DESIGN DESIGNATION

AADT - 2014 = 23080
AADT - 2034 = 26780
DHV = 8%
T = 18%
D = 58/42
V = 45 MPH

FUNCTIONAL CLASSIFICATION- PRINCIPAL ARTERIAL

PARTIAL CONTROLLED ACCESS HIGHWAY

THIS SHALL BE A PARTIAL CONTROLLED ACCESS HIGHWAY. EXCEPT AT LOCATIONS AND AS OTHERWISE SPECIFICALLY SHOWN ON THESE PLANS, NO ABUTTER'S RIGHTS IN OR OF DIRECT ACCESS FROM STA 491+41.99 TO STA 500+25.06, OR ACROSS THE HIGHWAY OR ITS RIGHT-OF-WAY SHALL ATTACH OR BELONG TO ANY PROPERTY ABUTTING ON SAID SECTION OF HIGHWAY, OR TO ANY PERSON MERELY BECAUSE OF OWNERSHIP OF SUCH ABUTTING PROPERTY WHERE THE SYMBOL SHOWN BELOW IS SHOWN ON THE RIGHT-OF-WAY LINE.

BEGINNING AND ENDING OF CONTROLLED ACCESS

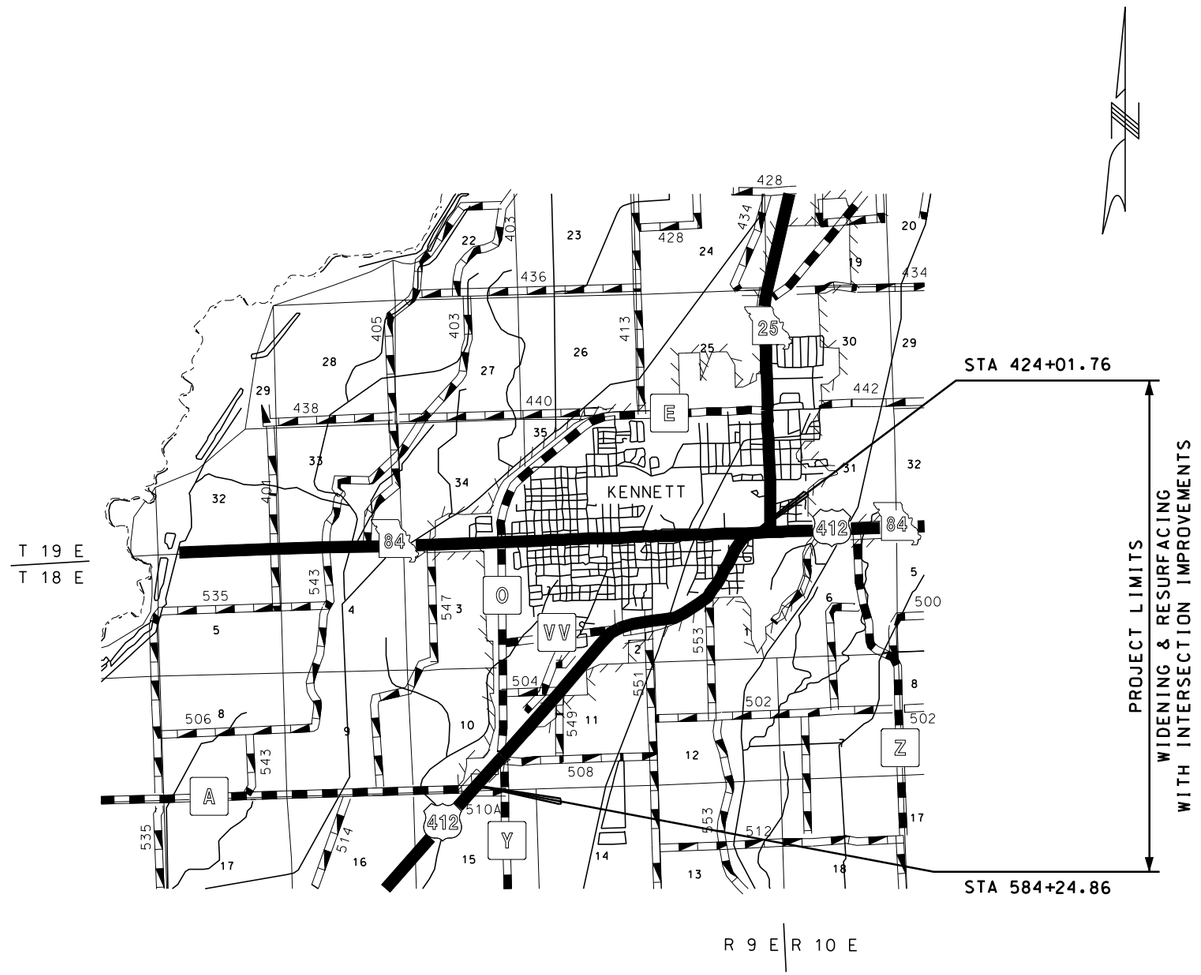
NO RIGHT OF ACCESS OR CROSSING OF LINES BEARING THIS SYMBOL WILL BE PERMITTED UNDER ANY CIRCUMSTANCES.

CONVENTIONAL SYMBOLS
(USED IN PLANS)

	EXISTING	NEW
BUILDINGS AND STRUCTURES		
GUARD RAIL		
CONCRETE RIGHT-OF-WAY MARKER		
STEEL RIGHT-OF-WAY MARKER		
LOCATION SURVEY MARKER		
UTILITIES		
FIBER OPTICS	-FO-	-FO-
OVERHEAD TELEPHONE		
UNDERGROUND TELEPHONE	-T-	-T-
OVERHEAD POWER		
UNDERGROUND POWER	-P-	-P-
GAS	-G-	-G-
WATER	-W-	-W-
MANHOLE	SAN	
FIRE HYDRANT	HYD	
WATER VALVE	WV	
WATER METER	WM	
DROP INLET	DI	
DITCH BLOCK		
GROUND MOUNTED SIGN	SIGN	
LIGHT POLE		
H-FRAME POWER POLE		
TELEPHONE PEDESTAL	PED	
FENCE		
CHAIN LINK	-V-	
WOVEN WIRE	-X-	
GATE POST		
BENCHMARK	BM	

NOTE: DASHED OR OPEN SYMBOLS INDICATE EXISTING FEATURES

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
PLANS FOR PROPOSED STATE HIGHWAY
DUNKLIN COUNTY



INDEX OF SHEETS

DESCRIPTION	SHEET NUMBER
TITLE SHEET	1
TYPICAL SECTIONS (TS) (4 SHEETS)	2
QUANTITIES (QU) (11 SHEETS)	3
PLAN-PROFILE (PP)	4-20
REFERENCE POINTS (RP)	21
COORDINATE POINTS (CP)	22
SPECIAL SHEETS (SS)	23-28
TRAFFIC CONTROL SHEETS (TC)	29-33
EROSION CONTROL SHEETS (EC)	34-47
LIGHTING (LT)	48
SIGNING (SN)	49-71
PAVEMENT MARKING (PM)	72-79
CULVERT SECTIONS (CS)	80-84
BRIDGE DRAWINGS (B)	
L02751	1-6
CROSS SECTIONS (XS)	1-113

LENGTH OF PROJECT

BEGINNING OF PROJECT	STA 424+01.76
END OF PROJECT	STA 584+24.86
APPARENT LENGTH	16023.10 FEET
EQUATIONS AND EXCEPTIONS:	
STA 496+29.00 BK= STA 495+47.60 AH	81.40 FEET
TOTAL CORRECTIONS	81.40 FEET
NET LENGTH OF PROJECT	16104.50 FEET
STATE LENGTH	3.050 MILES

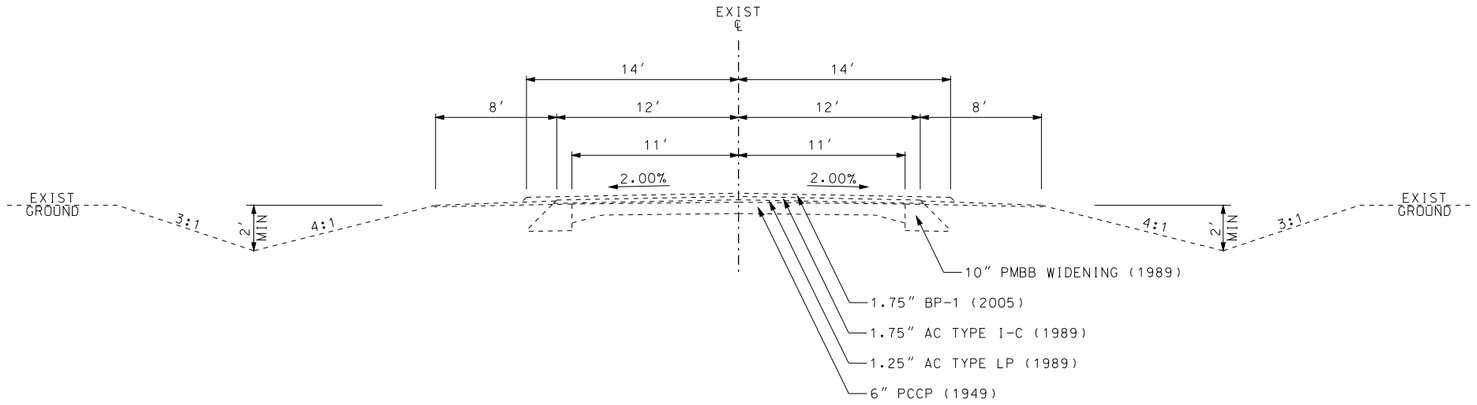
STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED: 9/12/2014
ROUTE: 412 | STATE: MO
DISTRICT: SE | SHEET NO.: 1
COUNTY: DUNKLIN
JOB NO.: J9P3077
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.:

DESCRIPTION	DATE

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

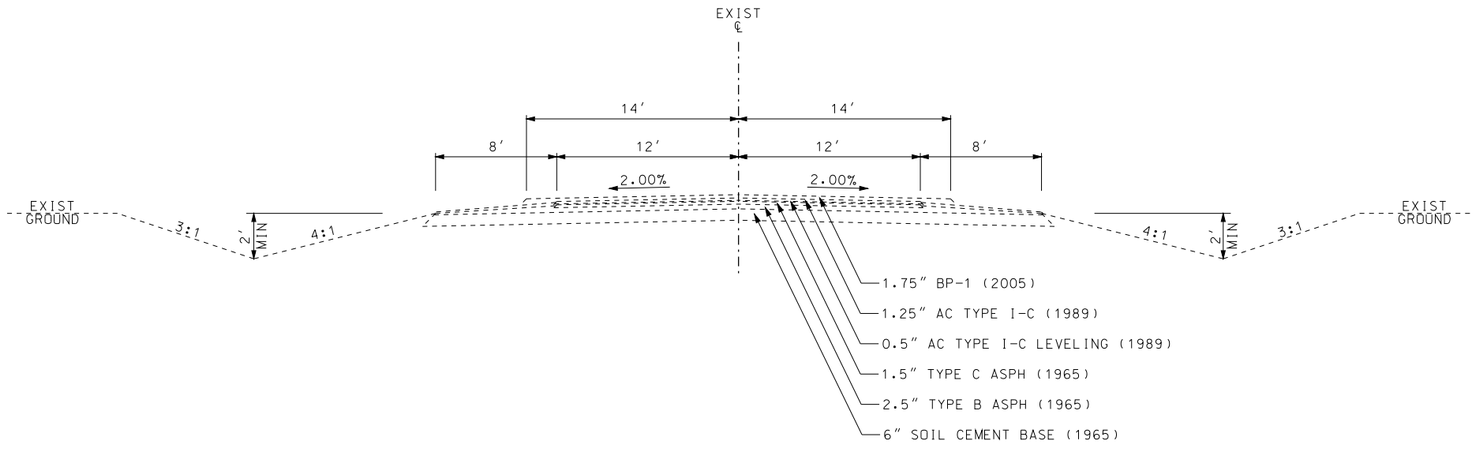
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



EXISTING TYPICAL SECTION

ROUTE 412

STA 409+76 TO STA 486+00



EXISTING TYPICAL SECTION

ROUTE 412

STA 486+00 TO STA 939+00

DRAWING NOT TO SCALE. FOLLOW DIMENSIONS.

TYPICAL SECTION
SHEET 1 OF 4

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/12/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	2

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

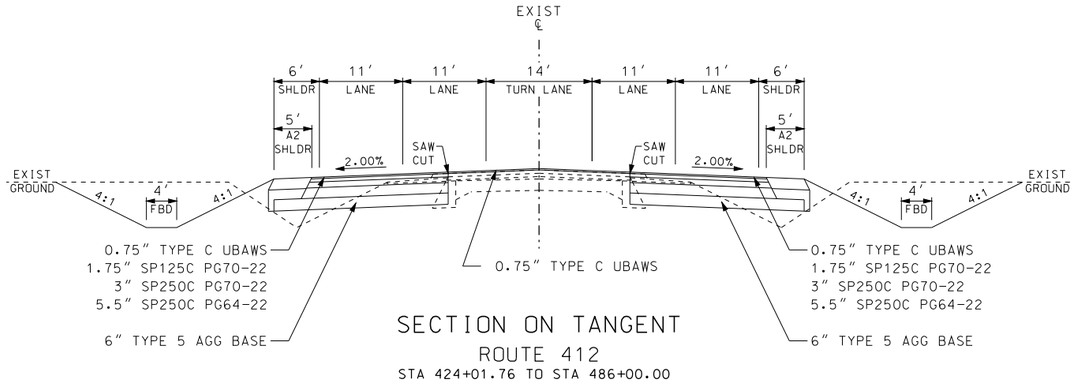
DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

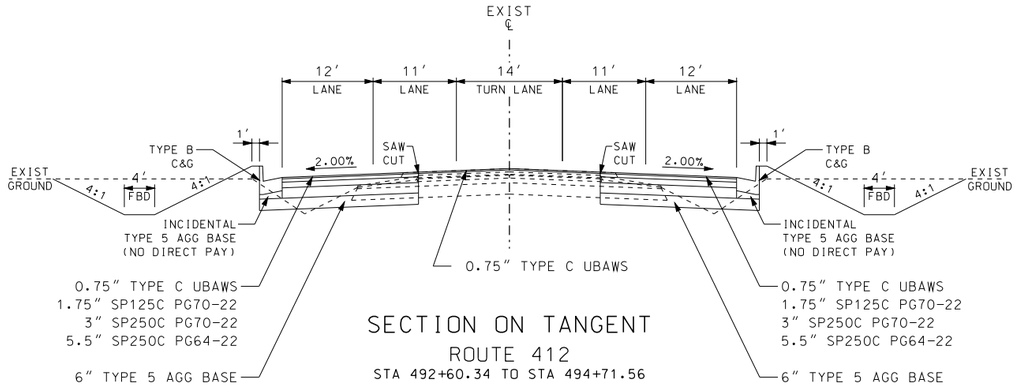
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

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

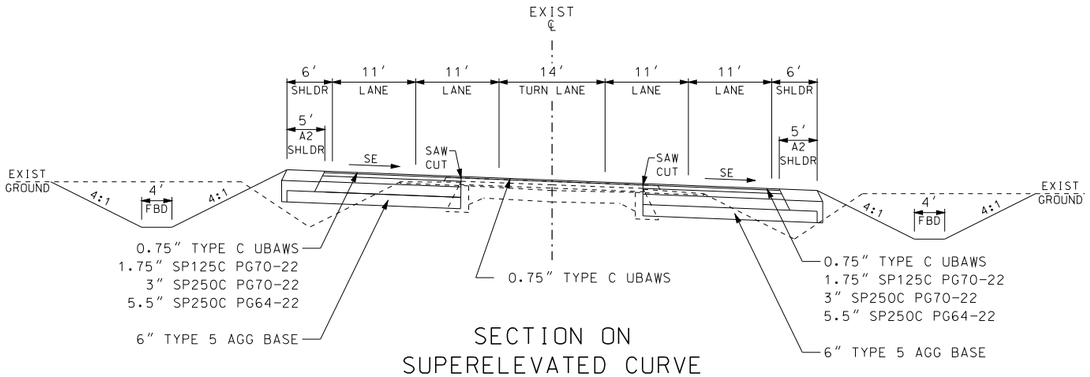
REV.



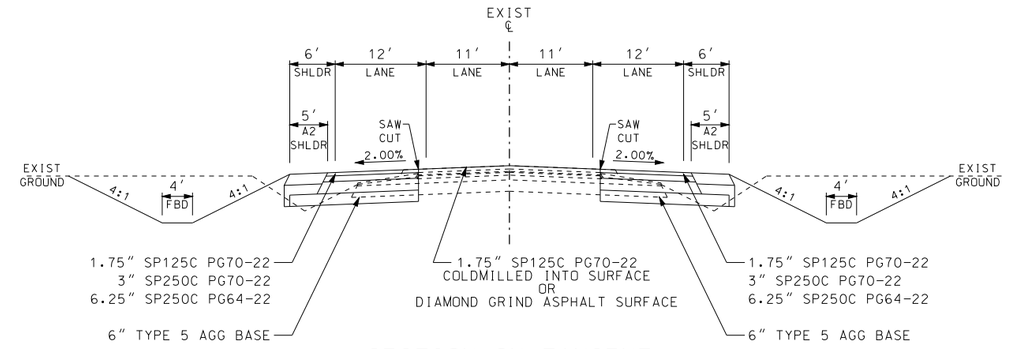
SECTION ON TANGENT
ROUTE 412
STA 424+01.76 TO STA 486+00.00



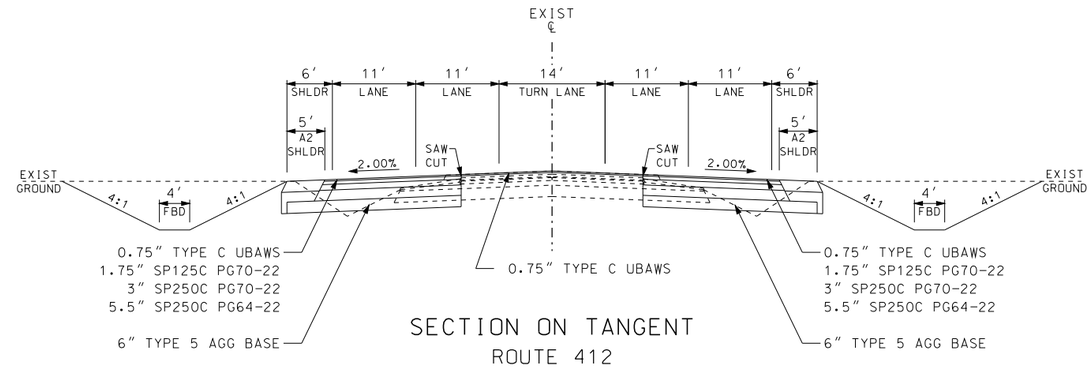
SECTION ON TANGENT
ROUTE 412
STA 492+60.34 TO STA 494+71.56



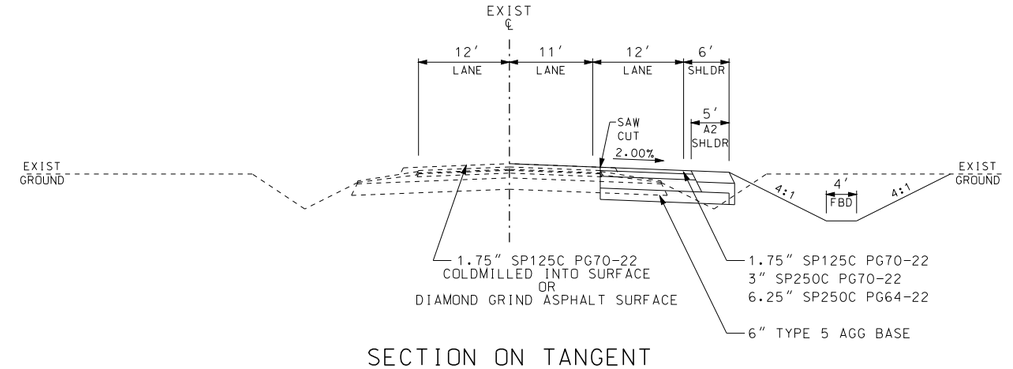
SECTION ON SUPERELEVATED CURVE
ROUTE 412
STA 424+01.76 TO STA 486+00.00



SECTION ON TANGENT
ROUTE 412
STA 501+45.40 TO STA 567+44.54
STA 570+55.51 TO STA 576+56.46



SECTION ON TANGENT
ROUTE 412
STA 486+00.00 TO STA 492+60.34



SECTION ON TANGENT
ROUTE 412
STA 567+44.54 TO STA 570+55.51
STA 576+56.46 TO STA 584+24.86

NOTE: NO DIRECT PAY FOR SAW CUTS
SEE STD 401.00 FOR A2 SHOULDER DETAIL
SEE TYPICAL SIDEWALK SECTION FOR LOCATIONS
SEE SPECIAL SHEETS FOR BYPASS TYPICAL SECTIONS

DRAWING NOT TO SCALE. FOLLOW DIMENSIONS.

ALTERNATE A PAVEMENT TYPICAL SECTION
SHEET 2 OF 4

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

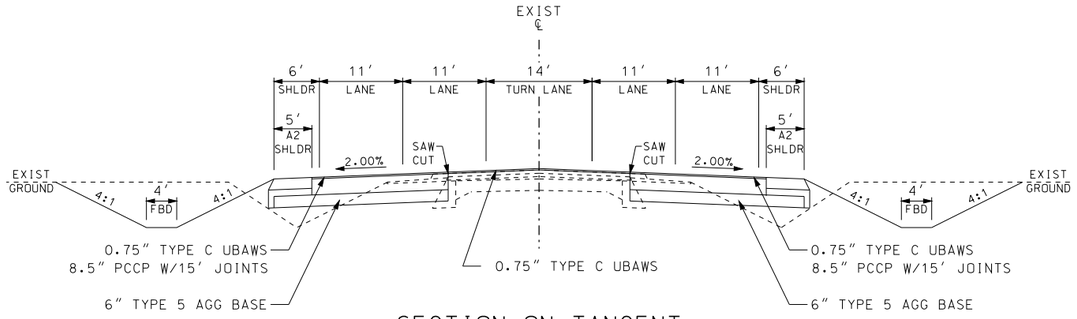
DATE PREPARED 9/12/2014
ROUTE 412 | STATE MO
DISTRICT SE | SHEET NO. 2
COUNTY DUNKLIN
JOB NO. J9P3077
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DESCRIPTION | DATE

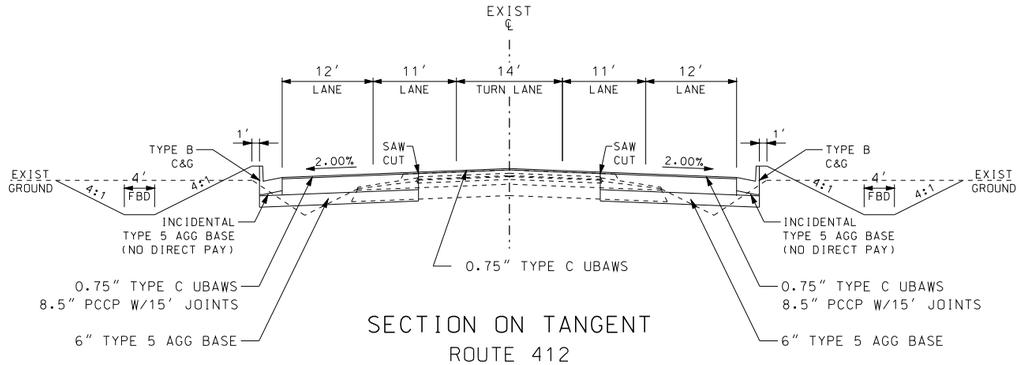
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

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

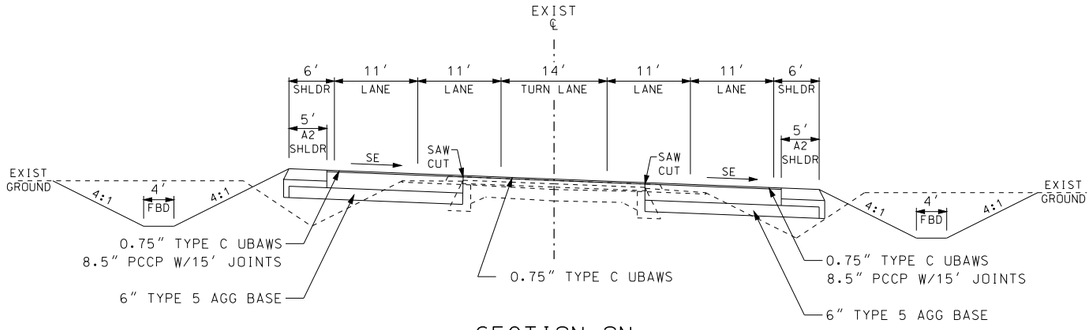
REV.



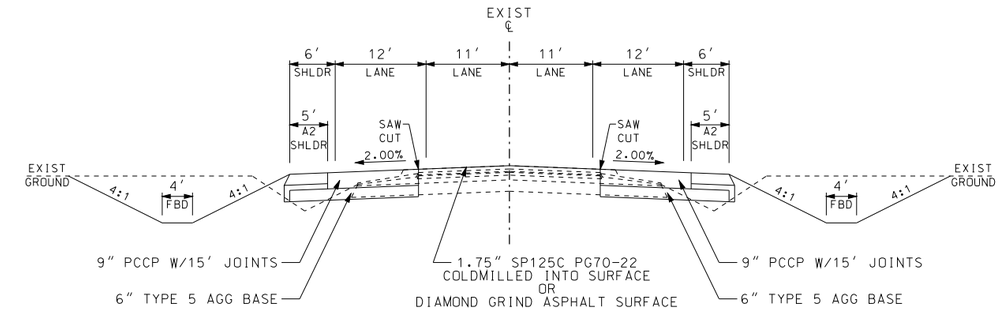
SECTION ON TANGENT
ROUTE 412
STA 424+01.76 TO STA 486+00.00



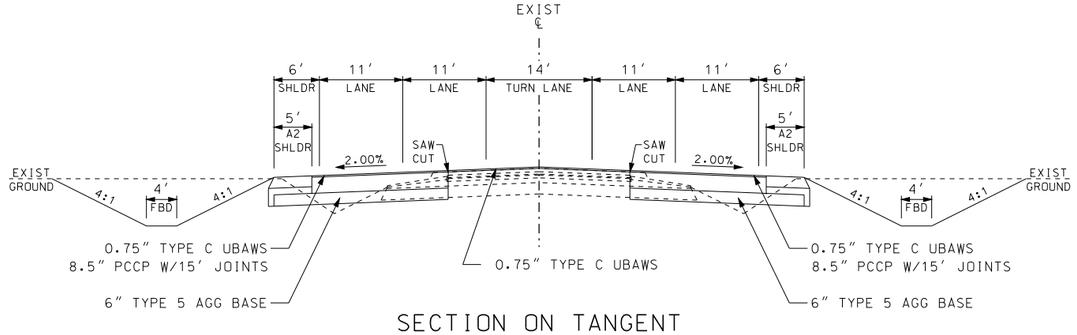
SECTION ON TANGENT
ROUTE 412
STA 492+60.34 TO STA 494+71.56



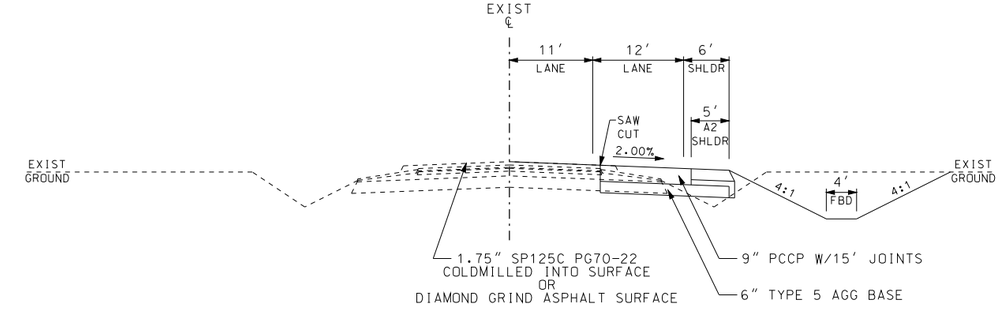
SECTION ON
SUPERELEVATED CURVE
ROUTE 412
STA 424+01.76 TO STA 486+00.00



SECTION ON TANGENT
ROUTE 412
STA 501+45.40 TO STA 567+44.54
STA 570+55.51 TO STA 576+56.46



SECTION ON TANGENT
ROUTE 412
STA 486+00.00 TO STA 492+60.34



SECTION ON TANGENT
ROUTE 412
STA 567+44.54 TO STA 570+55.51
STA 576+56.46 TO STA 584+24.86

NOTE: NO DIRECT PAY FOR SAW CUTS
SEE STD 401.00 FOR A2 SHOULDER DETAIL
SEE TYPICAL SIDEWALK SECTION FOR LOCATIONS
SEE SPECIAL SHEETS FOR BYPASS TYPICAL SECTIONS

DRAWING NOT TO SCALE. FOLLOW DIMENSIONS.

ALTERNATE B PAVEMENT
TYPICAL SECTION
SHEET 3 OF 4

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER
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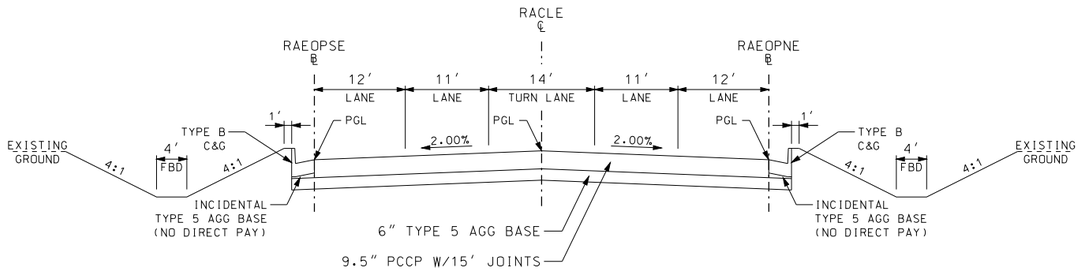
DATE PREPARED 9/12/2014
ROUTE 412 | STATE MO
DISTRICT SE | SHEET NO. 2
COUNTY DUNKLIN
JOB NO. J9P3077
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DESCRIPTION | DATE

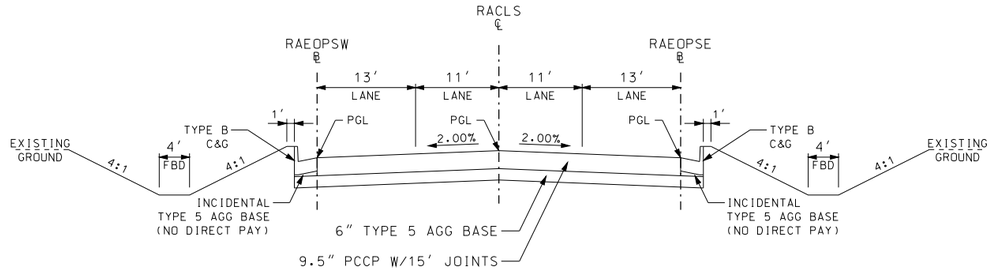
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MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

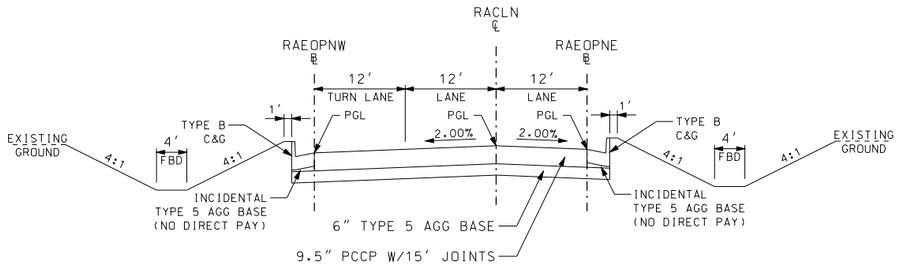
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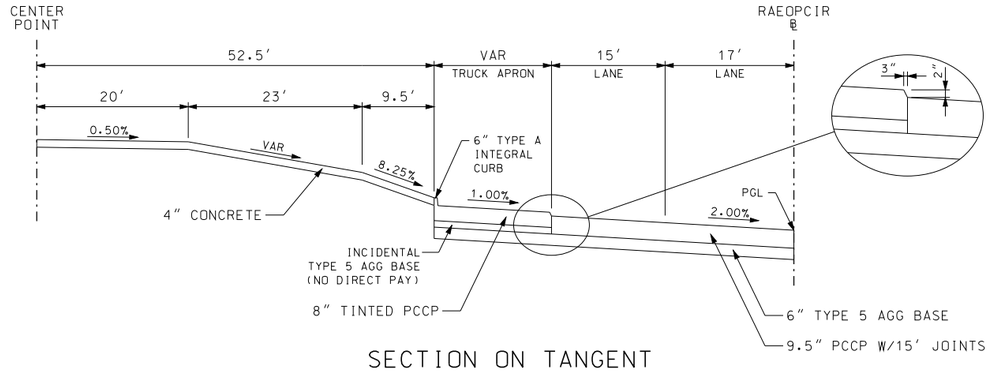
SECTION ON TANGENT
ROUNDABOUT EAST APPROACH
STA 0+00.00 TO STA 2+24.36



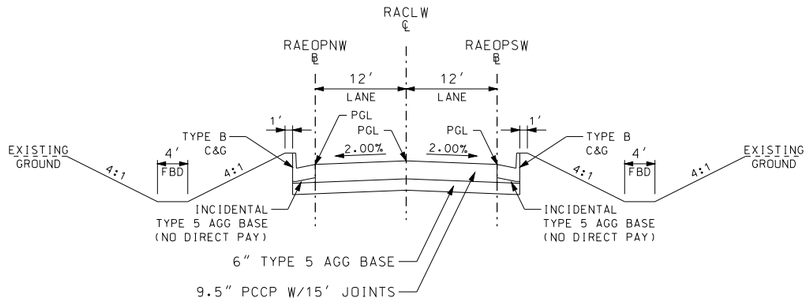
SECTION ON TANGENT
ROUNDABOUT SOUTH APPROACH
STA 0+00.00 TO STA 3+96.61



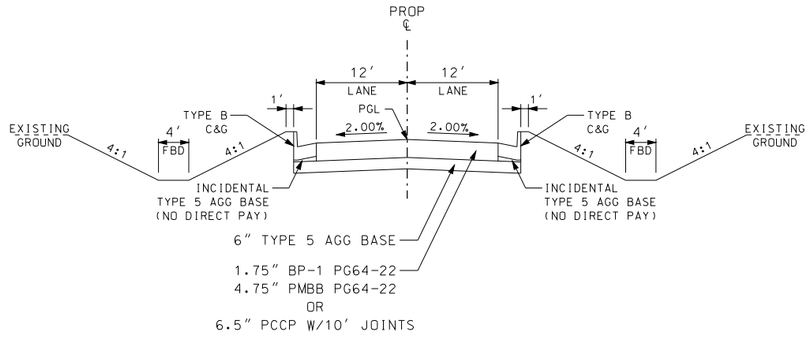
SECTION ON TANGENT
ROUNDABOUT NORTH APPROACH
STA 0+00.00 TO STA 3+35.39



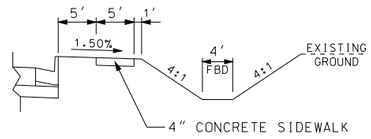
SECTION ON TANGENT
ROUNDABOUT CIRCLE
STA 0+00.00 TO STA 6+28.32



SECTION ON TANGENT
ROUNDABOUT WEST APPROACH
STA 0+00.00 TO STA 2+65.33



SECTION ON TANGENT
KENNETT STREET
STA 4+50.61 TO STA 10+78.38



SIDEWALK SECTION
ROUTE 412
STA 492+53.41 TO STA 494+71.56 LT

RAEOPSE
STA 0+00.00 TO STA 1+95.57 LT

RAEOPNE
STA 1+80.17 TO STA 2+76.93 RT

RAEOPNW
STA 4+24.59 TO STA 7+37.82 LT

KENNETT
STA 4+50.61 TO STA 9+25.85 LT

NOTE: NO DIRECT PAY FOR TRUCK APRON INTEGRAL CURB OR BEVEL
SEE STD 609.00 FOR TYPE B C&G AND TYPE A INTEGRAL CURB DETAIL
SEE PLAN SHEETS FOR PGL ALIGNMENT & PROFILE
SEE TYPICAL SIDEWALK SECTION FOR LOCATIONS
SEE SPECIAL SHEETS FOR BYPASS TYPICAL SECTIONS

DRAWING NOT TO SCALE. FOLLOW DIMENSIONS.

TYPICAL SECTION
SHEET 4 OF 4

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 9/12/2014
ROUTE 412 | STATE MO
DISTRICT SE | SHEET NO. 2
COUNTY DUNKLIN
JOB NO. J9P3077
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

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)

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

SUMMARY OF QUANTITIES

REMOVAL OF IMPROVEMENTS - LUMP SUM 1					
SHEET	STA	ALIGN	LOC	DESCRIPTION	REMARKS
4	424+50	RTE 412	61'RT	CONC CURBS	1 CY
	424+50	RTE 412	61'RT	18"DW PIPE	48'
	425+68	RTE 412	51'LT	18"DW PIPE	54'
5	426+99	RTE 412	47'LT	18"DW PIPE	83'
	427+46	RTE 412	49'RT	18"DW PIPE	73'
	429+84	RTE 412	27'RT	CONC ENTR & CURBS	16 CY
	429+84	RTE 412	40'RT	18"DW PIPE	41'
	432+01	RTE 412	33'LT	18"DW PIPE	37'
	432+10	RTE 412	26'RT	CONC ENTR & CURBS	17 CY
	432+10	RTE 412	40'RT	18"DW PIPE	41'
	435+72	RTE 412	35'LT	18"DW PIPE	49'
	435+96	RTE 412	26'RT	CONC ENTR & CURBS	23 CY
	435+96	RTE 412	40'RT	18"DW PIPE	42'
	437+23	RTE 412	39'RT	18"DW PIPE	41'
	438+00	RTE 412	LT&RT	2'OF 15"PIPE, HDWLS & WINGS	
	438+70	RTE 412	24'RT	CONC ENTR & CURBS	19
	438+70	RTE 412	39'RT	18"DW PIPE	38'
	438+83	RTE 412	39'LT	18"DW PIPE	42'
	439+20	RTE 412	26'RT	CONC CURBS	3 CY
	439+20	RTE 412	65'RT	18"DW PIPE	39'
6	439+84	RTE 412	38'LT	18"DW PIPE	40'
	441+74	RTE 412	25'RT	CONC ENTR & CURBS	24 CY
	441+74	RTE 412	65'RT	18"DW PIPE	38'
	442+29	RTE 412	38'LT	18"DW PIPE	43'
	442+56	RTE 412	27'LT	CONC CURB	2 CY
	442+56	RTE 412	38'LT	18"PIPE IN CONC WALL	3'
	442+88	RTE 412	26'RT	18"DW PIPE	53'
	443+00	RTE 412	21'LT	CONC ENTR & CURBS	52 CY
	443+00	RTE 412	64'LT	18"DW PIPE	38'
	443+91	RTE 412	26'RT	CONC CURBS	4 CY
	443+91	RTE 412	35'RT	18"DW PIPE	65'
	444+13	RTE 412	23'LT	CONC ENTR & CURBS	62 CY
	444+13	RTE 412	35'LT	18"DW PIPE	69'
	445+70	RTE 412	39'LT	18"DW PIPE	43'
	445+75	RTE 412	25'RT	CONC CURBS	4 CY
	445+75	RTE 412	35'RT	18"DW PIPE	65'
	447+82	RTE 412	35'LT	18"DW PIPE	44'
	448+28	RTE 412	26'RT	CONC ENTR & CURBS	35 CY
	448+28	RTE 412	36'RT	18"DW PIPE	71'
	449+01	RTE 412	31'RT	CONC CURBS	3 CY
	449+01	RTE 412	38'RT	18"DW PIPE	61'
	451+05	RTE 412	25'LT	CONC CURBS	4 CY
	451+05	RTE 412	35'LT	18"DW PIPE	33'
	452+63	RTE 412	33'RT	CONC CURBS	3 CY
	452+63	RTE 412	39'RT	24"DW PIPE	62'
7	454+42	RTE 412	25'RT	CONC ENTR, FLUMES & CURBS	54 CY
	454+42	RTE 412	41'RT	24"DW PIPE	80'
	457+05	RTE 412	24'LT	CONC ENTR & CURBS	30 CY
	457+05	RTE 412	40'LT	15"CONC PIPE	58'
	458+91	RTE 412	23'RT	CONC ENTR & CURBS	30 CY
	458+91	RTE 412	40'RT	18"DW PIPE	59'
	459+39	RTE 412	39'LT	18"DW PIPE	39'
	459+61	RTE 412	24'RT	CONC ENTR & CURBS	31 CY
	459+61	RTE 412	40'RT	24"DW PIPE	53'
	460+01	RTE 412	LT&RT	2'OF 24"PIPE, HDWLS & WINGS	
	461+21	RTE 412	24'RT	CONC ENTR & CURBS	30 CY
	461+21	RTE 412	44'RT	24"DW PIPE	53'
	462+84	RTE 412	25'RT	CONC CURBS	4 CY
	462+84	RTE 412	52'RT	15"DW PIPE	43'
	464+61	RTE 412	25'RT	CONC CURBS	4 CY
	464+61	RTE 412	54'RT	18"DW PIPE	43'
8	466+82	RTE 412	52'LT	15"DW PIPE	71'
	469+08	RTE 412	54'LT	15"DW PIPE	71'
	471+37	RTE 412	53'LT	15"DW PIPE	72'
	473+67	RTE 412	23'LT	CONC CURBS	5 CY
	473+67	RTE 412	53'LT	15"DW PIPE	72'

REMOVAL OF IMPROVEMENTS - CONT					
SHEET	STA	ALIGN	LOC	DESCRIPTION	REMARKS
8	473+67	RTE 412	61'RT	24"DW PIPE	77'
	477+10	RTE 412	22'RT	CONC ENTR & CURBS	42 CY
	477+10	RTE 412	54'RT	24"DW PIPE	52'
	478+96	RTE 412	37'RT	24"DW PIPE	46'
	479+03	RTE 412	40'LT	18"DW PIPE	34'
	479+16	RTE 412	38'RT	12"PIPE FROM DI TO NORTH	20'
	479+91	RTE 412	39'LT	18"DW PIPE	69'
9	481+23	RTE 412	36'LT	CONC CURBS	3 CY
	481+23	RTE 412	37'LT	18"DW PIPE	70'
	482+25	RTE 412	22'RT	CONC CURBS	4 CY
	482+25	RTE 412	39'RT	18"DW PIPE	53'
	483+18	RTE 412	36'LT	18"DW PIPE	64'
	485+74	RTE 412	40'RT	12"PIPE FROM NORTH	15'
	487+24	RTE 412	45'LT	18"DW PIPE	49'
	487+48	RTE 412	44'RT	24"DW PIPE	41'
	488+42	RTE 412	52'LT	18"DW PIPE	31'
	488+82	RTE 412	33'RT	CONC CURBS	4 CY
	488+82	RTE 412	51'RT	24"DW PIPE	65'
	489+74	RTE 412	33'RT	CONC CURBS	4 CY
	489+74	RTE 412	50'RT	24"DW PIPE	65'
	491+90	RTE 412	51'RT	ISLAND CONC CURB	12 CY
	491+90	RTE 412	51'RT	DI & 12"PIPE W/HDWL	53'
	492+02	RTE 412	196'RT	18"DW PIPE W/HDWLS	50'
	492+25	RTE 412	70'RT	CONC PVMT EXIST KENNETT ST	70 CY
	492+40	RTE 412	52'LT	18"DW PIPE	41'
	492+62	RTE 412	36'RT	ISLAND CONC CURB	6 CY
10	8+27	KENNETT	31'LT	15"PIPE	21'
	8+37	KENNETT	7'RT	24"PIPE	35'
	9+44	KENNETT	13'LT	21"DW PIPE	61'
	9+80	KENNETT	8'RT	21"PIPE	45'
	10+11	KENNETT	28'RT	15"DW PIPE	57'
	10+47	KENNETT	22'LT	21"DW PIPE	53'
	495+74	RTE 412	14'LT	ISLAND CONC CURB	11 CY
	496+62	RTE 412	41'RT	ISLAND CONC CURB	11 CY
	496+62	RTE 412	41'RT	DI & 12"PIPE W/HDWL	63'
	501+84	RTE VV	37'LT	CONC CURBS	2 CY
	501+84	RTE VV	37'LT	15"DW PIPE	63'
11	504+37	RTE 412	47'RT	18"DW PIPE	57'
13	529+01	RTE 412	LT&RT	2'OF 24"RCP, HDWLS & WINGS	
14	551+00	RTE 412	LT&RT	2'OF 24"RCP, HDWLS & WINGS	

LOCATIONS AND QUANTITIES ARE APPROX FOLLOW SEC 202.30. NO DIRECT PAYMENT WILL BE MADE FOR SAW CUTS REQUIRED FOR REMOVAL.

CLEARING AND GRUBBING - NO DIRECT PAY						
SHEET	STA	STA	ALIGN	LOC	UNITS	REMARKS
7	453+00	465+00	RTE 412	LT	24	
10	0+00	8+50	KENNETT	LT	17	
				TOTAL	41	
				USE	1 ACRES	

REMOVE SCRUB LINE ALONG RTE 412 AS REQUIRED TO PLACE DITCHES
REMOVE REMAINING TREES/STUMPS AFTER UTILITY RELOCATES

MOBILIZATION - LUMP SUM 1

CONTRACTOR FURNISHED SURVEYING AND STAKING - LUMP SUM 1

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
10/10/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	3

COUNTY
DUNKLIN

JOB NO.
J9P3077

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)

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REV.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

SUMMARY OF QUANTITIES

EARTHWORK

SHEET	STA	STA	ALIGN	APPROX EARTHWORK CUT CY	APPROX EARTHWORK FILL CY	APPROX EARTHWORK UNSUITABLE CY	CLASS A EXCAVATION CY	COMPACTING EMBANKMENT CY	EMBANKMENT IN PLACE CY	EXCESS CY	COMPACTING IN CUT STA	LINEAR GRADING CLASS 1 STA	LINEAR GRADING CLASS 2 STA	REMARKS
4-10	424+01.76	494+71.56	RTE 412 N	24085	10628	1720	24085	10628		9930				
11-14	501+45.40	584+24.86	RTE 412 S	7202	10665	1430	7202	4933	5732					
10	0+00.00	6+28.32	RAEOPCIR	0	4026	190	0	0	4216					
	0+00.00	5+65.69	RAEOPNE	908	841	150	908	648	193					
	0+00.00	7+37.82	RAEOPNW	1450	1561	40	1450	1205	356					
10-11	0+00.00	7+46.90	RAEOPSE	1180	1223	310	1180	744	479					
	0+00.00	6+56.18	RAEOPSW	476	885	180	476	253	632					
10	4+50.61	10+78.38	KENNETT	1668	1198	160	1668	1289		106				
4-14	424+01.76	584+24.86	RTE 412								161.0			WIDENING & ROUNDABOUT AREA
23	0+00.00	3+77.79	BYPASS 1	65	20	30							3.8	PLACEMENT
	0+00.00	3+77.79	BYPASS 1	60	0	60						3.8		REMOVAL
	0+00.00	5+27.37	BYPASS 2	110	350	40							4.4	PLACEMENT
	0+00.00	5+27.37	BYPASS 2	345	0	235						4.4		REMOVAL
	0+00.00	4+73.26	BYPASS 3	0	20	0							1.3	PLACEMENT
	0+00.00	4+73.26	BYPASS 3	25	0	25						1.3		REMOVAL
9	0+35.60	2+06.00	EXIST KENNETT	220	0	220						1.7		EXIST PVMT REMOVAL
10	495+97.36	499+61.03	RTE 412	200	0	200						4.5		EXIST PVMT REMOVAL
						TOTAL	36969	19700	11608		161.0	15.7	9.5	

COMPACTION IN CUT IS INTENDED FOR LOCATIONS WHERE EXIST PVMT OR SHOULDER HAS BEEN REMOVED UNDER PROP PVMT AREAS
EXIST PVMT BENEATH PROP ROUNDABOUT PVMT DEPTH MAY REMAIN IN PLACE IF RUBBLIZED TO ALLOW FOR DRAINAGE AT NO DIRECT PAY
ANY SUITABLE EXCESS MATERIAL MAY BE USED TOWARDS EMBANKMENT IN PLACE OR CLASS 2 LINEAR GRADING REQUIRED FOR DRIVEWAYS AND BYPASSES

TEMPORARY EROSION CONTROL

SHEET	ALIGN	ROCK CHECK EACH	ALT DITCH CHECK EACH	CURB INLET CHECK EACH	SILT FENCE LF	TYPE 4 EROSION CONTROL BLANKET SY	TEMP SEED & MULCH ACRE	REMARKS
34	RTE 412		2					
35	RTE 412		9			23		
36	RTE 412		10					
37	RTE 412		7			23		
38	RTE 412	8	10	3				
39	RTE 412		11	1		23		
40	RTE 412		9	5	900	497		INCLUDES KENNETT
41	RTE 412		9					
42	RTE 412		6					
43	RTE 412		8			23		
44	RTE 412		10			23		
45	RTE 412		8					
46	RTE 412		6					
47	RTE 412		2					
4-17	RTE 412						4.48	
23	BY 1						0.09	
	BY 2						0.09	
	BY 3						0.02	
	TOTAL	8	107	9	900	612	4.7	

NO DIRECT PAYMENT WILL BE MADE FOR SEDIMENT REMOVAL REQUIRED TO MAINTAIN EROSION CONTROL ITEMS IN PROPER WORKING CONDITION.

PAVEMENT EDGE TREATMENT - LUMP SUM 1

ESTIMATED AT 30000 LF

PARTIAL DEPTH PAVEMENT REPAIR - CLASS C

SHEET	STA	STA	ALIGN	LOC	REMOVAL SY	FURNISH & PLACE CY	REMARKS
4-14	424+01.76	584+24.86	RTE 412	℄	420.0	3.9	EST 10-3'x14'
				TOTAL	420.0	3.9	

LOCATIONS TO BE DETERMINED BY THE ENGINEER.

BIT MATERIAL FOR CLASS C PARTIAL DEPTH PVMT
EST @ 2.093 TON/CY
3.9 CY X 2.093 TONS/CY = 8.2 TONS

COLDMILLING FOR DEPTH TRANSITIONS

SHEET	STA	STA	ALIGN	LOC	LENGTH FT	WIDTH FT	COLDMILLING FOR DEPTH TRANSITIONS SY	REMARKS
4	424+01.76	424+39.26	RTE 412	℄	37.50	VAR	250.0	BEGIN JOB
						TOTAL	250	

SEE SPECIAL SHEET FOR DEPTH TRANSITION DETAIL

TEMPORARY SURFACING

100 CY

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ERIC KRAPF
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ROUTE 412 | STATE MO
DISTRICT SE | SHEET NO. 3
COUNTY DUNKLIN
JOB NO. J9P3077
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DESCRIPTION | DATE

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

REV.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

SUMMARY OF QUANTITIES

PIPE CULVERTS

SHEET	STA	LOC	STA	LOC	ALIGN	SKEW	FILL HT FT	GROUP A PIPE 15"(15") LF	GROUP A PIPE 18"(18") LF	GROUP A PIPE 24"(24") LF	GROUP A FES 15" EACH	GROUP A FES 18" EACH	GROUP A FES 24" EACH	TEMP PIPE 12" LF	TYPE A PIPE COLLAR EACH	CL 3 EXC CY	CULVERT CLEANOUT EACH	REMARKS
5	438+00.0	LT&RT			RTE 412		2	56			2				2	8	1	
7	460+00.6	LT&RT			RTE 412		2			56			2		2	18	1	
7-8	465+99.8	68.0'LT	467+99.0	56.0'LT	RTE 412		2			199			1			228		
8	468+01.0	56.0'LT	470+49.0	62.0'LT	RTE 412		2			252						259		
	470+51.0	62.0'LT	472+59.0	65.0'LT	RTE 412		2			211						226		
	472+61.0	65.0'LT	472+94.8	75.3'LT	RTE 412		3			32			1			30		
	472+70.5	LT&RT			RTE 412												1	BR#L02751
9	492+07.9	53.0'LT	492+98.4	57.1'LT	RTE 412		2		88			1				37		
	492+70.3	31.5'LT	492+98.8	55.9'LT	RTE 412		2	38								7		
	493+02.4	57.3'LT	493+82.2	61.0'LT	RTE 412		1		78			1				26		
10	0+63.8	6.0'LT	0+63.8	23.7'LT	RAEOPSE		2		16			1				2		
	1+69.4	2.5'LT	1+69.4	26.9'LT	RAEOPSE		2	22			1					6		
	4+54.1	2.5'LT	4+54.1	31.3'LT	RAEOPNW		3	27			1					15		
	6+61.5	6.0'LT	6+61.5	21.6'LT	RAEOPNW		1		14			1				7		
	6+25.0	14.5'LT	6+25.0	36.7'LT	KENNETT		2	20			1					4		
13	529+00.8	LT&RT			RTE 412		2			35			2		2	7	1	
14	551+00.1	LT&RT			RTE 412		2			40			2		2	9	1	
23	1+49.2	19.2'LT	1+66.4	19.4'RT	BY 2									43				
	3+47.3	19.0'LT	3+74.1	8.2'LT	BY 2									29				
							TOTAL	163	196	825	5	4	8	72	8	889	5	

PRECAST DI & MANHOLE

SHEET	STA	ALIGN	LOC	TYPE	"D"	3'X2' DI FT	5'X3' DI FT	2'X2' DI FT	4' MH FT	GRATES & BEARING PLATES EACH	CURVED VANE GRATE & FRAME EACH	TYPE 3 FRAME & COVER EACH	TYPE 4 FRAME & COVER EACH	CL 3 EXC CY	REMARKS
38	468+00.0	RTE 412	56.0' LT	S-1	4'0"	4				1				9	2-24"OPENINGS
	470+50.0	RTE 412	62.0' LT	S-1	3'3"	3				1				8	2-24"OPENINGS
	472+60.0	RTE 412	65'.0 LT	S-2	3'3"	3				1				9	2-24"OPENINGS
39	492+69.3	RTE 412	31.5' LT	D	2'0"			2			1			5	1-15"OPENING
	493+00.4	RTE 412	57.2' LT		3'3"				3				1	4	3-18"& 1-15"OPENINGS
40	0+63.8	RAEOPSE	4.5' LT	T	3'6"		4					1		7	1-18"OPENING
	1+69.4	RAEOPSE	1.5' LT	D	2'3"			2			1			4	1-15"OPENING
	4+54.1	RAEOPNW	1.5' LT	D	3'3"			3			1			5	1-15"OPENING
	6+61.5	RAEOPNW	4.5' LT	T	3'0"		3					1		8	1-18"OPENING
	6+25.0	KENNETT	13.5' LT	D	2'0"			2			1			0	1-15"OPENING
					TOTAL	10	7	9	3	3	4	2	1	59	

SEEDING

SHEET	STA	STA	ALIGN	LOC	COOL SEASON ACRE	REMARKS
8-10	424+01.76	494+71.56	RTE 412	LT&RT	11.71	
11-17	501+45.40	584+24.86	RTE 412	LT&RT	7.02	
10	0+00.00	5+65.69	RAEOPNE	RT	0.61	
10-11	0+00.00	7+46.90	RAEOPSE	LT	0.78	
10-11	0+00.00	6+56.18	RAEOPSW	RT	0.40	
10	0+00.00	7+37.82	RAEOPNW	LT	0.80	
10	4+50.61	10+78.38	KENNETT	LT&RT	1.04	
10-11	501+50.00	503+06.82	RTE VV	LT	0.02	
				TOTAL	22.4	

TYPE 5 AGGREGATE BASE

SHEET	STA	STA	ALIGN	LOC	LENGTH FT	WIDTH FT	6" TYPE 5 SY	REMARKS
4-10	424+01.76	494+71.56	RTE 412	LT	7069.80	VAR	16769.2	
	424+01.76	494+71.56	RTE 412	RT	7069.80	VAR	17028.8	
11-17	501+45.40	567+44.54	RTE 412	LT	6599.14	VAR	11192.9	
	570+55.51	576+56.46	RTE 412	LT	600.95	VAR	759.1	
	501+45.40	584+24.86	RTE 412	RT	8279.46	VAR	14785.9	
10	0+00.00	6+28.32	RAEOPCIR	LT	628.32	VAR	2528.5	
	0+00.00	5+65.69	RAEOPNE	LT&RT	565.69	VAR	1909.8	
	0+00.00	7+37.82	RAEOPNW	LT&RT	737.82	VAR	1891.9	
10-11	0+00.00	7+46.90	RAEOPSE	LT&RT	746.90	VAR	2805.4	
	0+00.00	6+56.18	RAEOPSW	LT&RT	656.18	VAR	2405.8	
10	4+50.61	10+78.38	KENNETT	℄	627.77	30	1967.9	
	501+50.00	503+06.82	RTE VV	LT	156.82	8	137.8	
						TOTAL	74183	

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ERIC KRAPF
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ROUTE 412 | STATE MO
DISTRICT SE | SHEET NO. 3
COUNTY DUNKLIN
JOB NO. J9P3077
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DESCRIPTION | DATE

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

REV.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

SUMMARY OF QUANTITIES

ALTERNATE A – PAVEMENT

SHEET	STA	STA	ALIGN	LOC	LENGTH FT	WIDTH FT	BIT PVMT SY	BIT PVMT WITH UBAWS SY	BIT EDGE RUMBLE STA	CONC EDGE RUMBLE STA	REMARKS
4-10	424+01.76	494+71.56	RTE 412	LT	7069.80	VAR		12870.4			WIDENING
	424+01.76	494+71.56	RTE 412	RT	7069.80	VAR		13112.2			WIDENING
11-17	501+45.40	567+44.54	RTE 412	LT	6599.14	VAR	7542.0		66.0		WIDENING
	570+55.51	576+56.46	RTE 412	LT	600.95	VAR	449.7		6.0		WIDENING
	501+45.40	584+24.86	RTE 412	RT	8279.46	VAR	10206.0		82.8		WIDENING
75-76	1+96.95	3+35.53	RAEOPSE	RT	138.58					2.8	2-RUMBLE LINES
						TOTAL	18197.7	25982.6	154.8	2.8	

ALTERNATE C – A2 SHOULDER

SHEET	STA	STA	ALIGN	LOC	LENGTH FT	WIDTH FT	A2 SHLDR SY	REMARKS
4-10	424+01.76	492+60.34	RTE 412	LT	6858.58	5.00	3827.7	
	424+01.76	492+60.34	RTE 412	RT	6858.58	5.00	3845.5	
11-17	501+45.40	567+44.54	RTE 412	LT	6599.14	5.00	3650.9	
	570+55.51	576+56.46	RTE 412	LT	600.95	5.00	309.3	
	501+45.40	584+24.86	RTE 412	RT	8279.46	5.00	4576.4	
	501+50.00	503+06.82	RTE VV	LT	156.82	8.00	137.8	
						TOTAL	16347.6	

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DISTRICT SE | SHEET NO. 3
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MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

SUMMARY OF QUANTITIES

ALTERNATE B - PAVEMENT

SHEET	STA	STA	ALIGN	LOC	LENGTH FT	WIDTH FT	CONC PVMT SY	CONC PVMT WITH UBAWS SY	CONC EDGE RUMBLE STA	REMARKS
4-10	424+01.76	494+71.56	RTE 412	LT	7069.80	VAR		12870.4		WIDENING
	424+01.76	494+71.56	RTE 412	RT	7069.80	VAR		13112.2		WIDENING
11-17	501+45.40	567+44.54	RTE 412	LT	6599.14	VAR	7542.0		66.0	WIDENING
	570+55.51	576+56.46	RTE 412	LT	600.95	VAR	449.7		6.0	WIDENING
	501+45.40	584+24.86	RTE 412	RT	8279.46	VAR	10206.0		82.8	WIDENING
75-76	1+96.95	3+35.53	RAEOPSE	RT	138.58				2.8	2-RUMBLE LINES
						TOTAL	18197.7	25982.6	157.6	

ALTERNATE D - A2 SHOULDER

SHEET	STA	STA	ALIGN	LOC	LENGTH FT	WIDTH FT	A2 SHLDR SY	REMARKS
4-10	424+01.76	492+60.34	RTE 412	LT	6858.58	5.00	3827.7	
	424+01.76	492+60.34	RTE 412	RT	6858.58	5.00	3845.5	
11-17	501+45.40	567+44.54	RTE 412	LT	6599.14	5.00	3650.9	
	570+55.51	576+56.46	RTE 412	LT	600.95	5.00	309.3	
	501+45.40	584+24.86	RTE 412	RT	8279.46	5.00	4576.4	
	501+50.00	503+06.82	RTE VV	LT	156.82	8.00	137.8	
						TOTAL	16347.6	

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SUMMARY OF QUANTITIES

MISCELLANEOUS PAVEMENT

SHEET	STA	STA	ALIGN	LENGTH FT	WIDTH FT	CONC PVMT FOR ROUNDABOUT SY	TINTED CONC PVMT FOR TRUCK APRON SY	OPTIONAL PVMT FOR CITY ST SY	OPTIONAL PVMT FOR BYPASS SY	UBAWS OVERLAY SY	OPTIONAL SURFACE TREATMENT SY	REMARKS
4-10	424+01.76	494+71.56	RTE 412	7069.80	VAR					21162.1		EXIST PVMT
11-17	501+45.40	590+00.00	RTE 412	8854.60	VAR						27230.0	EXIST PVMT
10	0+00.00	6+28.32	RAEOPCIR	628.32	VAR	1766.0						
	0+00.00	5+65.69	RAEOPNE	565.69	VAR	1722.6						
	0+00.00	7+37.82	RAEOPNW	737.82	VAR	1645.5						
10-11	0+00.00	7+46.90	RAEOPSE	746.90	VAR	2556.1						
	0+00.00	6+56.18	RAEOPSW	656.18	VAR	2186.9						
23	0+00.00	6+28.32	RAEOPCIR	628.32	VAR		762.6					
10	4+50.61	10+78.38	KENNETT	627.77	24			1674.1				
23	0+00.00	3+77.79	BY 1	377.79	VAR				323.0			
	0+11.13	0+34.81	BY 2	23.68	VAR				270.6			
	1+22.09	5+27.37	BY 2	405.28	VAR				937.8			
	2+52.02	3+78.43	BY 3	126.41	VAR				130.0			
					TOTAL	9877.1	762.6	1674.1	1661.4	21163	27230.0	

CURB & GUTTER AND GUTTER DRAIN

SHEET	STA	STA	ALIGN	LOC	6" TYPE B C&G FT	6" TYPE B GUTTER FT	REMARKS
10	492+60.3	8+18.0	RTE 412-KENNETT	RT	1144.4		
10	0+00.0	8+25.4	RAEOPNW-KENNETT	LT	1112.7		
10-11	0+00.0	7+46.9	RTE 412-RAEOPSE	LT	958.1		
	0+00.0	6+56.2	RAEOPSW	RT	656.2		
10	8+86.3	9+61.1	KENNETT	RT	74.8		
10	9+60.0	10+24.4	KENNETT	LT	64.4		
40	494+44.8		RTE 412	RT		21.8	SLOPE DRAIN
	1+50.0		RAEOPNE	RT		22.7	SLOPE DRAIN
	2+85.2		RAEOPNE	RT		30.9	SLOPE DRAIN
	5+05.6		RAEOPNE	RT		21.0	SLOPE DRAIN
	0+10.1		RAEOPNW	LT		24.8	SLOPE DRAIN
	2+55.5		RAEOPNW	LT		28.5	SLOPE DRAIN
	3+74.3		RAEOPSE	LT		48.1	SLOPE DRAIN
	5+02.5		RAEOPSE	LT		27.6	SLOPE DRAIN
	0+10.0		RAEOPSW	RT		19.8	SLOPE DRAIN
	2+10.7		RAEOPSW	RT		35.9	SLOPE DRAIN
	3+17.5		RAEOPSW	RT		23.9	SLOPE DRAIN
	4+64.6		RAEOPSW	RT		14.1	SLOPE DRAIN
	6+25.0		KENNETT	RT		14.7	SLOPE DRAIN
	10+41.8		KENNETT	RT		11.2	SLOPE DRAIN
	10+78.4		KENNETT	LT		7.5	SLOPE DRAIN
				TOTAL	4011	353	

SIDEWALK

SHEET	STA	STA	ALIGN	LOC	4" SIDEWALK SY	TRUNCATED DOMES SF	REMARKS
26	492+53.4	1+95.6	RTE 412-RAEOPSE	LT	232.39	20.0	
	1+93.0	1+83.0	RAEOPSE-RAEOPNE	RT-LT		20.0	
	1+80.2	2+76.9	RAEOPNE	RT	55.87	20.0	
	2+73.9	4+27.4	RAEOPNE-RAEOPNW	LT-RT		20.0	
	4+24.6	8+54.1	RAEOPNW-KENNETT	LT	414.00	20.0	
	8+81.6	9+25.8	KENNETT	LT	19.67	10.0	
				TOTAL	722.0	110	

CONCRETE MEDIAN & ISLAND

SHEET	STA	LOC	STA	LOC	ALIGN	4" CONC MEDIAN SY	3" CONC ISLAND SY	6" CONC ISLAND SY	REMARKS
25	0+00.00	47.5'LT	6+28.32	47.5'LT	RAEOPCIR	962.11			
	1+02.22	3.2'RT	1+37.25	1.0'RT	RAEOPCIR			124.76	
	2+86.52	3.0'RT	3+43.28	3.7'RT	RAEOPCIR			230.09	
	4+02.41	7.0'LT	4+65.33	12.8'LT	RAEOPCIR			300.58	
	6+12.50	3.2'LT	0+25.25	2.47'LT	RAEOPCIR			155.40	
	8+86.17	22.0'LT			KENNETT		11.24		
					TOTAL	962.2	11.3	810.9	

MARKERS

SHEET	STA	ALIGN	LOC	TYPE IV OBJECT MARKER EACH	ISLAND TUBULAR MARKER EACH	REMARKS
54	492+25	RTE 412	RT	4		END OF EXIST KENNETT ST
75	0+00	RAEOPCIR	LT&RT		3	
	1+16	RAEOPCIR	RT		3	
76	3+08	RAEOPCIR	LT&RT		3	
	4+29	RAEOPCIR	LT&RT		3	
			TOTAL	4	12	

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 10/10/2014
ROUTE 412 | STATE MO
DISTRICT SE | SHEET NO. 3
COUNTY DUNKLIN
JOB NO. J9P3077
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)

REV.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

SUMMARY OF QUANTITIES

DRIVEWAYS

SHEET	STA	ALIGN	LOC	TYPE	SKEW	RADIUS FT	WIDTH FT	APRON LENGTH FT	GRAVEL LENGTH FT	GRADE	"L" FT	FILL HT FT	BEVEL SLOPE	GROUP C 18"(18") LF	GROUP C 24"(24") LF	LINEAR GRADING CLASS 2 STA	APPROX EARTHWORK CUT CY	APPROX EARTHWORK FILL CY	5.75" OPT PVMT FOR DW SY	8" PAVED APPROACH SY	4" GRAVEL A OR CRUSHED STONE B SY	REMARKS
4	424+50	RTE 412	RT	I		30	30	35		-0.31%	24	3	3:1	49		0.4	0	77	131.38			ASPHALT
	425+68	RTE 412	LT	I		20	30	30		-4.10%	22	3	3:1	48		0.3	0	72	106.93			ASPHALT
5	426+99	RTE 412	LT	I		20	60	35		-2.06%	23	3	3:1	80		0.4	0	153	240.26			ASPHALT
	427+46	RTE 412	RT	I		20	40	30		-1.83%	20	3	3:1	57		0.3	0	76	140.26			ASPHALT
	429+84	RTE 412	RT	I		20	25	25		-4.29%	20	3	3:1	40		0.3	0	46	76.37			CONCRETE
	432+01	RTE 412	LT	I		20	20	15	20	-1.01%	23	3	3:1	41		0.4	0	27	40.26		44.44	AGGREGATE
	432+10	RTE 412	RT	I		20	20	30		-2.55%	20	3	3:1	36		0.3	0	42	73.59			CONCRETE
	435+72	RTE 412	LT	I	15°RA	10.30	25	31		-3.97%	23	3	3:1	45		0.3	0	67	91.49			ASPHALT
	435+96	RTE 412	RT	I	25°RA	20.10	25	33		-1.11%	21	3	3:1	45		0.3	0	60	93.99			CONCRETE
	437+23	RTE 412	RT	I		20	25	15	15	-2.38%	21	3	3:1	42		0.3	0	55	48.59		41.67	AGGREGATE
	438+70	RTE 412	RT	I	5°RA	20	20	30		-3.42%	20	3	3:1	36		0.3	0	42	74.10			CONCRETE
	438+83	RTE 412	LT	I		20	25	30		-5.74%	22	3	3:1	42		0.3	0	55	90.26			ASPHALT
	439+20	RTE 412	RT	I	25°RA	30.15	25	33		-5.56%	22	2	3:1	44		0.3	0	46	99.94			ASPHALT
6	439+84	RTE 412	LT	I		20	20	15	20	-9.56%	25	3	3:1	37		0.4	0	60	40.24		44.48	AGGREGATE
	441+74	RTE 412	RT	I	25°LA	10.20	25	28		-2.15%	21	2	3:1	44		0.3	0	47	79.00			CONCRETE
	442+29	RTE 412	LT	I		20	25	35		-8.15%	25	3	3:1	43		0.4	0	69	103.96			ASPHALT
	442+88	RTE 412	RT	I		20	30	25		-2.92%	20	3	3:1	46		0.3	0	53	90.50			ASPHALT
	443+00	RTE 412	LT	I		20	50	35		-5.23%	25	4	3:1	71		0.4	0	149	200.84			CONCRETE
	443+91	RTE 412	RT	I	35°RA	40.10	50	37		+0.07%	24	3	3:1	82		0.4	0	149	210.50			ASPHALT
	444+13	RTE 412	LT	I	15°RA	10	60	36		-4.46%	25	4	3:1	84		0.4	0	185	241.60			CONCRETE
	445+70	RTE 412	LT	I		20	25	35		-5.02%	24	3	3:1	46		0.4	0	79	103.96			ASPHALT
	446+75	RTE 412	RT	I	45°LA	10.30	50	43		+0.46%	28	3	3:1	95		0.4	0	194	245.46			ASPHALT
	447+82	RTE 412	LT	I		20	20	35		-6.61%	24	3	3:1	39		0.4	0	62	84.55			ASPHALT
	448+28	RTE 412	RT	I	50°LA	10.30	25	48		-0.65%	30	3	3:1	63		0.5	0	116	139.56			CONCRETE
	448+64	RTE 412	LT	I	30°LA	60.15	20	59		-9.18%			3:1			0.6	0	71	149.32			ASPHALT
	449+01	RTE 412	RT	I		20	50	30		-0.14%	19	3	3:1	67		0.3	0	90	174.15			ASPHALT
	451+05	RTE 412	LT	I	5°RA	20	20	40		-7.72%	30	4	3:1	44		0.4	0	102	96.23			ASPHALT
	452+63	RTE 412	RT	I		20	50	30		-1.58%	20	3	3:1		66	0.3	0	87	174.15			ASPHALT
7	454+42	RTE 412	RT	I		20	60	30		+0.14%	20	3	3:1		78	0.3	0	120	207.74			CONCRETE
	457+05	RTE 412	RT	I		20	30	35		+0.43%	22	4	3:1		51	0.4	0	98	123.84			CONCRETE
	458+91	RTE 412	RT	I	5°LA	20	30	35		-0.15%	23	4	3:1		52	0.4	0	105	124.56			CONCRETE
	459+39	RTE 412	LT	I		20	20	15	35	-8.05%	38	5	3:1	52		0.5	0	189	40.12		77.76	AGGREGATE
	459+61	RTE 412	RT	I		20	30	35		-1.79%	23	3	3:1		51	0.4	0	88	123.84			CONCRETE
	461+21	RTE 412	RT	I		20	30	35		-1.85%	24	4	3:1		51	0.4	0	102	123.84			CONCRETE
	462+84	RTE 412	RT	I	25°LA	10.20	40	44		+1.19%	27	4	3:1		72	0.4	0	204	199.13			ASPHALT
	464+61	RTE 412	RT	I	20°LA	10.20	40	43		+1.29%	27	4	3:1		71	0.4	0	207	191.72			ASPHALT
	465+49	RTE 412	RT	I		20	20	15	25	+0.40%	26	4	3:1		47	0.4	0	122	40.42		55.56	EARTH
8	466+82	RTE 412	LT	I		40.20	50	36		-9.50%			3:1			0.4	0	48	217.71			ASPHALT
	469+08	RTE 412	LT	I		20	60	45		-9.39%			3:1			0.5	0	87	307.60			ASPHALT
	471+37	RTE 412	LT	I		20	40	50		-9.61%			3:1			0.5	0	74	228.80			ASPHALT
	473+67	RTE 412	RT	I	10°LA	20	60	51		-4.90%	34	5	3:1		93	0.5	0	386	347.50			ASPHALT
	477+10	RTE 412	RT	I		20	30	45		-3.16%	29	5	3:1		57	0.5	0	171	156.93			CONCRETE
	478+96	RTE 412	RT	I	5°LA	20	30	35		-1.39%	21	3	3:1		50	0.4	0	80	124.29			ASPHALT
	479+03	RTE 412	LT	I	5°LA	20	25	30		-4.22%	23	3	3:1		44	0.3	0	69	90.83			ASPHALT
	479+91	RTE 412	LT	I		20	60	15	15	-2.81%	22	3	3:1		79	0.3	0	136	106.93		16.67	AGGREGATE
9	481+23	RTE 412	LT	I		20	60	15	15	-1.43%	21	3	3:1		78	0.3	0	117	106.93		100.00	AGGREGATE
	482+25	RTE 412	RT	I	5°LA	20	40	15	15	-0.02%	19	3	3:1		57	0.3	0	74	74.10		66.93	AGGREGATE
	483+18	RTE 412	LT	I	15°LA	20.10	40	15	16	-1.06%	20	3	3:1	58		0.3	0	80	71.02		69.02	AGGREGATE
	484+73	RTE 412	LT	I		20	40	30		-3.01%	22	3	3:1	59		0.3	0	94	140.26			ASPHALT
	487+24	RTE 412	LT	I		30	20	30		-2.02%	22	3	3:1	43		0.3	0	55	88.76			ASPHALT
	487+48	RTE 412	RT	I	5°LA	20	20	15	20	-0.46%	23	4	3:1		41	0.4	0	76	40.64		44.62	AGGREGATE
	488+42	RTE 412	LT	I		20	20	15	20	+1.57%	21	3	3:1	40		0.4	0	64	40.26		44.44	AGGREGATE
	488+82	RTE 412	RT	I		20	50	40		-0.83%	25	4	3:1		73	0.4	0	178	229.15			ASPHALT
	489+74	RTE 412	RT	I		20	50	40		-2.16%	26	4	3:1		73	0.4	0	185	229.15			ASPHALT
	492+40	RTE 412	LT	I	5°RA	25	30	25		-2.03%			3:1			0.3	0	4	97.46			ASPHALT
10	8+45	KENNETT	RT		15°RA	15	40	18		+2.88%	19	4	3:1		65	0.3	0	86	81.22	87.39		ASPHALT
	9+05	KENNETT	LT			30.50	25	85		-1.51%	29	3	3:1		81	1.4	0	117	312.14	158.26		ASPHALT
	10+11	KENNETT	RT			80.10	25	23		-0.61%	19	2	3:1	49		0.4	0	38	64.58	93.82		ASPHALT
	10+57	KENNETT	LT			20	20	13		+0.59%	17	2	3:1	36		0.3	0	28	30.45	64.53		ASPHALT
11	501+84	RTE VV	LT	I		20	40	30		-3.12%	22	3	3:1	64		0.3	0	80	136.36			ASPHALT
	504+37	RTE 412	RT	I		20	40	15	16	-6.13%	24	3	3:1	58		0.3	0	29	73.59		71.11	AGGREGATE
12	516+01	RTE 412	LT	I		30.20	20	26		-11.34%	20	3	3:1	38		0.3	0	12	72.29			ASPHALT
13	533+16	RTE 412	LT	I	30°RA	20.60	40	30		-10.19%			3:1			0.3	0	33	160.88			ASPHALT
	533+47	RTE 412	RT	I	40°RA	80.25	25	47		-2.65%			3:1			0.5	0	25	187.54			ASPHALT
													TOTAL	1703	1330	22.9			7803.4	404.0	606	

OPTIONAL PAVEMENT FOR DRIVEWAY SHALL BE COMPOSED OF 5.75" NRPCCP OR 5.75" PMBB UNLESS OTHERWISE SPECIFIED AND IS INTENDED TO MEET OR EXCEED EXISTING SURFACE. SEE SPECIAL SHEET FOR ADDITIONAL DRIVEWAY DETAIL.

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER
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DATE PREPARED 10/10/2014

ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	3

COUNTY: DUNKLIN

JOB NO.: J9P3077

CONTRACT ID.:

PROJECT NO.:

BRIDGE NO.:

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

REV.	DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

SUMMARY OF QUANTITIES

PAVEMENT MARKING

				ACRYLIC WATERBORNE PAINT						TYPE 2 PREFORMED MARKING TAPE (GROOVED)													
				WHITE				YELLOW		WHITE											YELLOW		
				4″		6″		4″		ARROW				FISH HOOK		LINE					LINE		
																	24″				24″		
SHEET	STA	STA	ALIGN	INTER LF	SOLID LF	INTER LF	SOLID LF	INTER LF	SOLID LF	STR EACH	LT/RT EACH	COMB EACH	LANE REDUC EACH	LT/RT EACH	COMB EACH	YIELD EACH	INTER LF	SOLID LF	SOLID LF	SOLID LF	PAVEMENT MARKING REMOVAL LF	REMARKS
72	0+00	3+78	BY 1																		750	RTE 412-EDGELINE & ℄
	0+00	3+78	BY 1		756				756													2-EDGELINES & DBL ℄
	3+99	5+27	BY 2																		250	RTE VV-EDGELINE & ℄
	0+22	5+27	BY 2		1034				985													2-EDGELINES & DBL ℄
	0+00	4+73	BY 3																		400	RTE 412-℄ & LANE LINE
	0+00	4+73	BY 3		933				1118													2-EDGELINES & DBL ℄
73	0+00	1+72	BY 4																		1250	BY 1-3 & RTE 412-EDGELINE & ℄
	0+00	4+01	BY 4						1006													DBL ℄
	0+63	0+29	BY 4-RACLN		548																	EDGELINE
	492+56	5+62	RTE 412-BY 5		1176																	EDGELINE
	0+00	5+62	BY 5						1322													DBL ℄
	2+15	5+62	RACLW-BY 5		600																	EDGELINE
	0+91	0+80	RAEOPCIR-RACLN						89													℄
	1+42	0+80	RAEOPCIR-RACLN						84													℄
	2+68	1+57	RAEOPCIR-RACLW						136													℄
	3+46	1+57	RAEOPCIR-RACLW						103													℄
	0+22	0+51	RAEOPCIR		29																	EDGELINE
	0+51	0+70	RAEOPCIR	9																		ENTRANCE LINE
	0+91	1+42	RAEOPCIR		51																	EDGELINE
	1+42	2+35	RAEOPCIR	48																		ENTRANCE LINE
	2+68	3+46	RAEOPCIR		79																	EDGELINE
	3+46	3+63	RAEOPCIR	9																		ENTRANCE LINE
	3+78	4+30	RAEOPCIR		50																	EDGELINE
	4+30	4+85	RAEOPCIR	24																		ENTRANCE LINE
	0+53	4+32	RAEOPCIR		312																	EDGELINE
74	424+02	425+36	RTE 412						492										48			2-DBL ℄ & HASH MARKS
74-75	425+36	0+26	RTE 412-RACLE					3470	13880		28											TWLTL
	424+02	494+72	RTE 412				14140															2-EDGELINES
75	0+00	2+24	RACLE																		1000	BY 4-EDGELINE & ℄
	0+26	1+39	RACLE						452										74			2-DBL ℄ & HASH MARKS
	1+39	1+96	RACLE						59													℄
	1+39	1+94	RACLE						54													℄
	2+04	5+97	RACLE-RAEOPCIR						38													℄
	2+02	0+30	RACLE-RAEOPCIR						30													℄
	0+00	1+86	RACLE														161					LANE LINE
	1+95	0+50	RACLE-RAEOPCIR														40					LANE LINE
	0+00	1+91	RACLE														386	79				2-LANE LINE & CHEVRONS
	1+16	1+78	RACLE														59					EDGELINE
	1+16	1+78	RACLE														59					EDGELINE
	1+16	1+78	RACLE														59					EDGELINE
	1+86	0+29	RACLE-RACLN														92	48				EDGELINE & HASH MARKS
	2+03		RACLE															102				2-CROSSWALKS
	0+01		RACLE											1	1							STR/LT/RT & LT W/OVAL
	1+49		RACLE											1	1							STR/LT/RT & LT W/OVAL
	0+30		RAEOPCIR													6						YIELD LINE TRIANGLES
	0+50		RAEOPCIR													7						YIELD LINE TRIANGLES
	4+51	10+78	KENNETT					160														℄
	0+80	3+35	RACLN						740										25			2-DBL ℄ & HASH MARKS
	0+91	0+23	RAEOPCIR-RACLN						30													℄
	0+31	0+80	RACLN						51													℄
	1+42	0+24	RAEOPCIR-RACLN						28													℄
	0+32	0+80	RACLN						48													℄
	1+65	0+30	RAEOPCIR-RACLN														42					LANE LINE
	0+38	1+55	RACLN														121					LANE LINE
	0+24		RACLN															78				2-CROSSWALKS
	0+67		RACLN												2							STR/RT & STR/LT W/OVAL
	1+52		RACLN												2							STR/RT & STR/LT W/OVAL
	1+42		RAEOPCIR													6						YIELD LINE TRIANGLES
	1+63		RAEOPCIR													7						YIELD LINE TRIANGLES
			SUB-TOTAL 1	90	5568	0	14140	3630	21501	0	28	0	0	2	6	26	0	1019	307	147	3650		

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER
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MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
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MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

SUMMARY OF QUANTITIES

PAVEMENT MARKING

				ACRYLIC WATERBORNE PAINT						TYPE 2 PREFORMED MARKING TAPE (GROOVED)												
				WHITE				YELLOW		WHITE											YELLOW	
				4″		6″		4″		ARROW				FISH HOOK		LINE				LINE		
SHEET	STA	STA	ALIGN	INTER LF	SOLID LF	INTER LF	SOLID LF	INTER LF	SOLID LF	STR EACH	LT/RT EACH	COMB EACH	LANE REDUC EACH	LT/RT EACH	COMB EACH	24″ YIELD EACH	6″ INTER LF	6″ SOLID LF	24″ SOLID LF	24″ SOLID LF	PAVEMENT MARKING REMOVAL LF	REMARKS
	5+97		RAEOPCIR									1										STR/LT
	0+85		RAEOPCIR							1	1											STR & LT
	2+24		RAEOPCIR									1										STR/LT
	5+97	0+30	RAEOPCIR															58				EDGELINE
	0+30	0+70	RAEOPCIR														21					ENTRANCE LINE
	0+91	1+42	RAEOPCIR															51				EDGELINE
	1+42	2+35	RAEOPCIR														48					ENTRANCE LINE
	0+53	0+84	RAEOPCIR														18					LANE LINE
	0+84	1+63	RAEOPCIR															66				LANE LINE
	1+63	2+24	RAEOPCIR														30					LANE LINE
75-76	2+24	3+60	RAEOPCIR															115				LANE LINE
	1+98	2+08	RACLE-RACLS															641	220			2-LANE LINE & CHEVRONS
76	0+00	503+00	RACLS-RTE412																		2500	BY 5-EDGELINE & ℄
	2+10	3+97	RACLS						706											37		2-DBL ℄ & HASH MARKS
	4+72	2+10	RAEOPCIR-RACLS						238													℄
	3+93	2+10	RAEOPCIR-RACLS						228													℄
	3+78	2+10	RAEOPCIR-RACLS															228				LANE LINE
	1+57		RACLS								1				1							RT & STR/LT/RT W/OVAL
	2+79		RACLS								1				1							RT & STR/LT/RT W/OVAL
	4+72		RAEOPCIR													7						YIELD LINE TRIANGLES
	0+00	1+84	RACLW						735											51		2-DBL ℄ & HASH MARKS
	1+84	3+46	RACLW-RAEOPCIR						76													℄
	1+84	2+68	RACLW-RAEOPCIR						109													℄
	2+15	0+20	RACLW-RACLS															69	23			EDGELINE & HASH MARKS
	3+46		RAEOPCIR													7						YIELD LINE TRIANGLES
	2+68	3+46	RAEOPCIR															79				EDGELINE
	3+46	3+63	RAEOPCIR														9					ENTRANCE LINE
	3+93	4+72	RAEOPCIR															70				EDGELINE
	4+72	5+39	RAEOPCIR														30					ENTRANCE LINE
	3+60	3+78	RAEOPCIR														12					LANE LINE
	2+68		RAEOPCIR							1												STR
	3+93		RAEOPCIR									1										STR/LT
	501+50	503+07	RTE VV		314				314													2-EDGELINES & DBL ℄
76-77	2+08	560+45	RACLS-RTE412			1520																LANE LINE
	2+10	565+95	RACLS-RTE412			1660																LANE LINE
	501+45	567+45	RTE 412				13198		13198													2-EDGELINES & DBL ℄
77	565+95	567+45	RTE 412				300															2-LANE LINES
	566+62		RTE 412								1											LT
	568+01		RTE 412																12			STOP BAR ON RTE O
78	568+45		RTE 412																12			STOP BAR ON RTE Y
	569+02	570+52	RTE 412				150															LANE LINE
	569+02	571+50	RTE 412			60																LANE LINE
	570+52	576+56	RTE 412				615												95			EDGELINE & HASH MARKS
	569+85		RTE 412								1											LT
	571+33		RTE 412										1									LANE REDUCTION
	576+28		RTE 412										1									LANE REDUCTION
78-79	578+92	587+17	RTE 412				825												123			EDGELINE & HASH MARKS
	569+02	587+91	RTE 412				3778		3778													2-EDGELINES & DBL ℄
79	587+37	587+91	RTE 412				54															LANE LINE
	587+37		RTE 412								1											RT
			SUB-TOTAL 2	0	314	3240	18920	0	19382	2	6	3	2	0	2	14	168	1377	485	88	2500	
			SUB-TOTAL 1	90	5568	0	14140	3630	21501	0	28	0	0	2	6	26	0	1019	307	147	3650	
			TOTAL	5972		36300		44513		2	34	3	2	2	8	40	2564		792	235	6150	

PORTIONS OF STRIPING FOR BYPASS 4-5 MAY USE FINAL STRIPING IN LIEU OF THE TEMPORARY PAINT SHOWN. WATERBLASTING IS RECOMMENDED FOR ANY PAVEMENT MARKING REMOVAL ON PROPOSED PAVEMENT IN ORDER TO MINIMIZE SCARRING.

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER
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DATE PREPARED 10/10/2014
ROUTE 412 | STATE MO
DISTRICT SE | SHEET NO. 3
COUNTY DUNKLIN
JOB NO. J9P3077
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)

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REV.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

SUMMARY OF QUANTITIES

LIGHTING PULL BOXES

SHEET	PULL BOX NO	CIRCUIT	STA	ALIGN	LOC	PREFORMED DRAIN TYPE 1 CL 1 EACH	PREFORMED DRAIN TYPE 1 CL 3 EACH	REMARKS
48	1	1,2	2+05	RAEOPNW	5'LT		1	
	2	1	1+95	RAEOPSW	5'RT	1		
	3	1	3+92	RAEOPSW	5'RT	1		
	4	1	4+60	RAEOPSE	5'LT	1		
	5	2	4+05	RAEOPNW	5'LT	1		
	6	2	2+80	RAEOPNE	5'RT	1		
					TOTAL	5	1	

BASE MOUNTED POWER SUPPLY & LIGHTING CONTROLLER

SHEET	DIRECTION TO FACE	STA	ALIGN	LOC	POWER SUPPLY TYPE 2 240V EACH	CONTROLLER BREAKERS (AMPS) MAIN	CIRCUIT 1	CIRCUIT 2	CIRCUIT 3	CIRCUIT 4	4 CIR. 240V EACH	REMARKS
48	SOUTHEAST	2+05	RAEOPNW	55' LT	1	100	15	15	15	15	1	
				TOTAL	1	NO DIRECT PAY					1	

LIGHTING RIGID CONDUIT

SHEET	FROM	TO	CENTER TO CENTER DISTANCE FT	CIRCUIT	3" PUSHED LF	3" TRENCHED LF	REMARKS
48	PS	CONT	5	1,2		9	
	CONT	1	50	1,2		53	
	1	2	58	1	56		
	3	4	73	1	71		
	5	6	90	2	88		
				TOTAL	215	62	

LIGHTING CABLE CONDUIT

SHEET	FROM	TO	CENTER TO CENTER DISTANCE FT	CIRCUIT	#2 AWG 1-CONDUCTOR LF	1" CABLE CONDUIT 2-CONDUCTOR 1-BARE NEUTRAL #8 AWG LF	REMARKS
48	PS	CONT	5	1	21		
	CONT	104	600	1		667	
	4	105	118	1		126	
	2	106	60	1		68	
	CONT	204	489	2		550	
	6	205	64	2		72	
			SUBTOTAL		21	1483	
			5% FOR SNAKING		2	74	
			TOTAL		30	1560	

LIGHTING TRENCHING

SHEET	FROM	TO	CIRCUIT	TRENCHING TYPE I LF	REMARKS
48	2	101	1	62	
	101	102	1	120	
	102	3	1	5	
	4	103	1	90	
	103	104	1	142	
	4	105	1	118	
	2	106	1	60	
	1	201	1	99	
	201	202	1	96	
	202	5	1	5	
	6	203	1	50	
	203	204	1	99	
	6	205	1	64	
			TOTAL	1010	

LIGHTING POLES AND WIRING

SHEET	POLE NO	CIRCUIT	STA	ALIGN	LOC	30' POLE TYPE AT EACH	HPS LUMINAIRE 250W EACH	BRACKET ARM 6' EACH	BRACKET ARM 15' EACH	30' POLE FOUNDATION EACH	#10 AWG 1-CONDUCTOR POLE & BRACKET LF	REMARKS
48	101	1	2+64	RAEOPSW	5' RT	1	1		1	1	90	
	102	1	3+87	RAEOPSW	5' RT	1	1	1		1	72	
	103	1	5+77	RAEOPSE	5' LT	1	1	1		1	72	
	104	1	3+67	RAEOPSE	5' LT	1	1		1	1	90	
	105	1	2+24	RAEOPSE	5' LT	1	1		1	1	90	
	106	1	1+33	RAEOPSW	5' RT	1	1	1		1	72	
	201	2	3+04	RAEOPNW	5' LT	1	1		1	1	90	
	202	2	4+00	RAEOPNW	5' LT	1	1	1		1	72	
	203	2	2+26	RAEOPNE	5' RT	1	1		1	1	90	
	204	2	1+21	RAEOPNE	5' RT	1	1	1		1	72	
	205	2	3+45	RAEOPNE	5' RT	1	1	1		1	72	
				SUBTOTAL		11	11	6	5	11	882	
				5% SNAKING							44	
				TOTAL		11	11	6	5	11	930	

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EFFECTIVE: 05-01-2012

SIGN	SIZE (IN.)	AREA (SQ. FT.)	QTY	TOTAL AREA	QTY RELOC	TOTAL RELOC AREA	DESCRIPTION
WARNING SIGNS							
W01-1L	48X48	16.00					TURN (SYMBOL LEFT ARROW)
W01-1R	48X48	16.00					TURN (SYMBOL RIGHT ARROW)
W01-2L	48X48	16.00					CURVE (SYMBOL LEFT ARROW)
W01-2R	48X48	16.00					CURVE (SYMBOL RIGHT ARROW)
W01-3L	48X48	16.00					REVERSE TURN (SYMBOL LEFT ARROW)
W01-3R	48X48	16.00					REVERSE TURN (SYMBOL RIGHT ARROW)
W01-4L	48X48	16.00	4	64			REVERSE CURVE (SYMBOL LEFT ARROW)
W01-4R	48X48	16.00	2	32			REVERSE CURVE (SYMBOL RIGHT ARROW)
W01-4bL	48X48	16.00					DOUBLE ARROW REVERSE CURVE (SYMBOL LEFT ARROWS)
W01-4bR	48X48	16.00					DOUBLE ARROW REVERSE CURVE (SYMBOL RIGHT ARROWS)
W01-4cL	48X48	16.00					TRIPLE ARROW REVERSE CURVE (SYMBOL LEFT ARROWS)
W01-4cR	48X48	16.00					TRIPLE ARROW REVERSE CURVE (SYMBOL RIGHT ARROWS)
W01-6	60X30	12.50					HORIZONTAL ARROW (SYMBOL)
W01-6a	72X36	18.00					HORIZONTAL ARROW (SYMBOL ON PERMANENT BARRICADE)
W01-7	60X30	12.50					DOUBLE HEAD HORIZONTAL ARROW (SYMBOL)
W01-7a	72X36	18.00					DOUBLE HEAD HORIZONTAL ARROW (SYMBOL ON PERMANENT BARRICADE)
W01-8	18X24	3.00					CHEVRON (SYMBOL)
W01-8a	30X36	7.50					CHEVRON (SYMBOL FOR DIVIDED HIGHWAYS)
W03-1	48X48	16.00					STOP AHEAD (SYMBOL)
W03-2	48X48	16.00					YIELD AHEAD (SYMBOL)
W03-3	48X48	16.00					SIGNAL AHEAD (SYMBOL)
W03-4	48X48	16.00					BE PREPARED TO STOP
W03-5	48X48	16.00					SPEED LIMIT AHEAD
W04-1L	48X48	16.00					MERGE (SYMBOL FROM LEFT)
W04-1R	48X48	16.00					MERGE (SYMBOL FROM RIGHT)
W05-1	48X48	16.00					ROAD/BRIDGE/RAMP NARROWS
W05-3	48X48	16.00					ONE LANE BRIDGE
W05-5	48X48	16.00	2	32			NARROW LANES
W06-1	48X48	16.00					DIVIDED HIGHWAY (SYMBOL)
W06-2	48X48	16.00					DIVIDED HIGHWAY END (SYMBOL)
W06-3	48X48	16.00					TWO WAY TRAFFIC (SYMBOL)
W07-3a	30X24	5.00					NEXT XX MILES (PLAQUE)
W08-1	48X48	16.00					BUMP
W08-2	48X48	16.00					DIP
W08-3	48X48	16.00					PAVEMENT ENDS
W08-4	48X48	16.00					SOFT SHOULDER
W08-5	48X48	16.00					SLIPPERY WHEN WET (SYMBOL)
W08-6	48X48	16.00					TRUCK CROSSING WITH FLAGS
W08-6c	48X48	16.00					TRUCK ENTRANCE
W08-7	36X36	9.00					LOOSE GRAVEL
W08-9	48X48	16.00					LOW SHOULDER
W08-11	48X48	16.00	2	32			UNEVEN LANES
W08-12	48X48	16.00	4	64			NO CENTER LINE
W10-1	42 RND.	9.62					RAILROAD CROSSING
W012-1	24X24	4.00					DOUBLE DOWN ARROW (SYMBOL)
W012-2	48X48	16.00					LOW CLEARANCE (SYMBOL)
W012-2x	24X18	3.00					LOW CLEARANCE (PLAQUE)
W012-2a	84X24	14.00					OVERHEAD LOW CLEARANCE (FEET AND INCHES)
W08-15	48X48	16.00					GROOVED PAVEMENT
W08-15p	30X24	5.00					MOTORCYCLE (PLAQUE)
W08-17	48X48	16.00	4	64			SHOULDER DROP-OFF (SYMBOL)
W08-17p	30X24	5.00	4	20			SHOULDER DROP-OFF (PLAQUE)
SPECIAL	120X60	50.00					LOW CLEARANCE XX FT XX IN XX MILES AHEAD
SPECIAL	120X60	50.00					WIDTH RESTRICTION XX FT XX IN XX MILES AHEAD
W013-1	30X30	6.25					ADVISORY SPEED (PLAQUE)
W016-2	30X24	5.00					XXX FEET (PLAQUE)
W016-3	30X24	5.00					X MILE (PLAQUE)
W020-1	48X48	16.00					ROAD/BRIDGE/RAMP WORK AHEAD
W020-2	48X48	16.00					DETOUR AHEAD
W020-3	48X48	16.00					ROAD CLOSED AHEAD
W020-4	48X48	16.00	2	32			ONE LANE ROAD AHEAD
W020-5	48X48	16.00					RIGHT/CENTER/LEFT LANE CLOSED AHEAD
W020-5a	48X48	16.00					2 RIGHT/CENTER/LEFT LANES CLOSED AHEAD
W020-6a	48X48	16.00					RIGHT/CENTER/LEFT LANE CLOSED
W020-7a	48X48	16.00	2	32			FLAGGER (SYMBOL) WITH FLAGS
W021-2	36X36	9.00					FRESH OIL
W021-5b	48X48	16.00	4	64			SHOULDER WORK AHEAD
W022-1	48X48	16.00					BLASTING ZONE AHEAD
W022-2	42X36	10.50					TURN OFF 2-WAY RADIO AND PHONE
W022-3	42X36	10.50					END BLASTING ZONE
W022-6e	21X15	2.19					WET PAINT (ARROW PIVOTS)
GUIDE SIGNS							
SPECIAL	36X36	9.00					FRESH OIL/LOOSE GRAVEL
E05-1	36X48	12.00					GORE EXIT
E05-2	48X36	12.00					EXIT OPEN
E05-2a	48X36	12.00					EXIT CLOSED
G020-1	60X24	10.00	2	20			ROAD WORK NEXT 3 MILES
G020-2	48X24	8.00	2	16			END ROAD WORK
G020-4	36X18	4.50					PILOT CAR FOLLOW ME
SPECIAL	42X30	8.75					PLEASE WAIT FOR PILOT CAR
G020-5aP	36X24	6.00	6	36			WORK ZONE (PLAQUE)
M04-8a	24X18	3.00					END DETOUR
M04-9L	48X36	12.00					DETOUR (LEFT ARROW)
M04-9R	48X36	12.00					DETOUR (RIGHT ARROW)
M04-10L	48X18	6.00					DETOUR (ARROW LEFT)
M04-10R	48X18	6.00					DETOUR (ARROW RIGHT)
M1-5	24X24	4.00					
M5-1L	21X15	2.19					
M6-1	21X15	2.19					
REGULATORY SIGNS							
R1-1	48X48	13.25					STOP
R1-2	48 TRI.	6.93	4	28			YIELD
R1-2a	36X36	9.00					TO ONCOMING TRAFFIC (PLAQUE)
R1-3	20X9	1.25					X-WAY (PLAQUE)
R2-1	36X48	12.00	6	72			SPEED LIMIT 45,55
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					RIGHT LANE MUST TURN RIGHT
R4-1	36X48	12.00					DO NOT PASS
R4-2	36X48	12.00					PASS WITH CARE
R4-7aL	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	48X18	6.00					ONE WAY ARROW (LEFT)
R6-1R	48X18	6.00					ONE WAY ARROW (RIGHT)
R6-2L	24X30	5.00					ONE WAY (LEFT)
R6-2R	24X30	5.00					ONE WAY (RIGHT)
R10-6	24X36	6.00					STOP HERE ON RED (45° ARROW)
R11-2	48X30	10.00	5	50			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
S4-4	36X15	3.75					WHEN FLASHING
CONST-3A	60X48	20.00					FINE SIGN
CONST-3X	56X12	4.67					SPEEDING/PASSING (PLATE)
MISCELLANEOUS SIGNS							
SPECIAL	36X48	12.00					POINT OF PRESENCE
SPECIAL	96X48	32.00	2	64			POINT OF PRESENCE
CONST-7-48	48X24	8.00	2	16			RATE OUR WORK ZONE
CONST-7-72	72X36	18.00					RATE OUR WORK ZONE
616-10.05 CONSTRUCTION SIGNS TOTAL				738			
616-10.10 RELOCATED SIGNS TOTAL							

ITEM NUMBER	TOTAL QTY	DESCRIPTION
612-20.08		IMPACT ATTENUATOR (8 SAND BARRELS)
612-20.09		IMPACT ATTENUATOR (9 SAND BARRELS)
612-20.10		IMPACT ATTENUATOR (10 SAND BARRELS)
612-20.12		IMPACT ATTENUATOR (12 SAND BARRELS)
612-20.14		IMPACT ATTENUATOR (14 SAND BARRELS)
612-20.17		IMPACT ATTENUATOR (17 SAND BARRELS)
612-20.19		IMPACT ATTENUATOR (19 SAND BARRELS)
612-20.20		REPLACEMENT SAND BARREL
612-20.30		IMPACT ATTENUATOR ARRAY (RELOCATION)
612-30.00A		TRUCK OR TRAILER MOUNTED ATTENUATOR (TMA)
616-10.07		SPEED LIMIT AND STROBE LIGHT ASSEMBLY
616-10.08	2	ADVANCED WARNING RAIL SYSTEM
616-10.09	20	FLAG ASSEMBLY
616-10.20		CHANNELIZER (DRUM-LIKE)
616-10.22		CHANNELIZER (CONES)
616-10.24		CHANNELIZER (TRIM LINE) WITH LIGHT
616-10.25	264	CHANNELIZER (TRIM LINE)
616-10.26		CHANNELIZER (VERTICAL PANEL)
616-10.27		CHANNELIZER (VERTICAL PANEL) WITH LIGHT
616-10.28		CHANNELIZER
616-10.30	21	TYPE III MOVEABLE BARRICADE
616-10.31		TYPE III MOVEABLE BARRICADE WITH LIGHT
616-10.33		DIRECTION INDICATOR BARRICADE
616-10.34		DIRECTION INDICATOR BARRICADE, WITH LIGHT
616-10.40		FLASHING ARROW PANEL
616-10.47		TYPE III OBJECT MARKER
616-10.51		WARNING LIGHT, TYPE A
616-10.52		WARNING LIGHT, TYPE B
616-10.53		WARNING LIGHT, TYPE C
616-10.70		TUBULAR MARKER
616-10.95		RADAR SPEED ADVISORY SYSTEM
616-10.96		CHANGEABLE MESSAGE SIGN, COMMISSION FURNISHED/RETAINED
616-10.98	2	CHANGEABLE MESSAGE SIGN, CONTRACTOR FURNISHED/RETAINED
616-11.00		CHANGEABLE MESSAGE SIGN, CONTRACTOR FURNISHED/COMMISSION RETAINED
617-36.00D		CONTRACTOR FURNISHED/RETAINED TEMPORARY TRAFFIC BARRIER
617-36.02B		CONTRACTOR FURNISHED/COMMISSION RETAINED TEMPORARY TRAFFIC BARRIER
617-40.00A		TEMPORARY TRAFFIC BARRIER HEIGHT TRANSITION
617-50.10A		RELOCATING TEMPORARY TRAFFIC BARRIER
617-60.00B		COMMISSION FURNISHED/RETAINED TEMPORARY TRAFFIC BARRIER
617-70.00B		COMMISSION FURNISHED/RETAINED TEMPORARY TRAFFIC BARRIER HEIGHT TRANSITION
901-94.00		TEMPORARY LIGHTING
902-94.00		TEMPORARY TRAFFIC SIGNALS
902-94.01		TEMPORARY TRAFFIC SIGNALS AND LIGHTING

SHEET 11 OF 11

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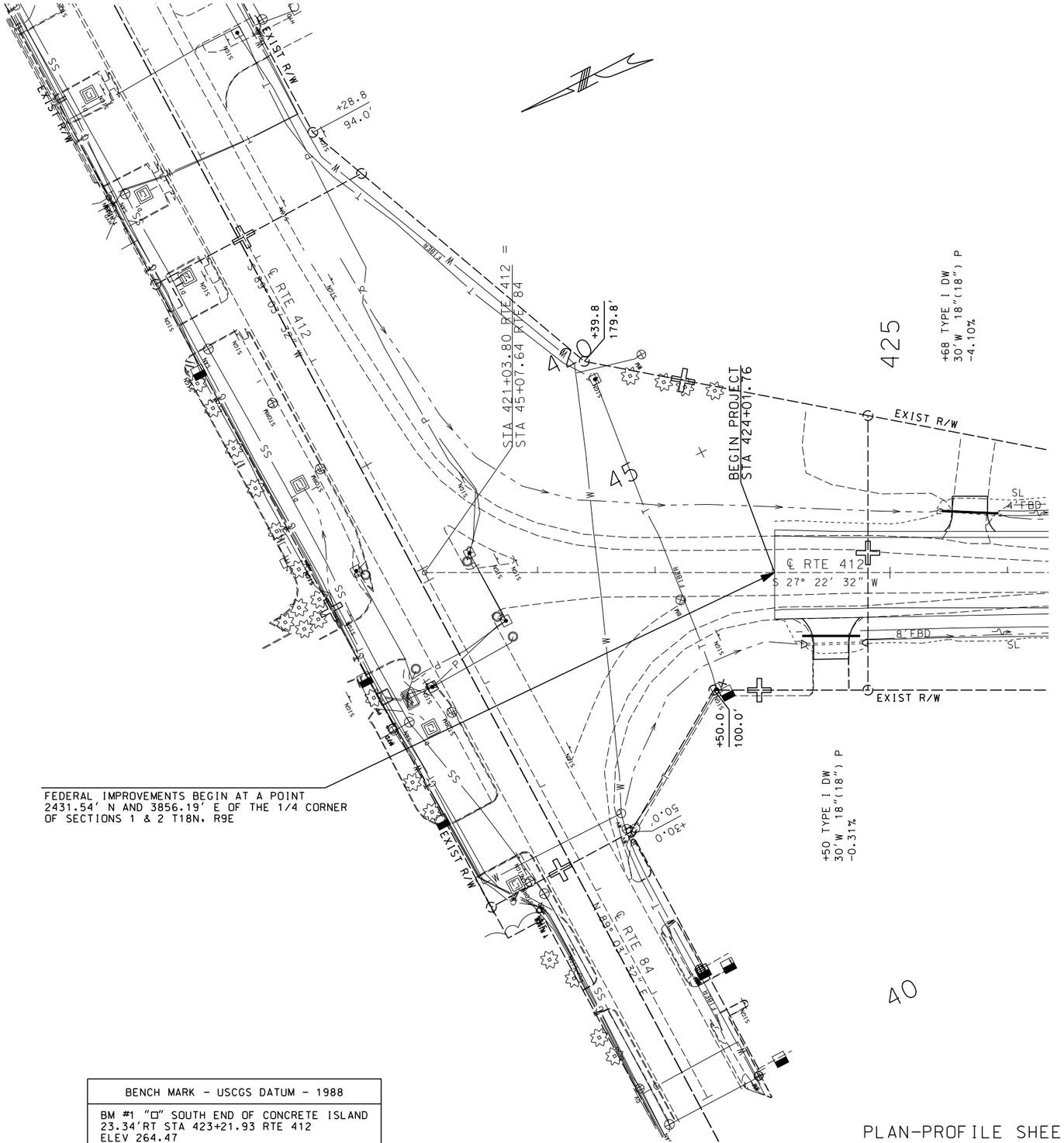
UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEY AND RECORDS. THE COMMISSION DOES NOT WARRANT THE LOCATIONS OF THESE FACILITIES AS PRECISE. IT IS POSSIBLE THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN OR SHOWN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXISTENCE AND PRECISE LOCATION OF ALL FACILITIES AND TO AVOID DAMAGE. SEE THE JOB SPECIAL PROVISIONS FOR A LIST OF UTILITY COMPANIES ON OR WITHIN THE VICINITY OF THE PROJECT LIMITS.

RIGHT OF WAY LIMITS FOR THIS PROJECT EXTEND FROM STA 491+41.99 TO STA 500+25.06 A DISTANCE OF 0.183 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 BASED ON GRID NORTH, 1983 MISSOURI STATE PLANE COORDINATE SYSTEM, EAST ZONE.

PROPERTY LINE LOCATIONS ARE APPROXIMATE ONLY.



SCALE
0 50 100 150

BENCH MARK - USCGS DATUM - 1988
BM #1 "□" SOUTH END OF CONCRETE ISLAND 23.34'RT STA 423+21.93 RTE 412 ELEV 264.47

PLAN-PROFILE SHEET
SHEET 1 OF 17

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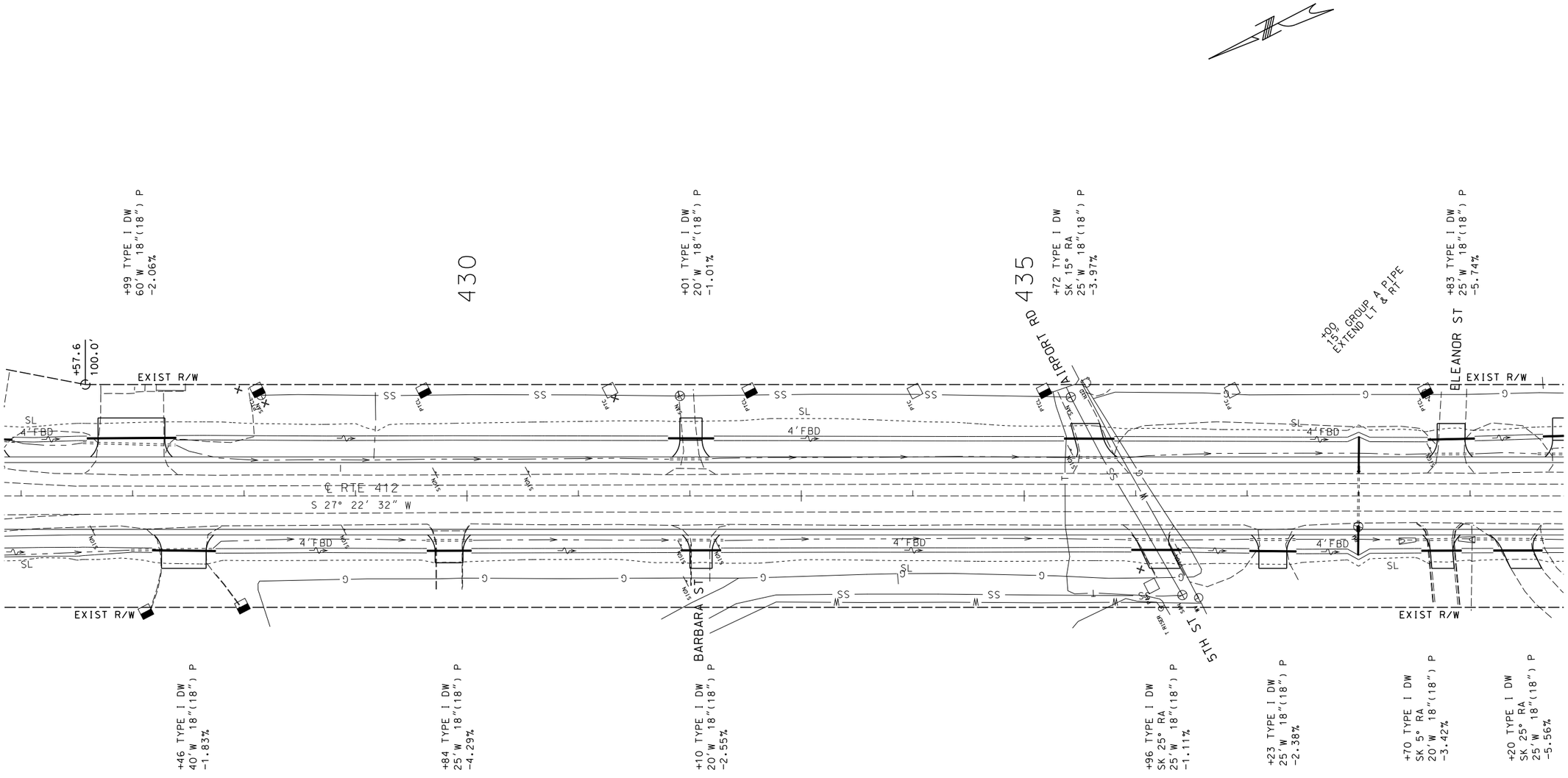
ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	4

COUNTY: DUNKLIN
JOB NO.: J9P3077
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.:

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

REV.	DESCRIPTION	DATE

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



SCALE

0 50 100 150

BENCH MARK - USCGS DATUM - 1988
BM #2 "D" TOP CENTER OF WEST HEADWALL 27.60'RT STA 437+99.75 RTE 412 ELEV 260.87

PLAN-PROFILE SHEET
SHEET 2 OF 17

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/12/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	5

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

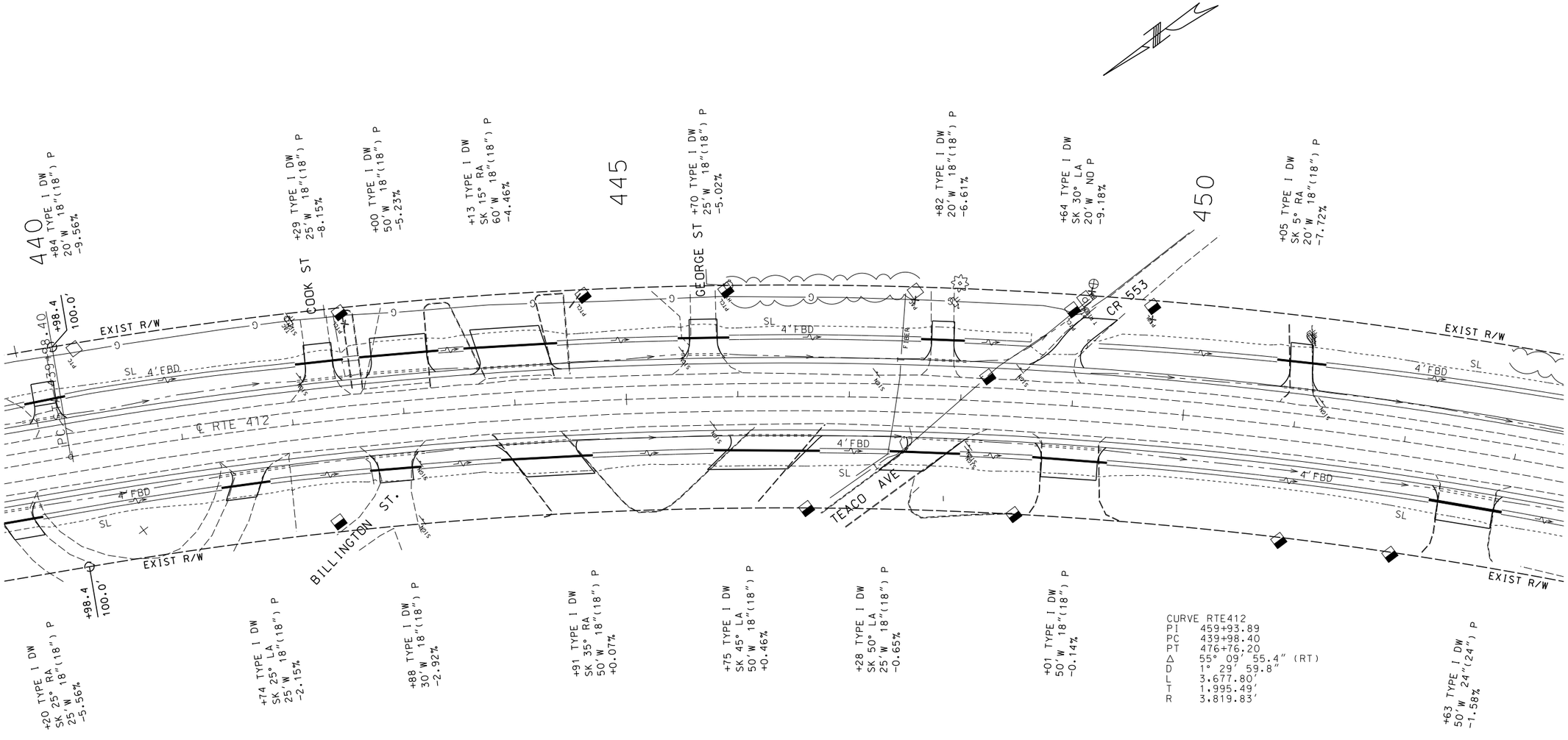
DESCRIPTION	DATE

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MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

REV.



CURVE RTE412
PI 459+93.89
PC 439+98.40
PT 476+76.20
Δ 55° 09' 55.4" (RT)
D 1° 29' 59.8"
L 3,677.80'
T 1,995.49'
R 3,819.83'

SCALE
0 50 100 150

BENCH MARK - USCGS DATUM - 1988
BM #3 RR SPIKE IN NW ROOT OF OAK TREE 110.67'LT STA 449+11.68 RTE 412 ELEV 260.55

PLAN-PROFILE SHEET
SHEET 3 OF 17

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 9/12/2014
ROUTE 412 | STATE MO
DISTRICT SE | SHEET NO. 6
COUNTY DUNKLIN
JOB NO. J9P3077
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DATE | DESCRIPTION | REV.

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

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

455

460

465

+39 TYPE I DW
20' W 18"(18") P
-8.05%

EXIST R/W

SL

4"FBD

℄ RTE 412

+63 TYPE I DW
50' W 24"(24") P
-1.58%

+42 TYPE I DW
60' W 24"(24") P
+0.14%

+05 TYPE I DW
30' W 24"(24") P
+0.43%

+91 TYPE I DW
SK 5° LA
30' W 24"(24") P
-0.15%

+61 TYPE I DW
30' W 24"(24") P
-1.79%

+01
24" GROUP A PIPE
EXTEND LT & RT

+21 TYPE I DW
30' W 24"(24") P
-1.85%

+84 TYPE I DW
SK 25° LA
40' W 24"(24") P
+1.19%

+61 TYPE I DW
SK 20° LA
40' W 24"(24") P
+1.29%

+49 TYPE I DW
20' W 24"(24") P
+0.40%

SCALE

0 50 100 150

BENCH MARK - USCGS DATUM - 1988
BM #4 "□" TOP CENTER OF NORTH HEADWALL 25.36'RT STA 460+00.24 RTE 412 ELEV 258.47

PLAN-PROFILE SHEET
SHEET 4 OF 17

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/12/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	7

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

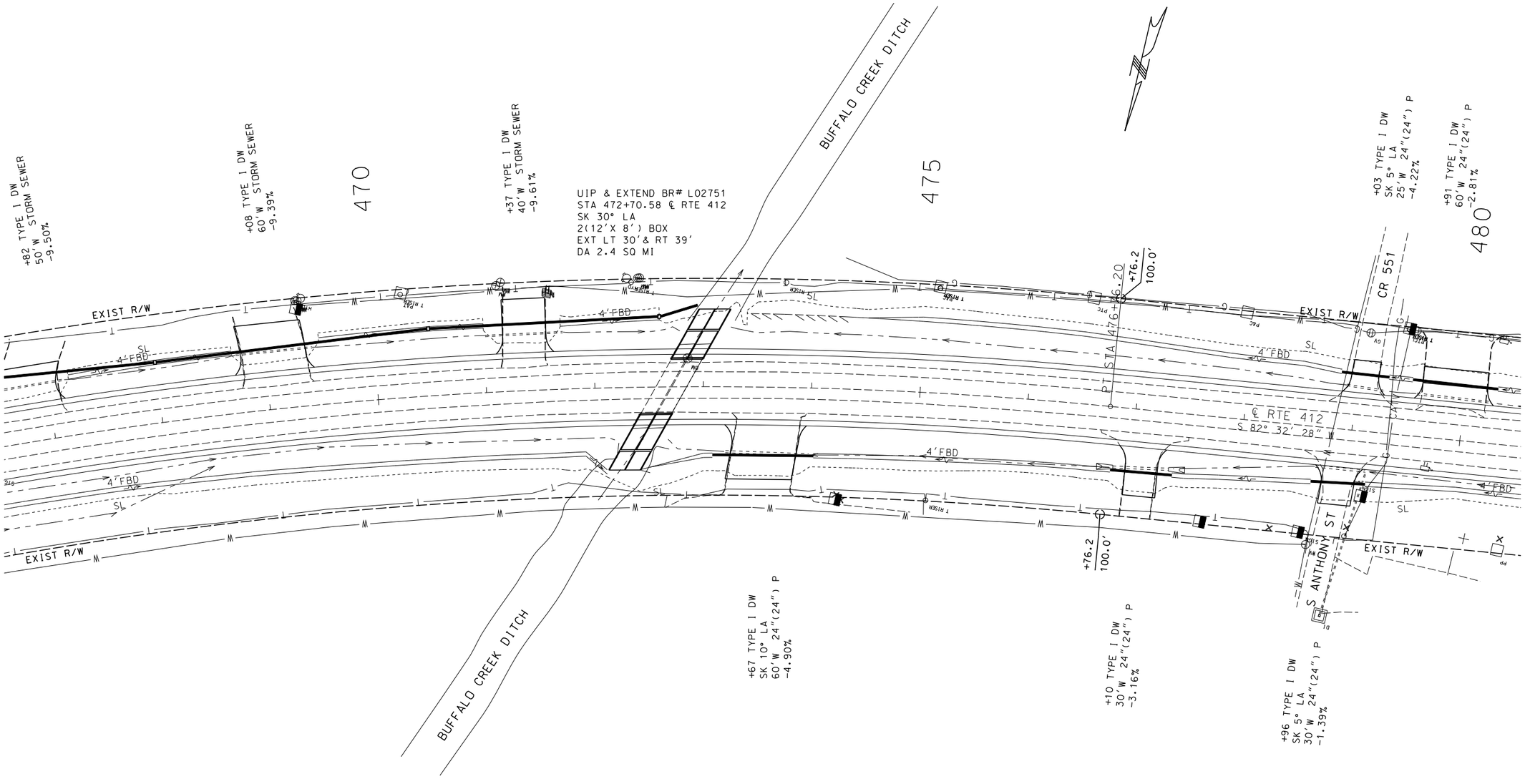
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

REV.



SCALE

0 50 100 150

BENCH MARK - USCGS DATUM - 1988
BM #5 "□" TOP CENTER OF SOUTH HEADWALL 26.21'LT STA 472+85.72 RTE 412 ELEV 258.76

PLAN-PROFILE SHEET
SHEET 5 OF 17

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED	
9/12/2014	
ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	8
COUNTY	
DUNKLIN	
JOB NO.	
J9P3077	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

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

REV.	DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CERTIFIED LAND CORNER
STATION 485+00 CENTERLINE ROUTE 412 IS S27°43'41"W, 1270.17 FEET FROM THE 1/4 CORNER OF SECTIONS 1 & 2 TOWNSHIP 18 NORTH RANGE 9 EAST (2" PIPE FOUND) WITNESSED BY JIM COPELAND, PLS NO 2004001329

SE4 SE4
2-18-9

B
SW4 SE4
2-18-9

NE4 SE4
2-18-9

NW4 SE4
2-18-9

485

490

¼ ¼ SECTION LINE

+23 TYPE I DW
60' W 24"(24") P
-1.43%

+18 TYPE I DW
SK 15° LA
40' W 18"(18") P
-1.06%

+73 TYPE I DW
40' W 18"(18") P
-3.01%

+24 TYPE I DW
20' W 18"(18") P
-2.02%

+42 TYPE I DW
20' W 18"(18") P
+1.57%

+40 TYPE I DW
SK -5° RA
30' W STORM SEWER
-2.03%

+39.0
100.0'

VETERAN ST

KENNETT ST

EXIST R/W

SL

4'FBD

℄ RTE 412
S 82° 32' 28" W

+25 TYPE I DW
SK 5° LA
40' W 24"(24") P
-0.02%

+48.0
100.0'

+48 TYPE I DW
SK 5° LA
20' W 24"(24") P
-0.46%

+82 TYPE I DW
50' W 24"(24") P
-0.83%

+74 TYPE I DW
50' W 24"(24") P
-2.16%

+75.0
100.0'

STA 492+38.00 RTE 412 =
STA 0+00.00 EXIST KENNETT ST

OBLIT

+70.0
100.0'

+55.5
198.3'

+44.0
214.7'

APOSTOLIC ASSEMBLY
OF JESUS CHRIST

℄ EXIST KENNETT ST
N 33° 02' 29" E

EXIST R/W

+99.36
50.00'

EXIST
PERM
ESMT

R/W FOR CITY

℄ KENNETT ST

BENCH MARK - USCGS DATUM - 1988
BM #6 "□" NW CORNER OF CONCRETE SIDEWALK 149.88'LT STA 481+99.33 RTE 412 ELEV 260.07

SCALE
0 50 100 150

PLAN-PROFILE SHEET
SHEET 6 OF 17

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/12/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	9

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

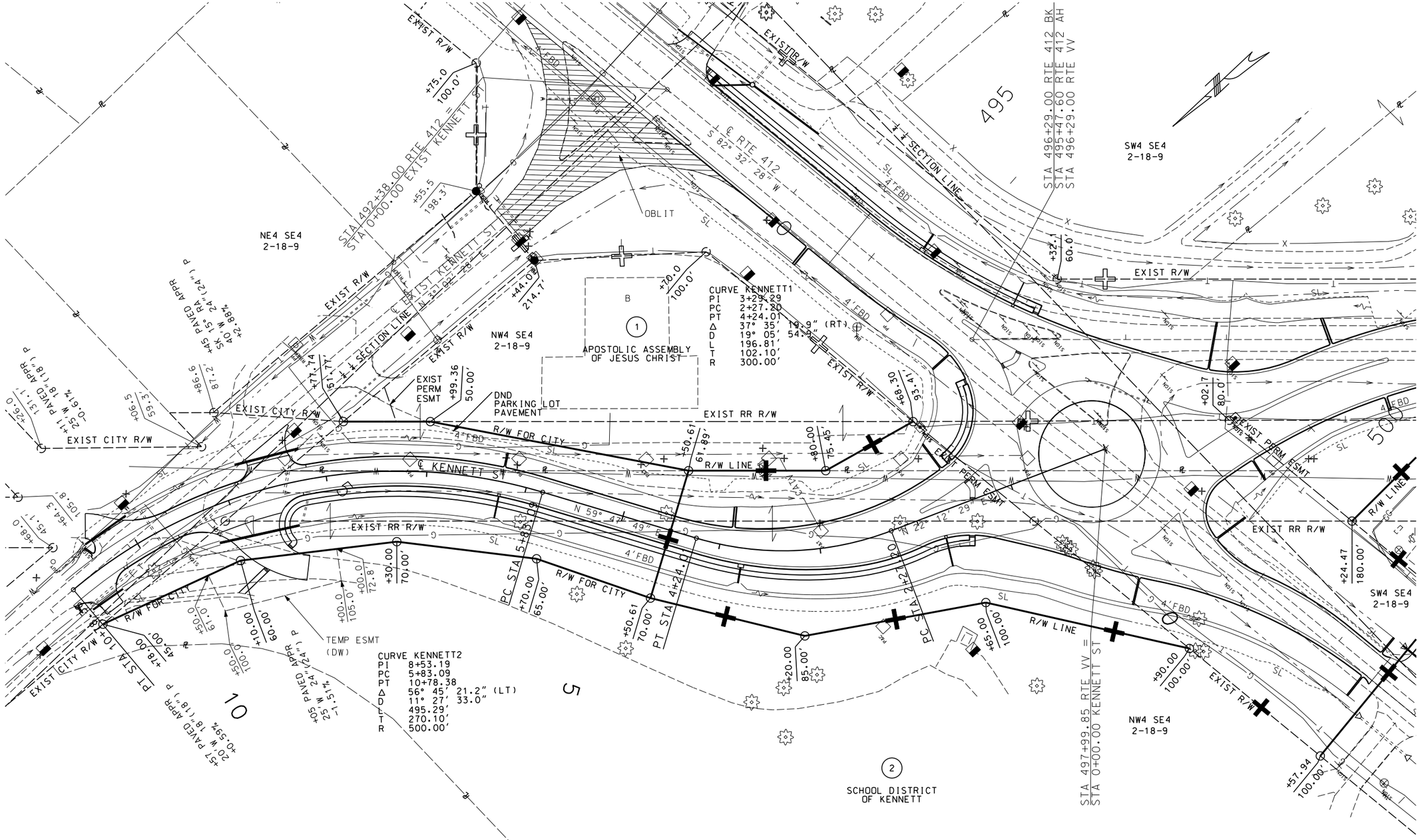
DATE	DESCRIPTION

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)

REV.



BENCH MARK - USCGS DATUM - 1988

BM #7 "□" SOUTH SIDE OF CONCRETE SIGN BASE
62.64'RT STA 495+33.10 RTE 412
ELEV 262.85

PLAN-PROFILE SHEET
SHEET 7 OF 17

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/12/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	10

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION	REV.

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MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CERTIFIED LAND CORNER
STATION 510+00 CENTERLINE ROUTE 412 IS N12°21'51"W 391.90 FEET FROM THE 1/4 CORNER OF SECTIONS 2 & 11 TOWNSHIP 18 NORTH RANGE 9 EAST (PIPE FOUND) WITNESSED BY JIM COPELAND, PLS NO 2004001329

500

505

510

SECTION 11
SECTION 2

¼ SECTION LINE

SW4 SE4
2-18-9

SE4 SW4
2-18-9

EXIST R/W

℄ RTE 412
S 43° 09' 28" W

4 EBD

+25.06
80.00'

R/W LINE

EXIST RR R/W

+57.94
100.00'
+84
40' W
-3.12%
TYPE I DW
18"(18") P

+37
40' W
-6.13%
TYPE I DW
18"(18") P

3

PRANCE OIL COMPANY, INC.

SW4 SE4
2-18-9

SE4 SW4
2-18-9

℄ RTE VV
S 82° 32' 28" W

EXIST R/W

505

SCALE
0 50 100 150

BENCH MARK - USCGS DATUM - 1988
BM #8 "□" EAST SIDE OF CONCRETE SIGN BASE 176.78'RT STA 504+66.17 RTE 412 ELEV 262.92

PLAN-PROFILE SHEET
SHEET 8 OF 17

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED	
9/12/2014	
ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	11
COUNTY	
DUNKLIN	
JOB NO.	
J9P3077	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

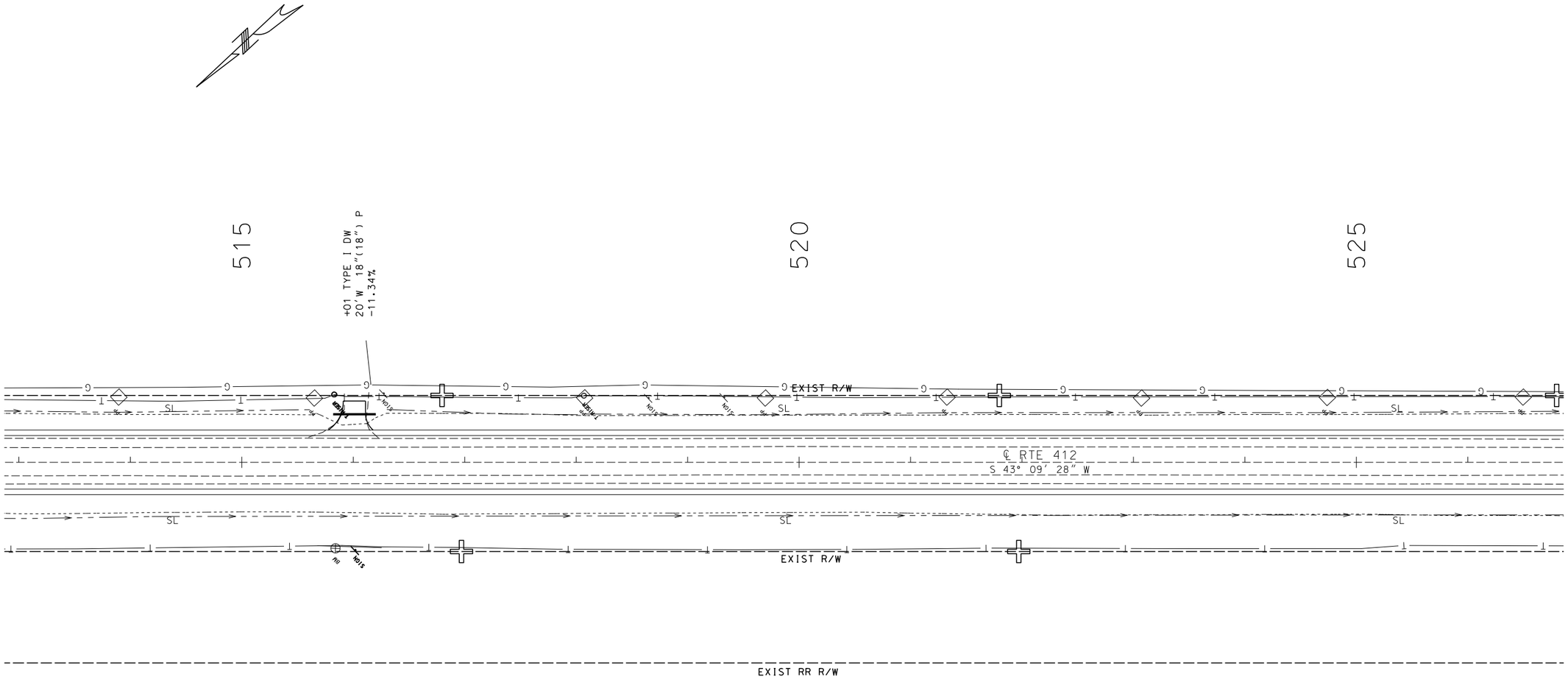
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

REV.



SCALE

0 50 100 150

BENCH MARK - USCGS DATUM - 1988
BM #9 RR SPIKE IN EAST ROOT OF ELM TREE 77.24'RT STA 515+84.13 RTE 412 ELEV 264.99

PLAN-PROFILE SHEET
SHEET 9 OF 17

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED	
9/12/2014	
ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	12

COUNTY
DUNKLIN

JOB NO.
J9P3077

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)

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

REV.

530

535

540

+16 TYPE I DW
SK 30° RA
40' W NO P
-10.19%

CR 549

HORNER DR

EXIST R/W

℄ RTE 412
S 43° 09' 28" W

SL

EXIST R/W

CR 504

EXIST RR R/W

+01
24" GROUP A PIPE
EXTEND LT & RT

+47 TYPE I DW
SK 40° RA
25' W NO P
-2.65%

SCALE
0 50 100 150

BENCH MARK - USCGS DATUM - 1988
BM #10 "□" TOP CENTER OF EAST HEADWALL 30.24'LT STA 529+00.81 RTE 412 ELEV 263.77

PLAN-PROFILE SHEET
SHEET 10 OF 17

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/12/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	13

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

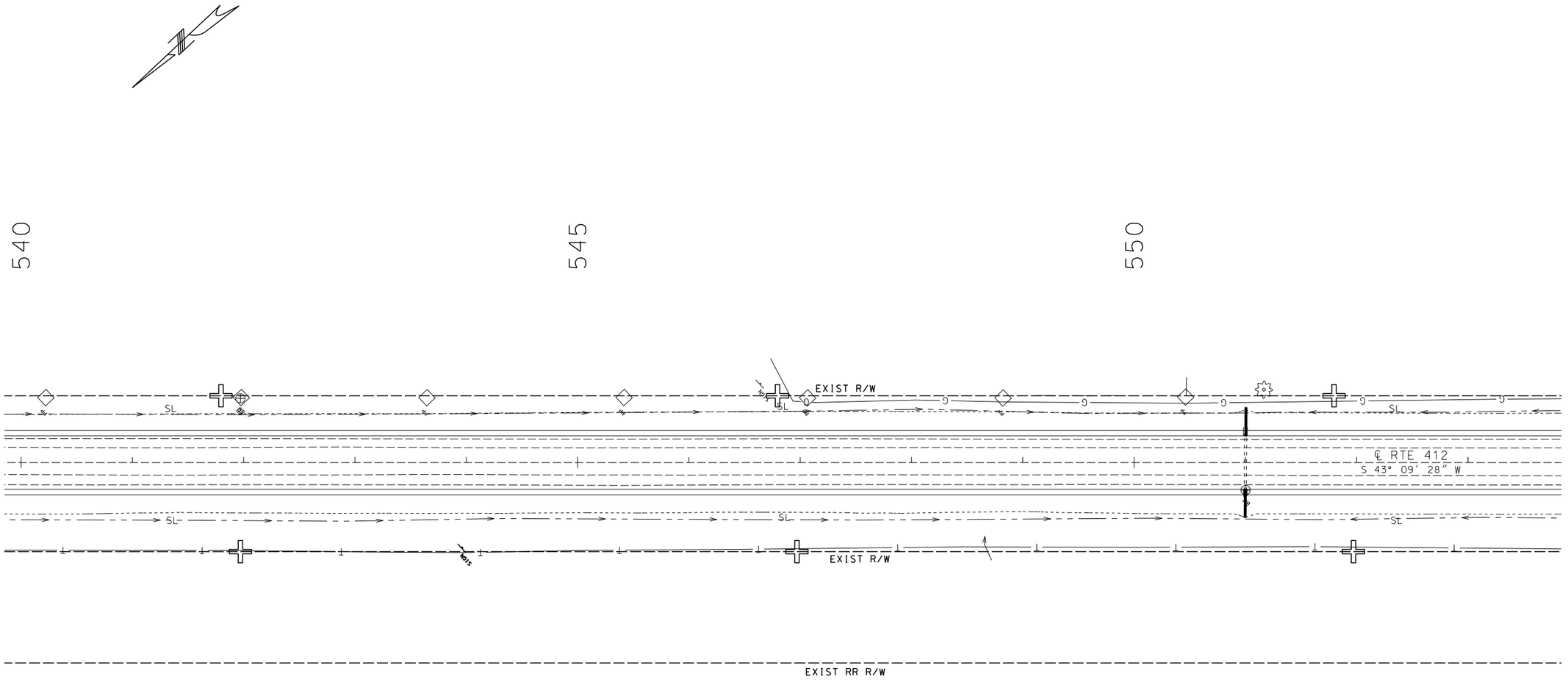
DESCRIPTION	DATE

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MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

REV.



SCALE

0 50 100 150

BENCH MARK - USCGS DATUM - 1988
BM #11 RR SPIKE IN WEST SIDE PP 57.59'LT STA 541+97.15 RTE 412 ELEV 262.44
BM #12 "□" TOP CENTER OF WEST HEADWALL 24.82'RT STA 551+00.25 RTE 412 ELEV 264.37

PLAN-PROFILE SHEET
SHEET 11 OF 17

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 9/12/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	14

COUNTY DUNKLIN

JOB NO. J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

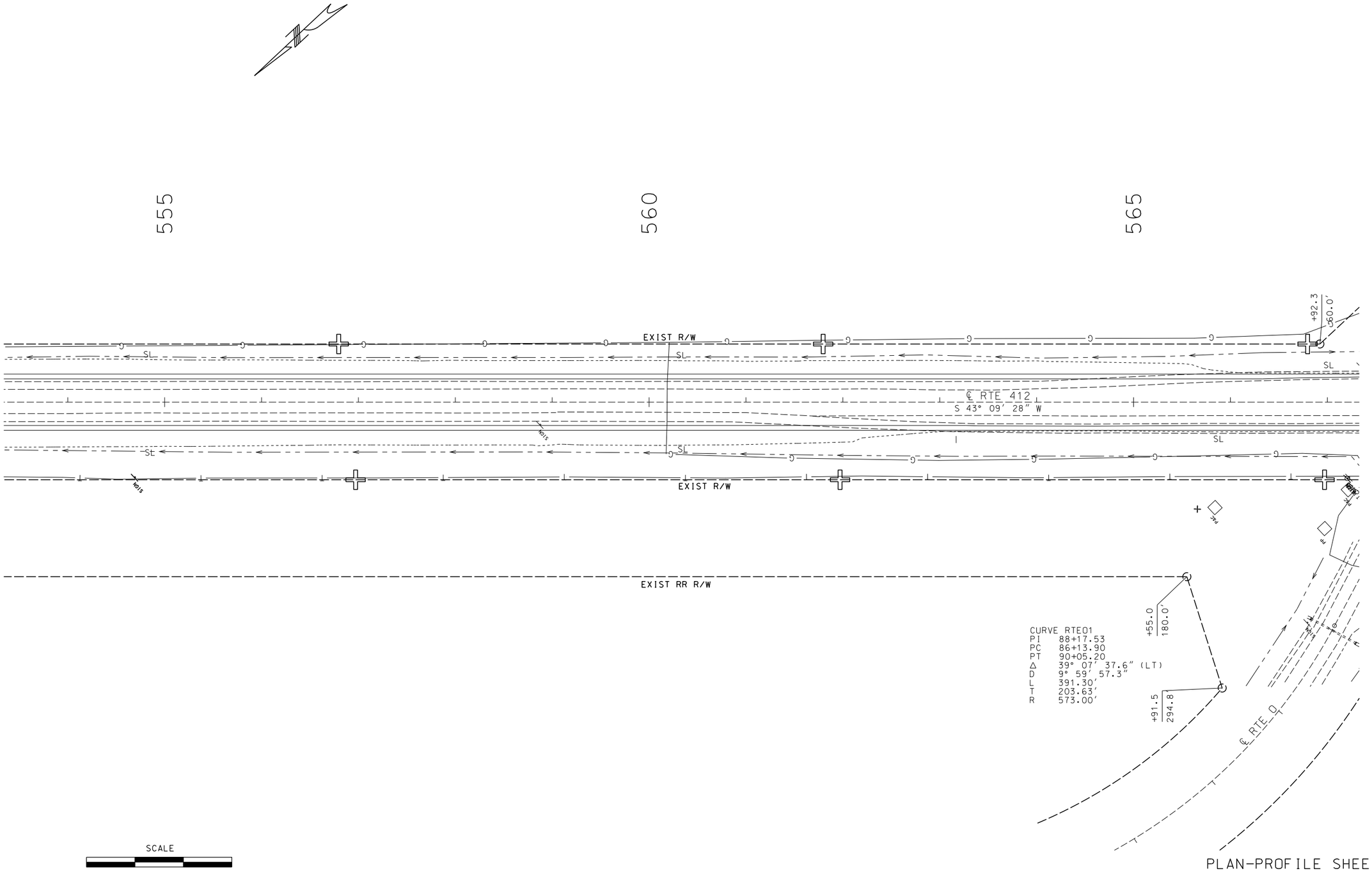
DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

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

REV.



PLAN-PROFILE SHEET
SHEET 12 OF 17

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/12/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	15

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

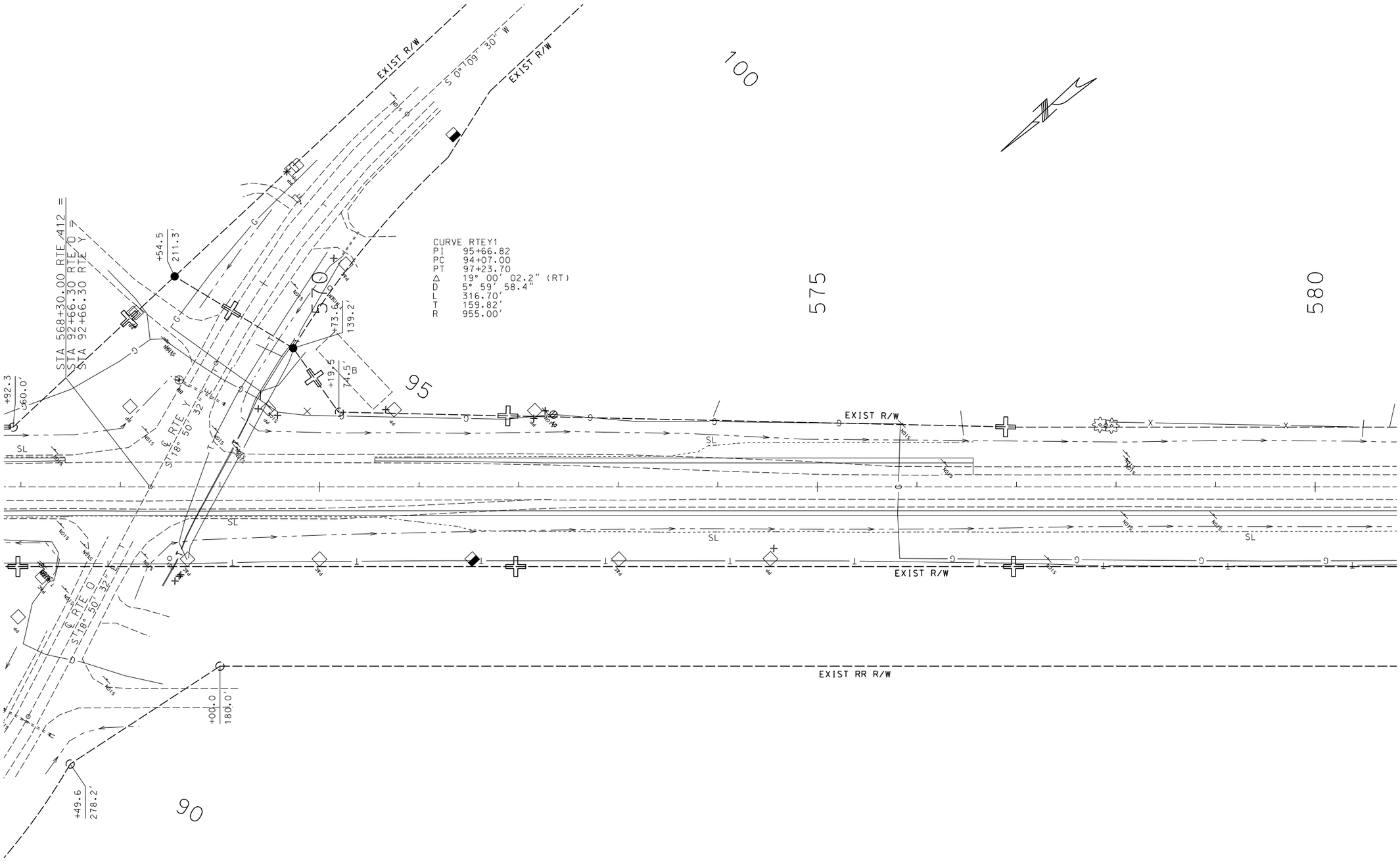
DATE	DESCRIPTION

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)

REV.



BENCH MARK - USCGS DATUM - 1988
BM #13 "□" TOP CENTER OF EAST HEADWALL 107.27'LT STA 568+59.08 RTE 412 ELEV 263.66

PLAN-PROFILE SHEET
SHEET 13 OF 17

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED	
9/12/2014	
ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	16
COUNTY	
DUNKLIN	
JOB NO.	
J9P3077	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

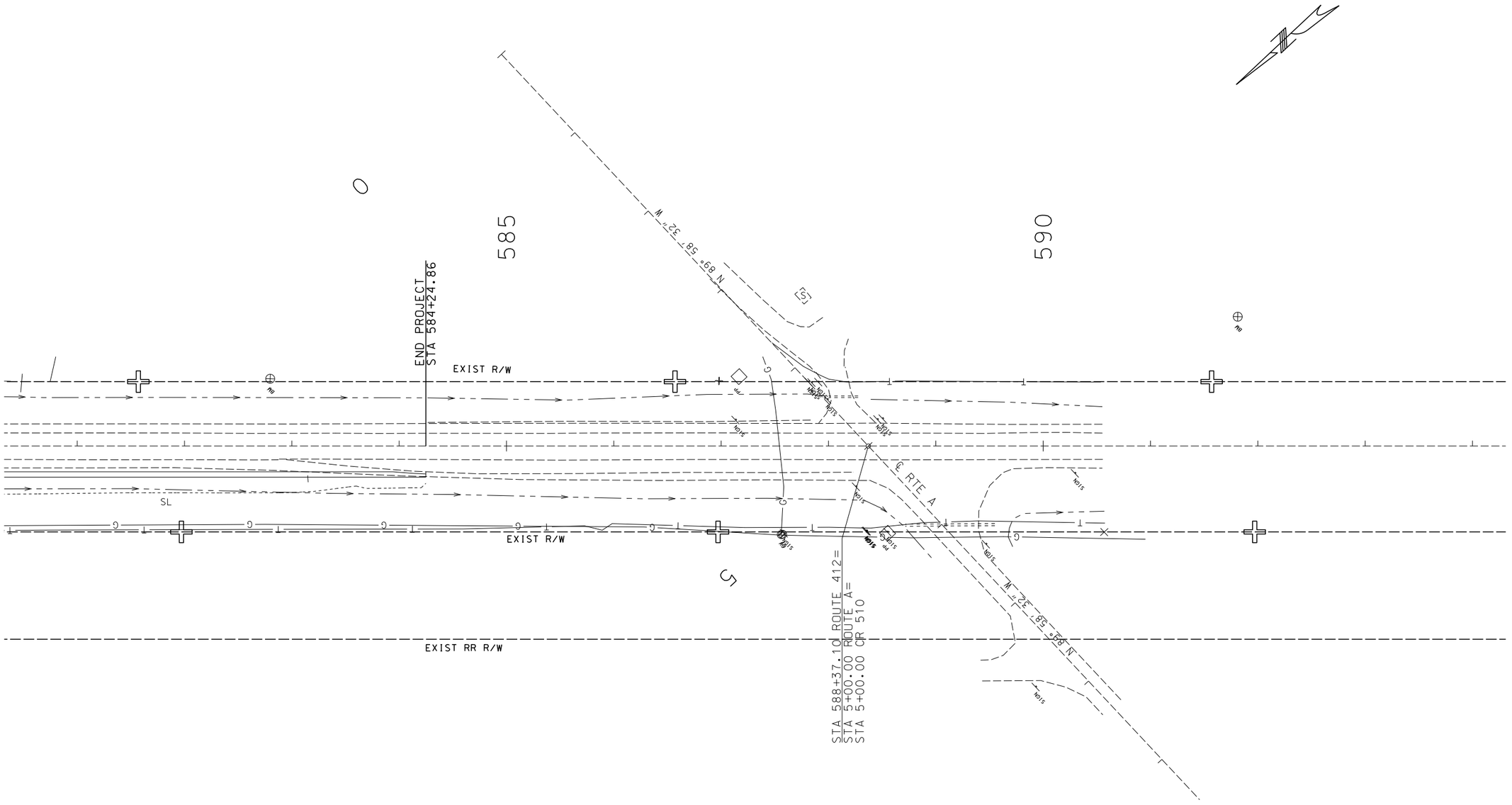
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DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

REV.



BENCH MARK - USCGS DATUM - 1988
BM #14 RR SPIKE IN WEST ROOT OF PINE TREE 62.57'LT STA 582+79.87 RTE 412 ELEV 263.75 BM #15 "□" WEST SIDE OF CONCRETE SIGN BASE 120.38'LT STA 591+81.39 RTE 412 ELEV 262.43

PLAN-PROFILE SHEET
SHEET 14 OF 17

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/12/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	17

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

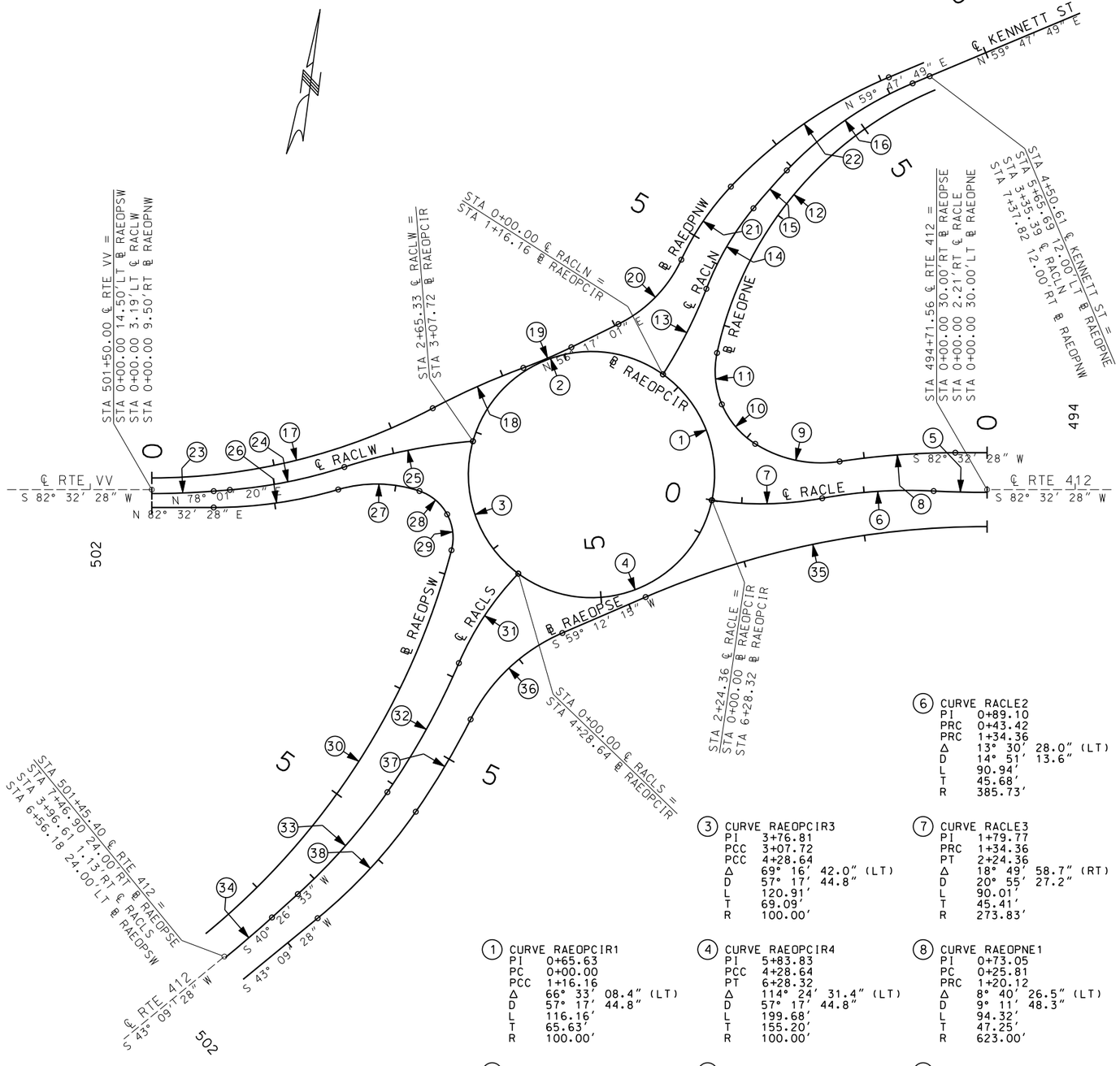
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MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

REV.



(10) CURVE RAEOPNE3
PI 2+13.66
PCC 1+91.66
PCC 2+34.29
Δ 34° 53' 42.2" (RT)
D 81° 51' 04.0"
L 42.63'
T 22.00'
R 70.00'

(11) CURVE RAEOPNE4
PI 2+56.29
PCC 2+34.29
PCC 2+76.93
Δ 34° 53' 42.2" (RT)
D 81° 51' 04.0"
L 42.63'
T 22.00'
R 70.00'

(12) CURVE RAEOPNE5
PI 4+33.60
PCC 2+76.93
PT 5+65.69
Δ 55° 09' 01.4" (RT)
D 19° 05' 54.9"
L 288.77'
T 156.67'
R 300.00'

(13) CURVE RACLN1
PI 0+39.16
PC 0+00.00
PRC 0+78.06
Δ 11° 30' 20.9" (LT)
D 14° 44' 23.7"
L 78.06'
T 39.16'
R 388.71'

(14) CURVE RACLN2
PI 1+16.45
PRC 0+78.06
PCC 1+54.19
Δ 18° 16' 50.6" (RT)
D 24° 00' 41.6"
L 76.13'
T 38.39'
R 238.62'

(15) CURVE RACLN3
PI 1+74.70
PCC 1+54.19
PCC 1+95.19
Δ 3° 54' 39.2" (RT)
D 9° 32' 17.8"
L 41.00'
T 20.51'
R 600.69'

(20) CURVE RAEOPNW4
PI 4+41.91
PC 4+03.16
PRC 4+77.67
Δ 38° 48' 37.7" (LT)
D 52° 05' 13.5"
L 74.51'
T 38.75'
R 110.00'

(21) CURVE RAEOPNW5
PI 5+13.99
PRC 4+77.67
PCC 5+49.69
Δ 18° 25' 16.8" (RT)
D 25° 34' 42.5"
L 72.02'
T 36.32'
R 224.00'

(22) CURVE RAEOPNW6
PI 6+29.45
PCC 5+49.69
PT 7+06.88
Δ 23° 54' 08.2" (RT)
D 15° 12' 21.5"
L 157.19'
T 79.76'
R 376.80'

(23) CURVE RACLW1
PI 0+25.18
PC 0+00.00
PT 0+50.34
Δ 4° 35' 11.5" (LT)
D 9° 06' 40.9"
L 50.34'
T 25.18'
R 628.84'

(24) CURVE RACLW2
PI 1+11.25
PC 0+63.50
PRC 1+58.55
Δ 13° 33' 34.8" (LT)
D 14° 15' 53.9"
L 95.06'
T 47.75'
R 401.65'

(25) CURVE RACLW3
PI 2+12.19
PRC 1+58.55
PT 2+65.33
Δ 13° 29' 05.7" (RT)
D 12° 37' 44.8"
L 106.78'
T 53.64'
R 453.68'

(30) CURVE RAEOPSW5
PI 4+74.51
PCC 2+80.01
PT 6+56.18
Δ 35° 55' 16.6" (RT)
D 9° 32' 57.5"
L 376.17'
T 194.50'
R 600.00'

(31) CURVE RACLS1
PI 0+44.34
PC 0+00.00
PRC 0+87.72
Δ 20° 37' 53.6" (LT)
D 23° 31' 14.0"
L 87.72'
T 44.34'
R 243.60'

(32) CURVE RACLS2
PI 1+47.94
PRC 0+87.72
PCC 2+07.77
Δ 11° 23' 16.8" (RT)
D 9° 29' 09.8"
L 120.05'
T 60.22'
R 604.00'

(33) CURVE RACLS3
PI 2+63.25
PCC 2+07.77
PT 3+18.24
Δ 13° 13' 38.3" (RT)
D 11° 58' 24.2"
L 110.47'
T 55.48'
R 478.53'

(34) CURVE RACLS4
PI 3+71.60
PC 3+46.57
PT 3+96.61
Δ 2° 47' 32.9" (RT)
D 5° 34' 50.1"
L 50.04'
T 25.02'
R 1,026.70'

(35) CURVE RAEOPSE1
PI 1+44.57
PC 0+00.00
PT 2+85.14
Δ 23° 20' 12.6" (LT)
D 8° 11' 03.5"
L 285.14'
T 144.57'
R 700.07'

(6) CURVE RACLE2
PI 0+89.10
PRC 0+43.42
PRC 1+34.36
Δ 13° 30' 28.0" (LT)
D 14° 51' 13.6"
L 90.94'
T 45.68'
R 385.73'

(16) CURVE RACLN4
PI 2+58.69
PCC 1+95.19
PT 3+20.35
Δ 23° 54' 08.2" (RT)
D 19° 05' 54.9"
L 125.15'
T 63.50'
R 300.00'

(26) CURVE RAEOPSW1
PI 1+01.90
PC 0+50.29
PRC 1+52.80
Δ 16° 24' 30.5" (LT)
D 16° 00' 24.0"
L 102.51'
T 51.61'
R 357.95'

(36) CURVE RAEOPSE2
PI 4+13.27
PC 3+58.82
PRC 4+63.29
Δ 39° 54' 17.9" (LT)
D 38° 11' 49.9"
L 104.47'
T 54.45'
R 150.00'

(3) CURVE RAEOPCIR3
PI 3+76.81
PCC 3+07.72
PCC 4+28.64
Δ 69° 16' 42.0" (LT)
D 57° 17' 44.8"
L 120.91'
T 69.09'
R 100.00'

(7) CURVE RACLE3
PI 1+79.77
PRC 1+34.36
PT 2+24.36
Δ 18° 49' 58.7" (RT)
D 20° 55' 27.2"
L 90.01'
T 45.41'
R 273.83'

(17) CURVE RAEOPNW1
PI 1+21.12
PC 0+00.00
PRC 2+37.45
Δ 27° 52' 43.0" (LT)
D 11° 44' 27.4"
L 237.45'
T 121.12'
R 488.00'

(27) CURVE RAEOPSW2
PI 1+87.40
PRC 1+52.80
PCC 2+19.84
Δ 34° 55' 21.9" (RT)
D 52° 05' 13.5"
L 67.05'
T 34.60'
R 110.00'

(37) CURVE RAEOPSE3
PI 5+07.02
PRC 4+63.29
PCC 5+50.61
Δ 7° 54' 58.0" (RT)
D 9° 03' 56.8"
L 87.32'
T 43.73'
R 632.00'

(1) CURVE RAEOPCIR1
PI 0+65.63
PC 0+00.00
PCC 1+16.16
Δ 66° 33' 08.4" (LT)
D 57° 17' 44.8"
L 116.16'
T 65.63'
R 100.00'

(4) CURVE RAEOPCIR4
PI 5+83.83
PCC 4+28.64
PT 6+28.32
Δ 114° 24' 31.4" (LT)
D 57° 17' 44.8"
L 199.68'
T 155.20'
R 100.00'

(8) CURVE RAEOPNE1
PI 0+73.05
PC 0+25.81
PRC 1+20.12
Δ 8° 40' 26.5" (LT)
D 9° 11' 48.3"
L 94.32'
T 47.25'
R 623.00'

(18) CURVE RAEOPNW2
PI 2+77.83
PRC 2+37.45
PRC 3+18.10
Δ 7° 42' 05.9" (RT)
D 9° 32' 57.5"
L 80.65'
T 40.39'
R 600.00'

(28) CURVE RAEOPSW3
PI 2+35.64
PCC 2+19.84
PCC 2+49.93
Δ 43° 05' 26.0" (RT)
D 143° 14' 22.0"
L 30.08'
T 15.79'
R 40.00'

(38) CURVE RAEOPSE4
PI 6+09.98
PCC 5+50.61
PT 6+68.58
Δ 15° 56' 32.5" (RT)
D 13° 30' 47.4"
L 117.98'
T 59.37'
R 424.00'

(2) CURVE RAEOPCIR2
PI 2+58.34
PCC 1+16.16
PCC 3+07.72
Δ 109° 45' 38.2" (LT)
D 57° 17' 44.8"
L 191.57'
T 142.18'
R 100.00'

(5) CURVE RACLE1
PI 0+21.71
PC 0+00.00
PRC 0+43.42
Δ 3° 18' 23.1" (RT)
D 7° 36' 55.2"
L 43.42'
T 21.71'
R 752.38'

(9) CURVE RAEOPNE2
PI 1+57.50
PRC 1+20.12
PCC 1+91.66
Δ 40° 59' 21.9" (RT)
D 57° 17' 44.8"
L 71.54'
T 37.38'
R 100.00'

(19) CURVE RAEOPNW3
PI 3+39.34
PRC 3+18.10
PT 3+60.55
Δ 6° 04' 49.1" (LT)
D 14° 19' 26.2"
L 42.45'
T 21.24'
R 400.00'

(29) CURVE RAEOPSW4
PI 2+65.72
PCC 2+49.93
PCC 2+80.01
Δ 43° 05' 26.0" (RT)
D 143° 14' 22.0"
L 30.08'
T 15.79'
R 40.00'

PLAN-PROFILE SHEET
SHEET 15 OF 17

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

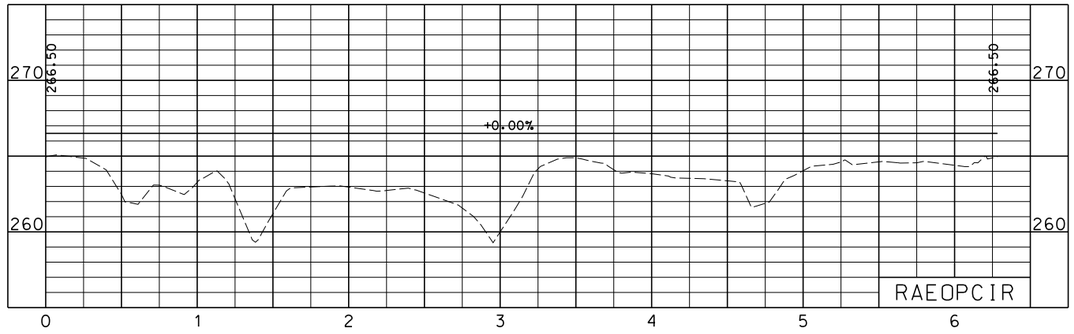
DATE PREPARED 9/12/2014
ROUTE 412 | STATE MO
DISTRICT SE | SHEET NO. 18
COUNTY DUNKLIN
JOB NO. J9P3077
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

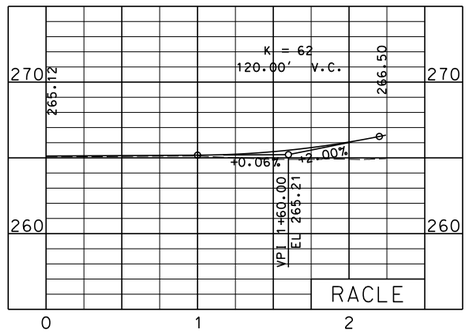
DESCRIPTION | DATE

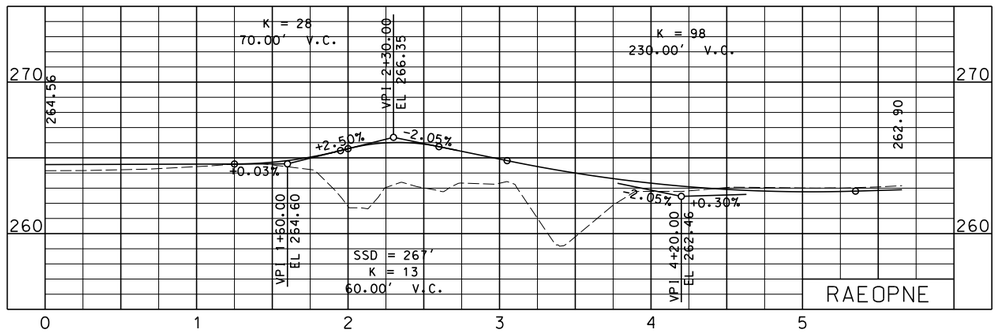
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

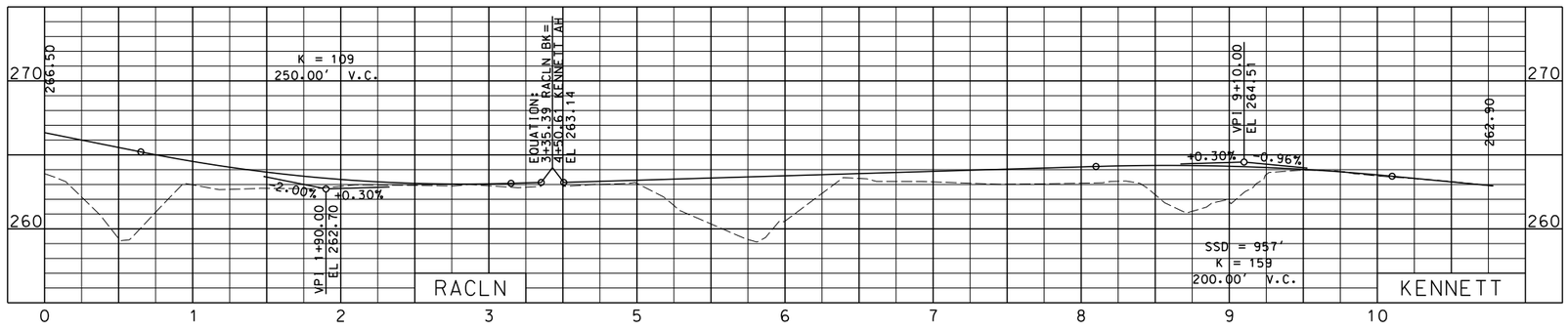
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

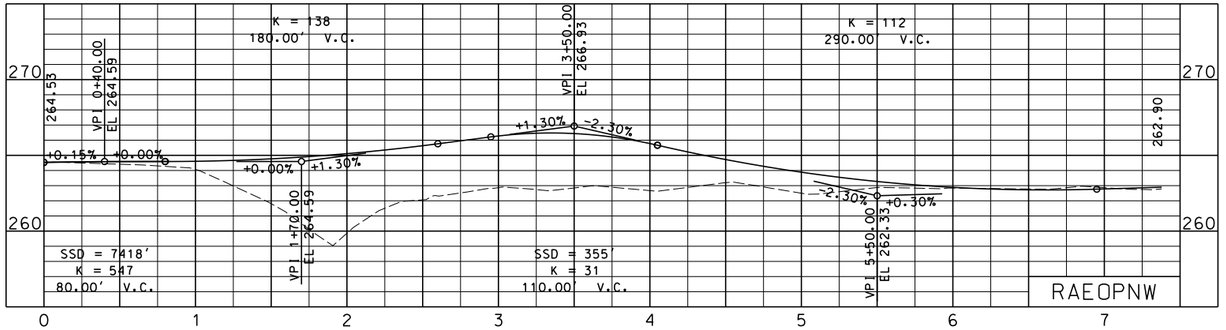
REV.











PLAN-PROFILE SHEET
SHEET 16 OF 17

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/12/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	19

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

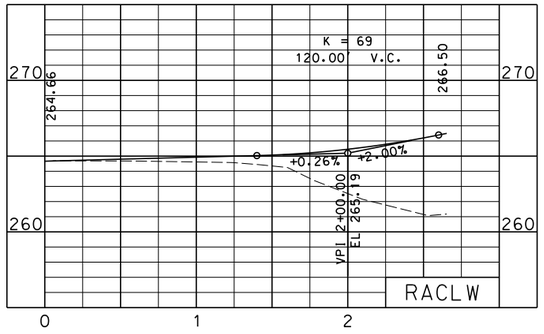
DESCRIPTION	DATE

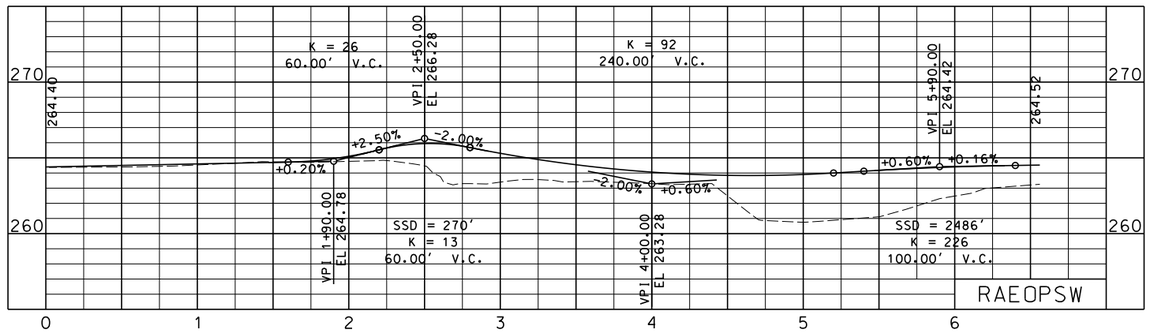
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

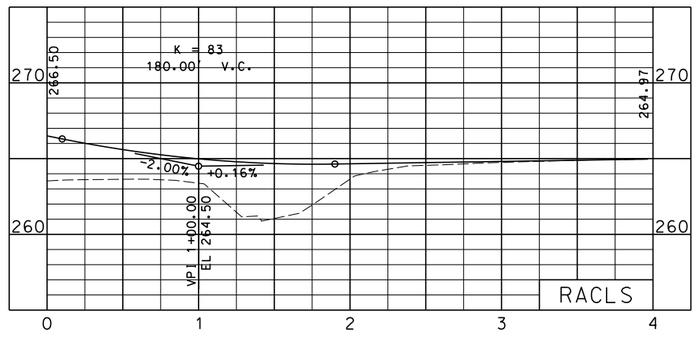
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

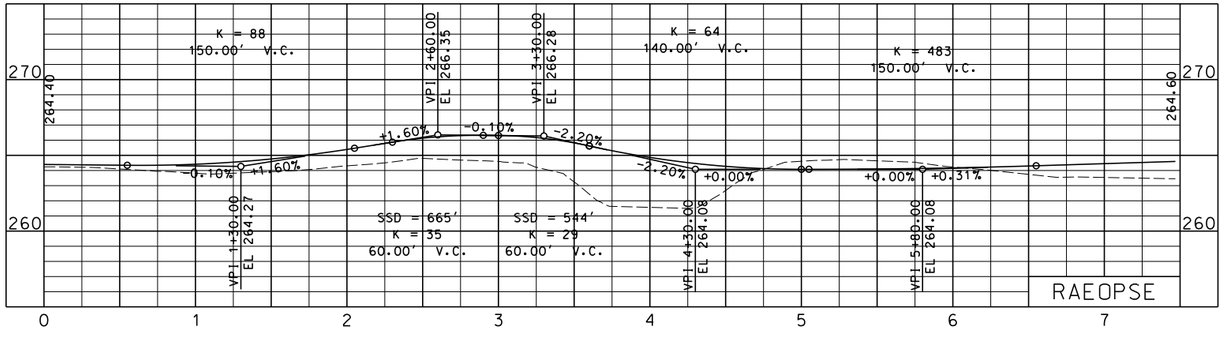
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

REV.









PLAN-PROFILE SHEET
SHEET 17 OF 17

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/12/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	20

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

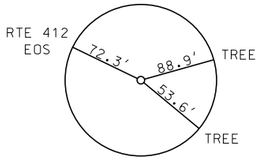
DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

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

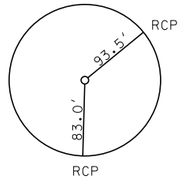
REV.



CONTROL POINT #100

X 956548.9765
Y 146884.8356
Z 261.50

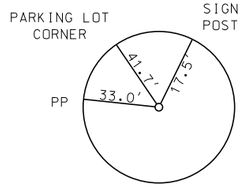
24" #5 REBAR
6" DEEP W/ PL CAP
LOCATED IN THE SE QUAD
OF RTE 412 & RTE 84



CONTROL POINT #101

X 955603.2684
Y 145446.3701
Z 259.84

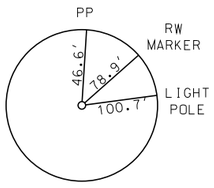
24" #5 REBAR
6" DEEP W/ PL CAP
LOCATED APPROX 500' SOUTH OF
5TH ST ON THE WEST SIDE OF
RTE 412 IN AN EARTH ISLAND



CONTROL POINT #102

X 952454.0621
Y 143472.9973
Z 260.61

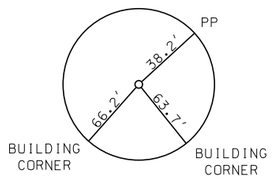
24" #5 REBAR
6" DEEP W/ PL CAP
LOCATED IN THE NW QUAD
OF RTE 412 & ANTHONY ST



CONTROL POINT #103

X 950568.4623
Y 142988.7816
Z 262.94

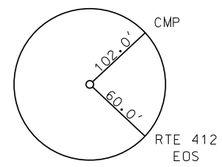
24" #5 REBAR
6" DEEP W/ PL CAP
LOCATED IN THE SW QUAD
OF RTE 412 & RTE VV



CONTROL POINT #104

X 945829.0603
Y 137694.9967
Z 263.67

24" #5 REBAR
6" DEEP W/ PL CAP
LOCATED IN THE SW QUAD
OF RTE 412 & RTE Y



CONTROL POINT #105

X 944299.8726
Y 136292.2746
Z 260.53

24" #5 REBAR
6" DEEP W/ PL CAP
LOCATED IN THE SW QUAD
OF RTE 412 & RTE A

REFERENCE POINTS SHEET
SHEET 1 OF 1

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 9/12/2014
ROUTE 412 | STATE MO
DISTRICT SE | SHEET NO. 21
COUNTY DUNKLIN
JOB NO. J9P3077
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)

REV.

COORDINATE POINT LISTING
MISSOURI COORDINATE SYSTEM OF 1983
RECIPROCAL AVERAGE GRID FACTOR : 1.000000000

COORDINATE POINTS				
NAME	LOC	STA[1]	X-E	Y-N
ROUTE 412				
RTE4121	POT	409+76.40	957693.7780	147159.7677
RTE4122	POT	421+03.80	956566.5301	147141.2516
RTE412	PI	459+93.89	954777.7815	143686.8081
	PC	439+98.40	955695.3516	145458.8257
	PT	476+76.20	952799.1772	143427.7604
	CC		952303.2999	147215.2671
EQUATION: STA 496+29.00 BK = STA 495+47.60 AH				
RTE4123	POT	495+47.60	950862.9017	143174.2545
RTE4124	POT	697+45.80	937047.1634	128440.1900
ROUTE 84				
RTE841	POT	40+00.00	956058.9586	147132.9143
RTE842	POT	45+07.64	956566.5301	147141.2516
KENNETT - EXISTING				
KENNETTEX1	POT	0+00.00	951250.5931	143225.0128
KENNETTEX2	POT	8+00.00	951293.0336	144023.8863
KENNETT - RELOCATED				
KENNETT1	POT	0+00.00	950693.4954	143152.0751
KENNETT1	PI	3+29.29	950817.9587	143456.9410
	PC	2+27.20	950779.3695	143362.4189
	PT	4+24.01	950906.1947	143508.3020
	CC		951057.1148	143249.0278
KENNETT2	PI	8+53.19	951277.1131	143724.2087
	PC	5+83.09	951043.6797	143588.3302
	PT	10+78.38	951291.4421	143993.9285
	CC		950792.1462	144020.4539
KENNETT2	POT	10+78.38	951291.4421	143993.9285
ROUTE VV				
RTEVV1	POT	496+29.00	950862.9017	143174.2545
RTEVV2	POT	509+46.40	949556.6495	143003.2342
ROUTE O				
RTEO1	PI	88+17.53	945731.5889	138301.7534
	PC	86+13.90	945802.1832	138492.7503
	PT	90+05.20	945797.3529	138109.0400
	CC		946339.6463	138294.0989
RTEO1	POT	92+66.30	945881.6790	137861.9321
ROUTE Y				
RTEY1	POT	92+66.30	945881.6790	137861.9321
RTEY1	PI	95+66.82	945978.7356	137577.5192
	PC	94+07.00	945927.1202	137728.7721
	PT	97+23.70	945978.2941	137417.7025
	CC		945023.2977	137420.3405
RTEY2	POT	100+63.90	945977.3543	137077.5038
ROUTE A				
RTEA1	POT	5+00.00	944508.8058	136397.8045
RTEA2	POT	9+51.50	944057.3058	136397.9963
COUNTY ROAD 510				
CR5102	POT	0+00.00	945008.8057	136397.5921
CR5101	POT	5+00.00	944508.8058	136397.8045

COORDINATE POINTS				
NAME	LOC	STA[1]	X-E	Y-N
ROUNDABOUT - ℄ EAST				
RACLE1	POT	0+00.00	951019.2932	143192.5057
RACLE1	PI	0+21.71	950997.7747	143189.5915
	PC	0+00.00	951019.2932	143192.5057
	PT	0+43.42	950976.1239	143187.9232
	CC		950918.3220	143938.0746
RACLE2	PI	0+89.10	950930.5780	143184.4138
	PC	0+43.42	950976.1239	143187.9232
	PT	1+34.36	950887.1117	143170.3629
	CC		951005.7581	142803.3314
RACLE3	PI	1+79.77	950843.9009	143156.3945
	PC	1+34.36	950887.1117	143170.3629
	PT	2+24.36	950798.4943	143157.1230
	CC		950802.8865	143430.9129
RACLE2	POT	2+24.36	950798.4943	143157.1230
ROUNDABOUT - ℄ NORTH				
RACLN1	POT	0+00.00	950745.7960	143253.3760
RACLN1	PI	0+39.16	950762.4754	143288.8075
	PC	0+00.00	950745.7960	143253.3760
	PT	0+78.06	950771.7522	143326.8539
	CC		950394.1046	143418.9354
RACLN2	PI	1+16.45	950780.8470	143364.1539
	PC	0+78.06	950771.7522	143326.8539
	PT	1+54.19	950801.1828	143396.7185
	CC		951003.5778	143270.3280
RACLN3	PI	1+74.70	950812.0460	143414.1142
	PC	1+54.19	950801.1828	143396.7185
	PT	1+95.19	950824.0703	143430.7285
	CC		951310.6901	143078.5443
RACLN4	PI	2+58.69	950861.2999	143482.1693
	PC	1+95.19	950824.0703	143430.7285
	PT	3+20.35	950916.1793	143514.1139
	CC		951067.0994	143254.8396
RACLN2	POT	3+35.39	950929.1785	143521.6806
ROUNDABOUT - ℄ SOUTH				
RACLS1	POT	0+00.00	950650.3561	143077.6250
RACLS1	PI	0+44.34	950624.0080	143041.9641
	PC	0+00.00	950650.3561	143077.6250
	PT	0+87.72	950611.9151	142999.3063
	CC		950846.2787	142932.8675
RACLS2	PI	1+47.94	950595.4899	142941.3661
	PC	0+87.72	950611.9151	142999.3063
	PT	2+07.77	950567.9476	142887.8098
	CC		950030.8139	143164.0404
RACLS3	PI	2+63.25	950542.5733	142838.4692
	PC	2+07.77	950567.9476	142887.8098
	PT	3+18.24	950506.5824	142796.2436
	CC		950142.3972	143106.6567
RACLS4	PI	3+71.60	950471.9712	142755.6368
	PC	3+46.57	950488.2042	142774.6818
	PT	3+96.61	950454.8296	142737.4052
	CC		949706.8277	143440.6876
RACLS2	POT	3+96.61	950454.8296	142737.4052
ROUNDABOUT - ℄ WEST				
RACLW1	POT	0+00.00	950346.7245	143103.4572
RACLW1	PI	0+25.18	950371.6980	143106.6968
	PC	0+00.00	950346.7245	143103.4572
	PT	0+50.34	950396.3325	143111.9231
	CC		950265.8283	143727.0707
RACLW2	PI	1+11.25	950455.9155	143124.5637
	PC	0+63.50	950409.2043	143114.6538
	PT	1+58.55	950499.0014	143145.1491
	CC		950325.8482	143507.5627
RACLW3	PI	2+12.19	950547.3973	143168.2716
	PC	1+58.55	950499.0014	143145.1491
	PT	2+65.33	950599.8511	143179.4713
	CC		950694.5833	142735.7915
RACLW2	POT	2+65.33	950599.8511	143179.4713

COORDINATE POINTS				
NAME	LOC	STA[1]	X-E	Y-N
ROUNDABOUT - EOP ℄ CIRCLE				
RAEOPCIR1	PI	0+65.63	950803.7297	143222.5420
	PC	0+00.00	950798.4943	143157.1230
	PT	1+16.16	950745.7960	143253.3760
	CC		950698.8130	143165.1003
RAEOPCIR2	PI	2+58.34	950620.2840	143320.1771
	PC	1+16.16	950745.7960	143253.3760
	PT	3+07.72	950599.8511	143179.4713
	CC		950698.8130	143165.1003
RAEOPCIR3	PI	3+76.81	950589.9227	143111.1021
	PC	3+07.72	950599.8511	143179.4713
	PT	4+28.64	950650.3561	143077.6250
	CC		950698.8130	143165.1003
RAEOPCIR4	PI	5+83.83	950786.1139	143002.4220
	PC	4+28.64	950650.3561	143077.6250
	PT	6+28.32	950798.4943	143157.1230
	CC		950698.8130	143165.1003
ROUNDABOUT - EOP ℄ NE				
RAEOPNE1	POT	0+00.00	951015.1124	143224.4387
RAEOPNE1	PI	0+73.05	950942.6763	143214.9550
	PC	0+25.81	950989.5249	143221.0887
	PT	1+20.12	950897.2886	143201.8262
	CC		951070.4007	142603.3605
RAEOPNE2	PI	1+57.50	950861.3826	143191.4400
	PC	1+20.12	950897.2886	143201.8262
	PT	1+91.66	950827.4672	143207.1517
	CC		950869.5017	143297.8881
RAEOPNE3	PI	2+13.66	950807.5048	143216.3994
	PC	1+91.66	950827.4672	143207.1517
	PT	2+34.29	950796.4220	143235.4045
	CC		950856.8913	143270.6671
RAEOPNE2	POT	2+34.29	950796.4220	143235.4045
RAEOPNE4	PI	2+56.29	950785.3392	143254.4095
	PC	2+34.29	950796.4220	143235.4045
	PT	2+76.93	950787.1214	143276.3377
	CC		950856.8913	143270.6671
RAEOPNE5	PI	4+33.60	950799.8130	143432.4937
	PC	2+76.93	950787.1214	143276.3377
	PT	5+65.69	950935.2154	143511.3096
	CC		951086.1354	143252.0354
RAEOPNE3	POT	5+65.69	950935.2154	143511.3096
ROUNDABOUT - EOP ℄ NW				
RAEOPNW1	POT	0+00.00	950345.0772	143116.0397
RAEOPNW1	PI	1+21.12	950465.1753	143131.7635
	PC	0+00.00	950345.0772	143116.0397
	PT	2+37.45	950563.9825	143201.8203
	CC		950281.7267	143599.9103
RAEOPNW2	PI	2+77.83	950596.9282	143225.1796
	PC	2+37.45	950563.9825	143201.8203
	PT	3+18.10	950632.7071	143243.9130
	CC		950911.0184	142712.3654
RAEOPNW3	PI	3+39.34	950651.5276	143253.7671
	PC	3+18.10	950632.7071	143243.9130
	PT	3+60.55	950669.1985	143265.5594
	CC		950447.1663	143598.2780
RAEOPNW4	PI	4+41.91	950736.8748	143310.7216
	PC	4+03.16	950704.6440	143289.2131
	PT	4+77.67	950748.5094	143347.6821
	CC		950643.5851	143380.7108
RAEOPNW5	PI	5+13.99	950759.4157	143382.3289
	PC	4+77.67	950748.5094	143347.6821
	PT	5+49.69	950780.7117	143411.7540
	CC		950962.1734	143280.4237
RAEOPNW6	PI	6+29.45	950827.4718	143476.3634
	PC	5+49.69	950780.7117	143411.7540
	PT	7+06.88	950896.4000	143516.4855
	CC		951085.9547	143190.8387
RAEOPNW2	POT	7+37.82	950923.1417	143532.0515

COORDINATE POINTS				
NAME	LOC	STA[1]	X-E	Y-N
ROUNDABOUT - EOP ℄ SE				
RAEOPSE1	POT	0+00.00	951022.9013	143164.9464
RAEOPSE1	PI	1+44.57	950879.5498	143146.1782
	PC	0+00.00	951022.9013	143164.9464
	PT	2+85.14	950755.3603	143072.1586
	CC		951113.7820	142470.8007
RAEOPSE2	PI	4+13.27	950645.2963	143006.5583
	PC	3+58.82	950692.0728	143034.4380
	PT	4+63.29	950627.2990	142955.1636
	CC		950768.8698	142905.5884
RAEOPSE3	PI	5+07.02	950612.8466	142913.8921
	PC	4+63.29	950627.2990	142955.1636
	PT	5+50.61	950592.8478	142875.0044
	CC		950030.8139	143164.0404
RAEOPSE4	PI	6+09.98	950565.6950	142822.2053
	PC	5+50.61	950592.8478	142875.0044
	PT	6+68.58	950525.0841	142778.8951
	CC		950215.7871	143068.9146
RAEOPSE2	POT	7+46.90	950471.5123	142721.7623
ROUNDABOUT - EOP ℄ SW				
RAEOPSW1	POT	0+00.00	950348.1928	143092.2428
RAEOPSW1	PI	1+01.90	950449.2261	143105.4705
	PC	0+50.29	950398.0544	143098.7709
	PT	1+52.80	950496.4212	143126.3525
	CC		950351.5866	143453.6917
RAEOPSW2	PI	1+87.40	950528.0636	143140.3530
	PC	1+52.80	950496.4212	143126.3525
	PT	2+19.84	950562.0228	143133.7179
	CC		950540.9297	143025.7593
RAEOPSW3	PI	2+35.64	950577.5227	143130.6896
	PC	2+19.84	950562.0228	143133.7179
	PT	2+49.93	950586.7730	143117.8892
	CC		950554.3526	143094.4602
RAEOPSW2	POT	2+49.93	950586.7730	143117.8892
RAEOPSW4	PI	2+65.72	950596.0233	143105.0889
	PC	2+49.93	950586.7730	143117.8892
	PT	2+80.01	950594.0340	143089.4217
	CC		950554.3526	143094.4602
RAEOPSW5	PI	4+74.51	950569.5346	142896.4747
	PC	2+80.01	950594.0340	143089.4217
	PT	6+56.18	950436.4975	142754.5947
	CC		949998.8130	143164.9998
RAEOPSW3	POT	6+56.18	950436.4975	142754.5947

1 GROUND DISTANCE

NOTE: THE RECIPROCAL OF THE AVERAGE GRID FACTOR IS USED AS A MULTIPLIER FROM STATE PLANE DISTANCE TO GROUND DISTANCE.

NOTES: SEE SPECIAL SHEETS FOR BYPASS COORDINATE POINT DATA

COORDINATE POINTS
SHEET 1 OF 1

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

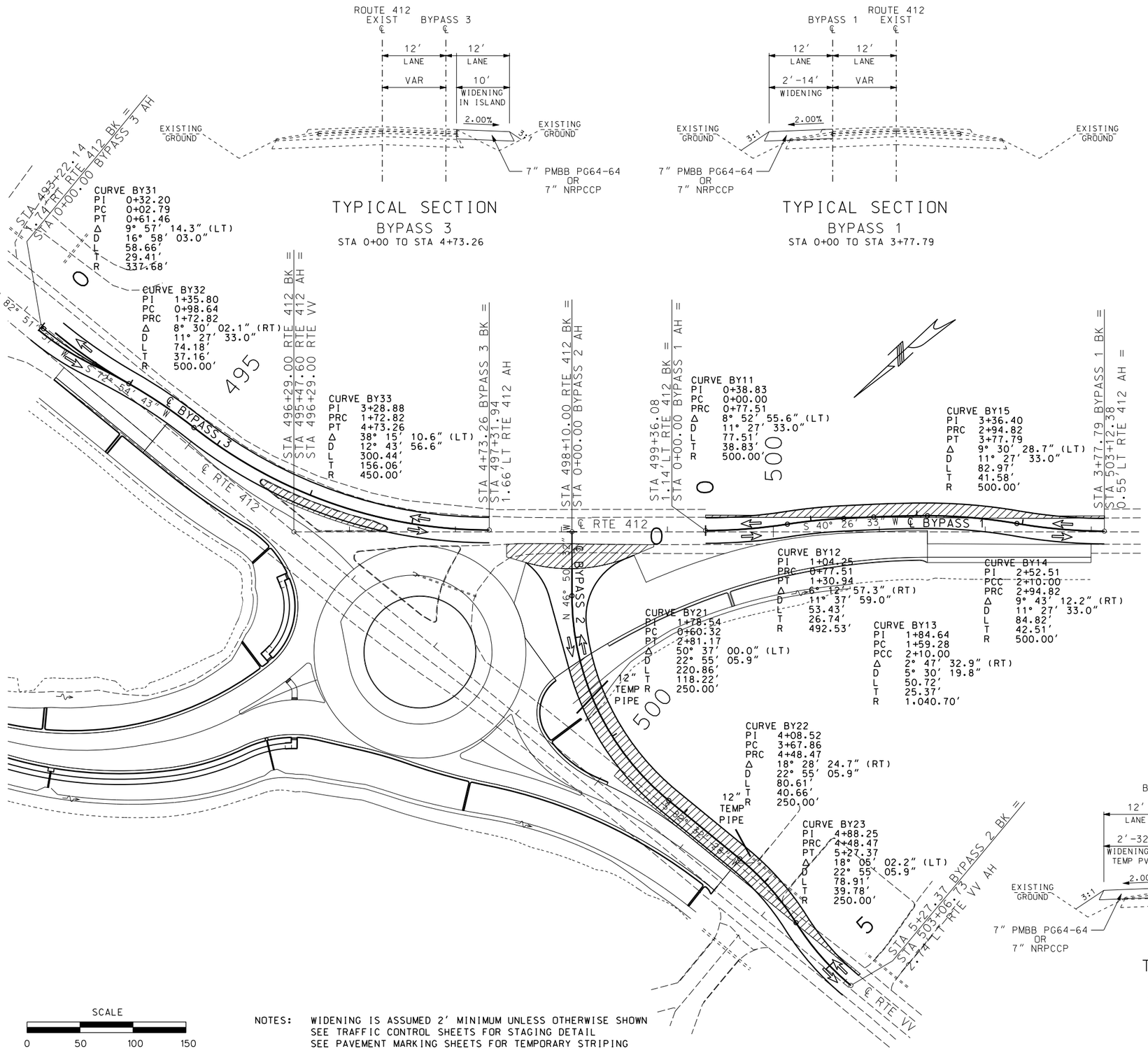
DATE PREPARED 9/12/2014
ROUTE 412 | STATE MO
DISTRICT SE | SHEET NO. 22
COUNTY DUNKLIN
JOB NO. J9P3077
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DESCRIPTION | DATE

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

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

REV.



COORDINATE POINTS

NAME	LOC	STA	X-E	Y-N
BYPASS 1				
BY11	POT	0+00.00	950598.0075	142890.0850
BY11	PI	0+38.83	950571.4694	142861.7344
	PC	0+00.00	950598.0075	142890.0850
	PT	0+77.51	950549.6269	142829.6264
	CC		950963.0363	142548.3921
BY12	PI	1+04.25	950534.5849	142807.5149
	PC	0+77.51	950549.6269	142829.6264
	PT	1+30.94	950517.2372	142787.1620
	CC		950142.3972	143106.6567
BY13	PI	1+84.64	950482.4046	142746.2955
	PC	1+59.28	950498.8589	142765.6002
	PT	2+10.00	950465.0293	142727.8153
	CC		949706.8277	143440.6876
BY14	PI	2+52.51	950435.9077	142696.8420
	PC	2+10.00	950465.0293	142727.8153
	PT	2+94.82	950401.9747	142671.2300
	CC		950100.7545	143070.3118
BY15	PI	3+36.40	950368.7856	142646.1794
	PC	2+94.82	950401.9747	142671.2300
	PT	3+77.79	950340.1905	142615.9906
	CC		950703.1950	142272.1481
BY12	POT	3+77.79	950340.1905	142615.9906
BYPASS 2				
BY21	POT	0+00.00	950683.4179	142982.8405
BY21	PI	1+78.54	950553.1800	143104.9612
	PC	0+60.32	950639.4176	143024.0984
	PT	2+81.17	950435.9614	143089.6144
	CC		950468.4155	142841.7299
BY22	PI	4+08.52	950309.6984	143073.0835
	PC	3+67.86	950350.0102	143078.3613
	PT	4+48.47	950269.7915	143080.8511
	CC		950317.5560	143326.2458
BY23	PI	4+88.25	950230.7405	143088.4521
	PC	4+48.47	950269.7915	143080.8511
	PT	5+27.37	950191.2591	143083.5559
	CC		950222.0269	142835.4564
BY22	POT	5+27.37	950191.2591	143083.5559
BYPASS 3				
BY31	POT	0+00.00	951166.9395	143215.8161
BY31	PI	0+32.20	951134.9879	143211.8169
	PC	0+02.79	951164.1666	143215.4690
	PT	0+61.46	951106.8796	143203.1760
	CC		951206.1044	142880.4037
BY32	PI	1+35.80	951035.8239	143181.3325
	PC	0+98.64	951071.3425	143192.2514
	PT	1+72.82	950999.0814	143175.7839
	CC		950924.4210	143670.1783
BY33	PI	3+28.88	950844.7717	143152.4809
	PC	1+72.82	950999.0814	143175.7839
	PT	4+73.26	950738.0223	143038.6431
	CC		951066.2759	142730.8289
BY32	POT	4+73.26	950738.0223	143038.6431

NOTES: WIDENING IS ASSUMED 2' MINIMUM UNLESS OTHERWISE SHOWN
SEE TRAFFIC CONTROL SHEETS FOR STAGING DETAIL
SEE PAVEMENT MARKING SHEETS FOR TEMPORARY STRIPING

BYPASS 1-3
SPECIAL SHEET 1 OF 6

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 9/12/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	23

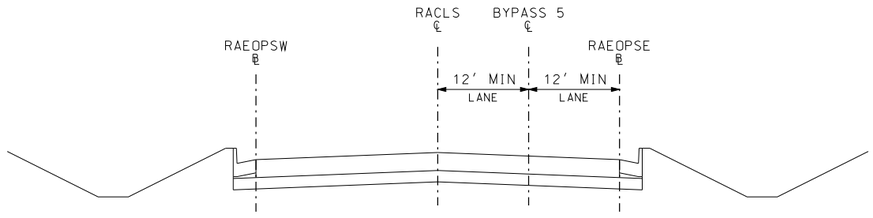
COUNTY DUNKLIN
JOB NO. J9P3077
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DESCRIPTION | DATE | REV.

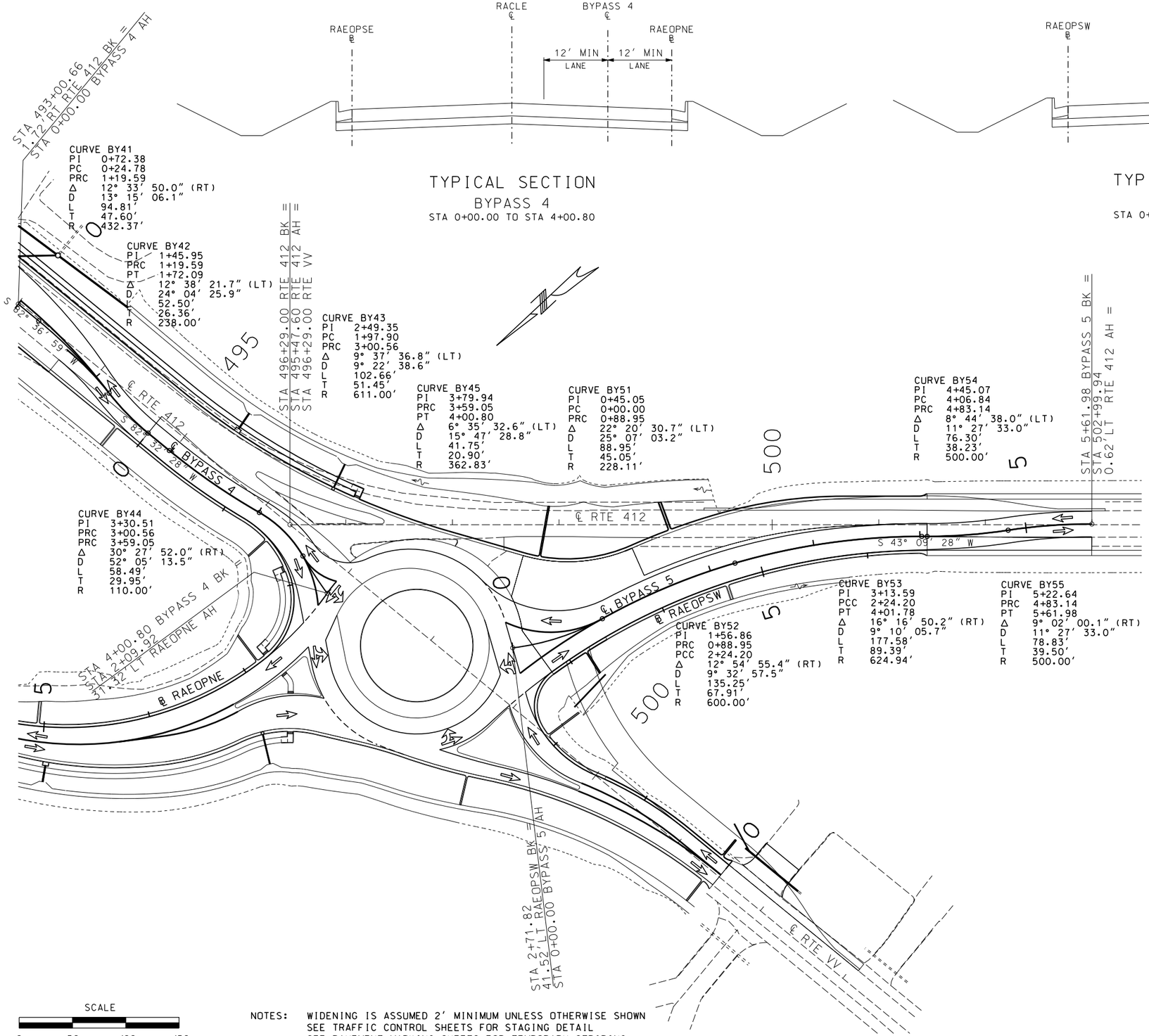
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

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

TYPICAL SECTION
BYPASS 4
STA 0+00.00 TO STA 4+00.80



TYPICAL SECTION
BYPASS 5
STA 0+00.00 TO STA 5+61.98



SCALE
0 50 100 150

NOTES: WIDENING IS ASSUMED 2' MINIMUM UNLESS OTHERWISE SHOWN
SEE TRAFFIC CONTROL SHEETS FOR STAGING DETAIL
SEE PAVEMENT MARKING SHEETS FOR TEMPORARY STRIPING

COORDINATE POINTS

NAME	LOC	STA	X-E	Y-N
BYPASS 4				
BY41	POT	0+00.00	951188.2349	143218.5859
BY41	PI	0+72.38	951116.4571	143209.2846
	PC	0+24.78	951163.6581	143215.4011
	PT	1+19.59	951069.0558	143213.5820
	CC		951108.0947	143644.1813
BY41	PI	1+45.95	951042.8053	143215.9619
	PC	1+19.59	951069.0558	143213.5820
	PT	1+72.09	951016.6702	143212.5402
	CC		951047.5665	142976.5542
BY42	PI	2+49.35	950940.0667	143202.5109
	PC	1+97.90	950991.0827	143209.1902
	PT	3+00.56	950890.8860	143187.3943
	CC		951070.4007	142603.3605
BY43	PI	3+30.51	950862.2552	143178.5940
	PC	3+00.56	950890.8860	143187.3943
	PT	3+59.05	950833.1153	143185.5246
	CC		950858.5675	143292.5395
BY44	PI	3+79.94	950812.7859	143190.3597
	PC	3+59.05	950833.1153	143185.5246
	PT	4+00.80	950792.0358	143192.8289
	CC		950749.1621	142832.5406
BY42	POT	4+00.80	950792.0358	143192.8289
BYPASS 5				
BY51	POT	0+00.00	950635.6267	143100.8415
BY51	PI	0+45.05	950608.9562	143064.5387
	PC	0+00.00	950635.6267	143100.8415
	PT	0+88.95	950598.0876	143020.8226
	CC		950819.4591	142965.7858
BY51	PI	1+56.86	950581.7022	142954.9164
	PC	0+88.95	950598.0876	143020.8226
	PT	2+24.20	950551.0004	142894.3398
	CC		950015.8132	143165.5863
BY52	PI	3+13.59	950510.5890	142814.6054
	PC	2+24.20	950551.0004	142894.3398
	PT	4+01.78	950449.4452	142749.3974
	CC		949993.5693	143176.8601
BY53	PI	4+45.07	950419.8333	142717.8173
	PC	4+06.84	950445.9807	142745.7026
	PT	4+83.14	950398.2289	142686.2811
	CC		950810.7178	142403.6984
BY54	PI	5+22.64	950375.9064	142653.6967
	PC	4+83.14	950398.2289	142686.2811
	PT	5+61.98	950348.7447	142625.0212
	CC		949985.7401	142968.8638
BY52	POT	5+61.98	950348.7447	142625.0212

BYPASS 4-5
SPECIAL SHEET 2 OF 6

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 9/12/2014
ROUTE 412 | STATE MO
DISTRICT SE | SHEET NO. 24
COUNTY DUNKLIN
JOB NO. J9P3077
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

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)

NOTES: ALL ISLAND RADII ARE 1' UNLESS OTHERWISE LABELED
SEE PAVEMENT MARKING SHEETS FOR MARKER LOCATIONS

SCALE
0 20 40 60

ISLAND DETAIL
SPECIAL SHEET 3 OF 6

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

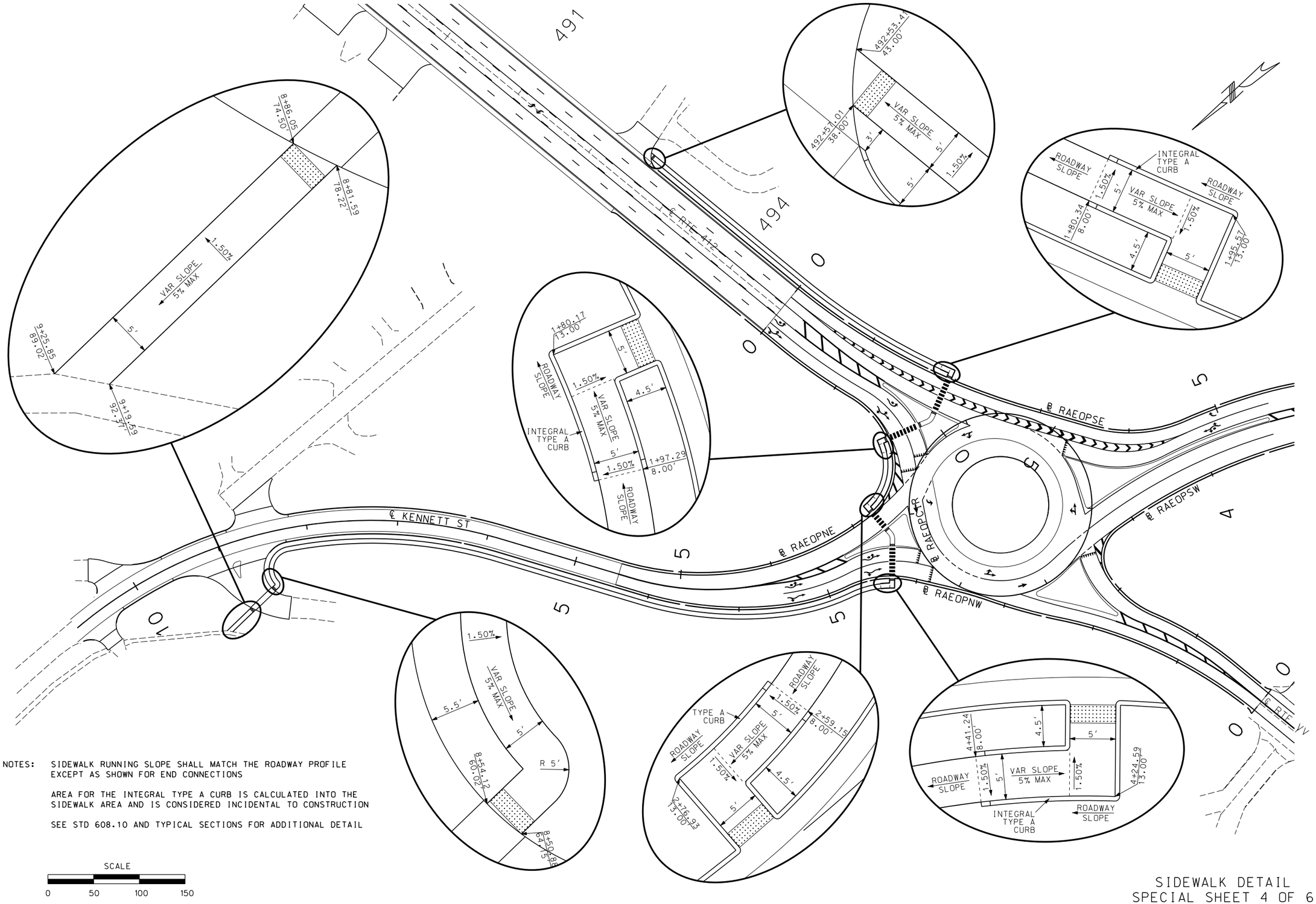
DATE PREPARED 9/12/2014
ROUTE 412 | STATE MO
DISTRICT SE | SHEET NO. 25
COUNTY DUNKLIN
JOB NO. J9P3077
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

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)

REV.



NOTES: SIDEWALK RUNNING SLOPE SHALL MATCH THE ROADWAY PROFILE EXCEPT AS SHOWN FOR END CONNECTIONS

AREA FOR THE INTEGRAL TYPE A CURB IS CALCULATED INTO THE SIDEWALK AREA AND IS CONSIDERED INCIDENTAL TO CONSTRUCTION

SEE STD 608.10 AND TYPICAL SECTIONS FOR ADDITIONAL DETAIL

SCALE

0 50 100 150

SIDEWALK DETAIL
SPECIAL SHEET 4 OF 6

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/12/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	26

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

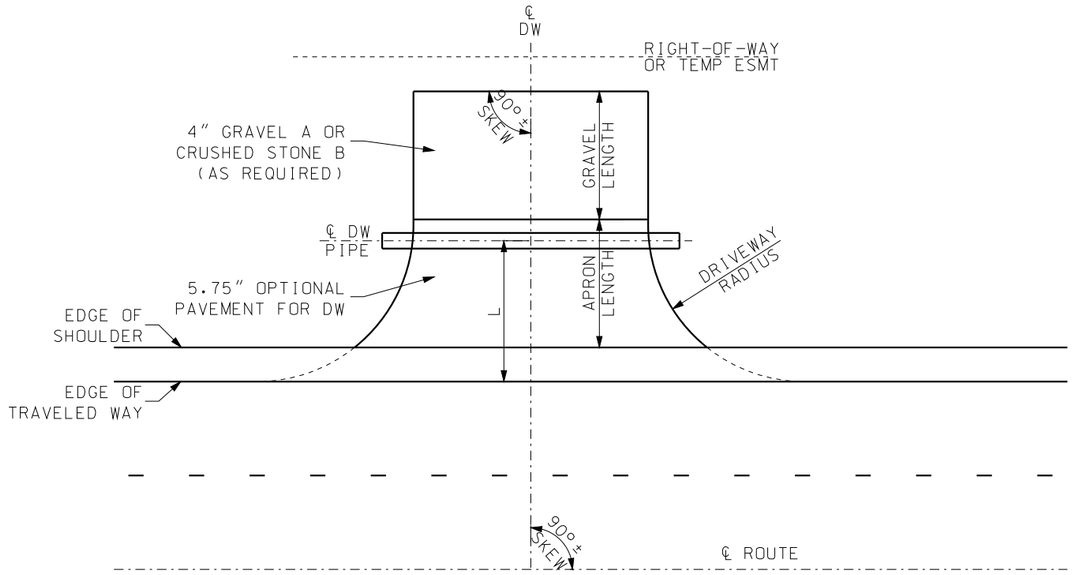
BRIDGE NO.

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

REV.	DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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



PLAN VIEW

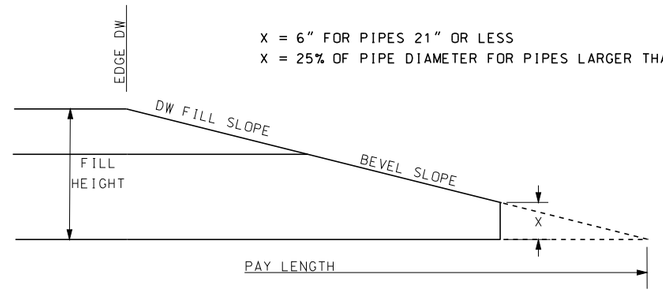
NOTES: ALL DRIVEWAY LENGTHS ARE MEASURED ALONG ℄ DW

DRIVEWAY SIDE SLOPES MATCH BEVEL SLOPES SHOWN IN QUANTITIES AND ARE 3:1 UNLESS OTHERWISE NOTED

SEE XS'S FOR DRIVEWAY PROFILES

OPTIONAL PAVEMENT FOR DRIVEWAY SHALL BE COMPOSED OF 5.75" NRPCCP OR 5.75" PMBB UNLESS OTHERWISE SPECIFIED IN THE QUANTITIES AND IS INTENDED TO MEET OR EXCEED EXISTING SURFACE

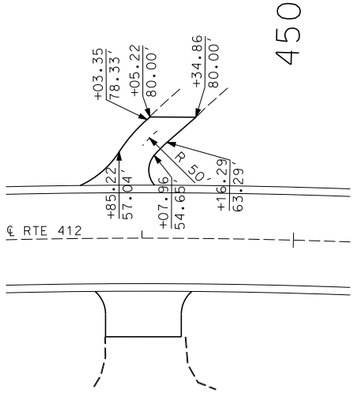
APRON LENGTH SHALL BE A MINIMUM OF 15' UNLESS OTHERWISE SHOWN IN QUANTITIES AND NO DIRECT PAYMENT WILL BE MADE FOR ANY SAW CUTS AS REQUIRED TO PLACE APRON

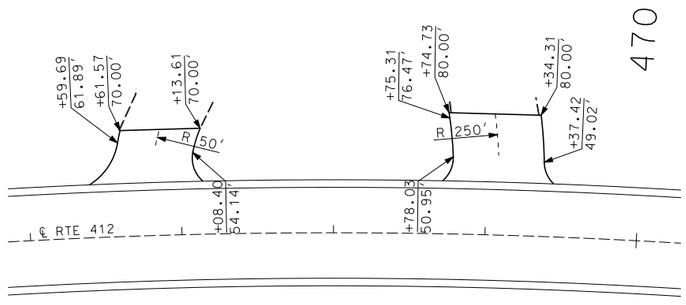


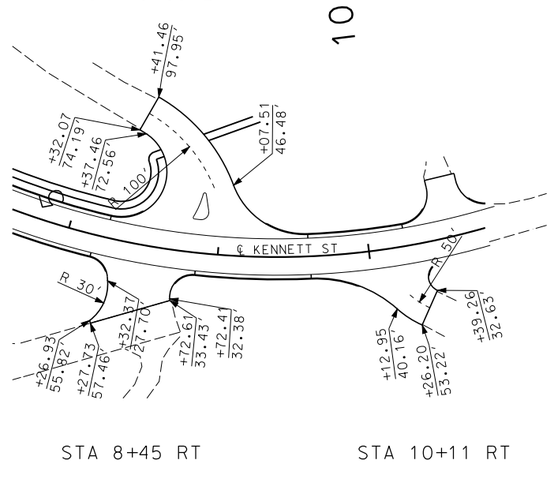
X = 6" FOR PIPES 21" OR LESS
X = 25% OF PIPE DIAMETER FOR PIPES LARGER THAN 21"

PIPE DETAIL

DRAWING NOT TO SCALE







STA 8+45 RT

STA 10+11 RT

SPECIAL GEOMETRICS

DRIVEWAY DETAIL
SPECIAL SHEET 5 OF 6

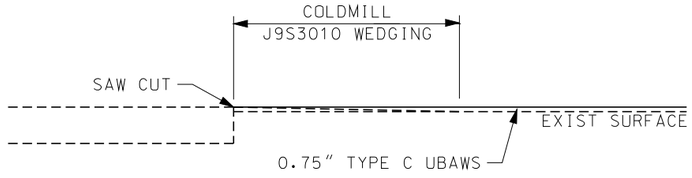
STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 9/12/2014
ROUTE 412 | STATE MO
DISTRICT SE | SHEET NO. 27
COUNTY DUNKLIN
JOB NO. J9P3077
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

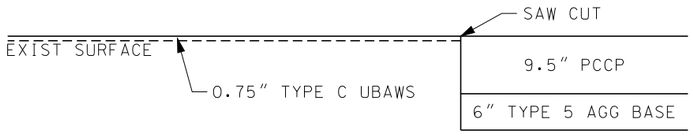
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DESCRIPTION | DATE | REV.

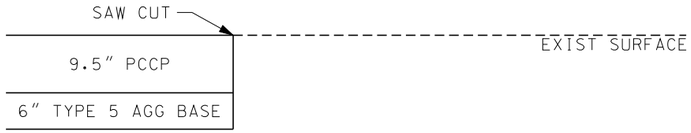
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



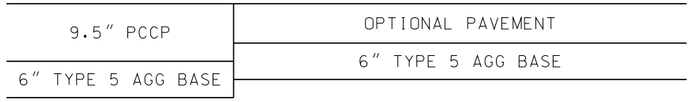
BEGIN OF JOB
ROUTE 412
STA 424+01.76 TO STA 424+39.26



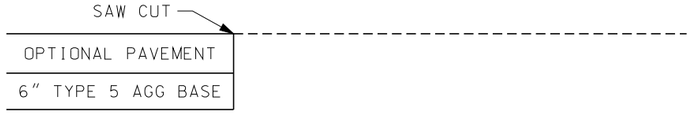
ROUNDABOUT APPROACH
ROUTE 412
STA 494+71.56



ROUNDABOUT APPROACH
ROUTE 412
STA 501+45.40
ROUTE VV
STA 501+50.00



ROUNDABOUT APPROACH
KENNETT ST
STA 4+50.61



END CONNECTION
KENNETT ST
STA 10+78.38

NOTES: NO DIRECT PAYMENT WILL BE MADE FOR ANY SAW CUTS REQUIRED TO CONSTRUCT DEPTH TRANSITION

DRAWING NOT TO SCALE

DEPTH TRANSITIONS
SPECIAL SHEET 6 OF 6

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 9/12/2014
ROUTE 412 | STATE MO
DISTRICT SE | SHEET NO. 28
COUNTY DUNKLIN
JOB NO. J9P3077
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

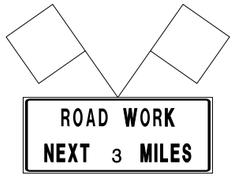
DESCRIPTION | DATE

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

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

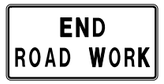
REV.





G020-1

(1)



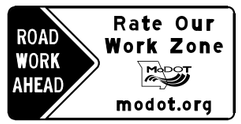
G020-2

(26)



CONST-5-96

(55)

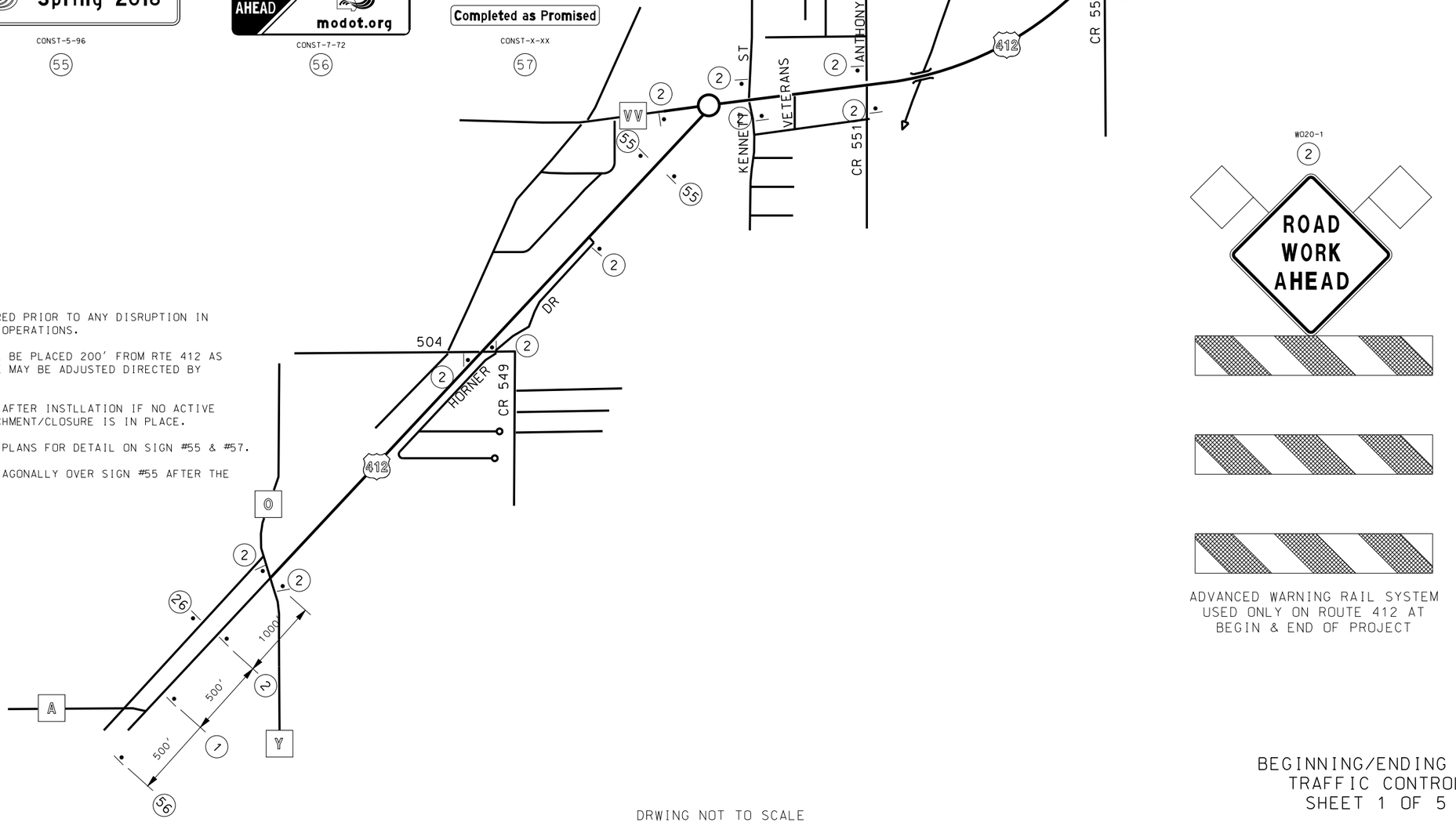


CONST-7-72

(56)

CONST-X-XX

(57)



NOTES:

INSTLLATION SHALL BE REQUIRED PRIOR TO ANY DISRUPTION IN TRAFFIC DUE TO CONSTUCTION OPERATIONS.

#2 SIGNS ON SIDEROADS SHALL BE PLACED 200' FROM RTE 412 AS CONDITIONS ALLOW. DISTANCE MAY BE ADJUSTED DIRECTED BY THE ENGINEER.

#2 SIGNS ARE TO BE COVERED AFTER INSTLLATION IF NO ACTIVE CONSTUCTION OR LANE ENCROACHMENT/CLOSURE IS IN PLACE.

SEE D-31 SHEETS IN SIGNING PLANS FOR DETAIL ON SIGN #55 & #57.

SIGN #57 SHOULD BE PLACE DIAGONALLY OVER SIGN #55 AFTER THE PROJECT IS COMPLETE.

ADVANCED WARNING RAIL SYSTEM
USED ONLY ON ROUTE 412 AT
BEGIN & END OF PROJECT

DRWING NOT TO SCALE

BEGINNING/ENDING JOB
TRAFFIC CONTROL
SHEET 1 OF 5

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/12/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	29

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

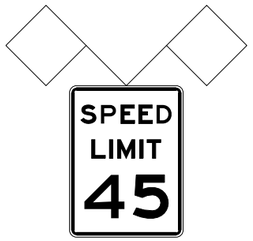
DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

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

REV.



R2-1

(4)



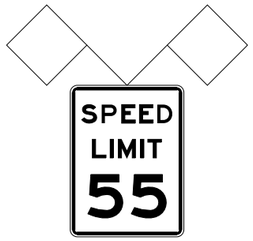
W020-4

(7)



W020-7a

(8)



R2-1

(25)



W021-5b

(21)



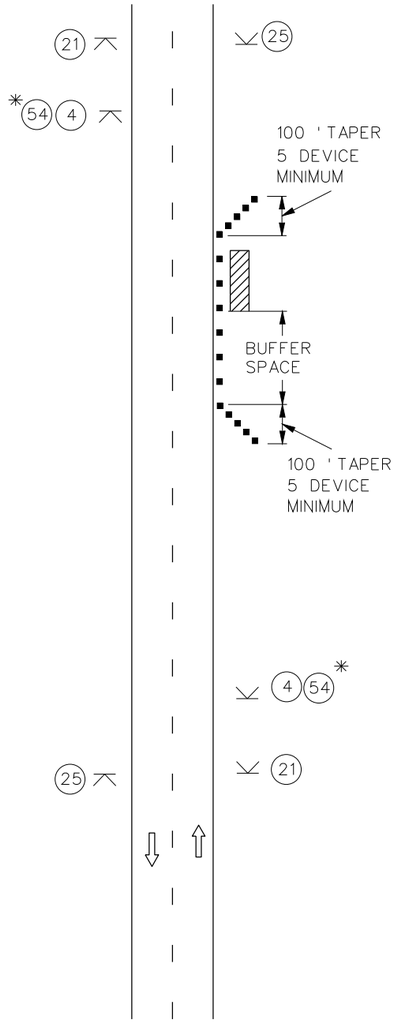
W05-5

(34)

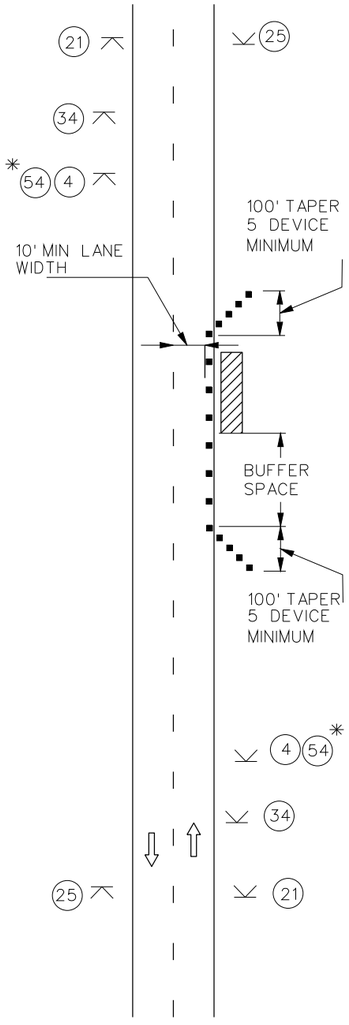


G020-5aP

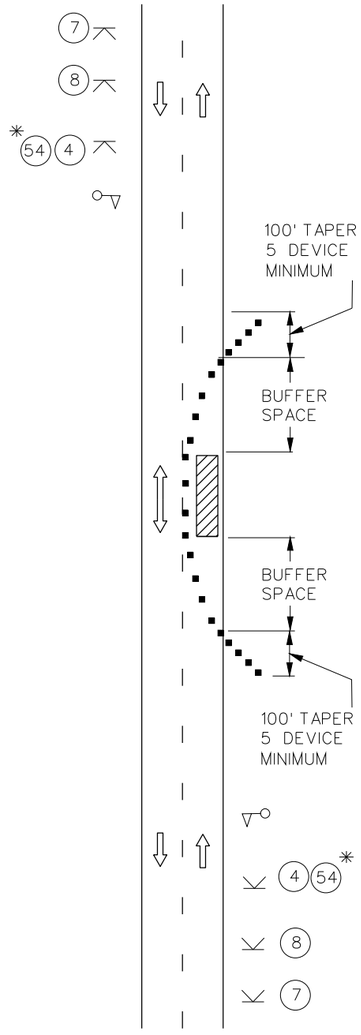
(54)



NO ENCROACHMENT
WITHIN TRAVELED WAY



MINOR ENCROACHMENT



LANE CLOSURE

NOTES

ALL SIGNS SHOULD BE PLACED APPROXIMATELY 350' APART OR AS DIRECTED BY THE ENGINEER

ALL STATIONS, SPACING, AND DISTANCES OF TRAFFIC CONTROL DEVICES ARE APPROXIMATE AND MAY BE REVISED AS DIRECTED BY THE ENGINEER TO FIT FIELD CONDITIONS

ANY EXISTING SIGNS THAT CONFLICT WITH THIS TRAFFIC CONTROL PLAN SHALL BE COVERED OR REMOVED

ALL SIGNS SHOWN ON THE TRAFFIC CONTROL PLAN SHALL REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETE OR AS DIRECTED BY THE ENGINEER

DAYLIGHT FLAGGING OPERATIONS ONLY

TRAFFIC CONTROL LEGEND

- SIGN (PORTABLE)
- FLAGGER
- CHANNELIZER
- CHANGEABLE MESSAGE BOARD

*USE WHERE POSTED SPEED IS GREATER THAN 45 MPH

DRAWING NOT TO SCALE

TRAFFIC CONTROL
SHEET 2 OF 5

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 9/12/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	30

COUNTY: DUNKLIN

JOB NO.: J9P3077

CONTRACT ID.:

PROJECT NO.:

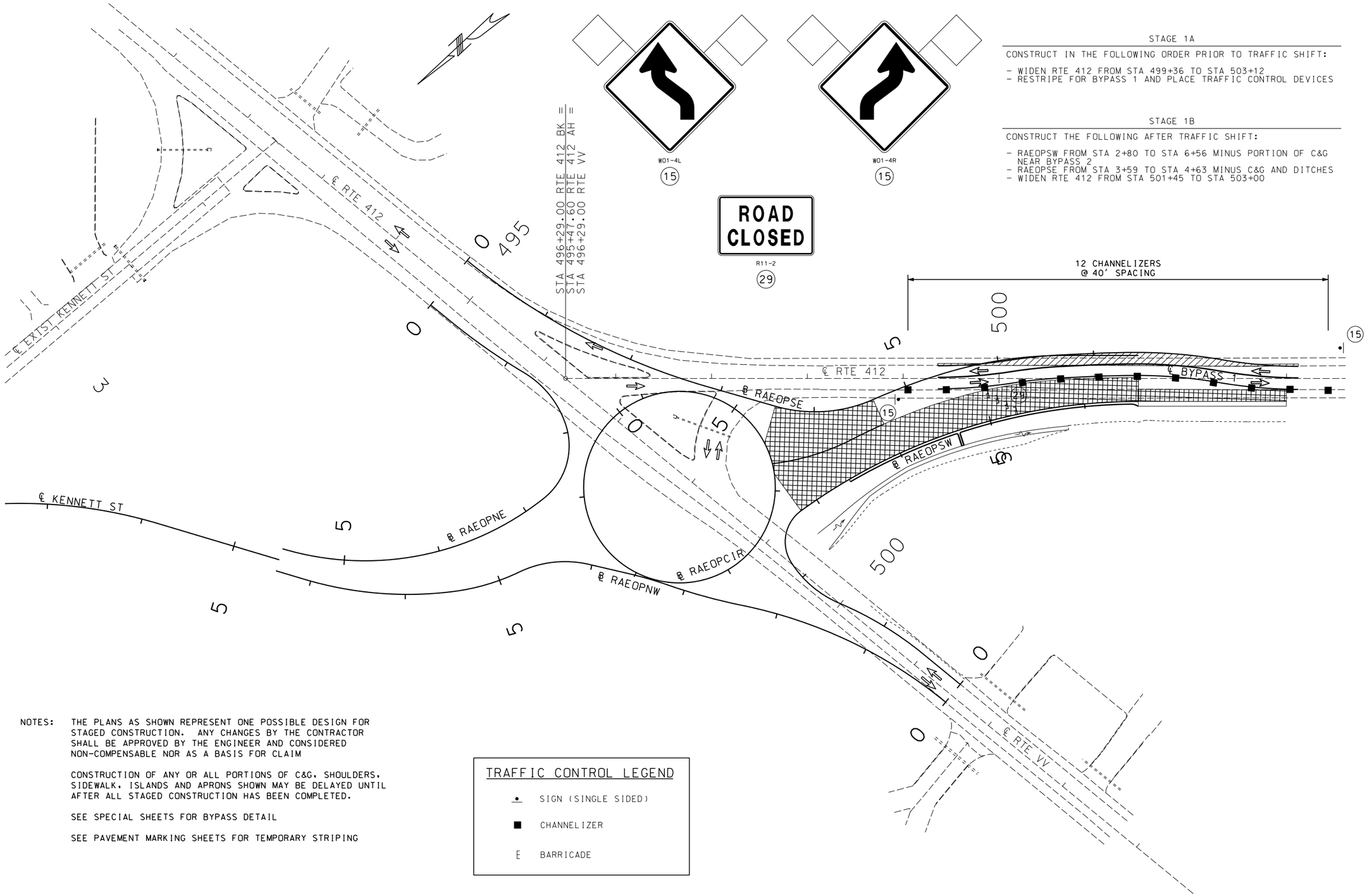
BRIDGE NO.:

DATE	DESCRIPTION	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)



STAGE 1A

CONSTRUCT IN THE FOLLOWING ORDER PRIOR TO TRAFFIC SHIFT:

- WIDEN RTE 412 FROM STA 499+36 TO STA 503+12
- RESTRIPE FOR BYPASS 1 AND PLACE TRAFFIC CONTROL DEVICES

STAGE 1B

CONSTRUCT THE FOLLOWING AFTER TRAFFIC SHIFT:

- RAEOPSW FROM STA 2+80 TO STA 6+56 MINUS PORTION OF C&G NEAR BYPASS 2
- RAEOPSE FROM STA 3+59 TO STA 4+63 MINUS C&G AND DITCHES
- WIDEN RTE 412 FROM STA 501+45 TO STA 503+00

NOTES: THE PLANS AS SHOWN REPRESENT ONE POSSIBLE DESIGN FOR STAGED CONSTRUCTION. ANY CHANGES BY THE CONTRACTOR SHALL BE APPROVED BY THE ENGINEER AND CONSIDERED NON-COMPENSABLE NOR AS A BASIS FOR CLAIM

CONSTRUCTION OF ANY OR ALL PORTIONS OF C&G, SHOULDERS, SIDEWALK, ISLANDS AND APRONS SHOWN MAY BE DELAYED UNTIL AFTER ALL STAGED CONSTRUCTION HAS BEEN COMPLETED.

SEE SPECIAL SHEETS FOR BYPASS DETAIL

SEE PAVEMENT MARKING SHEETS FOR TEMPORARY STRIPING

TRAFFIC CONTROL LEGEND

- SIGN (SINGLE SIDED)
- CHANNELIZER
- BARRICADE

SCALE

0 50 100 150

TRAFFIC CONTROL
SHEET 3 OF 5

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 9/12/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	31

COUNTY DUNKLIN

JOB NO. J9P3077

CONTRACT ID.

PROJECT NO.

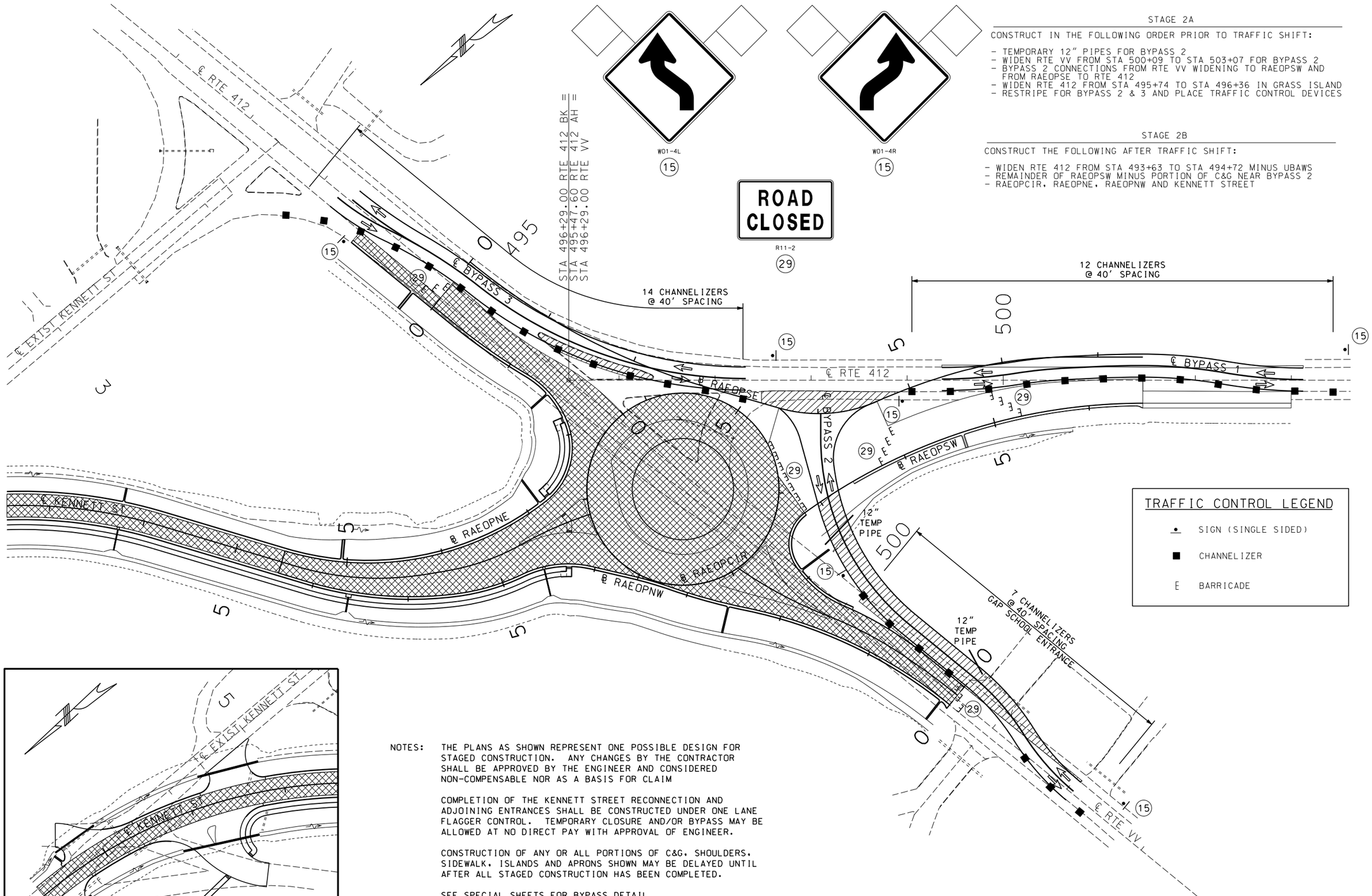
BRIDGE NO.

DATE	DESCRIPTION	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)


℄ RTE 412
℄ EXIST. KENNETT ST.
STA 496+29.00 RTE 412 BK =
STA 495+47.60 RTE 412 AH =
STA 496+29.00 RTE VV
WO1-4L
WO1-4R
15
ROAD CLOSED
R11-2
29
14 CHANNELIZERS @ 40' SPACING
12 CHANNELIZERS @ 40' SPACING
℄ BYPASS 3
℄ BYPASS 1
℄ BYPASS 2
℄ RAEOPSE
℄ RAEOPSW
℄ RAEOPNE
℄ RAEOPNW
℄ RAEOPCIR
℄ KENNETT ST
12" TEMP PIPE
7 CHANNELIZERS @ 40' SPACING
GAP SCHOOL ENTRANCE
℄ RTE VV
495
500
505
510
515
520
525
530
535
540
545
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575
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585
590
595
600
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610
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625
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660
665
670
675
680
685
690

STA 496+29.00 RTE 412 BK =
STA 495+47.60 RTE 412 AH =
STA 496+29.00 RTE VV

STAGE 3A

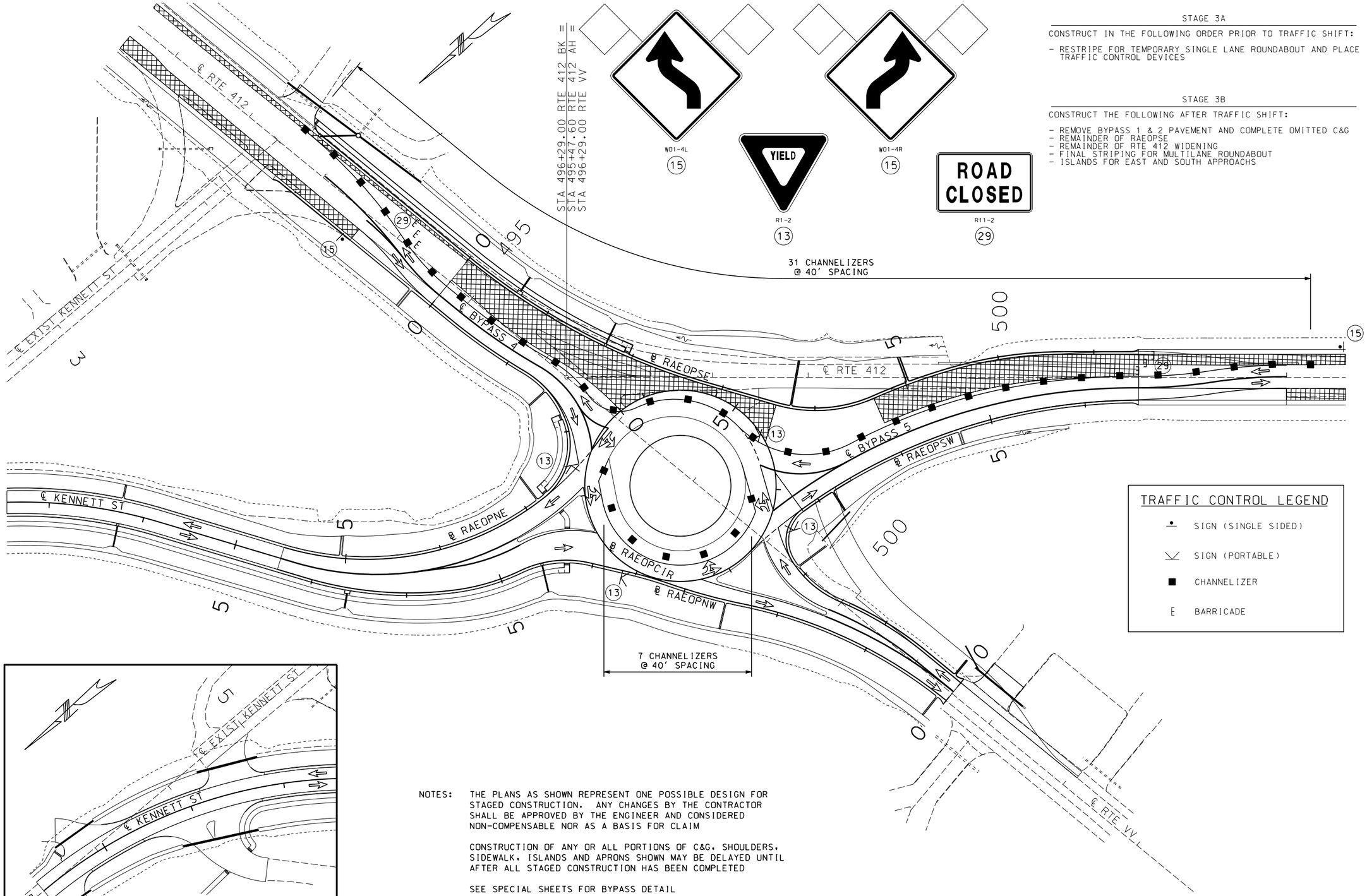
CONSTRUCT IN THE FOLLOWING ORDER PRIOR TO TRAFFIC SHIFT:

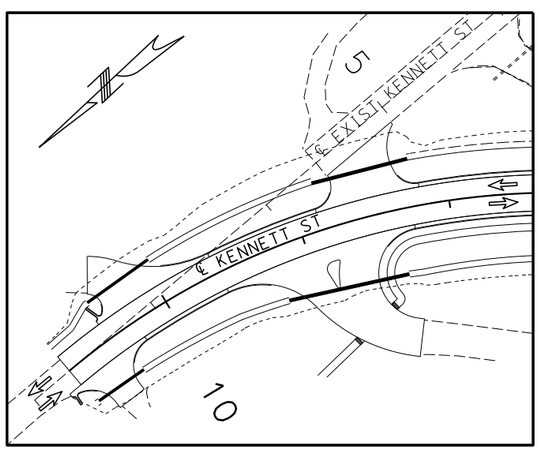
- RESTRIPE FOR TEMPORARY SINGLE LANE ROUNDABOUT AND PLACE TRAFFIC CONTROL DEVICES

STAGE 3B

CONSTRUCT THE FOLLOWING AFTER TRAFFIC SHIFT:

- REMOVE BYPASS 1 & 2 PAVEMENT AND COMPLETE OMITTED C&G
- REMAINDER OF RAEOPSE
- REMAINDER OF RTE 412 WIDENING
- FINAL STRIPING FOR MULTILANE ROUNDABOUT
- ISLANDS FOR EAST AND SOUTH APPROACHS





TRAFFIC CONTROL LEGEND

- SIGN (SINGLE SIDED)
- SIGN (PORTABLE)
- CHANNELIZER
- BARRICADE

NOTES: THE PLANS AS SHOWN REPRESENT ONE POSSIBLE DESIGN FOR STAGED CONSTRUCTION. ANY CHANGES BY THE CONTRACTOR SHALL BE APPROVED BY THE ENGINEER AND CONSIDERED NON-COMPENSABLE NOR AS A BASIS FOR CLAIM

CONSTRUCTION OF ANY OR ALL PORTIONS OF C&G, SHOULDERS, SIDEWALK, ISLANDS AND APRONS SHOWN MAY BE DELAYED UNTIL AFTER ALL STAGED CONSTRUCTION HAS BEEN COMPLETED

SEE SPECIAL SHEETS FOR BYPASS DETAIL

SEE PAVEMENT MARKING SHEETS FOR TEMPORARY STRIPING

SCALE
0 50 100 150

TRAFFIC CONTROL
SHEET 5 OF 5

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 9/12/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	33

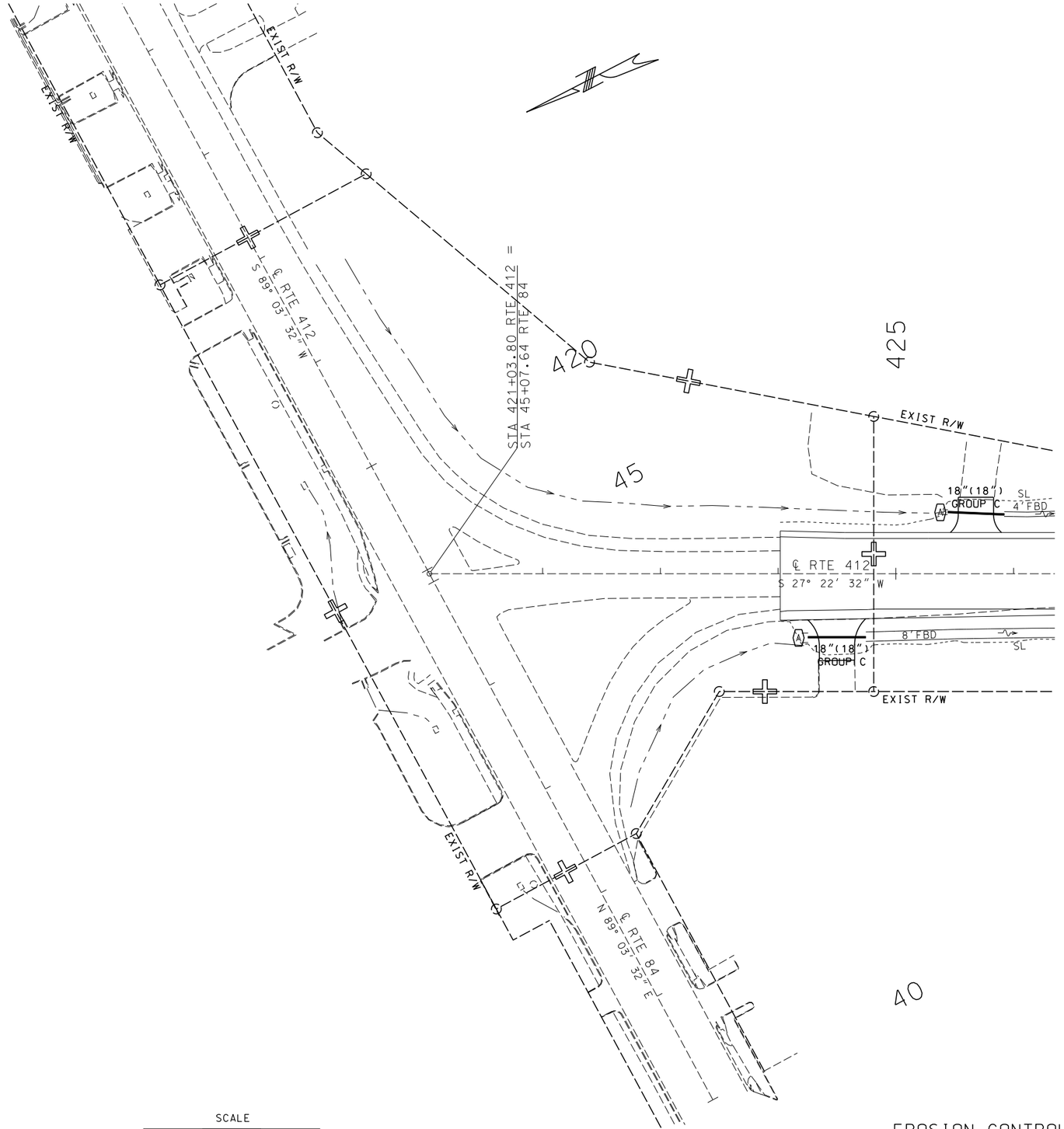
COUNTY: DUNKLIN
JOB NO.: J9P3077
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.:

DATE	DESCRIPTION

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

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

REV.



TEMPORARY EROSION CONTROL LEGEND	
(A)	ALTERNATE DITCH CHECK (2 EA)
(R)	ROCK DITCH CHECK (0 EA)
	TYPE 4 EC BLANKET (0 SY)
	SILT FENCE (0 LF)
(NOTED)	CURB INLET CHECK (0 EA)

SCALE

0 50 100 150

EROSION CONTROL
SHEET 1 OF 14

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
10/10/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	34

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

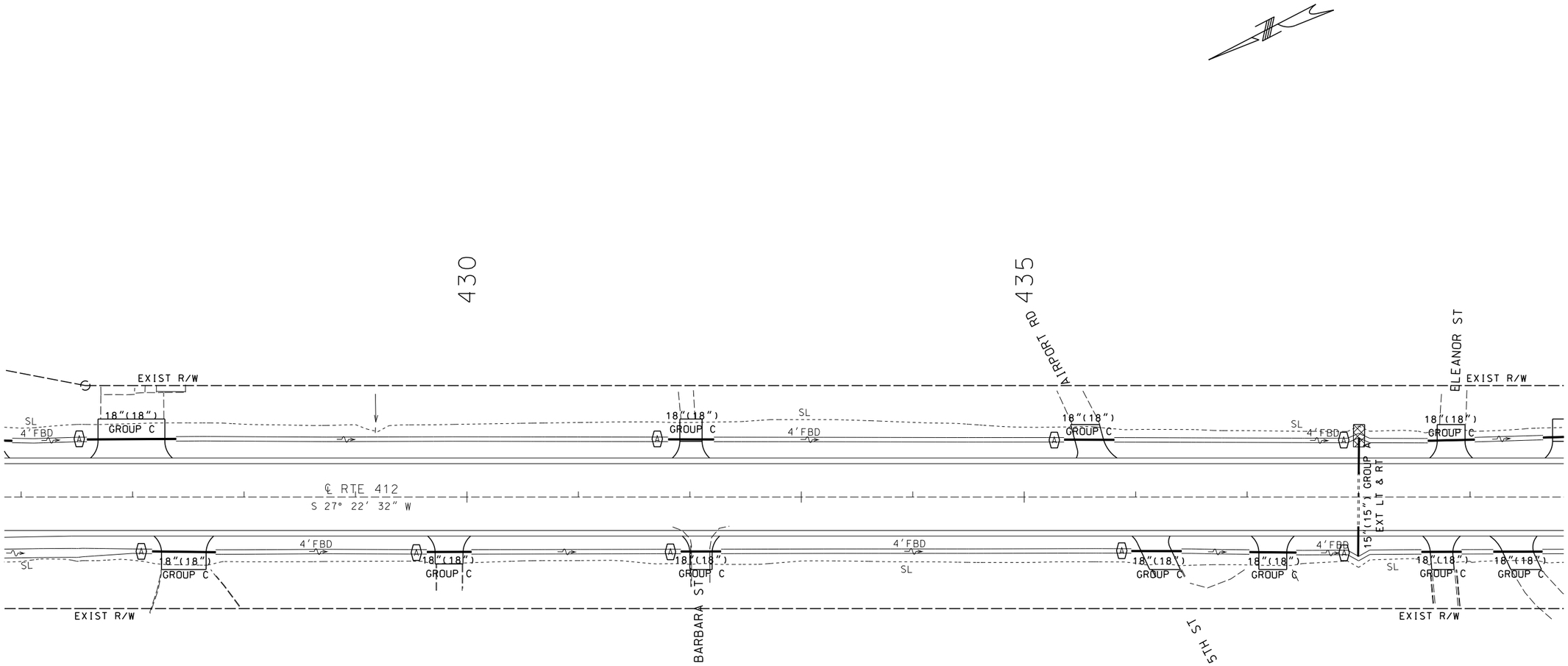
DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

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

REV.



TEMPORARY EROSION CONTROL LEGEND	
(A)	ALTERNATE DITCH CHECK (9 EA)
(R)	ROCK DITCH CHECK (0 EA)
	TYPE 4 EC BLANKET (23 SY)
	SILT FENCE (0 LF)
(NOTED)	CURB INLET CHECK (0 EA)

SCALE
0 50 100 150

EROSION CONTROL
SHEET 2 OF 14

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
10/10/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	35

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

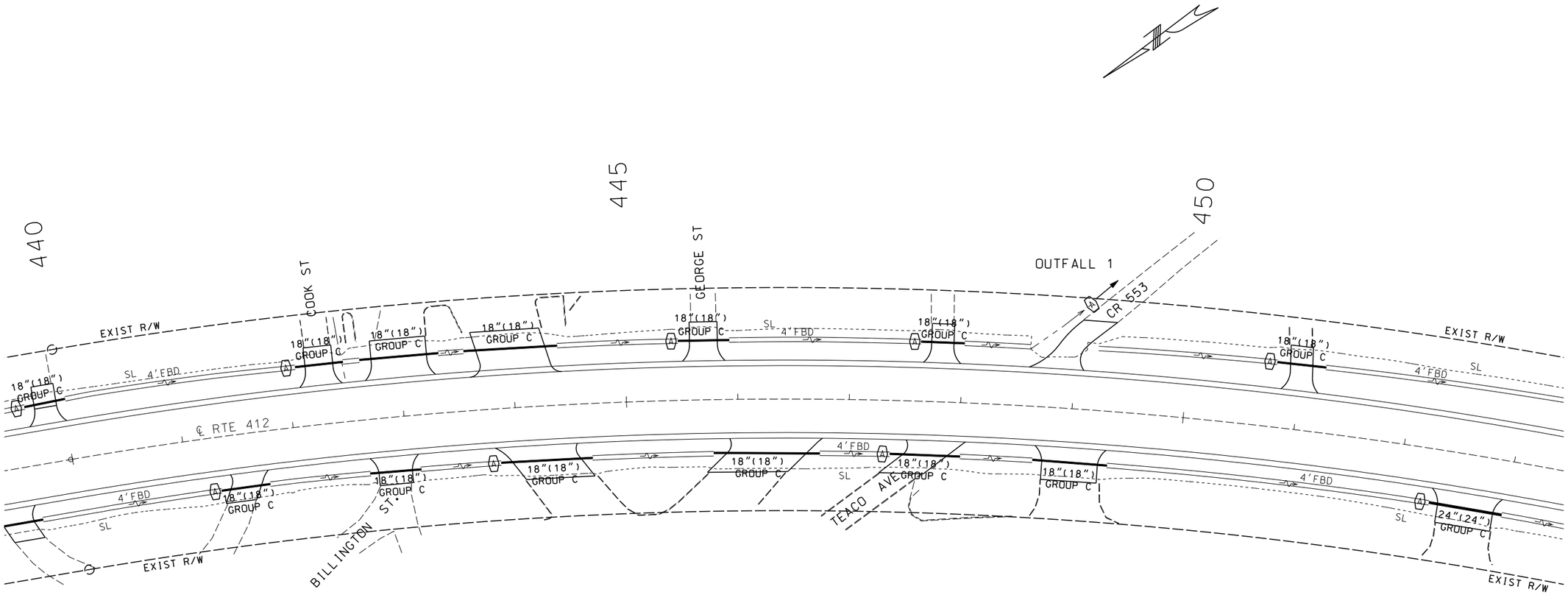
BRIDGE NO.

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DESCRIPTION	DATE

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

REV.



TEMPORARY EROSION CONTROL LEGEND	
(A)	ALTERNATE DITCH CHECK (10 EA)
(R)	ROCK DITCH CHECK (0 EA)
	TYPE 4 EC BLANKET (0 SY)
	SILT FENCE (0 LF)
(NOTED)	CURB INLET CHECK (0 EA)

SCALE
0 50 100 150

EROSION CONTROL
SHEET 3 OF 14

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
10/10/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	36

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

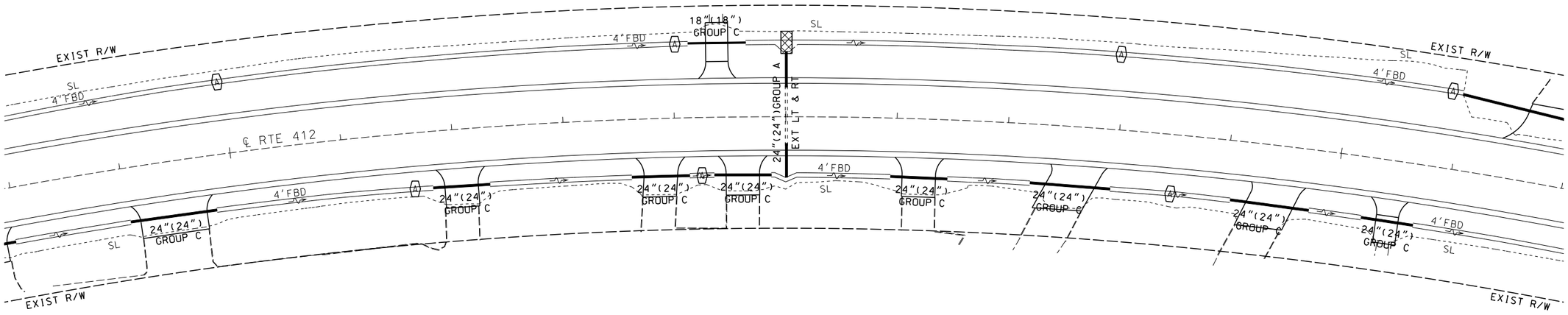
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DESCRIPTION	DATE	REV.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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



TEMPORARY EROSION CONTROL LEGEND	
(A)	ALTERNATE DITCH CHECK (7 EA)
(R)	ROCK DITCH CHECK (0 EA)
	TYPE 4 EC BLANKET (23 SY)
	SILT FENCE (0 LF)
(NOTED)	CURB INLET CHECK (0 EA)

SCALE
0 50 100 150

EROSION CONTROL
SHEET 4 OF 14

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
10/10/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	37

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

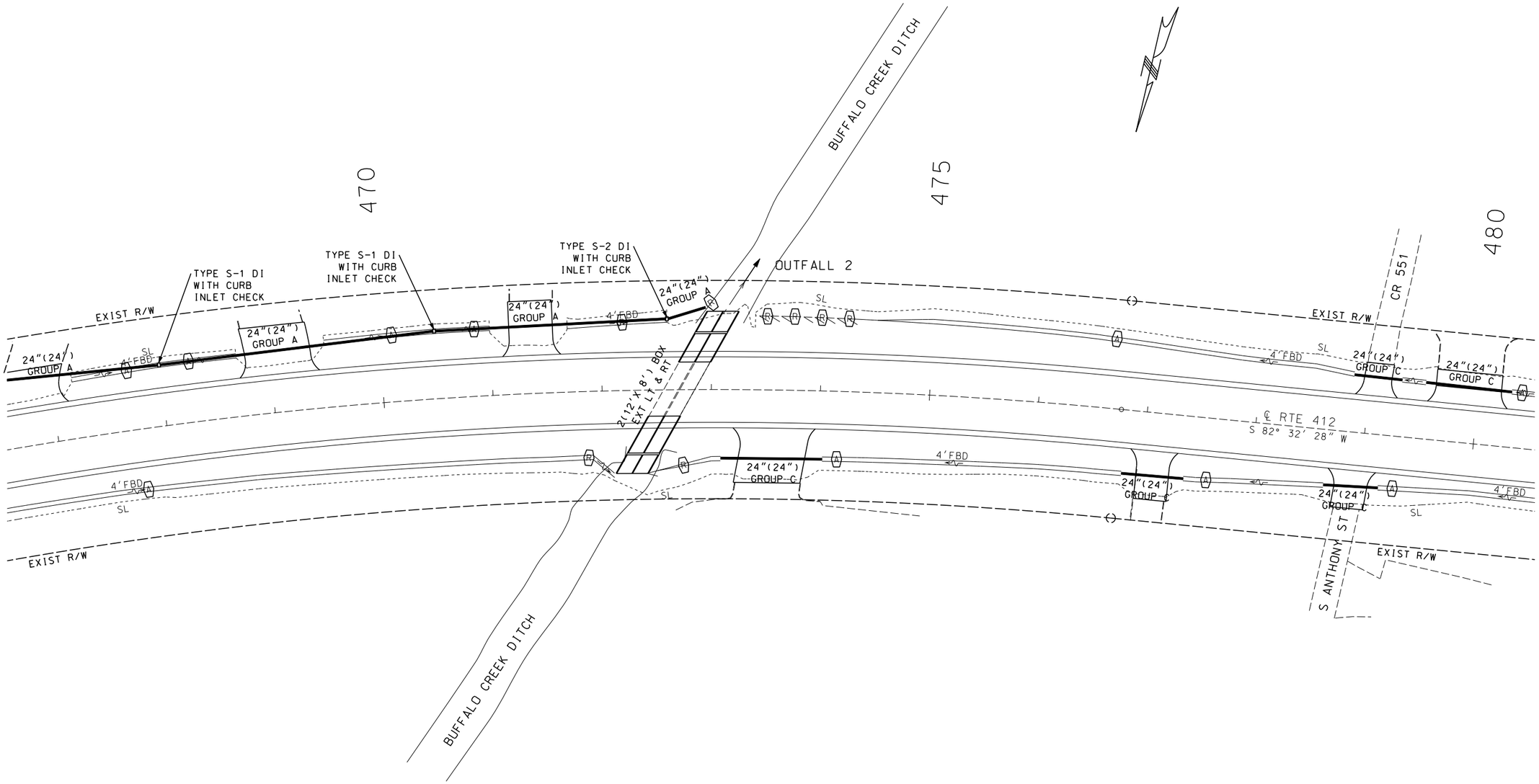
DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

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

REV.



TEMPORARY EROSION CONTROL LEGEND	
(A)	ALTERNATE DITCH CHECK (10 EA)
(R)	ROCK DITCH CHECK (8 EA)
	TYPE 4 EC BLANKET (0 SY)
	SILT FENCE (0 LF)
(NOTED)	CURB INLET CHECK (3 EA)

SCALE
0 50 100 150

EROSION CONTROL
SHEET 5 OF 14

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
10/10/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	38

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

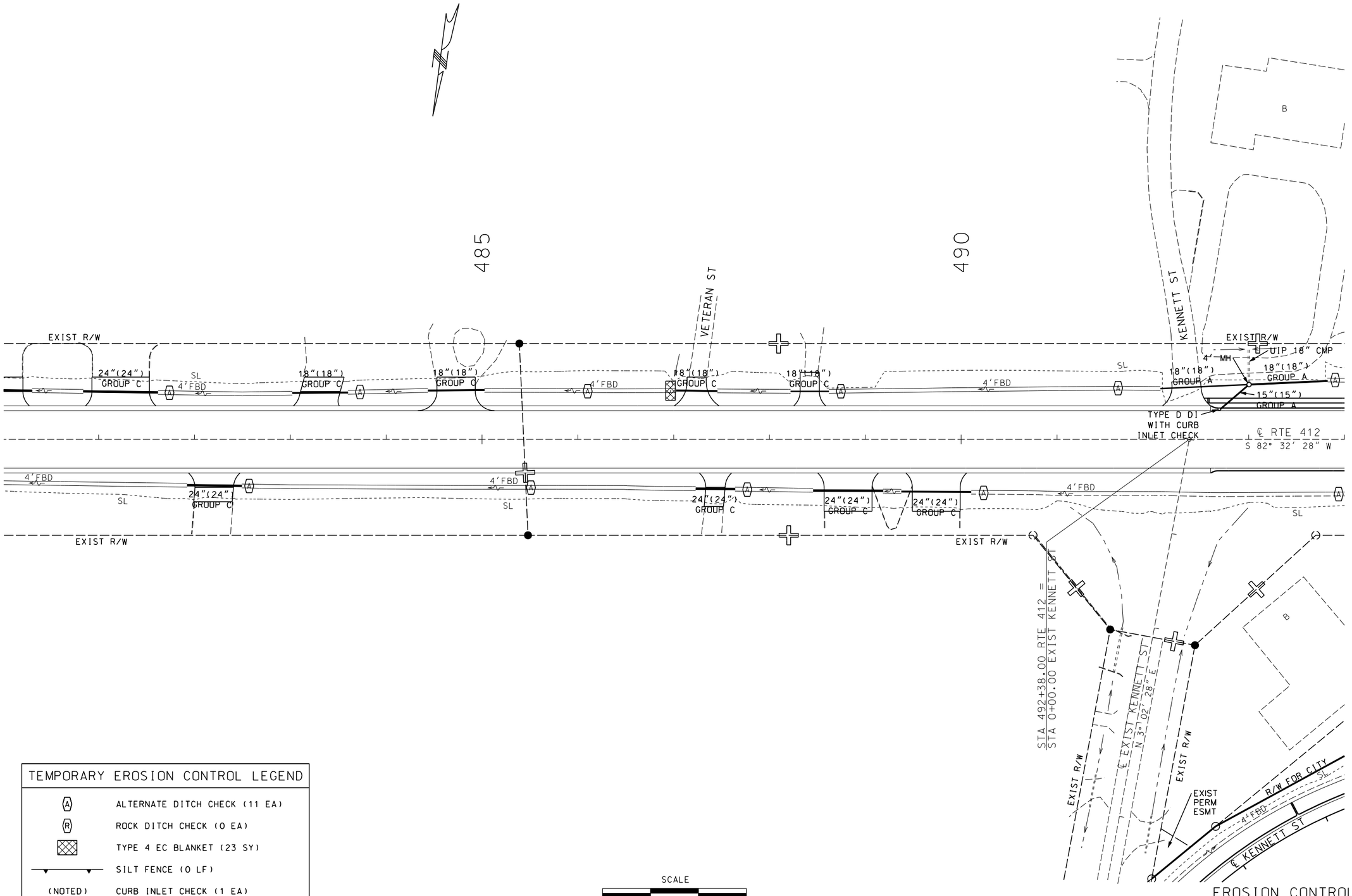
DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

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

REV.



TEMPORARY EROSION CONTROL LEGEND

(A)	ALTERNATE DITCH CHECK (11 EA)
(R)	ROCK DITCH CHECK (0 EA)
	TYPE 4 EC BLANKET (23 SY)
	SILT FENCE (0 LF)
(NOTED)	CURB INLET CHECK (1 EA)

SCALE

0 50 100 150

EROSION CONTROL
SHEET 6 OF 14

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
10/10/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	39

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

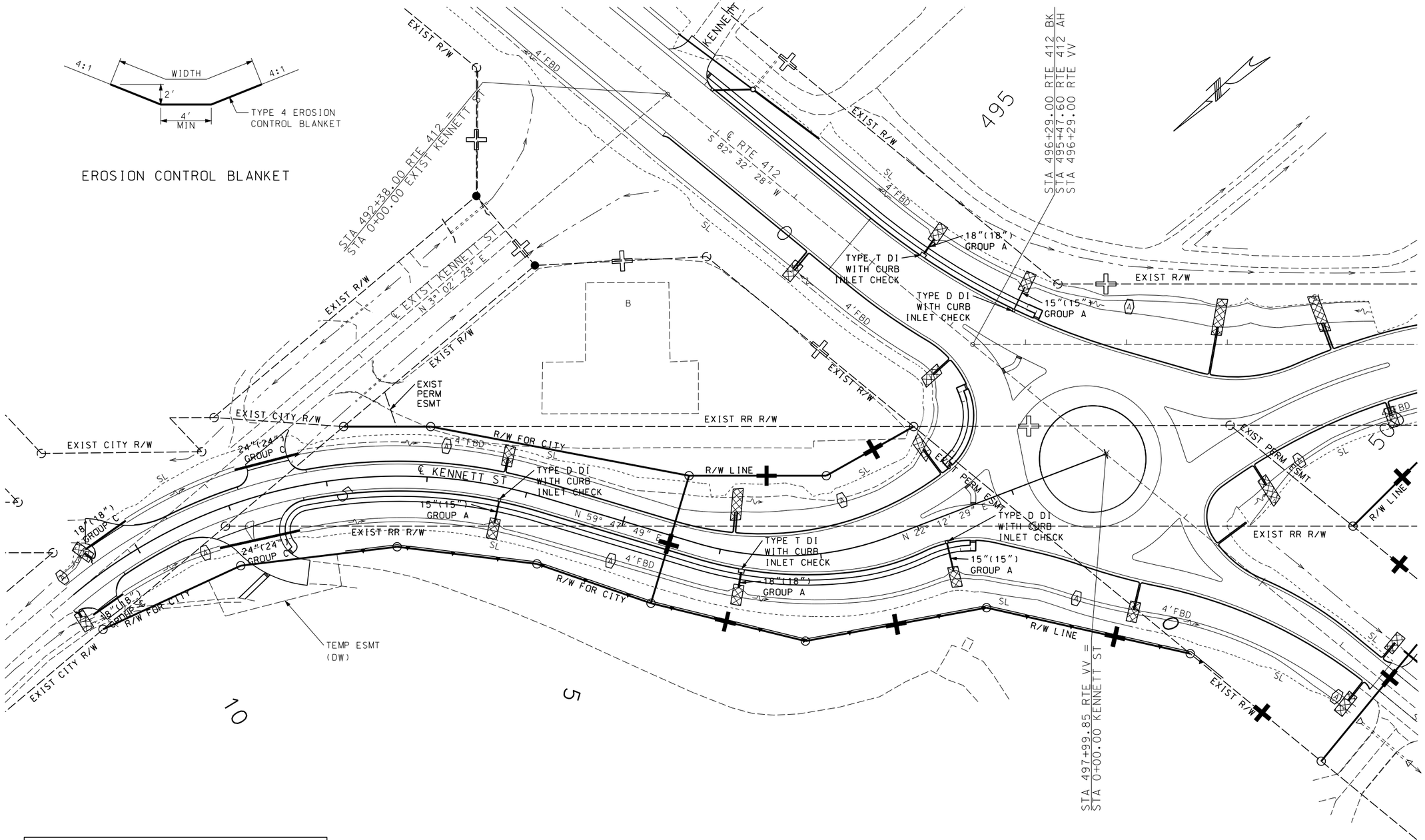
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

REV.

EROSION CONTROL BLANKET



TEMPORARY EROSION CONTROL LEGEND	
(A)	ALTERNATE DITCH CHECK (9 EA)
(R)	ROCK DITCH CHECK (0 EA)
	TYPE 4 EC BLANKET (497 SY)
	SILT FENCE (900 LF)
(NOTED)	CURB INLET CHECK (5 EA)

SCALE
0 50 100 150

EROSION CONTROL
SHEET 7 OF 14

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

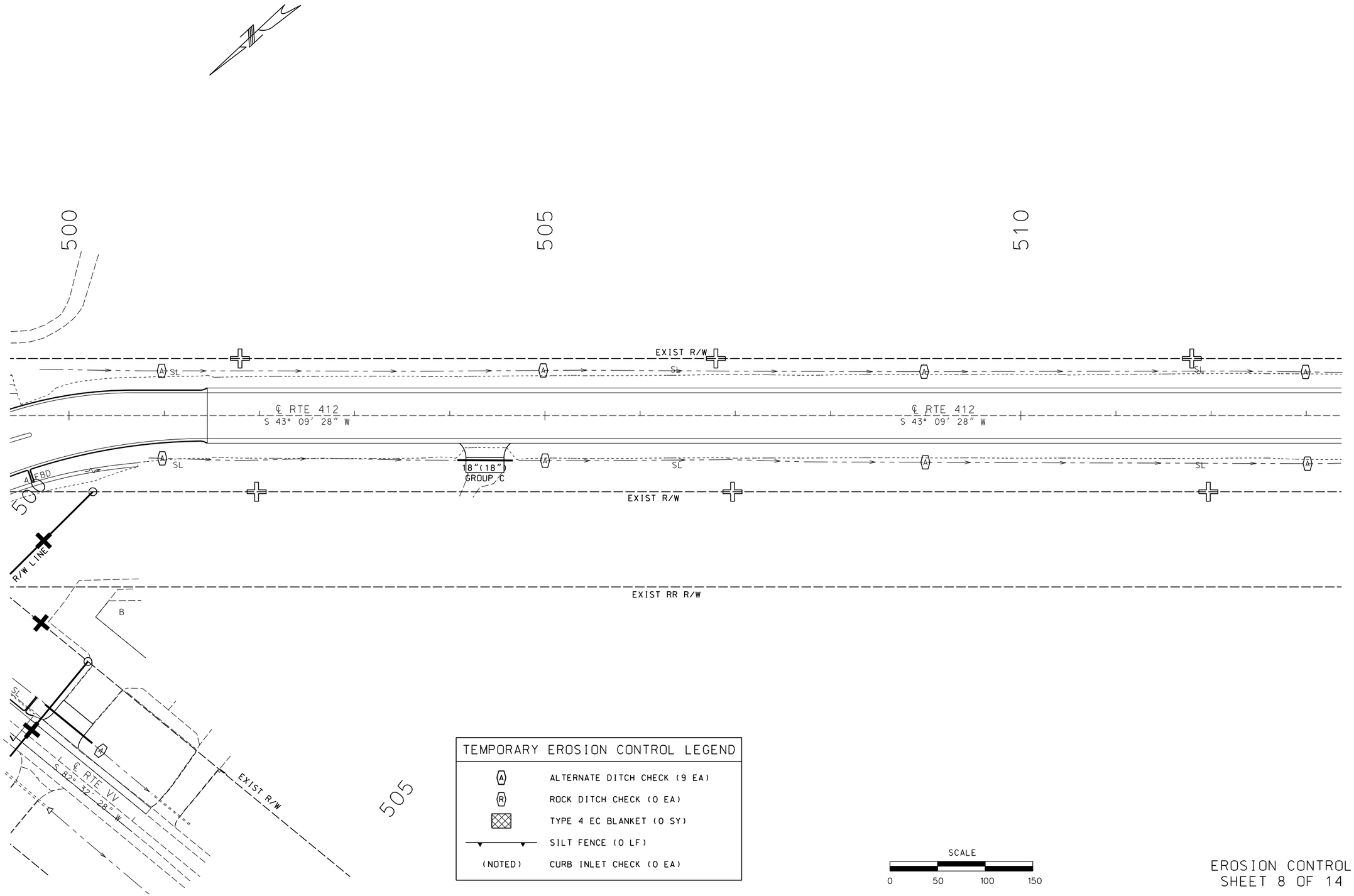
DATE PREPARED 10/10/2014
ROUTE 412 | STATE MO
DISTRICT SE | SHEET NO. 40
COUNTY DUNKLIN
JOB NO. J9P3077
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DESCRIPTION | DATE

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

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

REV.



TEMPORARY EROSION CONTROL LEGEND	
(A)	ALTERNATE DITCH CHECK (9 EA)
(R)	ROCK DITCH CHECK (0 EA)
	TYPE 4 EC BLANKET (0 SY)
	SILT FENCE (0 LF)
(NOTED)	CURB INLET CHECK (0 EA)

SCALE
0 50 100 150

EROSION CONTROL
SHEET 8 OF 14

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
10/10/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	41

COUNTY
DUNKLIN

JOB NO.
J9P3077

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)

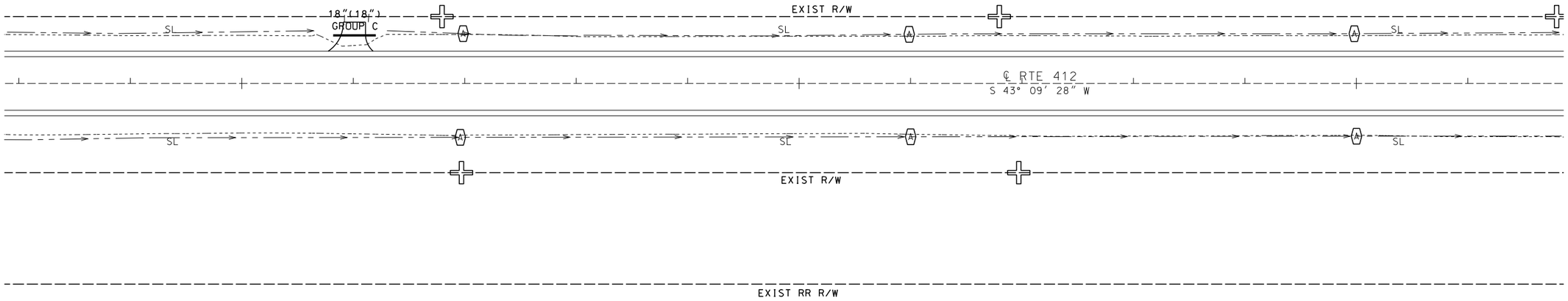
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

REV.

515

520

525



TEMPORARY EROSION CONTROL LEGEND	
(A)	ALTERNATE DITCH CHECK (6 EA)
(R)	ROCK DITCH CHECK (0 EA)
	TYPE 4 EC BLANKET (0 SY)
	SILT FENCE (0 LF)
(NOTED)	CURB INLET CHECK (0 EA)

SCALE
0 50 100 150

EROSION CONTROL
SHEET 9 OF 14

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
10/10/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	42

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

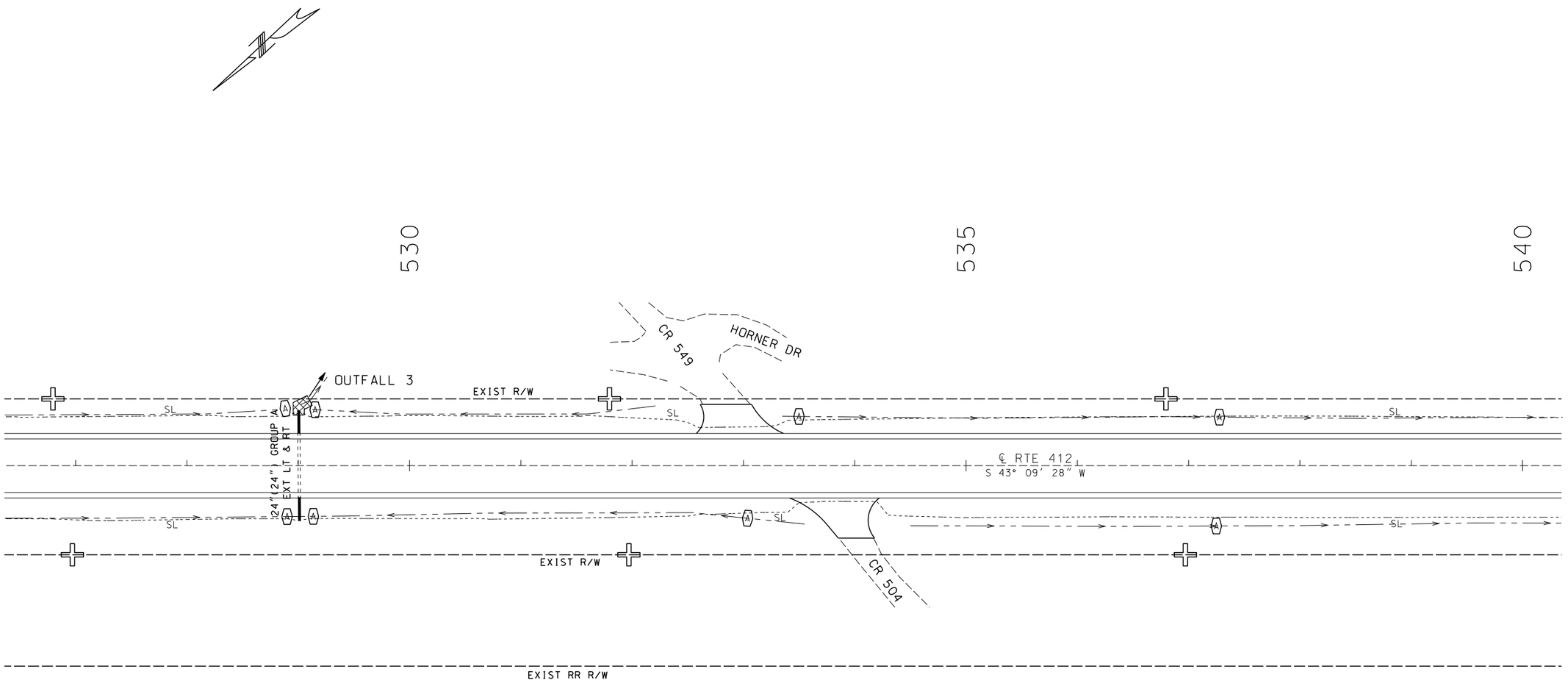
DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

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

REV.



TEMPORARY EROSION CONTROL LEGEND	
(A)	ALTERNATE DITCH CHECK (8 EA)
(R)	ROCK DITCH CHECK (0 EA)
	TYPE 4 EC BLANKET (23 SY)
	SILT FENCE (0 LF)
(NOTED)	CURB INLET CHECK (0 EA)

SCALE
0 50 100 150

EROSION CONTROL
SHEET 10 OF 14

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

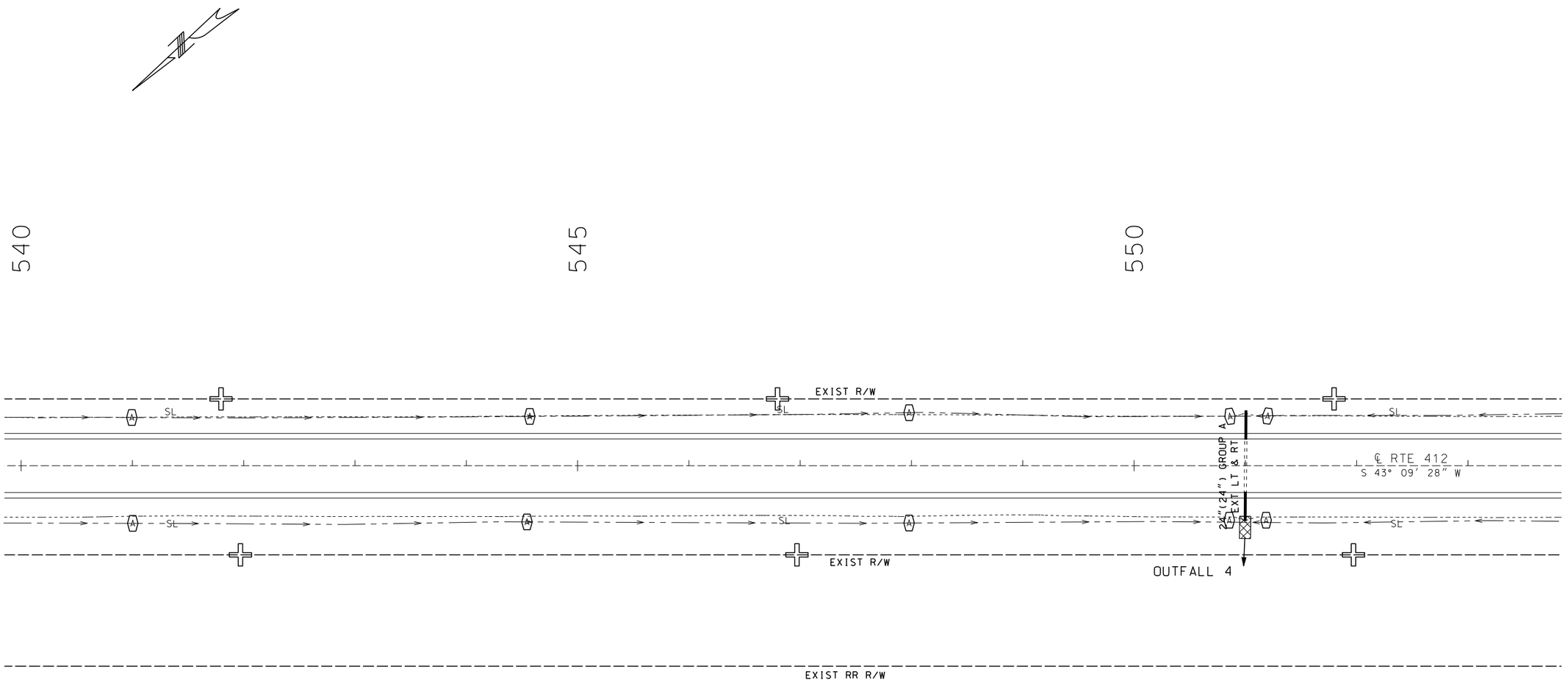
DATE PREPARED 10/10/2014
ROUTE 412 | STATE MO
DISTRICT SE | SHEET NO. 43
COUNTY DUNKLIN
JOB NO. J9P3077
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DESCRIPTION | DATE

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

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

REV.



TEMPORARY EROSION CONTROL LEGEND	
(A)	ALTERNATE DITCH CHECK (10 EA)
(R)	ROCK DITCH CHECK (0 EA)
	TYPE 4 EC BLANKET (23 SY)
	SILT FENCE (0 LF)
(NOTED)	CURB INLET CHECK (0 EA)

SCALE
0 50 100 150

EROSION CONTROL
SHEET 11 OF 14

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 10/10/2014
ROUTE 412 | STATE MO
DISTRICT SE | SHEET NO. 44
COUNTY DUNKLIN
JOB NO. J9P3077
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)

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

REV.

555

560

565

EXIST R/W

SL

℄ RTE 412
S 43° 09' 28" W

EXIST RR R/W

℄ RTE Q

TEMPORARY EROSION CONTROL LEGEND

(A)	ALTERNATE DITCH CHECK (8 EA)
(R)	ROCK DITCH CHECK (0 EA)
	TYPE 4 EC BLANKET (0 SY)
	SILT FENCE (0 LF)
(NOTED)	CURB INLET CHECK (0 EA)

SCALE
0 50 100 150

EROSION CONTROL
SHEET 12 OF 14

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
10/10/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	45

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

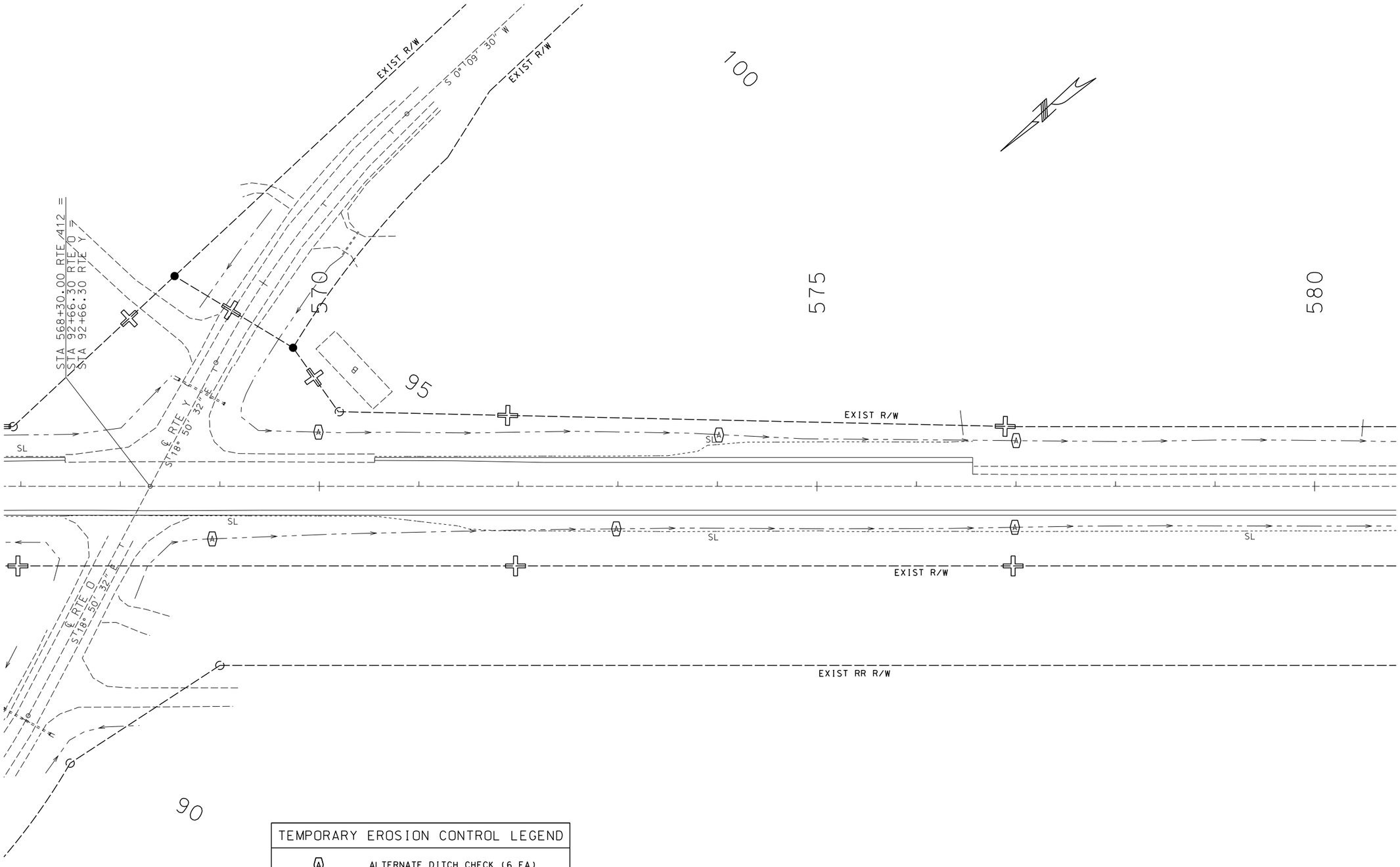
DESCRIPTION	DATE

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)

REV.



TEMPORARY EROSION CONTROL LEGEND

(A)	ALTERNATE DITCH CHECK (6 EA)
(R)	ROCK DITCH CHECK (0 EA)
	TYPE 4 EC BLANKET (0 SY)
	SILT FENCE (0 LF)
(NOTED)	CURB INLET CHECK (0 EA)

SCALE

0 50 100 150

EROSION CONTROL
SHEET 13 OF 14

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
10/10/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	46

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

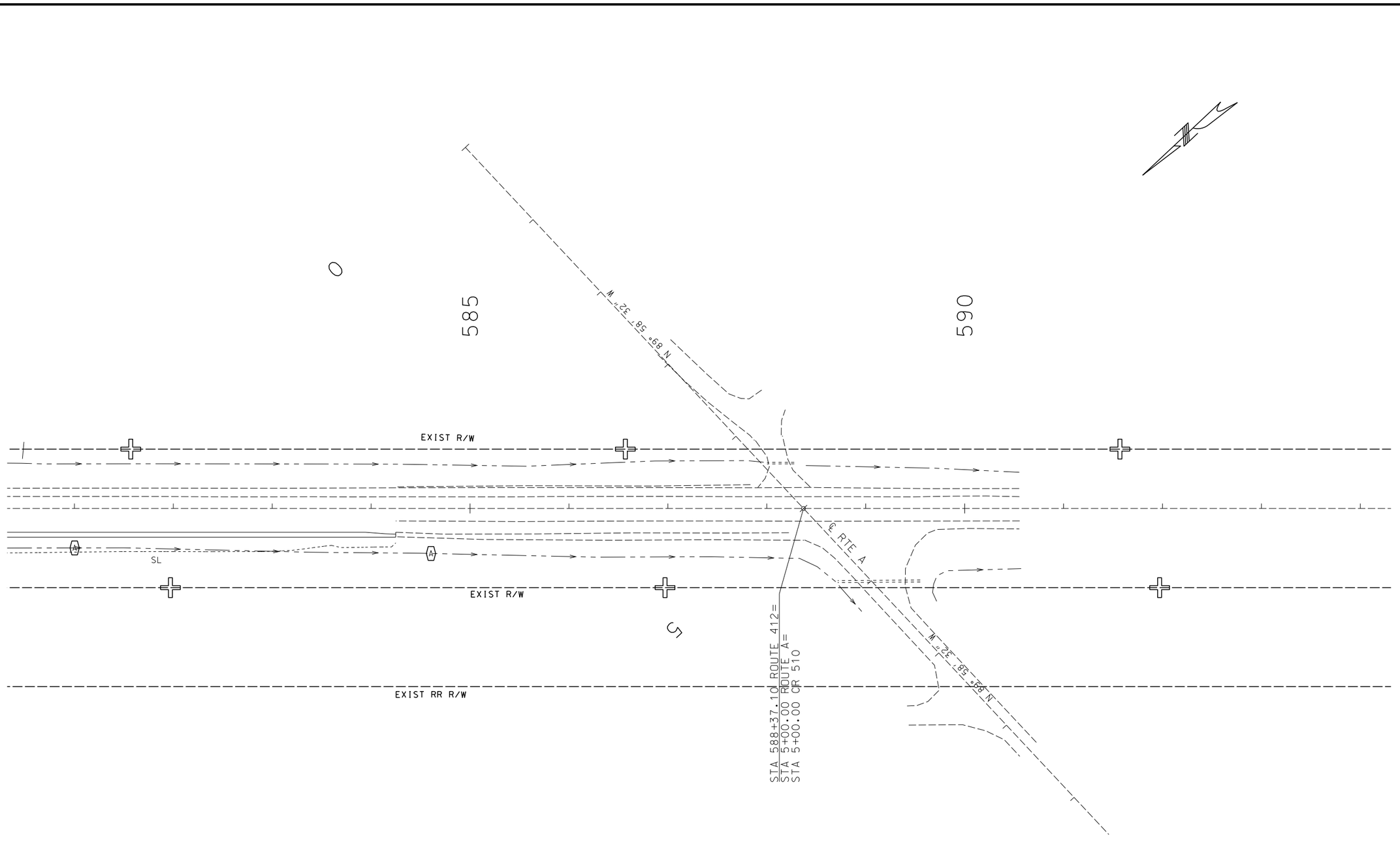
DESCRIPTION	DATE

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)

REV.



TEMPORARY EROSION CONTROL LEGEND	
(A)	ALTERNATE DITCH CHECK (2 EA)
(R)	ROCK DITCH CHECK (0 EA)
	TYPE 4 EC BLANKET (0 SY)
	SILT FENCE (0 LF)
(NOTED)	CURB INLET CHECK (0 EA)

SCALE

0 50 100 150

EROSION CONTROL
SHEET 14 OF 14

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
10/10/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	47

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

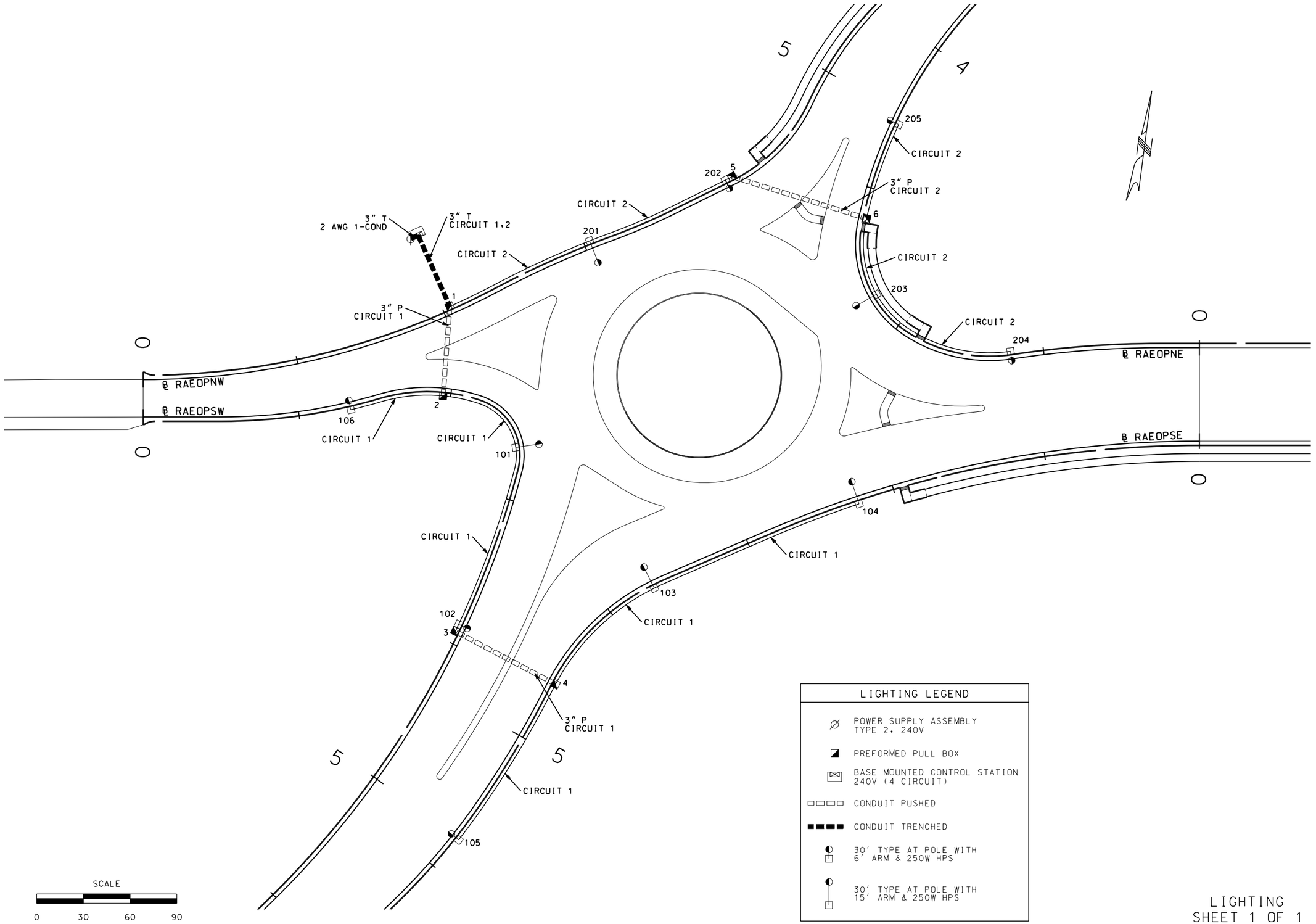
BRIDGE NO.

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)

REV.



SCALE

0 30 60 90

LIGHTING LEGEND

- POWER SUPPLY ASSEMBLY TYPE 2, 240V
- PREFORMED PULL BOX
- BASE MOUNTED CONTROL STATION 240V (4 CIRCUIT)
- CONDUIT PUSHED
- CONDUIT TRENCHED
- 30' TYPE AT POLE WITH 6' ARM & 250W HPS
- 30' TYPE AT POLE WITH 15' ARM & 250W HPS

LIGHTING
SHEET 1 OF 1

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

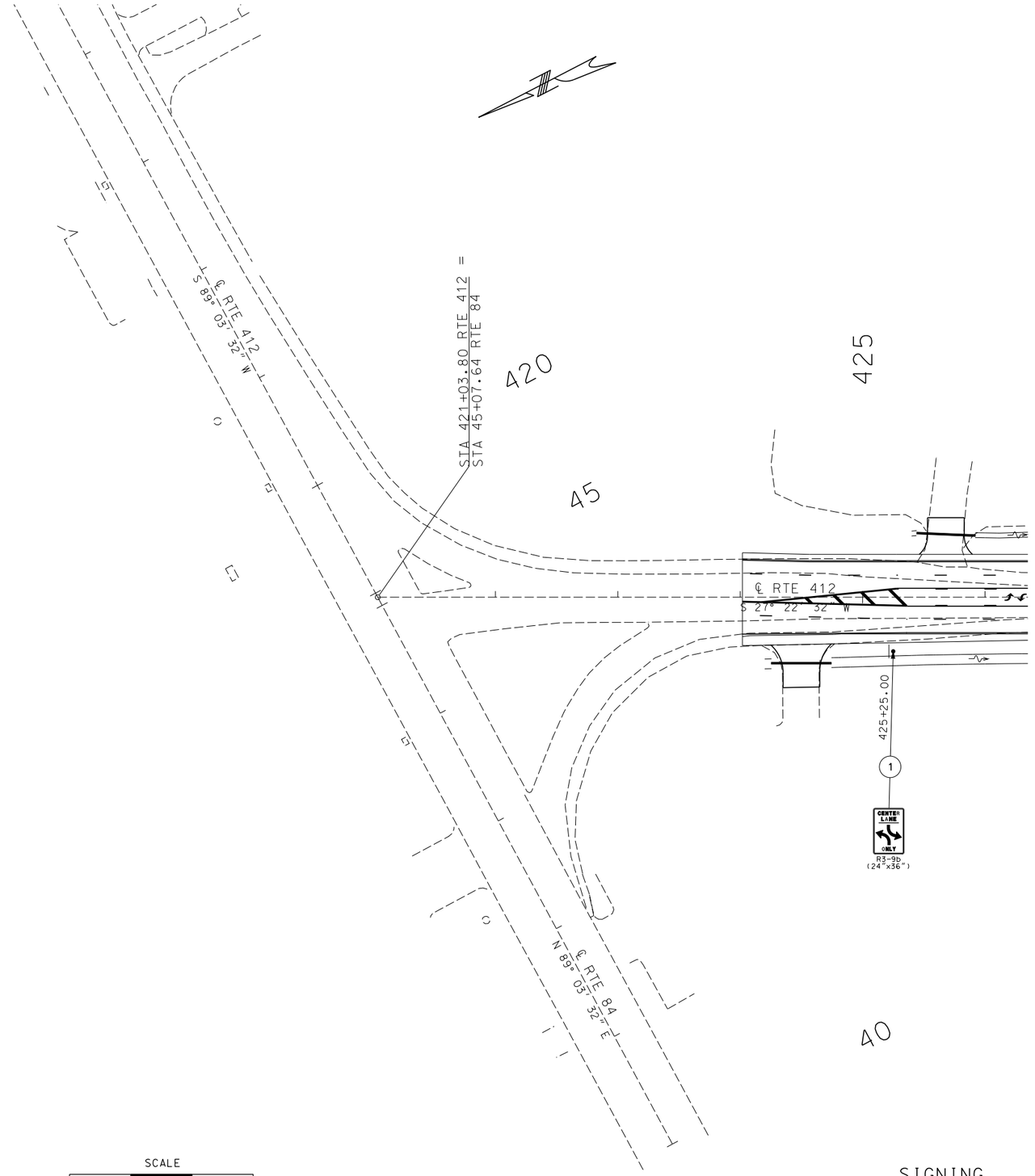
DATE PREPARED	9/12/2014
ROUTE	412
STATE	MO
DISTRICT	SE
SHEET NO.	48
COUNTY	DUNKLIN
JOB NO.	J9P3077
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

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)



SCALE

0 50 100 150

SIGNING
SHEET 1 OF 23

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
10/10/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	49

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

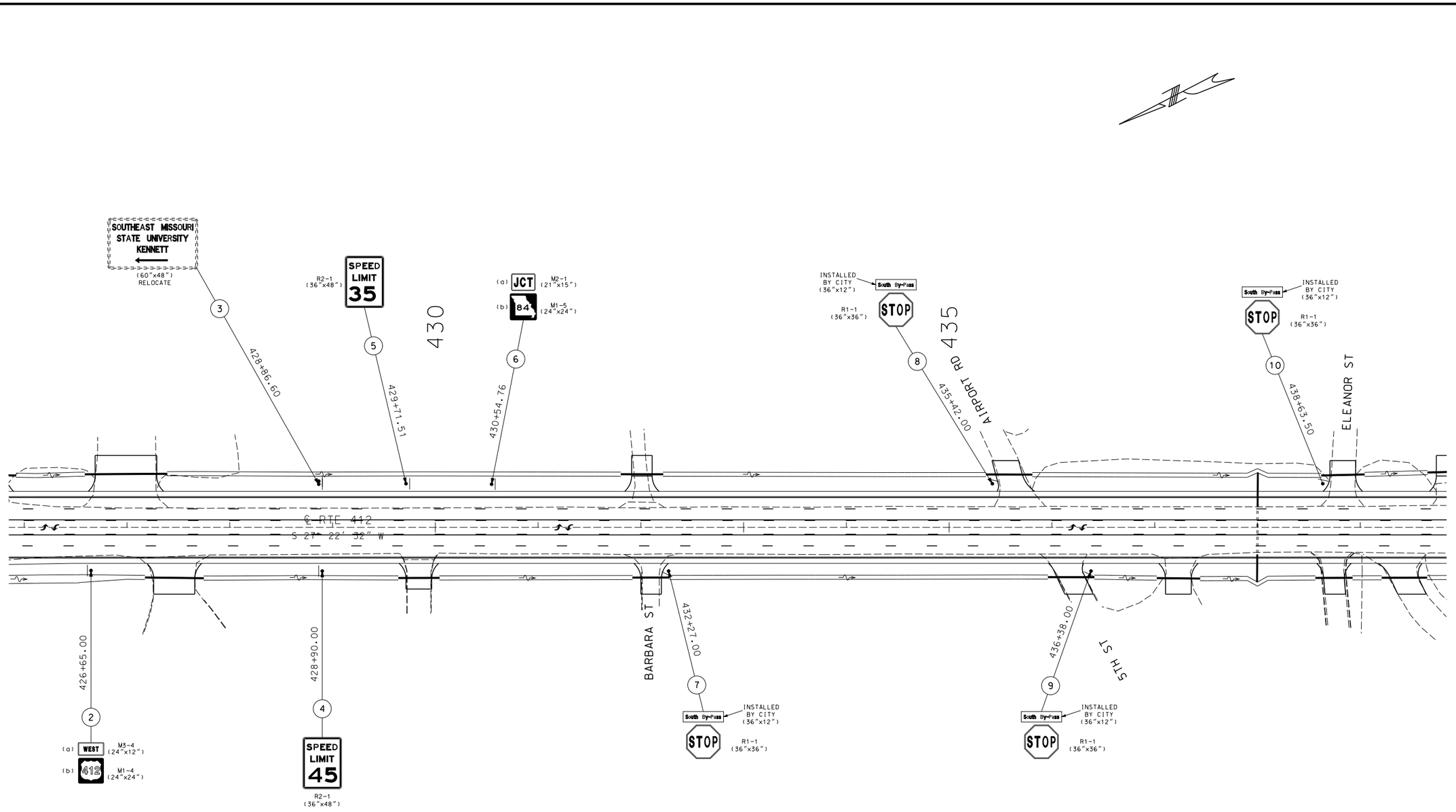
BRIDGE NO.

DESCRIPTION	DATE

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

REV.

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



SCALE

0 50 100 150

SIGNING
SHEET 2 OF 23

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/15/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	50

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

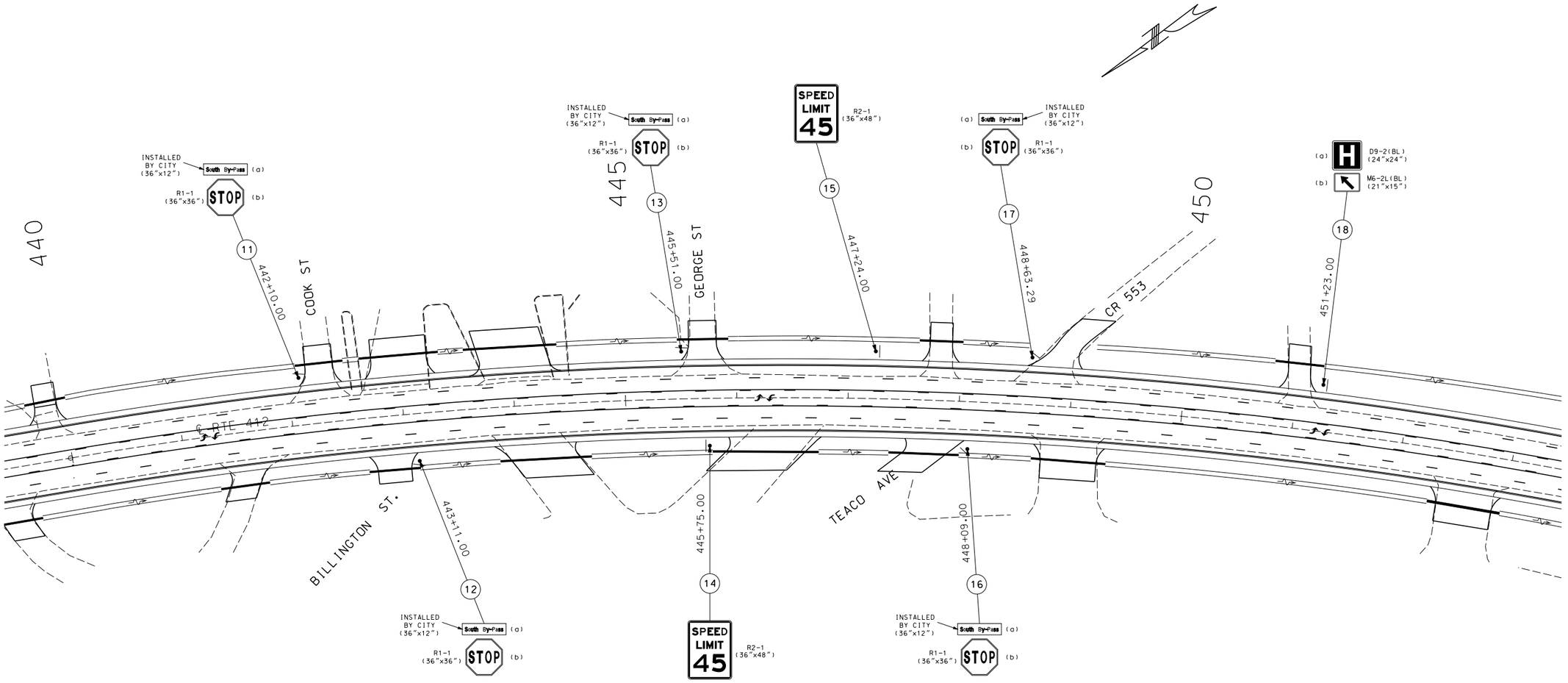
BRIDGE NO.

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

REV.	DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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



SCALE

0 50 100 150

SIGNING
SHEET 3 OF 23

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 9/15/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	51

COUNTY: DUNKLIN
JOB NO.: J9P3077
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.:

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)

SCALE

0 50 100 150

SIGNING
SHEET 4 OF 23

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/15/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	52

COUNTY
DUNKLIN

JOB NO.
J9P3077

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

MoDOT

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

REV.

SCALE

0 50 100 150

SIGNING
SHEET 5 OF 23

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/15/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	53

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

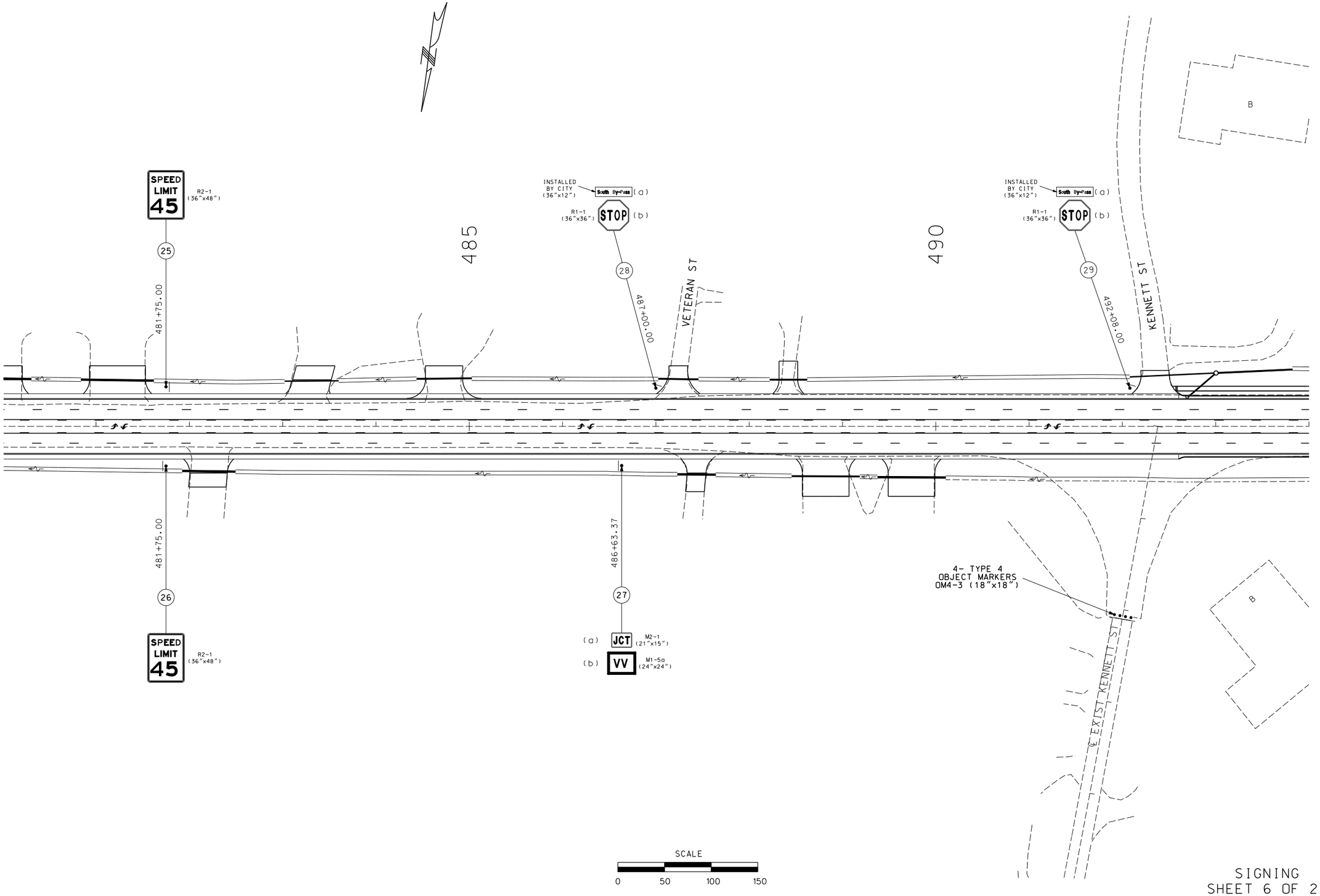
DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

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

REV.



SIGNING
SHEET 6 OF 23

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/15/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	54

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

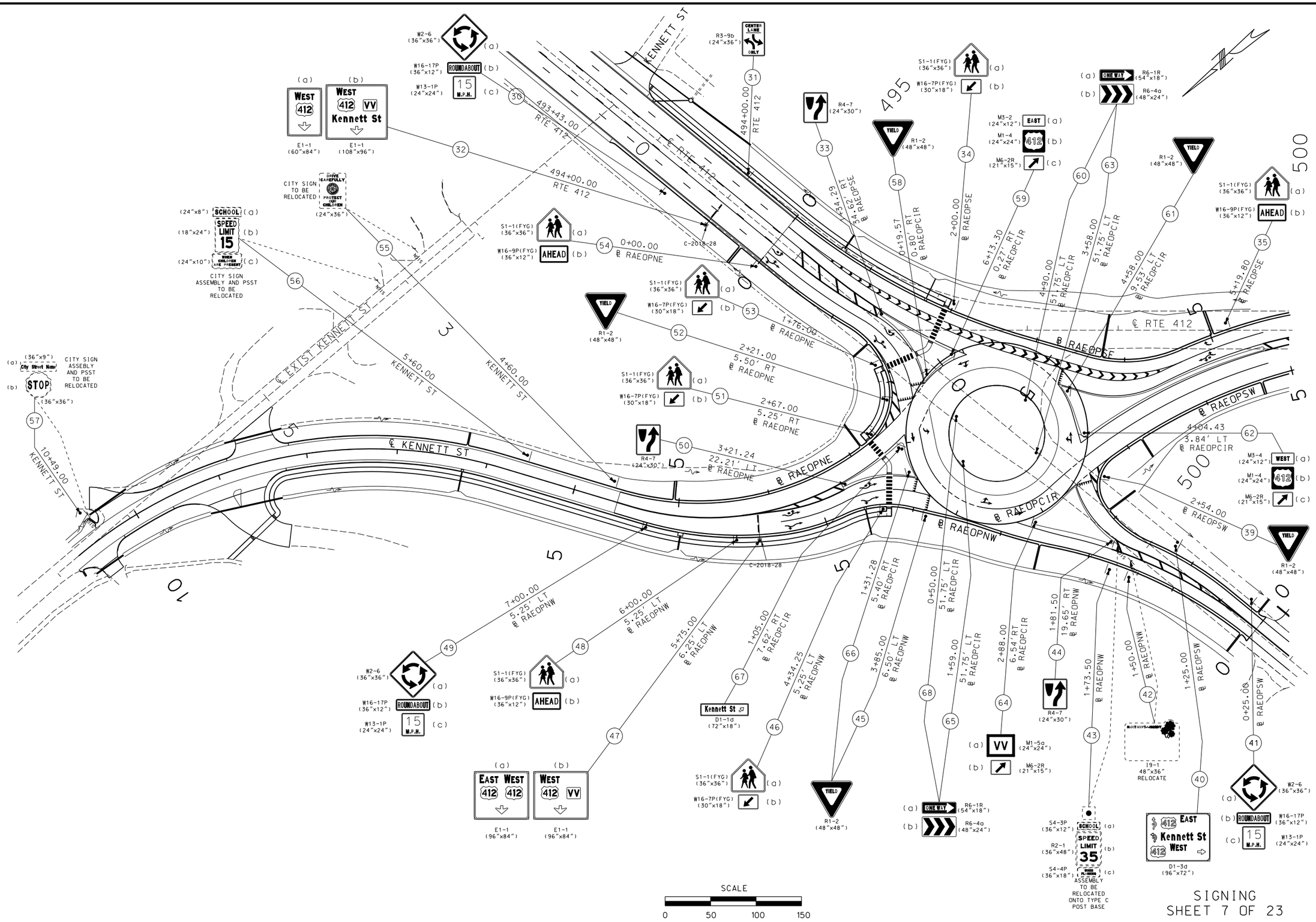
DESCRIPTION	DATE

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)

REV.



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

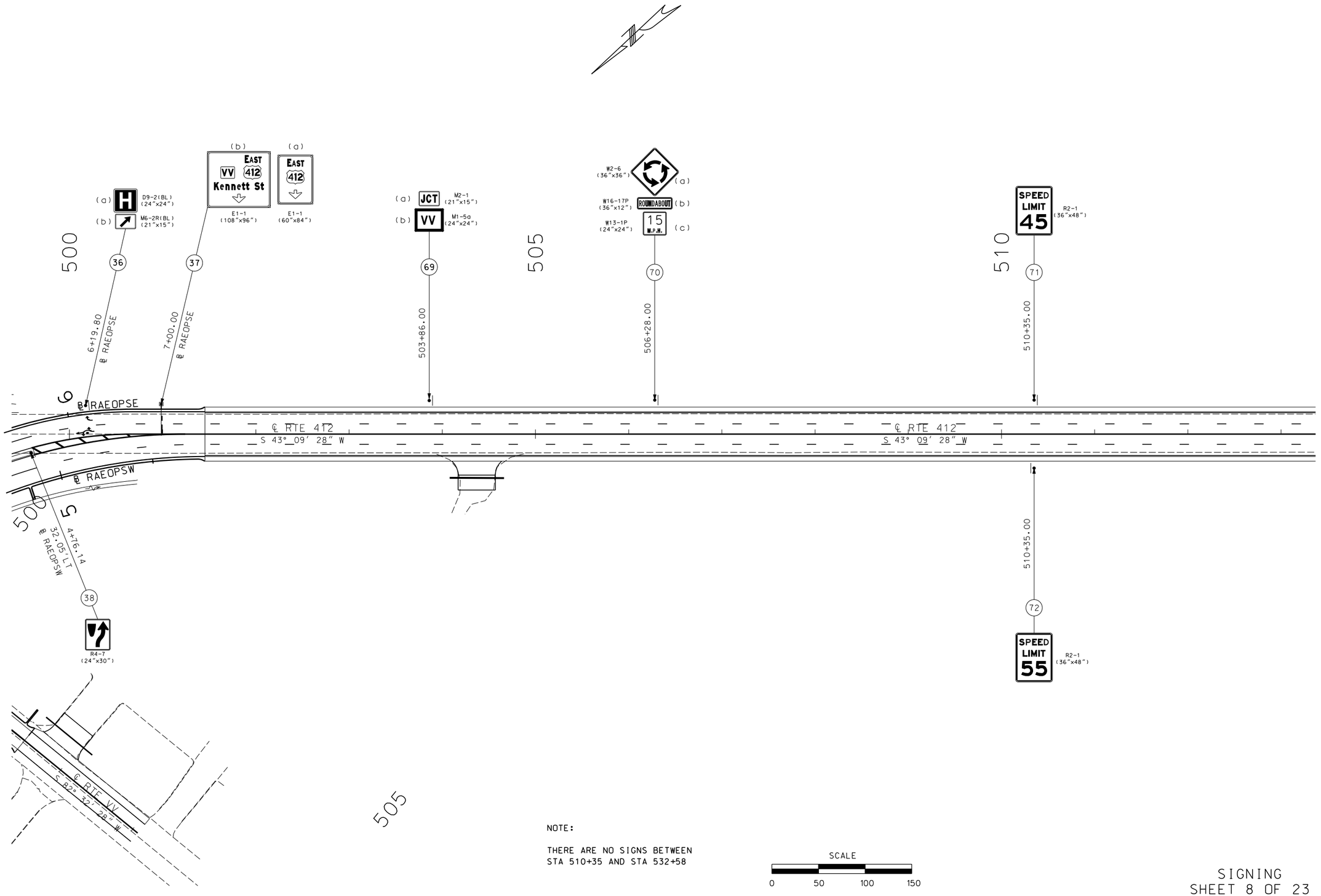
DATE PREPARED	
9/15/2014	
ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	55
COUNTY	
DUNKLIN	
JOB NO.	
J9P3077	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

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

REV.	DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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



NOTE:

THERE ARE NO SIGNS BETWEEN
STA 510+35 AND STA 532+58

SCALE
0 50 100 150

SIGNING
SHEET 8 OF 23

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/15/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	56

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

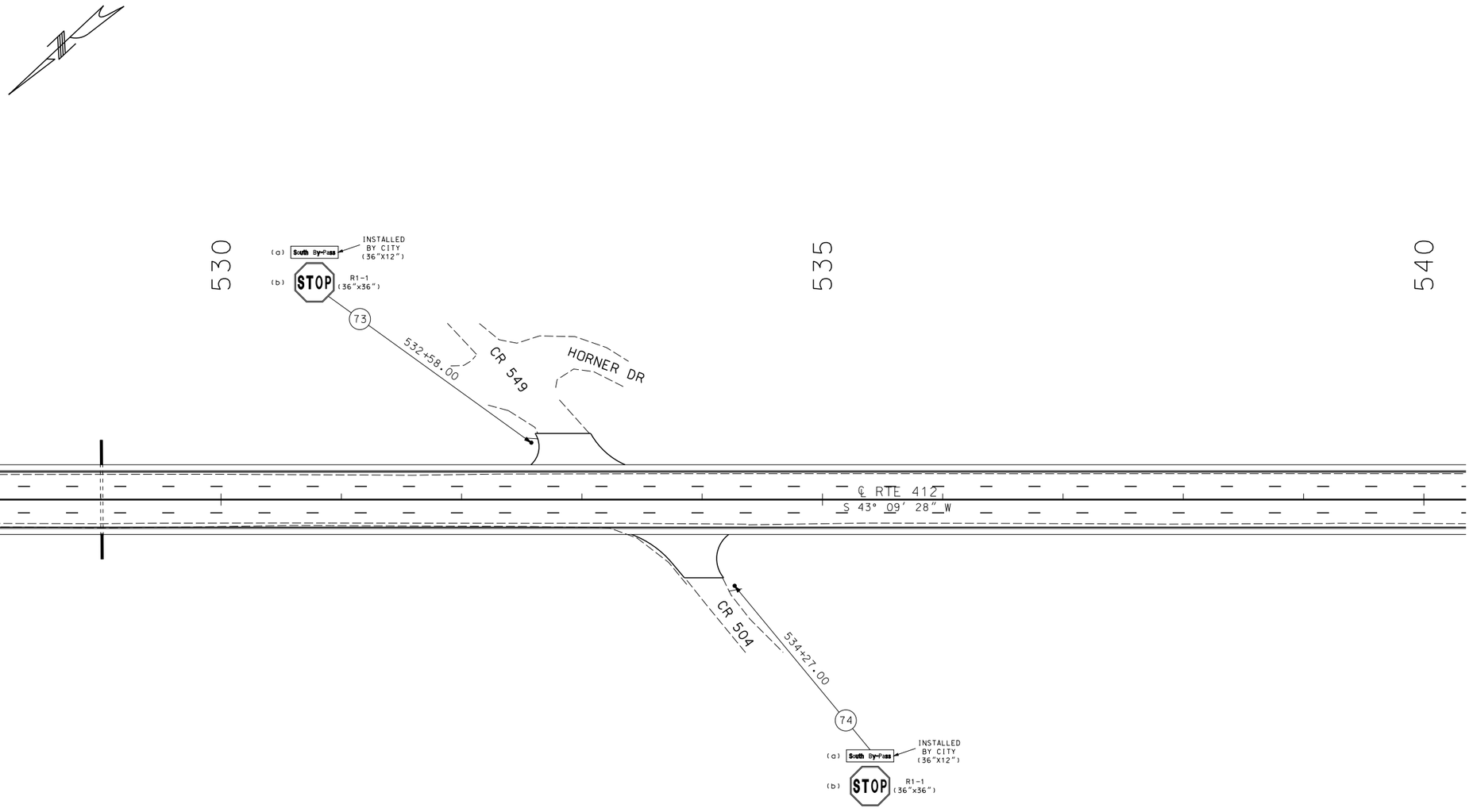
BRIDGE NO.

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

REV.	DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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



NOTE:

THERE ARE NO SIGNS BETWEEN
STA 534+27 AND STA 558+87

SCALE

0 50 100 150

SIGNING
SHEET 9 OF 23

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/15/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	57

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

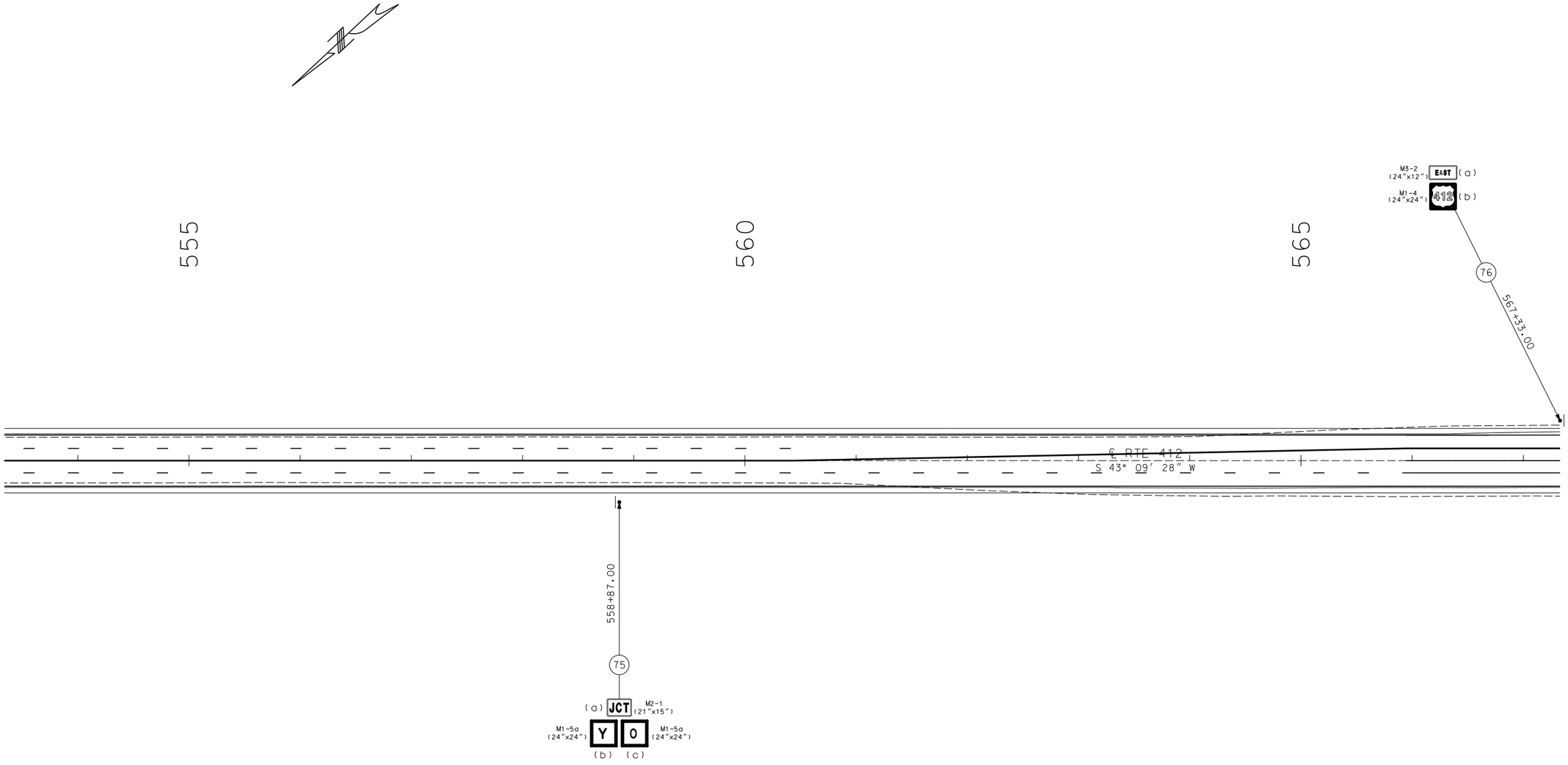
DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

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

REV.



SCALE

0 50 100 150

SIGNING
SHEET 10 OF 23

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/15/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	58

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

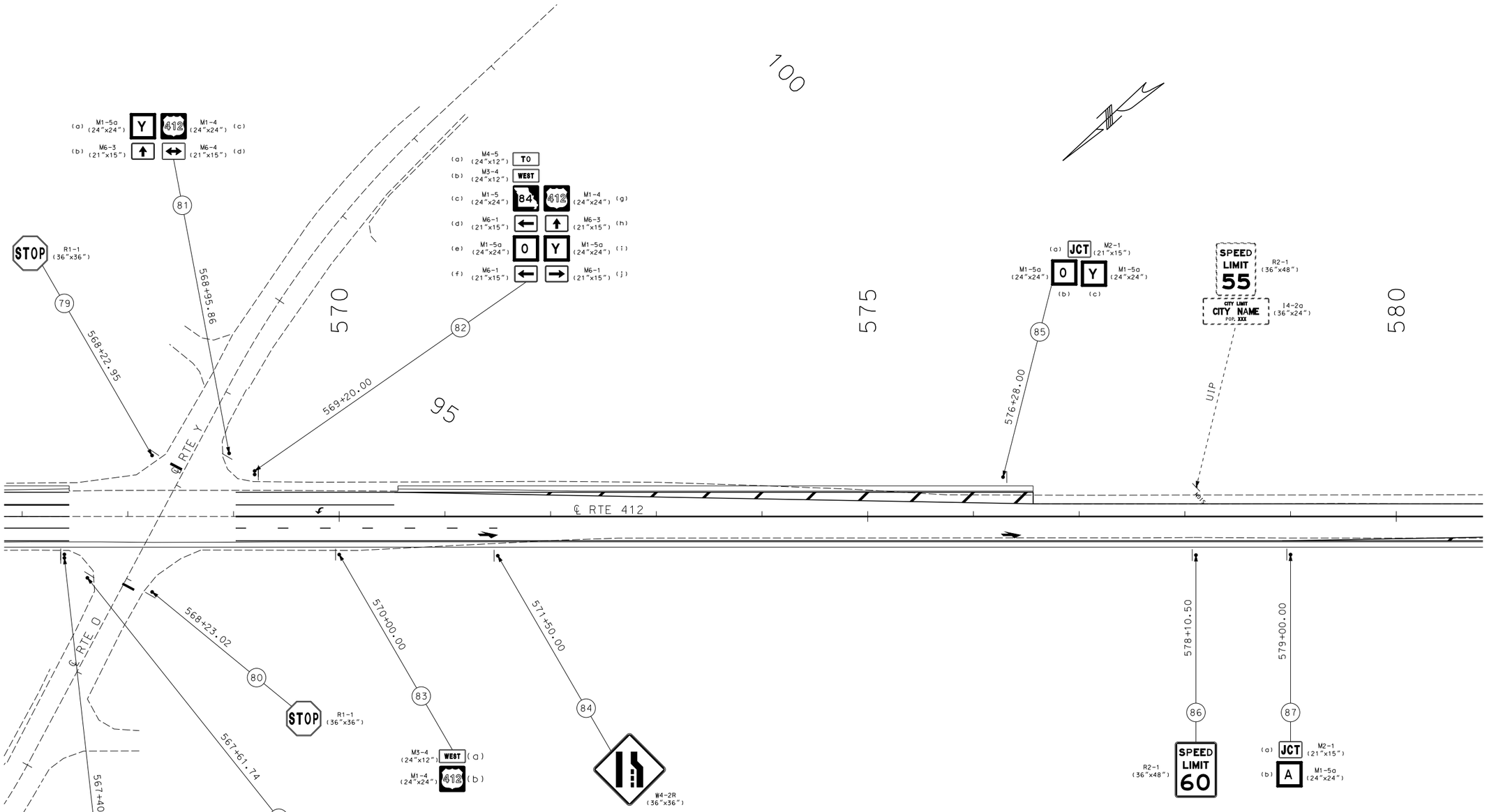
DESCRIPTION	DATE

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)

REV.



SIGNING
SHEET 11 OF 23

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/15/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	59

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

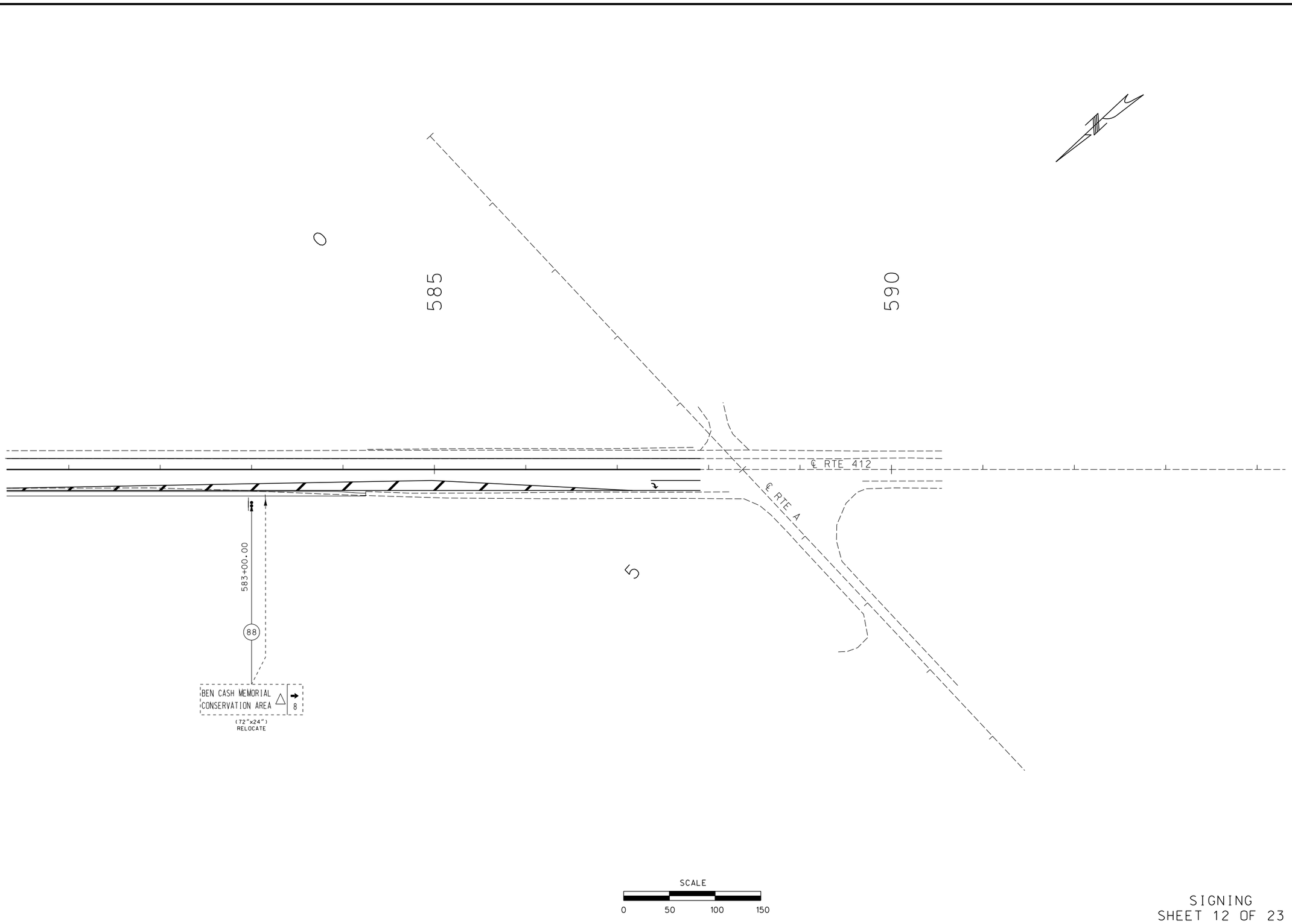
DESCRIPTION	DATE

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MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

REV.



SIGNING
SHEET 12 OF 23

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/15/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	60

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

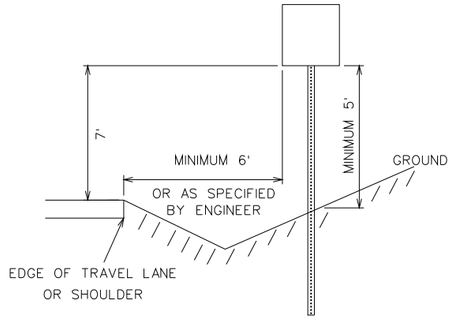
DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

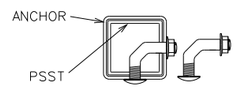
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

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REV.

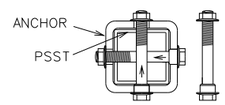


MOUNTING HEIGHT DETAIL



⅜" CORNER BOLT AND NUT

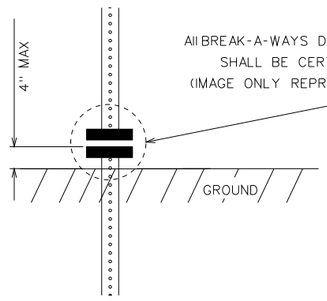
ANCHOR BOLT DETAIL FOR 2" PSST
MINIMUM 1 CORNER BOLT REQUIRED



⅜" x 3.5" SHOULDER BOLT AND NUT

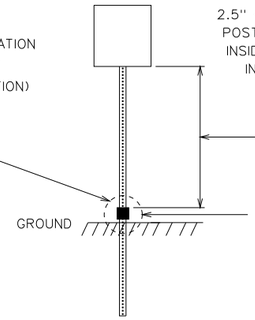
ANCHOR BOLT DETAIL FOR 2.5" PSST
2 SHOULDER BOLTS REQUIRED
INSTALLED PERPENDICULAR TO EACH OTHER

ANCHOR BOLT DETAIL



All BREAK-A-WAYS DEVICES USED ON AN INSTALLATION SHALL BE CERTIFIED NCHRP 350 COMPLIANT (IMAGE ONLY REPRESENTS BREAK A WAY LOCATION)

WHEN BREAKAWAYS DEVICES ARE REQUIRED THE PORTION FIXED TO THE GROUND ANCHOR SHALL BE NO HIGHER THAN 4" ABOVE THE FINISHED GRADE.



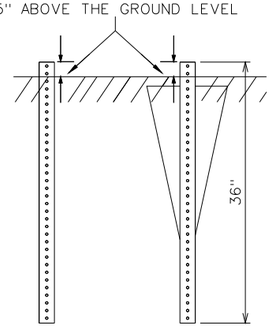
2.5" + 2.25" POST COMPRISED OF A 2.5" PSST POST WITH A 2.25" PIECE OF PSST INSERTED INSIDE TO INCREASE POST CAPACITY, USE AS INDICATED BY POST SELECTION CHARTS

2.25" PSST INSERT MUST RUN FROM THE BREAKAWAY UP A MINIMUM OF 6 FEET

BREAKAWAYS DEVICE ALWAYS REQUIRED REGARDLESS OF THE NUMBER OF POST

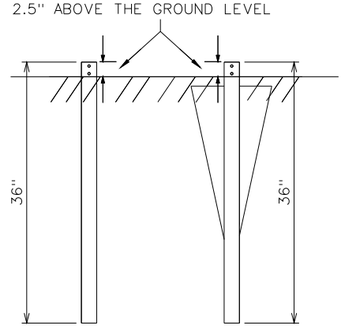
BREAKAWAYS DETAIL
2.5" + 2.25" POST DETAIL

THE ANCHOR SHOULD BE A MAXIMUM OF 2.5" ABOVE THE GROUND LEVEL



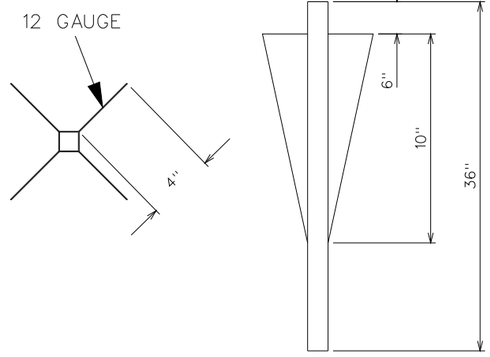
12 GAUGE

THE ANCHOR SHOULD BE A MAXIMUM OF 2.5" ABOVE THE GROUND LEVEL

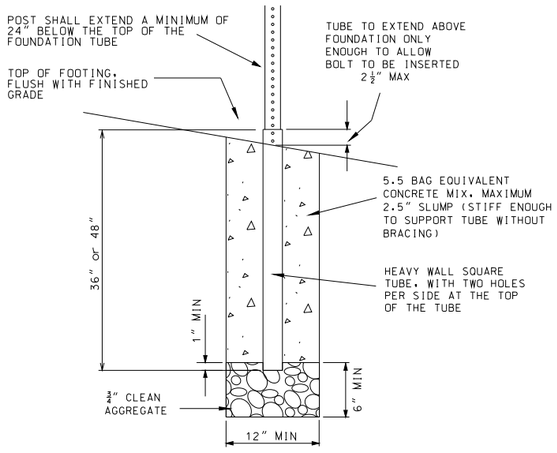


7 GAUGE

ANCHOR INSTALLATION DETAIL

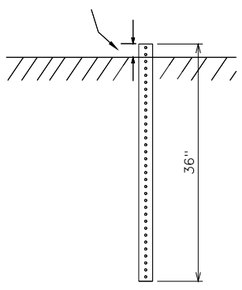


OMNI-DIRECTIONAL ANCHOR DETAIL
FOR BOTH 12 AND 7 GAUGE



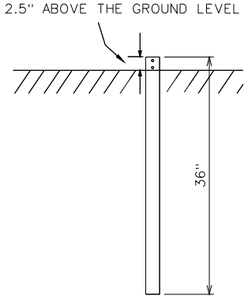
CONCRETE FOOTING DETAIL

THE ANCHOR SHOULD BE A MAXIMUM OF 2.5" ABOVE THE GROUND LEVEL



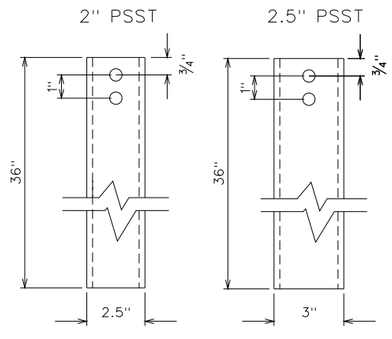
2" PSST

THE ANCHOR SHOULD BE A MAXIMUM OF 2.5" ABOVE THE GROUND LEVEL



2.5" PSST

ANCHOR INSTALLATION DETAIL



- BOLT HOLE DIAMETER - 17/32"
- 2 PER SIGN ON ALL 4 SIDES

7 GAUGE ANCHOR FABRICATION DETAIL

SPECIAL SHEET
SIGNING SHEET 13 OF 21

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 9/15/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	61

COUNTY: DUNKLIN
JOB NO.: J9P3077
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.:

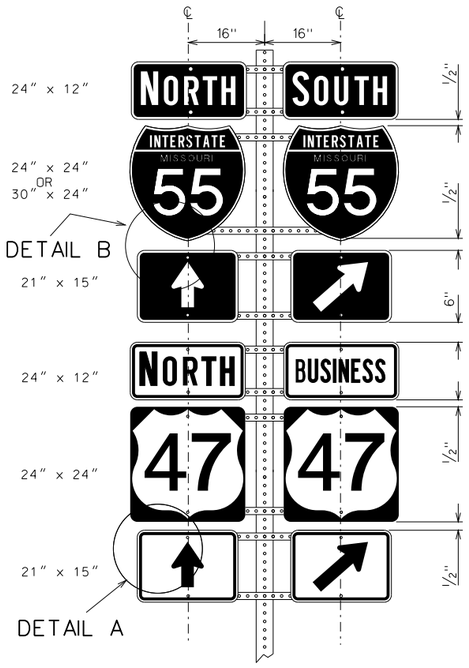
DESCRIPTION	DATE

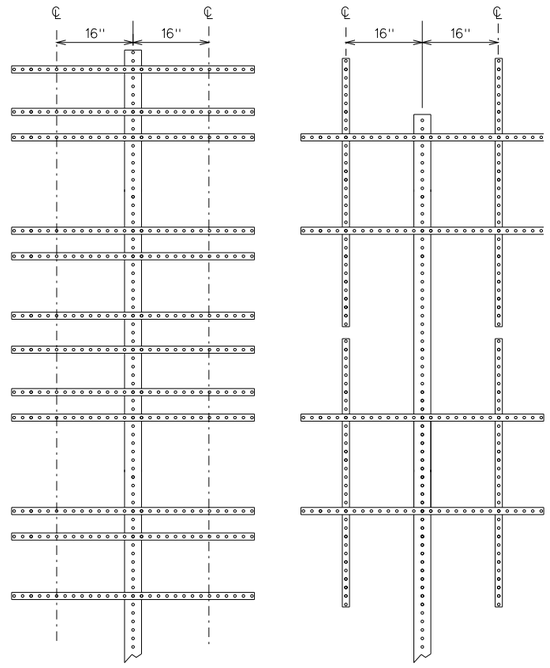
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

REV.

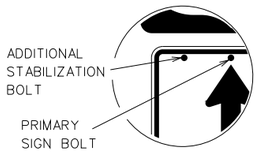




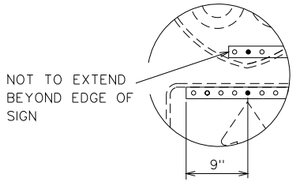
STANDARD BACKING BAR LAYOUT

OPTIONAL BACKING BAR LAYOUT

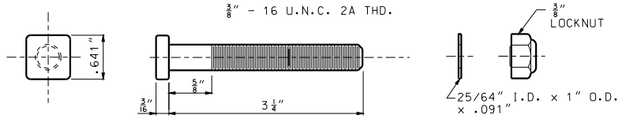
JUNCTION ASSEMBLY DETAIL



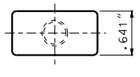
DETAIL A



DETAIL B



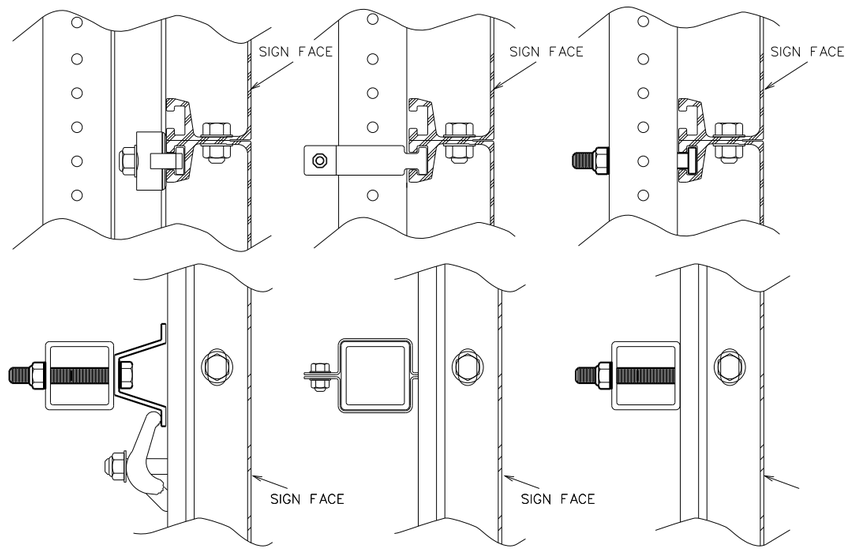
NOTE:
SQUARE BOLT HEAD SHOWN MAY BE REPLACED WITH RECTANGULAR BOLT HEAD WITH THE NARROW DIMENSION EQUAL TO .641".



BOLT - 1 3/4 x 3/8 ALUMINUM
BOLT - 3 1/4 x 3/8 ALUMINUM
HEX LOCKNUT - 3/8" ALUMINUM
WASHER - ALUMINUM

T-BOLT DETAIL

NOTES:
- ALUMINUM BOLTS SHALL BE ASTM B 211, 2024-T4 OR 6061-T6
- ALUMINUM FLAT WASHERS SHALL BE ASTM B 209, ALCLAD 2024-T4 OR 2024-T4
- ALUMINUM LOCK NUTS (NYLON INSERT) SHALL BE ASTM B 211 OR 2017-T4



EXTRUDED PANEL MOUNTING DETAIL

NOTES: SEE 903.03 IN MISSOURI STANDARD PLANS FOR POST CLIP DETAILS AND PATTERNS

PSST CLAMP USE SHALL BE ON APPROVED LIST

NOTES:
SIGN DIMENSIONS - 1ST DIMENSION - WIDTH OF PLATE
2ND DIMENSION - HEIGHT OF PLATE

ALL SIGNS TO BE INSTALLED ALONG VERTICAL CENTERLINES

SINGLE ROUTE ASSEMBLY SHOULD BE MOUNTED ABOVE THE SIDE BY SIDE ASSEMBLIES ALONG CENTERLINE OF POST IN THREE ASSEMBLY CONFIGURATIONS

WHEN USING OPTIONAL BACKING BAR LAYOUT, VERTICAL BARS SHALL BE MOUNTED BEHIND HORIZONTAL BARS

THE END OF THE HORIZONTAL BACKING BARS SHALL EXTEND OF 9 INCHES PAST THE SIGN BOLT, BUT SHALL NOT EXTEND PAST THE EDGE OF THE SIGN (DETAIL B)

NOMINAL VERTICAL SPACING INDICATED BETWEEN SIGNS TO BE ACHIEVED BY USING THE CLOSEST AVAILABLE HOLES IN PSST

FOR SIGNS INSTALLED ON TWO PARALLEL HORIZONTAL BACKING BARS, ONE ADDITIONAL BOLT SHALL BE ADDED TO THE LEFT SIGN TO KEEP ASSEMBLY SQUARE (DETAIL A)

BACKING BARS SHALL MEET MISSOURI STANDARD PLANS OR APPROVED PRODUCTS LIST

SPECIAL SHEET
SIGNING SHEET 14 OF 21

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 9/15/2014
ROUTE 412 | STATE MO
DISTRICT SE | SHEET NO. 62
COUNTY DUNKLIN
JOB NO. J9P3077
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)

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

REV.

EFFECTIVE 1-01-2003

SIGN NO	SIGNS STA	SIGN DTL SHT NO	SIGNS LOCATION	SIGNS SIGN SIZE	PIPE POST PIPE SIZE IN	PIPE POST POST NO 1 LF	PIPE POST POST NO 2 LF	PIPE POST LBS PER FT	PIPE POST TOTAL ITEM NO 903-12.2 LBS	STRUCTURAL STEEL POSTS POST DES NO	STRUCTURAL STEEL POSTS POST NO 1 LF	STRUCTURAL STEEL POSTS POST NO 2 LF	STRUCTURAL STEEL POSTS LBS PER FT	STRUCTURAL STEEL POSTS TOTAL LBS	BACKING BARS 2" X 3/8" BARS @ 2.55 LBS/LF NO EACH	BACKING BARS LGTH IN	BACKING BARS TOTAL LF	BACKING BARS TOTAL LBS	BACKING BARS TOTAL ITEM NO 903-12.10 LBS	PERFORATED SQUARE STEEL TUBE 2" POSTS ITEM NO 903-12.70A LF	PERFORATED SQUARE STEEL TUBE 2.25" POSTS ITEM NO 903-99.03 LF	PERFORATED SQUARE STEEL TUBE 2.5" POSTS ITEM NO 903-12.72 LF	PERFORATED SQUARE STEEL TUBE 2.5" ANCHOR SLEEVE ITEM NO 903-99.03 LF	PERFORATED SQUARE STEEL TUBE 3" ANCHOR SLEEVE ITEM NO 903-99.03 LF	BREAKAWAY ASSEMBLY ITEM NO 903-12.41 EACH	CONC FOOTINGS EMBD ITEM NO 903-10.10 CU YDS	CONC FOOTINGS BOLT DOWN ITEM NO 903-10.20 CU YDS	HORZ CLEAR IF NOT STD	DESCRIPTION
1	425+25.00		RT	24"X36"																12.50			3.00					
2	426+65.00		RT	ASSEMBLY																12.50			3.00					
3	428+86.60	RELOC	LT	60"X48"																		27.25		3.00	2				1-13.50' & 1-14.25' POST
4	428+90.00		RT	36"X48"											2	26	4.33	11.05	11.05			13.50		3.00					
5	429+71.51		LT	36"X48"											2	26	4.33	11.05	11.05			13.50		3.00					
6	430+54.76		LT	ASSEMBLY																12.75			3.00					
7	432+27.00		RT	ASSEMBLY																		13.50		3.00					
8	435+42.00		LT	ASSEMBLY																		13.50		3.00					
9	436+38.00		RT	ASSEMBLY																		13.50		3.00					
10	438+63.50		LT	ASSEMBLY																		13.50		3.00					
11	442+10.00		LT	ASSEMBLY																		13.25		3.00					
12	443+11.00		RT	ASSEMBLY																		13.50		3.00					
13	445+51.00		LT	ASSEMBLY																		13.25		3.00					
14	445+75.00		RT	36"X48"											2	26	4.33	11.05	11.05			13.50		3.00					
15	447+24.00		LT	36"X48"											2	26	4.33	11.05	11.05			13.25		3.00					
16	448+09.00		RT	ASSEMBLY																		13.50		3.00					
17	448+63.29		LT	ASSEMBLY																		13.25		3.00					
18	451+23.00		LT	ASSEMBLY																12.50			3.00					
19	460+25.00		LT	24"X36"																12.25			3.00					
20	460+25.00		RT	24"X36"																12.50			3.00					
21	464+35.82		LT	36"X48"											2	26	4.33	11.05	11.05			13.25		3.00					
22	466+42.00		RT	36"X48"											2	26	4.33	11.05	11.05			13.50		3.00					
23	478+85.00		LT	ASSEMBLY																		13.25		3.00					
24	479+16.00		RT	ASSEMBLY																		13.25		3.00					
25	481+75.00		LT	36"X48"											2	26	4.33	11.05	11.05			13.50		3.00					
26	481+75.00		RT	36"X48"											2	26	4.33	11.05	11.05			13.50		3.00					
27	486+63.37		RT	ASSEMBLY																12.75			3.00					
28	487+00.00		LT	ASSEMBLY																		13.25		3.00					
29	492+08.00		LT	ASSEMBLY																		13.25		3.00					
30	493+43.00		RT	ASSEMBLY																	15.75	15.75		3.00	1				W/ 2.25" INSIDE
31	494+00.00		LT	24"X36"																10.25			3.00				2'-0"	
33	1+34.29		RAEOPSE RT	24"X30"																9.50			3.00				1'-0"	
34	2+00.00		RAEOPSE LT	ASSEMBLY																		11.75		3.00					
35	5+19.80		RAEOPSE LT	ASSEMBLY																		11.25		3.00					
36	6+19.80		RAEOPSE LT	ASSEMBLY																11.75			3.00					
38	4+76.14		RAEOPSW LT	24"X30"																9.50			3.00				1'-0"	
39	2+54.00		RAEOPSW RT	48"X48"											2	14	2.33	5.95	5.95	10.50			3.00				2'-0"	
40	1+25.00		RAEOPSW RT	96"X72"																	13.50	13.50		3.00	1				W/ 2.25" INSIDE
																					14.00	14.00		3.00	1				W/ 2.25" INSIDE
41	0+25.00		RAEOPSW RT	ASSEMBLY																	15.50	15.50		3.00	1				W/ 2.25" INSIDE
42	1+50.00	RELOC	RAEOPNW LT	48"X36"											2	32	5.33	13.60	13.60			11.75		3.00					
43	1+73.50	RELOC	RAEOPNW LT	ASSEMBLY																							0.44		TYPE C POST BASE
44	1+81.50		RAEOPNW RT	24"X30"																9.50			3.00				1'-0"	
45	3+85.00		RAEOPNW LT	48"X48"											2	14	2.33	5.95	5.95	10.50			3.00				2'-0"	
46	4+34.25		RAEOPNW LT	ASSEMBLY																		11.50		3.00				1'-3"	
48	6+00.00		RAEOPNW LT	ASSEMBLY																		11.00		3.00				1'-6"	
49	7+00.00		RAEOPNW LT	ASSEMBLY																	14.25	14.25		3.00	1			1'-6"	W/ 2.25" INSIDE
50	3+21.24		RAEOPNE LT	24"X30"																9.50			3.00				1'-0"	
51	2+67.00		RAEOPNE RT	ASSEMBLY																		11.50		3.00				1'-3"	
52	2+21.00		RAEOPNE RT	48"X48"											2	14	2.33	5.95	5.95	10.50			3.00				1'-0"	
53	1+76.00		RAEOPNE RT	ASSEMBLY																		11.75		3.00					
54	0+00.00		RAEOPNE RT	ASSEMBLY																		12.50		3.00					
55	4+60.00	RELOC	KENNETT RT	24"X36"																11.50			3.00					
56	5+60.00	RELOC	KENNETT RT	ASSEMBLY																12.00			3.00					
57	10+49.00	RELOC	KENNETT RT	ASSEMBLY																				3.00					
58	0+19.57		RAEOPCIR RT	48"X48"											2	14	2.33	5.95	5.95	10.75			3.00				2'-0"	
59	6+13.30		RAEOPCIR RT	ASSEMBLY																11.50			3.00				2'-0"	
60	4+90.00		RAEOPCIR LT	ASSEMBLY											4	32	10.67	27.20	27.20	16.50			6.00				4'-9"	2-8.25' POST
61	4+58.00		RAEOPCIR LT	48"X48"											2	14	2.33	5.95	5.95	10.75			3.00				2'-0"	
62	4+04.43		RAEOPCIR LT	ASSEMBLY																11.50			3.00				2'-0"	
63	3+58.00		RAEOPCIR LT	ASSEMBLY											4	32	10.67	27.20	27.20	16.50			6.00				4'-9"	2-8.25' POST
64	2+88.00		RAEOPCIR RT	ASSEMBLY																10.50			3.00				2'-0"	
			SUBTOTAL 1															186.15	290.75	73.00	474.50	81.00	108.00	7		0.44		

NOTES: SEE SIGNING SPECIAL SHEETS FOR PSST/ ANCHOR USAGE

SIGNING
SHEET 15 OF 23

SHEET 1 OF 2
D-29

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/15/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	63

COUNTY
DUNKLIN

JOB NO.
J9P3077

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)

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

REV.

EFFECTIVE 1-01-2003

SIGNS					PIPE POST					STRUCTURAL STEEL POSTS					BACKING BARS					PERFORATED SQUARE STEEL TUBE						CONC FOOTINGS			
															2" X 3/8" BARS @ 2.55 LBS/LF														
SIGN NO	STA	SIGN DTL SHT NO	LOCATION	SIGN SIZE	PIPE SIZE IN	POST NO 1 LF	POST NO 2 LF	LBS PER FT	TOTAL ITEM NO 903-12.2 LBS	POST DES NO	POST NO 1 LF	POST NO 2 LF	LBS PER FT	TOTAL LBS	NO EACH	LGTH IN	TOTAL LF	TOTAL LBS	TOTAL ITEM NO 903-12.10 LBS	2" POSTS ITEM NO 903-12.70A LF	2.25" POSTS ITEM NO 903-99.03 LF	2.5" POSTS ITEM NO 903-12.72 LF	2.5" ANCHOR SLEEVE ITEM NO 903-99.03 LF	3" ANCHOR SLEEVE ITEM NO 903-99.03 LF	BREAKAWAY ASSEMBLY ITEM NO 903-12.41 EACH	EMBD ITEM NO 903-10.10 CU YDS	BOLT DOWN ITEM NO 903-10.20 CU YDS	HORZ CLEAR IF NOT STD	DESCRIPTION
65	1+59.00		RAEOPCIR LT	ASSEMBLY											4	32	10.67	27.20	27.20	16.50			6.00					4'-9"	2-8.25' POST
66	1+31.28		RAEOPCIR RT	48"X48"											2	14	2.33	5.95	5.95	10.75			3.00					2'-0"	
67	1+05.00		RAEOPCIR RT	72"X18"																17.50			6.00					2'-0"	2-8.75' POST
68	0+50.00		RAEOPCIR LT	ASSEMBLY											4	32	10.67	27.20	27.20	16.50			6.00					4'-9"	2-8.25' POST
69	503+86.00		LT	ASSEMBLY																12.75			3.00						
70	506+28.00		LT	ASSEMBLY																	16.75	16.75		3.00	1				W/ 2.25" INSIDE
71	510+35.00		LT	36"X48"											2	26	4.33	11.05	11.05			13.50		3.00					
72	510+35.00		RT	36"X48"											2	26	4.33	11.05	11.05			13.50		3.00					
73	532+58.00		LT	ASSEMBLY																		11.75		3.00					
74	534+27.00		RT	ASSEMBLY																		12.00		3.00					
75	558+87.00		RT	ASSEMBLY											2	50	8.33	21.25	21.25			13.00		3.00					
76	567+33.00		LT	ASSEMBLY																11.75			3.00						
77	567+40.00		RT	ASSEMBLY											8	50	33.33	85.00	85.00		15.00 17.50	15.00 17.50		3.00 3.00	1 1				W/ 2.25" INSIDE W/ 2.25" INSIDE
78	567+61.74		RT	ASSEMBLY											4	50	16.66	42.50	42.50			12.00		3.00					
79	568+22.95		LT	36"X36"																11.75			3.00						
80	568+23.02		RT	36"X36"																11.75			3.00						
81	568+95.86		LT	ASSEMBLY											4	50	16.66	42.50	42.50			11.50		3.00					
82	569+20.00		LT	ASSEMBLY											8	50	33.33	85.00	85.00		18.00 16.50	18.00 16.50		3.00 3.00	1 1				W/ 2.25" INSIDE W/ 2.25" INSIDE
83	570+00.00		RT	ASSEMBLY																12.00			3.00						
84	571+50.00		RT	36"X36"																		14.00		3.00					
85	576+28.00		LT	ASSEMBLY											2	50	8.33	21.25	21.25			13.00		3.00					
86	578+10.50		RT	36"X48"											2	26	4.33	11.05	11.05			13.50		3.00					
87	579+00.00		RT	ASSEMBLY																12.75			3.00						
88	583+00.00	RELOC	RT	72"X24"																24.00			6.00						1-11.50'& 1-12.50'POST
				SUBTOTAL 2															391.00	158.00	83.75	211.50	45.00	45.00	5				
				SUBTOTAL 1															186.15	290.75	73.00	474.50	81.00	108.00	7		0.44		
				TOTAL															580	449	157	686	126	153	12		0.5		

NOTES: SEE SIGNING SPECIAL SHEETS FOR PSST/ ANCHOR USAGE

SIGNING
SHEET 16 OF 23

SHEET 2 OF 2
D-29

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/15/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	64

COUNTY
DUNKLIN

JOB NO.
J9P3077

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)

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

REV.

EFFECTIVE 7-01-2010

STANDARD SIGN ASSEMBLIES

SIGN NUMBER	STATION	LOCATION	TYPE																												
			SHR2L-1	SHR2L-1	SHR2L-1	SHR2L-1	SHR2L-1	SHR2L-1	SHR2L-1	SHR2L-1	SHR2L-1	SHR2L-1	SHR2L-1	SHR2L-1	SHR2L-1	SHR2L-1	SHR2L-1	SHR2L-1	SHR2L-1	SHR2L-1	SHR2L-1	SHR2L-1	SHR2L-1	SHR2L-1	SHR2L-1	SHR2L-1	SHR2L-1	SHR2L-1	SHR2L-1	SHR2L-1	SHR2L-1
			SIGN DESCRIPTION, SIZES & NUMBER OF EACH																												
			STOP R1-1 (36"x36")	H D9-2(BL) (24"X24")	412 M1-4 (24"X24")	84 M1-5 (24"X24")	A M1-5a (24"X24")	0 M1-5a (24"X24")	VV M1-5a (24"X24")	Y M1-5a (24"X24")	JCT M2-1 (21"X15")	EAST M3-2 (24"X12")	WEST M3-4 (24"X12")	TO M4-5 (24"X12")	M6-1L (21"X15")	M6-1R (21"X15")	M6-2L(BL) (21"X15")	M6-2R (21"X15")	M6-2R(BL) (21"X15")	M6-3 (21"X15")	M6-4 (21"X15")	YIELD R1-2 (48"X48")	SPEED LIMIT 35 R2-1 (36"X48")	SPEED LIMIT 45 R2-1 (36"X48")	SPEED LIMIT 55 R2-1 (36"X48")	SPEED LIMIT 60 R2-1 (36"X48")	CENTER LANE ONLY R3-9b (24"X36")	R4-7 (24"X30")	ONE WAY R6-1R (54"X18")
1	425+25.00	RT																										1			
2	426+65.00	RT			1								1																		
4	428+90.00	RT																							1						
5	429+71.51	LT																					1								
6	430+54.76	LT				1					1																				
7	432.27.00	RT	1																												
8	435+42.00	LT	1																												
9	436+38.00	RT	1																												
10	438+63.50	LT	1																												
11	442+10.00	LT	1																												
12	443+11.00	RT	1																												
13	445+51.00	LT	1																												
14	445+75.00	RT																							1						
15	447+24.00	LT																							1						
16	448+09.00	RT	1																												
17	448+63.29	LT	1																												
18	451+23.00	LT		1													1														
19	460+25.00	LT																										1			
20	460+25.00	RT																										1			
21	464+35.82	LT																							1						
22	466+42.00	RT																							1						
23	478+85.00	LT	1																												
24	479+16.00	RT	1																												
25	481+75.00	LT																							1						
26	481+75.00	RT																							1						
27	486+63.37	RT							1		1																				
28	487+00.00	LT	1																												
29	492+08.00	LT	1																												
30	493+43.00	RT																													
31	494+00.00	LT																										1			
33	1+34.29	RAEOPSE RT																											1		
34	2+00.00	RAEOPSE LT																													
35	5+19.80	RAEOPSE LT																													
36	6+19.80	RAEOPSE LT		1															1												
38	4+76.14	RAEOPSW LT																											1		
39	2+54.00	RAEOPSW RT																				1									
41	0+25.00	RAEOPSW RT																													
44	1+81.50	RAEOPNW RT																											1		
45	3+85.00	RAEOPNW LT																				1									
46	4+34.25	RAEOPNW LT																													
48	6+00.00	RAEOPNW LT																													
49	7+00.00	RAEOPNW LT																													
50	3+21.24	RAEOPNE LT																											1		
51	2+67.00	RAEOPNE RT																													
52	2+21.00	RAEOPNE RT																				1									
53	1+76.00	RAEOPNE RT																													
54	0+00.00	RAEOPNE RT																													
58	0+19.57	RAEOPCIR RT																				1									
59	6+13.30	RAEOPCIR RT			1							1					1														
60	4+90.00	RAEOPCIR LT																													1
61	4+58.00	RAEOPCIR LT																				1									
62	4+04.43	RAEOPCIR LT			1								1				1														
63	3+58.00	RAEOPCIR LT																													1
64	2+88.00	RAEOPCIR RT							1								1														
65	1+59.00	RAEOPCIR LT																													1
66	1+31.28	RAEOPCIR RT																				1									
68	0+50.00	RAEOPCIR LT																													1
69	503+86.00	LT							1		1																				
70	506+28.00	LT																													
71	510+35.00	LT																							1						
72	510+35.00	RT																								1					
73	532+58.00	LT	1																												
74	534+27.00	RT	1																												
75	558+87.00	RT						1		1	1																				
76	567+33.00	LT			1							1																			
77	567+40.00	RT			1	1		1		1			1	1	1	2					1										
78	567+61.74	RT			1			1													1	1									
79	568+22.95	LT	1																												
80	568+23.02	RT	1																												
81	568+95.86	LT			1					1											1	1									
82	569+20.00	LT			1	1		1		1			1	1	2	1					1										
83	570+00.00	RT			1								1																		
84	571+50.00	RT																													
85	576+28.00	LT						1		1	1																				
86	578+10.50	RT																									1				
87	579+00.00	RT					1				1																				
		TOTAL	17	2	9	3	1	5	3	5	6	2	5	2	3	3	1	3	1	4	2	6	1	8	1	1	4	4	4		

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/15/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	65

COUNTY
DUNKLIN

JOB NO.
J9P3077

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)

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

REV.

SIGNING
SHEET 17 OF 23

SHEET 1 OF 2
D-30

EFFECTIVE 7-01-2010

STANDARD SIGN ASSEMBLIES

SIGN NUMBER	STATION	LOCATION	TYPE SHR2L-1	SHR4L-1	SHR4L-1	SHR4L-1	SHR4L-1	SHR4L-1	SHR4L-1	SHR4L-1			
			SIGN DESCRIPTION, SIZES & NUMBER OF EACH										
			R6-4a (48"X24")	S1-1(FYG) (36"X36")	W2-6 (36"X36")	W4-2R (36"X36")	W13-1P (24"X24")	W16-7P(FYG) (30"X18")	W16-9P(FYG) (36"X12")	W16-17P (36"X12")			
1	425+25.00	RT											
2	426+65.00	RT											
4	428+90.00	RT											
5	429+71.51	LT											
6	430+54.76	LT											
7	432.27.00	RT											
8	435+42.00	LT											
9	436+38.00	RT											
10	438+63.50	LT											
11	442+10.00	LT											
12	443+11.00	RT											
13	445+51.00	LT											
14	445+75.00	RT											
15	447+24.00	LT											
16	448+09.00	RT											
17	448+63.29	LT											
18	451+23.00	LT											
19	460+25.00	LT											
20	460+25.00	RT											
21	464+35.82	LT											
22	466+42.00	RT											
23	478+85.00	LT											
24	479+16.00	RT											
25	481+75.00	LT											
26	481+75.00	RT											
27	486+63.37	RT											
28	487+00.00	LT											
29	492+08.00	LT											
30	493+43.00	RT			1		1			1			
31	494+00.00	LT											
33	1+34.29	RAEOPSE RT											
34	2+00.00	RAEOPSE LT		1				1					
35	5+19.80	RAEOPSE LT		1					1				
36	6+19.80	RAEOPSE LT											
38	4+76.14	RAEOPSW LT											
39	2+54.00	RAEOPSW RT											
41	0+25.00	RAEOPSW RT			1		1			1			
44	1+81.50	RAEOPNW RT											
45	3+85.00	RAEOPNW LT											
46	4+34.25	RAEOPNW LT		1				1					
48	6+00.00	RAEOPNW LT		1					1				
49	7+00.00	RAEOPNW LT			1		1			1			
50	3+21.24	RAEOPNE LT											
51	2+67.00	RAEOPNE RT		1				1					
52	2+21.00	RAEOPNE RT											
53	1+76.00	RAEOPNE RT		1				1					
54	0+00.00	RAEOPNE RT		1					1				
58	0+19.57	RAEOPCIR RT											
59	6+13.30	RAEOPCIR RT											
60	4+90.00	RAEOPCIR LT	1	1									
61	4+58.00	RAEOPCIR LT											
62	4+04.43	RAEOPCIR LT											
63	3+58.00	RAEOPCIR LT	1	1									
64	2+88.00	RAEOPCIR RT											
65	1+59.00	RAEOPCIR LT	1	1									
66	1+31.28	RAEOPCIR RT											
68	0+50.00	RAEOPCIR LT	1	1									
69	503+86.00	LT											
70	506+28.00	LT			1		1			1			
71	510+35.00	LT											
72	510+35.00	RT											
73	532+58.00	LT											
74	534+27.00	RT											
75	558+87.00	RT											
76	567+33.00	LT											
77	567+40.00	RT											
78	567+61.74	RT											
79	568+22.95	LT											
80	568+23.02	RT											
81	568+95.86	LT											
82	569+20.00	LT											
83	570+00.00	RT											
84	571+50.00	RT				1							
85	576+28.00	LT											
86	578+10.50	RT											
87	579+00.00	RT											
		TOTAL	4	7	4	1	4	4	3	4			

SIGN SUMMARY

STANDARD SIGN OR SPECIAL SIGN NUMBER	SIGN DETAIL SHEET NO.	NO. EACH	SIZE, TYPE & SQUARE FEET SIZE	SHR2L-1 ITEM NO. 903-50.04	STR2L-1 ITEM NO. 903-50.64	SHR2L-3 ITEM NO. 903-50.65	STR2L-3 ITEM NO. 903-50.11	SHR4L-1 ITEM NO. 903-50.69	STR4L-1 ITEM NO. 903-50.71	36" STOP EACH
R1-1	STD	17	36"X36"							17
D9-2(BL)	STD	2	24"X24"	8.00						
M1-4 (412)	STD	9	24"X24"	36.00						
M1-5 (84)	STD	3	24"X24"	12.00						
M1-5a (A)	STD	1	24"X24"	4.00						
M1-5a (O)	STD	5	24"X24"	20.00						
M1-5a (VV)	STD	3	24"X24"	12.00						
M1-5a (Y)	STD	5	24"X24"	20.00						
M2-1	STD	6	21"X15"	13.13						
M3-2	STD	2	24"X12"	4.00						
M3-4	STD	5	24"X12"	10.00						
M4-5	STD	2	24"X12"	4.00						
M6-1L	STD	3	21"X15"	6.56						
M6-1R	STD	3	21"X15"	6.56						
M6-2L(BL)	STD	1	21"X15"	2.19						
M6-2R	STD	3	21"X15"	6.56						
M6-2R(BL)	STD	1	21"X15"	2.19						
M6-3	STD	4	21"X15"	8.75						
M6-4	STD	2	21"X15"	4.38						
R1-2	STD	6	48"X48"	96.00						
R2-1 (35 MPH)	STD	1	36"X48"	12.00						
R2-1 (45 MPH)	STD	8	36"X48"	96.00						
R2-1 (55 MPH)	STD	1	36"X48"	12.00						
R2-1 (60 MPH)	STD	1	36"X48"	12.00						
R3-9b	STD	4	24"X36"	24.00						
R4-7	STD	4	24"X30"	20.00						
R6-1R	STD	4	54"X18"	27.00						
R6-4a	68	4	48"X24"	32.00						
S1-1(FYG)	STD	7	36"X36"					63.00		
W2-6	STD	4	36"X36"					36.00		
W4-2R	STD	1	36"X36"					9.00		
W13-1P (15 MPH)	STD	4	24"X24"					16.00		
W16-7P(FYG)	STD	4	30"X18"					15.00		
W16-9P(FYG)	STD	3	36"X12"					9.00		
W16-17P	STD	4	36"X12"					12.00		
SIGN 32A	67	1	60"X84"				35.00			
SIGN 32B	67	1	108"X96"				72.00			
SIGN 37A	68	1	60"X84"				35.00			
SIGN 37B	68	1	108"X96"				72.00			
SIGN 40	67	1	96"X72"				48.00			
SIGN 47A	69	1	96"X84"				56.00			
SIGN 47B	69	1	96"X84"				56.00			
SIGN 67	68	1	72"X18"				9.00			
			TOTAL	512			383	160		17

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 9/15/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	66

COUNTY: DUNKLIN
JOB NO.: J9P3077
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.:

DESCRIPTION | DATE

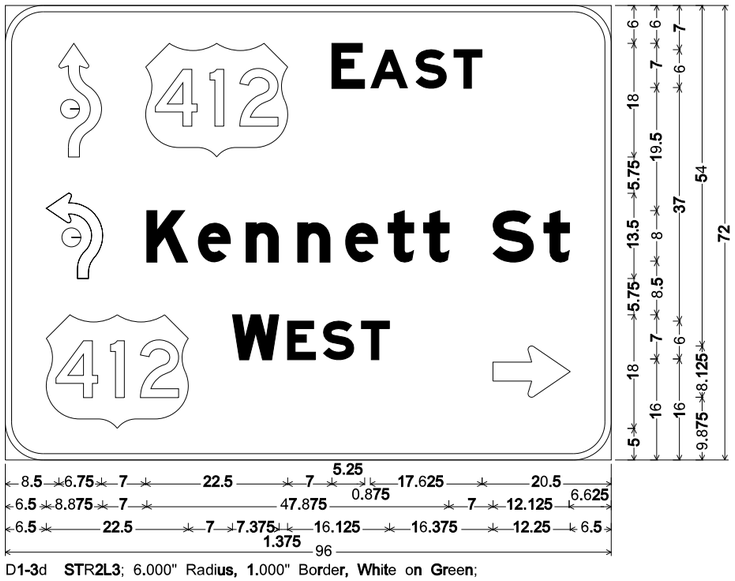
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

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

REV.

SIGNING
SHEET 18 OF 23

SHEET 2 OF 2
D-30



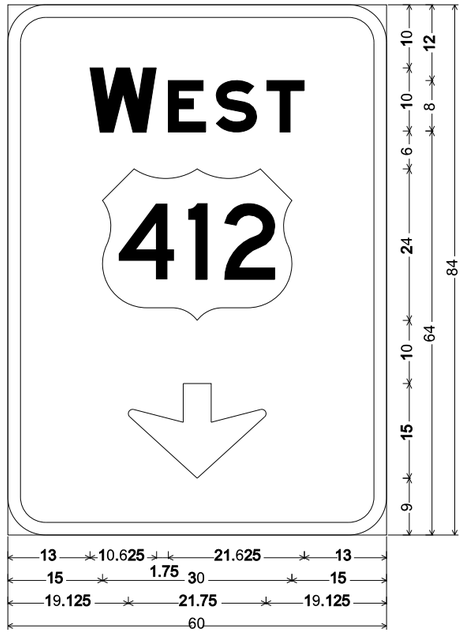
D1-3d **STR2L3**; 6.000" Radi**us**, **1**.000" Border, **White** on **Green**;
[ ] E; Roundabout_Arrows; **[EAST] E** Mod; **[Kennett St] E** Mod; **[WEST] E** Mod; **S**tandard Arrow **Custom 12.250" X 8.125"** 0°;
Table of letter and object lefts.

8.500	412 22.250	**E** 51.750	**A** 57.875	**S** 65.125	**T** 71.125

6.500	**K** 22.375	**e** 30.500	**n** 38.125	**n** 46.375	**e** 53.875	**t** 60.625	**t** 66.250	**S** 77.250	**t** 85.375

412 6.500	**W** 36.000	**E** 44.750	**S** 50.375	**T** 56.375	⇨ 77.250

SIGN NO.	40
STATION	1+25.00 RAEOPSW
ROADWAY	412

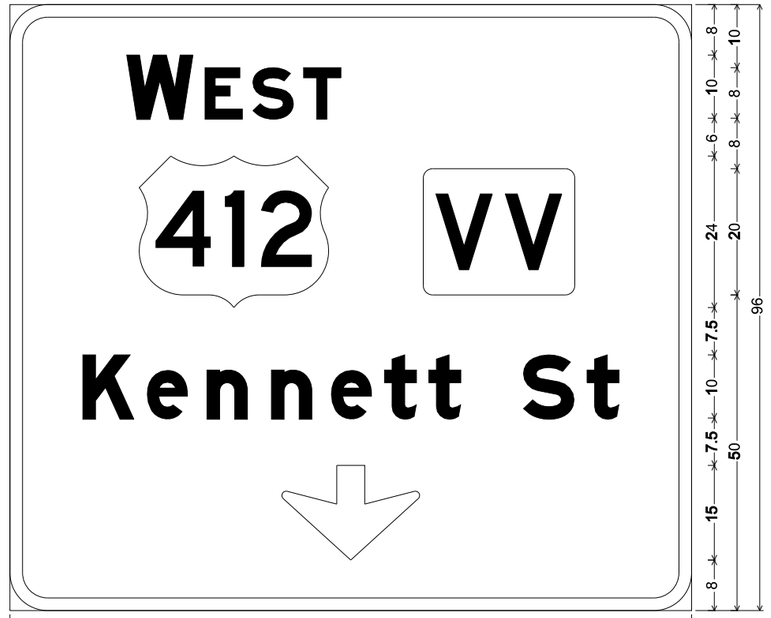


E1-1 **STR2L3**; 6.000" Radi**us**, **2**.000" Border, **White** on **Green**;
[WEST] E Mod;
Table of letter and object lefts.

W 13.000	**E** 25.375	**S** 33.000	**T** 41.000

412 15.000
⇩ 19.125

SIGN NO.	32A
STATION	494+00.00
ROADWAY	412



E1-1 **STR2L3**; 6.000" Radi**us**, **2**.000" Border, **White** on **Green**;
[WEST] E Mod; Rounded Rectangle **1.5**00" Radius;
[Kennett St] E Mod;
Table of letter and object lefts.

W 18.500	**E** 30.875	**S** 38.500	**T** 46.500

412 20.500	VV 65.500

K 11.500	**e** 21.750	**n** 31.250	**n** 41.375	**e** 50.875	**t** 59.375	**t** 66.375	**S** 81.375	**t** 91.500	

⇩ 43.125

SIGN NO.	32B
STATION	494+00.00
ROADWAY	412

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 9/15/2014
ROUTE 412 | STATE MO
DISTRICT SE | SHEET NO. 67
COUNTY DUNKLIN
JOB NO. J9P3077
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DESCRIPTION | DATE

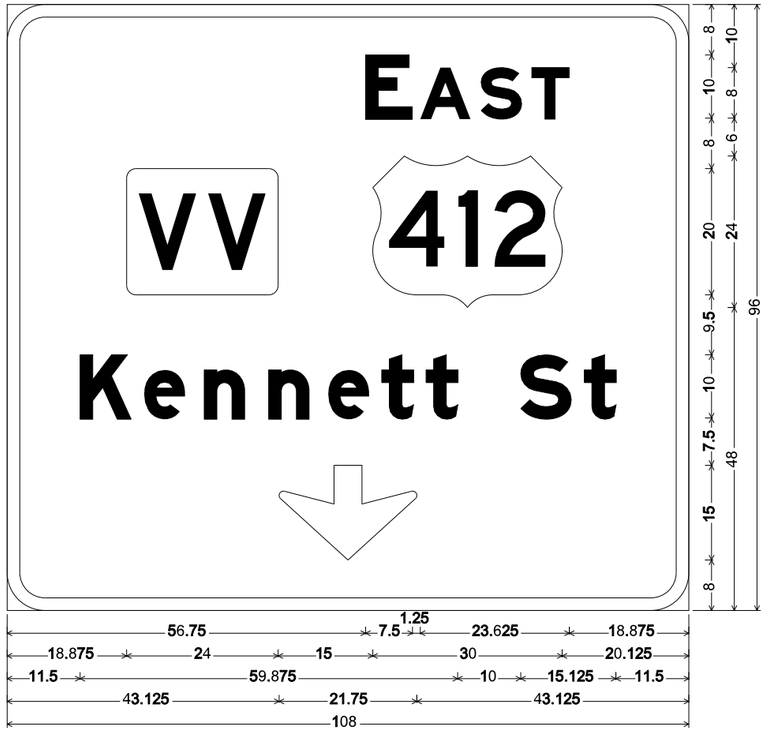
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

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

REV.

SIGNING
SHEET 19 OF 23

SHEET 1 OF 3
D-31



E1-1 STR2L3; 6.000" Radius, 2.000" Border, White on Green;
[EAST] E Mod; Rounded Rectangle 1.500" Radius;
[Kennett St] E Mod;
Table of letter and object lefts.

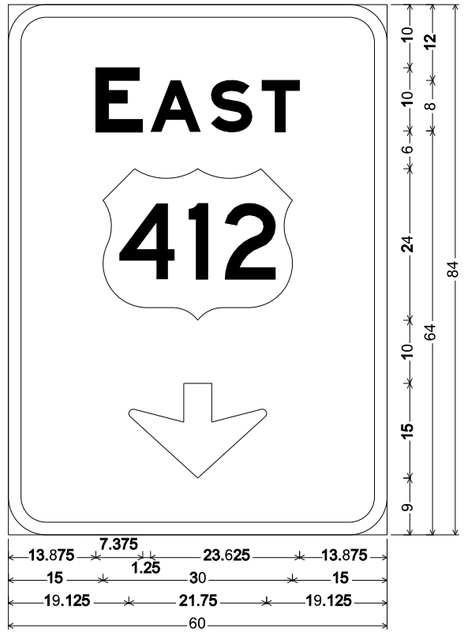
E	A	S	T
56.750	65.500	75.125	83.125

VV	412
18.875	57.875

K	e	n	n	e	t	t	S	t
11.500	21.750	31.250	41.375	50.875	59.375	66.375	81.375	91.500

⇩
43.125

SIGN NO.	37B
STATION	7+00.00 RAEOPSE
ROADWAY	412



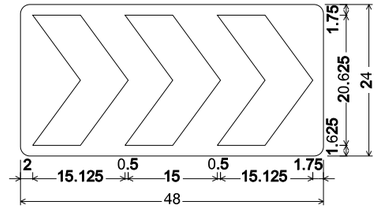
E1-1 STR2L3; 6.000" Radius, 2.000" Border, White on Green;
[EAST] E Mod;
Table of letter and object lefts.

E	A	S	T
13.875	22.500	32.125	40.250

412
15.000

⇩
19.125

SIGN NO.	37A
STATION	7+00.00 RAEOPSE
ROADWAY	412



R6-4a-48 **SHR2L1**; 1.500" Radius, No border, White;
Table of letter and object lefts.

⇩	⇩	⇩
2.000	16.625	31.125

SIGN NO.	60.63.65.68
STATION	4+90.00 RAEOPCIR
STATION	3+58.00 RAEOPCIR
STATION	1+59.00 RAEOPCIR
STATION	0+50.00 RAEOPCIR
ROADWAY	412



D1-1d **STR2L3**; 3.000" Radius, 1.000" Border, White on Green;
[Kennett St] D; Standard Arrow Custom 9.000" X 6.000" 45°;
Table of letter and object lefts.

K	e	n	n	e	t	t	S	t	⇗
7.125	12.250	17.125	22.500	27.375	31.750	35.500	44.000	49.125	57.750

SIGN NO.	67
STATION	1+05.00 RAEOPCIR
ROADWAY	412

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 9/15/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	68

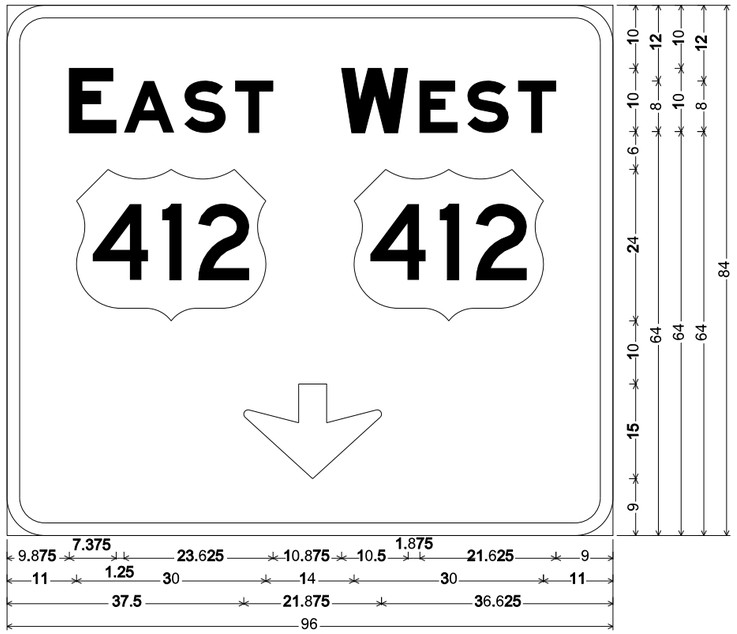
COUNTY DUNKLIN
JOB NO. J9P3077
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DESCRIPTION | DATE

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

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

REV.



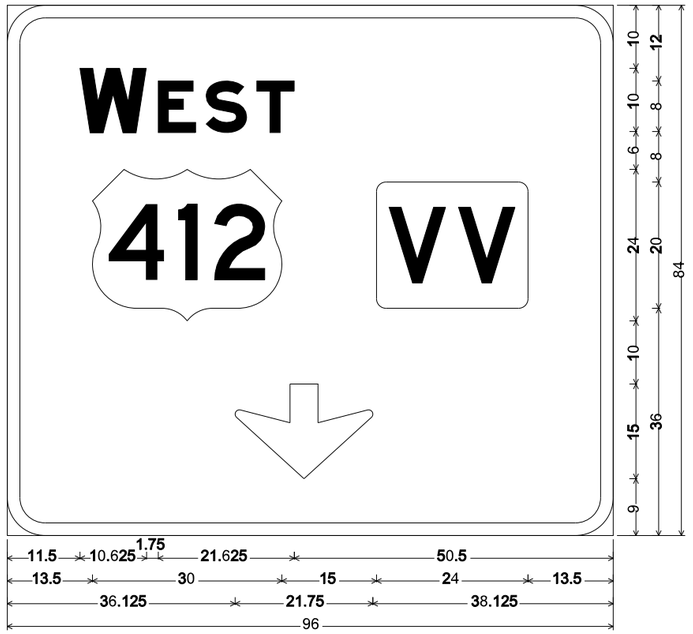
E1-1 STR2L3; 6.000" Radius, 2.000" Border, White on Green;
[EAST] E Mod; **[WEST] E** Mod;
Table of letter and object lefts.

E	A	S	T	W	E	S	T
9.875	18.500	28.125	36.250	53.000	65.375	73.000	81.000

412	412
11.000	55.000

37.500

SIGN NO.	47A
STATION	5+75.00 RAEOPNW
ROADWAY	412



E1-1 STR2L3; 6.000" Radius, 2.000" Border, White on Green;
[WEST] E Mod; Rounded Rectangle 1.500" Radius;
Table of letter and object lefts.

W	E	S	T
11.500	23.875	31.500	39.500

412	VV
13.500	58.500

36.125

SIGN NO.	47B
STATION	5+75.00 RAEOPNW
ROADWAY	412

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED: 9/15/2014
ROUTE: 412 | STATE: MO
DISTRICT: SE | SHEET NO.: 69
COUNTY: DUNKLIN
JOB NO.: J9P3077
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.:

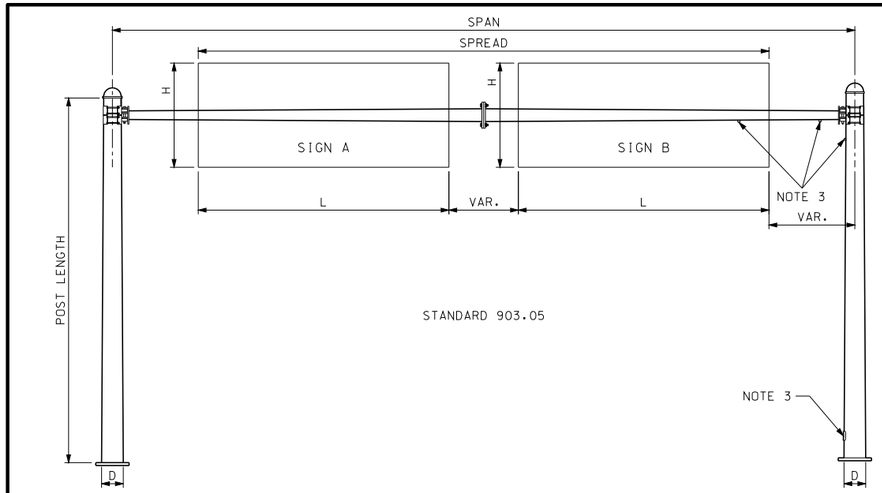
DESCRIPTION	DATE

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)

REV.

EFFECTIVE 04-01-2005

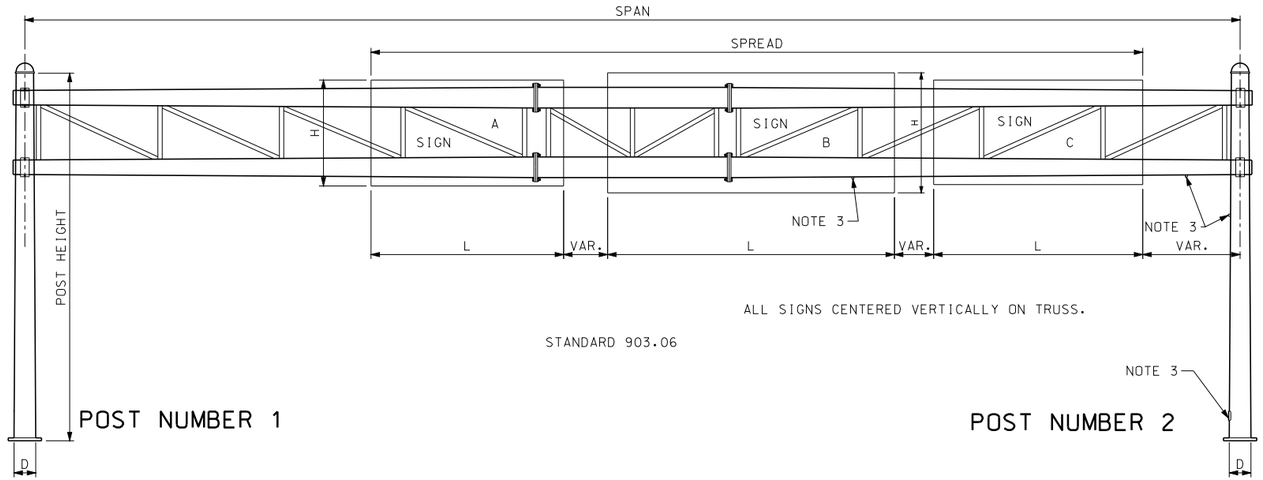


STANDARD 903.05

POST NUMBER 1

ONE TUBE - TYPE S

POST NUMBER 2



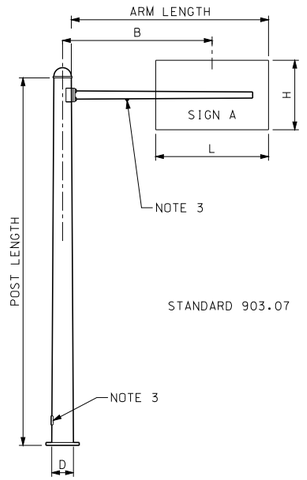
ALL SIGNS CENTERED VERTICALLY ON TRUSS.

STANDARD 903.06

POST NUMBER 1

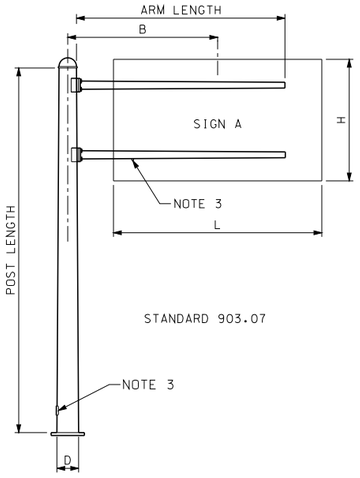
TWO TUBE - TYPE S

POST NUMBER 2



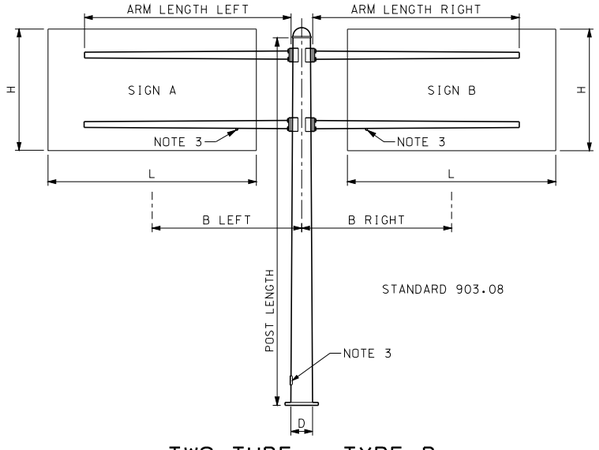
STANDARD 903.07

ONE TUBE - TYPE C



STANDARD 903.07

TWO TUBE - TYPE C



STANDARD 903.08

TWO TUBE - TYPE B

TUBULAR STEEL SUPPORT NUMBERING SYSTEM

THE FIRST SYMBOL (LETTER) INDICATES TYPE AS, C FOR CANTILEVER, B FOR BUTTERFLY, S FOR SPAN TYPE.

THE SECOND SYMBOL (NUMBER) INDICATES SINGLE (1) OR DOUBLE (2) MAST ARMS OR TRUSS.

THE THIRD SYMBOL (NUMBER) INDICATES GAGE - POST

7 = 7 GAUGE (.1793")	77 = 7 + 7 GAUGE (.3586")
3 = 3 GAUGE (.2500")	33 = 3 + 3 GAUGE (.5000")
0 = 0 GAUGE (.3125")	00 = 0 + 0 GAUGE (.6250")

THE FOURTH SYMBOL (NUMBER) INDICATES DIAMETER IN INCHES OF THE POST BASE.

THE FIFTH SYMBOL (NUMBER) INDICATES LENGTH IN FEET OF ARM OR SPAN.

EXAMPLE: DESIGN NUMBER B-20018-24 INDICATES BUTTERFLY TYPE, TWO ARMS, 2-PLY, 0-GAUGE, 18" DIAMETER AT BASE OF POST & 24' MAST ARMS.

NOTES

1. ALL POSTS, BEAMS, MAST ARMS, ANGLES, BRACKETS & ETC. SHALL BE HOT DIP GALVANIZED AFTER FABRICATION.
2. SHOP DRAWINGS ARE NOT REQUIRED.
3. HANDHOLES AND 1½" BLIND HALF COUPLINGS REQUIRED ON DESIGNATED POSTS. HANDHOLES SHALL BE PLACED ON RIGHT HAND SHOULDER SIDE OF TRUSSES.
4. STRUCTURES DESIGNED FOR TOTAL SIGN AREA COMMENSURATE WITH HEIGHT OF SIGN AND REQUIRED VERTICAL CEARANCE.
5. DESIGN SPECIFICATIONS: AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS - 1985.

TUBULAR STEEL SUPPORT DESIGN DATA STANDARDS 903.05 THRU 903.08

SIGN NUMBER	STATION	LOCATION	STANDARD NUMBER	TYPE	SPAN OR ARM FT-IN.	B LENGTH FT-IN.	POST LENGTH NO. 1 FT	POST LENGTH NO. 2 FT	CONCRETE FOOTINGS CU YDS	SIGN DATA																					
										SPREAD	SIGN A		SPACE	SIGN B		SPACE	SIGN C		SPACE	SIGN D		SPACE	SIGN E		SPACE	TOTAL
										FT-IN.	L FT-IN.	H FT-IN.	FT-IN.	L FT-IN.	H FT-IN.	FT-IN.	L FT-IN.	H FT-IN.	FT-IN.	L FT-IN.	H FT-IN.	FT-IN.	L FT-IN.	H FT-IN.	FT-IN.	SQ FT
32	494+00	RT 412	903.07	C	28		23		2.69	18-0	5-0	7-0	4-0	9-0	8-0													107
47	5+75	LT RAEOPNW	903.07	C	28		21		2.49	19-0	8-0	7-0	3-0	8-0	7-0													112
37	7+00	LT RAEOPSE	903.07	C	34		23		2.69	18-6	5-0	7-0	4-5	9-0	8-0													107

SIGNING
SHEET 22 OF 23

SHEET 1 OF 1
D-34

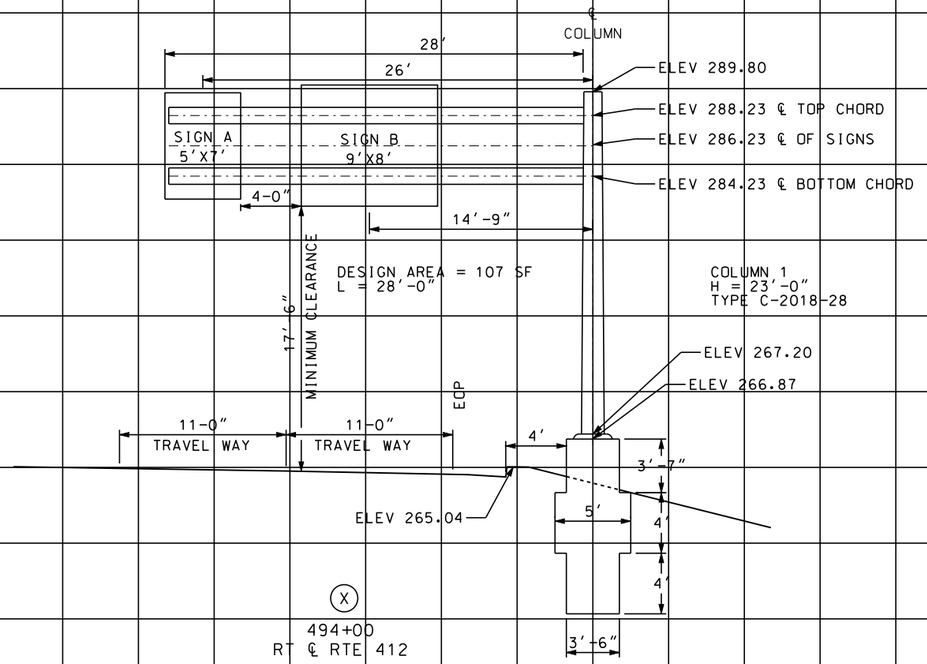
STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 9/15/2014
ROUTE 412 | STATE MO
DISTRICT SE | SHEET NO. 70
COUNTY DUNKLIN
JOB NO. J9P3077
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

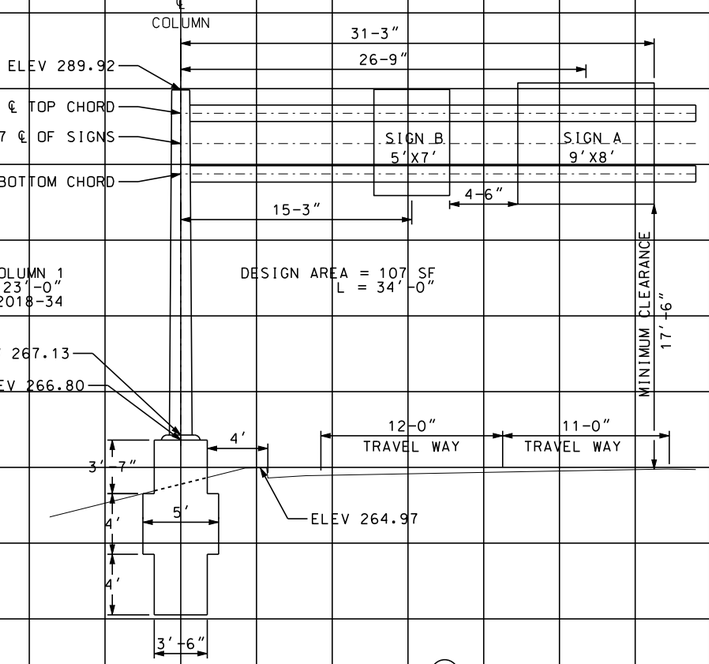
DESCRIPTION | DATE | REV.

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

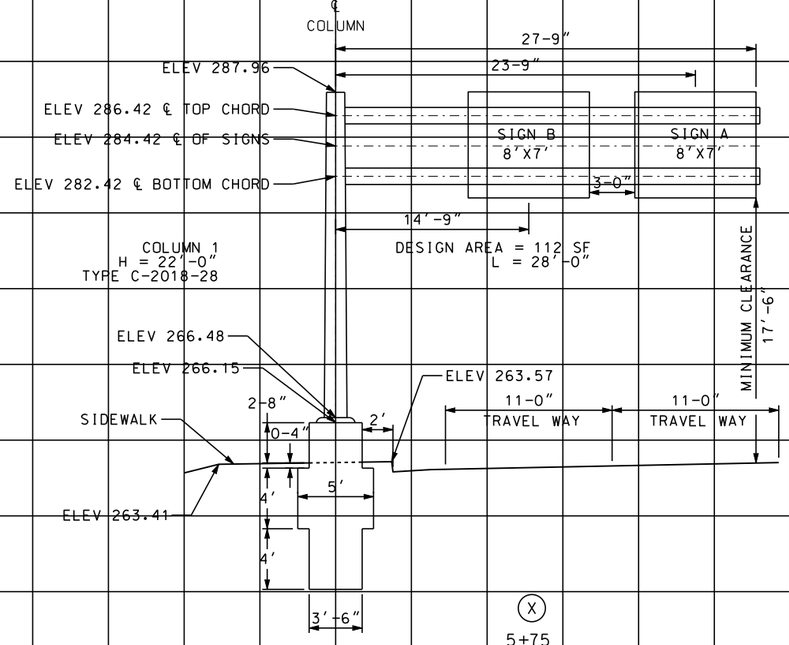
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



X 494+00
RT ℄ RTE 412



X 7+00
LT ℄ RAEOPSE



X 5+75
LT ℄ RAEOPNW

5′

SHEET 1 OF 1

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 9/15/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	71

COUNTY: DUNKLIN
JOB NO.: J9P3077
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.:

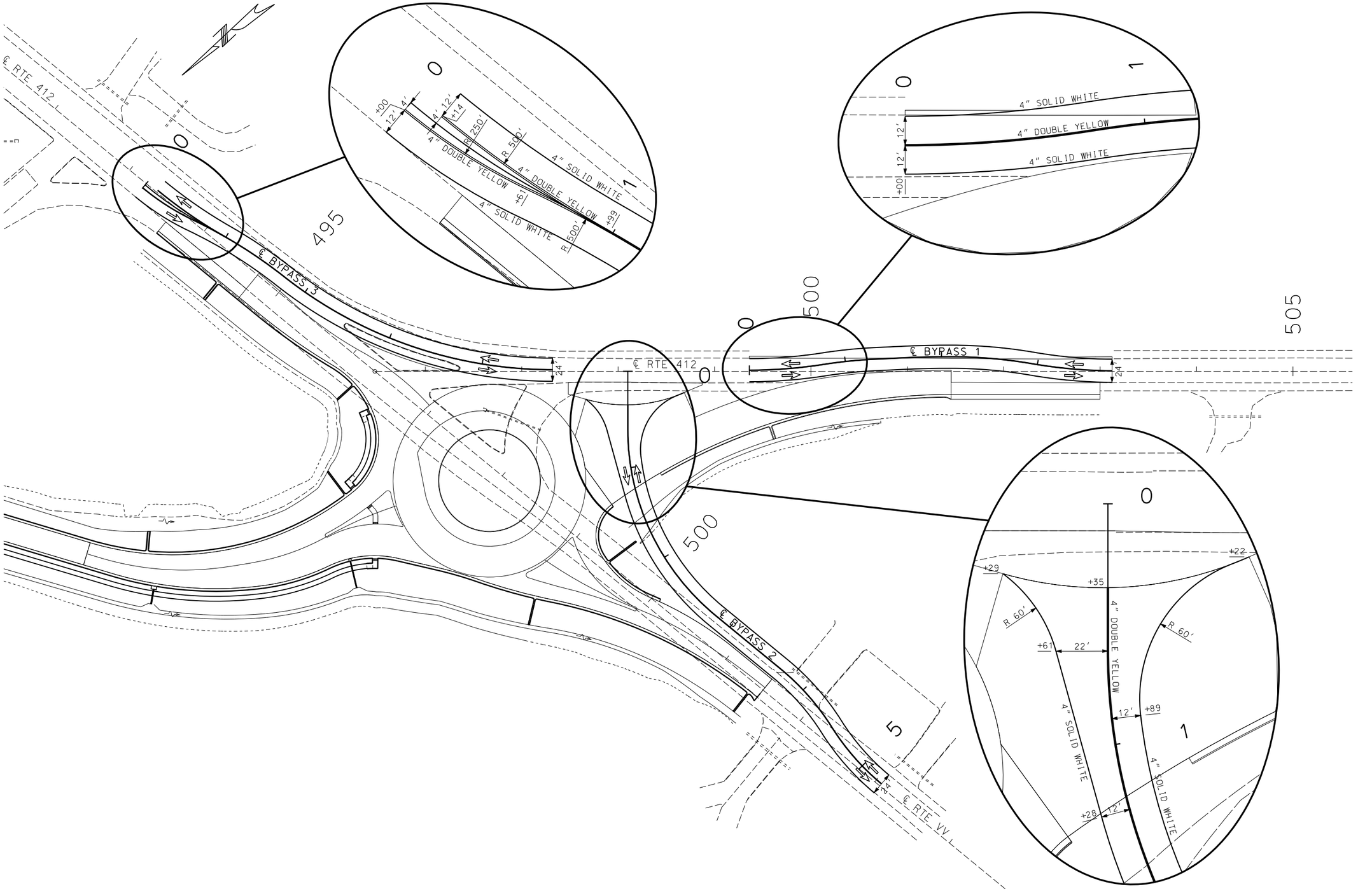
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

DESCRIPTION | DATE | REV.

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

SIGNING
SHEET 23 OF 23

TUBULAR TRUSS
CROSS SECTIONS



SCALE

0 50 100 150

NOTES: SEE SPECIAL SHEETS FOR BYPASS DETAIL
SEE TRAFFIC CONTROL SHEETS FOR STAGING DETAIL

BYPASS 1-3
PAVEMENT MARKING
SHEET 1 OF 8

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 9/12/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	72

COUNTY: DUNKLIN
JOB NO.: J9P3077
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.:

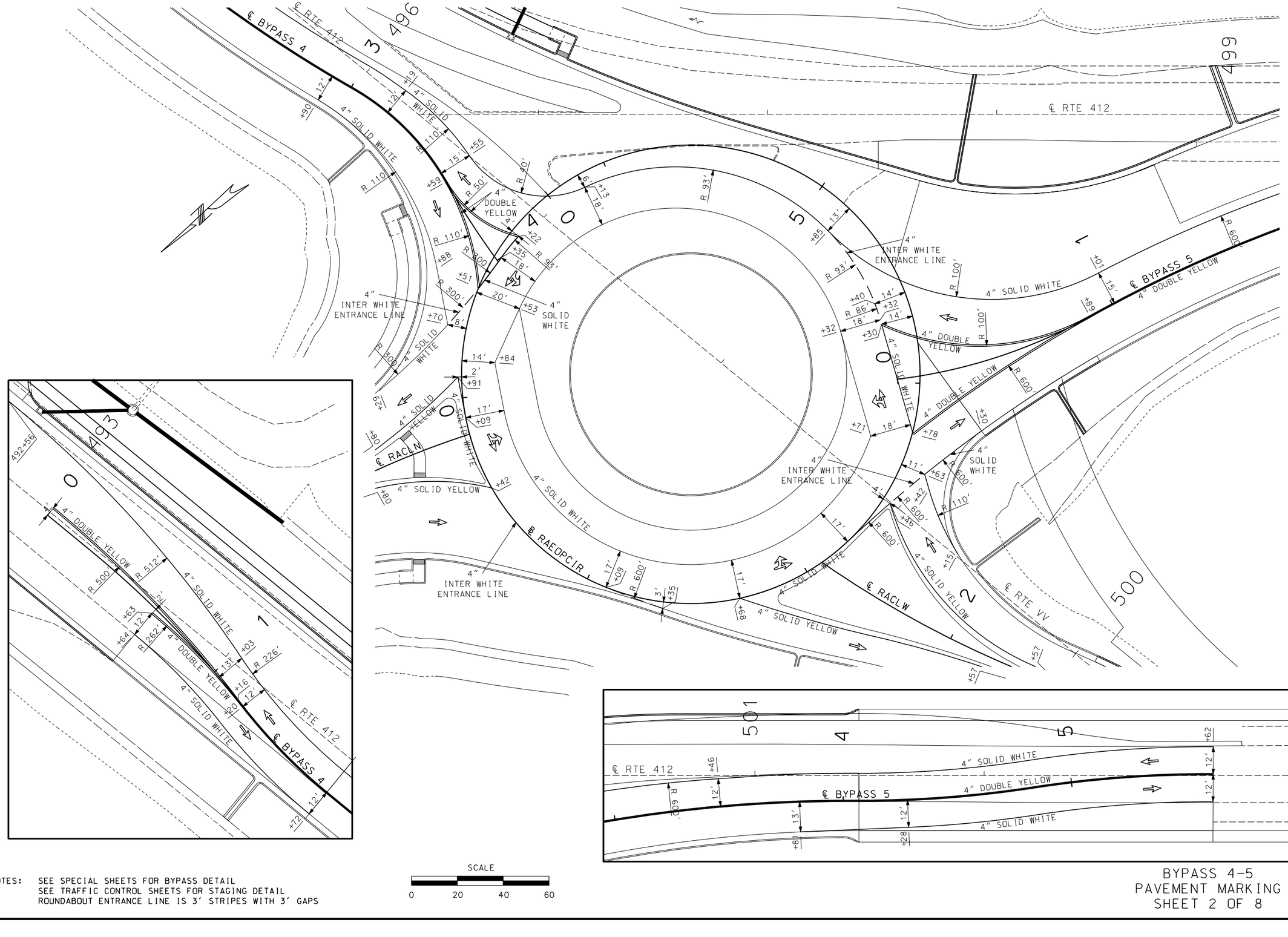
DESCRIPTION	DATE

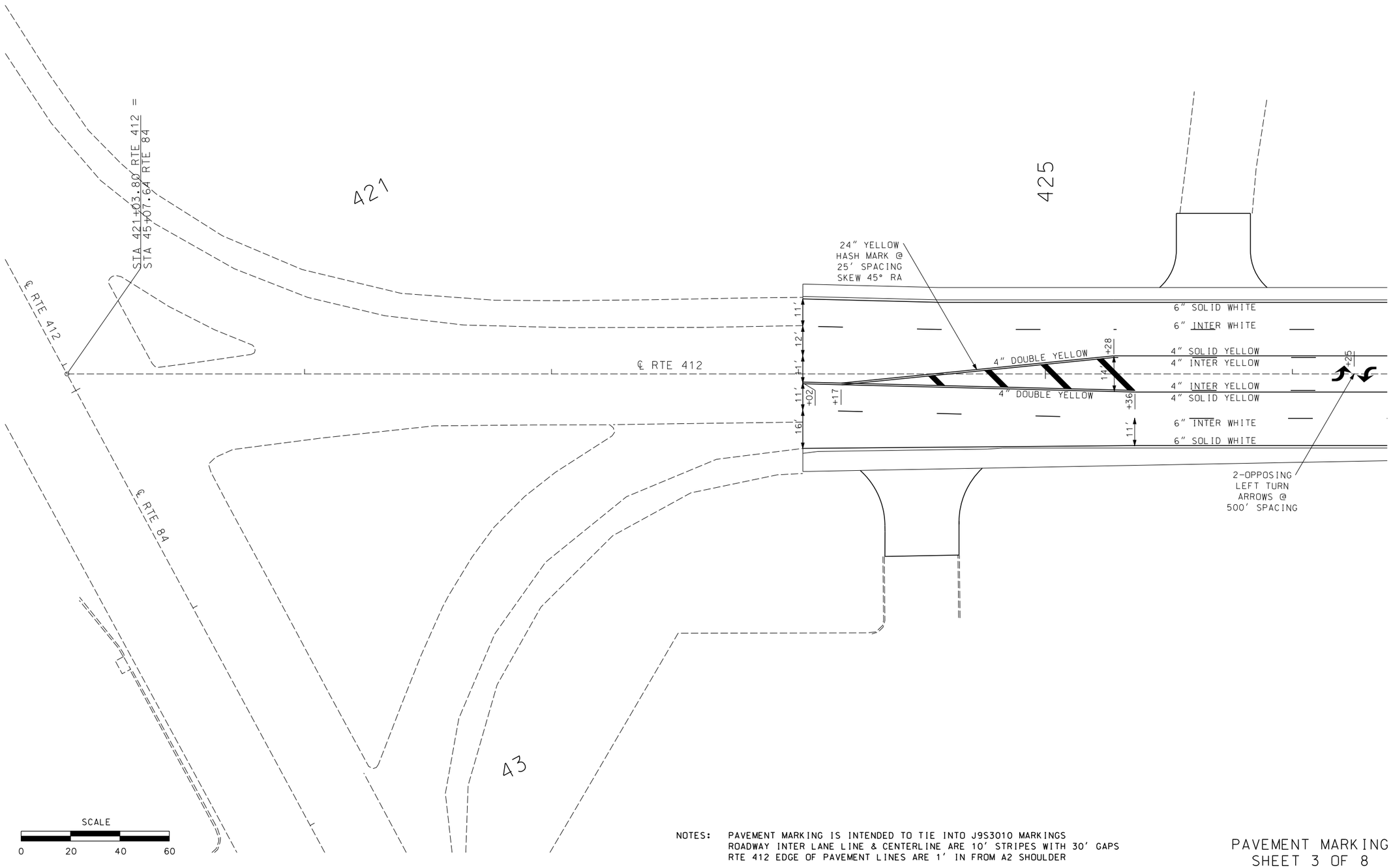
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

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

REV.


℄ RTE 412
℄ BYPASS 4
℄ BYPASS 5
℄ RACLN
℄ RAEOPCIR
℄ RACLW
℄ RTE VV
4" SOLID WHITE
4" DOUBLE YELLOW
4" SOLID YELLOW
4" INTER WHITE ENTRANCE LINE
4" SOLID WHITE
4" INTER WHITE ENTRANCE LINE
4" INTER WHITE ENTRANCE LINE
4" DOUBLE YELLOW
4" SOLID WHITE
4" DOUBLE YELLOW
4" SOLID WHITE
4" SOLID WHITE
4" DOUBLE YELLOW
4" SOLID WHITE
4" SOLID WHITE
4" DOUBLE YELLOW
4" SOLID WHITE
4" SOLID WHITE
4" DOUBLE YELLOW
4" SOLID WHITE
4" SOLID WHITE
4" SOLID YELLOW
4" SOLID YELLOW
4" SOLID YELLOW
4" SOLID YELLOW
R 110'
R 300'
R 93'
R 100'
R 600'
R 500'
R 512'
R 262'
R 226'
R 86'
R 40'
R 50'
R 609'
R 110'
R 600'
R 600'
R 600'
R 600'
R 600'
R 110'
R 600'
R 600'
R 600'
R 600'
R 600



NOTES: PAVEMENT MARKING IS INTENDED TO TIE INTO J9S3010 MARKINGS
ROADWAY INTER LANE LINE & CENTERLINE ARE 10' STRIPES WITH 30' GAPS
RTE 412 EDGE OF PAVEMENT LINES ARE 1' IN FROM A2 SHOULDER

PAVEMENT MARKING
SHEET 3 OF 8

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
10/10/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	74

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

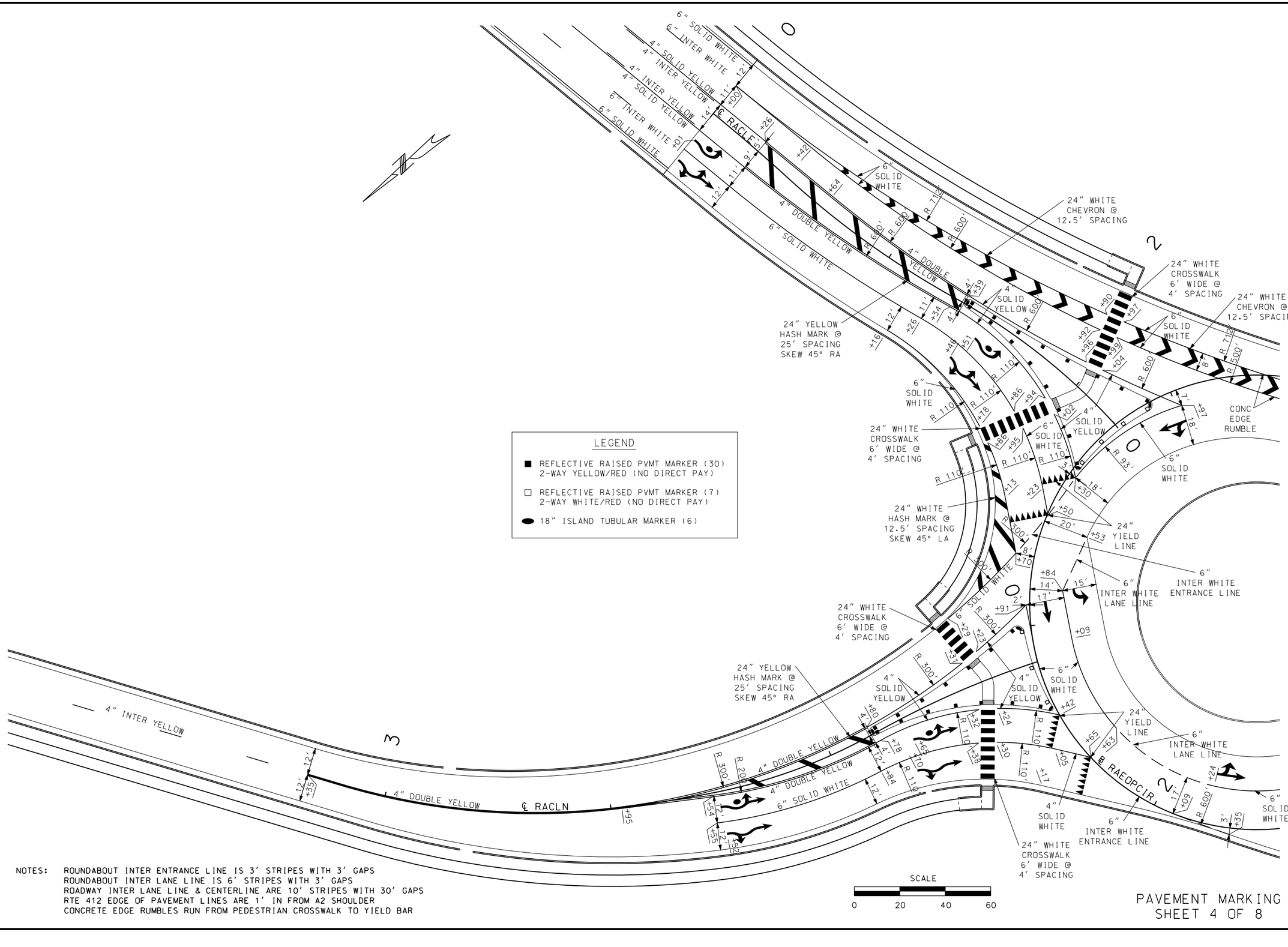
DESCRIPTION	DATE

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)

REV.



NOTES: ROUNDABOUT INTER ENTRANCE LINE IS 3' STRIPES WITH 3' GAPS
ROUNDABOUT INTER LANE LINE IS 6' STRIPES WITH 3' GAPS
ROADWAY INTER LANE LINE & CENTERLINE ARE 10' STRIPES WITH 30' GAPS
RTE 412 EDGE OF PAVEMENT LINES ARE 1' IN FROM A2 SHOULDER
CONCRETE EDGE RUMBLES RUN FROM PEDESTRIAN CROSSWALK TO YIELD BAR

PAVEMENT MARKING
SHEET 4 OF 8

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 9/12/2014

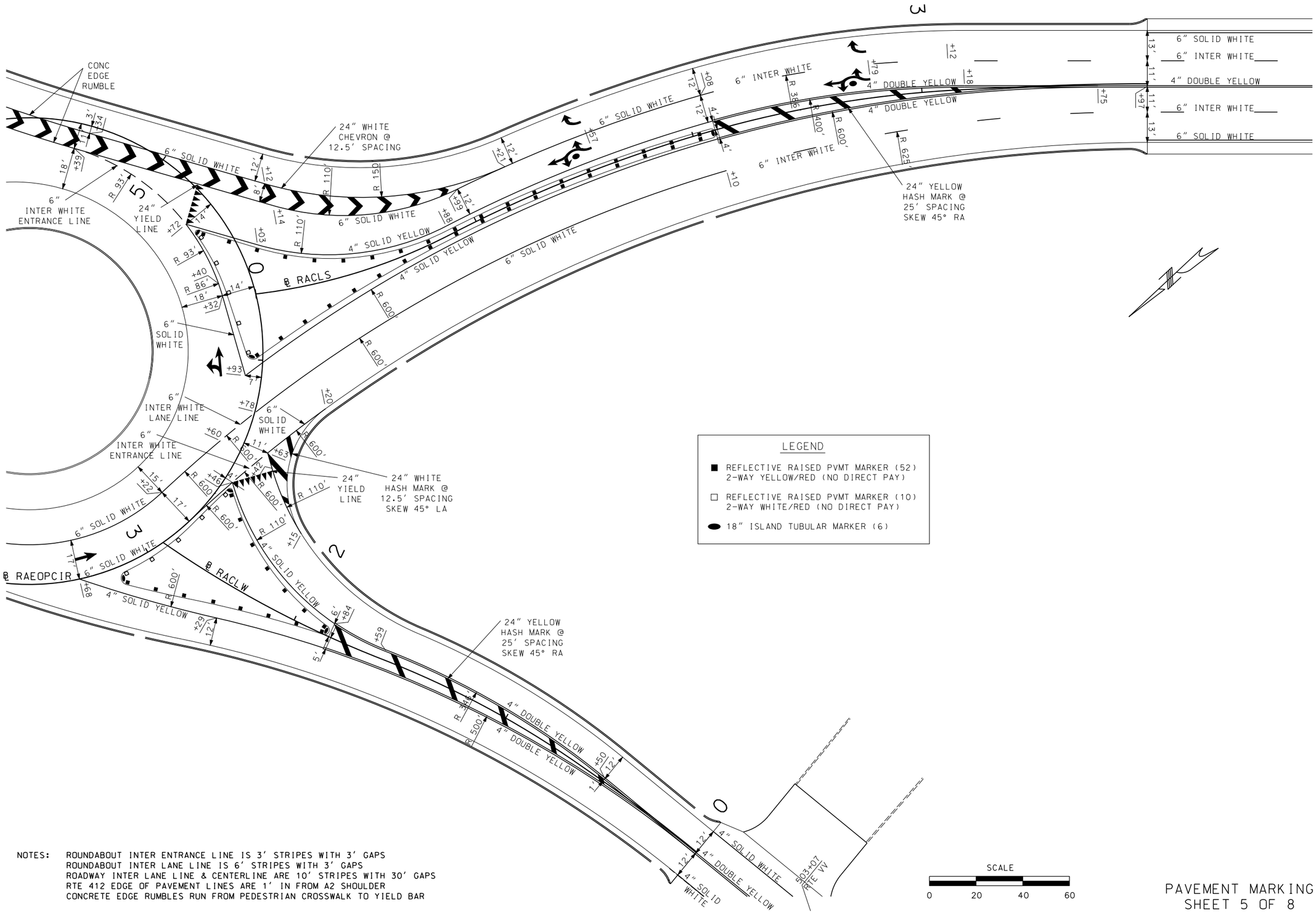
ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	75

COUNTY: DUNKLIN
JOB NO.: J9P3077
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.:

DATE	DESCRIPTION	REV.

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

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



NOTES: ROUNDABOUT INTER ENTRANCE LINE IS 3' STRIPES WITH 3' GAPS
ROUNDABOUT INTER LANE LINE IS 6' STRIPES WITH 3' GAPS
ROADWAY INTER LANE LINE & CENTERLINE ARE 10' STRIPES WITH 30' GAPS
RTE 412 EDGE OF PAVEMENT LINES ARE 1' IN FROM A2 SHOULDER
CONCRETE EDGE RUMBLES RUN FROM PEDESTRIAN CROSSWALK TO YIELD BAR

PAVEMENT MARKING
SHEET 5 OF 8

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/12/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	76

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

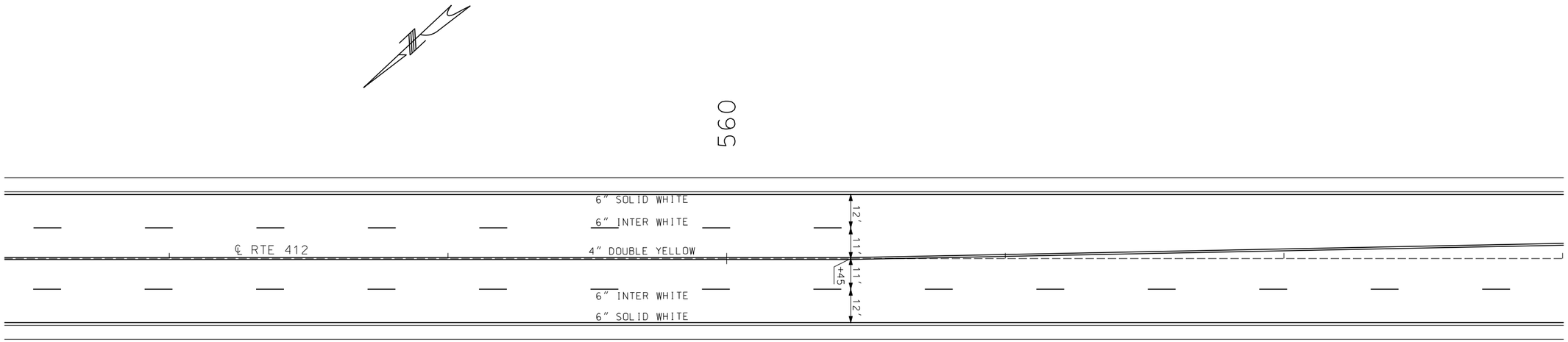
BRIDGE NO.

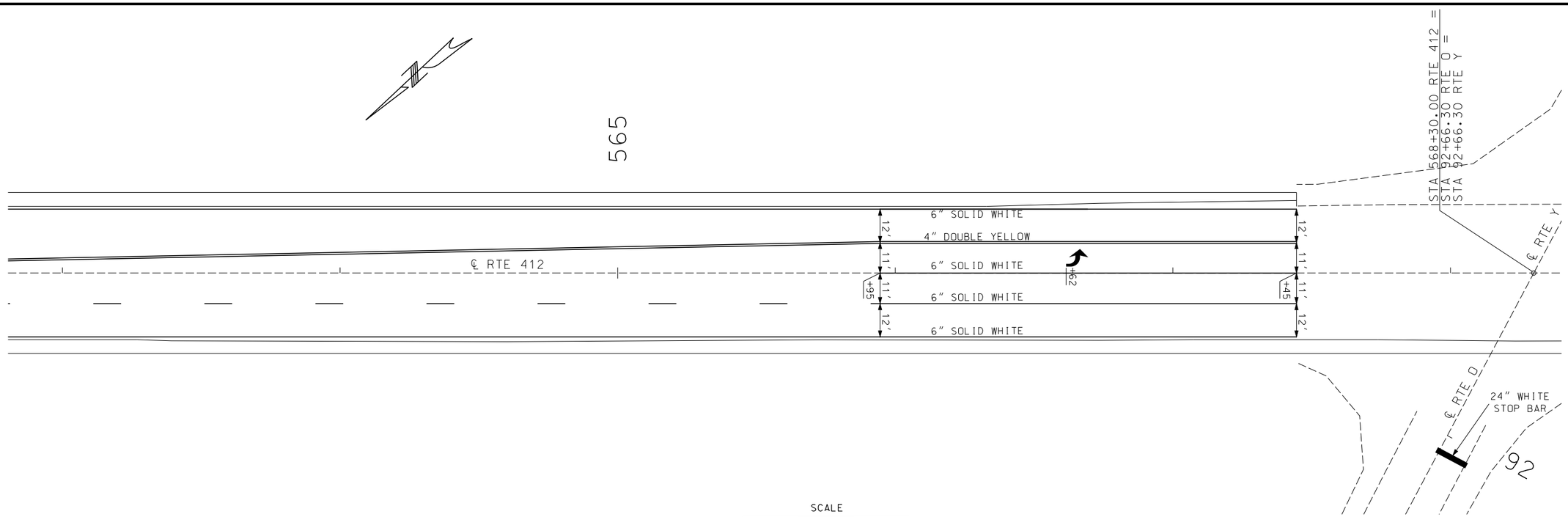
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

DATE	DESCRIPTION	REV.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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





NOTES: ROADWAY INTER LANE LINE & CENTERLINE ARE 10' STRIPES WITH 30' GAPS
RTE 412 EDGE OF PAVEMENT LINES ARE 1' IN FROM A2 SHOULDER

SCALE
0 20 40 60

PAVEMENT MARKING
SHEET 6 OF 8

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

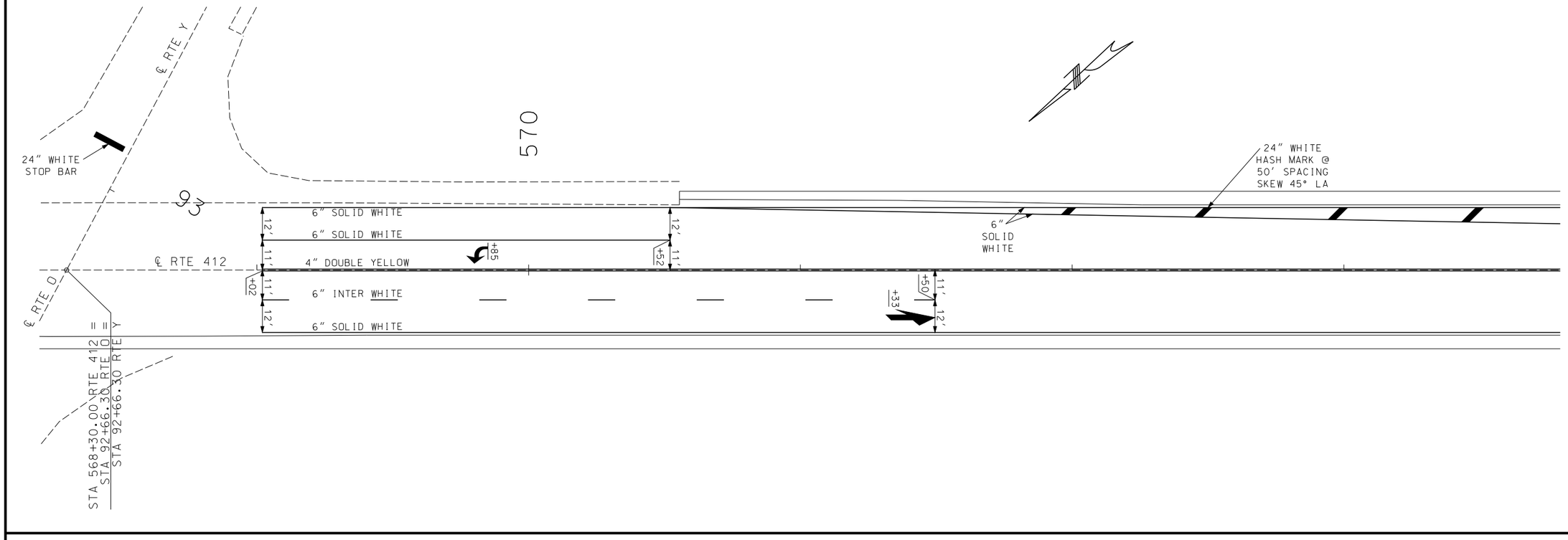
DATE PREPARED 9/12/2014
ROUTE 412 | STATE MO
DISTRICT SE | SHEET NO. 77
COUNTY DUNKLIN
JOB NO. J9P3077
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

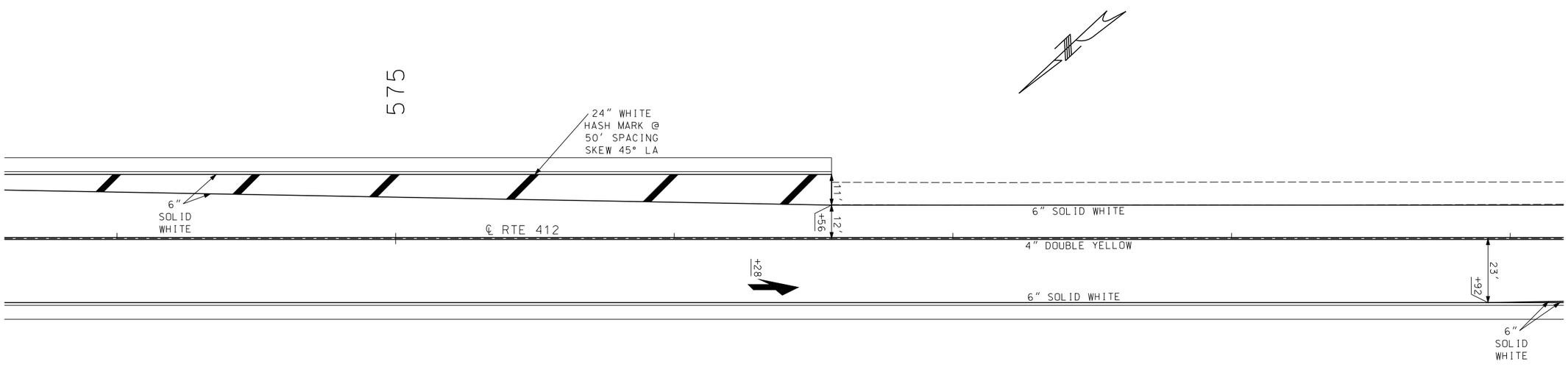
DESCRIPTION | DATE

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)

REV.





NOTES: ROADWAY INTER LANE LINE & CENTERLINE ARE 10' STRIPES WITH 30' GAPS
RTE 412 EDGE OF PAVEMENT LINES ARE 1' IN FROM A2 SHOULDER

SCALE
0 20 40 60

PAVEMENT MARKING
SHEET 7 OF 8

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/12/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	78

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

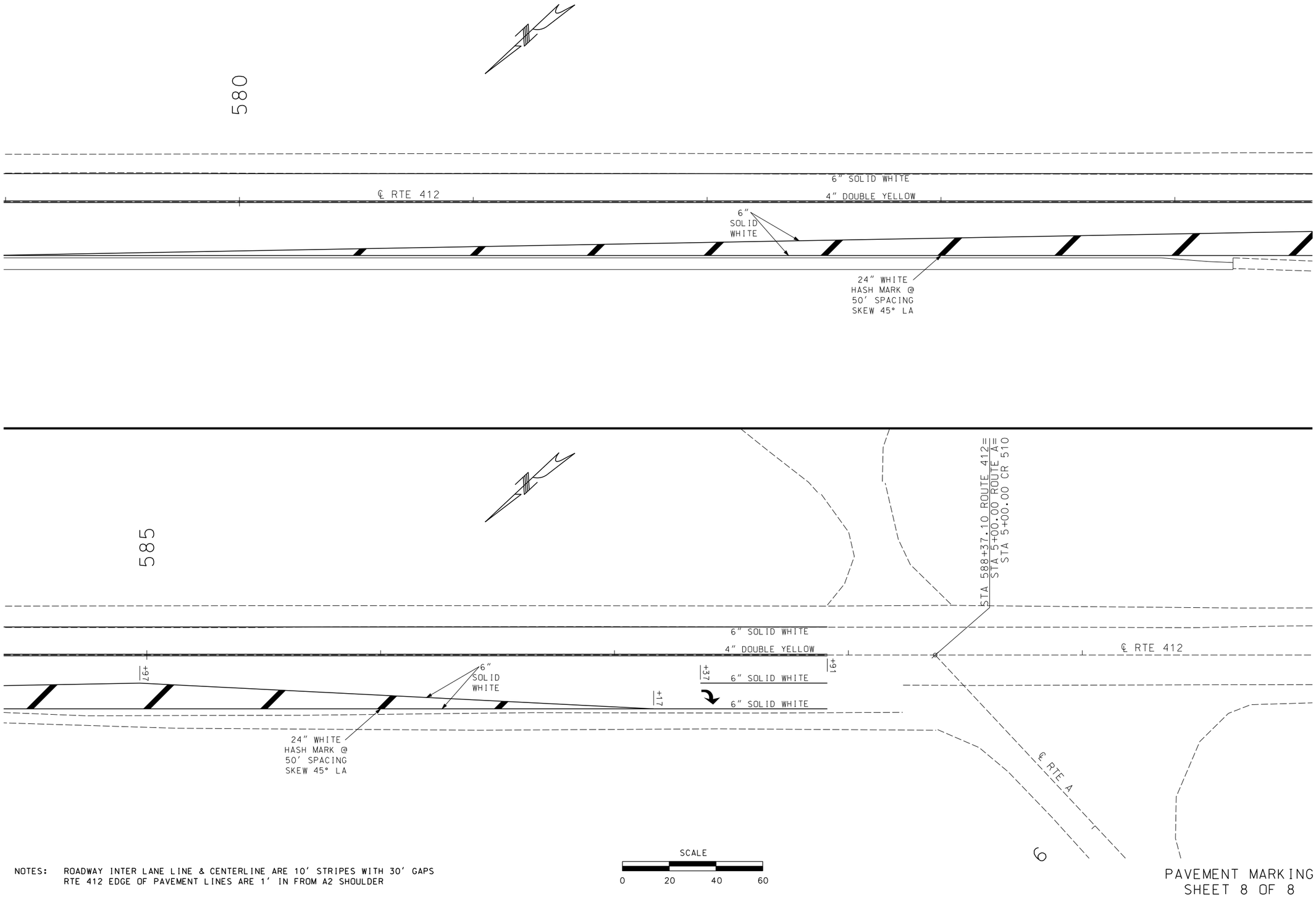
PROJECT NO.

BRIDGE NO.

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DATE	DESCRIPTION	REV.

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



NOTES: ROADWAY INTER LANE LINE & CENTERLINE ARE 10' STRIPES WITH 30' GAPS
RTE 412 EDGE OF PAVEMENT LINES ARE 1' IN FROM A2 SHOULDER

PAVEMENT MARKING
SHEET 8 OF 8

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/12/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	79

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

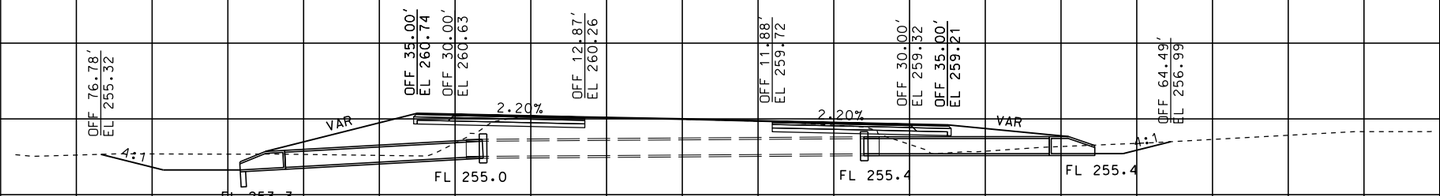
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MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

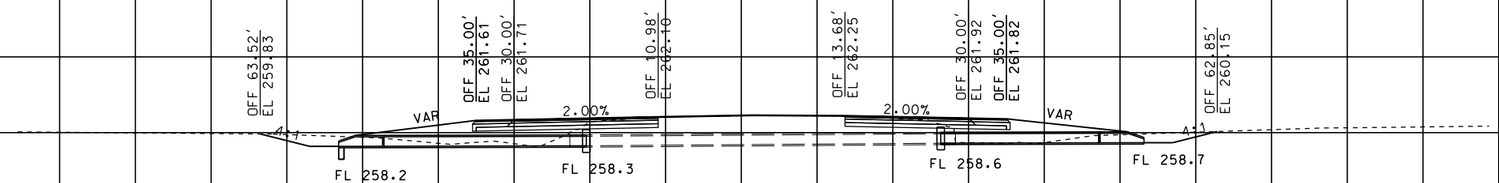
REV.



460+00.58
RTE412

STA 460+00.58
24" GROUP A PIPE
EXT 29' LT
1-24" TYPE A PIPE COLLAR
1-24" FES
CL 3 = 11 CY
INSTALLATION TYPE 4
CATEGORY 3 BEDDING
~~REMOVE HDWL & 1' OF PIPE~~

STA 460+00.58
24" GROUP A PIPE
EXT 27' RT
1-24" TYPE A PIPE COLLAR
1-24" FES
CL 3 = 7 CY
INSTALLATION TYPE 4
CATEGORY 3 BEDDING
~~REMOVE HDWL & 1' OF PIPE~~



437+99.95
RTE412

STA 437+99.95
15" GROUP A PIPE
EXT 31' LT
1-15" TYPE A PIPE COLLAR
1-15" FES
CL 3 = 5 CY
INSTALLATION TYPE 4
CATEGORY 3 BEDDING
REMOVE HDWL & 1' OF PIPE

STA 437+99.95
15" GROUP A PIPE
EXT 25' RT
1-15" TYPE A PIPE COLLAR
1-15" FES
CL 3 = 3 CY
INSTALLATION TYPE 4
CATEGORY 3 BEDDING
REMOVE HDWL & 1' OF PIPE

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

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DATE PREPARED
9/12/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	80

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

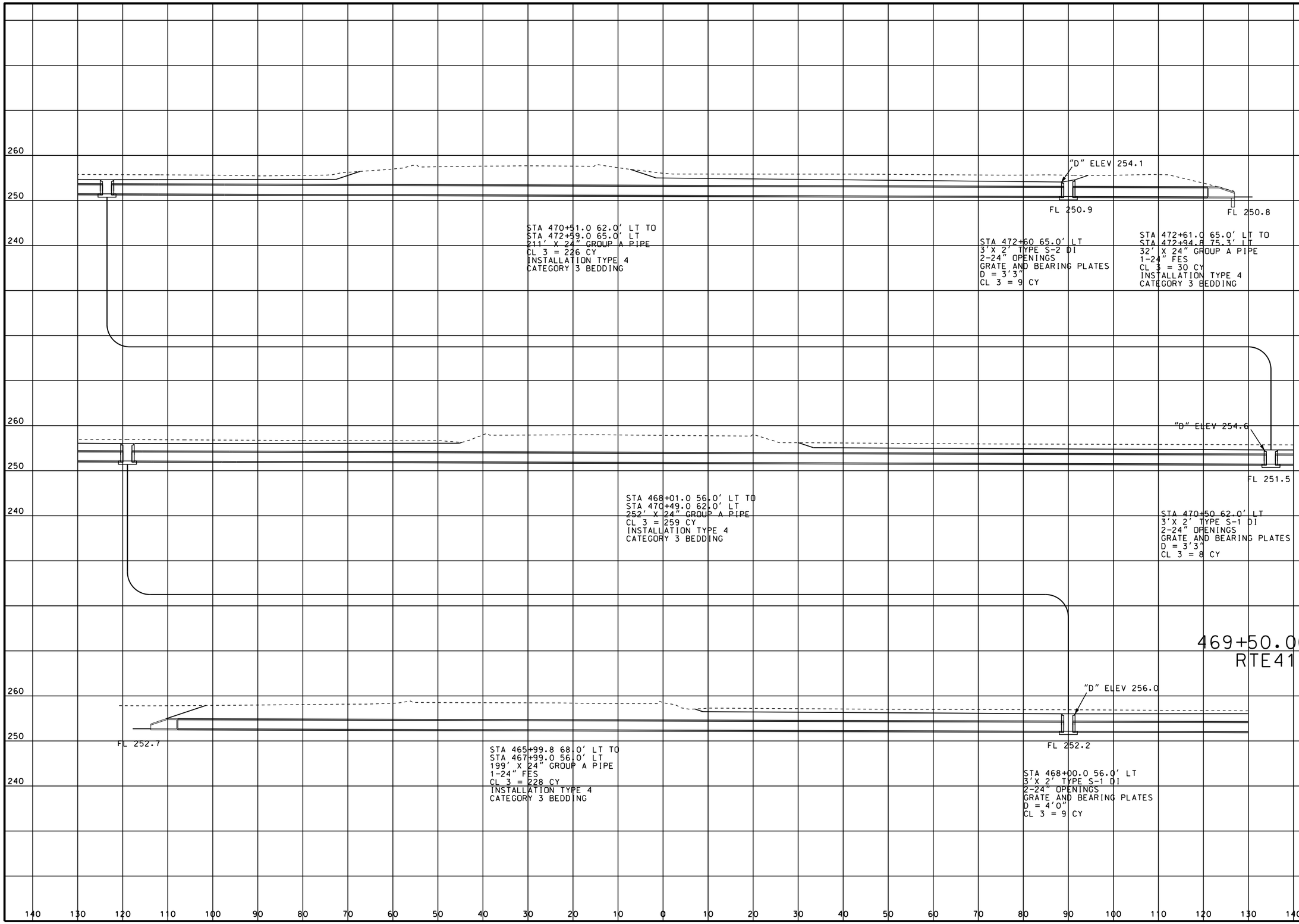
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DATE	DESCRIPTION	REV.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CULVERT SECTIONS
SHEET 1 OF 5



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED	
9/12/2014	
ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	81
COUNTY	
DUNKLIN	
JOB NO.	
J9P3077	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

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

DESCRIPTION

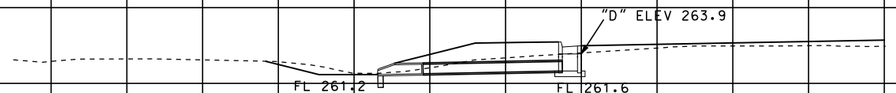
DATE

REV.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

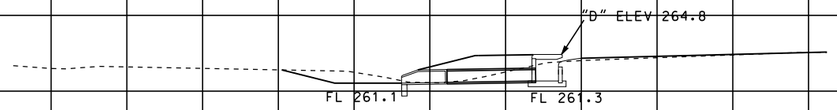
CULVERT SECTIONS
SHEET 2 OF 5



STA 1+69.4 2.5' LT TO
STA 1+69.4 26.9' LT
22' X 15" GROUP A PIPE
1-15" FES
CL 3 = 6 CY
INSTALLATION TYPE 4
CATEGORY 3 BEDDING

STA 1+69.4 1.5' LT
2'X 2' TYPE D PRECAST DI
CURVED VANE GRATE & FRAME
1-15" OPENING
D = 2'3"
CL 3 = 4 CY

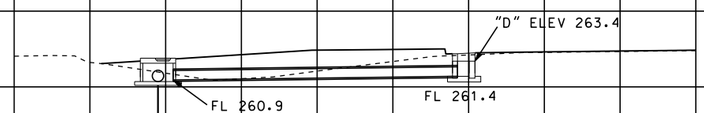
1+69.38
RAEOPSE



STA 0+63.8 6.0' LT TO
STA 0+63.8 23.7' LT
16' X 18" GROUP A PIPE
1-18" FES
CL 3 = 2 CY
INSTALLATION TYPE 4
CATEGORY 3 BEDDING

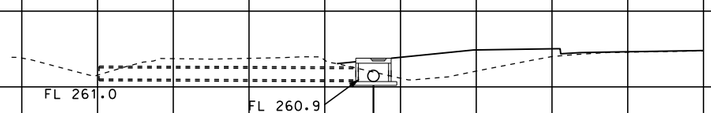
STA 0+63.8 4.5' LT
5'X 3' TYPE T PRECAST DI
TYPE 3 FRAME & COVER
1-18" OPENING
D = 3'6"
CL 3 = 7 CY

0+63.82
RAEOPSE



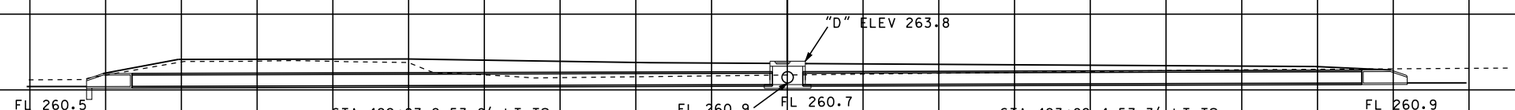
STA 492+70.3 31.5' LT TO
STA 492+98.8 55.9' LT
38' X 15" GROUP A PIPE
CL 3 = 7 CY
INSTALLATION TYPE 4
CATEGORY 3 BEDDING

STA 492+69.3 31.5' LT
2'X 2' TYPE D PRECAST DI
CURVED VANE GRATE & FRAME
1-15" OPENING
D = 2'0"
CL 3 = 5 CY



STA 493+00.2 93.5' LT TO
STA 493+00.4 59.2' LT
UIP EXIST 18" CMP
REMOVE 2' CMP AT MANHOLE

493+00.37
RTE412



STA 492+07.9 53.0' LT TO
STA 492+98.4 57.1' LT
88' X 18" GROUP A PIPE
1-18" FES
CL 3 = 37 CY
INSTALLATION TYPE 4
CATEGORY 3 BEDDING

STA 493+00.4 57.2' LT
4'PRECAST MANHOLE
TYPE 4 FRAME & COVER
3-18" OPENINGS
1-15" OPENING
D = 3'3"
CL 3 = 4 CY

STA 493+02.4 57.3' LT TO
STA 493+82.2 61.0' LT
78' X 18" GROUP A PIPE
1-18" FES
CL 3 = 26 CY
INSTALLATION TYPE 4
CATEGORY 3 BEDDING

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

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DATE PREPARED
9/12/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	82

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

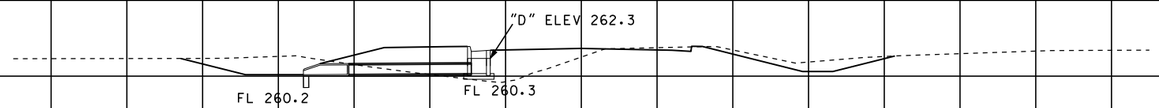
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CULVERT SECTIONS
SHEET 3 OF 5

REV.

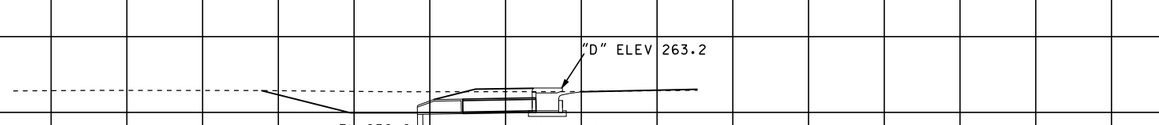
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STA 6+25.0 14.5' LT TO
STA 6+25.0 36.7' LT
20' X 15" GROUP A PIPE
1-15" FES
CL 3 = 4 CY
INSTALLATION TYPE 4
CATEGORY 3 BEDDING

STA 6+25.0 13.5' LT
2'X 2'TYPE D PRECAST DI
CURVED VANE GRATE & FRAME
1-15" OPENING
D = 2'0"
CL 3 = 0 CY

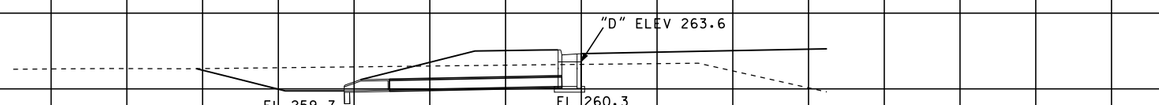
6+25.00
KENNETT



STA 6+61.5 6.0' LT TO
STA 6+61.5 21.6' LT
14' X 18" GROUP A PIPE
1-15" FES
CL 3 = 7 CY
INSTALLATION TYPE 4
CATEGORY 3 BEDDING

STA 6+61.5 4.5' LT
5'X 3'TYPE T PRECAST DI
TYPE 3 FRAME & COVER
1-18" OPENING
D = 3'0"
CL 3 = 8 CY

6+61.54
RAEOPNW



STA 4+54.1 2.5' LT TO
STA 4+54.1 31.5' LT
27' X 15" GROUP A PIPE
1-15" FES
CL 3 = 15 CY
INSTALLATION TYPE 4
CATEGORY 3 BEDDING

STA 4+54.1 1.5' LT
2'X 2'TYPE D PRECAST DI
CURVED VANE GRATE & FRAME
1-15" OPENING
D = 3'3"
CL 3 = 5 CY

4+54.09
RAEOPNW

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

STATE OF MISSOURI
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9/12/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	83

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

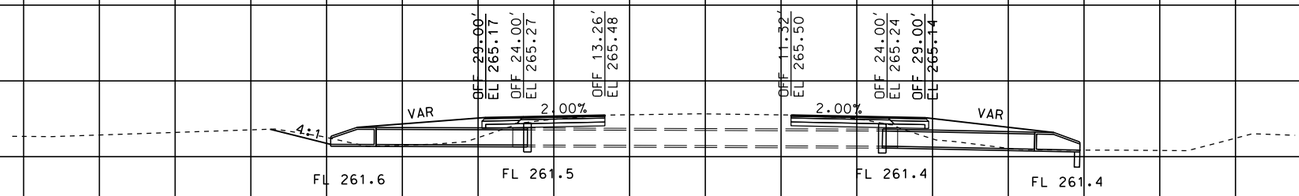
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CULVERT SECTIONS
SHEET 4 OF 5

REV.

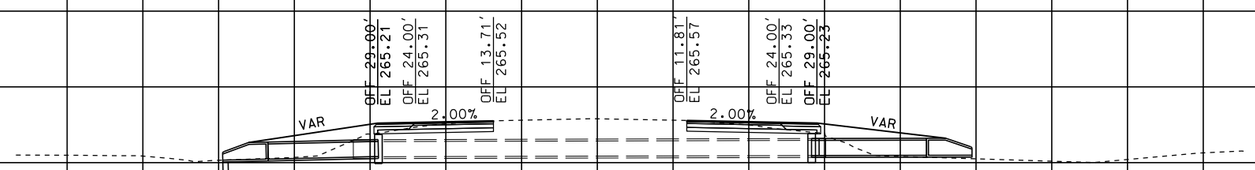
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STA 551+00.14
24" GROUP A PIPE
EXT 17' LT
1-24" TYPE A PIPE COLLAR
1-24" FES
CL 3 = 4 CY
INSTALLATION TYPE 4
CATEGORY 3 BEDDING
REMOVE HDWL & 1' OF PIPE

STA 551+00.14
24" GROUP A PIPE
EXT 23' LT
1-24" TYPE A PIPE COLLAR
1-24" FES
CL 3 = 5 CY
INSTALLATION TYPE 4
CATEGORY 3 BEDDING
REMOVE HDWL & 1' OF PIPE

551+00.14
RTE412



STA 529+00.82
24" GROUP A PIPE
EXT 17' LT
1-24" TYPE A PIPE COLLAR
1-24" FES
CL 3 = 4 CY
INSTALLATION TYPE 4
CATEGORY 3 BEDDING
REMOVE HDWL & 1' OF PIPE

STA 529+00.82
24" GROUP A PIPE
EXT 18' RT
1-24" TYPE A PIPE COLLAR
1-24" FES
CL 3 = 3 CY
INSTALLATION TYPE 4
CATEGORY 3 BEDDING
REMOVE HDWL & 1' OF PIPE

529+00.82
RTE412

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

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ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

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DATE PREPARED
9/12/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	84

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CULVERT SECTIONS
SHEET 5 OF 5

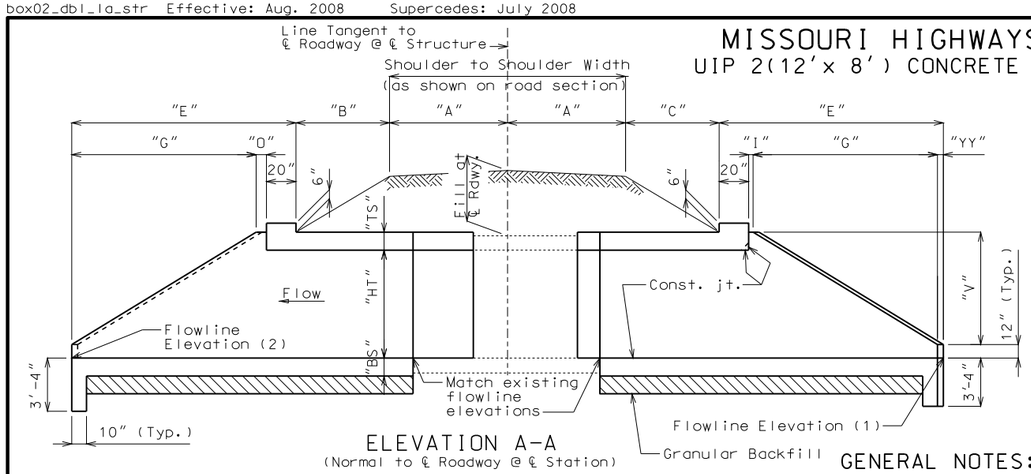
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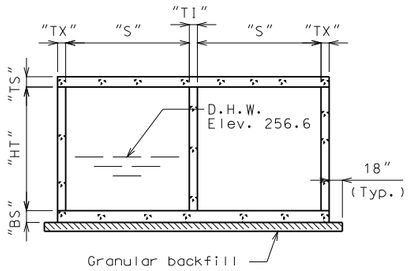
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

UIP 2(12′ x 8′) CONCRETE BOX CULVERT AND EXTEND UPSTREAM AND DOWNSTREAM

SEC/SUR 1 TWP 18N RGE 9E



ELEVATION A-A
(Normal to ℄ Roadway @ ℄ Station)



SECTION THRU BOX
(Normal to ℄ Structure)

Note: Slope of bottom slab shall be placed at natural stream gradient.

If unsuitable material is encountered, excavation of unsuitable material and furnishing and placing of granular backfill shall be in accordance with Sec 206.

GENERAL DATA TABLE

VARIABLE	EQUATION	DIM.	VARIABLE	EQUATION	DIM.
"S"	- - -	12′-0"	"O"	TX(cos Z)	$6\frac{7}{8}$"
"HT"	- - -	8′-0"	"T"	G(sec Z)	19′-$0\frac{5}{8}$"
"TS"	- - -	15"	"V"	HT + TS - 12"	8′-3"
"BS"	- - -	11"	"W"	2A + B + C + 2E	139′-8"
"TX"	- - -	8"	"X"	3" + TX(tan Z)	$7\frac{5}{8}$"
"TI"	- - -	$10\frac{1}{2}$"	"Z"	Skew Angle	30°
"A"	- - -	35′-0"	"BB"	(A + B)(sec Z)	58′-$10\frac{1}{4}$"
"B"	- - -	15′-$11\frac{5}{8}$"	"CC"	(A + C)(sec Z)	59′-$2\frac{1}{4}$"
"C"	- - -	16′-$3\frac{1}{8}$"	"EE"	E(sec Z)	21′-$7\frac{3}{8}$"
"E"	G + $6\frac{5}{8}$" + 20"	18′-$8\frac{5}{8}$"	"HH"	20"(sec Z)	$23\frac{1}{8}$"
"F"	2S + 2TX + TI	26′-$2\frac{1}{2}$"	"YY"	TX(sin Z)	4"
"G"	2V	16′-6"			
"H"	(A + C + E)(tan Z)	40′-$4\frac{7}{8}$"			
"I"	3"(cos Z)	$2\frac{5}{8}$"			
"J"	(A + B + E)(tan Z)	40′-$2\frac{3}{4}$"			
"K"	(S + TI/2)(sec Z)	14′-$4\frac{3}{8}$"			
"L"	2EE + BB + CC	161′-$3\frac{1}{4}$"			
"O"	I + YY	$6\frac{5}{8}$"			

Design Fill ✱ 2′-0"
Elev. (1) 248.70 feet
Elev. (2) 248.60 feet

✱ Design fill height is the distance from top of earth fill or roadway to the top of the top slab.

℄ Sta.= 472+70.45
Pr. Gr. Elev. at ℄ Sta.= 260.20
Fill at ℄ Rdwy. at ℄ Station = 2.63′

GENERAL NOTES:

Design Specifications:
AASHTO 1944, Allowable Stress Design (Units 2 & 3)
2010 AASHTO LRFD Bridge Design Specifications and
2010 Interim Revisions (Units 1 & 4)

Design Unit Stresses:
Class B-1 concrete f′c = 4,000 psi
Reinforcing steel (Grade 60), fy = 60,000 psi

Design Loading:
HL-93 (Units 1 & 4)
H15 (Units 2 & 3)

Earth 120 #/ft.³
Equivalent fluid pressure
30 #/ft.³ (Min.) - 60 #/ft.³ (Max.)

Miscellaneous:
All elevations shown are in feet unless otherwise noted.

Minimum clearance to reinforcing steel shall be 1 1/2", unless otherwise shown.

Traffic over structure to be maintained during construction. See Roadway plans for traffic control.

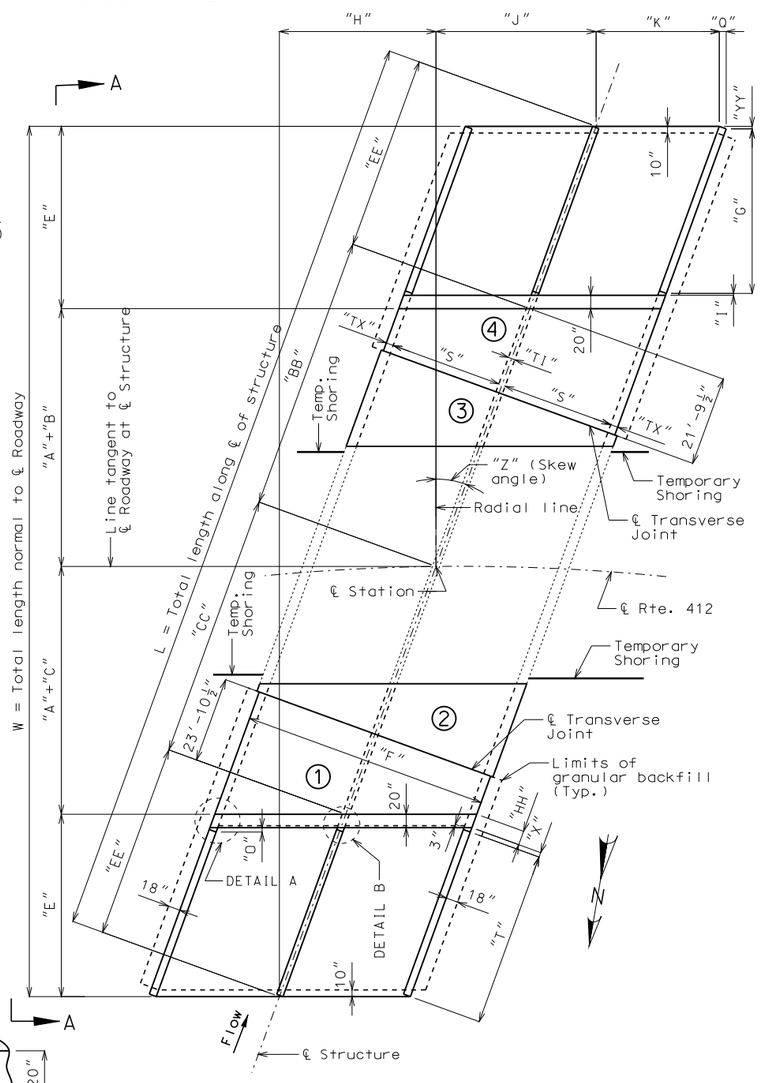
Outline of old work is indicated by light dashed lines. Heavy lines indicate new work.

Bottom of top slab, top of bottom slab, and inside faces of walls shall be built flush with the existing structure.

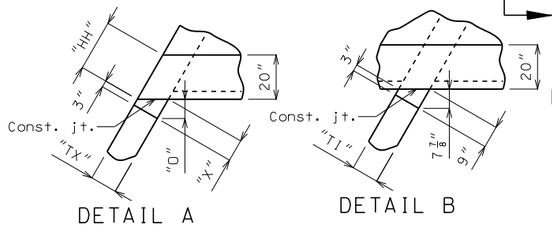
Contractor shall verify all dimensions in field before ordering new material.

Channel bottom shall be graded within the right of way for transition of channel bed to culvert openings. Channel banks shall be tapered to match culvert openings.

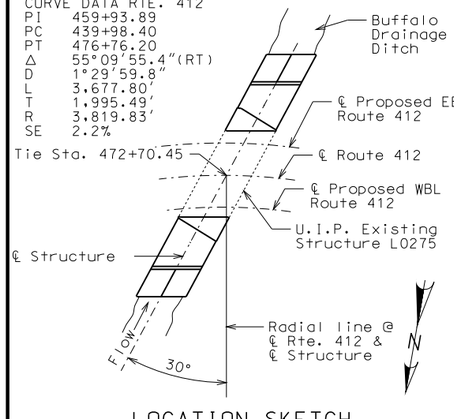
If any part of the barrel is exposed, the roadway fill shall be warped to provide 12 inches minimum cover. (Roadway Item)



PLAN SHOWING LAYOUT DIMENSIONS



CURVE DATA RTE. 412
PI 459+93.89
PC 439+98.40
PT 476+76.20
Δ 55°09′55.4"(RT)
D 1°29′59.8"
L 3,677.80′
T 1,995.49′
R 3,819.83′
SE 2.2%



LOCATION SKETCH

Designed Mar. 2014
Detailed Apr. 2014
Checked July 2014

HYDROLOGIC DATA

Drainage Area = 2.11 (sq. mi.)
Design High Water (DHW) Elev. = 256.6
Design High Water Frequency = 50 (year)
Design High Water Discharge = 446 (cfs)
Backwater/Base Flood Data (100 year)
High Water Elev. = 257.8
Design Discharge = 809 (cfs)
Estimated Backwater = 0.51 (ft)
Outlet Velocity = 4.2 (ft/sec)
Roadway Overtopping
Design Elev. (1′ below shoulder) = 258.4
Design Discharge = > 500 (year)
Design Frequency = > 500 (year)

ESTIMATED QUANTITIES

			FINAL QUANTITIES
Class 4 Excavation	cu. yard	190	
Temporary Shoring	lump sum	1	
Partial Removal of Culvert-Bridge Concrete	lump sum	1	
Class B-1 Concrete (Culverts-Bridge)	cu. yard	220.4	
Reinforcing Steel (Culverts-Bridge)	pound	28,720	

B.M.#4 - CHISELED "□" TOP CTR N HDWL
OFF 25.35′ RT. ELEV. 258.40

REPAIRS TO BRIDGE: RTE.412 OVER BUFFALO DRAINAGE DITCH

STATE ROAD FROM RTE. 84 TO RTE. 164
ABOUT 1 MILE SOUTH OF RTE. 84
STA. 472+70.45

STD. 703.37
STD. 703.42
STD. 706.35

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

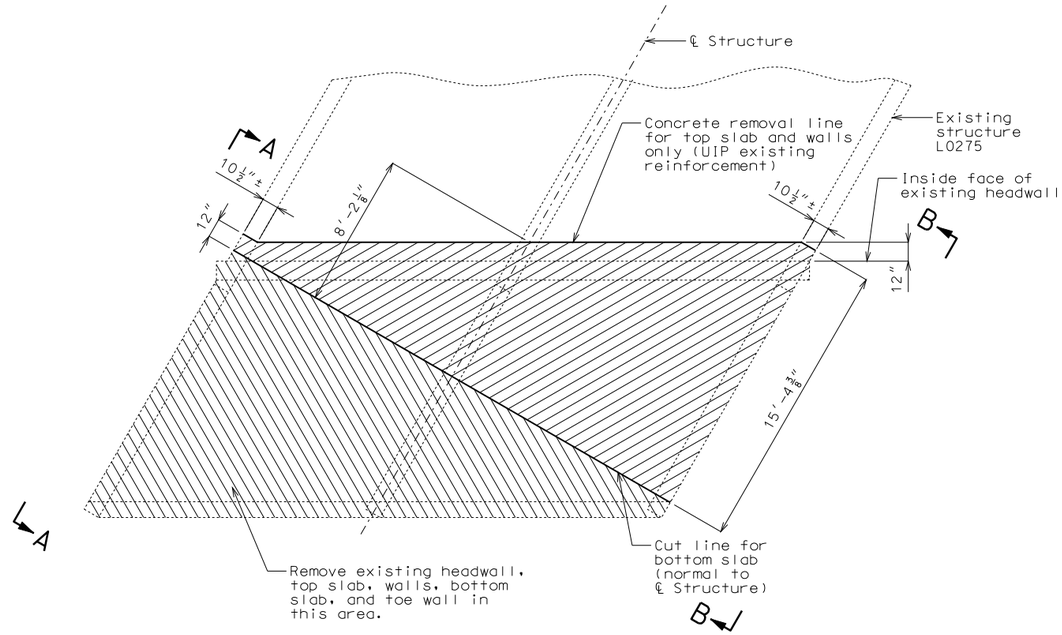
STATE OF MISSOURI
DEAN DAVID FRANKE
NUMBER PE-28132
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 9/3/2014
ROUTE 412 | STATE MO
DISTRICT BR | SHEET NO. 1
COUNTY DUNKLIN
JOB NO. J9P3077
CONTRACT ID.
PROJECT NO.
BRIDGE NO. L02751

DESCRIPTION | DATE

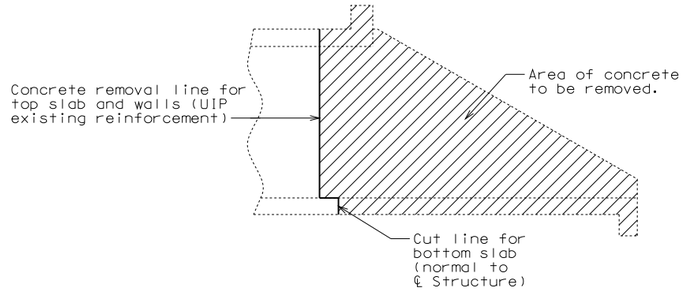
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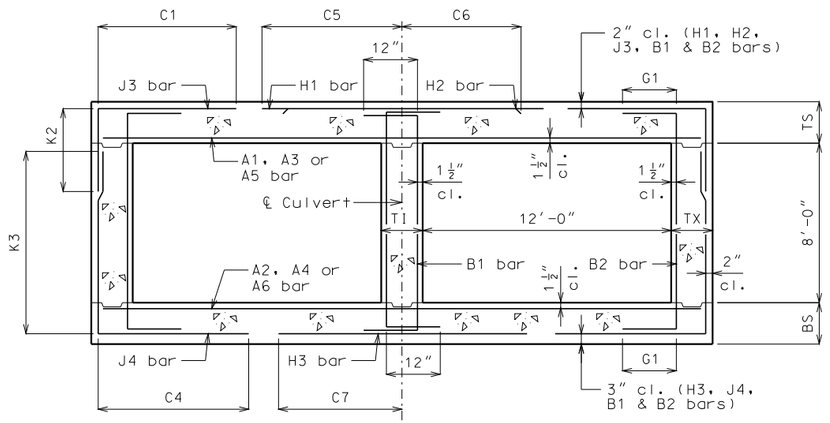
PART PLAN SHOWING CONCRETE REMOVAL

Upstream (North) end shown,
Downstream (South) end similar



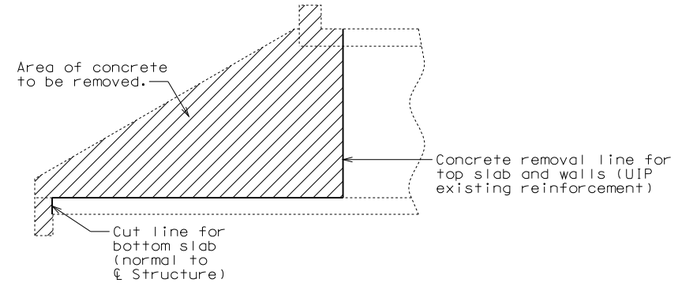
ELEVATION A-A

Upstream end shown,
downstream end similar



BAR DIMENSIONS DIAGRAM FOR UNITS 1 & 4

Symmetrical about ℄ Culvert



ELEVATION B-B

Upstream end shown,
downstream end similar

MEMBER THICKNESS				TOP SLAB BARS												BOTTOM SLAB BARS										WALL BARS				
				A1 BARS		J3 BARS				H1 BARS			H2 BARS			A2 BARS		J4 BARS				H3 BARS				B1 BARS		B2 BARS		
TS	BS	TX	TI	SIZE	SPA.	SIZE	SPA.	C1	K2	SIZE	SPA.	C5	SIZE	SPA.	C6	SIZE	SPA.	SIZE	SPA.	C4	K3	SIZE	SPA.	C7		SIZE	SPA.	SIZE	SPA.	G1
15	11	8	10.5	6	8	4	6.5	59.1	31.0	6	16	119.5	6	16	40.5	5	7.5	5	7.5	47.9	103	6	6.5	57.5		5	12	5	12	12

UNITS 1 & 4

Dimensions are in inches unless otherwise specified.

For dimensions and reinforcement of Units 2 & 3, see Sheet No. 3.

General Notes:

Hatching indicates those areas of the existing culvert which shall be removed.

Payment for removal of existing top slab, bottom slab, walls, headwalls and wings will be considered completely covered by the contract lump sum price for Partial Removal of Culvert-Bridge Concrete.

Bars bonded in old concrete not removed shall be cleanly stripped and embedded into new concrete where possible. If length is available, old bars shall extend into new concrete at least 40 diameters for plain bars and 30 diameters for deformed bars, unless otherwise noted.

Detailed Apr. 2014
Checked July 2014

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

STATE OF MISSOURI
DEAN DAVID FRANKE
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DATE PREPARED 9/3/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
BR	2

COUNTY: DUNKLIN

JOB NO.: J9P3077

CONTRACT ID.:

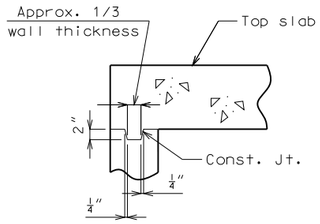
PROJECT NO.:

BRIDGE NO.: L02751

DESCRIPTION	DATE

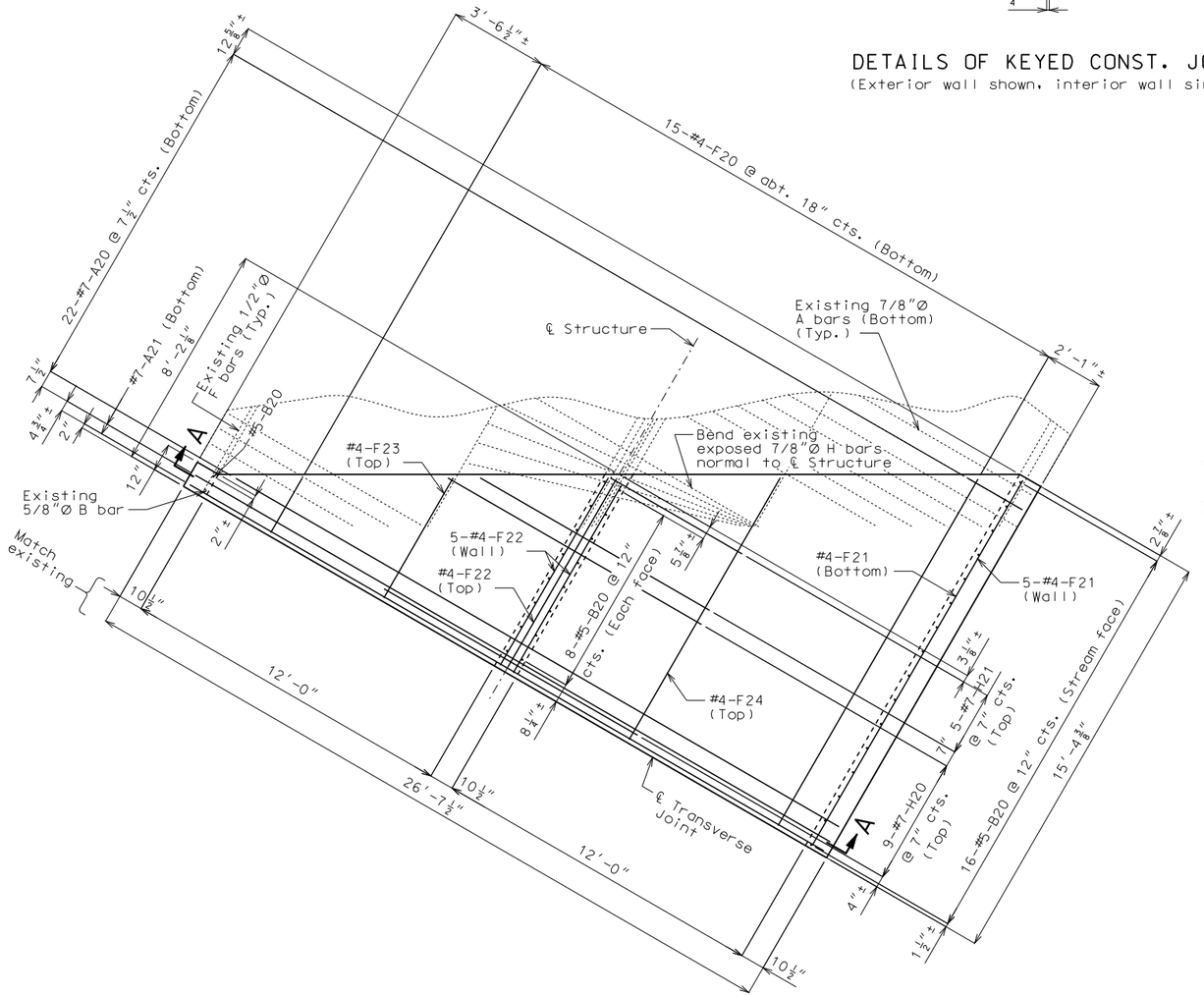
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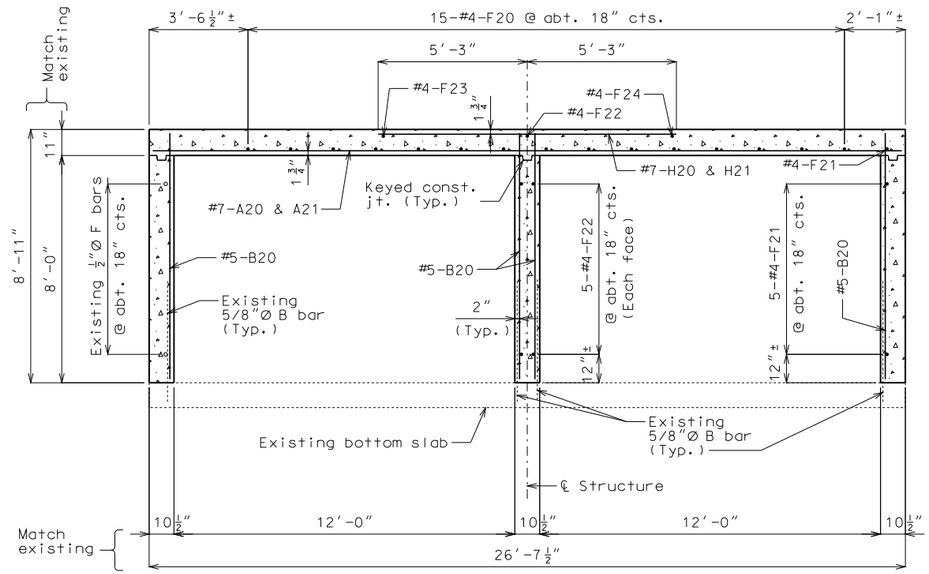
DETAILS OF KEYED CONST. JOINT

(Exterior wall shown, interior wall similar)



PLAN OF TOP SLAB SHOWING REINFORCEMENT

Filter cloth shall be applied over concrete removal line for top slab and exterior walls. See Missouri Standard Plan 703.42.



SECTION A-A

General Notes:

Clean, straighten, and use existing reinforcing bars embedded in old concrete. Lap new reinforcing bars with existing bars where possible. Cut off existing bars where necessary to maintian 1 1/2" clearance to transverse joint.

See note on Sheet No. 2 concerning bars bonded in old concrete.

DETAILS OF UNITS 2 & 3

Detailed Apr. 2014
Checked Aug. 2014

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

STATE OF MISSOURI
DEAN DAVID FRANKE
NUMBER PE-28132
PROFESSIONAL ENGINEER

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DATE PREPARED 9/3/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
BR	3

COUNTY: DUNKLIN

JOB NO.: J9P3077

CONTRACT ID.:

PROJECT NO.:

BRIDGE NO.: L02751

DESCRIPTION	DATE

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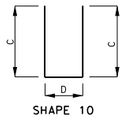
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
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BILL OF REINFORCING STEEL

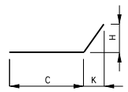
NO. REQ'D.	MARK NO. SIZE	MARK	LOCATION	SHAPE NO.	STIRRUP (S)	EPOXY (E)	VARIES (V)	NO. EACH	DIMENSIONS B FT.	C FT.	D or F FT.	E FT.	H FT.	K FT.	NOMINAL LENGTH FT. IN.	ACTUAL LENGTH FT. IN.	WEIGHT LBS.
			Upper End Section														
27	6	A1	Top Slab	20				1	25.875						25'-11"	25'-11"	1050
29	5	A2	Bottom Slab	20				1	25.875						25'-11"	25'-11"	783
21	6	A3	Top Slab	20			V	1	25.094		Incr =	13.856	inches		25'-1"	25'-1"	428
									2.000						2'-0"	2'-0"	
94	4	J3	Top Corner	19				1	2.583	4.925					7'-6"	7'-5"	465
86	5	J4	Bottom Corner	19				1	8.583	3.992					12'-7"	12'-5"	1117
54	5	B1	Interior Walls	10				1		1.000	9.750				11'-9"	11'-6"	647
53	5	B2	Exterior Walls	10				1		1.000	9.750				11'-9"	11'-6"	635
18	6	H1	Top Slab	20				1	19.917						19'-11"	19'-11"	539
18	6	H2	Top Slab	20				1	6.750						6'-9"	6'-9"	183
47	6	H3	Bottom Slab	20				1	9.583						9'-7"	9'-7"	677
9	4	F10	Temp. Steel	20				1	17.580						17'-7"	17'-7"	106
13	4	F14	Temp. Steel	20				1	25.049						25'-1"	25'-1"	218
9	4	F23	Temp. Steel	20				1	32.519						32'-6"	32'-6"	196
1	4	F24	Temp. Steel	20				1	19.884						19'-11"	19'-11"	13
1	4	F25	Temp. Steel	20				1	22.283						22'-3"	22'-3"	15
1	4	F28	Temp. Steel	20				1	27.816						27'-10"	27'-10"	19
1	4	F29	Temp. Steel	20				1	30.214						30'-3"	30'-3"	20
72	4	F30	Temp. Steel	20			V	3	32.519		Incr =	7.794	inches		32'-6"	32'-6"	1205
									17.580						17'-7"	17'-7"	
			Lower End Section														
24	6	A1	Top Slab	20				1	25.875						25'-11"	25'-11"	934
26	5	A2	Bottom Slab	20				1	25.875						25'-11"	25'-11"	702
21	6	A3	Top Slab	20			V	1	25.094		Incr =	13.856	inches		25'-1"	25'-1"	428
									2.000						2'-0"	2'-0"	
88	4	J3	Top Corner	19				1	2.583	4.925					7'-6"	7'-5"	435
80	5	J4	Bottom Corner	19				1	8.583	3.992					12'-7"	12'-5"	1039
50	5	B1	Interior Walls	10				1		1.000	9.750				11'-9"	11'-6"	599
50	5	B2	Exterior Walls	10				1		1.000	9.750				11'-9"	11'-6"	599
17	6	H1	Top Slab	20				1	19.917						19'-11"	19'-11"	509
17	6	H2	Top Slab	20				1	6.750						6'-9"	6'-9"	173
43	6	H3	Bottom Slab	20				1	9.583						9'-7"	9'-7"	619
9	4	F60	Temp. Steel	20				1	15.977						15'-12"	15'-12"	96
13	4	F64	Temp. Steel	20				1	23.447						23'-5"	23'-5"	204
9	4	F73	Temp. Steel	20				1	30.916						30'-11"	30'-11"	186
1	4	F74	Temp. Steel	20				1	18.282						18'-3"	18'-3"	12
1	4	F75	Temp. Steel	20				1	20.680						20'-8"	20'-8"	14
1	4	F78	Temp. Steel	20				1	26.213						26'-3"	26'-3"	18
1	4	F79	Temp. Steel	20				1	28.612						28'-7"	28'-7"	19
72	4	F80	Temp. Steel	20			V	3	30.916		Incr =	7.794	inches		30'-11"	30'-11"	1128
									15.977						15'-12"	15'-12"	
			Upper Wings and Headwall														
33	5	A2	Bottom Slab	20				1	25.875						25'-11"	25'-11"	891
23	5	A10	Bottom Slab	20			V	1	25.816		Incr =	12.990	inches		25'-10"	25'-10"	334
									2.000						2'-0"	2'-0"	
2	8	D1	Headwall	20				1	29.974						29'-12"	29'-12"	160
2	9	D2	Headwall	20				1	9.024						9'-0"	9'-0"	61
12	5	E1	Toe	20				1	4.000						4'-0"	4'-0"	50
24	4	F52	Straight Wings	20			V	4	20.908		Incr =	32.332	inches		20'-11"	20'-11"	227
									7.437						7'-5"	7'-5"	
7	4	F54	Bottom Slab	20				1	22.063						22'-1"	22'-1"	103
23	4	F55	Bottom Slab	20				1	22.063						22'-1"	22'-1"	339
38	5	G1	Interior Walls	20			V	2	9.794		Incr =	5.196	inches		9'-10"	9'-10"	234
									2.000						2'-0"	2'-0"	
38	5	G2	Exterior Wings	20			V	2	9.794		Incr =	5.196	inches		9'-10"	9'-10"	234
									2.000						2'-0"	2'-0"	
37	6	H3	Bottom Slab	20				1	9.583						9'-7"	9'-7"	533
4	8	H10	Headwall	20				1	29.974						29'-12"	29'-12"	320
12	7	J1	Straight Wings	20		FB		1	24.397						24'-5"	24'-5"	599
58	5	J5	Exterior Wings	19			V	2	9.578	3.992	Incr =	3.248	inches		13'-7"	13'-5"	584
									2.000	3.992					5'-12"	5'-10"	
31	5	R1	HeadWall	27	S			1	1.417	1.156		2.198	0.344	0.344	5'-3"	5'-2"	167
31	5	R2	HeadWall	10	S			1		0.875	1.500				3'-3"	3'-0"	98

BILL OF REINFORCING STEEL

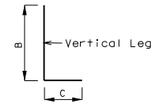
NO. REQ'D.	MARK NO. SIZE	MARK	LOCATION	SHAPE NO.	STIRRUP (S)	EPOXY (E)	VARIES (V)	NO. EACH	DIMENSIONS B FT.	C FT.	D or F FT.	E FT.	H FT.	K FT.	NOMINAL LENGTH FT. IN.	ACTUAL LENGTH FT. IN.	WEIGHT LBS.
			Lower Wings and Headwall														
32	5	A2	Bottom Slab	20				1	25.875						25'-11"	25'-11"	864
23	5	A10	Bottom Slab	20			V	1	25.816			Incr =	12.990	inches	25'-10"	25'-10"	334
									2.000						2'-0"	2'-0"	
2	8	D1	Headwall	20				1	29.974						29'-12"	29'-12"	160
2	9	D2	Headwall	20				1	9.024						9'-0"	9'-0"	61
12	5	E2	Heel	20				1	4.000						4'-0"	4'-0"	50
24	4	F42	Wings	20			V	4	20.427		Incr =	32.332	inches		20'-5"	20'-5"	220
									6.956						6'-11"	6'-11"	
7	4	F44	Bottom Slab	20				1	21.582						21'-7"	21'-7"	101
23	4	F45	Bottom Slab	20				1	21.582						21'-7"	21'-7"	332
38	5	G1	Interior Walls	20			V	2	9.794			Incr =	5.196	inches	9'-10"	9'-10"	234
									2.000						2'-0"	2'-0"	
38	5	G2	Exterior Wings	20			V	2	9.794			Incr =	5.196	inches	9'-10"	9'-10"	234
									2.000						2'-0"	2'-0"	
37	6	H3	Bottom Slab	20				1	9.583						9'-7"	9'-7"	533
4	8	H10	Headwall	20				1	29.974						29'-12"	29'-12"	320
12	7	J1	Wings	20		FB		1	24.397						24'-5"	24'-5"	599
58	5	J5	Wings	19			V	2	9.578	3.992		Incr =	3.248	inches	13'-7"	13'-5"	584
									2.000	3.992					5'-12"	5'-10"	
31	5	R3	HeadWall	10	S			1		1.417	1.500				4'-4"	4'-2"	133
			Totals														
	4																5691
	5																1146
	6																6606
	7																1198
	8																960
	9																122
	10																0
	11																0
			TOTALS														25720.0



SHAPE 10



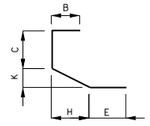
SHAPE 15



SHAPE 19



SHAPE 20

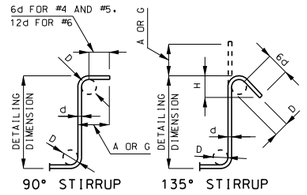


SHAPE 27

SPLICE LENGTH	
BAR SIZE	NON-EPOXY
#4	21 IN.
#5	26 IN.
#6	31 IN.
#7	39 IN.
#8	51 IN.
#9	65 IN.
#10	82 IN.
#11	101 IN.

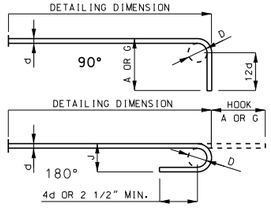
MAX BAR LENGTH	
BAR SIZE	NON-EPOXY
#4	60 FT.
#5	60 FT.
#6	60 FT.
#7	60 FT.
#8	60 FT.
#9	60 FT.
#10	60 FT.
#11	60 FT.

NOTE:
THE BAR LIST IS BASED ON THE MISSOURI STANDARD PLANS.
THIS BAR LIST IS FOR QUANTITY ESTIMATION PURPOSE ONLY AND SHALL BE VERIFIED OR MODIFIED BY THE CONTRACTOR.



STIRRUP HOOK DIMENSIONS			
BAR SIZE	D (IN.)	90° HOOK	135° HOOK
		HOOK A OR G	HOOK A OR G	APPROX. H
#4	2"	4 1/2"	4 1/2"	3"
#5	2 1/2"	6"	5 1/2"	3 3/4"
#6	4 1/2"	12"	8"	4 1/2"

NOTE: UNLESS OTHERWISE NOTED DIAMETER "D" IS THE SAME FOR ALL BENDS AND HOOKS ON A BAR.



END HOOK DIMENSIONS				
BAR SIZE	D (IN.)	GRADE 60		
		180° HOOKS		90° HOOKS
		A OR G	J	A OR G
#4	3"	6"	4"	8"
#5	3 3/4"	7"	5"	10"
#6	4 1/2"	8"	6"	12"
#7	5 1/4"	10"	7"	14"
#8	6"	11"	8"	16"
#9	9 1/2"	15"	11 3/4"	19"
#10	10 3/4"	17"	13 1/4"	22"
#11	12"	19"	14 3/4"	24"

NOTE:
ALL STANDARD HOOKS AND BENDS OTHER THAN 180 DEGREE ARE TO BE BENT WITH SAME PROCEDURE AS FOR 90 DEGREE STANDARD HOOKS.
HOOKS AND BENDS SHALL BE IN ACCORDANCE WITH THE PROCEDURES AS SHOWN ON THIS SHEET.
FB = BARS MAY BE BENT IN FIELD TO FIT.
E = EPOXY COATED REINFORCEMENT.
S = STIRRUP.
V = BAR DIMENSIONS VARY IN EQUAL INCREMENTS BETWEEN DIMENSIONS SHOWN ON THIS LINE AND THE FOLLOWING LINE. A BLANK IN THE SECOND LINE REPRESENTS THE SAME BAR DIMENSION AS THAT IN THE FIRST LINE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ADD A SPLICE LENGTH TO A BAR LENGTH WHICH EXCEEDS ITS MAXIMUM ALLOWABLE LENGTH.
NO. EA. = NUMBER OF BARS OF EACH LENGTH.
NOMINAL LENGTHS ARE BASED ON OUT TO OUT DIMENSIONS SHOWN IN BENDING DIAGRAMS AND ARE LISTED FOR FABRICATORS USE. (NEAREST INCH)
ACTUAL LENGTHS ARE MEASURED ALONG CENTERLINE BAR TO THE NEAREST INCH.
PAYWEIGHTS ARE BASED ON ACTUAL LENGTHS.
REINFORCING STEEL (GRADE 60) FY = 60,000 PSI.

STATE OF MISSOURI
DEAN DAVID FRANKE
NUMBER PE-28132
PROFESSIONAL ENGINEER
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DATE PREPARED 9/3/2014
ROUTE 412 | STATE MO
DISTRICT BR | SHEET NO. 4
COUNTY DUNKLIN
JOB NO. J9P3077
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BRIDGE NO. L02751

NO.	DESCRIPTION	DATE

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

Detailed Aug. 2014
Checked Aug. 2014

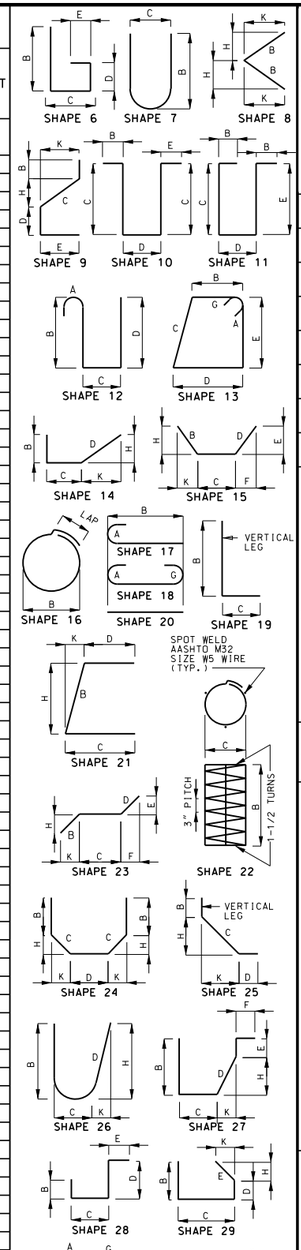
Note: This drawing is not to scale. Follow dimensions.

BILL OF REINFORCING STEEL

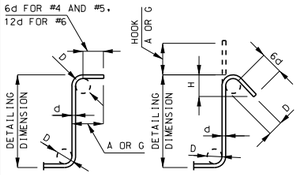
NO. REQ'D.	MARK NO. SIZE	MARK	LOCATION	EPOXY (E)	SHAPE NO.	STIRRUP (S)	SUBSTR. (X)	VARIES (V)	NO. EACH	DIMENSIONS B FT.	B IN.	C FT.	C IN.	D FT.	D IN.	E FT.	E IN.	F FT.	F IN.	H FT.	H IN.	K FT.	K IN.	NOMINAL LENGTH FT.	NOMINAL LENGTH IN.	ACTUAL LENGTH FT.	ACTUAL LENGTH IN.	WEIGHT LBS.
			UNIT 2																									
22	7	A20	TOP SLAB		20			V	1	25	0.000													25	0	25	0	
			INCREMENT =							2	3.000													2	3	2	3	613
			13.000 INCH																									
2	7	A21	TOP SLAB		20					26	3.000													26	3	26	3	107
33	5	B20	WALLS		20					8	8.000													8	8	8	8	298
15	4	F20	TOP SLAB		20			V	1	14	4.000													14	4	14	4	
			INCREMENT =							2	3.000													2	3	2	3	83
			10.375 INCH																									
6	4	F21	WALL & SLAB		20					15	1.000													15	1	15	1	60
11	4	F22	WALL & SLAB		20					7	9.000													7	9	7	9	57
1	4	F23	TOP SLAB		20					4	11.000													4	11	4	11	3
1	4	F24	TOP SLAB		20					10	10.000													10	10	10	10	7
9	7	H20	TOP SLAB		20					10	6.000													10	6	10	6	193
5	7	H21	TOP SLAB		20			V	1	9	6.000													9	6	9	6	
			INCREMENT =							5	6.000													5	6	5	6	77
			12.000 INCH																									
			UNIT 3																									
22	7	A20	TOP SLAB		20			V	1	25	0.000													25	0	25	0	
			INCREMENT =							2	3.000													2	3	2	3	613
			13.000 INCH																									
2	7	A21	TOP SLAB		20					26	3.000													26	3	26	3	107
33	5	B20	WALLS		20					8	8.000													8	8	8	8	298
15	4	F20	TOP SLAB		20			V	1	14	4.000													14	4	14	4	
			INCREMENT =							2	3.000													2	3	2	3	83
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6	4	F21	WALL & SLAB		20					15	1.000													15	1	15	1	60
11	4	F22	WALL & SLAB		20					7	9.000													7	9	7	9	57
1	4	F23	TOP SLAB		20					4	11.000													4	11	4	11	3
1	4	F24	TOP SLAB		20					10	10.000													10	10	10	10	7
9	7	H20	TOP SLAB		20					10	6.000													10	6	10	6	193
5	7	H21	TOP SLAB		20			V	1	9	6.000													9	6	9	6	
			INCREMENT =							5	6.000													5	6	5	6	77
			12.000 INCH																									
			TOTALS																									
	4																											420
	5																											596
	7																											1980
			TOTAL																									2996
			TOTAL	E																								0

BILL OF REINFORCING STEEL

NO. REQ'D.	MARK NO. SIZE	MARK	LOCATION	EPOXY (E)	SHAPE NO.	STIRRUP (S)	SUBSTR. (X)	VARIES (V)	NO. EACH	DIMENSIONS B FT.	B IN.	C FT.	C IN.	D FT.	D IN.	E FT.	E IN.	F FT.	F IN.	H FT.	H IN.	K FT.	K IN.	NOMINAL LENGTH FT.	NOMINAL LENGTH IN.	ACTUAL LENGTH FT.	ACTUAL LENGTH IN.	WEIGHT LBS.

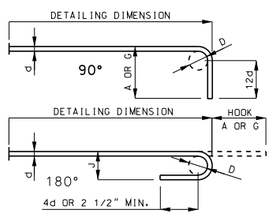


BENDING DIAGRAMS



STIRRUP HOOK DIMENSIONS				
GRADES 40 - 50 - 60 KSI				
BAR SIZE	D (IN.)	90° HOOK HOOK A OR G	135° HOOK HOOK A OR G	135° HOOK APPROX. H
#4	2"	4 1/2"	4 1/2"	3"
#5	2 1/2"	6"	5 1/2"	3 3/4"
#6	4 1/2"	12"	8"	4 1/2"

NOTE: UNLESS OTHERWISE NOTED, DIAMETER "D" IS THE SAME FOR ALL BENDS AND HOOKS ON A BAR.



END HOOK DIMENSIONS				
		ALL GRADES		
BAR SIZE	D (IN.)	180° HOOKS A OR G	180° HOOKS J	90° HOOKS A OR G
#3	2 1/4"	5"	3"	6"
#4	3"	6"	4"	8"
#5	3 3/4"	7"	5"	10"
#6	4 1/2"	8"	6"	12"
#7	5 1/4"	10"	7"	14"
#8	6"	11"	8"	16"
#9	9 1/2"	15"	11 3/4"	19"
#10	10 3/4"	17"	13 1/4"	22"
#11	12"	19"	14 3/4"	2'-0"
#14	18 1/4"	2'-3"	21 3/4"	2'-7"

NOTE:
ALL STANDARD HOOKS AND BENDS OTHER THAN 180 DEGREE ARE TO BE BENT WITH SAME PROCEDURE AS FOR 90 DEGREE STANDARD HOOKS.
HOOKS AND BENDS SHALL BE IN ACCORDANCE WITH THE PROCEDURES AS SHOWN ON THIS SHEET.
E = EPOXY COATED REINFORCEMENT.
S = STIRRUP.
X = BAR IS INCLUDED IN SUBSTRUCTURE QUANTITIES.
V = BAR DIMENSIONS VARY IN EQUAL INCREMENTS BETWEEN DIMENSIONS SHOWN ON THIS LINE AND THE FOLLOWING LINE.
NO. EA. = NUMBER OF BARS OF EACH LENGTH.
NOMINAL LENGTHS ARE BASED ON OUT TO OUT DIMENSIONS SHOWN IN BENDING DIAGRAMS AND ARE LISTED FOR FABRICATORS USE. (NEAREST INCH)
ACTUAL LENGTHS ARE MEASURED ALONG CENTERLINE BAR TO THE NEAREST INCH.
PAYWEIGHTS ARE BASED ON ACTUAL LENGTHS.
FOUR ANGLE OR CHANNEL SPACERS ARE REQUIRED FOR EACH COLUMN SPIRAL. SPACERS ARE TO BE PLACED ON INSIDE OF SPIRALS. LENGTH AND WEIGHT OF COLUMN SPIRALS DO NOT INCLUDE SPLICES OR SPACERS.
REINFORCING STEEL (GRADE 60) FY = 60,000 PSI.

Detailed Aug. 2014
Checked Aug. 2014

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

STATE OF MISSOURI
DEAN DAVID FRANKE
NUMBER PE-28132
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 9/3/2014
ROUTE 412 | STATE MO
DISTRICT BR | SHEET NO. 5
COUNTY DUNKLIN
JOB NO. J9P3077
CONTRACT ID.
PROJECT NO.
BRIDGE NO. L02751

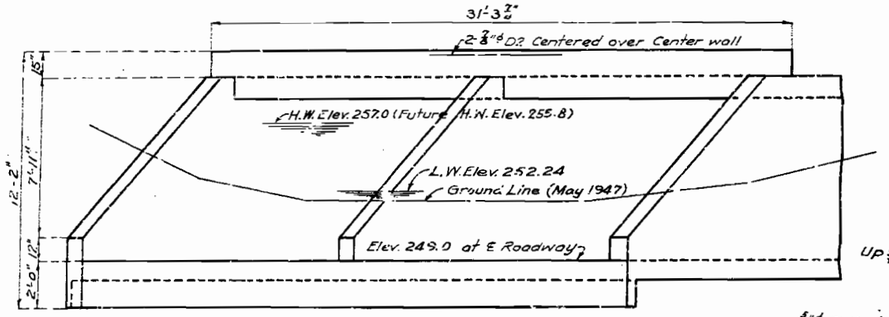
DESCRIPTION | DATE

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)

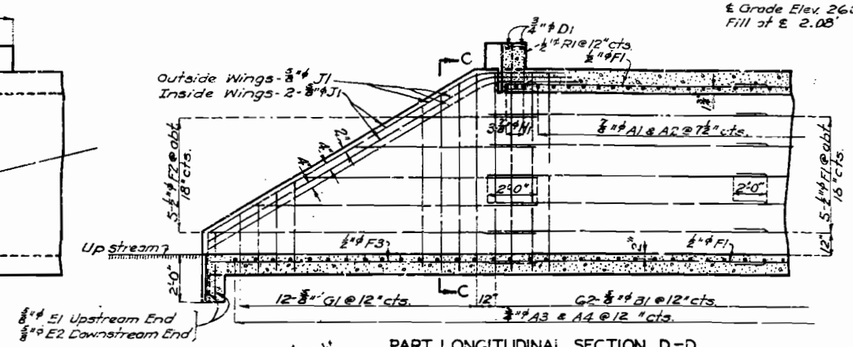
MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO	F-183 (7) (RT. 25)	19		

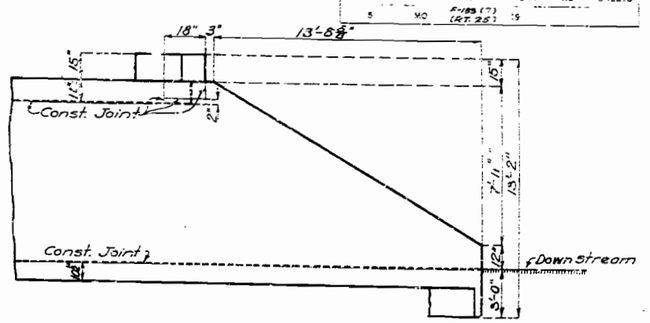


Note: Channel to be opened to a free inlet and outlet at ends.

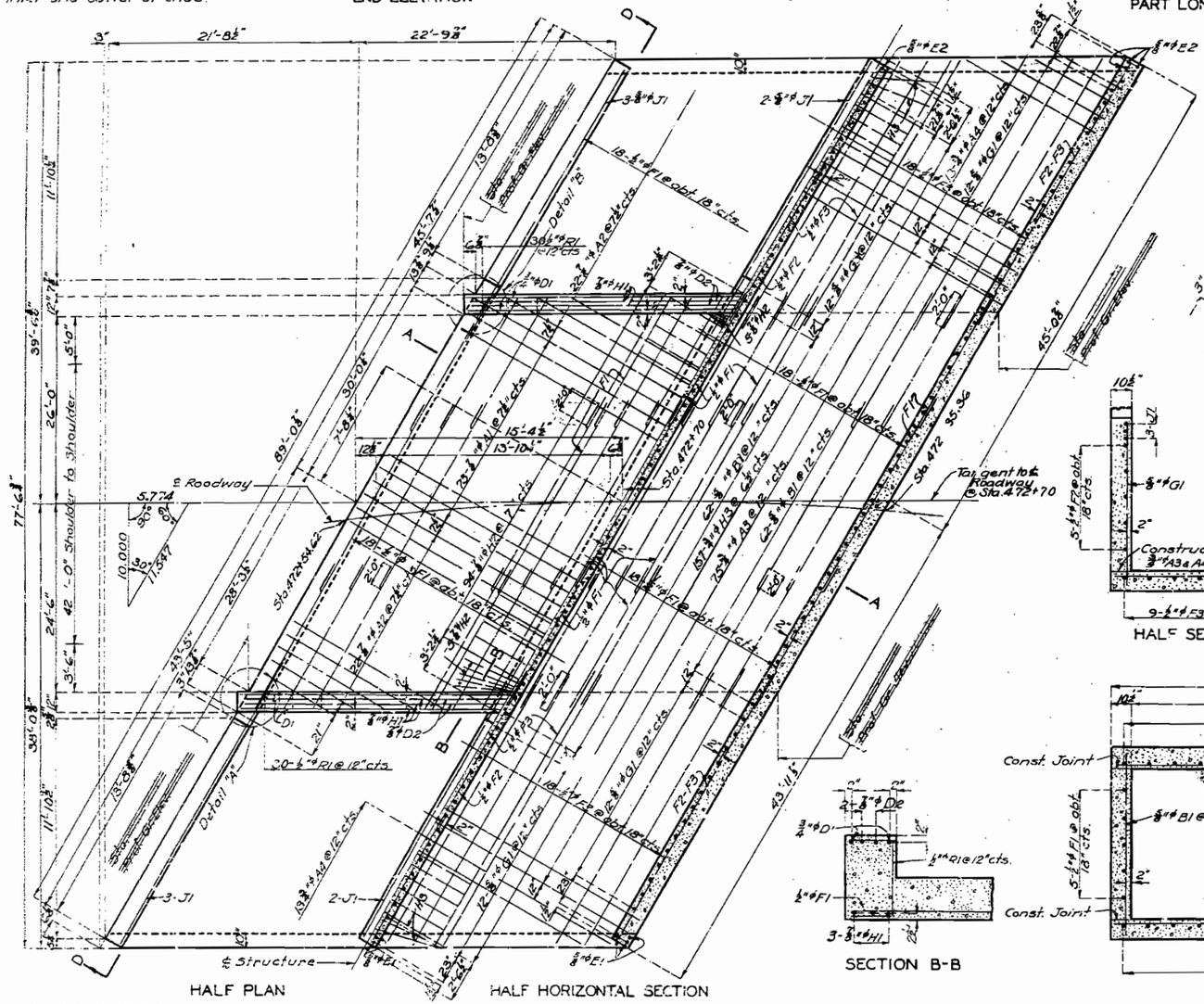
END ELEVATION



PART LONGITUDINAL SECTION D-D

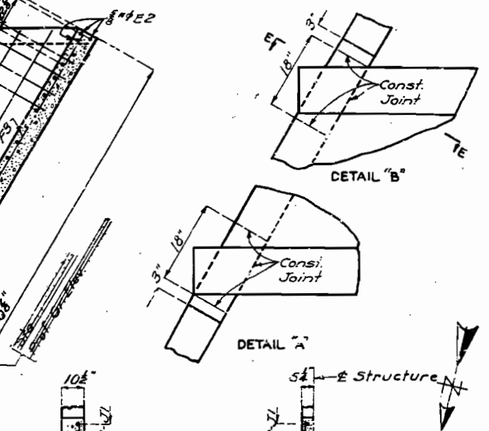


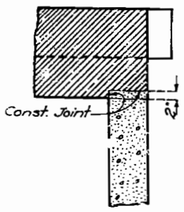
SIDE ELEVATION - WINGWALL



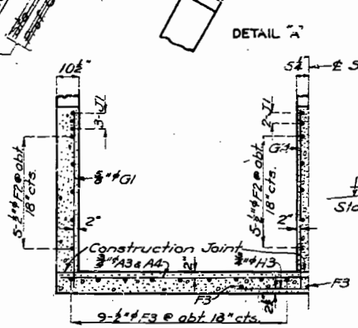
HALF PLAN

HALF HORIZONTAL SECTION

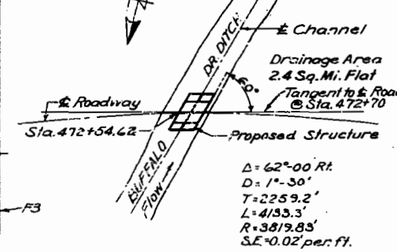




SECTION E-E
(Showing Details of Construction Joint)

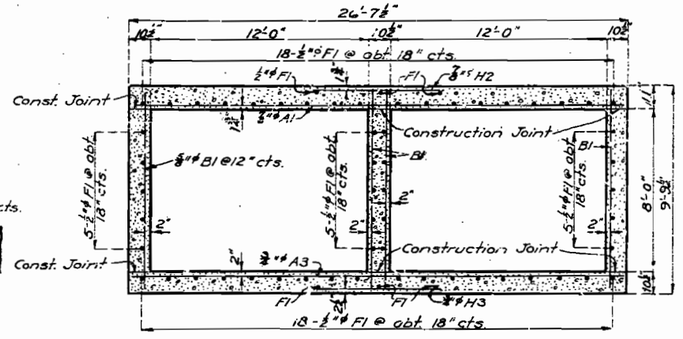


HALF SECTION C-C



LOCATION SKETCH

SECTION B-B

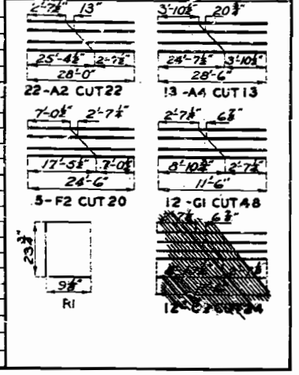


SECTION A-A

COMPLETE BILL OF REINFORCING STEEL

No.	Size	Length	Mark
73	⅜"ϕ	26'-3"	A1
22	⅜"ϕ	28'-0"	A2
75	⅜"ϕ	26'-3"	A3
13	⅜"ϕ	28'-6"	A4
248	⅜"ϕ	9'-3"	B1
	⅜"ϕ		
4	⅜"ϕ	31'-0"	D1
4	⅜"ϕ	8'-0"	D2
9	⅜"ϕ	2'-9"	E1
9	⅜"ϕ	3'-9"	E2
186	⅜"ϕ	21'-6"	F1
20	⅜"ϕ	24'-6"	F2
12	⅜"ϕ	17'-0"	F3
48	⅜"ϕ	11'-6"	G1
6	⅜"ϕ	30'-6"	H1
104	⅜"ϕ	10'-6"	H2
20	⅜"ϕ	19'-3"	J1
60	½"ϕ	3'-6"	R1
	⅜"ϕ		
161	⅜"ϕ	7'-9"	H3

Cutting Diagrams & Bending Sketch



ESTIMATED QUANTITIES

Class 3 Excavation for Structures	Cu. Yds.	390
Class "B" Concrete	Cu. Yds.	199.4
Reinforcing Steel	Lbs.	20480.

GENERAL NOTES

Design Specifications A.A.S.H.O. 1944
Loading H-15 A.A.S.H.O. 1944
Reinforcing Steel Stress 18000 #/□"
Class "B" Concrete 1000 #/□"
All concrete shall be Class "B"
Bar supports required in top slab.

BM #5 Elev. 262.01 N.I.R. Twin 81 Oak 180 Rt. Sta. 464+25

BRIDGE OVER BUFFALO DR. DITCH

STATE ROAD BYPASSING KENNETT

ABOUT 1.25 MILES S. OF KENNETT

PROJECT NO. F-183(7) (RT. 25) STA. 472+54.62

DUNKLIN COUNTY

STATE HIGHWAY ENGINEER

SUBMITTED BY W. W. Carlow (PRIOR ENGINEER) 3/30/1948

APPROVED BY C. H. T. Brown (STATE ENGINEER) 3/30/1948

STDE-1503

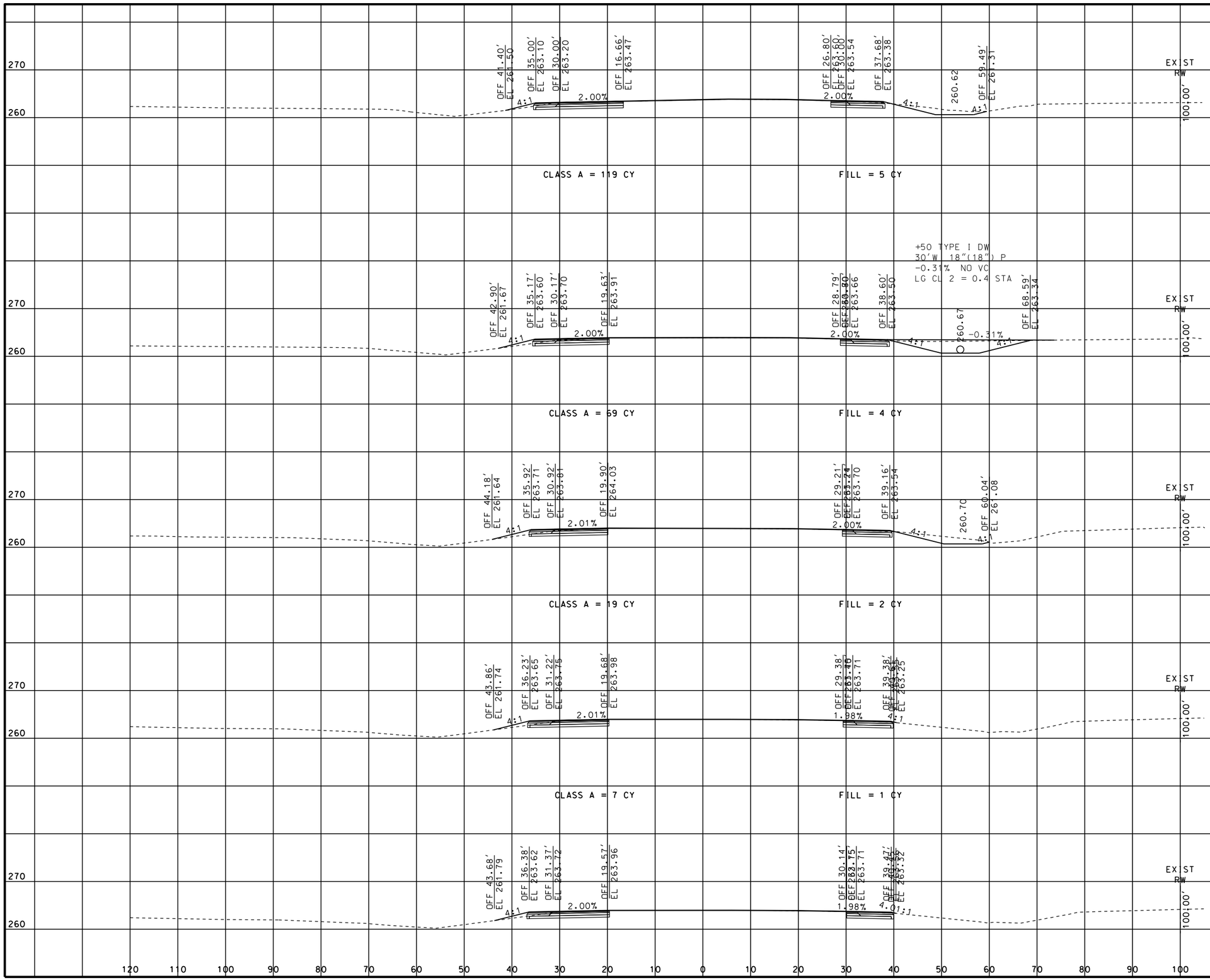
L-275

Drawn Dec 1939 by T.H.M.
Traced Dec 1939 by G.W. Assembled Nov. 1947 by H.J.K. & B.R.G.
Checked Dec. 1939 by C.S.A. Checked Dec. 1947 by C.S.A.

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

Sheet No. 1 of 1.

DOUBLE - SKEW L.A.



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
10/10/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	1

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

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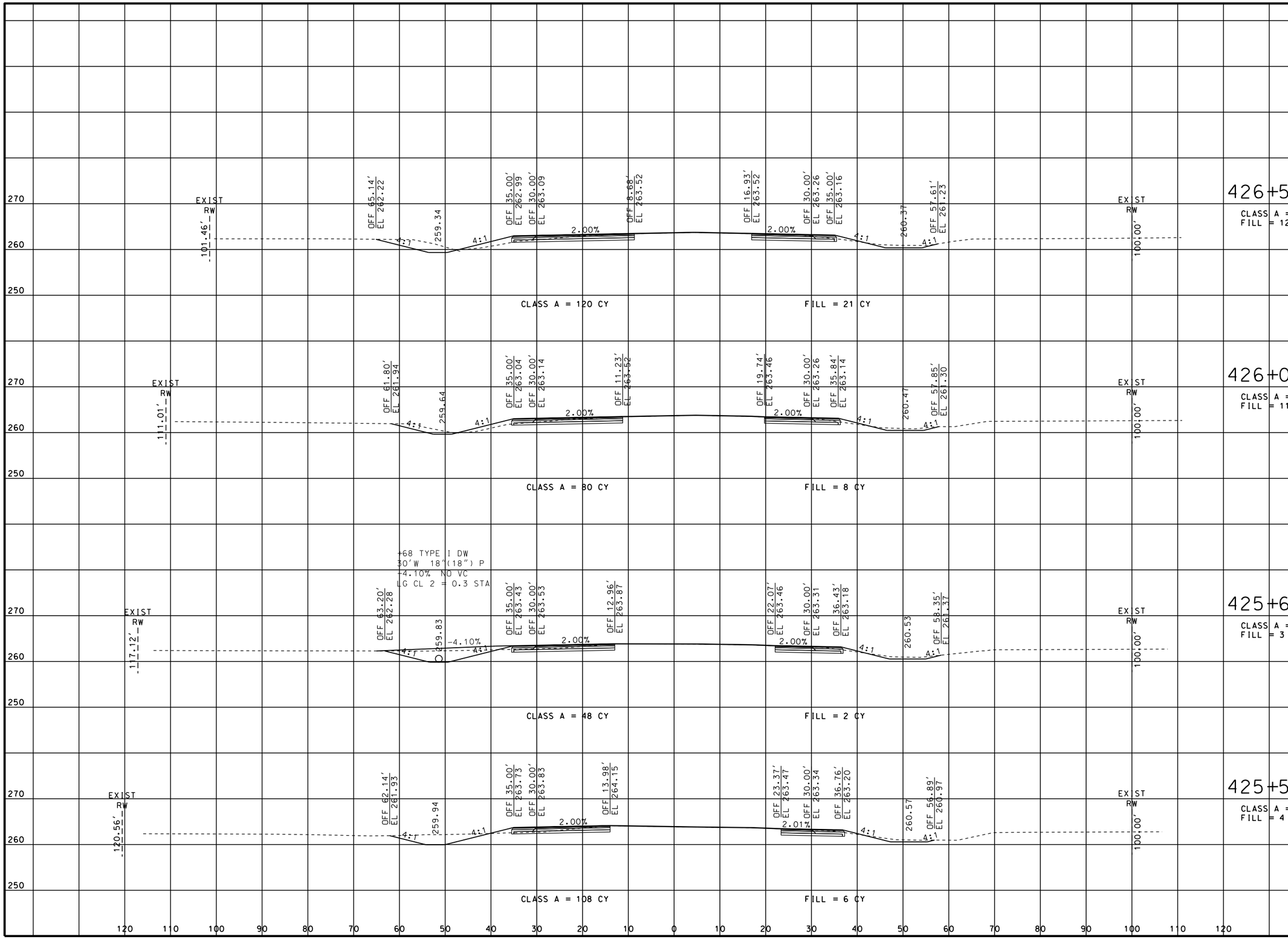
DESCRIPTION | DATE | REV.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
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CROSS SECTIONS
SHEET 1 OF 113

ROUTE 412



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
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DATE PREPARED
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ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	2

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

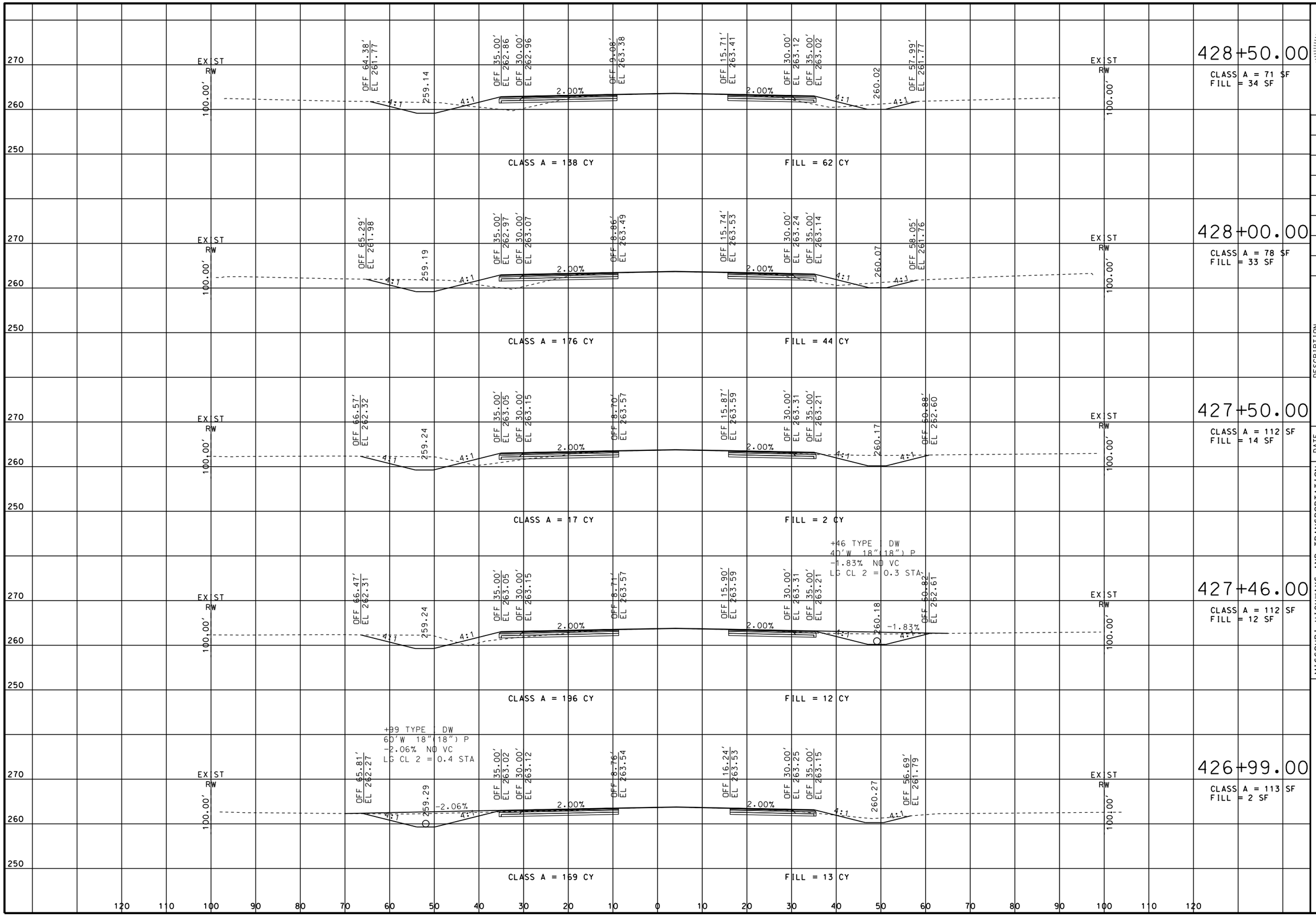
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CROSS SECTIONS
SHEET 2 OF 113

ROUTE 412

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DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	3

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

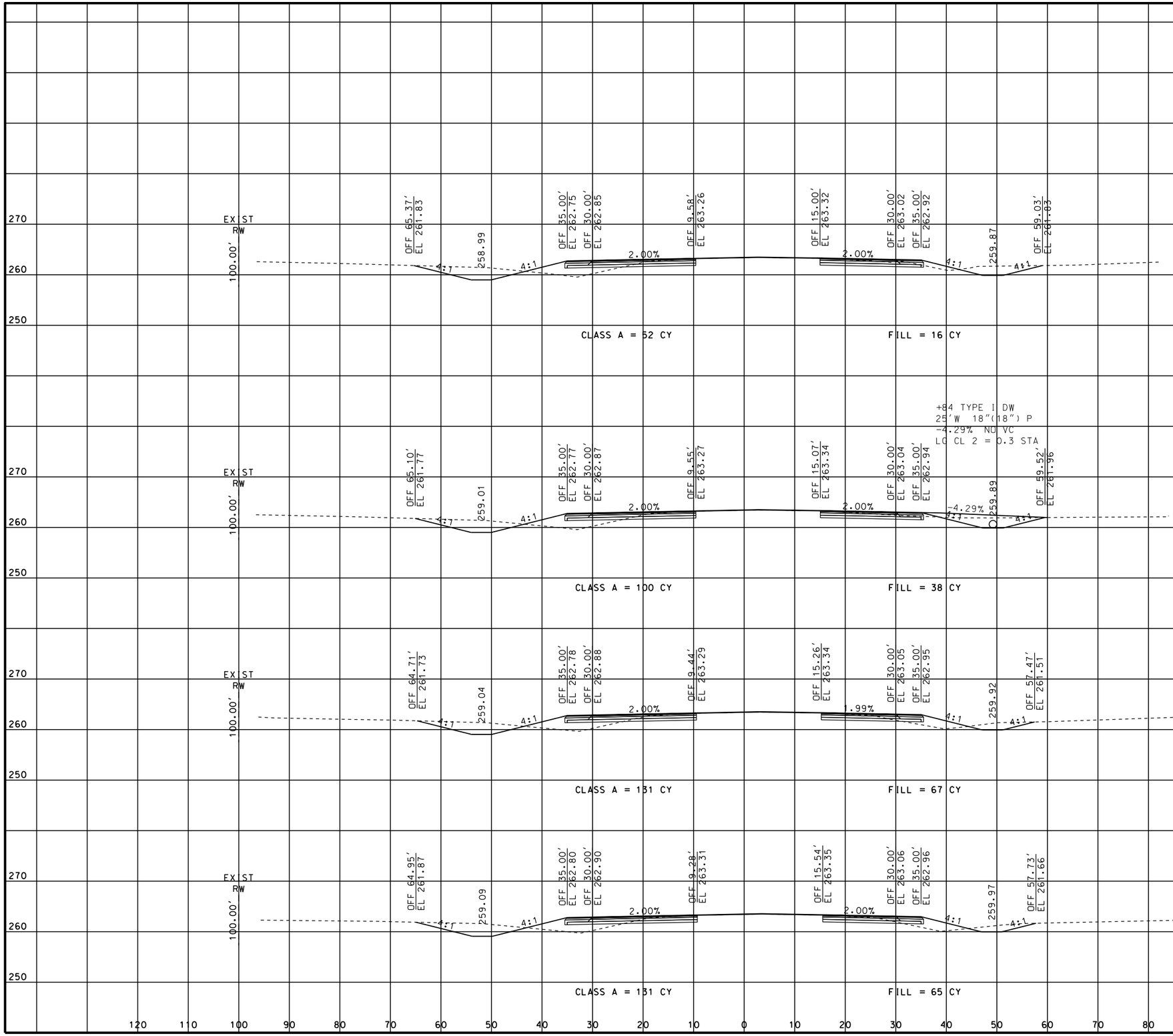
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CROSS SECTIONS
SHEET 3 OF 113

ROUTE 412

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DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	4

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

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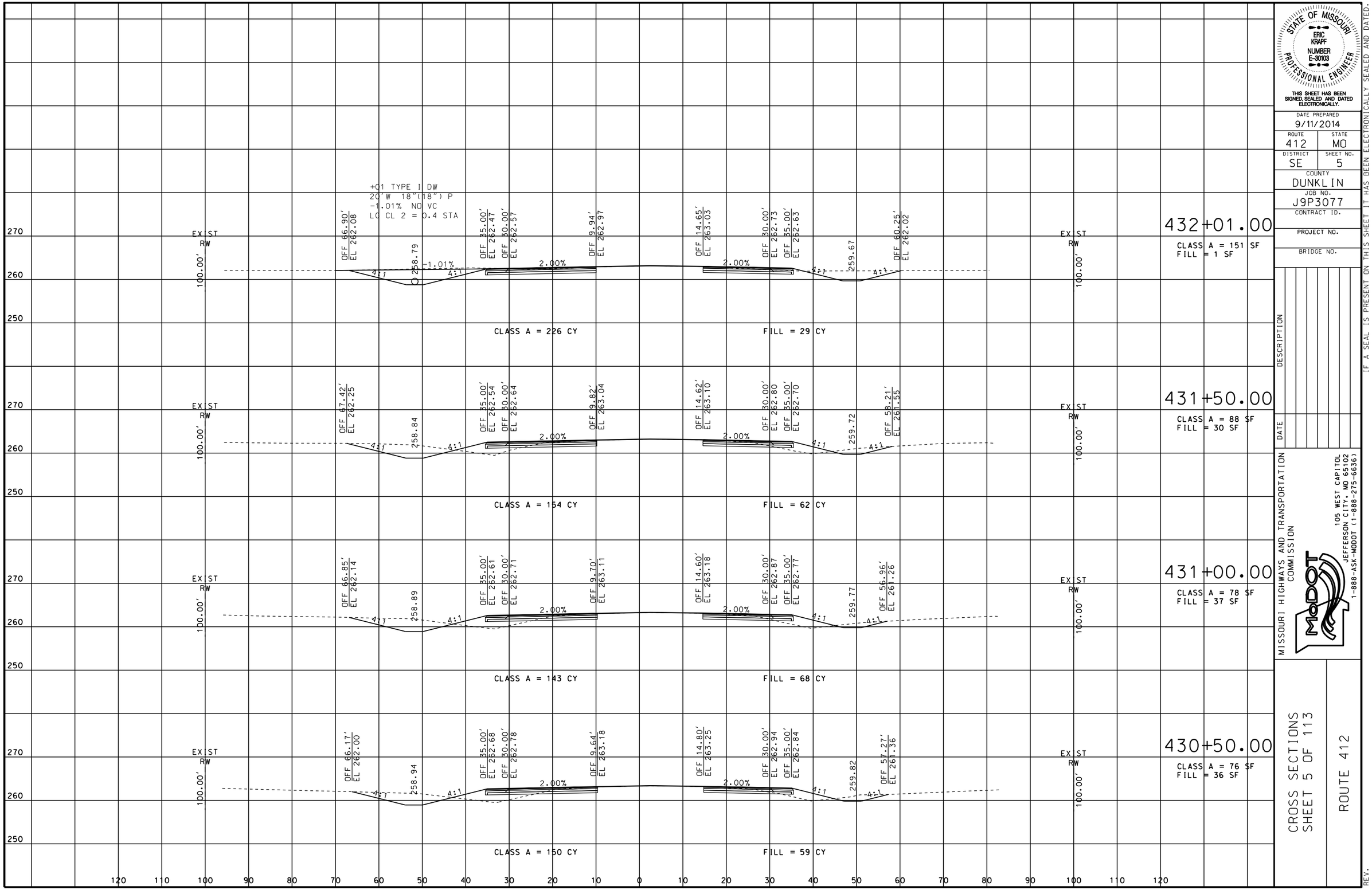
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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CROSS SECTIONS
SHEET 4 OF 113

ROUTE 412

REV.



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ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

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DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	5

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

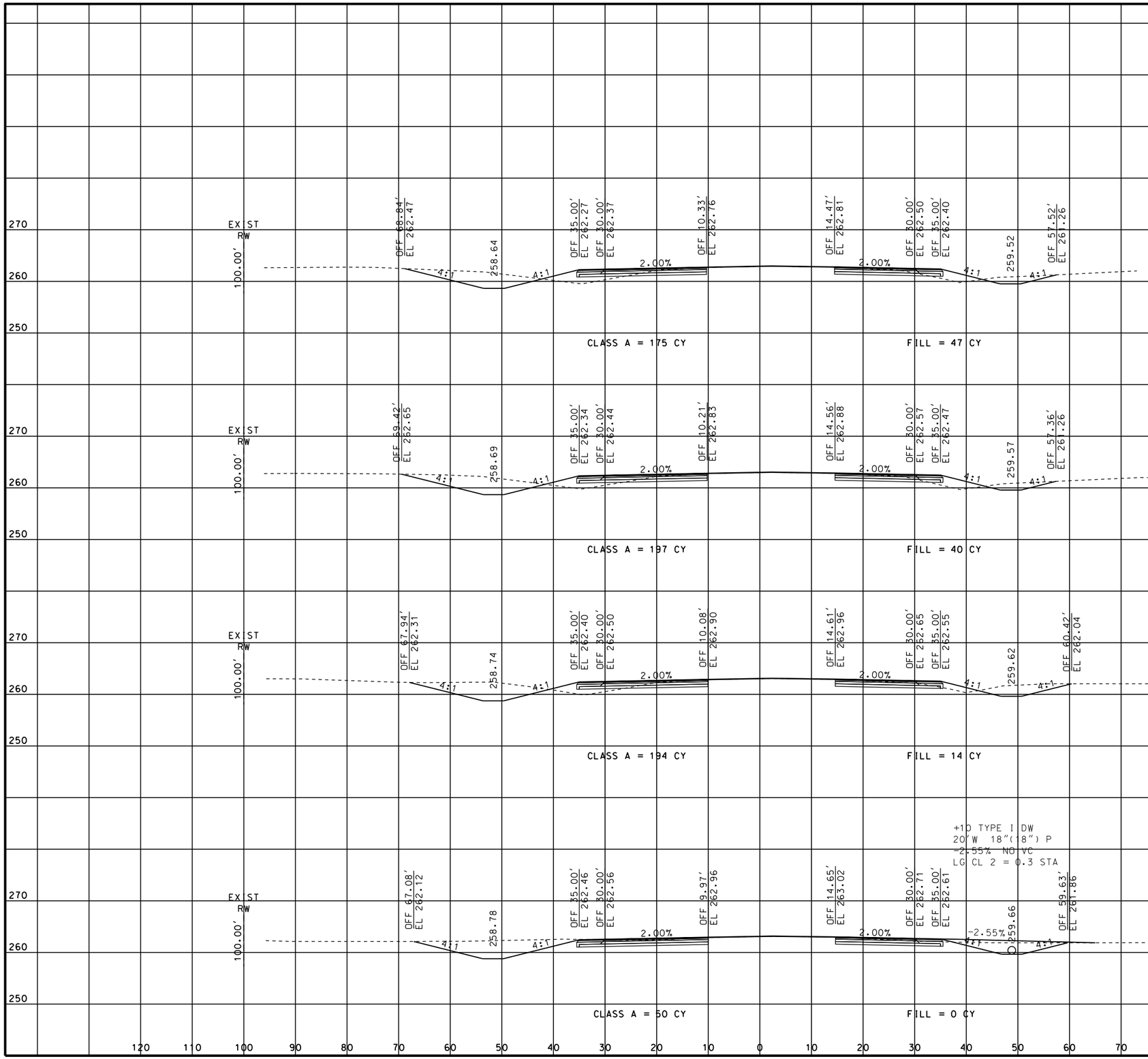
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CROSS SECTIONS
SHEET 5 OF 113

ROUTE 412

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PROFESSIONAL ENGINEER

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DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	6

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

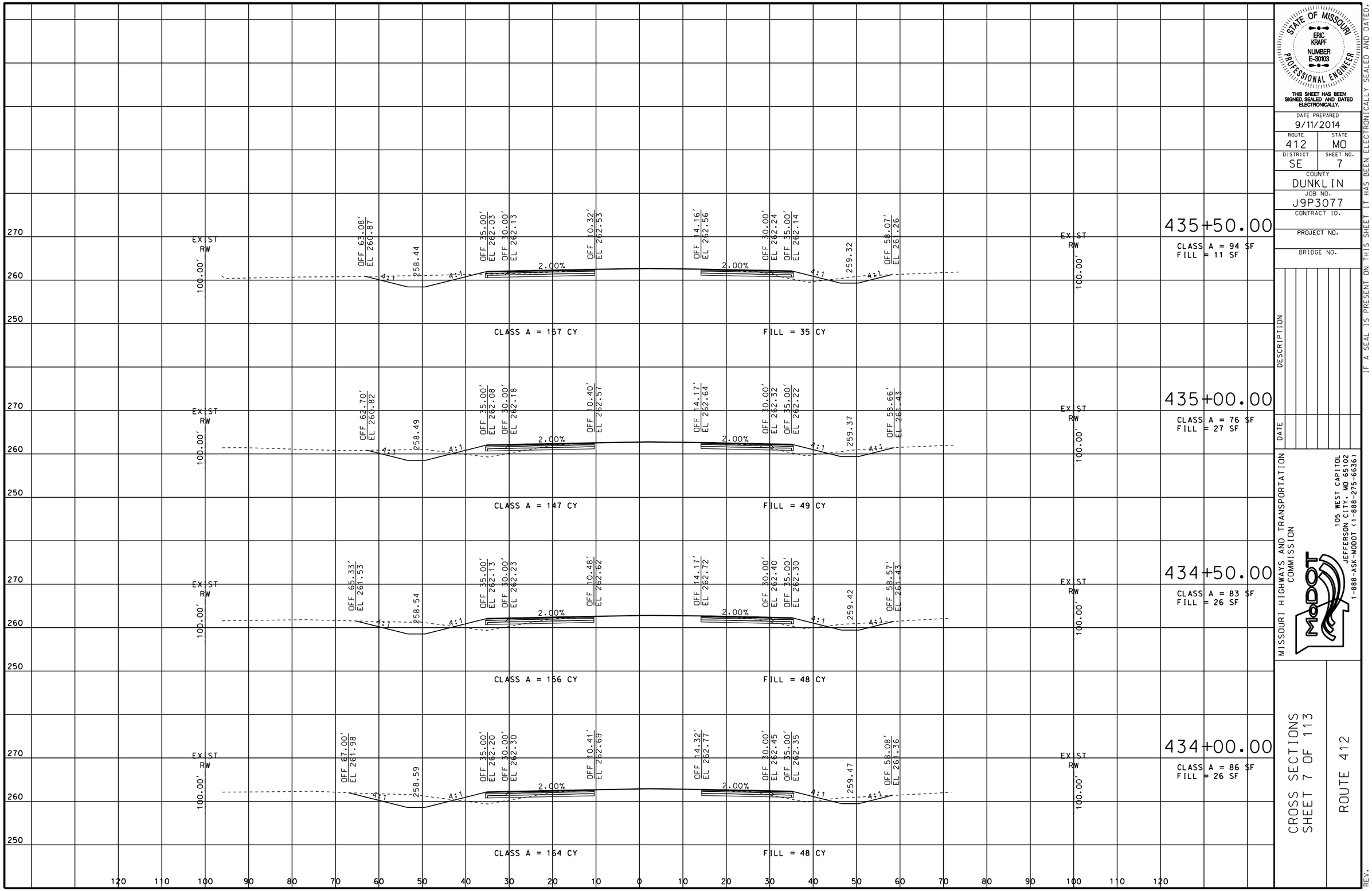
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CROSS SECTIONS
SHEET 6 OF 113

ROUTE 412

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DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	7

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

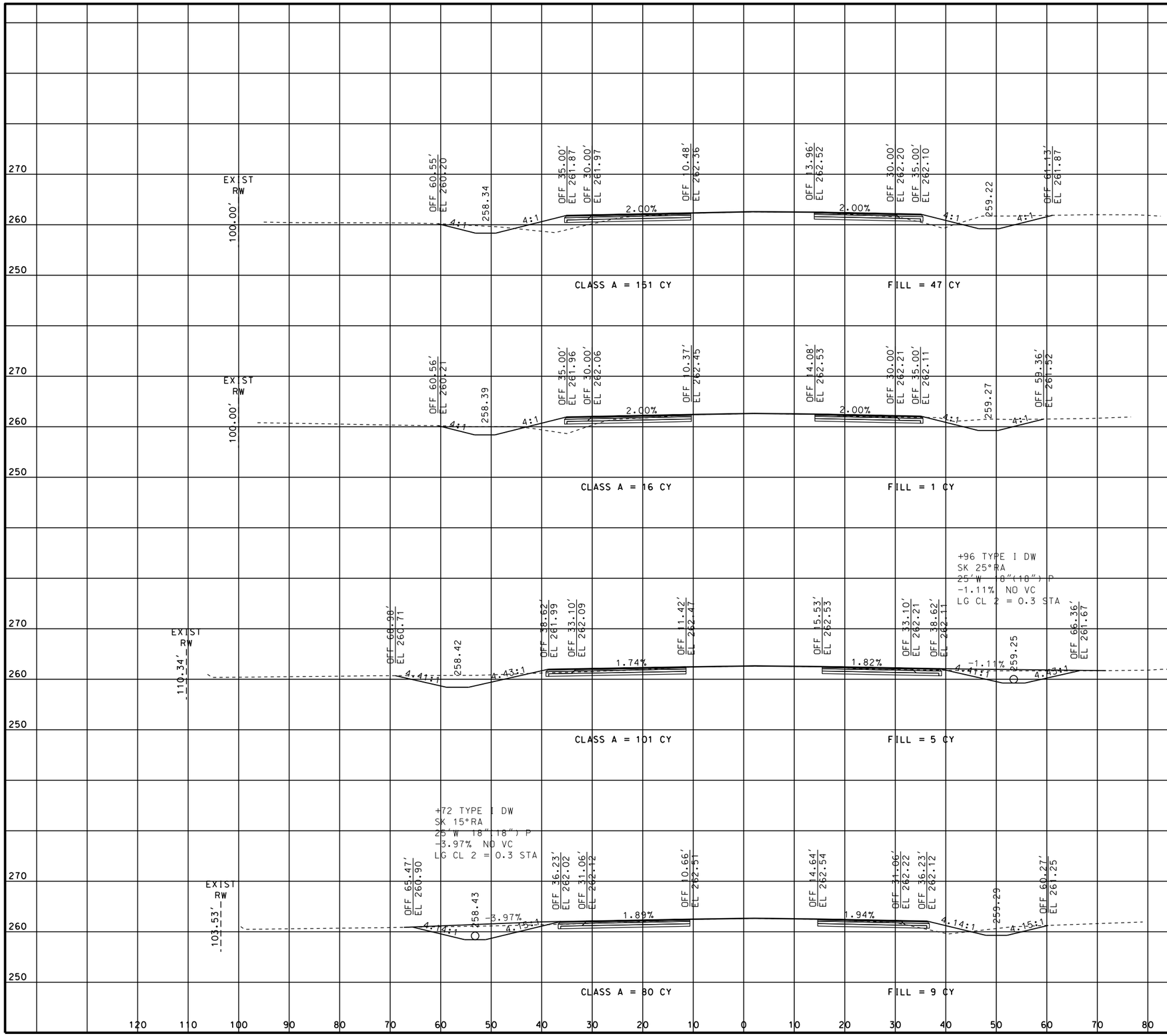
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1-888-ASK-MODOT (1-888-275-6636)

CROSS SECTIONS
SHEET 7 OF 113

ROUTE 412

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ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	8

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

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

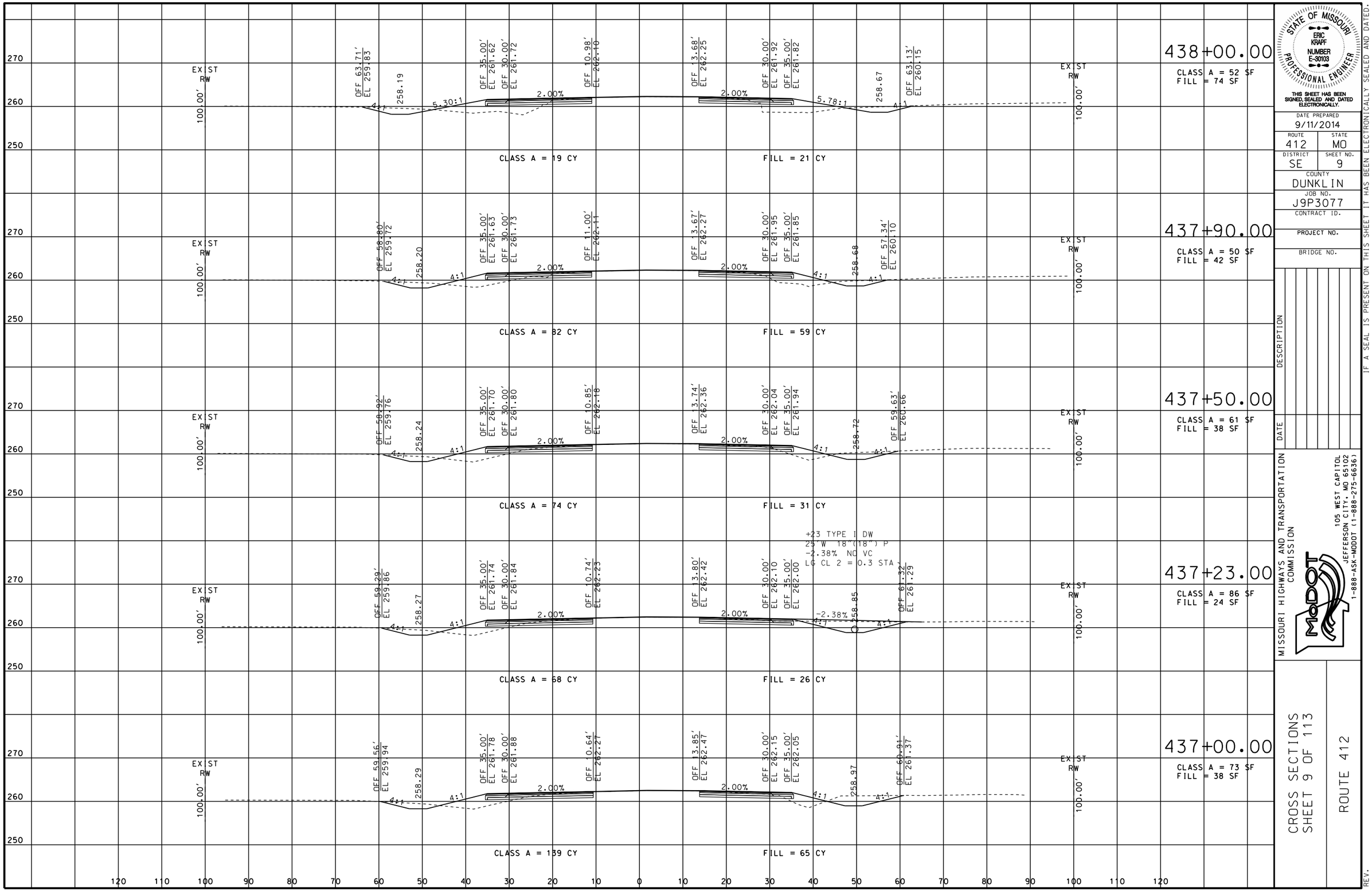
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 8 OF 113

ROUTE 412

REV.



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	9

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

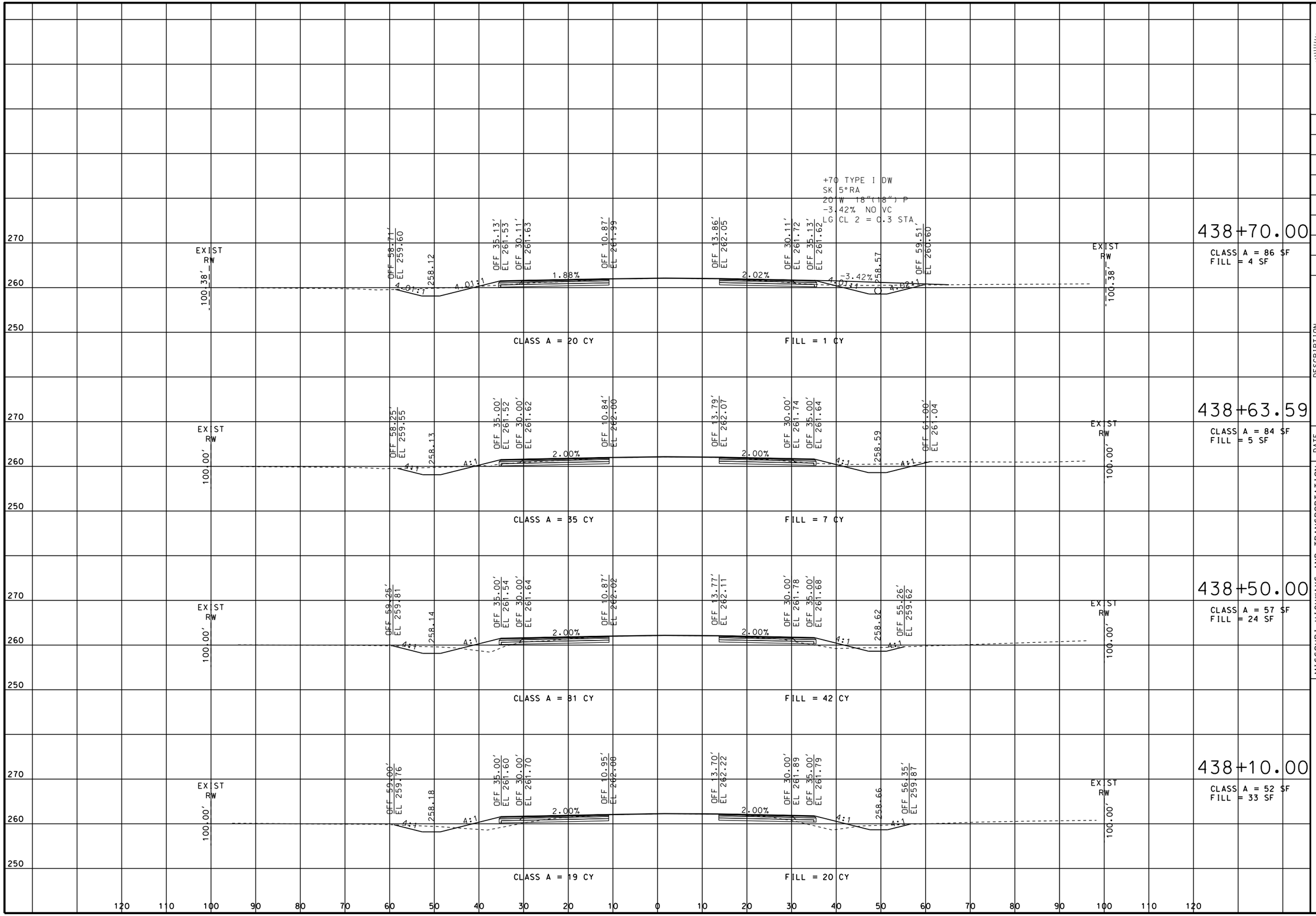
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

CROSS SECTIONS
SHEET 9 OF 113

ROUTE 412

REV.

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



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

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DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	10

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

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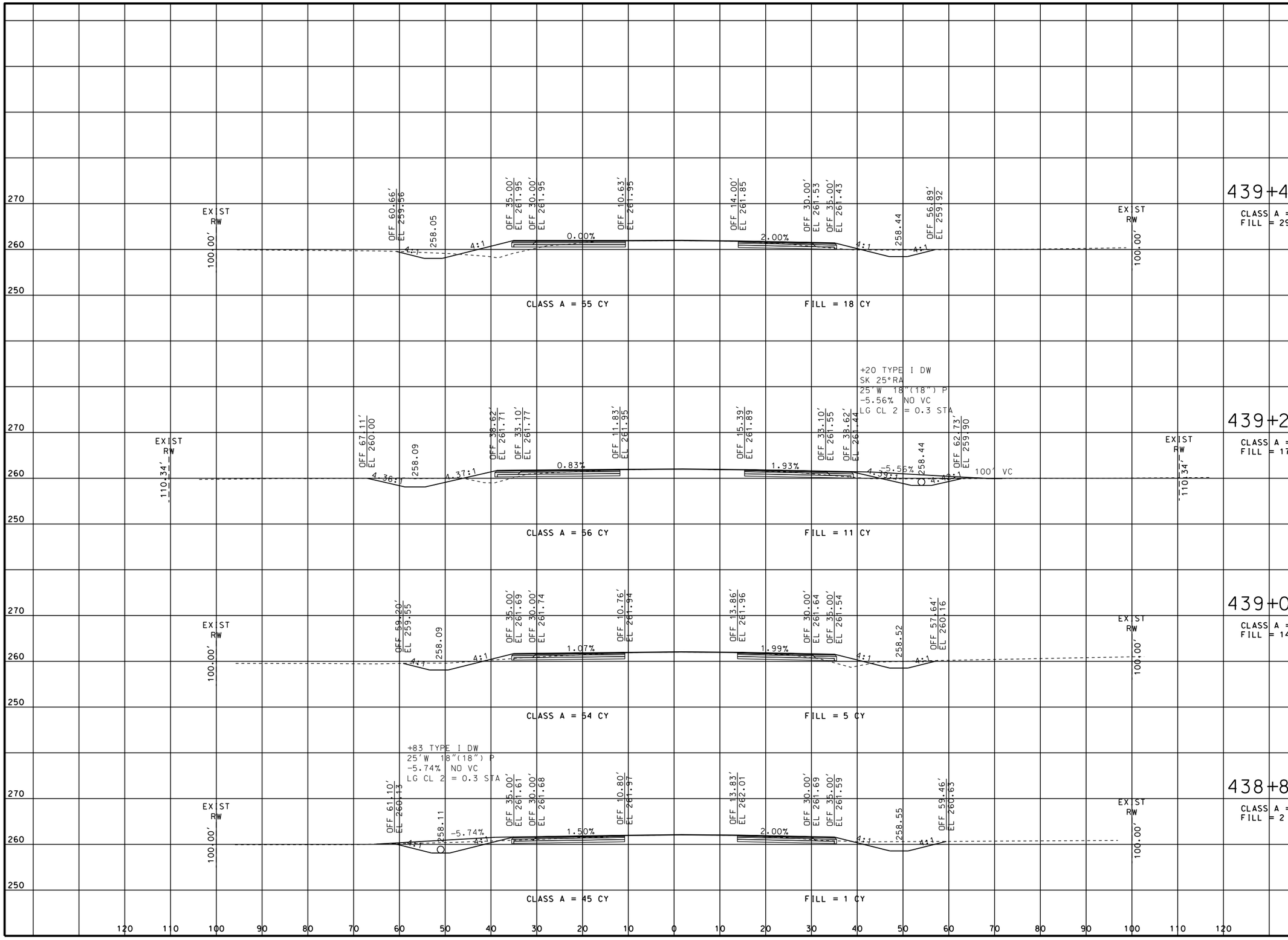
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 10 OF 113

ROUTE 412

REV.



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	11

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

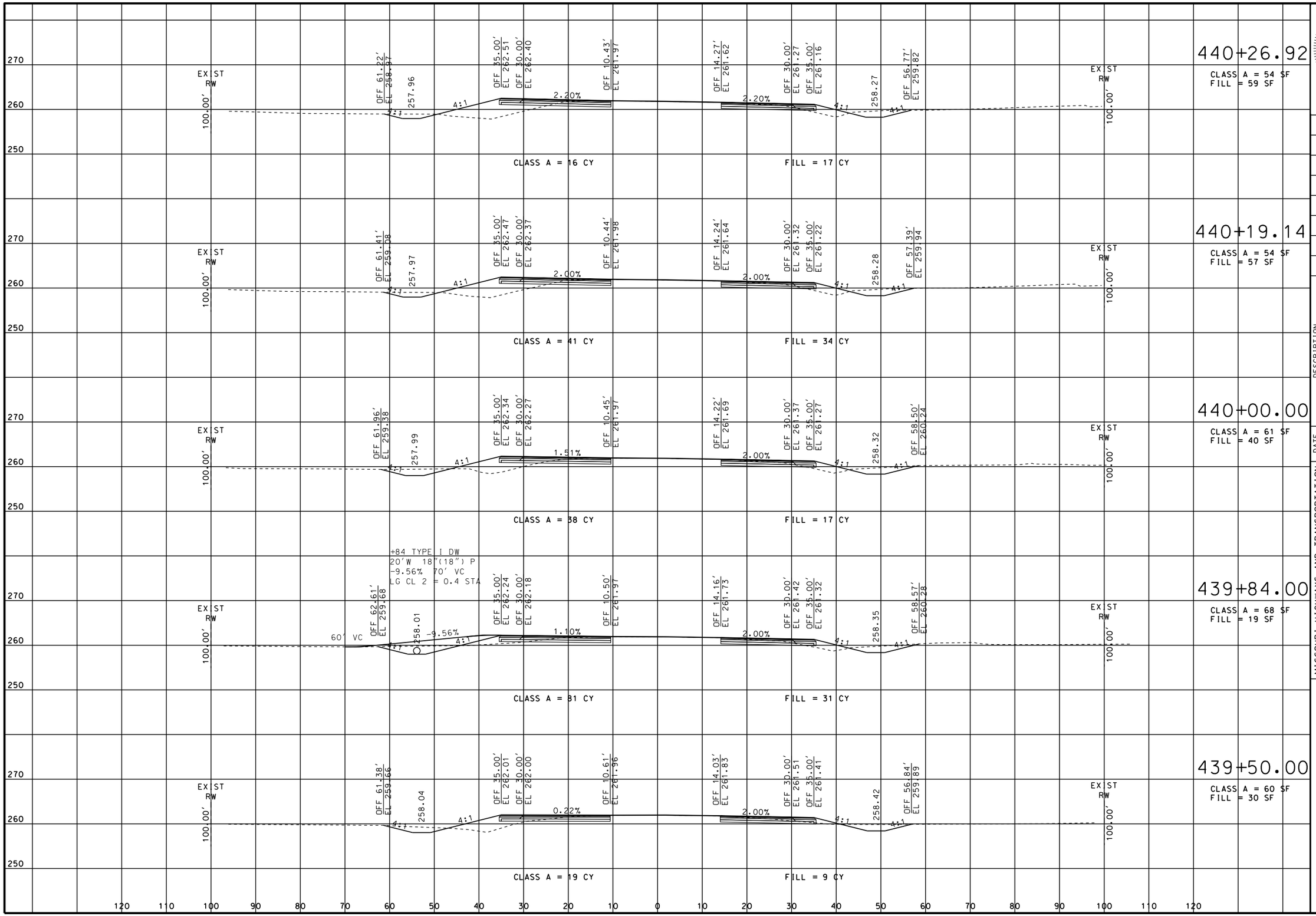
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

CROSS SECTIONS
SHEET 11 OF 113

ROUTE 412

REV.

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STATE OF MISSOURI
ERIC KRAPF
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9/11/2014

ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	12

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

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

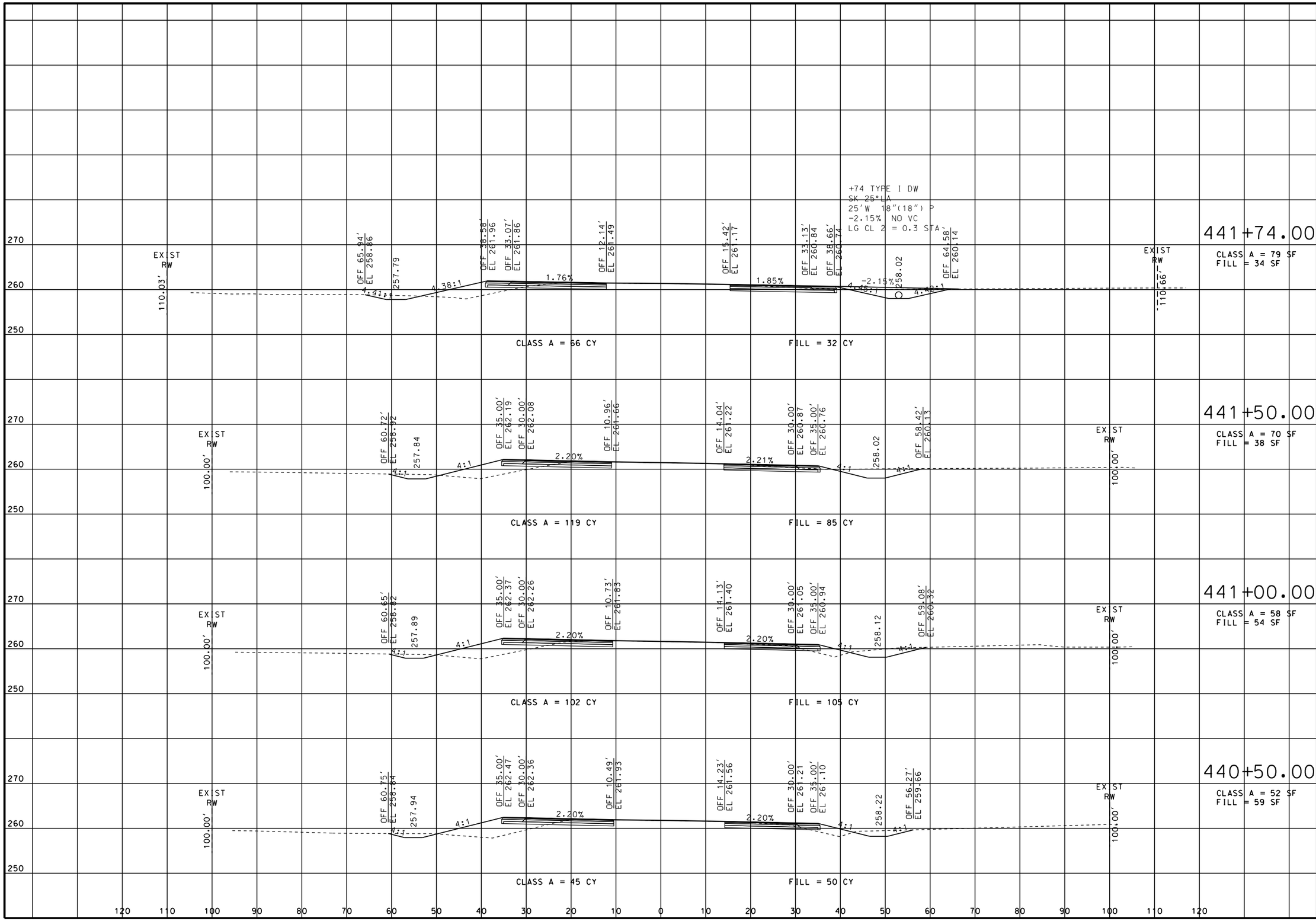
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 12 OF 113

ROUTE 412

REV.



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	13

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

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

DATE	DESCRIPTION

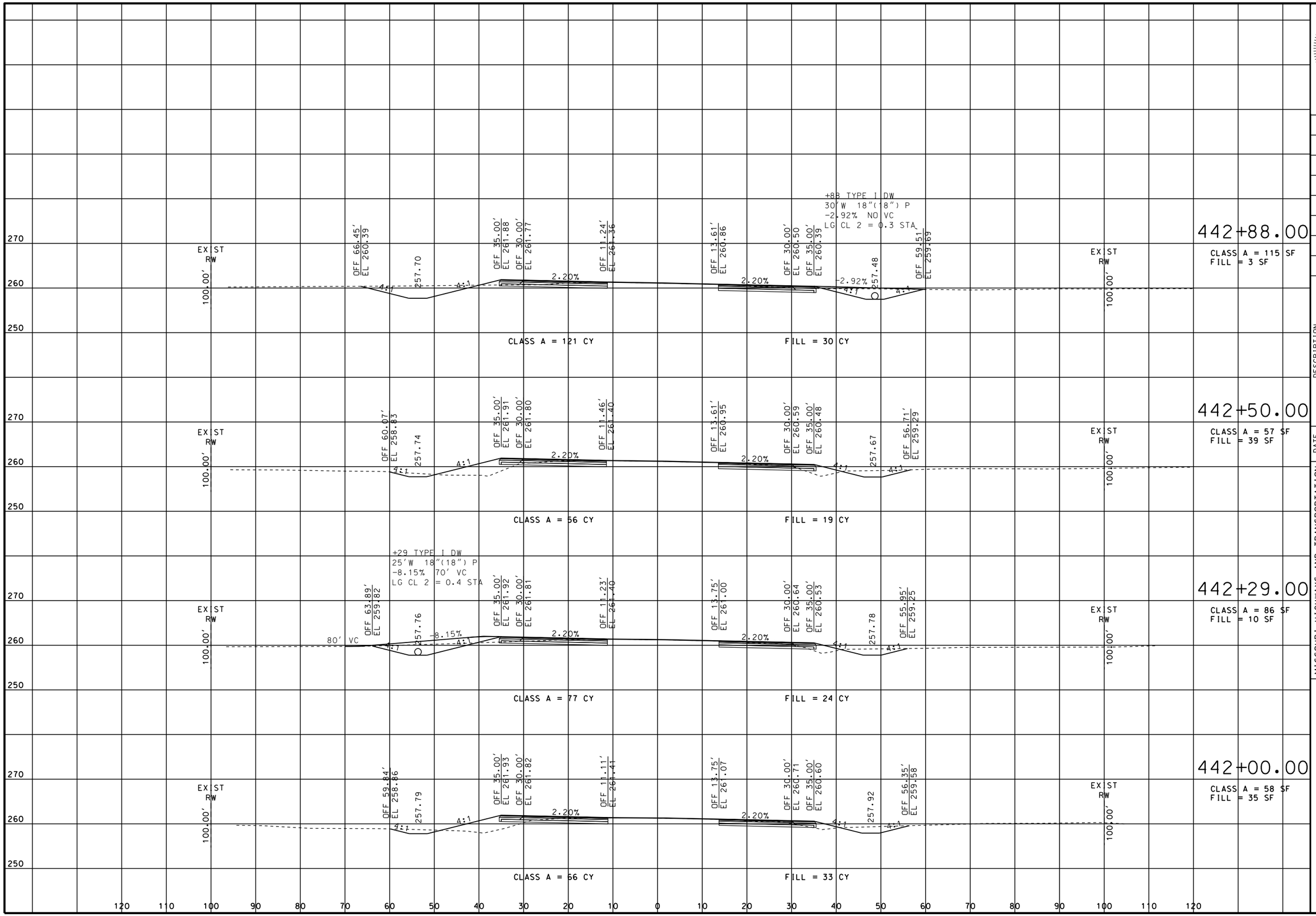
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 13 OF 113

ROUTE 412

REV.



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
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ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	14

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

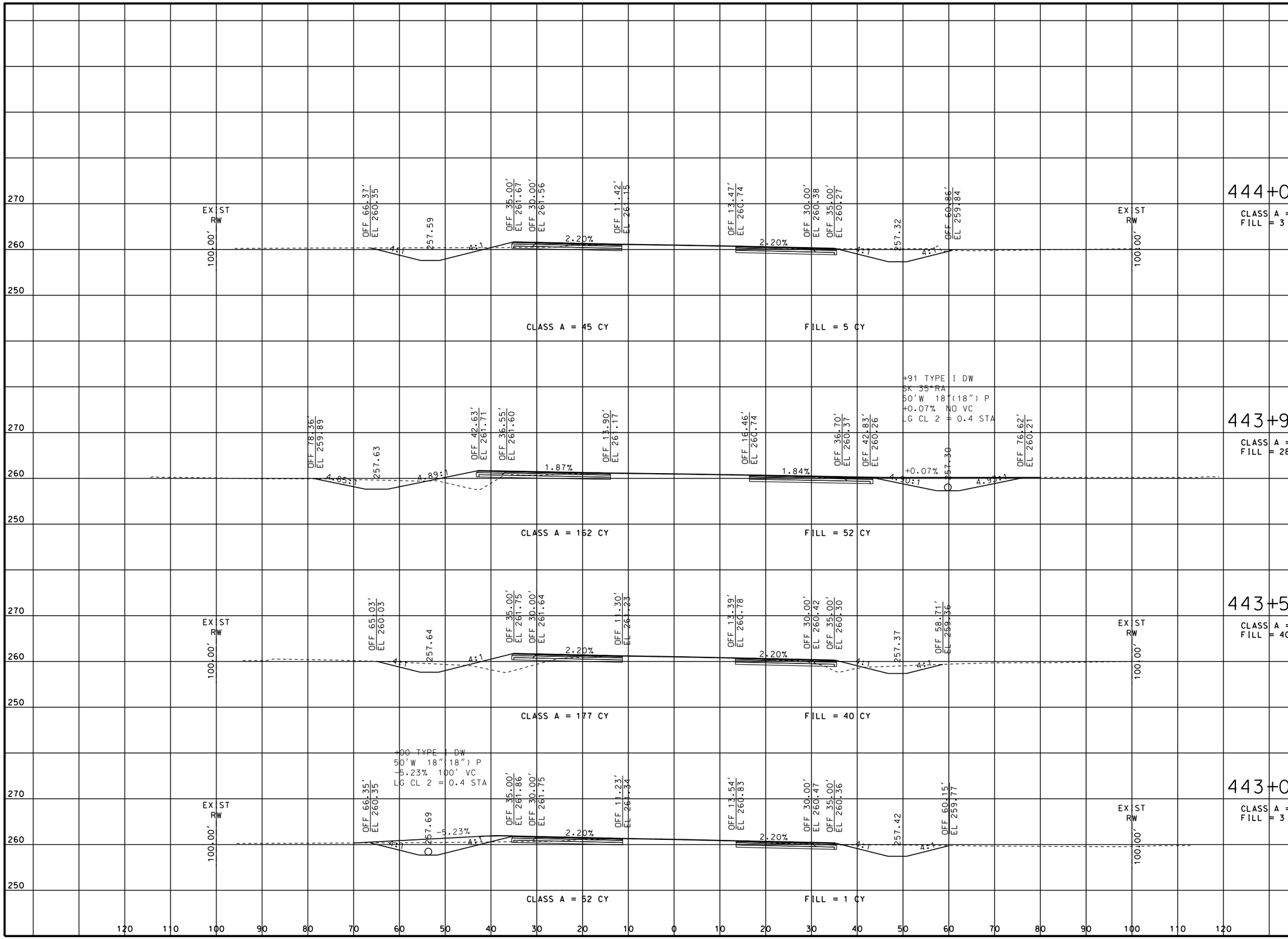
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

CROSS SECTIONS
SHEET 14 OF 113

ROUTE 412

REV.

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STATE OF MISSOURI
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ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	15

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

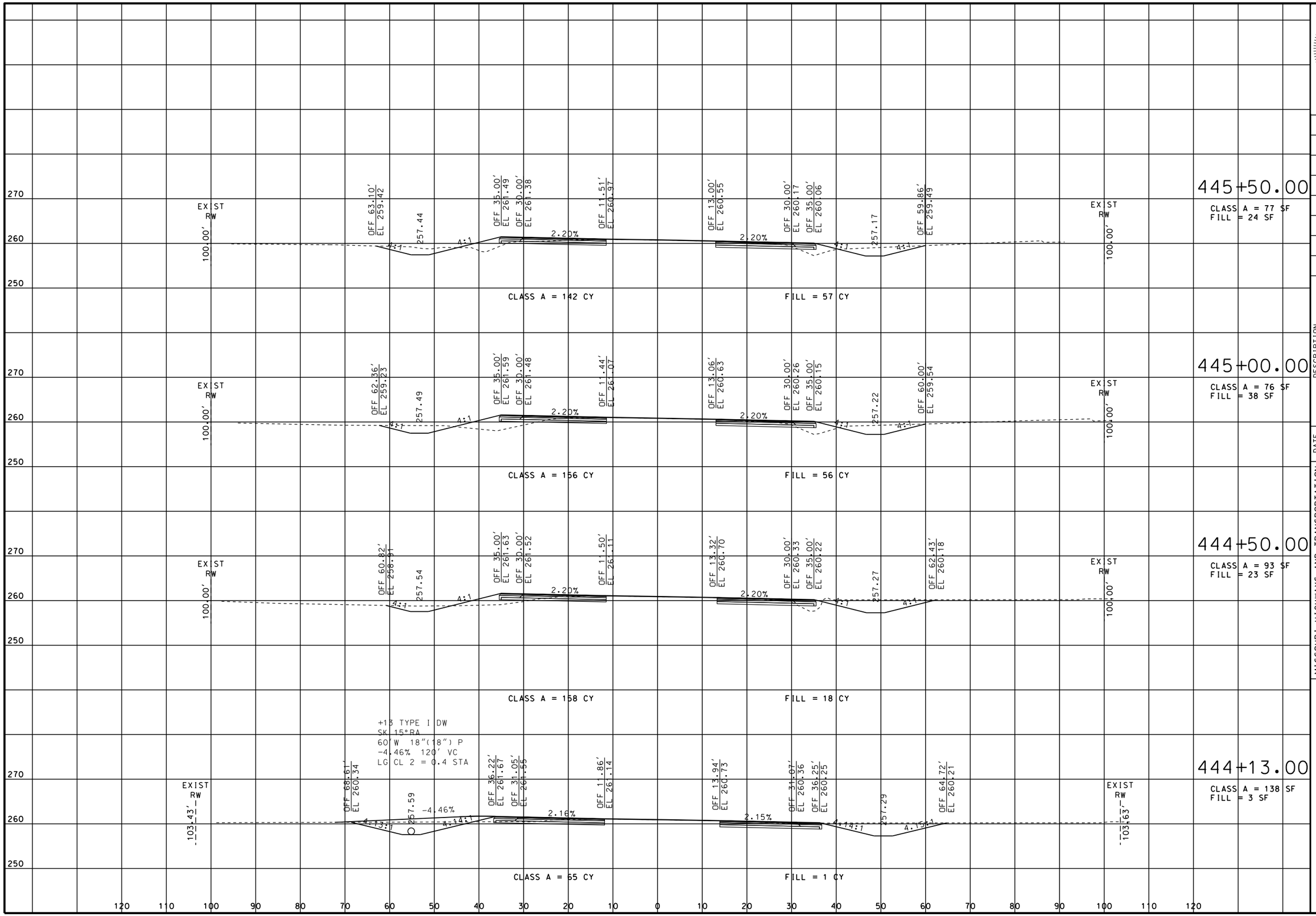
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

CROSS SECTIONS
SHEET 15 OF 113

ROUTE 412

REV.

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STATE OF MISSOURI
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DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	16

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

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

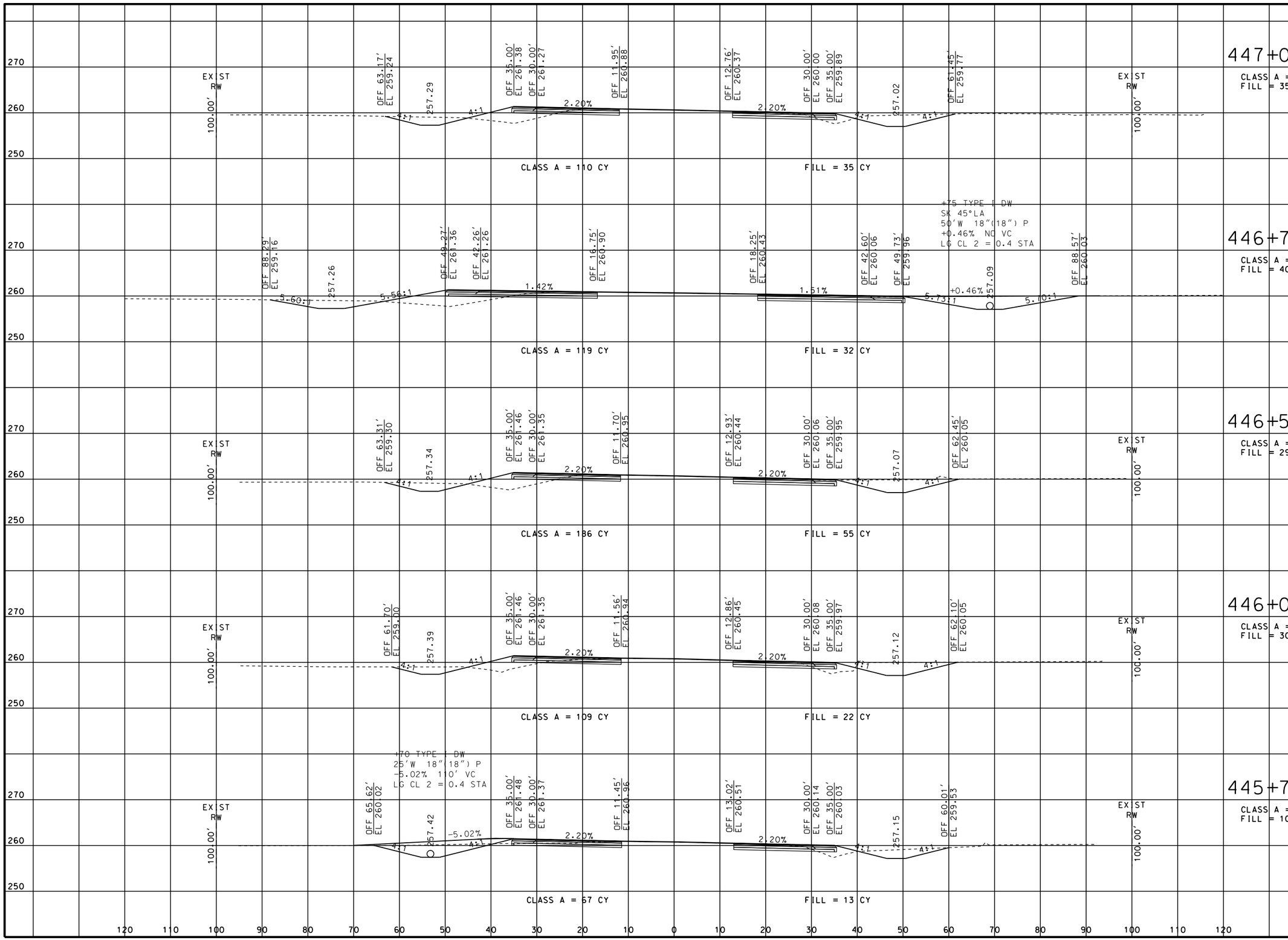
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 16 OF 113

ROUTE 412

REV.



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

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ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	17

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

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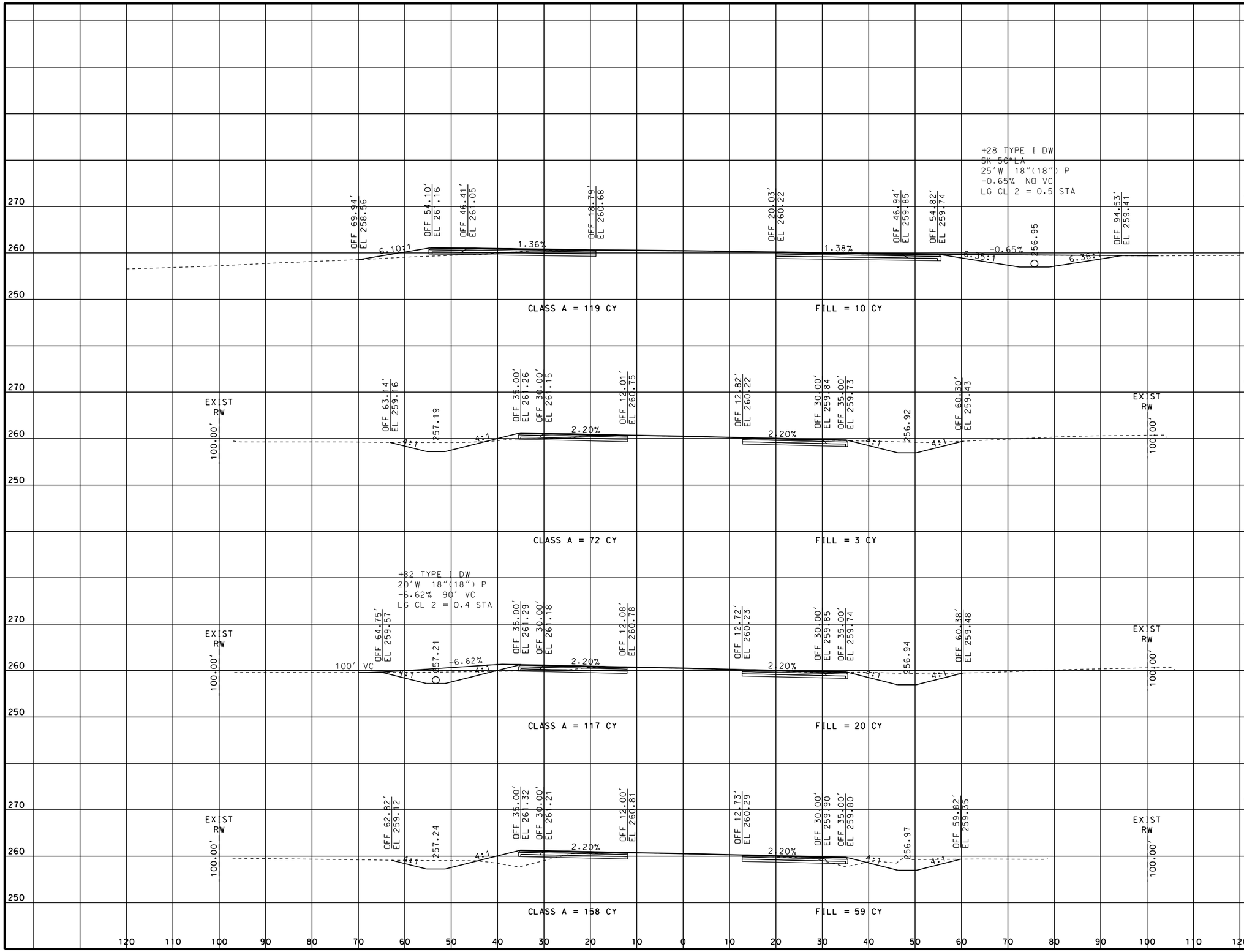
DATE	DESCRIPTION	REV.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 17 OF 113

ROUTE 412



STATE OF MISSOURI
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NUMBER E-30103
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THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	18

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

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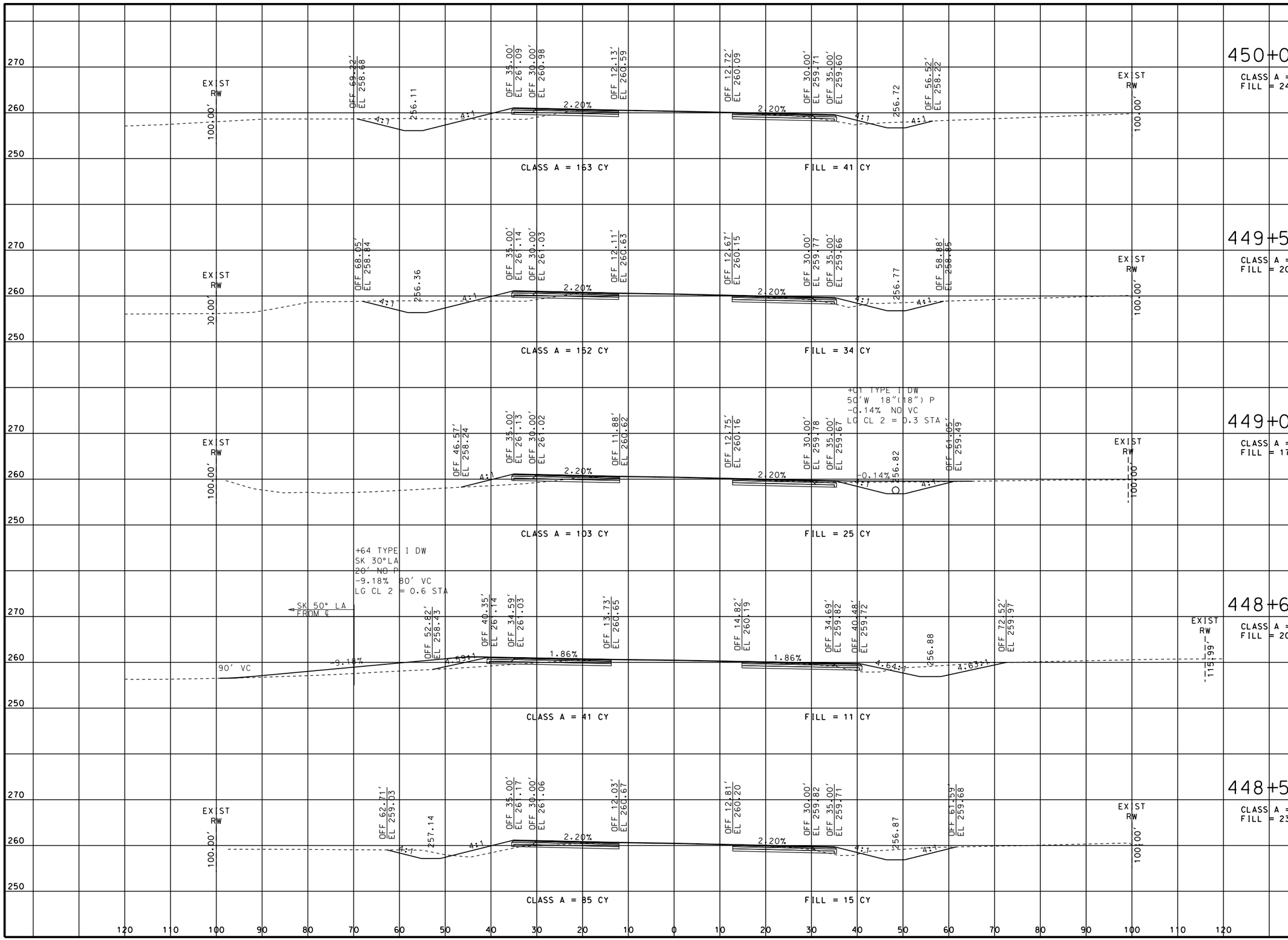
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 18 OF 113

ROUTE 412

REV.



STATE OF MISSOURI
ERIC KRAPF
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PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

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ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	19

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

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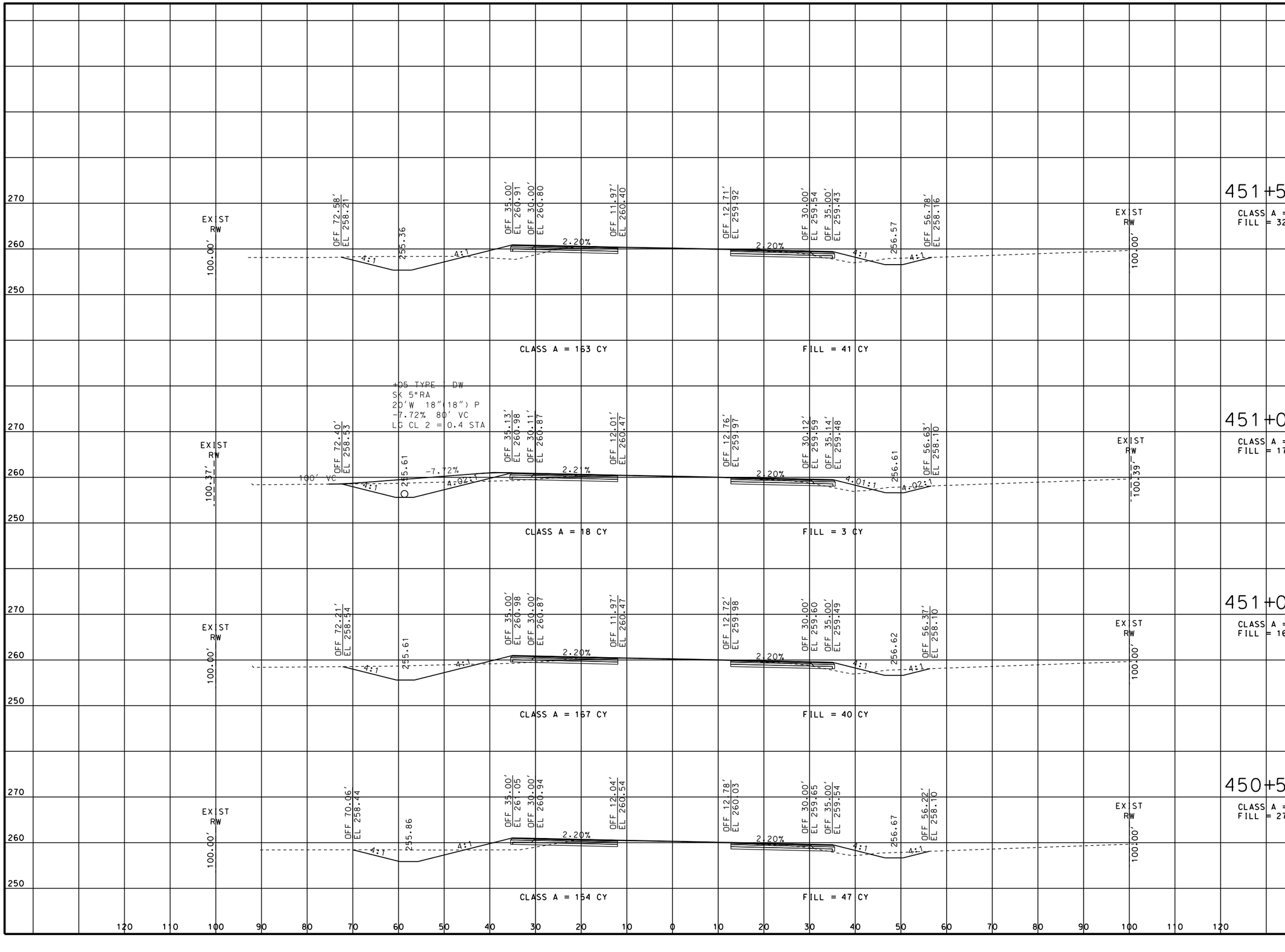
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 19 OF 113

ROUTE 412

REV.



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	20

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

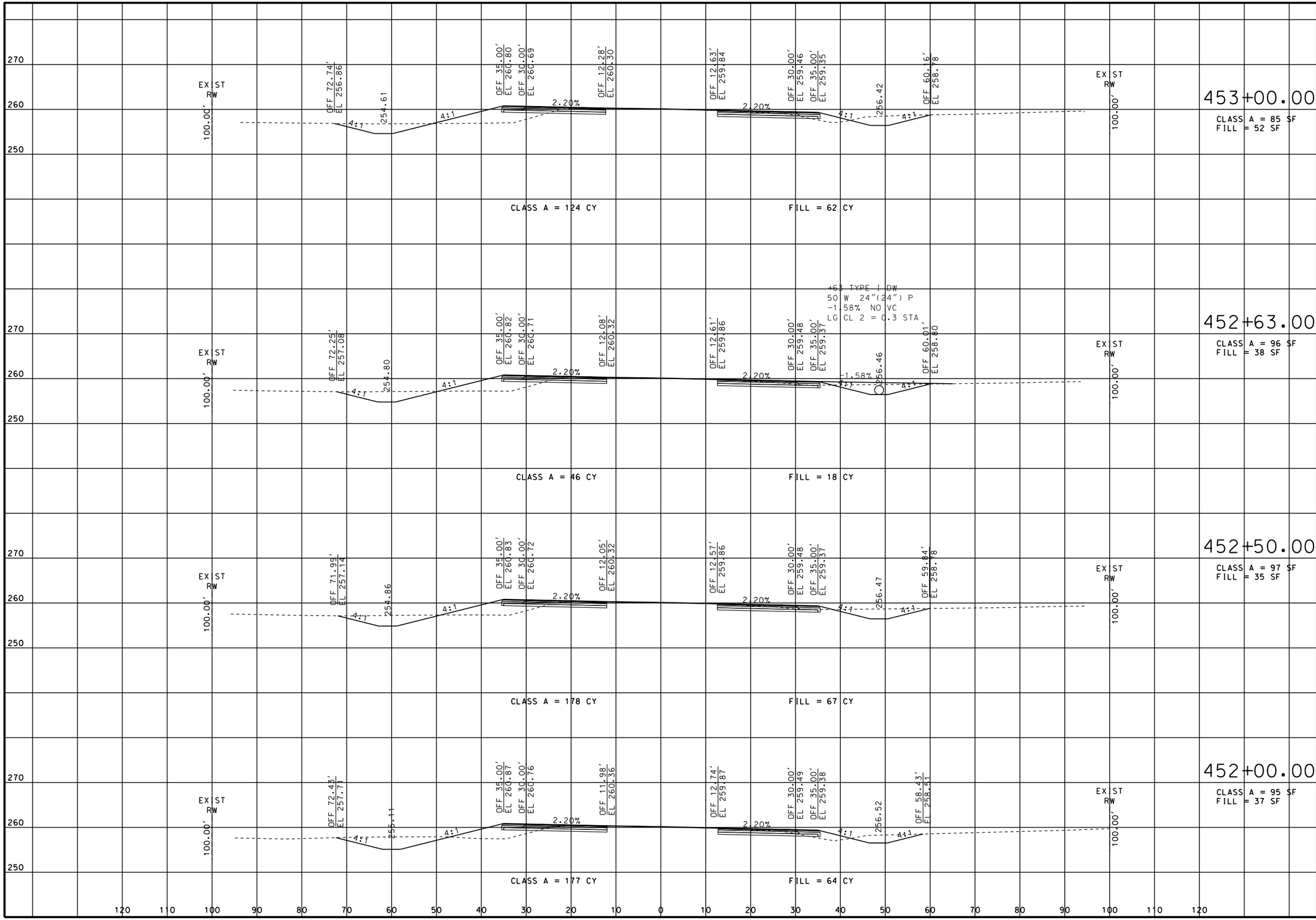
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

CROSS SECTIONS
SHEET 20 OF 113

ROUTE 412

REV.

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STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

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DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	21

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

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

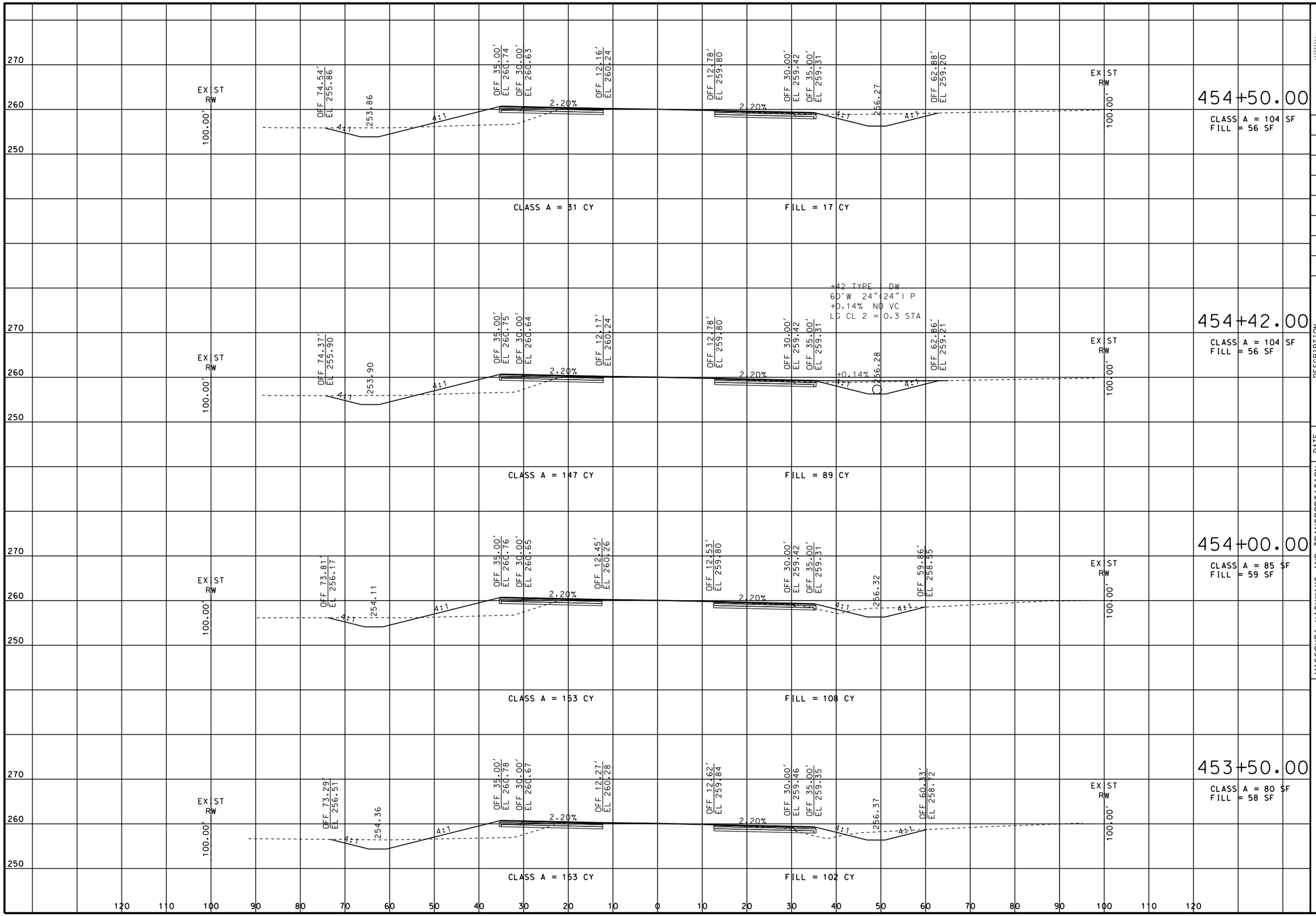
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 21 OF 113

ROUTE 412

REV.



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
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ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	22

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

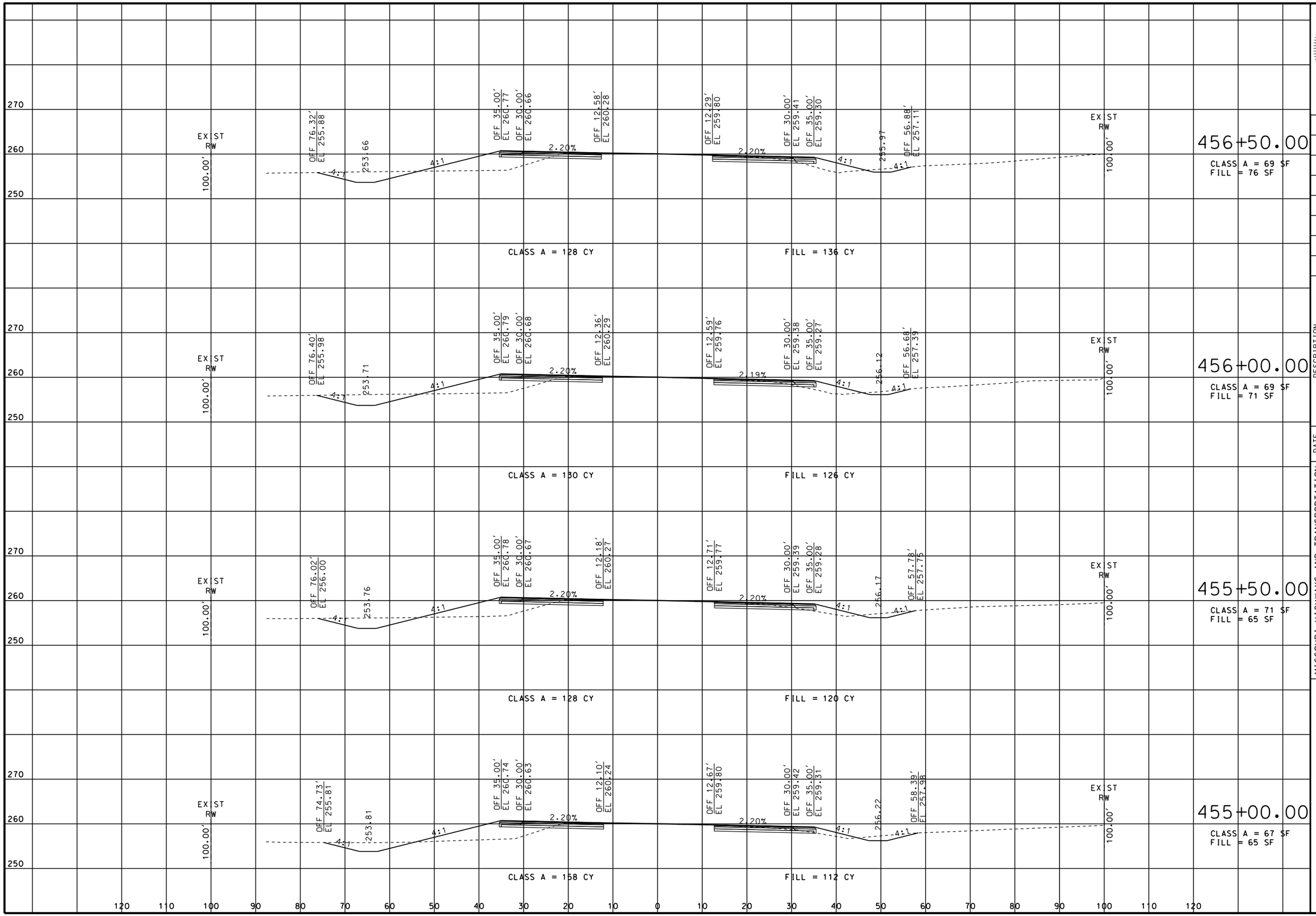
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

CROSS SECTIONS
SHEET 22 OF 113

ROUTE 412

REV.

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STATE OF MISSOURI
ERIC KRAPF
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ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	23

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

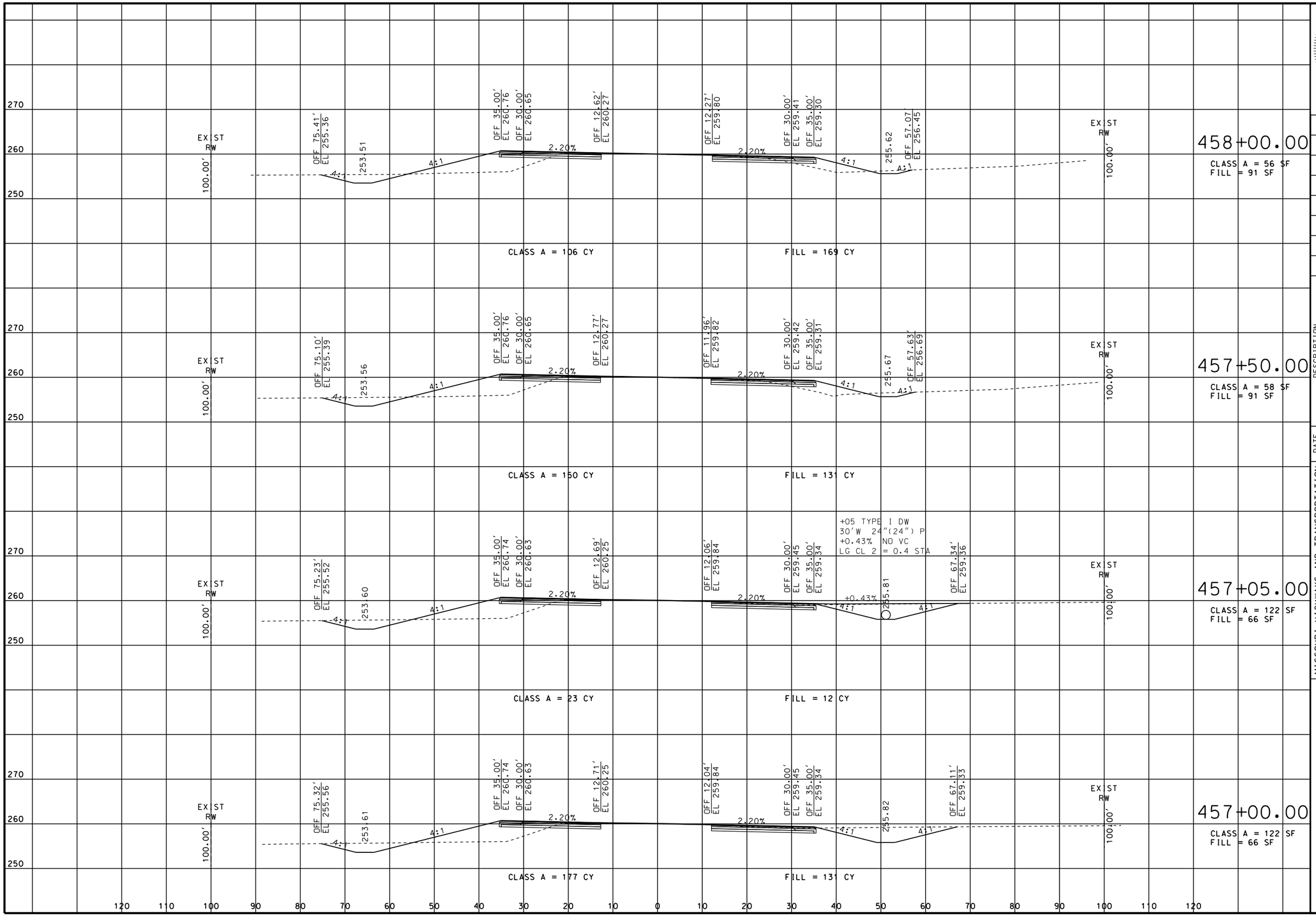
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

CROSS SECTIONS
SHEET 23 OF 113

ROUTE 412

REV.

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STATE OF MISSOURI
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ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	24

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

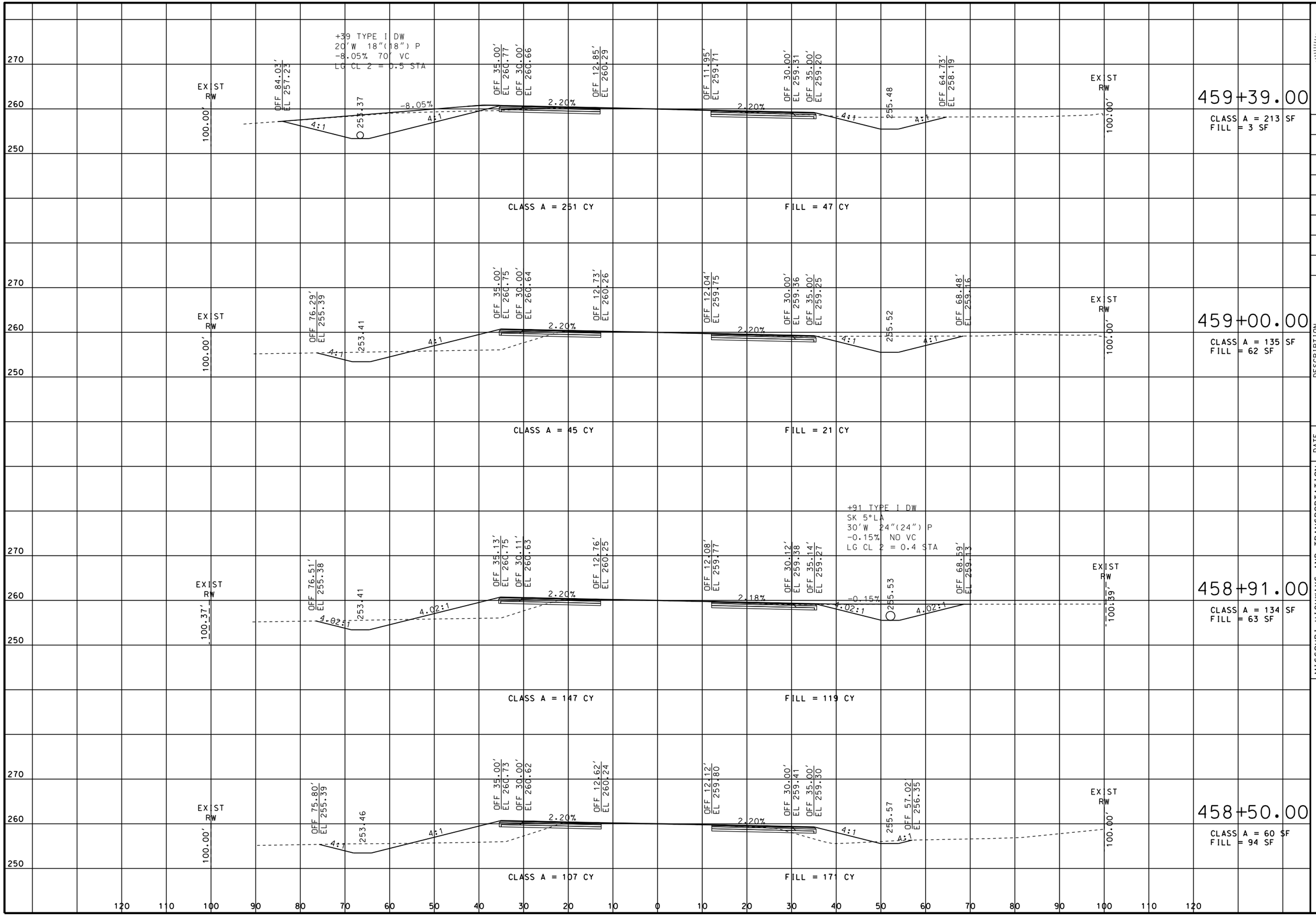
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

CROSS SECTIONS
SHEET 24 OF 113

ROUTE 412

REV.

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STATE OF MISSOURI
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ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	25

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

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

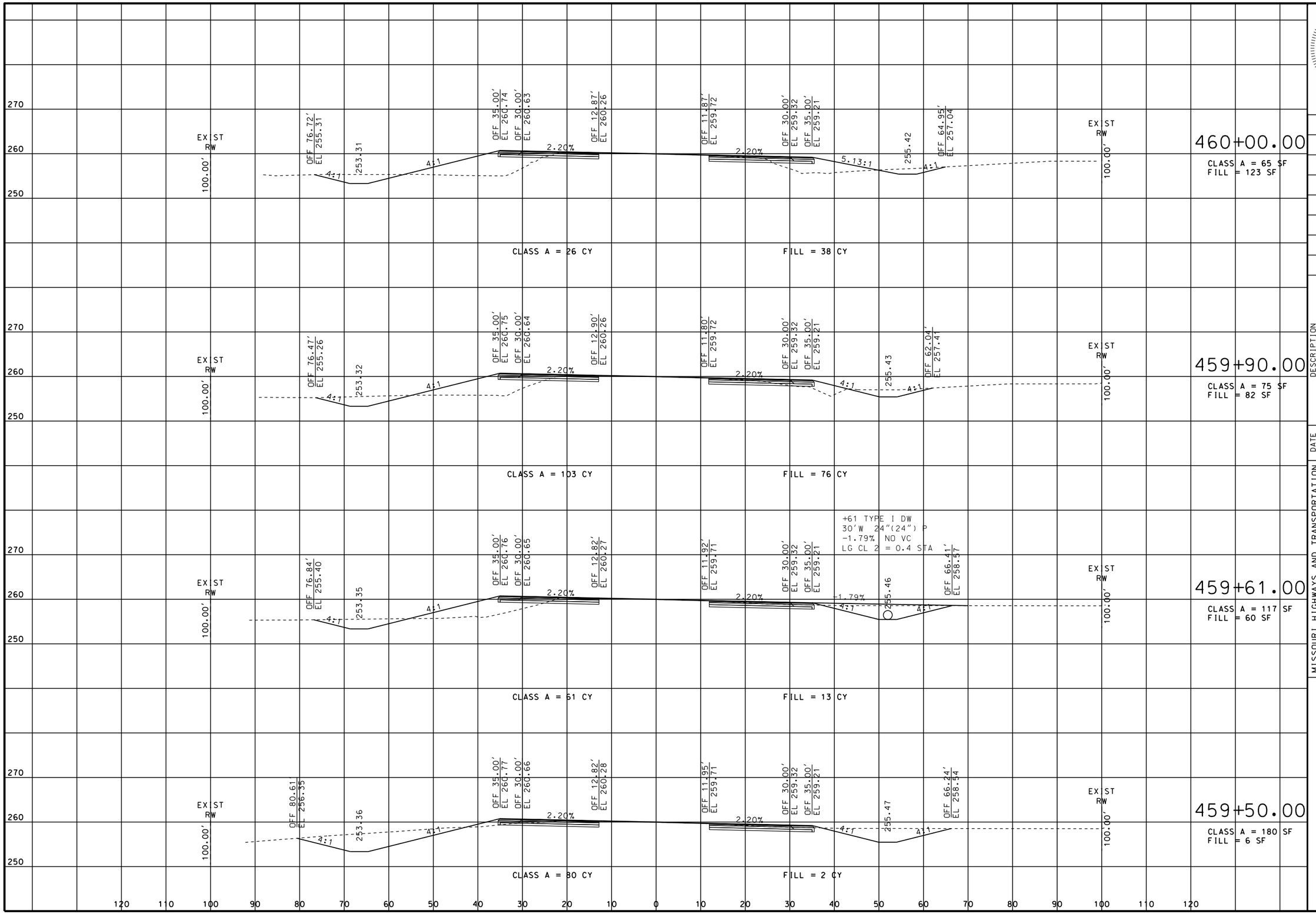
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 25 OF 113

ROUTE 412

REV.



STATE OF MISSOURI
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DATE PREPARED
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ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	26

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

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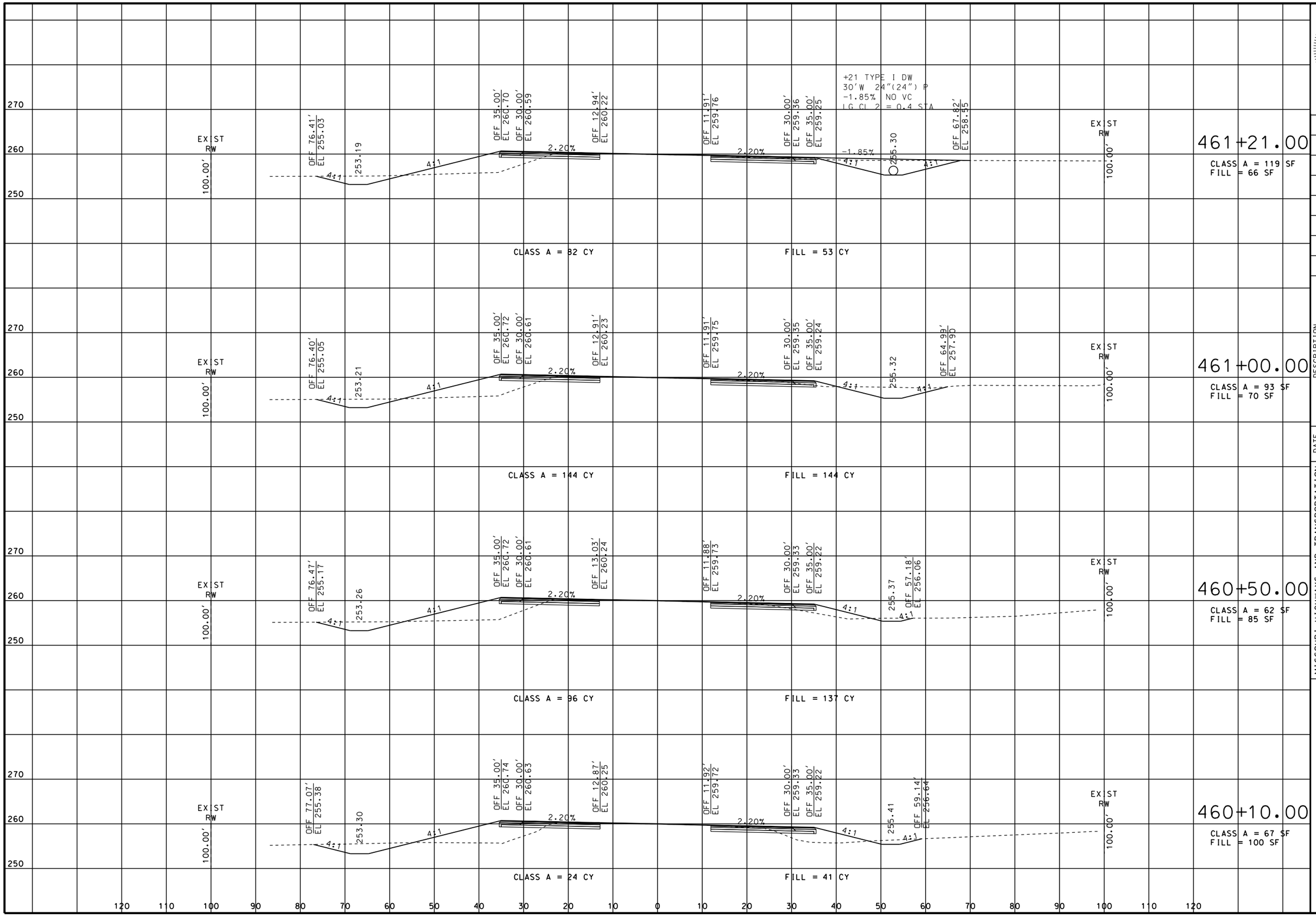
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 26 OF 113

ROUTE 412

REV.



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ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	27

COUNTY
DUNKLIN

JOB NO.
J9P3077

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PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

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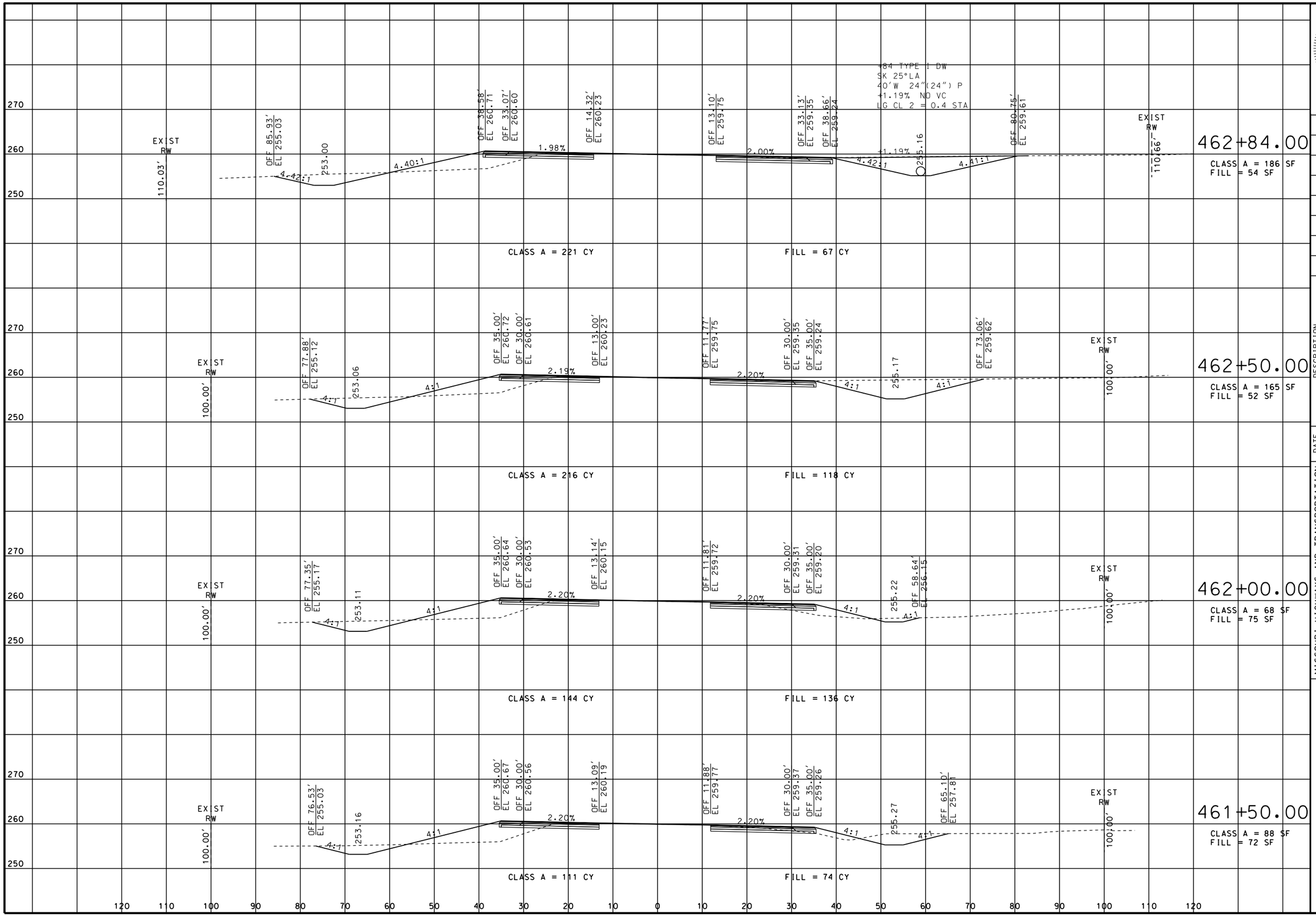
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 27 OF 113

ROUTE 412

REV.



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ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	28

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

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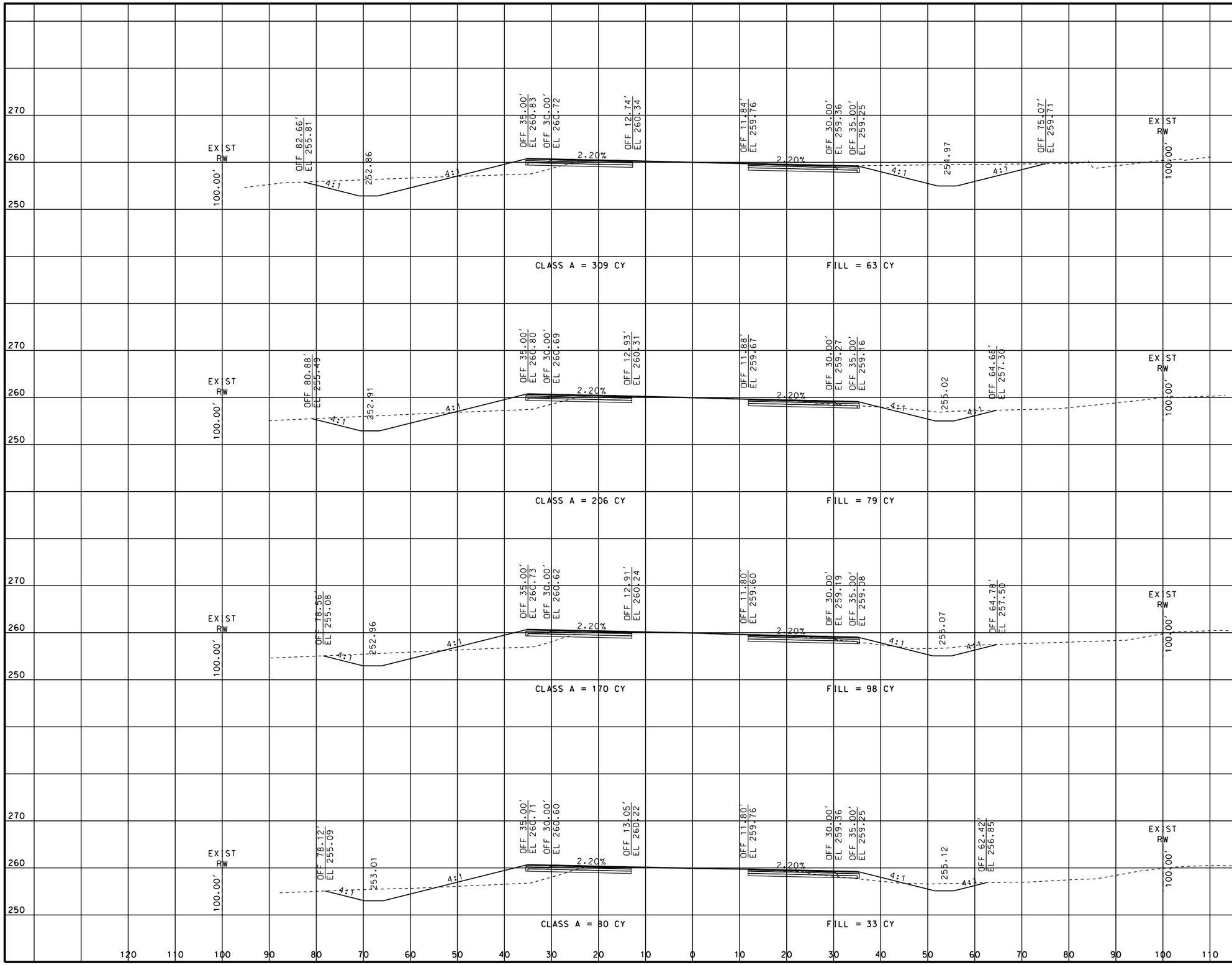
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 28 OF 113

ROUTE 412

REV.



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THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

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ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	29

COUNTY
DUNKLIN

JOB NO.
J9P3077

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PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

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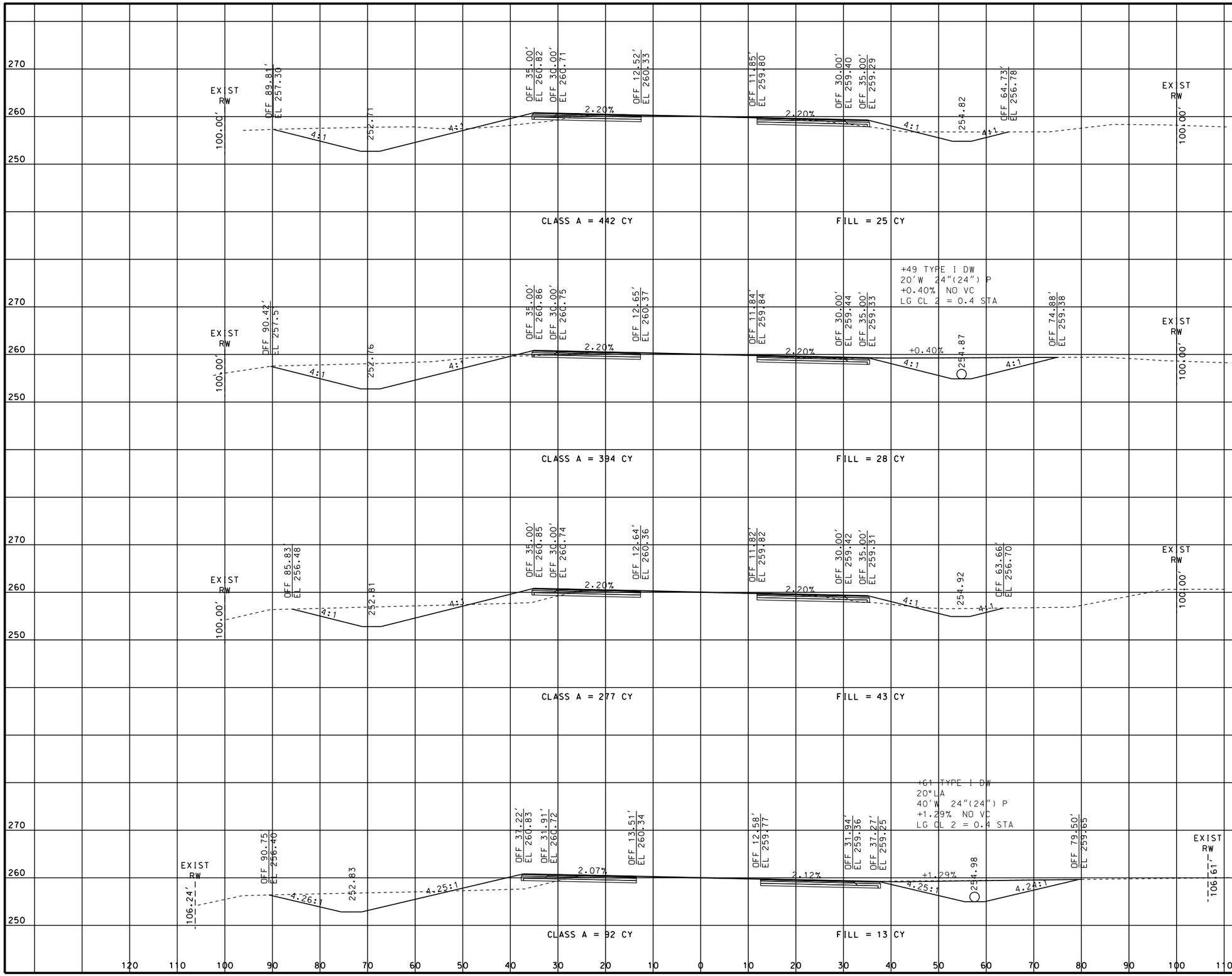
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 29 OF 113

ROUTE 412

REV.



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	30

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

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

DESCRIPTION

DATE

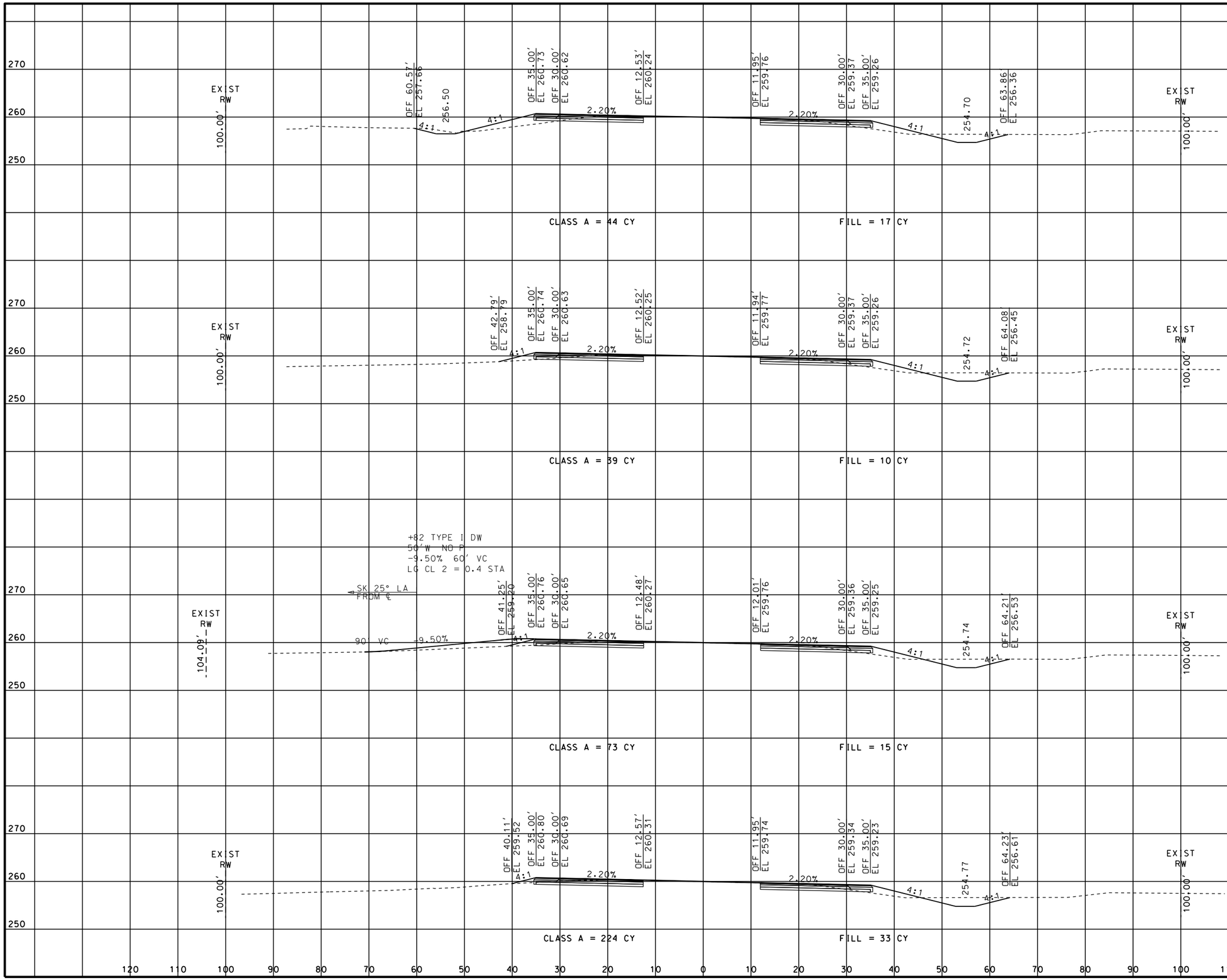
REV.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 30 OF 113

ROUTE 412



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	31

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

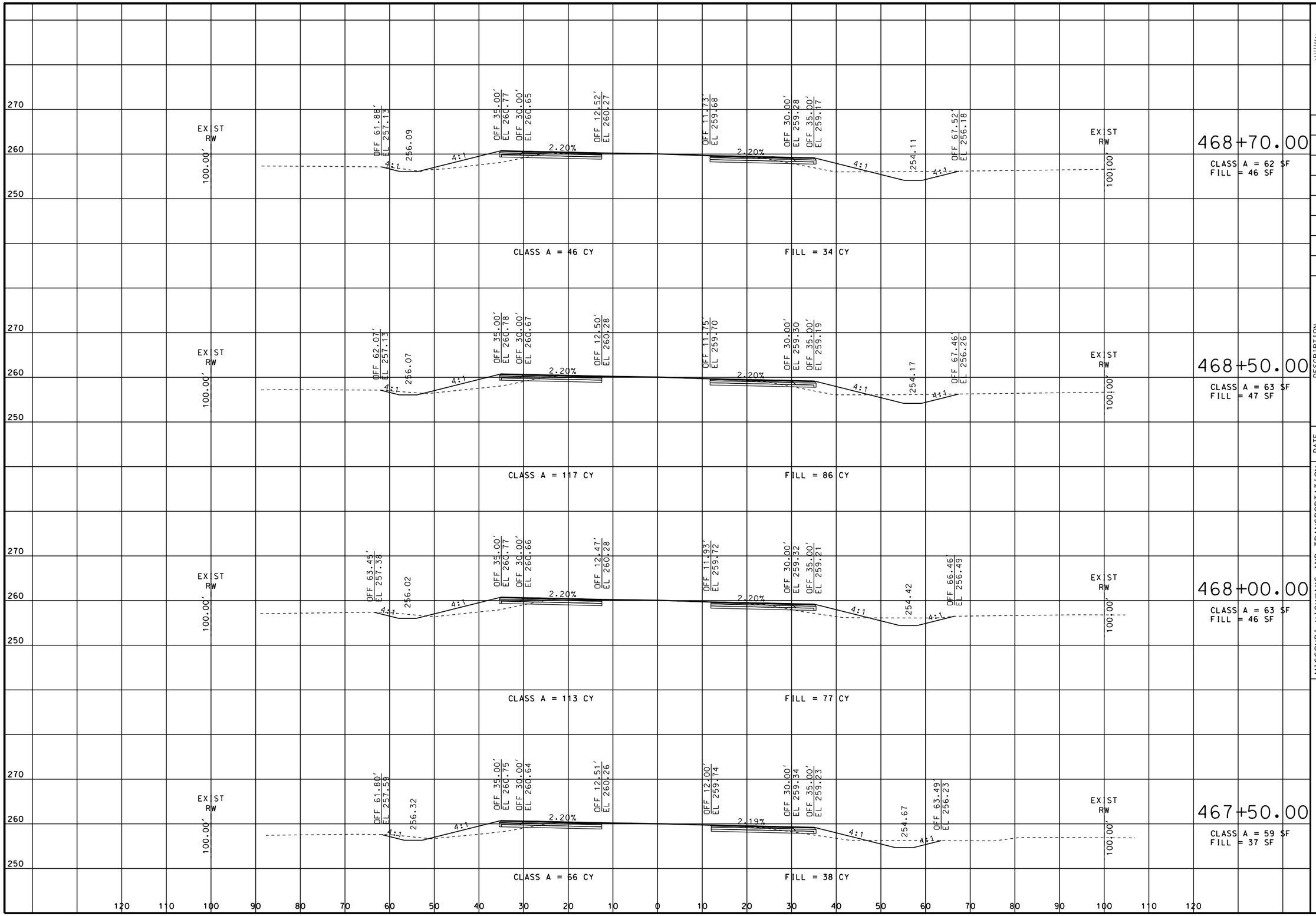
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

CROSS SECTIONS
SHEET 31 OF 113

ROUTE 412

REV.

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



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	32

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

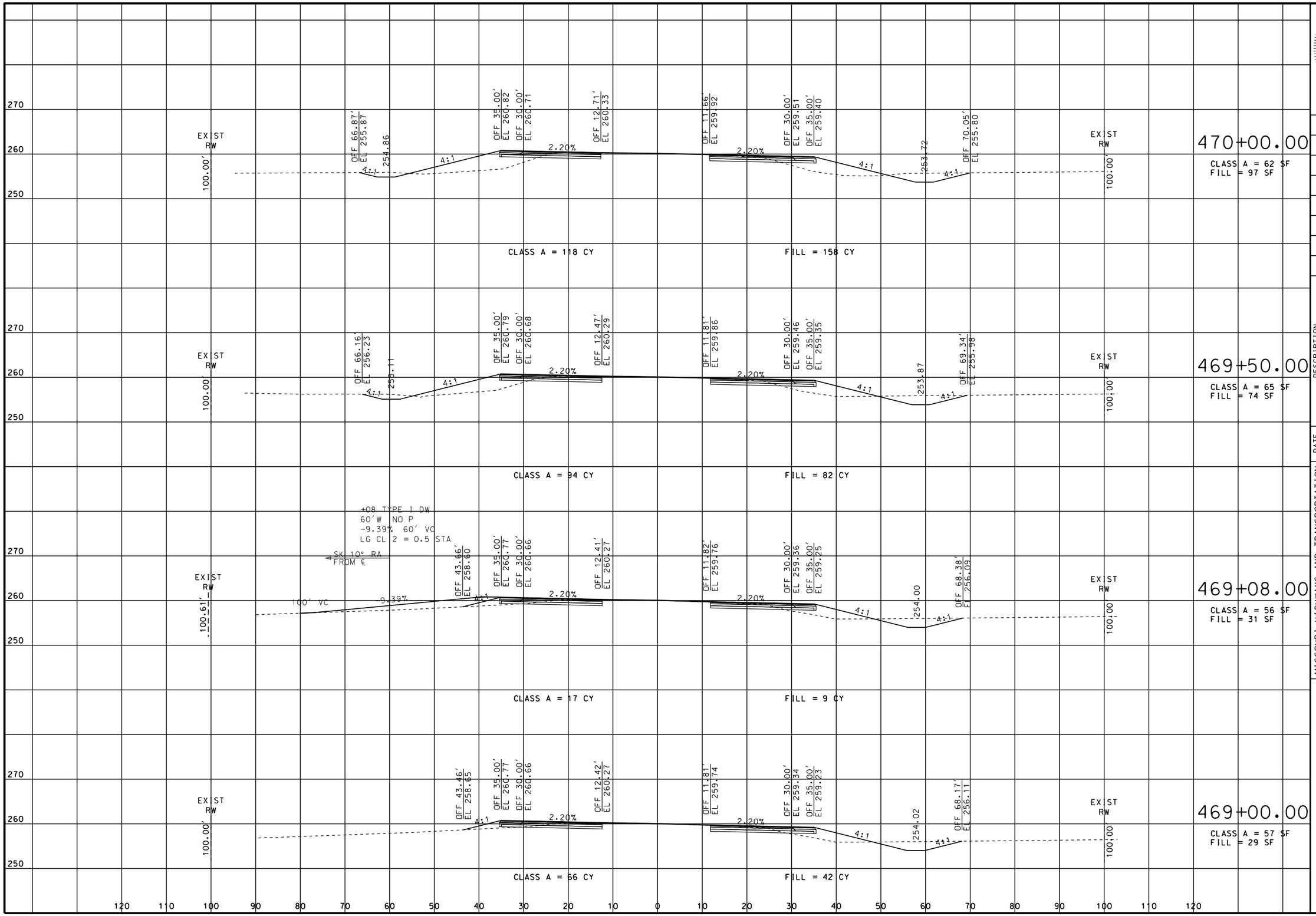
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

CROSS SECTIONS
SHEET 32 OF 113

ROUTE 412

REV.

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STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	33

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

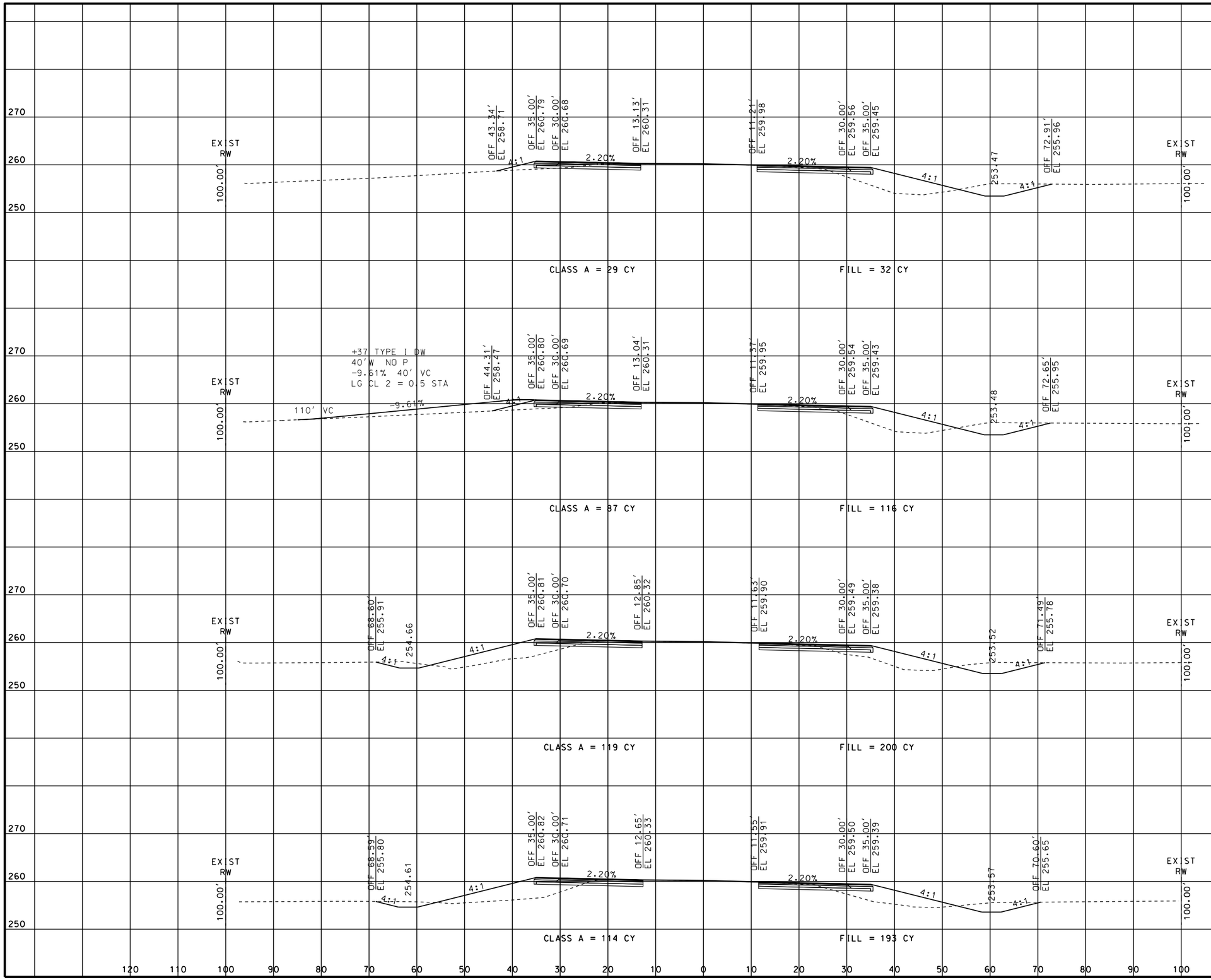
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

CROSS SECTIONS
SHEET 33 OF 113

ROUTE 412

REV.

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STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	34

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

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

DESCRIPTION

DATE

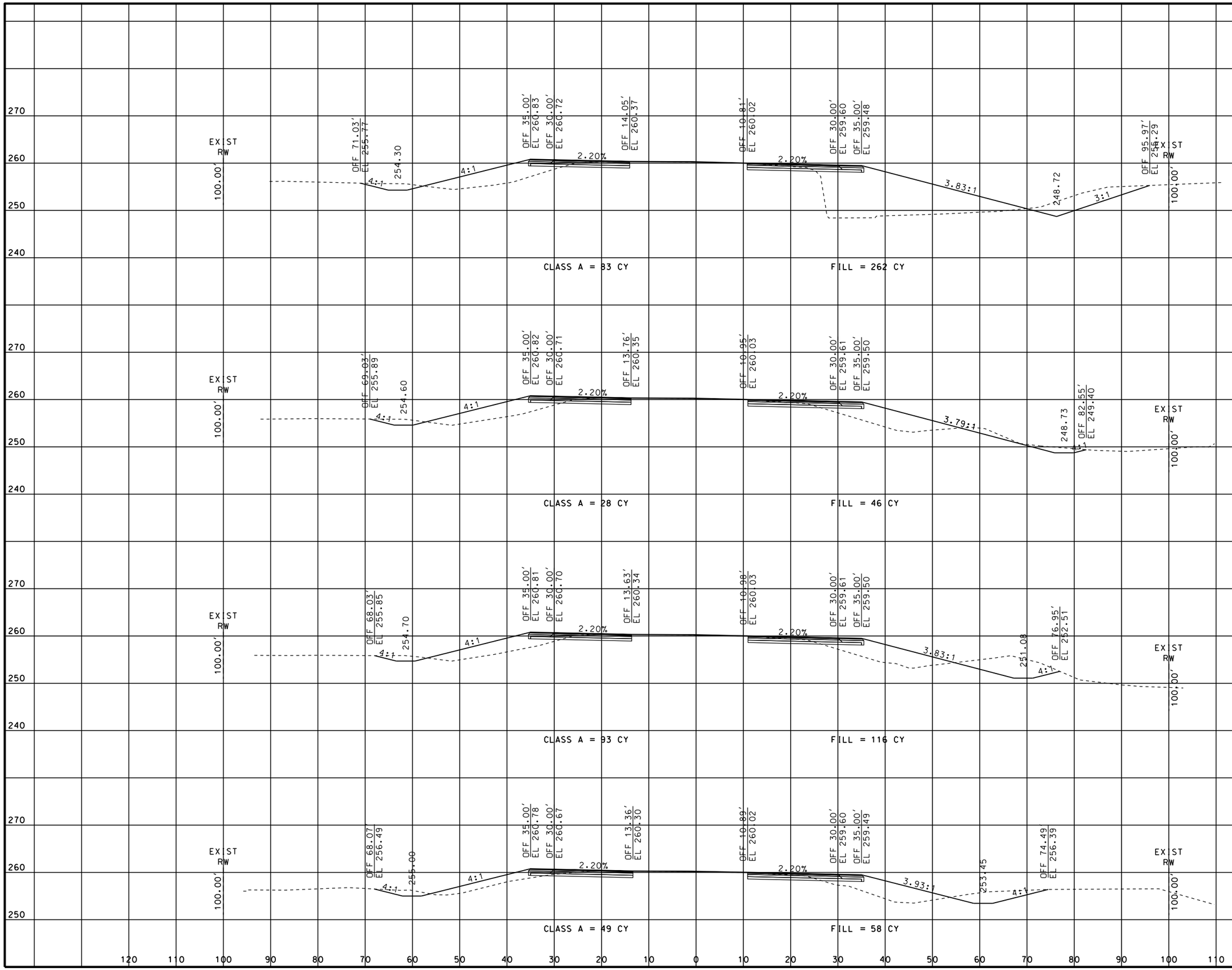
REV.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
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CROSS SECTIONS
SHEET 34 OF 113

ROUTE 412



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	35

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

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

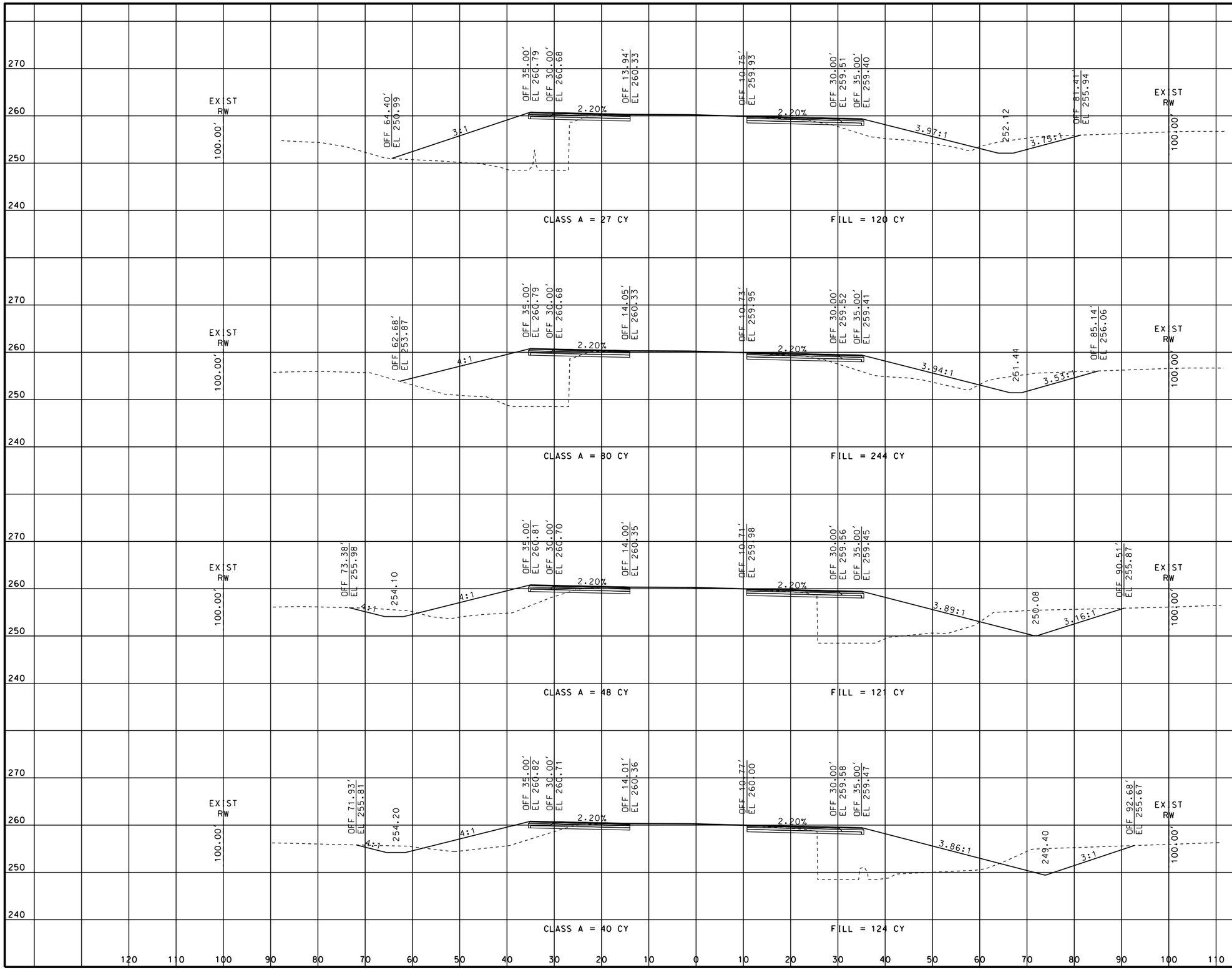
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 35 OF 113

ROUTE 412

REV.



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	36

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

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

DESCRIPTION

DATE

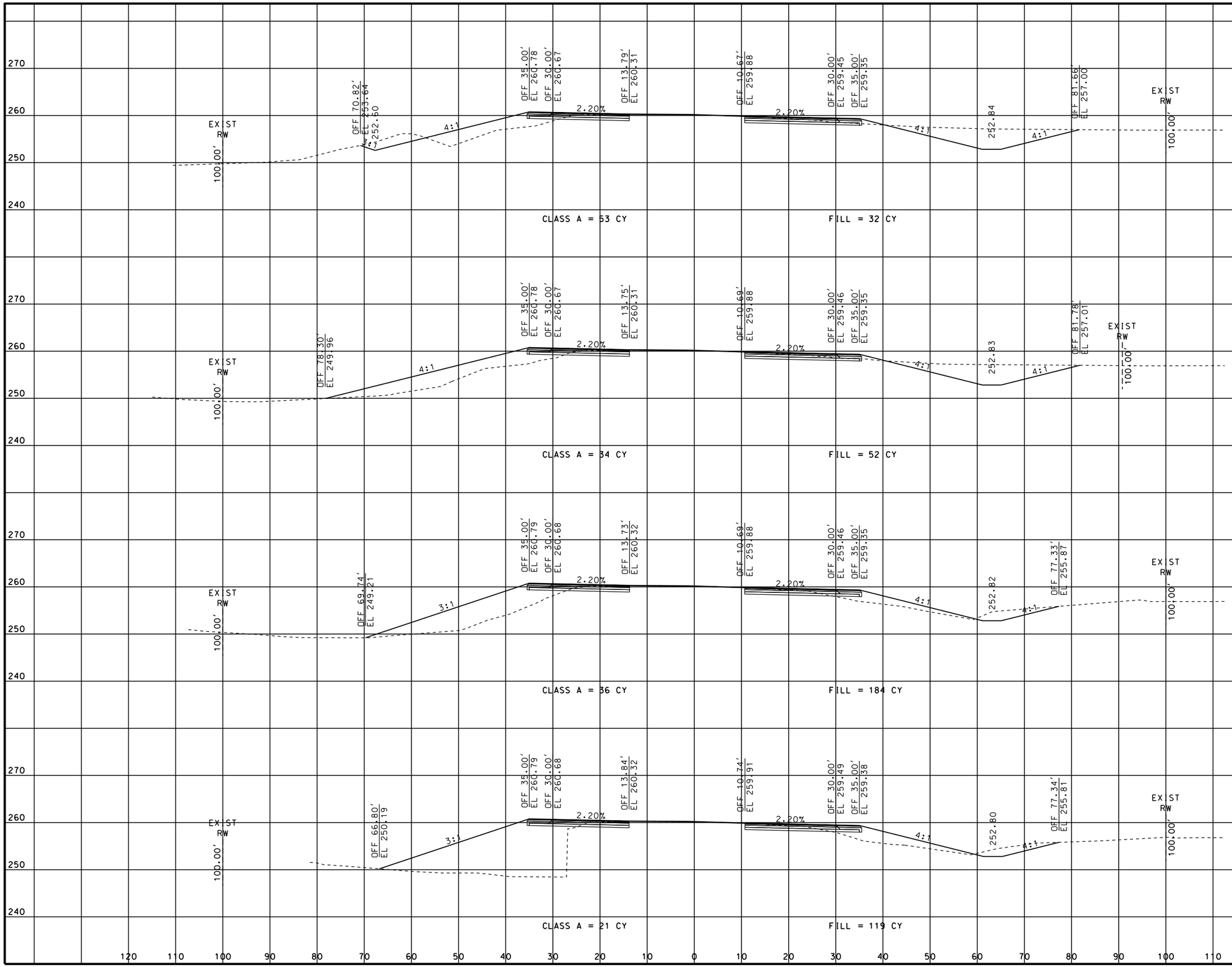
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MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
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CROSS SECTIONS
SHEET 36 OF 113

ROUTE 412



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	37

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

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

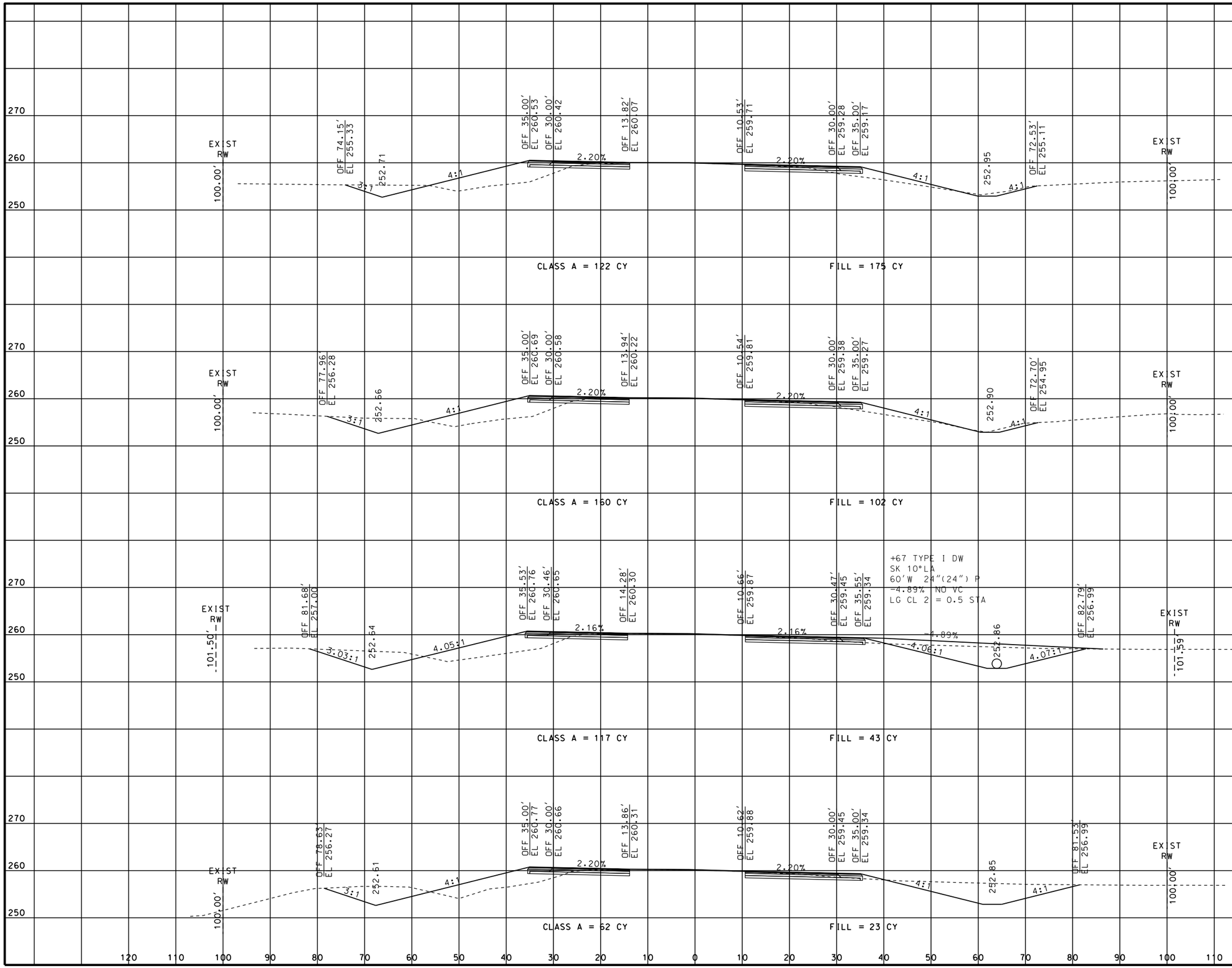
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 37 OF 113

ROUTE 412

REV.



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	38

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

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

DATE	DESCRIPTION

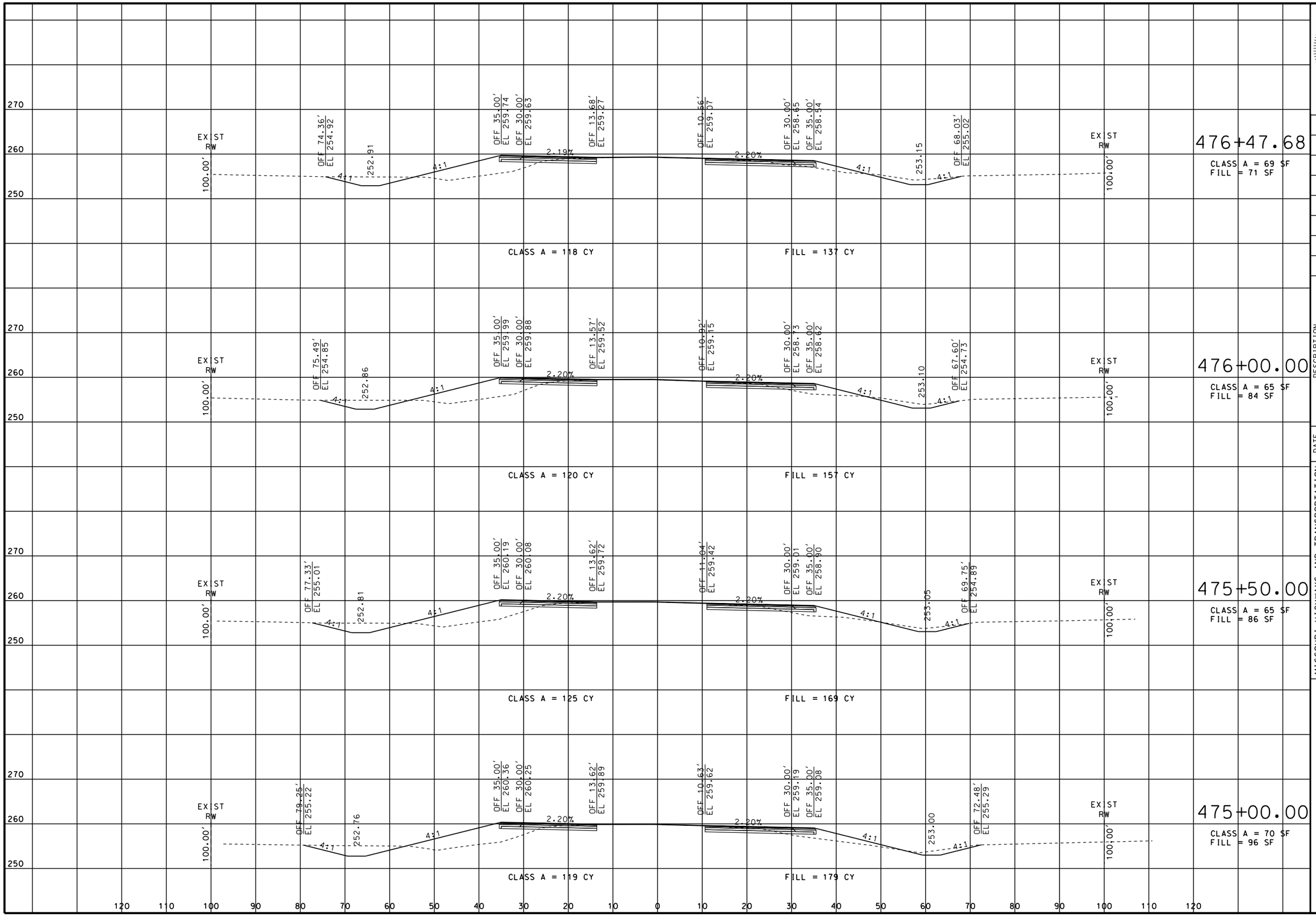
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 38 OF 113

ROUTE 412

REV.



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	39

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

REV.

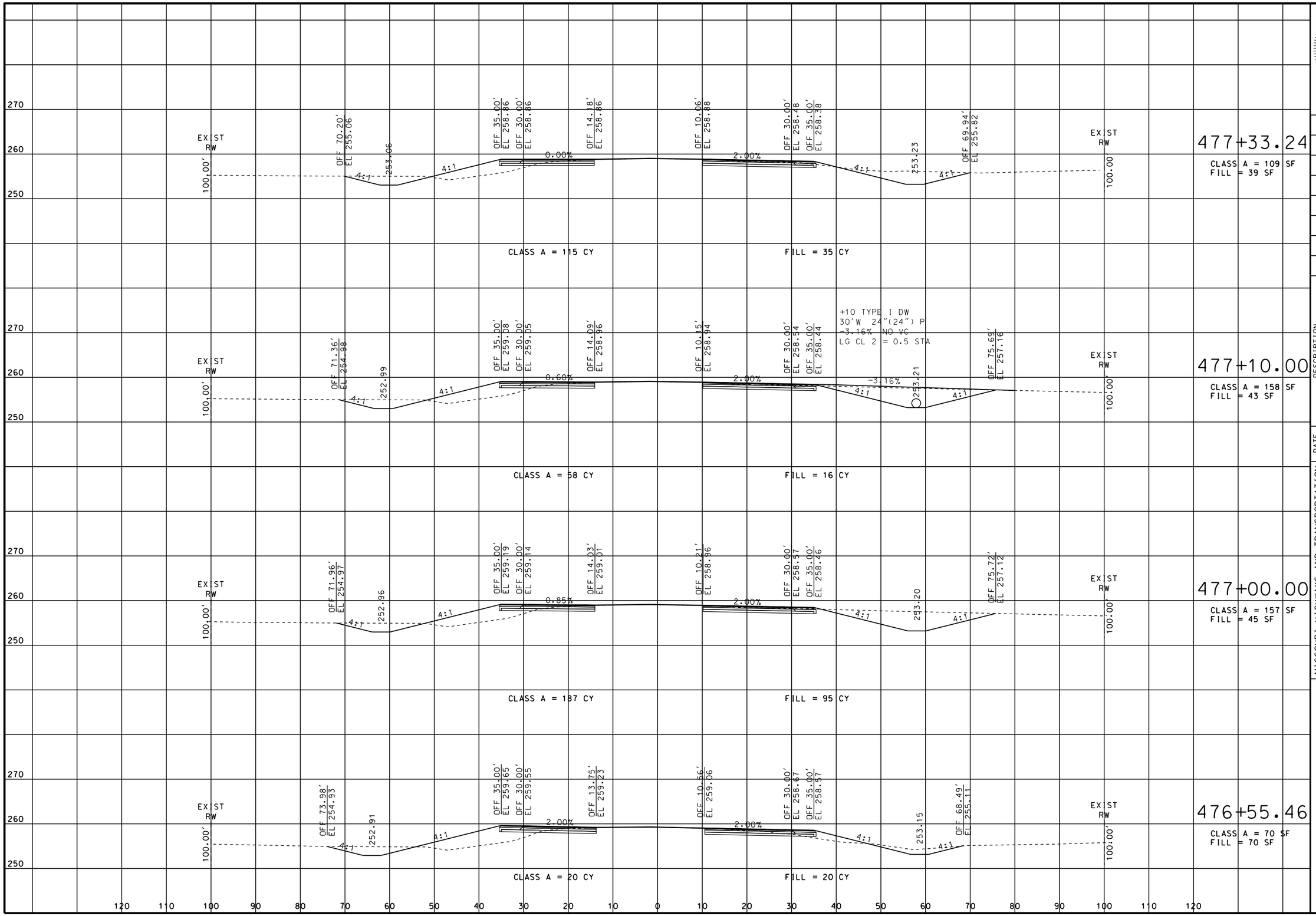
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 39 OF 113

ROUTE 412



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	40

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

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

DESCRIPTION

DATE

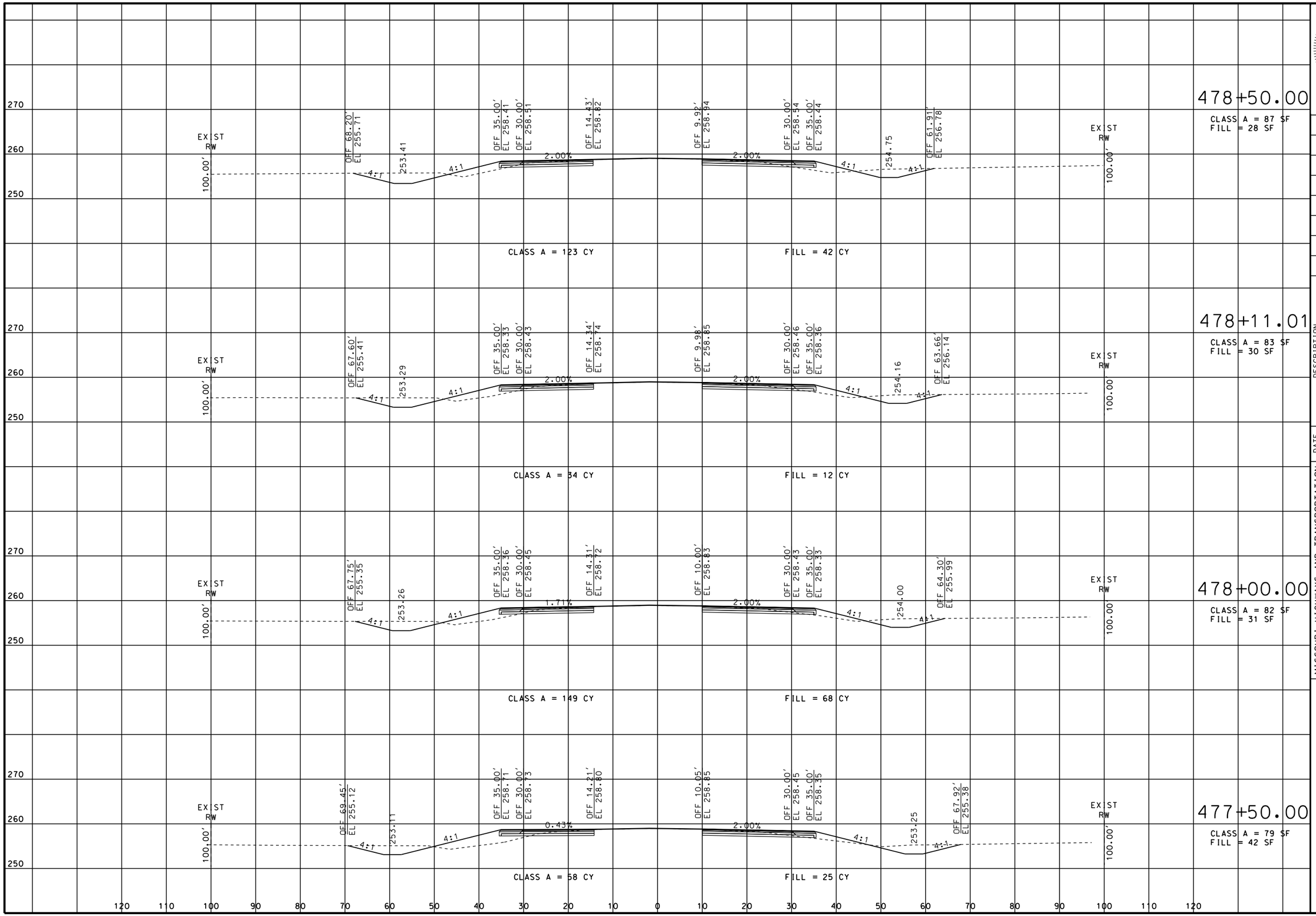
REV.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 40 OF 113

ROUTE 412



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	41

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

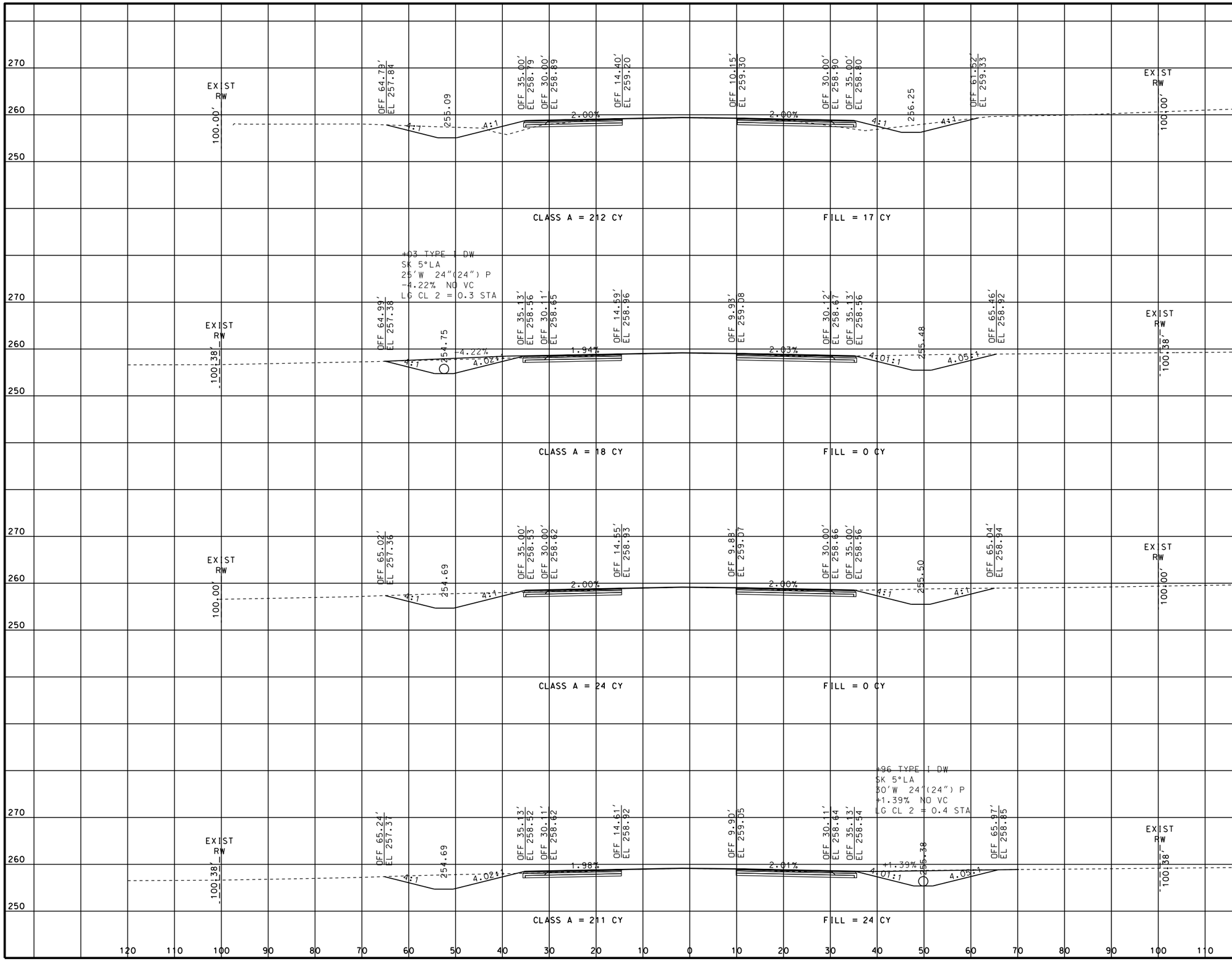
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

CROSS SECTIONS
SHEET 41 OF 113

ROUTE 412

REV.

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STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	42

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

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

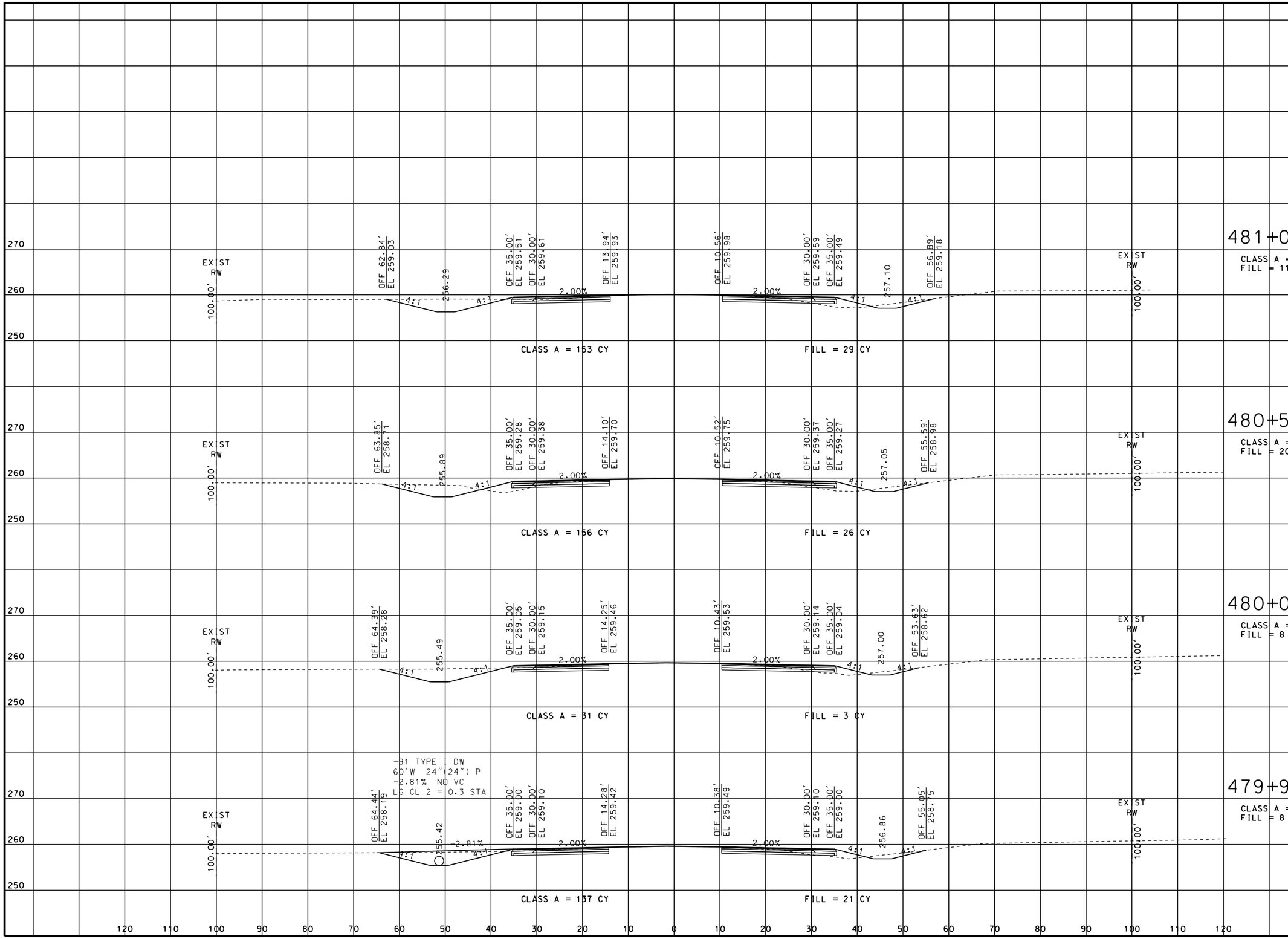
DATE	DESCRIPTION	REV.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 42 OF 113

ROUTE 412



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	43

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

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

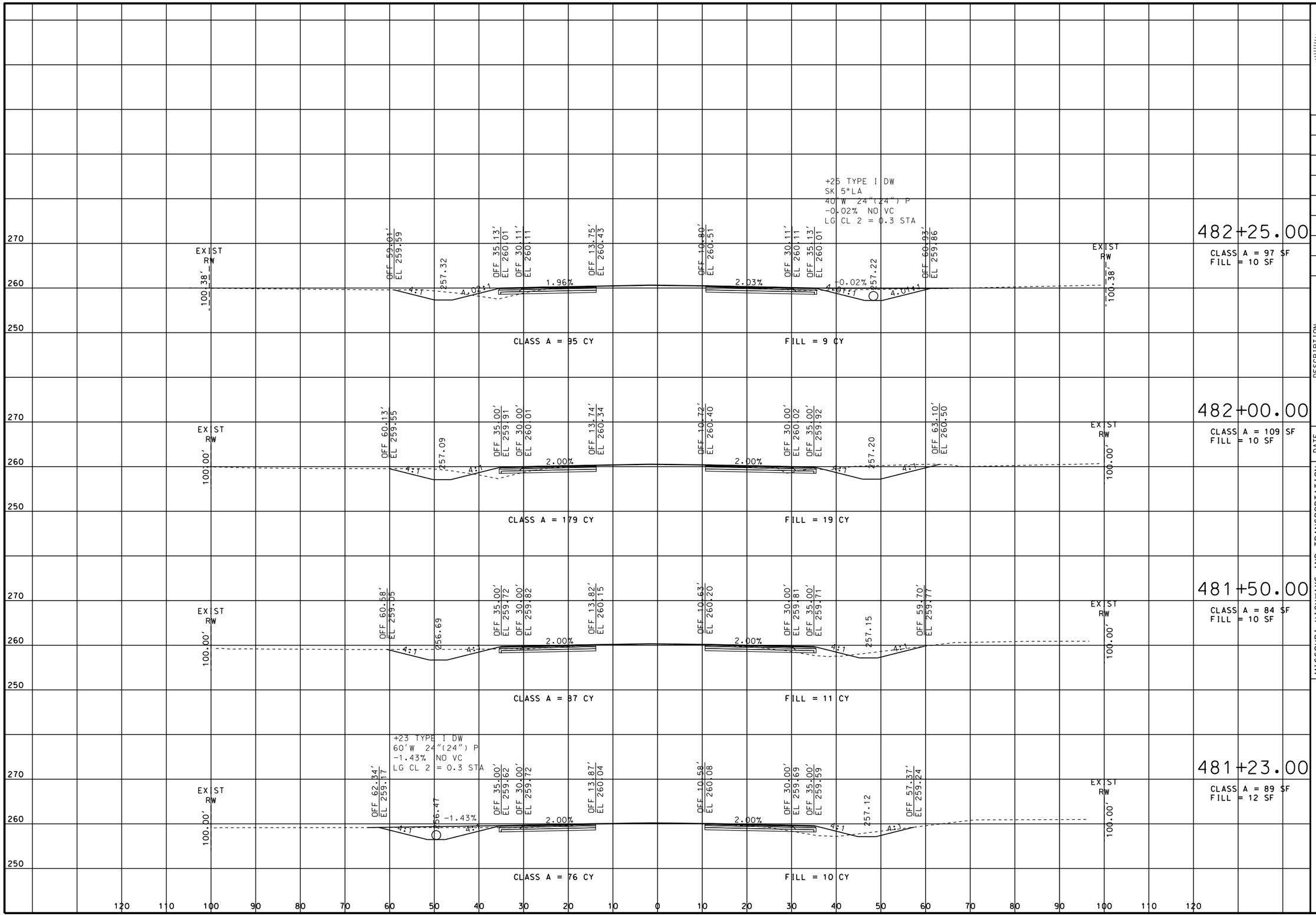
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 43 OF 113

ROUTE 412

REV.



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	44

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

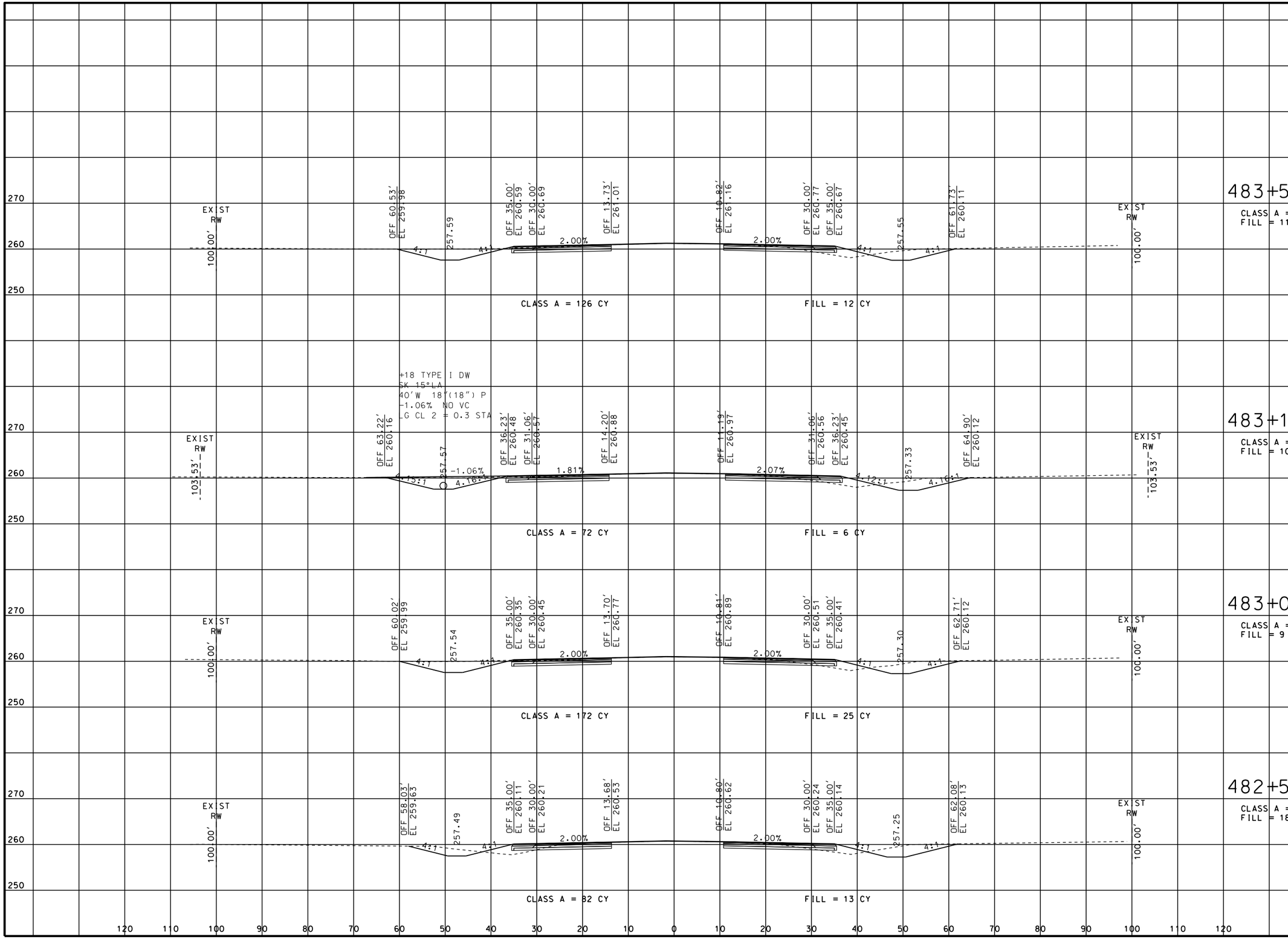
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

CROSS SECTIONS
SHEET 44 OF 113

ROUTE 412

REV.

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STATE OF MISSOURI
ERIC KRAPF
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PROFESSIONAL ENGINEER

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DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	45

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

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

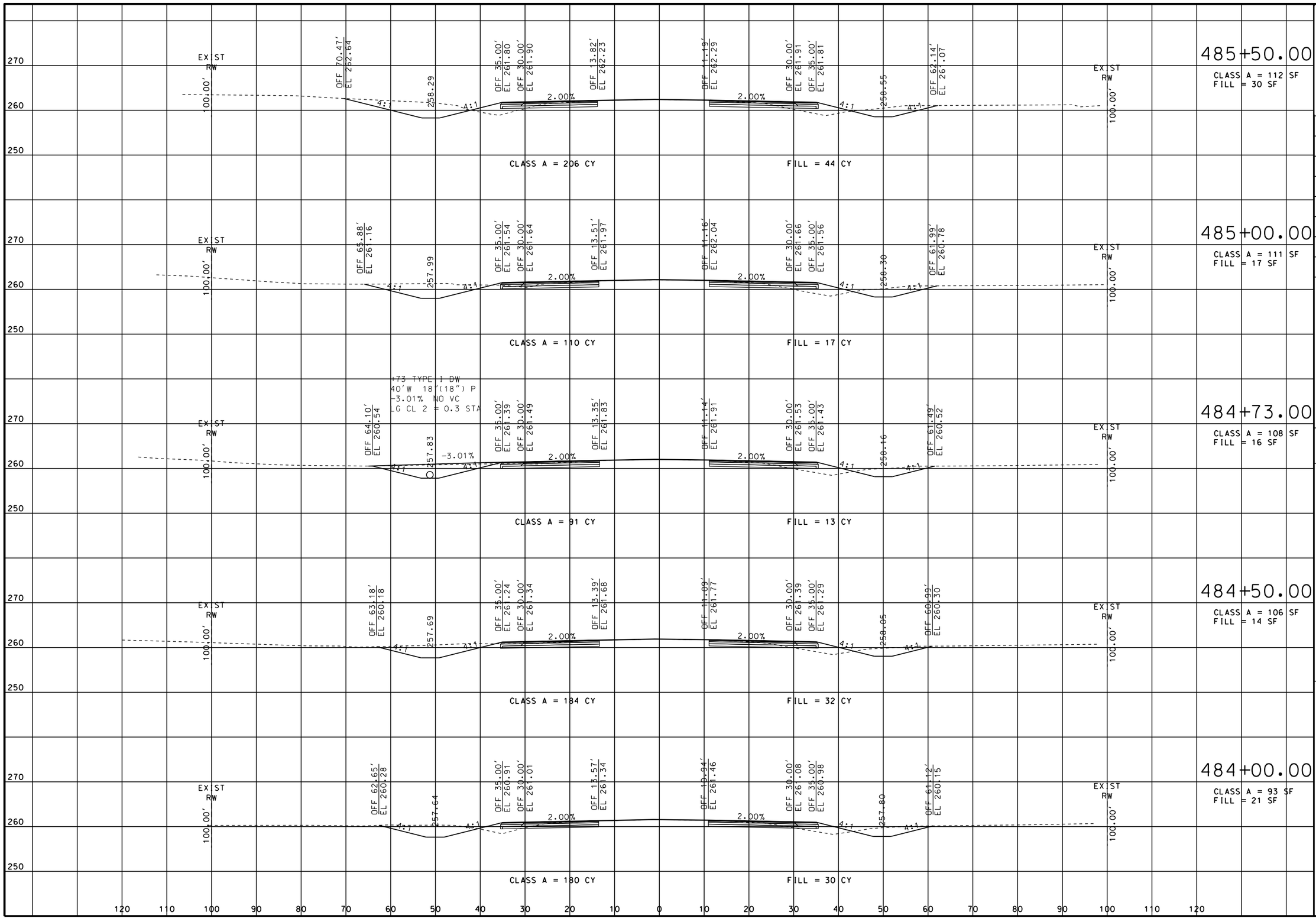
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 45 OF 113

ROUTE 412

REV.



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	46

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

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

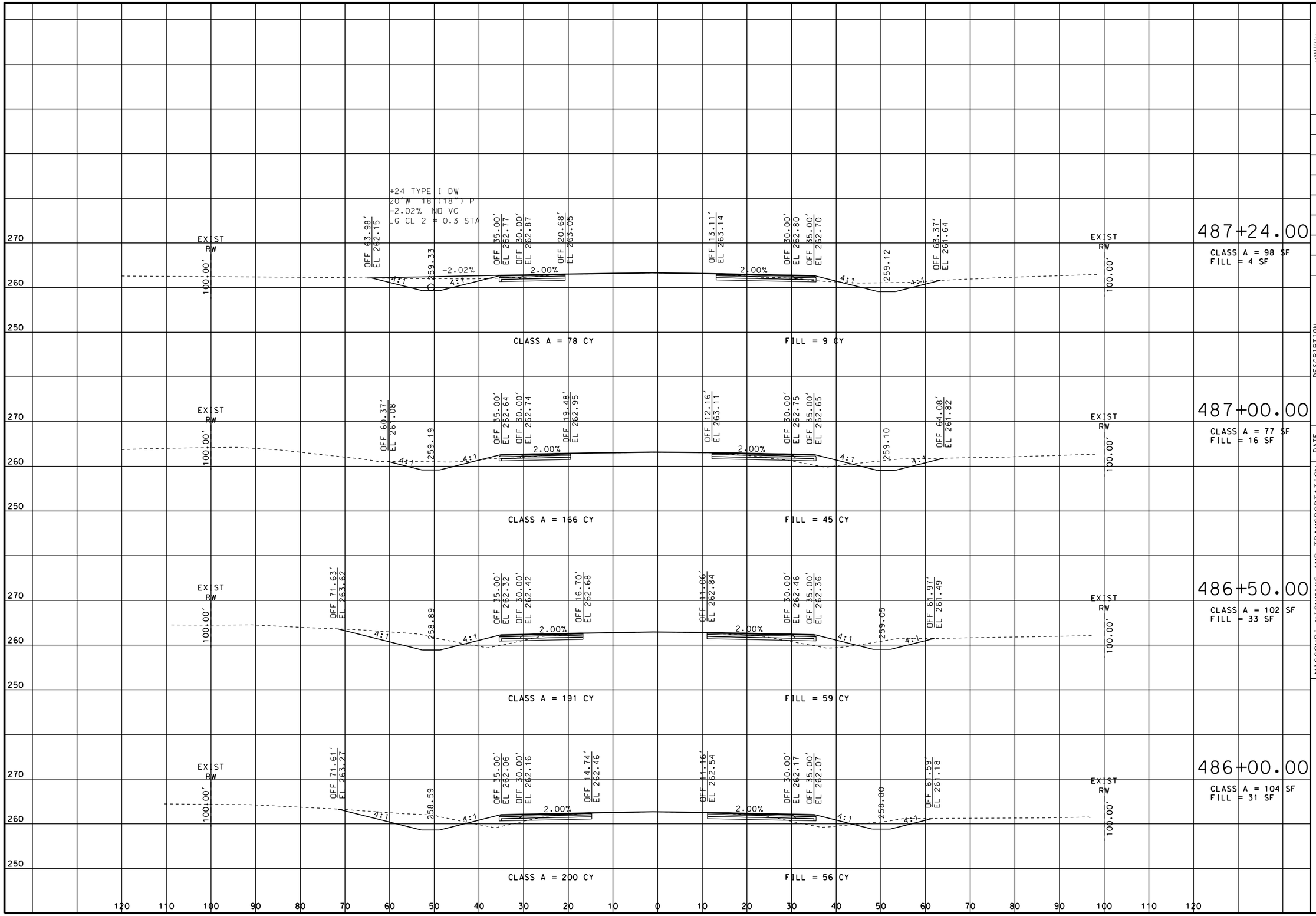
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 46 OF 113

ROUTE 412

REV.



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	47

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

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

DESCRIPTION | DATE

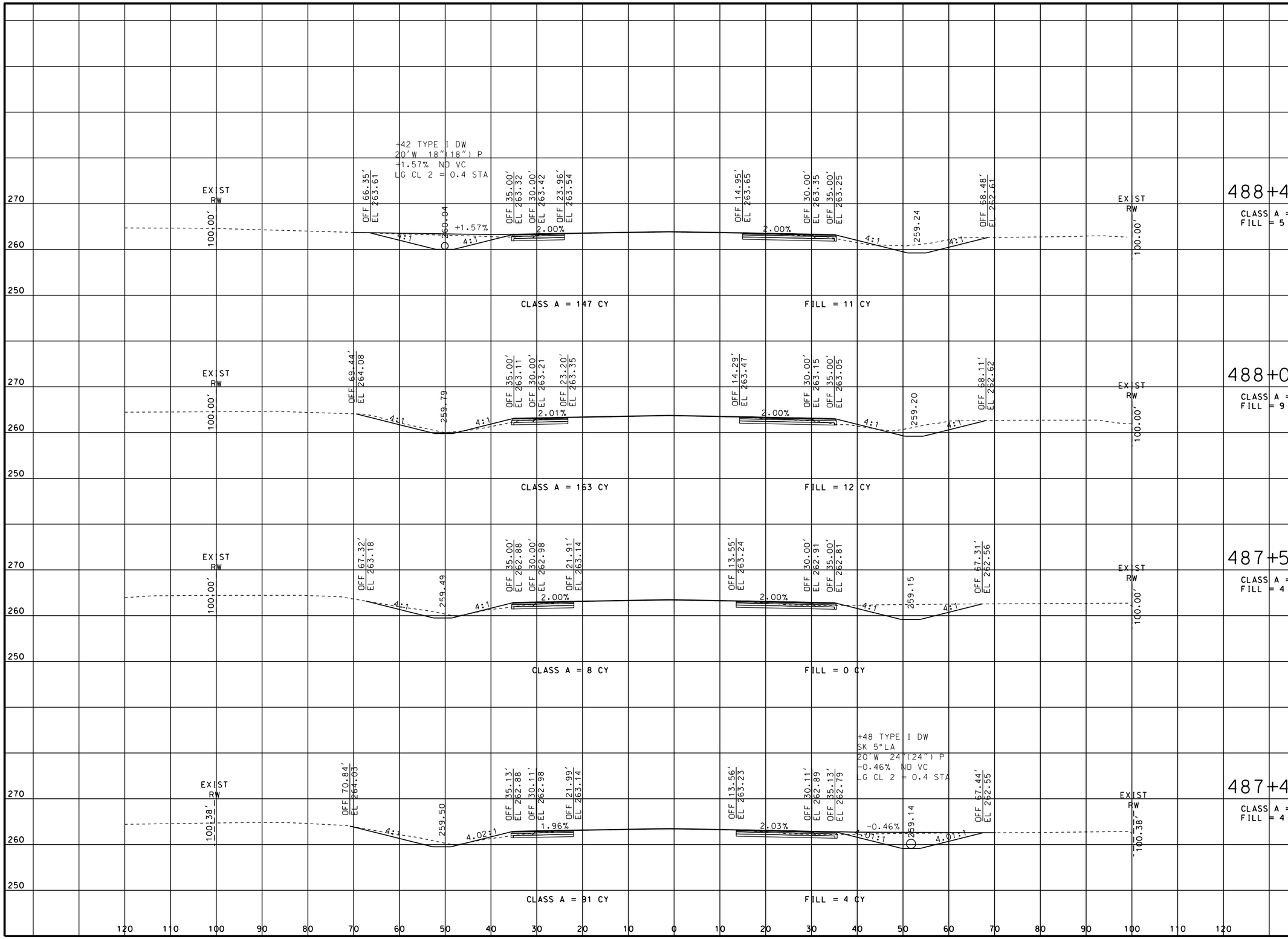
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 47 OF 113

ROUTE 412

REV.



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	48

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

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

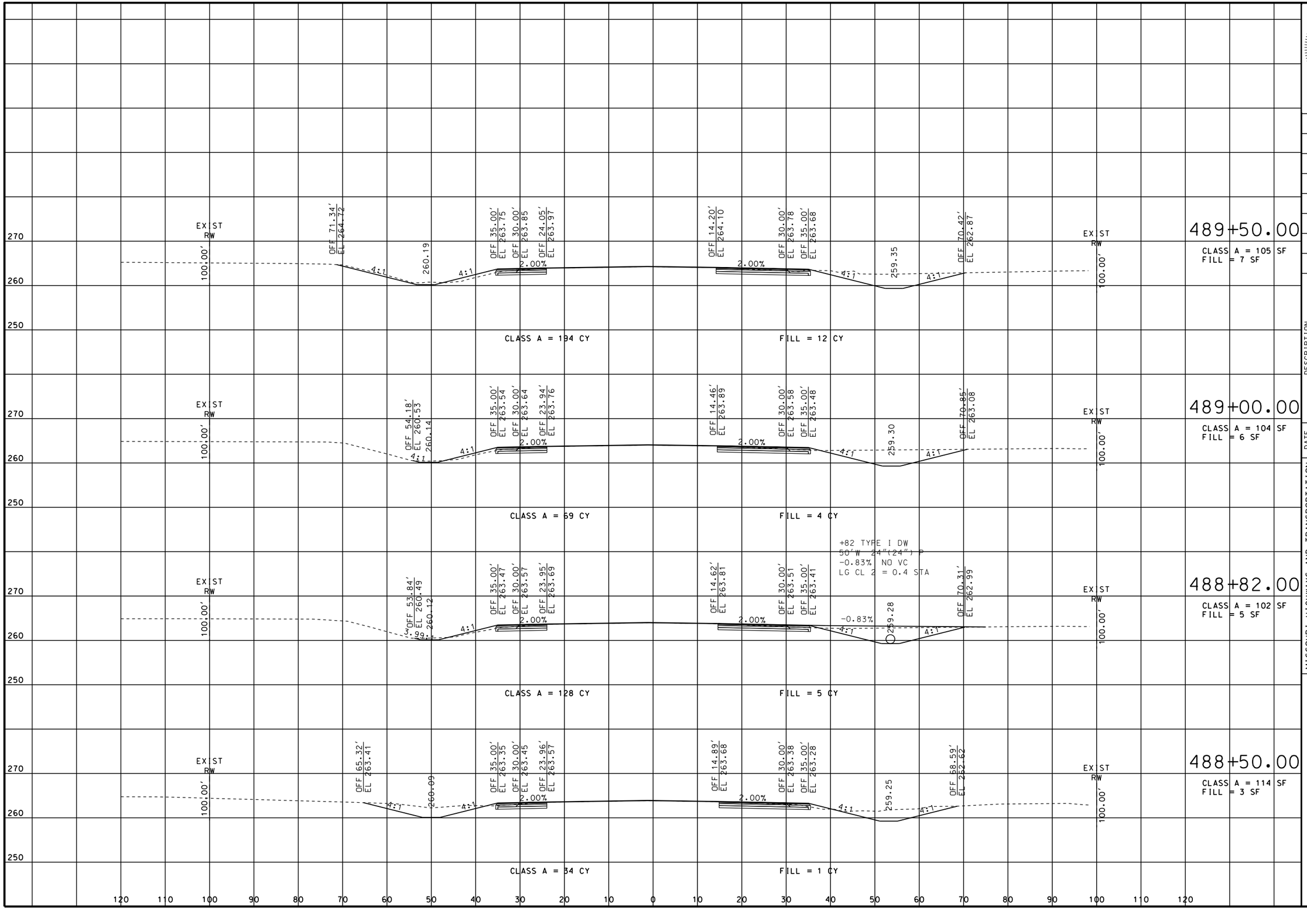
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 48 OF 113

ROUTE 412

REV.



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	49

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

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

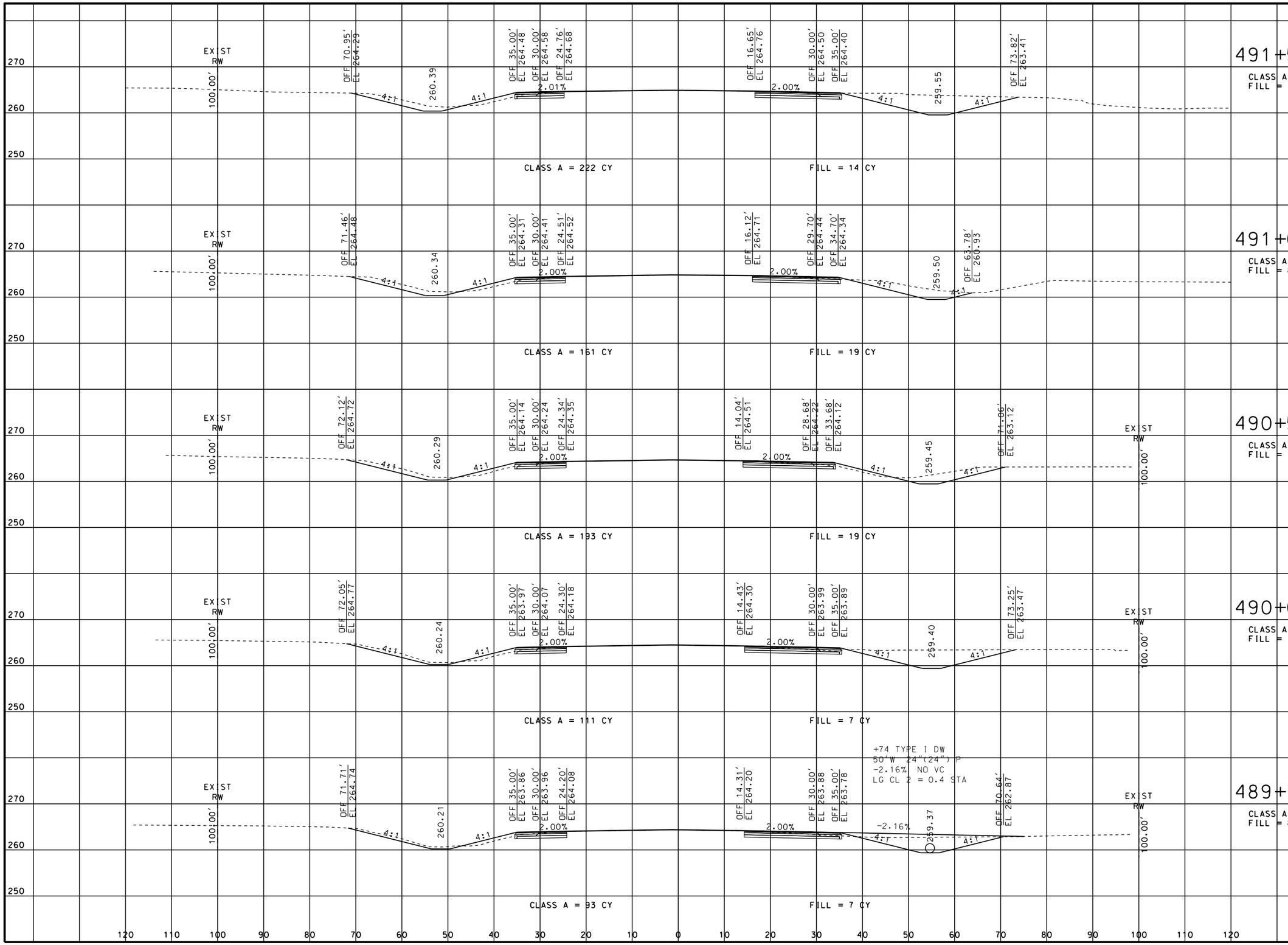
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 49 OF 113

ROUTE 412

REV.



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	50

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

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

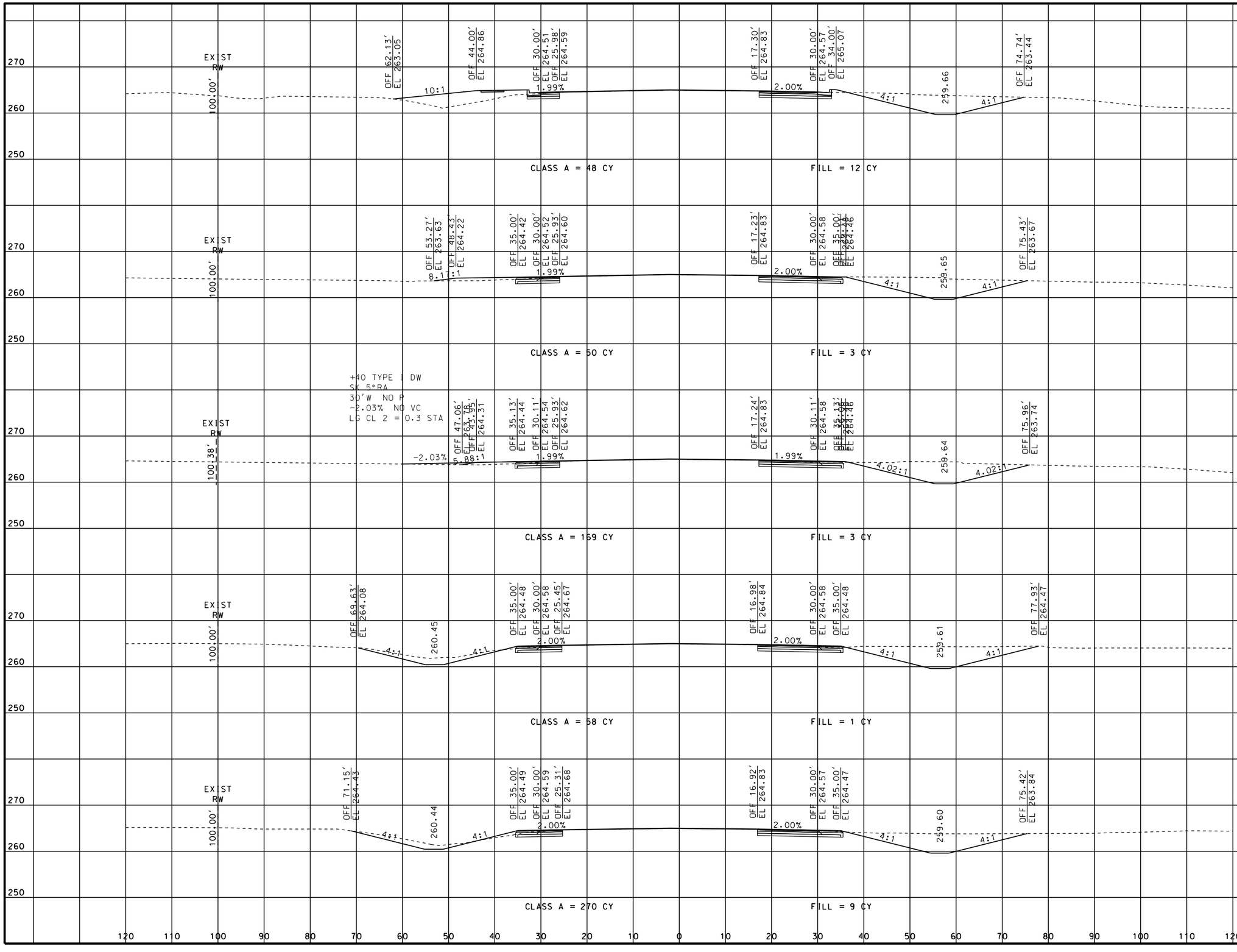
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 50 OF 113

ROUTE 412

REV.



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	51

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

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

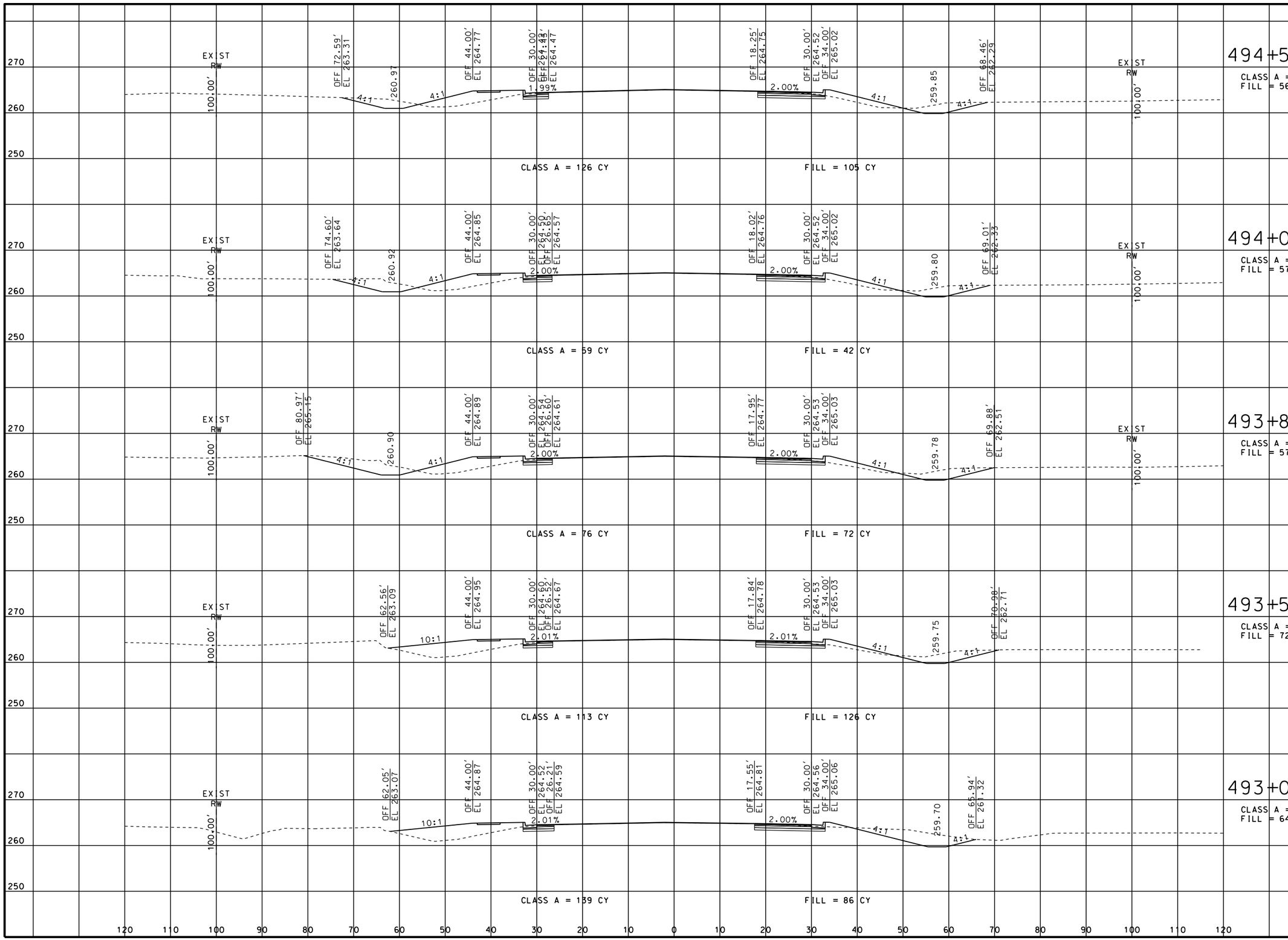
DATE	DESCRIPTION	REV.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 51 OF 113

ROUTE 412



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	52

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

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

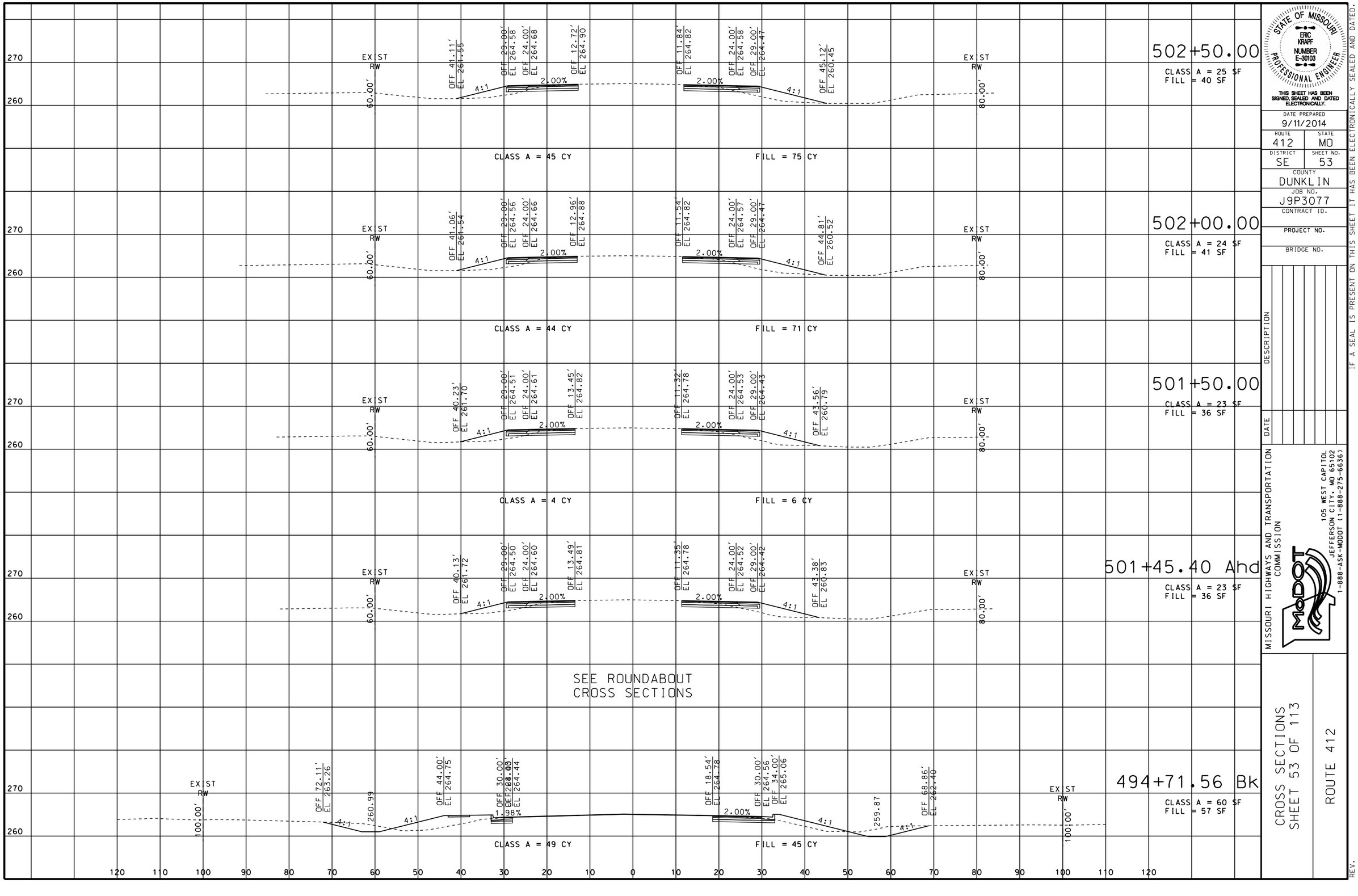
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 52 OF 113

ROUTE 412

REV.



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	53

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

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

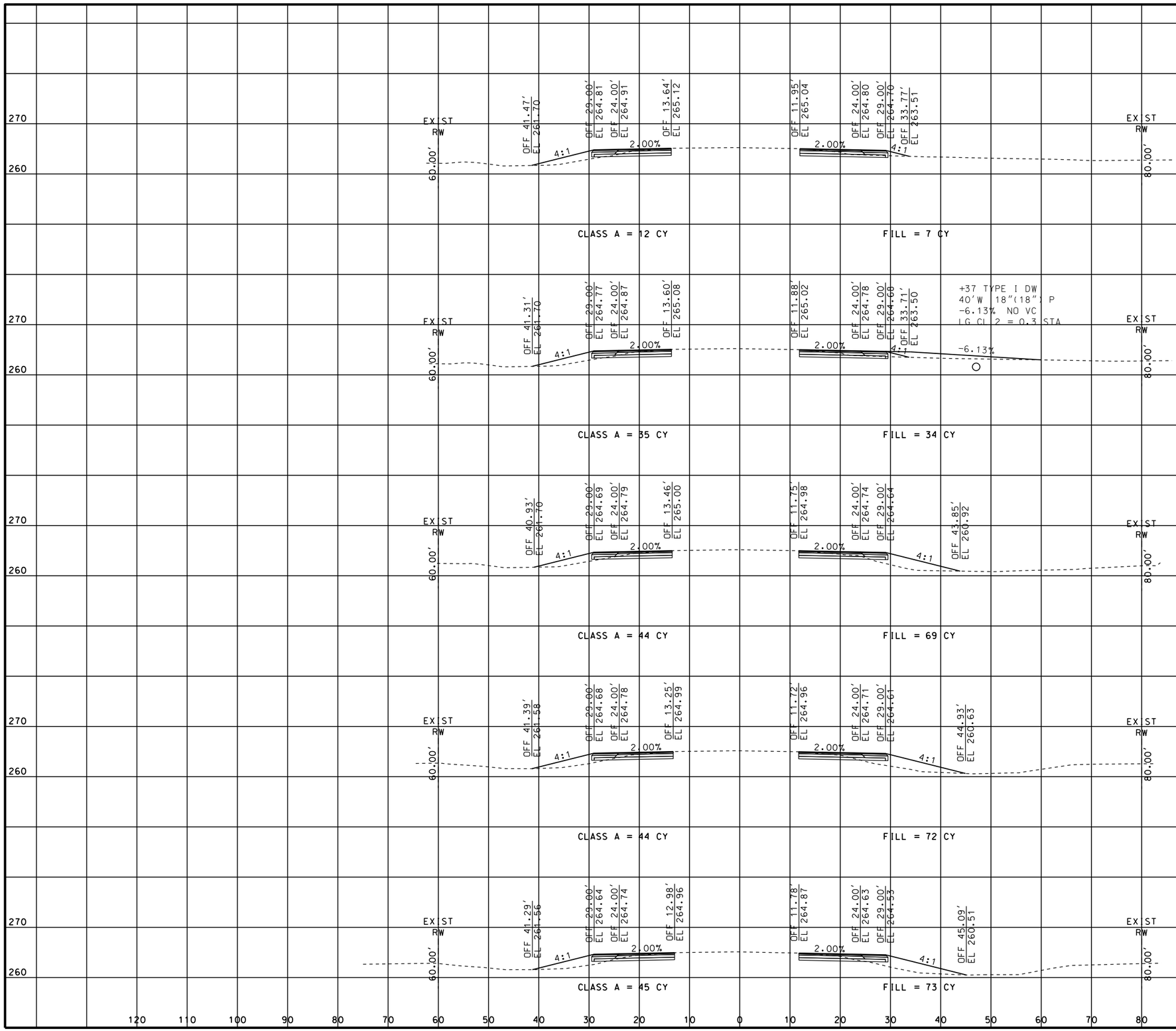
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 53 OF 113

ROUTE 412

REV.



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	54

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

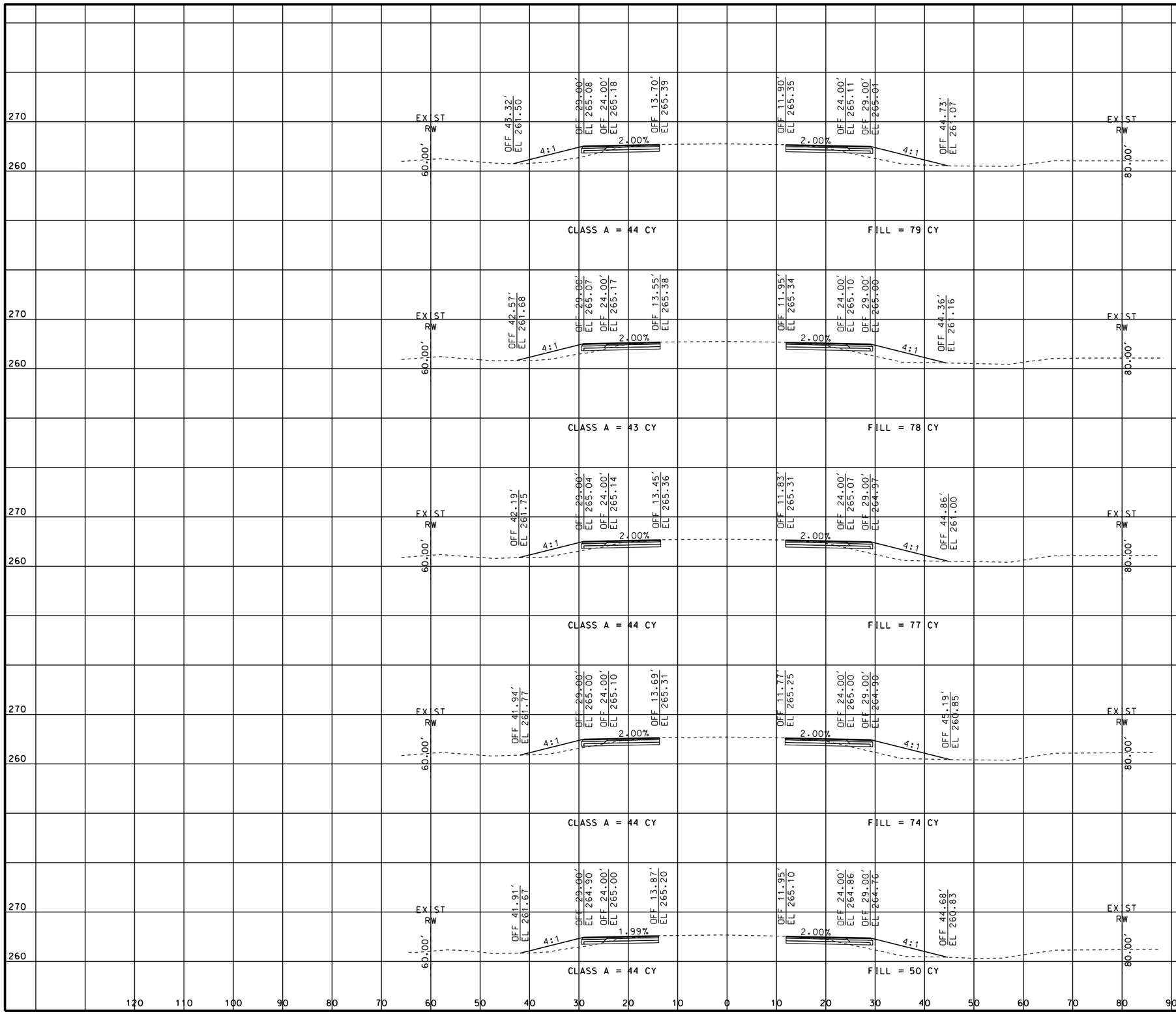
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

CROSS SECTIONS
SHEET 54 OF 113

ROUTE 412

REV.

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



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	55

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

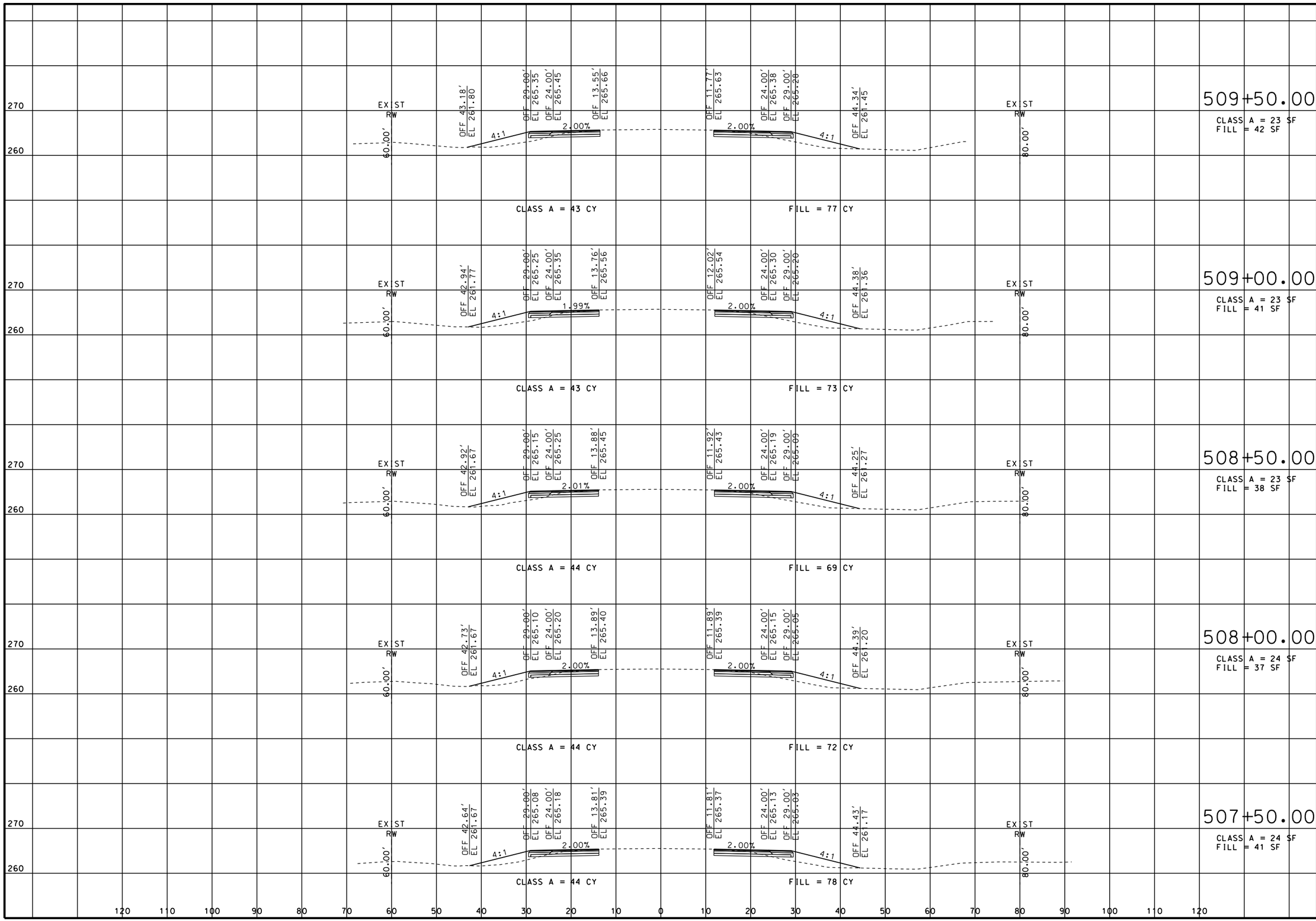
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

CROSS SECTIONS
SHEET 55 OF 113

ROUTE 412

REV.

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



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	56

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

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

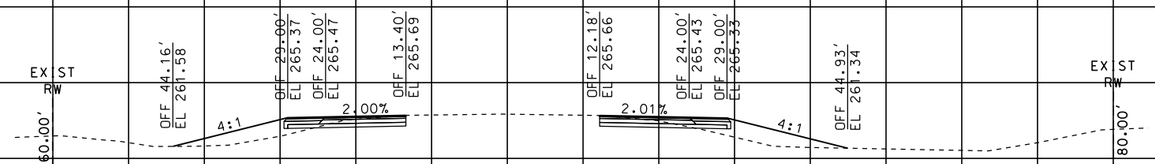
REV.	DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 56 OF 113

ROUTE 412

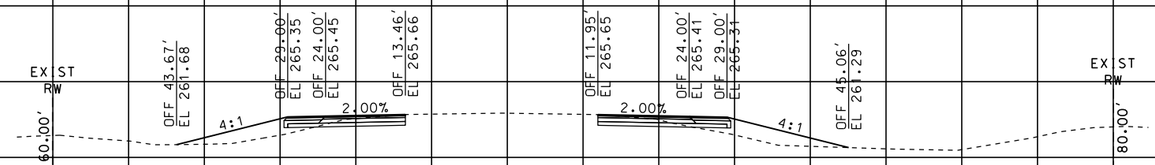


CLASS A = 42 CY

FILL = 87 CY

512+00.00

CLASS A = 22 SF
FILL = 48 SF

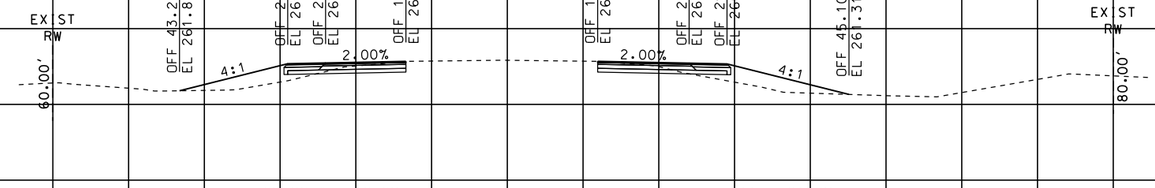


CLASS A = 42 CY

FILL = 85 CY

511+50.00

CLASS A = 23 SF
FILL = 46 SF

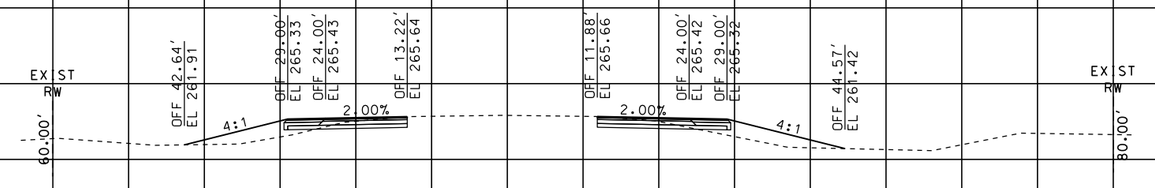


CLASS A = 42 CY

FILL = 81 CY

511+00.00

CLASS A = 22 SF
FILL = 46 SF

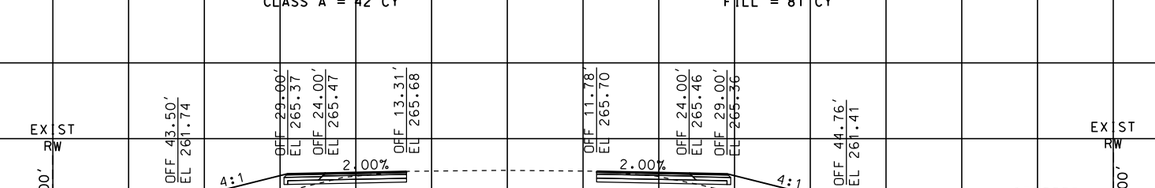


CLASS A = 42 CY

FILL = 81 CY

510+50.00

CLASS A = 23 SF
FILL = 42 SF



CLASS A = 42 CY

FILL = 81 CY

510+00.00

CLASS A = 22 SF
FILL = 45 SF

120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	57

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

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

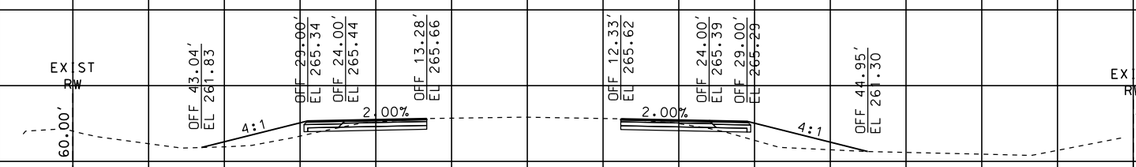
REV.	DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 57 OF 113

ROUTE 412

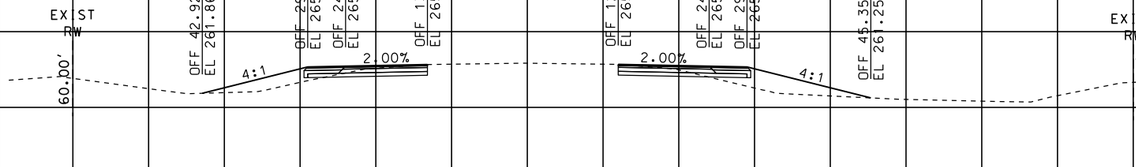


514+50.00

CLASS A = 25 SF
FILL = 41 SF

CLASS A = 45 CY

FILL = 80 CY

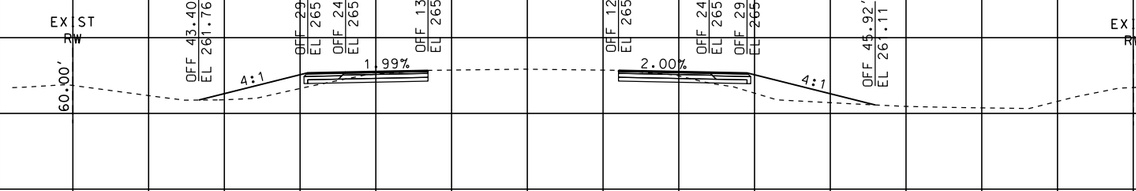


514+00.00

CLASS A = 24 SF
FILL = 45 SF

CLASS A = 44 CY

FILL = 84 CY

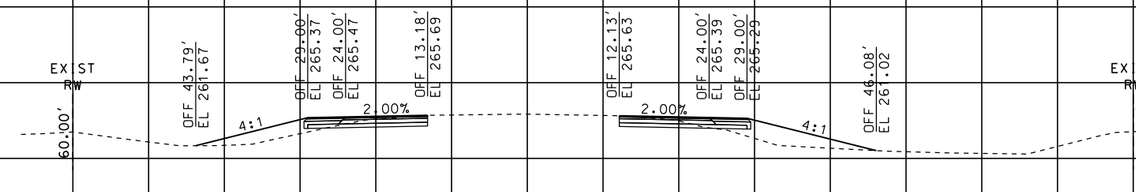


513+50.00

CLASS A = 23 SF
FILL = 46 SF

CLASS A = 43 CY

FILL = 86 CY

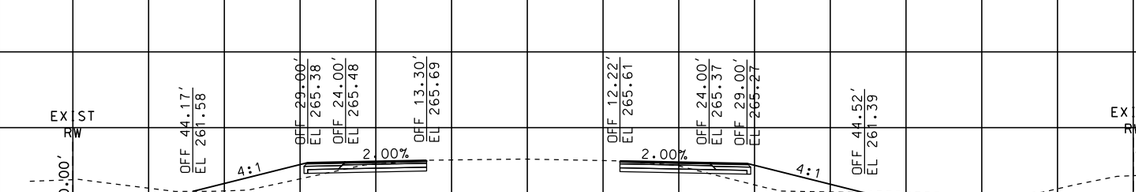


513+00.00

CLASS A = 23 SF
FILL = 47 SF

CLASS A = 43 CY

FILL = 88 CY



512+50.00

CLASS A = 23 SF
FILL = 48 SF

CLASS A = 42 CY

FILL = 89 CY

120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	58

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

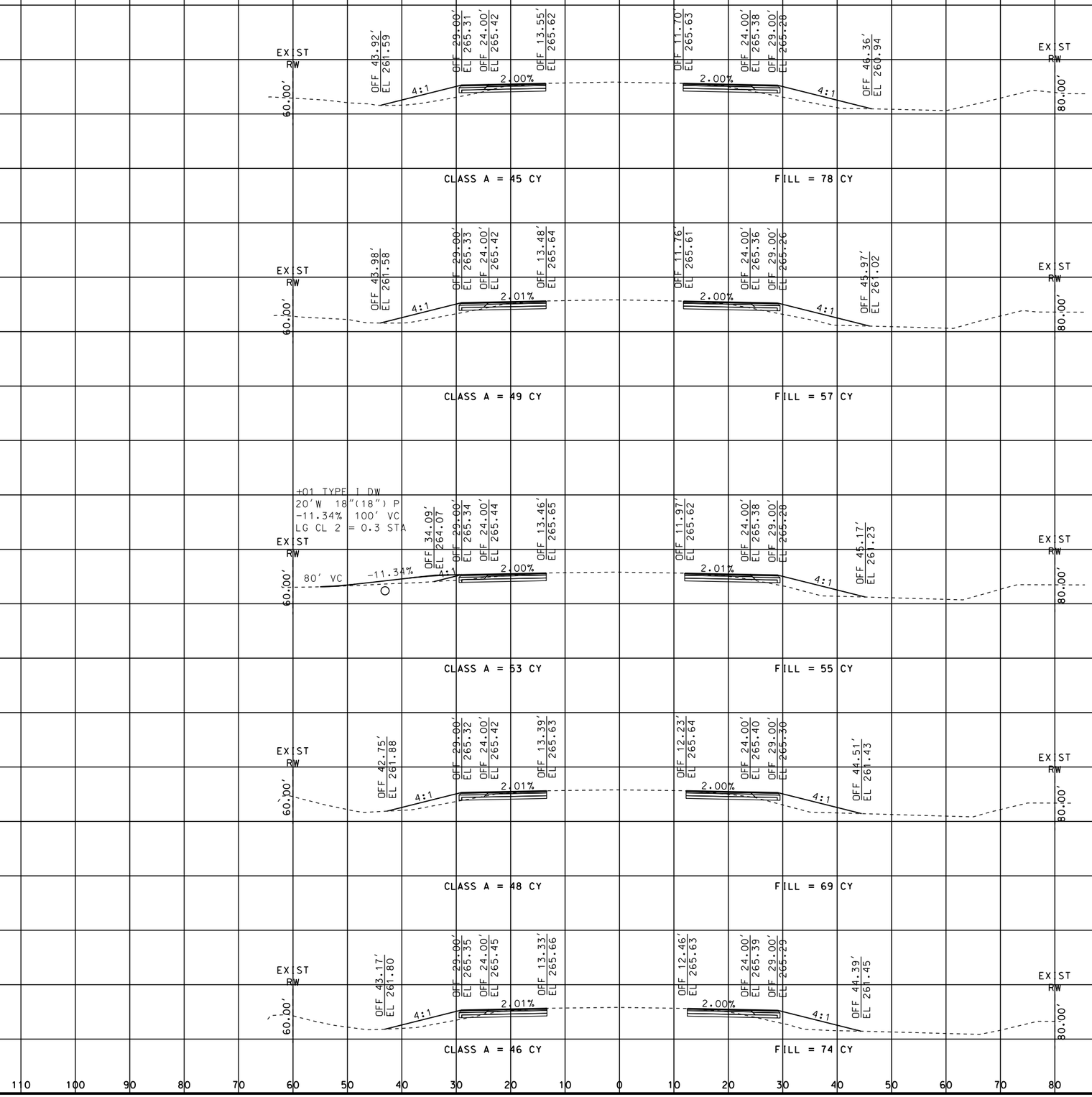
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

CROSS SECTIONS
SHEET 58 OF 113

ROUTE 412

REV.

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



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	59

COUNTY
DUNKLIN

JOB NO.
J9P3077

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)

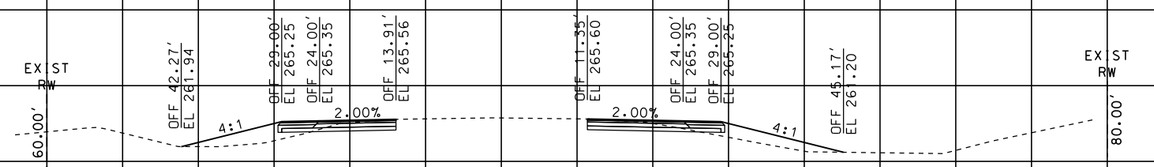
MoDOT

CROSS SECTIONS
SHEET 59 OF 113

ROUTE 412

REV.

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

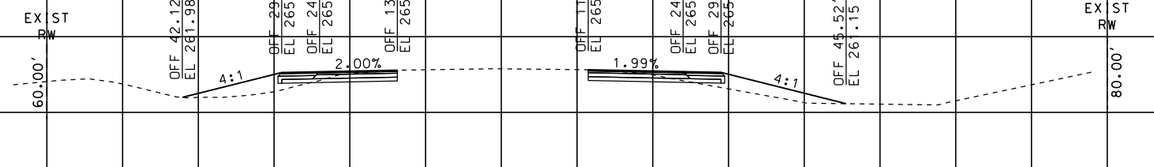


519+50.00

CLASS A = 25 SF
FILL = 40 SF

CLASS A = 45 CY

FILL = 75 CY

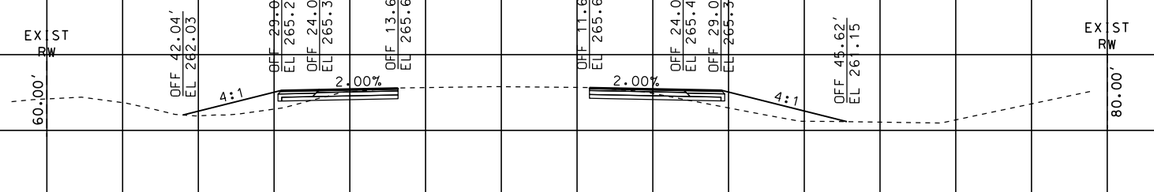


519+00.00

CLASS A = 24 SF
FILL = 41 SF

CLASS A = 44 CY

FILL = 79 CY

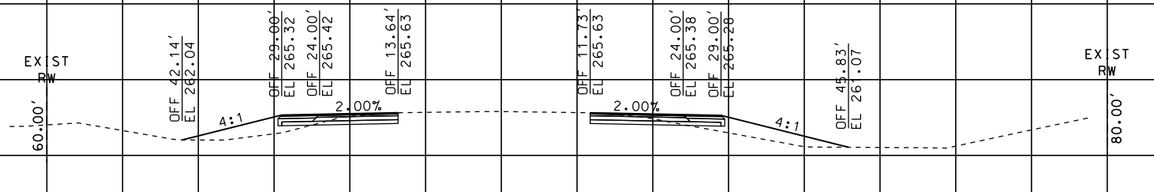


518+50.00

CLASS A = 23 SF
FILL = 44 SF

CLASS A = 42 CY

FILL = 81 CY

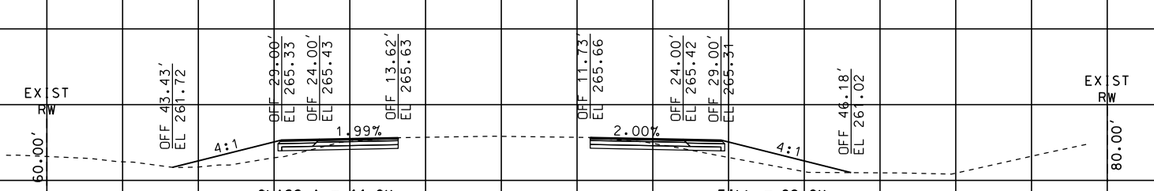


518+00.00

CLASS A = 22 SF
FILL = 44 SF

CLASS A = 42 CY

FILL = 82 CY



517+50.00

CLASS A = 23 SF
FILL = 45 SF

CLASS A = 44 CY

FILL = 82 CY

120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	60

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

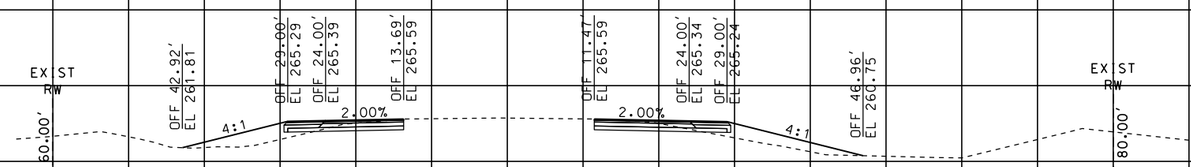
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

CROSS SECTIONS
SHEET 60 OF 113

ROUTE 412

REV.

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

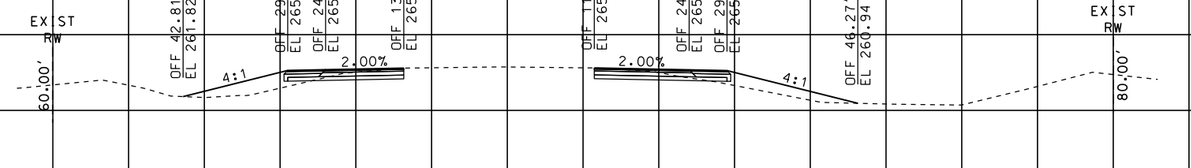


522+00.00

CLASS A = 25 SF
FILL = 43 SF

CLASS A = 46 CY

FILL = 78 CY

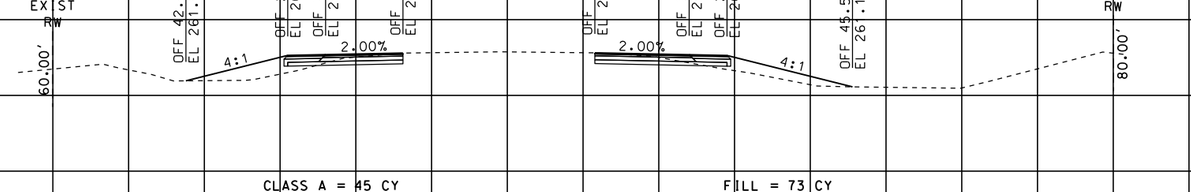


521+50.00

CLASS A = 25 SF
FILL = 41 SF

CLASS A = 45 CY

FILL = 75 CY

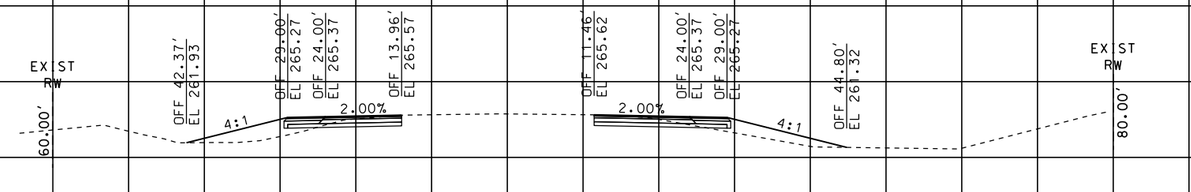


521+00.00

CLASS A = 24 SF
FILL = 40 SF

CLASS A = 45 CY

FILL = 73 CY

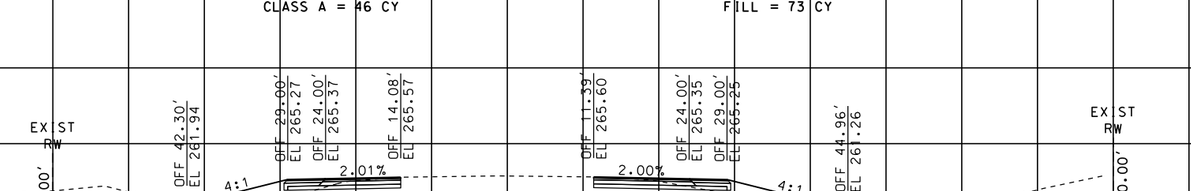


520+50.00

CLASS A = 25 SF
FILL = 39 SF

CLASS A = 46 CY

FILL = 73 CY



520+00.00

CLASS A = 25 SF
FILL = 40 SF

CLASS A = 46 CY

FILL = 74 CY

120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	61

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

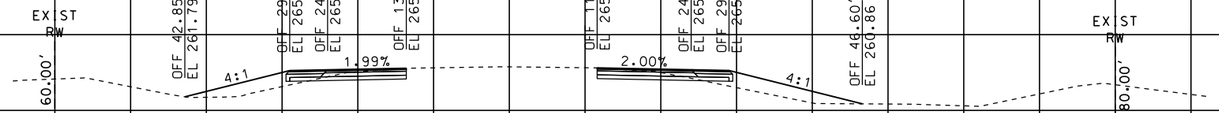
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

CROSS SECTIONS
SHEET 61 OF 113

ROUTE 412

REV.

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

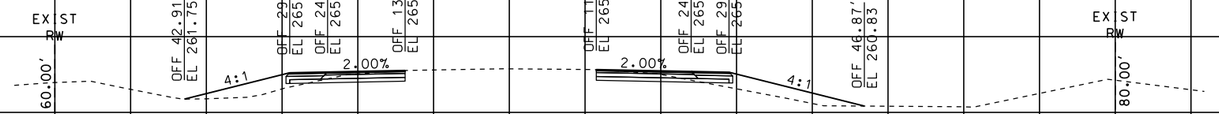


524+50.00

CLASS A = 25 SF
FILL = 44 SF

CLASS A = 46 CY

FILL = 81 CY

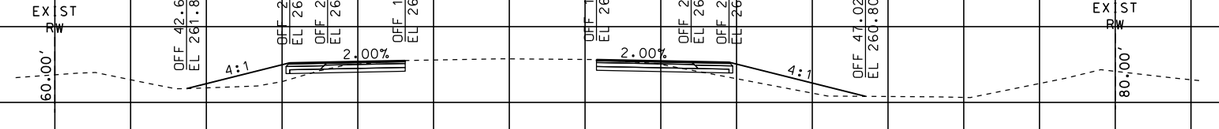


524+00.00

CLASS A = 25 SF
FILL = 43 SF

CLASS A = 46 CY

FILL = 80 CY

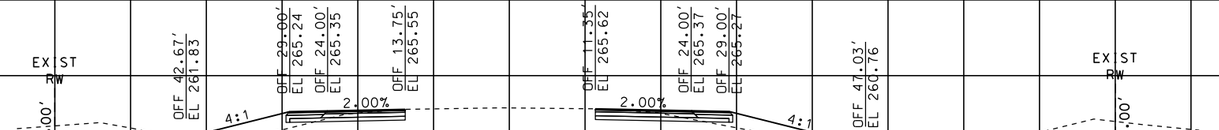


523+50.00

CLASS A = 25 SF
FILL = 43 SF

CLASS A = 46 CY

FILL = 81 CY

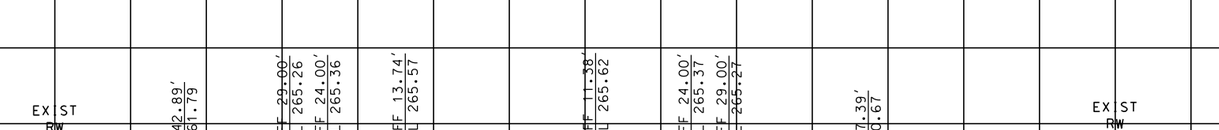


523+00.00

CLASS A = 25 SF
FILL = 44 SF

CLASS A = 46 CY

FILL = 81 CY



522+50.00

CLASS A = 25 SF
FILL = 44 SF

CLASS A = 46 CY

FILL = 81 CY

120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	62

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

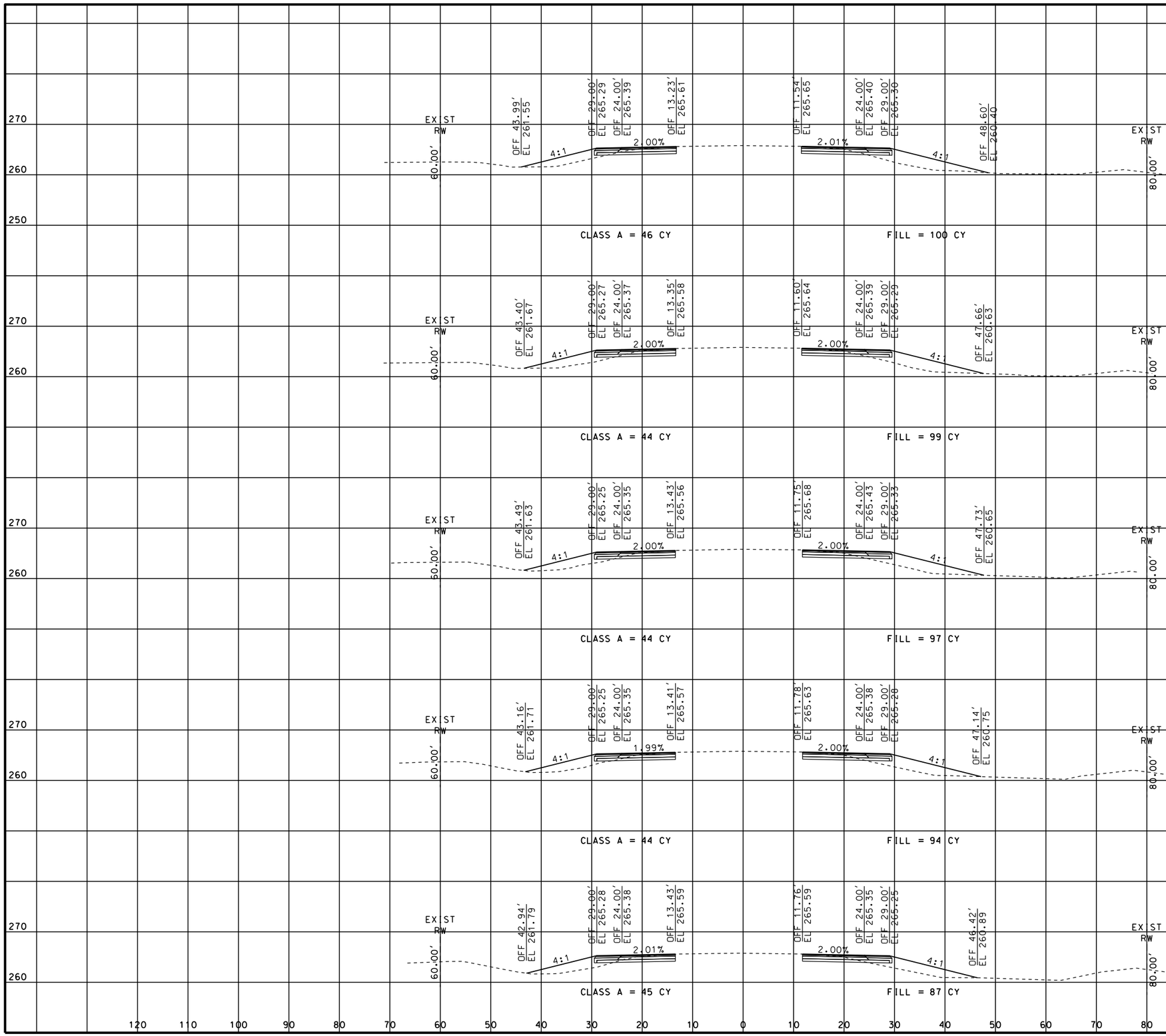
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

CROSS SECTIONS
SHEET 62 OF 113

ROUTE 412

REV.

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



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	63

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

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

DESCRIPTION	DATE

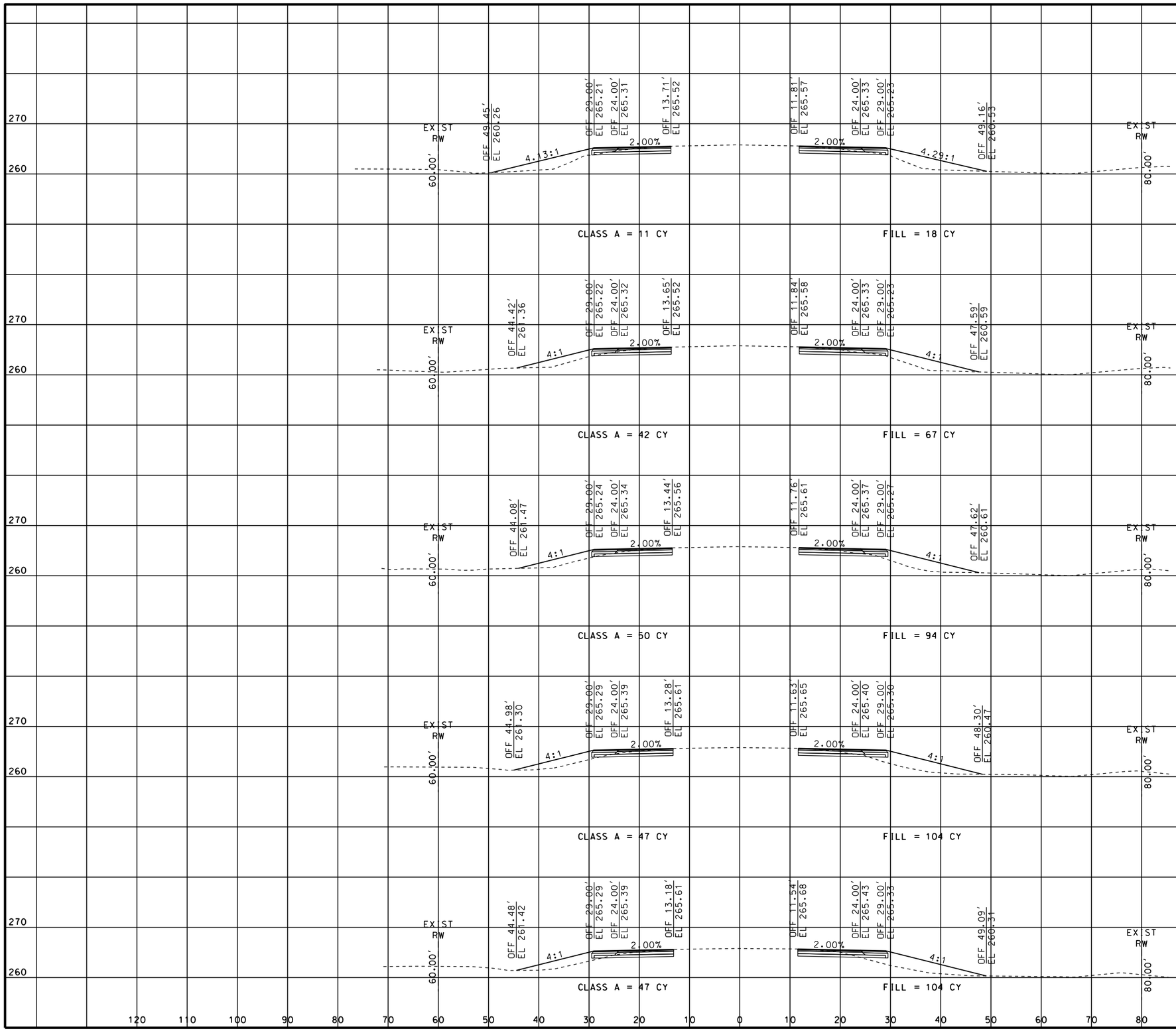
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 63 OF 113

ROUTE 412

REV.



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	64

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

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

DESCRIPTION

DATE

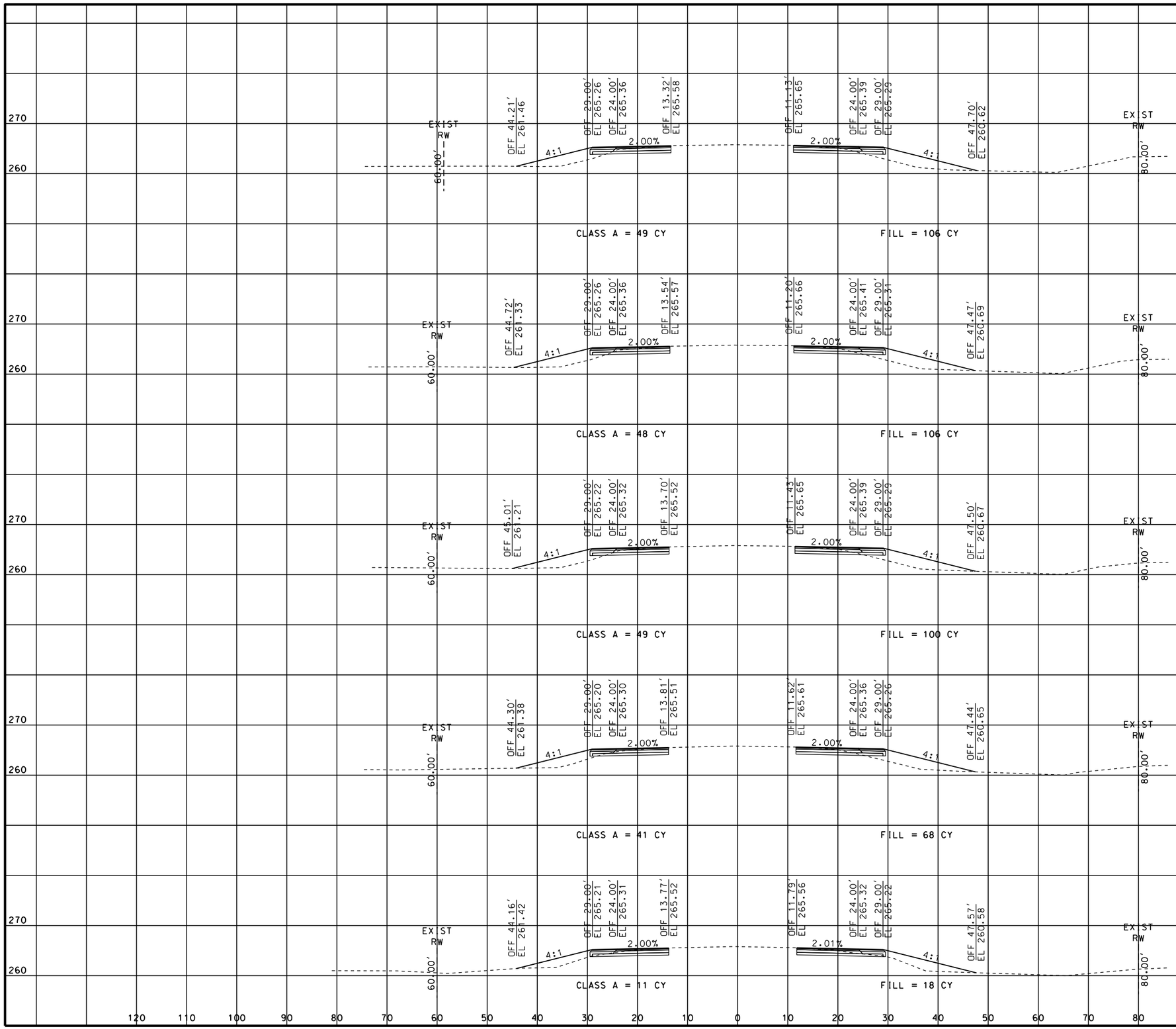
REV.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 64 OF 113

ROUTE 412



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	65

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

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

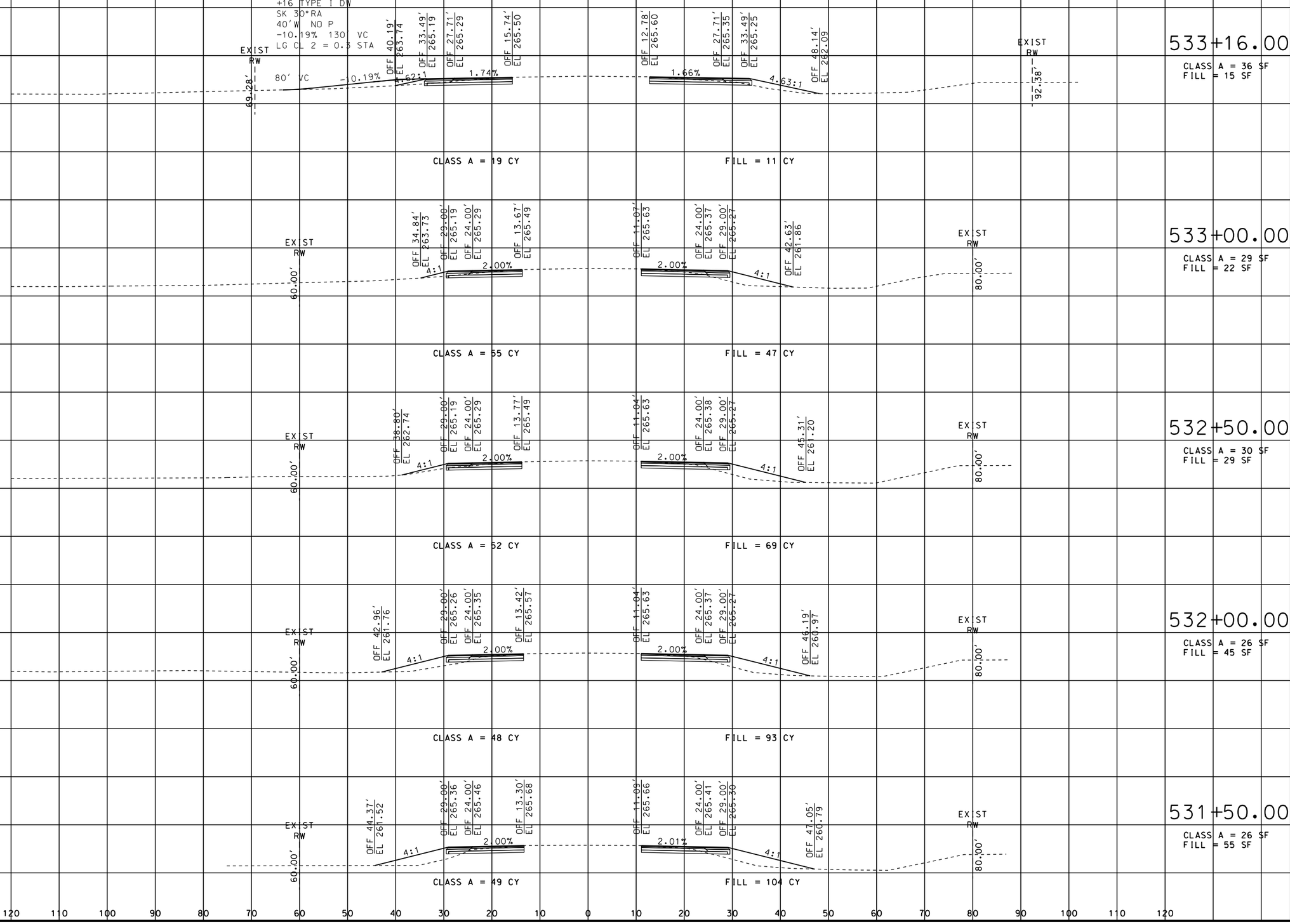
DESCRIPTION | DATE | REV.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 65 OF 113

ROUTE 412



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	66

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

REV.

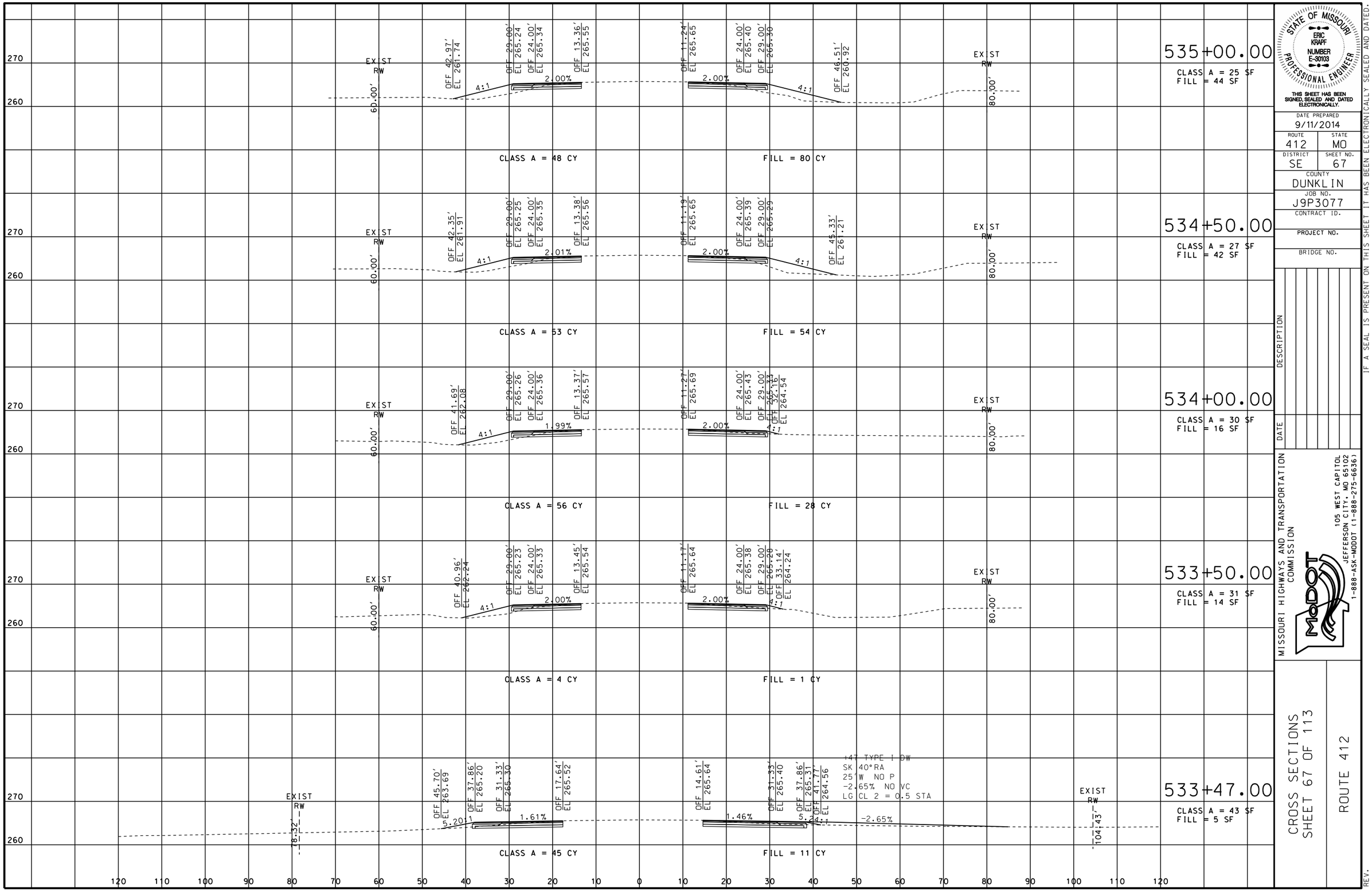
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 66 OF 113

ROUTE 412



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	67

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

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

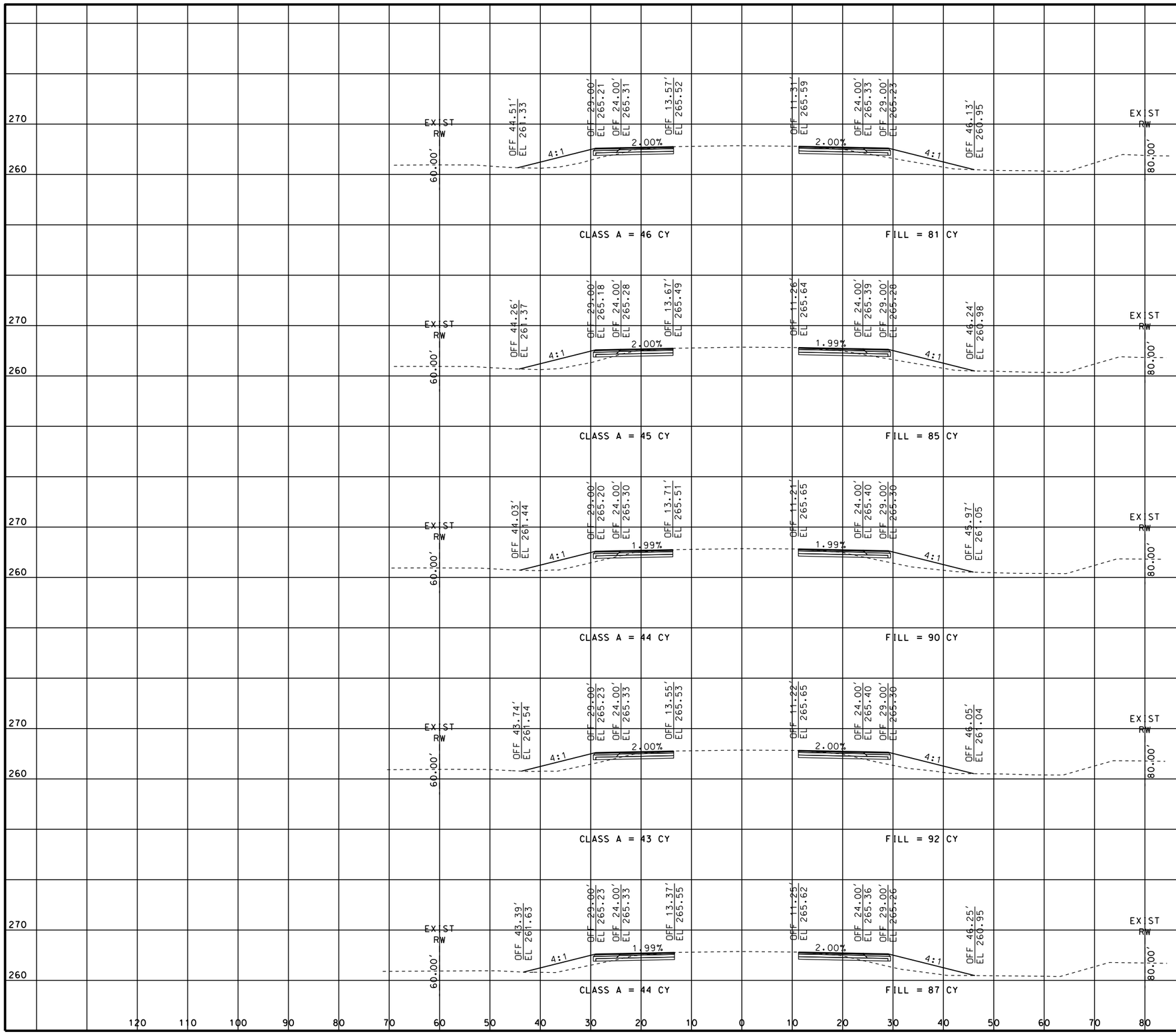
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 67 OF 113

ROUTE 412

REV.



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	68

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

REV.	DESCRIPTION	DATE

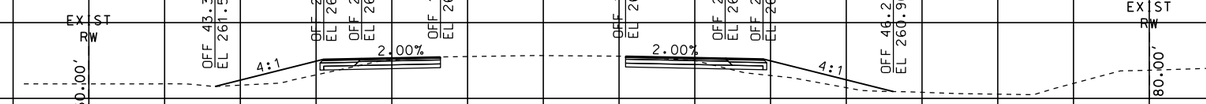
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 68 OF 113

ROUTE 412

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

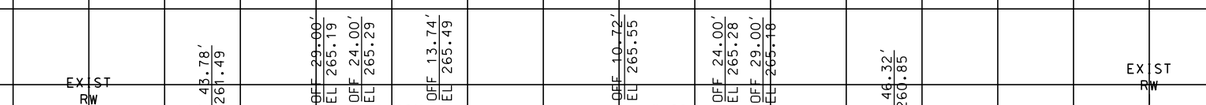


540+00.00

CLASS A = 26 SF
FILL = 39 SF

CLASS A = 47 CY

FILL = 78 CY

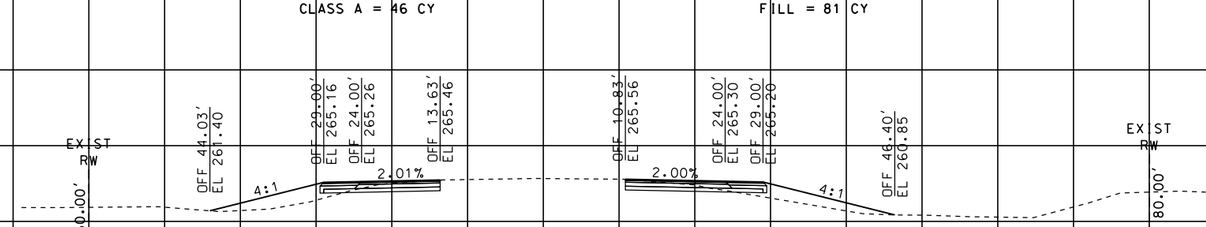


539+50.00

CLASS A = 25 SF
FILL = 45 SF

CLASS A = 46 CY

FILL = 81 CY

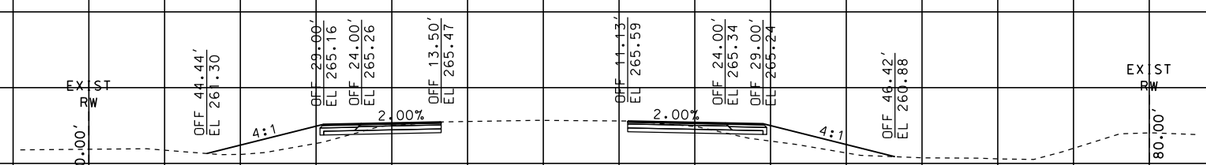


539+00.00

CLASS A = 25 SF
FILL = 43 SF

CLASS A = 45 CY

FILL = 84 CY

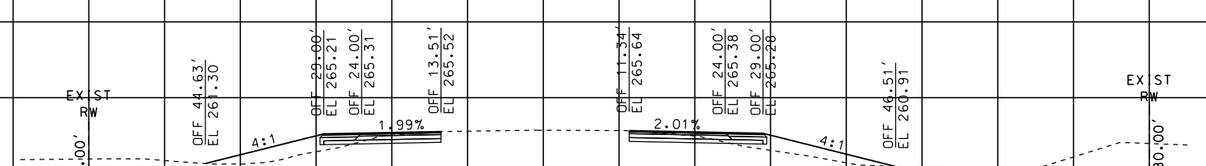


538+50.00

CLASS A = 24 SF
FILL = 48 SF

CLASS A = 44 CY

FILL = 88 CY



538+00.00

CLASS A = 24 SF
FILL = 47 SF

CLASS A = 45 CY

FILL = 84 CY

120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	69

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

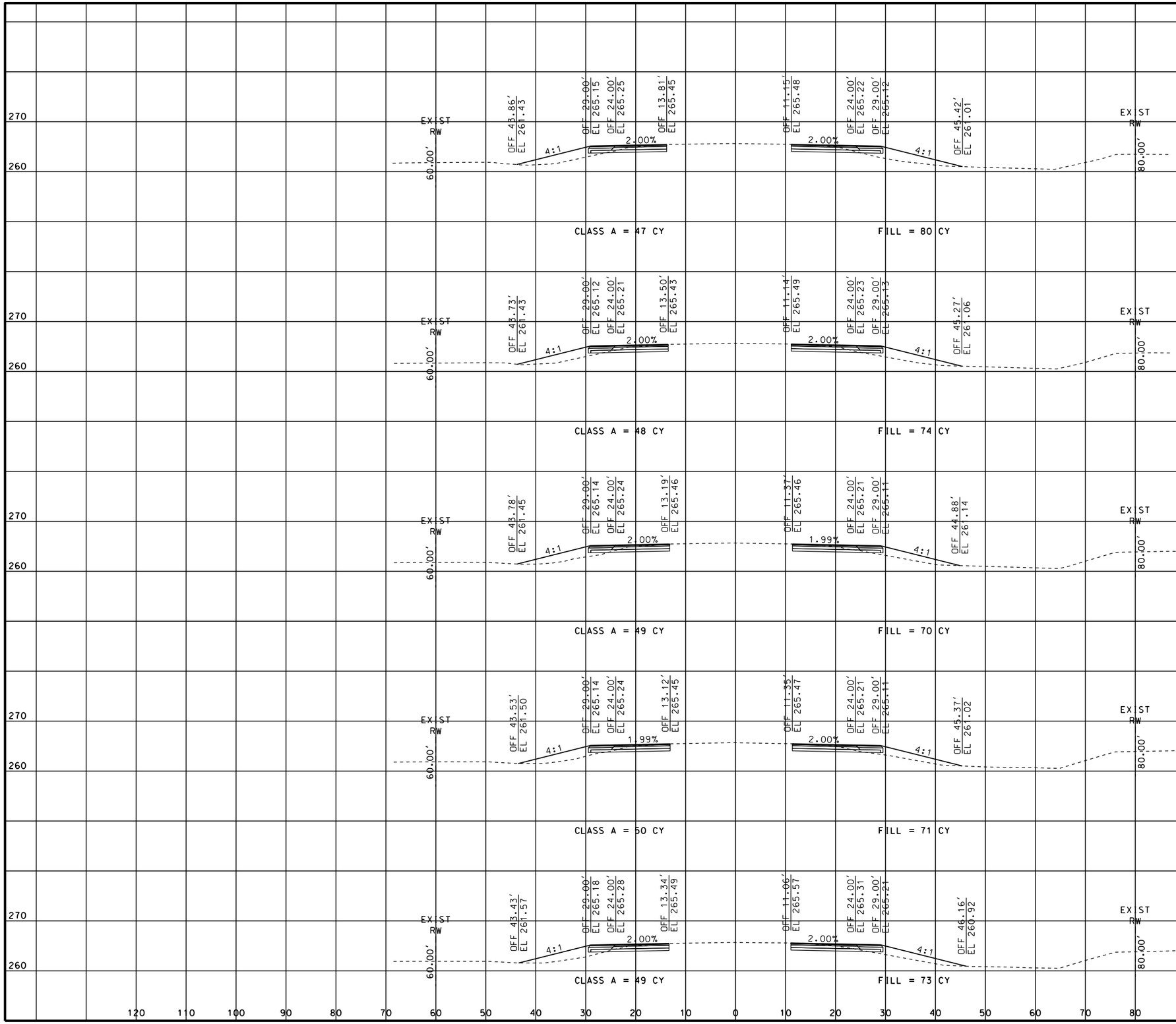
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

CROSS SECTIONS
SHEET 69 OF 113

ROUTE 412

REV.

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



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	70

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

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

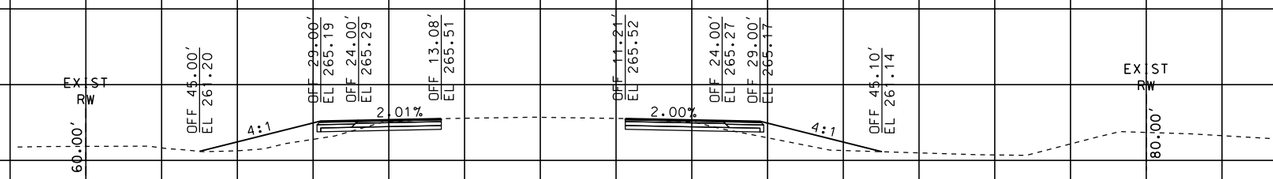
REV.	DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 70 OF 113

ROUTE 412

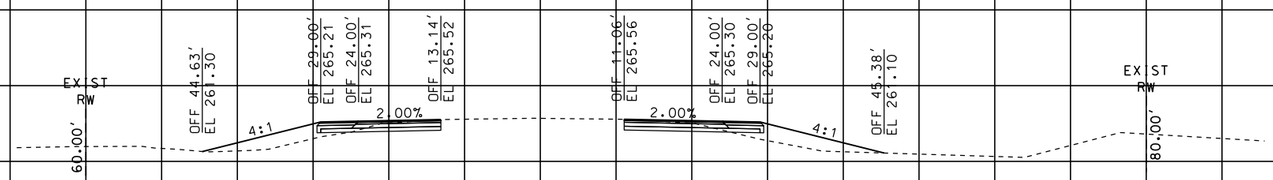


545+00.00

CLASS A = 26 SF
FILL = 46 SF

CLASS A = 48 CY

FILL = 87 CY

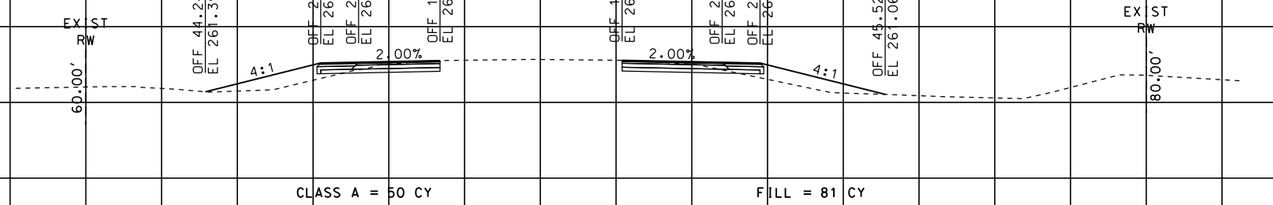


544+50.00

CLASS A = 26 SF
FILL = 48 SF

CLASS A = 49 CY

FILL = 85 CY

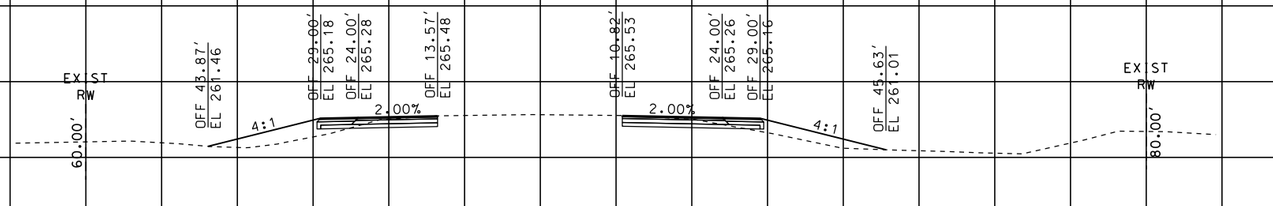


544+00.00

CLASS A = 27 SF
FILL = 44 SF

CLASS A = 50 CY

FILL = 81 CY

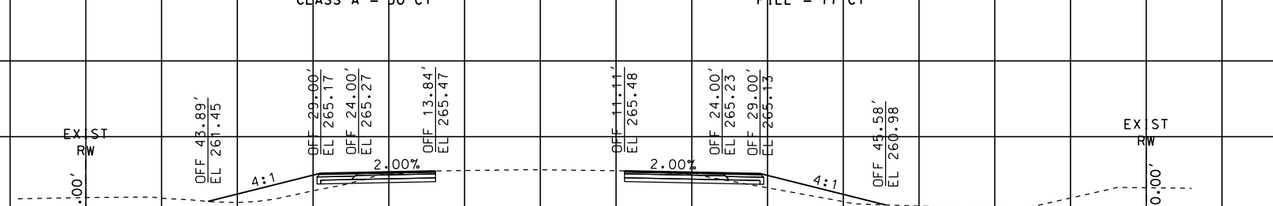


543+50.00

CLASS A = 27 SF
FILL = 43 SF

CLASS A = 50 CY

FILL = 77 CY



543+00.00

CLASS A = 27 SF
FILL = 40 SF

CLASS A = 48 CY

FILL = 79 CY

120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	71

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

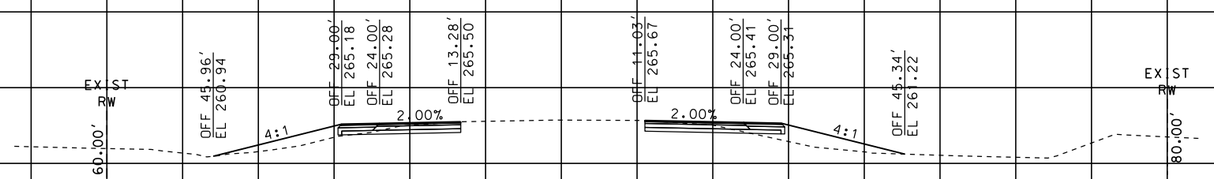
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

CROSS SECTIONS
SHEET 71 OF 113

ROUTE 412

REV.

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

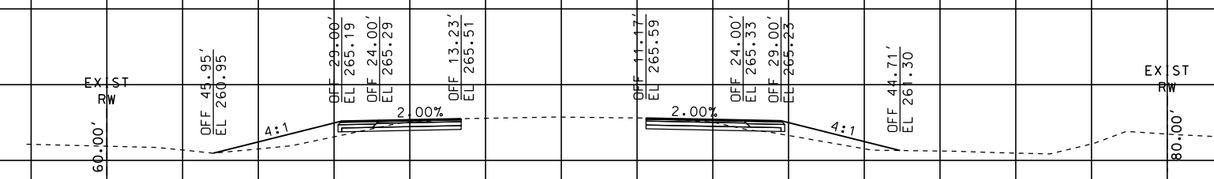


547+50.00

CLASS A = 26 SF
FILL = 40 SF

CLASS A = 48 CY

FILL = 71 CY

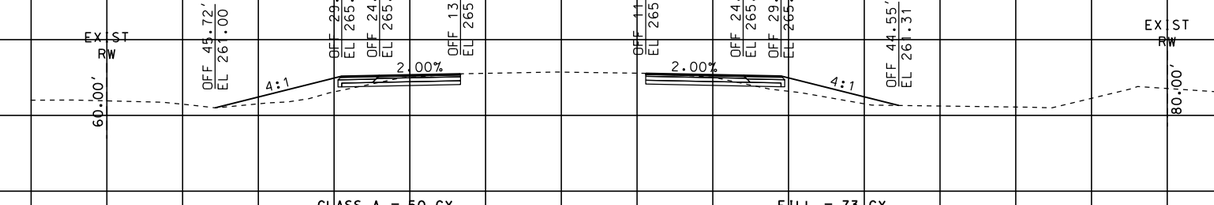


547+00.00

CLASS A = 26 SF
FILL = 37 SF

CLASS A = 49 CY

FILL = 69 CY

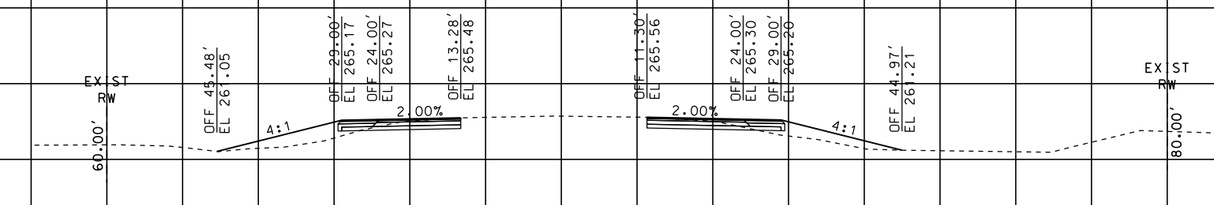


546+50.00

CLASS A = 27 SF
FILL = 38 SF

CLASS A = 50 CY

FILL = 73 CY

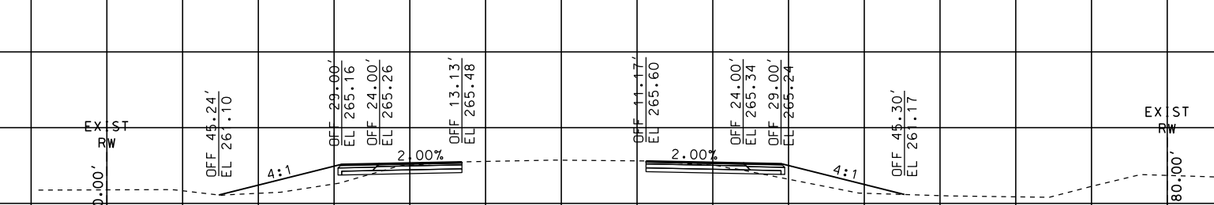


546+00.00

CLASS A = 27 SF
FILL = 41 SF

CLASS A = 50 CY

FILL = 80 CY



545+50.00

CLASS A = 27 SF
FILL = 45 SF

CLASS A = 49 CY

FILL = 84 CY

120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	72

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

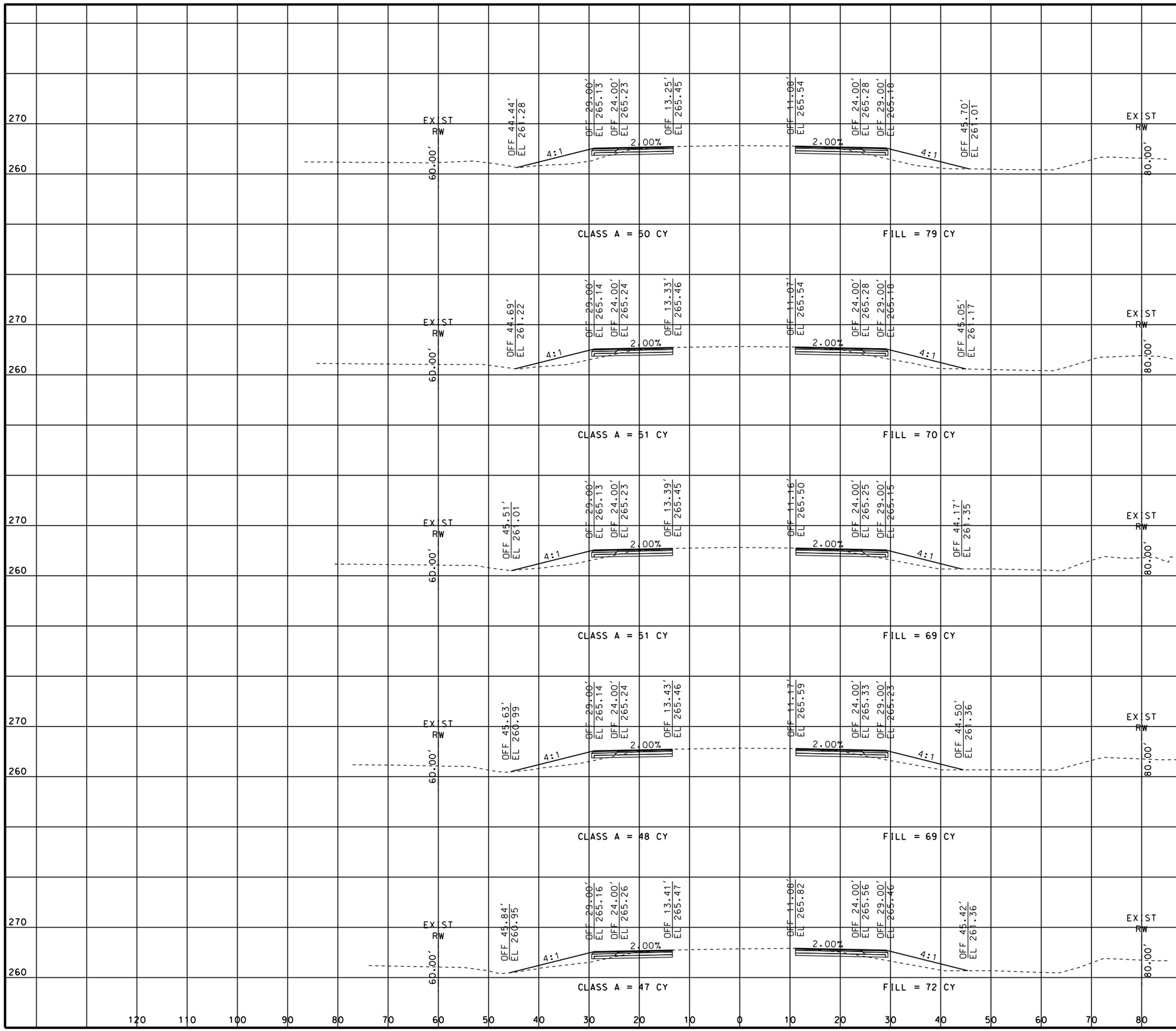
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

CROSS SECTIONS
SHEET 72 OF 113

ROUTE 412

REV.

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



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	73

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

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

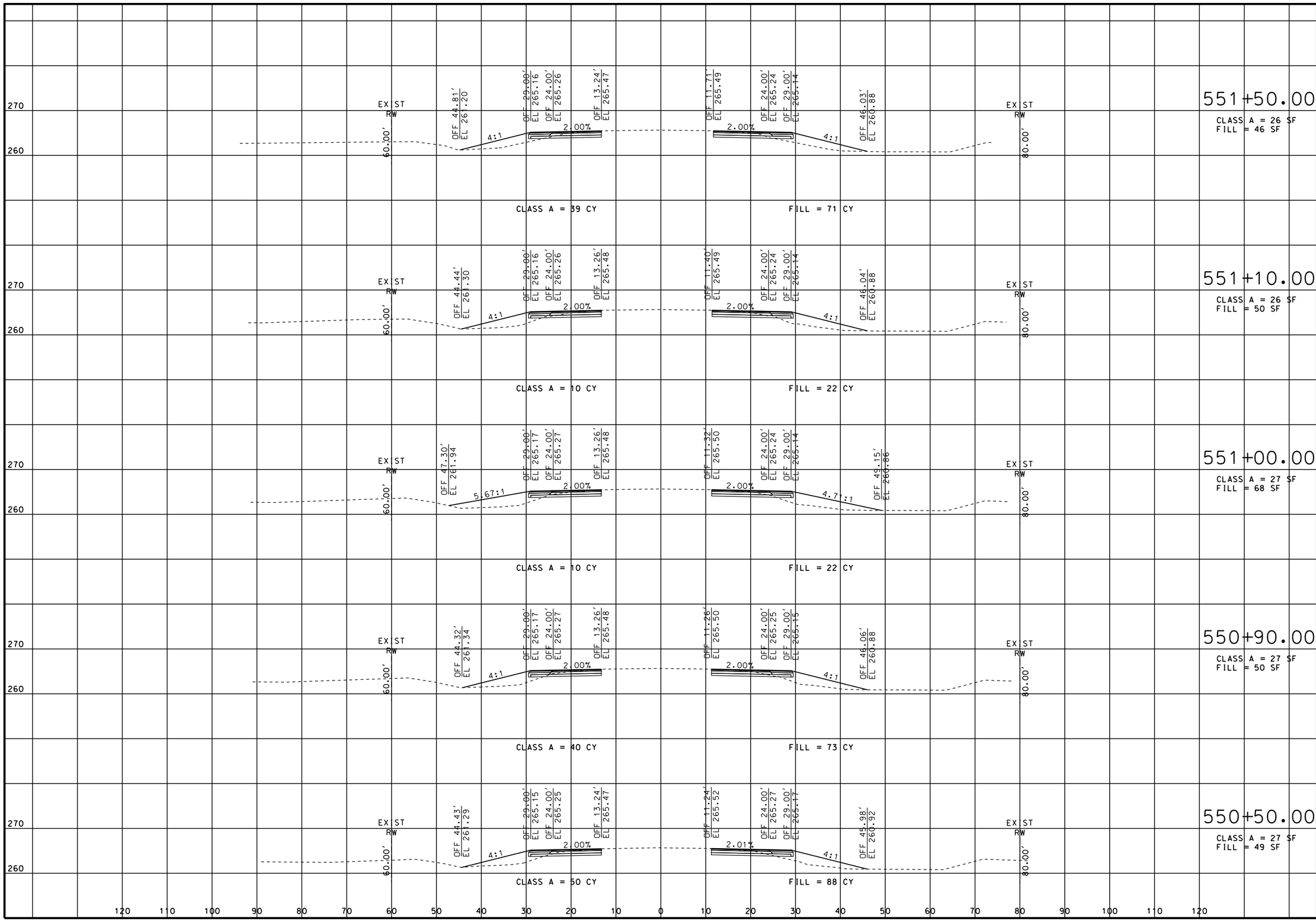
REV.	DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 73 OF 113

ROUTE 412



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	74

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

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

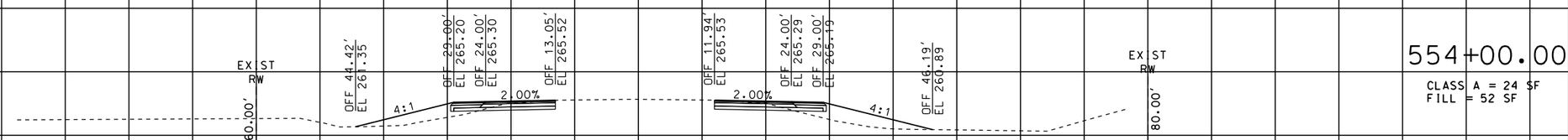
REV.	DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 74 OF 113

ROUTE 412

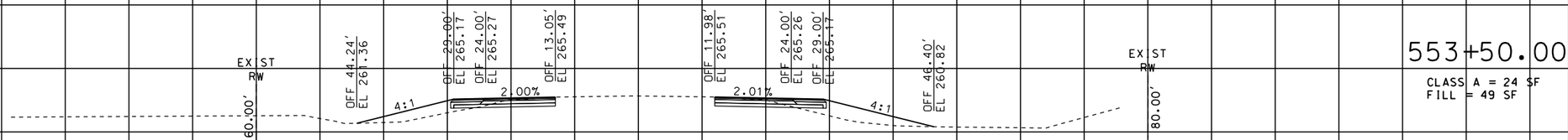


554+00.00

CLASS A = 24 SF
FILL = 52 SF

CLASS A = 44 CY

FILL = 94 CY



553+50.00

CLASS A = 24 SF
FILL = 49 SF

CLASS A = 46 CY

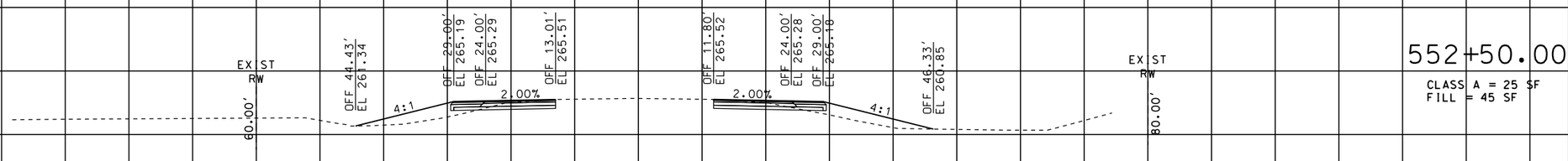
FILL = 84 CY

553+00.00

CLASS A = 26 SF
FILL = 42 SF

CLASS A = 47 CY

FILL = 81 CY

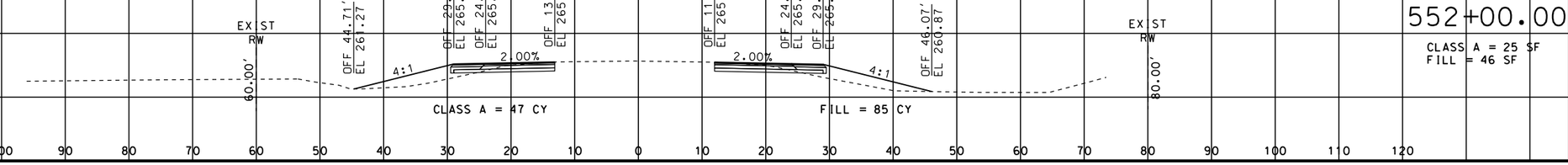


552+50.00

CLASS A = 25 SF
FILL = 45 SF

CLASS A = 46 CY

FILL = 84 CY



552+00.00

CLASS A = 25 SF
FILL = 46 SF

CLASS A = 47 CY

FILL = 85 CY

120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	75

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

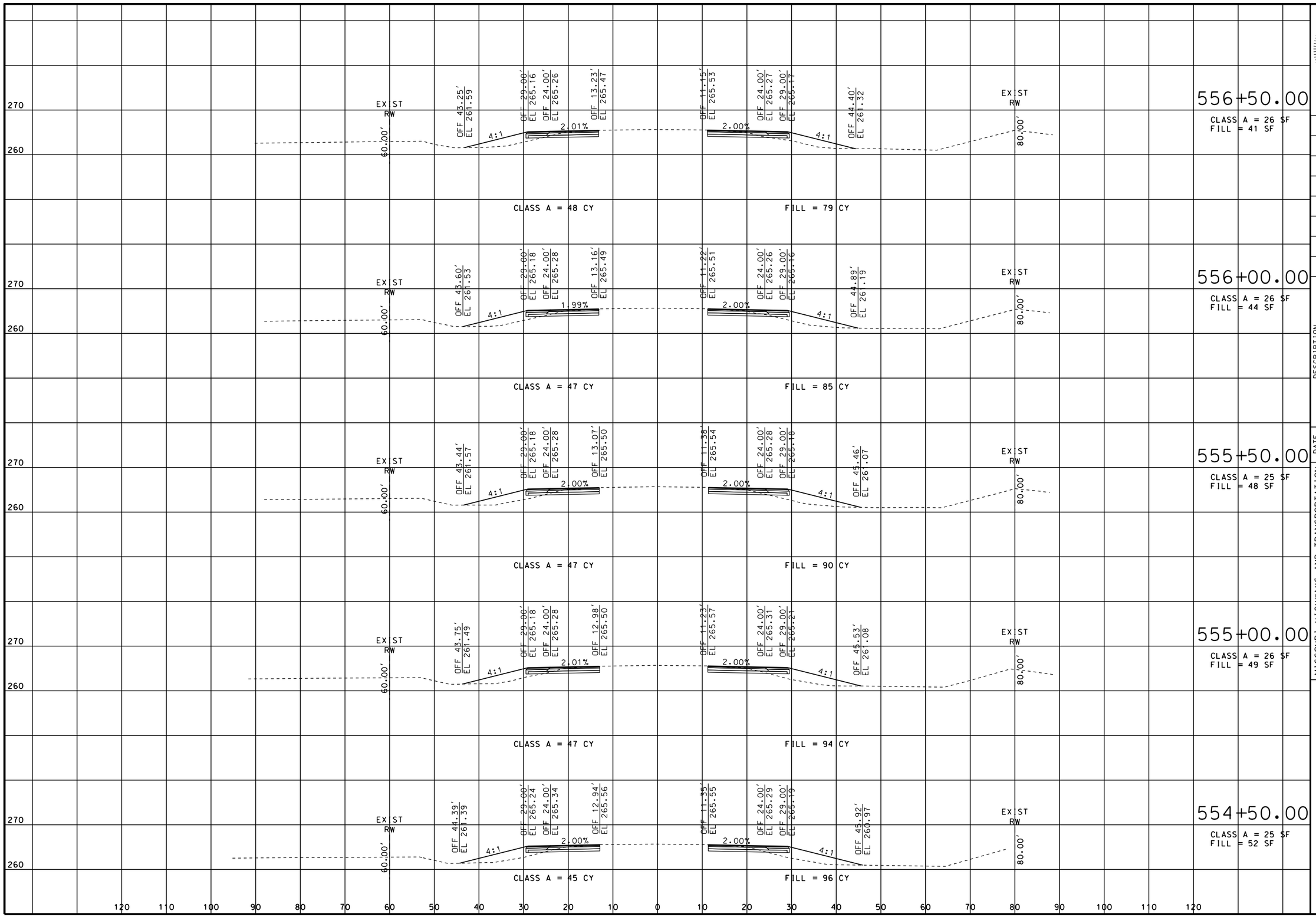
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

CROSS SECTIONS
SHEET 75 OF 113

ROUTE 412

REV.

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



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

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DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	76

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

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

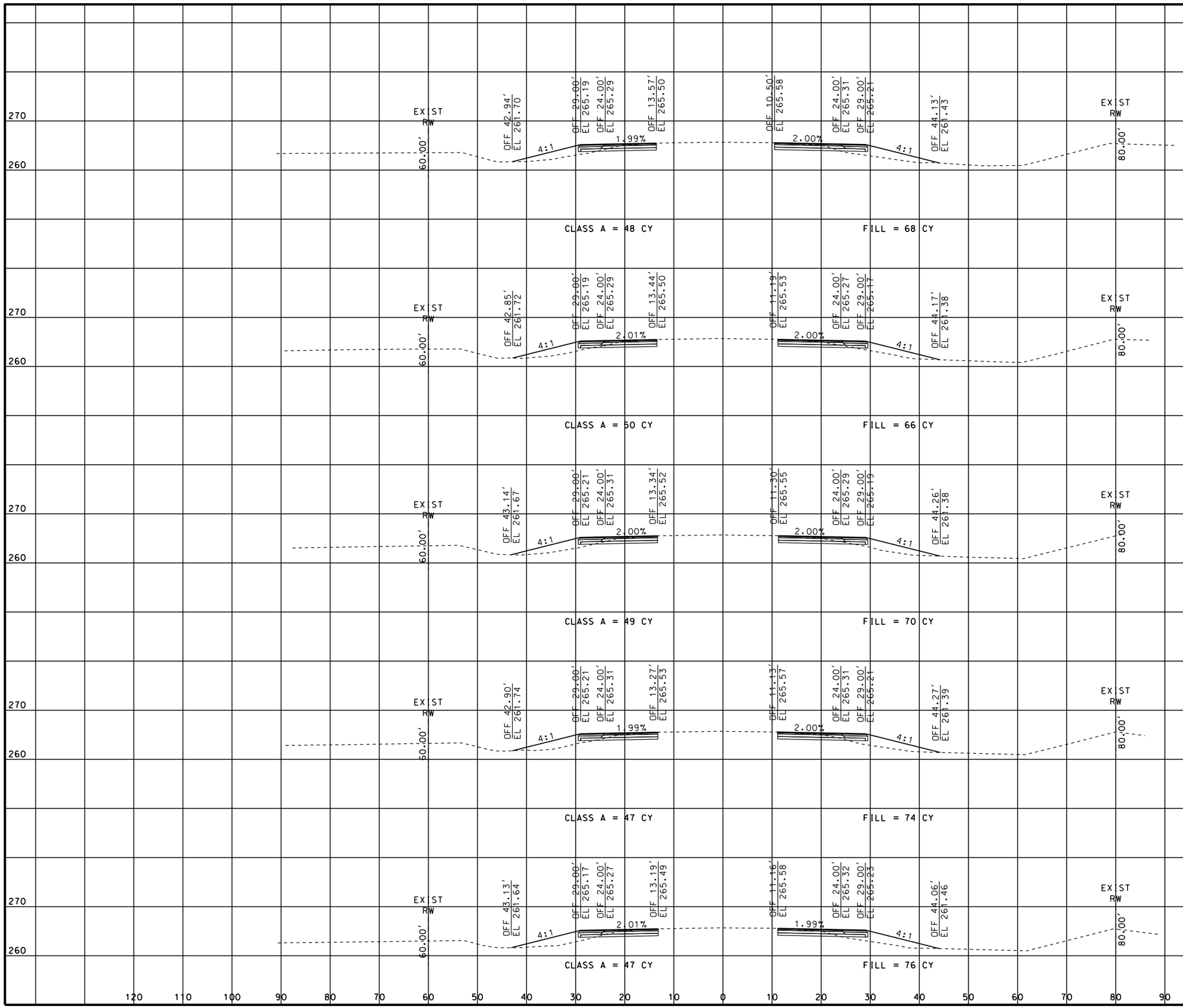
REV.	DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 76 OF 113

ROUTE 412



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	77

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

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

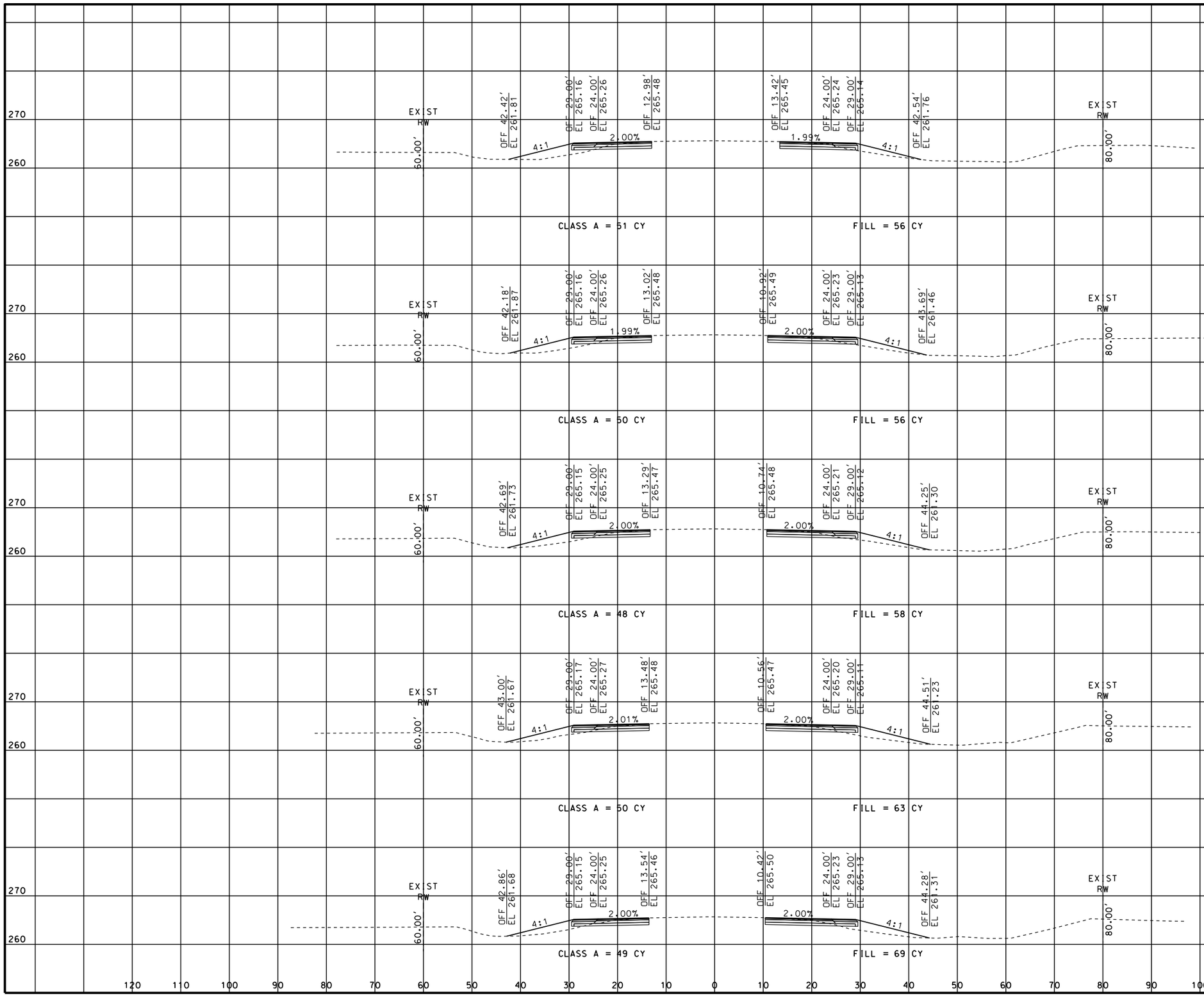
DESCRIPTION | DATE | REV.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 77 OF 113

ROUTE 412



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	78

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

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

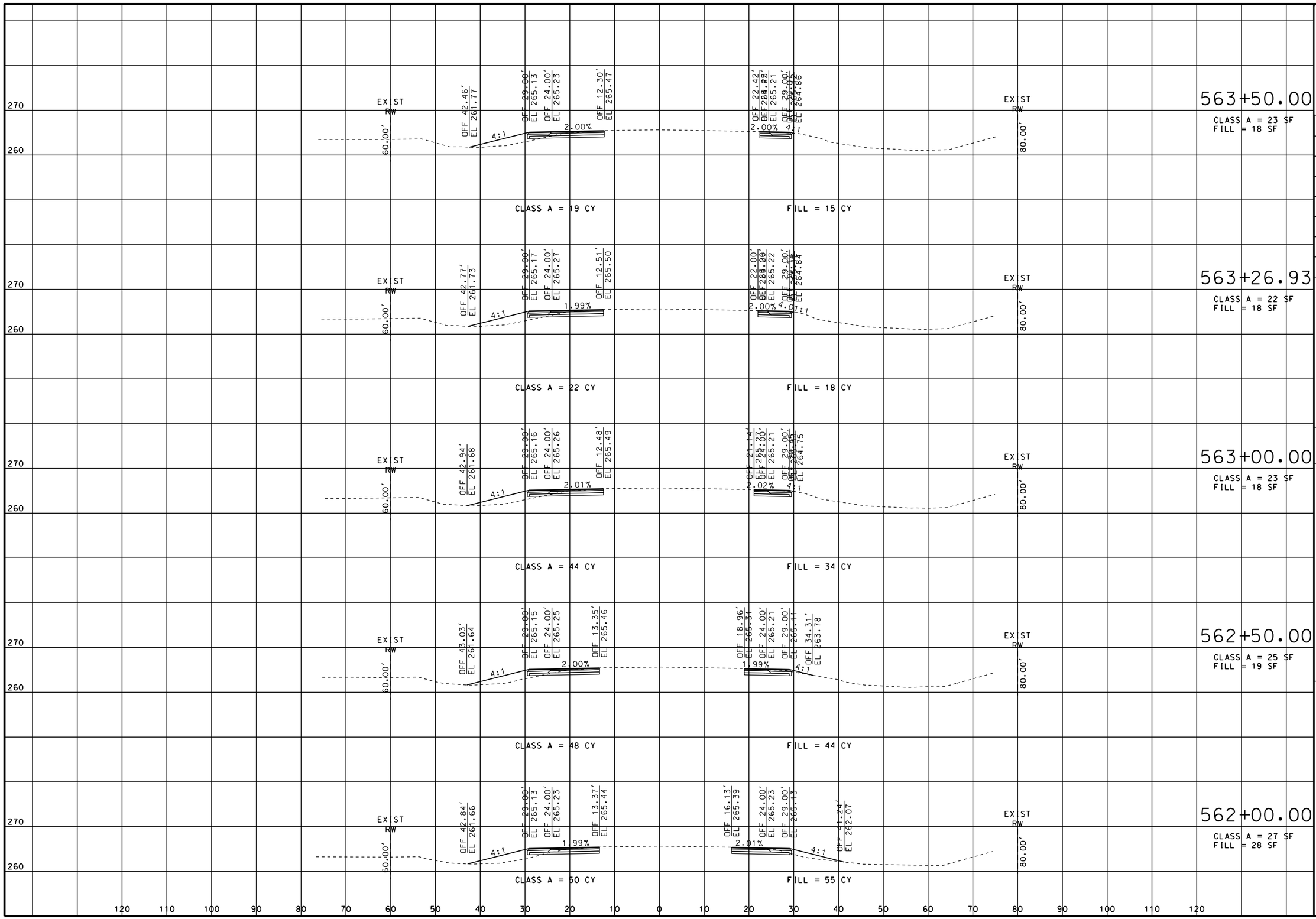
REV.	DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
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ROUTE 412



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

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DATE PREPARED
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ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	79

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

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

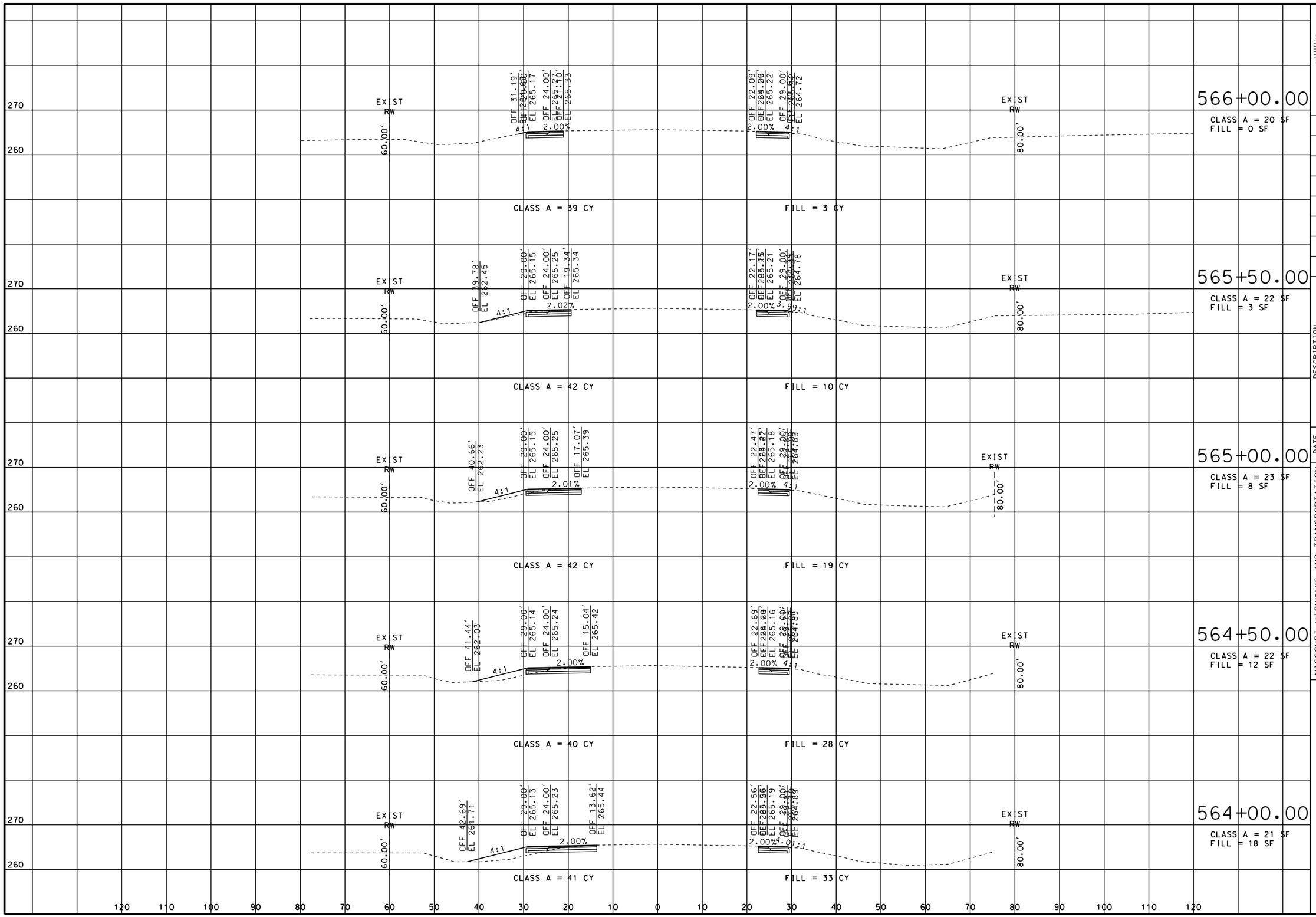
REV.	DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 79 OF 113

ROUTE 412



STATE OF MISSOURI
ERIC KRAPF
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PROFESSIONAL ENGINEER

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DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	80

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

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

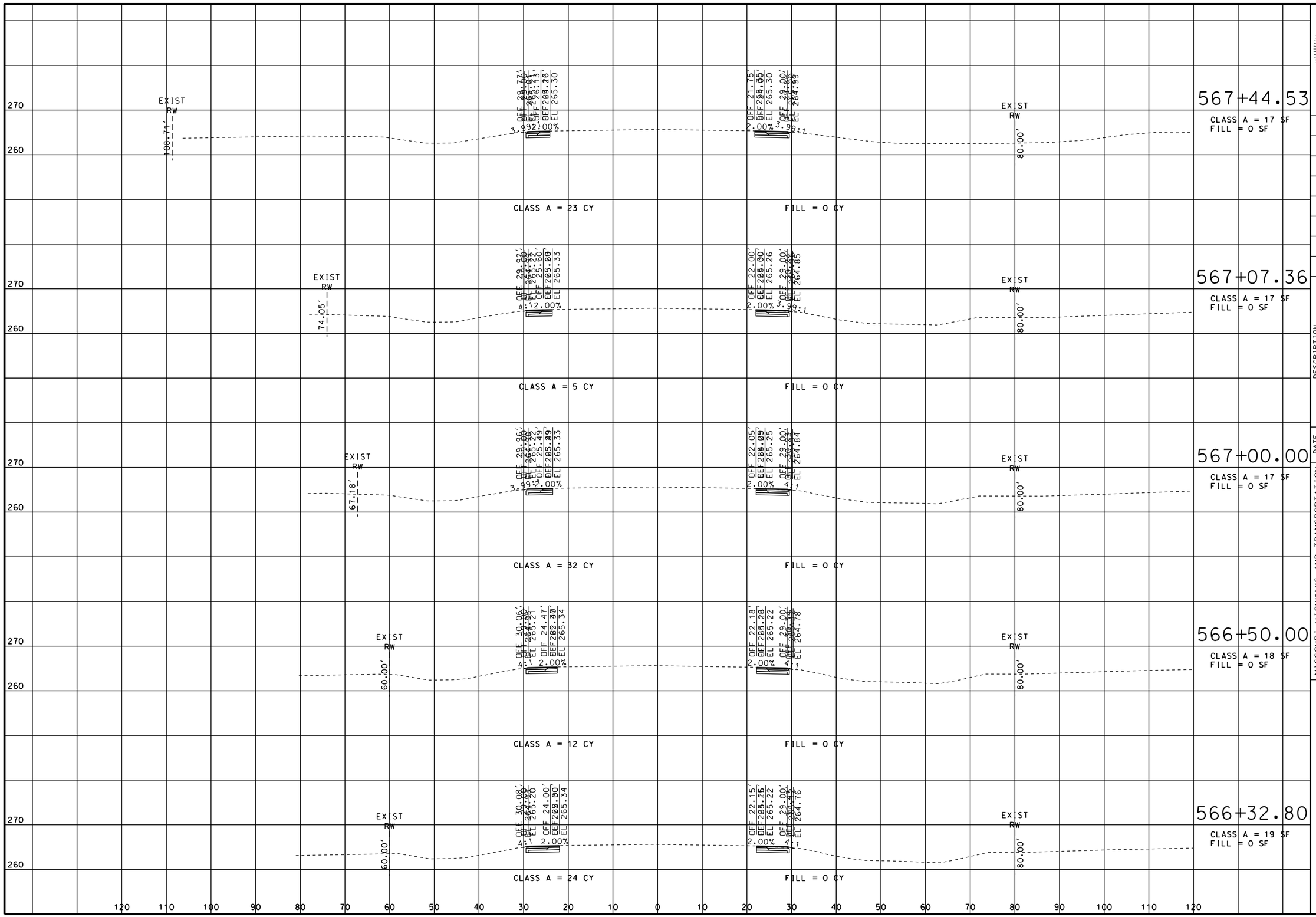
REV.	DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
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1-888-ASK-MODOT (1-888-275-6636)

CROSS SECTIONS
SHEET 80 OF 113

ROUTE 412



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

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DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	81

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

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

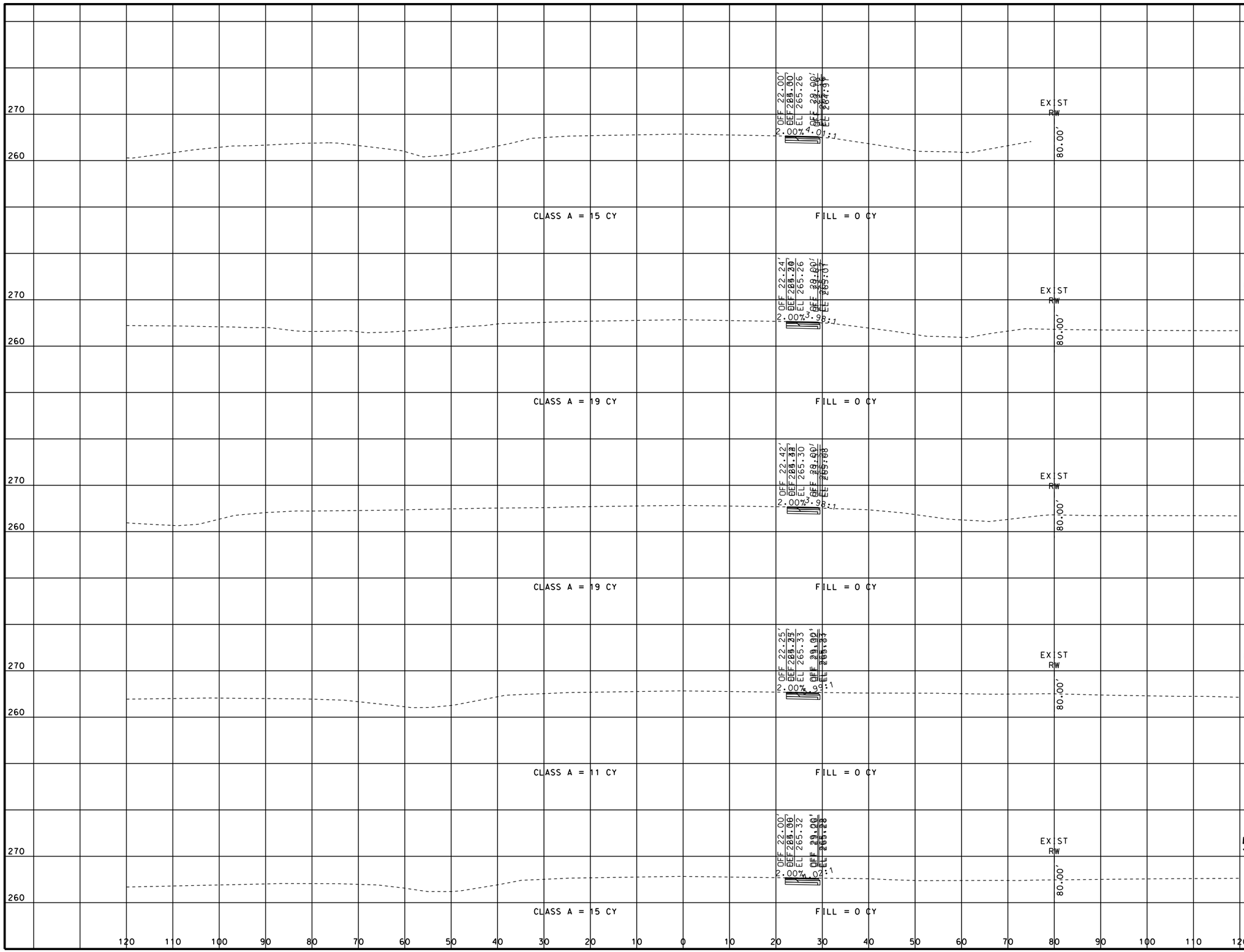
REV.	DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 81 OF 113

ROUTE 412



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	82

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

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

DESCRIPTION

DATE

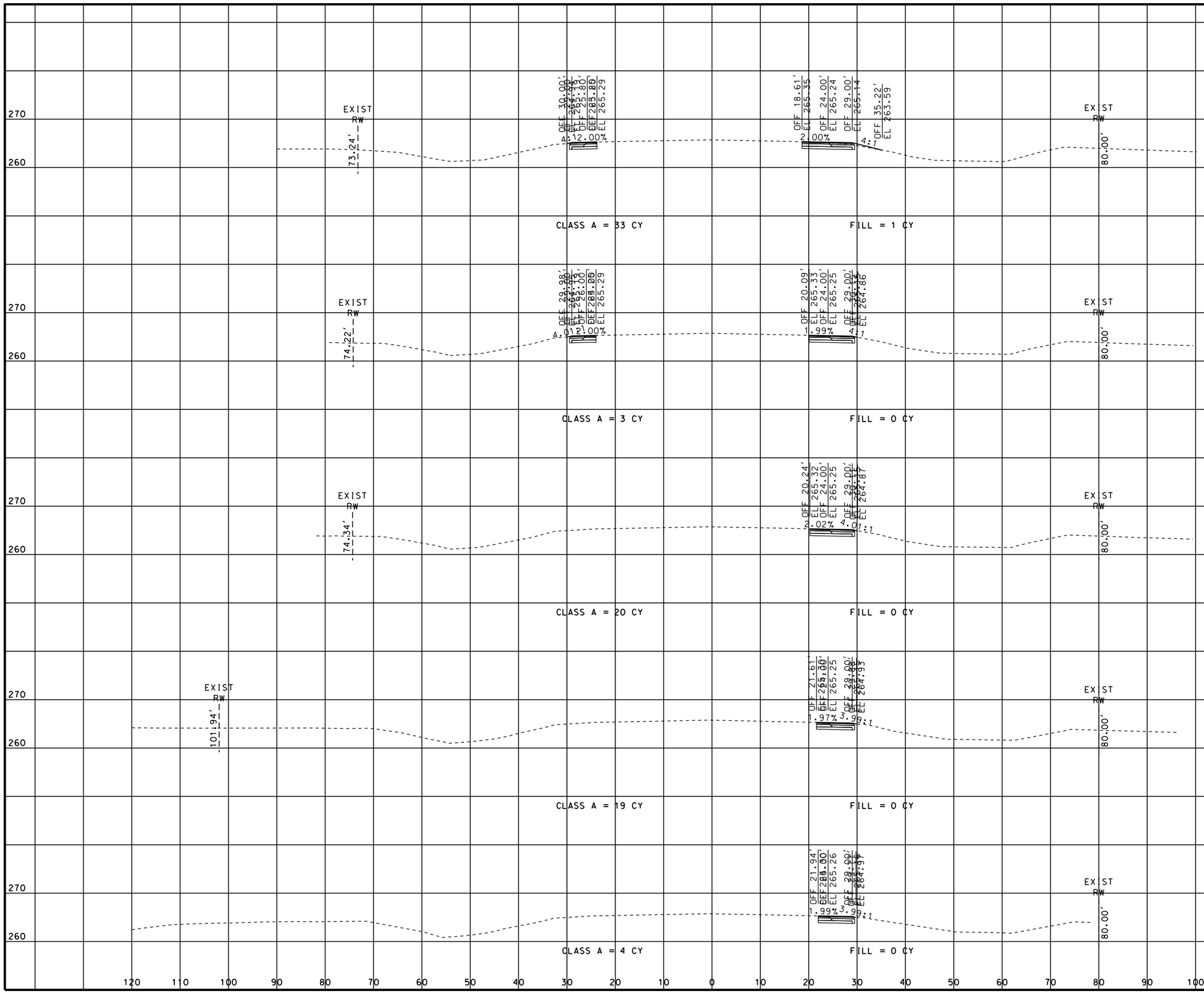
REV.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
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CROSS SECTIONS
SHEET 82 OF 113

ROUTE 412



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	83

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

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

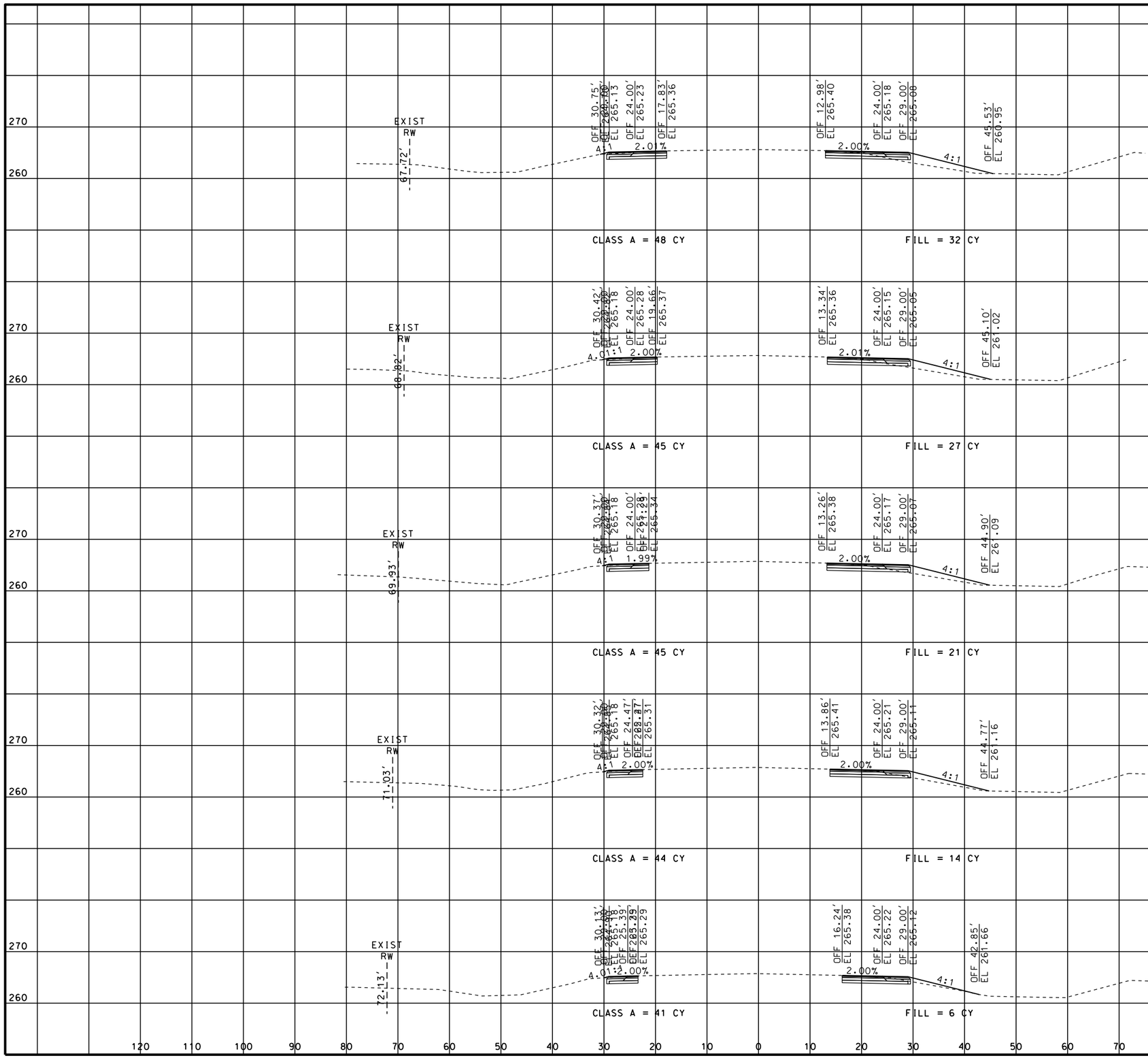
REV.	DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 83 OF 113

ROUTE 412



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	84

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

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

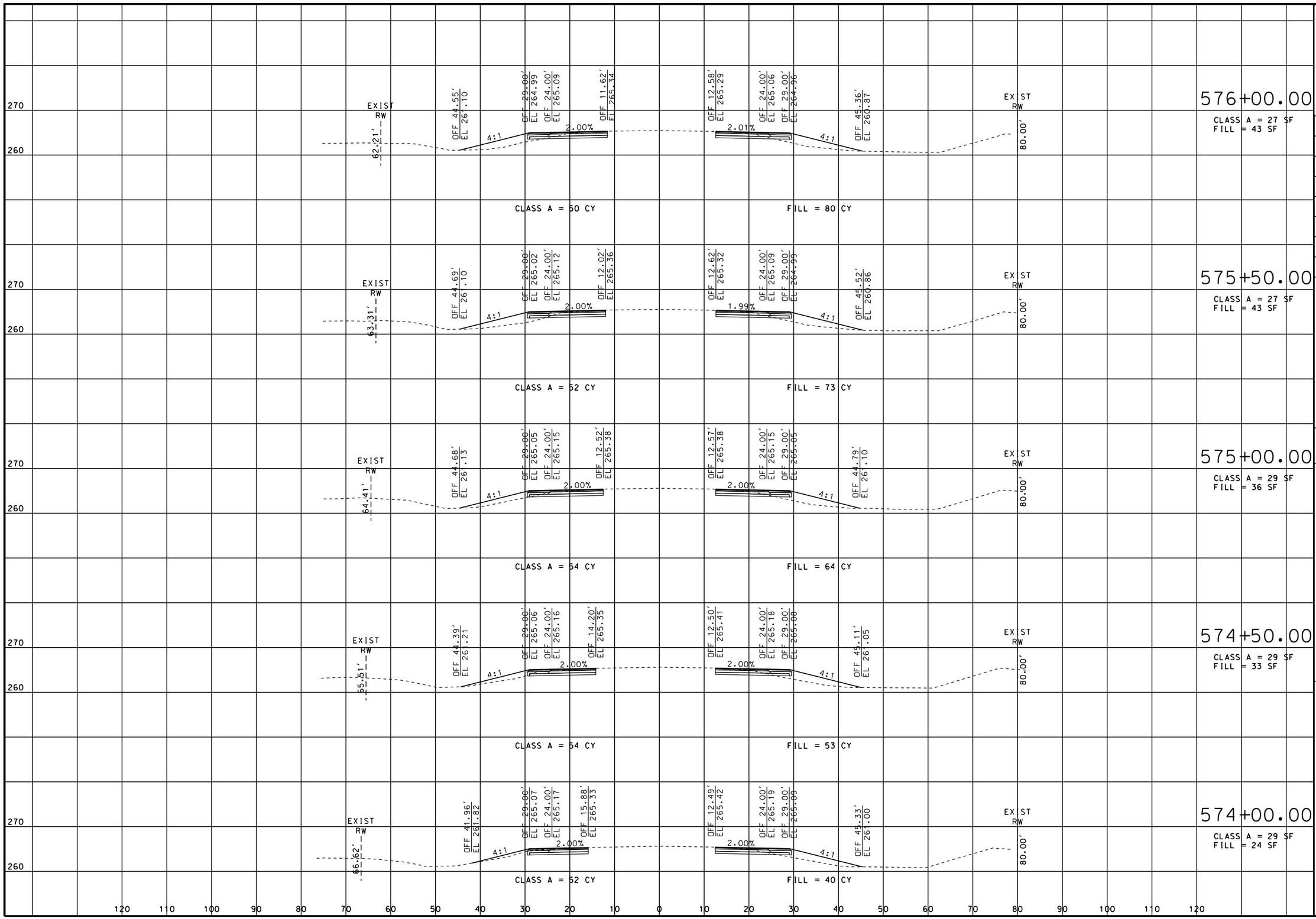
REV.	DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 84 OF 113

ROUTE 412



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	85

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

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

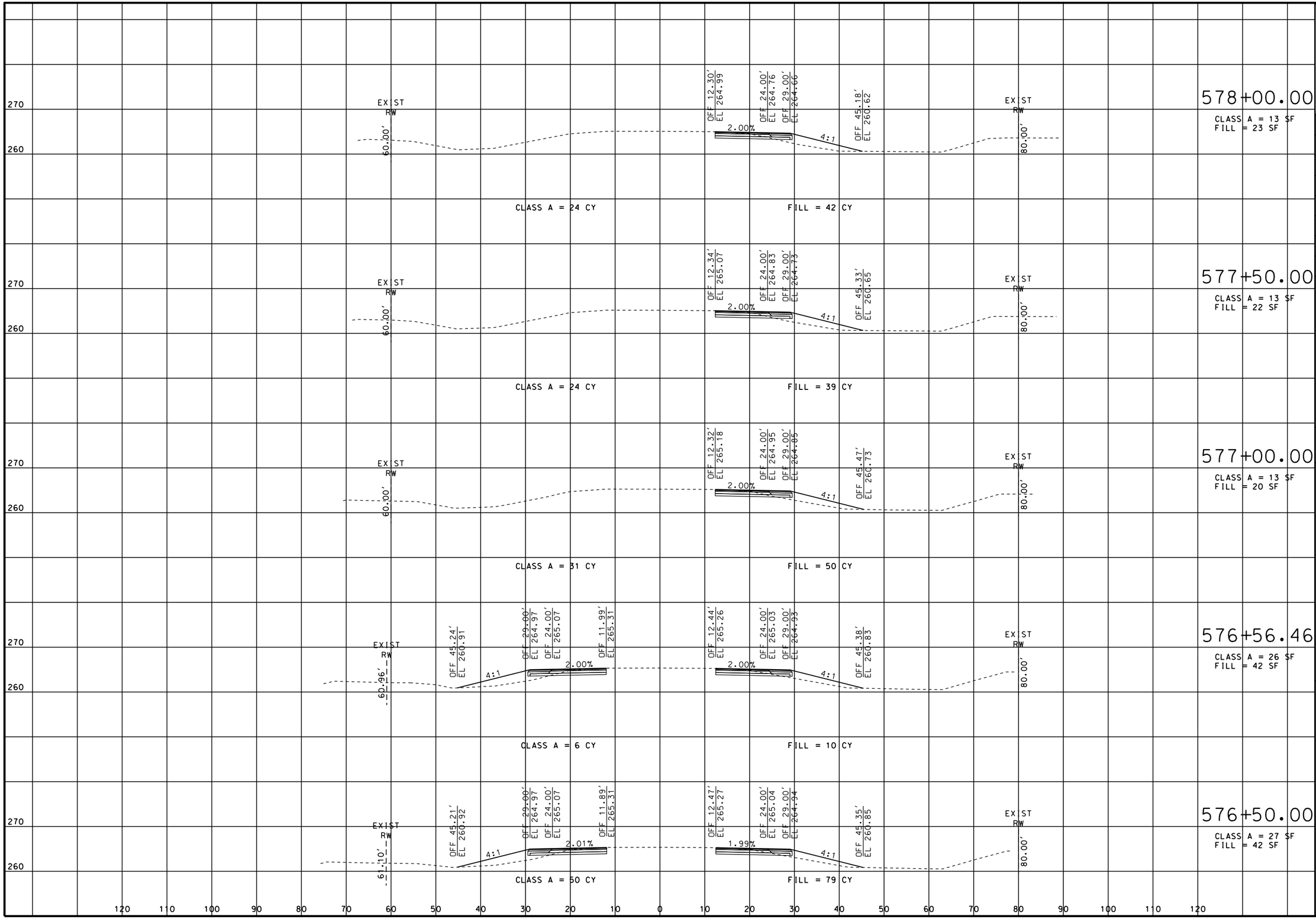
REV.	DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 85 OF 113

ROUTE 412



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	86

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

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

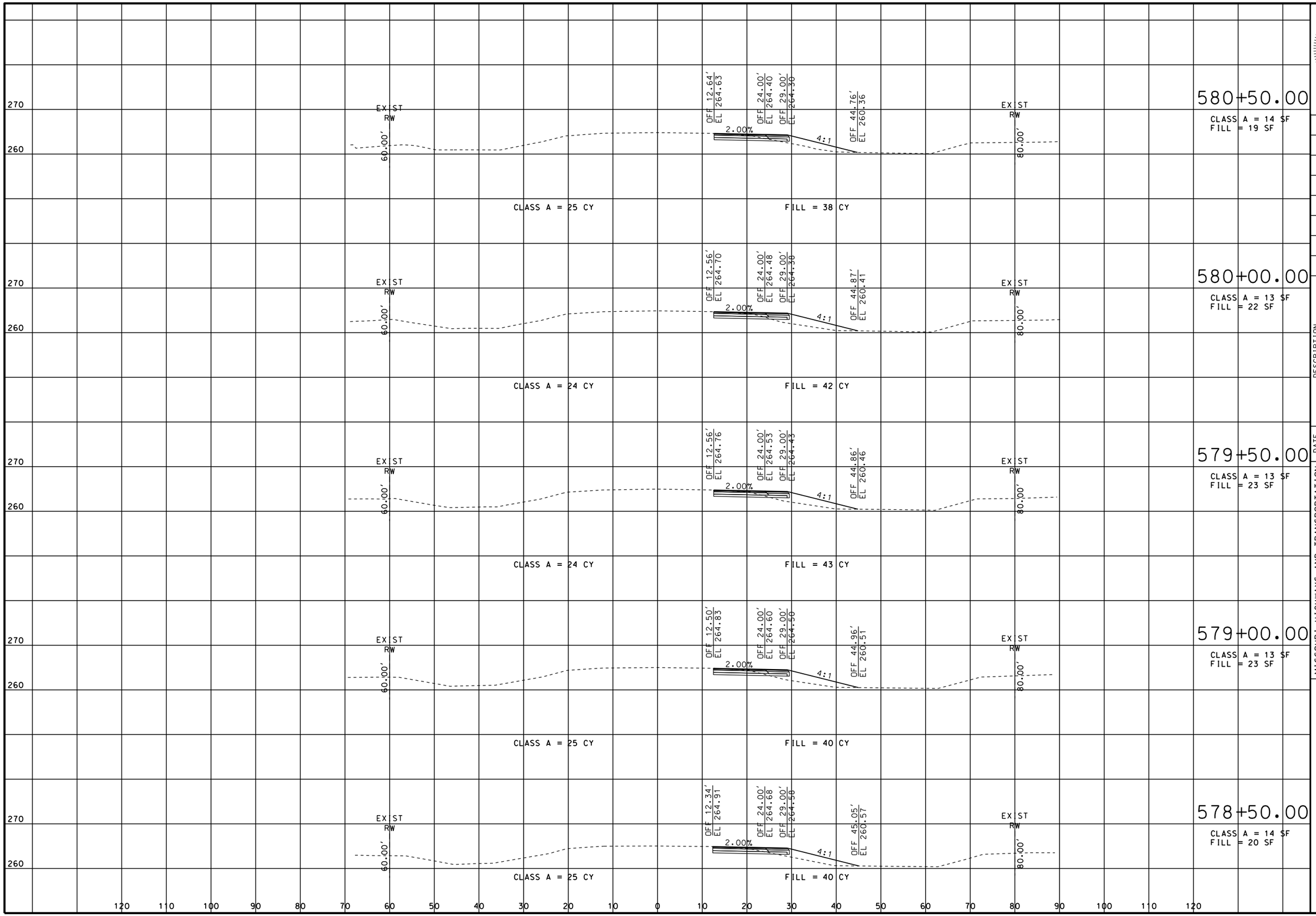
REV.	DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 86 OF 113

ROUTE 412



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	87

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

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

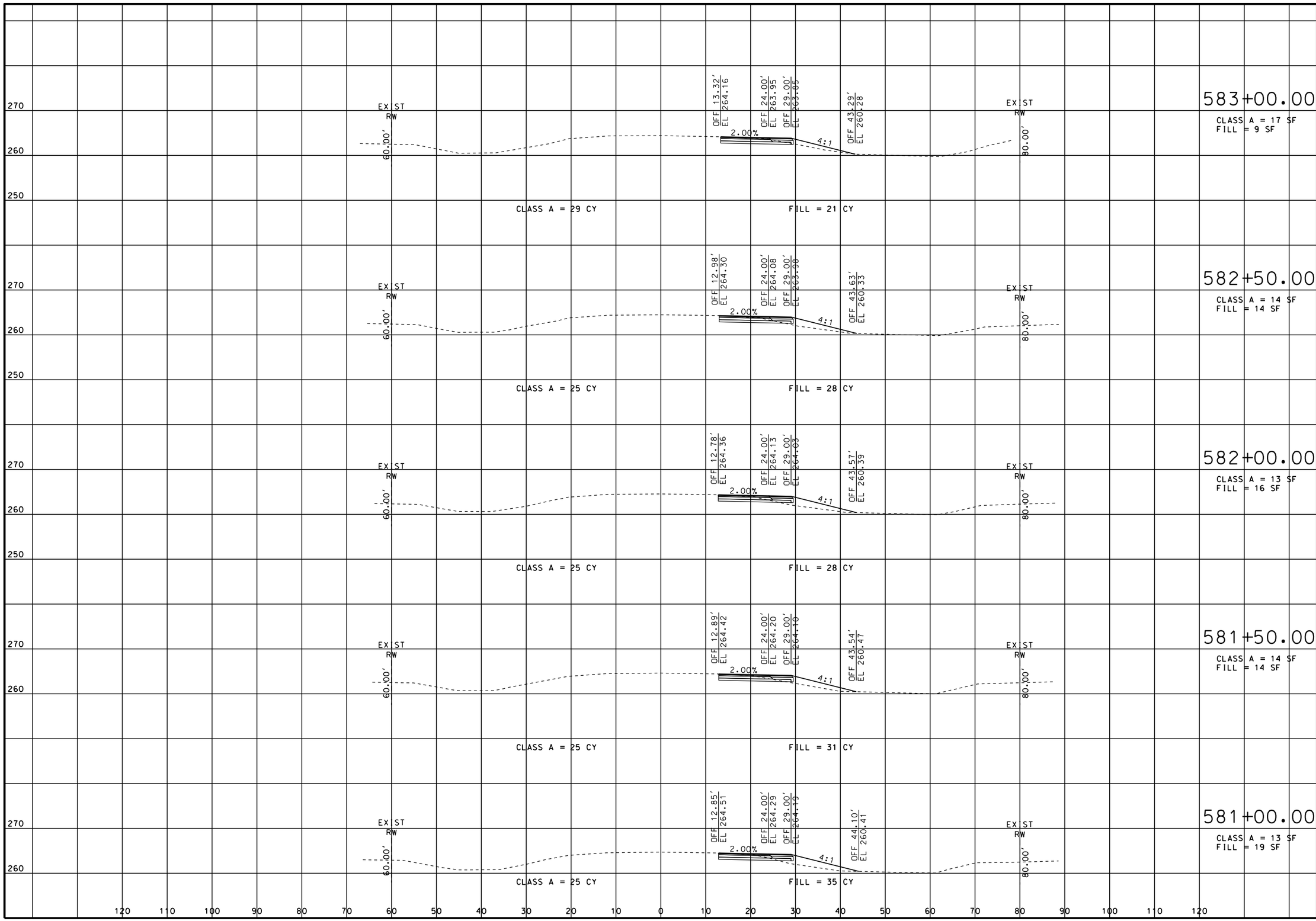
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 87 OF 113

ROUTE 412

REV.



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	88

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

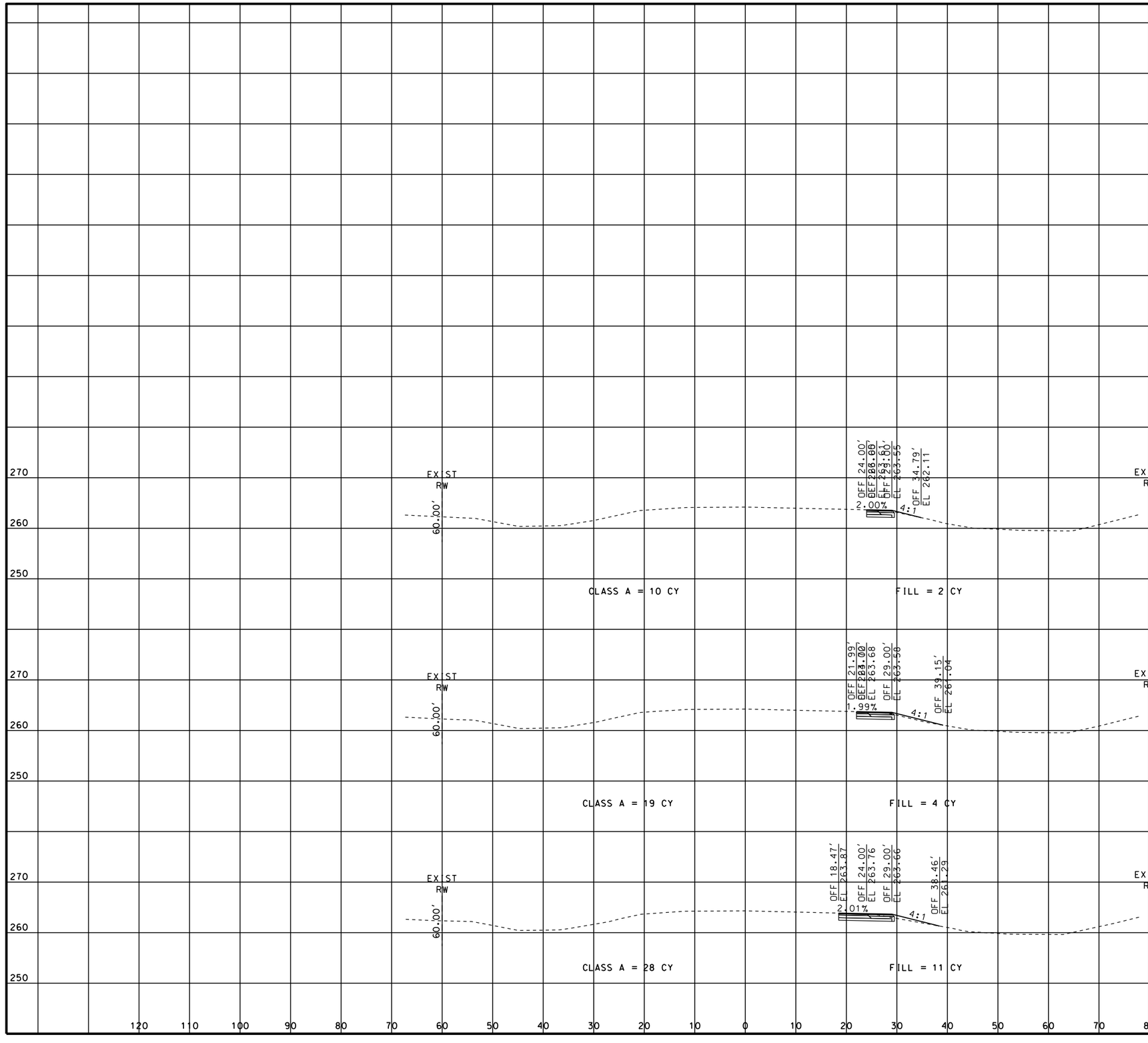
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

CROSS SECTIONS
SHEET 88 OF 113

ROUTE 412

REV.

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STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

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DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	89

COUNTY
DUNKLIN

JOB NO.
J9P3077

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

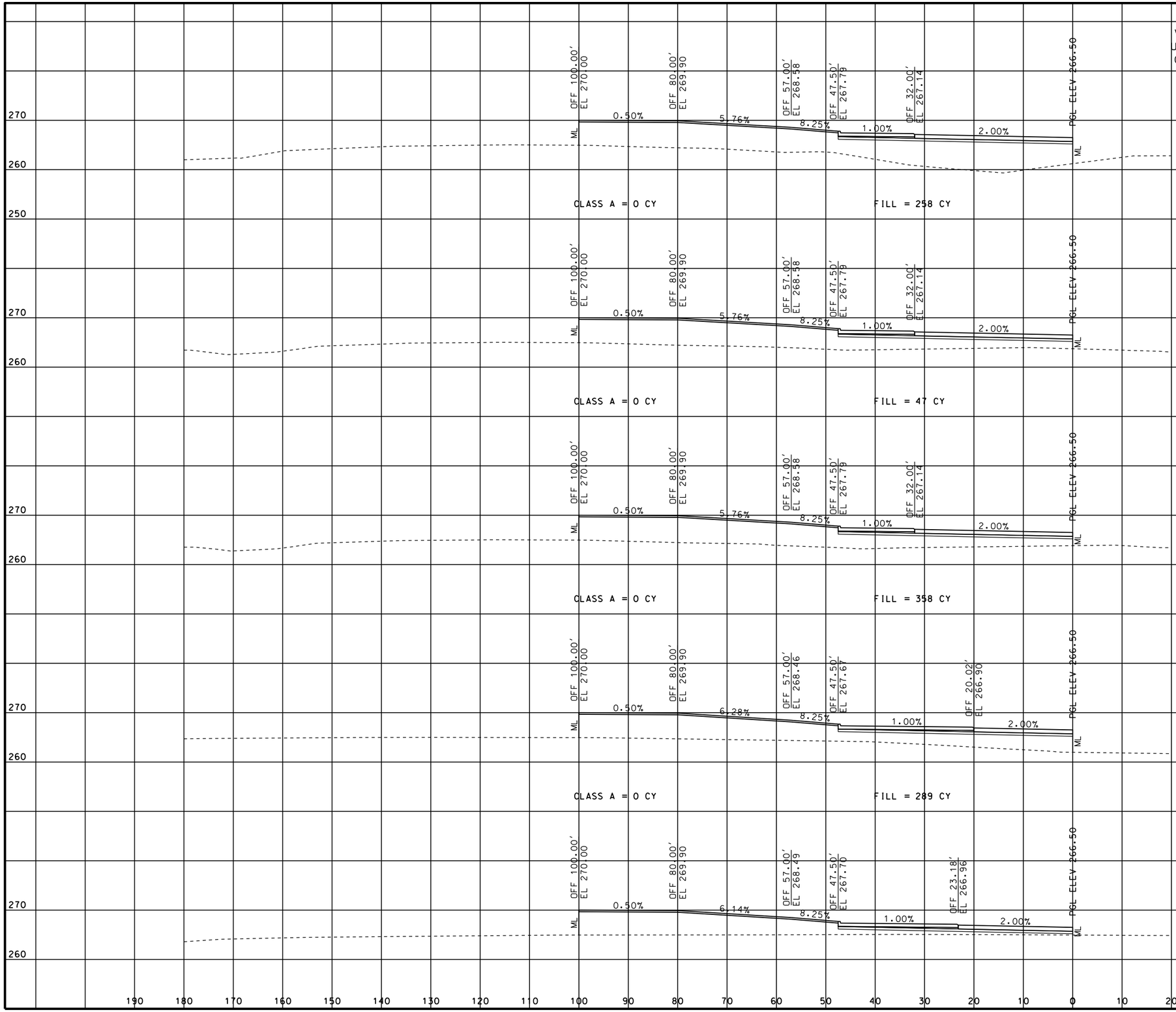
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

CROSS SECTIONS
SHEET 89 OF 113

ROUTE 412

REV.

VOLUMES ARE 50% OF THOSE CALCULATED USING THE AVERAGE END AREA METHOD TO COMPENSATE FOR CYLINDRICAL GEOMETRY



1+50.00
CLASS A = 0 SF
FILL = 484 SF

1+16.16
CLASS A = 0 SF
FILL = 338 SF

1+08.82
CLASS A = 0 SF
FILL = 349 SF

0+53.20
CLASS A = 0 SF
FILL = 346 SF

0+00.00 Ahd
CLASS A = 0 SF
FILL = 240 SF

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER
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DATE PREPARED
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ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	90

COUNTY
DUNKLIN

JOB NO.
J9P3077

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

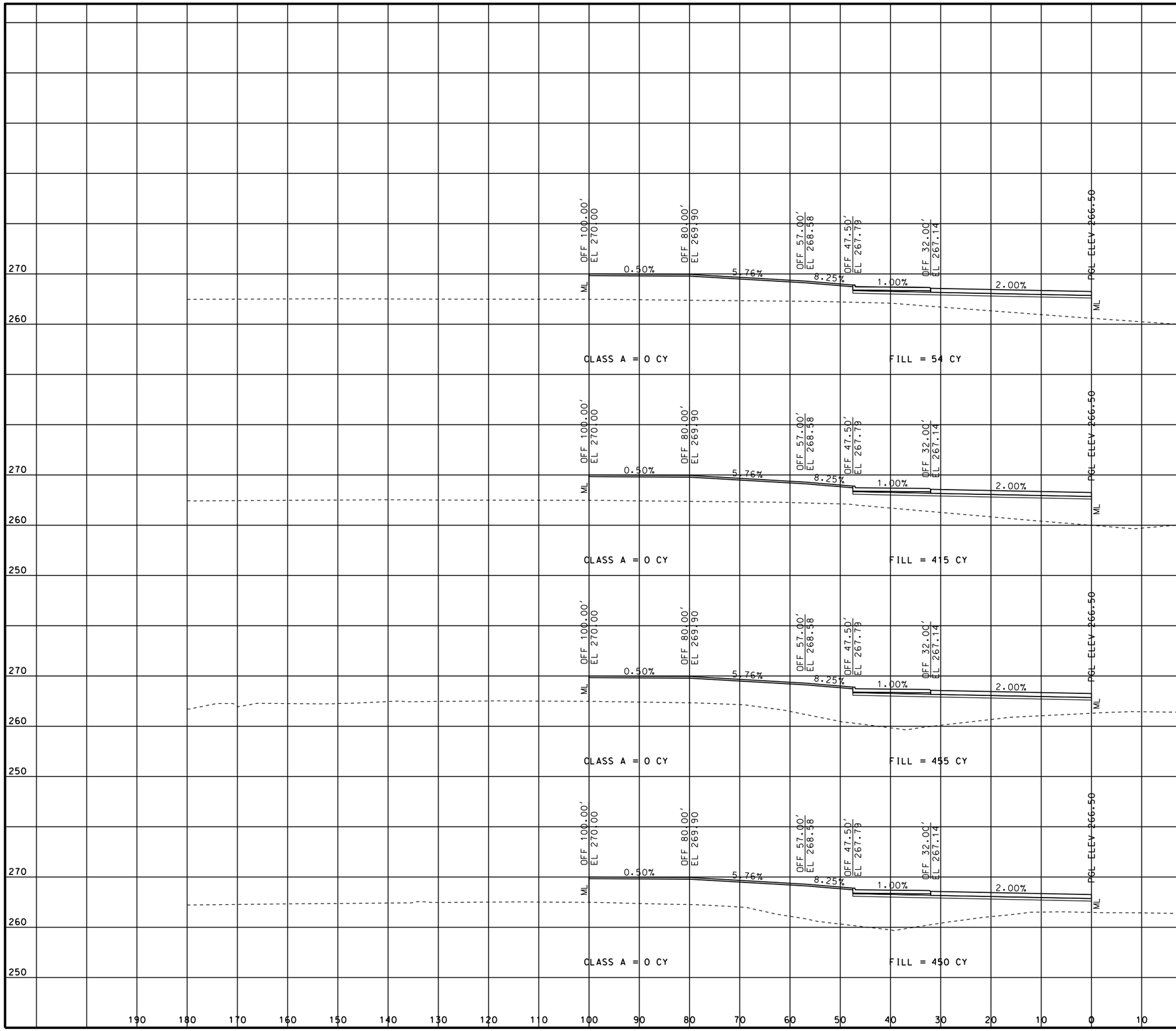
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

CROSS SECTIONS
SHEET 90 OF 113

RAEOPCIR

REV.

VOLUMES ARE 50% OF THOSE CALCULATED USING THE AVERAGE END AREA METHOD TO COMPENSATE FOR CYLINDRICAL GEOMETRY



3+07.72
CLASS A = 0 SF
FILL = 356 SF

3+00.00
CLASS A = 0 SF
FILL = 402 SF

2+50.00
CLASS A = 0 SF
FILL = 495 SF

2+00.00
CLASS A = 0 SF
FILL = 487 SF

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER
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DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	91

COUNTY
DUNKLIN

JOB NO.
J9P3077

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

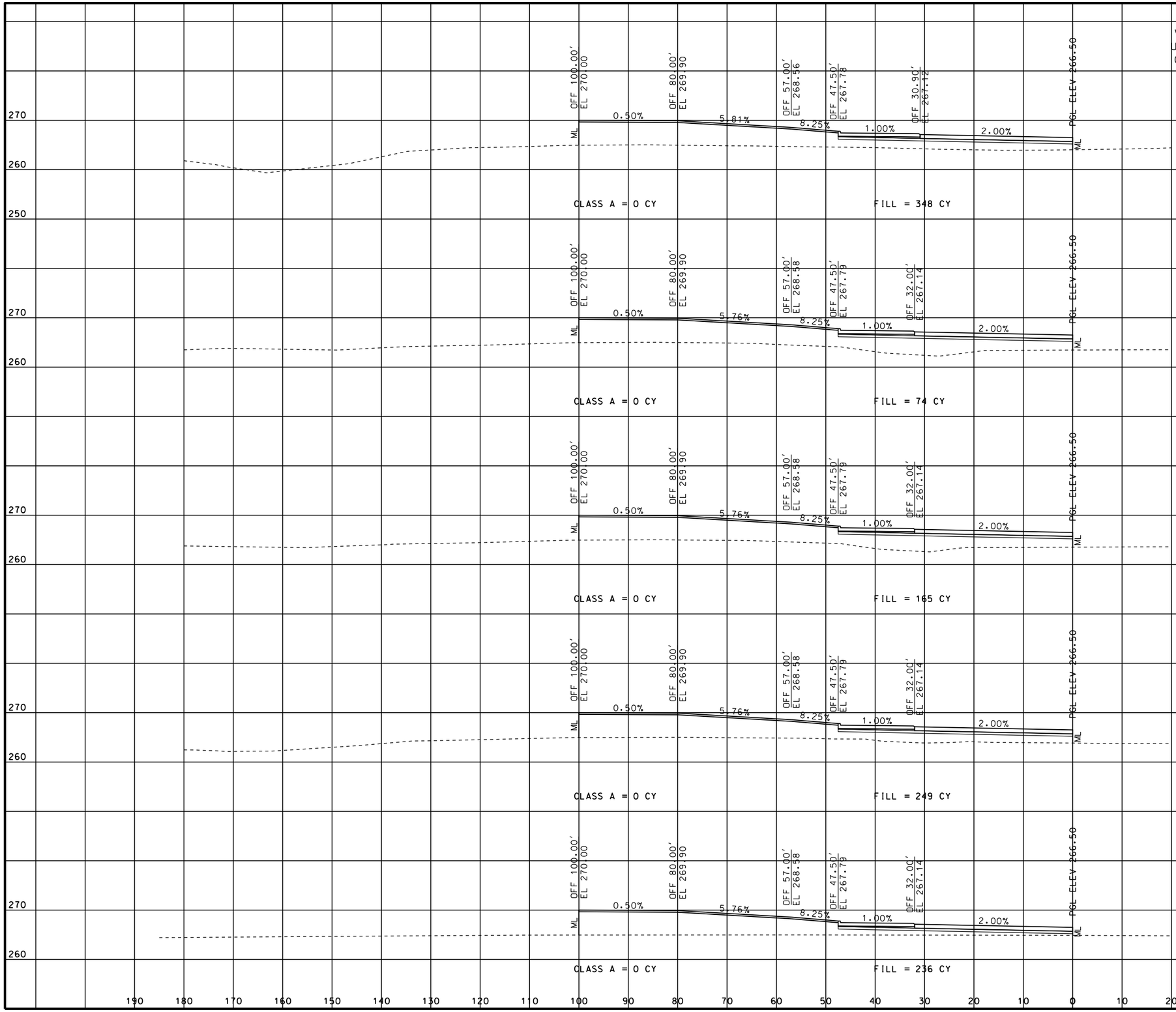
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

CROSS SECTIONS
SHEET 91 OF 113

RAEOPCIR

REV.

VOLUMES ARE 50% OF THOSE CALCULATED USING THE AVERAGE END AREA METHOD TO COMPENSATE FOR CYLINDRICAL GEOMETRY



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

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DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	92

COUNTY
DUNKLIN

JOB NO.
J9P3077

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)

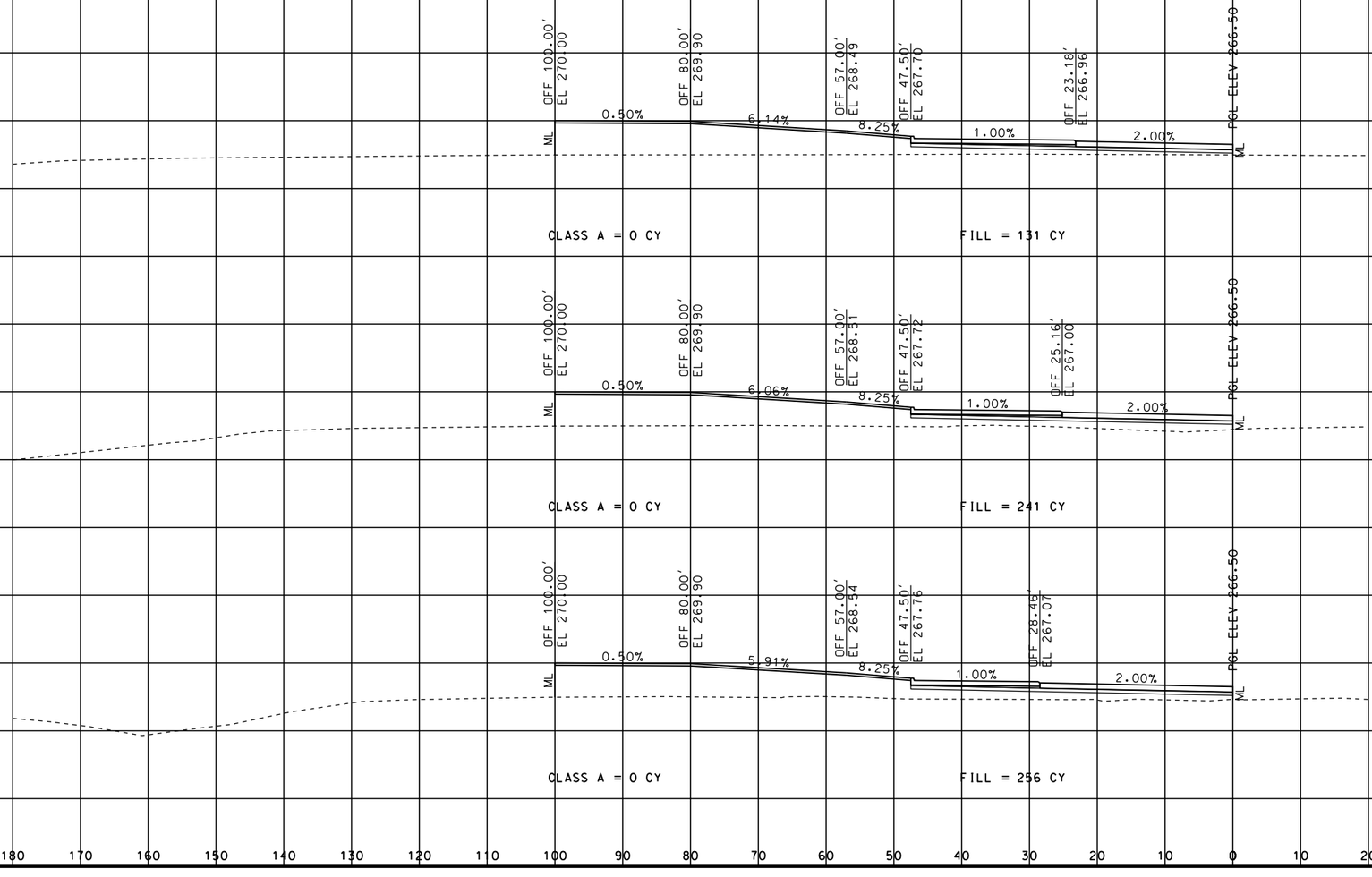
CROSS SECTIONS
SHEET 92 OF 113

RAEOPCIR

REV.

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

VOLUMES ARE 50% OF THOSE CALCULATED USING THE AVERAGE END AREA METHOD TO COMPENSATE FOR CYLINDRICAL GEOMETRY



6+28.32 Bk

CLASS A = 0 SF
FILL = 240 SF

CLASS A = 0 CY FILL = 131 CY

6+00.00

CLASS A = 0 SF
FILL = 258 SF

CLASS A = 0 CY FILL = 241 CY

5+50.00

CLASS A = 0 SF
FILL = 263 SF

CLASS A = 0 CY FILL = 256 CY

190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
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DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	93

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

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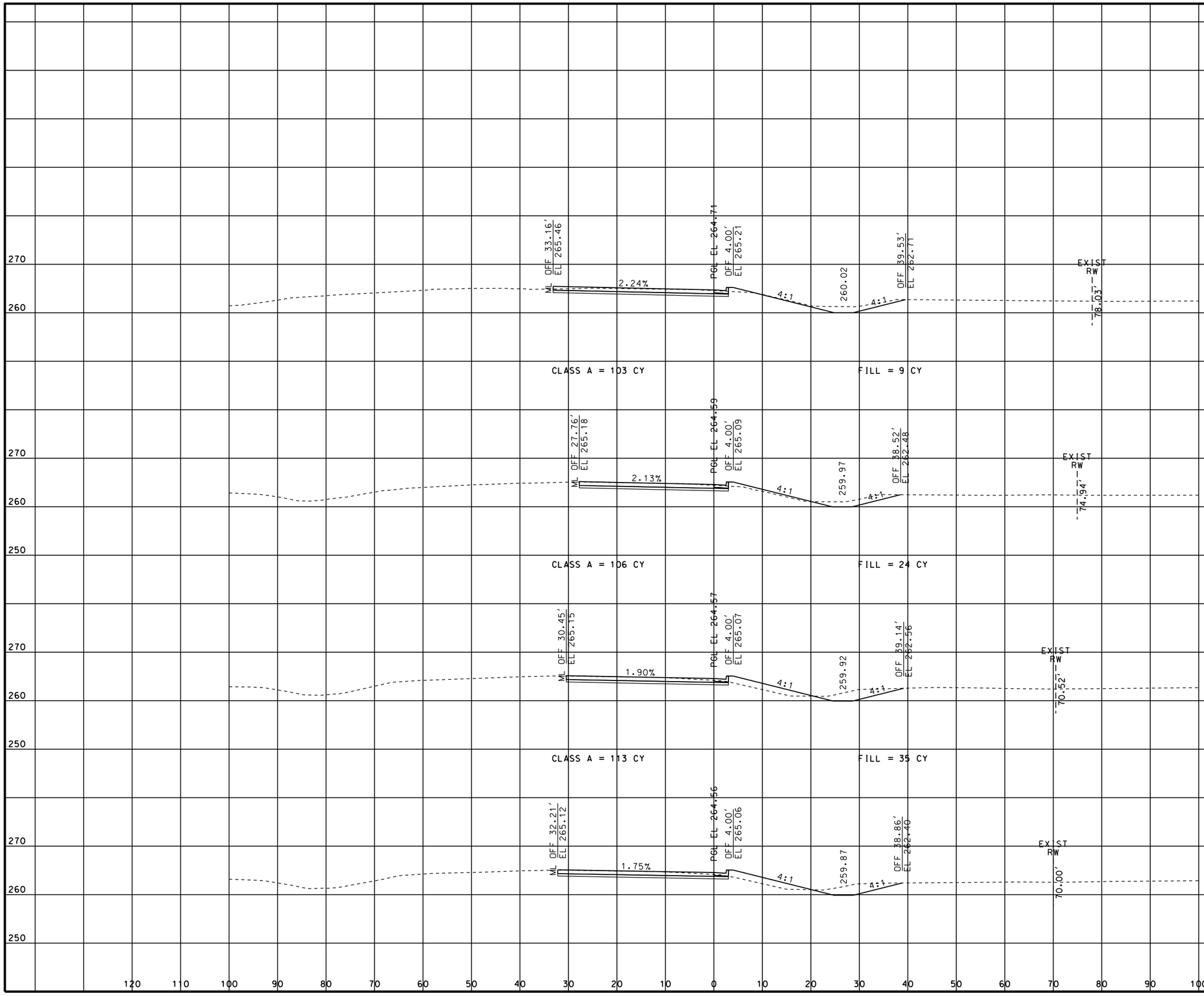
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
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CROSS SECTIONS
SHEET 93 OF 113

RAEOPCIR

REV.



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
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THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

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ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	94

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

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

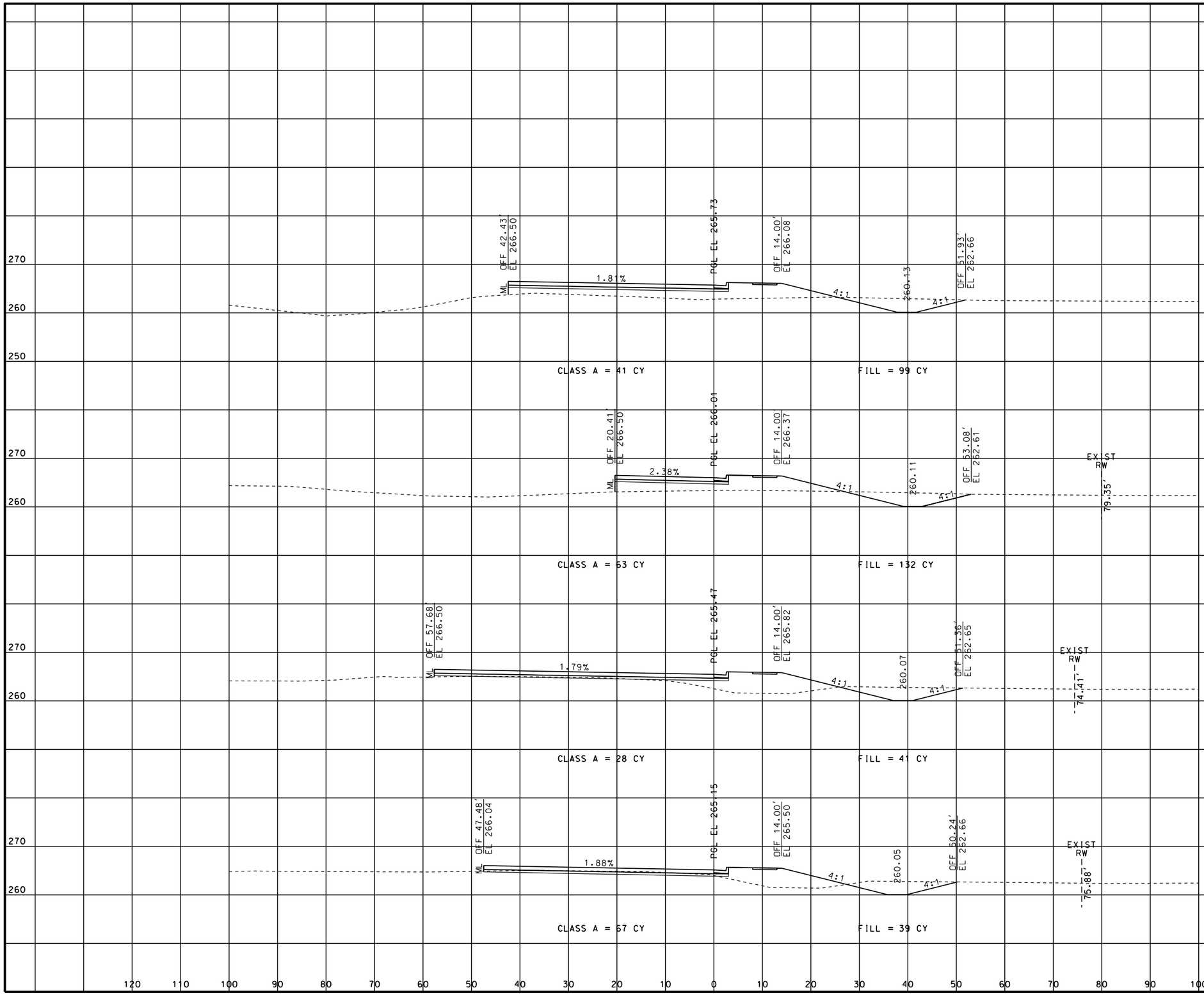
REV.	DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 94 OF 113

RAEOPNE



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	95

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

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

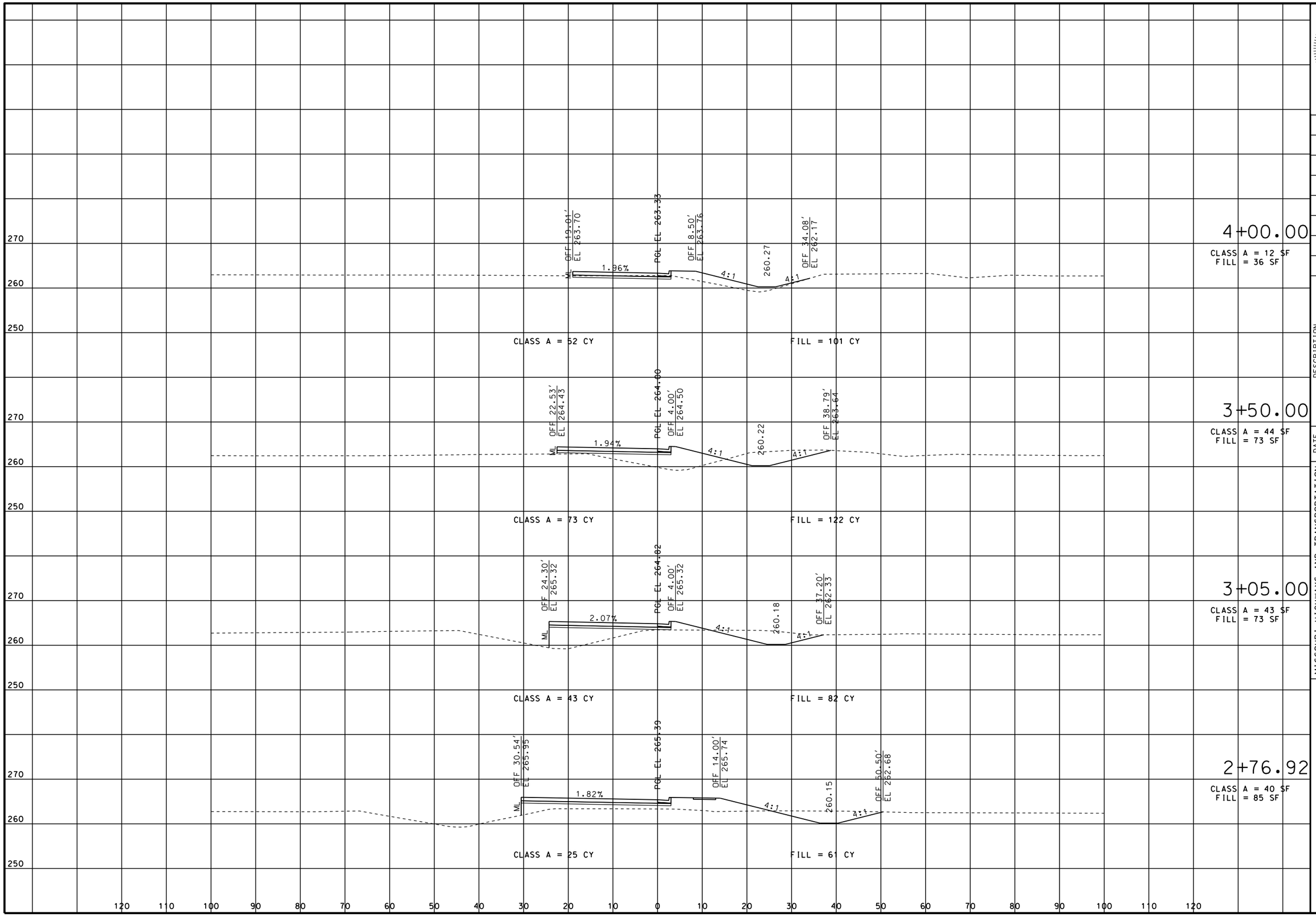
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 95 OF 113

RAEOPNE

REV.



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	96

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

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

DESCRIPTION | DATE

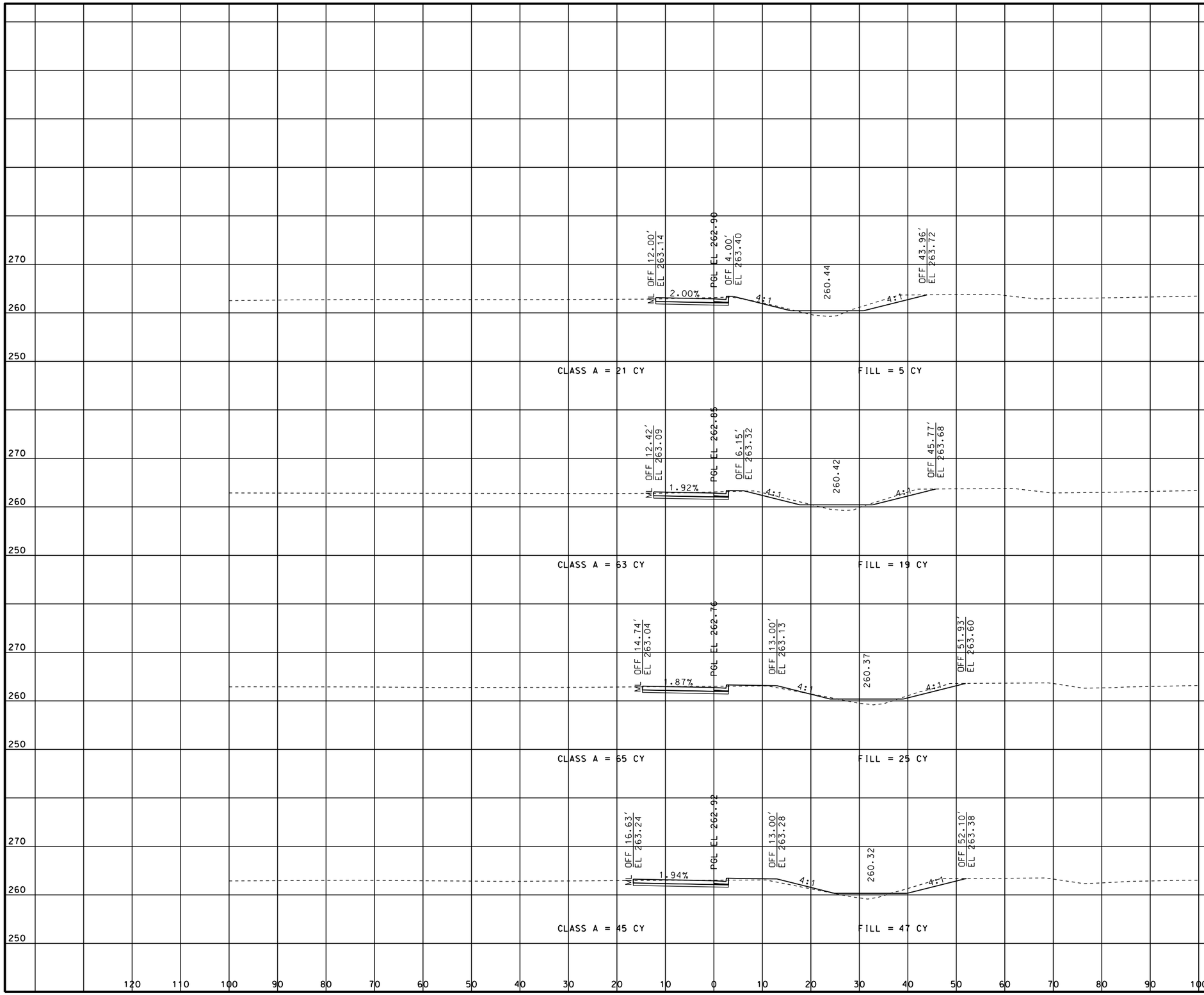
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 96 OF 113

RAEOPNE

REV.



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	97

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

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

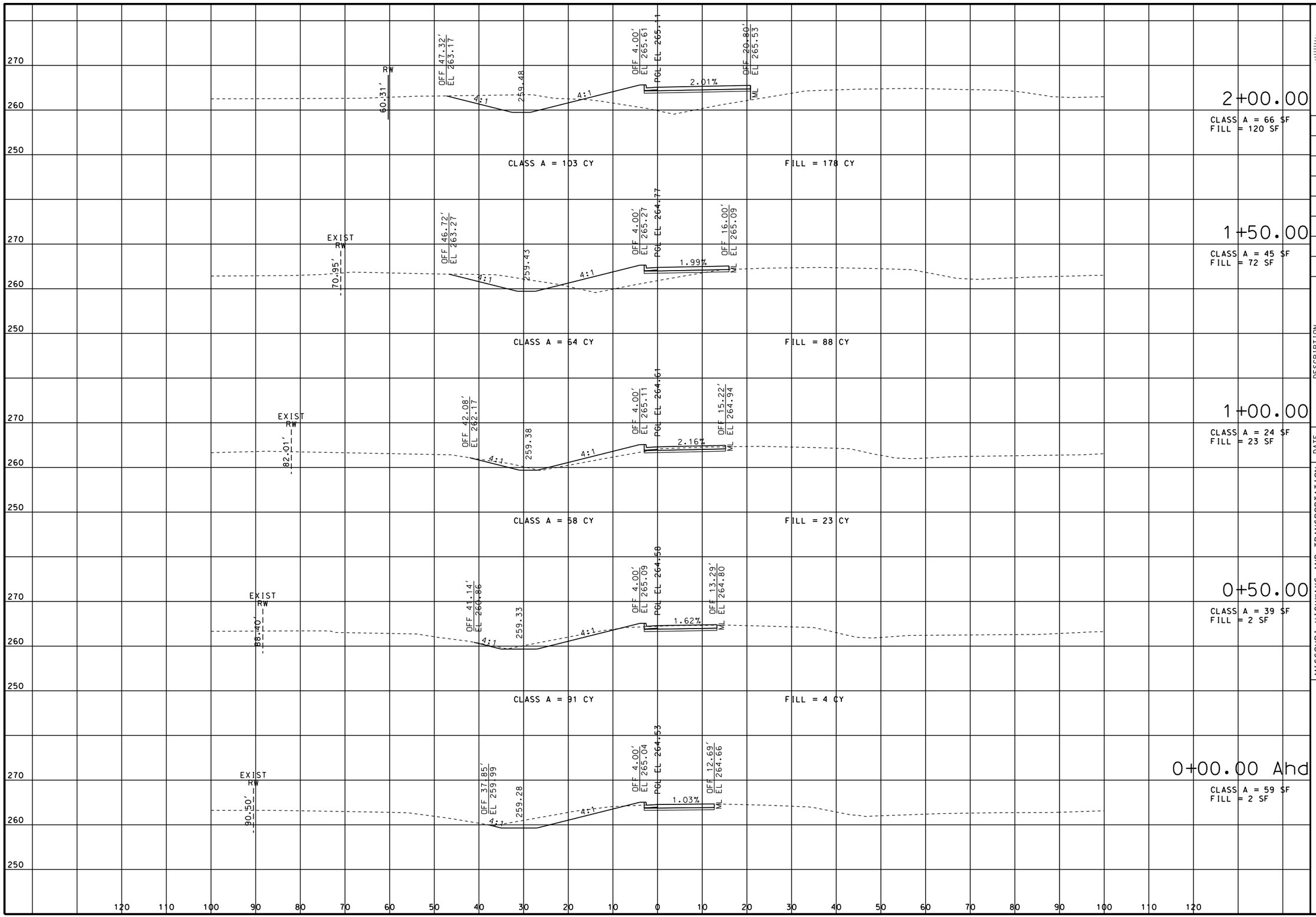
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 97 OF 113

RAEOPNE

REV.



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	98

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

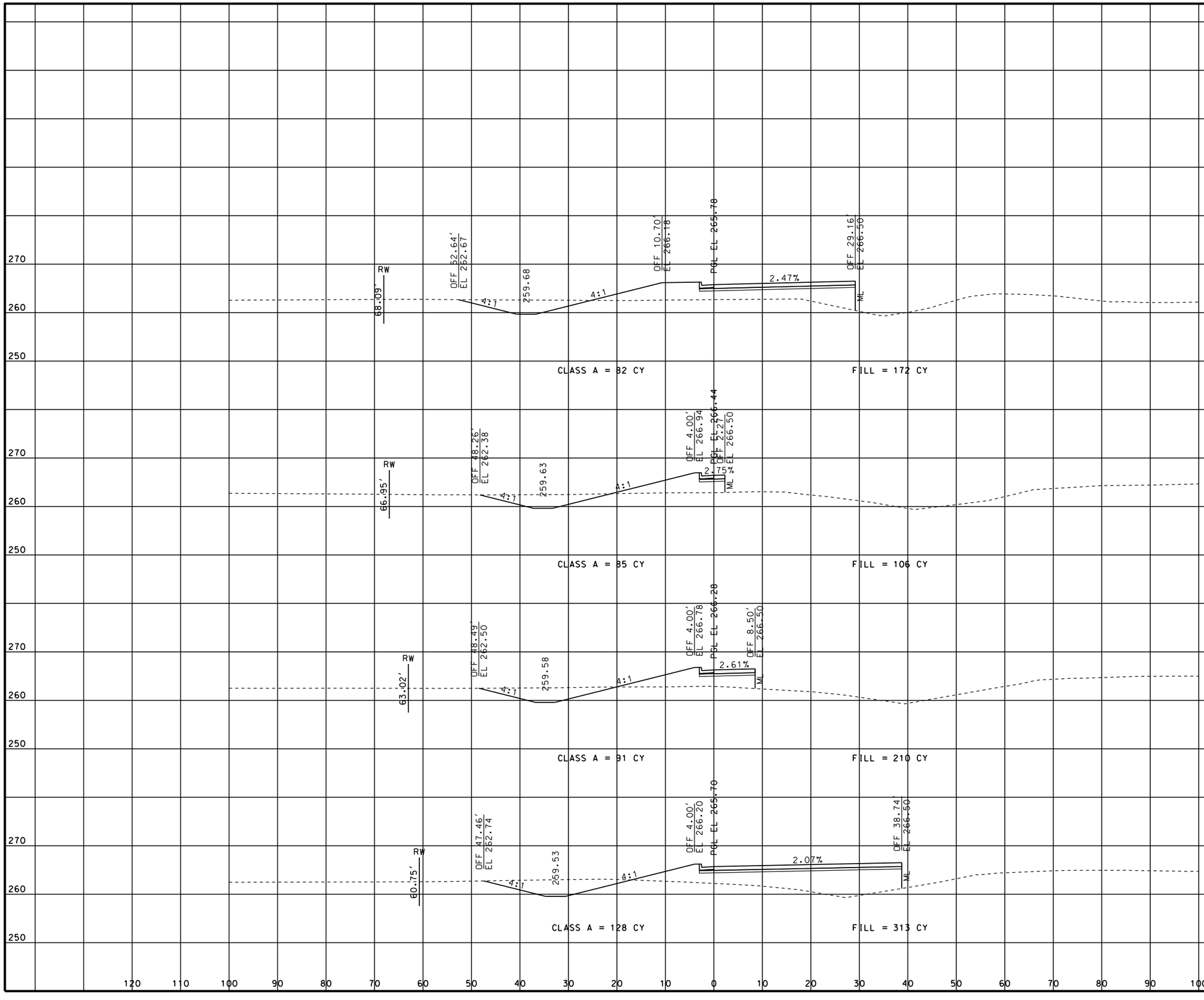
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

CROSS SECTIONS
SHEET 98 OF 113

RAEOPNW

REV.

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



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

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DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	99

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

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

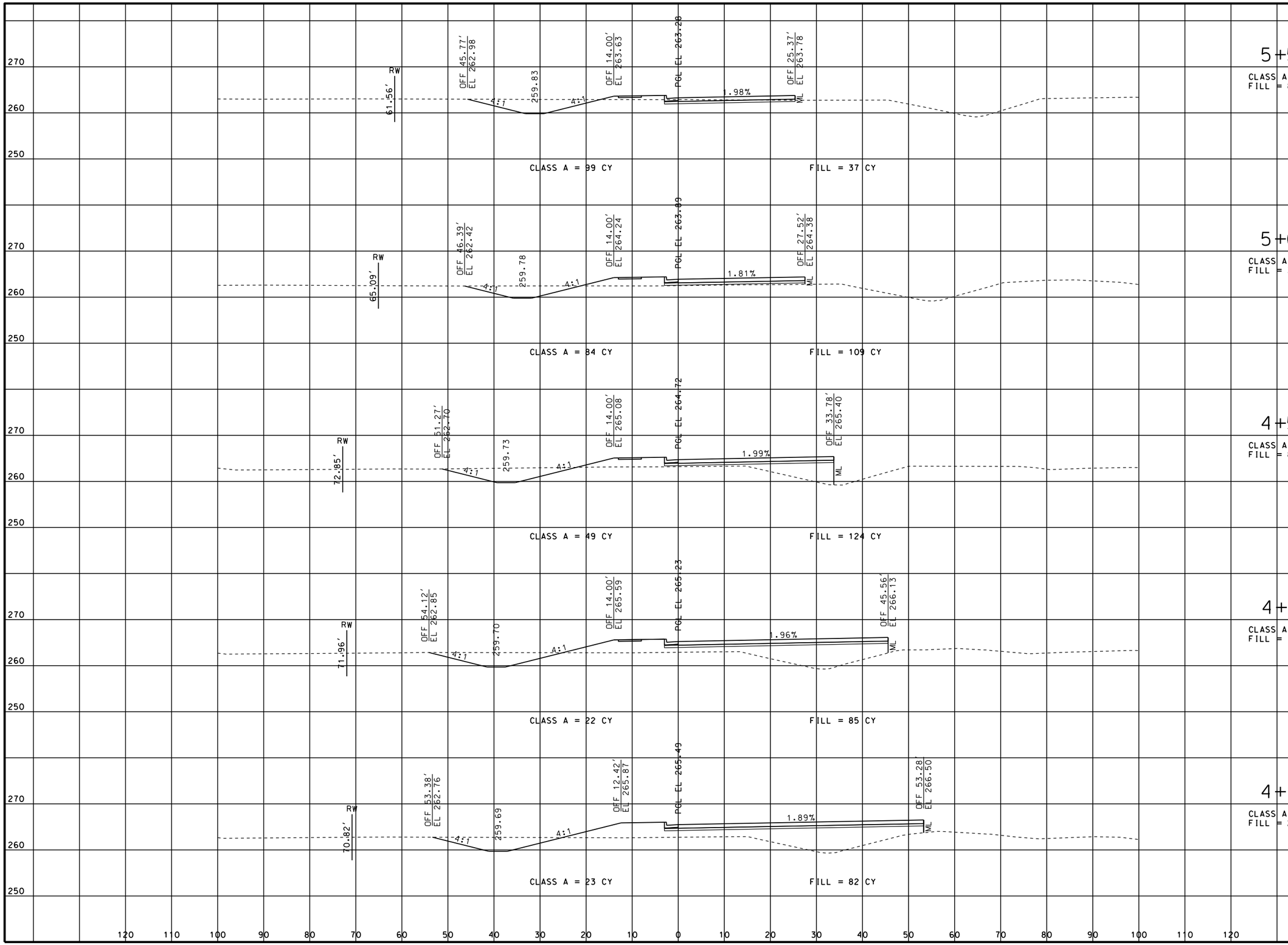
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 99 OF 113

RAEOPNW

REV.



THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	100

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

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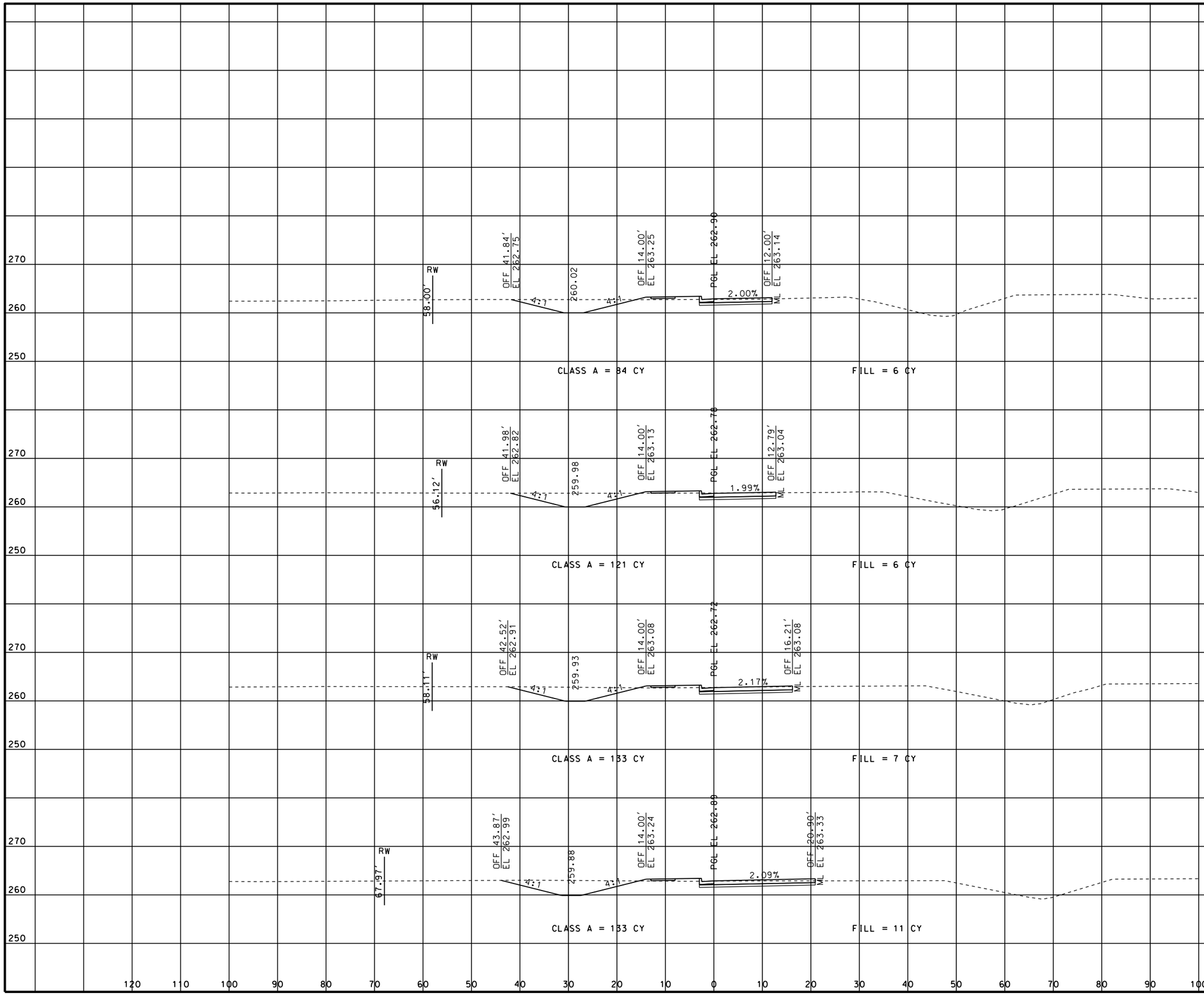
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 100 OF 113

RAEOPNW

REV.



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	101

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

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

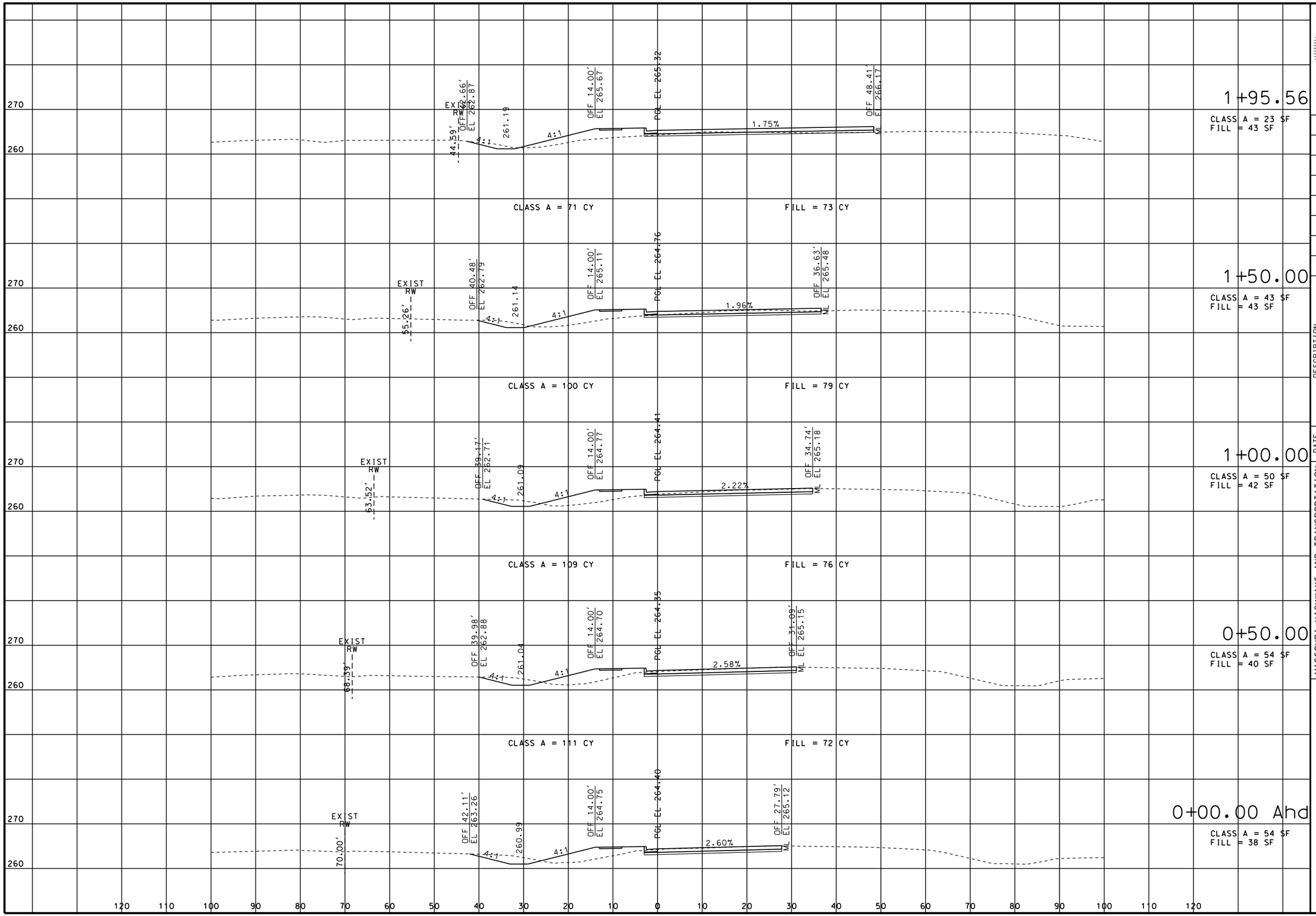
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 101 OF 113

RAEOPNW

REV.



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	102

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

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

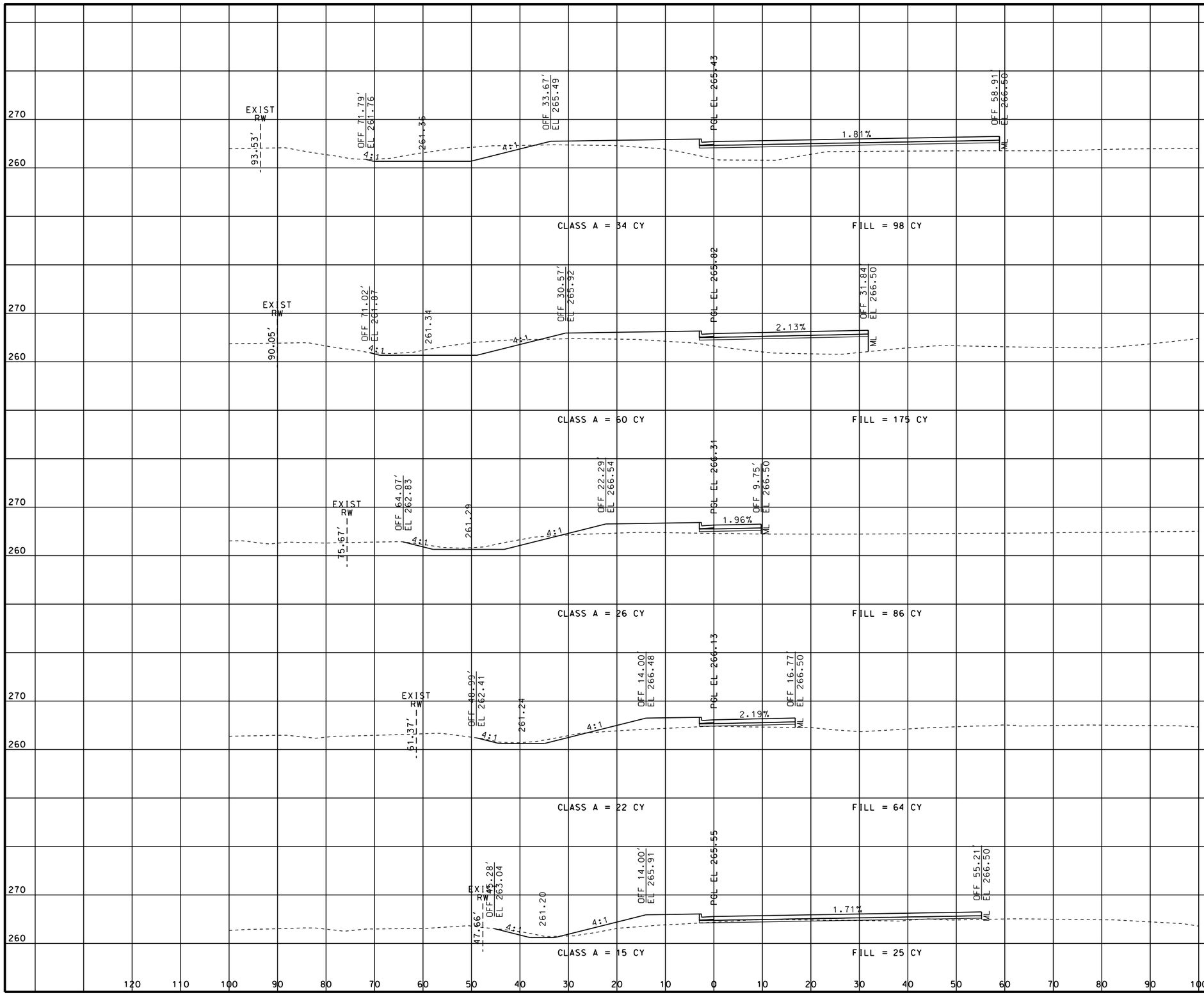
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 102 OF 113

RAEOPSE

REV.



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	103

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

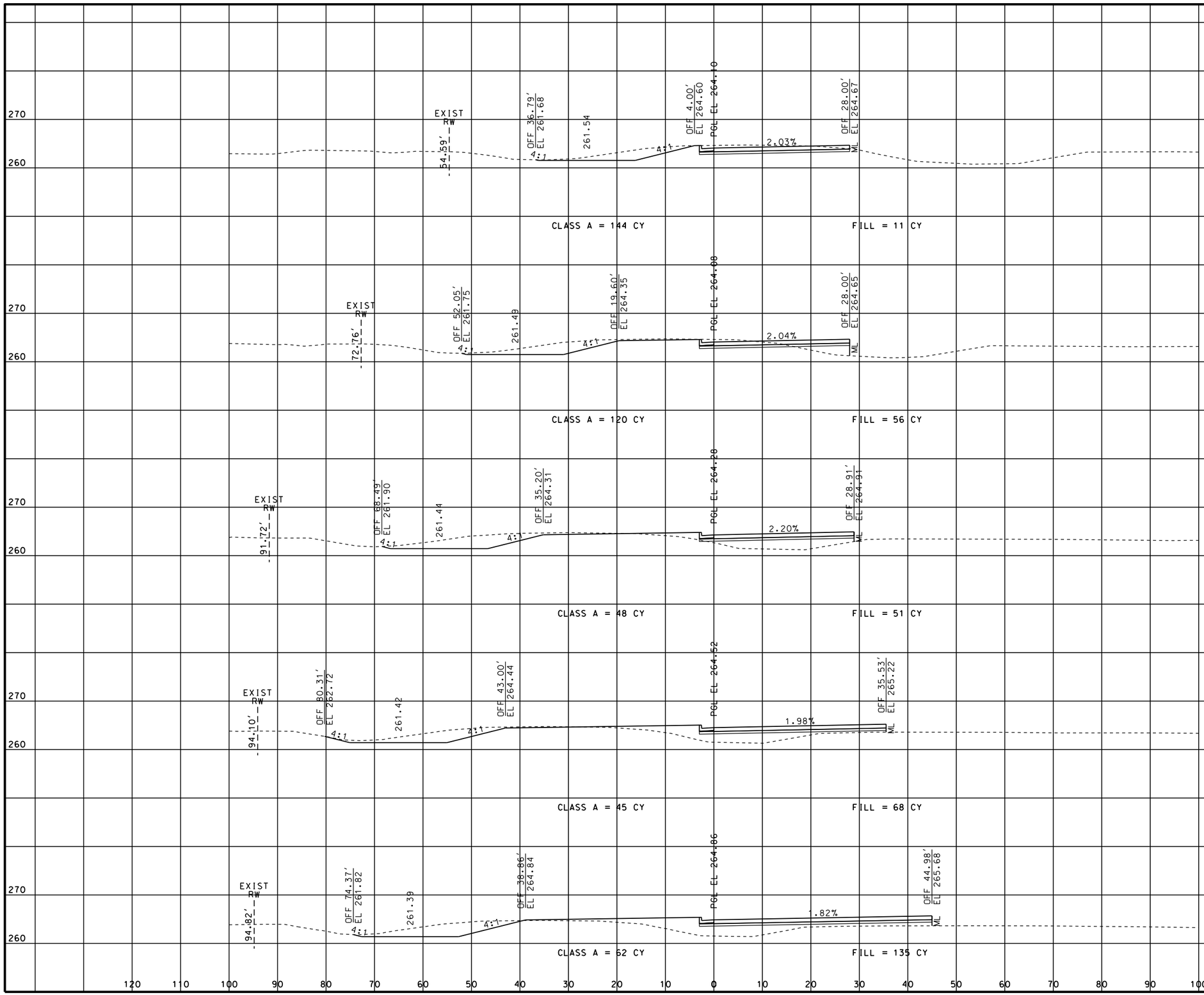
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

CROSS SECTIONS
SHEET 103 OF 113

RAEOPSE

REV.

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STATE OF MISSOURI
ERIC KRAPF
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ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	104

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

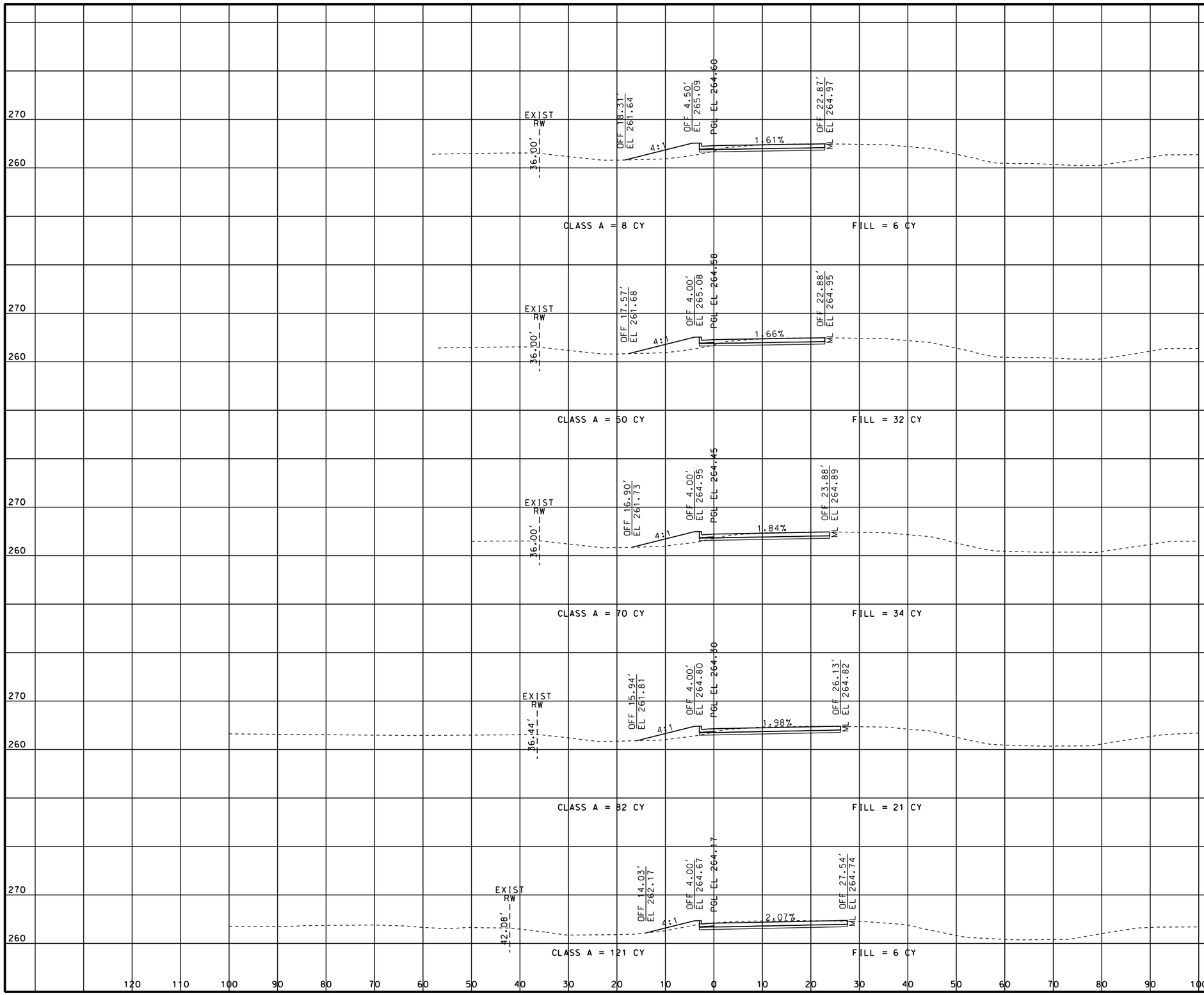
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

CROSS SECTIONS
SHEET 104 OF 113

RAEOPSE

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DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	105

COUNTY
DUNKLIN

JOB NO.
J9P3077

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BRIDGE NO.

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DATE

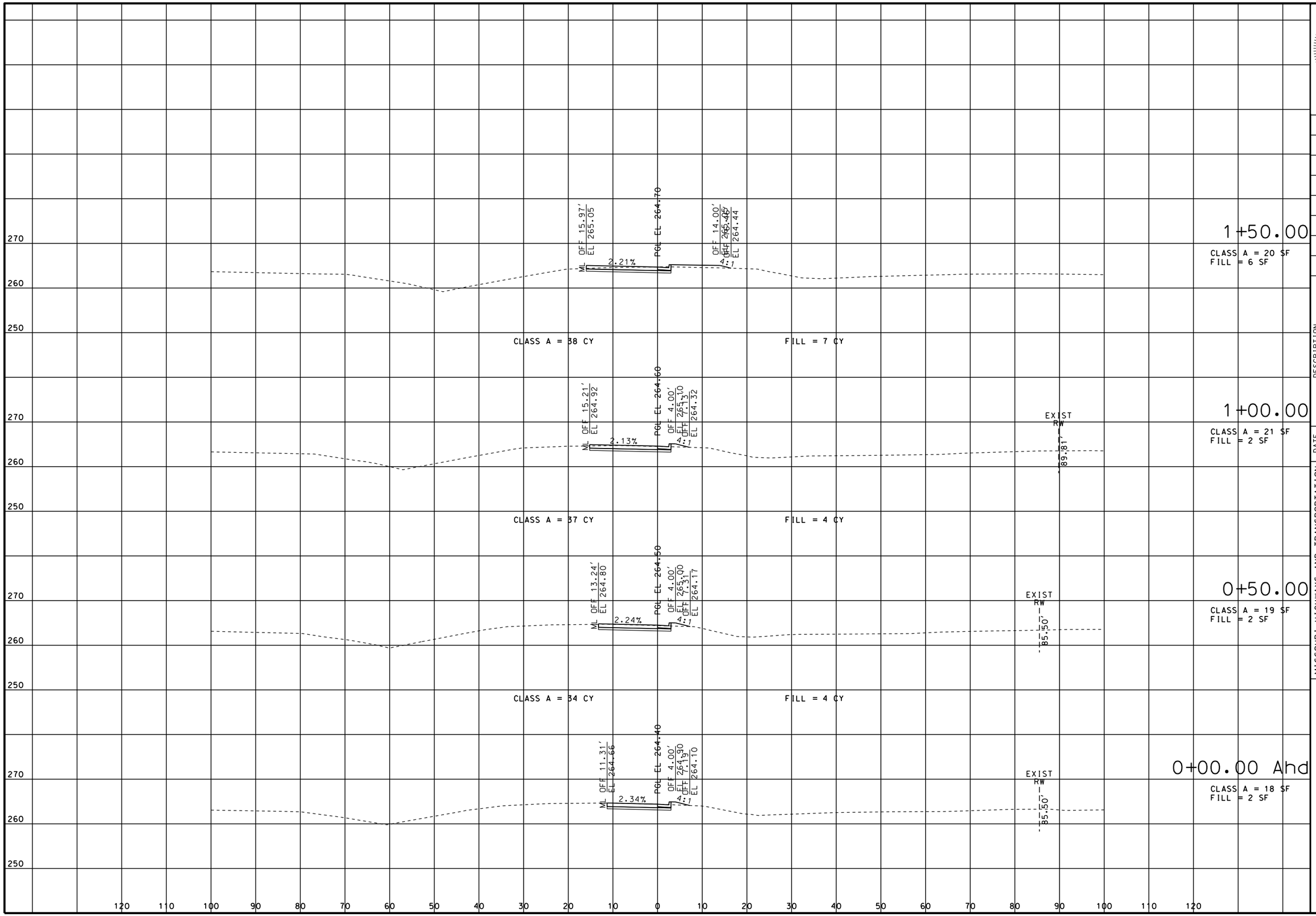
REV.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 105 OF 113

RAEOPSE



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	106

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

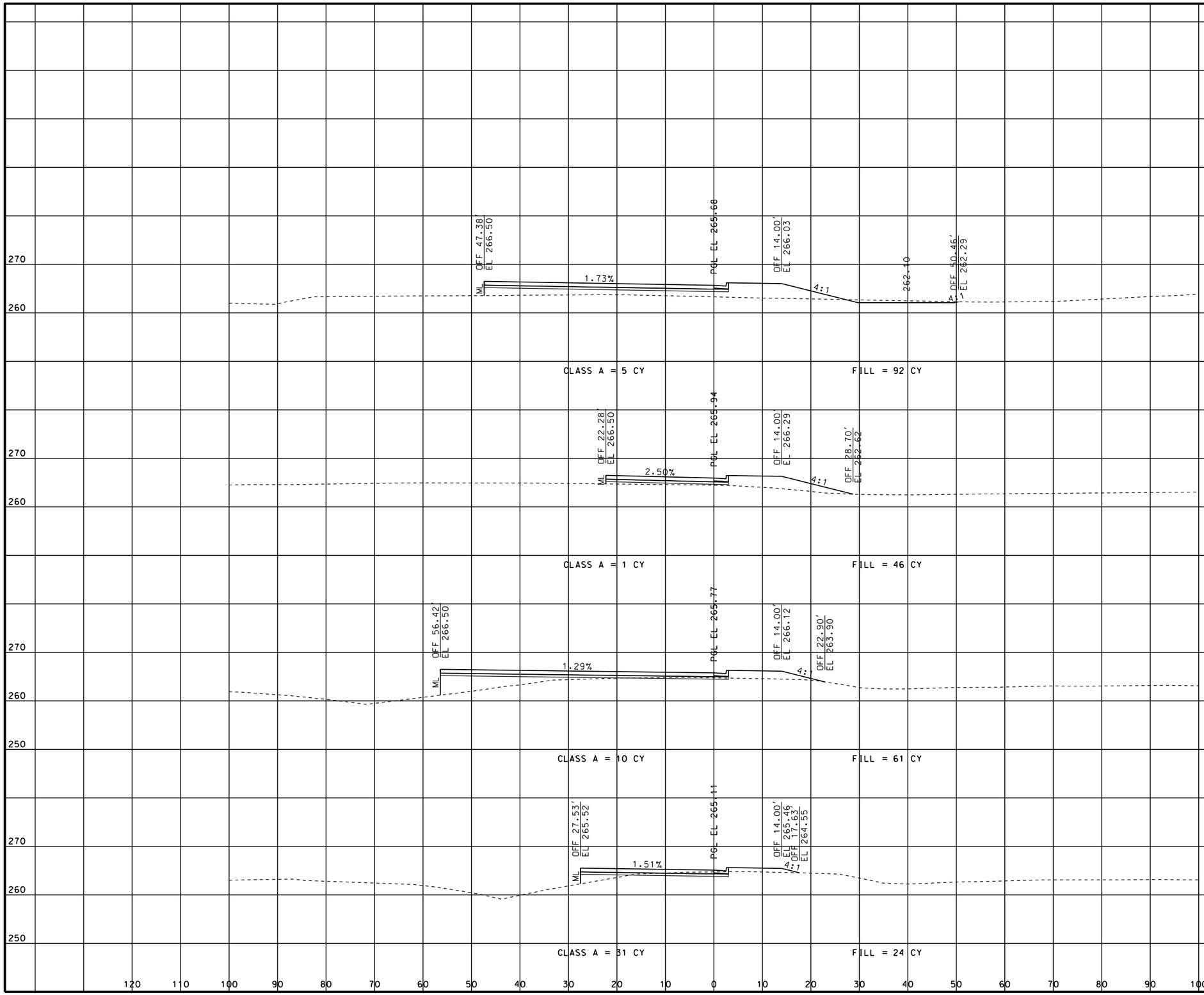
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

CROSS SECTIONS
SHEET 106 OF 113

RAEOPSW

REV.

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



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	107

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

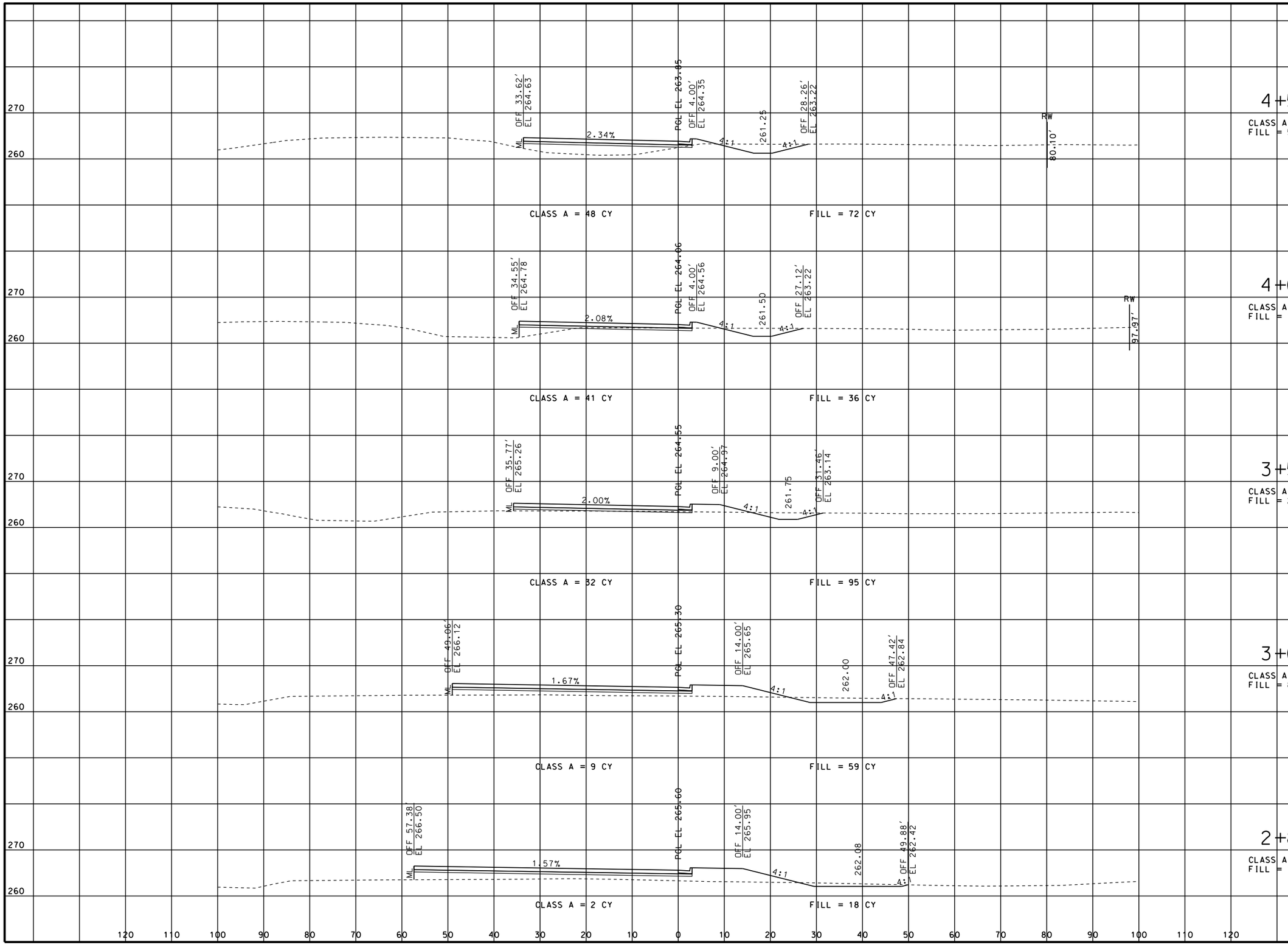
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

CROSS SECTIONS
SHEET 107 OF 113

RAEOPSW

REV.

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STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER
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DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	108

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

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

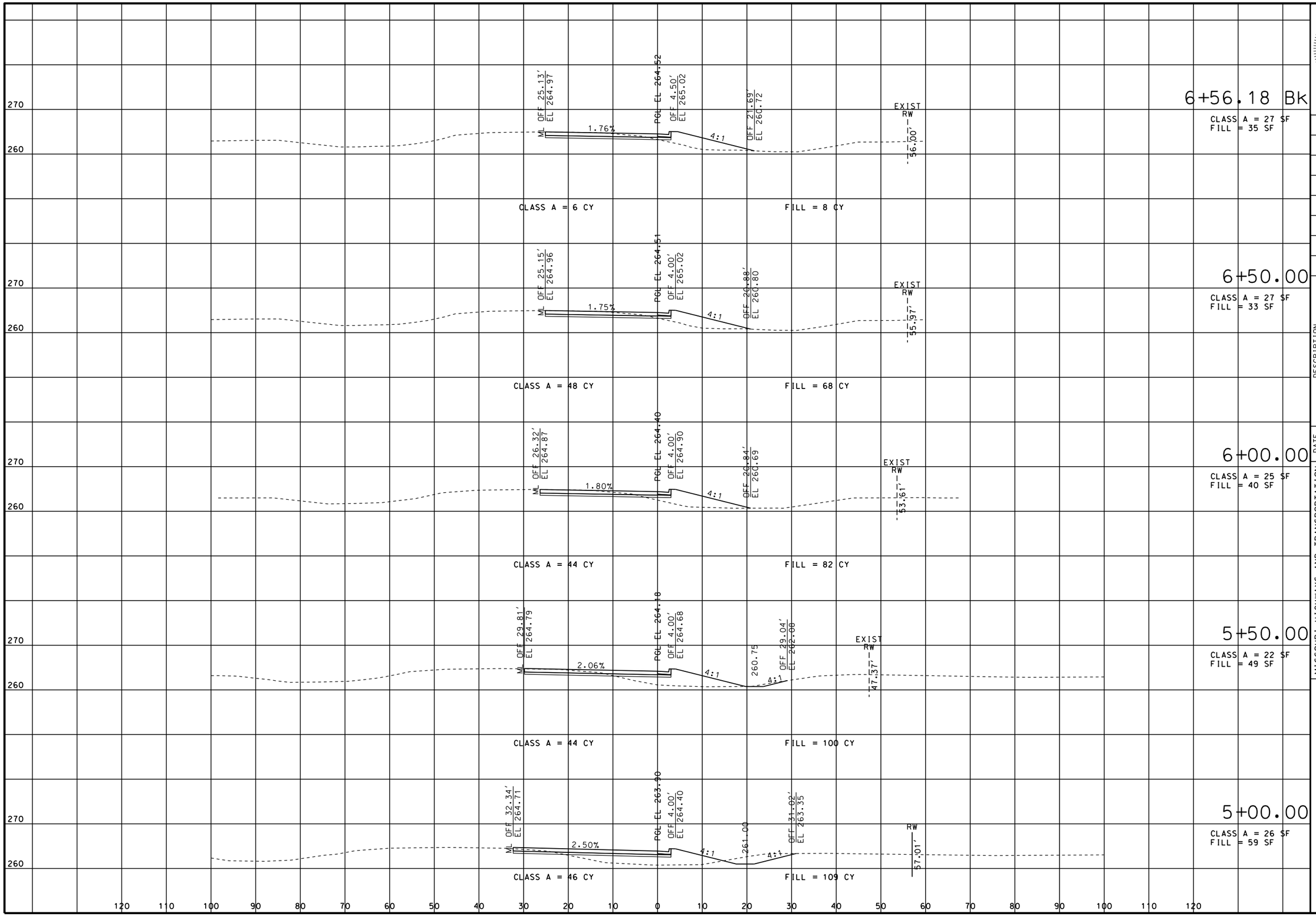
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 108 OF 113

RAEOPSW

REV.



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	109

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

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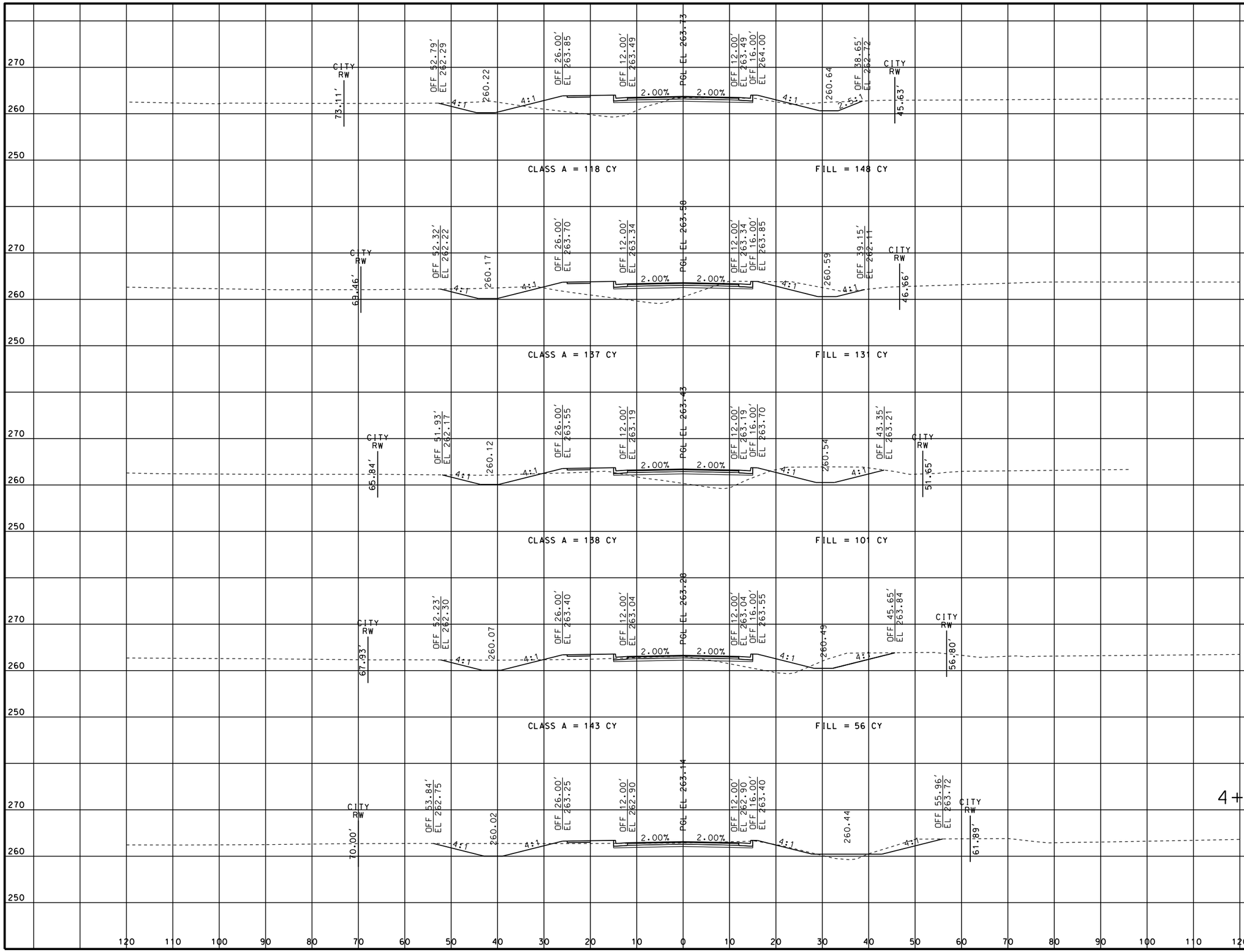
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 109 OF 113

RAEOPSW

REV.



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ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

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ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	110

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

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DESCRIPTION | DATE

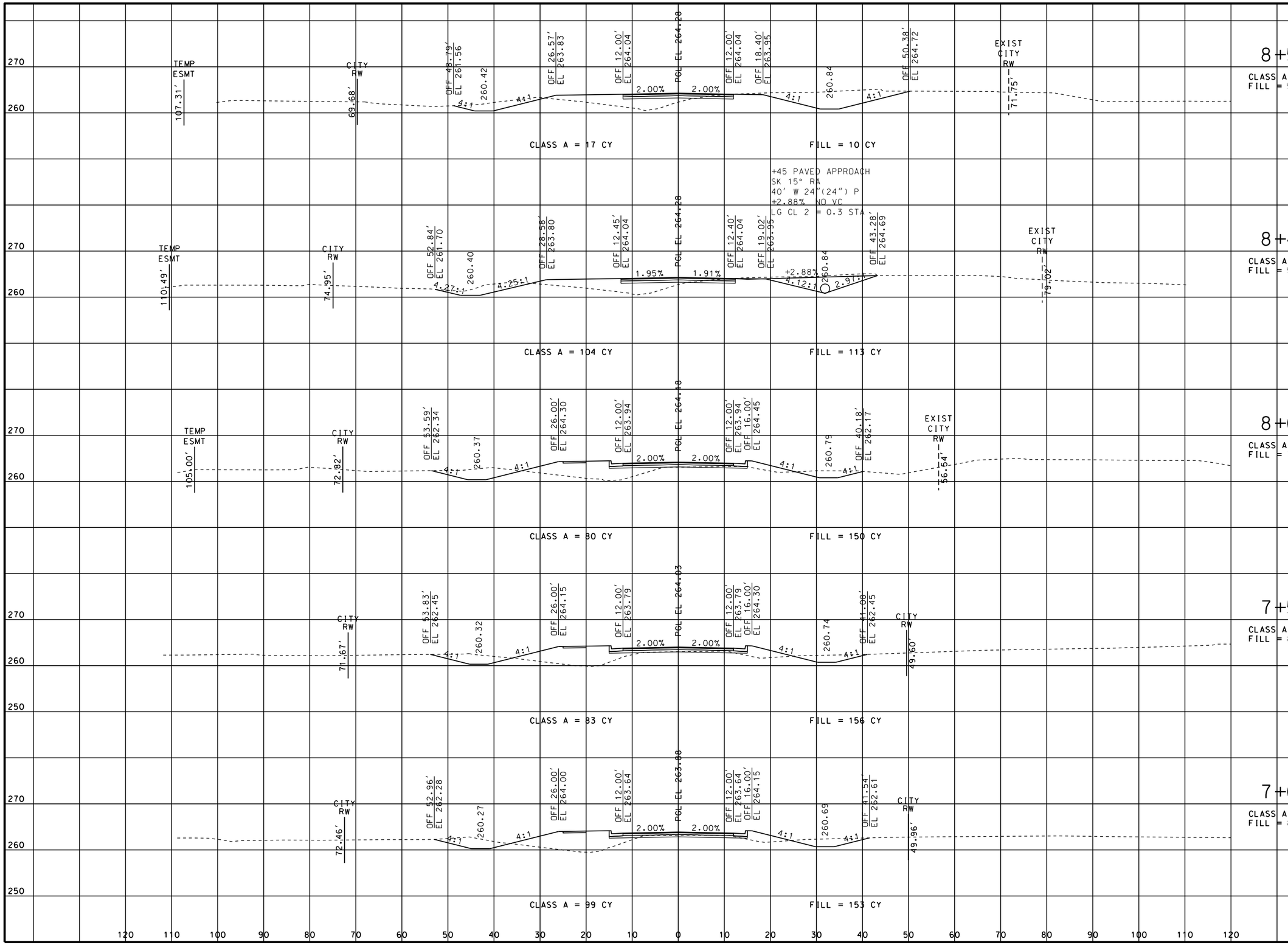
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 110 OF 113

KENNETT STREET

REV.



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED: 9/11/2014

ROUTE	STATE
412	MO

DISTRICT	SHEET NO.
SE	111

COUNTY: DUNKLIN

JOB NO.: J9P3077

CONTRACT ID.:

PROJECT NO.:

BRIDGE NO.:

DATE	DESCRIPTION

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

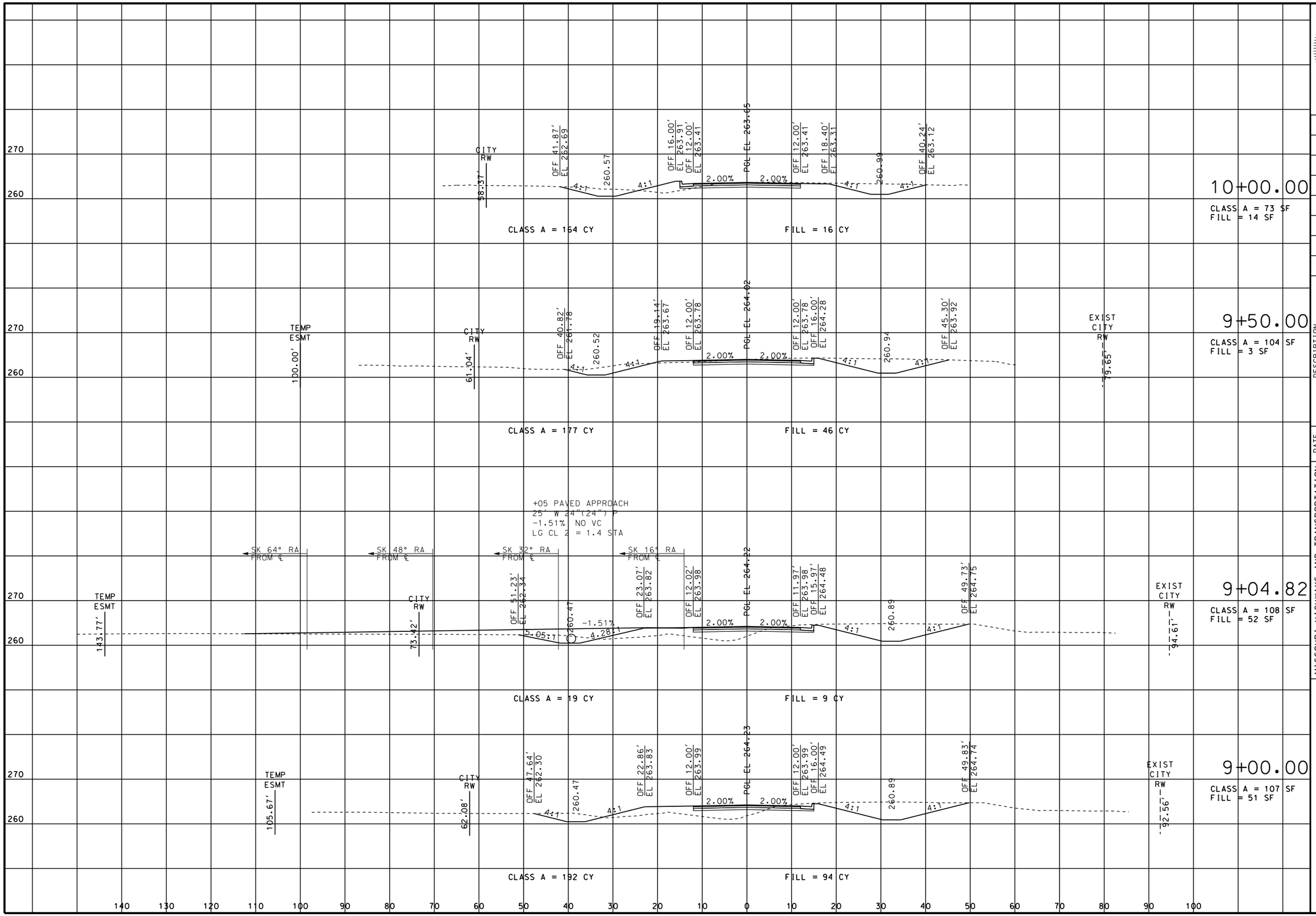
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 111 OF 113

KENNETT STREET

REV.



STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
PROFESSIONAL ENGINEER

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DATE PREPARED
9/11/2014

ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	112

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

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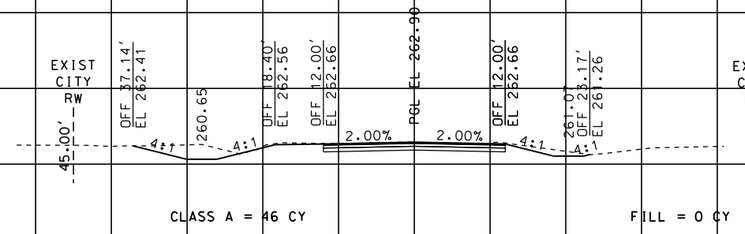
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 112 OF 113

KENNETT STREET

REV.

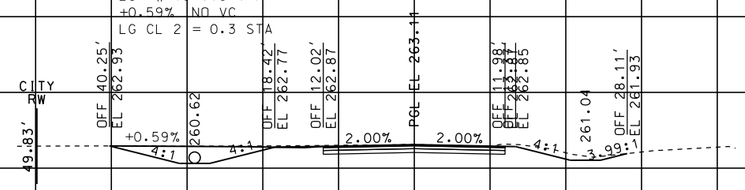


CLASS A = 46 CY

FILL = 0 CY

10+78.38 Bk

CLASS A = 48 SF
FILL = 0 SF

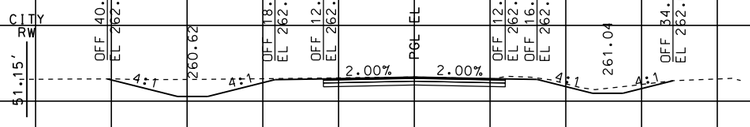


CLASS A = 16 CY

FILL = 0 CY

10+56.66

CLASS A = 66 SF
FILL = 0 SF

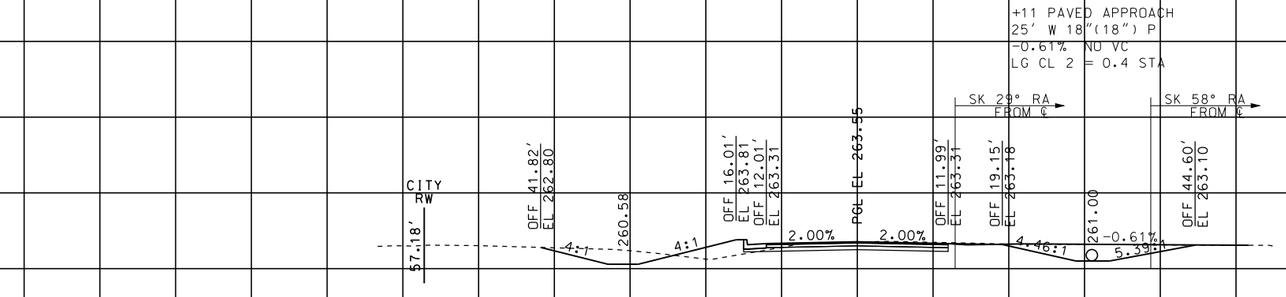


CLASS A = 104 CY

FILL = 9 CY

10+50.00

CLASS A = 66 SF
FILL = 0 SF



CLASS A = 31 CY

FILL = 6 CY

10+11.00

CLASS A = 78 SF
FILL = 13 SF

120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120

STATE OF MISSOURI
ERIC KRAPF
NUMBER E-30103
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DATE PREPARED
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ROUTE	STATE
412	MO
DISTRICT	SHEET NO.
SE	113

COUNTY
DUNKLIN

JOB NO.
J9P3077

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

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MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CROSS SECTIONS
SHEET 113 OF 113

KENNETT STREET

REV.

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