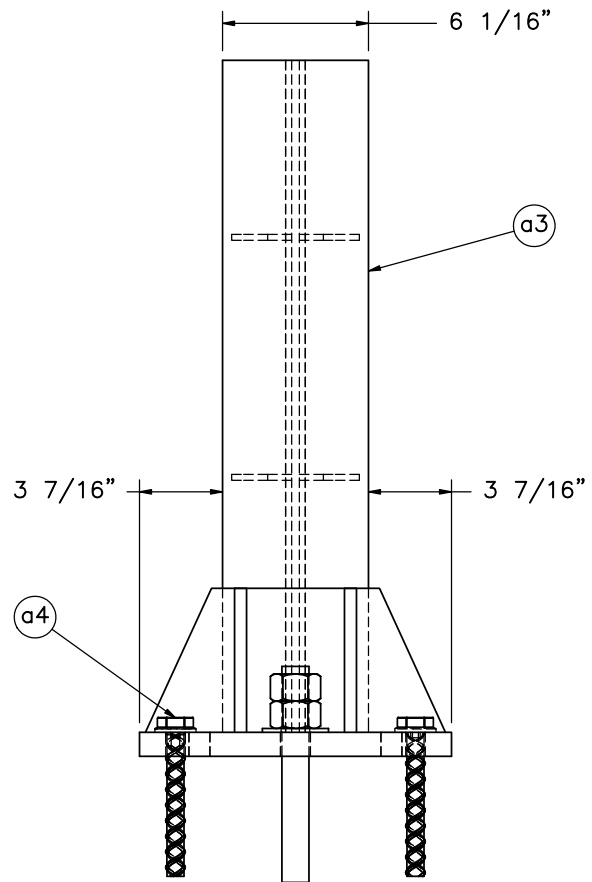
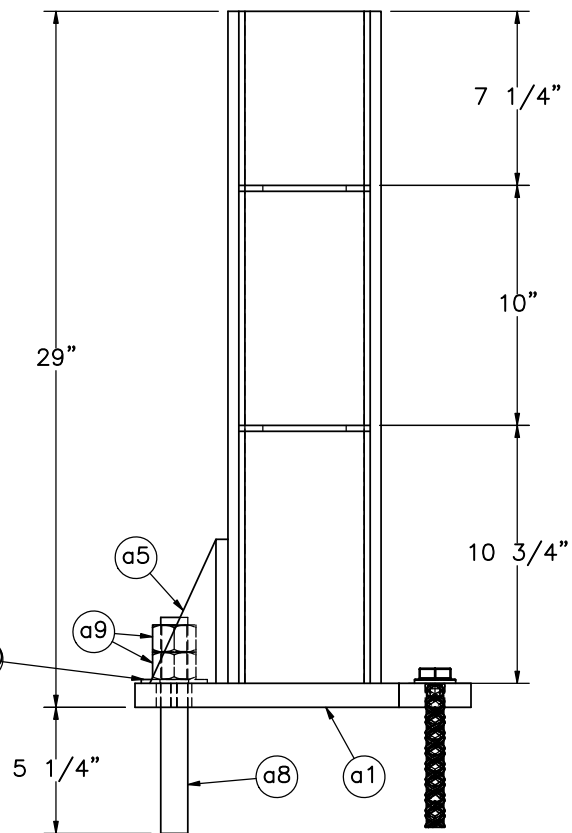
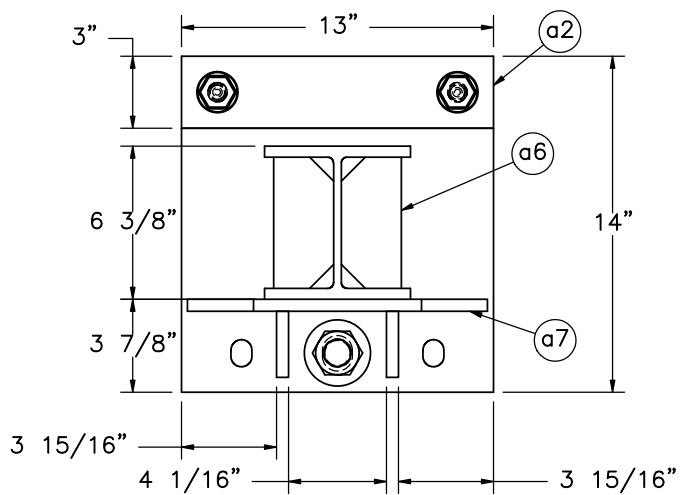




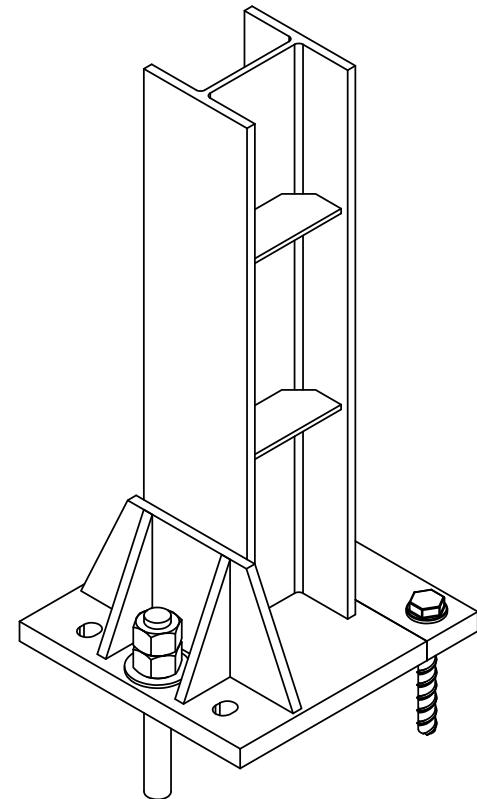
Back View



Side View



Top View



Isometric View



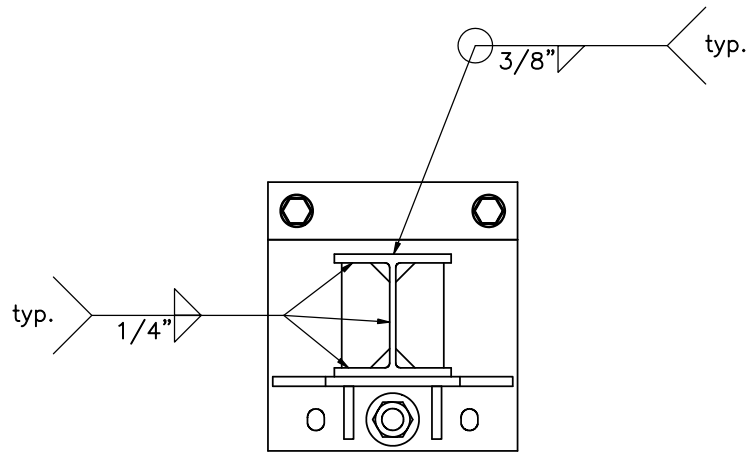
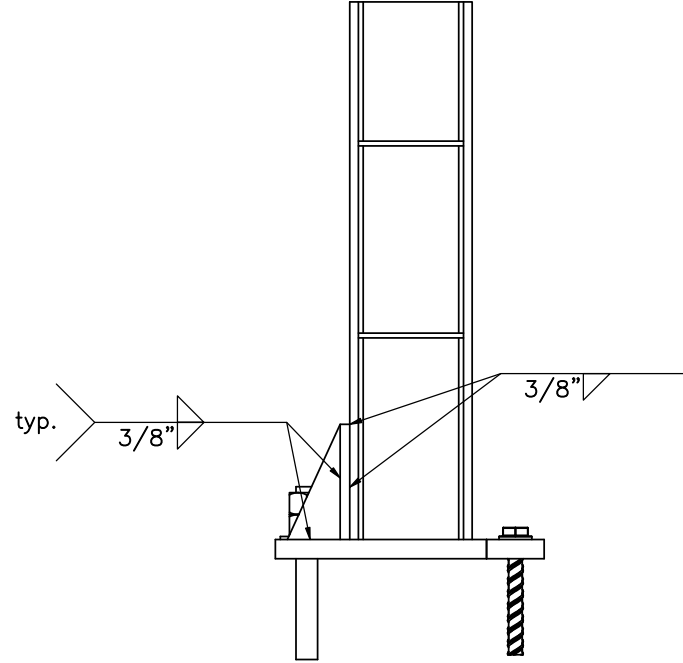
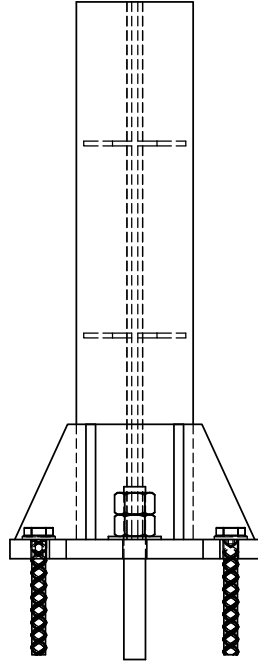
Midwest Roadside  
Safety Facility

Epoxy Anchor Testing  
Tensile Test Fixture

DWG. NAME.  
EpoxyAnchor Tensile\_R3

SCALE: 1:8  
UNITS: Inches

SHEET:  
1 of 10  
DATE:  
05/12/11  
DRAWN BY:  
JGP  
REV. BY:  
RWB



Midwest Roadside  
Safety Facility

## Epoxy Anchor Testing

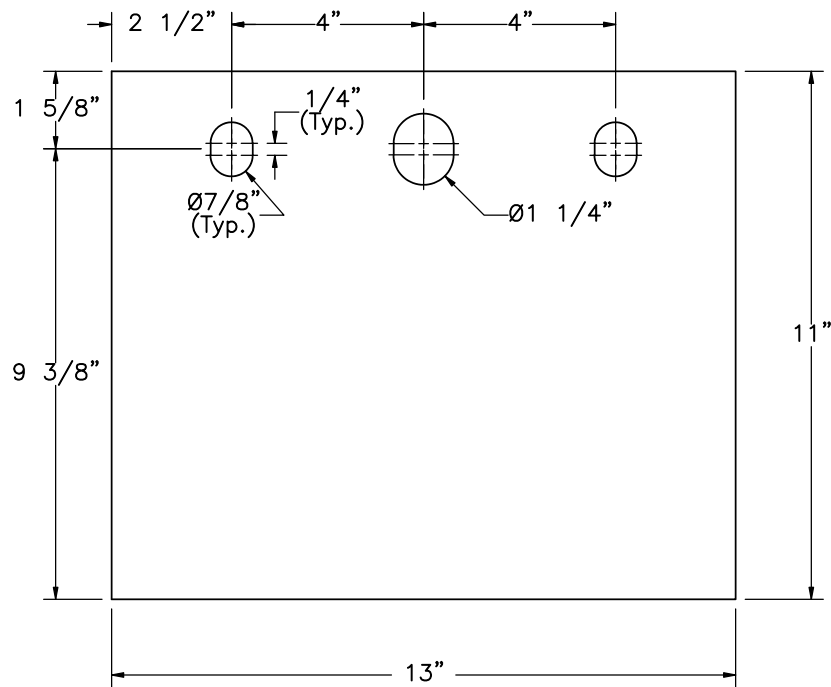
### Weld Details

DWG. NAME.  
EpoxyAnchor Tensile\_R3

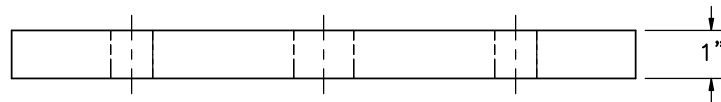
SCALE: 1:10  
UNITS: Inches

SHEET:  
2 of 10  
DATE:  
05/12/11  
DRAWN BY:  
JGP

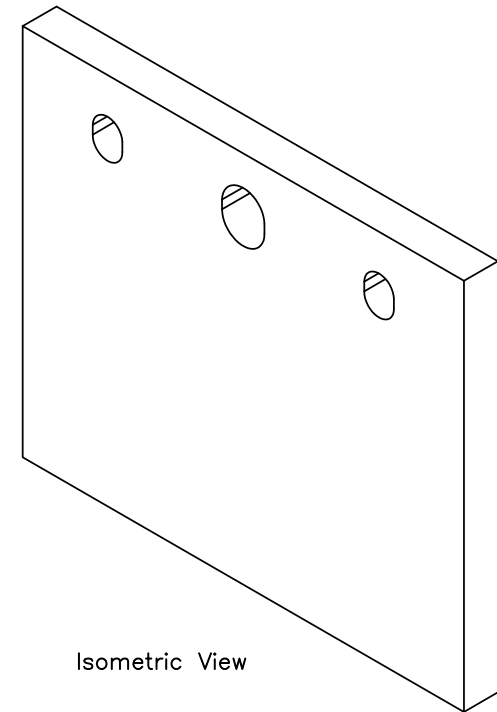
REV. BY:  
RWB



Top View

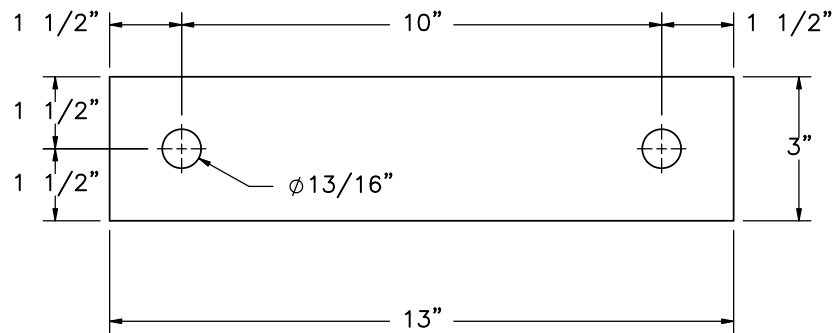


Back View

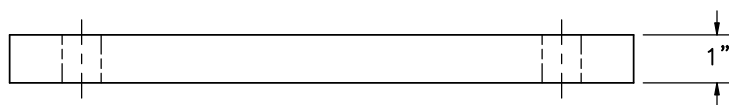
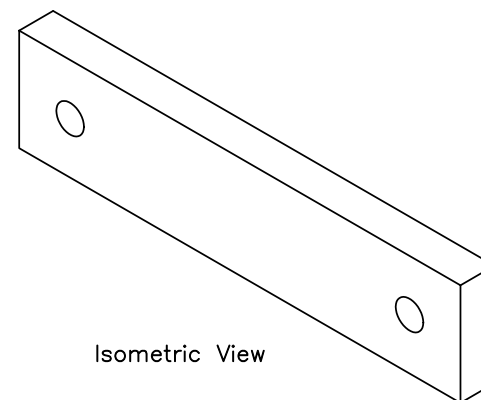


Isometric View

|                                                                                       |                                      |  |                   |
|---------------------------------------------------------------------------------------|--------------------------------------|--|-------------------|
|  | Epoxy Anchor Testing                 |  | SHEET:<br>3 of 10 |
|                                                                                       | Base Plate                           |  | DATE:<br>05/12/11 |
| Midwest Roadside<br>Safety Facility                                                   | DWG. NAME:<br>EpoxyAnchor Tensile_R3 |  | DRAWN BY:<br>JGP  |
|                                                                                       | SCALE: 1:4<br>UNITS: Inches          |  | REV. BY:<br>RWB   |

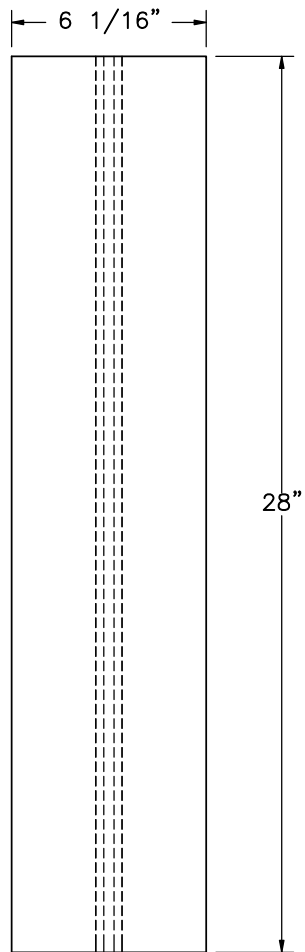


Top View

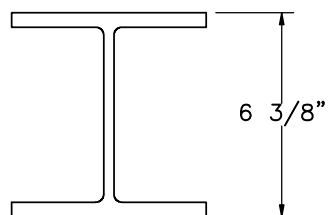


Front View

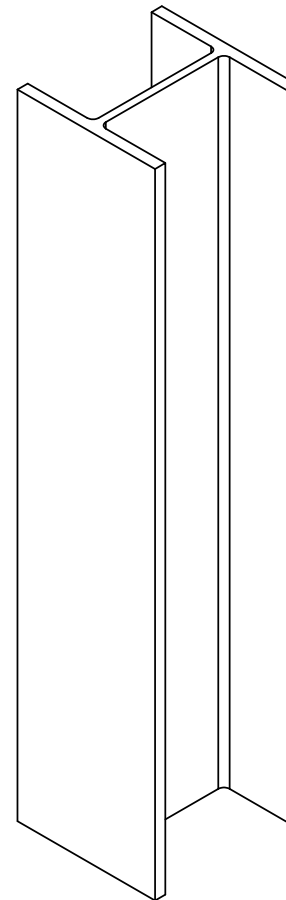
|                                                                                       |                                      |  |                   |
|---------------------------------------------------------------------------------------|--------------------------------------|--|-------------------|
|  | Epoxy Anchor Testing                 |  | SHEET:<br>4 of 10 |
|                                                                                       | Kick Plate                           |  | DATE:<br>05/12/11 |
| Midwest Roadside<br>Safety Facility                                                   | DWG. NAME:<br>EpoxyAnchor Tensile_R3 |  | DRAWN BY:<br>JGP  |
|                                                                                       | SCALE: 1:4<br>UNITS: Inches          |  | REV. BY:<br>RWB   |



Front View



Top View



Midwest Roadside  
Safety Facility

Epoxy Anchor Testing

W6x25

DWG. NAME.  
EpoxyAnchor Tensile\_R3

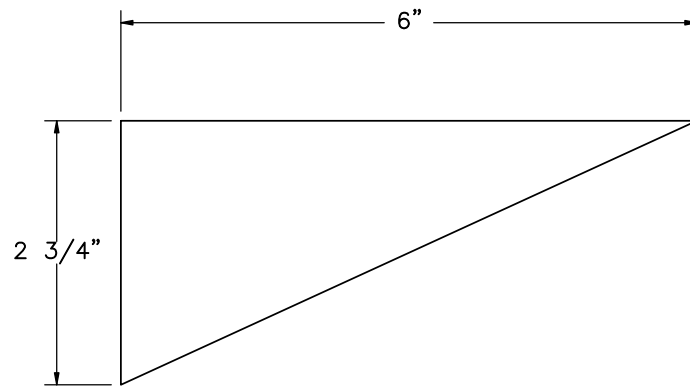
SCALE: 1:6  
UNITS: Inches

SHEET:  
5 of 10

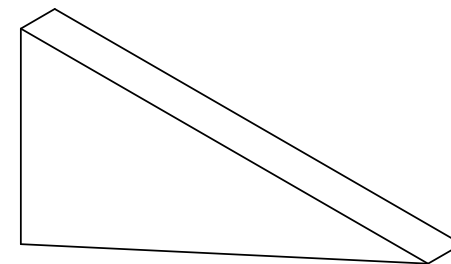
DATE:  
05/12/11

DRAWN BY:  
JGP

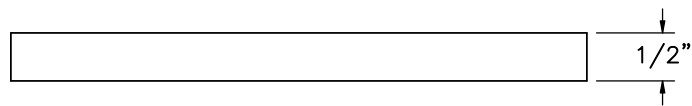
REV. BY:  
RWB



Side View



Isometric View



Front View



Midwest Roadside  
Safety Facility

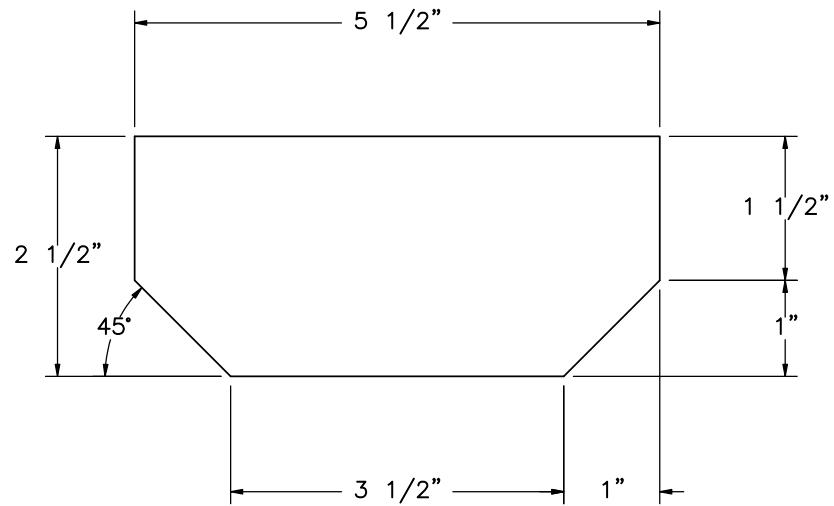
Epoxy Anchor Testing  
Plate Gusset

DWG. NAME:  
EpoxyAnchor Tensile\_R3

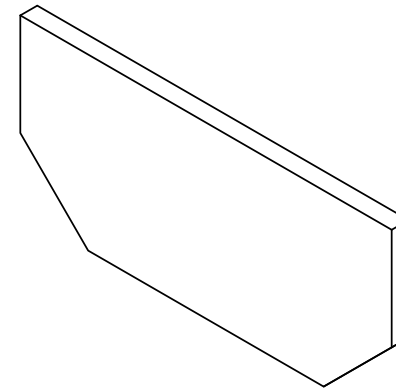
SCALE: 1:2  
UNITS: Inches

SHEET:  
6 of 10  
DATE:  
05/12/11  
DRAWN BY:  
JGP

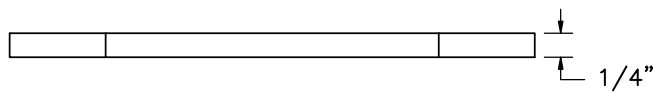
REV. BY:  
RWB



Top View

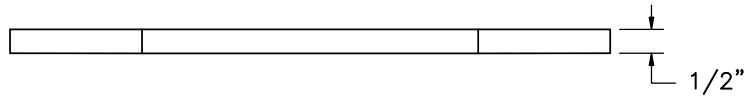


Isometric View

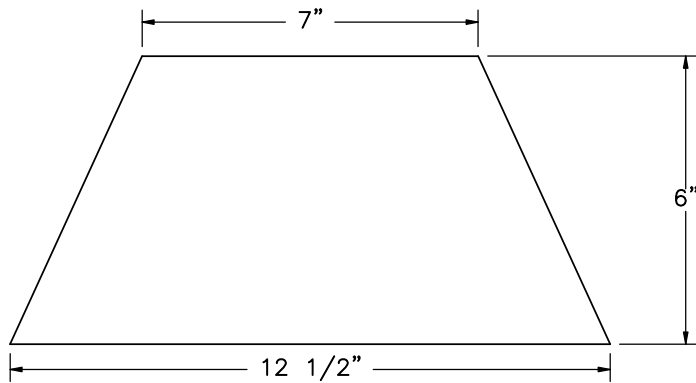


Side View

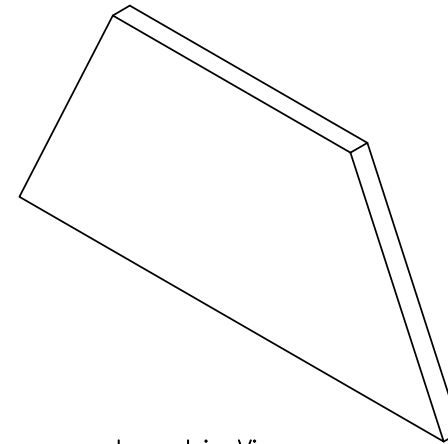
|                                                                                       |                                      |  |                   |
|---------------------------------------------------------------------------------------|--------------------------------------|--|-------------------|
|  | Epoxy Anchor Testing                 |  | SHEET:<br>7 of 10 |
|                                                                                       | Post Gusset                          |  | DATE:<br>05/12/11 |
| Midwest Roadside<br>Safety Facility                                                   | DWG. NAME:<br>EpoxyAnchor Tensile_R3 |  | DRAWN BY:<br>JGP  |
|                                                                                       | SCALE: 1:2<br>UNITS: Inches          |  | REV. BY:<br>RWB   |



Top View



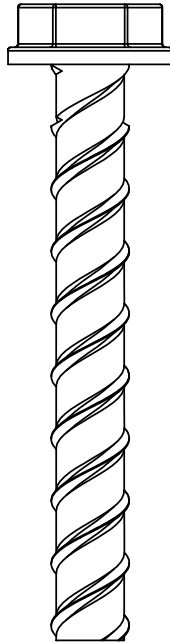
Front View



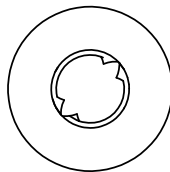
Isometric View

|                                                                                       |                                      |  |                   |
|---------------------------------------------------------------------------------------|--------------------------------------|--|-------------------|
|  | Epoxy Anchor Testing                 |  | SHEET:<br>8 of 10 |
|                                                                                       | Post Stiffener                       |  | DATE:<br>05/12/11 |
| Midwest Roadside<br>Safety Facility                                                   | DWG. NAME:<br>EpoxyAnchor Tensile_R3 |  | DRAWN BY:<br>JGP  |
|                                                                                       | SCALE: 1:4<br>UNITS: Inches          |  | REV. BY:<br>RWB   |

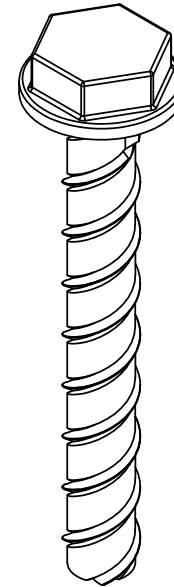




Side View



Bottom View



Isometric View

Notes: (1) Powers Fasteners  $\phi$  3/4" x 6" long Wedge Bolt Screw Anchor

|                                                                                       |                                      |  |                   |
|---------------------------------------------------------------------------------------|--------------------------------------|--|-------------------|
|  | Epoxy Anchor Testing                 |  | SHEET:<br>9 of 10 |
|                                                                                       | Powers Fasteners Wedge Bolt          |  | DATE:<br>05/12/11 |
| Midwest Roadside<br>Safety Facility                                                   | DWG. NAME:<br>EpoxyAnchor Tensile_R3 |  | DRAWN BY:<br>JGP  |
|                                                                                       | SCALE: 1:2<br>UNITS: Inches          |  | REV. BY:<br>RWB   |

# Epoxy Anchor Tension Test Fixture

| Item No. | QTY. | Description                        | Material Spec                            |
|----------|------|------------------------------------|------------------------------------------|
| a1       | 1    | Base Plate 13x11x1                 | ASTM A36                                 |
| a2       | 1    | Kick Plate 13x3x1                  | ASTM A36                                 |
| a3       | 1    | Post W6x25x28                      | ASTM A992 or ASTM A572 (50 ksi strength) |
| a4       | 2    | Wedge Bolt $\phi$ 3/4 x 6 in. long | Powers Fasteners                         |
| a5       | 2    | Plate Gusset 6x2.75x0.5            | ASTM A36                                 |
| a6       | 4    | Post Gusset 5.5x2.5x0.25           | ASTM A36                                 |
| a7       | 1    | Post Stiffener 12.5x6x0.5          | ASTM A36                                 |
| a8       | 1    | 1 1/8" [29] dia. Threaded Rod      | A307                                     |
| a9       | 2    | 1 1/8" [29] Heavy Hex Nut          | A563 DH                                  |
| a10      | 1    | 1 1/8" [29] Dia. Flat Washer       | ASTM F436 Grade 1                        |



Midwest Roadside  
Safety Facility

Epoxy Anchor Testing  
Bill of Materials

DWG. NAME.  
EpoxyAnchor Tensile\_R3

SCALE: None  
UNITS: Inches

SHEET:  
10 of 10  
DATE:  
05/12/11  
DRAWN BY:  
JGP  
REV. BY:  
RWB