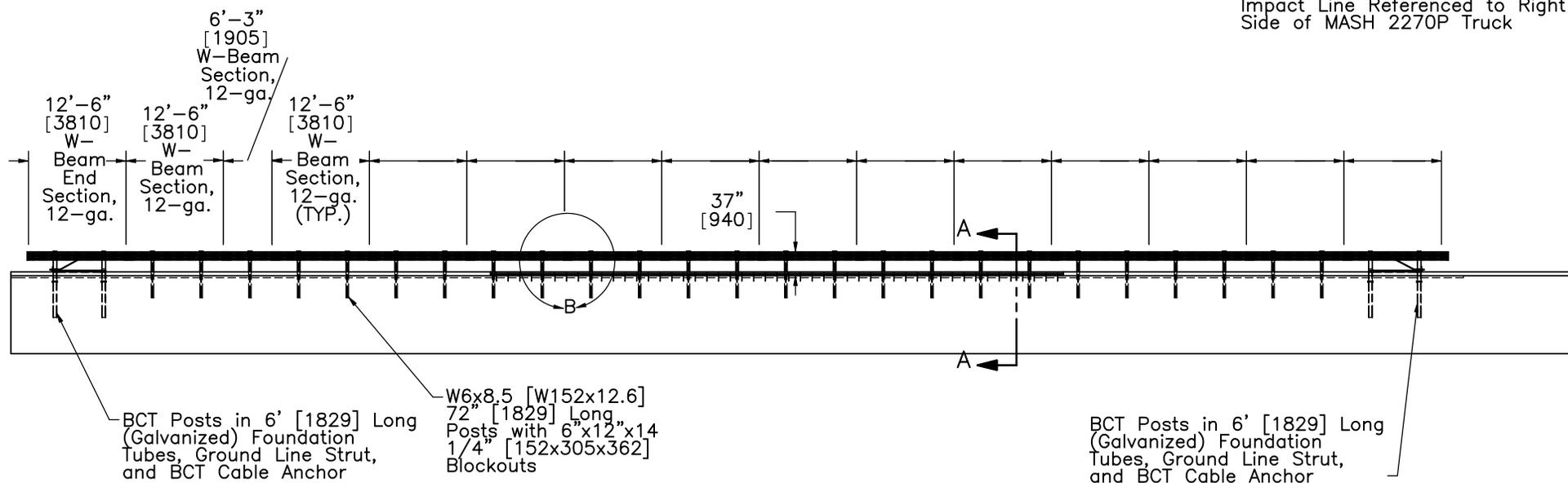


PLAN VIEW

Impact: 14'-11" [4547]
Upstream of the Centerline
between Posts Nos. 14
and 15
Impact Line Referenced to Right
Side of MASH 2270P Truck



ELEVATION VIEW

- Notes: (1) Use 2 ft [610] of level NCHRP 350 soil fill behind posts before tapering downward.
- (2) Post nos. 9-19 are located inside the critical impact region and should be placed in 3' [914] diameter holes. Place post nos. 1-8 and 20-29 in 2' [610] diameter holes.



Midwest Roadside Safety Facility

MGS with 6-in. Type B Curb

System Layout

DWG. NAME.
MGSC-6_R5

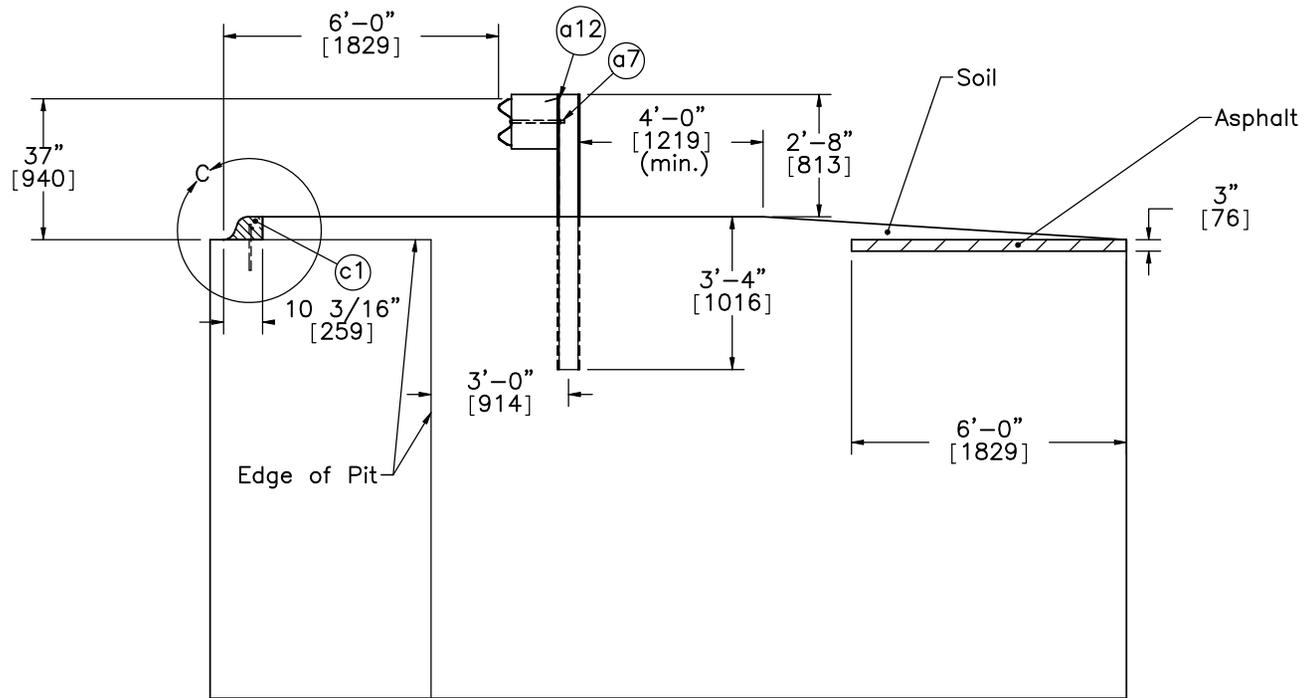
SCALE: 1:240
UNITS: In.,[mm]

SHEET:
1 of 10

DATE:
6/1/2010

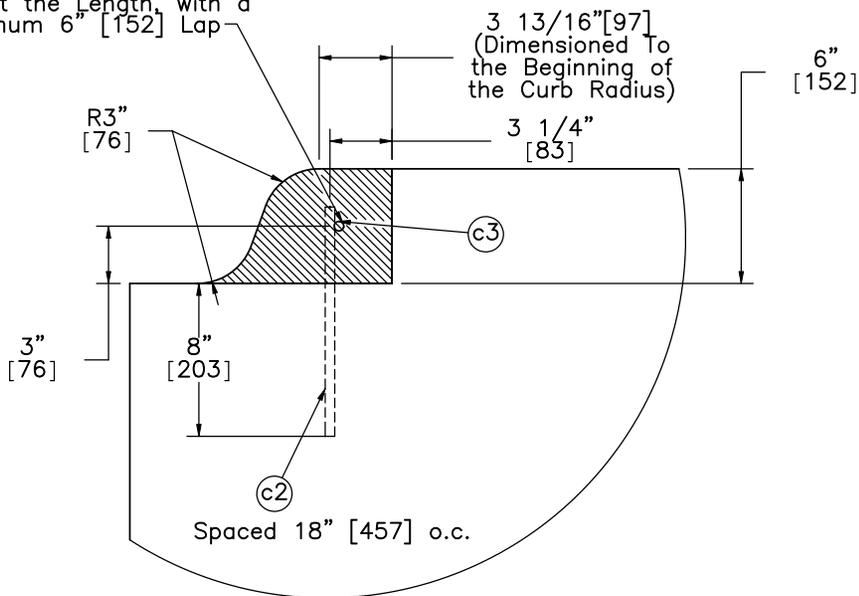
DRAWN BY:
RJT/CDB/
EAJ/MJW

REV. BY:
KAL/RKF



SECTION A-A

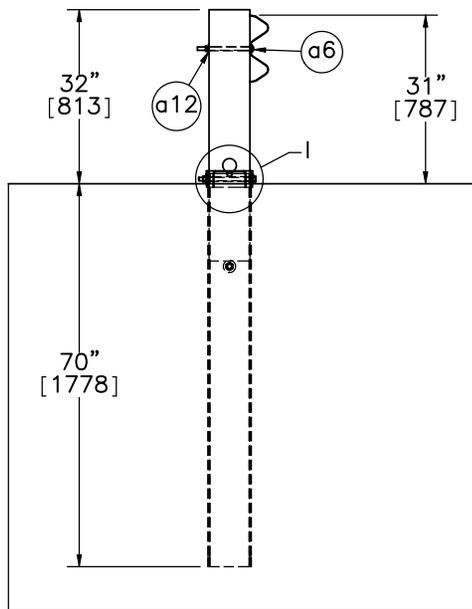
Use any Number of Pieces to Fit the Length, with a Minimum 6" [152] Lap



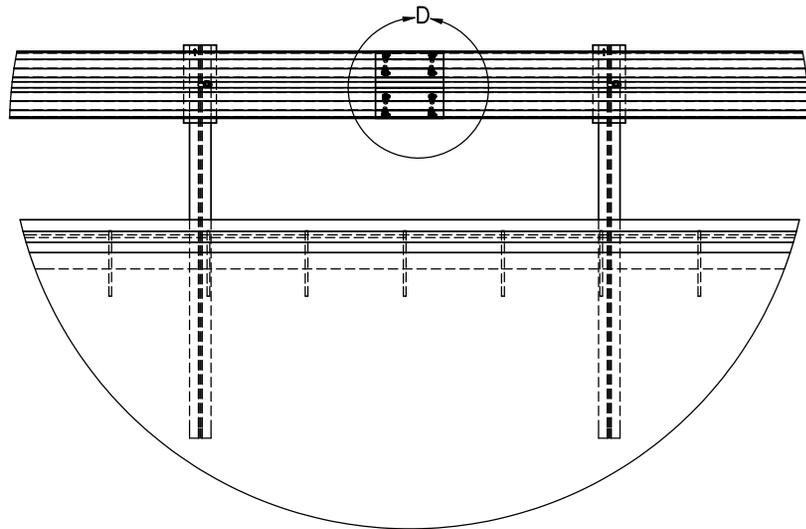
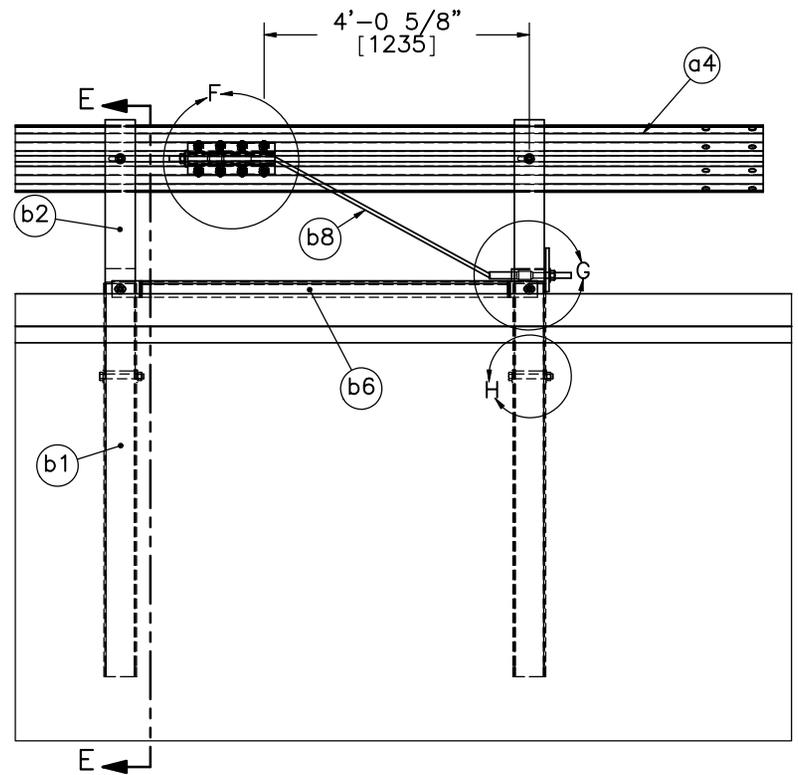
DETAIL C
SCALE 1 : 10

- Notes: (1) Curb offset has a tolerance of 1 3/4" [44] located between the tangent edge of curb and front face of the guardrail.
 (2) Asphalt extends entire length of the system.

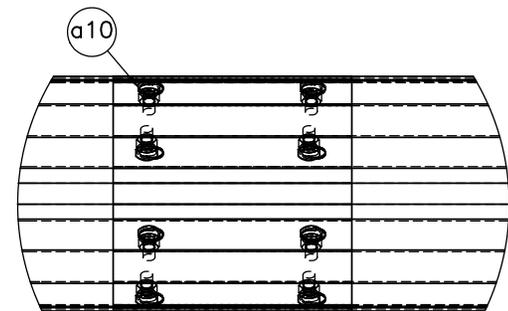
	MGS with 6-in. Type B Curb Posts 3-27 Detail		SHEET: 2 of 10
	Midwest Roadside Safety Facility		DATE: 6/1/2010
DWG. NAME: MGSC-6_R5	SCALE: 1:50 UNITS: In./mm	DRAWN BY: RJT/CDB/ EAJ/MJW	REV. BY: KAL/RKF



SECTION E-E



DETAIL B



DETAIL D
SCALE 1 : 10



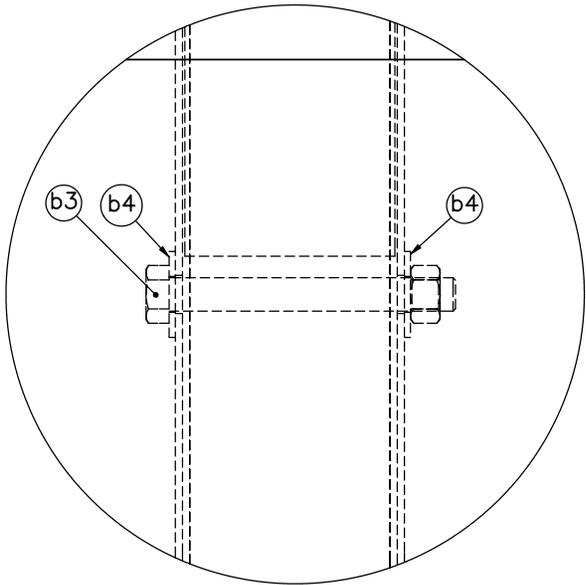
Midwest Roadside
Safety Facility

MGS with 6-in. Type B
Curb
End Rail Detail
Splice Detail

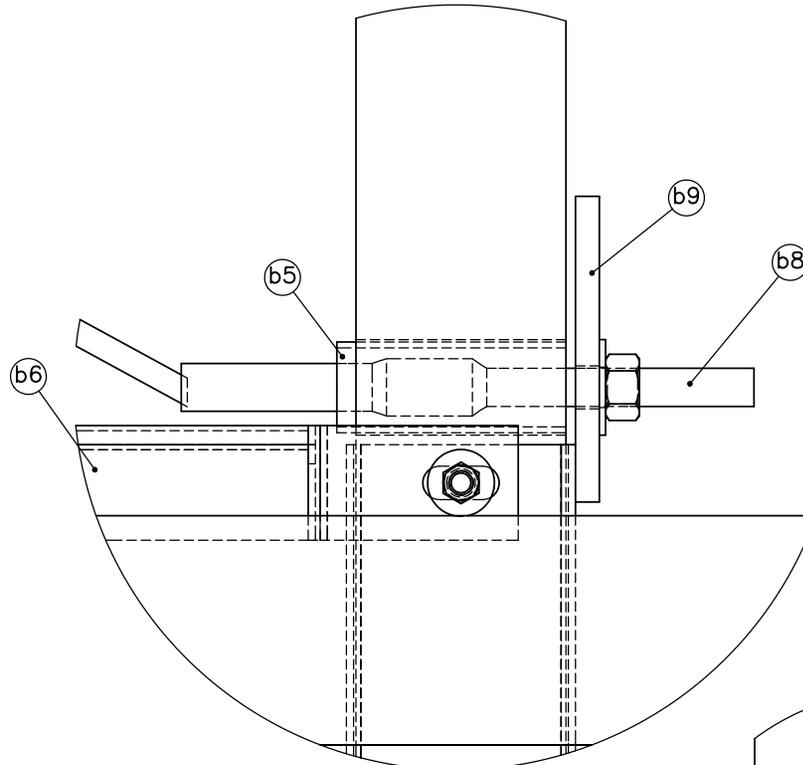
DWG. NAME.
MGSC-6_R5

SCALE: 1:35
UNITS: In./mm

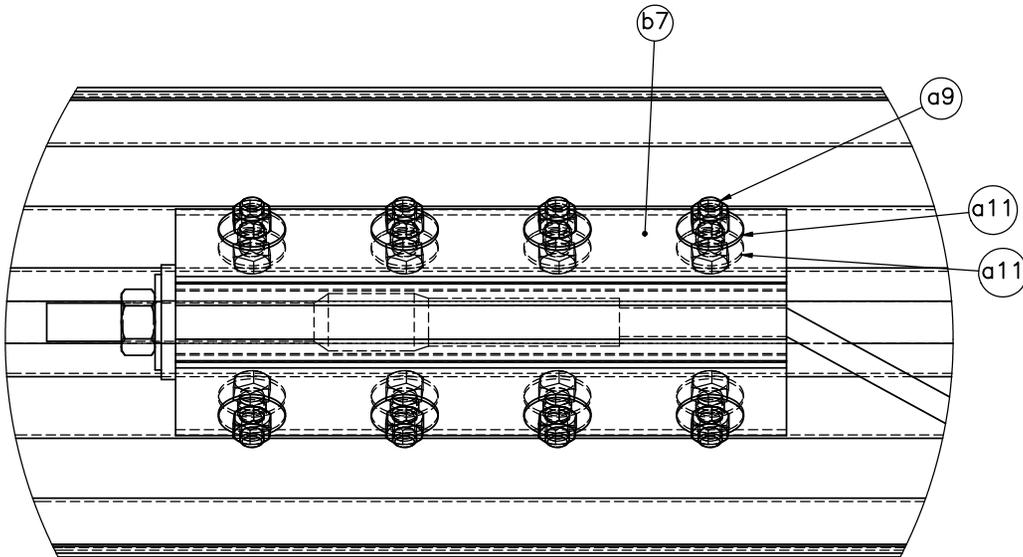
SHEET:
3 of 10
DATE:
6/1/2010
DRAWN BY:
RJT/CDB/
EAJ/MJW
REV. BY:
KAL/RKF



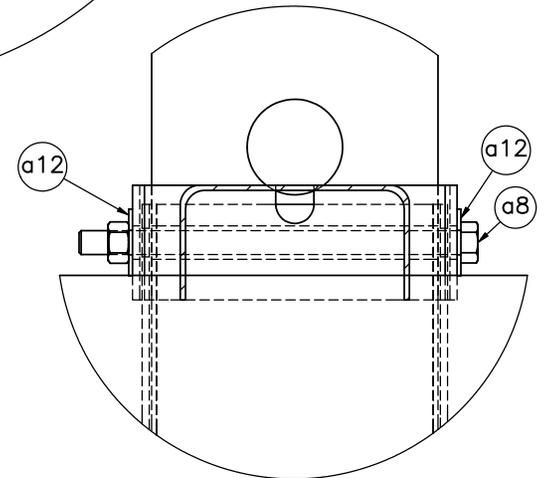
DETAIL H



DETAIL G



DETAIL F



DETAIL I



Midwest Roadside
Safety Facility

MGS with 6-in. Type B
Curb

Anchor Details

DWG. NAME.
MGSC-6_R5

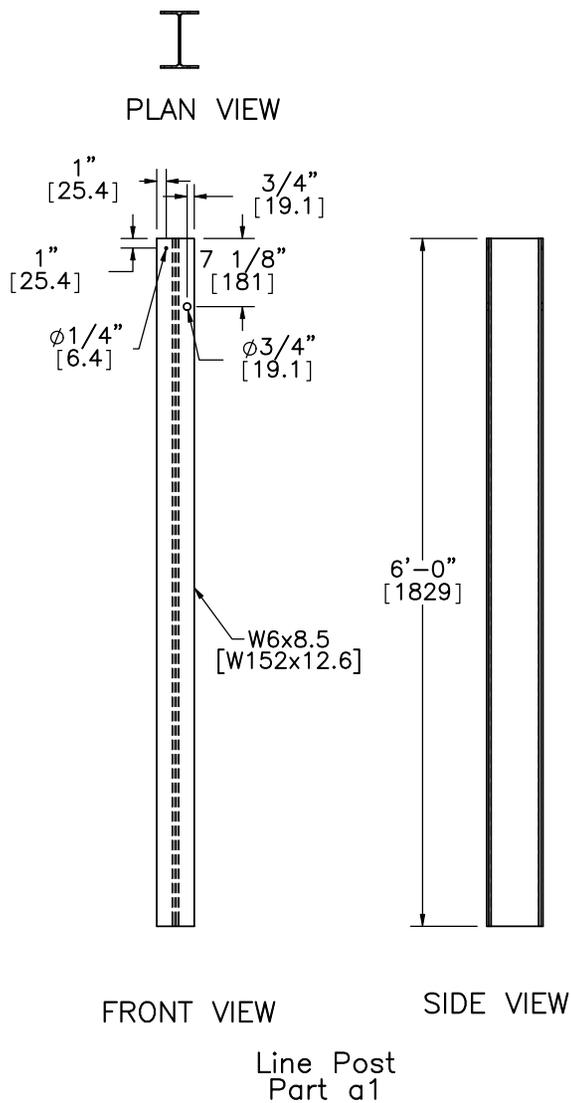
SCALE: 1:5
UNITS: In.[mm]

SHEET:
4 of 10

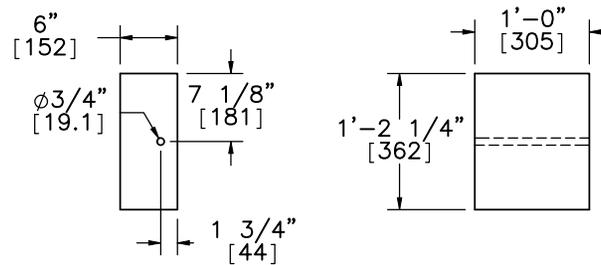
DATE:
6/1/2010

DRAWN BY:
RJT/CDB/
EAJ/MJW

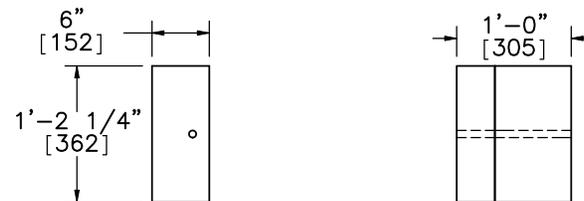
REV. BY:
KAL/RKF



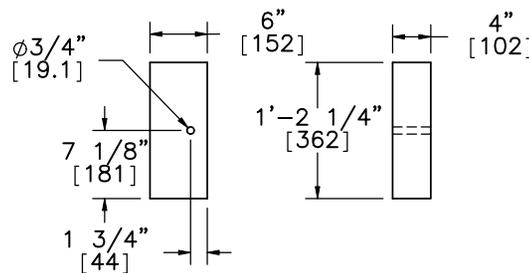
Line Post
Part a1



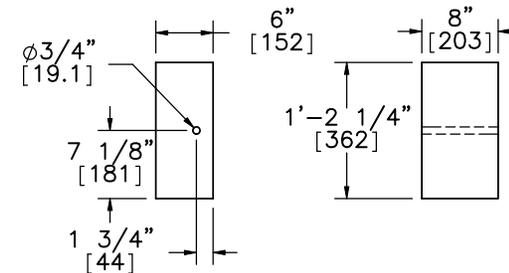
W-Beam Blockout
Part a2



Alternate Blockout Option -
6"x4"x14 1/4" [152x102x362] Blockout
with 6"x8"x14 1/4" [152x203x362] Blockout



6"x4"x14 1/4"
[152x102x362] Blockout



6"x8"x14 1/4"
[152x203x362] Blockout



Midwest Roadside
Safety Facility

MGS with 6-in. Type B
Curb

Post and Blockout Detail

DWG. NAME.
MGSC-6_R5

SCALE: 1:20
UNITS: In./mm

SHEET:
5 of 10

DATE:
6/1/2010

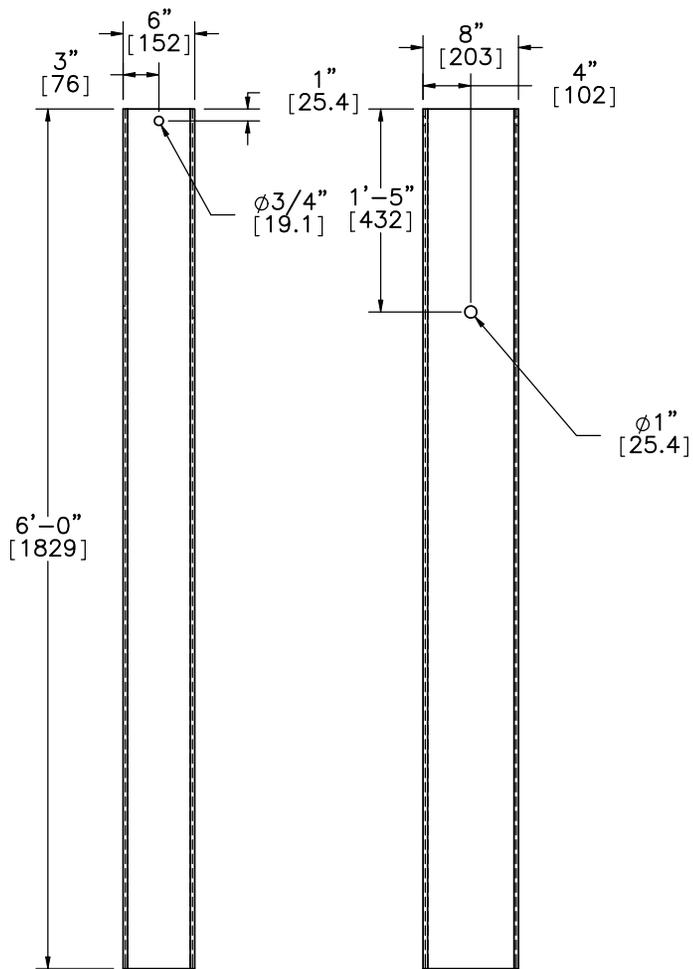
DRAWN BY:
RJT/CDB/
EAJ/MJW

REV. BY:
KAL/RKF

TS 8x6x3/16" [203x152x4.8]



PLAN VIEW



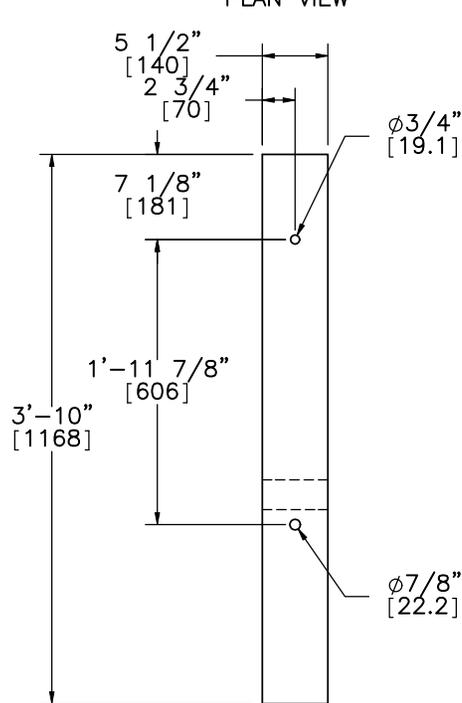
FRONT VIEW

PROFILE VIEW

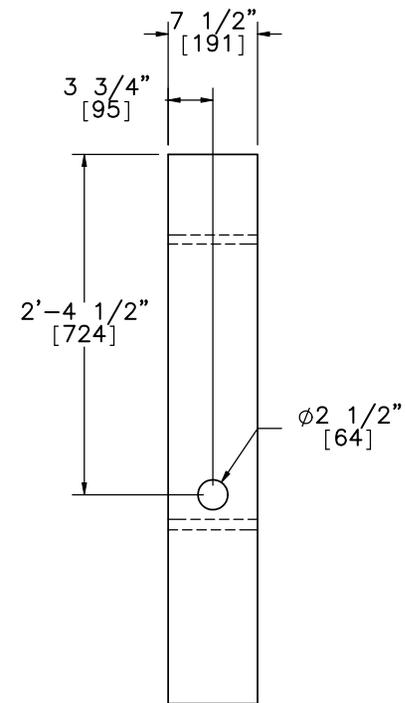
Foundation Tube
Part b1



PLAN VIEW



FRONT VIEW



SIDE VIEW

BCT (MGS) Timber Post
Part b2



Midwest Roadside
Safety Facility

MGS with 6-in. Type B
Curb
BCT Timber Posts &
Foundation Tube Detail

DWG. NAME.
MGSC-6_R5

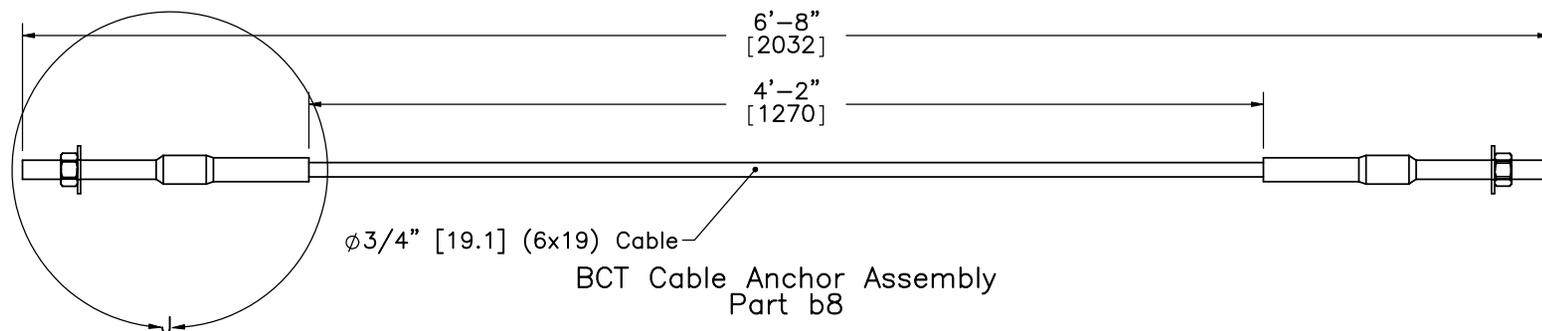
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SHEET:
6 of 10

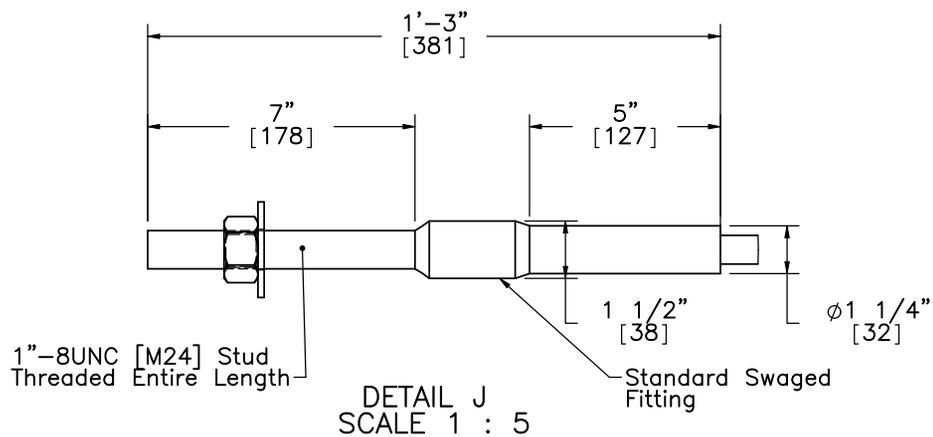
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6/1/2010

DRAWN BY:
RJT/CDB/
EAJ/MJW

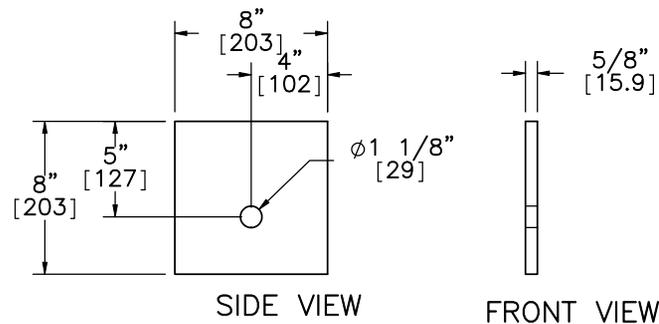
REV. BY:
KAL/RKF



$\phi 3/4$ " [19.1] (6x19) Cable
BCT Cable Anchor Assembly
Part b8



DETAIL J
SCALE 1 : 5



Anchor Cable Bearing Plate
Part b9



Midwest Roadside
Safety Facility

MGS with 6-in. Type B
Curb

BCT Anchor Cable Detail

DWG. NAME.
MGSC-6_R5

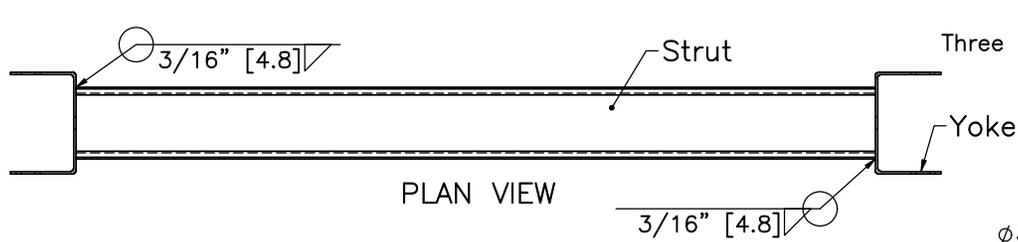
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UNITS: In./mm

SHEET:
7 of 10

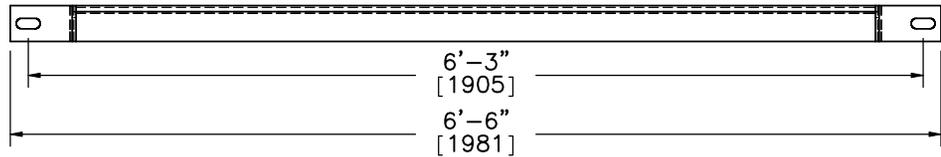
DATE:
6/1/2010

DRAWN BY:
RJT/CDB/
EAJ/MJW

REV. BY:
KAL/RKF

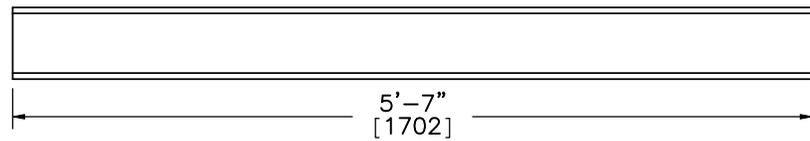


PLAN VIEW

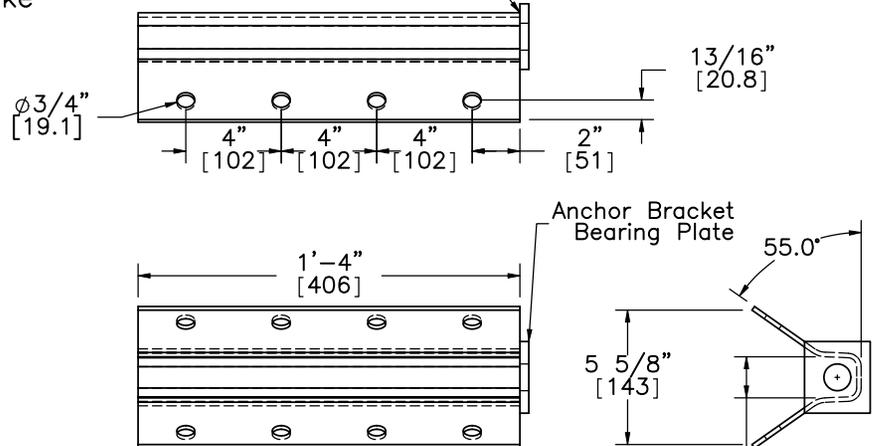
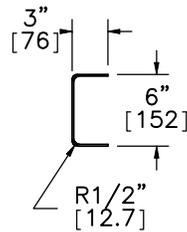


FRONT VIEW

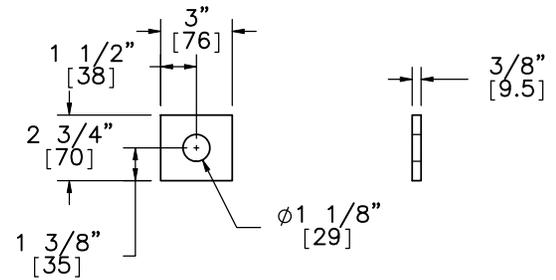
Strut and Yoke Assembly
Part b6



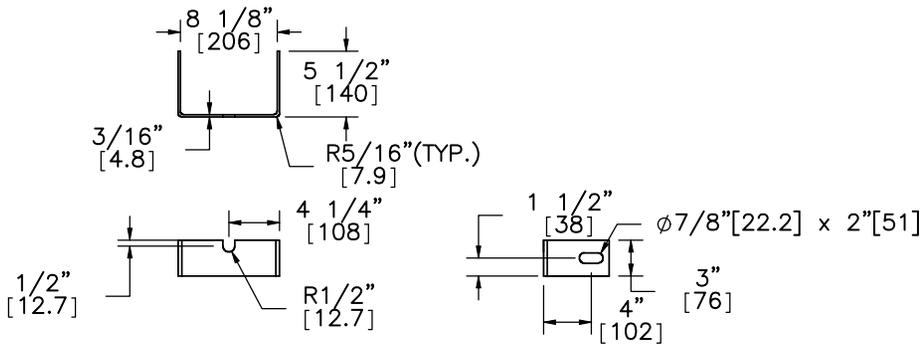
6"x3" [152x76] 10-Gauge
Strut



Anchor Bracket
(FPA01)
Part b7
SCALE 1:8



Anchor Bracket Bearing Plate
SCALE 1:8



Yoke



Midwest Roadside
Safety Facility

MGS with 6-in. Type B
Curb

Ground Strut & Anchor
Bracket Details

DWG. NAME.
MGSC-6_RS

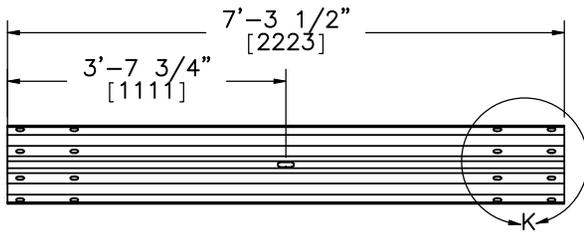
SCALE: 1:16
UNITS: In./mm

SHEET:
8 of 10

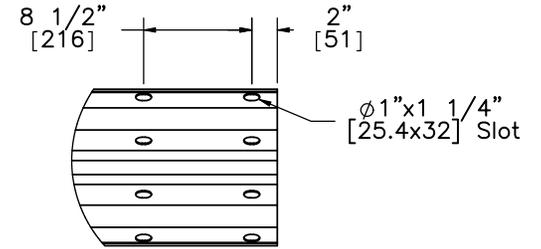
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6/1/2010

DRAWN BY:
RJT/CDB/
EAJ/MJW

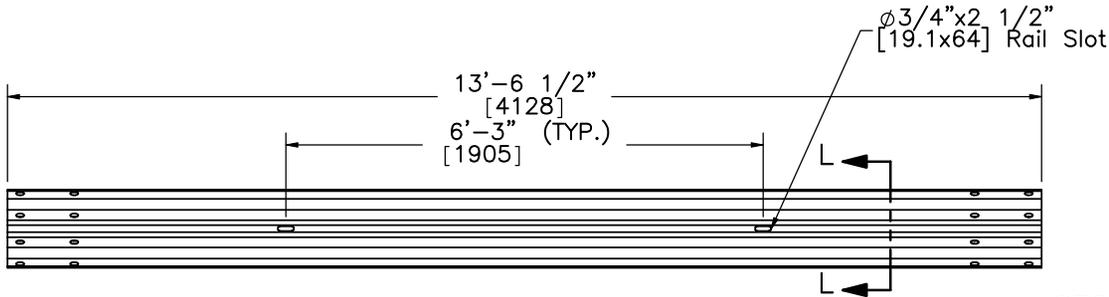
REV. BY:
KAL/RKF



6'-3" [1905] W-Beam Section, 12 gauge [2.7]
Part a5

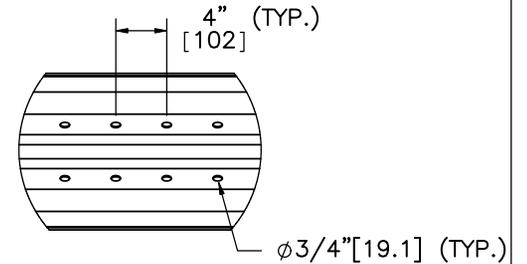


DETAIL K
SCALE 1 : 15

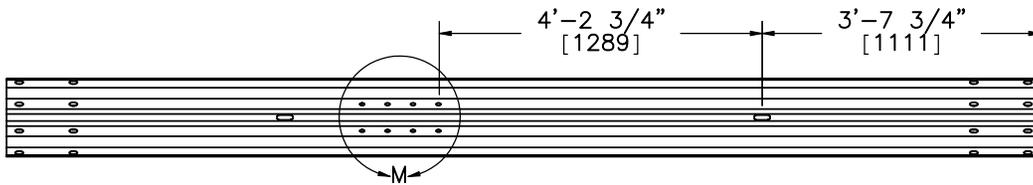


12'-6" [3810] W-Beam Section, 12 gauge [2.7]
Part a3

SECTION L-L



DETAIL M
SCALE 1 : 15



12'-6" [3810] W-Beam Section, 12 gauge [2.7], End Section
Part a4

Note: (1) Part nos. a3 and a4 can also be 25' [7620] sections.



Midwest Roadside
Safety Facility

MGS with 6-in. Type B
Curb

Rail Section Details

DWG. NAME.
MGSC-6_R5

SCALE: 1:30
UNITS: In.[mm]

SHEET:
9 of 10
DATE:
6/1/2010
DRAWN BY:
RJT/CDB/
EAJ/MJW
REV. BY:
KAL/RKF

Item No.	QTY.	Description	Material Specifications	Hardware Guide
a1	25	W6x8.5 [W152x12.6] 72" [1829] long	ASTM A36 Steel	—
a2	25	6x12x14 1/4" [152x305x362] Blockout	SYP Grade No.1 or better	PDB10a–b
a3	12	12'–6" [3810] W–Beam MGS Section	12 gauge [2.7] AASHTO M180	RWMO4a
a4	2	12'–6" [3810] W–Beam MGS End Section	12 gauge [2.7] AASHTO M180	RWM14a
a5	1	6'–3" [1905] W–Beam MGS Section	12 gauge [2.7] AASHTO M180	RWMO1a
a6	4	5/8" [15.9] Dia. x 10" [254] long Guardrail Bolt and Nut	ASTM A307	FBB03
a7	25	5/8" [15.9] Dia. x 14" [356] long Guardrail Bolt and Nut	ASTM A307	FBB06
a8	4	5/8" [15.9] Dia. x 10" [254] long Hex Head Bolt and Nut	ASTM A307	FBX16a
a9	16	5/8" [15.9] Dia. x 1 1/2" [38] long Hex Head Bolt and Nut	ASTM A307	FBX16a
a10	112	5/8" [15.9] Dia. x 1 1/2" [38] long Guardrail Bolt and Nut	ASTM A307	FBB01
a11	44	5/8" [15.9] Dia. Flat Washer	ASTM F436 Grade 1	FWC16a
a12	25	16D Double Head Nail	—	—
b1	4	72" [1829] Foundation Tube	ASTM A500 Gr. B	PTE06
b2	4	BCT Timber Post	SYP Grade No. 1 or better (No knots, 18" [457] above or below ground tension face)	PDF01
b3	4	7/8" [22.2] Dia. x 7 1/2" [191] long Hex Head Bolt and Nut	ASTM A307	FBX22a
b4	8	7/8" [22.2] Dia. Flat Washer	ASTM F436 Grade 1	FWC22a
b5	2	2 3/8" [60] O.D.x 6" [152] long BCT Post Sleeve	ASTM A53 Grade B Schedule 40	FMM02
b6	2	Strut and Yoke Assembly	ASTM A36 Steel Galvanized	—
b7	2	Anchor Bracket Assembly	ASTM A36 Steel Galvanized	FPA01
b8	2	BCT Cable Anchor Assembly	ø3/4" [19] 6x19 IWRC IPS Galvanized Wire Rope	FCA01–02
b9	2	8"x8"x5/8" [203x203x16] Anchor Bearing Plate	ASTM A36 Steel Galvanized	FPB01
c1	1	Curb	Concrete (s/g mix) – Min. 4000 psi [27.6 MPa] Comp. Strength	—
c2	49	#4 Rebar 12" [305] Long	ASTM A615 Grade 40	—
c3	1	#4 Rebar 73' [22.3 m] Long	ASTM A615 Grade 40	—



Midwest Roadside
Safety Facility

MGS with 6–in. Type B
Curb
Bill of Materials

SHEET:
10 of 10

DATE:
6/1/2010

DRAWN BY:
RJT/CDB/
EAJ/MJW

DWG. NAME:
MGSC–6_RS

SCALE: None
UNITS: In.[mm]

REV. BY:
KAL/RKF