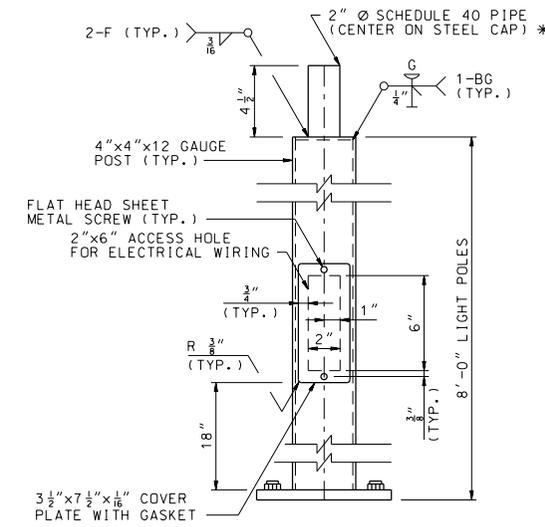


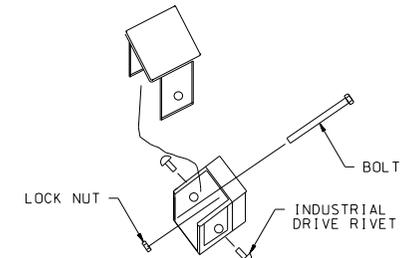
FENCE ELEVATION

NOTE: ALL FENCE PANELS SHALL BE PLACED LEVEL AND POSITIONED SUCH THAT THE VERTICAL CLEARANCE BETWEEN THE TOP OF THE KNEE WALL AND BOTTOM OF FENCE PANEL IS 2 INCHES.

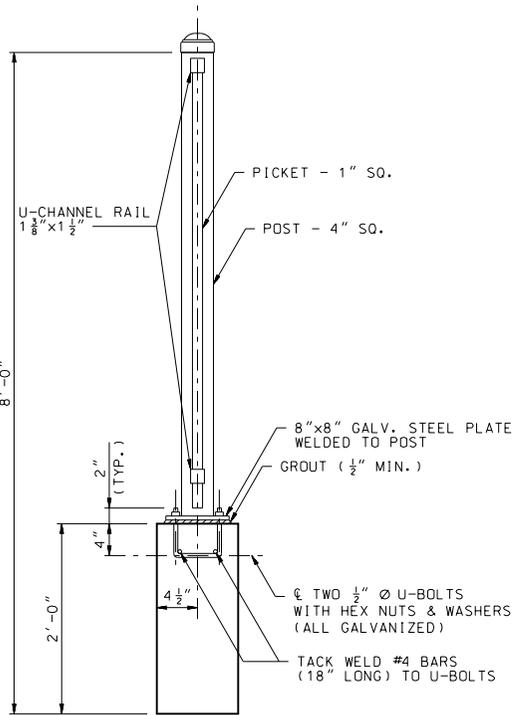


LIGHT POLE/FENCE POST DETAIL

NOTES:
 LIGHT FIXTURE NOT SHOWN.
 ALL OTHER DETAILS PER TYPICAL FENCE POST DETAIL.
 * PIPE FABRICATOR VERIFIED THE PIPE WILL ACCOMMODATE LIGHT FIXTURE.

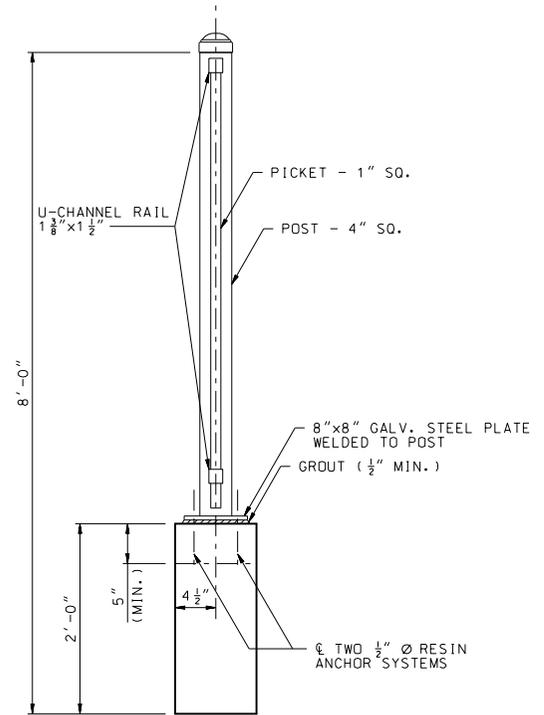


SECURITY BRACKET DETAIL



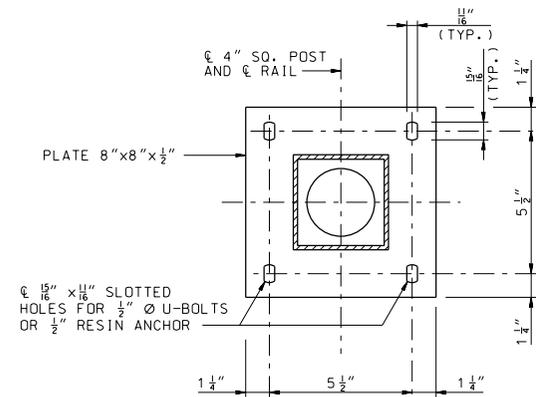
SECTION A-A

RAIL POST CONNECTION TO KNEE WALL



SECTION A-A

RAIL POST CONNECTION TO KNEE WALL POST INSTALLED ALTERNATIVE



PLAN OF FLOOR PLATE

NOTES:
 PLANS ARE FOR THE DESIGN OF THE POST SPACING AND BASE PLATE CONNECTION ONLY. RAILING, POST AND BASE PLATE DETAILS ARE SHOWN SCHEMATICALLY AND ARE BASED ON THE PRELIMINARY INFORMATION PROVIDED. CONTRACTOR SUBMITTED DETAILED SHOP DRAWINGS AND CALCULATIONS BASED ON 2007-AASHTO LRFD 4TH EDITION AND 2008 INTERIMS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF MISSOURI.
 ALL CONNECTIONS FROM POST TO RAIL ARE BOLTED.
 INSTALLED FENCE PER MANUFACTURERS RECOMMENDATIONS.
 TUBULAR STEEL WAS ASTM A-924/A924M WITH A MINIMUM YIELD STRENGTH OF 45 KSI.
 STEEL U-CHANNEL STEEL WAS ASTM A-653/A653M WITH MINIMUM YIELD STRENGTH OF 50 KSI.
 FLOOR PLATE WAS ASTM A709, GRADE 36.
 RAIL/POST BRACKETS ARE DIE CAST OF ZINC PER ASTM B86-83Z 33521 AND ACCOMMODATE RAIL ANGLES UP TO 30° IN ANY DIRECTION. RAIL/POST BRACKET HAVE A MINIMUM SHEAR STRENGTH OF 3,000 LBS AND HOLDING STRENGTH OF 2,200 LBS. BRACKET TO HAVE SECURITY COVER.
 POST CAPS ARE CAST ALUMINUM, MALLEABLE IRON, OR FORMED STEEL.
 INDUSTRIAL DRIVE RIVETS HAVE A MINIMUM SHEAR STRENGTH OF 1,500 LBS AND HOLDING POWER OF 1,100 LBS.
 GALVANIZE TUBULAR STEEL, U-CHANNELS AND FLOOR PLATES PER ASTM A653/653M WITH 60 ZINC COATING, 0.90 OZ/SO. FT.
 ALL FENCE ELEMENTS ARE POWDER COATED WITH ZINC ENRICHED EPOXY PRIMER POWDER COAT OF 2-4 MILS AND ULTRA POLYESTER FINISH TGIC POWDER COAT OF 2-4 MILS. FINISH COLOR ARE BLACK.
 DIMENSIONS OF ORNAMENTAL RAILING ARE MEASURED HORIZONTALLY. ALL POSTS VERTICAL. GROUT OF 1/2" MINIMUM THICKNESS WAS PLACED UNDER THE FLOOR PLATES TO PROVIDE VERTICAL ALIGNMENT OF RAIL POSTS. PLACED GROUT IN ACCORDANCE WITH SEC 1066.
 THE CONTRACTOR FIELD VERIFIED THE LOCATION OF THE INSTALLED POST ANCHORING SYSTEMS PRIOR TO FABRICATION OF THE ORNAMENTAL RAILING.
 THE CONTRACT UNIT PRICE PER LINEAR FOOT FOR ORNAMENTAL PEDESTRIAN FENCE (72") INCLUDED FURNISHING, PAINTING AND ERECTING THE FENCE, POSTS, POST ANCHORING SYSTEM, LIGHT POSTS AND ORNAMENTAL LUMINAIRES.

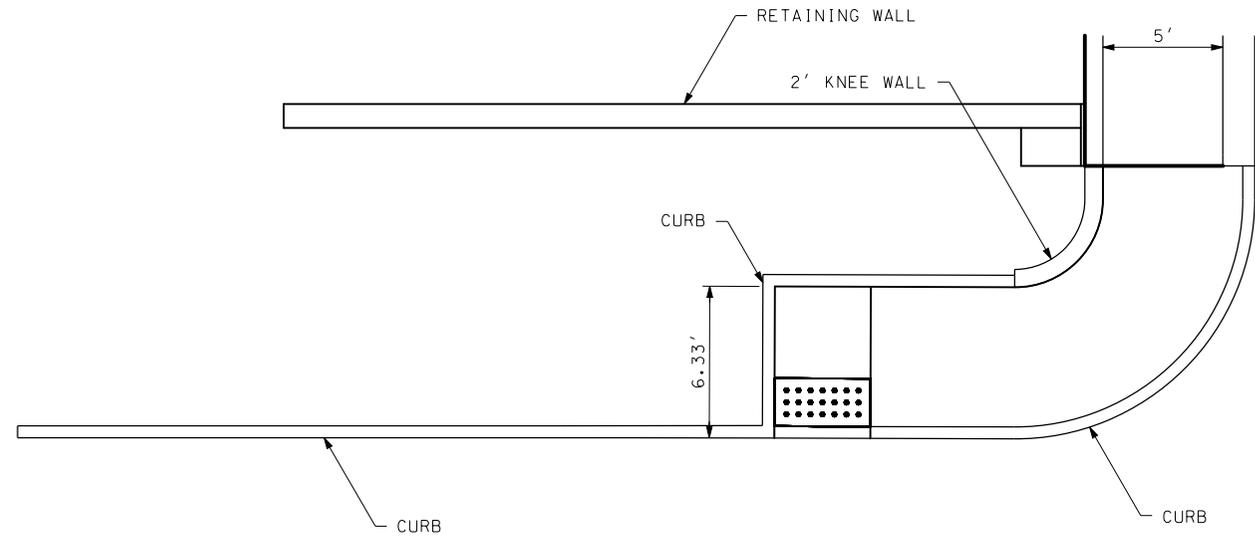
ORNAMENTAL PEDESTRIAN FENCE DETAILS

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS. SHEET NO. 21 OF 24

DETAILED CHECKED FEB 2009 MAR 2009

NOTE:
 KNEE WALL REINFORCEMENT NOT SHOWN FOR CLARITY.
 FOR POST INSTALLED ANCHORS, A 1/2" DIAMETER RESIN ANCHOR SYSTEM WERE USED.
 THE MINIMUM EMBEDMENT DEPTH PER MANUFACTURERS RECOMMENDATIONS WERE REQUIRED TO MEET A MINIMUM ULTIMATE PULLOUT CAPACITY OF 2,000 POUNDS AND BE IN ACCORDANCE WITH SEC 1039 BUT WERE NOT LESS THAN 5".

DATE	1/6/2011
ROUTE	I-70
STATE	MO
DISTRICT	BR
SHEET NO.	20
COUNTY	ST. LOUIS CITY
JOB NO.	J612189
CONTRACT ID.	090522-623
PROJECT NO.	I-70-5(312)
BRIDGE NO.	A01414
DESCRIPTION	
DATE	
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	
Copyright CMT, Inc.	
CMT CRAWFORD, MURPHY & TILLY, INC. ONE MEMORIAL DRIVE, SUITE 500 ST. LOUIS, MO 63102 (314) 436-5500 ENGINEERING CORPORATION - 000631	
FINAL PLANS	

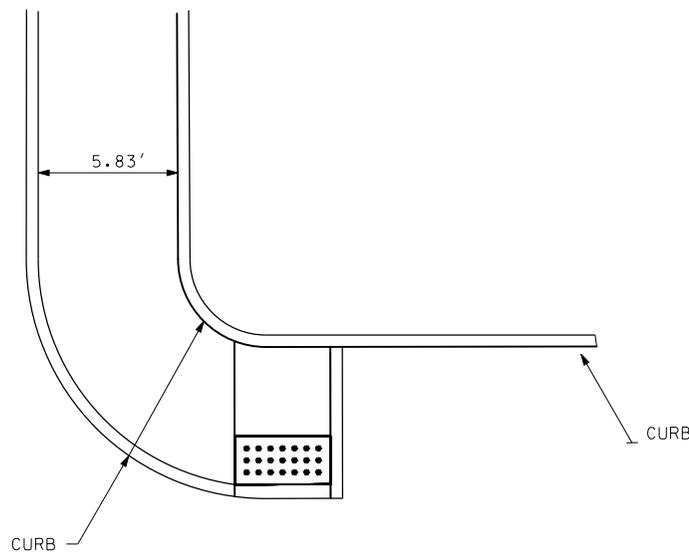


DETAIL "M"
NOT TO SCALE

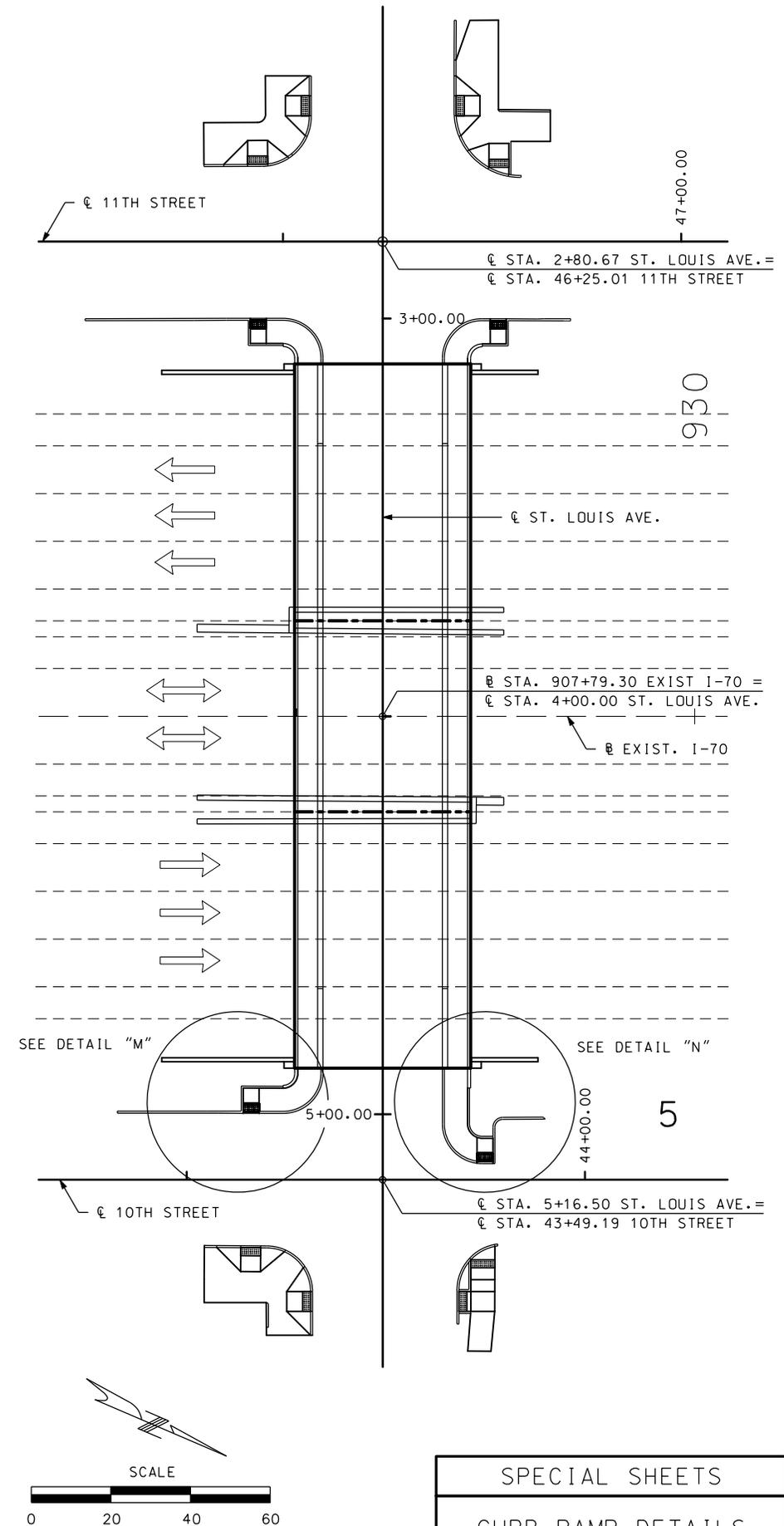
- NOTES:
- 1) ALL STATIONS AND OFFSETS IN THE TABLES ARE MEASURED ALONG SAINT LOUIS AVENUE
 - 2) TOP - TOP OF CURB
 - 3) BOT - BOTTOM OF CURB
 - 4) ALL RAMPS DO NOT HAVE RUNNING SLOPES GREATER THAN 8.3% OR 12:1
 - 5) ALL LANDINGS DO NOT HAVE ANY RUNNING OR CROSS SLOPES GREATER THAN 2%

LEGEND

 - TRUNCATED DOME



DETAIL "N"
NOT TO SCALE



SPECIAL SHEETS
CURB RAMP DETAILS
ST. LOUIS & 10TH ST

DATE	
DATE PREPARED 2/28/2011	
ROUTE I-70	STATE MO
DISTRICT 6	SHEET NO. 23
COUNTY ST. LOUIS CITY	
JOB NO. J612189	
CONTRACT ID. 090522-623	
PROJECT NO. I-70-5(312)	
BRIDGE NO.	
DESCRIPTION	
DATE	
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
 105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	
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FINAL PLANS	