AUGUST 2021

ORDER OF SHEETS

TOTAL SHEETS =

DESIGN DESIGNATION

**CONVENTIONAL SYMBOLS** 

A.A.D.T A.A.D.T

D.H.V.

DESIGN SPEED

CORPORATE LIMITS

LIMITED HIGHWAY EASEMENT

PROPOSED OR NEW R/W LINE

EXISTING RIGHT OF WAY

SLOPE INTERCEPT

REFERENCE LINE

(Box or Pipe)

MARSH AREA

EXISTING CULVERT

PROPOSED CULVERT

COMBUSTIBLE FLUIDS

WOODED OR SHRUB AREA

PROPERTY LINE

Typical Sections and Details Estimate of Quantities Miscellaneous Quantities

Right of Way Plat

108

Standard Detail Drawings

STH 35 (WEST AVE)

GRADE LINE

SPECIAL DITCH

UTILITIES

ELECTRIC

FIBER OPTIC

SANITARY SEWER

STORM SEWER

UTILITY PEDESTAL

TELEPHONE POLE

POWER POLE

2041 = 23,130

= 2.310 = 2%

= 30 MPH

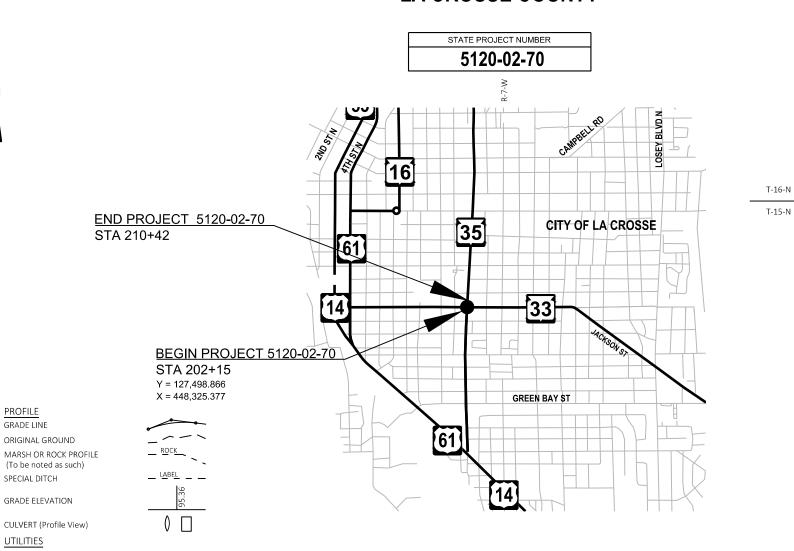
## STATE OF WISCONSIN **DEPARTMENT OF TRANSPORTATION**

PLAN OF PROPOSED IMPROVEMENT

## C LA CROSSE, INTERSECTION IMPRVMNTS

JACKSON ST / STH 35 / WEST AVE INTER

**STH 33** LA CROSSE COUNTY



RANDY ORIGINAL PLANS PREPARED BY STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION PREPARED BY CRAIG FISHER Regional Examiner OSCAR WINGER Regional Supervisor HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), LA CROSSE COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID PROVED FOR THE DEPARTMENT

PLOT NAME

FILE NAME: T:\1190937.02\CIVIL3D\16410304\SHEETSPLAN\010101-TI.DWG

4/6/2021 11:34 AM

TOTAL NET LENGTH OF CENTERLINE = 0.157 MI

SCALE

GEOID 12A.

COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS

ELEVATIONS ARE REFERENCED TO NAVD 88 (2007). GPS DERIVED ELEVATIONS ARE BASED ON

DATE: 1/12/2021

STATE PROJECT CONTRACT WISC 2021435 5120-02-70

FEDERAL PROJECT

ACCEPTED FOR

LA CROSSE

Ε

9

2

### DESIGN CONSULTANT

JOHN BRUGGEMAN raSmith 16745 W BLUEMOUND RD BROOKFIELD, WI 53005 (262) 317-3353 JOHN.BRUGGEMAN@RASMITH.COM

### CITY OF LA CROSSE

STEPHANIE SWARD 400 LA CROSSE ST LA CROSSE, WI 54601 (608) 789-7505 SWARDS@CITYOFLACROSSE.ORG

#### WISCONSIN DNR

KAREN KALVELAGE 3550 MORMON COULEE RD LA CROSSE, WI 54601 (608) 785-9115 KAREN.KALVELAGE@WISCONSIN.GOV

### CITY OF LA CROSSE MUNICIPAL TRANSIT (MTU)

ADAM LORENTZ 2000 MARCO DR LA CROSSE, WI 54601 (608) 789-7350 LORENTZA@CITYOFLACROSSE.ORG

### WISCONSIN DEPT OF TRANSPORTATION

CRAIG FISHER 3550 MORMON COULEE RD LA CROSSE, WI 54601 (608) 785-9946 CRAIG.FISHER@DOT.WLGOV

#### UTILITIES

TOM LALOND XCEL ENERGY 3215 COMMERCE ST

LA CROSSE, WI 54603 (608) 789-3681 THOMAS.J.LALOND@XCELENERGY.COM

### WATER

GAS

MARK GRAFF CITY OF LA CROSSE 800 EAST AVE N LA CROSSE, WI 54601 (608) 789-7384 GRAFFM@CITYOFLACROSSE.ORG

### SANITARY

STEVE ASP CITY OF LA CROSSE 905 HOUSKA PARK DR LA CROSSE, WI 54601 (608) 789-7330 ASPA@CITYOFLACROSSE.ORG

### ORDER OF SECTION 2 SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
PLAN DETAILS
PAVEMENT DETAILS
CURB RAMP DETAILS
UTILITY DETAILS
TRAFFIC SIGNAL REMOVAL
TRAFFIC SIGNAL TEMPORARY
TRAFFIC SIGNAL PERMANENT
PAVEMENT MARKING
TRAFFIC CONTROL

### GENERAL NOTES

- 1. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATION AS SHOWN ON THE PLAN ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
- 2. ALL OPENINGS BELOW SUBGRADE, RESULTING FROM REMOVALS OR ABANDONMENTS, SHALL BE BACKFILLED IN ACCORDANCE WITH SECTION 204 OF THE STANDARD SPECS. GRANULAR BACKFILL SHALL BE INCIDENTAL TO CONSTRUCTION.
- 3. NO TREES OR SHRUBS SHALL BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.
- 4. CURB AND GUTTER GRADES ARE MEASURED AT THE FLANGE LINE UNLESS OTHERWISE NOTED. CURB AND GUTTER STATIONS, OFFSETS, AND RADII ARE MEASURED AT THE FACE OF CURB UNLESS OTHERWISE NOTED.
- 5. EROSION CONTROL DEVICES ARE AT SUGGESTED LOCATIONS. THE ACTUAL LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S ECIP AND BY THE ENGINEER. EROSION CONTROL DEVICES SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR UNTIL THE ENGINEER DETERMINES THAT THE DEVICES IS NO LONGER REQUIRED.
- 6. THE LIMITS OF SIDEWALK AND CURB & GUTTER REMOVALS ARE APPROXIMATE. FINAL LOCATIONS TO BE DETERMINED BY THE ENGINEER.
- 7. THE CITY OF LA CROSSE WILL REMOVE AND REINSTALL EXISTING SIGNS DURING CONSTRUCTION.

Diggers HOTLINE

Dial or (800)242-8511

www.DiggersHotline.com

PROJECT NO: 5120-02-70 HWY: STH 33 COUNTY: LA CROSSE GENERAL NOTES & PROJECT CONTACTS SHEET

5/25/2021 11:38 AM

TER NAME: T:\1190937.02\CIVIL3D\16410304\SHEETSPLAN\020101-GN.DWG LAYOUT NAME - 01

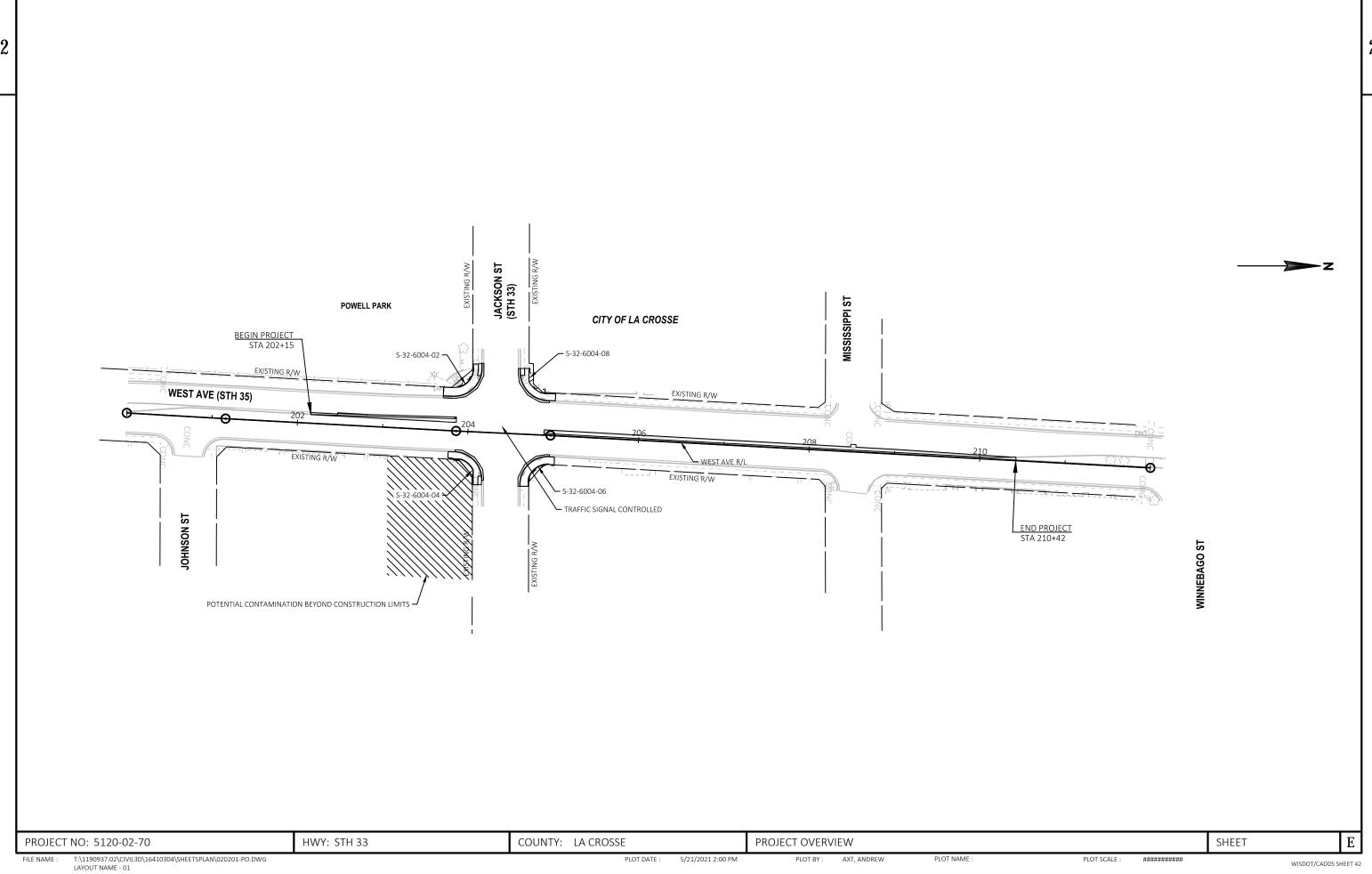
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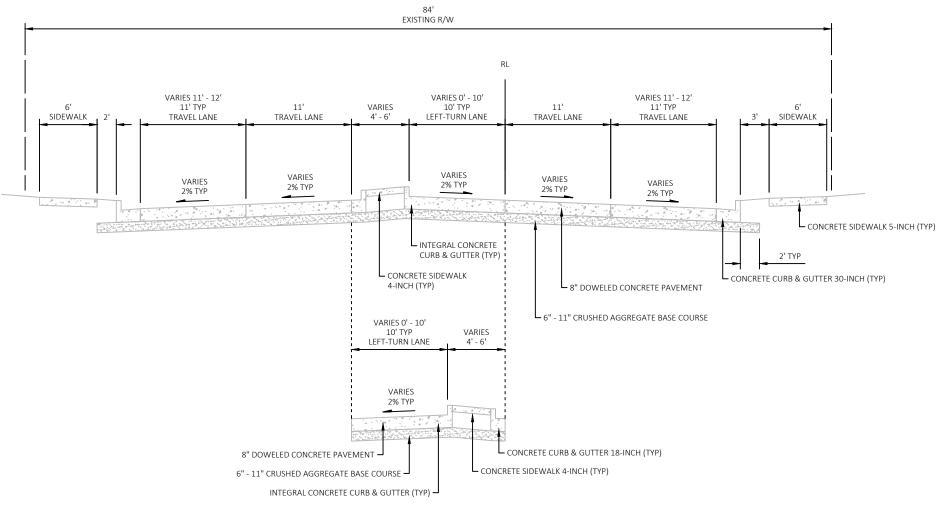
PLOT BY:

AXT, ANDREW

PLOT NAME:

PLOT SCALE: 1 IN:10 FT





### SOUTHBOUND LEFT-TURN LANE

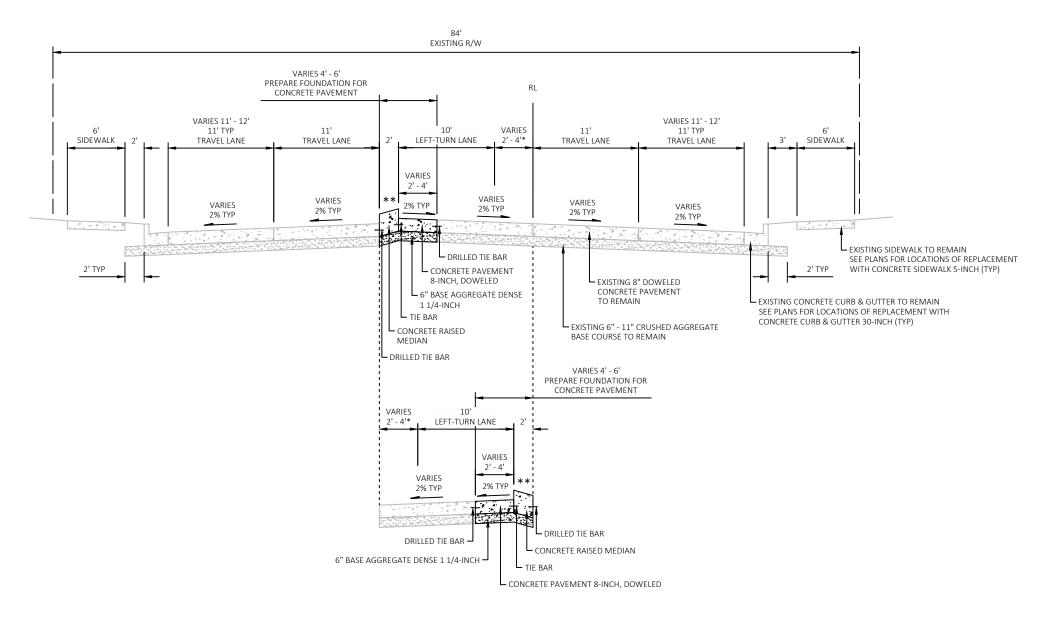
STA 204+89 TO STA 210+42

### TYPICAL EXISTING SECTION WEST AVE (STH 35)

STA 202+15 TO STA 210+42

PROJECT NO: HWY: STH 33 COUNTY: LA CROSSE TYPICAL SECTIONS SHEET 5120-02-70 T:\1190937.02\CIVIL3D\16410304\SHEETSPLAN\020301-TS.DWG LAYOUT NAME - 02 PLOT BY: AXT, ANDREW PLOT NAME : PLOT DATE : FILE NAME : PLOT SCALE : 1 IN:10 FT





### SOUTHBOUND LEFT-TURN LANE

STA 204+89 TO STA 210+42

### TYPICAL FINISHED SECTION WEST AVE (STH 35)

WEST AVE (STH 35)

STA 202+15 TO STA 210+42 V = 30 MPH \*SEPARATOR WIDTH TO BE PAVEMENT MARKED.

\*\*SLOPE VARIES 6% TO 20%, 8% TYPICAL.

PROJECT NO: 5120-02-70 HWY: STH 33 COUNTY: LA CROSSE TYPICAL SECTIONS SHEET **F** 

PLOT DATE : 4/21/2021 4:25 PM

PLOT BY: AXT, ANDREW

PLOT NAME :

PLOT SCALE :

1 IN:10 FT

### CONCRETE RAISED MEDIAN DETAIL

SEE PLANS FOR LOCATIONS

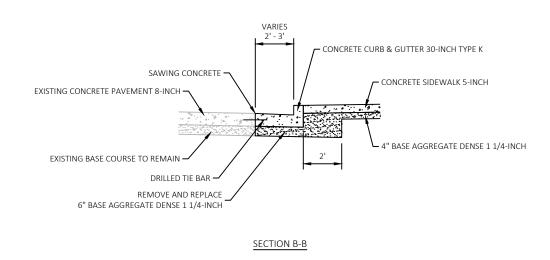
X = LOCATION OF PAVING GRADE SHOWN ON PAVEMENT DETAIL SHEETS

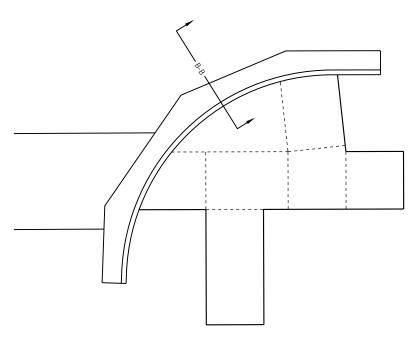
### **RUNOFF COEFFICIENT TABLE**

		HYDROLOGIC SOIL GROUP										
	А		В		1	С		D				
	SLO	PE RANG	E (PERCENT)	SLOPE	RANGE (	(PERCENT)	SLOPI	SLOPE RANGE (PERCENT)		SLOPE RANGE (PERCENT)		(PERCENT)
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08	.16	.22	.12	.20	.27	.15	.24	.33	.19	.28	.38
	.22	.30	.38	.26	.34	.44	.30	.37	.50	.34	.41	.56
MEDIAN STRIP- TURF	.19	.20 .26	.24 .30	.19 .25	.22	.26 .33	.20 .26	.23	.30 .37	.20	.25 .32	.30 .40
	.24	.20	.30	.25	.20	.55		.50	.57	.27	.52	.40
SIDE SLOPE:			.25			.27			.28			.30
TURF			.32			.34			.36			.38
PAVEMENT:												
ASPHALT						.7095						
CONCRETE		.8095										
BRICK		.7080										
DRIVES, WALKS	.7585											
ROOFS						.7595						
GRAVEL ROADS, SHO	ULDERS	·			·	.4060		·			·	

TOTAL PROJECT AREA = 1.70 ACRES

TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.16 ACRES





WITHOUT ADJACENT CONCRETE PAVEMENT REPLACEMENT

### **CURB & GUTTER REPLACEMENT DETAIL**

PROJECT NO: 5120-02-70 HWY: STH 33 COUNTY: LA CROSSE SHEET **CONSTRUCTION DETAILS** 

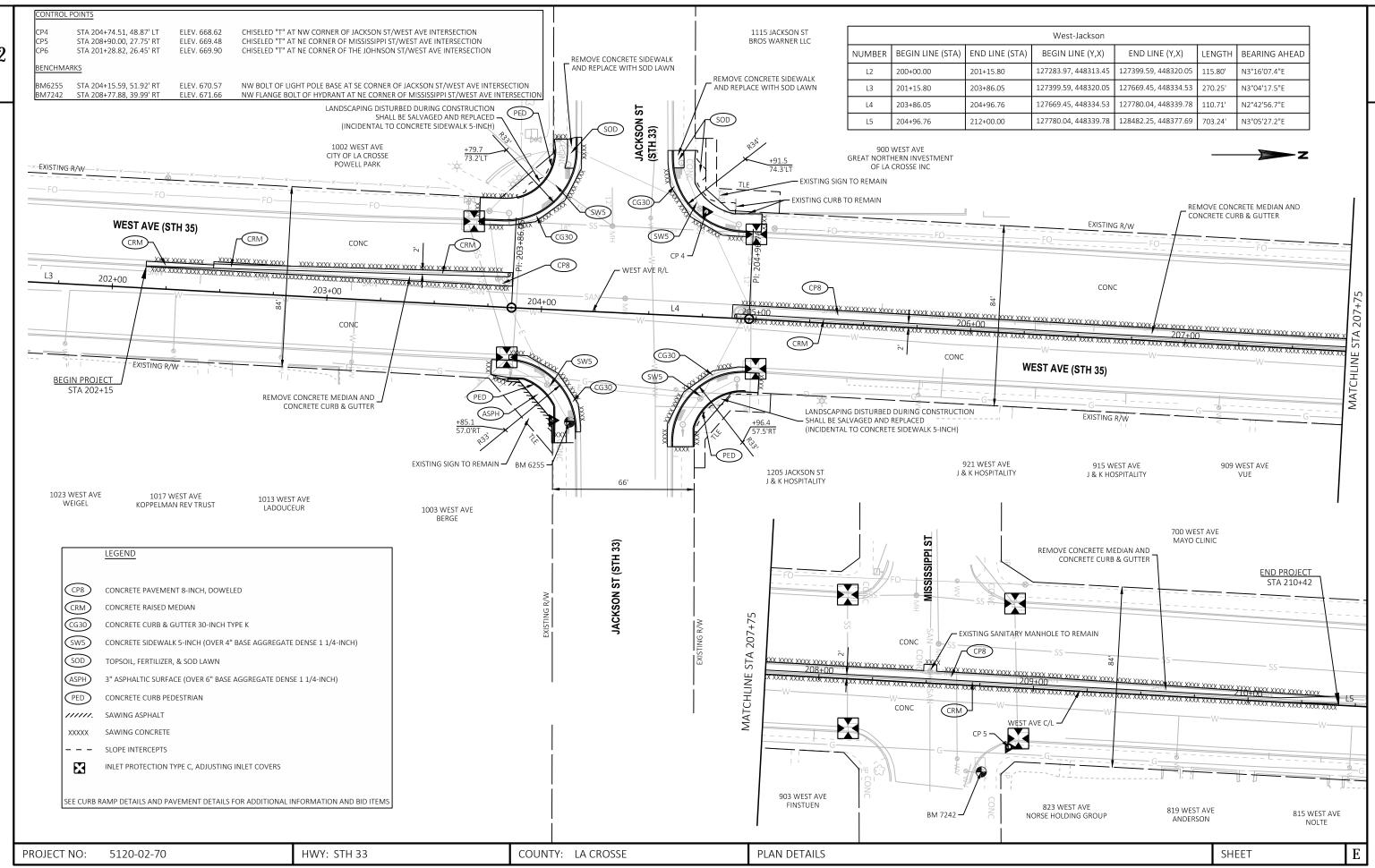
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PLOT DATE : 5/21/2021 3:37 PM

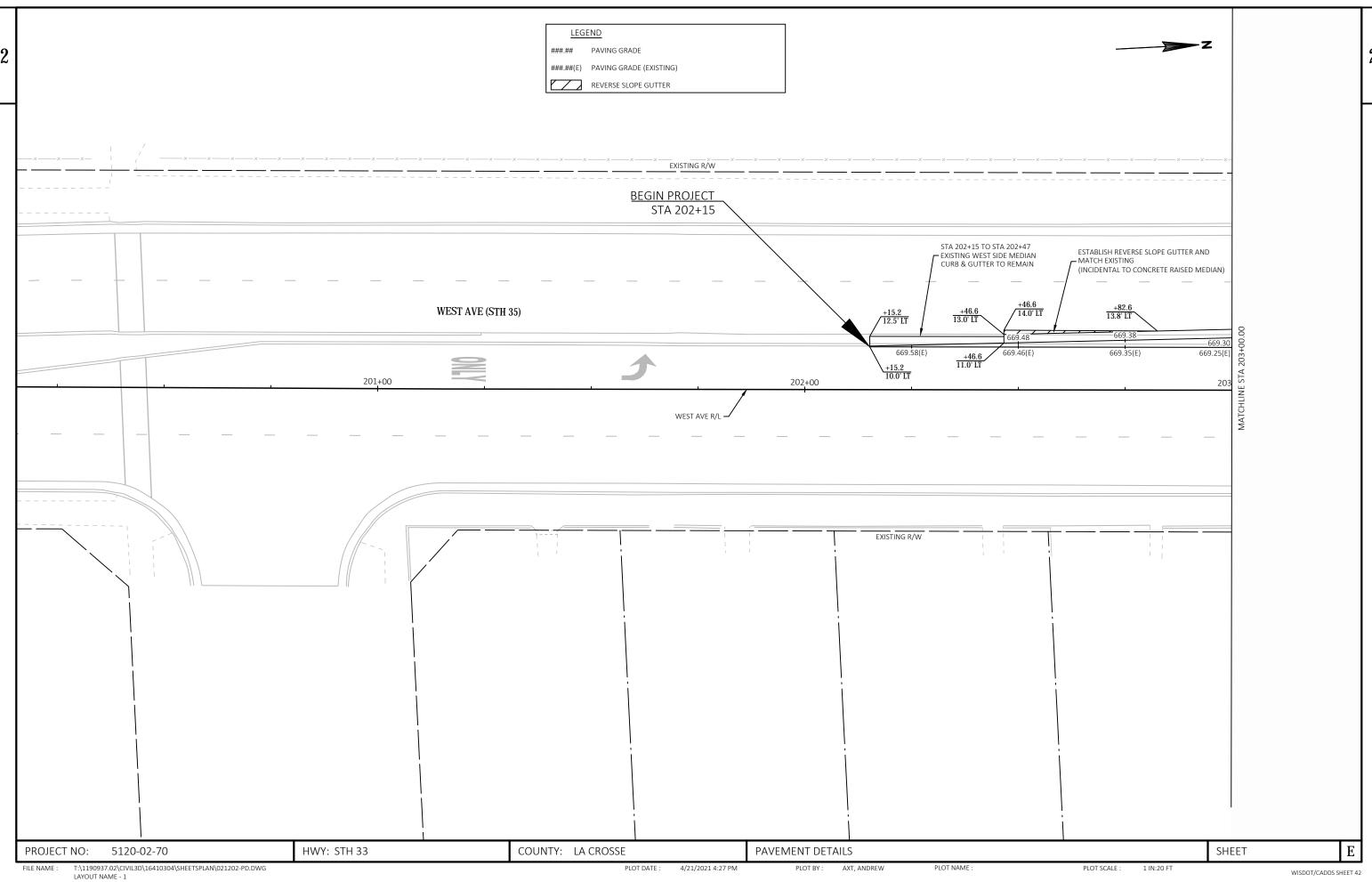
AXT, ANDREW PLOT BY:

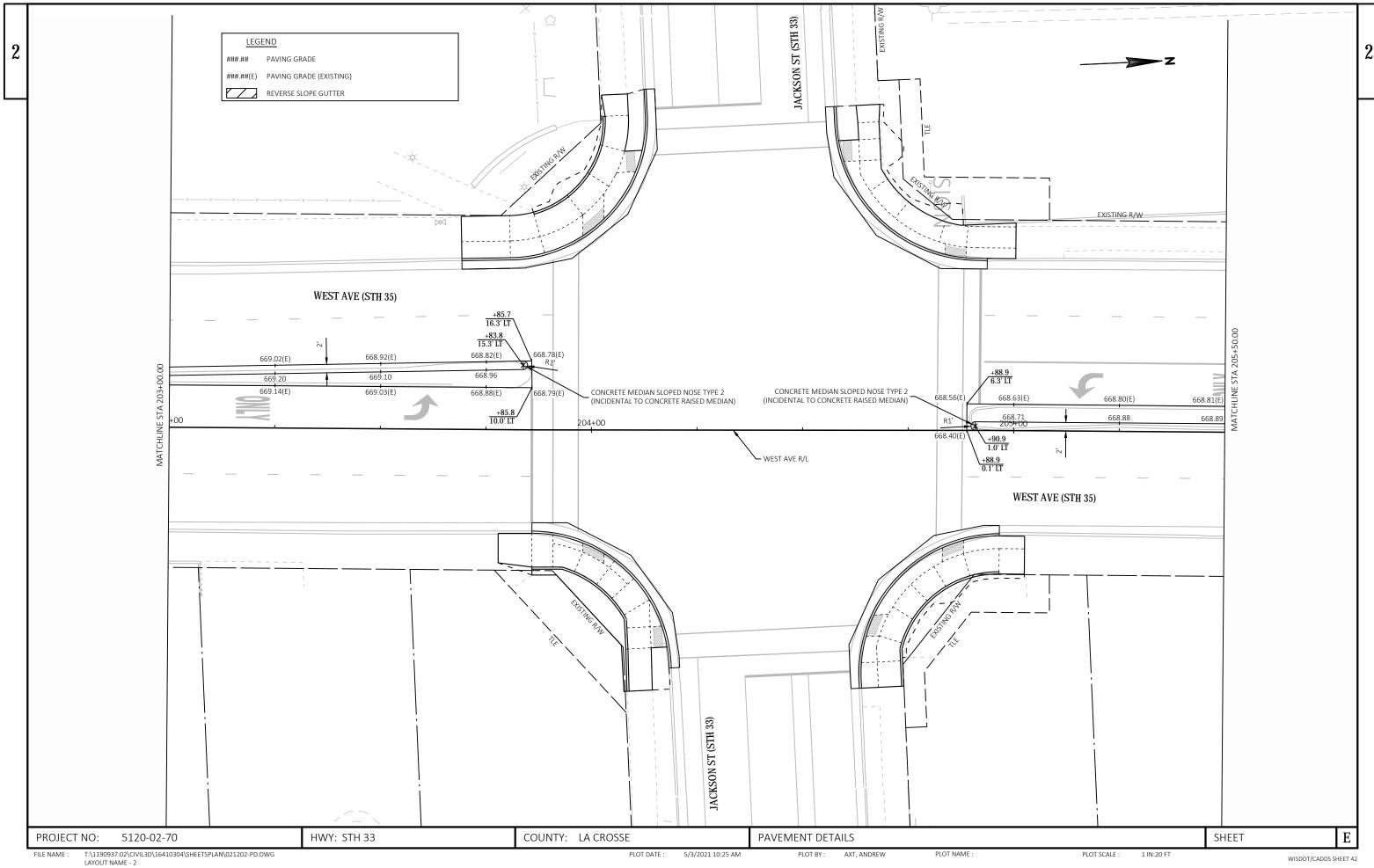
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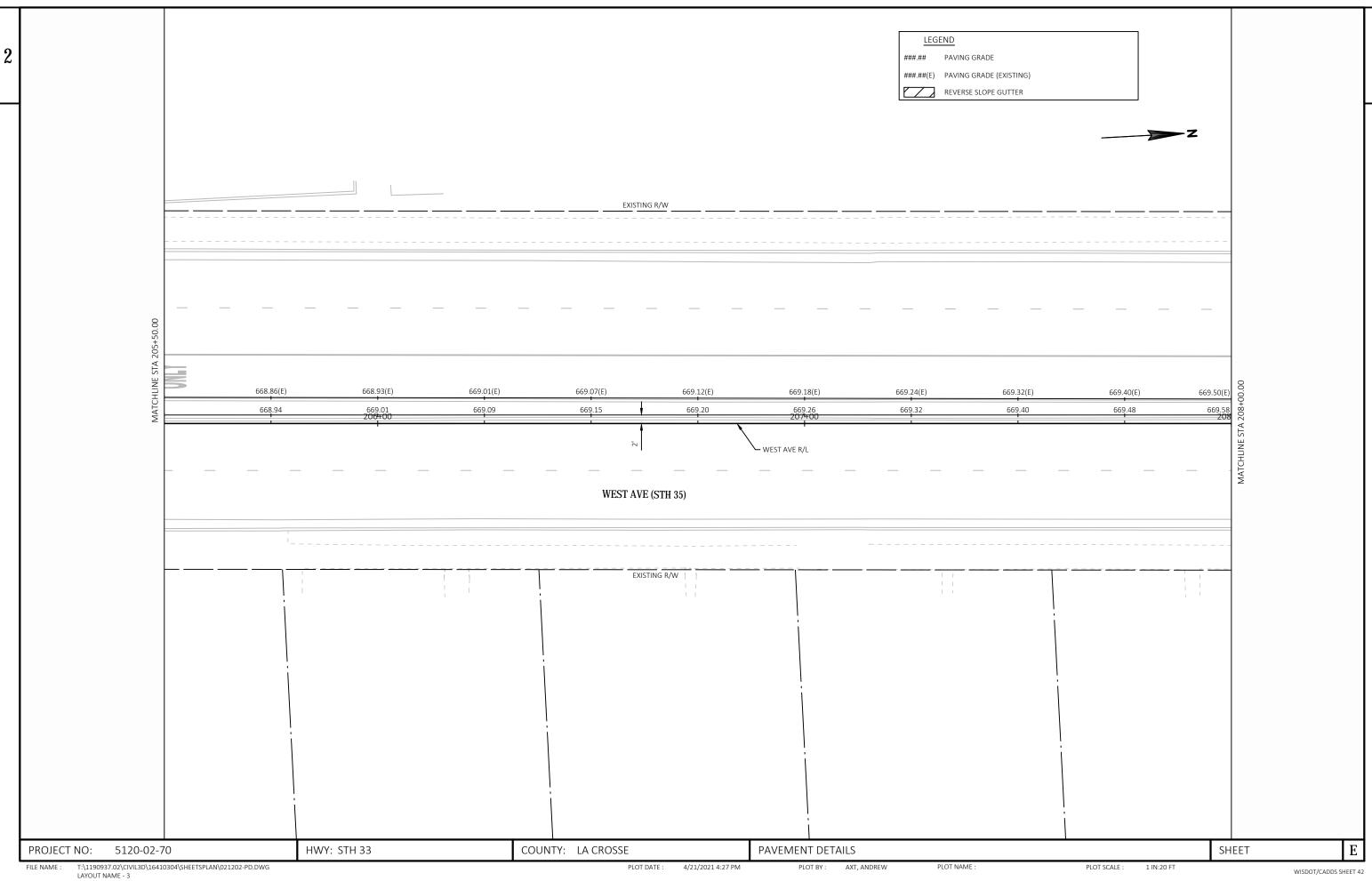
PLOT SCALE : 1 IN:10 FT

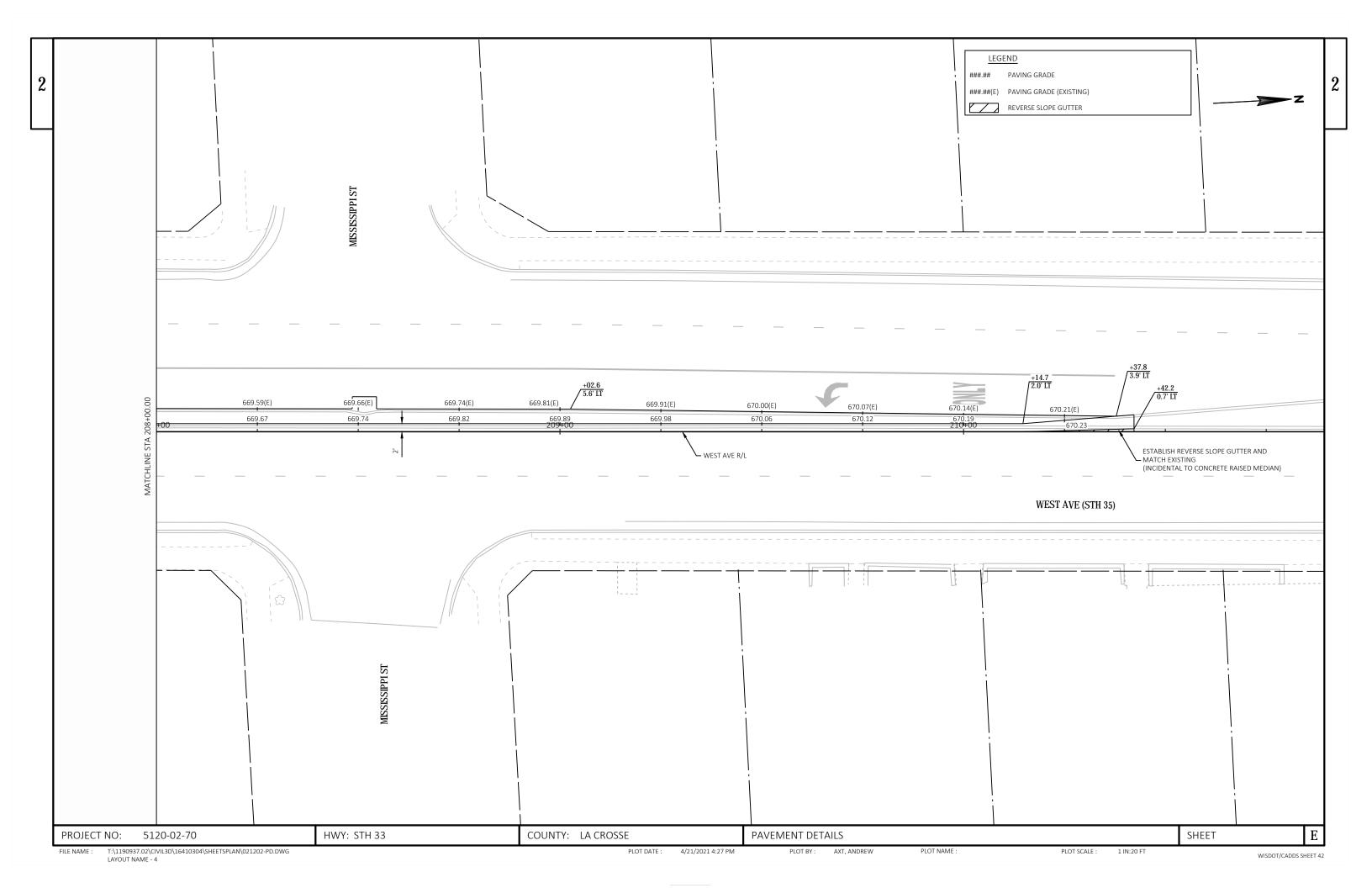


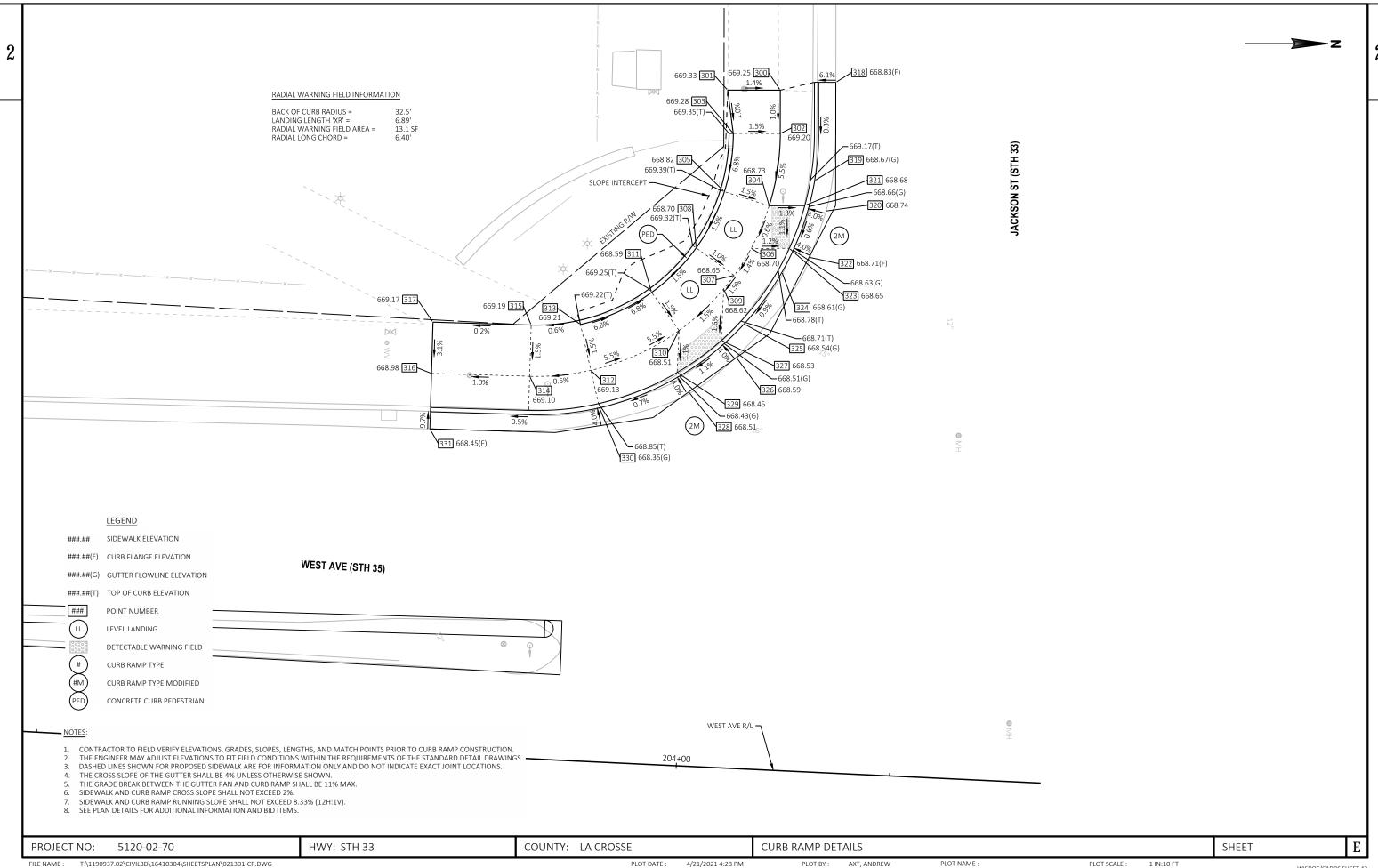
LAYOUT NAME - Jackson



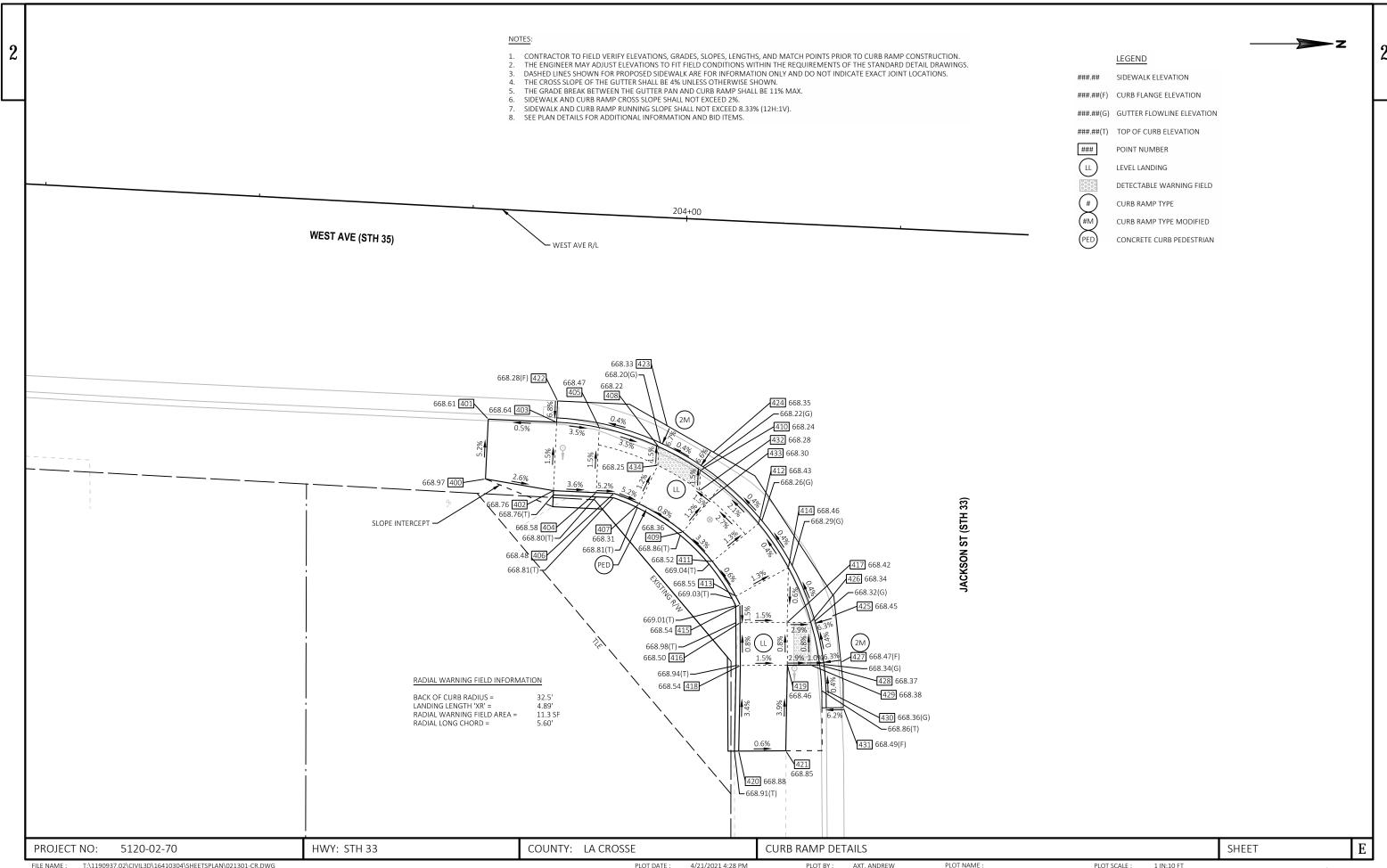




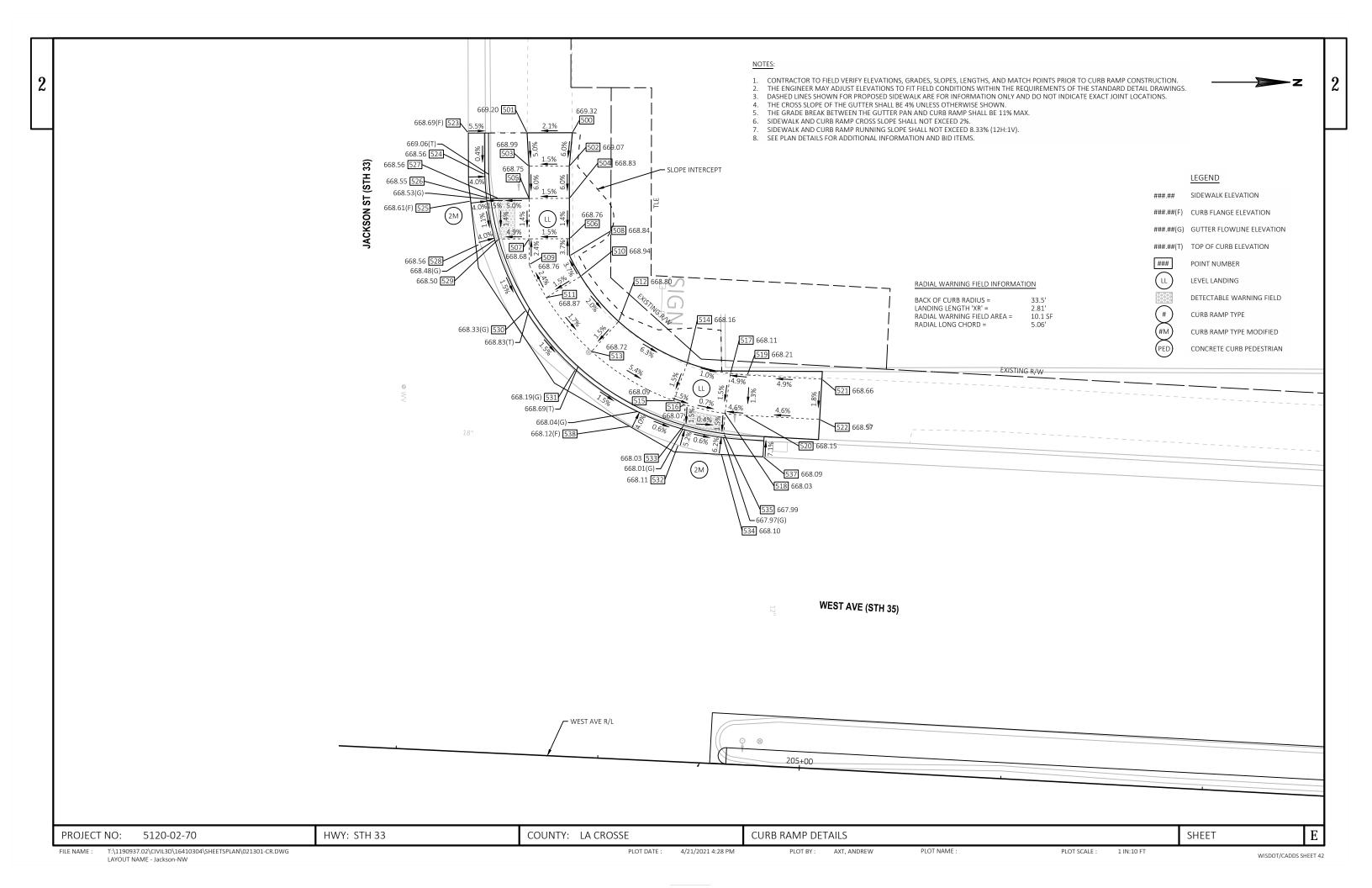


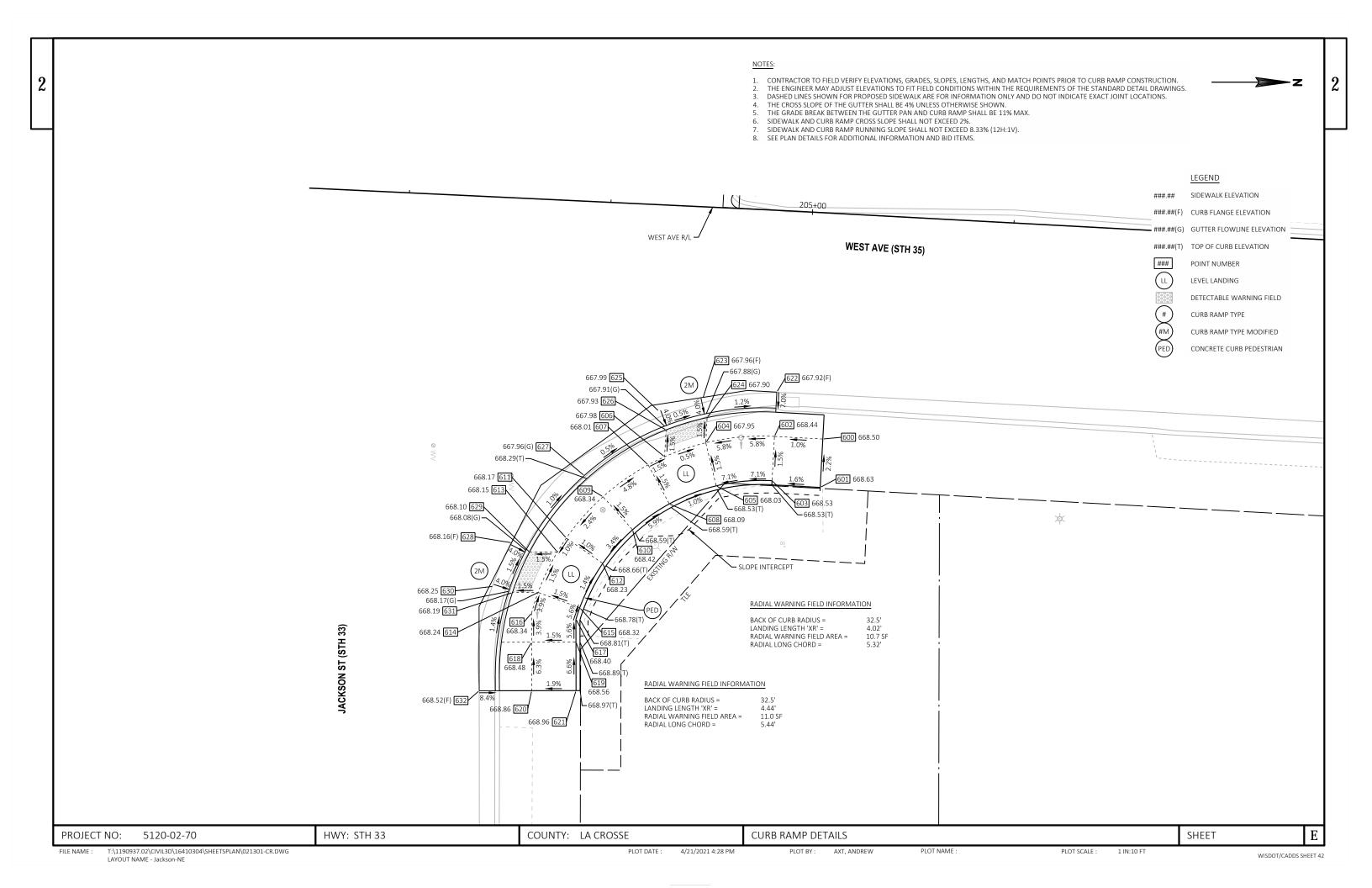


T:\1190937.02\CIVIL3D\16410304\SHEETSPLAN\021301-CR.DWG LAYOUT NAME - Jackson-SW WISDOT/CADDS SHEET 42



NAME: T:\1190937.02\CIVIL3D\16410304\SHEETSPLAN\021301-CR.DWG PLOT DATE: 4/21/2021 4:28 PM PLOT BY: AXT, ANDREW PLOT NAME: 1 IN:10 FT WISDOT/CADDS SHEET 42 LAYOUT NAME - Jackson-SE





JACKSON ST SW - POINT TABLE								
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING			
300	204+08.42	79.60' LT	669.25	127695.57	448256.08			
301	204+02.27	79.32' LT	669.33	127689.41	448256.06			
302	204+08.65	74.55' LT	669.20	127695.56	448261.14			
303	204+03.16	74.29' LT	669.28	127690.06	448261.13			
304	204+07.76	66.04' LT	668.73	127694.26	448269.59			
305	204+02.44	67.43' LT	668.82	127689.01	448267.95			
306	204+05.89	60.94' LT	668.70	127692.15	448274.60			
307	204+04.06	57.69' LT	668.65	127690.17	448277.76			
308	203+99.45	60.69' LT	668.70	127685.71	448274.54			
309	204+02.91	56.05' LT	668.62	127688.94	448279.34			
310	203+97.91	50.93' LT	668.51	127683.71	448284.22			
311	203+94.49	55.24' LT	668.59	127680.50	448279.75			
312	203+87.83	45.79' LT	669.13	127673.39	448288.88			
313	203+86.35	51.09' LT	669.21	127672.17	448283.51			
314	203+80.42	44.72' LT	669.10	127666.22	448289.58			
315	203+80.27	50.72' LT	669.19	127666.40	448283.58			
316	203+68.92	44.44' LT	668.98	127654.72	448289.24			
317	203+68.78	50.44' LT	669.17	127654.90	448283.24			
318	204+14.87	80.84' LT	668.83	127702.07	448255.15			
319	204+12.94	69.22' LT	668.67	127699.58	448266.66			
320	204+14.36	65.71' LT	668.74	127700.84	448270.23			
321	204+11.92	66.25' LT	668.68	127698.43	448269.58			
322	204+12.67	60.24' LT	668.71	127698.90	448275.62			
323	204+10.35	61.16' LT	668.65	127696.62	448274.59			
324	204+09.62	58.34' LT	668.61	127695.76	448277.37			
325	204+05.48	52.06' LT	668.54	127691.32	448283.45			
326	204+04.66	48.23' LT	668.59	127690.32	448287.23			
327	204+02.91	50.02' LT	668.53	127688.66	448285.37			
328	203+99.28	43.92' LT	668.51	127684.75	448291.29			
329	203+97.92	46.01' LT	668.45	127683.48	448289.13			
330	203+89.03	41.46' LT	668.35	127674.39	448293.26			
331	203+69.08	37.94' LT	668.45	127654.53	448295.74			

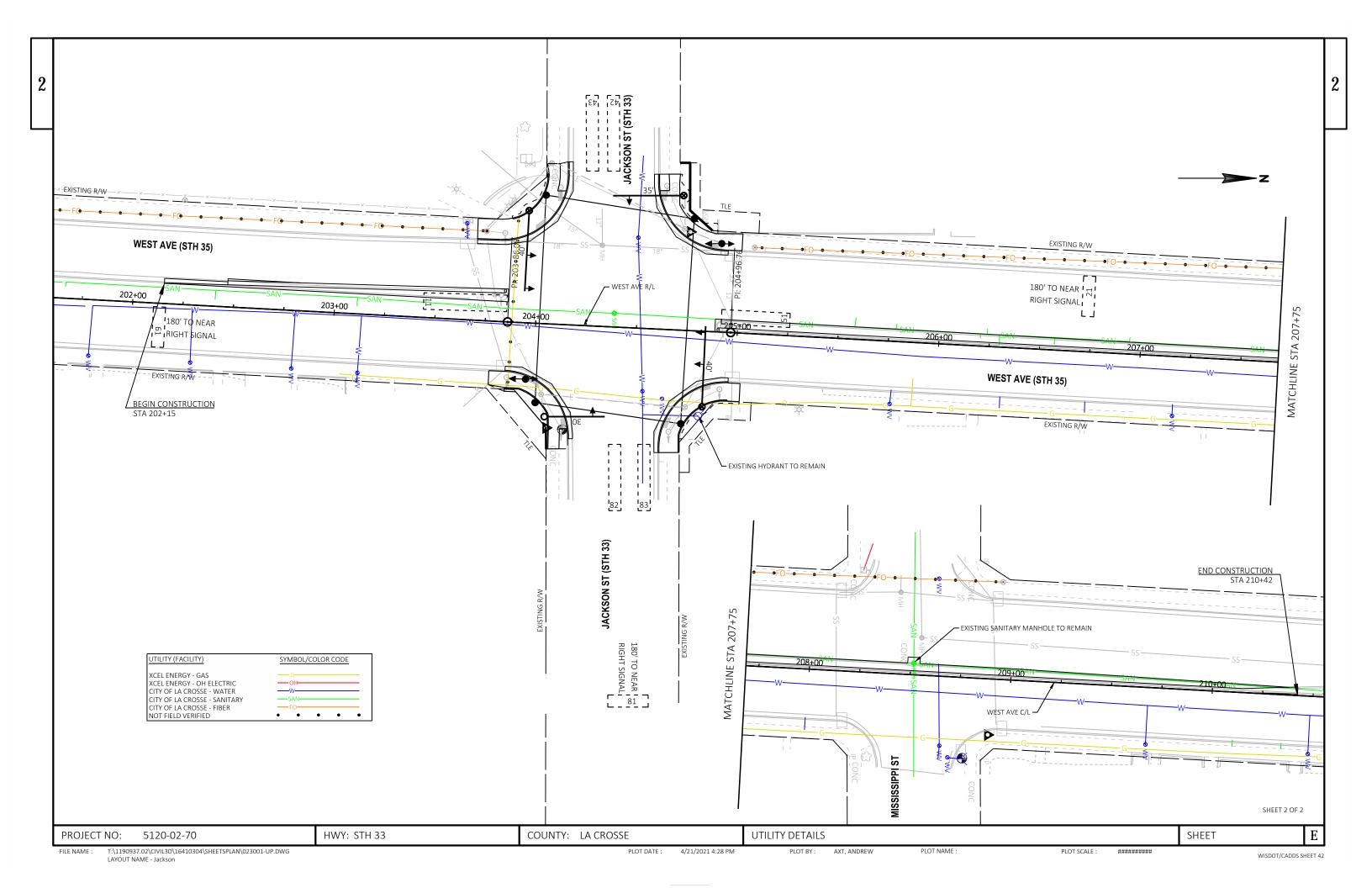
	JACKSON ST SE - POINT TABLE							
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING			
400	203+78.14	31.56' RT	668.97	127659.86	448365.62			
401	203+78.09	24.56' RT	668.61	127660.18	448358.62			
402	203+86.05	32.50' RT	668.76	127667.80	448366.99			
403	203+86.05	24.50' RT	668.64	127668.17	448359.00			
404	203+90.94	32.50' RT	668.58	127672.79	448367.22			
405	203+90.94	24.88' RT	668.47	127673.15	448359.62			
406	203+93.01	32.49' RT	668.48	127674.86	448367.32			
407	203+96.01	33.56' RT	668.31	127677.81	448368.53			
408	203+97.98	26.80' RT	668.22	127680.09	448361.87			
409	204+01.27	36.60' RT	668.36	127682.91	448371.81			
410	204+02.98	29.31' RT	668.24	127684.97	448364.61			
411	204+04.88	39.89' RT	668.52	127686.36	448375.27			
412	204+10.07	35.20' RT	668.43	127691.77	448370.83			
413	204+07.79	43.81' RT	668.55	127689.09	448379.33			
414	204+13.78	40.19' RT	668.46	127695.24	448375.99			
415	204+08.34	44.77' RT	668.54	127689.59	448380.31			
416	204+08.46	46.89' RT	668.50	127689.61	448382.43			
417	204+13.95	46.59' RT	668.42	127695.11	448382.39			
418	204+08.72	51.88' RT	668.54	127689.64	448387.43			
419	204+14.22	51.59' RT	668.46	127695.14	448387.39			
420	204+09.01	61.88' RT	668.88	127689.45	448397.43			
421	204+14.50	61.58' RT	668.85	127694.95	448397.39			
422	203+86.05	22.00' RT	668.28	127668.29	448356.50			
423	203+98.90	24.48' RT	668.33	127681.13	448359.59			
424	204+04.29	27.18' RT	668.35	127686.38	448362.55			
425	204+19.07	45.63' RT	668.45	127700.26	448381.68			
426	204+16.70	46.45' RT	668.34	127697.86	448382.38			
427	204+20.44	50.95' RT	668.47	127701.38	448387.05			
428	204+17.97	51.38' RT	668.37	127698.90	448387.37			
429	204+16.97	51.44' RT	668.38	127697.89	448387.38			
430	204+18.86	54.33' RT	668.36	127699.64	448390.35			
431	204+20.97	56.23' RT	668.49	127701.67	448392.35			
432	204+02.98	31.69' RT	668.28	127684.86	448366.99			
433	204+04.27	32.60' RT	668.30	127686.10	448367.96			
434	203+97.98	28.97' RT	668.25	127679.99	448364.03			

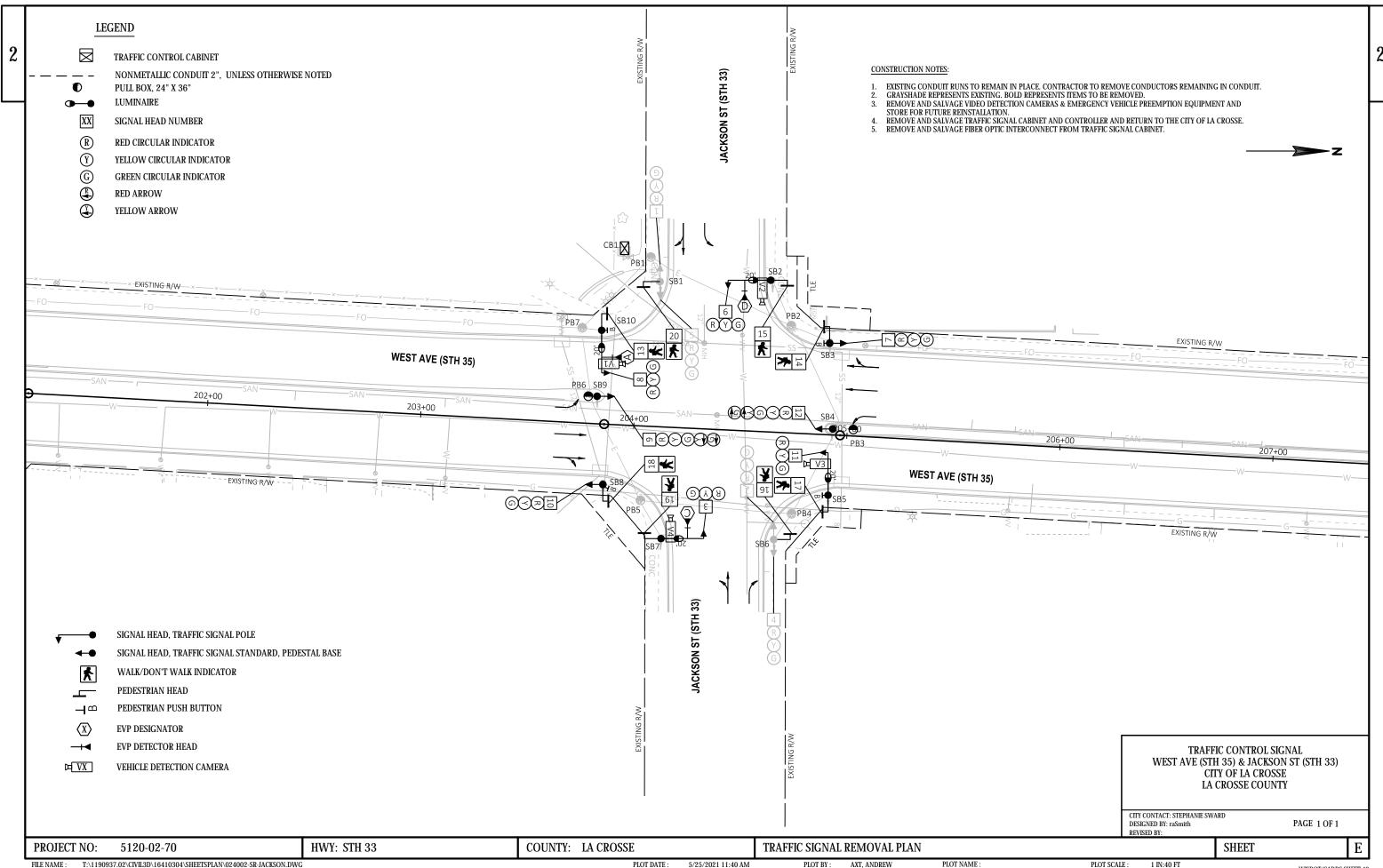
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POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING		
500	204+68.19	77.23' LT	669.32	127755.15	448261.28	
501	204+62.59	76.94' LT	669.20	127749.55	448261.30	
502	204+68.01	73.08' LT	669.07	127754.78	448265.42	
503	204+63.02	72.83' LT	668.99	127749.78	448265.43	
504	204+68.21	69.08' LT	668.83	127754.79	448269.42	
505	204+63.22	68.83' LT	668.75	127749.79	448269.43	
506	204+68.46	64.09' LT	668.76	127754.80	448274.42	
507	204+63.47	63.84' LT	668.68	127749.80	448274.43	
508	204+68.57	61.98' LT	668.84	127754.81	448276.53	
509	204+63.63	60.66' LT	668.76	127749.81	448277.62	
510	204+70.07	59.52' LT	668.94	127756.19	448279.06	
511	204+65.95	56.68' LT	668.87	127751.95	448281.70	
512	204+75.02	54.14' LT	668.80	127760.89	448284.67	
513	204+71.86	50.27' LT	668.72	127757.54	448288.38	
514	204+83.78	49.44' LT	668.16	127769.41	448289.78	
515	204+82.30	44.66' LT	668.09	127767.70	448294.48	
516	204+83.74	44.25' LT	668.07	127769.12	448294.96	
517	204+89.17	48.37' LT	668.11	127774.75	448291.10	
518	204+88.73	43.39' LT	668.03	127774.07	448296.05	
519	204+91.27	48.27' LT	668.21	127776.83	448291.30	
520	204+91.23	43.27' LT	668.15	127776.56	448296.29	
521	205+00.20	48.22' LT	668.66	127786.07	448291.81	
522	205+00.20	43.22' LT	668.57	127785.79	448296.80	
523	204+55.32	76.58' LT	668.69	127742.26	448261.32	
524	204+57.59	71.54' LT	668.56	127744.30	448266.46	
525	204+56.00	68.17' LT	668.61	127742.55	448269.75	
526	204+58.46	68.59' LT	668.55	127745.03	448269.44	
527	204+59.46	68.64' LT	668.56	127746.02	448269.44	
528	204+57.34	62.86' LT	668.56	127743.63	448275.12	
529	204+59.71	63.65' LT	668.50	127746.04	448274.44	
530	204+63.48	54.98' LT	668.33	127749.40	448283.28	
531	204+69.96	47.95' LT	668.19	127755.53	448290.61	
532	204+83.14	39.25' LT	668.11	127768.28	448299.92	
533	204+83.72	41.68' LT	668.03	127768.98	448297.52	
534	204+88.50	38.39' LT	668.10	127773.60	448301.03	
535	204+88.71	40.88' LT	667.99	127773.93	448298.56	
537	204+93.69	38.25' LT	668.09	127778.78	448301.42	
538	204+77.10	41.27' LT	668.12	127762.35	448297.62	

	JACKSON ST NE - POINT TABLE						
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING		
600	205+02.79	28.00' RT	668.50	127784.54	448368.0		
601	205+02.79	34.00' RT	668.63	127784.22	448374.0		
602	204+96.60	28.00' RT	668.44	127778.55	448367.7		
603	204+96.57	33.50' RT	668.53	127778.26	448373.2		
604	204+88.14	29.18' RT	667.95	127770.04	448368.5		
605	204+89.68	34.46' RT	668.03	127771.33	448373.8		
606	204+83.13	31.16' RT	667.98	127764.94	448370.2		
607	204+81.14	32.26' RT	668.01	127762.90	448371.2		
608	204+83.99	36.97' RT	668.09	127765.52	448376.1		
609	204+75.74	36.46' RT	668.34	127757.30	448375.2		
610	204+79.59	40.39' RT	668.42	127760.97	448379.3		
611	204+71.44	41.80' RT	668.17	127752.76	448380.3		
612	204+76.10	44.73' RT	668.23	127757.27	448383.4		
613	204+70.41	43.57' RT	668.15	127751.65	448382.0		
614	204+68.26	48.69' RT	668.24	127749.26	448387.0		
615	204+73.51	50.33' RT	668.32	127754.42	448388.9		
616	204+67.58	51.28' RT	668.34	127748.46	448389.6		
617	204+73.11	51.77' RT	668.40	127753.96	448390.3		
618	204+67.76	54.89' RT	668.48	127748.46	448393.2		
619	204+73.25	54.62' RT	668.56	127753.96	448393.2		
620	204+68.05	60.88' RT	668.86	127748.47	448399.2		
621	204+73.54	60.62' RT	668.96	127753.97	448399.2		
622	204+96.64	22.50' RT	667.92	127778.85	448362.2		
623	204+87.53	23.65' RT	667.96	127769.70	448362.9		
624	204+88.17	26.06' RT	667.90	127770.21	448365.4		
625	204+82.13	25.55' RT	667.99	127764.21	448364.6		
626	204+83.15	27.83' RT	667.93	127765.12	448366.9		
627	204+73.29	33.96' RT	667.96	127754.98	448372.5		
628	204+64.70	42.70' RT	668.16	127745.99	448380.9		
629	204+66.97	43.75' RT	668.10	127748.20	448382.0		
630	204+62.68	48.20' RT	668.25	127743.70	448386.3		
631	204+65.09	48.86' RT	668.19	127746.08	448387.0		
632	204+61.56	61.20' RT	668.52	127741.97	448399.2		

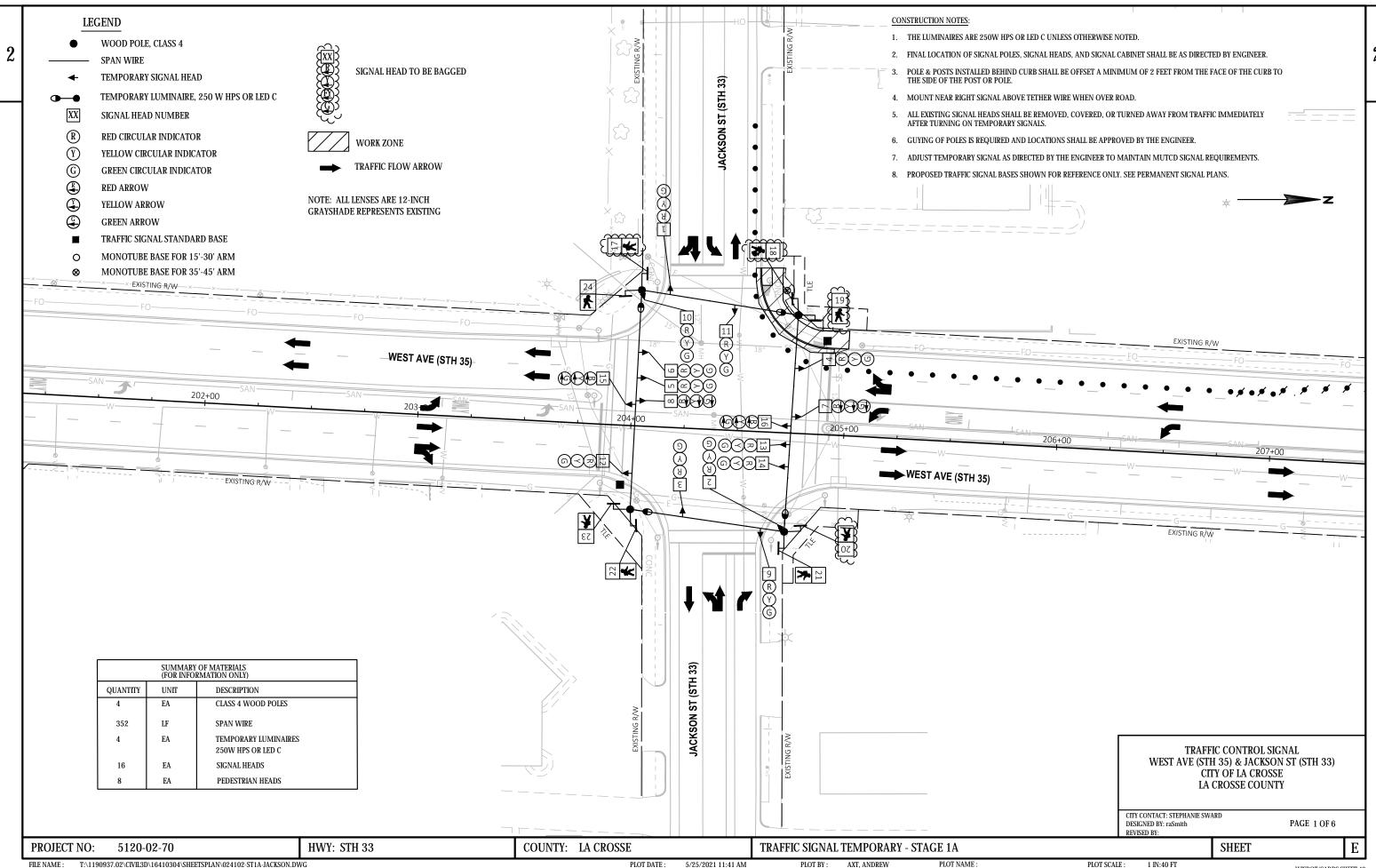
PROJECT NO: 5120-02-70 HWY: STH 33 COUNTY: LA CROSSE CURB RAMP DETAILS SHEET F

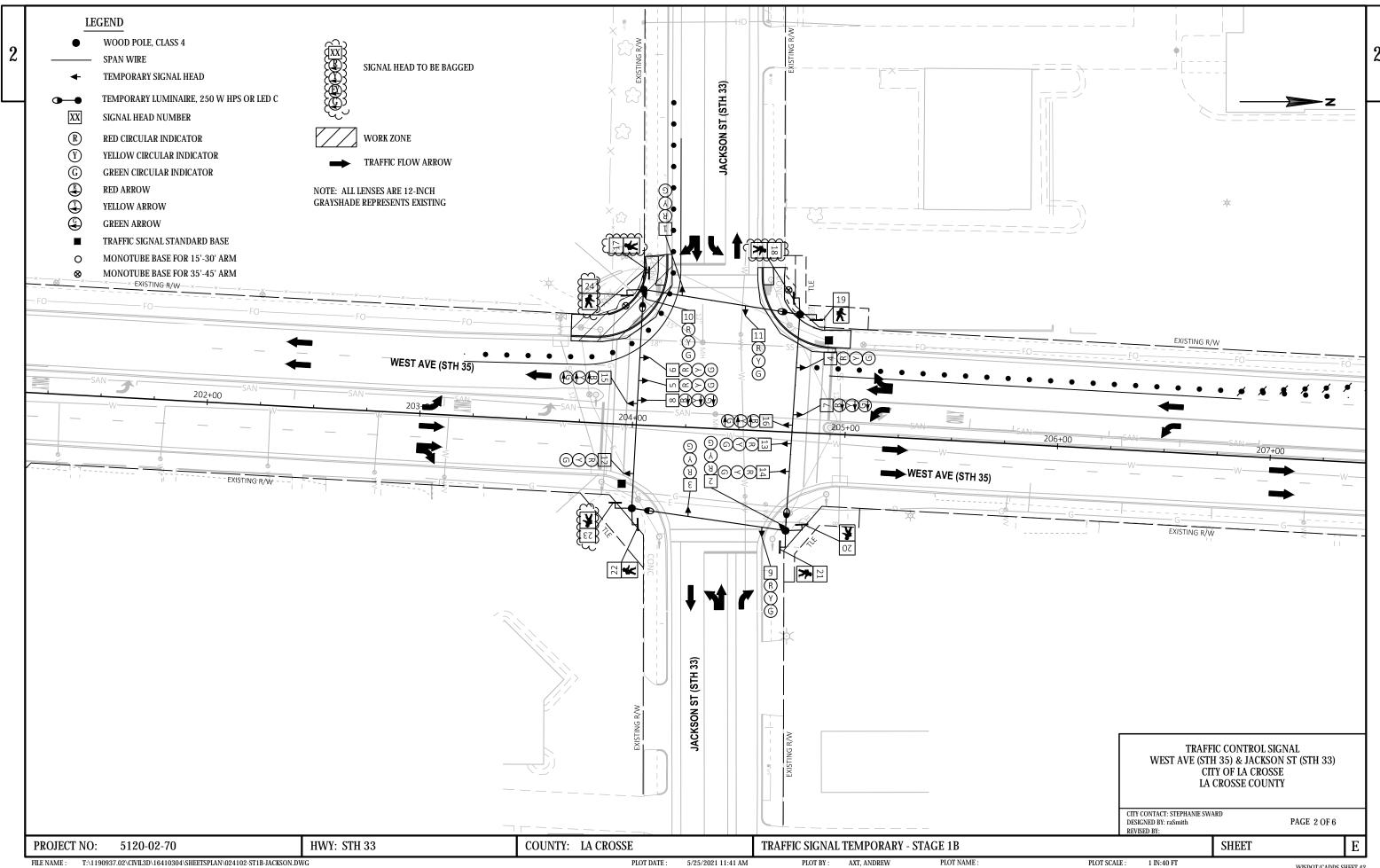
FILE NAME: T:\1190937.02\CIVIL3D\16410304\SHEETSPLAN\021301-CR.DWG PLOT DATE: 4/21/2021 4:28 PM PLOT BY: AXT, ANDREW PLOT NAME: 1 IN:10 FT WISDOT/CADDS SHEET 42 LAYOUT NAME - Jackson-PointTable

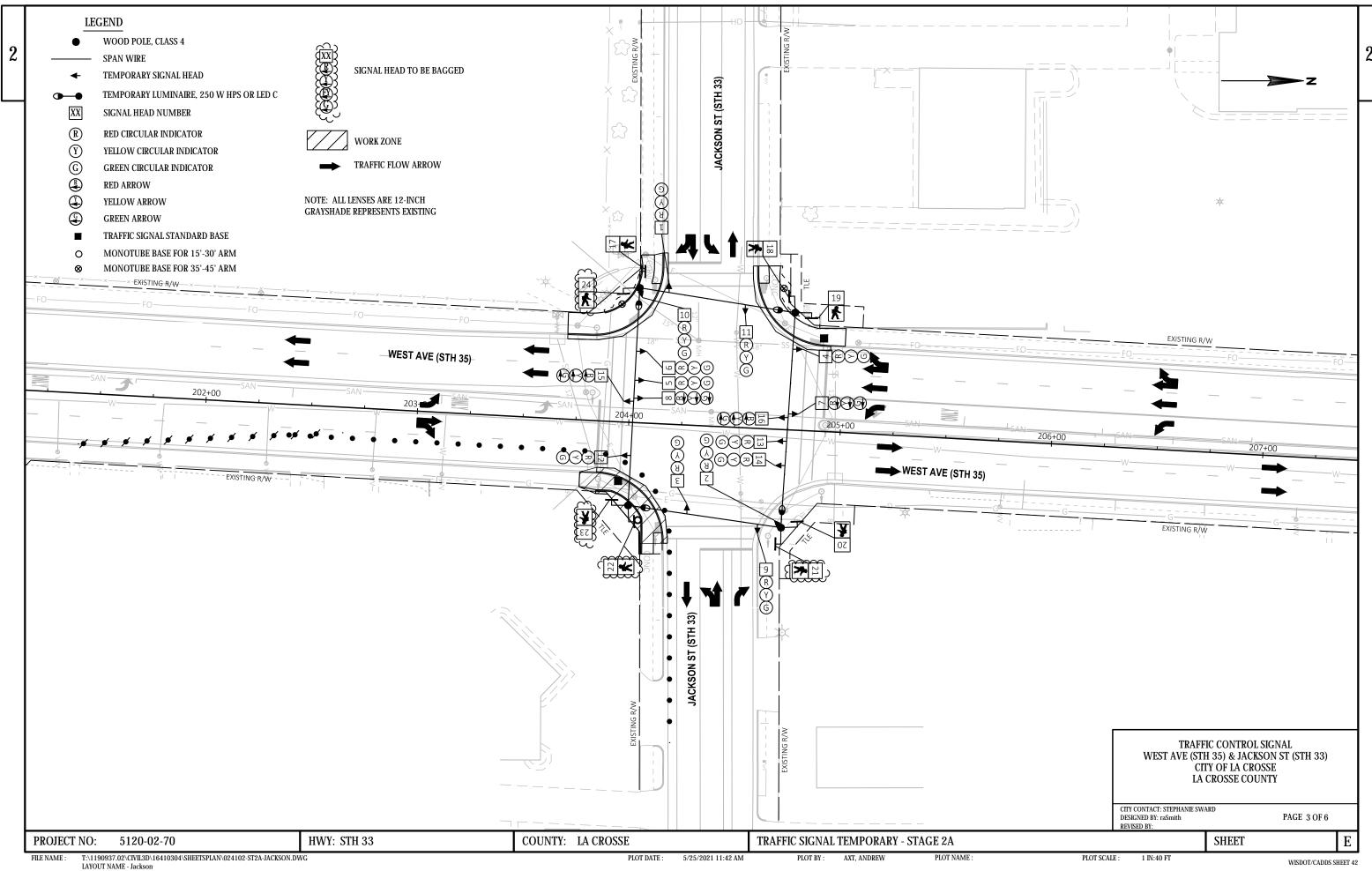


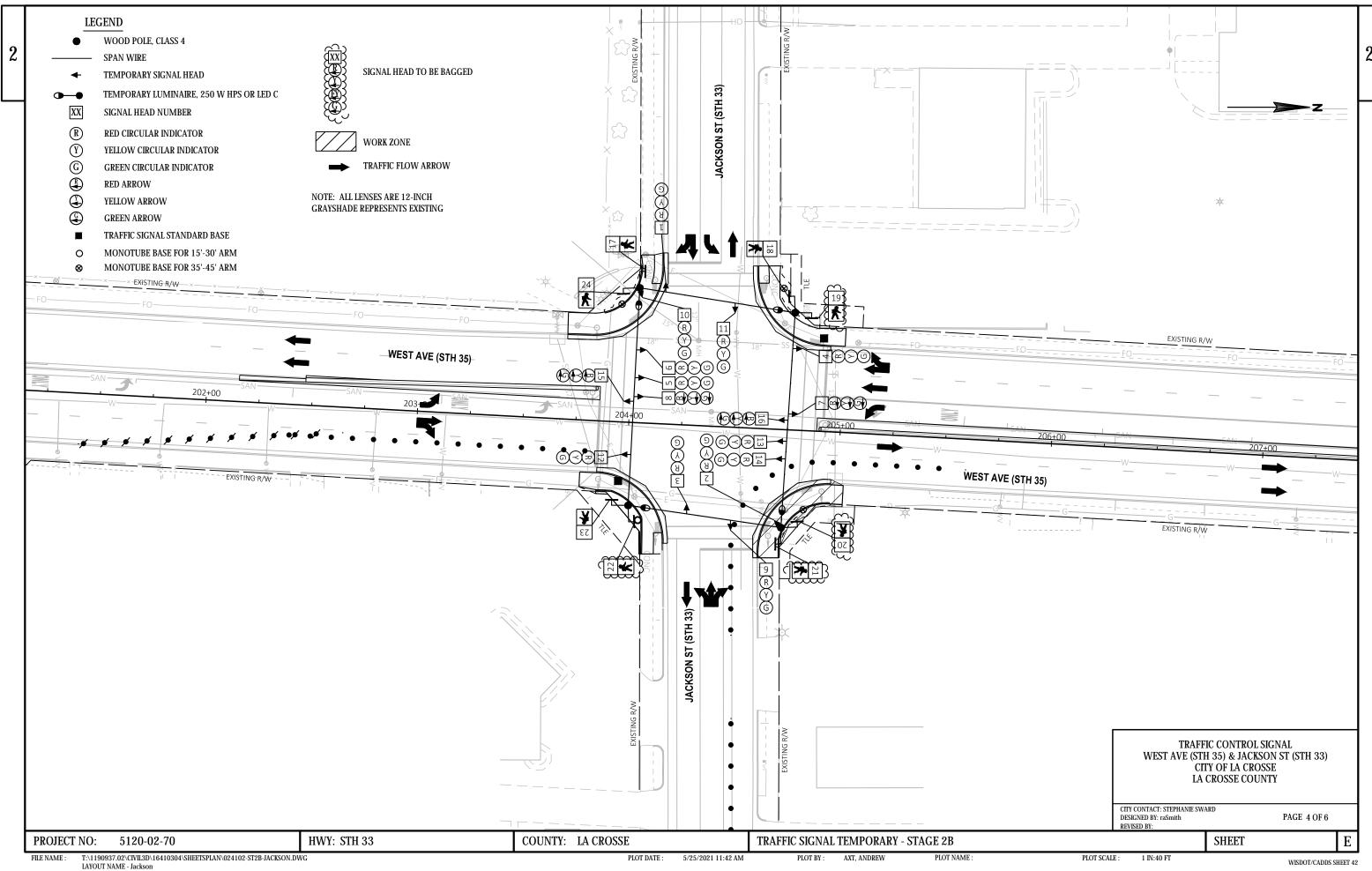


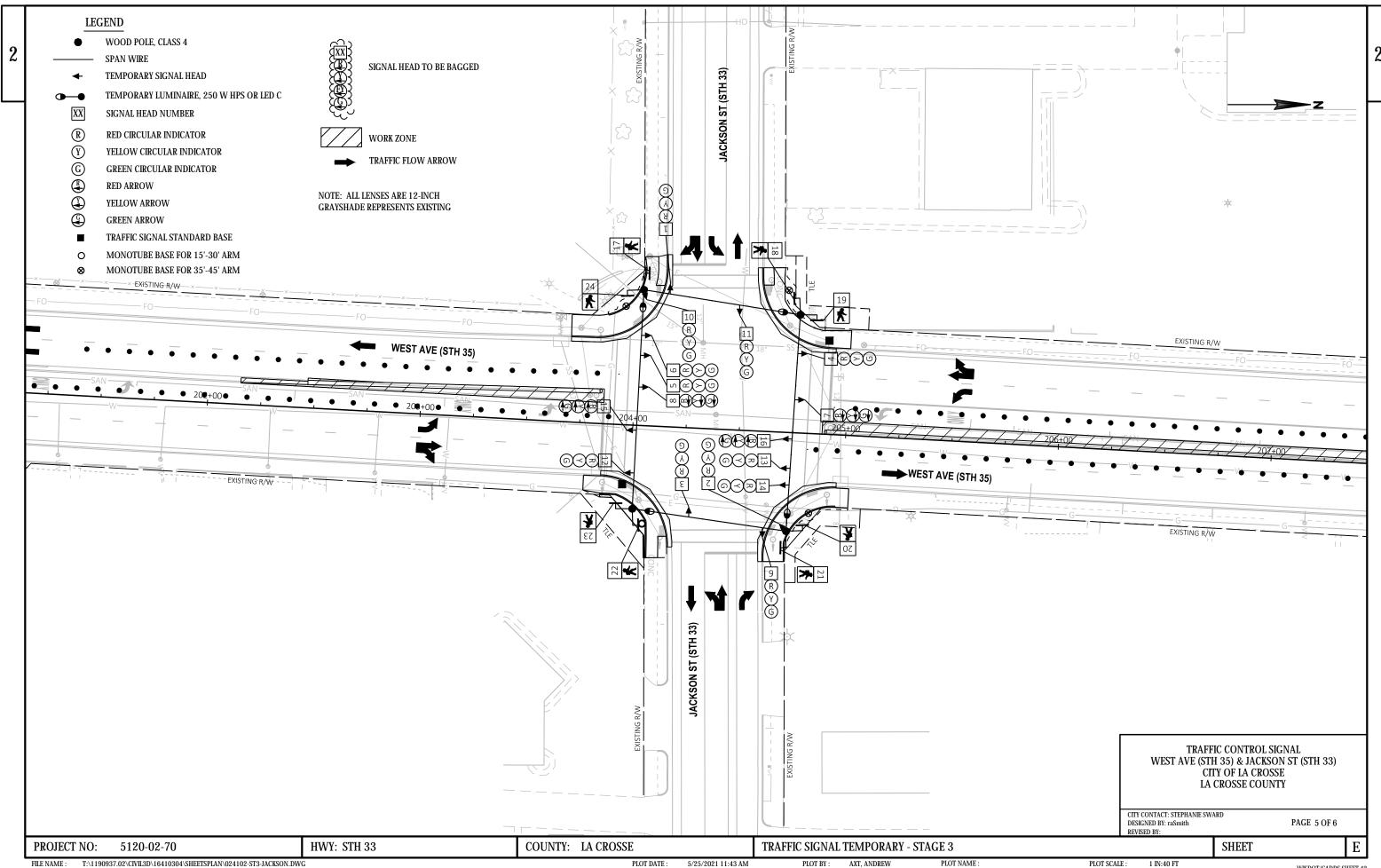
LAYOUT NAME - Jackson



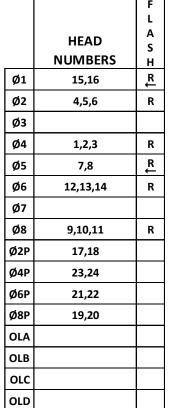


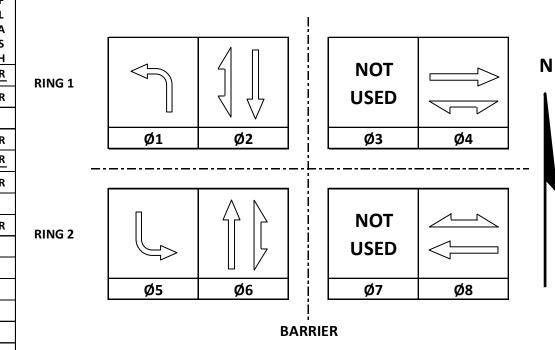






LAYOUT NAME - Jackson





### CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6	MAX	Х
2	х	6	MAX	Х
3				
4		8	MAX	Х
5		2	MAX	Х
6	х	2	MAX	Х
7				
8		4	MAX	Х

TYPE OF INTERCONNECT/COMMUNICATION				
NONE	Х			
CLOSED LOOP				
TWISTED PAIR				
FIBER OPTIC*				
FIBER OPTIC (ETHERNET)				
RADIO				
CELL MODEM				

TYPE OF COORDINATION					
NONE	Х				
ТВС					
TRAFFIC RESPONSIVE					
ADAPTIVE					
*LOCATION OF MASTER					
CONTROLLER NO:	S-				
SIGNAL SYSTEM NO: S	S-				

TYPE OF LIGHTING				
BY OTHER AGENCY				
IN TRAFFIC CABINET	Х			
IN SEPARATE DOT LIGHTING CARINET				

TYPE OF PRE-EMPT					
NONE	Х				
RAILROAD					
EMERGENCY VEHICLE					
GTT					
TOMAR					
HARDWIRE					
OTHER					
LIFT BRIDGE					
QUEUE DETECTION					

WEST AVENUE (STH 35) & JACKSON STREET (STH 33)

CITY OF LA CROSSE

LA CROSSE COUNTY SIGNAL NO:

CABINET TYPE: TEMP CONTROLLER TYPE: TEMP

MAY 2021 PAGE NO. 6 OF 6 SHEET NO:

PROJECT NO: 5120-02-70 FILE NAME :

HWY: STH 33

COUNTY: LA CROSSE

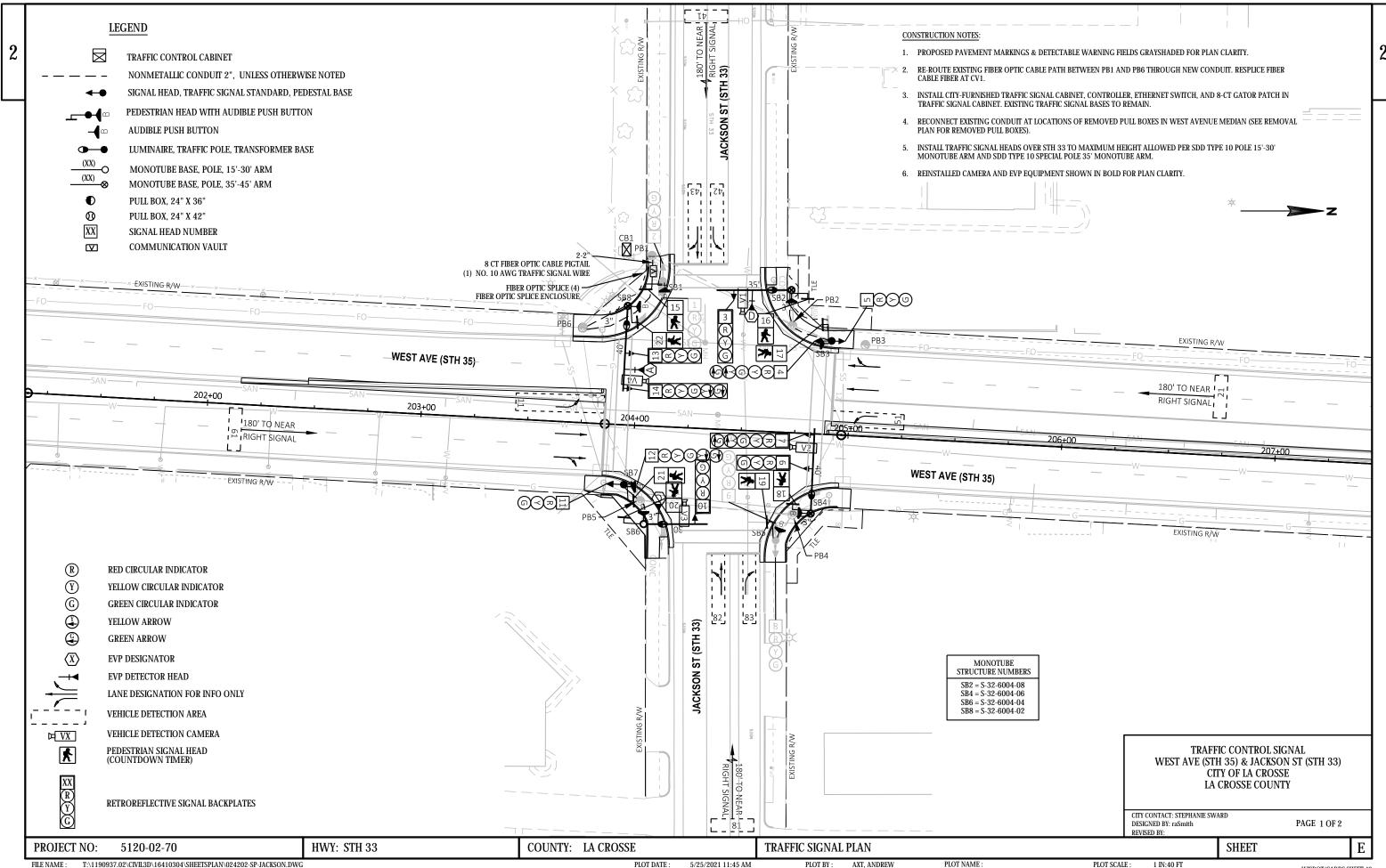
TEMPORARY SEQUENCE OF OPERATIONS – ALL STAGES

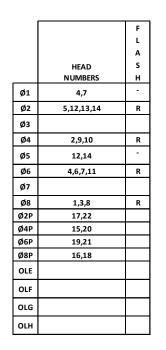
DATE:

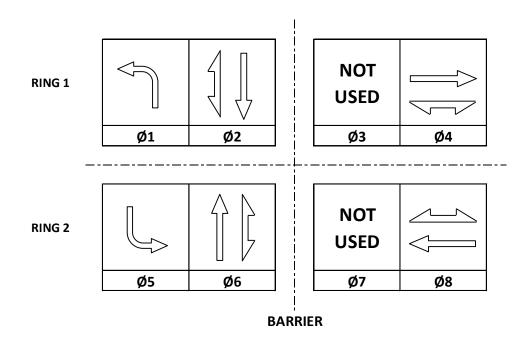
PLOT DATE : \_

PLOT NAME :

PLOT SCALE : 1:1







### **CONTROLLER LOGIC**

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		Х
2	Х	6	MIN	Х
3				
4		8		х
5		2		х
6	Х	2	MIN	х
7				
8		4		х

### EMERGENCY VEHICLE PREEMPTION SEQUENCE

EIVIERGENCY VEHICLE PREEIVIPTION SEQUENCE							
EMERGENCY VEHICLE	^	В		<b>D</b>			
PREEMPTOR	^	ь	J	b			
MOVEMENT	$\downarrow$		^	₩			
PHASE	2+5		4	8			

AFTER PREEMPTION SEQUENCE 2+5, CONTROLLER SHALL RETURN TO PHASES 2+6 AFTER PREEMPTION SEQUENCE 4 OR 8, CONTROLLER SHALL RETURN TO PHASES 4+8

TYPE OF INTERCONNECT/COM	MUNICATION
NONE	
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	Х
FIBER OPTIC (ETHERNET)	
RADIO	
CELL MODEM	

TYPE OF COORDINATION						
NONE						
твс		Х				
TRAFFIC RESPONSIVE						
ADAPTIVE						
*LOCATION OF MASTER						
CONTROLLER NO:	S-					
SIGNAL SYSTEM NO:	SS-					

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC CABINET	Х
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT					
NONE					
RAILROAD					
EMERGENCY VEHICLE	Х				
GTT	Х				
TOMAR					
HARDWIRE					
OTHER					
CONFIRMATION LIGHTS					
LIFT BRIDGE					
QUEUE DETECTION					

### **DETECTOR LOGIC**

DETECTOR INPUT	3	1	7	5	11	9	15	13
PLAN LOOP DETECTOR*(S)	11	21	41	42	51	61	81	82
CALLED PHASE	1	2	4	4	5	6	8	8
CALL OPTION	X	Х	Х	Х	Х	Х	Х	Х
DELAY TIME								
EXTENTION OPTION	X	Х	Х	Х	Х	Х	X	Х
EXTEND TIME								
USE ADDED INITIAL		Х				Х		
CROSS SWITCH PHASE								
-			•					,

DETECTOR INPUT	4	2	8	6	12	10	16	14
PLAN LOOP DETECTOR*(S)				43				83
CALLED PHASE				4				8
CALL OPTION				Х				X
DELAY TIME								
<b>EXTENTION OPTION</b>				X				X
EXTEND TIME								
USE ADDED INITIAL								
CROSS SWITCH PHASE								

**HWY: STH 33** 

19	17	23	21	27	25	31	29	DETECTOR INPUT
								PLAN LOOP DETECTOR*(S)
								CALLED PHASE
								CALL OPTION
								DELAY TIME
								EXTENTION OPTION
								EXTEND TIME
								USE ADDED INITIAL
								CROSS SWITCH PHASE

Ν

20	18	24	22	28	26	32	30	DETECTOR INPUT
								PLAN LOOP DETECTOR*(S)
								CALLED PHASE
								CALL OPTION
								DELAY TIME
								EXTENTION OPTION
								EXTEND TIME
								USE ADDED INITIAL
								CROSS SWITCH PHASE
						<u> </u>	<u> </u>	_

WEST AVENUE (STH 35) & JACKSON STREET (STH 33)

LA CROSSE COUNTY SIGNAL NO: CABINET TYPE: TS2 CONTROLLER TYPE: ECONOLIT

PROJECT NO: 5120-02-70

**COUNTY: LA CROSSE** 

**SEQUENCE OF OPERATIONS** 

PLOT NAME: TS2-S E FYA EFGH Ecor PLOT BY:

SHEET NO:

2

PROJECT ID: 5120-02-70
INTERSECTION: West Avenue & Jackson Street

BLK - black RED - red GRN - green

Signal Wire Color Coding WHT - white BLU - blue ORG - orange

**DATE** 4/27/21

							SIGN	IAL INDICATION \	WIRE COLOR				PED	
CB1 TO	JUMPER	# OF COND.	HEAD NO.	RED	YELLOW	GREEN	<red></red>	<yellow></yellow>	<green></green>	<flashing yellow=""></flashing>	D/WALK	WALK	BUTTON	APS
SB1		12	1	RED/BLK	ORG/BLK	GRN/BLK								
			2	RED	ORG	GRN								
			15								BLK	BLU		
			BUTTON										WHT/BLK	BLU/BLK
SB2		12	3	RED	ORG	GRN								
			16								BLK	BLU		
			BUTTON										WHT/BLK	BLU/BLK
SB3		15	4	RED	ORG	GRN		BLU/WHT	GRN/WHT					
			5	RED/BLK	ORG/BLK	GRN/BLK								
			17								BLK	BLU		
			BUTTON										WHT/BLK	BLU/BLK
SB4		12	6	RED	ORG	GRN								
			7	RED	ORG	GRN		ORG/BLK	GRN/BLK					
			18								BLK	BLU		
			BUTTON										WHT/BLK	BLU/BLK
SB5		12	8	RED/BLK	ORG/BLK	GRN/BLK								
			9	RED	ORG	GRN								
			19								BLK	BLU		
			BUTTON										WHT/BLK	BLU/BLK
SB6		12	10	RED	ORG	GRN								
			20								BLK	BLU		
			BUTTON										WHT/BLK	BLU/BLK
SB7		15	11	RED	ORG	GRN								
			12	RED/BLK	ORG/BLK	GRN/BLK		BLU/WHT	GRN/WHT					
			21								BLK	BLU		
			BUTTON										WHT/BLK	BLU/BLK
SB8		12	13	RED	ORG	GRN								
			14	RED	ORG	GRN		ORG/BLK	GRN/BLK					
			22								BLK	BLU		
			BUTTON										WHT/BLK	BLU/BLK

EQUIPMENT GROUNDING CONDUCTOR 10 AWG GRN XLP							
FROM	то						
CB1	SB1						
SB1	SB2						
SB2	SB3						
SB3	SB4						
SB4	SB5						
SB5	SB6						
SB6	SB7						
SB7	SB8						
SB8	CB1						

PULL BOX BONDING JUMPER 10 AWG GRN XLP						
FROM TO						
PB1	SB1					
PB2	SB2					
PB4	SB4					
PB5	SB7					
PB6	SB8					

LIGHTING UF 10 AWG W/GROUND						
FROM	то					
CB1	SB2					
SB2	SB4					
CB1	SB8					
SB8	SB6					

EMERGENCY VEHICLE PREEMPTION (EVP) CABLE	
FROM	TO
CB1	HEAD A (SB8)
CB1	HEAD C (SB6)
CB1	HEAD D (SB2)

VIDEO DETECTION CABLE	
FROM	то
CB1	V1 (SB2)
CB1	V2 (SB4)
CB1	V3 (SB6)
CB1	V4 (SB8)

 $<sup>\</sup>hbox{$^*$Use the white conductor in the cable assembly as the grounded conductor for all traffic signal indications.}$ 

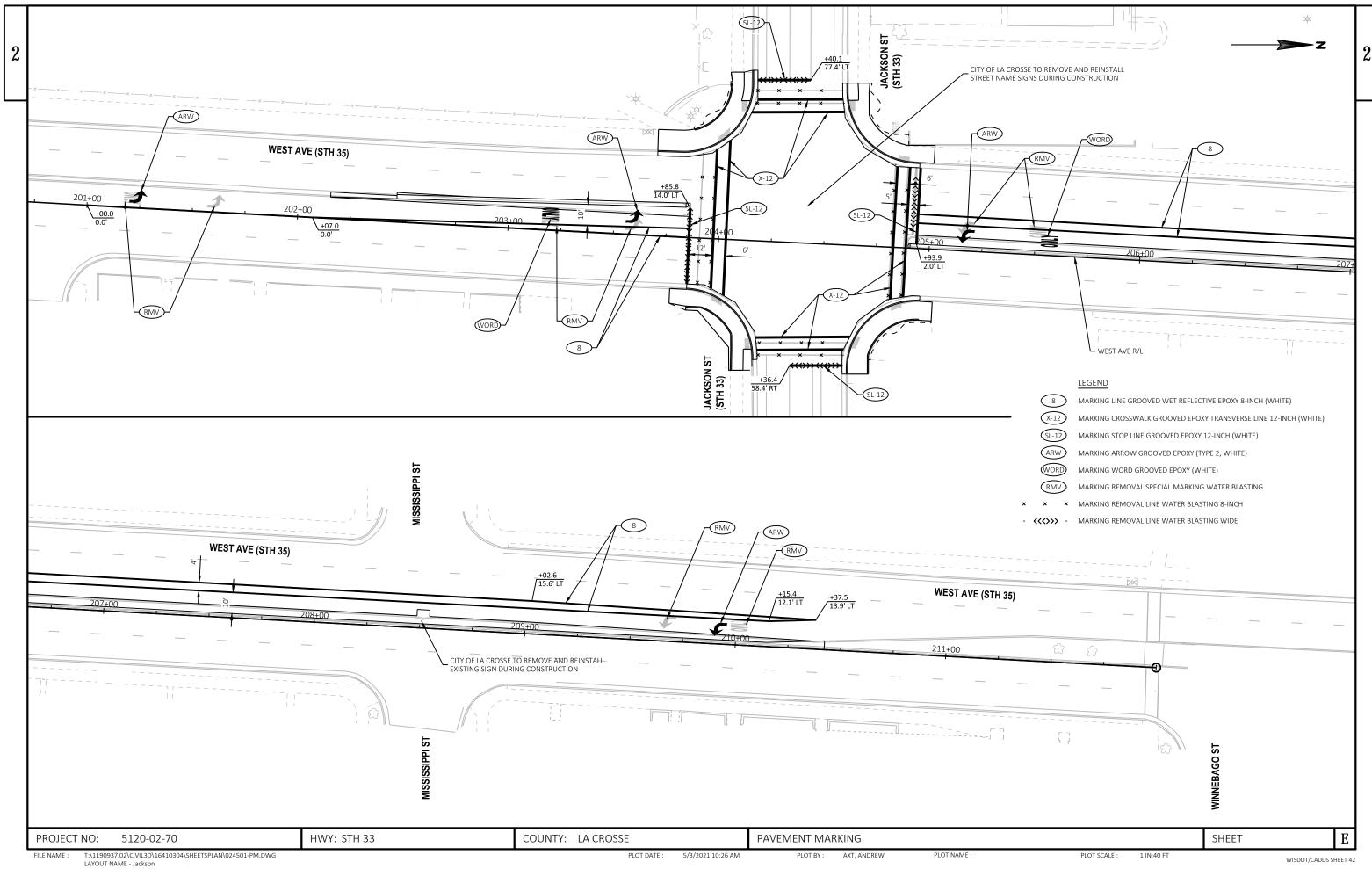
Page 1 of 1

PROJECT NO: 5120-02-70 HWY: STH 33 COUNTY: LA CROSSE CABLE ROUTING SHEET NO:

 $<sup>^*</sup>$ Ensure the grounded conductor in the feeder cable and the pole cables are both 18" longer than the ungrounded conductors.

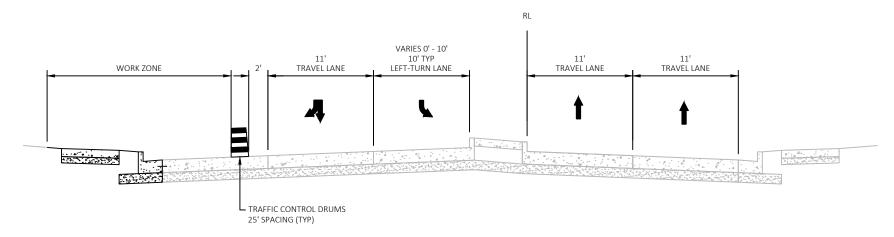
<sup>\*</sup>At the signal bases, connect one terminal from the pedestrian push buttons to the color indicated in the chart. Connect the other terminal to the grounded conductor.

<sup>\*</sup>Reconnect the grounding conductors wherever the circuit has been interrupted to ensure the grounding circuit is complete.

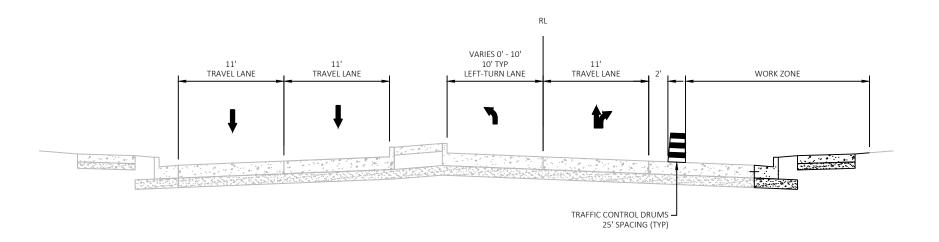


#### TRAFFIC CONTROL NOTES:

- MAINTAIN MINIMUM ONE 11' LANE IN EACH DIRECTION ON JACKSON ST AND WEST AVE.
- 2. MAINTAIN ACCESS TO ALL DRIVEWAYS EXCEPT WHEN WORKING IMMEDIATELY IN FRONT OF DRIVEWAY.
- 3. SEE SDD TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON FREEWAY/EXPRESSWAY.
- 4. SEE SDD TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION FOR SIDEWALK CLOSURES AND PEDESTRIAN DETOURS.
- 5. ALL SIGNS SHALL BE 48"X48" UNLESS NOTED OTHERWISE.
- THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
- 7. PERMANENT PAVEMENT MARKING SHALL BE INSTALLED WHEN APPROPRIATE DURING CONSTRUCTION STAGING OR AS DIRECTED BY THE FINGINEER.
- 8. SEE PLAN FOR JACKSON ST TRAFFIC CONTROL LAYOUT AND DEVICES.



# TRAFFIC CONTROL - STAGE 1 WEST AVE (LOOKING NORTH)

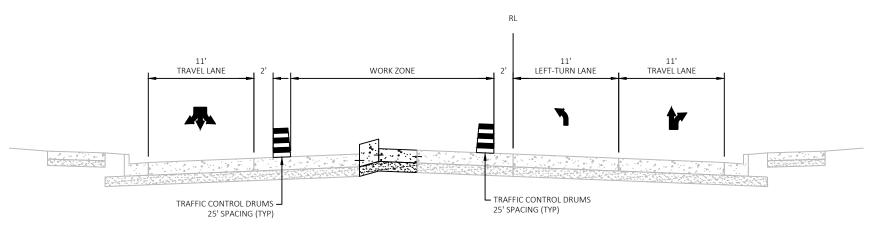


# TRAFFIC CONTROL - STAGE 2 WEST AVE (LOOKING NORTH)

PROJECT NO: 5120-02-70 HWY: STH 33 COUNTY: LA CROSSE TRAFFIC CONTROL SHEET E

### TRAFFIC CONTROL NOTES:

- MAINTAIN MINIMUM ONE 11' LANE IN EACH DIRECTION ON JACKSON ST AND WEST AVE.
- 2. MAINTAIN ACCESS TO ALL DRIVEWAYS EXCEPT WHEN WORKING IMMEDIATELY IN FRONT OF DRIVEWAY.
- 3. SEE SDD TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON FREEWAY/EXPRESSWAY.
- 4. SEE SDD TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION FOR SIDEWALK CLOSURES AND PEDESTRIAN DETOURS.
- 5. ALL SIGNS SHALL BE 48"X48" UNLESS NOTED OTHERWISE.
- THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
- 7. PERMANENT PAVEMENT MARKING SHALL BE INSTALLED WHEN APPROPRIATE DURING CONSTRUCTION STAGING OR AS DIRECTED BY
- 8. SEE PLAN FOR JACKSON ST TRAFFIC CONTROL LAYOUT AND DEVICES.



WEST AVE
THROUGH JACKSON ST INTERSECTION

### TRAFFIC CONTROL - STAGE 3

WEST AVE (LOOKING NORTH)

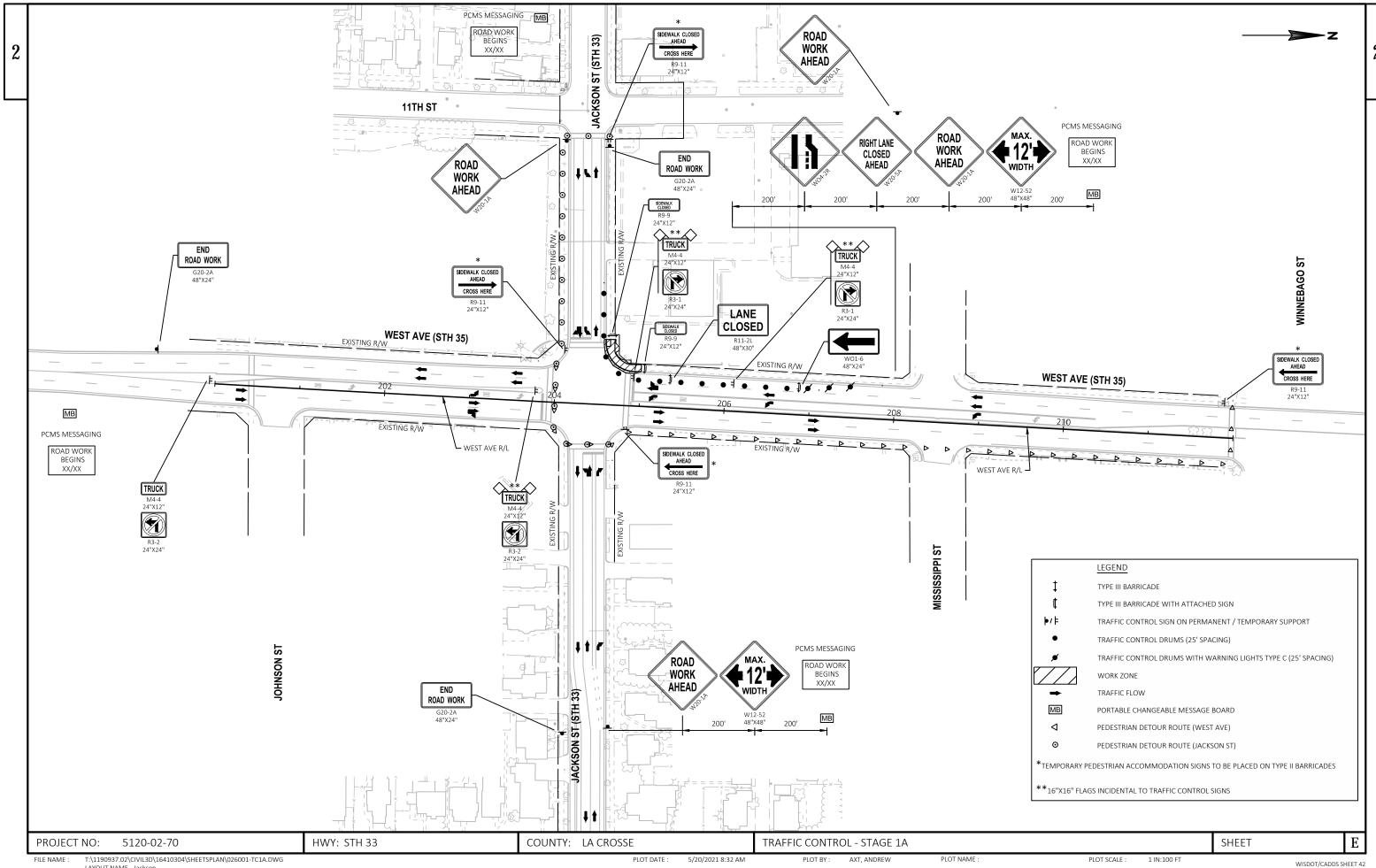
(LOOKING NORTH)

NORTHBOUND LEFT-TURN LANE SHOWN

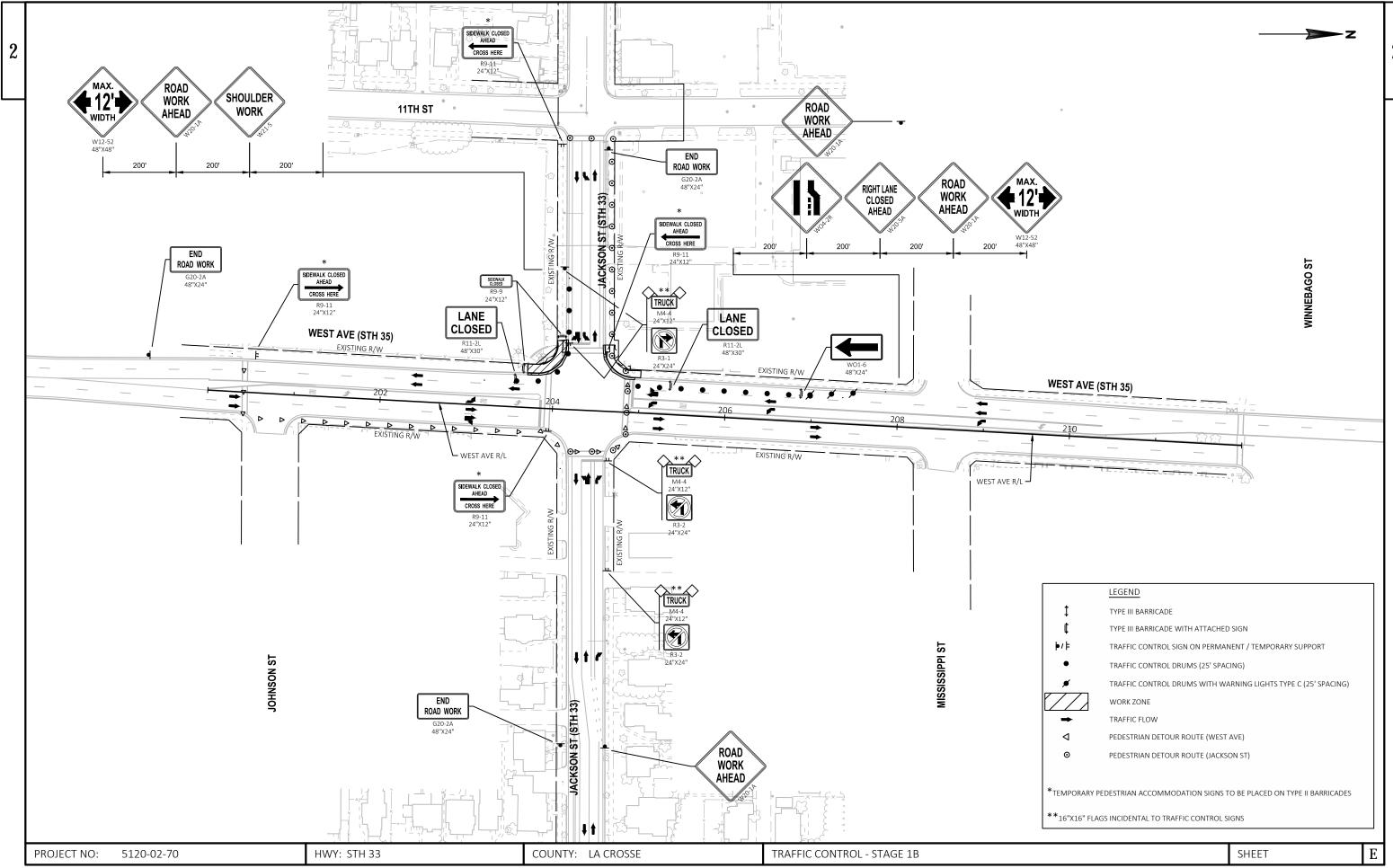
SOUTHBOUND LEFT-TURN LANE IS MIRROR IMAGE

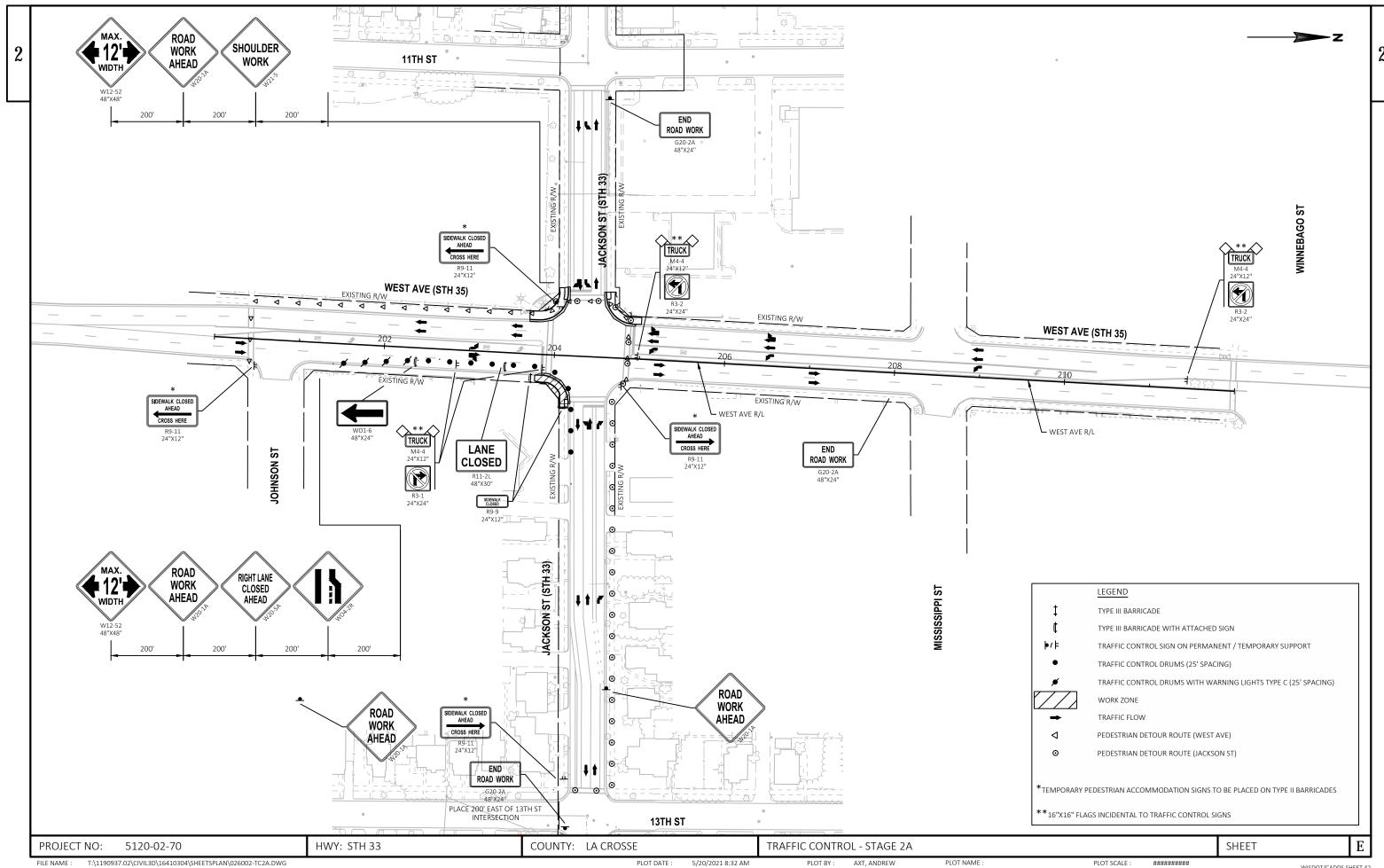
PROJECT NO: 5120-02-70 HWY: STH 33 COUNTY: LA CROSSE TRAFFIC CONTROL SHEET E

PLOT SCALE :

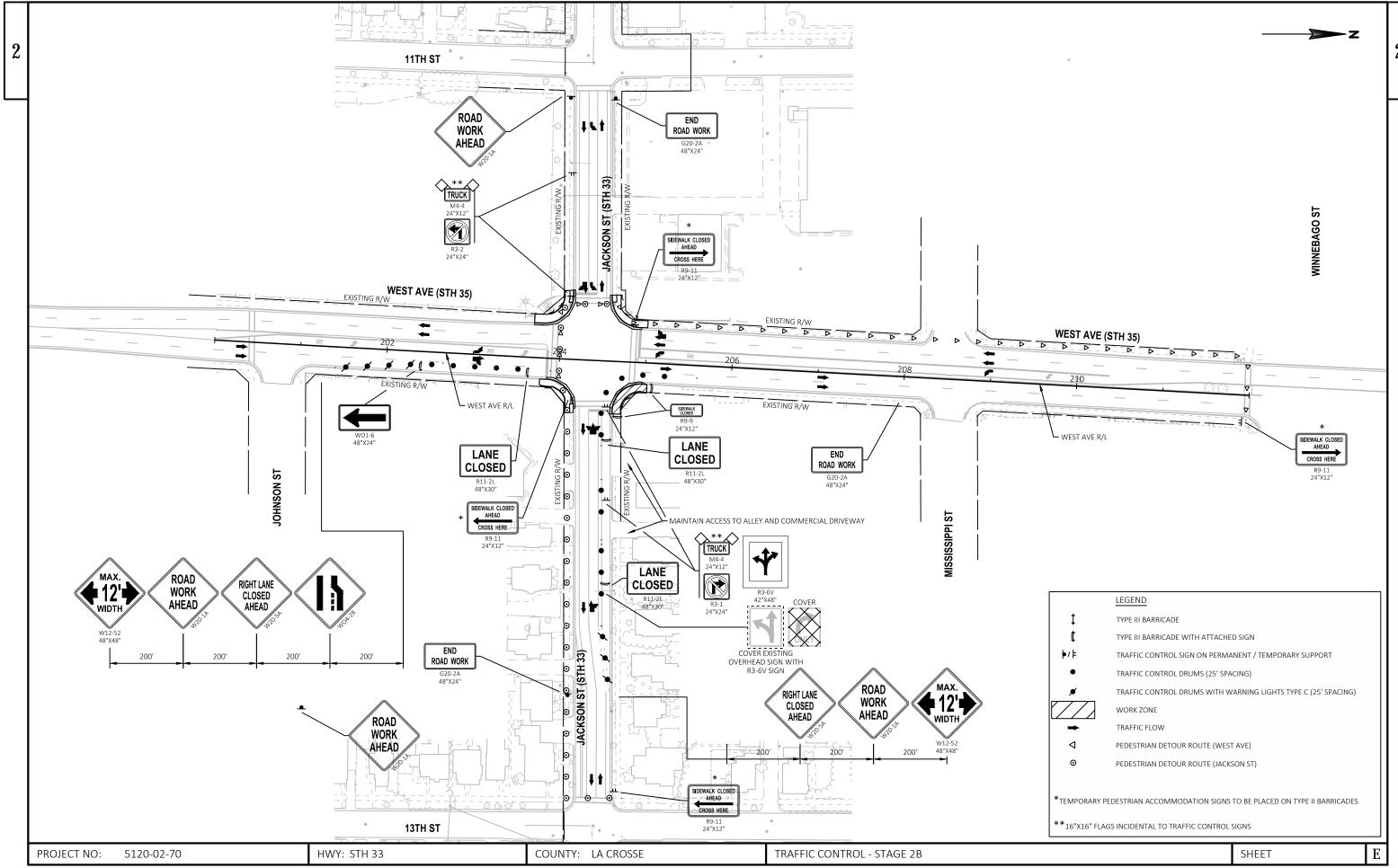


T:\1190937.02\CIVIL3D\16410304\SHEETSPLAN\026001-TC1A.DWG LAYOUT NAME - Jackson

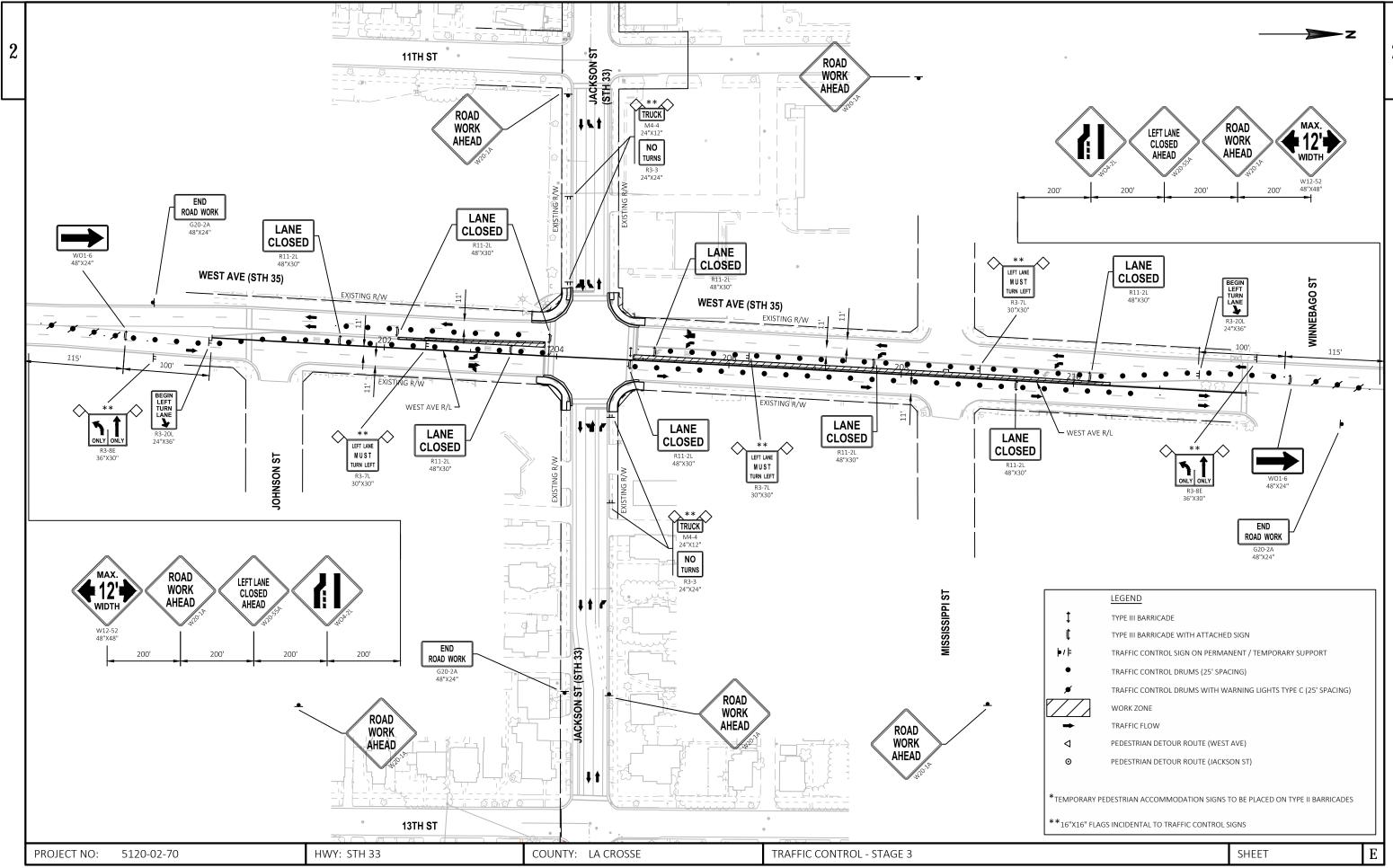




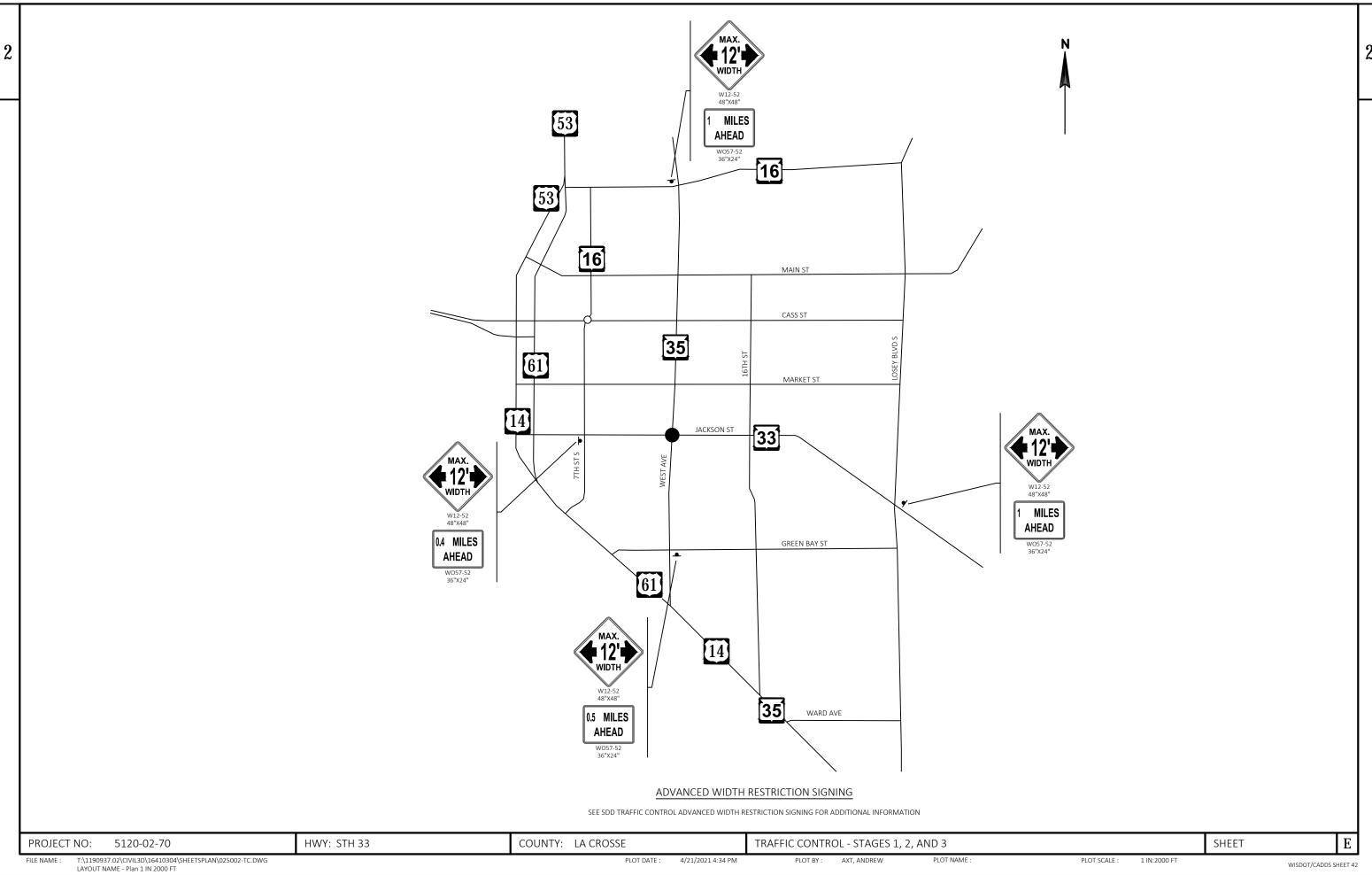
T:\1190937.02\CIVIL3D\16410304\SHEETSPLAN\026002-TC2A.DWG LAYOUT NAME - Jackson WISDOT/CADDS SHEET 42



T:\1190937.02\CIVIL3D\16410304\SHEETSPLAN\026002-TC2B.DWG LAYOUT NAME - Jackson PLOT NAME : FILE NAME : PLOT DATE : 5/20/2021 8:32 AM AXT, ANDREW PLOT SCALE : ########## PLOT BY: WISDOT/CADDS SHEET 42



T:\1190937.02\CIVIL3D\16410304\SHEETSPLAN\026003-TC3.DWG LAYOUT NAME - Jackson PLOT NAME : FILE NAME : PLOT DATE : 5/20/2021 8:32 AM AXT, ANDREW PLOT SCALE : ########## PLOT BY: WISDOT/CADDS SHEET 42



Line         Item         Long Description         Unit         Total         Gety           0002         2011058         Removing Curb & Gutter         LF         1.642.000         1.642.000           004         2011058         Removing Currents Sidewalk         SY         453.000           006         2041055         Removing Currents Sidewalk         SY         453.000           007         2011058         Removing Current Secription (1) Removing Trailing         LS         1.000           001         211.000         Strain Gutter Mark & Line Askers St.)         LS         1.000           011         21.000 In Strain Gutter Mark & Line Askers St.)         LS         1.000           012         21.000 In Strain Gutter Mark & Line Askers St.)         EACH         1.000           014         30.012 In Strain Gutter Mark & Line Askers St.         TNN         1.300         1.000           014         30.012 In Strain Gutter Mark & Line Askers St.         TNN         1.300         1.300           018         416.000         Drilled The Bars         EACH         67.000         671.000           022         450.101         Spatial Eventury & Strain St.         LF         237.000         1.200           024         KSTA						5120-02-70	
0004         204 0750         Removing Curb A Gutter         LF         1,642 000         1,642 000           004         204 0758         Removing Concrees Bases         FACH         8,000         8,000           006         204 0758         Removing Concrees Bases         LS         1,000           007         24 10:00         Propose Consider for Concreto Pawment (regised)         LS         1,000           0010         21 50:00         Propose Consider for Concreto Pawment (regised)         LS         1,000           0012         2 13:010         Finishing Readway (project) 01,512-02-70         EACH         1,000         1,000           0014         305:010         Finishing Readway (project) 01,512-02-70         EACH         1,000         133:000           0016         415:001         Dilled The Bars         EACH         571:000         571:000           0018         416:001         Dilled The Bars         EACH         571:000         571:000           002         45:0015         Apphalic Strate         EACH         571:000         571:000           002         45:0015         Apphalic Strate         EACH         1,000         30:000           002         50:0015         Contract Curb Addistrate         FA	Line	Item	Item Description	Unit	Total	Qty	
0004         20.4158         Removing Concrete Sielowalk         87         453.000           0008         20.49158         Removing (term description) of Lemoving traffic         EACH         8,000           0008         20.49158         Removing (term description) of Lemoving traffic         LS         1,000           0010         21.020         Propore Foundation for Concrote Pavoment (project)         LS         1,000           0017         21.030         Prishing Roadway (project) 01.5120-02-70         EACH         1,000           0018         415.001         Bias Aggrapate brane 11-H-Inch         TO         13,000           0016         415.001         Dillied Diverse Brane         EACH         51,000         53,000           0010         416.002         Dillied Diverse Brane         EACH         51,000         51,000           0024         415.003         Dillied Diverse Brane         EACH         50,000         30,000           0024         415.003         Concrete Curb & Gutter 30-Inch Type K         IF         237,000         30,000           0024         810.014         Concrete Curb & Gutter 30-Inch Type K         IF         237,000         30,000           0024         810.020         Concrete Curb & Gutter 30-Inch Type K         IF <td>0002</td> <td>204.0150</td> <td>Removing Curb &amp; Gutter</td> <td>LF</td> <td>1.642.000</td> <td>1.642.000</td> <td></td>	0002	204.0150	Removing Curb & Gutter	LF	1.642.000	1.642.000	
0006         204 198         Removing Concrete Bases         BCAH         8.00         8.00           204 108         Semanting life and Secription (1). Removing Traffic Signals (West Awa & Jackson St)         LS         1.000           001         21 1/200         Prepare Foundation for Concrete Pewment (project) or 1.5120-02-70         LS         1.000           001         21 5/200         Finishing Roodway (project) 01.5120-02-70         EACH         1.000         1.000           0014         305.102         Base Aggregate Dense 1.1/4-Inch         SY         283.000         283.000           0018         410.005         Unified Tie Bars         EACH         \$1.000         \$1.000           0018         410.005         Unified Tie Bars         EACH         \$1.000         \$1.000           0018         410.005         Unified Tie Bars         EACH         \$1.000         \$1.000           0018         410.005         Unified Tie Bars         EACH         \$1.000         \$3.000           0022         465.013         Asynthetic Surface         EACH         \$1.00         \$3.000           0023         00.1000         Concrete Curin & Guiter 30-Inch Type K         IF         \$1.000         \$1.000           0024         01.500         Concr			-				
0008         20-81/08-55         Romoving (Idem description) O1-, Romoving Traiffe         LS         1.000           0101         211-020         Prepair Foundation for Concrote Pawment (crote) of 1.512/0-2-70         LS         1.000         1.000           0112         2 13 0100         Inshining Readway (project) of 1.512/0-2-70         ECC         1.000         133,000           0114         3 05 120         Bass Aggregated Dense 1 144-Inch         TON         133,000         133,000           0106         415,0080         Concrised Pawment 8-Inch         SP         283,000         257,000           0202         416,0020         Dilido Dowel Bars         EACH         67,000         57,000           0203         416,0020         Olido Dowel Bars         EACH         67,000         5,000           0204         416,0020         Oncride Subra Male Faire         TON         3,000         3,000           0204         610,017         Concride Subra Male Faire         FC         12,000         3,000           0204         610,017         Concride Subra Male Faire         FC         1,200         3,000           0208         020,010         Concride Subra Male Faire         FC         8,000         3,000           0203 <td< td=""><td></td><td></td><td>•</td><td></td><td></td><td></td><td></td></td<>			•				
0101         211.020         Prepare Foundation for Concrete Pawement (project) of 1.51200-27-70         LS         1.000           0112         213.010         Finishing Roadway (project) 01.51204/270         EACH         1.000         133.000           0114         315.001         Basa Aggregate Danses 11-Harch         TO         133.000         233.000           0116         415.003         Concrete Pawement 8-Inch         SY         283.000         571.000           0108         416.003         Drilled Down Bars         EACH         571.000         3.000           0202         416.0021         Concrete Cub & Cubre 20-Inch Type K         LF         327.000         237.000           0204         610.147         Concrete Cubr & Cubre 10-Inch Type K         LF         112.000         3.000           0208         602.010         Concrete Cubr & Cubre 10-Inch Type K         LF         12.200         12.000           0208         602.011         Concrete Cubr & Cubre 10-Inch Stanting         LF         1.200         8.000           0303         611.8115         Agipsing Inter Covers         EACH         1.000         4.000           0304         621.010         Mobilizations Enrosino Control         EACH         1.000         1.000			Removing (item description) 01. Removing Traffic				
0014         305.0120         Base Aggregate Derise 1 1/4-Inch         TON         133.000         133.000           016         415.080         Concrete Prevenent 8-Inch         \$7         200         571.000           018         416.0810         Dilled Tie Bars         EACH         571.000         571.000           0020         416.0820         Drilled Downl Bars         EACH         6.000         6.000           0024         691.0417         Concrete Curb & Gitter 30-Inch Type K         LF         237.000         237.000           0028         602.0410         Concrete Curb & Gitter 30-Inch Type K         LF         212.000         112.000           0028         602.0410         Concrete Sidewalk 5-Inch         SF         80.00         3000           0032         602.0550         Curb Ramp Detectable Warning Field Yellow         SF         80.00         80.000           0032         602.0550         Curb Ramp Detectable Warning Field Radial Yellow         SF         56.000         56.000           0033         619.100         Mobilization         EACH         1.000         1.000           0042         628.1010         Mobilization Erosion Control         EACH         1.000         1.000           014         6	0010	211.0200	Prepare Foundation for Concrete Pavement (project)	LS	1.000	1.000	
016         415,0080         Concrete Pawenent 4-Inch         SY         263,000           018         416,0810         Dilled Dowal Bars         EACH         571,000         571,000           0022         416,0820         Dilled Dowal Bars         EACH         571,000         530,000           0024         401,107         Concrete Curb & Gutter 30-Inch Type K         LF         237,000         237,000           0026         601,060         Concrete Curb & Gutter 30-Inch Type K         LF         112,000         112,000           0030         602,0505         Curb Ramp Detectable Warning Field Yellow         SF         1,800         80,000           0304         611,815         Adjusting Inlet Covers         EACH         4,000         4,000           0304         611,815         Adjusting Inlet Covers         EACH         4,000         4,000           0304         625,010         Wobilizations Erosion Control         EACH         4,000         4,000           0404         625,910         Mobilizations Erosion Control         EACH         1,000         1,000           0404         628,1910         Mobilizations Erosion Control         EACH         1,000         1,000           0404         628,1910         Mobiliza	0012	213.0100	Finishing Roadway (project) 01. 5120-02-70	EACH	1.000	1.000	
018 8         416.0610 Orlled Tie Bars         EACH 6.070 6.000         571.000           020 4         416.0820 Orlled Dowel Bars         EACH 6.000 6.000         6.000           0022 465.0105 Asphalic Surface         TON 3.000 3.000         3.000           0024 601.0417 Concrete Gurb & Gutter 30-Inch Type K         LF 237.000 237.000         237.000           0026 6000 Concrete Gurb Edestrian         LF 11.000         112.000           0028 602.0410 Concrete Sidewalk 5-Inch         SF 1822.000 1.822.000         1.822.000           0030 6005 Curb Ramp Detectable Warning Field Yellow         SF 8.000 0.000         360.000           0034 613.115 Adjusting Into Covers         EACH 4.000 4.000         40.000           0036 619.00 Mobilization Starting Field Yellow         SF 8.000 2.000         2.000           0038 624.010 Value Starting Field Yellow         SF 8.000 2.000         2.000           0040 625.00 Topsall         Water         MGAL 2.000 2.000         2.000           0041 628.10 Topsall         SE ACH 4.000 4.000         4.000           0042 628.10 Starting Fire Sta	0014	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	133.000	133.000	
0020         416.0620         Drilled Dowel Bars         EACH         6.000         6.000           022         465.015         Asphaltic Surface         TON         3.000         237.000           0028         601.0417         Concrete Curb & Gutter 30-Inch Type K         LF         237.000         237.000           0028         601.0600         Concrete Sidewalk S-Inch         FF         18.2000         112.2000           0030         602.0505         Curb Ramp Detectable Warning Field Yellow         SF         80.000         80.000           0034         611.8115         Adjusting Inlet Covers         EACH         4.000         4.000           0034         612.010         Most Earm Detectable Warning Field Radial Yellow         SF         58.000         80.000           0034         611.8115         Adjusting Inlet Covers         EACH         4.000         4.000           0034         613.010         Most Earm Detectable Warning Field Radial Yellow         SF         58.000         2.000           0034         613.015         Mister         MGAL         2.000         2.000           004         625.010         Topsoil         MS         2.500         2.5000           004         628.1910         Mobili	0016	415.0080	Concrete Pavement 8-Inch	SY	263.000	263.000	
0022         485,0105         Asphaltic Surface         TO         3,000         3,000           0024         601,0407         Concrete Curb R Gutter 30-Inch Type K         LF         237,000         237,000           0026         602,0410         Concrete Curb Pedestrian         LF         112,000         80,000           0030         602,0505         Curb Ramp Detectable Warning Field Yellow         SF         80,000         80,000           0032         602,0605         Curb Ramp Detectable Warning Field Radial Yellow         SF         56,000         56,000           0034         613,100         Mobilization         EACH         1,000         1,000           0038         624,010         Water         MSAL         2,000         2,500           0038         631,100         Mobilizations Erosion Control         EACH         4,000         4,000           0042         628,1905         Mobilizations Erosion Control         EACH         4,000         4,000           0043         631,1000         Mobilizations Erosion Control         EACH         4,000         4,000           0042         628,1905         Mobilizations Erosion Control         EACH         4,000         1,000           044         629,101	0018	416.0610	Drilled Tie Bars	EACH	571.000	571.000	
0024         601.0417         Concrete Curb As Gutter 30-Inch Type K         LF         237.000         112.000           0026         601.000         Concrete Sidewalk 5-Inch         SF         1,822.000         1122.000           0030         602.0410         Concrete Sidewalk 5-Inch         SF         1,822.000         80.000           0030         602.0505         Curb Ramp Detectable Warning Field Yellow         SF         80.000         80.000           0034         618.1015         Adjusting Inlet Covers         EACH         4.000         4.000           0038         624.0100         Mobilization         MGAL         2.000         2.000           0040         625.0100         Topsoil         SY         25.000         25.000           0041         628.1910         Mobilizations Erosion Control         EACH         4.000         4.000           0046         628.1910         Mobilizations Erosion Control         EACH         1.000         1.000           0046         628.1910         Mobilizations Erosion Control         EACH         1.000         1.000           0050         631.0300         Sold Lawn         SY         25.000         25.000           0052         631.0300         Folid Office Type B	0020	416.0620	Drilled Dowel Bars	EACH	6.000	6.000	
0026         601.0600         Concrete Curb Pedestrian         LF         112.000         112.000           0028         602.0410         Concrete Sidewalk S-Inch         SF         1,822.000         80.000           0030         602.0505         Curb Ramp Detectable Warning Field Redial Yellow         SF         80.000         56.000           0034         613.115         Alughing Inlet Covers         EACH         4.000         4.000           0036         619.1000         Mobilizations Incored         EACH         4.000         4.000           0038         62.0100         Mobilizations Erosion Control         EACH         4.000         4.000           0042         625.0100         Topsoil         SY         25.000         25.000           0044         625.0100         Mobilizations Erosion Control         EACH         4.000         4.000           044         628.1905         Mobilizations Erosion Control         EACH         4.000         4.000           044         628.1905         Mobilizations Erosion Control         EACH         1.000         1.000           044         628.7015         Inlet Protection Type C         EACH         1.000         1.000           052         631.000         Sol Jawa </td <td>0022</td> <td>465.0105</td> <td>Asphaltic Surface</td> <td>TON</td> <td>3.000</td> <td>3.000</td> <td></td>	0022	465.0105	Asphaltic Surface	TON	3.000	3.000	
0028         602,0410         Concrete Sidewalk 5-Inch         SF         1,822,000         1,822,000           0030         602,0505         Curb Ramp Detectable Warning Field Radial Yellow         SF         56,000         56,000           0034         611,8115         Adjusting Inlet Covers         EACH         4,000         4,000           036         619,000         Mobilization         EACH         1,000         1,000           0038         624,0100         Water         MGAL         2,000         2,000           0040         625,0100         Topscil         SY         25,000         25,000           0041         628,1905         Mobilizations Eerosion Control         EACH         4,000         4,000           0042         628,1905         Mobilizations Emergency Erosion Control         EACH         4,000         1,000           0044         628,1905         Mobilizations Emergency Erosion Control         EACH         1,000         1,000           0048         629,0210         Inlet Protection Type C         EACH         1,000         1,000           0052         631,0300         Sod Lawn         SY         2,5000         25,000           052         631,0300         Feld Office Type B	0024	601.0417	Concrete Curb & Gutter 30-Inch Type K	LF	237.000	237.000	
033         602.0505         Curb Ramp Detectable Warning Field Yellow         SF         80.000         80.000           032         602.0605         Curb Ramp Detectable Warning Field Radial Yellow         SF         56.000         60.000           034         611.8115         Aliguing Inlet Covers         EACH         4.000         4.000           038         619.1000         Mobilization         EACH         1.000         2.000           0404         625.0100         Topsoil         SY         25.000         25.000           042         628.1905         Mobilizations Erosion Control         EACH         4.000         4.000           044         628.1915         Mobilizations Emergency Erosion Control         EACH         1.000         1.000           044         628.1915         Mobilizations Emergency Erosion Control         EACH         1.000         1.000           048         629.0210         Fettilizer Type B         CWT         0.030         0.030           050         631.000         SOd Vater         MGAL         0.600         0.600           065         643.0300         Traffic Control Barricades Type II         DAY         2,663.000           066         643.0907         Traffic Control Warning Light	0026	601.0600	Concrete Curb Pedestrian	LF	112.000	112.000	
0032         602,0605         Curb Ramp Detectable Waming Field Radial Yellow         SF         56,000         56,000           0034         611,8115         Adjusting Inlet Covers         EACH         4,000         4,000           0036         619,1000         Mobilization         EACH         1,000         1,000           0038         624,0100         Vater         MGAL         2,000         2,000           0040         625,0100         Topsoil         SY         25,000         25,000           0044         628,1915         Mobilizations Erosion Control         EACH         1,000         1,000           0044         628,1915         Mobilizations Erregency Erosion Control         EACH         1,000         1,000           0048         629,0210         Fertilizer Type B         CWT         0,30         0,030           0050         631,000         Sod Lawn         SY         25,000         25,000           0051         643,000         Traffic Control Drums         EACH         1,000         1,000           0054         642,5001         Traffic Control Barricades Type II         DAY         1,663,000         2,663,000           0065         643,0402         Traffic Control Barricades Type II	0028	602.0410	Concrete Sidewalk 5-Inch	SF	1,822.000	1,822.000	
034         611,8115         Adjusting Inlet Covers         EACH         4.000         4.000           036         619,1000         Mobilization         EACH         1.000         1.000           038         624,0100         Water         MGAL         2.000         2.000           040         625,0100         Topsoil         SY         25,000         25,000           042         628,1905         Mobilizations Energency Erosin Control         EACH         4,000         4,000           044         628,1910         Mobilizations Energency Erosin Control         EACH         10,000         10,000           046         628,7015         Inlet Protection Type C         EACH         10,000         10,000           048         629,0210         Fertilizer Type B         CWT         0,303         0,300           050         631,0300         Sod Uater         MGAL         0,600         0,600           052         631,1000         Sod Lawn         SY         25,000         25,000           054         642,5001         Field Office Type B         EACH         1,00         1,600           058         643,0401         Traffic Control Barricades Type II         DAY         496,000         366,00	0030	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	80.000	80.000	
0036         619.1000         Mobilization         EACH         1.000         1.000           0038         624.0100         Yater         MGAL         2.000         2.000           004         625.0100         Topsoll         SY         25.000         25.000           004         628.1905         Mobilizations Erosion Control         EACH         4.000         4.000           004         628.1910         Mobilizations Emergency Erosion Control         EACH         1.000         1.000           004         628.1910         Mobilizations Emergency Erosion Control         EACH         1.000         1.000           004         628.1910         Mobilizations Emergency Erosion Control         EACH         1.000         1.000           004         628.7015         Intell Protection Type C         EACH         1.000         1.000           005         631.0300         Sod Water         MGAL         0.600         2.600           005         631.0300         Traffic Office Type B         EACH         1.000         1.000           005         643.0300         Traffic Control Drums         DAY         2,663.000         2,663.000           006         643.0400         Traffic Control Barricades Type II <t< td=""><td>0032</td><td>602.0605</td><td>Curb Ramp Detectable Warning Field Radial Yellow</td><td>SF</td><td>56.000</td><td>56.000</td><td></td></t<>	0032	602.0605	Curb Ramp Detectable Warning Field Radial Yellow	SF	56.000	56.000	
0038         624.0100         Water         MGAL         2.000         2.000           0040         625.0100         Topsoil         SY         25.000         25.000           0042         628.1905         Mobilizations Erosion Control         EACH         4.000         4.000           0044         628.1915         Mobilizations Emergency Erosion Control         EACH         1.000         1.000           0048         629.0210         Fetrilizer Type B         CWT         0.030         0.030           0050         631.0300         Sod Water         MGAL         0.600         0.600           0052         631.1000         Sod Lawn         SY         25.000         25.000           0054         642.5001         Field Office Type B         EACH         1.000         1.000           0054         642.5001         Field Office Type B         EACH         1.000         1.000           0058         643.0410         Traffic Control Barricades Type II         DAY         2,663.000         188.000           0062         643.0420         Traffic Control Warning Lights Type A         DAY         996.000         996.000           0064         643.0755         Traffic Control Signs         DAY         2,	0034	611.8115	Adjusting Inlet Covers	EACH	4.000	4.000	
0040         625.0100         Topsoil         SY         25.000         25.000           0042         628.1905         Mobilizations Energency Erosion Control         EACH         4.000         4.000           0044         628.1910         Mobilizations Emergency Erosion Control         EACH         1.000         1.000           0046         628.7015         Inlet Protection Type C         EACH         10.000         10.000           0048         629.0210         Fertilizer Type B         CWT         0.030         0.030           0050         631.0300         Sod Lawn         SY         25.000         25.000           0051         642.5001         Field Office Type B         EACH         1.000         1.000           0054         642.5001         Field Office Type B         EACH         1.000         1.000           0058         643.0410         Traffic Control Drums         DAY         2,663.000         2,663.000           0060         643.0420         Traffic Control Barricades Type III         DAY         409.000         409.000           0062         643.075         Traffic Control Warning Lights Type A         DAY         300.000         300.000           0064         643.075         Traffic Control	0036	619.1000	Mobilization	EACH	1.000	1.000	
0042         628.1905         Mobilizations Erosion Control         EACH         4.000         4.000           0044         628.1910         Mobilizations Emergency Erosion Control         EACH         1.000         1.000           0046         628.7015         Inlet Protection Type C         EACH         1.000         10.000           0048         629.0210         Fertilizer Type B         CWT         0.030         0.030           0050         631.0300         Sod Water         MGAL         0.600         0.600           0054         642.5001         Field Office Type B         EACH         1.000         1.000           0054         643.0300         Traffic Control Drums         SACH         1.000         1.000           0056         643.0300         Traffic Control Barricades Type II         DAY         2,663.000         2,663.000           0060         643.0410         Traffic Control Barricades Type II         DAY         409.000         409.000           0062         643.0715         Traffic Control Barricades Type II         DAY         300.000         300.000           0064         643.0715         Traffic Control Barricades Type II         DAY         300.000         300.000           0066         643.0900<	0038	624.0100	Water	MGAL	2.000	2.000	
0044         628.1910         Mobilizations Emergency Erosion Control         EACH         1.000         1.000           0046         628.7015         Inlet Protection Type C         EACH         10.000         10.000           0048         629.0210         Fertilizer Type B         CWT         0.030         0.030           0050         631.0300         Sod Water         MGAL         0.600         0.600           0052         631.1000         Sod Lawn         SY         25.000         25.000           0054         642.5001         Field Office Type B         EACH         1.000         1.000           0058         643.0301         Traffic Control Drums         DAY         2,663.000         2,663.000           0058         643.0410         Traffic Control Barricades Type II         DAY         168.000         168.000           0060         643.0420         Traffic Control Warning Lights Type A         DAY         986.000         396.000           0064         643.0715         Traffic Control Signs         DAY         2,591.000         2,591.000           0066         643.0920         Traffic Control Signs Type II         EACH         2.000         2,000           0072         643.5000         Traffic Contro	0040	625.0100	Topsoil	SY	25.000	25.000	
0046         628.7015         Inlet Protection Type C         EACH         10.000         10.000           0048         629.0210         Fertilizer Type B         CWT         0.030         0.030           0050         631.0300         Sod Water         MGAL         0.600         0.600           0052         631.1000         Sod Lawn         SY         25.000         25.000           0054         642.5001         Field Office Type B         EACH         1.000         1.000           0056         643.0300         Traffic Control Drums         DAY         2,663.000         2,663.000           0058         643.0410         Traffic Control Barricades Type II         DAY         168.000         168.000           0060         643.0420         Traffic Control Warning Lights Type A         DAY         499.000         499.000           0062         643.0705         Traffic Control Warning Lights Type A         DAY         986.000         986.000           0064         643.090         Traffic Control Signs         DAY         2,591.000         2,591.000           0068         643.090         Traffic Control Signs PCMS         DAY         2,800         2,591.000           0070         643.1050         Traffic Control	0042	628.1905	Mobilizations Erosion Control	EACH	4.000	4.000	
0048         629.0210         Fertilizer Type B         CWT         0.030         0.030           0050         631.0300         Sod Water         MGAL         0.600         0.600           0052         631.000         Sod Lawn         SY         25.000         25.000           0054         642.5001         Fleid Office Type B         EACH         1.000         1.000           0056         643.0300         Traffic Control Drums         DAY         2,663.000         2,663.000           0058         643.0410         Traffic Control Barricades Type II         DAY         188.000         168.000           0060         643.0420         Traffic Control Warning Lights Type A         DAY         409.000         409.000           0062         643.0705         Traffic Control Warning Lights Type A         DAY         986.000         300.000           0064         643.0715         Traffic Control Signs         DAY         2,591.000         2,591.000           0068         643.0900         Traffic Control Signs Type II         EACH         2.000         2.000           0070         643.1050         Traffic Control Signs Type II         EACH         2.000         2.000           0072         643.5000         Traffic Co	0044	628.1910	Mobilizations Emergency Erosion Control	EACH	1.000	1.000	
0050         631.0300         Sod Water         MGAL         0.600         0.600           0052         631.1000         Sod Lawn         SY         25.000         25.000           0054         642.5001         Field Office Type B         EACH         1.000         1.000           0056         643.0300         Traffic Control Drums         DAY         2,663.000         2,663.000           0058         643.0410         Traffic Control Barricades Type II         DAY         409.000         409.000           0060         643.0705         Traffic Control Warning Lights Type A         DAY         409.000         986.000           0064         643.0715         Traffic Control Signs         DAY         2,591.000         2,591.000           0066         643.0900         Traffic Control Signs Type II         EACH         2.000         2.000           0070         643.1050         Traffic Control Signs PCMS         DAY         28.000         28.000           0072         643.5000         Traffic Control Signs PCMS         DAY         28.000         28.000           0074         646.3040         Marking Line Grooved Wet Ref Epoxy 8-Inch         LF         1,553.000         1,553.000	0046	628.7015	Inlet Protection Type C	EACH	10.000	10.000	
0052         631.1000         Sod Lawn         SY         25.000         25.000           0054         642.5001         Field Office Type B         EACH         1.000         1.000           0056         643.0300         Traffic Control Drums         DAY         2,663.000         2,663.000           0058         643.0410         Traffic Control Barricades Type II         DAY         409.000         409.000           0060         643.0705         Traffic Control Warning Lights Type A         DAY         986.000         986.000           0064         643.0715         Traffic Control Warning Lights Type C         DAY         300.000         300.000           0066         643.0900         Traffic Control Signs         DAY         2,591.000         2,591.000           0068         643.0900         Traffic Control Covering Signs Type II         EACH         2.000         2.000           0070         643.1050         Traffic Control Signs PCMS         DAY         28.000         28.000           0072         643.5000         Traffic Control         EACH         1.000         1.000           0074         646.3040         Marking Line Grooved Wet Ref Epoxy 8-Inch         LF         1,553.000         1,553.000	0048	629.0210	Fertilizer Type B	CWT	0.030	0.030	
0054         642.5001         Field Office Type B         EACH         1.000         1.000           0056         643.0300         Traffic Control Drums         DAY         2,663.000         2,663.000           0058         643.0410         Traffic Control Barricades Type II         DAY         168.000         409.000           0060         643.0705         Traffic Control Warning Lights Type A         DAY         986.000         986.000           0064         643.0715         Traffic Control Warning Lights Type C         DAY         300.000         300.000           0066         643.0900         Traffic Control Signs         DAY         2,591.000         2,591.000           0068         643.0920         Traffic Control Covering Signs Type II         EACH         2.000         2000           0070         643.1050         Traffic Control Signs PCMS         DAY         28.000         28.000           0072         643.5000         Traffic Control Signs PCMS         DAY         28.000         28.000           0074         646.3040         Marking Line Grooved Wet Ref Epoxy 8-Inch         LF         1,553.000         1,553.000	0050	631.0300	Sod Water	MGAL	0.600	0.600	
0056         643.0300         Traffic Control Drums         DAY         2,663.000         2,663.000           0058         643.0410         Traffic Control Barricades Type II         DAY         168.000         168.000           0060         643.0420         Traffic Control Barricades Type III         DAY         409.000         409.000           0062         643.0705         Traffic Control Warning Lights Type A         DAY         986.000         986.000           0064         643.0715         Traffic Control Warning Lights Type C         DAY         300.000         300.000           0066         643.0900         Traffic Control Signs         DAY         2,591.000         2,591.000           0068         643.0920         Traffic Control Covering Signs Type II         EACH         2.000         2.000           0070         643.1050         Traffic Control Signs PCMS         DAY         28.000         28.000           0072         643.5000         Traffic Control         EACH         1.000         1.000           0074         646.3040         Marking Line Grooved Wet Ref Epoxy 8-Inch         LF         1,553.000         1,553.000	0052	631.1000	Sod Lawn	SY	25.000	25.000	
0058         643.0410         Traffic Control Barricades Type II         DAY         168.000         168.000           0060         643.0420         Traffic Control Barricades Type III         DAY         409.000         409.000           0062         643.0705         Traffic Control Warning Lights Type A         DAY         986.000         986.000           0064         643.0715         Traffic Control Warning Lights Type C         DAY         300.000         300.000           0066         643.0900         Traffic Control Signs         DAY         2,591.000         2,591.000           0068         643.0920         Traffic Control Covering Signs Type II         EACH         2.000         28.000           0070         643.1050         Traffic Control Signs PCMS         DAY         28.000         28.000           0072         643.5000         Traffic Control         EACH         1.000         1.000           0074         646.3040         Marking Line Grooved Wet Ref Epoxy 8-Inch         LF         1,553.000         1,553.000	0054	642.5001	Field Office Type B	EACH	1.000	1.000	
0060         643.0420         Traffic Control Barricades Type III         DAY         409.000         409.000           0062         643.0705         Traffic Control Warning Lights Type A         DAY         986.000         986.000           0064         643.0715         Traffic Control Warning Lights Type C         DAY         300.000         300.000           0066         643.0900         Traffic Control Signs         DAY         2,591.000         2,591.000           0068         643.0920         Traffic Control Covering Signs Type II         EACH         2.000         2.000           0070         643.1050         Traffic Control Signs PCMS         DAY         28.000         28.000           0072         643.5000         Traffic Control         EACH         1.000         1.000           0074         646.3040         Marking Line Grooved Wet Ref Epoxy 8-Inch         LF         1,553.000         1,553.000	0056	643.0300	Traffic Control Drums	DAY	2,663.000	2,663.000	
0062         643.0705         Traffic Control Warning Lights Type A         DAY         986.000         986.000           0064         643.0715         Traffic Control Warning Lights Type C         DAY         300.000         300.000           0066         643.0900         Traffic Control Signs         DAY         2,591.000         2,591.000           0068         643.0920         Traffic Control Covering Signs Type II         EACH         2.000         2.000           0070         643.1050         Traffic Control Signs PCMS         DAY         28.000         28.000           0072         643.5000         Traffic Control         EACH         1.000         1.000           0074         646.3040         Marking Line Grooved Wet Ref Epoxy 8-Inch         LF         1,553.000         1,553.000	0058	643.0410	Traffic Control Barricades Type II	DAY	168.000	168.000	
0064         643.0715         Traffic Control Warning Lights Type C         DAY         300.000         300.000           0066         643.0900         Traffic Control Signs         DAY         2,591.000         2,591.000           0068         643.0920         Traffic Control Covering Signs Type II         EACH         2.000         2.000           0070         643.1050         Traffic Control Signs PCMS         DAY         28.000         28.000           0072         643.5000         Traffic Control         EACH         1.000         1.000           0074         646.3040         Marking Line Grooved Wet Ref Epoxy 8-Inch         LF         1,553.000         1,553.000	0060	643.0420	Traffic Control Barricades Type III	DAY	409.000	409.000	
0066         643.0900         Traffic Control Signs         DAY         2,591.000         2,591.000           0068         643.0920         Traffic Control Covering Signs Type II         EACH         2.000         2.000           0070         643.1050         Traffic Control Signs PCMS         DAY         28.000         28.000           0072         643.5000         Traffic Control         EACH         1.000         1.000           0074         646.3040         Marking Line Grooved Wet Ref Epoxy 8-Inch         LF         1,553.000         1,553.000	0062	643.0705	Traffic Control Warning Lights Type A	DAY	986.000	986.000	
0068       643.0920       Traffic Control Covering Signs Type II       EACH       2.000       2.000         0070       643.1050       Traffic Control Signs PCMS       DAY       28.000       28.000         0072       643.5000       Traffic Control       EACH       1.000       1.000         0074       646.3040       Marking Line Grooved Wet Ref Epoxy 8-Inch       LF       1,553.000       1,553.000	0064	643.0715	Traffic Control Warning Lights Type C	DAY	300.000	300.000	
0070         643.1050         Traffic Control Signs PCMS         DAY         28.000         28.000           0072         643.5000         Traffic Control         EACH         1.000         1.000           0074         646.3040         Marking Line Grooved Wet Ref Epoxy 8-Inch         LF         1,553.000         1,553.000	0066	643.0900	Traffic Control Signs	DAY	2,591.000	2,591.000	
0072         643.5000         Traffic Control         EACH         1.000         1.000           0074         646.3040         Marking Line Grooved Wet Ref Epoxy 8-Inch         LF         1,553.000         1,553.000	0068	643.0920	Traffic Control Covering Signs Type II	EACH	2.000	2.000	
0074 646.3040 Marking Line Grooved Wet Ref Epoxy 8-Inch LF 1,553.000 1,553.000	0070	643.1050	Traffic Control Signs PCMS	DAY	28.000	28.000	
·	0072	643.5000	Traffic Control	EACH	1.000	1.000	
0076 646.9110 Marking Removal Line Water Blasting 8-Inch LF 424.000 424.000	0074	646.3040	Marking Line Grooved Wet Ref Epoxy 8-Inch	LF	1,553.000	1,553.000	
	0076	646.9110	Marking Removal Line Water Blasting 8-Inch	LF	424.000	424.000	

initial of addition	i age

					5120-02-70	
Line	Item	Item Description	Unit	Total	Qty	
0078	646.9210	Marking Removal Line Water Blasting Wide	LF	114.000	114.000	
0800	646.9310	Marking Removal Special Marking Water Blasting	EACH	8.000	8.000	
0082	650.7000	Construction Staking Concrete Pavement	LF	720.000	720.000	
0084	650.8500	Construction Staking Electrical Installations (project) 01. 5120-02-70	LS	1.000	1.000	
0086	650.9000	Construction Staking Curb Ramps	EACH	8.000	8.000	
8800	650.9910	Construction Staking Supplemental Control (project) 01. 5120-02-70	LS	1.000	1.000	
0090	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	81.000	81.000	
0092	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	70.000	70.000	
0094	652.0700.S	Install Conduit into Existing Item	EACH	7.000	7.000	
0096	653.0900	Adjusting Pull Boxes	EACH	4.000	4.000	
0098	653.0905	Removing Pull Boxes	EACH	2.000	2.000	
0100	654.0101	Concrete Bases Type 1	EACH	2.000	2.000	
0102	654.0110	Concrete Bases Type 10	EACH	1.000	1.000	
0104	654.0120	Concrete Bases Type 10-Special	EACH	3.000	3.000	
0106	655.0230	Cable Traffic Signal 5-14 AWG	LF	485.000	485.000	
0108	655.0240	Cable Traffic Signal 7-14 AWG	LF	180.000	180.000	
0110	655.0260	Cable Traffic Signal 12-14 AWG	LF	962.000	962.000	
0112	655.0270	Cable Traffic Signal 15-14 AWG	LF	325.000	325.000	
0114	655.0320	Cable Type UF 2-10 AWG Grounded	LF	553.000	553.000	
0116	655.0515	Electrical Wire Traffic Signals 10 AWG	LF	1,004.000	1,004.000	
0118	655.0610	Electrical Wire Lighting 12 AWG	LF	576.000	576.000	
0120	657.0100	Pedestal Bases	EACH	2.000	2.000	
0122	657.0425	Traffic Signal Standards Aluminum 15-FT	EACH	2.000	2.000	
0124	658.0173	Traffic Signal Face 3S 12-Inch	EACH	7.000	7.000	
0126	658.0175	Traffic Signal Face 5S 12-Inch	EACH	3.000	3.000	
0128	658.0416	Pedestrian Signal Face 16-Inch	EACH	8.000	8.000	
0130	658.5069	Signal Mounting Hardware (location) 01. West Ave & Jackson St	LS	1.000	1.000	
0132	659.1125	Luminaires Utility LED C	EACH	4.000	4.000	
0134	661.0200	Temporary Traffic Signals for Intersections (location) 01. West Ave & Jackson St		1.000	1.000	
0136	673.0105	Communication Vault Type 1	EACH	1.000	1.000	
0138	678.0036	Install Fiber Optic Cable Outdoor Plant 36-CT	LF	100.000	100.000	
0140	678.0300	Fiber Optic Splice	EACH	4.000	4.000	
0142	678.0600	Install Ethernet Switches	EACH	3.000	3.000	
0144	690.0150	Sawing Asphalt	LF	36.000	36.000	
0146	690.0250	Sawing Concrete	LF	1,839.000	1,839.000	
0148	715.0415	Incentive Strength Concrete Pavement	DOL	500.000	500.000	
0150	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	700.000	700.000	

Page 3

					5120-02-70	
Line	Item	Item Description	Unit	Total	Qty	
152	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	600.000	600.000	
0154	SPV.0060	Special 01. Install Poles Type 10	EACH	1.000	1.000	
0156	SPV.0060	Special 02. Install Poles Type 10 Special	EACH	3.000	3.000	
0158	SPV.0060	Special 03. Install Monotube Arms 30-FT	EACH	1.000	1.000	
0160	SPV.0060	Special 04. Install Monotube Arms 35-FT Special	EACH	1.000	1.000	
162	SPV.0060	Special 05. Install Monotube Arms 40-FT Special	EACH	2.000	2.000	
164	SPV.0060	Special 06. Install Luminaire Arms Steel 15-FT	EACH	4.000	4.000	
166	SPV.0060	Special 08. Install Fiber Optic Splice Enclosure	EACH	1.000	1.000	
168	SPV.0060	Special 09. Marking Arrow Grooved Epoxy	EACH	4.000	4.000	
170	SPV.0060	Special 10. Marking Word Grooved Epoxy	EACH	2.000	2.000	
)172	SPV.0090	Special 01. Marking Crosswalk Grooved Epoxy Transverse Line 12-Inch	LF	436.000	436.000	
174	SPV.0090	Special 02. Marking Stop Line Grooved Epoxy 12-Inch	LF	122.000	122.000	
176	SPV.0105	Special 01. Install Traffic Signal Controller & Cabinet (West Ave & Jackson St)	LS	1.000	1.000	
178	SPV.0105	Special 02. Remove, Salvage, & Reinstall Video Detection System (West Ave & Jackson St)	LS	1.000	1.000	
180	SPV.0105	Special 03. Remove, Salvage, & Reinstall EVP System (West Ave & Jackson St)	LS	1.000	1.000	
182	SPV.0105	Special 04. Install Accessible Pedestrian Push Button System (West Ave & Jackson St)	LS	1.000	1.000	
184	SPV.0105	Special 05. Remove, Salvage, & Reinstall Traffic Signal Interconnect	LS	1.000	1.000	
186	SPV.0105	Special 06. Install Fiber Optic Communications in Cabinet (West Ave & Jackson St)	LS	1.000	1.000	
188	SPV.0165	Special 01. Concrete Raised Median	SF	1,461.000	1,461.000	

			<u> </u>	EMOVAL QUANT	<u> </u>		
REMOVAL ITEMS  204.0150 204.0155  REMOVING REMOVING	REMOVING TRAFFIC SIGNALS WEST	204.9105.S.01 REMOVING		ITEM	204.0195 REMOVING CONCRETE BASES	653.0905 REMOVING PULL BOXE	3
CURB & CONCRETE	,	TRAFFIC SIGNALS (WEST AVE & JACKSON ST)	LOCATION	NO.	EACH	EACH	
GUTTER SIDEWALK	LOCATION	LS	WEST AVE & JACKSON ST	SB2	1		
STATION TO STATION LF SY				SB3	1		
202+15 - 210+42 1,642 453	WEST AVE & JACKSON ST	1		SB4	1		
				SB5	1		
PROJECT TOTALS 1,642 453	PROJECT TOTALS	1		SB7	1		
				SB9	1	 	
				SB10	1		
				PB3		1	
				PB6		1	
BASE AGGREGATE ITEMS			PROJECT TOTALS		8	2	<u> </u>
305.0120 624.0100							
BASE	CONCRET	TE PAVEMENT ITEMS					
AGGREGATE				ASI	PHALTIC SURFACE	E	
DENSE		.0200 415.0080 416.0610 416.				_	
1 1/4-INCH WATER		OUNDATION CONCRETE DRILLED DRII			46	5.0105	
STATION TO STATION TON MGAL			WEL			PHALTIC	
202+15 - 210+42 133 2.0			ARS			RFACE	
			ACH	STATION 1		TON	
PROJECT TOTALS 133 2.0	202+15 - 210+42	1 263 571	6		- 210+42	3	
	DDO IFOT TOTAL O			202 10	210 - 12		
QUANTITY INCLUDED FOR ADDING MATERIAL UNDERNEA REMOVED PAVEMENT, CURB & GUTTER, SIDEWALK, OR ASPHALTIC SURFACE	PROJECT TOTALS	1 263 571	6	PROJEC	T TOTALS	3	
			<u>E</u>	ROSION CONTRO	OL ITEMS		
	OUS ITEMS						
CONCRETE MISCELL AND	<u> </u>	ADJUSTING INLET COVERS			628.1905	628.1910	628.7015
CONCRETE MISCELLANE		ADDOC: IIIO IIILLI OUVLINO				MOBILIZATIONS	
	0410 000 0505 000 0005 000						INLET
601.0417 601.0600 602	0410 602.0505 602.0605 SPV.0165.01	611 9115			MOBILIZATIONS		
601.0417 601.0600 602 CONCRETE	CURB RAMP	611.8115 AD JUSTING			EROSION	EROSION	
601.0417 601.0600 602 CONCRETE CURB & GUTTER CONCRETE CON	CURB RAMP CRETE DETECTABLE CONCRETE	ADJUSTING			EROSION CONTROL	EROSION CONTROL	PROTECTIO TYPE C
601.0417 601.0600 602 CONCRETE CURB & GUTTER CONCRETE CON 30-INCH CURB SIDE	CURB RAMP CRETE DETECTABLE CONCRETE WALK WARNING FIELD RAISED	ADJUSTING INLET		N TO STATION	EROSION CONTROL EACH	EROSION	TYPE C EACH
601.0417 601.0600 602 CONCRETE CURB & GUTTER CONCRETE CON 30-INCH CURB SIDE TYPE K PEDESTRIAN 5-I	CURB RAMP CRETE DETECTABLE CONCRETE WALK WARNING FIELD RAISED NCH YELLOW RADIAL YELLOW MEDIAN	ADJUSTING INLET COVERS			EROSION CONTROL	EROSION CONTROL	TYPE C
601.0417 601.0600 602 CONCRETE CURB & GUTTER CONCRETE CON 30-INCH CURB SIDE TYPE K PEDESTRIAN 5-I STATION TO STATION LF LF	CURB RAMP CRETE DETECTABLE CONCRETE WALK WARNING FIELD RAISED	ADJUSTING INLET		N TO STATION	EROSION CONTROL EACH	EROSION CONTROL	TYPE C EACH
601.0417 601.0600 602 CONCRETE CURB & GUTTER CONCRETE CON 30-INCH CURB SIDE TYPE K PEDESTRIAN 5-I STATION TO STATION LF LF 202+15 - 210+42 237 112 1	CURB RAMP CRETE DETECTABLE CONCRETE WALK WARNING FIELD RAISED NCH YELLOW RADIAL YELLOW MEDIAN SF SF SF SF 322 80 56 1,461	ADJUSTING INLET COVERS STATION TO STATION EACH 202+15 - 210+42 4	WEST AVE & JACKSON ST 202+15 UNDISTRIBUTED	N TO STATION	EROSION CONTROL EACH 4	EROSION CONTROL EACH 1	TYPE C EACH 8
601.0417 601.0600 602 CONCRETE CURB & GUTTER CONCRETE CON 30-INCH CURB SIDE TYPE K PEDESTRIAN 5-I STATION TO STATION LF LF 202+15 - 210+42 237 112 1	CURB RAMP CRETE DETECTABLE CONCRETE WALK WARNING FIELD RAISED NCH YELLOW RADIAL YELLOW MEDIAN SF SF SF SF	ADJUSTING INLET COVERS STATION TO STATION EACH	WEST AVE & JACKSON ST 202+15	N TO STATION - 210+42	EROSION CONTROL EACH 4	EROSION CONTROL EACH 1	TYPE C EACH 8 2

#### **RESTORATION ITEMS**

				625.0100	629.0210	631.0300	631.1000
					FERTILIZER	SOD	SOD
				TOPSOIL	TYPE B	WATER	LAWN
LOCATION	STATION	ТО	STATION	SY	CWT	MGAL	SY
WEST AVE & JACKSON ST	202+15	-	210+42	22	0.02	0.5	22
UNDISTRIBUTED				3	0.01	0.1	3
PROJECT TOTALS	S		25	0.03	0.6	25	

### TRAFFIC CONTROL ITEMS

														#		
		643	.0300		0410 CONTROL		0420 CONTROL		0705 CONTROL		0715 CONTROL	643.	0900	643.0920 TRAFFIC CONTROL	643. TRAFFIC (	.1050 CONTROL
	DURATION	_	CONTROL	BARRICADES TYPE II		BARRICADES WARNING LIG TYPE III TYPE A			S WARNING LIGHTS TYPE C		TRAFFIC CONTROL SIGNS		. COVERING SIGNS TYPE II	SIGNS PCMS		
LOCATION	DAYS	QTY*	DAY	QTY*	DAY	QTY*	DAY	QTY*	DAY	QTY*	DAY	QTY*	DAY	EACH	QTY*	DAY
WEST AVE & JACKSON ST																
STAGE 1A	A 11	16	176	4	44	4	44	12	132	3	33	35	385		4	28
STAGE 1E	3 11	18	198	4	44	5	55	14	154	3	33	37	407			
STAGE 2A	A 9	15	135	4	36	4	36	12	108	4	36	36	324			
STAGE 2E	3 9	23	207	4	36	6	54	16	144	7	63	39	351	2		
STAGE 3	3 20	91	1820			10	200	20	400	6	120	50	1000			
SUBTOTALS			2,536		160		389		938		285		2,467	2		28
UNDISTRIBUTED			127		8		20		48		15		124			
PROJECT TOTAL	_S		2,663		168		409		986		300		2,591	2		28

<sup>\*</sup> FOR INFORMATION ONLY

## PERMANENT PAVEMENT MARKING

	646.3040		SPV.0060.10	646.9110	646.9210	646.9310	SPV.0090.01	SPV.0090.02
	MARKING LINE GROOVED	MARKING ARROW	MARKING WORD	MADKING DI	EMOVAL LINE	MARKING REMOVAL	MARKING CROSSWALK	MARKING STOP LINE
	WET REF EPOXY	GROOVED	GROOVED			SPECIAL MARKING	GROOVED EPOXY TRANSVERSE LINE	GROOVED EPOXY
	8-INCH	EPOXY	EPOXY	8-INCH WIDE		WATER BLASTING	12-INCH	12-INCH
STATION TO STATION	LF	EACH	EACH	LF	LF	EACH	LF	LF
202+15 - 210+42	1,553	4	2	424	114	8	436	122
PROJECT TOTALS	1.553	4	2	424	114	8	436	122

ALL ITEMS CATEGORY 0010 UNLESS NOTED

PROJECT NO: 5120-02-70 HWY: STH 33 COUNTY: LA CROSSE MISCELLANEOUS QUANTITIES SHEET NO: E

<sup>#</sup> TWO TOTAL SIGNS AND ONE CYCLE OF COVERING/UNCOVERING FOR EACH SIGN.

								CONCRETE	BASES			
						LOCATION WEST AVE & JACKSON ST	SIGNAL BASE NO. SB2 SB3 SB4 SB6 SB7 SB8	WEST AVE 2	STATION OFFSET 204+70.3 66.7'LT 204+90.0 43.8'LT 204+84.2 37.4'RT 204+06.4 46.0'RT 203+96.3 27.9'RT 203+94.2 55.6'LT	654.0101 CONCRETE BASES TYPE 1 EACH 1 1 1	654.0110 CONCRETE BASES TYPE 10  EACH 1 1	654.0120 CONCRETE BASES TYPE 10 SPECIAL EACH 1 1 1
		CONOTRU										
		CONSTRU	ICTION STAKING					<u>A</u>	ADJUSTING PULL B	OXES		
STATION TO 202+15 -	STATION 210+42		650.8500 CONSTRUCTIO ELECTRICAL INSTALLATIONS 5120-02-70 LS 1	ON STAKING  CURB SUP  RAMPS C	PPLEMENTAL CONTROL 120-02-70 LS 1			CATION EST AVE & JACKSO	ON ST	PULL BOX NO. PB2 PB4 PB5 PB7	653.0900 ADJUSTING PULL BOXES EACH 1 1 1	
T NOULOT I	OTALO	720	•		'	<del></del>	PR	OJECT TOTALS			4	
			652.0225 CONDUIT RIGIE NONMETALLIC	652.0235 CONDUIT RI NONMETAL	IGID INSTALL LIC CONDUIT							
			SCHEDULE 40 2-INCH	) SCHEDULE 3-INCH		CONSTRUCTION		SIG	SNAL MOUNTING HA	ARDWARE		
LOCATION	FROM	ТО	LF	LF	EACH	METHOD				GEO	5.5069.01	
WEST AVE & JACKSON ST	CV1 CV1 PB2 PB2	PB1 PB6 SB2 SB3	10 40  20	  17 	1 1 1 	TRENCH TRENCH TRENCH TRENCH	LOCATIO	N		SIGNAL HAF (WEST AVE	.5009.01 MOUNTING RDWARE & JACKSON S LS	ST)
_	PB4 PB5 PB5 PB6	SB4 SB6 SB7 SB8	  11 	9 11  23	1 1  	TRENCH TRENCH TRENCH TRENCH	WEST AV	E & JACKSON ST			1	
		EXPB3 EXPB6	 	5 5	1 1	TRENCH - CONNECT EXISTING TRENCH - CONNECT EXISTING	PRO	JECT TOTALS			1	
PROJECT TOTALS			81	70	7				ALL	ITEMS CAT	EGORY 001	UNLESS NOT

#### TRAFFIC SIGNAL CABLE AND ELECTRICAL WIRE

			655.0230	655.0240	655.0260	655.0270	655.0320	655.0515	655.0610	(INCIDENTAL)
			CABLE	CABLE	CABLE	CABLE	CABLE TYPE	ELECTRICAL	ELECTRICAL	LOOP
			TRAFFIC	TRAFFIC	TRAFFIC	TRAFFIC	TYPE UF	WIRE TRAFFIC	WIRE	DETECTOR
			SIGNAL	SIGNAL	SIGNAL	SIGNAL	2-10 AWG	SIGNALS	LIGHTING	LEAD IN
			5-14 AWG	7-14 AWG	12-14 AWG	15-14 AWG	GROUNDED	10 AWG	12 AWG	CABLE
LOCATION	FROM	TO	LF	LF	LF	LF	LF	LF	LF	LF
WEST AVE & JACKSON ST	CB1	SB1			39			39		
	CB1	SB2			134		134			
	CB1	SB3				138				
	CB1	SB4			256					
	CB1	SB5			262					
	CB1	SB6			187					
	CB1	SB7				187				
	CB1	SB8			84		84	84		
	SB1	SB2						135		
	SB2	SB3						51		
	SB3	SB4						173		
	SB4	SB5						36		
	SB5	SB6						129		
	SB6	SB7						35		
	SB7	SB8						165		
	PB1	SB1						26		
	PB2	SB2						29		
	PB4	SB4						22		
	PB5	SB7						24		
	PB6	SB8						36		<u></u> _
	SB2	SB4					169			
	SB8	SB6					166			

(CONTINUED ON NEXT PAGE)

ALL ITEMS CATEGORY 0010 UNLESS NOTED

PROJECT NO: 5120-02-70 HWY: STH 33 COUNTY: LA CROSSE MISCELLANEOUS QUANTITIES SHEET NO:

											TEMPORARY TRAFFIC S	SIGNALS FOR INTERSECTIONS
			TRAFFIC	SIGNAL CAB	LE AND ELEC	TRICAL WIRE	Į.				LOCATION	661.0200.01 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS (WEST AVE & JACKSON ST) LS
			655.0230 CABLE TRAFFIC	655.0240 CABLE TRAFFIC	655.0260 CABLE TRAFFIC	655.0270 CABLE TRAFFIC	655.0320 CABLE TYPE TYPE UF	655.0515 ELECTRICAL WIRE TRAFFIC	655.0610 ELECTRICAL WIRE	(INCIDENTAL) LOOP DETECTOR	WEST AVE & JACKSON ST	1
			SIGNAL 5-14 AWG	SIGNAL 7-14 AWG	SIGNAL 12-14 AWG	SIGNAL 15-14 AWG	2-10 AWG GROUNDED	SIGNALS 10 AWG	LIGHTING 12 AWG	LEAD IN CABLE	PROJECT TOTALS	1
LOCATION	FROM	TO	LF	LF	LF	LF	LF	LF	LF	LF	INSTALL TRAFFIC SIGN	IAL CONTROLLER & CABINET
WEST AVE & JACKSON ST	SB1	HEAD 1	19									E & JACKSON ST
	SB1	HEAD 2	19									
	SB1	HEAD 15	15									SPV.0105.01
	SB1	PUSH BUTTON								6		INSTALL TRAFFIC SIGNAL
_	SB2	HEAD 3	60									CONTROLLER & CABINET
	SB2	HEAD 16	15									(WEST AVE & JACKSON ST)
	SB2	PUSH BUTTON								6	LOCATION	LS
	SB2	LUMINAIRE							144			
	SB3	HEAD 4		23							WEST AVE & JACKSON ST	1
_	SB3	HEAD 5	22		-			-				
	SB3	HEAD 17	15							<del></del>	PROJECT TOTALS	1
	SB3	PUSH BUTTON								6		
	SB4	HEAD 6	65	<b></b>								
	SB4	HEAD 7		67							REMOVE, SALVAGE, & REINS	STALL VIDEO DETECTION SYSTEM
_	SB4	HEAD 18	15		-			-		<u></u>	WEST AVE	& JACKSON ST
	SB4	PUSH BUTTON				-	-		<del></del>	6		
	SB4	LUMINAIRE							144			SPV.0105.02
	SB5	HEAD 8	19									REMOVE, SALVAGE, & REINSTALL
	SB5	HEAD 9	19									VIDEO DETECTION SYSTEM
_	SB5	HEAD 19	15							<del></del>		(WEST AVE & JACKSON ST)
	SB5	PUSH BUTTON								6	LOCATION	LS
	SB6	HEAD 10	55				-			<del></del>		
	SB6	HEAD 20	15				-				WEST AVE & JACKSON ST	1
	SB6	PUSH BUTTON								6		
_	SB6	LUMINAIRE							144	<del></del>	PROJECT TOTALS	1
	SB7	HEAD 11	22									
	SB7	HEAD 12	 4 <i>E</i>	23	-	-					DEMOVE CALVACE A	ND DEINGTALL EVE SVETEM
	SB7	HEAD 21	15									ND REINSTALL EVP SYSTEM
	SB7	PUSH BUTTON	 CE		-	-				6	WESTAVE	E & JACKSON ST
_	SB8	HEAD 13	65	67	-	-				<del></del>		SPV.0105.03
	SB8	HEAD 14	 1 <i>E</i>	67						<del></del>		REMOVE, SALVAGE, & REINSTALL
	SB8	HEAD 22	15							<del></del>		EVP SYSTEM
	SB8	PUSH BUTTON								6		(WEST AVE & JACKSON ST)
	SB8	LUMINAIRE				-			144	<del></del>	LOCATION	(WEST AVE & JACKSON ST) LS
	CV1	CB1			-	-		20			LOCATION	Lò
PROJECT TOTALS			485	180	962	325	553	1004	576	48	WEST AVE & JACKSON ST	1
											PROJECT TOTALS	1
												MS CATEGORY 0010 UNLESS NOTED
PROJECT NO: 5120-02-70		HWY: S	STH 33		COUNTY	: LA CROS	SE I	WISCELLANEO	US QUANTIT	IES	<u> </u>	SHEET NO:
		s\030201 mg lackson nnt	00		303,41			TE : 4/28/2021 3:19 PM	PLOT		DLOT NAME : 030201 mg DLOT SCALE	10.122

-3	
J	

			657.0100	657.0425		SPV.0060.02		SPV.0060.04	SPV.0060.05		(INCIDENTAL)	
			PEDESTAL	TRAFFIC SIGNAL	INSTALL	INSTALL	INSTALL	INSTALL	INSTALL	INSTALL	PEDESTRIAN	LUMINA
			BASE	STANDARDS	POLES	POLES	MONOTUBE	MONOTUBE	MONOTUBE	LUMINAIRE	PUSH	UTILI
		SIGNAL		ALUMINUM	TYPE 10	TYPE 10	ARMS	ARMS	ARMS	ARMS STEEL	BUTTONS	LED
		BASE		15-FT		SPECIAL	30-FT	35-FT SPECIAL	40-FT SPECIAL	15-FT		
OCATION	CATEGORY	NO	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EAC
VEST AVE & JACKSON ST	0010	SB1									1	
		SB2				1		1		1	1	1
		SB3	1	1							1	
		SB4				1			1	1	1	1
		SB5									1	
		SB7	1	1							1	
		SB8				1			1	1	1	1
	SUBTOTAL		2	2		2		1	2	3	7	3

3

SIGNAL BASES, POLES, AND MAST ARMS

					SIGNAL	FACES								
		212		658.0173 TRAFFIC SIGNAL FACE	658.0175 TRAFFIC SIGNAL FACE	3-SEC	+ BACKPLATE 5-SEC	+ LED RED BALL	+ LED YELLOW BALL	+ LED GREEN BALL	+ LED YELLOW ARROW	+ LED GREEN ARROW	SIGNAL FACE	++ LED MODULES COUNTDOWN TIMER
	SIG. BASE	SIG.		3S 12-INCH	5S 12-INCH	İ							16-INCH	16-INCH
LOCATION	NO	NO	TYPE OF MOUNT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
WEST AVE & JACKSON ST	SB1	15	PEDESTRIAN										1	1
	SB2	3	MONOTUBE ARM MOUNT VERTICAL	1		1		1	1	1				
	SB2	16	PEDESTRIAN										1	1
	SB3	4	POST MOUNT VERTICAL		1		1	1	1	1	1	1		
	SB3	5	POST MOUNT VERTICAL	1		1		1	1	1				
	SB3	17	PEDESTRIAN										1	1
	SB4	6	MONOTUBE ARM MOUNT VERTICAL	1		1								
	SB4	7	MONOTUBE ARM MOUNT VERTICAL		1		1							
	SB4	18	PEDESTRIAN										1	1
	SB5	19	PEDESTRIAN										1	1
	SB6	10	MONOTUBE ARM MOUNT VERTICAL	1		1								
	SB6	20	PEDESTRIAN										1	1
	SB7	11	POST MOUNT VERTICAL	1		1								
	SB7	12	POST MOUNT VERTICAL	1		1							<del></del>	<del></del>
	SB7	21	PEDESTRIAN	<del></del>		<del></del>							1	1
	SB8	13	MONOTUBE ARM MOUNT VERTICAL	1		1								
	SB8	14	MONOTUBE ARM MOUNT VERTICAL		1		1							
	SB8	22	PEDESTRIAN										1	1
PROJECT TOTALS				7	3	7	3	3	3	3	1	1	8	8

PROJECT NO: 5120-02-70

+ INCIDENTAL TO 658.0173 OR 658.0175

HWY: STH 33

++ INCIDENTAL TO SPV.0105.04

0020 SUBTOTAL

2

2

COUNTY: LA CROSSE

PROJECT TOTALS

MISCELLANEOUS QUANTITIES

2

4

**ALL ITEMS CATEGORY 0010 UNLESS NOTED** 

SHEET NO:

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-7
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#### FIBER OPTIC SPLICING & CABLING

		673.0105	678.0036	SPV.0060.08	678.0300	
		COMMUNICATION	INSTALL FIBER OPTIC	INSTALL FIBER	FIBER OPTIC	
		VAULT	CABLE OUTDOOR	OPTIC SPLICE	SPLICE	
		TYPE 1	PLANT 36-CT	ENCLOSURE		
	LOCATION	EACH	LF	EACH	EACH	
	CV1	1	100	1	4	
,	PROJECT TOTALS	1	100	1	4	

# INSTALL ACCESSIBLE PEDESTRIAN PUSH BUTTON SYSTEM WEST AVE & JACKSON ST

SPV.0105.04
INSTALL ACCESSIBLE PEDESTRIAN
PUSH BUTTON SYSTEM
(WEST AVE & JACKSON ST)

LOCATION LS

WEST AVE & JACKSON ST 1

PROJECT TOTALS 1

## FIBER OPTIC COMMUNICATION EQUIPMENT

		678.0600	SPV.0105.06	+		+	+	+
			INSTALL	FIBER	OPTIC	ST-ST	CAT-5E	SFP
		INSTALL	FIBER OPTIC	PATCH	PANEL	SINGLE MODE	CABLE	OPTICS
		ETHERNET	COMMUNICATIONS	WITH C	CABLE	FIBER JUMPER	5-FEET	1 GBPS
		SWITCHES	IN CABINET	PIG	ΓAIL	4-FEET		LX
			(WEST AVE & JACKSON ST)	8-0	CT			
LOCATION	CATEGORY	' EACH	LS	EACH	LF	EACH	EACH	EACH
								_
CB1	0010	1	1	1	100	2	3	1
	SUBTOTAL	1	1	1	100	2	3	1
CB1 (WEST AVE & MAIN ST)	0020	1						2
LA CROSSE CITY HALL		1						1
	SUBTOTAL	2						3
PROJECT TOTALS		3	1	1	100	2	3	4

## REMOVE, SALVAGE, AND REINSTALL TRAFFIC SIGNAL INTERCONNECT

SPV.0105.05
REMOVE, SALVAGE, & REINSTALL
TRAFFIC SIGNAL INTERCONNECT

LOCATION
LS

WEST AVE & JACKSON ST
1

PROJECT TOTALS
1

+ INCIDENTAL TO ITEM SPV.0105.06

		SAWING P	AVEMENT	
			690.0150	690.0250
			SAWING	SAWING
			ASPHALT	CONCRET
STATION	ТО	STATION	LF	LF
202+15	-	210+42	36	1,839
PROJE	CT T	OTALS	36	1,839

		SU	MMARY OF CITY FURNISHED MATERIALS	
(	QUANTITY	UNIT	DESCRIPTION	
	1	EACH	POLES TYPE 10	<del></del>
	3	EACH	POLES TYPE 10 SPECIAL	
	1	EACH	MONOTUBE ARMS 30-FT	
	1	EACH	MONOTUBE ARMS 35-FT SPECIAL	
	2	EACH	MONOTUBE ARMS 40-FT SPECIAL	
	4	EACH	LUMINAIRE ARMS STEEL 15-FT	
	1	EACH	TRAFFIC SIGNAL CABINET	
	1	EACH	TRAFFIC SIGNAL CONTROLLER	
	1	EACH	FIBER OPTIC PATCH PANEL WITH CABLE PIGTAIL 8-CT	
	1	EACH	FIBER OPTIC SPLICE ENCLOSURE	
	3	EACH	ETHERNET SWITCH	
	4	EACH	SFP OPTICS LX	
	1	LS	ACCESSIBLE PEDESTRIAL SIGNAL SYSTEM	ALL ITEMS CATEGORY 0010 UNLESS NOTED

SHEET NO:

HWY: STH 33

**COUNTY: LA CROSSE** 

MISCELLANEOUS QUANTITIES

PLOT BY :

PLOT NAME : 030201\_mq

PLOT SCALE: 1.000000:1.000000

WISDOT / CADDS SHEET 42

PROJECT NO: 5120-02-70

1"=300'

TOTAL NET LENGTH OF REFERENCE LINE = 0.520 MI

(Signature)

CITY OF LACROSSE

APPROVED FOR THE CITY OF LACROSSE

DATE: 10/15/2020

REVISION DATE: 10/7/2020 (2)

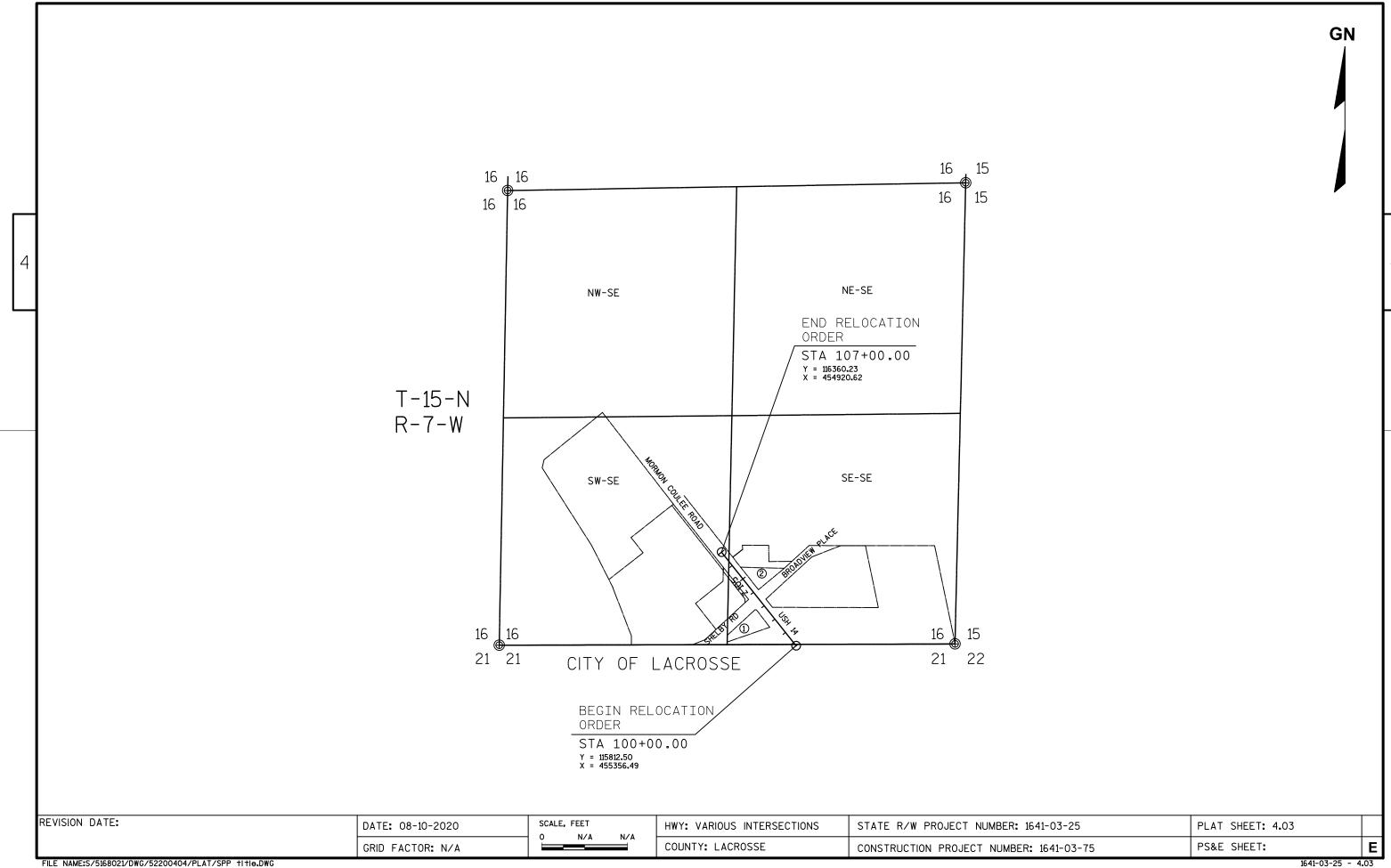
# SCHEDULE OF LANDS & INTERESTS REQUIRED

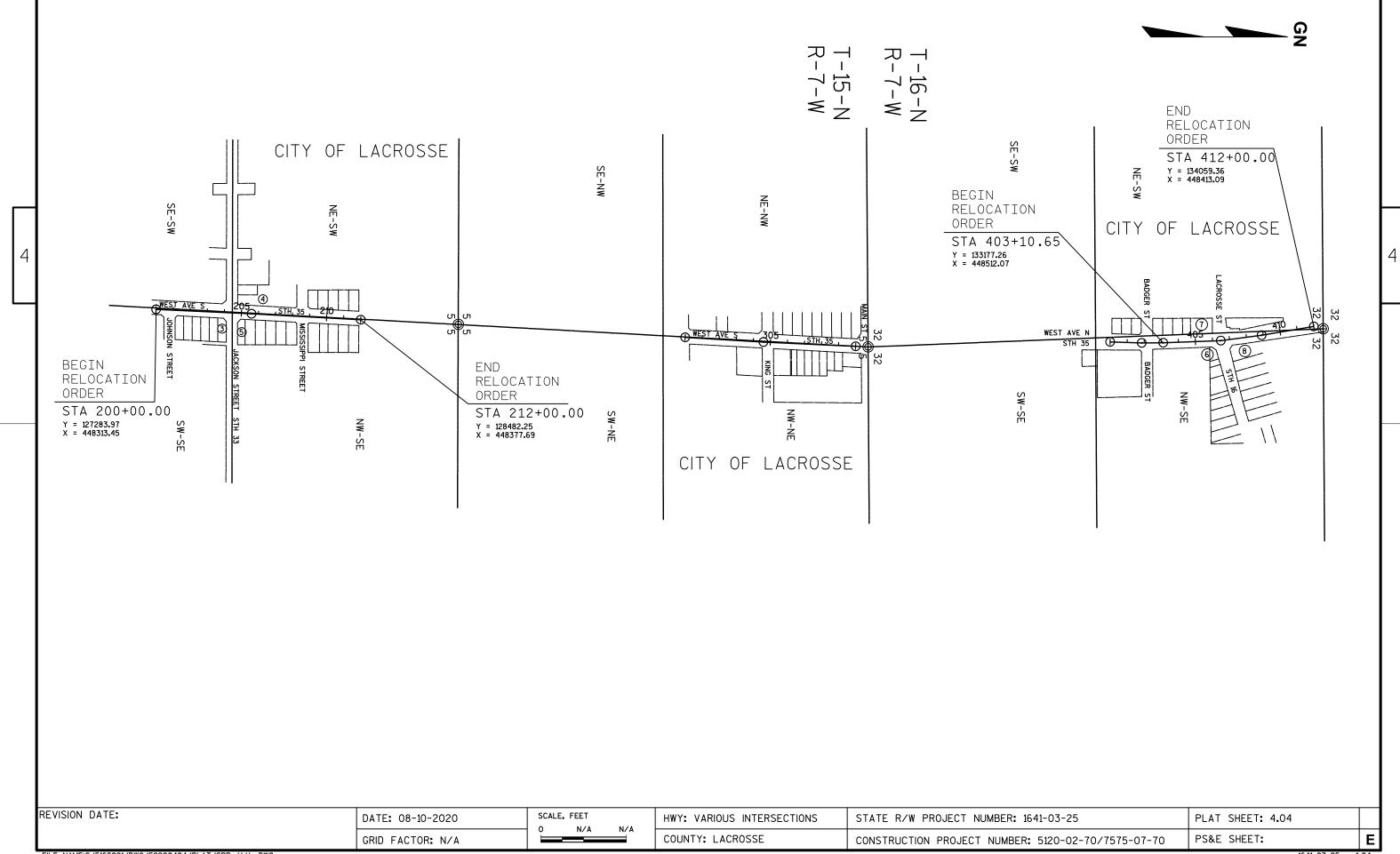
AREAS SHOWN IN THE TOTAL ACRES COLUMN MAY BE APPROXIMATE AND ARE DERIVED FROM TAX ROLLS OR OTHER AVAILABLE SOURCES AND MAY NOT INCLUDE LANDS OF THE OWNER WHICH ARE NOT CONTIGUOUS TO THE AREA TO BE ACQUIRED.

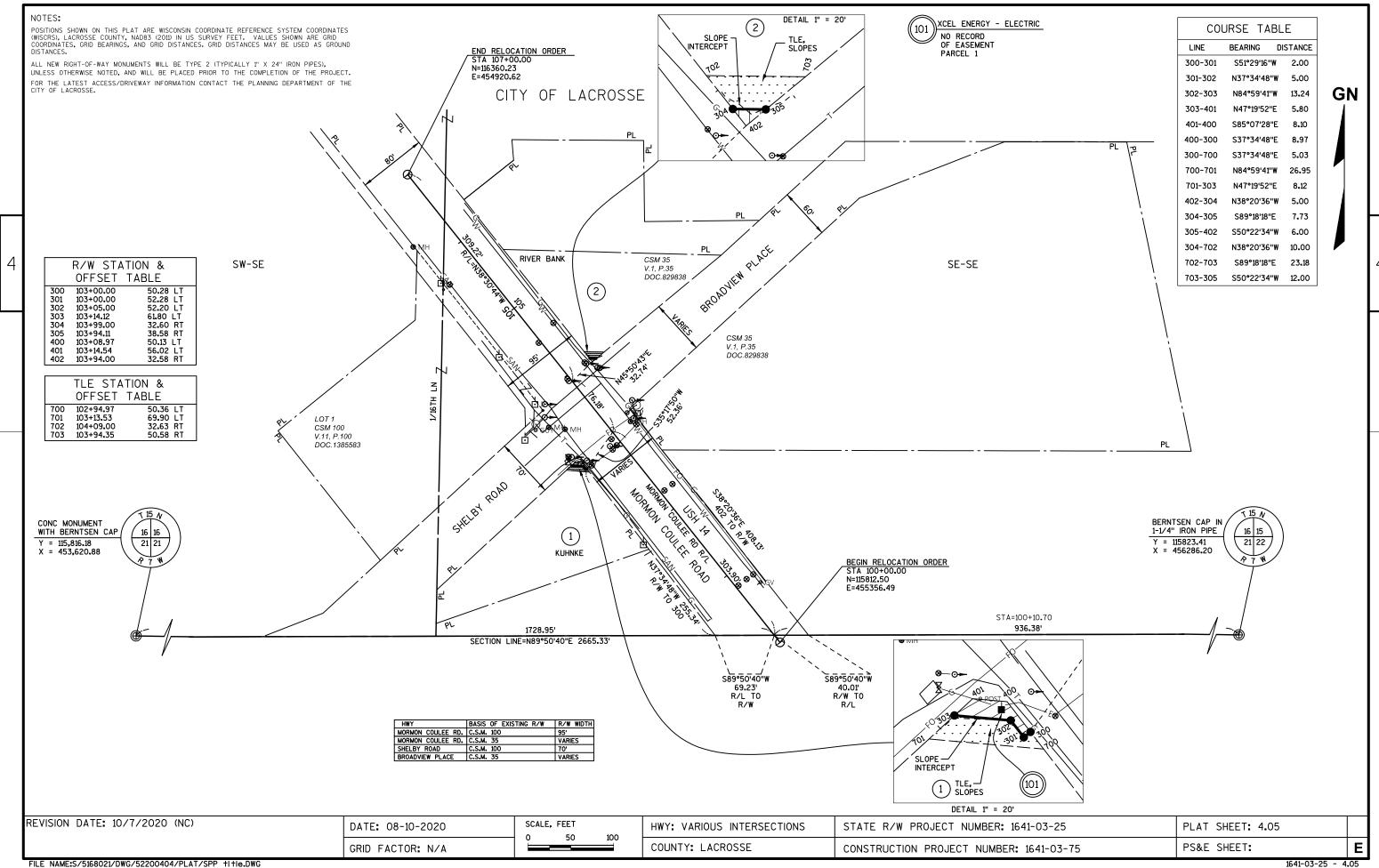
OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND AND INTERESTS TO THE CITY OF LACROSSE.

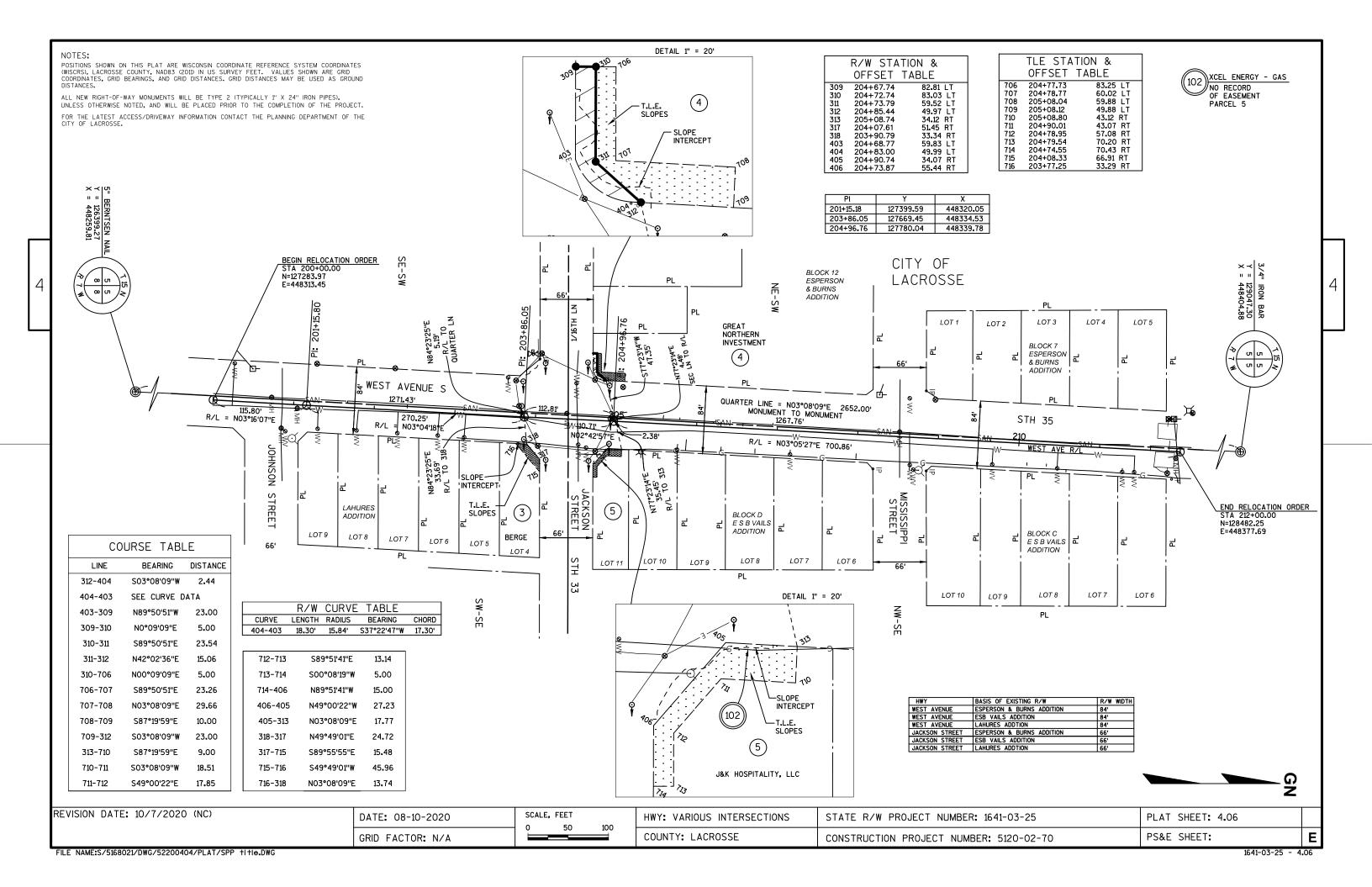
					R/	W REQUIRED	ACRES	TOTAL			
PARCEL NUMBER	SHEET NUMBER	OWNER(S)	INTEREST REQUIRED	TOTAL ACRES	NEW	EXISTING	TOTAL	REMAINING ACRES	T.L.E. ACRES	P.L.E. ACRES	PARCEL NUMBER
1 2 3 4 5	4.05 4.05 4.06 4.06 4.06	CRYSTAL M. & CHAD KUHNKE RIVER BANK WILLIAM J. BERGE GREAT NORTHERN INVESTMENT OF LACROSSE, INC. J & K HOSPITALITY, LLC	FEE, TLE FEE, TLE TLE FEE, TLE TLE	0.46 1.00 0.32 1.41 0.37	0.001 0.001 - 0.004	- - - - -	0.001 0.001 - 0.004	0.46 1.00 0.32 1.41 0.37	0.003 0.003 0.008 0.009 0.008	- - - -	1 2 3 4 5
6 7 8	4.07 4.07 4.07	KT REAL ESTATE HOLDINGS, LLC. ROTTINGHAUS REAL ESTATE, LLC. MARY LOU PETERSON	TLE FEE, TLE FEE, TLE	0.08 0.26 0.34	0.004 0.005	- - -	0.004 0.005	0.08 0.26 0.34	0.005 0.007 0.007	- - -	6 7 8
101 102	4.05 4.06 & 4.07	XCEL ELECTRIC XCEL GAS	RELEASE OF RIGHTS RELEASE OF RIGHTS								

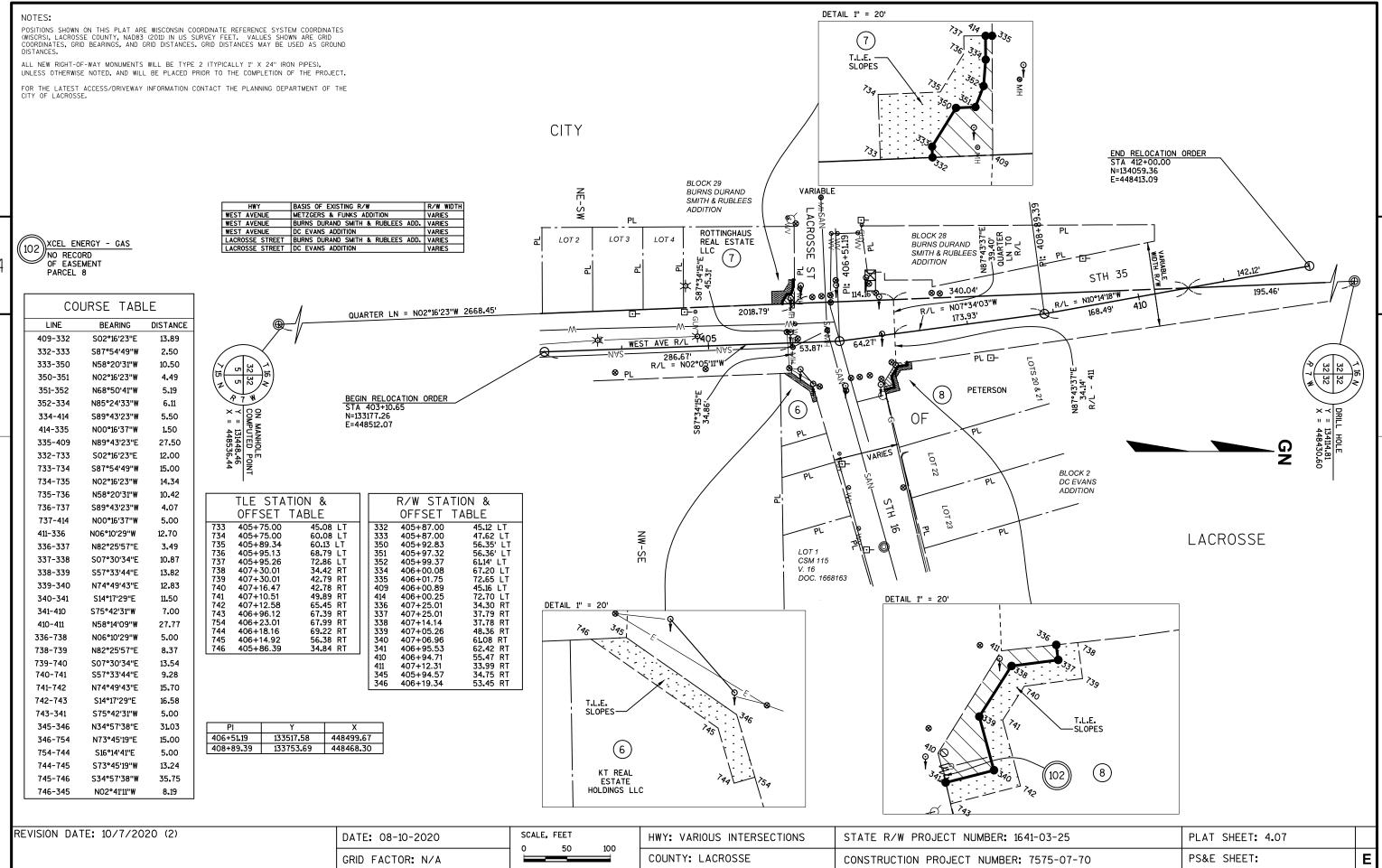
REVISION DATE:	DATE: 08-10-2020	SCALE, FEET	HWY: VARIOUS INTERSECTIONS	STATE R/W PROJECT NUMBER: 1641-03-25	PLAT SHEET: 4.02	
	GRID FACTOR: N/A	0 N/A N/A	COUNTY: LACROSSE	CONSTRUCTION PROJECT NUMBER: 1641-03-75/5120-02-70/7575-07-70	PS&E SHEET:	





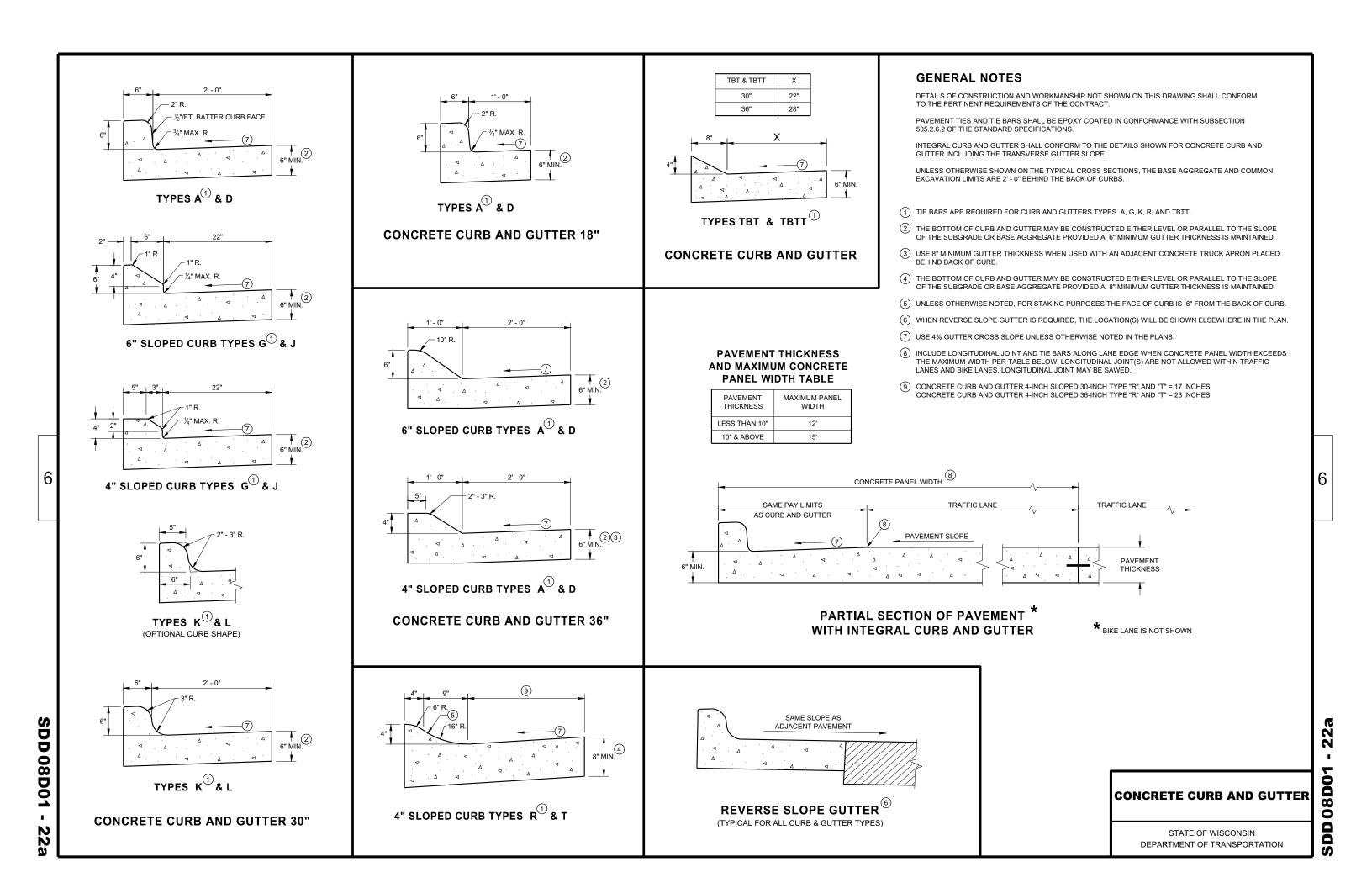






## Standard Detail Drawing List

08D01-22A	CONCRETE CURB & GUTTER
08D01-22B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D05-20A	CURB RAMPS TYPES 1 AND 1-A
08D05-20B	CURB RAMPS TYPES 2 AND 3
08D05-20C	CURB RAMPS TYPES 4A AND 4A1
08D05-20D	CURB RAMPS TYPE 4B AND 4B1
08D05-20E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-20F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-20G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08E10-02	INLET PROTECTION TYPE A, B, C AND D
09B02-10	CONDUIT
09C02-09	CONCRETE BASES, TYPES 1, 2, 5, & 6
09003-04	TRANSFORMER/PEDESTAL BASES
09C03-04 09C11-10	CONCRETE BASE TYPE 10
09015-01	CONCRETE BASE TYPE 10 SPECIAL
09D02-03	SIGNAL CONTROL CABINET
09E01-15G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E03-06	NON-FREEWAY LIGHTING UNIT POLE WIRING
09E06-05	TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.
09E07-06	TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS
09E08-09E	TYPE 10 POLE 15' -30' MONOTUBE ARM
09E08-09F	TYPE 10 SPECIAL POLE 35' MONOTUBE ARM
09E08-09G	TYPE 10 SPECIAL POLE 40' MONOTUBE ARM
09E08-09K	GENERAL NOTES, HARDWARE DETAILS FOR TYPE 9/10, 9/10 SPECIAL, 12 & 13 POLES W/MONOTUBE ARMS
09G01-04A	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04B	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04C	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04D	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04E	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04F	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04G	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
11B02-02	CONCRETE MEDI AN NOSE
13011-19	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C13-09	URBAN DOWELED CONCRETE PAVEMENT
13C18-07A	CONCRETE PAVEMENT JOINTING
13C18-07C	CONCRETE PAVEMENT JOINT TYPES
13C18-07D	CONCRETE PAVEMENT JOINT TYPES AT UTILITY FIXTURES
15C02-08F	ADVANCED WIDTH RESTRICTION SIGNING
15C03-05	BARRI CADES AND SIGNS FOR SIDEROAD CLOSURES
15C07-15B	PAVEMENT MARKING WORDS
15C07-15C	PAVEMENT MARKING ARROWS
15C08-20C	PAVEMENT MARKING (TURN LANES)
15C11-08B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C33-04	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D20-05A	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D21-07A	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D21-07B	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D30-06A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-06B	TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION
15D30-06C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS



**END SECTIONCURB AND GUTTER** 

## **DETAIL OF CURB AND GUTTER AT INLETS**

(TYPICAL H INLET COVER SHOWN)

6"

2" R.

(ABOVE ADJACENT PAVEMENT)

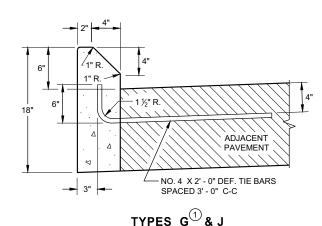
4"

ADJACENT PAVEMENT

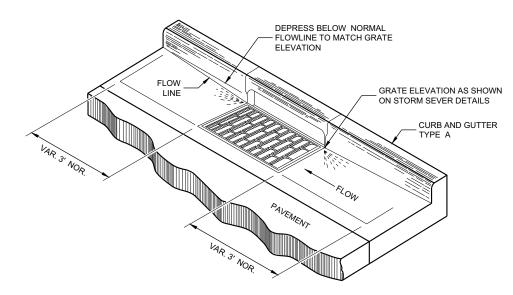
NO. 4 X 2' - 0" DEF. TIE BARS

SPACED 3' - 0" C.C.

TYPES A D



**CONCRETE CURB** 



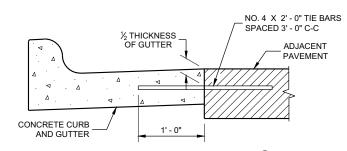
## GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

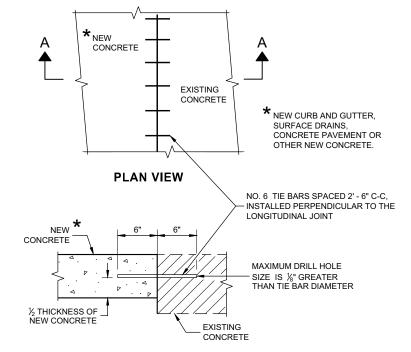
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2'- 0" BEHIND THE BACK OF CURBS.

- 1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- (2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- 9 REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.

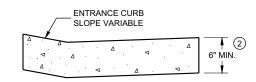


TYPICAL TIE BAR LOCATION  $^{\scriptsize \textcircled{1}}$ 



SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT



DRIVEWAY ENTRANCE CURB (WHEN DIRECTED BY THE ENGINEER)

## CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

 APPROVED

 February 2021
 /S/ Rodnery Taylor

 DATE
 ROADWAY STANDARDS DEVELOPMENT ENGINEER

N

**08DO** 

**VIEW D - D FOR TYPE 1 - A** 

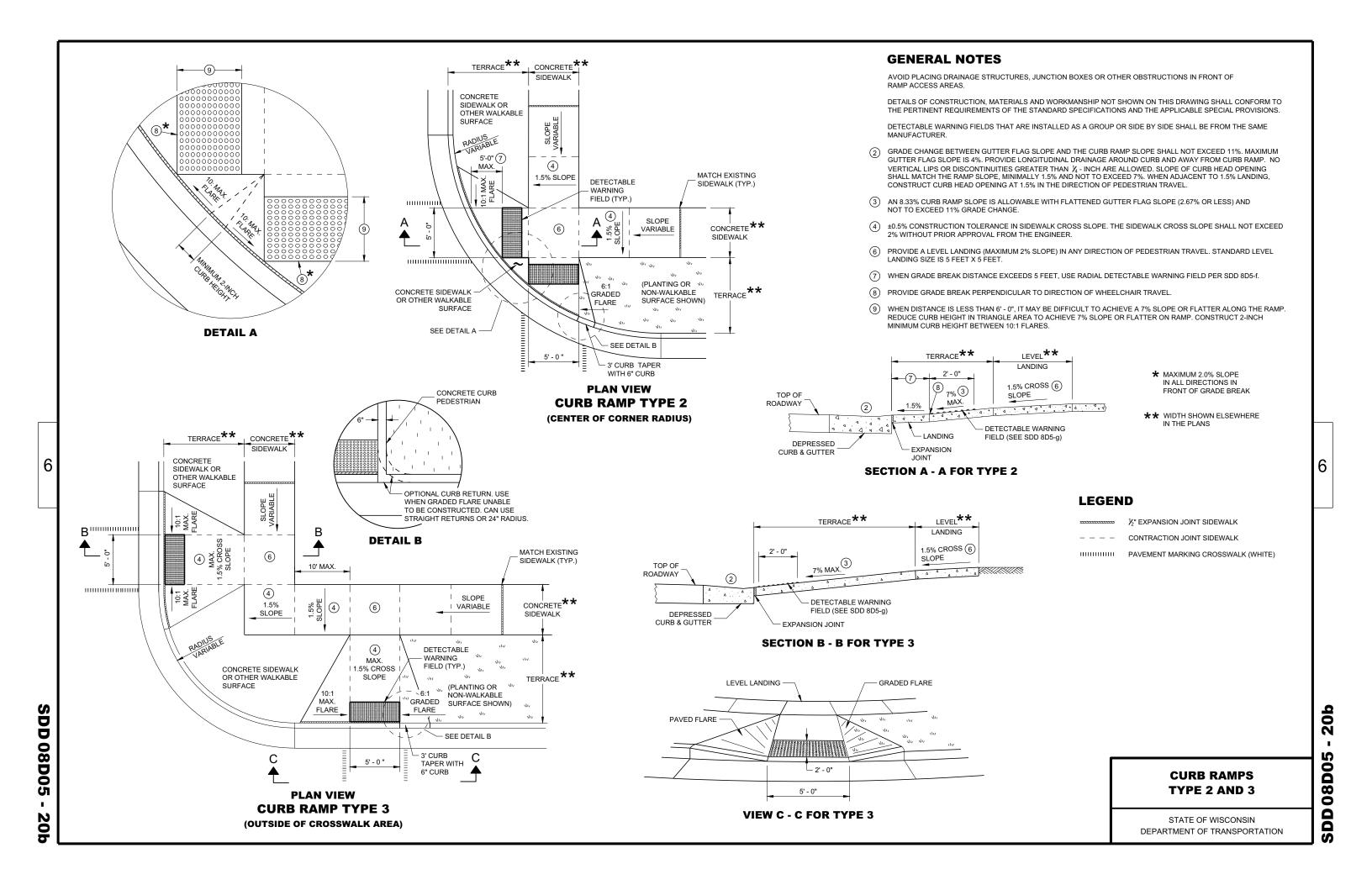
**SECTION B - B FOR TYPE 1** 

S

**080** 

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION



AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

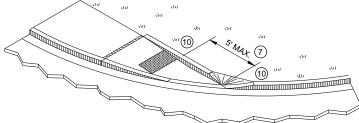
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

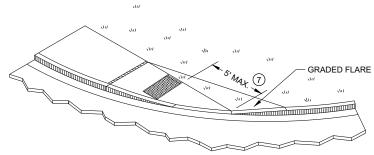
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN  $\frac{1}{4}$  - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE
- (3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- (4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT
- (6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING
- (7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- (8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- (10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

½" EXPANSION JOINT SIDEWALK CONTRACTION JOINT SIDEWALK

PAVEMENT MARKING CROSSWALK (WHITE)



**ISOMETRIC VIEW FOR TYPE 4A** 

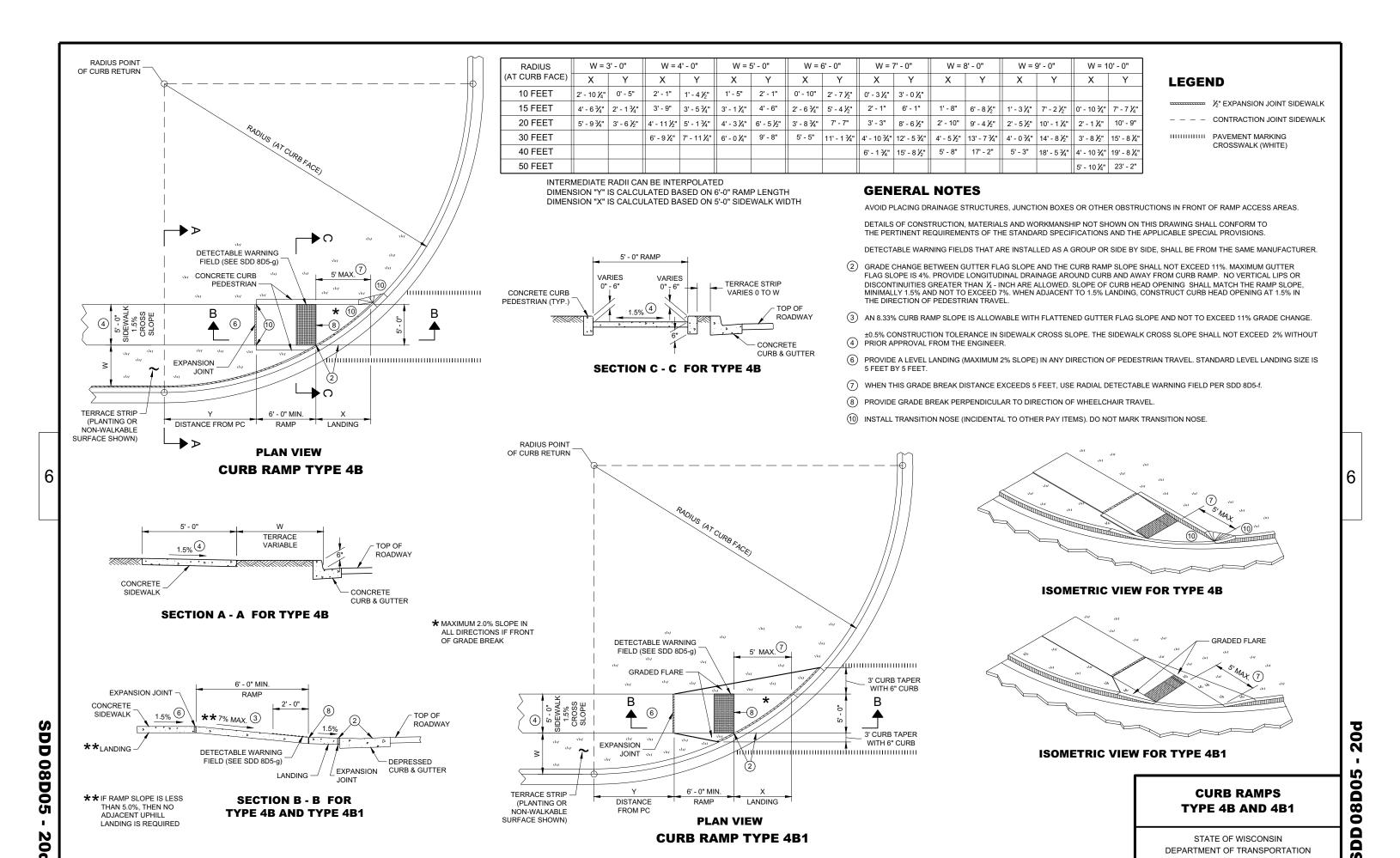


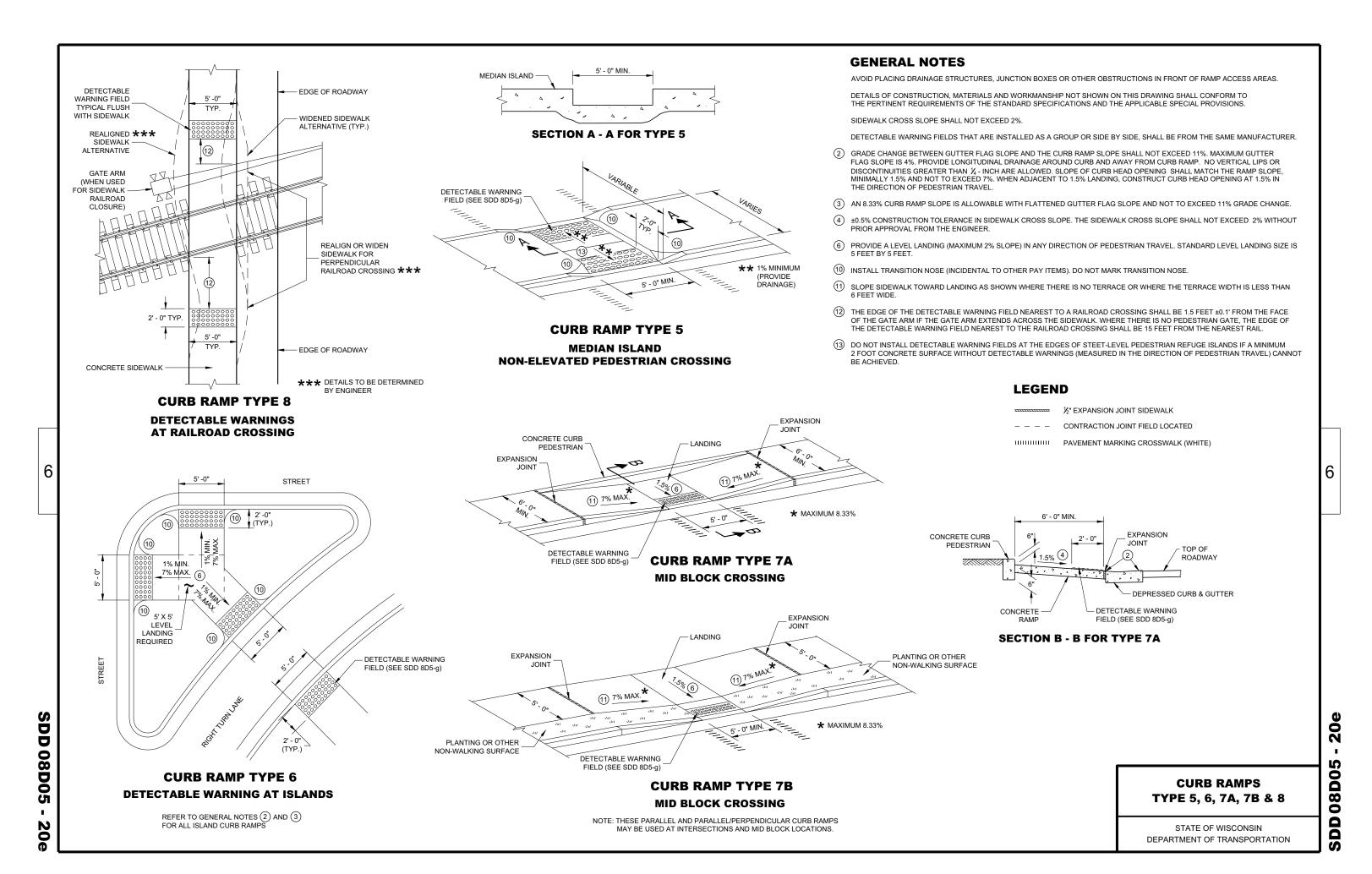
**ISOMETRIC VIEW FOR TYPE 4A1** 

**CURB RAMPS TYPE 4A AND 4A1** 

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

08D0 SDD





6

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08D05

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RADIAL DETECTABLE WARNING

IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO

LANDING IS REQUIRED

ADJACENT UPHILL

FIELD (SEE SDD 8D5-a)

**SECTION B - B FOR TYPE 4B1** 

**DEPRESSED CURB & GUTTER** 

\*\*\* MAXIMUM 8.33%

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RADIAL DETECTABLE WARNING **FIELD APPLICATIONS** 

> STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

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**PLAN VIEW** 

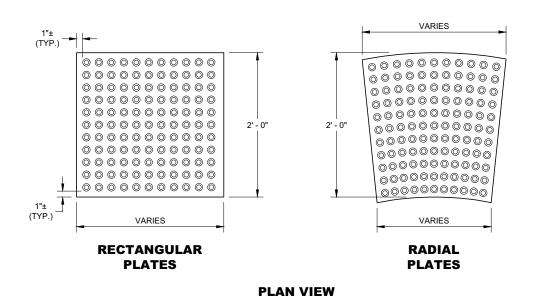
MIN. MAX. 1.6" 2.4" В 0.65" 1.5" С \* 0.9" 1.4"

★ THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.

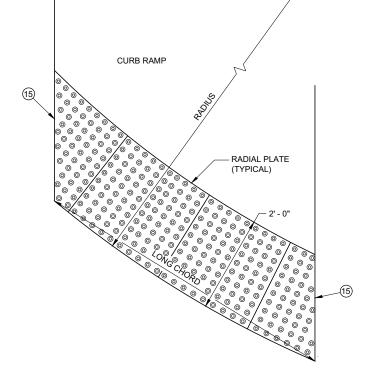


**ELEVATION VIEW** 

### **TRUNCATED DOMES DETECTABLE WARNING PATTERN DETAIL**



**DETECTABLE WARNING FIELDS (TYPICAL)** 



**GENERAL NOTES** 

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AT A CURB RAMP SHALL BE FROM THE SAME MANUFACTURER. PLACE ALL DETECTABLE WARNING FIELD SYSTEMS IN ACCORDANCE TO THE MANUFACTURER'S RECOMMENDATION.

DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

DO NOT EMBED IN CONCRETE ANY FIELD-CUT PLATES WITH CUT EDGES SHORTER THAN 6 INCHES. CONSULT WITH MANUFACTURER

(fs) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING

THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN 1/8" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

FOR RADIAL DETECTABLE WARNING FIELD APPLICATIONS WHERE STANDARD RADIAL PLATES ARE NOT AVAILABLE AT AN INTERSECTION CURB RADIUS, A COMBINATION OF SQUARE OR RECTANGULAR PLATES AND RADIAL PLATES MAY BE USED TO FORM RADIAL CONFIGURATION. RADIAL WEDGE PLATES IN COMBINATION WITH SQUARE PLATES ARE ALSO ACCEPTABLE. FOLLOW MANUFACTURER'S

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FILED ARE PROHIBITED.

REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

FOR RE-DRILLING AND ANCHORING REQUIREMENTS OF FIELD-CUT PLATES.

**PLAN VIEW RADIAL DETECTABLE WARNING FIELD ATTRIBUTES** 

RECTANGULAR PLATE  $\bigcirc$ 0  $\bigcirc$ RECTANGULAR PLATE  $\bigcirc$  $\bigcirc$ (TYPICAL) 0

**PLAN VIEW RADIAL WEDGE PLATE CONNECTION DETAIL** 

## **CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES**

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

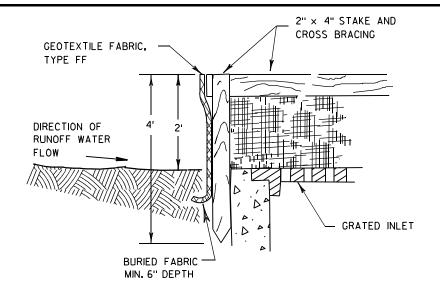
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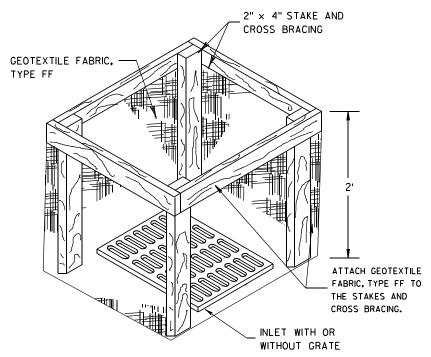
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR May 2019
DATE

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#### INLET PROTECTION, TYPE A

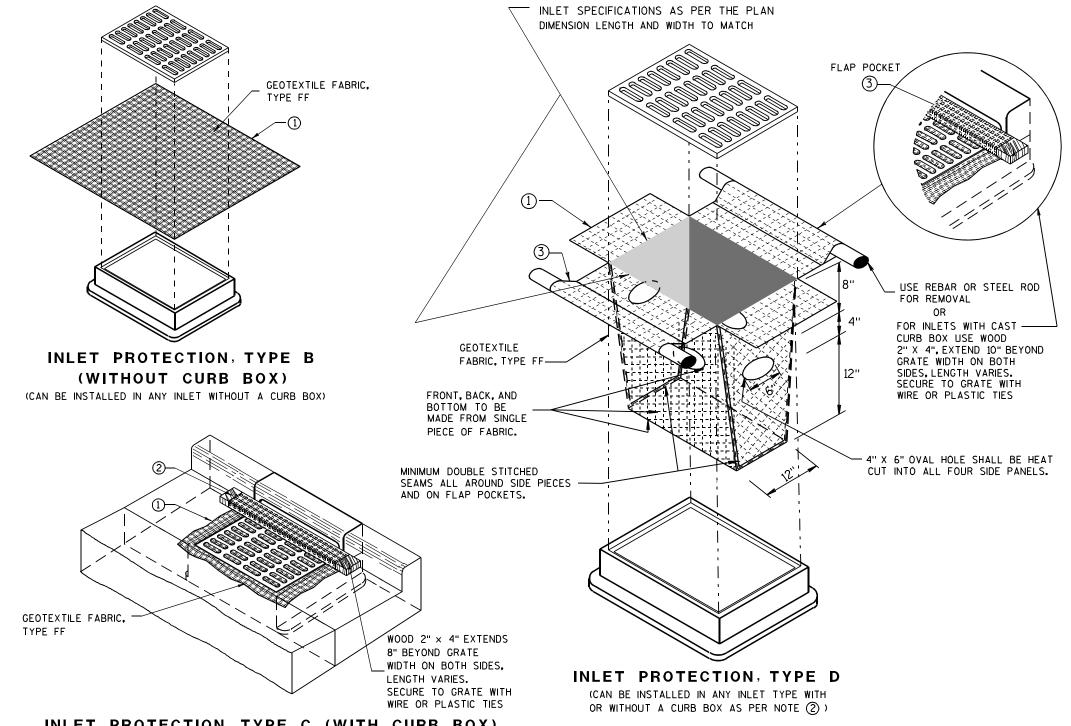
#### **GENERAL NOTES**

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- 1) FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
- (2) FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
- (3) FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.



### INLET PROTECTION, TYPE C (WITH CURB BOX)

#### **INSTALLATION NOTES**

#### TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

#### TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE, THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

#### INLET PROTECTION TYPE A, B, C, AND D

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STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

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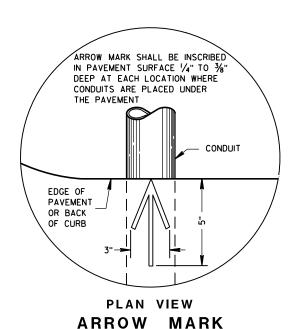
/S/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER

10/16/02

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## ARROW MARK INSCRIBED IN PAVEMENT SURFACE OVER € OF CONDUIT (BOTH ENDS) — 2'-0"*—*∕ NORMAL PAVEMENT EDGE OF THICKNESS **PAVEMENT** PAVEMENT OR BACK OF CURB BASE COURSE BACKFILL SLOPE 1/8"/FT. EITHER DIRECTION \*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES - CONDUIT, PITCH TO DRAIN WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

## SIDE ELEVATION DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

#### **GENERAL NOTES**

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON NONMETALLIC CONDUIT. (SEE NEC 347.5)

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY U.L.LISTED ADAPTER FITTINGS SHALL BE USED.

PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REIN-STALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

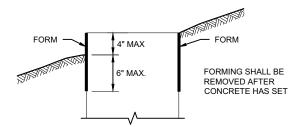
TRACER WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.

CONDUIT

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED	
March, 2017	/S/ Ahmet Demirbilek
DATE	STATE ELECTRICAL ENGINEER



<b>FORMING</b>	<b>DETAIL</b>

	QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
		1	2	5 & 6
	APPROX. CUBIC YARDS OF CONCRETE	0.40	0.57	0.40
	LBS. OF HOOP BAR STEEL	NONE	23	16
	LBS. OF VERTICAL BAR STEEL	NONE	60	18

1" CONDUIT

**PURPOSES** 

CONDUIT WITHIN

6" DIA.

FOR GROUNDING

#### **GENERAL NOTES**

CONDUIT

11 1/2" BOLT CIRCLE

(OUT TO OUT)

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWINGSHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN A THE ENTRANCE OF THE BASE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FRO FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6X THE DIAMETER.

1" CONDUIT

**PURPOSES** 

6" DIA.

ANCHOR RODS SHALL BE

ORIENTED PARALLEL TO

THE ROADWAY

CONDUIT

11 1/2" BOLT CIRCLE

FOR GROUNDING

CONDUIT WITHIN

CONDUIT

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED

L 2"

**TYPE 5 & 6** 

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION.

WHEN REQUIRED TO CONNECT NON-METALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 2, TYPE 5 AND TYPE 6 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER ALL BASE TYPES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 OF THE STANDARD SPECIFICATIONS.

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4 INCH"L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND SHALL NOT BE THREADED.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

- THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL OF THE ENGINEER.
- (2) (4) 1" DIA. X 3' 6" ANCHOR RODS.
- (3) (4) 1" DIA. X 5' 0" ANCHOR RODS.
- (6) NO. 6 X 6' 8" BAR STEEL REINFORCEMENT.
- (7) NO. 4 X 5' 1" BAR STEEL REINFORCEMENT @ 1' 0" C C.
- (4) 1" DIA. X 3' 6" ANCHOR RODS.
- (6) NO. 4 X 4' 8" BAR STEEL REINFORCEMENT.
- (8) (5) NO. 4  $\times$  5' 1" BAR STELL REINFORCEMENT @ 1' 0" C -C.
- EXOTHERMIC CONNECTION TO EUIPMENT GROUNDING CONDUCTOR
- (10) 5/8" DIA. X 8'-0" COPPERCLAD EQUIPMENT GROUNDING ELECTRODE REQUIRED
- ANY ANCHOR ROD PROJECTION SHORTER THAN 2 3/4" OR LONGER THAN 3 1/4" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.
- 12) FOR NON BREAKAWAY INSTALLATIONS, 4 ½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS, RODENT SCREEN REQUIRED.

## **CONCRETE BASES TYPES 1, 2, 5, & 6**

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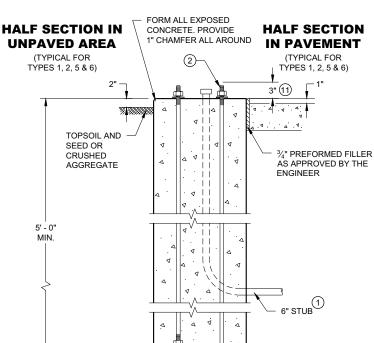
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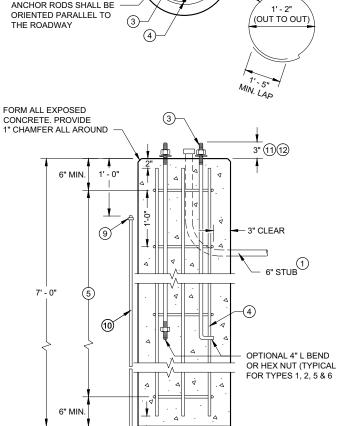
APPROVED May 2019 DATE STATE ELECTRICAL ENGINEER

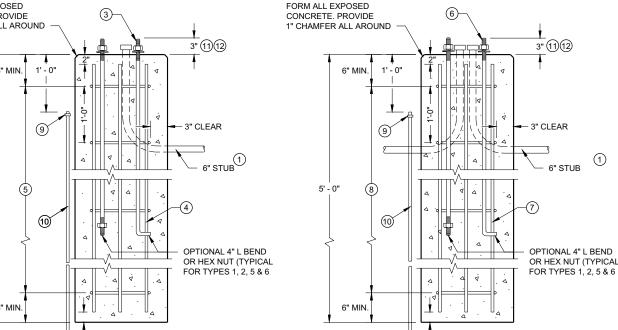
CONDUIT CONDUIT WITHIN 12 3/4" BOLT CIRCLE 6" DIA ANCHOR RODS SHALL BE ORIENTED PARALLEL TO THE ROADWAY



TYPE 1

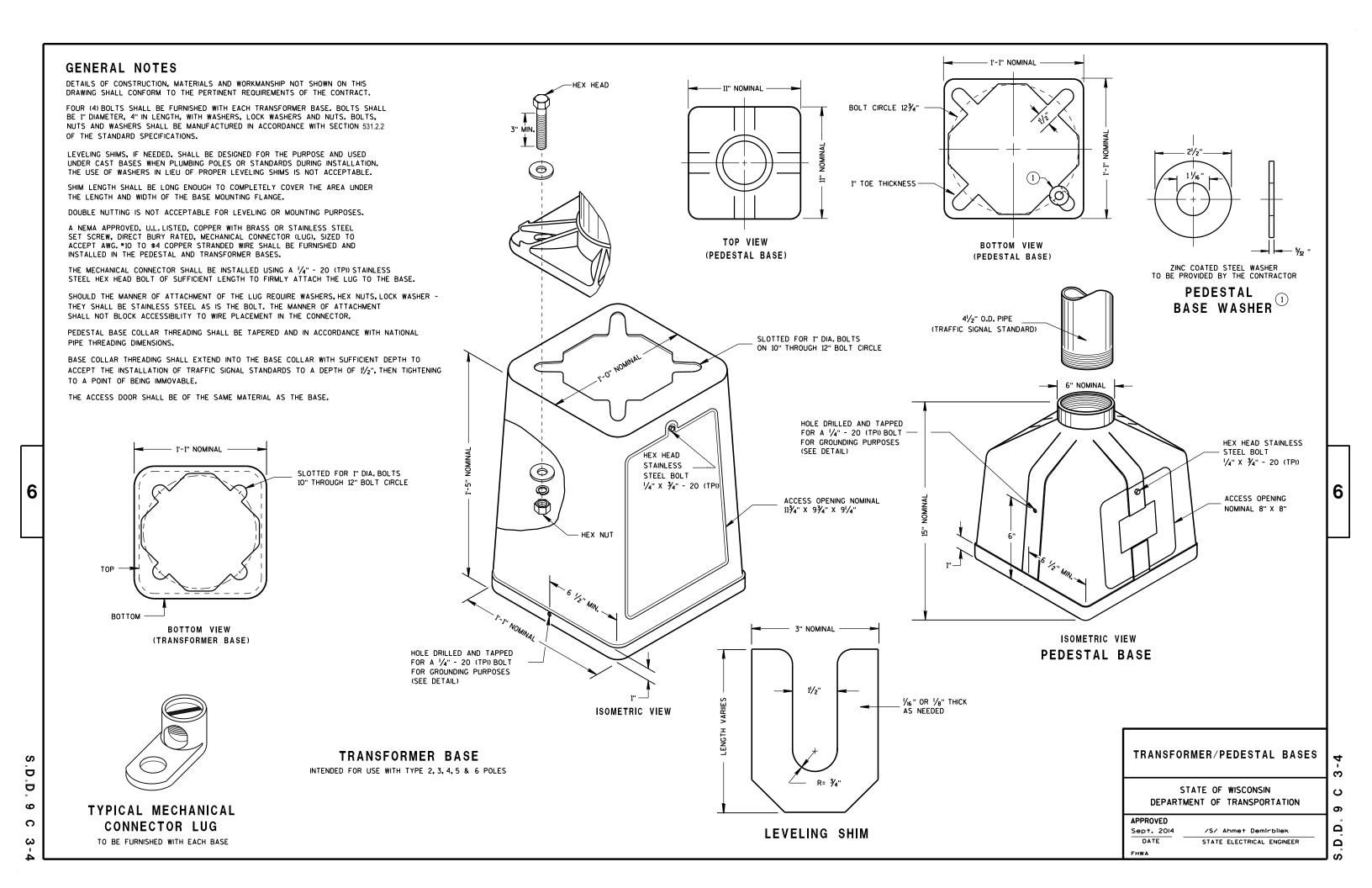






**CONCRETE BASES** 

TYPE 2



BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED AND

CONDUIT SIZES AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN AT THE ENTRANCE OF THE BASE.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 4 INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NONMETALLIC CONDUIT SHALL HAVE BELL END INSTALLED. ALL CONDUIT SHALL BE SLOPED TO PULL BOX.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUIT IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE. SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL. THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG. STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

THE EQUIPMENT GROUNDING CONDUCTOR SHALL ENTER THE BASE THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TEMPLATES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

- 1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES, (GREATER THAN 36 INCHES IF INSTALLED IN BREAKER-RUN), EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.
- (2) (6) NO. 6 X 13'-7" BAR STEEL REINFORCEMENT.

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(3) (21) NO.5 X 7'-10" BAR STEEL REINFORCEMENT @ 8" MAX. C-C.

CONCRETE MASONRY	_ fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	_ fy=60,000 p.s.i.
ANCHOR RODS, ASTM F1554 GRADE 55 (IN ACCORDANCE	
WITH SECTION 531.2.2 OF THE STANDARD SPECIFICATION)	fy=55,000 p.s.i.
TEMPLATES, ASTM, A709 GRADE 36	fy=36,000 p.s.i.

2'-6" 1" CONDUIT FOR **ANCHOR** GROUNDING PURPOSES ROD -15" ANCHOR ROD CIRCLE CONDUIT 2'-0" (OUT TO OUT) € FOOTING CONDUIT WITHIN 6" DIA. OF CENTER PARALLEL TO ROADWAY OF BASE (2) DIRECTION OF ARM TOP TEMPLATE REMOVED AFTER ANCHOR CONCRETE SET ROD FORM ALL EXPOSED CONCRETE. PROVIDE 1" CHAMFER ALL AROUND 1'-0" MAX. -3" CLEAR EXOTHERMIC WELD TO EQUIPMENT GROUNDING CONDUCTOR 14'-0" ANCHOR CONDUIT **ASSEMBLY** 3" PVC BOTTOM TEMPLATE LEFT IN PLACE %" DIA. X 8'-0" COPPERCLAD EQUIPMENT GROUNDING ELECTRODE REQUIRED 3"

## **CONCRETE BASE TYPE 10** (FOR TYPE 9 & 10 & OVER HEIGHT (OH) POLES)

TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE S.D.D. 9C13-2 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.

DIRECTION TOP AND BOTTOM TEMPLATES TOP TEMPLATE REMOVED AFTER CONCRETE SET TOP OF CONCRETE THREAD TOP 10" OF ANCHOR ROD FOR 3 NUTS AND 2 WASHERS AND BOTTOM 51/2" FOR 2 NUTS PER ANCHOR ROD. HOT-DIP GALVANIZE THE ENTIRE LENGTH OF THE ANCHOR RODS (ASTM A123) AND HOT-DIP NUTS AND WASHERS (ASTM A153). USE ZINC COATED NUTS MANUFACTURED WITH (6) - 11/2" X 52" SUFFICIENT ALLOWANCE TO ALLOW NUTS ANCHOR RODS TO RUN FREELY ON THE THREADS. BOTTOM TEMPLATE LEFT IN PLACE THREAD BOTTOM OF ANCHOR ROD 51/2" ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 10

**ANCHOR ASSEMBLY** 

NO MORE THAN 4" BELOW

GRADE ON THE LOWER

SIDE OF BASE

4" MAX.

ANCHOR ROD CIRCLE

DIAMETER = 15"

€ FOOTING

ROADWAY

PARALLEL TO-

11/2" ANCHOR RODS

#### **OUANTITY REQUIREMENTS** APPROX. CUBIC 2.5 YARDS OF CONCRETE LBS. OF HOOP 172 BAR STEEL LBS. OF VERTICAL 122

BAR STEEL

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

TROWEL FINISH

AND LEVEL TOP

FORMING SHALL BE REMOVED AFTER

CONCRETE HAS SET

OF CONCRETE

2" MAX.-

- FORM

4" MAX.

FORMING DETAIL

1/2" THICK TEMPLATES

**APPROVED** May 2017 /S/ Ahmet Demirbilek STATE ELECTRICAL ENGINEER FHWA

**CONCRETE BASE TYPE 10** 

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THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.

BASES (SHAFT) SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING. A STEEL CASING OR CORRUGATED METAL PIPE IS ALLOWED TO REMAIN. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BASE IN LAYERS OF ONE FOOT OR LESS.

TOP SURFACE OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

ANY DAMAGE TO THE CONCRETE BASE AND ANCHOR RODS DURING CONSTRUCTION OPERATIONS SHALL BE REPAIRED AT THE ENGINEER'S DIRECTION, AT THE EXPENSE OF THE CONTRACTOR.

THE REINFORCEMENT AND ANCHOR RODS SHALL BE ADEQUATELY SUPPORTED IN THE PROPER POSITIONS SO NO MOVEMENT OCCURS DURING CONCRETE PLACEMENT.

ORIENT ANCHOR RODS IN FOOTING AND PROVIDE ANCHOR RODS STICK OUT ABOVE TOP OF CONCRETE FOOTING BASE PER THIS SHEET.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

WELDING OF ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TEMPLATES SHALL BE USED.

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE

FORM ALL EXPOSED CONCRETE CORNERS WITH 1" CHAMFER ALL AROUND. TOP OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 TIMES THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 4 ½" INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NON-METALLIC CONDUIT SHALL HAVE BELL ENDS INSTALLED. ALL CONDUIT SHALL SLOPE TO PULL BOX.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

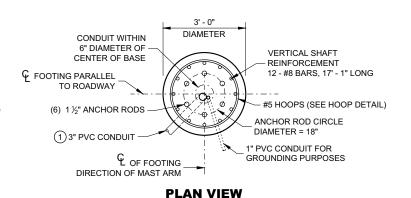
WHEN REQUIRED TO CONNECT NON-METALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

A NO. 4 AWG STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

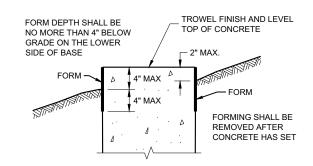
THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN A THE ENTRANCE OF THE BASE.

(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES (GREATER THAN 36 INCHES IF INSTALLED IN BREAKER RUN) EXCEPT WITH WRITTEN APPROVAL OF THE ENGINEER.

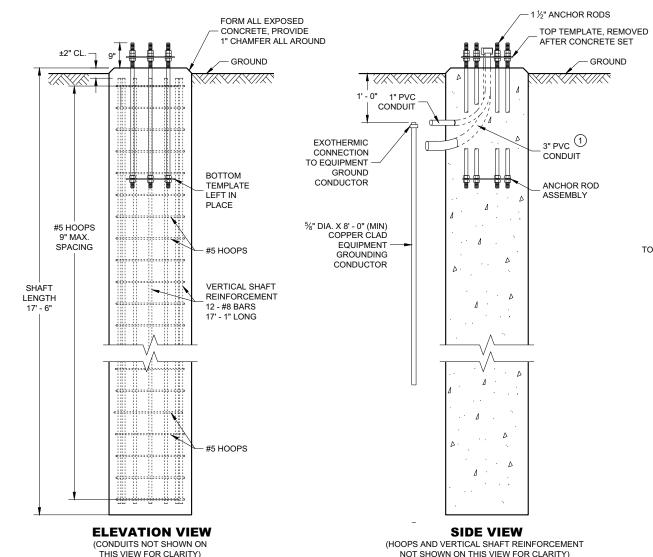


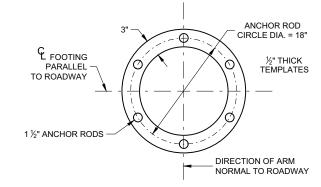




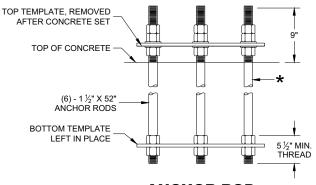
HOOF DETAIL

## FORMING DETAIL





## TOP AND BOTTOM TEMPLATE



# ANCHOR ROD ASSEMBLY DETAILS

★ THREAD TOP 10" OF ANCHOR ROD FOR 3 NUTS AND 2 WASHERS AND BOTTOM 5 ½" FOR 2 NUTS PER ANCHOR ROD. HOT DIP GALVANIZE THE ENTIRE LENGTH OF THE ANCHOR ROD (ASTM A123) AND HOT DIP NUTS AND WASHERS (ASTM A153. USE ZINC COATED NUTS MANUFACTURED WITH SUFFICIENT ALLOWANCE TO ALLOW NUTS TO RUN FREELY ON THE THREADS.

# **CONCRETE BASE, TYPE 10 SPECIAL** (FOR TYPE 9 SPECIAL AND TYPE 10 SPECIAL POLES)

CONCRETE = 4.6 CUBIC YARD H.S. REINFORCEMENT = 779 LBS.

FOR USE WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION.

# CONCRETE BASE TYPE 10 SPECIAL

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

 APPROVED

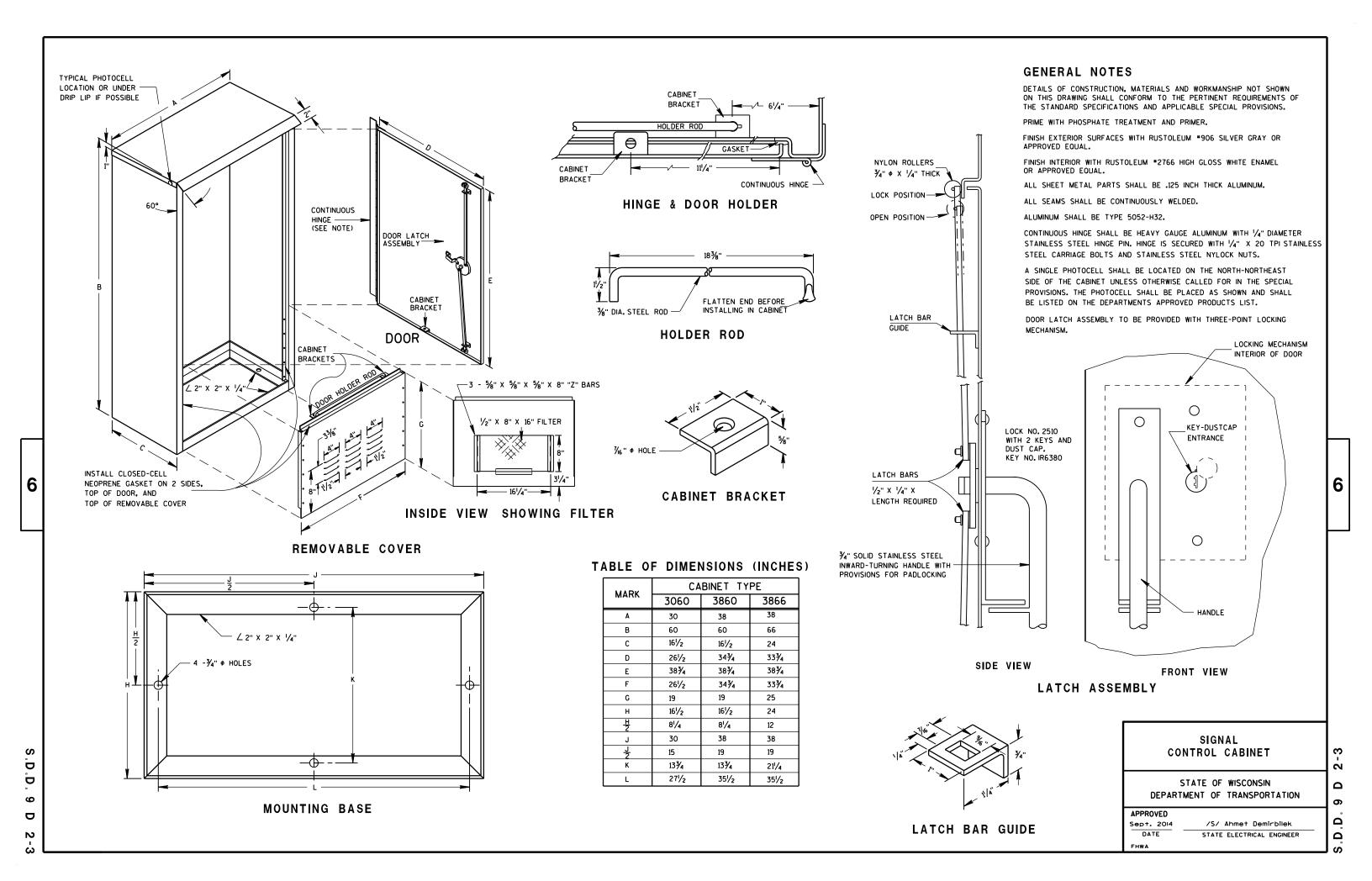
 August 2020
 /S/ Alex Crabtree

 DATE
 WIND LOADED STRUCTURES PROGRAM LEADER

SDD 09C15-01

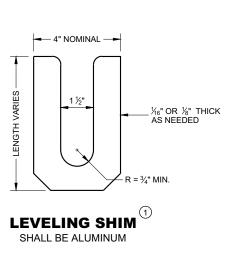
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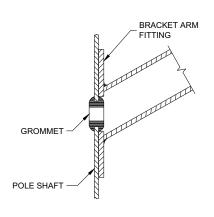
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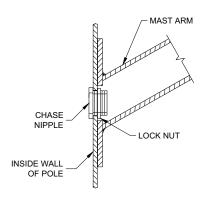
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**TYPICAL APPLICATION OF GROMMET IN POLE SHAFT** 



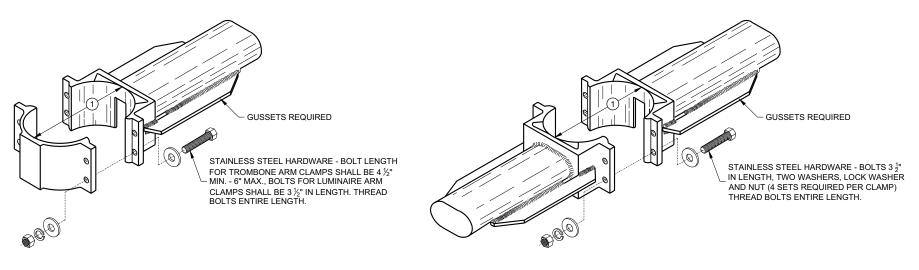
**TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT** 

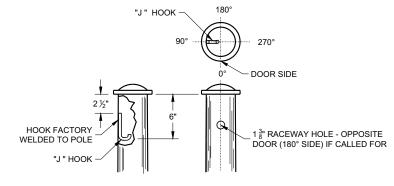
#### **GENERAL NOTES**

CLAMP BOLT-NUT TIGHTENING TORQUE SHALL BE INDICATED BY INDENT STAMPING (1/2 INCH NUMERALS AND LETTERS) OR WEATHERPROOF PRINTING ON THE INSIDE OF THE CLAMP THAT IS WELDED TO THE ARM MEMBER.

- (1) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP. 6.625" I.D. FOR TROMBONE MAST ARM CLAMP.
- (2) INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)
- 3 BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER
- 4 LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE CONCRETE BASE AND A METALLIC

SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.

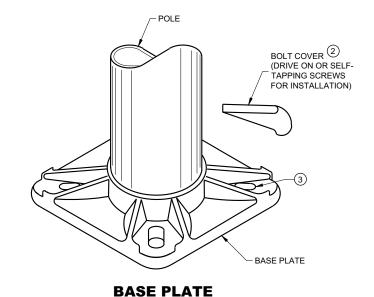


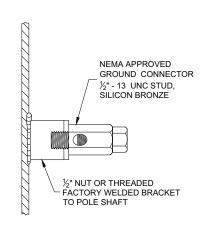


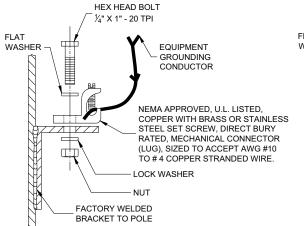
**TYPICAL "J" HOOK LOCATION** 

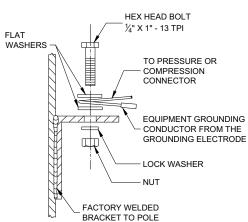
#### TYPICAL TROMBONE MAST ARM AND SINGLE **LUMINAIRE MAST ARM MOUNTING CLAMP**

## **TYPICAL LUMINAIRE MAST ARM** (DOUBLE) MOUNTING BRACKETS









## TYPICAL GROUNDING CONNECTIONS

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

## **HARDWARE DETAILS FOR POLE MOUNTING**

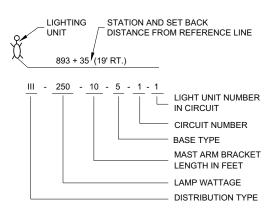
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

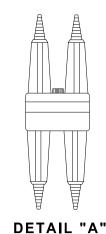
APPROVED November 2018 DATE

/S/ Ahmet Demirbilel STATE ELECTRICAL ENGINEER

**SDD 09A01 5**9 THE EQUIPMENT GROUND CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.



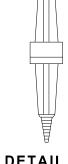


**BREAKAWAY** 

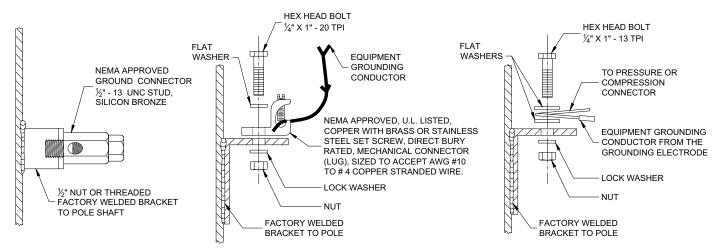
**DOUBLE POLE WITH** 

WATERPROOF

**INSULATING BOOT** 



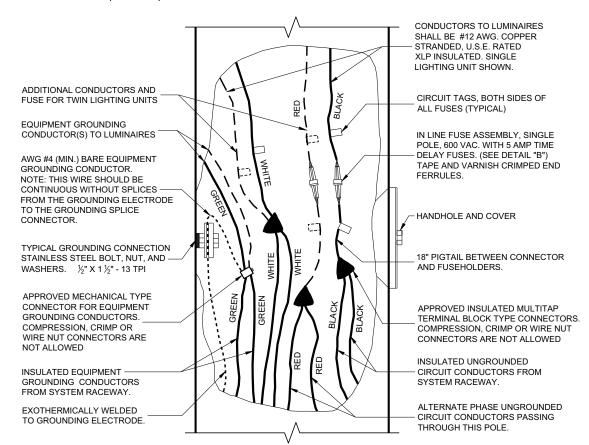
DETAIL "B"
BREAKAWAY
SINGLE POLE WITH
WATERPROOF
INSULATING BOOT



## TYPICAL GROUNDING CONNECTIONS

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

## LIGHTING UNIT CODE (TYPICAL)



3 WIRE - 120, 240 OR 480 VAC (UNGROUNDED CONDUCTORS)
WITH GROUNDING CONDUCTOR AND
EQUIPMENT GROUNDING CONDUCTOR

TWIN LIGHTING UNITS REQUIRE UNGROUNDED CONDUCTORS TO INDIVIDUAL SETS OF UNGROUNDED -LUMINAIRES SHALL BE #12 AWG, CONDUCTORS AND FUSE ASSEMBLIES. COPPER STRANDED, U.S.E. RATED XLP INSULATED. SINGLE LIGHTING UNIT SHOWN. TWIN LIGHTING UNIT EQUIPMENT GROUNDING CONDUCTOR EQUIPMENT GROUNDING CONDUCTOR IN LINE FUSE ASSEMBLY, TWO AWG #4 (MIN.) BARE EQUIPMENT POLE, 600 VAC. WITH 5 AMP TIME GROUNDING CONDUCTOR. DELAY FUSES. (SEE DETAIL "A") NOTE: THIS WIRE SHOULD BE TAPE AND VARNISH CRIMPED END CONTINUOUS WITHOUT SPLICES FERRULES. FROM THE GROUNDING ELECTRODE TO THE GROUNDING SPLICE - HANDHOLE AND COVER CONNECTOR. TYPICAL GROUNDING CONNECTION CIRCUIT TAGS, BOTH SIDES STAINLESS STEEL BOLT, NUT, AND OF ALL FUSES. (TYPICAL) WASHERS. ½" X 1½" - 13 TPI 18" PIGTAIL BETWEEN CONNECTORS APPROVED MECHANICAL TYPE AND FUSEHOLDERS CONNECTOR FOR EQUIPMENT GROUNDING CONDUCTORS. COMPRESSION, CRIMP OR APPROVED INSULATED MULTITAP WIRE NUT CONNECTORS ARE TERMINAL BLOCK TYPE CONNECTORS NOT ALLOWED COMPRESSION, CRIMP OR WIRE NUT CONNECTORS ARE NOT ALLOWED. INSULATED EQUIPMENT GROUNDING CONDUCTORS FROM SYSTEM RACEWAY. INSULATED UNGROUNDED EXOTHERMICALLY WELDED CIRCUIT CONDUCTORS FROM TO GROUNDING ELECTRODE SYSTEM RACEWAY.

2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS)
WITH EQUIPMENT GROUNDING CONDUCTOR

# NON - FREEWAY LIGHTING UNIT POLE WIRING

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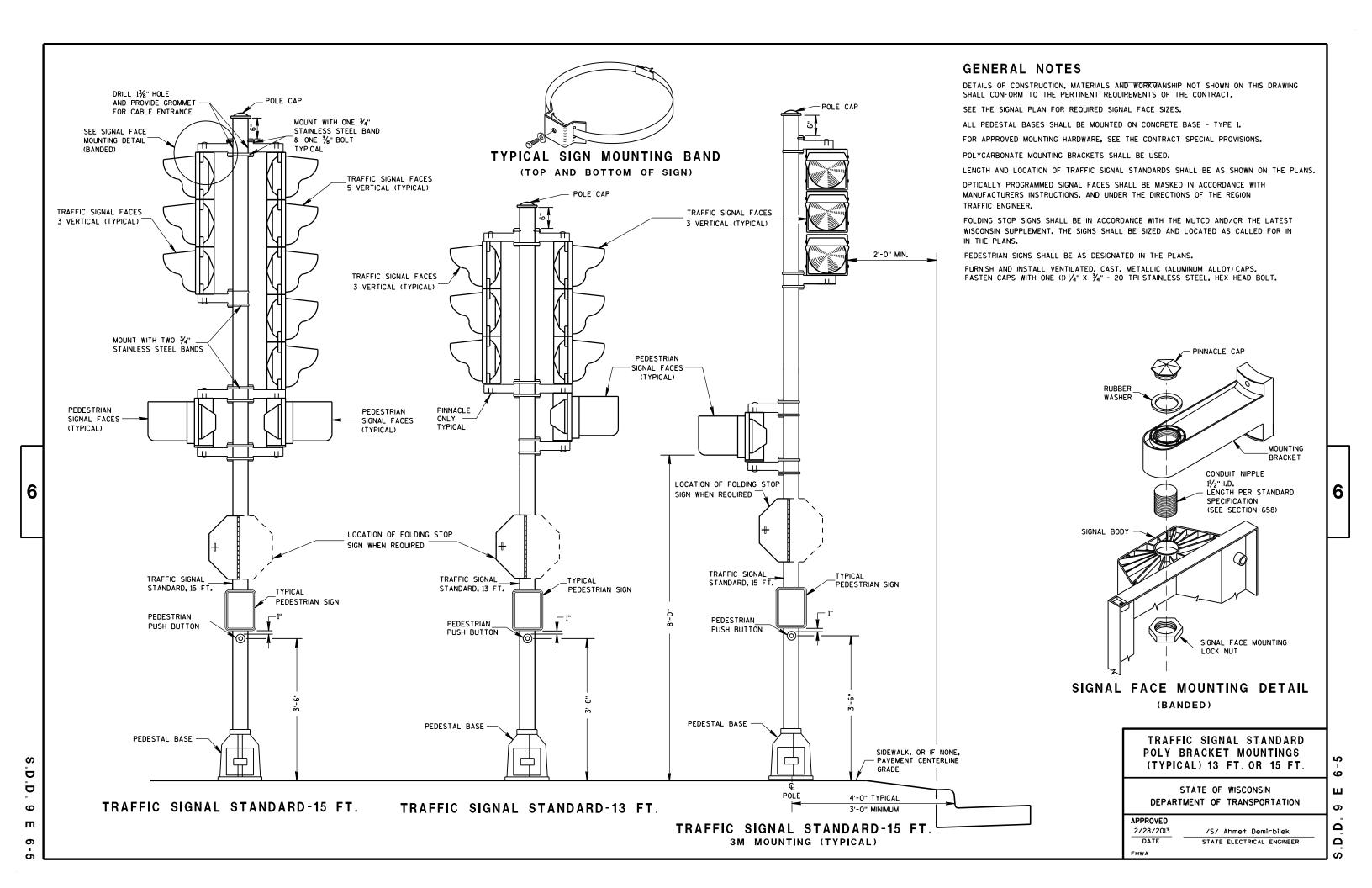
APPROVED

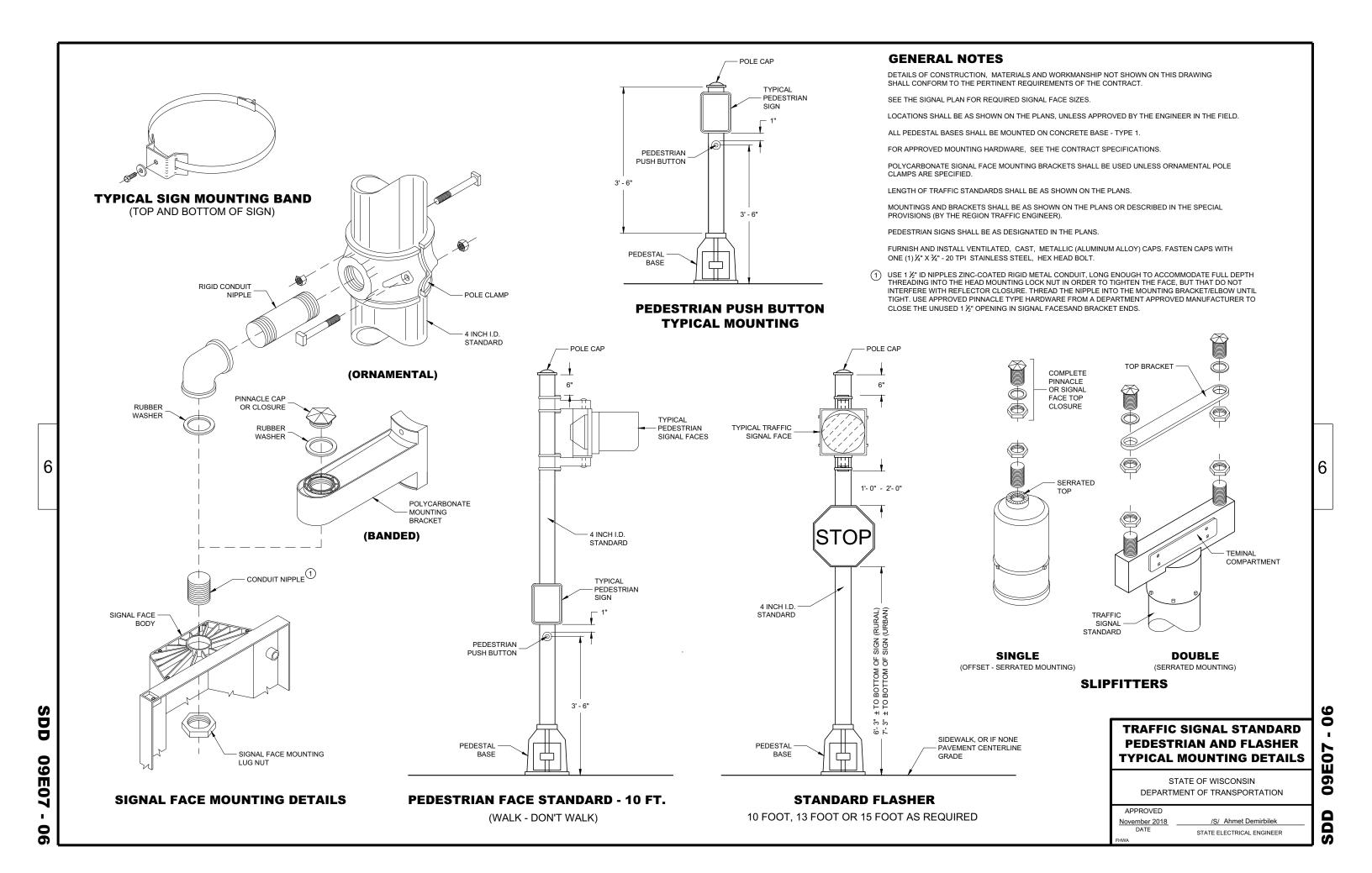
November 2018 /S/ Ahmet Demirbilek

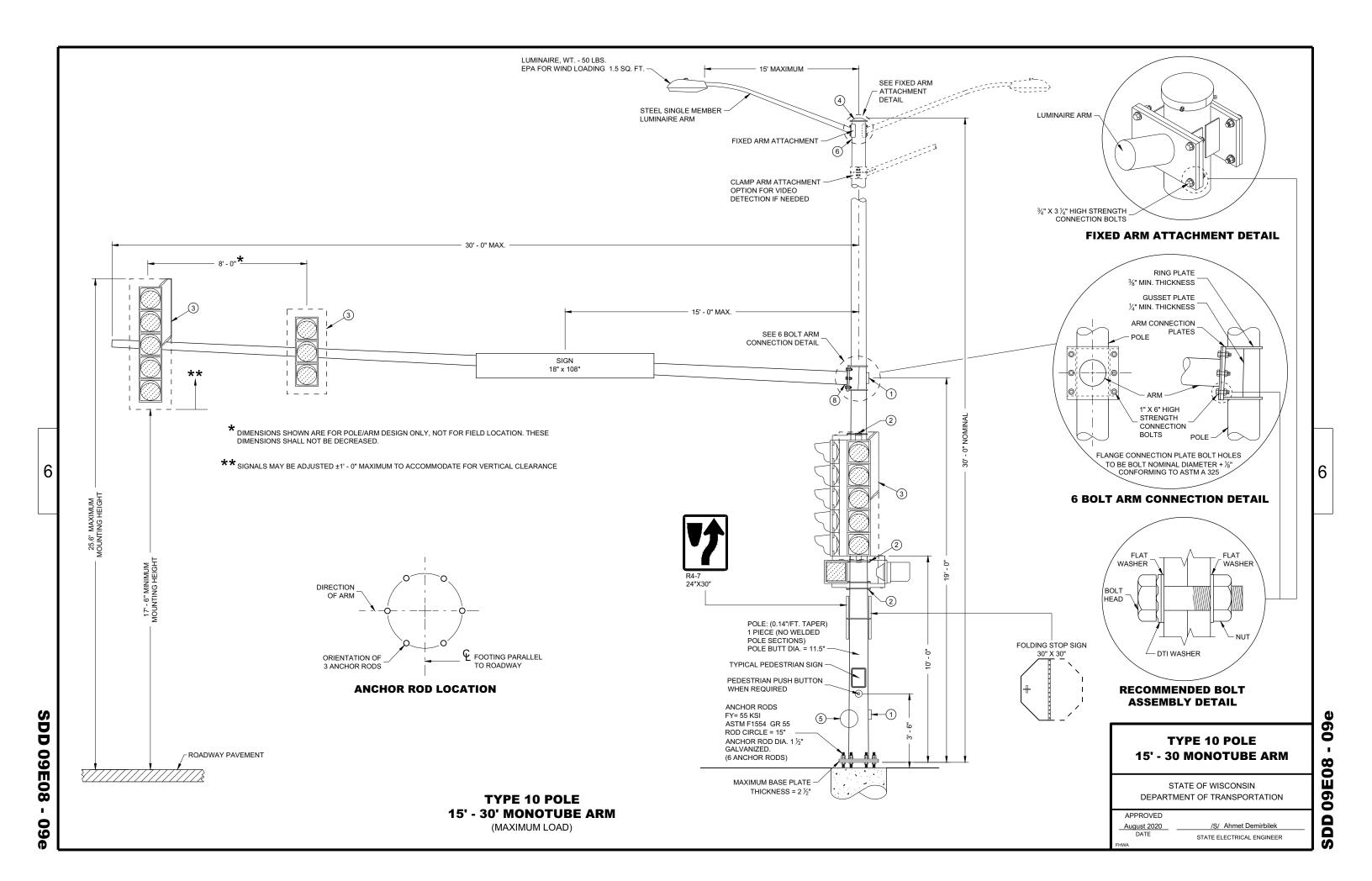
DATE STATE ELECTRICAL ENGINEER

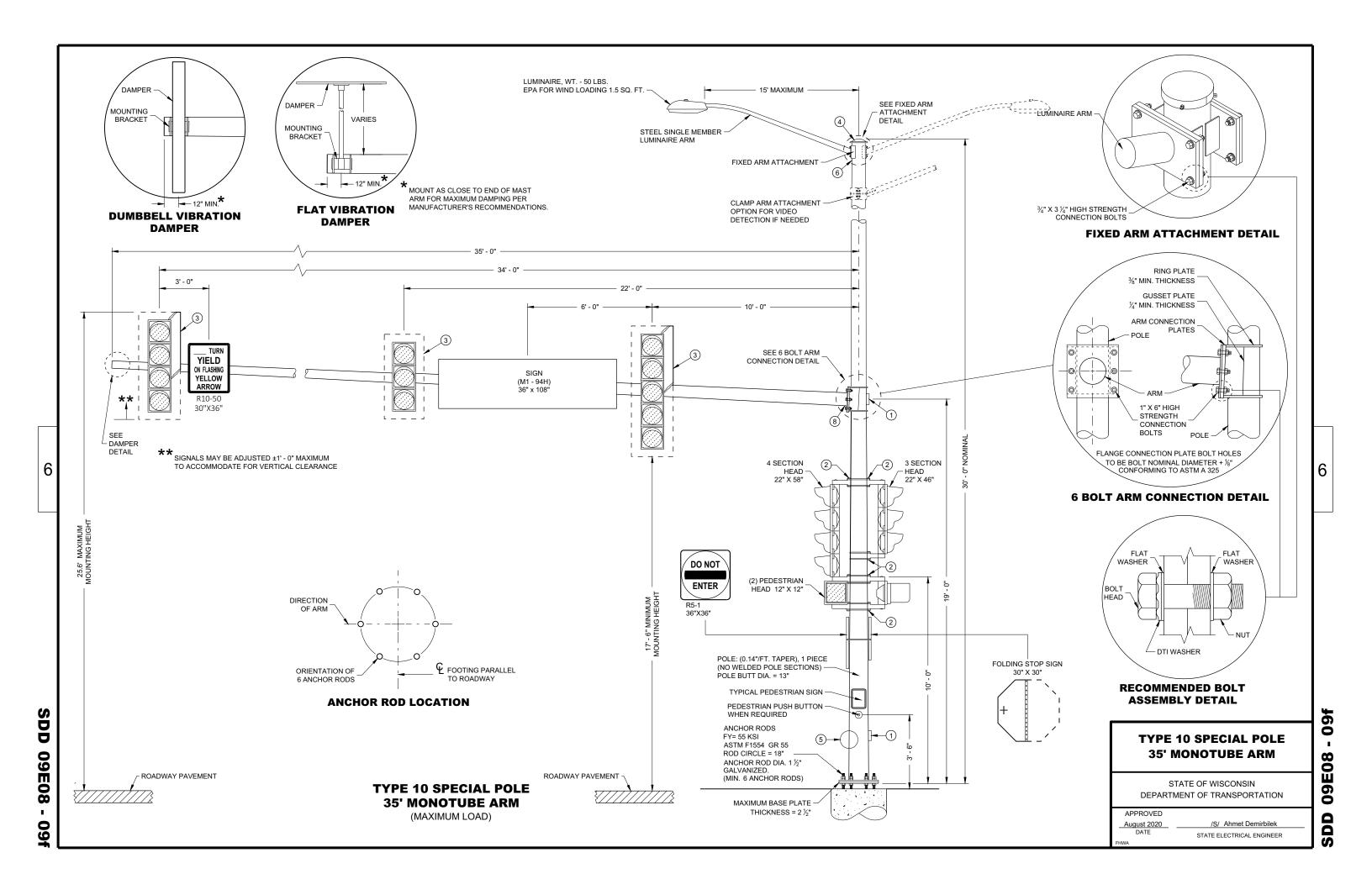
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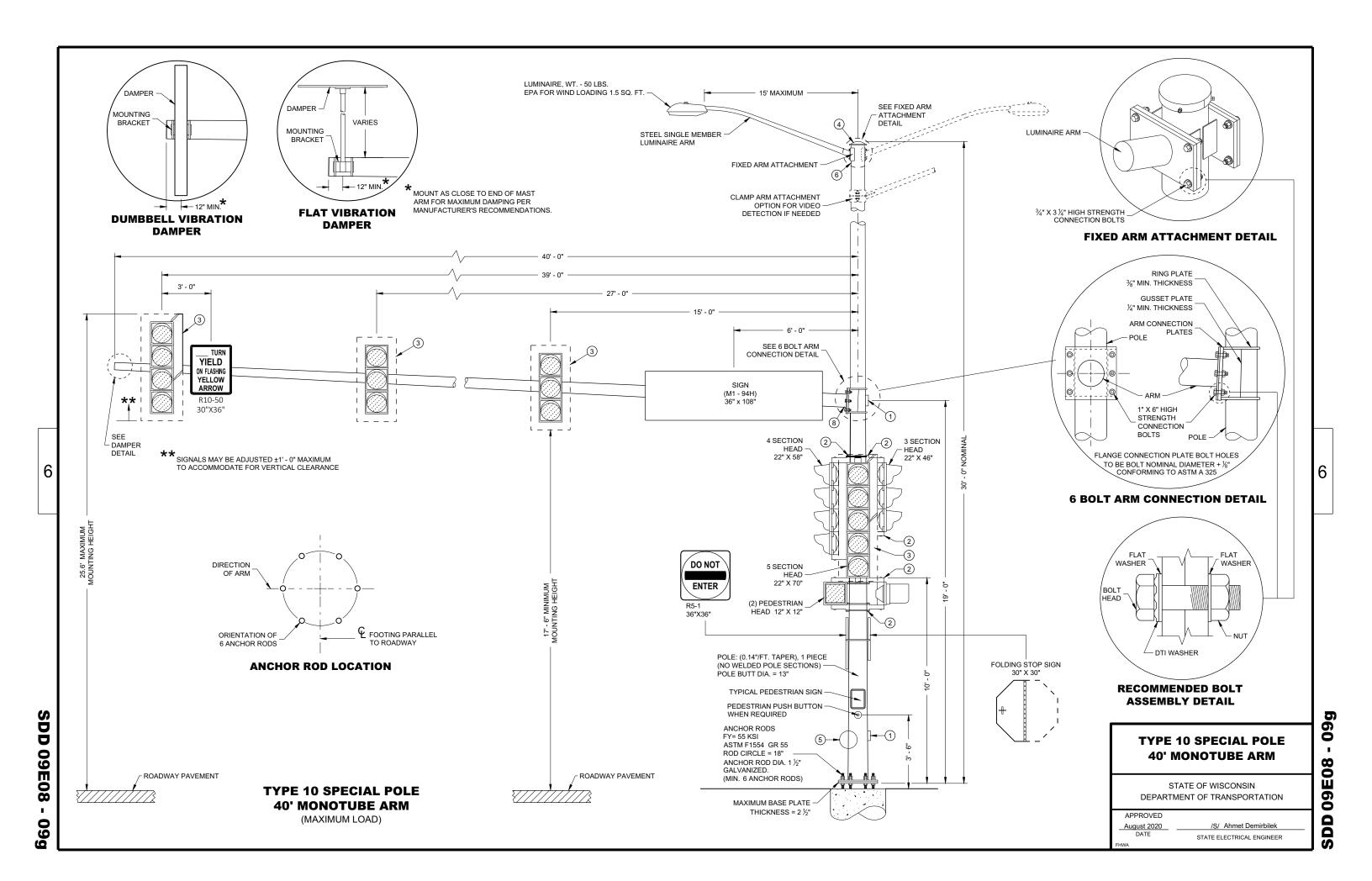
DD 09E03 -











POLE TYPES 9 AND 10 ARE FOR ARM LENGTHS 15 FOOT TO 30 FOOT.

POLE TYPES 9 SPECIAL AND 10 SPECIAL ARE FOR ARM LENGTHS 35 FOOT, 40 FOOT, AND 45 FOOT.

POLE TYPES 12 AND 13 ARE FOR ARM LENGTHS 35 FOOT TO 55 FOOT.

MONOTUBE POLES AND ARMS SHALL BE GALVANIZED STEEL

RING STIFFENED BUILT UP BOX TYPE OF ATTACHMENT FOR TRAFFIC SIGNAL ARM.

ONE PIECE POLE CONSTRUCTION (NO WELDED POLE SECTIONS).

STANDARD STRAIGHT ARM DESIGN (3% ± RISE).

SECTION 657, POLES OF THE STANDARD SPECIFICATION SHALL APPLY TO THIS DRAWING.

PROVIDE WIREWAY THRU POLE WALL AND ARM CONNECTION PLATES. PROVIDE ROUND, SMOOTH INSIDE SURFACE.

MANUFACTURER'S SUBMITTED POLE DESIGNS AND DRAWINGS SHALL BE SIGNED AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER AND CERTIFIED AS BEING IN COMPLIANCE WITH THE AASHTO "LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNAL 2015 1ST EDITION (INCLUDING INTERIM REVISIONS)" AND ALL PERTINENT WISDOT SPECIFICATIONS AND DRAWINGS FOR THE LIGHTING STRUCTURES

CATEGORY III FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 9 AND TYPE 10 STRUCTURES.

CATEGORY II FATIGUE LOADS OF TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 9 SPECIAL AND TYPE 10 SPECIAL STRUCTURES. IN LIEU OF DESIGNING FOR GALLOPING, A VIBRATION DAMPER MITIGATION DEVICE IS REQUIRED TO BE SUPPLIED AND INSTALLED AT THE END OF THE

CATEGORY II FATIGUE FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE12 AND TYPE 13 STRUCTURES.

115 MPH (700 YEAR MRI BASIC WIND SPEED).

SECURE THE OPENING BELOW THE BASE PLATE WITH STAINLESS STEEL OR GALVANIZED STEEL MESH AND SECURE THE MESH WITH 3/4" STAINLESS STEEL BANDING AROUND THE LEVELING NUTS.

INDENT PRINT (NOMINAL  $\chi$ " HIGH) THE POLE LENGTH AND FIRST TWO LETTERS OF THE MANUFACTURERS NAME ON TWO SIDES OF THE BASE PLATE 180 DEGREES APART, BEFORE GALVANIZING. THE ARM SHALL BE IDENTIFIED

SIGNAL FACE SHALL BE MOUNTED 6 INCHES (NOMINAL) FROM THE END OF THE MONOTUBE ARM OR AS SHOWN ON THE PLAN CONSTRUCTION DETAIL OR A S DIRECTED BY THE PROJECT ENGINEER/ELECTRICAL OPERATIONS PERSONNEL MOUNT ALL LIKE HEAD AT SAME ELEVATION.

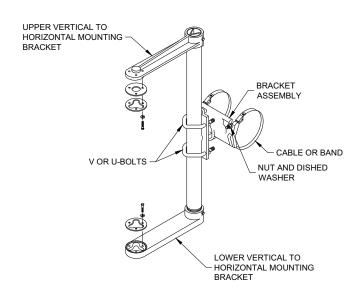
SIGN MOUNTING BRACKETS SHALL BE FURNISHED IN ACCORDANCE WITH SECTION 637 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.

- 1 DESIGN FOR MAXIMUM ALLOWABLE HAND HOLE WITH COVER ASSEMBLY WITH TWO ¾" X ¾" 20 TPI STAINLESS STEEL
- SIGNAL MOUNTING BRACKETS FOR POLE MOUNTING, MOUNT WITH CAP SCREW AND BANDING (SEE SPECIFICATION SECTION 658).
- SECURELY MOUNT BACK PLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER
- THE TOP OF THE POLE SHAFT AND THE MONOTUBE ARM SHALL BE EQUIPPED WITH A REMOVABLE, VENTILATED CAP HELD SECURELY IN PLACE WITH SET SCREWS.
- FACTORY WELDED BRACKET FOR GROUNDING LUG, OPPOSITE HAND HOLD, (LUG AND HARDWARE PAID UNDER SEPARATE ITEM). PROVIDE HOLE IN BRACKET FOR 1/2" X 1/2" - 20 TPI STAINLESS STEEL HEX HEAD BOLT.
- FACTORY WELDED "J" HOOK FOR STRAIN RELIEF FOR POLE LUMINAIRE WIRE
- INSTALL STRUCTURAL IDENTIFICATION PLAQUES.

STRUCTURAL IDENTIFICATION PLAQUES SHALL BE PLACED ON THE POLES IN THE SAME DIRECTION AS THE ARM.

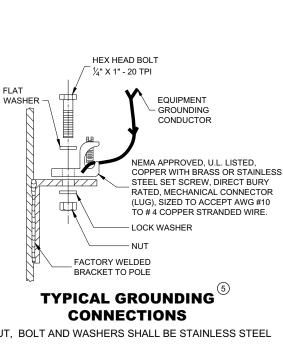
MOUNTING HEIGHT SHALL BE 6' - 0" ABOVE THE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL BE OBSTRUCTED.

(8) FACTORY DRILLED 1/2" DRAIN HOLE 2" FROM FLANGE CONNECTION PLATE

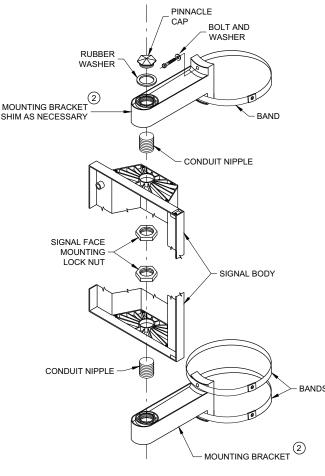


#### SIGNAL FACE MOUNTING BRACKET **DETAIL FOR MONOTUBE ARM**

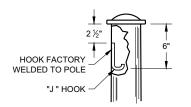
(MOUNT PER MANFACTURER'S RECOMMENDATION)



NUT. BOLT AND WASHERS SHALL BE STAINLESS STEEL



#### SIGNAL FACE VERTICAL **MOUNTING DETAIL**



TYPICAL "J" HOOK **WIRE SUPPORT** 

#### **GENERAL NOTES AND HARDWARE FOR TYPES 9,10,** 9/10 SPECIAL, 12 AND 13 POLES WITH MONOTUBE ARMS

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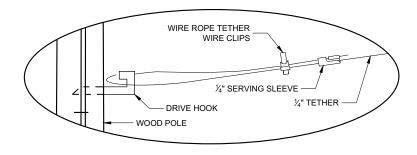
STRUCTURAL IDENTIFICATION **PLAQUE PLACEMENT** 

**TT** YY

6' - 0"

DD 09E 08

60 APPROVED August 2020 DATE /S/ Ahmet Demirbilel STATE ELECTRICAL ENGINEER



**DETAIL "A"** 

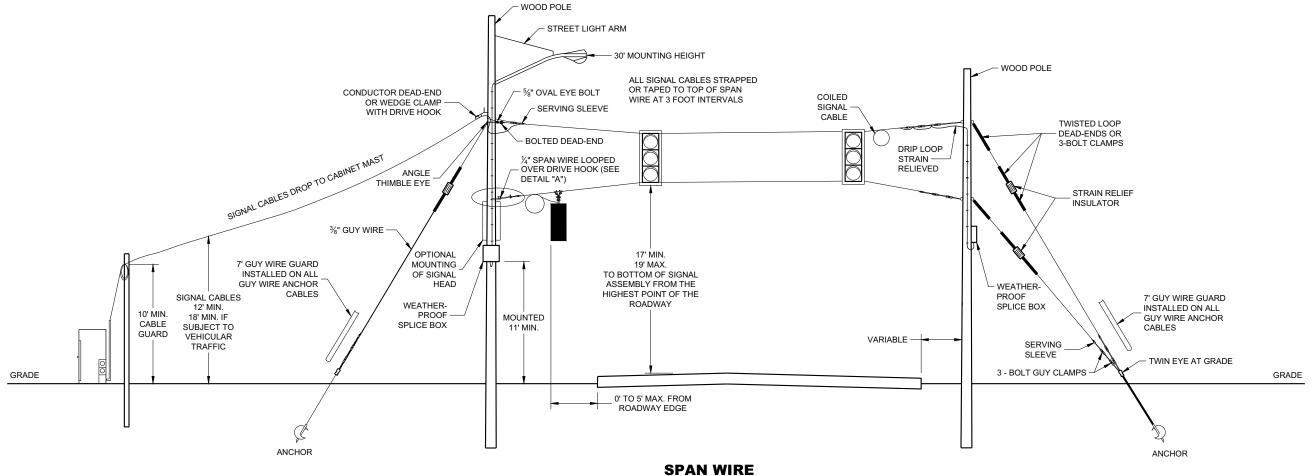
#### **GENERAL NOTES**

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

- 1. WOOD POLES SHALL BE CLASS 4. LENGTH DETERMINED BY SIGNAL PLAN.
- 2. SIGNAL FACES:
  - A. ALL SECTIONS SHALL BE 12" AND POLYCARBONATE.
  - B. EACH SHALL CONTAIN A 5" WIDE DULL BLACK POLYCARBONATE BACKPLATE.
  - C. EACH SHALL BE WIRED FROM THE TOP SIGNAL MOUNTING BRACKET.
  - D. NEAR RIGHT SIGNAL FACE SUSPENDED ON THE TETHER (NO BACKPLATE) SHALL NOT BE OVER THE TRAVELED WAY. IF THE POLE IS WITHIN 5 FEET OF THE TRAVELED WAY MOUNT THE SIGNAL FACE ON THE WOOD POLE WITH BACKPLATE.

#### SPAN WIRE

- A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED
- B. SIGNAL AND LIGHTING CABLES SHALL ONLY BE ATTACHED TO THE UPPER SPAN WIRE.
- C. THE SIGNAL ASSEMBLY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.



SPAN WIRE TEMPORARY SIGNALS

## SPAN WIRE TEMPORARY TRAFFIC SIGNAL

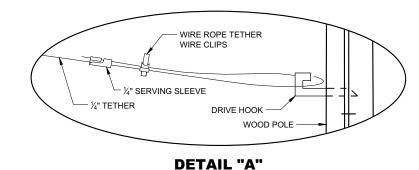
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

/S/ Ahmet Demerbilek
STATE ELECTRICAL ENGINEER

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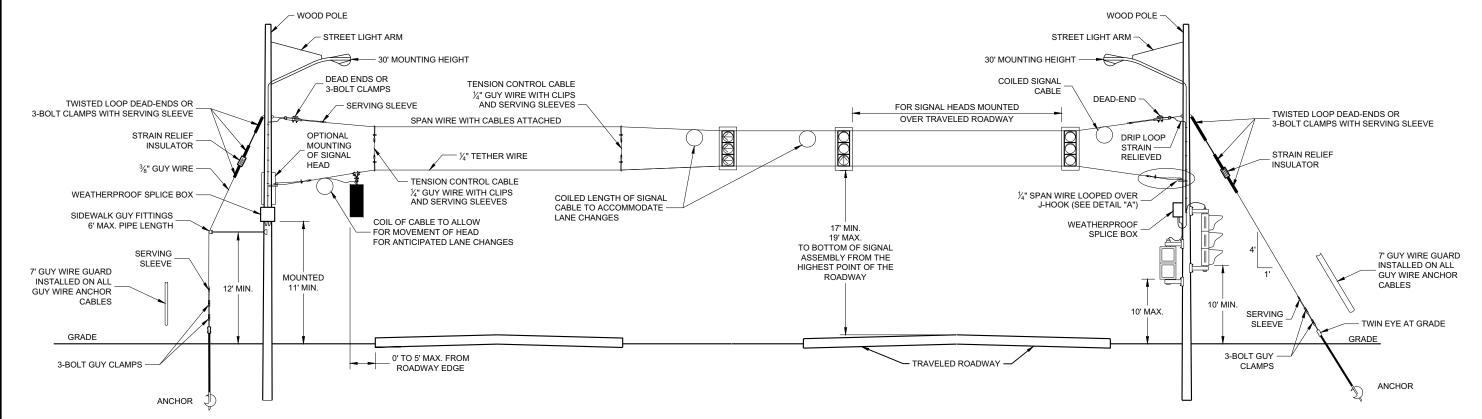


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  - E. FAR INDICATION SHALL BE MAINTAINED OVER CENTER OF TRAFFIC LANE.

#### 3. SPAN WIRE:

- A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED
- B. SIGNAL AND LIGHTING CABLES SHALL ONLY BE ATTACHED TO THE UPPER SPAN WIRE.
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**SPAN WIRE TEMPORARY SIGNALS 4 LANE ROADWAYS** 

### **SPAN WIRE TEMPORARY TRAFFIC SIGNAL**

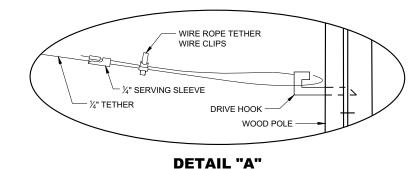
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STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED June 2015 DATE /S/ Ahmet Demerbilek STATE ELECTRICAL ENGINEER

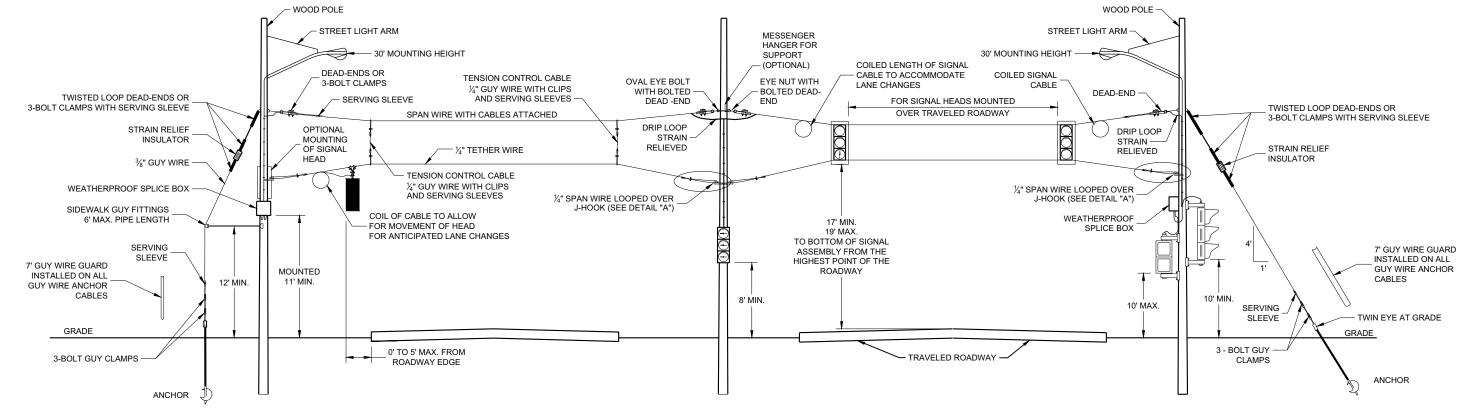


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SPAN WIRE
TEMPORARY SIGNALS
4 LANE ROADWAYS

## SPAN WIRE TEMPORARY TRAFFIC SIGNAL

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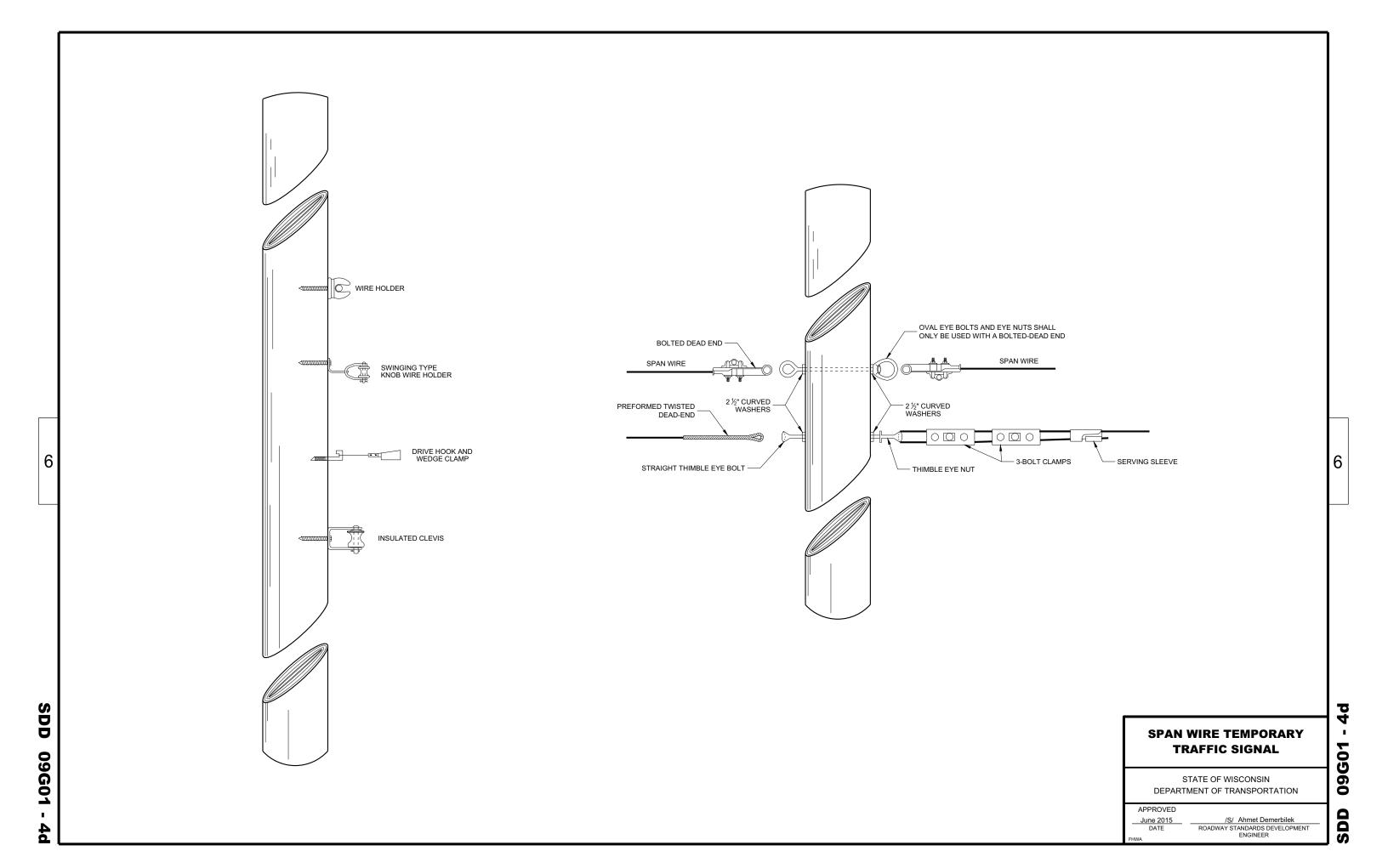
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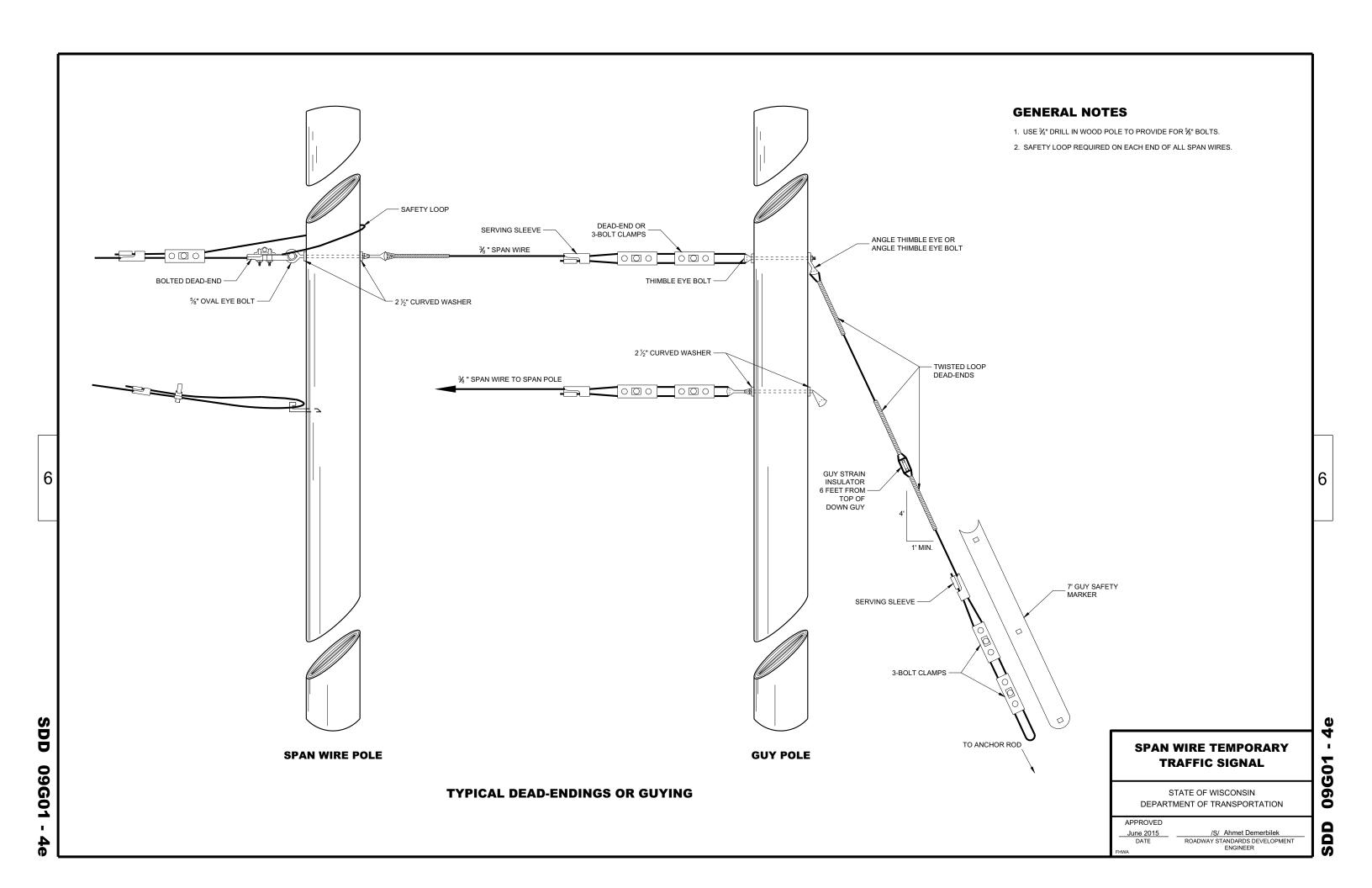
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

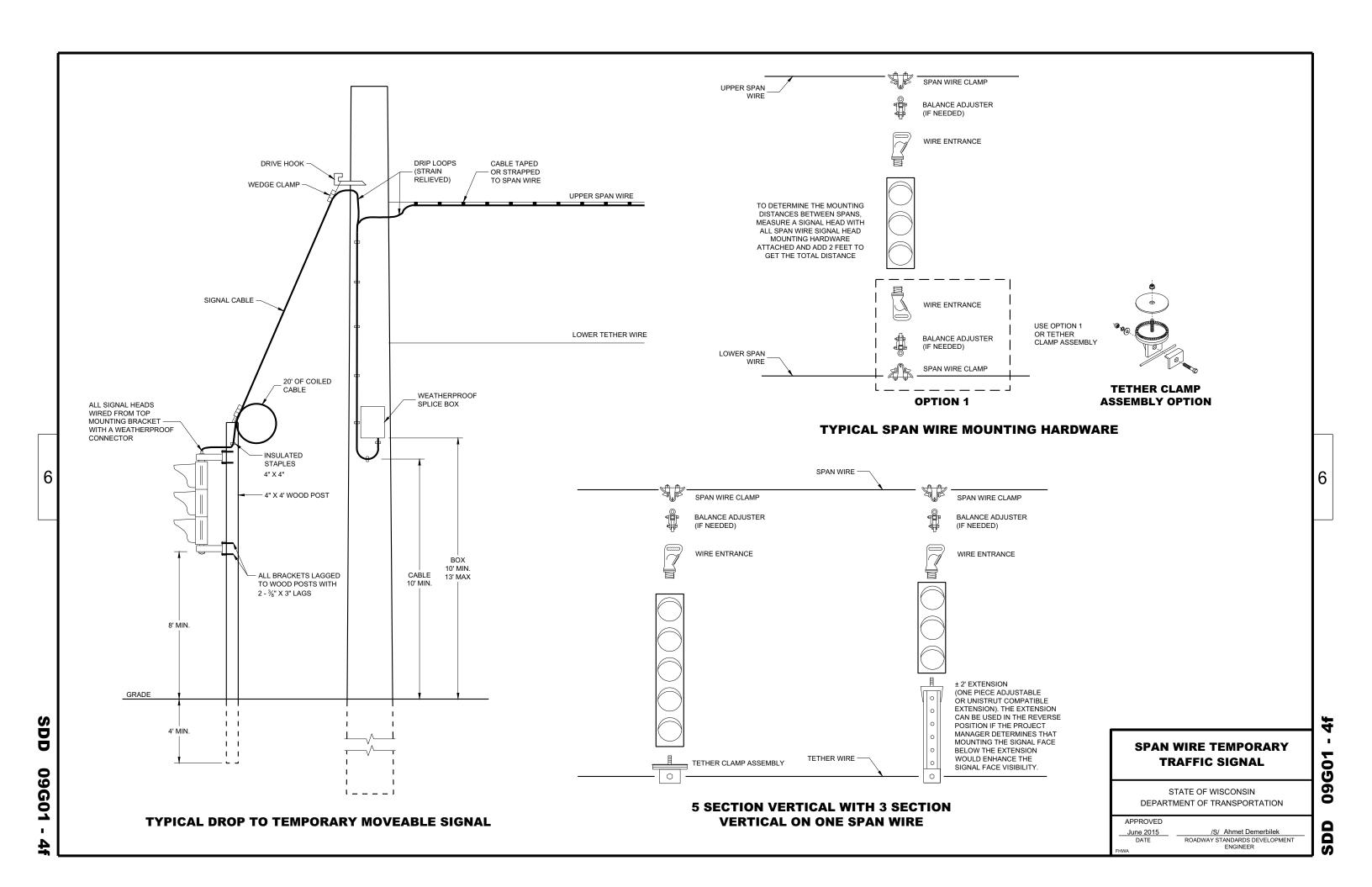
 APPROVED
 /s/ Ahmet Demerbilek

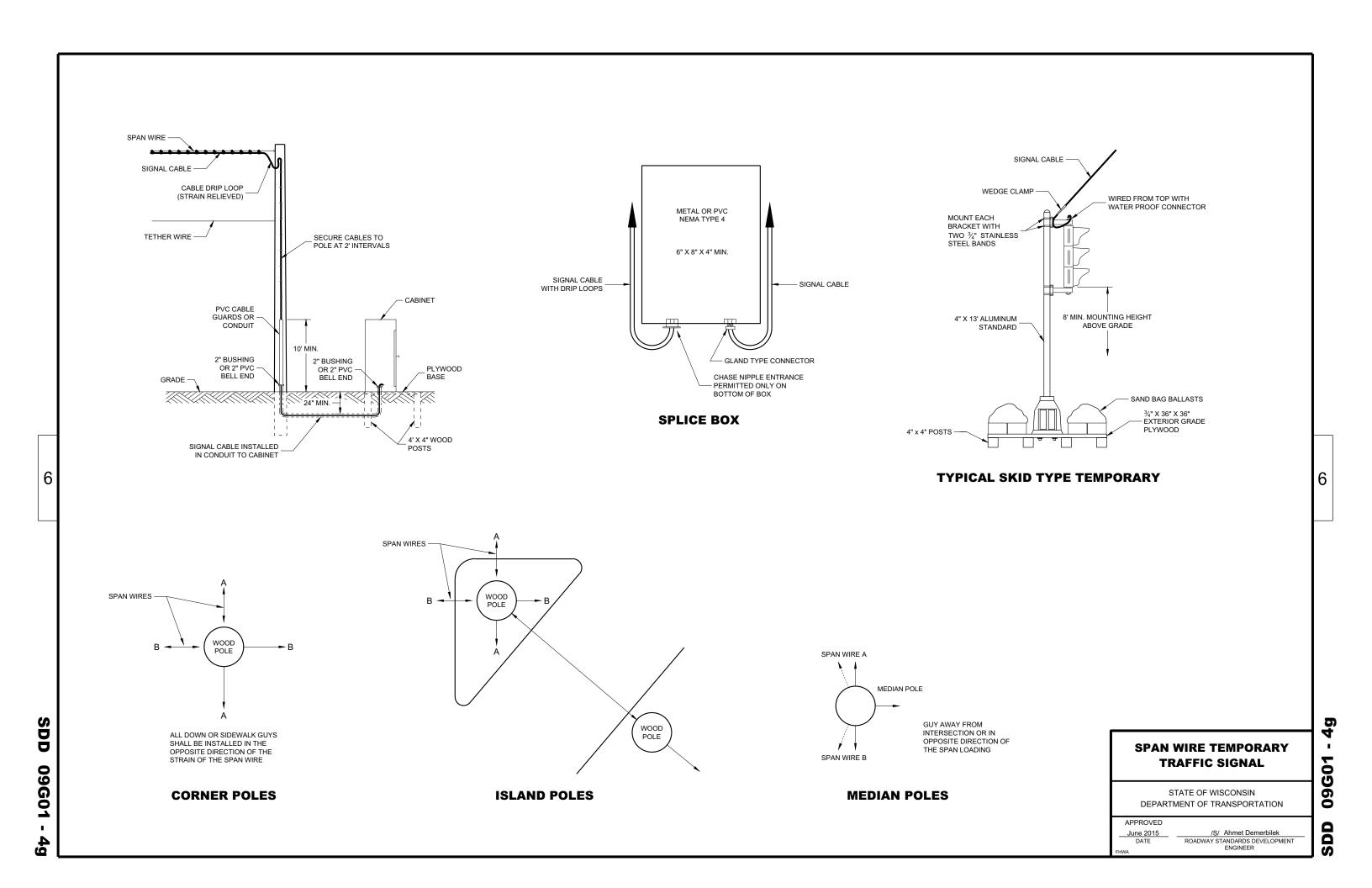
 June 2015
 /s/ Ahmet Demerbilek

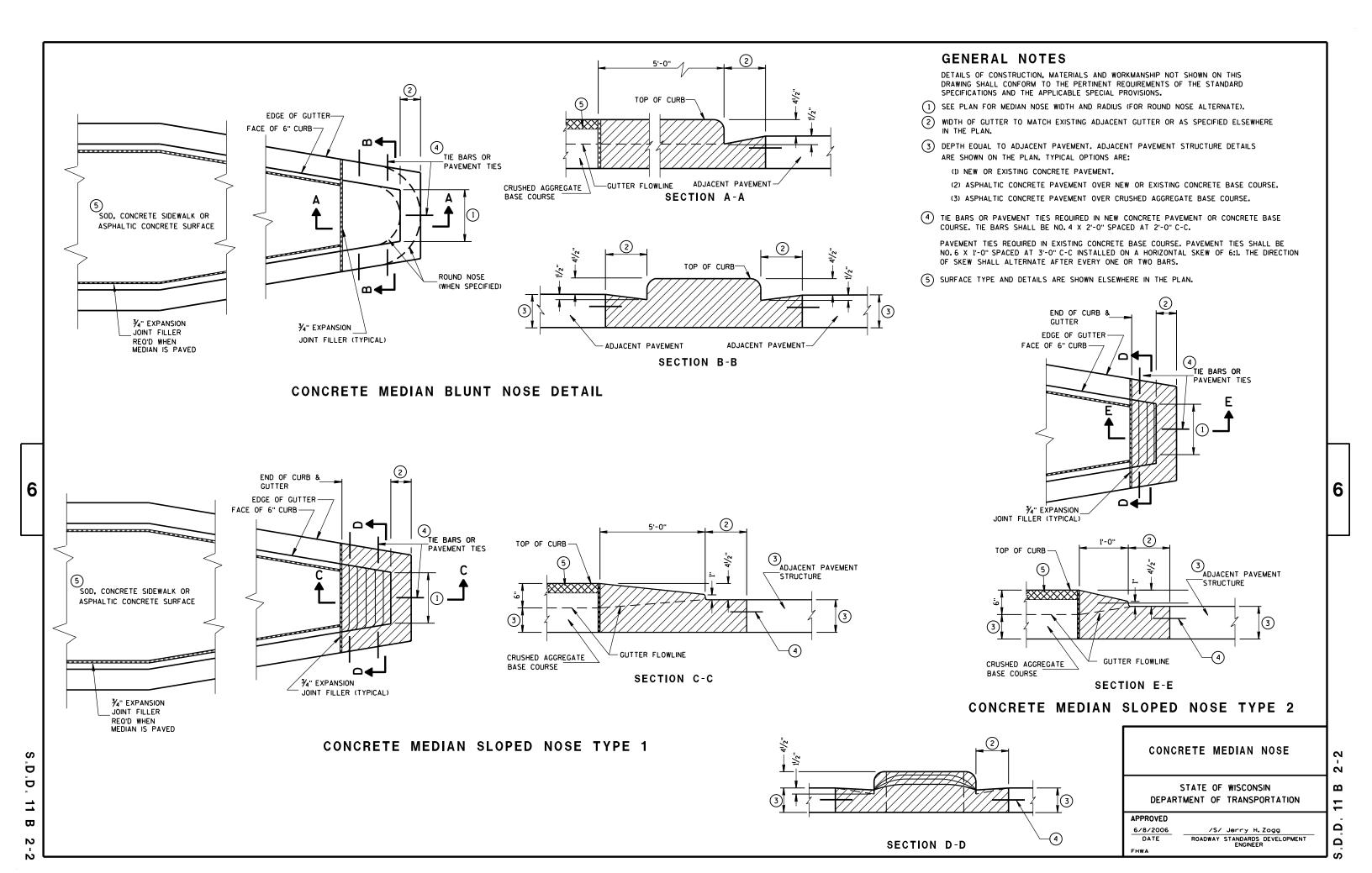
 DATE
 STATE ELECTRICAL ENGINEER

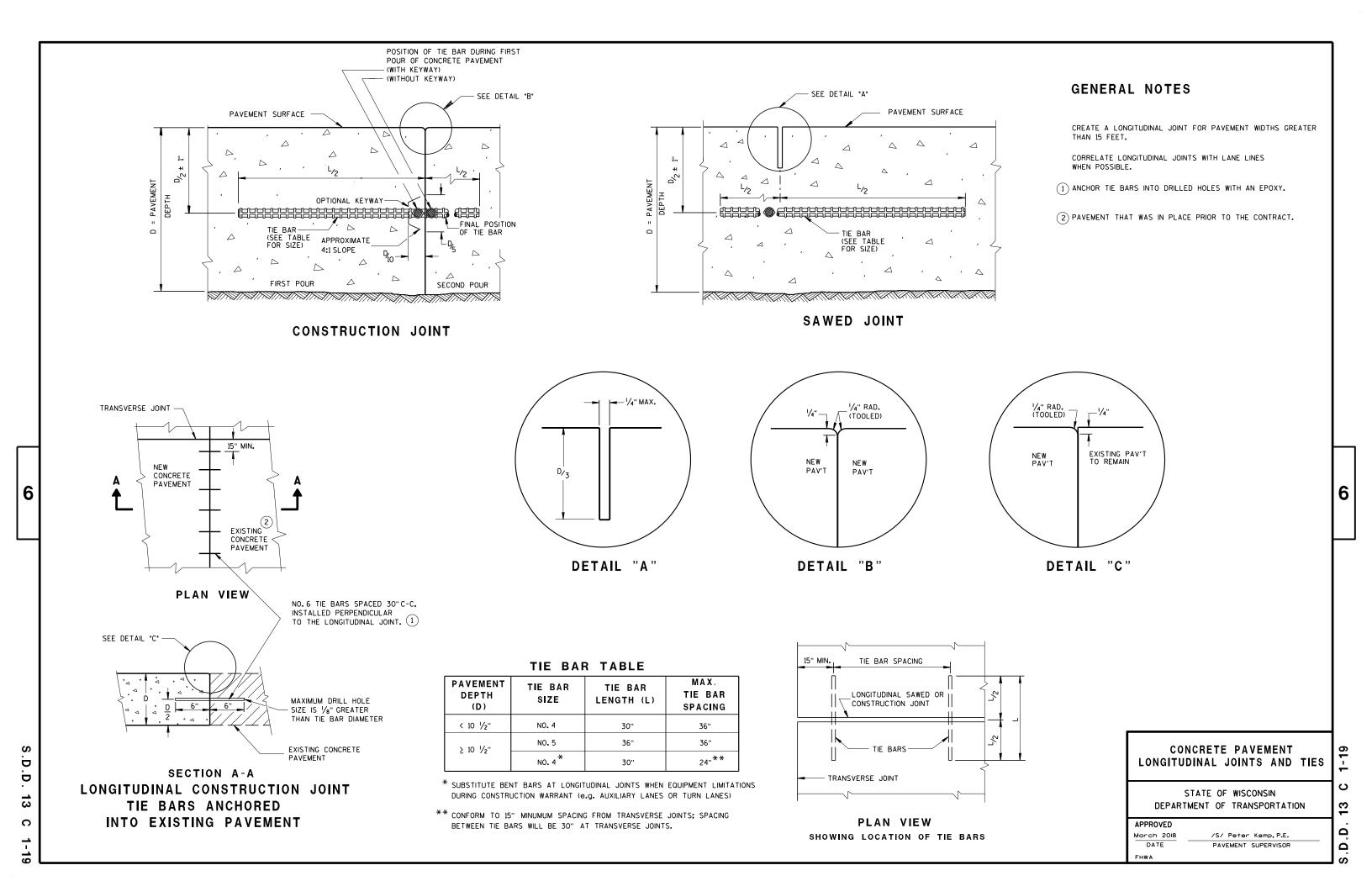


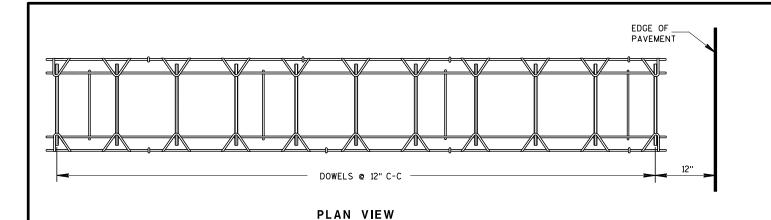












### PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 ½", 6",6 ½"	NONE	12'
7",7 1/2"	1"	14'
8",8 1/2"	1 1/4"	15'
9".9 1/2"	1 1/4"	15'
10" & ABOVE	1 1/2"	15'

#### **GENERAL NOTES**

#### CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE. SHOW THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

FOR PAVEMENT SLABS OF VARYING WIDTHS, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES AND A MAXIMUM OF 18 INCHES FROM THE LONGITUDINAL JOINT AND THE FREE EDGE OF PAVEMENT.

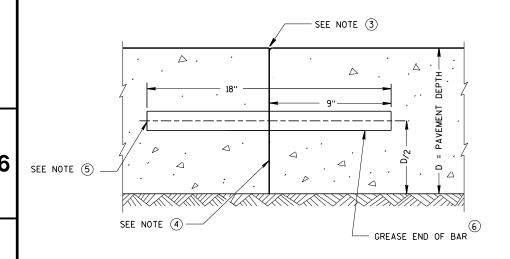
#### CONSTRUCTION JOINTS

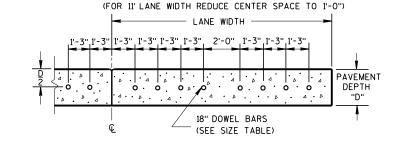
LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.

- (1) OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTING CONTRACTION JOINTS.
- ② SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT LIPON FIELD CONDITIONS
- (3) FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A 1/4-INCH RADIUS AT FORMED JOINTS.
- 4 PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.
- (5) INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING.
  INSTALL FORMED DOWEL BARS 12 INCHES C-C AND 12 INCHES FROM PAVEMENT
  EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF
  DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL
  BARS ACCORDING TO DRILLED DOWEL BAR CONSTRUCTION JOINT DETAIL.
- (6) APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.
- (7) ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS 1/8-INCH GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.

SIDE VIEW

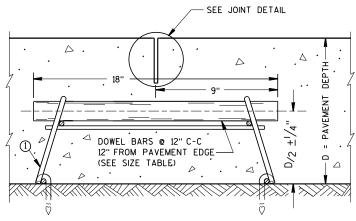
CONTRACTION JOINT DOWEL ASSEMBLY



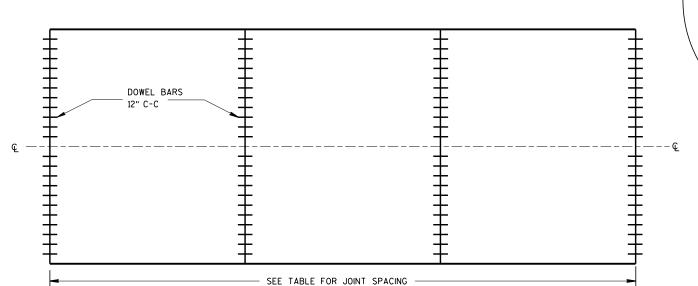


# DRILLED DOWEL BAR CONSTRUCTION JOINT

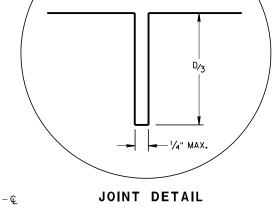
# TRANSVERSE CONSTRUCTION JOINT



DOWELED CONTRACTION JOINT



CONTRACTION JOINT LOCATIONS



URBAN DOWELED CONCRETE PAVEMENT

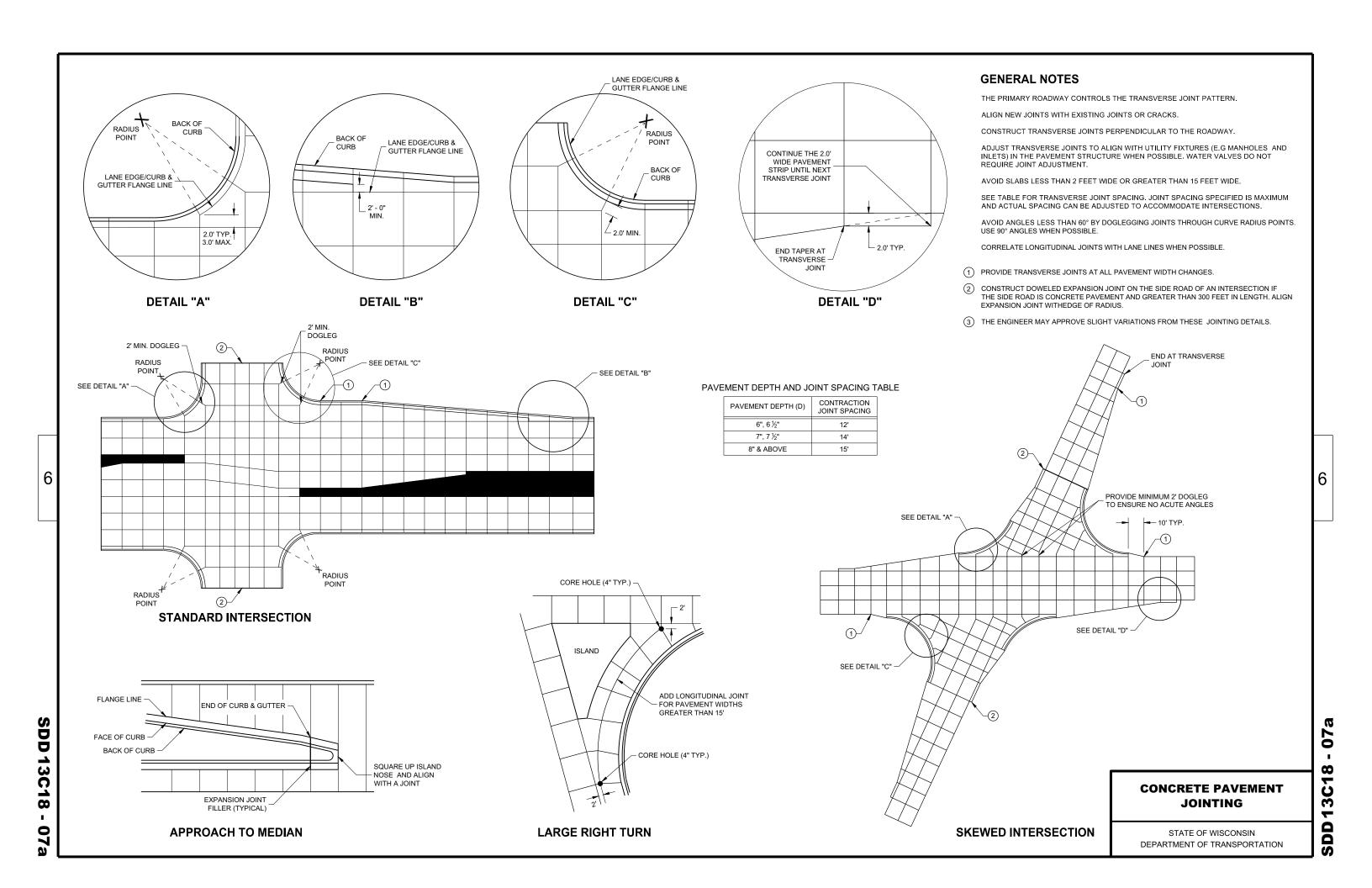
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018

DATE

/S/ Peter Kemp, P.E.
PAVEMENT SUPERVISOR

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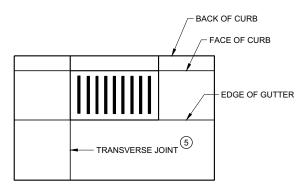
STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

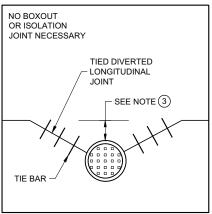
NO BOXOUT

OR ISOLATION JOINT NECESSARY

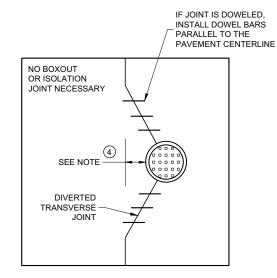




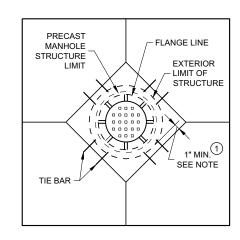
INLET WITH
TRANSVERSE JOINT



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT



DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS

#### **GENERAL NOTES**

- (1) USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1 FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.
- 2 ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.
- (3) IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDINAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.
- (4) IF THE DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS LESS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.
- (5) ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.

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CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

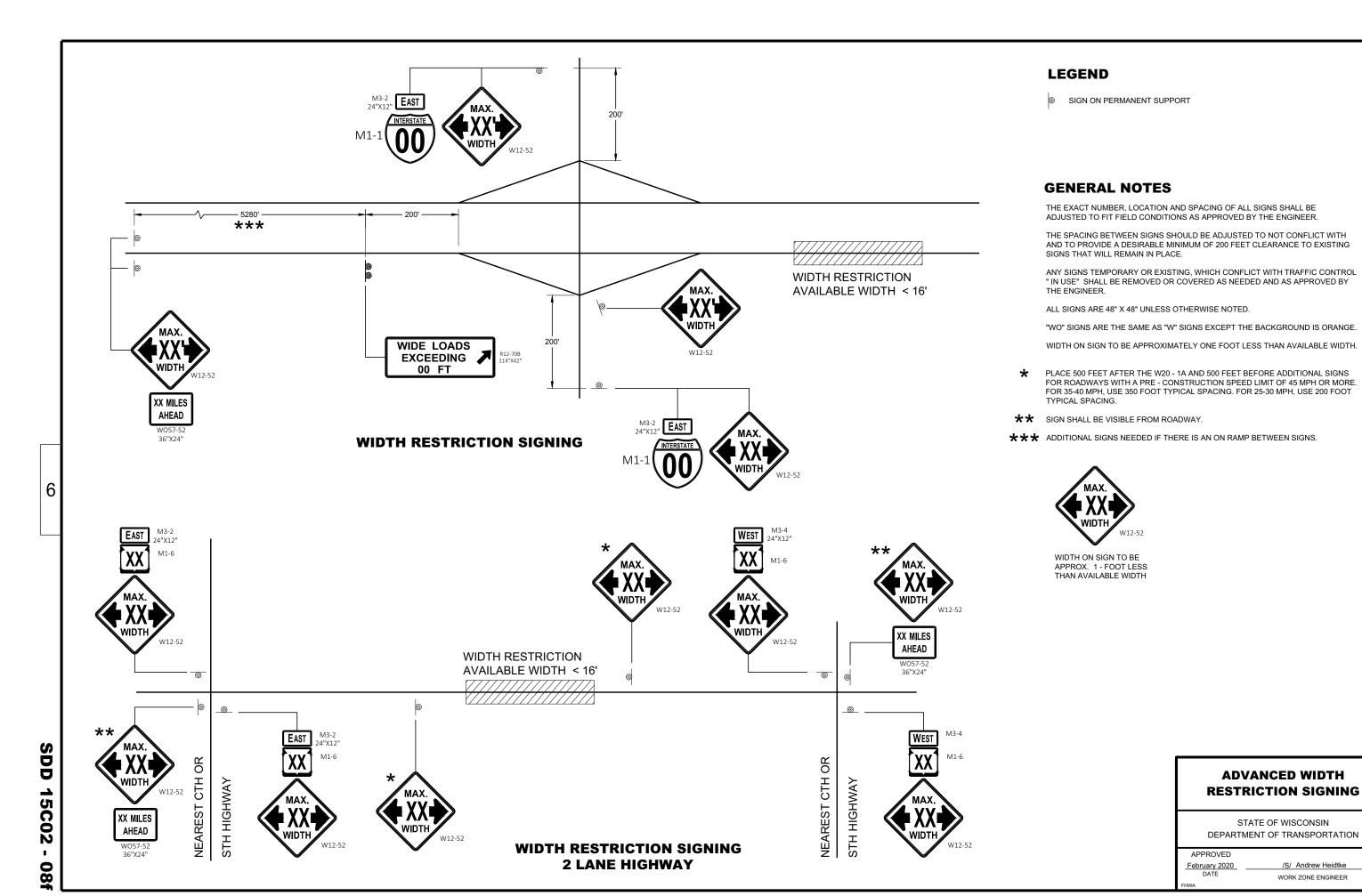
November 2018 /S/ Peter Kemp P.E.

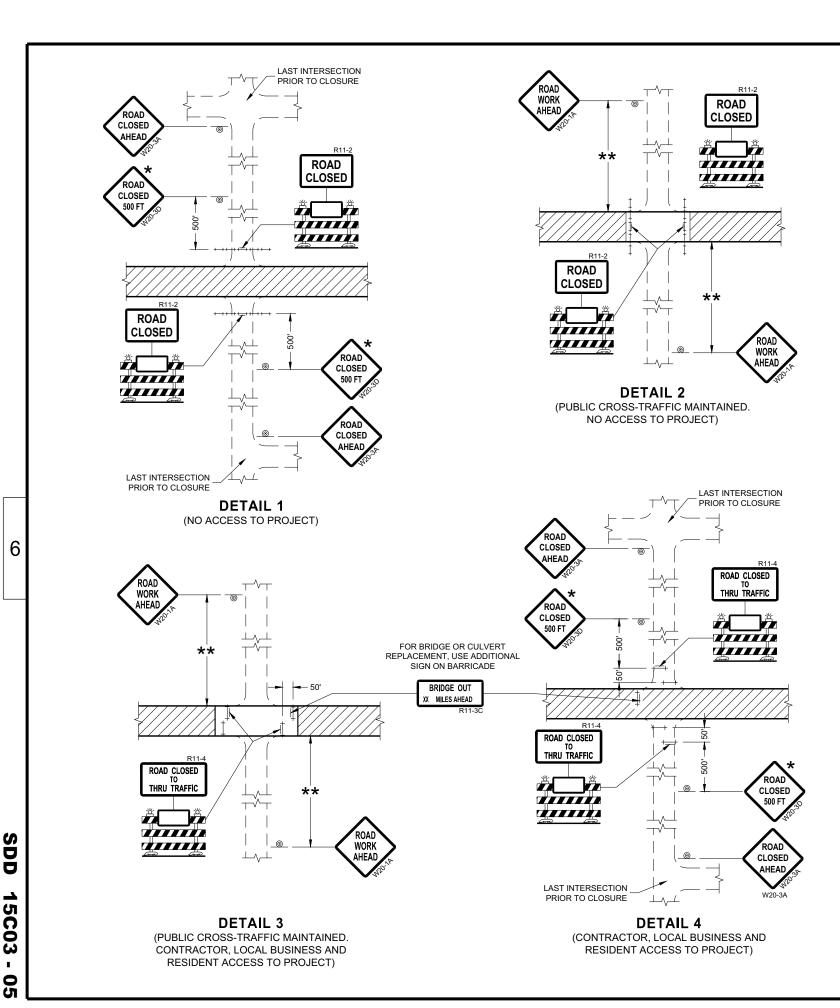
DATE PAVEMENT SUPERVISOR

SDD 13C18 - 07

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THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE (500 FEET DESIRABLE) TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3, AND R11-4 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW: R11-2 SHALL BE 48" X 30". R11-4 AND R11-3 SHALL BE 60" X 30".

- ★ OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FEET OR LESS FROM THE WORK ZONE.
- \*\* 500' MAX. OR AT LAST INTERSECTION, WHICHEVER IS CLOSEST.

#### LEGEND

SIGN ON PERMANENT SUPPORT

TYPE III BARRICADE

TYPE III BARRICADE WITH ATTACHED SIGN

TYPE "A" WARNING LIGHT (FLASHING)

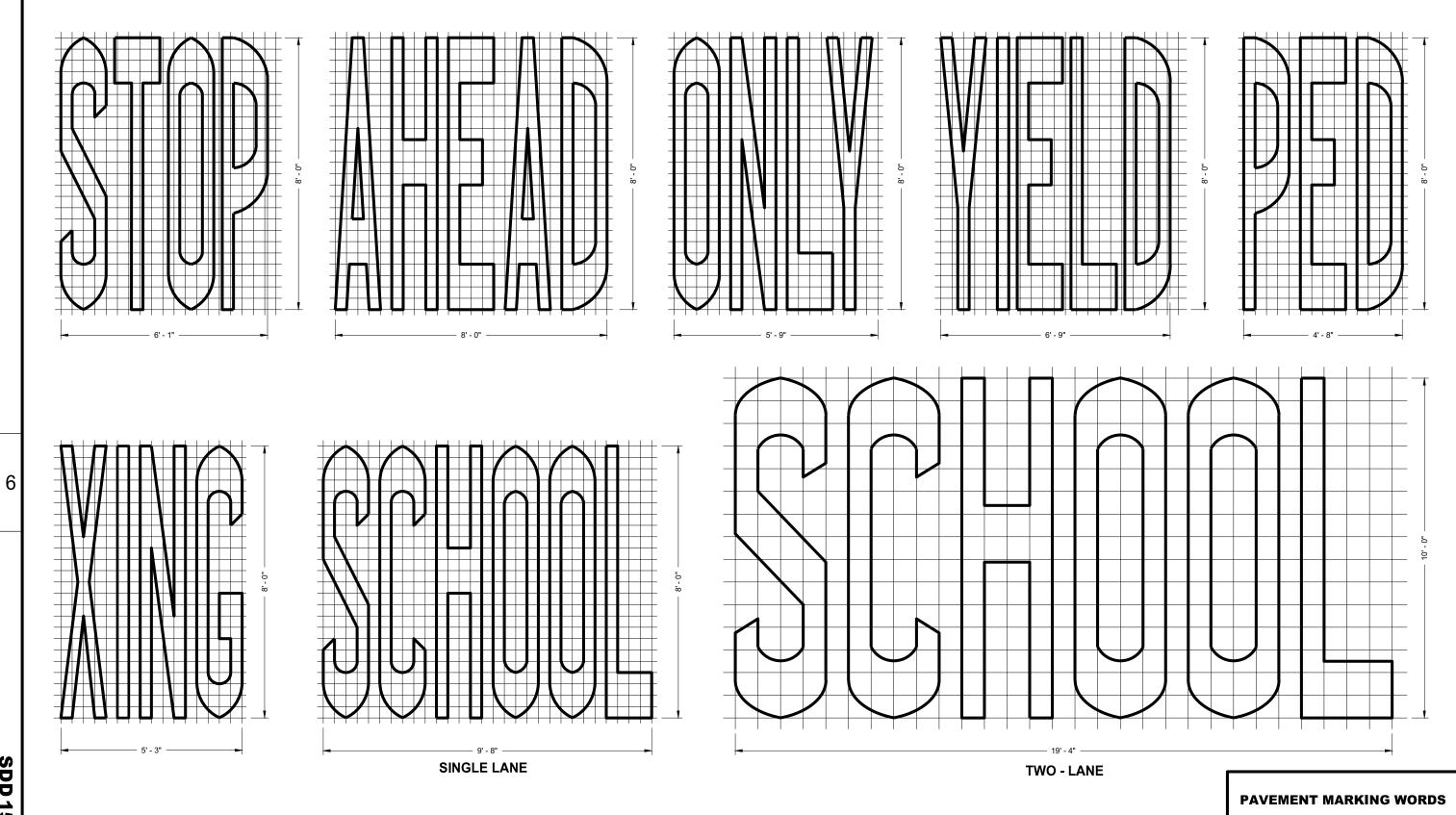
WORK AREA

### **BARRICADES AND SIGNS** FOR **SIDEROAD CLOSURES**

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED July 2018 DATE /S/ Andrew Heidtke WORK ZONE ENGINEER ŭ

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SDD 15C07 - 15b

#### **GENERAL NOTES**

DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

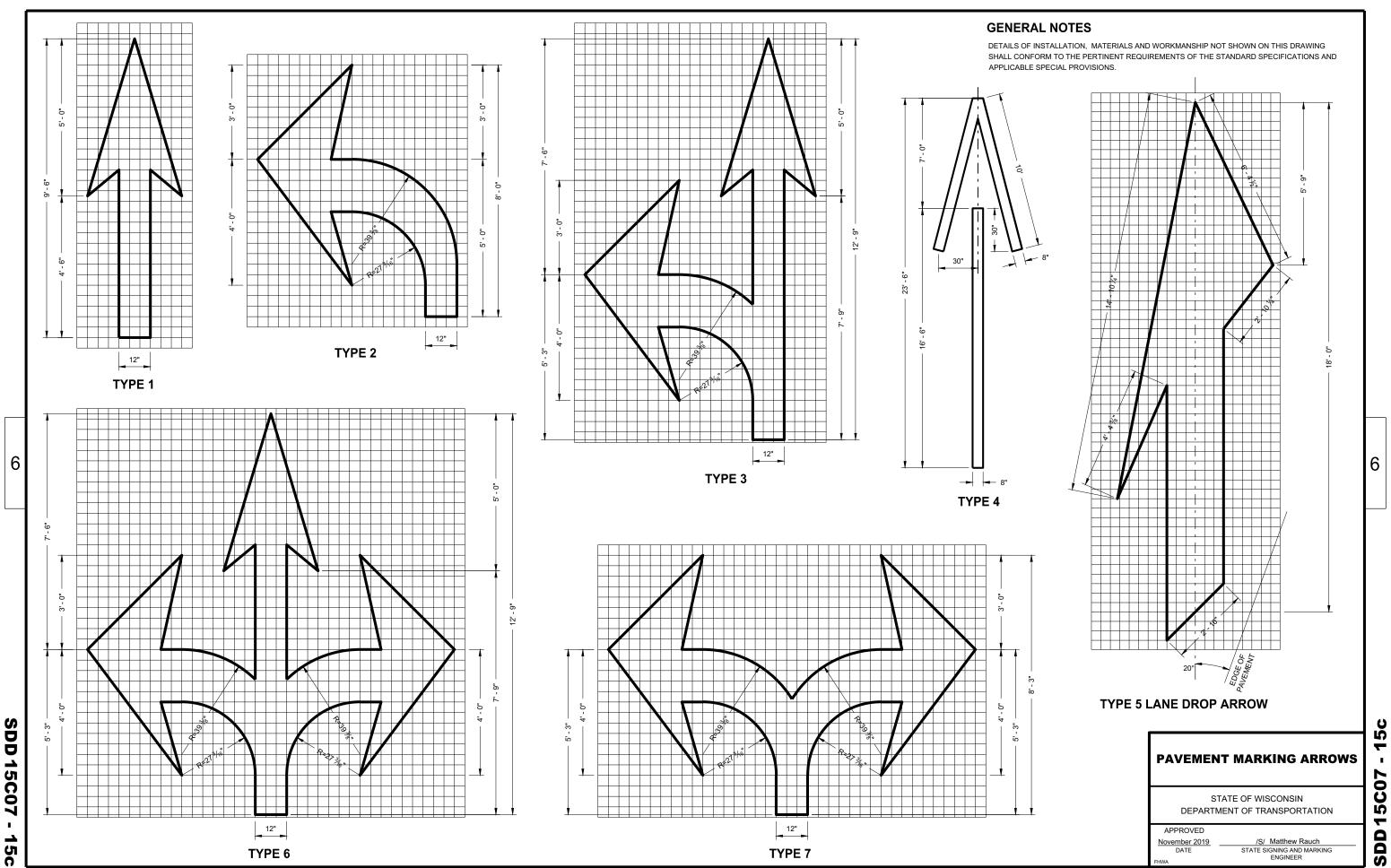
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**SDD15C07** 

APPROVED

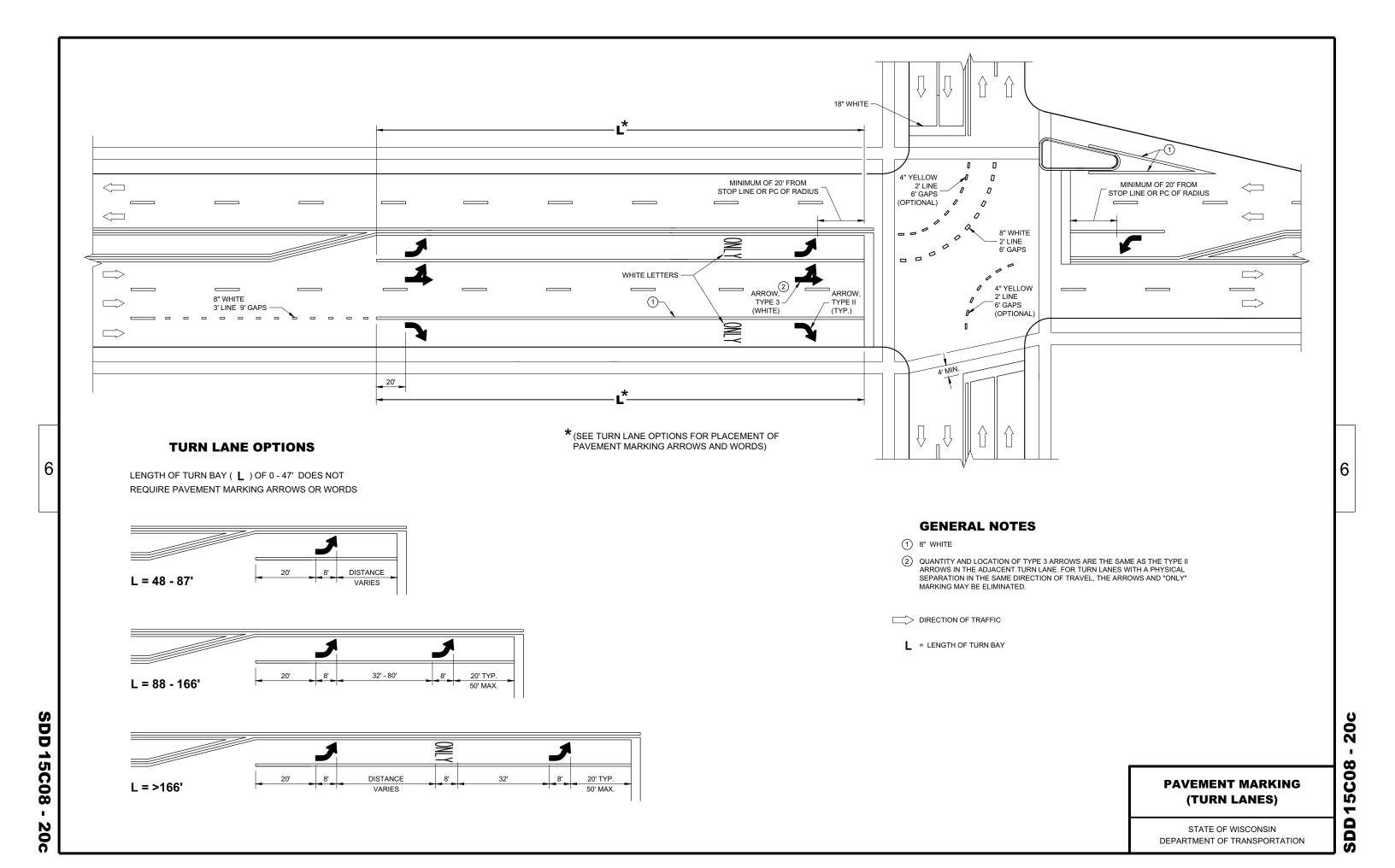
November 2019 /S/ Matthew Rauch
DATE STATE SIGNING AND MARKING
ENGINEER



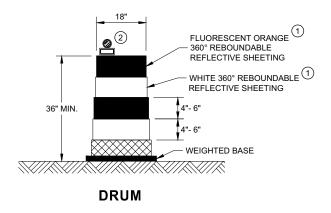
TYPE 7

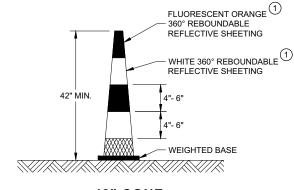
TYPE 6

SDD



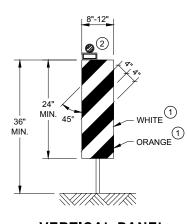
- (1) REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- (2) LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.



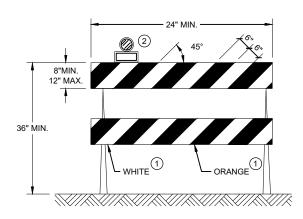


**42" CONE** DO NOT USE IN TAPERS

½ SPACING OF DRUMS

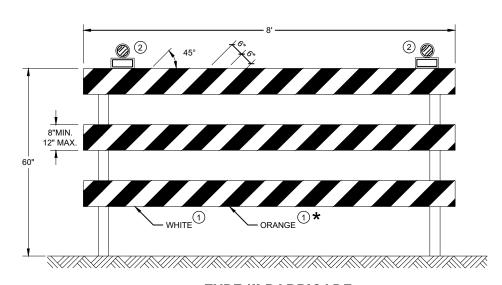


#### **VERTICAL PANEL** THE STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZATION.



#### **TYPE II BARRICADE**

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZATION.



#### **TYPE III BARRICADE**

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

\* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

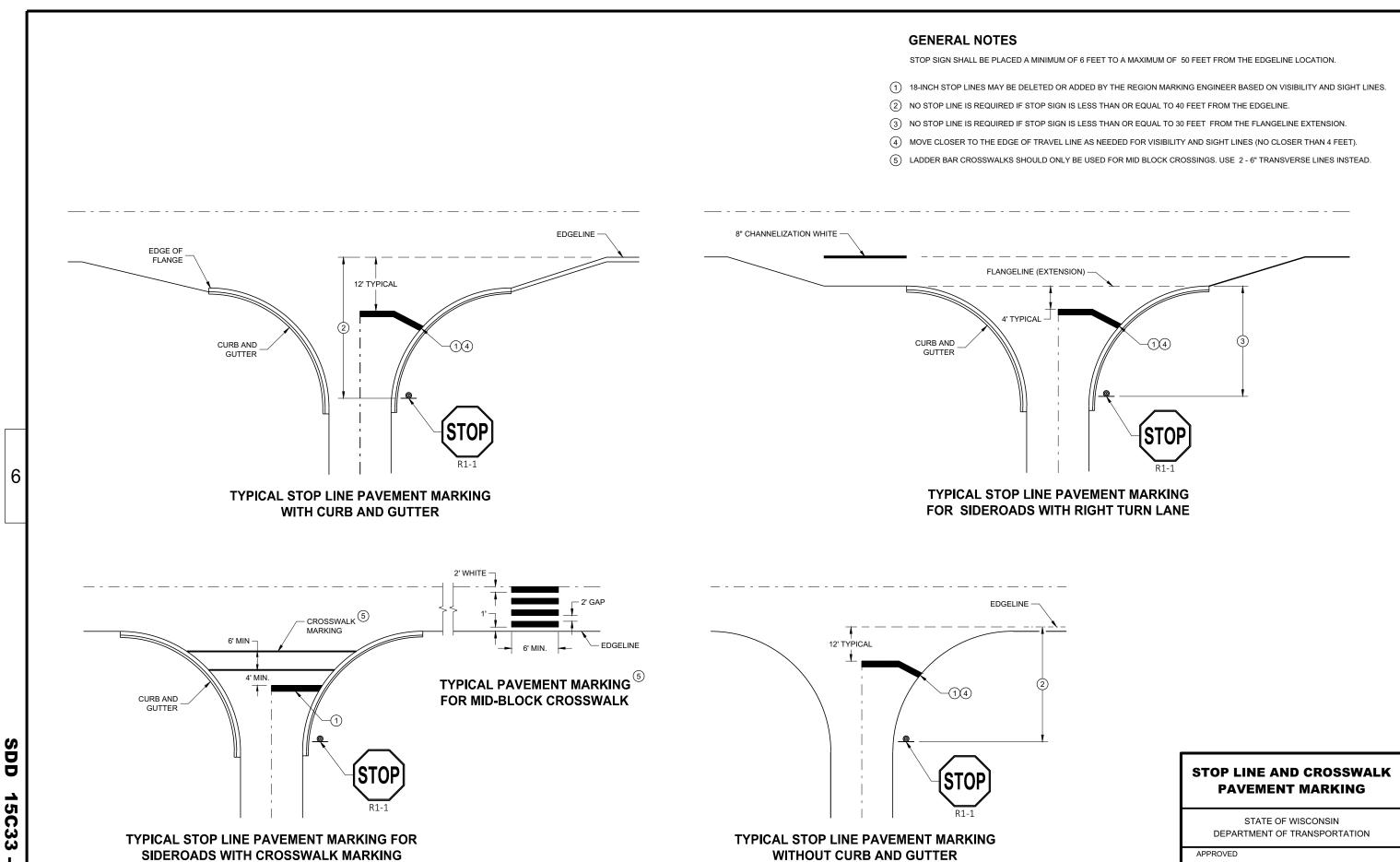
### **CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS**

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STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED	
November 2020	/S/ Andrew Heidtke
DATE	WORK ZONE ENGINEER



**C33** 15 SDD

/S/ Matthew Rauch
STATE SIGNING AND MARKING
ENGINEER

November 2019 DATE

SIGN ON PERMANENT SUPPORT

TRAFFIC CONTROL DRUM

TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT

TYPE III BARRICADE
WITH ATTACHED SIGN

TYPE "A" WARNING LIGHT (FLASHING)

FLASHING ARROW BOARD

DIRECTION OF TRAFFIC

X X X REMOVE PAVEMENT MARKING (SEE GENERAL NOTES)

WORK AREA

**GENERAL NOTES** 

FOR WORK ON ROADWAYS WITH SPEEDS GREATER THAN 45MPH, USE SDD 15D12.

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE LEFT LANE. FOR A RIGHT LANE CLOSURE, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36"X 36" SIGNS MAY BE USED IF APPROVED BY REGIONAL TRAFFIC UNIT.

"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON TEMPORARY SUPPORTS.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

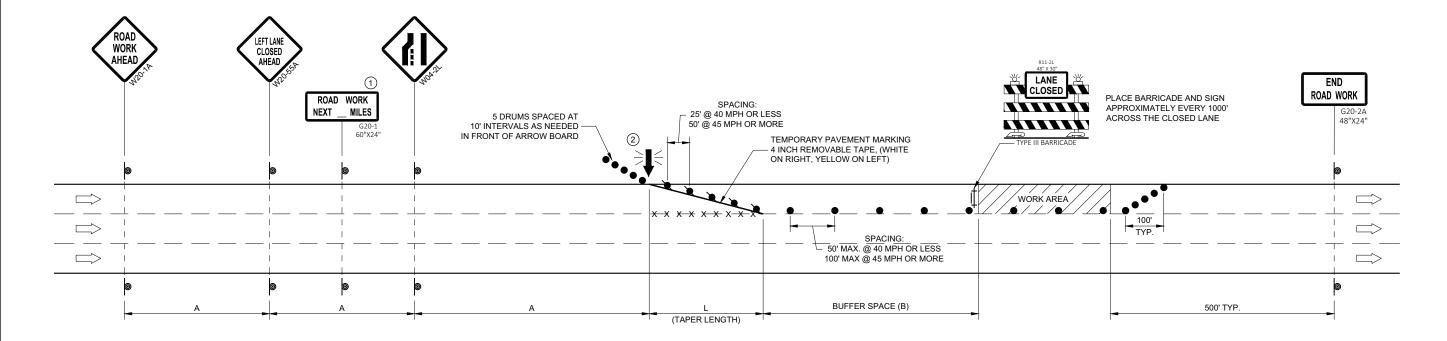
CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROW BOARDS AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

- (1) OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.
- (2) WHERE THE SHOULDER OR TERRACE HAS INSUFFICIENT SPACE TO PLACE THE ARROW BOARD AS SHOWN, PLACE THE ARROW BOARD AT THE END OF THE TAPER.



POSTED SPEED LIMIT ADVANCE TAPER LENGTH | BUFFER PRIOR TO WORK WARNING SIGN (12 FT. LANE) SPACE STARTING (MPH) SPACING (A) FEET (L) FEET (B) FEET 25 200' 125' 55' 30 200' 180' 85' 35 350' 245' 120' 40 170' 350 320' 45 500' 540' 220'

TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

May 2020

DATE

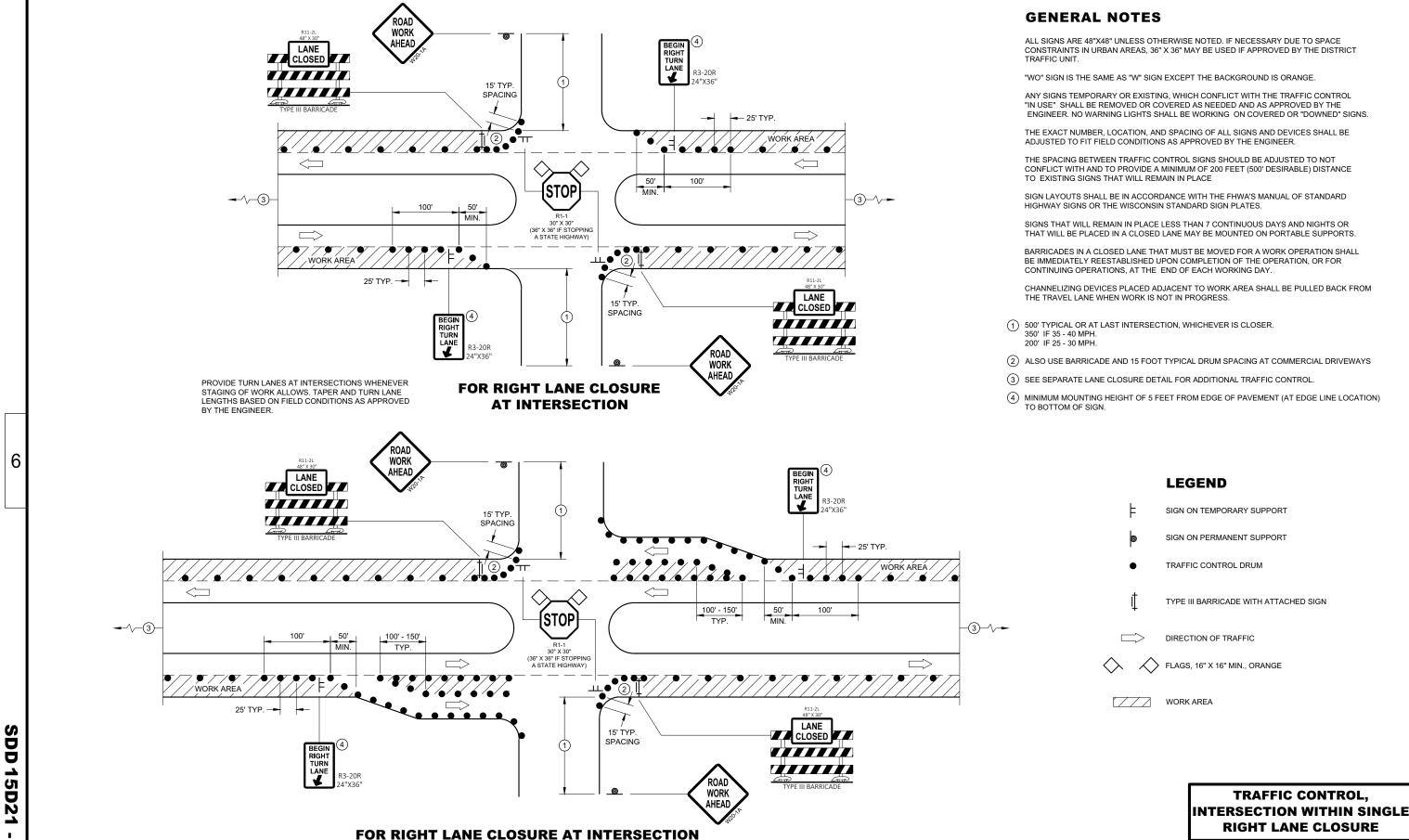
/S/ Andrew Heidtke
STATEWIDE WORK ZONE TRAFFIC
SAFETY ENGINEER

**SDD 15D20 - 05** 

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(WITH RIGHT TURN BAY OPEN)

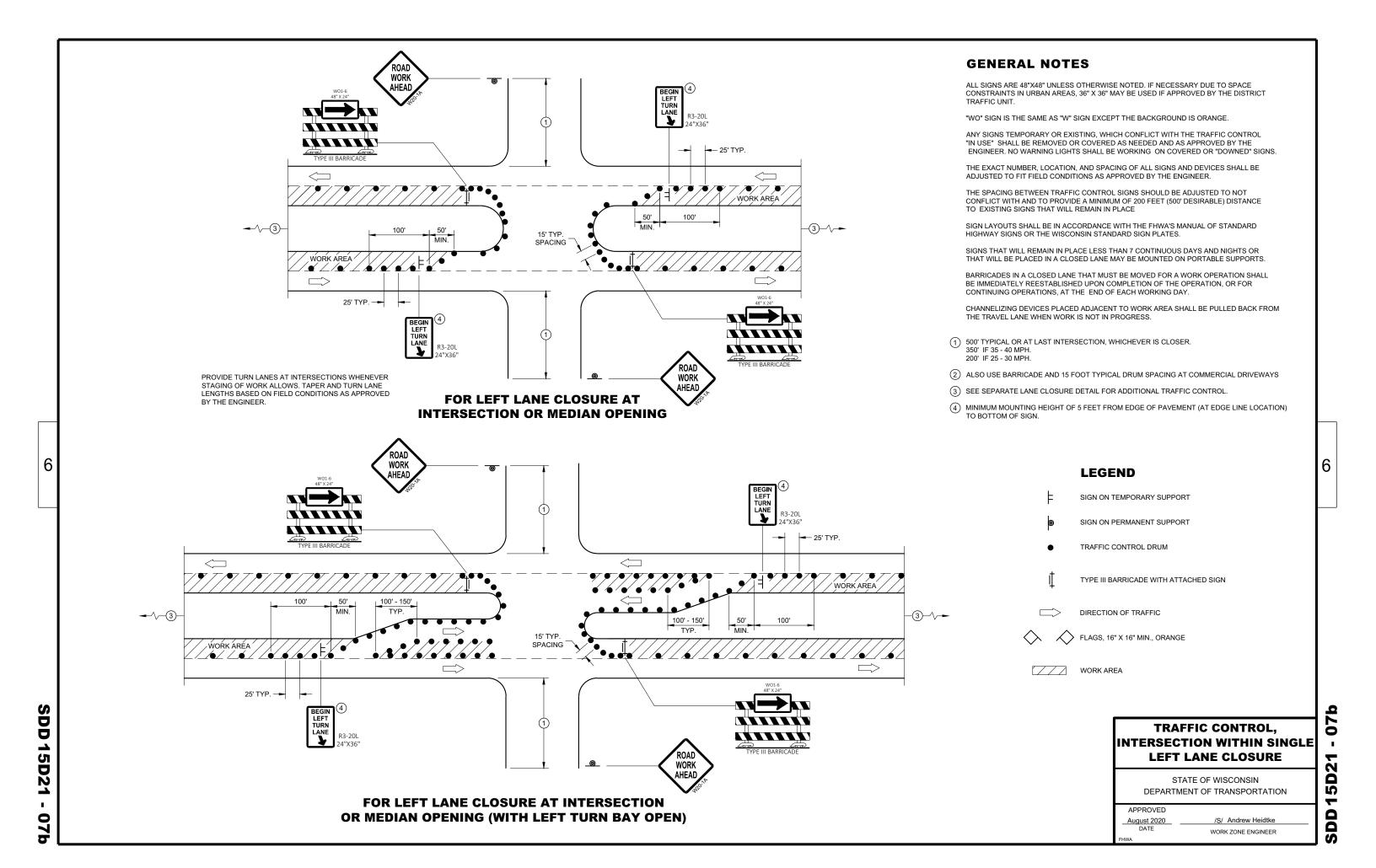
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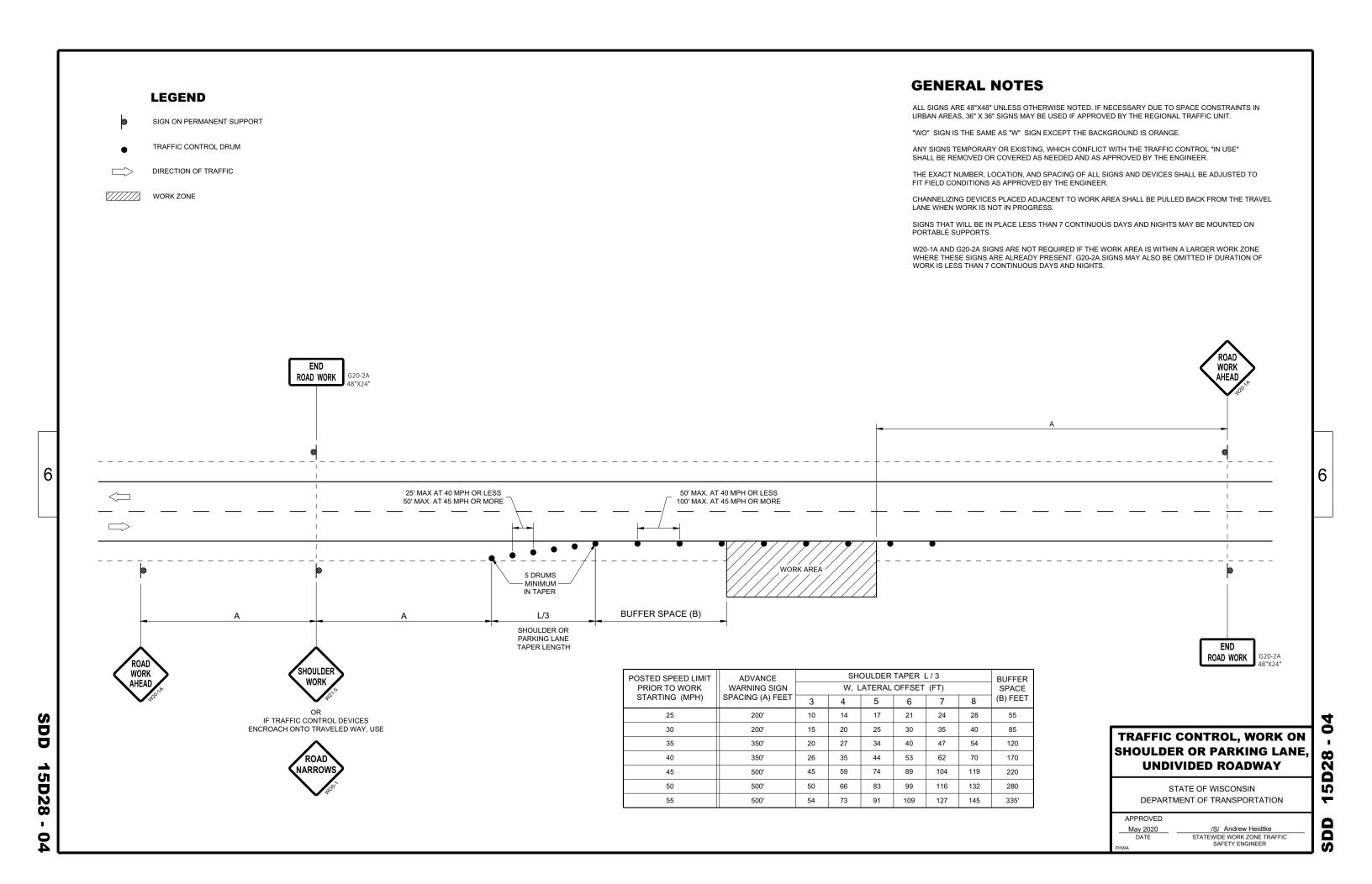
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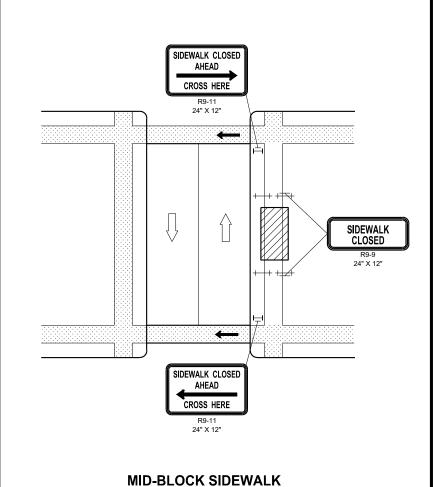
S

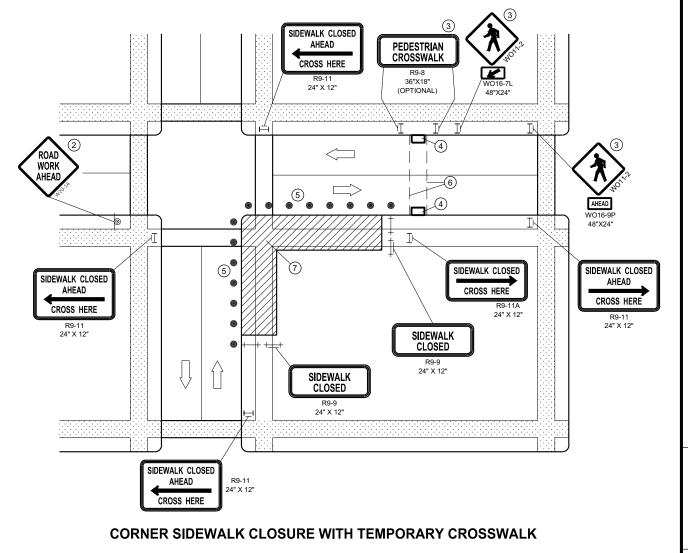
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION





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#### **GENERAL NOTES**

WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, PROVIDE DETECABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH EXISTING PEDESTRIAN FACILITIES.

**CLOSURE** 

TEMPORARY TRAFFIC CONTROL DEVICES FOR PEDESTRIANS ARE SHOWN. OTHER DEVICES MAY BE NECESSARY TO CONTROL VEHICULAR TRAFFIC. STAGE WORK AS NECESSARY, TO PROVIDE A TEMPORARY PEDESTRIAN ACCESS ROUTE AT ALL TIMES. FOR ROADWAYS WITH NO AVAILABLE DETOURS, MAINTAIN ONE OPEN SIDEWALK AT ALL TIMES.

"WO" SIGN IS THE SAME AS "W" SIGN, EXCEPT THE BACKGROUND IS ORANGE.

FOR NIGHTIME CLOSURE, USE TYPE "A" FLASHING WARNING LIGHTS ON BARRICADES, SUPPORTING SIGNS AND CLOSING SIDEWALK. USE TYPE "C" STEADY BURN LIGHTS ON CHANNELIZING DEVICES SEPARATING THE WORK AREA FROM VEHICULAR TRAFFIC.

PEDESTRIAN TRAFFIC SIGNAL DISPLAY CONTROLLING CLOSED CROSSWALK SHALL BE COVERED OR DEACTIVATED.

POST MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK SHALL HAVE A 7 FOOT MINIMUM CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE SIDEWALK SURFACE.

ALTERNATE SIDEWALK WORK BETWEEK LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

- 1 IF SIDEWALK CLOSURE AFFECTS AN ACCESSIBLE AND DETECTABLE FACILITY, MAINTAIN ACCESSIBILITY AND DETECTABILITY ALONG THE ALTERNATE PEDESTRIAN ROUTE
- (2) "ROAD WORK AHEAD" SIGNS ARE NOT REQUIRED IF THE SIDEWALK CLOSURE OCCURS WITHIN A LARGER WORK ZONE WHERE ADVANCE WARNING SIGNS ARE ALREADY PRESENT, OR IF THE WORK AREA AND EQUIPMENT ARE MORE THAN 2 FEET BEHIND THE CURB.
- (3) IF TEMPORARY PEDESTRIAN CROSSWALK IS NOT PROVIDED, OMIT R9-8 AND WO11-2 SIGN ASSEMBLIES. IF PROVIDED INCLUDE ON BOTH SIDES OF THE CROSSWALK
- (4) TEMPORARY CURB RAMPS. SEE SDD 15D30 SHEET "b'.
- (5) DRUMS OR BARRICADES AT 25 FOOT SPACING. STREET PARKING SHALL BE PROHIBITED FOR AT LEAST 50 FEET IN ADVANCE OF THE MID-BLOCK CROSSWALK.
- 6 TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.
- (7) LIMIT WORK TO ONE QUADRANT AT A TIME TO MINIMIZE PEDESTRIAN DISRUPTION.

#### LEGEND

SIGN ON PERMANENT SUPPORT

TRAFFIC CONTROL DRUM

TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW INTENSITY FLASHING)

TYPE III BARRICADE WITHWITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW INTENSITY FLASHING)

UNDER PEDESTRIAN TRAFFIC

WORK AREA

PEDESTRIAN CHANNELIZATION DEVICE

> DIRECTION OF TRAFFIC

# TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 15D30 - 06a

4" WIDE EDGE MARKING (6)

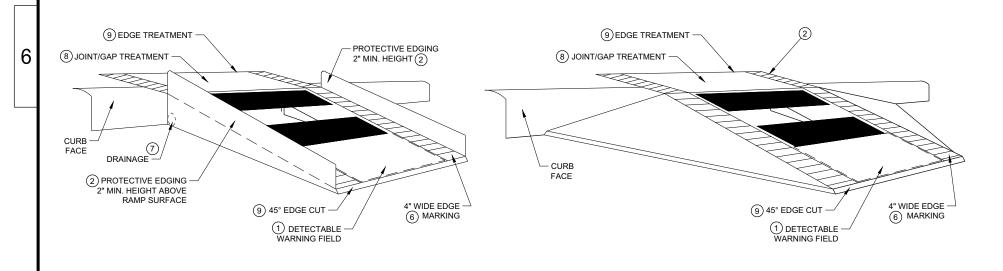
#### **TEMPORARY CURB RAMP PARALLEL TO CURB**

CROSS SLOPE 2% MAX. (4)

PROTECTIVE EDGING 2" MIN. HEIGHT

WITH SIDE APRON

ABOVE RAMP SURFACE (2)



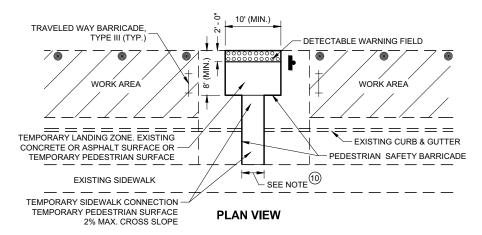
#### TEMPORARY CURB RAMP PERPENDICULAR TO CURB

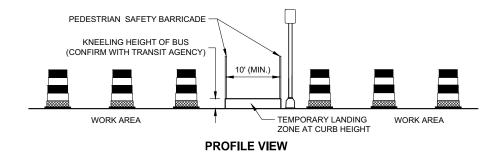
#### **GENERAL NOTES**

NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

- (1) CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A A FIRM, STABLE AND SLIP RESISTANT SURFACE. INSTALL CONTRASTING DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS. REFER TO SDD 08D05, SHEET "6".
- 2) PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%), PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
- 3 DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
- (4) CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.
- (5) CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
- (6) THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A YELLOW COLOR, 4" WIDE MARKING, UNLESS A CONTRASTING DETECTABLE WARNING FIELD IS PROVIDED.
- 7) DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
- (8) LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.
- (9) CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES SHALL BE VERTICAL UP TO ¼" HIGH AND BEVELED AT 1:2 BETWEEN ¼" AND ½".
- (10) 5" WIDE MIN. WITH PEDESTRIAN SAFETY BARRICADE, 10' WIDE MIN. WITHOUT PEDESTRIAN SAFETY BARRICADE.





TEMPORARY BUS STOP PAD

#### LEGEND



### TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

<u> 90</u>

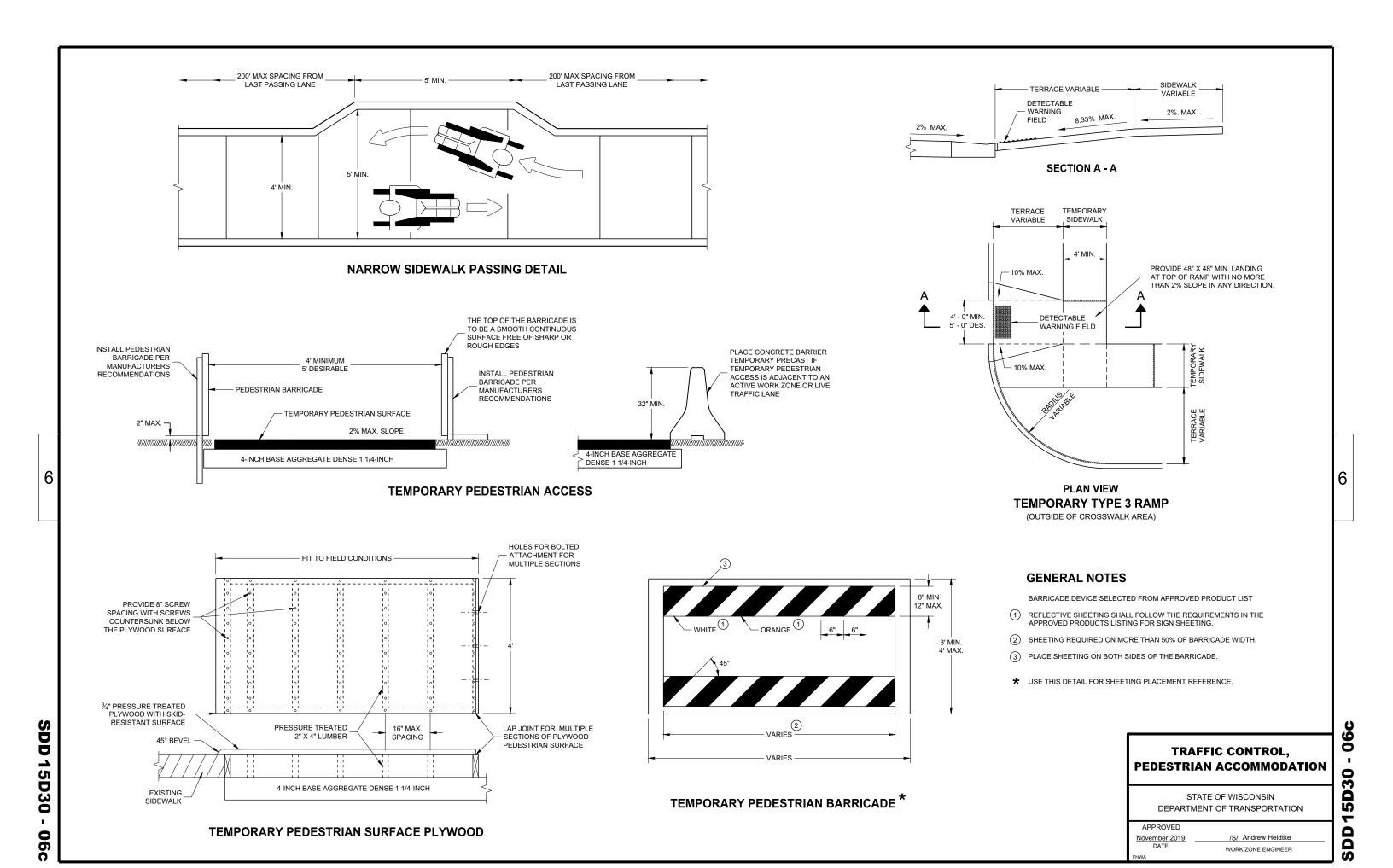
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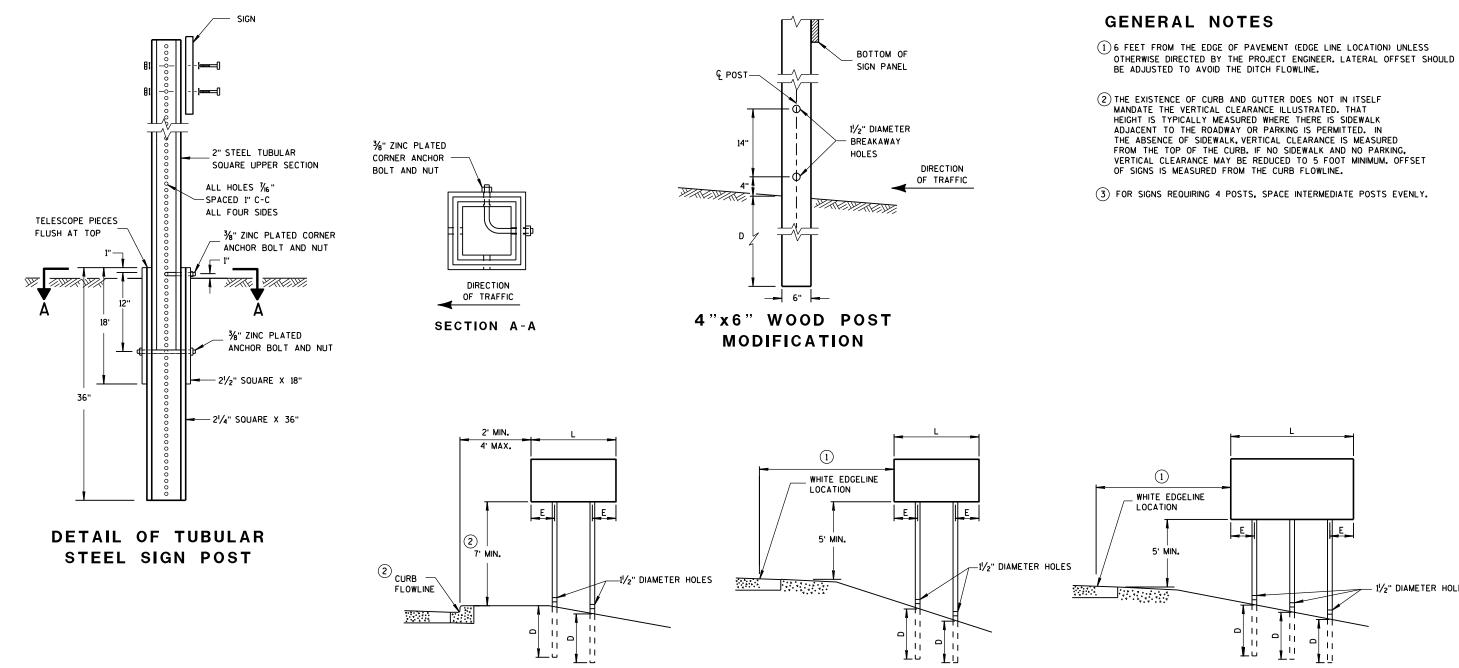
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(5) CLEAR SPACE

(9) EDGE TREATMENT

WITH PROTECTIVE EDGE





TUBULAR STEEL POSTS

6

D

D

15

D

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AREA OF SIGN INSTALLATION (SO. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SO.FT. SHALL BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE). SIGNS LARGER THAN 27 SO.FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

URBAN AREA

RURAL AREA

### POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

WOOD POST **EMBEDMENT DEPTH** 

AREA OF SIGN INSTALLATION (SO. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'

4" X 6" WOOD POST

POST SPACING REQUIREMENTS		NUMBER OF	
L	E	WOOD POSTS REQUIRED	
48" OR LESS AND LESS THAN 20 SO.FT.	-	1	
LESS THAN 60"	12"	2	]
60" TO 120"	L/5	2	
GREATER THAN 120" LESS THAN 168"	12"	3	
168" AND GREATER	12"	4	

SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

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-11

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- 11/2" DIAMETER HOLES

6

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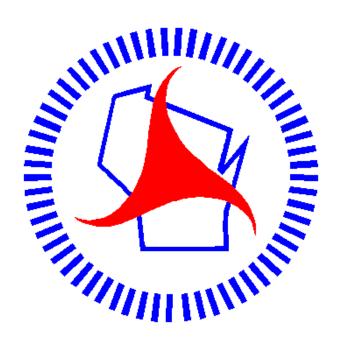
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DEPARTMENT OF TRANSPORTATION

/S/ Andrew Heidtke WORK ZONE ENGINEER

APPROVED

June 2017 DATE



# Wisconsin Department of Transportation

Dedicated people creating transportation solutions through innovation and exceptional service.

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