**GENERAL NOTES:**

1. STEEL POST SHALL CONFORM TO THE REQUIREMENTS OF ASTM A570, GRADE 60 OR MARVIN STEEL COMPANY GRADE SP-80.
2. AFTER FABRICATION, POST SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH MORTGAGE 1111 (ASTM A123).
3. THE BASE POST MAY HAVE SLOTTED HOLE 8.5 X 13 FOR THE FIRST AND FIFTH HOLE.

**STEEL FLANGED CHANNEL**

**TOP OR BASE POST**

**ALTERNATE STIFFENER**

AS MANUFACTURED BY ALUMINUM EXTENSION CORPORATION 700 Box 1923, Guaynabo, Puerto Rico 00965-1923

**GENERAL NOTES:**

1. STIFFENER SHALL CONFORM TO ASTM B-209, ALLOY 6063 T-5

**NOTE APPLICABLE TO ALL SMALL TRAFFIC SIGNS DRAWINGS:**

1. ALL DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE SPECIFIED. DIMENSIONS GIVEN IN INCHES SHALL BE INDICATED WITH A.

2. SYSTEMS IN ENGLISH UNITS ARE ACCEPTABLE.

3. DIAMETER SHALL BE INDICATED WITH "D".

4. REFLECTIVE SHEETING USED ON ALL SIGNS SHALL CONFORM TO ASTM D4953. TYPE II, THE BACKING SHALL BE CLASS 1 OR 2.

**NOTE APPLICABLE TO ALL BASE TO TOP POST CONNECTION DETAILS:**

1. CONTRACTORS, SUBCONTRACTORS OR SUPPLIERS WHO WISH TO INCLUDE THEIR PRODUCTS INTO THE APPROVED LIST OF COUPPLINGS BETWEEN THE BASE AND TOP POST MUST SUBMIT THE FOLLOWING INFORMATION FOR CONSIDERATION BY THE AUTHORITY: COPY OF P&ID LETTER OF ACCEPTANCE THAT THE DEVICE COMPLIES WITH THE HOUSP REPORT 38G REQUIREMENTS, FULL DESCRIPTION AND DRAWINGS OF THE COUPLER INCLUDING DIMENSIONS OF ALL COMPONENTS AND COMPLETE MATERIAL DESCRIPTION OF THE BASE METAL, GALVANIZING, FASTENERS AND OTHER REQUIRED INFORMATION.

**EFFECTIVE DATE: JULY 2000**
**GENERAL NOTES:**

1. The steel flat plate shall conform with the requirements of ASTM A250, Grade 3, or ASTM A36.

2. The contractor may use aluminum flat plate as an alternate. Alternate flat plate shall conform to ASTM B-221, Alloy 611. The contractor shall provide necessary holes to complete installation as a subsidiary obligation.

3. After all punching, drilling, stamping and welding is complete, the steel flat plate shall be zinc-coated by the hot-dip process according to ASTM 1711 (ASTM A123).

4. Aluminum or steel flat plate thickness shall be 1/8".

5. The contractor shall use flat plates for post and stiffener connections as a subsidiary obligation.

6. The contractor shall place at least two 5/8" aluminum flat head machine screws with nuts and lock washers per each post.

**EFFECTIVE DATE: J ULY 2000**
GENERAL NOTES APPLICABLE TO ALL SMALL TRAFFIC SIGNS STANDARD DRAWINGS

1. NO SPLICES IN SIGN PLATES SHALL BE PERMITTED WHEN SIGN DIMENSIONS ARE 1200 (4') X 1200 (4') MILLIMETERS OR LESS.

2. NO SPLICES IN THE REFLECTIVE SHEETING WILL BE PERMITTED WHEN THE SIGN HEIGHT IS 1200 MILLIMETERS (4') OR LESS. NO REFLECTIVE SHEETING SPLICES WILL BE PERMITTED IN DIAMOND SIGNS WITH DIMENSIONS OF 1200 MILLIMETERS (4') OR LESS. ON SIGNS WITH HEIGHTS IN EXCESS OF 1200 MILLIMETERS (4'), A SINGLE HORIZONTAL SPLICE WILL BE PERMITTED. THE SPLICE UPPER PANEL SHALL OVERLAP 3/8" MAX. THE LOWER PANEL.

3. SIGN PLATES SHALL CONFORM TO ASTM B-209, ALLOYS 5052 H−32, 5052 H−36, 5052 H−38, 5086 H−34, 5154 H−36 OR 6061 T-6.

4. ALL TOP POSTS AND BASE POSTS SHALL BE CONTINUOUS IN LENGTH.

5. THE SIGN BACKGROUND, LEGEND AND BORDER SHALL BE APPLIED BY THE SILK SCREEN PROCESS, BY DIRECT APPLICATION OF CUT OUT CHARACTERS, OR BY THE APPLICATION OF ELECTRONIC CUTTABLE FILM, SERIES 1170, AS MANUFACTURED BY 3M OR ELECTRONIC CUTTABLE TRANSPARENT OVERLAY FILM, SERIES 4800, AS MANUFACTURED BY STIMSONITE. REGARDLESS OF THE METHOD OF FABRICATION, THE BACKGROUND, LEGEND AND BORDER SHALL MEET THE REFLECTIVITY STANDARDS OF ASTM D4956, TYPE III.

6. SIGN PLATES THICKNESS SHALL BE AS FOLLOWS:

<table>
<thead>
<tr>
<th>MINIMUM PLATE THICKNESS</th>
<th>PLATE AREA</th>
</tr>
</thead>
<tbody>
<tr>
<td>IN (MM)</td>
<td>SQF (SQM)</td>
</tr>
<tr>
<td>1/16&quot; (1.5)</td>
<td>UP TO 10.8 (UP TO 1.00)</td>
</tr>
<tr>
<td>1/8&quot; (3.175)</td>
<td>10.85 TO 53.8 (1.01 TO 5.00)</td>
</tr>
</tbody>
</table>

7. THE CONTRACTOR SHALL DRILL ALL ADDITIONAL HOLES. AS A SUBSIDIARY OBLIGATION, AS NECESSARY TO ACCOMMODATE MOUNTING REQUIREMENTS. THE HOLE DIAMETER SHALL NOT EXCEED 1/16" THE BOLT DIAMETER.

8. THE CONTRACTOR SHALL USE ON ALL BOLTS WHICH CONTACT THE REFLECTIVE SHEETING, A NYLON, NEOPRENE OR FIBER WASHER BETWEEN THE REFLECTIVE SHEETING SIGN FACE AND THE BOLT HEAD.


10. REFLECTIVE SHEETING FROM DIFFERENT MANUFACTURERS SHALL NOT BE MIXED WITHIN THE SAME SIGN PANEL. SIGN PANELS FABRICATED WITH REFLECTIVE SHEETING FROM DIFFERENT MANUFACTURERS SHALL NOT BE MIXED WITHIN THE SAME SIGN SUPPORT.
### OCTAGONS (STOP)

<table>
<thead>
<tr>
<th>Inches</th>
<th>Millimeters</th>
</tr>
</thead>
<tbody>
<tr>
<td>24 x 24</td>
<td>600 x 600</td>
</tr>
<tr>
<td>30 x 30</td>
<td>750 x 750</td>
</tr>
<tr>
<td>36 x 36</td>
<td>900 x 900</td>
</tr>
<tr>
<td>48 x 48</td>
<td>1200 x 1200</td>
</tr>
</tbody>
</table>

### TRANGLES (YIELD)

<table>
<thead>
<tr>
<th>Inches</th>
<th>Millimeters</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 x 30 x 30</td>
<td>750 x 750 x 750</td>
</tr>
<tr>
<td>36 x 36 x 36</td>
<td>900 x 900 x 900</td>
</tr>
<tr>
<td>48 x 48 x 48</td>
<td>1200 x 1200 x 1200</td>
</tr>
<tr>
<td>60 x 60 x 60</td>
<td>1500 x 1500 x 1500</td>
</tr>
</tbody>
</table>

### SQUARES AND DIAMONDS

<table>
<thead>
<tr>
<th>Inches</th>
<th>Millimeters</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 x 18</td>
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<tr>
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<tr>
<td>30 x 30</td>
<td>750 x 750</td>
</tr>
<tr>
<td>36 x 36</td>
<td>900 x 900</td>
</tr>
<tr>
<td>48 x 48</td>
<td>1200 x 1200</td>
</tr>
<tr>
<td>60 x 60</td>
<td>1500 x 1500</td>
</tr>
</tbody>
</table>

### RECTANGLES (VERTICAL)

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>12 x 18</td>
<td>300 x 450</td>
</tr>
<tr>
<td>18 x 24</td>
<td>450 x 600</td>
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<tr>
<td>24 x 30</td>
<td>600 x 750</td>
</tr>
<tr>
<td>30 x 36</td>
<td>750 x 900</td>
</tr>
<tr>
<td>36 x 48</td>
<td>900 x 1200</td>
</tr>
<tr>
<td>48 x 60</td>
<td>1200 x 1500</td>
</tr>
</tbody>
</table>

### CIRCLES (RR)

<table>
<thead>
<tr>
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<th>Millimeters</th>
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<tbody>
<tr>
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<td>750 Dia.</td>
</tr>
<tr>
<td>36&quot; Dia.</td>
<td>900 Dia.</td>
</tr>
</tbody>
</table>

### RECTANGLES (HORIZONTAL)

<table>
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<th>Millimeters</th>
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<tr>
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</tr>
<tr>
<td>24 x 12</td>
<td>600 x 300</td>
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<td>30 x 15</td>
<td>750 x 375</td>
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<tr>
<td>30 x 24</td>
<td>750 x 600</td>
</tr>
<tr>
<td>36 x 12</td>
<td>900 x 300</td>
</tr>
<tr>
<td>36 x 24</td>
<td>900 x 600</td>
</tr>
<tr>
<td>48 x 24</td>
<td>1200 x 600</td>
</tr>
<tr>
<td>48 x 36</td>
<td>1200 x 900</td>
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<tr>
<td>60 x 24</td>
<td>1500 x 600</td>
</tr>
<tr>
<td>60 x 36</td>
<td>1500 x 900</td>
</tr>
</tbody>
</table>

---

**Effective Date:** May 1998

**Commonwealth of Puerto Rico**
**Department of Transportation and Public Works**
**Highway and Transportation Authority**

**Small Traffic Signs Conversion Table Metric Equivalents**
GENERAL NOTES:

1. NO SPLICES IN SIGN PLATES SHALL BE PERMITTED
   WHEN SIGN DIMENSIONS ARE 1200 (2') X 1200 (2') OR LESS.

2. THE CONTRACTOR SHALL ADJUST THE LENGTH OF CARRIAGE BOLT. THE BOLT SHALL PENETRATE THE ENTIRE THICKNESS OF THE PLATE.

SIGN PLATE SPLICES

DETAIL A
H SUPPORT MOUNTING
1. FOR SIGN PANELS WITH A SIGN PANEL AREA
   EQUAL OR LESS THAN 2.5 SQUARE METERS,
   28 SQUARE FEET
2. FOR SIGN PANELS WITH A SIGN PANEL AREA
   GREATER THAN 28 SQF USE GROUND MOUNTED
   BREAKAWAY INSTALLATION.

CANTILEVER SUPPORT MOUNTING
1. FOR SQUARE, RECTANGULAR, OCTAGONAL, DIAMOND
   AND EQUIANGULAR TRIANGLE SIGN PANELS WITH A
   MAXIMUM HORIZONTAL WIDTH GREATER THAN 600 (24")
2. FOR OCTAGONAL, DIAMOND, TETRAHEDRAL AND CIRCULAR
   SIGN PANELS WITH A MAXIMUM HORIZONTAL WIDTH
   EQUAL OR LESS THAN 600 (24")

SINGLE SUPPORT MOUNTING
1. FOR SQUARE AND RECTANGULAR SIGN PANELS WITH A
   MAXIMUM HORIZONTAL WIDTH EQUAL OR LESS THAN 600
   (24")
2. FOR EQUILATERAL TRIANGLE SIGN PANEL USE SINGLE
   SUPPORT MOUNTING.

GENERAL NOTES:
1. VERTICAL CLEARANCE TO BUMPER OF LOWEST SIGN PANEL SHALL BE
   2.130 (7'-0") TO 2.500 (7'-10") FROM SIDEWALK GRADE
2. THE CONTRACTOR MAY USE STEEL FLANGED CHANNEL POST OR SQUARE
   STEEL POST
3. THE FOUNDATIONS SHALL BE AS INDICATED FOR STEEL FLANGED CHAN
   NEAL POSTS AND SQUARE STEEL POST CONNECTOR SHALL BE AS INDICATED.
   FLANGED CHAN
4. THE CONTRACTOR SHALL USE FLAT PLATES FOR POST TO STIFFENERS
   CONNECTION.
5. ALL TOP POSTS AND BASE POSTS SHALL BE CONSTRUCTED IN LENGTH
6. THE MAXIMUM LENGTH PERMITTED FOR SPOKE AND CANTILEVER SUPPORT MOUN
   TING SHALL BE 8 SQUARE FEET.
7. STIFFENERS SHALL BE SQUARE POST, STEEL FLANGED CHANNEL OR ALTERNATE
   STIFFENER.
8. MINIMUM OFFSET FROM CURB LINE TO SIGN PANEL SHALL BE 600 (24") MIN.
9. THE CONTRACTOR SHALL LOCATE POST AND STIFFENERS AS PER TYPICAL POST LOCATI
   ON FOR MOUNTING ON SIDEWALK AREAS WITH OR WITHOUT PLANTING STRIP.

EFFECTIVE DATE: JULY 2000

COMMONWEALTH OF PUERTO RICO
DEPARTMENT OF TRANSPORTATION
AND PUBLIC WORKS
HOMELAND SECURITY AUTHORITY

SMALL TRAFFIC SIGNS
STEEL FLANGED CHANNEL AND
SQUARE STEEL POST
MOUNTING ON SIDEWALK AREAS
WITH PLANTING STRIP

RECOMMEND (4-11)
DEPUTY ENG. MGR. FOR TRAFFIC AND ROAD OFFICER
DATE: 7-15-08

EXECUTIVE DIRECTOR
DATE: 9-1-08

STD. STD.
STS.
DWG. 11 OF 25
TYPICAL POST LOCATION FOR H SUPPORT MOUNTING

TYPICAL POST LOCATION FOR CANTILEVER SUPPORT MOUNTING
GENERAL NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INCREASING OR DECREASING THE LENGTH OF POST TO ACHIEVE THE MOUNTING HEIGHT ABOVE FINISH GRADE OF THE NEAREST LANE.

2. THE CONTRACTOR MAY USE STEEL FLANGED CHANNEL POST OR SQUARE STEEL POST.

3. FOUNDATION SHALL BE AS STEEL FLANGED CHANNEL AND SQUARE STEEL POST FOUNDATION DETAILS STANDARD DRAWINGS.

4. THE CONTRACTOR SHALL USE PLATE PLATES FOR POST TO SUPPORT CONNECTION.

5. ALL TOP POSTS AND BASE POSTS SHALL BE CONTINUOUS IN LENGTH.

6. THE CONTRACTOR SHALL BE RESPONSIBLE TO DETERMINE THE NUMBER OF POSTS BASED UPON THE SIGN PANEL AREA, IN CONFORMANCE WITH THE FOLLOWING TABLE:

<table>
<thead>
<tr>
<th>NUMBER OF POSTS</th>
<th>MAXIMUM SIGN AREA (SQUARE FEET)</th>
<th>MAXIMUM SIGN AREA (SQUARE METER)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4</td>
<td>0.37</td>
</tr>
<tr>
<td>2</td>
<td>16</td>
<td>1.50</td>
</tr>
<tr>
<td>3</td>
<td>25</td>
<td>2.52</td>
</tr>
<tr>
<td>4</td>
<td>36</td>
<td>3.55</td>
</tr>
</tbody>
</table>

7. THE CONTRACTOR SHALL LOCATE POSTS AS PER TYPICAL POST LOCATION STANDARD DRAWING.

8. VERTICAL CLEARANCE TO BOTTOM OF LOWEST SIGN PANEL SHALL BE 2.13 (7'-8") TO 2.300 (7'-6") FROM THE FINISH GRADE OF THE NEAREST LANE.
NOTES:

1. To determine the number of posts, see notes on steel flanged channel and square steel post, rural mounting dimensions drawings.

2. Stiffeners shall be square post, steel flanged channel, or alternate stiffener.

3. The contractor shall use flat plates for post to stiffeners connection.

4. Maximum deviation from vertical for any component, in any direction, shall be 1/8 inch per foot.

5. Maximum deviation from horizontal for any component, in any direction, shall be 1/8 inch per foot.
CUT SECTIONS

EMBANKMENTS WITH SLOPES 3:1 OR FLATTER

SECTION WITH GUARD RAIL

GENERAL NOTES:
1. FOR ORIENTATION OF SIGNS SEE ORIENTATION DETAILS.
2. OFFSET APPLIES TO NEAR POST OR TO SINGLE POST.
   SIDEWALK SIGN HAS ONLY ONE POST. FOR SECTION WITH
   GUARD RAIL, THE OFFSET APPLIES TO THE BORDER
   OF SIGN PANEL.
3. POST SHOWN ARE FOR ILLUSTRATIVE PURPOSE ONLY.
   NUMBER OF POSTS SHALL BE AS SHOWN IN "MOUNTING
   MOUNTING OR MOUNTING ON CRASH AREA" STANDARD DRAWING.

ORIENTATION OF SIGNS
GENERAL NOTES:
1. FOR ORIENTATION OF SIGNS SEE ORIENTATION DETAILS.
2. OFFSET APPLIES TO NEAR POST OR TO SINGLE POST WHEN SIGN HAS ONLY ONE POST. FOR SECTION WITH GUARD RAIL, THE OFFSET APPLIES TO THE BORDER OF SIGN PANEL.
3. POST SHOWN ARE FOR ILLUSTRATIVE PURPOSE ONLY. NUMBER OF POSTS SHALL BE AS SHOWN ON "NUKAN MOUNTING ON MOUNTING ON CRAGS AREA" STANDARD DRAWING.
CUT SECTIONS

EMBANKMENTS WITH SLOPES 3:1 OR FLATTER

GENERAL NOTES:
1. FOR ORIENTATION OF SIGN SEE ORIENTATION DETAILS.
2. OFFSET APPLIES TO NEAR POST OR TO SINGLE POST WHEN SIGN HANGS ONLY ONE POST. FOR SECTION WITH GUARD RAIL, THE OFFSET APPLIES TO THE BORDER OF SIGN PANEL.
3. POST SHOWN ARE FOR ILLUSTRATIVE PURPOSE ONLY. NUMBER OF POSTS SHALL BE AS SHOWN ON "RURAL MOUNTING OR MOUNTING ON GRASS" STANDARD DRAWING.

EFFECTIVE DATE: DECEMBER 1999

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF TRANSPORTATION
AND PUBLIC WORKS
HIGHWAYS AND TRANSPORTATION AUTHORITY

SMALL TRAFFIC SIGNS
OFFSET DRAWINGS
HIGHWAYS WITH MINIMUM RIGHT OF WAY AND CROSS SECTION

DATE REVISION BY
10-89 STD. STS
6-89

Dwg. 16 of 25
CANTILEVER SUPPORT MOUNTING

1. For sign panels with a sign panel area equal or less than 18 square feet and width equal or less than 1.202 (48")
2. For octagonal, diamond, triangular and circular sign panels with a maximum horizontal width equal or less than 600 (24")

EFFECTIVE DATE: JULY 2000

COMMONWEALTH OF PUERTO RICO
DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
HIGHWAY AND TRANSPORTATION AUTHORITY

SMALL TRAFFIC SIGNS
BRIDGE MOUNTING DETAIL

DATE
REVISION
BY
STANDARD
S3-2000
17-00
STS
17 OF 25
GENERAL NOTES:
1. The foundations shall be as indicated for steel flanged channel and square steel post foundation details.
2. The post-to-beam post connection shall be as indicated for steel flanged channel and square steel post connection details.
3. Vertical clearance to bottom of lowest sign panel shall be 7'-6" to 7'-8" from finished grade of roadway.
4. All vertical posts shall be continuous in length.
5. The contractor shall be responsible for increasing or decreasing the length of post to achieve the mounting height above pavement edge.
6. Minimum deviation from vertical, for any component, in any direction shall be 1/8" in a foot.
7. Minimum deviation from horizontal, for any component shall be 1/8" in a foot.
8. Fasteners shall be as per STD 5 or 25.
10. The contractor shall locate the first and last chevron sign at the tangent and curve (C and P) using the length of curve measured along the outside of the roadway.
11. The contractor shall use two aluminum strip for chevron mounting.

<table>
<thead>
<tr>
<th>V (MPH)</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>X</th>
<th>Y</th>
<th>MAX. SPACING</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤ 35</td>
<td>12</td>
<td>18</td>
<td>6</td>
<td>9</td>
<td>1/2</td>
<td>1</td>
<td>1/2</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>35 &lt; V ≤ 40</td>
<td>24</td>
<td>30</td>
<td>12</td>
<td>15</td>
<td>7/8</td>
<td>1</td>
<td>1/2</td>
<td>27</td>
<td>4</td>
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<tr>
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<td>36</td>
<td>15</td>
<td>18</td>
<td>1</td>
<td>7/8</td>
<td>33</td>
<td>36</td>
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<td>V &gt; 50</td>
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<td>18</td>
<td>24</td>
<td>1/62</td>
<td>1/4</td>
<td>39</td>
<td>8</td>
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</tbody>
</table>
### M1-6A

**COLORS**

**SHIELD - BLUE (REFL)**

**BACKGROUND AND NUMERALS - WHITE (REFL)**

<table>
<thead>
<tr>
<th>SIGN</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
<th>K</th>
<th>L</th>
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<tbody>
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<td>1.5</td>
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<td>2.25</td>
<td></td>
<td></td>
</tr>
<tr>
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<td>48</td>
<td>24</td>
<td>0</td>
<td>14.24</td>
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<td>18.54</td>
<td>19.14</td>
<td>20</td>
<td>4</td>
<td>3</td>
<td></td>
</tr>
<tr>
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<td>48</td>
<td>20</td>
<td>0</td>
<td>17.16</td>
<td>3.9</td>
<td>18.54</td>
<td>19.14</td>
<td>20</td>
<td>4</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>3 DIGITS</td>
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<td>48</td>
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<td>0</td>
<td>19.76</td>
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<td>25</td>
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</tr>
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</table>

**Note:** Optically space numerals about vertical center line.

### M1-6B

**COLORS**

**SHIELD - BLUE (REFL)**

**BACKGROUND AND NUMERALS - WHITE (REFL)**

<table>
<thead>
<tr>
<th>SIGN</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
<th>K</th>
<th>L</th>
</tr>
</thead>
<tbody>
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<td>7.12</td>
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**Note:** Optically space numerals about vertical center line.

**EFFECTIVE DATE: DECEMBER 1998**

### SMALL TRAFFIC SIGNS

**ROUTE MARKERS**

**DATE** | **REVISION** | **BY**
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### M1-6C

**Colors**
- Materials and border: Yellow (Refl.)
- Background: Blue (Refl.)

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**Effective Date:** December 1998

### M1-6D

**Colors**
- Legend: Black (Non-Refl.)
- Background: None (Refl.)

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**Effective Date:** December 1998

### Route Markers

- **Small Traffic Signs**
- **Effective Date:** December 1998
- **Revision:** STD, STS
- **Drawing:** DWG 19A OF 25
NOTES:

1. THE AUXILIARY PLATES SHALL CONFORM TO THE COLOR SCHEME OF THE ROUTE MARKERS TO WHICH THEY APPLY AS FOLLOWS:
   - FOR M1-4A, USE LEGEND: WHITE (REFL), BACKGROUND: BLUE (REFL)
   - FOR M1-4B, USE LEGEND: BLACK (NON-REFL), BACKGROUND: WHITE (REFL)
   - FOR M1-4C, USE LEGEND: MAGENTA AND ROSEBERRY (REFL), BACKGROUND: BLUE (REFL)
   - FOR M1-6D, USE LEGEND: BLACK (NON-REFL), BACKGROUND: WHITE (REFL)

2. FOR 24'X4' M1-6A, M1-6B, M1-6C, M1-6D, OR M1-6E USE 21'X15' AUXILIARY PLATES.
   - FOR 36'X36' M1-6A, M1-6B, M1-6C, M1-6D, OR M1-6E USE 31'X23'6" AUXILIARY PLATES.
   - FOR 48'X48' M1-6A, M1-6B, M1-6C, M1-6D, OR M1-6E USE 42'X35'6" AUXILIARY PLATES.

3. USE ARROW MADE OF PARTING FOR ARROWS POINTING LEFT.

4. THE CONTRACTOR IS RESPONSIBLE TO DIFFERENTIATE BETWEEN SIGNS WITH ARROWS POINTING RIGHT OR LEFT AS A SUBORDINARY OBLIGATION.

EFFECTIVE DATE: JULY 2000
NOTE:
1. THE AUXILIARY PLATES SHALL CONFORM TO THE COLOR SCHEME OF THE ROUTE MARKER TO WHICH THEY APPLY AS FOLLOWS:
   FOR M1-68, USE LEGEND: BLACK (NON-REFL), BACKGROUND: BLUE (REFL)
   FOR M1-64, USE LEGEND: YELLOW (REFL), BACKGROUND: BLUE (REFL)
   FOR M1-6C, USE LEGEND: BLACK (NON-REFL), BACKGROUND: WHITE (REFL)

2. FOR 24"x24" M1-4A, M1-50, M1-5C, M1-6D, OR M1-6E USE 24"x30"
   (51.0 x 76.2 mm) M1-6H, M1-6I, M1-6J, AUXILIARY MARKERS.
   FOR 36"x36" M1-5A, M1-5B, M1-5C, M1-6B, OR M1-6E USE 36"x48"
   (914 x 1219 mm) M1-6H, M1-6I, M1-6J, AUXILIARY MARKERS.
   FOR 48"x48" M1-6A, M1-5B, M1-5C, M1-6D, OR M1-6E USE 48"x48"
   (1219 x 1219 mm) M1-6H, M1-6I, M1-6J, AUXILIARY MARKERS.

EFFECTIVE DATE: FEBRUARY 2000

COMMUNONWEALTH OF PUERTO RICO
DEPARTMENT OF TRANSPORTATION
AND PUBLIC WORKS
HIGHWAY AND TRANSPORTATION AUTHORITY

SMALL TRAFFIC SIGNS
ROUTE MARKERS
AUXILIARY MARKERS

DATE: 2/2000
REVISION: 1
SHEET: 1
DWG. 21A OF 25

STD. STS

APPROVED: P
EXECUTIVE DIRECTOR
2/30/98

APPROVED: S
SECRETARY
2/30/98

APPROVED: P
ENGINEER
2/30/98
ADDITIONAL GENERAL NOTES APPLICABLE TO ALL ROUTE MARKERS SIGN ASSEMBLIES DETAILS:

1. THE FOUNDATIONS SHALL BE AS INDICATED FOR STEEL FLANGED CHANNEL AND SQUARE STEEL POST FOUNDATION DETAILS.

2. TOP POST TO BASE POST CONNECTION SHALL BE AS INDICATED FOR STEEL FLANGED CHANNEL AND SQUARE STEEL POST CONNECTION DETAILS.

3. VERTICAL CLEARANCE OF SIGN PANEL SHALL BE 7'-0" TO 7'-6" FROM THE LOWEST SIGN PANEL TO THE GRADE OF THE NEAREST LANE EDGE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INCREASING OR DECREASING THE LENGTH OF POST TO ACHIEVE THE MOUNTING HEIGHT ABOVE PAVEMENT EDGE.

4. ALL TOP POSTS AND BASE POSTS SHALL BE CONTINUOUS IN LENGTH.

5. MAXIMUM DEVIATION FROM VERTICAL, FOR ANY COMPONENT, IN ANY DIRECTION SHALL BE 1/8" IN A FOOT.

6. MAXIMUM DEVIATION FROM HORIZONTAL, FOR ANY COMPONENT SHALL BE 1/8" IN A FOOT.

7. THE CONTRACTOR SHALL DRILL ADDITIONAL HOLES IN THE SIGN PLATE AS A SUBSIDIARY OBLIGATION.

8. BOLT TOP POST TO FLAT PLATE ("+" OR "") WITH 5/16" ALUMINUM FLAT HEAD MACHINE SCREWS WITH NUTS AND LOCK WASHER.

9. WHEN ROUTE MARKER ASSEMBLIES INCLUDE TOLLWAYS ROUTE MARKER, THE CONTRACTOR SHALL INCLUDE SIGN M1-6E AND REARRANGE MOUNTING DETAILS AS A SUBSIDIARY OBLIGATION.

10. FOR TOLLWAY ROUTE MARKERS ASSEMBLIES 36"X36" OR 48"X48" AND FOR ROUTE MARKER ASSEMBLIES OF THREE OR FOUR 36"X36" AND ALL 48"X48" SEE GROUND MOUNTED BREAK-AWAY SIGNS STANDARD DRAWINGS.

11. SIGN PLATES SHALL BE ATTACHED TO POSTS OR STIFFENERS BY MEANS OF THE APPROVED FASTENERS INCLUDED IN THE STS DRAWINGS. STIFFENERS SHALL BE SQUARE STEEL POST, STEEL FLANGED CHANNEL POST OR ALTERNATE STIFFENER AS PER SMALL TRAFFIC SIGNS STANDARD DRAWINGS.
TYPICAL ROUTE MARKER ASSEMBLY
FOR ONE 24"X24" ROUTE MARKER WITH OR WITHOUT AUXILIARY PLATES

TYPICAL TOLLWAYS ROUTE MARKER ASSEMBLY
FOR ONE 24"X24" ROUTE MARKER WITH OR WITHOUT AUXILIARY PLATES

USE FASTENERS FOR ATTACHING SIGN PLATES TO POST

FOR POSTS SEE SQUARE STEEL POST OR STEEL FLANGED CHANNEL POST DETAILS

USE "T" FLAT PLATE

STIFFENER

FOR POSTS SEE SQUARE STEEL POST OR STEEL FLANGED CHANNEL POST DETAILS

STIFFENER

USE "T" FLAT PLATE

FOR TWO 24"X24" ROUTE MARKERS WITH OR WITHOUT AUXILIARY PLATES

EFFECTIVE DATE: JULY 2000

COMMONWEALTH OF PUERTO RICO
DEPARTMENT OF TRANSPORTATION
AND PUBLIC WORKS
HIGHWAY AND TRANSPORTATION AUTHORITY

SMALL TRAFFIC SIGNS
ROUTE MARKERS
SIGN ASSEMBLY DETAILS

DATE REVISION
W-1003 06/08/2006 042

DwG. 22A OF 25
TYPICAL ROUTE MARKER ASSEMBLY
FOR THREE 24"x24" ROUTE MARKERS
WITH OR WITHOUT AUXILIARY PLATES

TYPICAL ROUTE MARKER ASSEMBLY
FOR FOUR 24"x24" ROUTE MARKERS
WITH OR WITHOUT AUXILIARY PLATES
TYPICAL ROUTE MARKER ASSEMBLY
FOR ONE 36"X24" ROUTE MARKER WITH
OR WITHOUT AUXILIARY PLATES

USE FASTENERS FOR ATTACHING
SIGN PLATES TO POST

FOR POSTS SEE SQUARE STEEL
POST OR STEEL FLANGED CHANNEL,
POST DETAILS

FOR POSTS SEE SQUARE STEEL
POST OR STEEL FLANGED CHANNEL,
POST DETAILS

TYPICAL ROUTE MARKER ASSEMBLY
FOR TWO 36"X24" ROUTE MARKERS WITH
OR WITHOUT AUXILIARY PLATES

USE "T" FLAT PLATE

USE FASTENERS FOR ATTACHING
SIGN PLATES TO POST

EFFECTIVE DATE: JULY 2000