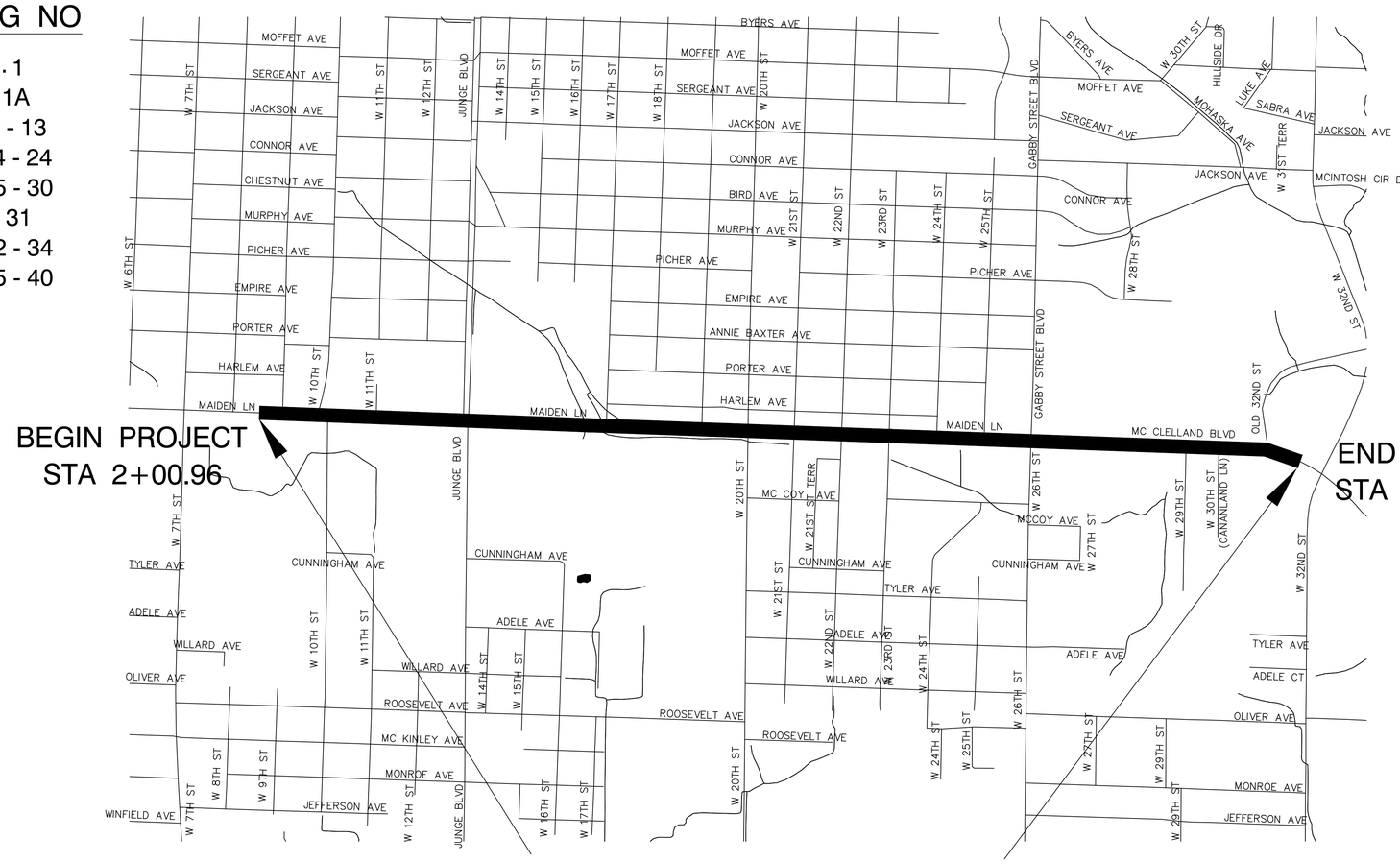
CITY OF JOPLIN
DESIGN PLANS FOR
MAIDEN LANE - 9TH ST TO 32ND ST
WIDEN EXISTING PAVEMENT TO 5 LANES
INSTALL NEW C & G, WALK, & HANDICAP RAMPS
INSTALL NEW TRAFFIC SIGNALS
INSTALL NEW STORM SEWER SYSTEM

INDEX OF SHEETS

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TITLE SHEET	1
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PROJECT LENGTH = 9863'

NTS



BEGIN PROJECT
STA 2+00.96

END PROJECT
STA 100+63.55

PROJECT LOCATION

EXISTING FEATURE LEGEND

CP=NAIL/PIN SET	YARD HYDRANT
IP=CROSS/PIN FND	MONITORING WELL
EM=ELECTRIC METER	SIG PULL BOX
PP=POWER POLE	SIG CONTROLLER
LP=LIGHT POLE	SIG BASE/ARM
GY=GUY/ANCHOR	SIG PED
OHE= OVERHEAD ELEC	TR=TREE
WM=WATER METER	TRAN=TRANSFORMER
WV=WATER VALVE	BUSH
W= WATER LINE	STUMP
FH=FIRE HYDRANT	PED=TELE PEDESTAL
SS= SAN SEWER LINE	UGT= UNDERGRND TELE
SIGN	GM=GAS METER
STM SEWER LINE	GV=GAS VALVE
MH=STM SEWER MH	G= GAS LINE
DROP INLET/GRATE	MH=SAN SEWER MH
MB=MAIL BOX	SWR CO=SEWER CLEANOUT

UTILITY NOTE

UTILITIES ARE LOCATED ON DRAWINGS BASED UPON AVAILABLE INFORMATION. THE NUMBER & LOCATION OF UTILITIES SHOWN ARE APPROXIMATE. CONTRACTOR SHALL CONTACT ALL UTILITIES & MISSOURI DIG RITE AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION & SHALL BE RESPONSIBLE FOR THE EXACT LOCATION & PRESERVATION OF ALL BURIED OR OVERHEAD UTILITY LINES.

ALL WORK SHALL CONFORM TO THE CITY OF JOPLIN STANDARD DRAWINGS & SPECIFICATIONS

MISSOURI ONE CALL SYSTEM, INC. 1-800-344-7483 STOP-CALL BEFORE YOU DIG

FEDERAL AID PROJECT
NO. TDG-3200(718)
PROJECT 1

CITY OF JOPLIN
PROJECT NO. 8304

CITY OF Joplin

CITY OF JOPLIN, MISSOURI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

ADDRESS: 602 S MAIN ST 64801
PH NO: 417-624-0820 EXT 530
FAX NO: 417-625-4738
E-MAIL: DHERTZBE@JOPLINMO.ORG

REV DATE:	REVISION:
9/26/2012	CREATED DWG

SVYD BY:	SPRENKLE
PNT FILE:	N/A
SVY DATE:	9/2006
ENGINEER:	HERTZBERG

ACAD DWG FILE & PATH NAME: MAIDENLANE2006\ML2006COVER

SCALES: N/A N/A

DWN BY:	STAFF
CKD BY:	BRADLEY
APD BY:	SCHALLER
DATE:	8/2012

PROJECT
WIDENING OF MAIDEN LANE
9TH ST TO 32ND ST - TITLE SHEET

PLAN NO: 8304

SHEET
1 of 40

Drainage Pipes

Sheet	Location From	Location To	14" x 23" HERCP w/Bedding L.F.	19" x 30" HERCP w/Bedding L.F.	24" x 38" HERCP w/Bedding L.F.	34" x 53" HERCP w/Bedding L.F.	12" RCP w/Bedding L.F.	15" RCP w/Bedding L.F.	18" RCP w/Bedding L.F.	21" RCP w/Bedding L.F.	24" RCP w/Bedding L.F.	30" RCP w/Bedding L.F.	36" RCP w/Bedding L.F.	42" RCP w/Bedding L.F.	14" x 23" TES Each	34" x 53" TES Each	19" x 30" TES Each	18" FES Each	24" FES Each	Conn. To Exist. Box Each	8" Conc. Pav't Repair S.Y.	Crushed Stone Backfill C.Y.	Remarks
2	Inlet 1	Inlet 2	100																				
	Inlet 2	Inlet 4A	55																		26.5	13	
	Inlet 3	Inlet 4	57																		27.7	13	
	Inlet 4A	Outlet Hdwl	53																				
	Inlet 4	Outlet Hdwl	53																				
	Inlet 5	Outlet Dt.							10									1					
	RR Dt.	Inlet 6	38												1								
	Inlet 6	Junct Box	12																	1			
2	Inlet 7	Outlet Dt.		74												1	1				32.5	17	
3	RR Pipe	Inlet 8					20																
	Inlet 7	Inlet 8		64																	39.7	20	
	Inlet 8	Inlet 9		22																			
	Inlet 9	Inlet 10		94																			
	Inlet 10	Inlet 11						50													19.5	9	
	Inlet 10	Inlet 12							456														
	Inlet 12	Inlet 13						50													19.5	9	
3 & 4	Inlet 12	Inlet 14A							372														
4	Inlet 14A	Inlet 14						213													68.6	31	
	Inlet 14	Inlet 15						33															
	Inlet 16	Inlet 17						41															
	Inlet 17	Inlet 18							44														
	Inlet 18	Exist. Pipe							13														
	Junct Box	Inlet 20							63											1			
	Inlet 20	Inlet 21							173														
	Inlet 21	Inlet 22							68												22.2	10	
	Inlet 22	Exist. Pipe							10														Includes Elbow
	Inlet 21	Inlet 23						280															
4	Inlet 23	Inlet 24						68													25.3	12	
4 & 6	Inlet 24	Inlet 25						288															
5	0+75 Ent.Pipe							54															
6	Inlet 25	Inlet 26						68													25.3	12	
	Sta. 32+/- Pipe Extension								35									2					
	Sta. 34+/- Pipe Extension										10								1				
	Inlet 27A	Outlet				52										1					34.7	19	
	Inlet 27A	Inlet 27B				87																	
	Inlet 27B	Inlet 27												164									
6 & 7	Inlet 27	Inlet 28												196									
7	Inlet 28	Inlet 30												158									
	Inlet 30	Inlet 31												174									
	Inlet 31	Inlet 33												96									
	Inlet 33	Inlet 34									28												
	Inlet 34	Inlet 35									32												
	Inlet 33	Inlet 36											122										
	Inlet 36	Exist. Pipe											135										
	Inlet 29	Inlet 32							280														
7	Inlet 32	Inlet 37						250															
8	Inlet 38	Junct Box									68									1			
	Inlet 40	Junct Box							14											1			
	Inlet 39	Exist. Pipe											10										Incls. Elbow
	Inlet 39	Inlet 42				67																	
	Junct Box 41	Inlet 44				75																	
	Inlet 44	Inlet 43							68												26.7	12	
	Inlet 43	Inlet 45						127															
	Inlet 44	Inlet 46											247										
	Inlet 46	Inlet 46A			90																42.6	23	
	Inlet 46A	Inlet 47		27																			
	Inlet 46	Inlet 48										96											
	Inlet 48	Inlet 50										166											
	Inlet 49	Inlet 50						68													25.3	12	
8 & 9	Inlet 50	Inlet 52A										247											
9	Inlet 51	Inlet 52						28															
	Inlet 52	Inlet 52B									27												
	Inlet 52B	Inlet 52A									68										29.3	14	
	Inlet 53	Inlet 54							57														
	Inlet 54	Inlet 55									364												
	Inlet 55	Inlet 56									32												
	Inlet 55	Inlet 57										79											
10	Inlet 57	Inlet 58										198											
	Inlet 58	Junct Box										14								1			
	Inlet 58	Inlet 59							140														
11	Inlet 60	Inlet 61							388														
	Inlet 61	Exist. Pipe								12													Incls. 2 Elbows
	Inlet 62	Exist. Pipe					14																Incls. 2 Elbows
	Exist. Pipe	Inlet 63								12													Incls. 2 Elbows
11	Inlet 63	Exist. Pipe								12													
		Totals	368	281	90	281	34	1618	2191	36	629	800	514	788	1	2	1	3	1	5	465.4	226	

Concrete Driveways & Gutter Crossings

Location		Width	6" Conc. (Fiber Reinf.) w/2" Base S.Y.	8" Conc. (Fiber Reinf.) w/2" Base S.Y.	8" Conc. Gutter Xing (Fiber Reinf.) w/4" Base S.Y.	Type O Integral Curb L.F.
9th Street	Lt				49.2	
5+58	Lt	16		26.7		
6+43	Lt	30		42.2		
7+93	Lt	15		25.6		
9+83	Rt	18		28.9		
12+60	Lt	30		42.2		
14+41	Rt	30		42.2		
17+63	Rt	33		45.6		
23+05	Lt	32		44.4		
26+35	Lt	25		36.7		
26+67	Lt	22		33.3		
0+13 13th St.	Rt	40		53.3		
5+83 Junge Blvd.	Lt	21		32.2		
28+12	Rt	22		33.3		
28+92	Lt	30		42.2		
29+57	Lt	40		53.3		
31+01	Lt	45		58.9		
32+86	Lt	18		28.9		
33+09	Rt	22		33.3		
36+34	Lt	14	24.4	24.4		
38+05	Lt	10	20.0	20.0		
39+55	Lt	10	20.0			
40+00	Lt	10	20.0			
41+15	Lt	10	20.0			
42+00	Rt	42		55.6		
42+55	Lt	10	20.0			
19th Street	Lt				37.5	
44+54	Rt	39		52.2		
45+33	Rt	44		57.8		
46+26	Lt	10	20.0			
20th Street NE	Lt	30		42.2		
50+34	Rt	32		44.4		
50+82	Lt	10	20.0	20.0		
51+22	Lt	28	40.0			
21st Street	Lt		8.9		34.7	
53+50	Rt	37		50.0		
54+28	Lt	10	20.0			
55+31	Lt	10	20.0			
55+81	Lt	10	20.0			
22nd Street	Lt				34.7	
58+11	Lt	10	20.0			
58+79	Lt	10	20.0			
59+29	Lt	10	20.0			
23rd Street	Lt				34.7	
63+10	Lt	15	25.6			
63+69	Lt	10	20.0			
64+75	Lt	10	20.0			
24th Street	Lt				34.7	
67+10	Rt	24		35.6		
68+77	Rt	36		48.9		
70+27	Rt	24		35.6		
70+89	Rt	24		35.6		
72+21	Rt	24		35.6		
77+98	Rt	32		44.4		
78+50	Rt	24		35.6		
79+52	Rt	32		44.4		
N. School Ent.	Lt			200.0		100
29th Street	Rt				34.7	
S. School Ent.	Lt			95.0		60
90+68		25		36.7		
Old 32nd Street					45	
93+38		24		35.6		
98+41		23		34.4		
98+87		30		42.2		
100+38		32		44.4		
		Totals	398.9	1873.9	305.2	160

Curb and Gutter

Sheet	Sta.		Sta.	Length	Drop Inlet Exceptions L.F.	Standard Upright C & G (Fiber Reinf.) w/4" Base L.F.
2	2+00.96	3+36.66	Lt	135.7		136
2	9th Street			77.0		77
	4+14.62	6+80.07		265.5	8	257
	10th Street			29.0	12	17
	Between RR Crossings		Lt	57.0	8	49
	6+62.28	RR	Rt	53.0	8	45
	10th Street			134.0		134
3	8+63.	18+00.	Lt	937.0	18	919
	8+37.36	18+00.	Rt	962.6	16	947
4	18+00.	RR	Lt	78.0	8	70
	RR	20+32.88		25.0		25
	22+20.11	28+00.		579.9	44	536
	18+00.	20+52.52	Rt	252.5		253
	RR	28+00.		450.0	30	420
5	2+00.	2+89.84	Lt	89.8	16	74
	Radius NW Quad			94.0	12	82
	Radius NE Quad			117.0		117
	4+82.46	5+50.		67.5		68
	5+50.	Existing		177.0	8	169
	Center Island			70.0		70
	2+00.	2+86.29	Rt	86.3	16	70
	Radius SW Quad.			94.0	16	78
	Radius SE Quad			117.0		117
6	28+00.	34+00.34		600.3	14	586
	17th Street			99.0		99
	34+79.45	37+50.		270.6	26	245
	28+00.	32+93.46		493.5	14	479
7	37+50.	43+05.9		555.9	28	528
	19th Street			62.0		62
	43+75.28	46+74.11		298.8	12	287
	39+44.3	46+78.44		734.1	32	702
8	20th Rad. NE Quad		Lt	141.0	24	117
	20th Rad. SE Quad			141.0	16	125
	49+13.05	51+86.45		273.4	24	249
	21st Street			62.0		62
	52+51.22	56+36.44		385.2	14	371
	22nd Street			62.0		62
	20th Rad. NW Quad		Rt	141.0	8	133
	20th Rad. SW Quad.			141.0	8	133
	49+17.4	51+75.41		258.0	12	246
	21st Street			77.0		77
	52+55.32	56+30.38		375.1	28	347
	22nd Street			31.0		31
9	56+94.44	60+89.59	Lt	395.2	16	379
	23rd Street			53.0		53
	61+49.43	65+31.63		382.2	28	354
	24th Street			62.0		62
10	66+01.36	68+76.27	Lt	274.9	32	243
	Park Entrance			92.0		92
	69+65.51	72+44.6		279.1	14	265
11	76+92.94	81+94.51	Lt	501.6	16	486
	76+92.94	85+50.	Rt	857.1	16	841
12	87+05.59	87+66.01		60.4		60
	88+92.03	92+96.5	Lt	404.5	20	384
	93+80.5	95+00.		119.5		120
	Mercy Parking Lot			76.0		76
	85+50.	88+97.82	Rt	347.8	24	324
	29th Street			62.0		62
	89+61.66	91+55.34		193.7		194
13	95+00.	96+71.23	Lt	171.2		171
	Old 32nd Street			102.0		102
	97+52.54	100+63.55		311.0		311
			Totals			14250

Sidewalk & ADA Ramps

Sheet	Location			L.F.	Driveway Exceptions L.F.	Drop Inlet Exceptions L.F.	ADA Ramp Exceptions L.F.	Sidewalk Length L.F.	4" Conc. Sidewalk (6' ft.) Fiber Reinf. w/2" Base S.Y.	Poured Conc. Sidewalk Wall L.F.	Type A ADA Ramps Each	Type B ADA Ramps Each	Type C ADA Ramps Each	Truncated Domes (2' X 5") Each	Remarks
2	9th Street			77.0			34	43.0	28.7			2			
	4+14.62	6+80.07	Lt	265.5	66	8	17	174.5	116.3			1			
	10th Street			29.0		12	17	0.0	0.0			1		3	
	Between RR Crossings		Lt	57.0	22	8	17	10.0	6.7			1			
	6+62.28	RR	Rt	53.0		8	17	28.0	18.7			1			
	10th Street			134.0		8	17	109.0	72.7			1		4	
3	8+63.	18+00.	Lt	937.0	40	18	17	862.0	574.7			1			
	8+37.36	18+00.	Rt	962.6	111	16	17	818.6	545.8			1			
4	18+00.	RR	Lt	78.0		8		70.0	46.7					10	
	RR	20+32.88		25.0				25.0	16.7						
	22+20.11	28+00.		579.9	109	44		426.9	284.6						
	18+00.	20+52.52	Rt	252.5				252.5	168.3						
	RR	28+00.		450.0		30		420.0	280.0					10	
5	2+00.	2+89.84	Lt	89.8		16		73.8	49.2						
	Radius NW Quad			94.0		12	30	52.0	34.7		1				
	Radius NE Quad			117.0			30	87.0	58.0		1				
	2+00.	2+86.29	Rt	86.3		16		70.3	46.9						
	Radius SW Quad.			94.0		16	30	48.0	32.0		1				
	Radius SE Quad			117.0			30	87.0	58.0		1				
	4+87.95	7+00 +/-		204.0				204.0	136.0				1		
6	28+00.	34+00.34	Lt	600.3	173	14		413.3	275.6						
	17th Street			99.0		14	34	51.0	34.0			2			
	34+79.45	37+50.		270.6	24	26		220.6	147.0						
	28+00.	32+93.46	Rt	493.5	32	14		447.5	298.3						
	32+93.46	37+50.	Rt	456.5	91		17	348.5	232.4			1	2		
7	37+50.	43+05.9	Lt	555.9	90	28		437.9	291.9						
	19th Street			62.0			34	28.0	18.7			2			
	43+75.28	46+74.11		298.8	20	12		266.8	177.9						
	37+50.	46+78.44	Rt	928.4	275	32	24	597.4	398.3				4		
8	20th Rad. NE Quad		Lt	141.0		24		117.0	78.0			1		3	
	20th Rad. SE Quad			121.0		16	34	71.0	47.3			1		3	
	49+13.05	51+86.45		273.4	58	24		191.4	127.6						
	21st Street			62.0			34	28.0	18.7			2			
	52+51.22	56+36.44		385.2	60	14		311.2	207.5						
	22nd Street			62.0			34	28.0	18.7			2			
	20th Rad. NW Quad		Rt	141.0		8	34	99.0	66.0			1		3	
	20th Rad. SW Quad.			141.0		8	34	99.0	66.0			1		3	
	49+17.4	51+75.41		258.0	42	12		204.0	136.0						
	21st Street			77.0			34	43.0	28.7			2			
	52+55.32	56+30.38		375.1	47	28		300.1	200.0						
	22nd Street			31.0			17	14.0	9.3			1			
9	56+94.44	60+89.59	Lt	395.2	60	16		319.2	212.8						
	23rd Street			53.0			34	19.0	12.7			2			
	61+49.43	65+31.63		382.2	65	28		289.2	192.8	377.0					
	24th Street			62.0			34	28.0	18.7			2			
9	22nd Street	66+50.	Rt	568.0				568.0	315.6			1	9		5' Wide Sidewalk
10	66+01.36	68+76.27	Lt	274.9		32		242.9	161.9						
	Park Entrance			92.0			34	58.0	38.7			2	2		
	69+65.51	73+89.		423.5		14		409.5	273.0						
	66+50.	26th Street	Rt	551.0			17	534.0	296.7						5' Wide Sidewalk
11	72+18.	84+36.	Lt	1218.0		32		1186.0	790.7				1		
	26th Street	85+50.	Rt	927.0	118	16	17	776.0	517.3			1	4		
12	85+12.	N. School Ent.	Lt	264.0		16		248.0	165.3				1		
	S. School Ent.	92+96.5	Lt	416.0		20		396.0	264.0			2			
	93+80.5	95+00.		119.5			34	85.5	57.0			2			
	85+50.	88+97.82	Rt	347.8		24		323.8	215.9						
	29th Street			62.0			34	28.0	18.7			2			
	89+61.66	30th Street		203.0	35			168.0	112.0				3		
13	95+00.	96+71.23	Lt	171.2				171.2	114.2						
	Old 32nd Street			102.0			34	68.0	45.3				2		
	97+52.54	32nd Street	Lt	446.0	115			331.0	220.7						
	30th Street	32nd Street	Rt	704.0			17	687.0	458.0			1	9	2	
								Totals	9954.0	377.0	4	40	38	41	

PAVEMENT MARKINGS

			Acrylic Waterborne Pavement Marking Paint					Preformed Marking Tape (Grooved)							
Location	to	Location	4" White L.F.	4' Yellow L.F.	6" White L.F.	24" White L.F.	24" Yellow L.F.	Left Arrow Each	Right Arrow Each	Straight Arrow Each	Straight/Right Arrow Each	Straight/Left Arrow Each	Railroad Symbol Each	Bike Symbol Each	Bike Lane Arrow Each
9th Street		32nd Street	15335	24632	5560	394	171	100	2	8	10	2	8	46	46
		Totals	15335	24632	5560	394	171	100	2	8	10	2	8	46	46

DEMOLITION, CLEARING & GRUBBING & MAILBOXES

Sheet	Remove Existing Curb & Gutter L.F.	Remove Existing Drainage Pipes Each	Remove Existing Drainage Structures Each	Remove existing Concrete Pavement S.Y.	Plug Existing Drainage Pipes Each	Existing Signal Equipment Lump Sum	All Other Removals Lump Sum	Clear & Grubb Incl. Tree Removal Lump Sum	Remarks
2	850	6	6		5		1		
3	950						1		
4	2000	2	3	120	3	1	1		
5	575						1		
6	1520						1		
7	1900	2	2				1		
8	2100	9	7			1	1		Incls. 700' +/- of exist. Str.
9	1200						1		
10	650						1		
11	1700	2	2	70			1		
12	2150						1		
13	250						1		
Totals	15845	21	20	190	8	1	1	1	

LUMP SUM 1

MOBILIZATION

LUMP SUM		1	

SEEDING, FERTILIZATING AND MULCHING

Total		7	Acres

EXCAVATION

Location	Unclassified Excavation C.Y.	Embankment C.Y.	Removal of Unsuitable Material C.Y.*	Backfill of Unsuitable Material C.Y.*	Linear Grading Sta.	Linear Grading for Sidewalk Sta.
Project Total	16407	1640	1500	1500	2.1	3.4
Totals	16407	1640	1500	1500	2.1	3.4

* Estimate @ 750 C.Y. per Mile

DRAINAGE STRUCTURES

Location		4' x 4' Type C (3' to 4' Depth)	4' x 4' Type D (3' to 4' Depth)	4' x 4' Type D (4' to 5' Depth)	4' x 4' Field Inlet (2' to 3' Depth)	4' x 6' Type C (3' to 4' Depth)	4' x 6' Type D (3' to 4' Depth)	4' x 6' Type C (4' to 5' Depth)	4' x 6' Type D (4' to 5' Depth)	4' x 8' Type C (3' to 4' Depth)	4' x 8' Type D (3' to 4' Depth)	4' x 8' Type C (4' to 5' Depth)	4' x 8' Type D (4' to 5' Depth)	5' x 6' Type D (4' to 5' Depth)	5' x 6' Type D (5' to 6' Depth)	5' x 8' Type C (3' to 4' Depth)
5+75.7	Lt									1						
6+85.	Lt					2										
6+98.9	Rt	1														
7+06.7	Rt	1														
7+44.7	Rt	1														
7+55.	Lt															
7+67.6	Lt															
8+31.6	Rt															1
8+82.	Lt															
9+05.3	Lt															
10+05.	Lt															
10+05.	Rt									1						
14+70.6	Lt									1						
14+70.6	Rt									1						
18+55.1	Lt											1				
20+64.	Rt		1													
20+78.	Rt				1											
2+82.8	Lt										1					
2+79.3	Rt												1			
21+68.3	Rt												1			
6+17.8	Lt										1					
22+27.1	Lt										1					
24+05.6	Lt						1									
24+05.6	Rt										1					
26+95.	Lt						1									
26+95.	Rt						1									
29+92.	Lt						1									
29+92.	Rt						1									
34+86.	Lt															
17th St.	Rt															
36+55.	Lt															
38+56.8	Lt															
38+38.2	Rt															
39+47.	Rt					1										
40+20.	Lt															
42+00.	Lt															
42+35.	Rt						1									
43+00.	Lt															
19th St.	North								1							
19th St.	South												1			
44+25.	Lt															
44+90.	Rt		1													
20th East	North			1									1			
20th West	North															
20th East	South									1						
20th West	SW Rad															
20th West	South															
49+18.1	Lt		1													
49+21.4	Rt															
50+50.	Lt		1													
51+73.4	Rt															
21st St.	North															
21st St.	South						2									
52+73.	Rt													1		
54+45.	Lt						1									
54+45.	Rt													1		
22nd St.	North						1									
22nd St.	South							2								
56+99.	Lt												1			
56+99.	Rt											1				
23rd St.	North						1									
61+57.5	Lt										1					
65+25.7	Lt														1	
24th St.	North												2			
66+14.4	Lt															
68+25.	Lt															
69+71.5	Lt						1									
79+74.4	Lt										1					
83+73.	Lt												1			
83+73.3	Rt										1					
85+54.	Lt												1			
89+93.	Lt															
91+25.	Lt		1								1					
Totals		3	5	1	1	3	12	2	1	5	8	2	9	2	1	1

Location		5' x 8' Type C (4' to 5' Depth)	5' x 8' Type D (4' to 5' Depth)	6' x 8' Type C (3' to 4' Depth)	6' x 4' Type C (5' to 6' Depth)	6' x 4' Type D (5' to 6' Depth)	6' x 6' Type D (5' to 6' Depth)	5' x 4' Type D (5' to 6' Depth)	5' x 4' Type C (4' to 5' Depth)	6' x 8' Type C (5' to 6' Depth)	7' x 8' Type C (4' to 5' Depth)	5' x 5' Junc. Box (3' to 4' Depth)	6' x 5' Junc. Box (6' to 7' Depth)	7' x 7' Junc. Box (4' to 5' Depth)	Modify D.I. to Junct. Box	Remodel Type C Inlet Each.
5+75.7	Lt															
6+85.	Lt															
6+98.9	Rt															
7+06.7	Rt															
7+44.7	Rt															
7+55.	Lt														1	
7+67.6	Lt			1												
8+31.6	Rt															
8+82.	Lt											1				
9+05.3	Lt			1												
10+05.	Lt											1				
10+05.	Rt															
14+70.6	Lt															
14+70.6	Rt															
18+55.1	Lt															
20+64.	Rt															
20+78.	Rt															
2+82.8	Lt															
2+79.3	Rt															
21+68.3	Rt															
6+17.8	Lt															
22+27.1	Lt															
24+05.6	Lt															
24+05.6	Rt															
26+95.	Lt															
26+95.	Rt															
29+92.	Lt															
29+92.	Rt															
34+86.	Lt						1									
17th St.	Rt									1						
36+55.	Lt					1										
38+56.8	Lt				1											
38+38.2	Rt															1
39+47.	Rt															
40+20.	Lt					1										
42+00.	Lt					1										
42+35.	Rt															
43+00.	Lt												1			
19th St.	North															
19th St.	South															
44+25.	Lt							1								
44+90.	Rt															
20th East	North															
20th West	North	1														
20th East	South															
20th West	SW Rad													1		
20th West	South										1					
49+18.1	Lt															
49+21.4	Rt										1					
50+50.	Lt															
51+73.4	Rt								1							
21st St.	North															1
21st St.	South															
52+73.	Rt															
54+45.	Lt															
54+45.	Rt															
22nd St.	North															
22nd St.	South															
56+99.	Lt															
56+99.	Rt															
23rd St.	North															
61+57.5	Lt															
65+25.7	Lt															
24th St.	North															
66+14.4	Lt		2													
68+25.	Lt	1														
69+71.5	Lt															
79+74.4	Lt															
83+73.	Lt															
83+73.3	Rt															
85+54.	Lt															
89+93.	Lt															1
91+25.	Lt															
Totals		2	2	2	1	3	1	1	1	1	2	2	1	1	1	3

WIDENING AND SURFACING

Location	Existing Pavement S.F.	Widening S.F.	Side Streets	Crushed Stone Base (8" Thick) S.Y.	Asph. Conc. Base 8" Thick Ton *	Asph Conc. Surface 2" Thick Ton *	Asph Conc. Surface 4" Thick Ton *	Paving Mat S.Y.	Cold Mill 2" Depth S.Y.	Prime Gal. **	Tack Gal. ***	Saw Cut L.F.	Adjust Manhole Each #	Remarks
Maiden Lane - 9th St. to 17th St.	233037	28332		3148	1390.0	3205.8		25893	25893	1102	1452	5940	5	
Shoulder at Railroad		600		67	29.4	7.4				23				
9th Street			546	546			13.4							
Shoulder at Railroad		1500		167	73.6	18.4				58				
Maiden Lane - 17th St. to 26th St.	137533	66817		7424	3278.2	2506.4		15281	15281		1135	8850	5	
19th Street			1408	1408			34.5							
21st Street			630	630			15.5							
22nd Street			567	567			13.9							
23rd Street			504	504			12.4							
24th Street			1066	1066			26.1							
Walking Trail Relocation		750		83		9.2				29				6" Stone Base
Maiden Lane - 26th St. to 32nd St.	119703	26625		2958	1306.3	1794.8		13300	13300		813	7200	5	
29th Street			357	357			8.8							
Old 32nd Street			2400	2400			58.9							
			Totals	21325	6077.5	7542.0	183.4	54475	54475	1213	3400	21990	15	
													(# est)	

* Est. @ 1.987 Tons/C.Y.
** Est. @ 0.25 Gal/S.Y.
*** Est. @ 0.05 Gal/S.Y.

FEDERAL AID PROJECT
NO. TDG-3200(718)
PROJECT 1

CITY OF JOPLIN
PROJECT NO. 8304

CITY OF Joplin

CITY OF JOPLIN, MISSOURI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

ADDRESS: 602 S MAIN ST 64801
PH NO: 417-624-0820 EXT 530
FAX NO: 417-625-4738
E-MAIL: DHERTZBE@JOPLINMO.ORG

REV DATE:	REVISION:
9/26/2012	CREATED DWG


SVYD BY:	SPRENKLE
PNT FILE:	N/A
SVY DATE:	9/2006
ENGINEER:	HERTZBERG

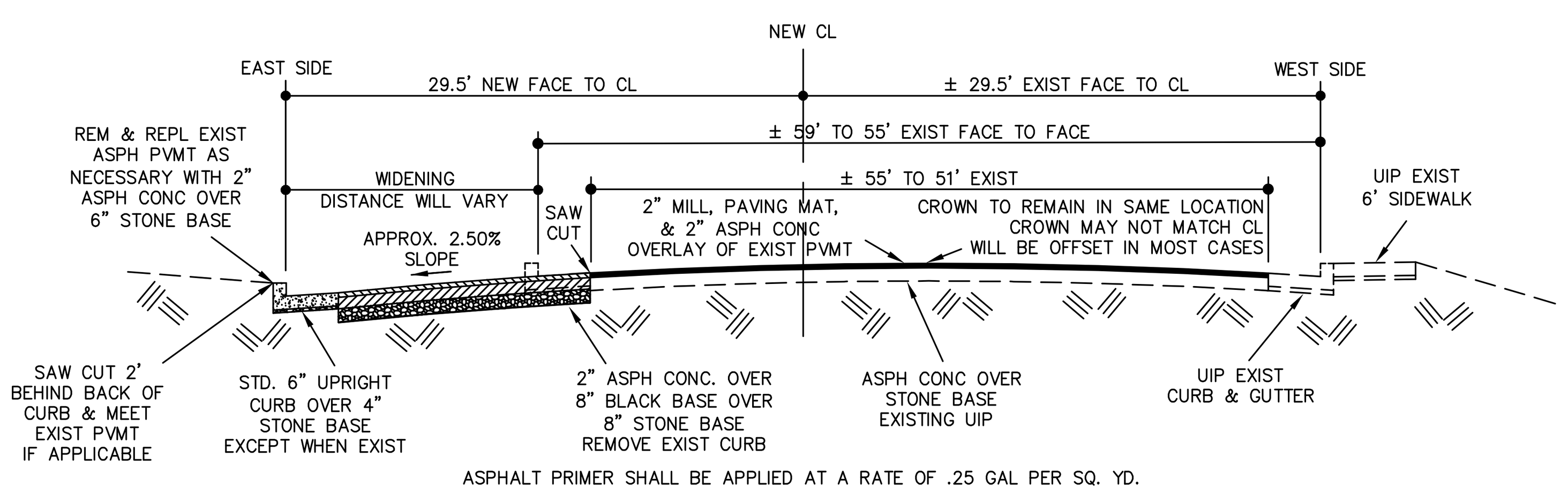
ACAD DWG FILE & PATH NAME:
MAIDENLANE2006\ML2006QUANTITIES
SCALES: N/A N/A

DWN BY:	STAFF
CKD BY:	BRADLEY
APD BY:	SCHALLER
DATE:	8/2012

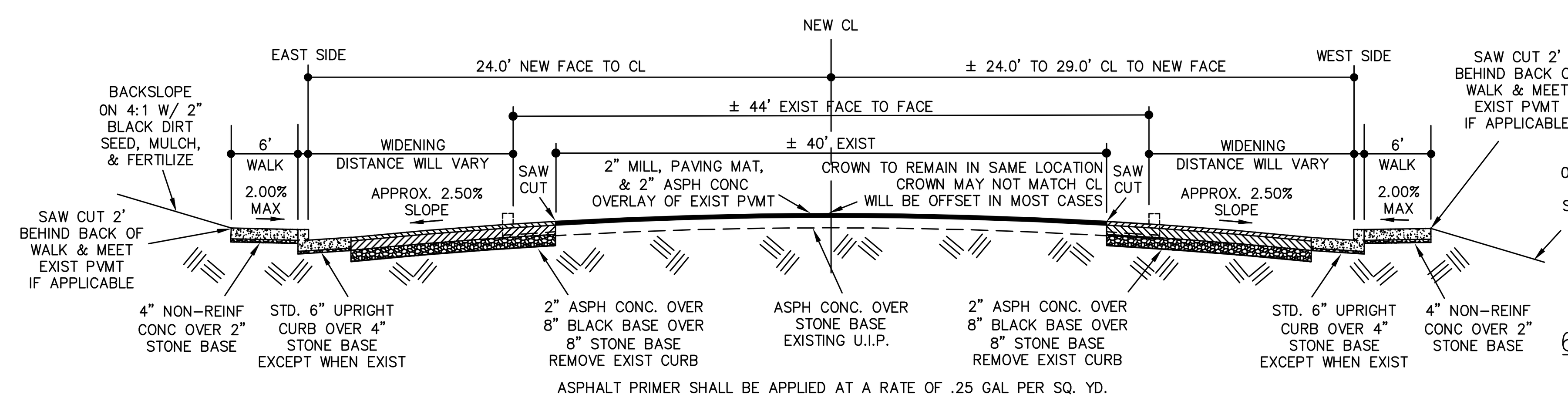
PROJECT
WIDENING OF MAIDEN LANE
9TH ST TO 32ND ST - QUANTITIES SHEET

PLAN NO: 8304

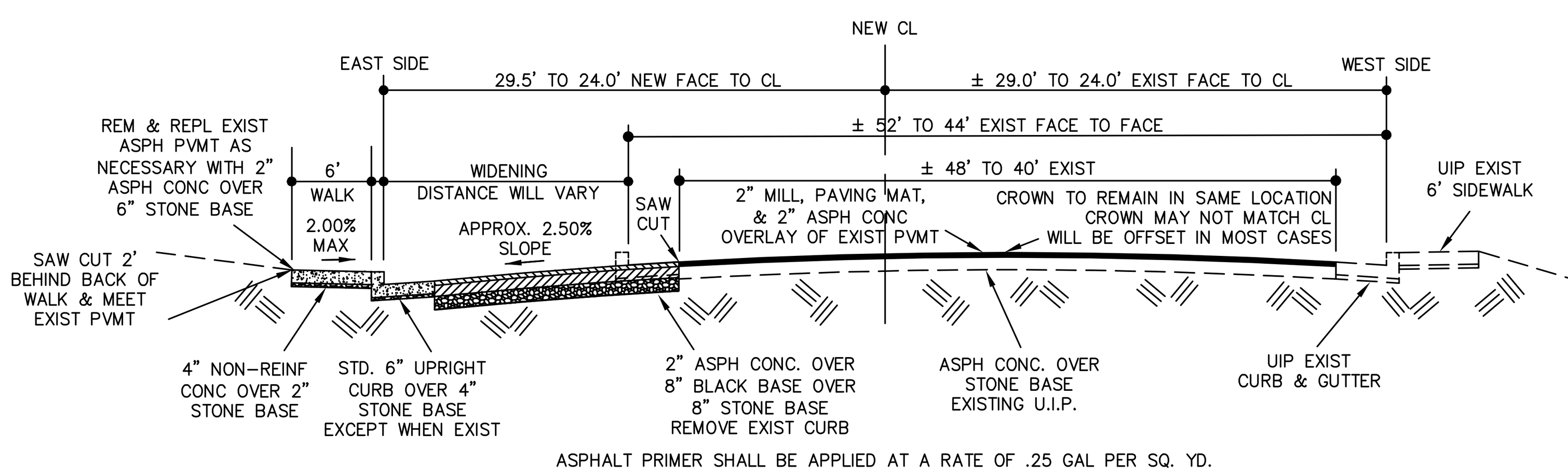




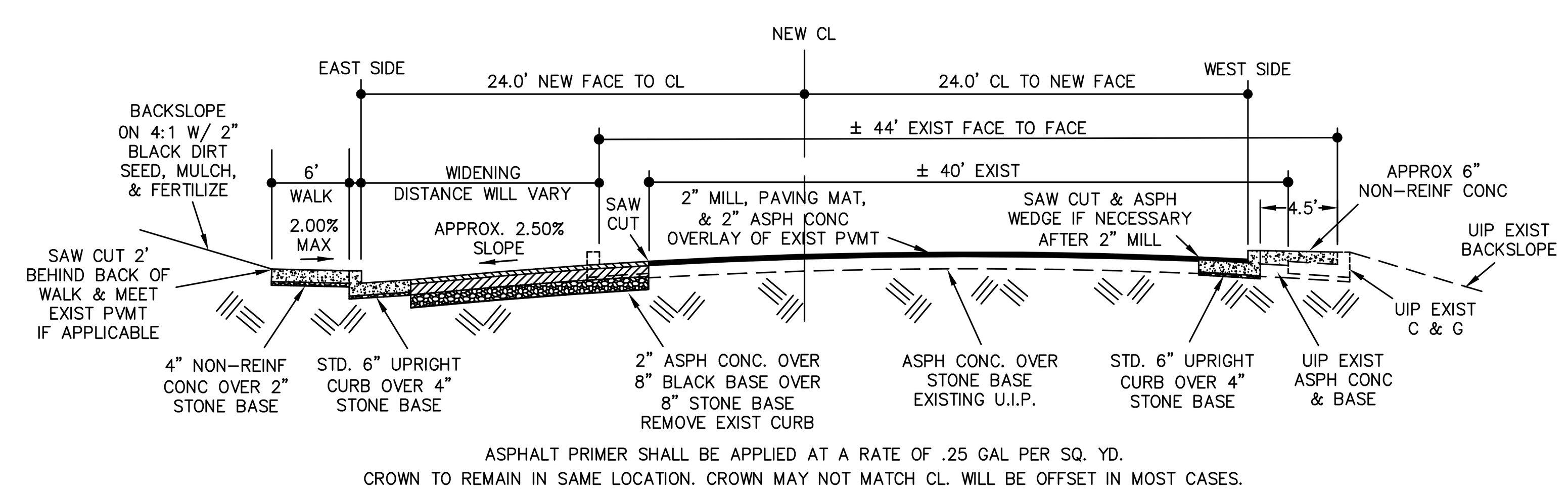
TYPICAL SECTION 2+00.96 TO 3+50
N.T.S.



TYPICAL SECTION 6+62.28 TO 8+31.08
N.T.S.

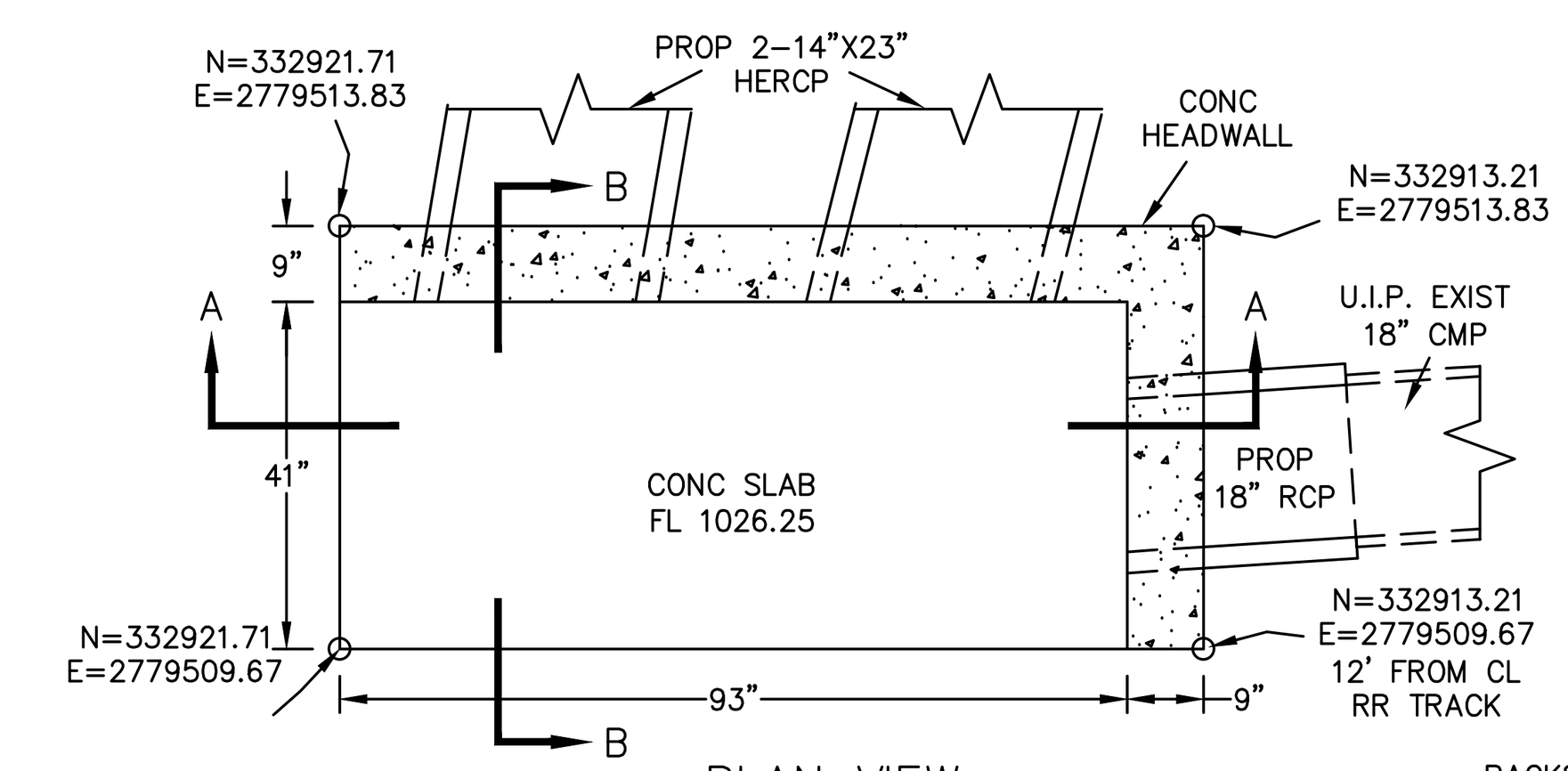


TYPICAL SECTION 3+50 TO 6+62.28
N.T.S.



TYPICAL SECTION 8+31.08 TO 16+89.77
N.T.S.

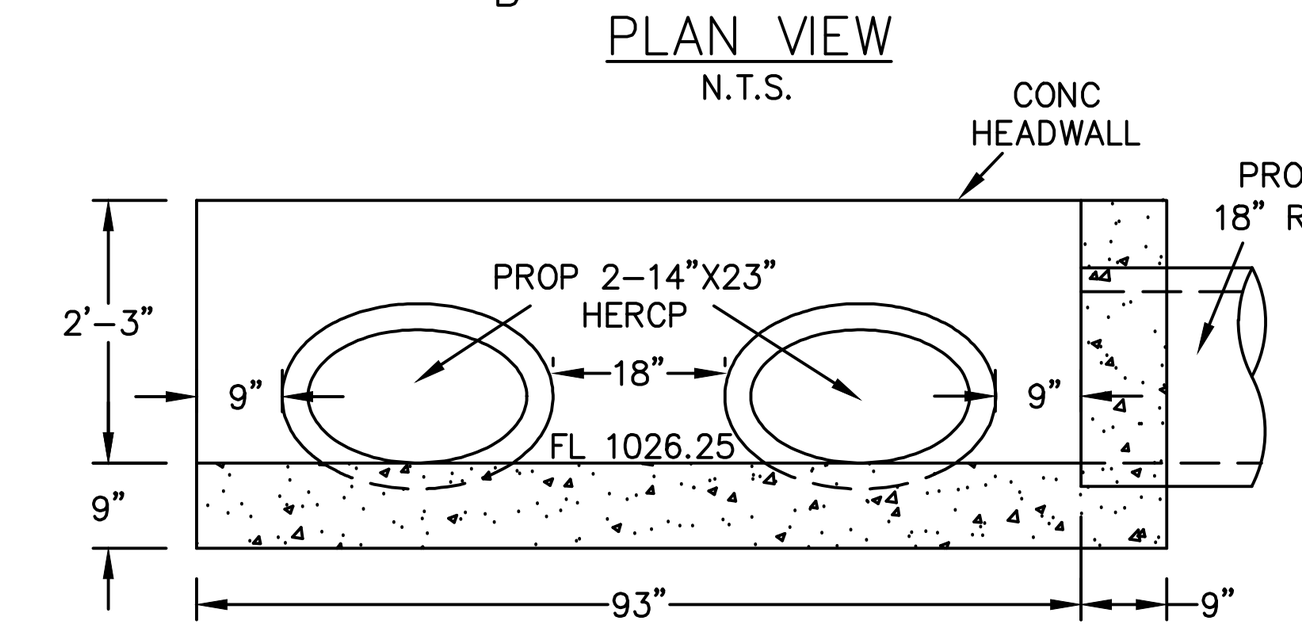
CONC HEADWALL & SLAB
N.T.S.



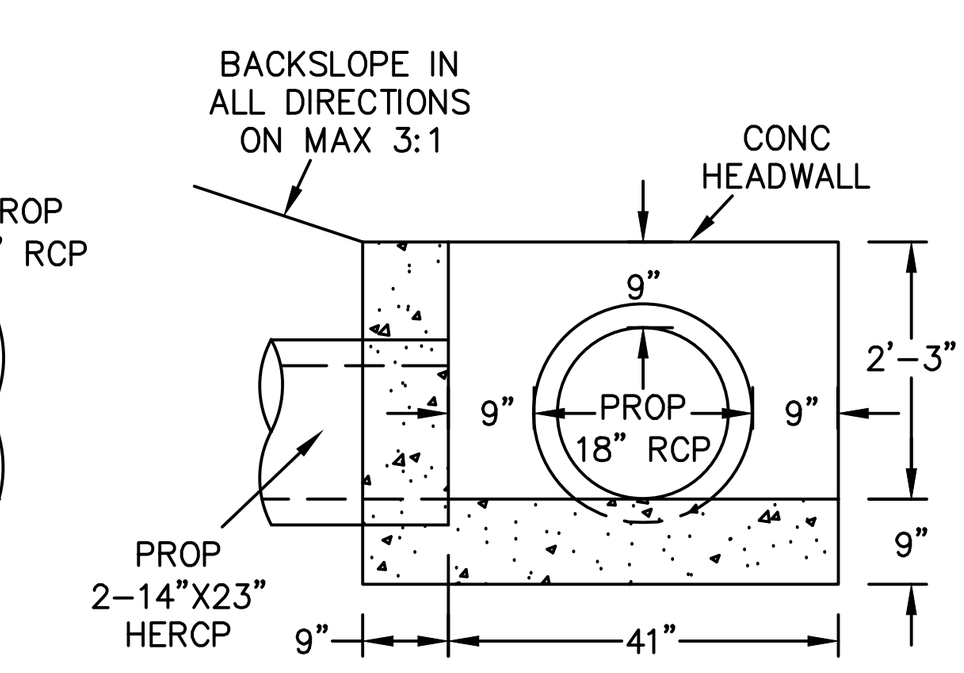
PLAN VIEW
N.T.S.

ALL REINFORCEMENT BARS SHALL BE #4.


SEE MODOT STD DWG NO 604.05D FOR RE-BAR SPACING FOR 24" PIPE SIZE.



SECTION A–A
N.T.S.



SECTION B–B
N.T.S.



GENERAL NOTES

1. CONTRACTOR SHALL, AT HIS EXPENSE, SET & MAINTAIN ALL LINE & GRADE STAKES.
2. CONTRACTOR SHALL GRADE ALL EXISTING STREETS, ALLEYS, & DRIVES TO MEET NEW CONST.
3. CONTRACTOR SHALL FIELD VERIFY ALL UTILITY LOCATIONS BEFORE BEGINNING NEW CONST.
4. ALL WORK SHALL CONFORM TO THE CITY OF JOPLIN STD SPECS UNLESS OTHERWISE NOTED.
5. ALL WORK SHALL BE IN ACCORDANCE WITH THE WORK ZONE SAFETY GUIDELINES OF PART VI OF THE MUTCD & WITH THE BARRICADING SECTION OF THE CITY OF JOPLIN SAFETY MANUAL.
6. ALL WALKS SHALL BE CONST AT A MIN OF 1.00% CROSS SLOPE & A MAX OF 2.00% CROSS SLOPE. A MIN CL SPACE OF 80" ABOVE A WALK SHALL BE MAINTAINED AT ALL TIMES.
7. ALL PEDESTRIAN FACILITIES SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF THE ADA.
8. CONTRACTOR SHALL, AT HIS EXPENSE, PROVIDE ACCESS TO PRIVATE PROPERTY AT ALL TIMES.
9. CONTRACTOR SHALL, AT HIS EXPENSE, RETAIN THE SERVICES OF A PLS LICENSED IN MISSOURI, WHO SHALL BE RESPONSIBLE FOR RESTORING ANY INCIDENTALLY DAMAGED SURVEY MONUMENTS NOT SCHEDULED FOR REMOVAL AS PART OF CONST PROJECT. CONTRACTOR SHALL NOTIFY THE CITY OF JOPLIN OF ANY MONUMENTS DAMAGED BY ANY OUTSIDE PARTY.

RR XING NOTES

1. C&G, WALK, OR ANY OTHER MASONRY CONSTRUCTION SHALL NOT BE CONST WITHIN 12' OF C/L OF TRACK AS MEASURED PERPENDICULAR TO THE TRACK.
2. AREAS OF CONSTRUCTION WITHIN THE 12' CORRIDOR SHALL BE FILLED WITH 4" OF ASPH CONC OVER 8" STONE BASE & MATCH PROPOSED C&G, WALK, & RAIL GRADES.
3. ALL STREET STRIPING SHALL MEET CURRENT MUTCD & MNA RR STANDARDS.
4. MNA RR TO PROVIDE FLAGGER UPON REQUEST BY THE CITY OF JOPLIN.
5. CITY OF JOPLIN TO REQUIRE CONTRACTOR TO OBTAIN RAILROAD PROTECTIVE PUBLIC LIABILITY & PROPERTY DAMAGE LIABILITY INSURANCE.
6. EXISTING WHEEL CUT FLANGE-WAY CROSSING TO BE EXTENDED 2' PAST NEW ROAD CONSTRUCTION WIDTH.

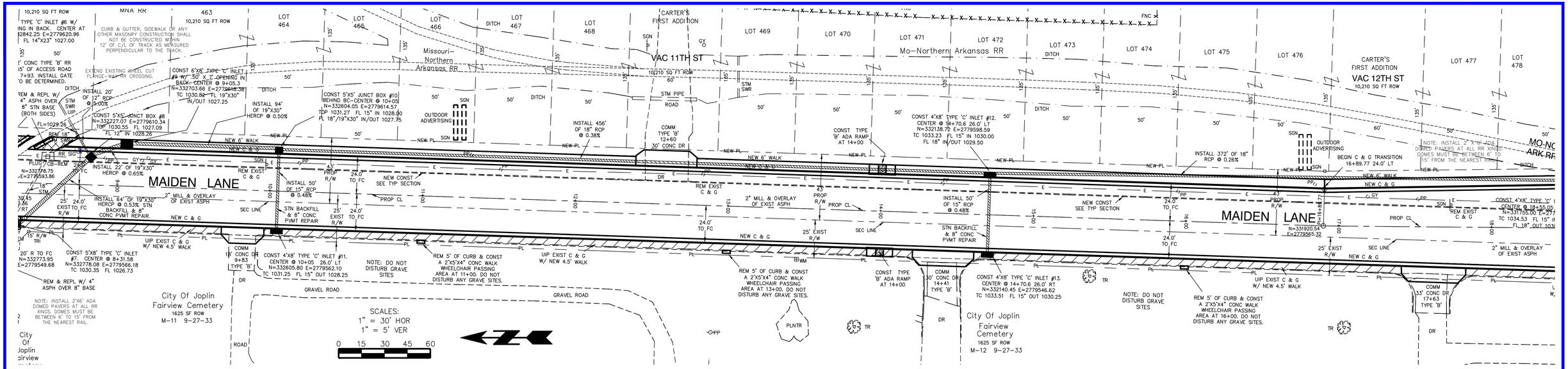
FEDERAL AID PROJECT NO. TDG-3200(718) PROJECT 1

CITY OF Joplin	CITY OF JOPLIN, MISSOURI DEPARTMENT OF PUBLIC WORKS DIVISION OF ENGINEERING	ADDRESS: 602 S. MAIN ST. 64801	REV DATE:	REVISION:	SVYD. BY: SPRENKLE	ACAD FILE NAME: STREET\MAIDENLANE2006\RCP01001	DWN. BY: STAFF
		PH NO: 417-624-0820 EXT 530	03/2010	PRINTED NEW SHEETS	PG/BK: 00/000		CKD. BY: BRADLEY
		FAX NO.: 1-417-625-4738	05/2011	NARROWED STREET & ROW TO 4 LANES TO 13TH ST	SVY. DATE: 09/2006	SCALES: HORZ: 1"= 30' VERT: 1"= 5'	APD BY: SCHALLER
		E-MAIL: DHERTZBE@JOPLINMO.ORG	09/2012	CHECKED RR AGREEMENT AT DRIVE AT 7+93	ENGINEER: HERTZBERG		DATE: 09/2006

PLAN NO.: 8304

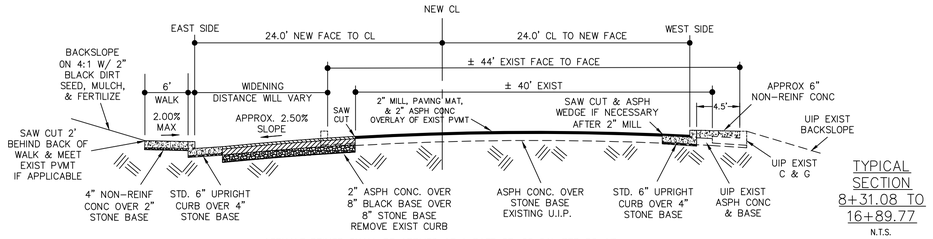
SHEET
2 of 40

PROJECT
STREET PLAN & PROFILE
MAIDEN LANE WIDENING - 9TH TO 32ND



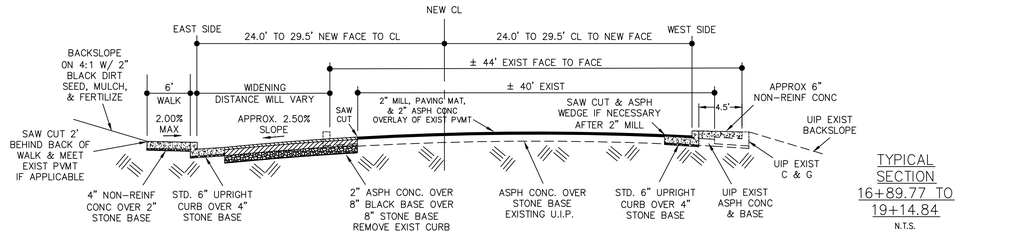
GENERAL NOTES

1. CONTRACTOR SHALL, AT HIS EXPENSE, SET & MAINTAIN ALL LINE & GRADE STAKES.
2. CONTRACTOR SHALL GRADE ALL EXISTING STREETS, ALLEYS, & DRIVES TO MEET NEW CONST.
3. CONTRACTOR SHALL FIELD VERIFY ALL UTILITY LOCATIONS BEFORE BEGINNING NEW CONST.
4. ALL WORK SHALL CONFORM TO THE CITY OF JOPLIN STD SPECS UNLESS OTHERWISE NOTED.
5. ALL WORK SHALL BE IN ACCORDANCE WITH THE WORK ZONE SAFETY GUIDELINES OF PART VI OF THE MUTCD & WITH THE BARRICADING SECTION OF THE CITY OF JOPLIN SAFETY MANUAL.
6. ALL WALKS SHALL BE CONST AT A MIN OF 1.00% CROSS SLOPE & A MAX OF 2.00% CROSS SLOPE. A MIN CL SPACE OF 80" ABOVE A WALK SHALL BE MAINTAINED AT ALL TIMES.
7. ALL PEDESTRIAN FACILITIES SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF THE ADA.
8. CONTRACTOR SHALL, AT HIS EXPENSE, PROVIDE ACCESS TO PRIVATE PROPERTY AT ALL TIMES.
9. CONTRACTOR SHALL, AT HIS EXPENSE, RETAIN THE SERVICES OF A PLS LICENSED IN MISSOURI, WHO SHALL BE RESPONSIBLE FOR RESTORING ANY INCIDENTALLY DAMAGED SURVEY MONUMENTS NOT SCHEDULED FOR REMOVAL AS PART OF CONST PROJECT. CONTRACTOR SHALL NOTIFY THE CITY OF JOPLIN OF ANY MONUMENTS DAMAGED BY ANY OUTSIDE PARTY.



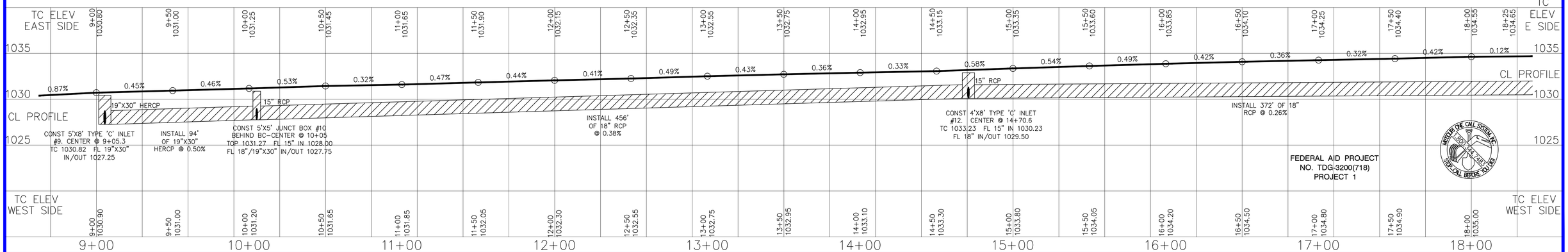
TYPICAL SECTION 8+31.08 TO 16+89.77
N.T.S.

ASPHALT PRIMER SHALL BE APPLIED AT A RATE OF .25 GAL PER SQ. YD.
CROWN TO REMAIN IN SAME LOCATION. CROWN MAY NOT MATCH CL. WILL BE OFFSET IN MOST CASES.

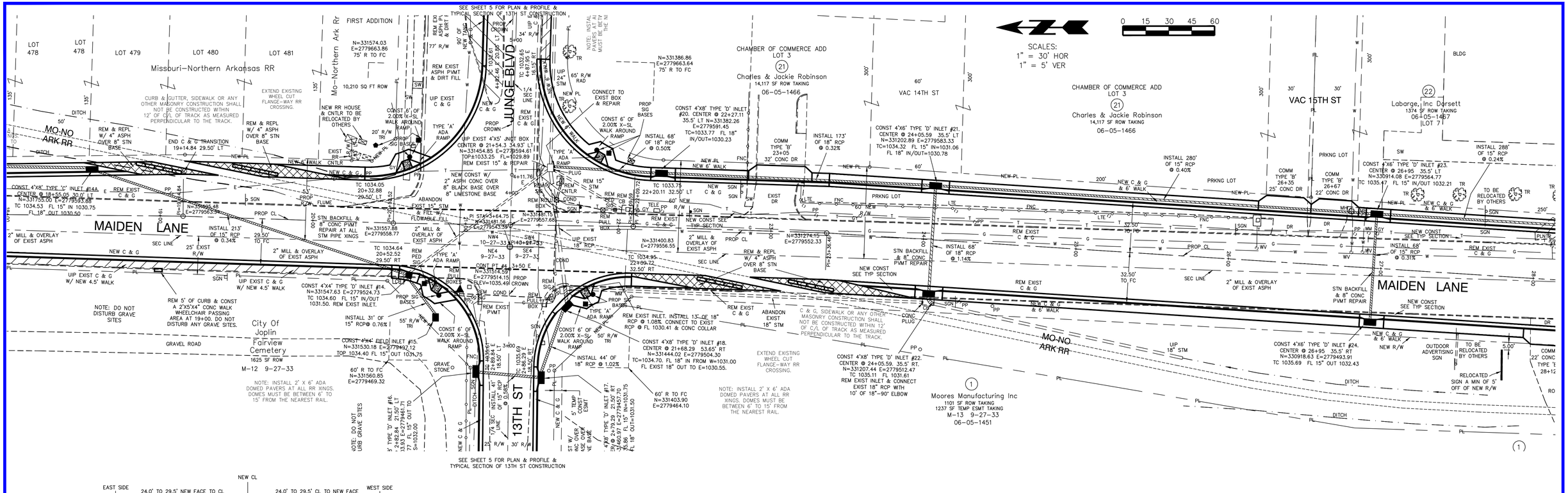


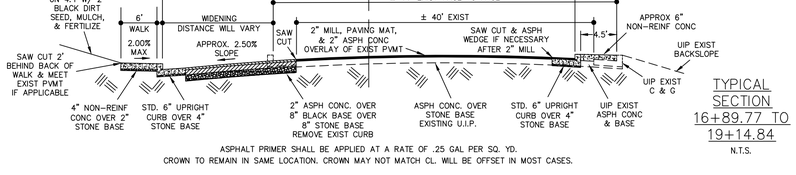
TYPICAL SECTION 16+89.77 TO 19+14.84
N.T.S.

ASPHALT PRIMER SHALL BE APPLIED AT A RATE OF .25 GAL PER SQ. YD.
CROWN TO REMAIN IN SAME LOCATION. CROWN MAY NOT MATCH CL. WILL BE OFFSET IN MOST CASES.



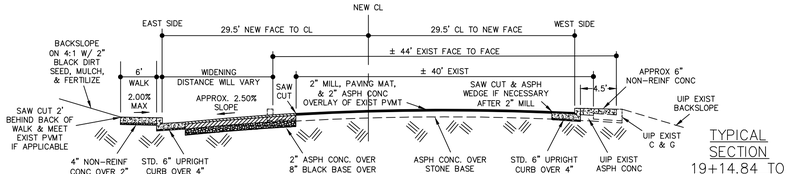
CITY OF Joplin	CITY OF JOPLIN, MISSOURI DEPARTMENT OF PUBLIC WORKS DIVISION OF ENGINEERING	ADDRESS: 602 S. MAIN ST. 64801 PH NO: 417-624-0820 EXT 530 FAX NO.: 1-417-625-4738 E-MAIL: DHERTZBE@JOPLINMO.ORG	REV DATE: 03/2010 05/2011	REVISION: PRINTED NEW SHEETS NARROWED STREET & ROW TO 4 LANES TO 13TH ST	SVYD. BY: SPRENKLE PG/BK: 00/000 SVY. DATE: 09/2006 ENGINEER: HERTZBERG	ACAD FILE NAME: STREET\MAIDENLANE2006\RCP02001 SCALES: HORZ: 1"= 30' VERT: 1"= 5'	DWN. BY: STAFF CKD. BY: BRADLEY APD BY: SCHALLER DATE: 09/2006	PLAN NO.: 8304 SHEET 3 of 40	PROJECT STREET PLAN & PROFILE MAIDEN LANE WIDENING - 9TH TO 32ND





TYPICAL SECTION 16+89.77 TO 19+14.84
N.T.S.

ASPHALT PRIMER SHALL BE APPLIED AT A RATE OF .25 GAL PER SQ. YD.
CROWN TO REMAIN IN SAME LOCATION. CROWN MAY NOT MATCH CL. WILL BE OFFSET IN MOST CASES.

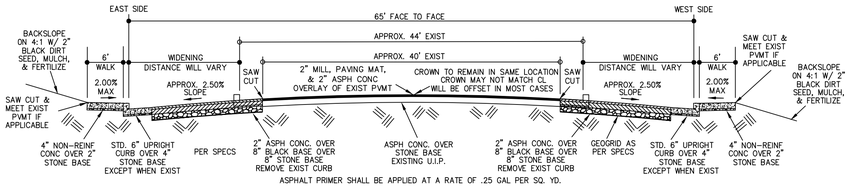


TYPICAL SECTION 19+14.84 TO 22+09.72
N.T.S.

ASPHALT PRIMER SHALL BE APPLIED AT A RATE OF .25 GAL PER SQ. YD.
CROWN TO REMAIN IN SAME LOCATION. CROWN MAY NOT MATCH CL. WILL BE OFFSET IN MOST CASES.

MAIDEN LANE TYPICAL SECTION 22+09.72 TO 32+93.46

N.T.S.



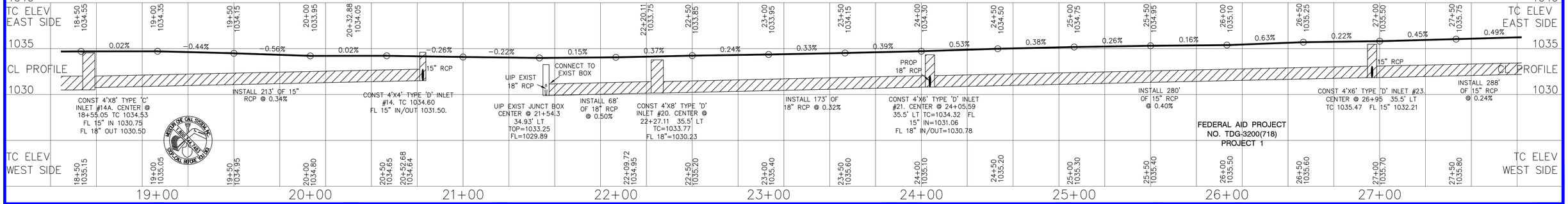
ASPHALT PRIMER SHALL BE APPLIED AT A RATE OF .25 GAL PER SQ. YD.

RR XING NOTES

1. C&G, WALK, OR ANY OTHER MASONRY CONSTRUCTION SHALL NOT BE CONST WITHIN 12' OF C/L OF TRACK AS MEASURED PERPENDICULAR TO THE TRACK.
2. AREAS OF CONSTRUCTION WITHIN THE 12' CORRIDOR SHALL BE FILLED WITH 4" OF ASPH CONC OVER 8" STONE BASE & MATCH PROP C&G, WALK, & RAIL GRADES.
3. ALL STREET STRIPING SHALL MEET CURRENT MUTCD & MNA RR STANDARDS.
4. MNA RR TO PROVIDE FLAGGER UPON REQUEST BY THE CITY OF JOPLIN.
5. CITY OF JOPLIN TO REQUIRE CONTRACTOR TO OBTAIN RAILROAD PROTECTIVE PUBLIC LIABILITY & PROPERTY DAMAGE LIABILITY INSURANCE.
6. EXISTING WHEEL CUT FLANGE-WAY CROSSING TO BE EXTENDED 2' PAST NEW ROAD CONSTRUCTION WIDTH.

GENERAL NOTES


1. CONTRACTOR SHALL, AT HIS EXPENSE, SET & MAINTAIN ALL LINE & GRADE STAKES.
2. CONTRACTOR SHALL GRADE ALL EXISTING STREETS, ALLEYS, & DRIVES TO MEET NEW CONST.
3. CONTRACTOR SHALL FIELD VERIFY ALL UTILITY LOCATIONS BEFORE BEGINNING NEW CONST.
4. ALL WORK SHALL CONFORM TO THE CITY OF JOPLIN STD SPECS UNLESS OTHERWISE NOTED.
5. ALL WORK SHALL BE IN ACCORDANCE WITH THE WORK ZONE SAFETY GUIDELINES OF PART VI OF THE MUTCD & WITH THE BARRICADING SECTION OF THE CITY OF JOPLIN SAFETY MANUAL.
6. ALL WALKS SHALL BE CONST AT A MIN OF 1.00% CROSS SLOPE & A MAX OF 2.00% CROSS SLOPE. A MIN CL SPACE OF 80" ABOVE A WALK SHALL BE MAINTAINED AT ALL TIMES.
7. ALL PEDESTRIAN FACILITIES SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF THE ADA.
8. CONTRACTOR SHALL, AT HIS EXPENSE, PROVIDE ACCESS TO PRIVATE PROPERTY AT ALL TIMES.
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CITY OF Joplin	CITY OF JOPLIN, MISSOURI DEPARTMENT OF PUBLIC WORKS DIVISION OF ENGINEERING	ADDRESS: 602 S. MAIN ST. 64801	REV DATE:	REVISION:	SVYD. BY: SPRENKLE	ACAD FILE NAME: STREET\MAIDENLANE2006\RCP03001	DWN. BY: STAFF
		PH NO: 417-624-0820 EXT 530	02/2011	PRINTED NEW SHEETS	PAGE/BOOK: 00/000		CKD. BY: BRADLEY
		FAX NO.: 1-417-625-4738	05/2011	NARROWED STREET & ROW TO 4 LANES TO 13TH ST	SVY. DATE: 09/2006		APPD. BY: SCHALLER
		E-MAIL: DHERTZBE@JOPLINMO.ORG	09/2012	CHECKED SIGN LOCATIONS & ADDED NOTE FOR 13TH ST CONST	ENGINEER: HERTZBERG	SCALES: HORZ: 1"= 30' VERT: 1"= 5'	DATE: 09/2006

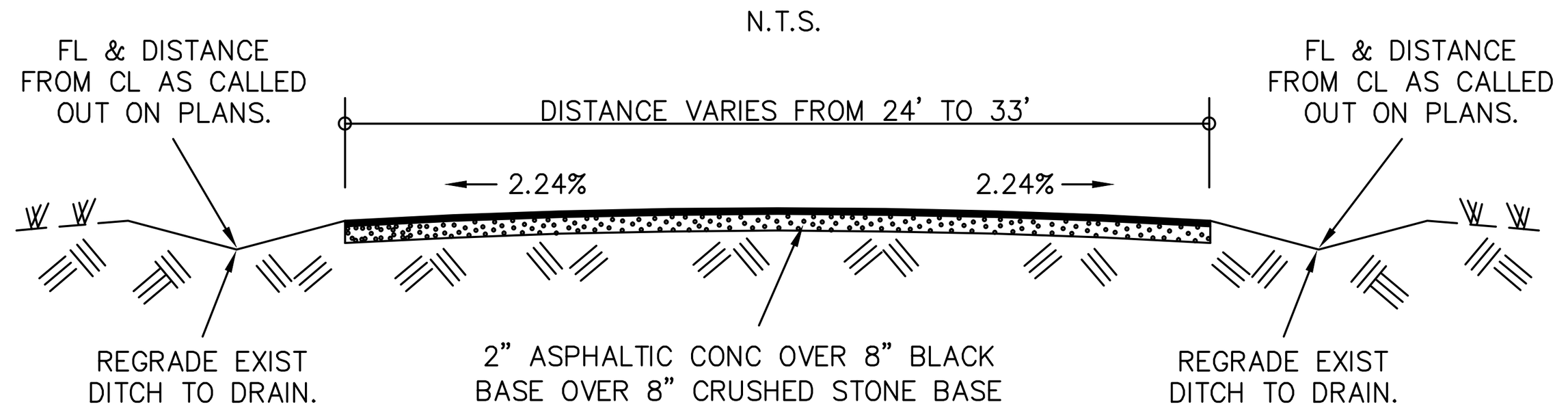
PLAN NO.: 8304
SHEET 4 of 40

PROJECT
STREET PLAN & PROFILE
MAIDEN LANE WIDENING - 9TH TO 32ND



13TH ST TYPICAL SECTION
0+50 E TO 2+00 E

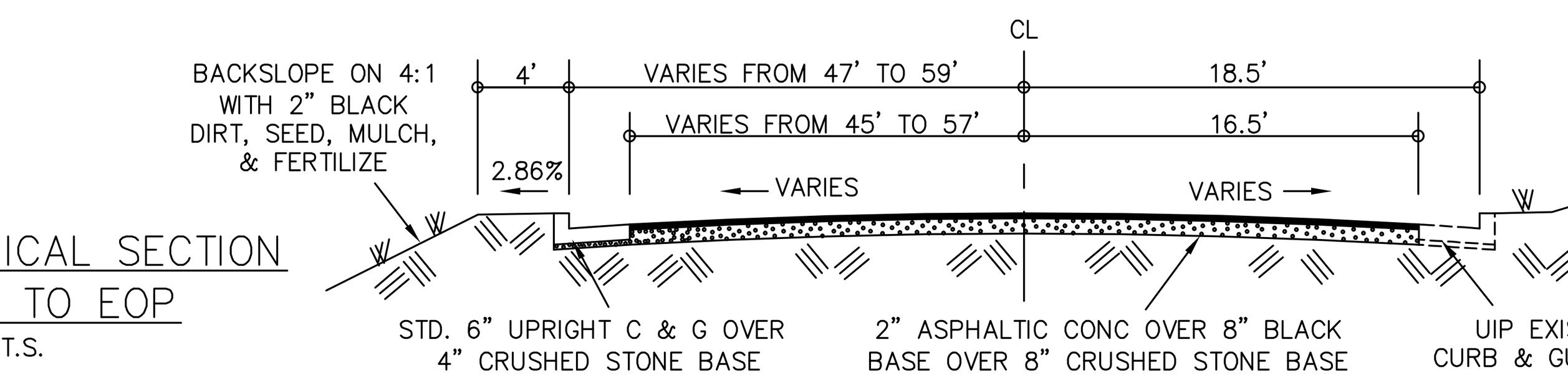
N.T.S.



ASPHALT PRIMER SHALL BE APPLIED AT A RATE OF .25 GAL PER SQ. YD.

13TH ST TYPICAL SECTION
7+05 E TO EOP

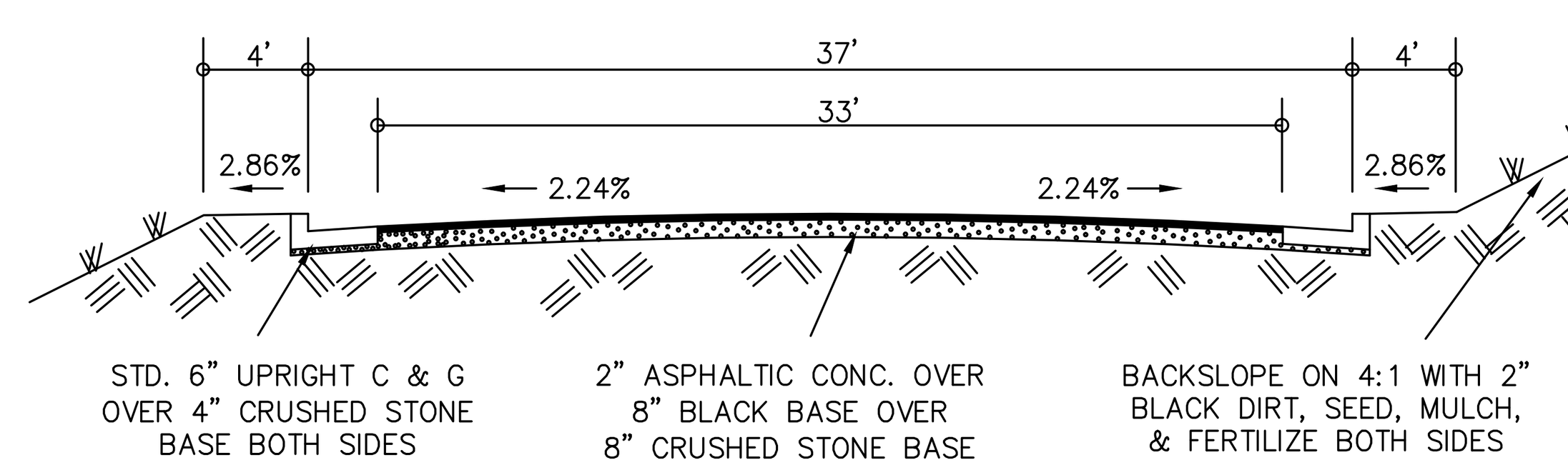
N.T.S.



ASPHALT PRIMER SHALL BE APPLIED AT A RATE OF .25 GAL PER SQ. YD.
TOP OF CURB ELEVATION SHALL APPROX. EQUAL CROWN ELEVATION.

13TH ST TYPICAL SECTION
2+00 E TO 4+87.95 E

N.T.S.



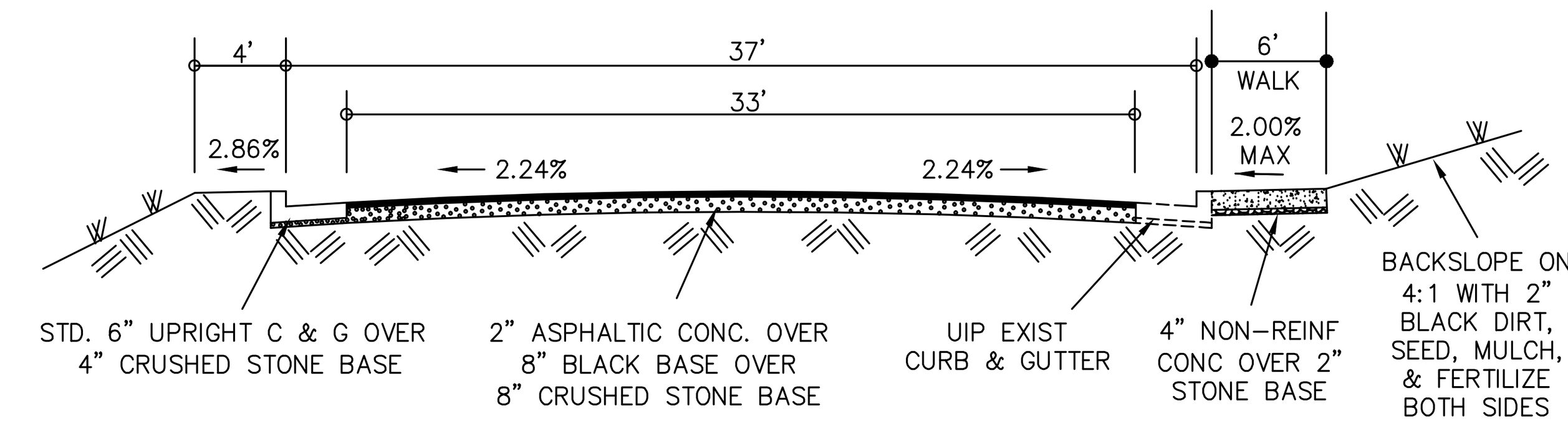
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13TH ST TYPICAL SECTION
4+87.95 E TO 5+50 E

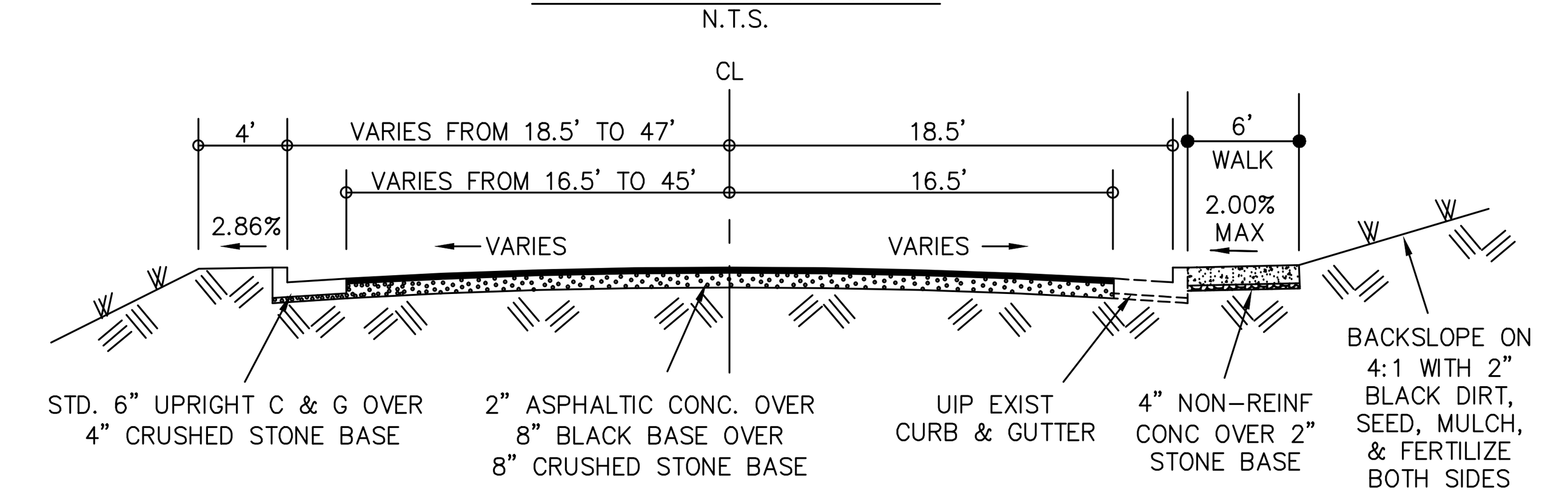
N.T.S.




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13TH ST TYPICAL SECTION
5+50 E TO 7+05 E

N.T.S.



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TOP OF CURB ELEVATION SHALL APPROX. EQUAL CROWN ELEVATION.



RR XING NOTES

1. C&G, WALK, OR ANY OTHER MASONRY CONSTRUCTION SHALL NOT BE CONST WITHIN 12' OF C/L OF TRACK AS MEASURED PERPENDICULAR TO THE TRACK.
2. AREAS OF CONSTRUCTION WITHIN THE 12' CORRIDOR SHALL BE FILLED W/ 4" OF ASPH CONC OVER 8" STONE BASE & MATCH PROP C&G, WALK, & RAIL GRADES.
3. ALL STREET STRIPING SHALL MEET CURRENT MUTCD & MNA RR STANDARDS.
4. MNA RR TO PROVIDE FLAGGER UPON REQUEST BY THE CITY OF JOPLIN.
5. CITY OF JOPLIN TO REQUIRE CONTRACTOR TO OBTAIN RAILROAD PROTECTIVE PUBLIC LIABILITY & PROPERTY DAMAGE LIABILITY INSURANCE.
6. EXISTING WHEEL CUT FLANGE-WAY CROSSING TO BE EXTENDED 2' PAST NEW ROAD CONSTRUCTION WIDTH.

FEDERAL AID PROJECT
NO. TDG-3200(718)
PROJECT 1

MISSOURI ONE CALL SYSTEM, INC. 1-800-344-7483 STOP-CALL BEFORE YOU DIG

CITY OF Joplin
CITY OF JOPLIN, MISSOURI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING
ADDRESS: 602 S. MAIN ST. 64801
PH NO: 417-624-0820 EXT 530
FAX NO.: 1-417-625-4738
E-MAIL: DHERTZBE@JOPLINMO.ORG

REV DATE:	REVISION:
03/2010	PRINTED NEW SHEETS
05/2011	NARROWED STREET & ROW TO 4 LANES TO 13TH ST
09/2012	REVISED 13TH ST TYPICAL SECTION & RR XING NOTES

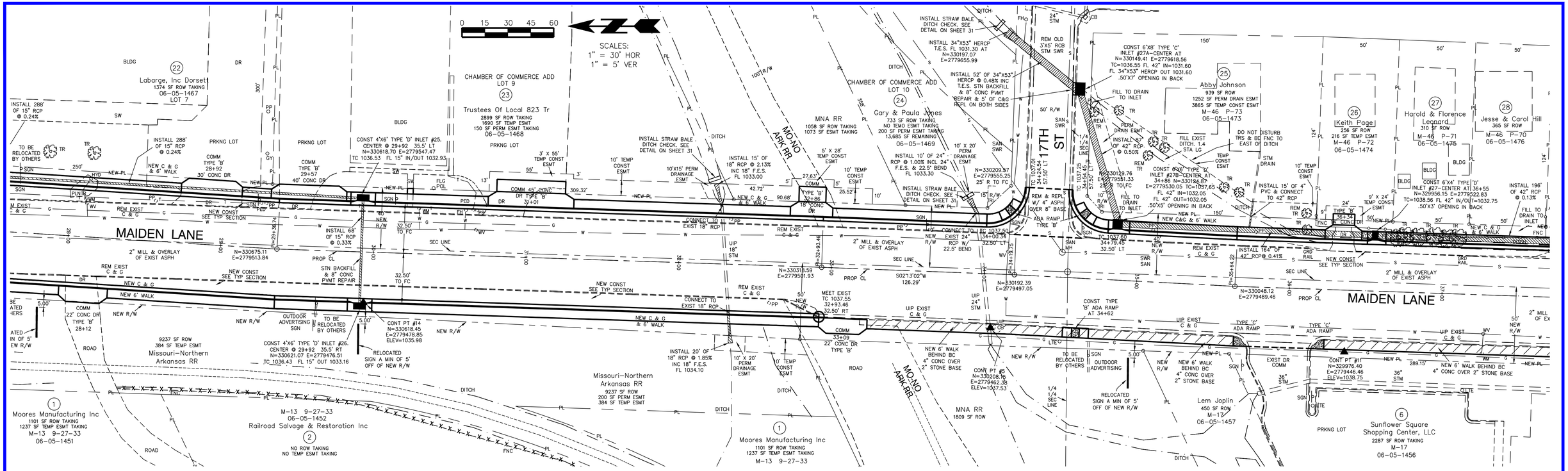
SVYD. BY:	SPRENKLE
PG/BK:	00/000
SVY. DATE:	00/2006
ENGINEER:	HERTZBERG

ACAD FILE NAME: STREET\MAIDENLANE2006\RCP01002
SCALES: HORZ: 1"= 30' VERT: 1"= 5'

DWN. BY:	STAFF
CKD. BY:	BRADLEY
APD BY:	SCHALLER
DATE:	12/2006

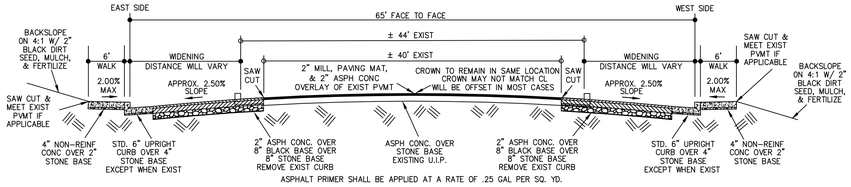
PLAN NO.: 8304

PROJECT
STREET PLAN & PROFILE
13TH ST AT MAIDEN LANE



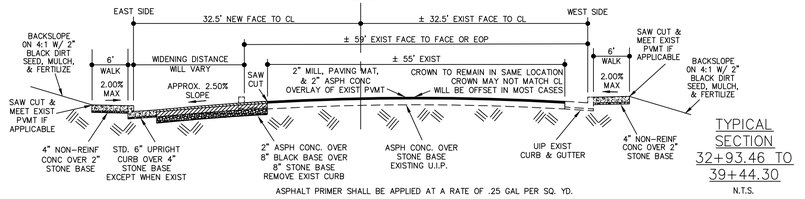
MAIDEN LANE TYPICAL SECTION
22+09.72 TO 32+93.46

N.T.S.



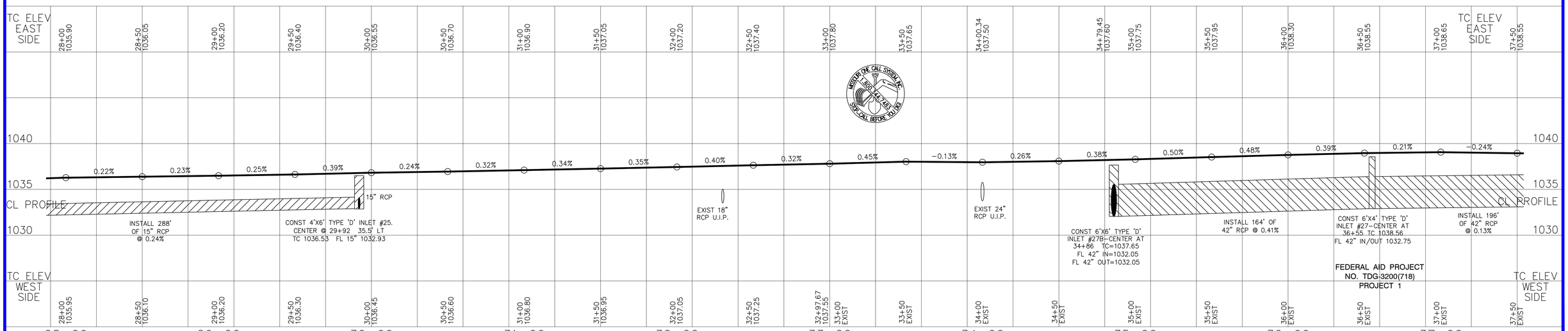
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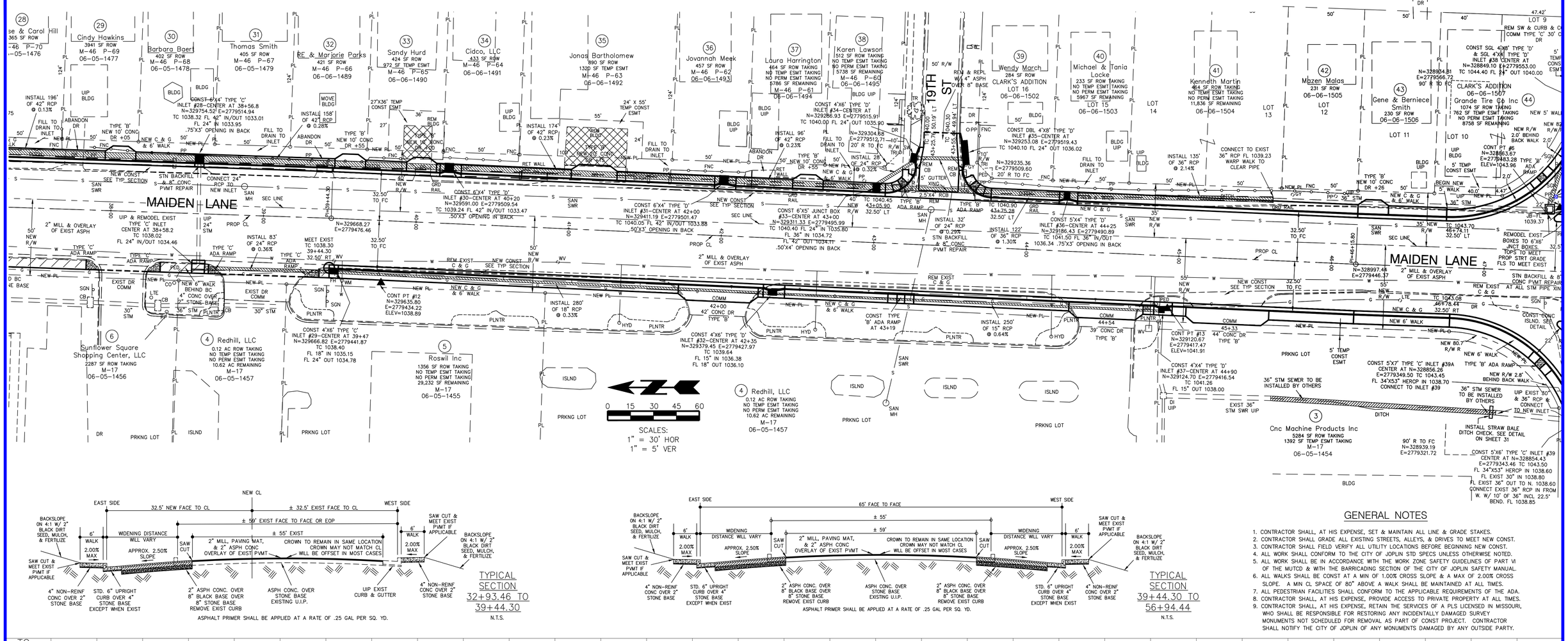


TYPICAL SECTION 32+93.46 TO 39+44.30

N.T.S.



CITY OF Joplin	CITY OF JOPLIN, MISSOURI DEPARTMENT OF PUBLIC WORKS DIVISION OF ENGINEERING	ADDRESS: 602 S. MAIN ST. 64801 PH NO: 417-624-0820 EXT 530 FAX NO.: 1-417-625-4738 E-MAIL: DHERTZBE@JOPLINMO.ORG	REV DATE: 03/2010 01/2011 09/2012	REVISION: PRINTED NEW SHEETS REVISED SE CORNER OF 17TH & ML REVISED TYPE 'C' ADA RAMP & CHECKED SIGN LOCATIONS	SVYD. BY: SPRENKLE PAGE/BOOK: 00/000 SVY. DATE: 09/2006 ENGINEER: HERTZBERG	ACAD FILE NAME: STREET\MAIDENLANE2006\RCP04001 SCALES: HORZ: 1"= 30' VERT: 1"= 5'	DWN. BY: STAFF CKD. BY: BRADLEY APD BY: SCHALLER DATE: 09/2006	PLAN NO.: 8304 SHEET 6 of 40	PROJECT STREET PLAN & PROFILE MAIDEN LANE WIDENING - 9TH TO 32ND

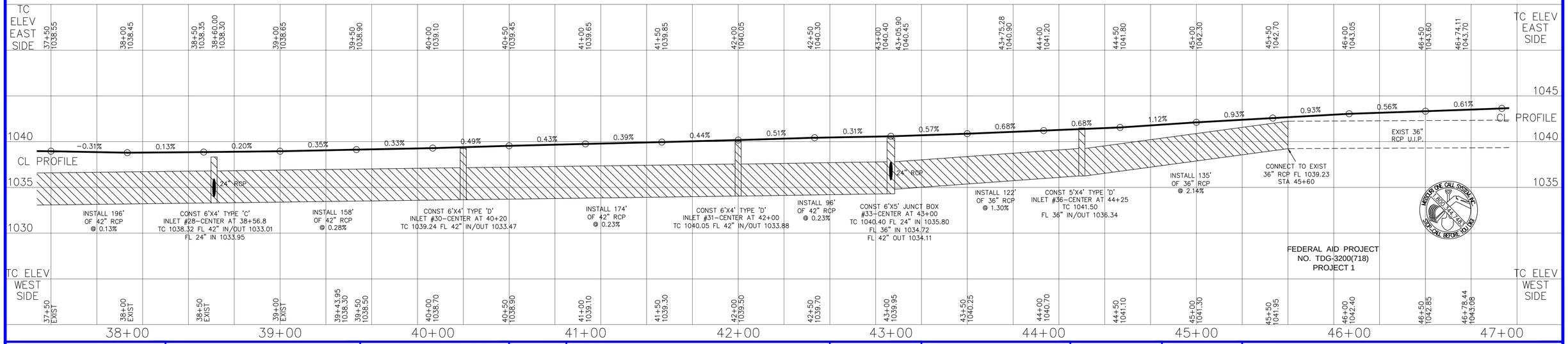


TYPICAL SECTION 32+93.46 TO 39+44.30
N.T.S.

TYPICAL SECTION 39+44.30 TO 56+94.44
N.T.S.

GENERAL NOTES

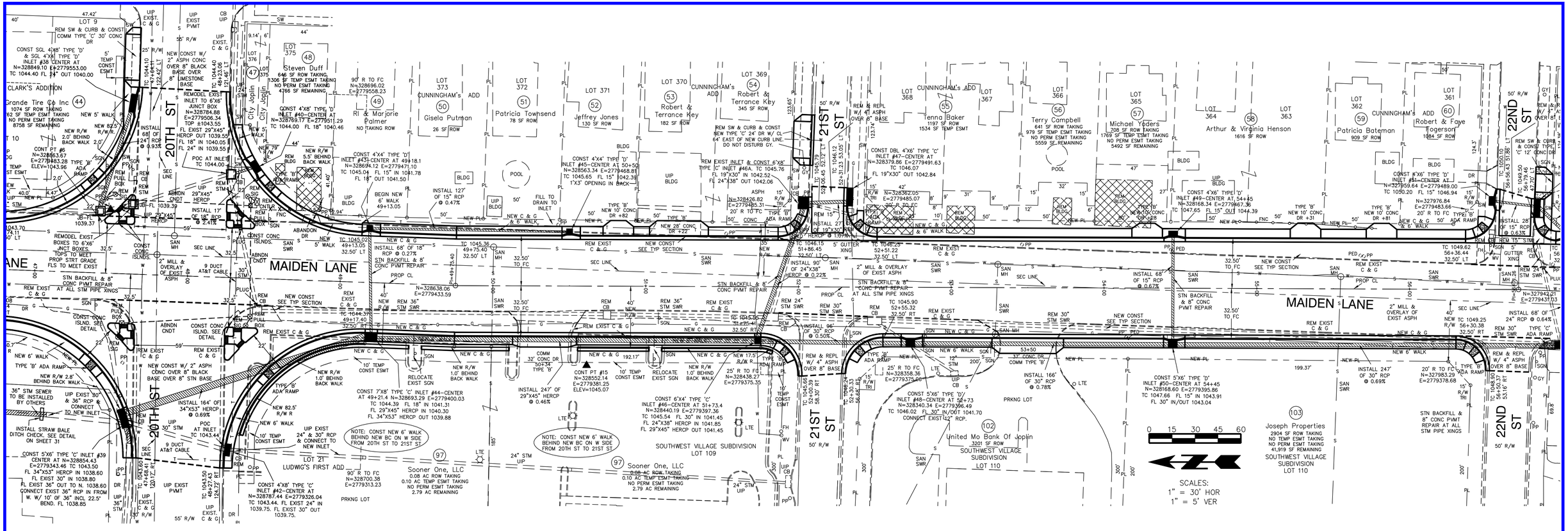
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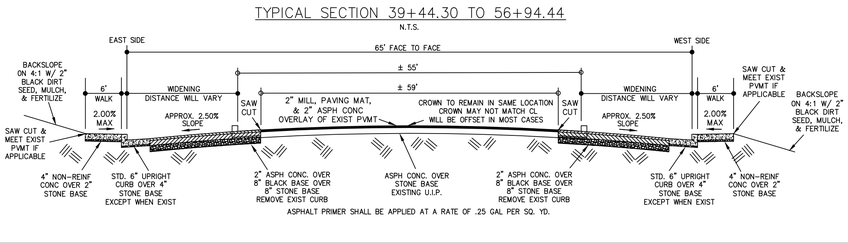


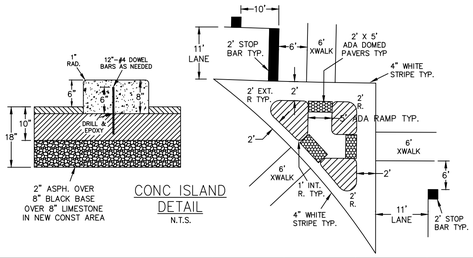
FEDERAL AID PROJECT
NO. TDG-3200(718)
PROJECT 1

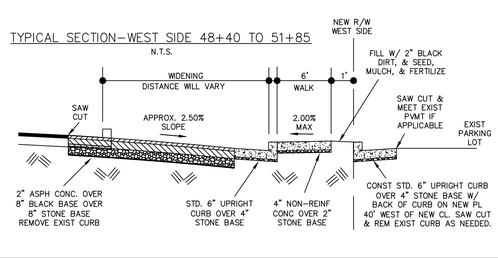
CITY OF Joplin	CITY OF JOPLIN, MISSOURI DEPARTMENT OF PUBLIC WORKS DIVISION OF ENGINEERING	ADDRESS: 602 S. MAIN ST. 64801	REV DATE:	REVISION:	SVYD. BY: SPRENKLE	ACAD FILE NAME: STREET\MAIDENLANE2006\RCP05001	DWN. BY: STAFF	PLAN NO.: 8304
		PH NO: 417-624-0820 EXT 530	03/2010	PRINTED NEW SHEETS	PAGE/BOOK: 00/000		CKD. BY: BRADLEY	SHEET 7 of 40
		FAX NO.: 1-417-625-4738			SVY. DATE: 09/2006	SCALES: HORZ: 1"= 30' VERT: 1"= 5'	APD BY: SCHALLER	
		E-MAIL: DHERTZBE@JOPLINMO.ORG			ENGINEER: HERTZBERG		DATE: 09/2006	

PROJECT
STREET PLAN & PROFILE
MAIDEN LANE WIDENING - 9TH TO 32ND



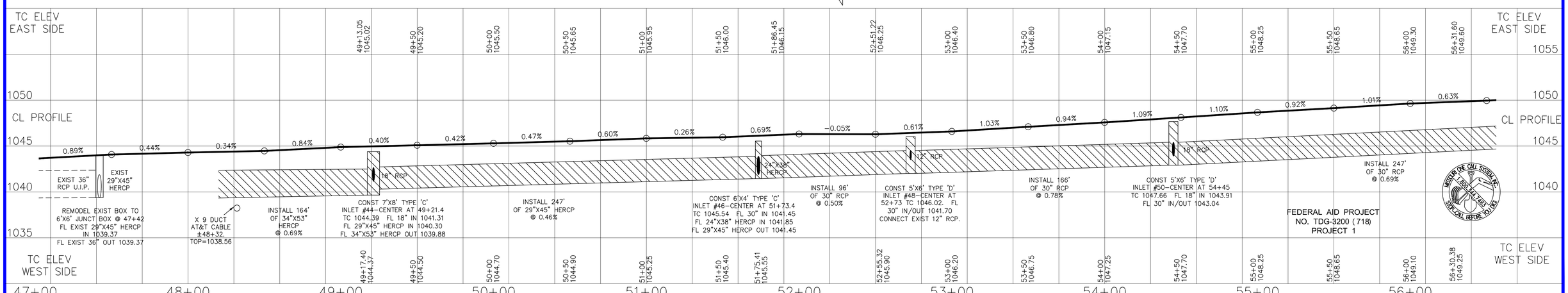




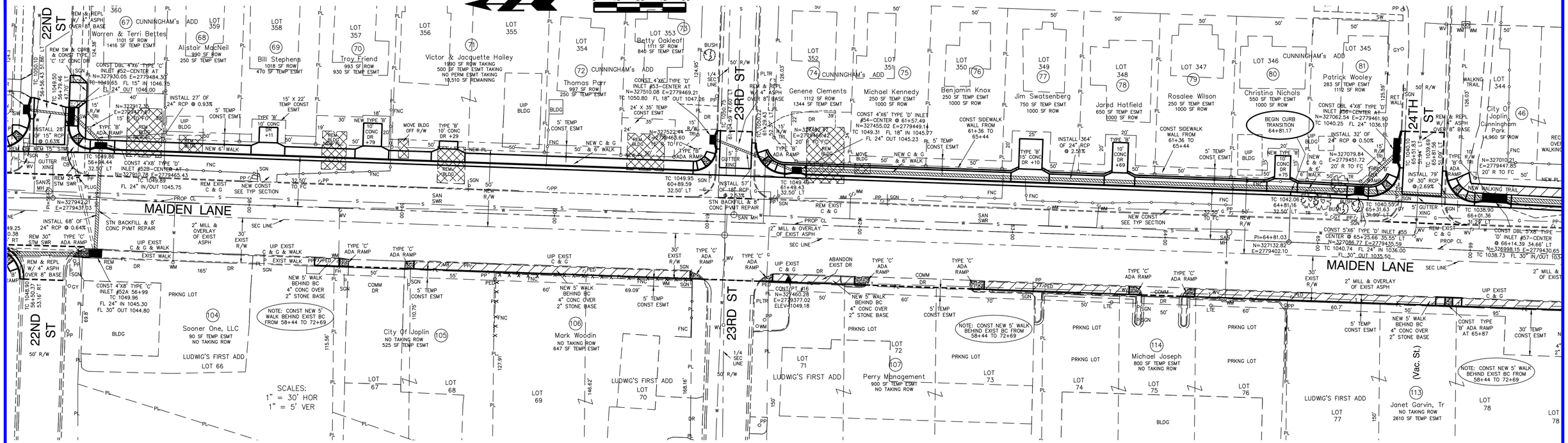


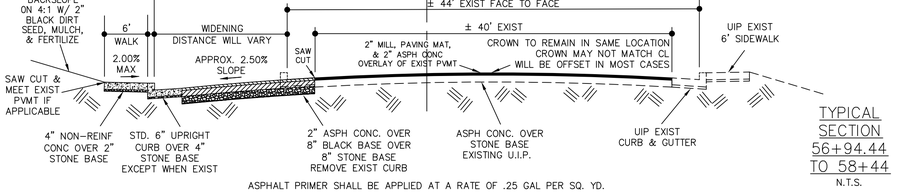
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CITY OF Joplin	CITY OF JOPLIN, MISSOURI DEPARTMENT OF PUBLIC WORKS DIVISION OF ENGINEERING	ADDRESS: 602 S. MAIN ST. 64801	REV DATE:	REVISION:	SVYD. BY: SPRENKLE	ACAD FILE NAME: STREET\MAIDENLANE2006\RCP06001	DWN. BY: STAFF	PLAN NO.: 8304	PROJECT: STREET PLAN & PROFILE MAIDEN LANE WIDENING - 9TH TO 32ND
		PH NO: 417-624-0820 EXT 530	03/2010	PRINTED NEW SHEETS	PAGE/BOOK: 00/000		CKD. BY: BRADLEY	SHEET 8 of 40	
		FAX NO.: 1-417-625-4738			SVY. DATE: 09/2006	SCALES: HORZ: 1"= 30' VERT: 1"= 5'	APD BY: SCHALLER		
		E-MAIL: DHERTZBE@JOPLINMO.ORG			ENGINEER: HERTZBERG		DATE: 09/2006		

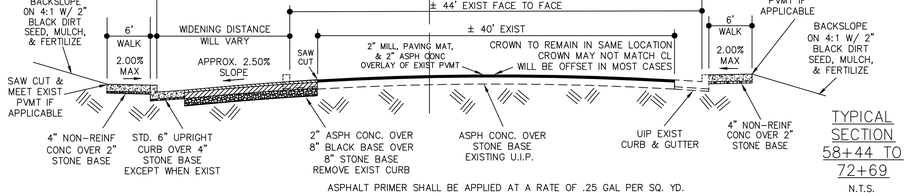




TYPICAL SECTION 56+94.44 TO 58+44

N.T.S.

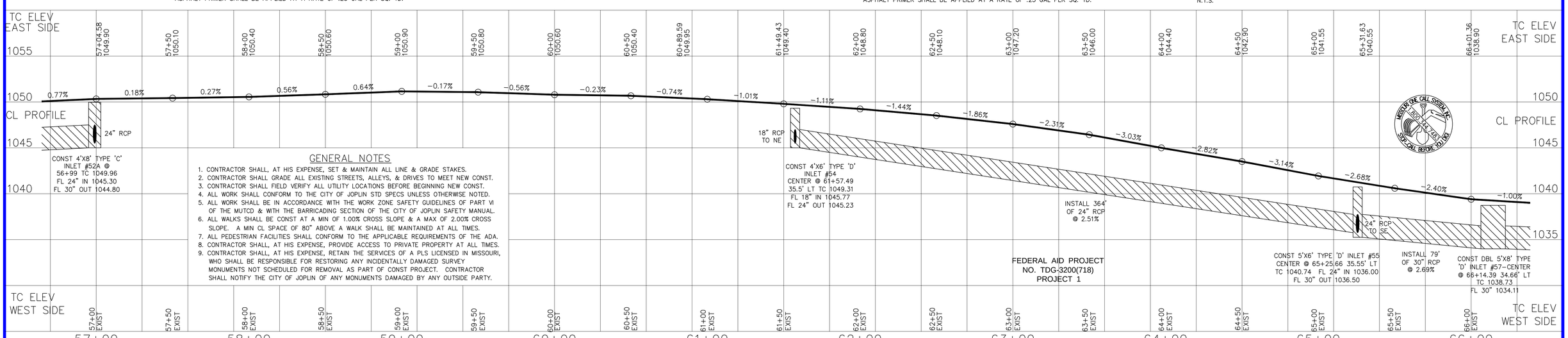
ASPHALT PRIMER SHALL BE APPLIED AT A RATE OF .25 GAL PER SQ. YD.



TYPICAL SECTION 58+44 TO 72+69

N.T.S.

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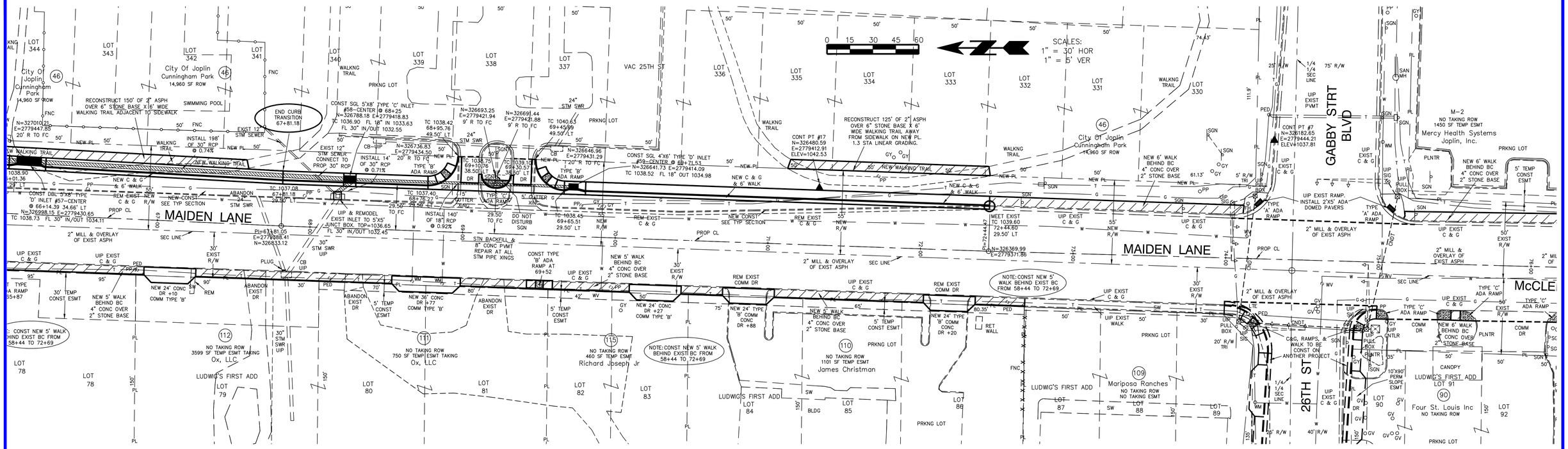


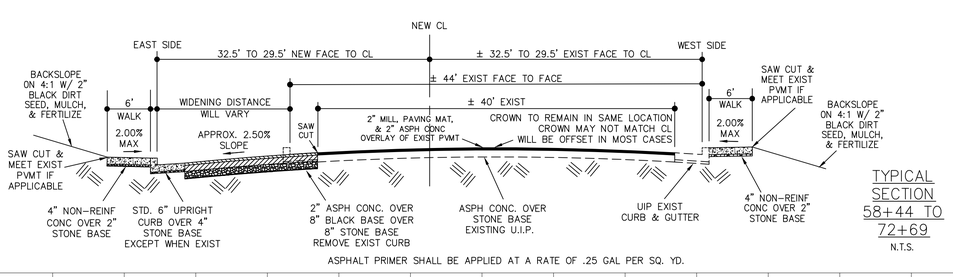
GENERAL NOTES

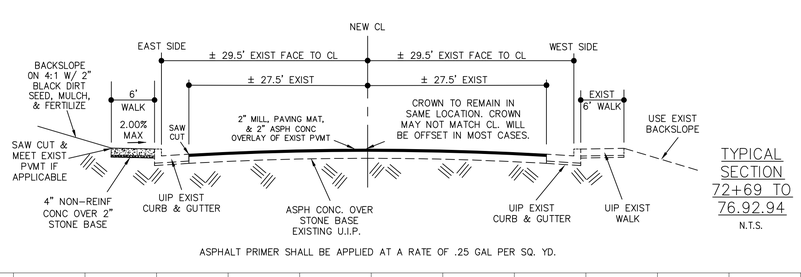
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FEDERAL AID PROJECT
NO. TDG-3200(718)
PROJECT 1

CITY OF Joplin	CITY OF JOPLIN, MISSOURI DEPARTMENT OF PUBLIC WORKS DIVISION OF ENGINEERING	ADDRESS: 602 S. MAIN ST. 64801 PH NO: 417-624-0820 EXT 530 FAX NO.: 1-417-625-4738 E-MAIL: DHERTZBE@JOPLINMO.ORG	REV DATE: 03/2010	REVISION: PRINTED NEW SHEETS	SVYD. BY: SPRENKLE PAGE/BOOK: 00/000 SVY. DATE: 09/2006 ENGINEER: HERTZBERG	ACAD FILE NAME: STREET\MAIDENLANE2006\RCP07001 SCALES: HORZ: 1"= 30' VERT: 1"= 5'	DWN. BY: STAFF CKD. BY: BRADLEY APD BY: SCHALLER DATE: 09/2006	PLAN NO: 8304 SHEET 9 of 40	PROJECT STREET PLAN & PROFILE MAIDEN LANE WIDENING - 9TH TO 32ND

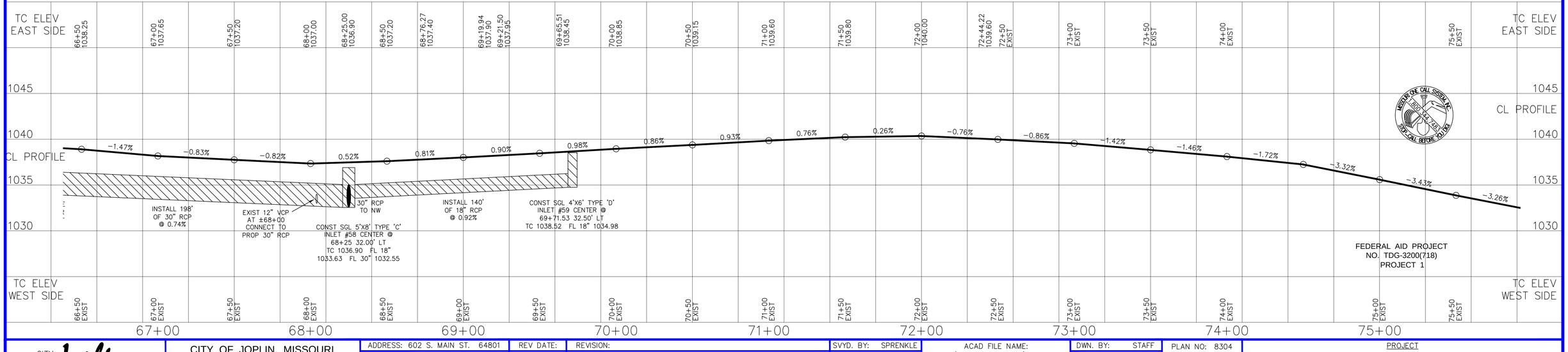






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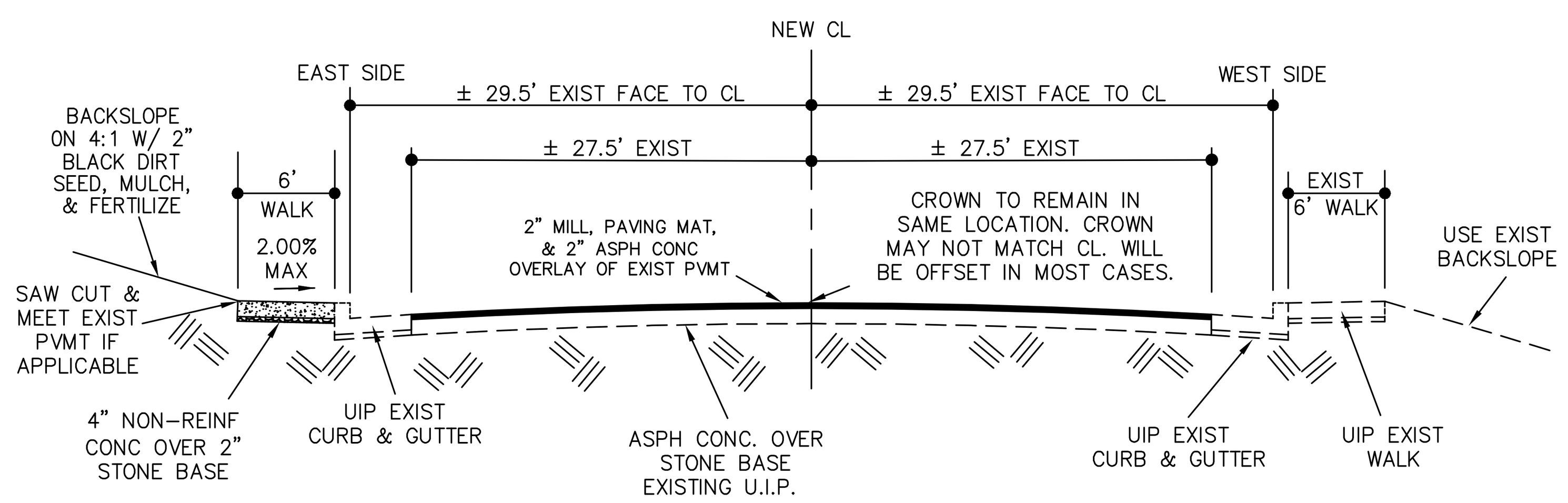


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FEDERAL AID PROJECT NO. TDG-3200(718) PROJECT 1

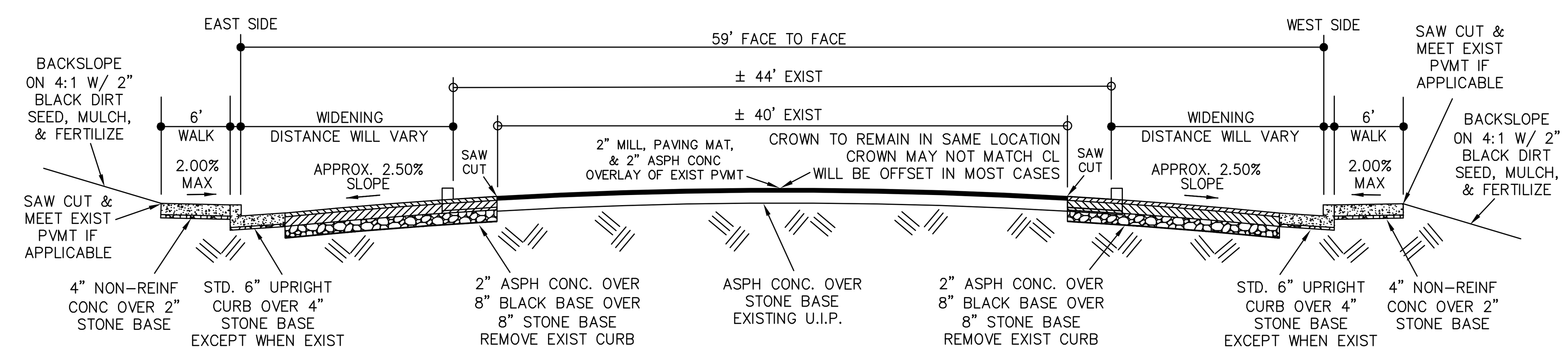
CITY OF Joplin	CITY OF JOPLIN, MISSOURI DEPARTMENT OF PUBLIC WORKS DIVISION OF ENGINEERING	ADDRESS: 602 S. MAIN ST. 64801	REV DATE:	REVISION:	SVYD. BY: SPRENKLE	ACAD FILE NAME: STREET\MAIDENLANE2006\RCP08001	DWN. BY: STAFF	PLAN NO: 8304	PROJECT: STREET PLAN & PROFILE MAIDEN LANE WIDENING - 9TH TO 32ND
		PH NO: 417-624-0820 EXT 530	03/2010	PRINTED NEW SHEETS	PAGE/BOOK: 00/000		CKD. BY: BRADLEY	SHEET 10 of 40	
		FAX NO.: 1-417-625-4738			SVY. DATE: 09/2006	SCALES: HORZ: 1"= 30' VERT: 1"= 5'	APD. BY: SCHALLER		
		E-MAIL: DHERTZBE@JOPLINMO.ORG			ENGINEER: HERTZBERG		DATE: 09/2006		






TYPICAL SECTION
72+69 TO 76.92.94
N.T.S.

ASPHALT PRIMER SHALL BE APPLIED AT A RATE OF .25 GAL PER SQ. YD.



TYPICAL SECTION
76+92.94 TO 81+94.51
N.T.S.

ASPHALT PRIMER SHALL BE APPLIED AT A RATE OF .25 GAL PER SQ. YD.



TYPICAL SECTION
81+94.51 TO 87+05.09
N.T.S.

ASPHALT PRIMER SHALL BE APPLIED AT A RATE OF .25 GAL PER SQ. YD.

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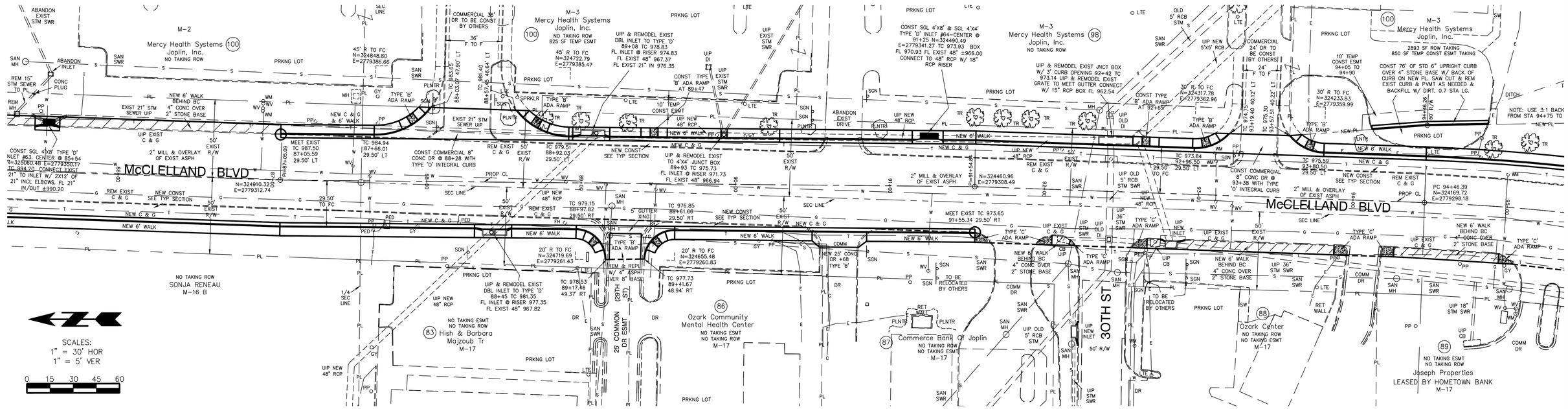
FEDERAL AID PROJECT
NO. TDG-3200(718)
PROJECT 1

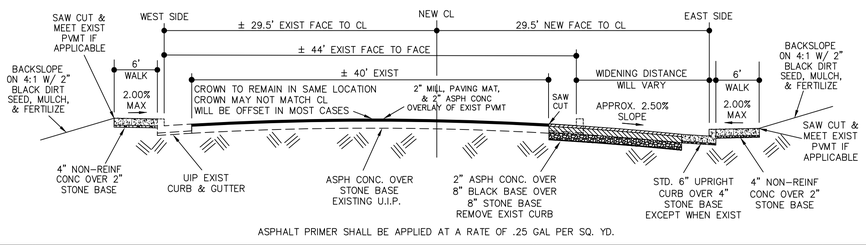
CITY OF Joplin	CITY OF JOPLIN, MISSOURI DEPARTMENT OF PUBLIC WORKS DIVISION OF ENGINEERING	ADDRESS: 602 S MAIN ST 64801 PH NO: 417-624-0820 EXT 530 FAX NO: 417-625-4738 E-MAIL: DHERTZBE@JOPLINMO.ORG	REV DATE: 03/2010	REVISION: PRINTED NEW SHEETS	SVYD BY: SPRENKLE PAGE/BOOK: 00/000 SVY DATE: 09/2006 ENGINEER: HERTZBERG	ACAD FILE NAME: STREET\MAIDENLANE2006\RCP09001 SCALES: HORZ: 1"= 30' VERT: 1"= 5'	DWN BY: STAFF CKD BY: BRADLEY APD BY: SCHALLER DATE: 09/2006

PLAN NO: 8304

SHEET 11 of 40

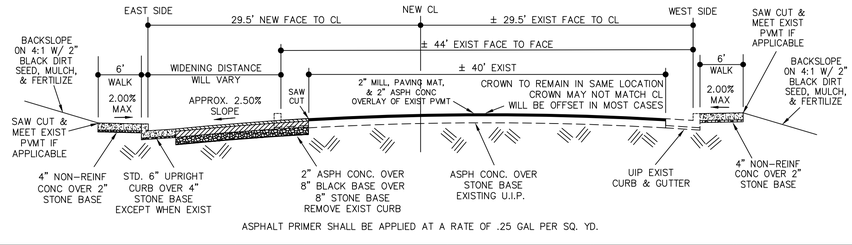
PROJECT
STREET PLAN & PROFILE
MAIDEN LANE WIDENING - 9TH TO 32ND





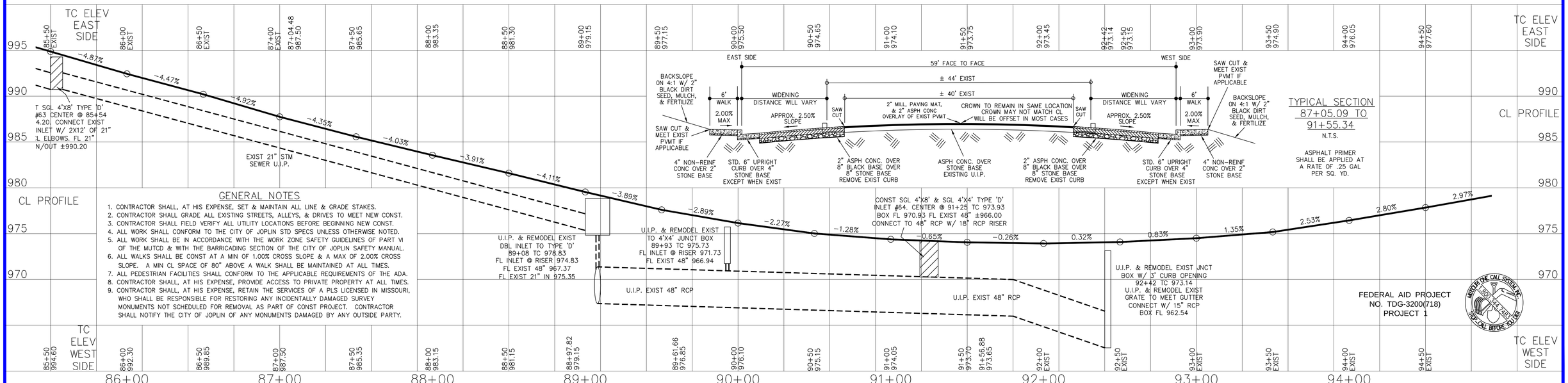
TYPICAL SECTION
81+94.51 TO
87+05.09
N.T.S.

ASPHALT PRIMER SHALL BE APPLIED AT A RATE OF .25 GAL PER SQ. YD.



TYPICAL SECTION
91+55.34 TO
100+63.55
N.T.S.

ASPHALT PRIMER SHALL BE APPLIED AT A RATE OF .25 GAL PER SQ. YD.



TYPICAL SECTION
87+05.09 TO
91+55.34
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FEDERAL AID PROJECT
NO. TDG-3200(718)
PROJECT 1

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CITY OF Joplin

CITY OF JOPLIN, MISSOURI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

ADDRESS: 602 S MAIN ST 64801
PH NO: 417-624-0820 EXT 530
FAX NO: 417-625-4738
E-MAIL: DHERTZBE@JOPLINMO.ORG

REV DATE:	REVISION:
03/2010	PRINTED NEW SHEETS
09/2012	CHECKED SIGN LOCATIONS & ESMT FROM 94+05 TO 94+90

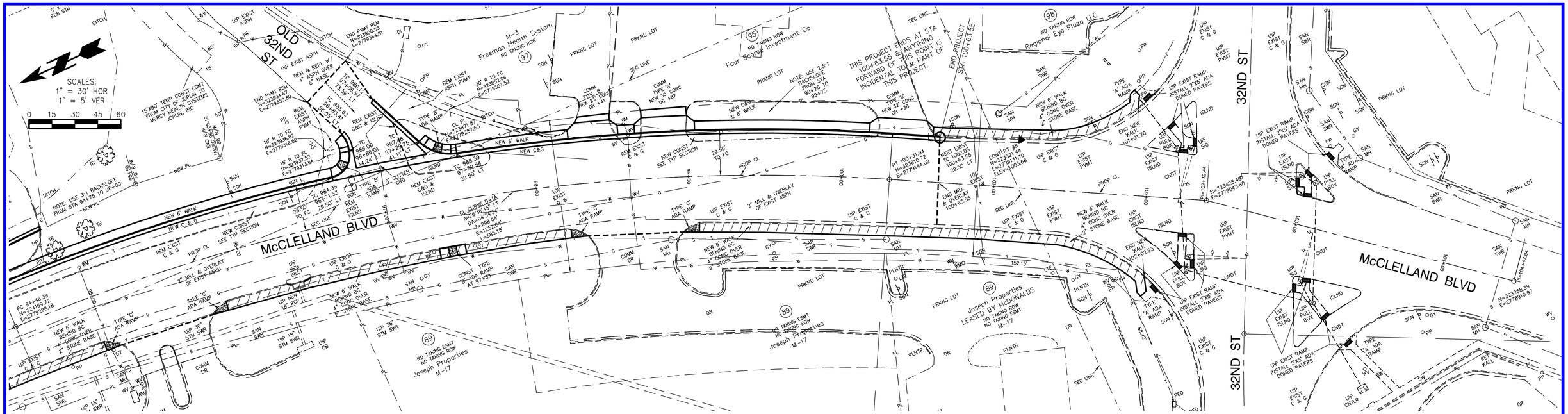
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SVY DATE: 09/2006
ENGINEER: HERTZBERG

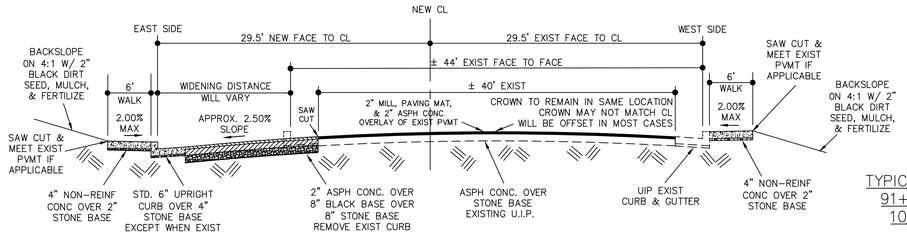
ACAD FILE NAME: STREET\MAIDENLANE2006\RCP10001
SCALES: HORZ: 1"= 30' VERT: 1"= 5'

DWN BY: STAFF
CKD BY: BRADLEY
APD BY: SCHALLER
DATE: 09/2006

PLAN NO: 8304
SHEET 12 of 40

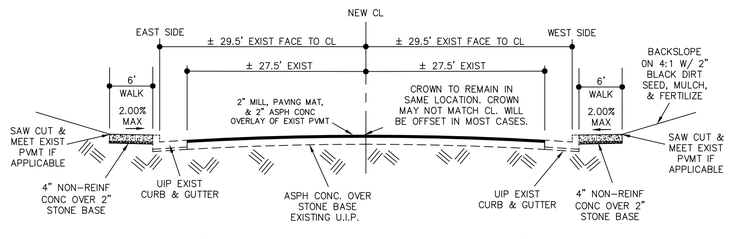
PROJECT
STREET PLAN & PROFILE
MAIDEN LANE WIDENING - 9TH TO 32ND





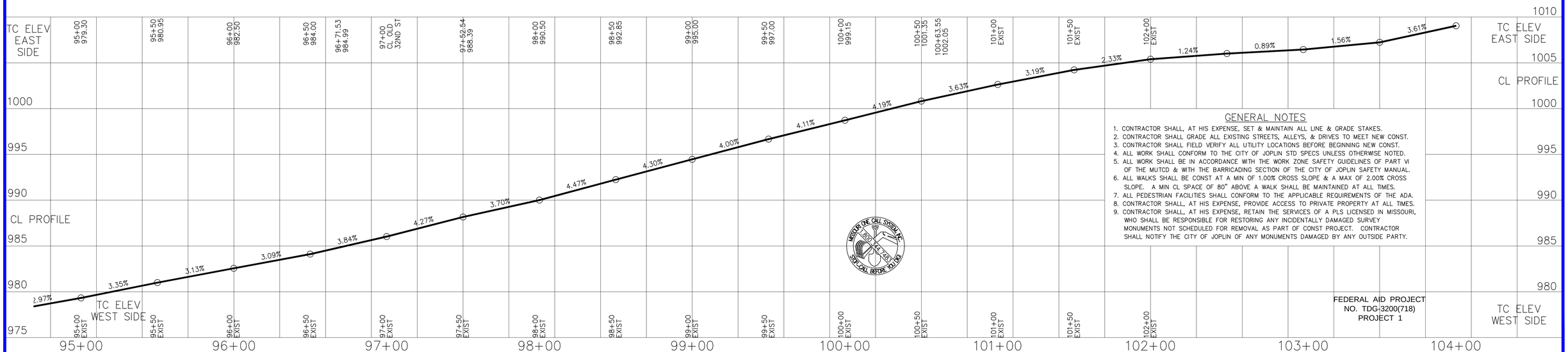
TYPICAL SECTION
91+55.34 TO
100+63.55
N.T.S.

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TYPICAL SECTION
100+63.55 TO
102+02.93
N.T.S.

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FEDERAL AID PROJECT
NO. TDG-3200(718)
PROJECT 1

CITY OF Joplin

CITY OF JOPLIN, MISSOURI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

ADDRESS: 602 S MAIN ST 64801
PH NO: 417-624-0820 EXT 530
FAX NO: 417-625-4738
E-MAIL: DHERTZBE@JOPLINMO.ORG

REV DATE:	REVISION:
03/2010	PRINTED NEW SHEETS

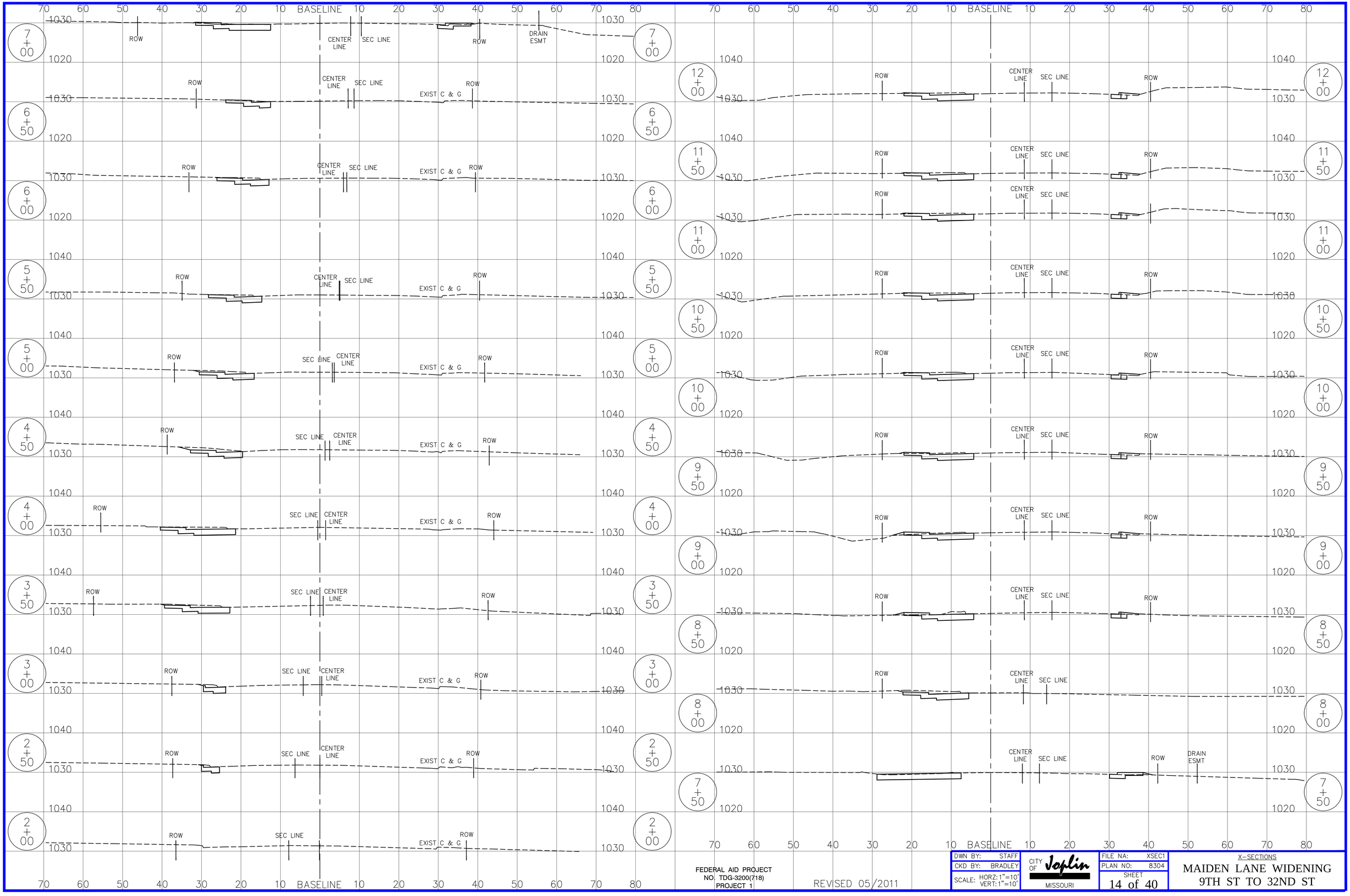
SVYD BY: SPRENKLE
PAGE/BOOK: 00/000
SVY DATE: 09/2006
ENGINEER: HERTZBERG

ACAD FILE NAME: STREET\MAIDENLANE2006\RCP11001
SCALES: HORZ: 1"= 30' VERT: 1"= 5'

DWN BY: STAFF
CKD BY: BRADLEY
APD BY: SCHALLER
DATE: 09/2006

PLAN NO: 8304
SHEET 13 of 40

PROJECT
STREET PLAN & PROFILE
MAIDEN LANE WIDENING - 9TH TO 32ND



FEDERAL AID PROJECT
NO. TDG-3200(718)
PROJECT 1

REVISED 05/2011

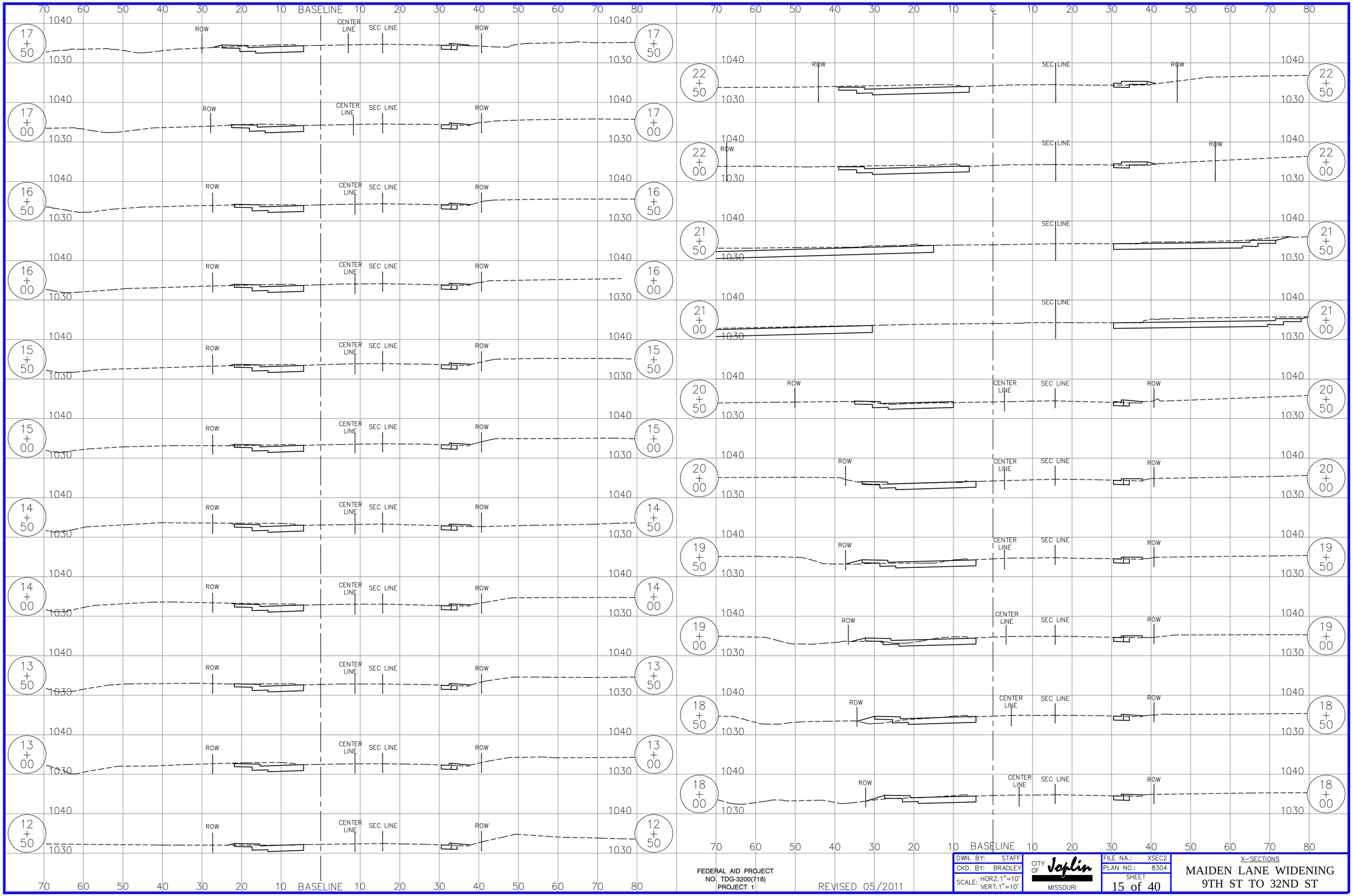
DWN BY:	STAFF
CKD BY:	BRADLEY
SCALE:	HORZ: 1"=10' VERT: 1"=10'

CITY OF Joplin
MISSOURI

FILE NA:	XSEC1
PLAN NO:	8304
SHEET	14 of 40

X-SECTIONS

MAIDEN LANE WIDENING
9TH ST TO 32ND ST



FEDERAL AID PROJECT
NO. TDG-3200(718)
PROJECT 1

REVISED 05/2011

DWN. BY:	STAFF
CKD. BY:	BRADLEY
SCALE:	HORZ: 1"=10' VERT: 1"=10'

CITY OF Joplin
MISSOURI

FILE NA.:	XSEC2
PLAN NO.:	8304
SHEET	15 of 40

X-SECTIONS

MAIDEN LANE WIDENING
9TH ST TO 32ND ST

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80

1040 / 1030

5+00 — ROW — CROWN — EXIST TC — ROW
DESIGN EL=1032.40

4+50 — ROW — IN RADIUS — IN RADIUS — ROW
DESIGN EL=1033.02

BEGIN PROJECT 4+11.76

4+00 — MAIDEN LANE — MAIDEN LANE
EXIST EL=1033.73

END PROJECT 3+50

3+50 — MAIDEN LANE–AT GUTTER LINE — MAIDEN LANE–AT GUTTER LINE
DESIGN EL=1034.47

3+00 — ROW — ROW
DESIGN EL=1035.41

2+50 — ROW — ROW ESMT
DESIGN EL=1036.53

2+00 — ROW — ROW ESMT
DESIGN EL=1037.69

1+50 — CL DITCH=19.19' LT, PROP DITCH FL=1037.55 — CL DITCH=19.34' RT, PROP DITCH FL=1037.52 — ROW — ROW ESMT
DESIGN EL=1038.84

1+00 — PROP DITCH @ 0.72%% EXIST DITCH @ 0+50=1038.27 PROP FL @ 1+50=1037.19 — CL DITCH=20.90' LT, PROP DITCH FL=1037.91 — CL DITCH=21.25' RT, PROP DITCH FL=1037.84 — PROP DITCH @ 0.65% EXIST DITCH @ 0+50=1038.17 PROP FL @ 1+50=1037.19 — ROW — ROW ESMT
DESIGN EL=1039.86

0+50 — CL DITCH=21.93' LT — CL DITCH=20.92' RT — ROW ESMT
EXIST DITCH FL=1038.27 — EXIST EL=1040.59 — EXIST DITCH=1038.17

BEGIN PROJECT 0+50

0+00 — ROW — ROW
EXIST EL=1041.19

TOTALS FOR 13TH ST
VOL FILL = 39.04 + 97.46=136.5
VOL CUT= 1970.37

7+93.09 — ROW — EXIST TC — EXIST TC — ROW

END PROJECT ±7+55

7+50 — ROW — EXIST TC — EXIST TC — ROW

7+00 — ROW — CROWN — EXIST TC — ROW
DESIGN EL=1031.30

6+50 — ROW — CROWN — EXIST TC — ROW
DESIGN EL=1031.60

6+00 — ROW — CROWN — EXIST TC — ROW
DESIGN EL=1031.90

5+50 — ROW — CROWN — EXIST TC — ROW
DESIGN EL=1032.15

FEDERAL AID PROJECT
NO. TDG-3200(718)
PROJECT 1

REVISED 03/2013

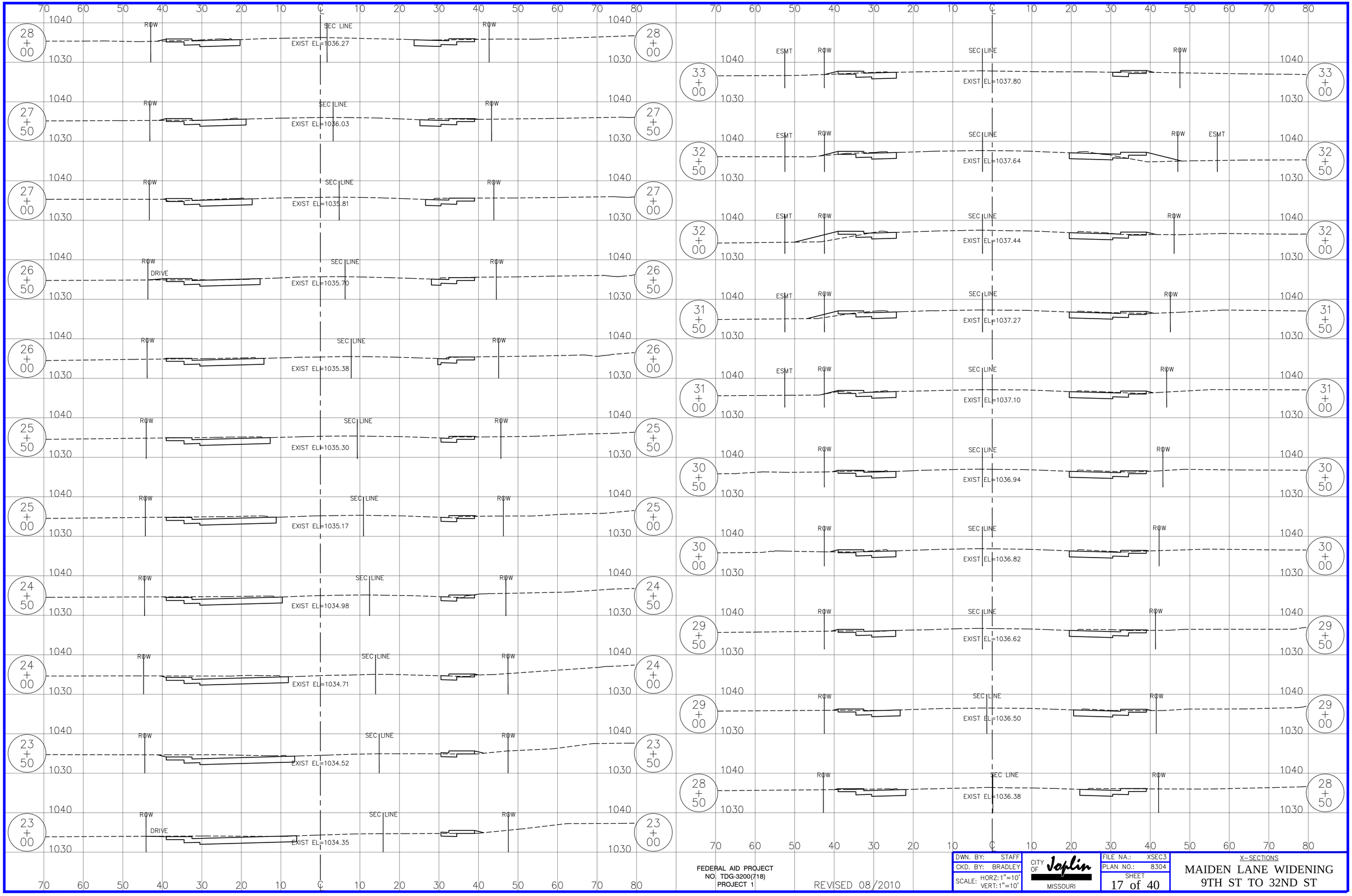
DWN. BY:	STAFF
CKD. BY:	BRADLEY
SCALE:	HORZ: 1"=10' VERT: 1"=10'

CITY OF Joplin MISSOURI

FILE NA.: XSEC13TH
PLAN NO.: 8304
SHEET 16 of 40

X-SECTIONS

13TH ST WIDENING AT MAIDEN LANE



FEDERAL AID PROJECT
NO. TDG-3200(718)
PROJECT 1

REVISED 08/2010

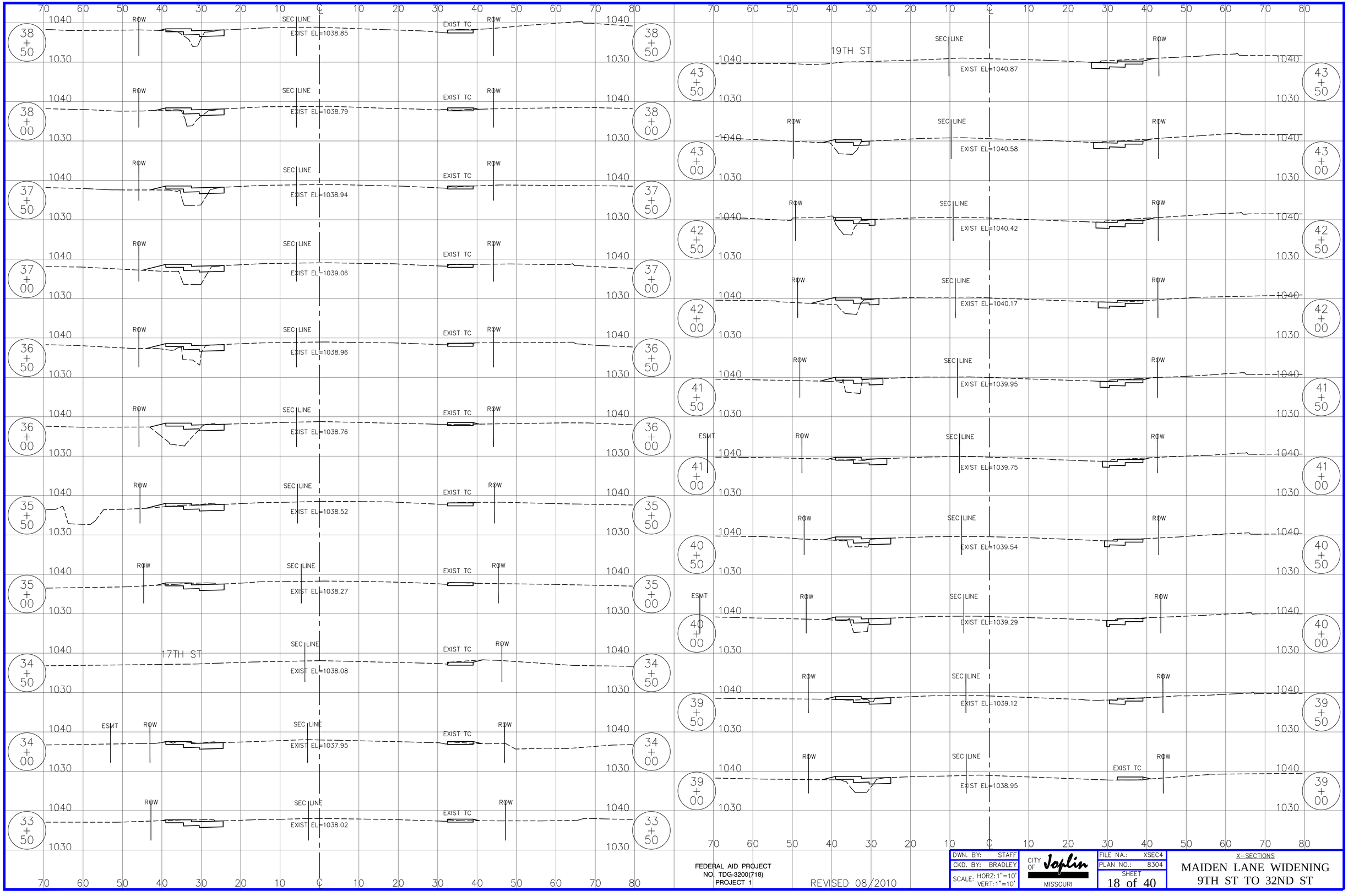
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SCALE:	HORZ:1"=10' VERT:1"=10'

CITY OF Joplin
MISSOURI

FILE NA.:	XSEC3
PLAN NO.:	8304
SHEET	17 of 40

X-SECTIONS

MAIDEN LANE WIDENING
9TH ST TO 32ND ST



FEDERAL AID PROJECT
NO. TDG-3200(718)
PROJECT 1

REVISED 08/2010

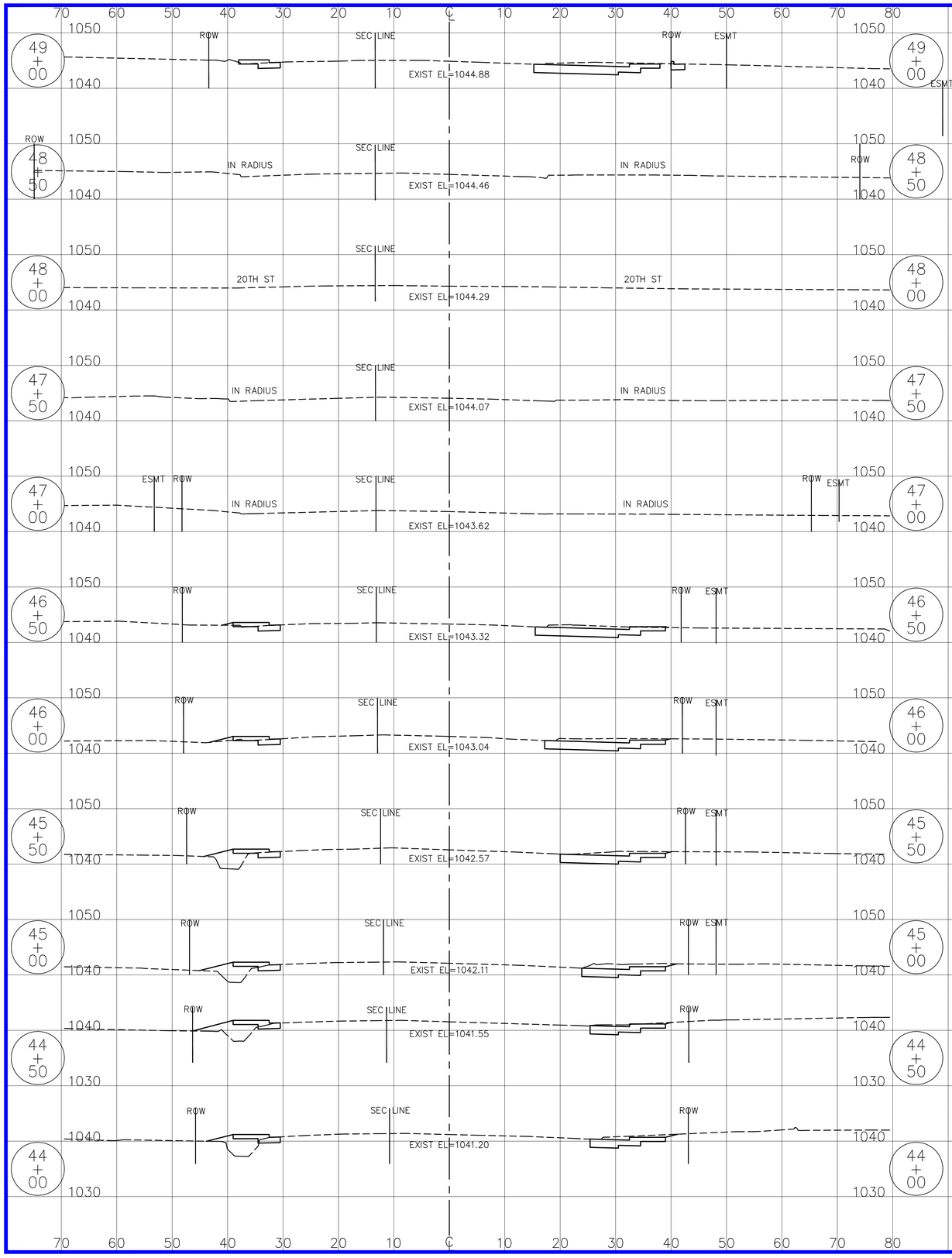
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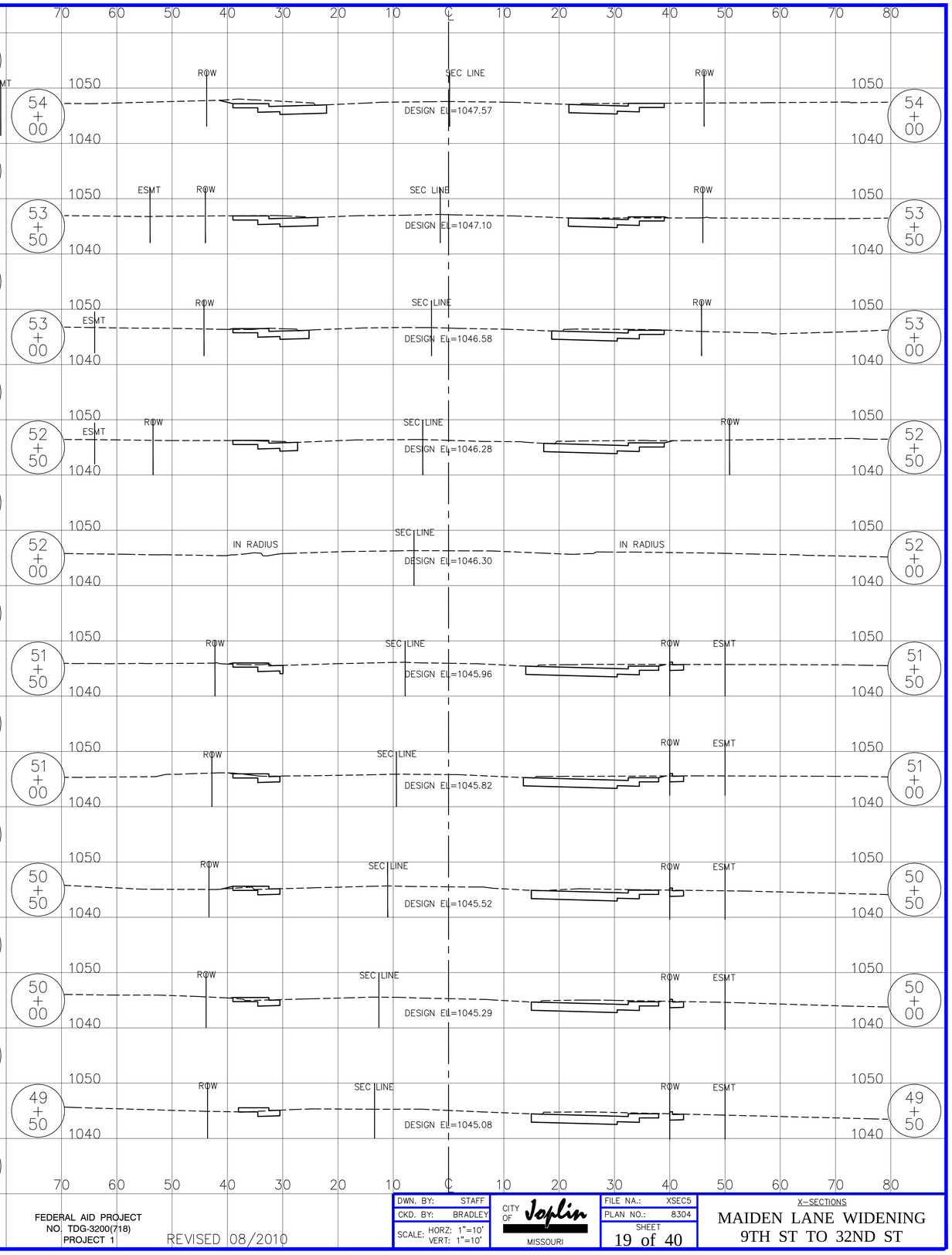
CITY OF Joplin
MISSOURI

FILE NA.:	XSEC4
PLAN NO.:	8304
SHEET	18 of 40

X-SECTIONS

MAIDEN LANE WIDENING
9TH ST TO 32ND ST





FEDERAL AID PROJECT
NO. TDG-3200(718)
PROJECT 1

REVISED 08/2010

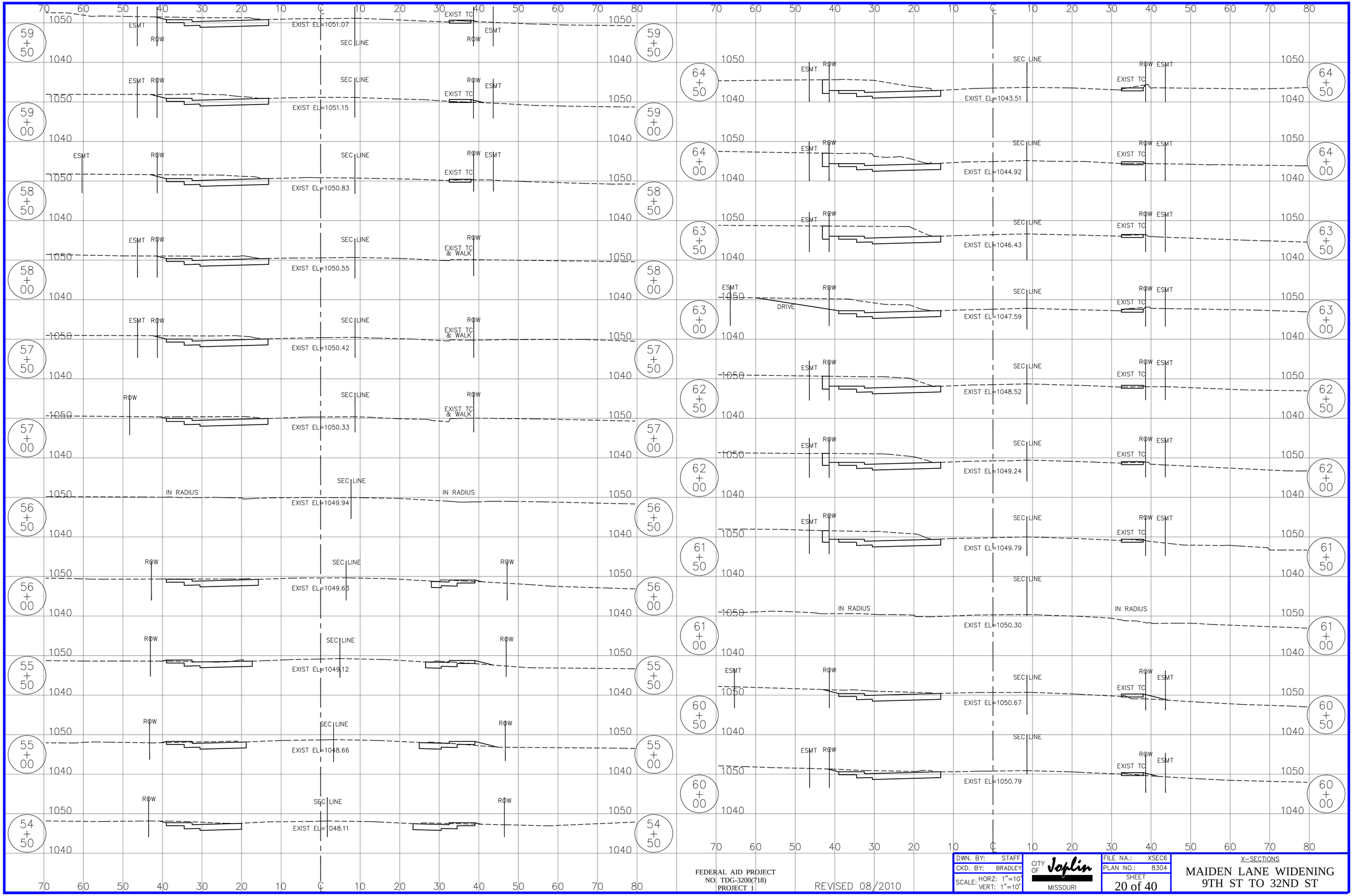
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CKD. BY:	BRADLEY
SCALE:	HORZ: 1"=10' VERT: 1"=10'

CITY OF Joplin
MISSOURI

FILE NA.:	XSEC5
PLAN NO.:	8304
SHEET	19 of 40

X-SECTIONS

MAIDEN LANE WIDENING
9TH ST TO 32ND ST



FEDERAL AID PROJECT
NO. TDG-3200(718)
PROJECT 1

REVISED 08/2010

DWN. BY:	STAFF
CKD. BY:	BRADLEY
SCALE:	HORZ: 1"=10' VERT: 1"=10'

CITY OF Joplin
MISSOURI

FILE NA.:	XSEC6
PLAN NO.:	8304
SHEET	20 of 40

X-SECTIONS

MAIDEN LANE WIDENING
9TH ST TO 32ND ST

70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80

70+00 — 1040 — ROW — SEC LINE — EXIST TC — ROW — ESMT — EXIST EL=1038.94 — 1030 — 70+00

69+50 — 1040 — ROW — IN RADIUS — SEC LINE — EXIST TC — ROW — ESMT — EXIST EL=1038.45 — 1030 — 69+50

69+00 — 1040 — ROW — DRIVE — SEC LINE — EXIST TC — ROW — ESMT — EXIST EL=1038.00 — 1030 — 69+00

68+50 — 1040 — ROW — SEC LINE — EXIST TC — ROW — ESMT — EXIST EL=1037.60 — 1030 — 68+50

68+00 — 1040 — ROW — SEC LINE — EXIST TC — ROW — ESMT — EXIST EL=1037.34 — 1030 — 68+00

67+50 — 1040 — ROW — NEW TRAIL — SEC LINE — EXIST TC — ROW — ESMT — EXIST EL=1037.75 — 1030 — 67+50

67+00 — 1040 — ROW — NEW TRAIL — SEC LINE — EXIST TC — ROW — ESMT — EXIST EL=1038.15 — 1030 — 67+00

66+50 — 1040 — ROW — NEW TRAIL — SEC LINE — EXIST TC — ROW — ESMT — EXIST EL=1038.89 — 1030 — 66+50

66+00 — 1040 — ROW — NEW TRAIL — SEC LINE — EXIST TC — ROW — ESMT — EXIST EL=1039.39 — 1030 — 66+00

65+50 — 1040 — IN RADIUS — SEC LINE — EXIST TC — ROW — ESMT — EXIST EL=1040.59 — 1030 — 65+50

65+00 — 1050 — ESMT — ROW — SEC LINE — EXIST TC — ROW — ESMT — EXIST EL=1041.93 — 1040 — 65+00

75+00 — 1040 — IN RADIUS — SEC LINE — EXIST TC — ROW — EXIST EL=1035.58 — 1030 — 75+00

74+50 — 1040 — 26TH ST — SEC LINE — 26TH ST — EXIST EL=1037.24 — 1030 — 74+50

74+00 — 1040 — ROW — EXIST TC — SEC LINE — ROW — EXIST WALK — EXIST EL=1038.10 — 1030 — 74+00

73+50 — 1040 — ROW — EXIST TC — SEC LINE — ROW — EXIST WALK — EXIST EL=1038.83 — 1030 — 73+50

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72+00 — 1040 — ROW — NEW TRAIL — SEC LINE — ROW — ESMT — EXIST TC — EXIST EL=1040.55 — 1030 — 72+00

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71+00 — 1040 — ROW — SEC LINE — ROW — ESMT — EXIST TC — EXIST EL=1039.84 — 1030 — 71+00

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FEDERAL AID PROJECT
NO. TDG-3200(718)
PROJECT 1

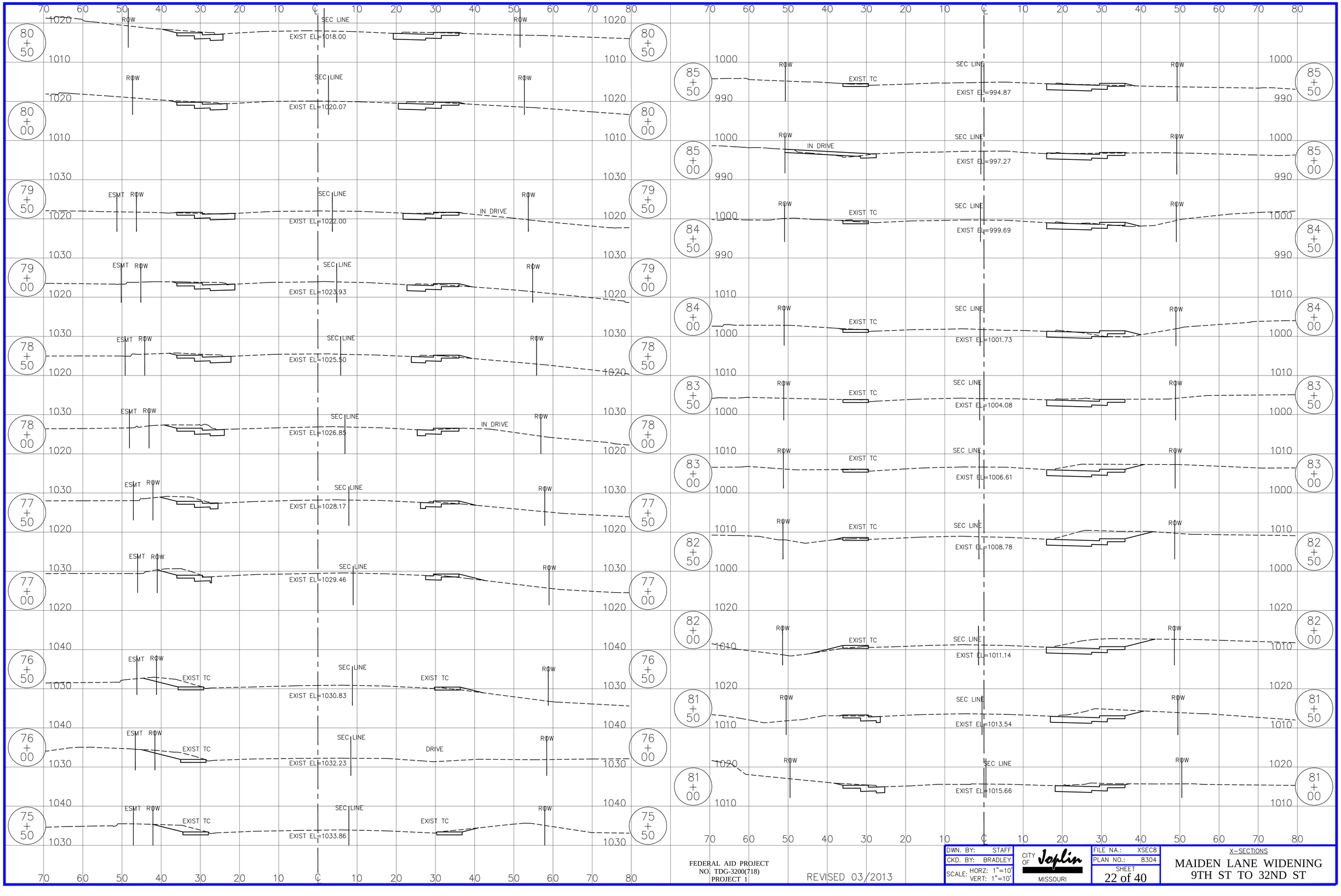
REVISED 08/2010

DWN. BY: STAFF	FILE NA.: XSEC7
CKD. BY: BRADLEY	PLAN NO.: 8304
SCALE: HORZ: 1"=10' VERT: 1"=10'	SHEET 21 of 40

CITY OF Joplin MISSOURI

X-SECTIONS

MAIDEN LANE WIDENING 9TH ST TO 32ND ST



FEDERAL AID PROJECT
NO. TDG-3200(718)
PROJECT 1

REVISED 03/2013

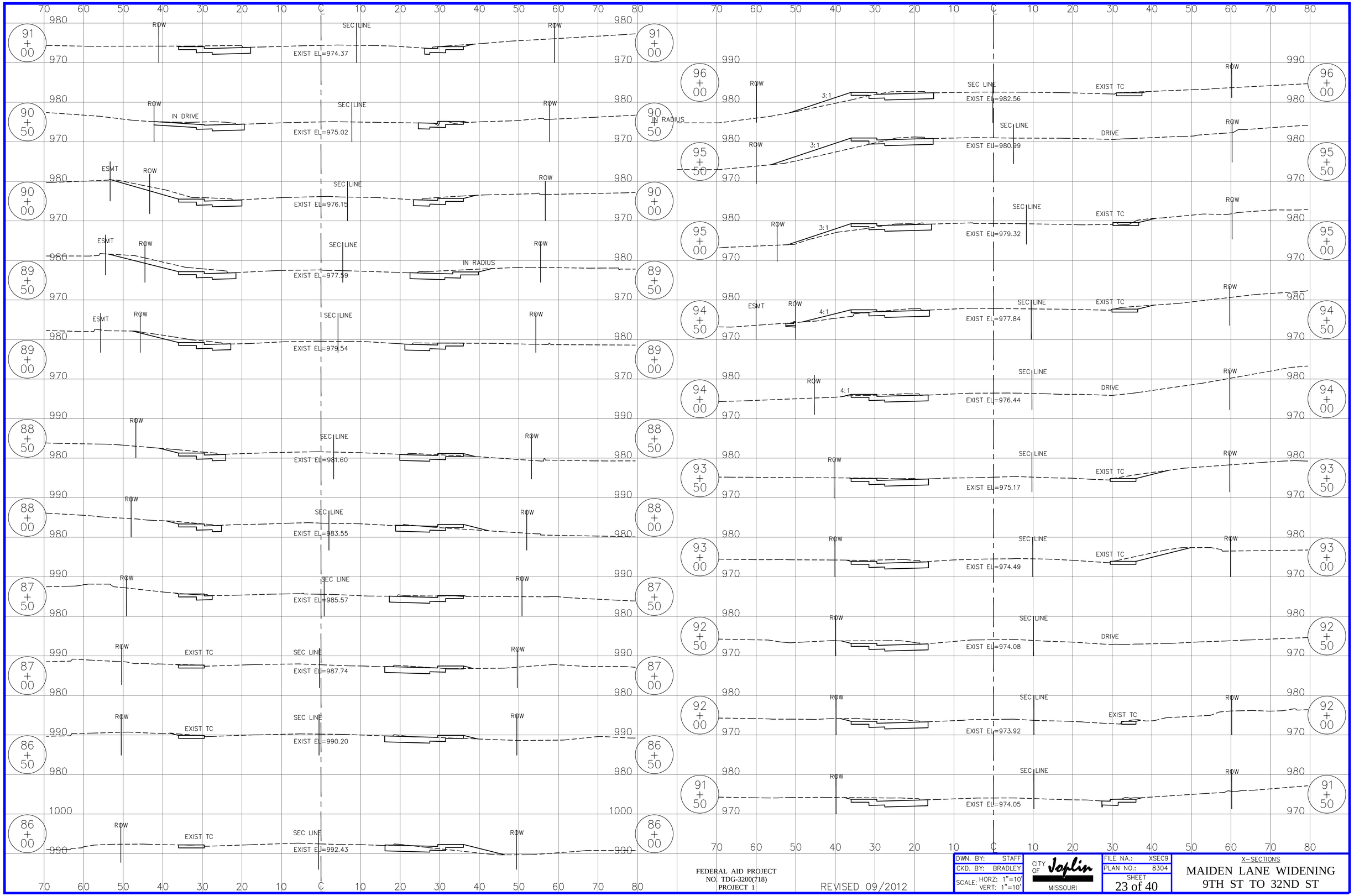
DWN. BY:	STAFF
CKD. BY:	BRADLEY
SCALE:	HORZ: 1"=10' VERT: 1"=10'

CITY OF Joplin
MISSOURI

FILE NA.:	XSEC8
PLAN NO.:	8304
SHEET	22 of 40

X-SECTIONS

MAIDEN LANE WIDENING
9TH ST TO 32ND ST



FEDERAL AID PROJECT
NO. TDG-3200(718)
PROJECT 1

REVISED 09/2012

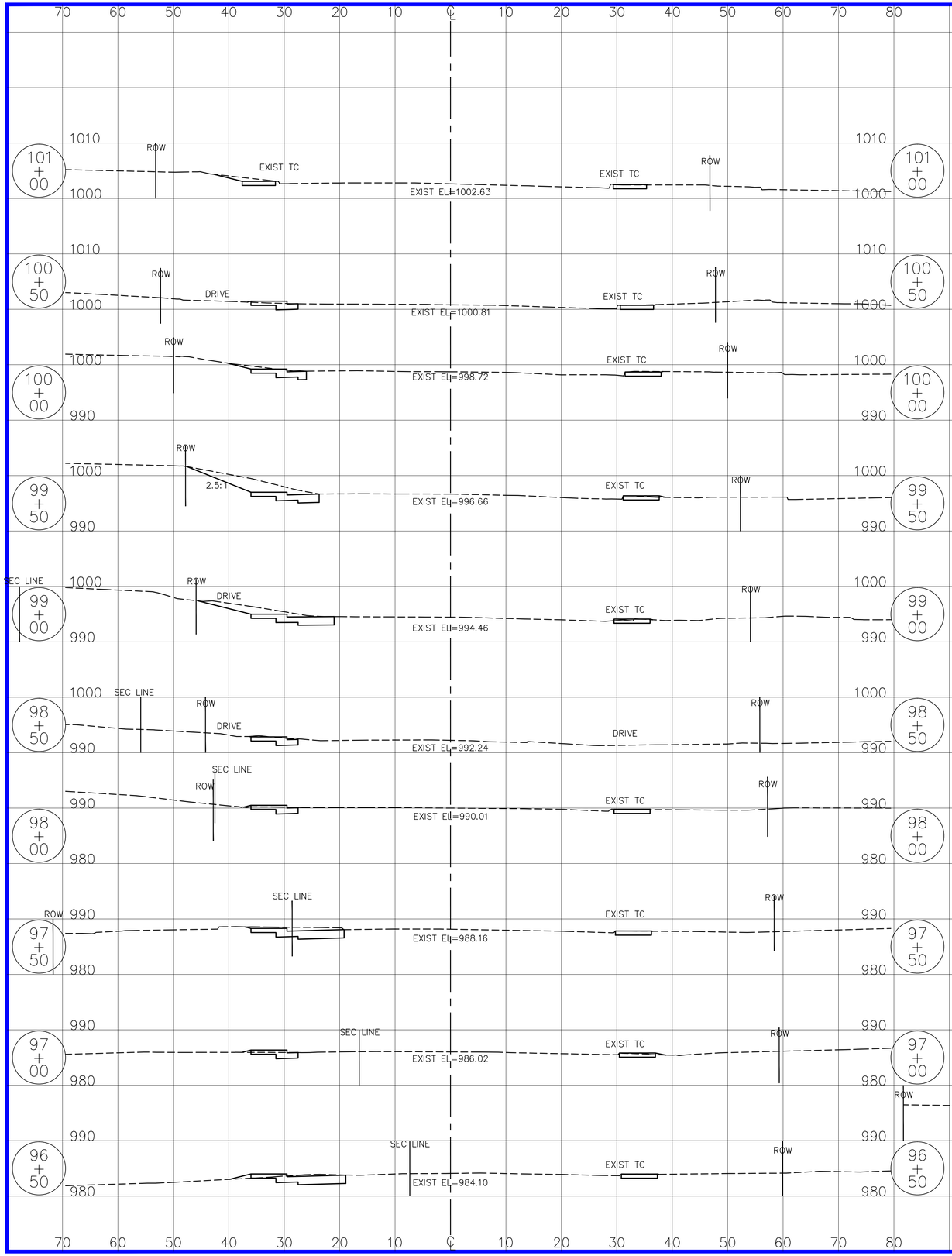
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CITY OF Joplin
MISSOURI

FILE NA.:	XSEC9
PLAN NO.:	8304
SHEET	23 of 40

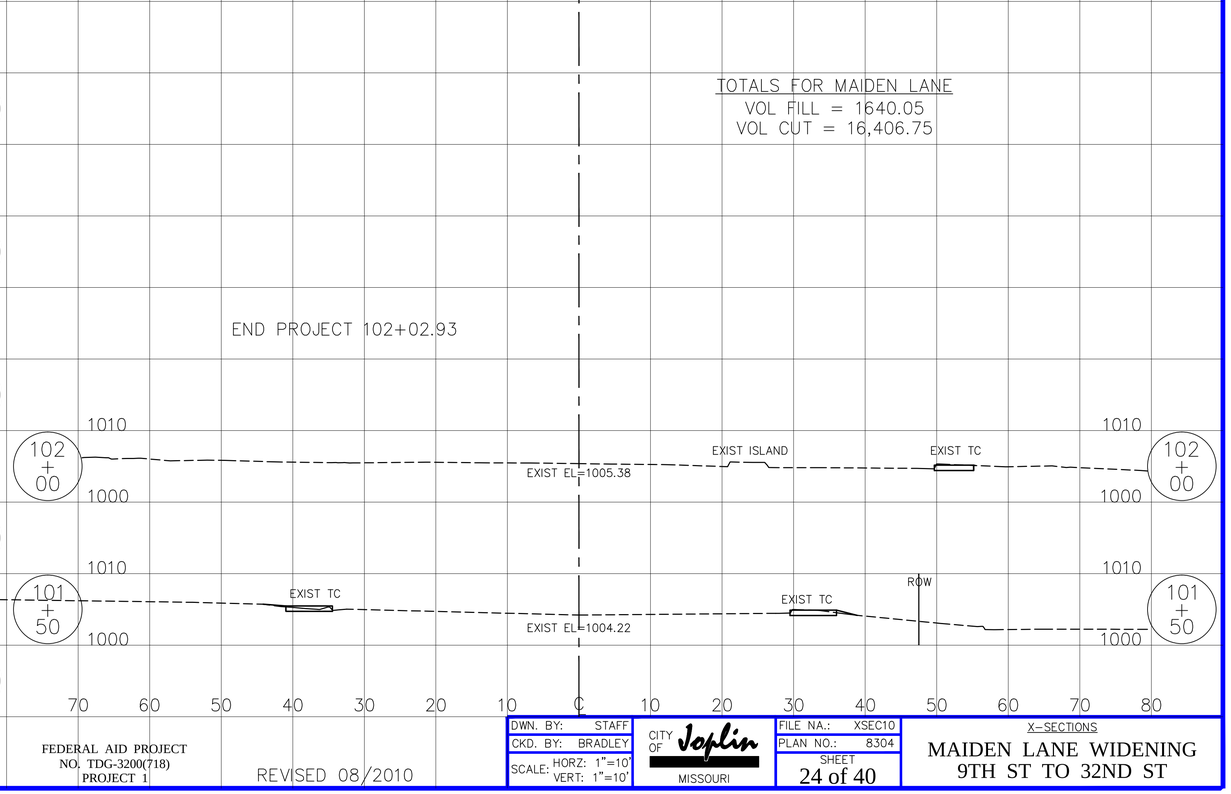
X-SECTIONS

MAIDEN LANE WIDENING
9TH ST TO 32ND ST



TOTALS FOR MAIDEN LANE
VOL FILL = 1640.05
VOL CUT = 16,406.75

END PROJECT 102+02.93



FEDERAL AID PROJECT
NO. TDG-3200(718)
PROJECT 1

REVISED 08/2010

DWN. BY:	STAFF
CKD. BY:	BRADLEY
SCALE:	HORZ: 1"=10' VERT: 1"=10'

CITY OF Joplin MISSOURI

FILE NA.:	XSEC10
PLAN NO.:	8304
SHEET	24 of 40

X-SECTIONS

MAIDEN LANE WIDENING 9TH ST TO 32ND ST

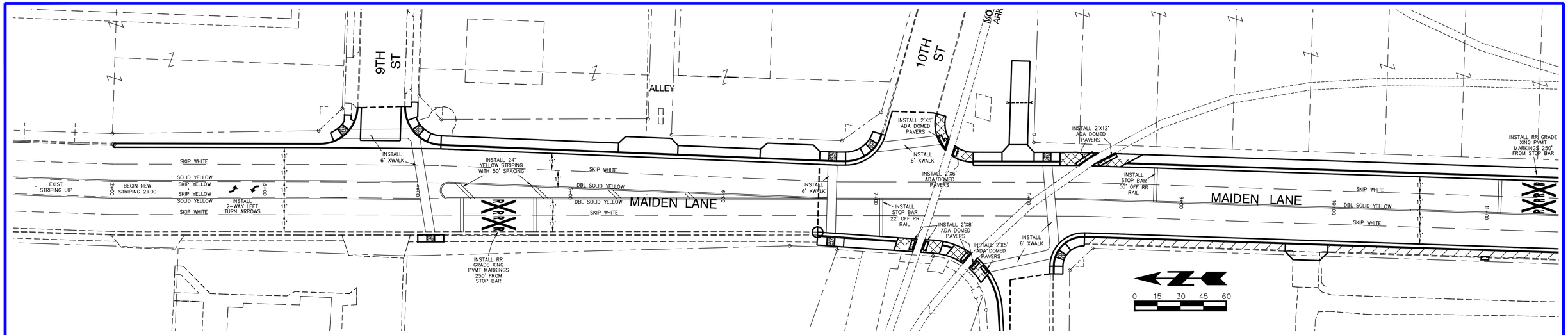


Figure 8B-7. Examples of Highway-Rail Grade Crossing Pavement Markings

GENERAL NOTES

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Figure 3B-7. Example of Two-Way Left-Turn Lane Marking Applications

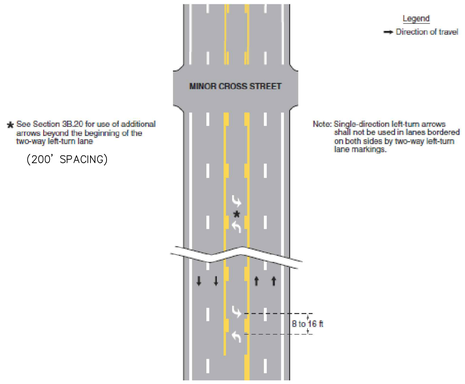
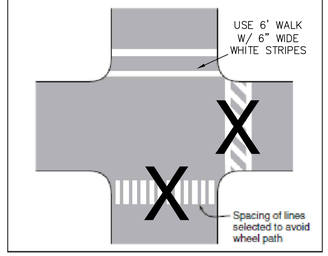
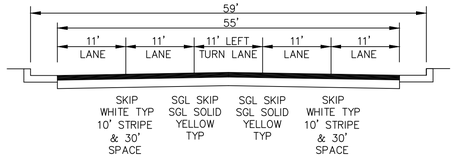


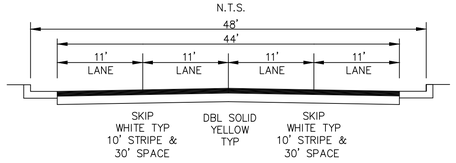
Figure 3B-19. Examples of Crosswalk Markings

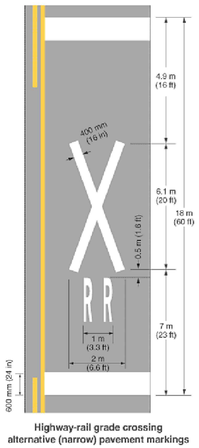


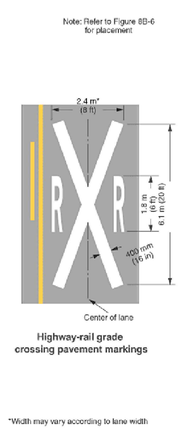
TYPICAL SECTION
5 LANE DESIGN
N.T.S.

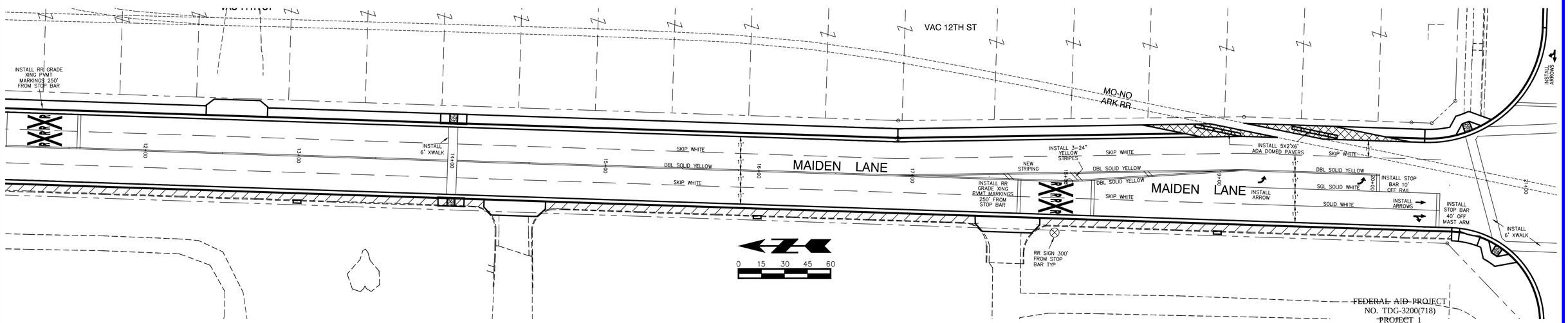


TYPICAL SECTION
4 LANE DESIGN
N.T.S.









~~FEDERAL AID PROJECT~~
NO. TDG-3200(718)
~~PROJECT~~ 1

CITY OF Joplin	CITY OF JOPLIN, MISSOURI DEPARTMENT OF PUBLIC WORKS DIVISION OF ENGINEERING	ADDRESS: 602 S. MAIN ST. 64801 PH. NO.: 1-417-624-0820 EXT. 530 FAX NO.: 1-417-625-4738 E-MAIL: DHERTZBE@JOPLINMO.ORG	REV DATE: 05/2011	REVISION: NARROWED STREET & ROW TO 4 LANES TO 13TH ST	SVYD BY: SPRENKLE PG/BK: 00/000 SVY DATE: 09/2006 ENGINEER: HERTZBERG	ACAD FILE NAME: STREET\ML2006\STRIPING1 SCALES: HORZ: 1"=30'	DWN BY: STAFF CKD BY: BRADLEY APD BY: SCHALLER DATE: 9/2012	PLAN NO: 8304 SHEET 25 of 40	PROJECT STRIPING PLAN MAIDEN LANE WIDENING - 9TH TO 32ND

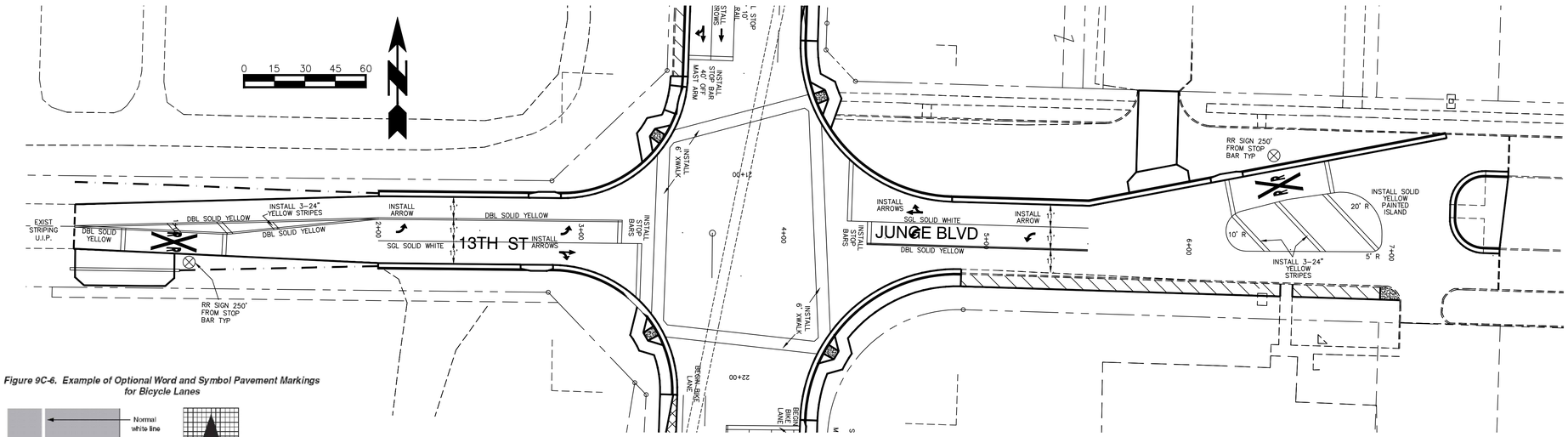
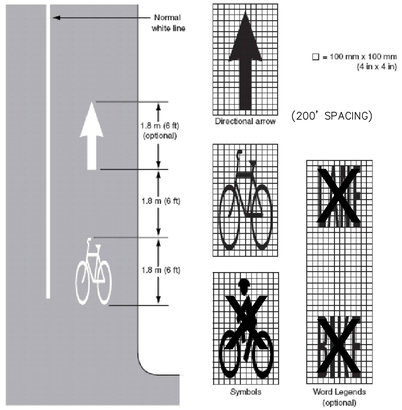


Figure 9C-6. Example of Optional Word and Symbol Pavement Markings for Bicycle Lanes



□ = 100 mm x 100 mm (4 in x 4 in)

Figure 3B-7. Example of Two-Way Left-Turn Lane Marking Applications

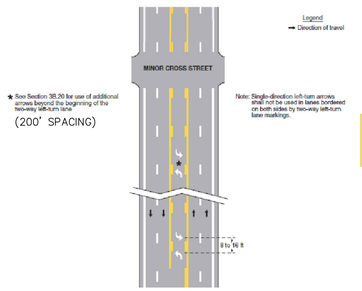
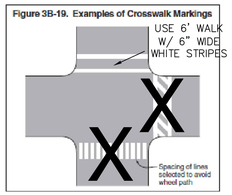


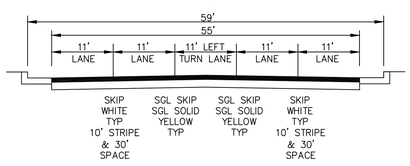
Figure 3B-19. Examples of Crosswalk Markings



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TYPICAL SECTION
5 LANE DESIGN
N.T.S.



TYPICAL SECTION
5 LANE DESIGN-WITH BIKE LANES
N.T.S.

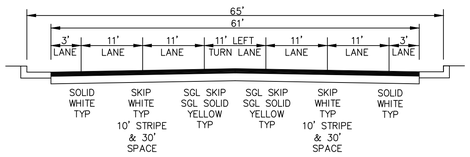
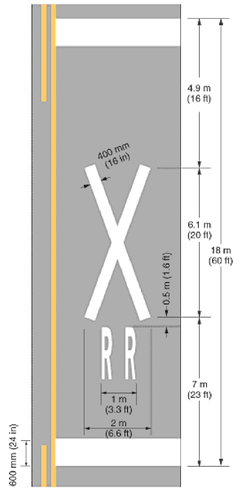
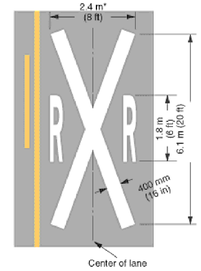


Figure 8B-7. Examples of Highway-Rail Grade Crossing Pavement Markings



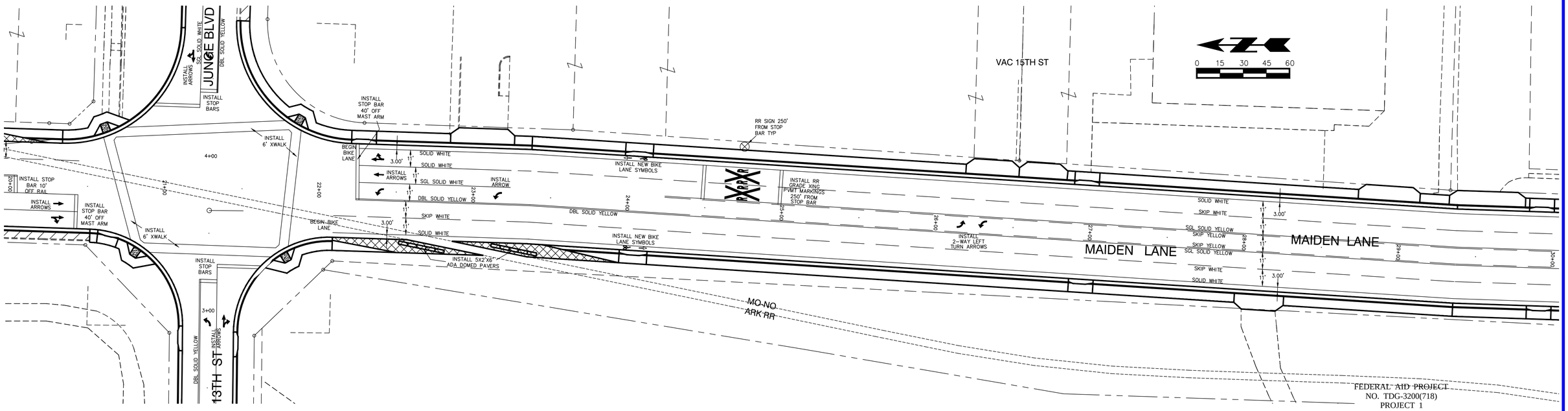
Highway-rail grade crossing alternative (narrow) pavement markings

Note: Refer to Figure 8B-6 for placement



Highway-rail grade crossing pavement markings

*Width may vary according to lane width



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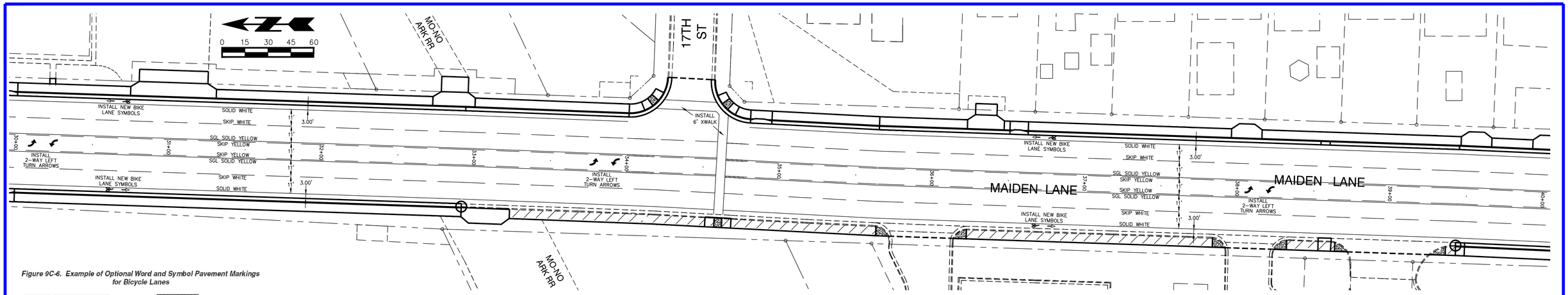


Figure 9C-6. Example of Optional Word and Symbol Pavement Markings for Bicycle Lanes

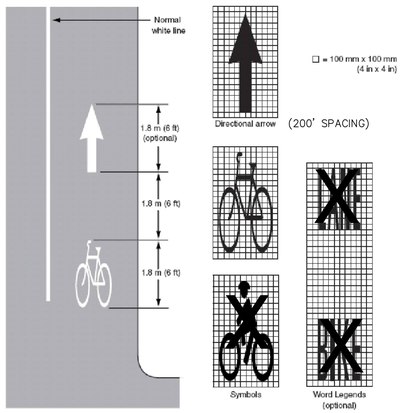


Figure 3B-7. Example of Two-Way Left-Turn Lane Marking Applications

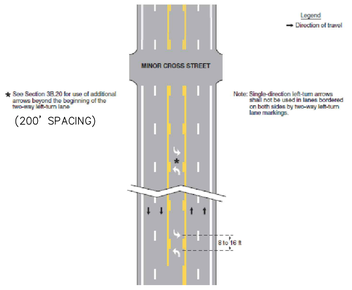
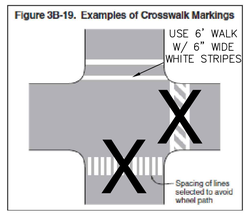


Figure 3B-19. Examples of Crosswalk Markings



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406.6 Diagonal Curb Ramps. Diagonal or corner type *curb ramps* with returned curbs or other well-defined edges shall have the edges parallel to the direction of pedestrian flow. The bottom of diagonal *curb ramps* shall have a clear *space* 48 inches (1220 mm) minimum outside active traffic lanes of the roadway. Diagonal *curb ramps* provided at *marked crossings* shall provide the 48 inches (1220 mm) minimum clear *space* within the markings. Diagonal *curb ramps* with flared sides shall have a segment of curb 24 inches (610 mm) long minimum located on each side of the *curb ramp* and within the *marked crossing*.

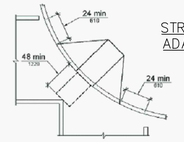
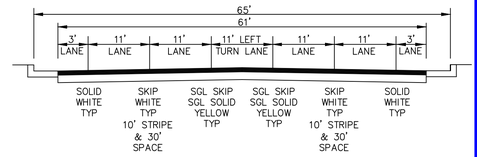


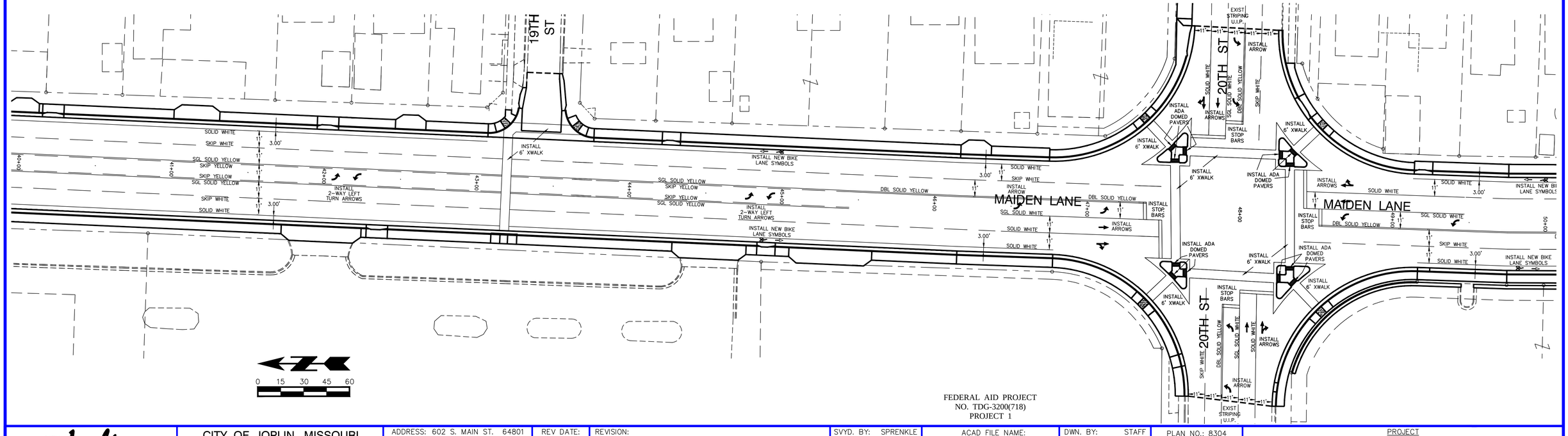
Figure 406.6
Diagonal or Corner Type Curb Ramps

STRIPING AT ADA RAMPS

TYPICAL SECTION
5 LANE DESIGN-WITH BIKE LANES

N.T.S.





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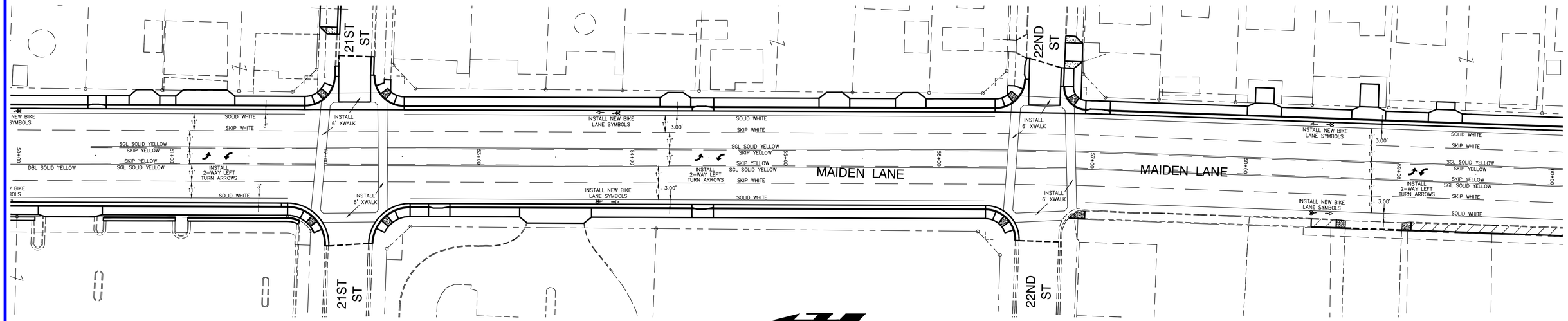


Figure 3B-7. Example of Two-Way Left-Turn Lane Marking Applications

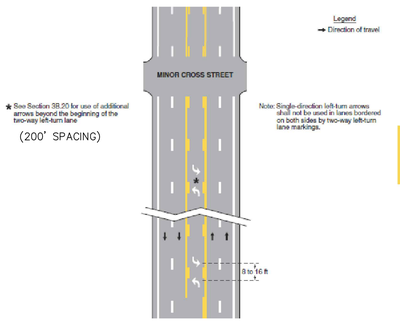
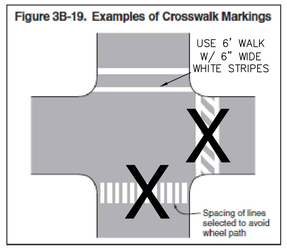


Figure 3B-19. Examples of Crosswalk Markings

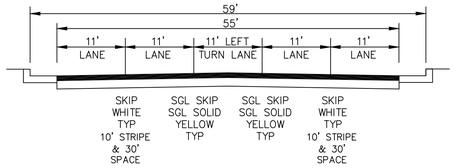


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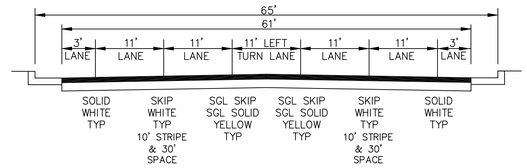
TYPICAL SECTION
5 LANE DESIGN

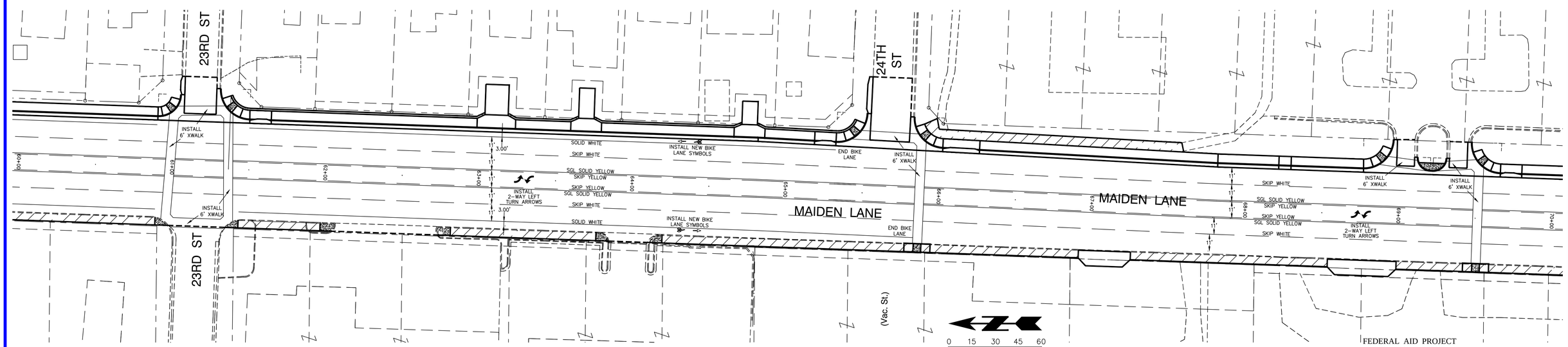
N.T.S.



TYPICAL SECTION
5 LANE DESIGN-WITH BIKE LANES

N.T.S.





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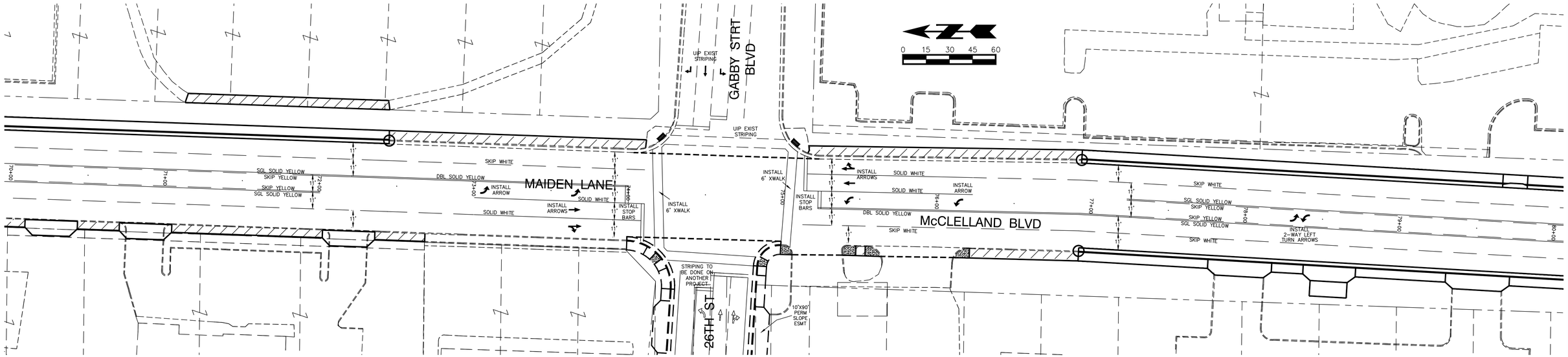


Figure 3B-7. Example of Two-Way Left-Turn Lane Marking Applications

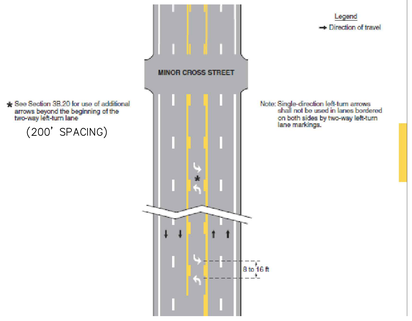
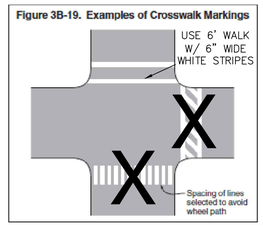


Figure 3B-19. Examples of Crosswalk Markings

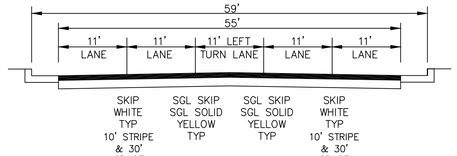


GENERAL NOTES

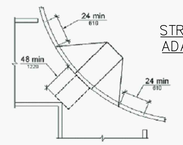
1. CONTRACTOR SHALL PROVIDE THEIR OWN LAYOUT & STAKING.
2. ALL STOP BARS ARE 2' WIDE & ALL CROSSWALKS ARE 6' WIDE.
3. ALL LANE STRIPES ARE TO BE 4" WIDE WITH 4" SPACE BETWEEN STRIPES.
4. 6' MINIMUM SPACE BETWEEN STOP BARS & CROSSWALKS.
5. 10' SETBACK ON STOP BARS IN LEFT TURN LANES.
6. ALL LEFT TURN ONLY LANES AT INTERSECTIONS SHALL HAVE 100' STORAGE & 100' TRANSITIONS.
7. 2' SPACING OF SOLID WHITE STRIPE AROUND CONC ISLANDS IF NECESSARY.
8. ALL BIKE LANE LINES & EDGE OF PAVEMENT LINES ARE TO BE SOLID WHITE.
9. INSTALL 2'X5' ADA DOMED PAVERS AT EXISTING ADA RAMPS.
10. ALL BIKE LANE SIGNING SHALL BE DONE BY THE CITY OF JOPLIN.
11. PEDESTRIAN CROSSING SIGNS SHALL BE INSTALLED BY THE CITY OF JOPLIN IN ADVANCE OF EACH MARKED CROSSWALK ACROSS STREET UNLESS AT SIGNALIZED INTERSECTIONS.
12. ALL WORK SHALL BE IN ACCORDANCE W/ THE GUIDELINES OF THE MUTCD & W/ THE BARRICADING SECTION OF THE CITY OF JOPLIN SAFETY MANUAL.

TYPICAL SECTION
5 LANE DESIGN

N.T.S.

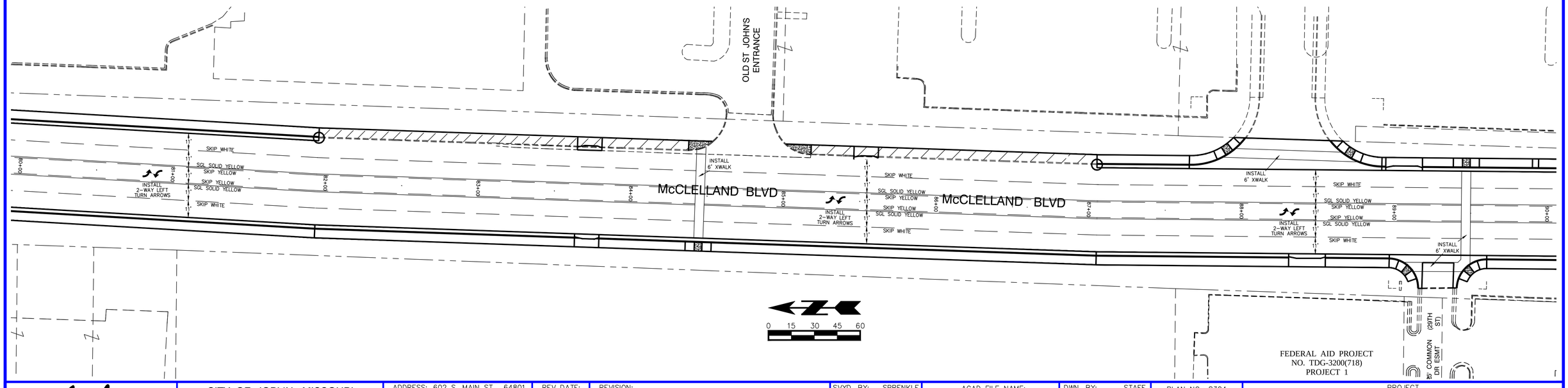


406.6 Diagonal Curb Ramps. Diagonal or corner type *curb ramps* with returned curbs or other well-defined edges shall have the edges parallel to the direction of pedestrian flow. The bottom of diagonal *curb ramps* shall have a clear *space* 48 inches (1220 mm) minimum outside active traffic lanes of the roadway. Diagonal *curb ramps* provided at *marked crossings* shall provide the 48 inches (1220 mm) minimum clear *space* within the *markings*. Diagonal *curb ramps* with flared sides shall have a segment of curb 24 inches (610 mm) long minimum located on each side of the *curb ramp* and within the *marked crossing*.

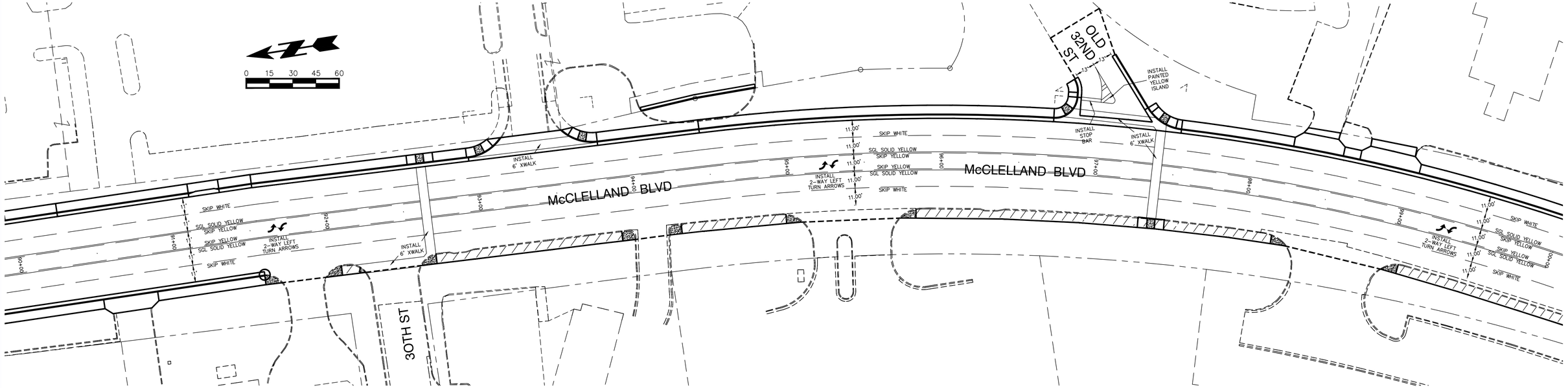


STRIPING AT ADA RAMPS

Figure 406.6
Diagonal or Corner Type Curb Ramps



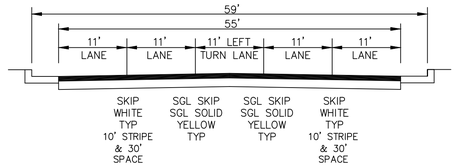
CITY OF Joplin	CITY OF JOPLIN, MISSOURI DEPARTMENT OF PUBLIC WORKS DIVISION OF ENGINEERING	ADDRESS: 602 S. MAIN ST. 64801 PH NO: 417-624-0820 EXT 530 FAX NO.: 1-417-625-4738 E-MAIL: DHERTZBE@JOPLINMO.ORG	REV DATE:	REVISION:	SVYD. BY: SPRENKLE PAGE/BOOK: 00/000 SVY. DATE: 09/2006 ENGINEER: HERTZBERG	ACAD FILE NAME: STREET\ML2006\STRIPING5 SCALES: HORZ: 1"=30'	DWN. BY: STAFF CKD. BY: BRADLEY APPD. BY: SCHALLER DATE: 9/2012	PLAN NO.: 8304 SHEET 29 of 40	PROJECT STRIPING PLAN MAIDEN LANE WIDENING - 9TH TO 32ND



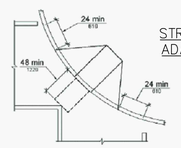
GENERAL NOTES

1. CONTRACTOR SHALL PROVIDE THEIR OWN LAYOUT & STAKING.
2. ALL STOP BARS ARE 2' WIDE & ALL CROSSWALKS ARE 6' WIDE.
3. ALL LANE STRIPES ARE TO BE 4" WIDE WITH 4" SPACE BETWEEN STRIPES.
4. 6' MINIMUM SPACE BETWEEN STOP BARS & CROSSWALKS.
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6. ALL LEFT TURN ONLY LANES AT INTERSECTIONS SHALL HAVE 100' STORAGE & 100' TRANSITIONS.
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9. INSTALL 2'X5' ADA DOMED PAVERS AT EXISTING ADA RAMPS.
10. ALL BIKE LANE SIGNING SHALL BE DONE BY THE CITY OF JOPLIN.
11. PEDESTRIAN CROSSING SIGNS SHALL BE INSTALLED BY THE CITY OF JOPLIN IN ADVANCE OF EACH MARKED CROSSWALK ACROSS STREET UNLESS AT SIGNALIZED INTERSECTIONS.
12. ALL WORK SHALL BE IN ACCORDANCE W/ THE GUIDELINES OF THE MUTCD & W/ THE BARRICADING SECTION OF THE CITY OF JOPLIN SAFETY MANUAL.

TYPICAL SECTION
5 LANE DESIGN
N.T.S.



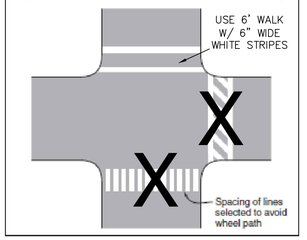
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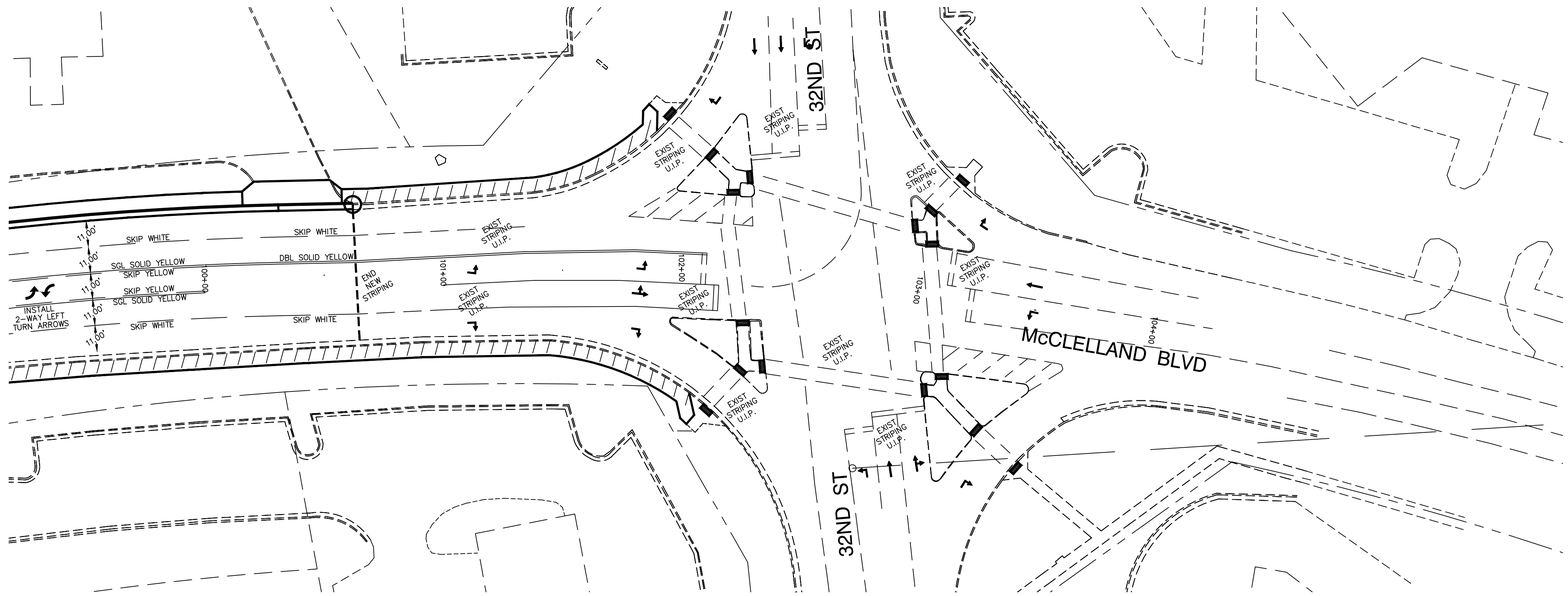


STRIPING AT ADA RAMPS

Figure 406.6
Diagonal or Corner Type Curb Ramps

Figure 3B-19. Examples of Crosswalk Markings





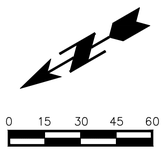
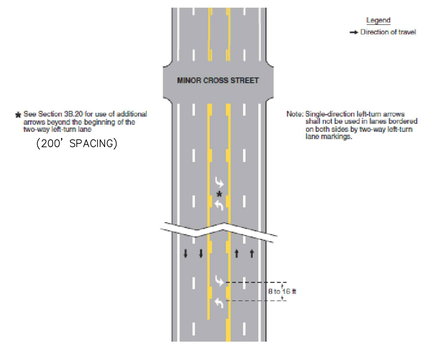
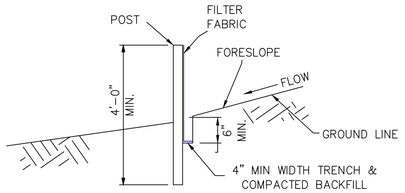


Figure 3B-7. Example of Two-Way Left-Turn Lane Marking Applications

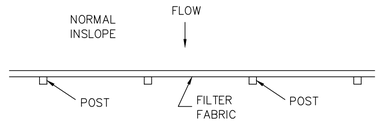


FEDERAL AID PROJECT
NO. TDG-3200(718)
PROJECT 1

CITY OF Joplin	CITY OF JOPLIN, MISSOURI DEPARTMENT OF PUBLIC WORKS DIVISION OF ENGINEERING	ADDRESS: 602 S. MAIN ST. 64801 PH NO: 417-624-0820 EXT 530 FAX NO.: 1-417-625-4738 E-MAIL: DHERTZBE@JOPLINMO.ORG	REV DATE:	REVISION:	SVYD. BY: SPRENKLE PAGE/BOOK: 00/000 SVY. DATE: 09/2006 ENGINEER: HERTZBERG	ACAD FILE NAME: STREET\ML2006\STRIPING6 SCALES: HORZ: 1"=30'	DWN. BY: STAFF CKD. BY: BRADLEY APPD. BY: SCHALLER DATE: 9/2012	PLAN NO.: 8304 SHEET 30 of 40	PROJECT STRIPING PLAN MAIDEN LANE WIDENING - 9TH TO 32ND



TYPICAL B–B



PLAN VIEW
DETAIL A

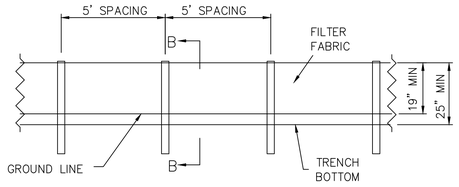
SILT FENCE NOTES:

USE SILT FENCE FOR FILL HEIGHTS GREATER OR EQUAL TO 10 FEET. ON ALL FILLS GREATER THAN 10 FEET HIGH, MID–SLOPE RUNS OF SILT FENCE SHOULD BE CONSIDERED.

FOR FABRIC SILT FENCE:

MINIMUM LONGITUDINAL SPLICE OVERLAP SHALL BE 2' WITH A POST AT EACH END.

SECURE FABRIC TO POSTS.



ELEVATION DETAIL

FABRIC SILT FENCE

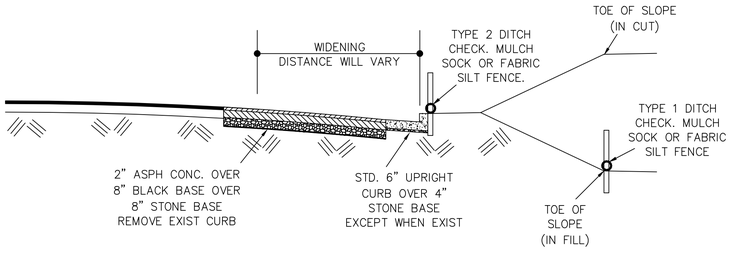
EROSION CONTROL NOTES

1. TEMPORARY OR FINAL SEEDING SHALL BE DONE IMMEDIATELY UPON COMPLETION OF GRADING.
2. TYPE 1 DITCH CHECKS SHALL BE INSTALLED IN FILL AT THE NEW SLOPE LINE & SHALL INCLUDE, BUT ARE NOT LIMITED TO, MULCH SOCKS OR FABRIC SILT FENCE.
3. TYPE 2 DITCH CHECKS SHALL BE INSTALLED IN CUT AT THE NEW BACK OF CURB & SHALL INCLUDE, BUT ARE NOT LIMITED TO, MULCH SOCKS OR FABRIC SILT FENCE.
4. SEDIMENT CONTROL BASINS SHALL BE CONSTRUCTED AT EACH STORM SEWER OUTLET USING STRAW BALE DITCH CHECK.
5. MULCH SOCKS SHALL BE INSTALLED AROUND EACH NEW OR EXISTING CURB INLET.

SLOPE EROSION CONTROL LOCATIONS

2+00 TO 20+50 LT–1850'
4+50 TO 7+50 13TH–300'
23+00 TO 46+50 LT–2350'
23+00 TO 46+50 RT–2350'
49+00 TO 74+00 LT–2500'
49+00 TO 72+50 RT–2350'
75+50 TO 101+50 LT–2600'
75+00 TO 102+00 RT–2700'
17,000' TOTAL

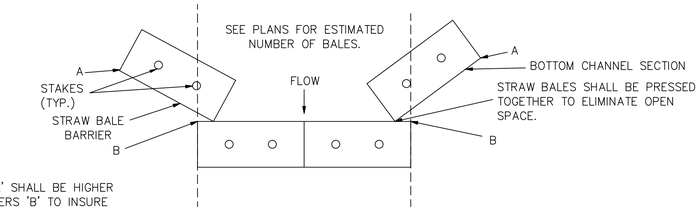
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TYPE 2 DITCH CHECKS SHALL BE INSTALLED IN CUT AT THE NEW BACK OF CURB & SHALL INCLUDE, BUT ARE NOT LIMITED TO, MULCH SOCKS OR FABRIC SILT FENCE.



EROSION CONTROL DETAIL

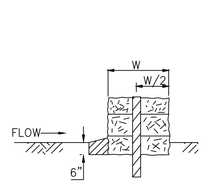
STRAW BALE DITCH CHECK LOCATIONS

±7+00, ±85' RT, 2–14"X23" HERCP TES
±7+75, ±65' RT, 19"X30" HERCP TES
±32+25, ±55' LT, 18" RCP FES
±33+95, ±50' LT, 24" RCP FES
±34+00, ±160' LT, 34"X53" HERCP TES
±47+00, ±95' RT, 36" RCP

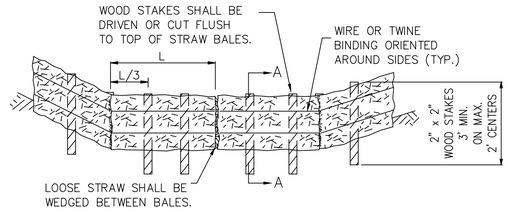


NOTE:
CORNERS 'A' SHALL BE HIGHER THAN CORNERS 'B' TO INSURE FLOW THROUGH OR OVER BARRIER, NOT AROUND IT.

PLAN VIEW
DITCH APPLICATION DETAILS



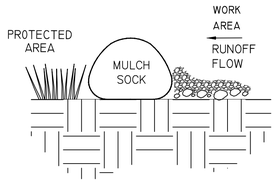
SECTION A–A



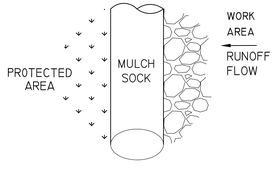
ELEVATION DETAIL

STRAW BALE DITCH CHECK

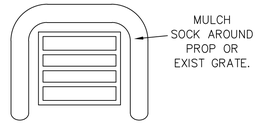
SECTION



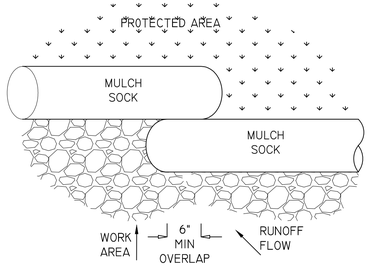
PLAN



PLAN



OVERLAP



MULCH SOCK INSTALLATION DETAILS

MULCH SOCK LOCATIONS

5+75.7	Lt	12
6+85.	Lt	16
6+98.9	Rt	8
7+06.7	Rt	8
7+44.7	Rt	8
7+67.6	Lt	12
8+31.6	Rt	12
9+05.3	Lt	10
10+05.	Lt	9
10+05.	Rt	12
14+70.6	Lt	14
14+70.6	Rt	14
19+55.1	Lt	14
20+64.	Rt	8
20+78.	Rt	16
2+82.8	Lt 13th St.	12
2+79.3	Rt 13th St.	12
6+17.8	Lt 13th St.	12
22+27.1	Lt	12
24+05.6	Lt	10
24+05.6	Rt	12
26+95.	Lt	10
26+95.	Rt	10
29+92.	Lt	10
29+92.	Rt	10
34+86.	Lt	10
17th St.	Rt	12
36+55.	Lt	8
38+56.8	Lt	8
38+38.2	Rt	10
39+47.	Rt	8
40+20.	Lt	8
42+00.	Lt	8
42+35.	Rt	10

43+00.	Lt	9
19th St.	North	10
19th St.	South	12
44+25.	Lt	8
44+90.	Rt	8
20th East	North	18
20th West	North	12
20th East	South	12
20th West	South	12
49+18.1	Lt	8
49+21.4	Rt	12
50+50.	Lt	8
51+73.4	Rt	8
21st St.	North	10
21st St.	South	12
52+73.	Rt	10
54+45.	Lt	10
54+45.	Rt	10
22nd St.	North	10
22nd St.	South	16
56+99.	Lt	12
56+99.	Rt	12
23rd St.	North	10
61+57.5	Lt	10
65+25.7	Lt	10
24th St.	North	12
66+14.4	Lt	20
68+25.	Lt	12
69+71.5	Lt	10
79+74.4	Lt	12
83+73.	Lt	12
83+73.3	Rt	12
85+54.	Lt	12
91+25.	Lt	12
	Total	748

FEDERAL AID PROJECT
NO. TDG-3200(718)
PROJECT 1

CITY OF Joplin

CITY OF JOPLIN, MISSOURI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

ADDRESS: 602 S MAIN ST 64801
PH NO: 417–624–0820 EXT 530
FAX NO: 417–625–4738
E–MAIL: DHERTZBE@JOPLINMO.ORG

REV DATE: 9/26/2012
REVISION: CREATED DWG

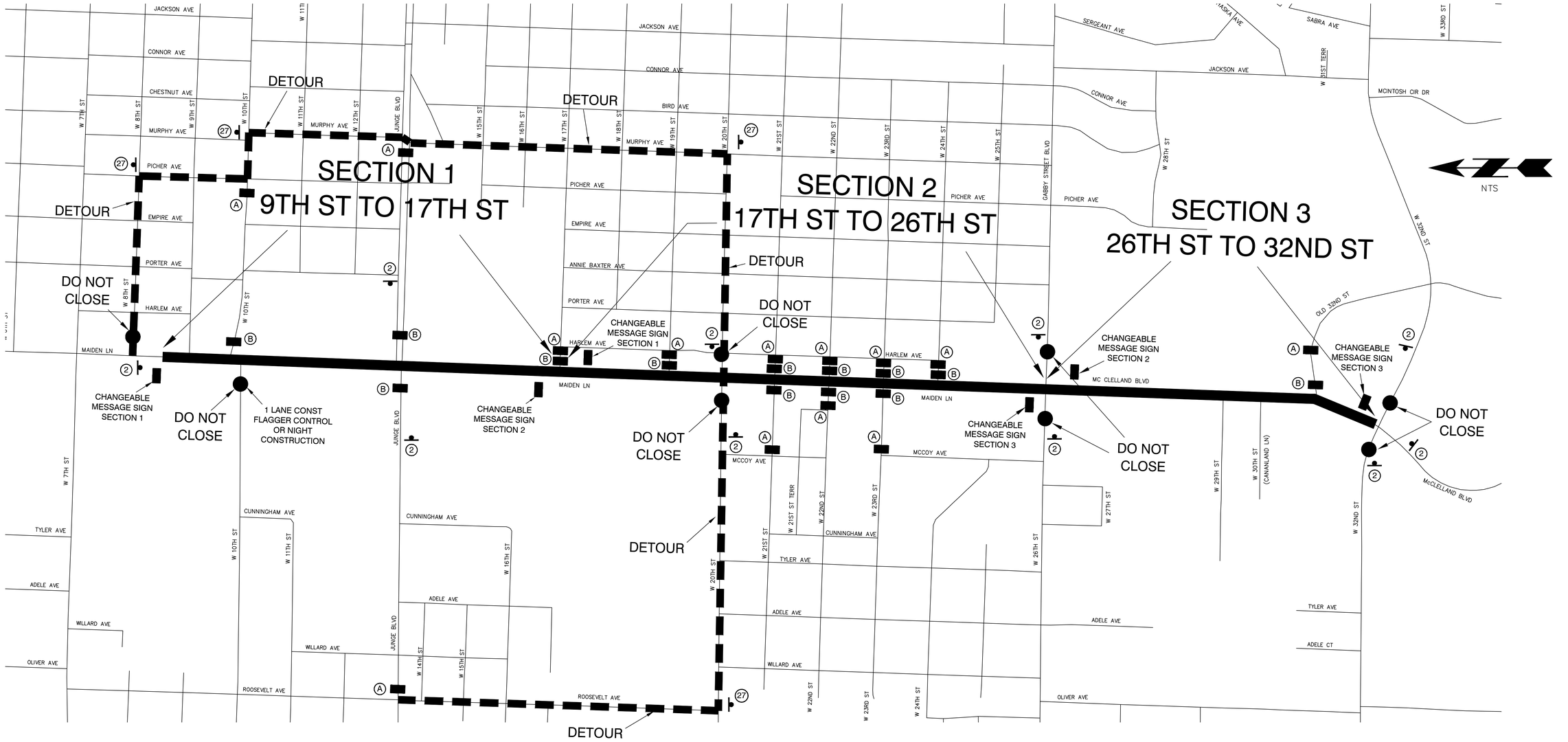
SVYD BY: SPRENKLE
PG/BK: 00/000
SVY DATE: 09/2006
ENGINEER: HERTZBERG

ACAD FILE NAME: MAIDENLANE\EROSIONCONTROL
SCALES: N/A

DWN BY: STAFF
CKD BY: BRADLEY
APD BY: SCHALLER
DATE: 9/2012

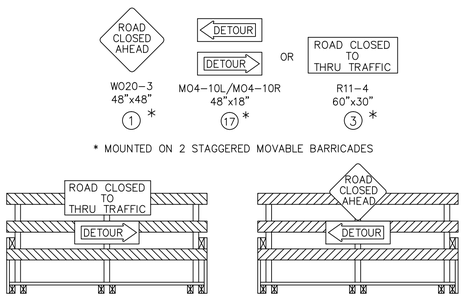
PLAN NO: 8304
SHEET
31 of 40

PROJECT
EROSION CONTROL PLAN
MAIDEN LANE WIDENING - 9TH TO 32ND



TRAFFIC CONTROL NOTES

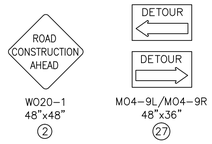
1. ACCESS TO ADJACENT PROPERTIES SHALL BE RESTORED AT THE END OF EACH WORKDAY.
2. ALL SIGNS SHALL BE PORTABLE MOUNTED, EXCEPT THOSE ATTACHED TO MOVABLE BARRICADES.
3. ALL SIGNS NOT IN USE SHALL BE COVERED OR REMOVED.
4. CONTRACTOR SHALL NOTIFY CITY OF JOPLIN 2 DAYS IN ADVANCE OF ANY SCHEDULED ROAD CLOSURE & DETOUR OPERATIONS.
5. ROADWAY CONTRACTOR SHALL COORDINATE TRAFFIC CONTROL MEASURES WITH THE SIGNAL CONTRACTOR TO ELIMINATE ANY CONFLICTS AT COMMON WORK LOCATIONS.
6. CONTRACTOR MUST MAINTAIN ONE THRU LANE EACH WAY & LEFT TURN LANES AT MAJOR INTERSECTIONS.
7. CONSTRUCTION SHALL BE COMPLETED IN 3 SECTIONS. SECTION 1 TO BE 9TH ST TO 17TH ST. SECTION 2 TO BE 17TH ST TO 26TH ST. SECTION 3 TO BE 26TH ST TO 32ND ST.
8. DETOUR SIGNING REQUIRED FOR CLOSING OF EAST 10TH ST & 13TH ST.
9. ACCESS TO BUSINESS OR CHURCH PROPERTIES SHALL BE MAINTAINED AT ALL TIMES VIA 1/2 ENTRANCE CLOSURE IF MULTIPLE ENTRANCES DO NOT EXIST.
10. 13TH ST SIGNALS ARE TO REMAIN IN USE UNTIL NEW SIGNALS & TRAIN WARNING DEVICES ARE INSTALLED & OPERATING.

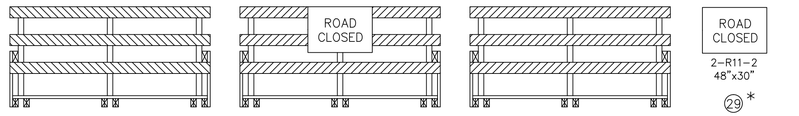


USE SIGN (1) ON ONE BARRICADE & SIGN (3) ON THE OTHER BARRICADE.

NOTE: METAL SIGNS CANNOT BE ATTACHED TO BARRICADES. PLASTIC OR ROLL-UP SIGNS CAN BE ATTACHED TO BARRICADES.

ROAD CLOSURE DETAIL 'A'





ROAD CLOSURE DETAIL 'B'

NOTE: METAL SIGNS CANNOT BE ATTACHED TO BARRICADES. PLASTIC OR ROLL-UP SIGNS CAN BE ATTACHED TO BARRICADES.

MISSOURI ONE CALL SYSTEM, INC. 1-800-344-7483 STOP! CALL BEFORE YOU DIG

FEDERAL AID PROJECT
NO. TDG-3200(718)
PROJECT 1

CITY OF Joplin

CITY OF JOPLIN, MISSOURI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

ADDRESS: 602 S MAIN ST 64801
PH NO: 417-624-0820 EXT 530
FAX NO: 417-625-4738
E-MAIL: DHERTZBE@JOPLINMO.ORG

REV DATE:	REVISION:
9/27/2012	CREATED DWG

SVYD BY:	SPRENKLE
PNT FILE:	N/A
SVY DATE:	9/2006
ENGINEER:	HERTZBERG

ACAD DWG FILE & PATH NAME: STREET/ML2006\ML2006TRAFFIC

SCALES: N/A N/A

DWN BY:	STAFF
CKD BY:	BRADLEY
APD BY:	SCHALLER
DATE:	9/2012

PROJECT

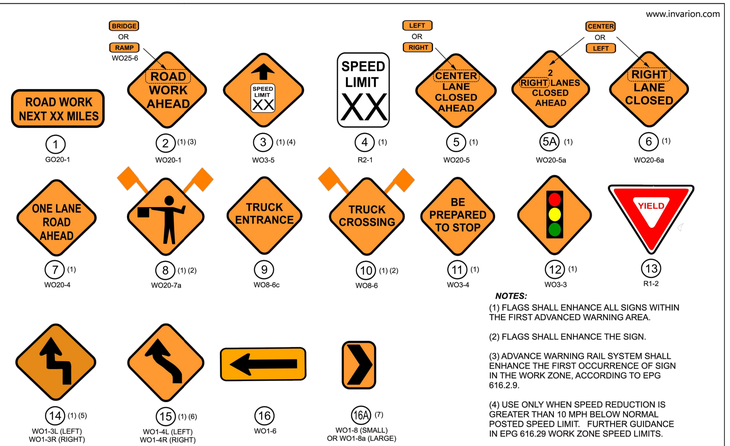
TRAFFIC CONTROL PLAN - WIDENING OF MAIDEN LANE - 9TH ST TO 32ND ST

PLAN NO: 8304

SHEET

32 of 40

www.invarion.com



NOTES:

(1) FLAGS SHALL ENHANCE ALL SIGNS WITHIN THE FIRST ADVANCED WARNING AREA.

(2) FLAGS SHALL ENHANCE THE SIGN.

(3) ADVANCE WARNING RAIL SYSTEM SHALL ENHANCE THE FIRST OCCURRENCE OF SIGN IN THE WORK ZONE, ACCORDING TO EPG 616.2.9.

(4) USE ONLY WHEN SPEED REDUCTION IS GREATER THAN 10 MPH BELOW NORMAL POSTED SPEED LIMIT. FURTHER GUIDANCE IN EPG 616.29 WORK ZONE SPEED LIMITS.

(5) USE WHEN DESIGN SPEED IS 30 MPH OR LESS. CONSIDER USING SIGN (44).

(6) USE WHEN DESIGN SPEED LIMIT IS GREATER THAN 30 MPH. CONSIDER USING SIGN (44).

(7) USE WO1-8a CHEVRON ON DIVIDED HIGHWAYS.

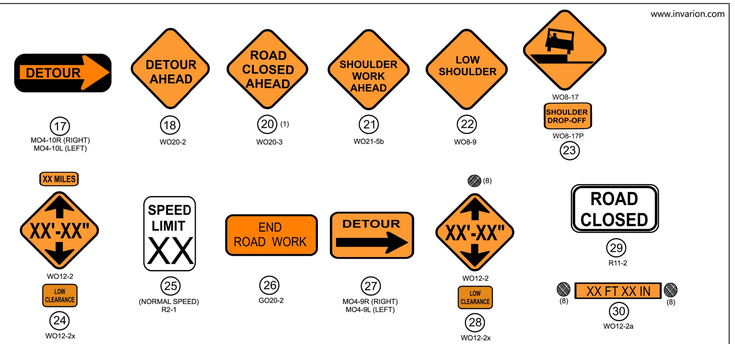
FOR DETAILS AND DIMENSIONS, SEE STANDARD PLAN 616.10.

2/2012

SIGNS AND DEVICES LEGEND [redacted]

SHEET 1 OF 4

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NOTES:

(8) TYPE B WARNING LIGHTS

FOR DETAILS AND DIMENSIONS, SEE STANDARD PLAN 616.10.

2/2012

SIGNS AND DEVICES LEGEND [redacted]

SHEET 2 OF 4

Sign Spacing, Device Spacing and Chanelizing Taper Lengths

TAPER LENGTHS AND SPACING OF CHANNELIZING DEVICES					
SPEED MPH (P)	MINIMUM TAPER LENGTHS (L) FOR LATERAL SHIFTS (W)			MAXIMUM CHANNELIZER SPACING	
	10 FT	11 FT	12 FT	THROUGH TAPER	THROUGH WORK AREA
0-35	205 FT	225 FT	245 FT	35 FT	50 FT
40-45	450 FT	495 FT	540 FT	40 FT	100 FT
50-55	550 FT	605 FT	660 FT	50 FT	100 FT
60-70	700 FT	770 FT	840 FT	60 FT	100 FT

SIGN SPACING FOR ADVANCE SIGN SERIES (1) (2)		
POSTED SPEED MPH (P)	NON-DIVIDED HIGHWAYS (S)	DIVIDED HIGHWAYS (S)
0-35	200 FT	200 FT
40-45	350 FT	500 FT
50-55	500 FT	1000 FT
60-70	SA - 1000 FT, SB - 1500 FT AND SC - 2640 FT	

TAPER LENGTH (L)

L = W x P FOR 40 MPH OR MORE

L = $\frac{WP^2}{65}$ FOR 35 MPH OR LESS

L - TAPER LENGTH IN FEET

W - LATERAL SHIFT IN FEET

P - POSTED SPEED PRIOR TO ROAD WORK IN MPH

TAPER LENGTHS AND END TREATMENTS FOR CONCRETE BARRIER				
SPEED MPH (P)	MINIMUM TAPER LENGTHS FOR LANE WIDTHS (3)			END TREATMENT (4)
	10 FT	11 FT	12 FT	
<40	160 FT	168 FT	176 FT	BARRIER HEIGHT TRANSITION
≥40	160 FT	168 FT	176 FT	APPROVED CRASH CUSHION

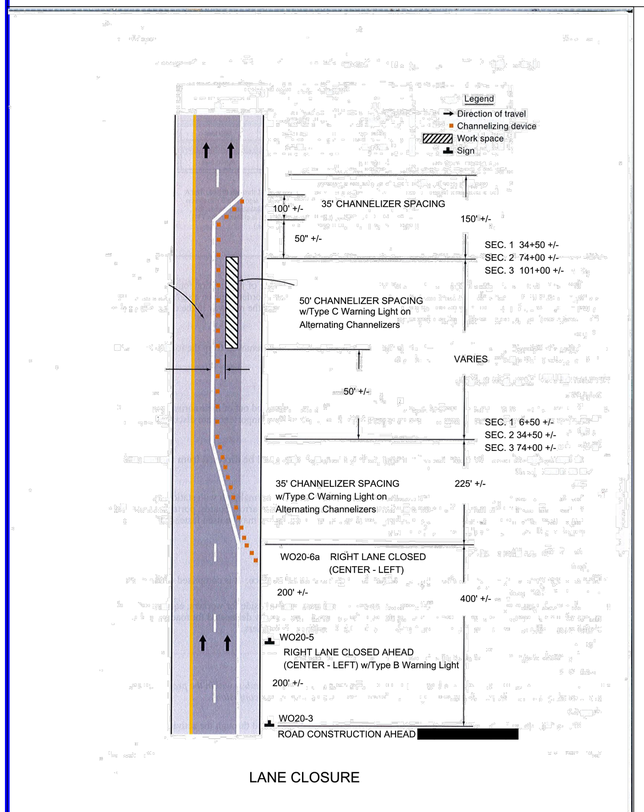
NOTES:

(1) SPACING BETWEEN SIGNS AND SPACING BETWEEN LAST SIGN AND FLAGGER, BEGINNING OF TAPER, OR SIGNED CONDITION.

(2) SPACINGS MAY BE ADJUSTED AS NECESSARY TO MEET FIELD CONDITIONS.

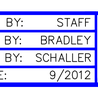
(3) TAPER LENGTHS SHOWN INCLUDE LENGTH REQUIRED FOR LANE AND 10 FT SHOULDER.

(4) CONCRETE BARRIER MAY BE INSTALLED AT AN 8:1 FLARE RATE FROM THE SHOULDER POINT TO THE LIMITS OF THE CLEAR ZONE WHERE THE SIDE SLOPE IS 6:1 OR FLATTER.



LANE CLOSURE

PAVEMENT EDGE TREATMENT DETAIL

CROSS SECTION	CONDITION		TREATMENT	SIGN	
	DIFFERENTIAL	TIME		MAINLINE (2)	SIDE ROAD (3)
	PAVEMENT EDGE DIFFERENTIAL > 3"	NON-WORKING HOURS	WEDGE SLOPE TO 1V: 3H OR FLATTER	 SHOULDER DROP-OFF WO8-17 (4)(5) WO8-17p (8)	 BUMP WO8-1 (4)
		WORKING HOURS	DELINEATE DIFFERENTIAL WITH CHANNELIZERS		
	ANY PAVEMENT EDGE OR LANE LINE DIFFERENTIAL	NON-WORKING AND WORKING HOURS WHERE PLANS REQUIRE ADJACENT LANE CLOSURE WITH CHANNELIZATION OR PARTIAL LANE CLOSURE WITH BARRIER.	NO EDGE TREATMENT REQUIRED	NO SIGNS REQUIRED	NO SIGNS REQUIRED

LEGEND

- RIGID PVMT
- FLEXIBLE PVMT
- ALL PVMT TYPES

(1) SIGNS SHALL BE VISIBLE TO TRAFFIC ONLY WHEN AND WHERE CONDITIONS EXIST.

(2) SIGNS SHALL BE SPACED AT APPROXIMATELY ONE MILE INTERVALS AND LOCATED WITHIN 150 FT. BEYOND ANY STATE ROADS. WHEN A SIGN PLACED AT THE ONE MILE INTERVAL FALLS WITHIN 1/2 MILE OF A SIGN PLACED AFTER AN INTERSECTION, THE SIGN PLACED AT THE 1/2 MILE INTERVAL MAY BE OMITTED. WHEN LOW SHOULDER/SHOULDER DROP-OFF SIGNS WITH UNEVEN LANES ARE BOTH SPECIFIED, ALTERNATING SIGN MESSAGES SHALL BE USED AT 1 MILE SPACINGS.

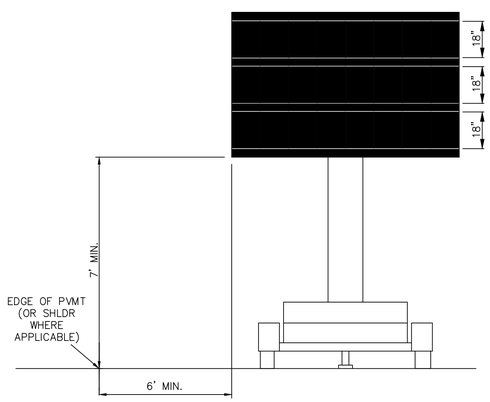
(3) ON SIDE ROADS WITH POSTED SPEED OF 45 MPH OR GREATER, SIGNS SHALL BE PLACED 150 FT. IN ADVANCE OF INTERSECTION WITH MAINLINE.

(4) SIGNS SHALL BE LOCATED ON THE SIDE OF THE ROADWAY WHERE THE PAVEMENT EDGE DIFFERENTIAL EXISTS, ON TWO-LANE UNDIVIDED HIGHWAYS, BACK TO BACK SIGNS SHALL BE PROVIDED ON THE SIDE OF THE ROADWAY, WHERE THE PAVEMENT EDGE DIFFERENTIAL EXISTS. "BACK TO BACK" SIGNS SHALL BE SEPARATED BY 7-10 FEET.

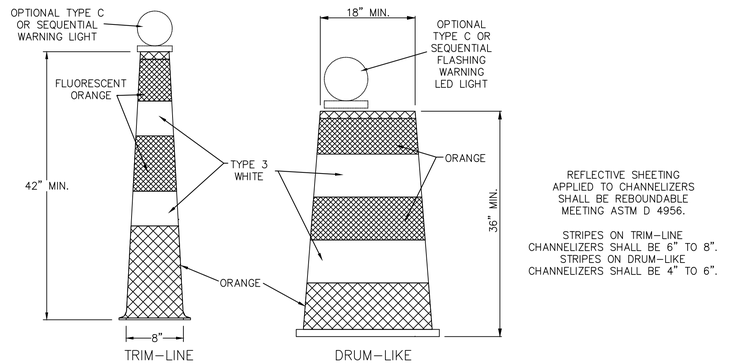
(5) SIGNS TO REMAIN VISIBLE UNTIL SHOULDER SHAPING IS COMPLETE.

(6) SIGNS SHALL BE LOCATED ON RIGHT SIDE OF NON-DIVIDED HIGHWAYS AND ON BOTH SIDES OF DIVIDED HIGHWAYS WHERE A LANE LINE DIFFERENTIAL EXISTS.

(7) WHEN THE SHOULDER DROP-OFF SIGNS ARE IN PLACE FOR GREATER THAN THREE DAYS, THE SHOULDER DROP-OFF PLAQUE SHOULD BE USED IN ADDITION WITH THE SHOULDER DROP-OFF SIGN.



CHANGEABLE MESSAGE SIGN DETAIL



REFLECTIVE SHEETING APPLIED TO CHANNELIZERS SHALL BE REBOUNDABLE MEETING ASTM D 4956.

STRIPES ON TRIM-LINE CHANNELIZERS SHALL BE 6" TO 8". STRIPES ON DRUM-LIKE CHANNELIZERS SHALL BE 4" TO 6".

CHANNELIZER DETAIL

FEDERAL AID PROJECT NO. TDG-3200(718) PROJECT 1

CITY OF Joplin

CITY OF JOPLIN, MISSOURI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

ADDRESS: 602 S MAIN ST 64801
PH NO: 417-624-0820 EXT 530
FAX NO: 417-625-4738
E-MAIL: DHERTZBE@JOPLINMO.ORG

REV DATE:	REVISION:
9/27/2012	CREATED DWG

SVYD BY: SPRENKLE
PNT FILE: N/A
SVY DATE: 9/2006
ENGINEER: HERTZBERG

ACAD DWG FILE & PATH NAME: STREET/ML2006\ML2006TRAFFIC2
SCALES: N/A N/A

DWN BY: STAFF
CKD BY: BRADLEY
APD BY: SCHALLER
DATE: 9/2012

PROJECT
TRAFFIC CONTROL PLANS - WIDENING OF MAIDEN LANE - 9TH ST TO 32ND ST

PLAN NO: 8304
SHEET 33 of 40

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					REVERSE CURVE (SYMBOL LEFT ARROW)
W01-4R	48X48	16.00					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	48X24	8.00					HORIZONTAL ARROW (SYMBOL)
W01-6a	72X36	18.00					HORIZONTAL ARROW (SYMBOL ON PERMANENT BARRICADE)
W01-7	48X24	8.00					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	36X48	12.00					CHEVRON (SYMBOL FOR DIVIDED HIGHWAYS)
W03-1a	48X48	16.00					STOP AHEAD (SYMBOL)
W03-2a	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 XX AHEAD (SYMBOL)
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					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
W08-9a	48X48	16.00					SHOULDER DROP-OFF
W08-11	48X48	16.00					UNEVEN LANES
W08-12	36X36	9.00					NO CENTER STRIPE
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)
W012-3a,b	144X24	24.00					OVERHEAD LOW CLEARANCE (FEET AND INCHES)
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	4	64			ROAD/BRIDGE/RAMP WORK AHEAD
W020-2	48X48	16.00					DETOUR AHEAD
W020-3	48X48	16.00	7	112	8	128	ROAD CLOSED AHEAD
W020-4	48X48	16.00					ONE LANE ROAD AHEAD
W020-5	48X48	16.00					RIGHT/CENTER/LEFT LANE CLOSED AHEAD

SIGN	SIZE (IN.)	AREA (SQ. FT.)	QTY	TOTAL AREA	QTY RELOC	TOTAL RELOC AREA	DESCRIPTION
W020-5a	48X48	16.00					RIGHT/CENTER/LEFT TWO LANES CLOSED AHEAD
W020-6a	48X48	16.00					RIGHT/CENTER/LEFT LANE CLOSED
W020-7a	48X48	16.00					FLAGGER (SYMBOL) WITH FLAGS
W021-2	36X36	9.00					FRESH OIL
W021-5b	48X48	16.00					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					ROAD WORK NEXT XX MILES
G020-2	48X24	8.00					END ROAD WORK
G020-4	36X18	4.50					PILOT CAR FOLLOW ME
SPECIAL	42X30	8.75					PLEASE WAIT FOR PILOT CAR
G023-1	36X12	3.00					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	6	36			DETOUR (ARROW LEFT)
M04-10R	48X18	6.00	3	18			DETOUR (ARROW RIGHT)
REGULATORY SIGNS							
R1-1	48X48	13.25					STOP
R1-2	48 TRI.	6.93					YIELD
R1-2a	36X36	9.00					TO ONCOMING TRAFFIC (PLAQUE)
R1-3	20X9	1.25					X-WAY (PLAQUE)
R2-1	36X48	12.00					SPEED LIMIT XX
R3-1	48X48	16.00					NO RIGHT TURN (SYMBOL)
R3-2	48X48	16.00					NO LEFT TURN (SYMBOL)
R3-3	36X36	9.00					NO TURNS
R3-4	48X48	16.00					NO U-TURN (SYMBOL)
R3-7L	30X30	6.25					LEFT LANE MUST TURN LEFT
R3-7R	30X30	6.25					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	14	140			ROAD CLOSED
R11-3a	60X30	12.50					ROAD CLOSED XX MILES AHEAD LOCAL TRAFFIC ONLY
R11-4	60X30	12.50	7	87.50			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					POINT OF PRESENCE
SPECIAL	48X48	16.00					DRIVE SMART
CONSTRUCTION SIGNS TOTAL				457.50			
RELOCATED SIGNS TOTAL						128	

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		ADVANCED WARNING RAIL SYSTEM
616-10.09		FLAG ASSEMBLY
616-10.20		CHANNELIZER (DRUM-LIKE)
616-10.22		CHANNELIZER (CONES)
616-10.24	90	CHANNELIZER (TRIM LINE) WITH LIGHT
616-10.25		CHANNELIZER (TRIM LINE)
616-10.26		CHANNELIZER (VERTICAL PANEL)
616-10.27		CHANNELIZER (VERTICAL PANEL) WITH LIGHT
616-10.28		CHANNELIZER
616-10.30		TYPE III MOVEABLE BARRICADE
616-10.31	35	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
	14,850	PAVEMENT EDGE TREATMENT

SIGN NOTES

(1) SIGN DEPICTION, ARROW, BORDERS & SPACING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF "STANDARD HIGHWAY SIGNS" BY THE U.S. DEPARTMENT OF TRANSPORTATION – FHWA.

(2) REFER TO THE LATEST EDITION OF MUTCD PART VI BY THE U.S. DEPARTMENT OF TRANSPORTATION – FHWA FOR SIGN DEPICTION. ARROW, BORDERS & SPACING SHALL CONFORM TO THE GUIDELINES SET FORTH IN THE LATEST EDITION OF "STANDARD HIGHWAY SIGNS" BY THE U.S. DEPARTMENT OF TRANSPORTATION – FHWA.

(3) ARROW, BORDERS & SPACING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF "STANDARD HIGHWAY SIGNS" BY THE U.S. DEPARTMENT OF TRANSPORTATION – FHWA.

(4) USE OF A SUPPLEMENTAL PLATE FOR LINE 1 IS ACCEPTABLE.

(5) PLAQUE & APPLICABLE REGULATORY SIGN MAY BE MANUFACTURED AS ONE SIGN.

GENERAL NOTES

(1) SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF "STANDARD HIGHWAY SIGNS" BY THE U.S. DEPARTMENT OF TRANSPORTATION – FHWA, UNLESS SPECIFIED OTHERWISE.

(2) SIGN DIMENSIONS SHOWN ARE MINIMUM. NO ADDITIONAL PAYMENT WILL BE MADE IF CONTRACTORS USE LARGER SIGNS.

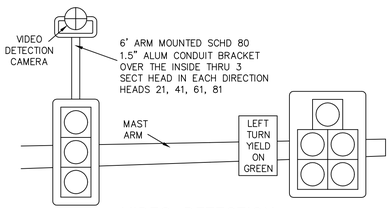
(3) NO ADDITIONAL PAYMENT WILL BE MADE FOR PLATES.

(4) ALL PLAQUES SHALL HAVE A BORDER. PLATES SHALL NOT HAVE A BORDER.

FEDERAL AID PROJECT
NO. TDG-3200(718)
PROJECT 1

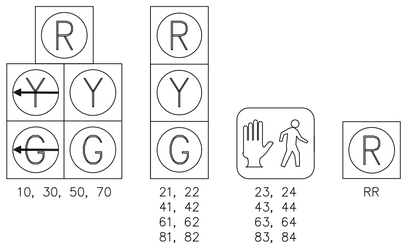
GENERAL NOTES

1. CONTRACTOR SHALL, AT HIS EXPENSE, SET AND MAINTAIN ALL LINE AND GRADE STAKES.
2. CONTRACTOR SHALL, AT HIS EXPENSE, REMOVE AND RESET ALL FENCES, POSTS, CULVERTS, STREET SIGNS, MAIL BOXES, & THE LIKE WITHIN THE LIMITS OF THE PROP. IMPROVEMENTS.
3. CONTRACTOR SHALL GRADE ALL EXISTING STREETS, ALLEYS, & DRIVES TO MEET NEW CONST.
4. CONTRACTOR SHALL FIELD VERIFY ALL UTILITY LOCATIONS BEFORE BEGINNING NEW CONST.
5. ALL WORK SHALL CONFORM TO THE CITY OF JOPLIN STD. SPECS. UNLESS OTHERWISE NOTED.
6. ALL WORK SHALL BE IN ACCORDANCE WITH THE WORK ZONE SAFETY GUIDELINES OF PART VI OF THE MUTCD & WITH THE BARRICADING SECTION OF THE CITY OF JOPLIN SAFETY MANUAL.
7. CONTRACTOR IS RESPONSIBLE FOR RESTORING ANY DISTURBED SURVEY MARKERS DURING CONSTRUCTION. ALL RESTORATION SHALL BE DONE BY A MISSOURI LICENSED SURVEYOR.
8. CONTRACTOR SHALL, AT HIS EXPENSE, PROVIDE ACCESS TO PRIVATE PROPERTY AT ALL TIMES.
9. LUMINAIRES SHALL BE 150 WATT HIGH PRESSURE SODIUM CONTROLLED BY A PHOTOCELL AT THE CONTROLLER.
10. PAYMENT FOR CONDUIT WILL BE MADE TO FACE OF CONCRETE. CONDUIT CAST IN STRUCTURES SHALL BE INCLUDED IN PRICE FOR THAT STRUCTURE.
11. ALL CONCRETE SHALL BE CLASS B WITH AIR ENTRAINMENT.
12. ALL SIGNAL HEADS SHALL BE MOUNTED ON ASTRO BRACKETS WITH TERMINAL BLOCKS.
13. PEDESTRIAN HEADS SHALL BE MOUNTED ON BLIND SIDES OF POLES AWAY FROM STREET.
14. SIDE MOUNT HEADS SHALL BE BOLTED, NOT BANDED TO POLES.
15. ALL SIGNS SHALL BE PROVIDED BY THE CITY OF JOPLIN. CONTRACTOR SHALL PROVIDE ASTRO BRACKETS & INSTALL SIGNS.



VIDEO DETECTION CAMERA INSTALLATION

N.T.S.



ALL SOUTH BOUND HEADS (70, 41, & 42) SHALL BE OPTICALLY LIMITED. ALL OTHERS SHALL BE STANDARD.

LEGEND

- 4" CONDUIT
- PULL BOXES
- SIG. HEAD W/ BACKPLATE
- TYPE EV CONTROLLER
- VIDEO CAMERA
- MAST ARM W/ POLE
- PED SIGNAL HEAD
- LUMINAIRE
- SERVICE POLE
- PRE-EMPTION DETECTOR
- PED PUSH BUTTON
- SIGNAL HEAD NO.
- BASE & POST NO.
- PULL BOX NO.
- LOOP NO.
- PED SIGNAL HEAD NO.
- SIGN NO.
- PRE-EMPTION DETECTOR NO.
- TRAFFIC SIGN

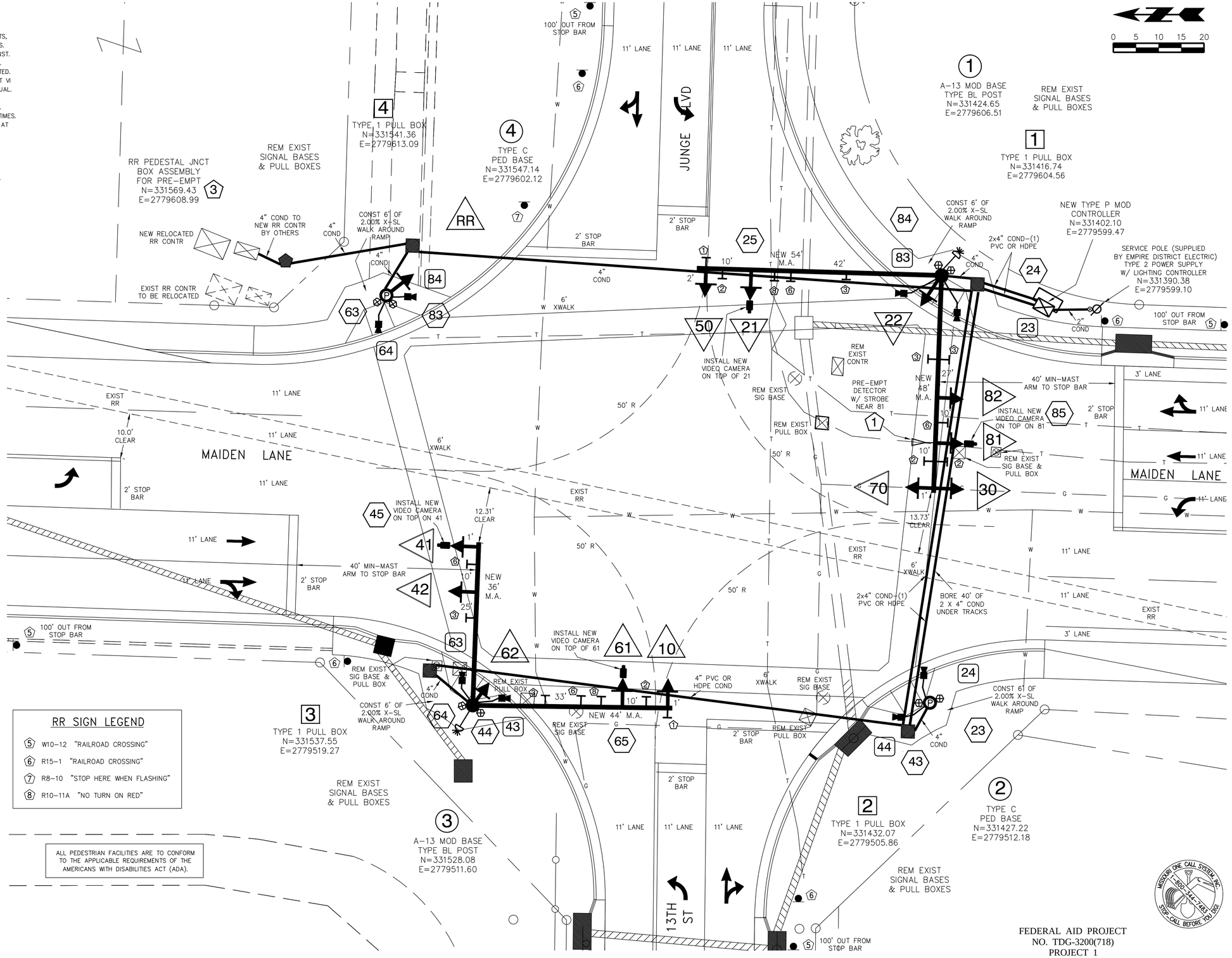
SIGN LEGEND

1. LEFT TURN ONLY
2. LEFT TURN YIELD
3. STREET NAME SIGN
4. RIGHT TURN ONLY

RR SIGN LEGEND

5. W10-12 "RAILROAD CROSSING"
6. R15-1 "RAILROAD CROSSING"
7. R8-10 "STOP HERE WHEN FLASHING"
8. R10-11A "NO TURN ON RED"

ALL PEDESTRIAN FACILITIES ARE TO CONFORM TO THE APPLICABLE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA).



FEDERAL AID PROJECT
NO. TDG-3200(718)
PROJECT 1

MISSOURI ONE CALL SYSTEM, INC. 1-800-344-7483 STOP - CALL BEFORE YOU DIG

CITY OF Joplin

CITY OF JOPLIN, MISSOURI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

ADDRESS: 602 S MAIN ST 64801
PH NO: 417-624-0820 EXT 530
FAX NO: 417-625-4738
E-MAIL: DHERTZBE@JOPLINMO.ORG

REV DATE:	REVISION:
03/2011	MOVED TYPE C PED BASE & SIGNAL ON NE CORNER
03/2011	ADDED RR SIGNS
05/2011	NARROWED STREET & ROW TO 4 LANES TO 13TH ST

SVYD BY:	SPRENKLE
PG/BK:	00/000
SVY DATE:	09/2006
ENGINEER:	HERTZBERG

ACAD FILE & PATH NAME: STREET\ML2006\13THMLSIGNAL1

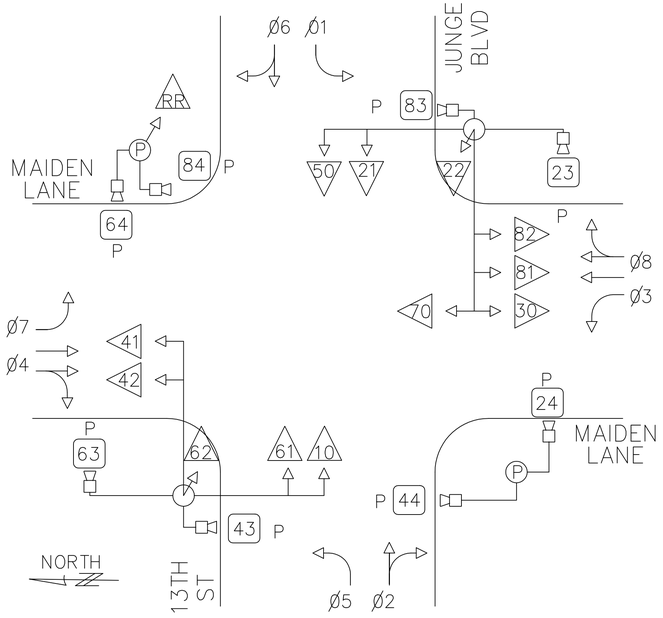
SCALES: HORZ: 1"=10'

DWN BY:	STAFF
CKD BY:	BRADLEY
APD BY:	SCHALLER
DATE:	12/2006

PLAN NO: 8304

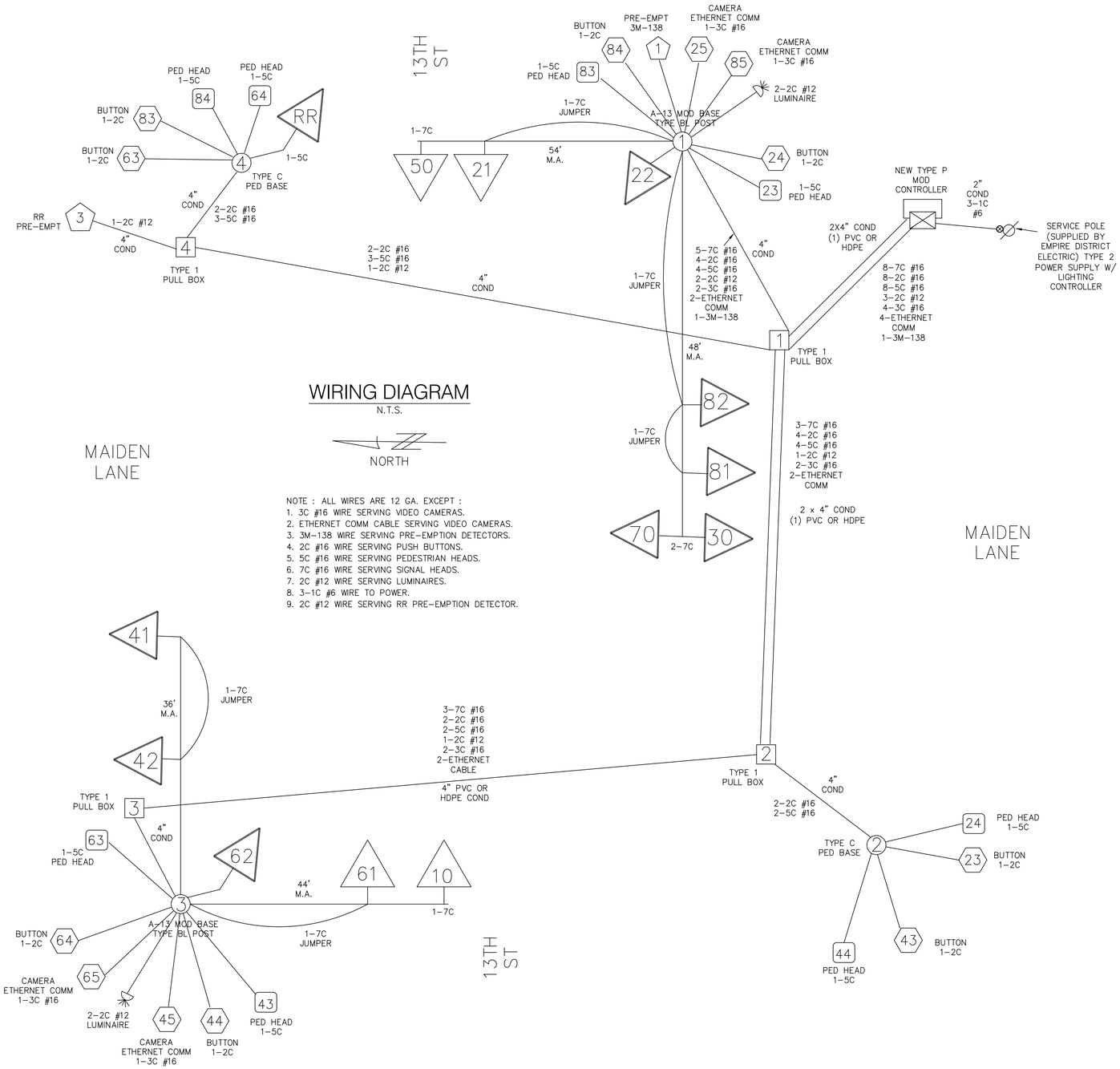
SHEET
35 of 40

PROJECT
SIGNAL LAYOUT PLAN - 13TH & M.L.
MAIDEN LANE WIDENING - 9TH TO 32ND



PHASE KEY

N.T.S.



LEGEND

- VIDEO CAMERAS/PUSH BUTTONS
- POWER SERVICE POLE
- MAST ARM SIGNAL BASES TYPE A
- MAST ARM SIGNAL HEADS
- TRAFFIC CONTROLLER BASE
- PEDESTRIAN SIGNAL HEAD
- STATE STD. PULL BOX
- 150 W SODIUM LUMINAIRE
- OPTICOM PRE-EMPTION DETECTOR

MISSOURI ONE CALL SYSTEM, INC. 1-800-344-7483 STOP-CALL BEFORE YOU DIG!

FEDERAL AID PROJECT
NO. TDG-3200(718)
PROJECT 1

CITY OF Joplin

CITY OF JOPLIN, MISSOURI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

ADDRESS: 602 S MAIN ST. 64801
PH. NO.: 1-417-624-0820
FAX NO.: 1-417-625-4738
E-MAIL: DHERTZBE@JOPLINMO.ORG

REVISION DATE:	REVISION:
01/2011	PRINTED NEW SHEETS
03/2011	MOVED TYPE C PED BASE & SIGNAL ON NE CORNER

SVYD. BY: SPRENKLE
PAGE/BOOK: NA/NA
SVY. DATE: 09/2006
ENGINEER: HERTZBERG

ACAD FILE NAME: STREET\ML2006\13THMLSIGNAL2
SCALE: N.T.S.

DWN. BY: STAFF
CKD. BY: BRADLEY
APPD. BY: SCHALLER
DATE: 12/2006

PROJECT
SIGNAL WIRING SHEET
13TH & MAIDEN LANE

PLAN NO.: 8304
SHEET
36 of 40

POST

POST #	ARM LENGTH	SIGNAL & VIDEO CAMERA SPACING					LUM	TYPE BL POSTS	TYPE C POSTS	REMARKS
	A	B	C	D	E	F				
(1)	54'	42'	10'	2'			2	1		W/ 150 WATT HPS LUMINAIRE
(1)	48'	27'	10'	10'	1'					
(2)									1	TYPE C PED
(3)	44'	33'	10'	1'			2	1		W/ 150 WATT HPS LUMINAIRE
(3)	36'	25'	10'	1'						
(4)									1	TYPE C PED
TOTALS							4	2	2	

NOTE: LUMINAIRE ARMS SHALL BE 15' IN LENGTH.

CONTROLLER & EQUIP.

LOCATION			CONTR. TYPE	TYPE P MODIFIED CONTROL CABINET	LIGHTING CONTROL BOX
APPR.	NORTH.	EAST.			
SE CORNER OF 13TH & MAIDEN LANE	331402.10	2779599.47	EAGLE EPAC	1	1
REMARKS :					

DETECTORS & DETECTOR SYSTEM

DET #	PHASE ASSOC.	PUSH BUTTON	INDUCTION LOOPS LOOP SIZE	VIDEO CAMERAS	REMARKS
⟨25⟩	Ø2			1	INCLUDES SYSTEM EQUIPMENT
⟨23⟩	Ø2	1			
⟨24⟩	Ø2	1			
⟨85⟩	Ø8			1	INCLUDES SYSTEM EQUIPMENT
⟨84⟩	Ø8	1			
⟨83⟩	Ø8	1			
⟨65⟩	Ø6			1	INCLUDES SYSTEM EQUIPMENT
⟨63⟩	Ø6	1			
⟨64⟩	Ø6	1			
⟨45⟩	Ø4			1	INCLUDES SYSTEM EQUIPMENT
⟨44⟩	Ø4	1			
⟨43⟩	Ø4	1			
TOTAL		8		4 VIDEO CAMERAS	

CABLE

FROM	TO	CTR TO CTR DISTANCE	POWER 3-1c #6	7c #16	3M-138	5c #16	2c #16	CAMERA 3c #16 Power	CAMERA Comm Cable	2c #12	Remarks
Power	Cont.	10	78								Power
Cont.	Pole 1	40								99	Luminaire (Maiden Lane)
Cont.	Pole 1	40						91	91		Video Camera (Maiden Lane)
Cont.	Pole 1	40		112							Signal 81
Cont.	Pole 1										Signal 82 (Jumper from 81)
Cont.	Pole 1	40		122							Signal 30
Cont.	Pole 1	40		122							Signal 70
Cont.	Pole 1	40				128	126				2- Ped. Heads & Buttons
Cont.	Pole 1	40			112						Pre-Emption
Cont.	Pole 1	40		117							Signal 21
Cont.	Pole 1			58							Signal 22 (Jumper from 21)
Cont.	Pole 1	40		127							Signal 50
Cont.	Pole 1	40						96	96		Video Camera (13th Street)
Cont.	Pole 2	120				300	298				2- Ped. Heads & Buttons
Cont.	Pole 3	230								301	Luminaire (Maiden Lane)
Cont.	Pole 3	230						291	291		Video Camera (Maiden Lane)
Cont.	Pole 3	230		312							Signal 41
Cont.	Pole 3			15							Signal 42 (Jumper from 41)
Cont.	Pole 3	230						289	289		Video Camera (13th Street)
Cont.	Pole 3	230		320							Signal 10
Cont.	Pole 3	230		310							Signal 61
Cont.	Pole 3	0		49							Signal 62 (Jumper from 61)
Cont.	Pole 3	230				532	530				2- Ped. Heads & Buttons
Cont.	Pole 4	145				199					Rail Road Flasher
Cont.	Pole 4	145				350	348				2- Ped. Heads & Buttons
Cont.	Pole 4	145								173	Rail Road Pre-Emption
	Totals		78	1664	112	1509	1302	767	767	573	

PRE-EMPTION DETECTORS

POST #	PRE-EMPT. #	TYPE	REMARKS
(1)	⟨1⟩	3M 2 DIRECTION	OPTICAL DETECTOR
(4)	⟨3⟩		RR PEDESTAL JUNCT BOX ASSEMBLY (BY RR)

BASES & HANDHOLES

LOCATION			BASES					PULL	REMARKS
APPR.	NORTHING	EASTING	A	B	C	CONTR. P MOD	CLASS B CONC.	PREF. CONC.	
SE CORNER OF 13TH & MAIDEN LANE	331424.65	2779606.51	A-13 MOD				3.93		(1) REM EXIST
SW CORNER OF 13TH & MAIDEN LANE	331427.22	2779512.18			1		0.44		(2) REM EXIST
NW CORNER OF 13TH & MAIDEN LANE	331528.08	2779511.60	A-13 MOD				3.93		(3) REM EXIST
NE CORNER OF 13TH & MAIDEN LANE	331547.14	2779602.12			1		0.44		(4) REM EXIST
SE CORNER OF 13TH & MAIDEN LANE	331416.74	2779604.56						1	[1] REM EXIST
SW CORNER OF 13TH & MAIDEN LANE	331432.07	2779505.86						1	[2] REM EXIST
NW CORNER OF 13TH & MAIDEN LANE	331537.55	2779519.27						1	[3] REM EXIST
NE CORNER OF 13TH & MAIDEN LANE	331541.36	2779613.09						1	[4] REM EXIST
SE CORNER OF 13TH & MAIDEN LANE	331402.10	2779599.47				1	1.93		⊠ REM EXIST
TOTALS			2		2	1	10.67	4	

NOTE : CONTRACTOR SHALL ONLY BE PAID FOR THE SPECIFIED AMOUNT OF CONC.

SIGNAL & PEDESTRIAN HEADS

NO.		INDICATIONS 12" LENS CONV.							VISOR		BACKPLATES	BRACKET TYPE	ONE FACE												2 FACES			T=TOP MOUNT S=SIDE MOUNT B=MAST ARM MOUNT C=SPAN WIRE MOUNT
POST	FACE								TUNNEL	PEDESTRIAN		STD.	SECTIONS 1–		3–				5–					SECTIONS 11		33		
		R	Y	G	YR	YL	GL	GR				I	II	III	T	S	T	S	C	B	T	S	C	B	T	S	T	S	REMARKS
(1)	⟨50⟩	1	1	1		1	1		5		1			1										1					
(1)	⟨21⟩	1	1	1					3		1		1							1									
(1)	⟨22⟩	1	1	1					3		1	1						1											
(1)	⟨70⟩	1	1	1		1	1		5		1			1										1					
(3)	⟨41⟩	1	1	1					3		1		1							1									
(3)	⟨42⟩	1	1	1					3		1		1							1									
(3)	⟨10⟩	1	1	1		1	1		5		1			1										1					
(3)	⟨61⟩	1	1	1					3		1		1							1									
(3)	⟨62⟩	1	1	1					3		1	1						1											
(1)	⟨30⟩	1	1	1		1	1		5		1			1										1					
(1)	⟨81⟩	1	1	1					3		1		1							1									
(1)	⟨82⟩	1	1	1					3		1		1							1									
(1)	[23]									1															1				
(1)	[83]									1															1				
(2)	[24]									1															1				
(2)	[44]									1															1				
(3)	[43]									1															1				
(3)	[63]									1															1				
(4)	[64]									1															1				
(4)	[84]									1															1				
TOTALS		12	12	12		4	4		44	8	12	2	6	4				2		6				4		8			

REMARKS:
ALL PEDESTRIAN HEADS SHALL BE MOUNTED WITH 3/4" STAINLESS STEEL "CLAMSHELL" TYPE MOUNTS.
PEDESTRIAN HEADS SHALL BE HAND/MAN TYPE.
ALL SOUTH BOUND SIGNAL HEADS (70, 41, & 42) SHALL BE OPTICALLY LIMITED. ALL OTHERS SHALL BE STANDARD.

STATE OF MISSOURI JACK SCHALLER E-28531 REGISTERED PROFESSIONAL ENGINEER

FEDERAL AID PROJECT
NO. TDG-3200(718)
PROJECT 1

TYPE 2 PEDESTAL UNDERGROUND POWER SUPPLY ASSEMBLY

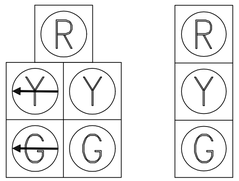
LOCATION		
APPR.	NORTHING	EASTING
SE CORNER OF 13TH & MAIDEN LANE	331390.38	2779599.10
EMPIRE DISTRICT TO FURNISH & INSTALL POWER SUPPLY ASSEMBLY. COST TO BE PAID DIRECTLY BY THE CITY OF JOPLIN.		

CONDUIT

FROM	TO	C TO C DIST.	TRENCH OR PUSH 2	3	4	EXISTING 1	2	3	4	REMARKS
[3]	(3)	12'			9'					
[2]	[3]	106'			103'					
[2]	(2)	8'			5'					
[1]	[2]	100'			194'					2 @ 97'
[4]	⟨3⟩	28'			25'					
[4]	(4)	8'			5'					
[4]	[1]	125'			122'					
[1]	(1)	8'			5'					
[1]	⊠	15'			24'					2 @ 12'
⊗	⊠	12'	10'							
TOTALS			10'		492'					

GENERAL NOTES

1. CONTRACTOR SHALL, AT HIS EXPENSE, SET AND MAINTAIN ALL LINE AND GRADE STAKES.
2. CONTRACTOR SHALL, AT HIS EXPENSE, REMOVE AND RESET ALL FENCES, POSTS, CULVERTS, STREET SIGNS, MAIL BOXES, & THE LIKE WITHIN THE LIMITS OF THE PROP. IMPROVEMENTS.
3. CONTRACTOR SHALL GRADE ALL EXISTING STREETS, ALLEYS, & DRIVES TO MEET NEW CONST.
4. CONTRACTOR SHALL FIELD VERIFY ALL UTILITY LOCATIONS BEFORE BEGINNING NEW CONST.
5. ALL WORK SHALL CONFORM TO THE CITY OF JOPLIN STD. SPECS. UNLESS OTHERWISE NOTED.
6. ALL WORK SHALL BE IN ACCORDANCE WITH THE WORK ZONE SAFETY GUIDELINES OF PART VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES & WITH THE BARRICADING SECTION OF THE CITY OF JOPLIN SAFETY MANUAL.
7. CONTRACTOR IS RESPONSIBLE FOR RESTORING ANY DISTURBED SURVEY MARKERS DURING CONSTRUCTION. ALL RESTORATION SHALL BE DONE BY A MISSOURI LICENSED SURVEYOR.
8. CONTRACTOR SHALL, AT HIS EXPENSE, PROVIDE ACCESS TO PRIVATE PROPERTY AT ALL TIMES.
9. LUMINAIRE BRACKET ARMS SHALL BE MOUNTED OVER MAST ARMS.
10. LUMINAIRES SHALL BE 150 WATT HIGH PRESSURE SODIUM CONTROLLED BY A PHOTOCELL AT THE CONTROLLER.
11. PAYMENT FOR CONDUIT WILL BE MADE TO FACE OF CONCRETE. CONDUIT CAST IN STRUCTURES SHALL BE INCLUDED IN PRICE FOR THAT STRUCTURE.
12. ALL CONCRETE SHALL BE CLASS B WITH AIR ENTRAINMENT.
13. ALL SIGNAL HEADS SHALL BE MOUNTED ON ASTRO BRACKETS WITH TERMINAL BLOCKS.
14. PEDESTRIAN HEADS SHALL BE MOUNTED ON BLIND SIDES OF POLES AWAY FROM STREET.
15. SIDE MOUNT HEADS SHALL BE BOLTED, NOT BANDED TO POLES.
16. ALL SIGNS SHALL BE PROVIDED BY THE CITY OF JOPLIN. CONTRACTOR SHALL PROVIDE ASTRO BRACKETS & INSTALL SIGNS.



10, 30, 50, 70

21, 22
41, 42
61, 62
81, 82



23, 24
43, 44
63, 64
83, 84

LEGEND

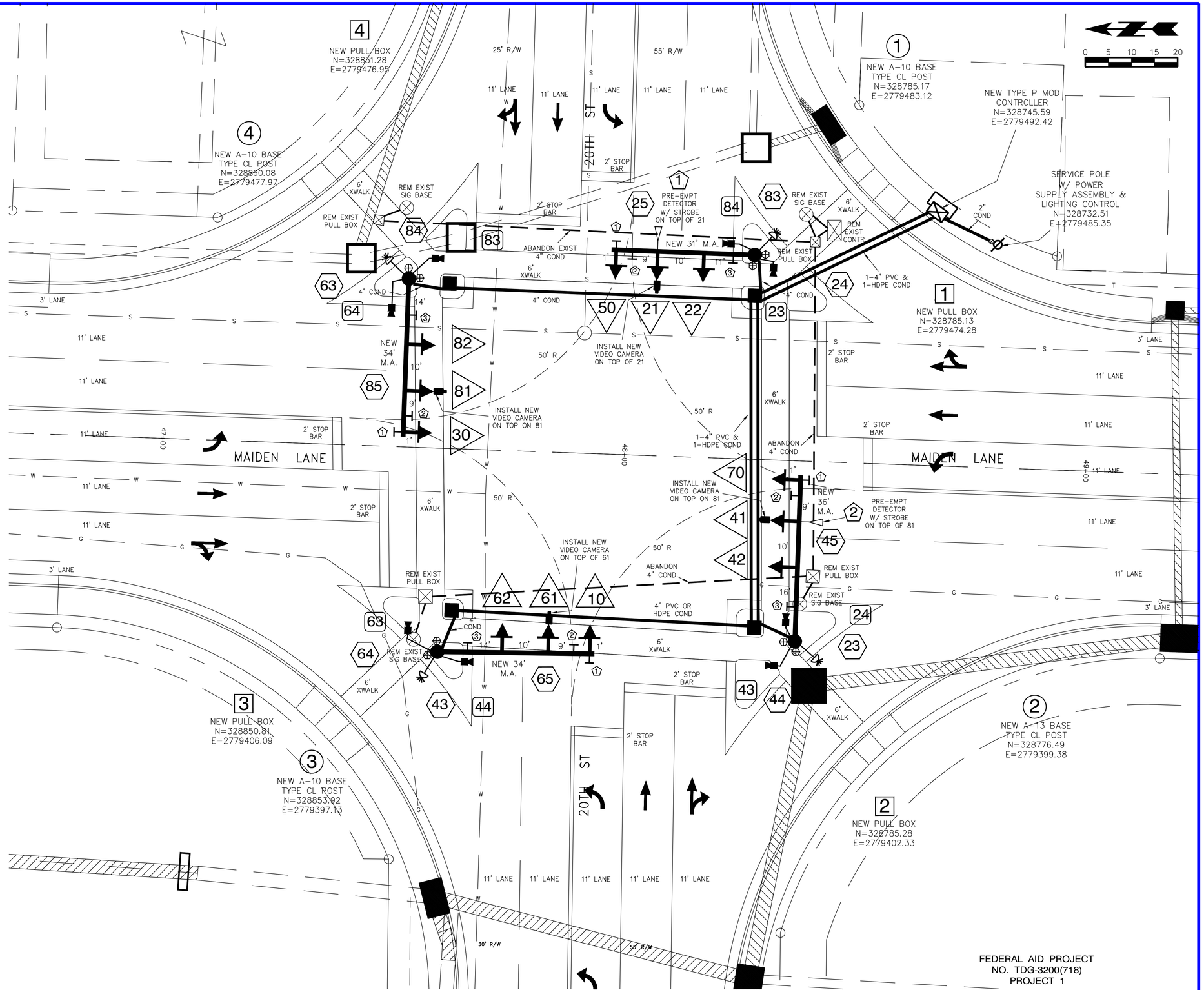
- 4" CONDUIT
- PULL BOXES
- SIG. HEAD W/ BACKPLATE
- TYPE EV CONTROLLER
- VIDEO CAMERA
- MAST ARM W/ POLE
- PED SIGNAL HEAD
- LUMINAIRE
- SERVICE POLE
- PRE-EMPTION DETECTOR
- PED PUSH BUTTON
- SIGNAL HEAD NO.
- BASE & POST NO.
- PULL BOX NO.
- LOOP NO.
- PED SIGNAL HEAD NO.
- SIGN NO.
- PRE-EMPTION DETECTOR NO.
- TRAFFIC SIGN

ALL PEDESTRIAN FACILITIES ARE TO CONFORM TO THE APPLICABLE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA).

SIGN LEGEND

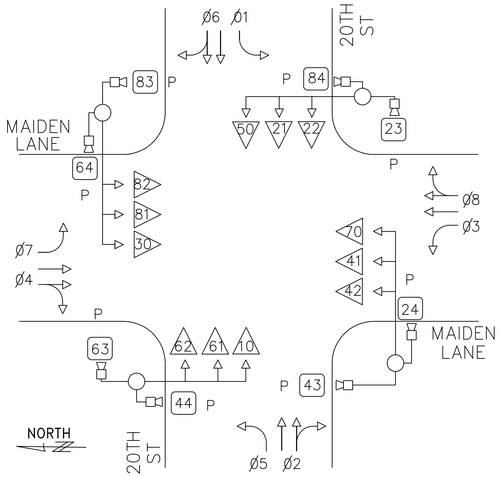
1. LEFT TURN ONLY
2. LEFT TURN YIELD
3. STREET NAME SIGN
4. RIGHT TURN ONLY

MISSOURI ONE CALL SYSTEM, INC. 1-800-344-7483 STOP-CALL BEFORE YOU DIG



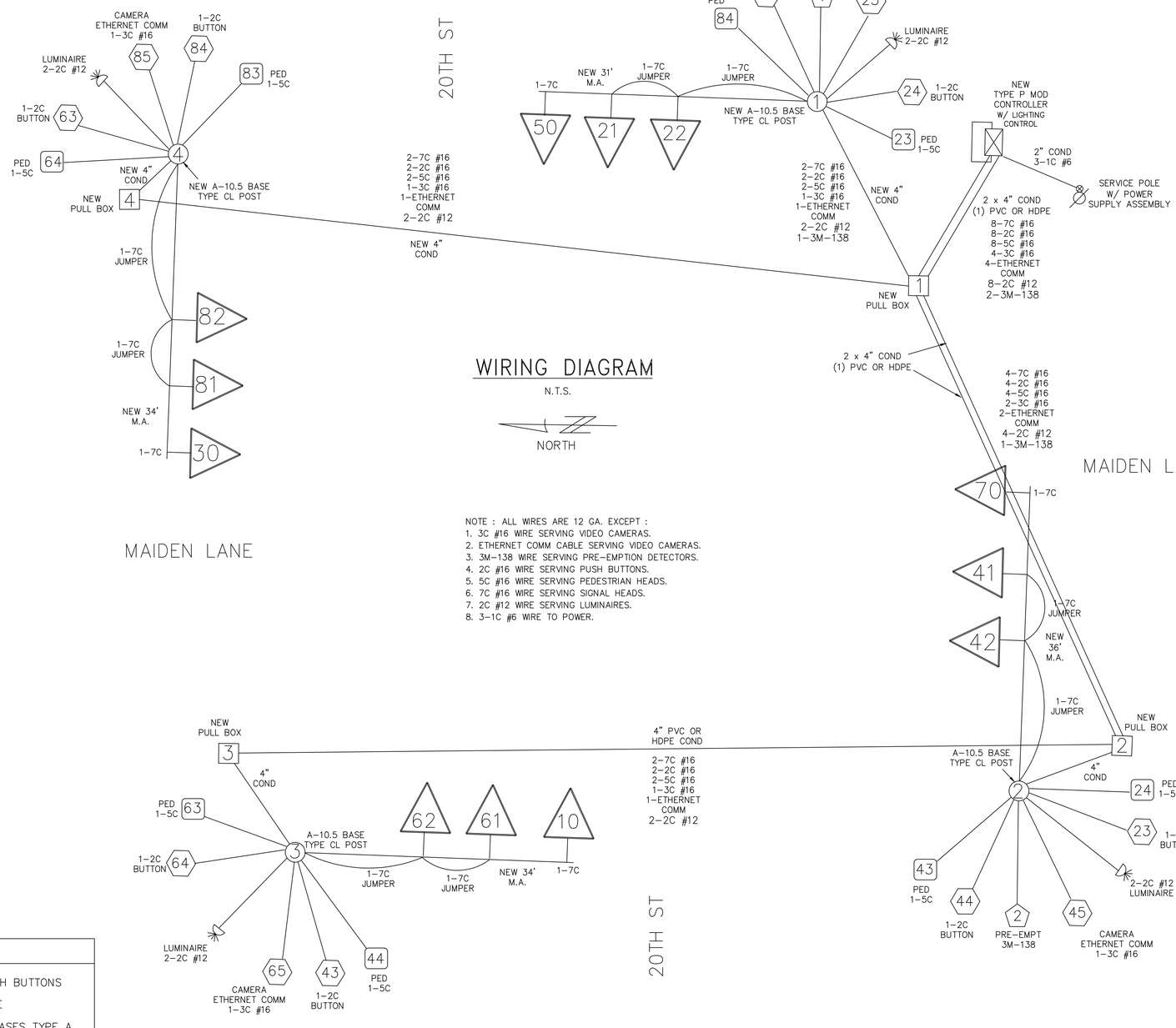
FEDERAL AID PROJECT
NO. TDG-3200(718)
PROJECT 1

CITY OF Joplin	CITY OF JOPLIN, MISSOURI DEPARTMENT OF PUBLIC WORKS DIVISION OF ENGINEERING	ADDRESS: 602 S MAIN ST 64801 PH NO: 417-624-0820 EXT 530 FAX NO: 417-625-4738 E-MAIL: DHERTZBE@JOPLINMO.ORG	REV DATE: 03/2010	REVISION: PRINTED NEW SHEETS	SVYD. BY: SPRENKLE PAGE/BOOK: 00/000 SVY. DATE: 09/2006 ENGINEER: HERTZBERG	ACAD FILE & PATH NAME: STREET\ML2006\20THMLSIGNAL1 SCALES: HORZ: 1"=10'	DWN. BY: STAFF CKD. BY: BRADLEY APPD. BY: SCHALLER DATE: 09/2006	PLAN NO.: 8304 SHEET 38 of 40	PROJECT SIGNAL LAYOUT PLAN - 20TH & M.L. MAIDEN LANE WIDENING - 9TH TO 32ND



PHASE KEY

N.T.S.



WIRING DIAGRAM

N.T.S.

NORTH

NOTE : ALL WIRES ARE 12 GA. EXCEPT :
1. 3C #16 WIRE SERVING VIDEO CAMERAS.
2. ETHERNET COMM CABLE SERVING VIDEO CAMERAS.
3. 3M–138 WIRE SERVING PRE–EMPTION DETECTORS.
4. 2C #16 WIRE SERVING PUSH BUTTONS.
5. 5C #16 WIRE SERVING PEDESTRIAN HEADS.
6. 7C #16 WIRE SERVING SIGNAL HEADS.
7. 2C #12 WIRE SERVING LUMINAIRES.
8. 3–1C #6 WIRE TO POWER.

LEGEND

- VIDEO CAMERAS/PUSH BUTTONS
- POWER SERVICE POLE
- MAST ARM SIGNAL BASES TYPE A
- MAST ARM SIGNAL HEADS
- TRAFFIC CONTROLLER BASE
- PEDESTRIAN SIGNAL HEAD
- STATE STD. PULL BOX
- 150 W SODIUM LUMINAIRE
- OPTICOM PRE–EMPTION DETECTOR

FEDERAL AID PROJECT
NO. TDG-3200(718)
PROJECT 1

MISSOURI ONE CALL SYSTEM, INC. 1-800-344-7483 STOP–CALL BEFORE YOU DIG!

CITY OF Joplin

CITY OF JOPLIN, MISSOURI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

ADDRESS: 602 S MAIN ST. 64801
PH. NO.: 1–417–624–0820
FAX NO.: 1–417–625–4738
E–MAIL: DHERTZBE@JOPLINMO.ORG

REVISION DATE:	REVISION:
03/2010	PRINTED NEW SHEETS

SVYD. BY: SPRENKLE
PAGE/BOOK: NA/NA
SVY. DATE: 09/2006
ENGINEER: HERTZBERG

ACAD FILE NAME: STREET\ML2006\20THMLSIGNAL2
SCALE: N.T.S.

DWN. BY: STAFF
CKD. BY: BRADLEY
APPD. BY: SCHALLER
DATE: 10/2006

PROJECT
SIGNAL WIRING SHEET
20TH & MAIDEN LANE

PLAN NO.: 8304
SHEET
39 of 40

CONDUIT

FROM	TO	C TO C DIST.	TRENCH 2	TRENCH 3	TRENCH 4	EXISTING 1	EXISTING 2	EXISTING 4	REMARKS
3	③	9'			6'				
2	3	65'			62'				
2	②	9'			6'				
1	2	72'			138'				2 @ 69'
4	④	9'			6'				
1	4	66'			63'				
1	①	9'			6'				
1	⊠	44'			82'				2 @ 41'
⊗	⊠	15'	13'						
SUBTOTAL			13'		369'				
EXTRA FOR CUTTING			0		0				
TOTALS			13'		369'				

DETECTORS

DET #	PHASE ASSOC.	PUSH BUTTON	INDUCTION LOOPS LOOP SIZE	INDUCTION LOOPS MEMORY	VIDEO CAMERAS	REMARKS
⟨25⟩	ø2				1	
⟨24⟩	ø2	1				
⟨23⟩	ø2	1				
⟨85⟩	ø8				1	
⟨84⟩	ø8	1				
⟨83⟩	ø8	1				
⟨65⟩	ø6				1	
⟨64⟩	ø6	1				
⟨63⟩	ø6	1				
⟨45⟩	ø4				1	
⟨44⟩	ø4	1				
⟨43⟩	ø4	1				
TOTAL		8			4 VIDEO CAMERAS	

TYPE 2 PED UNDERGRND POWER SUPPLY ASSEMBLY

LOCATION APPR.	LOCATION NORTH.	LOCATION EAST.	SERVICE POLE
SE CORNER OF 20TH & MAIDEN LANE	328732.51	2779485.35	SERVICE POLE W/ POWER SUPPLY ASSEMBLY

EMPIRE DISTRICT TO FURNISH & INSTALL POWER SUPPLY ASSEMBLY. COST TO BE PAID DIRECTLY BY THE CITY OF JOPLIN.

CONTROLLER & EQUIP.

LOCATION APPR.	LOCATION NORTH.	LOCATION EAST.	CONTR. TYPE	CABINET TYPE P MOD	LIGHTING CONTROL BOX
SE CORNER OF 20TH & MAIDEN LANE	328745.59	2779492.42	EAGLE EPAC	1	1

REMARKS : NEW EAGLE EPAC MODEL 704
CONTRACTOR TO FURNISH LIGHTING CONTROL BOX

CABLE

From	To	Ctr to Ctr Distance	Power 3-1c #6	7c #16	5c #16	2c #16	3M-138	3c #16	** Ethernet Comm	Luminaire 2c #12	Remarks
Power	Cont.	15	93								Power
Cont.	Pole 1	53						109	109		Video Camera
Cont.	Pole 1	53		109							Signal 21
	Pole 1			15							Signal 22 (Jumper from 21)
Cont.	Pole 1	53		118							Signal 10
Cont.	Pole 1	53			172	172					2- Ped. Heads & Buttons
Cont.	Pole 1	53					114				Pre-Emption
Cont.	Pole 1	53								112	Luminaire
Cont.	Pole 2	125						186	186		Video Camera
Cont.	Pole 2	125		186							Signal 41
	Pole 2			15							Signal 42 (Jumper from 41)
Cont.	Pole 2	125		195							Signal 70
Cont.	Pole 2	125			316	316					2- Ped. Heads & Buttons
Cont.	Pole 2	125					190				Pre-Emption
Cont.	Pole 2	125								184	Luminaire
Cont.	Pole 3	190						249	249		Video Camera
Cont.	Pole 3	190		249							Signal 61
	Pole 3			15							Signal 62 (Jumper from 61)
Cont.	Pole 3	190		258							Signal 10
Cont.	Pole 3	190			446	446					2- Ped. Heads & Buttons
Cont.	Pole 3	190								249	Luminaire
Cont.	Pole 4	119						178	178		Video Camera
Cont.	Pole 4	119		178							Signal 81
	Pole 4			15							Signal 82 (Jumper from 81)
Cont.	Pole 4	119		187							Signal 30
Cont.	Pole 4	119			304	304					2- Ped. Heads & Buttons
Cont.	Pole 4	119								164	Luminaire
	Totals		**93**	**1540**	**1238**	**1238**	**304**	**722**	**722**	**709**	

** Ethernet Cable (Mohawk M575 or Equal)

PRE-EMPTION DETECTORS

POST #	PRE-EMPT. #	TYPE	REMARKS
①	⬠1	3M 2 DIRECTION	OPTICAL DETECTOR
②	⬠2	3M 2 DIRECTION	OPTICAL DETECTOR

FEDERAL AID PROJECT
NO. TDG-3200(718)
PROJECT 1

POSTS

POST #	ARM LENGTH A	SIGNAL & VIDEO CAMERA SPACING B	C	D	E	LUM	POSTS	REMARKS
①	31'	11'	10'	9'	1'	1	1	TYPE CL W/ 150 WATT HPS LUMINAIRE
②	36'	16'	10'	9'	1'	1	1	TYPE CL W/ 150 WATT HPS LUMINAIRE
③	34'	14'	10'	9'	1'	1	1	TYPE CL W/ 150 WATT HPS LUMINAIRE
④	34'	14'	10'	9'	1'	1	1	TYPE CL W/ 150 WATT HPS LUMINAIRE
TOTALS						4	4	

NOTE: LUMINAIRE ARMS SHALL BE 15' IN LENGTH.

SIGNAL & PEDESTRIAN HEADS

POST	FACE	INDICATIONS 12" LENS CONV. R	Y	G	YR	YL	GL	GR	VISOR TUNNEL	VISOR PEDESTRIAN	BACKPLATES	BRACKET TYPE STD. I	II	III	ONE FACE SECTIONS 1– T	S	3– T	S	C	5– B	T	S	C	B	2 FACES SECTIONS 11 T	S	33 T	S	REMARKS
①	⟨50⟩	1	1	1		1	1		5		1			1									1					
①	⟨21⟩	1	1	1					3		1	1								1									
①	⟨22⟩	1	1	1					3		1	1								1									
②	⟨70⟩	1	1	1		1	1		5		1			1									1					
②	⟨41⟩	1	1	1					3		1	1								1									
②	⟨42⟩	1	1	1					3		1	1								1									
③	⟨10⟩	1	1	1		1	1		5		1			1									1					
③	⟨61⟩	1	1	1					3		1	1								1									
③	⟨62⟩	1	1	1					3		1	1								1									
④	⟨30⟩	1	1	1		1	1		5		1			1									1					
④	⟨81⟩	1	1	1					3		1	1								1									
④	⟨82⟩	1	1	1					3		1	1								1									
①	23									1															1				
①	84									1															1				
②	24									1															1				
②	43									1															1				
③	44									1															1				
③	63									1															1				
④	64									1															1				
④	83									1															1				
TOTALS		12	12	12		4	4		44	8	12	8		4						8				4		8			

REMARKS: ALL SIGNAL HEAD BRACKET TYPES SHALL BE ASTRO BRACKETS (OR EQUAL) WITH TERMINAL BLOCKS.
ALL PEDESTRIAN HEADS SHALL BE MOUNTED WITH 3/4" STAINLESS STEEL "CLAMSHELL" TYPE MOUNTS.
PEDESTRIAN HEADS SHALL BE HAND/MAN TYPE.

T=TOP MOUNT
S=SIDE MOUNT
B=MAST ARM MOUNT
C=SPAN WIRE MOUNT

BASES & HANDHOLES

LOCATION APPR.	LOCATION NORTH.	LOCATION EAST.	BASES A	B	C	CONTR. P MOD	CLASS B CONC.	PULL PREF. CONC.	REMARKS
SW CORNER OF 20TH & MAIDEN LANE	328776.49	2779399.38	A 13				3.84		② REM EXIST
NW CORNER OF 20TH & MAIDEN LANE	328853.92	2779397.13	A 10				3.06		③ REM EXIST
NE CORNER OF 20TH & MAIDEN LANE	328860.08	2779477.97	A 10				3.06		④ REM EXIST
SE CORNER OF 20TH & MAIDEN LANE	328785.17	279483.12	A 10				3.06		① REM EXIST
SW CORNER OF 20TH & MAIDEN LANE	328785.28	2779402.33						1	2 REM EXIST
NW CORNER OF 20TH & MAIDEN LANE	328850.81	2779406.09						1	3 REM EXIST
NE CORNER OF 20TH & MAIDEN LANE	328851.28	2779476.95						1	4 REM EXIST
SE CORNER OF 20TH & MAIDEN LANE	328785.13	2779474.28						1	1 REM EXIST
SE CORNER OF 20TH & MAIDEN LANE	328745.59	2779492.42				1	1.93		⊠ REM EXIST
TOTALS			4			1	14.95	4	

NOTE : CONTRACTOR SHALL ONLY BE PAID FOR THE SPECIFIED AMOUNT OF CONC.