

Madison, Wisconsin

INDEX OF SHEETS

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X1-X3	

CITY OF MADISON

CITY ENGINEERING DIVISION

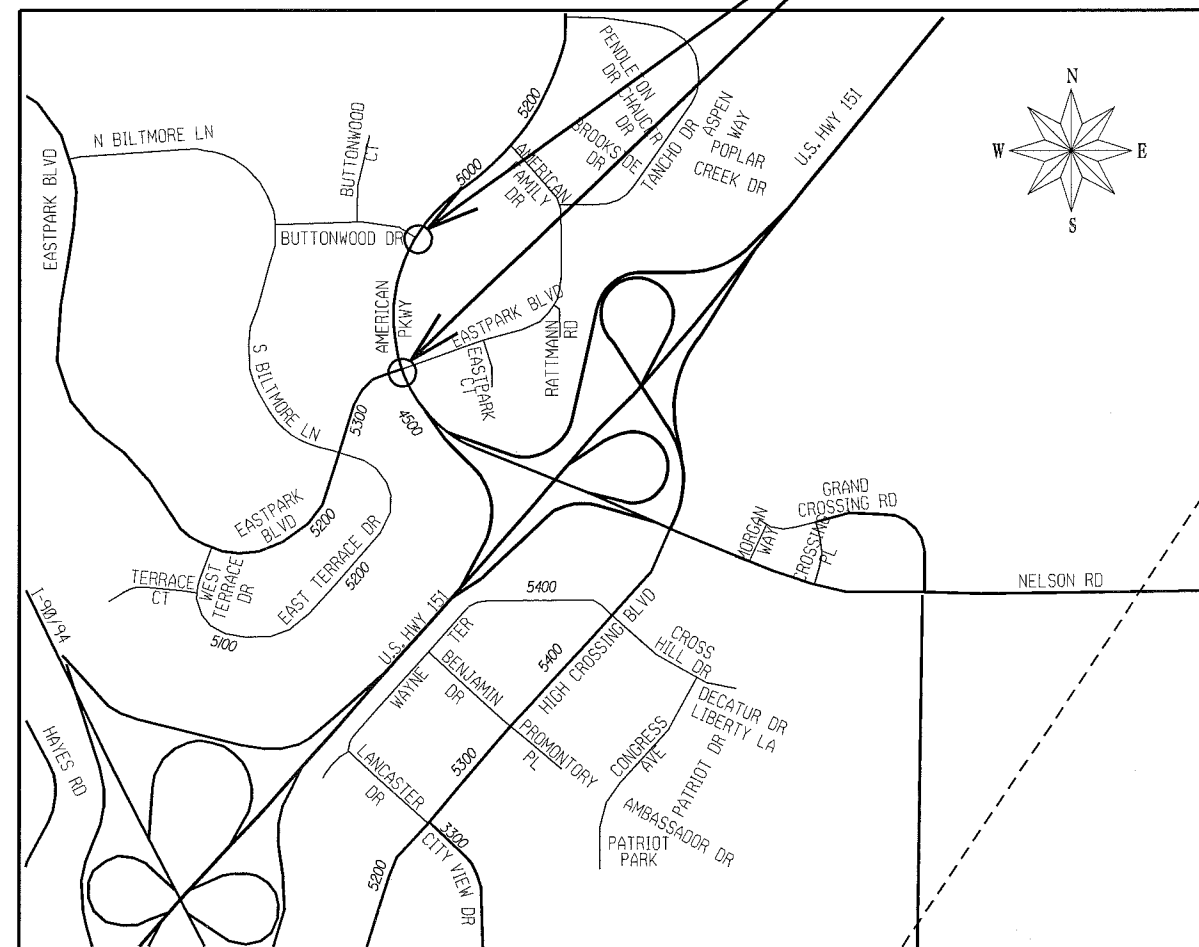
DEPARTMENT OF PUBLIC WORKS

PLAN OF PROPOSED IMPROVEMENT

INTERSECTION IMPROVEMENTS AT AMERICAN PKWY & EASTPARK BLVD AND AMERICAN PKWY & BUTTOWOOD DR - 2015

CITY PROJECT NO. 53W1839
CONTRACT NO. 7432

CONSTRUCTION PROJECT LOCATION



CONVENTIONAL SIGNS	
FIELD VERIFY ALL UTILITY LOCATIONS	
GAS	— G —
STORM SEWER	— ST —
SANITARY SEWER	— SAN —
WATER	— W —
BURIED ELECTRIC	— E —
OVERHEAD ELECTRIC	— OH —
POWER POLE	
ADA COMPLIANT RAMP W/ DETECTABLE WARNING FIELD	
COMBUSTIBLE FLUIDS	

NOTES:

ALL GUTTERS SHALL DRAIN WITH A MINIMUM GRADE OF 0.50% TOWARD STORM SEWER INLETS.

SIDEWALK RAMPS AND CURB THRU SIDEWALK RAMPS SHALL HAVE A MAXIMUM SLOPE OF 1" PER 12". SIDEWALK AND CURB RAMPS SHALL BE CONSTRUCTED WITH A SIDE SLOPE OF 1.50%. SIDEWALK SHALL HAVE A MINIMUM LONGITUDINAL SLOPE OF 0.50% AND A MAXIMUM LONGITUDINAL SLOPE OF 5.00% EXCEPT WHERE STREET GRADES EXCEED 5.00%.

EARTH WORK SUMMARY:

EXCAVATION CUT (MEASURED PLAN QUANTITY)	320 C.Y.
ESTIMATED UNDISTRIBUTED UNDERCUT	50 C.Y.
TOTAL UNCLASSIFIED EXCAVATION CUT	370 C.Y.

PUBLIC IMPROVEMENT PROJECT
APPROVED

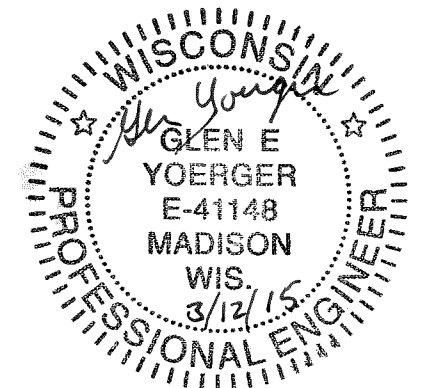
FEBRUARY 24, 2015

BY THE COMMON COUNCIL
OF MADISON, WISCONSIN

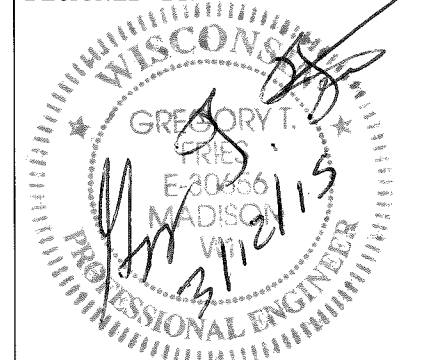
PUBLIC IMPROVEMENT DESIGN
APPROVED BY:

City Engineer 3/13/15
Date

STREET
DESIGNED BY:



STORM SEWER
DESIGNED BY:



TRAFFIC CONTROL &
PAVEMENT MARKINGS
DESIGNED BY:



ELECTRICAL
DESIGNED BY:

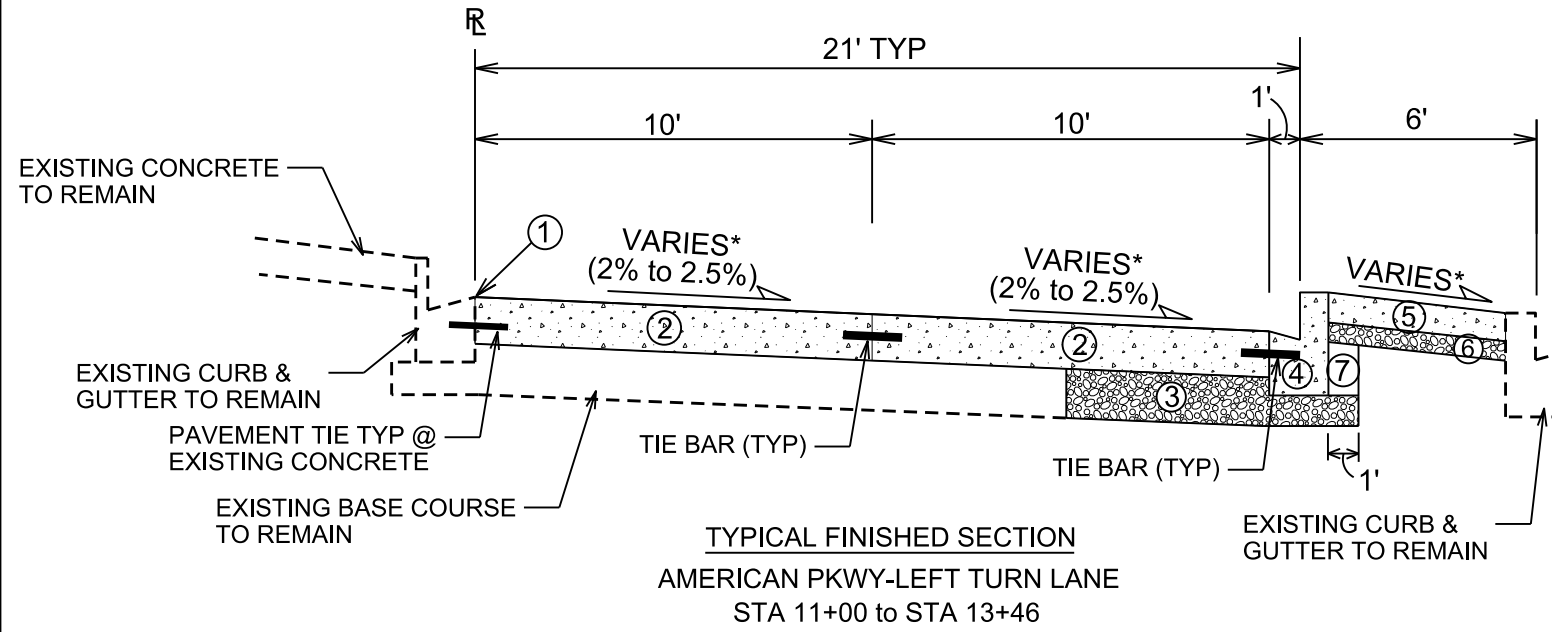


PLOT SCALE:

PLOT NAME:

REV. DATE:

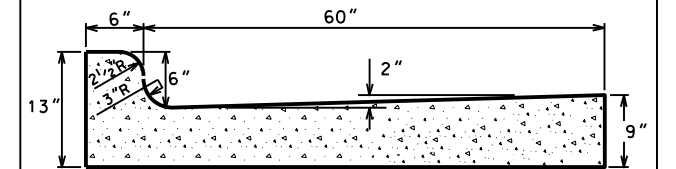
ORIGINATOR: CITY OF MADISON, STREETS DIVISION



- ① POINT REFERRED TO ON PROFILE
- ② 9-INCH CONCRETE PAVEMENT
- ③ 8" GRADATION 2 CRUSHED STONE
- ④ TYPE 'H' CONCRETE CURB & GUTTER
- ⑤ 5" CONCRETE SIDEWALK
- ⑥ 2" GRANDATION 2 CRUSHED STONE
- ⑦ FILL (INCIDENTAL)

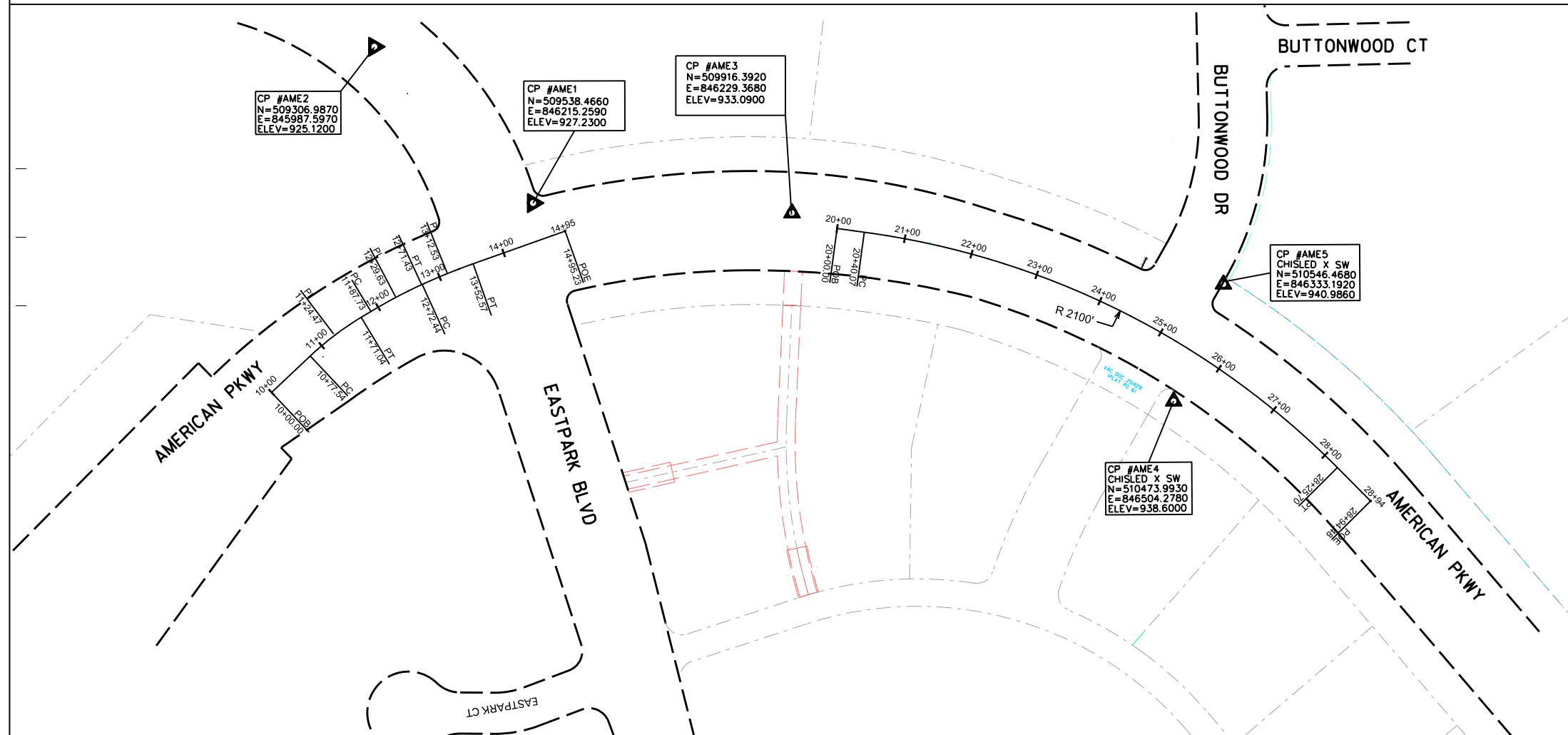
NOTES: 1) CONSTRUCT 9-INCH CONCRETE PAVEMENT PER S.D.D. 3.10 & 3.11

2) * SEE CROSS SECTION SHEETS FOR CROSS SLOPES AND TOP OF CURB ELEVATIONS.

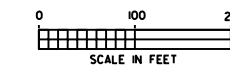
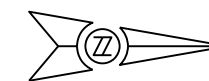


CONCRETE CURB & GUTTER SPECIAL, 66-INCH NOT TO SCALE

TYPICAL SECTIONS NOT TO SCALE



ALIGNMENTS

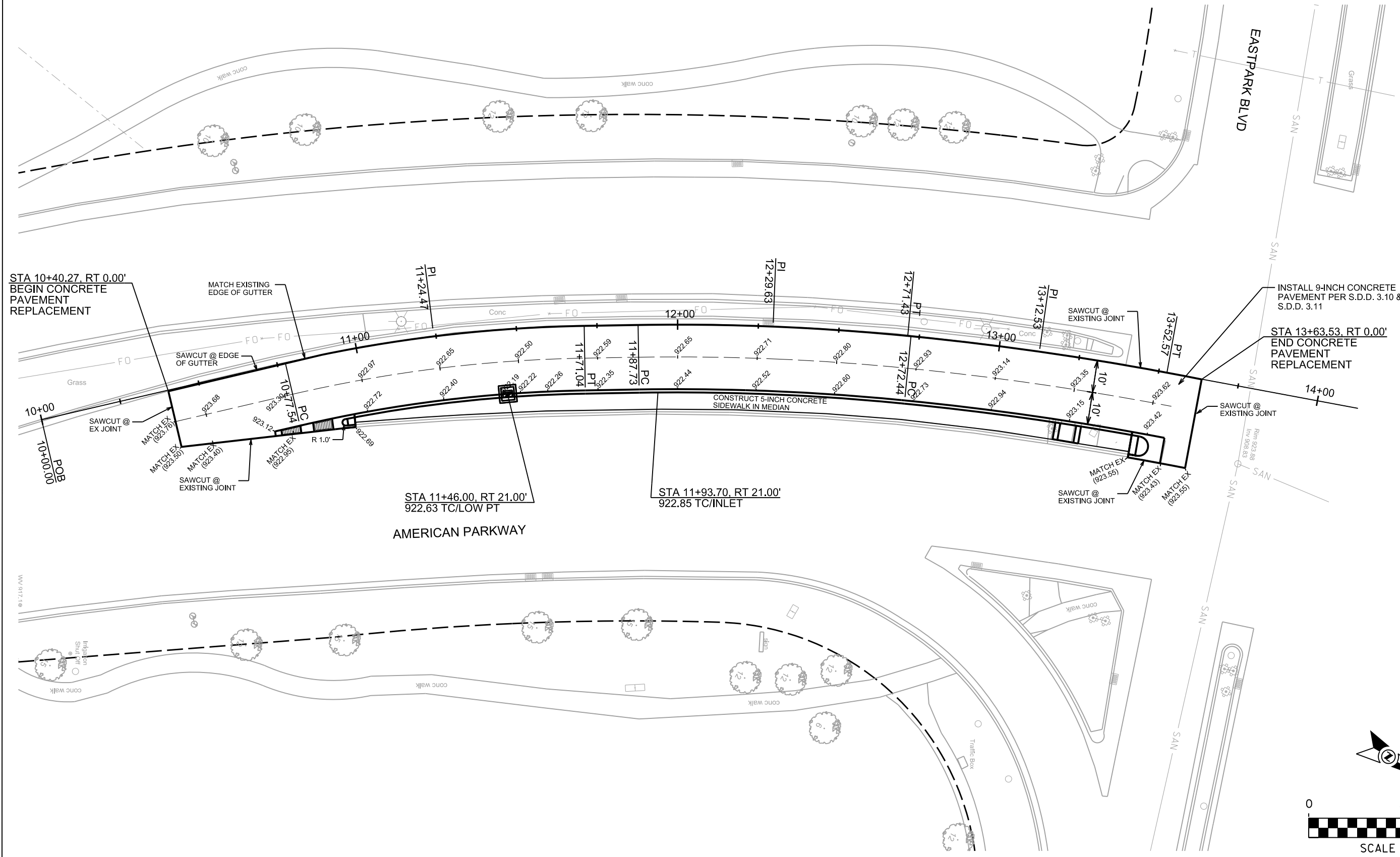


PLOT SCALE: _____

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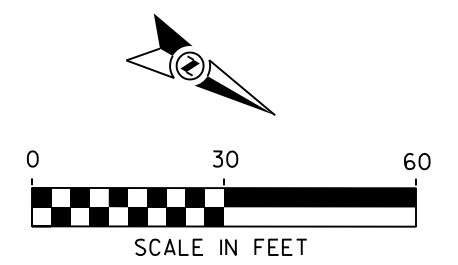


STA 10+40.27, RT 0.00'
 BEGIN CONCRETE PAVEMENT REPLACEMENT

INSTALL 9-INCH CONCRETE PAVEMENT PER S.D.D. 3.10 & S.D.D. 3.11
 STA 13+63.53, RT 0.00'
 END CONCRETE PAVEMENT REPLACEMENT

STA 11+46.00, RT 21.00'
 922.63 TC/LOW PT
 AMERICAN PARKWAY

STA 11+93.70, RT 21.00'
 922.85 TC/INLET

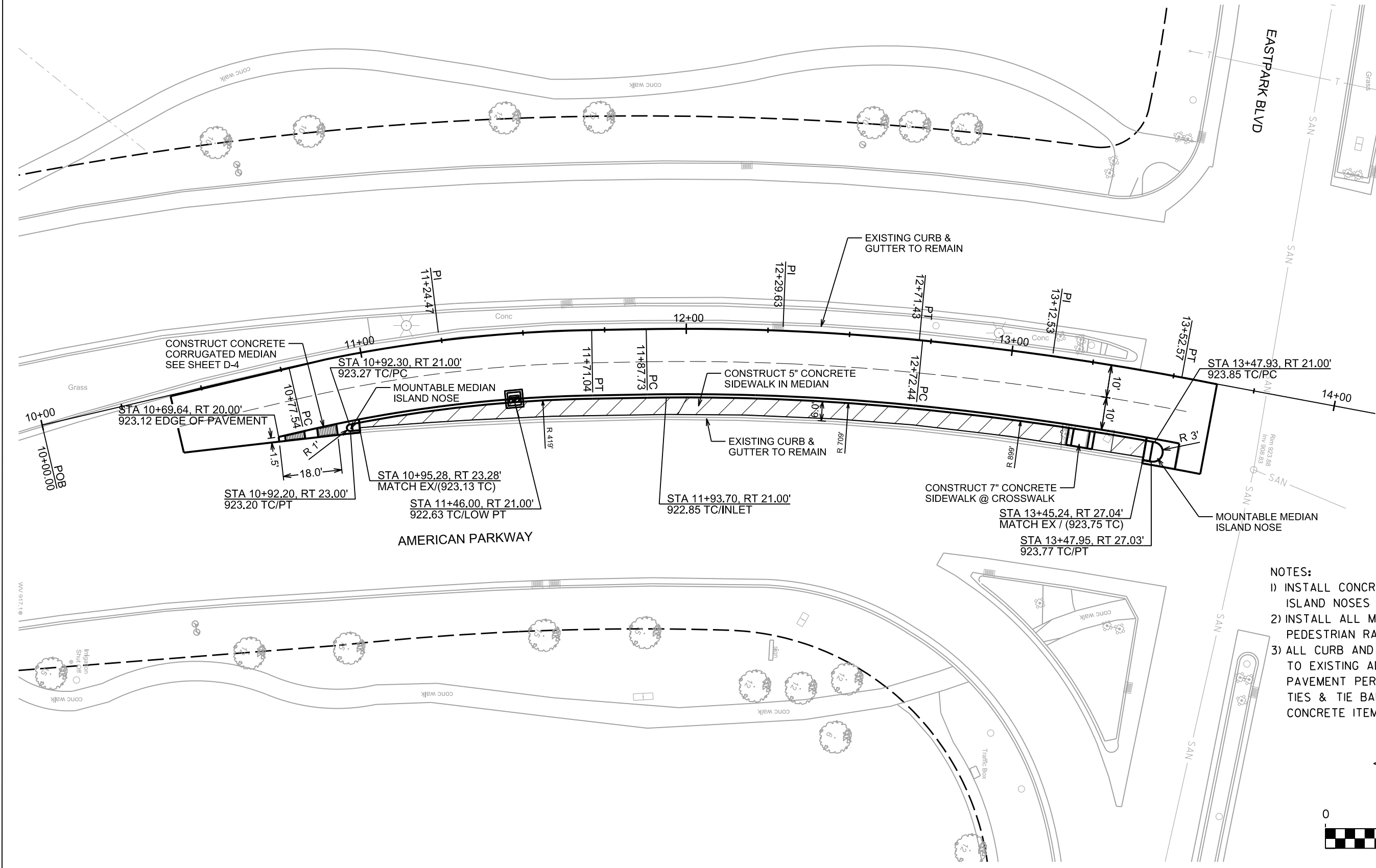


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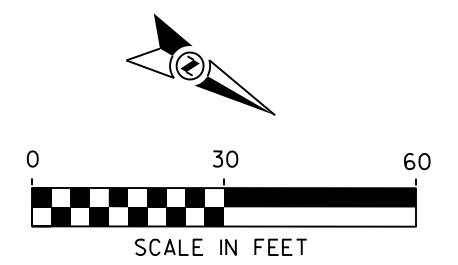
PLOT NAME:

REV. DATE:

ORIGINATOR: CITY OF MADISON, STREETS DIVISION

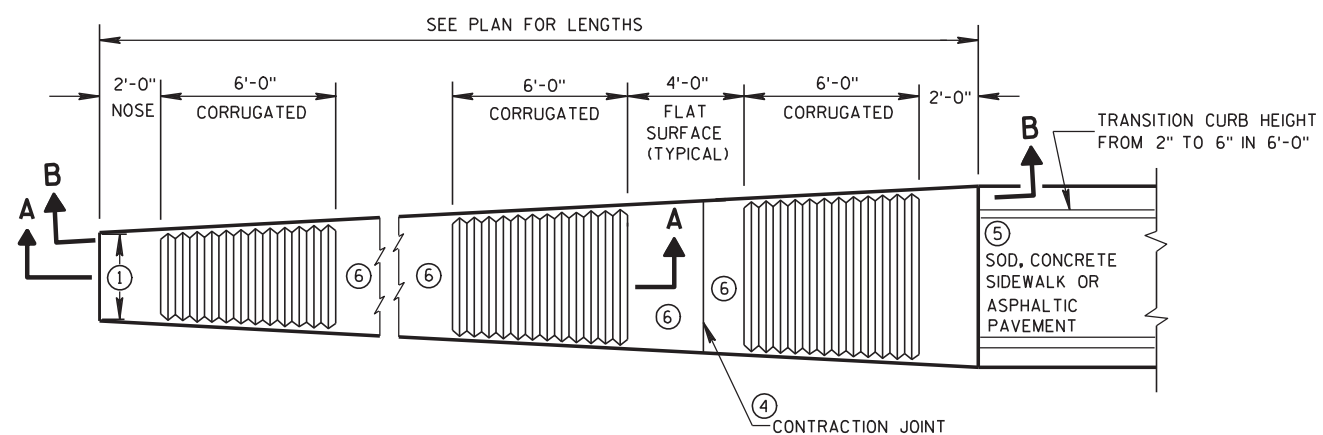


- NOTES:
- 1) INSTALL CONCRETE MOUNTABLE MEDIAN ISLAND NOSES PER S.D.D. 3.I3.
 - 2) INSTALL ALL MEDIAN ISLAND PEDESTRIAN RAMPS PER S.D.D. 3.I3
 - 3) ALL CURB AND GUTTER SHALL BE TIED TO EXISTING ADJACENT CONCRETE PAVEMENT PER S.D.D. 3.I0. ALL PAVEMENT TIES & TIE BARS ARE INCIDENTAL TO THE CONCRETE ITEM BEING PLACED.

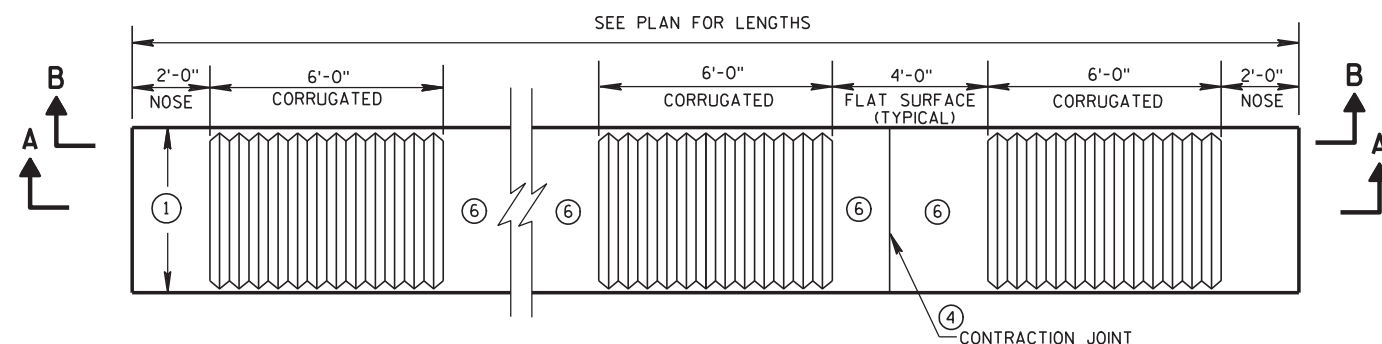




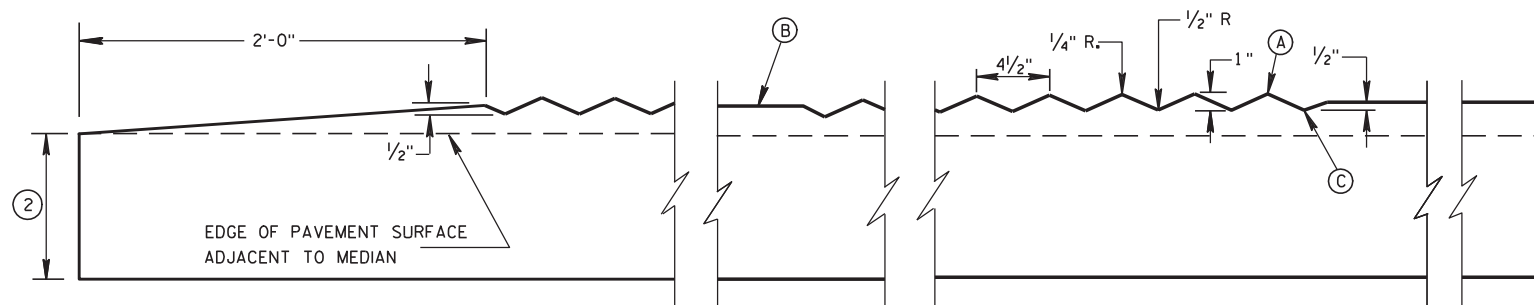
11B1: Concrete Corrugated Median



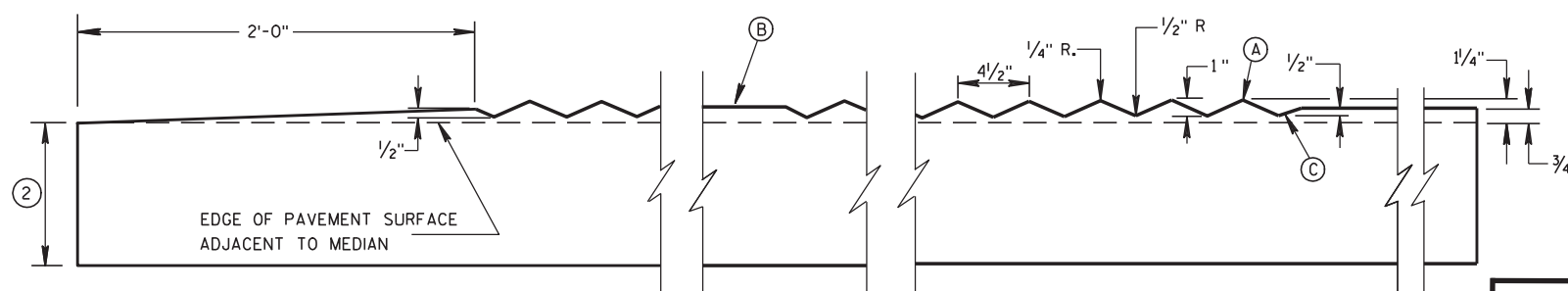
**PLAN VIEW
VARIABLE WIDTH CONCRETE CORRUGATED MEDIAN**



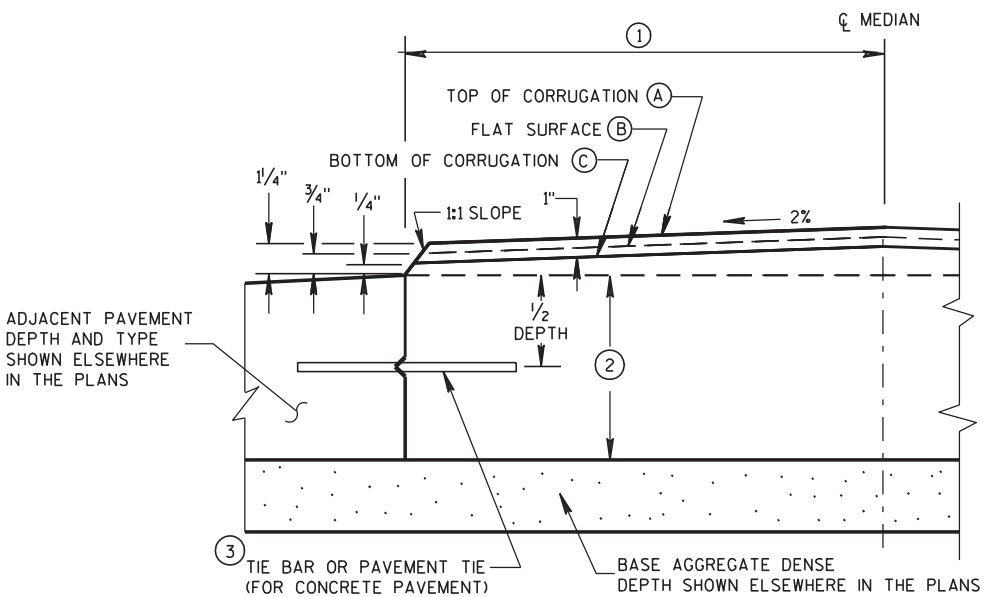
**PLAN VIEW
UNIFORM WIDTH CONCRETE CORRUGATED MEDIAN**



**SECTION A-A
LONGITUDINAL SECTION**



**SECTION B-B
LONGITUDINAL SECTION**



**HALF CROSS SECTION
CONCRETE CORRUGATED MEDIAN AND ADJACENT PAVEMENT**

GENERAL NOTES

- ① SEE PLANS FOR CONSTANT OR VARIABLE WIDTH.
- ② THE DEPTH OF THE CONCRETE CORRUGATED MEDIAN SHALL BE 9-INCHES UNLESS SHOWN OTHERWISE IN THE PLAN. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN IN THE PLAN. TYPICAL OPTIONS ARE:
 (1) NEW OR EXISTING CONCRETE PAVEMENT.
 (2) ASPHALTIC CONCRETE OVER NEW OR EXISTING CONCRETE BASE COURSE, OR PAVEMENT.
 (3) ASPHALTIC PAVEMENT OVER BASE AGGREGATE DENSE.
- ③ TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C. INSTALL TIE BARS TO MAINTAIN A MINIMUM OF 3-INCHES OF COVER BETWEEN THE TIE BAR AND THE CONCRETE SURFACE (BOTTOM AND TOP).
 PAVEMENT TIES REQUIRED IN EXISTING CONCRETE PAVEMENT OR CONCRETE BASE COURSE, PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.
- ④ CONCRETE CORRUGATED MEDIAN CONTRACTION JOINTS SHALL BE CONSTRUCTED TO MATCH THE JOINTS IN ADJACENT CONCRETE PAVEMENT. WHERE ADJACENT PAVEMENT IS ASPHALT WITH BASE AGGREGATE DENSE, TRANSVERSE CONTRACTION JOINTS SHALL BE PROVIDED AT 20 FOOT INTERVALS.
- ⑤ SURFACE TYPE AND DETAILS ARE DEFINED ELSEWHERE IN THE PLAN.
- ⑥ YELLOW MARKING ON FLAT SURFACE WHEN MEDIAN SEPARATES OPPOSING TRAFFIC.

SHEET NO.
D-4

CONCRETE CORRUGATED MEDIAN

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

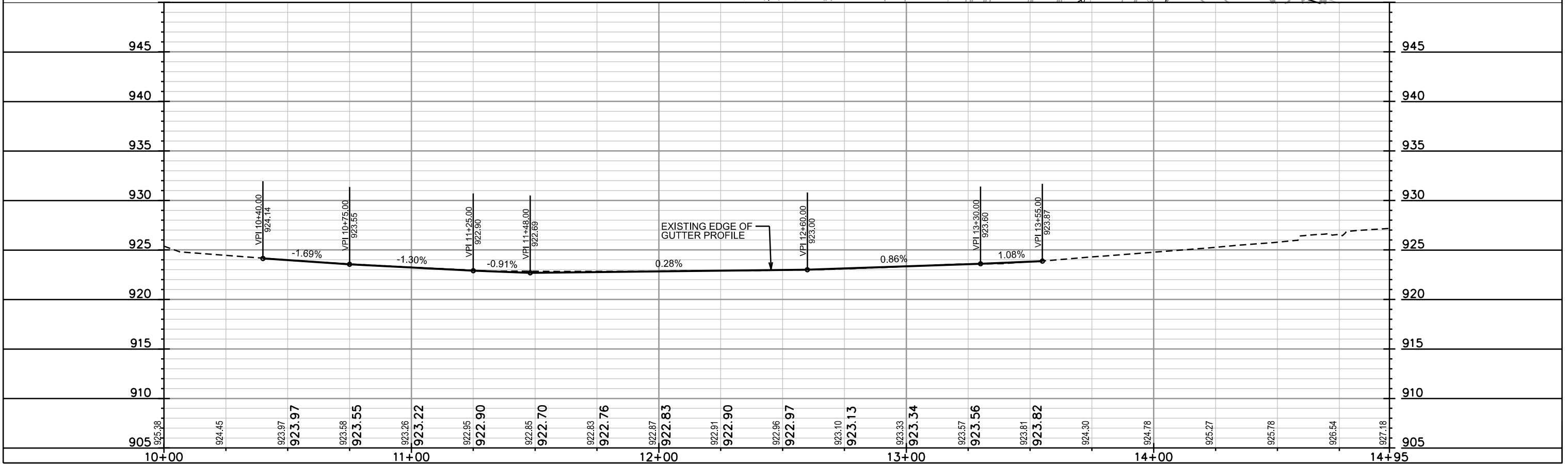
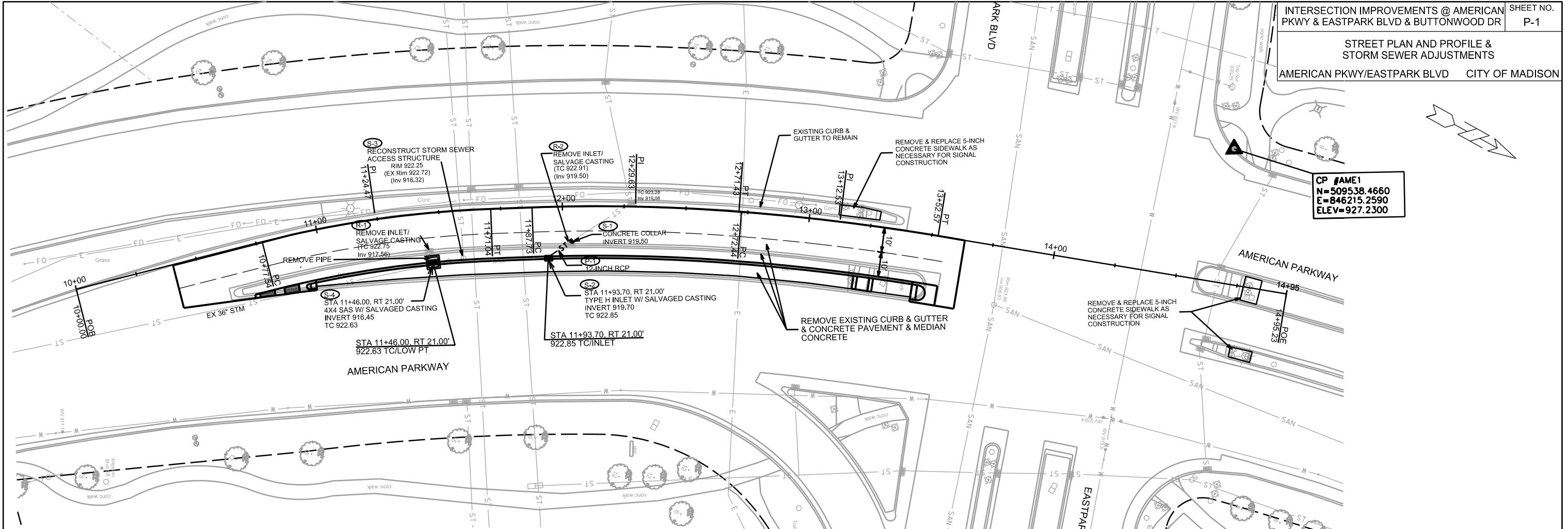
APPROVED

12/17/07
DATE

FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

CP #AME1
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 E=846215.2590
 ELEV=927.2300

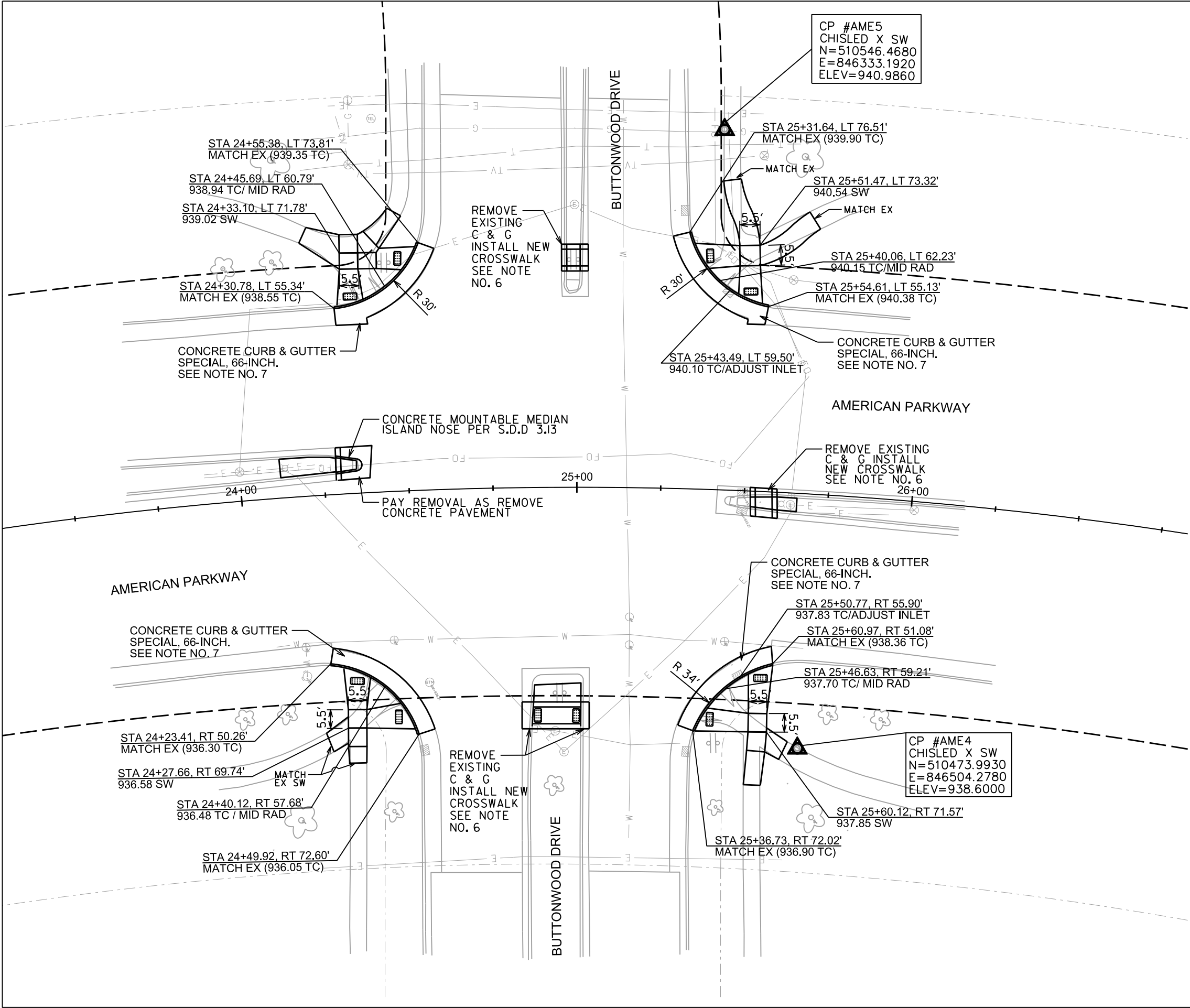
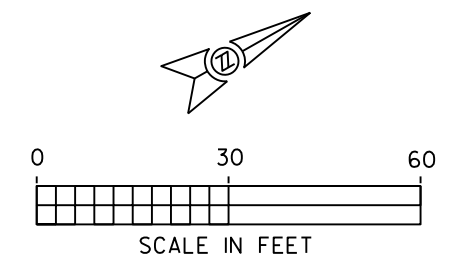


PLOT SCALE: _____

PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON, STREETS DIVISION



- NOTES:
- 1) INSTALL ALL PEDESTRIAN RAMPS PER S.D.D. 3.03 AND 3.04.
 - 2) INSTALL ALL MEDIAN ISLAND PEDESTRIAN RAMPS PER S.D.D. 3.13
 - 3) ALL CURB AND GUTTER SHALL BE TIED TO EXISTING ADJACENT CONCRETE PAVEMENT PER S.D.D. 3.10. ALL PAVEMENT TIES ARE INCIDENTAL TO THE CONCRETE ITEM BEING PLACED.
 - 4) SEE SHEET D-1 FOR CONCRETE CURB & GUTTER SPECIAL, 66-INCH DETAIL.
 - 5) ALL PERPENDICULAR SAWCUTTING OF CONCRETE SIDEWALK AND CURB & GUTTER IS INCIDENTAL TO THE REPLACEMENT OF THAT ITEM.
 - 6) AT ALL MEDIAN ISLAND CROSSWALKS WITH THE CROSSWALK >5' BEHIND ISLAND NOSE, SAWCUT AND REMOVE EXISTING CURB & GUTTER & MEDIAN CONCRETE. PAY REMOVALS UNDER REMOVE CURB & GUTTER AND REMOVE CONCRETE SIDEWALK & DRIVE. CONSTRUCT NEW TYPE 'A' CONCRETE CURB & GUTTER AND 7-INCH CONCRETE SIDEWALK. INSTALL IN ACCORDANCE WITH S.D.D. 3.13.
 - 7) REMOVE AND REPLACE CONCRETE CURB & GUTTER SPECIAL, 66-INCH. MATCH EXISTING EDGE OF PAVEMENT. SEE SPECIAL PROVISIONS.

STORM SEWER SCHEDULE

INTERSECTION IMPROVEMENTS @ AMERICAN PKWY & EASTPARK BLVD	SHEET NO. U-1
PROJECT NO. 53W1839	
STORM SEWER SCHEDULE	CITY OF MADISON

STRUCTURES

STRUC. NO.	STATION	LOCATION (OFFSET)	TYPE	TOP OF CASTING	E.I.	DEPTH	NOTES
S-1	12+03.50	RT-14.10	CONCRETE COLLAR	-	919.50	-	-
S-2	11+93.70	RT-21.00	H INLET	922.85	919.70	3.15	W/ SALVAGED CASTING
S-3	11+58.77	RT-19.37	RECONSTRUCT SAS	922.25	916.32	5.93	EX RIM= 922.72
S-4	11+46.00	RT-21.00	4X4 SAS	922.63	916.45	6.18	W/ SALVAGED CASTING; NOTE (1)

PIPES

PIPE NO.	FROM (DNSTM)	TO (UPSTM)	LGTH (FT)	DISCH. E.I.	INLET E.I.	SLOPE (%)	PIPE SIZE	TYPE	NOTES
P-1	S-1	S-2	11	919.50	919.70	1.82%	12"	RCP	-

STORM STRUCTURE REMOVALS

STRUC. NO.	ID NO.	STATION	LOCATION (OFFSET)	TYPE	NOTES:
R-1	-	11+44.66	RT-16.00	H INLET	SALVAGE CASTING
R-2	IN 7020-080	12+03.12	RT-16.00	H INLET	SALVAGE CASTING

STORM PIPE REMOVALS

REMOVE FROM	REMOVE TO	LENGTH (FT)	PAID (Y/N)	SIZE	TYPE	NOTES
R-1	S-4	5	Y	12"	RCP	-

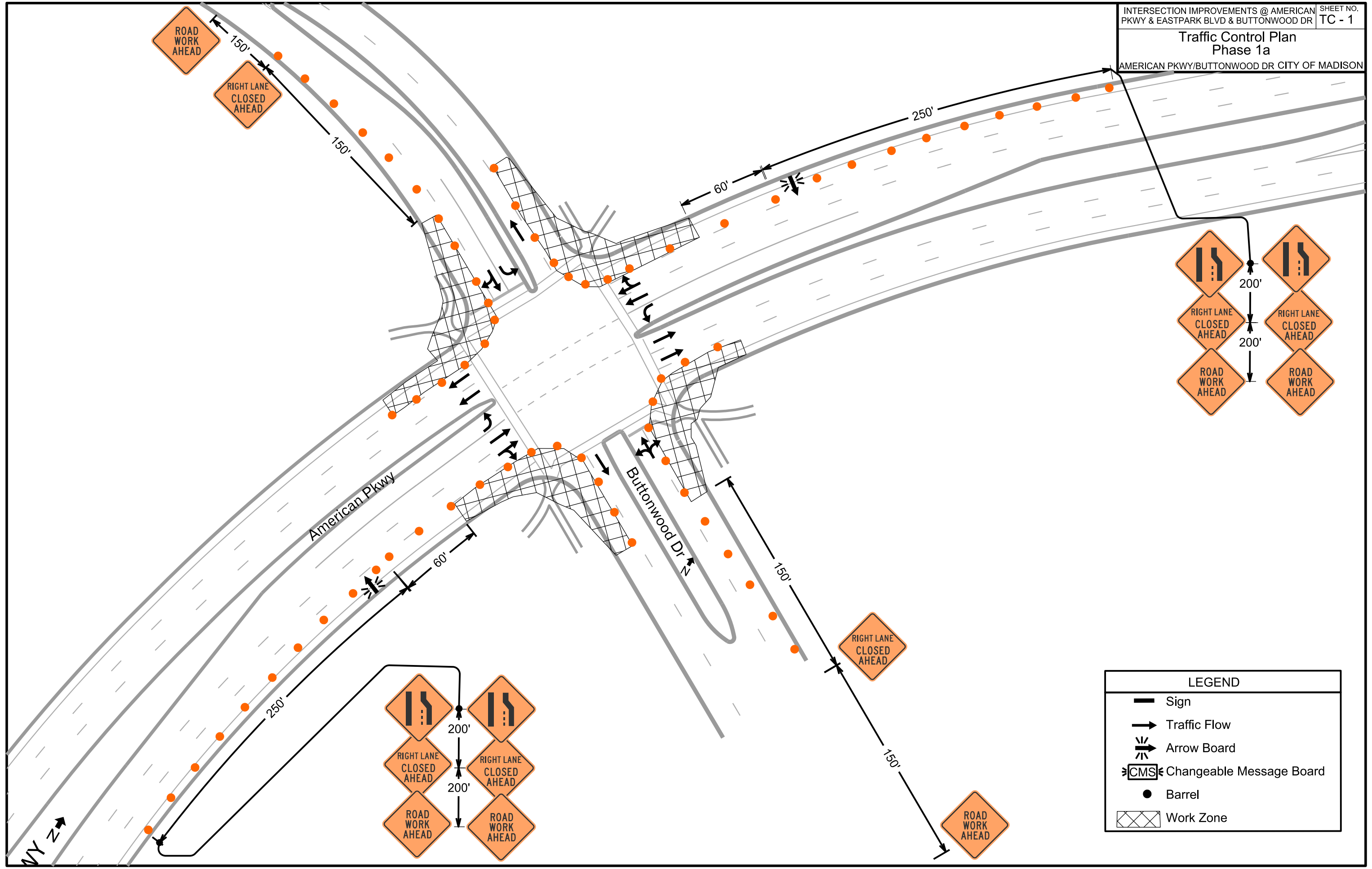
SPECIFIC NOTES

(1) RECONNECT EXISTING 36" STORM PIPE TO N & S

STANDARD NOTES:

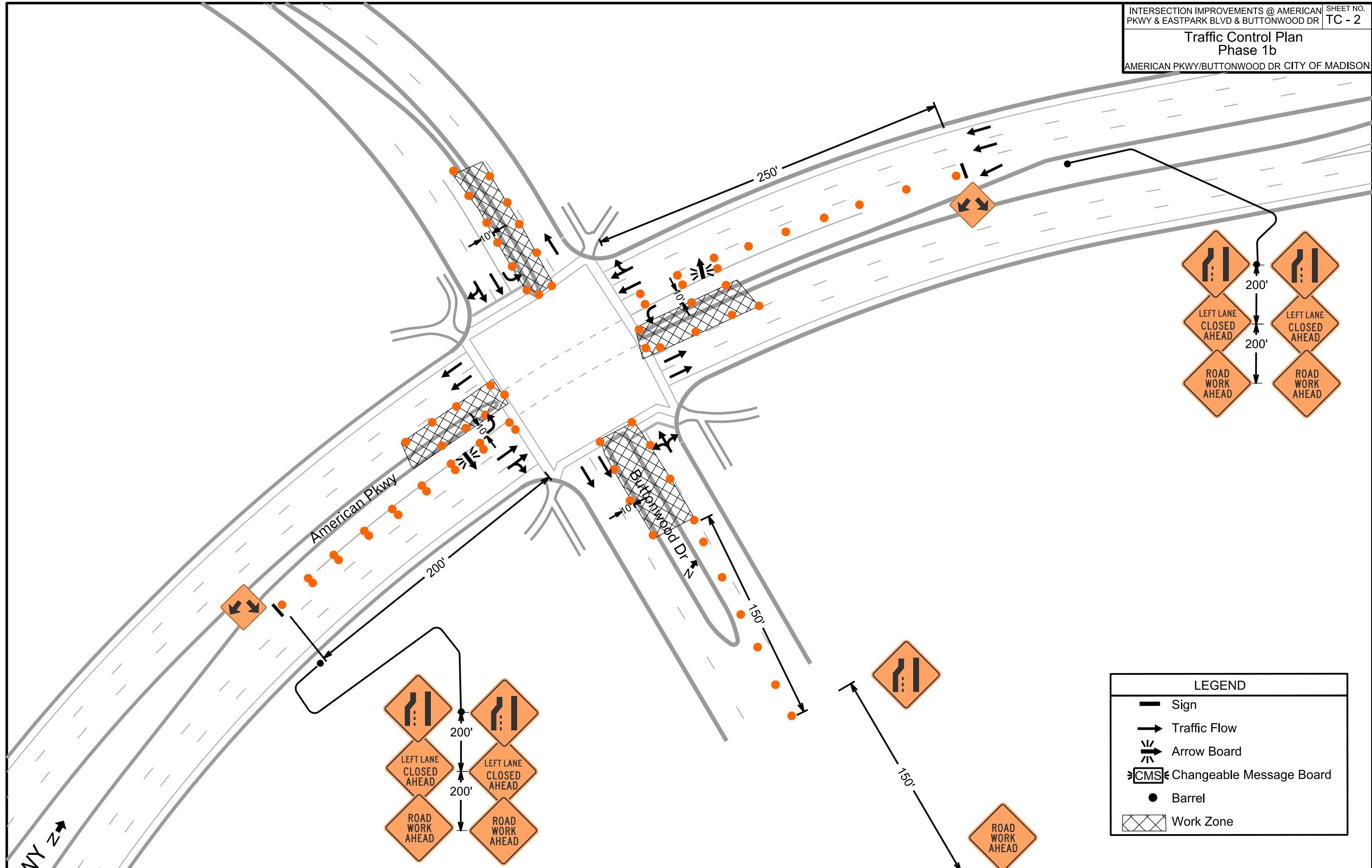
- ABBREVIATIONS: AE = APRON ENDWALL; RCP = REINFORCED CONCRETE PIPE; HERCP = HORIZONTAL ELLIPTICAL REINFORCED CONCRETE PIPE; DNA = DOES NOT APPLY; SAS = SEWER ACCESS STRUCTURE; LP = LOW POINT INLET STRUCTURE; FP = FIELD POURED STRUCTURE; TR = TOP OF CONCRETE ROOF; NCM = NO CROWN MATCH FOR PIPES
- APPROXIMATE DISCHARGE E.I. GIVEN, ADJUST E.I. AND PIPE SLOPE IN THE FIELD.
- TOP OF CASTING GRADE GIVEN IS THE TOP OF CURB FOR INLET STRUCTURES AND THE FLOWLINE OF THE CLOSED CASTING FOR SAS's.
- TOP OF CONCRETE ROOF (TR) IS 1.25' BELOW TOP OF CASTING UNLESS OTHERWISE NOTED.
- ALL REINFORCED CONCRETE PIPES TO BE CLASS III UNLESS OTHERWISE NOTED.
- SURVEYOR TO CONFIRM THAT ALL INLET STATION / OFFSETS LINE UP WITH PROPOSED CURB AND GUTTER.
- ALL STRUCTURES CALLED OUT AS FIELD POURED SHALL BE FIELD POURED. ALL OTHER STRUCTURES (NOT INDICATED AS FIELD POURED) SHALL BE SUBMITTED TO CITY ENGINEERING FOR APPROVAL IF PRECAST STRUCTURES ARE PREFERRED. CONTACT ERIC DUNDEE OF CITY ENGINEERING AT (608) 266-4913 FOR PRECAST APPROVALS, OR FAX SHOP DRAWINGS TO (608)264-9275.

PLOT SCALE:
 PLOT NAME:
 REV. DATE:
 ORIGINATOR: CITY OF MADISON, TRAFFIC ENG. DIV.



LEGEND	
	Sign
	Traffic Flow
	Arrow Board
	Changeable Message Board
	Barrel
	Work Zone

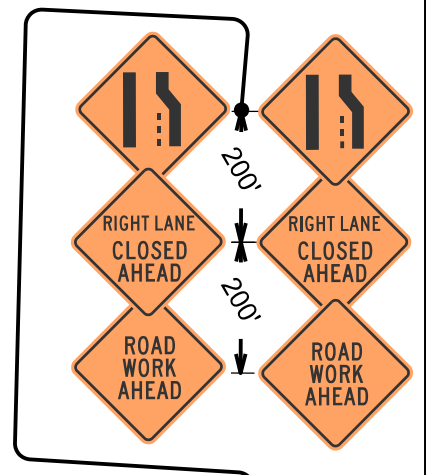
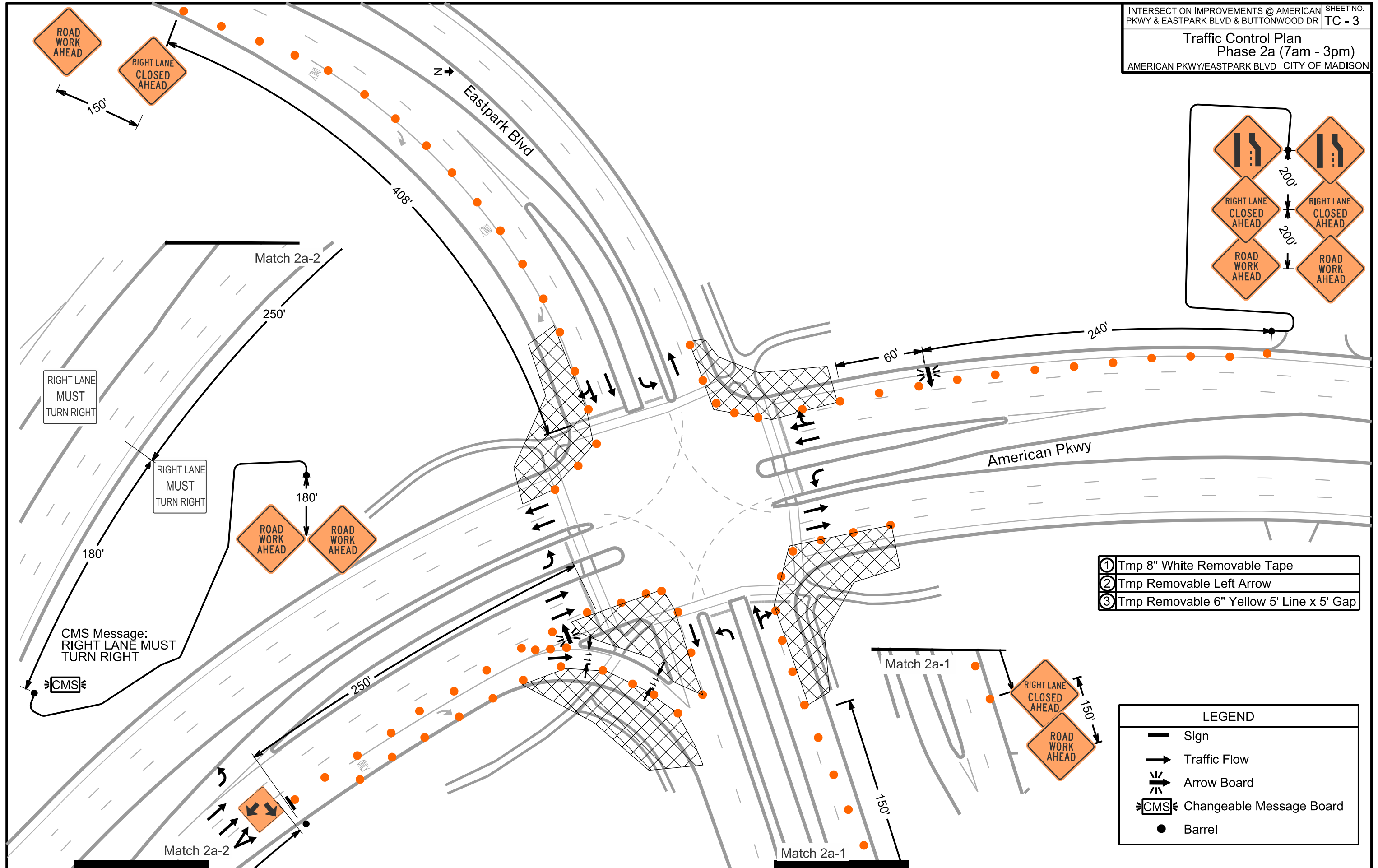
PLOT SCALE:
 PLOT NAME:
 REV. DATE:
 ORIGINATOR: CITY OF MADISON, TRAFFIC ENG. DIV.



LEGEND	
	Sign
	Traffic Flow
	Arrow Board
	Changeable Message Board
	Barrel
	Work Zone

Traffic Control Plan
 Phase 2a (7am - 3pm)
 AMERICAN PKWY/EASTPARK BLVD CITY OF MADISON

PLOT SCALE:
 PLOT NAME:
 REV. DATE:
 ORIGINATOR: CITY OF MADISON, TRAFFIC ENG. DIV.

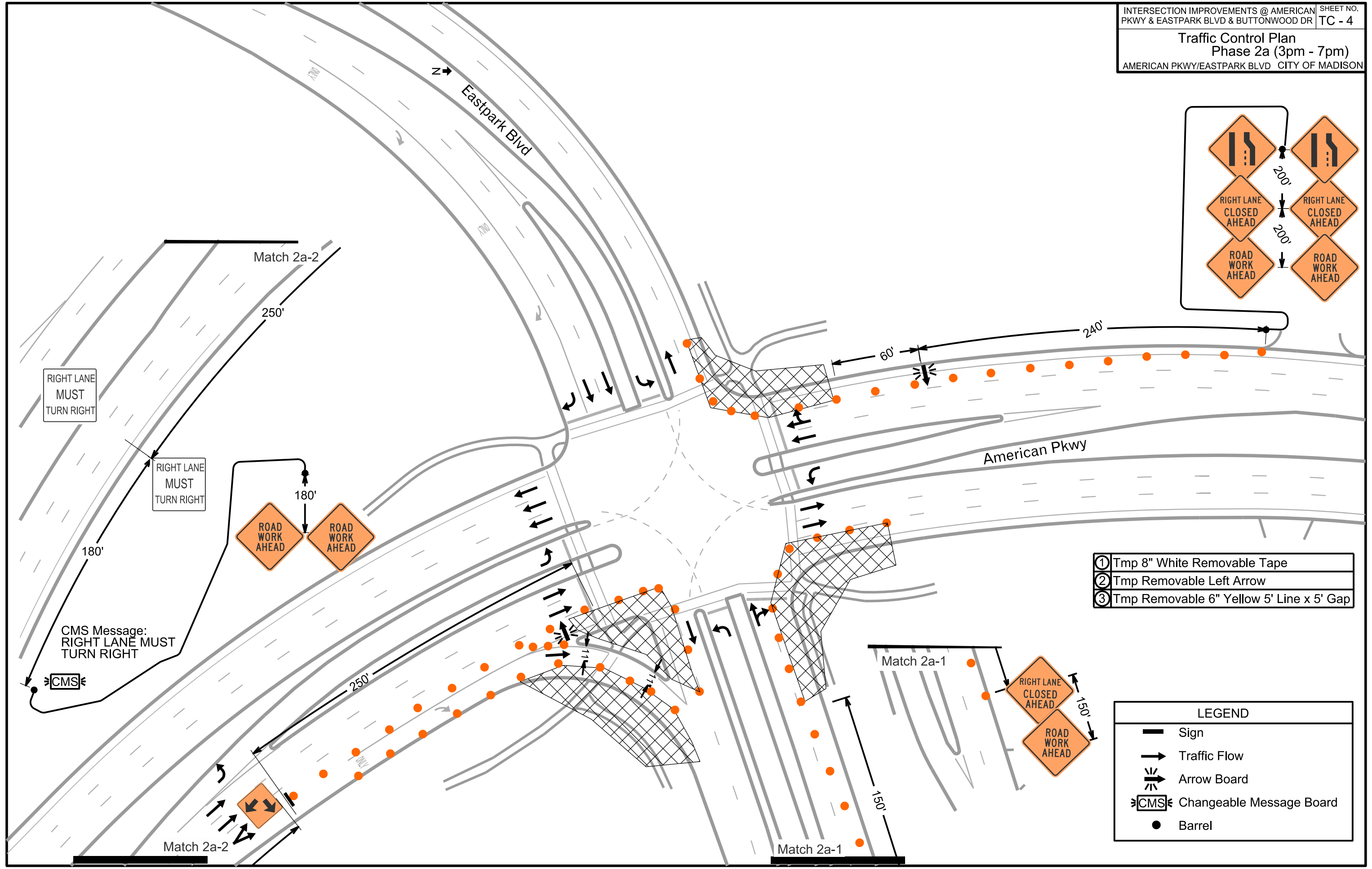


- ① Tmp 8" White Removable Tape
- ② Tmp Removable Left Arrow
- ③ Tmp Removable 6" Yellow 5' Line x 5' Gap

LEGEND	
	Sign
	Traffic Flow
	Arrow Board
	Changeable Message Board
	Barrel

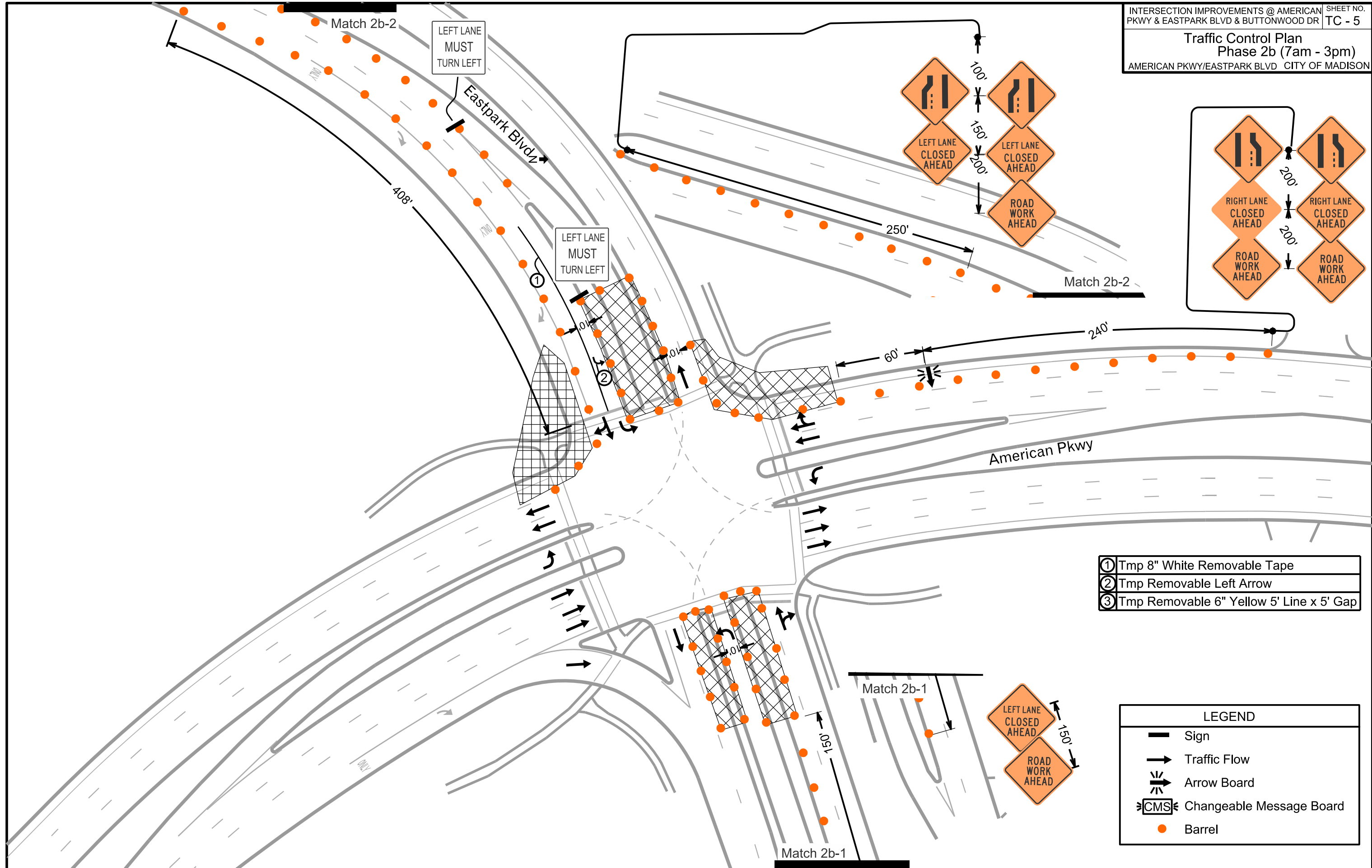
Traffic Control Plan
Phase 2a (3pm - 7pm)
 AMERICAN PKWY/EASTPARK BLVD CITY OF MADISON

PLOT SCALE:
 PLOT NAME:
 REV. DATE:
 ORIGINATOR: CITY OF MADISON, TRAFFIC ENG. DIV.



- ① Tmp 8" White Removable Tape
- ② Tmp Removable Left Arrow
- ③ Tmp Removable 6" Yellow 5' Line x 5' Gap

LEGEND	
	Sign
	Traffic Flow
	Arrow Board
	Changeable Message Board
	Barrel

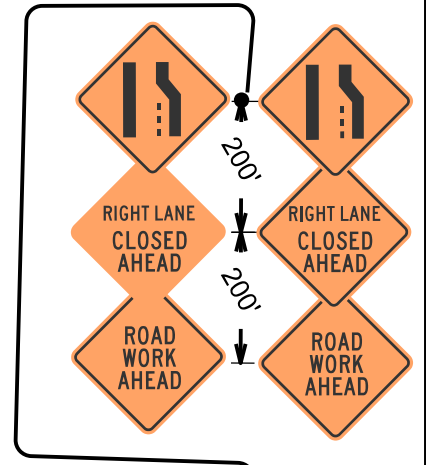
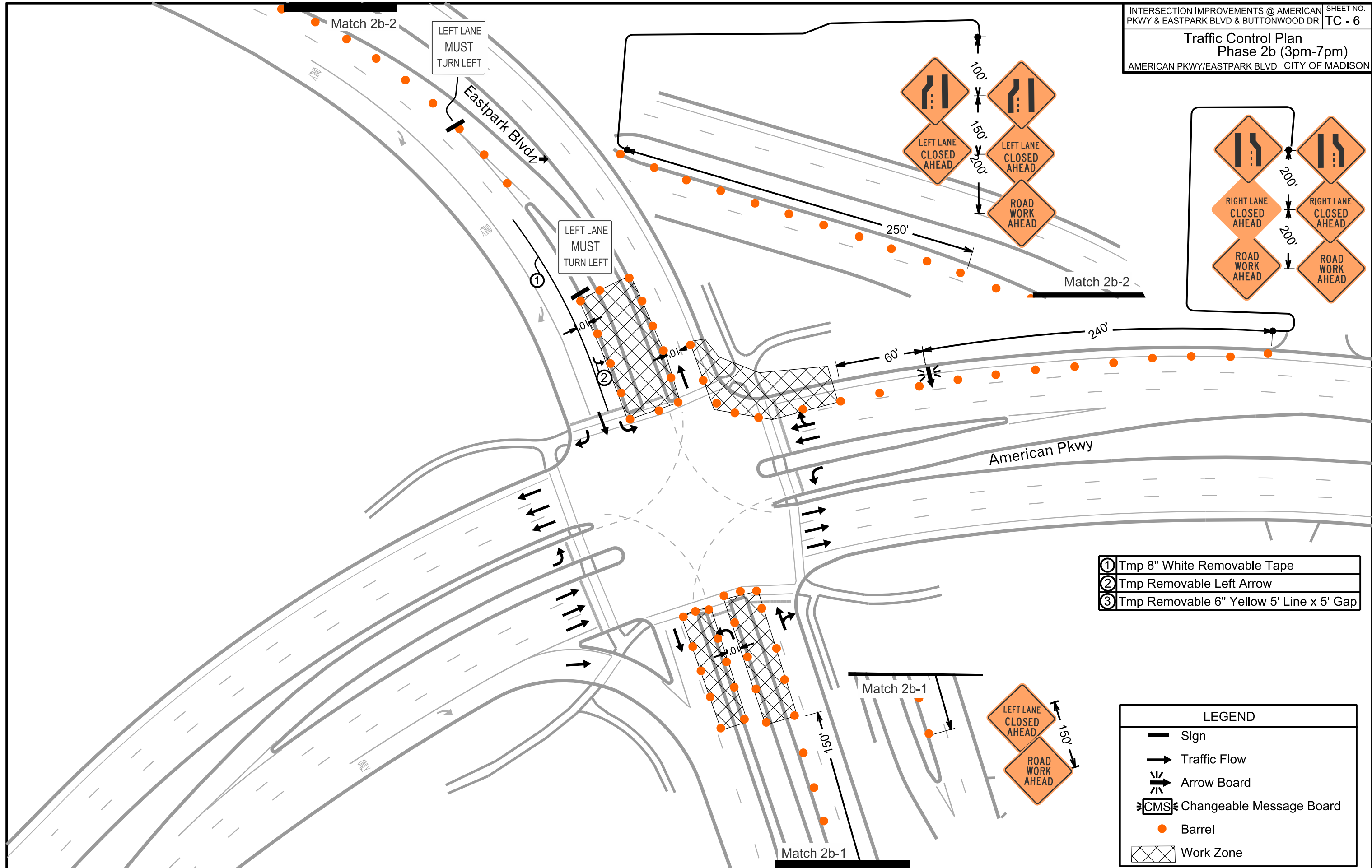


- ① Tmp 8" White Removable Tape
- ② Tmp Removable Left Arrow
- ③ Tmp Removable 6" Yellow 5' Line x 5' Gap

LEGEND	
	Sign
	Traffic Flow
	Arrow Board
	Changeable Message Board
	Barrel

PLOT SCALE:
 PLOT NAME:
 REV. DATE:
 ORIGINATOR: CITY OF MADISON, TRAFFIC ENG. DIV.

Traffic Control Plan
 Phase 2b (3pm-7pm)
 AMERICAN PKWY/EASTPARK BLVD CITY OF MADISON

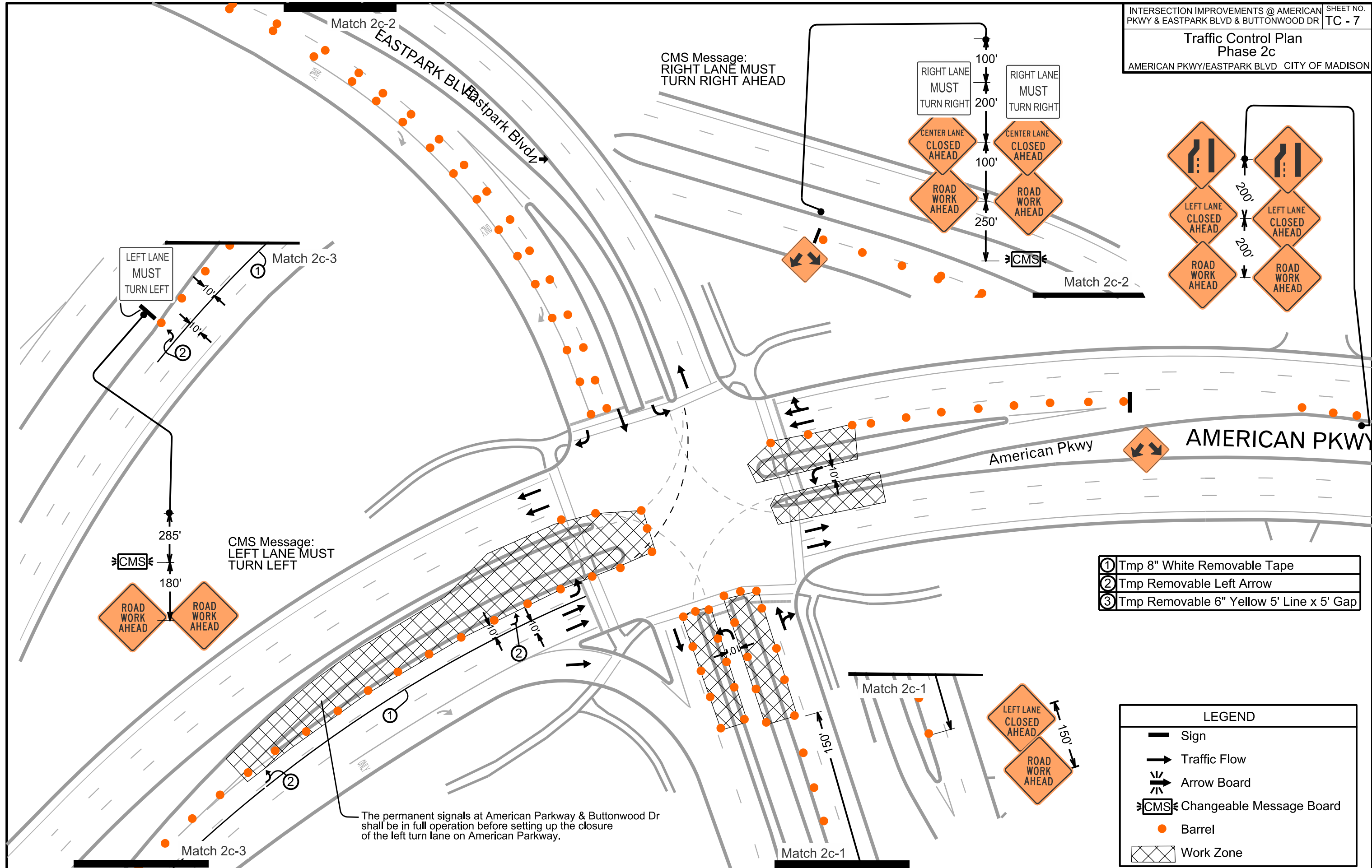


- ① Tmp 8" White Removable Tape
- ② Tmp Removable Left Arrow
- ③ Tmp Removable 6" Yellow 5' Line x 5' Gap

LEGEND	
	Sign
	Traffic Flow
	Arrow Board
	Changeable Message Board
	Barrel
	Work Zone

PLOT SCALE:
 PLOT NAME:
 REV. DATE:
 ORIGINATOR: CITY OF MADISON, TRAFFIC ENG. DIV.

Traffic Control Plan
Phase 2c
AMERICAN PKWY/EASTPARK BLVD CITY OF MADISON



- ① Tmp 8" White Removable Tape
- ② Tmp Removable Left Arrow
- ③ Tmp Removable 6" Yellow 5' Line x 5' Gap

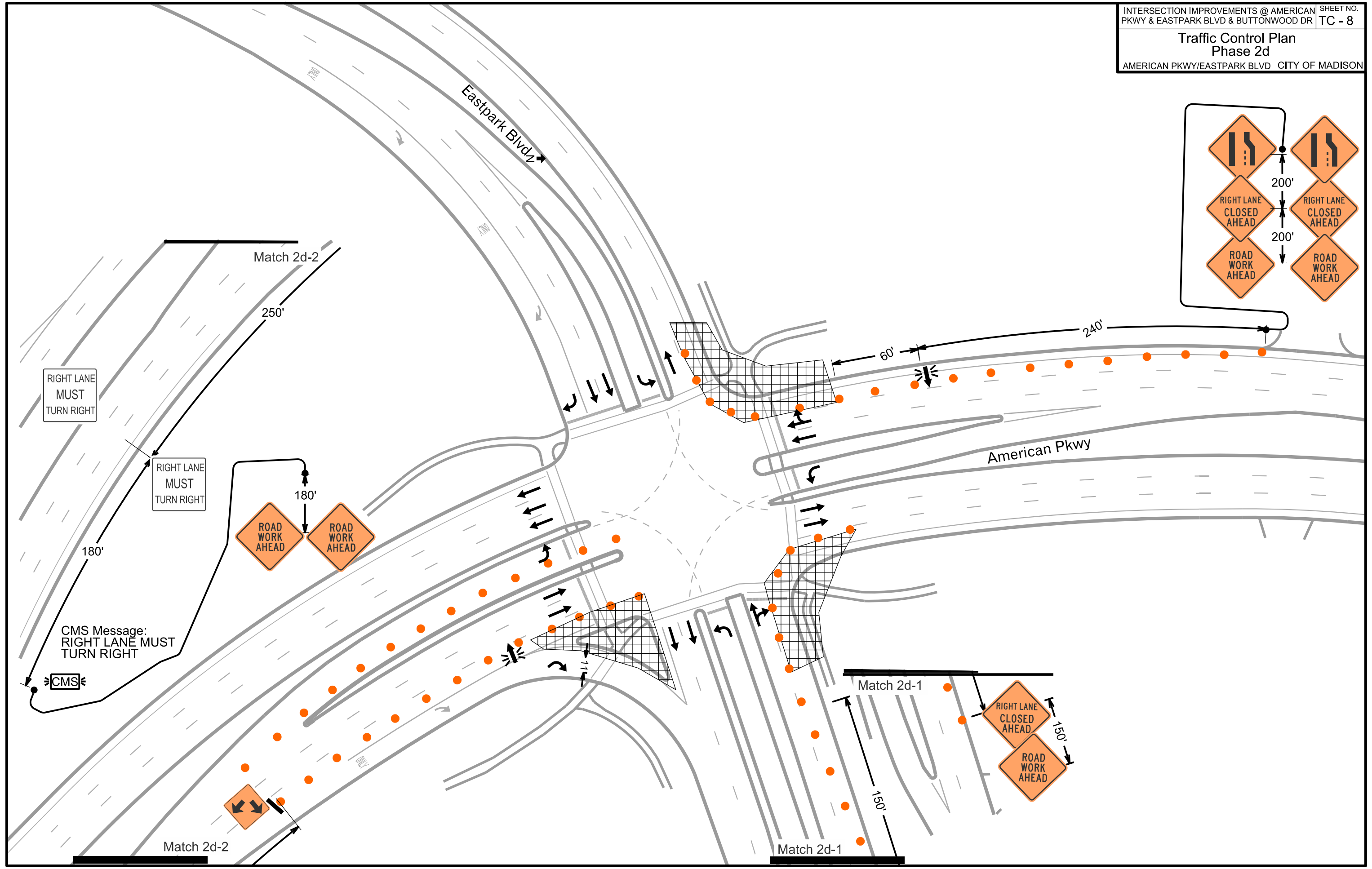
LEGEND

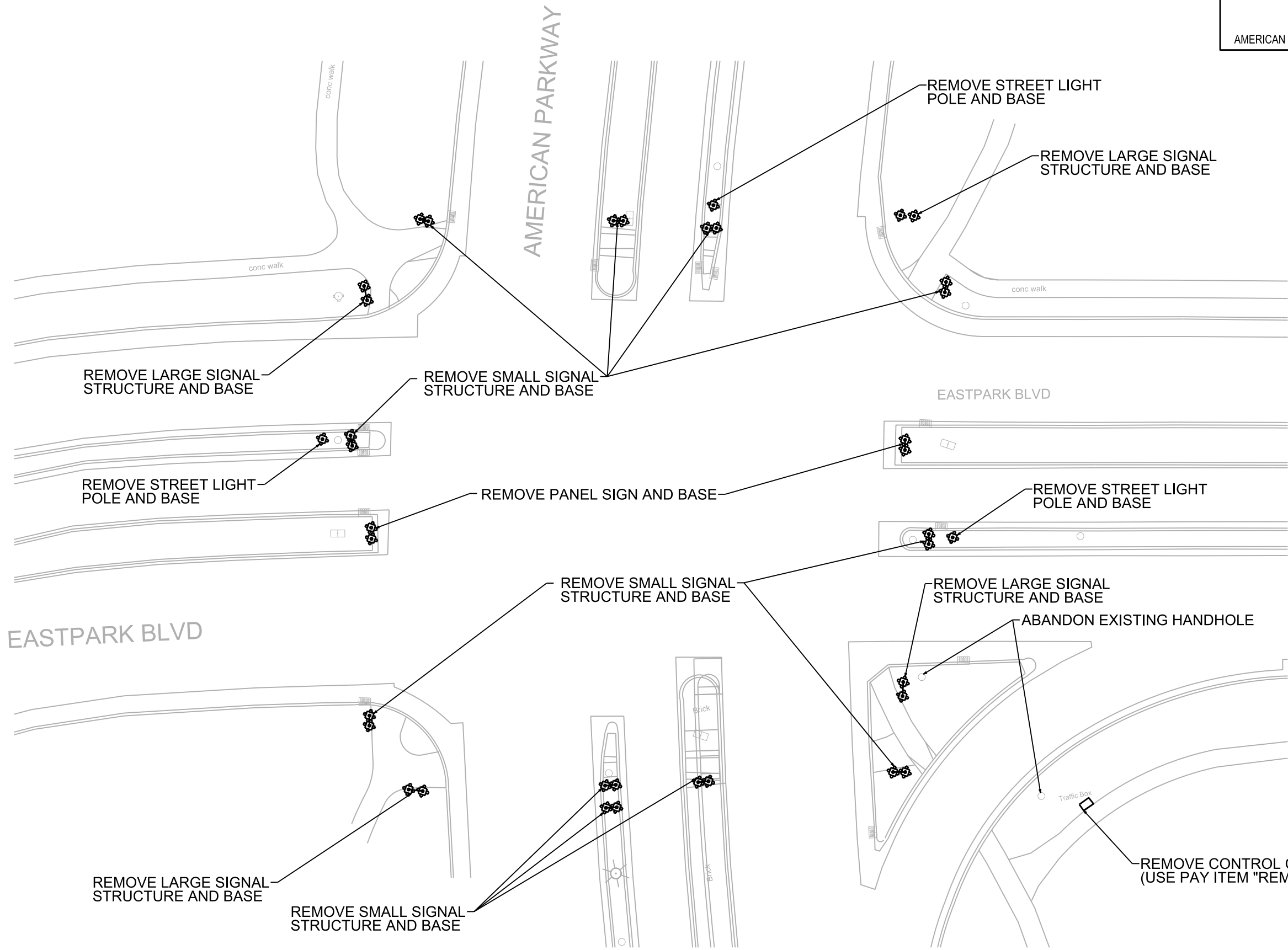
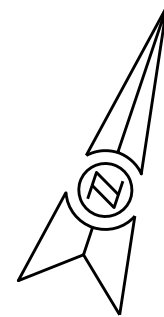
- Sign
- Traffic Flow
- ⇨ Arrow Board
- Ⓜ CMS Changeable Message Board
- Barrel
- ▨ Work Zone

The permanent signals at American Parkway & Buttonwood Dr shall be in full operation before setting up the closure of the left turn lane on American Parkway.

PLOT SCALE:
 PLOT NAME:
 REV. DATE:
 ORIGINATOR: CITY OF MADISON, TRAFFIC ENG. DIV.

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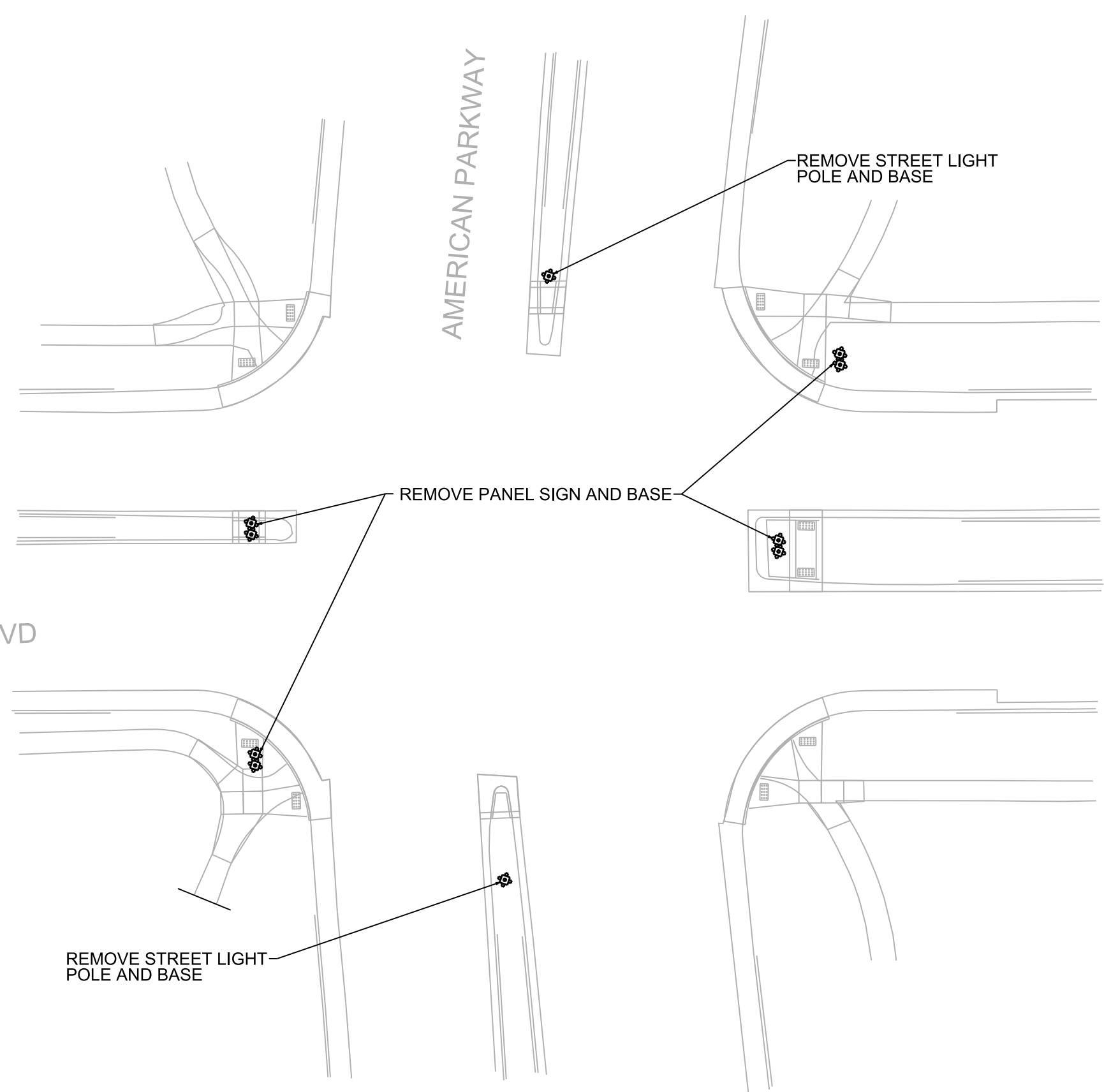
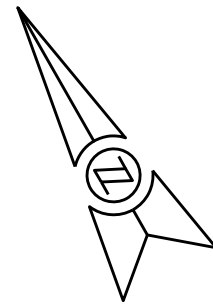




PLOT SCALE: _____
PLOT NAME: _____
REV. DATE: _____

ORIGINATOR: CITY OF MADISON, STREETS DIVISION

SCALE: 1 INCH = 30 FEET



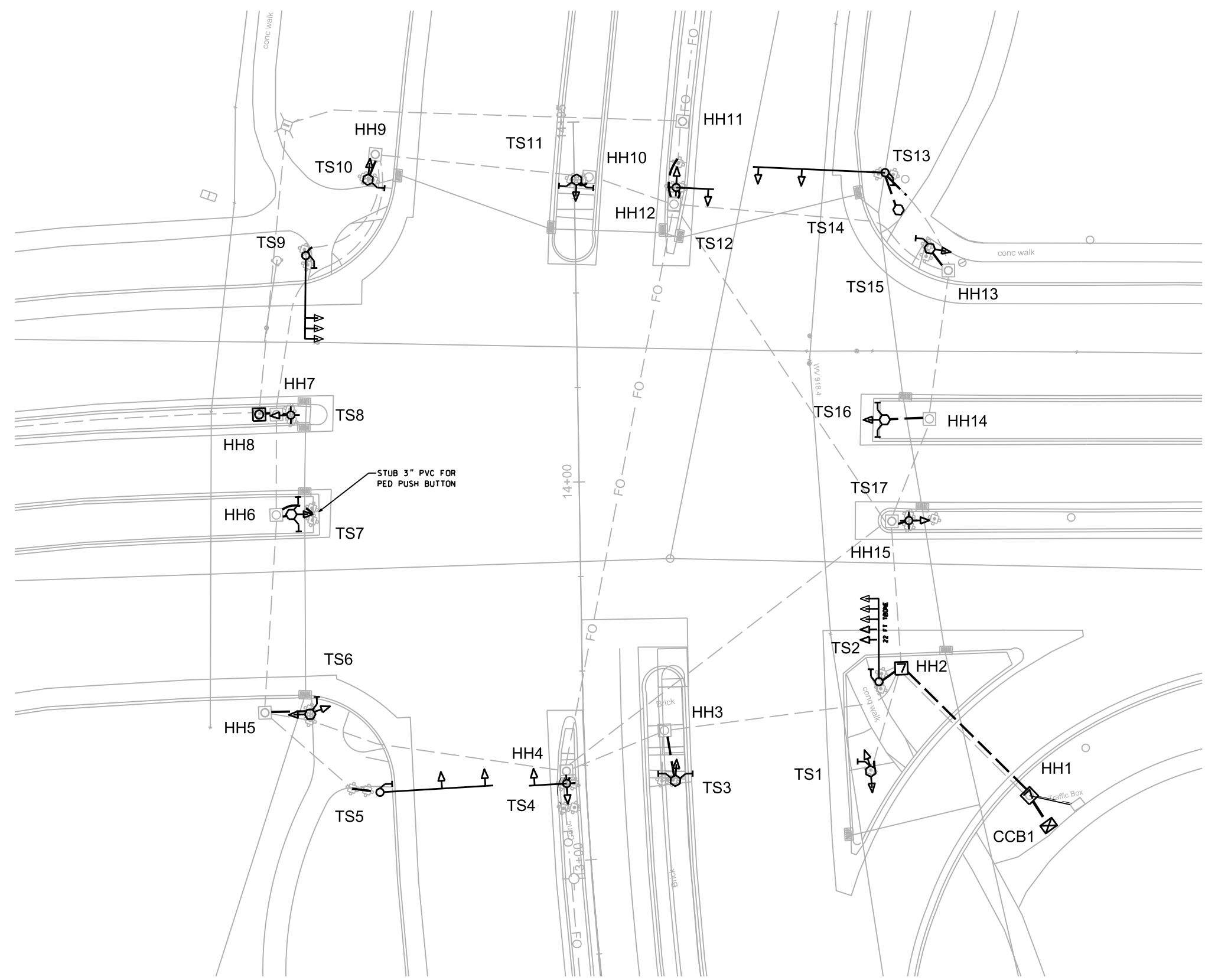
REMOVE PANEL SIGN AND BASE

REMOVE STREET LIGHT
POLE AND BASE











REMOVE STREET LIGHT
POLE AND BASE

SCALE: 1 INCH = 30 FEET

ORIGINATOR: CITY OF MADISON, FIRE & RESCUE DIVISION
 REV. DATE: _____
 PLOT NAME: _____
 PLOT SCALE: _____



LEGEND

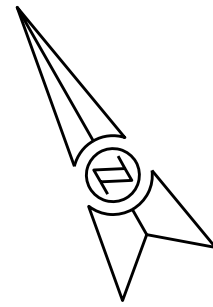
-  LB TYPE (X) CONCRETE BASE
-  TYPE-G CONCRETE BASE
-  TYPE-(M or P) CONCRETE BASE
-  TRAFFIC SIGNAL HEAD
-  ELECTRICAL PULL BOX TYPE 1
-  ELECTRICAL PULL BOX TYPE 5
-  ELECTRICAL PULL BOX TYPE 7
-  CONDUITS TO BE INSTALLED
-  EXISTING LIGHTING/SIGNAL CONDUITS
-  -FO- EXISTING COMMUNICATION FIBER OPTIC

PLOT SCALE: _____

PLOT NAME: _____

REV. DATE: _____

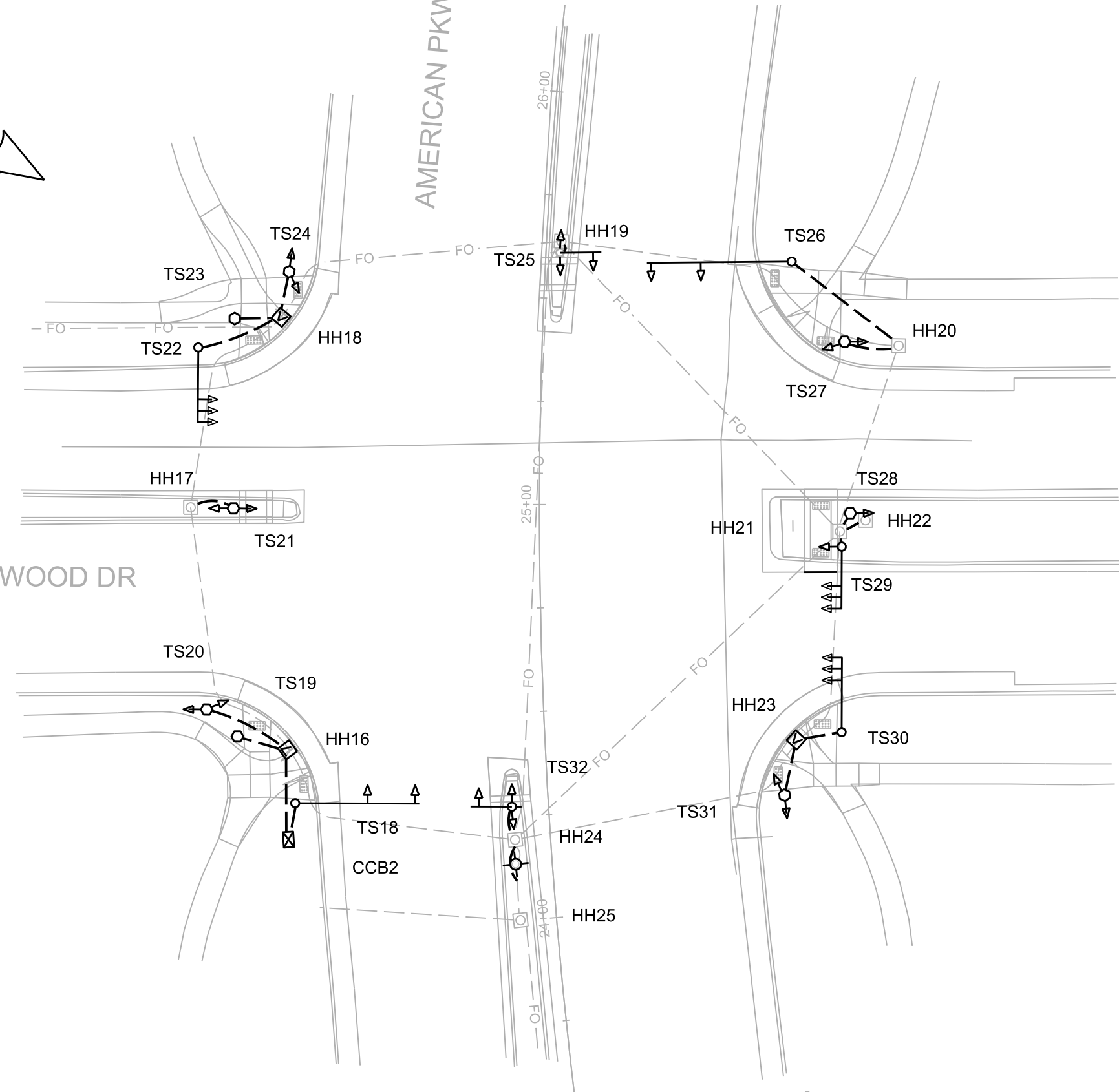
ORIGINATOR: CITY OF MADISON, STREETS DIVISION



PLOT SCALE: _____
 PLOT NAME: _____
 REV. DATE: _____

BUTTONWOOD DR

AMERICAN PKWY



LEGEND

- ⊗ ○ LB TYPE (X) CONCRETE BASE
- TYPE-G CONCRETE BASE
- ⊠ TYPE-(M or P) CONCRETE BASE
- ⤴ TRAFFIC SIGNAL HEAD
- ⊠ ELECTRICAL PULL BOX TYPE 1
- ⊠ ELECTRICAL PULL BOX TYPE 5
- ⊠ ELECTRICAL PULL BOX TYPE 7
- CONDUITS TO BE INSTALLED
- EXISTING LIGHTING/SIGNAL CONDUITS
- FO- EXISTING COMMUNICATION FIBER OPTIC

SCALE: 1 INCH = 30 FEET

TEMPORARY SIGNAL PHASE CONFIGURATION WITH HEAD NUMBERS

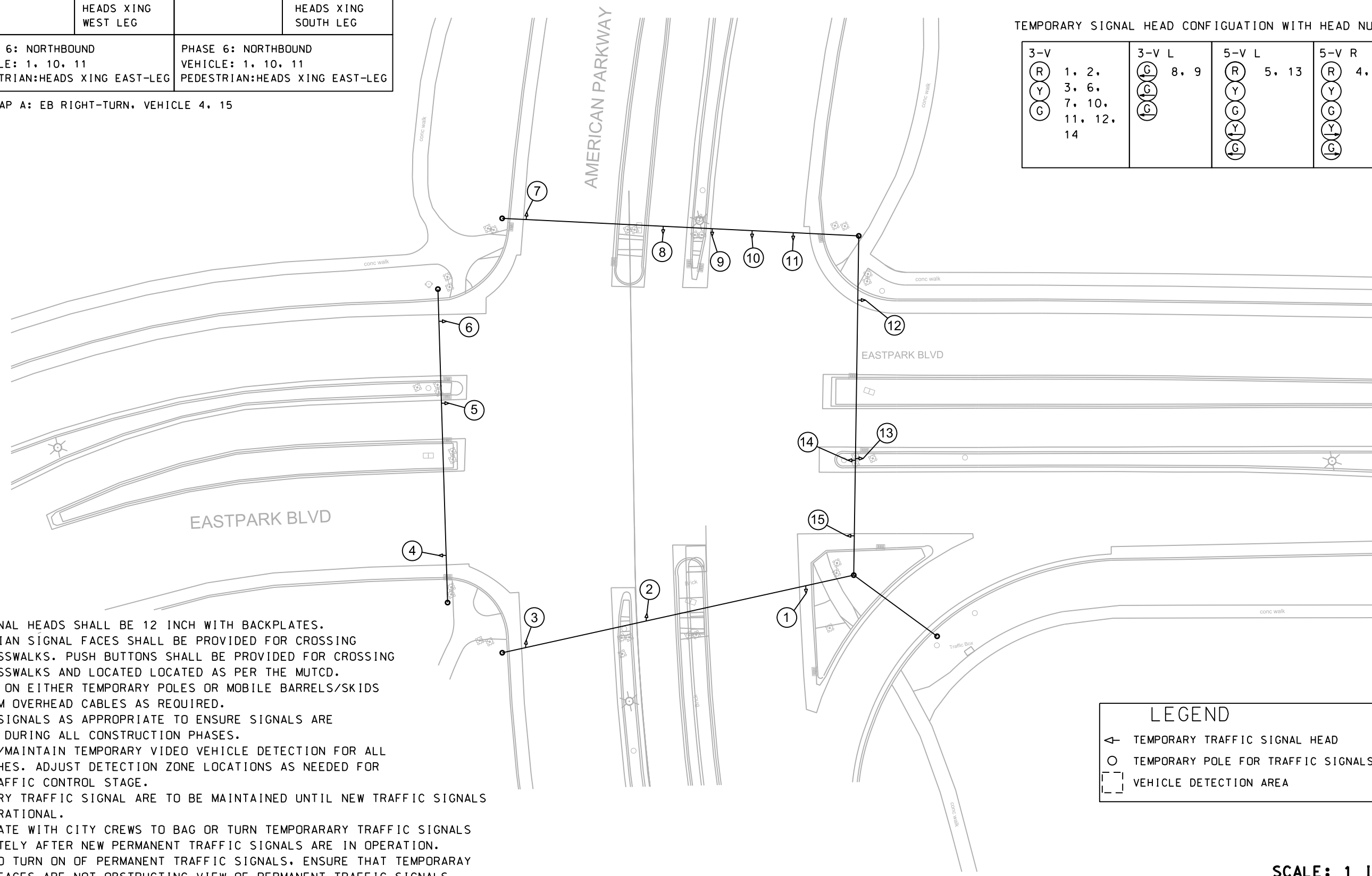
<p>PHASE 1 NB LEFT-TURN VEHICLE: 8, 9</p>	<p>PHASE 2 SOUTHBOUND VEHICLE: 2, 3, 7 PEDESTRIAN: HEADS XING WEST LEG</p>	<p>PHASE 3 WB LEFT-TURN VEHICLE: 5, 13</p>	<p>PHASE 8 EASTBOUND VEHICLE: 4, 14, 15 PEDESTRIAN: HEADS XING SOUTH LEG</p>
<p>PHASE 6: NORTHBOUND VEHICLE: 1, 10, 11 PEDESTRIAN:HEADS XING EAST-LEG</p>		<p>PHASE 6: NORTHBOUND VEHICLE: 1, 10, 11 PEDESTRIAN:HEADS XING EAST-LEG</p>	

OVERLAP A: EB RIGHT-TURN, VEHICLE 4, 15

TEMPORARY SIGNAL HEAD CONFIGURATION WITH HEAD NUMBERS

<p>3-V Ⓡ 1, 2. Ⓨ 3, 6. ⓐ 7, 10, 11, 12, 14</p>	<p>3-V L ⓐ 8, 9 ⓐ ⓐ</p>	<p>5-V L Ⓡ 5, 13 Ⓨ ⓐ Ⓨ ⓐ</p>	<p>5-V R Ⓡ 4, 15 Ⓨ ⓐ Ⓨ ⓐ</p>
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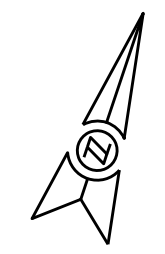
PLOT SCALE: _____
PLOT NAME: _____
REV. DATE: _____



ALL SIGNAL HEADS SHALL BE 12 INCH WITH BACKPLATES. PEDESTRIAN SIGNAL FACES SHALL BE PROVIDED FOR CROSSING ALL CROSSWALKS. PUSH BUTTONS SHALL BE PROVIDED FOR CROSSING ALL CROSSWALKS AND LOCATED AS PER THE MUTCD. INSTALL ON EITHER TEMPORARY POLES OR MOBILE BARRELS/SKIDS FED FROM OVERHEAD CABLES AS REQUIRED. ADJUST SIGNALS AS APPROPRIATE TO ENSURE SIGNALS ARE VISIBLE DURING ALL CONSTRUCTION PHASES. PROVIDE/MAINTAIN TEMPORARY VIDEO VEHICLE DETECTION FOR ALL APPROACHES. ADJUST DETECTION ZONE LOCATIONS AS NEEDED FOR EACH TRAFFIC CONTROL STAGE. TEMPORARY TRAFFIC SIGNAL ARE TO BE MAINTAINED UNTIL NEW TRAFFIC SIGNALS ARE OPERATIONAL. COORDINATE WITH CITY CREWS TO BAG OR TURN TEMPORARARY TRAFFIC SIGNALS IMMEDIATELY AFTER NEW PERMANENT TRAFFIC SIGNALS ARE IN OPERATION. PRIOR TO TURN ON OF PERMANENT TRAFFIC SIGNALS, ENSURE THAT TEMPORARAY SIGNAL FACES ARE NOT OBSTRUCTING VIEW OF PERMANENT TRAFFIC SIGNALS.

LEGEND

- ← TEMPORARY TRAFFIC SIGNAL HEAD
- TEMPORARY POLE FOR TRAFFIC SIGNALS
- VEHICLE DETECTION AREA



SCALE: 1 INCH = 40 FEET

CONCRETE BASES

STRUCTURE	STATION	OFFSET	60411	60403	60407	60413	60408	90104	COMMENTS
			TYPE G EACH	TYPE LB-3 EACH	TYPE LB-8 EACH	TYPE P EACH	OFFSET EACH	TYPE 10 EACH	
CCB1	13+00.15	121.40'RT	-	-	-	1	-	-	-
TS1	13+19.50	75.50'RT	1	-	-	-	-	-	-
TS2	13+45.20	78.40'RT	-	-	1	-	-	-	11" BOLT CIRCLE
TS3	13+19.70	23.60'RT	1	-	-	-	-	-	-
TS4	13+20.50	5.30'LT	-	-	1	-	-	-	11" BOLT CIRCLE
TS5	13+20.70	54.60'LT	-	-	-	-	-	1	-
TS6	13+40.70	72.20'LT	1	-	-	-	-	-	-
TS7	13+92.70	76.30'LT	1	-	-	-	-	-	-
TS8	14+18.90	76.00'LT	-	1	-	-	-	-	-
TS9	14+61.10	71.30'LT	-	-	1	-	-	-	11" BOLT CIRCLE
TS10	14+80.90	54.30'LT	1	-	-	-	-	-	-
TS11	14+80.00	0.60'RT	1	-	-	-	-	-	-
TS12	14+77.50	26.90'RT	-	-	1	-	-	-	11" BOLT CIRCLE
TS13	14+80.50	82.30'RT	-	-	-	-	-	1	-
TS14	14+70.60	85.70'RT	1	-	-	-	-	-	-
TS15	14+60.20	93.80'RT	1	-	-	-	-	-	-
TS16	14+15.10	81.10'RT	1	-	-	-	-	-	-
TS17	13+88.30	87.10'RT	-	1	-	-	-	-	-
CCB2	24+23.00	62.20'LT	-	-	-	1	-	-	-
TS18	24+31.20	61.10'LT	-	-	-	-	-	1	-
TS19	24+47.10	74.20'LT	1	-	-	-	-	-	-
TS20	24+53.50	81.40'LT	1	-	-	-	-	-	-
TS21	24+99.10	74.00'LT	1	-	-	-	-	-	-
TS22	25+35.50	83.00'LT	-	-	1	-	-	-	11" BOLT CIRCLE
TS23	25+42.30	74.50'LT	1	-	-	-	-	-	-
TS24	25+53.60	61.80'LT	1	-	-	-	-	-	-
TS25	25+61.10	3.40'RT	-	-	1	-	-	-	11" BOLT CIRCLE
TS26	25+61.90	59.40'RT	-	-	-	-	-	1	-
TS27	25+42.00	73.10'RT	1	-	-	-	-	-	-
TS28	24+97.80	75.10'RT	1	-	-	-	-	-	-
TS29	24+89.20	73.00'RT	-	-	1	-	-	-	11" BOLT CIRCLE
TS30	24+41.50	71.70'RT	-	-	1	-	-	-	11" BOLT CIRCLE
TS31	24+26.20	57.10'RT	1	-	-	-	-	-	-
TS32	24+27.40	8.80'LT	-	-	1	-	-	-	11" BOLT CIRCLE
UNDISTRIBUTED			-	-	-	-	2	-	-
TOTAL			17	2	9	2	2	4	

PLOT SCALE: _____

PLOT NAME: _____

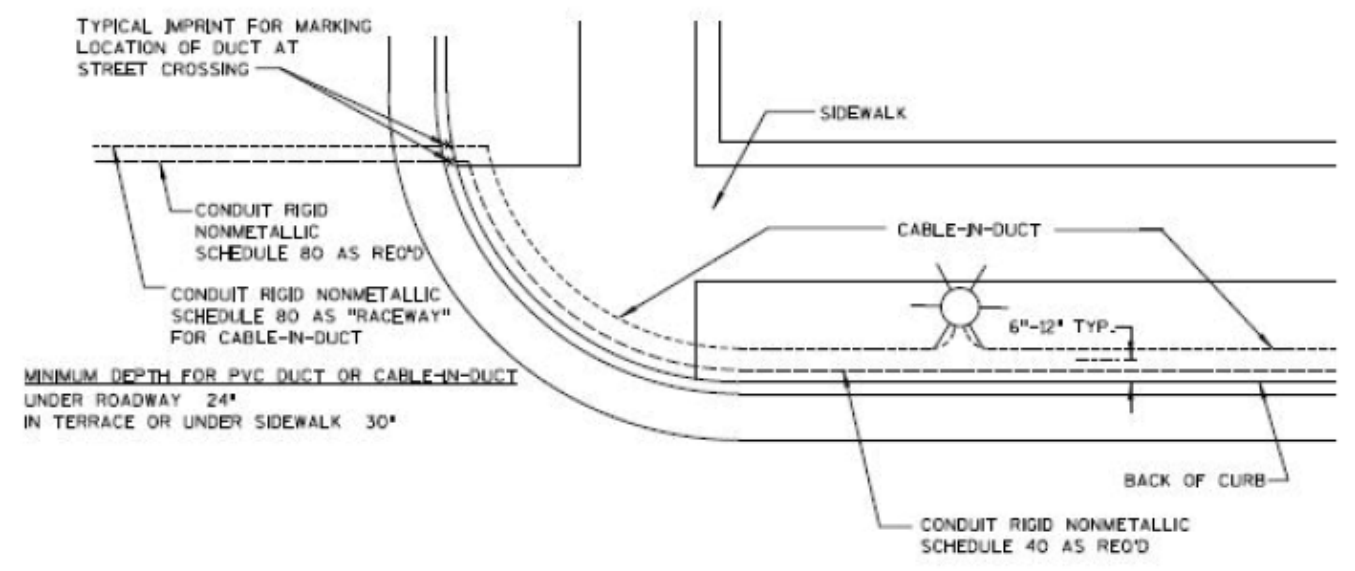
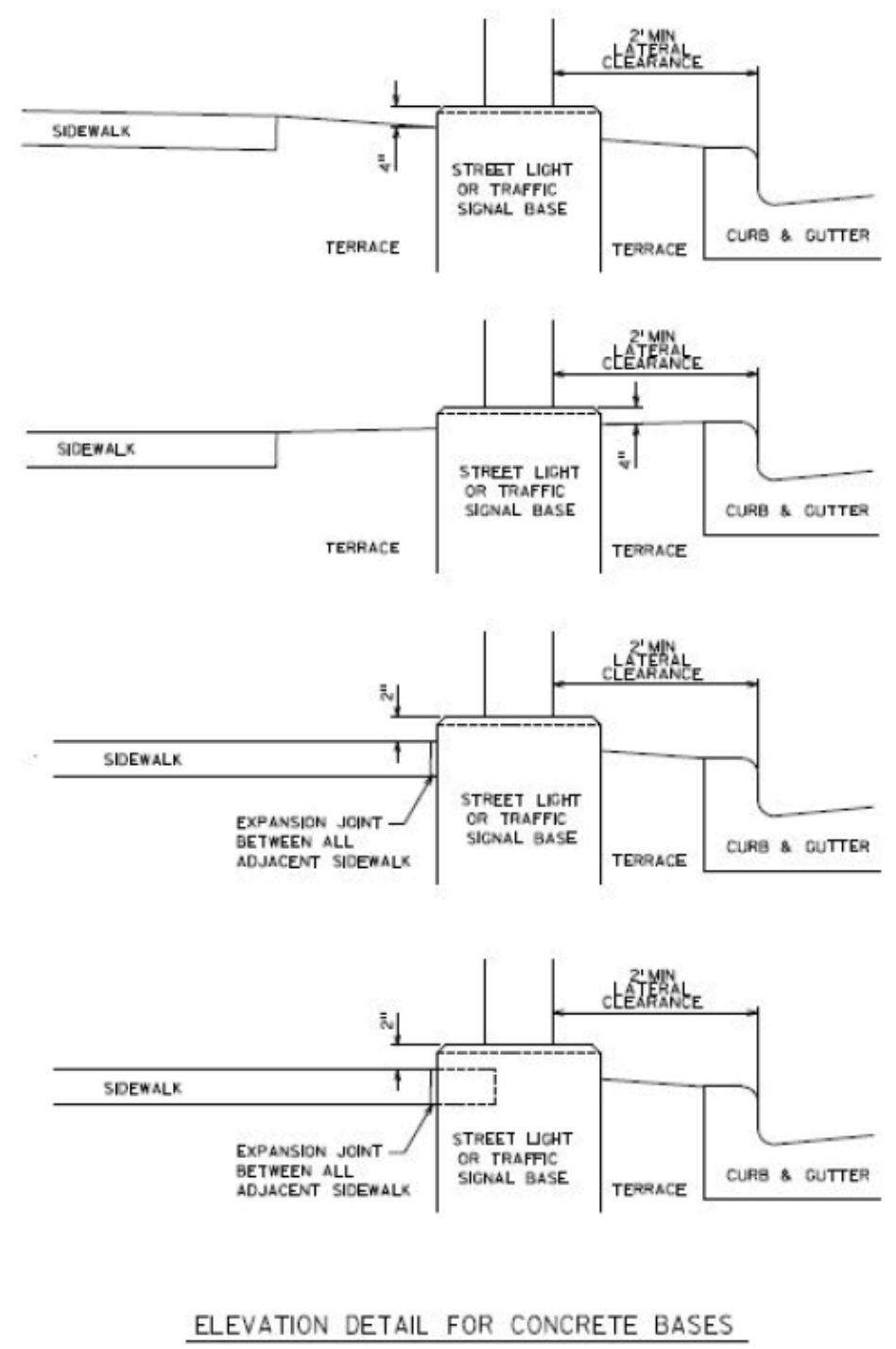
REV. DATE: _____

ORIGINATOR: CITY OF MADISON, STREETS DIVISION

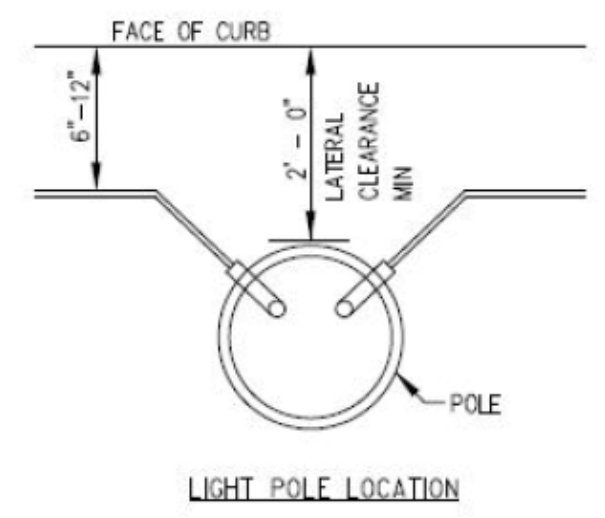
CONDUIT (SIGNALS)						
FROM	TO	60231	60223	60222	60241	COMMENT
		TRENCHED		SCHEDULE 80	GOPHER RACEWAY FOR ELEC CONDUIT	
		SCHEDULE 40	SCHEDULE 40			
		2" (LF)	3" (LF)	3" (LF)	(LF)	
CCB1	HH1	-	40	-	-	4-3"
HH1	HH2	-	34	60	60	2-3"
HH2	TS2	8	-	-	-	1-2"
HH2	TS1	5	-	-	-	1-2"
HH3	TS3	13	-	-	-	1-2"
HH4	TS4	5	-	-	-	1-2"
HH5	TS5	9	-	-	-	1-2"
HH5	TS6	13	-	-	-	1-2"
HH6	TS7	5	-	-	-	1-2"
HH6	STUB	10	-	-	-	1-2"
HH7	HH8	5	-	-	-	1-2"
HH7	TS8	-	5	-	-	1-3"
HH9	TS9	5	-	-	-	1-2"
HH9	TS10	6	-	-	-	1-2"
HH10	TS11	5	-	-	-	1-2"
HH12	HH11	13	-	-	-	1-2"
HH12	TS12	-	5	-	-	1-3"
HH13	TS13	6	-	-	-	1-2"
TS13	TS14	11	-	-	-	1-2"
HH13	TS15	7	-	-	-	1-2"
HH14	TS16	-	13	-	-	1-3"
HH15	TS17	5	-	-	-	1-2"
CCB2	TS18	10	-	-	-	1-2"
CCB2	HH16	-	92	-	-	4-3"
HH16	TS19	8	-	-	-	1-2"
HH16	TS20	24	-	-	-	1-2"
HH17	TS21	7	-	-	-	1-2"
HH18	TS22	23	-	-	-	1-2"
HH18	TS23	10	-	-	-	1-2"
HH18	TS24	13	-	-	-	1-2"
HH19	TS25	-	5	-	-	1-3"
HH20	TS26	25	-	-	-	1-2"
HH20	TS27	15	-	-	-	1-2"
HH21	HH22	-	9	-	-	1-3"
HH21	TS28	7	-	-	-	1-2"
HH21	TS29	6	-	-	-	1-2"
HH23	TS30	12	-	-	-	1-2"
HH23	TS31	13	-	-	-	1-2"
HH24	HH25	10	-	-	-	1-2"
HH24	TS32	-	8	-	-	1-3"
TOTALS		314	211	60	60	

STRUCTURE	ELECTRICAL HANDHOLES			
	60702	60706	90100	
	TYPE 1 EACH	TYPE 5 EACH	TYPE 7 EACH	
HH1	-	-	1	REPLACE EXISTING
HH2	-	-	1	REPLACE EXISTING
HH3	-	-	-	EXISTING
HH4	-	-	-	EXISTING
HH5	-	-	-	EXISTING
HH6	-	-	-	EXISTING
HH7	-	-	-	EXISTING
HH8	1	-	-	REPLACE EXISTING LIGHT POLE BASE
HH9	-	-	-	EXISTING
HH10	-	-	-	EXISTING
HH11	-	-	-	EXISTING
HH12	-	-	-	EXISTING
HH13	-	-	-	EXISTING
HH14	-	-	-	EXISTING
HH15	-	-	-	EXISTING
HH16	-	-	1	INTERCEPT EXISTING CONDUITS
HH17	-	-	-	EXISTING
HH18	-	1	-	INTERCEPT EXISTING CONDUITS
HH19	-	-	-	EXISTING
HH20	-	-	-	EXISTING
HH21	-	-	-	EXISTING
HH22	-	-	-	EXISTING
HH23	-	1	-	INTERCEPT EXISTING CONDUITS
HH24	-	-	-	EXISTING
HH25	-	-	-	EXISTING
TOTALS	1	2	3	

PLOT SCALE: _____
 PLOT NAME: _____
 REV. DATE: _____
 ORIGINATOR: CITY OF MADISON, STREETS DIVISION



TYPICAL CONDUIT DETAIL



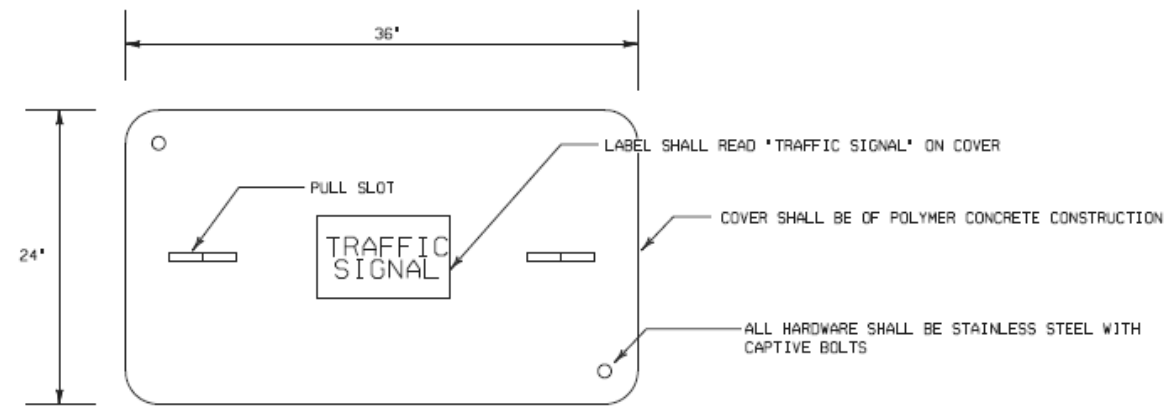
PLOT SCALE:
PLOT NAME:
REV. DATE:

ORIGINATOR: CITY OF MADISON, STREETS DIVISION

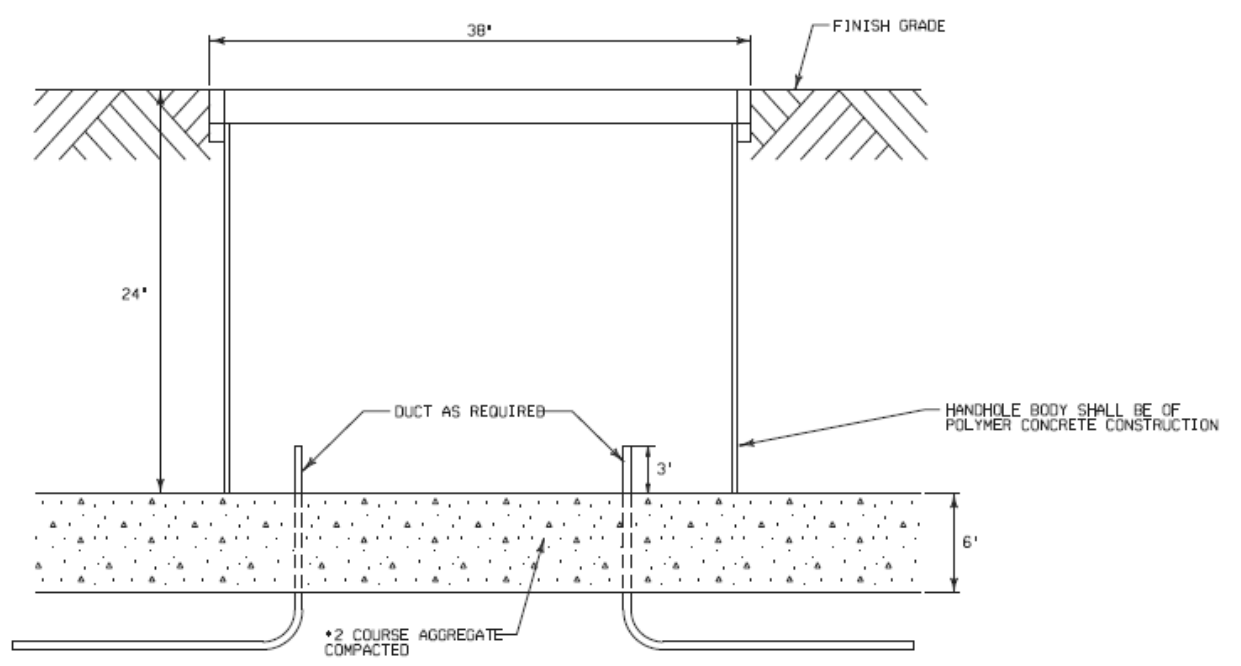
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PLOT NAME:

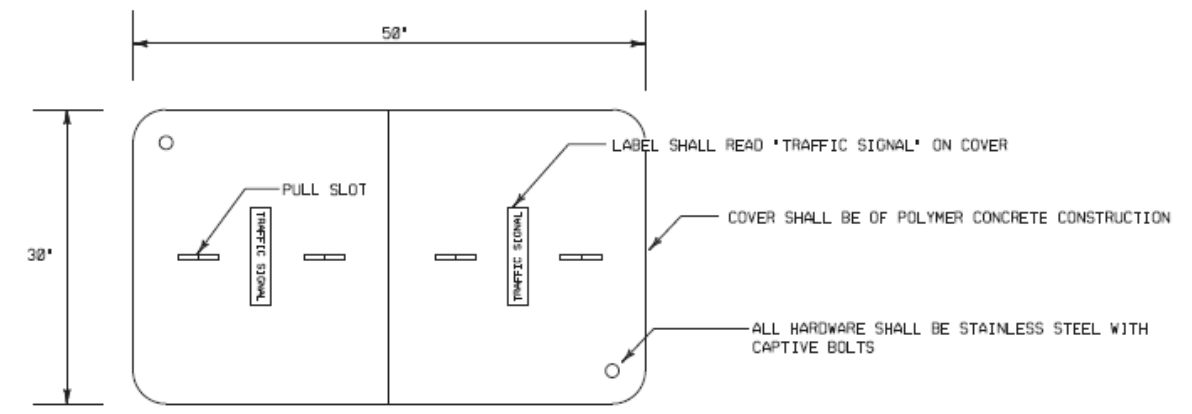
REV. DATE:



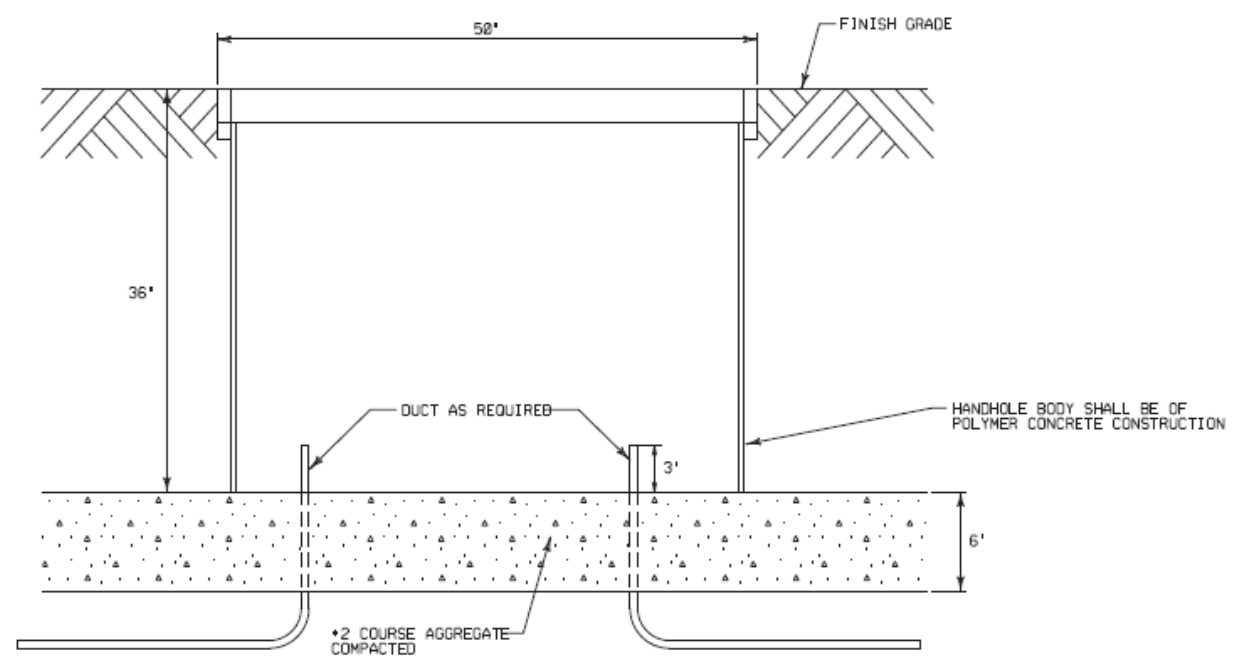
*15,000 LBS MAXIMUM LOAD OVER A 10' X 10' TEST AREA RATING FOR COVER AND BOX



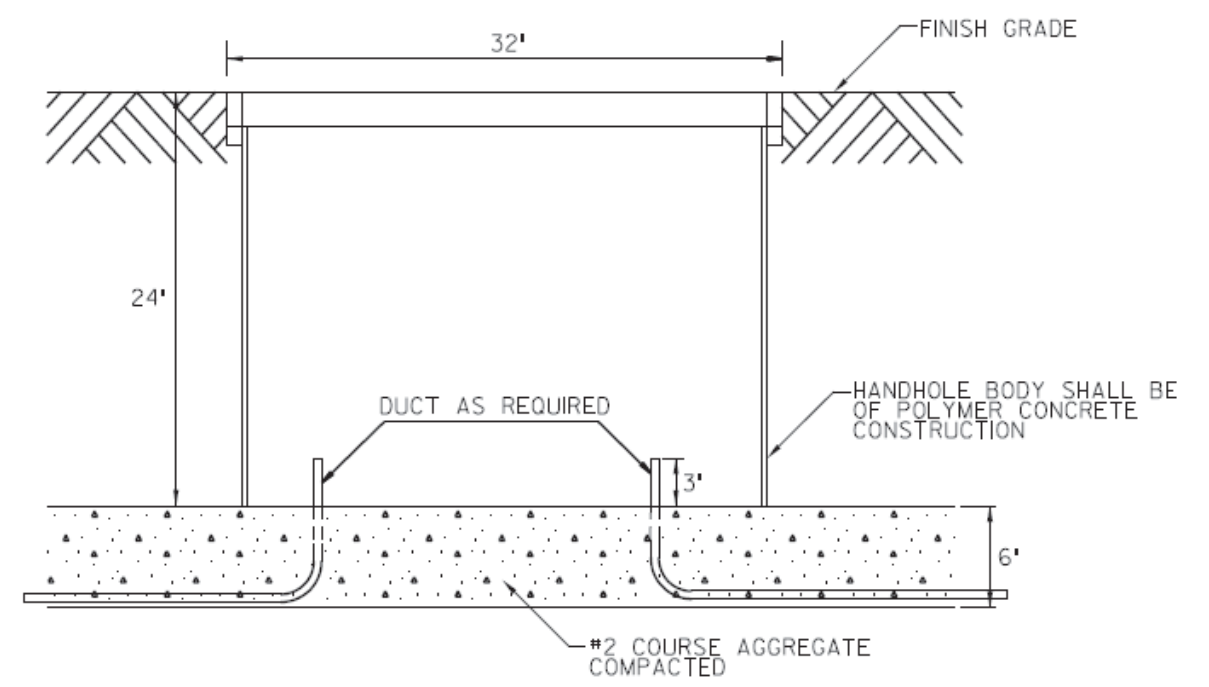
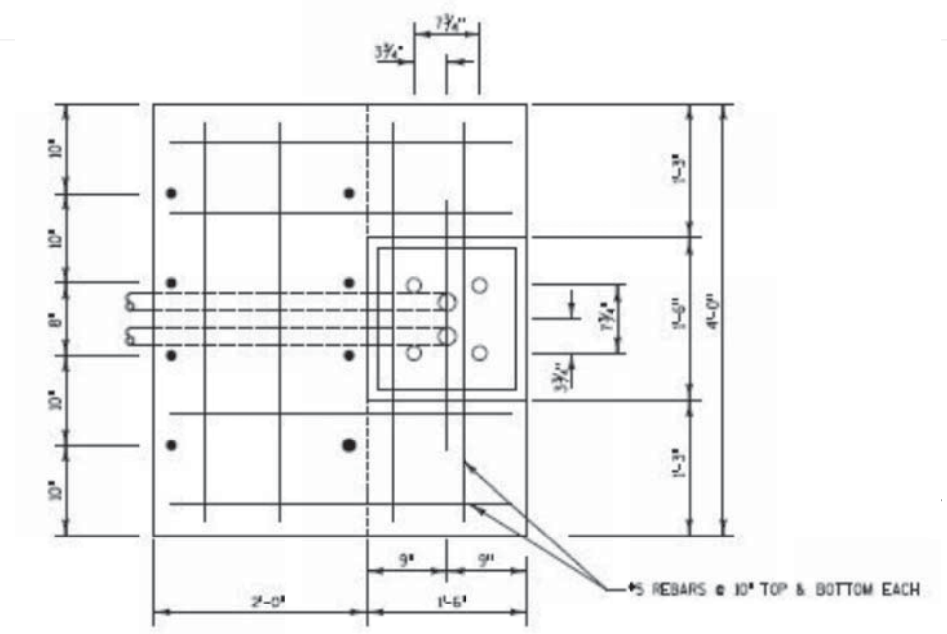
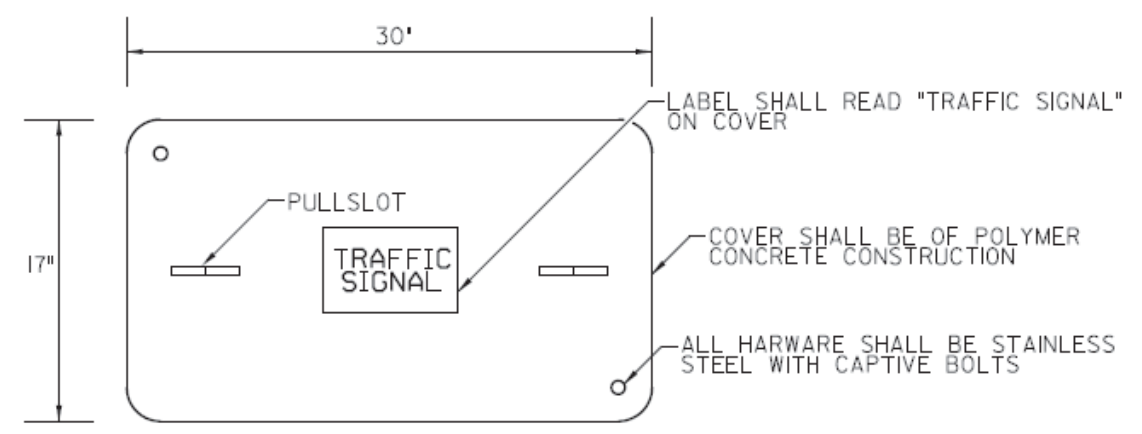
ELECTRICAL PULLBOX TYPE V



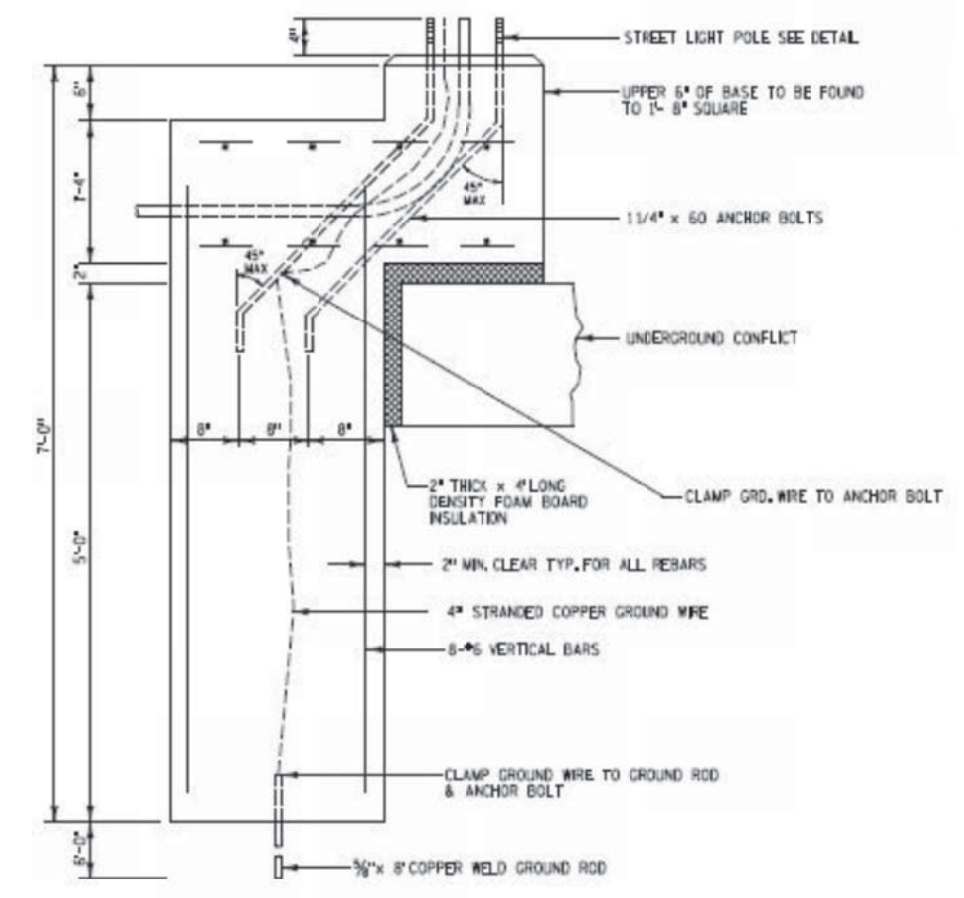
*15,000 LBS MAXIMUM LOAD OVER A 10' X 10' TEST AREA RATING FOR COVER AND BOX



ELECTRICAL PULLBOX TYPE VII

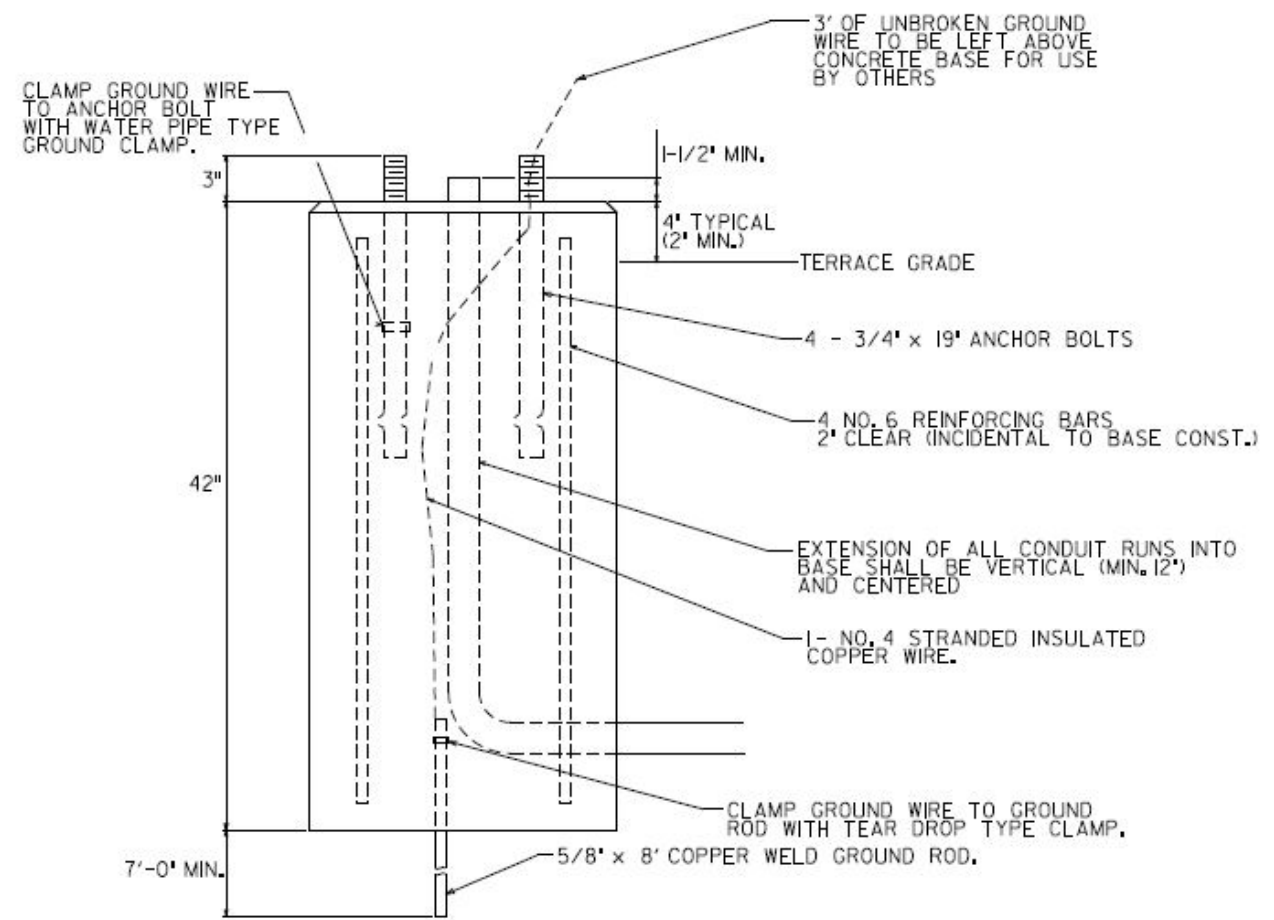
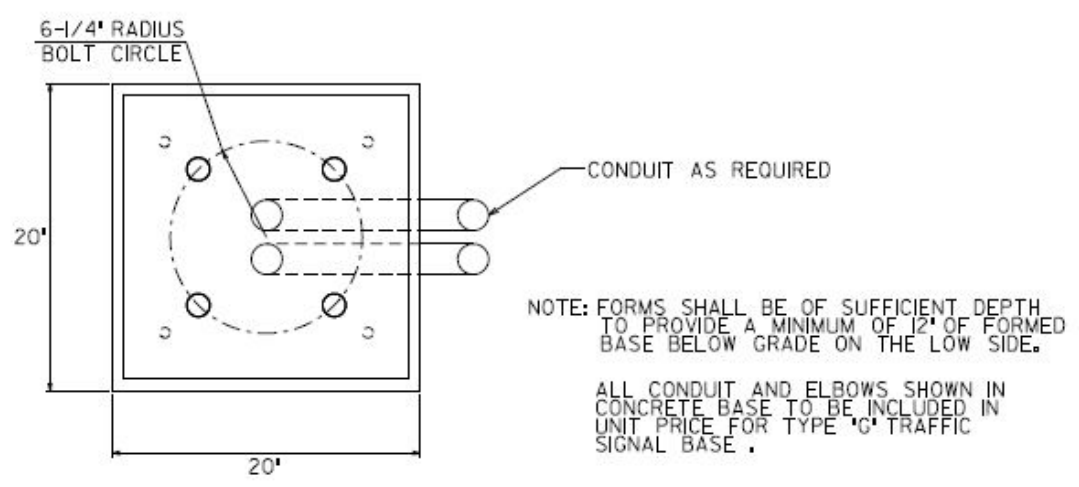


TYPE I HANDHOLE DETAIL
SCALE: NONE

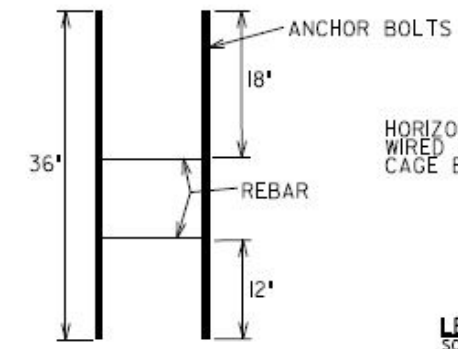
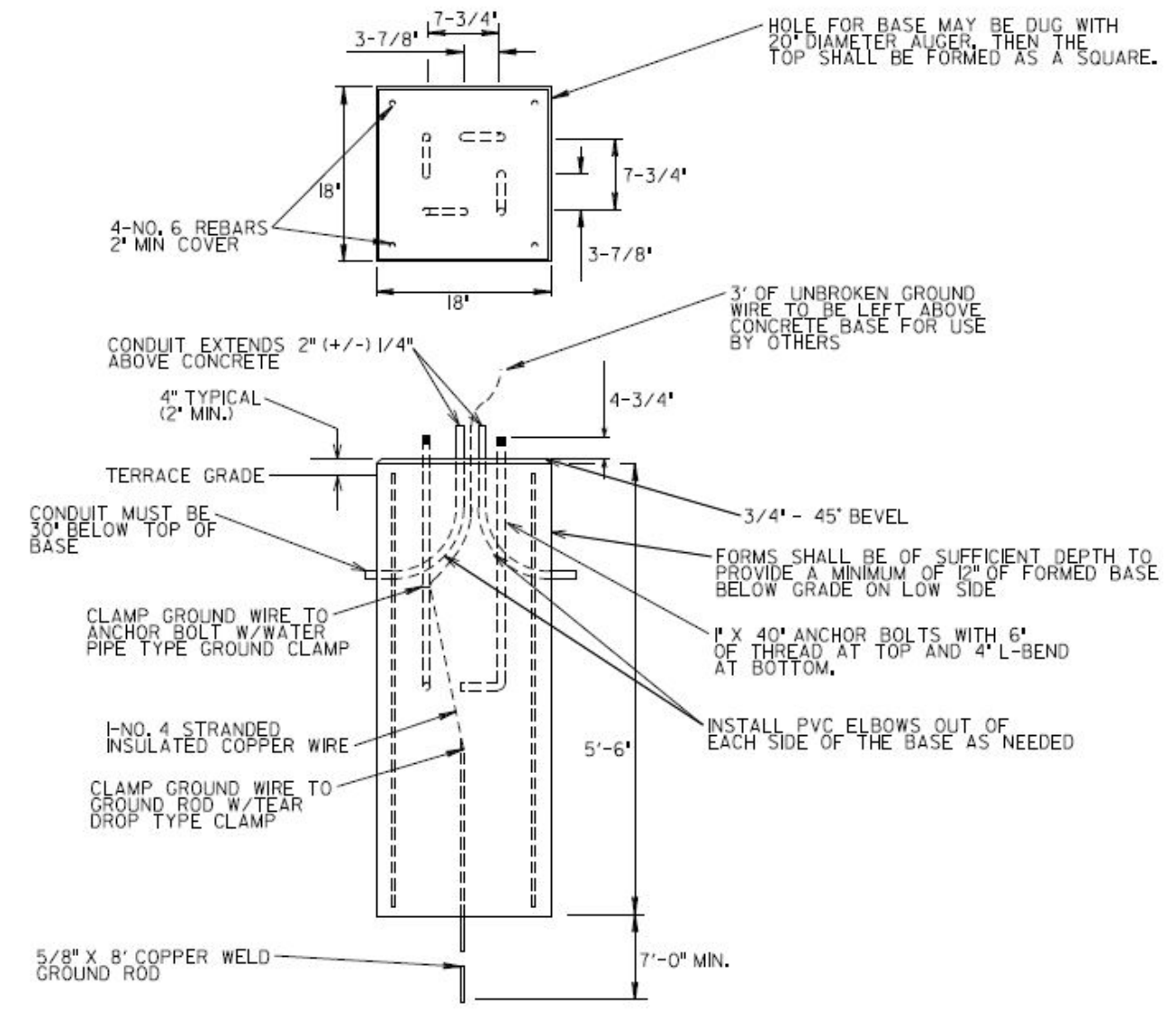


CONCRETE BASE OFFSET

PLOT SCALE:
 PLOT NAME:
 REV. DATE:
 ORIGINATOR: CITY OF MADISON, STREETS DIVISION



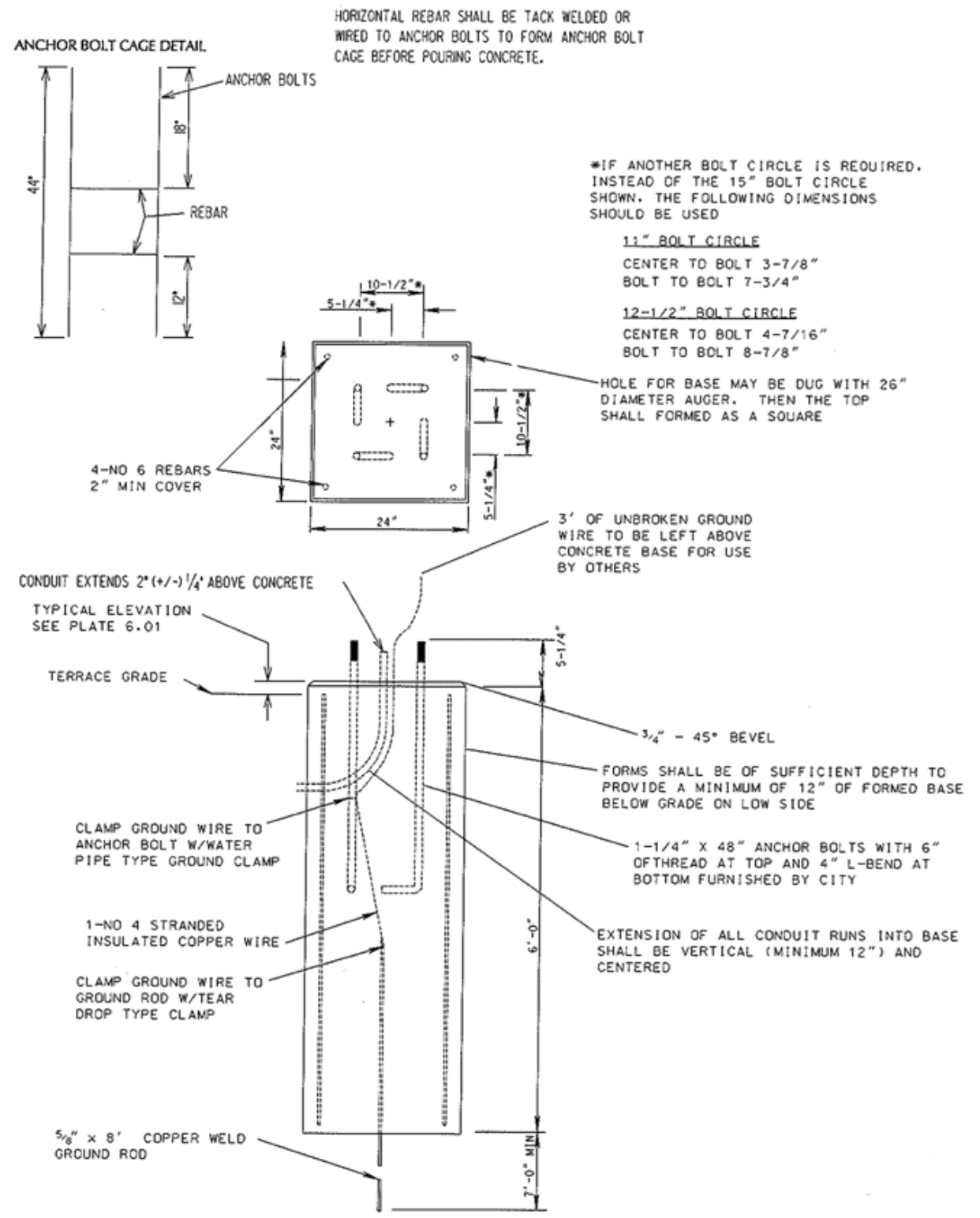
TYPE "C" BASE DETAIL
 SCALE: NONE



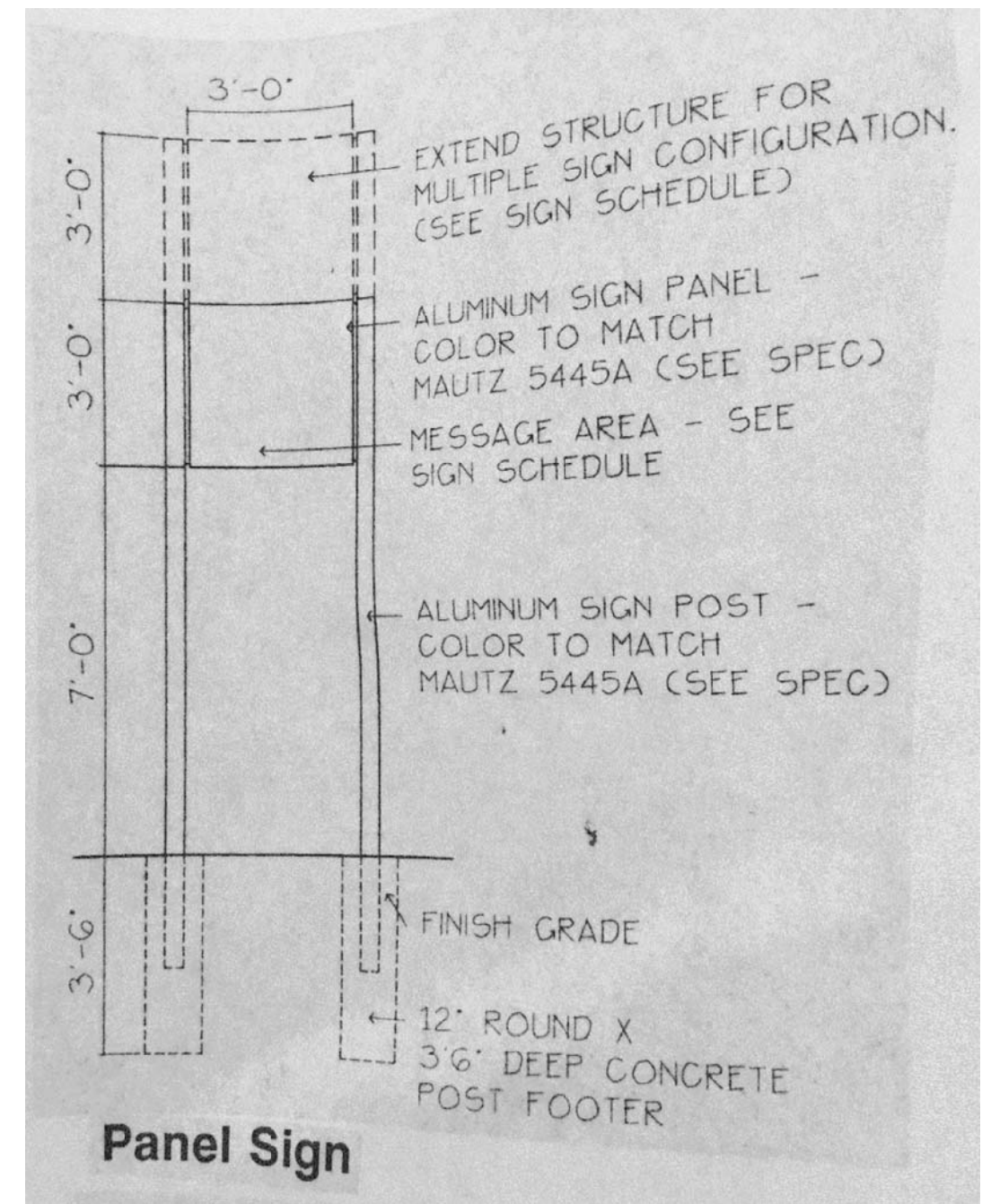
HORIZONTAL REBAR SHALL BE TACK WELDED OR WIRED TO ANCHOR BOLTS TO FORM ANCHOR BOLT CAGE BEFORE POURING CONCRETE.

LB-3 BASE DETAIL
 SCALE: NONE

PLOT SCALE:
 PLOT NAME:
 REV. DATE:
 ORIGINATOR: CITY OF MADISON, STREETS DIVISION



LB-8 BASE DETAIL
SCALE: NONE



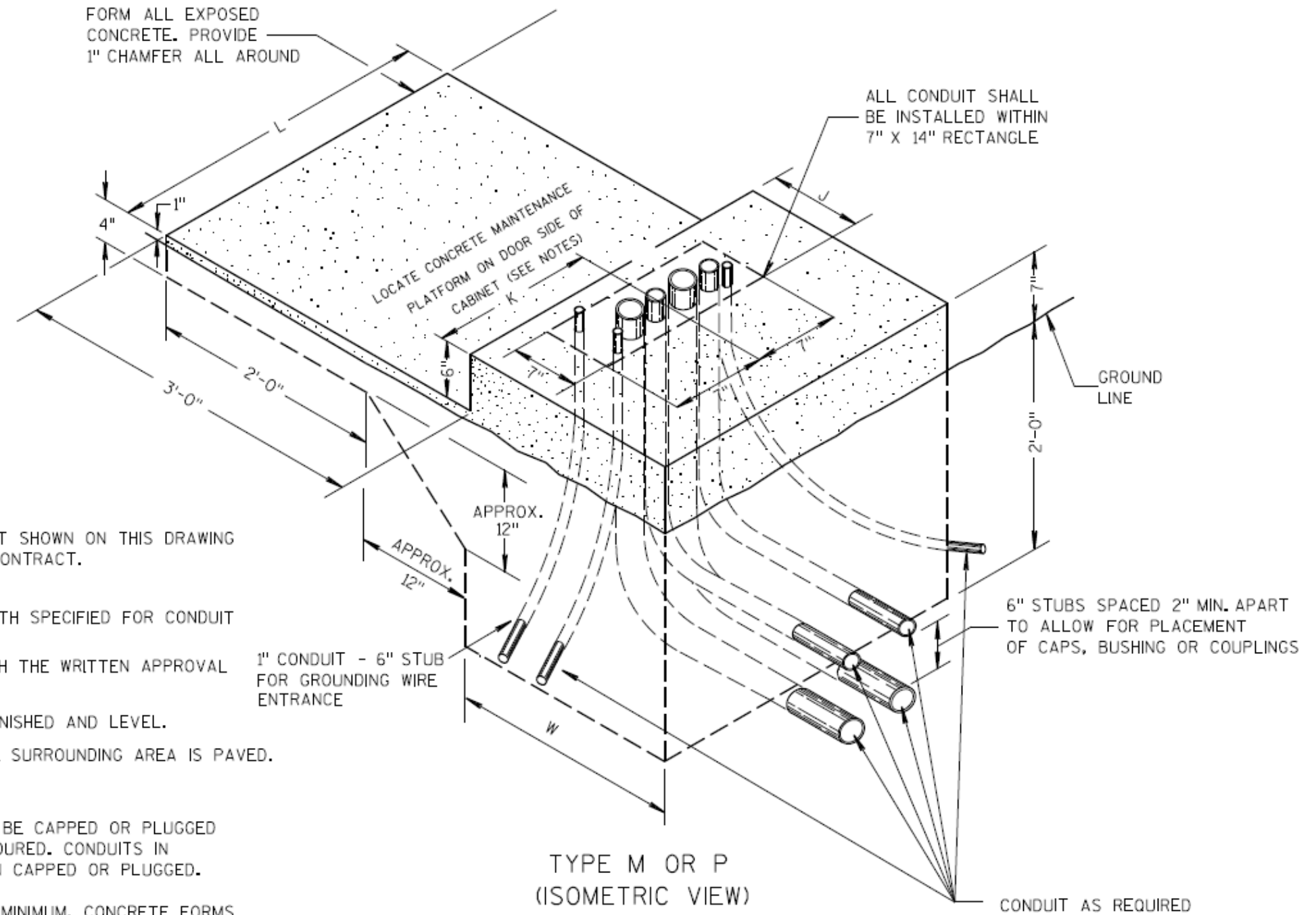
PLOT SCALE:

PLOT NAME:

REV. DATE:

ORIGINATOR: CITY OF MADISON, STREETS DIVISION

CONTROL CABINET BASE TYPE	DIMENSIONS				C.Y. CONCRETE (APPROX.)
	L	W	J	K	
TYPE M	40"	30"	12"	20"	.823
TYPE P	48"	30"	16"	24"	1.179
TYPE M MODIFIED	-	-	-	-	-
TYPE P MODIFIED	-	-	-	-	-
TYPE OTHER	-	-	-	-	-



GENERAL NOTES

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

ALL CONDUIT SHALL BE PVC, SCHEDULE 40

DEPTH OF CONDUIT EXITING THE BASE SHALL MATCH THE DEPTH SPECIFIED FOR CONDUIT INSTALLATION.

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

CONTROL CABINET BASE TOP SURFACES SHALL BE TROWEL FINISHED AND LEVEL.

MAINTENANCE PLATFORM SHALL NOT BE INSTALLED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT = 6 X THE DIAMETER.

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

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6" MINIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

CONDUITS SHALL EXIT THE BASE IN THE DIRECTION OF THE STRUCTURE IT IS TERMINATING INTO.

MAINTENANCE PLATFORM SIZE MAY VARY ON ACCOUNT OF CONDITIONS. VERIFY THE MAINTENANCE PLATFORM SIZE WITH ENGINEER PRIOR TO POURING BASE.

TYPE "M" AND "P" CONTROLLER BASE DETAIL
 SCALE: NONE

PLOT SCALE:

PLOT NAME:

REV. DATE:

ORIGINATOR: CITY OF MADISON, STREETS DIVISION

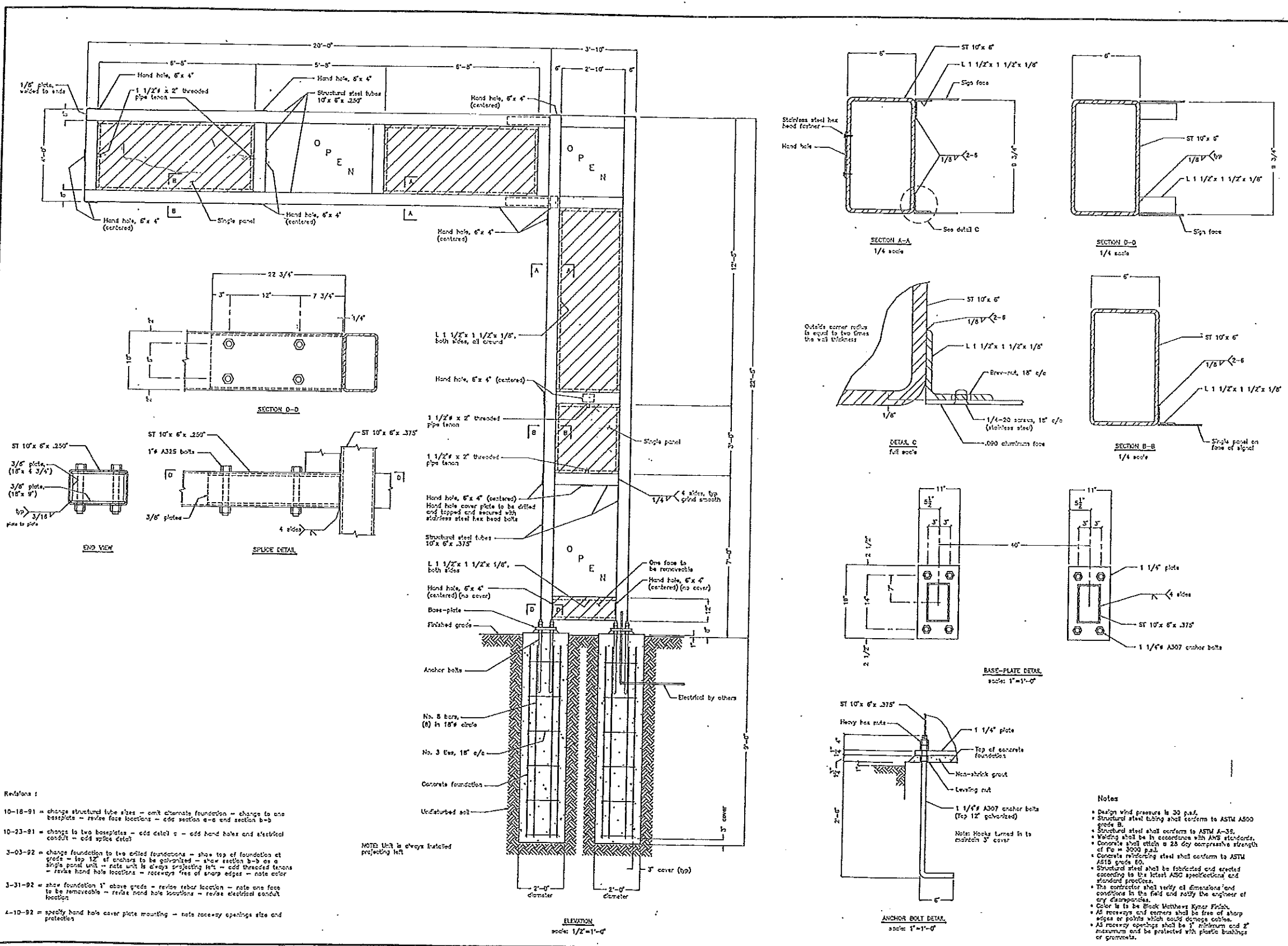
EXHIBIT "A" - Sheet 1
LARGE SIGNAL STRUCTURE
SUPPORTS AND FOUNDATION

GRC
ENGINEERING INC.
4544 W. 103RD STREET
OAK LAWN, ILLINOIS 60453
708-424-9567

Poblocki & Sons
P.O. Box 04665
820 South First Street
Milwaukee, WI 53204
(414) 273-3333

STANDARD SIGNAL
SUPPORTS & FOUNDATIONS

PROJECT NUMBER P25
DATE OCTOBER 1, 1991
DRAWING NUMBER 6070



- Revisions:
- 10-18-91 = change structural tube sizes - omit channels foundation - change to one baseplates - revise face locations - add section a-a and section b-b
 - 10-23-91 = change to two baseplates - add detail c - add hand holes and electrical conduit - add splice detail
 - 3-03-92 = change foundation to two drilled foundations - show top of foundation at grade - top 12" of anchors to be galvanized - show section b-b as a single panel unit - note with 1/4" always projecting left - add threaded fasteners - revise hand hole locations - recessways free of sharp edges - note color
 - 3-31-92 = show foundation 1" above grade - revise rebar location - note one face to be removable - revise hand hole locations - revise electrical conduit location
 - 4-10-92 = specify hand hole cover plate mounting - note recessway openings size and protection

NOTE: Unit is always indicated projecting left

- Notes
- Design wind pressure is 30 psf.
 - Structural steel tubing shall conform to ASTM A500 grade B.
 - Structural steel shall conform to ASTM A-36.
 - Welding shall be in accordance with AWS standards.
 - Concrete shall reach a 28 day compressive strength of $F_c = 3000$ psi.
 - Concrete reinforcing steel shall conform to ASTM A615 grade 60.
 - Structural steel shall be fabricated and erected according to the latest ASCE specifications and standard practices.
 - The contractor shall verify all dimensions and conditions in the field and notify the engineer of any discrepancies.
 - Color is to be Black Weathering Kynar Finish.
 - All recessways and corners shall be free of sharp edges or points which could damage cables.
 - All recessway openings shall be 1" minimum and 2" maximum and be protected with plastic bushings or grommets.

ORIGINATOR: CITY OF MADISON, STREETS DIVISION

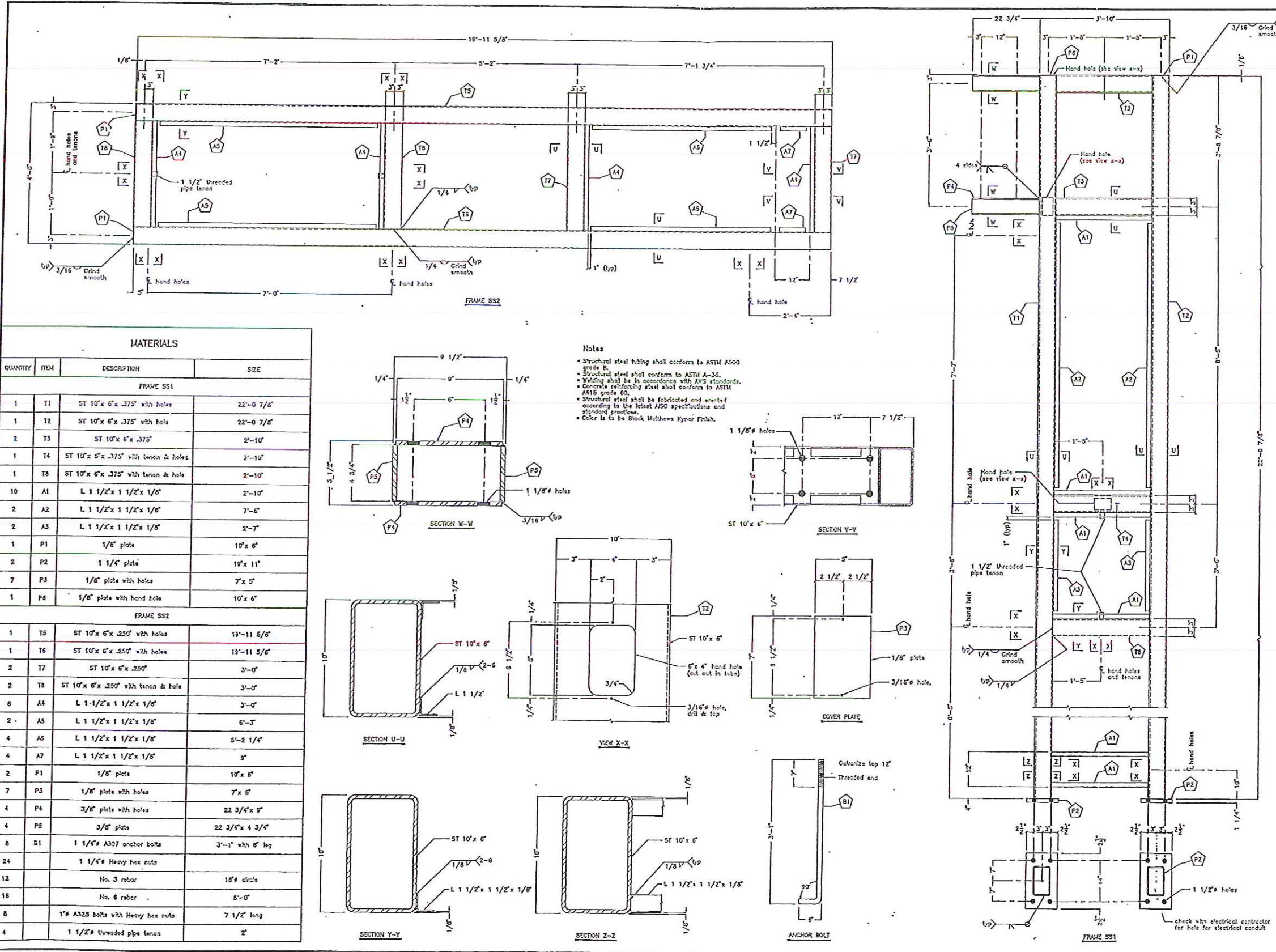
EXHIBIT "A" - Sheet 2
LARGE SIGNAL STRUCTURE
SHOP DETAILS

GRC
ENGINEERING INC.
4544 W. 103RD STREET
OAK LAHN, ILLINOIS 60453
708-424-9567

Poblocki & Sons
P.O. Box 04665
620 South First Street
Mishwaukee, WI 53204
(414) 273-3333

STANDARD SIGNAL
SHOP DETAILS
(DRAWING NO. 8070)

PROJECT NUMBER P27
DATE OCTOBER 28, 1991
DRAWING NUMBER 8096



Notes

- Structural steel tubing shall conform to ASTM A500 grade B.
- Structural steel shall conform to ASTM A-36.
- Welding shall be in accordance with AWS standards.
- Concrete reinforcing steel shall conform to ASTM A618 grade 60.
- Structural steel shall be fabricated and erected according to the latest AISI specifications and standard practices.
- Color is to be Black Matthews Kynor Finish.

MATERIALS

QUANTITY	ITEM	DESCRIPTION	SIZE
FRAME SS1			
1	T1	ST 10"x 6" .375" with holes	22'-0 7/8"
1	T2	ST 10"x 6" .375" with holes	22'-0 7/8"
2	T3	ST 10"x 6" .375"	2'-10"
1	T4	ST 10"x 6" .375" with tenon & hole	2'-10"
1	T8	ST 10"x 6" .375" with tenon & hole	2'-10"
10	A1	L 1 1/2"x 1 1/2"x 1/8"	2'-10"
2	A2	L 1 1/2"x 1 1/2"x 1/8"	7'-6"
2	A3	L 1 1/2"x 1 1/2"x 1/8"	2'-7"
1	P1	1/8" plate	10"x 6"
2	P2	1 1/4" plate	10"x 11"
7	P3	1/8" plate with holes	7"x 5"
1	P8	1/8" plate with hand hole	10"x 6"
FRAME SS2			
1	T5	ST 10"x 6" .250" with holes	10'-11 5/8"
1	T6	ST 10"x 6" .250" with holes	10'-11 5/8"
2	T7	ST 10"x 6" .250"	3'-0"
2	T8	ST 10"x 6" .250" with tenon & hole	3'-0"
6	A4	L 1 1/2"x 1 1/2"x 1/8"	3'-0"
2	A5	L 1 1/2"x 1 1/2"x 1/8"	6'-5"
4	A6	L 1 1/2"x 1 1/2"x 1/8"	8'-2 1/4"
4	A7	L 1 1/2"x 1 1/2"x 1/8"	5"
2	P1	1/8" plate	10"x 6"
7	P3	1/8" plate with holes	7"x 5"
4	P4	3/8" plate with holes	22 3/4"x 9"
4	P5	3/8" plate	22 3/4"x 4 3/4"
8	B1	1 1/4" A307 anchor bolts	3'-1" with 6" leg
24		1 1/4" Heavy hex nuts	
12		No. 3 rebar	18" circles
16		No. 6 rebar	8'-0"
8		1" A325 bolts with Heavy hex nuts	7 1/2" long
4		1 1/2" threaded pipe tenon	2"

PLOT SCALE: _____
PLOT NAME: _____
REV. DATE: _____

ORIGINATOR: CITY OF MADISON, STREETS DIVISION

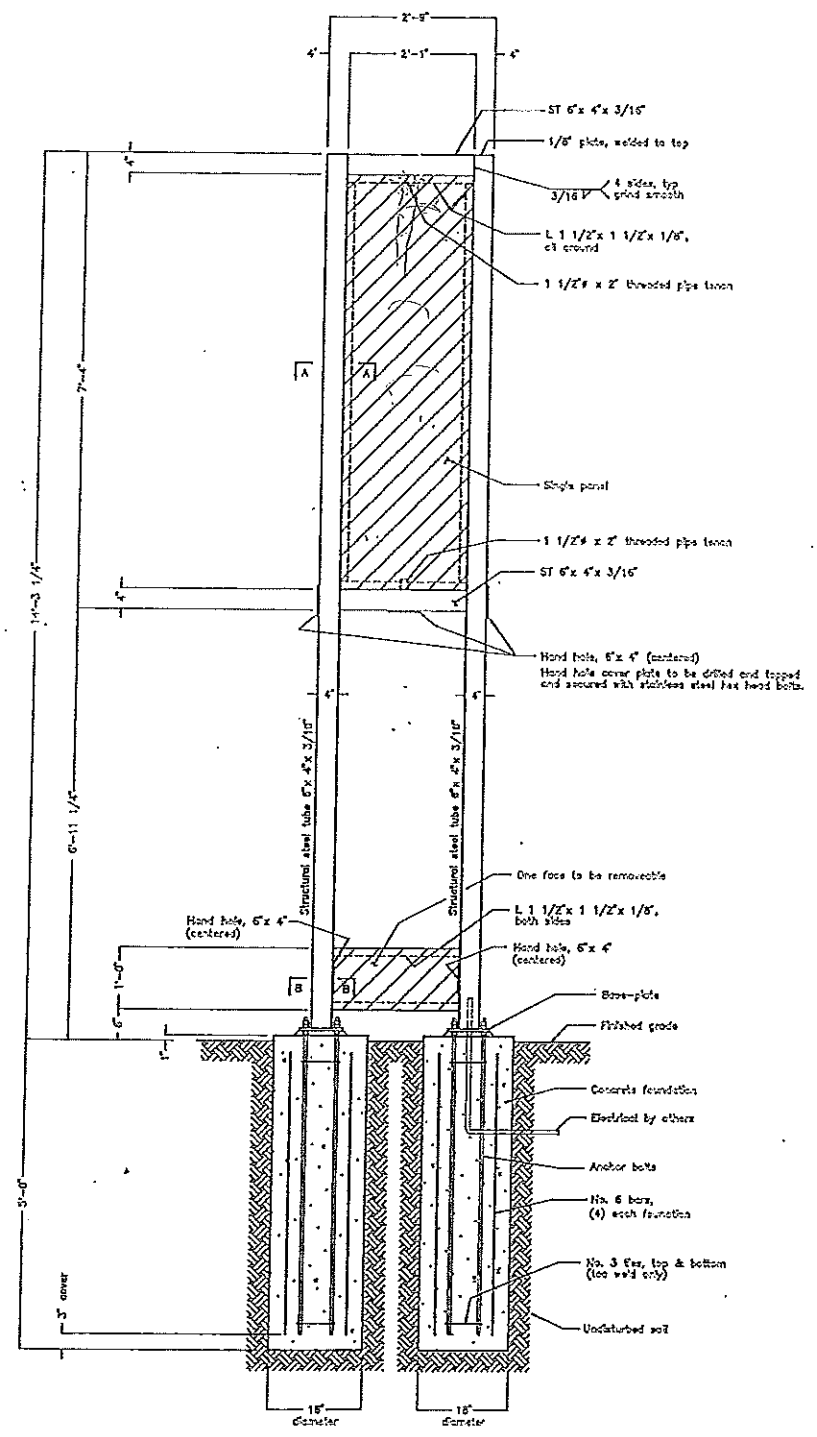
EXHIBIT "A" - Sheet 3
SMALL SIGNAL STRUCTURE
SUPPORTS AND FOUNDATION

GRC
ENGINEERING INC.
4544 N. 103RD STREET
OAK LAWN, ILLINOIS 60453
708-424-9567

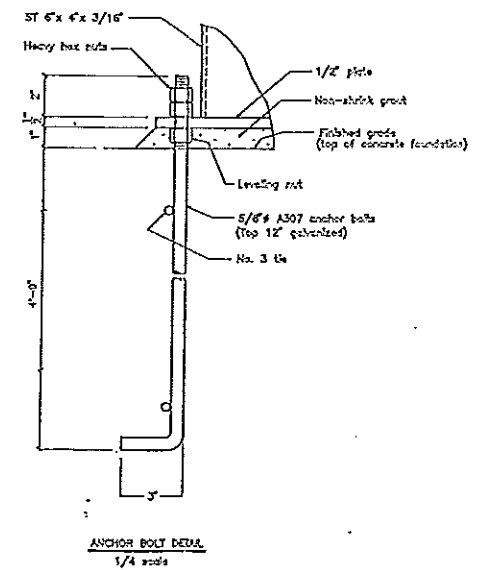
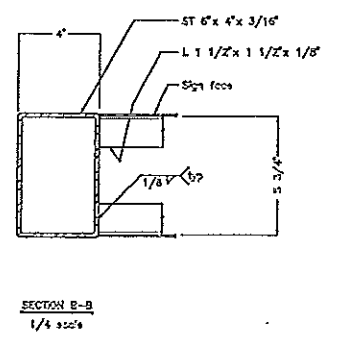
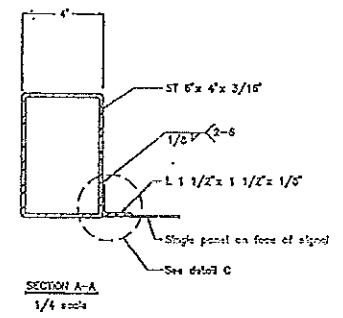
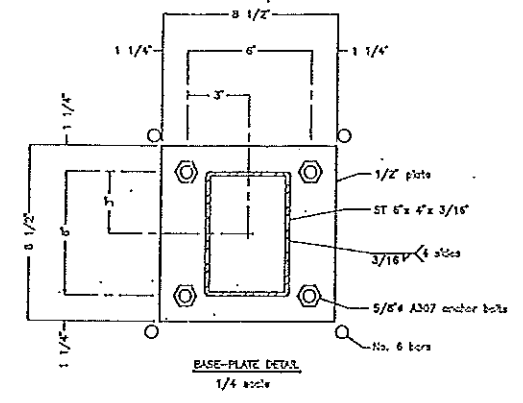
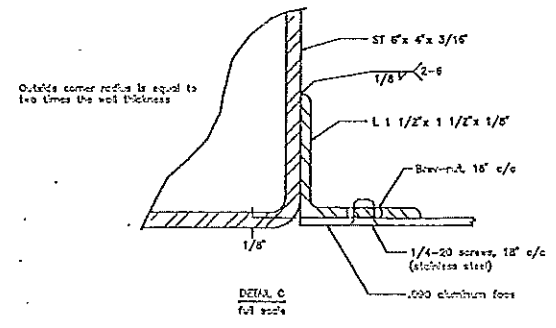
Poblocki & Sons
P.O. Box 04665
620 South First Street
Milwaukee, WI 53204
(414) 273-3333

STANDARD SIGNAL
SUPPORTS & FOUNDATIONS

PROJECT NUMBER P24
DATE OCTOBER 1, 1991
DRAWING NUMBER 8069



- Notes
- Design wind pressure is 30 p.s.f.
 - Structural steel tubing shall conform to ASTM A500 grade B.
 - Structural steel shall conform to ASTM A-36.
 - Welding shall be in accordance with AWS standards.
 - Concrete shall attain a 28 day compressive strength of $f_c = 3000$ p.s.f.
 - Concrete reinforcing steel shall conform to ASTM A615 grade 60.
 - Structural steel shall be fabricated and erected according to the latest AISC specifications and standard practices.
 - The contractor shall verify all dimensions and conditions in the field and notify the engineer of any discrepancies.
 - Color is to be Black Mattress Kynar Finish.
 - All recesses and corners shall be free of sharp edges or points which could damage cables.
 - All recessy openings shall be 1" minimum and 2" maximum and be protected with plastic bushings or grommets.



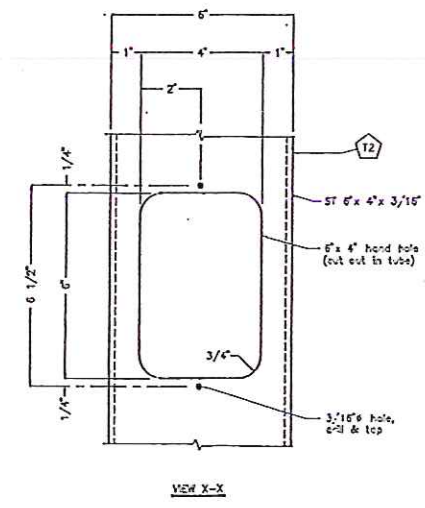
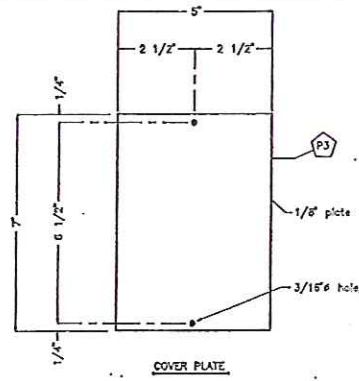
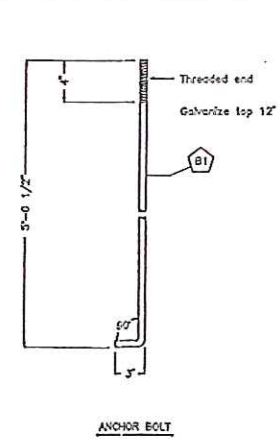
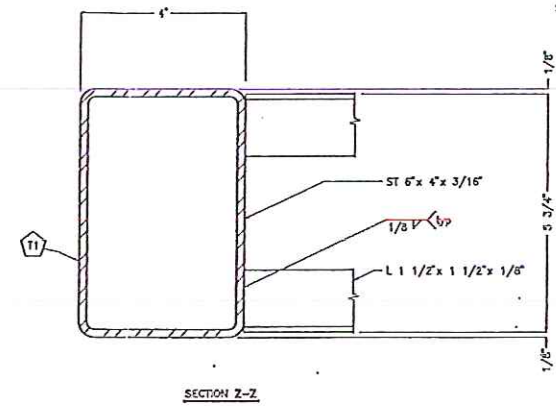
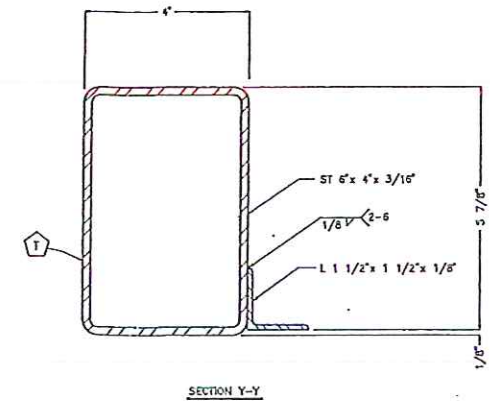
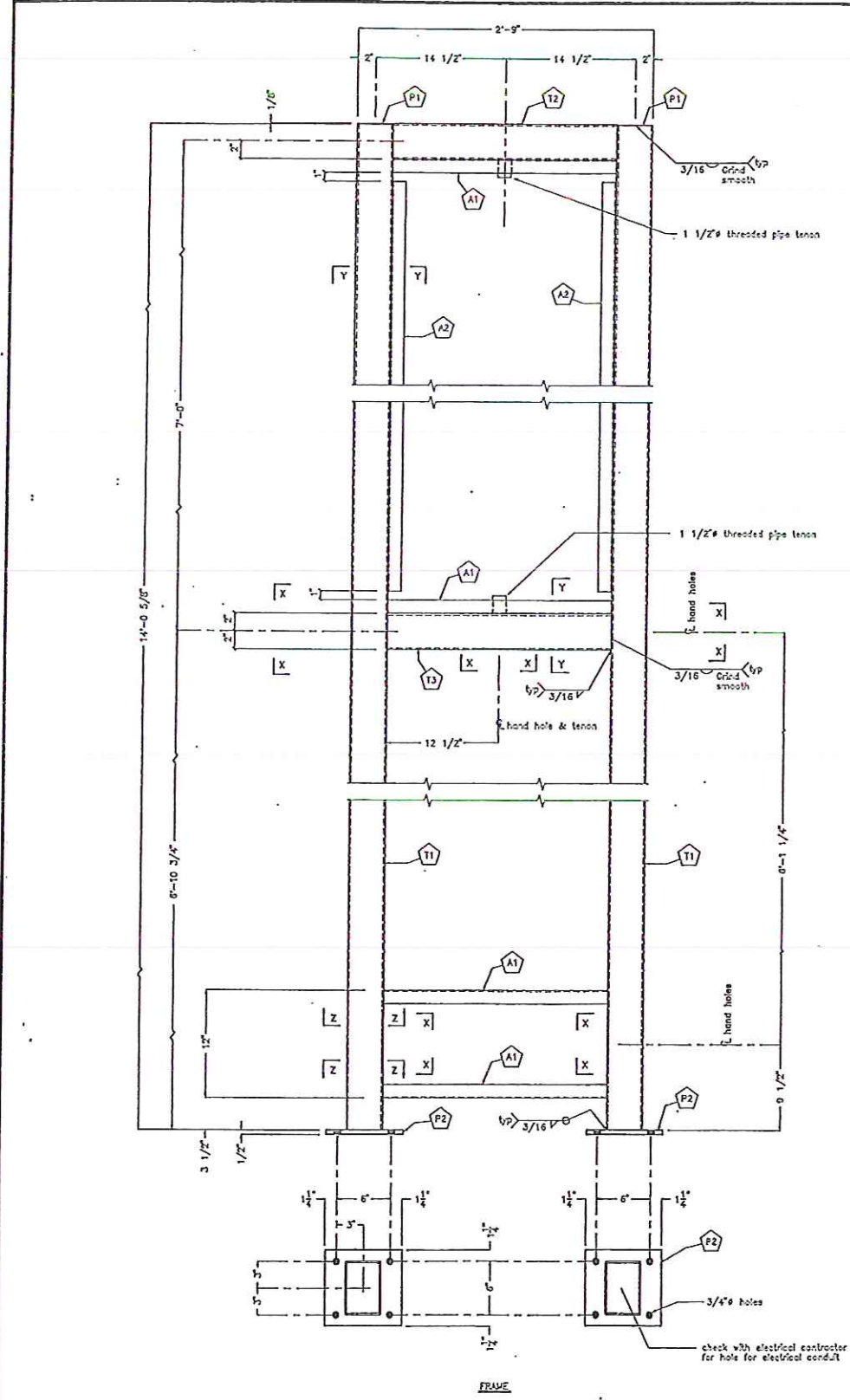
- Revisions:
- 10-18-91 = change structural tube sizes - omit spread foundation - change to four foot diameter footing - add section a-a and section b-b
 - 10-23-91 = change to two 18" diameter foundations - add detail a - add hand hole and electrical conduit
 - 3-03-92 = show top of foundation at grade - add vertical no. 6 bars - show no. 3 ties at top and bottom only - top 12' of structure to be galvanized - show section a-a as a single panel unit - add threaded tenons - revise hand hole locations - remove ties free of sharp edges - note color
 - 3-31-92 = note one face to be removable - revise hand hole locations - revise electrical conduit location
 - 4-10-92 = specify hand hole cover plate mounting - note recessy openings size and protection - show foundation 1' above grade

PLOT SCALE: _____
PLOT NAME: _____
REV. DATE: _____

ORIGINATOR: CITY OF MADISON, STREETS DIVISION

PLOT SCALE: _____
PLOT NAME: _____
REV. DATE: _____

ORIGINATOR: CITY OF MADISON, STREETS DIVISION



MATERIALS			
QUANTITY	ITEM	DESCRIPTION	SIZE
2	T1	ST 6\"/>	
1	T2	ST 6\"/>	
1	T3	ST 6\"/>	
2	P1	1/8\"/>	
2	P2	1/2\"/>	
3	P3	1/8\"/>	
6	A1	L 1 1/2\"/>	
2	A2	L 1 1/2\"/>	
8	B1	5/8\"/>	
24		5/8\"/>	
4		No. 3 rebar	2\"/>
8		No. 6 rebar	4\"/>
2		1 1/2\"/>	

- Notes
- Structural steel tubing shall conform to ASTM A500 grade B.
 - Structural steel shall conform to ASTM A-36.
 - Welding shall be in accordance with AWS standards.
 - Concrete reinforcing steel shall conform to ASTM #19 grade 60.
 - Structural steel shall be fabricated and erected according to the latest ASDG specifications and standard practices.
 - Color is to be Black Mathews Kynar Finish.

EXHIBIT "A" - Sheet 4
SMALL SIGNAL STRUCTURE
SHOP DETAILS

GRC
ENGINEERING INC.
4544 W. 103RD STREET
OAK LAWN, ILLINOIS 60453
708-424-9567

Poblocki & Sons
P.O. Box 04865
620 South First Street
Milwaukee, WI 53204
(414) 273-3333

STANDARD SIGNAL
SHOP DETAILS
(DRAWING NO. 8089)

PROJECT NUMBER P26
DATE OCTOBER 28, 1991
DRAWING NUMBER 8095

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL 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 AND LEVEL.

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 (LATEST EDITION).

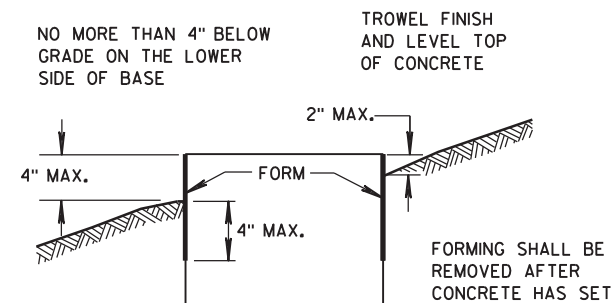
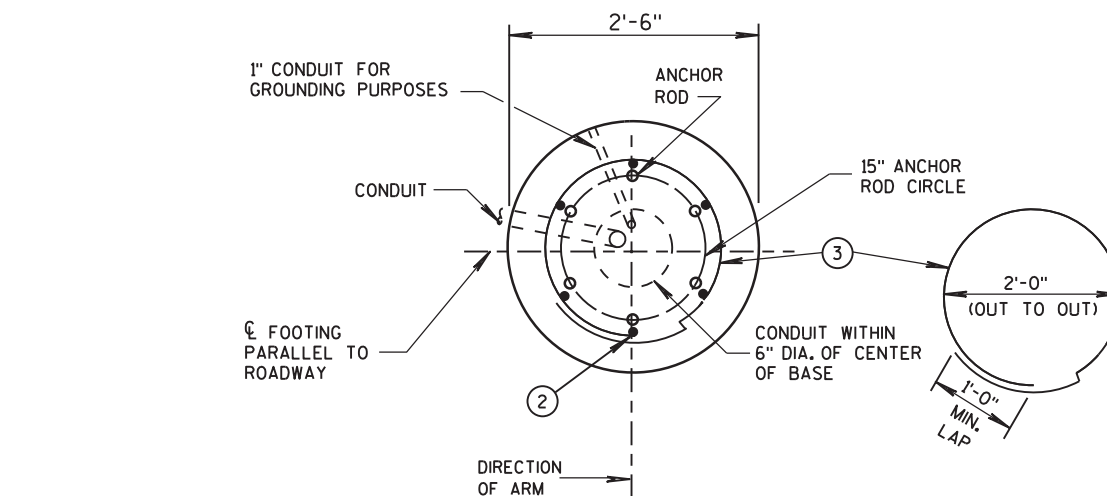
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

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.

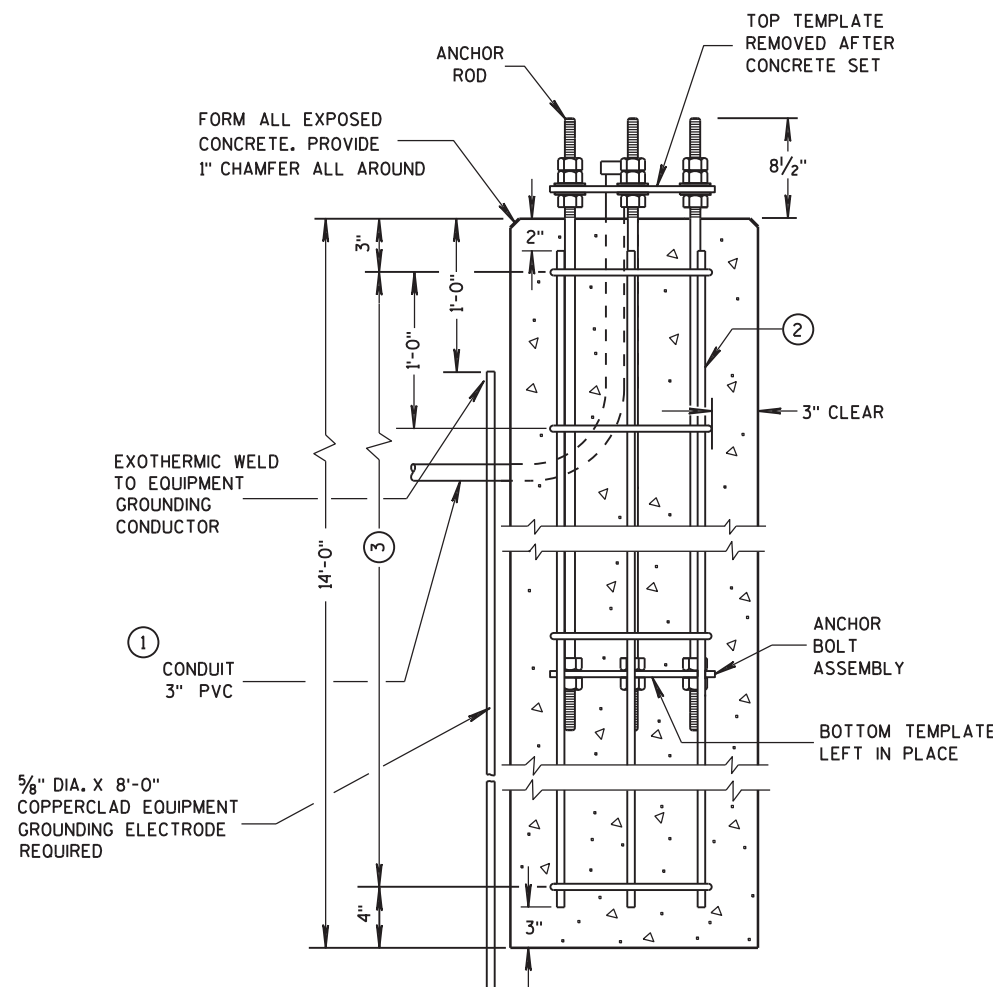
② (6) NO. 6 X 13'-7" BAR STEEL REINFORCEMENT.

③ (15) NO. 4 X 7'-4" BAR STEEL REINFORCEMENT @ 1'-0" 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, AASHTO M314 GRADE 55	-----	fy=55,000 p.s.i.
TEMPLATES, ASTM, A709 GRADE 36	-----	fy=36,000 p.s.i.

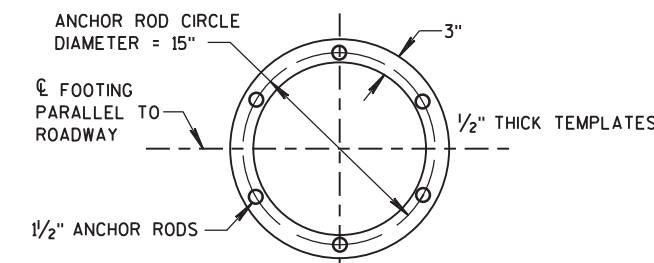


FORMING DETAIL

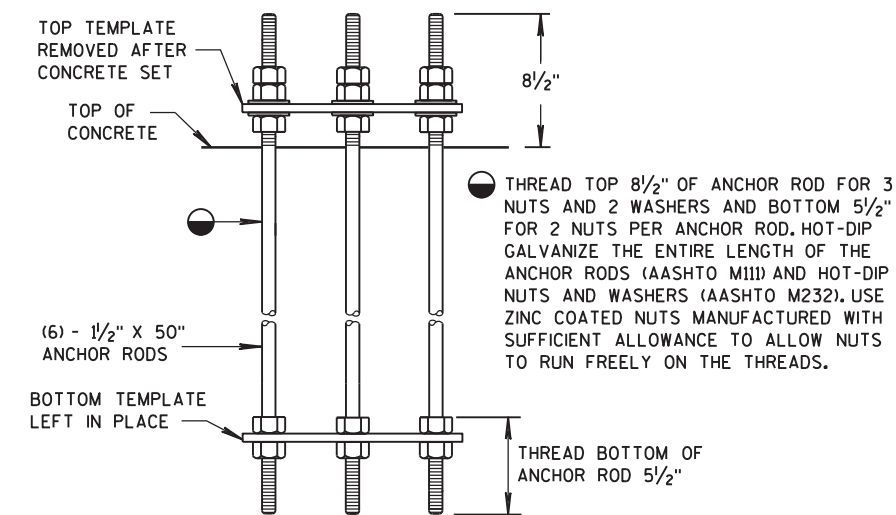


**CONCRETE BASE TYPE 10
(FOR TYPE 9 & 10 POLES)**

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.



TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

**CONCRETE BASE TYPE 10
ANCHOR ASSEMBLY**

SHEET NO. E-18

QUANTITY REQUIREMENTS	
APPROX. CUBIC YARDS OF CONCRETE	2.5
LBS. OF HOOP BAR STEEL	69
LBS. OF VERTICAL BAR STEEL	122

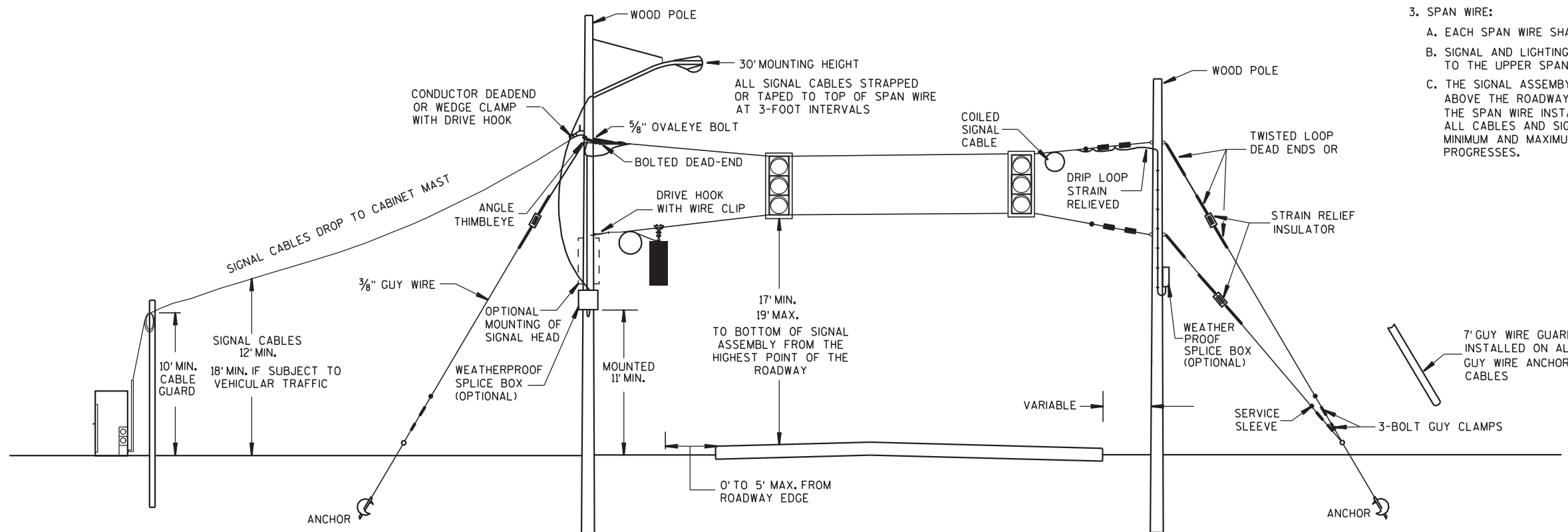
CONCRETE BASE TYPE 10	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	/S/ Ahmet Demirbilek
Sept. 2014	DATE
STATE ELECTRICAL ENGINEER	
FHWA	



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.
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.
 - 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**

MINIMUM POLE LENGTHS	POLE BURIEL DEPTHS
25'	5'
30'	6'
35'	7'
40'	8'
45'	9'

SHEET NO. E-19

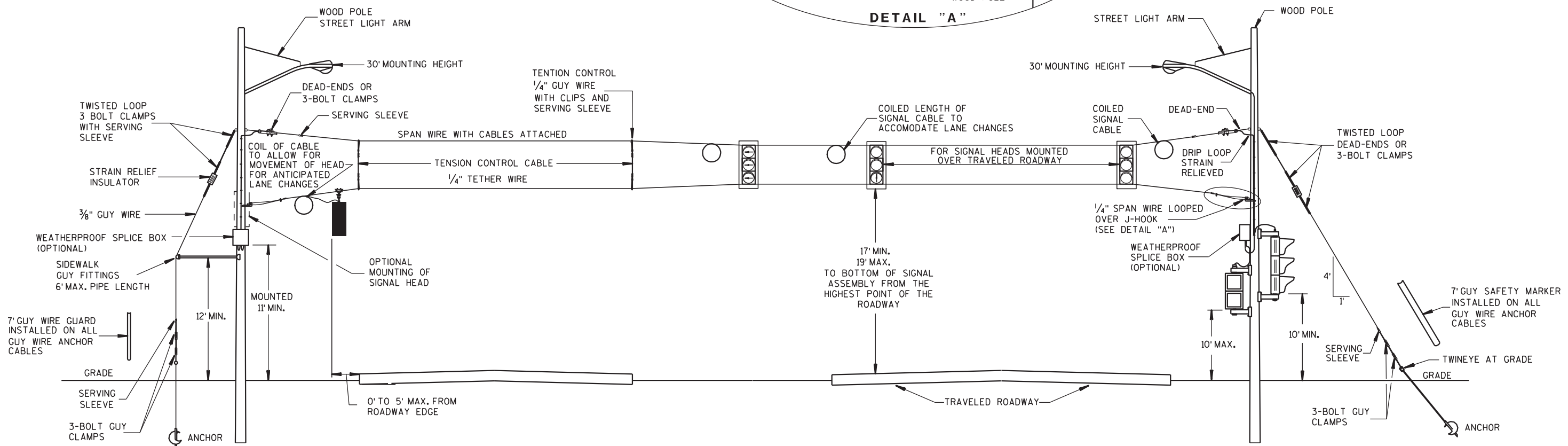
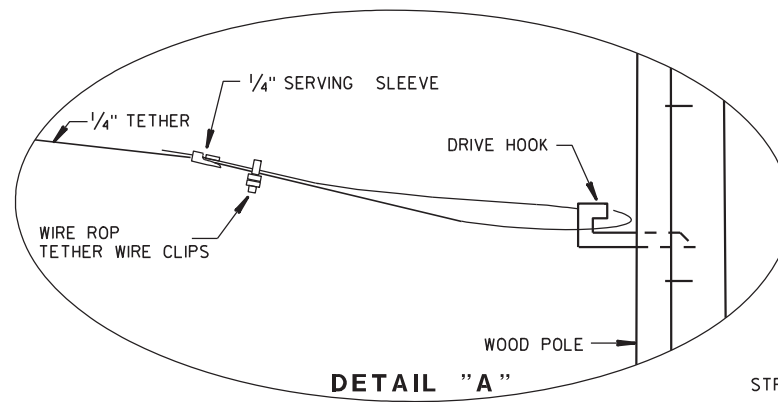
**SPAN WIRE
TEMPORARY TRAFFIC SIGNAL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-14-08 /S/ Balu Ananthanarayanan
DATE STATE ELECTRICAL ENGINEER FOR HWYS

FHWA



6

6

GENERAL NOTES

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

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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.
 - 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
4 LANE ROADWAYS**

MINIMUM POLE LENGTHS	CLASS	MIN. BURIAL DEPTHS
25'	V	5'
30'	V	6'
35'	IV	7'
40'	IV	8'
45'	IV	9'

SHEET NO. E-20

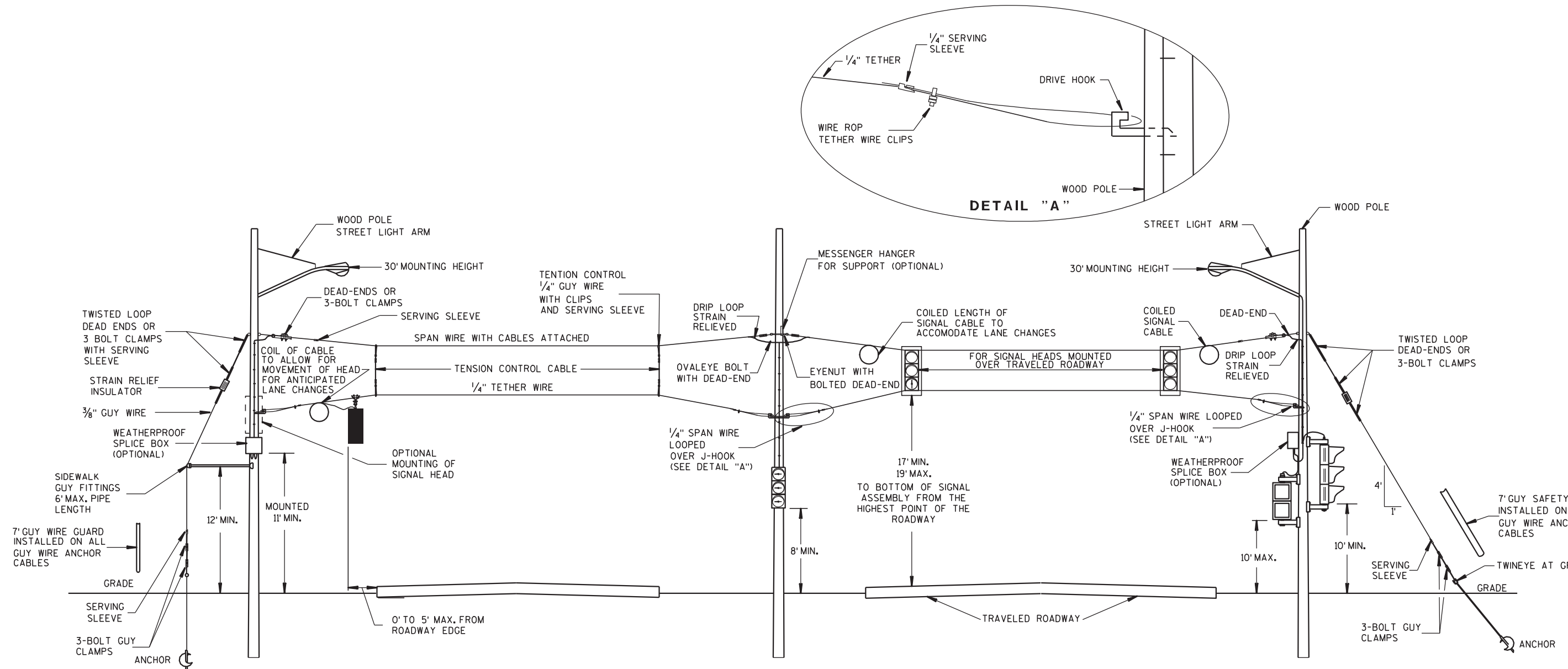
**SPAN WIRE
TEMPORARY TRAFFIC SIGNAL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7-14-08 /S/ Balu Ananthanarayanan
DATE STATE ELECTRICAL ENGINEER FOR HWYS
FHWA

S.D.D. 9 G 1-3b

S.D.D. 9 G 1-3b



**SPAN WIRE
TEMPORARY SIGNALS
4 LANE ROADWAYS**

GENERAL NOTES

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

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 - 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.

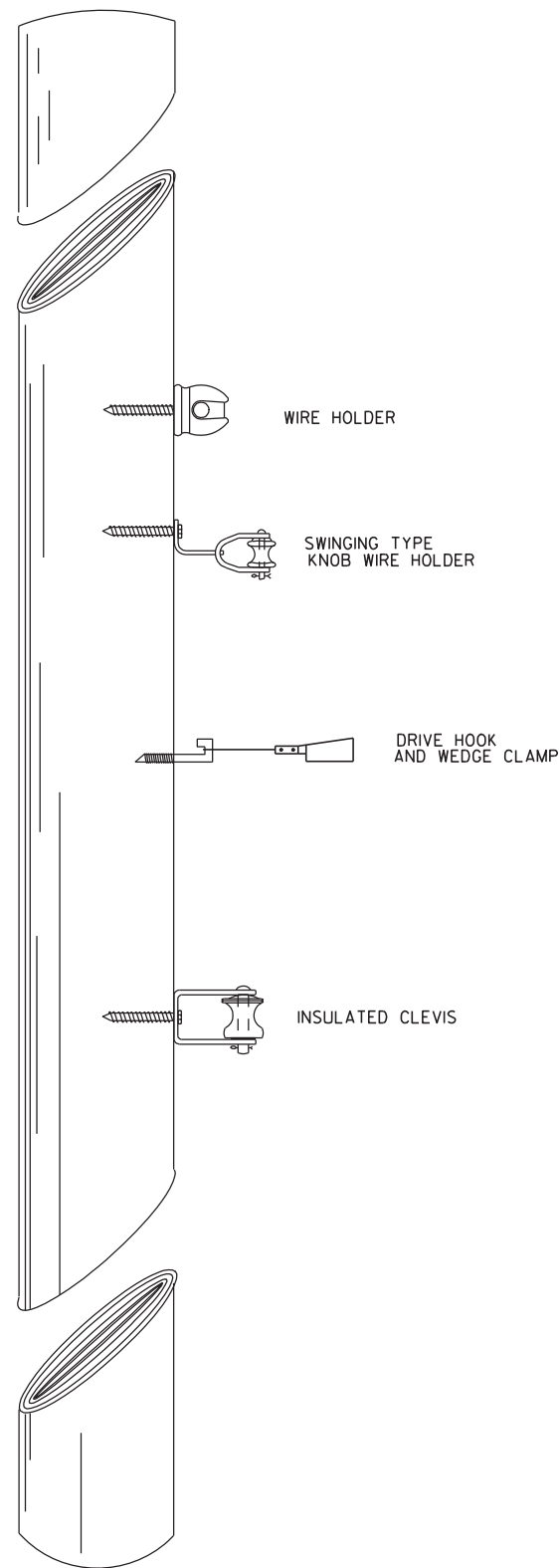
MINIMUM POLE LENGTHS	CLASS	MIN. BURIAL DEPTHS
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30'	V	6'
35'	IV	7'
40'	IV	8'
45'	IV	9'

SHEET NO. E-21

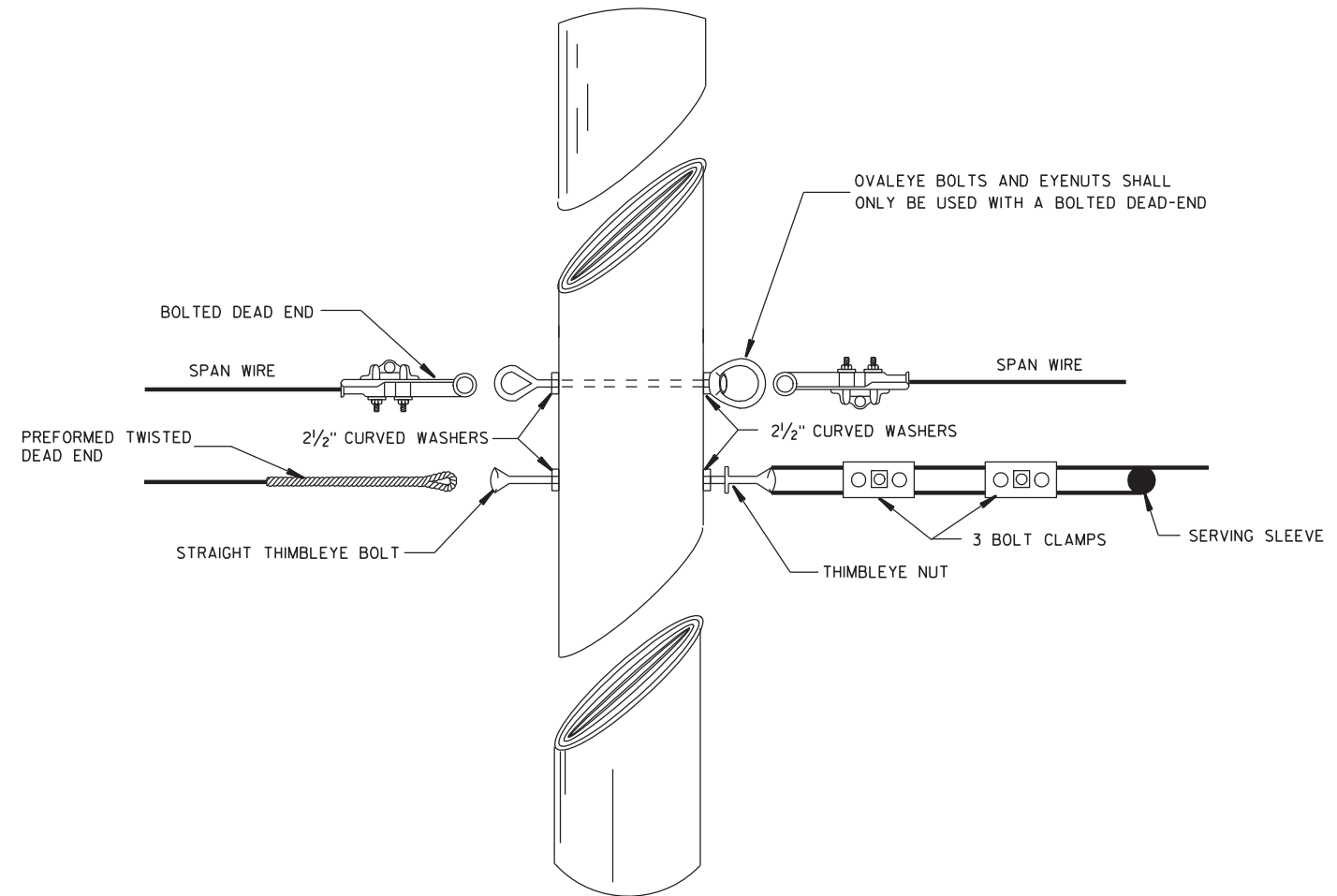
**SPAN WIRE
TEMPORARY TRAFFIC SIGNAL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7-14-08 /S/ Balu Ananthanarayanan
DATE STATE ELECTRICAL ENGINEER FOR HWYS
FHWA



TYPICAL CABLE HANGERS



TYPICAL DEAD-ENDING

6

6

S.D.D. 9 G 1-3d

S.D.D. 9 G 1-3d

SHEET NO. E-22

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

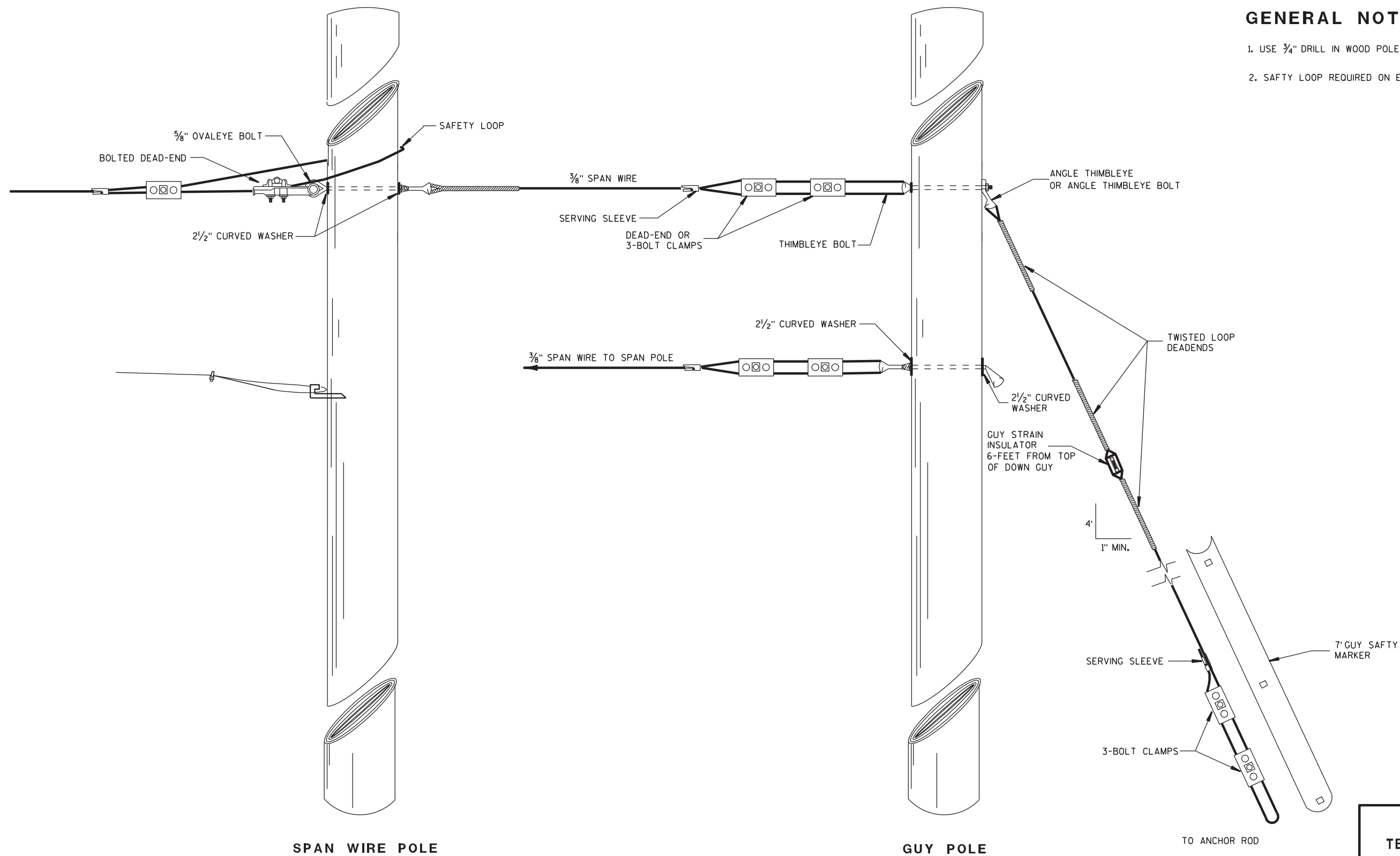
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED	/S/ Balu Ananthanarayanan
7-14-08	STATE ELECTRICAL ENGINEER FOR HWYS
DATE	
FHWA	



GENERAL NOTES

1. USE 3/4" DRILL IN WOOD POLE TO PROVIDE HOLE FOR 5/8" BOLTS.
2. SAFTY LOOP REQUIRED ON EACH END OF ALL SPAN WIRES.



SPAN WIRE POLE

GUY POLE

TO ANCHOR ROD

TYPICAL DEAD-ENDINGS OR GUYING

SHEET NO. E-23

**SPAN WIRE
TEMPORARY TRAFFIC SIGNAL**

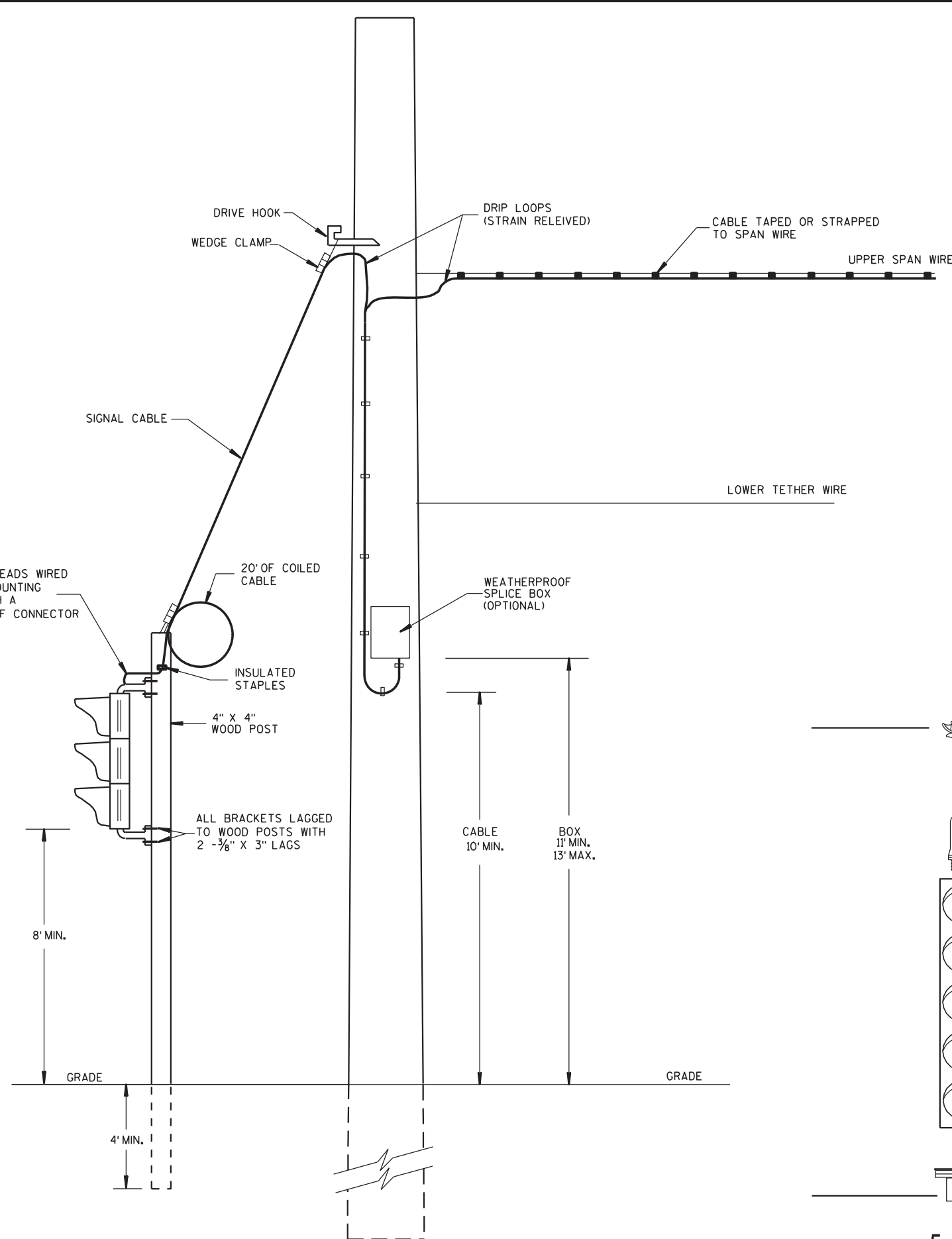
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED	
7-14-08	/S/ Balu Ananthanarayanan
DATE	STATE ELECTRICAL ENGINEER FOR HWYS
FHWA	

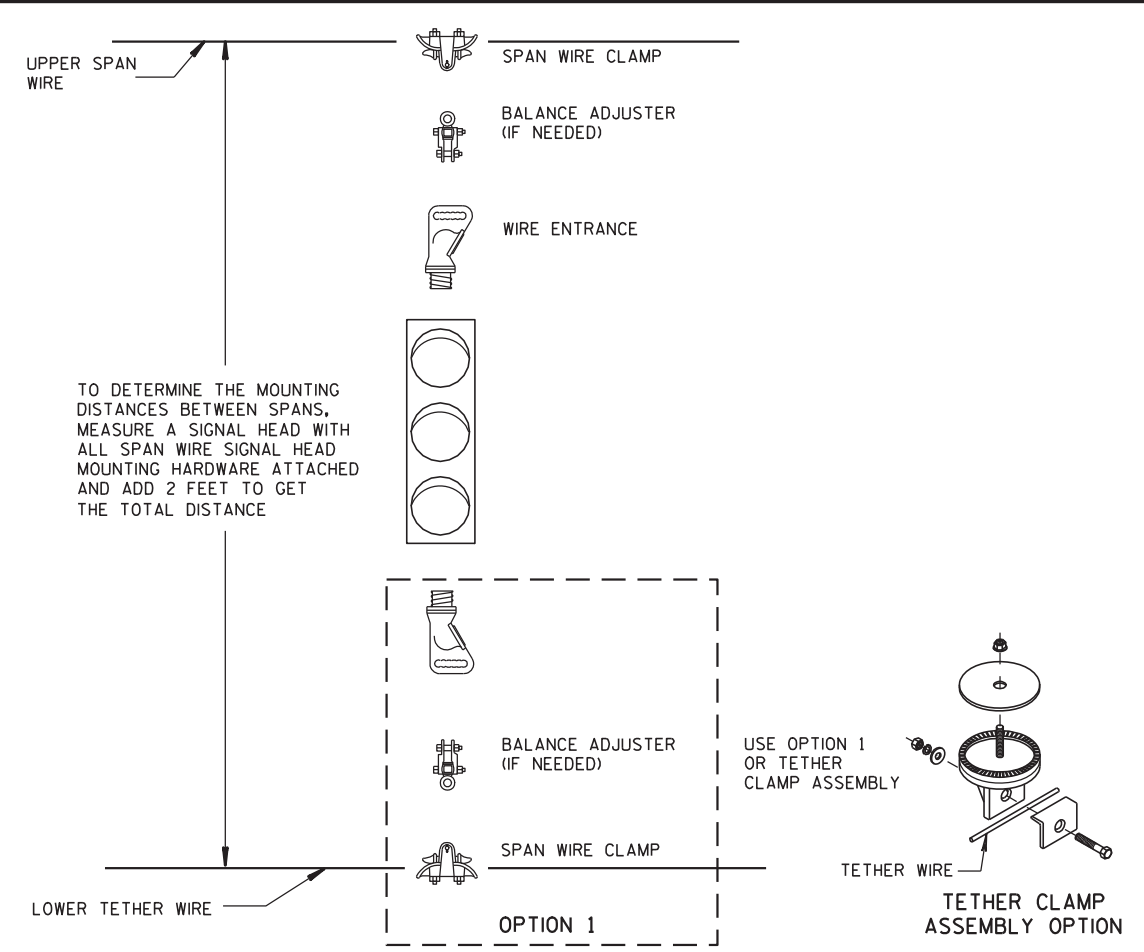
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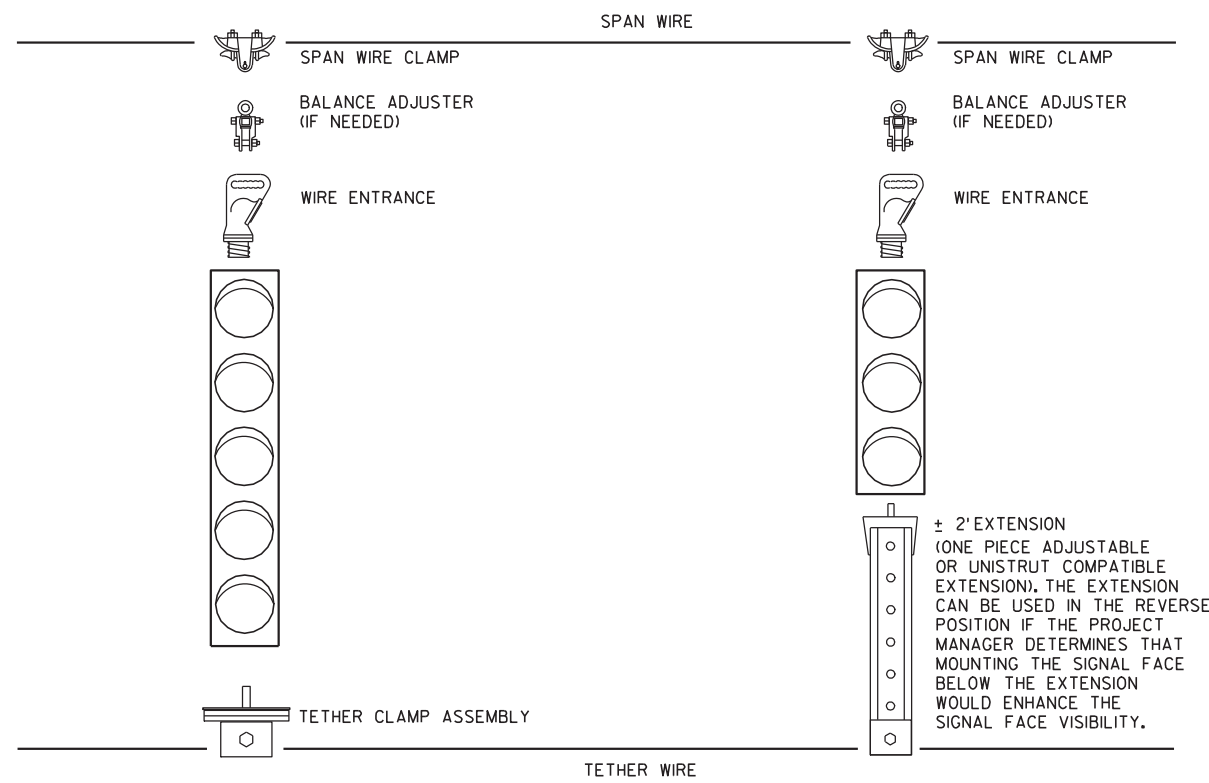
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TYPICAL DROP TO TEMPORARY MOVEABLE SIGNAL



TYPICAL SPAN WIRE MOUNTING HARDWARE



5 SECTION VERTICAL WITH 3 SECTION VERTICAL ON ONE SPAN WIRE

6

S.D.D. 9 G 1-3f

S.D.D. 9 G 1-3f

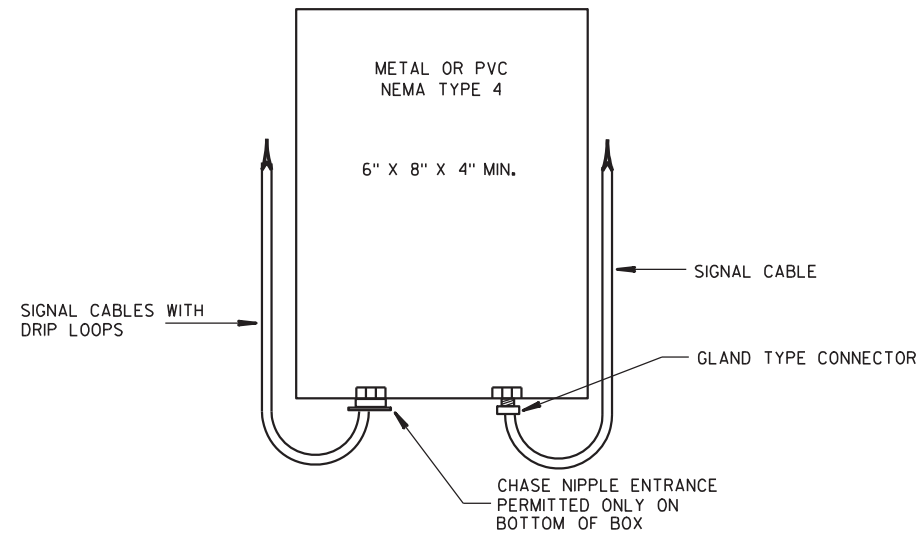
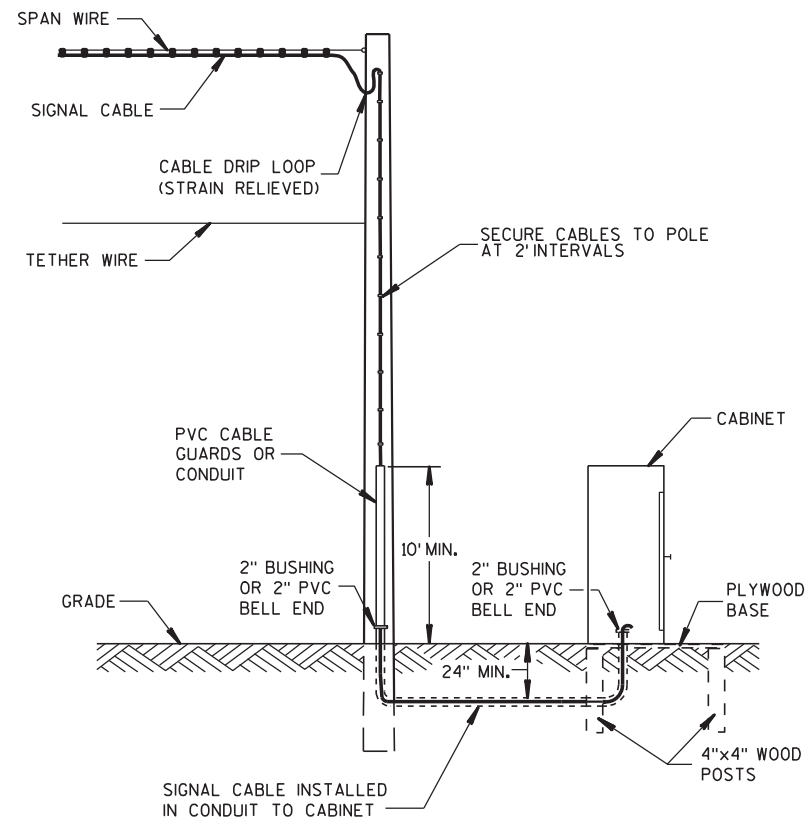
SHEET NO. E-24

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

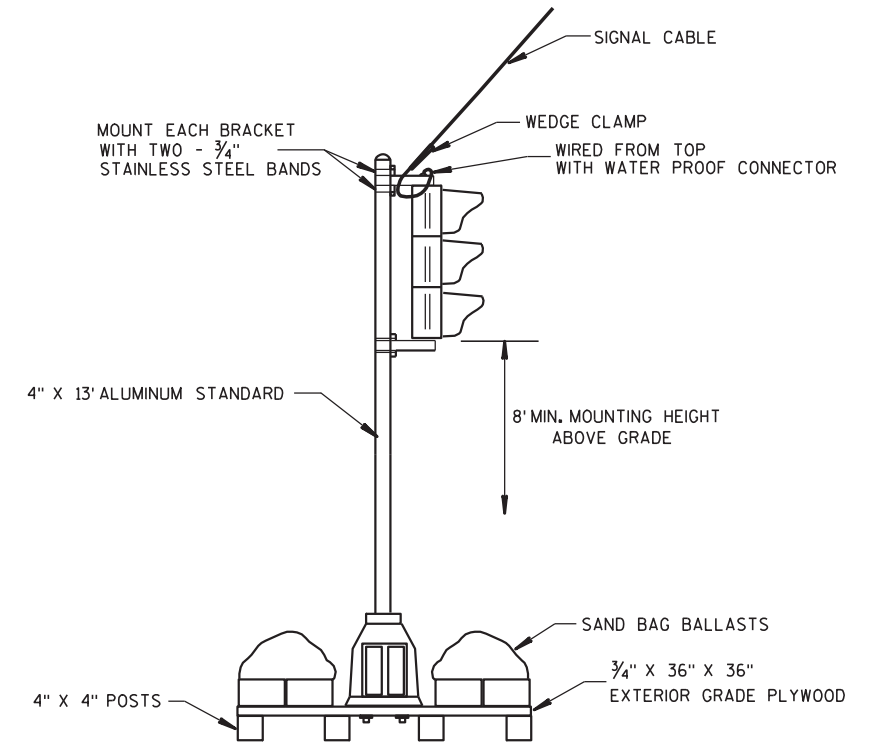
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7-14-08 /S/ Balu Ananthanarayanan
DATE STATE ELECTRICAL ENGINEER FOR HWYS
FHWA

± 2' EXTENSION
(ONE PIECE ADJUSTABLE
OR UNISTRUT COMPATIBLE
EXTENSION). THE EXTENSION
CAN BE USED IN THE REVERSE
POSITION IF THE PROJECT
MANAGER DETERMINES THAT
MOUNTING THE SIGNAL FACE
BELOW THE EXTENSION
WOULD ENHANCE THE
SIGNAL FACE VISIBILITY.



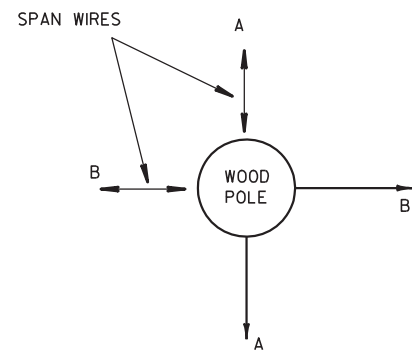
SPLICE BOX



TYPICAL SKID TYPE TEMPORARY

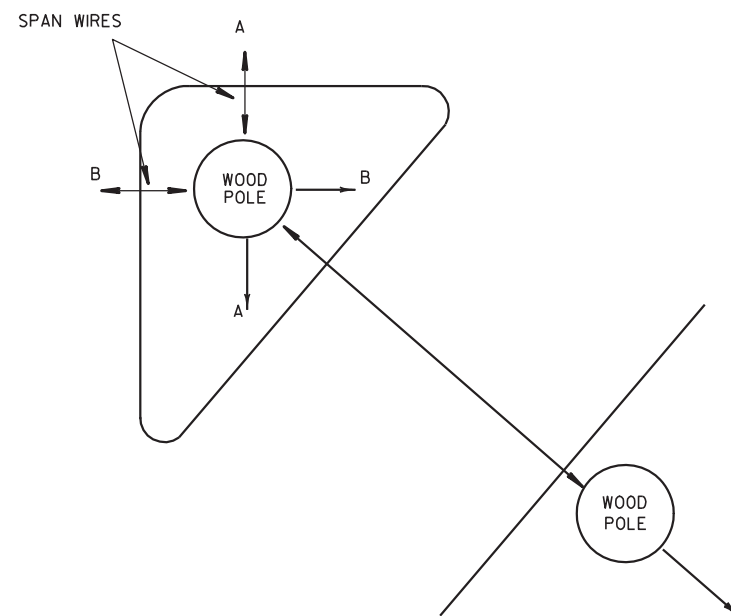
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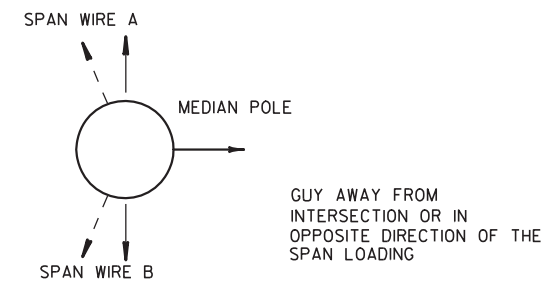


ALL DOWN OR SIDEWALK GUYS SHALL BE INSTALLED IN THE OPPOSITE DIRECTION OF THE STRAIN OF THE SPAN WIRE

CORNER POLES



ISLAND POLES



MEDIAN POLES

SHEET NO. E-25

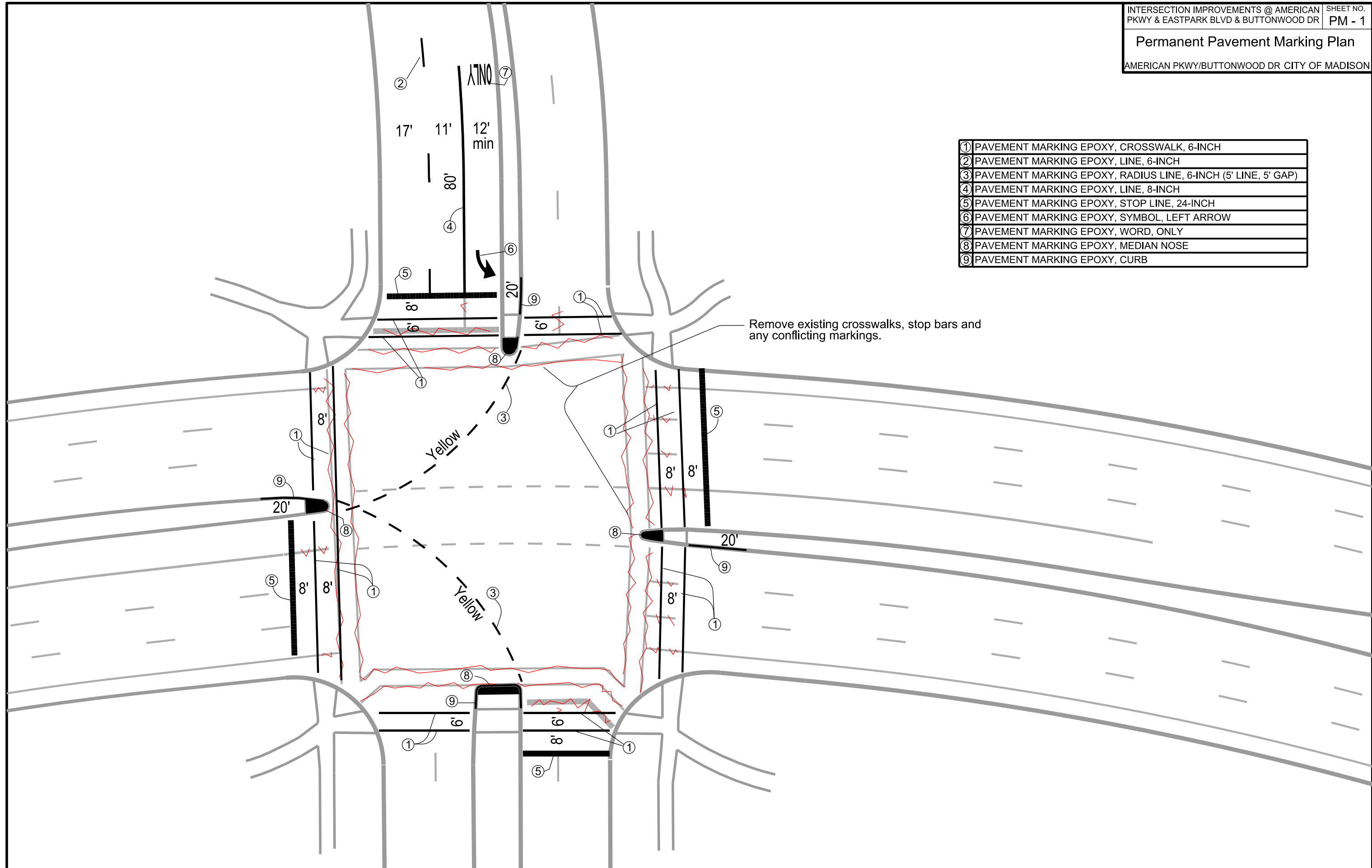
**SPAN WIRE
TEMPORARY TRAFFIC SIGNAL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7-14-08 /S/ Balu Ananthanarayanan
DATE STATE ELECTRICAL ENGINEER FOR HWYS
FHWA

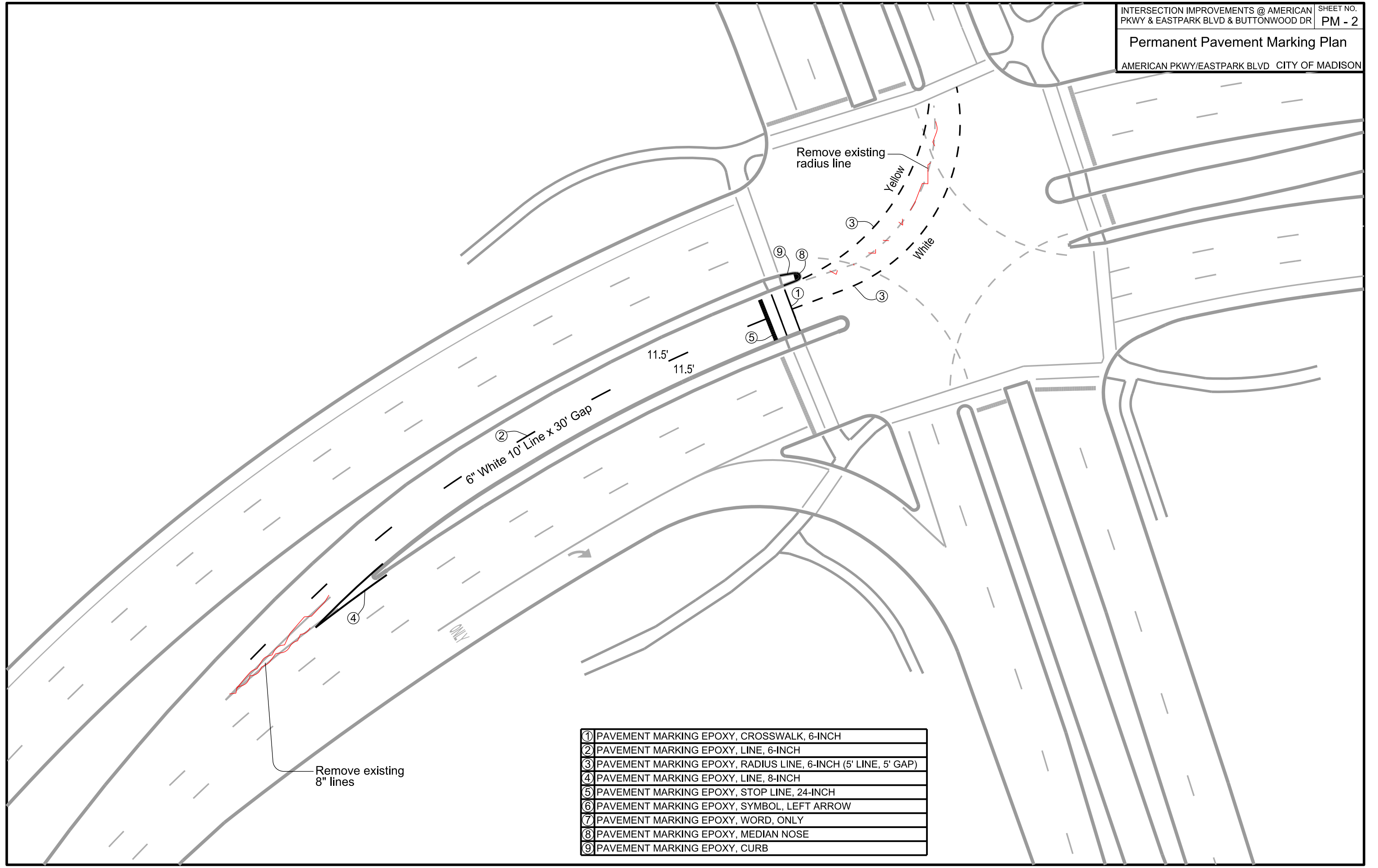
Permanent Pavement Marking Plan
AMERICAN PKWY/BUTTONWOOD DR CITY OF MADISON

①	PAVEMENT MARKING EPOXY, CROSSWALK, 6-INCH
②	PAVEMENT MARKING EPOXY, LINE, 6-INCH
③	PAVEMENT MARKING EPOXY, RADIUS LINE, 6-INCH (5' LINE, 5' GAP)
④	PAVEMENT MARKING EPOXY, LINE, 8-INCH
⑤	PAVEMENT MARKING EPOXY, STOP LINE, 24-INCH
⑥	PAVEMENT MARKING EPOXY, SYMBOL, LEFT ARROW
⑦	PAVEMENT MARKING EPOXY, WORD, ONLY
⑧	PAVEMENT MARKING EPOXY, MEDIAN NOSE
⑨	PAVEMENT MARKING EPOXY, CURB



PLOT SCALE:
 PLOT NAME:
 REV. DATE:
 ORIGINATOR: CITY OF MADISON, TRAFFIC ENG. DIV.

PLOT SCALE:
 PLOT NAME:
 REV. DATE:
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⑨	PAVEMENT MARKING EPOXY, CURB

CROSS SECTIONS

AMERICAN PKWY

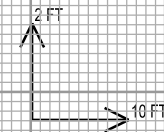
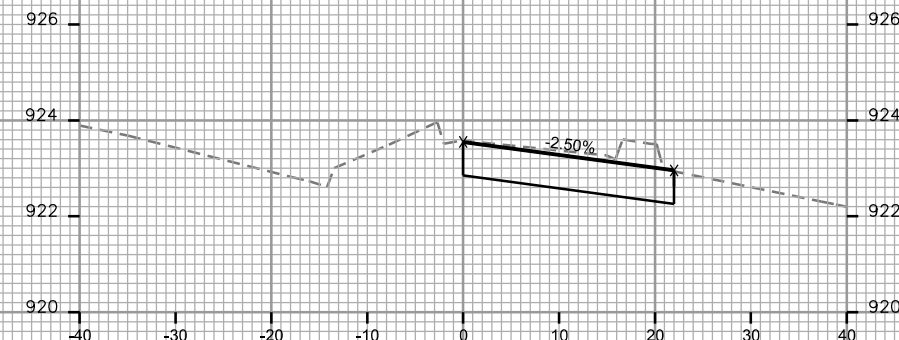
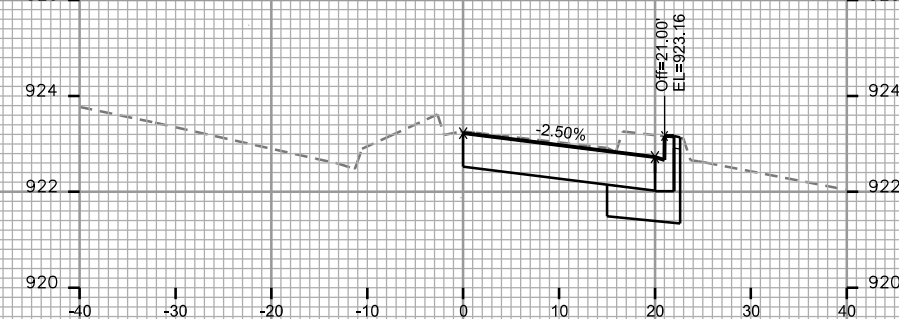
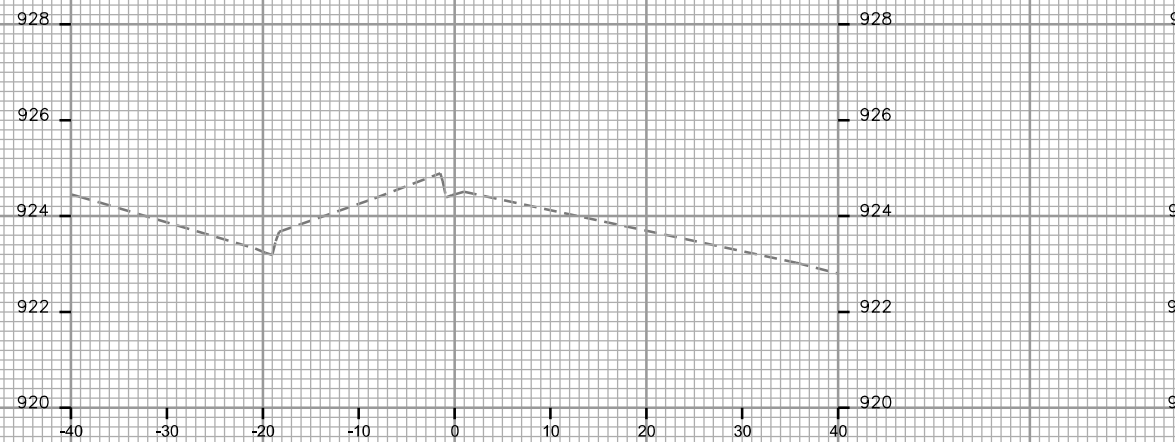
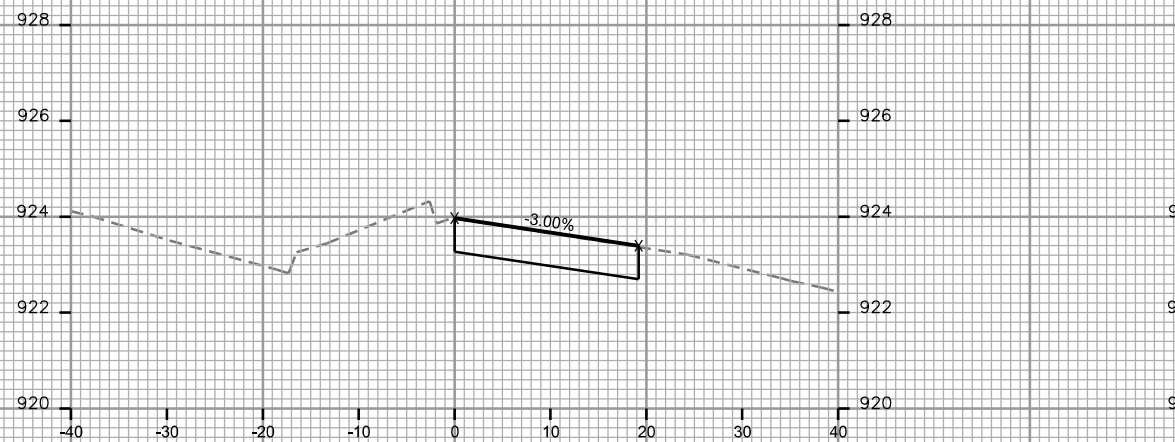
CITY OF MADISON

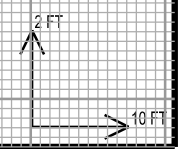
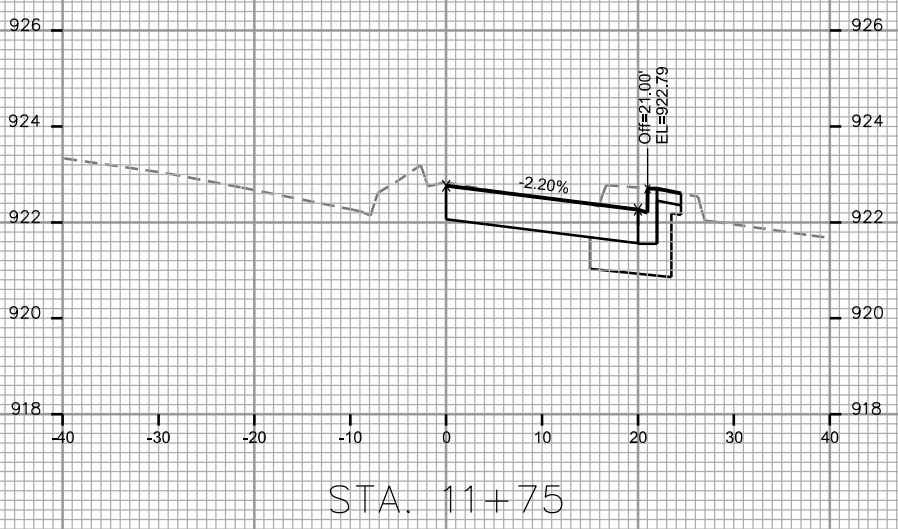
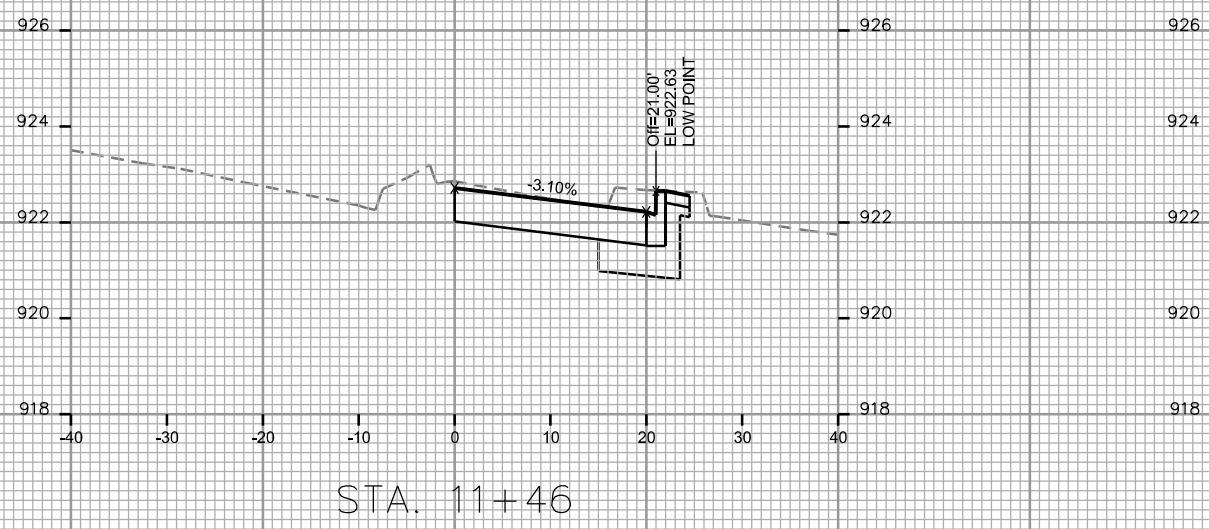
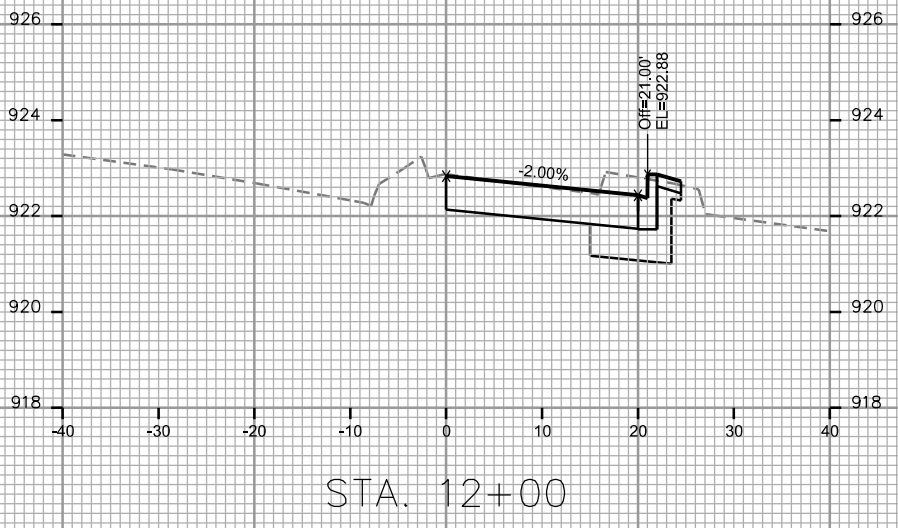
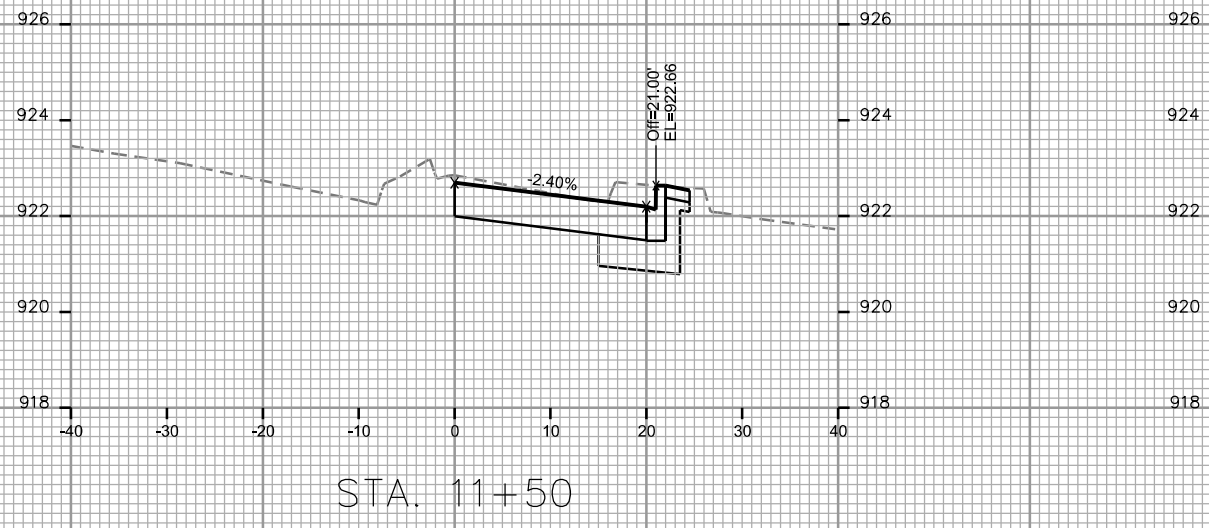
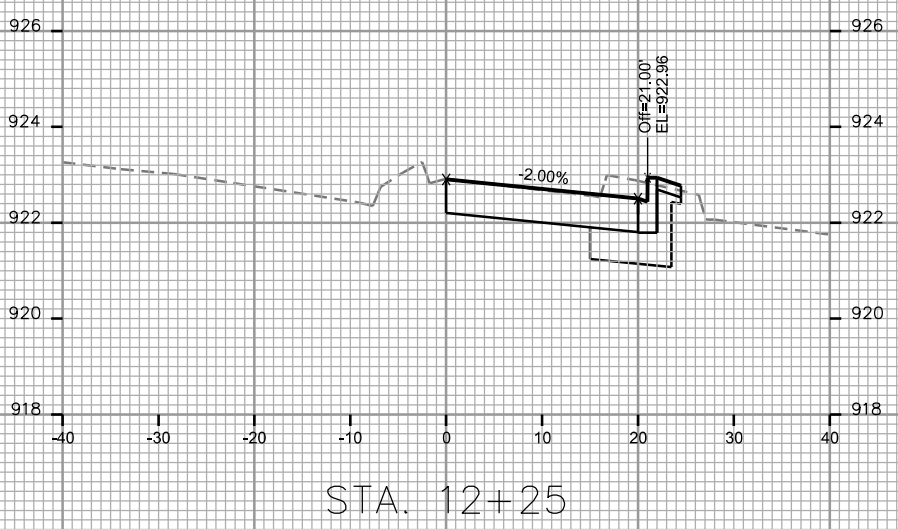
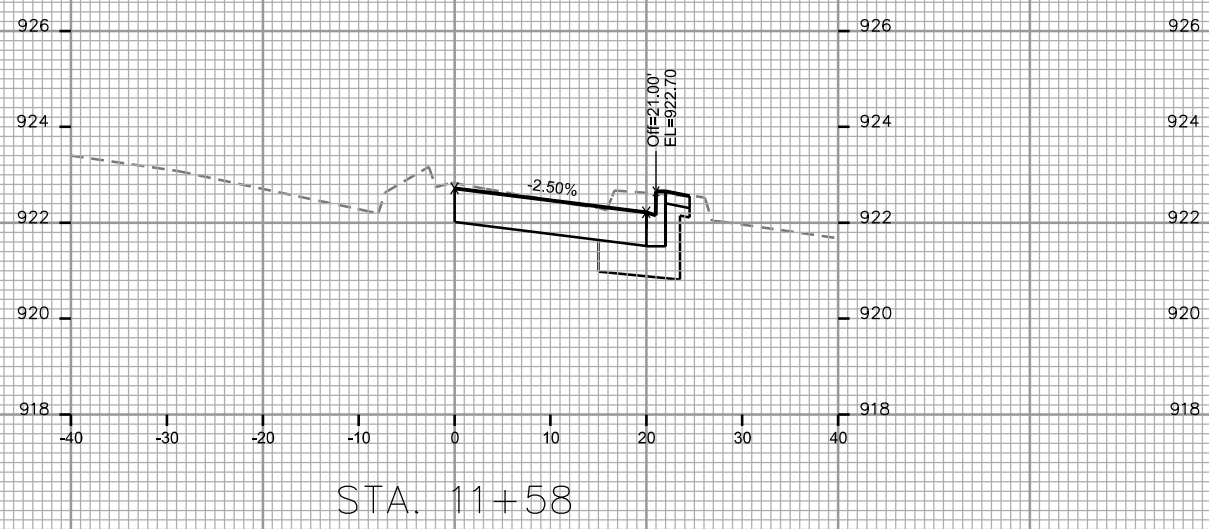
PLOT SCALE: _____

PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON, STREETS DIVISION





PLOT SCALE: _____

PLOT NAME: _____

REV. DATE: _____

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CROSS SECTIONS

AMERICAN PKWY

CITY OF MADISON

PLOT SCALE: _____

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