

CREGG LANE IMPROVEMENTS

MISSOULA, MONTANA

50% DESIGN

WGM
GROUP

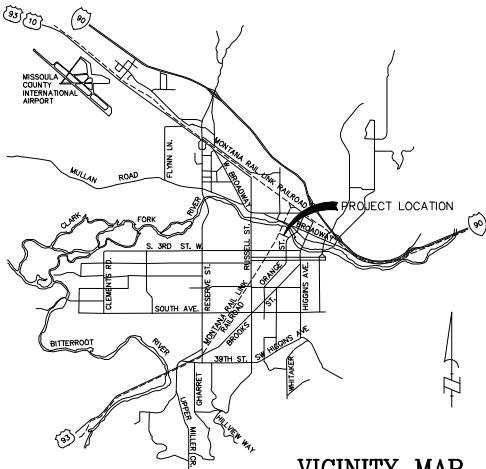
1111 EAST BROADWAY
MISSOULA, MONTANA 59802
TEL: 406-728-4611
FAX: 406-728-2476
WWW.WGMGROUP.COM

50% PLANS

PRELIMINARY

PLOTTED: 6/13/2016
SAVED: 6/9/2016

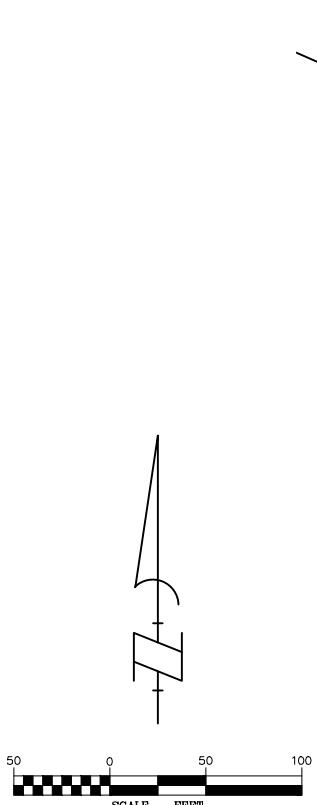
COVER SHEET
CREGG STREET IMPROVEMENTS
MISSOULA, MONTANA



VICINITY MAP
NO SCALE



LOCATION MAP
NO SCALE



SCALE - FEET



CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG,
GRADE, OR EXCAVATE FOR THE MARKING OF
UNDERGROUND MEMBER UTILITIES.

WGM GROUP INC. ASSUMES NO RESPONSIBILITY FOR
EXISTING UTILITY LOCATIONS (HORIZONTAL AND VERTICAL).
THE EXISTING UTILITIES SHOWN ON THIS DRAWING HAVE
BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION.
IT IS, HOWEVER, THE RESPONSIBILITY OF THE
CONTRACTOR TO FIELD VERIFY THE LOCATION OF ALL
UTILITIES PRIOR TO THE COMMENCEMENT OF ANY
CONSTRUCTION ACTIVITIES.

CONTROL ABSTRACT

Point #	Northing	Easting	Elevation	Description
1	988049.280	842246.762	3179.747	CP MAG NAIL
2	988743.299	842276.402	3185.689	CP MAG NAIL
3	987903.810	841450.353	3179.376	CP RPC
4	988133.542	840728.238	3176.496	CP RPC
5	988611.064	840730.867	3173.246	CP MAG NAIL
62	989224.611	842135.488	3173.432	MAG NAIL
100	988595.564	842057.622	3183.060	RPC
101	989324.818	841727.669	3176.338	RPC
102	988228.305	842506.635	3178.471	MAG
103	987874.255	842281.066	3176.957	MAG NAIL
104	988281.008	842271.223	3177.936	MAG
105	987922.729	840741.200	3177.168	RPC
106	989127.789	840031.577	3170.120	MAG
107	989108.041	840390.905	3171.185	MAG
108	989504.875	840799.292	3172.393	MAG

PROJECT OVERVIEW

GENERAL NOTES:

- 1) CONTRACTOR SHALL FIELD VERIFY ALL UTILITIES INCLUDING ALL SERVICES TO ALL PROPERTIES. THESE DRAWINGS MAY NOT SHOW ALL FACILITIES. SEE SPECIFICATIONS FOR REQUIREMENTS REGARDING UTILITIES. THE DEPTHS OF ALL EXISTING UTILITIES ARE UNKNOWN.
- 2) ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE MONTANA PUBLIC WORKS STANDARD SPECIFICATIONS (MPWSS) SIXTH EDITION DATED APRIL 2010 INCLUDING ADDENDUM OR AS REVISED BY SPECIAL PROVISIONS.

LEGEND-EXISTING

	EXTERIOR BUILDING WALL
	ASPHALT
	CONCRETE SIDEWALK
-----	EDGE OF ASPHALT
=====	PIN DOWN CURB
=====	CURB AND GUTTER
=====	CURB AND GUTTER W/DRIVEWAY OPENING
-----	EDGE OF GRAVEL
W	WATER MAIN
S	SANITARY SEWER MAIN
SD	STORM DRAIN
AP	AERIAL POWER LINE
BE	BURIED ELECTRIC LINE
T	BURIED TELEPHONE LINE
G	GAS MAIN
X-X	FENCE
—	EDGE OF WATER
○-○	GUARD RAIL
~~~~~	CONTOUR (1 FOOT INTERVAL)

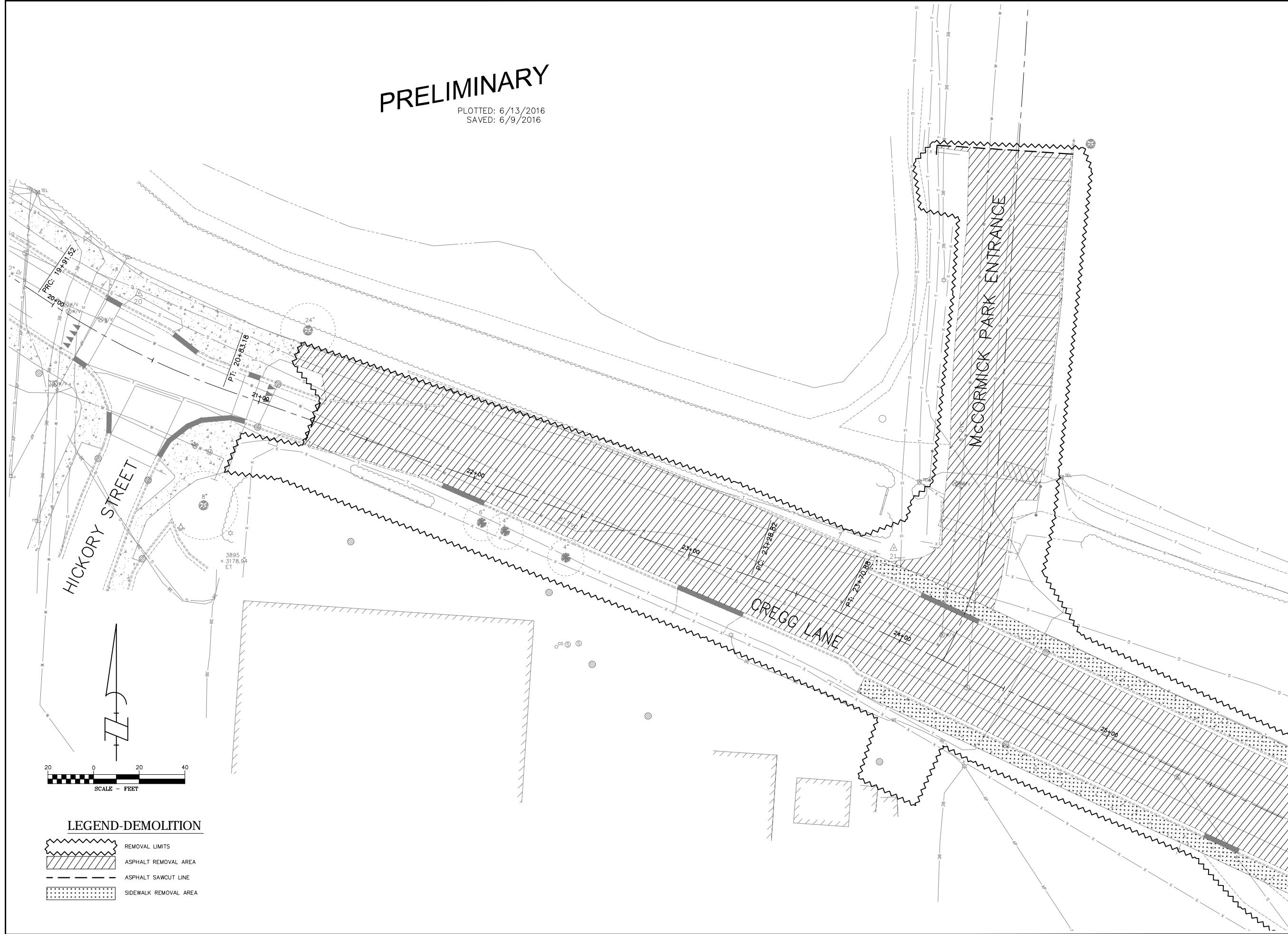
	EXTERIOR BUILDING WALL
	ASPHALT
	CONCRETE SIDEWALK
=====	8' THICK CURB AND GUTTER
=====	MEDIAN CURB
=====	8' THICK CONCRETE
=====	ASPHALT
=====	HAND RAIL
=====	STORM DRAIN MAIN
=====	CULVERT
①	DRAINAGE SUMP (SOLID LID)
②	DRAINAGE SUMP (CURB BACKED LID)
③	DRAINAGE INLET (CURB BACKED LID)
④	DRAINAGE SUMP (SLOTTED LID)
■	SIGN
—	ADA TRUNCATED DOMES
◎	DECORATIVE LIGHT

REVISIONS:		
NO.	DESCRIPTION	DATE

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FILE NO.: 150117CV.dwg  
FILE PATH: \\Projects\\150117\\CAD Data\\Design  
LAYER: SH1  
SURVEYED: WGM GROUP  
DESIGN: TI  
DRAFT: EDI  
APPROVE: MRM/TI  
DATE: JUNE 9, 2016

SHEET 1 OF 22

## PRELIMINARY

PLOTTED: 6/13/2016  
SAVED: 6/9/2016

**DEMOLITION PLANS**  
**CREGG LANE IMPROVEMENTS**  
**MISSOULA, MONTANA**

PRELIMINARY

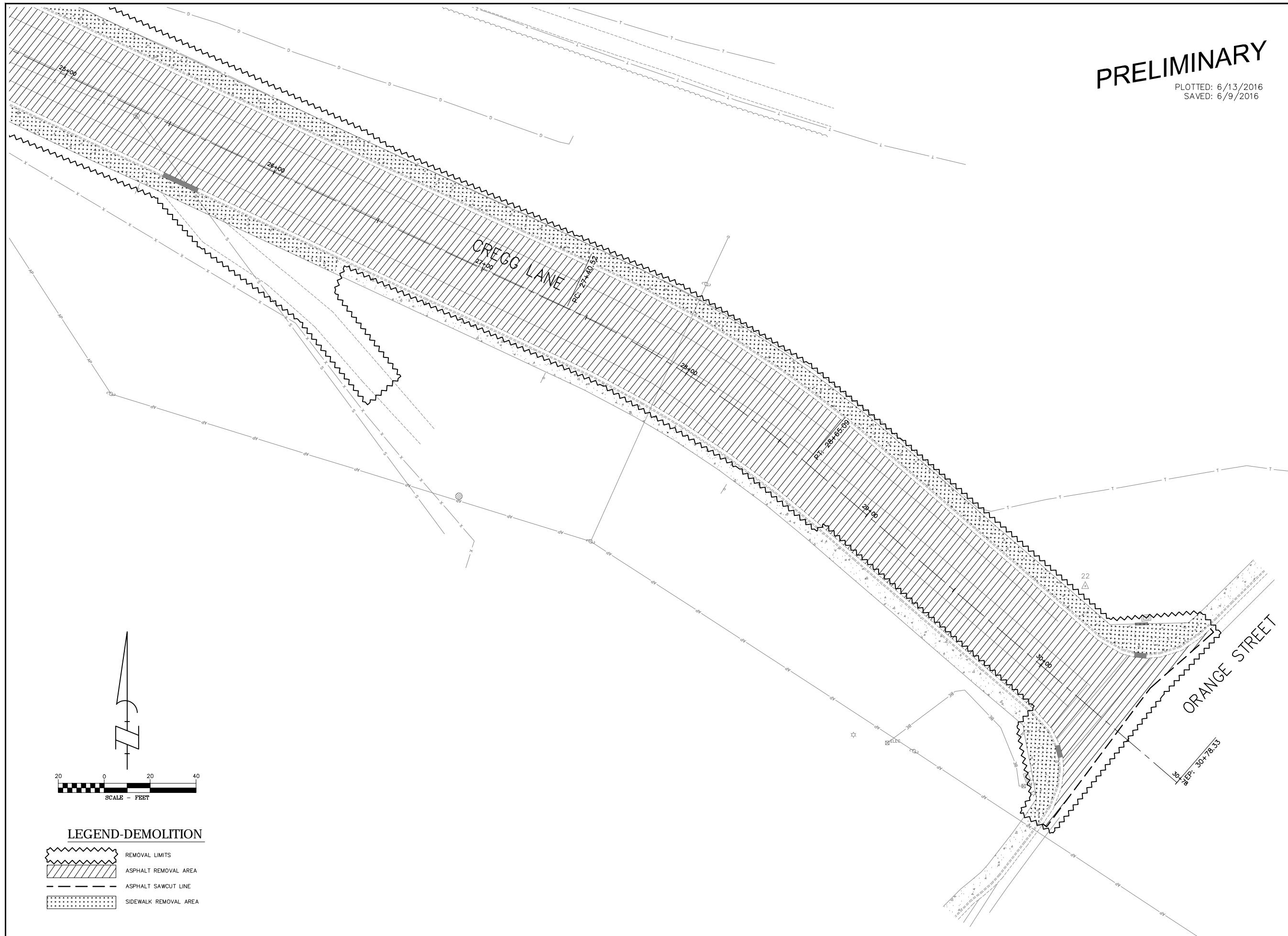
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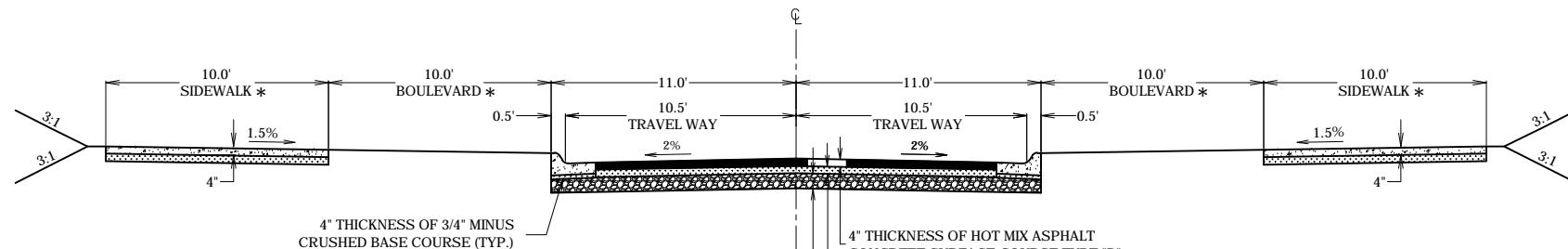
**DEMOLITION PLANS**  
**CREGG LANE IMPROVEMENTS**  
**MISSOULA, MONTANA**

REVISIONS:		
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DESIGN: TI  
DRAFT: EDI  
APPROVE: MRM/TI  
DATE:

JUNE 9, 2016

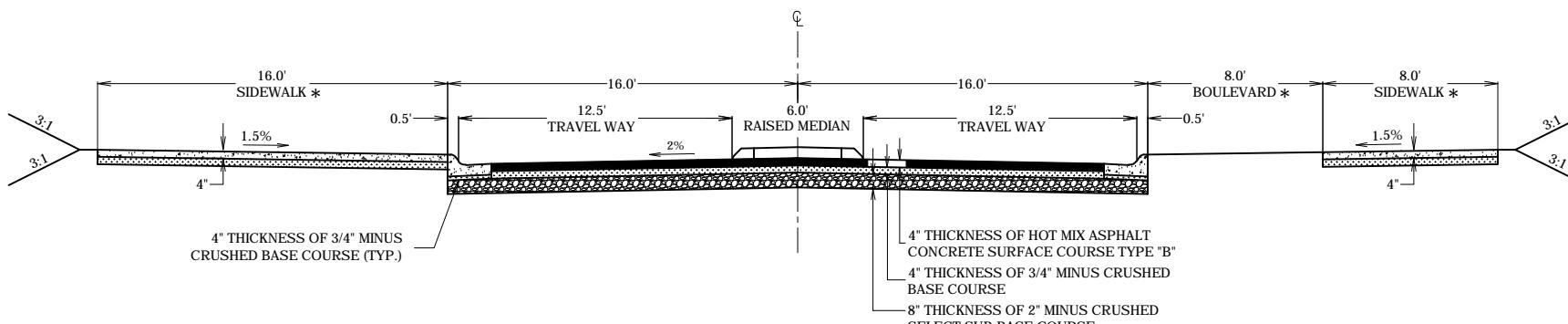




**TYPICAL STREET SECTION 1**  
**CREGG LANE**  
NO SCALE

STA 21+25.00 TO STA 22+19.34 TYP. NO. 1  
STA 22+19.34 TO STA 23+70.88 TRANS. TYP. NO. 1 TO TYP. NO. 2  
STA 25+64.18 TO STA 26+28.02 TYP. NO. 1  
STA 26+28.02 TO STA 27+40.52 TRANS. TYP. NO. 1 TO TYP. NO. 3

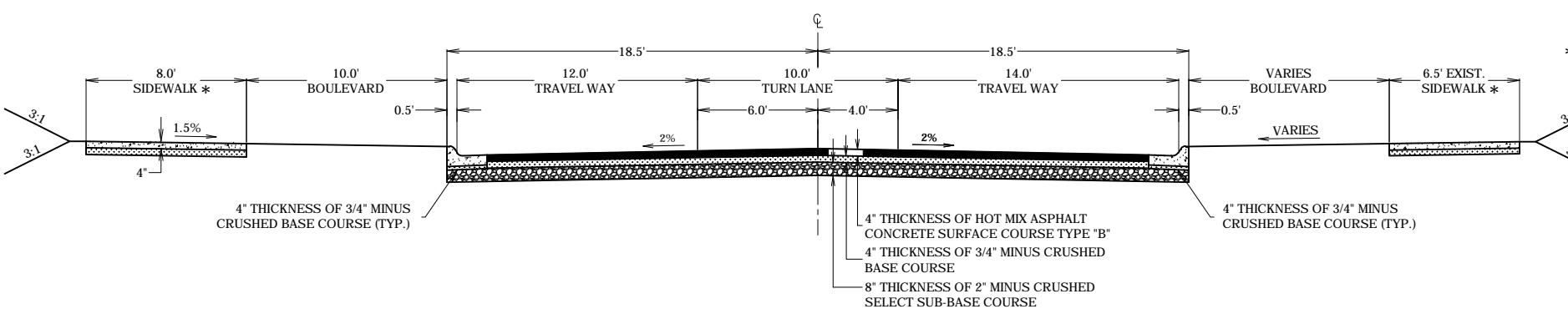
* SIDEWALK AND BOULEVARD WIDTH VARY, SEE GEOMETRIC LAYOUT



**TYPICAL STREET SECTION 2**  
**CREGG LANE**  
NO SCALE

STA 23+70.88 TO STA 24+64.18 TYP. NO. 2  
STA 24+64.18 TO STA 25+64.18 TRANS. TYP. NO. 2 TO TYP. NO. 1

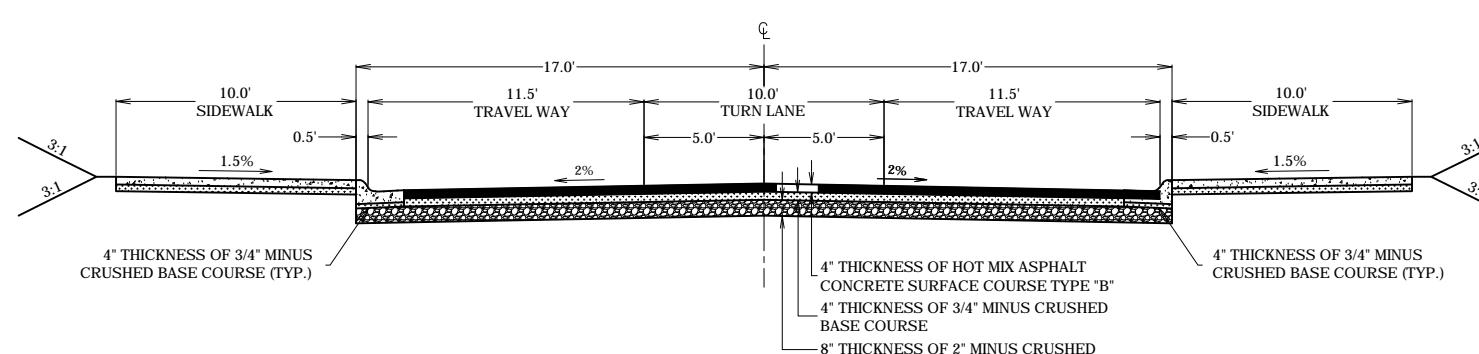
* SIDEWALK AND BOULEVARD WIDTH VARY, SEE GEOMETRIC LAYOUT



**TYPICAL STREET SECTION 3**  
**CREGG LANE**  
NO SCALE

STA 27+40.52 TO STA 30+44.36 TYP. NO. 3

* SIDEWALK AND BOULEVARD WIDTH VARY, SEE GEOMETRIC LAYOUT



**TYPICAL STREET SECTION 4**  
**McCORMICK PARK ENTRANCE**  
NO SCALE

STA 1+16.27 TO STA 1+88.14 TYP. NO. 4

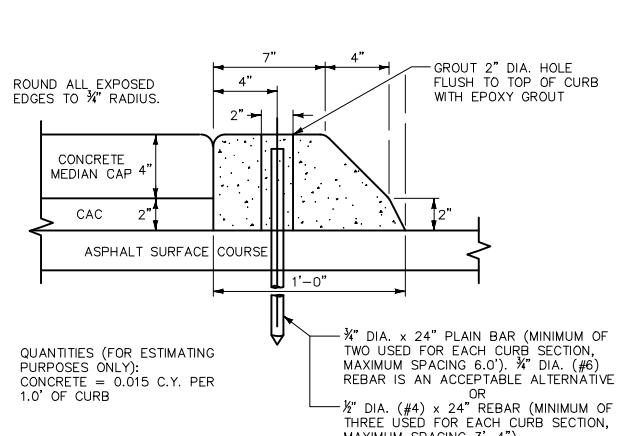
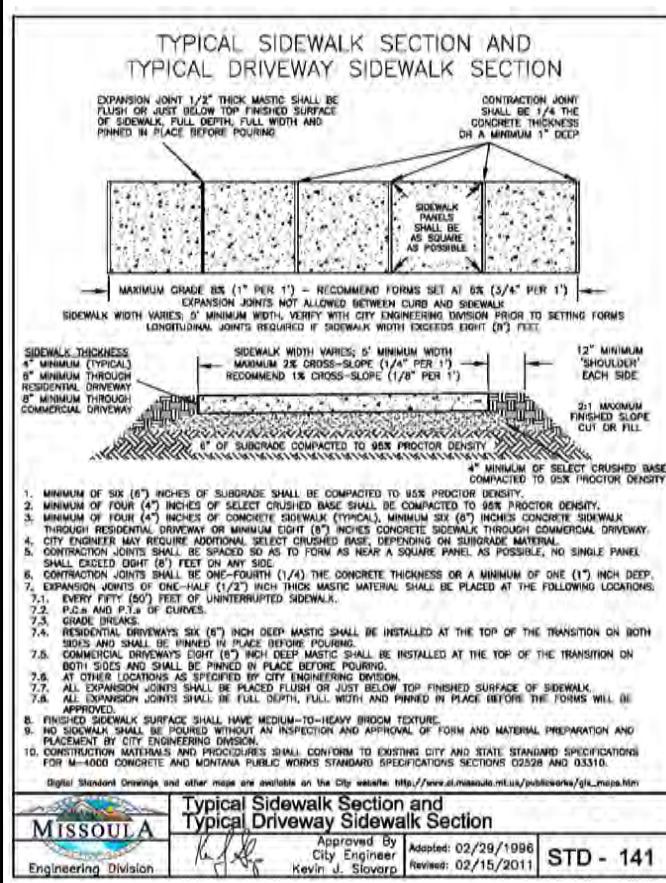
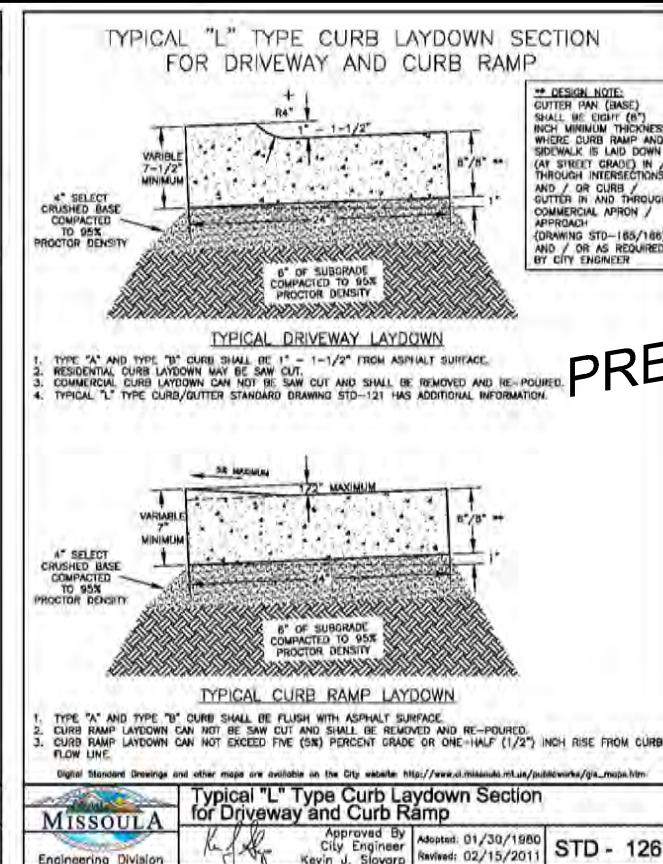
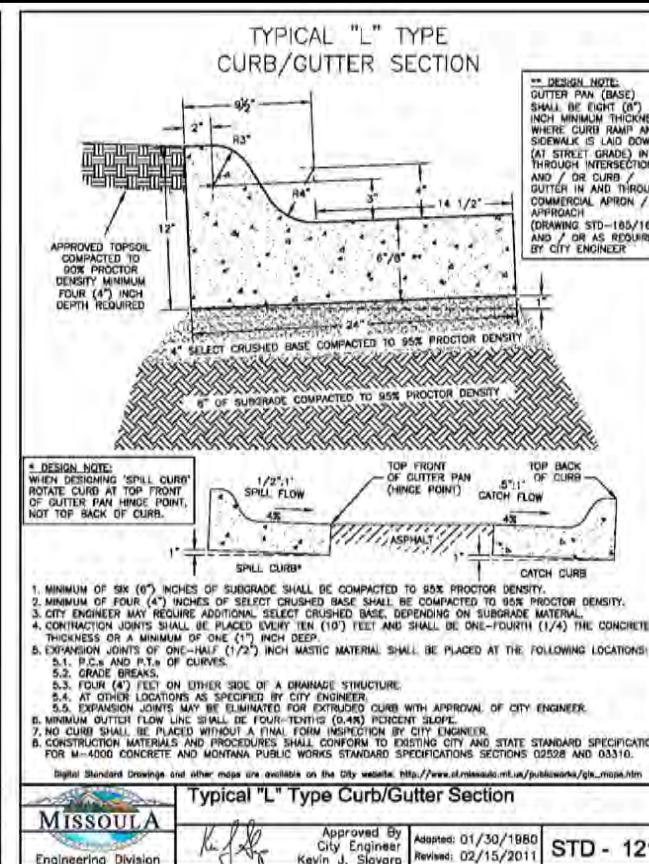
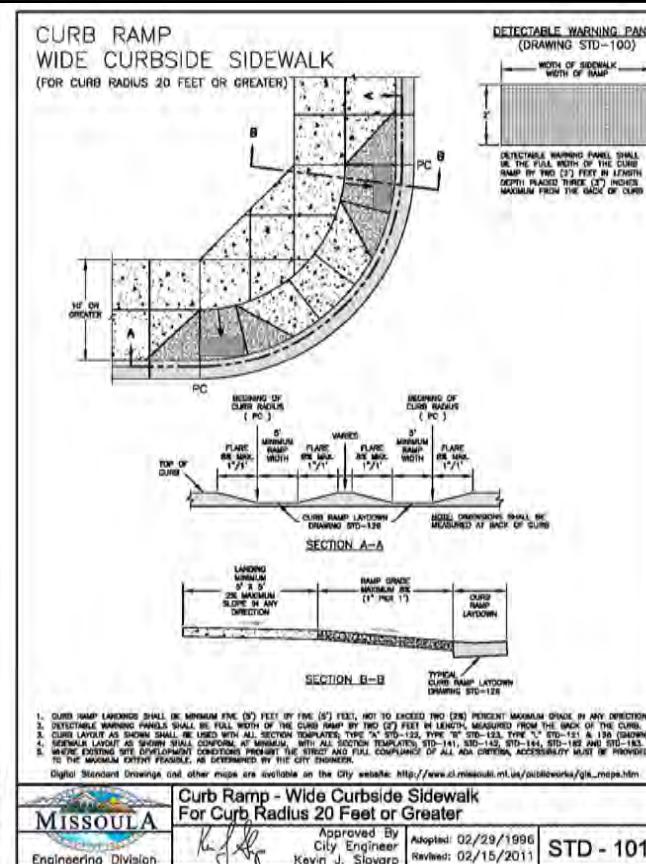
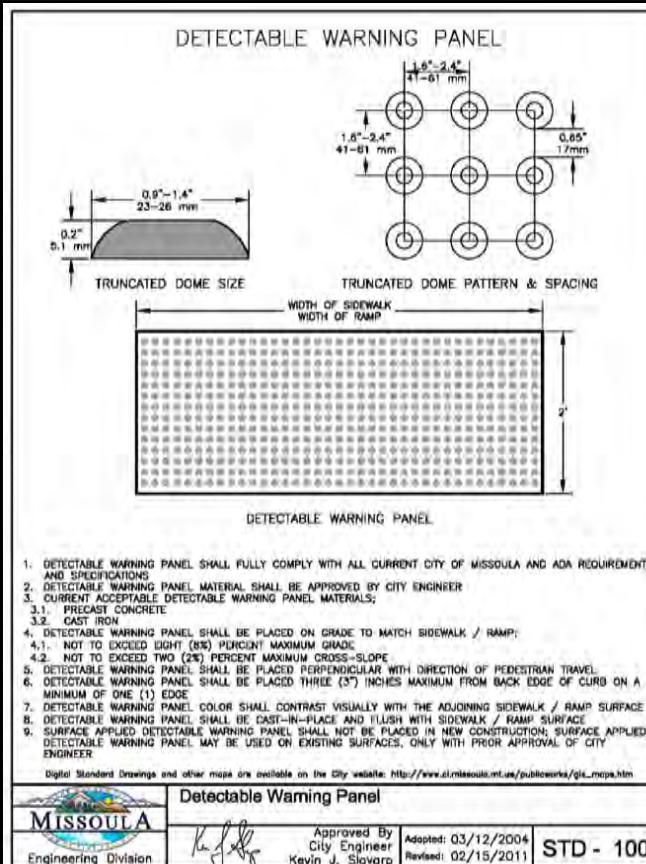
**TYPICAL SECTIONS**  
**CREGG LANE IMPROVEMENTS**  
**MISSOULA, MONTANA**

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DESIGN: BLS  
DRAFT: EDI  
APPROVE: MRM / TI  
DATE:

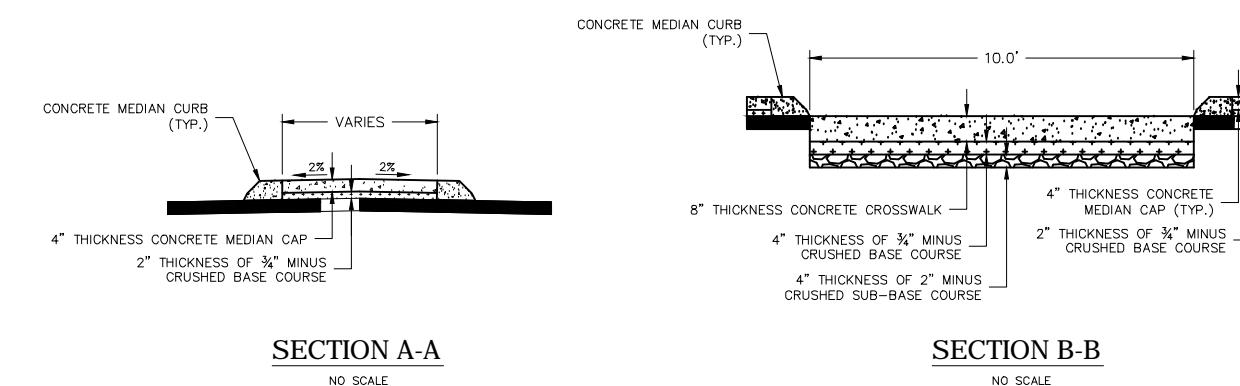
JUNE 9, 2016

DETAILS

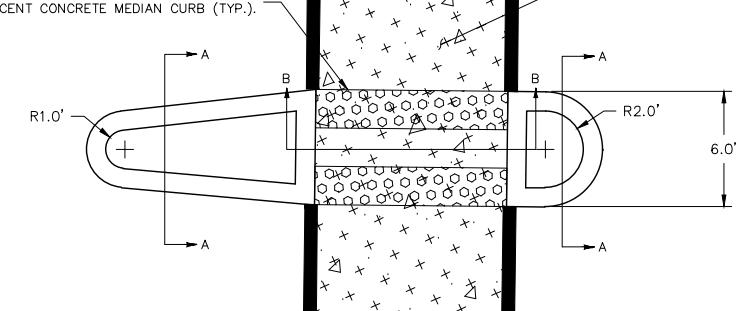


**CONCRETE MEDIAN CURB**

NO SCALE



PLACE LEADING EDGE OF TRUNCATED DOMES AT FACE OF ADJACENT CONCRETE MEDIAN CURB (TYP.).



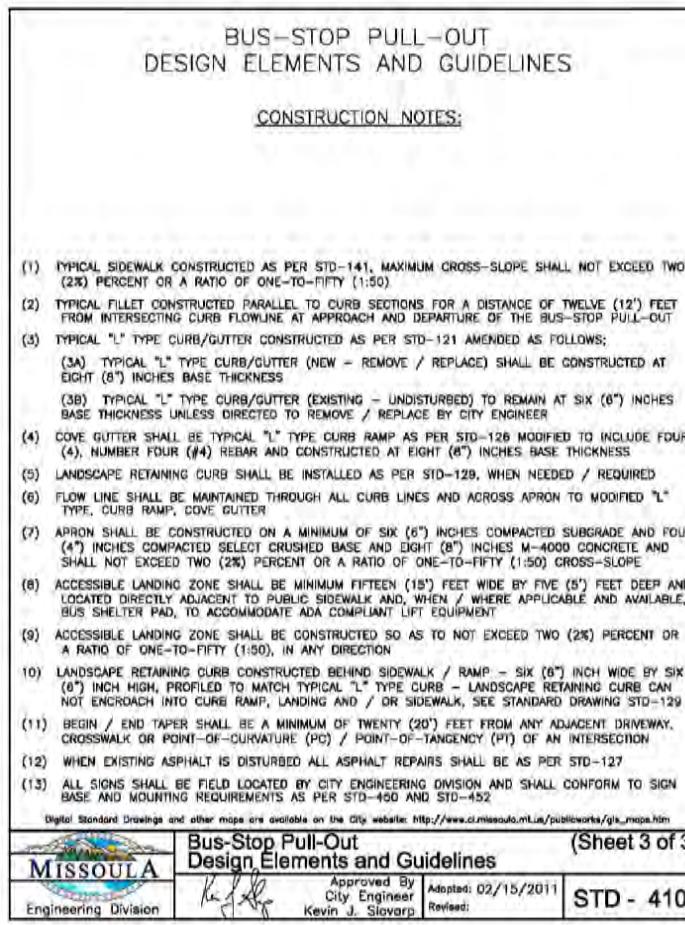
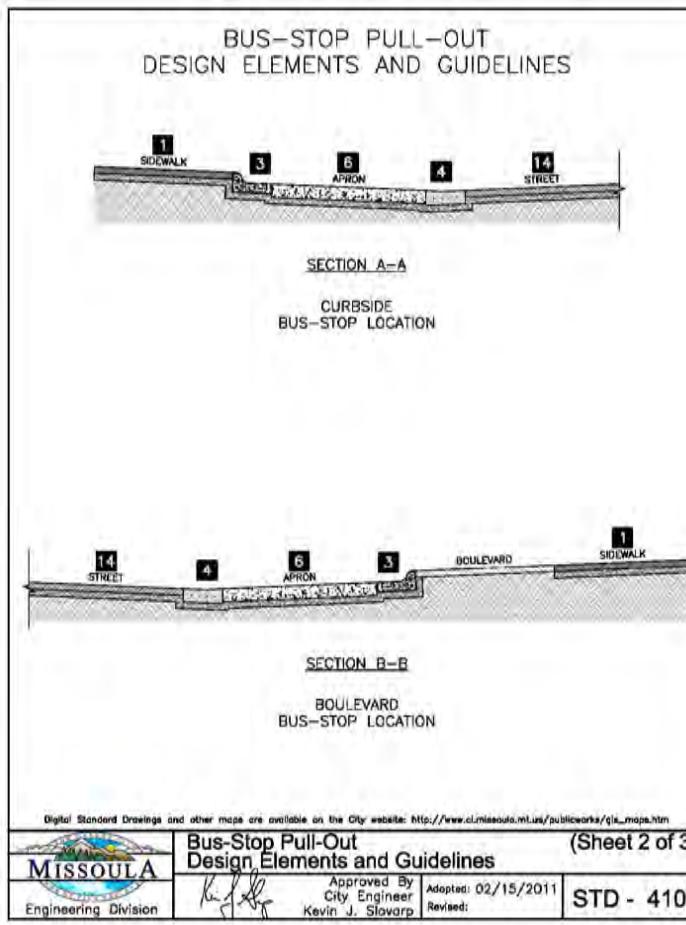
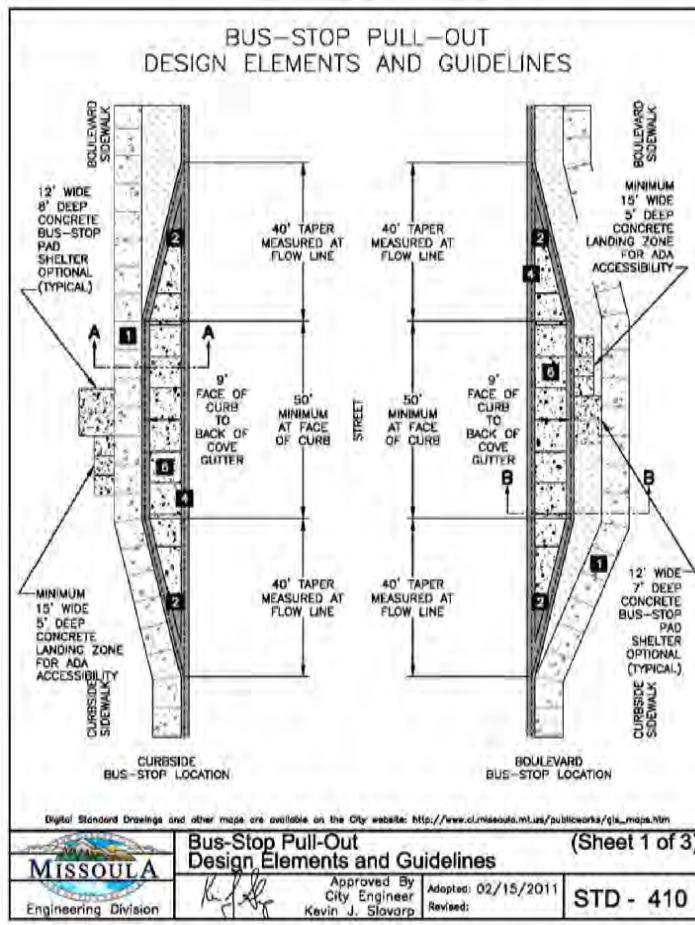
**MEDIAN ISLAND DETAIL**

NO SCALE

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LAYER: SH10  
SURVEYED: WGM GROUP  
DESIGN: TI  
DRAFT: EDI  
APPROVE: MRM / TI  
DATE:

JUNE 9, 2016

SHEET 5 OF 22



REVISIONS:  
NO. DESCRIPTION DATE

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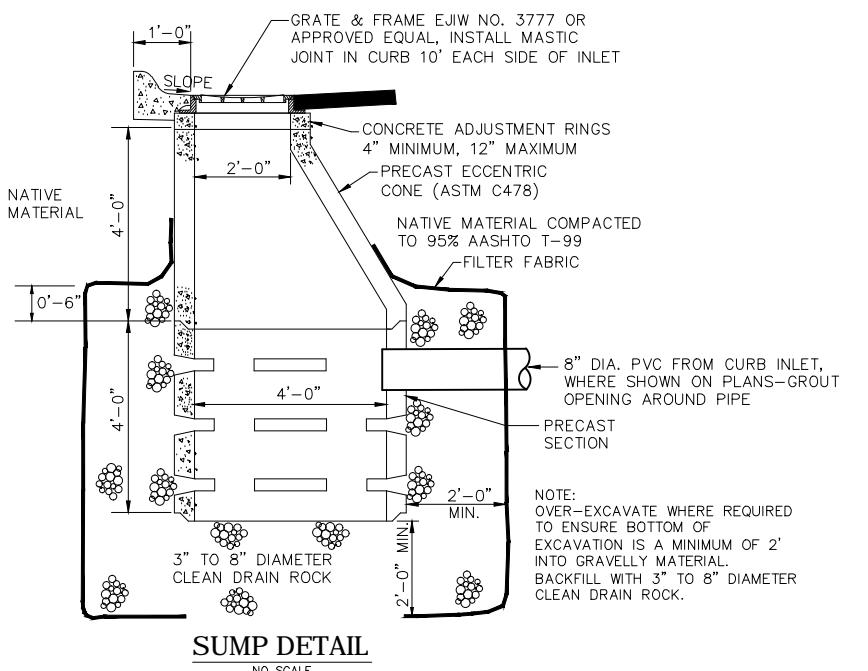
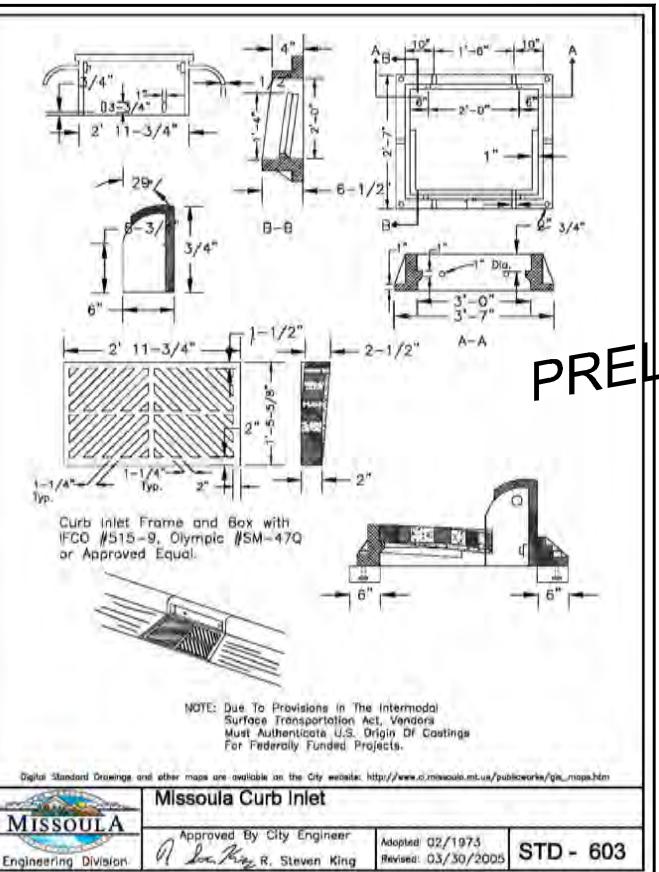
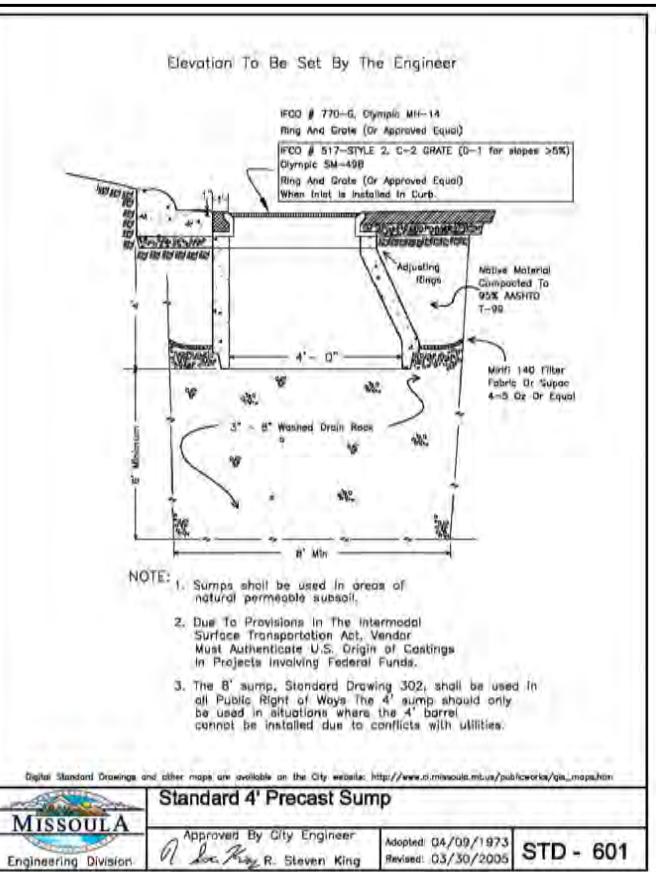
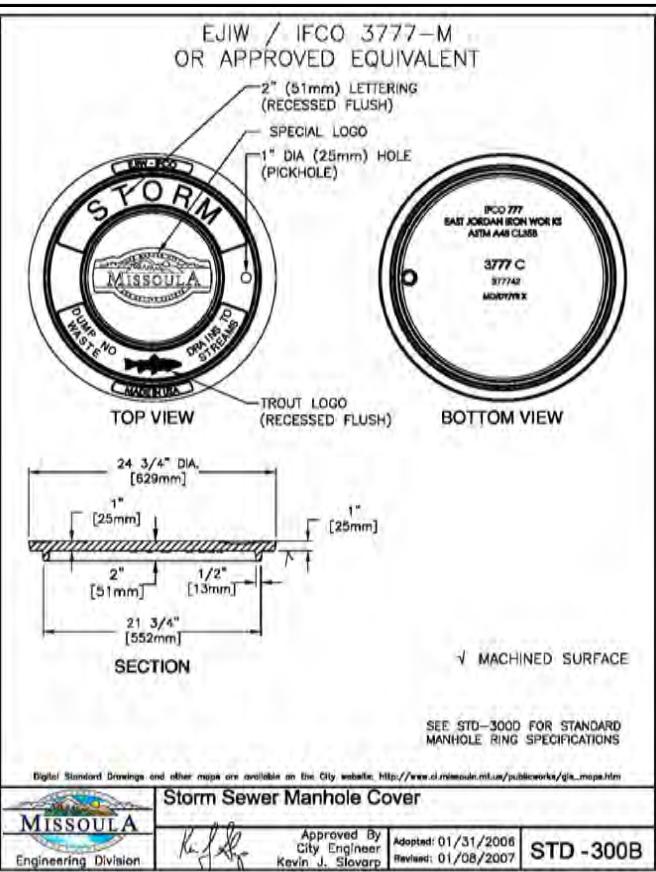
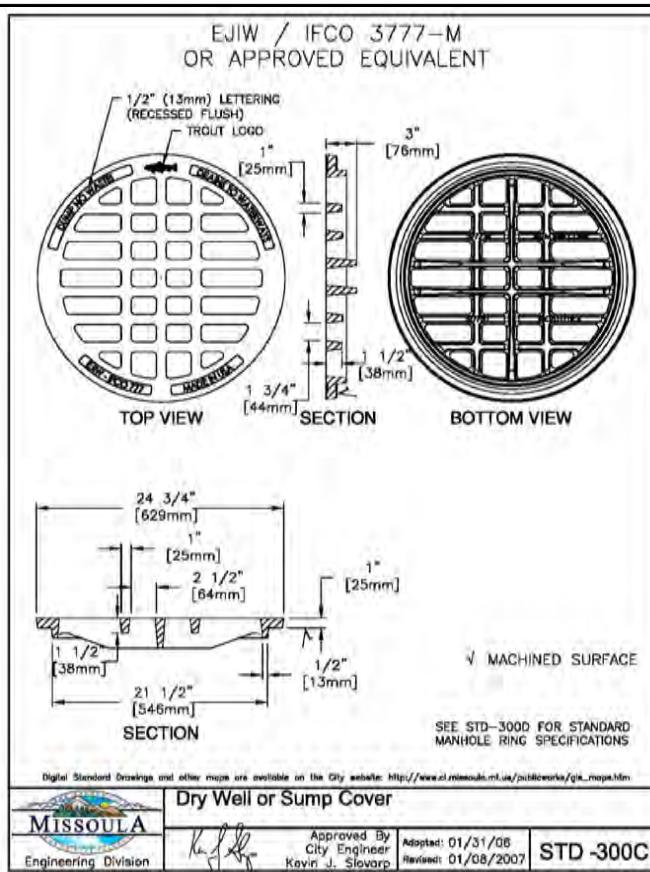


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DESIGN: TI  
DRAFT: EDI  
APPROVE: MRM / TI  
DATE:

JUNE 9, 2016

SHEET 6 OF 22



**STORM DRAIN DETAILS  
CREGG LANE IMPROVEMENTS  
MISSOULA, MONTANA**

REVISIONS:		
NO.	DESCRIPTION	DATE

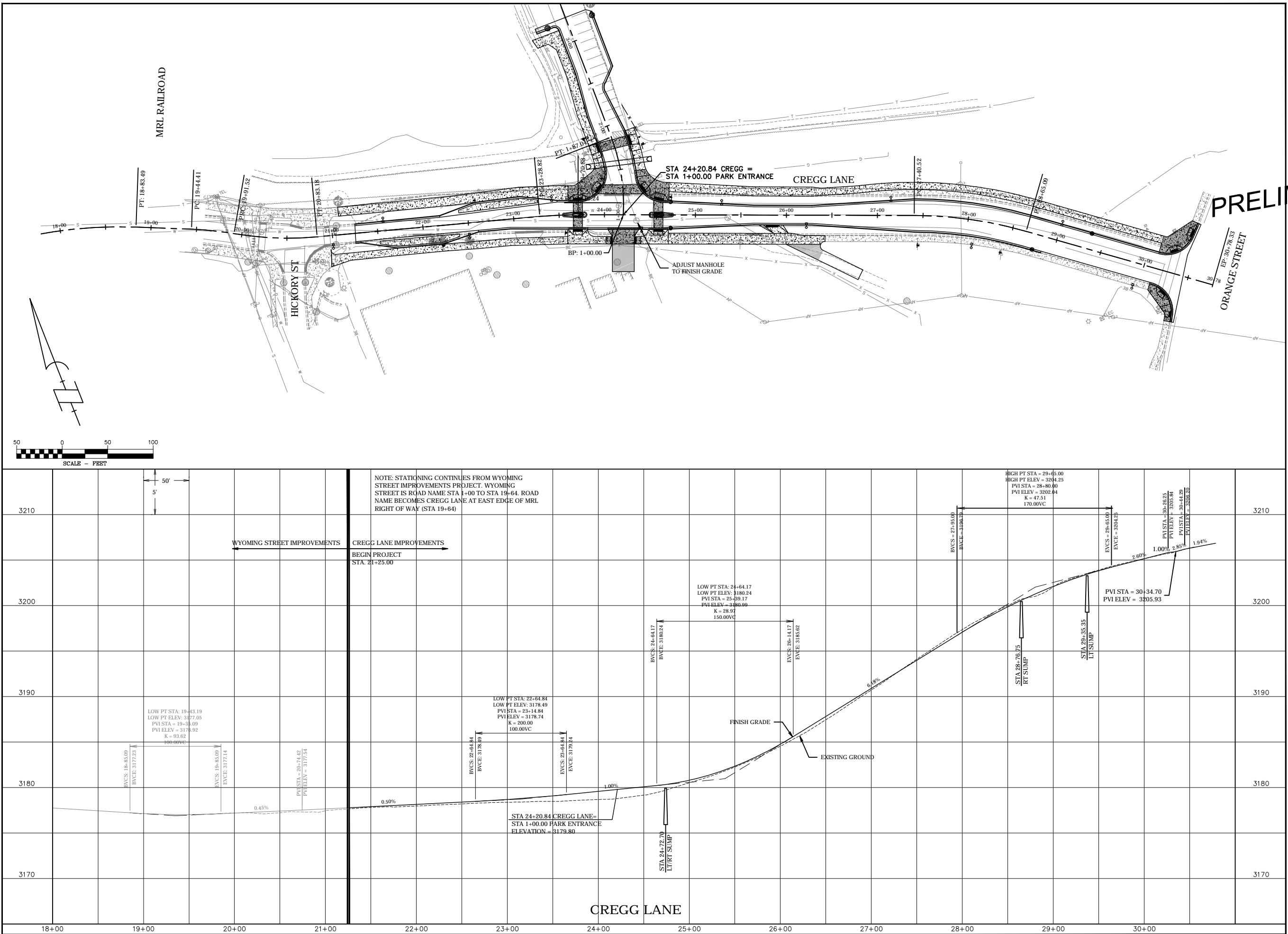
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DESIGN: TI  
DRAFT: EDI  
APPROVE: MRM/TI  
DATE:

JUNE 9, 2016



PRELIMINARY  
PLOTTED: 6/13/2016

PLOTTED: 6/13/2016  
SAVED: 6/9/2016



# SIREE I PLAN AND PROFILE (1)

CIVILEGIA LIAANE MUNI TUGV LEMNEV 15

## MISSOULA, MONTANA

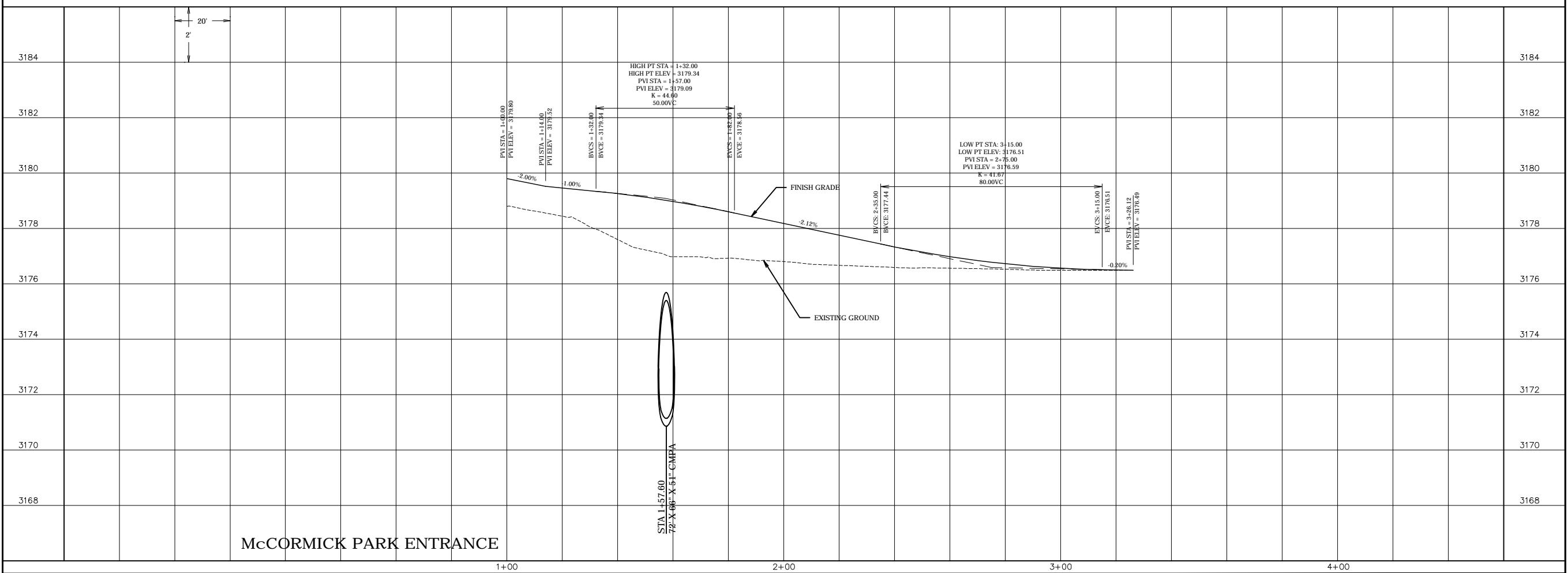
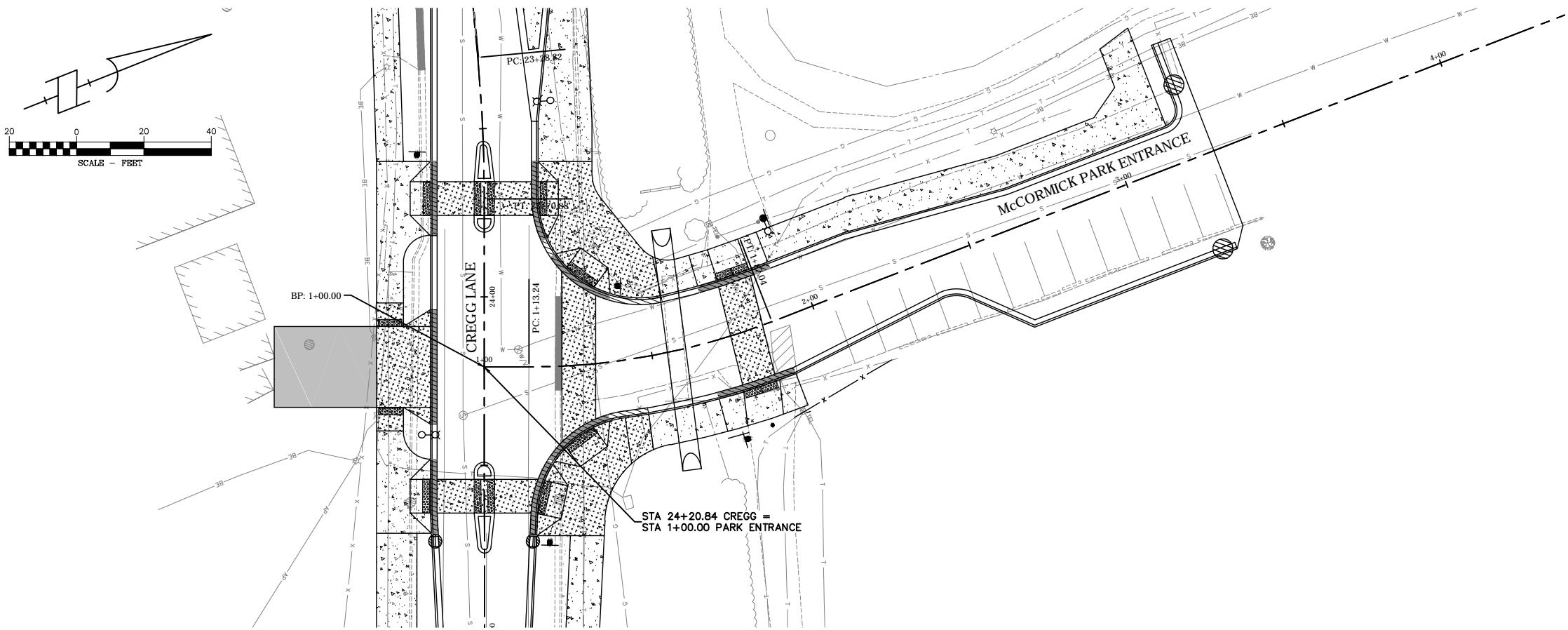
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PROVE: MRM/TI  
E:

JUNE 9, 2016

PRELIMINARY  
PLOTTED: 6/13/2016

PLOTTED: 6/13/2016  
SAVED: 6/9/2016



## CREGG LANE IMPROVEMENTS

## MISSOULA, MONTANA

VISIONS:

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JUNE 9, 2016

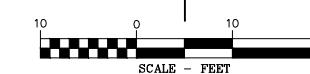
PRELIMINARY

PLOTTED: 6/13/2016  
SAVED: 6/9/2016INTERSECTION GRADING DETAILS  
CREGG LANE IMPROVEMENTS  
MISSOULA, MONTANA

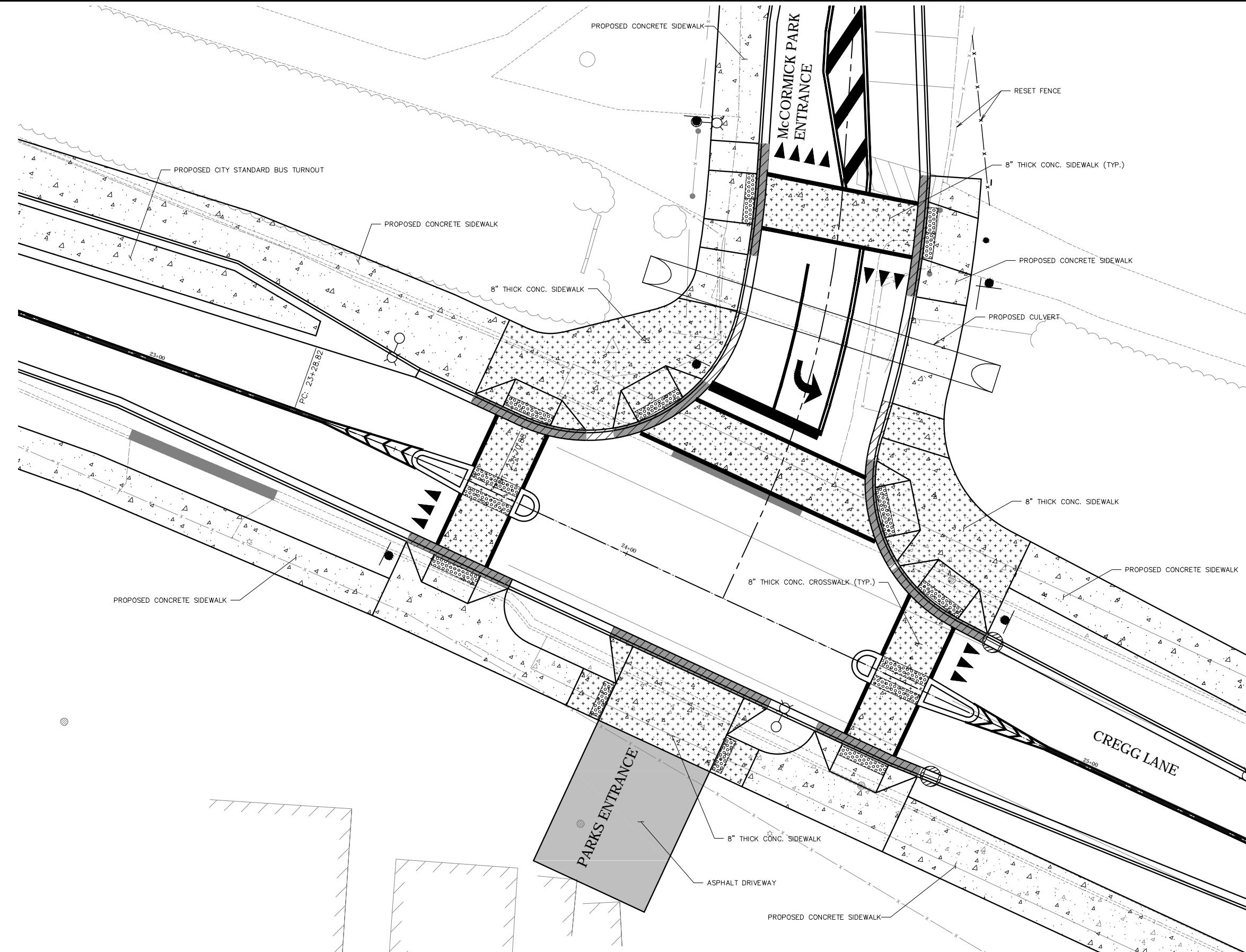
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APPROVE: MRM/TI  
DATE:

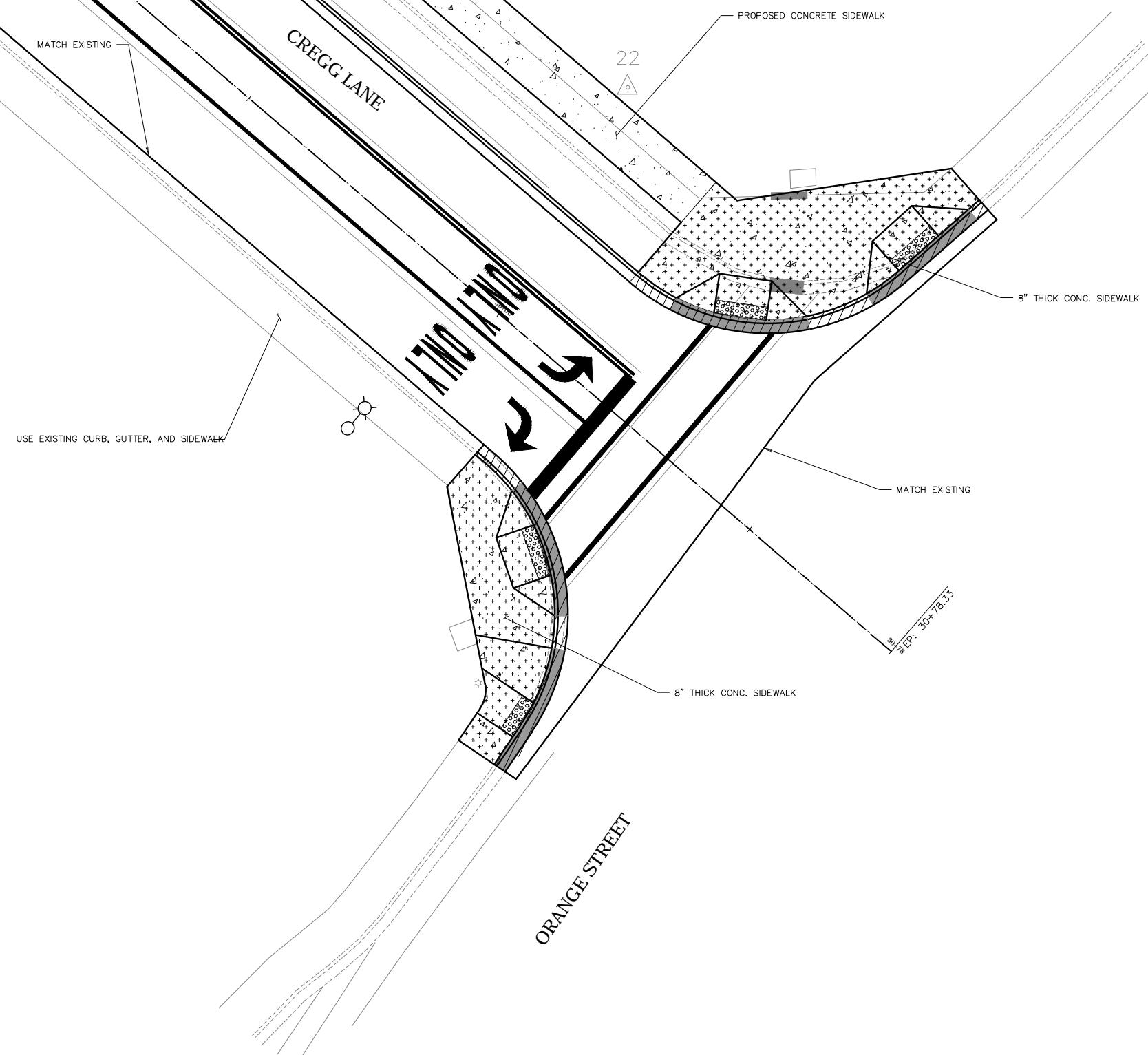
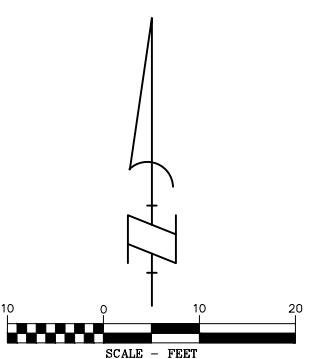
JUNE 9, 2016



SHEET 11 OF 22

CREGG LANE & MCCORMICK PARK ENTRANCE  
INTERSECTION DETAIL

PRELIMINARY

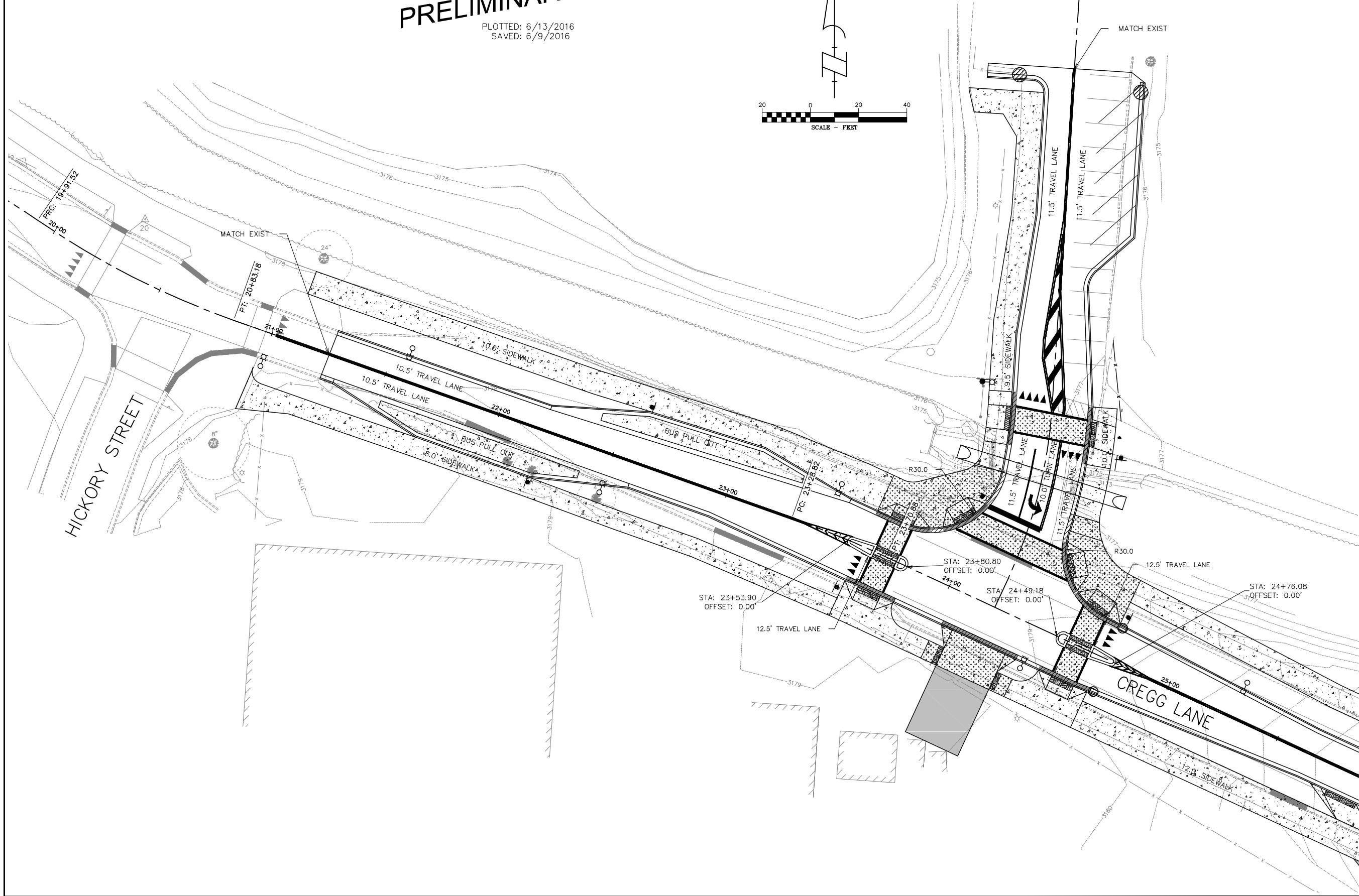
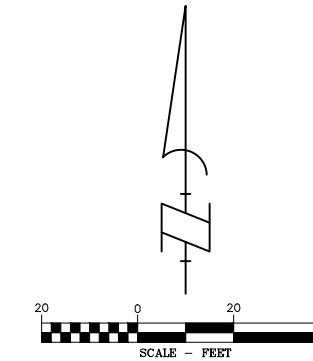
PLOTTED: 6/13/2016  
SAVED: 6/9/2016INTERSECTION GRADING DETAILS  
CREGG LANE IMPROVEMENTS  
MISSOULA, MONTANACREGG LANE & ORANGE STREET  
INTERSECTION DETAIL

REVISIONS:		
NO.	DESCRIPTION	DATE

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DESIGN: TI  
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APPROVE: MRM/TI  
DATE:

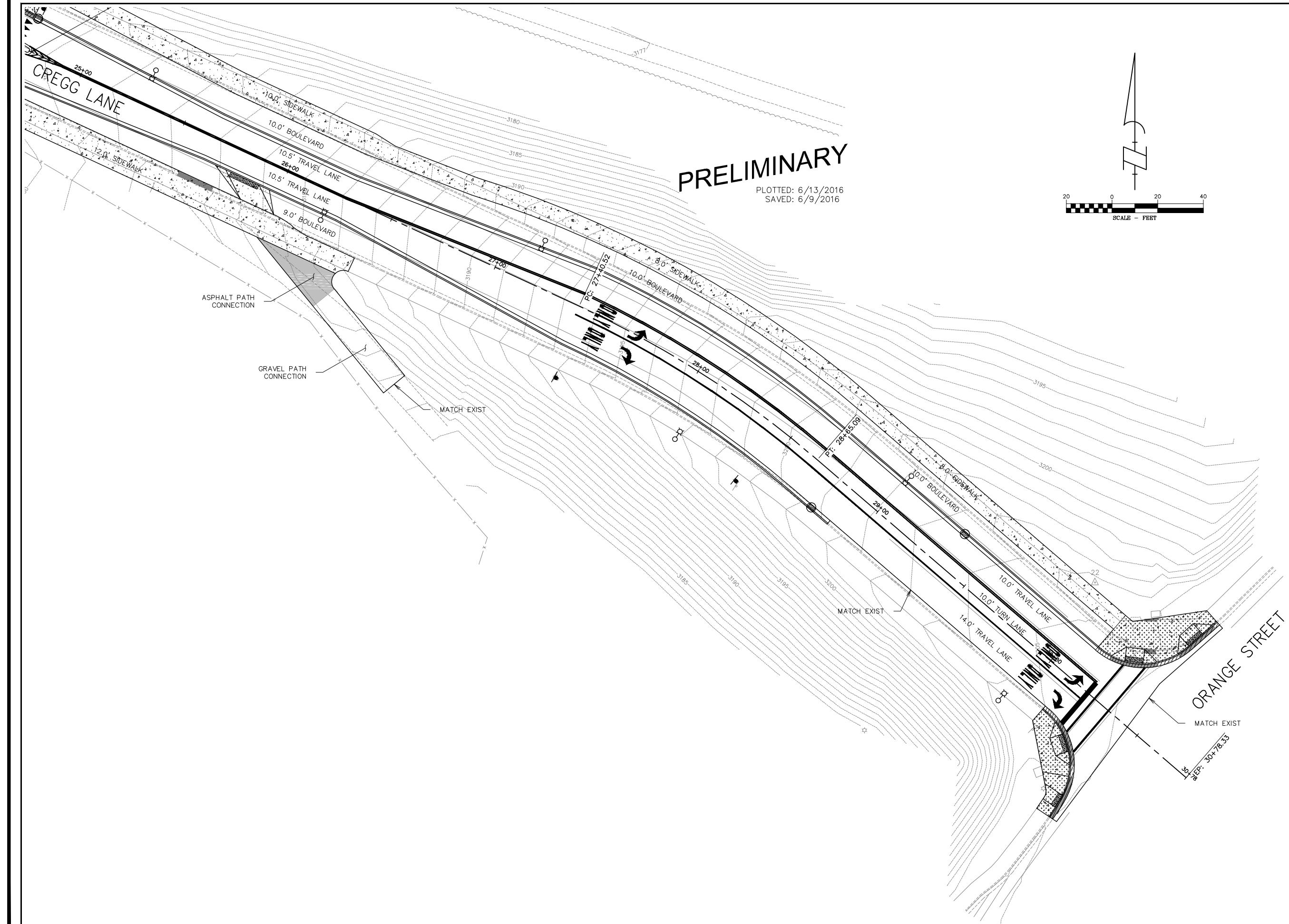
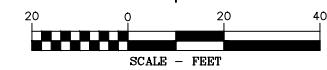
JUNE 9, 2016

## PRELIMINARY

PLOTTED: 6/13/2016  
SAVED: 6/9/2016

GEOMETRIC LAYOUT  
CREGG LANE IMPROVEMENTS  
MISSOULA, MONTANA

## PRELIMINARY

PLOTTED: 6/13/2016  
SAVED: 6/9/2016GEOMETRIC LAYOUT  
CREGG LANE IMPROVEMENTS  
MISSOULA, MONTANA

REVISIONS:		
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APPROVE: MRM / TI  
DATE:

JUNE 9, 2016

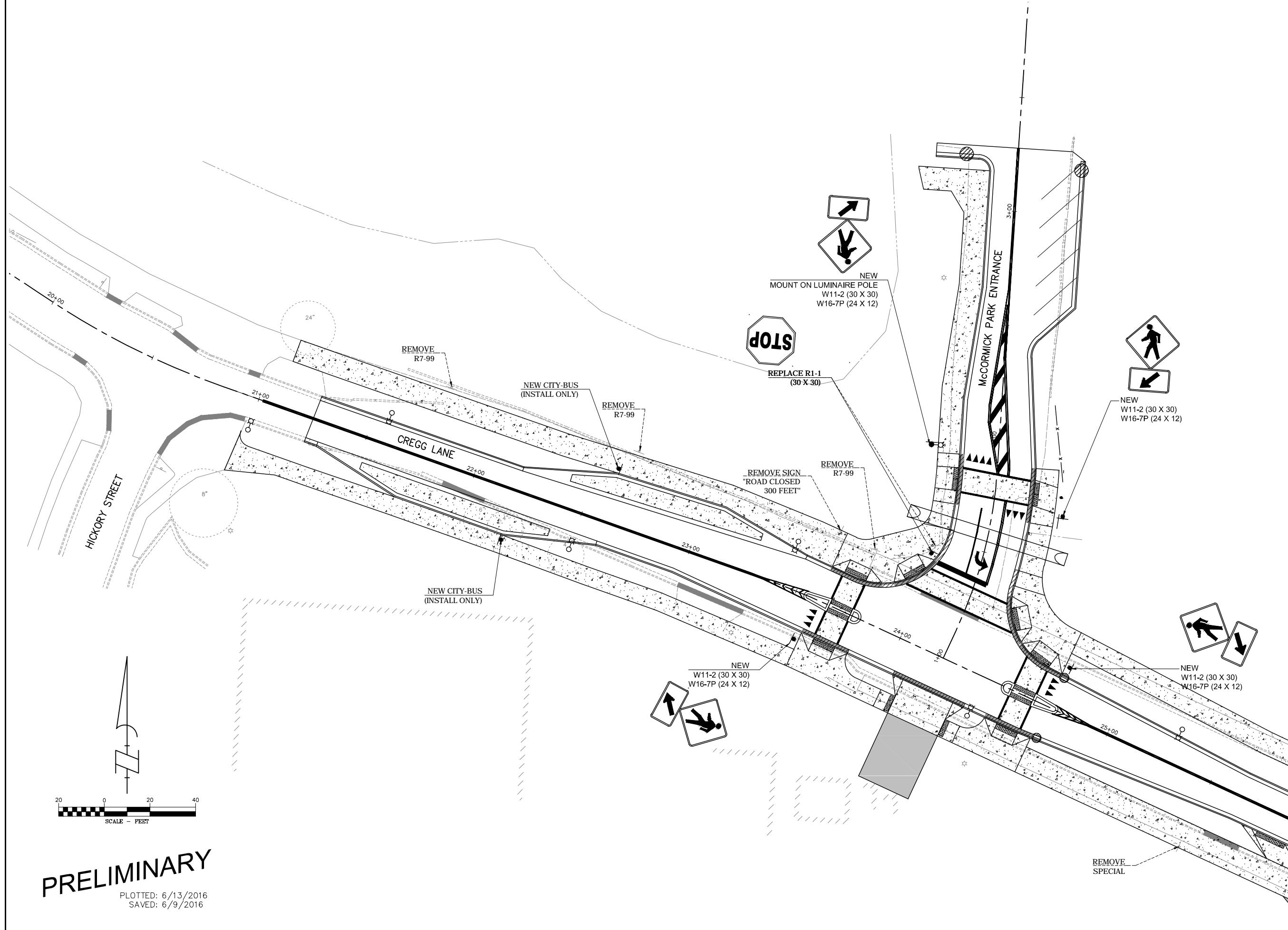
**SIGNING AND STRIPPING PLAN  
CREGG LANE IMPROVEMENTS  
MISSOULA, MONTANA**

REVISIONS:  
NO. DESCRIPTION DATE

PROJECT: 15-01-17  
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FILE PATH: W:\Projects\150117\CAD Data\Design  
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APPROVE: MRM / TI  
DATE:

JUNE 9, 2016

SHEET 15 OF 22



PRELIMINARY

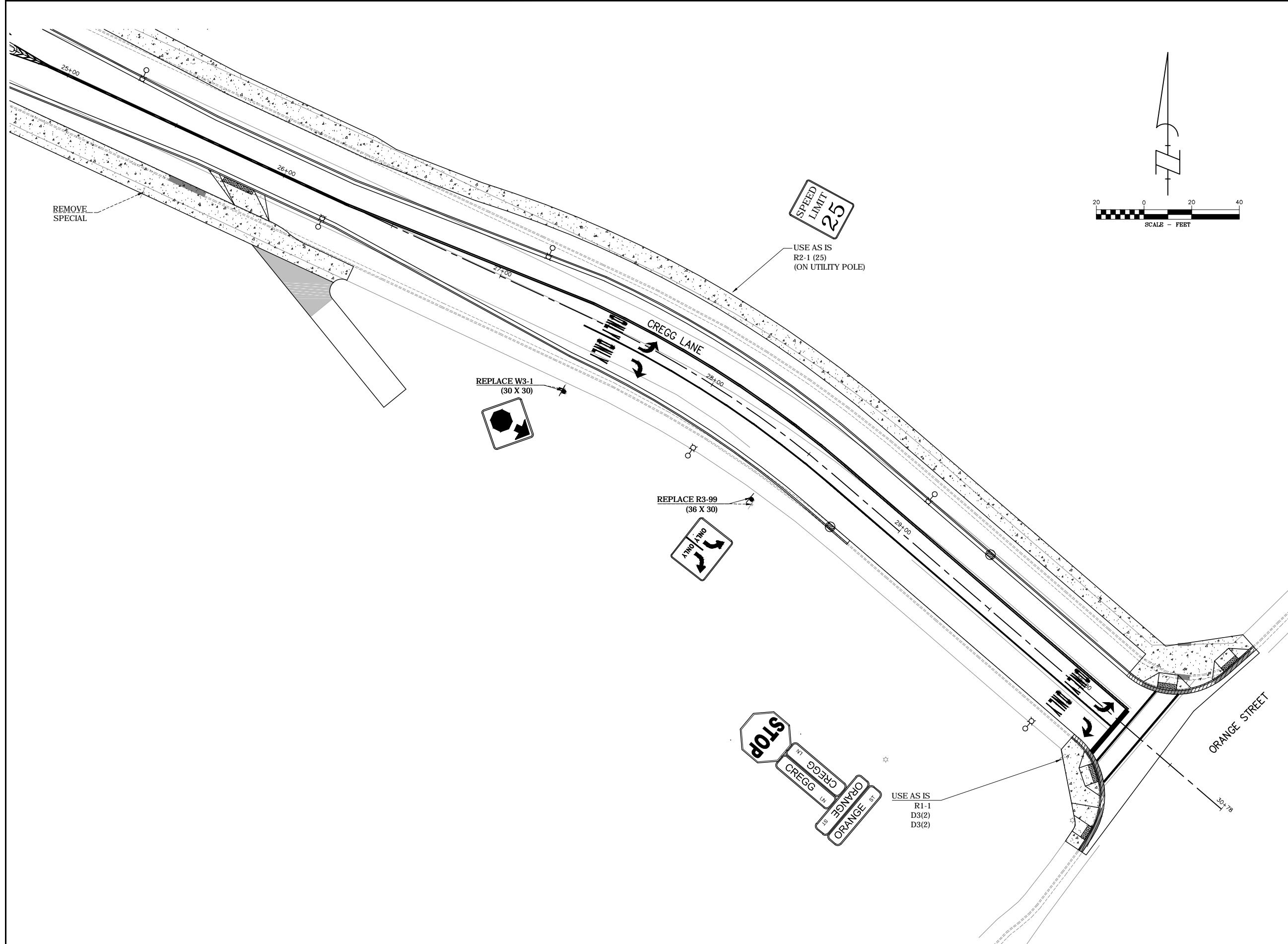
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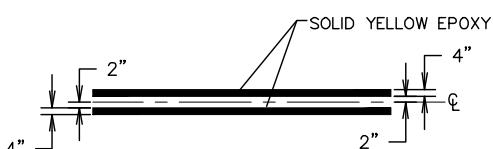
SIGNING AND STRIPPING PLAN  
CREGG LANE IMPROVEMENTS  
MISSOULA, MONTANA

REVISIONS:		
NO.	DESCRIPTION	DATE

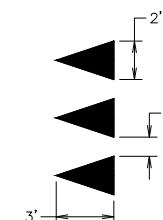
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APPROVE: MRM / TI  
DATE:

JUNE 9, 2016





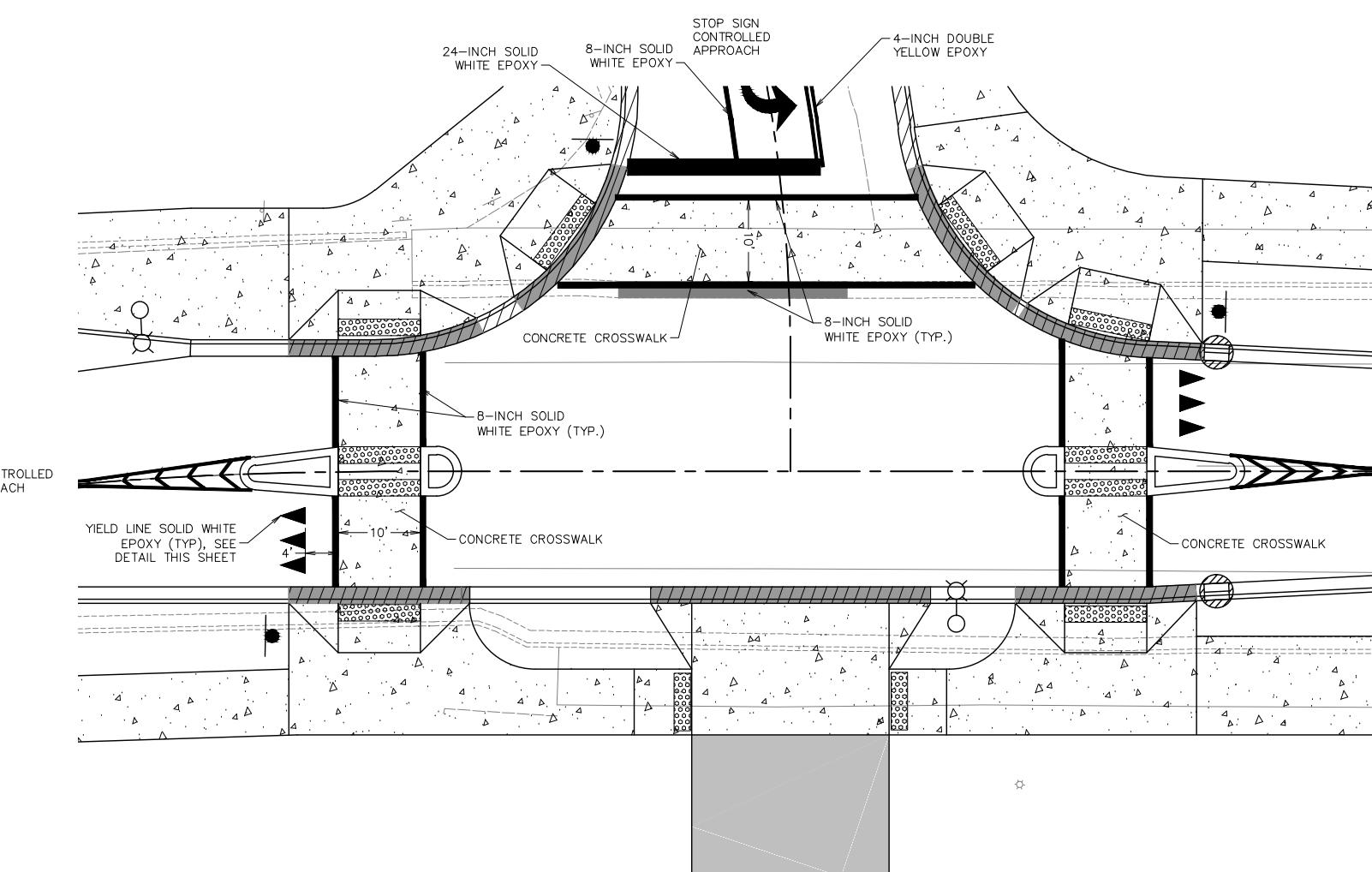
DOUBLE YELLOW STRIPE DETAIL  
NOT TO SCALE



YIELD LINE DETAIL  
NOT TO SCALE

**PRELIMINARY**

PLOTTED: 6/13/2016  
SAVED: 6/9/2016



NOTE: REFER TO SHEET 11 FOR LOCATION WHERE DETAIL APPLIES.

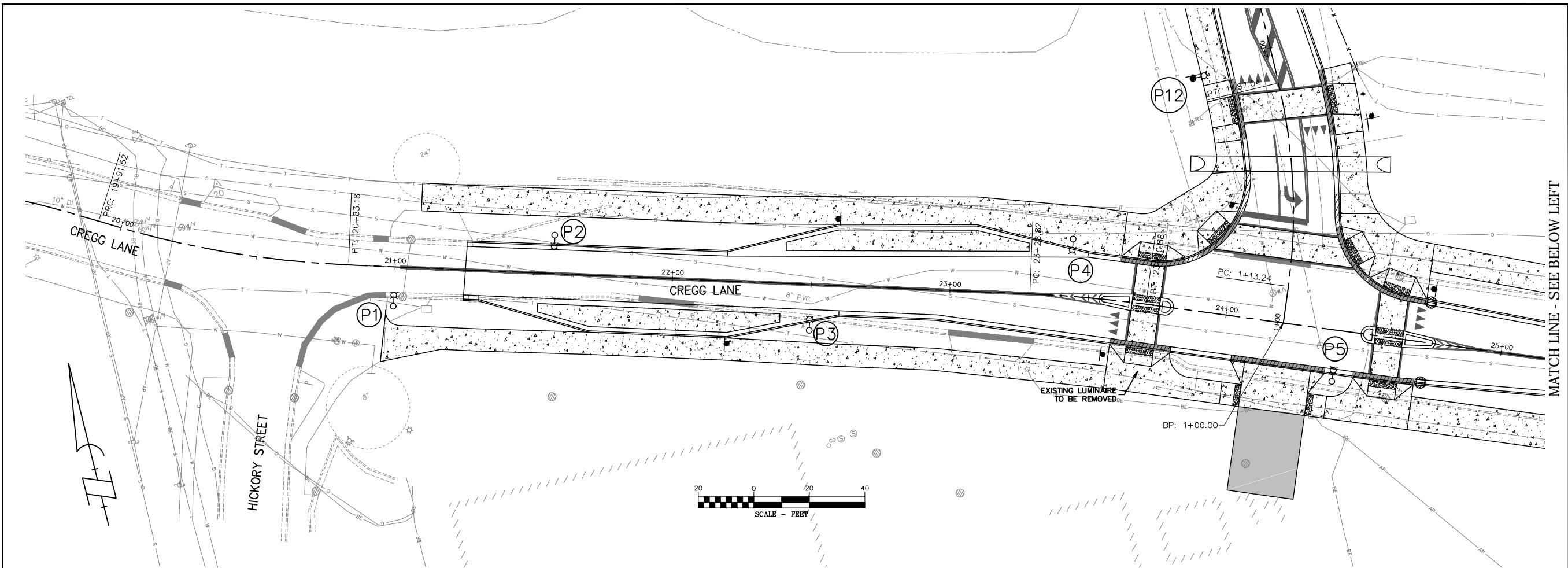
**SIGNING AND STRIPPING DETAILS**  
**CREGG LANE IMPROVEMENTS**  
**MISSOULA, MONTANA**

REVISIONS:  
NO. DESCRIPTION DATE

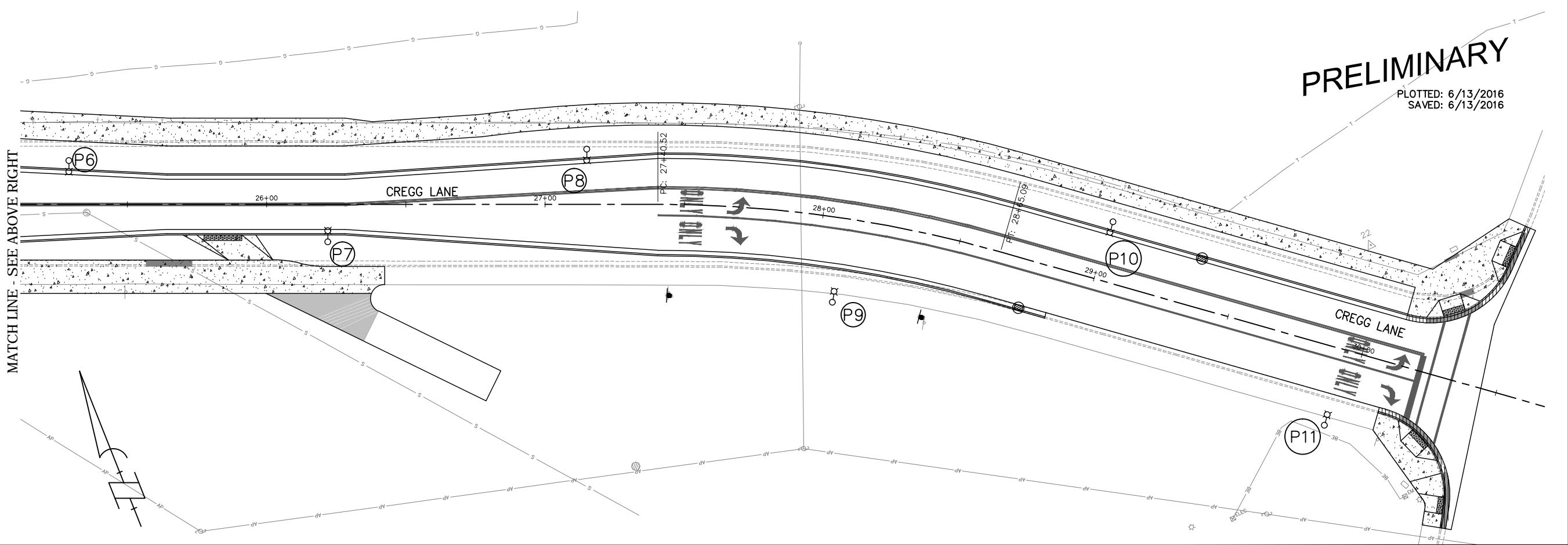
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DATE:

JUNE 9, 2016

SHEET 17 OF 22



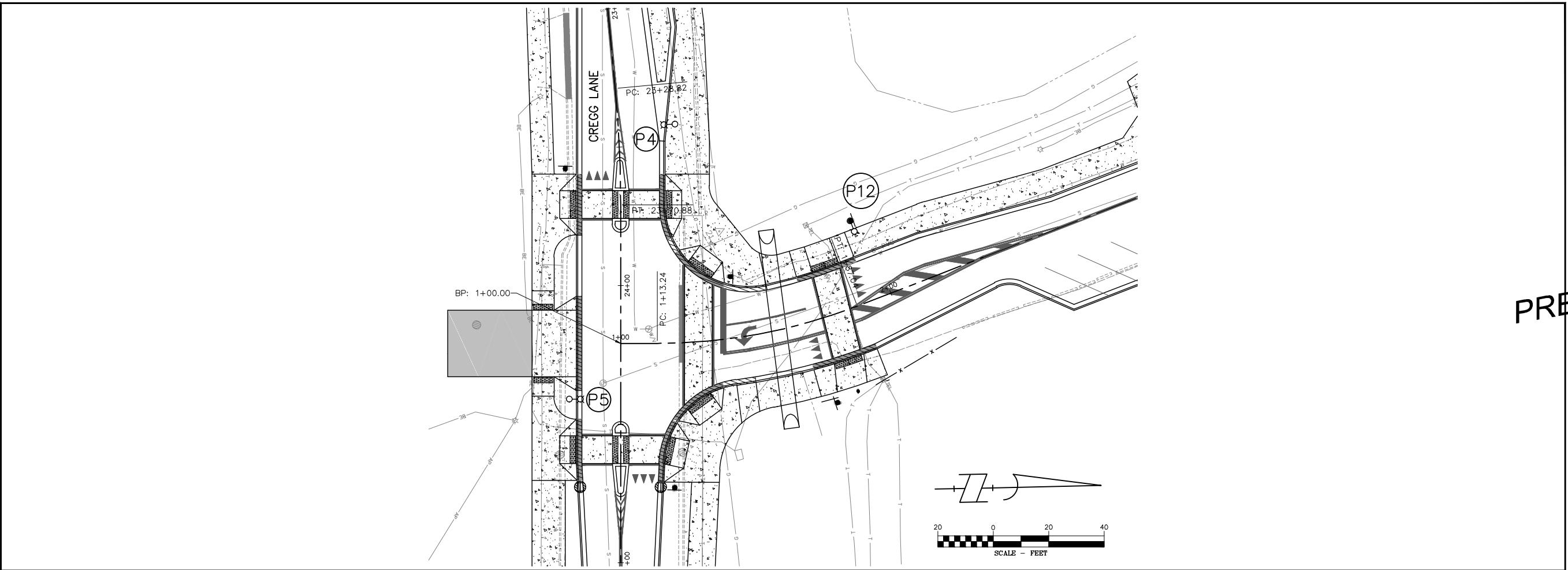
**STREET LIGHTING PLAN**  
**CREGG LANE IMPROVEMENTS**  
**MISSOULA, MONTANA**



**PRELIMINARY**

PLOTTED: 6/13/2016  
SAVED: 6/13/2016

**STREET LIGHTING PLAN**  
**CREGG LANE IMPROVEMENTS**  
**MISSOULA, MONTANA**



CONDUIT & WIRE SCHEDULE	
<b>A</b>	1 OF 1 1/2 IN PLASTIC CONDUIT 1 OF 3 AWG NO. 12 CABLE (PHOTOCELL) 2 OF AWG NO. 8 CONDUCTOR (LIGHTING) 2 OF AWG NO. 6 CONDUCTOR (LIGHTING) 1 OF AWG NO. 6 CONDUCTOR (GROUND)
<b>B</b>	1 OF 1 1/2 IN PLASTIC CONDUIT 2 OF AWG NO. 8 CONDUCTOR (LIGHTING) 2 OF AWG NO. 6 CONDUCTOR (LIGHTING) 1 OF AWG NO. 6 CONDUCTOR (GROUND)
<b>C</b>	1 OF 1 1/2 IN PLASTIC CONDUIT 2 OF AWG NO. 6 CONDUCTOR (LIGHTING) 1 OF AWG NO. 6 CONDUCTOR (GROUND)
<b>D</b>	1 OF 2 IN PLASTIC CONDUIT 1 OF 3 AWG NO. 12 CABLE (PHOTOCELL) 4 OF AWG NO. 8 CONDUCTOR (LIGHTING) 4 OF AWG NO. 6 CONDUCTOR (LIGHTING) 1 OF AWG NO. 6 CONDUCTOR (GROUND)
<b>E</b>	1 OF 1-1/2 IN PLASTIC CONDUIT
<b>F</b>	1 OF 1/2 IN RIGID GALVANIZED STEEL CONDUIT

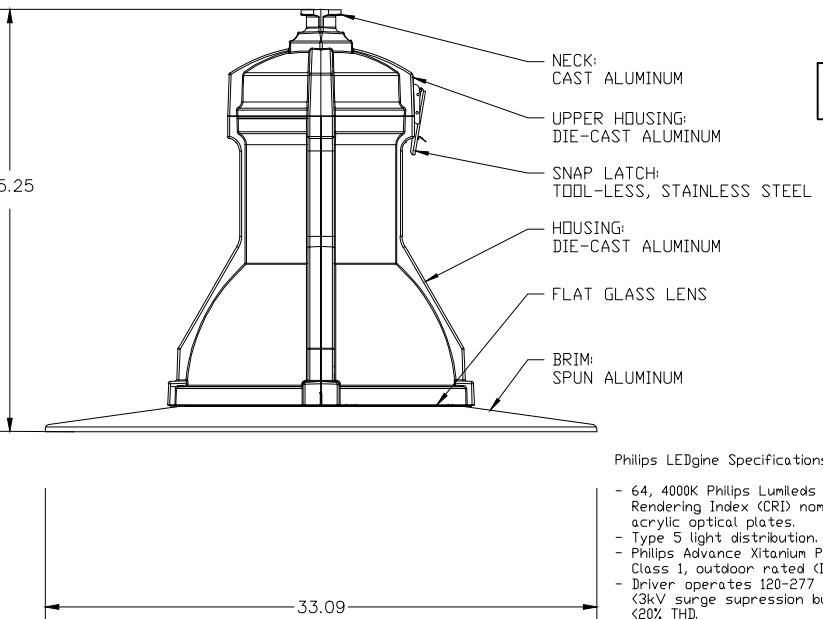
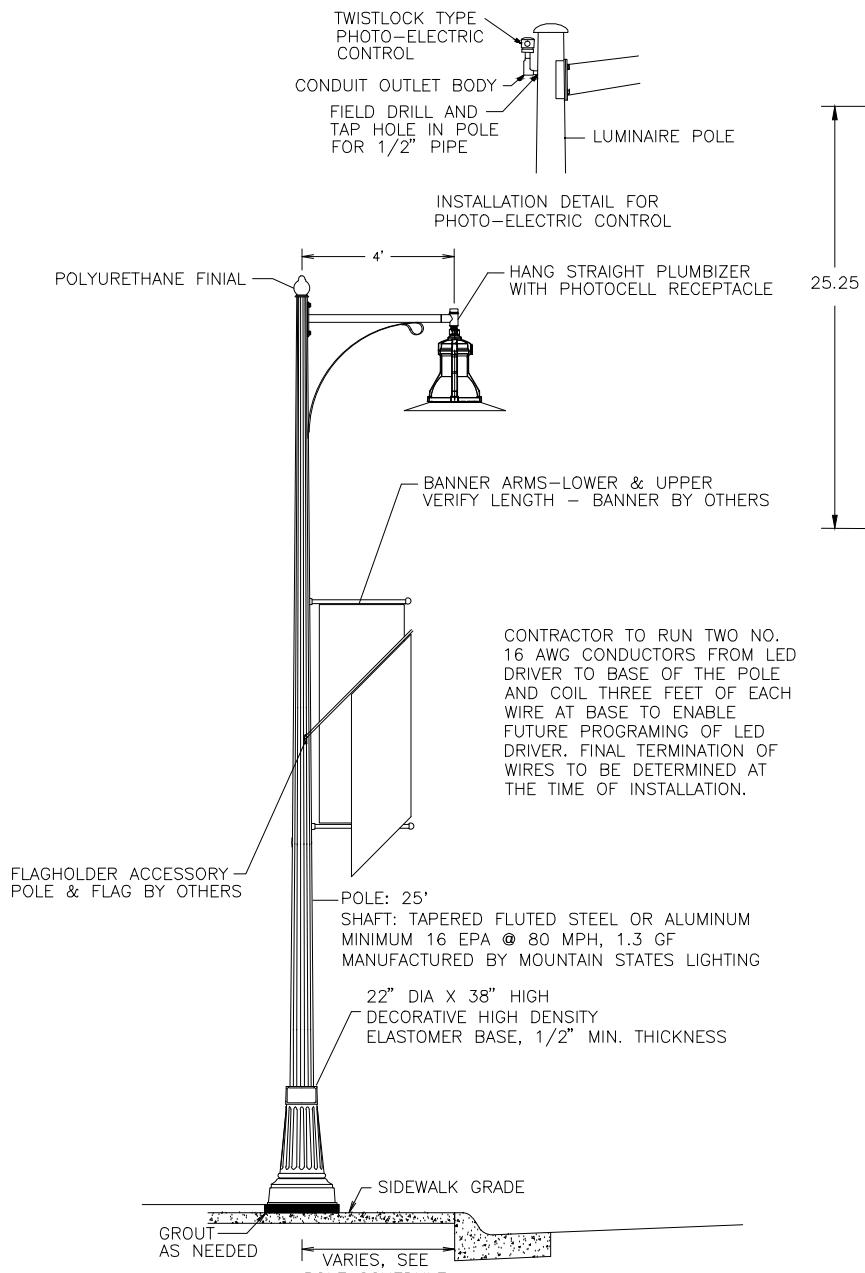
ELECTRICAL MATERIALS QUANTITY		
DESCRIPTION	QUANTITY	UNIT
CONDUIT - STEEL 1 1/2 IN RIGID	38	FT
CONDUIT - STEEL 1 1/2 IN RIGID	154	FT
CONDUIT - STEEL 2 IN RIGID	14	FT
CONDUIT - PLASTIC 1 1/2 IN	4,221	FT
CONDUIT - PLASTIC 2 IN	9	FT
PULL BOX - CONCRETE TYPE 2	4	EACH
CONDUCTOR - COPPER 6 AWG - 600V	13,572	FT
CONDUCTOR - COPPER 8 AWG - 600V	5,251	FT
CONDUCTOR - COPPER 10 AWG - 600V	2,310	FT
DECORATIVE LUMINAIRE	35	EACH
LUMINAIRE FOUNDATIONS	35	EACH
SERVICE ASSEMBLY	1	EACH

POLE SCHEDULE					
POLE NO.	LINE	STATION	OFFSET (FT POLE)	TYPE POLE BASE	LUMINAIRE TYPE
1	CREGG LANE	21+00.0	14.2ft RT	ANCHOR	64 LED
2	CREGG LANE	21+57.0	13.9ft LT	ANCHOR	64 LED
3	CREGG LANE	22+50.0	16.6ft RT	ANCHOR	64 LED
4	CREGG LANE	23+43.0	20.5ft LT	ANCHOR	64 LED
5	CREGG LANE	24+41.0	18.5ft RT	ANCHOR	64 LED
6	CREGG LANE	25+29.0	15.7ft LT	ANCHOR	64 LED
7	CREGG LANE	26+22.0	13.5ft RT	ANCHOR	64 LED
8	CREGG LANE	27+15.0	19.8ft LT	ANCHOR	64 LED
9	CREGG LANE	28+08.0	30.5ft RT	ANCHOR	64 LED
10	CREGG LANE	29+01.0	21.5ft LT	ANCHOR	64 LED
11	CREGG LANE	29+94.0	28.1ft RT	ANCHOR	64 LED
12	PARK ENTRANCE	1+95.69	29.5ft LT	ANCHOR	64 LED

REVISIONS:		
NO.	DESCRIPTION	DATE

PROJECT: 15-01-17  
FILE NO.: 150117LIGHTING.dwg  
FILE PATH: \\Projects\\150117\\CAD Data\\Design  
LAYER: SH1-9  
SURVEYED: WGM GROUP  
DESIGN: TJ/VDB  
DRAFT: EDI/CEG  
APPROVE: MRM  
DATE:

JUNE 9, 2016



PRELIMINARY

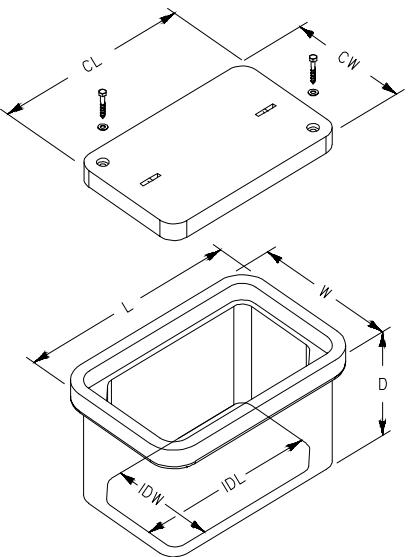
PLOTTED: 6/13/2016  
SAVED: 6/13/2016

**STREET LIGHTING DETAILS**  
**CREGG LANE IMPROVEMENTS**  
**MISSOULA, MONTANA**

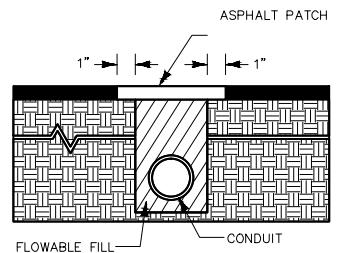
REVISIONS:		
NO.	DESCRIPTION	DATE

PROJECT: 15-01-17  
FILE NO.: 150117LIGHTING.dwg  
FILE PATH: W:\Projects\150117\CAD Data\Design  
LAYER: SH17  
SURVEYED: WGM GROUP  
DESIGN: T/MBD  
DRAFT: ED/CEG  
APPROVE: MRM  
DATE: JUNE 9, 2016

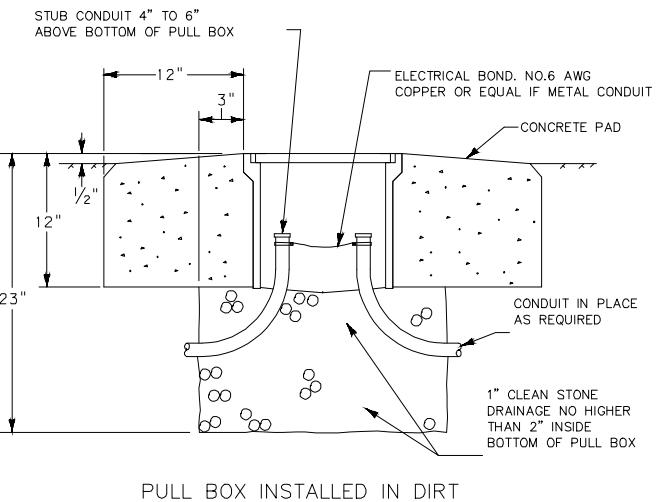
SHEET 21 OF 22



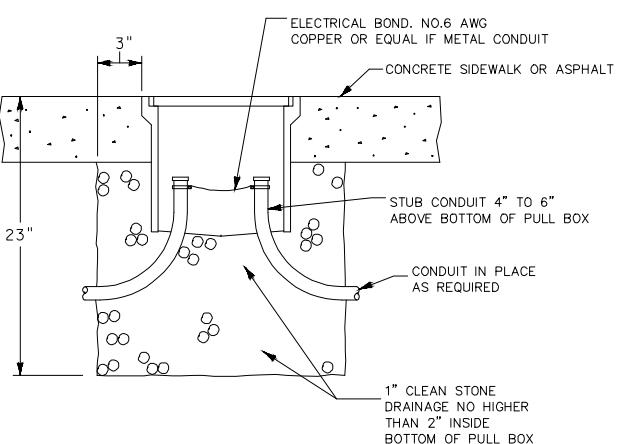
PULL BOX - COMPOSITE MINIMUM DIMENSIONS		
TYPE 1	TYPE 2	TYPE 3
L = 20"	L = 25"	L = 32"
W = 13"	W = 15"	W = 19"
D = 12"	D = 12"	D = 12"
IDL = 17"	IDL = 21"	IDL = 28"
IDW = 10"	IDW = 11"	IDW = 15"
CL = 18"	CL = 23"	CL = 30"
CW = 11"	CW = 13"	CW = 17"



NOTE — COLD MIXED ASPHALT MAY BE USED FOR A TEMPORARY PATCH  
IF HOT MIX ASPHALT IS NOT AVAILABLE. USE 4 INCHES OF  
HOT ASPHALT FOR THE PERMANENT PATCH. CUT EXISTING  
ASPHALT 1 INCH BEYOND TRENCH AND APPLY A TACK COAT  
PRIOR TO INSTALLING THE PERMANENT PATCH.



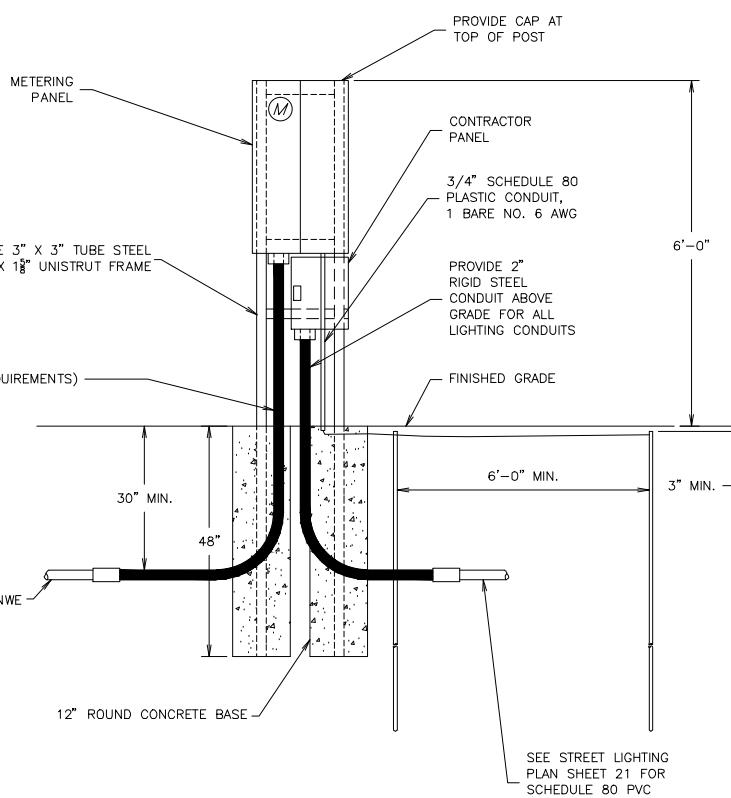
PULL BOX INSTALLED IN DIRT



PULL BOX INSTALLED IN A SIDEWALK OR ASPHALT

**PULL BOX DETAILS**

NO SCALE



**ELECTRICAL SERVICE ASSEMBLY**

NO SCALE

**FLOWABLE FILL FOR TRENCHES**

NO SCALE

11 EAST BROADWAY

MISSOULA, MONTANA 59802

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## 60% PLANS

PRELIMINARY  
PLOTTED: 6/13/2016

PLOTTED: 6/13/2016  
SAVED: 6/13/2016

### LEGEND

— AWG NO. 12  
- - - - AWG NO. 10  
- - - - AWG NO. 8  
- - - - AWG NO. 6

 INDICATES WATERTIGHT CONNECTORS PER THE  
ELECTRICAL DETAIL DRAWING ON SHEET NO. 26

USE MIDGET FERRULE FUSES IN FUSED CONNECTORS.  
USE 6 AMPS FOR LED LUMINAIRES.

## WIRING DIAGRAMS

## SERVICE S-1 ONE-LINE DIAGRAM

## CONTRACTORS S-1 ONE-LINE DIAGRAM

# STREET LIGHTING DETAILS CREGG LANE IMPROVEMENTS MISSOULA, MONTANA

REVISIONS:

PROJECT: 15-01-17  
FILE No: 150117LIGHTING.dwg  
FILE_PATH  
W:\Projects\150117\CAD Data\Design  
LAYOUT: SHT18  
SURVEYED: WGM GROUP  
DESIGN: TI\MDB  
DRAFT: EDI\CEG  
APPROVE: MRM  
DATE:

JUNE 9, 2016

SHEET 22 OF 22