NEW YORK CITY DEPARTMENT OF TRANSPORTATION
TRAFFIC SIGNAL STANDARD DRAWINGS
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| MA-003_2 |
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| MA-003_2 |
| MA-003_1 |
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| MA-002_1 |
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**MAST ARM MOUNTING BASE DETAIL**

| MA-000_3 |
| MA-000_2 |
| MA-000_1 |

**MAST ARM MOUNTING BASE DETAIL**

| MA-000_3 |
| MA-000_2 |
| MA-000_1 |
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  - MISC-001_1
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  - AI-002
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  - AI-012
**TYPICAL "S-14A" FOUNDATION**  
(FORMERLY F-1 FOUNDATION)  
(FORMER DWG LG-126S)

**TYPICAL "S" & "T" FOUNDATIONS FOR "S-1a" AND "T-1" POLES**  
(FORMER DWG LG-170S)

**NOTES:**

1. 3000 PSI CONCRETE TO BE USED.
2. FOR MIDBLOCK POLE LOCATIONS: DISTANCE SHALL BE 36" FROM THE FACE OF CURB.
3. INSTALL ONE EXTRA 2" BEND IN ALL POLE FOUNDATIONS THAT ARE TO HAVE A CONTROLLER OR MAST ARM ATTACHED, OR WHEN DIRECTED BY THE ENGINEER. THE EXTRA BENDS SHALL BE CLOSED WITH PIPE CAPS. HOWEVER, ANY FOUNDATION MUST HAVE A MINIMUM OF THREE ELBOWS.

**SECTION "A-A"**

**SECTION "B-B"**
NOTES:

1. LOCATION FOUNDATION MUST BE APPROVED BY NYCDOT.
2. ANCHOR BOLT PROJECTION ABOVE FOUNDATION SHALL BE 3-1/2 TO 4-1/2
3. CONDUIT PROJECTION ABOVE FOUNDATION SHALL BE 1" TO 4"
4. CONTINUOUS TINNED COPPER GROUNDING WIRE SHALL BE CONNECTED TO EACH ANCHOR BOLT WITH BRONZE GROUNDING CONNECTOR BEFORE CONTINUING DOWN TO THE GROUND PLATE
5. SHALL COMPLY WITH NYCDOT SPECIFICATION 46C UNLESS NOTED

BRONZE GROUNDING CONNECTOR
UL LISTED FOR UNDERGROUND USE
ONE PER BOLT

2" BOLTS WITH DOUBLE BREAKAWAY COUPLINGS
(DWG F-006)
(2 PCS IN EACH DIRECTION)

REMOVABLE 1/8" VARNISHED STEEL GROUNDING PLATE INCASED IN CONDUCTIVE CONCRETE FOUNDATION

NYCDOT TRAFFIC SIGNAL STANDARD DRAWINGS, November 2013

1/4" w/H4-10 ANCHOR BOLT ASSEMBLY WITH DOUBLE BREAKAWAY 100 COUPLINGS
(DWG F-085)

1" CONDUCTIVE CONCRETE

NEW YORK CITY NEMA "P" AND "R" CABINETS

CABINETS FOUNDATION
M-2 FOUNDATION WITH STEEL CYLINDER
(FORMER DWG LB-14634S)

NOTE:
1. FOR DETAILS ON M-2 FOUNDATION, SEE DWG F-002.

32" DIAMETER X 9" HIGH STEEL CYLINDER
(FORMER DWG LG-7Sb)
STANDARD TAPERED THREAD ON BOTH ENDS

DETAIL OF STANDARD 2" PIPE CONDUIT BEND

34-02 QUEENS BLVD
L.I.C., N.Y. 11101

DEPARTMENT OF TRANSPORTATION
BUREAU OF TRAFFIC OPERATIONS

NEW YORK CITY

SCALE: 1"=1/4"

OLD DRAWING NO. 01/1962
NEW DRAWING NO. LG-97-S

REVISION

CREATED BY LG-97-S

NYCDOT TRAFFIC SIGNAL STANDARD DRAWINGS, November 2013
ASSEMBLY "B"
(4 REQUIRED PER POLE)
FOR "M-2A" POLE

NOTE:
1. HEX BOLT COUPLINGS SHALL BE GREASED OR ANTI-Seize COMPOUNDED

ASSEMBLY "C"
(4 REQUIRED PER POLE)
FOR "S-14A" & STREET LIGHT POLES

ASSEMBLY "D"
(3 REQUIRED PER POLE)
FOR "S-1" & "T-1" POLES
GROUNDING DETAIL FOR RETROFIT
(FORMER DWG LB-14005S)

GROUNDING DETAIL FOR NEW INSTALLATION

48 NON-INSULATED STRANDED

TINNED COPPER CONDUCTOR

K2C STUD

CONTINUOUS #8 NON-INSULATED
TINNED COPPER CONDUCTOR

SPARE

COPPER GROUNDING STRAP

BONDING BUSHINGS ON CONDUIT

2" CONDUIT

4" CONDUIT

4" CONDUIT

#8 NON-INSULATED STRANDED

COPPER GROUNDING STRAP

BONDING BUSHINGS ON CONDUIT

2" CONDUIT

4" CONDUIT

4" CONDUIT

#8 NON-INSULATED STRANDED

COPPER GROUNDING STRAP

BONDING BUSHINGS ON CONDUIT

2" CONDUIT

4" CONDUIT

4" CONDUIT

NEW YORK CITY
CONDUIT INSTALLATION AT "EL" COLUMN

1" STEEL PIPE

STEEL COUPLING

PVC DUCT

STEEL COUPLING

PVC COUPLING FOR 2" DUCT

EDGEOFCOLUMNBASE

混凝土围栏

顶部的人行道

绝缘接头

管道，按合同

入口盖或

天气头

（管道长度各不相同）

管道接头

混凝土保护

管道铺设

在"EL"列

2" PVC 软管

根据合同，带入口盖或天气头在顶部
（管道长度各不相同）

管道接头和切下

PVC 软管

水泥

2" PVC 软管

混凝土保护

管道铺设

在"EL"列

1/2" = 1'-0"

NYCDOT TRAFFIC SIGNAL STANDARD DRAWINGS, November 2013

DEPARTMENT OF TRANSPORTATION
BUREAU OF TRAFFIC OPERATIONS
34-02 QUEENS BLVD               L.I.C.,N.Y.11101

CONDUIT INSTALLATION AT "EL" COLUMN

SCALE: 1/2" = 1'-0"  DRAWING NO. K-029

REVISION

NEW YORK CITY

DEPARTMENT OF TRANSPORTATION
BUREAU OF TRAFFIC OPERATIONS
34-02 QUEENS BLVD               L.I.C.,N.Y.11101

CONDUIT INSTALLATION AT "EL" COLUMN

SCALE: 1/2" = 1'-0"  DRAWING NO. K-029

REVISION

NEW YORK CITY

DEPARTMENT OF TRANSPORTATION
BUREAU OF TRAFFIC OPERATIONS
34-02 QUEENS BLVD               L.I.C.,N.Y.11101
NOTES:

1. INSTALL ONE EXTRA 2" BEND IN ALL POLE FOUNDATIONS THAT ARE TO HAVE A CONTROLLER OR MAST ARM ATTACHED, OR WHEN DIRECTED BY THE ENGINEER. THE EXTRA BEND SHALL BE CLOSED WITH PIPE CAPS. HOWEVER, ANY FOUNDATION MUST HAVE A MINIMUM OF THREE ELBOWS.

<table>
<thead>
<tr>
<th>POLE TYPE</th>
<th>FOUNDATION SIZE</th>
<th>BOLT CIRCLE DIAMETER</th>
<th>PRECAST SLAB TYPE</th>
<th>ANCHOR BOLT ASSY.</th>
</tr>
</thead>
<tbody>
<tr>
<td>STREET LIGHT POLE</td>
<td>2'x2'x5'</td>
<td>10&quot;</td>
<td>18&quot; SQUARE</td>
<td>1&quot; DIA. x 4' LONG</td>
</tr>
<tr>
<td>TYPE &quot;M-1A&quot; POLE</td>
<td>2'x2'x5'</td>
<td>10&quot;</td>
<td>21&quot; SQUARE</td>
<td>1&quot; DIA. (ASSY &quot;C&quot;)</td>
</tr>
<tr>
<td>TYPE &quot;M-2A&quot; POLE</td>
<td>3'x8'x5'</td>
<td>15&quot;</td>
<td>21&quot; SQUARE</td>
<td>1-1/4&quot; DIA. (ASSY &quot;B&quot;)</td>
</tr>
<tr>
<td>TYPE &quot;M-3&quot; POLE</td>
<td>3'x9'x5'</td>
<td>15&quot;</td>
<td>21&quot; SQUARE</td>
<td>1-1/4&quot; DIA. (ASSY &quot;B&quot;)</td>
</tr>
</tbody>
</table>
NOTES:
1. FOOTING IS FOR SHALLOW DEPTH INSTALLATION ONLY.
2. FOR TYPICAL 2'x2' FOUNDATION, DRILL HOLES IN EXISTING CONCRETE AND INSERT 3/8" REBAR PRIOR TO POURING CONCRETE.
3. MONOLITHIC 4'x4' FOUNDATION DOES NOT NEED REBAR.
NOTES:

1. ANCHOR BOLTS, NUTS AND WASHERS SHALL COMPLY WITH ASTM A307 STANDARD.

2. REINFORCEMENT IS NOT REQUIRED FOR POLES SUPPORTING MAST ARMS UP TO 35'. WHEN REQUIRED, IT SHALL BE REINFORCED WITH FIBER REINFORCED CONCRETE (FRC) REINFORCEMENT. REINFORCEMENT SHALL BE 5/8" (16 mm) DIAMETER, VERTICAL SPANS 12" (305 mm) APART. HORIZONTAL SPANS SHALL BE 12" (305 mm) APART. REBAR CAGE SHALL BE CENTERED IN THE FOUNDATION.

3. CONDUITS SHALL BE 2" OR 3" AS PER ENGINEER. INSTALL ONE EXTRA BEND IN ALL POLE FOUNDATIONS THAT HAVE A CONTROLLER OR MAST ARM ATTACHED, OR WHEN DIRECTED BY THE ENGINEER. THE EXTRA BEND SHALL BE CLOSED WITH PIPE CAPS. HOWEVER, ANY FOUNDATION MUST HAVE A MINIMUM OF THREE ELBOWS.
FRONT ELEVATION
APPROX. WEIGHT OF BASE CASTING (BOTH HALVES) 300 LBS. (SCALE 1"=1')

REPRESENTATIVE DRAWINGS:

M-2A MAST ARM ARRANGEMENT DRAWING
M-2A MAST ARM DETAILS DRAWING
M-2A MAST ARM DETAIL OF PARTS
M-2A MAST ARM DETAILS OF PARTS
M-2A MAST ARM DETAILS ORNAMENTAL BASE COVER
M-2A MAST ARM DETAILS OF ORNAMENTAL BASE COVER
M-2A MAST ARM DETAILS OF ORNAMENTAL BASE COVER
M-2A MAST ARM DETAILS OF ORNAMENTAL BASE COVER

NOTES:

1. BASE COVER ORNAMENTAL CASTINGS FOR THE 'M-2A' SHAFT SHALL BE CAST IRON.
2. CAPITAL TIE ROD FINIALS & POLE TOP FINIALS SHALL BE ALUMINUM.
3. BASE COVER EXTENSION TO BE OMITTED ON 'M-2A' POLE WITH N.Y.C. TRAFFIC CONTROLLER CABINET.

REFERENCE DRAWINGS:

M-2A MAST ARM ARRANGEMENT DRAWING
M-2A MAST ARM DETAILS DRAWING
M-2A MAST ARM DETAILS ORNAMENTAL BASE COVER
M-2A MAST ARM DETAILS OF ORNAMENTAL BASE COVER
M-2A MAST ARM DETAILS OF ORNAMENTAL BASE COVER
M-2A MAST ARM DETAILS OF ORNAMENTAL BASE COVER
M-2A MAST ARM DETAILS OF ORNAMENTAL BASE COVER
M-2A MAST ARM DETAILS OF ORNAMENTAL BASE COVER

CONTRACTOR TO CAULK TOP OF BASE IN FIELD
BASE COVER EXTENSION TO BE OMITTED ON 'M-2A' POLE WITH N.Y.C. TRAFFIC CONTROLLER CABINET.

SIDE ELEVATION
APPROX. 6'1/2" ACROSS ROUNDED CORNERS (0.14" TAPER PER FOOT) (NOT IN CONTRACT)
NOTES:
1. All ornamental castings for the "M-2A" shaft (base cover, capital, tie rod, finial, etc.) shall be cast iron.
2. Base cover extension to be omitted on "M-2A" pole with N.Y.C. traffic controller cabinet.
Simplex Plate

Elevation

15 1/2" Extension Shaft

Lower Sleeve

2 1/2"-13 UNC TapHex. Head Stainless Steel Bolt and Lock Washer

3D View

Notes:
1. Matl: Steel, Steel ASTM A36.
2. Shaft extension to be hot-dipped galvanized after fabrication to ASTM A123.
3. For Y extension see DWG P-003.

Department of Transportation
Bureau of Traffic Operations
34-02 Queens Blvd
LIC, NY 11101

New York City

Scale: 1" = 1/4"

Drawing No: LG-5245

Date: 11-29-11

GPI: Replicated in CADD

Description: 15-1/2" Shaft Extension for "M-2A" Pole
NOTES:

1. All pipe threading to be straight machine threading. 1-1/2" threads per inch (class 2f) 2. Round both inside edges of all pipe nipples and chase nipple.
3. Connection straps to be 1-1/2"x1/4" of aluminum alloy 6061-T6.
4. Neoprene seal gasket shall be 2-1/2"x1/4"x1/8" thick.
NOTES:
1. ALL BANDS TO BE FABRICATED FROM 1 1/2"x1/4" TYPE 6063-T52 ALUMINUM ALLOY
2. ALL DIMENSIONS ± 1/16"
3. BAND FOR MOTOROLA BOX

M BAND TYPE

<table>
<thead>
<tr>
<th>U</th>
<th>V</th>
<th>W</th>
<th>X</th>
<th>Y</th>
<th>Z</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>3 1/2&quot;</td>
<td>6 1/16&quot;</td>
<td>6 7/16&quot;</td>
<td>8 7/16&quot;</td>
<td>10 15/16&quot;</td>
</tr>
<tr>
<td>B</td>
<td>3 1/2&quot;</td>
<td>5 1/2&quot;</td>
<td>6 1/6&quot;</td>
<td>8 15/16&quot;</td>
<td>10 15/16&quot;</td>
</tr>
<tr>
<td>C</td>
<td>3 1/4&quot;</td>
<td>5/8&quot;</td>
<td>7 1/8&quot;</td>
<td>9 7/16&quot;</td>
<td>11 3/8&quot;</td>
</tr>
<tr>
<td>D</td>
<td>3 1/8&quot;</td>
<td>4 15/16&quot;</td>
<td>7 1/2&quot;</td>
<td>9 1/2&quot;</td>
<td>11&quot;</td>
</tr>
<tr>
<td>X (FOR WIRE)</td>
<td>2 7/16&quot;</td>
<td>4 3/8&quot;</td>
<td>6 1/2&quot;</td>
<td>6 1/2&quot;</td>
<td>10&quot;</td>
</tr>
</tbody>
</table>
NOTES:
1. ALL BANDS TO BE FABRICATED FROM 1/12" x 1/4" TYPE 6063-T52 ALUMINUM ALLOY
2. ALL DIMENSIONS ± 1/16"
NYCDOT TRAFFIC SIGNAL STANDARD DRAWINGS, November 2013

NOTES:
1. ALL UNMARKED DRAFT TO BE 2 DEG. MATERIAL—ALUMINUM ALLOY A356-T6 SEMI-PERMANENT OR PERMANENT MOLD CASTING FINISH AS CAST. TOLERANCES UNLESS OTHERWISE SPECIFIED TO BE ±1/32" (0.008) INVERTED STEEL BOLTS, SHALL BE FURNISHED WITH EACH SHOE BASE. BOLTS DESIGNED AS SQUARE HOLE TO BE CENTERED IN ROUND HOLE (TOP).
2. SEE DETAIL "A" AND "B," FOR IDENTIFICATION DETAILS AND LOCATION NOTE.
3. SEE DRAWING P-009-3 FOR SECTION "B-B." (10) "G-42" BOLT DESIGN.

SYMMETRICAL ABOUT CT

THIS SURFACE TO BE FLAT SMOOTH AND AT RIGHT ANGLES TO VERTICAL CENTER LINE.

FOR REMOVAL ONLY

REVISION

DEPARTMENT OF TRANSPORTATION
BUREAU OF TRAFFIC OPERATIONS
34-02 QUEENS BLVD       L.I.C., N.Y. 11101

SHOE BASE FOR TYPE 10 LAMP POLE

NEW YORK CITY

SCALE: 6" = 1'-0"

OLD DRAWING NO. DEPARTMENT OF TRANSPORTATION
BUREAU OF TRAFFIC OPERATIONS
34-02 QUEENS BLVD               L.I.C.,N.Y.11101

34-02 QUEENS BLVD               L.I.C.,N.Y.11101

THIS SURFACE TO BE FLAT SMOOTH AND AT RIGHT ANGLES TO VERTICAL CENTER LINE.

FOR REMOVAL ONLY
LUG FOR ANCHOR BOLT

TOP OF BASE

HALF SECTION "A-A"

LUG FOR ANCHOR BOLT SECTION C-C

NOTES:

1. SEE DRAWING P-009_3 FOR SECTION DETAIL "E", SHIM DETAIL, SECTION "H", POSITIONING BOSS, SECTION "C", AND BEVELED WASHER AND IDENTIFICATION DETAIL.

2. MATERIAL: ALUMINUM ALLOY AA-356-T8,

3. PERMANENT MOLD CASTING.

4. FINISH AS CAST.

5. ALL DRAFT ANGLES TO PARTING LINE TO BE 3 DEG.

6. TOLERANCES ON DIMENSIONS TO BE ±1/32, UNLESS OTHERWISE SPECIFIED.

7. FURNISH (4) BEVELED WASHERS WITH EACH TRANSFORMER BASE WASHERS TO BE SHAPED TO FIT SLOPE OF INTERNAL LUG.

FOR REMOVAL ONLY
"S-14A" TRANSFORMER BASE

NOTES:
2. TWO PIECES WELDED TOGETHER.
3. SCALE (1/2"=1'-0"") FOR FOUNDATION.

"S-14A" SHAFT
N.T.S.

NOTES:
1. SHAFT MADE TO BE STAMPED "NYC 83. 18" IN 18" LETTERS PER AS/4011.
2. SUPPLY WITH ASSEMBLY CONSISTING OF "S-14A" HEX. HEAD BOLT, OVERSIZE FLAT WASHER, LOCK WASHER AND HEX NUT (ASS'Y NO. A-81432).
NOTES:
1. ALL DAVID SHAFT EXTENSIONS SHALL BE ASSEMBLABLE.
2. "M-2A POLE" MAST ARM AND TRAFFIC SIGNAL ASSEMBLIES ARE NOT PART OF CONTRACT.
3. FOR MORE INFORMATION SEE STREET LIGHTING DWG. J-5309B.
MAST ARM END DETAIL

BASE PLATE/POLE SHAFT SECTIONAL VIEW

SCHEDULE OF DIMENSIONS

<table>
<thead>
<tr>
<th>&quot;A&quot; POLE SHAFT (6&quot;) O.D.</th>
<th>&quot;B&quot; POLE SHAFT (6&quot;) O.D.</th>
<th>&quot;C&quot; BASE PLATE (6&quot;)</th>
<th>&quot;D&quot; COIL PROJECTION</th>
<th>&quot;E&quot; MAST ARM PROJECTION</th>
<th>&quot;F&quot; MAST ARM PROJECTION</th>
<th>&quot;G&quot; ANGLE</th>
<th>&quot;H&quot; RADIUS</th>
<th>&quot;I&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 8/16&quot; OD, 0.250&quot; TH</td>
<td>6 8/16&quot; OD, 0.250&quot; TH</td>
<td>6 8/16&quot; OD, 0.250&quot; TH</td>
<td>18&quot;</td>
<td>1490</td>
<td>0</td>
<td>18&quot;</td>
<td>1490</td>
<td>0</td>
</tr>
<tr>
<td>8 5/16&quot; OD, 0.250&quot; TH</td>
<td>8 5/16&quot; OD, 0.250&quot; TH</td>
<td>8 5/16&quot; OD, 0.250&quot; TH</td>
<td>15&quot;</td>
<td>1380</td>
<td>0</td>
<td>15&quot;</td>
<td>1380</td>
<td>0</td>
</tr>
</tbody>
</table>

NOTES:
1. 3/16" THRU-BOLT ASSEMBLY SHALL BE CONSISTED OF ONE THRU-BOLT, TWO HEX NUTS, ONE FLAT WASHER AND ONE LOCK WASHER, ALL IN STAINLESS STEEL.
TRAFFIC SIGNAL SUSPENSION ASSEMBLY

NOTES:
2. STANDARD TOLERANCES.
3. ALL PIPE THREADS TO BE N.P.S.M. (STRAIGHT MACHINE).

1/16" TI-L S.S. WASHER

1 1/2"-11 1/2" OD x 3/8" THICK UV RESISTANT PLASTIC BUSHING WITH 7/8" DIA. HOLE AT THE CENTER, BREAK BOTH EDGES OF HOLE 2 REQ'D.

1 1/2"-11 1/2" LG. SCHED. 40 STAINLESS STEEL WELDED PIPE NIPPLE - WITH CONTINUOUS CLASS 2A "NPSM" THREADING FOR CONNECTION TO THE JUNCTION BOX IN THE SIGNAL MOUNTING ASSEMBLY (SMOOTH EDGES)

1/16" S.S. COTTER PIN

2 1/2"-11 1/2" LG. ST. STEEL RD. HEAD SCREWS (ALL STAINLESS STEEL)

1/8" DIA. COTTER PIN

2 (2)#8-32 x 3/4" LG. ST. STEEL RD. HEAD SCREWS

2 1/2" OD x 3/8" THICK S.S. WASHER, HEAD UNTHREADED BOLT WITH A 4 1/4" THICK WASHER AND A 1 3/8" S.S. COTTER PIN (ALL STAINLESS STEEL)

ALWAYS ASSEMBLE WITH HEADS OF BOLTS ON SIDE NEAR CABLE LOOP

SIDE VIEW

FRONT VIEW
**NOTES:**

2. STANDARD TOLERANCES.
3. ALL PIPE THREADS TO BE N.P.S.M. (STRAIGHT MACHINE).

**TIE ROD ELBOW - PART "J2A"**

**SECTION "B-B"**

**DETAILED "B"**

**VIEW "A-A"**

**CONCENTRIC LINK - PART "K2A"**

**SPLIT STAINLESS STEEL BUSHING 300 SERIES - REQ'D**

**DETAIL "E"**

**SECTION "E-E"**

**SPLIT STAINLESS STEEL BUSHING 300 SERIES - REQ'D**

**OLD DRAWING NO.**

**NEW YORK CITY**

**MA-204_2**
WEATHERHEAD - PART "L2A"

NOTE: ALL INSIDE EDGES TO BE ROUNDED

UV RESISTANT PLASTIC BUSHING

SIDE VIEW

2 TAPPED HOLES FOR M3 x 0.5" SCREWS

THREE 3/32" x 3/16" CHASES (MACHINED)

V 1 1/4" LG. THREAD - 1 1/2" PER INCH NPTF FOR 1 1/2" OD, PIPE NIPPLE

FRONT VIEW

WEATHERHEAD - PART "L2A"

NOTE: ALL INSIDE EDGES TO BE ROUNDED

UV RESISTANT PLASTIC BUSHING

SIDE VIEW

2 TAPPED HOLES FOR M3 x 0.5" SCREWS

THREE 3/32" x 3/16" CHASES (MACHINED)

V 1 1/4" LG. THREAD - 1 1/2" PER INCH NPTF FOR 1 1/2" OD, PIPE NIPPLE

FRONT VIEW

WEATHERHEAD - PART "L2A"

NOTE: ALL INSIDE EDGES TO BE ROUNDED

UV RESISTANT PLASTIC BUSHING
1. ALL PIPES SHALL BE SCHEDULE 40.
2. ALL STEEL PIPE MAST ARM EXTENSION SHALL BE HIGH-STRENGTH LOW-ALLOY.
3. AFTER FABRICATION, ENTIRE MAST ARM EXTENSION ASSEMBLY SHALL BE HOT-DIP GALVANIZED. GALVANIZED COATING SHALL NOT HINDER ASSEMBLING IT TO THE MAST ARM.
TRAFFIC SIGNAL MAST ARM FOR WOOD POLES "MAW-15" ASSEMBLY

NOTE:
1. ITEMS MARKED "FURNISHED BY OTHERS" ARE TO BE FURNISHED BY THE CONSTRUCTION CONTRACTOR AT TIME OF ERECTION. THESE BOLT ASSEMBLIES SHALL BE MANUFACTURED FROM STEEL AS PER ASTM SPECIFICATIONS A-325-61T AND ELECTRO-GALVANIZED.

ITEMS MARKED "FURNISHED BY OTHERS" ARE TO BE FURNISHED BY THE CONSTRUCTION CONTRACTOR AT TIME OF ERECTION. THESE BOLT ASSEMBLIES SHALL BE MANUFACTURED FROM STEEL AS PER ASTM SPECIFICATIONS A-325-61T AND ELECTRO-GALVANIZED.
NOTES:
1. TWO INDEPENDENT STRAPS SHALL BE INSTALLED IN EACH GROOVE OF ALL HUBS FOR ALL SIGNAL MOUNTINGS.
2. STRAPS SHALL BE STAINLESS STEEL, A.I.S.I. TYPE 301.
3. STagger HOLES IN POLE FOR CABLE FOR TRAFFIC SIGNALS MOUNTED AT THE SAME ELEVATION.
NOTES:

1. TUNNEL VISORS FOR 6" SIGNALS SHALL BE 12" LONG.
2. TUNNEL VISORS FOR 12" SIGNALS SHALL BE 16" LONG.
3. ALL SIGNALS SHALL BE LED INCANDESCENT LOOK.

TOP VIEW

SIDE VIEW

FRONT VIEW

12 INCH VEHICLE SIGNAL

8 INCH VEHICLE SIGNAL

8" & 12" VEHICLE SIGNALS

DEPARTMENT OF TRANSPORTATION
BUREAU OF TRAFFIC OPERATIONS
34-02 QUEENS BLVD
L.I.C., N.Y. 11101

NEW YORK CITY
HAND/MAN PEDESTRIAN SIGNAL

PEDESTRIAN COUNTDOWN SIGNAL

TOP VIEW

SIDE VIEW

FRONT VIEW

SIDE VIEW

FRONT VIEW

SCALE: 1/4" = 1'-0"

NEW YORK CITY

DEPARTMENT OF TRANSPORTATION
BUREAU OF TRAFFIC OPERATIONS
34-02 QUEENS BLVD
L.I.C., N.Y. 11101

SCALE  OLD DRAWING NO.  DRAWING NO:
1 1/2" = 1'-0"  SE-030

CREATED  DEPT  DESCRIPTION
07/2011  GP  NYCDOT TRAFFIC SIGNAL STANDARD DRAWINGS, November 2013
**Parts List**

<table>
<thead>
<tr>
<th>PART</th>
<th>DESCRIPTION</th>
<th>DRAWING NO.</th>
<th>QTY.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1 104&quot; 3/4&quot; LONG DIE CAST AL. CHASE NIPPLE (LC-8-2)</td>
<td>SC-008</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>1 5/8&quot; DIE CAST AL. PIPE LOCKNUT</td>
<td>SC-025</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>1 1/2&quot; DIE CAST AL. SERRATED LOCKING RING</td>
<td>SC-008</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>1 104&quot; LONG DIE CAST AL. CLOSURE CAP (LC-8-6)</td>
<td>SC-011</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>NEOPRENE SEAL WASHER 2 3/4&quot;ODX1/8&quot;TH (N.J.C)</td>
<td>SC-011</td>
<td>1</td>
</tr>
</tbody>
</table>

* - NOT IN CONTRACT

---

**Diagram**

**One-Way Mast Arm Signal Mounting Assembly**
## PARTS LIST

<table>
<thead>
<tr>
<th>PART</th>
<th>DESCRIPTION</th>
<th>QTY.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>FOUR-WAY AL. JUNCTION BOX (LC-23-1)</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>AL. JUNCTION BOX COVER (LC-24)</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>1 1/2&quot; SCH 40 AL. PIPE, 11 1/2 ARM, 3/4&quot; T-THREADED ON BOTH ENDS</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>1 1/2&quot; DIE CAST AL. SEPARATED 180°</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>1 1/2&quot; 3/4&quot; LONG DIE CAST AL. CHASE NIPPLE (LC-24A)</td>
<td>2</td>
</tr>
<tr>
<td>6</td>
<td>1 1/2&quot; DIE CAST AL. PIPE, LOCKNUT</td>
<td>2</td>
</tr>
<tr>
<td>7</td>
<td>1 1/2&quot; DIE CAST AL. SEPARATED LOCKING WING</td>
<td>2</td>
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<tr>
<td>8</td>
<td>1 1/2&quot; LONG DIE CAST AL. CLOSURE CAP (LC-8-4)</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td>1 1/2&quot; SCH 40 AL. PIPE, 11 1/2 ARM, 3/4&quot; T-THREADED ON BOTH ENDS</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>NEOprene SEAL WASHER 3/4&quot; X 1 1/4&quot; (N.I.C.)</td>
<td>2</td>
</tr>
<tr>
<td>11</td>
<td>TWO-WAY SIGNAL HEAD STEEL TB.</td>
<td>2</td>
</tr>
<tr>
<td>12</td>
<td>1/2&quot; 2&quot;X3/4&quot; AL. PIPE, STEEL HOLLOW NOSE SET SCREW</td>
<td>4</td>
</tr>
<tr>
<td>13</td>
<td>1/2&quot; 2&quot;X3/4&quot; STEEL SOCKET HEAD SET SCREW</td>
<td>2</td>
</tr>
<tr>
<td>14</td>
<td>1/2&quot; 2&quot;X3/4&quot; STEEL PULLER HEAD MACHINE SCREW</td>
<td>4</td>
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<tr>
<td>15</td>
<td>1/2&quot; 2&quot;X3/4&quot; STEEL, STEEL HOLLOW NOSE SET SCREW</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><em>N.I.C.</em> (NOT SUPPLIED)</td>
<td></td>
</tr>
</tbody>
</table>

*NOTES:

The extended two-way mast arm signal mounting assembly "E2MS" is similar to the "2MS" assembly except that:
1. The aluminum pipe measures 1 1/2"x3 3/4" (instead of 4" in "2MS")
2. The extended two-way signal head steel tie is 23" center to center (instead of 14" in "2MS")
For "E2MS" parts list see DWG. 58404_8*
### Parts List

<table>
<thead>
<tr>
<th>PART</th>
<th>DESCRIPTION</th>
<th>DRAWING NO.</th>
<th>QTY.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>THREE-WAY AL. JUNCTION BOX (LG-23-1)</td>
<td>SE-202</td>
<td>1</td>
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<tr>
<td>2</td>
<td>AL. JUNCTION BOX COVER (LG-23-2)</td>
<td>SE-204</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>1 1/2&quot;x1/2&quot; LONG SCHEDULE 40 AL. PIPE 3 1/2&quot; 3/4&quot; THREADS ON BOTH ENDS</td>
<td>SE-208</td>
<td>3</td>
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<tr>
<td>4</td>
<td>1 1/2&quot; DIE CAST AL. SEPARATED BEE</td>
<td>SE-201</td>
<td>3</td>
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<tr>
<td>5</td>
<td>1 1/2&quot; 3/4&quot; LONG DIE CAST AL. CHASE NIPPLE (LG-23-2A)</td>
<td>SE-202</td>
<td>3</td>
</tr>
<tr>
<td>6</td>
<td>1 1/2&quot; DIE CAST AL. PIPE LOCKNUT</td>
<td>SE-203</td>
<td>3</td>
</tr>
<tr>
<td>7</td>
<td>1 1/2&quot; DIE CAST AL. SEPARATED LOCKING RING</td>
<td>SE-204</td>
<td>3</td>
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<tr>
<td>8</td>
<td>1 1/2&quot;x1/2&quot; LONG DIE CAST AL. CLOSURE CAP (LG-6)</td>
<td>SE-213</td>
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<tr>
<td>9</td>
<td>1 1/2&quot;x2&quot; LONG DIE CAST AL. CLOSURE CAP (LG-6)</td>
<td>SE-213</td>
<td>3</td>
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<tr>
<td>10</td>
<td>NEOPRENE SEAL WASHER 2 1/4&quot;THK X 5/16&quot; (N.I.C.)*</td>
<td>SE-010</td>
<td>3</td>
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<tr>
<td>11</td>
<td>THREE-WAY SIGNAL HEAD STEEL (BE X 5/8 DEG.)</td>
<td>SE-213</td>
<td>1</td>
</tr>
<tr>
<td>12</td>
<td>THREADED 1 1/2&quot;x1/8&quot; LONG ST. STEEL SIG. HEAD HOLLOW NUT SET SCREW</td>
<td>SE-009</td>
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<tr>
<td>13</td>
<td>#10-24x5/8&quot; LONG ST. STEEL TORX MFG SCREW</td>
<td>SE-011</td>
<td>4</td>
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<tr>
<td>14</td>
<td>#12-24x5/8&quot; LONG ST. STEEL SERRATED LOCKING RING</td>
<td>SE-008</td>
<td>3</td>
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<tr>
<td>15</td>
<td>#12-24x5/8&quot; LONG ST. STEEL CHASE NIPPLE</td>
<td>SE-009</td>
<td>3</td>
</tr>
<tr>
<td>16</td>
<td>3/8&quot;-16x5/8&quot; LONG ST. STEEL LOG SCREW</td>
<td>SE-010</td>
<td>3</td>
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<tr>
<td>17</td>
<td>3/8&quot;-16x5/8&quot; LONG ST. STEEL SERRATED TEE</td>
<td>SE-007</td>
<td>3</td>
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<tr>
<td>18</td>
<td>3/8&quot;-16x5/8&quot; LONG ST. STEEL CRESCENT HEAD SCREW</td>
<td>SE-009</td>
<td>3</td>
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<tr>
<td>19</td>
<td>THREE-WAY MAST ARM SIGNAL MOUNTING ASSEMBLY &quot;3MS&quot;-DETAIL</td>
<td>SE-004</td>
<td>6</td>
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</tbody>
</table>

### Notes

The extended three-way mast arm signal mounting assembly "3MS" is similar to the "2MS" assembly except:

1. The aluminum pipe measures 1 1/2"x1/2" (instead of 1 1/4" in "2MS")
2. The extended three-way signal head steel tie is 23° center to center (instead of 14° in "2MS")

For "3MS" parts list see DWG. SE-004.
### Parts List

<table>
<thead>
<tr>
<th>PART</th>
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<th>QTY.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>FOUR-WAY AL. JUNCTION BOX (LC-23-1)</td>
<td>SE-005</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>AL. JUNCTION BOX COVER (LC-23-2)</td>
<td>SE-005</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>1 1/2&quot; x 8' LONG SCHEDULE 40 AL. PIPE, 11 1/2 BAR DIAMETER &amp; NEEDLE-HEADED ON BOTH ENDS</td>
<td>SE-005</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>1 1/2&quot; DIE CAST AL. SERRATED 1 3/16&quot;</td>
<td>SE-005</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>1 1/2&quot; x 8' LONG DIE CAST AL. CHASE NIPPLE (LC-24-1)</td>
<td>SE-005</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>1 1/2&quot; DIE CAST AL. PIPE LOCKNUT</td>
<td>SE-007</td>
<td>4</td>
</tr>
<tr>
<td>7</td>
<td>1 1/2&quot; DIE CAST AL. SERRATED DRIPLEASING RING</td>
<td>SE-007</td>
<td>4</td>
</tr>
<tr>
<td>8</td>
<td>1 1/2&quot; x 8' LONG DIE CAST AL. CLOSURE CAP (LC-24-2)</td>
<td>SE-011</td>
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<td>9</td>
<td>1 1/2&quot; x 8' LONG DIE CAST AL. CLOSURE CAP (LC-24-3)</td>
<td>SE-011</td>
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<tr>
<td>10</td>
<td>NEOPRENE SEAL WASHER 3/4&quot; ID x 1&quot; OD x 1/8&quot; THICK</td>
<td>SE-009</td>
<td>4</td>
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<tr>
<td>11</td>
<td>FOUR-WAY SIGNAL HEAD STEEL TIE</td>
<td>SE-013</td>
<td>1</td>
</tr>
<tr>
<td>12</td>
<td>1 1/2&quot; x 1 3/4&quot; LONG STEEL,SIG. HEAD HOLLOW NOSE SET SCR</td>
<td>SE-013</td>
<td>5</td>
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<tr>
<td>13</td>
<td>1 1/2&quot; x 1 3/4&quot; LONG STEEL, SIG. HEAD CLOSURE CAP</td>
<td>SE-013</td>
<td>5</td>
</tr>
<tr>
<td>14</td>
<td>1 1/2&quot; x 1 3/4&quot; LONG STEEL, SIG. HEAD CLOSURE CAP</td>
<td>SE-013</td>
<td>5</td>
</tr>
<tr>
<td>15</td>
<td>NEOPRENE SEAL WASHER 3/4&quot; ID x 1&quot; OD x 1/8&quot; THICK</td>
<td>SE-009</td>
<td>4</td>
</tr>
</tbody>
</table>

**Notes:**
- The extended four-way mast arm signal mounting assembly "E4MS" is similar to the "AMS" assembly except that:
  1. The aluminum pipe measures 1 1/2" x 8' (instead of 4" in "AMS")
  2. The extended four-way signal head steel tie is 23" center to center (instead of 14" in "AMS")

For "EAMS" parts list see DWG. SE-004_6.
NOTES:

1. FOR ASSEMBLIES OF SPIDER SEE DWG. SE-004.

2. TOLERANCES, UNLESS OTHERWISE NOTED, TO BE ± .01" FOR DECIMAL DIMENSIONS, ± 1/16" FOR MACHINING DIMENSIONS, ± 1/32" FOR CASTING DIMENSIONS, AND ± 1/8" FOR ANGULAR DIMENSIONS.

3. PIPE THREADS FOR ALL PIPE FITTINGS TO BE NPSM (STRAIGHT MACHINE).

4. COVER TO BE PUNCHED OUT OF #11 GAUGE ALUMINUM SHEETING, ALLOY 6061-T6, INCLUDING HOLES.

5. 12/16" DRILL & TAP FOR #1/4"-20X5/16" LONG STAINLESS STEEL Socket-Hex. Set Screw, 4 Req'd - Type "A"

6. 5/32" DRILL & TAP FOR #1/4"-20X7/16" LONG STAINLESS STEEL Socket-Hex. Set Screws - Type "B" - 3 Req'd

7. 3/16" DRILL & TAP FOR #1/4"-20X5/16" LONG STAINLESS STEEL Socket-Hex. Set Screw - Type "B" - 5 Req'd

8. 21/32" DRILL & TAP FOR #1/4"-20X5/16" LONG STAINLESS STEEL Socket-Hex. Set Screw - Type "B" - 8 Req'd

9. 3/8" DRILL & TAP FOR #1/4"-20X5/16" LONG STAINLESS STEEL Socket-Hex. Set Screw - Type "B" - 10 Req'd

10. 3/4" DRILL & TAP FOR #1/4"-20X5/16" LONG STAINLESS STEEL Socket-Hex. Set Screw - Type "B" - 15 Req'd

11. 1" DRILL & TAP FOR #1/4"-20X5/16" LONG STAINLESS STEEL Socket-Hex. Set Screw - Type "B" - 22 Req'd

12. 1 1/4" DRILL & TAP FOR #1/4"-20X5/16" LONG STAINLESS STEEL Socket-Hex. Set Screw - Type "B" - 30 Req'd

13. 1 1/2" DRILL & TAP FOR #1/4"-20X5/16" LONG STAINLESS STEEL Socket-Hex. Set Screw - Type "B" - 38 Req'd

14. 1 1/4" DRILL & TAP FOR #1/4"-20X5/16" LONG STAINLESS STEEL Socket-Hex. Set Screw - Type "B" - 40 Req'd

15. 1 1/2" DRILL & TAP FOR #1/4"-20X5/16" LONG STAINLESS STEEL Socket-Hex. Set Screw - Type "B" - 45 Req'd

16. 1 1/4" DRILL & TAP FOR #1/4"-20X5/16" LONG STAINLESS STEEL Socket-Hex. Set Screw - Type "B" - 50 Req'd

17. 1 1/2" DRILL & TAP FOR #1/4"-20X5/16" LONG STAINLESS STEEL Socket-Hex. Set Screw - Type "B" - 55 Req'd

18. 1 1/4" DRILL & TAP FOR #1/4"-20X5/16" LONG STAINLESS STEEL Socket-Hex. Set Screw - Type "B" - 60 Req'd

19. 1 1/2" DRILL & TAP FOR #1/4"-20X5/16" LONG STAINLESS STEEL Socket-Hex. Set Screw - Type "B" - 65 Req'd

20. 1 1/4" DRILL & TAP FOR #1/4"-20X5/16" LONG STAINLESS STEEL Socket-Hex. Set Screw - Type "B" - 70 Req'd

21. 1 1/2" DRILL & TAP FOR #1/4"-20X5/16" LONG STAINLESS STEEL Socket-Hex. Set Screw - Type "B" - 75 Req'd

22. 1 1/4" DRILL & TAP FOR #1/4"-20X5/16" LONG STAINLESS STEEL Socket-Hex. Set Screw - Type "B" - 80 Req'd

23. 1 1/2" DRILL & TAP FOR #1/4"-20X5/16" LONG STAINLESS STEEL Socket-Hex. Set Screw - Type "B" - 85 Req'd

24. 1 1/4" DRILL & TAP FOR #1/4"-20X5/16" LONG STAINLESS STEEL Socket-Hex. Set Screw - Type "B" - 90 Req'd

25. 1 1/2" DRILL & TAP FOR #1/4"-20X5/16" LONG STAINLESS STEEL Socket-Hex. Set Screw - Type "B" - 95 Req'd

26. 1 1/4" DRILL & TAP FOR #1/4"-20X5/16" LONG STAINLESS STEEL Socket-Hex. Set Screw - Type "B" - 100 Req'd

27. 1 1/2" DRILL & TAP FOR #1/4"-20X5/16" LONG STAINLESS STEEL Socket-Hex. Set Screw - Type "B" - 105 Req'd

28. 1 1/4" DRILL & TAP FOR #1/4"-20X5/16" LONG STAINLESS STEEL Socket-Hex. Set Screw - Type "B" - 110 Req'd

29. 1 1/2" DRILL & TAP FOR #1/4"-20X5/16" LONG STAINLESS STEEL Socket-Hex. Set Screw - Type "B" - 115 Req'd

30. 1 1/4" DRILL & TAP FOR #1/4"-20X5/16" LONG STAINLESS STEEL Socket-Hex. Set Screw - Type "B" - 120 Req'd

31. 1 1/2" DRILL & TAP FOR #1/4"-20X5/16" LONG STAINLESS STEEL Socket-Hex. Set Screw - Type "B" - 125 Req'd

32. 1 1/4" DRILL & TAP FOR #1/4"-20X5/16" LONG STAINLESS STEEL Socket-Hex. Set Screw - Type "B" - 130 Req'd

33. 1 1/2" DRILL & TAP FOR #1/4"-20X5/16" LONG STAINLESS STEEL Socket-Hex. Set Screw - Type "B" - 135 Req'd

34. 1 1/4" DRILL & TAP FOR #1/4"-20X5/16" LONG STAINLESS STEEL Socket-Hex. Set Screw - Type "B" - 140 Req'd
NYCDOT TRAFFIC SIGNAL STANDARD DRAWINGS, November 2013

TOP VIEW

SECTION A-A

NOTE:
FEMALE SERRATION ON TOP CENTERLINE

SECTION ALONG CENTER LINE OF FEMALE SERRATION

FRONT VIEW OF SERRATIONS (OUTSIDE VIEW)

DETAIL OF SERRATIONS

SCALE: 1" = 0.002"
NOTES:
1. MATERIAL: ALUMINUM CASTING BASE ALLOY DIE CASTING COMMERCIAL DESIGNATION NO. 13
2. RADIUS CORNER & FILLET 1/16"
3. DRAFT ALLOWANCE 2°, IN NO CASE SHALL DRAFT DECREASE WALL OR RIB THICKNESS SPECIFIED.
4. 1/8" RAISED CHARACTERS.
5. CASTING SHALL BE SOUND FREE FROM BLOWHOLES, SCALES, PIPS, BURRS, DENTS, AND CRACKS.
6. DEBURR & BREAK ALL SHARP EDGES.
7. ALL INSIDE EDGES SHALL BE CHAMFERED
NOTES:
1. MATERIAL: ALUM. BASIC ALLOY OF CASTING COMMERCIAL DESIGNATION NO. 13
2. RADIAL JOINER & PULLEY 1/16" RADIUS OF SPINDLES
3. DRAFT ALLOWANCE 1/8" IN ANY CASE THE WALL OR HOLLOW THICKNESS SPECIFIED
4. 1/16" RAISED CHARACTERS
5. CASTING SHALL BE SOUND PROOF HOLES, SCALDS, PINS, BURRS, GLETS, AND CRACKS.
6. DEBURR & BREAK ALL SHARP EDGES
7. ALL INSIDE EDGES SHALL BE CHAMFERED

SECTION ALONG CENTERLINE OF FEMALE SERRATION
SCALE: 1" = 0.100"

SECTION OF SERRATIONS
HORIZONTAL
SCALE: 1" = 0.100"

FRONT VIEW OF SERRATIONS (OUTSIDE VIEW)
SCALE: 1" = 0.100"

1/12" I.D., 2 9/16" O.D.

72 SERRATIONS EQUALLY SPACED AT 6°

FRONT VIEW OF SERRATIONS
SCALE: 1" = 0.100"

VIEW "A-A"
SCALE: 1" = 1/4"

VIEW "B-B"
SCALE: 1/2" = 1/4"

VIEW "A"
SCALE: 1" = 1/4"

1 1/2" STANDARD PIPE NPSM THREADING 11 1/2 THREADS PER INCH

DRILL AND TAP 3 HOLES
3/8"-16 AC AND SUPPLY 3 SET SCREWS 1/4" X 3/8" LONG SS, HOLLOW MINE SQUARE HEAD

1.5/8" I.D., 2 9/16" O.D.

1 1/2" OLD DRAWING NO.

DEPARTMENT OF TRANSPORTATION
BUREAU OF TRAFFIC OPERATIONS
34-02 QUEENS BLVD                L.I.C., N.Y. 11101

NYCDOT TRAFFIC SIGNAL STANDARD DRAWINGS, November 2013

72 serrations equally spaced at 5°

**Top View of 72 Teeth Serrated Ring**

**Section A-A**

**Section B-B**

**Serrated Ring**

**Detail of Serrations**

**Outside Front View of Male Serration**

**Section Along Center Line of Male Serration**

**Drawing Information**

- **Drawing No:** LE-14232S
- **Revision:** 1
- **Department of Transportation:** Bureau of Traffic Operations
- **Location:** 34-02 Queens Blvd, L.I.C., N.Y. 11101
- **Scale:** 1" = 0.00'
NOTES:

1. ALL EDGES TO BE SLIGHTLY ROUNDED FOR SAFETY.

2. THE TOP AND BOTTOM OF THE NUT SHALL HAVE SMOOTH, FLUSH, PARALLEL SURFACES.

3. THE PIPE LOCK NUT SHALL BE DIE CAST WITH THE CONTRACTOR RETAINING POSSESSION OF THE DIE.

CAST YEAR OF MANUFACTURE
(RECESSED ON BOTTOM)

CAST NAME OF MANUFACTURER
(RECESSED ON BOTTOM)

1 1/2" NPSM THREADING
1 1/2 T.P.I.-CLASS 2B FIT

N253 ALLOY ALUMINUM

CHAMFER TOP AND BOTTOM EDGES OF THREADING
NOTE:

1. 1 1/2" SCHEDULE 40 STAINLESS STEEL, WELDED PIPE NIPPLE -1 1/2" LONG - WITH CONTINUOUS CLASS 2A "NPSM" THREADING FOR CONNECTION TO THE JUNCTION BOX IN THE SIGNAL MOUNTING ASSEMBLY, (SMOOTH INSIDE EDGES)
NOTES:

1. SIGNAL HEAD TIES, INCLUDING OPENINGS, SHALL BE STAMPED OUT OF #11 GAGE SHEET STEEL (U.S. STANDARD).
**NOTE:**

1. **EXTENDED SIGNAL HEAD TIES SHALL BE STAMPED OUT OF 1/8" THICK SHEETING.**
# Parts List

<table>
<thead>
<tr>
<th>PART</th>
<th>DESCRIPTION</th>
<th>DRAWING NO.</th>
<th>QTY.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1 1/2&quot; CAST AL. SLIP FITTER &quot;1SA&quot;</td>
<td>SE-015</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>1 1/2&quot; X 24&quot; LONG DIE CAST AL. CHASE NIPPLE (LC-8-2A)</td>
<td>SE-008</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>1 1/2&quot; OD CAST AL. PIPE LOCKNUT</td>
<td>SE-210</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>1 1/2&quot; X 24&quot; LONG DIE CAST AL. CLOSURE CAP (LC-8-6)</td>
<td>SE-011</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>NEOPRENE SEAL WASHER 2 3/4&quot; OD X 1 7/16&quot; ID X 1 11/16&quot; TH (N.I.C.*</td>
<td>SE-010</td>
<td>1</td>
</tr>
<tr>
<td>D</td>
<td>3/8&quot; X 1/2&quot; LONG ST. STEEL, SOL. HEAD, HOLLOW NOSE, BOLT SCREW</td>
<td>*-NOT IN CONTRACT</td>
<td>4</td>
</tr>
</tbody>
</table>

---

**Diagram:**

*One-Way Pole Signal Mounting Assembly - "1SA"*

---

**Revisions:**

- Created:
- Created:
- Created:
- Created:
- Created:

**Drawing Information:**

- Title: One-Way Pole Signal Mounting Assembly - "1SA"
- Scale: 1/2" = 1'-0"
- Department of Transportation
- Bureau of Traffic Operations
- 34-02 Queens Blvd, L.I.C., N.Y. 11101
- Created by: [Signature]
- Date: [Date]
- Description: [Description]

---

**Notes:**

- "NOT IN CONTRACT"
NOTES:

1. SIGNAL HEADS MAY BE ROTATED AROUND CENTERS OF CONNECTIONS.

2. A THIN COAT OF "MOLYKOTE ANTI-SIEZE THREAD COMPOUND" BY DOW CORNING, OR APPROVED EQUAL, SHALL BE USED ON ALL THREADING IN ALUMINUM THREAD CONNECTIONS.
THREE-WAY SLIPFITTER ASSEMBLY

NOTES:

1. SIGNAL HEADS MAY BE ROTATED AROUND CENTERS OF CONNECTIONS.

2. A THIN COAT OF "MOLYKOTE ANTI-SIEZE THREAD COMPOUND" BY DOW CORNING, OR APPROVED EQUAL, SHALL BE USED ON ALL THREADING IN ALLUMINUM THREAD CONNECTIONS.

**- NOT IN CONTRACT (N.I.C.)**
PARTS LIST

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<th>DESCRIPTION</th>
<th>DRAWING NO.</th>
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<tbody>
<tr>
<td>1</td>
<td>DIE CAST AL, SLIP FITTER NO*</td>
<td>BE078</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>1 1/2&quot; D/E CAST AL, (PIPE), 11 1/2 NPSM 3/4&quot; Threaded on Both Ends</td>
<td>BE069</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>1 1/2&quot; D/E CAST AL, 3 1/2&quot; LONG DIE CAST AL, PIPE NIPPLE (LC-8-5A)</td>
<td>BE074</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>1 1/2&quot; I/D PIPE, PIPE LOCKNUT</td>
<td>BE076</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>1 1/2&quot; I/D PIPE, CLOSURE CAP (LC-8-5A)</td>
<td>BE214</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>1 1/2&quot; I/D PIPE, CLOSURE CAP (LC-8-5A)</td>
<td>BE214</td>
<td>5</td>
</tr>
<tr>
<td>7</td>
<td>NEOPRENE SEAL WASHER 2 3/4&quot; OD x 7/8&quot; ID x 1 1/8&quot; (N.I.C.)</td>
<td>BE73</td>
<td>4</td>
</tr>
<tr>
<td>8</td>
<td>FOUR-WAY SIGNAL HEAD</td>
<td>SE-013</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td>A 1/4&quot; 20 X 1 1/2&quot; LONG ST. STEEL SQ. HEAD HOLLOW NOSE SET SCREW</td>
<td>SE-013</td>
<td>13</td>
</tr>
<tr>
<td>10</td>
<td>A 3/8&quot; 16 X 1&quot; LONG ST. STEEL SQ. HEAD HOLLOW NOSE SET SCREW</td>
<td>SE-013</td>
<td>4</td>
</tr>
</tbody>
</table>

* - NOT IN CONTRACT (N.I.C.)

NOTES:

1. SIGNAL HEADS MAY BE ROTATED AROUND CENTERS OF CONNECTIONS

2. A THIN COAT OF "POLYVINYL ANTI-SEIZE THREAD COMPOUND" BY DOW CORNING, OR APPROVED EQUAL, SHALL BE USED ON ALL THREADING IN ALUMINUM THREADED CONNECTIONS.

VIEW "A-A"
**NYCDOT TRAFFIC SIGNAL STANDARD DRAWINGS, November 2013**

**Detail A**

- **Drawing No.**
- **Revision**
- **Description**
- **Date**
- **Department of Transportation**
- **Bureau of Traffic Operations**
- **34-02 Queens Blvd L.I.C., N.Y. 11101**

**Sectional - Elevation **A-A**

- **2.437 O.D. Serrated Boss**
- **2.000 I.D. Serrated Boss**
- **Tap Thread 1 1/2" NPSM 11 1/2 threads per inch**
- **Section Along Centerline of Female Serration**
- **Drill & Tap for 3/8"-16 x 1" long sq. head hollow nose set screw. (4 "D" screws required)**

**Outside View of Serrations**

- **5° (Radial) Outside View of Serrations**
- **20812011 GPI Replicated in CADD 0612001 BMM Marbelite 01/1967 ADB LC-312-S Created**

**Plan**

- **Die Cast Slipfitter "ISA" for Pole Mounted Traffic Signal Head**
- **Scale**
- **Old Drawing No.**
- **Drawing No.**
PARTS LIST

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<thead>
<tr>
<th>PART NO.</th>
<th>DESCRIPTION</th>
<th>QTY.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1 1/2&quot;x8&quot; 3/4&quot; LONG SCHEDULE 40 AL. PIPE, 11 1/2&quot; MPRM 3/4&quot; THREADED ON BOTH ENDS</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>1 1/2&quot; DIE CAST AL. SEPARATED TEE</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>1 1/2x1 1/2&quot; LONG DIE CAST AL. CHASE NIPPLE (LC-8-2A)</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>1 1/2&quot;x5/8&quot; LONG DIE CAST AL. CLOSURE CAP (LC-8-4)</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>NEOPRENE SEAL, WASHER 2 3/4&quot; OD X 1 7/8&quot; TH (N.I.C)</td>
<td>1</td>
</tr>
<tr>
<td>A</td>
<td>1/4&quot;-20x1/2&quot; LONG S. STEEL, SQ. HEAD HOLLOW NOSE SET SCREW</td>
<td>4</td>
</tr>
</tbody>
</table>

* * NOT IN CONTRACT (N.I.C.)

NOTES:

1. SIGNAL HOUSING MAY BE ROTATED AROUND CENTER OF CONNECTION.

2. A THIN COAT OF "MYLOKOTE ANTI-SIEZE COMPOUND" BY DOW CORNING, OR APPROVED EQUAL, SHALL BE USED ON ALL THREADING IN ALUMINUM THREADED CONNECTIONS.
1. Signal Housing may be rotated around center of connection.
2. A thin coat of "MyloKote, Anti-Seize Compound" by Dow Corning, or approved equal, shall be used on all threading in aluminum threaded connections.

NOTES:

<table>
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<th>PART NO.</th>
<th>DESCRIPTION</th>
<th>DRAWING NO.</th>
<th>QTY.</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>1 1/2&quot; x 3/4&quot; long schedule 40 steel, 1 1/2&quot; NPSM 3/4&quot; threaded on both ends</td>
<td>SE-004</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>1 1/2&quot; die cast AL, separated TEE</td>
<td>SE-005</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>1 1/2&quot; x 3/4&quot; long die cast AL, chase nipple (LC-8-2A)</td>
<td>SE-006</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>1 1/2&quot; x 3/4&quot; long die cast AL, closure cap (LC-4)</td>
<td>SE-011</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>Neoprene seal washer 2 3/4&quot; OD x 7/8&quot; TH (N.I.C)</td>
<td>SE-007</td>
<td>2</td>
</tr>
<tr>
<td>6</td>
<td>1/4&quot;-20 x 1/2&quot; long STL, SQ. head hollow nose set screw</td>
<td>SE-008</td>
<td>8</td>
</tr>
</tbody>
</table>

* Not in Contract (N.I.C.)
LAWTON HUB ASSEMBLY DETAIL

NOTE:
1. LAWTON HUB ASSEMBLIES SHOULD BE ORDERED IN PAIRS WITH ONE 3/4" PIPE NIPPLE FOR EACH PAIR

PARTS LIST

<table>
<thead>
<tr>
<th>PART</th>
<th>DESCRIPTION</th>
<th>QTY.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DIE CAST HUB</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>&quot;A&quot; Schedule 40 Pipe, Type THREADED OVER ENTIRE LENGTH 1/2&quot; NPSM</td>
<td>1</td>
</tr>
<tr>
<td>A</td>
<td>1/4&quot;-20X1/2&quot; ST. STEEL SQ. HEAD HOLLOW NOSE SET SCREW</td>
<td>2</td>
</tr>
</tbody>
</table>

DETAIL OF 3/4" PIPE NIPPLE
ONE REQUIRED FOR EACH PAIR OF HUB

SECTION ELEVATION "A-A"

DETAIL OF HUB

CONNECTION TO POLE AT CABLE ENTRANCE

STAINLESS STEEL STRAP

NEW YORK CITY

DEPARTMENT OF TRANSPORTATION
BUREAU OF TRAFFIC OPERATIONS
34-02 QUEENS BLVD
L.I.C., N.Y. 11101

LE-1175-S
LE-018

NO. DATE DESCRIPTION

1-1/2" = 1"
NYCDOT TRAFFIC SIGNAL STANDARD DRAWINGS, November 2013

**NOTES:**

1. ALUMINUM PLATES AND PIPING SHALL BE 8081-T3 ALLOY.
2. THREADING ON ENDS OF PIPING SHALL BE NPSM THREADING, 1 1/2 THREADS PER INCH, 3 1/4" LONG, UNLESS OTHERWISE NOTED.
3. THREADS TO BE LUBRICATED WITH A THIN COAT OF "MOLYKOTE ANTI-SEIZE THREAD COMPOUND" BY DOW CORNING CORP. OR APPROVED EQUAL.
**NOTES:**

1. **Aluminum plates and piping shall be 6061-T6 alloy.**
2. **Threaded on ends of piping shall be NPSM threading, 11 1/2 threads per inch, 314" long, unless otherwise noted.**
3. **Threaded to be lubricated with a thin coat of "Molykote Anti-Sieze Thread Compound" by Dow Corning Corp, or approved equal.**

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**PARTS LIST**

<table>
<thead>
<tr>
<th>PART NO.</th>
<th>DESCRIPTION</th>
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<tbody>
<tr>
<td>1</td>
<td><strong>TOP BRACKET CONNECTION</strong></td>
</tr>
<tr>
<td>2</td>
<td><strong>BOTTOM BRACKET CONNECTION</strong></td>
</tr>
<tr>
<td>3</td>
<td><strong>Die Cast Al., Plain Tee</strong></td>
</tr>
<tr>
<td>4</td>
<td>1 1/2&quot;x6&quot; long Schedule 40 Al. pipe, 1-1/2&quot; NPSM and 1&quot; threaded ends</td>
</tr>
<tr>
<td>5</td>
<td>1 1/2&quot;x6&quot; long Schedule 40 Al. pipe, 1-1/2&quot; NPSM 3/4&quot; threaded on one end</td>
</tr>
<tr>
<td>6</td>
<td>1 1/2&quot; Die Cast Al., Serrated Tee</td>
</tr>
<tr>
<td>7</td>
<td>1 1/2&quot;x3/4&quot; long Die Cast Al. Chase nipple (LC-8-2)</td>
</tr>
<tr>
<td>8</td>
<td>1 1/2&quot;x1 3/4&quot; long Die Cast Al. Chase nipple (LC-8-4)</td>
</tr>
<tr>
<td>9</td>
<td>Neoprene seal washer 2 3/4&quot; ODx1 7/8&quot; IDx1 1/2&quot; (N.I.C)</td>
</tr>
<tr>
<td>10</td>
<td>1 1/2&quot;x6&quot; long Schedule 40 Al. pipe, 1-1/2&quot; NPSM 3/4&quot; threaded on both ends</td>
</tr>
<tr>
<td>A</td>
<td>1/2&quot;x1/2&quot; long ST. Steel SQ. Head Hollow Nose Set Screw</td>
</tr>
<tr>
<td>B</td>
<td>3/8&quot;-16x1&quot; long ST. Steel SQ. Head Cup Point Set Screw</td>
</tr>
<tr>
<td>C</td>
<td>1/2&quot;x4&quot; Gal. Steel Lag Screw (N.I.C)</td>
</tr>
</tbody>
</table>
NOTES:
1. ALUMINUM PIPE AND PLATES SHALL BE 6061-T6 ALLOY.
2. PIPE THREADING SHALL BE NPSM THREADING, 11 1/2 THREADS PER INCH.
3. WELDING SHALL BE HELIARC WELDING.
4. PAINT: POWDER COATING BRACKETS PER RED SPEC.
5. PLAIN TEE COULD BE SUBSTITUTED WITH 1 1/2" DIE CAST AL. SERRATED TEE AND 1 1/2" THREADED HIGH IMPACT PLASTIC INSULATING BUSHING GROZENY'S NO. 98-160 OR EQUAL.
NOTES:
1. NYC DESIGNATION "W-2P".
2. 47,000 PSI TENSILE STRENGTH AND DIE-CAST ALUMINUM CONSTRUCTION ON FITTINGS.
3. CHASE NIPPLES AVAILABLE IN ALUMINUM, BRONZE & CAST IRON.
4. TAPPED 1-1/2"-11 1/2" NPSM.
5. 11/4"-20x11/2" LONG STL. SQ. HEAD HOLLOW NOS. SET SCREW ON ALL 1-1/2" OPENINGS.
6. PAINT BRACKET POWDER-COATED PER FED SPEC 3990#1334.
ELEVATION

SECTION "A-A"

NOTES:
1. Signal housing may be rotated around center of connection.
2. A thin coat of "Molykote AN 1553 thread compound" by Dow Corning or approved equal should be used on all threading in aluminum threaded connections.
END VIEW

SIDE VIEW

DETAIL OF 8" VISORS

END VIEW

SIDE VIEW

DETAIL OF 12" VISORS

NOTES:

1. VISOR LENGTH SHOULD BE DETERMINED AS PER ENGINEER,
NOTES:

1. ALL SURFACES OF PARTS SHOULD BE SPRAYED WITH BLACK FLAT PAINT.
2. TOLERANCES SHOULD BE ±1/16" UNLESS OTHERWISE SPECIFIED.
3. MATERIAL: ROLLED PLATE, THICKNESS = 0.02".
NOTES:
1. ALL SURFACES OF PARTS SHOULD BE SPRAYED WITH BLACK FLAT PAINT.
2. TOLERANCES SHOULD BE ± 1/16" UNLESS OTHERWISE SPECIFIED.
3. MATERIAL: ROLLED PLATE, THICKNESS = 2/32".
NOTES:

1. ALL SURFACES OF PARTS SHOULD BE SPRAYED WITH BLACK FLAT PAINT.
2. TOLERANCES SHOULD BE ±1/16" UNLESS OTHERWISE SPECIFIED.
3. MATERIAL: ROLLED PLATE, THICKNESS = 0.025".
1. View cut-off options for geometrically programmable louvers could be but not limited to 7", 8", 9", 11", 13", 18", 23.5", 24", 43".

NOTE:
DETAIL OF ATTACHING TRAFFIC SIGNAL TO MAST ARM

NOTES:

1. TRAFFIC SIGNAL SHALL BE CENTERED OVER TRAFFIC LANE, OR AS PER ENGINEER IN CHARGE.
2. TO AVOID CORROSION, MAST ARM SHALL NOT BE DRILLED. ALL ELECTRICAL CABLES RUN ON EXTERIOR OF MAST ARM HOUSED IN 2 IN. PVC CONDUIT. PVC CONDUIT SHALL BE CONTINUOUS FROM POLE TO SIGNAL HOUSING LEAVING ENOUGH EXPOSED CABLE FOR CONNECTIONS.
ACCESSIBLE PEDESTRIAN SIGNAL (APS)
UNIT

FRONT VIEW
SIDE VIEW
BACK VIEW
ISOMETRIC VIEW

3"=1'-0"
3"=1'-0"
3"=1'-0"

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CREATED
1/1/2013

DEPARTMENT OF TRANSPORTATION
BUREAU OF TRAFFIC OPERATIONS
34-02 QUEENS BLVD
L.I.C., N.Y. 11101

ACCESSIBLE PEDESTRIAN SIGNAL (APS) DRAWING NO.

REVISION

SCALE
OLD DRAWING NO.
DRAWING NO.

N.T.A.

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DEPARTMENT OF TRANSPORTATION
BUREAU OF TRAFFIC OPERATIONS
34-02 QUEENS BLVD
L.I.C., N.Y. 11101

ACCESSIBLE PEDESTRIAN SIGNAL (APS) DRAWING NO.

REVISION

SCALE
OLD DRAWING NO.
DRAWING NO.

N.T.A.
ACCESSIBLE PEDESTRIAN SIGNAL (APS)

MOUNTING INFORMATION

NEW YORK CITY

105212 09/11/12 5/16" THREADED ROD

1/2" METAL CONDUIT

1/2" METAL CONDUIT

1/2" THREADED ROD

TOP VIEW

SIDE VIEW

MOUNTING ON METAL POLE

MOUNTING ON WOOD POLE

10" 1/2" LONG NIPPLE

1/2" CONDUIT HUB

1/2" METAL CONDUIT

1/2" THREADED ROD

OUTLET BODY WITH COVER & NEOPRANE GASKET

DEPARTMENT OF TRANSPORTATION
BUREAU OF TRAFFIC OPERATIONS
34-02 QUEENS BLVD               L.I.C., N.Y. 11101

NYCDOT TRAFFIC SIGNAL STANDARD DRAWINGS, November 2013
CORD END CONNECTOR

ISOMETRIC VIEW

SCALE: N.T.S

TRADE SIZE | "A" | "B" | "C" | CABLE RANGE
---|---|---|---|---
1/4" | 1.792 | 0.851 | 0.557 | -.300"-.595"-.750"-.978"
3/8" | 2.390 | 1.120 | 0.763 | -.300"-.595"-.750"-.978"
7/16" | 2.160 | 1.090 | 0.710 | -.300"-.472"-.750"-.978"
1/2" | 2.190 | 1.150 | 0.710 | -.300"-.472"-.750"-.978"
1-1/8" | 2.880 | 1.710 | 2.090 | -

POLYETHYLENE SEALING GASKET

NYLON BODY

ZINC LOCKNUT

NYLON NUT

NOTE:

1. TO ACCEPT CABLE, SOLID GROMMET SHALL BE DRILLED ACCORDING TO MANUFACTURER'S INSTRUCTIONS.

**NOTE:**

- HUMMEL, HIGH-MULTI-V, SPR (HMK) (COMES WITH SOLID GROMMET) OR EQUAL
- HUMMEL, BSC, KI GROMMET (70-146-009-19 OR EQUAL)
NYCDOT TRAFFIC SIGNAL STANDARD DRAWINGS, November 2013

2"x4" ALUMINUM POLE
OPENING HAND HOLE STRAP

2" HAND HOLE COVER FOR 4 1/2" OD POLE

1/4"-20x1/2" STAINLESS STEEL SOCKET BUTTON HEAD SCREW

1/4" 8-32 THREADED STEEL FLANGE BASE WITH 12 3/4" BOLT CIRCLE FOR 3/4" ANCHOR BOLTS

3/4"-10 HEX NUT
3/4" OD x 2" OD WASHER
3/4"-10 STUDBOLT, FULLY THREADED
3/4"-10 HEX BOLT COUPLING, FULLY THREADED
3/4"-10 STUDBOLT, FULLY THREADED

ANCHOR CLEAT (SEE DWG. P-002)
3/4"-10 HEX NUT

NOTES:
1. ANCHOR BOLT ASSEMBLY SHALL BE MADE OF GALVANIZED STEEL.
NOTES:

1. ALL LEDS MUST BE INCANDESCENT LOOK TYPE AND BE APPROVED BY NYCDOT AND FOLLOW NYCDOT SPECIFICATION FOR LED SIGNAL MODULE.

2. THE BICYCLE SYMBOL SHALL BE AS ILLUSTRATED ON THIS DRAWING, OR APPROVE EQUAL.

3. THE BICYCLE SYMBOL SHALL BE A MASK TYPE OF CONSTRUCTION USING A HIGH QUALITY SUN FLEXIBLE VINYL RATED FOR OUTDOOR USE AND UNAFFECTED BY SUN LIGHT (UV RAYS). THE MATERIAL SHALL HAVE A PERMANENT ACRYLIC PRESSURE SENSITIVE ADHESIVE. THE MATERIAL SHALL BE RESISTANT TO WATER, HUMIDITY, AND MOST PETROLEUM BASED SOLVENTS, WITH A SERVICE RANGE TEMPERATURE OF -40°F TO +200°F. THE PRODUCT LIFE OF THE VINYL SHALL BE EQUAL TO THE LIFE OF THE LED SIGNAL MODULE AND BE WARRANTED FOR NOT LESS THAN 7 YEARS.
PARTS LIST

<table>
<thead>
<tr>
<th>PART</th>
<th>DESCRIPTION</th>
<th>DRAWING NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1½&quot; x 17&quot; LONG SCHEDULE 80 1½ NPSM 3W THREADED ON BOTH ENDS</td>
<td>SE-252</td>
</tr>
<tr>
<td>2</td>
<td>1½&quot; DIE CAST AL. SERRATED TEE</td>
<td>SE-268</td>
</tr>
<tr>
<td>3</td>
<td>1½&quot; x 3½&quot; LONG DIE CAST AL. CHASE NIPPLE (LC-8-4)</td>
<td>SE-202</td>
</tr>
<tr>
<td>4</td>
<td>1½&quot; x 3½&quot; NEOPRENE SEAL WASHER 3½&quot; OD x 3½&quot; ID x 1½&quot; TH (FOR TOP BRACKET ONLY) (N.I.C.)</td>
<td>SE-013</td>
</tr>
<tr>
<td>5</td>
<td>TOP BRACKET CONNECTION</td>
<td>SE-016</td>
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<tr>
<td>6</td>
<td>BOTTOM BRACKET CONNECTION</td>
<td>SE-016</td>
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<tr>
<td>7</td>
<td>DIE CAST AL. PLAIN TEE</td>
<td>SE-016</td>
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<tr>
<td>8</td>
<td>TOP BRACKET CONNECTION</td>
<td>SE-016</td>
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<td>10</td>
<td>TOP BRACKET CONNECTION</td>
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</tr>
<tr>
<td>11</td>
<td>BOTTOM BRACKET CONNECTION</td>
<td>SE-016</td>
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</tbody>
</table>

NOTES:
1. SIGNAL HOUSING MAY BE ROTATED AROUND CENTER OF CONNECTION.
2. A THIN COAT OF "MOLYKOTE ANTI SEIZE THREAD COMPOUND" BY DOW CORNING, OR APPROVED EQUAL, SHALL BE USED ON ALL THREADING IN ALUMINUM THREADED CONNECTIONS.

NOTES:

- 
- NOT IN CONTRACT (N.I.C.)
### PARTS LIST

<table>
<thead>
<tr>
<th>PART NO.</th>
<th>DESCRIPTION</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>1 1/2&quot;x11&quot; LONG SCHEDULE 80 AL PIPE, 1 1/2&quot; NPSM 3W THREADS ON BOTH ENDS</td>
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<tr>
<td>2</td>
<td>1 1/2&quot; DIE CAST AL. SERRATED TEE</td>
</tr>
<tr>
<td>3</td>
<td>1 1/2&quot;x1 3/8&quot; LONG DIE CAST AL. CHASE NIPPLE (LC-8-2)</td>
</tr>
<tr>
<td>4</td>
<td>1 1/2&quot;NPSM DIE CAST AL. CLOSING CAP (LC-8-4)</td>
</tr>
<tr>
<td>5</td>
<td>1/4&quot; (60 DEGREES) &quot;Y&quot; FITTING</td>
</tr>
<tr>
<td>6</td>
<td>NEOPRENE SEAL WASHER (3/4&quot; ID x 1 7/8&quot; OD x 1/8&quot; TH) (FOR TOP BRACKET ONLY)</td>
</tr>
<tr>
<td>7</td>
<td>TOP BRACKET CONNECTION</td>
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<tr>
<td>8</td>
<td>BOTTOM BRACKET CONNECTION</td>
</tr>
<tr>
<td>9</td>
<td>DIE CAST AL. PLAIN TEE</td>
</tr>
<tr>
<td>10</td>
<td>1/4&quot; x 6&quot; HEX AL. (FOR TOP BRACKET ONLY)</td>
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<tr>
<td>11</td>
<td>1/4&quot; x 6&quot; HEX AL. (FOR BOTTOM BRACKET ONLY)</td>
</tr>
<tr>
<td>12</td>
<td>TOP BRACKET MOUNTING ASSEMBLY FOR PEDESTRIAN SIGNALS ON WOOD POLES &quot;WB-2P&quot;</td>
</tr>
</tbody>
</table>

### NOTES:
1. SIGNAL HOUSING MAY BE ROTATED AROUND CENTER OF CONNECTION.
2. A THIN COAT OF "MOLYKOTE ANTI-SEIZE THREAD COMPOUND" BY DOW CORNING, OR APPROVED EQUAL, SHALL BE USED ON ALL THREADING IN ALUMINUM THREADED CONNECTIONS.
**NOTE:**

1. TO SECURE TEMPORARY CONCRETE PYLON TO CONCRETE SURFACE USE 3/4" CONCRETE ANCHOR BOLTS.

---

**SECTION "AA"**

SCALE: 3" = 1'-0"

- 3/4" CONCRETE BOLTS EQUALLY SPACED
- 3/4" GALLVANIZED WASHER
- 3/4" GALLVANIZED HEX NUT

**PLAN VIEW**

---

**ANCHO BRACKET DETAIL**

SCALE: 3" = 1'-0"

- 3/4" GALLVANIZED ROOD
- 3/4" GALLVANIZED WASHER
- 3/4" GALLVANIZED HEX NUT
NYCDOT TRAFFIC SIGNAL STANDARD DRAWINGS, November 2013

- **SHELL**: 314" x 2" Plywood
- **WOOD SCREW**: 2" long
- **PAINT**: All exposed surfaces of wood and pipe with 2 coats of paint (color at discretion of contractor)
- **WIRE ENTRY**
  - 4" cutout in pipe for wire entry
- **FRAMING**
  - 2x4 with 2x4 block with 2" hole in center
  - 3'-0" ~ 1'-0"

**NOTES:**
1. PIPE TO BE 1 1/2" x 10' galv. steel.
2. BASE TO INCLUDE 2 BAGS OF STONE 200 LBS EA.
3. 2x4's to be used for framing.
4. CONTRACTOR IDENTIFICATION TO BE STENCILED ON OUTSIDE OF BASE WITH 3" MIN LETTERING HEIGHT.
NOTES:

1. LIST OF SUGGESTED MOUNTING HARDWARE SUPPLIED BY INSTALLER:
   a) 6'6" GALVANIZED CHAIN
   b) 1/2" SS BOLTS WITH SS FLANGE WASHERS
   c) 3/8" SS LOCK NUT, NYLON INSERT TYPE
   d) 1/2" SS BOLT WITH SS FLAT WASHERS AND NYLON LOCK NUT

2. PART FOR THE STRAP AS AB FOLLOWS:
   a) 1/8" STAINLESS STEEL FASTENING WITH BUCKLE
   b) 1/8" STAINLESS STEEL CAM BRACKET WITH 5/16" SS SCREW AND TYPE
   c) BRIDGEPORT 2110-S CONDUIT HANGER
   d) 3/8" SS BOLT WITH SS FLAT WASHERS AND NYLON LOCK NUT

3. STRAPS ON SIGN BRACKET - CAT SB022

4. JUNCTION BOX SHALL BE MOUNTED ON THE POLE CLOSE TO MAST ARM
NOTES:

1. FOUNDATION FOR TAPERED STEEL SHAFT ASSEMBLY SHALL BE AS PER DWG H-788.

2. STEEL TRANSFORMER BASE SHALL BE AS PER STREET LIGHTING SPEED DWG H-722.
NOTES:
1. 15'-6" MINIMUM CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE BOTTOM OF THE TRANSFORMER BASE.
2. STEEL HINGE SUPPLIED BY MANUFACTURER.
4. TO ACHIEVE MIN CLEARANCE, "M-2A" POLE MAY HAVE TO BE INSTALLED ON FOUNDATION RAISED WITH STEEL CYLINDER (SEE DWG F-005)
5. FOUNDATION TO HAVE MINIMUM THREE ELBOWS.
NYCDOT TRAFFIC SIGNAL STANDARD DRAWINGS, November 2013

FRONT VIEW

SIDE VIEW

FRONT VIEW

SIDE VIEW

FRONT VIEW

DOUBLE TRAFFIC SIGNAL WITH
PLAIN TEE AS SERVICE ENTRANCE

DOUBLE TRAFFIC SIGNAL
WITH SERVICE ENTRANCE CAP

SINGLE TRAFFIC SIGNAL
TYPICAL CCTV CAMERA AND CABINET INSTALLATION SHOWN ON STREET LIGHT WITH OCTAGONAL FABRICATED STEEL POLE AND LUMINAIRE

NOTES:
1. ACTUAL FIELD CONDITIONS WILL VARY. ADJUST MOUNTING HEIGHTS AS REQUIRED SO THAT CAMERA IS PLACED AS HIGH ON THE POLE AS PRACTICAL WHILE MAINTAINING AN UNOBSTRUCTED VIEW AND MIN. 6" CLEARANCE TO EXISTING DEVICE.
2. COORDINATE POLE PENETRATION LOCATIONS WITH EXISTING HOLES IN CABINET, CCTV MOUNTING ARM AND POLE ADAPTER.
3. ALL CABINET MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE LATEST NYCDOT SPECIFICATION FOR ASTC CABINETS.
4. REQUIRE 24 HR 120VAC SERVICE AT BASE OF POLE, TO BE PROVIDED BY NYCDOT (UNMETERED).
NOTES:

1. FOR CAST FRAME AND STEEL COVER SEE DWG. MISC-008.
2. PLUG UNUSED INSERTS WITH 5/16-18x1" 1/4" LONG WELL GREASED CAP SCREW.
3. PROVIDE EXTRA KNOCKOUTS, IF NECESSARY, TO AGREE WITH INTERSECTION DRAWINGS.
4. CONCRETE SHALL CONSIST OF 1 PART HIGH GRADE PORTLAND CEMENT - 2 PARTS CLEAN SHARP SAND OR TRAP ROCK GRAIN OR GRAVEL SCREENINGS - 4 PARTS HARD CRUSHED ROCK OR GRAVEL (3" SIEVE) - FRESH WATER.

BROKEN STONE DRAIN (BY CONTRACTOR)

GROUT

TOP OF SIDEWALK

WATER ROOFING

FILL RECESSES WITH GROUT AFTER FRAME IS FINALLY IN PLACE

SECTION "A-A"

TOP VIEW

(TOP VIEW WITHOUT METAL FRAME AND COVER)

APPROVED STAFF WATERPROOFING COMPOUND - CONDUITS TO MOVE FREELY THRU BOX WALLS

2" CONDUIT

TYPICAL CONDUIT INSTALLATION

EXTRA KNOCKOUT IN TYPE 2418 BOX ONLY FOR "MK" DETECTOR

KNOCKOUT FOR 3" TRANSITE CONDUIT IN ONE SHORT SIDE OF TYPE 2418 BOX ONLY, OR, 2 BOX.

FILL TOP OF BROKEN STONE UNDER BOX DRAIN

SEAL

CONDUITS TO MOVE FREELY THRU BOX WALLS.
NOTES:
1. FOR DETAIL OF PRECAST CONCRETE TRAFFIC SIDEWALK BOX SEE DRAWING MISC-008.
2. ALL SCREWS IN COVER SHALL BE 3/8" HEX. HEAD, 3/8" LONG OF STAINLESS STEEL OR MONEL.
3. LETTERING IN COVER TO BE 1/8" RAISED LETTERS IN A 1/8" RECESS.
4. FRAME AND COVER DIMENSIONS MAY VARY WITHIN NORMAL FOUNDRY TOLERANCES.

<table>
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<tr>
<th>TYPE</th>
<th>DIMENSIONS</th>
<th>NO. OF SCREWS</th>
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<tbody>
<tr>
<td>1812</td>
<td>18&quot; x 18&quot;</td>
<td>8</td>
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<tr>
<td>2418</td>
<td>24&quot; x 22&quot;</td>
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</table>

DEPARTMENT OF TRANSPORTATION
BUREAU OF TRAFFIC OPERATIONS
34-02 QUEENS BLVD               L.I.C., N.Y.11101

SCALE: 1"=10'   OLD DRAWING NO.: N/A   DRAWING NO.: MISC-008_2

PRECAST CONCRETE TRAFFIC SIDEWALK BOX

NEW YORK CITY

DRAWING

DELETED

REVISION

05/2012  1  REPLACED

PLAN

SECTIONAL - ELEVATION "B-B"

DIAMOND PATTERN COVER

3/4" WIDE TAPPED HOLES IN FRAME

4 1/2" BRING SLOTS (SEE COVER DETAILS)

N.Y.C.
TRAFFIC

TAPERED REES

1 1/2" DBL. HOLES WITH 1 1/2" X 1 1/2" COUNTERSORE IN COVER

1/8" NEOPRENE GASKET CEMENTED TO FRAME

FRAME

COVER

COVER FOR TYPE 2418

COVER FOR TYPE 1812

FRAME AND COVER TO BE HOT - DIPPED GALVANIZED.

THE COVER TO BE MODULAR IRON, AS PER ASTM SPEC. A558-BST, GRADE 85-40-12.

REVISED (SUPERSEDES LC74S)

REDRAWN

CORRECTED NOTE NO. 7

DRAWN

DESIGNER

MISC-008_2

NEW YORK CITY

DRAWING NO.

AS NOTED

LQ-1176

1 1/2" BLK. GROUNDING STUD WITH A BRONZE LOCK WASHER TYPE K2C20, OR EQUAL.
SECTION A-A
SCALE: 1"=1'-0"

SEE BLIND PICKHOLE DETAIL FOR DETAIL OF POLYFURN. CHLORIDE ONE PIECE GASKET

FOR REMOVING COVER FROM FRAME

LUG DETAIL
SCALE: 1"=1'-0"

LUG SIZE:
1/4" X 1/2" DEEP

BOLT DETAIL
SCALE: 1"=1'-0"

3/4" COUNTERSUNK 3/4" DEEP

1/4" COUNTERSUNK 3/4" DEEP

BLIND PICKHOLE DETAIL
SEE DETAIL A-A REQUIRED

BELOW SURFACES BETWEEN FRAME AND COVER TO BE TOOL MACHINED

NOT:"C-O" N.T.S.
NOTES:

1. FINISH TO BE PAINTED, RED OXIDE ASTM A36 STEEL.

2. DIMENSIONS MAY VARY SUBSTANTIALLY TO DEAL WITH EXISTING FIELD CONDITIONS.
BOLT GASKET
.250" THICK
.300" OD
.125"  ID
NEOPRENE
PLANE AND OIL RESISTANT
DURAMETER IS SHORE A50
TEMP RANGE IS -65 TO +260 F

GASKET
1 7/8" ID
2 1/2" OD
.125" THICK
NEOPRENE
PLANE AND OIL RESISTANT
DURAMETER IS SHORE A50
TEMP RANGE IS -65 TO +260 F
3/4" DIA. HOLE (TYPICAL)

SQUARE POLE WELDED TO PLATE (POLE SIZE WILL VARY)

5-1/2" FLANGE PLATE
NYCDOT TRAFFIC SIGNAL STANDARD DRAWINGS, November 2013

RTMS SENSOR WITH INTERNAL EUDOMODEM
SENSOR MOUNTING BRACKET 2C#10 WITH #8 GND AND RS-232 CABLES (RUN INSIDE POLE) CONNECT TO NEUTRAL (AC-)
WATERPROOF IN-LINE FUSE HOLDER AND 30 A FUSE (AC+).
SEE NOTE 3

BOND TO EXISTING GROUND CONDUCTOR OR ELECTRODE, OR INSTALL GROUNDING CLAMP FOR RMC (IF REQUIRED)

NOTES:
1. ACTUAL FIELD CONDITIONS WILL VARY.
2. PROVIDE SLACK COIL TO ALLOW RS-232 CONNECTOR TO BE CONNECTED TO LAPTOP COMPUTER BY MAINTENANCE STAFF.
3. REQUIRE 24 HR 120 VAC SERVICE AT BASE OF POLE, TO BE PROVIDED BY NYCDOT (UNMETERED).
4. AT THE POLE BASE, THE RS-232 CABLE SHALL BE TERMINATED WITH A FEMALE DB-9 CONNECTOR WITH PROTECTIVE COVER.
5. CABLE IN ACCORDANCE WITH NYCDOT SPECIFICATION FOR 120V POWER SUPPLY CABLE.
6. MOUNTED WITHIN 12"X10"X6" NORMAL SIZE NEMA 4X NON-METALLIC ENCLOSURE.

SEENOTE2:
GROUND LUG ON PANEL DIN RAIL
LOAD
GROUND LUG ON PANEL DIN RAIL
POLE BASE
GND
NO
RTMS
- - GND --

- - GND

TYPICAL RTMS SENSOR/SENSOR CABINET INSTALLATION SHOWN ON STREETLIGHT WITH OCTAGONAL, FABRICATED STEEL POLE AND LUMINAIRE
NOTES:

1. Access points and repeaters should be mounted no higher than 20 feet off the ground.
2. Access points and repeaters should be within 150 feet of wireless sensors.
3. When access points and repeaters are used in face-to-face configuration, distances among them should not be over 1,500 feet.
4. When access points and repeaters are used in back-to-back configuration, distances among them should not be over 400 feet.
5. Cable connection between traffic signal controller and access point should not be longer than 300 feet.
NOTES:

1. COMPACTED CLEAN GRANULAR (SAND) FILL TO BE A MAXIMUM OF 6" ABOVE TOP OF PIPE.
2. FULL-DEPTH "ZERO SLUMP" OR VERY DRY CONCRETE TO BE 3300 PSI TEST CONCRETE TO BE INSTALLED TO A HEIGHT OF MINIMUM OF 4" BELOW THE TOP OF EXISTING ASPHALT BASE.
3. CONCRETE TO BE MIXED ON-SITE BY AN APPROVED PORTABLE MIXER OR AS APPROVED BY THE ENGINEER.
4. PRIOR TO CONSTRUCTION, THE CONTRACTOR MUST SUBMIT HIS MIX OF MATERIALS IN EASILY IDENTIFIABLE VOLUMETRIC OR WEIGHT MEASURES AND AN ACCEPTABLE CERTIFICATION CONFIRMING THIS MIX IS 3300 PSI TEST CONCRETE.
5. A LAYOUT OF THE VERMEER WHEEL CUT AND 6' CUTBACK WILL BE MADE IN THE STREET UTILIZING STRAIGHT EDGES OR STRING CHUCK LINES IN GENERAL PARALLEL TO THE CENTER LINE OR CURB LINE OF THE STREET, ANY BENDS MUST BE SQUARED OFF ON THE OUTSIDE OF THE BEND AND CUT STRAIGHT ON THE INSIDE, SO AS CREATE A TRIANGLE OR SQUARE RESTORATION.

METHOD OF BACKFILL FOR NON-PROTECTED STREETS
(FORMER DWG LB-11323S)

METHOD OF BACKFILL FOR VERMEER WHEEL CUT
FOR LL-14 & GUARANTEED STREETS
(FORMER DWG LB-11396S)

METHOD OF BACKFILL FOR CHESEL CUT
FOR LL-14 & GUARANTEED STREETS
(FORMER DWG LB-11322S)
NOTES:

1. NORMAL LOCAL LAW 14 (LL-14) CUTBACKS ON THE BASE.

2. FULL CORNER QUADRANT RESTORATION FOR ALL QUADRANTS THAT WERE EXCAVATED.

ONE QUADRANT RESTORATION AREA

TWO QUADRANTS RESTORATION AREA

PROLONGATED 8' CURB LANE

OUTSIDE RESTORATION AREAS
TRAFFIC SIGNAL ON "M-2A" POLE

TRAFFIC SIGNAL ON "M-2A" COMBO POLE
WITH 15-1/2" SHAFT EXTENSION

TRAFFIC SIGNAL ON "M-2A" COMBO POLE
WITH 180° TWIN ARM TYPE 7 SHAFT EXTENSION

DOUBLE ARM TRAFFIC SIGNALS ON "M-2A" POLE
DECORATIVE "M-2A" POLE DETAILS
ACCESSIBLE PEDESTRIAN SIGNALS

APS ON TYPICAL METAL POLE

APS ON TYPICAL WOOD POLE

APS ON TYPICAL "APS POLE"

APS ON CONTROLLER CABINET

NEW YORK CITY

DEPARTMENT OF TRANSPORTATION
BUREAU OF TRAFFIC OPERATIONS
34-02 QUEENS BLVD
L.I.C., N.Y. 11101

ACCESSIBLE PEDESTRIAN SIGNALS

NEW YORK CITY

SCALE: OLD DRAWING NO. DRAWING NO.

REVISION

DATE: DESCRIPTION

05/2013 GPI REPLICATED IN CADD

05/2013 CR CREATED

N.I.A.

A4-038
OVERHEAD SIGN ON "GGP" POLE

OVERHEAD SIGN ON "M-2A" COMBO POLE
**Wireless Sensor Installation Procedure**

1. Orientation of Chisel Cuts to Sensor
2. Chisel Cuts
3. Prying Upward to Loosen Sensor Shell Top
4. Removing Sensor Shell Top
5. Removing Sensor
6. Removed Sensor
7. Filling Sensor Hole with Epoxy Until Levelled With Road Surface
8. Installed Sensor

**Wireless Sensor Removal Procedure**

1. Sensor and Shell Assembly
2. Adjusting Sensor Installation Height
3. Placing the Sensor
4. Filling Sensor Hole with Epoxy
5. Initial Epoxy Application
6. Removing Sensor
7. Cleaning Sensor Hole
8. Filling Sensor Hole with Epoxy

- Scale: 50 05/2013 GPI Replicated in CADD
- Created: 6/2013 DR
- Description: N.T.S. Al-011
NYCDOT TRAFFIC SIGNAL STANDARD DRAWINGS, November 2013

SCHOOL ZONE FLASHER INSTALLATION EQUIPMENT

LAWTON HUB  SERRATED TEE  CLOSURE CAP

FLASHING SIGNAL MOUNTING ASSEMBLY

DRAWING NO.
REVISION
DESCRIPTION
BY DATE
NO

DEPARTMENT OF TRANSPORTATION
BUREAU OF TRAFFIC OPERATIONS
34-02 QUEENS BLVD
L.I.C., N.Y. 11101

Al-012