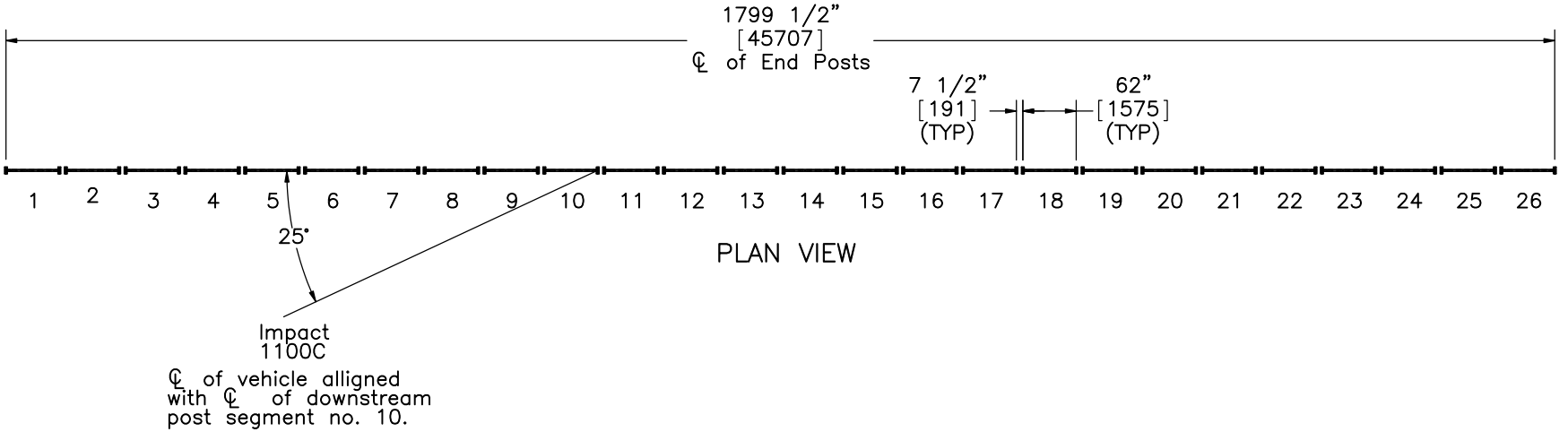
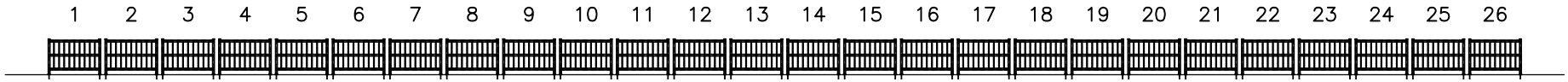


PLAN VIEW



ELEVATION VIEW

Notes: (1) Test shall be performed according to test designation no. 2–10 of MASH Channelizer criteria.

(2) Impact location is the ℄ of the vehicle lined up with the ℄ of downstream post of segment no. 10.

(3) System length can be reduced if angled and end on tests are run on separate systems.

Midwest Roadside Safety Facility

WI Pedestrian Rail (Angled Test)

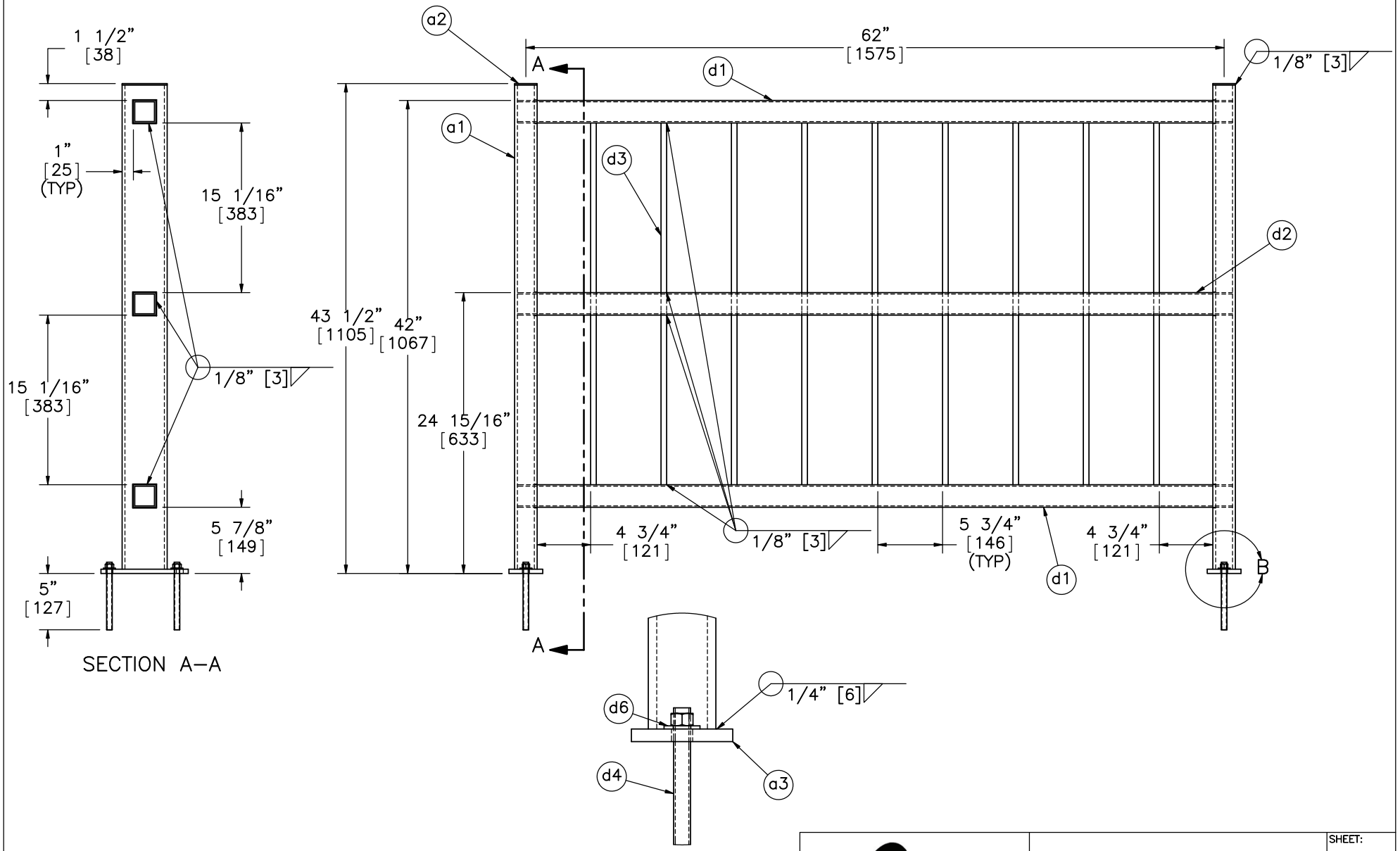
Test Setup

DWG. NAME. WI Ped Rail_Angled_R1	SCALE: 1:200 UNITS: in.[mm]	REV. BY: KAL

SHEET: 1 of 5

DATE: 10/7/2014

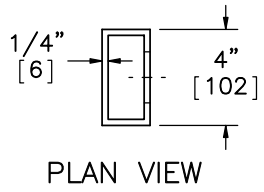
DRAWN BY: SDB/JEK



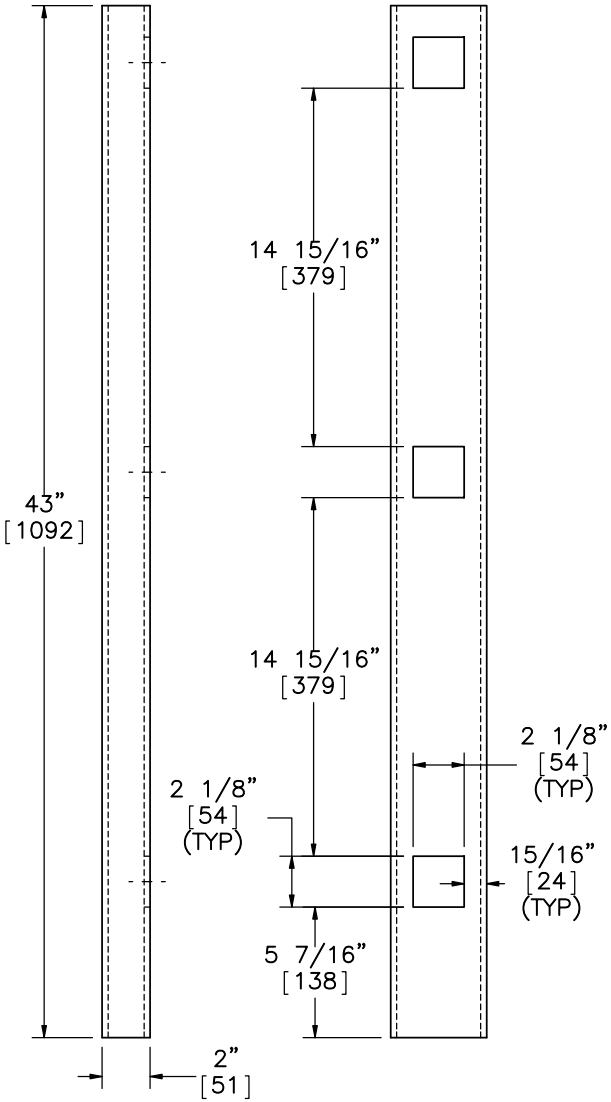
Notes: (1) All aluminum welds should follow the Aluminum Design Manual 2010 by using 5356 filler material.

(2) Alternate spindle assembly may be used by drilling holes into the top and bottom rails, increasing the spindle length to 35 7/8" [911], and inserting the spindles into the rails. The spindles are then welded to the upper, middle, and lower rails as shown. 1/2" [13] round spindles may be substituted for square spindles.

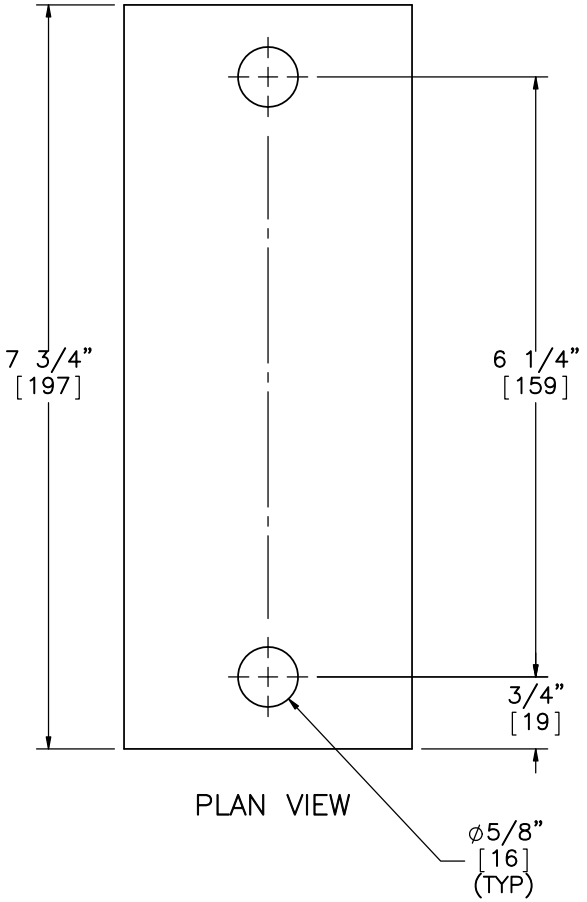
MwRSF	WI Pedestrian Rail (Angled Test)	SHEET: 2 of 5
		DATE: 10/7/2014
Midwest Roadside Safety Facility	Segment Details	DRAWN BY: SDB/JEK
	DWG. NAME. WI Ped Rail_Angled_R1 / SCALE: 1:12 / UNITS: in.[mm]	REV. BY: KAL



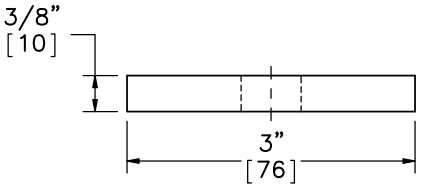
PLAN VIEW



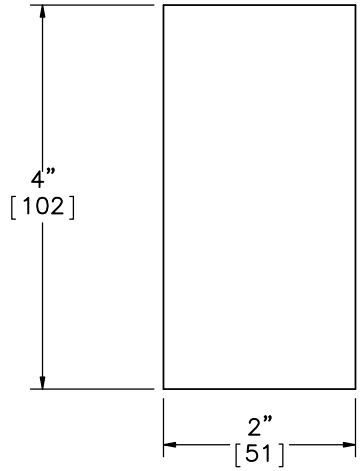
ELEVATION VIEW PROFILE VIEW
Part a1
SCALE 1 : 8



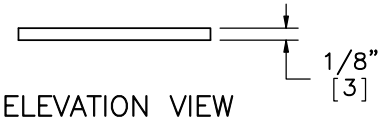
PLAN VIEW



ELEVATION VIEW
Part a3



PLAN VIEW



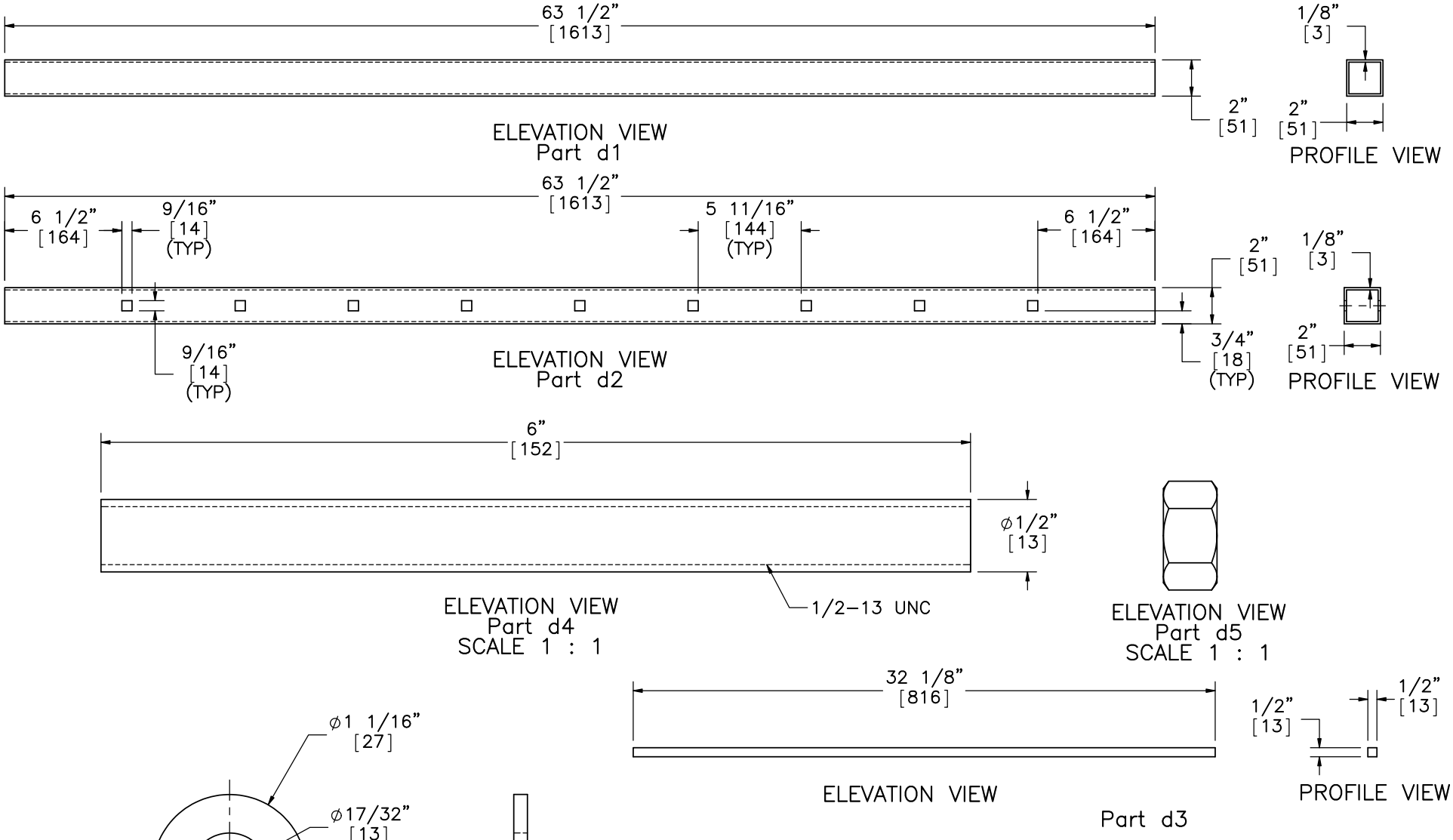
ELEVATION VIEW
Part a2

Midwest Roadside Safety Facility

WI Pedestrian Rail (Angled Test)

Component Details

SHEET: 3 of 5		
DATE: 10/7/2014		
DRAWN BY: SDB/JEK		
DWG. NAME. WI Ped Rail_Angled_R1	SCALE: 1:2 UNITS: in.[mm]	REV. BY: KAL



Midwest Roadside Safety Facility	WI Pedestrian Rail (Angled Test)	SHEET: 4 of 5
		DATE: 10/7/2014
	Component Details	DRAWN BY: SDB/JEK
	DWG. NAME. WI Ped Rail_Angled_R1 / SCALE: 1:8 / UNITS: in.[mm]	REV. BY: KAL

Item No.	QTY.	Description	Material Spec
a1	52	2”x4”x1/4” [51x102x6] Aluminum Post, 43” [1092] long	6061–T6
a2	52	Aluminum Post Cap – 1/8” [3] Plate	6061–T6
a3	52	Aluminum Post Base	6061–T6
d1	52	2”x2”x1/8” [51x51x3] Aluminum Rail – 63 1/2” [1613] long	6061–T6
d2	26	2”x2”x1/8” [51x51x3] Aluminum Rail – 63 1/2” [1613] long with holes	6061–T6
d3	234	1/2”x1/2” [13x13] Square Aluminum Spindle – 32 1/8” [816] long	6061–T6
d4	104	1/2” [13] Dia. UNC, 6” [152] Long Threaded Rod	ASTM A193 Grade B7
d5	104	1/2” [13] Dia. Steel Nut	ASTM A194 Grade 8M Galv.
d6	104	1/2” [13] Dia. Steel SAE Flat Washer	ASTM F436 Type 1 Galv.
d7	–	Epoxy	Powers Fasteners AC100+ Gold Minimum bond strength = 1,450 psi [10.0 MPa]

Midwest Roadside Safety Facility

WI Pedestrian Rail (Angled Test)

Bill of Materials

SHEET: 5 of 5

DATE: 10/7/2014

DRAWN BY: SDB/JEK

DWG. NAME. WI Ped Rail_Angled_R1

SCALE: None

UNITS: in.[mm]

REV. BY: KAL

System: WI Pedestrian Rail

Drawing: WI Ped Rail_Angled

Revision History

REV.	DATE OF ISSUE	Page	NATURE OF CHANGES	REVISED BY
R0	10/6/2014	–	Derived from WI Ped Rail_AW2–D_Bogie_R4. Adapted for full scale testing (Angled Impact).	SDB
R1	10/7/2014	–	Document name changed.	JEK
		1	Impact location moved. Additional impact note added. Specification of overall width dimension added. Changes to all notes on page. General dimension changes.	
		2	Changes to note 2.	