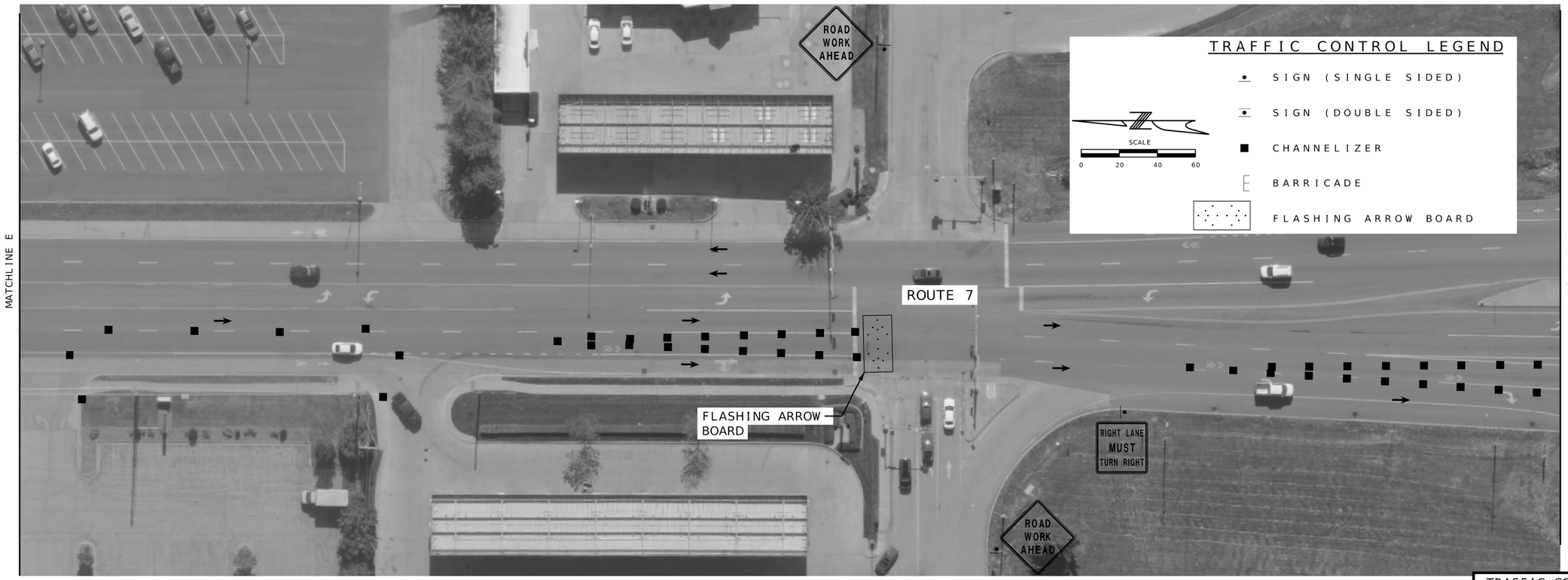
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

TRAFFIC CONTROL
SHEET 5 OF 7





JEREMY SCOTT STRETZ NUMBER PE-2017023856

JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED
10/7/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	18

COUNTY
JACKSON

JOB NO.
JKU0415

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

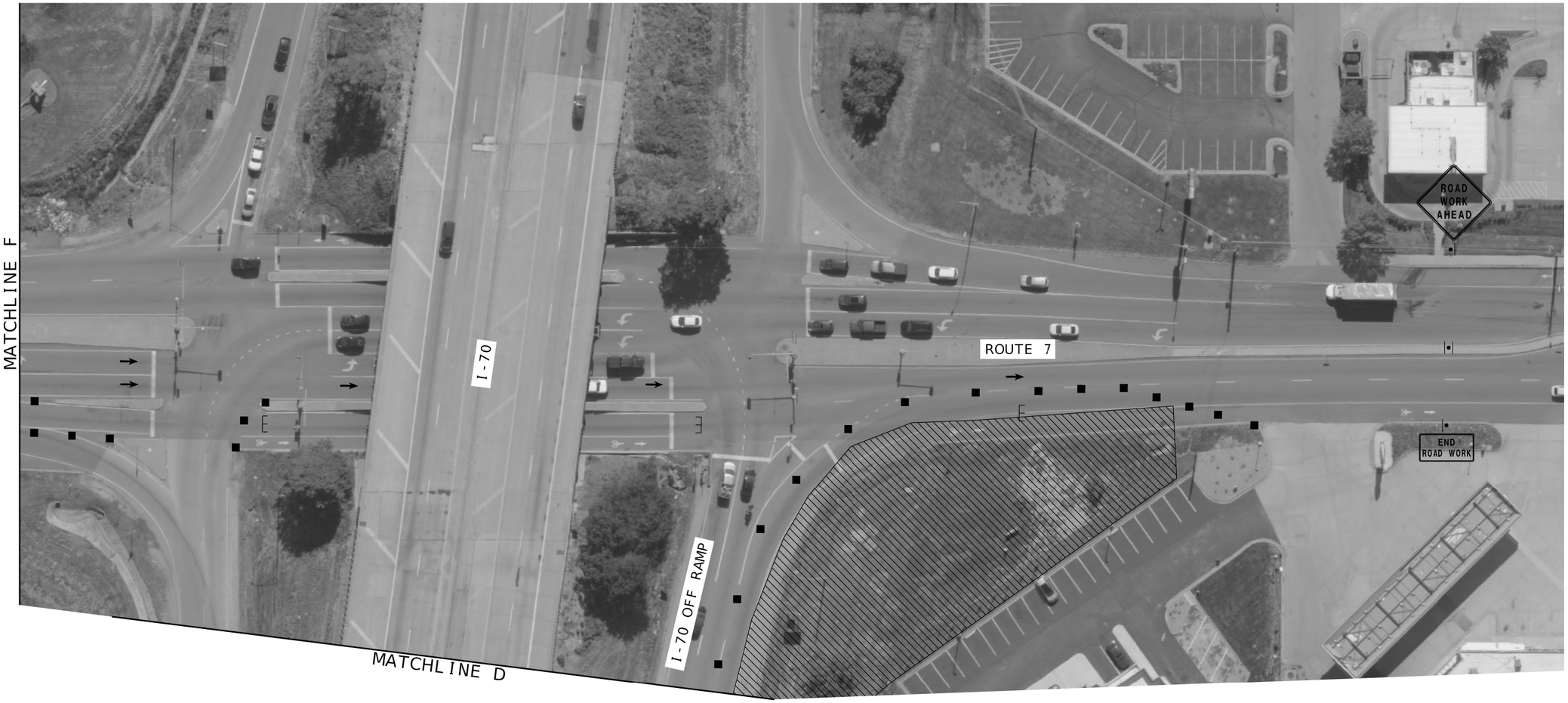
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

TRAFFIC CONTROL
SHEET 6 OF 7

F:\2022\03001-03500\022-03371\40-Design\Microstation\JKU0415\plan_sheets\09 Traffic Control\018_TC_06_JKU0415_I30.dgn 10:22:21 AM 10/7/2025



TRAFFIC CONTROL LEGEND

- SIGN (SINGLE SIDED)
- SIGN (DOUBLE SIDED)
- CHANNELIZER
- BARRICADE
- CHANGEABLE MESSAGE BOARD

SCALE

0 30 60 90

JEREMY SCOTT STRETZ NUMBER PE-2017023856

JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED
10/7/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	19

COUNTY
JACKSON

JOB NO.
JKU0415

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

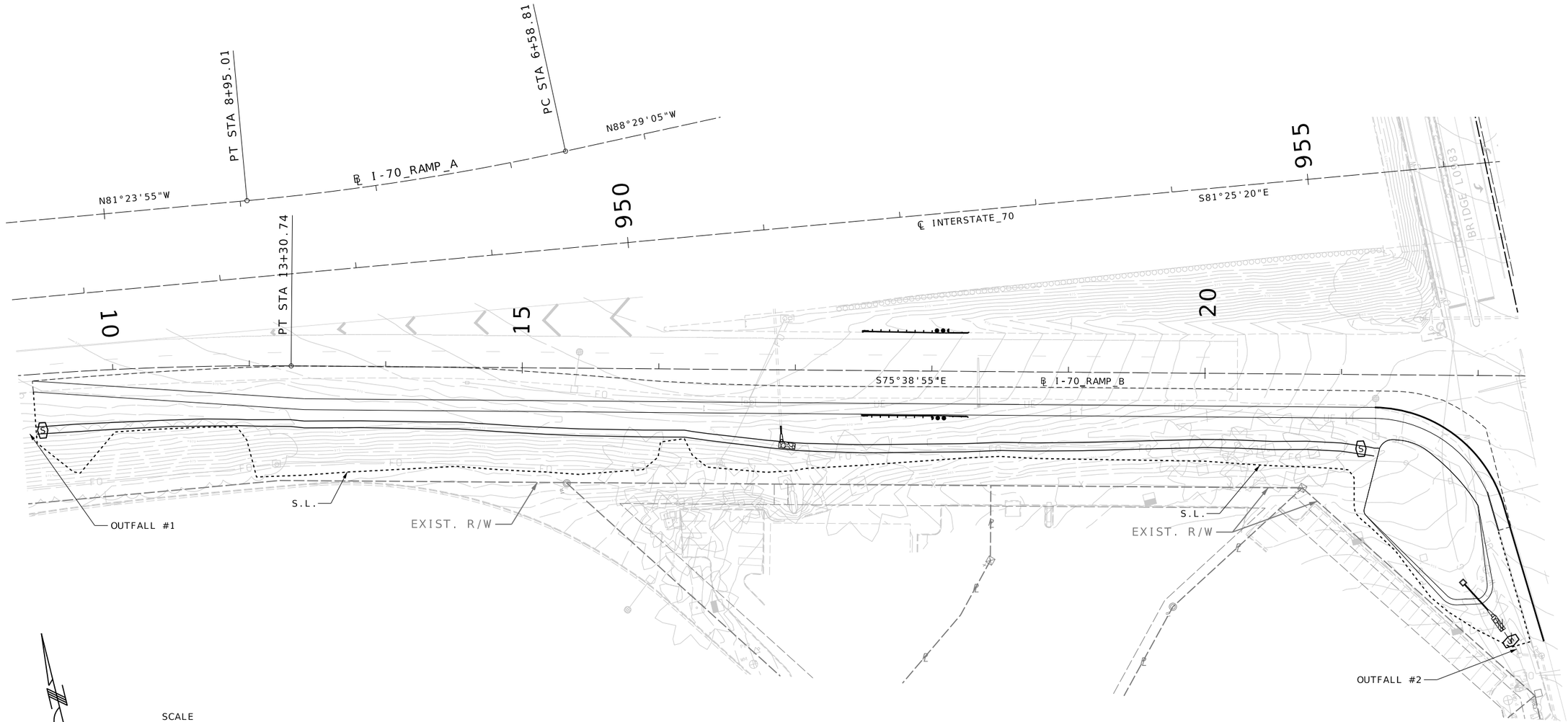
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

TRAFFIC CONTROL
SHEET 7 OF 7

TEMPORARY EROSION CONTROL LEGEND

(S) SEDIMENT TRAP



EROSION CONTROL
INITIAL PHASE
SHEET 1 OF 3

REID BRENNEN CATT NUMBER PE-2010019516

REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
10/7/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	20

COUNTY
JACKSON

JOB NO.
JKU0415

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

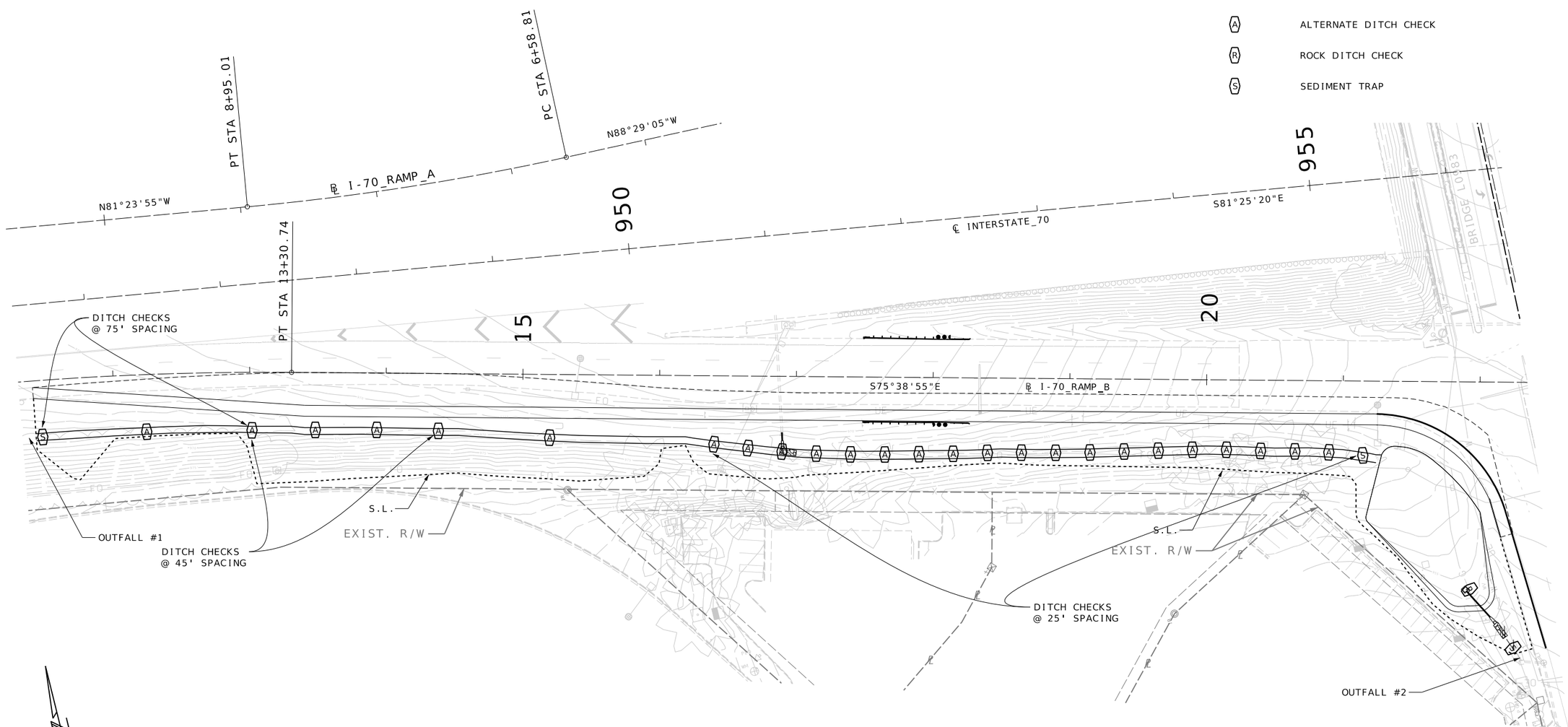
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

TEMPORARY EROSION CONTROL LEGEND

- (A) ALTERNATE DITCH CHECK
- (R) ROCK DITCH CHECK
- (S) SEDIMENT TRAP



EROSION CONTROL
CONSTRUCTION PHASE
SHEET 2 OF 3

REID BRENNEN CATT
NUMBER PE-2010019516

REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
10/7/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	21

COUNTY
JACKSON

JOB NO.
JKU0415

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

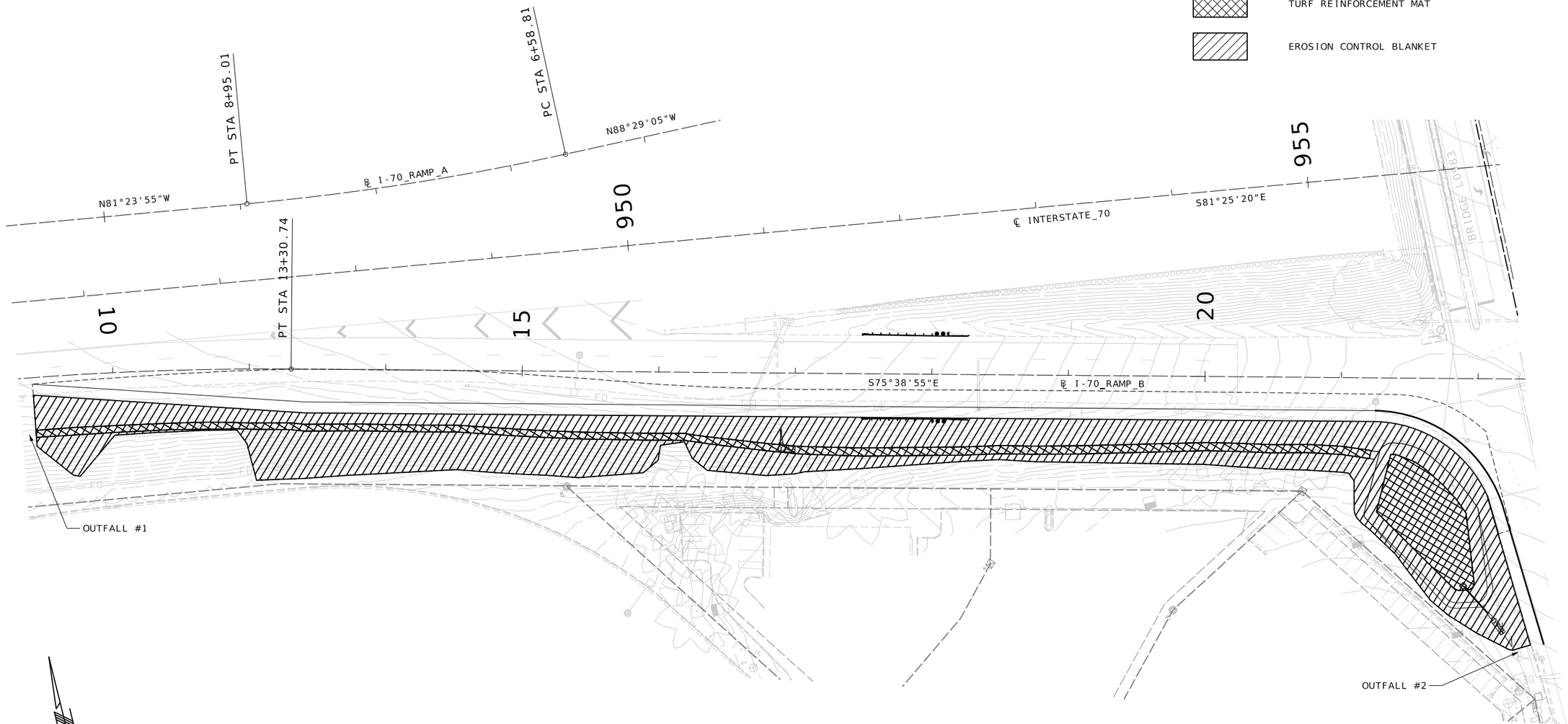
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

TEMPORARY EROSION CONTROL LEGEND

- TURF REINFORCEMENT MAT
- EROSION CONTROL BLANKET



EROSION CONTROL
FINAL PHASE
SHEET 3 OF 3

REID BRENNEN CATT
NUMBER PE-2010019516

REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
10/7/2025

ROUTE	STATE
7	MO

DISTRICT	SHEET NO.
KC	22

COUNTY
JACKSON

JOB NO.
JKU0415

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

F:\2022\03001-03500\022-03371\40-Design\Microstation\JKU0415\plan_sheets\10 Erosion Control\022_EC_03_JKU0415_I50_FINAL_PHASE.dgn 10:38:04 AM 10/7/2025

I-70

RAMP B

MATCHLINE STA. 15+50.64

REMOVE AND RESET EXISTING STREET LIGHT POLE ON NEW FOUNDATION (EX2) STA:15+38.18, OFF:38.0' RT.

MATCHLINE STA. 15+50.64

I-70

RAMP B

ROUTE 7

INSTALL NEW TYPE 1 CONCRETE PULL BOX STA:16+84.78, OFF:37.8' RT.

REMOVE AND RESET EXISTING STREET LIGHT POLE ON NEW FOUNDATION (EX1) STA:21+25.42, OFF:38.0' RT.

INSTALL NEW TYPE 1 CONCRETE PULL BOX STA:22+42.23, OFF:219.92' RT.

INSTALL 4" CONDUIT WITH CABLE-CONDUIT TO INTERCEPT EXISTING PULL BOX. SPLICE NEW CONDUCTORS TO EXISTING CONDUCTORS IN PULL BOX

SCALE

0 30 60 90

LIGHTING PLAN
SHEET 1 OF 2

JEREMY SCOTT STRETZ NUMBER PE-2017023856

JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED
10/7/2025

ROUTE 7 | STATE MO
DISTRICT KC | SHEET NO. 23
COUNTY JACKSON
JOB NO. JKU0415
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DATE	DESCRIPTION

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

F:\2022\03001-03500\022-03371\40-Design\Microstation\JKU0415\plan_sheets\11 Lighting\023_LT_01_JKU0415_130.dgn 10:32:50 AM 10/7/2025

HIGHWAY LIGHTING

SH. NUM.	POLE NO.	ROADWAY	STATION	OFFSET	BRACKET ARM 12 FT (EACH) 9011112	LIGHTING POLE 30 FT TYPE AT (EACH) 9011030	LED A LUMINAIRE (EACH) 9011311	POLE FOUNDATION 45 FT M.H. (EACH) 9018245	CABLE, 10 AWG 1 CONDUCTOR, POLE AND BRACKET (LF) 9017110	RELOCATED POLE (EACH) 9011010	NOTES
1	EX1	RAMP B	15+38.18	38.0' RT.				1	90	1	REMOVE & RESET ON NEW FOUNDATION
1	EX2	RAMP B	21+25.42	38.0' RT.				1	90	1	REMOVE & RESET ON NEW FOUNDATION
TOTAL								2	180	2	

CABLE AND CABLE CONDUIT

SH. NUM.	CIRCUIT	FROM	TO	CTR. TO CTR.	CABLE-CONDUIT 1 IN., 2 CONDUCTORS (AND 1 BARE NEUTRAL) 8 AWG (LF) 9017407	TRENCHING, TYPE II (LF) 9015020
1	1	EX1	BOX 1	146	152	146
1	1	BOX 1	EX2	441	447	441
1	1	EX2	BOX 2	233	239	233
SUBTOTAL					838	820
5% FOR SNAKING					42	X
TOTAL					880	820

PREFORMED PULL BOXES

SH. NUM.	PULL BOX NO.	ROADWAY	STA.	OFF.	PULLBOX, CONCRETE CLASS 1 (EACH) 9016120
1	BOX 1	RAMP B	16+84.78	37.8' RT.	1
1	BOX 2	RAMP B	22+42.23	219.9' RT.	1
TOTAL					2

JEREMY SCOTT STRETZ NUMBER PE-2017023856

JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED
10/8/2025

ROUTE	STATE
7	MO

DISTRICT	SHEET NO.
KC	24

COUNTY
JACKSON

JOB NO.
JKU0415

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592

LIGHTING PLAN
SHEET 2 OF 2

F:\2022\03001-03500\022-03371\40-Design\Microstation\JKU0415\plan_sheets\11 Lighting\024_LT_02_JKU0415_l30.dgn 11:18:27 AM 10/8/2025

INSTALL (2) NEW 6'x6' LOOP DETECTORS

I-70

RAMP B

INSTALL NEW TYPE 2 PULL BOX
STA:11+44.93, OFF:26.4' RT.

ADJUST EXISTING KC SCOUT VAULT TO MATCH GRADE (NO DIRECT PAY)

INSTALL NEW 2" CONDUIT WITH LOOP DETECTOR LEAD-IN CABLES

MATCHLINE STA. 15+50.64

MATCHLINE STA. 15+50.64

INSTALL NEW CONDUITS TO EXISTING PULL BOX. SPLICE LEAD-IN CABLES IN EXISTING PULL BOX

INSTALL NEW 3" CONDUITS WITH LOOP DETECTOR LEAD-IN CABLES AND FIBER OPTIC CONDUIT

I-70

RAMP B

EXISTING R/W

CONTRACTOR TO COORDINATE WITH LOCAL POLICE DEPARTMENT TO RELOCATE EXISTING LICENSE PLATE RECONGNIZIATION CAMERA

ROUTE 7

EXISTING KC SCOUT FIBER CABLE

INSTALL CONDUIT TO INTERCEPT EXISTING KC SCOUT VAULT. SPLICE NEW FIBER OPTIC CABLE TO EXISTING PER KC SCOUT

INSTALL NEW KC SCOUT FIBER OPTIC PULL BOX
STA:72+80.52, OFF:95.3' RT.

INSTALL NEW KC SCOUT FIBER OPTIC PULL BOX TO INTERCEPT EXISTNG CONDUIT
STA:20+96.94, OFF:80.0' RT.

INSTALL NEW FIBER OPTIC CABLE IN EXISTING CONDUIT

INSTALL NEW 3" CONDUIT WITH 24CT FIBER OPTIC CABLE (TYP.)

INSTALL NEW TYPE 2 PULL BOX
STA:16+49.77, OFF:44.5' RT.

INSTALL NEW CONDUITS TO EXISTING PULL BOX. SPLICE EXISITNG CABLES IN NEW SPLICE CASE. RAISE EXISTING BOX TO MATCH GRADE. SPLICE NEW 24CT FIBER OPTIC CABLE TO EXISTING CABLE

SCALE
0 30 60 90

INSTALL NEW KC SCOUT FIBER OPTIC VAULT
STA:22+37.92, OFF:212.6' RT.

INSTALL NEW 3" CONDUIT WITH 24CT FIBER OPTIC CABLE (TYP.)

GENERAL NOTES:

1.) KC SCOUT EQUIPMENT SHOWN IN PULL BOXES 1 AND 2 SHALL BE CONSTRUCTED FOLLOWING RAMP B IMPROVEMENTS. ALL OTHER BACKBONE EQUIPMENT SHALL BE RELOCATED AND INSTALLED PRIOR TO RAMP B WIDENING TO AVOID KC SCOUT DOWNTIME. MAXIMUM DOWNTIME FOR BACKBONE FIBER OPTIC EQUIPMENT SHALL BE A CONSECUTIVE 48-HOUR PERIOD. SEE JSP FOR ADDITIONAL INFORMATION.

2) CONTRACTOR SHALL COORDINATE NEW LOOP DETECTOR INSTALLATION WITH I-70 DESIGN/BUILD IMPROVEMENT PROJECT.

ITS PLAN
SHEET 1 OF 1

JEREMY SCOTT STRETZ NUMBER PE-2017023856

JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED
10/7/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	25

COUNTY
JACKSON

JOB NO.
JKU0415

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

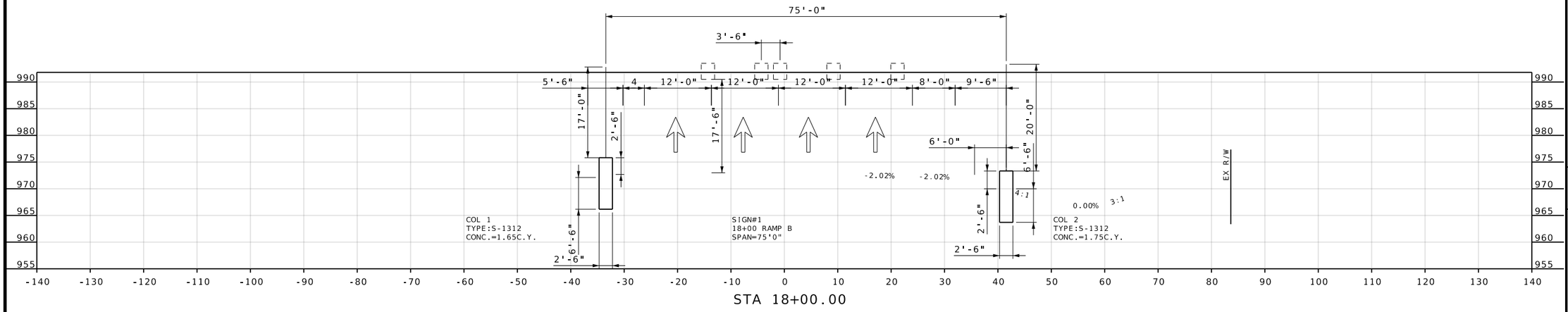
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

F:\2022\03001-03500\022-03371\40-Design\Microstation\JKU0415\plan_sheets\12 Signals\025_FBR_01_JKU0415_I30.dgn 10:32:54 AM 10/7/2025



STA 18+00.00

JEREMY SCOTT STRETZ NUMBER PE-2017023856

JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED
10/7/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	27

COUNTY
JACKSON

JOB NO.
JKU0415

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

olsson
550 ST. LOUIS STREET
SPRINGFIELD, MO 65806
PH. (417) 890-8802
CERTIFICATE OF
AUTHORITY NO. 001592

SIGNING
SHEET 1 OF 2

F:\2022\03001-03500\022-03371\40-Design\Microstation\JKU0415\plan_sheets\13 Signing\026_SN_01_JKU0415_I10.dgn 10:40:50 AM 10/7/2025

SIGNS						PIPE POST*					STEEL POST*						BACKING BARS** 2" x 3/8" BARS @ 2.55 LBS PER FT				TOTAL ITEM NO. 9031210	U-CHANNEL POST ITEM NO. 9031254	PERFORATED SQUARE STEEL TUBE POST 2.5 IN.						CONCRETE FOOTINGS EMBEDDED	CONCRETE FOOTINGS BOLT DOWN	REMARKS AND OTHER REQUIRED ITEMS.
SIGN NO.	SIGN SIZE	STATION	HORZ CLEAR IF NOT STD	LOCATION	SIGN DTL. SHT. NO.	PIPE SIZE	POST NO. 1	POST NO. 2	LBS PER FT	TOTAL ITEM NO. 9031220	POST DES NO.	POST NO. 1	POST NO. 2	POST NO. 3	LBS PER FT	TOTAL	NO. EACH	LGTH	TOTAL	TOTAL			POST NO. 1	POST NO. 2	TOTAL ITEM NO. 9031280	2.25# INSERT (6 FT.) ITEM NO. 9031272A	ANCHORS DRIVEN -GA. ITEM NO. 9031281	ANCHORS CONCRETE -GA. ITEM NO. 9031283	BREAKAWAY ASSEMBLY	ITEM NO. 9031010	ITEM NO. 9031020	
						IN.	LF	LF		LBS		LF	LF	LF		LBS		IN.	LF	LBS	LBS	LF	LF	LF		EA	EA	EA	EACH	CY	CY	
2	42"x30"	19+09	38.0' RT.	Ramp B																			16		16			1				
3	48"x48"	21+07	38.0' RTT.	Ramp B																			16	16	32			2				
SUBTOTAL																									48			3				
TOTAL																									48			3				

* BREAKAWAY ASSEMBLY IS INCIDENTAL FOR PIPE AND STRUCTURAL STEEL POSTS
** REFER TO MODOT DETAIL 903.03BL FOR INSTALLATION OF DELINEATORS

ROUND PIPE POST AND FOOTING DATA TABLE

NOM. SIZE	WEIGHT		STUB LENGTH	FOOTING		CONCRETE
(IN.)	LBS/FT	LBS/IN		DIA.	DEPTH	C.Y.
2½	5.79	0.48	4'- 3½"	12"	4'-6"	0.13
3	7.58	0.63	4'- 3½"	12"	4'-6"	0.13
4	10.79	0.90	5'- 3½"	18"	5'-6"	0.36

POST AND FOOTING DATA TABLE

POST DES. NO.	POST NOM. SIZE	POST WEIGHT LBS/FT	POST WEIGHT LBS/IN	POST STUB LENGTH	FOOTING DIA.	FOOTING LEVEL GROUND DEPTH	FOOTING LEVEL GROUND C.Y.	FOOTING 6:1 GRADE DEPTH	FOOTING 6:1 GRADE C.Y.	FOOTING 4:1 GRADE DEPTH	FOOTING 4:1 GRADE C.Y.	FOOTING 3:1 OR 2:1 GRADE DEPTH	FOOTING 3:1 OR 2:1 GRADE C.Y.
1	W6	9.0	0.75	3'-0"	15"	3'-0"	0.14	3'-2"	0.15	3'-3"	0.16	3'-6"	0.17
2	W6	15.0	1.25	4'-0"	24"	4'-0"	0.47	4'-2"	0.50	4'-3"	0.51	4'-6"	0.54
3	W8	18.0	1.50	4'-6"	28"	4'-6"	0.71	4'-8"	0.73	4'-9"	0.74	5'-0"	0.78
4	W10	22.0	1.83	5'-0"	36"	5'-0"	1.31	5'-2"	1.36	5'-3"	1.39	5'-6"	1.45
5	W10	26.0	2.17	5'-0"	36"	5'-0"	1.31	5'-3"	1.37	5'-5"	1.43	5'-9"	1.52
6	W12	35.0	2.92	5'-6"	36"	5'-6"	1.44	5'-9"	1.52	5'-11"	1.56	6'-3"	1.65

STANDARD SIGN ASSEMBLIES

SIGN NO.	STATION	LOCATION	SHR2L-1 30"X36" R2-2	SHR2L-1 30"X36" R3-5L	SHR2L-1 30"X36" R3-5R	SHR2L-1 42"X30" R5-1A	SHR2L-1 48"X48" R5-1
1	18+00	RAMP B	1	2	2		
2	19+09	RAMP B				1	
3	21+07	RAMP B					1
		TOTAL	1	2	2	1	1

TUBULAR STEEL SUPPORT DESIGN DATA - STANDARDS 903.05 THRU 903.08

SIGN NO.	STATION	LOCATION	SIGN DTL. SHT. NO.	TYPE	TUBULAR STRUCTURAL SUPPORT	SPAN OR ARM LENGTH	B LENGTH	POST LENGTH NO. 1	POST LENGTH NO. 2	CONCRETE FOOTINGS	SIGN DATA SPREAD	SIGN DATA SIGN A L	SIGN DATA SIGN A H	SIGN DATA TOTAL
					EA	FT-IN	FT-IN	FT	FT	CY	FT-IN	IN	IN	SQ FT
1	18+00	Ramp B	STD	TYPE S, ONE TUBE, TUBULAR SUPPORT STEEL	1	75' 0"		17' 0"	20' 0"	3.40	75.0	30	36	16.5
												30	36	
												36	36	
												30	36	
												30	36	
SUBTOTAL					1					3.40				
TOTAL					1					3.4				

SIGNING
SHEET 2 OF 2

JEREMY SCOTT STRETZ NUMBER PE-2017023856
JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

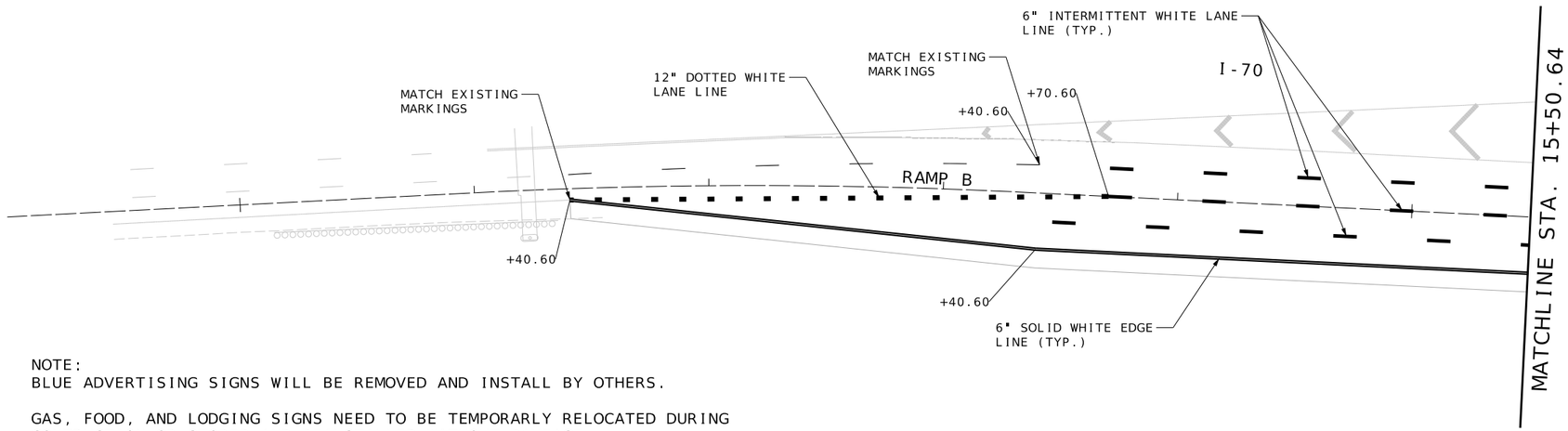
DATE PREPARED 10/7/2025
ROUTE 7 | STATE MO
DISTRICT KC | SHEET NO. 28
COUNTY JACKSON
JOB NO. JKU0415
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DESCRIPTION | DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

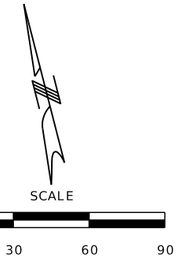
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

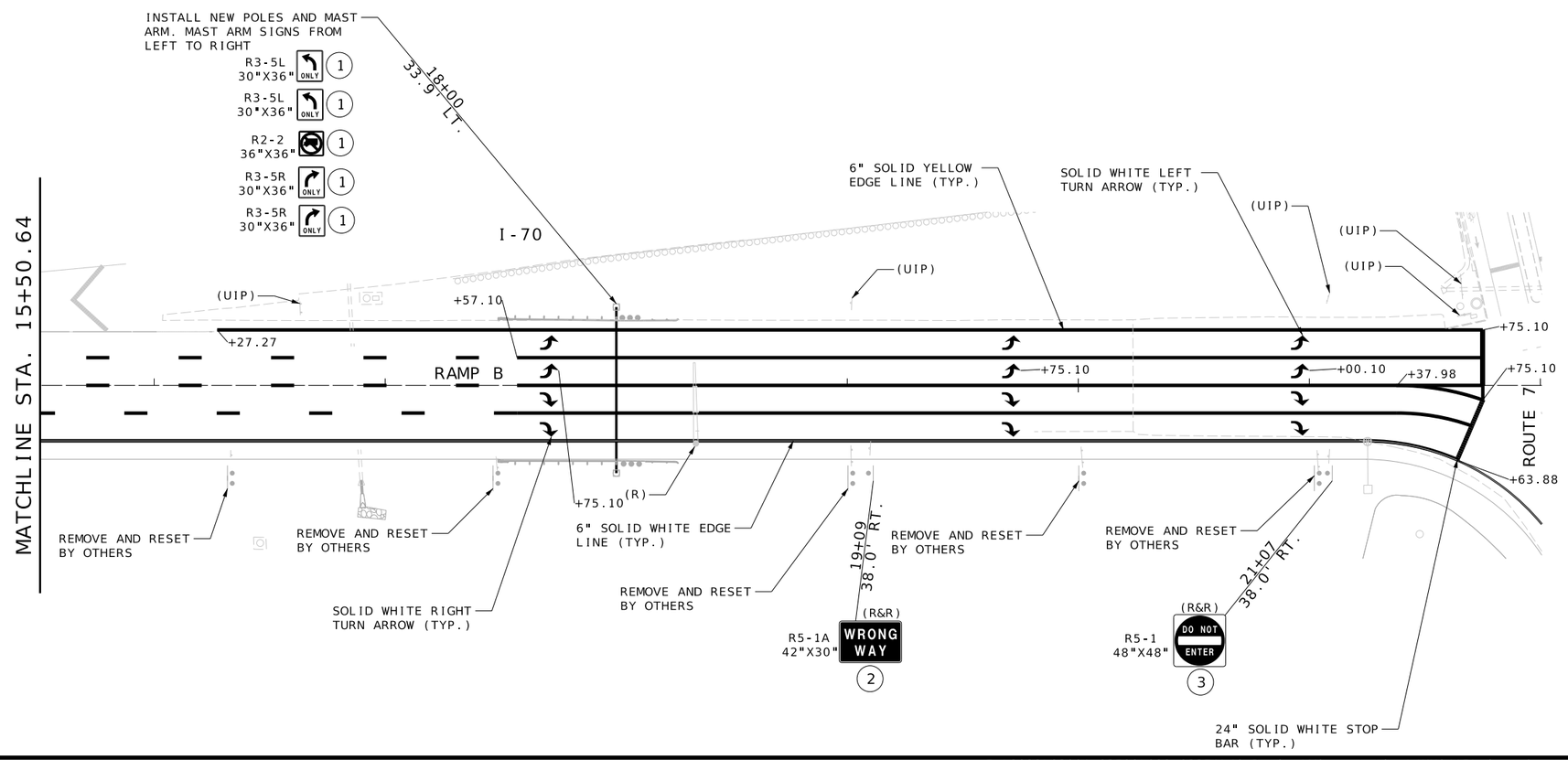
olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592



NOTE:
BLUE ADVERTISING SIGNS WILL BE REMOVED AND INSTALL BY OTHERS.

GAS, FOOD, AND LODGING SIGNS NEED TO BE TEMPORARLY RELOCATED DURING CONTRUCTION OR STORED AND REINSTALLED WITHOUT DAMEAGE.





JEREMY SCOTT STRETZ NUMBER PE-2017023856

JEREMY SCOTT STRETZ-ENGINEER
MO# PE-2017023856

DATE PREPARED
10/7/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	26

COUNTY
JACKSON

JOB NO.
JKU0415

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

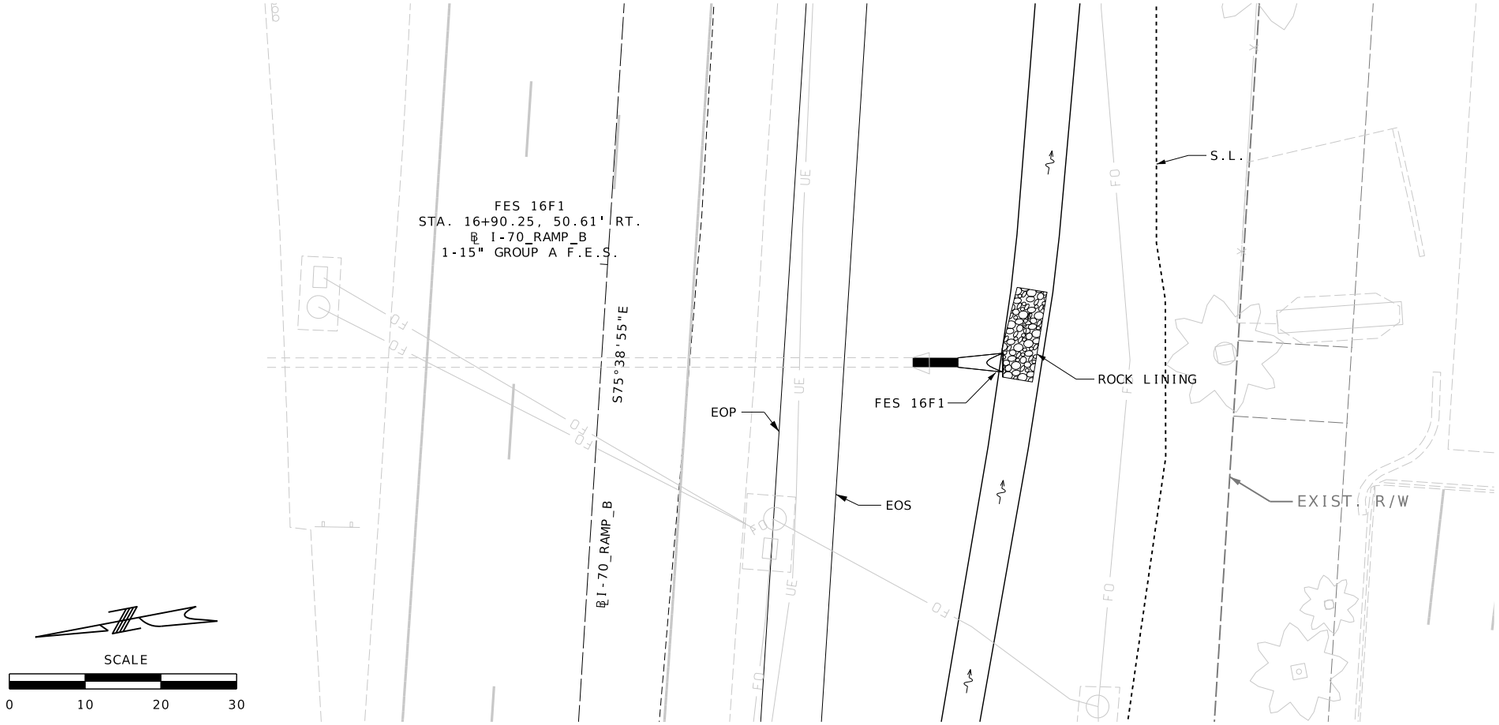
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

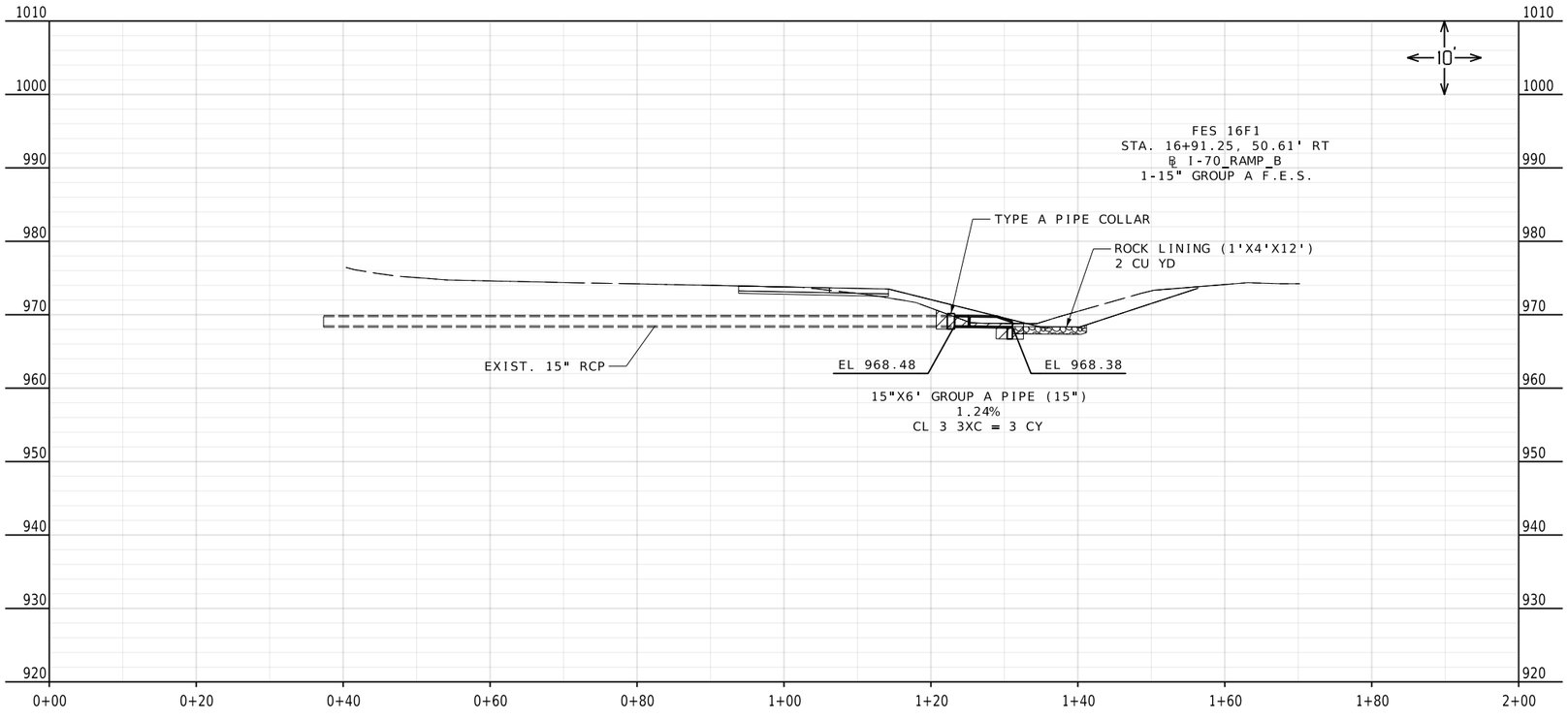
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH. (816) 361-1177
CERTIFICATE OF AUTHORITY NO. 001592

PAVEMENT MARKING & SIGNING
SHEET 1 OF 1





CULVERT SECTION
SHEET 1 OF 2

REID BRENNEN CATT NUMBER PE-2010019516

REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
10/3/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	29

COUNTY
JACKSON

JOB NO.
JKU0415

CONTRACT ID.

PROJECT NO.

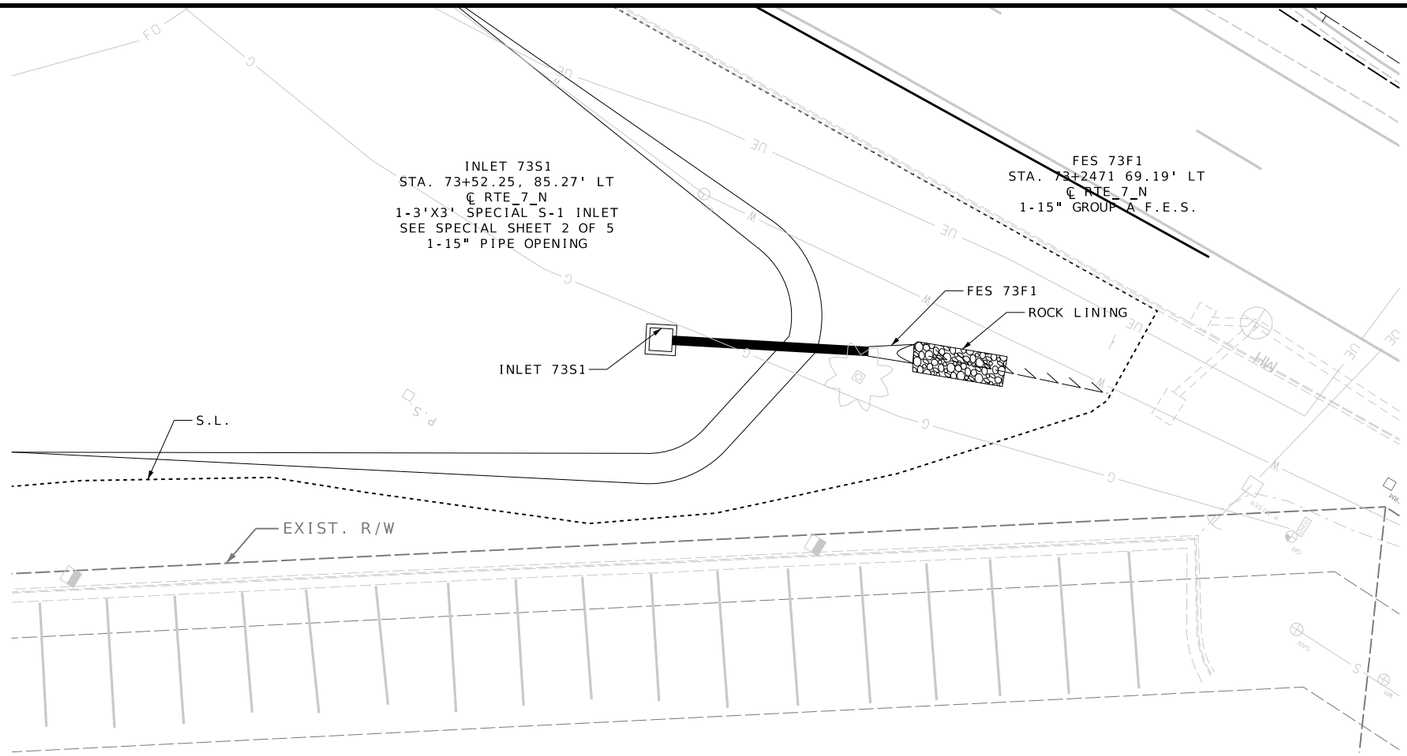
BRIDGE NO.

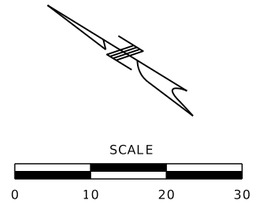
DESCRIPTION	DATE

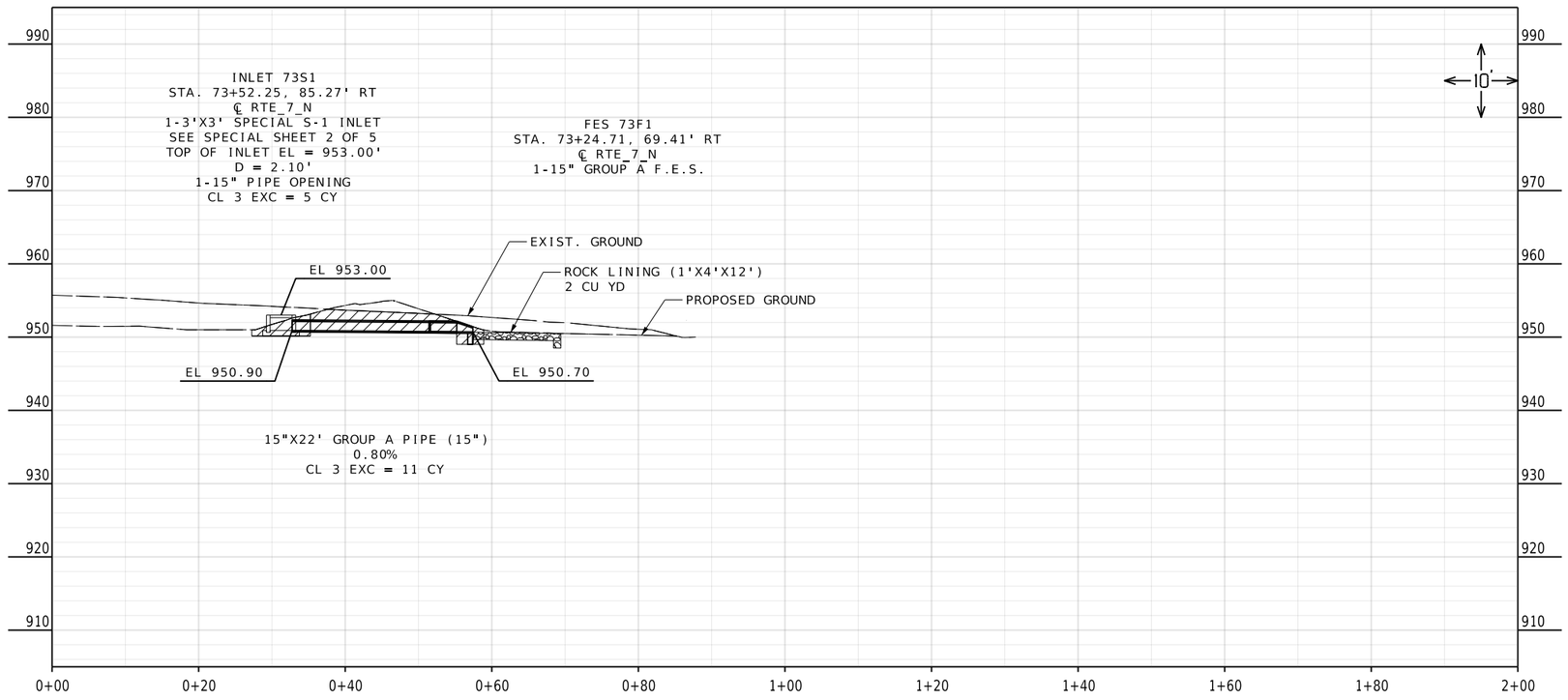
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592







CULVERT SECTION
SHEET 2 OF 2

REID BRENNEN CATT NUMBER PE-2010019516

REID BRENNEN CATT-ENGINEER
MO# PE-2010019516

DATE PREPARED
10/3/2025

ROUTE	STATE
7	MO
DISTRICT	SHEET NO.
KC	30

COUNTY
JACKSON

JOB NO.
JKU0415

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
PH (816) 361-1177
CERTIFICATE OF
AUTHORITY NO. 001592