

New York City Department of Transportation

Traffic Signal Standard Drawings



Updated 2020

INDEX SHEET

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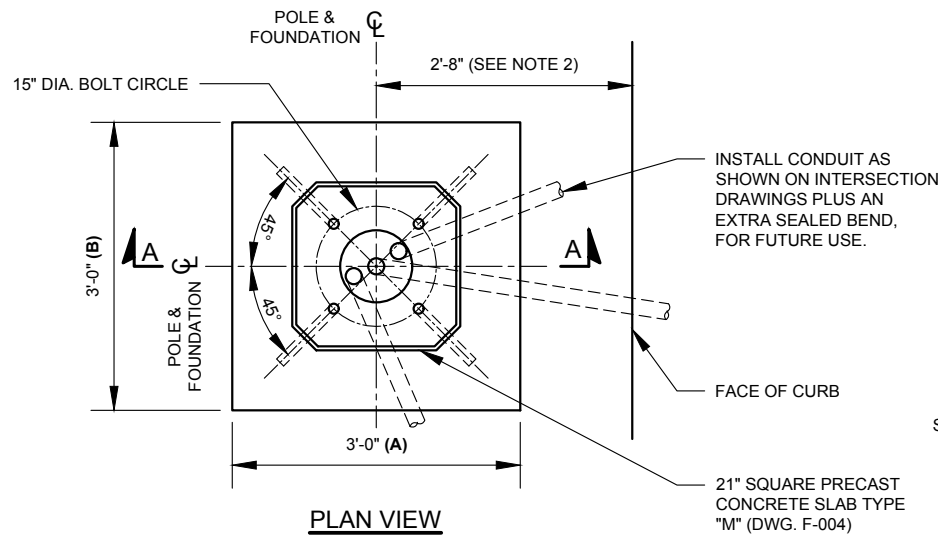
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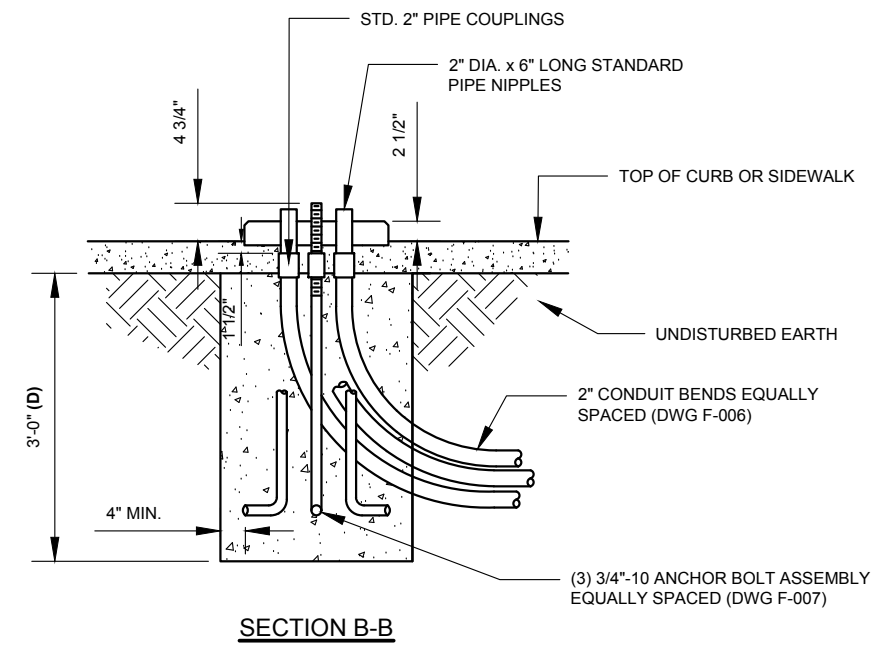
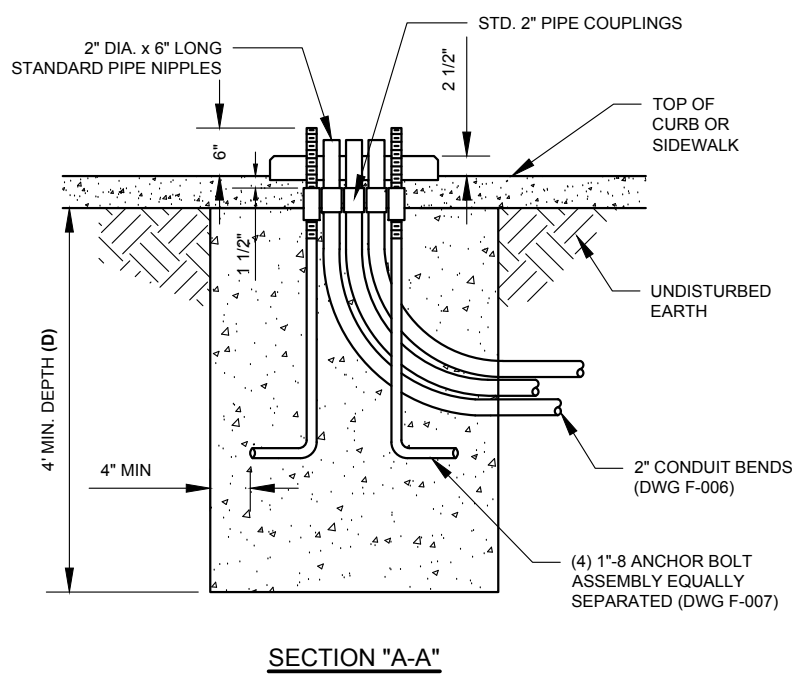
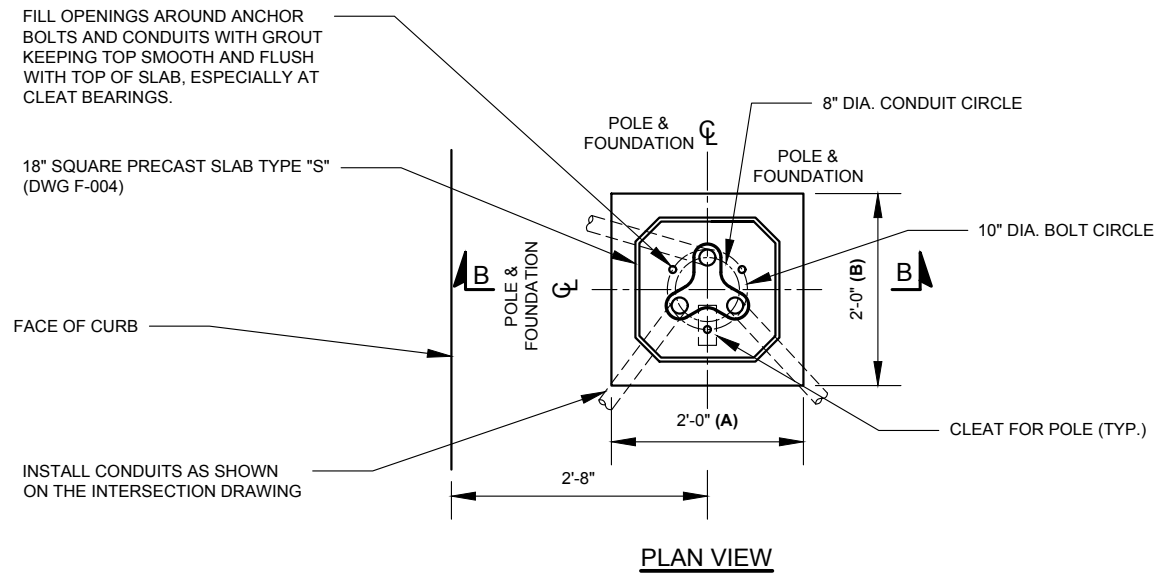
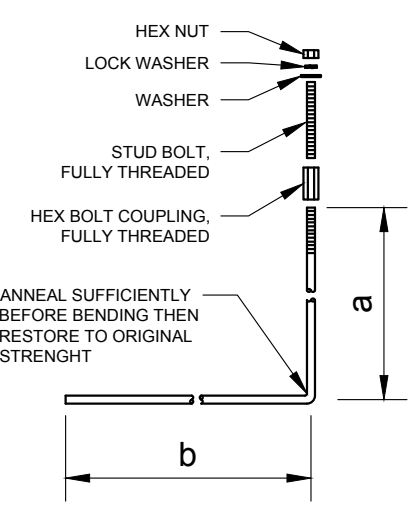
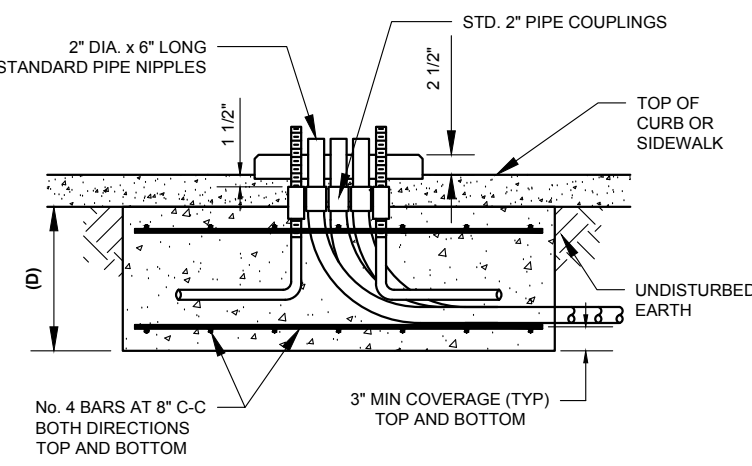
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SHALLOW FOUNDATION DIMENSIONS				
FOUNDATION			ANCHOR BOLTS	
D	A	B	a	b
1'-6"	4'-6"	4'-6"	11 1/2"	14 1/2"
1'-0"	5'-3"	5'-3"	5 1/2"	20 1/2"



**TYPICAL "S-14A" FOUNDATION
(FORMERLY F-1 FOUNDATION)
(FORMER DWG LG-126S)**

**SHALLOW FOUNDATIONS
FOR S-1a AND S-14 POLES**

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

- NOTES:**
- 3000 PSI CONCRETE TO BE USED.
 - FOR MIDBLOCK POLE LOCATIONS DISTANCE SHALL BE 36" FROM THE FACE OF CURB.
 - FOR NUMBER OF ANCHORS, THREAD SIZE AND COUPLINGS IN EACH ASSEMBLY SEE DWG F-007.
 - SHALLOW FOUNDATIONS SHALL UTILIZE 12" RAD. CONDUIT BENDS.

NO	DATE	BY	DESCRIPTION
5	03/2011	GPI	REPLICATED IN CADD
4	11/1967	JBC	LG-126S REVISION
3	05/1967	JBC	LG-126S REVISION
2	08/1964	JBC	LG-126S REVISION
1	02/1964	JBC	LG-126S REVISION
0	06/1963	GS	LG-126S CREATED

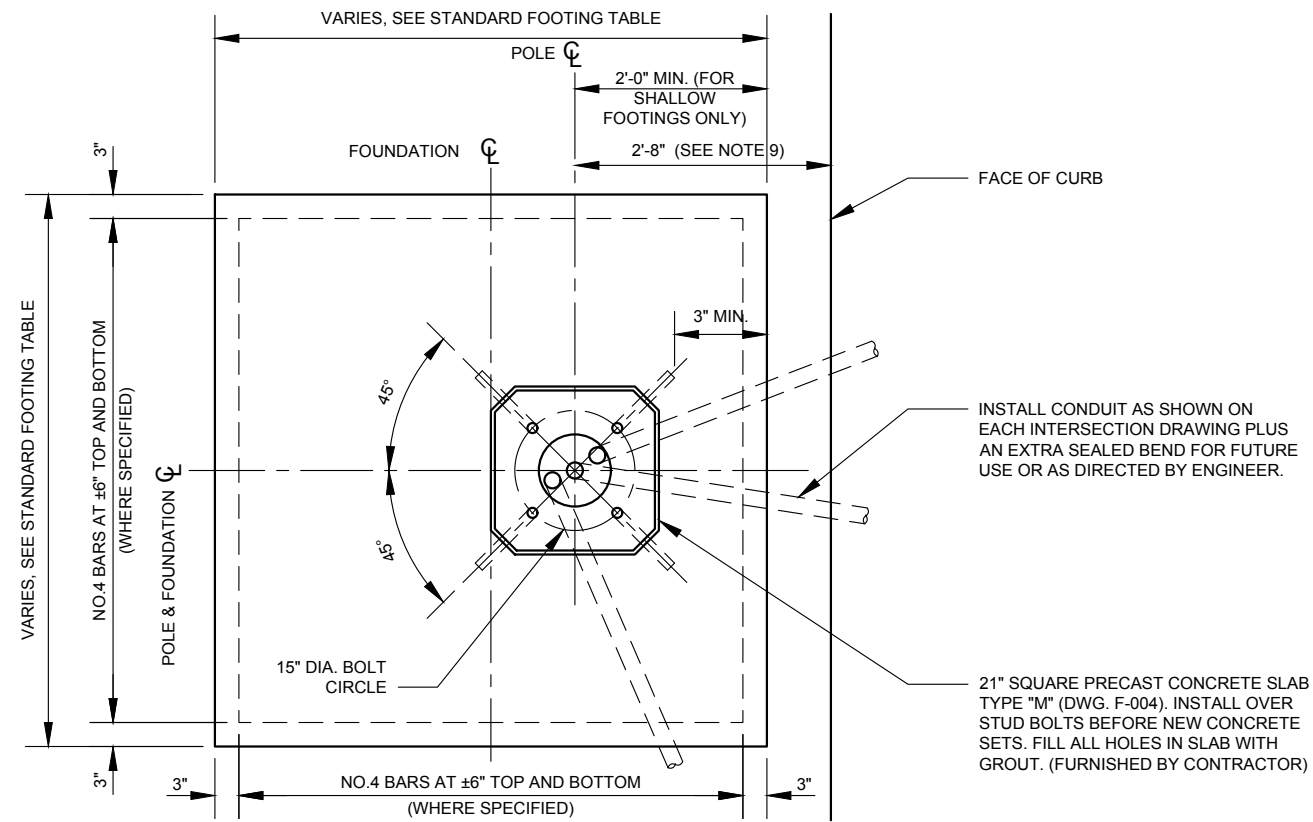
NO	DATE	BY	DESCRIPTION
1	12/19	DR	REPLICATED IN CAD
0	10/31/68	JBC	LG-185S CREATED



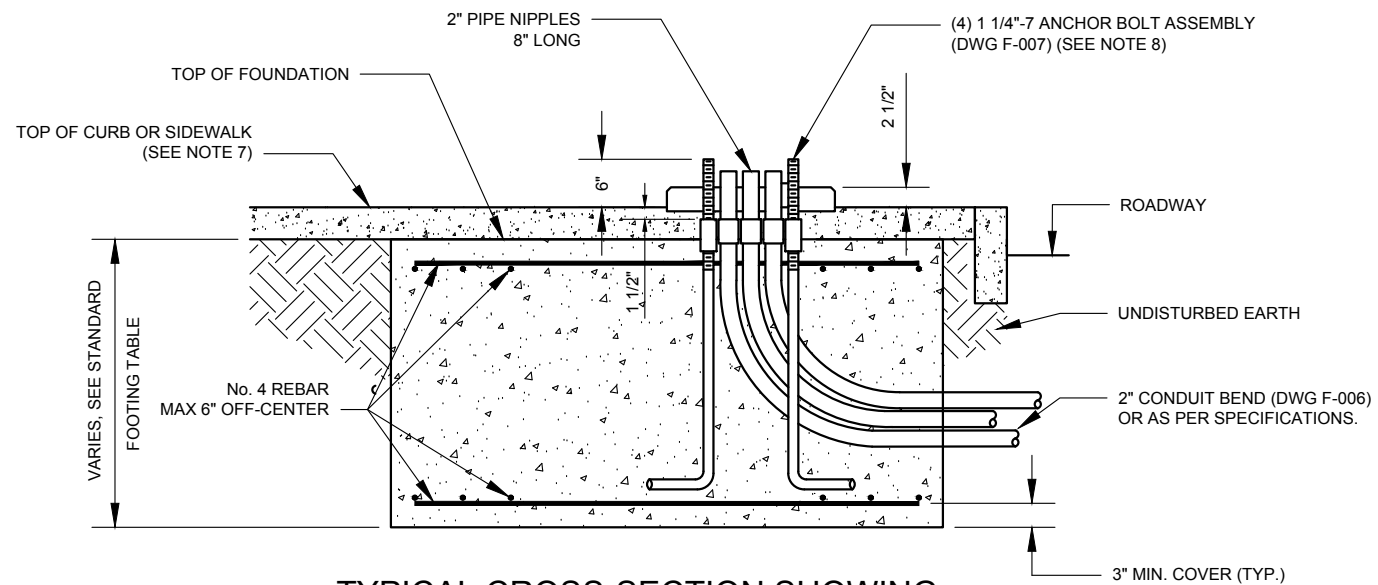
NO	DATE	BY	DESCRIPTION
3	03/2011	GPI	REPLICATED IN CADD
2	01/1968	JBC	REVISED SLAB ADDED NOTE
1	07/1967	JBC	LG-170S REVISION
0	08/1965	ADB	LG-170S CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
TYPICAL FOUNDATIONS "S-14A", "S" & "T" FOR "S-14A", "S-1a" AND "T-1" POLES		
SCALE: 1/2" = 1'-0"	OLD DRAWING NO. LG-126S LG-170S	DRAWING NO. F-001

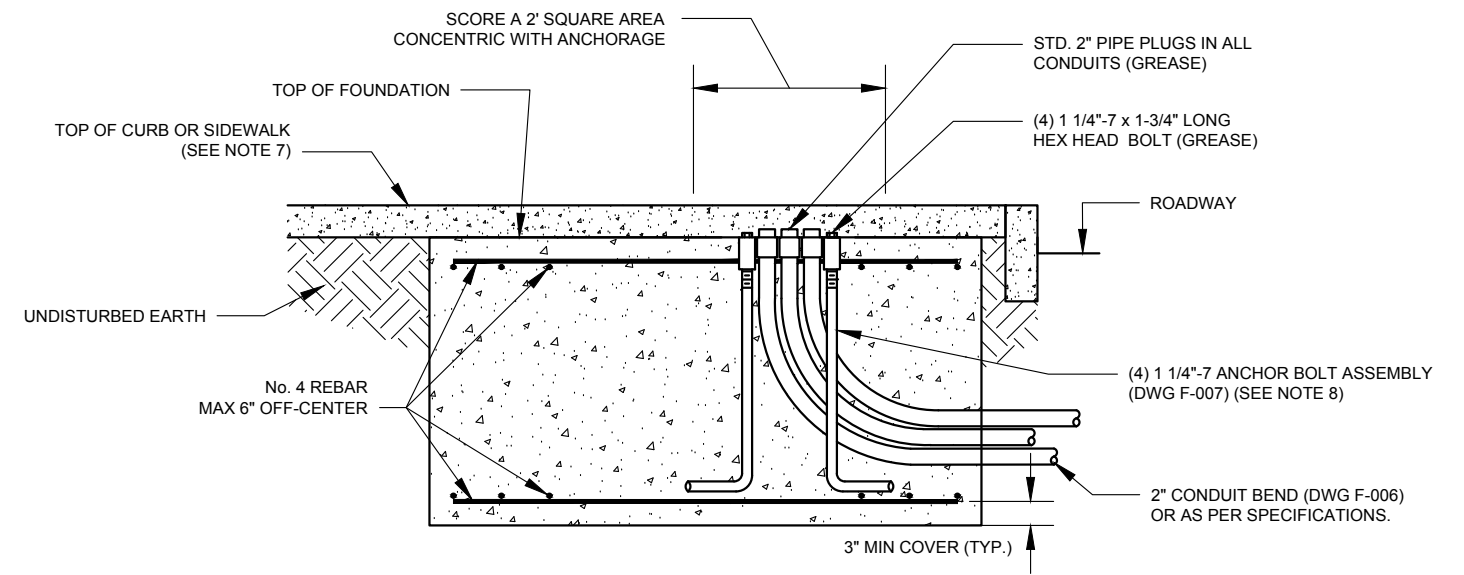
NYCDOT TRAFFIC SIGNAL STANDARD DRAWINGS, Jun 2020



PLAN VIEW



TYPICAL CROSS-SECTION SHOWING METHOD OF PREPARING FOUNDATION FOR PRESENT POLE INSTALLATION



TYPICAL CROSS-SECTION SHOWING METHOD OF PREPARING FOUNDATION FOR FUTURE POLE INSTALLATION

STANDARD FOOTING TABLE			
STANDARD PLAN SIZES IN FEET AND INCHES FOR			
M-2 OR M-2A POLES WITH	5'-0" MIN. DEPTH	3'-0" MIN. DEPTH WITH REINFORCEMENT	2'-0" MIN. DEPTH WITH REINFORCEMENT
ONE MAST ARM & NO LUMINAIRE ONE MAST ARM & ONE LUMINAIRE	3'-0"x3'-0" (M2-5S)	5'-9"x5'-9" (M2-3S)	7'-0"x7'-0" (M2-2S)
ONE MAST ARM & TWO LUMINAIRES TWO MAST ARMS & NO LUMINAIRE TWO MAST ARMS & ONE LUMINAIRE TWO MAST ARMS & TWO LUMINAIRE	4'-0"x4'-0" (M2-5T)	7'-0"x7'-0" (M2-3T)	8'-9"x8'-9" (M2-2T)

"STANDARD FOOTING TABLE" NOTES:

1. USE ABOVE "STANDARD FOOTING TABLE" UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
2. NUMBERS IN PARENTHESES DESIGNATE TYPE OF FOOTING.

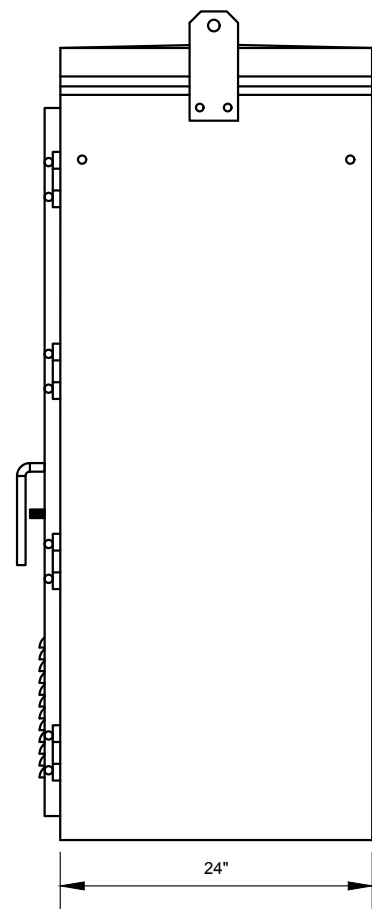
NOTES:

1. CONCRETE SHALL BE 3,000 PSI TEST CONCRETE
2. CONCRETE SHALL BE POURED AGAINST UNDISTURBED EARTH
3. FOOTINGS OVER EXISTING SUBSURFACE STRUCTURE SHALL BE FOUNDED DIRECTLY ON THE ROOF OF THE SUBSTRUCTURE WITH NO INTERMEDIATE LAYER OF SOIL.
4. WHERE REQUIRED, ϵ OF POLE MAY BE OFFSET AS SHOWN IN PLAN VIEW IN DIRECTION OF REFERENCE CURB LINE ONLY.
5. CAP UNUSED NIPPLES AND PLUG OTHERS WITH OAKUM AND SEAL.
6. LOCATE DOOR OF TRANSFORMER BASE AS DIRECTED BY ENGINEER.
7. SIDEWALK FINISH TO BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS OF NEW YORK CITY DEPT OF TRANSPORTATION.
8. FOR MODIFICATION OF STANDARD ANCHOR BOLTS FOR INSTALLATION IN SHALLOW FOOTINGS; ALL COLD BENDS SHALL BE UNIFORM AND A MINIMUM RADIUS OF 10 INCHES.
9. FOR MIDDLEBLOCK POLE LOCATIONS DISTANCE SHALL BE 36" FROM THE FACE OF CURB.
10. REBARS SHALL BE USED WITH SPREAD FOUNDATION ONLY, PLACED NO MORE THAN 6" OFF-CENTER TO FORM PERPENDICULAR LATHING PATTERN.

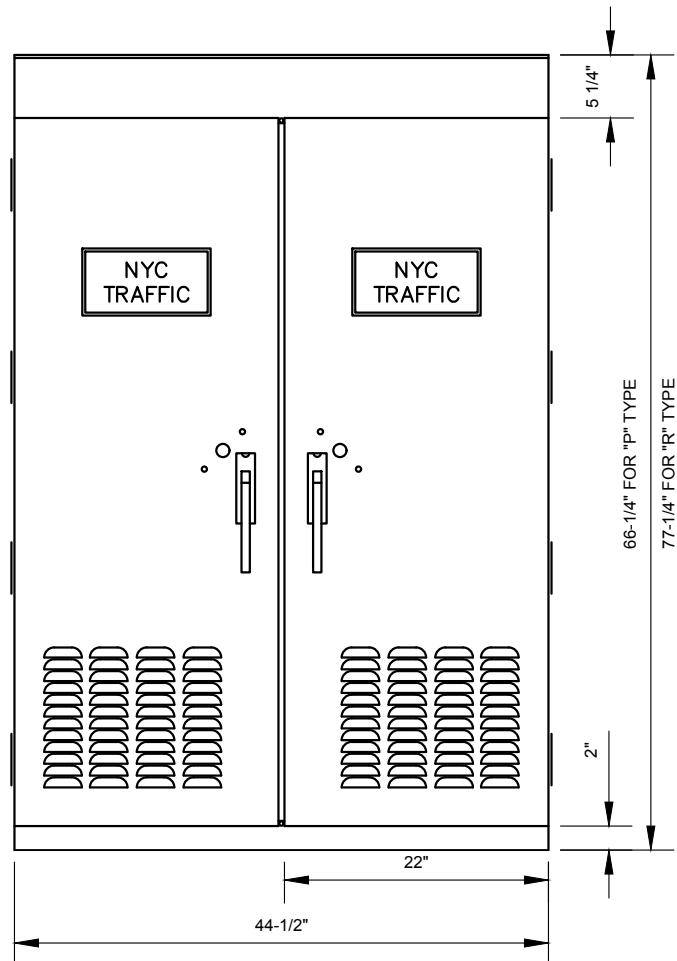


REVISION			
NO	DATE	BY	DESCRIPTION
2	02/2011	GPI	REPLICATED IN CADD
1	05/1967	ADB	ADDED TYPE OF FOOTING DESIGNATION
0	12/1966	ADB	LB-1028S CREATED

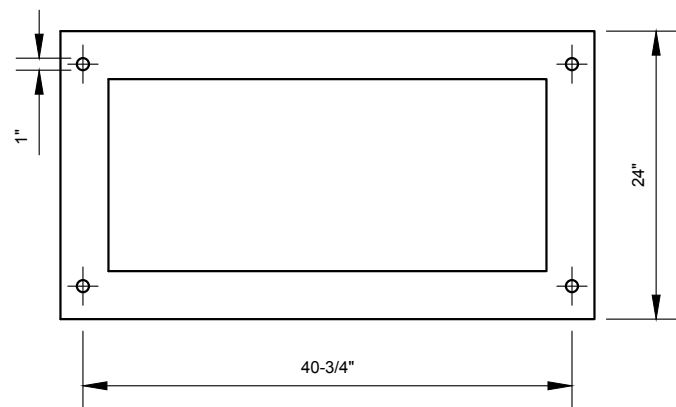
DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
FOOTING DETAILS FOR TYPES "M-2A" AND "S-14A" POLES		
SCALE:	OLD DRAWING NO.	DRAWING NO.
1/2" = 1'-0"	LB-1028S	F-002



SIDE VIEW



FRONT VIEW

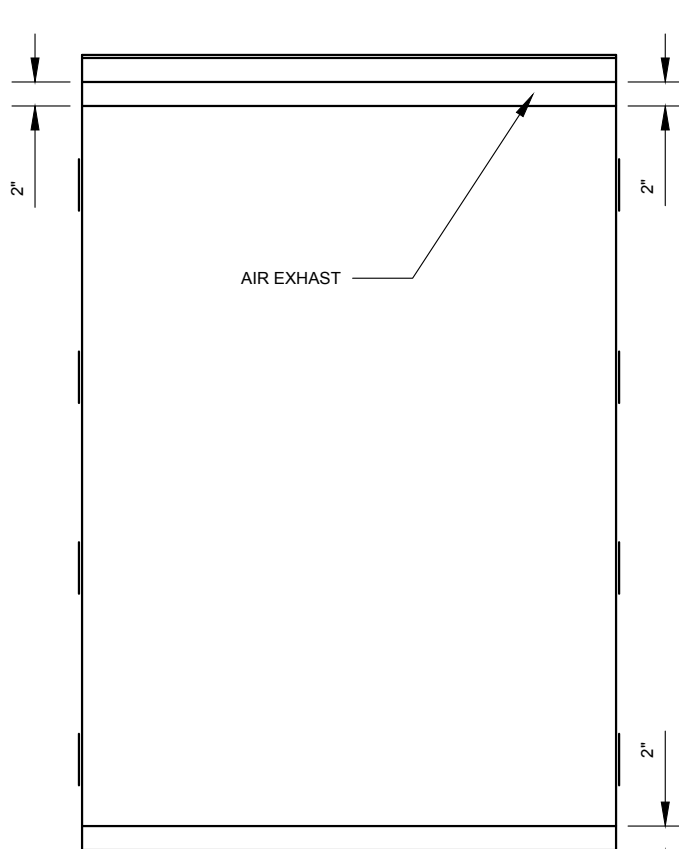


BOTTOM VIEW

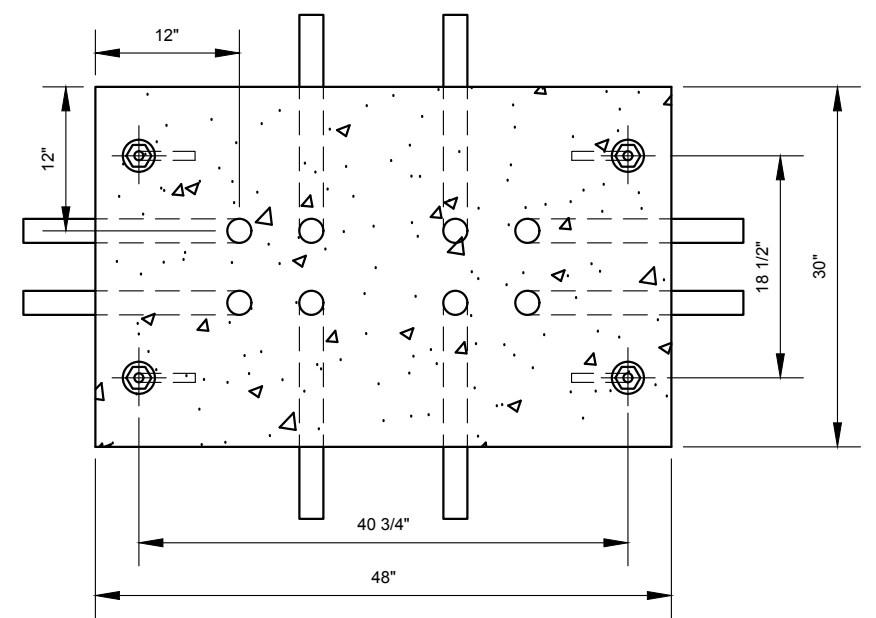
NEMA "P" AND "R" CABINETS

NOTES:

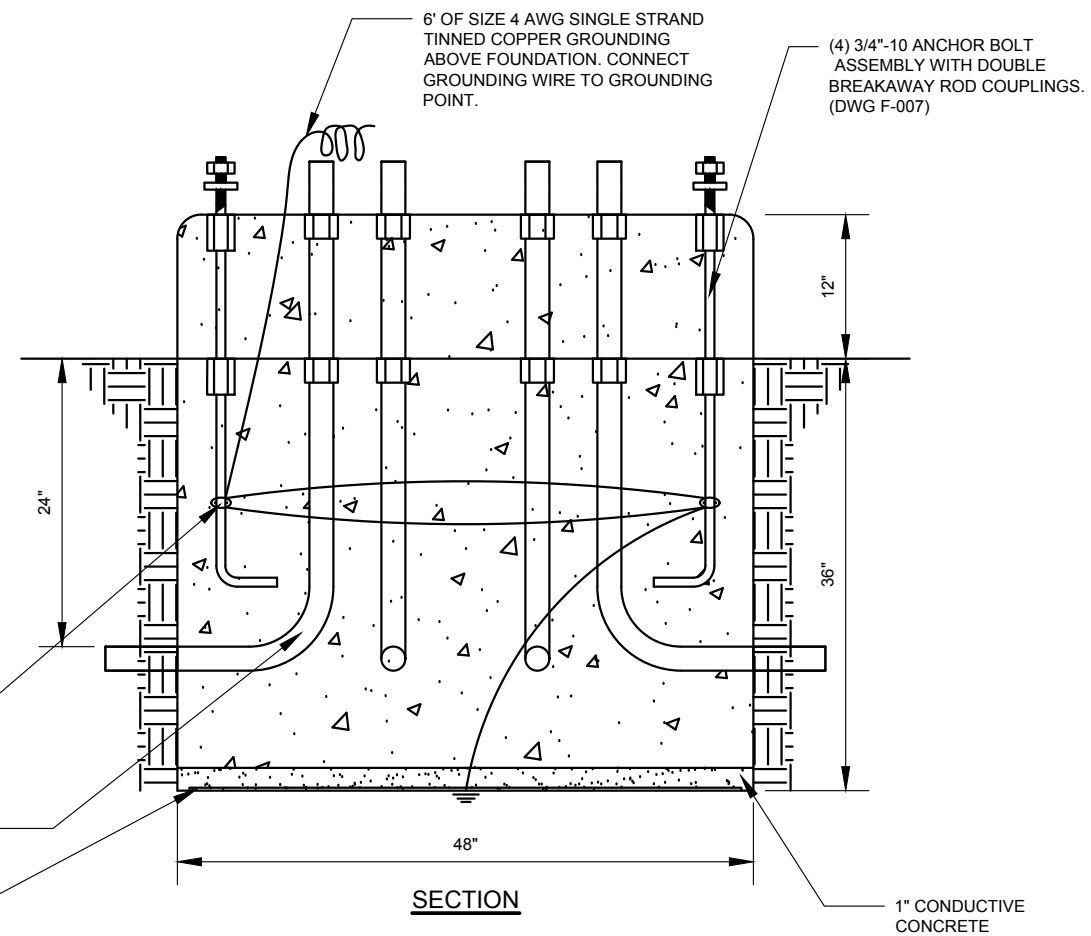
1. LOCATION FOUNDATION MUST BE APPROVED BY NYCDOT.
2. ANCHOR BOLT PROJECTION ABOVE FOUNDATION SHALL BE 3-1/2" TO 4-1/2"
3. CONDUIT PROJECTION ABOVE FOUNDATION SHALL BE 1" TO 4"
4. CONTINUOUS TINNED COPPER GROUNDING WIRE SHALL BE CONNECTED TO EACH ANCHOR BOLT WITH BRONZE GROUNDING CONNECTOR BEFORE CONTINUING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



BACK VIEW



PLAN



SECTION

CABINETS FOUNDATION

BRONZE GROUNDING CONNECTOR UL LISTED FOR UNDERGROUND USE (ONE PER BOLT)

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

28"x46"x1/4" GALVANIZED STEEL GROUNDING PLATE INCASED IN CONDUCTIVE CONCRETE

6' OF SIZE 4 AWG SINGLE STRAND TINNED COPPER GROUNDING ABOVE FOUNDATION. CONNECT GROUNDING WIRE TO GROUNDING POINT.

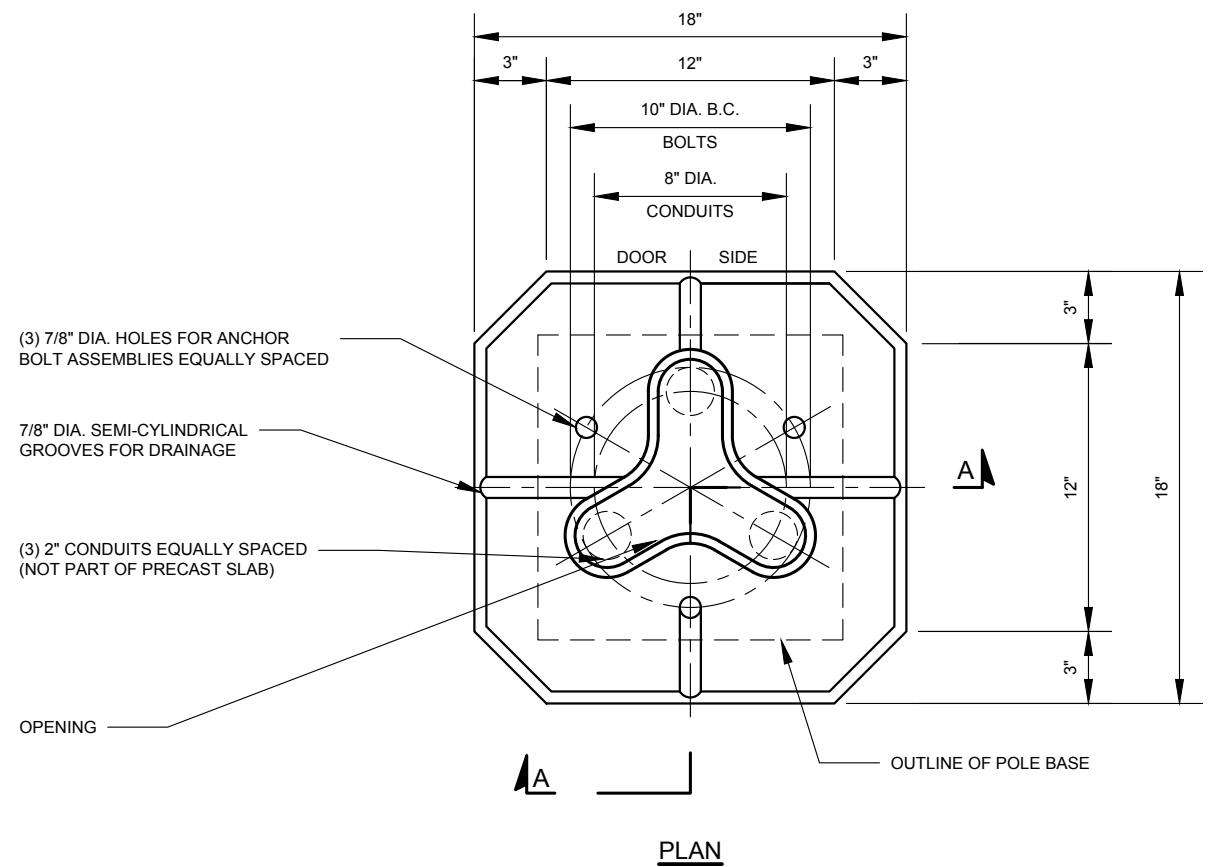
(4) 3/4"-10 ANCHOR BOLT ASSEMBLY WITH DOUBLE BREAKAWAY ROD COUPLINGS. (DWG F-007)

REVISION			
NO	DATE	BY	DESCRIPTION
1	04/2011	GPI	REPLICATED IN CADD
0	04/2011	N/A	GROUND MOUNT CABINET CREATED

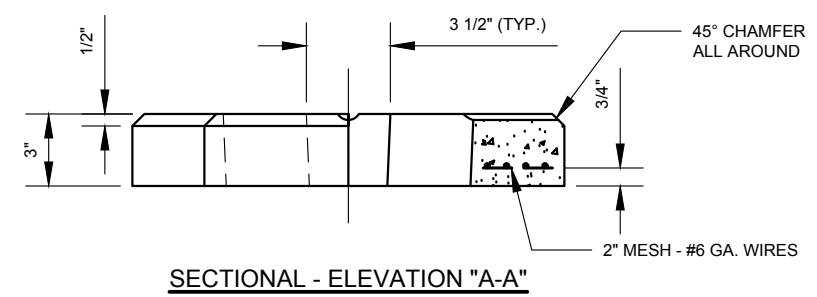
DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
FOUNDATION FOR GROUND MOUNT CONTROLLER CABINET		
SCALE: 3/4" = 1'-0"	OLD DRAWING NO.	DRAWING NO. F-003



NYCDOT TRAFFIC SIGNAL STANDARD DRAWINGS, Jun 2020

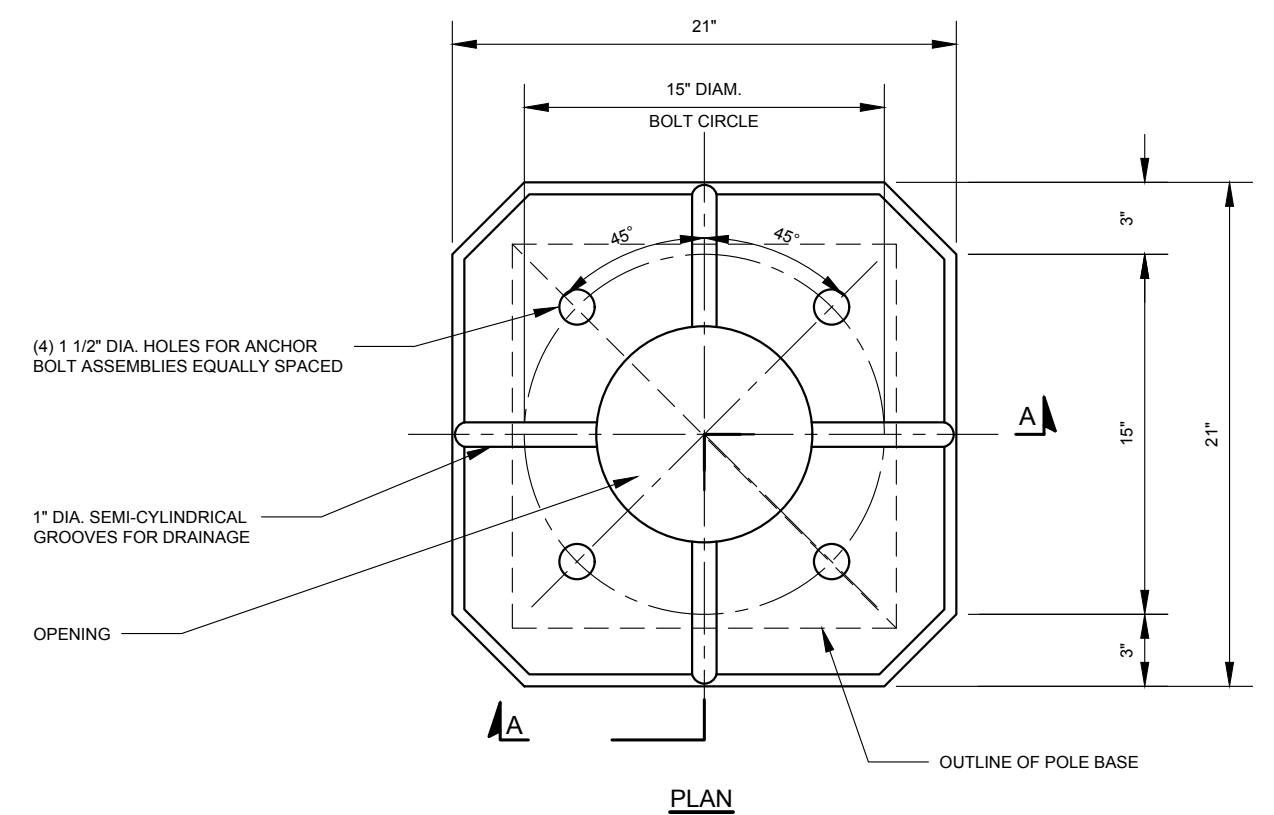


PLAN

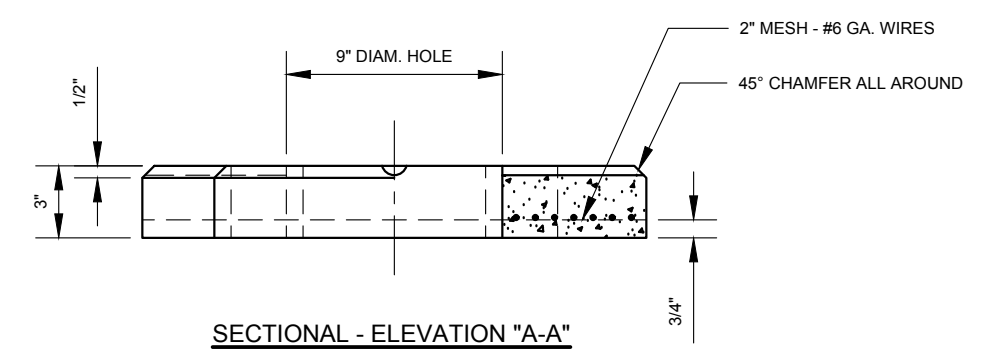


SECTIONAL - ELEVATION "A-A"

18" SQUARE PRECAST SLAB - TYPE "S"
(FORMER LG-169S)



PLAN



SECTIONAL - ELEVATION "A-A"

21" SQUARE PRECAST SLAB - TYPE "M"
(FORMER DWG LG-62S)

NOTE:
1. 3000 PSI CONCRETE TO BE USED.

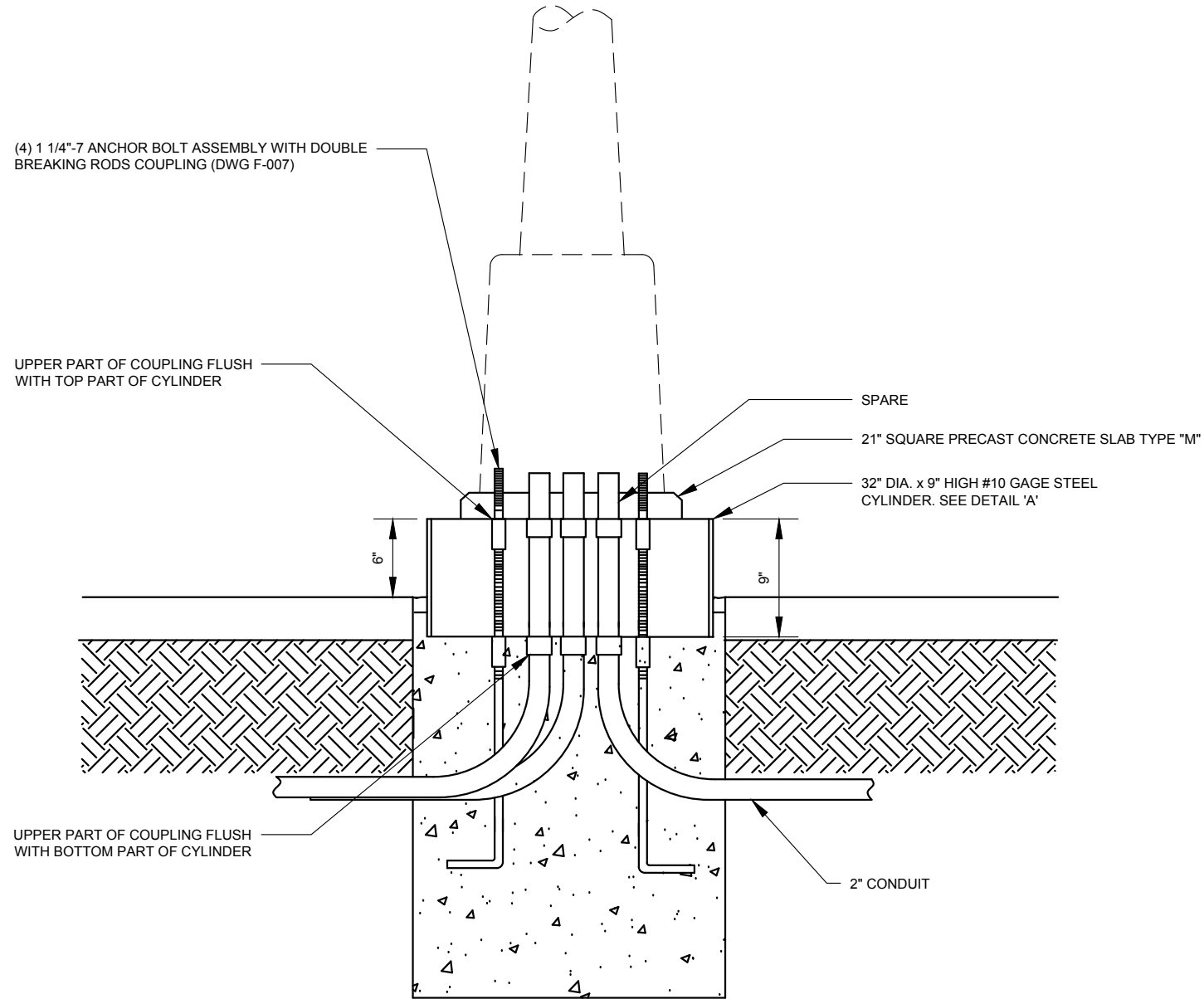
REVISION			
NO	DATE	BY	DESCRIPTION
2	03/2011	GPI	REPLICATED IN CADD
1	01/1968	JBC	CONDUIT SLOTS 2 3/8" WIDE
0	08/1965	ADB	LG-169S CREATED



REVISION			
NO	DATE	BY	DESCRIPTION
3	03/2011	GPI	REPLICATED IN CADD
2	03/1963	AC	LG-62S REVISION
1	10/1958	JC	LG-62S REVISION
0	08/1965	JBC	LG-62S CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
18" & 21" SQUARE PRECAST SLABS		
SCALE: 1 1/2" = 1'-0"	OLD DRAWING NO. LG-169S LG-62S	DRAWING NO. F-004

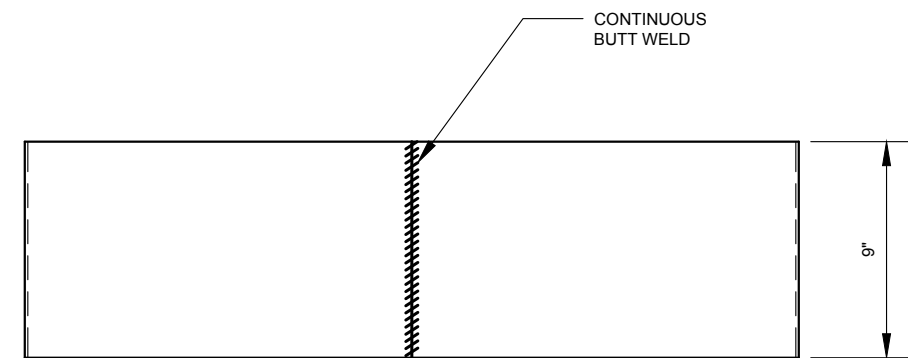
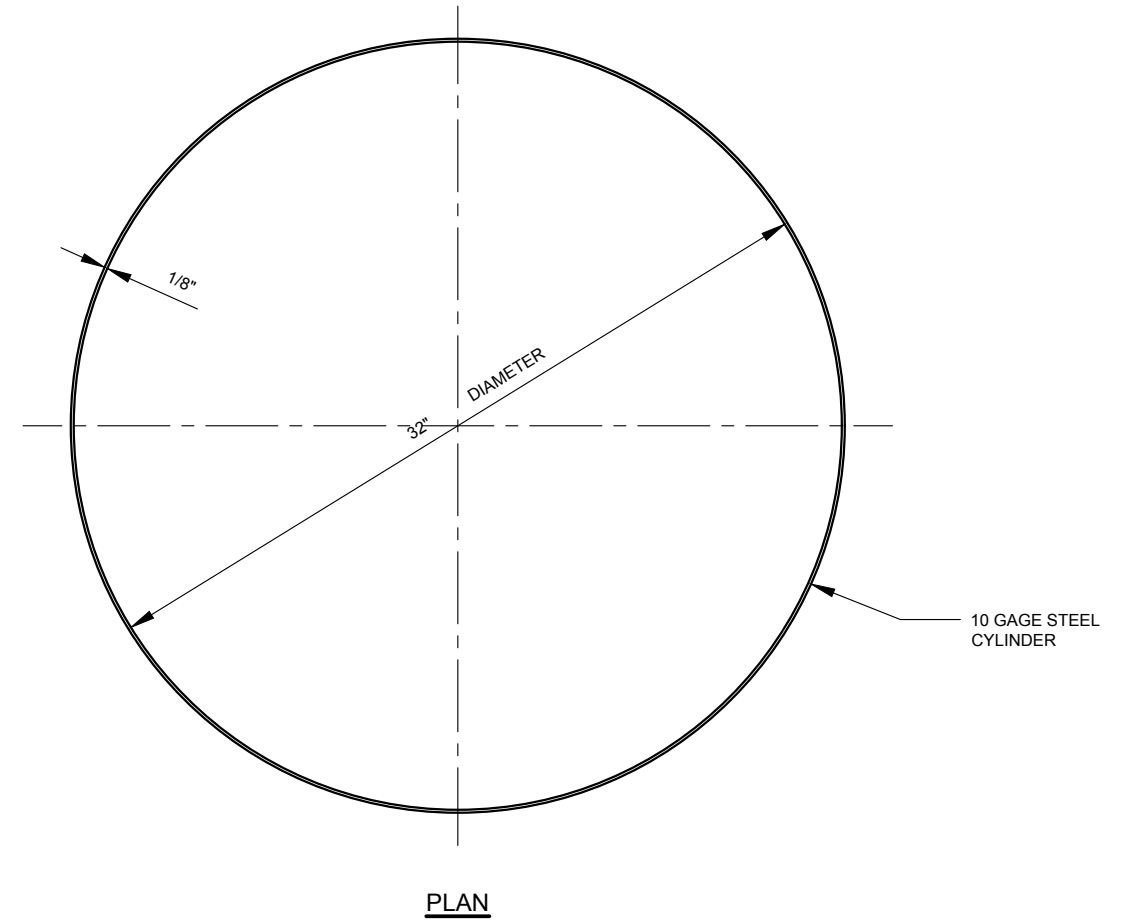
NYCDOT TRAFFIC SIGNAL STANDARD DRAWINGS, Jun 2020



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

NOTE:

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



ELEVATION DETAIL 'A'

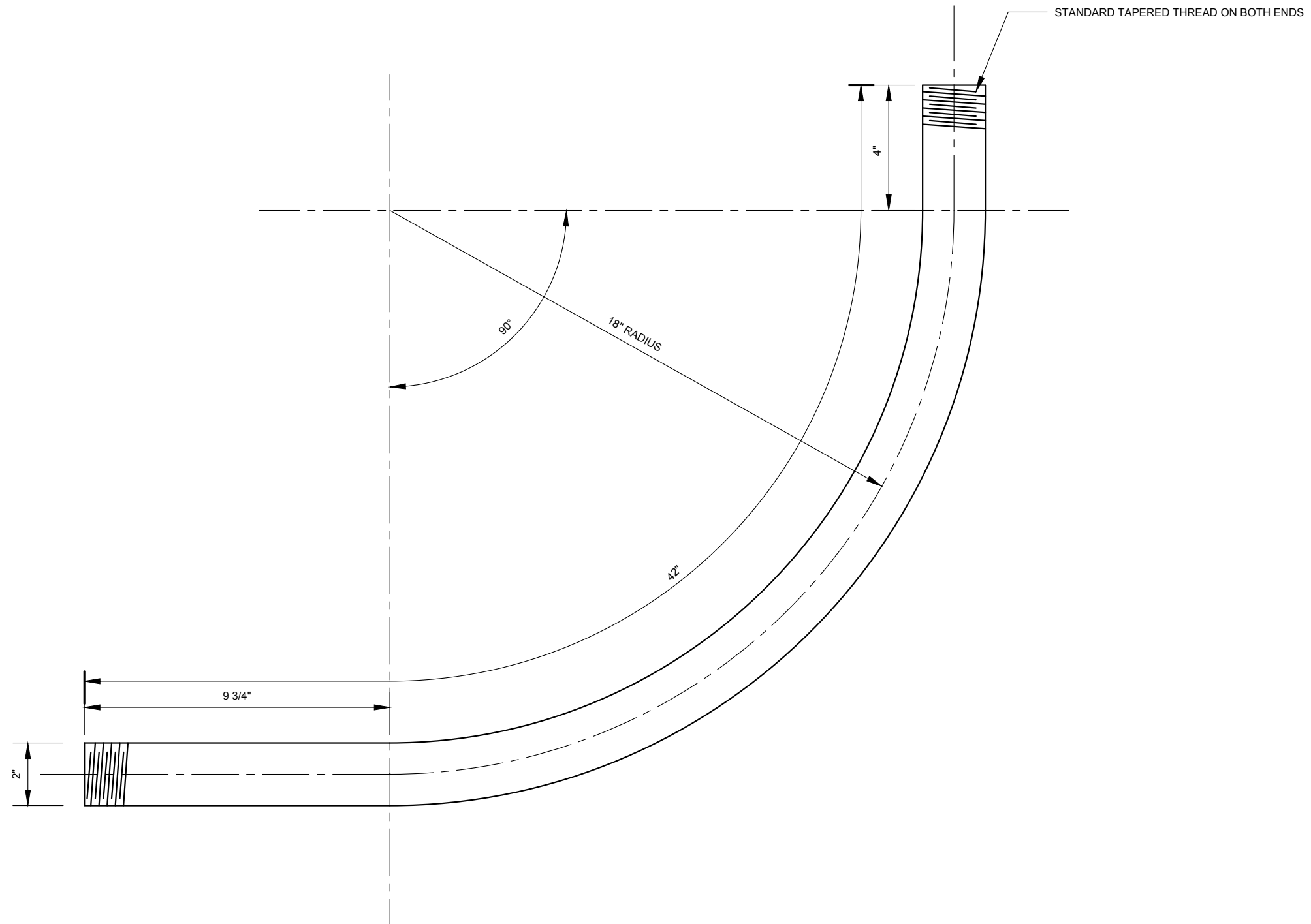
**32" DIAMETER X 9" HIGH STEEL CYLINDER
(FORMER DWG LG-7Sb)**

REVISION			
NO	DATE	BY	DESCRIPTION
1	03/2011	GPI	REPLICATED IN CADD
0	08/2008	JH	LB-14634S CREATED (SUPERSEDES LG-108S)



REVISION			
NO	DATE	BY	DESCRIPTION
3	03/2011	GPI	REPLICATED IN CADD
2	01/1971	JV	REVISED AND REDRAWN
1	02/1963	HSC	LG-7Sb REVISION
0	11/1962	MF	LG-7Sb CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
"M-2" FOUNDATION WITH 32" DIA. X 9" HIGH STEEL CYLINDER		
SCALE:	OLD DRAWING NO.	DRAWING NO.
N.T.S.	LG-7Sb LB-14634S	F-005



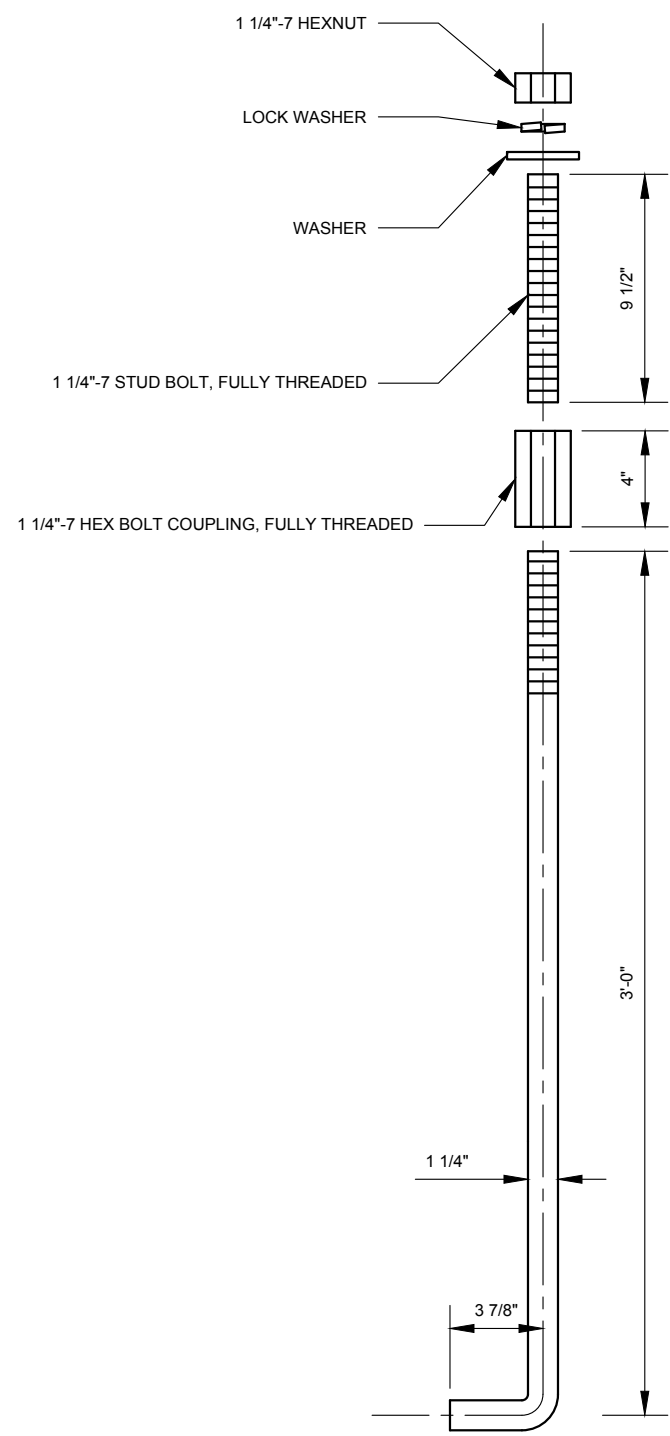
STANDARD 2" STEEL PIPE BEND (GALVANIZED)



REVISION			
NO	DATE	BY	DESCRIPTION
1	03/2011	GPI	REPLICATED IN CADD
0	01/1962	JBC	LG-97-S CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
DETAIL OF STANDARD 2" PIPE CONDUIT BEND		
SCALE:	OLD DRAWING NO.	DRAWING NO.
3" = 1'-0"	LG-97-S	F-006

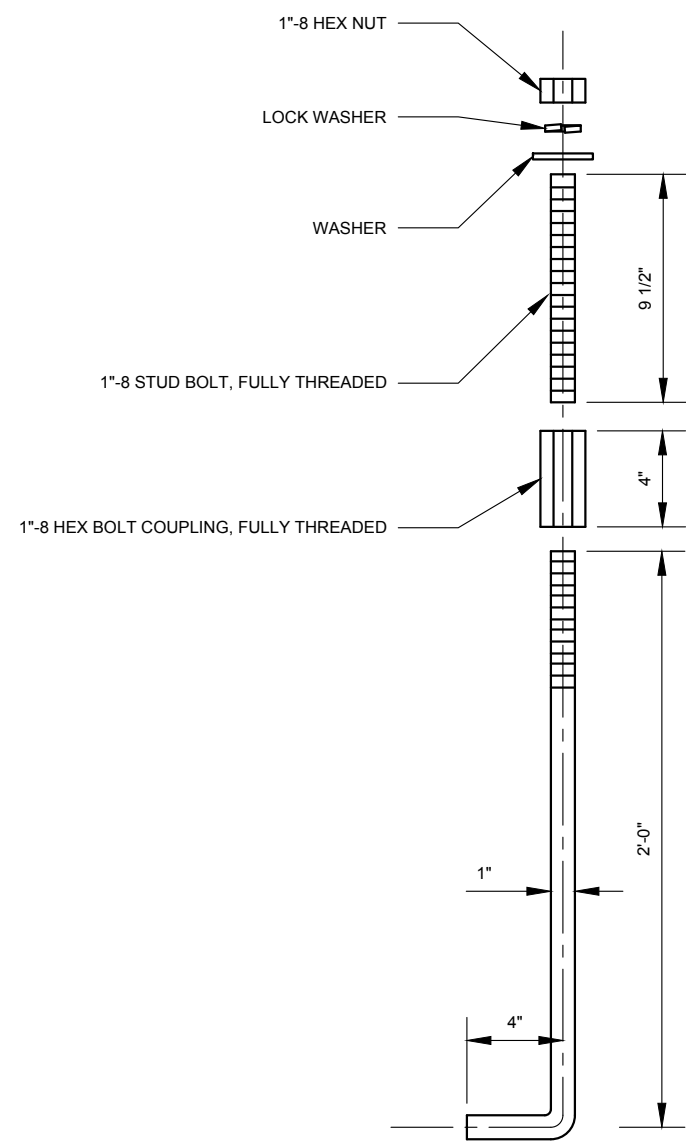
NYCDOT TRAFFIC SIGNAL STANDARD DRAWINGS, Jun 2020



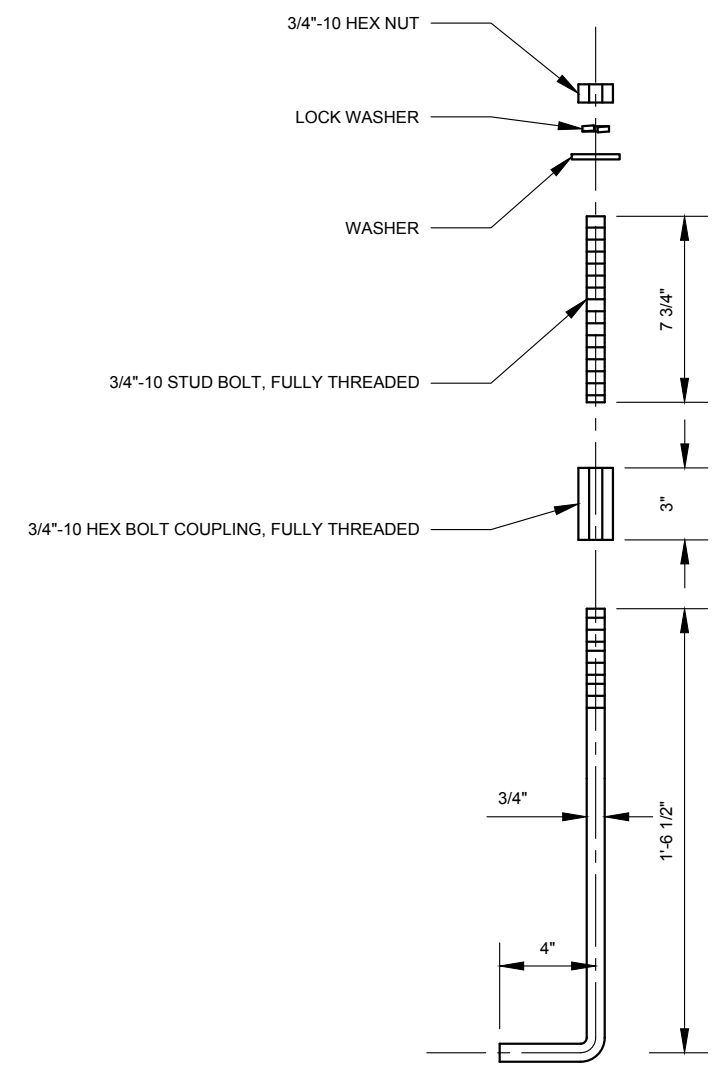
ASSEMBLY "B"
(4 REQUIRED PER POLE)
FOR "M-2A" POLE

NOTE:

- 1. HEX BOLT COUPLINGS SHALL BE GREASED OR ANTI-SIEZE COMPOUNDED



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

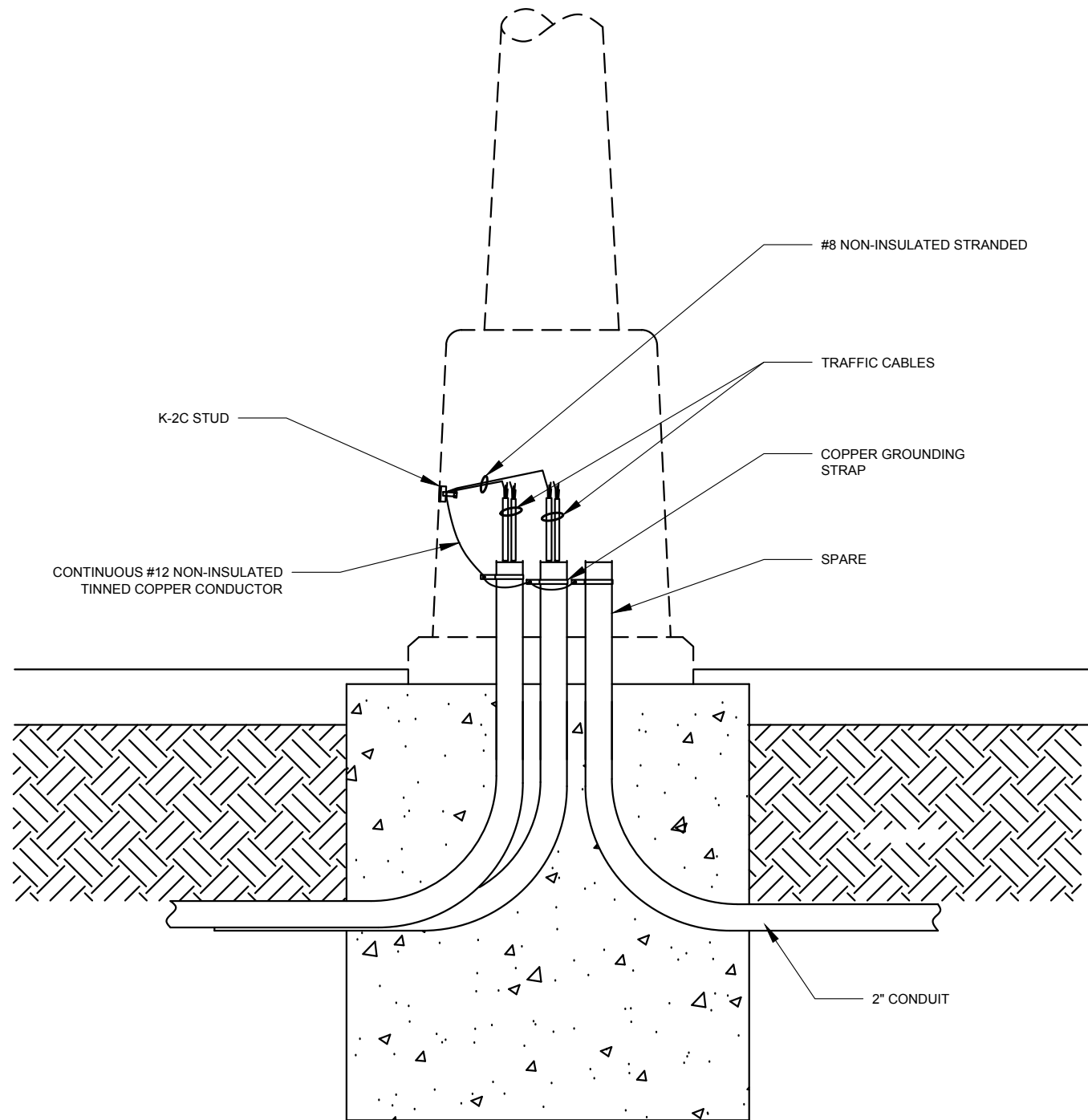


ASSEMBLY "D"
(3 REQUIRED PER POLE)
FOR "S-1" & "T-1" POLES

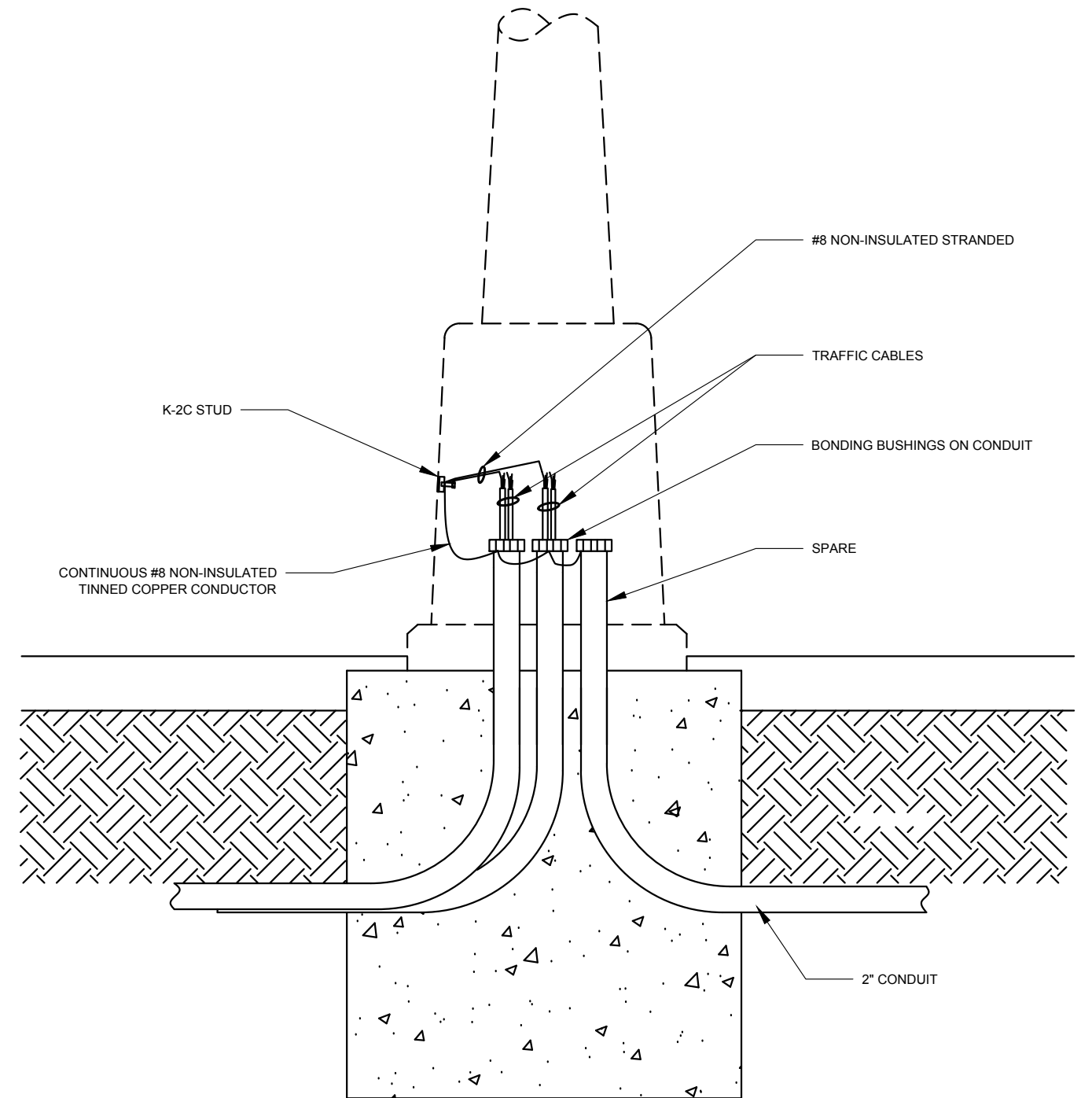


REVISION			
NO	DATE	BY	DESCRIPTION
3	03/2011	GPI	REPLICATED IN CADD
2	12/1967	X.X.	LG-104S REVISION
1	02/1964	X.X.	LG-104S REVISION
0	06/1963	GS	LG-104S CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
STANDARD ANCHOR BOLT ASSEMBLIES "B", "C" AND "D"		
SCALE:	OLD DRAWING NO.	DRAWING NO.
1 1/2" = 1'-0"	LG-104S	F-007



GROUNDING DETAIL FOR RETROFIT
(FORMER DWG LB-14005S)

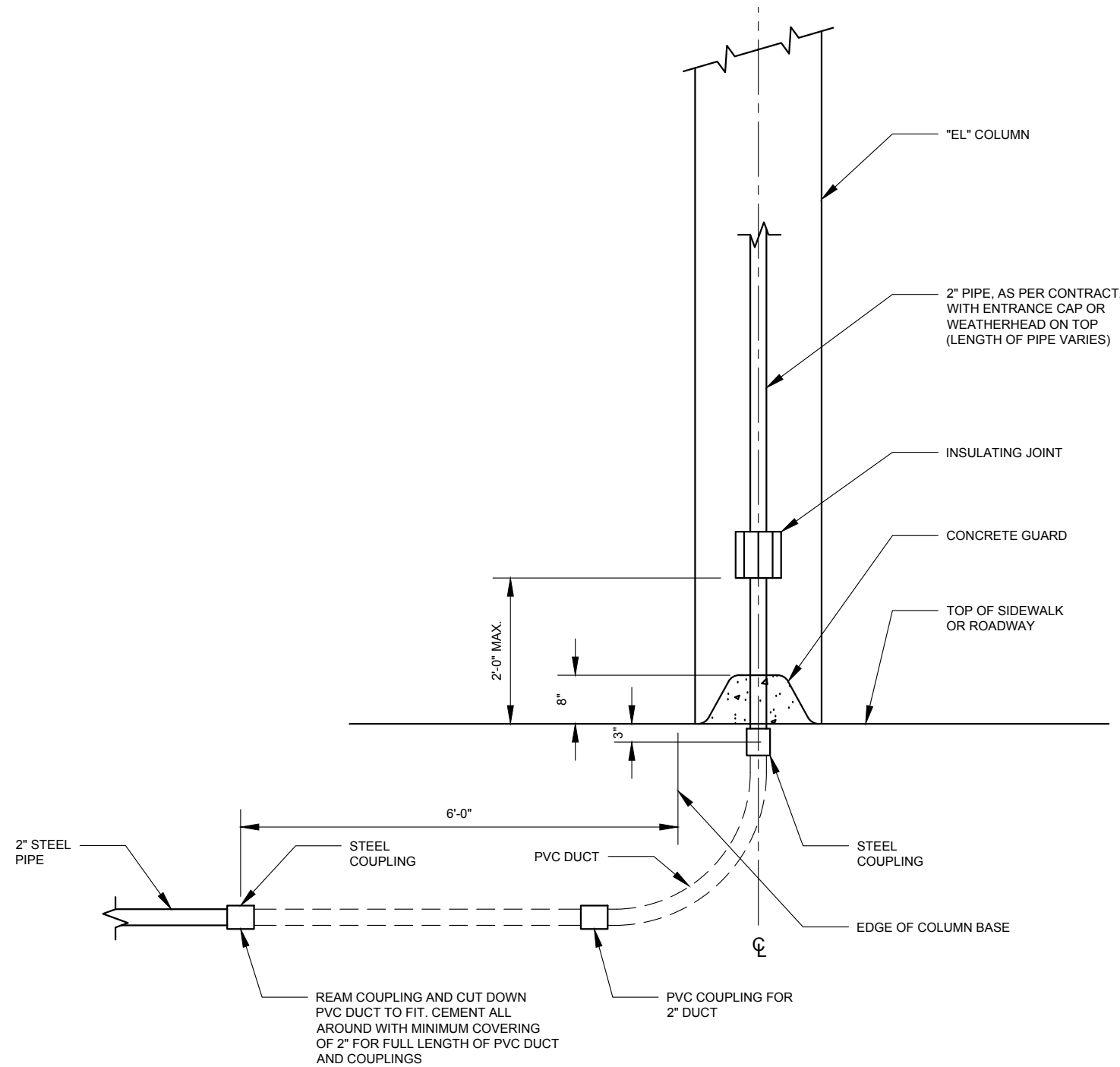


GROUNDING DETAIL FOR NEW INSTALLATION



REVISION			
NO	DATE	BY	DESCRIPTION
1	03/2011	GPI	REPLICATED IN CADD
0	11/2004	JH	LB-14005S CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
FOUNDATION GROUNDING DETAIL		
SCALE:	OLD DRAWING NO.	DRAWING NO.
N.T.S.	LB-14005S	F-008

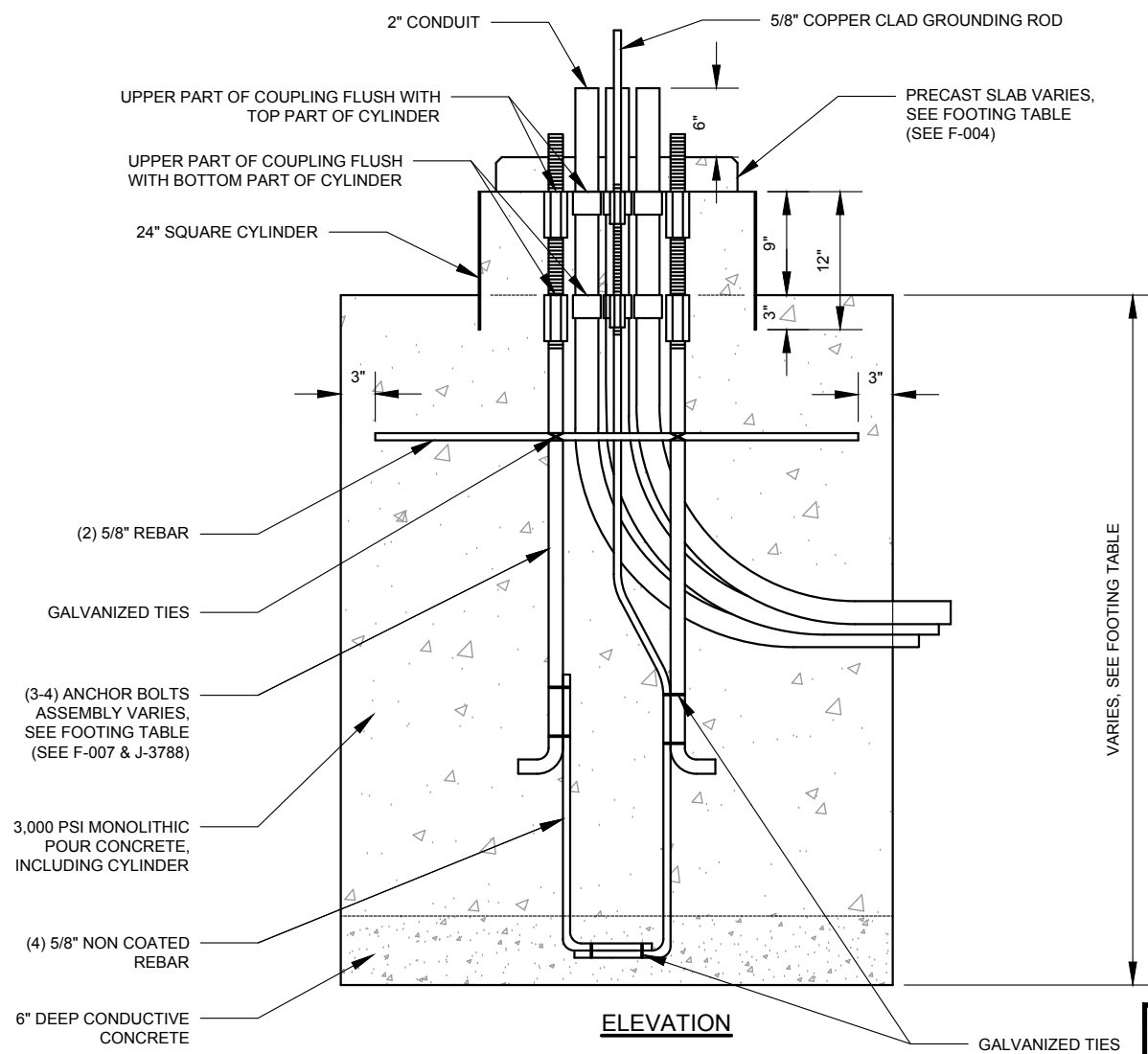
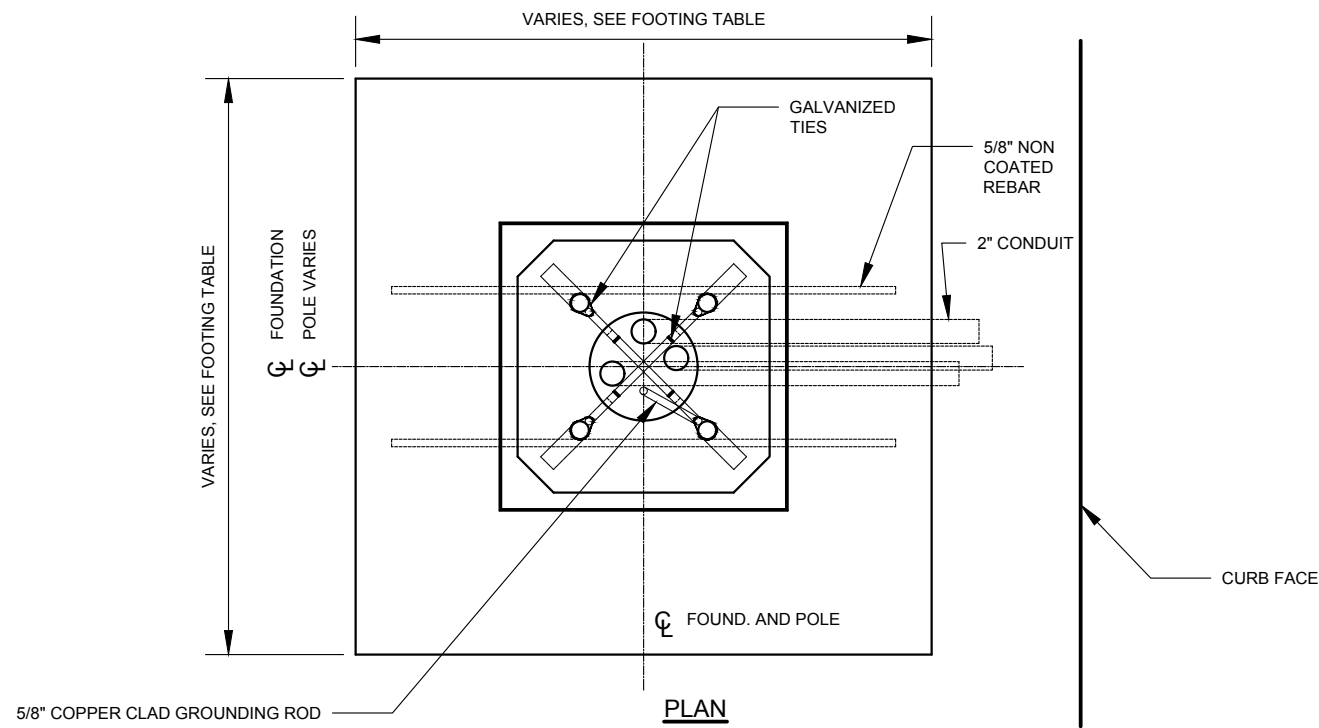


CONDUIT INSTALLATION AT "EL" COLUMN

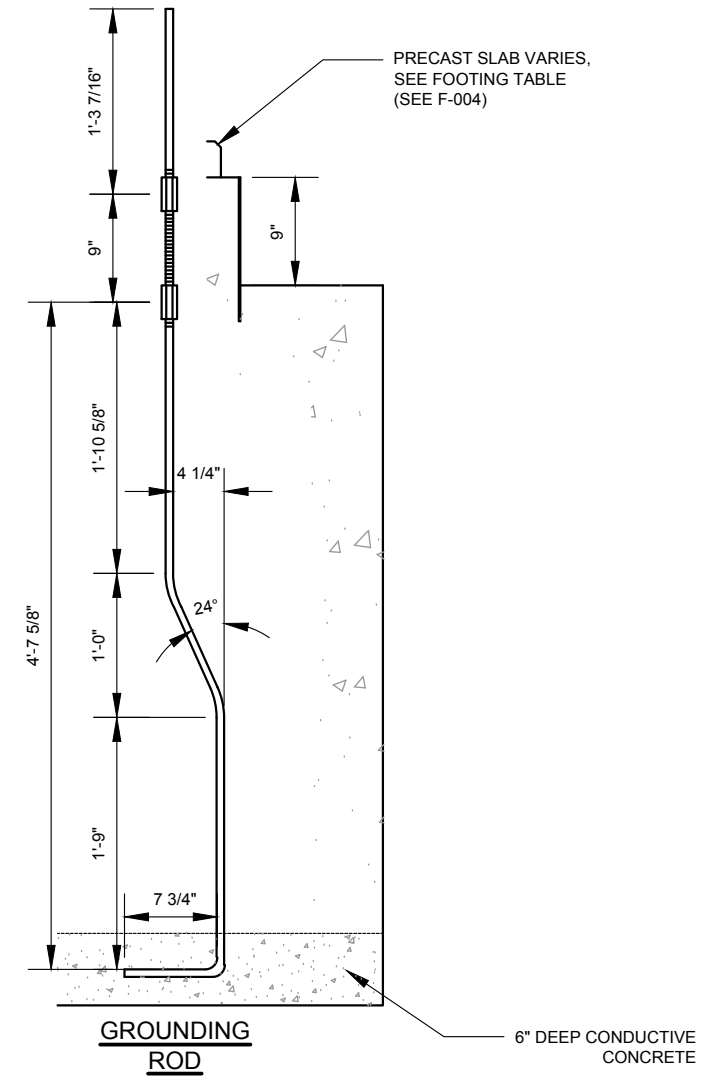


REVISION			
2	03/2011	GPI	REPLICATED IN CADD
1	10/1962	J.C.	LG-15S REVISION
0	08/1956	CLERK	LG-15S CREATED
NO	DATE	BY	DESCRIPTION

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
CONDUIT INSTALLATION AT "EL" COLUMN		
SCALE:	OLD DRAWING NO.	DRAWING NO.
1/2" = 1'-0"	LG-15S	F-009

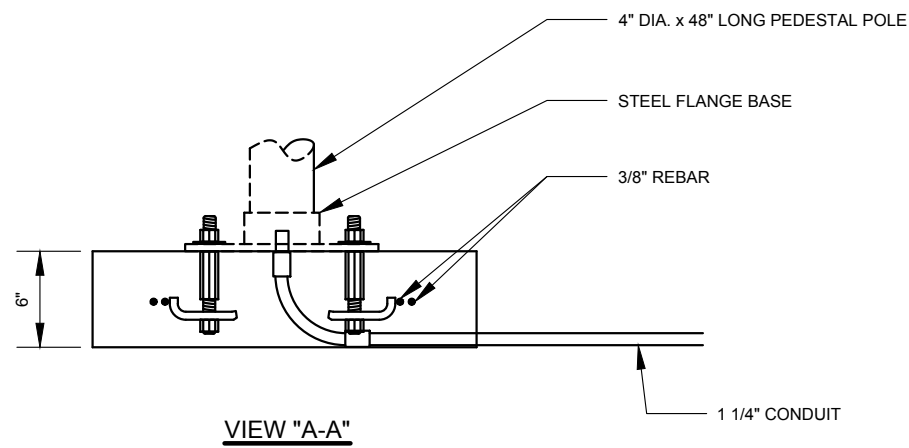
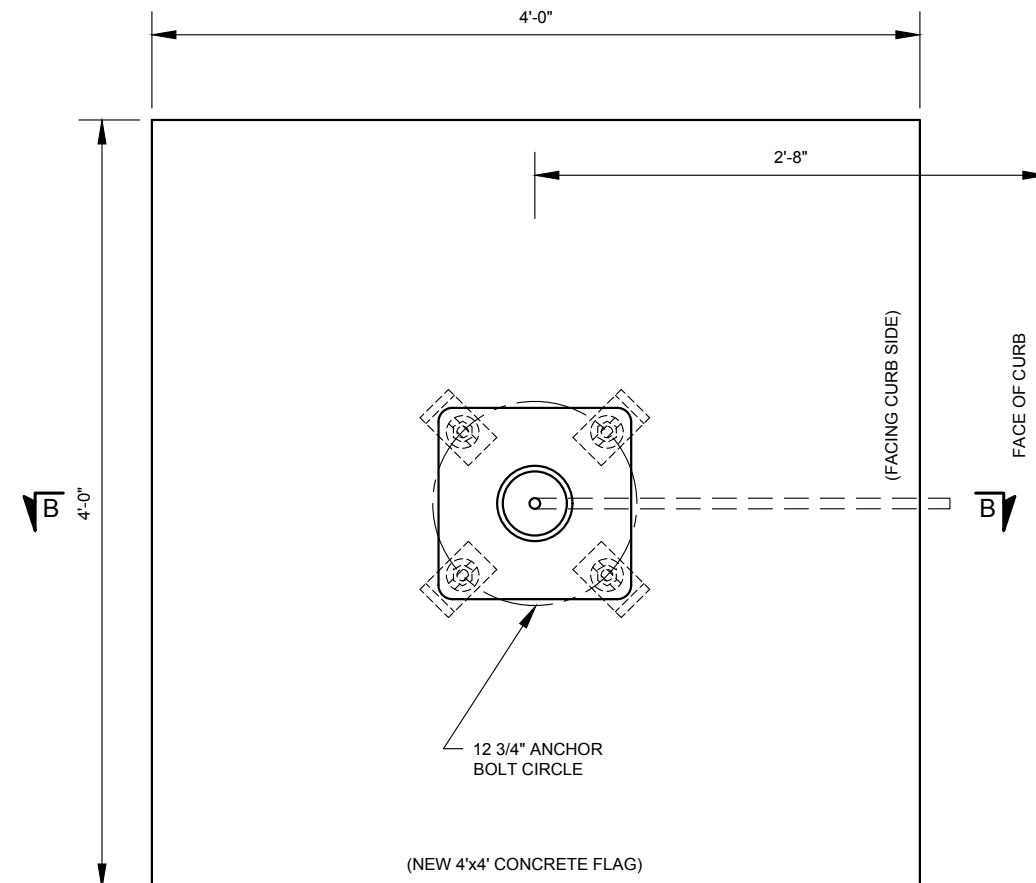
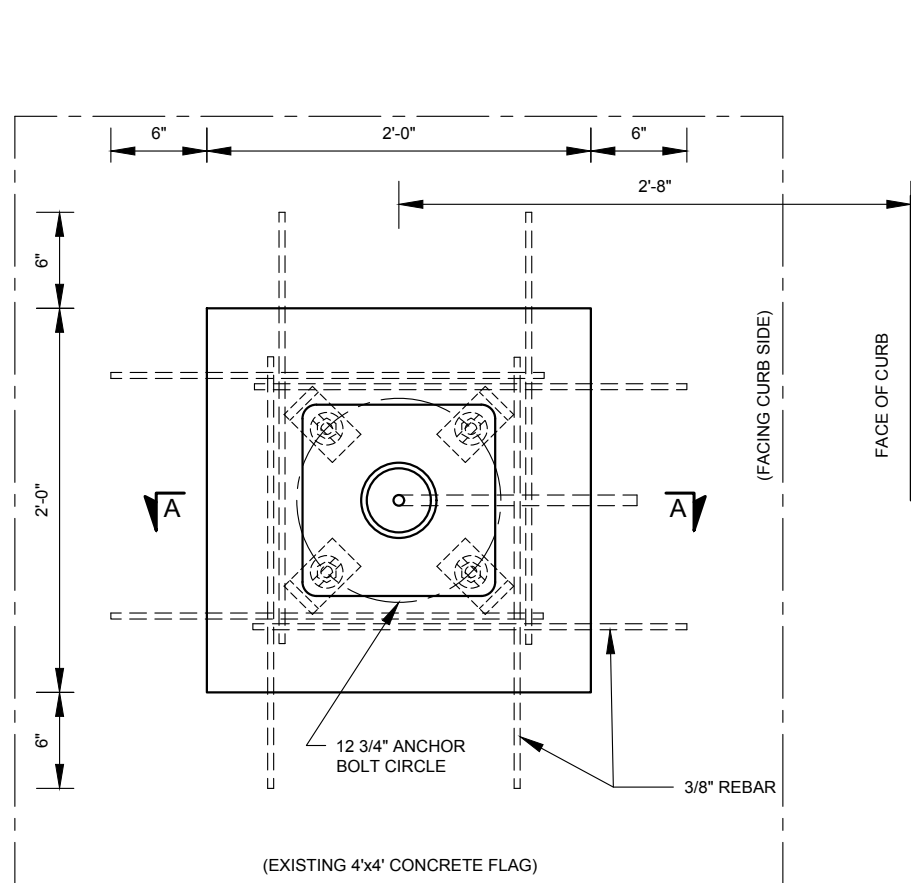


POLE TYPE	FOUNDATION SIZE	BOLT CIRCLE DIAMETER	PRECAST SLAB TYPE	ANCHOR BOLT ASSY.
TYPE "S-1a" POLE	2'x2'x5'	10"	18" SQUARE	3/4" DIA. (ASSY "D")
RTPI POLE	2'x2'x5'	10-7/16"	16" ROUND	3/4" DIA. (ASSY "D")
STREET LIGHT POLE	2'x2'x5'	15"	21" SQUARE	1" DIA. x 44" LONG
TYPE "S-14A" POLE	2'x2'x5'	15"	21" SQUARE	1" DIA. (ASSY "C")
TYPE "M-2A" POLE	3'x6'x5'	15"	21" SQUARE	1 1/4" DIA. (ASSY "B")
TYPE "M-3" POLE	3'x9'x5'	15"	21" SQUARE	1 1/4" DIA. (ASSY "B")

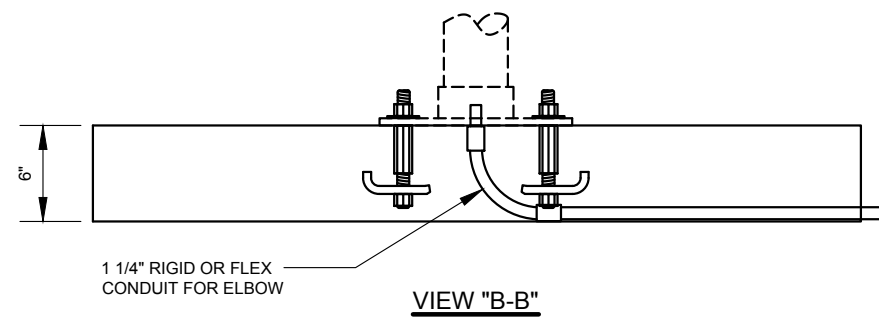


REVISION				DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
2	06/2019	DR	ADD GROUNDING ROD DETAILS	COASTAL STORM FOUNDATION		
1	11/2017	DR	ADD RTPI POLE IN TABLE			
0	02/2013	DR	NYCDOT CREATED	SCALE:	OLD DRAWING NO.	DRAWING NO.
NO	DATE	BY	DESCRIPTION	3/4" = 1'-0"		F-010





TYPICAL 2'x2' FOUNDATION



TYPICAL 4'x4' FOUNDATION

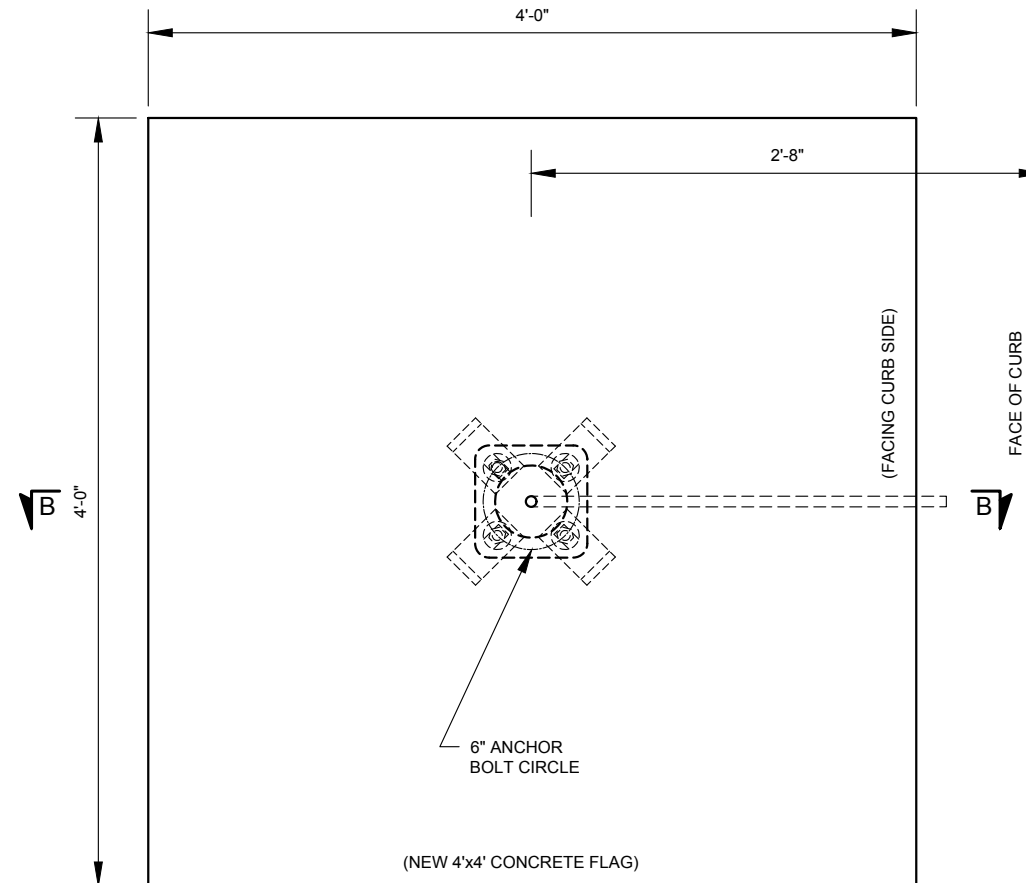
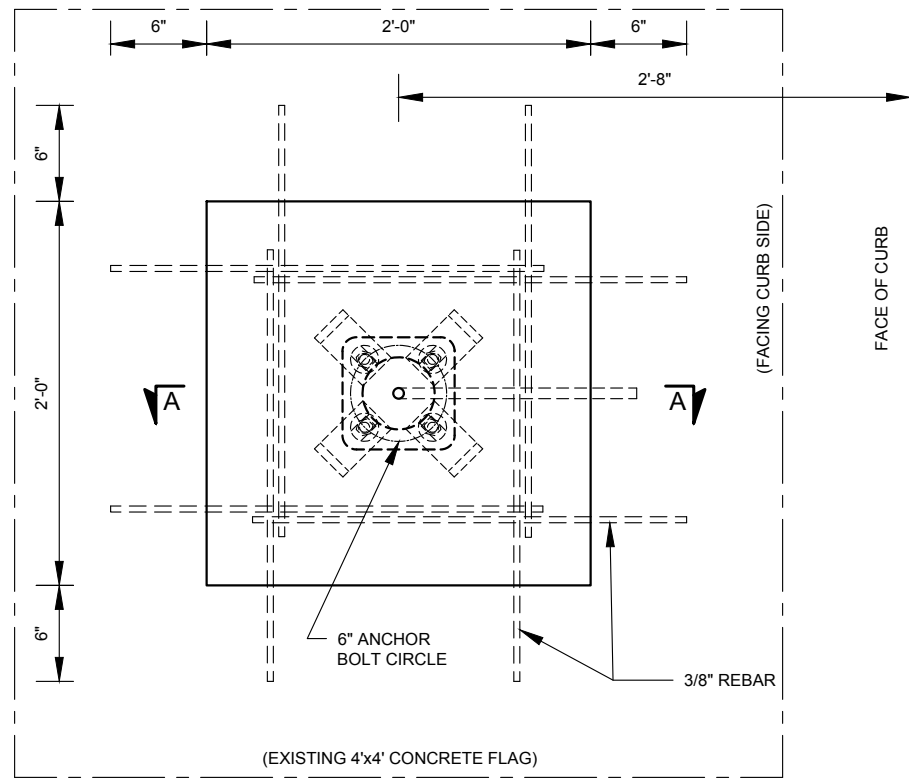
NOTES:

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. MONOLITIC 4'x4' FOUNDATION DOES NOT NEED REBAR.
4. HDPE OR GALVANIZED STEEL CONDUIT.



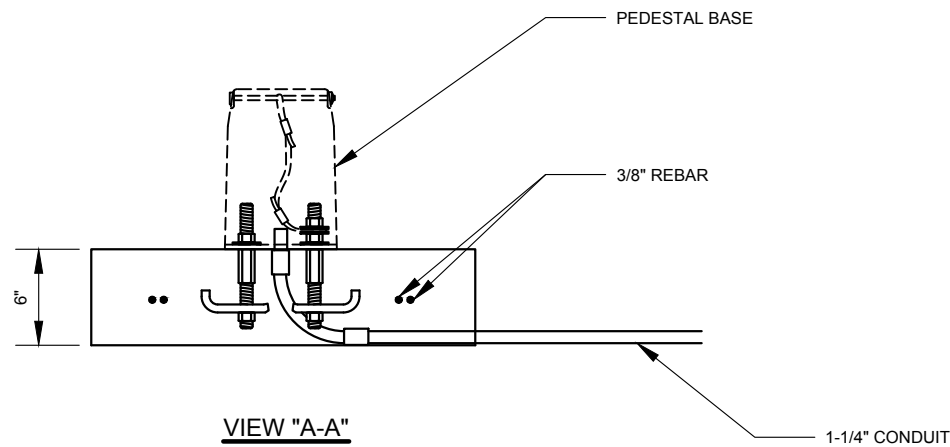
REVISION			
NO	DATE	BY	DESCRIPTION
2	09/2019	DR	TITLE AND DWG NO. CHANGED TO F-011_1
1	9/2015	DR	UPGRADE TO 1 1/4" CONDUIT
0	04/2012	GPI	REPLICATED IN CADD

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
ACCESSIBLE PED. SIGNAL (APS) FOUNDATION FOR POLE WITH FLANGE		
SCALE:	OLD DRAWING NO.	DRAWING NO.
1"=1'-0"	F-011	F-011_1

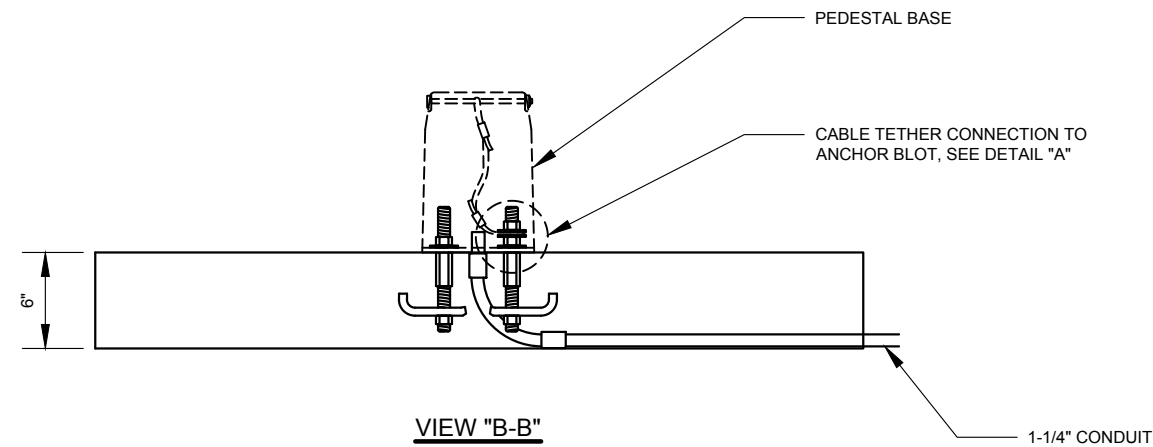


- 5/8"-11 HEX NUT
- 5/8" ID x 1-3/4" OD WASHER
- 5/8"-11x3-7/8" LONG STUD BOLT, FULLY THREADED
- 5/8"-11x2-1/8 LONG HEX BOLT COUPLING, FULLY THREADED
- 5/8"-11x3-7/8" LONG STUD BOLT, FULLY THREADED
- ANCHOR CLEAT (PROVIDED BY NYCDOT) (SEE DWG. P-002)
- 5/8"-11 HEX NUT

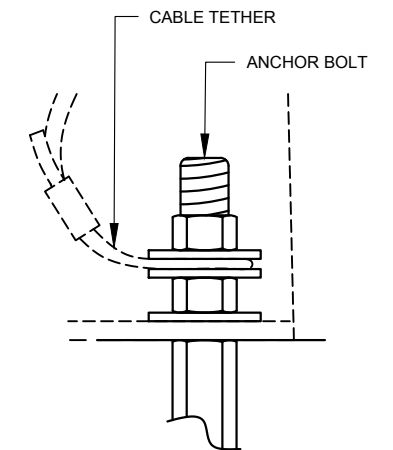
ANCHOR BOLT ASSEMBLY (SET OF 4)



TYPICAL 2'x2' FOUNDATION



TYPICAL 4'x4' FOUNDATION



NOTES:

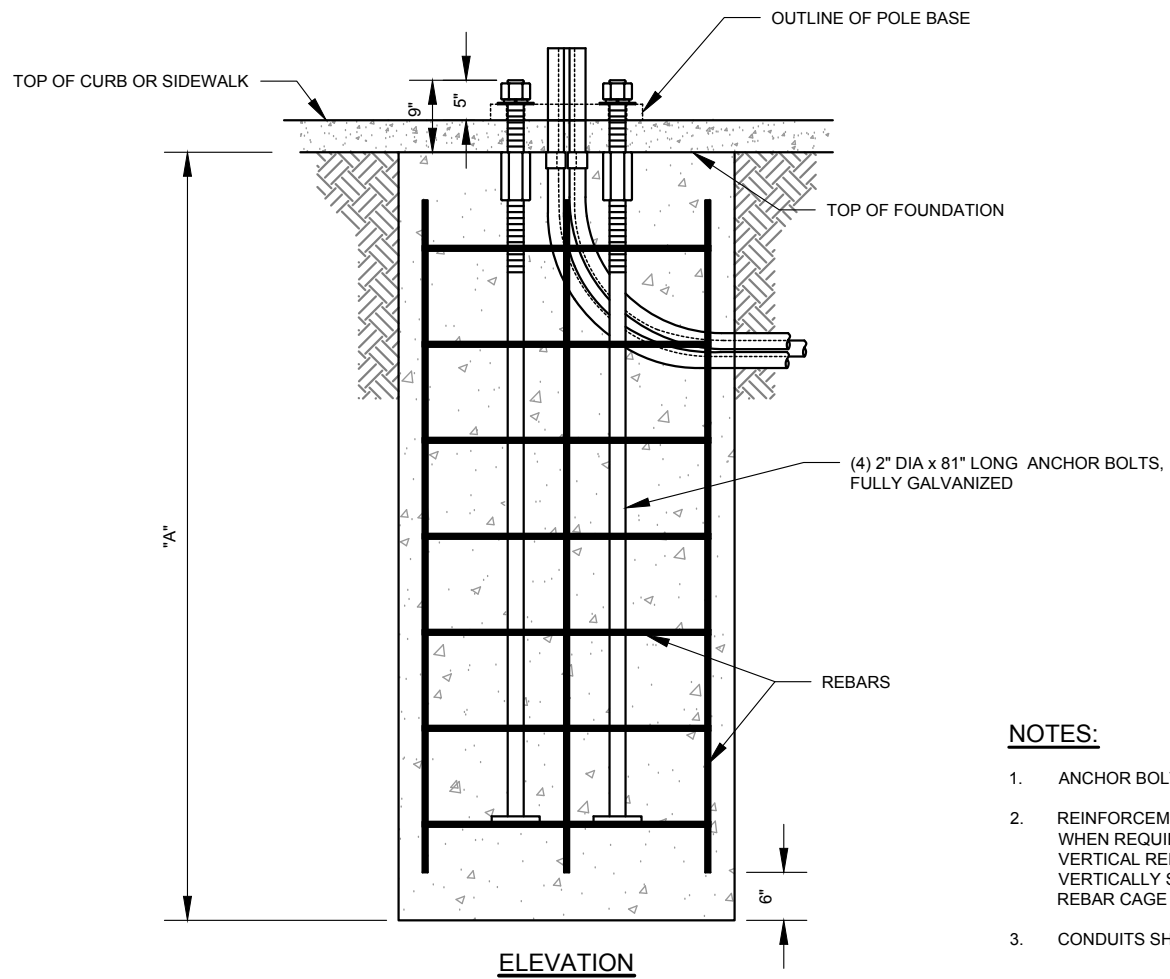
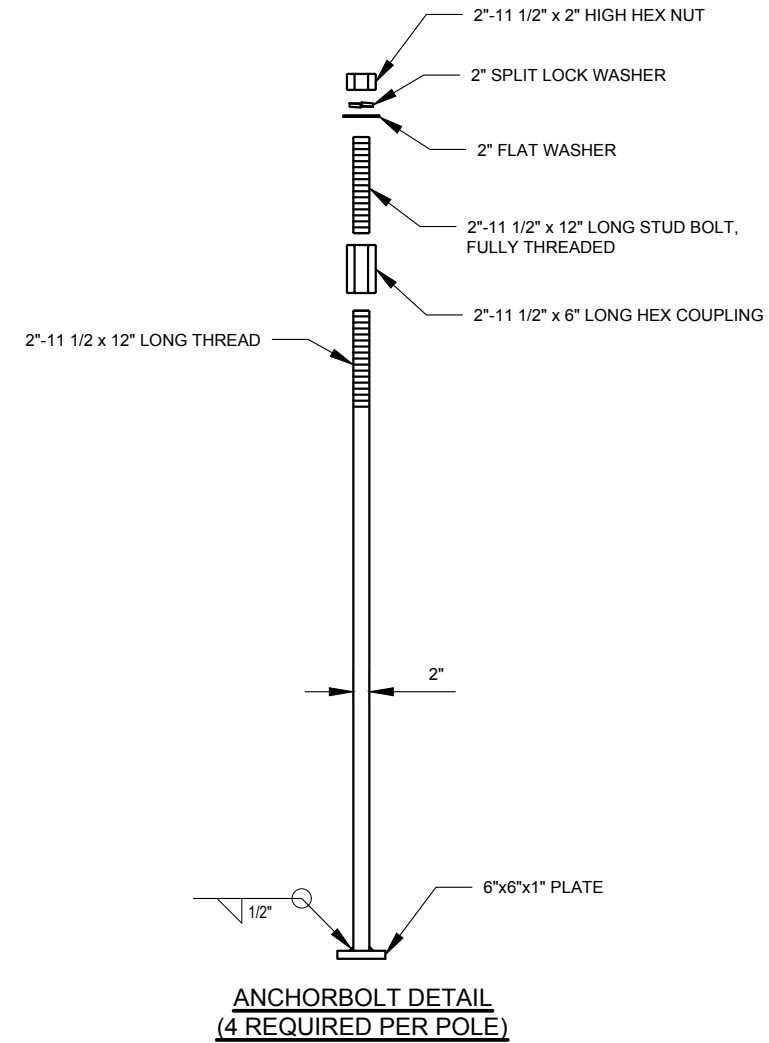
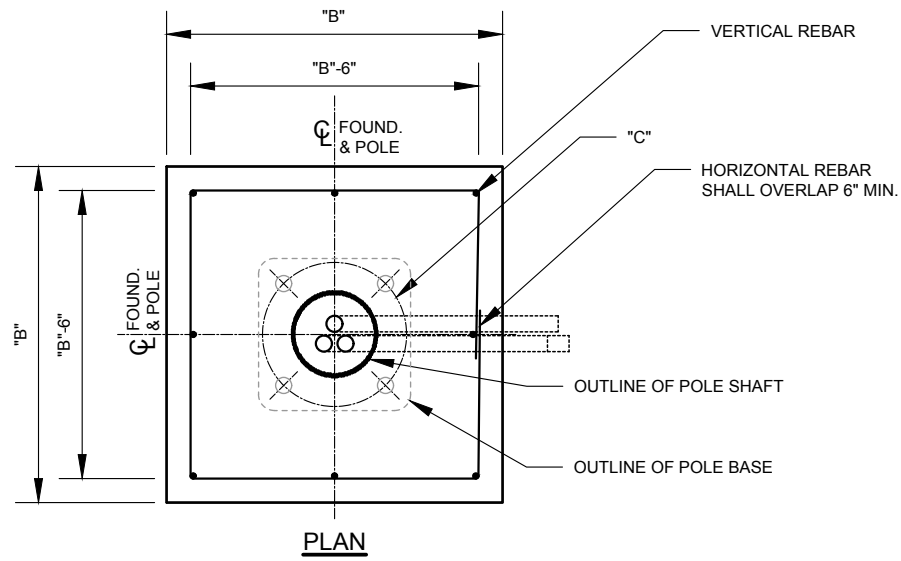
1. FOOTING IS FOR SHALLOW DEPTH INSTALLATION ONLY.
2. FOR TYPICAL 2'x2' FOUNDATION, DRILL HOLES IN EXISTING CONCRETE AND INSERT 3/8" REBAR PRIOR TO POURING CONCRETE.
3. MONOLITIC 4'x4' FOUNDATION DOES NOT NEED REBAR.
4. ANCHOR BOLT ASSEMBLY SHALL BE MADE OF GALVANIZED STEEL.
5. FOR RETROFIT APPLICATIONS USE 5/8"-18x7-1/2" LONG STAINLESS STEEL ANCHOR BOLTS SET IN HILTI ADHESIVE HIT-HY 200, OR EQUAL.



REVISION			
NO	DATE	BY	DESCRIPTION
0	09/2019	DR	CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
ACCESSIBLE PED. SIGNAL (APS) FOUNDATION FOR POLE WITH PEDESTAL BASE		
SCALE: 1"=1'-0"	OLD DRAWING NO.	DRAWING NO. F-011_2

MAST ARM LENGHT (ft)	"A" (ft)	"B" (ft)	"C" (in)
25' TO 35'	7	3	15
40' TO 50'	8	3-1/2	18



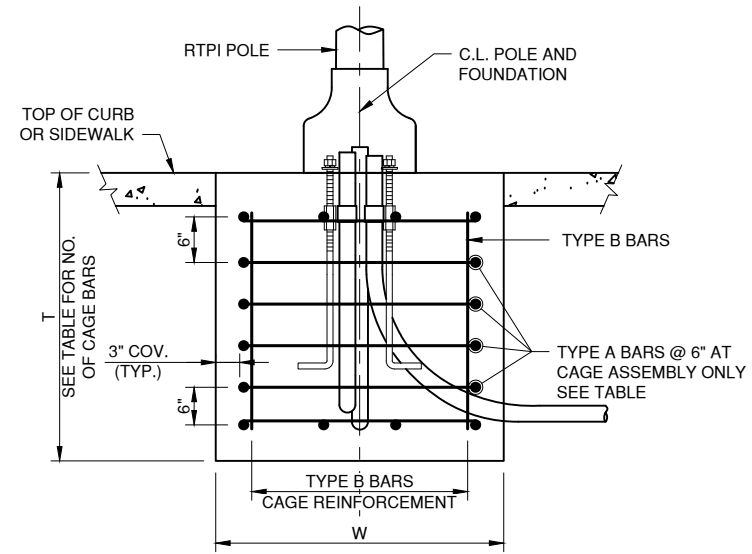
NOTES:

- ANCHOR BOLTS, NUTS AND WASHERS SHALL COMPLY WITH ASTM 307 STANDARD.
- REINFORCEMENT IS NOT REQUIRED FOR POLES SUPPORTING MAST ARMS UP TO 35'. WHEN REQUIRED, IT SHALL BE 40,000 PSI AND COMPLY WITH ASTM 615 STANDARD. VERTICAL REBAR LENGTH SHALL BE "A"-1 FEET. HORIZONTAL REBARS SHALL BE VERTICALLY SPACED 12" OFF-CENTER. ALL REBARS SHALL BE SIZE 5 (5/8" DIAMETER). REBAR CAGE SHALL BE CENTERED IN THE FOUNDATION.
- CONDUITS SHALL BE 2" OR 3" AS PER ENGINEER.

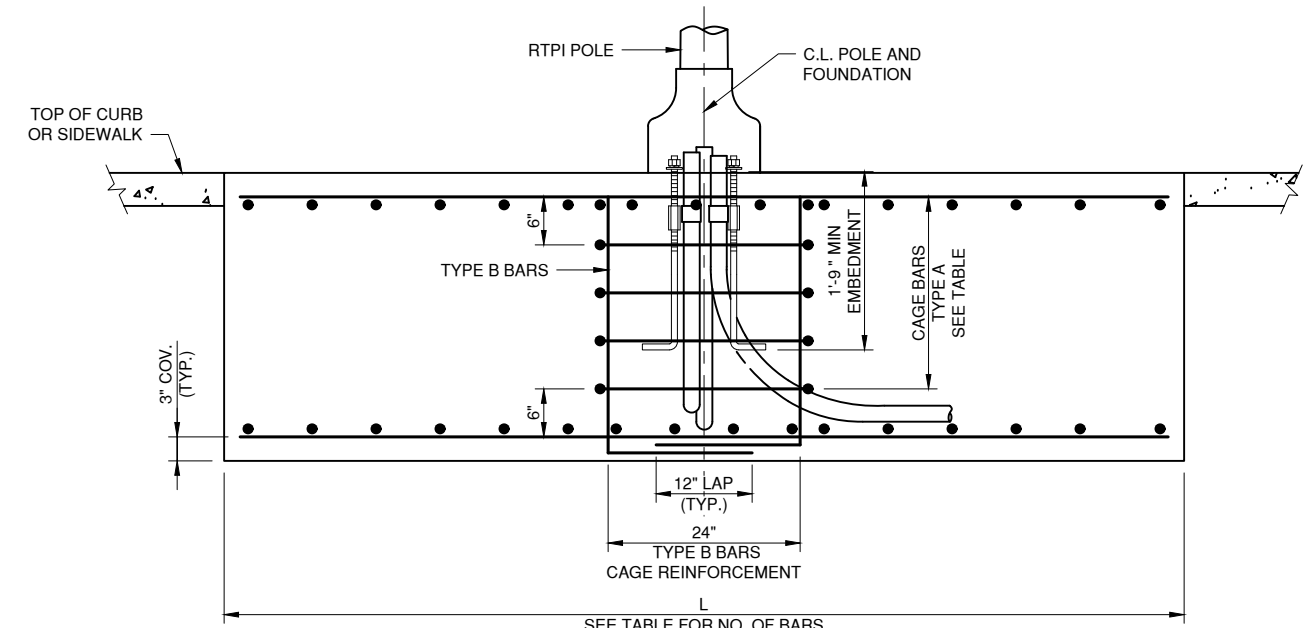
NYCDOT TRAFFIC SIGNAL STANDARD DRAWINGS, Jun 2020



REVISION				DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
				NYS DOT REGION 10 TRAFFIC SIGNAL POLE FOUNDATION		
SCALE:		OLD DRAWING NO.	DRAWING NO.			
1/2" = 1'-0"			F-012			
0	11/2013	DR	CREATED			
NO	DATE	BY	DESCRIPTION			



ELEVATION THRU CAGE

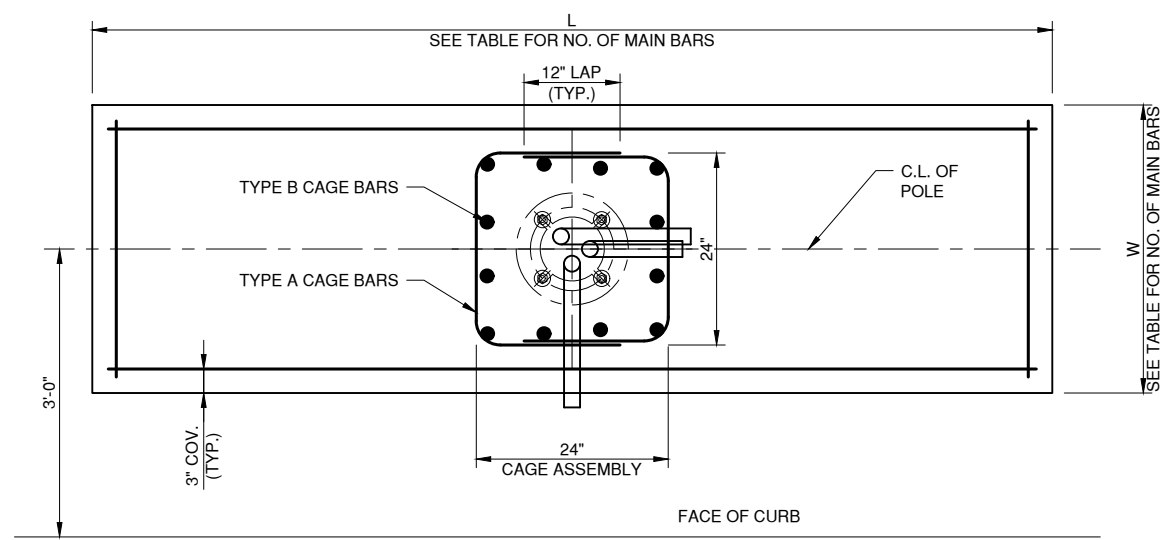


SIDE ELEVATION

KEY:

TYPE A BARS	⊔
TYPE B BARS	└
T	TOP
B	BOTTOM

FOUNDATION TABLE							
CONFIGURATION	L	W	T	NO. OF MAIN BAR TOP & BOTTOM (L)	NO. OF MAIN BAR TOP & BOTTOM (W)	CAGE REBAR TYPE A	CAGE REBAR TYPE B (1FT HORIZONTAL LEG AT BOTTOM)
SQUARE TYPE 1	2'-0"	2'-0"	4'-0"	N/A	N/A	N/A	N/A
SQUARE TYPE 2	3'-6"	3'-6"	3'-0"	7	7	5	4 EACH - 2 SIDES 2 EACH - 2 SIDES
RECTANGLE TYPE 3	5'-0"	3'-0"	3'-0"	10	6	5	4 EACH - 2 SIDES 2 EACH - 2 SIDES
RECTANGLE TYPE 4	10'-0"	2'-6"	2'-0"	20	5	3	4 EACH - 2 SIDES 2 EACH - 2 SIDES
RECTANGLE TYPE 5	9'-0"	3'-0"	1'-0"	18	6	4	4 EACH - 2 SIDES 2 EACH - 2 SIDES



PLAN

NOTES:

- ANCHOR BOLTS, NUTS AND WASHERS SHALL BE ASTM F1554 Gr55 HOT DIPPED GALVANIZED (SEE DWG F-007 ASSEMBLY "D").
- CONDUITS SHALL BE 2 INCH. TWO CONDUITS SHALL FACE DIRECTION OF THE FEED, AND ONE SHALL FACE CURB. HOWEVER, THERE SHALL BE NO LESS THEN THREE ELBOWS IN FOUNDATION.
- ALLOWABLE SOIL BEARING PRESSURE = 5000 psf.
- $f_c = 3000$ psi
- ALL REINFORCEMENT SHALL BE #4 BARS, GRADE 60.
- FOUNDATION SIZE 2 FT. X 2 FT X 4 FT SHALL NOT HAVE CAGE REINFORCEMENT.



REVISION			
NO	DATE	BY	DESCRIPTION
1	3/15/18	DR	3' OFFSET OF POLE CENTER FROM THE CURB
0	12/2016	DR	CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
REAL TIME PASSANGER INFORMATION (RTPI) SIGN POLE FOUNDATION		
SCALE: 1/2"=1'-0"	OLD DRAWING NO.	DRAWING NO. F-013

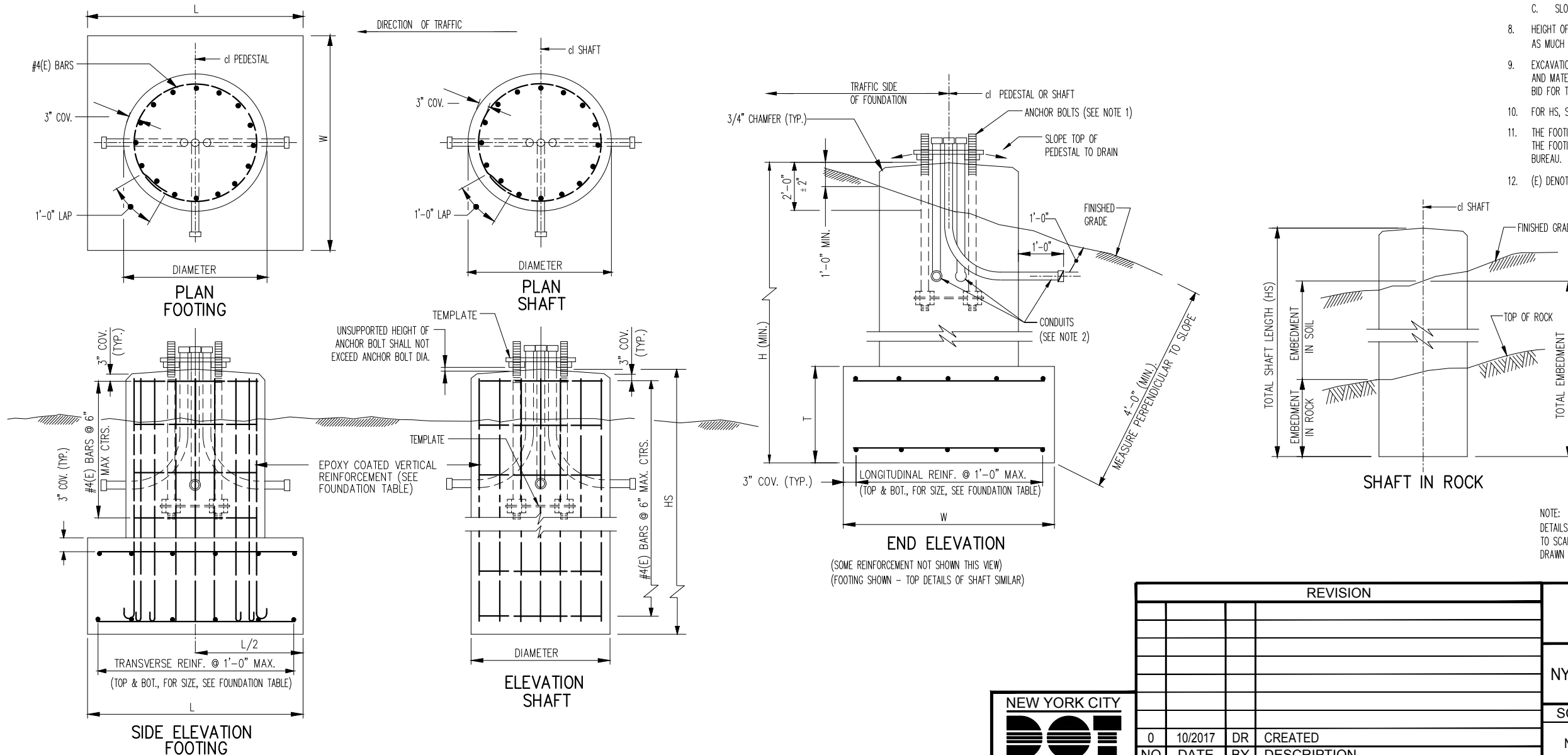
FOUNDATION TABLE

TYPE	FOOTING ON SOIL													FOOTING ON ROCK													
	SIZE				CONCRETE QUANTITIES ft.r ³ *					REINFORCEMENT				SIZE				CONCRETE QUANTITIES ft.r ³ *					REINFORCEMENT				
	L (ft.)	W (ft.)	T (ft.)	H (ft.)	3'-6" PED.	4'-0" PED.	4'-6" PED.	5'-0" PED.	5'-6" PED.	BOTTOM LONG.	BOTTOM TRANS.	TOP LONG.	TOP TRANS.	L (ft.)	W (ft.)	T (ft.)	H (ft.)	3'-6" PED.	4'-0" PED.	4'-6" PED.	5'-0" PED.	5'-6" PED.	BOTTOM LONG.	BOTTOM TRANS.	TOP LONG.	TOP TRANS.	
CT-1	9'-11"	6'-7"	2'-0"	8'-7"	193.9	213.3	-	-	-	#8	#5	#5	#5	9'-10"	6'-7"	2'-8"	8'-7"	-	247.0	-	-	-	#8	#5	#5	#5	
CT-2	11'-6"	6'-7"	2'-0"	8'-7"	-	234.1	-	-	-	#9	#5	#5	#5	9'-10"	6'-7"	2'-8"	8'-7"	-	247.0	-	-	-	#8	#5	#5	#5	
CT-3	11'-6"	8'-3"	2'-0"	8'-11"	-	276.7	299.8	-	-	#9	#6	#5	#5	10'-8"	7'-5"	3'-0"	8'-7"	-	307.5	326.1	-	-	#9	#5	#5	#5	
CT-4	13'-2"	8'-3"	2'-8"	8'-11"	-	368.2	389.1	-	-	#9	#5	#5	#5	11'-6"	8'-3"	3'-4"	8'-11"	-	386.4	405.0	-	-	#9	#6	#5	#5	
CT-5	13'-2"	9'-11"	2'-8"	9'-3"	-	-	452.0	476.6	-	#9	#6	#5	#5	12'-4"	9'-1"	3'-0"	8'-11"	-	-	430.2	452.3	-	-	#10	#6	#5	#5
CT-6	13'-2"	11'-6"	2'-8"	9'-7"	-	-	513.8	539.6	568.1	#9	#8	#5	#5	13'-2"	11'-6"	2'-8"	9'-7"	-	-	513.8	539.6	568.1	#10	#7	#5	#5	
CT-7	14'-10"	11'-6"	2'-8"	9'-7"	-	-	-	590.7	619.2	#10	#7	#6	#5	14'-9"	11'-6"	2'-8"	9'-7"	-	-	-	588.1	616.7	#10	#7	#6	#5	
CT-8	15'-7"	12'-4"	2'-8"	9'-11"	-	-	-	-	684.8	#10	#7	#6	#5	14'-0"	10'-8"	3'-4"	9'-7"	-	-	-	-	646.3	#10	#7	#6	#5	
CS-1	6'-7"	6'-7"	2'-0"	8'-7"	150.0	-	-	-	-	#5	#5	#5	#5	6'-7"	6'-7"	2'-0"	8'-7"	150.0	-	-	-	-	#5	#5	#5	#5	
CS-2	8'-3"	6'-7"	2'-0"	8'-7"	172.0	-	-	-	-	#6	#5	#5	#5	7'-5"	6'-7"	2'-0"	8'-7"	161.0	-	-	-	-	#5	#5	#5	#5	
CS-3	8'-3"	8'-3"	2'-0"	8'-11"	202.7	223.0	-	-	-	#6	#6	#5	#5	7'-5"	7'-5"	2'-0"	8'-7"	173.4	192.7	-	-	-	#6	#7	#5	#5	
CS-4	9'-11"	8'-3"	2'-0"	8'-11"	-	250.5	273.6	-	-	#7	#6	#5	#5	9'-1"	7'-5"	2'-0"	8'-7"	-	217.5	239.4	-	-	#8	#6	#5	#5	
CS-5	11'-6"	8'-3"	2'-4"	8'-11"	-	-	326.1	-	-	#8	#5	#5	#5	9'-10"	8'-3"	2'-0"	8'-11"	-	-	272.3	-	-	#8	#6	#5	#5	
CS-6	11'-6"	9'-11"	2'-4"	9'-3"	-	-	376.1	401.9	-	#8	#7	#5	#5	9'-10"	9'-10"	2'-0"	9'-3"	-	-	308.7	335.7	-	-	#8	#8	#5	#5
CS-7	11'-6"	11'-6"	2'-4"	9'-7"	-	-	-	450.9	-	#8	#8	#5	#5	9'-10"	9'-10"	2'-8"	9'-3"	-	-	-	387.1	-	-	#8	#8	#5	#5

*TOTAL CONCRETE QUANTITY INCLUDES FOOTING AND PEDESTAL CONCRETE

VERTICAL REINFORCEMENT		
PEDESTAL/SHAFT DIA.	NO. OF BARS	SIZE
3'-6"	20	#8(E)
4'-0"	30	#8(E)
4'-6"	30	#8(E)
5'-0"	40	#8(E)
5'-6"	44	#8(E)

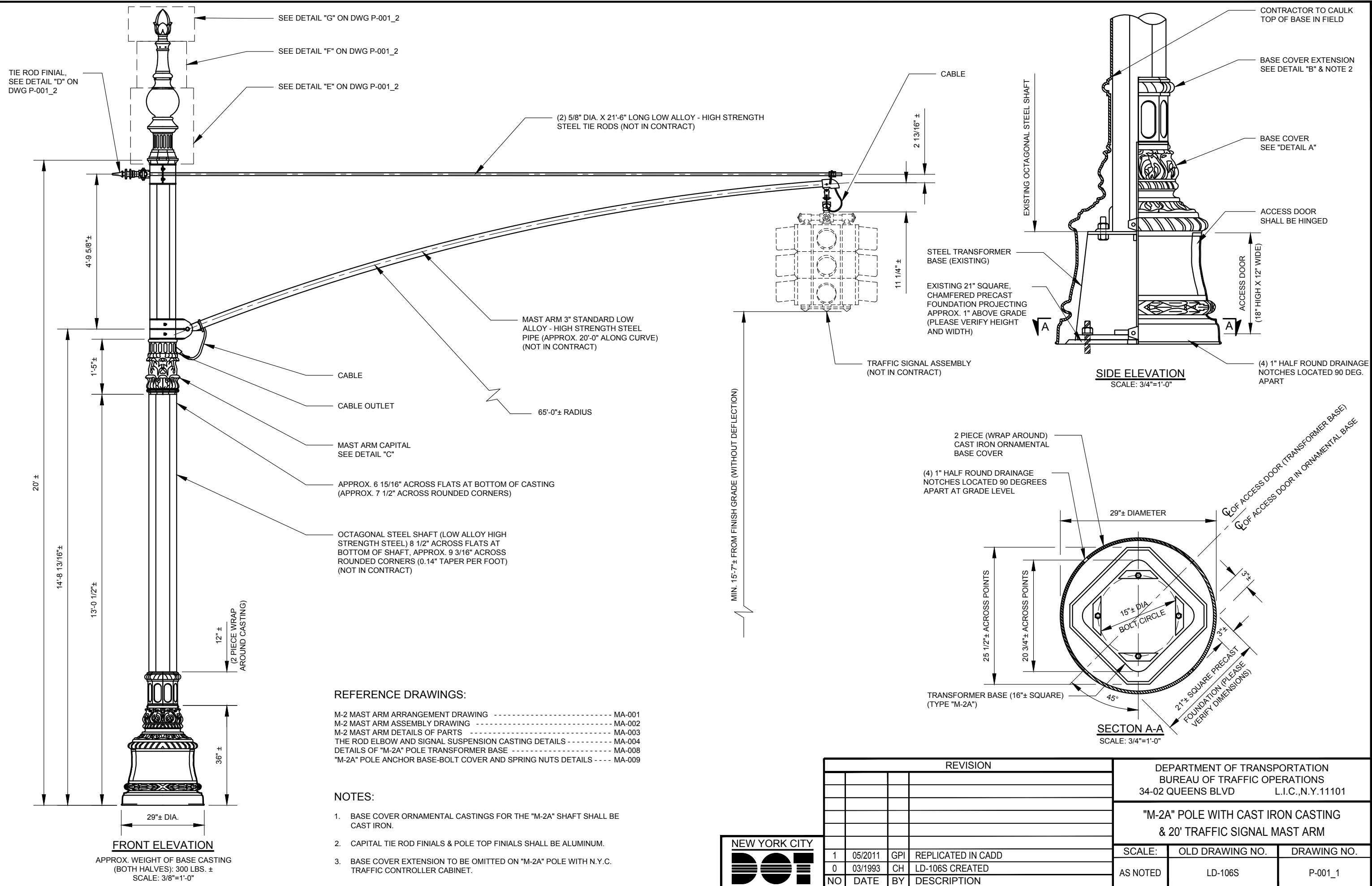
- NOTES:
- FOR DETAILS OF ANCHOR BOLTS AND TEMPLATES, SEE P-015_5.
 - INSTALL THREE NPS 3 INCH STD GALVANIZED CONDUIT IN PEDESTAL OR SHAFT.
 - FOR FOUNDATION TYPE, SEE P-015_1. FOR PEDESTAL, SHAFT LENGTH AND DIAMETER, AND CONCRETE QUANTITY WHEN IN SUBSTRATE TYPE S (SOIL), SEE P-015_2.
 - WHERE A FOOTING IS TO BE PLACED ON ROCK, REMOVE ALL DISINTEGRATED OR SHATTERED MATERIAL TO LINES AND LEVELS ORDERED BY THE ENGINEER. IF TOP OF SOUND ROCK IS BELOW PLANNED ELEVATION OF BOTTOM OF FOOTING, BACKFILL WITH CLASS A CONCRETE TO THE PLANNED ELEVATION, OR PROCEED AS ORDERED BY THE ENGINEER. IF TOP OF SOUND ROCK IS ABOVE PLANNED ELEVATION OF BOTTOM OF FOOTING, SEE NOTE 11 BELOW AND PROCEED AS ORDERED BY THE ENGINEER. ROCK REMOVED BELOW THE ELEVATION DIRECTED BY THE ENGINEER AND BEYOND THE FACE OF THE FINISHED FOOTING, SHALL BE REPLACED BY BACKFILL OF CLASS A CONCRETE FOR WHICH NO PAYMENT WILL BE MADE.
 - IF UNANTICIPATED SOUND ROCK IS ENCOUNTERED WITHIN ONE DIAMETER OF THE BOTTOM OF A SHAFT EXCAVATION (AS DETERMINED FROM P-015_2), USE THE FULL SHAFT LENGTH SHOWN ON BD-059E. IF UNANTICIPATED SOUND ROCK IS ENCOUNTERED AT HIGHER ELEVATIONS, THE TOTAL SHAFT LENGTH (HS) MAY BE DECREASED FROM THAT SHOWN ON P-015_2, SUCH THAT THE SHAFT PENETRATES A MINIMUM OF 1 DIAMETER INTO SOUND ROCK. HOWEVER, THE TOTAL EMBEDMENT SHALL NOT BE LESS THAN 1 DIAMETER PLUS 2'-0". ALL CHANGES TO SHAFT LENGTHS MUST BE APPROVED AND AS ORDERED BY THE ENGINEER.
 - ANY DRILLING OF THE ROCK FOR SHAFT FOUNDATIONS SHALL BE PERFORMED FROM THE EXISTING EARTH SURFACE THROUGH THE AUGER HOLE FORMED DURING THE DRILLING OPERATION. CASING SHALL BE REMOVED PRIOR TO PLACING OF CONCRETE.
 - THE GEOTECHNICAL ENGINEERING BUREAU SHALL BE CONSULTED UNDER THE FOLLOWING CIRCUMSTANCES:
 - FOOTING OR SHAFT IS PLACED IN SOFT CLAY OR ORGANIC DEPOSITS
 - GROUNDWATER ELEVATION IS ABOVE BOTTOM OF FOOTING OR SHAFT
 - SLOPE OF FINISHED GRADE EXCEEDS 1 ON 2
 - HEIGHT OF PEDESTAL OR LENGTH OF SHAFT MAY BE INCREASED AS ORDERED BY THE ENGINEER AS MUCH AS 1'-8" IF NECESSARY TO REACH GOOD FOUNDATION MATERIAL.
 - EXCAVATION, BACKFILL, FORM WORK, REINFORCEMENT, CONDUIT STUB-OUT AND ALL OTHER LABOR AND MATERIALS NECESSARY TO CONSTRUCT THE FOUNDATIONS SHALL BE INCLUDED IN THE PRICE BID FOR THE FOUNDATIONS CONCRETE.
 - FOR HS, SEE P-015_2.
 - THE FOOTINGS HAVE BEEN DESIGNED USING THE SOIL OVERBURDEN TO RESIST OVERTURNING. IF THE FOOTING EMBEDMENTS ARE TO BE REDUCED, CONTACT THE GEOTECHNICAL ENGINEERING BUREAU.
 - (E) DENOTES EPOXY COATED REINFORCEMENT. OTHER CORROSION RESISTANT OPTIONS AVAILABLE.



NOTE: DETAILS ON THE DRAWINGS LABELED AS "NOT TO SCALE" ARE INTENTIONALLY DRAWN NOT TO SCALE FOR VISUAL CLARITY. ALL OTHER DETAILS, FOR WHICH NO SCALE IS SHOWN, ARE DRAWN PROPORTIONAL AND ARE FULLY DIMENSIONED.

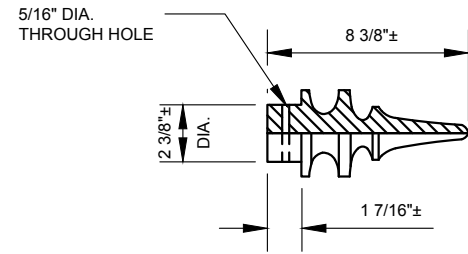
REVISION				DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD I.I.C., N.Y. 11101		
0	10/2017	DR	CREATED	NYSOT CANTILEVER STRUCTURE FOUNDATION		
NO	DATE	BY	DESCRIPTION			
				SCALE:	OLD DRAWING NO.	DRAWING NO.
				N.T.S.		F-014



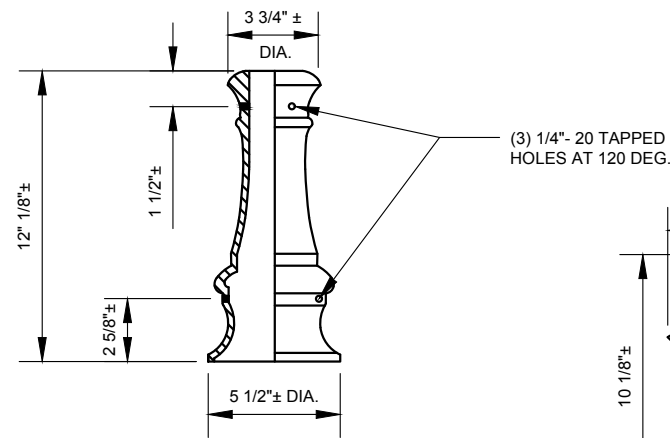


REVISION				DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
1	05/2011	GPI	REPLICATED IN CADD	"M-2A" POLE WITH CAST IRON CASTING & 20' TRAFFIC SIGNAL MAST ARM		
0	03/1993	CH	LD-106S CREATED			
NO	DATE	BY	DESCRIPTION	SCALE: AS NOTED	OLD DRAWING NO. LD-106S	DRAWING NO. P-001_1

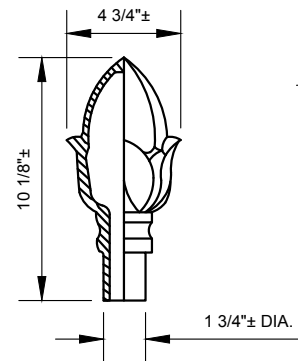




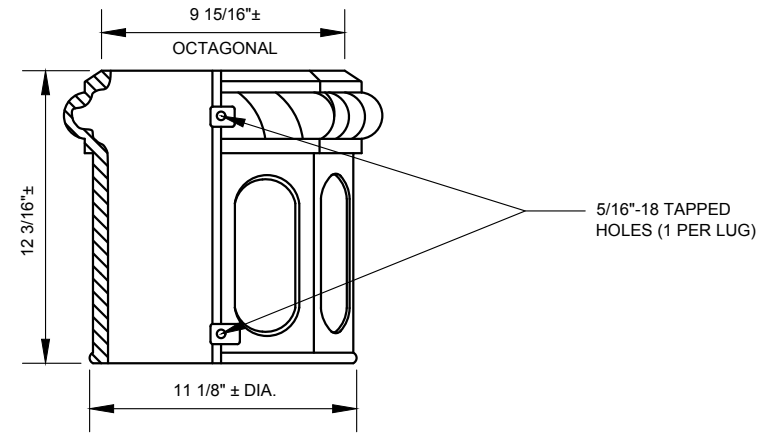
**TIE ROD ARM FINIAL
DETAIL D**



**POLE TOP FINIAL
DETAIL F**



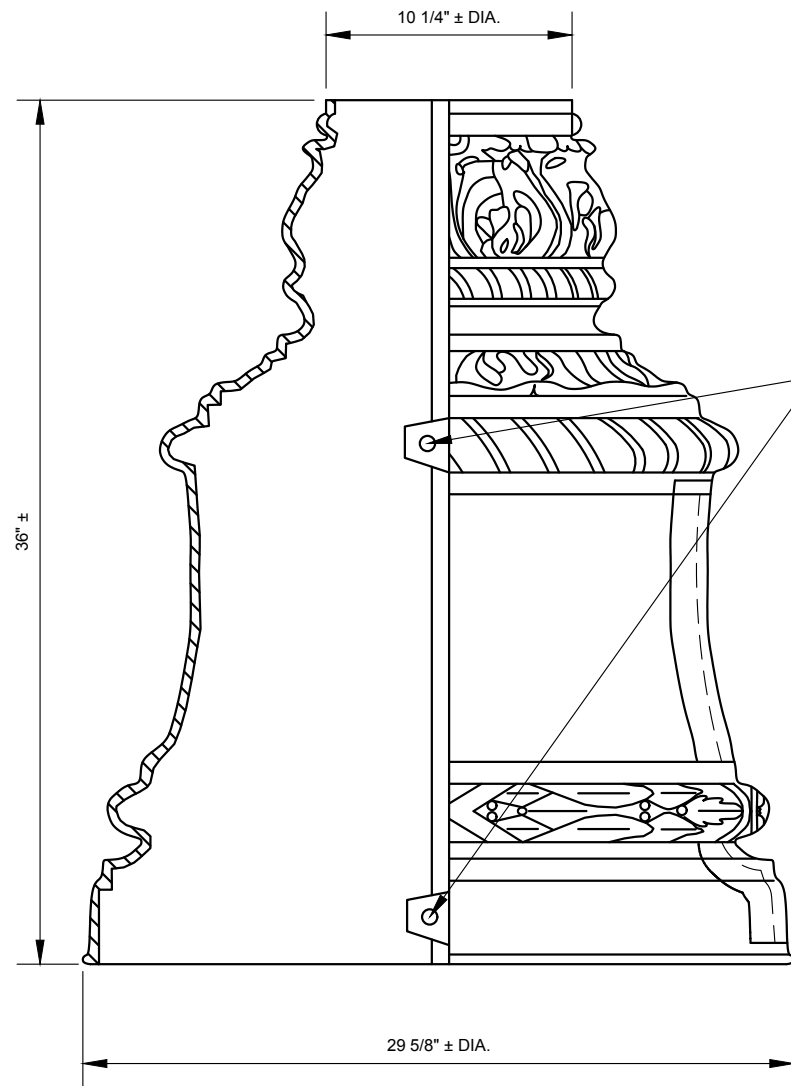
**FINIAL FLOWER
DETAIL G**



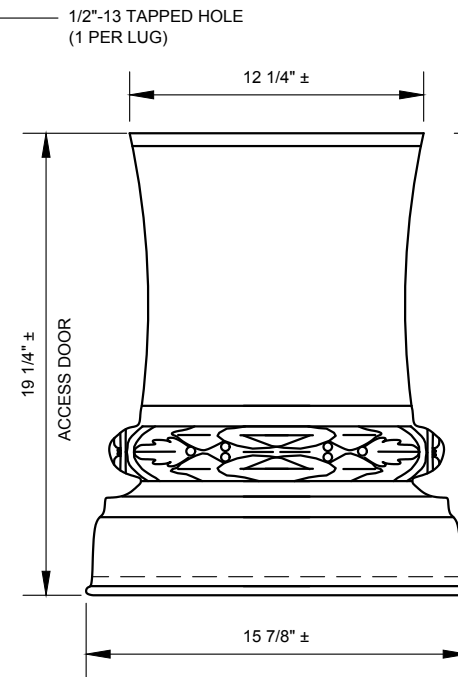
**2 PIECE WRAP BASE EXTENSION
DETAIL B**

NOTES:

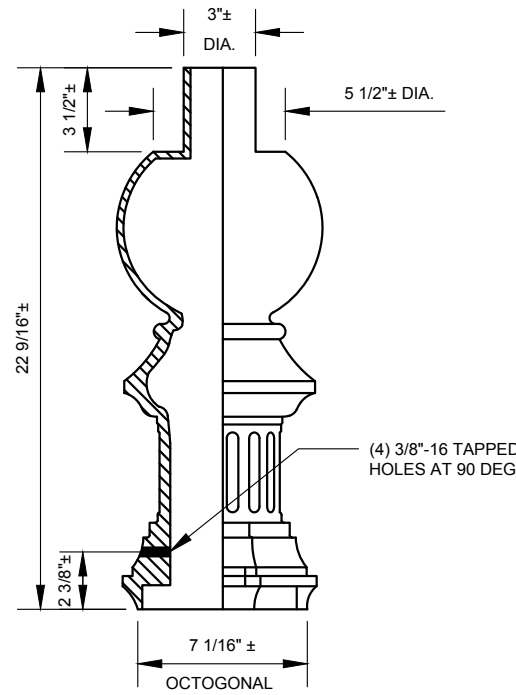
1. ALL ORNAMENTAL CASTINGS FOR THE "M-2A" SHAFT (BASE COVER, CAPITAL, TIE ROD FINIAL, POLE TOP FINIAL, ETC.) SHALL BE CAST IRON.
2. BASE COVER EXTENSION TO BE OMITTED ON "M-2A" POLE WITH N.Y.C. TRAFFIC CONTROLLER CABINET.



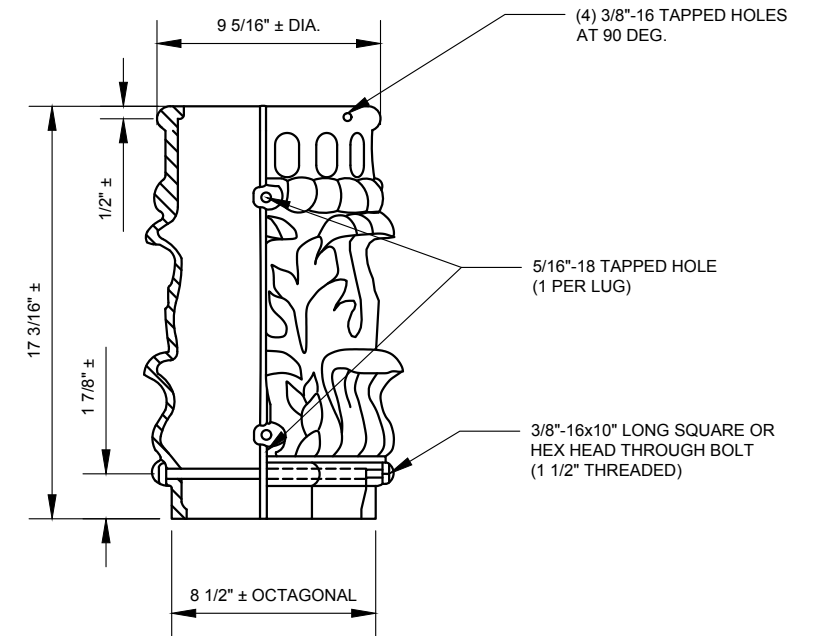
**2 PIECE WRAP BASE
DETAIL A**



ACCESS DOOR DETAIL



**BOTTOM PORTION OF POLE TOP FINIAL
DETAIL E**



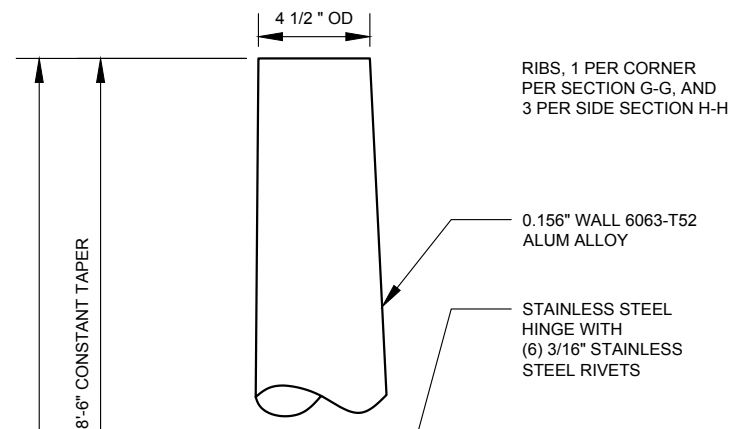
**2 PIECE WRAP AROUND CAPITAL
DETAIL C**



REVISION			
NO	DATE	BY	DESCRIPTION
1	05/2011	GPI	REPLICATED IN CADD
0	03/1993	CH	LD-106S CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
"M-2A" POLE WITH CAST IRON CASTING & 20' TRAFFIC SIGNAL MAST ARM		
SCALE: 1 1/2" = 1'-0"	OLD DRAWING NO. LD-106S	DRAWING NO. P-001_2

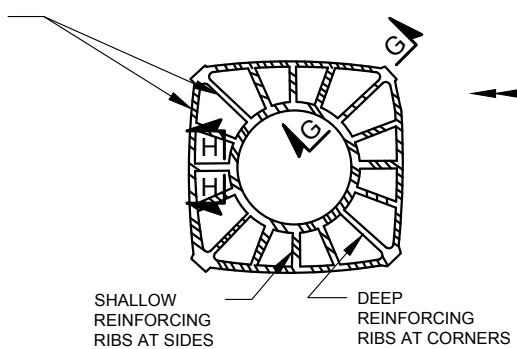
NYCDOT TRAFFIC SIGNAL STANDARD DRAWINGS, Jun 2020



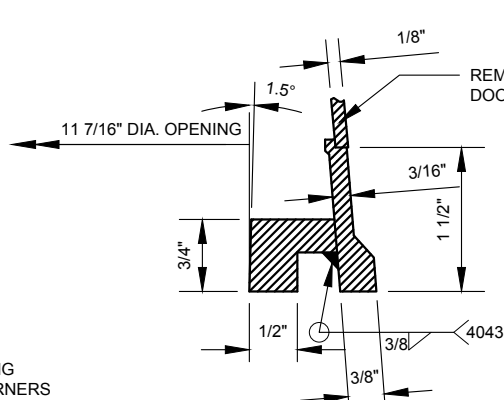
RIBS, 1 PER CORNER PER SECTION G-G, AND 3 PER SIDE SECTION H-H

0.156" WALL 6063-T52 ALUM ALLOY

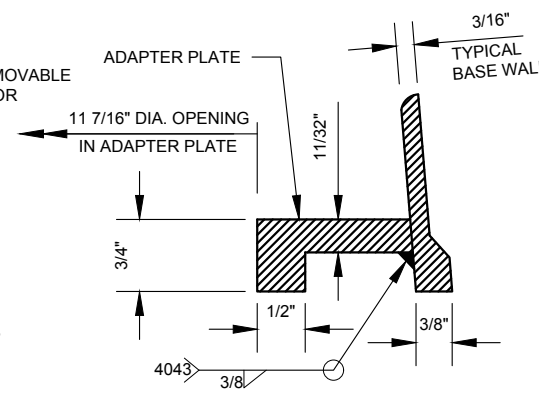
STAINLESS STEEL HINGE WITH (6) 3/16" STAINLESS STEEL RIVETS



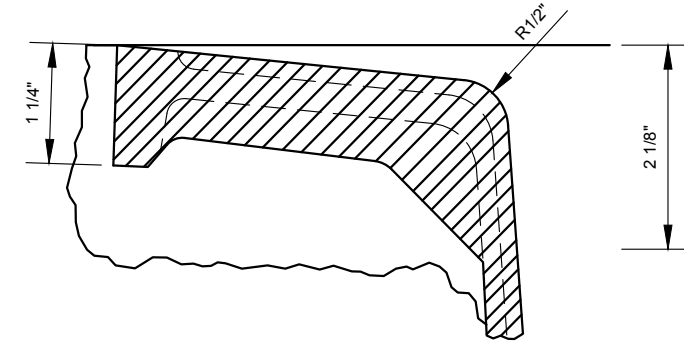
SECTION C-C
N.T.S.



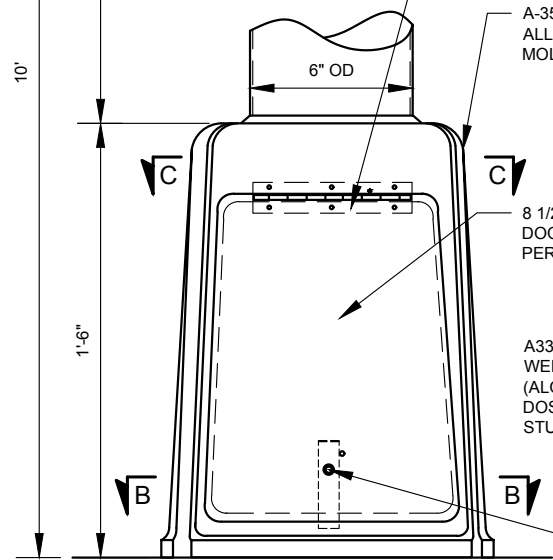
SECTION D-D
SCALE: 6" = 1'-0"



SECTION E-E
SCALE: 6" = 1'-0"



SECTION G-G
SCALE: 6" = 1'-0"



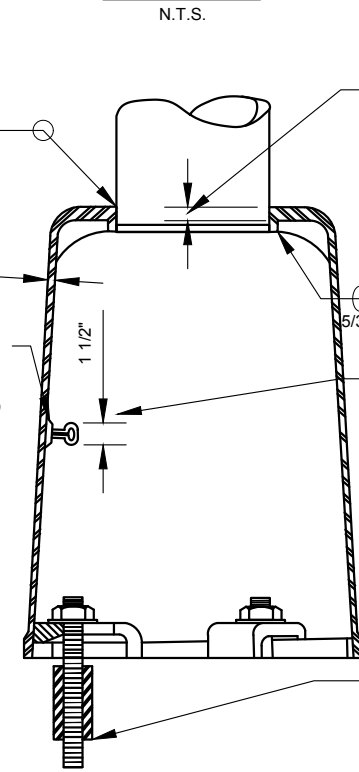
FRONT VIEW OF BASE AND POLE
N.T.S.

A-356-T6 CAST ALUM ALLOY PERMANENT MOLD BASE

8 1/2"x9 7/8"x13 1/4" REMOVABLE DOOR, A-356-T6 CAST ALUM ALLOY PERMANENT MOLD

A33706, 3/8" THICK GROUNDING PAD WELD IN CENTER OF SIDE WALL (ALONG 1" EDGE ONLY) AND DOSSERT #TGC-8-50-88NT-SN GROUND STUD WITH BRONZE LOCKWASHER

1/4"-20 ST. STEEL SOCKET HEAD CAP SCREW (FOR INSIDE DOOR LATCH)



SECTION A-A
N.T.S.

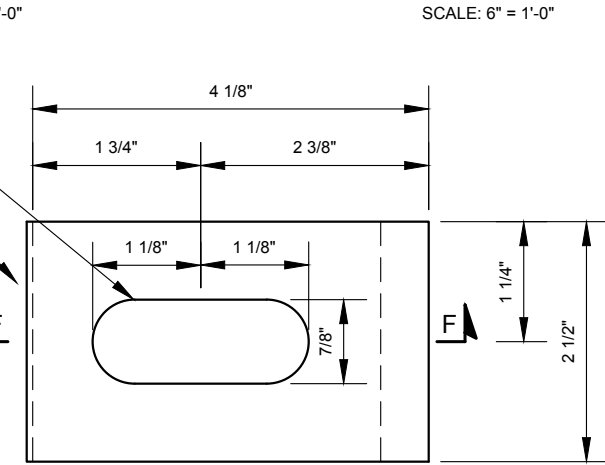
MINIMUM TELESCOPE OF SHAFT - 1"

SLOTTED HOLE

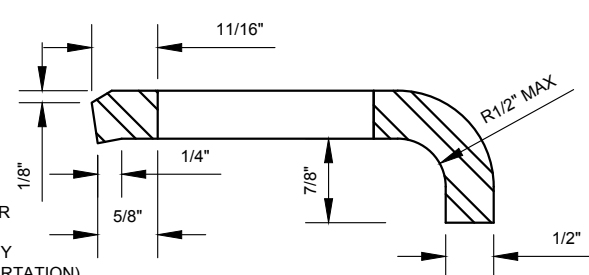
2 1/2"x1/2" STEEL BAR GALVANIZED

NYC NAME (SEE NOTE 1) AND YEAR OF MANUFACTURER TO BE STAMPED ON PAD

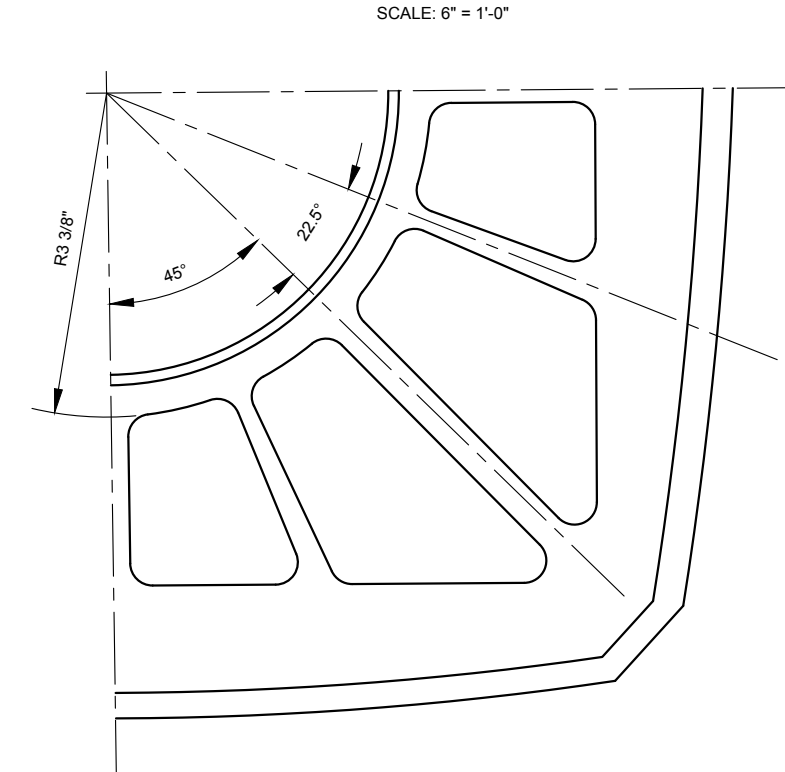
STANDARD ANCHOR BOLT ASSEMBLY (3 REQ'D. PER POST) STANDARD STUD BOLT 3/4" DIA., NUT AND PLAINWASHER HEX. BOLT COUPLING AND 3/4" "L" BOLT (TO BE SUPPLIED BY THE DEPARTMENT OF TRANSPORTATION)



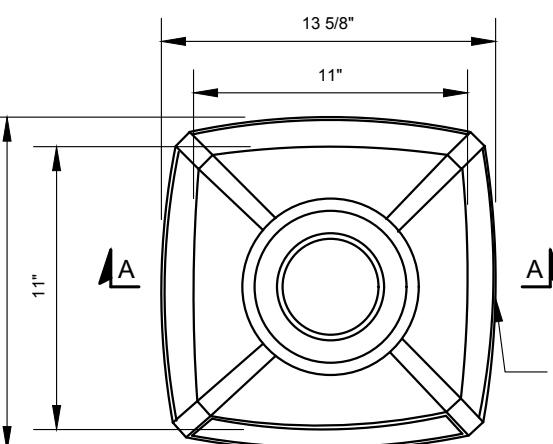
DETAIL OF ANCHOR CLEATS
SCALE: 6" = 1'-0"



SECTION F-F
SCALE: 6" = 1'-0"

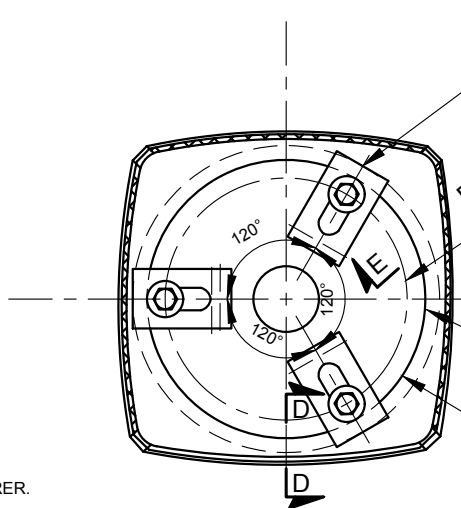


BOTTOM VIEW OF RIBS
SCALE: 6" = 1'-0"



TOP VIEW OF BASE AND POLE
N.T.S.

TO BE VOID OF ALL SHARP EDGES ON OUTSIDE OF BASE



SECTION B-B
N.T.S.

ANCHOR CLEAT 3 REQ'D (SEE DETAIL)

10" DIA. BOLT CIRCLE

ADAPTER PLATE-A 356-T6 CAST ALUM. ALLOY

11 7/16" DIA. OPENING



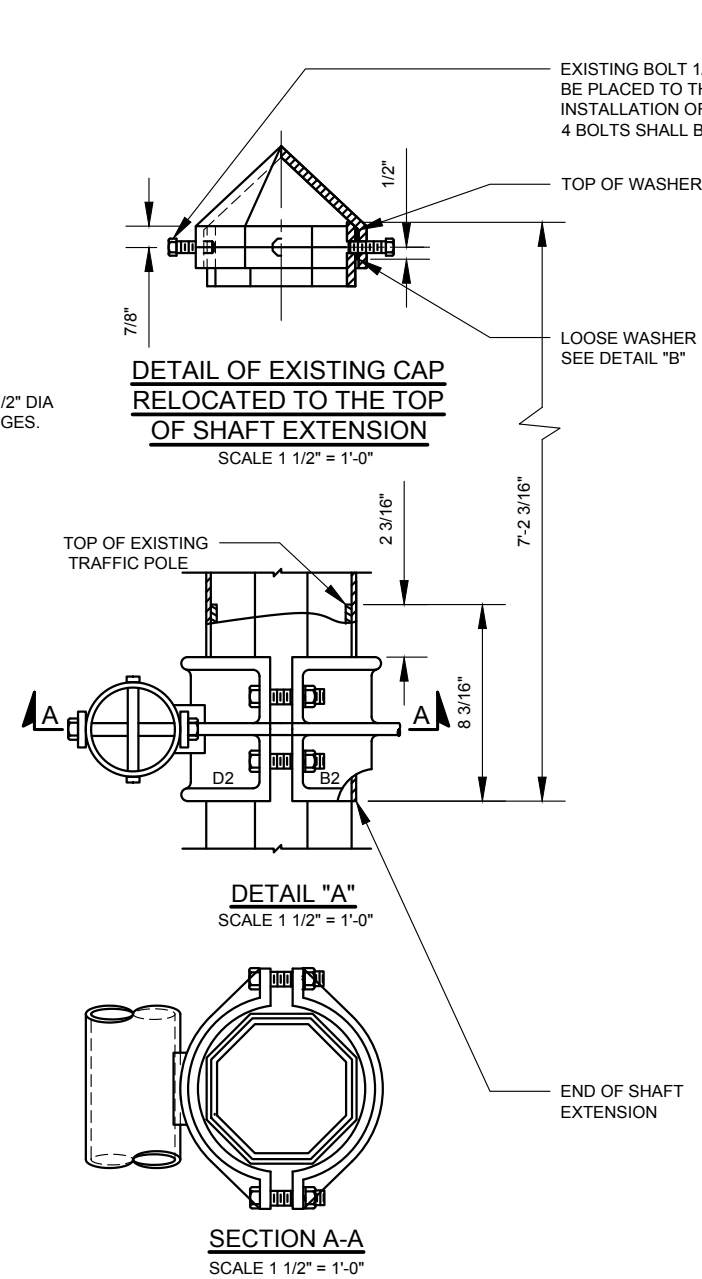
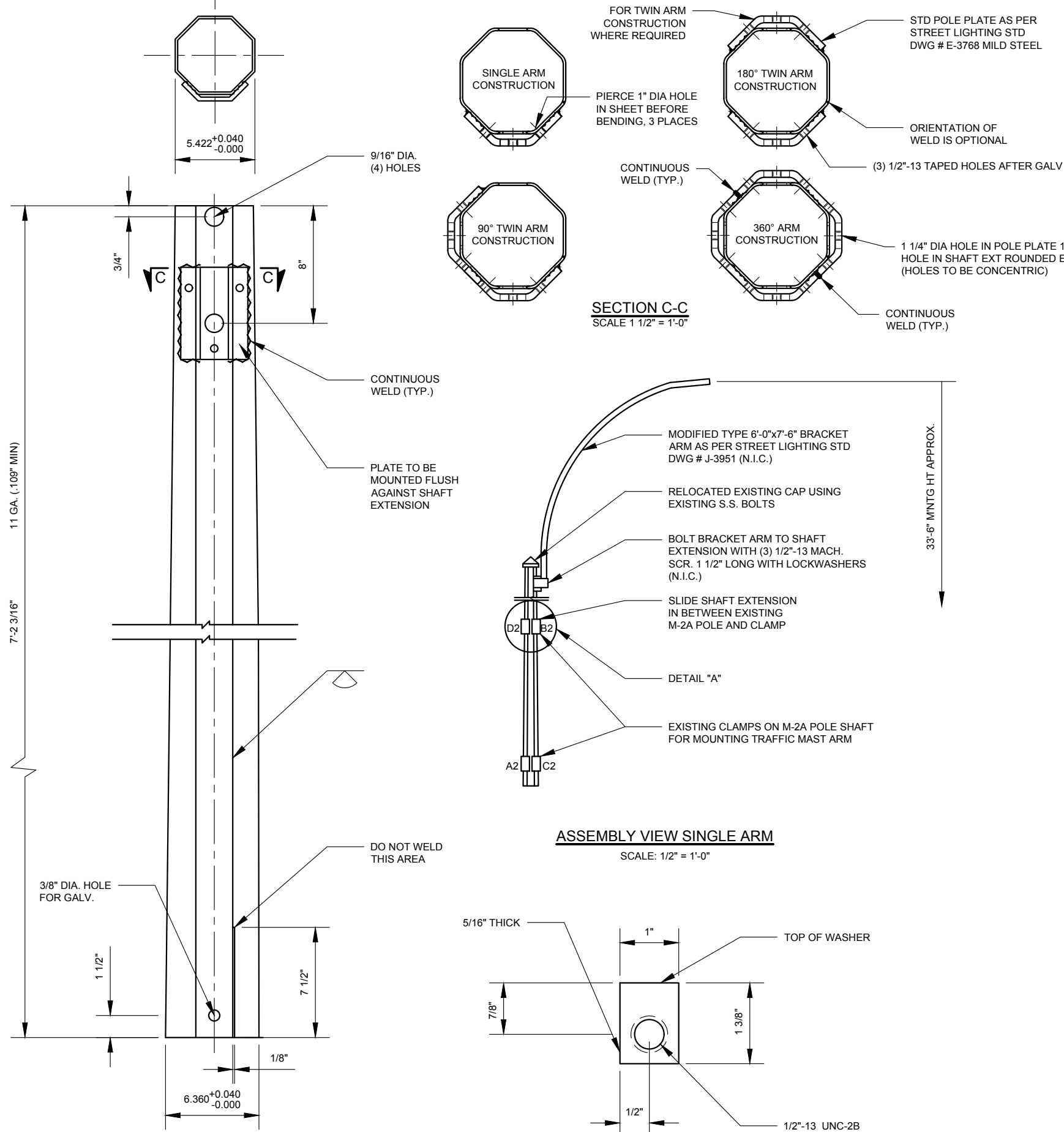
REVISION			
NO	DATE	BY	DESCRIPTION
2	05/2011	GPI	REPLICATED IN CADD
1	10/2004	JH	REVISED HINGED DOOR
0	07/1980	ML	10174S CREATED

NOTE:

- THE NAME OF THE MANUFACTURER.
- SHALL BE POWDER COATED WITH GRAY FED COLOR 595B #26373

REVISION			
NO	DATE	BY	DESCRIPTION
4	05/2011	GPI	REPLICATED IN CADD
3	10/1970	PC	REDRAWN AND REVISED
2	12/1966	ADB	REMODIFIED TRANSFORMER BASE
1	05/1985	N/A	MODIFIED TRANSFORMER BASE
0	05/1965	DSH	LD 68S CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
NYC TRAFFIC SIGNAL POLE "S-1a"		
SCALE:	OLD DRAWING NO.	DRAWING NO.
AS NOTED	LB-10174S LD-68S	P-002



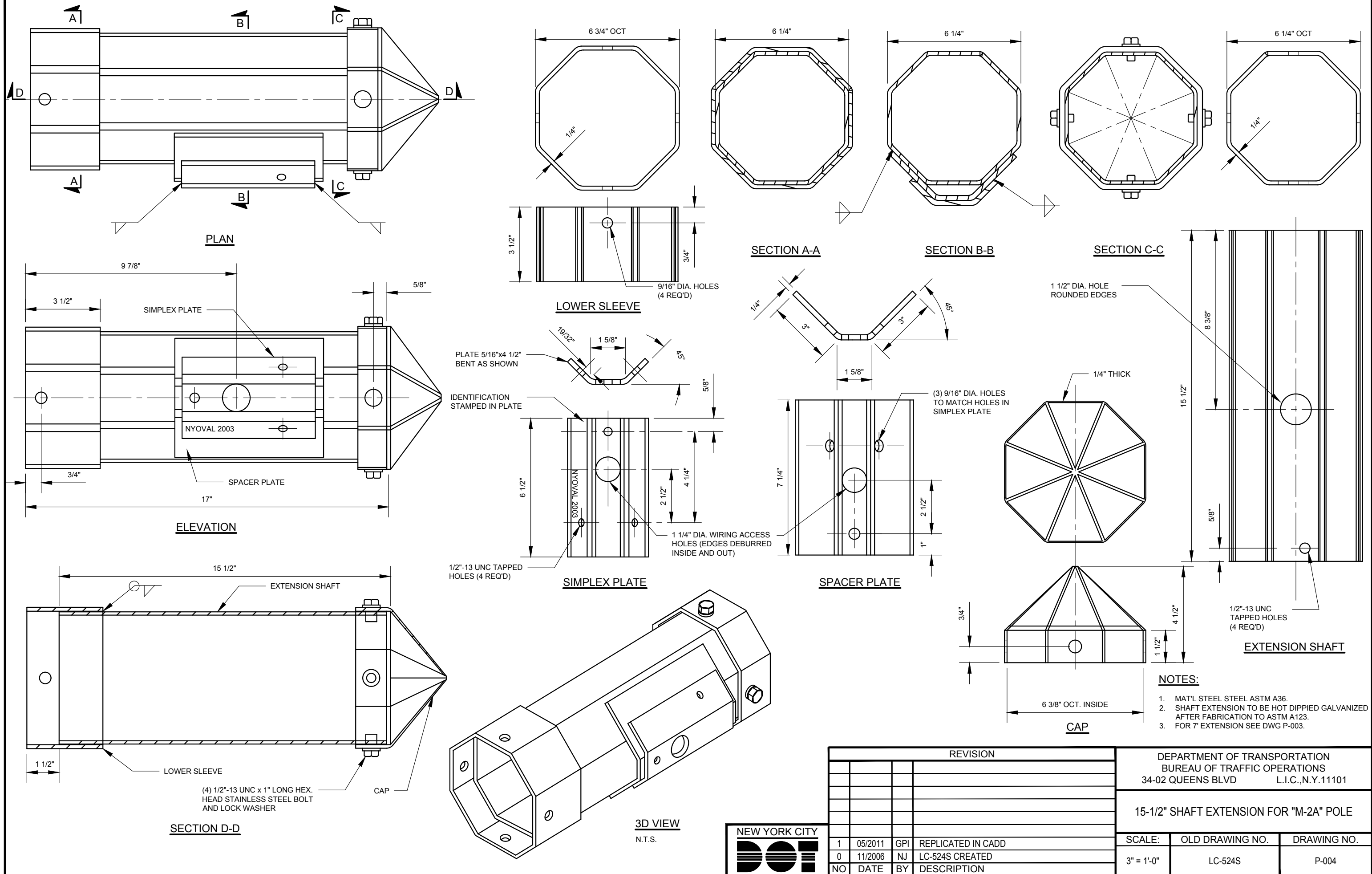
- INSTALLATION INSTRUCTIONS FOR SHAFT EXTENSION FOR "M-2A" POLE**
- THE PROCEDURE SHALL BE AS FOLLOWS:
1. PLACE SECURE TEMPORARY CLAMP UNDER TOP TRAFFIC POLE CLAMP "D2" AND "B2".
 2. REMOVE "B2" HALF CLAMP FACING SIGNAL.
 3. RELEASE LOAD FROM POLE BY MOVING BACK CLAMP "D2" AND CROSS ARM TOGETHER WITH TIE RODS ETC. SUFFICIENTLY TO PERMIT SHAFT EXTENSION TO SLIDE ON (USING SUFFICIENT RIGGING).
 4. SLIDE SHAFT EXTENSION IN PLACE AND DRIVE DOWN TO TOP OF TEMPORARY CLAMP.
 5. RELAX BACK CLAMP "D2" AND CROSS ARM TOGETHER WITH TIE RODS ETC. TO ORIGINAL POSITION.
 6. REPLACE HALF CLAMP "B2" FACING SIGNAL AND TIGHTEN BOLTS SECURELY MAKING SURE SHAFT EXTENSION IS SQUEEZED TIGHT AGAINST.
 7. REMOVE TEMPORARY CLAMP UNDER "D2" AND "B2" AND ALL OTHER RIGGING.
- IN NO WAY SHALL THIS TRAFFIC POLE BE DISTURBED EXCEPT AS SPECIFIED ABOVE.

- NOTES:**
1. MAT'L OF SHAFT EXTENSION: LOW ALLOY HIGH STRENGTH STEEL, CORTEN, NAX, MAYARI, OR EQUAL.
 2. HARDWARE: FURNISH 4 WASHERS (DETAIL "B") WITH EACH SHAFT EXTENSION, MAT'L: AL-6061 OR AL-1100.
 3. FINISH: SHAFT EXTENSION AND POLE PLATE ASSEMBLY TO BE HOT-DIPPED GALV. AFTER FABRICATION.
 4. NO HARDWARE OTHER THAN THE 4 WASHERS IS REQUIRED WITH EACH SHAFT EXTENSION.
 5. N.I.C.: NOT IN CONTRACT. I.E. NOT FURNISHED WITH SHAFT EXTENSION.
 6. FOR ALTERNATIVE TO DETAIL "A", SEE DWG J-5255.
 7. FOR 15 1/2" SHAFT EXTENSION SEE DWG P-004.

REVISION			
NO	DATE	BY	DESCRIPTION
3	05/2016	DR	ADD 360 deg ARM CONSTRUCTION DETAIL
2	05/2011	GPI	REPLICATED IN CADD
1	11/2006	NJ	REDRAWN FROM BUR. G&E. DWG. H-5159
0	03/1973	CP	14347S CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
7' SHAFT EXTENSION FOR "M-2A" POLE, SINGLE & TWIN TYPES		
SCALE:	OLD DRAWING NO.	DRAWING NO.
AS NOTED	LB-14347S	P-003





PLAN

ELEVATION

SECTION D-D

3D VIEW
N.T.S.

LOWER SLEEVE

SIMPLEX PLATE

SPACER PLATE

SECTION A-A

SECTION B-B

SECTION C-C

CAP

EXTENSION SHAFT

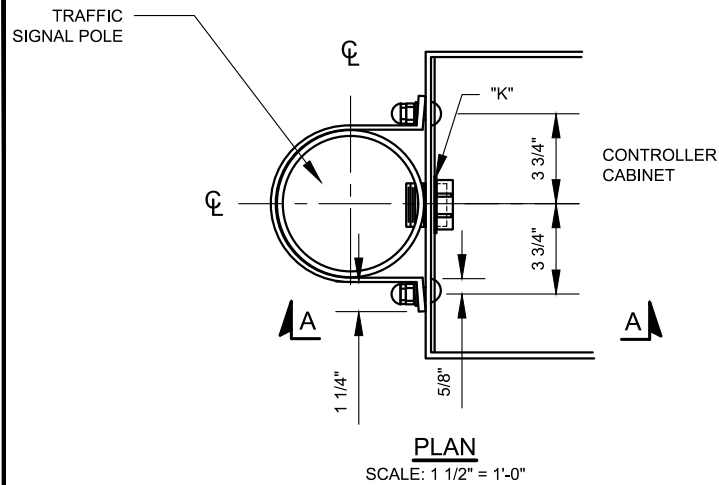
NOTES:

1. MAT'L STEEL ASTM A36.
2. SHAFT EXTENSION TO BE HOT DIPPED GALVANIZED AFTER FABRICATION TO ASTM A123.
3. FOR 7' EXTENSION SEE DWG P-003.

REVISION			
NO	DATE	BY	DESCRIPTION
1	05/2011	GPI	REPLICATED IN CADD
0	11/2006	NJ	LC-524S CREATED

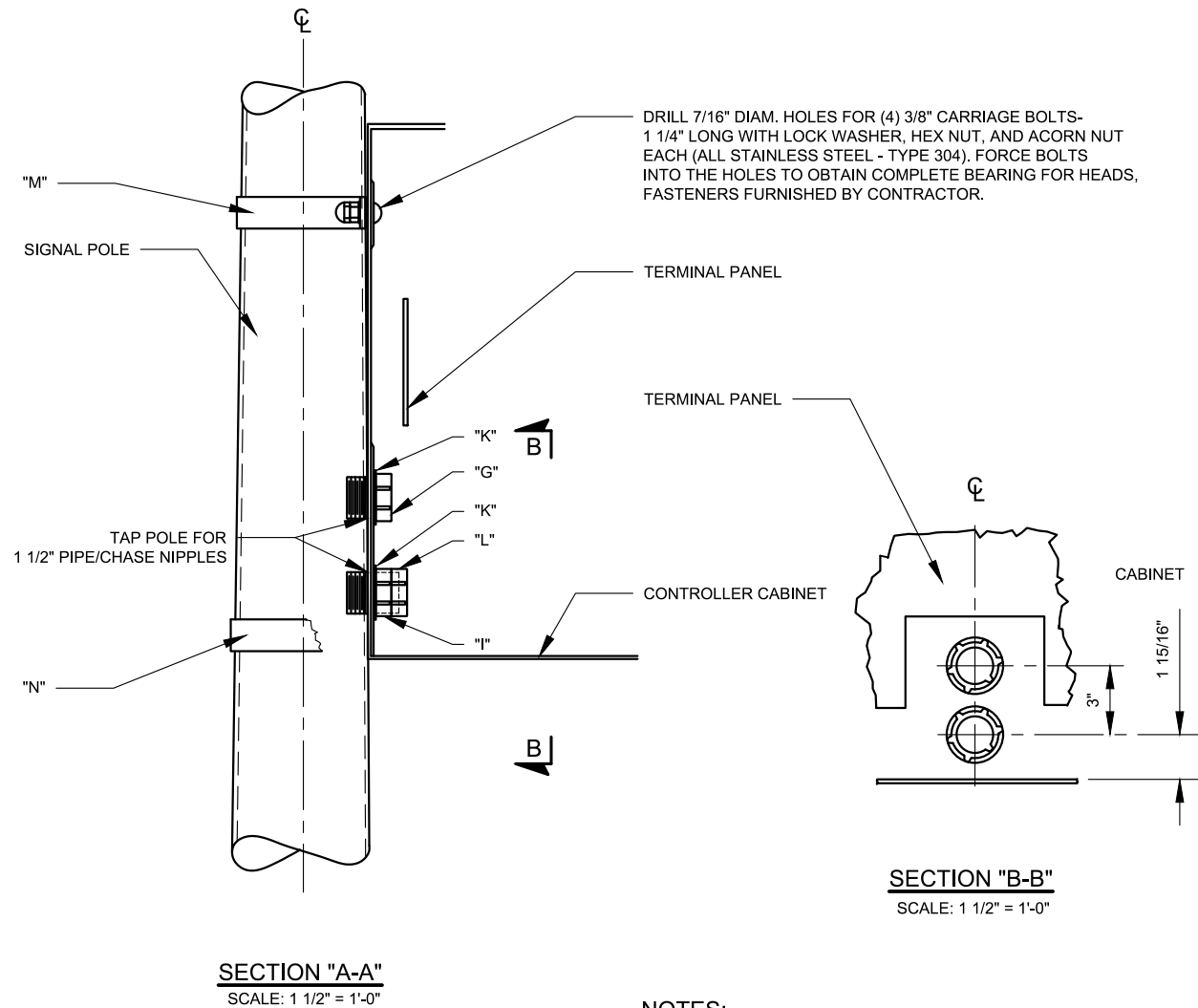
DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
15-1/2" SHAFT EXTENSION FOR "M-2A" POLE		
SCALE:	OLD DRAWING NO.	DRAWING NO.
3" = 1'-0"	LC-524S	P-004





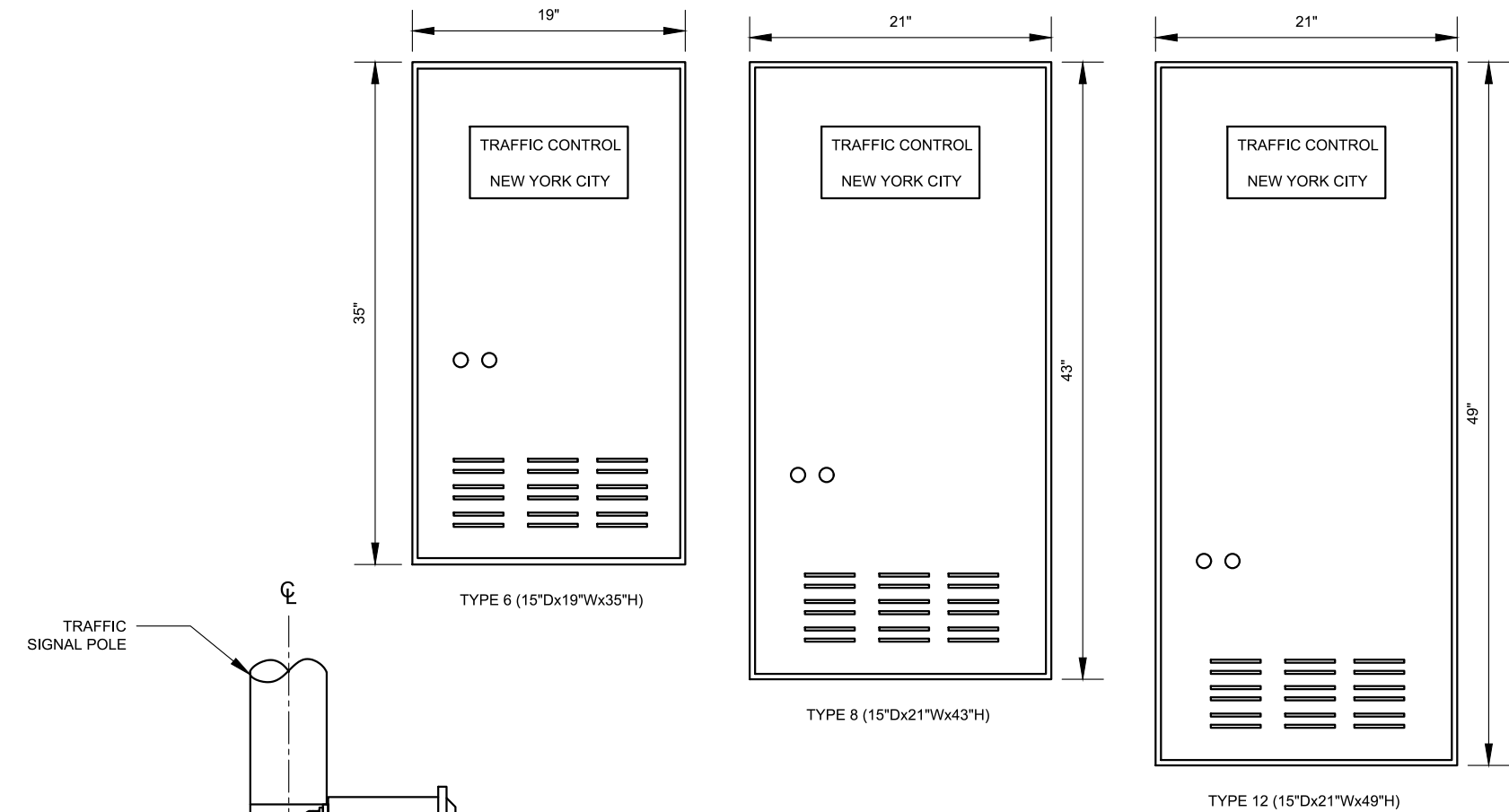
**PARTS LEGEND - (ALL ALUMINUM)
(FURNISHED BY CONTRACTOR)**

- "G" - 1 1/2" CHASE NIPPLE (DWG SE-009)
- "H" - 1 1/2" X 1 1/2" LG PIPE NIPPLE (DWG SE-012)
- "I" - 1 1/2" PIPE LOCKNUT (DWG SE-010)
- "K" - NEOPRENE SEAL GASKET (SEE NOTE 4)
- "L" - INSULATED THROAT BUSHING
- "M" - TOP MOUNTING BAND (DWG P-006 OR P-007)
- "N" - BOTTOM MOUNTING BAND (DWG P-006 OR P-007)

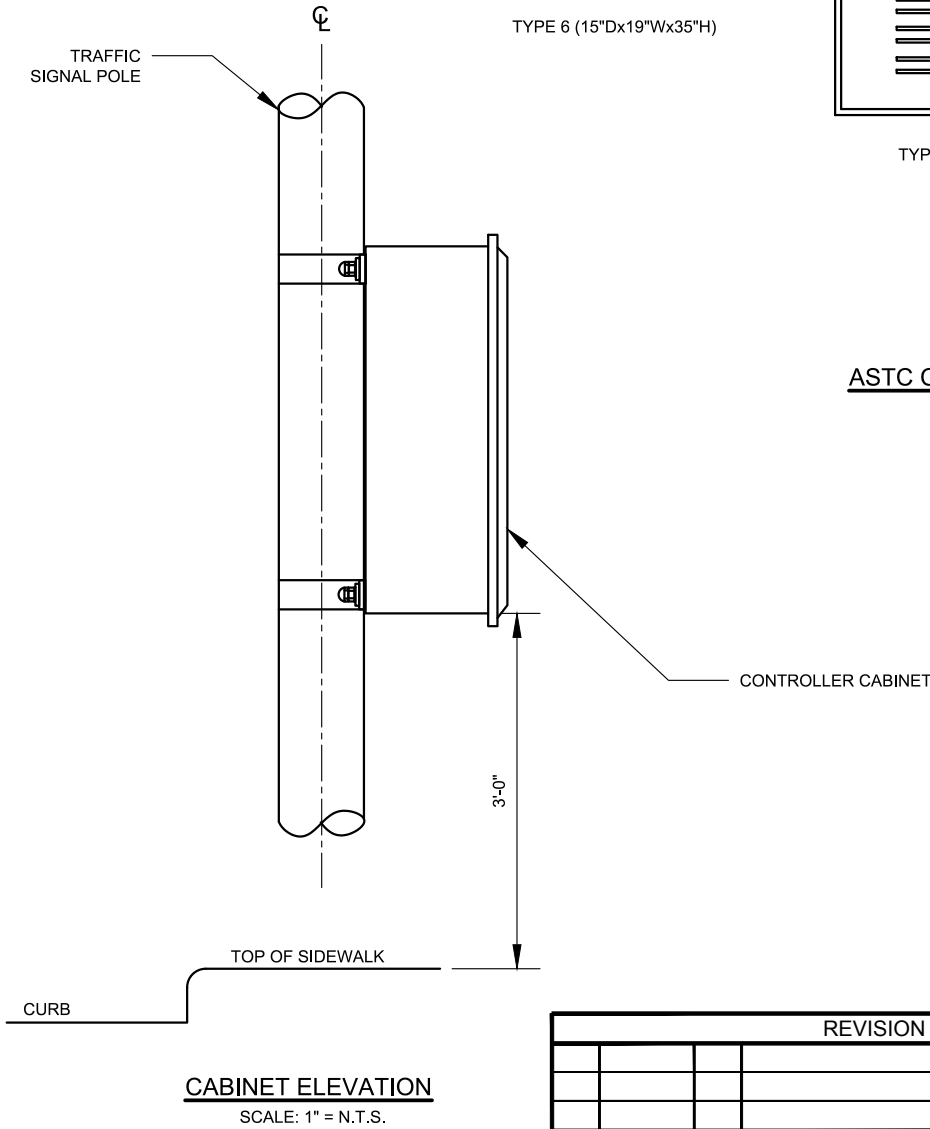


NOTES:

1. ALL PIPE THREADING TO BE STRAIGHT MACHINE THREADING - 11 1/2 THREADS PER INCH (CLASS 2 FIT)
2. ROUND BOTH INSIDE EDGES OF AL PIPE NIPPLES AND CHASE NIPPLE.
3. CONNECTION STRAPS TO BE 1 1/2"x1/4" OF ALUMINUM ALLOY 6063-T52.
4. NEOPRENE SEAL GASKET SHALL BE 2 1/2" O.D. x 2" I.D. x 1/8" THICK.



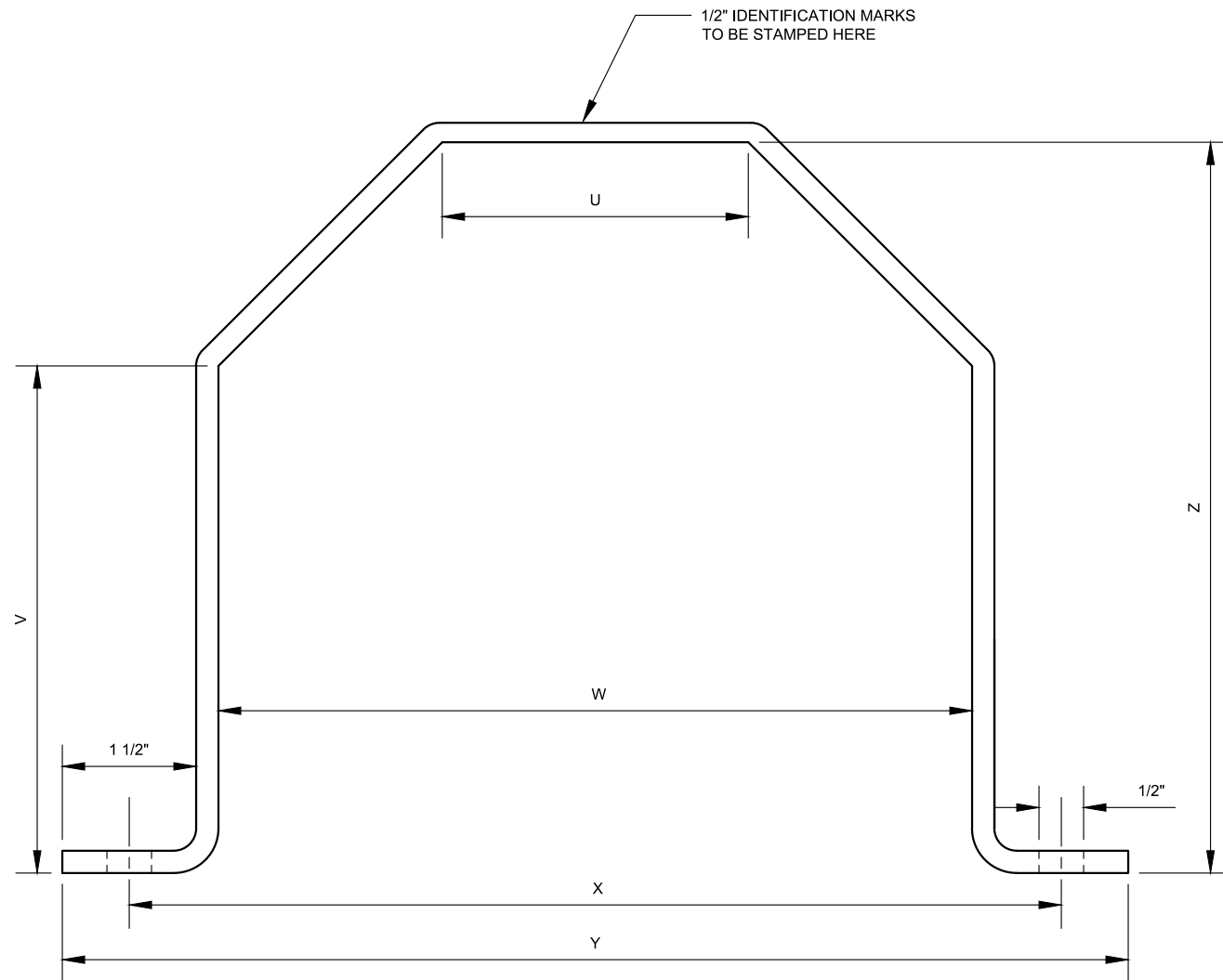
ASTC CONTROLLER CABINETS
SCALE: 1" = 1'-0"



REVISION			
NO	DATE	BY	DESCRIPTION
1	05/2011	GPI	REPLICATED IN CADD
0	03/2007	JH	LB12395S CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
MOUNTING ASTC CABINET ON TRAFFIC SIGNAL POLE		
SCALE: AS NOTED	OLD DRAWING NO. LB-12395S LG-49-S	DRAWING NO. P-005





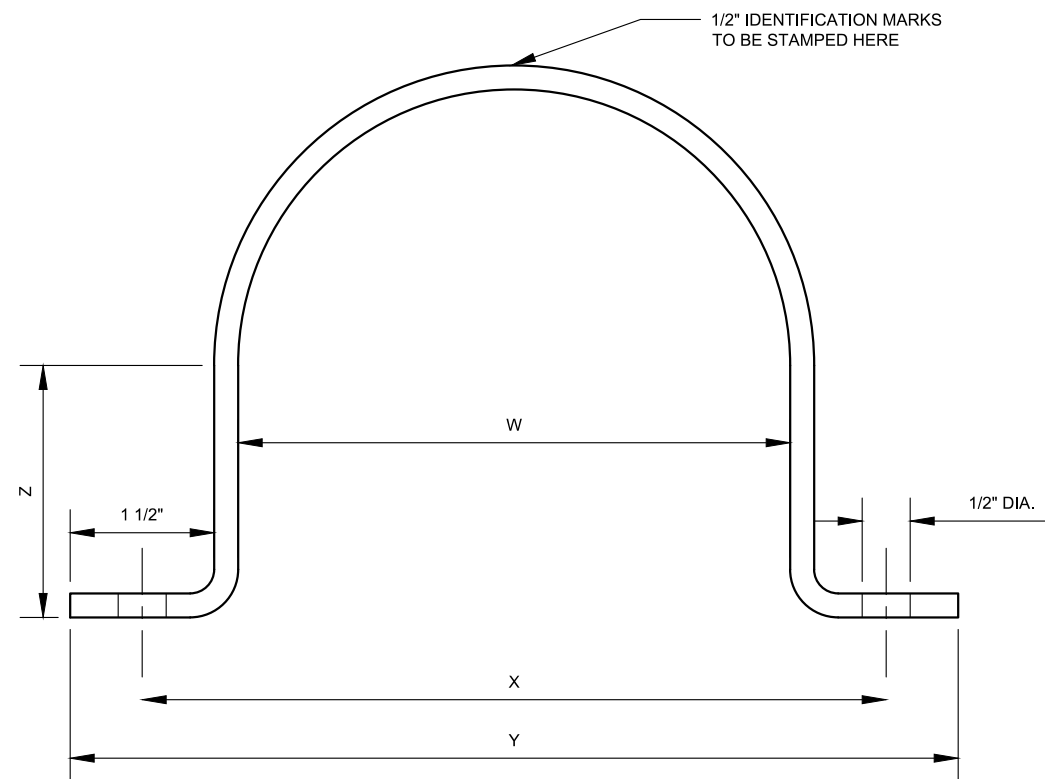
M BAND TYPE	U	V	W	X	Y	Z
A	3 1/2"	5 11/16"	8 7/16"	10 7/16"	11 15/16"	8 3/16"
B	3 3/8"	5 1/2"	8 1/8"	10 1/8"	11 5/8"	7 7/8"
C	3 1/4"	5"	7 7/8"	9 7/8"	11 3/8"	7 5/16"
D	3 1/8"	4 15/16"	7 1/2"	9 1/2"	11"	7 1/8"
X (SEE NOTE 3)	2 11/16"	4 3/8"	6 1/2"	8 1/2"	10"	6 1/4"

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



REVISION				DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101	
5	06/2011	GPI	REPLICATED IN CADD	CONTROLLER CABINET MOUNTING BANDS FOR "M-2A" POLE	
4	02/1976	N/A	LB-1364-S		
3	02/1976	N/A	LB-1363-S		
2	03/1976	N/A	LB-1362-S		
1	02/1976	N/A	LB-1361-S		
0	02/1976	GS	LB-1360-S	SCALE: 6" = 1'-0"	OLD DRAWING NO. LB-1360-S, LB-1361-S, LB-1362-S, LB-1363-S, LB-1366-S
NO	DATE	BY	DESCRIPTION	DRAWING NO. P-006	



S BAND TYPE	W	X	Y	Z
A	5 3/4"	7 3/4"	9 1/4"	2 5/8"
B	5 7/16"	7 7/16"	8 15/16"	2 1/2"
C	5 1/8"	7 1/8"	8 5/8"	2 5/16"
D	5"	7"	8 1/2"	2 1/4"

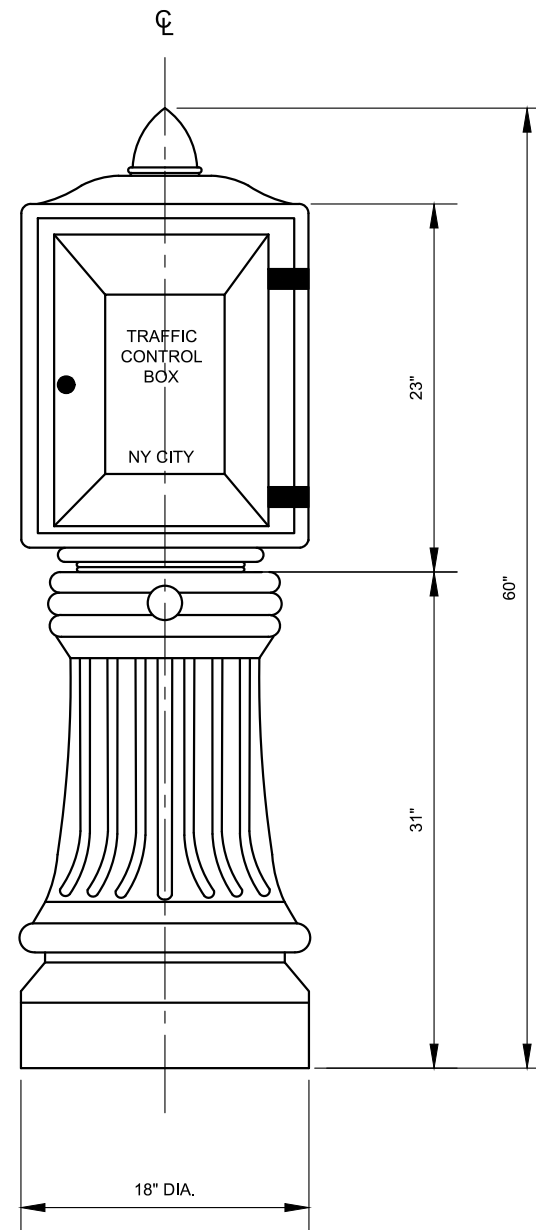
NOTES:

- ALL BANDS TO BE FABRICATED FROM 1 1/2"x1/4" TYPE 6063-T52 ALUMINUM ALLOY
- ALL DIMENSIONS ± 1/16"



REVISION			
NO	DATE	BY	DESCRIPTION
3	06/2011	GPI	REPLICATED IN CADD
1	02/1976	N/A	LB-1366-S
0	02/1976	JV	LB-1365-S CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
CONTROLLER CABINET MOUNTING BANDS FOR "S-1a" POLE		
SCALE: 6" = 1'-0"	OLD DRAWING NO. LB-1365-S LB-1366-S	DRAWING NO. P-007



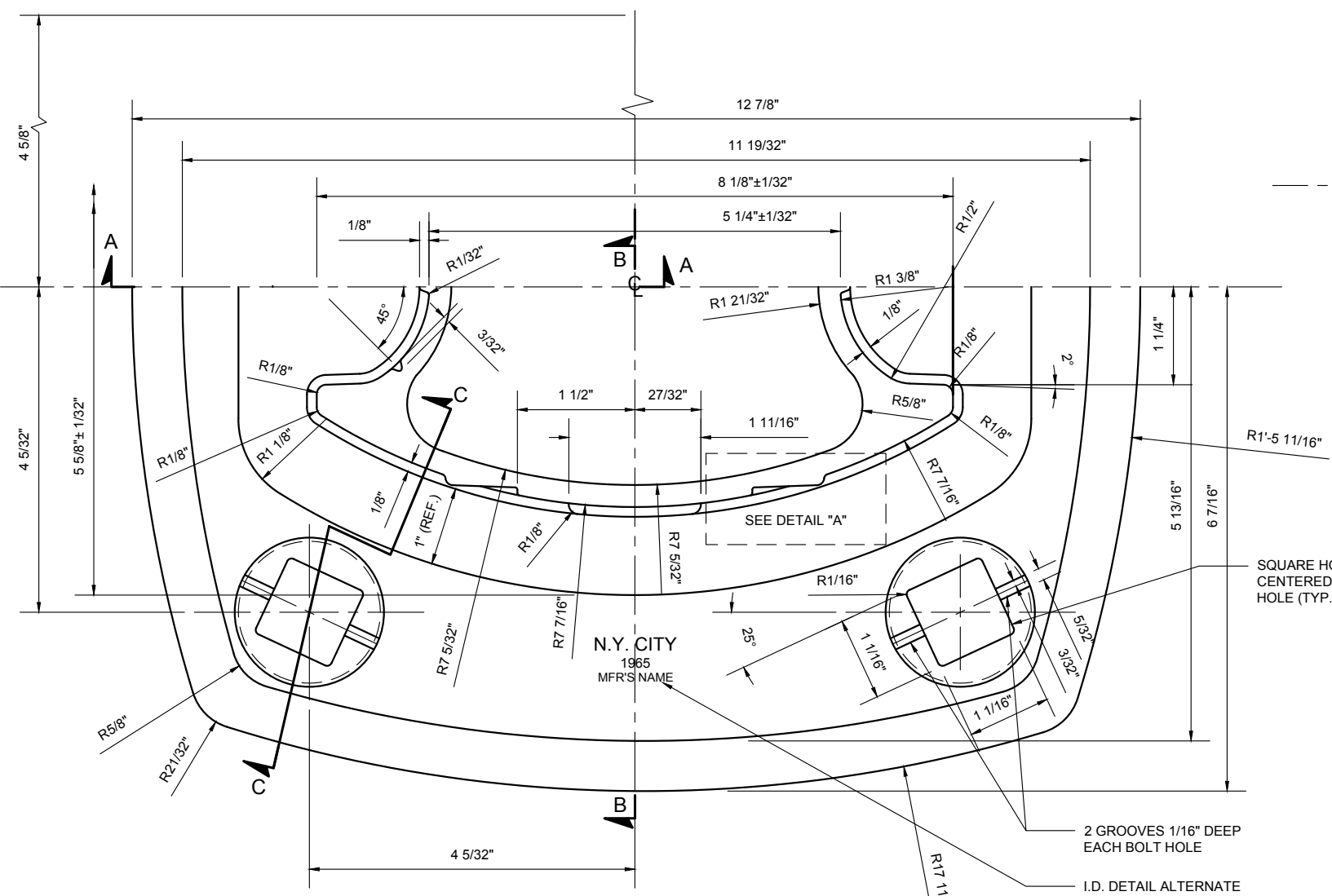
FOR REMOVAL ONLY



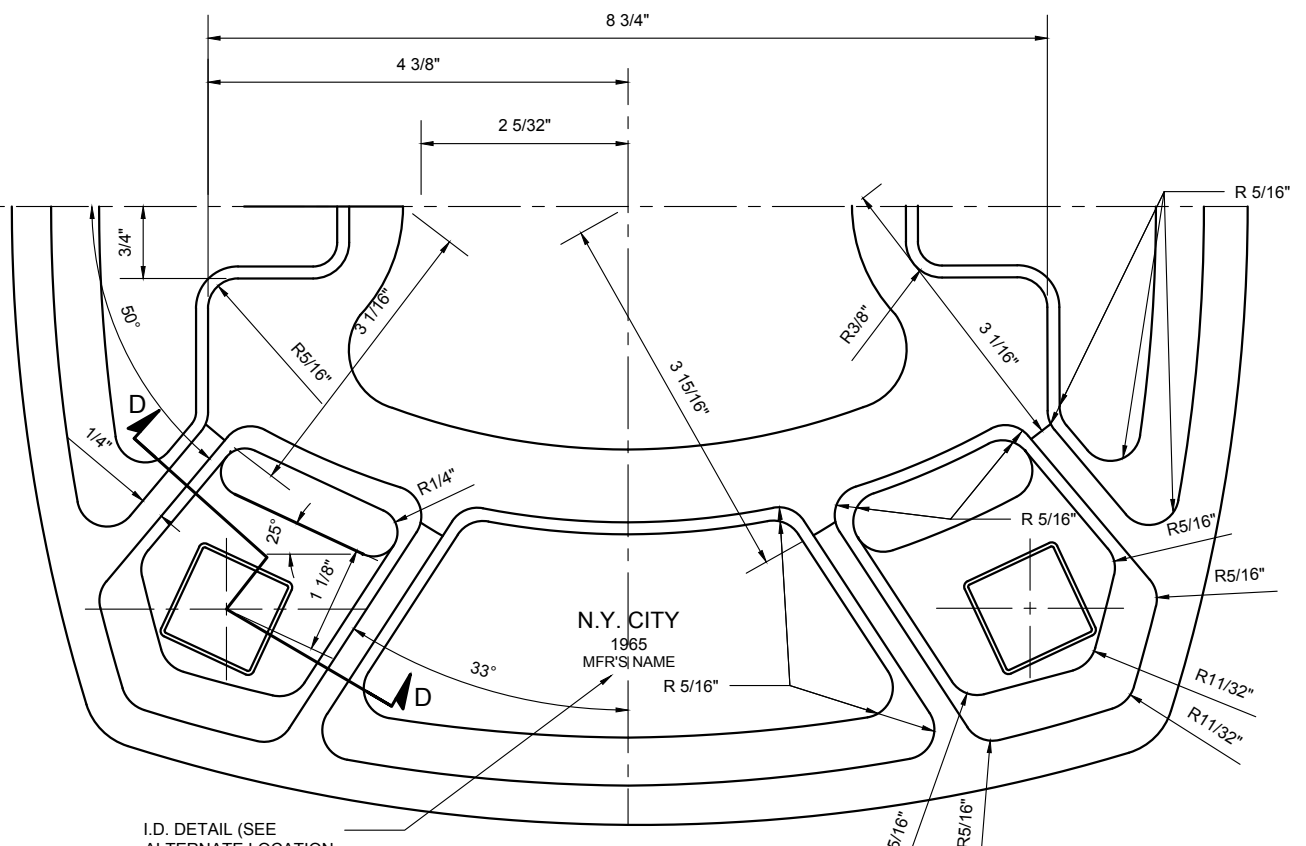
REVISION			
NO	DATE	BY	DESCRIPTION
1	05/2011	GPI	REPLICATED IN CADD
0	06/1953	JWS	LG22-S CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
TYPE "B" MODIFIED POLE		
SCALE: 1 1/2" = 1'-0"	OLD DRAWING NO. LG-22S	DRAWING NO. P-008

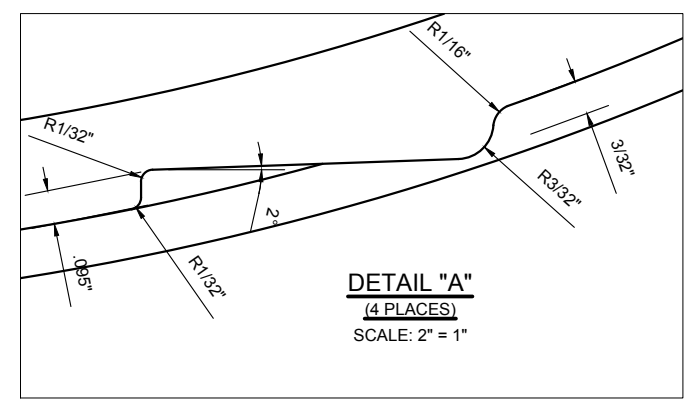
NYCDOT TRAFFIC SIGNAL STANDARD DRAWINGS, Jun 2020



PLAN VIEW OF SHOE BASE
SCALE: 6"= 1'-0"



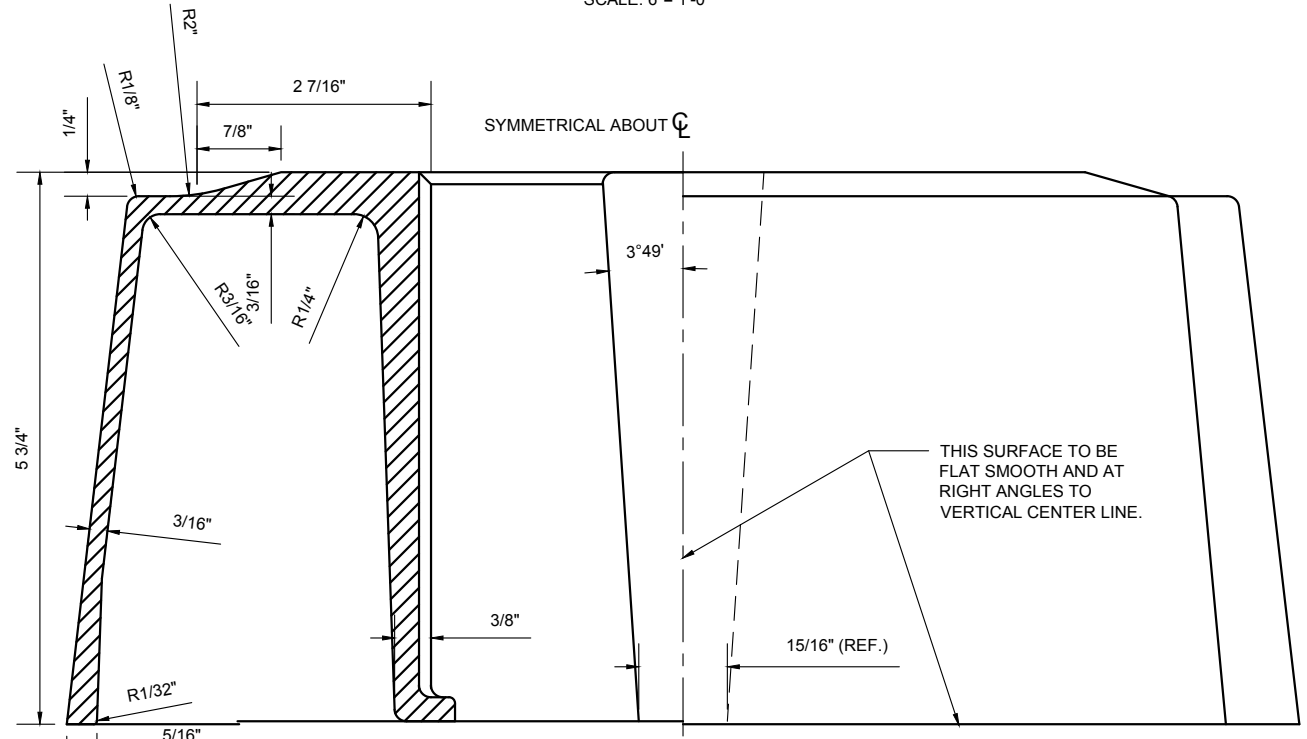
BOTTOM VIEW OF SHOE BASE
SCALE: 6"= 1'-0"



DETAIL "A"
(4 PLACES)
SCALE: 2" = 1"

NOTES:

1. ALL UNMARKED DRAFT TO BE 2 DEG. MATERIAL-ALUMINUM ALLOY A-356-T6 SEMI-PERMANENT OR PERMANENT MOLD CASTING. FINISH AS CAST. TOLERANCE UNLESS OTHERWISE SPECIFIED TO BE ±1/32." (4) 1"-8 H.D. GALV. STEEL BOLT ASS'YS. SHALL BE FURNISHED WITH EACH SHOE BASE: BOLT DESIGN AS SHOWN IN DETAIL.
2. SEE P-009_1, P-009_2, AND P-009_3, FOR IDENTIFICATION DETAILS AND LOCATION NOTE.
3. SEE DRAWING P-009_3 FOR SECTION "B-B," "C-C," "D-D," & BOLT DETAIL.



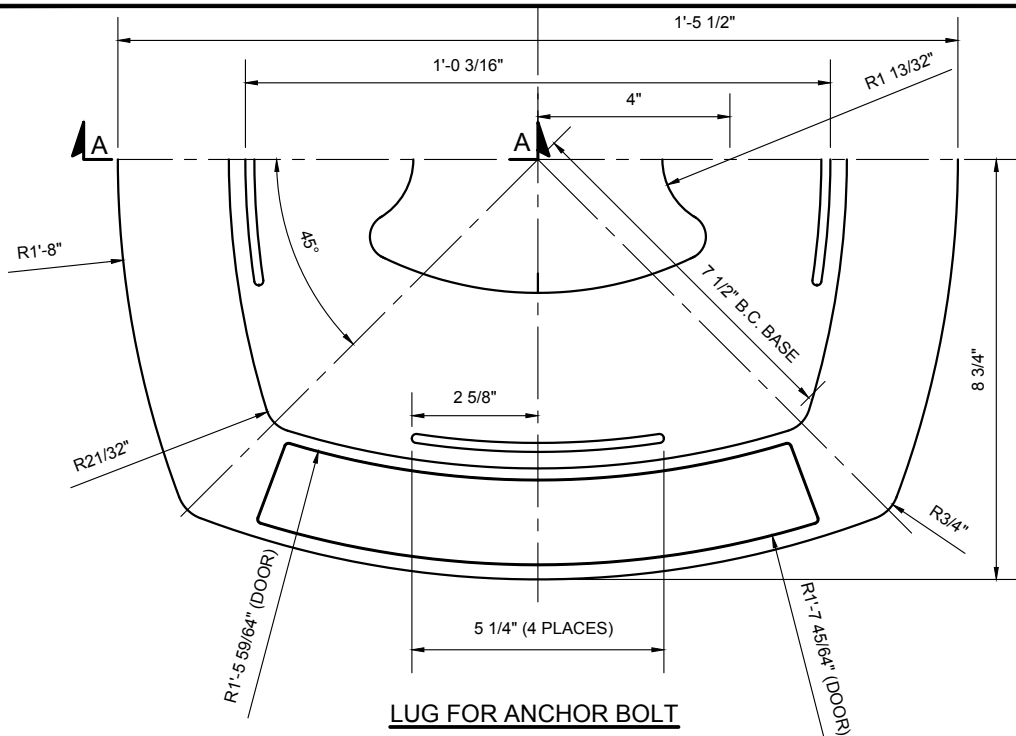
SECTION A-A
SCALE: 6"= 1'-0"

FOR REMOVAL ONLY

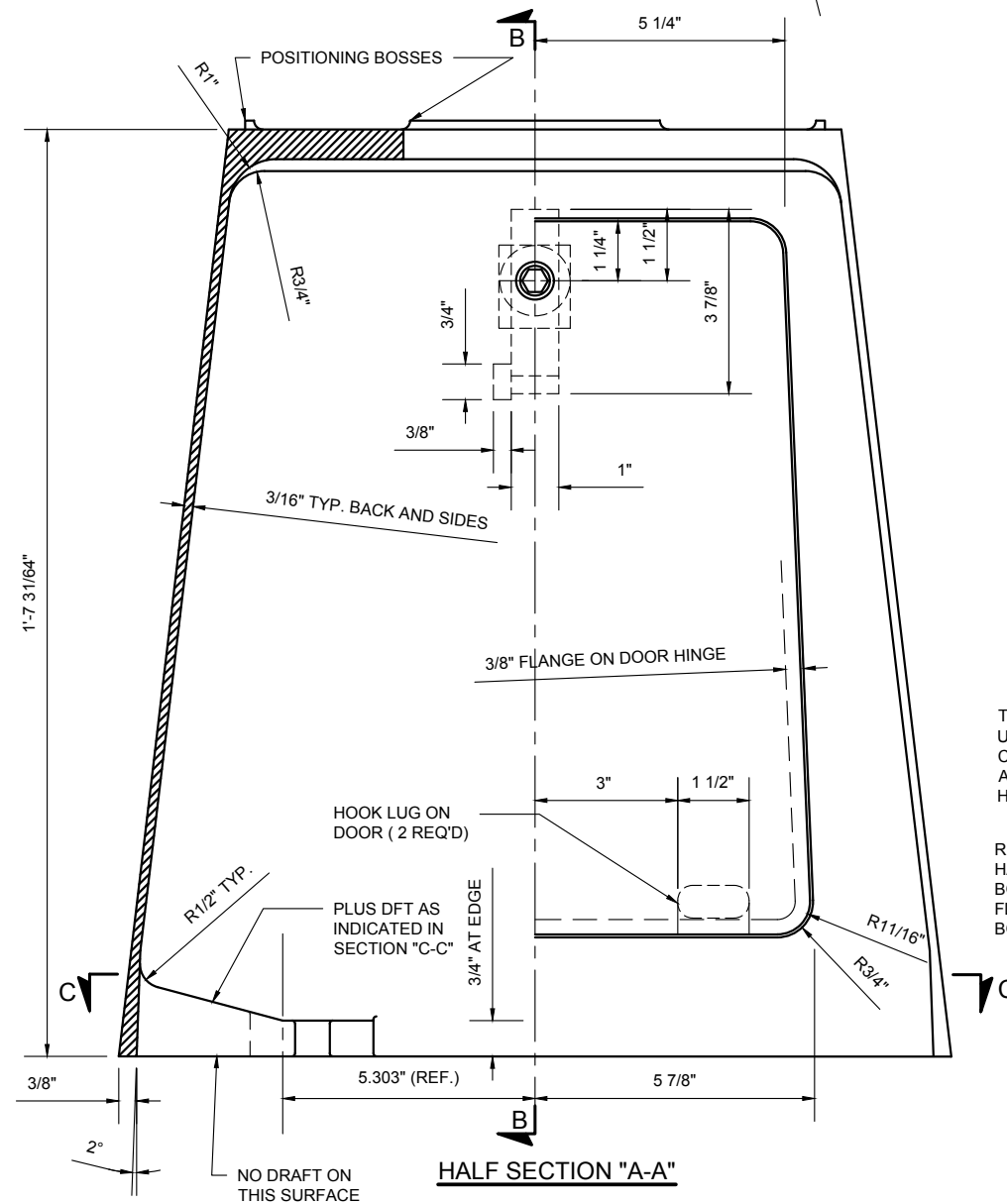


REVISION			
NO	DATE	BY	DESCRIPTION
3	05/2011	GPI	REPLICATED IN CADD
2	10/1964	N/A	H-5010(10) REVISION
1	07/1963	N/A	H-5010(10) REVISION
0	05/1963	RP	H-5010(10) CREATED

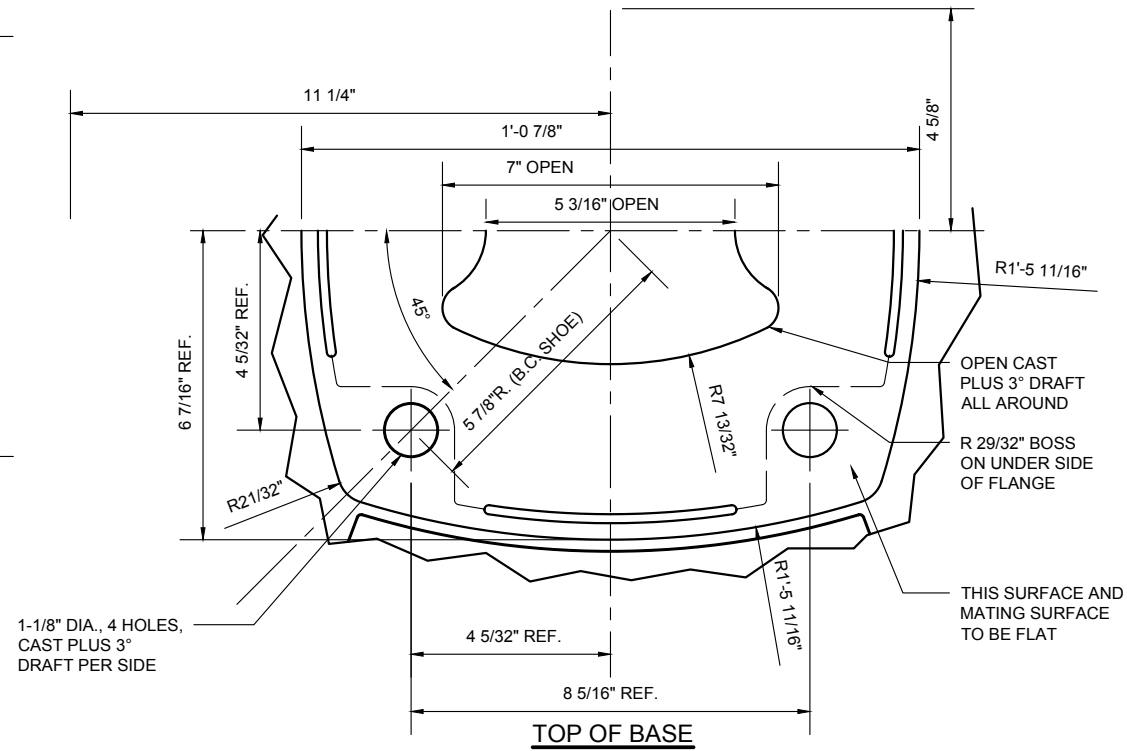
DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
SHOE BASE FOR TYPE 10 LAMP POLE		
SCALE: AS NOTED	OLD DRAWING NO. H-5010(10)	DRAWING NO. P-009_1



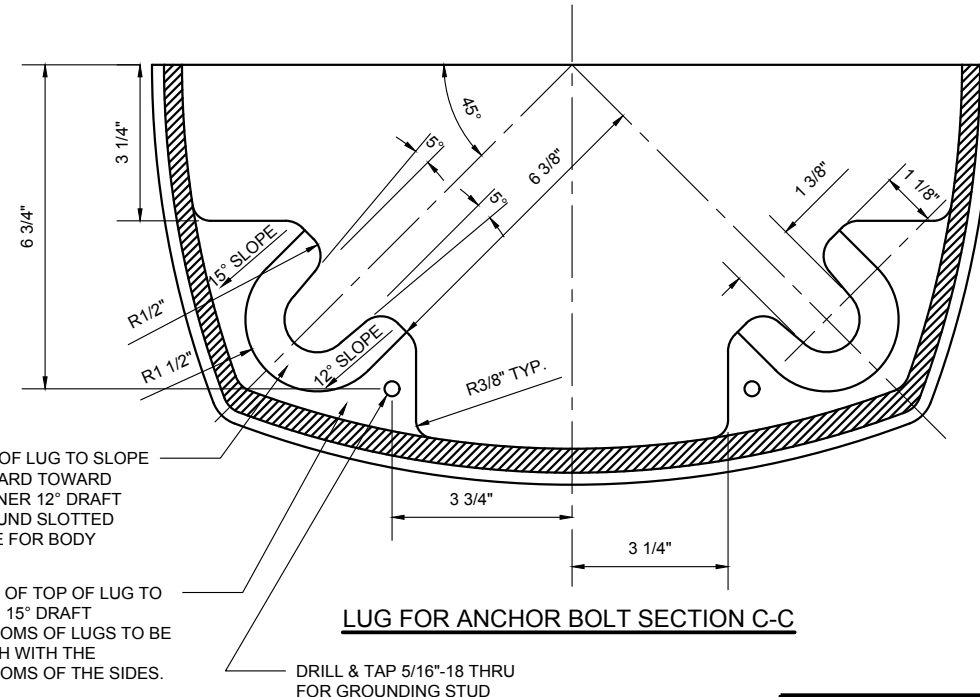
LUG FOR ANCHOR BOLT



HALF SECTION "A-A"

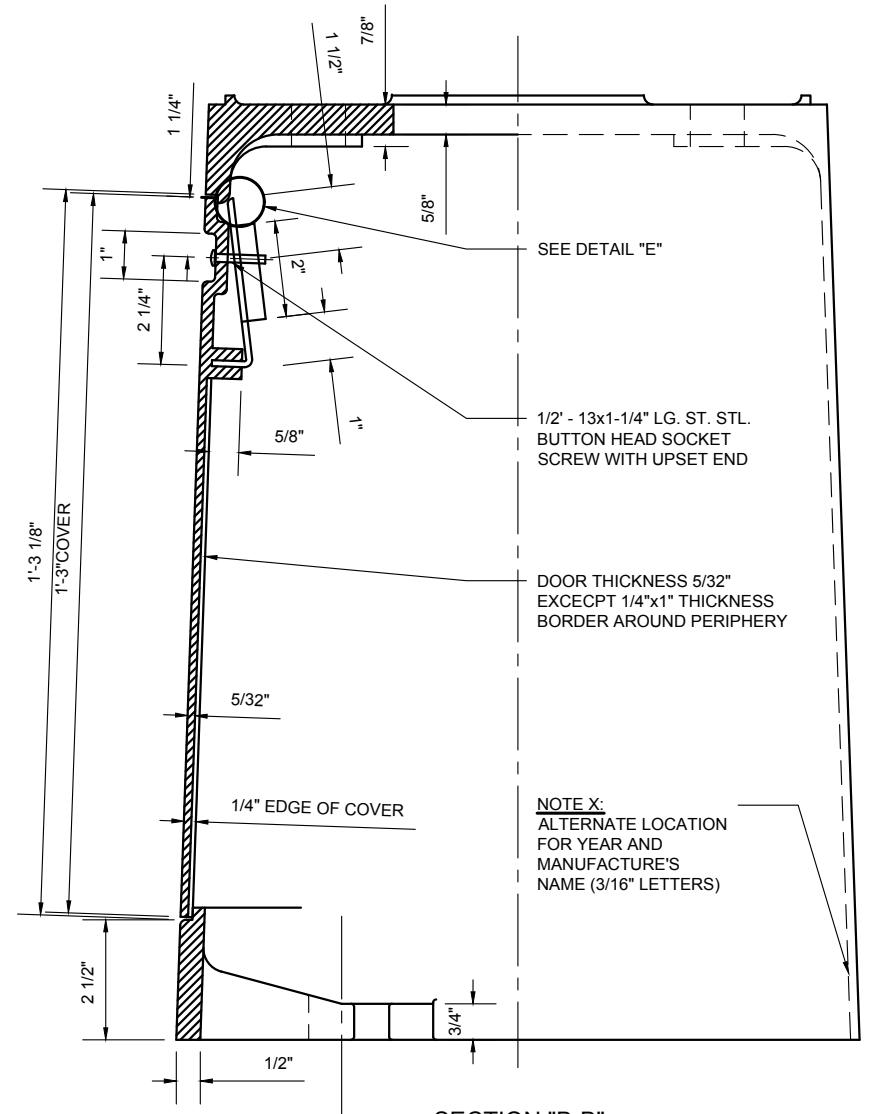


TOP OF BASE



LUG FOR ANCHOR BOLT SECTION C-C

FOR REMOVAL ONLY



SECTION "B-B"

NOTES:

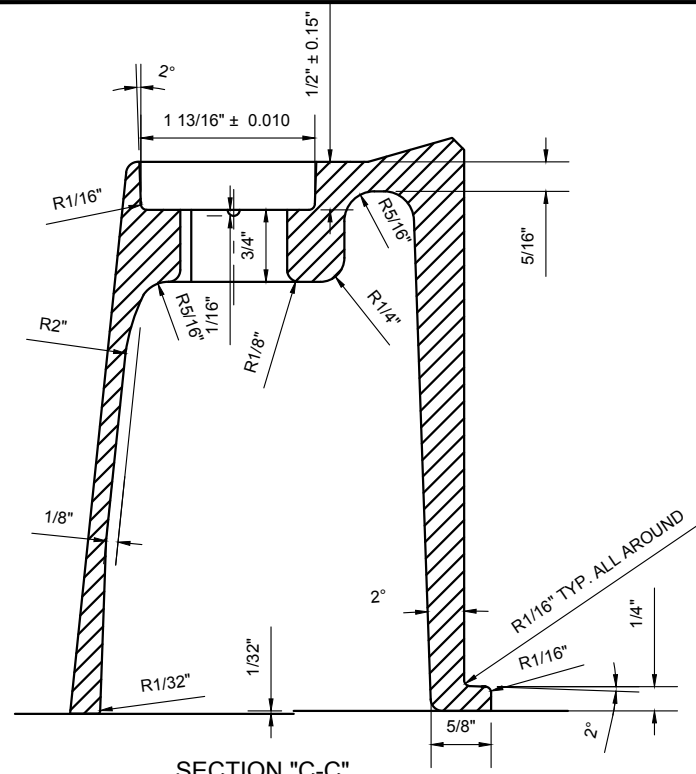
1. SEE DRAWING P-009_3 FOR SECTION DETAIL "E", SHIM DETAIL, SECTION THRU POSITIONING BOSS, SECTION AND BEVELED WASHER AND IDENTIFICATION DETAIL.
2. MATERIAL: ALUMINUM ALLOY #A-356-T6.
3. PERMANENT MOLD CASTING.
4. FINISH AS CAST.
5. ALL DRAFT ANGLES TO PARTING LINE TO BE 3 DEG.
6. TOLERANCES ON DIMENSIONS 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 LUGS.

REVISION			
NO	DATE	BY	DESCRIPTION
6	05/2011	GPI	REPLICATED IN CADD
5	07/1974	N/A	H-5010(11A) REVISION
4	01/1973	N/A	CLARIFIED BOLT LUG & SECTION B-B
3	04/1968	N/A	CHANGED LATCH
2	03/1965	N/A	CHANGED DOOR RADII & PAD DIMENSION
1	01/1965	N/A	(4) 1 1/8" DIA HOLES WERE 1 1/16" DIA
0	07/1964	JSB	H-5010(11A) CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
TRANSFORMER BASE FOR TYPE 10 LAMP POLE		
SCALE:	OLD DRAWING NO.	DRAWING NO.
3" = 1'-0"	H-5010(11A)	P-009_2

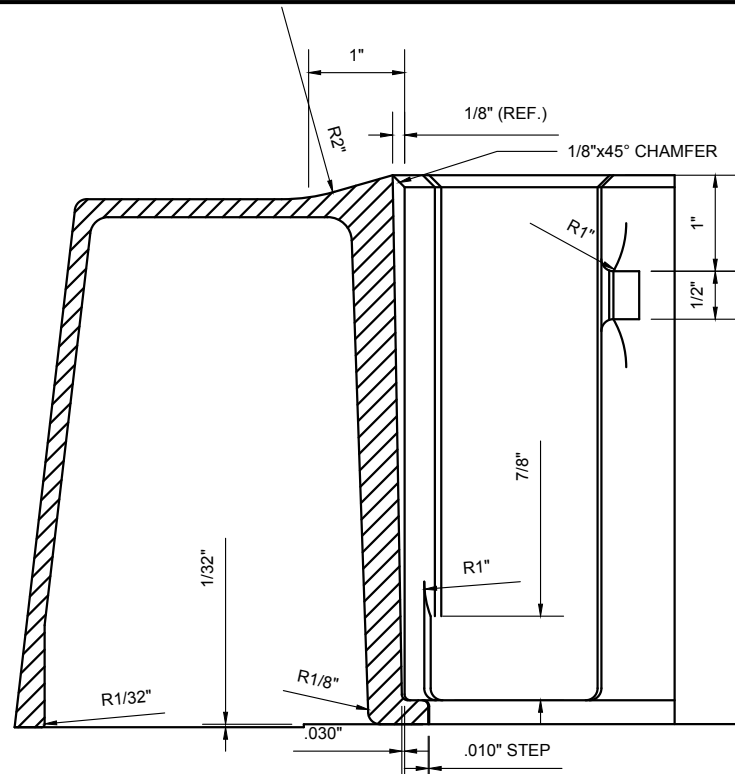


NYC DOT TRAFFIC SIGNAL STANDARD DRAWINGS, Jun 2020



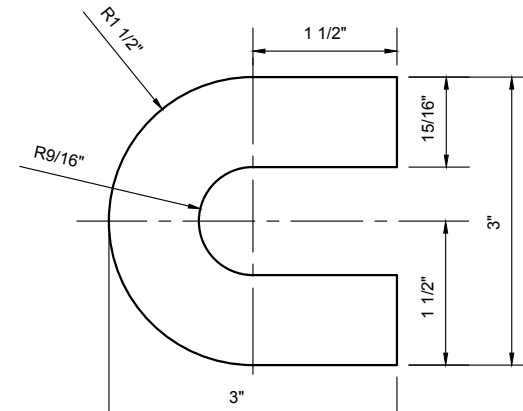
SECTION "C-C"

SCALE: 6" = 1'-0"
SEE DWG P-009_1 FOR NOTES



SECTION B-B

SCALE: 6" = 1'-0"
SEE DWG P-009_1 FOR NOTES



SHIM DETAIL

SCALE: 6" = 1'-0"
MAT'L: HOT DIP GALV. STL. (2)
1/8" THK. & (2) 1/16" THK.
FURN. PER BASE
SEE DWG P-009_2 ADDITIONAL
FOR NOTES

N.Y. CITY

1965

MFR'S NAME

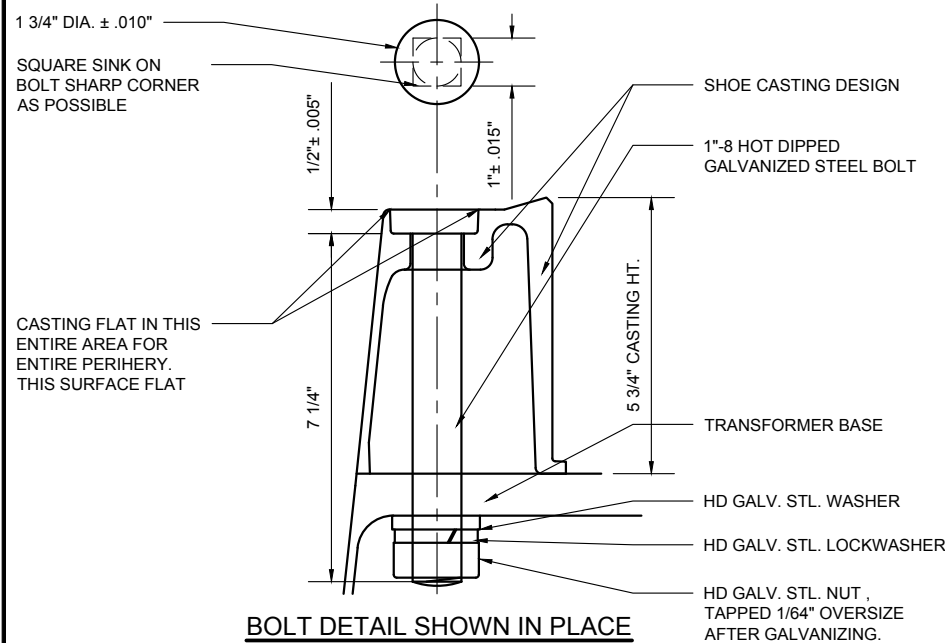
SCALE: 1'-0" = 1'-0"

IDENTIFICATION DETAILS

LOCATED ON SIDE OPPOSITE FROM
DOOR, 1/2" BELOW TOP EDGE.

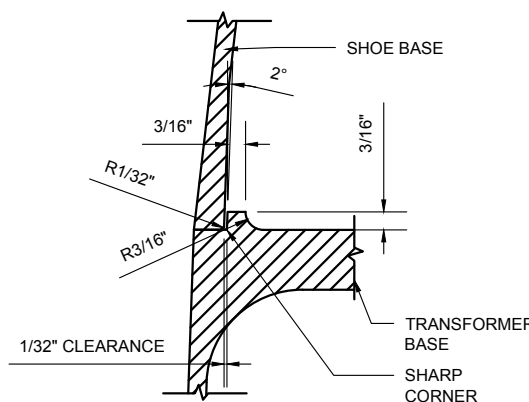
ON THE SHOE BASE, THE
IDENTIFICATION DETAILS SHALL BE
LOCATED AS SHOWN ON SHEET 10
OF 12 PARALLEL TO MAJOR AXIS OF
SHAFT BETWEEN BOLT HOLES

SEE NOTE X ON DRAWING P-009_2
AT SECTION "B-B" FOR ALTERNATE
LOCATION



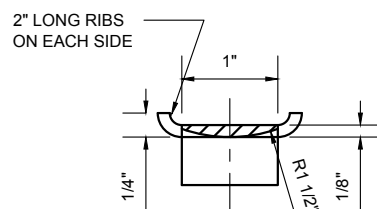
BOLT DETAIL SHOWN IN PLACE

SCALE: 3" = 1'-0"
SEE DWG P-009_1



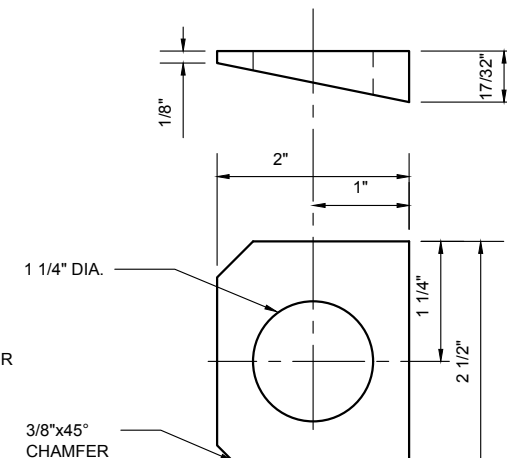
SECTION THRU POSITIONING BOSS

SCALE: 6" = 1'-0"
SEE DWG P-009_2 FOR NOTES



SECTION DETAIL "E"

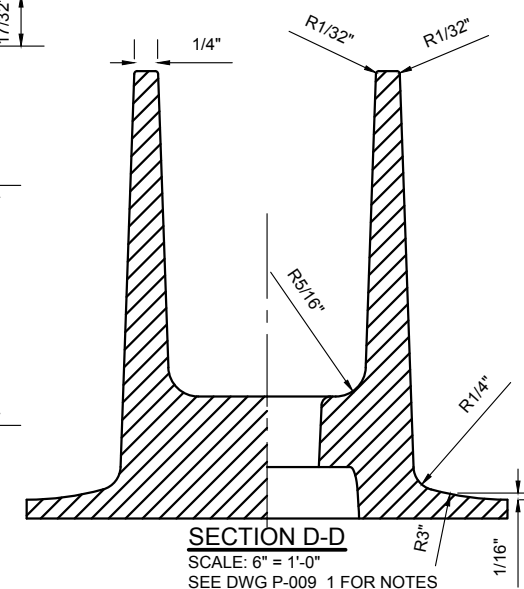
SCALE: 6" = 1'-0"
MAT'L: 1/8" THK. ST. STL.
SEE DWG P-009_2 FOR
ADDITIONAL NOTES



DETAIL OF BEVELED WASHER

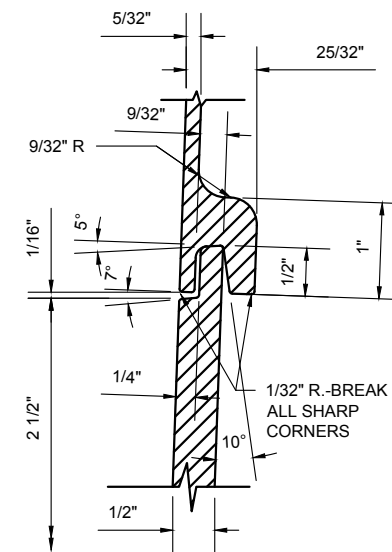
SCALE: 6" = 1'-0"
SEE DWG P-009_2 FOR
NOTES

MAT'L: ALUMINUM



SECTION D-D

SCALE: 6" = 1'-0"
SEE DWG P-009_1 FOR NOTES



SECTION

SCALE: 6" = 1'-0"
SEE DWG P-009_2 FOR
NOTES

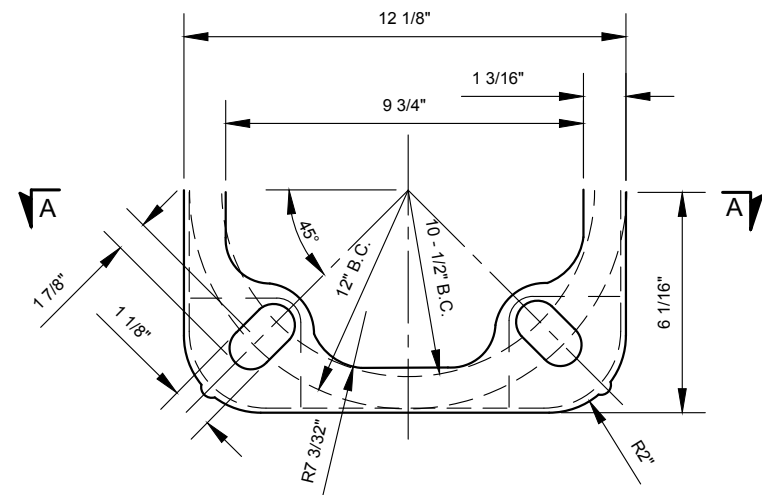
FOR REMOVAL ONLY

REVISION			
NO	DATE	BY	DESCRIPTION
1	05/2011	GPI	REPLICATED IN CADD
0	07/1964	JSB	H-5010(11A) CREATED

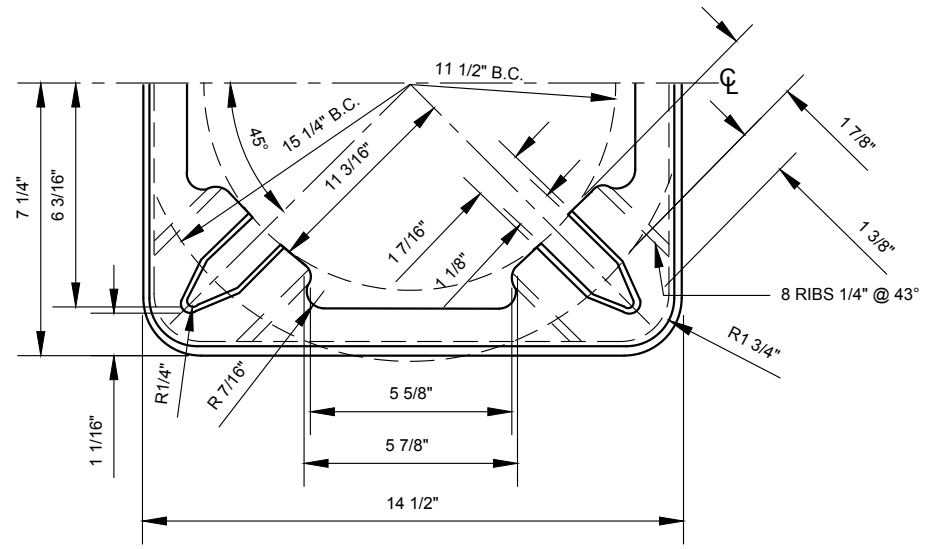


REVISION			
NO	DATE	BY	DESCRIPTION
1	05/2011	GPI	REPLICATED IN CADD
0	05/1963	RP	H-5010(10) CREATED

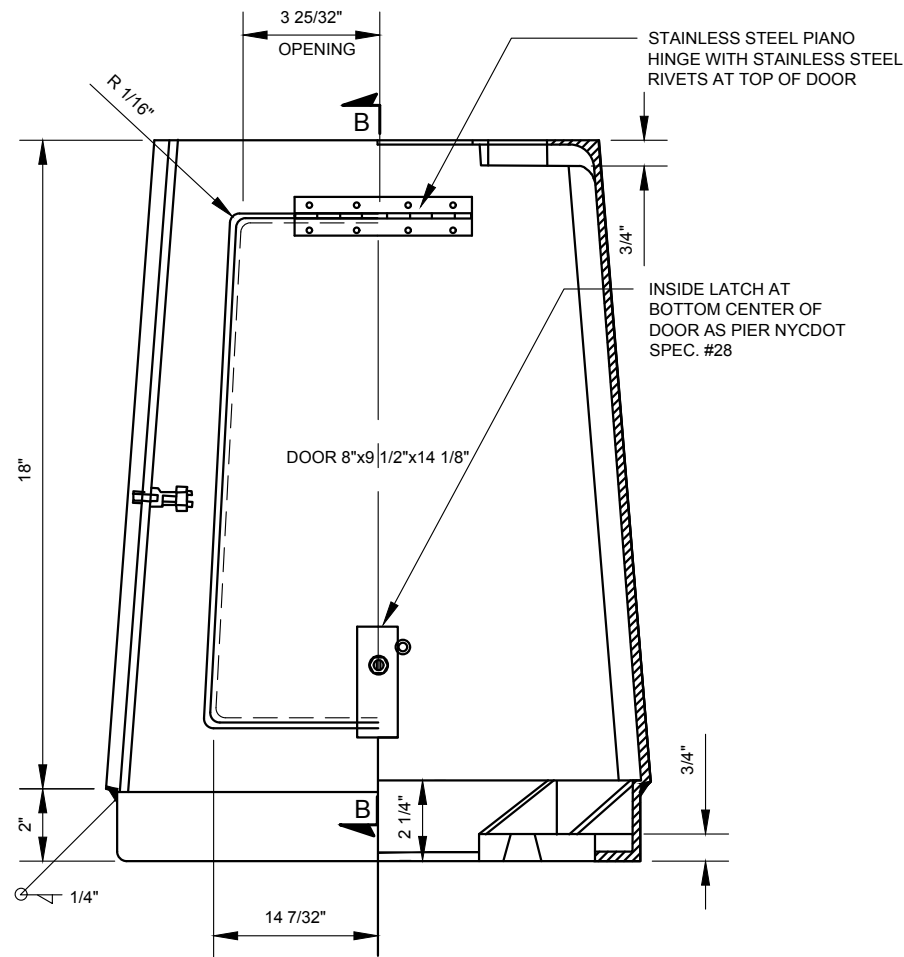
DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
DETAILS FOR SHOE AND TRANSFORMER BASE FOR TYPE 10 LAMP POLE		
SCALE: AS NOTED	OLD DRAWING NO. H-5010(10) H-5010(11A)	DRAWING NO. P-009_3



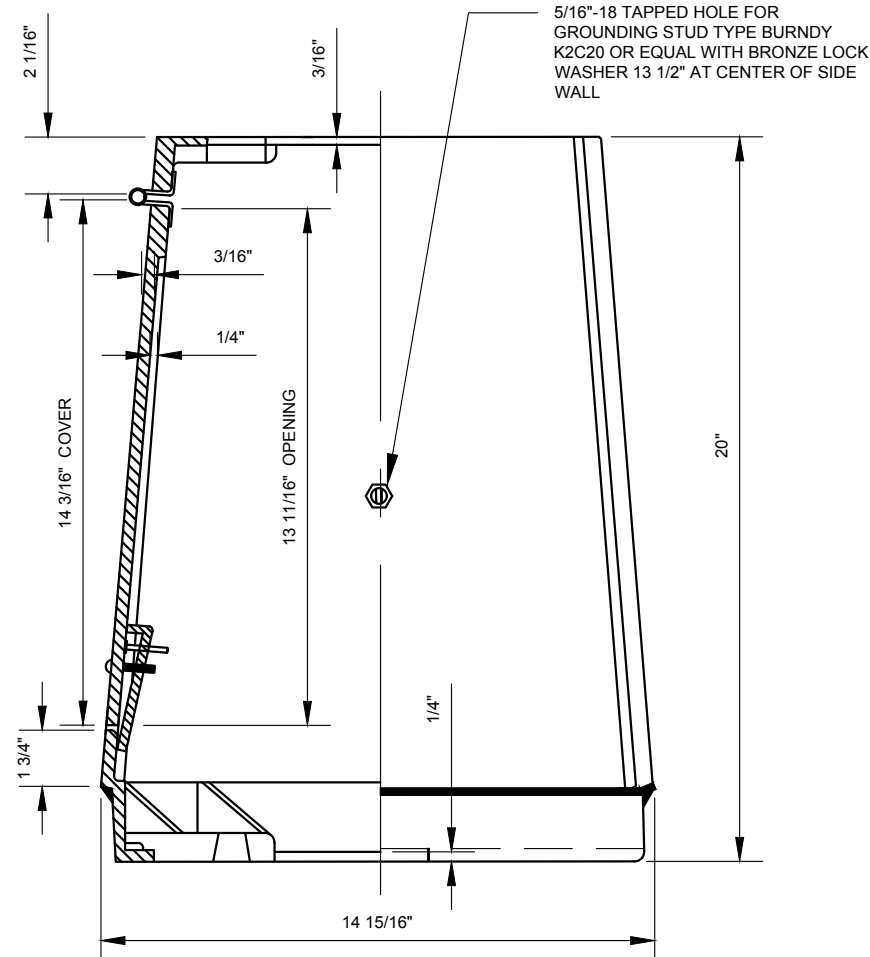
HALF SECTION TOP VIEW



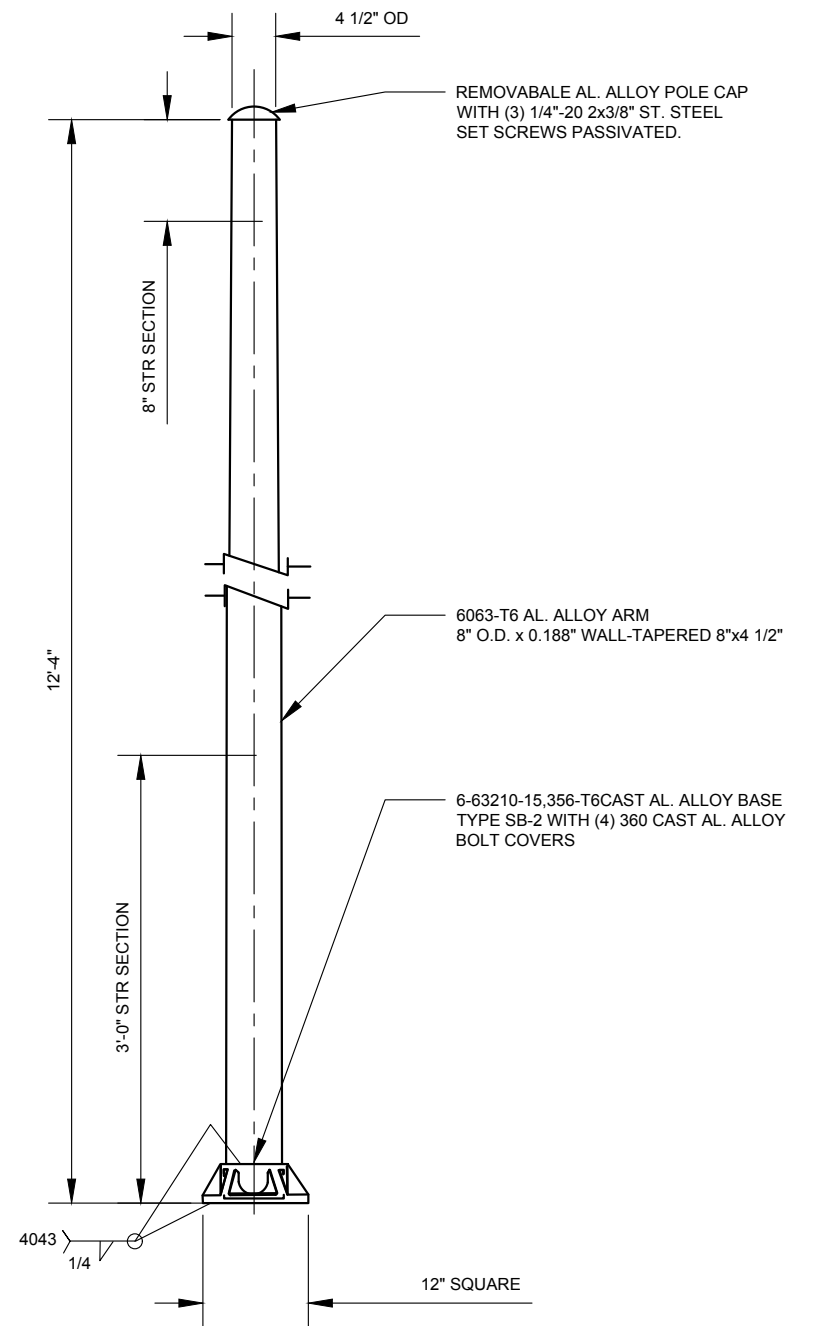
HALF SECTION BOTTOM VIEW



SECTION "A-A"



SECTION "B-B"



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

- NOTES:**
1. ALL MATERIAL TO BE ALUM. A356-T6 TWO PIECES WELDED TOGETHER.
 2. SEE F-001 FOR FOUNDATION.

- NOTES:**
1. SHOE BASE TO BE STAMPED "NYC 83, C-H IN 3/8" LETTERS PER 6-63210-11.
 2. SUPPLY WITH 4 ASSEMBLIES CONSISTING OF 1"-8x4" HEX. HEAD BOLT OVERSIZE FLATWASHER, LOCK WASHER AND HEX NUT (ASS'Y NO.A-81420)

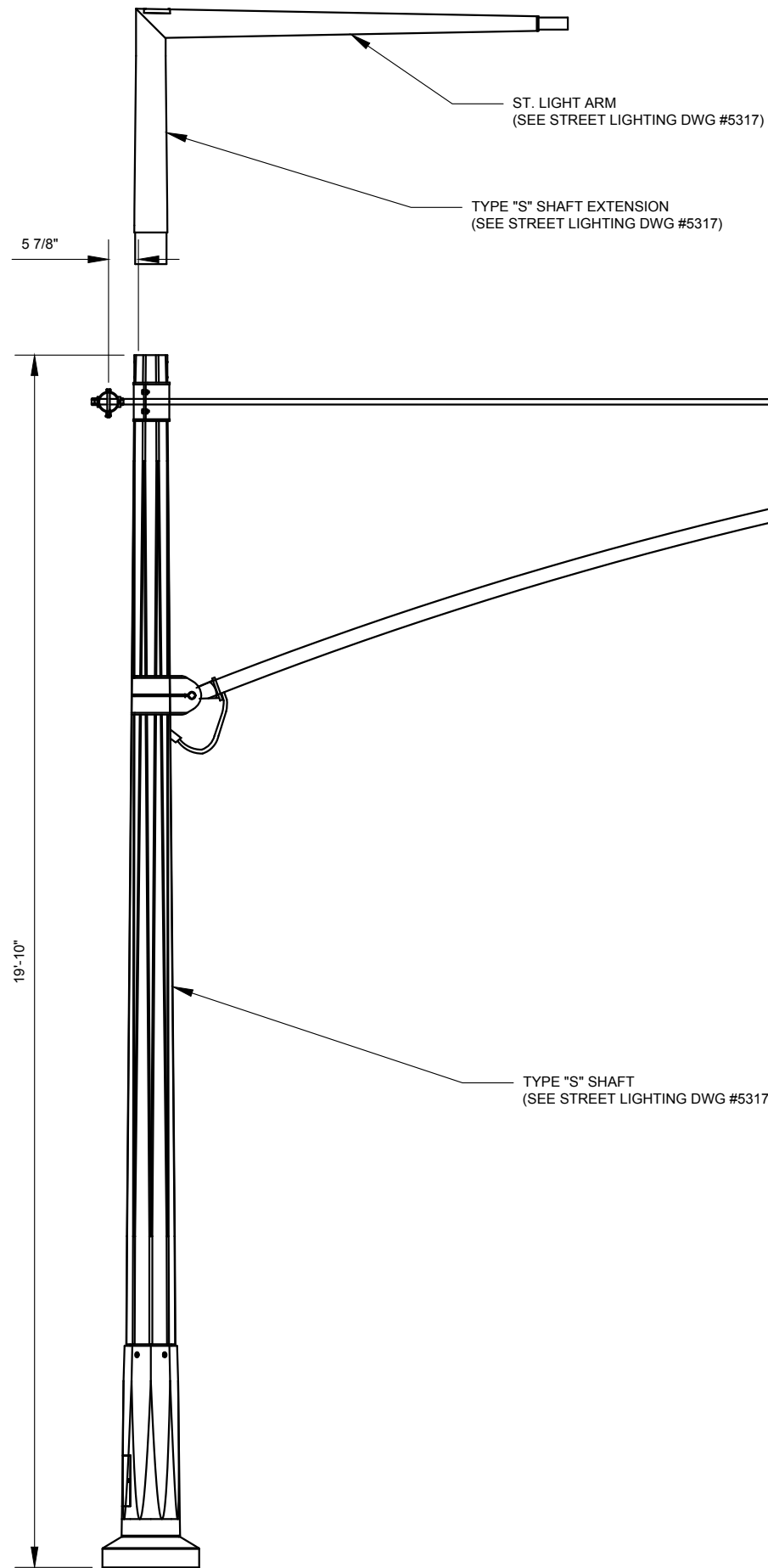
"S-14A" TRANSFORMER BASE



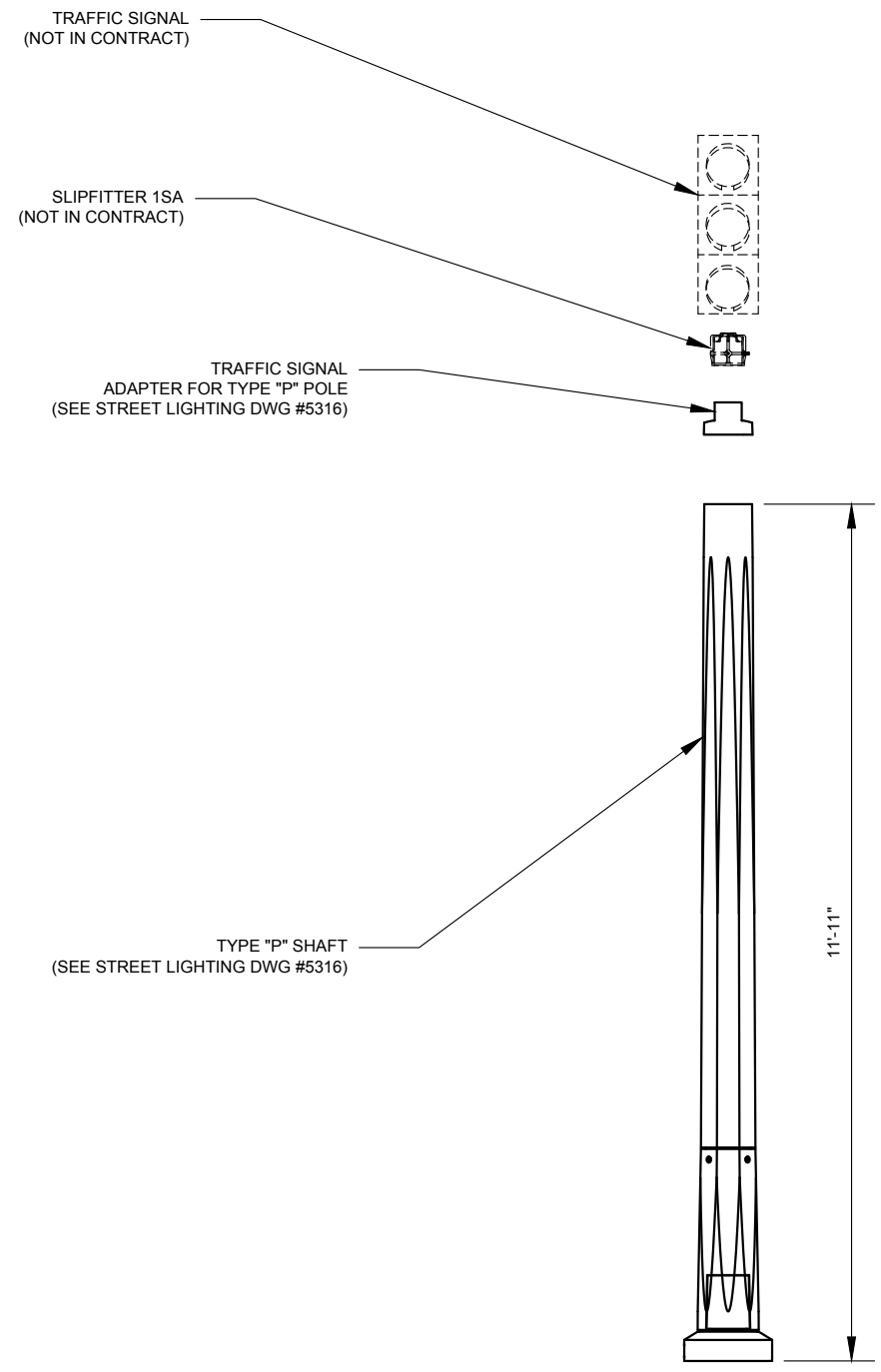
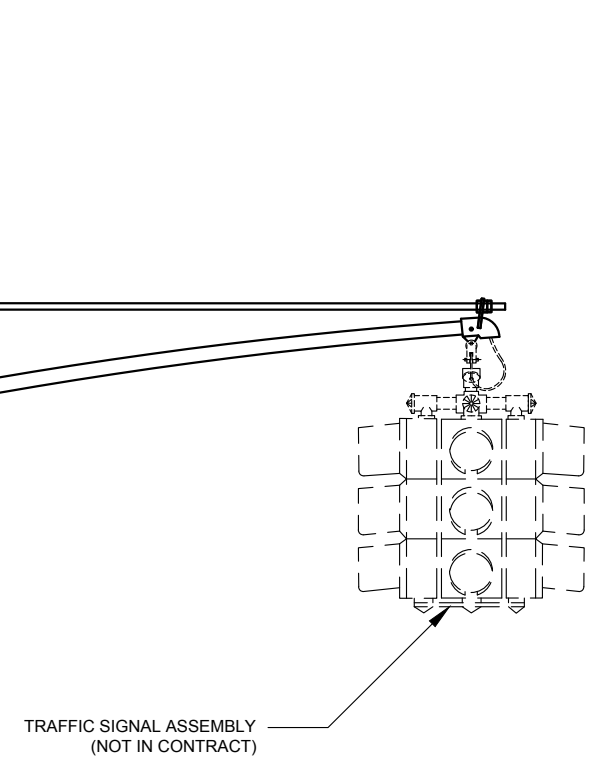
REVISION			
NO	DATE	BY	DESCRIPTION
2	03/2011	GPI	REPLICATED IN CADD
1	10/2004	JH	LC-412S
0	1960	N/A	LC-412S CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C.,N.Y.11101		
"S-14A" SHAFT AND TRANSFORMER BASE		
SCALE:	OLD DRAWING NO.	DRAWING NO.
N.T.S.	LC-412S	P-010

NYC DOT TRAFFIC SIGNAL STANDARD DRAWINGS, Jun 2020



TYPE "S" POLE

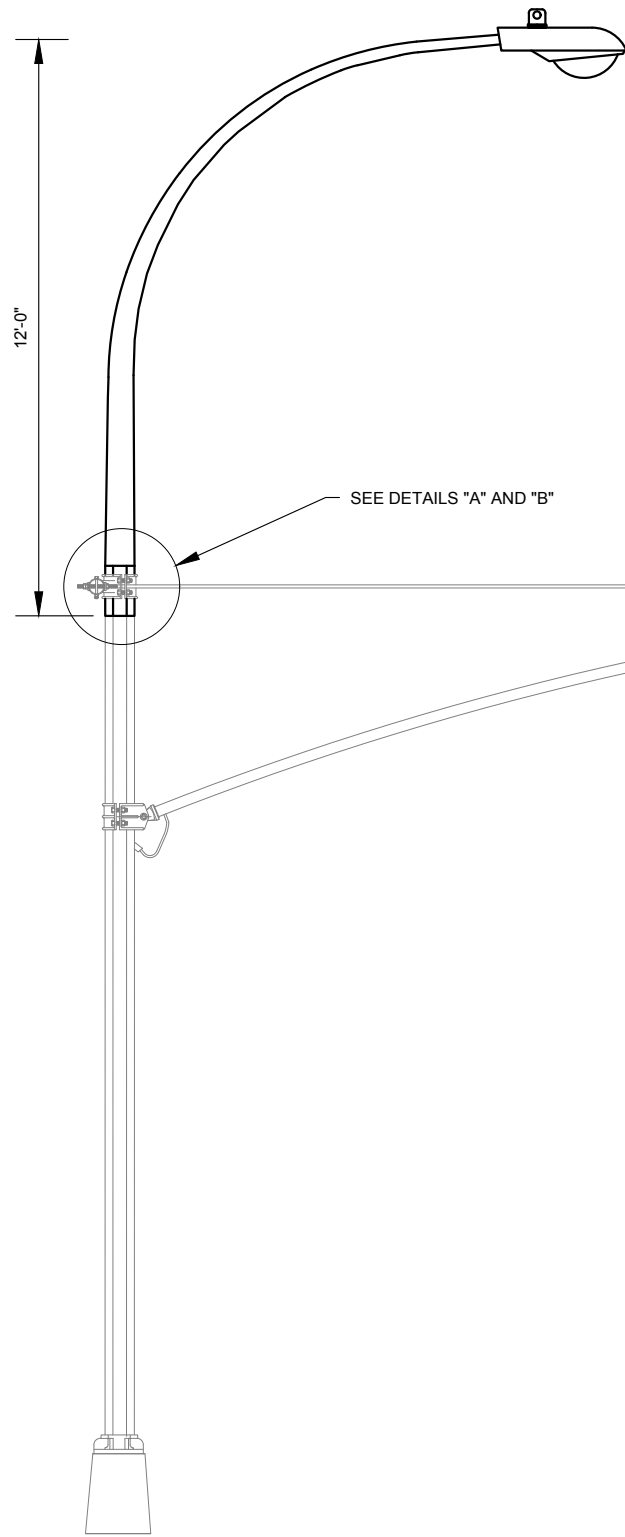


TYPE "P" POLE

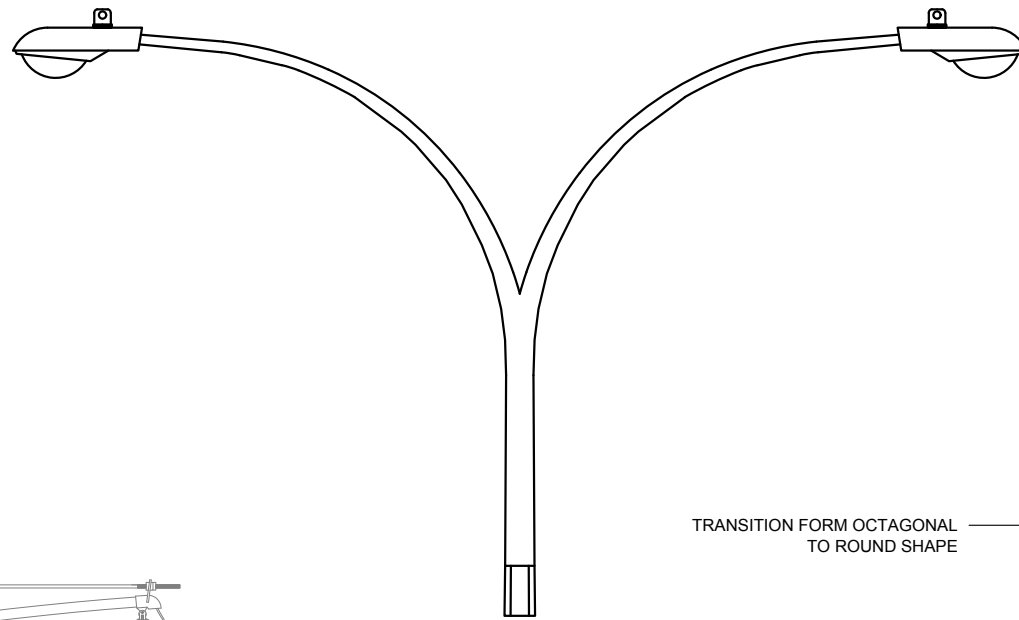


REVISION			
NO	DATE	BY	DESCRIPTION
0	2013	GPI	CREATED

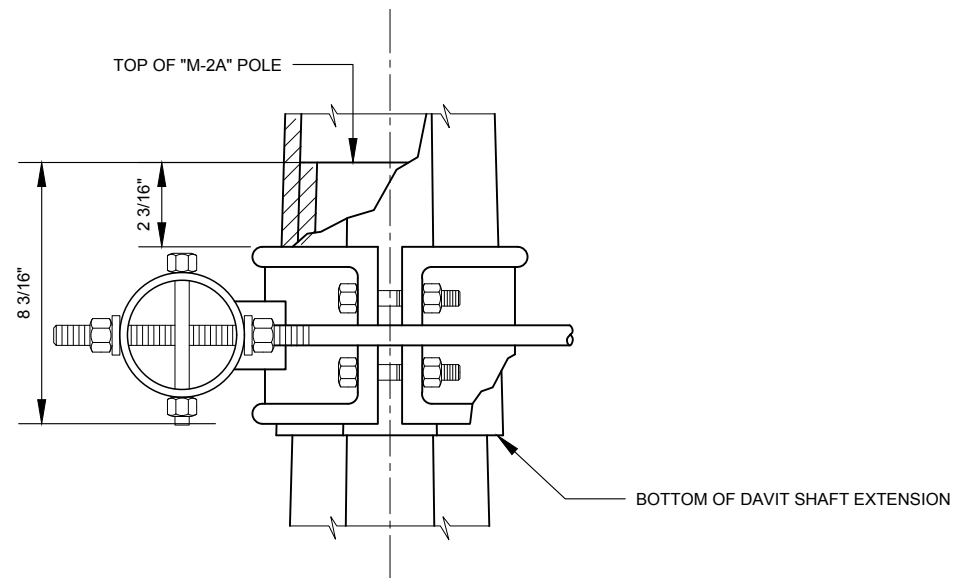
DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
ALLIANCE DOWNTOWN NEW YORK (ADNY) STREET LIGHT/TRAFFIC SIGNAL POLES TYPE "P" & "S"		
SCALE:	OLD DRAWING NO.	DRAWING NO.
N.T.S.		P-011



**SINGLE ARM DAVIT SHAFT EXTENSION
ON "M-2A" POLE**
SCALE: 1/4" = 1'-0"

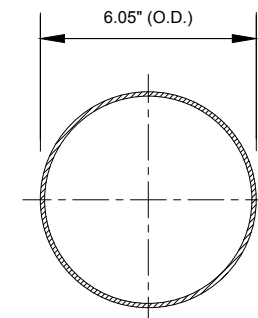


TWIN ARM DAVIT SHAFT EXTENSION
SCALE: 1/4" = 1'-0"

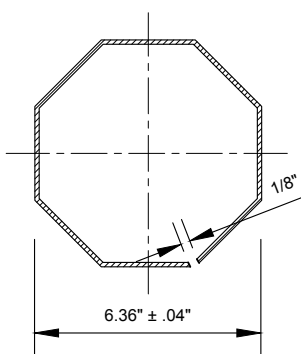


DETAIL "A"
N.T.S.

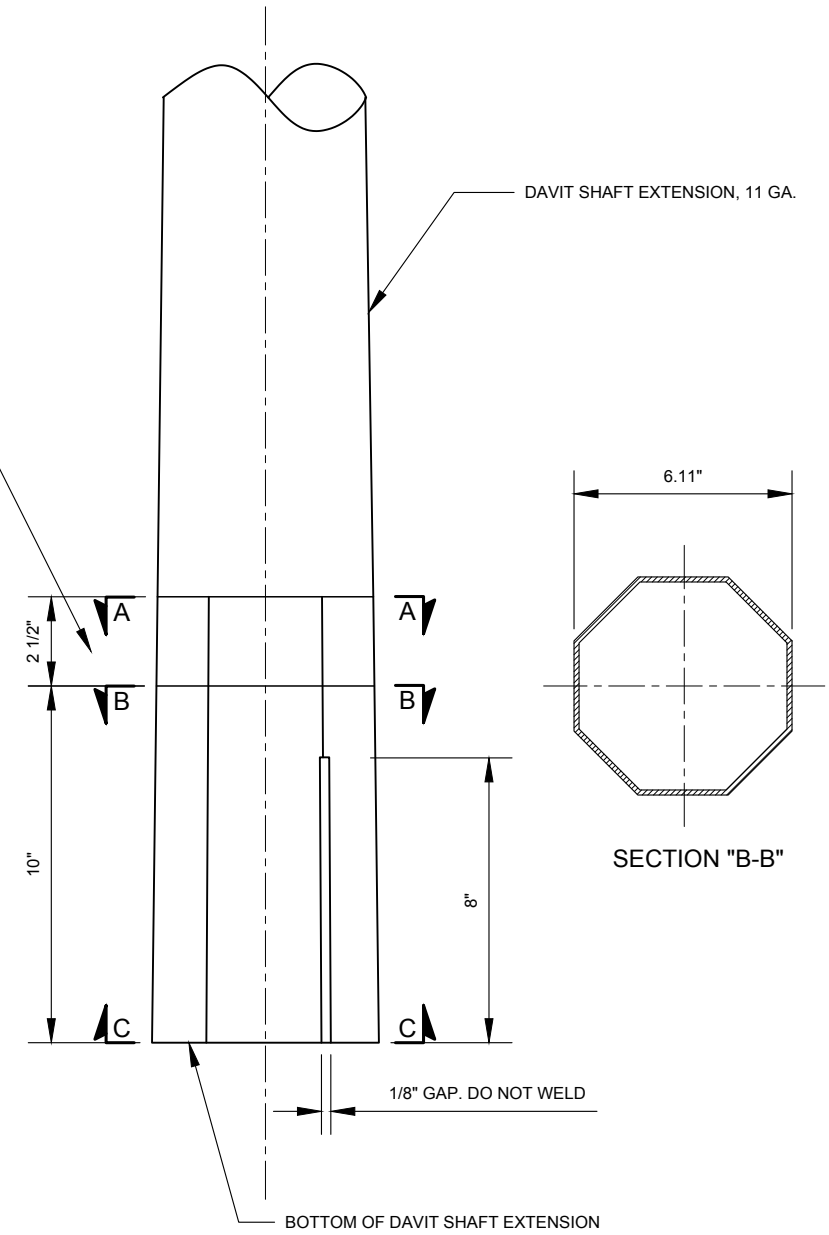
TRANSITION FORM OCTAGONAL
TO ROUND SHAPE



SECTION "A-A"



SECTION "C-C"



DETAIL "B"
N.T.S.

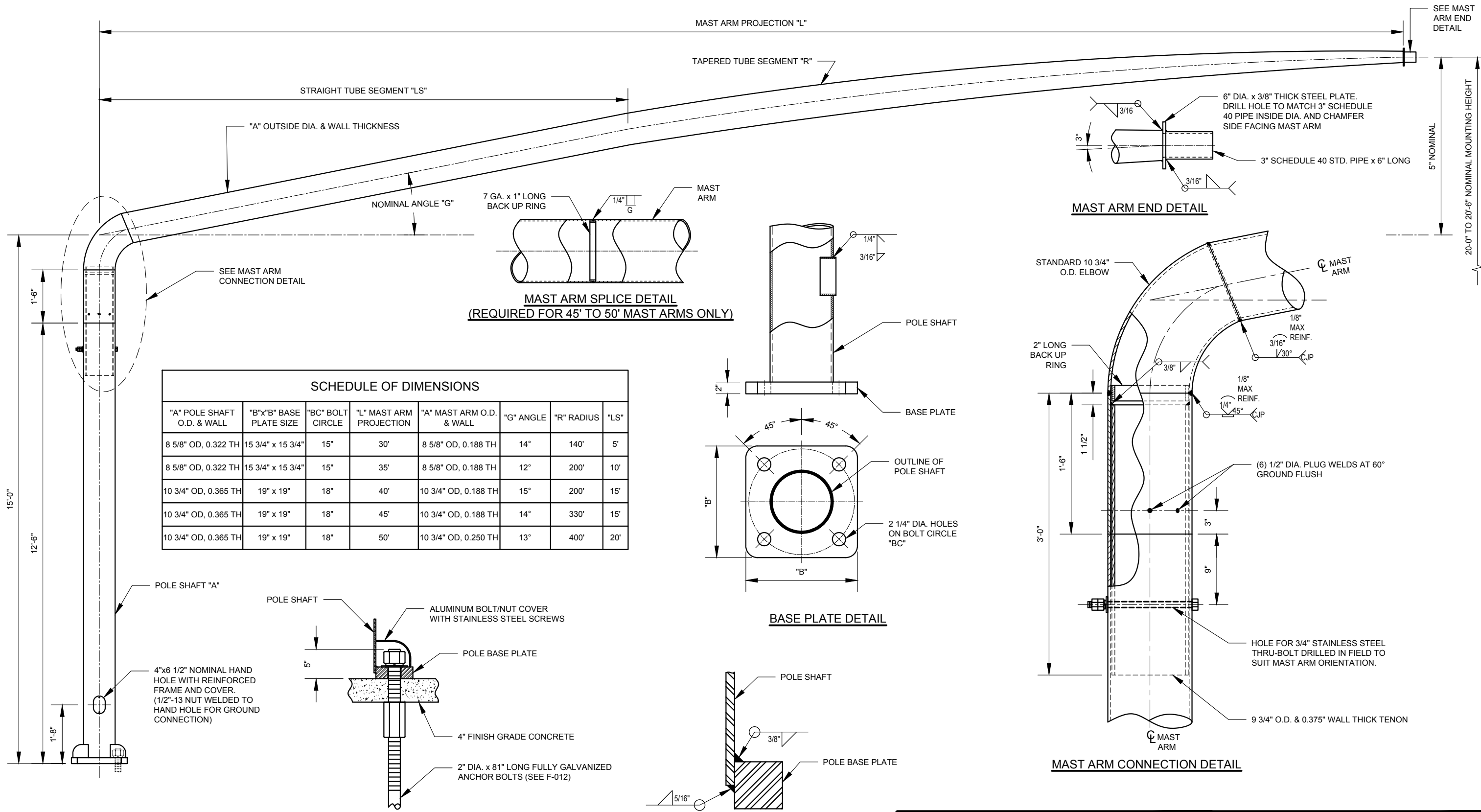
NOTES:

1. ALL DAVIT 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.

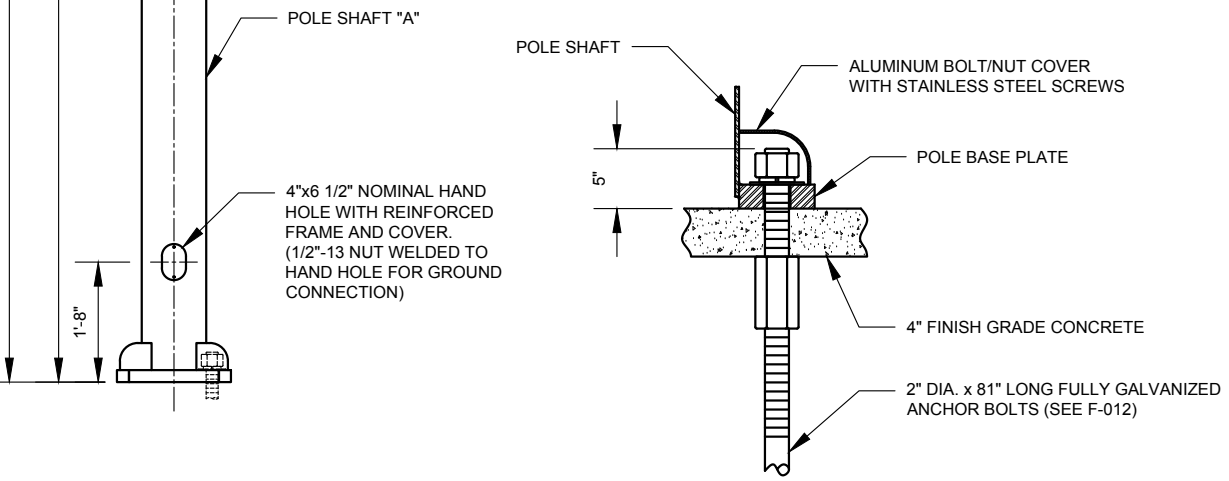


REVISION			
1	06/2013	GPI	REPLICATED IN CADD
0	2013	DR	CREATED
NO	DATE	BY	DESCRIPTION

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
DAVIT SHAFT EXTENSION FOR "M-2A" POLE		
SCALE: AS NOTED	OLD DRAWING NO.	DRAWING NO. P-012



SCHEDULE OF DIMENSIONS							
"A" POLE SHAFT O.D. & WALL	"B"x"B" BASE PLATE SIZE	"BC" BOLT CIRCLE	"L" MAST ARM PROJECTION	"A" MAST ARM O.D. & WALL	"G" ANGLE	"R" RADIUS	"LS"
8 5/8" OD, 0.322 TH	15 3/4" x 15 3/4"	15"	30'	8 5/8" OD, 0.188 TH	14°	140'	5'
8 5/8" OD, 0.322 TH	15 3/4" x 15 3/4"	15"	35'	8 5/8" OD, 0.188 TH	12°	200'	10'
10 3/4" OD, 0.365 TH	19" x 19"	18"	40'	10 3/4" OD, 0.188 TH	15°	200'	15'
10 3/4" OD, 0.365 TH	19" x 19"	18"	45'	10 3/4" OD, 0.188 TH	14°	330'	15'
10 3/4" OD, 0.365 TH	19" x 19"	18"	50'	10 3/4" OD, 0.250 TH	13°	400'	20'



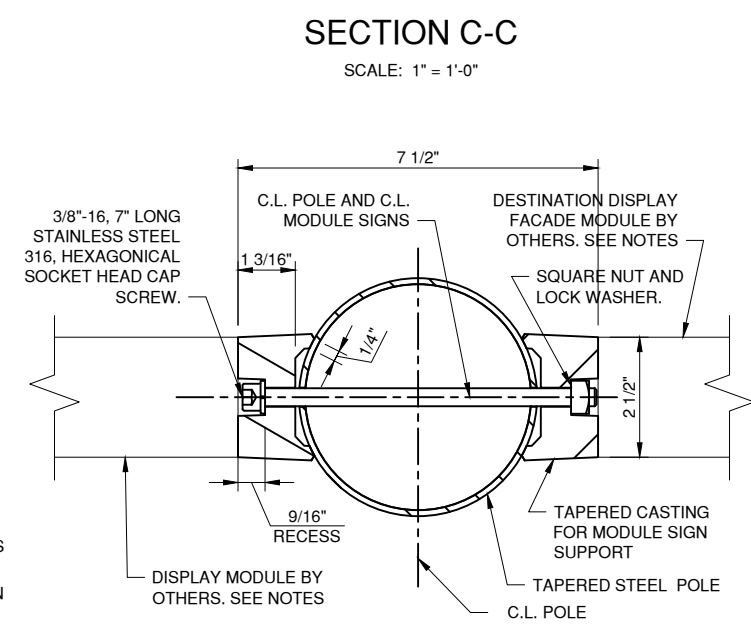
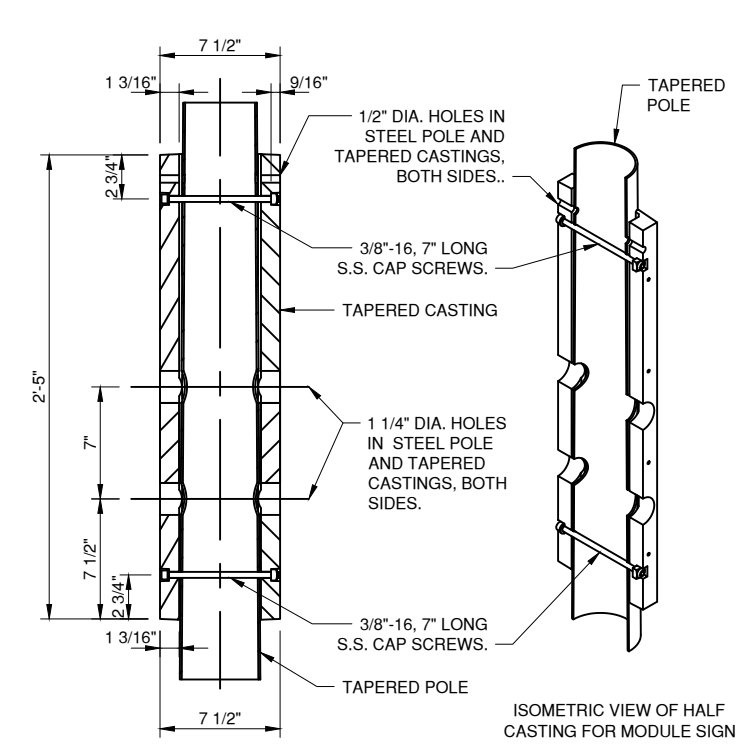
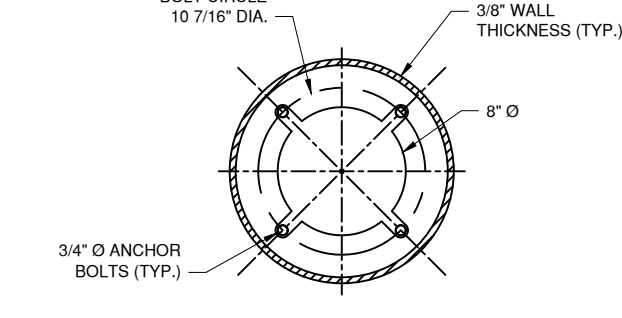
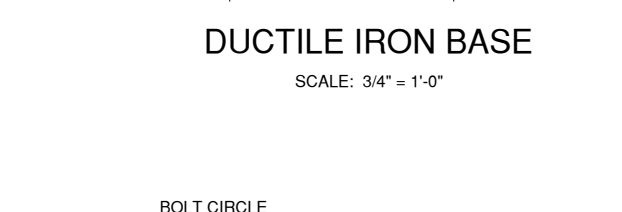
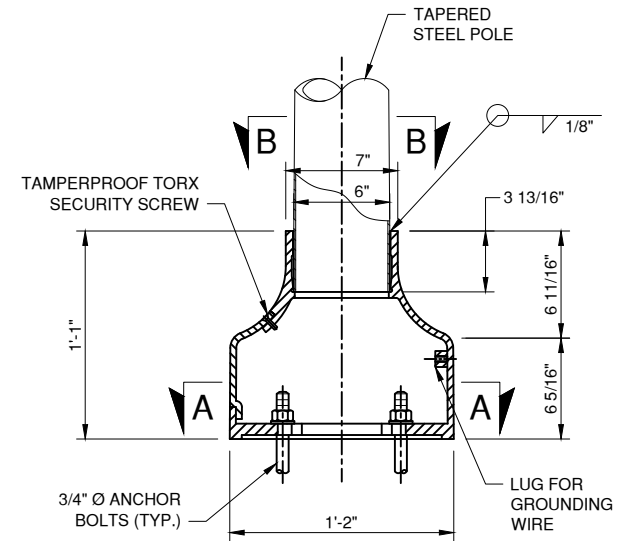
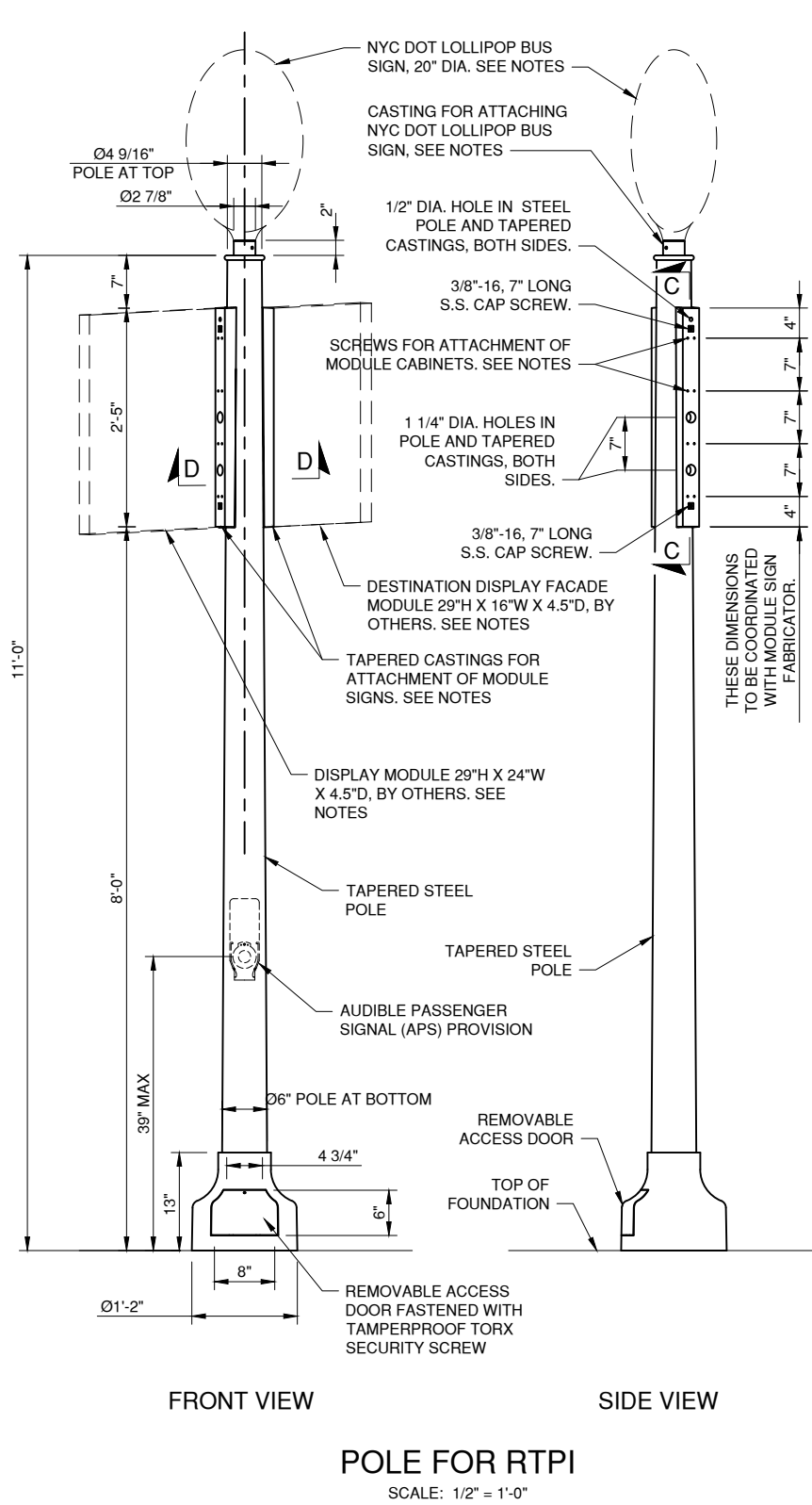
NOTES:

1. 3/4" THUR-BOLT ASSEMBLY SHALL BE CONSISTED OF ONE THRU-BOLT, TWO HEX NUTS, ONE FLAT WASHER AND ONE LOCK WASHER, ALL IN STAINLESS STEEL.



REVISION			
NO	DATE	BY	DESCRIPTION
0	11/2013	DR	CREATED

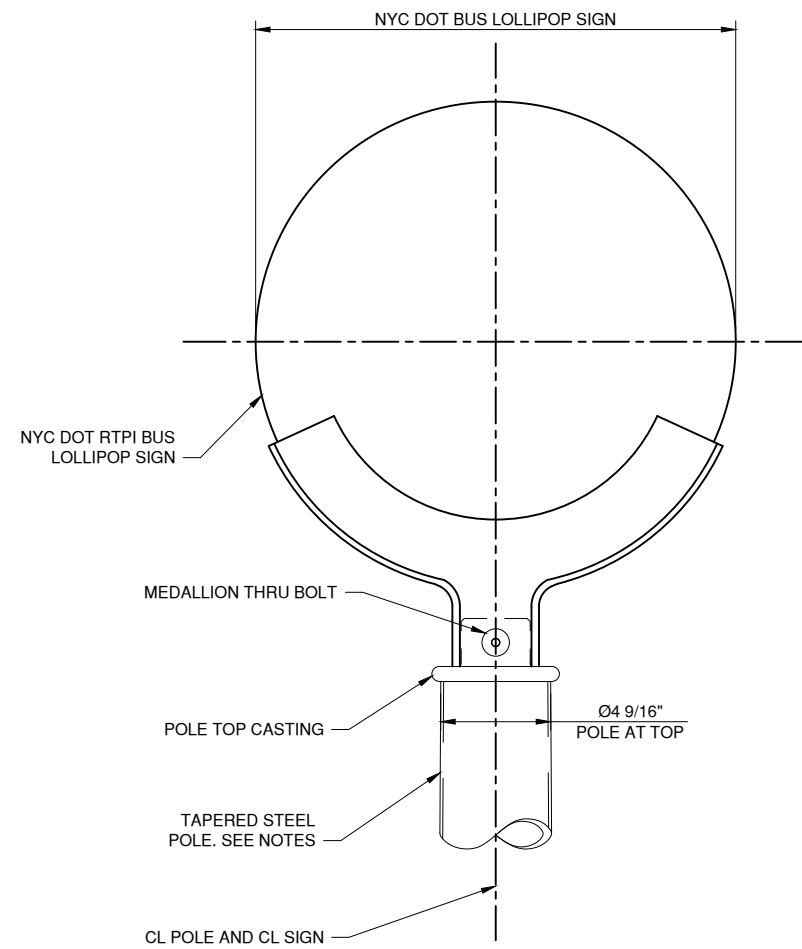
DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
NYSDOT REGION 10 TRAFFIC SIGNAL POLE		
SCALE:	OLD DRAWING NO.	DRAWING NO.
NT.S.		P-013



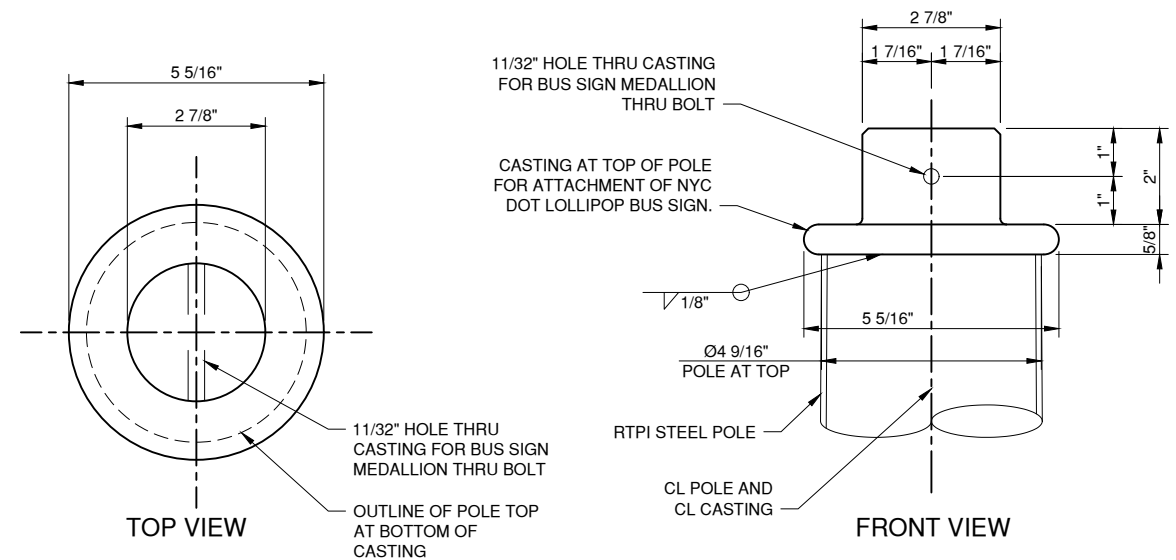
- NOTES:**
1. THE POLE, BASE AND TAPERED CASTINGS AS DEPICTED ON THIS DRAWING ARE DESIGNED FOR THE ATTACHMENT OF MODULE SIGN PANELS AND A NYC DOT BUS LOLLIPOP. ANY OTHER ATTACHMENTS OR MODIFICATIONS MADE TO THIS POLE CONFIGURATION SHALL BE DESIGNED BY A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF NEW YORK.
 2. STEEL POLE SHALL BE TAPERED AS PER DIMENSIONS ON THIS DRAWING, WITH A WALL THICKNESS OF 11 GAUGE, AND SHALL CONFORM TO ASTM A595, GRADE A WITH A YIELD STRENGTH OF FY = 55 KSI.
 3. CAST IRON BASE SHALL CONFORM TO ASTM A536, GRADE 65-45-12, WITH A YIELD STRENGTH OF FY = 45 KSI, AND HAVE A MINIMUM WALL THICKNESS OF 3/8".
 4. CASTINGS FOR MODULE SIGN SUPPORT SHALL BE ALUMINUM AND CONFORM TO ASTM 356.0-T6, WITH A MINIMUM YIELD STRENGTH OF FY = 20 KSI.
 5. CASTINGS FOR MODULE SIGN SUPPORT SHALL BE TAPERED WITH A SLOPE TO MATCH THAT OF TAPERED POLE FOR MODULE SIGNS TO BE SUPPORTED PLUM AND LEVEL.
 6. HEXAGON STAINLESS STEEL SOCKET HEAD CAP SCREW SHALL CONFORM TO ASTM F593. SQUARE STAINLESS STEEL NUT SHALL CONFORM TO ASTM F594.
 7. HEXAGON SOCKET HEAD CAP SCREW SHALL HAVE LOCKTITE THREADLOCKER BLUE 242, OR APPROVED EQUAL, APPLIED TO THREADS.
 8. FOR CONNECTION OF MODULE SIGN TO TAPERED CASTING, REFER TO MODULE SIGN DRAWING BY OTHERS.
 9. FABRICATOR(S) OF POLE, TAPERED CASTINGS, AND MODULE DISPLAY SIGNS SHALL COORDINATE DETAILS OF MODULE SIGNS AND POLE ASSEMBLY FOR STRUCTURAL ATTACHMENTS, HOLES FOR CONDUITS, ETC.
 10. ANCHOR BOLTS SHALL BE INSTALLED WITH LOCK WASHERS AND NUTS, SHALL CONFORM TO ASTM F1554, AND BE HOT DIPPED GALVANIZED PER ASTM A123.
 12. THE POLE, CAST BASE, AND TAPERED CASTINGS SHALL BE PAINTED. COLOR TO BE DETERMINED BY NYC DOT.
 13. FOR NYCDOT LOLLIPOP SIGN AND ATTACHMENT DETAILS, SEE DWG P-014_2.
 14. FOR EMBEDMENT DEPTH OF ANCHOR BOLTS AND FOUNDATION DETAILS, REFER TO DWG P-014_3.

REVISION				DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
4	03/2018	DR	REDESIGNED POLE ASSEMBLY	REAL TIME PASSENGER INFORMATION (RTPi) SIGN POLE - ASSEMBLY DETAILS		
3	12/2016	DR	REDESIGNED POLE ASSEMBLY			
2	01/2016	DR	UPDATED FOUNDATION INFO			
1	10/2015	DR	ADD APS UNIT			
0	07/2015	DR	CREATED			
NO	DATE	BY	DESCRIPTION	SCALE:	OLD DRAWING NO.	DRAWING NO.
				AS NOTED		P-014_1





RTPI BUS SIGN SUPPORT BRACKET
(ASSEMBLED VIEW)
SCALE: 1 1/2" = 1'-0"



CASTING AT POLE TOP
SCALE: 3" = 1'-0"

NOTES:

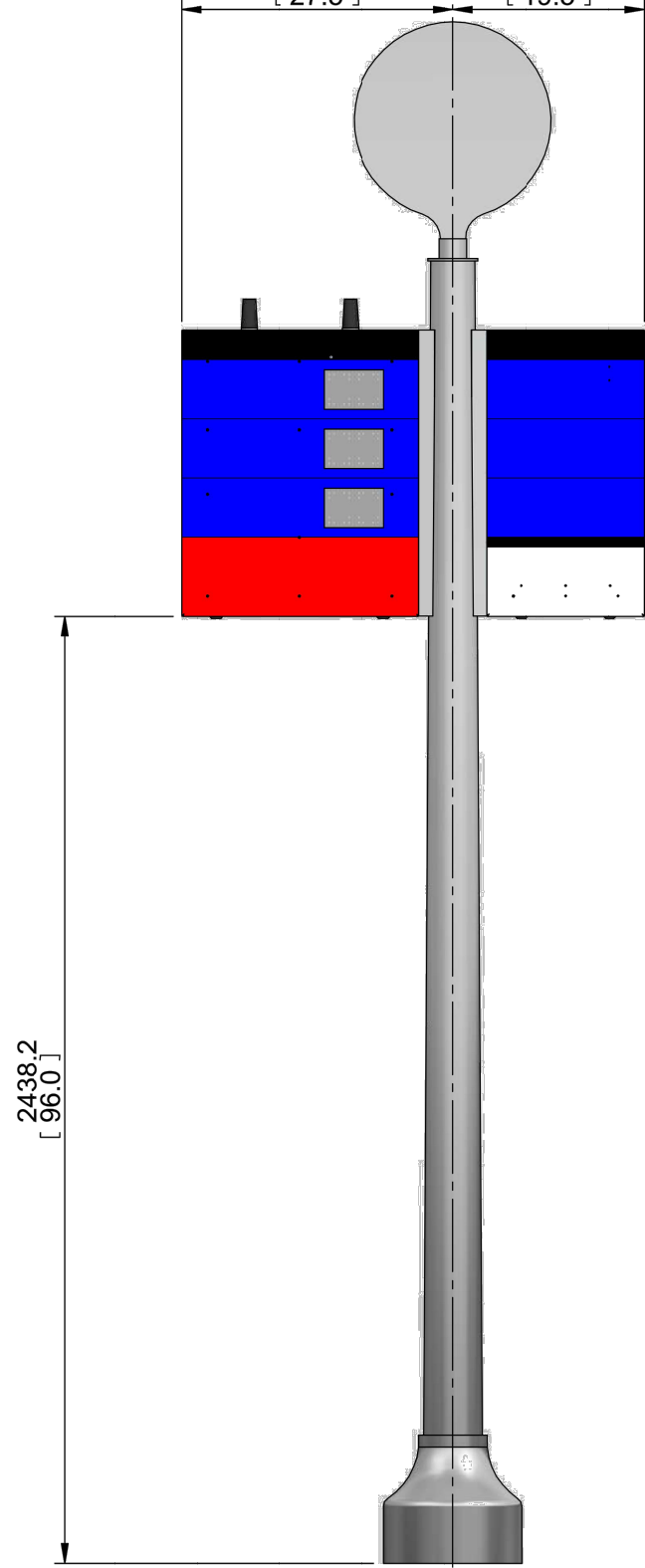
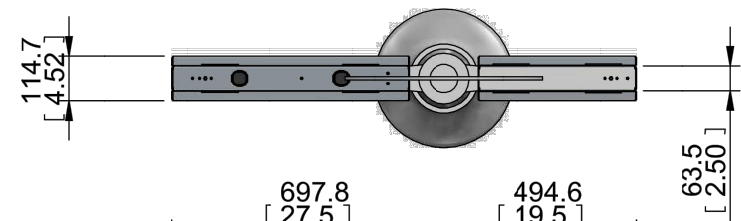
1. THE POLE AND CASTING AS DEPICTED ON THIS DRAWING ARE DESIGNED FOR THE ATTACHMENT OF A NYC DOT BUS LOLLIPOP SIGN. ANY OTHER ATTACHMENTS OR MODIFICATIONS MADE TO THIS POLE CONFIGURATION SHALL BE DESIGNED BY A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF NEW YORK.
2. POLE TOP CASTING SHALL CONFORM TO ASTM A536, GRADE 65-45-12, WITH A YIELD STRENGTH OF FY = 45 KSI.
3. CASTING AT TOP OF POLE SHALL BE WELDED TO POLE TOP WITH BOLT HOLE IN CASTING ALIGNED SO NYC DOT BUS SIGN IS PERPENDICULAR TO CURB.
4. MEDALLION THRU BOLT FOR ATTACHMENT OF NYC DOT LOLLIPOP SIGN SHALL HAVE LOCKTITE THREADLOCKER BLUE 242, OR APPROVED EQUAL, APPLIED TO THREADS.
5. FOR NYCDOT RTPI POLE DETAILS, SEE DWG P-014_1

NYCDOT TRAFFIC SIGNAL STANDARD DRAWINGS, Jun 2020



REVISION			
NO	DATE	BY	DESCRIPTION
2	12/2016	DR	REDESIGNED SUPPORT BRACKET
1	11/2016	DR	MOUNTING CHANNELS DETAIL
0	07/2015	DR	CREATED

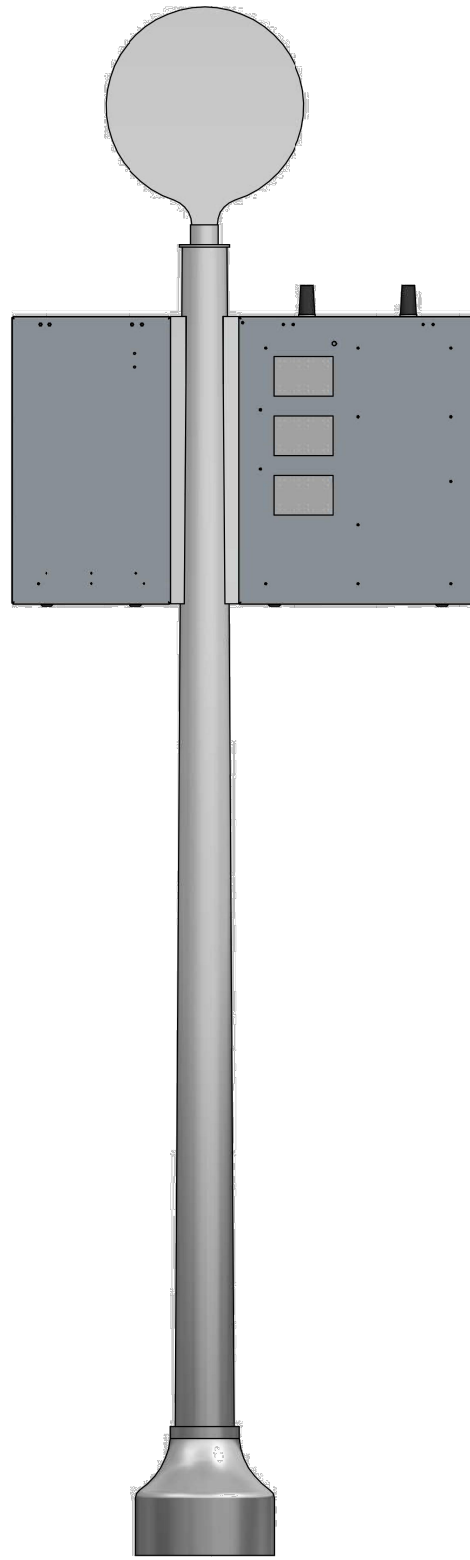
DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
REAL TIME PASSANGER INFORMATION (RTPI) SIGN POLE - SIGN AND SUPPORT BRACKET		
SCALE:	OLD DRAWING NO.	DRAWING NO.
AS NOTED		P-014_2



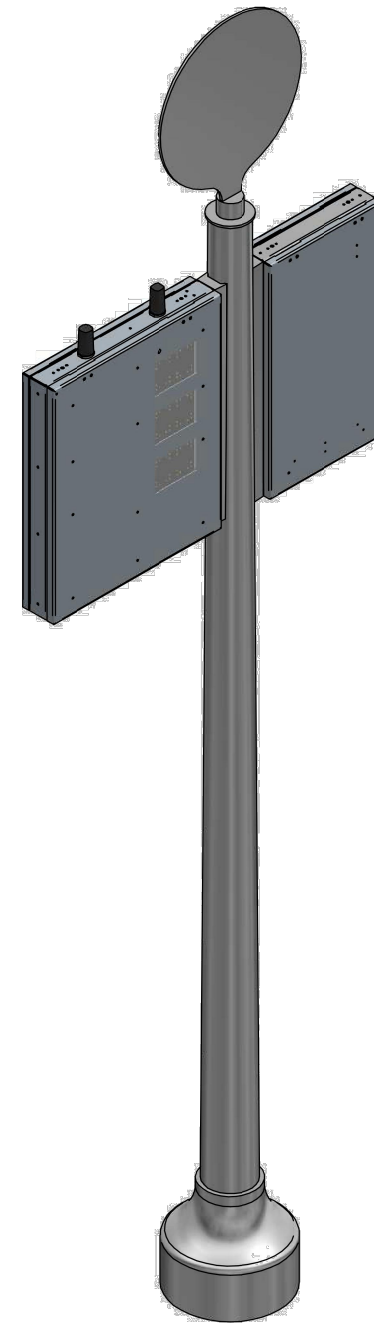
FRONT VIEW



SIDE VIEW



BACK VIEW

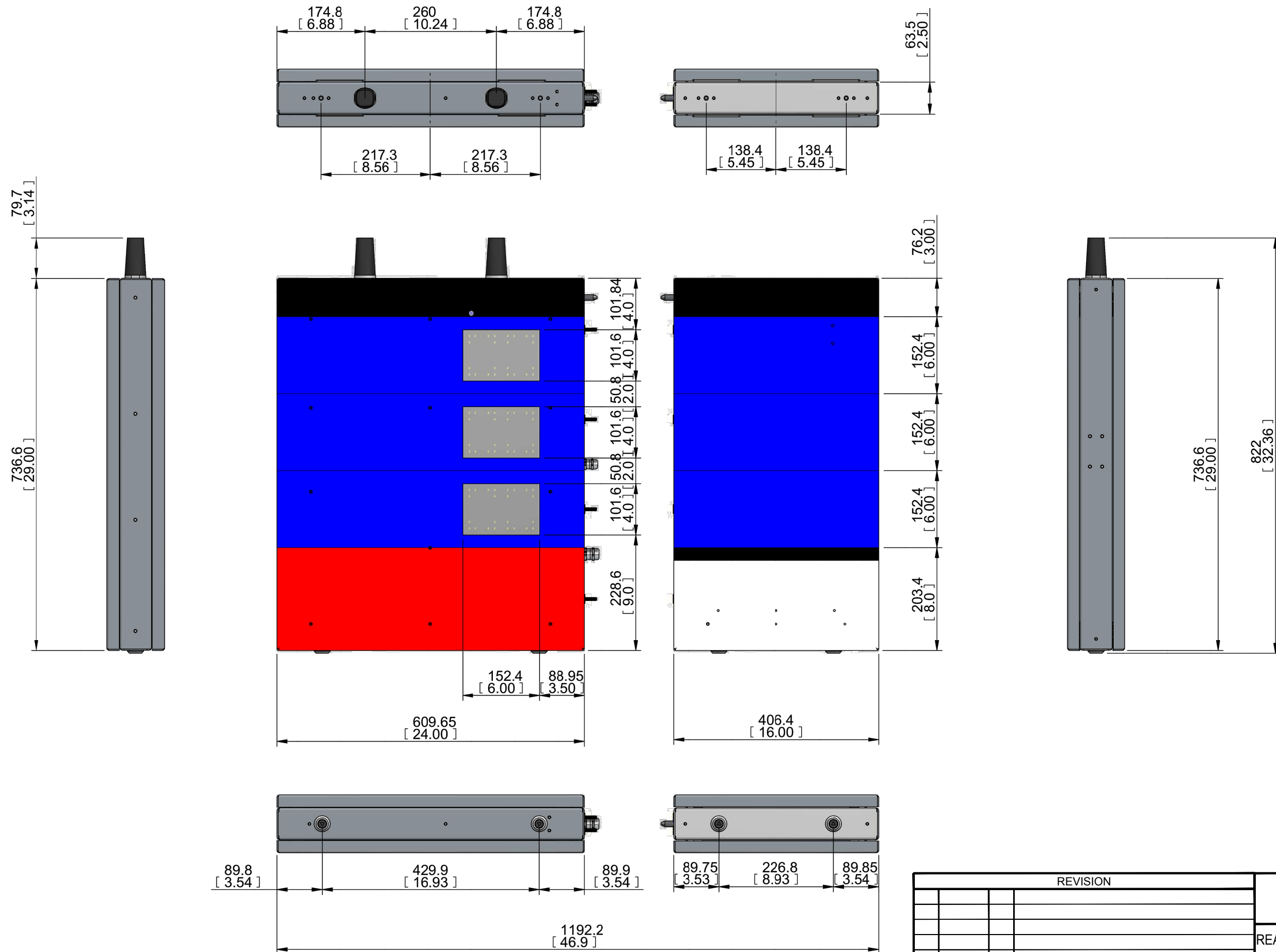


ISOMETRIC VIEW



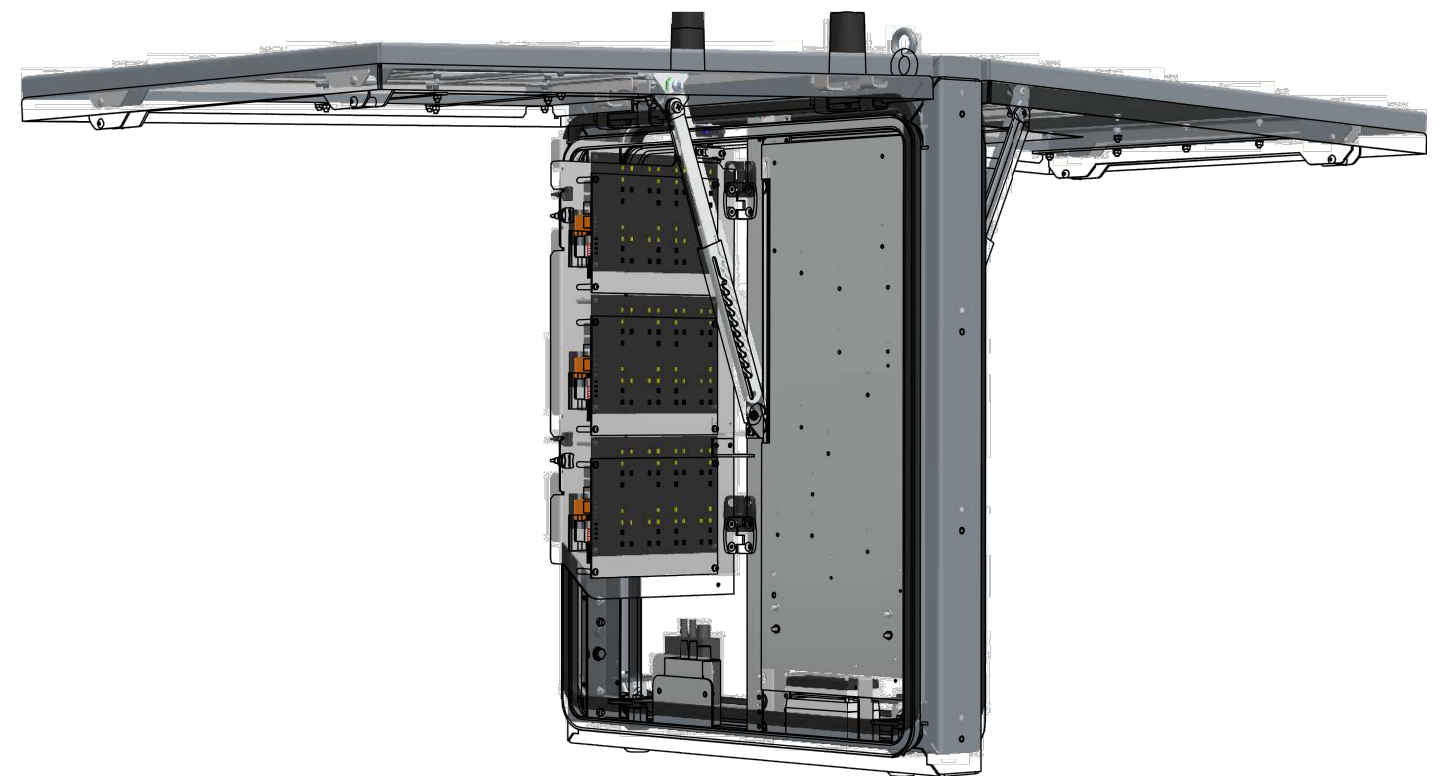
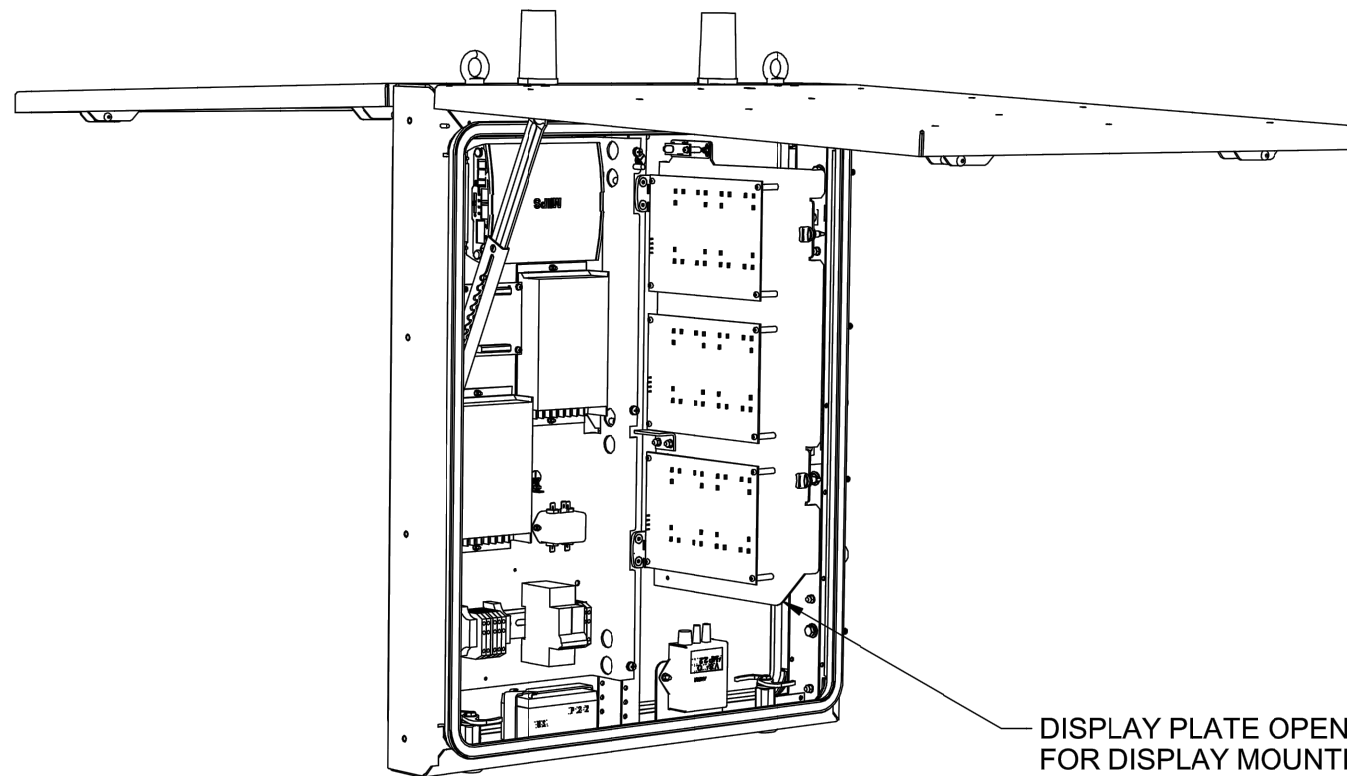
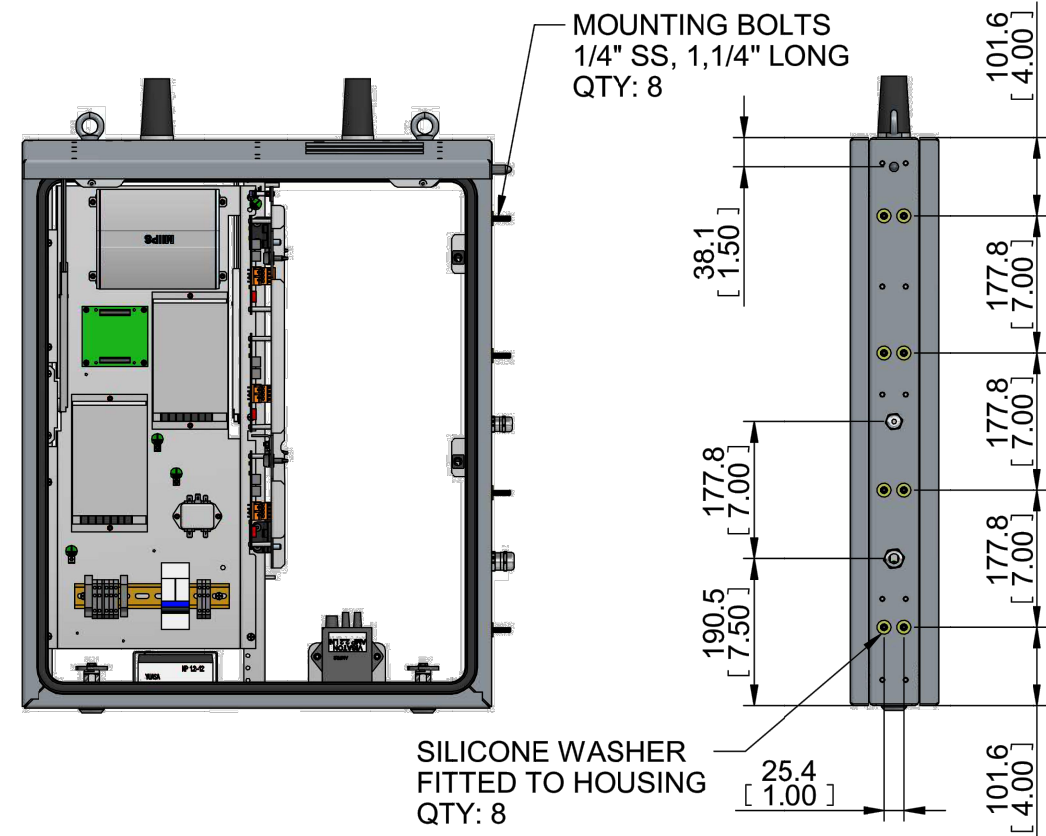
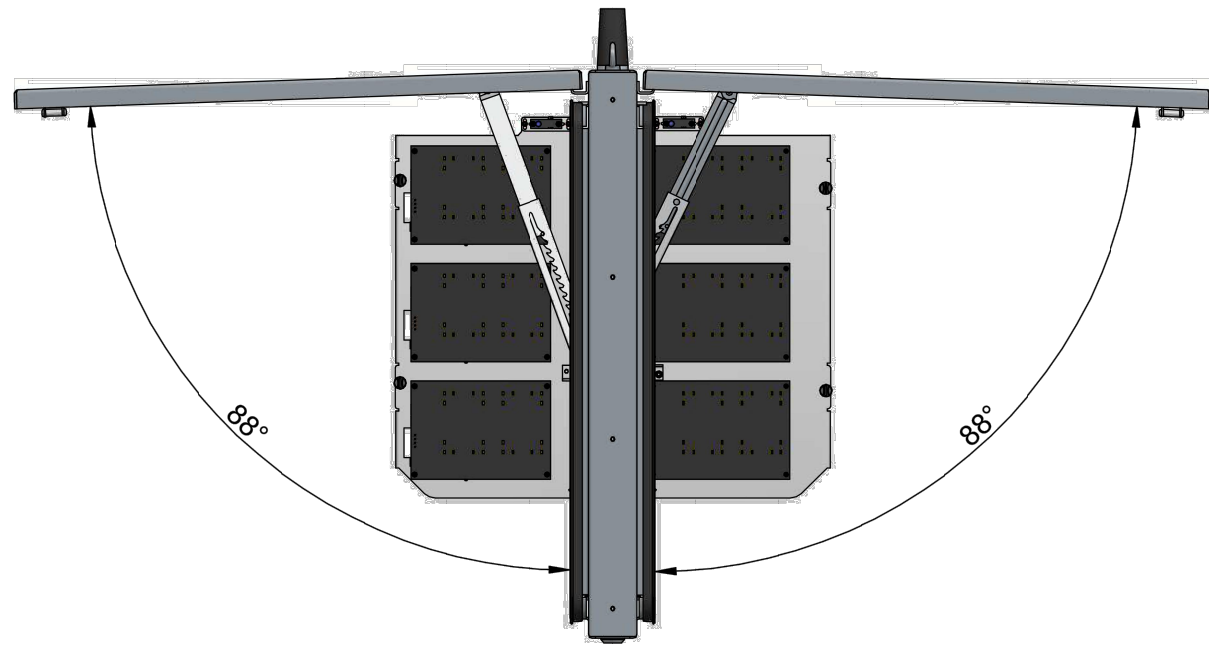
REVISION			
NO	DATE	BY	DESCRIPTION
1			
0	01/2018	DR	CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
REAL TIME PASSANGER INFORMATION (RTPI) SIGN POLE - GENERAL ASSEMBLY 1 OF 4		
SCALE: AS NOTED	OLD DRAWING NO.	DRAWING NO. P-014_3



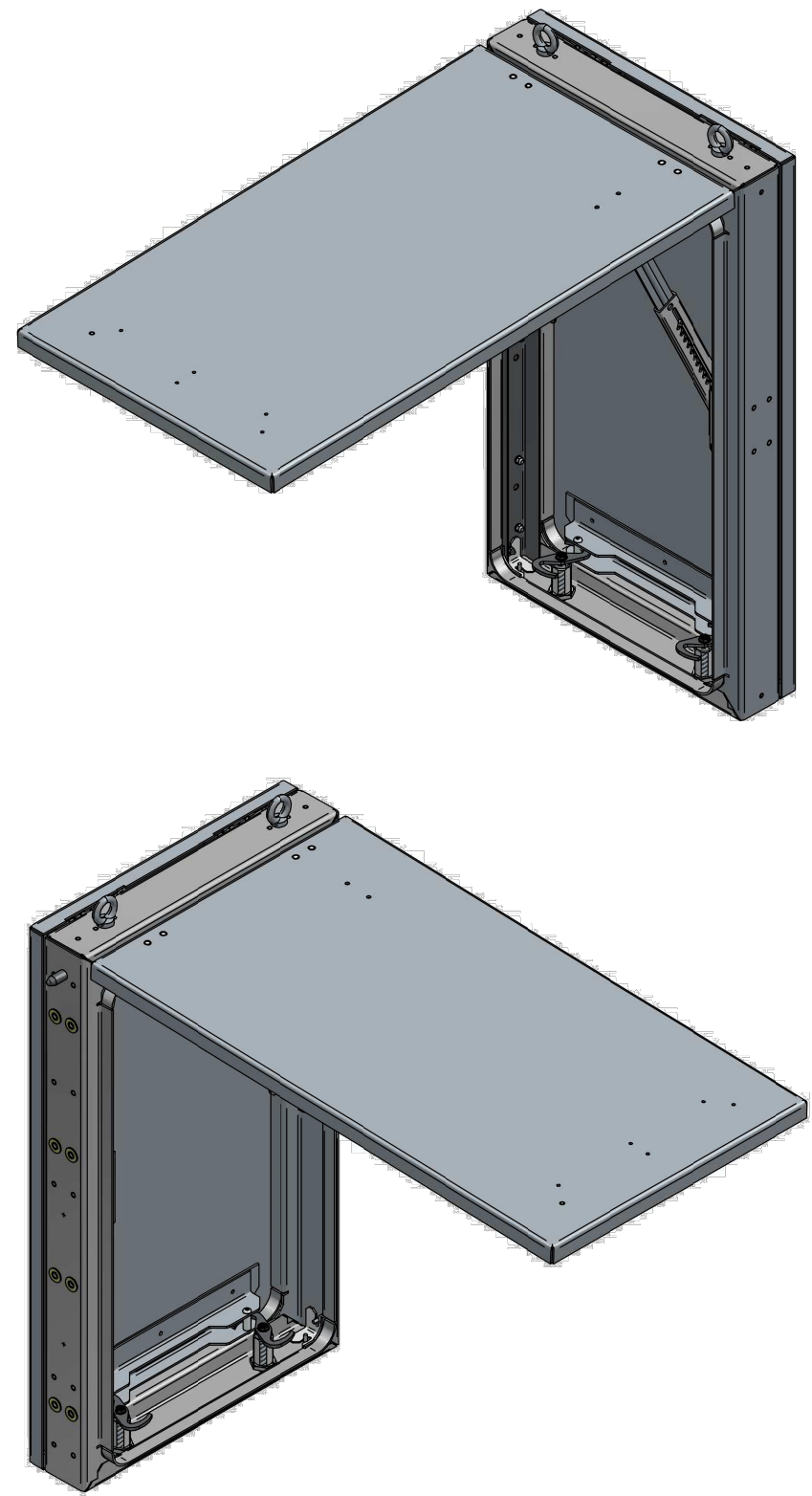
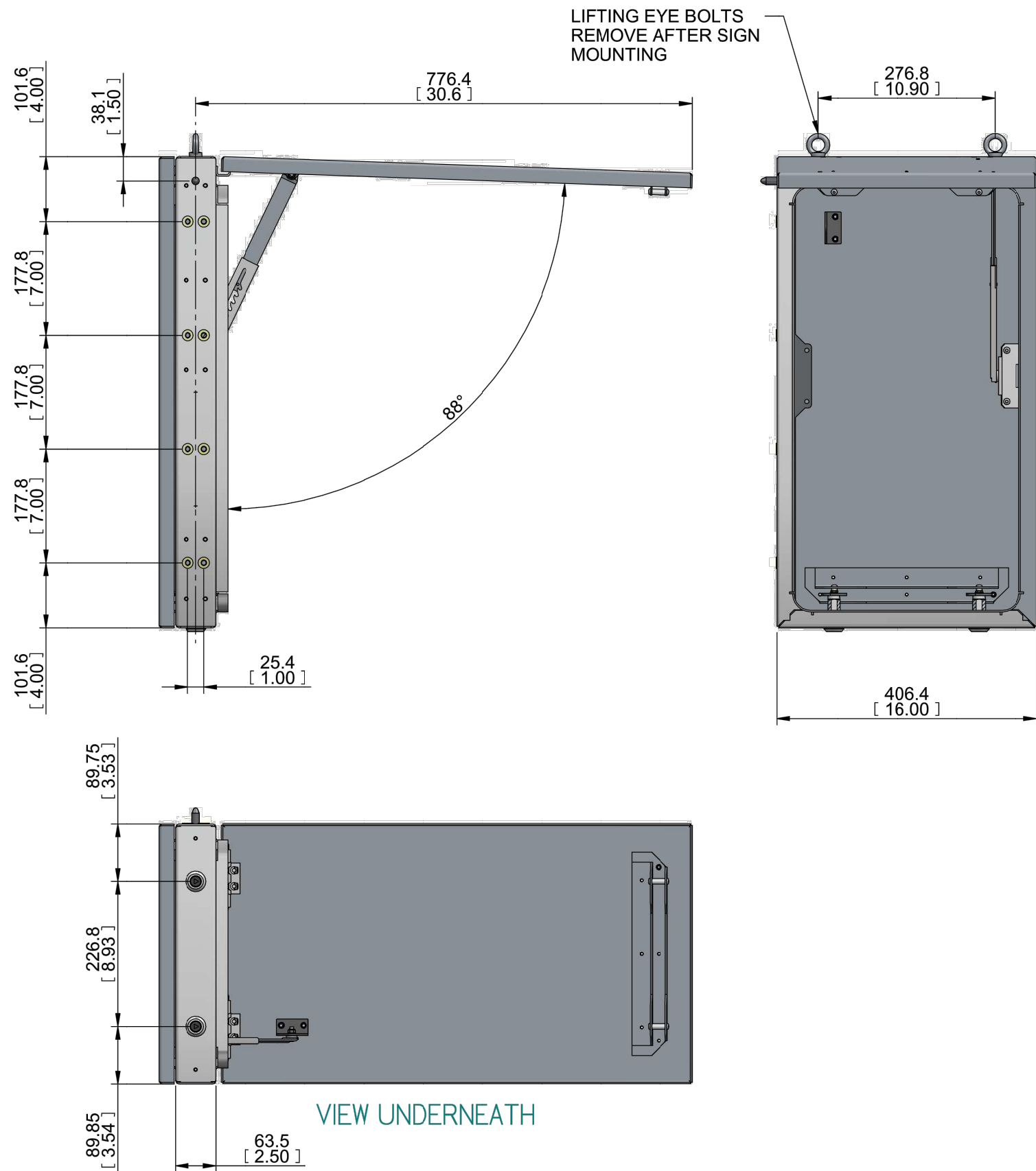
REVISION			
1			
0	01/2018	DR	CREATED
NO	DATE	BY	DESCRIPTION

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
REAL TIME PASSANGER INFORMATION (RTPI) SIGN POLE - GENERAL ASSEMBLY 2 OF 4		
SCALE:	OLD DRAWING NO.	DRAWING NO.
AS NOTED		P-014_4



REVISION			
NO	DATE	BY	DESCRIPTION
1			
0	01/2018	DR	CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
REAL TIME PASSANGER INFORMATION (RTPI) SIGN POLE - GENERAL ASSEMBLY 3 OF 4		
SCALE: AS NOTED	OLD DRAWING NO.	DRAWING NO. P-014_5



REVISION			
NO	DATE	BY	DESCRIPTION
1			
0	01/2018	DR	CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
REAL TIME PASSANGER INFORMATION (RTPi) SIGN POLE - GENERAL ASSEMBLY 4 OF 4		
SCALE:	OLD DRAWING NO.	DRAWING NO.
AS NOTED		P-014_6

CANTILEVER STRUCTURE TABLE

S.I.N.	ITEM NO.	LOC. NO.	STRUCTURE TYPE (NOTE 16)	ARM LENGTH, B (ft.)	TOTAL SIGN AREA (ft.q)	STOP BAR LENGTH (ft.)	HEIGHT, A (ft.)	TRUSS DEPTH, D (ft.)	VCL (ft.)	POST				SIGN 1		SIGN 2		SIGN 3		CONSTRUCTED FOUNDATION TYPE (SEE NOTE 19)	REMARKS				
										SUBSTRATE SOIL/ROCK (NOTE 13)	X (ft.)	OFF-SET (ft.)	OFF-SET CODE	FOUNDATION TYPE (NOTE 14)	TEXT NO.	MIN. NO. Z-BARS (NOTE 6) (TYP.)	G (ft.)	TEXT NO.	MIN. NO. Z-BARS			H (ft.)	TEXT NO.	MIN. NO. Z-BARS	I (ft.)
01020		12	CT-10-25	31'-6"	247.6	NA	30'-23/16"	4' 1-11/16"	19' 8-1/4"	S	4'-0"	19'-0"	ES	FOOTING	G3-7	3	15'-1"	G4-1	2	27'-7"	-	-	-	FOOTING	NO FOUNDATION OPTION

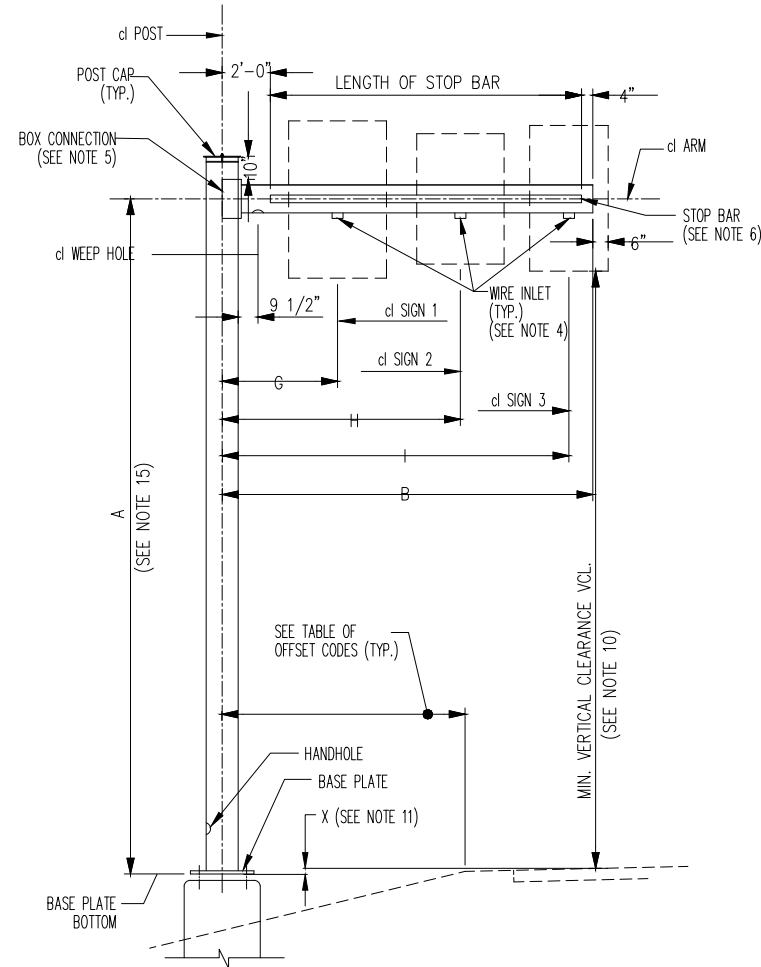
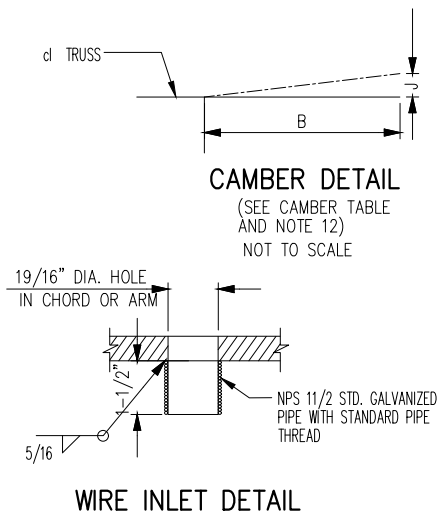
SAMPLE DATA

01020		12	CT-10-25	31'-6"	247.6	NA	30'-23/16"	4' 1-11/16"	19' 8-1/4"	S	4'-0"	19'-0"	ES	FOOTING	G3-7	3	15'-1"	G4-1	2	27'-7"	-	-	-	FOOTING	NO FOUNDATION OPTION
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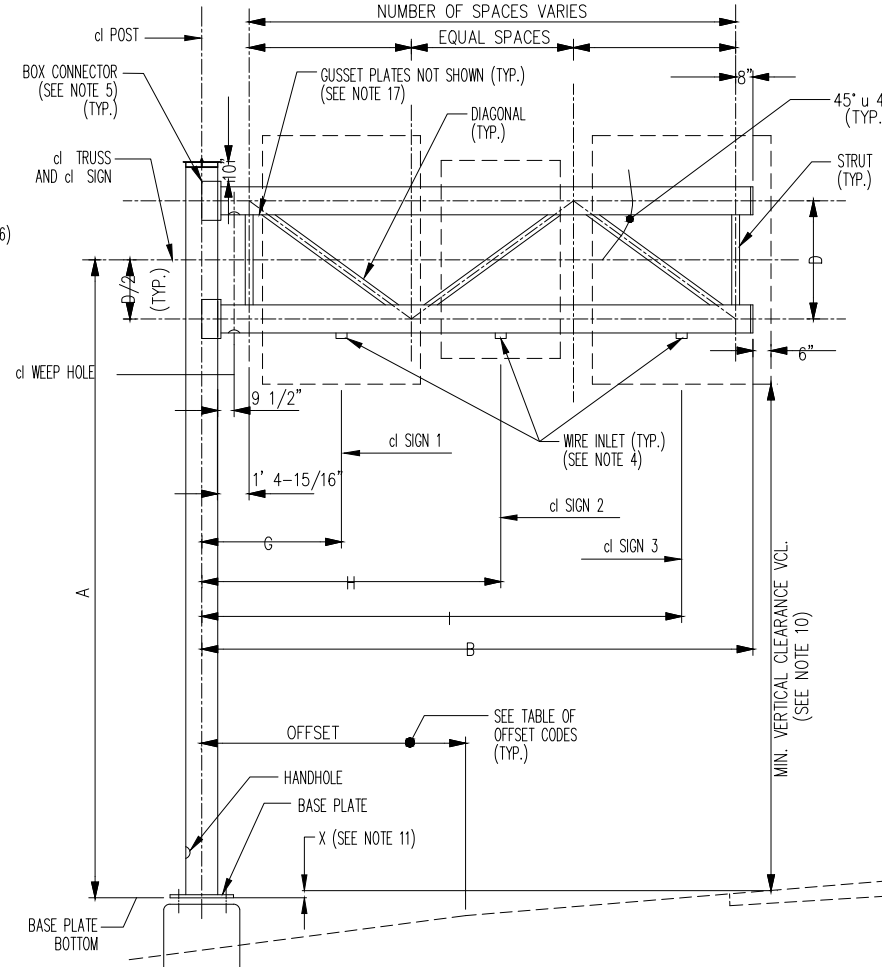
CAMBER TABLE

MAX. ARM LENGTH (ft.)	SINGLE ARM, J (in.)	TRUSSED ARM, J (in.)
13' 1-1/2"	1-1/2"	3/4"
16' 4-7/8"	2"	1-1/2"
19' 8-1/4"	2-3/4"	2"
22' 11-3/8"	3-1/2"	3-1/8"
26' 3"	5-1/8"	3-1/8"
29' 6-5/16"	7"	4-5/16"
32' 9-11/16"	7"	4-3/4"
42' 7-13/16"	9-7/16"	6-11/16"
45' 11-3/16"	11-7/8"	9-1/16"
49' 2-9/16"	11-7/8"	11"
52' 6"	12-3/8"	11"

(SEE CAMBER DETAIL)



TYPICAL ELEVATION SINGLE ARM



TYPICAL ELEVATION TRUSSED ARMS

OFFSET CODES

EP	EDGE OF PAVEMENT	FB	TRAFFIC FACE OF BARRIER BASE
ES	EDGE OF SHOULDER	FG	FRONT FACE OF GUIDE RAIL
CF	CURB FACE	CL	HIGHWAY CENTER LINE

NOTES:

- THESE STRUCTURES ARE DESIGNED IN ACCORDANCE WITH NYS DOT STANDARD DESIGN SPECIFICATIONS FOR OVERHEAD SIGN STRUCTURES. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATION SECTION 644. STEEL FABRICATION SHALL BE IN ACCORDANCE WITH THE NYS STEEL CONSTRUCTION MANUAL.
- FOR FOUNDATION DETAILS, SEE F-014.
- FOR BASE PLATE AND ANCHOR BOLT DETAILS, SEE P-015_5.
- INSTALL WIRE INLETS ON THE LOWER ARM AT THE CENTER LINE OF EACH SIGN, AS SHOWN ON THIS DRAWING.
- FOR POST-ARM BOX CONNECTION DETAILS, SEE P-015_3.
- FOR STOP BAR AND OTHER SIGN PANEL ATTACHMENT DETAILS AND SPACING OF Z-BARS, SEE P-015_6.
- FOR VERTICAL ORIENTATION OF SIGN PANELS, SEE P-015_6.
- FOR POST AND ARM CAP DETAILS, SEE P-015_5.
- FOR HANDHOLE DETAILS, SEE P-015_5.
- THE SIGN STRUCTURE HEIGHT IS DESIGNED TO PROVIDE THE MINIMUM VERTICAL CLEARANCE (VCL) INDICATED BETWEEN THE SIGN PANELS AND ROADWAY SURFACE, INCLUDING LIGHTING OR OTHER ATTACHMENTS, AT ANY POINT OVER THE ENTIRE ROADWAY WIDTH. THE REQUIRED MINIMUM VCL IS 1'-0" GREATER THAN THAT REQUIRED FOR NEW OVERPASS STRUCTURES ALONG THE ROUTE.
- THE CONTRACTOR SHALL ESTABLISH THE TOP OF PEDESTAL OR SHAFT ELEVATIONS BASED ON THE INFORMATION SHOWN ON THE CONTRACT PLANS AND DATA DERIVED FROM FIELD SURVEYS. 'X' DIMENSIONS SHALL BE FIELD-VERIFIED PRIOR TO PLACEMENT OF THE FOUNDATIONS OR FABRICATION OF THE SIGN STRUCTURES AND ELEVATIONS AND DIMENSIONS SHALL BE PRESENTED ON THE SHOP DRAWINGS. A NEGATIVE 'X' INDICATES THAT THE BOTTOM OF BASE PLATE IS ABOVE THE POINT OF MINIMUM VERTICAL CLEARANCE. IF FIELD-VERIFIED 'X' DIMENSIONS DIFFER FROM THOSE SHOWN ON THE CONTRACT PLANS, THE ENGINEER SHALL BE CONSULTED TO DETERMINE WHETHER DESIGN CHANGES ARE NEEDED.
- FOR DETAIL OF CAMBER, SEE ELEVATION VIEW OF BOX CONNECTION ON P-015_3.
- SUBSTRATE TYPE SHALL BE DESIGNATED S (SOIL), R (ROCK) OR ' ' (SPECIAL FOUNDATION). AT SHAFTS, WHEN ROCK IS SPECIFIED, THE TOTAL SHAFT LENGTH AND THE SHAFT LENGTH IN ROCK SHALL BE INDICATED IN PARENTHESIS. FOR FOOTING DEPTH IN SOIL OR ROCK, SEE FOUNDATION TABLE ON F-014.
- FOUNDATION TYPE SHALL BE DESIGNATED 'FOOTING', 'SHAFT' OR 'SPECIAL'.
- MAXIMUM NOMINAL POST HEIGHT (A) IS 32'-10" FOR ALL STANDARD CANTILEVER STRUCTURES.
- FOR STANDARD CANTILEVER STRUCTURE TYPE SELECTION TABLE, SEE P-015_2.
- FOR TRUSSED ARM CONNECTION DETAILS, SEE P-015_4.
- WEEP HOLES SHALL BE 3/8" DIAMETER DRILLED HOLES AT BOTTOM OF EACH ARM.
- FILLED OUT BY E.I.C. AT TIME OF AS-BUILTS.

DESIGNER NOTES:
 FOR TRUSS DEPTH (D), REFER TO OVERHEAD SIGN STRUCTURE DESIGN MANUAL.
 CONSULT THE NATIONAL MUTCD AND THE HIGHWAY DESIGN MANUAL REGARDING HORIZONTAL CLEARANCE REQUIREMENTS FOR OVERHEAD SIGN SUPPORTS.



REVISION			
NO.	DATE	BY	DESCRIPTION
0	10/2017	DR	CREATED

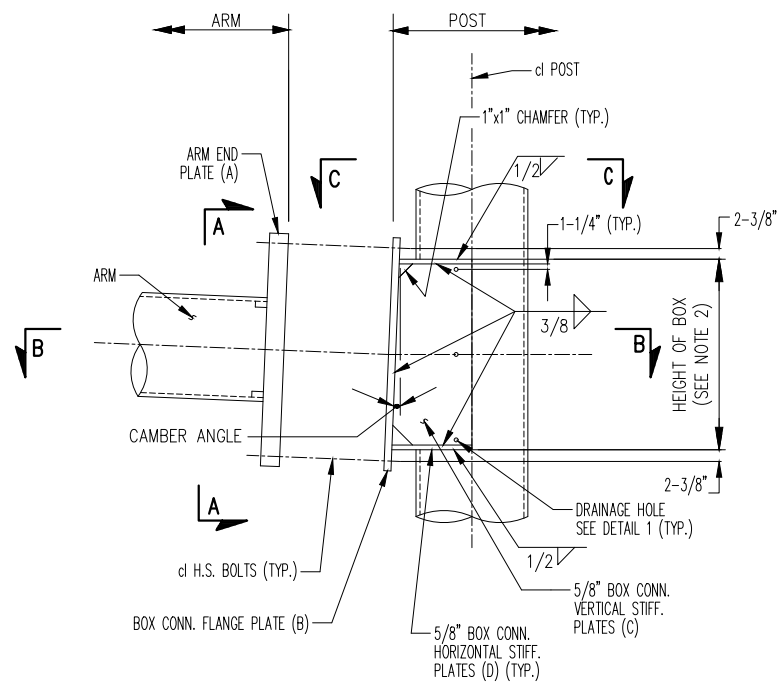
DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
NYS DOT CANTILEVER STRUCTURE ASSEMBLY		
SCALE:	OLD DRAWING NO.	DRAWING NO.
NT.S.		P-015_1

STANDARD SINGLE ARM CANTILEVER STRUCTURES

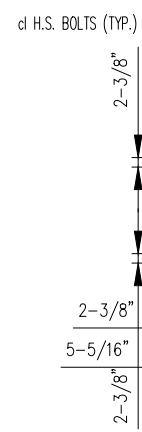
STRUCTURE TYPE	MAX. ARM LENGTH (ft.)	SIGN PANEL		ARM (NPS)	ARM WEIGHT (k)	BOX CONNECTION		POST (NPS)	POST WEIGHT (k)	BASE PLATE TYPE	RECT. FOOTING TYPE	MINIMUM PEDESTAL OR SHAFT DIA. (ft.)	SHAFT LENGTH HS (ft.)	SHAFT CONCRETE QUANTITY (ft.r)
		MAX. AREA (ft.q)	MAX. HEIGHT (ft.)			BOX HEIGHT (in.)	TYPE							
CS-4-3	13'-1 1/2"	32.2	5'-0"	10 STD	2.23	13"	C4-A	10 STD	1.48	BP-10	CS-1	3'-6"	9'-11"	95.4
CS-4-5	13'-1 1/2"	53.8	5'-0"	10 STD	2.53	16"	C4-A	12 STD	1.78	BP-12	CS-2	3'-6"	13'-2"	126.7
CS-4-8	13'-1 1/2"	86.1	5'-0"	14 STD	3.09	16-7/8"	C4-A	16 STD	2.21	BP-16	CS-4	4'-0"	11'-6"	144.5
CS-5-3	16'-4 7/8"	32.2	5'-0"	10 STD	2.52	14"	C4-A	12 STD	1.78	BP-12	CS-1	3'-6"	9'-11"	95.4
CS-5-5	16'-4 7/8"	53.8	5'-0"	12 STD	3.22	19-7/8"	C4-A	12 STD	1.78	BP-12	CS-2	3'-6"	13'-2"	126.7
CS-5-8	16'-4 7/8"	86.1	5'-0"	16 STD	3.96	21-7/8"	C4-A	16 STD	2.21	BP-16	CS-4	4'-0"	11'-6"	144.5
CS-6-3	19'-8 1/4"	32.2	5'-0"	12 STD	3.13	16"	C4-A	14 STD	1.94	BP-14	CS-2	3'-6"	9'-11"	95.4
CS-6-5	19'-8 1/4"	53.8	5'-0"	14 STD	3.78	21-13/16"	C4-A	14 STD	1.94	BP-14	CS-3	3'-6"	13'-2"	126.7
CS-6-8	19'-8 1/4"	86.1	5'-0"	16 STD	4.52	24-3/4"	C4-A	18 STD	2.47	BP-18	CS-4	4'-0"	11'-6"	144.5
CS-7-3	22'-11 9/16"	32.2	5'-0"	12 STD	3.45	18"	C4-A	14 STD	1.94	BP-14	CS-2	3'-6"	9'-11"	95.4
CS-7-5	22'-11 9/16"	53.8	5'-0"	16 STD	4.46	22-13/16"	C4-A	16 STD	2.21	BP-16	CS-3	4'-0"	11'-6"	144.5
CS-7-8	22'-11 9/16"	86.1	5'-0"	18 STD	5.35	26-3/4"	C4-B	20 STD	2.73	BP-20	CS-4	4'-0"	13'-2"	165.5
CS-8-3	26'-3"	32.2	5'-0"	14 STD	3.97	19-7/8"	C4-A	14 STD	1.94	BP-14	CS-2	3'-6"	9'-11"	95.4
CS-8-5	26'-3"	53.8	5'-0"	16 STD	4.84	23-13/16"	C4-B	18 STD	2.47	BP-18	CS-3	4'-0"	11'-6"	144.5
CS-8-8	26'-3"	86.1	5'-0"	20 STD	6.37	30-11/16"	C6-B	20 STD	2.73	BP-20	CS-4	4'-0"	13'-2"	165.5
CS-9-3	29'-6 5/16"	32.2	5'-0"	14 STD	4.31	21-13/16"	C4-A	14 STD	1.94	BP-14	CS-2	3'-6"	13'-2"	126.7
CS-9-5	29'-6 5/16"	53.8	5'-0"	18 STD	5.81	27-3/4"	C6-B	18 STD	2.47	BP-18	CS-4	4'-0"	11'-6"	144.5
CS-9-8	29'-6 5/16"	86.1	5'-0"	24 STD	7.68	30-11/16"	C6-B	24 STD	3.26	BP-24	CS-5	4'-6"	13'-2"	209.4
CS-10-3	32'-9 11/16"	32.2	5'-0"	16 STD	4.98	21-13/16"	C4-B	16 STD	2.21	BP-16	CS-3	4'-0"	11'-6"	144.5
CS-10-5	32'-9 11/16"	53.8	5'-0"	20 STD	6.58	27-3/4"	C6-B	20 STD	2.73	BP-20	CS-4	4'-0"	11'-6"	144.5
CS-10-8	32'-9 11/16"	86.1	5'-0"	24 STD	8.33	33-5/8"	C8-B	24 STD	3.26	BP-24	CS-5	4'-6"	13'-2"	209.4
CS-11-3	36'-1 1/16"	32.2	5'-0"	16 STD	5.37	23-13/16"	C6-B	16 STD	2.21	BP-16	CS-3	4'-0"	11'-6"	144.5
CS-11-5	36'-1 1/16"	53.8	5'-0"	20 STD	7.04	29-11/16"	C8-B	20 STD	2.73	BP-20	CS-4	4'-0"	11'-6"	144.5
CS-11-8	36'-1 1/16"	86.1	5'-0"	24 STD	8.97	35-5/8"	C8-B	26 STD	3.52	BP-26	CS-5	4'-6"	13'-2"	209.4
CS-12-3	39'-4 7/16"	32.2	5'-0"	16 STD	5.66	23-13/16"	C6-B	18 STD	2.47	BP-18	CS-3	4'-0"	11'-6"	144.5
CS-12-5	39'-4 7/16"	53.8	5'-0"	20 STD	7.38	28-11/16"	C8-B	24 STD	3.26	BP-24	CS-4	4'-6"	13'-2"	209.4
CS-12-8	39'-4 7/16"	86.1	5'-0"	26 STD	10.19	38-9/16"	C8-C	26 STD	3.52	BP-26	CS-6	4'-6"	13'-2"	209.4
CS-13-3	42'-7 13/16"	32.2	5'-0"	18 STD	6.54	24-3/4"	C8-B	20 STD	2.73	BP-20	CS-4	4'-0"	11'-6"	144.5
CS-13-5	42'-7 13/16"	53.8	5'-0"	24 STD	8.92	30-11/16"	C8-C	24 STD	3.26	BP-24	CS-5	4'-6"	13'-2"	209.4
CS-13-8	42'-7 13/16"	86.1	5'-0"	26 STD	10.84	39-9/16"	C10-B	30 STD	4.05	BP-30	CS-6	5'-0"	14'-10"	291.2
CS-14-3	45'-11 3/16"	32.2	5'-0"	18 STD	7.06	27-3/4"	C8-B	20 STD	2.73	BP-20	CS-4	4'-0"	13'-2"	165.5
CS-14-5	45'-11 3/16"	53.8	5'-0"	24 STD	9.46	32-5/8"	C10-B	24 STD	3.26	BP-24	CS-5	4'-6"	13'-2"	209.4
CS-14-8	45'-11 3/16"	86.1	5'-0"	26 XS	11.42	41-1/2"	C12-B	30 STD	4.05	BP-30	CS-6	5'-0"	14'-10"	291.2
CS-15-3	49'-2 9/16"	32.2	5'-0"	20 STD	8.05	27-3/4"	C10-B	24 STD	3.26	BP-24	CS-5	4'-6"	13'-2"	209.4
CS-15-5	49'-2 9/16"	53.8	5'-0"	24 STD	10.23	36-9/16"	C10-B	24 STD	3.26	BP-24	CS-6	4'-6"	14'-10"	235.9
CS-15-8	49'-2 9/16"	86.1	5'-0"	26 XS	12.12	44-7/16"	C12-B	30 XS	4.05	BP-30	CS-7	5'-0"	14'-10"	291.2
CS-16-3	52'-6"	32.2	5'-0"	20 STD	8.62	30-11/16"	C10-B	24 STD	3.26	BP-24	CS-5	4'-6"	13'-2"	209.4
CS-16-5	52'-6"	53.8	5'-0"	24 STD	10.52	35-5/8"	C12-B	26 STD	3.52	BP-26	CS-6	4'-6"	14'-10"	235.9
CS-16-8	52'-6"	86.1	5'-0"	26 XS	12.71	46-7/16"	C14-A	30 XS	5.32	BP-30	CS-7	5'-0"	14'-10"	209.4

STANDARD TRUSSED ARM CANTILEVER STRUCTURES

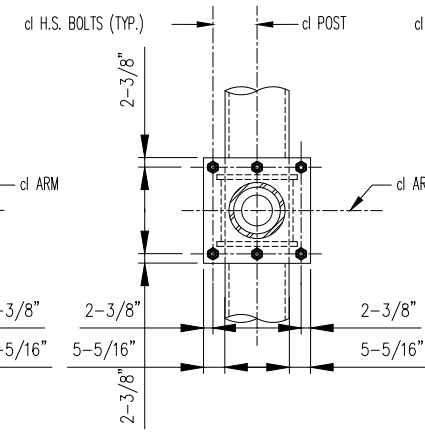
STRUCTURE TYPE	MAX. ARM LENGTH (ft.)	SIGN PANEL		ARM (NPS)	TRUSS ARM WEIGHT (k)	DIAGONALS AND STRUTS NPS	BOX CONNECTION		POST (NPS)	POST WEIGHT (k)	BASE PLATE TYPE	RECT. FOOTING TYPE	MINIMUM PEDESTAL OR SHAFT DIA. (ft.)	SHAFT LENGTH HS (ft.)	SHAFT CONCRETE QUANTITY (ft.r)
		MAX. AREA (ft.q)	MAX. HEIGHT (ft.)				BOX HEIGHT (in.)	TYPE							
CT-4-5	13'-1 1/2"	53.8	13'-1 1/2"	8 STD	4.21	4 STD	10"	C4-A	14 STD	1.94	BP-14	CT-1	3'-6"	13'-2"	126.7
CT-4-10	13'-1 1/2"	107.6	13'-1 1/2"	8 STD	6.39	4 STD	13"	C4-A	18 STD	2.47	BP-18	CT-3	4'-0"	13'-2"	165.5
CT-4-15	13'-1 1/2"	161.5	13'-1 1/2"	10 STD	7.48	4 STD	14"	C4-A	20 STD	2.73	BP-20	CT-4	4'-0"	14'-10"	186.5
CT-4-20	13'-1 1/2"	215.3	13'-1 1/2"	12 STD	8.78	4 STD	16"	C4-A	24 STD	3.26	BP-24	CT-5	4'-6"	16'-5"	261.1
CT-5-5	16'-4 7/8"	53.8	13'-1 1/2"	8 STD	6.57	4 STD	11"	C4-A	14 STD	1.94	BP-14	CT-1	3'-6"	13'-2"	126.7
CT-5-10	16'-4 7/8"	107.6	13'-1 1/2"	10 STD	8.10	4 STD	13"	C4-A	18 STD	2.47	BP-18	CT-3	4'-0"	13'-2"	165.5
CT-5-15	16'-4 7/8"	161.5	13'-1 1/2"	12 STD	8.79	4 STD	14"	C4-A	24 STD	3.26	BP-24	CT-4	4'-6"	14'-10"	235.9
CT-5-20	16'-4 7/8"	215.3	13'-1 1/2"	10 STD	10.29	4 STD	18-7/8"	C4-A	24 STD	3.26	BP-24	CT-5	4'-6"	16'-5"	261.1
CT-6-5	19'-8 1/4"	53.8	13'-1 1/2"	8 STD	7.39	4 STD	13"	C4-B	16 STD	2.21	BP-16	CT-1	4'-0"	11'-6"	144.5
CT-6-10	19'-8 1/4"	107.6	13'-1 1/2"	10 STD	9.10	4 STD	15"	C4-A	20 STD	2.73	BP-20	CT-3	4'-0"	13'-2"	165.5
CT-6-15	19'-8 1/4"	161.5	13'-1 1/2"	12 STD	10.80	4 STD	17-15/16"	C4-A	24 STD	3.26	BP-24	CT-4	4'-6"	14'-10"	235.9
CT-6-20	19'-8 1/4"	215.3	13'-1 1/2"	16 STD	13.39	4 STD	21-7/8"	C4-A	30 STD	4.05	BP-30	CT-5	5'-0"	14'-10"	291.2
CT-7-5	22'-11 9/16"	53.8	13'-1 1/2"	10 STD	9.28	4 STD	15"	C4-A	16 STD	2.21	BP-16	CT-2	4'-0"	11'-6"	144.5
CT-7-10	22'-11 9/16"	107.6	13'-1 1/2"	12 STD	10.98	4 STD	15"	C4-A	24 STD	3.26	BP-24	CT-3	4'-6"	13'-2"	209.4
CT-7-15	22'-11 9/16"	161.5	13'-1 1/2"	14 STD	12.36	4 STD	18-7/8"	C4-A	26 STD	3.52	BP-26	CT-5	4'-6"	14'-10"	235.9
CT-7-20	22'-11 9/16"	215.3	13'-1 1/2"	16 STD	14.38	4 STD	22-13/16"	C4-A	30 STD	4.05	BP-30	CT-5	5'-0"	14'-10"	291.2
CT-7-25	22'-11 9/16"	269.1	19'-8 1/4"	18 STD	15.36	4 STD	22-13/16"	C8-D	30 XS	5.32	BP-30	CT-7	5'-0"	16'-5"	322.3
CT-7-30	22'-11 9/16"	322.9	19'-8 1/4"	20 STD	17.51	4 STD	25-3/4"	C8-D	36 STD	4.84	BP-36	CT-7	5'-6"	16'-5"	390.0
CT-8-5	26'-3"	53.8	13'-1 1/2"	10 STD	10.40	4 STD	15"	C4-A	18 STD	2.47	BP-18	CT-2	4'-0"	11'-6"	144.5
CT-8-10	26'-3"	107.6	13'-1 1/2"	12 STD	12.20	4 STD	16"	C4-A	24 STD	3.26	BP-24	CT-4	4'-6"	13'-2"	209.4
CT-8-15	26'-3"	161.5	13'-1 1/2"	14 STD	14.20	4 STD	20-7/8"	C4-A	30 STD	4.05	BP-30	CT-5	5'-0"	14'-10"	291.2
CT-8-20	26'-3"	215.3	13'-1 1/2"	16 STD	15.25	4 STD	20-7/8"	C4-B	30 XS	5.32	BP-30	CT-6	5'-0"	16'-5"	322.3
CT-8-25	26'-3"	269.1	19'-8 1/4"	20 STD	18.52	4 STD	23-13/16"	C10-C	36 STD	4.84	BP-36	CT-7	5'-6"	16'-5"	390.0
CT-8-30	26'-3"	322.9	19'-8 1/4"	20 STD	19.13	4 STD	26-3/4"	C10-C	36 XS	6.38	BP-36	CT-7	5'-6"	16'-5"	390.0
CT-9-5	29'-6 5/16"	53.8	13'-1 1/2"	10 STD	11.36	4 STD	17-15/16"	C4-A	18 STD	2.47	BP-18	CT-2	4'-0"	11'-6"	144.5
CT-9-10	29'-6 5/16"	107.6	13'-1 1/2"	12 STD	13.34	4 STD	17-15/16"	C4-B	26 STD	3.52	BP-26	CT-4	4'-6"	14'-10"	235.9
CT-9-15	29'-6 5/16"	161.5	13'-1 1/2"	14 STD	14.91	4 STD	20-7/8"	C4-B	30 STD	4.05	BP-30	CT-5	5'-0"	14'-10"	291.2
CT-9-20	29'-6 5/16"	215.3	13'-1 1/2"	18 STD	17.80	4 STD	23-13/16"	C10-C	30 XS	5.32	BP-30	CT-6	5'-0"	16'-5"	322.3
CT-9-25	29'-6 5/16"	269.1	19'-8 1/4"	20 STD	19.96	4 STD	25-3/4"	C10-C	36 XS	6.38	BP-36	CT-7	5'-6"	16'-5"	390.0
CT-9-30	29'-6 5/16"	322.9	19'-8 1/4"	24 STD	23.79	4 STD	31-11/16"	C10-C	36 XS	6.38	BP-36	CT-8	5'-6"	16'-5"	390.0
CT-10-5	32'-9 11/16"	53.8	13'-1 1/2"	12 STD	13.45	4 STD	17-15/16"	C4-B	20 STD	2.73	BP-20	CT-3	4'-0"	13'-2"	165.5
CT-10-10	32'-9 11/16"	107.6	13'-1 1/2"	12 STD	13.99	4 STD	17-15/16"	C4-B	26 XS	4.62	BP-26	CT-4	4'-6"	14'-10"	235.9
CT-10-15	32'-9 11/16"	161.5	13'-1 1/2"	16 STD	16.53	4 STD	18-7/8"	C10-C	30 XS	5.32	BP-30	CT-5	5'-0"	14'-10"	291.2
CT-10-20	32'-9 11/16"	215.3	13'-1 1/2"	18 STD	19.29	4 STD	23-13/16"	C10-C	36 STD	4.84	BP-36	CT-6	5'-6"	14'-10"	352.4
CT-10-25	32'-9 11/16"	269.1	19'-8 1/4"	24 STD	24.34	4 STD	28-3/4"	C10-A	36 XS	6.38	BP-36	CT-7	5'-6"	16'-5"	390.0
CT-11-5	36'-1 1/16"	53.8	13'-1 1/2"	14 STD	15.66	4 STD	19-7/8"	C8-D	20 STD	2.73	BP-20	CT-3	4'-0"	13'-2"	165.5
CT-11-10	36'-1 1/16"	107.6	13'-1 1/2"	14 STD	16.58	4 STD	19-7/8"	C8-D	30 STD	4.05	BP-30	CT-5	5'-0"	14'-10"	291.2
CT-11-15	36'-1 1/16"	161.5	13'-1 1/2"	16 STD	17.93	4 STD	19-7/8"	C10-C	30 XS	5.32	BP-30	CT-6	5'-0"	14'-10"	291.2
CT-11-20	36'-1 1/16"	215.3	13'-1 1/2"	20 STD	22.00	4 STD	23-13/16"	C10-C	36 XS	6.38	BP-36	CT-7	5'-6"	16'-5"	390.0
CT-11-25	36'-1 1/16"	269.1	19'-8 1/4"	24 STD											



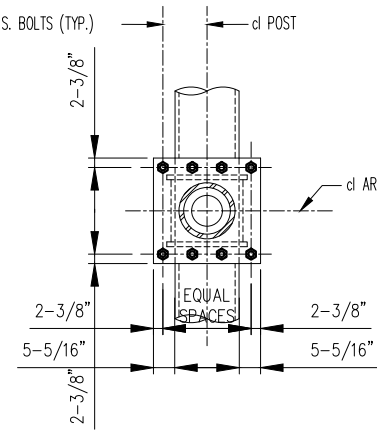
BOX CONNECTION ELEVATION
NOT TO SCALE



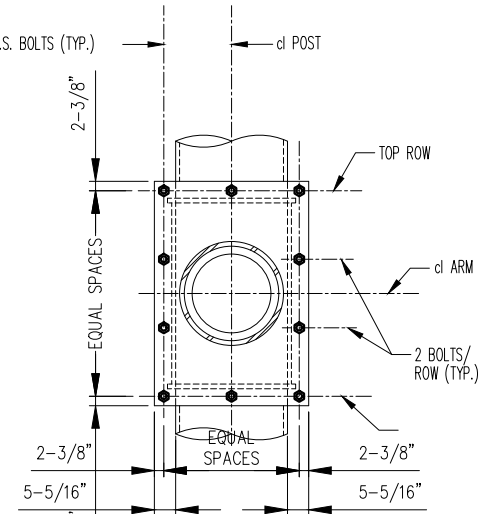
SECTION A-A
TYPE C4-A AND C4-B
NOT TO SCALE



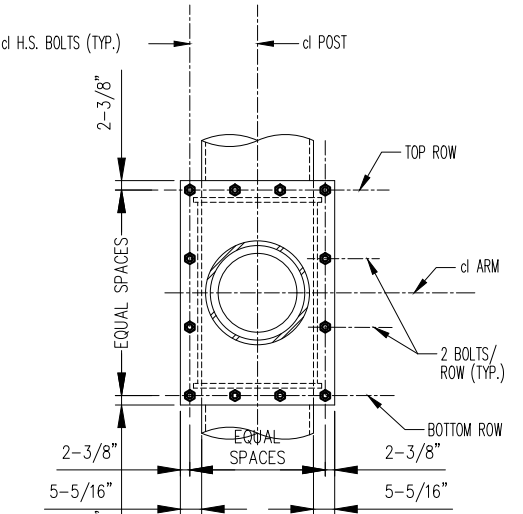
SECTION A-A
TYPE C6-B
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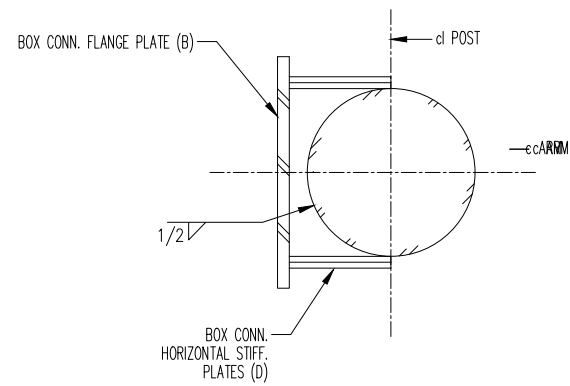
SECTION A-A
TYPE C8-D
NOT TO SCALE



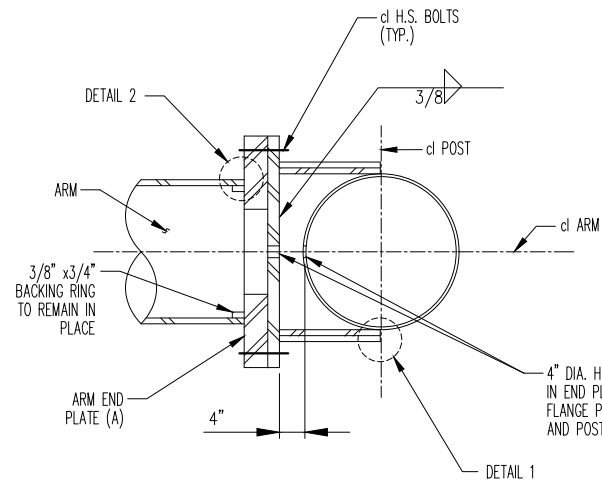
SECTION A-A
TYPE C8-B, C8-C, C10-B,
C12-B AND C14-A
NOT TO SCALE



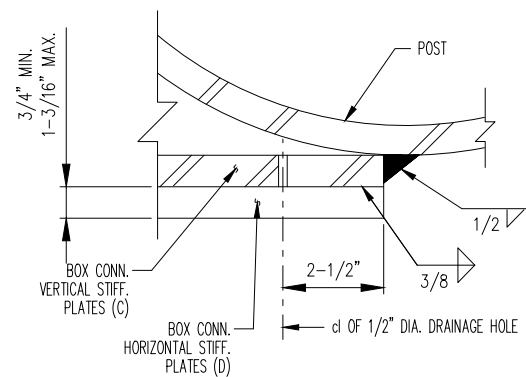
SECTION A-A
TYPE C10-A, C10-C, C12-C TO C12-D
AND C14-B
NOT TO SCALE



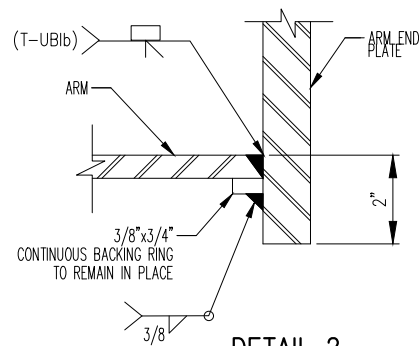
SECTION C-C
NOT TO SCALE



SECTION B-B
NOT TO SCALE



DETAIL 1
NOT TO SCALE



DETAIL 2
NOT TO SCALE

ARM END PLATE (A) TABLE

ARM SIZE (NPS)	PLATE THICKNESS	
	SINGLE ARM (in.)	TRUSSED DUAL ARM (in.)
8	-	1"
10	1"	1-1/8"
12	1"	1-1/8"
14	1-3/8"	1-3/16"
16	1-9/16"	1-3/16"
18	2"	1-3/8"
20	2"	1-1/2"
24	2"	1-1/2"
26	2-3/16"	-

BOX CONNECTION TABLE

TYPE	FLANGE PLATE THICKNESS, B (in.)	BOLT SIZE	NO. OF BOLTS TOP AND BOTTOM	NO. OF INTERM. ROW	TOTAL NO. OF BOLTS
C4-A	1"	7/8"	2	-	4
C4-B	1"	1"	2	-	4
C6-B	13/16"	1"	3	-	6
C8-B	13/16"	1"	3	1	8
C8-C	13/16"	1-1/8"	3	1	8
C8-D	13/16"	7/8"	4	-	8
C10-A	13/16"	1"	4	1	10
C10-B	13/16"	1-1/8"	3	2	10
C10-C	13/16"	7/8"	4	1	10
C12-B	13/16"	1-1/8"	3	3	12
C12-C	13/16"	7/8"	4	2	12
C12-D	13/16"	1"	4	2	12
C14-A	13/16"	1-1/8"	3	4	14
C14-B	13/16"	1"	4	3	14

ASSEMBLY PROCEDURE FOR THE BOX CONNECTION

1. FIT-UP PLATES B, C AND D (TACK WELD).
2. MAKE ALL FILLET WELDS. SEQUENCE AS REQUIRED TO MINIMIZE DISTORTION.
3. WELD BOX CONNECTION ASSEMBLY TO POST.

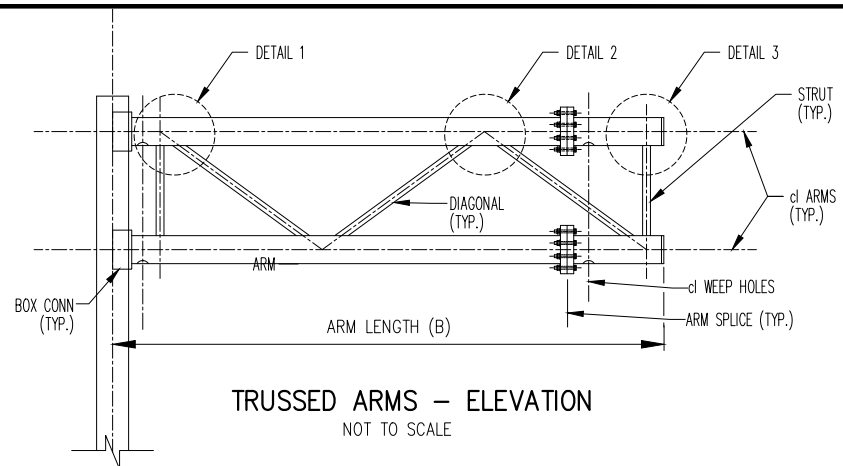
NOTES:

1. FOR CAMBER INFORMATION, SEE BD-OS8E.
2. FOR BOX HEIGHT, SEE BD-OS9E.
3. ALL BOLTS SHALL BE HIGH STRENGTH BOLTS IN STANDARD HOLES.
4. DETAILS ON THE DRAWINGS LABELED AS "NOT TO SCALE" ARE INTENTIONALLY DRAWN NOT TO SCALE FOR VISUAL CLARITY. ALL OTHER DETAILS, FOR WHICH NO SCALE IS SHOWN, ARE DRAWN PROPORTIONAL AND ARE FULLY DIMENSIONED.

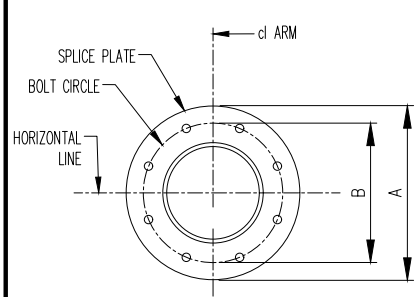


REVISION			
NO	DATE	BY	DESCRIPTION
0	10/2017	DR	CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
NYSDOT CANTILEVER STRUCTURE BOX CONNECTION DETAIL		
SCALE:	OLD DRAWING NO.	DRAWING NO.
NT.S.		P-015_3

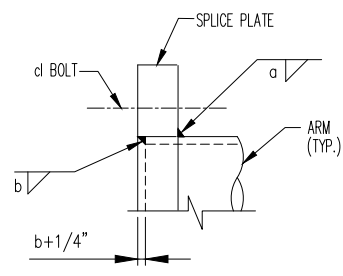


TRUSSED ARMS - ELEVATION
NOT TO SCALE

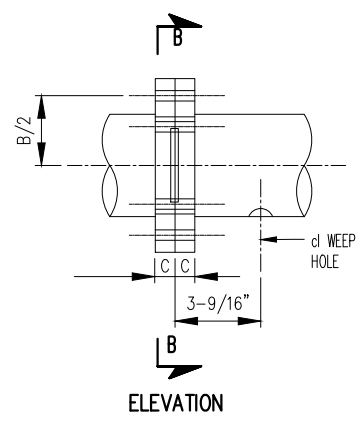


SECTION B-B
(8 BOLT ARRANGEMENT SHOWN, SEE TABLE BELOW FOR ACTUAL NUMBER OF BOLTS)

ARM SPLICE DETAILS
NOT TO SCALE



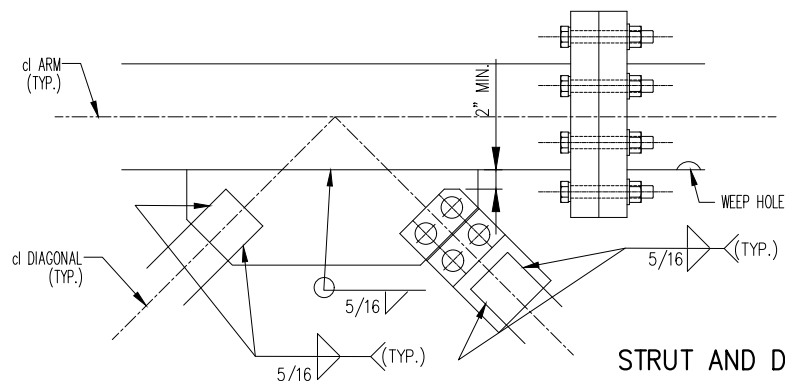
TYPICAL ARM SPLICE WELD DETAIL



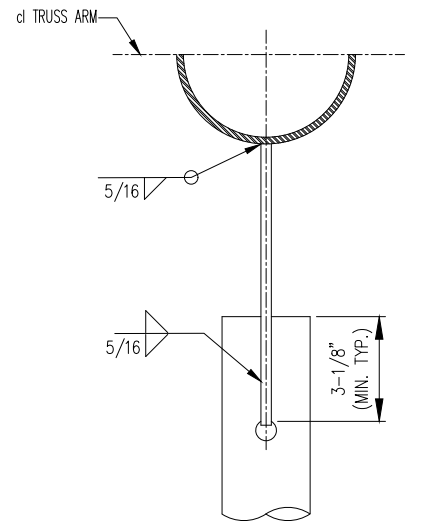
ELEVATION

ARM SPLICE TABLE							
ARM (NPS)	PLATE			BOLTS	FILLET WELD	FILLET WELD	
	A (in.)	B (in.)	C (in.)			NO.	DIA.
14 STD	1' 9-5/8"	1' 5-3/4"	1-9/16"	8	7/8"	5/16"	5/16"
16 STD	2' 0-3/8"	1' 8-1/2"	1-9/16"	10	7/8"	3/8"	5/16"
18 STD	2'-2"	1' 10-1/16"	1-9/16"	10	7/8"	3/8"	5/16"
20 STD	2' 4-5/16"	2' 0-3/8"	1-9/16"	12	7/8"	3/8"	5/16"
24 STD	2' 8-1/4"	2' 4-5/16"	1-9/16"	14	7/8"	3/8"	5/16"
26 STD	2' 10-1/4"	2' 6-5/16"	1-9/16"	14	7/8"	3/8"	5/16"
26 XS	2' 10-1/4"	2' 6-5/16"	1-9/16"	14	7/8"	1/2"	3/8"

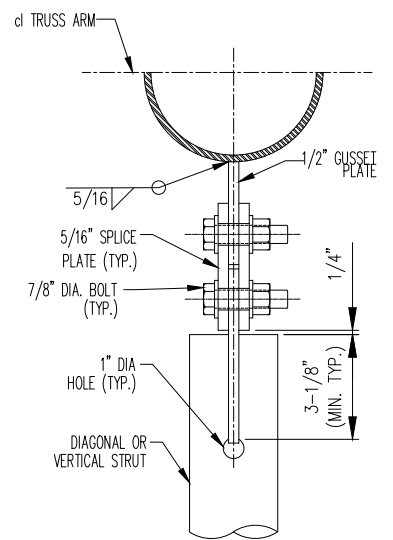
NOTE: DETAILS ON THE DRAWINGS LABELED AS "NOT TO SCALE" ARE INTENTIONALLY DRAWN NOT TO SCALE FOR VISUAL CLARITY. ALL OTHER DETAILS, FOR WHICH NO SCALE IS SHOWN, ARE DRAWN PROPORTIONAL AND ARE FULLY DIMENSIONED.



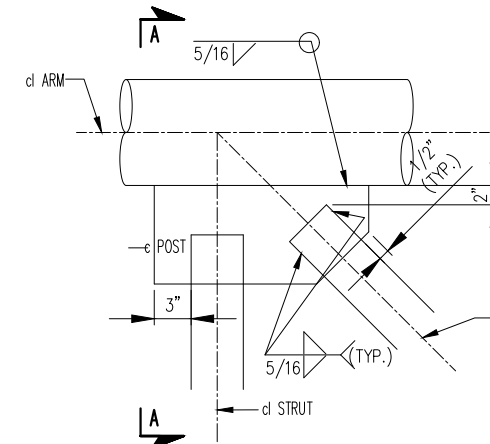
STRUT AND DIAGONAL DETAIL AT ARM SPLICE
NOT TO SCALE



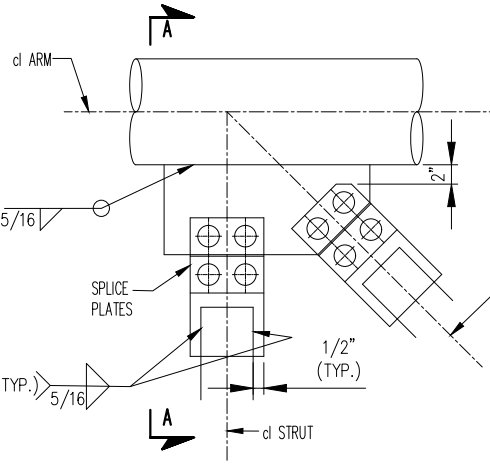
SECTION A-A (WELDED CONNECTION ALTERNATIVE)
NOT TO SCALE



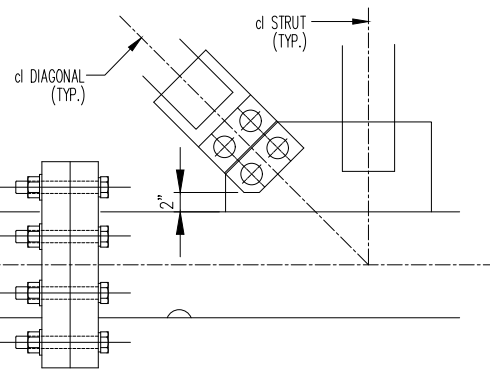
SECTION A-A (BOLTED CONNECTION ALTERNATIVE)
NOT TO SCALE



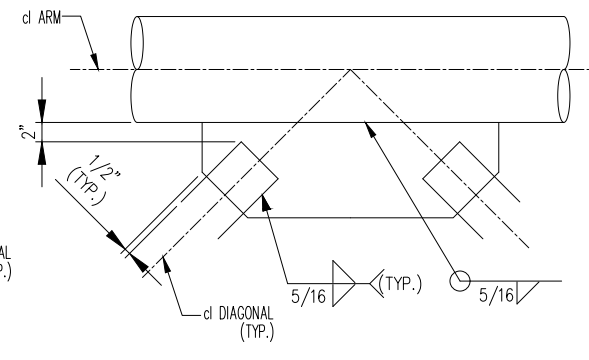
DETAIL 1 (WELDED CONNECTION ALTERNATIVE)
NOT TO SCALE



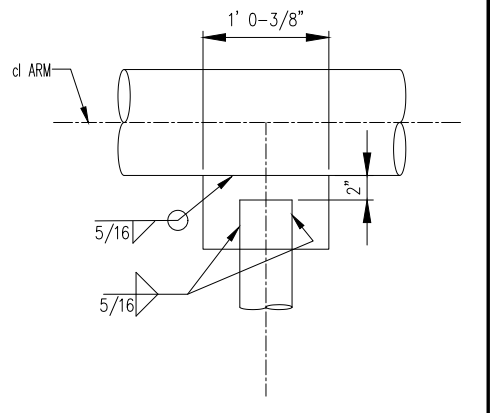
DETAIL 1 (BOLTED CONNECTION ALTERNATIVE)
NOT TO SCALE



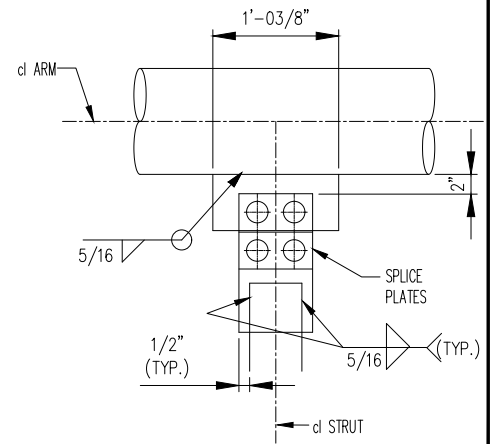
DETAIL 2 (WELDED CONNECTION ALTERNATIVE)
NOT TO SCALE



DETAIL 2 (BOLTED CONNECTION ALTERNATIVE)
NOT TO SCALE



DETAIL 3 (WELDED CONNECTION ALTERNATIVE)
NOT TO SCALE



DETAIL 3 (BOLTED CONNECTION ALTERNATIVE)
NOT TO SCALE

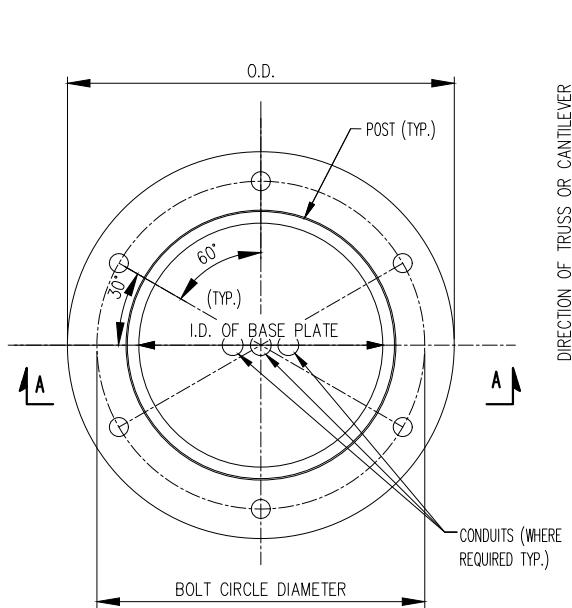
- NOTES:
- ALL BOLTS SHALL BE HIGH STRENGTH BOLTS IN STANDARD HOLES EXCEPT FOR CHORD SPLICES, WHICH SHALL HAVE HOLES 1/8" LARGER THAN THE BOLT DIAMETER.
 - ALL GUSSET PLATES SHALL BE 1/2" THICK.
 - ALL SPLICE PLATES IN THE DIAGONAL/STRUT TO ARM CONNECTION SHALL BE 3/16" THICK, UNLESS OTHERWISE NOTED.
 - THE ARM SPLICE CAN BE USED FOR ARM WITH LENGTH LONGER THAN 32' 9-3/4".
 - THE ARM SPLICE SHALL BE PLACED WITHIN ONE THIRD OF THE ARM LENGTH (B) FROM THE END.
 - BOLTED CONNECTION ALTERNATIVE SHALL BE USED FOR THE DIAGONAL WHICH FALLS WITHIN THE ARM SPLICE.
 - VERTICAL TRUSSED ARM MEMBERS MAY HAVE BOLTED CONNECTIONS, WITH WELDED CONNECTIONS FOR DIAGONAL MEMBERS AT THE FABRICATORS DISCRETION.

REVISION			
NO.	DATE	BY	DESCRIPTION
0	10/2017	DR	CREATED

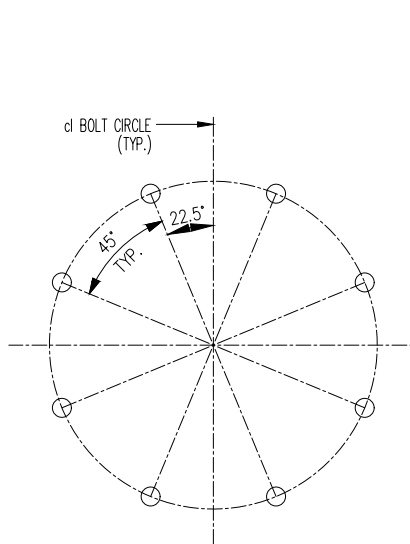
DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
NYS DOT CANTILEVER STRUCTURE TRUSSED ARM CONNECTION DETAILS		
SCALE:	OLD DRAWING NO.	DRAWING NO.
NT.S.		P-015_4



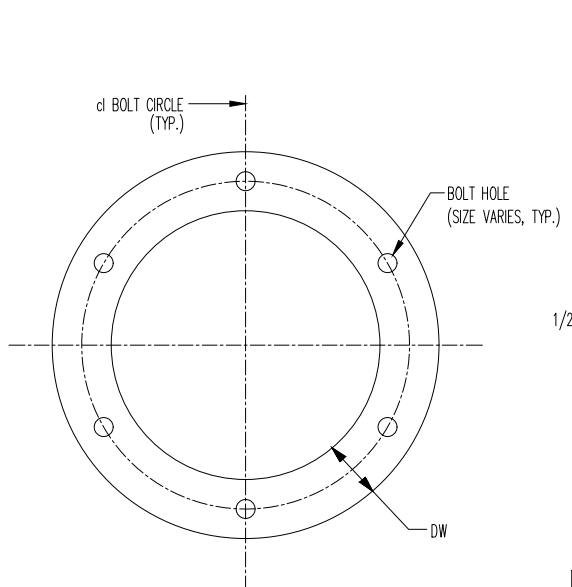
NYCDOT TRAFFIC SIGNAL STANDARD DRAWINGS, Jun 2020



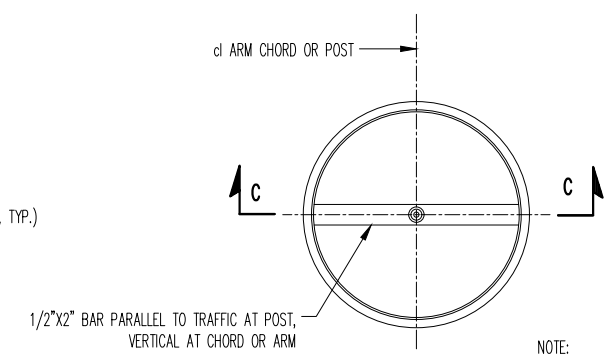
**BASE PLATE DETAIL
6 BOLT ARRANGEMENT**



**BOLT CIRCLE DETAIL
8 BOLT ARRANGEMENT**



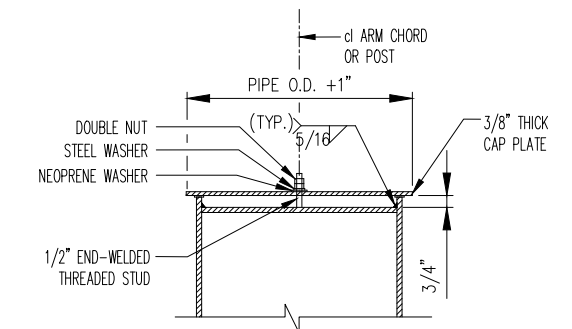
**TYPICAL TEMPLATE DETAIL
6 BOLT ARRANGEMENT SHOWN
(8 BOLT AS NECESSARY)**



PLAN

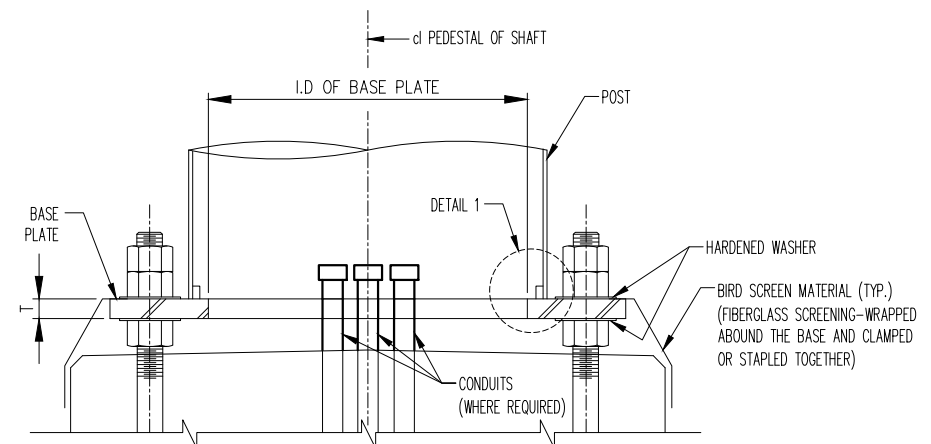
1/2"x2" BAR PARALLEL TO TRAFFIC AT POST,
VERTICAL AT CHORD OR ARM

NOTE:
ALTERNATE CAP DETAILS MAY BE SUBMITTED
TO THE ENGINEER FOR APPROVAL.

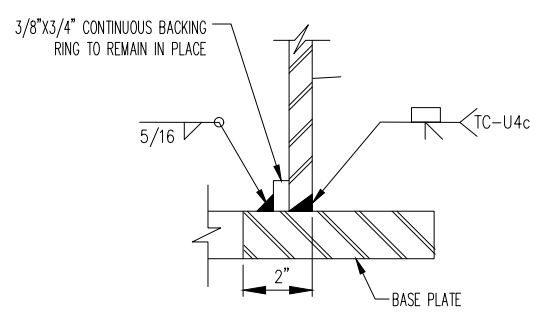


SECTION C-C

CAP DETAILS



SECTION A-A

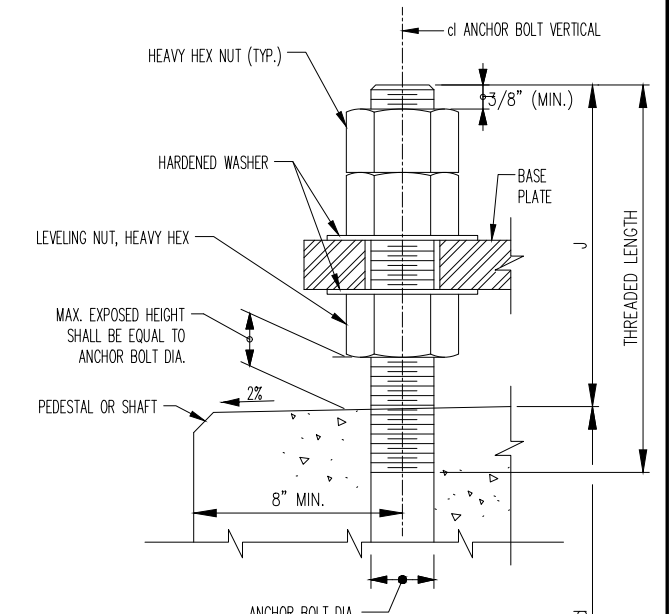


DETAIL 1

BASE PLATE TYPE	POST (NPS)	PLATE			ANCHOR BOLTS		HOLE DIA. (in.)
		O.D. (in.)	T (in.)	BOLT CIRCLE DIA. (in.)	NO.	SIZE DIA.	
BP-10	10	2' 2-3/4"	2-3/8"	1' 6-3/4"	6	1-1/2"	1-7/8"
BP-12	12	2' 4-1/2"	2-3/8"	1' 8-1/2"	6	1-3/4"	2-1/8"
BP-14	14	2' 6"	2-3/8"	1' 10"	6	1-3/4"	2-1/8"
BP-16	16	2' 8"	2-3/4"	2' 0"	6	2"	2-3/8"
BP-18	18	2' 10"	2-3/4"	2' 2"	6	2-1/4"	2-5/8"
BP-20	20	3' 0"	2-3/4"	2' 4"	6	2-1/4"	2-5/8"
BP-24	24	3' 2"	2-3/4"	2' 8"	6	2-1/2"	2-7/8"
BP-26	26	3' 4"	2-3/4"	2' 10"	6	2-1/2"	2-7/8"
BP-30	30	3' 10-1/2"	2-3/4"	3' 2-1/2"	6	2-1/2"	2-7/8"
BP-36	36	4' 7-1/8"	2-3/4"	3' 11-1/8"	8	2-1/2"	2-7/8"

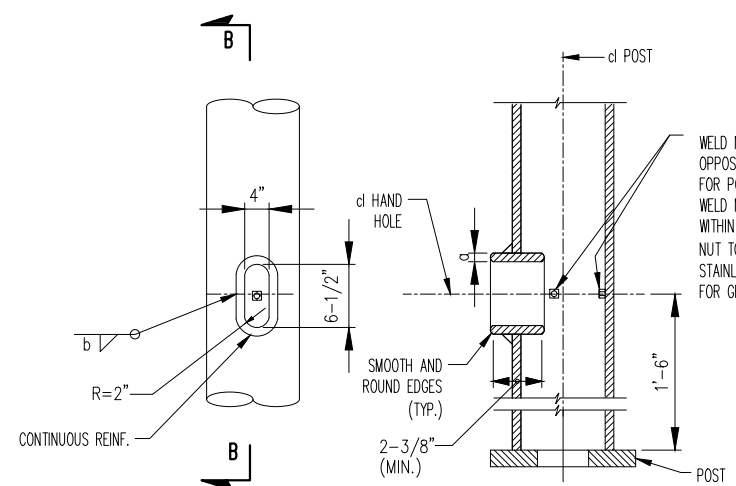
BOLT SIZE	d MIN. EMBD. (in.)	J EXPOSED LENGTH (in.)	TEMPLATE DATA		
			DW (in.)	TW (in.)	HOLE DIA. (in.)
1-1/2"	2' 5"	9-1/2"	3-1/2"	3/4"	1-9/16"
1-3/4"	2' 9"	10-1/2"	4"	7/8"	1-13/16"
2"	3' 2"	1' 0"	4-1/2"	1"	2-1/16"
2-1/4"	3' 8"	1' 1-1/2"	5"	1-1/8"	2-3/8"
2-1/2"	4' 3"	1' 2-3/4"	6"	1-1/4"	2-3/4"

- NOTES:
- ANCHOR BOLTS, NUTS, WASHERS AND TEMPLATES SHALL BE GALVANIZED.
 - FOR TEMPLATE REQUIREMENT, SEE SPECIFICATIONS.
 - TOP TEMPLATE SHALL BE REMOVED PRIOR TO THE INSTALLATION OF THE BASE PLATE.
 - S.I.N. AND CONTRACT NO. SHALL BE STAMPED ON BASE PLATE, SEE SPECIFICATIONS.



ANCHOR BOLT DETAIL

HANDHOLE TABLE		
PIPE WALL THICKNESS (in.)	a, REINFORCEMENT THICKNESS (MIN.) (in.)	b WELD SIZE (in.)
LESS THAN 1/2"	1/2"	3/8"
1/2" TO 5/8"	5/8"	1/2"



**SECTION B-B
POST HANDHOLE DETAIL**

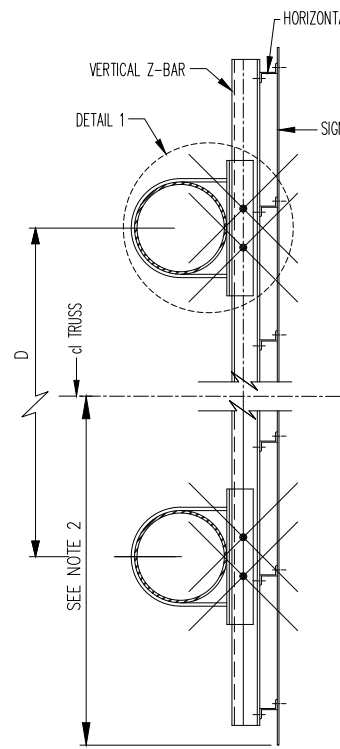
DETAILS OF THE COVER TO BE DETERMINED BY THE FABRICATOR TO FIT TIGHTLY, EXCLUDE WATER, AND BE REMOVABLE WITH A WRENCH. ALL FASTENERS, NUTS, AND WASHERS SHALL BE STAINLESS STEEL.

COVER



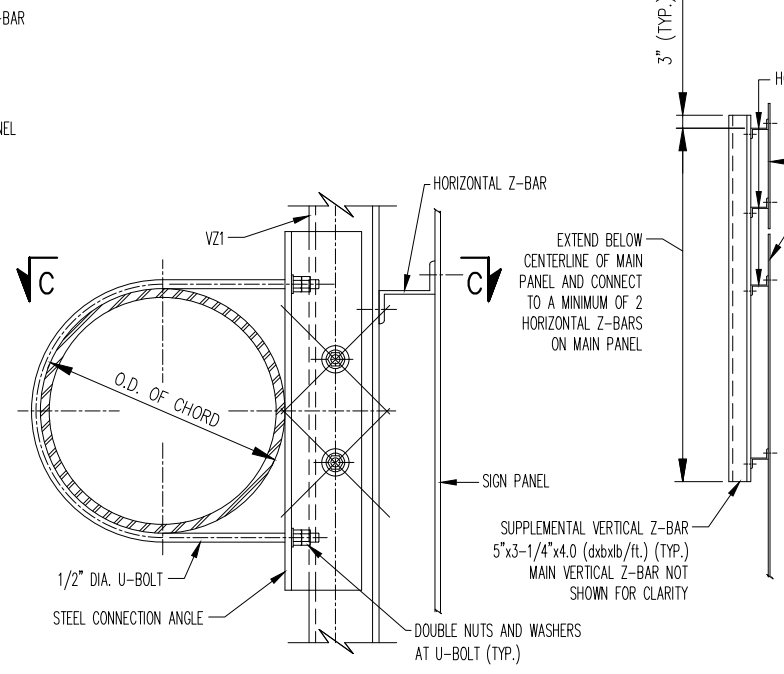
REVISION			
NO.	DATE	BY	DESCRIPTION
0	10/2017	DR	CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
NYS DOT CANTILEVER STRUCTURE TYPICAL BASE AND CAP DETAILS		
SCALE:	OLD DRAWING NO.	DRAWING NO.
NT.S.		P-015_5

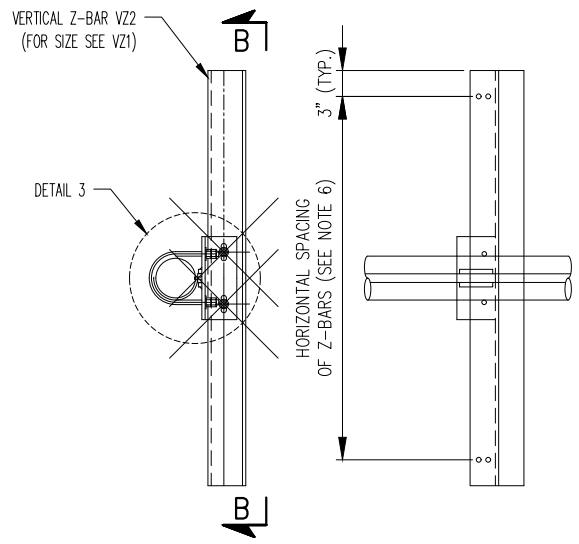


TYPICAL SECTION

ATTACHMENT DETAILS AT TRUSSED ARMS OR CHORDS



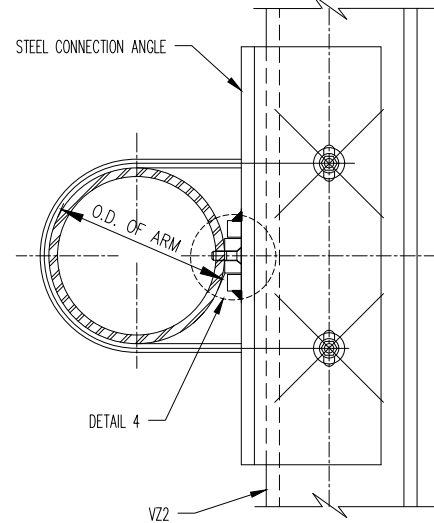
DETAIL 1



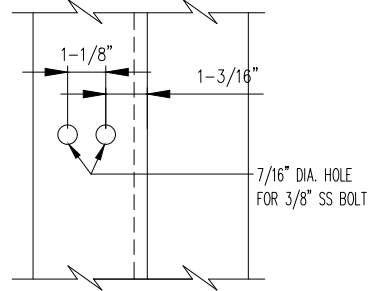
TYPICAL SECTION

VIEW B-B

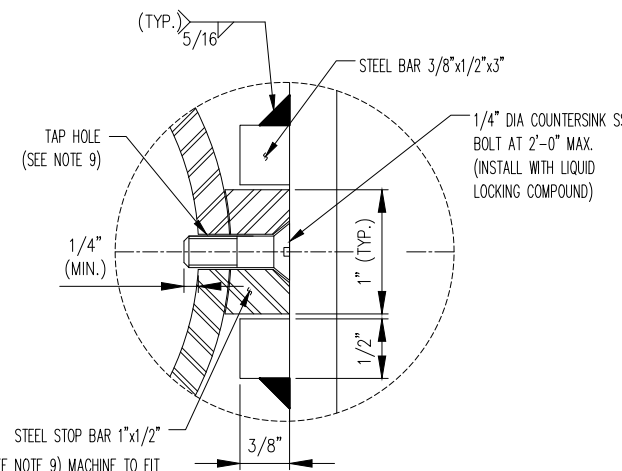
ATTACHMENT DETAILS AT SINGLE ARM CANTILEVERS-VZ2



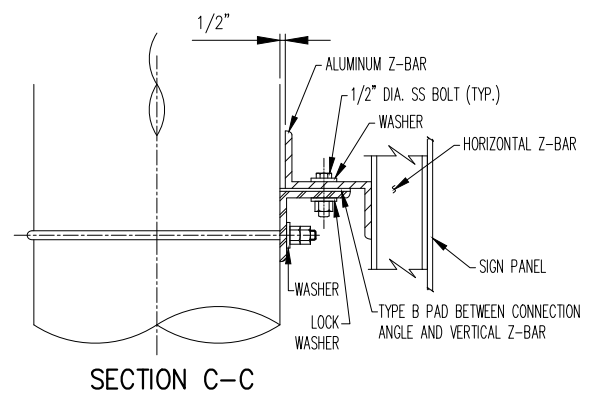
DETAIL 3



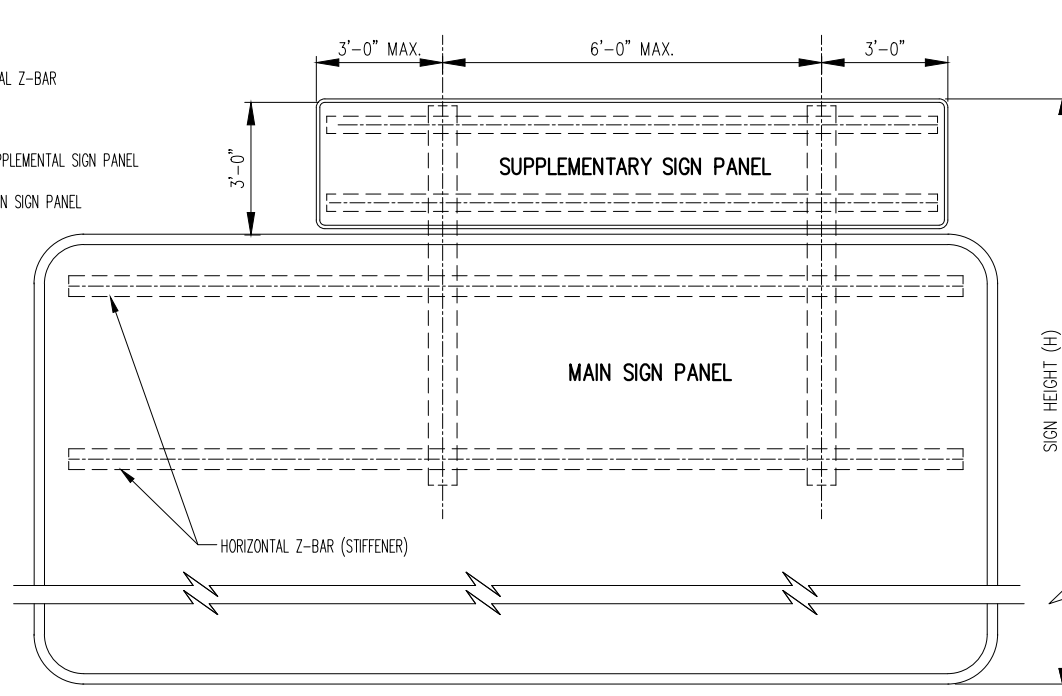
DETAIL 2



DETAIL 4

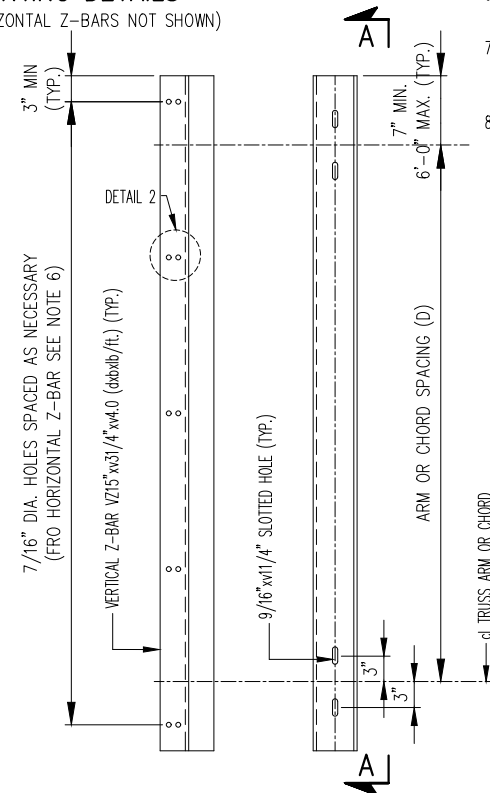


SECTION C-C

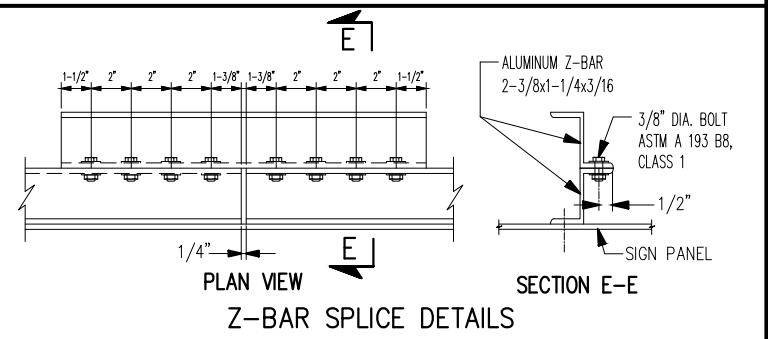


NOTE: IN LIEU OF THIS DETAIL, THE VERTICAL Z-BARS BEHIND THE MAIN SIGN PANEL MAY BE EXTENDED TO CARRY THE SUPPLEMENTARY PANEL. THE OVERHANG OF THE SUPPLEMENTARY PANEL SHALL NOT EXCEED 3'-0"

SUPPLEMENTARY SIGN PANEL MOUNTING DETAILS
(MAIN SIGN PANEL VERTICAL Z-BARS AND ADDITIONAL HORIZONTAL Z-BARS NOT SHOWN)

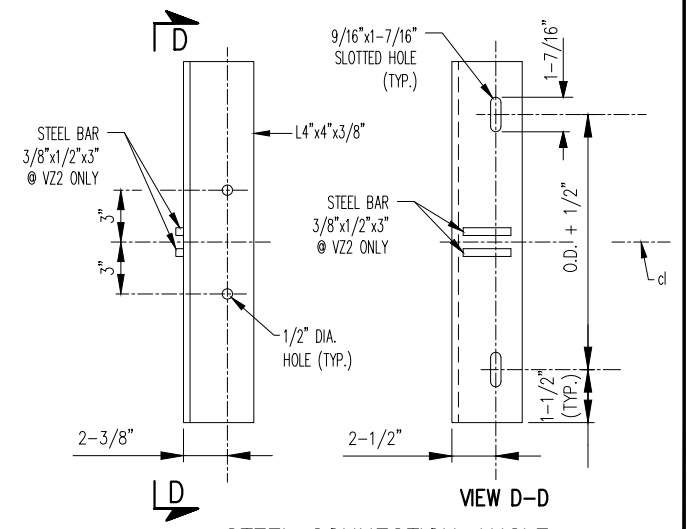


VIEW A-A ELEVATION
DETAIL OF VERTICAL Z-BAR VZ1



NOTES:

- Z-BARS SHALL BE NON-WELDED ALUMINUM ALLOY 6061-T6.
- MAIN AND SUPPLEMENTARY SIGN PANELS ON SINGLE ARM CANTILEVER STRUCTURES SHALL HAVE THE VERTICAL CENTROID OF THE TOTAL SIGN AREA AT THE VERTICAL CENTERLINE OF THE ARM.
- EACH SET OF MAIN AND SUPPLEMENTARY SIGN PANELS ON SPAN OR TRUSSED-ARM CANTILEVER STRUCTURES SHALL HAVE THE MAIN PANEL VERTICALLY CENTERED ON THE TRUSS. IF THE COMBINED VERTICAL CENTROID OF THE MAIN AND SUPPLEMENTARY SIGN PANELS IS GREATER THAN 9-1/2" AWAY FROM THE VERTICAL CENTROID OF THE MAIN PANEL ALONE, THEN THE COMBINED VERTICAL CENTROID SHALL BE CENTERED ON THE TRUSS.
- STEEL BARS AND STEEL CONNECTION ANGLES SHALL BE GALVANIZED.
- ALL STAINLESS STEEL BOLTING MATERIAL SHALL BE ASTM A193, GRADE B8. 6. THERE SHALL BE A MINIMUM OF TWO VERTICAL Z-BARS PER SIGN. SPACING SHALL BE 6'-0" MAXIMUM. END VERTICAL Z-BARS SHALL BE NO MORE THAN 3'-0" FROM THE EDGE OF THE SIGN PANEL. VERTICAL Z-BARS SHALL BE ARRANGED TO AVOID INTERFERENCE WITH CHORD GUSSET PLATES OR WITH CHORD SPLICES. IF INTERFERENCE CANNOT BE RESOLVED BY RESPACING VERTICAL Z-BARS, THE SIGN PANEL MAY BE RELOCATED BY AS MUCH AS 6" FROM ITS ORIGINALLY DESIGNATED LOCATION.
- SPACING OF SIGN PANEL HORIZONTAL Z-BAR STIFFENERS SHALL BE AS SHOWN ON THE CURRENT SIGN PANEL STANDARD SHEET.
- A LOCK WASHER SHALL BE USED UNDER EACH NUT FOR NON-COUNTERSUNK STAINLESS STEEL BOLTS. IN LIEU OF THE LOCK WASHER, AN APPROVED STOP NUT MAY BE USED. A FLAT WASHER SHALL BE USED UNDER EACH BOLT HEAD. A FLAT WASHER SHALL BE USED IN ADDITION TO THE LOCK WASHER AT A SLOTTED HOLE.
- TAP HOLES IN SINGLE ARM CANTILEVER PRIOR TO GALVANIZING. INSTALL STEEL STOP BAR AFTER GALVANIZING. SEE P-015_1 FOR LENGTH OF BOLTED STEEL STOP BAR.



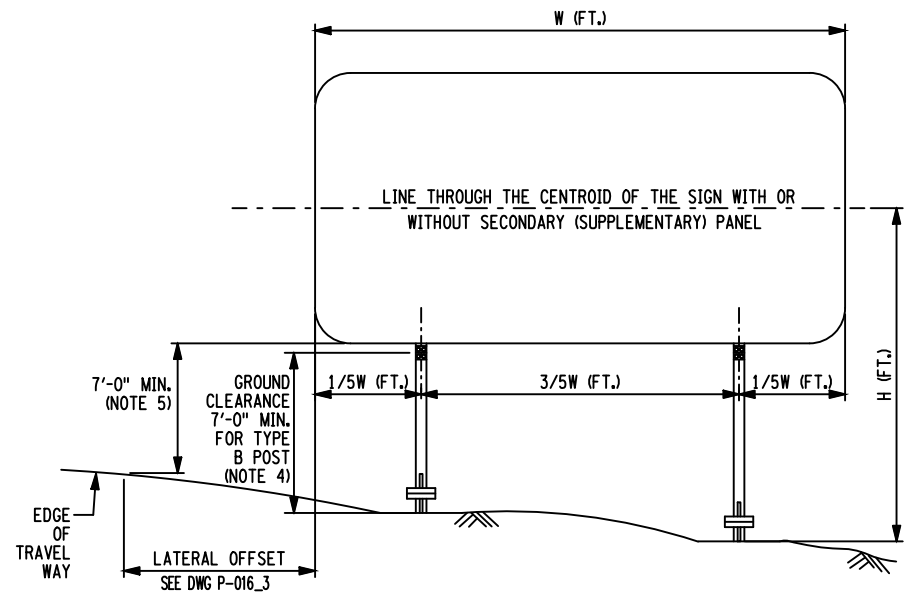
VIEW D-D
STEEL CONNECTION ANGLE

REVISION			
NO	DATE	BY	DESCRIPTION
0	10/2017	DR	CREATED

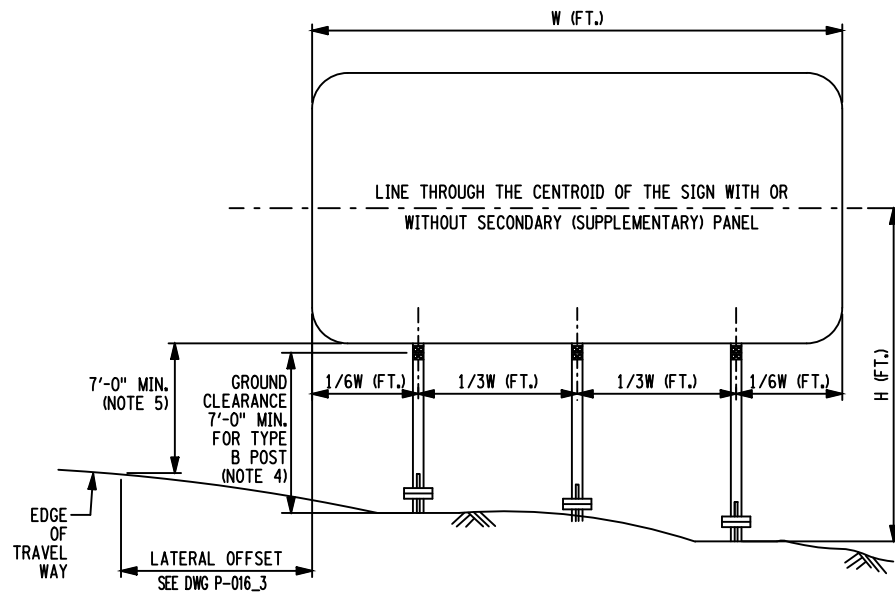
DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
NYS DOT CANTILEVER STRUCTURE TYPICAL BASE AND CAP DETAILS		
SCALE:	OLD DRAWING NO.	DRAWING NO.
NT.S.		P-015_6



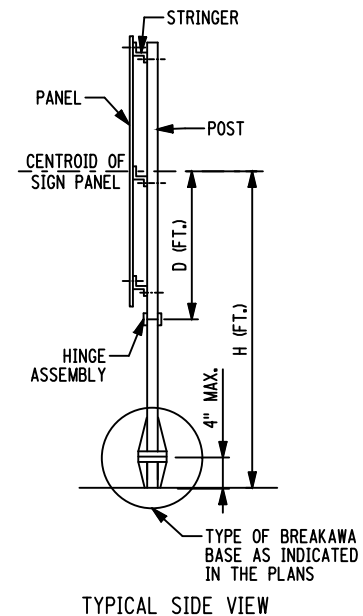
NYCDOT TRAFFIC SIGNAL STANDARD DRAWINGS, Jun 2020



TWO POST INSTALLATION



THREE POST INSTALLATION



TYPICAL SIDE VIEW

- NOTES:
- SEE APPROPRIATE STANDARD SHEETS FOR SIGN PANEL, POST, AND BREAKAWAY FABRICATION DETAILS.
 - POST SELECTION PROCEDURE:
 - DETERMINE TOTAL SIGN AREA (A) OF ALL PANELS IN THE SIGN ASSEMBLY AND THE DISTANCE (D) FROM THE CENTROID OF THE PRIMARY PANEL TO THE HINGE CENTER.
 - DETERMINE HEIGHT (H) WHICH IS THE DISTANCE FROM THE TOP OF THE FOOTING FOR THE LONGEST POST TO THE CENTROID OF THE PRIMARY PANEL.
 - ENTER THE TABLES USING SIGN AREA (A) AND HEIGHT (H) TO MAKE A PRELIMINARY SELECTION OF NUMBER OF SIGNS AND POST SELECTION.
 - USING SIGN WIDTH (W) AND THE NUMBER OF POSTS DETERMINED IN STEP C, DETERMINE IF THE POST SPACING (1/3W OR 3/5W AS APPROPRIATE) MEETS THE 7'-0" WHEEL PATH CRITERIA. IF NOT, SELECT ANOTHER COMBINATION OF POST SECTION AND NUMBER OF POSTS.
 - USING SIGN AREA (A), THE DISTANCE FROM THE CENTROID TO THE HINGE CENTER (D) AND THE APPROPRIATE WIND LOAD (P), COMPUTE THE HINGE MOMENT (HM) AS SHOWN:
 $HM (FT-LB) = A (SQ FT) \times D (FT) \times P (PSF)$
 - POSTS FOR SIGN ASSEMBLIES WITH MORE THAN THREE POSTS MAY BE DETERMINED BY EXTRAPOLATION FROM THE TABLES AS LONG AS THE HINGE MOMENT AND THE 7'-0" WHEEL PATH CRITERIA ARE MET.
 - THE MINIMUM GROUND CLEARANCE SHOWN SHALL BE MAINTAINED WHEN A SECONDARY (SUPPLEMENTARY) PANEL IS INSTALLED BELOW THE PRIMARY PANEL.
 - WHEN A SECONDARY (SUPPLEMENTARY) PANEL IS INSTALLED BELOW THE PRIMARY PANEL, THE HEIGHT OF THE PRIMARY PANEL SHALL BE 8'-0" MIN. ABOVE THE EDGE OF TRAVELED WAY, AND ANY SECONDARY (SUPPLEMENTARY) PANEL SHALL BE 5'-0" MIN. ABOVE THE EDGE OF TRAVELED WAY (7'-0" MIN. GROUND CLEARANCE STILL APPLIES).
 - WHERE LARGE GUIDE SIGNS (TYPICALLY > 6 SQ. YARDS) ON TYPE B POSTS ARE TO BE INSTALLED IN CUT SECTIONS, THE GUIDE SIGNS SHALL BE INSTALLED AS FAR AS FEASIBLE UP THE BACK SLOPE, WITHOUT SACRIFICING VISIBILITY. POSTS SHALL NOT BE IN OR STRADDLE THE DITCH LINE.
 - WHERE FEASIBLE ON FREEWAYS AND EXPRESSWAYS, A 30'-0" MIN. LATERAL OFFSET FROM THE EDGE OF TRAVELED WAY IS REQUIRED FOR LARGE GUIDE SIGNS (TYPICALLY > 6 SQ. YARDS) ON TYPE B POSTS.

MAXIMUM NUMBER OF POSTS ALLOWED WITHIN A 7'-0" WHEEL PATH **		
POST CODE	POST SECTION	NUMBER OF POSTS
01	S3 X 5.7	2
02	W6 X 9	2
03	W6 X 12	2
04	W8 X 15	2
05	W10 X 19	1
06	W10 X 22	1
07	W12 X 26	1
08	W14 X 34	1

**NOT APPLICABLE BEHIND GUIDE RAIL

SIGN AREA FOR TWO POST SIGNS																				
POST CODE	POST SECTION	HINGE MOMENT (FT. KIPS)	70 MPH WIND ZONE HEIGHT "H" (FT.)								80 MPH WIND ZONE HEIGHT "H" (FT.)									
			8'-0"	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"	22'-0"	24'-0"	8'-0"	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"	22'-0"	24'-0"
01	S3 X 5.7	5.0	50	40	32	27	18	14	11	9	7	39	31	25	22	14	10	8	6	4
02	W6 X 9	15.7	169	135	108	79	49	39	31	24	20	130	105	84	62	37	29	23	19	15
03	W6 X 12	23.6	220	176	146	125	82	65	52	42	35	170	136	113	96	61	48	38	31	26
04	W8 X 15	31.8	357	286	239	183	113	89	71	59	49	277	221	185	142	86	67	54	45	36
05	W10 X 19	40.1	568	456	380	291	181	143	115	94	79	440	353	295	225	135	106	87	73	59
06	W10 X 22	55.5	701	562	469	402	284	232	187	154	129	544	436	363	311	213	174	141	116	97
07	W12 X 26	87.2	1005	807	674	578	410	332	268	222	186	779	625	522	447	308	249	201	167	140
08	*W14 X 34	109.7	1457	1173	980	841	596	521	421	348	293	1130	908	759	652	449	391	317	262	220

* SHALL BE INSTALLED BEHIND GUIDE RAIL AND WITHOUT THE HINGE ASSEMBLY WHEN MOUNTING HEIGHT (H) IS 20'-0" OR GREATER. SUCH INSTALLATION SHALL BE LOCATED BEYOND THE GUIDE RAIL DEFLECTION DISTANCE SHOWN ON DWG P-016_3 AND HAVE SATISFACTORY LONGITUDINAL OFFSET FROM THE END OF THE GUIDE RAIL.

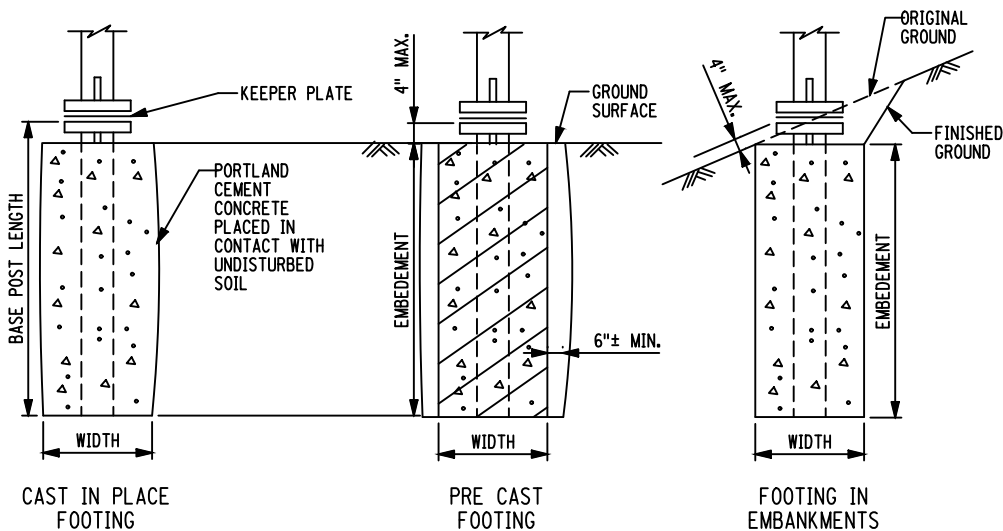
WIND LOAD PSF		
WIND ZONE	H (FT)	
	15'-0" & UNDER	OVER 15'-0"
70 MPH	20.4	25.4
80 MPH	26.6	33.2

FOOTINGS				
POST CODE	POST SECTION	BASE POST LENGTH (FT)	FOOTING (FT)	
			WIDTH	EMBEDEMENT
01	S3 X 5.7	4'-4"	1'-0"	4'-0"
02	W6 X 9	5'-4"	1'-6"	5'-0"
03	W6 X 12	5'-4"	2'-0"	5'-0"
04	W8 X 15	5'-4"	2'-6"	5'-0"
05	W10 X 19	6'-4"	2'-6"	6'-0"
06	W10 X 22	6'-4"	3'-0"	6'-0"
07	W12 X 26	7'-4"	3'-0"	7'-0"
08	W14 X 34	9'-4"	3'-0"	9'-0"

CIRCULAR FOOTINGS MAY BE PLACED INTO ROCK. THE EMBEDMENT SHOWN IN THE TABLE WILL CONTROL, BUT MAY BE REDUCED TO THE DEPTH NECESSARY FOR THE FOOTING TO PENETRATE ITS DIAMETER INTO ROCK. HOWEVER, THE MINIMUM EMBEDMENT INTO EXPOSED ROCK OR ROCK WITH A SHALLOW EARTH OVERBURDEN IS THE FOOTING DIA. PLUS 2'-0". ANY NECESSARY DRILLING OF THE ROCK MUST BE DONE FROM THE EXISTING EARTH SURFACE THROUGH THE AUGERED HOLE, WHICH SHOULD BE FORMED DURING THE DRILLING OPERATION. THE FORM MUST BE REMOVED PRIOR TO PLACING THE CONCRETE.

SIGN AREA FOR THREE POST SIGNS																				
POST CODE	POST SECTION	HINGE MOMENT (FT. KIPS)	70 MPH WIND ZONE HEIGHT "H" (FT.)								80 MPH WIND ZONE HEIGHT "H" (FT.)									
			8'-0"	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"	22'-0"	24'-0"	8'-0"	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"	22'-0"	24'-0"
01	S3 X 5.7	7.5	75	59	49	40	29	21	16	13	10	59	47	37	32	21	16	13	10	8
02	W6 X 9	23.5	253	202	164	120	73	57	46	37	31	196	156	126	92	55	44	34	27	22
03	W6 X 12	35.4	330	264	220	188	124	97	78	63	53	255	205	170	144	93	73	59	48	40
04	W8 X 15	47.7	537	430	359	275	171	135	109	88	73	415	332	277	213	128	100	81	66	55
05	W10 X 19	60.2	853	684	571	438	272	214	172	142	118	662	530	442	338	204	161	130	107	89
06	W10 X 22	83.2	1052	844	704	603	428	347	282	232	194	815	653	545	468	321	262	211	174	145
07	W12 X 26	130.9	1508	1211	1012	867	615	498	403	332	279	1169	938	783	672	463	374	302	250	209
08	*W14 X 34	164.6	2187	1759	1470	1261	896	782	634	523	439	1696	1364	1139	977	672	587	475	393	330

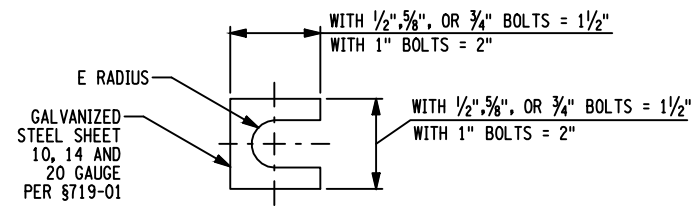
* SHALL BE INSTALLED BEHIND GUIDE RAIL AND WITHOUT THE HINGE ASSEMBLY WHEN MOUNTING HEIGHT (H) IS 20'-0" OR GREATER. SUCH INSTALLATION SHALL BE LOCATED BEYOND THE GUIDE RAIL DEFLECTION DISTANCE SHOWN ON DWG P-016_3 AND HAVE SATISFACTORY LONGITUDINAL OFFSET FROM THE END OF THE GUIDE RAIL.



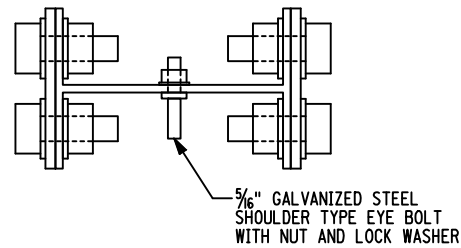
REVISION			
NO	DATE	BY	DESCRIPTION
0	10/2017	DR	CREATED



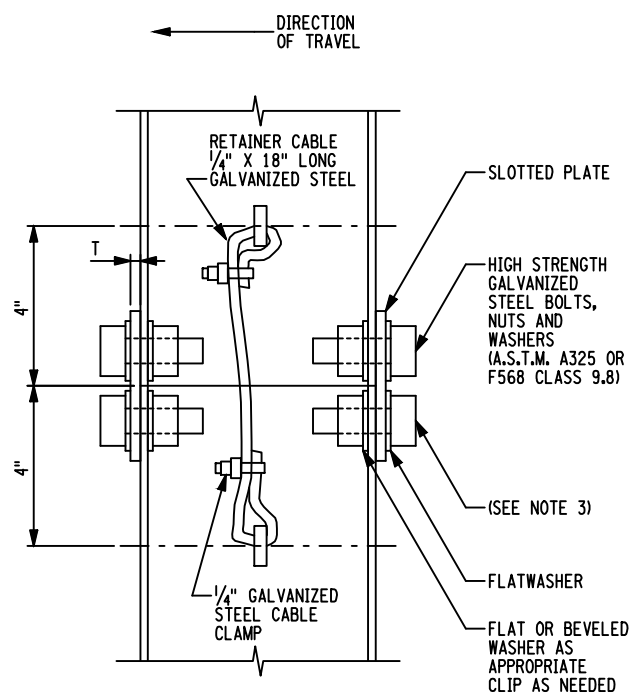
DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
NYSDOT MULTI POST SIGN INSTALLATION USING TYPE B SIGN POSTS		
SCALE:	OLD DRAWING NO.	DRAWING NO.
N.T.S.		P-016_1



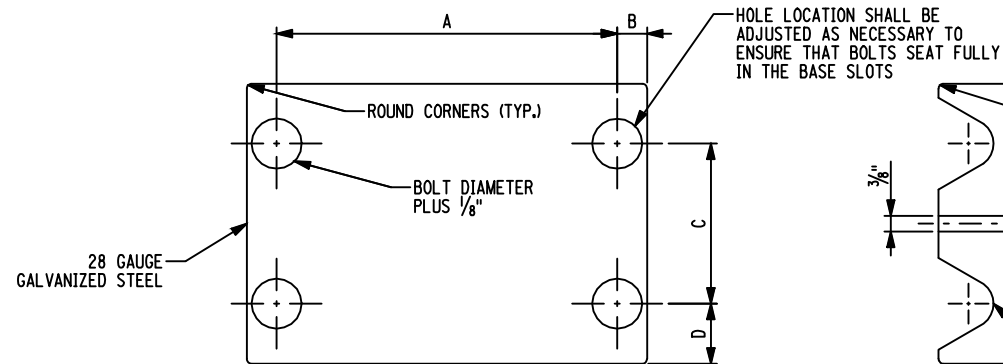
SHIM DETAIL



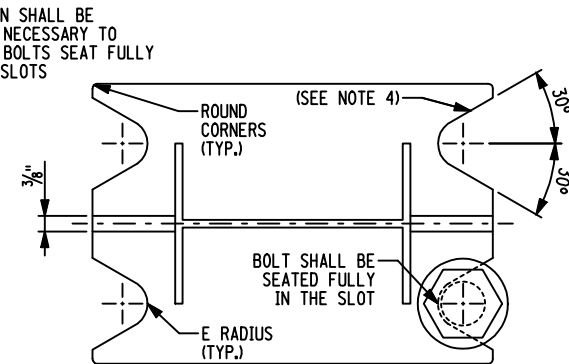
HINGE TOP VIEW



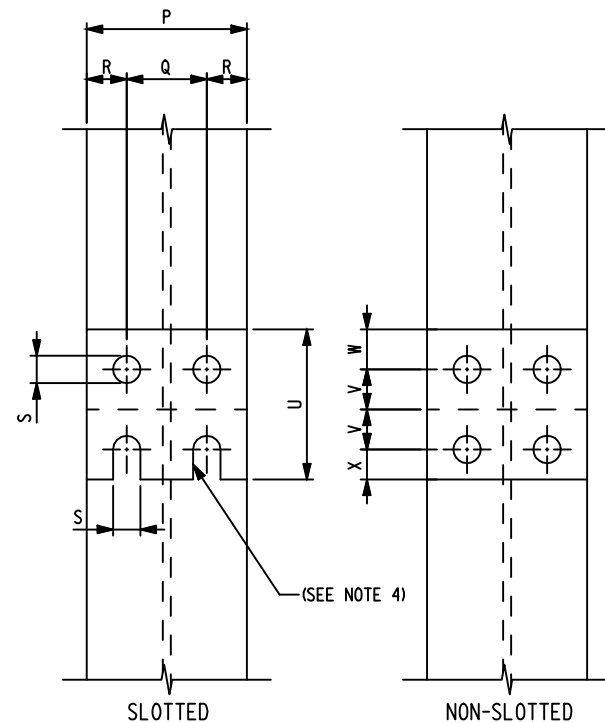
HINGE SIDE VIEW



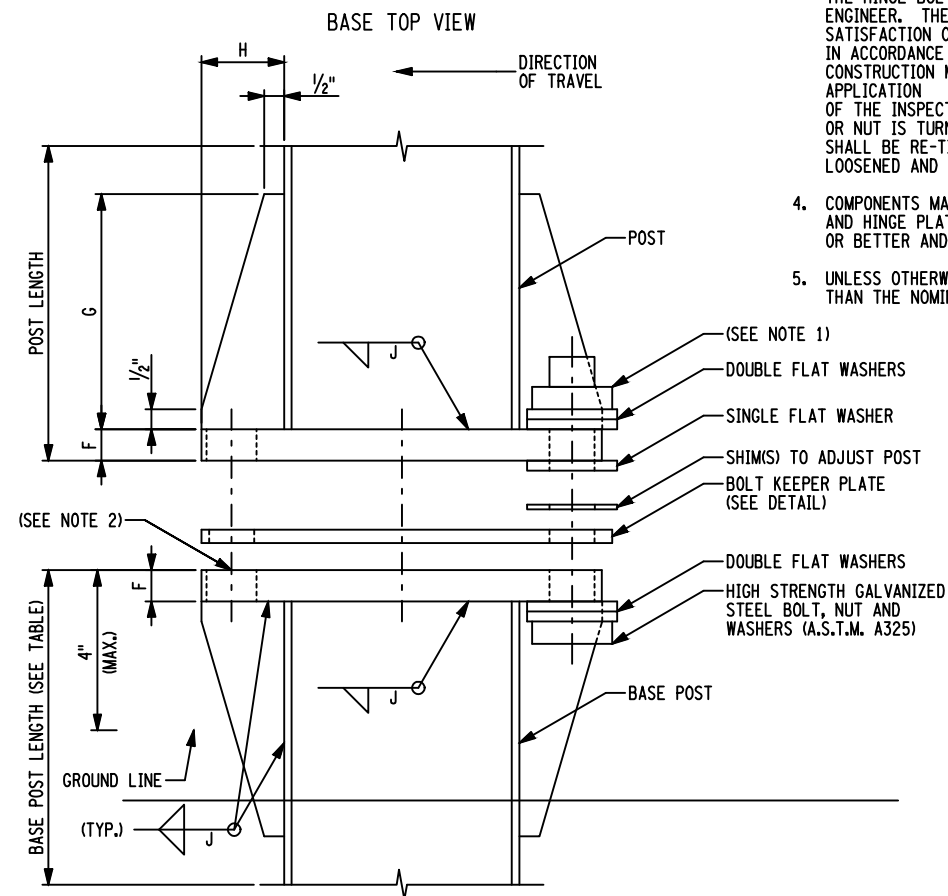
BOLT KEEPER PLATE DETAIL



BASE TOP VIEW



HINGE FRONT VIEW



BASE SIDE VIEW

NOTES:

- ASSEMBLE POST AND BASE WITH BOLT, WASHERS, SHIMS AND BOLT KEEPER PLATE. TIGHTEN BOLTS IN ROTATION AND IN STAGES TO THE TORQUE IN THE TABLE. LOOSEN ONE HALF TURN AND RE-TIGHTEN TO THE TORQUE IN THE TABLE. PEEN THREADS.
- SLIP PLANES AT THE SLOTTED END OF HINGE PLATES BETWEEN POST AND PLATES AND UNDER WASHERS SHALL BE FLAT AND SMOOTH AFTER GALVANIZING. LIGHTLY ROUGHEN BY WIRE BRUSHING, PRIOR TO ASSEMBLY. REMOVE ANY OIL OR GREASE.
- ASSEMBLE POST, HINGE PLATES, BOLTS AND WASHERS. TIGHTEN BOLTS TO THE SNUG TORQUE GIVEN IN THE TABLE. MARK THE BOLT HEAD OR NUT AND THE ADJACENT POST SURFACE, THEN TURN THE FASTENER AN ADDITIONAL 1/2 TURN (+0°-30°) FROM THE MARK. EITHER THE BOLT HEAD OR THE NUT MAY BE TURNED BY THE WRENCH. HOWEVER, DURING THE TIGHTENING OF THE FASTENER, ROTATION OF THE PART NOT TURNED BY THE WRENCH SHALL BE PREVENTED. ON THE DAY OF THE INSTALLATION, THE HINGE BOLTS SHALL BE CHECKED BY THE CONTRACTOR IN THE PRESENCE OF THE ENGINEER. THE CONTRACTOR SHALL USE A TORQUE WRENCH CALIBRATED TO THE SATISFACTION OF THE ENGINEER. EACH BOLT SHALL BE CHECKED FOR TIGHTNESS IN ACCORDANCE WITH THE INSPECTION TORQUE STATED IN THE NEW YORK STATE STEEL CONSTRUCTION MANUAL. IF NO BOLT NO BOLT HEAD OR NUT IS TURNED BY THE APPLICATION OF THE INSPECTION TORQUE, THE CONNECTION IS ACCEPTABLE. IF ANY BOLT HEAD OR NUT IS TURNED BY THE APPLICATION OF THE INSPECTION TORQUE, THE FASTENER SHALL BE RE-TIGHTENED AND RE-INSPECTED. BOLTS, NUTS, AND WASHERS THAT ARE LOOSENED AND RE-TIGHTENED MORE THAN ONCE SHALL BE REPLACED WITH NEW BOLTS.
- COMPONENTS MAY BE FLAME CUT. HOWEVER, THE SIDES OF THE SLOTS IN THE BASE PLATE AND HINGE PLATES SHALL BE SMOOTHED TO THE EQUIVALENT OF A SAW CUT FINISH OR BETTER AND ROUGH CORNERS SHALL BE GROUND.
- UNLESS OTHERWISE SHOWN, HOLES SHALL NOT BE MORE THAN 1/16" LARGER IN DIAMETER THAN THE NOMINAL DIAMETER OF THE FASTENER.

IMPACT CONDITIONS	HINGE PLATE	
	SLOTTED	NON-SLOTTED
BOTH DIRECTIONS	BOTH SIDES	NONE
ONE DIRECTION	APPROACH SIDE	TRAILING SIDE
SHIELDED	NONE	BOTH SIDES

POST CODE	POST SECTION	HINGE ASSEMBLY DIMENSIONS										DIA	BOLT TORQUE FT. LB.
		P	Q	R	S	T	U	V	W	X			
01	S3 X 5.7	2 5/8"	1 1/2"	3/8"	9/16"	1/4"	3 1/2"	1"	1"	1/2"	1/2"	30	
02	W6 X 9	4"	2"	1"	1/16"	3/8"	3 3/4"	1"	1"	5/8"	5/8"	65	
03	W6 X 12	4"	2"	1"	7/8"	1/2"	3 3/4"	1"	1"	3/4"	3/4"	110	
04	W8 X 15	4"	2"	1"	7/8"	1/2"	3 3/4"	1"	1"	3/4"	3/4"	110	
05	W10 X 19	4"	2"	1"	7/8"	1/2"	3 3/4"	1"	1"	3/4"	3/4"	110	
06	W10 X 22	5 3/4"	2 3/4"	1 1/2"	1 5/16"	1/2"	5 3/8"	1 1/2"	1 1/2"	7/8"	7/8"	130	
07	W12 X 26	6 1/2"	3 1/2"	1 1/2"	1 3/16"	1/2"	5 5/16"	1 1/2"	1 1/2"	1"	1 1/8"	150	
08	W14 X 34	6 3/4"	3 1/2"	1 5/8"	1 1/4"	1/2"	5 5/16"	1 1/2"	1 1/2"	1 1/8"	1 1/4"	200	

POST CODE	POST SECTION	BASE ASSEMBLY DIMENSIONS										DIA	BOLT TORQUE FT. LB.
		A	B	C	D	E	F	G	H	J			
01	S3 X 5.7	4 3/4"	5/8"	3"	1"	9/32"	1/2"	5"	1 1/2"	5/16"	1/2"	11	
02	W6 X 9	8 1/2"	3/4"	4"	1 1/2"	1 1/32"	3/4"	6"	2"	5/16"	5/8"	28	
03	W6 X 12	8 1/2"	3/4"	4"	1 1/2"	1 1/32"	3/4"	6"	2"	5/16"	5/8"	28	
04	W8 X 15	11"	7/8"	4"	1 1/2"	1 1/32"	3/4"	6"	2 1/2"	5/16"	5/8"	28	
05	W10 X 19	13"	7/8"	4"	1 1/2"	1 1/32"	1"	6"	2 1/2"	7/16"	5/8"	28	
06	W10 X 22	13"	1"	4 1/2"	1 1/2"	1 3/32"	1"	6"	2 1/2"	7/16"	3/4"	46	
07	W12 X 26	15"	1"	4 1/2"	1 1/2"	1 3/32"	1"	6"	2 1/2"	7/16"	3/4"	46	
08	W14 X 34	17"	1"	4 1/2"	1 1/2"	1 7/32"	1"	6"	2 1/2"	7/16"	1"	61	

REVISION			
0	11/2017	DR	CREATED
NO	DATE	BY	DESCRIPTION

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
NYS DOT BI-DIRECTIONAL BREAKAWAY BASE AND HINGE ASSEMBLY		
SCALE:	OLD DRAWING NO.	DRAWING NO.
N.T.S.		P-016_2

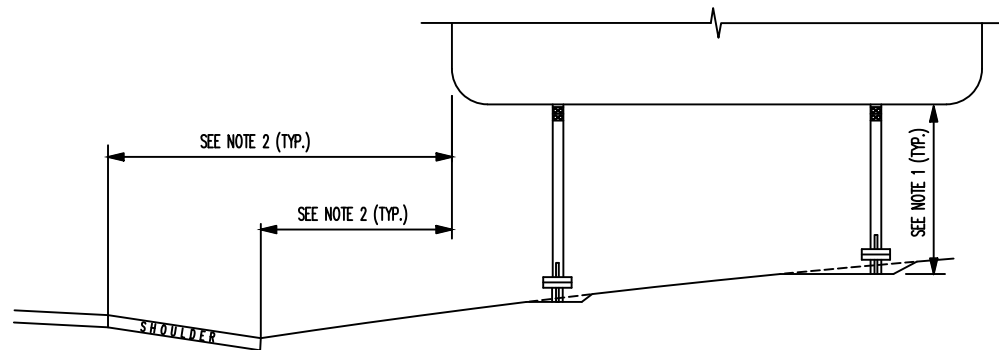


NOTES:

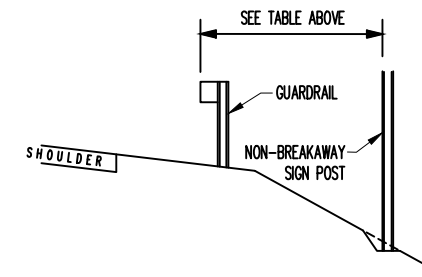
1. THE VERTICAL DISTANCE TO THE BOTTOM OF THE SIGN SHALL BE DETERMINED AS FOLLOWS:
 - A. CLEARANCE - 7' FROM THE GROUND TO THE BOTTOM OF THE SIGN.
 - B. HEIGHT (ABOVE NEAR EDGE OF TRAVEL LANE OR ABOVE TOP OF CURB)
 - 7' (6' WITH SUPPLEMENTAL PANEL) ON CONVENTIONAL HIGHWAYS AND EXPRESSWAYS WHERE PARKED VEHICLES OR PEDESTRIANS ARE PRESENT.
 - 5' (4' WITH SUPPLEMENTAL PANEL) ON CONVENTIONAL HIGHWAYS AND EXPRESSWAYS WHERE NO PARKED VEHICLES OR PEDESTRIANS ARE PRESENT.
 - 7' (5' WITH LATERAL CLEARANCE GRATER THAN 30') ON FREEWAYS FOR GUIDE SIGNS. (WHERE FEASIBLE, A 30' MINIMUM LATERAL CLEARANCE IS REQUIRED FOR LARGE GUIDE SIGNS).
 - 7' ON FREEWAYS FOR REGULATORY, WARNING AND SMALL GUIDE SIGNS.
 - 5' (4' WITH SUPPLEMENTAL PANEL) ON RAMP. (DIRECT CONNECT ROADWAYS SHALL BE CONSIDERED TO BE FREEWAYS, NOT RAMP).
 - 4' MINIMUM ON BICYCLE PATHS. (5' MAXIMUM).
 - C. WHERE THERE ARE PHYSICAL LIMITATIONS OR VISIBILITY CONSIDERATIONS, THE SIGNS SHALL BE LOCATED AS ORDERED BY THE ENGINEER.

2. THE LATERAL CLEARANCE TO THE EDGE OF THE SIGN SHALL BE DETERMINED AS FOLLOWS:
 - A. SHOULDER WIDTH OF LESS THAN 6', 12' MINIMUM FROM THE EDGE OF TRAVEL LANE.
 - B. SHOULDER WIDTH OF 6' OR GRATED, 6' MINIMUM FROM THE EDGE OF TRAVEL LANE.
 - C. CURBED SECTIONS, 2' TYP. FROM THE FACE OF CURB.
 - D. BICYCLE PATH, 3' MINIMUM FROM THE EDGE OF PATH (6' MAXIMUM).
 - E. TYPE B OBJECT MARKER SHOULD BE PLACED WITH A NEAR EDGE OF THE MARKER IN LINE WITH THE EDGE OF THE OBSTRUCTION CLOSEST TO TRAFFIC.
 - F. WHERE THERE ARE PHYSICAL LIMITATIONS OR VISIBILITY CONSIDERATIONS, THE SIGNS SHALL BE LOCATED AS ORDERED BY THE ENGINEER.

GUIDE RAIL TYPE / POST SPACING	MINIMUM DISTANCE
CABLE (POST 16'-0" O.C.)	12'-0"
CABLE (POST 12'-0" O.C.)	11'-0"
CABLE (POST 8'-0" O.C.)	9'-0"
CORRUGATED BEAM (POST 12'-6" O.C.)	9'-0"
CABLE (POST 4'-0" O.C.)	8'-0"
CORRUGATED BEAM (POST 6'-3" O.C.)	7'-0"
CORRUGATED BEAM (POST 4'-2" O.C.)	6'-0"
6" X 6" BOX BEAM (POST 6'-0" O.C.)	6'-0"
HEAVY POST BLOCKED OUT CORRUGATED (POST 6'-3" O.C.)	5'-6"
6" X 6" BOX BEAM (POST 3'-0" O.C.)	5'-0"
HEAVY POST BLOCKED OUT CORRUGATED (POST 3'-1 1/2" O.C.)	3'-6"



POSTS WITH BREAKAWAY ASSEMBLIES

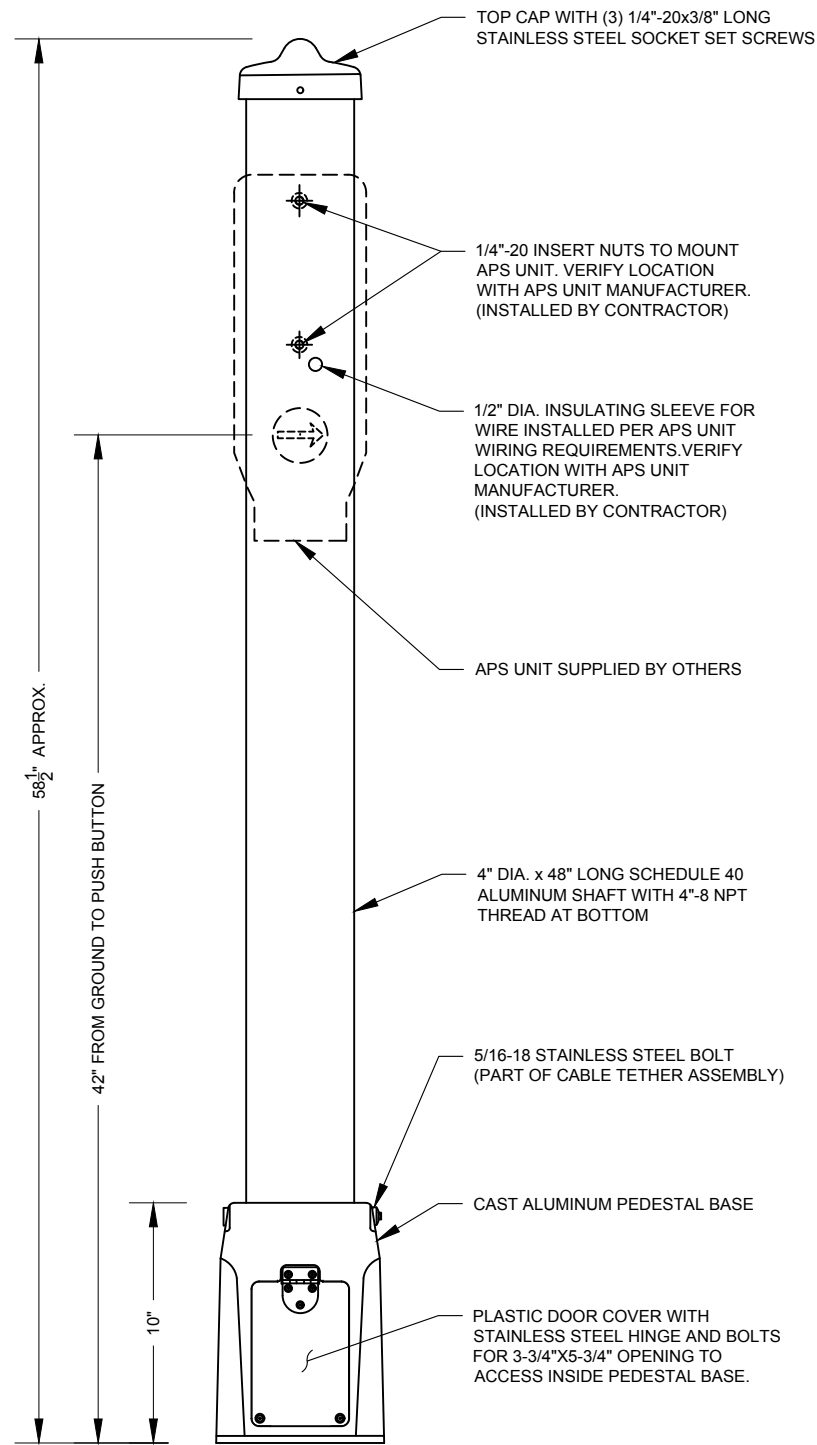


NON-BREAKAWAY POSTS

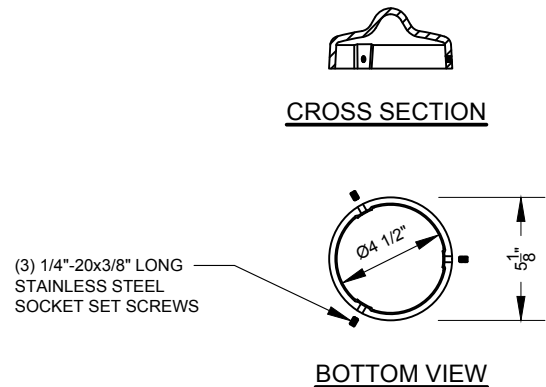


REVISION			
NO	DATE	BY	DESCRIPTION
0	11/2017	DR	CREATED

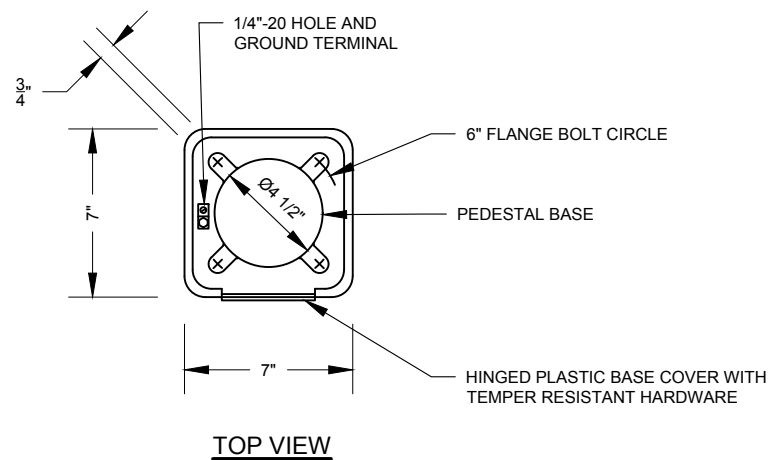
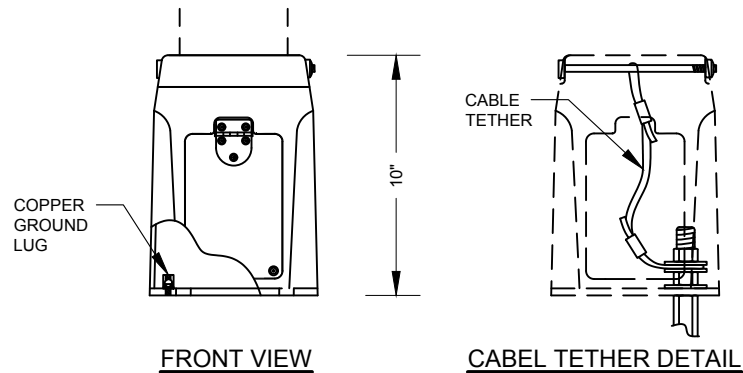
DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
NYS DOT MULTI POST SIGN POSITIONING ON HIGHWAYS		
SCALE:	OLD DRAWING NO.	DRAWING NO.
N.T.S.		P-016_3



POLE ASSEMBLY



TOP CAP DETAIL



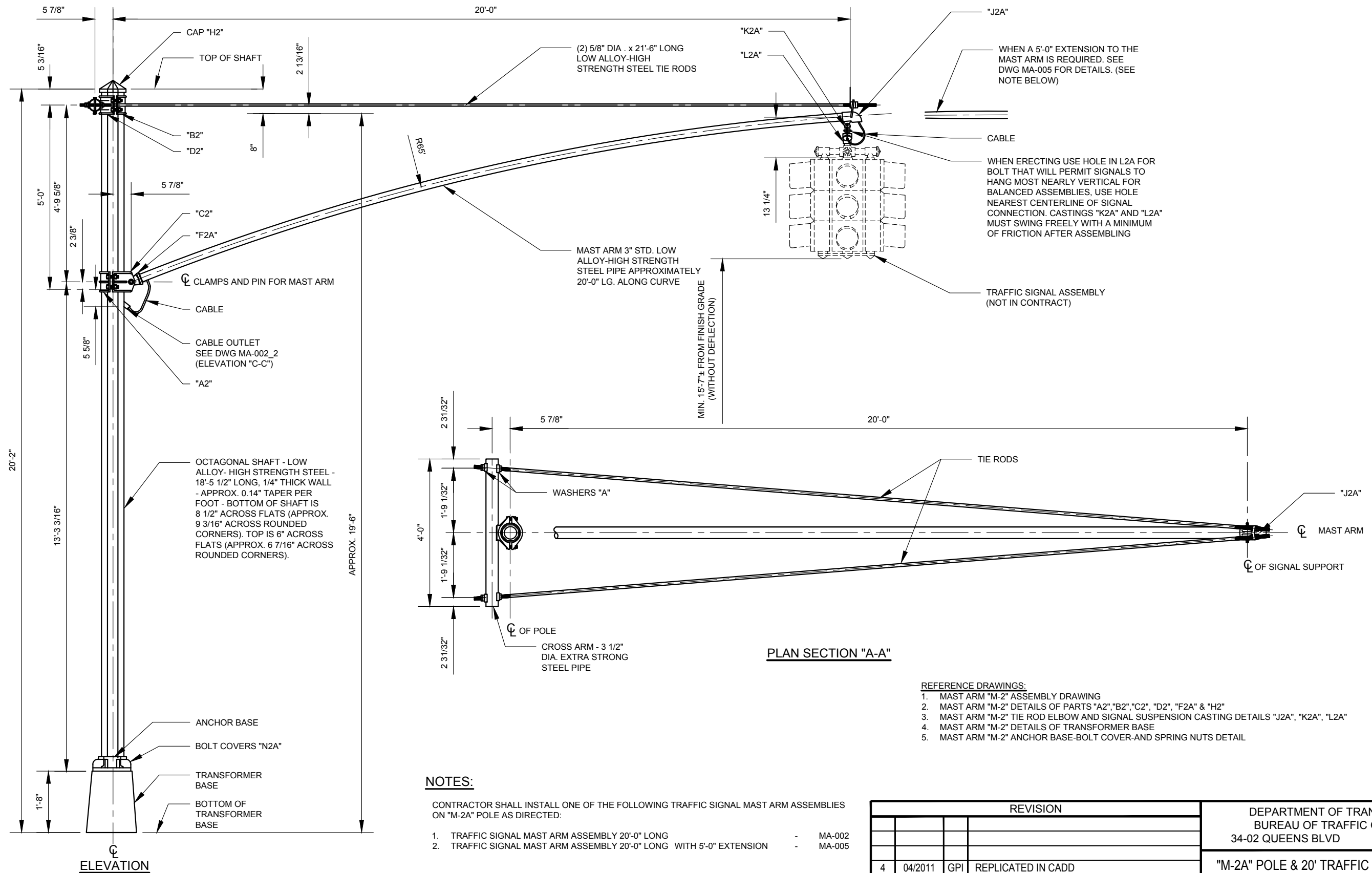
PEDESTAL BASE

NOTES:

- PEDESTAL BASE, SHAFT AND TOP CAP SHALL BE FINISHED WITH RAL 7040 WINDOW GREY PAINT. FINISHING TO HAVE ELECTRICAL CHARACTERISTICS MEASURING A RESISTANCE GREATER THAN 20 MEGAOHMS.
- ANTI-SEIZE LUBRICANT TO BE APPLIED TO ALL THREADED SURFACES.
- PEDESTAL BASE ASSEMBLY SHALL INCLUDE THE FOLLOWING PARTS:
 - (1) ANODIZED ALUMINUM BASE
 - (1) HINGED PLASTIC BASE ACCESS HOLE COVER WITH S.S. HARDWARE
 - ANCHOR BOLT KIT: (4) 5/8"-11 x 7-1/2" LONG S.S. ANCHOR BOLTS, (4) 5/8" FLAT S.S. WASHERS AND NUTS)
 - (1) 14-4 CU GROUND LUG
 - (1) 1/4"-20 S.S. GROUND LUG BOLT
 - CABLE TETHER KIT: (1) 5/16"-18x7" LONG S.S. BOLT, (2) 5/8" FLAT S.S. WASHERS, (1) 5/8"-11 S.S. JAM NUT, (1) 5/16" S.S LOCK WASHER, (1) 5/16"-18 S.S. TEMPER RESISTANT NUT, (1) 18" LONG WIRE CABLE ASSEMBLY
- SHAFT ASSEMBLY SHALL INCLUDE THE FOLLOWING PARTS:
 - (1) 4" DIA. x 48" LONG SCHEDULE 40 ALUMINUM PIPE
 - (2) 1/4"-20 INSERT NUTS
 - 1/2" DIA. INSULATING SLEEVE
- TOP CAP ASSEMBLY SHALL INCLUDE THE FOLLOWING PARTS:
 - (1) 4-1/2" DIA. PLASTIC CAP
 - (3) 1/4"-20x3/8" LONG S.S. HEX. SET SCREWS

REVISION				DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
				ACCESSIBLE PEDESTRIAN SIGNAL (APS) POLE WITH TRANSFORMER BASE		
				SCALE:	OLD DRAWING NO.	DRAWING NO.
0	09/2019	DR	CREATED	1 1/2"=1'-0"		P-017
NO	DATE	BY	DESCRIPTION			





NOTES:

CONTRACTOR SHALL INSTALL ONE OF THE FOLLOWING TRAFFIC SIGNAL MAST ARM ASSEMBLIES ON "M-2A" POLE AS DIRECTED:

- 1. TRAFFIC SIGNAL MAST ARM ASSEMBLY 20'-0" LONG - MA-002
- 2. TRAFFIC SIGNAL MAST ARM ASSEMBLY 20'-0" LONG WITH 5'-0" EXTENSION - MA-005

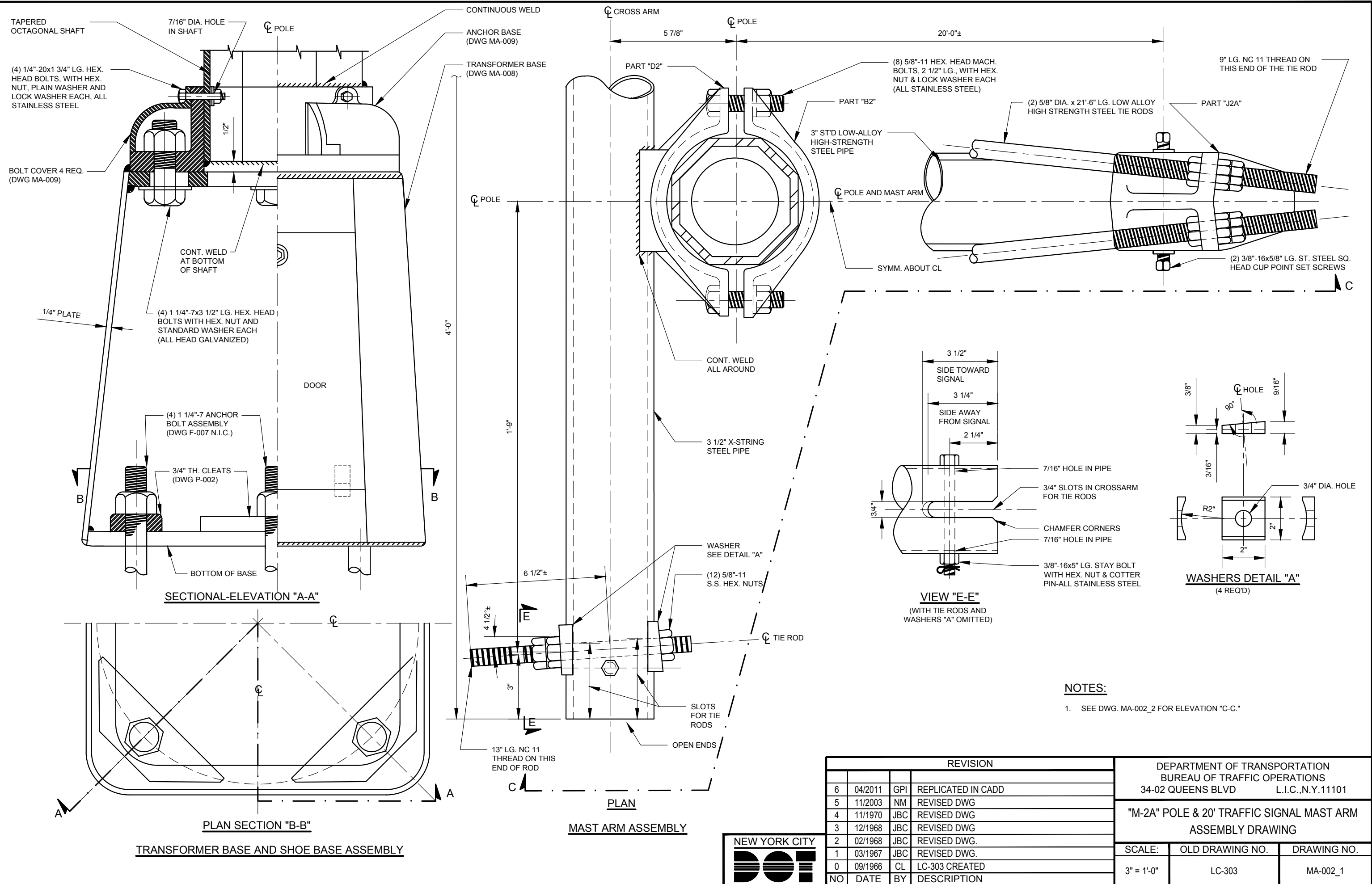
REFERENCE DRAWINGS:

- 1. MAST ARM "M-2" ASSEMBLY DRAWING - MA-002
- 2. MAST ARM "M-2" DETAILS OF PARTS "A2", "B2", "C2", "D2", "F2A" & "H2" - MA-003
- 3. MAST ARM "M-2" TIE ROD ELBOW AND SIGNAL SUSPENSION CASTING DETAILS "J2A", "K2A", "L2A" - MA-004
- 4. MAST ARM "M-2" DETAILS OF TRANSFORMER BASE - MA-008
- 5. MAST ARM "M-2" ANCHOR BASE-BOLT COVER-AND SPRING NUTS DETAIL - MA-009



REVISION			
NO	DATE	BY	DESCRIPTION
4	04/2011	GPI	REPLICATED IN CADD
3	11/2003	NM	REVISED DWG.
2	05/1973	JBC	REVISED DWG.
1	03/1967	JBC	REVISED DWG.
0	09/1966	CL	LC-302 CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
"M-2A" POLE & 20' TRAFFIC SIGNAL MAST ARM ARRANGEMENT DRAWING		
SCALE:	OLD DRAWING NO.	DRAWING NO.
3/8" = 1'-0"	LC-302	MA-001

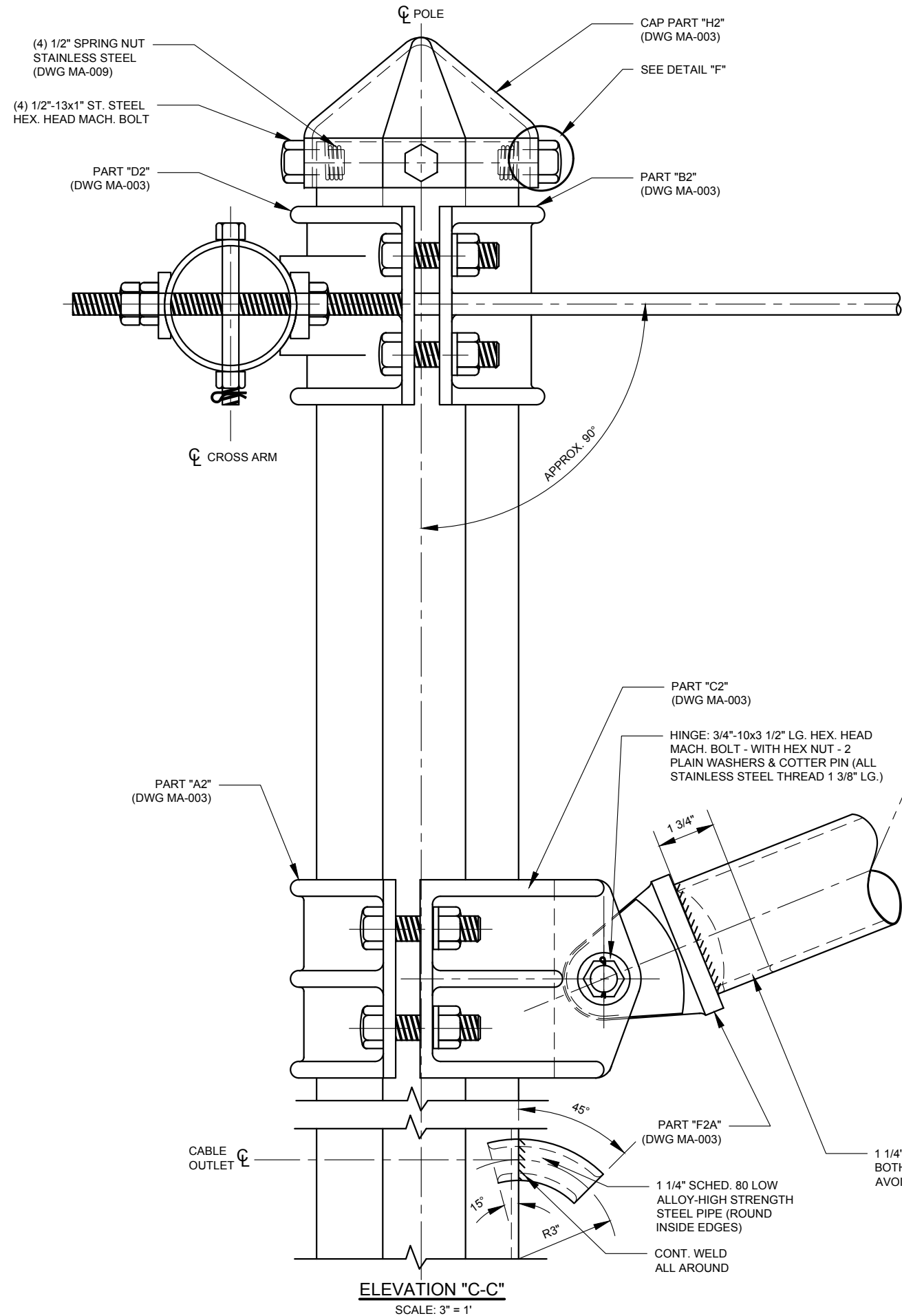


NOTES:
 1. SEE DWG. MA-002_2 FOR ELEVATION "C-C."

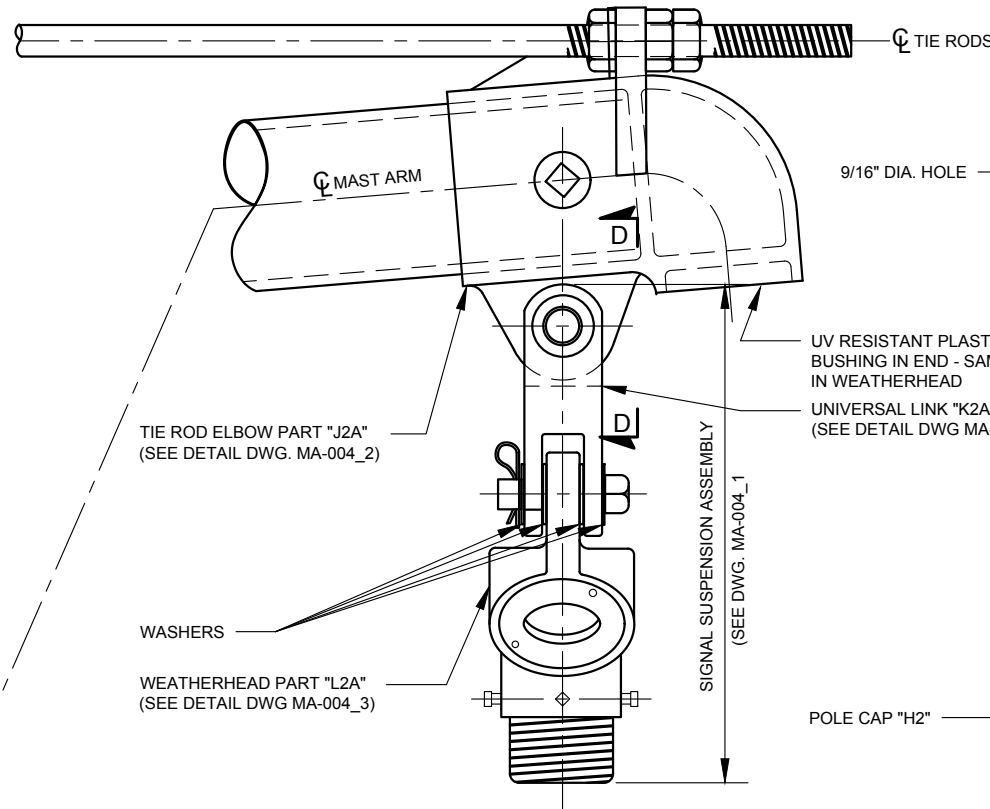
REVISION				
NO	DATE	BY	DESCRIPTION	
6	04/2011	GPI	REPLICATED IN CADD	
5	11/2003	NM	REVISED DWG	
4	11/1970	JBC	REVISED DWG	
3	12/1968	JBC	REVISED DWG	
2	02/1968	JBC	REVISED DWG.	
1	03/1967	JBC	REVISED DWG.	
0	09/1966	CL	LC-303 CREATED	

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
"M-2A" POLE & 20' TRAFFIC SIGNAL MAST ARM ASSEMBLY DRAWING		
SCALE:	OLD DRAWING NO.	DRAWING NO.
3" = 1'-0"	LC-303	MA-002_1

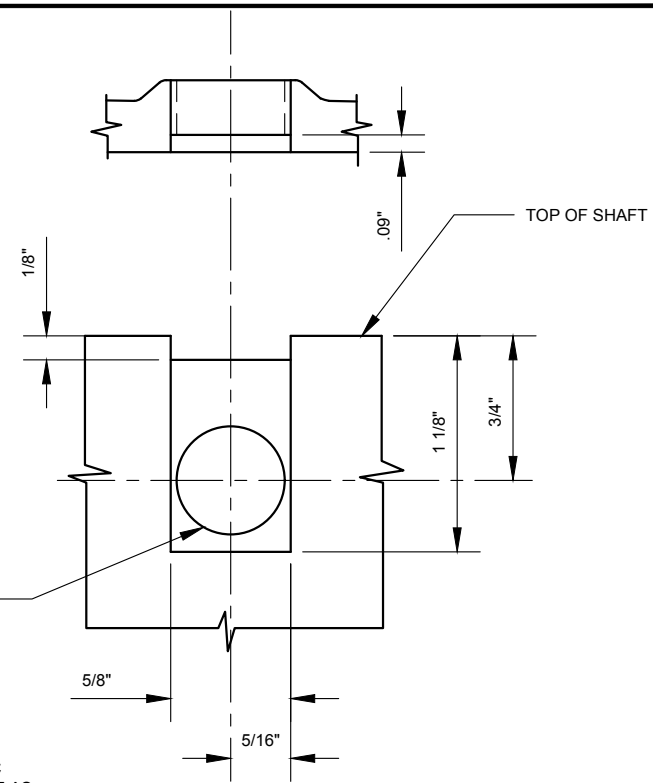




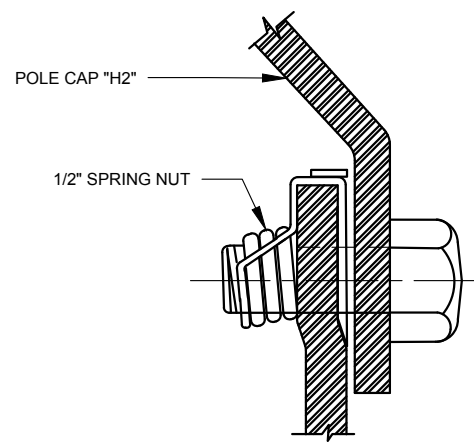
ELEVATION "C-C"
SCALE: 3" = 1'



SECTION "D-D"
SCALE: N.T.S.



OUTSIDE OF SHAFT AT CAP CONNECTION
SCALE: 1" = 1'



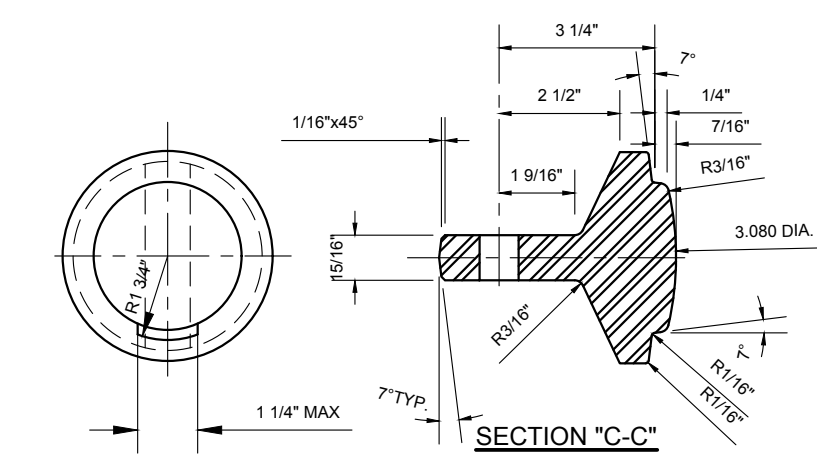
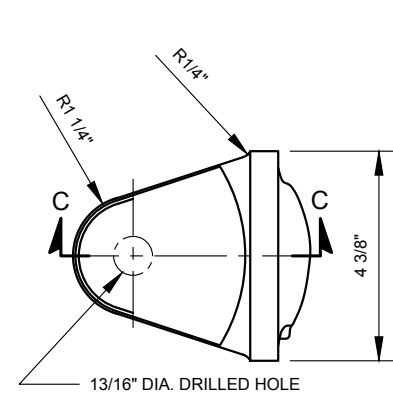
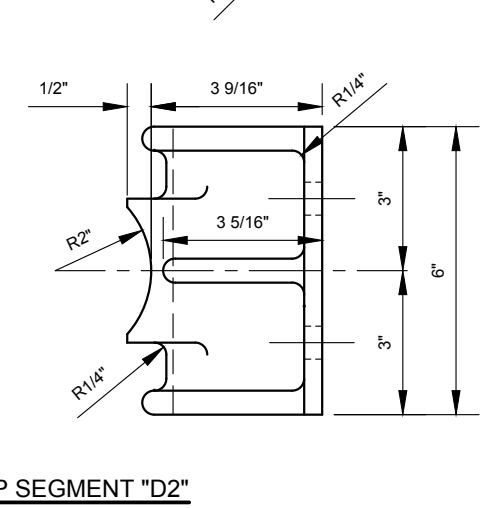
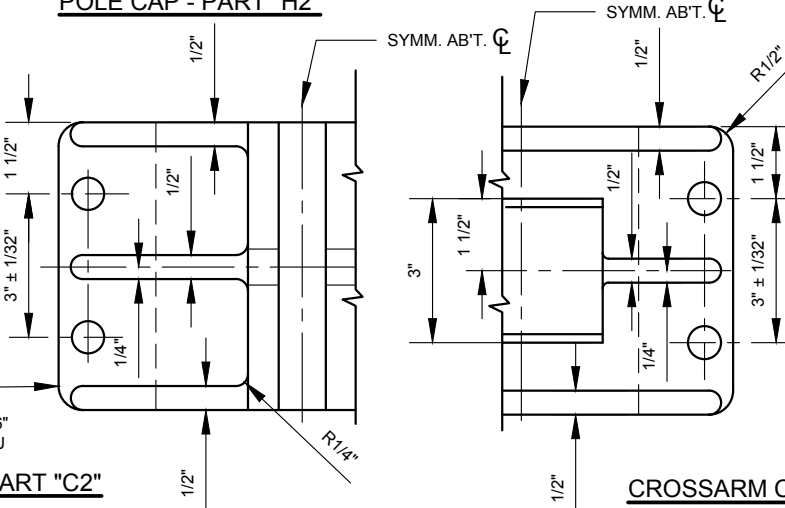
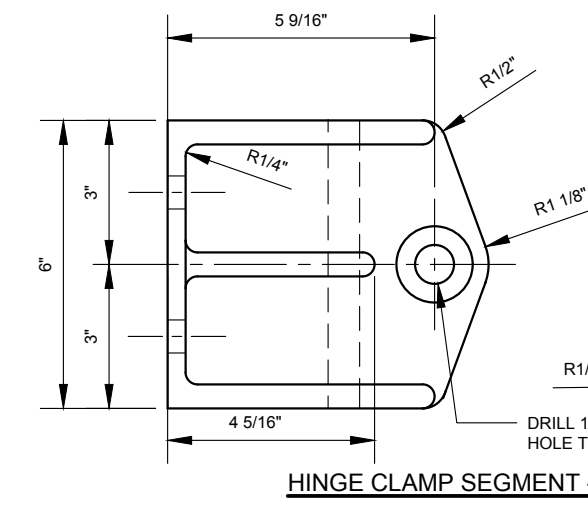
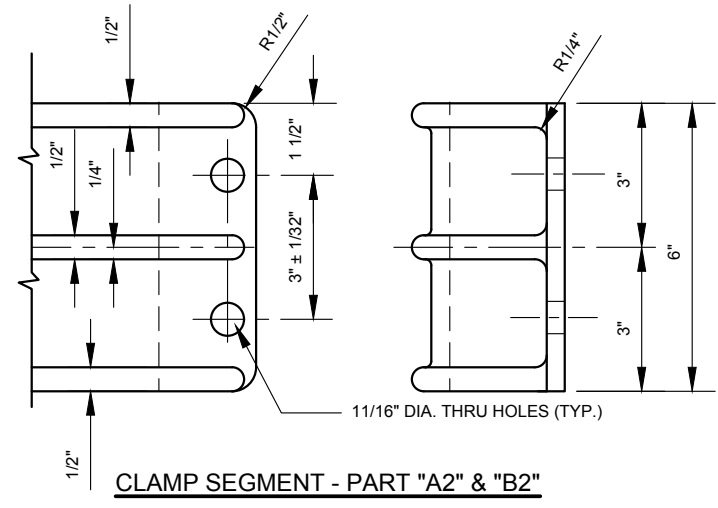
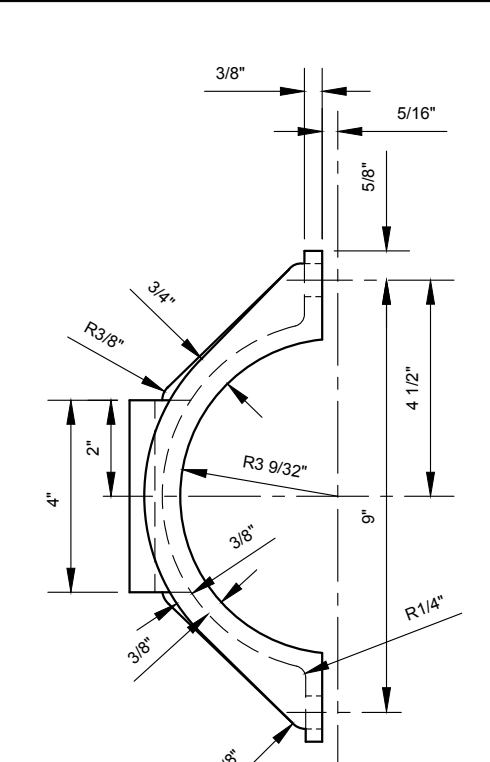
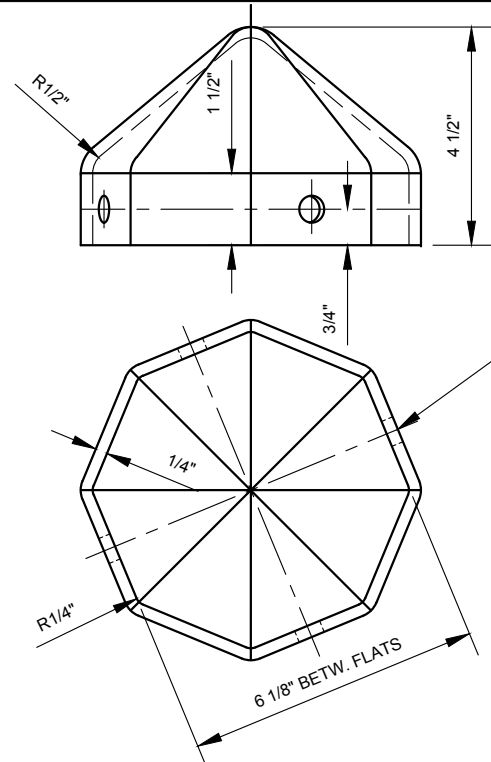
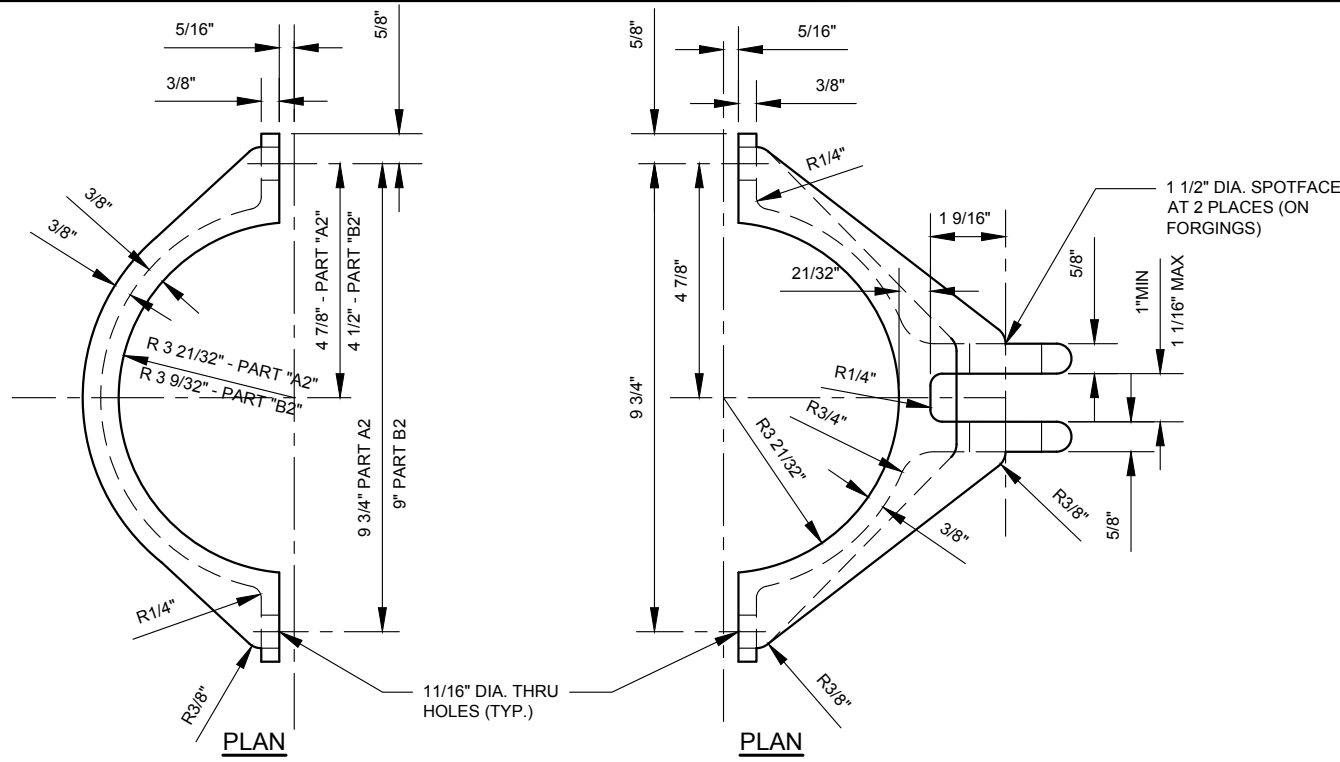
DETAIL - "F"
SCALE: N.T.S.

1 1/4"x1 3/4" CABLE INLET-ROUND BOTH EDGES, INSIDE & OUTSIDE TO AVOID CUTTING CABLE INSULATION.



REVISION			
NO	DATE	BY	DESCRIPTION
6	04/2011	GPI	REPLICATED IN CADD
5	11/2003	NM	REVISED DWG
4	11/1970	JBC	REVISED DWG
3	12/1968	JBC	REVISED DWG
2	02/1968	JBC	REVISED DWG.
1	03/1967	JBC	REVISED DWG.
0	09/1966	CL	LC-303 CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
"M-2A" POLE & 20' TRAFFIC SIGNAL MAST ARM ASSEMBLY DRAWING		
SCALE:	OLD DRAWING NO.	DRAWING NO.
NTS	LC-303	MA-002_2



ARM SUPPORT HINGE - PART "F2A"

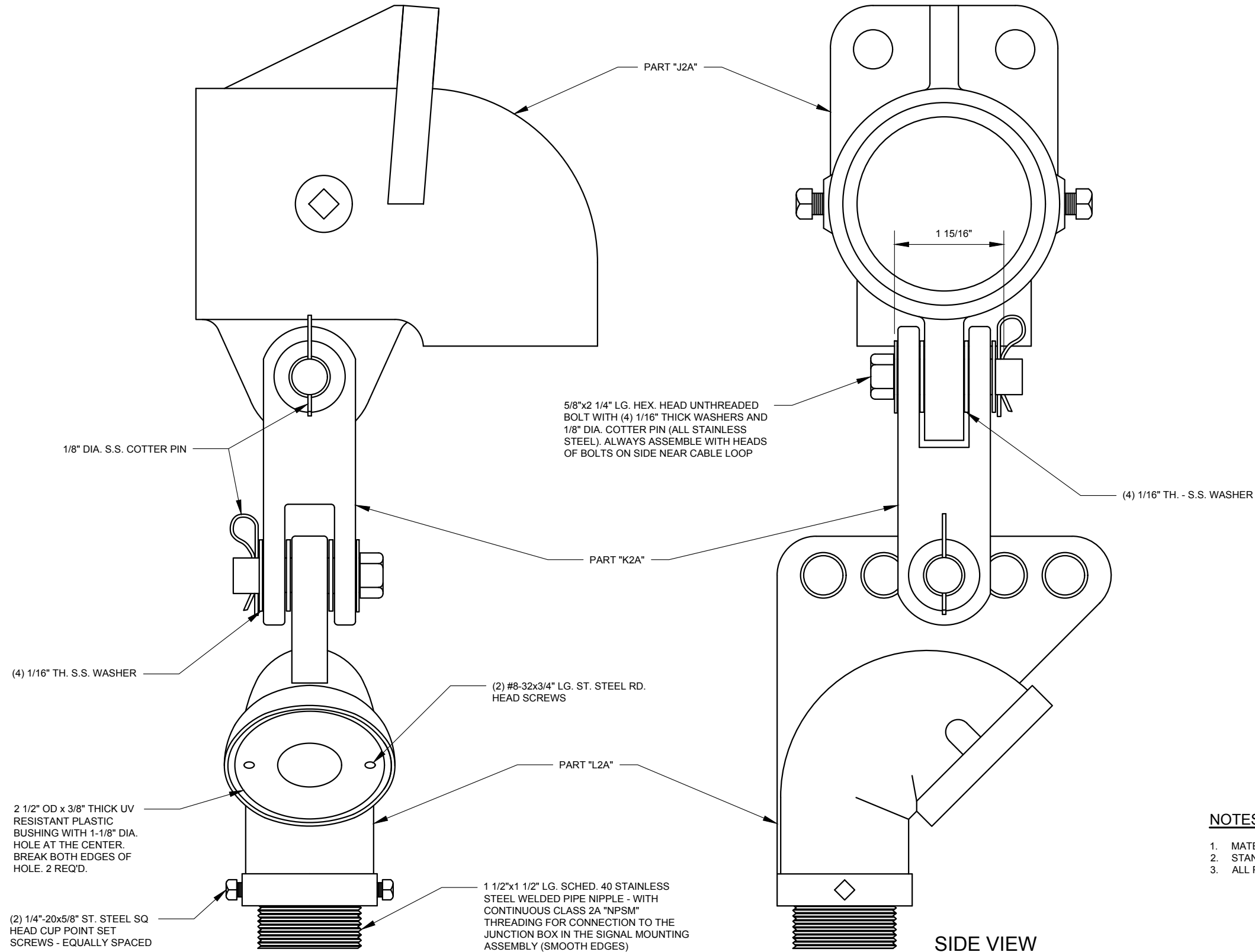
NOTES

1. DRILL ALL HOLES BEFORE GALVANIZING.
2. ALL CAST STEEL - A.S.T.M. A27-65 AND FORGED STEEL-C1025 OR EQUAL.
3. ALL DIMENSIONS SHOWN ARE SUBJECT TO STANDARD FORGING AND CASTING PRACTICES



REVISION			
NO	DATE	BY	DESCRIPTION
1	04/2011	GPI	REPLICATED IN CADD
0	09/1966	CL	LC-304 CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
"M-2A" POLE & 20' TRAFFIC SIGNAL MAST ARM DETAILS OF PARTS "A2", "B2", "C2", "D2", "F2A", "H2"		
SCALE:	OLD DRAWING NO.	DRAWING NO.
3" = 1'-0"	LC-304	MA-003



NOTES:

1. MATERIAL: SAND CAST ALUMINUM ALLOY 356-T6.
2. STANDARD TOLERANCES.
3. ALL PIPE THREADS TO BE N.P.S.M. (STRAIGHT MACHINE)

FRONT VIEW

SIDE VIEW

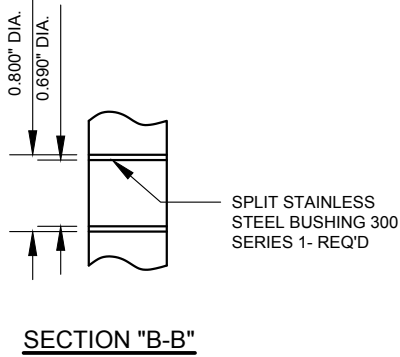
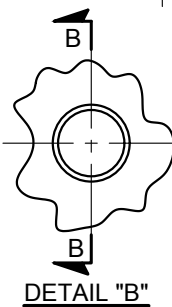
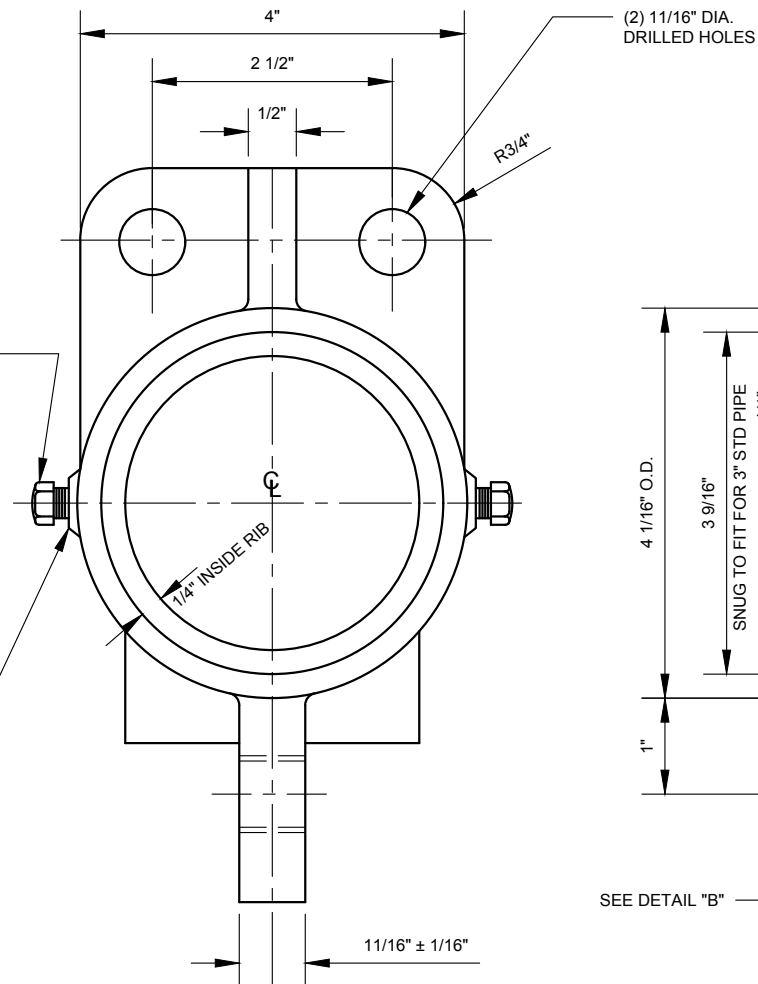
TRAFFIC SIGNAL SUSPENSION ASSEMBLY



REVISION				DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
6	01/2015	DR	UPDT TO RFLC 5 SUSPEN. HOLE WEATHERHEAD	TRAFFIC SIGNAL MAST ARM TIE ROD ELBOW & SIGNAL SUSPENSION CASTING DETAIL-ASSEMBLY		
5	04/2011	GPI	REPLICATED IN CADD			
4	04/1977	N/A	LC-305 REVISION	SCALE:	OLD DRAWING NO.	DRAWING NO.
3	09/1971	N/A	LC-305 REVISION	6" = 1'-0"	LC-305	MA-004_1
2	11/1970	JBC	LC-305 REVISION			
1	03/1967	JBC	LC-305 REVISION			
0	09/1966	CL	LC-305 CREATED			
NO	DATE	BY	DESCRIPTION			

3/8"-16x5/8" ST. STEEL SQ.
HEAD CUP POINT
SET SCREWS - REQ'D

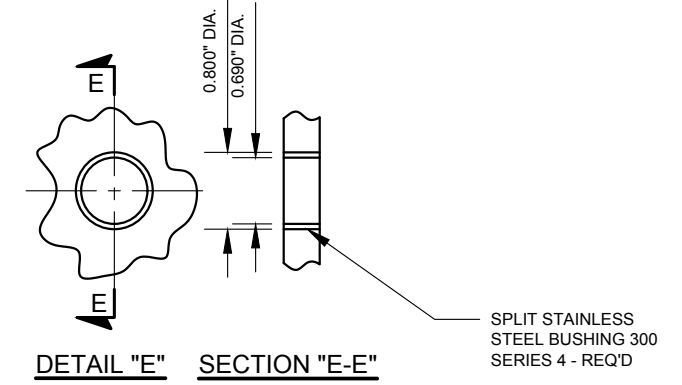
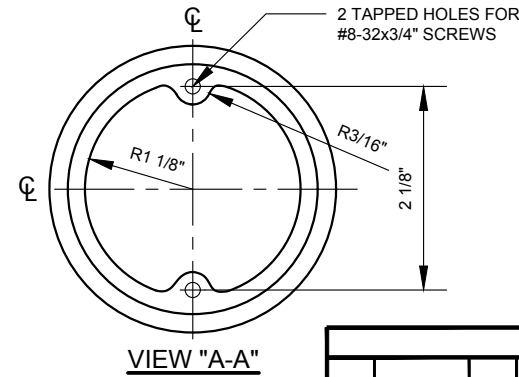
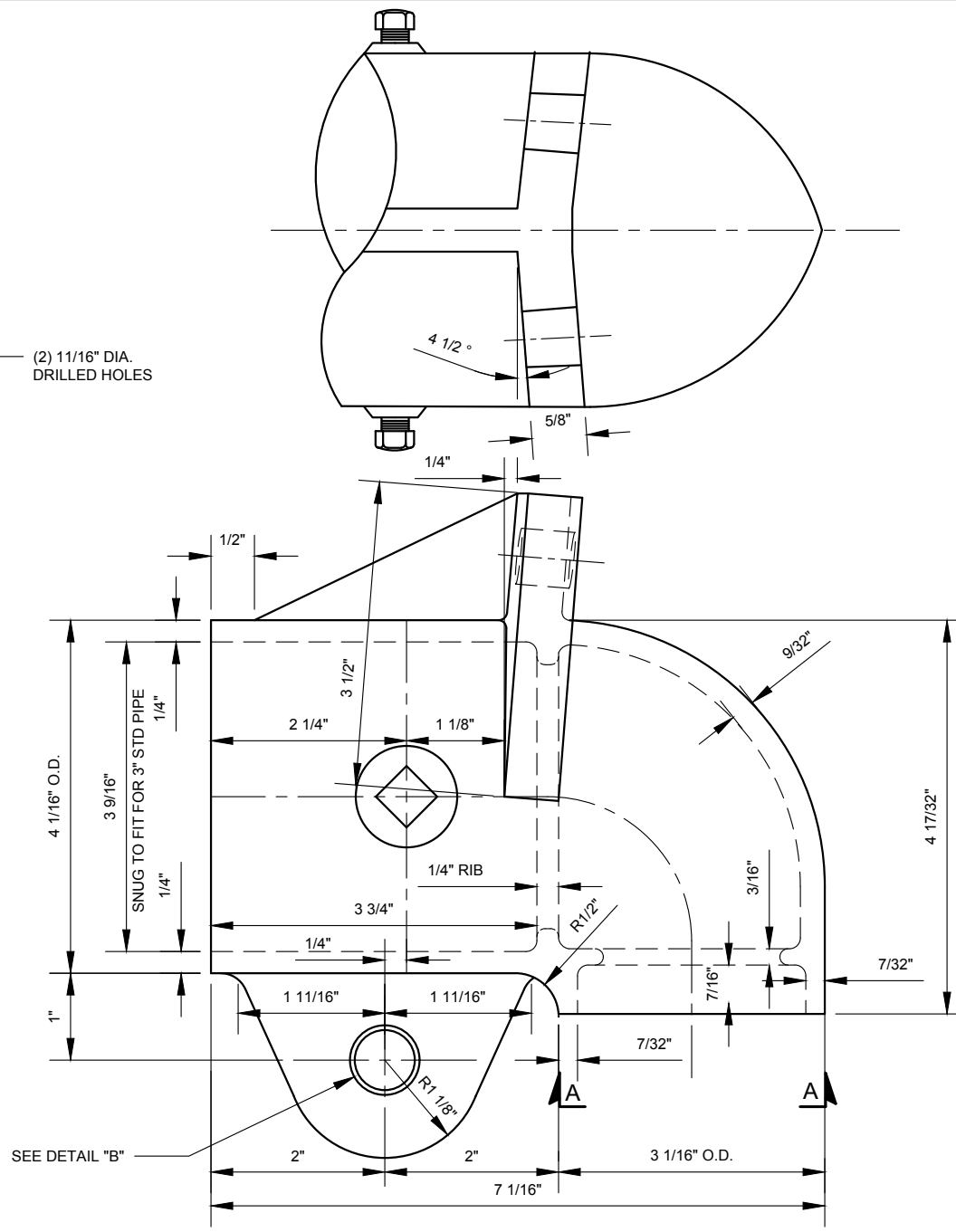
1" DIA. FLAT BOSS
3/32" THK AT CL



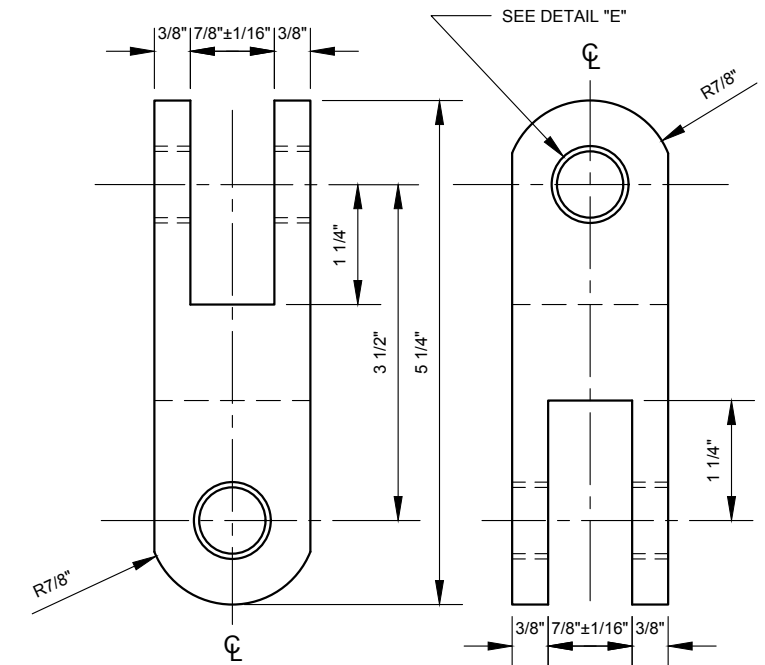
TIE ROD ELBOW - PART "J2A"

NOTES:

1. MATERIAL: SAND CAST ALUMINUM ALLOY 356-T6.
2. STANDARD TOLERANCES.
3. ALL PIPE THREADS TO BE N.P.S.M. (STRAIGHT MACHINE)



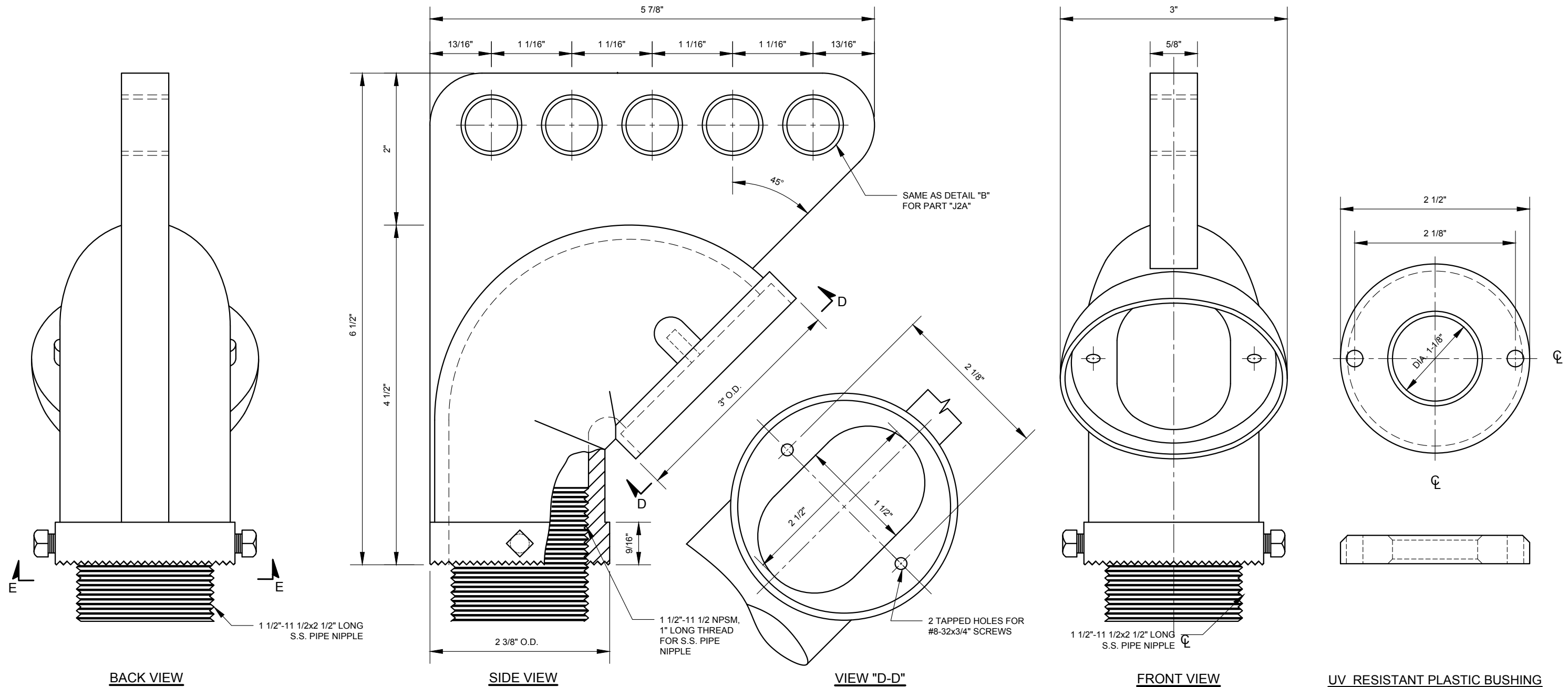
SPLIT STAINLESS
STEEL BUSHING 300
SERIES 4 - REQ'D



CONCENTRIC LINK - PART "K2A"

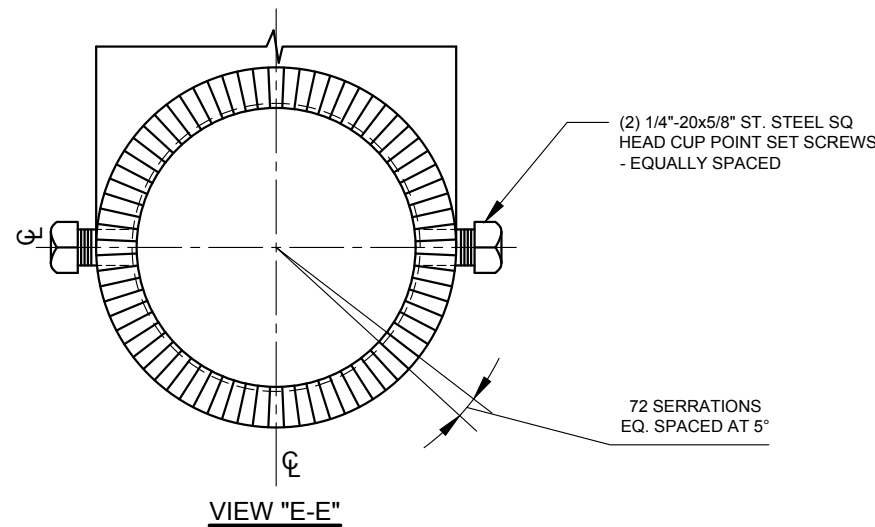
REVISION			
NO	DATE	BY	DESCRIPTION
5	04/2011	GPI	REPLICATED IN CADD
4	04/1977	N/A	LC-305 REVISION
3	09/1971	N/A	LC-305 REVISION
2	11/1970	JBC	LC-305 REVISION
1	03/1967	JBC	LC-305 REVISION
0	09/1966	CL	LC-305 CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
TRAFFIC SIGNAL MAST ARM TIE ROD ELBOW & SIGNAL SUSPENSION CASTING DETAIL-"J2A"&"K2A"		
SCALE:	OLD DRAWING NO.	DRAWING NO.
6" = 1'-0"	LC-305	MA-004_2



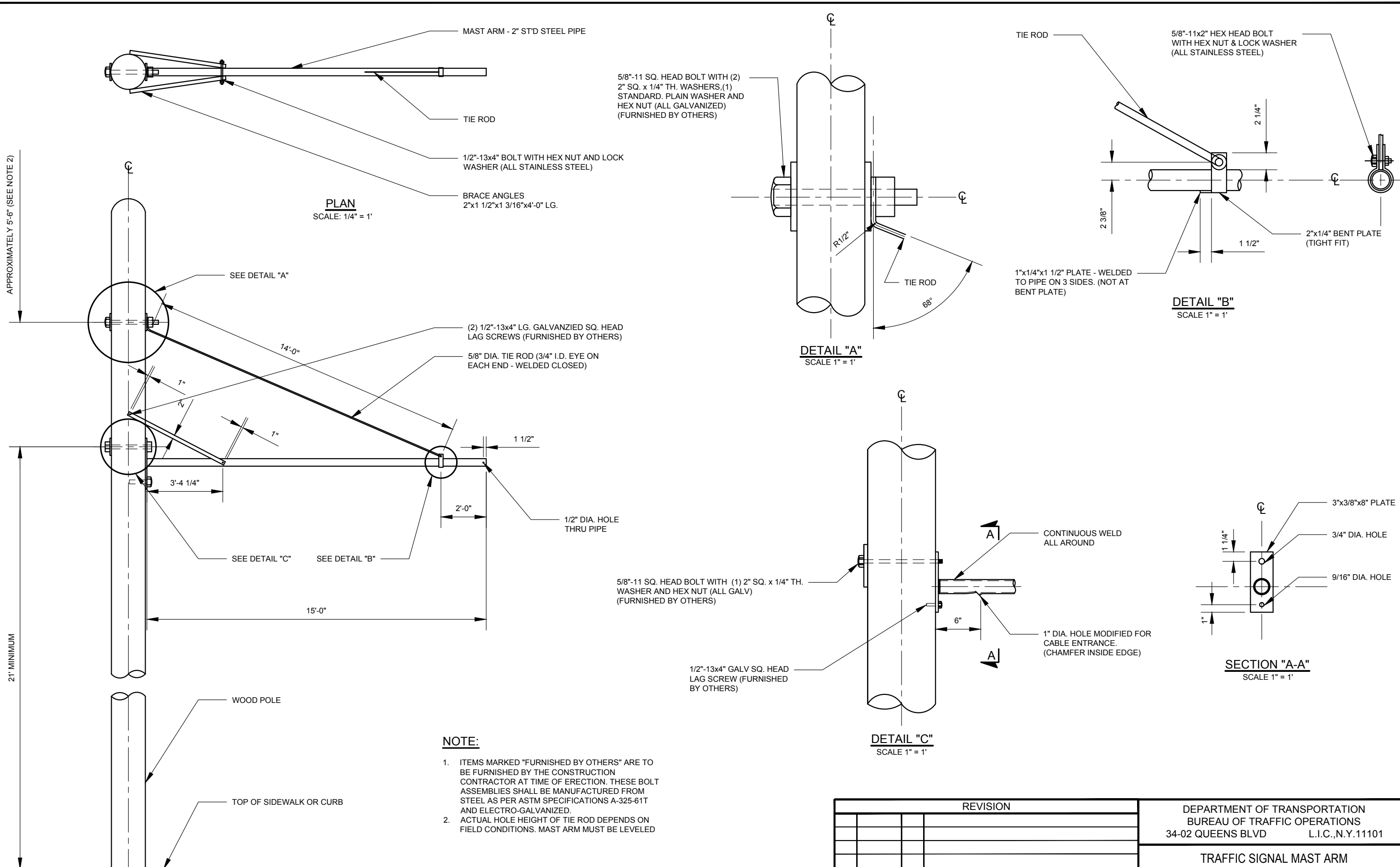
WEATHERHEAD - PART "L2A"

NOTE: ALL INSIDE EDGES TO BE ROUNDED



REVISION				DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101	
7	10/2015	DR	UPDATE TO 5 SUSPEN. HOLE WEATHERHEAD	TRAFFIC SIGNAL MAST ARM TIE ROD ELBOW & SIGNAL SUSPENSION CASTING DETAIL - "L2A"	
6	04/2011	GPI	REPLICATED IN CADD		
5	04/1977	N/A	LC-305 REVISION		
4	09/1971	N/A	LC-305 REVISION		
3	11/1970	JBC	LC-305 REVISION		
2	03/1967	JBC	LC-305 REVISION		
1	09/1966	CL	LC-305 CREATED		
0	07/1970	REP	LB1333S CREATED	SCALE: 9" = 1'-0"	OLD DRAWING NO. LB-1333S
NO.	DATE	BY	DESCRIPTION	DRAWING NO. MA-004_3	





TRAFFIC SIGNAL MAST ARM FOR WOOD POLES "MAW-15" ASSEMBLY

SCALE: 1/4" = 1'

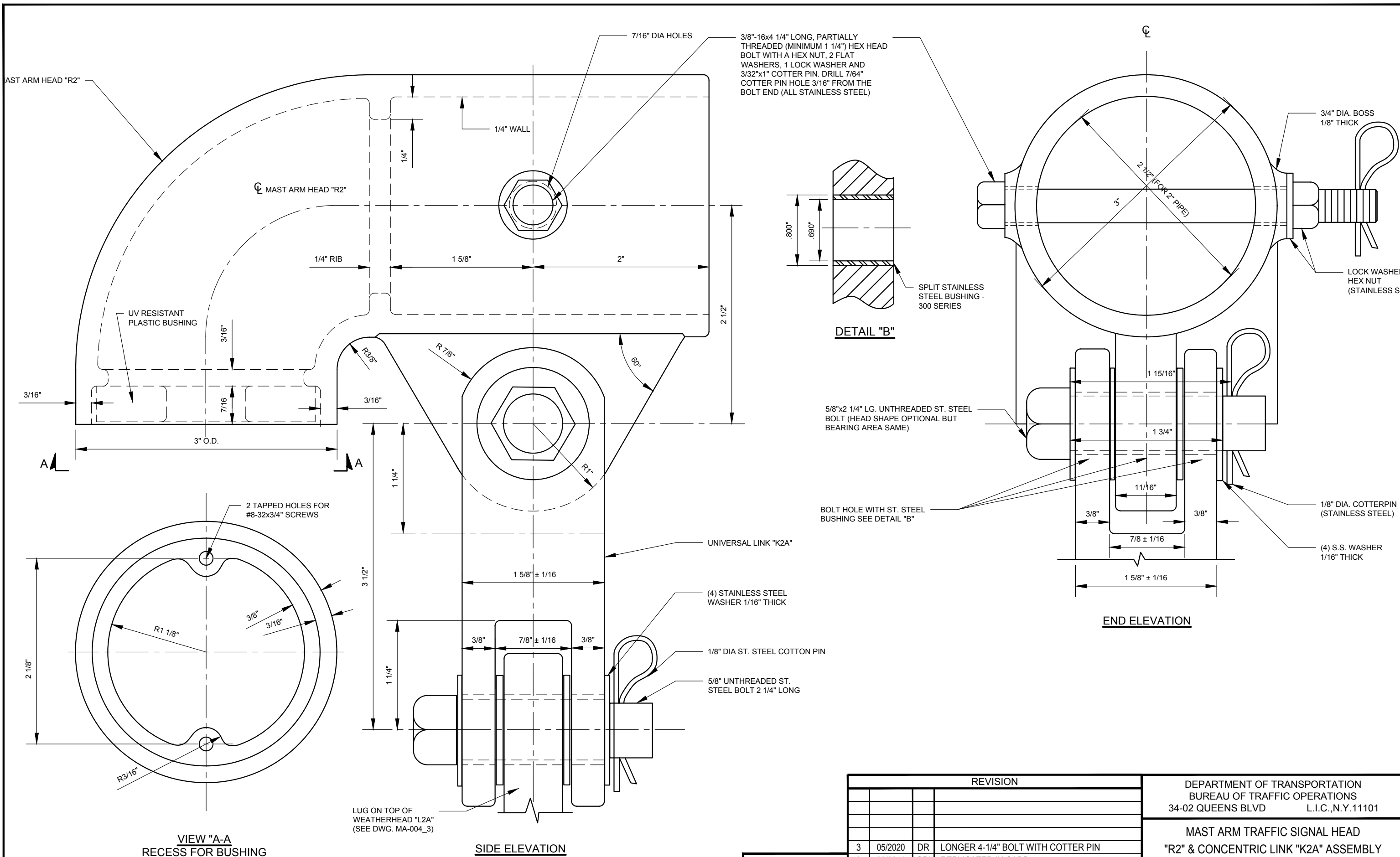
- NOTE:**
- ITEMS MARKED "FURNISHED BY OTHERS" ARE TO BE FURNISHED BY THE CONSTRUCTION CONTRACTOR AT TIME OF ERECTION. THESE BOLT ASSEMBLIES SHALL BE MANUFACTURED FROM STEEL AS PER ASTM SPECIFICATIONS A-325-61T AND ELECTRO-GALVANIZED.
 - ACTUAL HOLE HEIGHT OF TIE ROD DEPENDS ON FIELD CONDITIONS. MAST ARM MUST BE LEVELED



REVISION			
NO	DATE	BY	DESCRIPTION
2	06/2020	DR	MOUNTING HEIGHT MIN 21'
1	04/2011	GPI	REPLICATED IN CADD
0	12/1965	JBC	LB-956 CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
TRAFFIC SIGNAL MAST ARM FOR WOOD POLE "MAW-15" ASSEMBLY		
SCALE: AS NOTED	OLD DRAWING NO. LB-956	DRAWING NO. MA-006

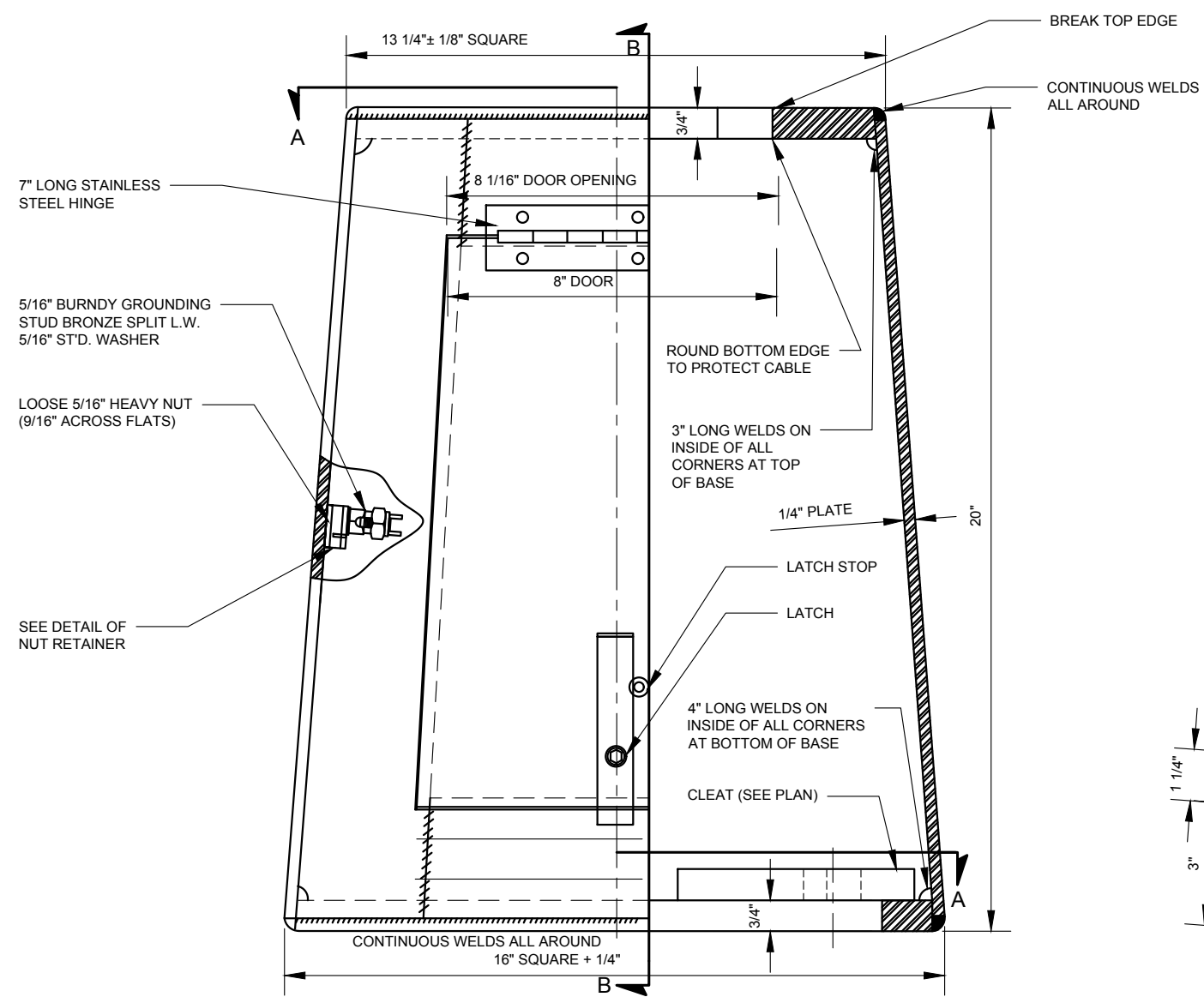
NYC DOT TRAFFIC SIGNAL STANDARD DRAWINGS, Jun 2020



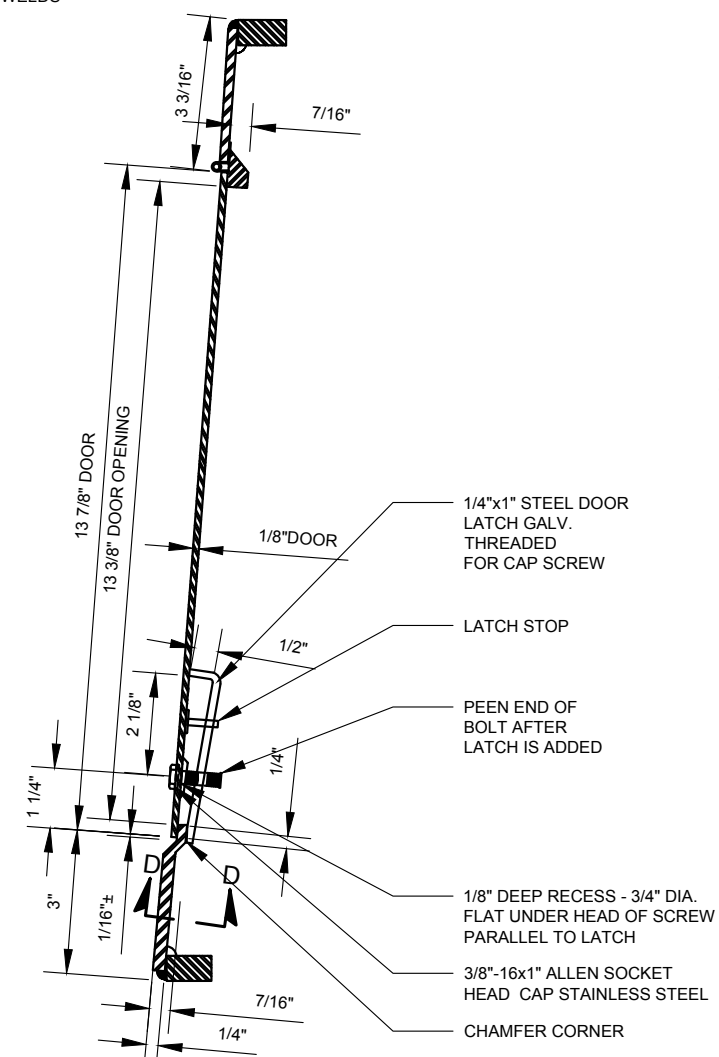
REVISION			
NO	DATE	BY	DESCRIPTION
3	05/2020	DR	LONGER 4-1/4\" BOLT WITH COTTER PIN
2	03/2011	GPI	REPLICATED IN CADD
1	11/1971	JBC	MOVED SCREWS-CHANGED NIPPLE
0	08/1970	REP	LB-1332S CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
MAST ARM TRAFFIC SIGNAL HEAD "R2" & CONCENTRIC LINK "K2A" ASSEMBLY		
SCALE: 1'-0" = 1'-0"	OLD DRAWING NO. LB-1332S	DRAWING NO. MA-007

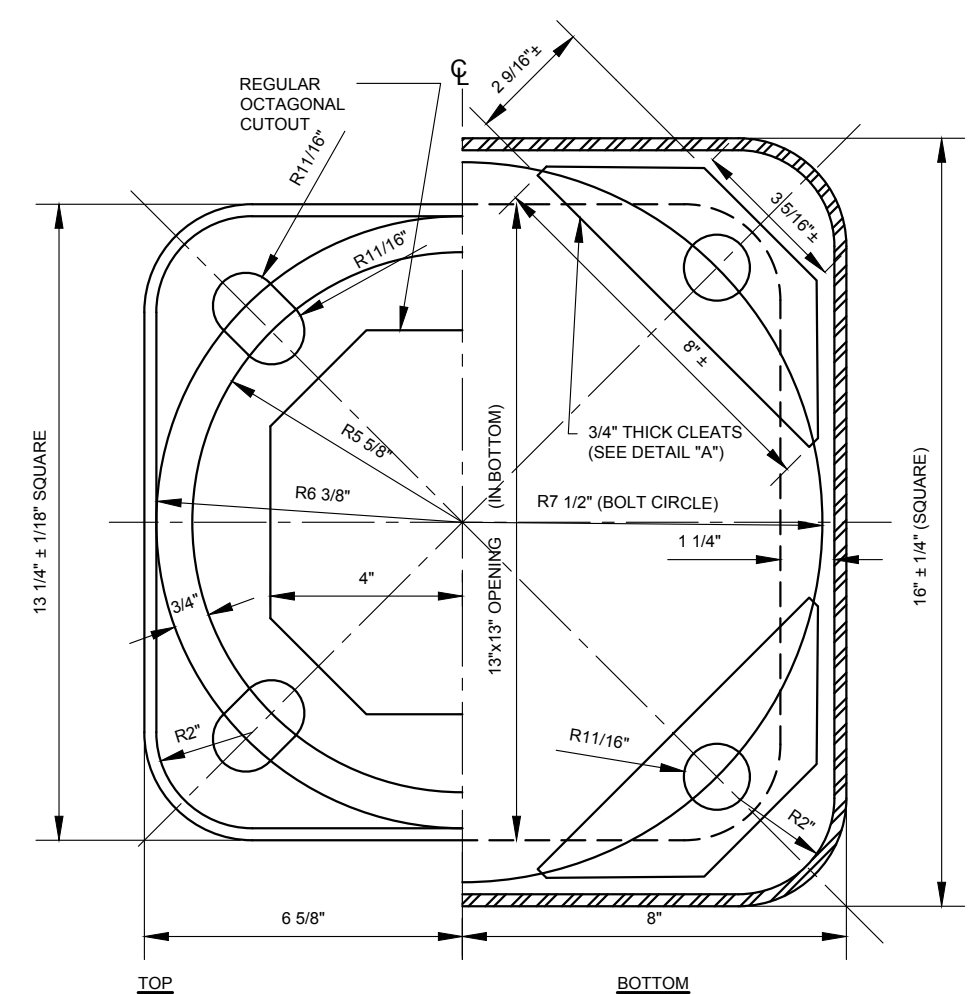
NYCDOT TRAFFIC SIGNAL STANDARD DRAWINGS, Jun 2020



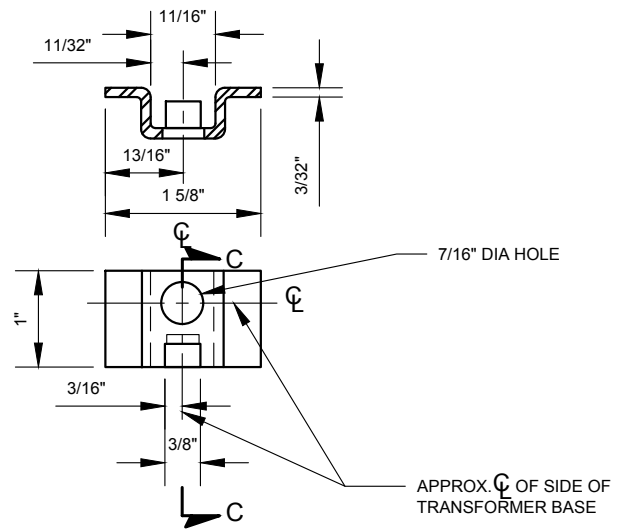
ELEVATION - SECTION
SCALE: 3"=1'



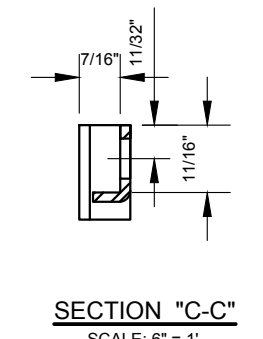
SECTION "B-B"
SCALE: 3"=1'



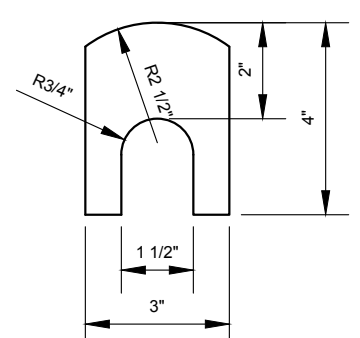
PLAN - SECTION "A-A"
SCALE: 3"=1'



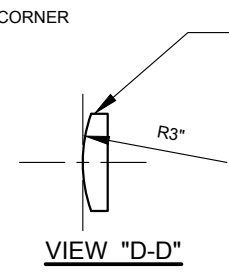
DETAIL OF NUT RETAINER
(FILLET WELDED TO TRANSFORMER BASE)
SCALE: 6" = 1'



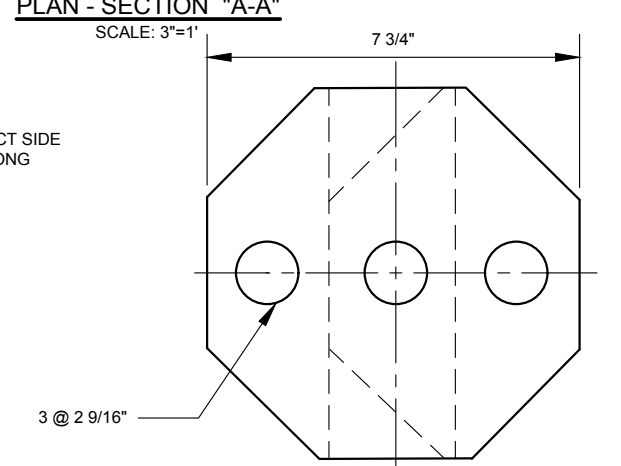
SECTION "C-C"
SCALE: 6" = 1'



DETAIL OF SHIM
12 RBQD. 1/16" THICK
SCALE: 3"=1'



VIEW "D-D"



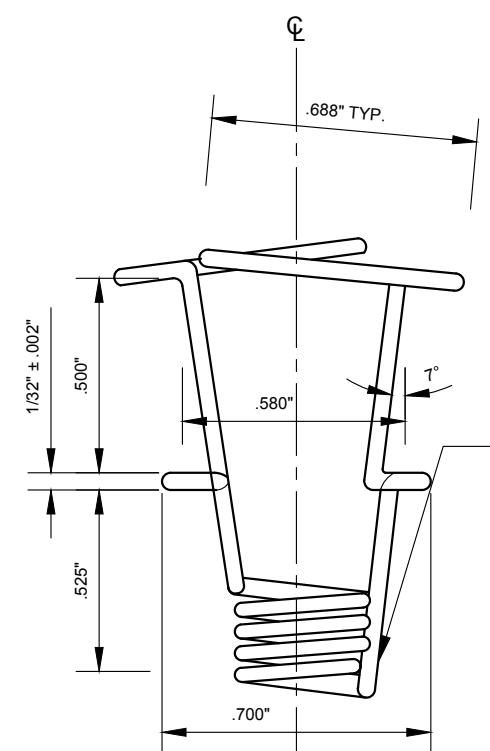
DETAIL "A"
3 CLEATS MAY BE OBTAINED FROM OCTAGONAL CUTOUT. 1 3/8" DIA. HOLE AT CENTER OF EACH CLEAT. 4 CLEATS REQ'D.
SCALE: 3"=1'



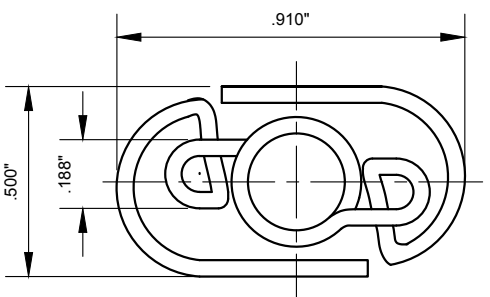
REVISION			
NO	DATE	BY	DESCRIPTION
1	04/2011	GPI	REPLICATED IN CADD
0	09/1966	CL	LC-306 CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
"M-2A" POLE TRANSFORMER BASE DETAIL		
SCALE:	OLD DRAWING NO.	DRAWING NO.
AS NOTED	LC-306	MA-008

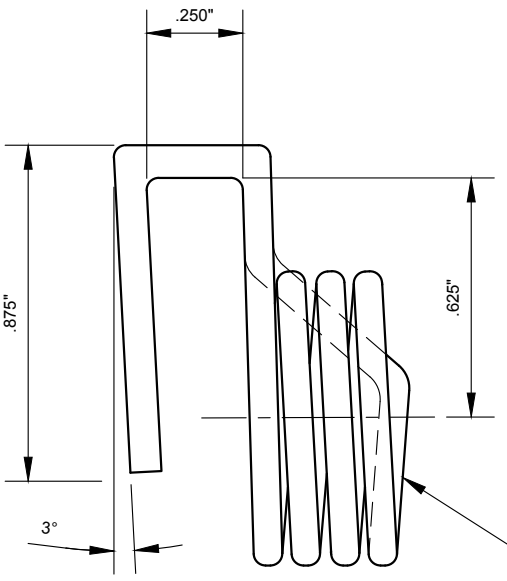
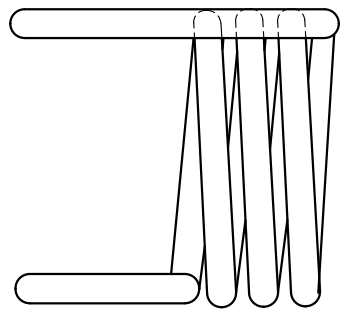
NYCDOT TRAFFIC SIGNAL STANDARD DRAWINGS, Jun 2020



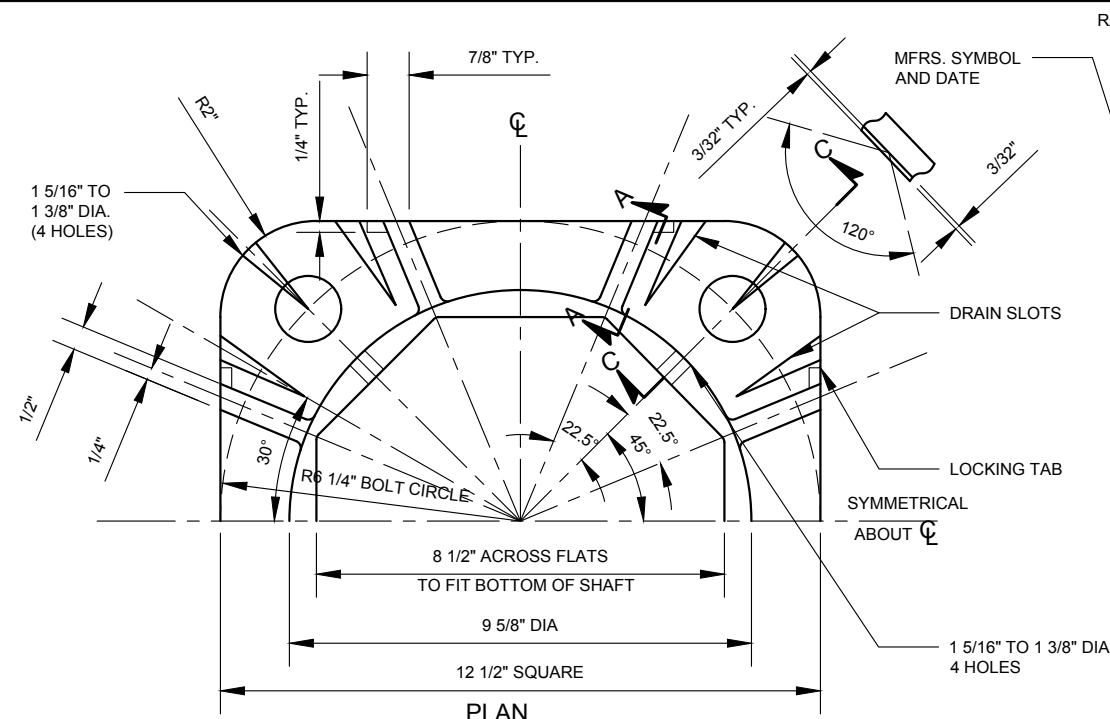
1/4" SPRING NUT
SCALE: 2" = 1"



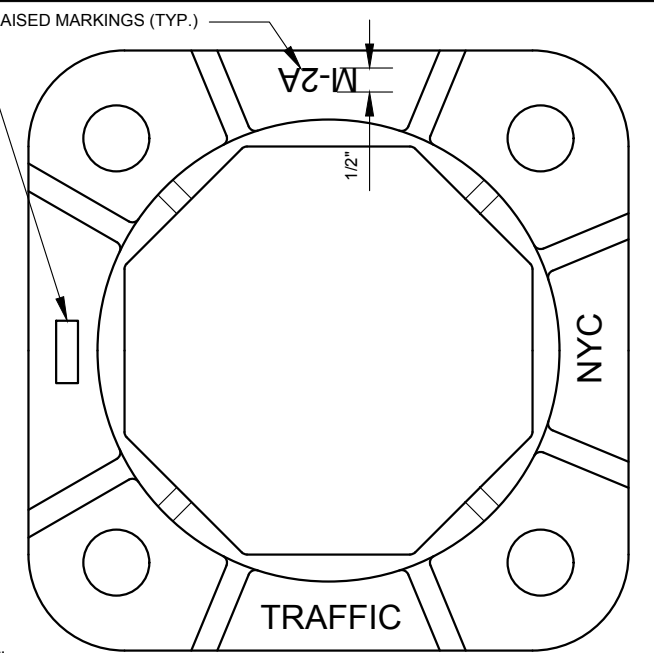
NOT IN CONTRACT



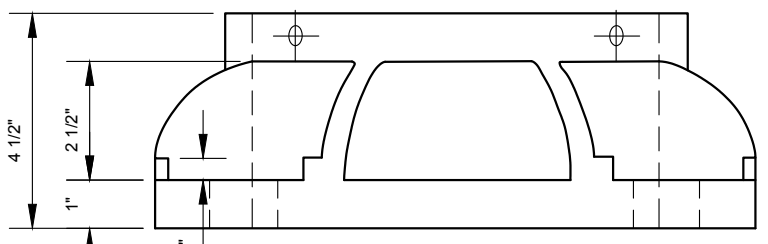
1/2" SPRING NUT
SCALE: 2" = 1"



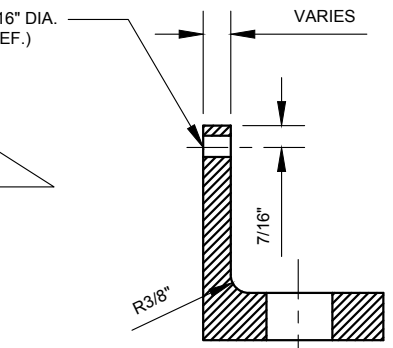
PLAN
SCALE: 3" = 1"



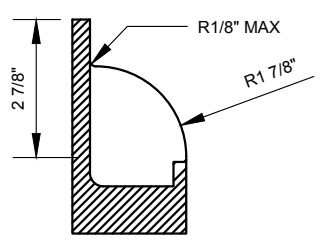
ANCHOR BASE MARKINGS
SCALE: 3" = 1"



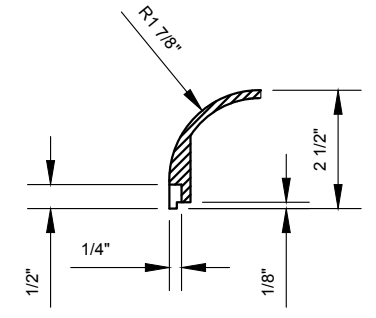
SECTION "A-A"
SCALE: 3" = 1"



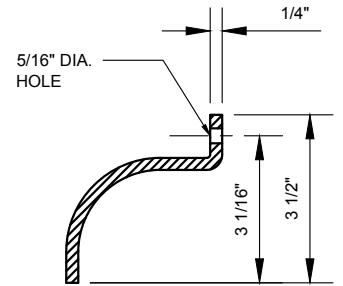
SECTION "C-C"
SCALE: 3" = 1"



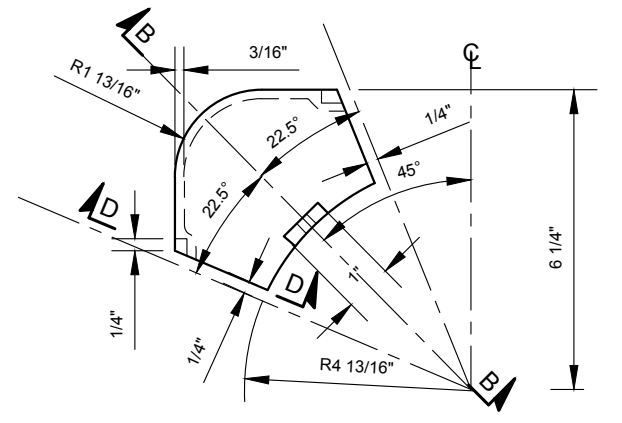
SECTION "D-D"
SCALE: 3" = 1"



SECTION "B-B"
SCALE: 3" = 1"



SECTION "D-D"
SCALE: 3" = 1"

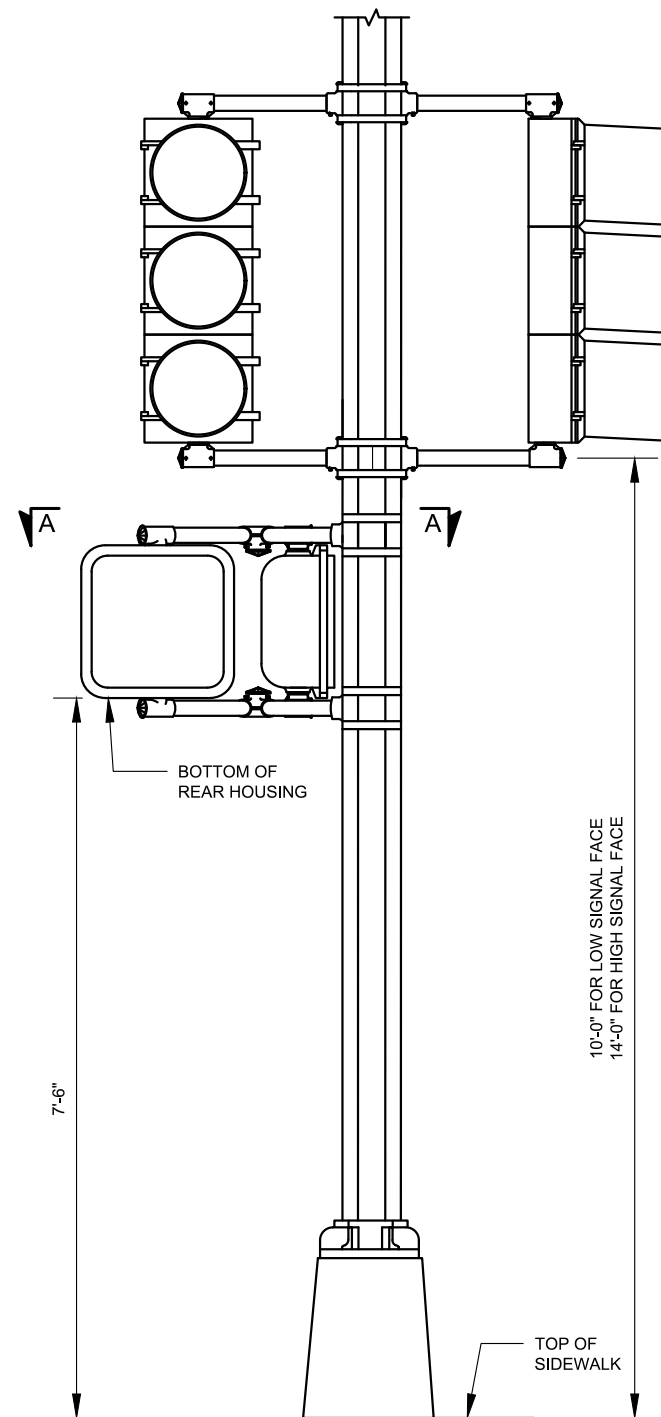


BOLT COVER "N2A"
SCALE: 3" = 1"

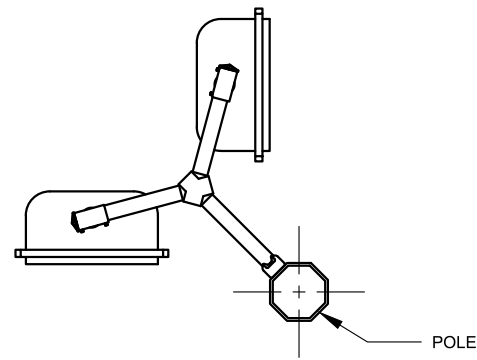
REVISION				
NO	DATE	BY	DESCRIPTION	
1	04/2011	GPI	REPLICATED IN CADD	
0	09/1966	BL	LC-307 CREATED	

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
"M-2A" POLE ANCHOR BASE BOLT COVERING & SPRING NUTS DETAIL		
SCALE: AS NOTED	OLD DRAWING NO. LC-307	DRAWING NO. MA-009

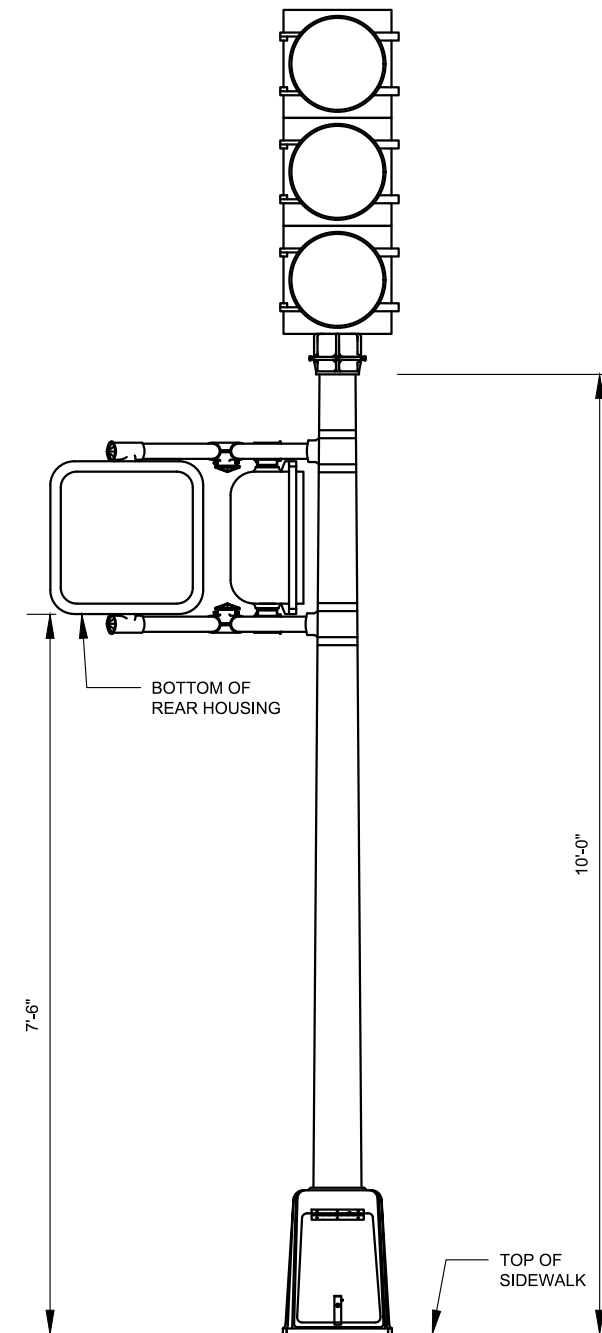




**SIGNALS MOUNTED ON STREET LIGHT
AND "M-2A" POLES**



SECTION "A-A" ("VB-2P")
(FOR MORE DETAILS SEE DWG. SE-021)



SIGNALS MOUNTED ON "S-1a" POLE

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.

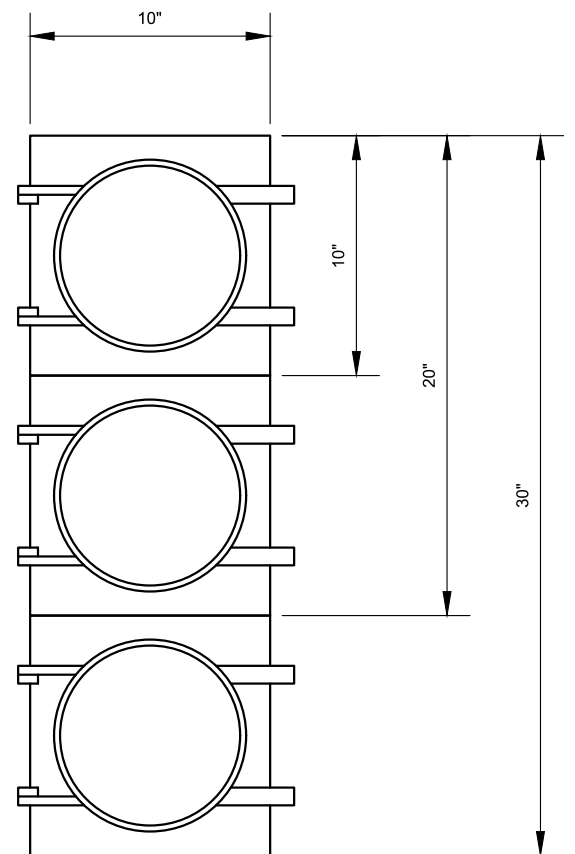
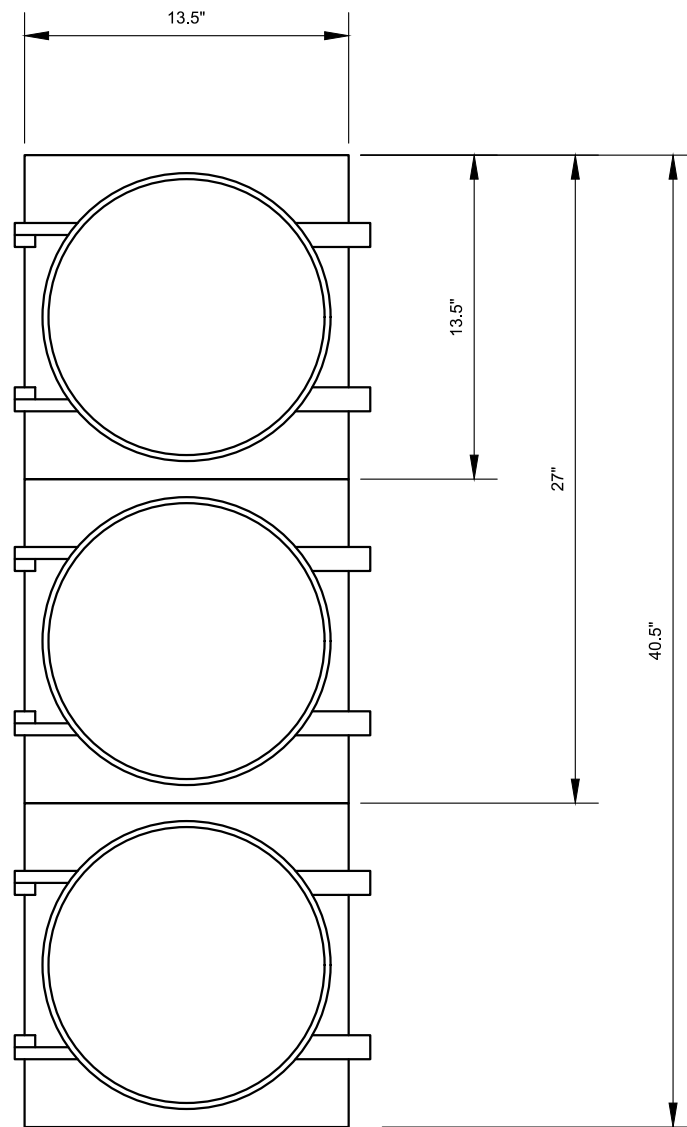
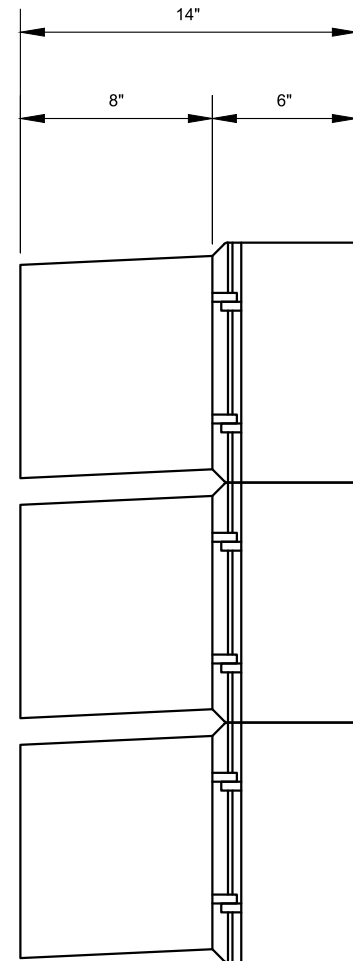
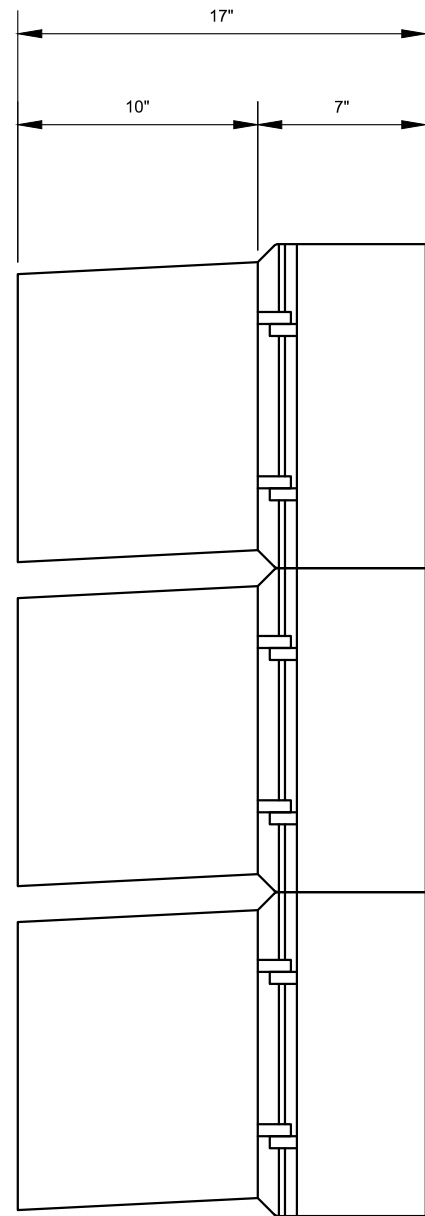
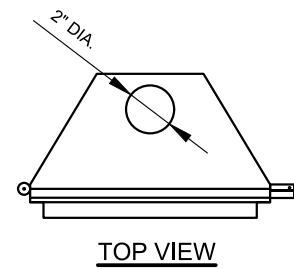
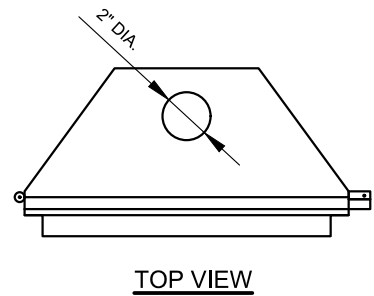


REVISION			
NO	DATE	BY	DESCRIPTION
5	07/2011	GPI	REPLICATED IN CADD
4	11/1969	RAR	REVISED
3	07/1967	ADB	REVISED AND REDRAWN
2	06/1963	GS	REVISED
1	04/1963	JBC	REVISED
0	04/1955	ADB	LG-39-S CREATED

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

**VEHICLE & PEDESTRIAN SIGNALS
MOUNTED ON POLES**

SCALE:	OLD DRAWING NO.	DRAWING NO.
1/2" = 1'-0"	LG-39-S	SE-001



12 INCH VEHICLE SIGNAL

8 INCH VEHICLE SIGNAL

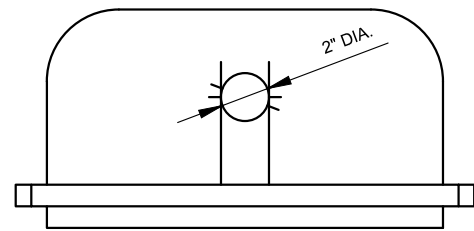
NOTES:

1. TUNNEL VISORS FOR 8" SIGNALS SHALL BE 12" LONG.
2. TUNNEL VISORS FOR 12" SIGNALS SHALL BE 16" LONG.
3. ALL SIGNALS SHALL BE LED INCANDESCENT LOOK.

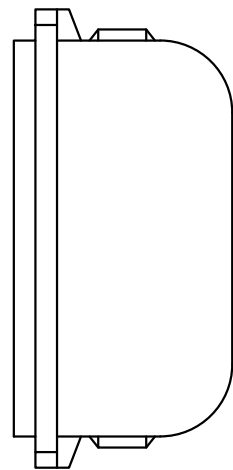


REVISION			
NO	DATE	BY	DESCRIPTION
1	07/2011	GPI	REPLICATED IN CADD
0	02/2008	JO	LB14551S CREATED

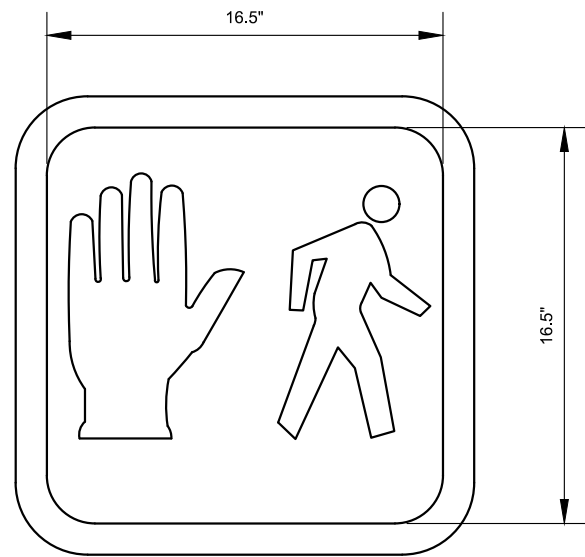
DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
8" & 12" VEHICLE SIGNALS		
SCALE:	OLD DRAWING NO.	DRAWING NO.
1 1/2" = 1'-0"	LB-14551S	SE-002



TOP VIEW

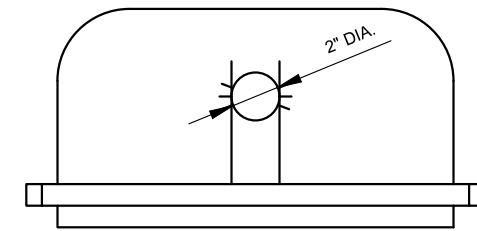


SIDE VIEW

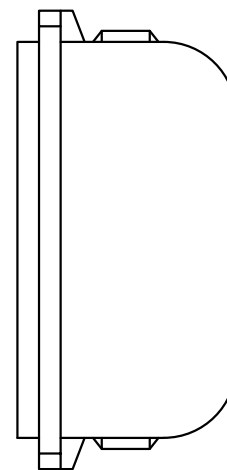


FRONT VIEW

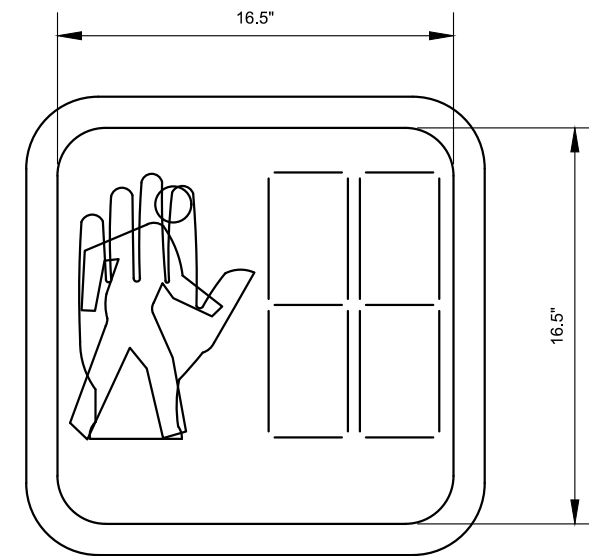
HAND/MAN PEDESTRIAN SIGNAL



TOP VIEW



SIDE VIEW



FRONT VIEW

PEDESTRIAN COUNTDOWN SIGNAL



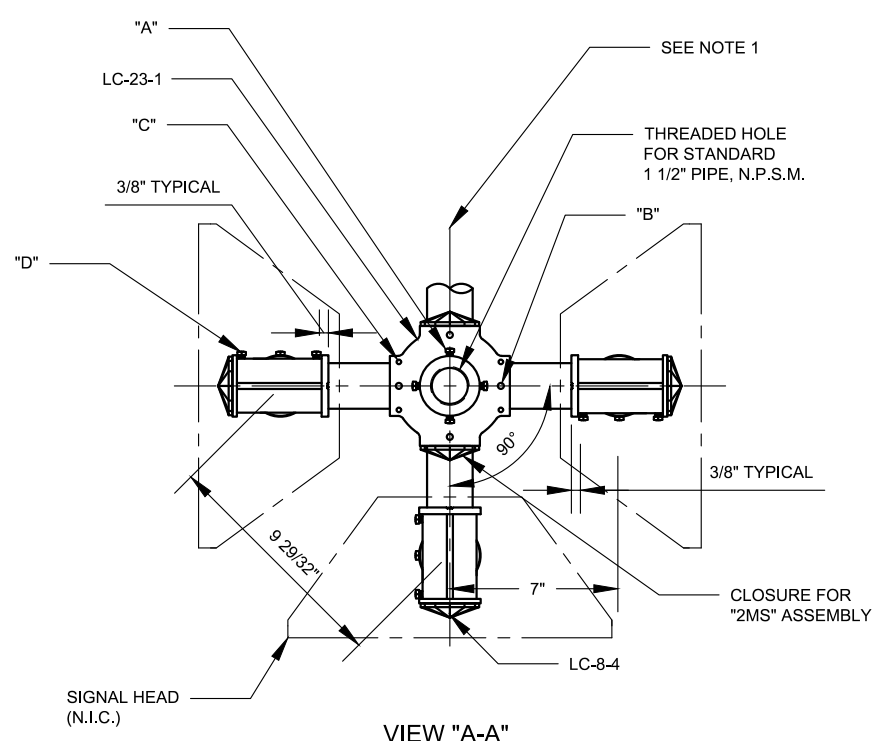
REVISION			
NO	DATE	BY	DESCRIPTION
0	07/2011	GPI	CREATED

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

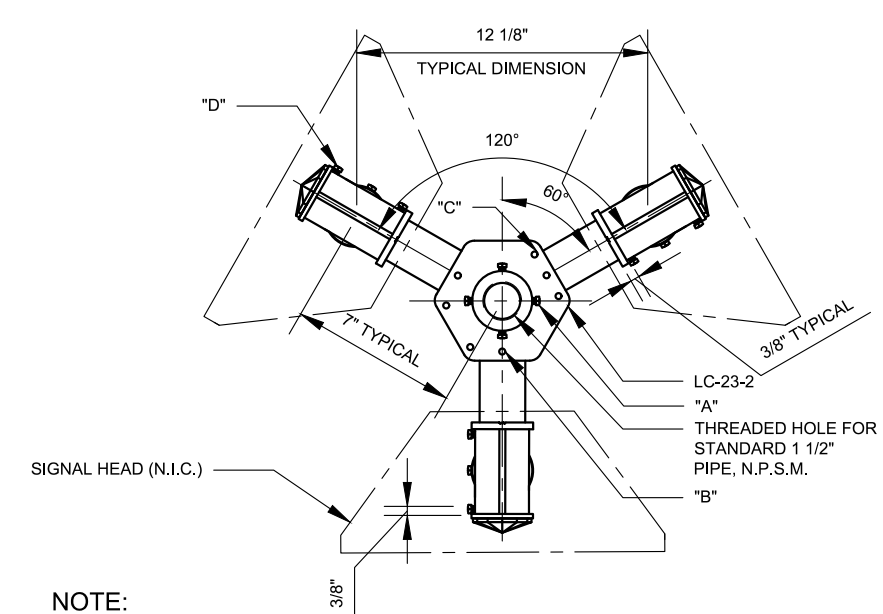
16"x16" PEDESTRIAN SIGNALS

SCALE:	OLD DRAWING NO.	DRAWING NO.
1 1/2" = 1'-0"		SE-003

NYCDOT TRAFFIC SIGNAL STANDARD DRAWINGS, Jun 2020



4-WAY "MS" SPIDER ASSEMBLY (AS SHOWN)
2-WAY "MS" SPIDER ASSEMBLY (AS SHOWN)

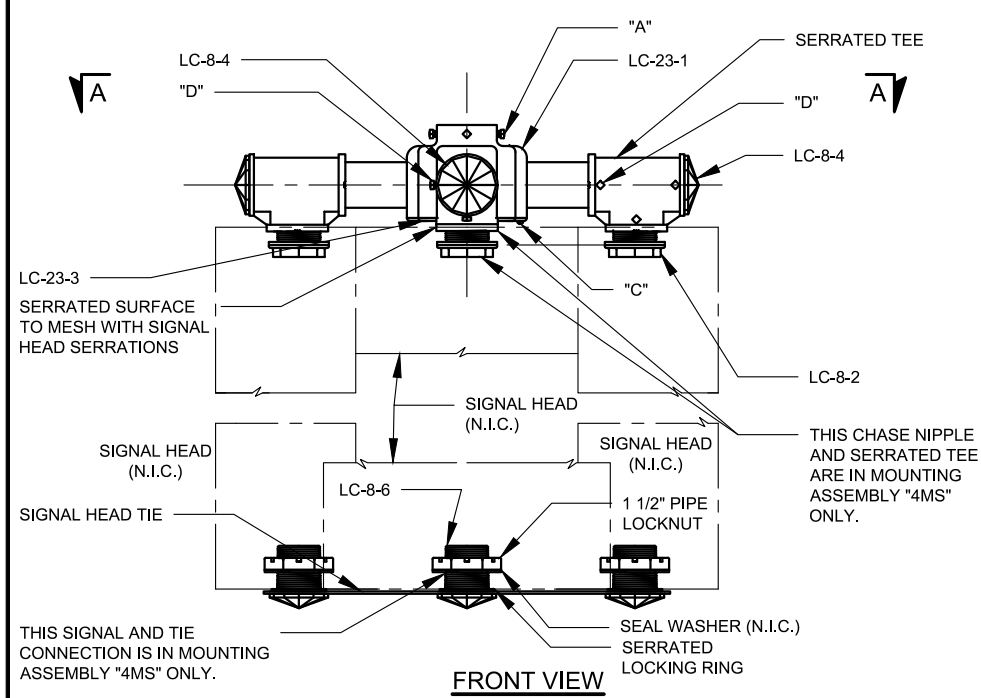


3-WAY "MS" SPIDER ASSEMBLY

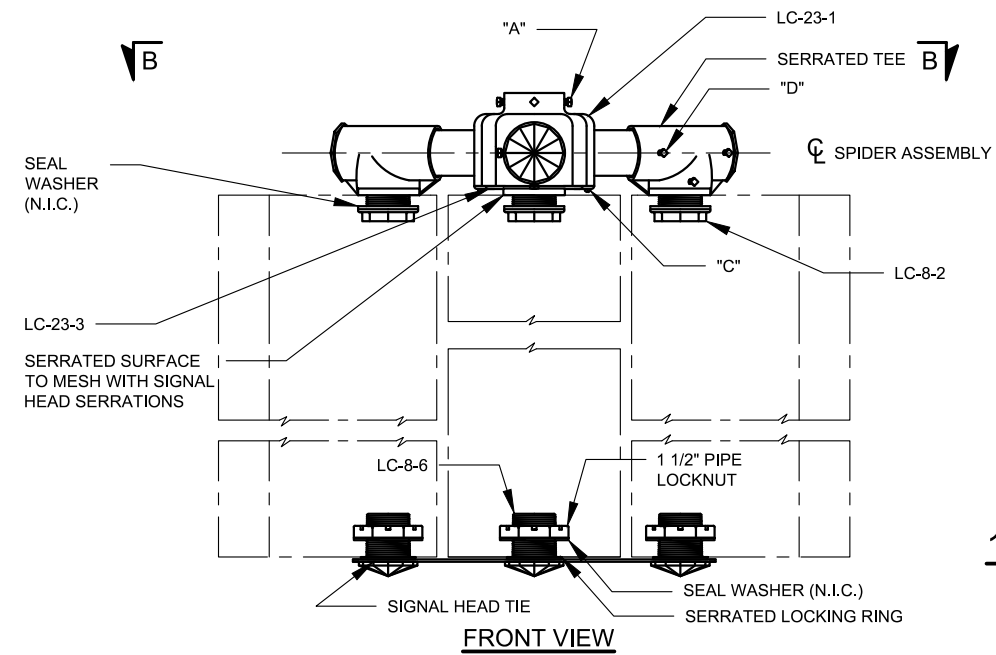
NOTE:
 "B" SETSCREWS IN BOTTOM TO CLEAR SURFACE FOR COVER

PARTS LIST					
DESCRIPTION	DRAWING NO.	QTY. REQ'D FOR ASSEMBLY TYPE			
		"1MS"	"2MS"	"3MS"	"4MS"
FOUR WAY AL. JUNCTION BOX (LC-23-1)	SE-005		1		1
THREE-WAY AL. JUNCTION BOX (LC-23-2)	SE-005			1	
AL. JUNCTION BOX COVER (LC-23-3)	SE-005		1	1	1
1 1/2"x4" LONG SCHEDULE 40 AL. PIPE, 11 1/2 NPSM 3/4" THREADED ON BOTH ENDS			2	3	4
1 1/2" DIE CAST AL. SERRATED TEE WITH TWO SERRATED BOSSES	SE-007_2		2	3	4
1 1/2"x1 3/4" LONG DIE CAST AL. CHASE NIPPLE (LC-8-2)	SE-009	1	2	3	4
1 1/2" DIE CAST AL. PIPE LOCKNUT	SE-010	1	2	3	4
1 1/2" DIE CAST AL. SERRATED LOCKING RING	SE-008	1	2	3	4
1 1/2"x2" LONG DIE CAST ALUMINUM CLOSURE CAP (LC-8-6)	SE-011	1	2	3	4
1 1/2"x5/8" LONG POLYCARBONATE CLOSURE CAP (LC-8-4)	SE-011		2	3	4
NEOPRENE SEAL WASHER 2 3/4" ODx1 7/8" IDx1/8" TH (N.I.C.)		1	2	3	4
TWO-WAY SIGNAL HEAD STEEL TIE	SE-013		1		
THREE-WAY SIGNAL HEAD STEEL TIE (120 DEG.)	SE-013			1	
FOUR-WAY SIGNAL HEAD STEEL TIE	SE-013				1
1/4"-20x5/8" LONG ST. STEEL SQ. HEAD HOLLOW NOSE SET SCREW ("A")			4	4	4
1/4"-20x7/16" LONG ST. STEEL SOCKET HEAD SET SCREW ("B")			2	3	4
#10-24x5/8" LONG ST. STEEL FILLISTER HEAD MACHINE SCREW ("C")			4	4	4
1/4"-20x1/2" LONG ST. STEEL SQ. HEAD HOLLOW NOSE SET SCREW ("D")			6	9	12

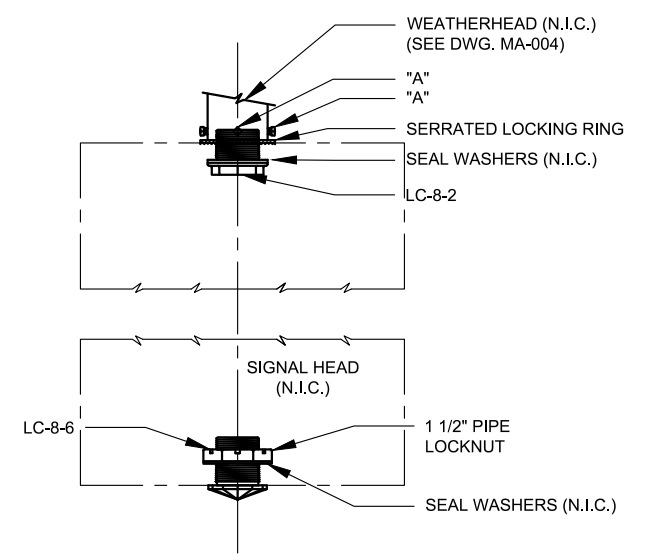
* - NOT IN CONTRACT (N.I.C.)



4-WAY MAST ARM SIGNAL MOUNTING ASSEMBLY - "4MS" (AS SHOWN)
2-WAY MAST ARM SIGNAL MOUNTING ASSEMBLY - "2MS" (AS NOTED)



3-WAY MAST ARM SIGNAL MOUNTING ASSEMBLY - "3MS"



1-WAY MAST ARM SIGNAL MOUNTING ASSEMBLY - "1MS"

NOTES:

- FOR TWO-WAY ASSEMBLY SUBSTITUTE CLOSURES LC-8-4 FOR MOUNTING BRACKETS ON THIS CENTERLINE.
- THIS DRAWING AUGMENTS DRAWING LB-636-S DATED 3-65 AND DRAWING LC-24 REVISED 3-17-65.
- SIGNAL HEADS MAY BE ROTATED AROUND CENTERS OF CONNECTIONS.
- 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.

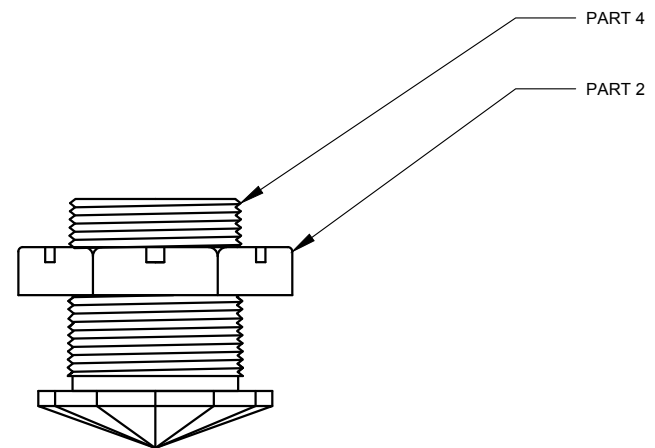
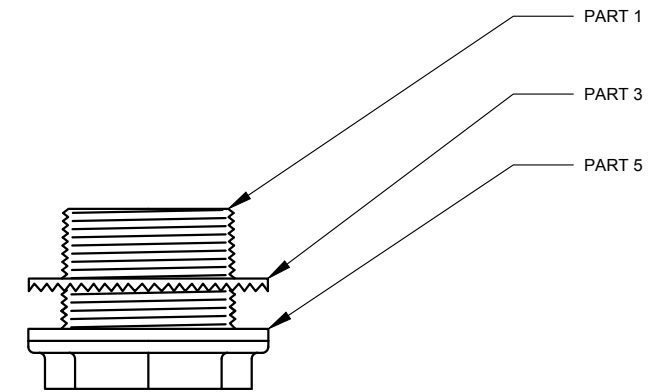


REVISION			
NO	DATE	BY	DESCRIPTION
8	06/2020	DR	UPDATED PARTS LIST
7	09/2011	GPI	REPLICATED IN CADD
6	05/2006	NM	REVISED
5	10/1970	CHI	REVISED AND REDRAWN
2,3,4	12/63, 11/64, 3/65		REVISIONS MADE BY GS
1	05/1958	JBC	
0	11/1954	JBC	LC-24 CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
MAST ARM TRAFFIC SIGNAL MOUNTING ASSEMBLIES "1MS", "2MS", "3MS", "4MS"		
SCALE:	OLD DRAWING NO.	DRAWING NO.
1 1/2" = 1'-0"	LC-24	SE-004_1

PARTS LIST			
PART	DESCRIPTION	DRAWING NO.	QTY.
1	1 1/2"x1 3/4" LONG DIE CAST AL. CHASE NIPPLE (LC-8-2)	SE-009	1
2	1 1/2" DIE CAST AL. PIPE LOCKNUT	SE-010	1
3	1 1/2" DIE CAST AL. SERRATED LOCKING RING	SE-008	1
4	1 1/2"x2" LONG DIE CAST AL. CLOSURE CAP (LC-8-6)	SE-011	1
5	NEOPRENE SEAL WASHER 2 3/4"ODx1/8"TH (N.I.C*)		1

* - NOT IN CONTRACT



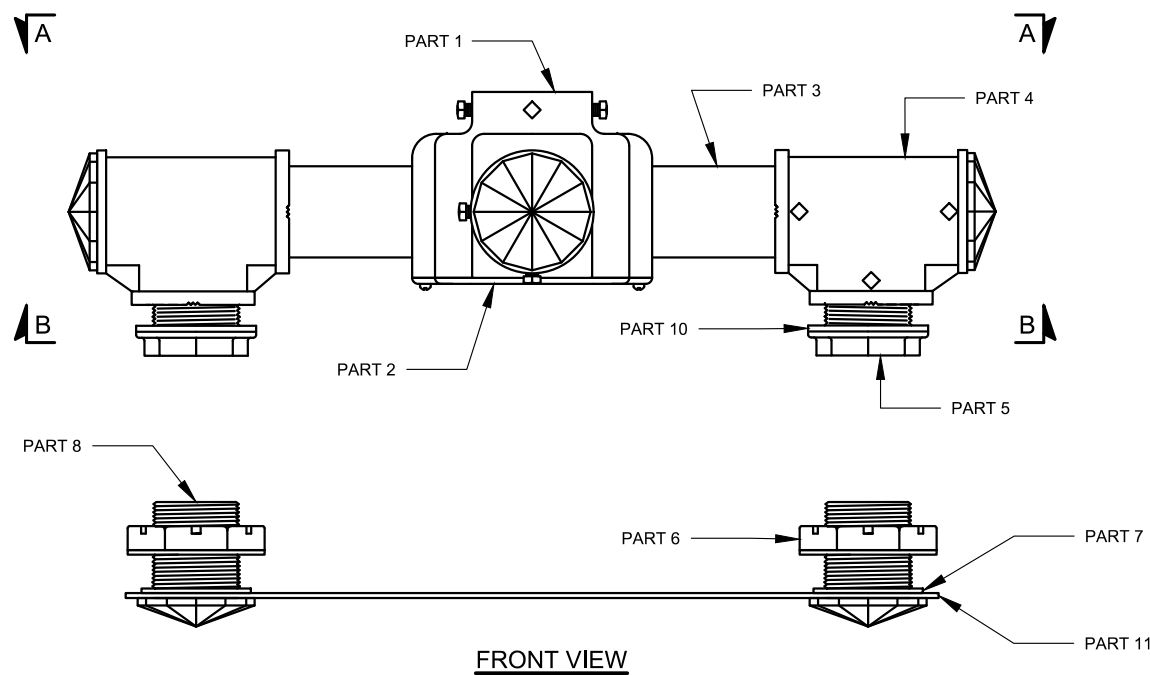
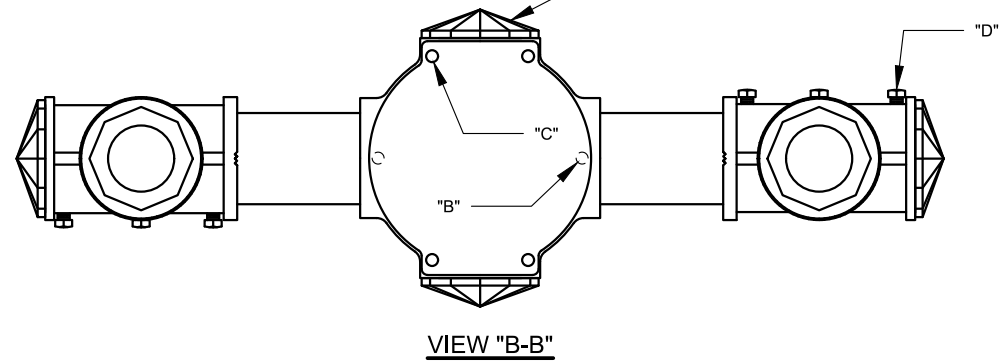
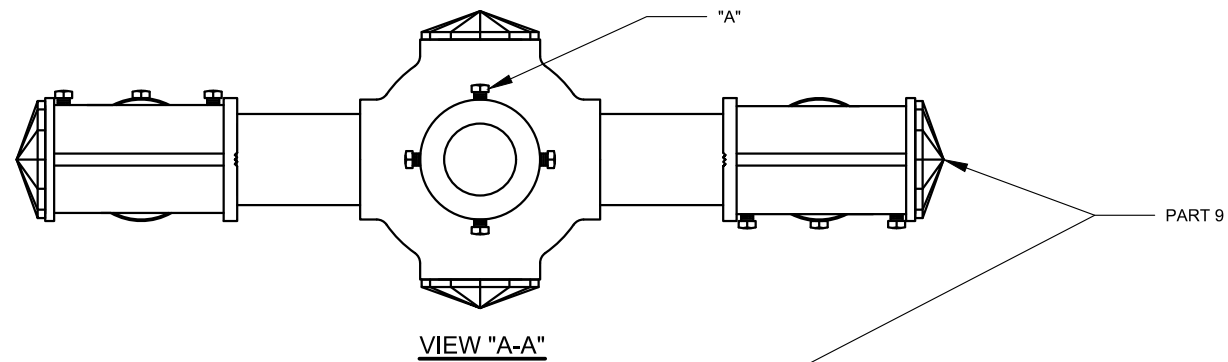
FRONT VIEW

ONE-WAY MAST ARM SIGNAL MOUNTING ASSEMBLY



REVISION			
NO	DATE	BY	DESCRIPTION
1	05/2020	DR	UPDATED PARTS LIST
0	07/2011	GPI	CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
MAST ARM TRAFFIC SIGNAL MOUNTING ASSEMBLY "1MS" - DETAIL		
SCALE:	OLD DRAWING NO.	DRAWING NO.
6" = 1'-0"		SE-004_2



TWO-WAY MAST ARM SIGNAL MOUNTING ASSEMBLY

PARTS LIST			
PART	DESCRIPTION	DRAWING NO.	QTY.
1	FOUR-WAY AL. JUNCTION BOX (LC-23-1)	SE-005	1
2	AL. JUNCTION BOX COVER (LC-23-3)	SE-005	1
3	1 1/2"x4" LONG SCHEDULE 40 AL. PIPE, 11 1/2 NPSM 3/4" THREADED ON BOTH ENDS		2
4	1 1/2" DIE CAST AL. SERRATED TEE WITH TWO SERRATED BOSSES	SE-007_2	2
5	1 1/2"x1 3/4" LONG DIE CAST AL. CHASE NIPPLE (LC-8-2)	SE-009	2
6	1 1/2" DIE CAST AL. PIPE LOCKNUT	SE-010	2
7	1 1/2" DIE CAST AL. SERRATED LOCKING RING	SE-008	2
8	1 1/2"x2" LONG DIE CAST AL. CLOSURE CAP (LC-8-6)	SE-011	2
9	1 1/2"x5/8" LONG POLYCARBONATE CLOSURE CAP (LC-8-4)	SE-011	4
10	NEOPRENE SEAL WASHER 2 3/4"ODx1 7/8"IDx1/8"TH (N.I.C.*)		2
11	TWO-WAY SIGNAL HEAD STEEL TIE	SE-013	2
"A"	1/4"-20x5/8" LONG ST. STEEL SQ. HEAD HOLLOW NOSE SET SCREW		4
"B"	1/4"-20x7/16" LONG ST. STEEL SOCKET HEAD SET SCREW		2
"C"	#10-24x5/8" LONG ST. STEEL FILLISTER HEAD MACHINE SCREW		4
"D"	1/4"-20x1/2" LONG ST. STEEL SQ. HEAD HOLLOW NOSE SET SCREW		6

*N.I.C.-(NOT SUPPLIED)

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"x8 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")

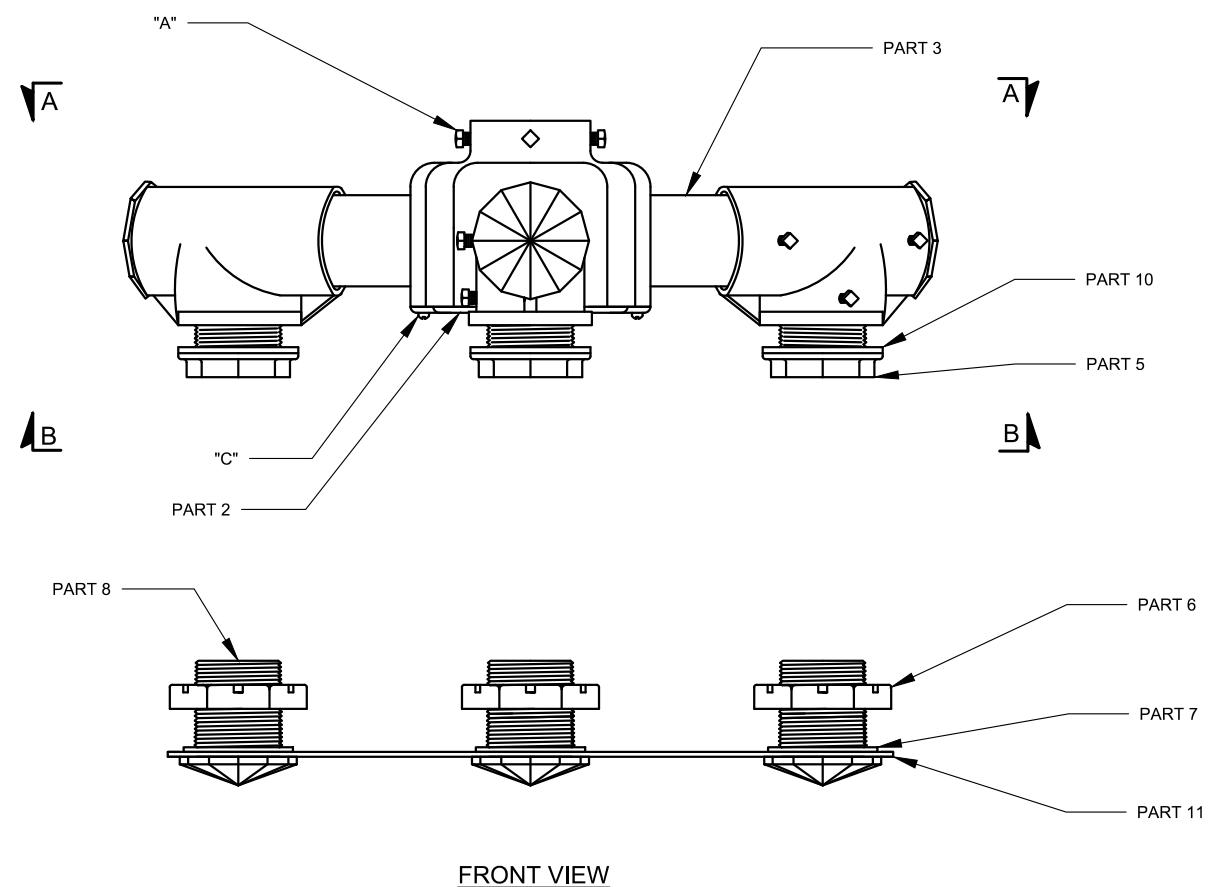
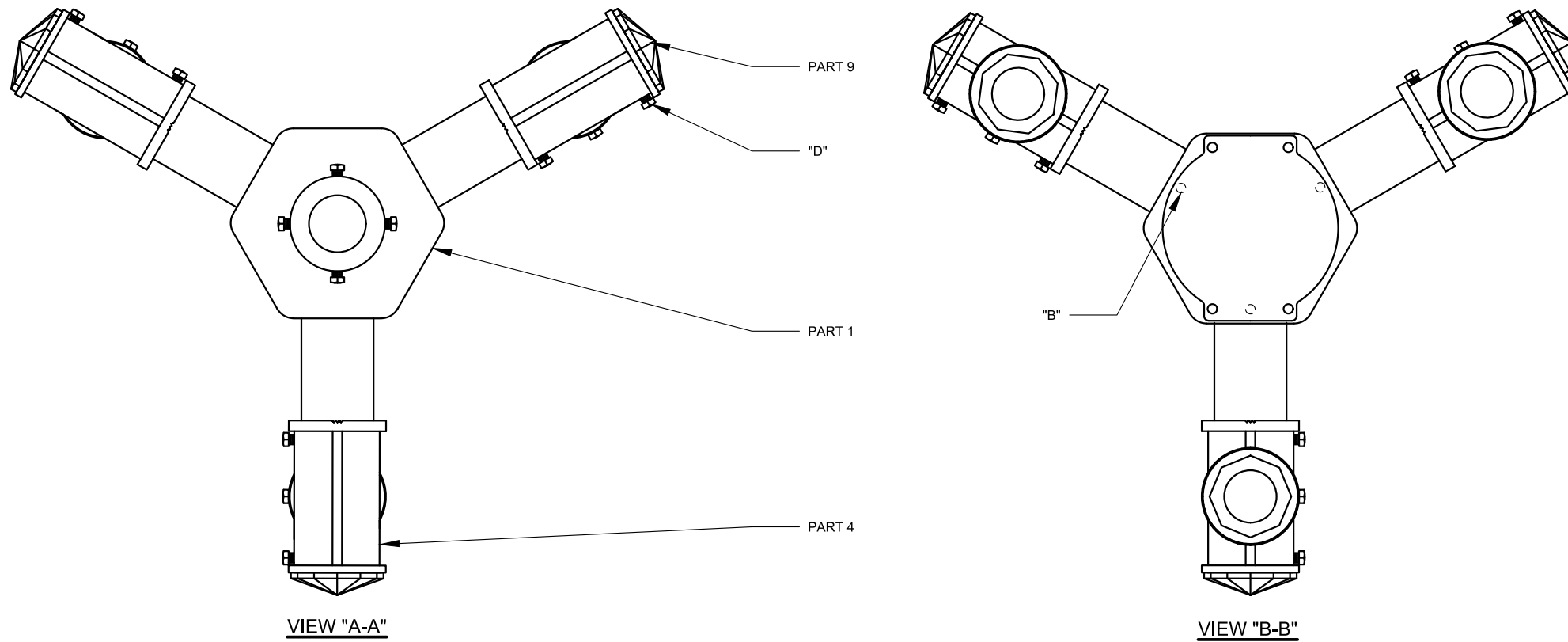
FOR "E2MS" PARTS LIST SEE DWG. SE-004_6.



REVISION			
NO	DATE	BY	DESCRIPTION
1	06/2020	DR	UPDATED PARTS LIST
0	07/2011	GPI	CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C.,N.Y.11101		
MAST ARM TRAFFIC SIGNAL MOUNTING ASSEMBLY "2MS" - DETAIL		
SCALE:	OLD DRAWING NO.	DRAWING NO.
3" = 1'-0"		SE-004_3

NYC DOT TRAFFIC SIGNAL STANDARD DRAWINGS, Jun 2020



THREE-WAY MAST ARM SIGNAL MOUNTING ASSEMBLY

PARTS LIST			
PART	DESCRIPTION	DRAWING NO.	QTY.
1	THREE-WAY AL. JUNCTION BOX (LC-23-2)	SE-005	1
2	AL. JUNCTION BOX COVER (LC-23-3)	SE-005	1
3	1 1/2"x4" LONG SCHEDULE 40 AL. PIPE, 3 11 1/2 NPSM 3/4" THREADED ON BOTH ENDS		3
4	1 1/2" DIE CAST AL. SERRATED TEE WITH TWO SERRATED BOSSES	SE-007_2	3
5	1 1/2"x1 3/4" LONG DIE CAST AL. CHASE NIPPLE (LC-8-2)	SE-009	3
6	1 1/2" DIE CAST AL. PIPE LOCKNUT	SE-010	3
7	1 1/2" DIE CAST AL. SERRATED LOCKING RING	SE-008	3
8	1 1/2"x2" LONG DIE CAST AL. CLOSURE CAP (LC-8-6)	SE-011	3
9	1 1/2"x5/8" LONG POLYCARBONATE CLOSURE CAP (LC-8-4)	SE-011	3
10	NEOPRENE SEAL WASHER 2 3/4"ODx1 7/8"IDx1/8"TH (N.I.C.*)		3
11	THREE-WAY SIGNAL HEAD STEEL TIE (120 DEG.)	SE-013	1
"A"	1/4"-20x5/8" LONG ST. STEEL SQ. HEAD HOLLOW NOSE SET SCREW		4
"B"	1/4"-20x7/16" LONG ST. STEEL SOCKET HEAD SET SCREW		3
"C"	#10-24x5/8" LONG ST. STEEL FILLISTER HEAD MACHINE SCREW		4
"D"	1/4"-20x1/2" LONG ST. STEEL SQ. HEAD HOLLOW NOSE SET SCREW		9

*N.I.C.-(NOT SUPPLIED)

NOTES:

THE EXTENDED THREE-WAY MAST ARM SIGNAL MOUNTING ASSEMBLY "E3MS" IS SIMILAR TO THE "3MS" ASSEMBLY EXCEPT THAT:
 1. THE ALUMINUM PIPE MEASURES 1 1/2"x8 3/4" (INSTEAD OF 4" IN "3MS")
 2. THE EXTENDED THREE-WAY SIGNAL HEAD STEEL TIE IS 23" CENTER TO CENTER (INSTEAD OF 14" IN "2MS")

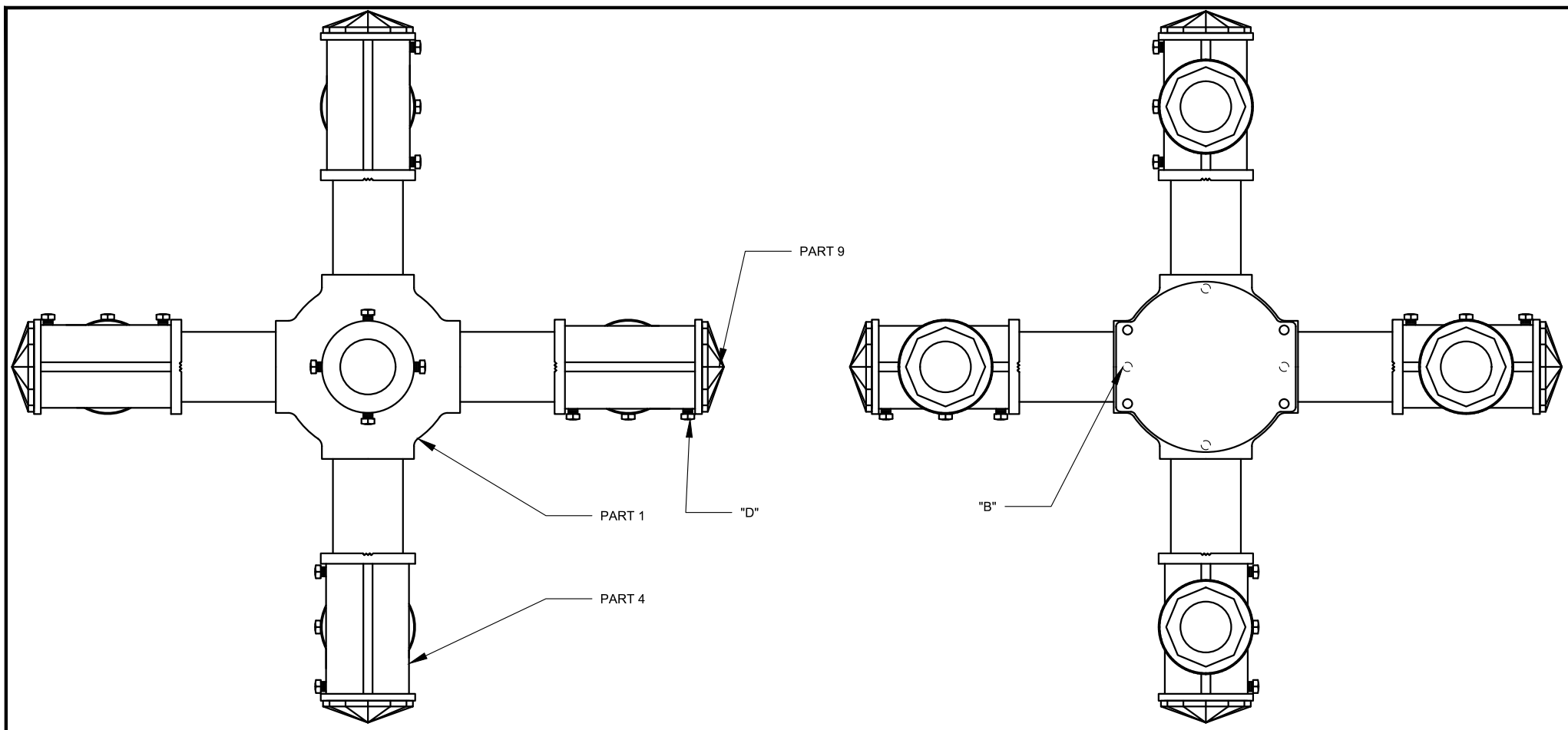
FOR "E3MS" PARTS LIST SEE DWG. SE-004_6.

REVISION			
NO	DATE	BY	DESCRIPTION
1	06/2020	DR	UPDATED PARTS LIST
0	07/2011	GPI	CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C.,N.Y.11101		
MAST ARM TRAFFIC SIGNAL MOUNTING ASSEMBLY "3MS" - DETAIL		
SCALE:	OLD DRAWING NO.	DRAWING NO.
3" = 1'-0"		SE-004_4

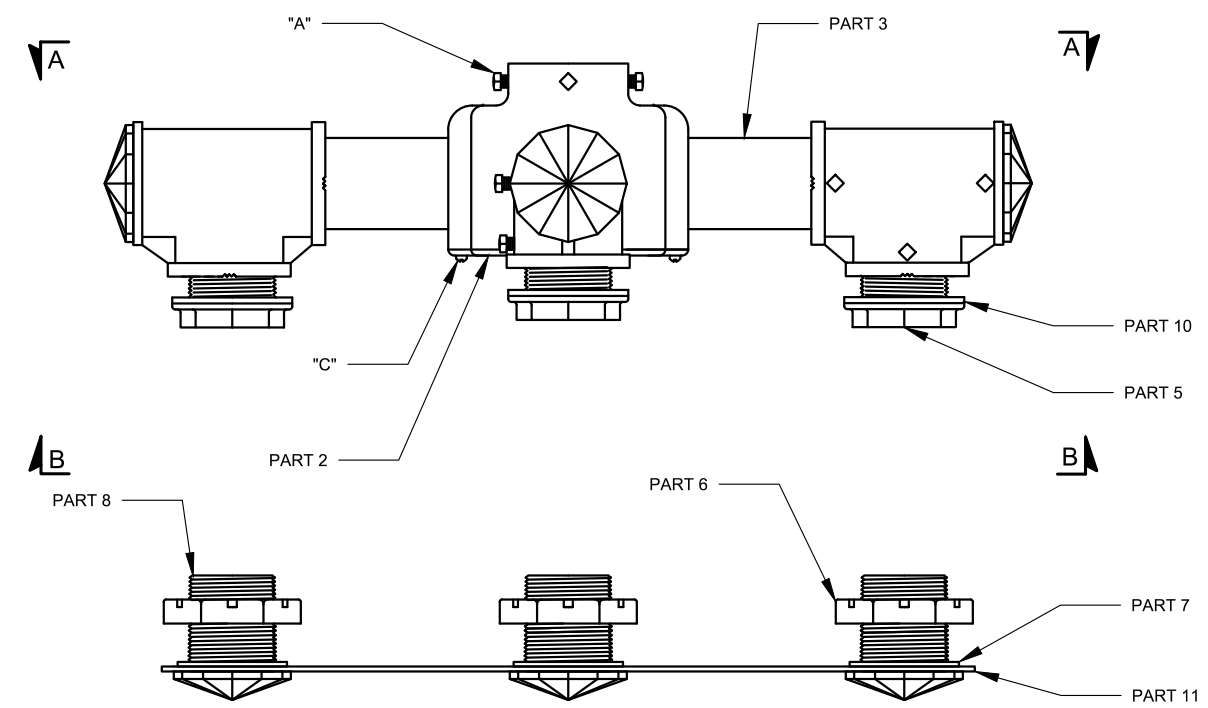


NYCDOT TRAFFIC SIGNAL STANDARD DRAWINGS, Jun 2020



VIEW "A-A"

VIEW "B-B"



FRONT VIEW

FOUR-WAY MAST ARM SIGNAL MOUNTING ASSEMBLY

PARTS LIST			
PART	DESCRIPTION	DRAWING NO.	QTY.
1	FOUR-WAY AL. JUNCTION BOX (LC-23-1)	SE-005	1
2	AL. JUNCTION BOX COVER (LC-23-3)	SE-005	1
3	1 1/2"x4" LONG SCHEDULE 40 AL. PIPE, 11 1/2 NPSM 3/4" THREADED ON BOTH ENDS		4
4	1 1/2" DIE CAST AL. SERRATED TEE WITH TWO SERRATED BOSSEWS	SE-007_2	4
5	1 1/2"x1 3/4" LONG DIE CAST AL. CHASE NIPPLE (LC-8-2)	SE-009	4
6	1 1/2" DIE CAST AL. PIPE LOCKNUT	SE-010	4
7	1 1/2" DIE CAST AL. SERRATED LOCKING RING	SE-008	4
8	1 1/2"x2" LONG DIE CAST AL. CLOSURE CAP (LC-8-6)	SE-011	4
9	1 1/2"x5/8" LONG POLYCARBONATE CLOSURE CAP (LC-8-4)	SE-011	4
10	NEOPRENE SEAL WASHER 2 3/4"ODx1 7/8"IDx1/8"TH (N.I.C.*)		4
11	FOUR-WAY SIGNAL HEAD STEEL TIE	SE-013	1
"A"	1/4"-20x5/8" LONG ST. STEEL SQ. HEAD HOLLOW NOSE SET SCREW		4
"B"	1/4"-20x7/16" LONG ST. STEEL SOCKET HEAD SET SCREW		4
"C"	#10-24x5/8" LONG ST. STEEL FILLISTER HEAD MACHINE SCREW		4
"D"	1/4"-20x1/2" LONG ST. STEEL SQ. HEAD HOLLOW NOSE SET SCREW		12

*N.I.C.-(NOT SUPPLIED)

NOTES:

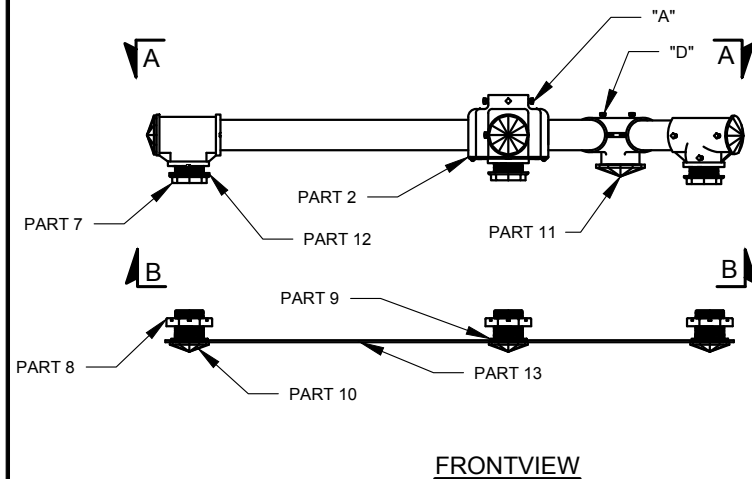
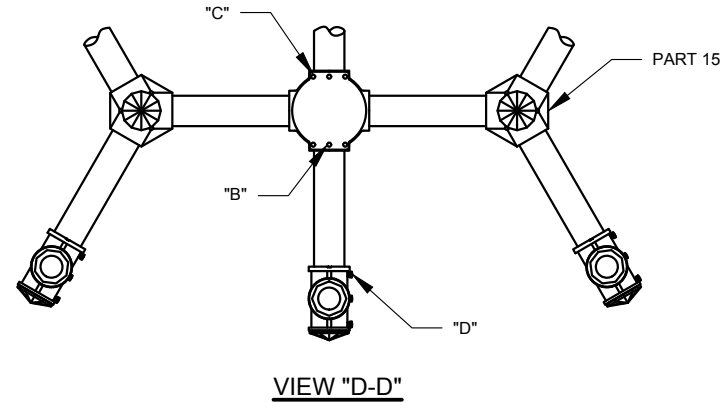
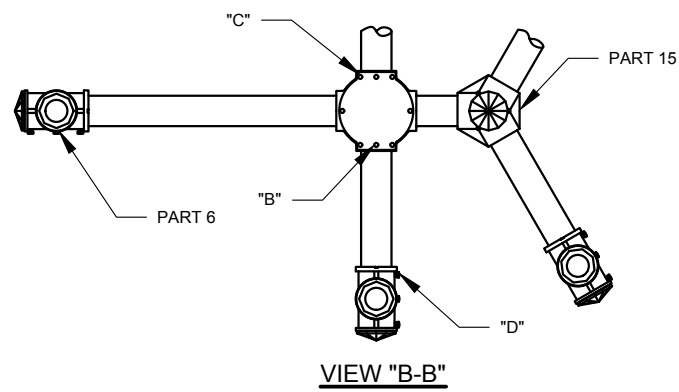
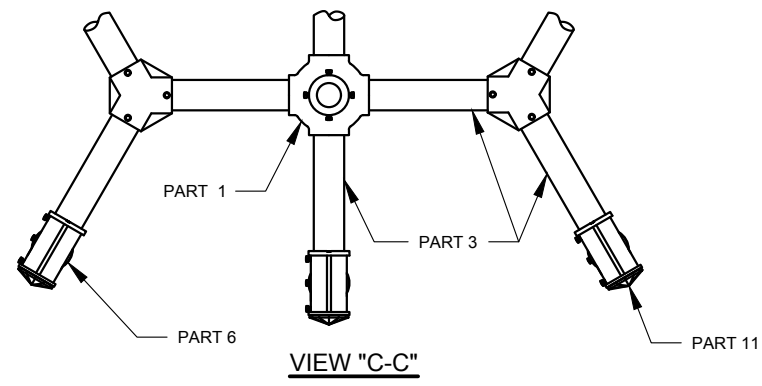
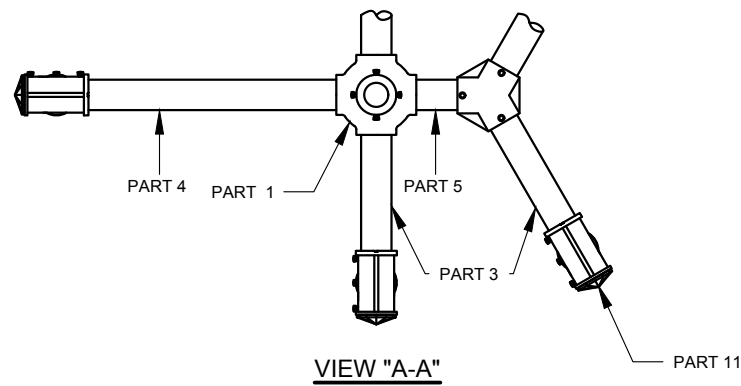
THE EXTENDED FOUR-WAY MAST ARM SIGNAL MOUNTING ASSEMBLY "E4MS" IS SIMILAR TO THE "4MS" ASSEMBLY EXCEPT THAT:
 1. THE ALUMINUM PIPE MEASURES 1 1/2"x8 3/4" (INSTEAD OF 4" IN "4MS")
 2. THE EXTENDED FOUR-WAY SIGNAL HEAD STEEL TIE IS 23" CENTER TO CENTER (INSTEAD OF 14" IN "2MS")
 FOR "E2MS" PARTS LIST SEE DWG. SE-004_6.



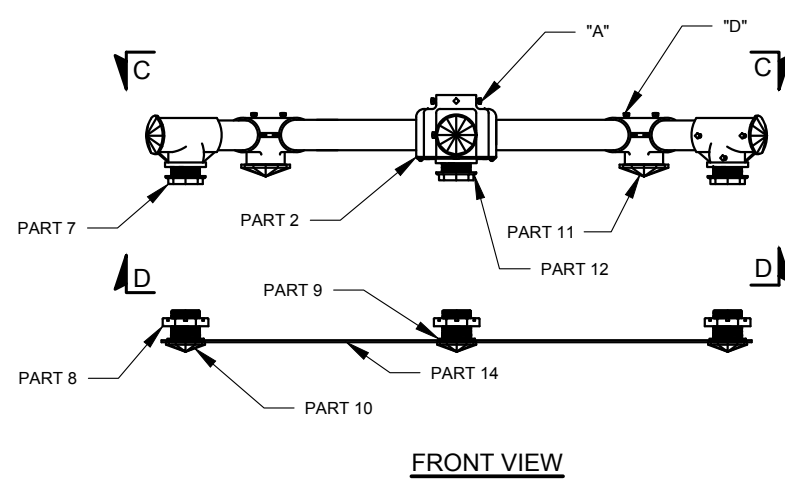
REVISION			
NO	DATE	BY	DESCRIPTION
1	06/2020	DR	UPDATED PARTS LIST
0	07/2011	GPI	CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C.,N.Y. 11101		
MAST ARM TRAFFIC SIGNAL MOUNTING ASSEMBLY "4MS" - DETAIL		
SCALE:	OLD DRAWING NO.	DRAWING NO.
3" = 1'-0"		SE-004_5

NYCDOT TRAFFIC SIGNAL STANDARD DRAWINGS, Jun 2020



**EXTENDED FIVE-WAY MAST ARM
SIGNAL MOUNTING ASSEMBLY**



**EXTENDED SIX-WAY MAST ARM
SIGNAL MOUNTING ASSEMBLY**

PARTS LIST

PART NO.	DESCRIPTION	DRAWING NO.	QTY. REQ'D FOR ASSEMBLY TYPE				
			"E2MS"	"E3MS"	"E4MS"	"E5MS"	"E6MS"
1	FOUR WAY AL. JUNCTION BOX (LC-23-1)	SE-005	1		1	1	1
2	AL. JUNCTION BOX (LC-23-3)	SE-005	1	1	1	1	1
3	1 1/2"x8 3/4" LONG SCHEDULE 40 AL. PIPE, 11 1/2 NPSM 3/4" THREADED ON BOTH ENDS		2	3	4	4	6
4	1 1/2"x17" LONG SCHEDULE 40 AL. PIPE, 11 1/2 NPSM 3/4" THREADED ON BOTH ENDS					1	
5	1 1/2"x4" LONG SCHEDULE 40 AL. PIPE, 11 1/2 NPSM 3/4" THREADED ON BOTH ENDS					1	
6	1 1/2" DIE CAST AL. SERRATED TEE WITH TWO SERRATED BOSSES	SE-007_2	2	3	4	5	6
7	1 1/2"x1 3/4" LONG DIE CAST AL. CHASE NIPPLE (LC-8-2)	SE-009	2	3	4	5	6
8	1 1/2" DIE CAST AL. PIPE LOCKNUT	SE-010	2	3	4	5	6
9	1 1/2" DIE CAST AL. SERRATED LOCKING RING	SE-008	2	3	4	5	6
10	1 1/2"x2" LONG DIE CAST AL. CLOSURE CAP (LC-8-6)	SE-011	2	3	4	5	6
11	1 1/2"x5/8" POLYCARBONATE CLOSURE CAP (LC-8-4)	SE-011	2	3	4	5	6
12	NEOPRENE SEAL WASHER 2 3/4" ODx1 7/8" IDx1/8" TH (N.I.C*)		2	3	4	5	6
13	EXTENDED FIVE-WAY SIGNAL HEAD STEEL TIE	SE-013				1	
14	EXTENDED SIX-WAY SIGNAL HEAD STEEL TIE	SE-013					1
15	1 1/2" 120 DEG. DIE CAST AL. "Y" CONNECTOR WITH SIDE OUTLET	SE-020				1	2
"A"	1/4"-20x5/8" LONG ST. STEEL SQ. HEAD HOLLOW NOSE SET SCREW ("A")		4	4	4	4	4
"B"	1/4"-20x7/16" LONG ST. STEEL SOCKET HEAD SET SCREW ("B")		2	3	4	4	4
"C"	#10-24x5/8" LONG ST. STEEL FILLISTER HEAD MACHINE SCREW ("C")		4	4	4	4	4
"D"	1/4"-20x1/2" LONG ST. STEEL SQ. HEAD HOLLOW NOSE SET SCREW ("D")		6	9	12	18	21
	THREE-WAY AL. JUNCTION BOX (LC-23-2)**	SE-005		1			
	EXTENDED TWO-WAY SIGNAL HEAD STEEL TIE***	SE-013	1				
	EXTENDED THREE-WAY SIGNAL HEAD STEEL TIE (120 DEG.)**	SE-013		1			
	EXTENDED FOUR-WAY SIGNAL HEAD STEEL TIE ****	SE-013			1		

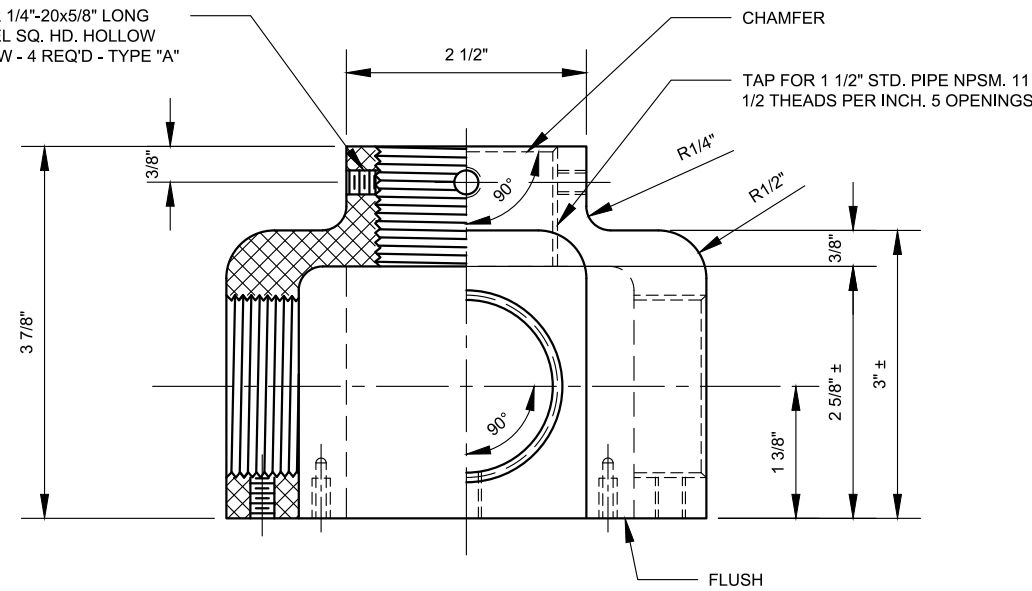
* - NOT IN CONTRACT (N.I.C)
 ** - DRAWING FOR "E3MS" ASSEMBLY IS SIMILAR TO DRAWING FOR "3MS" ASSEMBLY (SE-004_4)
 *** - DRAWING FOR "E2MS" ASSEMBLY IS SIMILAR TO DRAWINGS FOR "2MS" ASSEMBLY (SE-004_3)
 **** - DRAWING FOR "E4MS" ASSEMBLY IS SIMILAR TO DRAWINGS FOR "4MS" ASSEMBLY (SE-004_5)

REVISION			
1	06/2020	DR	UPDATED PARTS LIST
0	07/2011	GPI	CREATED
NO	DATE	BY	DESCRIPTION

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C.,N.Y.11101		
MAST ARM TRAFFIC SIGNAL MOUNTING ASSEMBLIES "E5MS", "E6MS"		
SCALE:	OLD DRAWING NO.	DRAWING NO.
1" = 1'-0"		SE-004_6

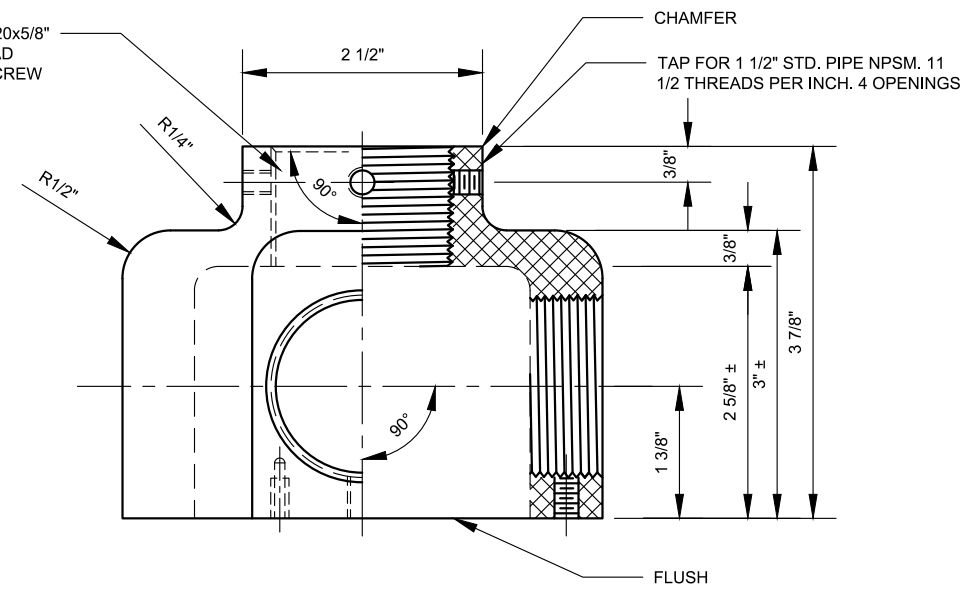


DRILL & TAP FOR 1/4"-20x5/8" LONG STAINLESS STEEL SQ. HD. HOLLOW NOSE SET SCREW - 4 REQ'D - TYPE "A"



SECTION ELEVATION "A-A"

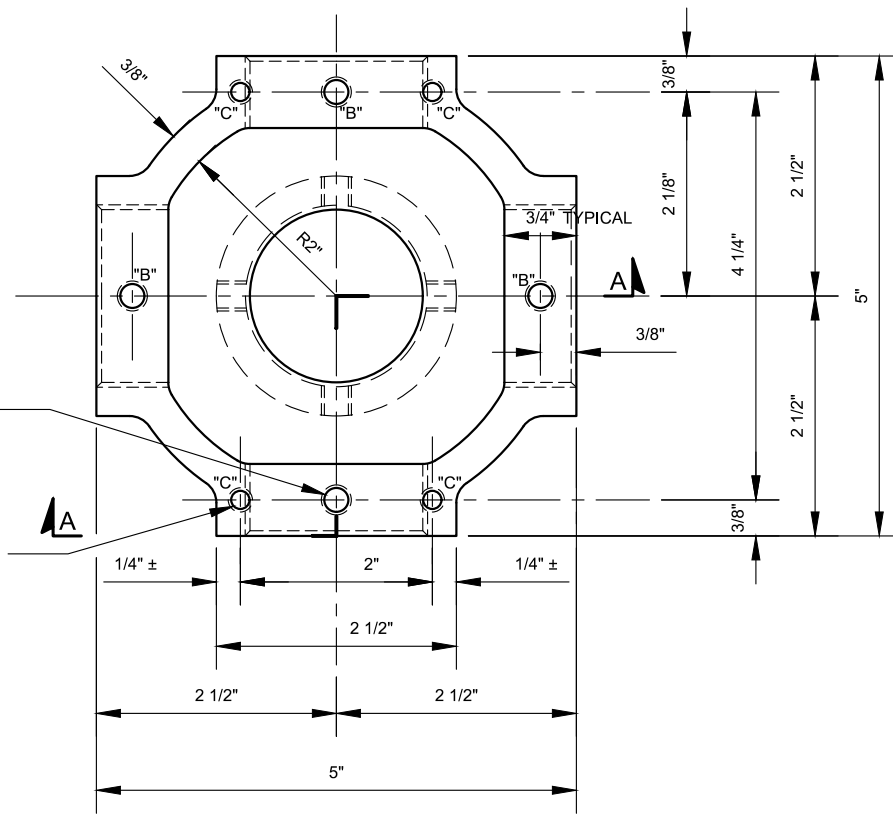
DRILL & TAP FOR 1/4"-20x5/8" LG. ST. STEEL SQ. HEAD HOLLOW NOSE SET SCREW TYPE "A" - 4 REQ'D



SECTION ELEVATION "B-B"

DRILL & TAP FOR 1/4"-20x7/16" LONG STAINLESS STEEL SOCKET HD. SET SCREW - TYPE "B" (4 PIECES REQUIRED AND SHALL BE SUPPLIED)

DRILL & TAP FOR #10-24x5/8" LG. ST. STEEL FILLISTER HEAD MACHINE SCREWS - TYPE "C" (4 PIECES REQUIRED AND SHALL BE SUPPLIED)

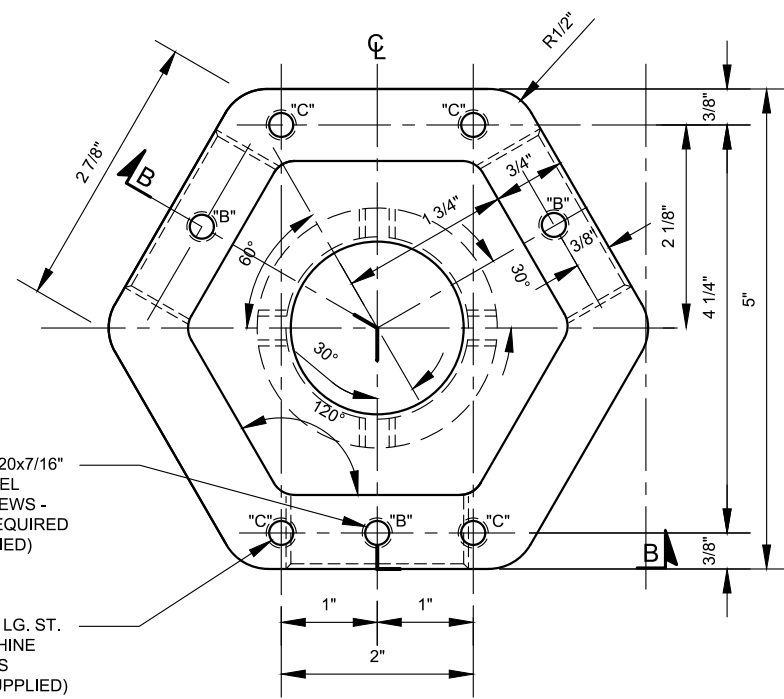


BOTTOM VIEW
FOUR-WAY JUNCTION BOX

LC-23-1

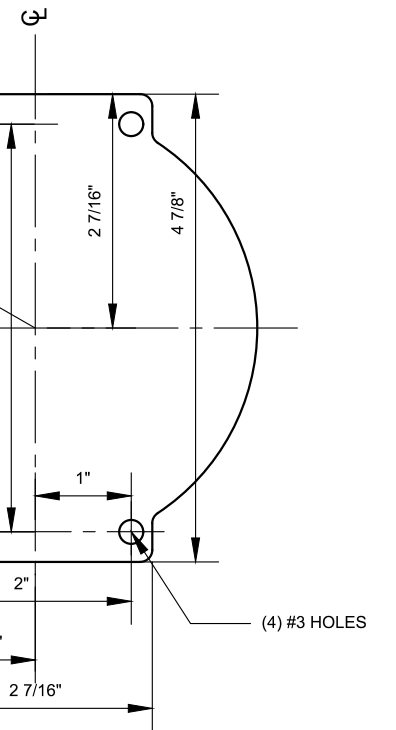
DRILL & TAP FOR 1/4"-20x7/16" LONG STAINLESS STEEL SOCKET HD. SET SCREWS - TYPE "B" (3 PIECES REQUIRED AND SHALL BE SUPPLIED)

DRILL & TOP FOR #10-24x5/8" LG. ST. STEEL FILLISTER HEAD MACHINE SCREWS - TYPE "C" (4 PIECES REQUIRED AND SHALL BE SUPPLIED)



BOTTOM VIEW
THREE-WAY JUNCTION BOX

LC-23-2



COVER - PLAN VIEW

LC-23-3

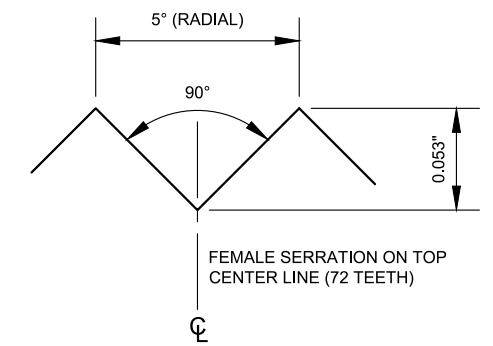
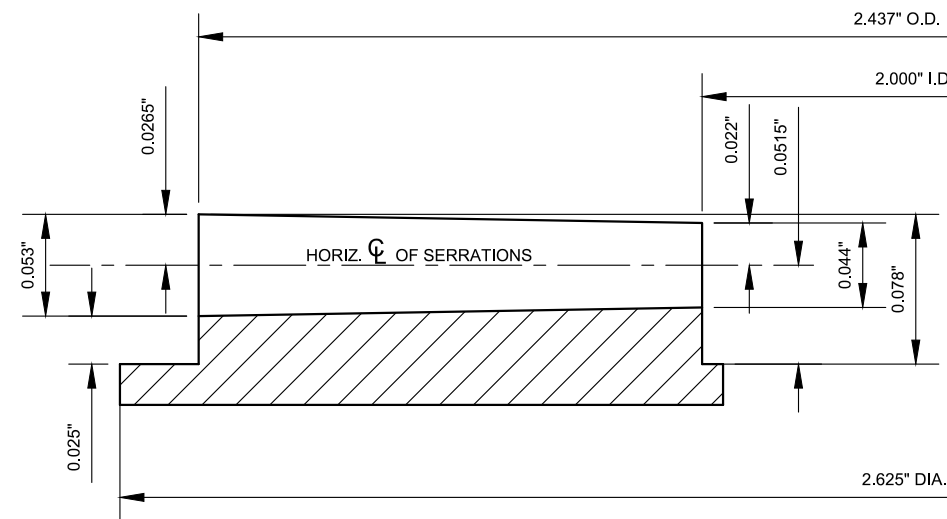
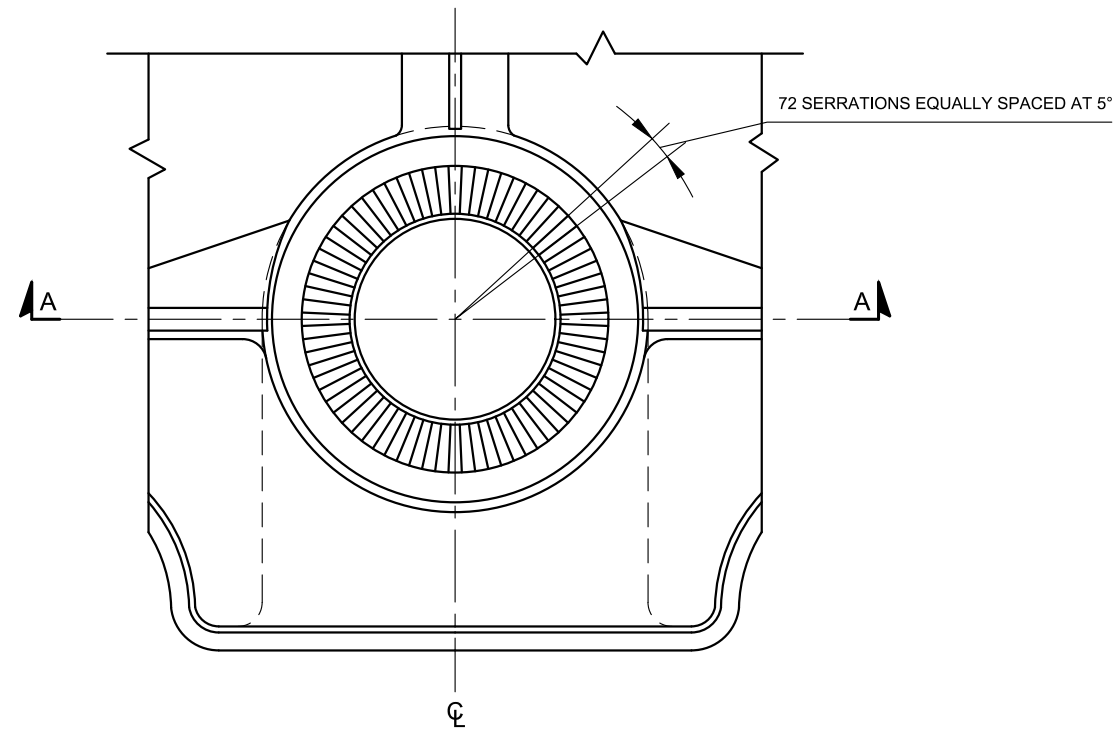
NOTES:

- FOR ASSEMBLIES OF SPIDER SEE DWG. SE-004.
- TOLERANCES, UNLESS OTHERWISE NOTED, TO BE: ± .01" FOR DECIMAL DIMENSIONS, ± 1/32" FOR MACHINING DIMENSIONS, ± 1/16" FOR CASTING DIMENSIONS, AND ± 1/2° FOR ANGULAR DIMENSION.
- PIPE THREADS FOR ALL PIPE FITTINGS TO BE NPSM (STRAIGHT MACHINE).
- COVER TO BE PUNCHED OUT OF #11 GAUGE ALUMINUM SHEETING, ALLOY 6061-T6, INCLUDING HOLES.



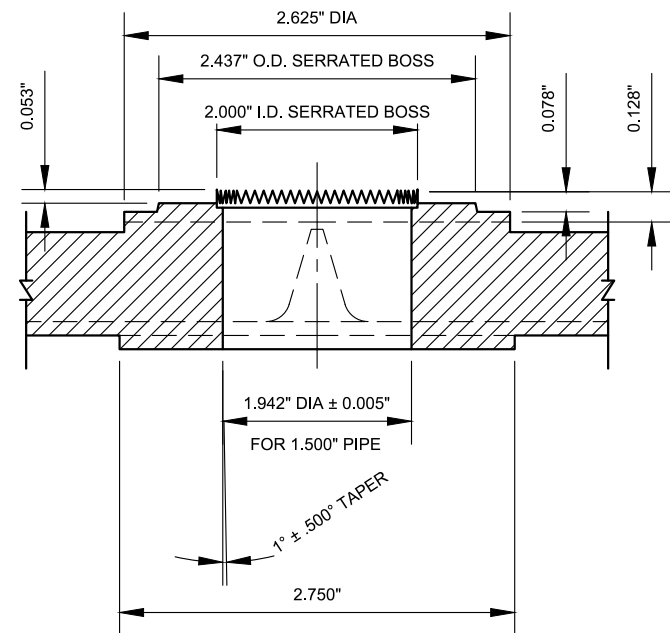
REVISION			
NO	DATE	BY	DESCRIPTION
3	05/2020	DR	SET SCREW SHALL BE SUPPLIED
2	07/2011	GPI	REPLICATED IN CADD
1	05/2006	NM	REVISION
0	11/1954	CR	LC-23 CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
JUNCTION BOXES FOR MAST ARM SPIDER ASSEMBLIES		
SCALE:	OLD DRAWING NO.	DRAWING NO.
6" = 1'-0"	LC-23	SE-005



DETAIL OF SERRATIONS

SCALE: 1" = 0.100"

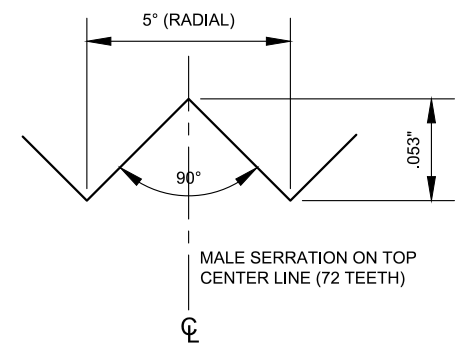
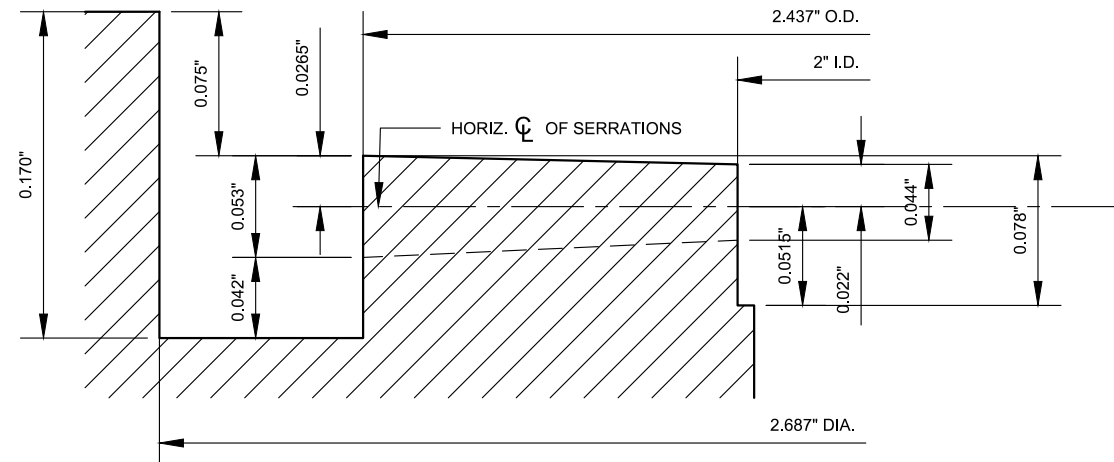
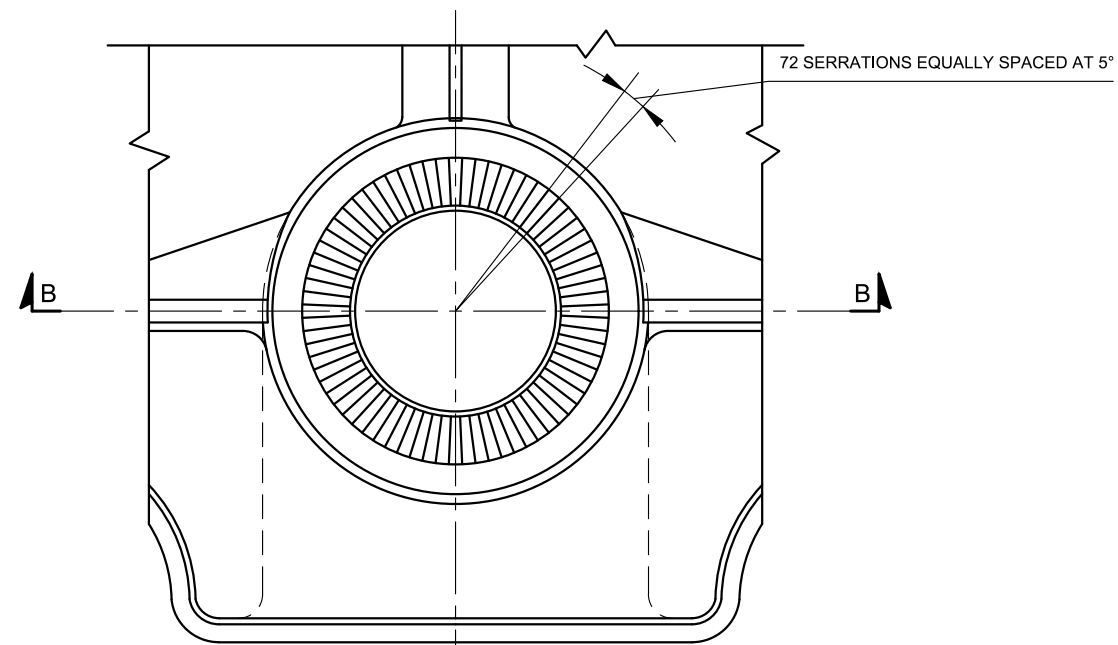


NOTE:
FEMALE SERRATION ON
TOP CENTERLINE



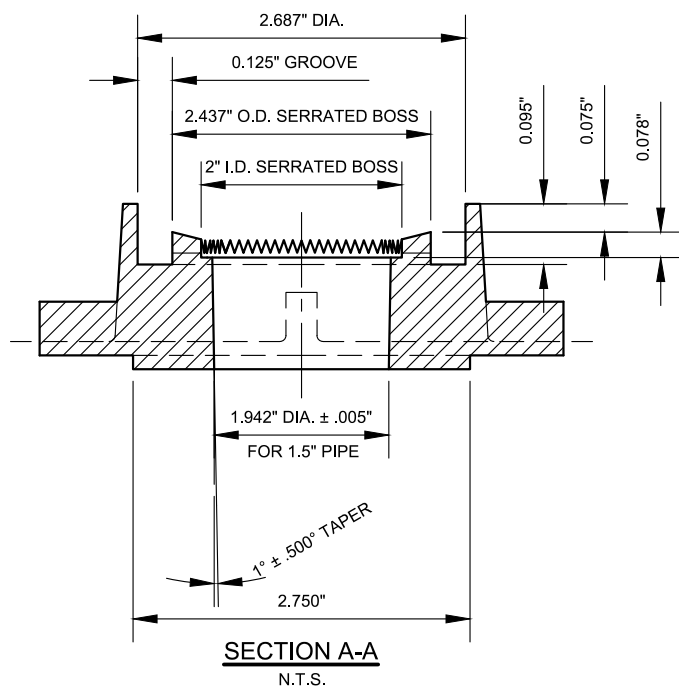
REVISION			
NO	DATE	BY	DESCRIPTION
1	07/2011	GPI	REPLICATED IN CADD
0	02/1965	DSH	LB-634S CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
SERRATED CONNECTION FOR SIGNAL SECTION TOP		
SCALE:	OLD DRAWING NO.	DRAWING NO.
AS NOTED	LB-634S	SE-006_1



DETAIL OF SERRATIONS

SCALE: 1" = 0.100"



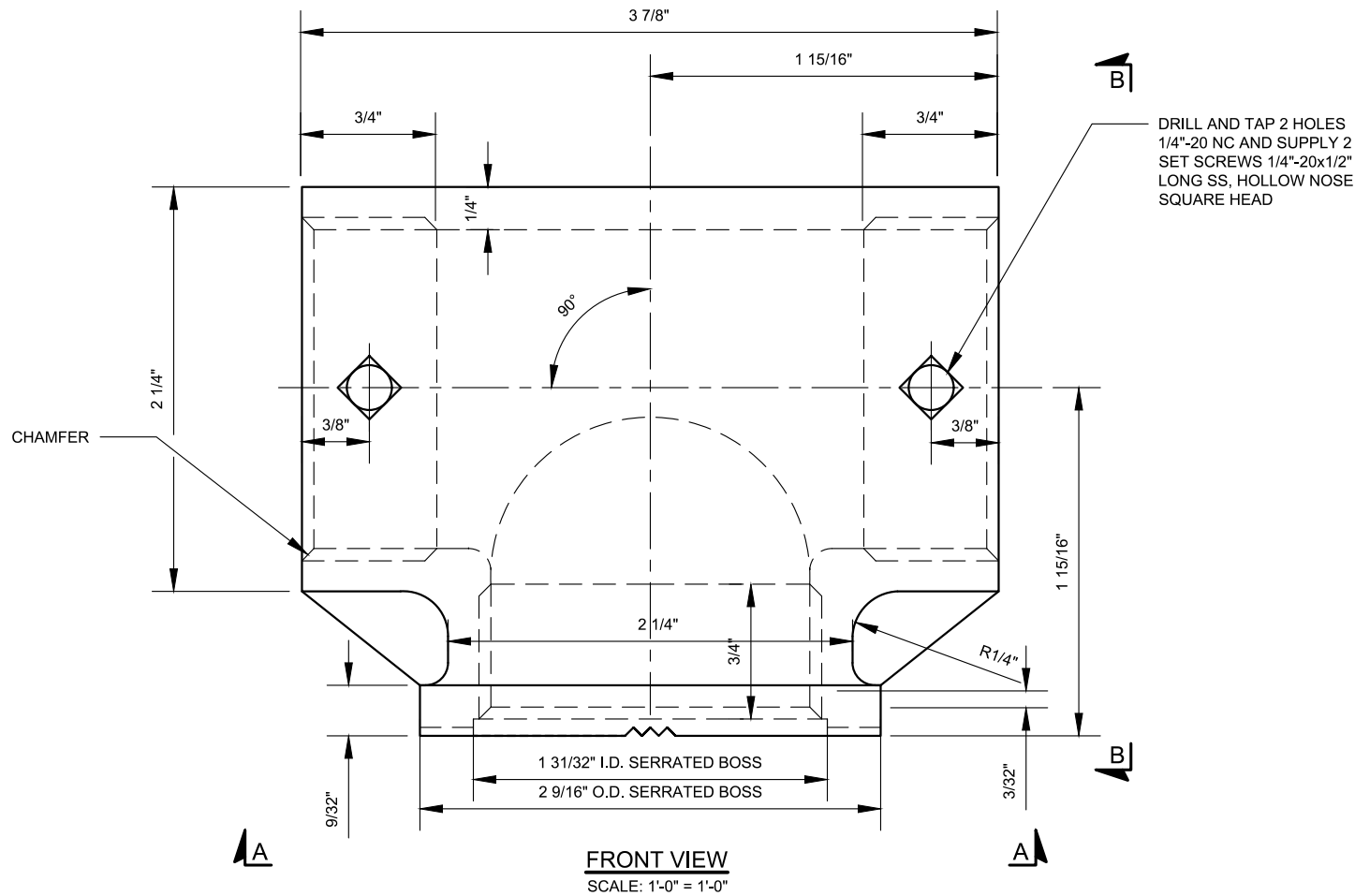
NOTE:
MALE SERRATION ON
TOP CENTERLINE

NYCDOT TRAFFIC SIGNAL STANDARD DRAWINGS, Jun 2020

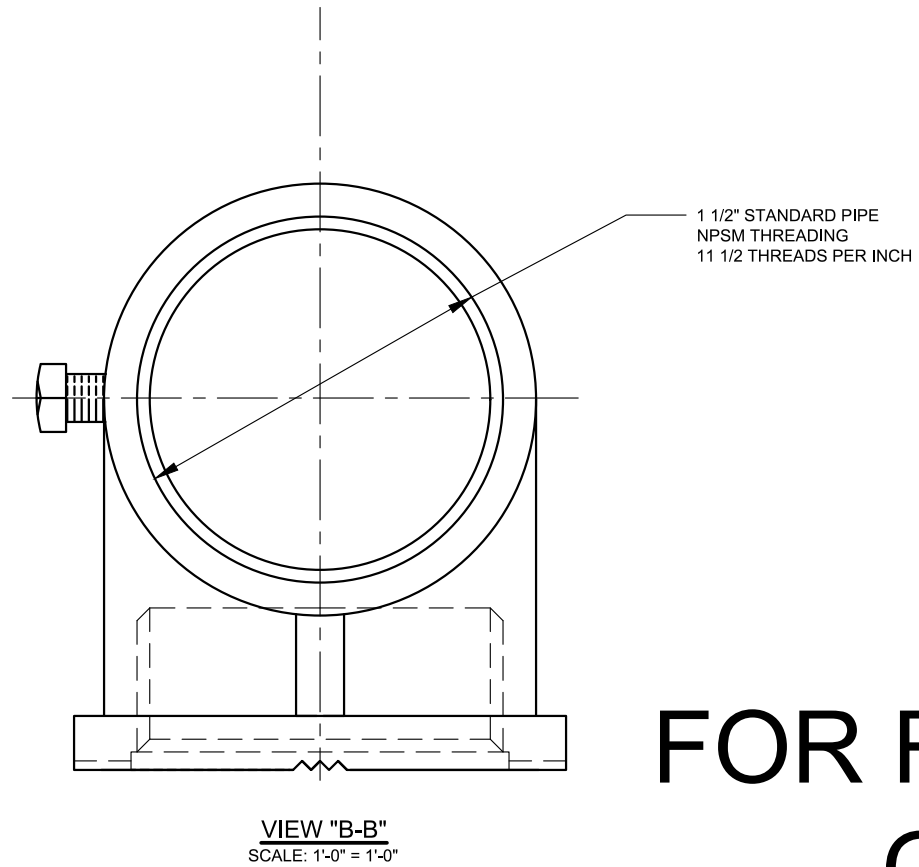


REVISION			
NO	DATE	BY	DESCRIPTION
1	07/2011	GPI	REPLICATED IN CADD
0	02/1965	DSH	LB-635S CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
SERRATED CONNECTION FOR SIGNAL SECTION BOTTOM		
SCALE:	OLD DRAWING NO.	DRAWING NO.
AS NOTED	LB-635S	SE-006_2



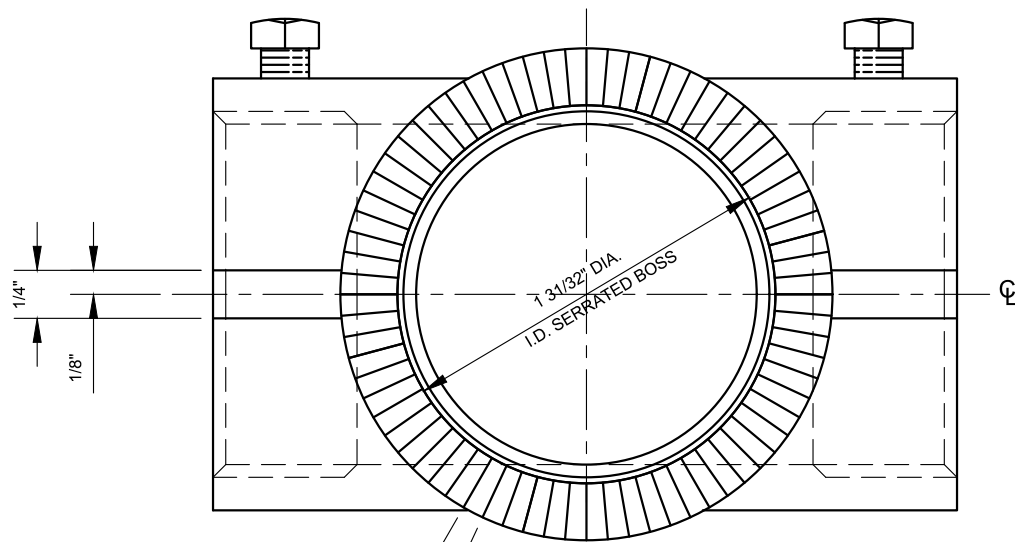
DRILL AND TAP 2 HOLES
1/4"-20 NC AND SUPPLY 2
SET SCREWS 1/4"-20x1/2"
LONG SS, HOLLOW NOSE
SQUARE HEAD



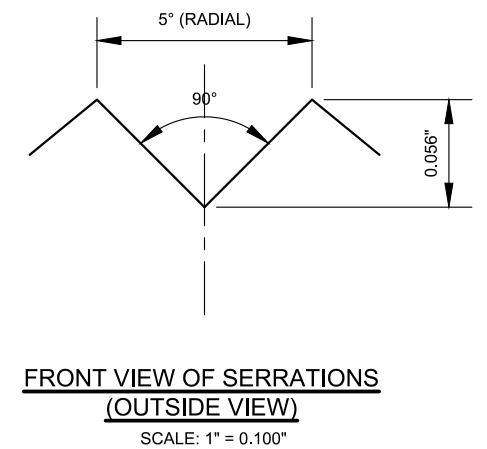
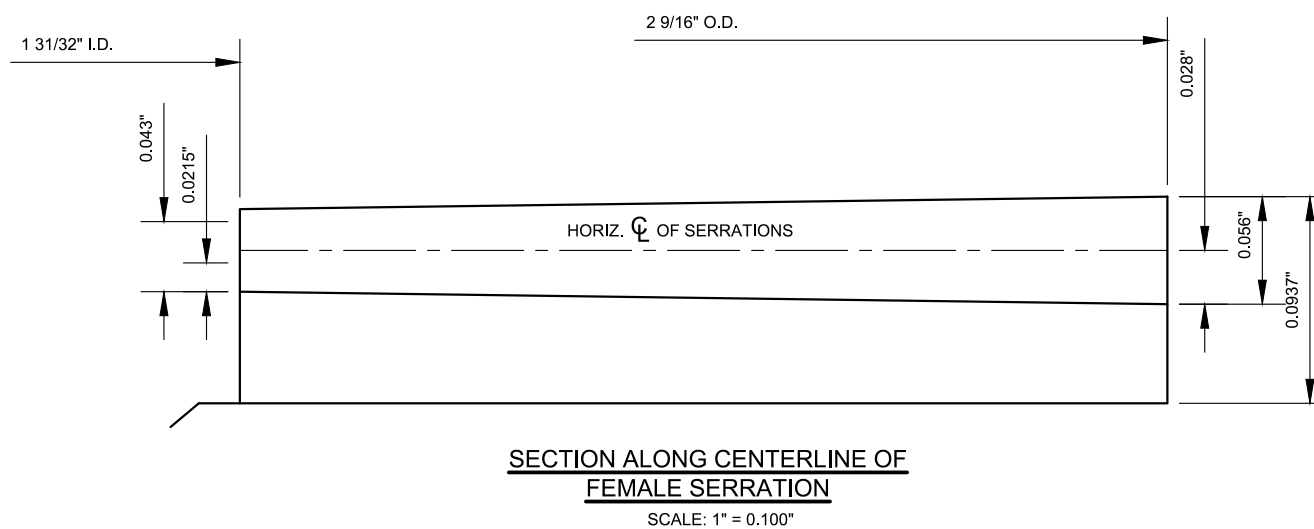
NOTES:

1. MATERIAL-ALUM. BASE ALLOY DIE CASTING COMMERCIAL DESIGNATION NO.13
2. RADII - 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 BLOW HOLES, SCALES, FINS, BURRS, DENTS, AND CRACKS.
6. DEBURR & BREAK ALL SHARP EDGES.
7. ALL INSIDE EDGES SHALL BE CHAMFERED

FOR REMOVAL ONLY



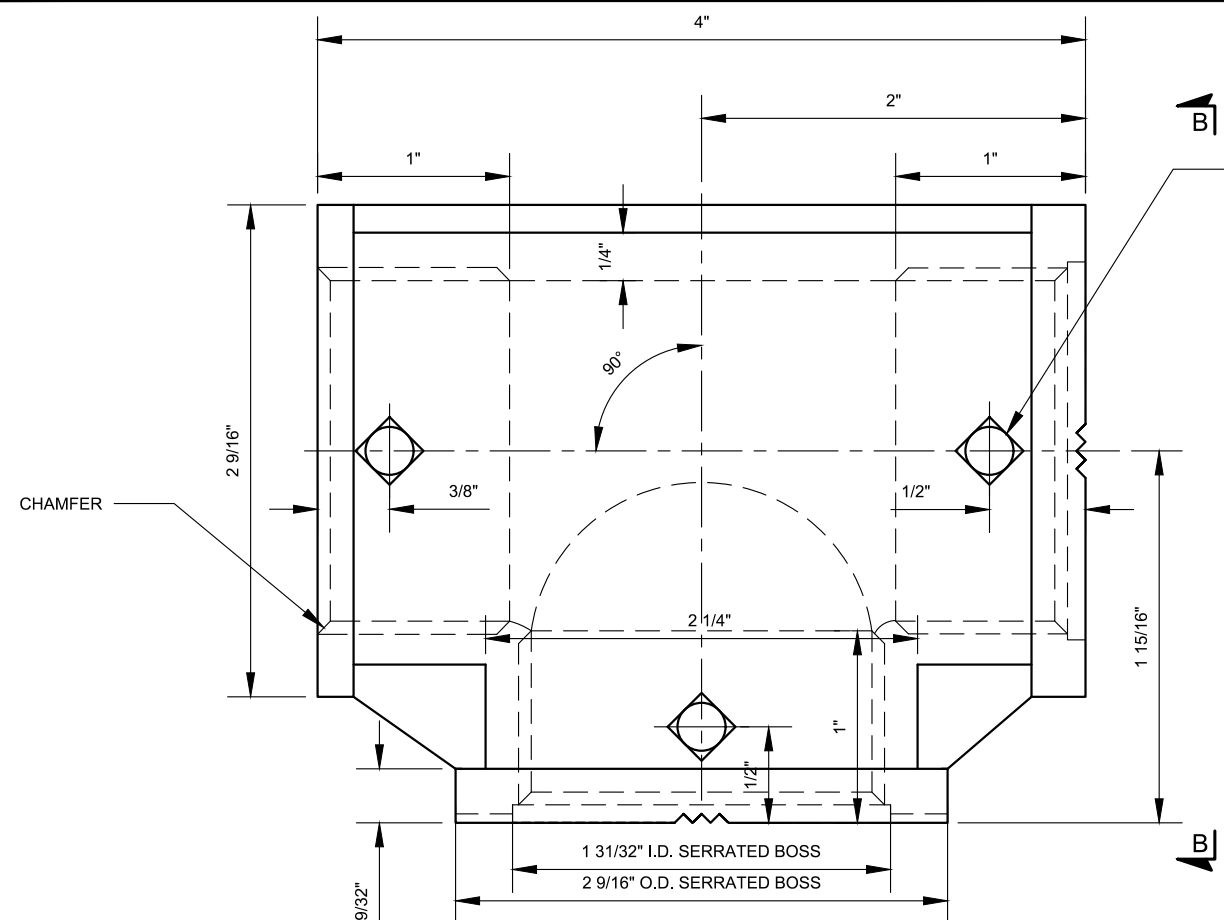
72 SERRATIONS EQUALLY SPACED AT 5°



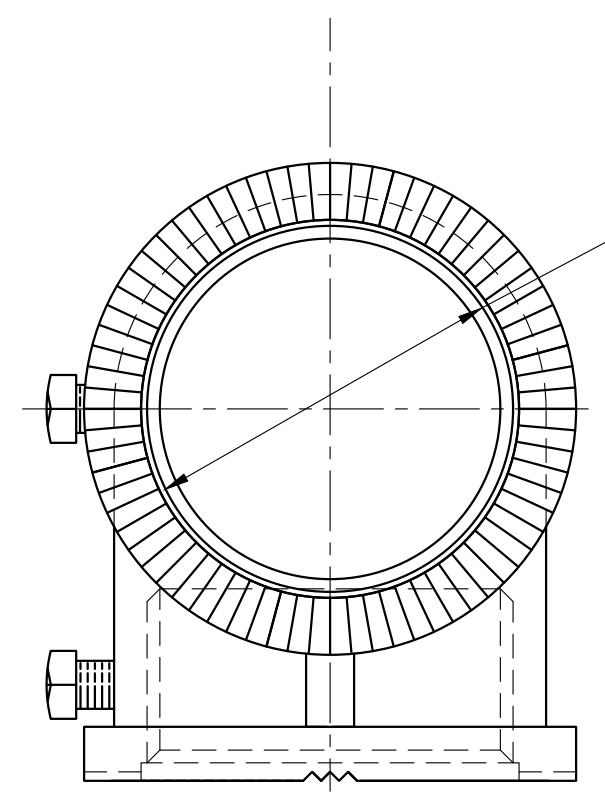
REVISION			
NO	DATE	BY	DESCRIPTION
5	05/2020	DR	FOR REMOVAL ONLY
4	07/2011	GPI	REPLICATED IN CADD
3	05/2006	NM	REVISED
2	08/1967	DSH	CHANGED LENGTH OF THREADING
1	01/1967	DSH	REVISED TMD & NOTES
0	03/1965	DSH	LB-639S CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
1 1/2" DIE CAST ALUM. SERRATED TEE DETAIL		
SCALE:	OLD DRAWING NO.	DRAWING NO.
AS NOTED	LB-639S	SE-007_1

NYC DOT TRAFFIC SIGNAL STANDARD DRAWINGS, Jun 2020



DRILL AND TAP 3 HOLES
1/4"-20 NC AND SUPPLY 3
SET SCREWS 1/4"-20x1/2"
LONG SS, HOLLOW NOSE
SQUARE HEAD



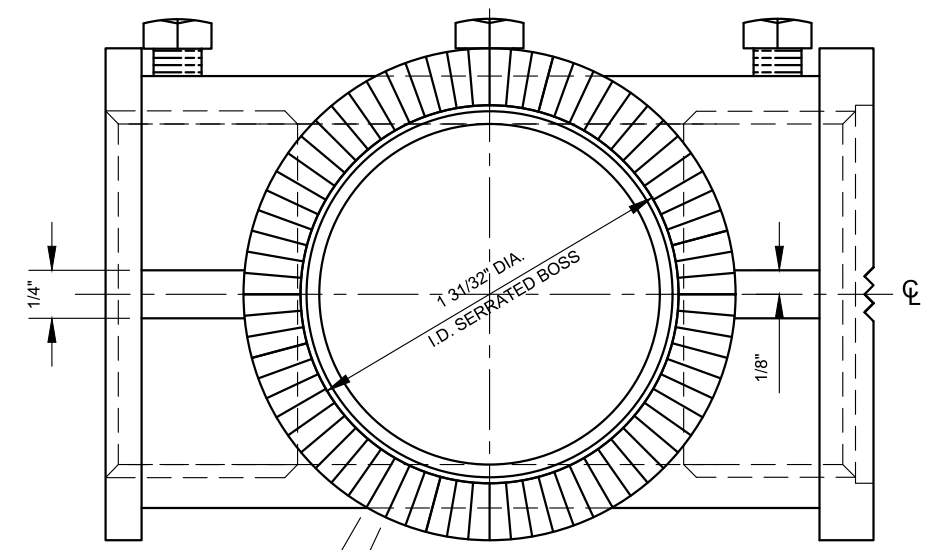
1 1/2" STANDARD PIPE
NPSM THREADING
11 1/2 THREADS PER INCH

NOTES:

1. MATERIAL-ALUM. BASE ALLOY DIE CASTING COMMERCIAL DESIGNATION NO.13
2. RADII - 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 BLOW HOLES, SCALES, FINS, BURRS, DENTS, AND CRACKS.
6. DEBURR & BREAK ALL SHARP EDGES.
7. ALL INSIDE EDGES SHALL BE CHAMFERED

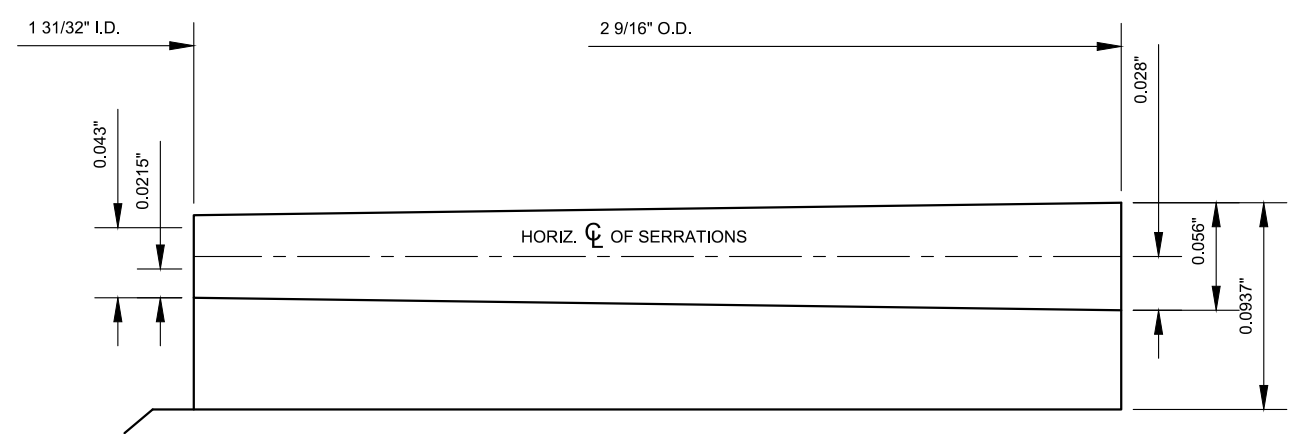
VIEW "B-B"
SCALE: 1'-0" = 1'-0"

FRONT VIEW
SCALE: 1'-0" = 1'-0"

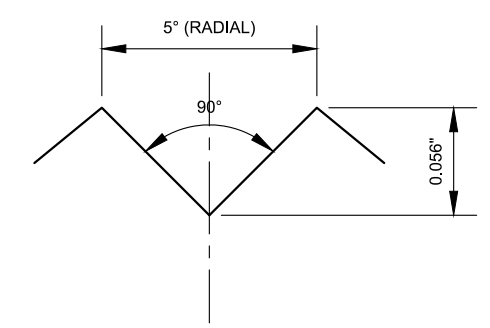


VIEW "A-A"
SCALE: 1'-0" = 1'-0"

72 SERRATIONS EQUALLY SPACED AT 5°



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

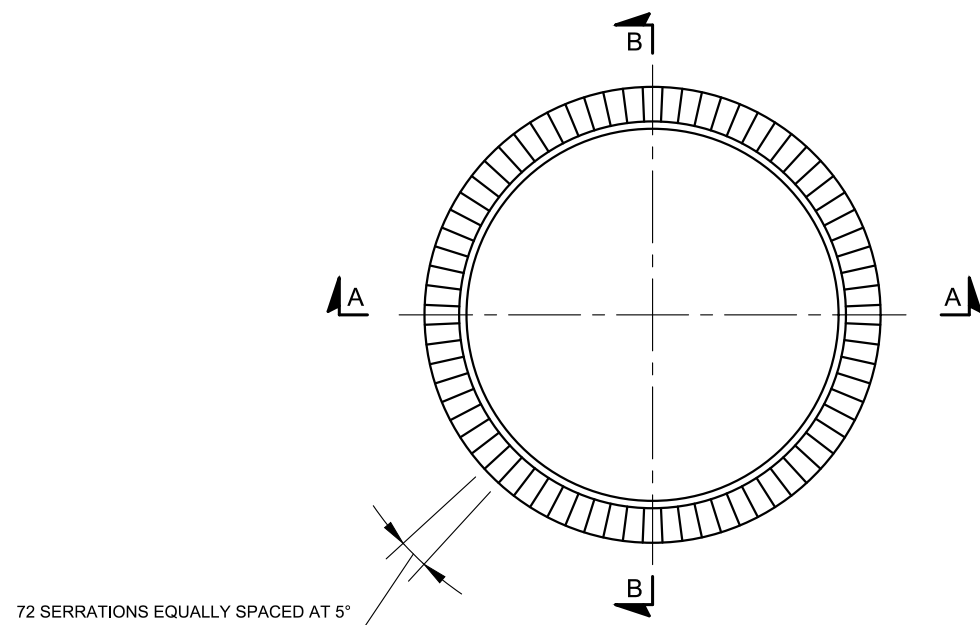


FRONT VIEW OF SERRATIONS (OUTSIDE VIEW)
SCALE: 1" = 0.100"

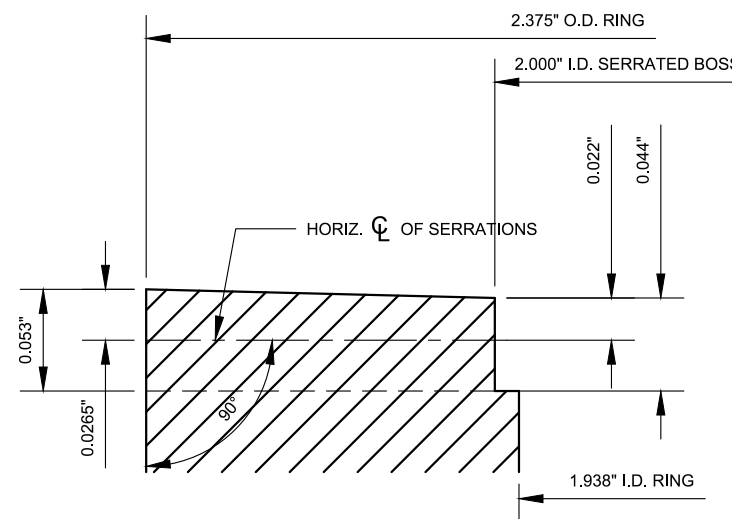


REVISION			
0	07/2013	DR	CREATED
NO	DATE	BY	DESCRIPTION

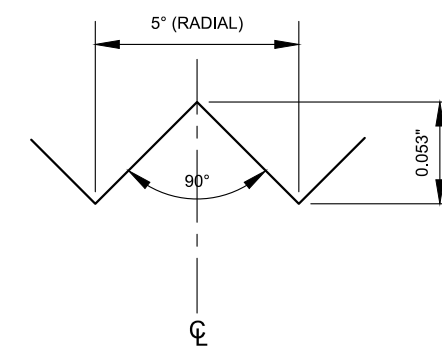
DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
1 1/2" DIE CAST ALUM. SERRATED TEE DETAIL TWO SERRATED BOSSES		
SCALE:	OLD DRAWING NO.	DRAWING NO.
AS NOTED	LB-639S	SE-007_2



TOP VIEW OF 72 TEETH SERRATED RING



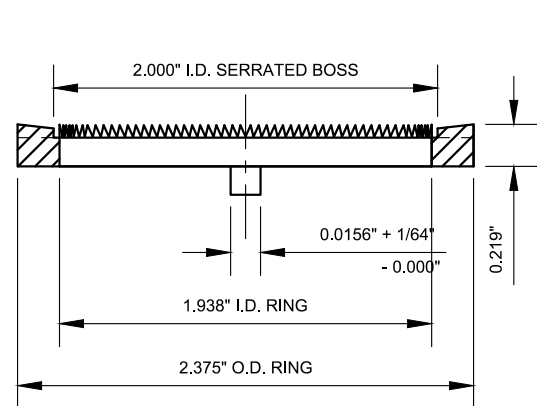
SECTION ALONG CENTER LINE OF MALE SERRATION



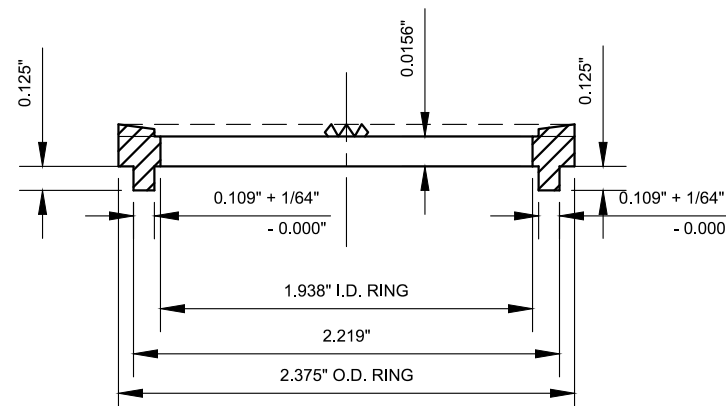
OUTSIDE FRONT VIEW OF MALE SERRATION

DETAIL OF SERRATIONS

SCALE: 1" = 0.100"



SECTION A-A



SECTION B-B

SERRATED RING

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

NYCDOT TRAFFIC SIGNAL STANDARD DRAWINGS, Jun 2020

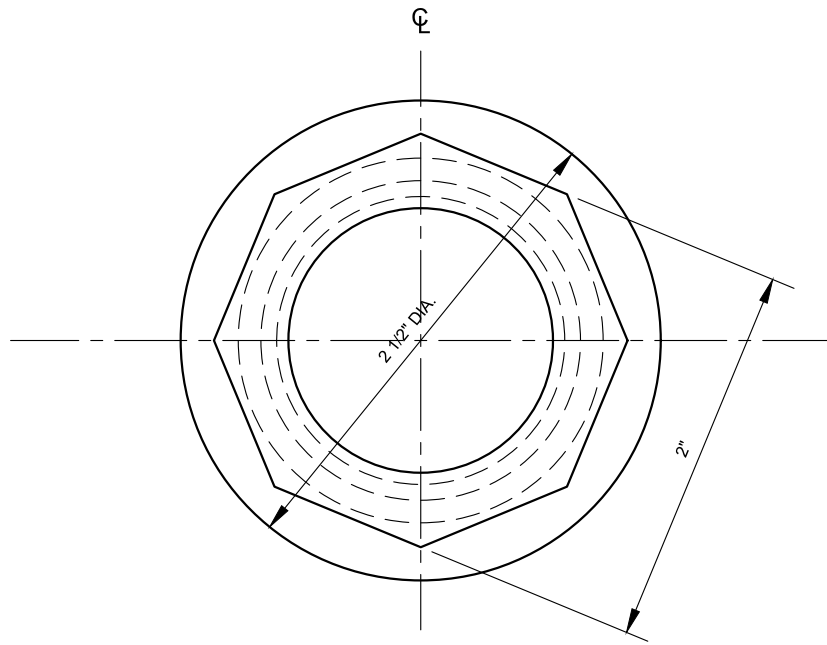


REVISION			
NO	DATE	BY	DESCRIPTION
3	07/2011	GPI	REPLICATED IN CADD
2	05/2006	NM	LB14252S REPLACED
0	03/1965	DSH	LG-158S CREATED

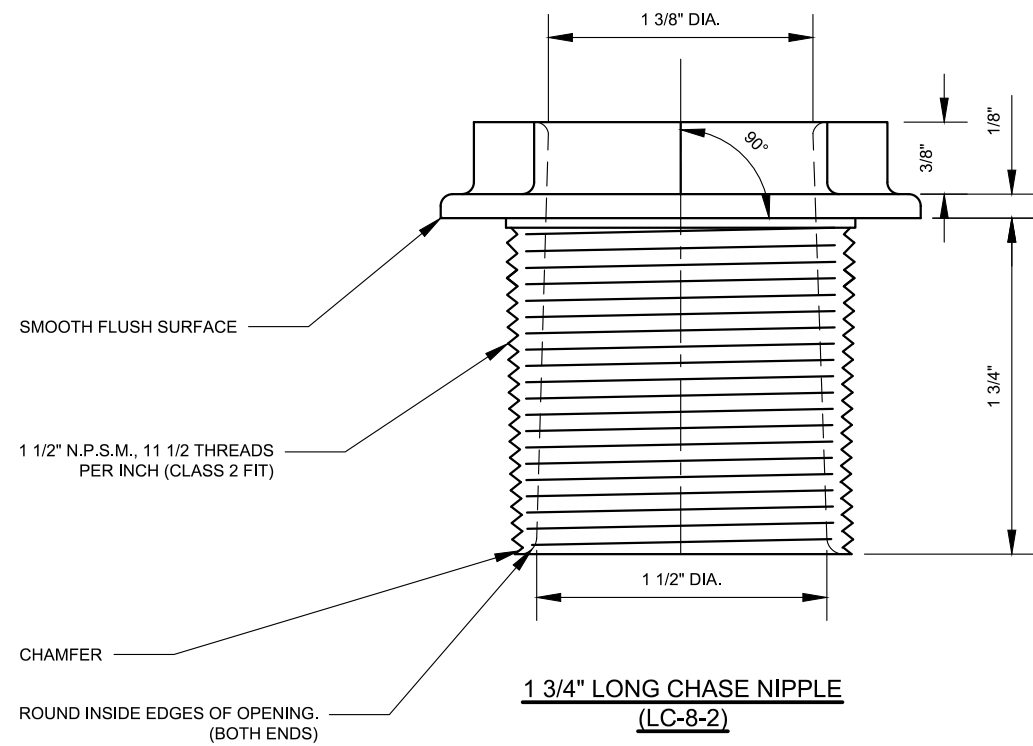
DEPARTMENT OF TRANSPORTATION
BUREAU OF TRAFFIC OPERATIONS
34-02 QUEENS BLVD L.I.C., N.Y. 11101

1 1/2" DIE CAST SERRATED LOCKING RING DETAIL

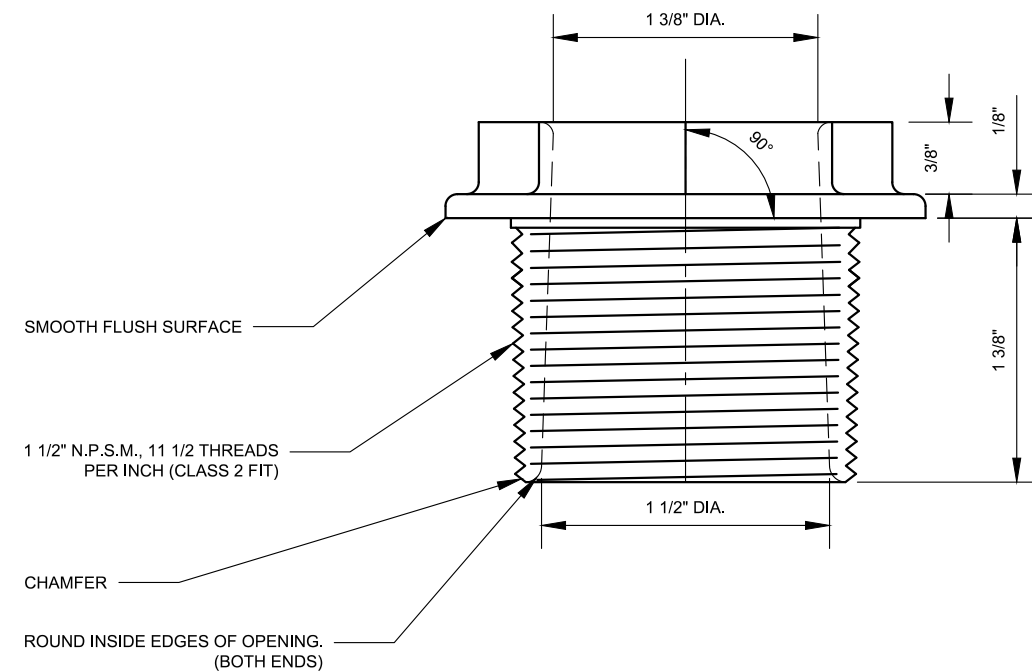
SCALE:	OLD DRAWING NO.	DRAWING NO.
AS NOTED	LB-14252S	SE-008



PLAN
TYPICAL



1 3/4" LONG CHASE NIPPLE
(LC-8-2)



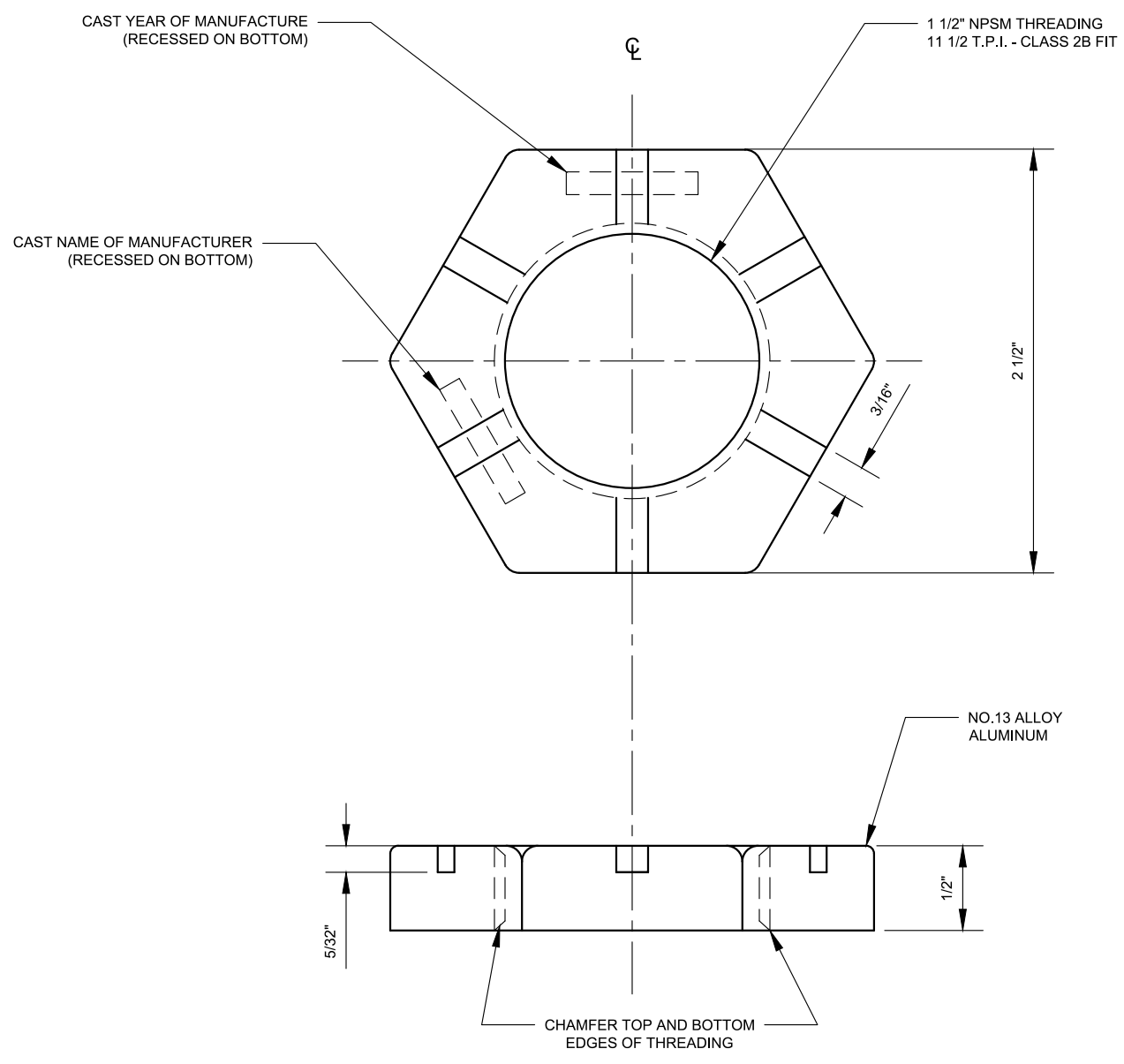
1 3/8" LONG CHASE NIPPLE
(LC-8-2A)

NYCDOT TRAFFIC SIGNAL STANDARD DRAWINGS, Jun 2020



REVISION			
NO	DATE	BY	DESCRIPTION
3	07/2011	GPI	REPLICATED IN CADD
2	05/2006	NM	LB14253S REPLACED
0	04/1965	ADB	LG-167-S CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
1 1/2" DIE CAST CHASE NIPPLES DETAILS		
SCALE:	OLD DRAWING NO.	DRAWING NO.
1'-0" = 1'-0"	LB-14253S	SE-009



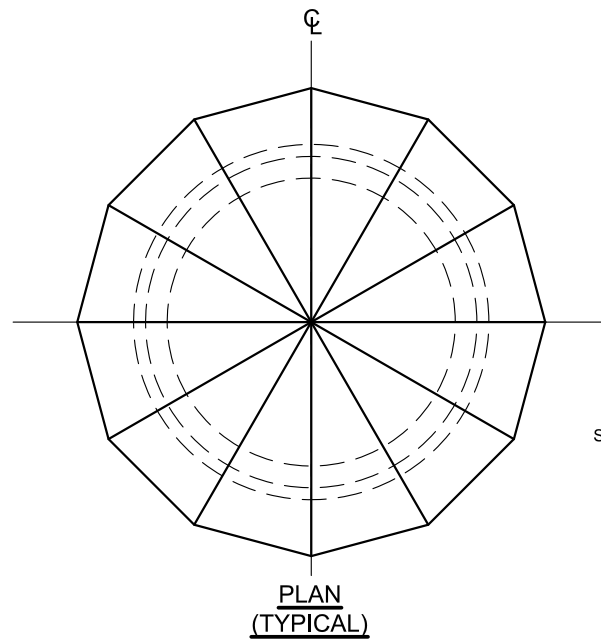
NOTES:

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.

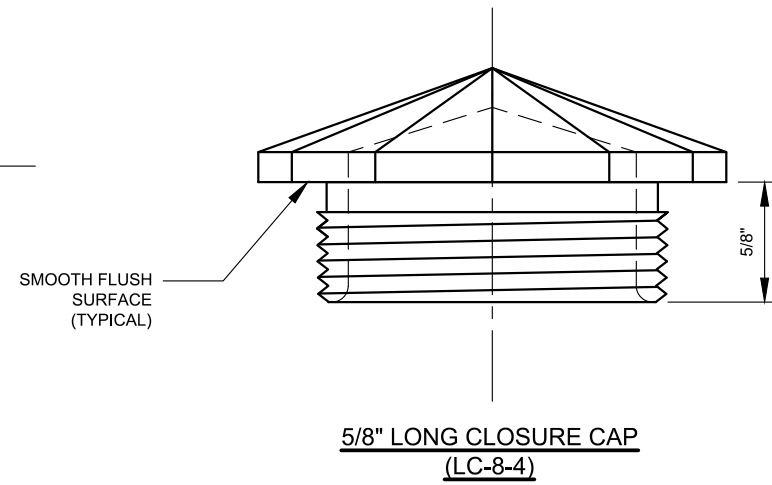


REVISION			
NO	DATE	BY	DESCRIPTION
1	07/2011	GPI	REPLICATED IN CADD
0	03/1970	GFS	LG-187-S CREATED

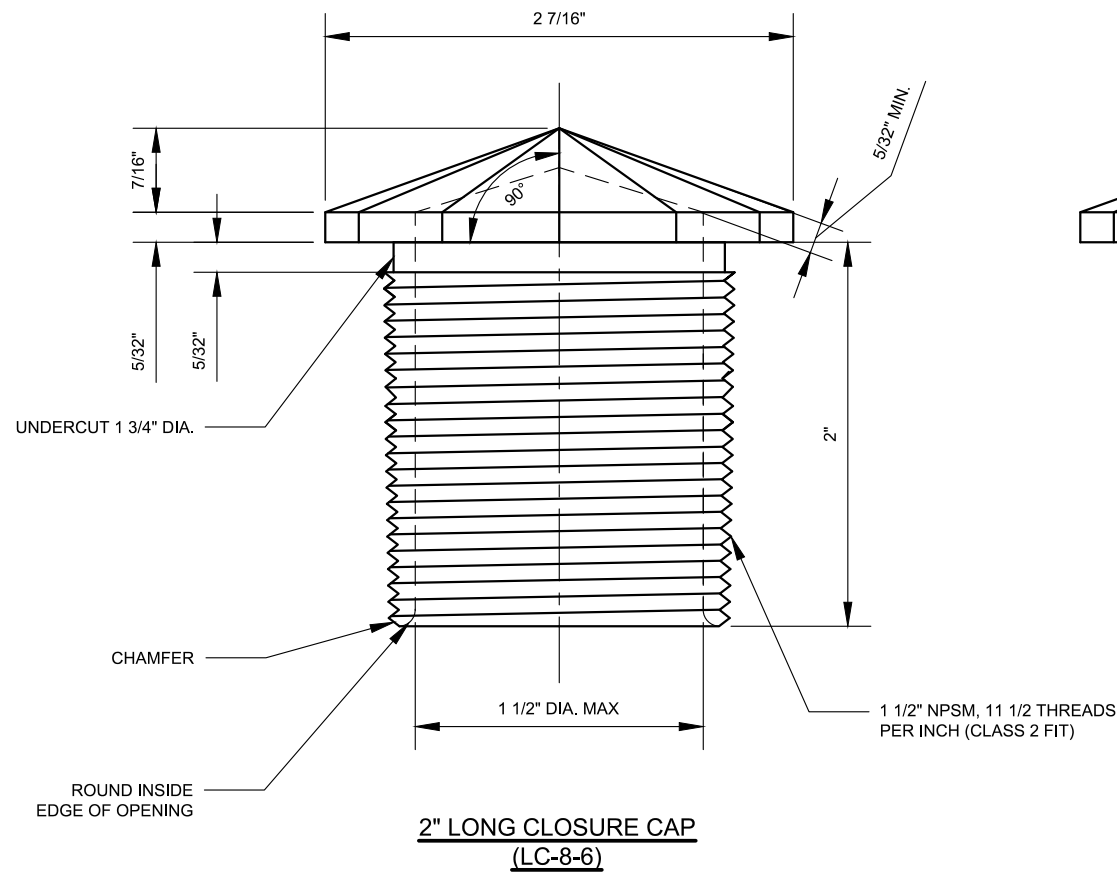
DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
1 1/2" DIE CAST ALUMINUM PIPE LOCKNUT		
SCALE: 1'-0" = 1'-0"	OLD DRAWING NO. LG-187-S	DRAWING NO. SE-010



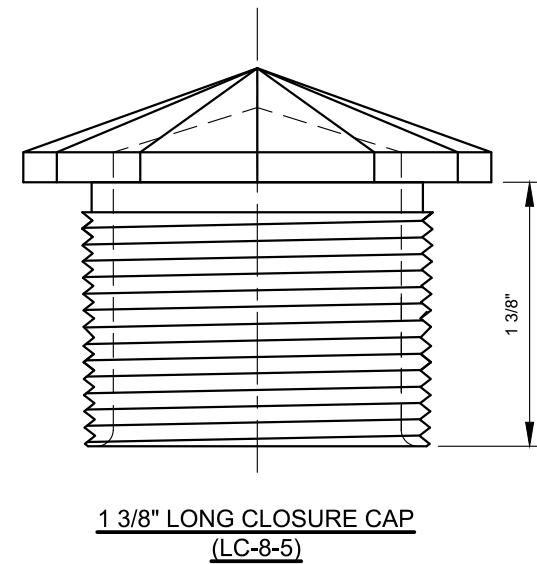
PLAN
(TYPICAL)



5/8" LONG CLOSURE CAP
(LC-8-4)



2" LONG CLOSURE CAP
(LC-8-6)



1 3/8" LONG CLOSURE CAP
(LC-8-5)

NOTES:

- 5/8" LONG CLOSURE CAP (LC-8-4) SHALL BE POLYCARBONATE.
- 1-3/8" AND 2" LONG CLOSER CAPS (LC-8-5 AND LC-8-6) SHALL BE DIE CAST OF ALUMINUM ALLOY #13.
- 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.

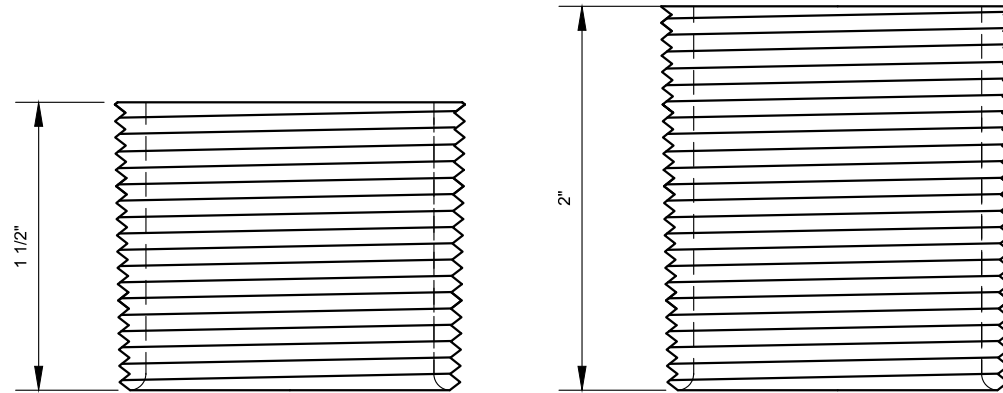


REVISION				
NO	DATE	BY	DESCRIPTION	
3	03/2020	DR	5/8" POLYCARBONATE CLOSER CAP	
2	07/2011	GPI	REPLICATED IN CADD	
1	09/2006	ADB	LB14254S REPLACED	
0	04/1965	JBC	LG-168-S CREATED	

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

1 1/2" CLOSURE CAPS DETAIL

SCALE:	OLD DRAWING NO.	DRAWING NO.
1'-0" = 1'-0"	LB-14254S	SE-011



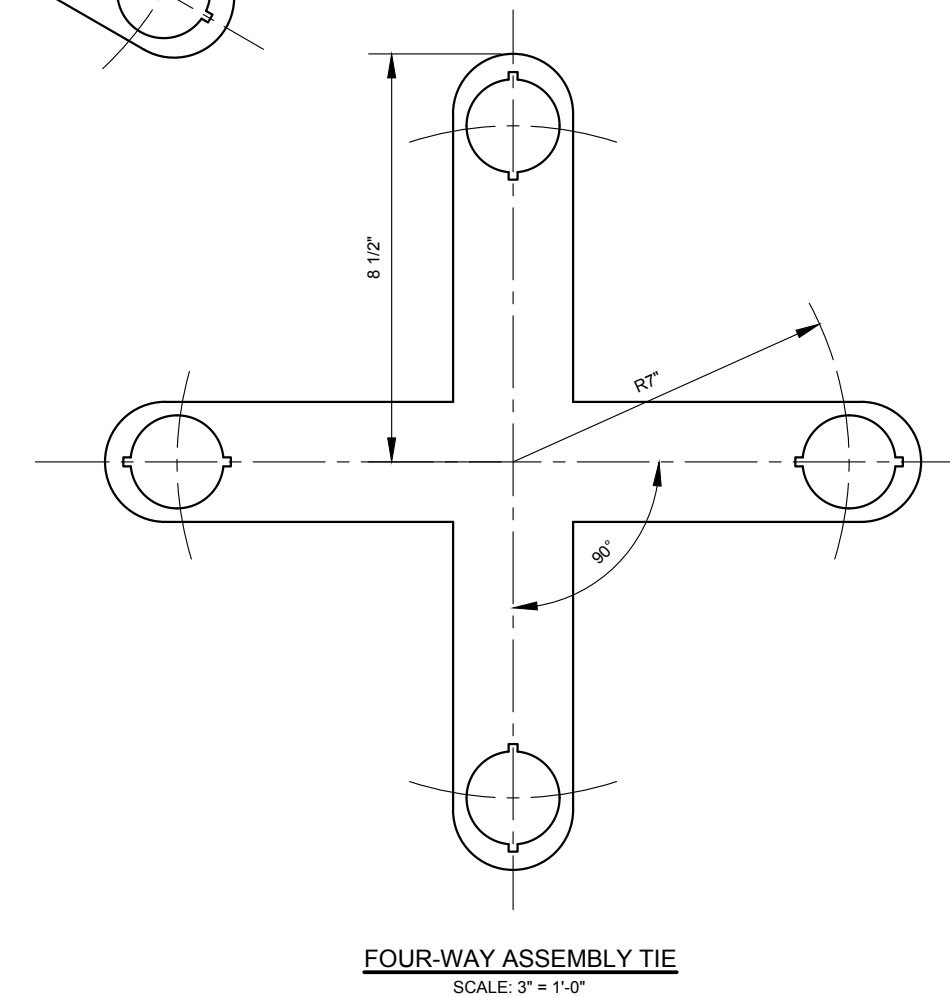
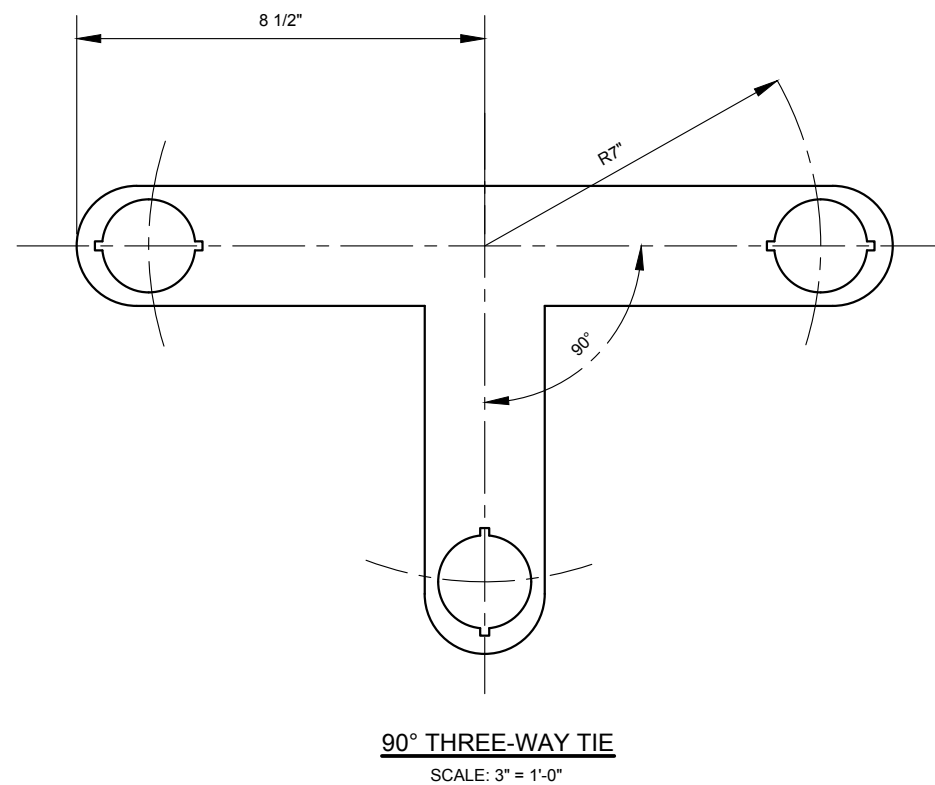
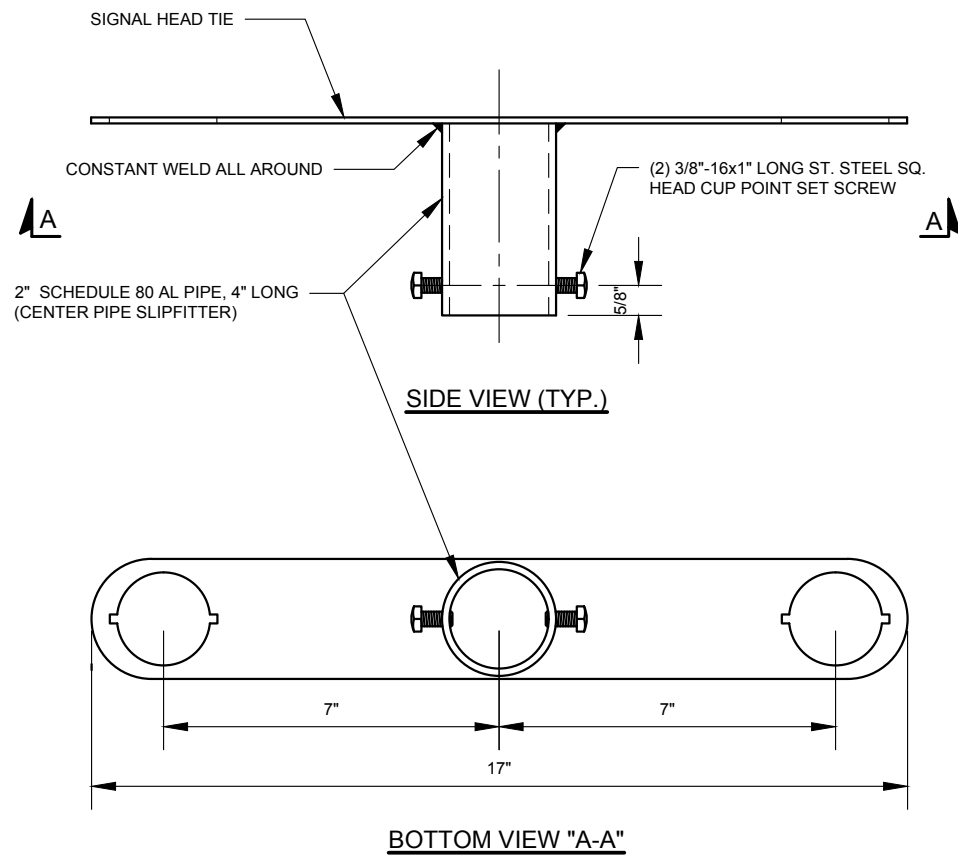
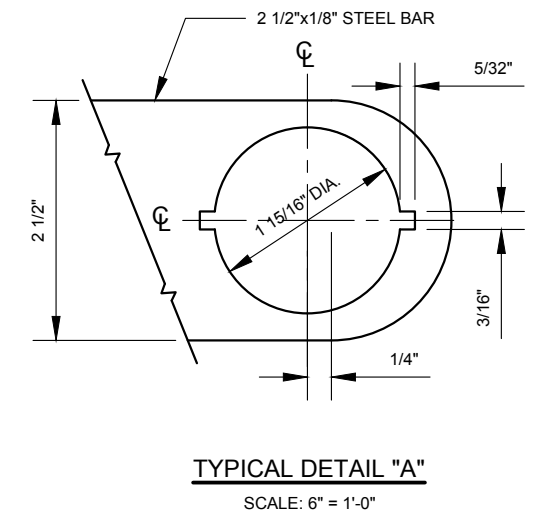
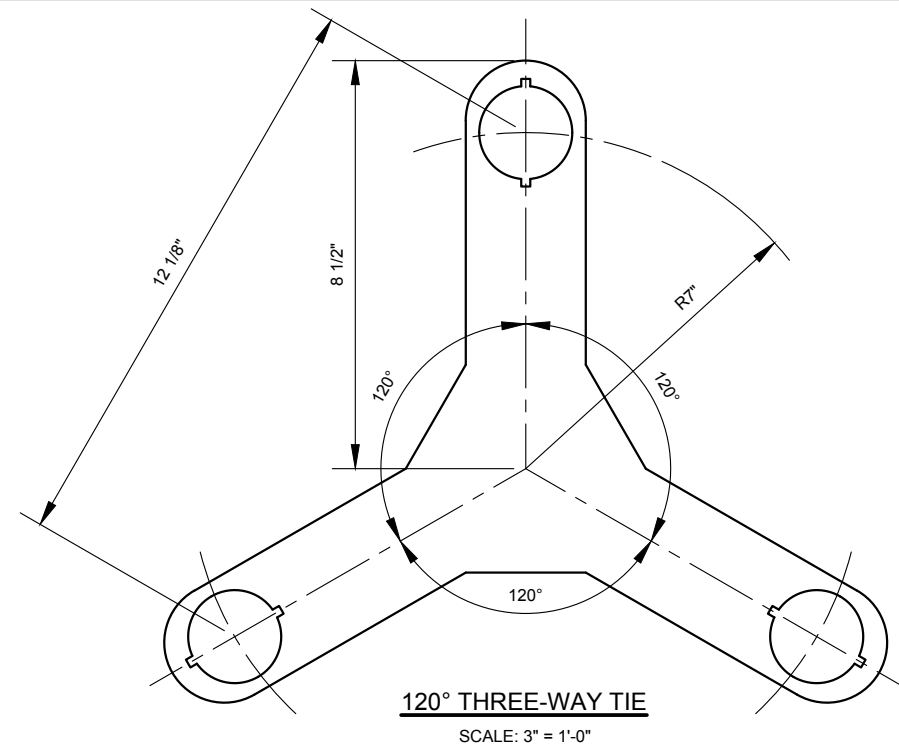
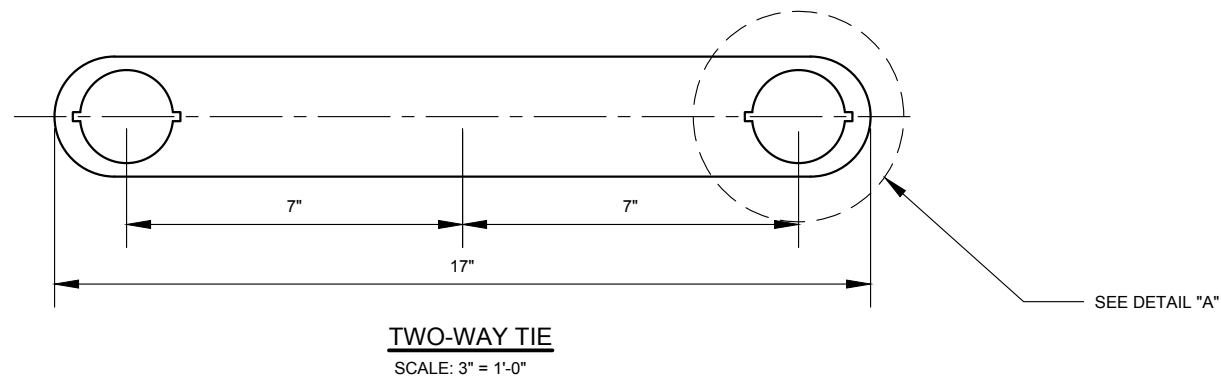
NOTE:

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)



REVISION			
NO	DATE	BY	DESCRIPTION
1	07/2011	GPI	REPLICATED IN CADD
0	08/2003	JH	LB13720S CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
1 1/2" PIPE NIPPLES		
SCALE:	OLD DRAWING NO.	DRAWING NO.
1'-0" = 1'-0"	LB-13720S	SE-012



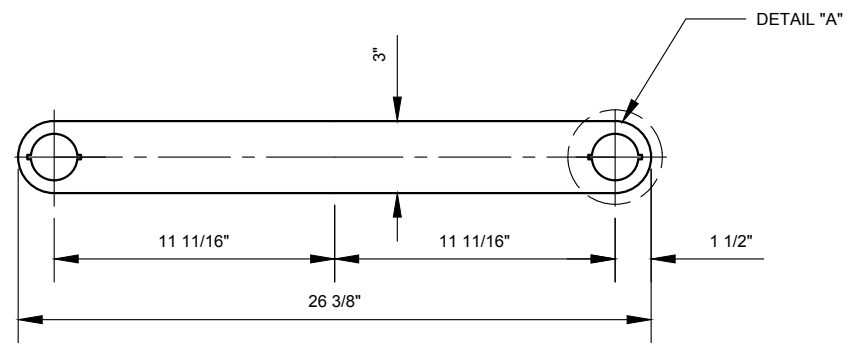
NOTES:

- SIGNAL HEAD TIES, INCLUDING OPENINGS, SHALL BE STAMPED OUT OF #11 GAGE SHEETING (U.S. STANDARD).

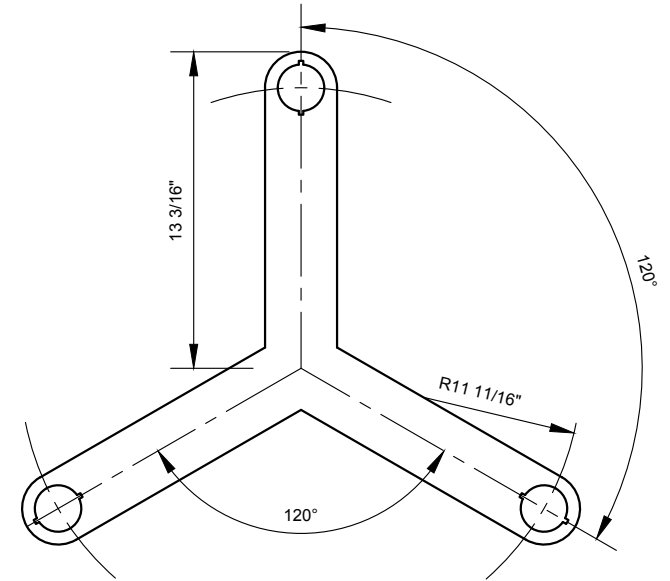


REVISION			
NO	DATE	BY	DESCRIPTION
3	01/2015	DR	ADD TWO-WAY "SPA" TIE
2	07/2011	GPI	REPLICATED IN CADD
1	05/2006	NM	REVISION; VOID LG-133-S
1	11/1963	CL	LB14251S REPLACED
0	11/1963	CL	LG-133-S CREATED

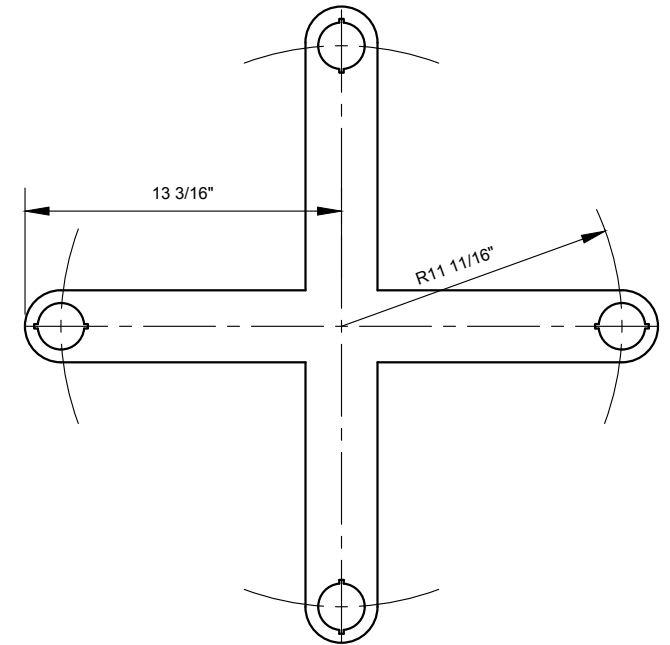
DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
SIGNAL HEAD TIES FOR ASSEMBLIES "MS" & "SPA"		
SCALE:	OLD DRAWING NO.	DRAWING NO.
AS NOTED	LG-133-S LB-14251S	SE-013_1



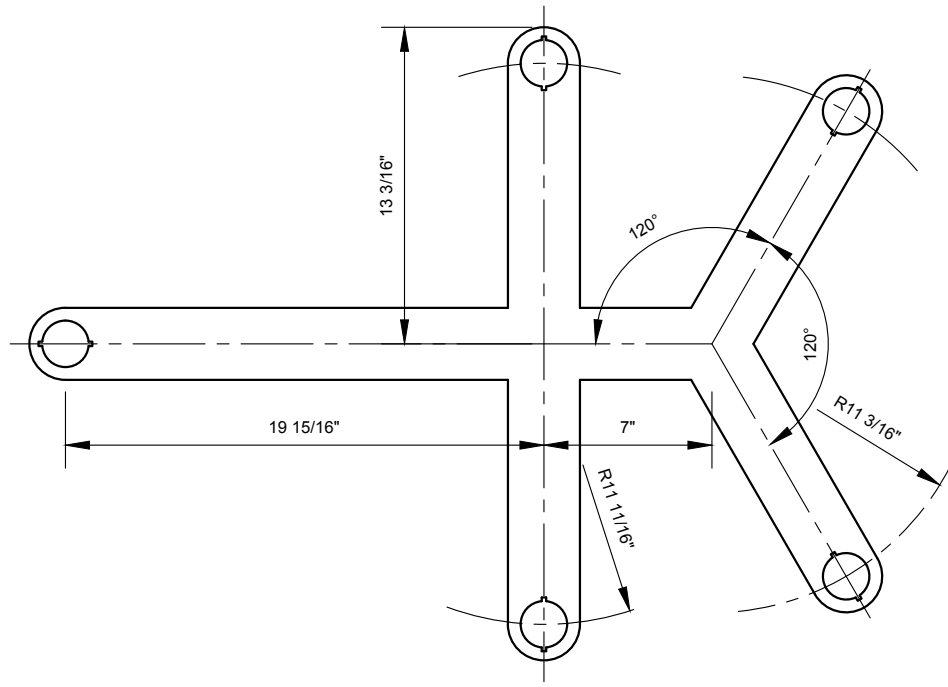
"E2MS" ASSEMBLY TYPE
SCALE: 1 1/2" = 1'-0"



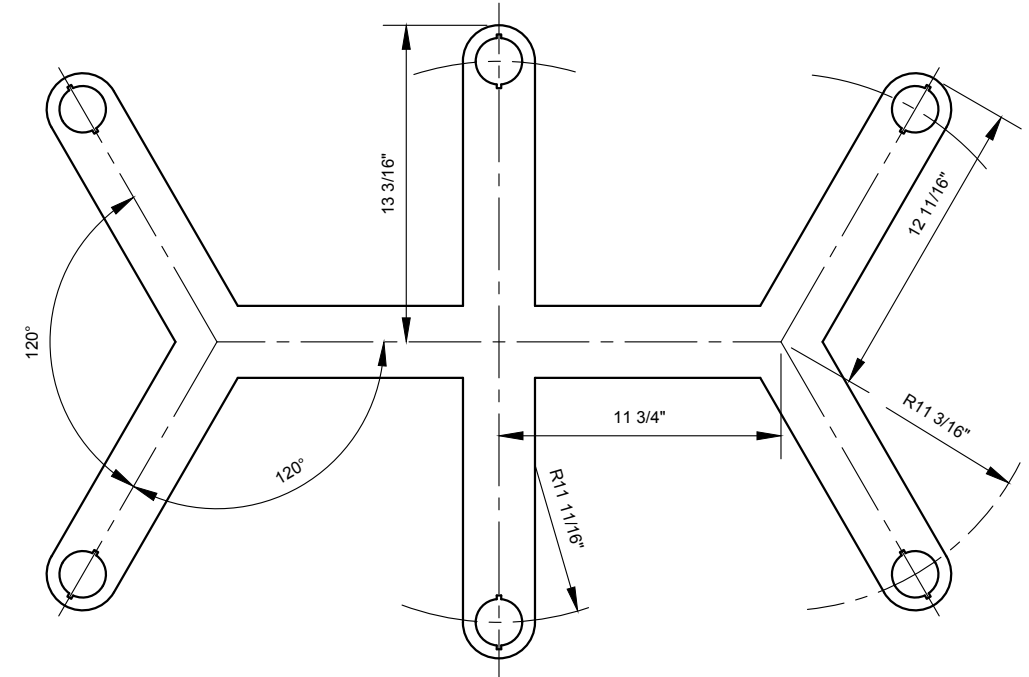
"E3MS" ASSEMBLY TYPE
SCALE: 1 1/2" = 1'-0"



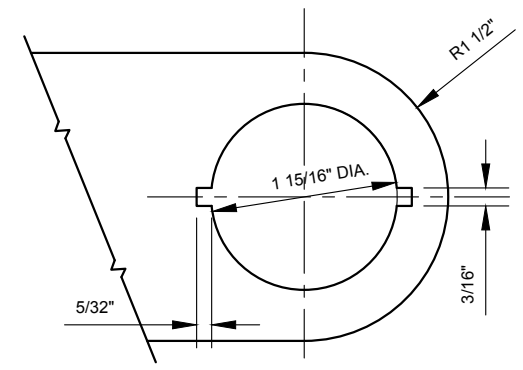
"E4MS" ASSEMBLY TYPE
SCALE: 1 1/2" = 1'-0"



"E5MS" ASSEMBLY TYPE
SCALE: 1 1/2" = 1'-0"



"E6MS" ASSEMBLY TYPE
SCALE: 1 1/2" = 1'-0"



DETAIL "A"
SCALE: 6" = 1'-0"

NOTE:

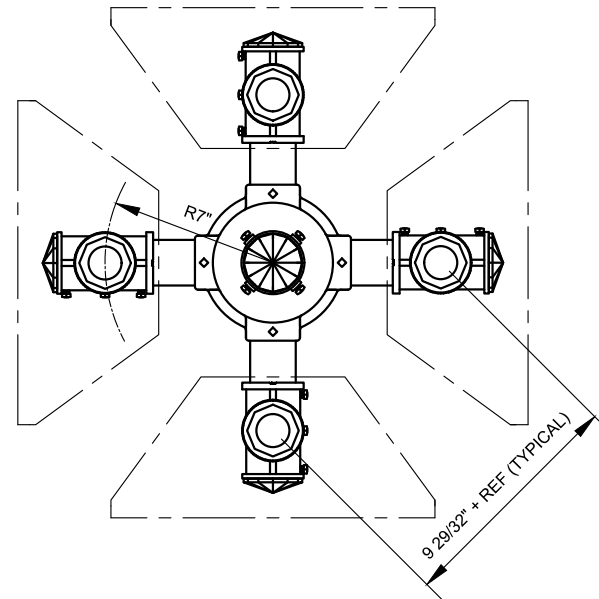
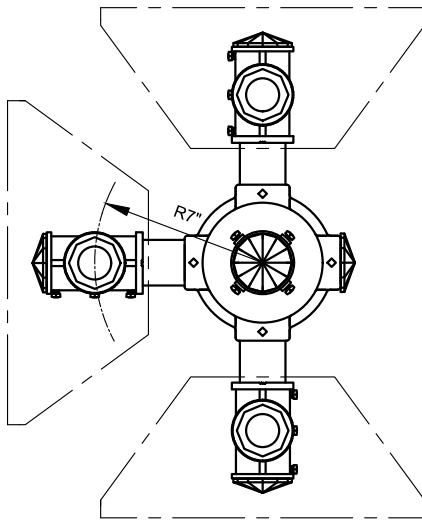
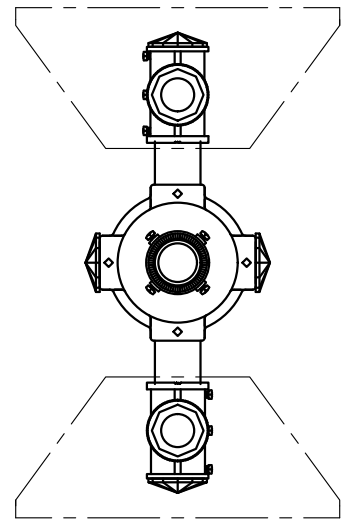
1. EXTENDED SIGNAL HEAD TIES SHALL BE STAMPED OUT OF 1/8" THICK SHEETING

NYCDOT TRAFFIC SIGNAL STANDARD DRAWINGS, Jun 2020



REVISION			
NO	DATE	BY	DESCRIPTION
0	09/2011	GPI	REPLICATED IN CADD

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
EXTENDED SIGNAL HEAD TIES FOR "E2MS", "E3MS", "E4MS", "E5MS", "E6MS"		
SCALE: AS NOTED	OLD DRAWING NO.	DRAWING NO. SE-013_2



TWO-WAY SLIPFITTER ASSEMBLY - "2SPA"

SCALE: 1 1/2" = 1'-0"

VIEW "A-A"

THREE-WAY SLIPFITTER ASSEMBLY - "3SPA"

SCALE: 1 1/2" = 1'-0"

FOUR-WAY SLIPFITTER ASSEMBLY - "4SPA"

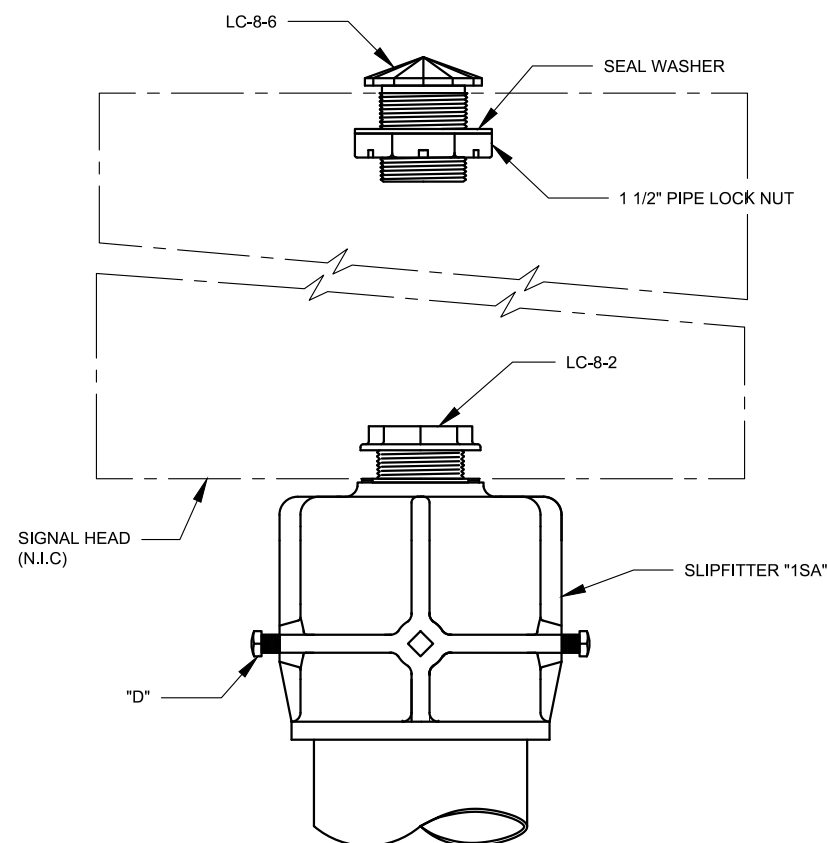
SCALE: 1 1/2" = 1'-0"

PARTS LIST

DESCRIPTION	DRAWING NO.	QTY. REQ'D FOR ASSEMBLY			
		"1SA"	"2SPA"	"3SPA"	"4SPA"
DIE CAST AL. SLIPFITTER "1SA"	SE-015	1			
DIE CAST AL. SLIPFITTER "4S"	SE-016		1	1	1
1 1/2"x3 1/4" LONG SCHEDULE 40 AL. PIPE, 11 1/2 NPSM 3/4" THREADED ON BOTH ENDS			2	3	4
1 1/2" SCHEDULE 40 AL. PIPE, 11 1/2 NPSM 1 1/4" THREADED ON ONE END (N.I.C)**			1		
1 1/2" DIE CAST AL. SERRATED TEE WITH TWO SERRATED BOSSES	SE-007_2		2	3	4
1 1/2"x1 3/4" LONG DIE CAST AL. CHASE NIPPLE (LC-8-2)	SE-009	1	2	3	4
1 1/2" DIE CAST AL. PIPE LOCKNUT	SE-010	1	2	3	4
1 1/2" DIE CAST AL. SERRATED LOCKING RING	SE-008	1	2	3	4
1 1/2"x2" LONG DIE CAST AL. CLOSURE CAP (LC-8-6)	SE-011	1	2	3	4
1 1/2"x5/8" LONG POLYCARBONATE CLOSURE CAP (LC-8-4)	SE-011		5	5	5
NEOPRENE SEAL WASHER 2 3/4"ODx1 7/8"IDx1/8"TH		1	3	4	5
TWO-WAY "SPA" SIGNAL HEAD STEEL TIE ASSEMBLY	SE-013_1		1		
THREE-WAY SIGNAL HEAD STEEL TIE (90 deg.)	SE-013_1			1	
FOUR-WAY SIGNAL HEAD STEEL TIE	SE-013_1				1
1/4"-20x1 1/2" LONG ST. STEEL SQ. HEAD CUP POINT SET SCREW ("A")			14	17	20
3/8"-16x1" LONG ST. STEEL SQ. HEAD CUP POINT SET SCREW ("D")		4	4	4	4

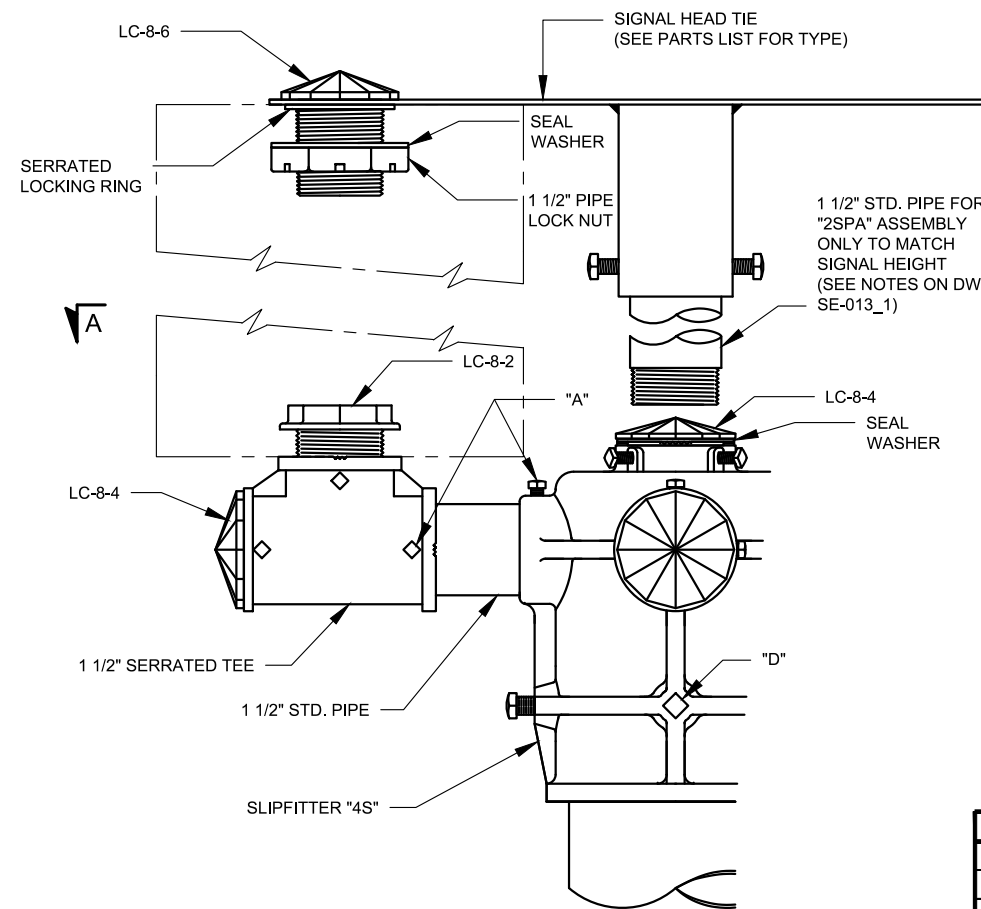
* - NOT IN CONTRACT (N.I.C.), SUPPLIED BY OTHERS.

** - PIPE LENGTH TO BE DETERMINED BY FIELD CONDITIONS.



ONE-WAY POLE SIGNAL MOUNTING ASSEMBLY - "1SA"

SCALE: 3" = 1'-0"



"2SPA", "3SPA", AND "4SPA" POLE SIGNAL MOUNTING ASSEMBLIES

SCALE: 3" = 1'-0"

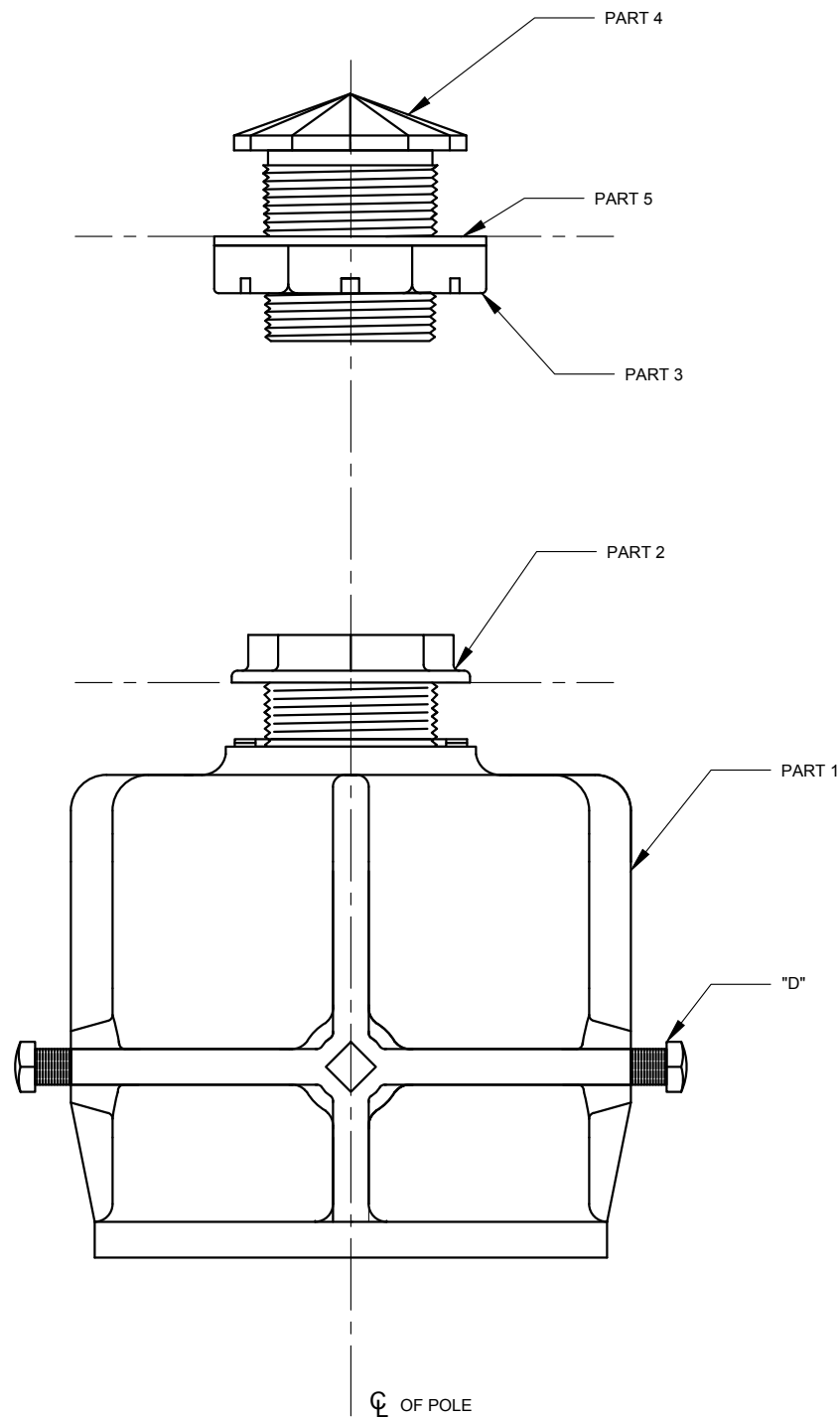
NOTES:

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

NYCDOT TRAFFIC SIGNAL STANDARD DRAWINGS, Jun 2020



REVISION				DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
5	05/2020	DR	UPDATED PARTS LIST	SLIPFITTER POLE SIGNAL MOUNTING ASSEMBLIES "1SA", "2SPA", "3SPA", "4SPA"		
4	01/2015	DR	"SPA" TIE, CNTR PIPE & UPDATED "4S" & S. TEES			
3	07/2011	GPI	REPLICATED IN CADD			
2	03/2006	NM	REDRAWN LC-314-S TO LC-314-D			
1	02/1967	JV	SET SCREW "A" WAS 3/8" LONG			
0	02/1967	AB	LD314-S CREATED	SCALE:	OLD DRAWING NO.	DRAWING NO.
NO	DATE	BY	DESCRIPTION	AS NOTED	LC-314-S	SE-014_1



ONE-WAY POLE SIGNAL MOUNTING ASSEMBLY - "1SA"

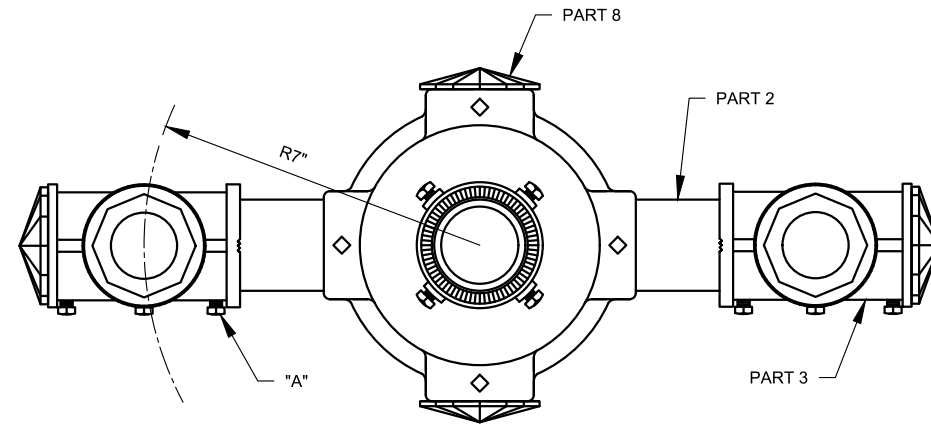
PARTS LIST			
PART	DESCRIPTION	DRAWING NO.	QTY.
1	DIE CAST AL. SLIP FITTER "1SA"	SE-015	1
2	1 1/2"x1 3/4" LONG DIE CAST AL. CHASE NIPPLE (LC-8-2)	SE-009	1
3	1 1/2" DIE CAST AL. PIPE LOCKNUT	SE-010	1
4	1 1/2"x2" LONG DIE CAST AL. CLOSURE CAP (LC-8-6)	SE-011	1
5	NEOPRENE SEAL WASHER 2 3/4"ODx1 7/8"IDx1/8"TH (N.I.C.*)		1
D	3/8"-16x1" LONG ST. STEEL SQ. HEAD HOLLOW NOSE SET SCREW		4

* - NOT IN CONTRACT

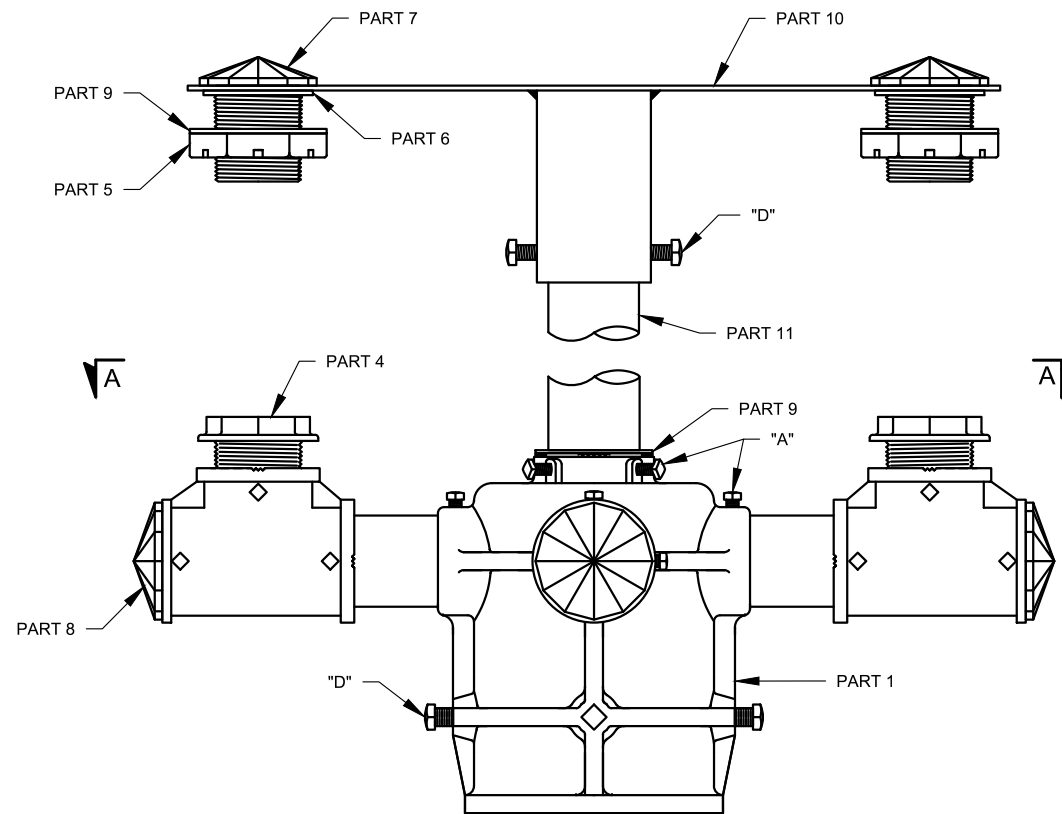


REVISION			
NO	DATE	BY	DESCRIPTION
1	03/2020	DR	UPDATED PARTS LIST
0	08/2011	GPI	CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
SLIPFITTER POLE SIGNAL MOUNTING ASSEMBLY "1SA"		
SCALE:	OLD DRAWING NO.	DRAWING NO.
6" = 1'-0"		SE-014_2



VIEW "A-A"



ELEVATION

TWO-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 ALUMINUM THREAD CONNECTIONS.

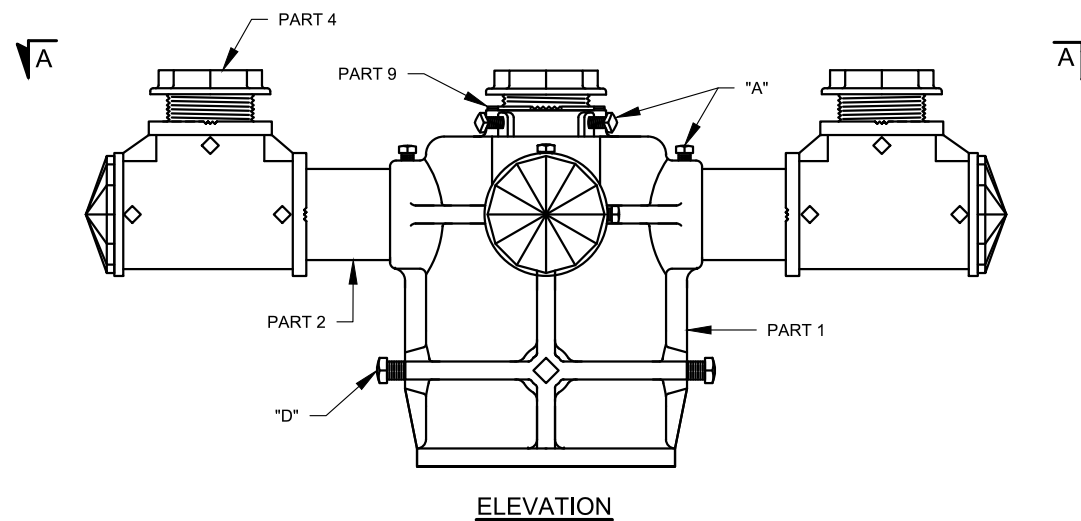
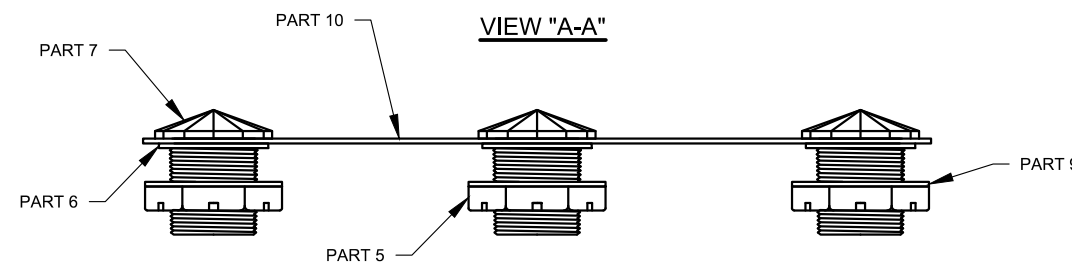
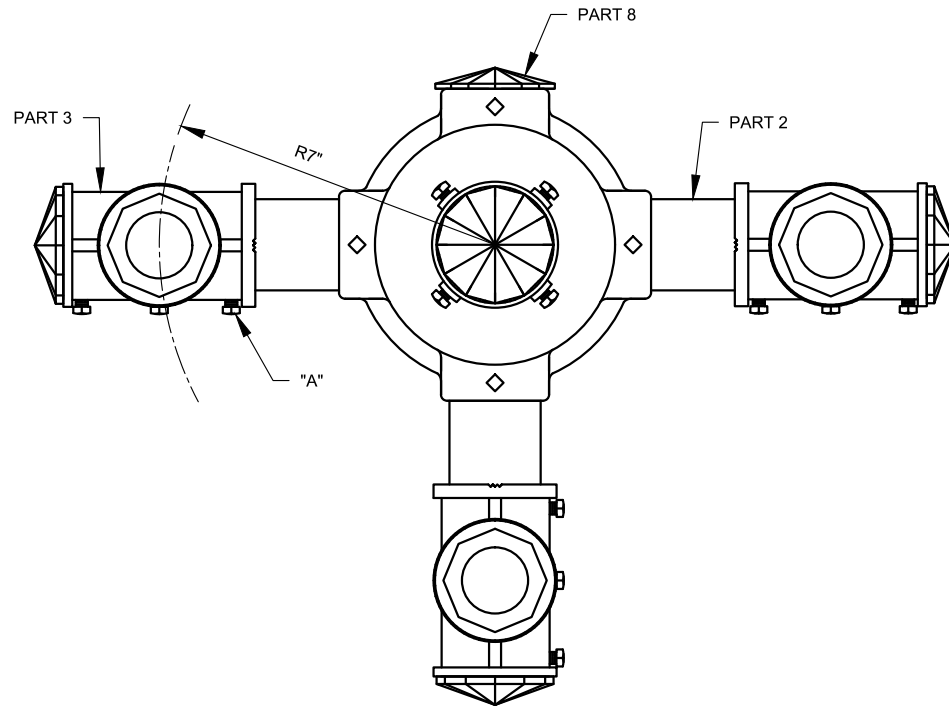
PARTS LIST			
PART	DESCRIPTION	DRAWING NO.	QTY.
1	DIE CAST AL. SLIP FITTER "4S"	SE-016	1
2	1 1/2"x3 1/4" LONG SCHEDULE 40 AL. PIPE, 11 1/2 NPSM 3/4" THREADED ON BOTH ENDS		2
3	1 1/2" DIE CAST AL. SERRATED TEE WITH TWO SERRATED BOSSES	SE-007_2	2
4	1 1/2"x1 3/4" LONG DIE CAST AL. CHASE NIPPLE (LC-8-2)	SE-009	2
5	1 1/2" DIE CAST AL. PIPE LOCKNUT	SE-010	2
6	1 1/2" DIE CAST AL. SERRATED LOCKING RING	SE-008	2
7	1 1/2"x2" LONG DIE CAST AL. CLOSURE CAP (LC-8-6)	SE-011	2
8	1 1/2"x5/8" LONG POLYCARBONATE CLOSURE CAP (LC-8-4)	SE-011	4
9	NEOPRENE SEAL WASHER 2 3/4"ODx1 7/8"IDx1/8"TH		3
10+11*	TWO-WAY "SPA" SIGNAL HEAD STEEL TIE	SE-013_1	1
	1 1/2" SCH 40 AL. CENTER PIPE, 11 1/2 NPSM 3/4" THREADED ON ONE END**		1
A	1/4"-20x1/2" LONG ST. STEEL SQ. HEAD CUP POINT SET SCREW		14
D	3/8"-16x1" LONG ST. STEEL SQ. HEAD CUP POINT SET SCREW		6

* - TWO-WAY "SPA" SIGNAL HEAD STEEL TIE ASSEMBLY.

** - PIPE LENGTH TO BE DETERMINED BY FIELD CONDITIONS.



REVISION				DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
2	05/2020	DR	UPDATED PARTS LIST	SLIPFITTER POLE SIGNAL MOUNTING ASSEMBLY "2SPA"		
1	01/2015	DR	"SPA" TIE, CNTR PIPE & UPDATED "4S" & S. TEES			
0	08/2011	GPI	CREATED	SCALE:	OLD DRAWING NO.	DRAWING NO.
NO	DATE	BY	DESCRIPTION	3"=1'-0"		SE-014_3



THREE-WAY SLIPFITTER ASSEMBLY

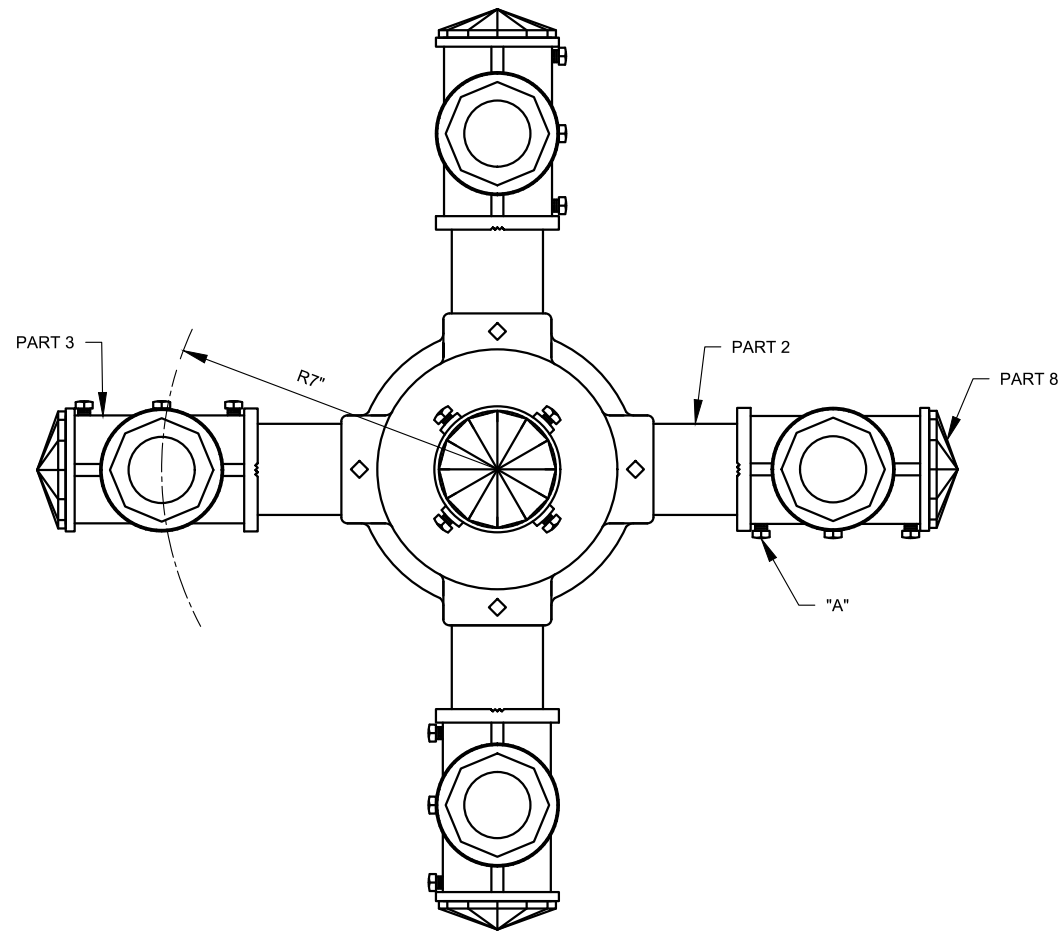
PARTS LIST			
PART	DESCRIPTION	DRAWING NO.	QTY.
1	DIE CAST AL. SLIP FITTER "4S"	SE-016	1
2	1 1/2"x3 1/4" LONG SCHEDULE 40 AL. PIPE, 11 1/2 NPSM 3/4" THREADED ON BOTH ENDS		3
3	1 1/2" DIE CAST AL. SERRATED TEE WITH TWO SERRATED BOSSES	SE-007_2	3
4	1 1/2"x1 3/4" LONG DIE CAST AL. CHASE NIPPLE (LC-8-2)	SE-009	3
5	1 1/2" DIE CAST AL. PIPE LOCKNUT	SE-010	3
6	1 1/2" DIE CAST AL. SERRATED LOCKING RING	SE-008	3
7	1 1/2"x2" LONG DIE CAST AL. CLOSURE CAP (LC-8-6)	SE-011	3
8	1 1/2"x5/8" LONG POLICARBONATE CLOSURE CAP (LC-8-4)	SE-011	5
9	NEOPRENE SEAL WASHER 2 3/4"ODx1 7/8"IDx1/8"TH		4
10	THREE-WAY SIGNAL HEAD STEEL TIE (90 deg.)	SE-013_1	1
A	1/4"-20x1/2" LONG ST. STEEL SQ. HEAD CUP POINT SET SCREW		17
D	3/8"-16x1" LONG ST. STEEL SQ. HEAD CUP POINT SET SCREW		4

NOTES:

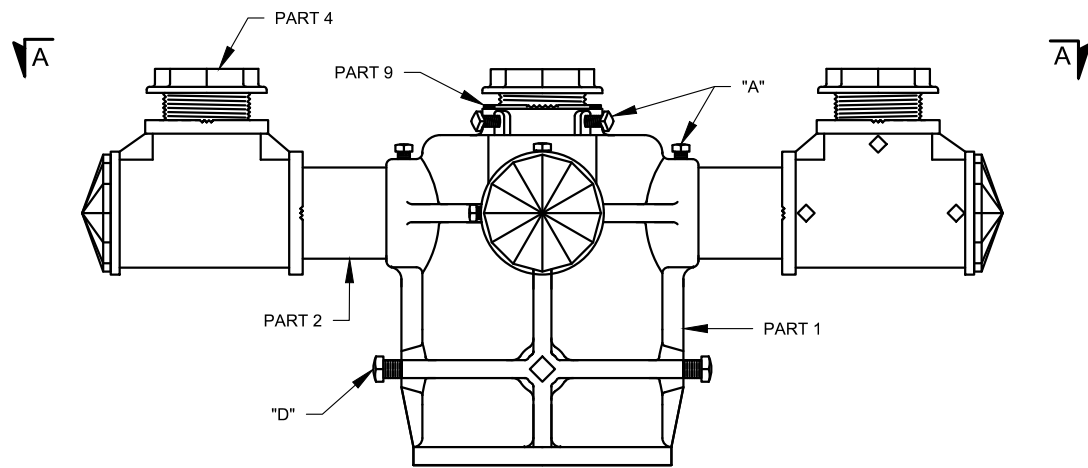
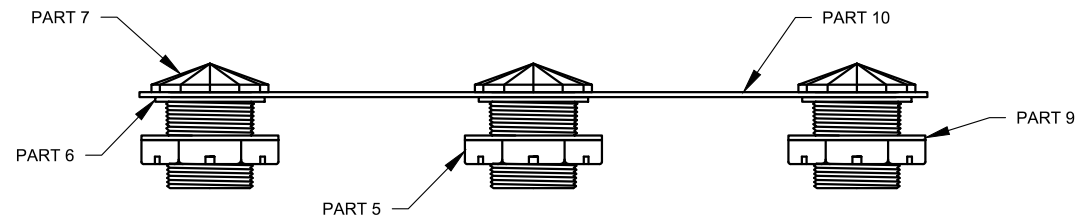
- SIGNAL HEADS MAY BE ROTATED AROUND CENTERS OF CONNECTIONS.
- A THIN COAT OF "MOLYKOTE ANTI-SIEZE THREAD COMPOUND" BY DOW CORNING, OR APPROVED EQUAL, SHALL BE USED ON ALL THREADING IN ALUMINUM THREAD CONNECTIONS.



REVISION				DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
2	03/2020	DR	UPDATED PARTS LIST	SLIPFITTER POLE SIGNAL MOUNTING ASSEMBLY "3SPA"		
1	01/2015	DR	UPDATED "4S" & SERRATED TEES			
0	08/2011	GPI	CREATED	SCALE:	OLD DRAWING NO.	DRAWING NO.
NO	DATE	BY	DESCRIPTION	3"=1'-0"		SE-014_4



VIEW "A-A"



ELEVATION

FOUR-WAY SLIPFITTER ASSEMBLY

PARTS LIST

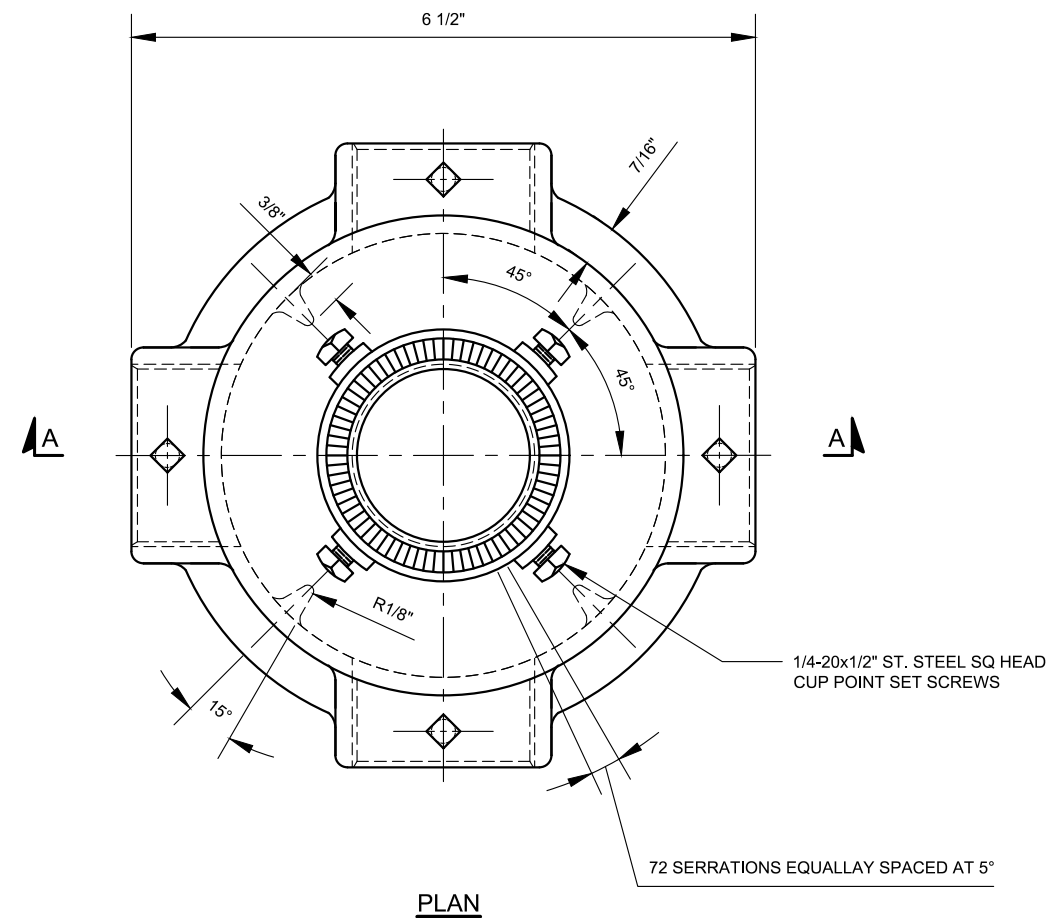
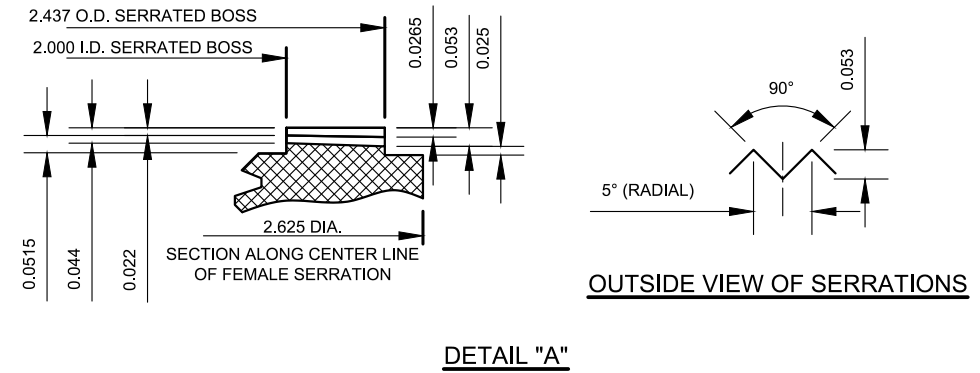
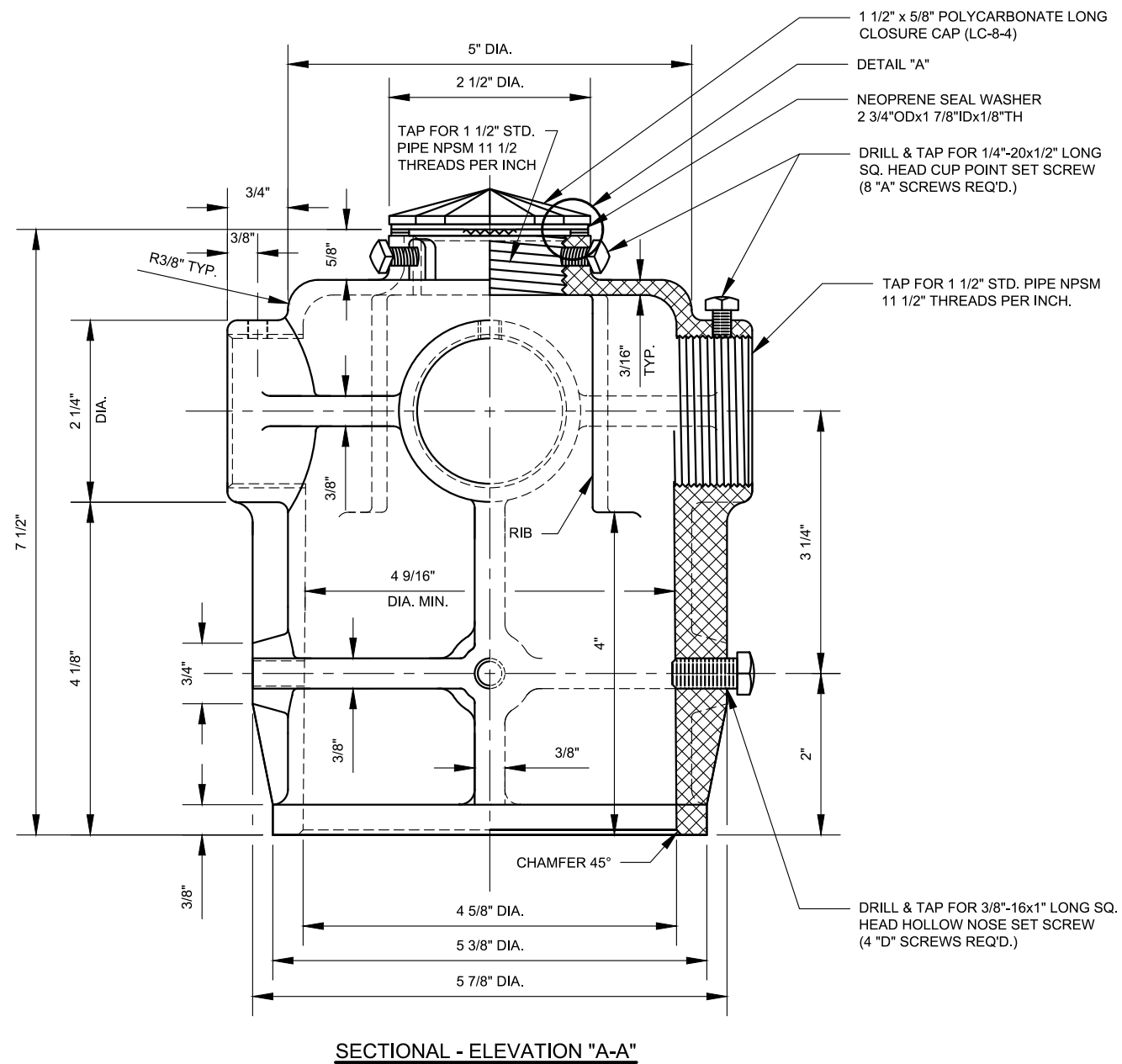
PART	DESCRIPTION	DRAWING NO.	QTY.
1	DIE CAST AL. SLIP FITTER "4S"	SE-016	1
2	1 1/2"x3 1/4" LONG SCHEDULE 40 AL. PIPE, 11 1/2" NPSM 3/4" THREADED ON BOTH ENDS		
3	1 1/2" DIE CAST AL. SERRATED TEE WITH TWO SERRATED BOSSES	SE-007_2	4
4	1 1/2"x1 3/4" LONG DIE CAST AL. CHASE NIPPLE (LC-8-2)	SE-009	4
5	1 1/2" DIE CAST AL. PIPE LOCKNUT	SE-010	4
6	1 1/2" DIE CAST AL. SERRATED LOCKING RING	SE-008	4
7	1 1/2"x2" LONG DIE CAST AL. CLOSURE CAP (LC-8-6)	SE-011	4
8	1 1/2"x5/8" LONG POLYCARBONATE CLOSURE CAP (LC-8-4)	SE-011	5
9	NEOPRENE SEAL WASHER 2 3/4"ODx1 7/8"IDx1/8"TH		5
10	FOUR-WAY SIGNAL HEAD STEEL TIE	SE-013_1	1
A	1/4"-20x1/2" LONG ST. STEEL SQ. HEAD HOLLOW NOSE SET SCREW		24
D	3/8"-16x1" LONG ST. STEEL SQ. HEAD HOLLOW NOSE SET SCREW		4

NOTES:

- SIGNAL HEADS MAY BE ROTATED AROUND CENTERS OF CONNECTIONS
- A THIN COAT OF "MOLYKOTE ANTI-SIEZE THREAD COMPOUND" BY DOW CORNING, OR APPROVED EQUAL, SHALL BE USED ON ALL THREADING IN ALUMINUM THREADED CONNECTIONS.



REVISION				DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
2	06/2020	DR	UPDATED PARTS LIST	SLIPFITTER POLE SIGNAL MOUNTING ASSEMBLY "4SPA"		
1	01/2015	DR	UPDATED "4S" & SERRATED TEES			
0	08/2011	GPI	CREATED	SCALE:	OLD DRAWING NO.	DRAWING NO.
NO	DATE	BY	DESCRIPTION	3"=1'-0"		SE-014_5

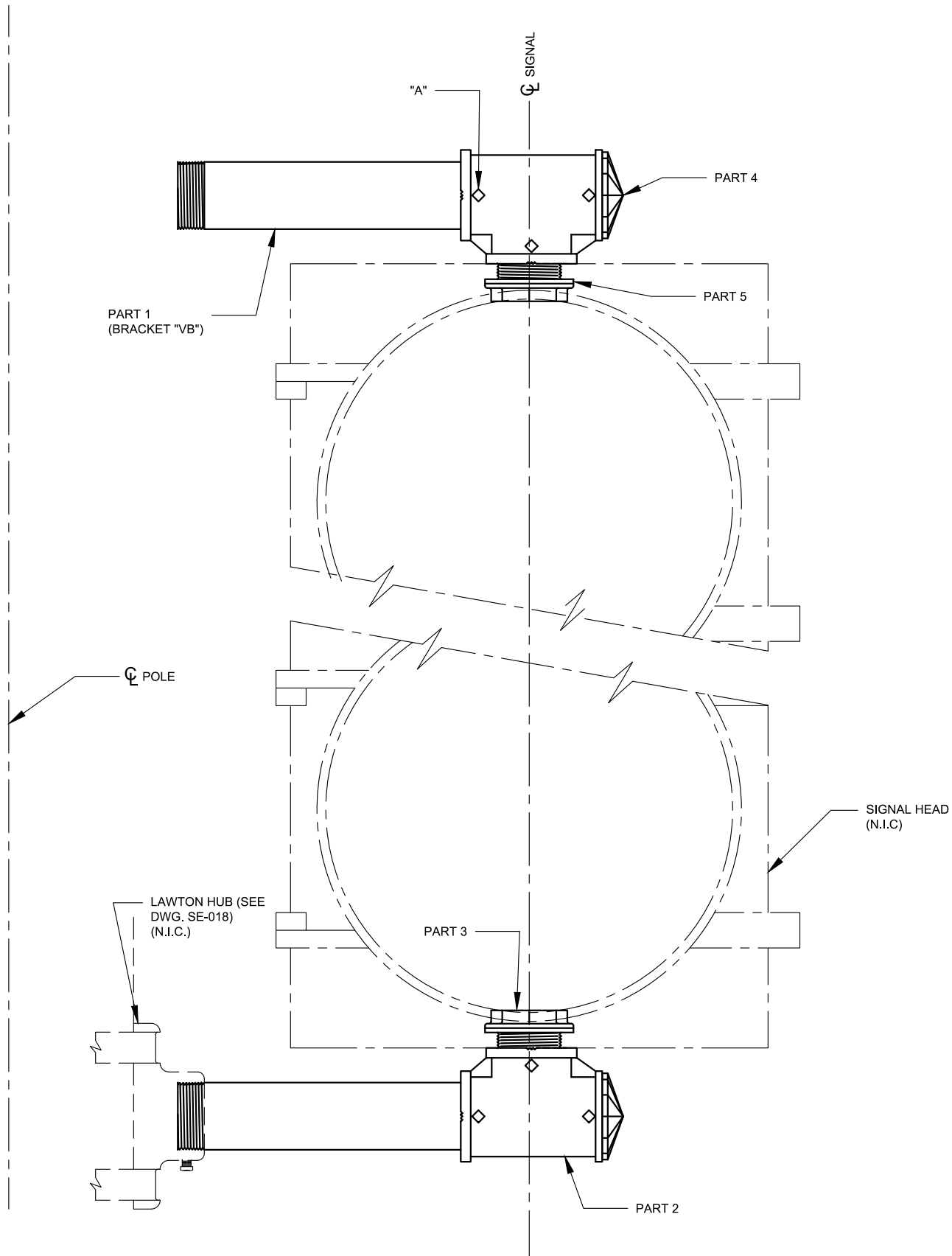


NOTES:

- ADDITIONAL SET OF 4 UNTAPPED BOSSES WITH DIMPLES TO SECURE "4S" ASSEMBLY TO THE POLE IS OPTIONAL.



REVISION				DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C.,N.Y.11101		
7	05/2020	DR	5/8" LONG POLYCARBONATE CLOSER CAP	TRAFFIC SIGNAL ASSEMBLIES "SPA"		
6	12/2016	DR	ADDITIONAL UNTAPPED BOSSES			
5	01/2015	DR	ADD THREAD ON TOP PORT			
4	08/2011	GPI	REPLICATED IN CADD			
3	4/2011	BMM	CHANGED CAP TO SHORT CAP			
2	07/2001	BMM	TRANSFERRED TO CADD			
1	10/1970	JY	REVISION			
0	01/1967	ADB	LC-313-S CREATED	SCALE:	OLD DRAWING NO.	DRAWING NO.
NO	DATE	BY	DESCRIPTION	6" = 1'-0"	LC-313-S	SE-016



PARTS LIST			
PART NO.	DESCRIPTION	DRAWING NO.	QTY.
1	1 1/2"x8 3/4" LONG SCHEDULE 40 AL. PIPE, 11 1/2 NPSM 3/4" THREADED ON BOTH ENDS		2
2	1 1/2" DIE CAST AL. SERRATED TEE WITH TWO SERRATED BOSSES	SE-007_2	2
3	1 1/2"x1 3/4" LONG DIE CAST AL. CHASE NIPPLE (LC-8-2)	SE-009	2
4	1 1/2"x5/8" LONG POLYCARBONATE CLOSURE CAP (LC-8-4)	SE-011	2
5	NEOPRENE SEAL WASHER 2 3/4" ODx1 7/8"TH (N.I.C*)		1
A	1/4"-20x1/2" LONG ST. STEEL SQ. HEAD HOLLOW NOSE SET SCREW		6

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

NOTES:

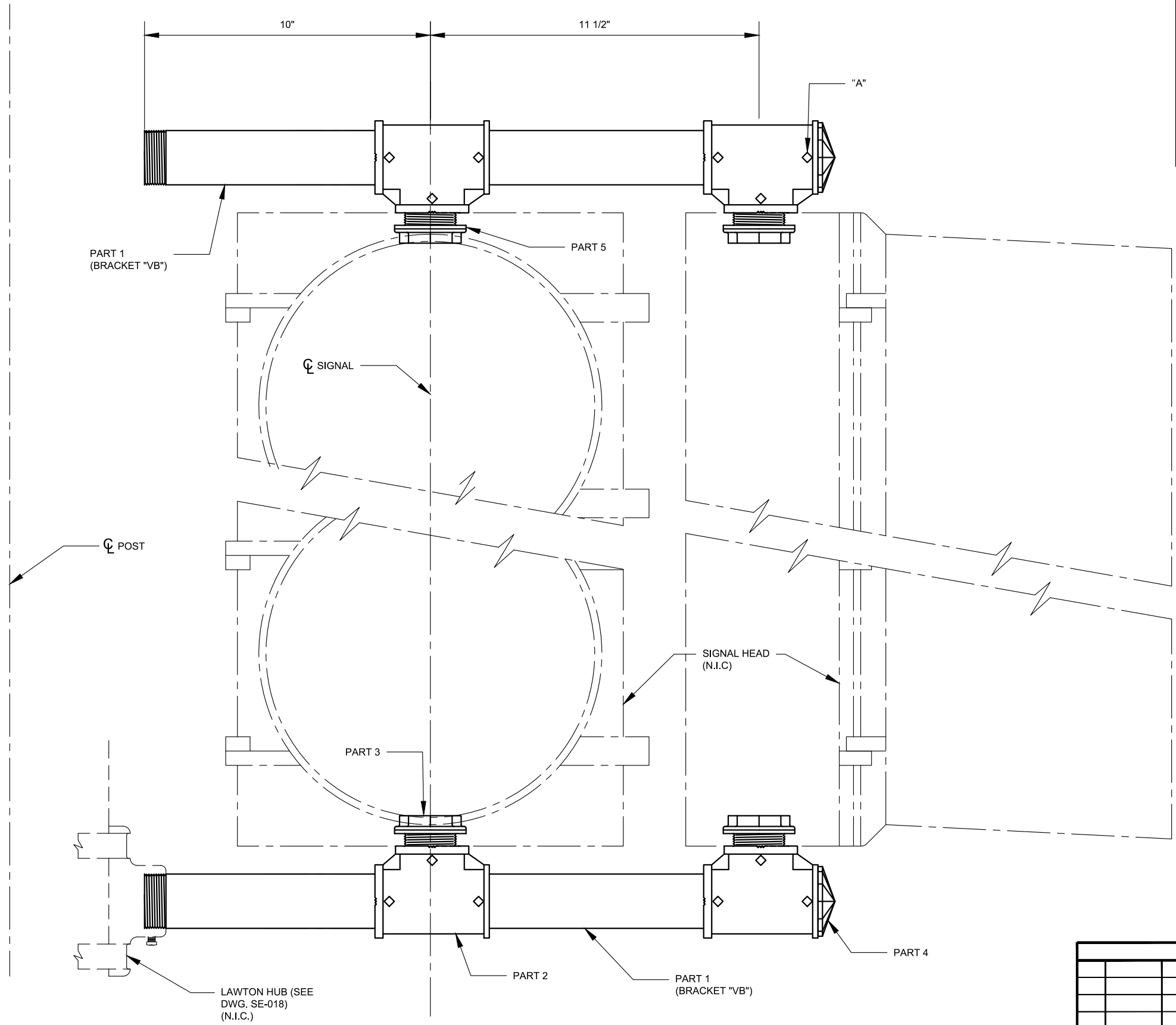
- SIGNAL HOUSING MAY BE ROTATED AROUND CENTER OF CONNECTION.
- A THIN COAT OF "MYLOKOTE ANTI-SIEZE COMPOUND" BY DOW CORNING, OR APPROVED EQUAL, SHALL BE USED ON ALL THREADING IN ALUMINUM THREADED CONNECTIONS.



REVISION			
NO	DATE	BY	DESCRIPTION
2	06/2020	DR	UPDATED PARTS LIST
1	08/2011	GPI	REPLICATED IN CADD
0	06/2001	BMM	LC-34 CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C.,N.Y.11101		
BRACKET MOUNTING ASSEMBLY FOR VEHICLE SIGNALS "VB"		
SCALE:	OLD DRAWING NO.	DRAWING NO.
3" = 1'-0"	LC-34	SE-017_1

NYC DOT TRAFFIC SIGNAL STANDARD DRAWINGS, Jun 2020



PARTS LIST			
PART NO.	DESCRIPTION	DRAWING NO.	QTY.
1	1 1/2"x8 3/4" LONG SCHEDULE 40 AL. PIPE, 11 1/2 NPSM 3/4" THREADED ON BOTH ENDS		4
2	1 1/2" DIE CAST AL. SERRATED TEE WITH TWO SERRATED BOSSES	SE-007_2	4
3	1 1/2"x1 3/4" LONG DIE CAST AL. CHASE NIPPLE (LC-8-2)	SE-009	2
4	1 1/2"x5/8" LONG POLYCARBONATE CLOSURE CAP (LC-8-4)	SE-011	4
5	NEOPRENE SEAL WASHER 2 3/4" ODx1 7/8"TH (N.I.C*)		2
A	1/4"-20x1/2" LONG ST. STEEL SQ. HEAD HOLLOW NOSE SET SCREW		12

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

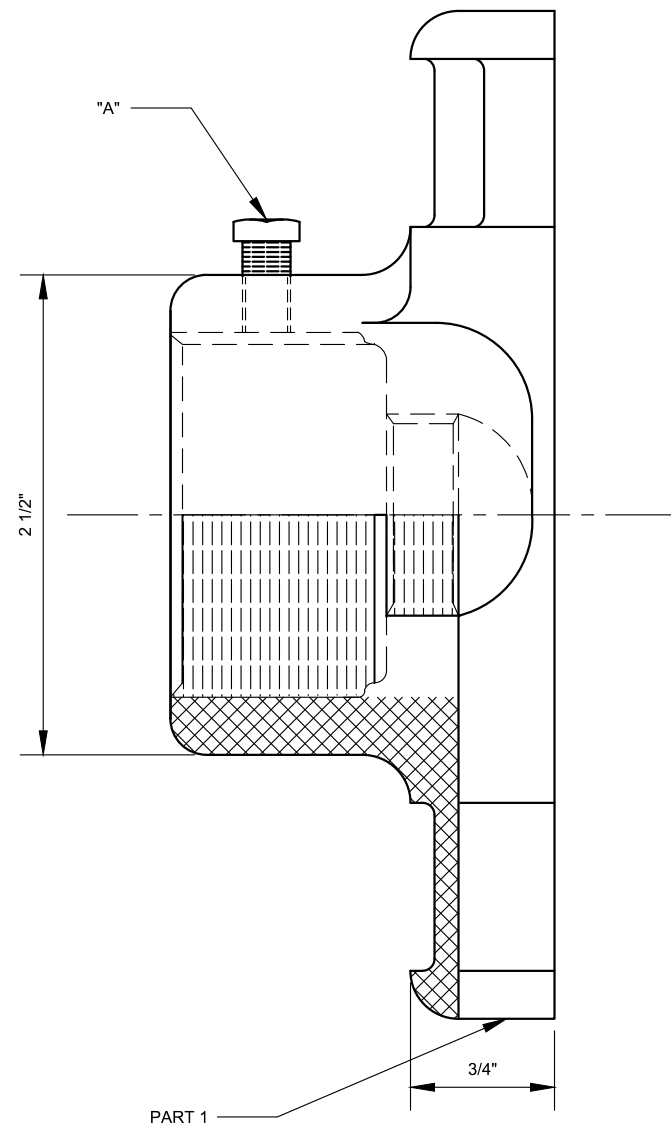
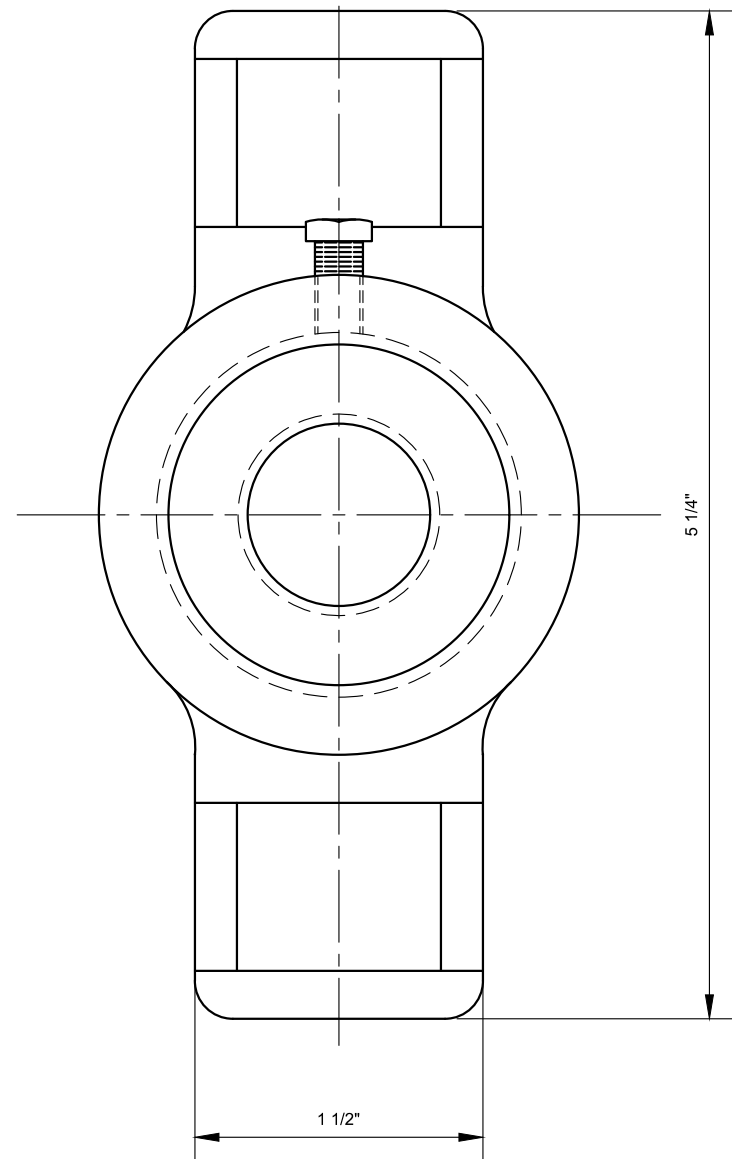
NOTES:

- SIGNAL HOUSING MAY BE ROTATED AROUND CENTER OF CONNECTION.
- A THIN COAT OF "MYLOKOTE ANTI-SIEZE COMPOUND" BY DOW CORNING, OR APPROVED EQUAL, SHALL BE USED ON ALL THREADING IN ALUMINUM THREADED CONNECTIONS.

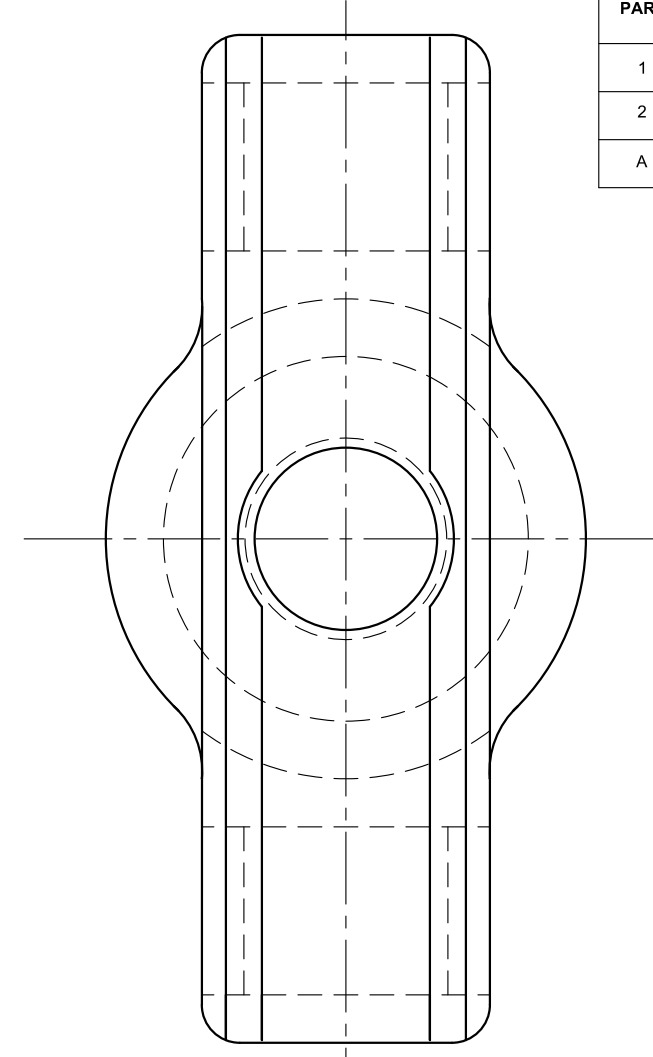


REVISION			
NO	DATE	BY	DESCRIPTION
2	06/2020	DR	UPDATED PARTS LIST
1	08/2011	GPI	REPLICATED IN CADD
0	06/2001	BMM	LC-34 CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
BRACKET MOUNTING ASSEMBLY FOR VEHICLE SIGNALS "2VB"		
SCALE:	OLD DRAWING NO.	DRAWING NO.
3" = 1'-0"	LC-34	SE-017_2

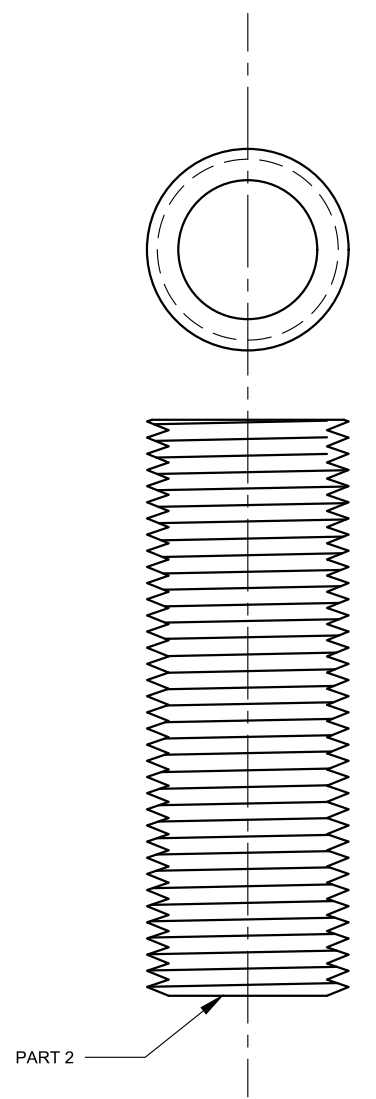


SECTION ELEVATION "A-A"

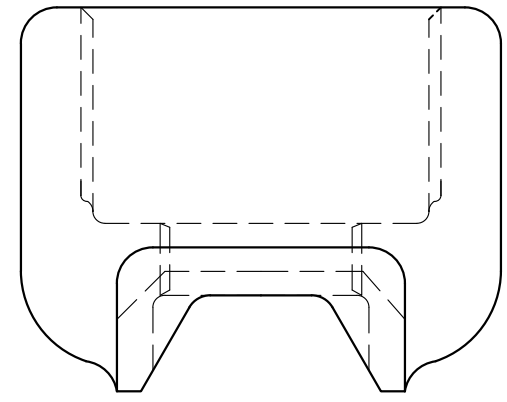


VIEW "B-B"

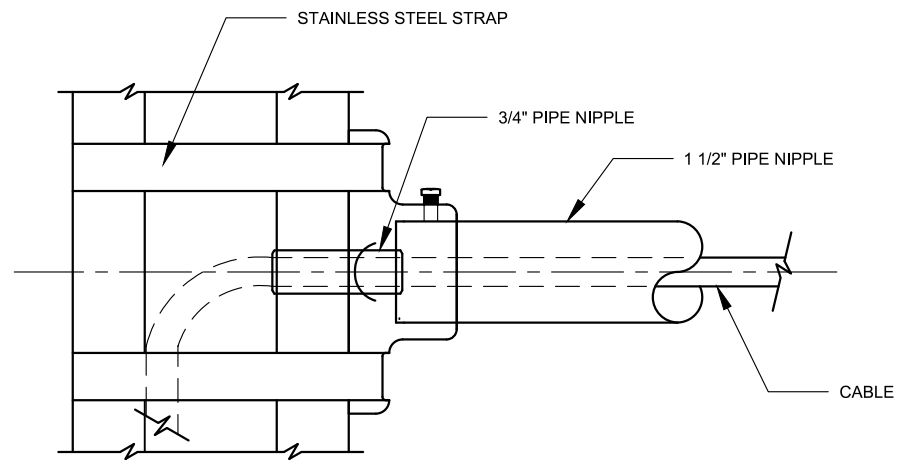
PARTS LIST		
PART	DESCRIPTION	QTY.
1	DIE CAST HUB	2
2	3/4"x3" SCHEDULE 40 ALUM. PIPE THREADED OVER ENTIRE LENGTH 14 NPSM	1
A	1/4"-20x1/2" ST. STEEL SQ. HEAD HOLLOW NOSE SET SCREW	2



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



DETAIL OF HUB



**CONNECTION TO POLE
AT CABLE ENTRANCE**

NOTE:

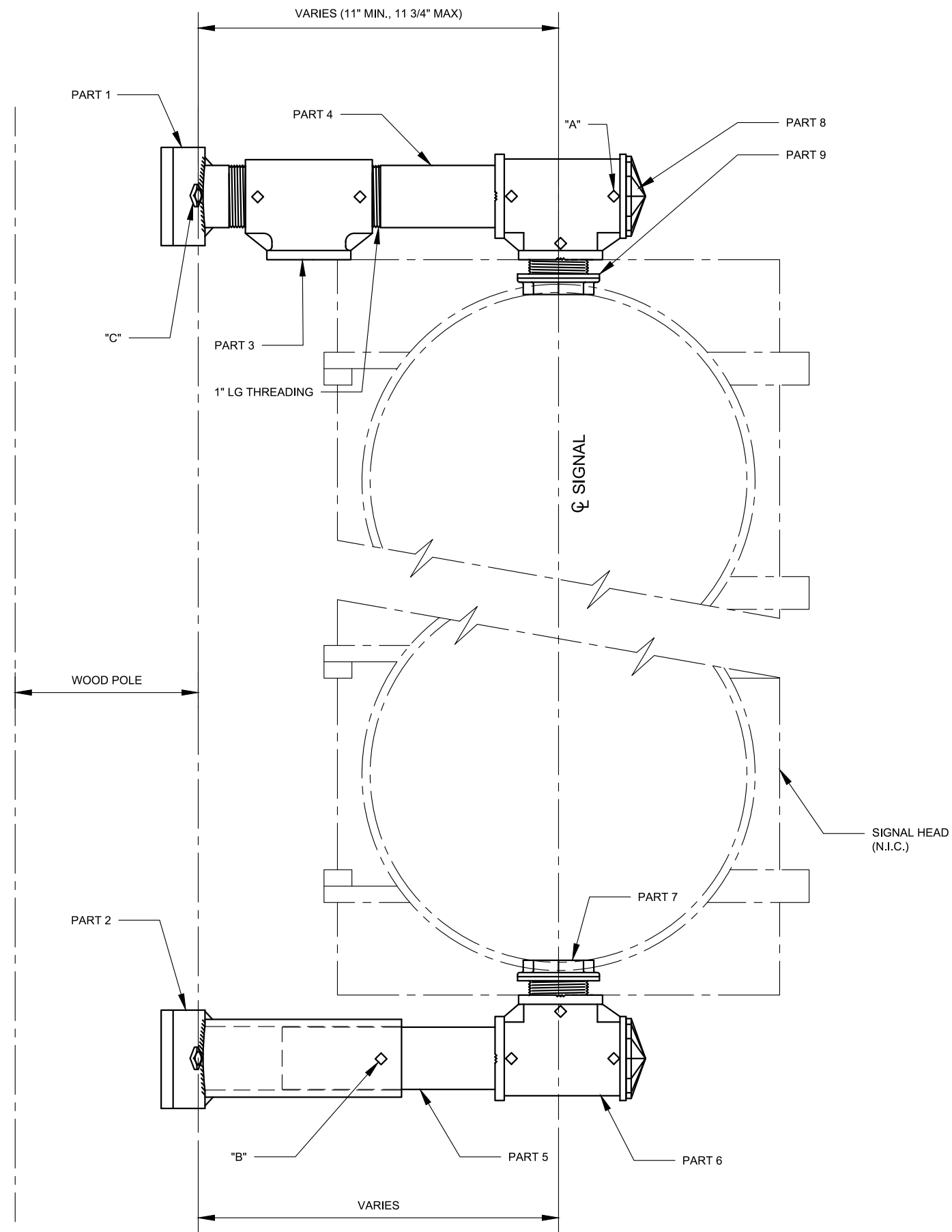
- LAWTON HUB ASSEMBLIES SHOULD BE ORDERED IN PAIRS WITH ONE 3/4" PIPE NIPPLE FOR EACH PAIR.

THIS DRAWING SUPERCEDES DRAWING LC-35 (REV. 8-24-67)



REVISION			
NO	DATE	BY	DESCRIPTION
4	08/2011	GPI	REPLICATED IN CADD
3	09/2001	BMM	TRANSFERRED TO CADD
2	02/1970	JJV	REVISED NOTE
1	10/1968	ADB	ADDED NOTE
0	04/1968	ADB	LB-1175-S CREATD

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
LAWTON HUB ASSEMBLY DETAIL		
SCALE: 1'-0" = 1'-0"	OLD DRAWING NO. LB-1175-S	DRAWING NO. SE-018



PARTS LIST			
PART NO.	DESCRIPTION	DRAWING NO.	QTY.
1	TOP BRACKET CONNECTION	SE-019_3	1
2	BOTTOM BRACKET CONNECTION	SE-019_3	1
3	DIE CAST AL. PLAIN TEE	SE-019_3	1
4	1 1/2"x6" LONG SCHEDULE 40 AL. PIPE, 11 1/2 NPSM 3/4" AND 1" THREADED ENDS		1
5	1 1/2"x8" LONG SCHEDULE 40 AL. PIPE, 11 1/2 NPSM 3/4" THREADED ON ONE END		1
6	1 1/2" DIE CAST AL. SERRATED TEE WITH TWO SERRATED BOSSES	SE-007_2	2
7	1 1/2"x1 3/4" LONG DIE CAST AL. CHASE NIPPLE (LC-8-2)	SE-009	2
8	1 1/2"x1 5/8" LONG POLYCARBONATE CLOSURE CAP (LC-8-4)	SE-011	2
9	NEOPRENE SEAL WASHER 2 3/4"ODx1 7/8"IDx1/8"TH (N.I.C*)		1
A	1/4"-20x1/2" LONG ST. STEEL SQ. HEAD HOLLOW NOSE SET SCREW		8
B	3/8"-16x1" LONG ST. STEEL SQ. HEAD CUP POINT SET SCREW		1
C	1/2"x4" GAL. STEEL LAG SCREW (N.I.C*)		4

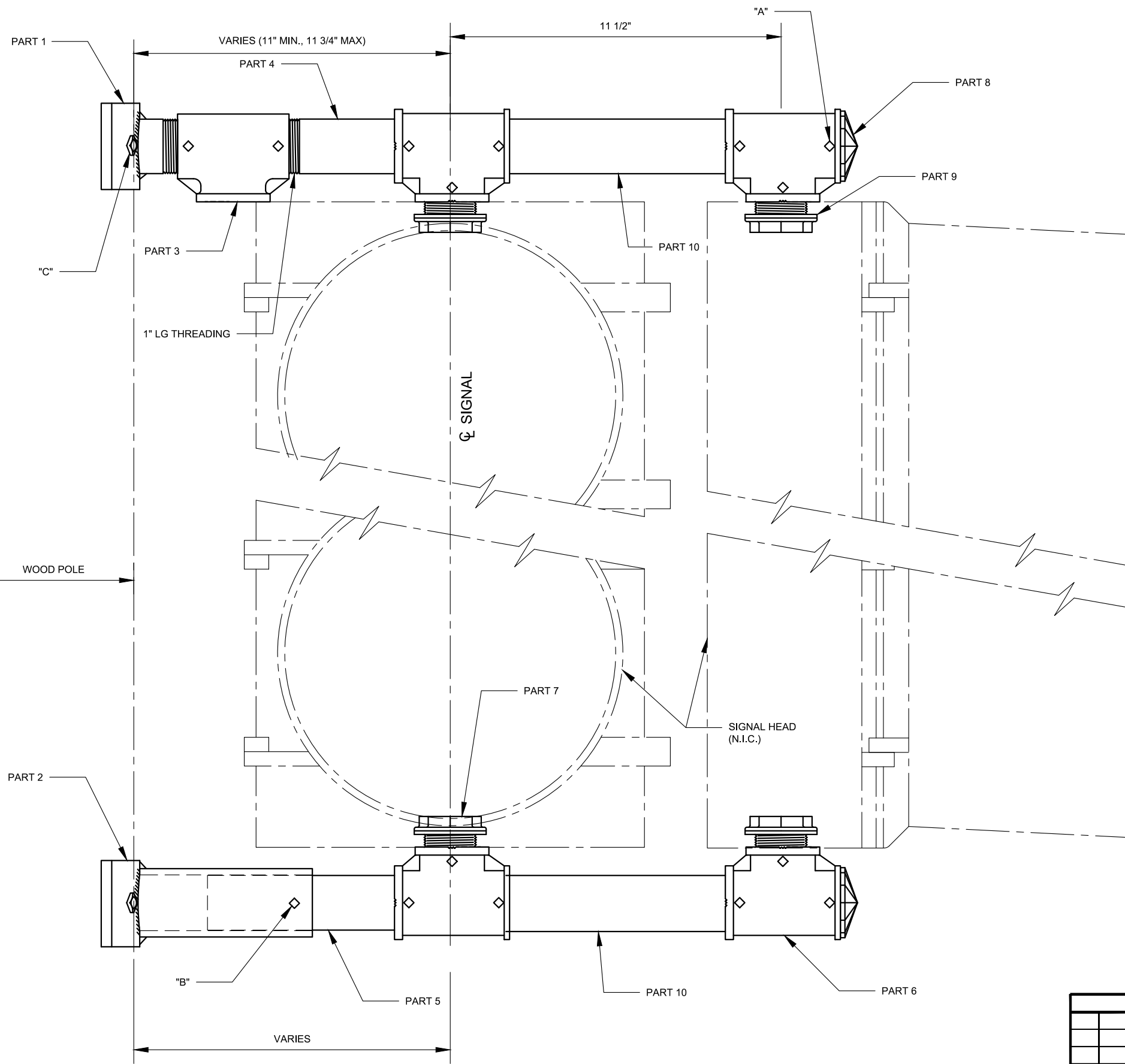
* - NOT IN CONTRACT (N.I.C)

NOTES:

1. ALUMINUM PLATES AND PIPING SHALL BE 6061-T6 ALLOY.
2. THREADING ON ENDS OF PIPING SHALL BE NPSM THREADING, 11 1/2 THREADS PER INCH, 3/4" LONG, UNLESS OTHERWISE NOTED.
3. THREADS TO BE LUBRICATED WITH A THIN COAT OF "MOLYCOTE ANTI-SIEZE THREAD COMPOUND" BY DOW CORNING CORP. OR APPROVED EQUAL.



REVISION				DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
3	06/2020	DR	UPDATED PARTS LIST	BRACKET MOUNTING ASSEMBLY FOR VEHICLE SIGNALS ON WOOD POLES "WP"		
2	08/2011	GPI	REPLICATED IN CADD			
1	10/1974	JBC	CHANGED TITLES, NOTES AND PARTS LIST	SCALE:	OLD DRAWING NO.	DRAWING NO.
0	11/1966	JBC	LC-310-S CREATED	3" = 1'-0"	LC-310-S	SE-019_1
NO	DATE	BY	DESCRIPTION			



PARTS LIST			
PART NO.	DESCRIPTION	DRAWING NO.	QTY.
1	TOP BRACKET CONNECTION	SE-019_3	1
2	BOTTOM BRACKET CONNECTION	SE-019_3	1
3	DIE CAST AL. PLAIN TEE	SE-019_3	1
4	1 1/2"x6" LONG SCHEDULE 40 AL. PIPE, 11 1/2 NPSM 3/4" AND 1" THREADED ENDS		1
5	1 1/2"x8" LONG SCHEDULE 40 AL. PIPE, 11 1/2 NPSM 3/4" THREADED ON ONE END		1
6	1 1/2" DIE CAST AL. SERRATED TEE WITH TWO SERRATED BOSSES	SE-007_2	4
7	1 1/2"x1 3/4" LONG DIE CAST AL. CHASE NIPPLE (LC-8-2)	SE-009	4
8	1 1/2"x5/8" LONG POLYCARBONATE CLOSURE CAP (LC-8-4)	SE-011	2
9	NEOPRENE SEAL WASHER 2 3/4"ODx1 7/8"IDx1/8"TH (N.I.C*)		2
10	1 1/2"x8 3/4" LONG SCHEDULE 40 AL. PIPE, 11 1/2 NPSM 3/4" THREADED ON BOTH ENDS		2
A	1/4"-20x1/2" LONG ST. STEEL SQ. HEAD HOLLOW NOSE SET SCREW		14
B	3/8"-16x1" LONG ST. STEEL SQ. HEAD CUP POINT SET SCREW		1
C	1/2"x4" GAL. STEEL LAG SCREW (N.I.C*)		4

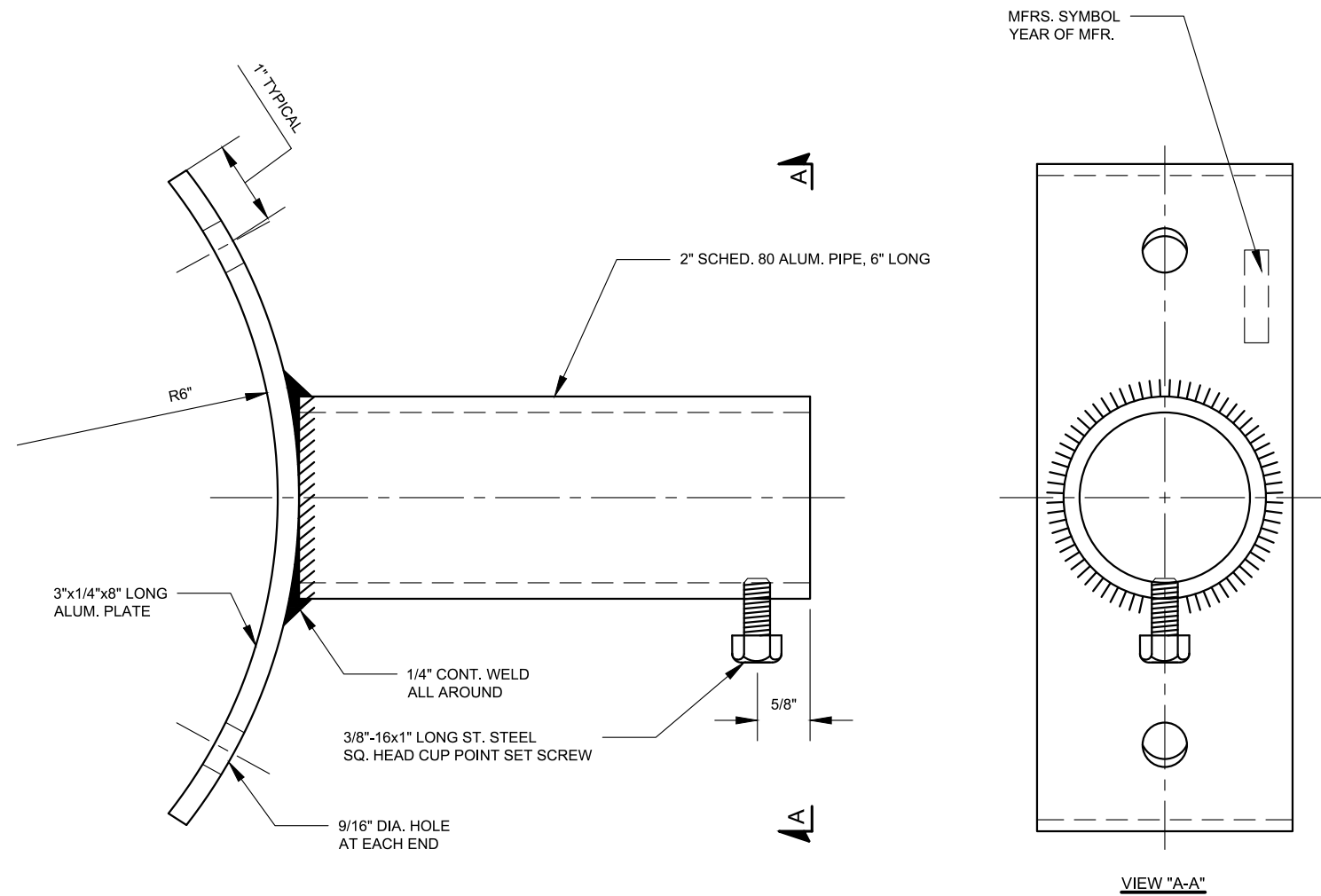
* - NOT IN CONTRACT (N.I.C)

NOTES:

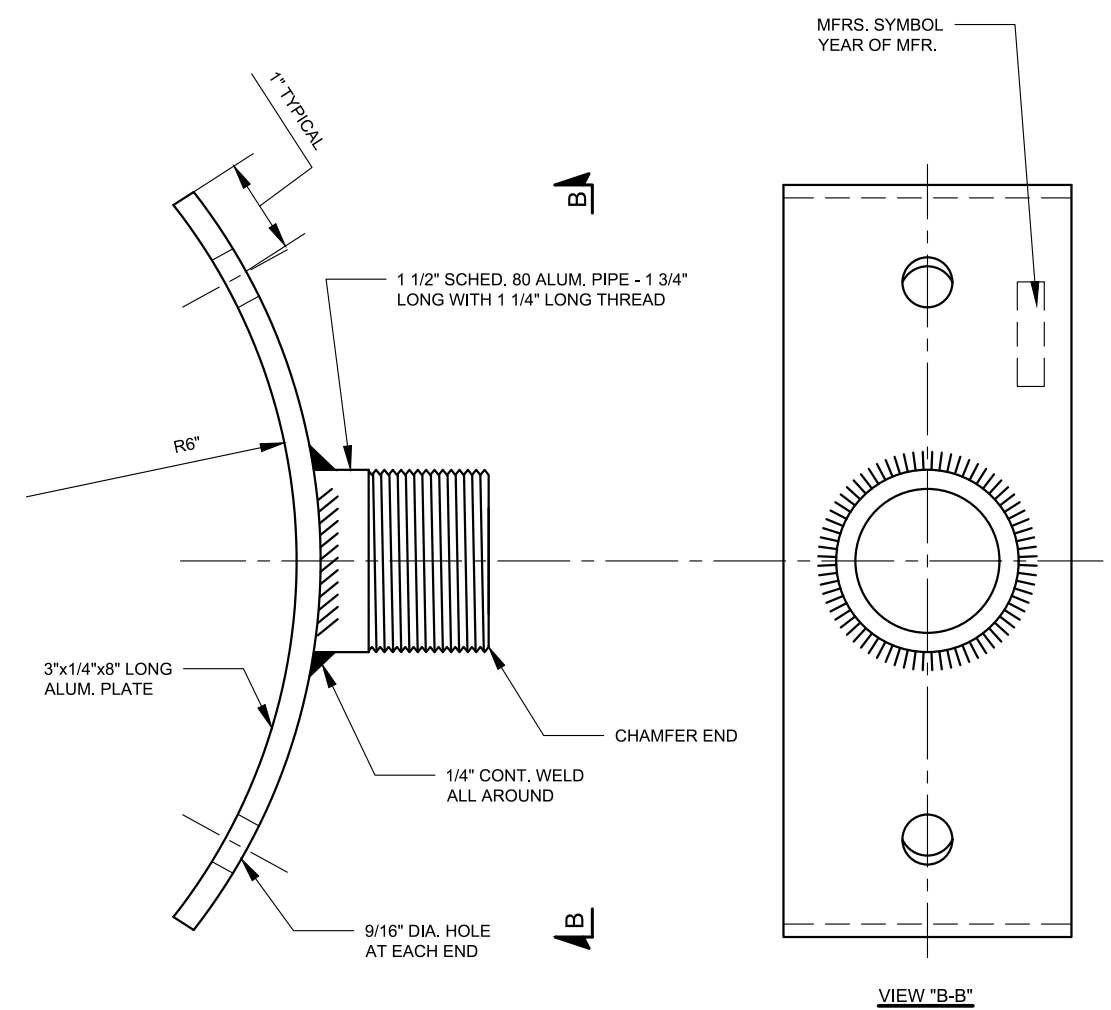
1. ALUMINUM PLATES AND PIPING SHALL BE 6061-T6 ALLOY.
2. THREADING ON ENDS OF PIPING SHALL BE NPSM THREADING, 11 1/2 THREADS PER INCH, 3/4" LONG, UNLESS OTHERWISE NOTED.
3. THREADS TO BE LUBRICATED WITH A THIN COAT OF "MOLYCOTE ANTI-SIEZE THREAD COMPOUND" BY DOW CORNING CORP. OR APPROVED EQUAL.



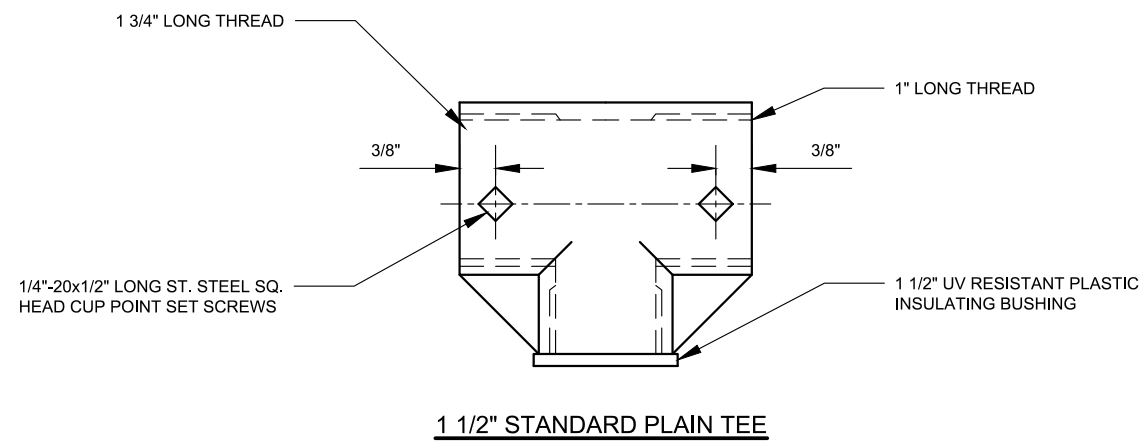
REVISION				DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
3	06/2020	DR	UPDATED PARTS LIST	BRACKET MOUNTING ASSEMBLY FOR VEHICLE SIGNALS ON WOOD POLES "2WP"		
2	08/2011	GPI	REPLICATED IN CADD			
1	10/1974	JBC	CHANGED TITLES, NOTES AND PARTS LIST	SCALE:	OLD DRAWING NO.	DRAWING NO.
0	11/1966	JBC	LC-310-S CREATED	3" = 1'-0"	LC-310-S	SE-019_2
NO	DATE	BY	DESCRIPTION			



BOTTOM BRACKET CONNECTION



TOP BRACKET CONNECTION



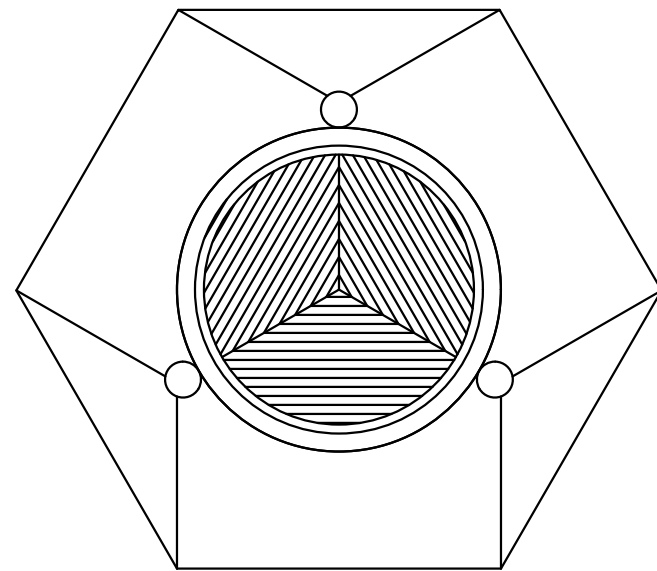
1 1/2" STANDARD PLAIN TEE

NOTES:

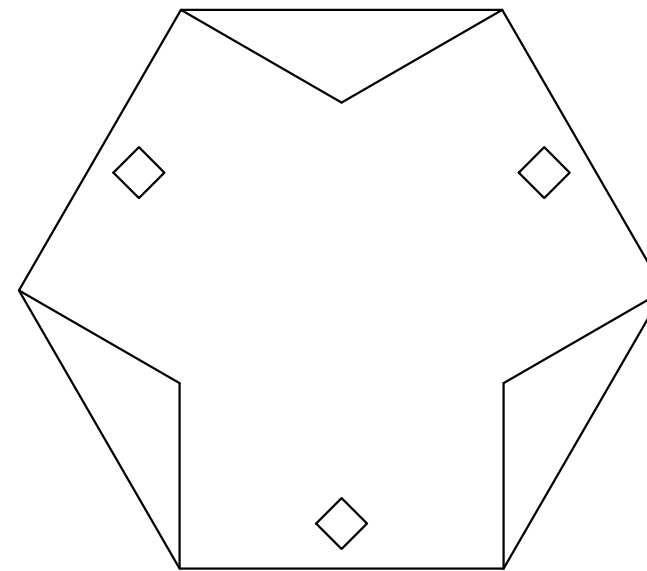
1. ALUMINUM PIPE AND PLATES SHALL BE 6061-T6 ALLOY.
2. PIPE THREADING SHALL BE NPSM THREADING, 11 1/2 THREADS PER INCH.
3. WELDING SHALL BE HELIARC WELDING.
4. PAINT POWDER COAT BRACKET PER FED SPEC.
5. PLAIN TEE COULD BE SUBSTITUTED WITH 1 1/2" DIE CAST AL. SERRATED TEE AND 1 1/2" THREADED HIGH IMPACT PLASTIC INSULATING BUSHING O-Z/GEDNEY'S # BB-150 OR EQUAL.



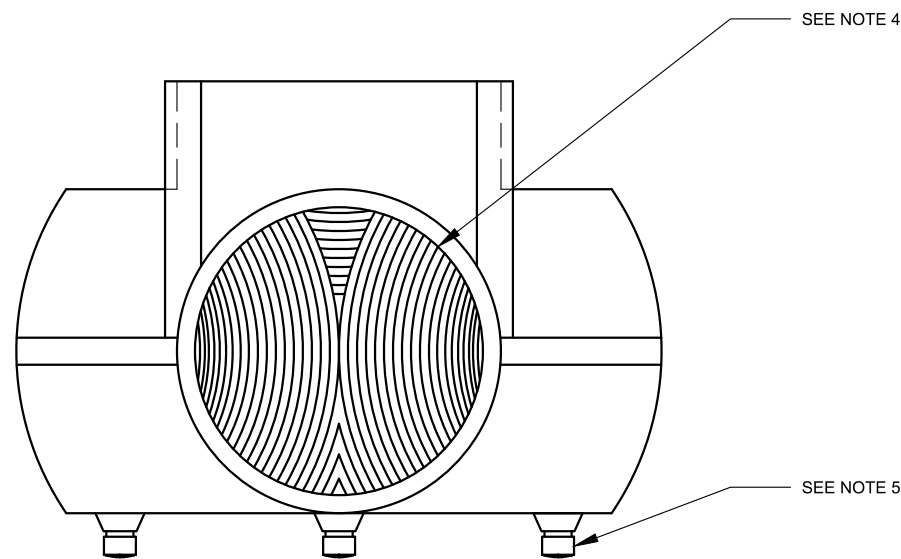
REVISION				DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
3	06/2020	DR	RADIUS CHANGE TO 6"	POLE CONNECTIONS FOR WOOD POLE BRACKETS "WP"		
2	08/2011	GPI	REPLICATED IN CADD			
1	06/1967	ADB	ADDED PLAIN TEE DETAIL	SCALE:	OLD DRAWING NO.	DRAWING NO.
0	11/1966	ADB	LB-1022-S CREATED	6" = 1'-0"	LB-1022-S	SE-019_3
NO	DATE	BY	DESCRIPTION			



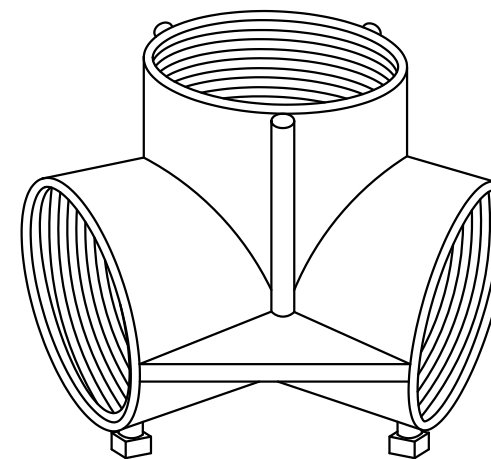
TOP VIEW



BOTTOM VIEW



FRONT VIEW
SLIP "Y" FITTING



ISOMETRIC VIEW
N.T.S.

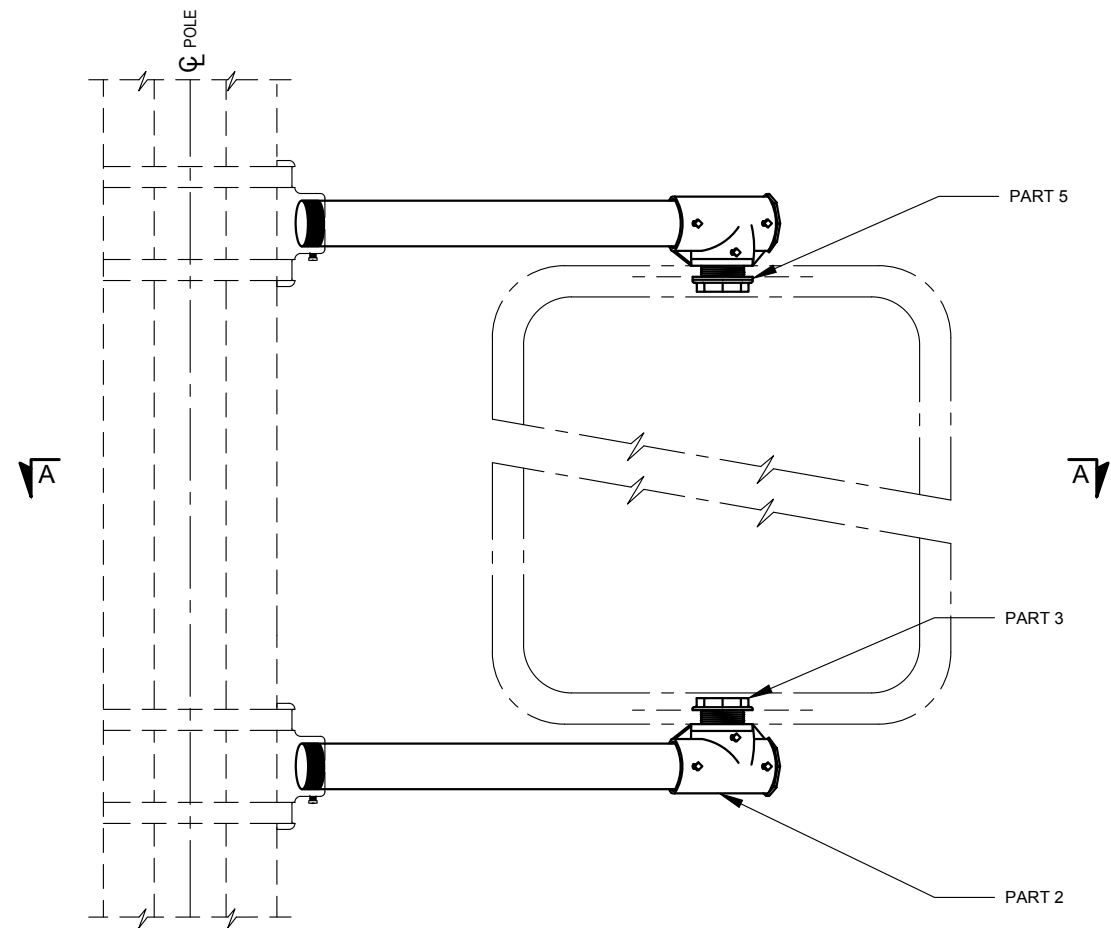
NOTES:

1. NYC DESIGNATION "VB-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. 1/4"-20x1/2" LONG ST. STEEL SQ. HEAD HOLLOW NOSE SET SCREW ON ALL 1 1/2" OPENINGS.
6. PAINT BRACKET POWDER-COATED PER FED SPEC 595B#13538.

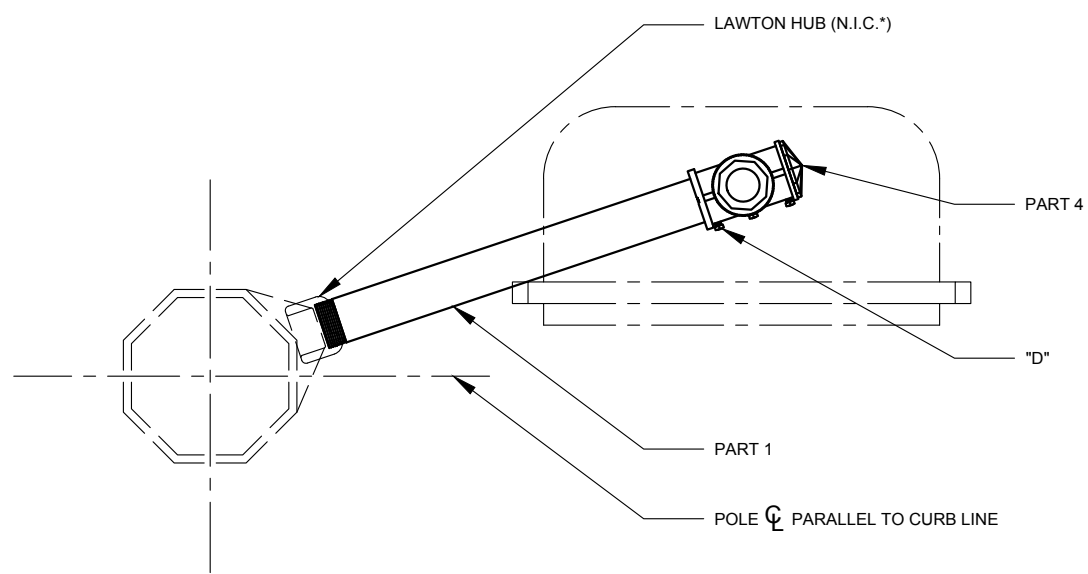


REVISION			
NO	DATE	BY	DESCRIPTION
0	12/2011	GPI	CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
120 DEGREE SLIP "Y" FITTING		
SCALE:	OLD DRAWING NO.	DRAWING NO.
9"=1'-0"		SE-020



ELEVATION



SECTION "A-A"

PARTS LIST			
PART NO.	DESCRIPTION	DRAWING NO.	QTY.
1	1 1/2"x17" LONG SCHEDULE 80 AL. PIPE, 11 1/2 NPSM 3/4" THREADED ON BOTH ENDS		2
2	1 1/2" DIE CAST AL. SERRATED TEE WITH TWO SERRATED BOSSES	SE-007_2	2
3	1 1/2"x1 3/4" LONG DIE CAST AL. CHASE NIPPLE (LC-8-2)	SE-009	2
4	1 1/2"x5/8" LONG POLYCARBONATE CLOSURE CAP (LC-8-4)	SE-011	2
5	NEOPRENE SEAL WASHER 2 3/4" OD x 1 7/8" ID x 1/8" TH (FOR TOP BRACKET ONLY) (N.I.C.*)		1
"D"	1/4"-20x1/2" LONG ST. STEEL SQ. HEAD HOLLOW NOSE SET SCREW		6

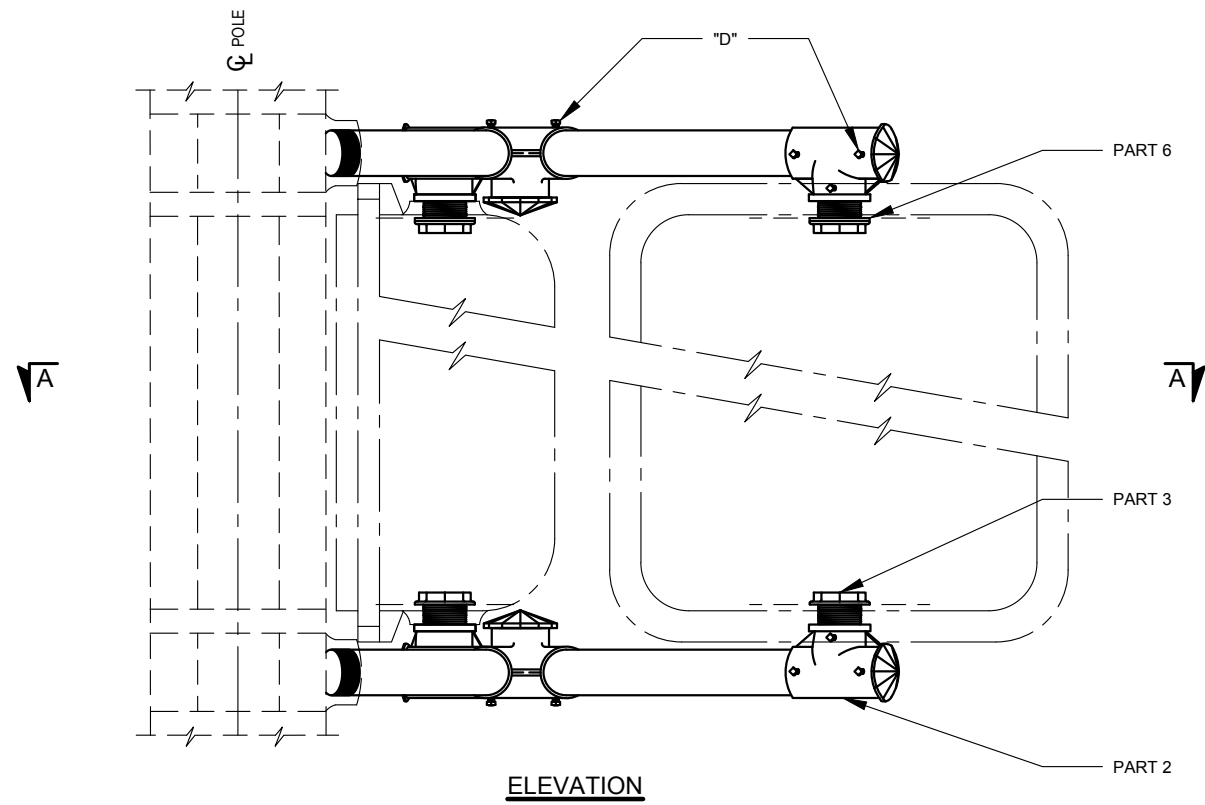
* - NOT IN CONTRACT (N.I.C)

NOTES:

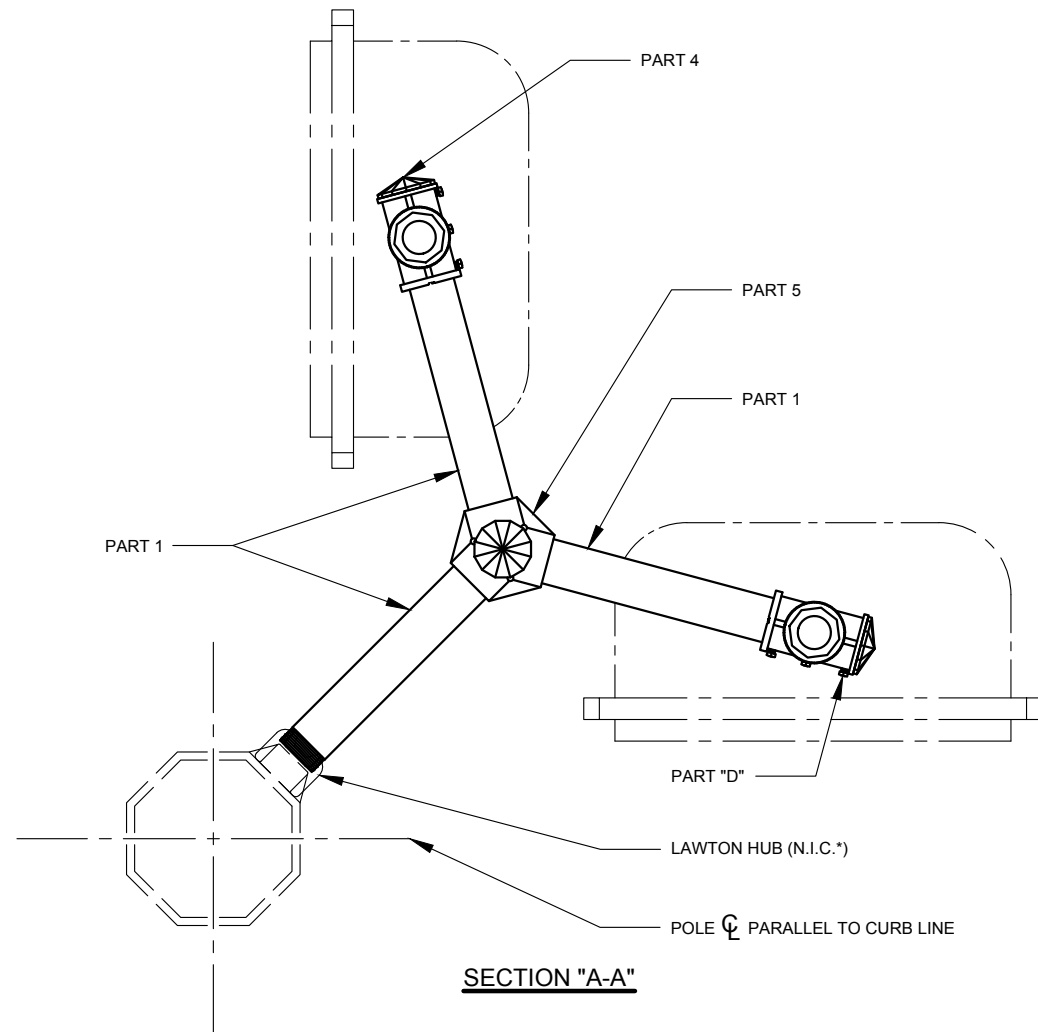
- SIGNAL HOUSING MAY BE ROTATED AROUND CENTER OF CONNECTION.
- A THIN COAT OF "MOLYKOTE ANTI SEIZE THREAD COMPOUND" BY DOW CORNING, OR APPROVED EQUAL **SHALL** BE USED ON ALL THREADING IN ALUMINUM THREADED CONNECTIONS.

REVISION				DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C.,N.Y.11101		
5	06/2020	DR	UPDATED PARTS LIST	PEDESTRIAN SIGNAL MOUNTING ASSEMBLY "VB-P"		
4	3/2012	GPI	REPLICATED IN CADD			
3	6/1973	JBC	CHANGE TITLE, NOTES & PART LIST	SCALE:	OLD DRAWING NO.	DRAWING NO.
2	12/1970	JV	CHANGED NOTE 2	1 1/2" = 1'-0"	LC-341-S	SE-021_1
1	03/1968	ADB	REVISED AND REDRAWN			
0	03/1968	ADB	CREATED			
NO	DATE	BY	DESCRIPTION			





ELEVATION



SECTION "A-A"

PARTS LIST			
PART NO.	DESCRIPTION	DRAWING NO.	QTY.
1	1 1/2"x11" LONG SCHEDULE 80 AL. PIPE, 11 1/2 NPSM 3/4" THREADED ON BOTH ENDS		6
2	1 1/2" DIE CAST AL. SERRATED TEE WITH TWO SERRATED BOSSES	SE-007_2	4
3	1 1/2"x1 3/4" LONG DIE CAST AL. CHASE NIPPLE (LC-8-2)	SE-009	4
4	1 1/2"x5/8" LONG POLYCARBONATE CLOSURE CAP (LC-8-4)	SE-011	6
5	120 DEGREE "Y" FITTING	SE-020	2
6	NEOPRENE SEAL WASHER 2 3/4" OD x 1 7/8" ID x 1/8" TH (FOR TOP BRACKET ONLY) (N.I.C.*)		2
"D"	1/4"-20x1/2" LONG ST. STEEL SQ. HEAD HOLLOW NOSE SET SCREW		18

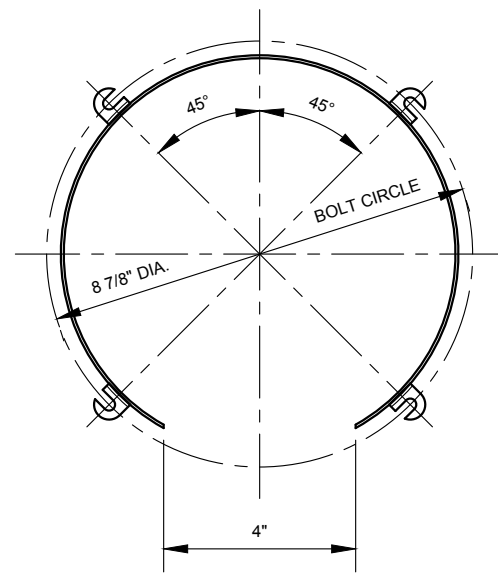
* - NOT IN CONTRACT (N.I.C)

NOTES:

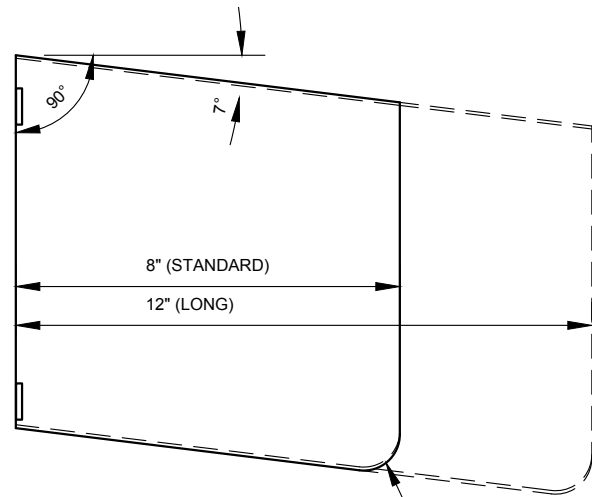
1. SIGNAL HOUSING MAY BE ROTATED AROUND CENTER OF CONNECTION.
2. A THIN COAT OF "MOLYKOTE ANTI SEIZE THREAD COMPOUND" BY DOW CORNING, OR APPROVED EQUAL **SHALL** BE USED ON ALL THREADING IN ALUMINUM THREADED CONNECTIONS.

REVISION				DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C.,N.Y.11101		
5	06/2020	DR	UPDATED PARTS LIST	PEDESTRIAN SIGNAL MOUNTING ASSEMBLY "VB-2P"		
4	3/2012	GPI	REPLICATED IN CADD			
3	6/1973	JBC	CHANGE TITLE, NOTES & PART LIST	SCALE:	OLD DRAWING NO.	DRAWING NO.
2	12/1970	JV	CHANGED NOTE 2	1 1/2" = 1'-0"	LC-341-S	SE-021_2
1	03/1968	ADB	REVISED AND REDRAWN			
0	03/1968	ADB	CREATED			
NO	DATE	BY	DESCRIPTION			





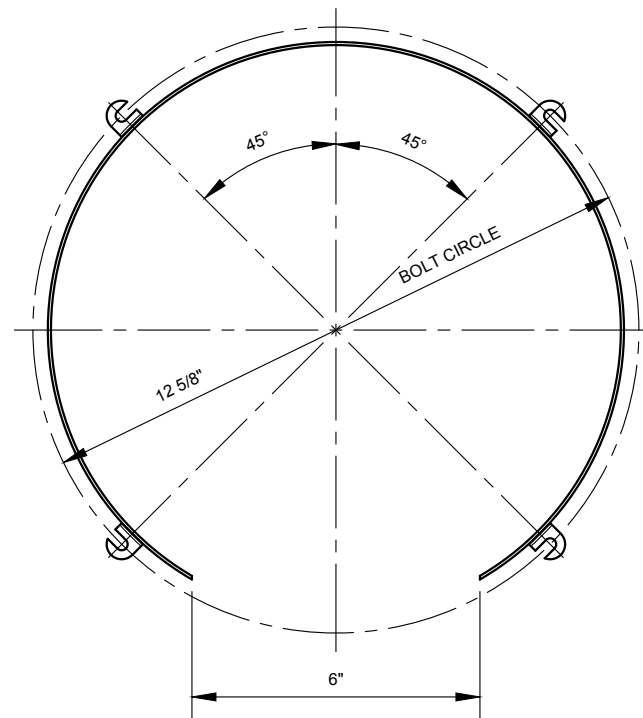
END VIEW



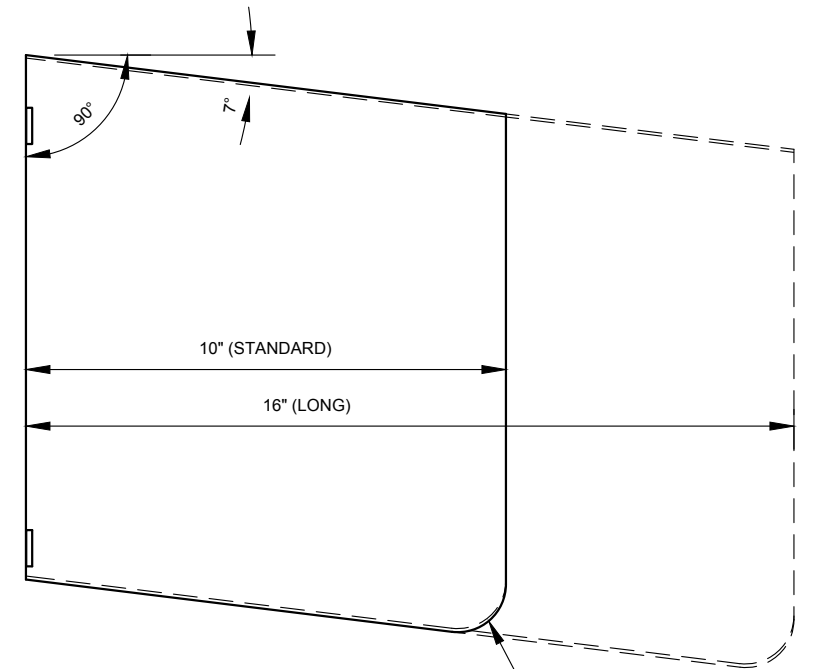
SIDE VIEW

ROUND OUTSIDE CORNERS - 3/4" RADIUS

DETAIL OF 8" VISORS



END VIEW



SIDE VIEW

ROUND OUTSIDE CORNERS - 1" RADIUS

DETAIL OF 12" VISORS

NOTES:

1. VISOR LENGTH SHOULD BE DETERMINED AS PER ENGINEER.

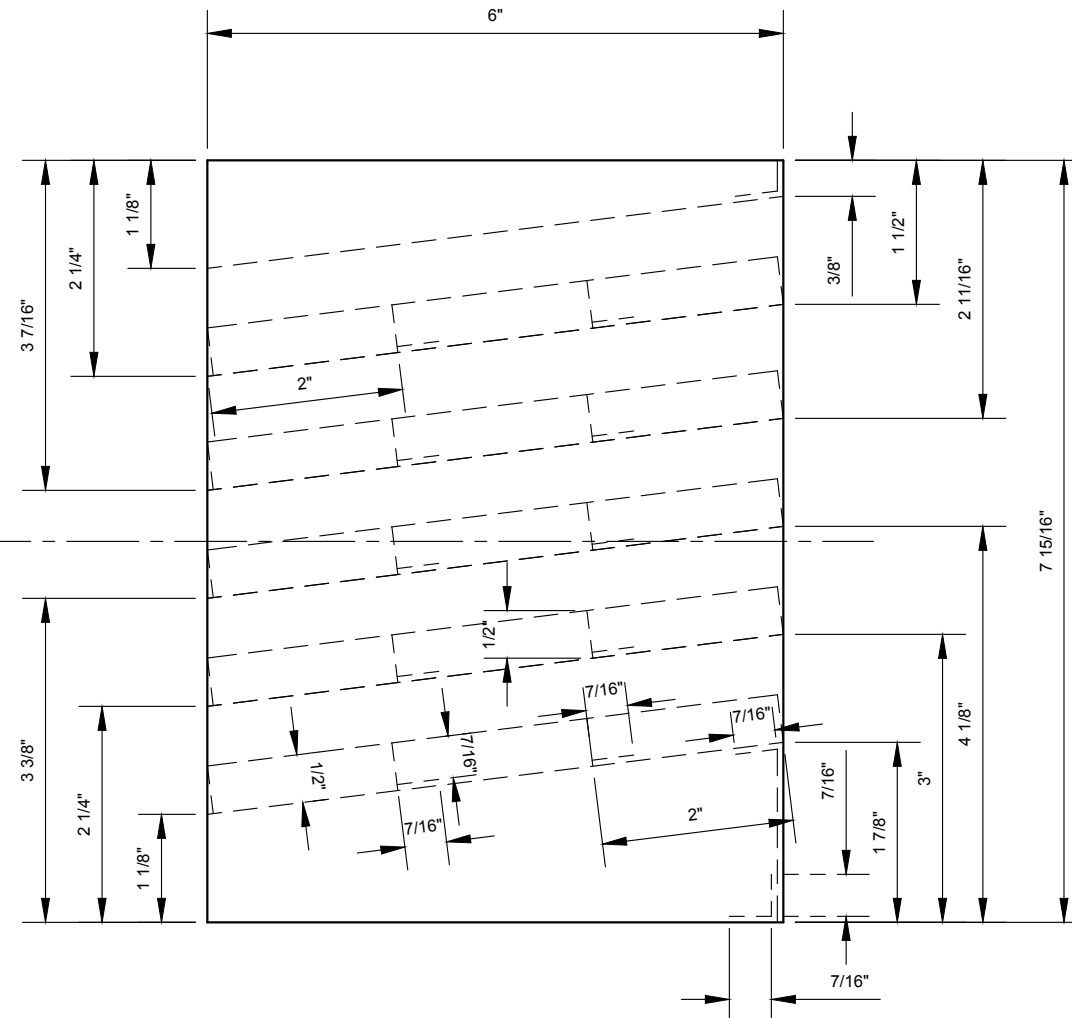
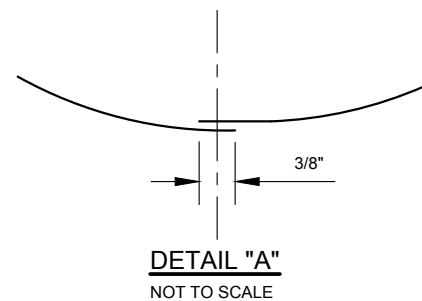
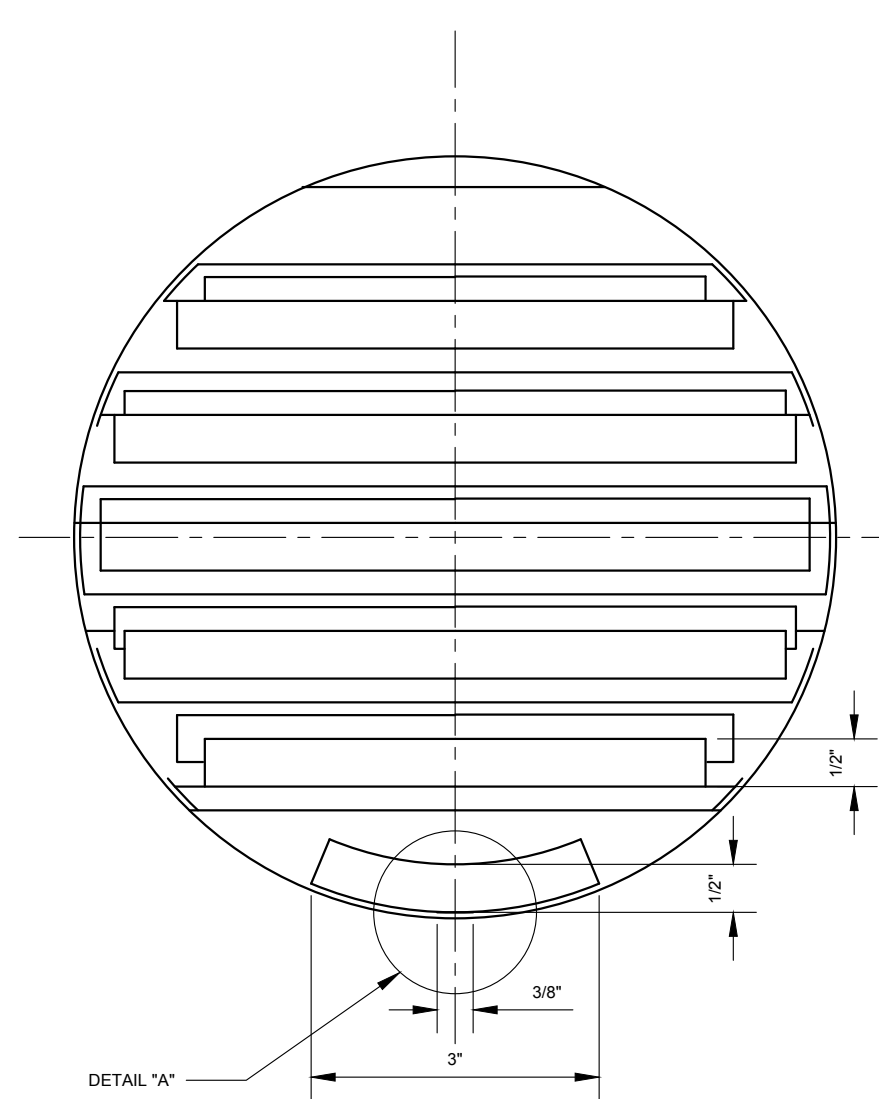


REVISION			
NO	DATE	BY	DESCRIPTION
2	03/2012	GPI	REPLICATED IN CADD
1	05/2006	VS	REVISION; VOID LG-163-S
0	04/1964	CL	CREATED

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

TUNNEL SIGNAL HEAD VISORS

SCALE:	OLD DRAWING NO.	DRAWING NO.
3"=1'-0"	LG-127-5 LB-14248S	SE-022



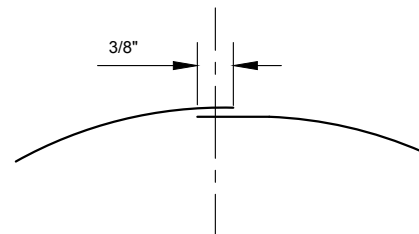
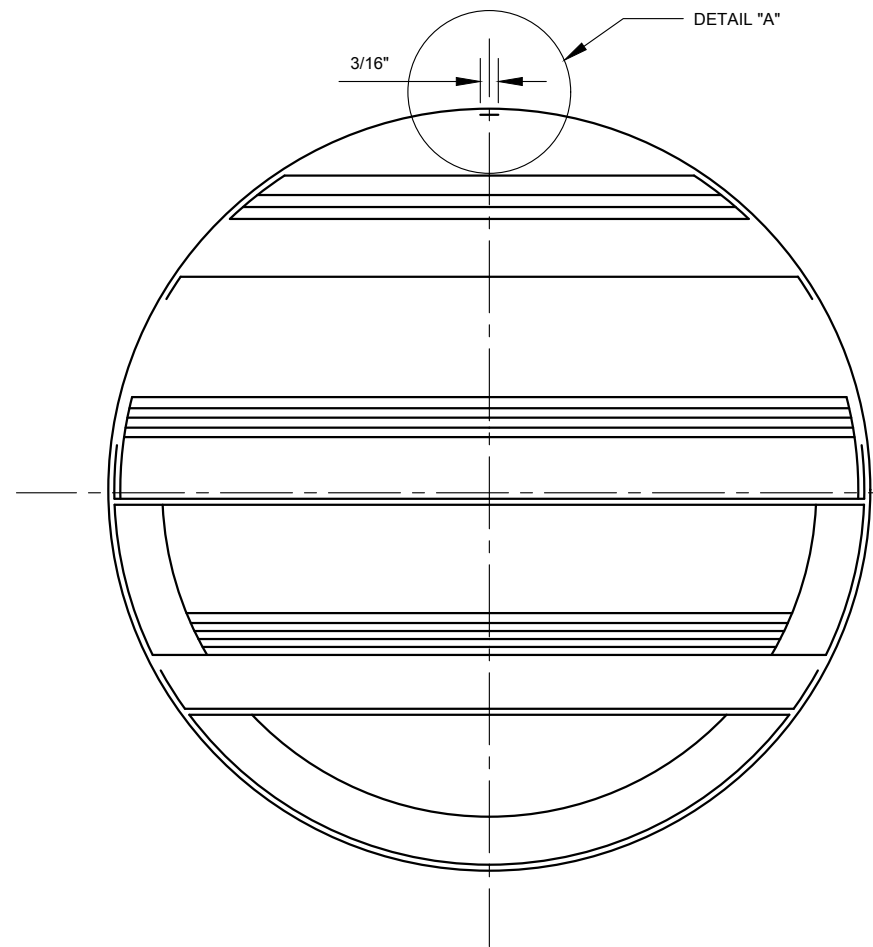
NOTES:

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

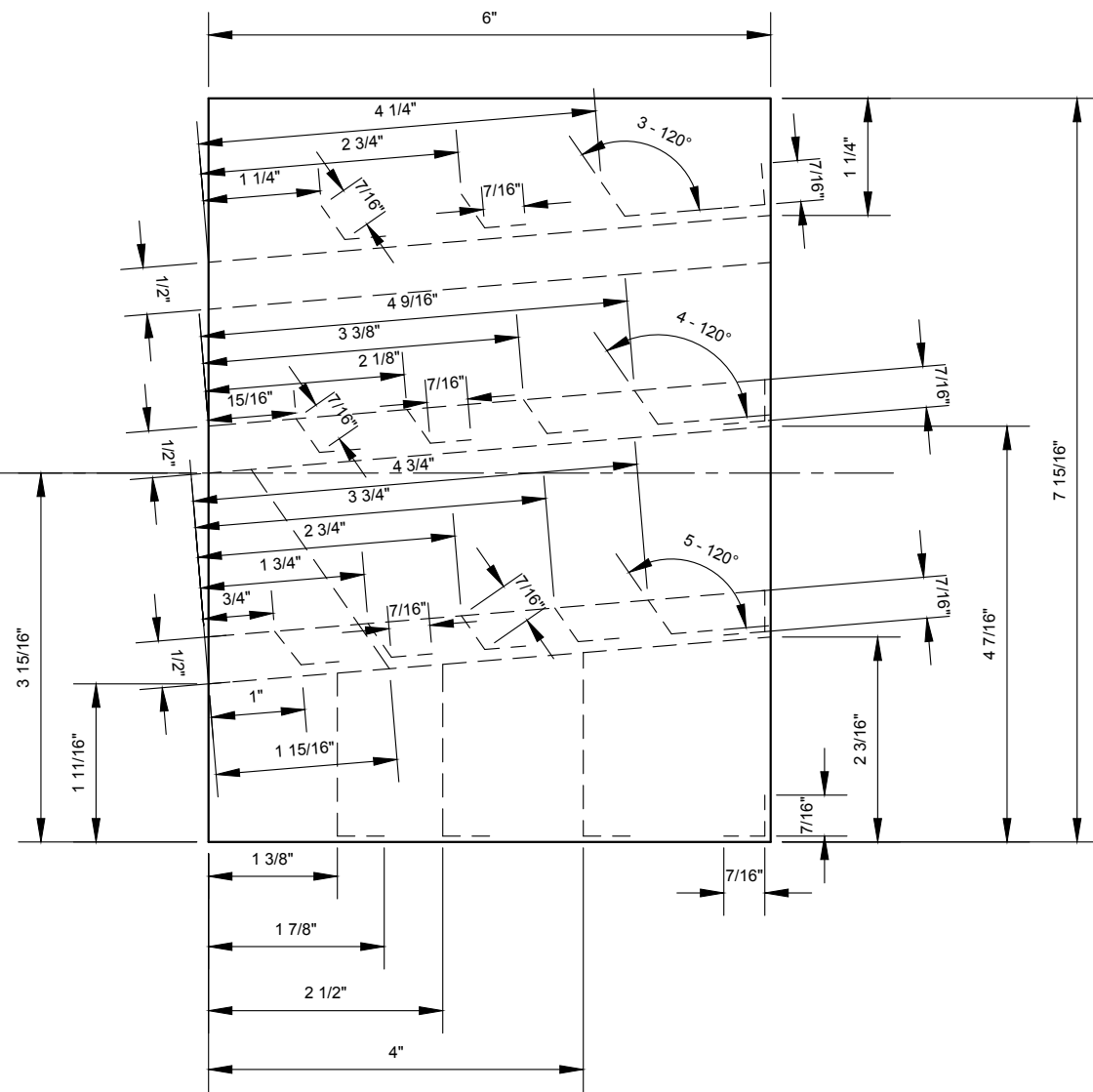


REVISION			
NO	DATE	BY	DESCRIPTION
1	03/2012	GPI	REPLICATED IN CADD
0	10/2006	NJ	CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
LOUVERS - 3 DEGREES		
SCALE: 6" = 1'-0"	OLD DRAWING NO. LB-14333S	DRAWING NO. SE-023_1



DETAIL "A"
NOT TO SCALE

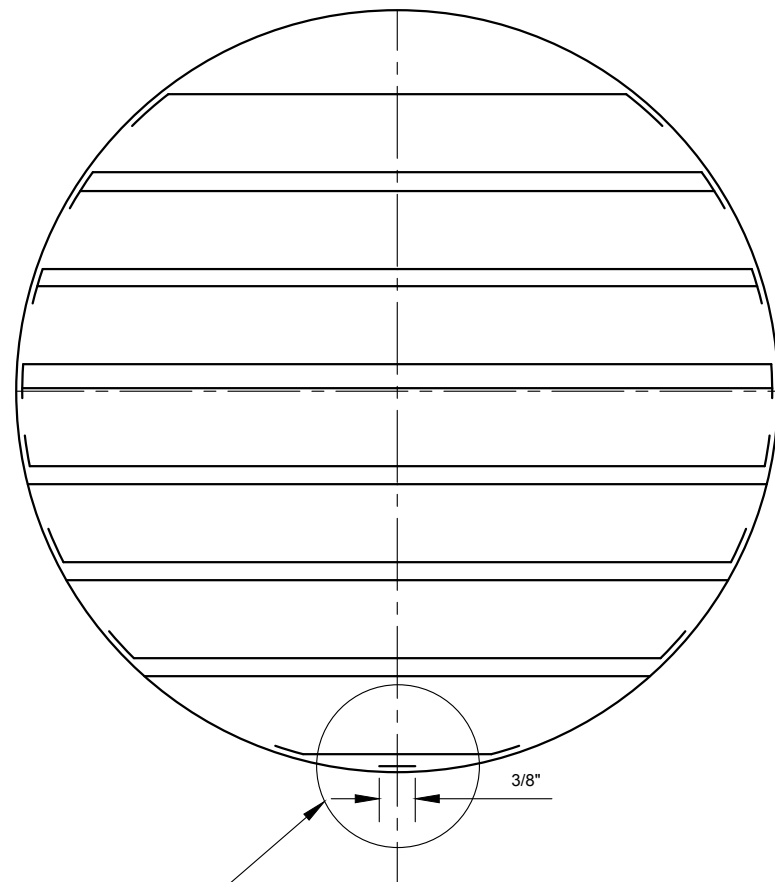


NOTES:

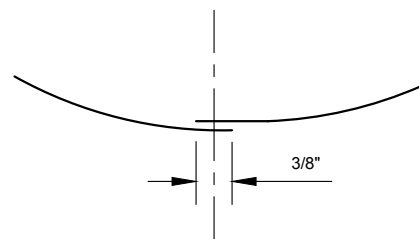
1. ALL SURFACES OF PARTS SHOULD BE SPRAYED WITH BLACK FLAT PAINT.
2. TOLERANCES SHOULD BE $\pm 1/16$ " UNLESS OTHERWISE SPECIFIED.
3. MATERIAL: ROLLED PLATE. THICKNESS = 0.02".



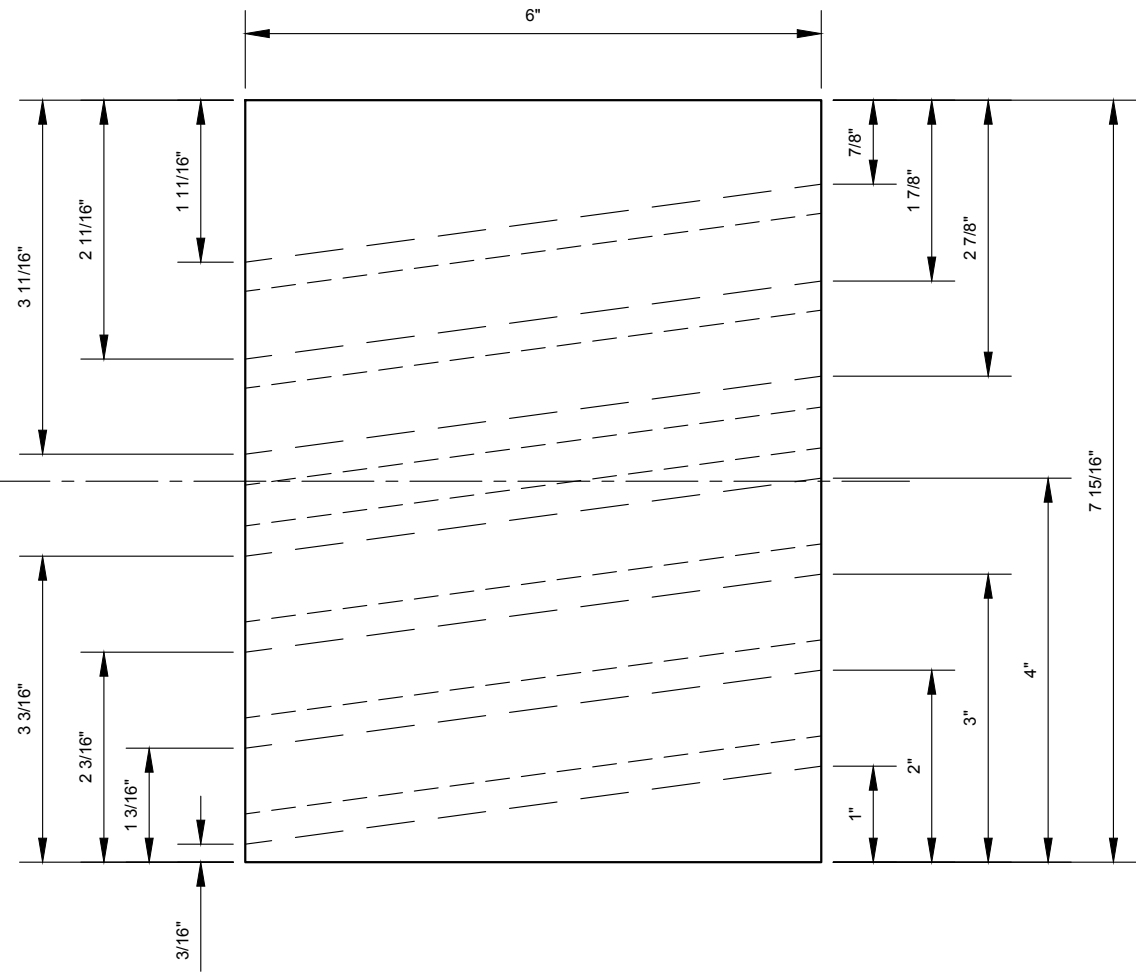
REVISION				DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
1	03/2012	GPI	REPLICATED IN CADD	LOUVERS - 7 DEGREES		
0	10/2006	NJ	CREATED			
NO	DATE	BY	DESCRIPTION	SCALE: 6" = 1'-0"	OLD DRAWING NO. LB-14334S	DRAWING NO. SE-023_2



DETAIL "A"



DETAIL "A"
NOT TO SCALE



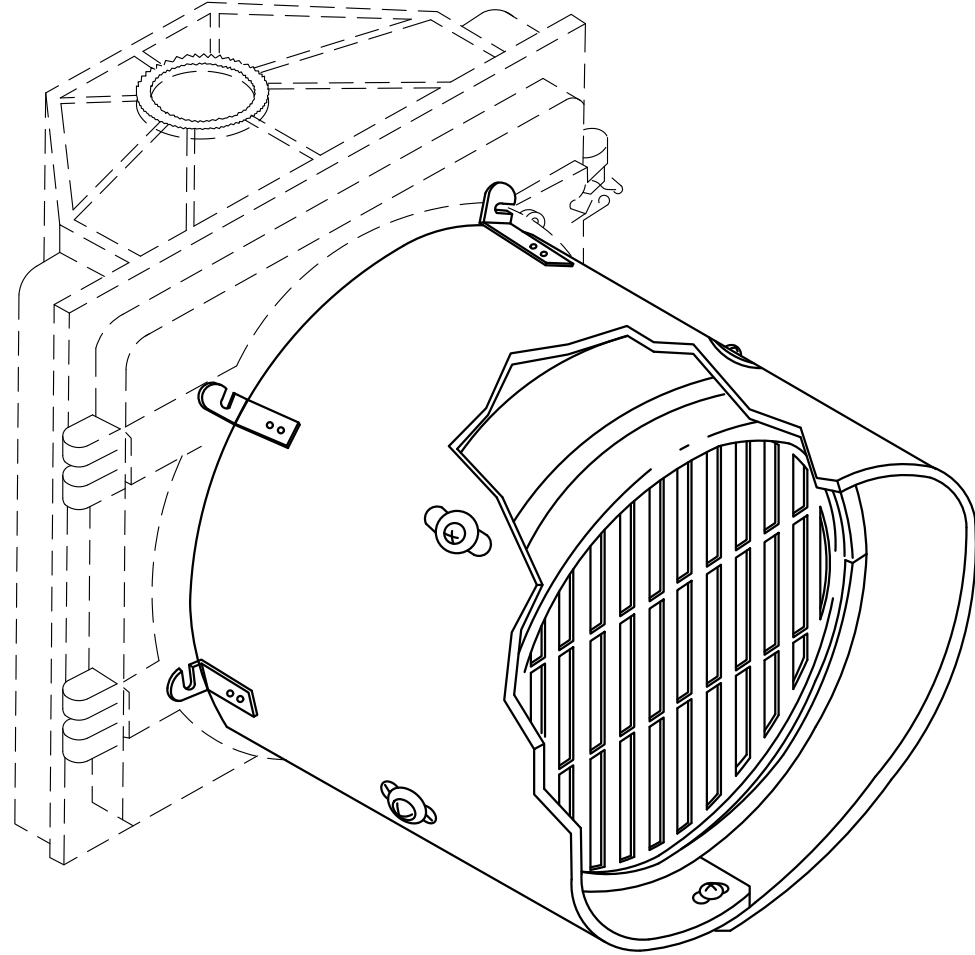
NOTES:

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

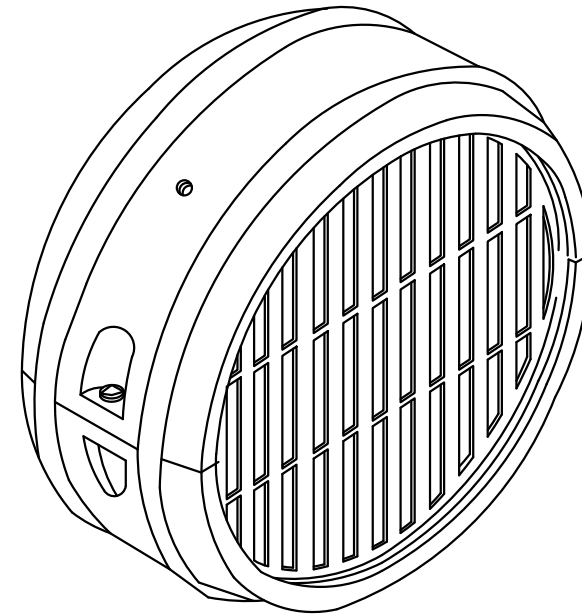


REVISION			
NO	DATE	BY	DESCRIPTION
1	03/2012	GPI	REPLICATED IN CADD
0	10/2006	NJ	CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
LOUVERS - 14 DEGREES		
SCALE: 6" = 1'-0"	OLD DRAWING NO. LB-14335S	DRAWING NO. SE-023_3



ASSEMBLY DETAIL



LOUVER DETAIL

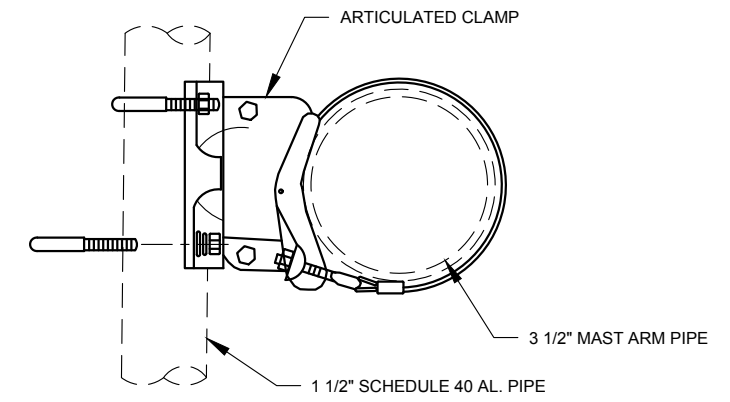
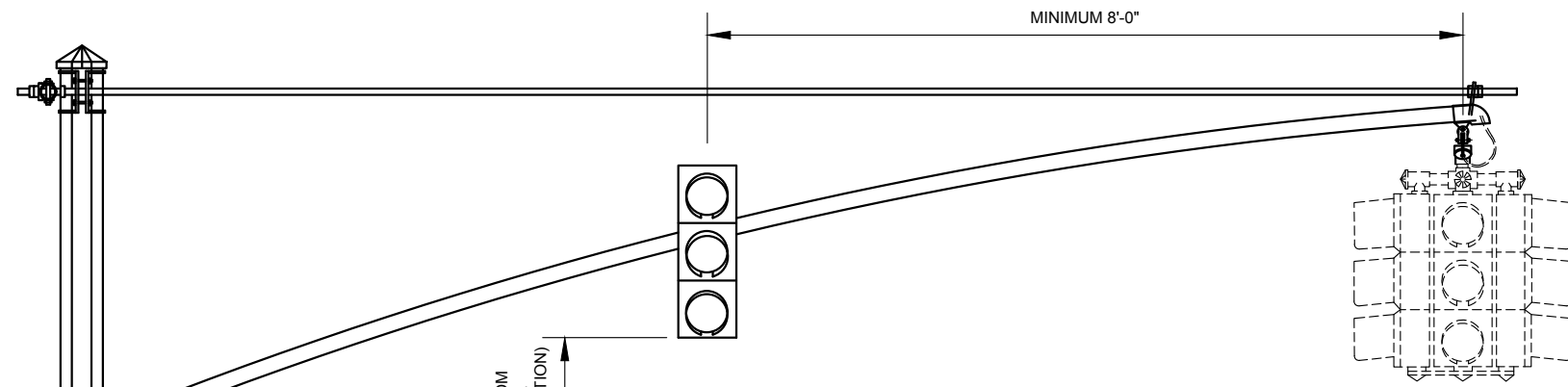
NOTE:

- VIEW CUT-OFF OPTIONS FOR GEOMETRICALLY PROGRAMMABLE LOUVERS COULD BE BUT NOT LIMITED TO 7°, 8°, 9°, 11°, 13°, 15°, 23.5°, 43°.

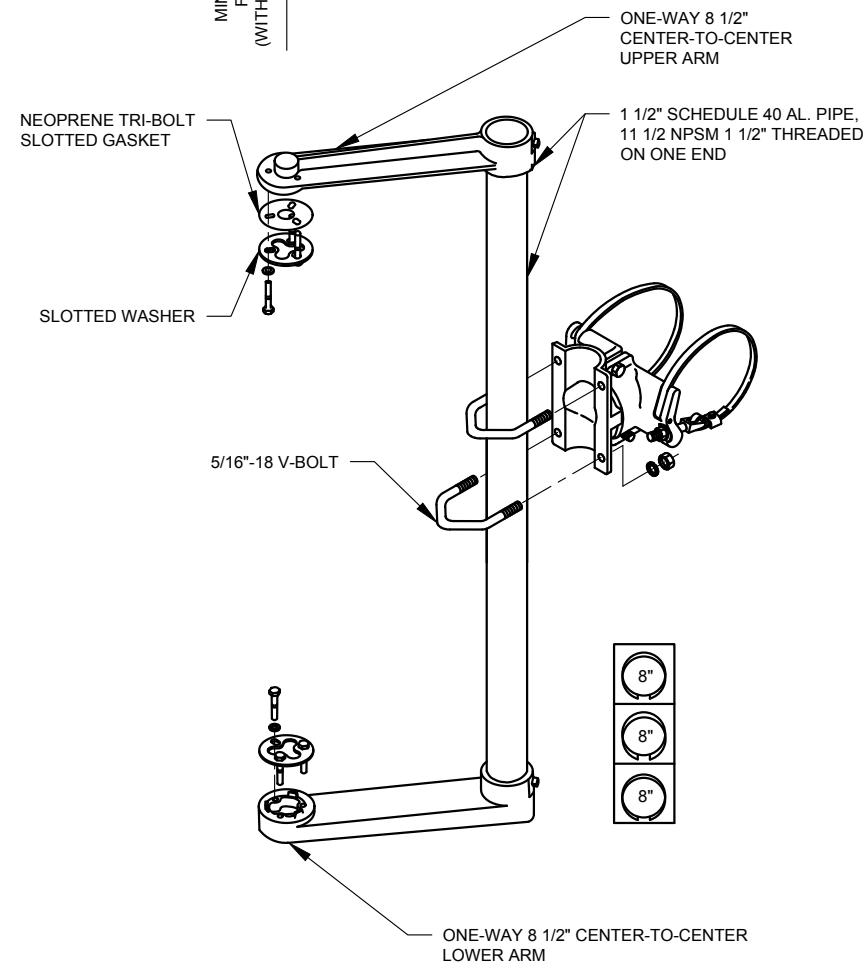


REVISION				DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
				LOUVERS - GEOMETRICALLY PROGRAMMABLE		
				SCALE:	OLD DRAWING NO.	DRAWING NO.
				N.T.S.		SE-023_4
0	03/2012	GPI	CREATED			
NO	DATE	BY	DESCRIPTION			

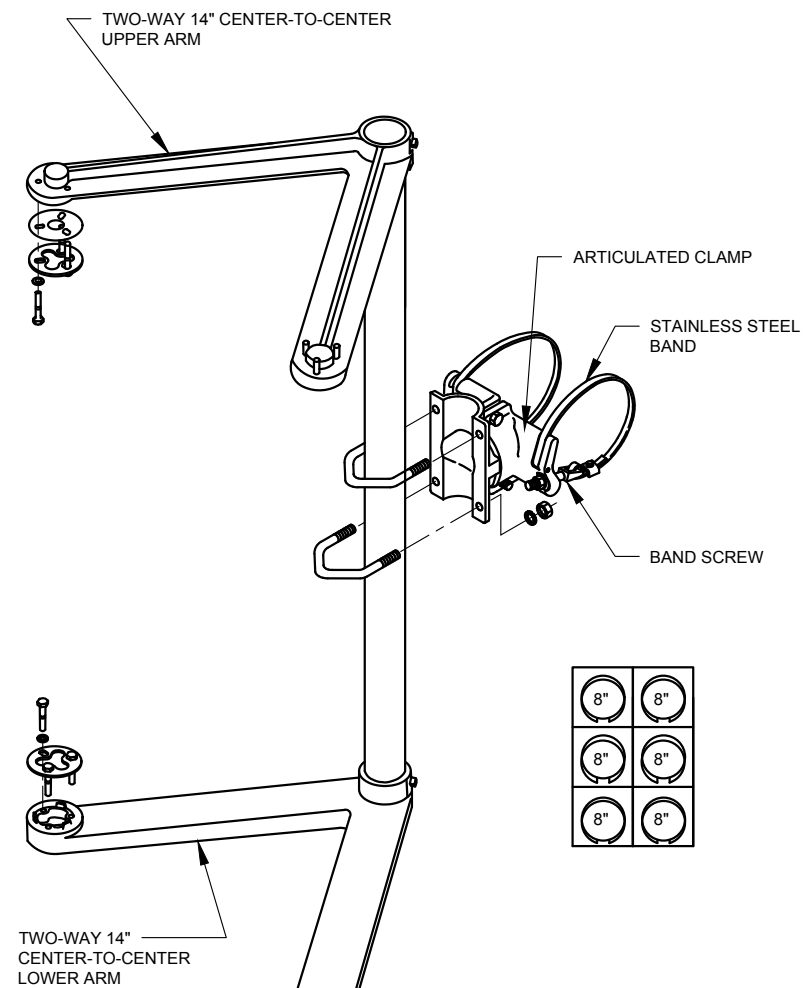
NYCDOT TRAFFIC SIGNAL STANDARD DRAWINGS, Jun 2020



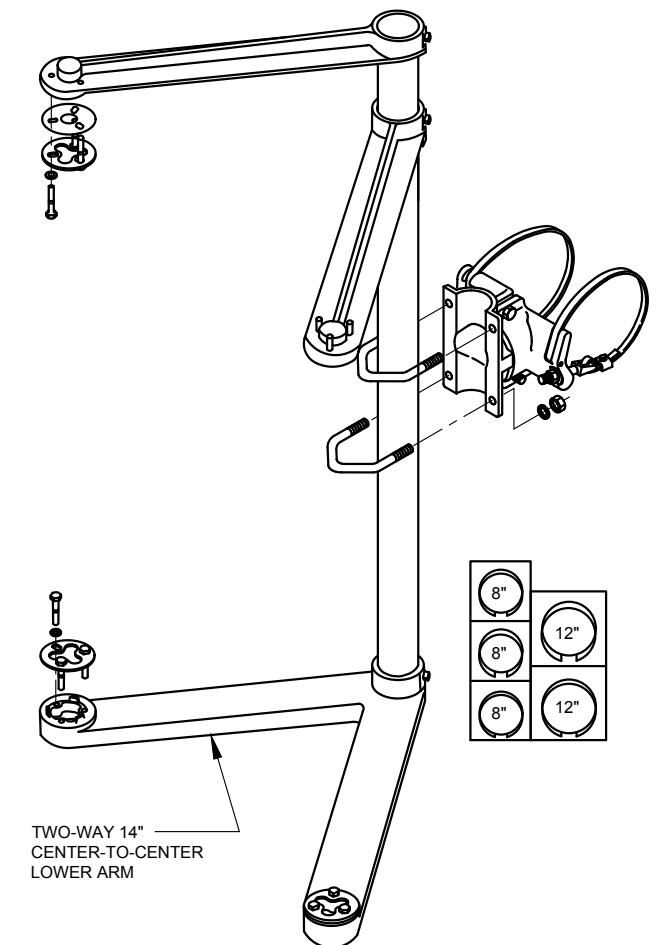
DETAIL OF ATTACHING TRAFFIC SIGNAL TO MAST ARM



ONE-WAY BRACKET ASSEMBLY



TWO-WAY BRACKET ASSEMBLY



TWO-WAY VARIABLE BRACKET ASSEMBLY

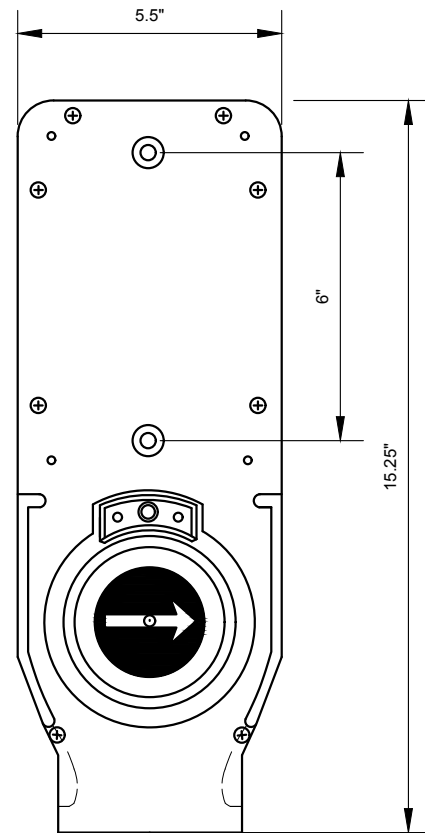
NOTES:

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 3/4" PVC CONDUIT. PVC CONDUIT SHALL BE CONTINUOUS, FROM POLE TO SIGNAL HOUSING LEAVING ENOUGH EXPOSED CABLE FOR CONNECTIONS.

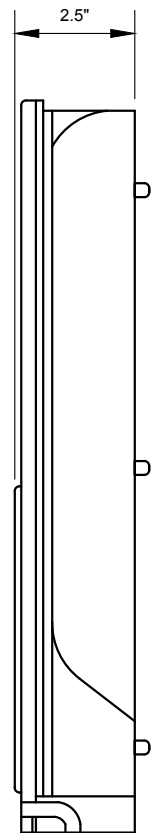


REVISION			
NO	DATE	BY	DESCRIPTION
1	12/2019	DR	ADD TWO-WAY VARIABLE BRACKET ASSEMBLY
0	03/2012	GPI	CREATED

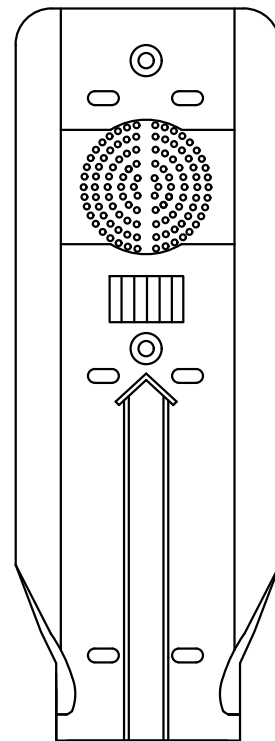
DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
RIGID MAST ARM TRAFFIC SIGNAL MOUNTING ASSEMBLY		
SCALE:	OLD DRAWING NO.	DRAWING NO.
N.T.S.		SE-024



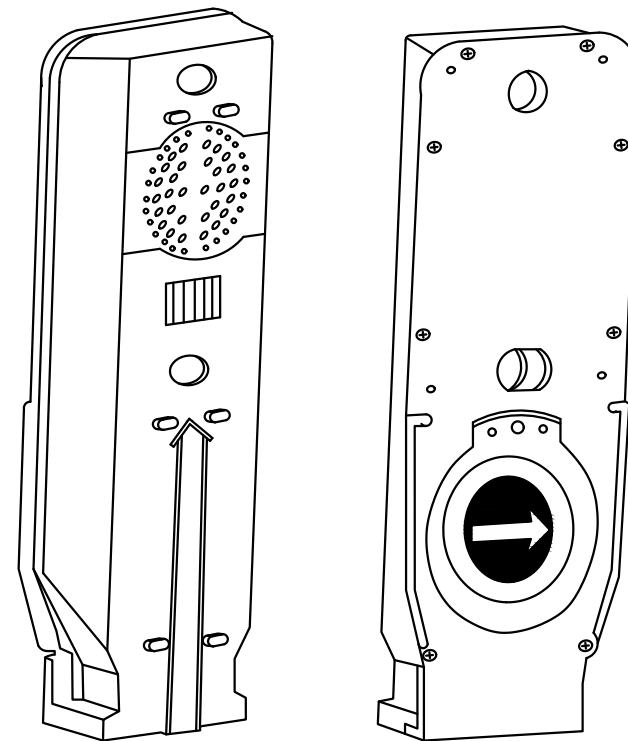
FRONT VIEW
3"=1'-0"



SIDE VIEW
3"=1'-0"

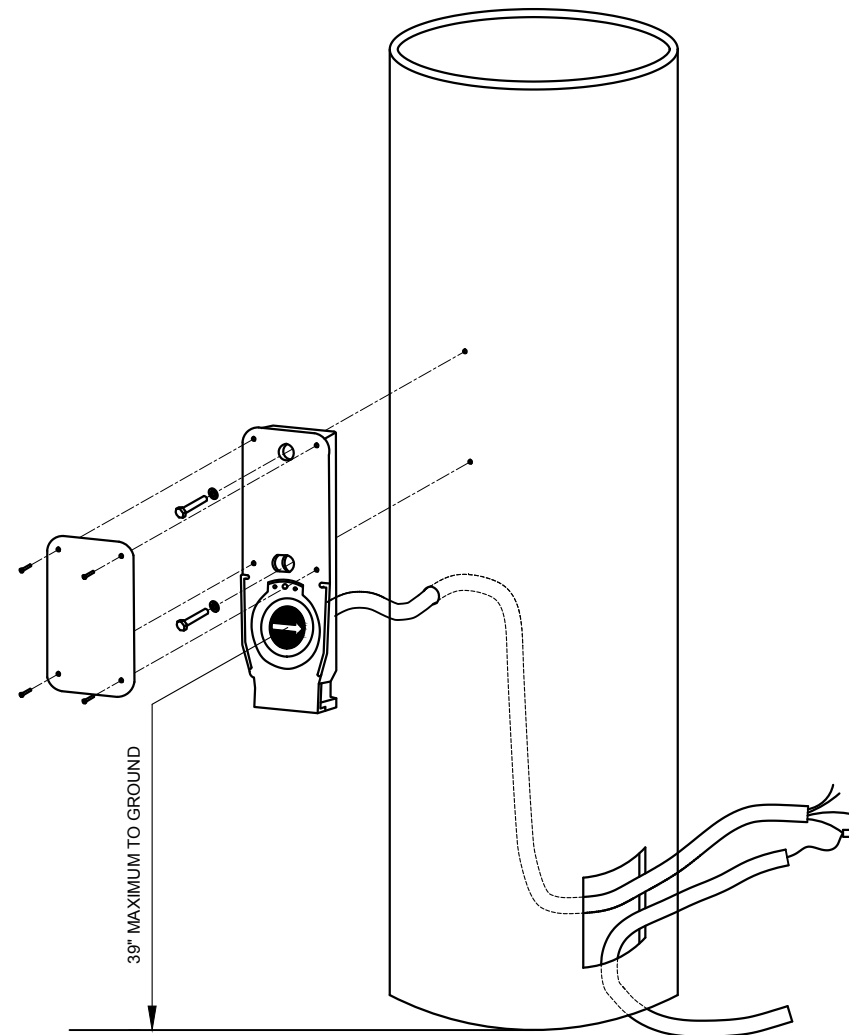


BACK VIEW
3"=1'-0"

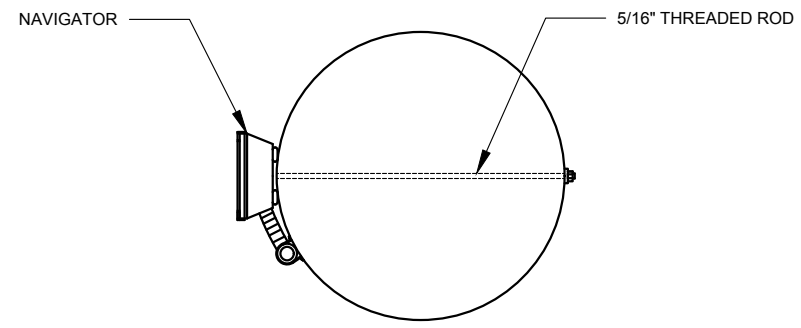


ISOMETRIC VIEW
N.T.S.

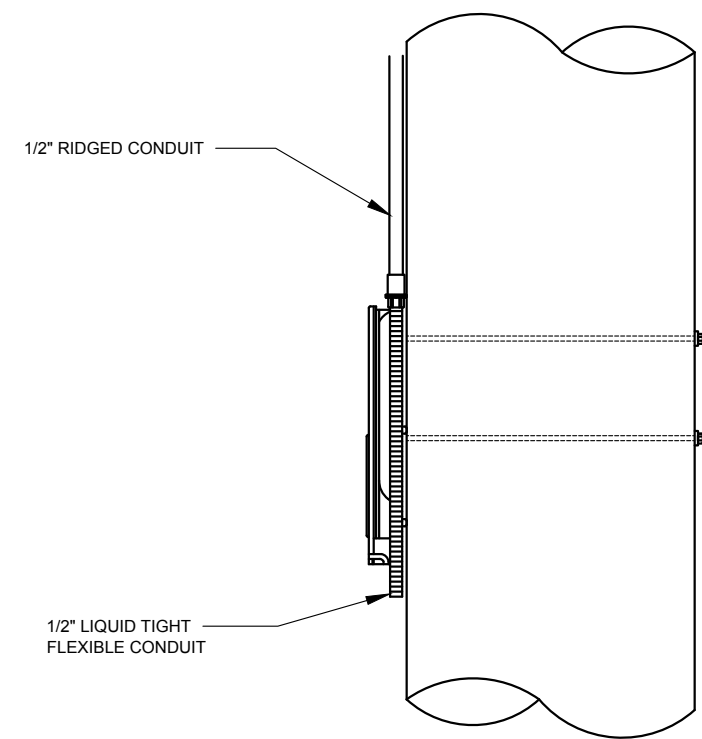
REVISION				DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
				ACCESSIBLE PEDESTRIAN SIGNAL (APS) UNIT		
				SCALE:	OLD DRAWING NO.	DRAWING NO.
				AS NOTED		SE-025_1
NO	DATE	BY	DESCRIPTION			
0	03/2012	GPI	CREATED			



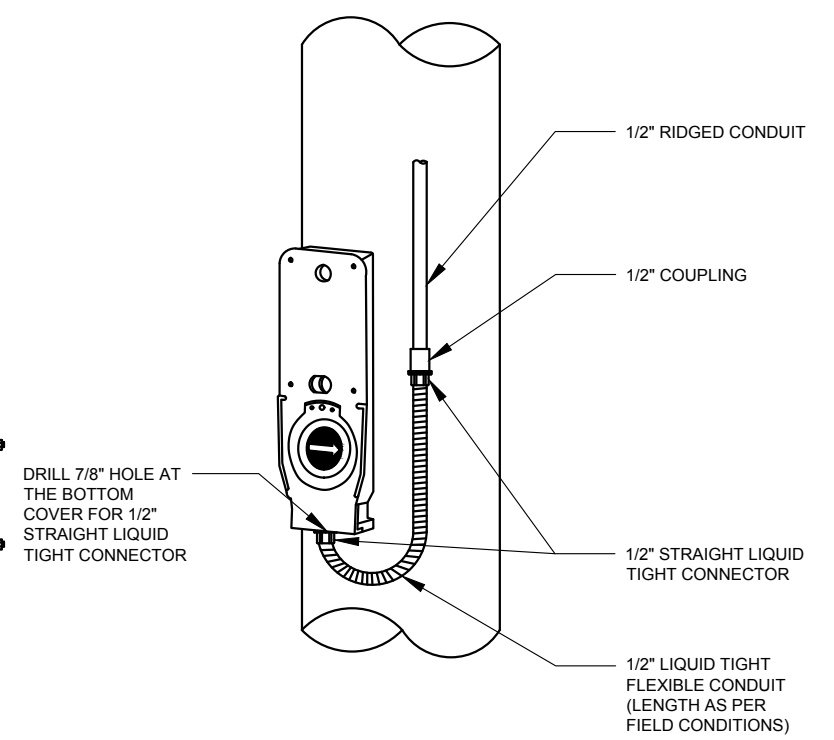
MOUNTING ON METAL POLE



TOP VIEW



SIDE VIEW

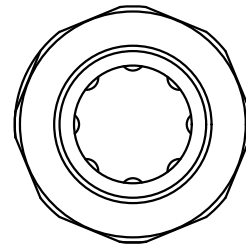
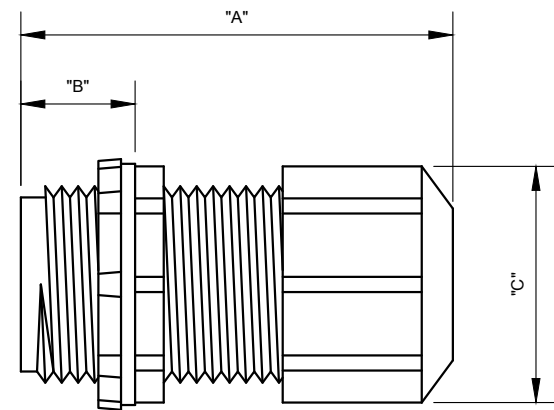


MOUNTING ON WOOD POLE



REVISION			
NO	DATE	BY	DESCRIPTION
1	04/2018	DR	BOTTOM CONDUIT CONN. ON WOOD POLE APP.
0	03/2012	GPI	CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
ACCESSIBLE PEDESTRIAN SIGNAL (APS) MOUNTING INFORMATION		
SCALE:	OLD DRAWING NO.	DRAWING NO.
N.T.S.		SE-025_2



CORD END CONNECTOR

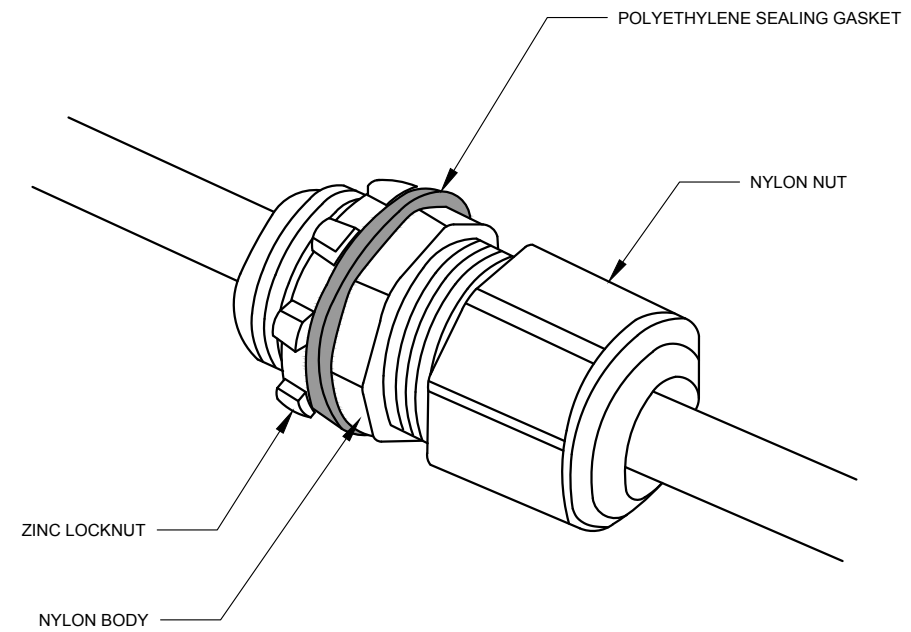
SCALE: 1'-0" = 1'-0"

TRADE SIZE	"A"	"B"	"C"	CABLE RANGE
1/2	1.792	.595	.978	.100"-.300"
	1.792	.595	.978	.200"-.472"
	2.250	.595	1.230	.385"-.750"
3/4	1.963	.595	.978	.100"-.300"
	1.963	.595	.978	.200"-.472"
	2.250	.595	1.230	.385"-.750"
1 1/4	2.160	.630	1.810	.510"-.790"
	2.160	.630	1.810	.710"-.980"
1 1/2*	0.600	.710	2.090	UNIVERSAL**

(*) HUMMEL HSK-K-MULTI #1.597.6499.71 (COMES WITH SOLID GROMMET) OR EQUAL
 (**) HUMMEL SOLID GROMMET #1.089.3699.19 OR EQUAL

NOTE:

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

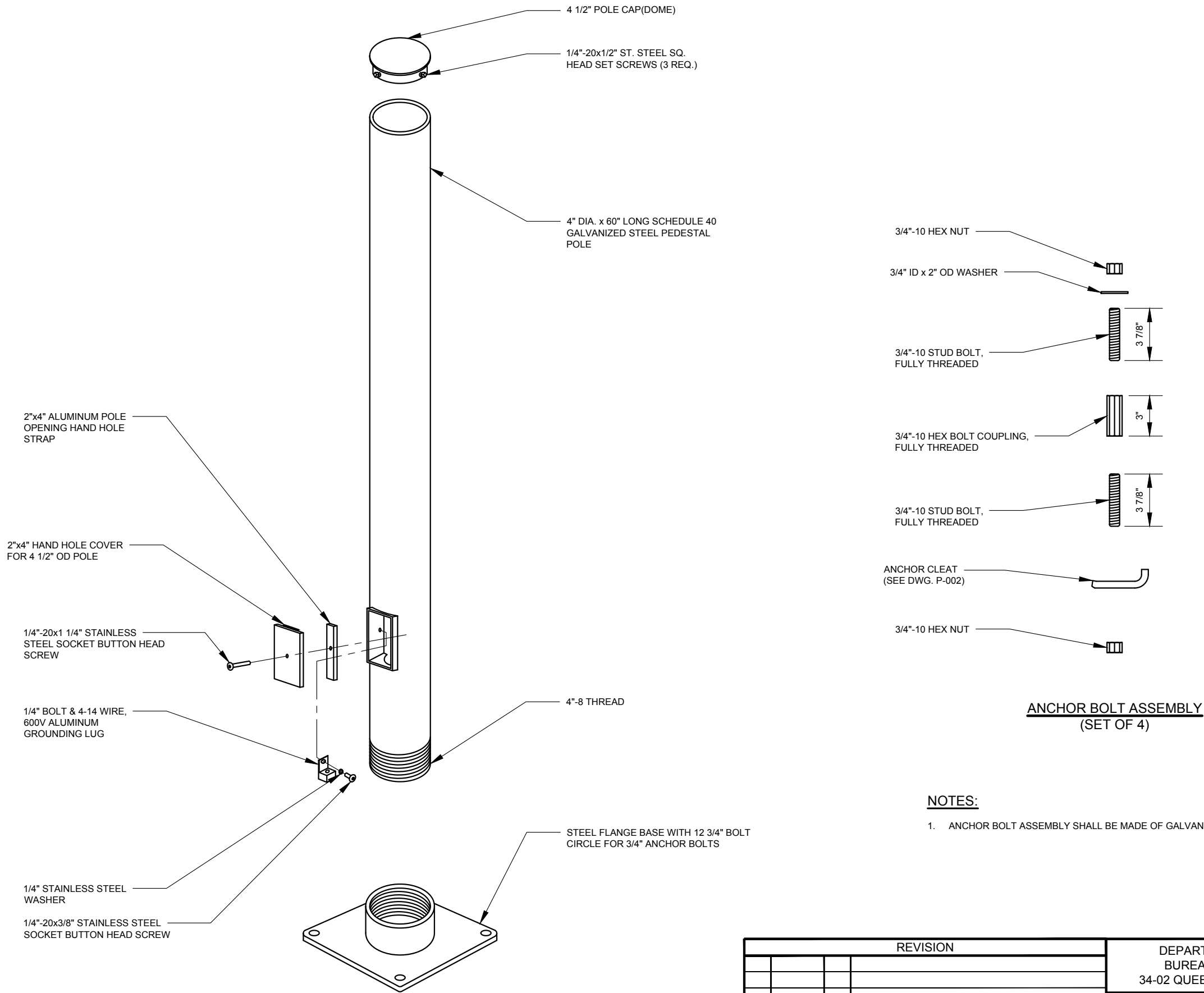


ISOMETRIC VIEW

SCALE: N.T.S.



REVISION				DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
				CORD END CONNECTOR		
				SCALE:	OLD DRAWING NO.	DRAWING NO.
0	03/2013	GPI	CREATED	AS NOTED		SE-026
NO	DATE	BY	DESCRIPTION			



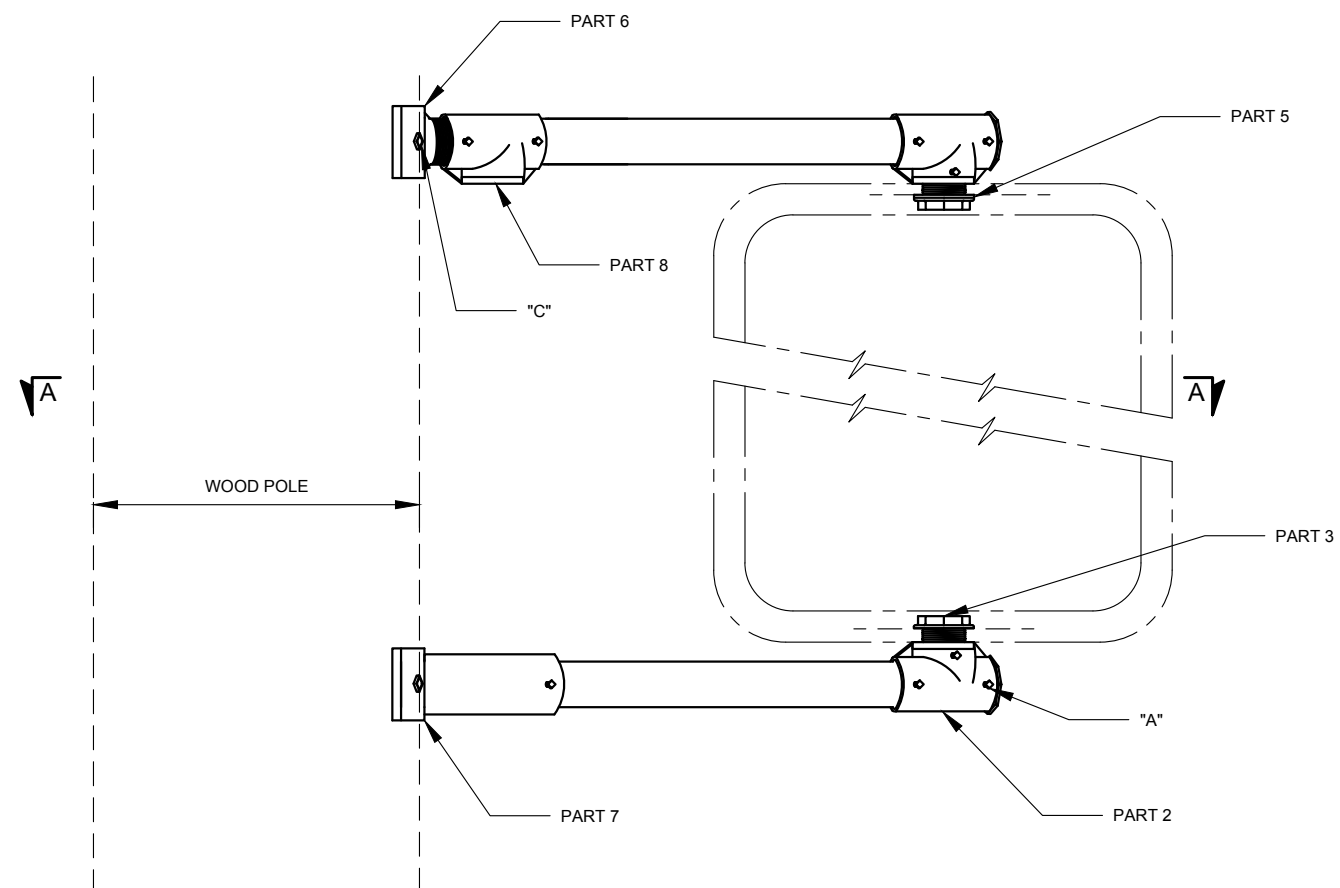
NOTES:

- ANCHOR BOLT ASSEMBLY SHALL BE MADE OF GALVANIZED STEEL.

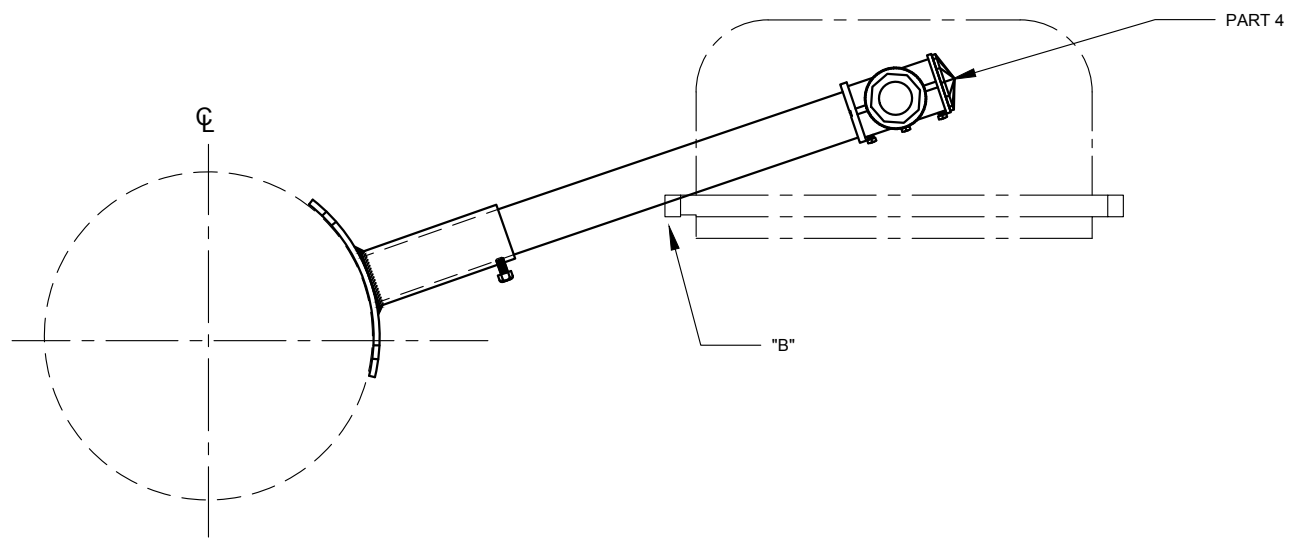


REVISION			
NO	DATE	BY	DESCRIPTION
2	09/2019	DR	TITLE CHANGE TO APS POLE W/FLANGE BASE
1	02/2016	DR	5-FEET POLE (INSTEAD OF 4-FEET)
0	04/2012	GPI	REPLICATED IN CADD

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
ACCESSIBLE PEDESTRIAN SIGNAL (APS) POLE WITH FLANGE BASE		
SCALE:	OLD DRAWING NO.	DRAWING NO.
1 1/2"=1'-0"		SE-027



ELEVATION



SECTION "A-A"

PARTS LIST

PART NO.	DESCRIPTION	DRAWING NO.	QTY.
1	1 1/2"x17" LONG SCHEDULE 80 AL. PIPE, 11 1/2 NPSM 3/4" THREADED ON BOTH ENDS		2
2	1 1/2" DIE CAST AL. SERRATED TEE WITH TWO SERRATED BOSSES	SE-007_2	2
3	1 1/2"x1 3/4" LONG DIE CAST AL. CHASE NIPPLE (LC-8-2)	SE-009	2
4	1 1/2"x5/8" LONG POLYCARBONATE CLOSURE CAP (LC-8-4)	SE-011	2
5	NEOPRENE SEAL WASHER 2 3/4" OD x 1 7/8" ID x 1/8" TH (FOR TOP BRACKET ONLY) (N.I.C.*)		1
6	TOP BRACKET CONNECTION	SE-019_3	1
7	BOTTOM BRACKET CONNECTION	SE-019_3	1
8	DIE CAST AL. PLAIN TEE	SE-019_3	1
"A"	1/4"-20x1/2" LONG ST. STEEL SQ. HEAD HOLLOW NOSE SET SCREW		8
"B"	3/8"-16x1" LONG ST. STEEL SQ. HEAD CUP POINT SET SCREW		1
"C"	1/2"x4" GAL. STEEL LAG SCREW (N.I.C.*)		4

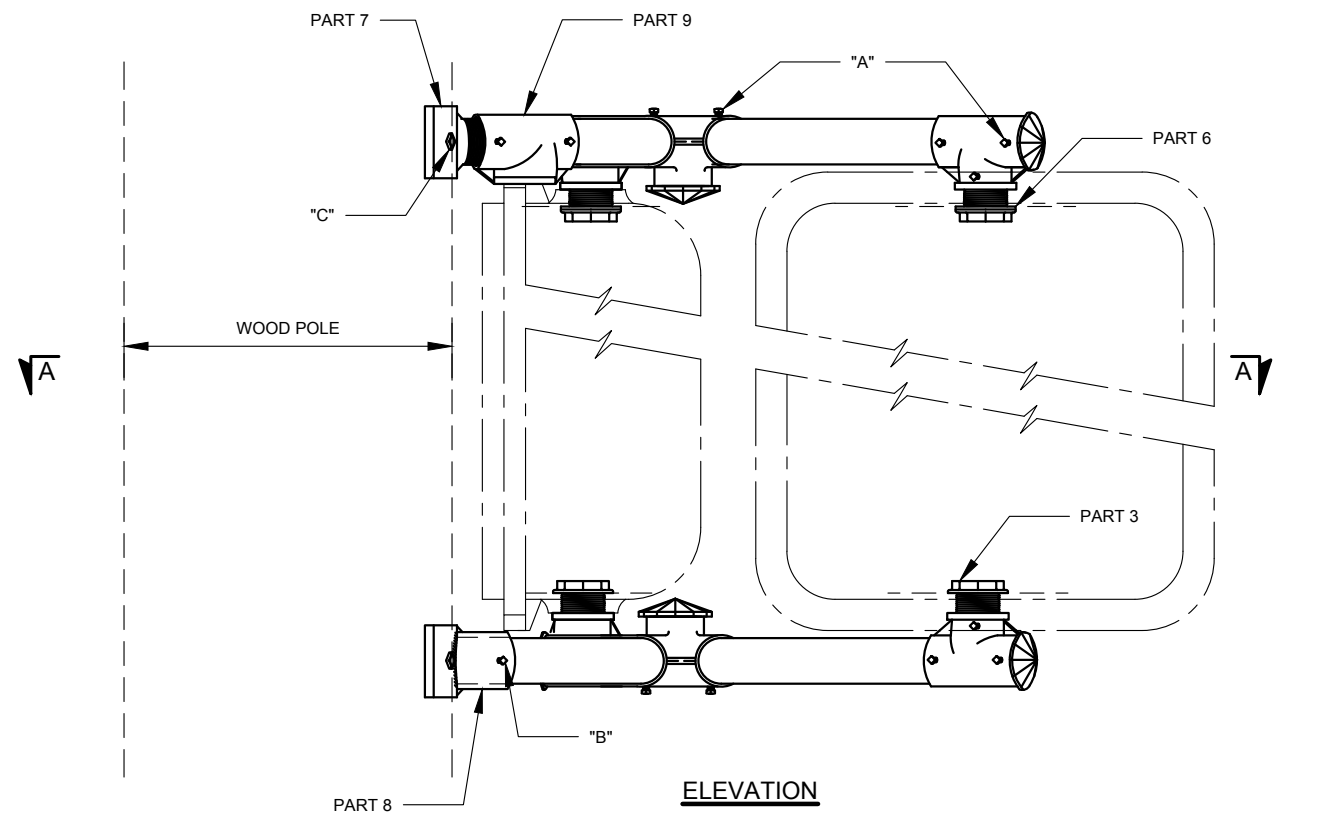
* - NOT IN CONTRACT (N.I.C.)

NOTES:

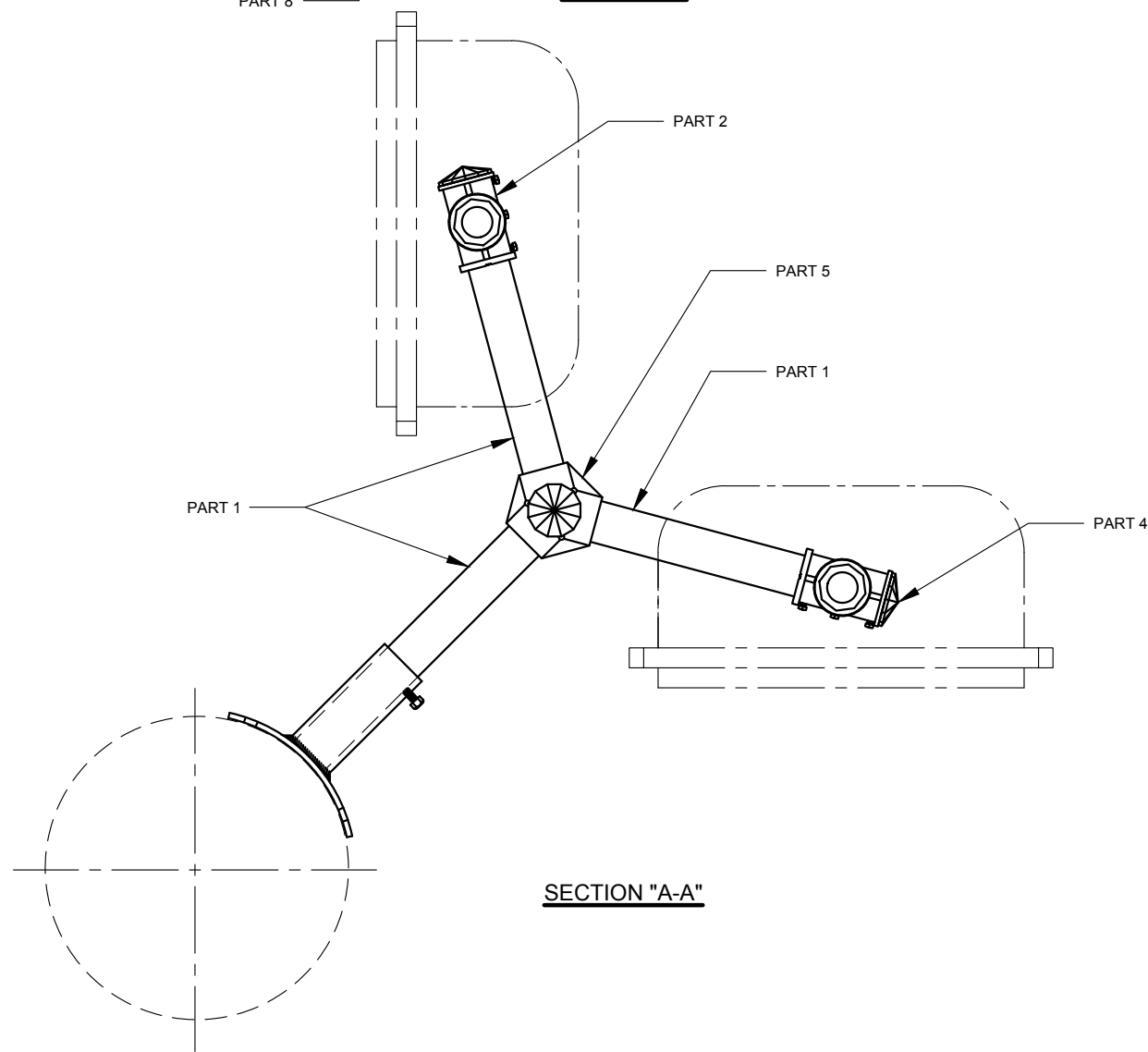
- SIGNAL HOUSING MAY BE ROTATED AROUND CENTER OF CONNECTION.
- A THIN COAT OF "MOLYKOTE ANTI SEIZE THREAD COMPOUND" BY DOW CORNING, OR APPROVED EQUAL **SHALL** BE USED ON ALL THREADING IN ALUMINUM THREADED CONNECTIONS.

REVISION				DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
1	06/2020	DR	UPDATED PARTS LIST	BRACKET MOUNTING ASSEMBLY FOR PEDESTRIAN SIGNALS ON WOOD POLES "WB-P"		
0	10/2012	GPI	CREATED			
NO	DATE	BY	DESCRIPTION	SCALE: 1 1/2" = 1'-0"	OLD DRAWING NO.	DRAWING NO. SE-029_1





ELEVATION



SECTION "A-A"

PARTS LIST			
PART NO.	DESCRIPTION	DRAWING NO.	QTY.
1	1 1/2"x11" LONG SCHEDULE 80 AL. PIPE, 11 1/2 NPSM 3/4" THREADED ON BOTH ENDS		6
2	1 1/2" DIE CAST AL. SERRATED TEE WITH TWO SERRATED BOSSES	SE-007_2	4
3	1 1/2"x1 3/4" LONG DIE CAST AL. CHASE NIPPLE (LC-8-2)	SE-009	4
4	1 1/2"x5/8" LONG POLYCARBONATE CLOSURE CAP (LC-8-4)	SE-011	6
5	120 DEGREE "Y" FITTING	SE-020	2
6	NEOPRENE SEAL WASHER 2 3/4" OD x 1 7/8" ID x 1/8" TH (FOR TOP BRACKET ONLY) (N.I.C.*)		2
7	TOP BRACKET CONNECTION	SE-019_3	1
8	BOTTOM BRACKET CONNECTION	SE-019_3	1
9	DIE CAST AL. PLAIN TEE	SE-019_3	1
"A"	1/4"-20x1/2" LONG ST. STEEL SQ. HEAD HOLLOW NOSE SET SCREW		20
"B"	3/8"-16x1" LONG ST. STEEL SQ. HEAD CUP POINT SET SCREW		1
"C"	1/2"x4" GAL. STEEL LAG SCREW (N.I.C.*)		4

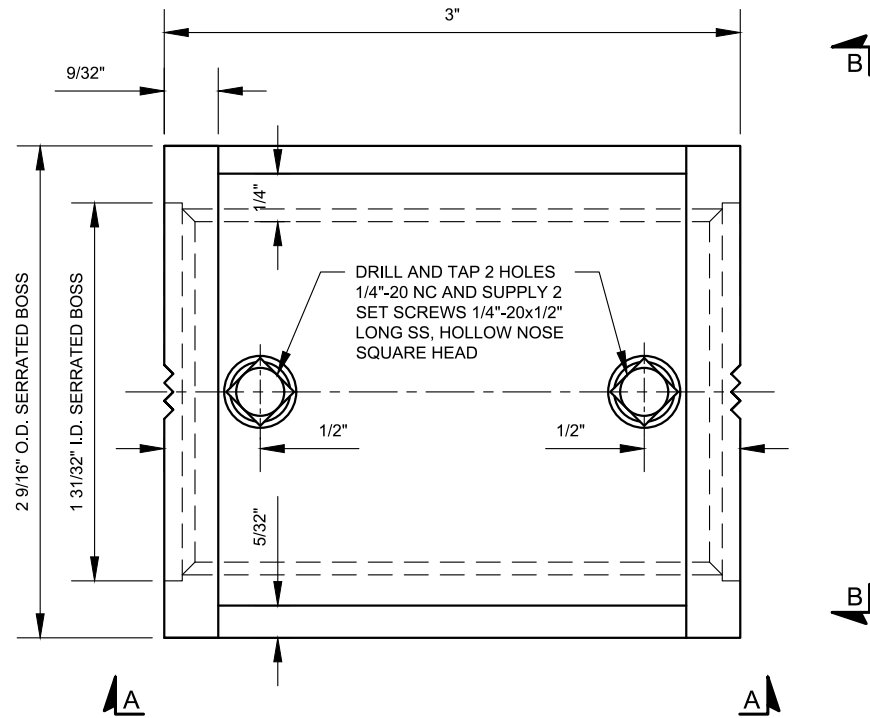
* - NOT IN CONTRACT (N.I.C)

NOTES:

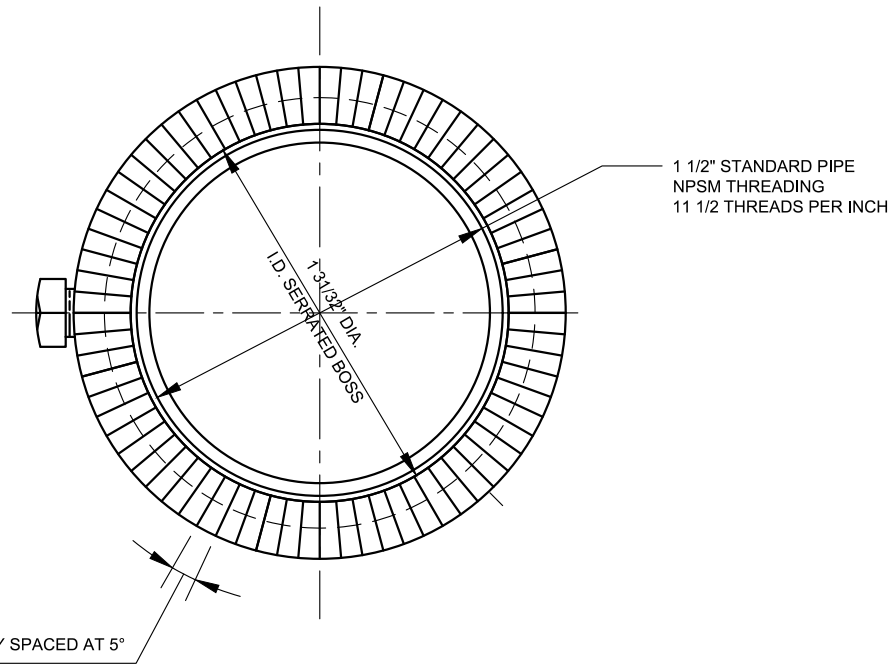
- SIGNAL HOUSING MAY BE ROTATED AROUND CENTER OF CONNECTION.
- A THIN COAT OF "MOLYKOTE ANTI SEIZE THREAD COMPOUND" BY DOW CORNING, OR APPROVED EQUAL **SHALL** BE USED ON ALL THREADING IN ALUMINUM THREADED CONNECTIONS.

REVISION				DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
1	30/2020	DR	UPDATED PARTS LIST	BRACKET MOUNTING ASSEMBLY FOR PEDESTRIAN SIGNALS ON WOOD POLES "WB-2P"		
0	10/2012	GPI	CREATED			
NO	DATE	BY	DESCRIPTION	SCALE: 1 1/2" = 1'-0"	OLD DRAWING NO.	DRAWING NO. SE-029_2





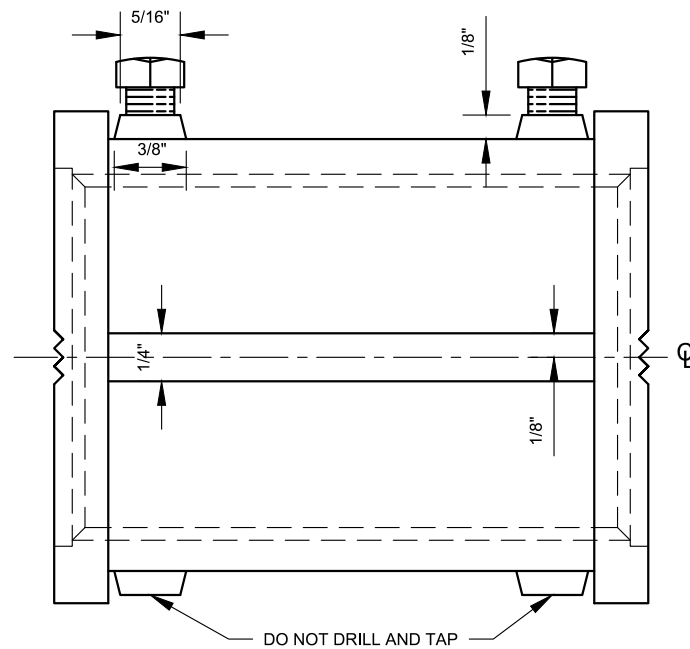
FRONT VIEW



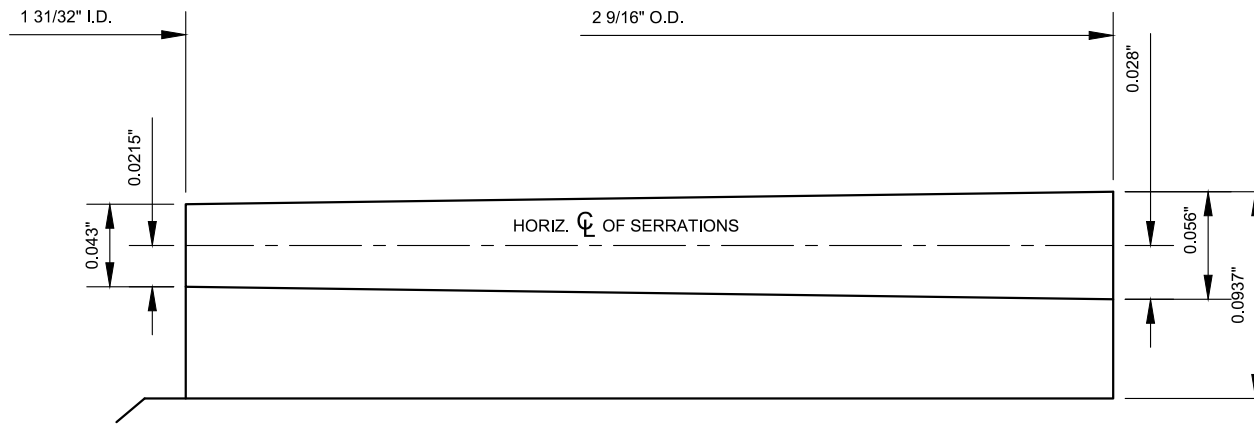
VIEW "B-B"

NOTES:

1. MATERIAL-ALUM. BASE ALLOY DIE CASTING COMMERCIAL DESIGNATION NO.13
2. RADII - 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 BLOW HOLES, SCALES, FINS, BURRS, DENTS, AND CRACKS.
6. DEBURR & BREAK ALL SHARP EDGES.
7. ALL INSIDE EDGES SHALL BE CHAMFERED

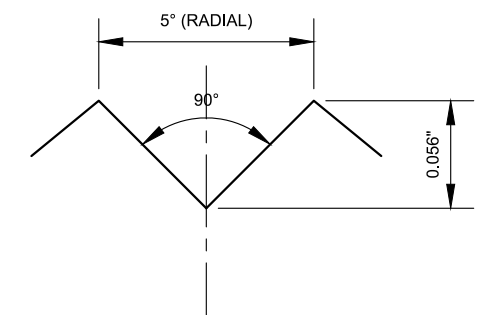


VIEW "A-A"



SECTION ALONG CENTERLINE OF FEMALE SERRATION

SCALE: 1" = 0.100"



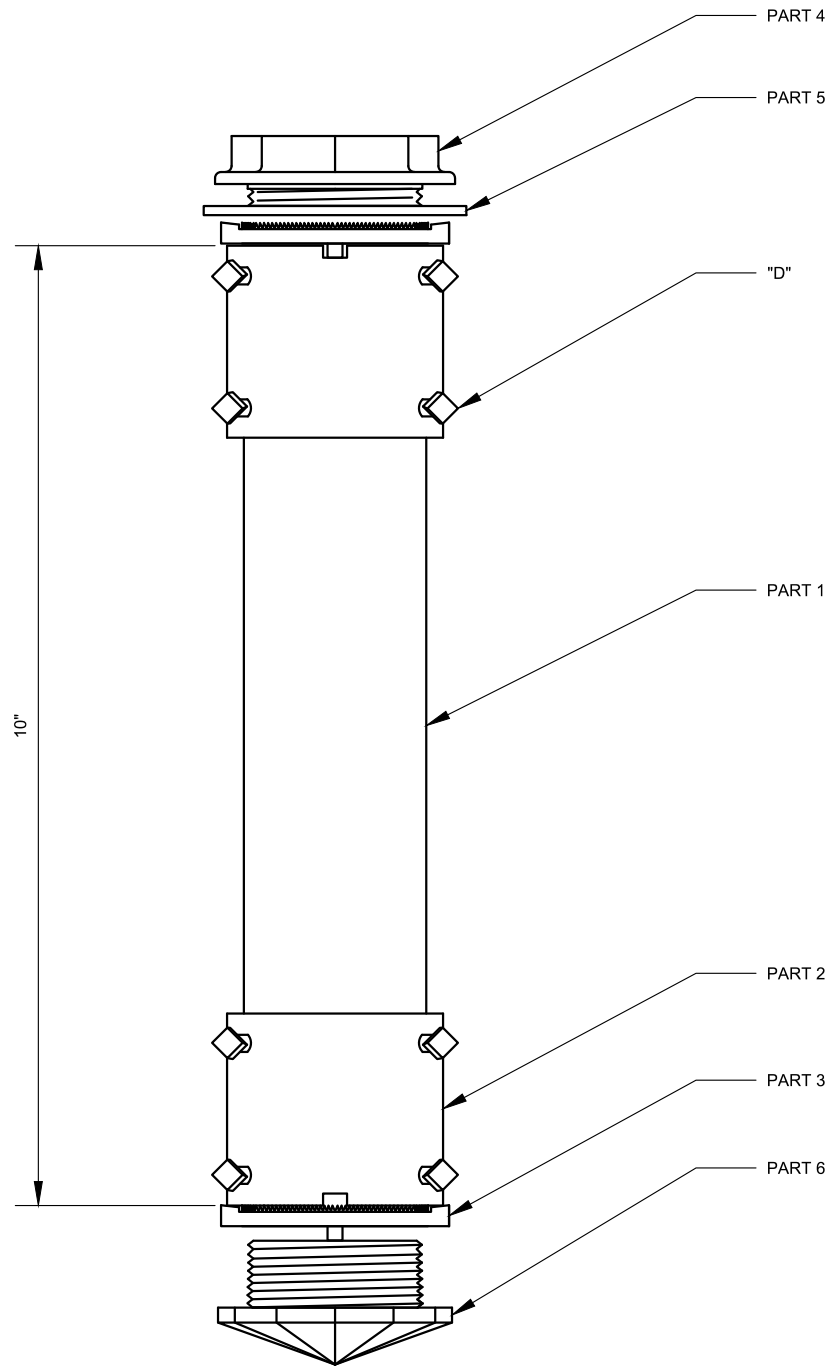
FRONT VIEW OF SERRATIONS (OUTSIDE VIEW)

SCALE: 1" = 0.100"

NYCDOT TRAFFIC SIGNAL STANDARD DRAWINGS, Jun 2020



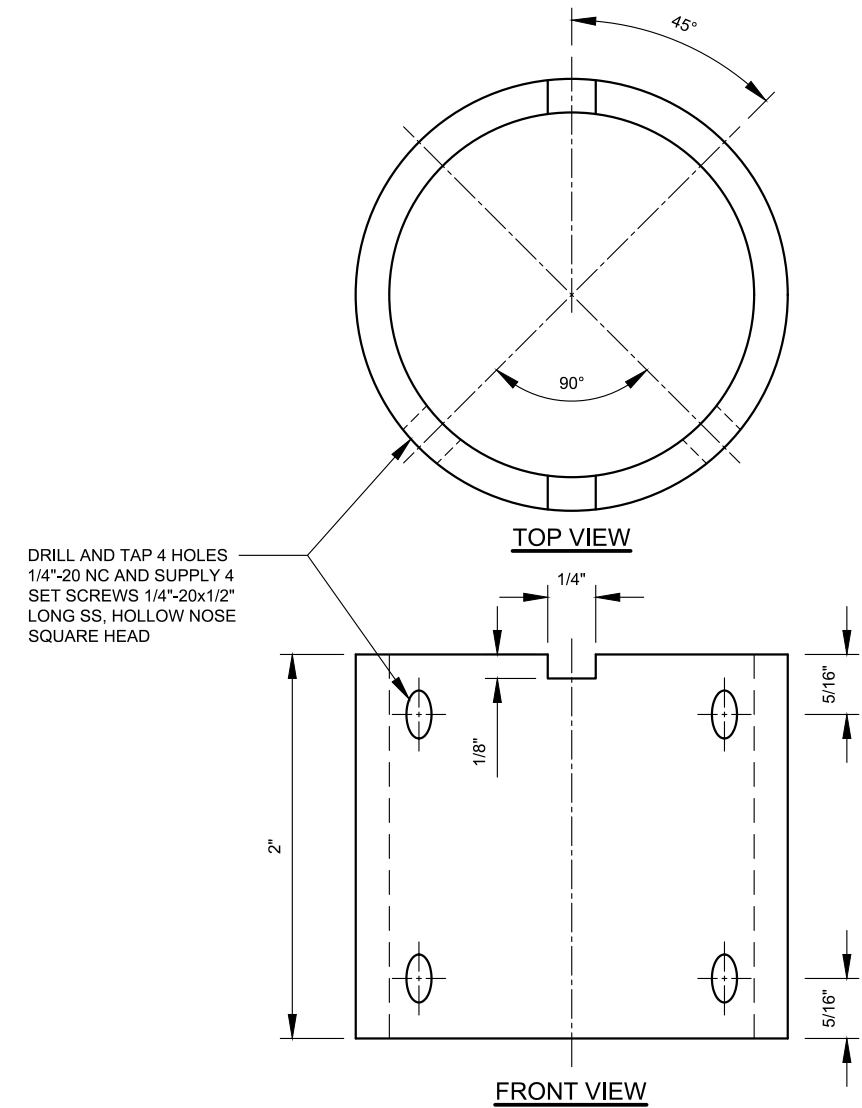
REVISION				DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
0	11/2019	DR	CREATED	1 1/2" DIE CAST ALUMINUM SERRATED COUPLING WITH TWO SERRATED BOSSES		
NO	DATE	BY	DESCRIPTION	SCALE: 1'-0"=1'-0"	OLD DRAWING NO.	DRAWING NO. SE-030



SPACER ASSEMBLY

PARTS LIST			
PART	DESCRIPTION	DRAWING NO.	QTY.
1	1 1/2"x8" LONG SCHEDULE 40 AL. PIPE, 11 1/2 NPSM 1" THREADED ON BOTH ENDS		1
2	1 1/2"x2" LONG SCHEDULE 40 AL. NOTCHED COUPLING, 11 1/2 NPSM FULLY THREADED		2
3	1 1/2" DIE CAST AL. SERRATED LOCKING RING	SE-008	2
4	1 1/2"x1 3/8" LONG DIE CAST AL. CHASE NIPPLE (LC-8-2A)	SE-009	1
5	NEOPRENE SEAL WASHER 2 3/4"OD x 7/8"ID x 1/8"TH (N.I.C.*)		1
6	1 1/2"x1 3/8" LONG DIE CAST AL. CLOSURE CAP (LC-8-5)	SE-011	1
"D"	1/4"-20x1/2" LONG ST. STEEL SQ. HEAD HOLLOW NOSE SET SCREW		8

* - NOT IN CONTRACT (N.I.C.). SUPPLIED BY OTHERS.



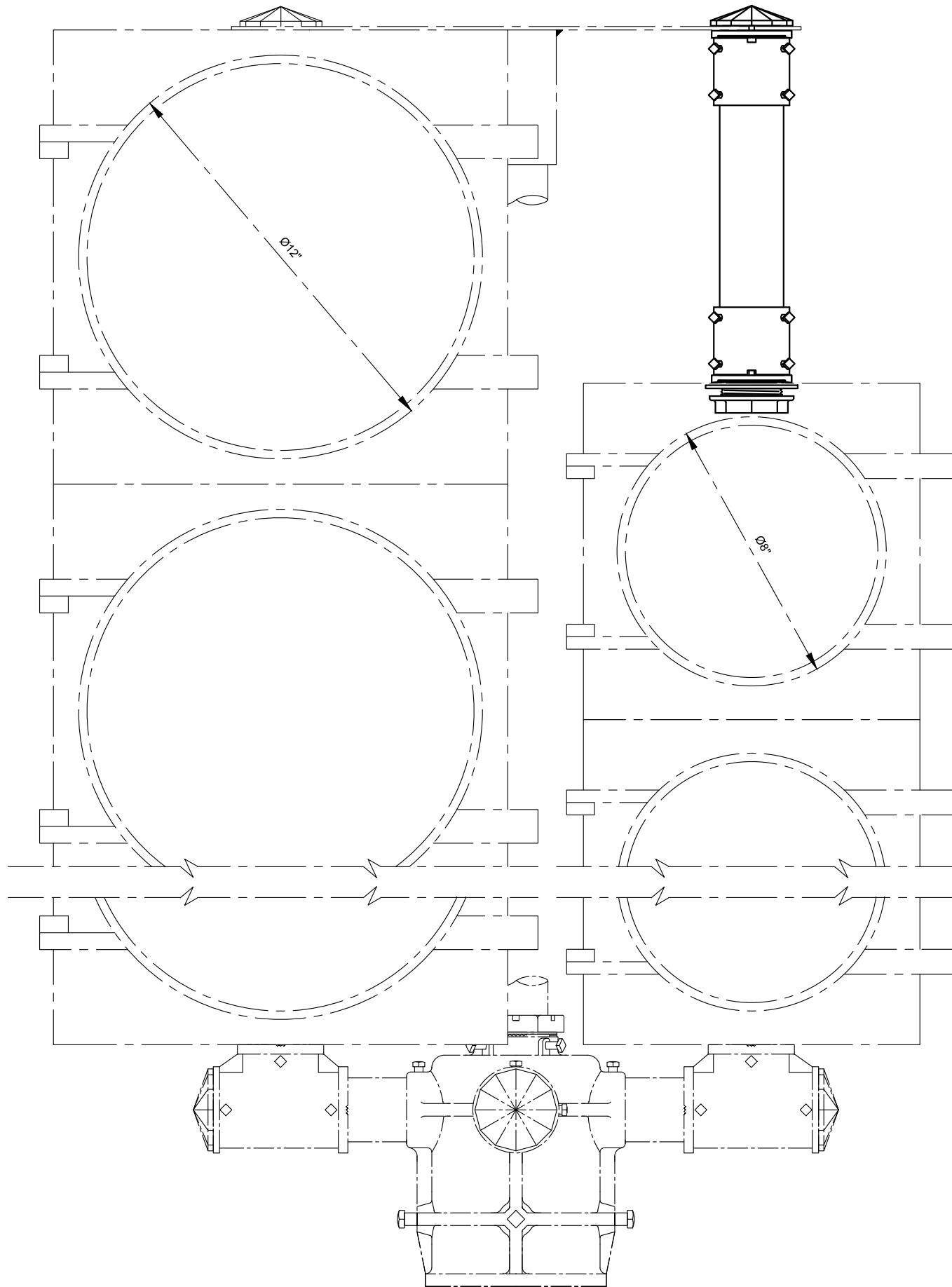
NOTCHED COUPLING

SCALE 1"=1'-0"

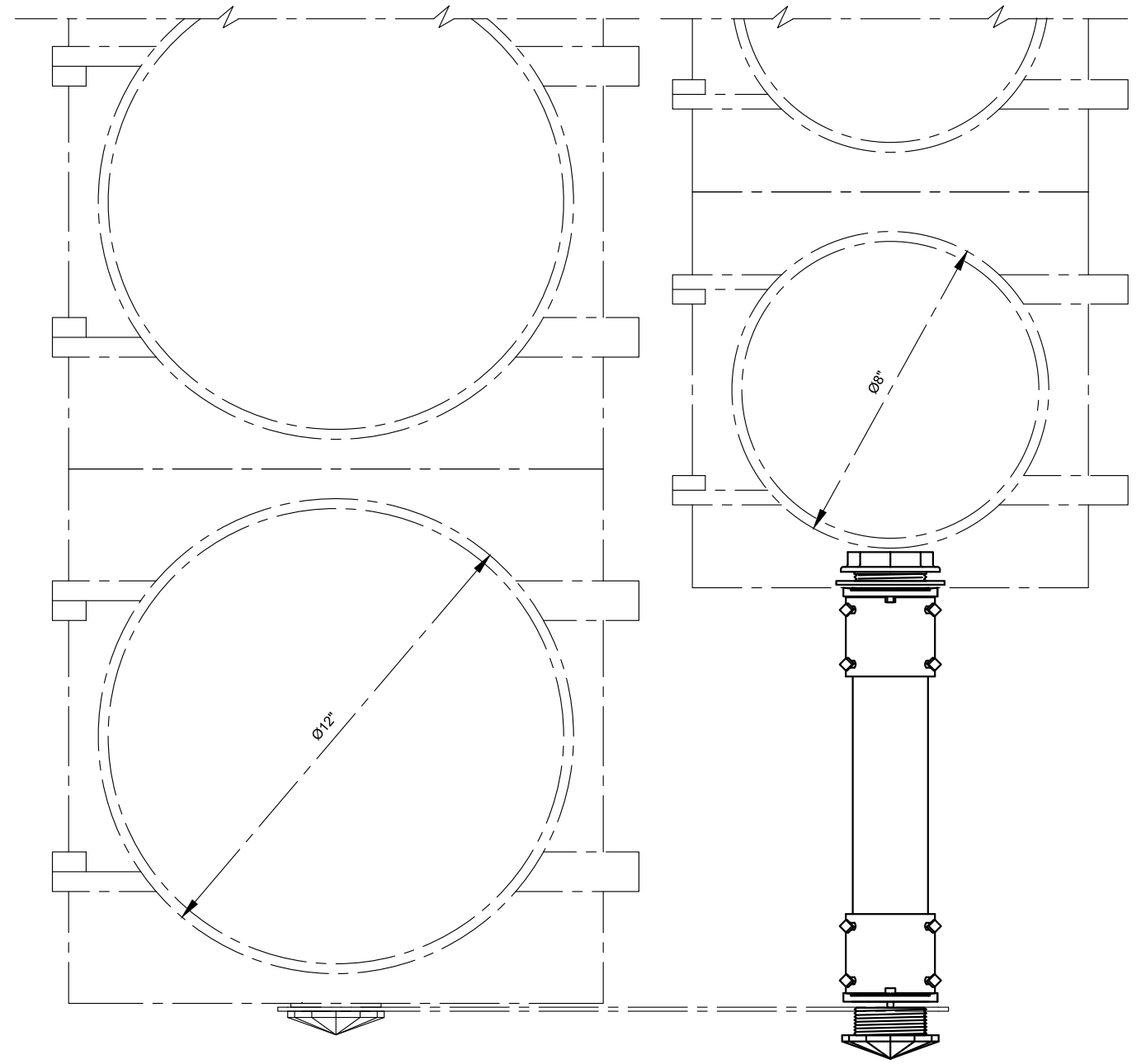


REVISION				DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
0	10/2019	DR	CREATED	8" TO 12" TRAFFIC SIGNAL SPACER ASSEMBLY DETAILS		
NO	DATE	BY	DESCRIPTION			
				SCALE:	OLD DRAWING NO.	DRAWING NO.
				6" = 1'-0"		SE-031_1

NYCDOT TRAFFIC SIGNAL STANDARD DRAWINGS, Jun 2020



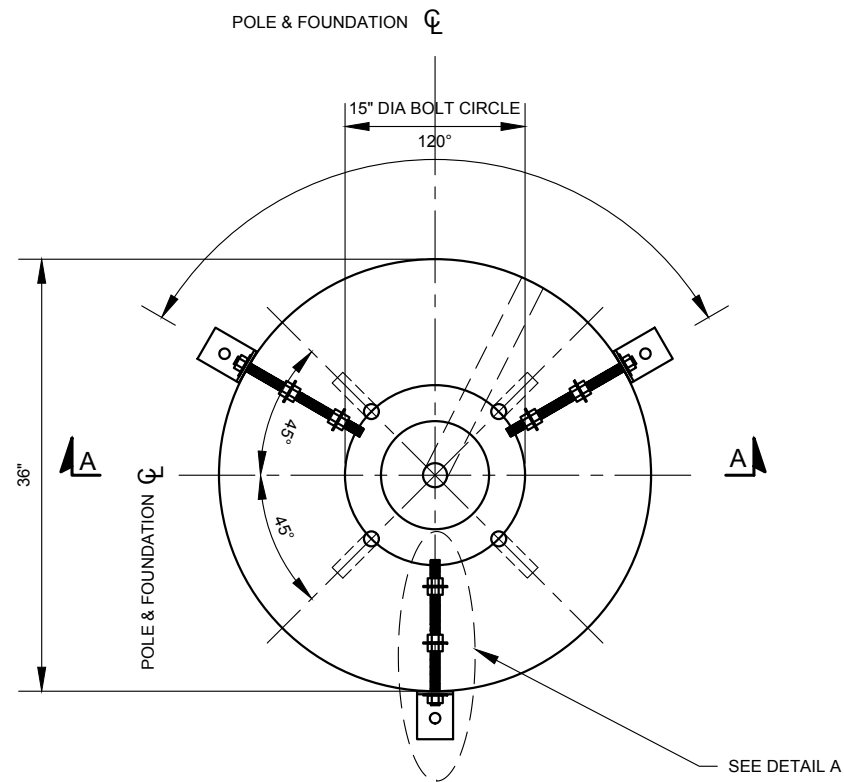
**SPACER ASSEMBLY
FOR SPA ASSEMBLIES**



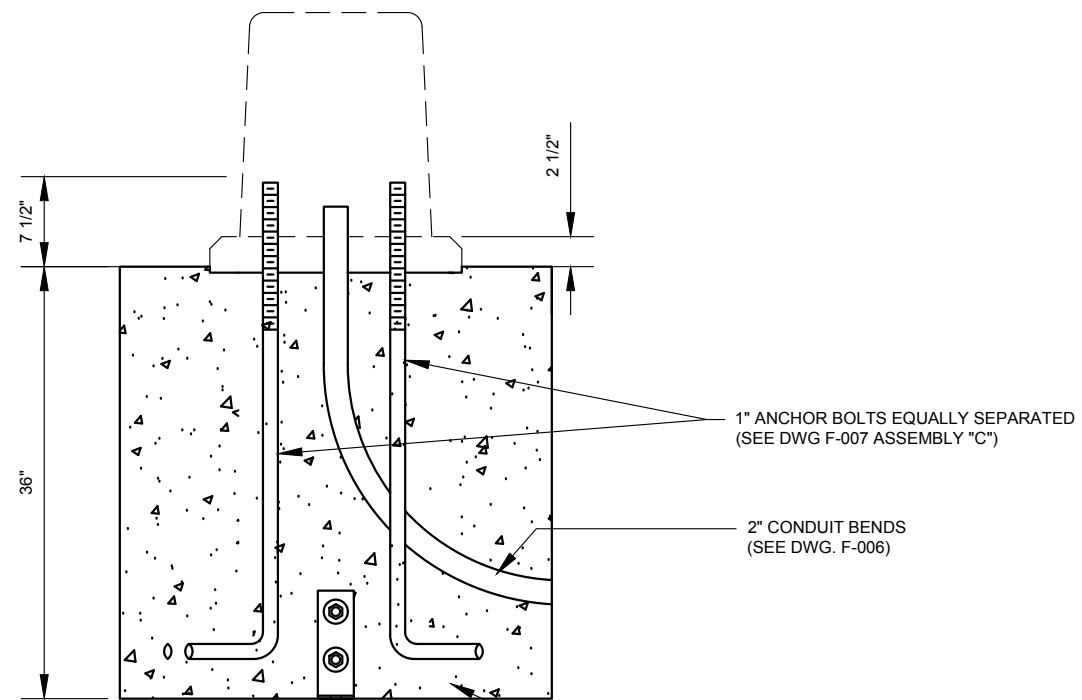
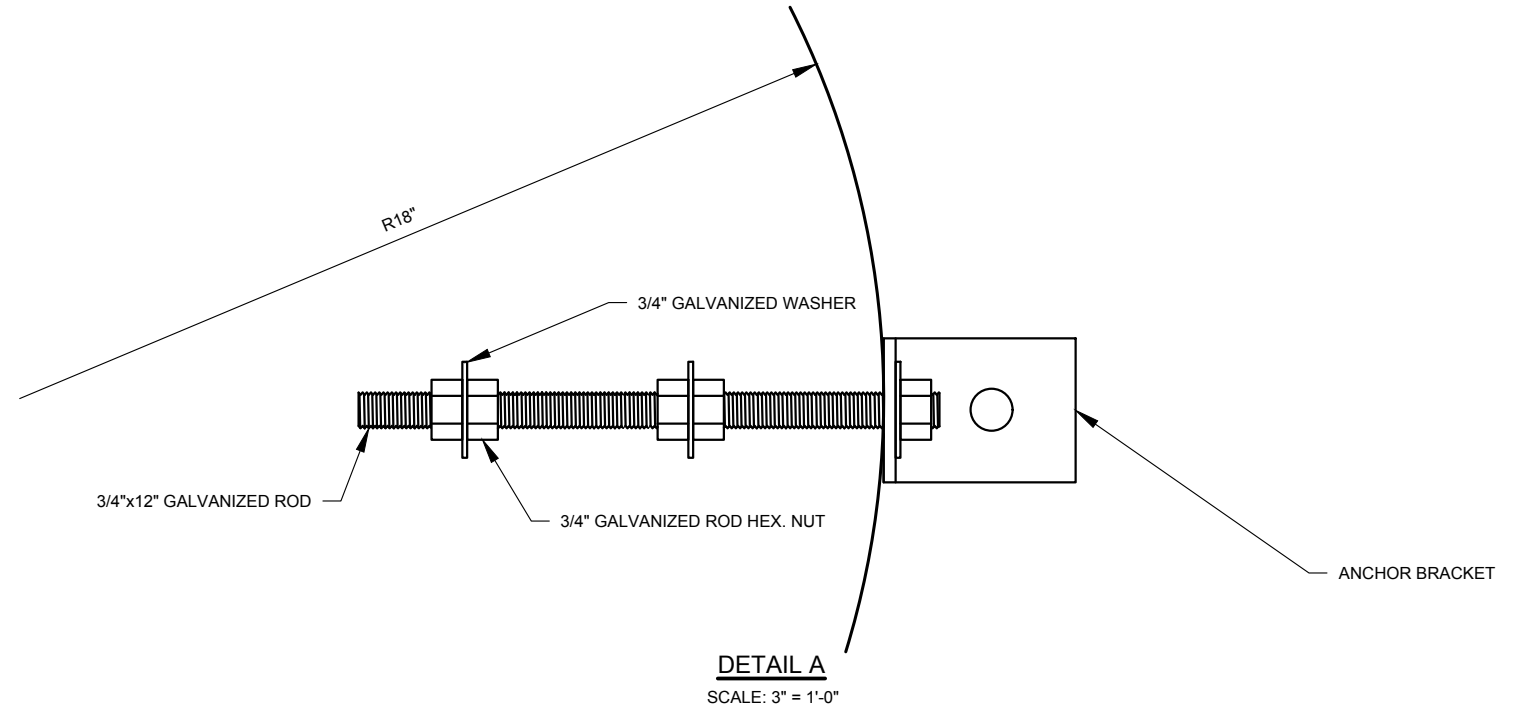
**SPACER ASSEMBLY
FOR MS ASSEMBLIES**



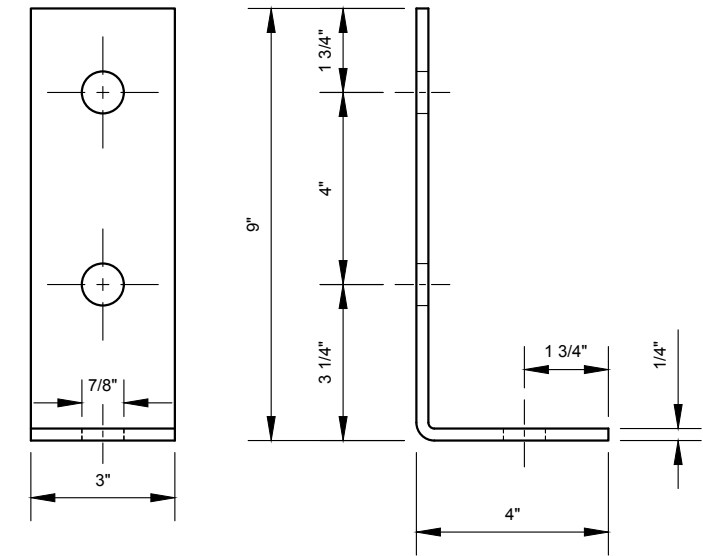
REVISION				DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
0	10/2019	DR	CREATED	8" TO 12" TRAFFIC SIGNAL SPACER ASSEMBLY INSTALLATION SCHEMATICS		
NO	DATE	BY	DESCRIPTION	SCALE: 3" = 1'-0"	OLD DRAWING NO.	DRAWING NO. SE-031_2



PLAN VIEW



SECTION "A-A"
SCALE: 3/4" = 1'-0"



ANCHOR BRACKET DETAIL
SCALE: 3" = 1'-0"

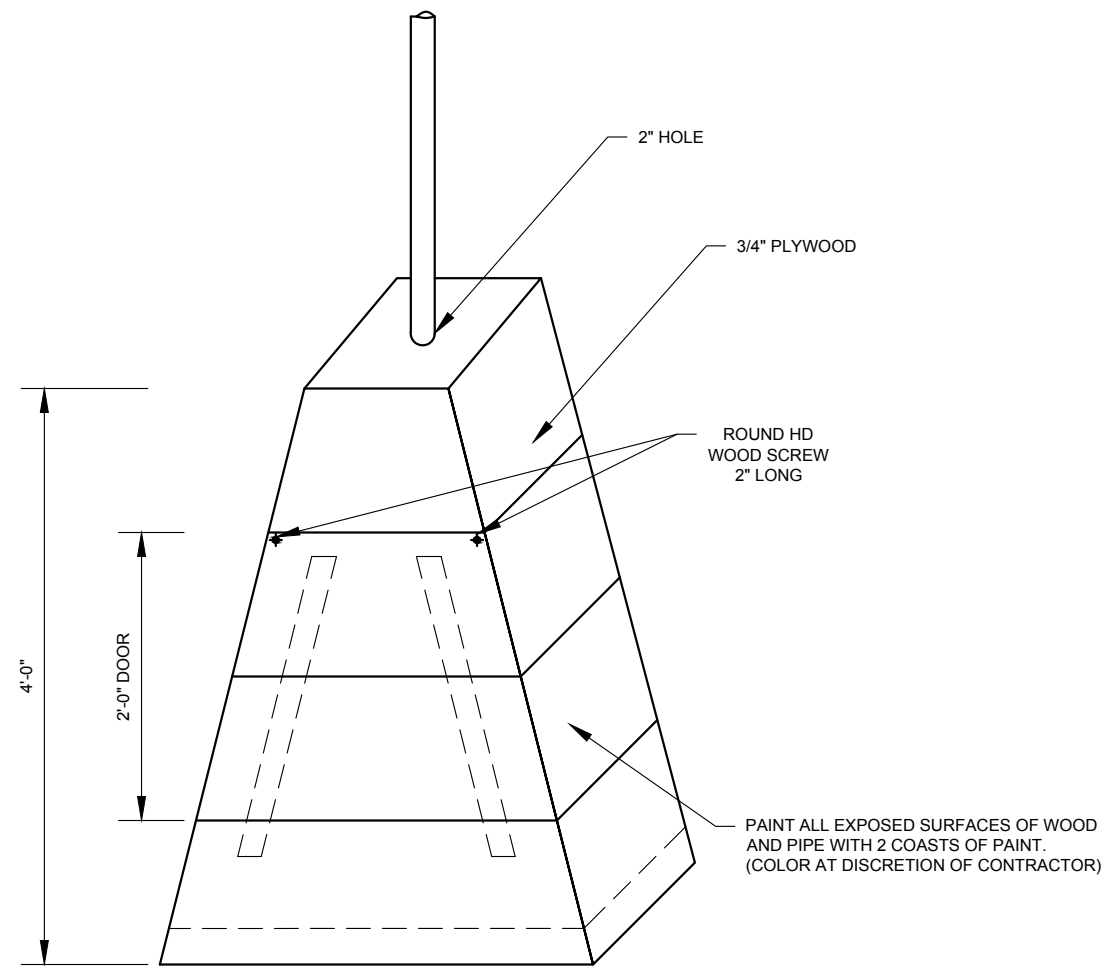
NOTE:

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

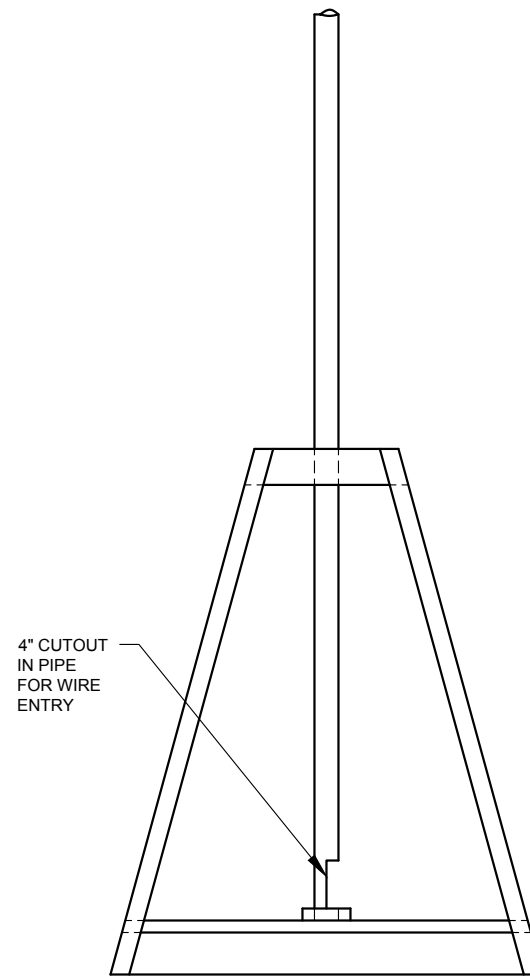


REVISION			
NO	DATE	BY	DESCRIPTION
1	05/2012	GPI	REPLICATED IN CADD
0	06/2006	JH	CREATED

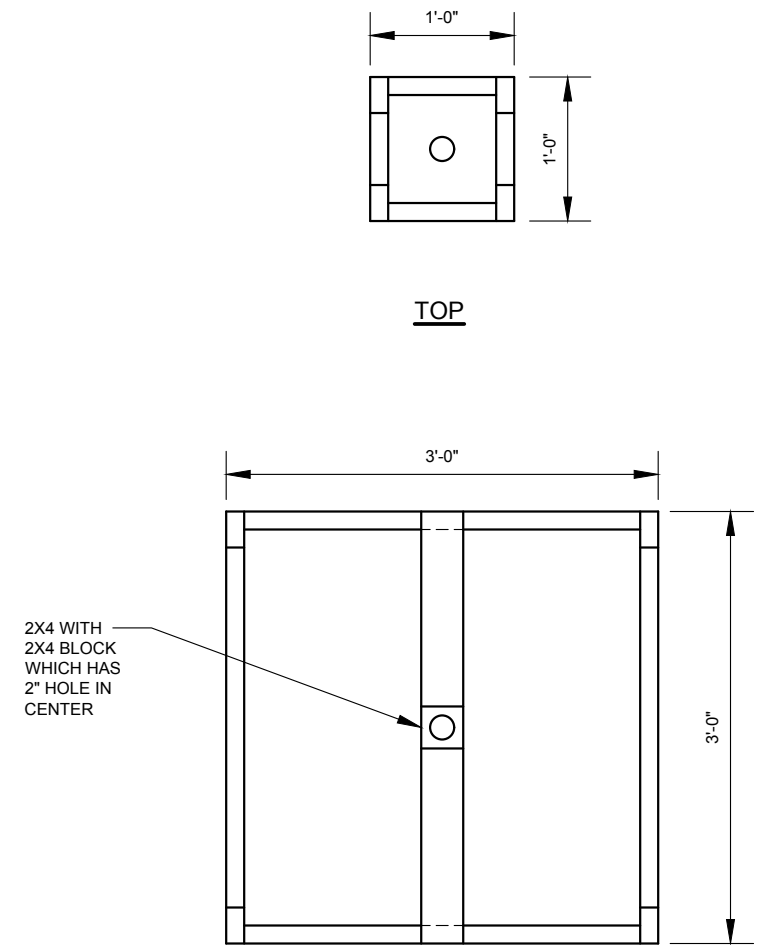
DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
TEMPORARY TRAFFIC SIGNAL CONCRETE PYLON		
SCALE:	OLD DRAWING NO.	DRAWING NO.
AS NOTED	LB-14276S	MISC-001_1



ELEVATION



FRAMING



BOTTOM

NOTES:

1. PIPE TO BE 1 1/2"x10' GALV. STEEL.
2. BASE TO INCLUDE 2 BAGS OF STONE 200 LBS EA.
3. 2X4'S TO BE USED FOR FRAMING.
4. CONTRACTORS IDENTIFICATION TO BE STENCILED ON OUTSIDE OF BASE WITH 3" MIN LETTERING HEIGHT.

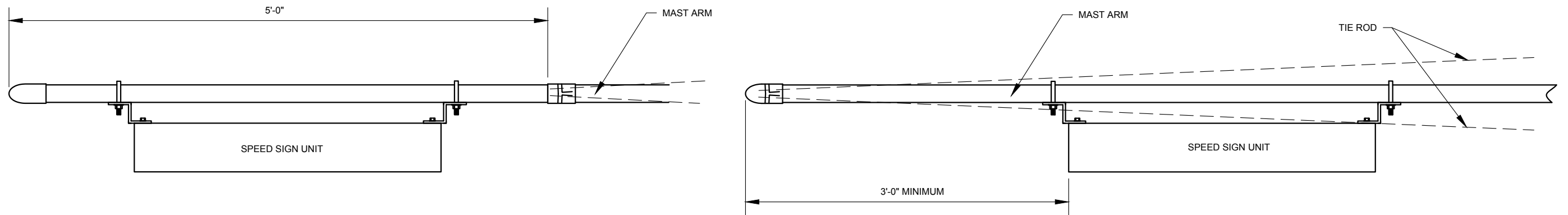


REVISION			
NO	DATE	BY	DESCRIPTION
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0	08/1977	PR	CREATED

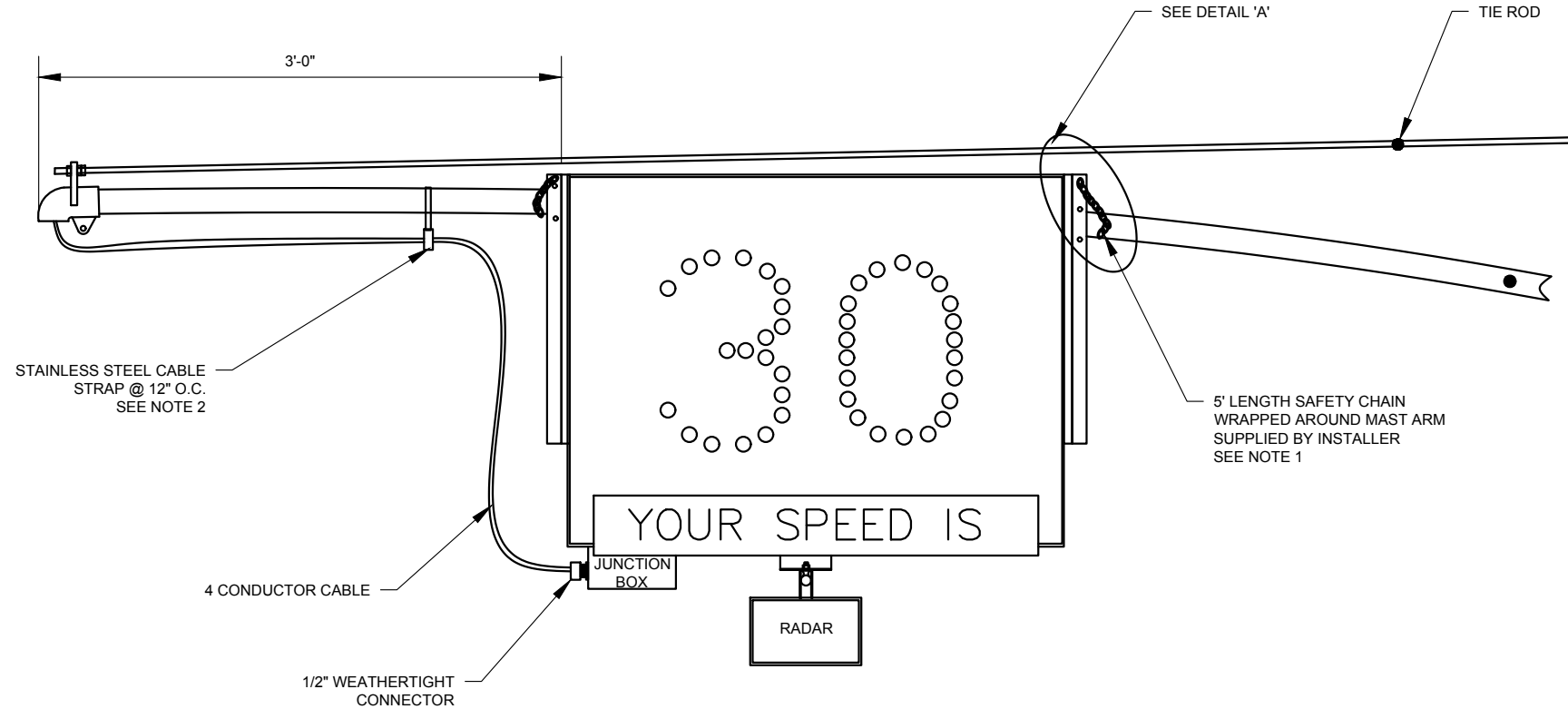
DEPARTMENT OF TRANSPORTATION
BUREAU OF TRAFFIC OPERATIONS
34-02 QUEENS BLVD L.I.C., N.Y. 11101

TEMPORARY TRAFFIC SIGNAL WOOD PYLON

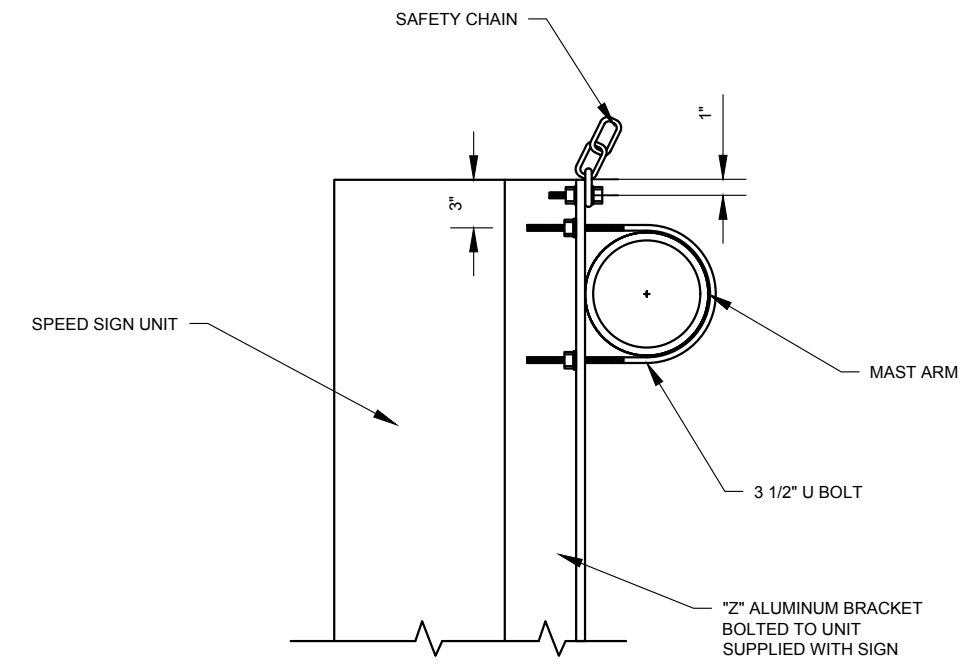
SCALE:	OLD DRAWING NO.	DRAWING NO.
3/4" = 1'-0"	LB-1367S	MISC-001_2



TOP VIEW



FRONT VIEW



DETAIL 'A'

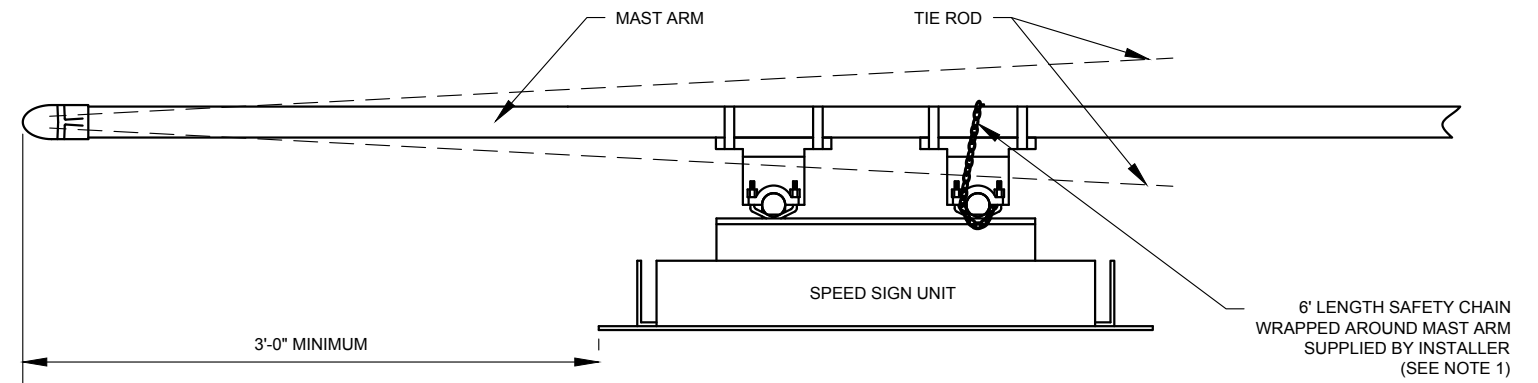
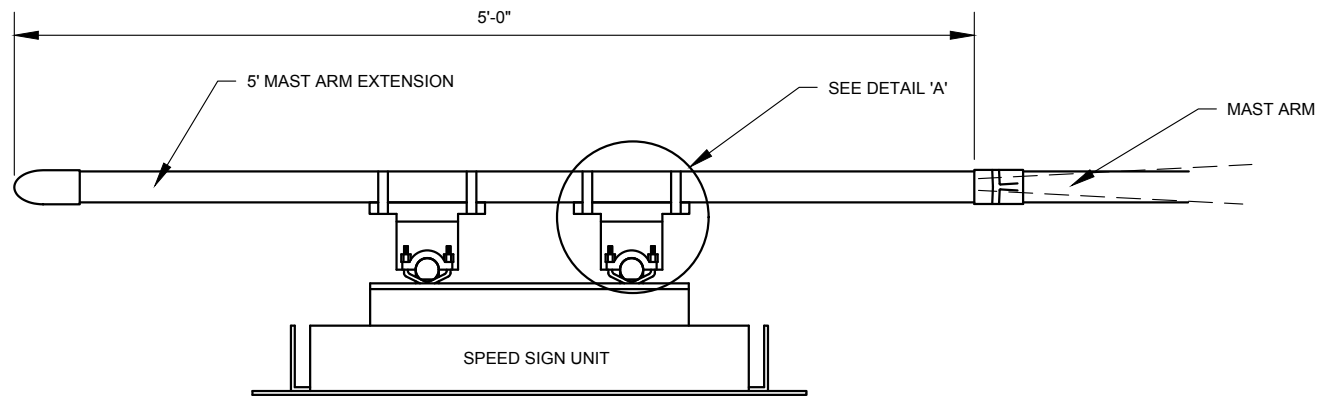
NOTES:

1. LIST OF SUGGESTED MOUNTING HARDWARE SUPPLIED BY INSTALLER:
 5'-5/16" GALVANIZED CHAIN
 2 3/8"x1 1/2" SS BOLTS WITH SS FLAT WASHER
 1 3/8" SS LOCK NUT NYLON INSERT TYPE
 3 1/2" SS U BOLT WITH SS FLAT WASHERS AND NYLON LOCK NUT
2. PART FOR THE STRAP ARE AS FOLLOWS:
 12" STAINLESS STEEL BANDING WITH BUCKEL
 PLUS FOUR SIGN BRACKET WITH 5/16"x1/2" SCREW AND
 BRIDGEPORT 2110-S CONDUIT HANGER WITH INSULATOR
 3 1/2" SS U BOLT WITH SS FLAT WASHERS AND NYLON LOCK NUT
3. STRAPS ON SIGN BRACKET - CAT SB022

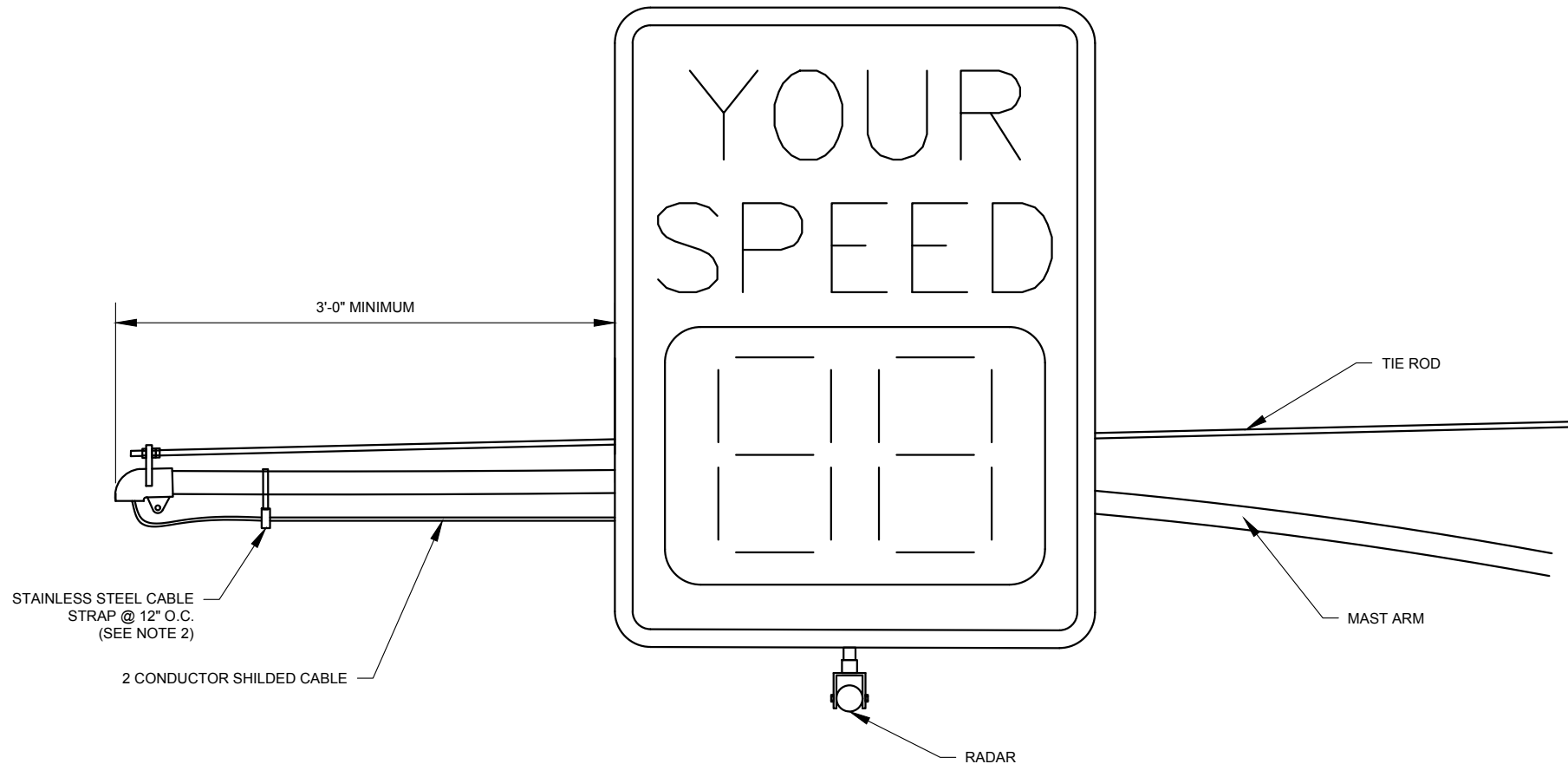


REVISION			
NO	DATE	BY	DESCRIPTION
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0	12/2003	JH	CREATED

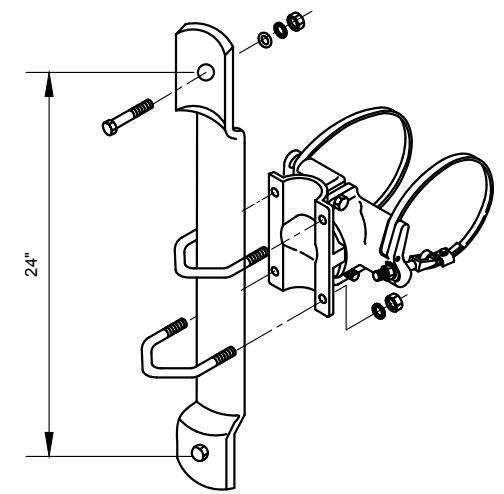
DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
SPEED SIGN UNIT ONLY FOR AMERICAN SIGNAL SPEED SIGN		
SCALE:	OLD DRAWING NO.	DRAWING NO.
N.T.S.	LB-13730S	MISC-002_1



TOP VIEW



FRONT VIEW



DETAIL "A"

NOTES:

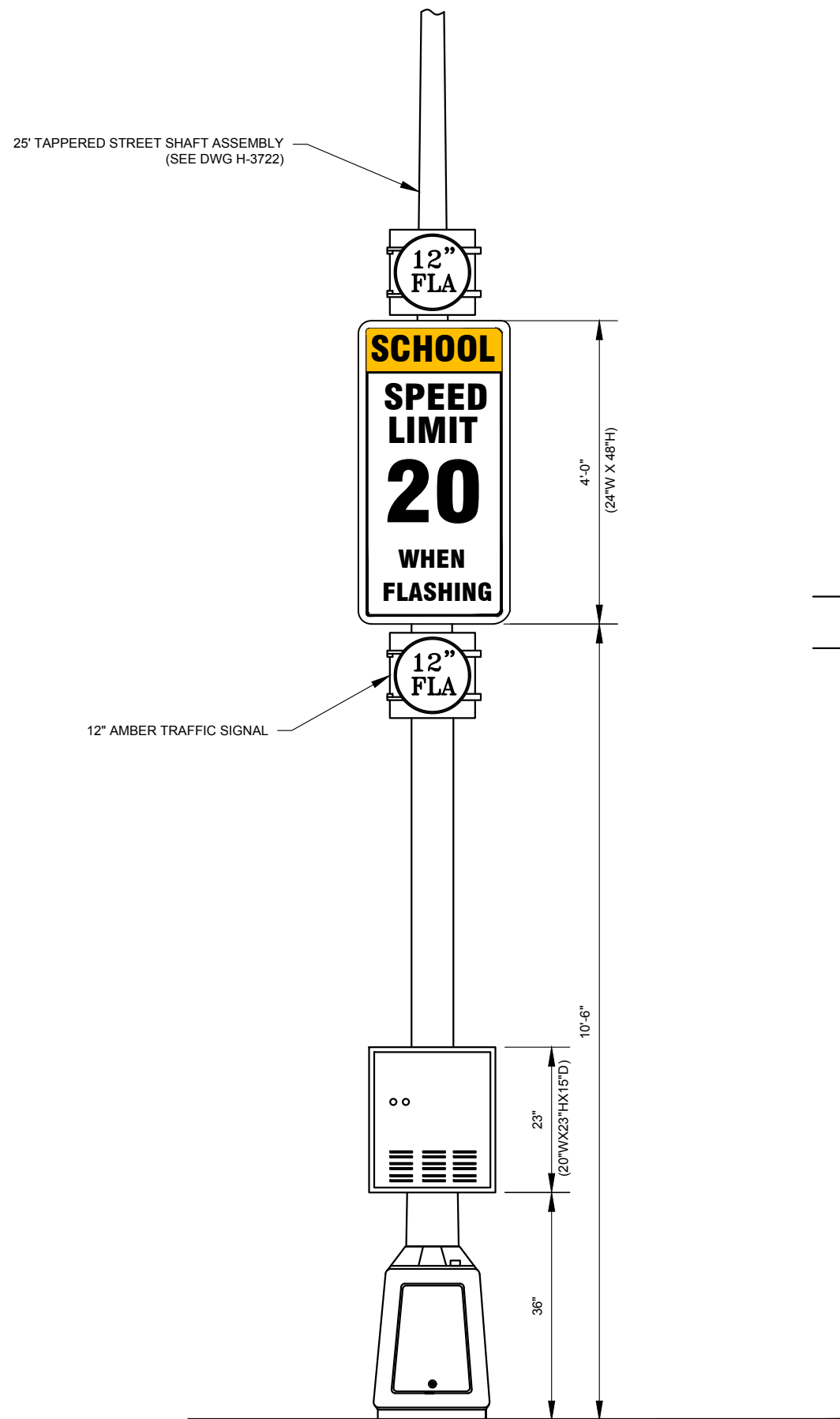
1. LIST OF SUGGESTED MOUNTING HARDWARE SUPPLIED BY INSTALLER:
 6'-5/16" GALVANIZED CHAIN
 2 3/8"x1 1/2" SS BOLTS WITH SS FLAT WASHER
 1 3/8" SS LOCK NUT NYLON INSERT TYPE
 3 1/2" SS U BOLT WITH SS FLAT WASHERS AND NYLON LOCK NUT
2. PART FOR THE STRAP ARE AS FOLLOWS:
 12" STAINLESS STEEL BANDING WITH BUCKEL
 PLUS FOUR SIGN BRACKET WITH 5/16"x1/2" SCREW AND
 BRIDGEPORT 2110-S CONDUIT HANGER WITH INSULATO
 3 1/2" SS U 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

NYCDOT TRAFFIC SIGNAL STANDARD DRAWINGS, Jun 2020

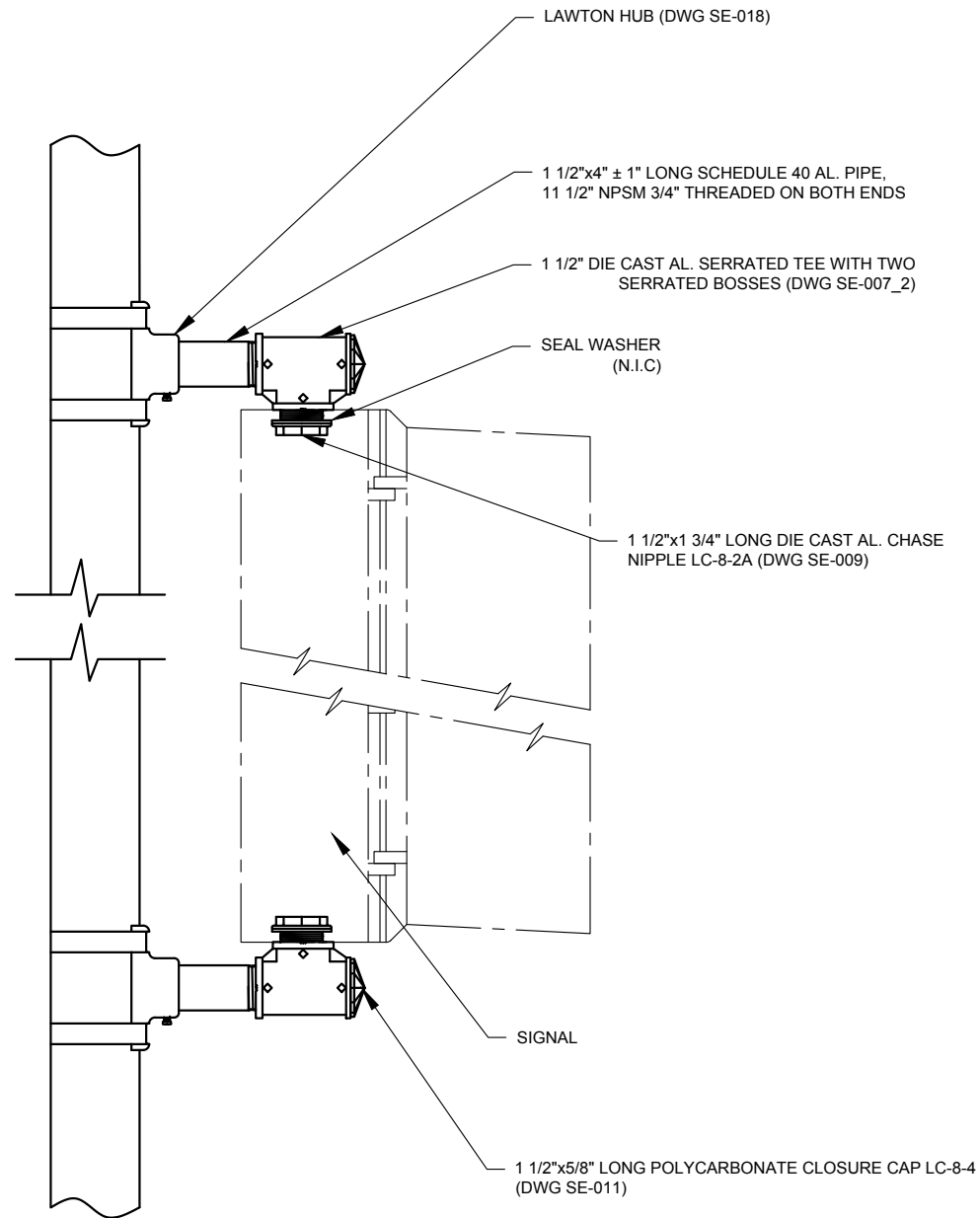


REVISION			
NO	DATE	BY	DESCRIPTION
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0	12/2003	JH	CREATED

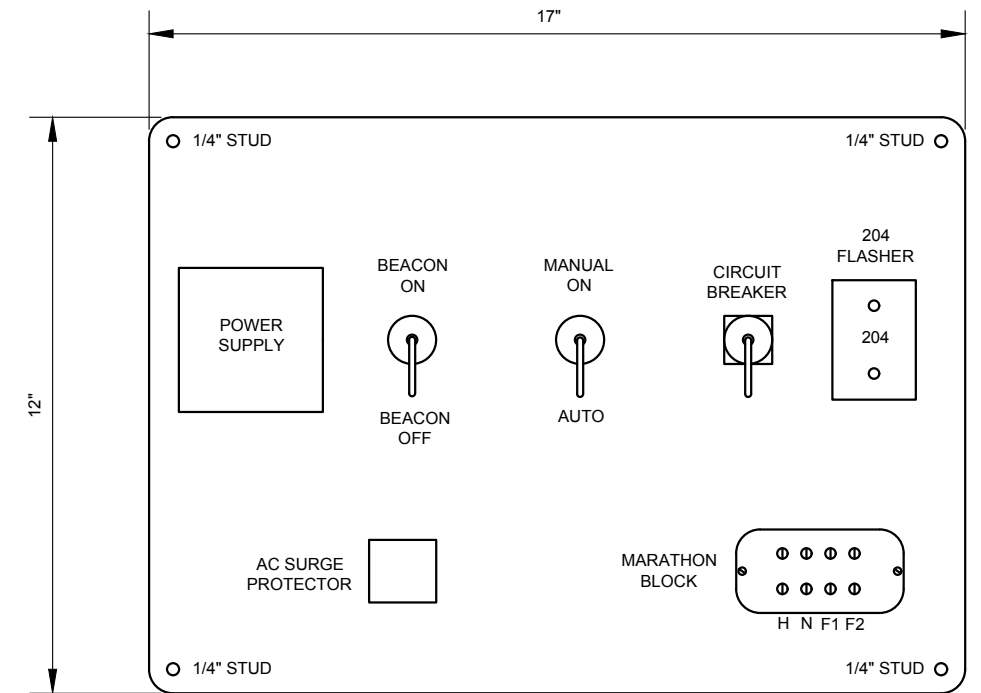
DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
SPEED SIGN UNIT FOR SPEED CHECK DISPLAYS		
SCALE:	OLD DRAWING NO.	DRAWING NO.
N.T.S.		MISC-002_2



SCALE: 1/2" = 1'-0"



SCALE: 1-1/2" = 1'-0"



SCHOOL ZONE FLASHER PANEL

SCALE: 3" = 1'-0"

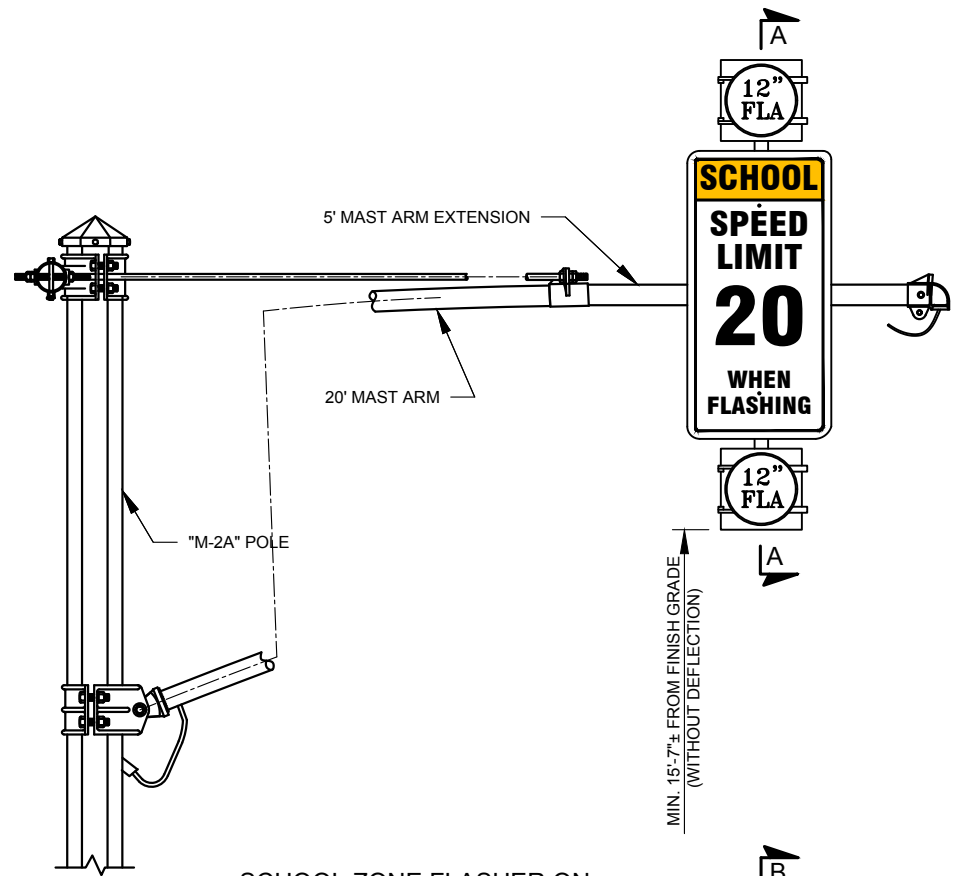
NOTES:

1. FOUNDATION FOR TAPERED STEEL SHAFT ASSEMBLY SHALL BE AS PER DWG H-3788.
2. STEEL TRANSFORMER BASE SHALL BE AS PER STREET LIGHTING SPEC DWG H-3722.

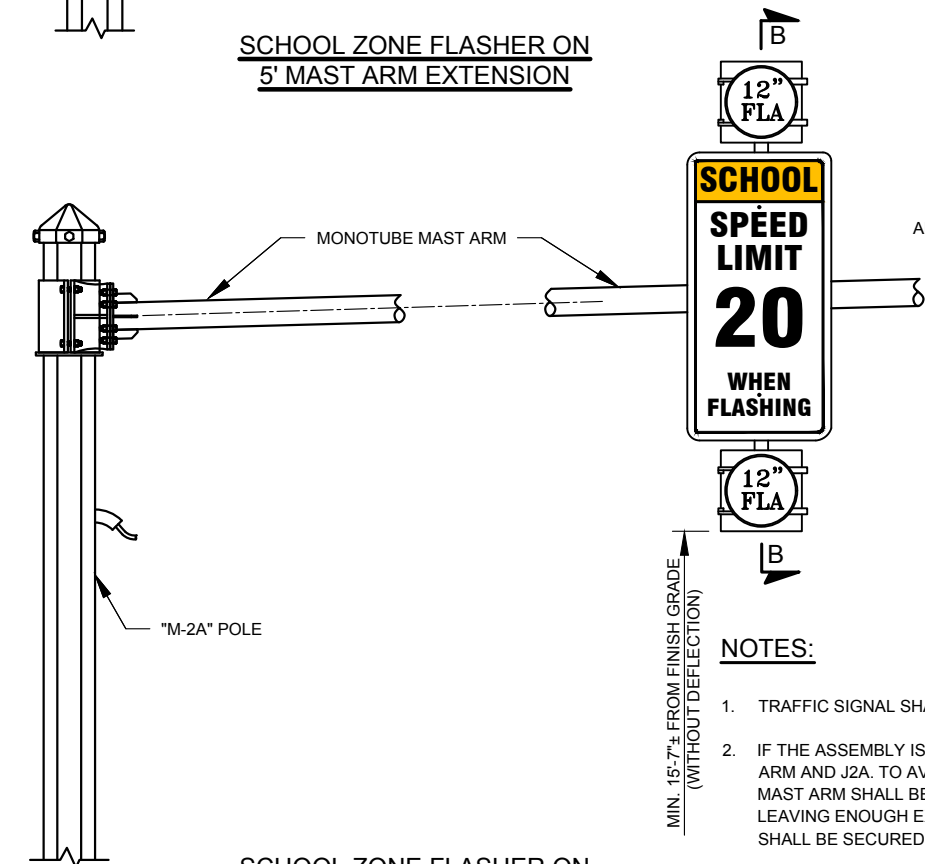


REVISION			
NO	DATE	BY	DESCRIPTION
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1	05/2012	GPI	REPLICATED IN CADD
0	10/2009	JH	CREATED

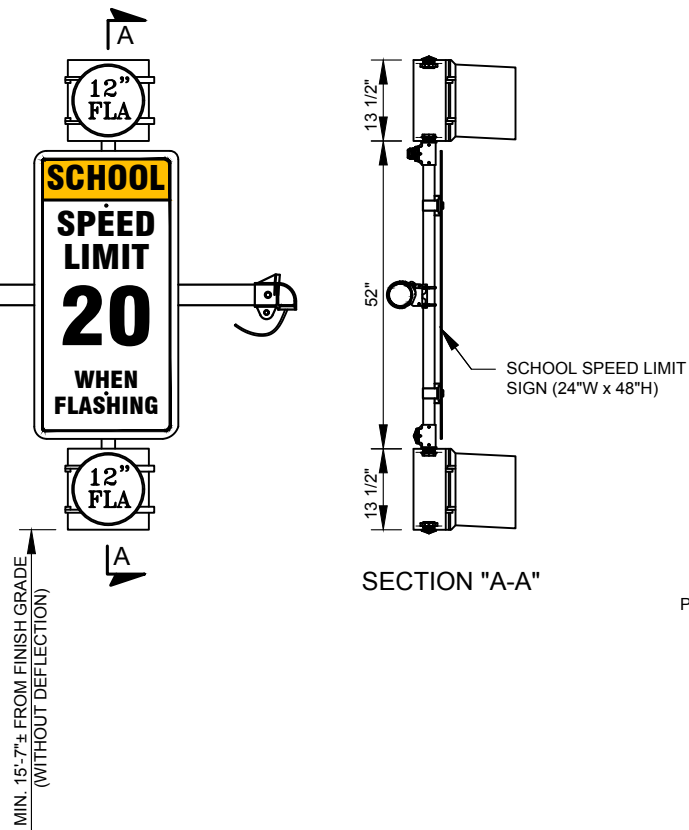
DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
SCHOOL ZONE FLASHER ASSEMBLY		
SCALE:	OLD DRAWING NO.	DRAWING NO.
AS NOTED	LB-14781S	MISC-003_1



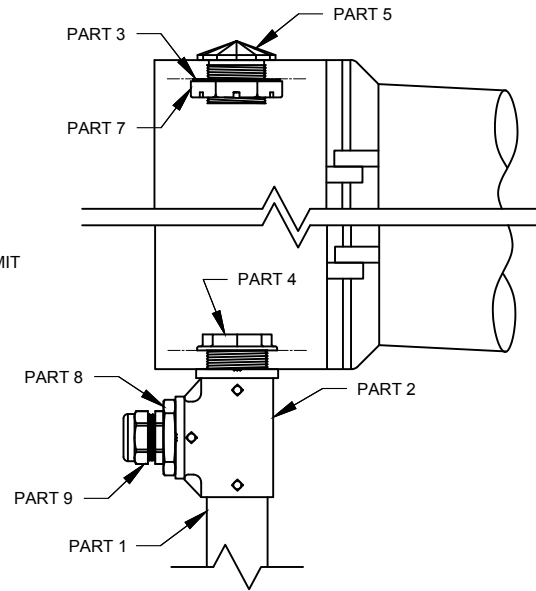
SCHOOL ZONE FLASHER ON 5' MAST ARM EXTENSION



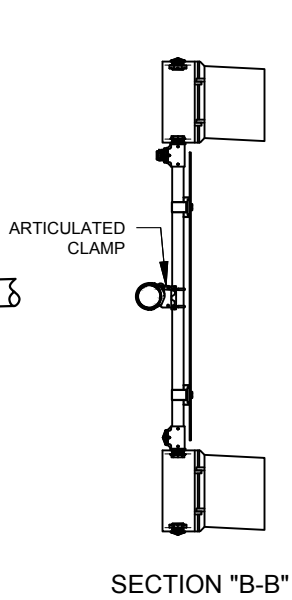
SCHOOL ZONE FLASHER ON MONOTUBE MAST ARM



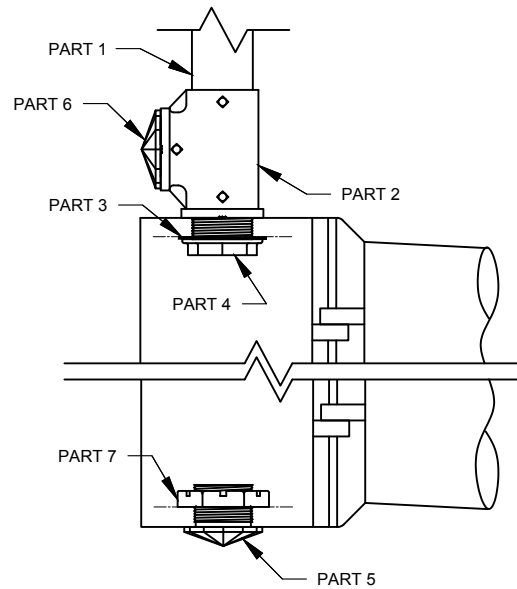
SECTION "A-A"



UPPER SIGNAL ASSEMBLY DETAIL



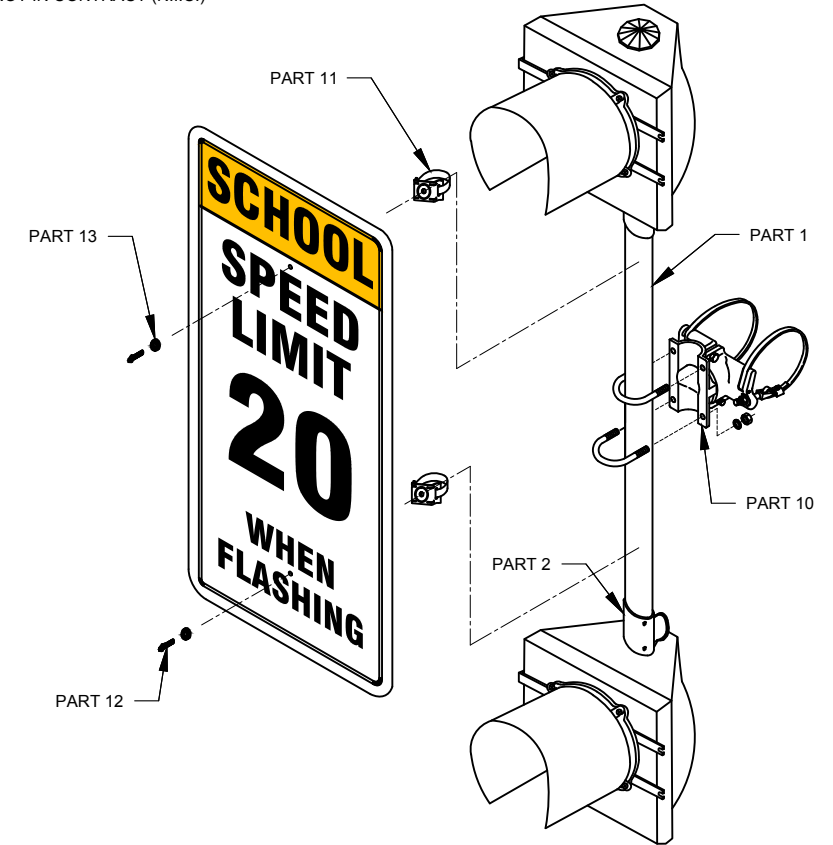
SECTION "B-B"



LOWER SIGNAL ASSEMBLY DETAIL

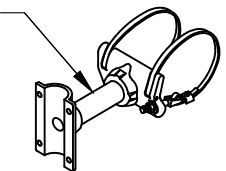
PARTS LIST				
PART	DESCRIPTION	DWG NO.	QTY.	
1	1 1/2"x46 1/2" LONG SCHEDULE 40 AL. PIPE, 11 1/2 NPSM 1 1/4" THREADED ON BOTH ENDS			1
2	1 1/2" DIE CAST AL. SERRATED TEE WITH TWO SERRATED BOSSES	SE-007_2		2
3	NEOPRENE SEAL WASHER 2 3/4" ODx1 7/8" IDx1/8" TH (N.I.C*)			2
4	1 1/2"x2" LONG DIE CAST AL. CHASE NIPPLE (LC-8-2A)	SE-009		2
5	1 1/2"x1 3/8" LONG DIE CAST AL. CLOSURE CAP (LC-8-6)	SE-011		2
6	1 1/2"x5/8" LONG POLYCARBONATE CLOSURE CAP (LC-8-4)	SE-011		1
7	1 1/2" DIE CAST AL. PIPE LOCKNUT	SE-010		2
8	1 1/2" MALE X 1 1/4" FEMALE NPT REDUCING BUSHING, HIGH IMPACT UV-RESISTANT PLASTIC (SEE NOTE 4)			1
9	1 1/4" MNPT UV AND WEATHER RESISTANT CORD GRIP (SEE NOTE 4)			1
10	ARTICULATED CLAMP FOR 1 1/2" PIPE			1
11	FLARED-LEG STAINLESS STEEL SIGN MOUNTING BRACKET			2
12	5/16"-18x5/8" LONG STAINLESS STEEL HEX BOLT			2
13	5/16" STAINLESS STEEL/NEOPRENE WASHERS			2

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



SCHOOL ZONE FLASHER ASSEMBLY

1 1/2" SCHEDULE 80 AL. PIPE EXTENSION, 11 1/2 NPSM 1 1/2" THREADED ON BOTH ENDS



EXTENDED MOUNT CLAMP

NOTES:

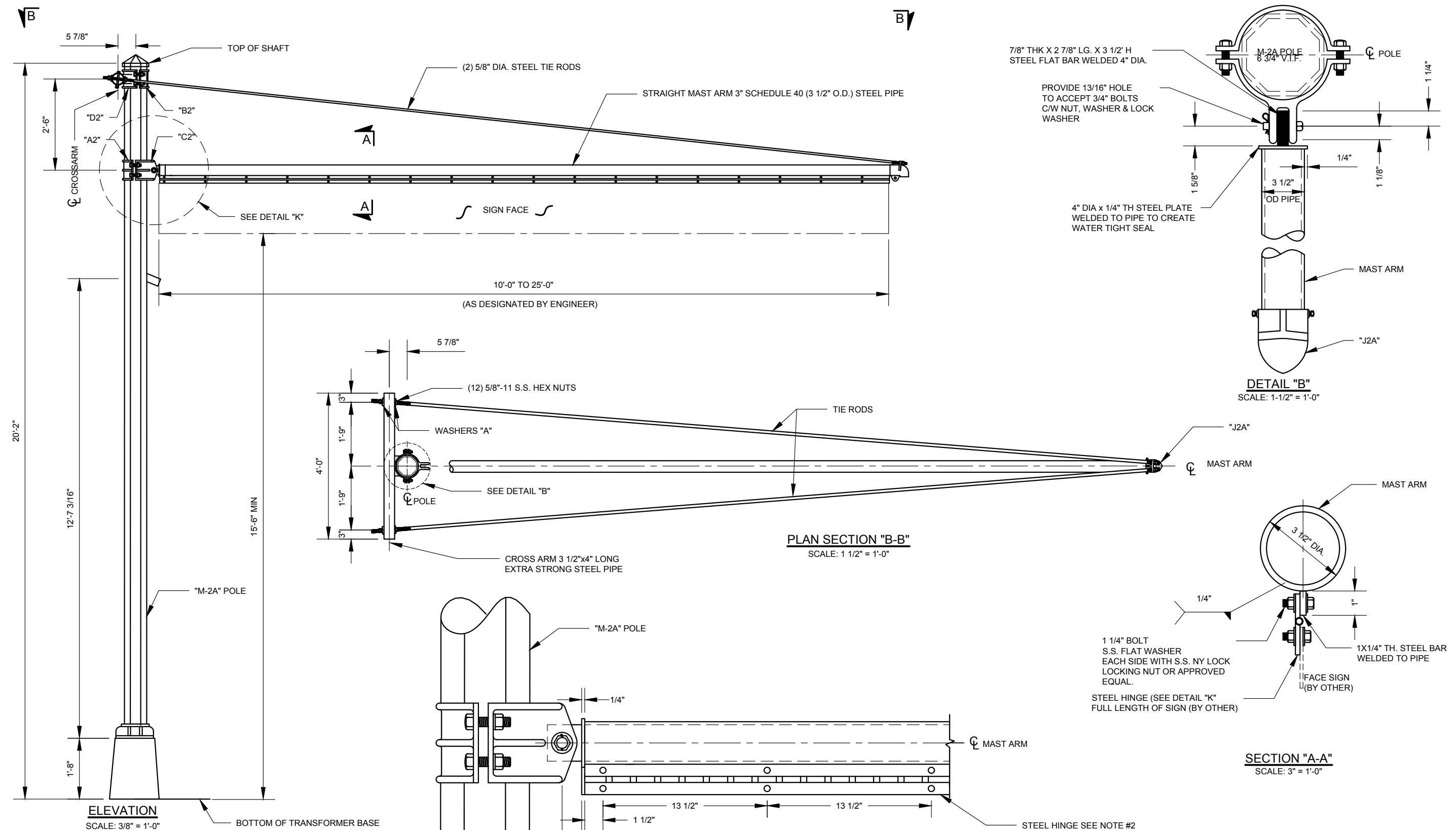
- TRAFFIC SIGNAL SHALL BE CENTERED OVER TRAFFIC LANE, OR AS PER ENGINEER.
- IF THE ASSEMBLY IS MOUNTED ON A 5' MAST ARM EXTENSION, THE SIGNAL CABLE SHALL BE ROUTED THROUGH THE MAST ARM AND J2A. TO AVOID CORROSION, MAST ARM SHALL NOT BE DRILLED. ALL ELECTRICAL CABLES RUN ON EXTERIOR OF MAST ARM SHALL BE HOUSED IN 3/4" PVC CONDUIT WHICH SHALL BE CONTINUOUS, FROM POLE TO SIGNAL HOUSING LEAVING ENOUGH EXPOSED CABLE FOR CONNECTIONS AND ATTACHED WITH BANDING (SEE DWG AI-004). PVC CONDUIT SHALL BE SECURED TO MAST ARM WITH 3/4" STAINLESS STEEL BANDING AND BUCKLES SPACED NO MORE THAN 36" APART.
- PREFERRED CABLE ENTRY OF THE ASSEMBLY IS IN UPPER SERRATED TEE. IF THE FINAL INSTALLED POSITION OF THE ASSEMBLY RESULTS IN THE LOWER SERRATED TEE BEING CLOSER TO THE MAST ARM, THE CABLE ENTRY CAN BE THROUGH THE LOWER SERRATED TEE.
- 1 1/4" CORD GRIP SHALL BE NON-METALLIC, UV AND WEATHER RESISTANT WITH GROMMET ACCEPTING 7 TO 16 CONNECTOR AWG#14 NYC SIGNAL CABLES WITH DIAMETER RANGE OF 0.51"-0.79" (HUMMEL HSK-K #1.209.5401.71 OR EQUAL). FOUR CONDUCTOR AWG#14 NYC SIGNAL CABLE IS NOT TO BE USED IN THIS INSTALLATION.



REVISION			
NO	DATE	BY	DESCRIPTION
1	06/2020	DR	UPDATED PARTS LIST
0	07/2013	DR	CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
SCHOOL ZONE FLASHER ON MAST ARM		
SCALE:	OLD DRAWING NO.	DRAWING NO.
N.T.S.		MISC-003_2

NYCDOT TRAFFIC SIGNAL STANDARD DRAWINGS, Jun 2020

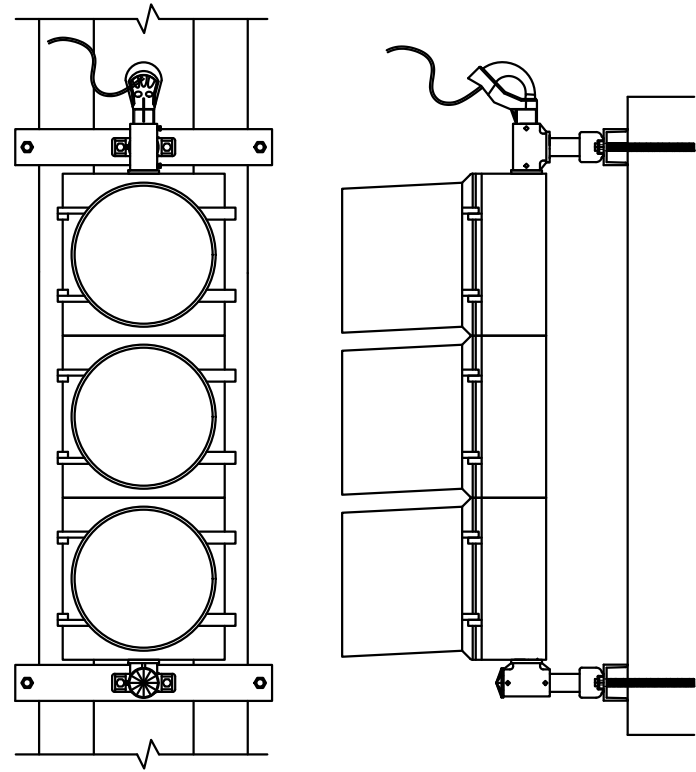


- NOTES:**
- 15'-6" MINIMUM CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE BOTTOM OF THE TRANSFORMER BASE.
 - STEEL HINGE SUPPLIED BY MANUFACTURER.
 - FOR MORE DETAILS ON "M-2A" POLE, TRANSFORMER BASE, "A2", "B2", "C2", "D2", TIE RODS, WASHER "A", "J2A" SEE MAST ARM SET OF DWGS.
 - TO ACHIEVE MIN CLEARANCE, "M-2A" POLE MAY HAVE TO BE INSTALLED ON FOUNDATION RAISED WITH STEEL CYLINDER (SEE DWG F-005)
 - FOUNDATION TO HAVE MINIMUM THREE ELBOWS.
 - VENDOR TO PROVIDE SHOP DRAWINGS FOR ALL MAST ARM LENGTHS.



REVISION			
NO	DATE	BY	DESCRIPTION
2	05/2016	DR	ADD 25' LONG MAST ARM
1	05/2012	GPI	REPLICATED IN CADD
0	N/A	N/A	CREATED

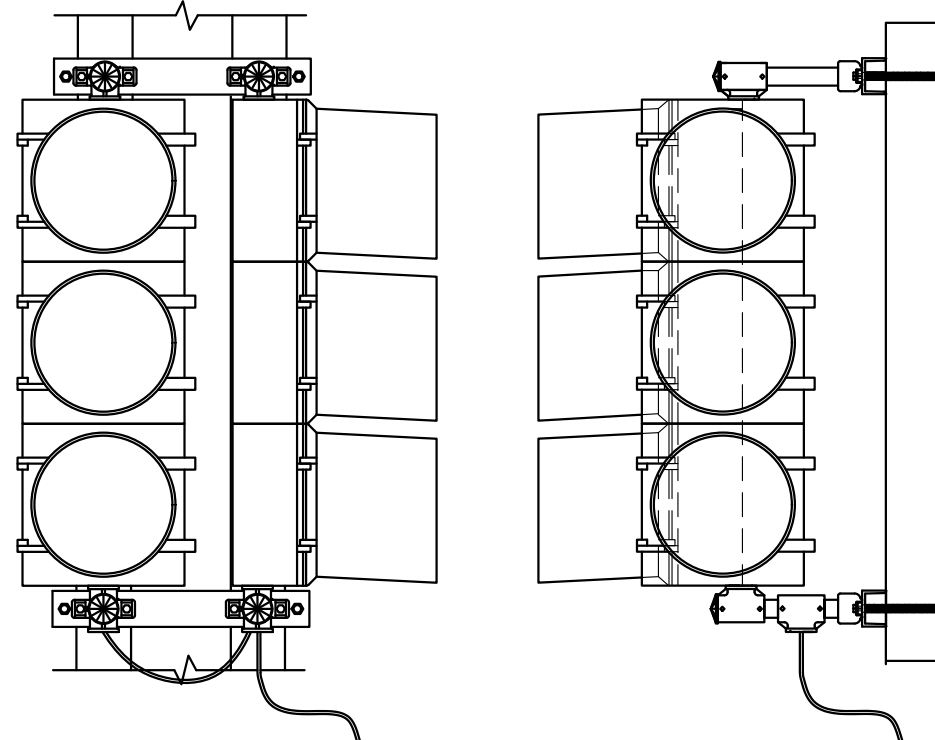
DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
OVERHEAD SIGN FOR "M-2A" POLE		
SCALE:	OLD DRAWING NO.	DRAWING NO.
AS NOTED	LC-501S	MISC-004



FRONT VIEW

SIDE VIEW

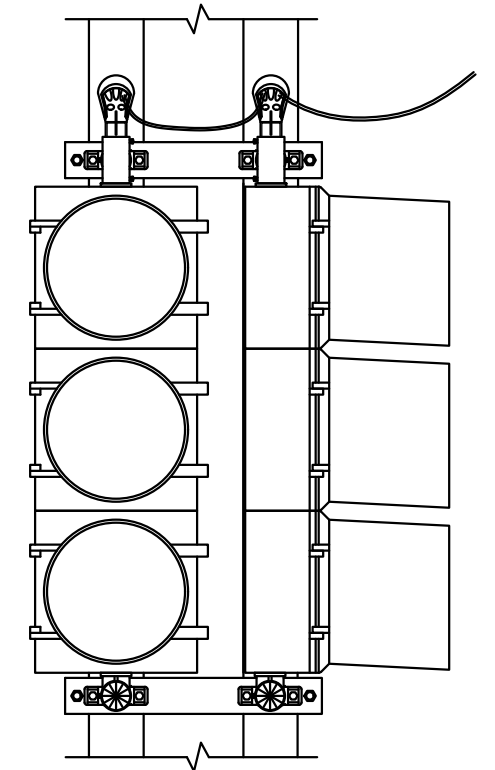
SINGLE TRAFFIC SIGNAL



FRONT VIEW

SIDE VIEW

DOUBLE TRAFFIC SIGNAL WITH
PLAIN TEE AS SERVICE ENTRANCE



FRONT VIEW

DOUBLE TRAFFIC SIGNAL
WITH SERVICE ENTRANCE CAP

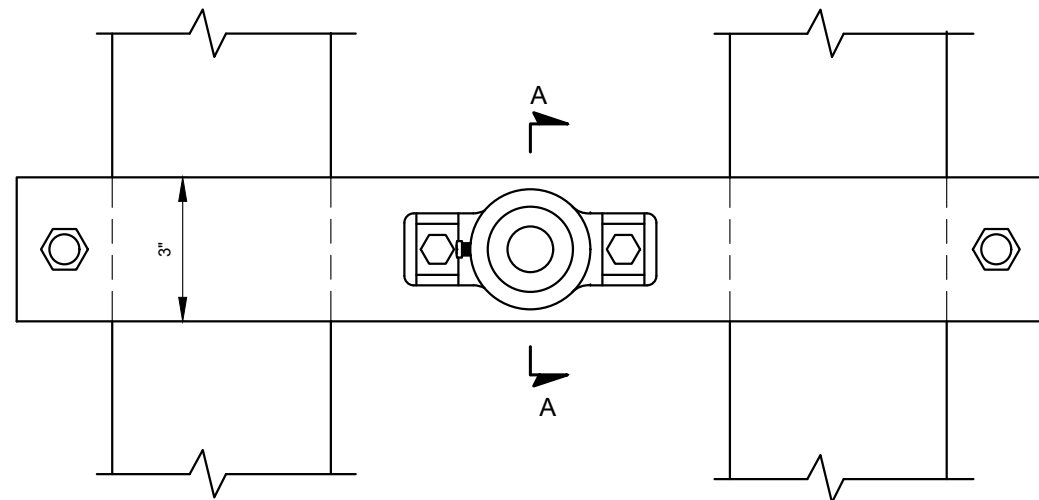


REVISION			
NO	DATE	BY	DESCRIPTION
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0	03/1964	DM	CREATED

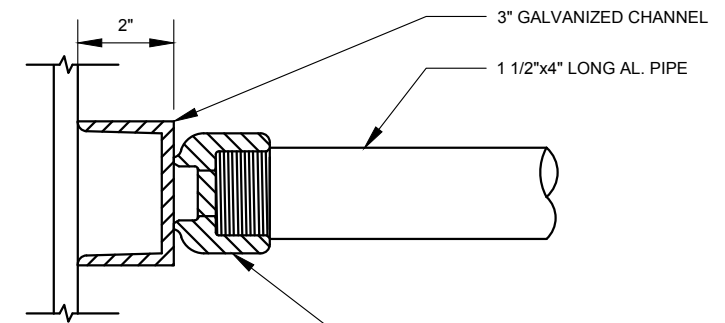
DEPARTMENT OF TRANSPORTATION
BUREAU OF TRAFFIC OPERATIONS
34-02 QUEENS BLVD L.I.C., N.Y. 11101

TRAFFIC SIGNALS ON "EL" COLUMN

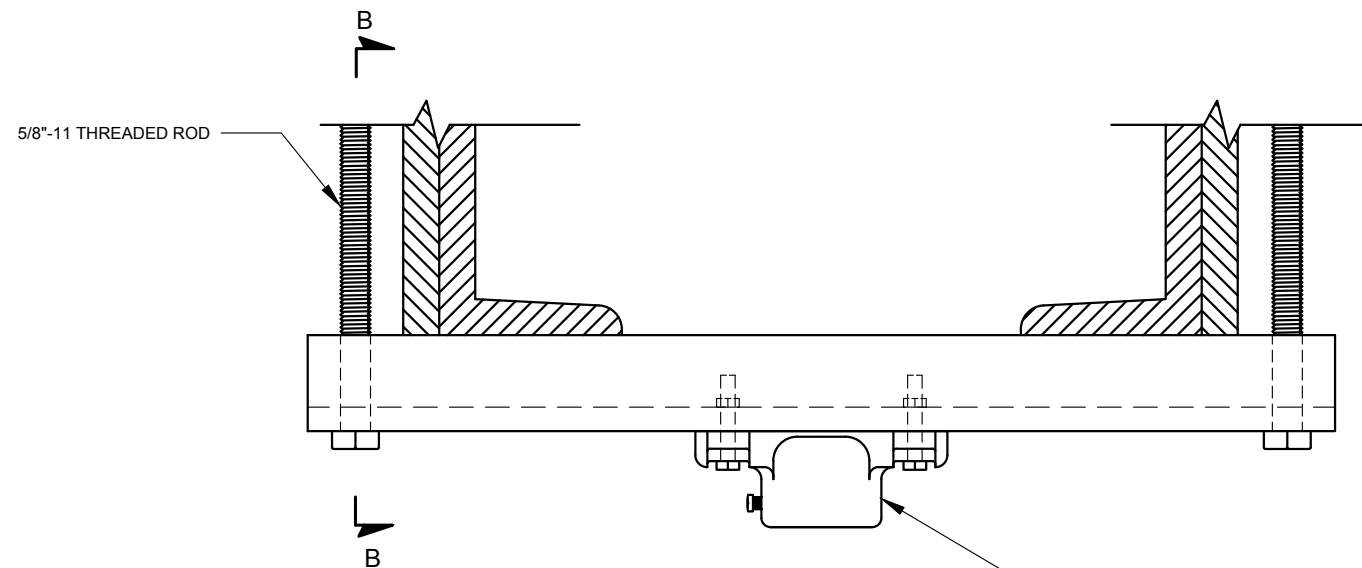
SCALE:	OLD DRAWING NO.	DRAWING NO.
1" = 1'-0"	LG-148S	MISC-005_1



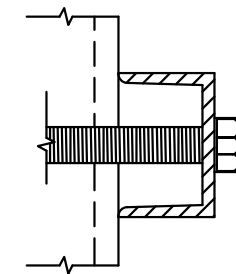
ELEVATION



SECTION "A-A"



PLAN

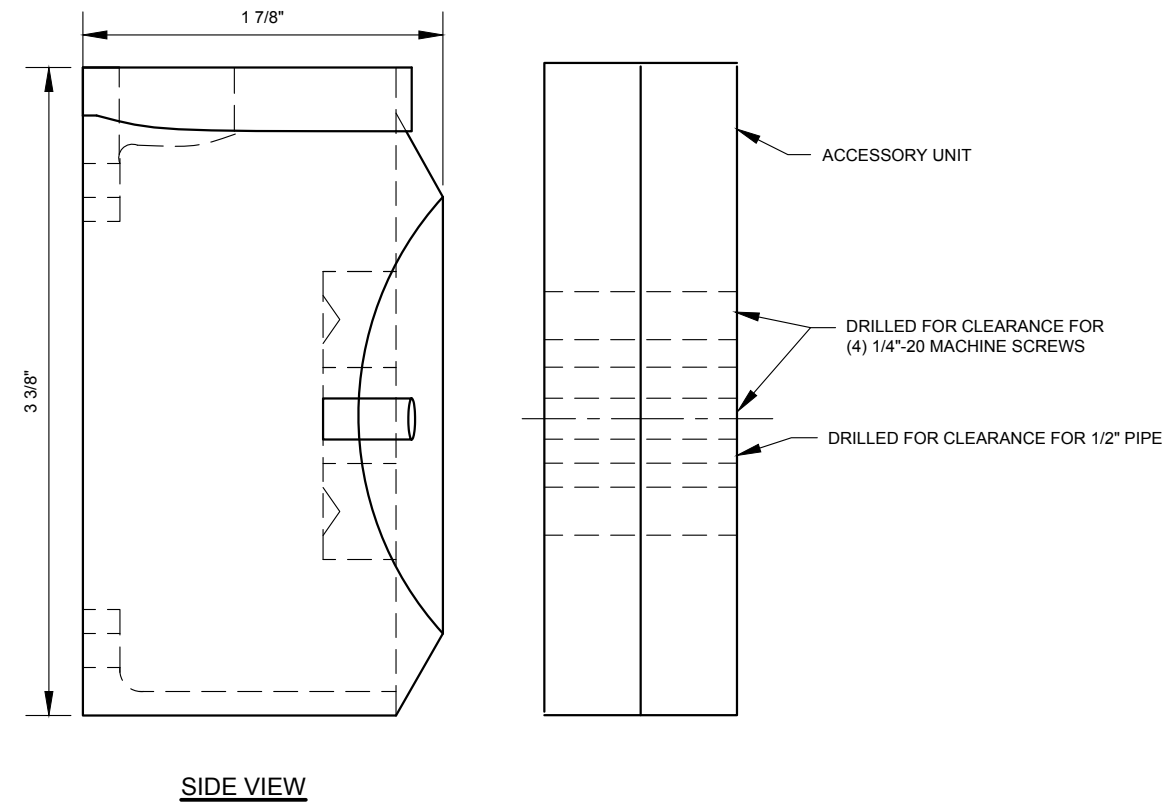
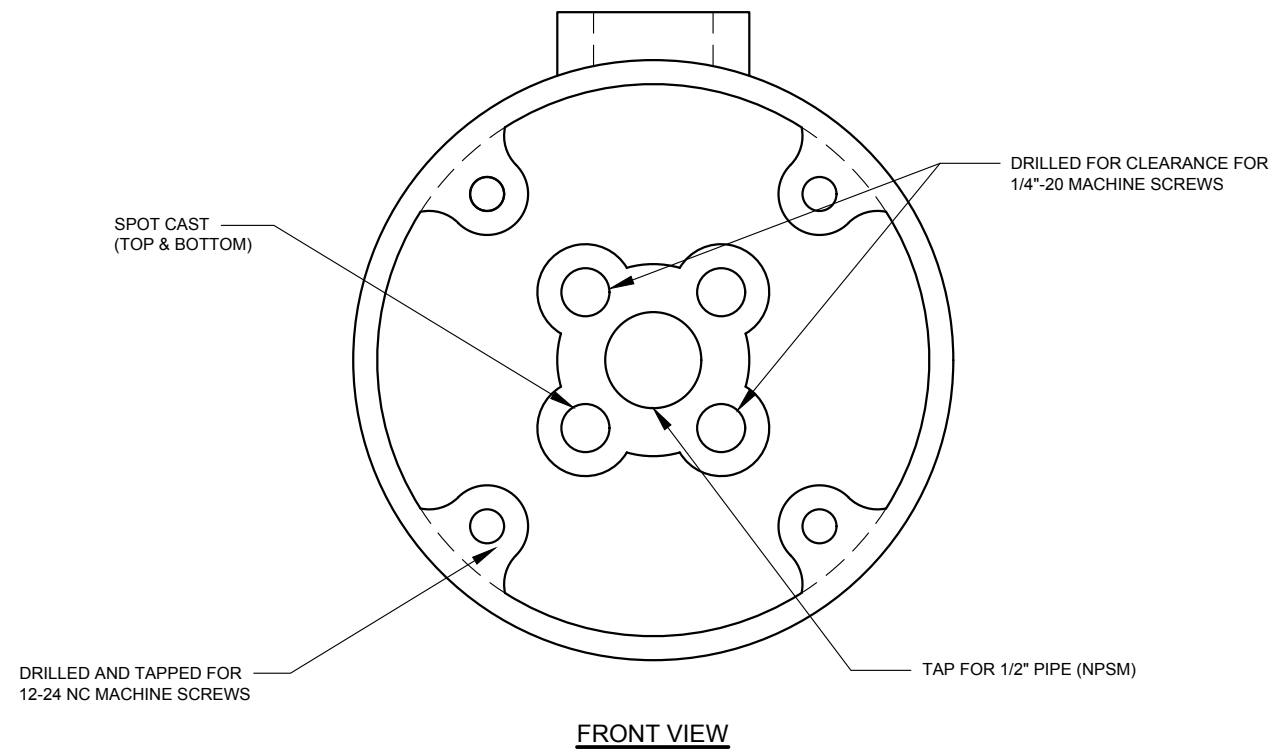
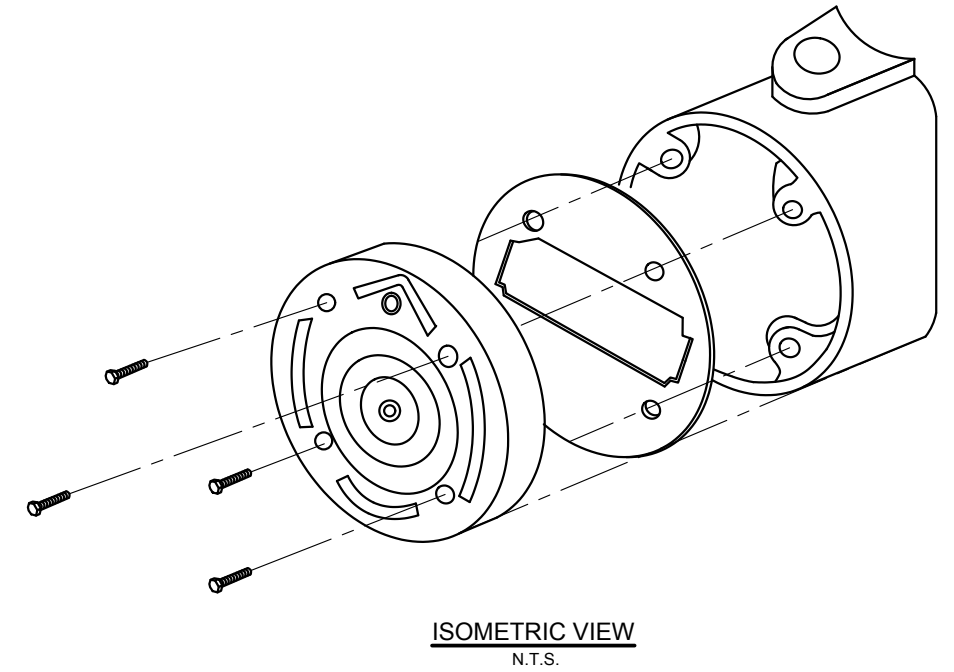
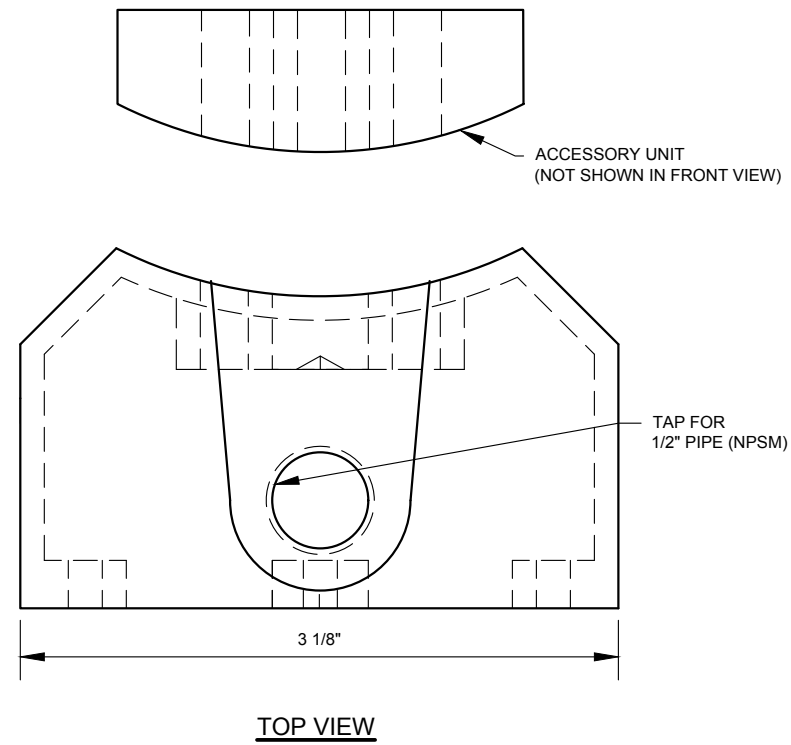


SECTION "B-B"



REVISION			
NO	DATE	BY	DESCRIPTION
1	05/2012	GPI	REPLICATED IN CADD
0	03/1964	DM	CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
TRAFFIC SIGNALS ON "EL" COLUMN DETAIL OF MOUNTING BRACKET		
SCALE:	OLD DRAWING NO.	DRAWING NO.
3" = 1'-0"	LG-147S	MISC-005_2

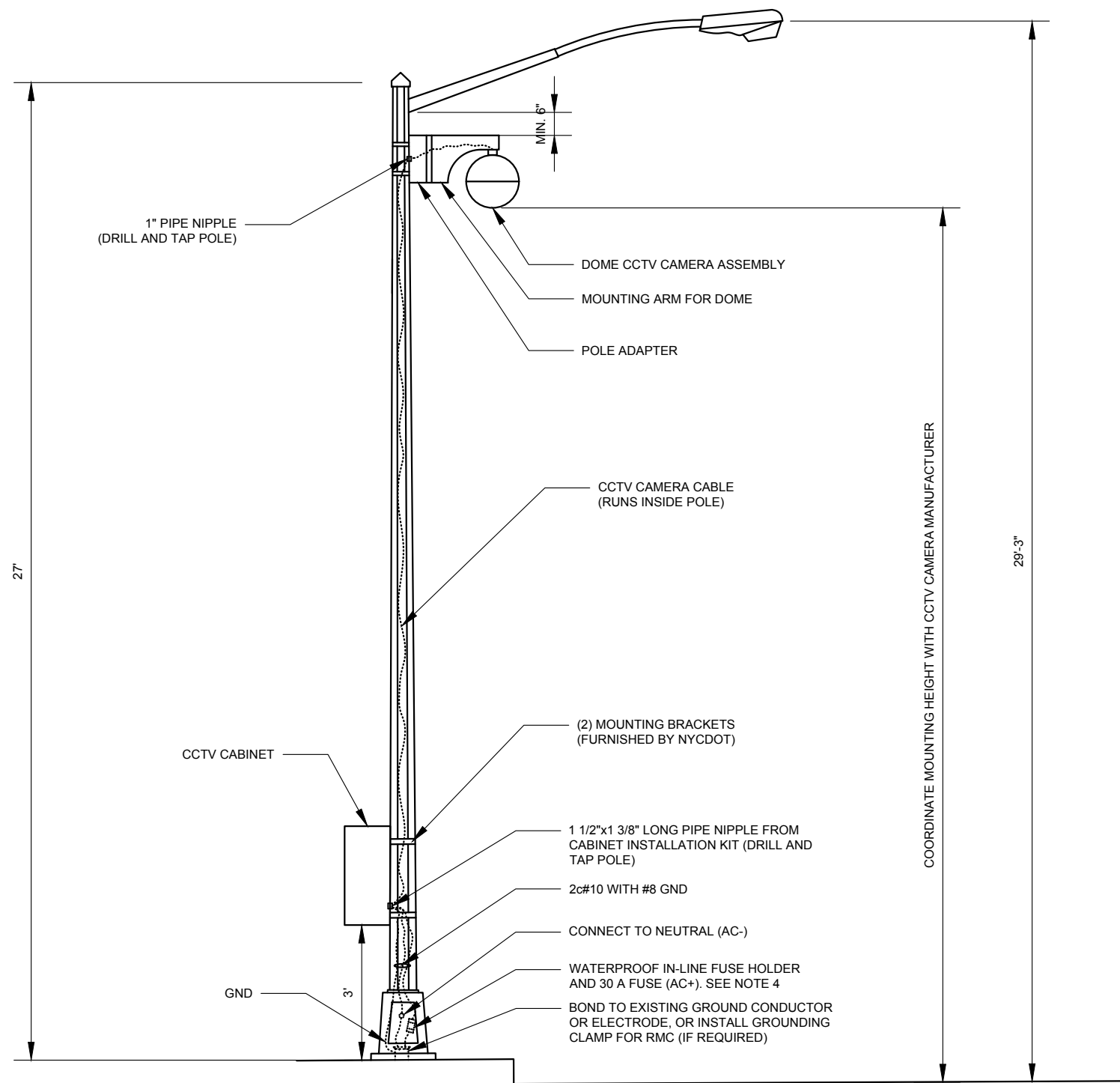


NYCDOT TRAFFIC SIGNAL STANDARD DRAWINGS, Jun 2020

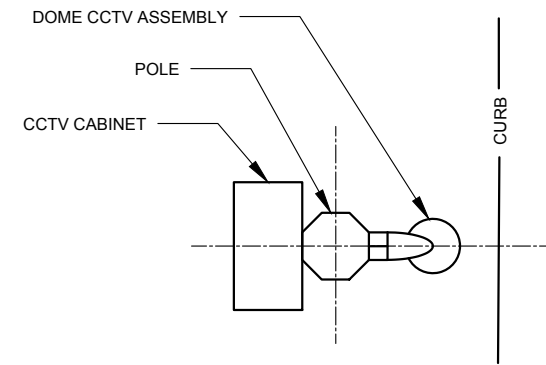


REVISION			
NO	DATE	BY	DESCRIPTION
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0	3/1965	EHB	CREATED

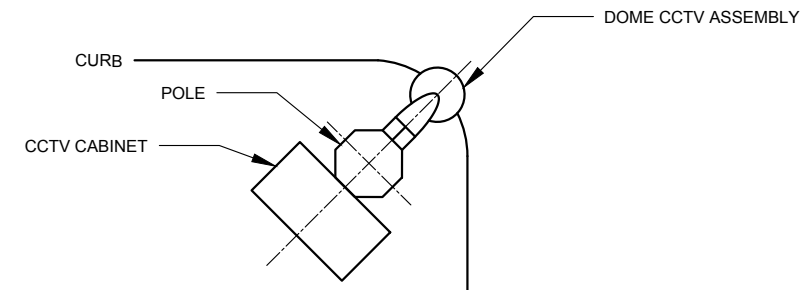
DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
PUSH BUTTON POLE MOUNT		
SCALE: 1'-0" = 1'-0"	OLD DRAWING NO. LB-640S	DRAWING NO. MISC-006



TYPICAL CCTV CAMERA AND CABINET INSTALLATION SHOWN ON STREETLIGHT WITH OCTAGONAL FABRICATED STEEL POLE AND LUMINAIRE



TYPICAL CCTV CAMERA/CABINET ALIGNMENT- MIDBLOCK LOCATION



TYPICAL CCTV CAMERA/CABINET ALIGNMENT- STREET CORNER LOCATION

NOTES:

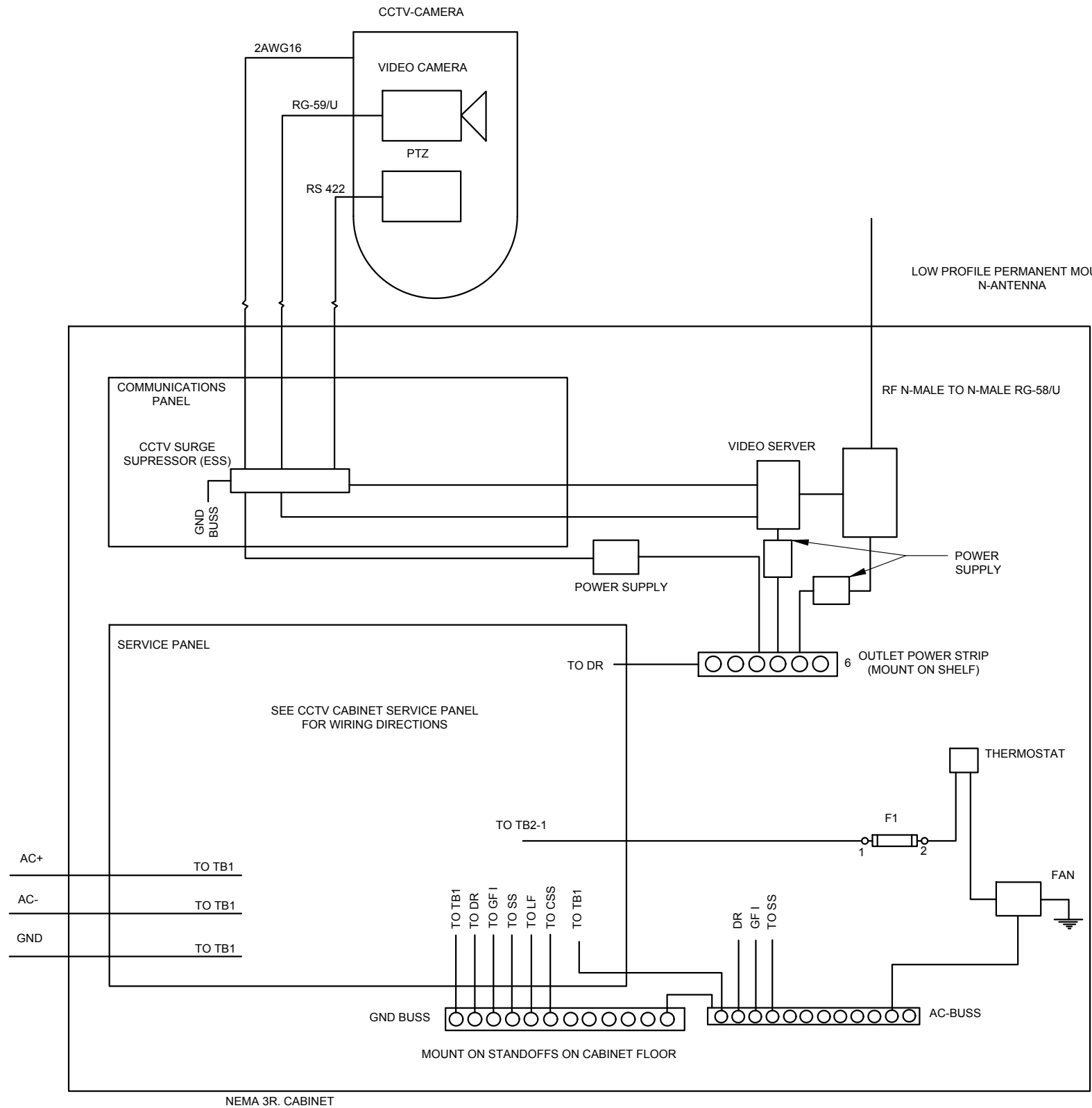
1. ACTUAL FIELD CONDITIONS WILL VARY. ADJUST MOUNTING HEIGHTS AS REQUIRED SO THAT CAMERA IS PLACED AS HIGH ON THE POLE AS PRACTICAL WHILE MAINTAINING AN OBSTRUCTED VIEW AND MIN. 6" CLEARANCE TO EXISTING DEVICE.
2. COORDINATE POLE PENETRATION LOCATIONS WITH EXISTING HOLES IN CABINET, CCTV MOUNTING ARM 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 120 VAC SERVICE AT BASE OF POLE. TO BE PROVIDED BY NYCDOT (UNMETERED)



REVISION			
NO	DATE	BY	DESCRIPTION
1	03/2013	GPI	REPLICATED IN CADD
0	N/A	JO	CREATED

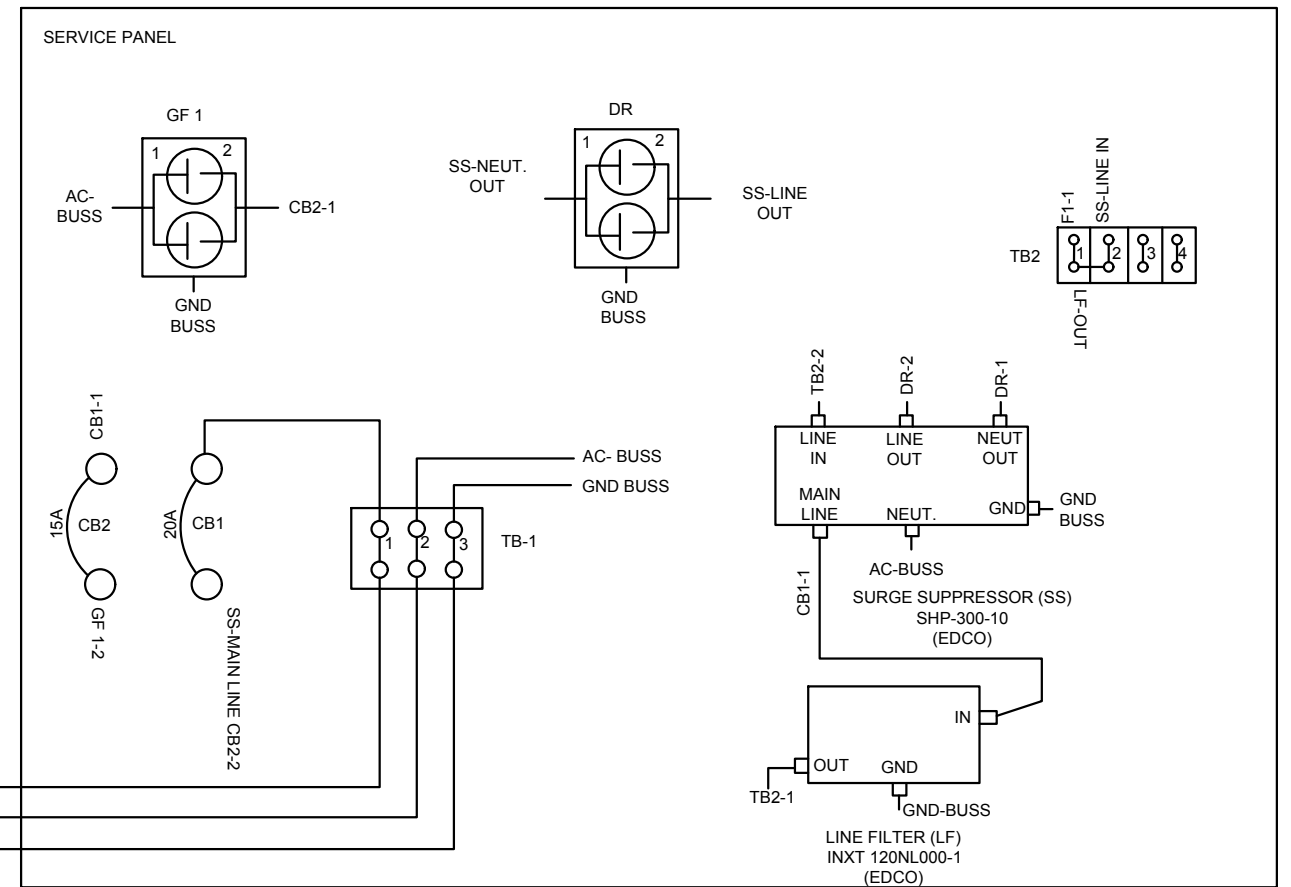
DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
CCTV EQUIPMENT MOUNTING DETAIL		
SCALE:	OLD DRAWING NO.	DRAWING NO.
N.T.S.	LB-14553S	MISC-007_1

NYCDOT TRAFFIC SIGNAL STANDARD DRAWINGS, Jun 2020



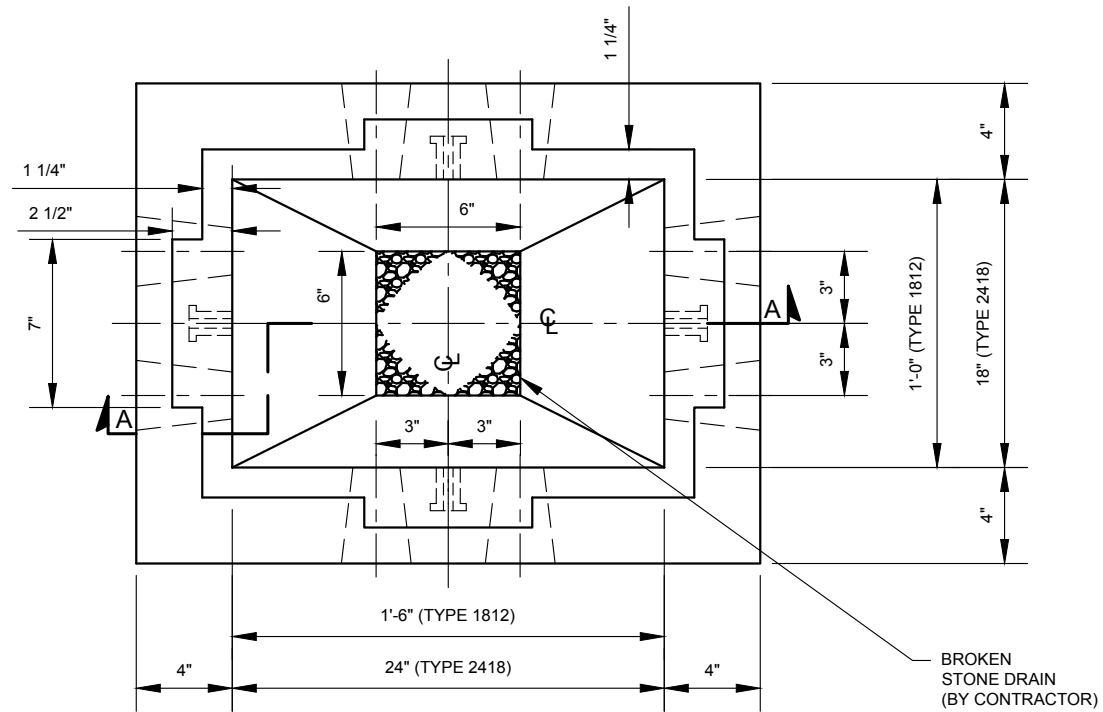
NEMA 3R. CABINET

CABINET WIRING DETAIL

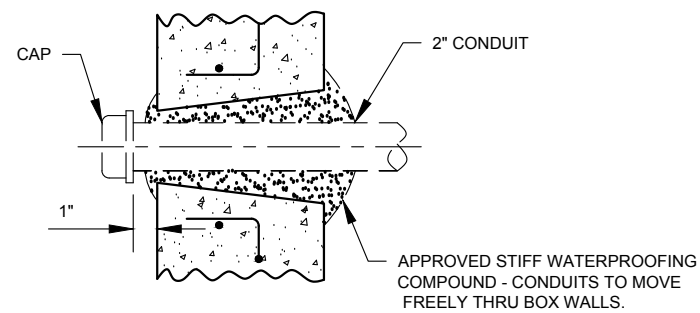


SERVICE PANEL DETAIL

REVISION				DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
1	05/2012	GPI	REPLICATED IN CADD	CCTV CABINET WIRING AND SERVICE PANEL DETAIL		
0	N/A	JO	CREATED			
NO	DATE	BY	DESCRIPTION	SCALE:	OLD DRAWING NO.	DRAWING NO.
				N.T.S.	LB-145775 LB-145765	MISC-007_2



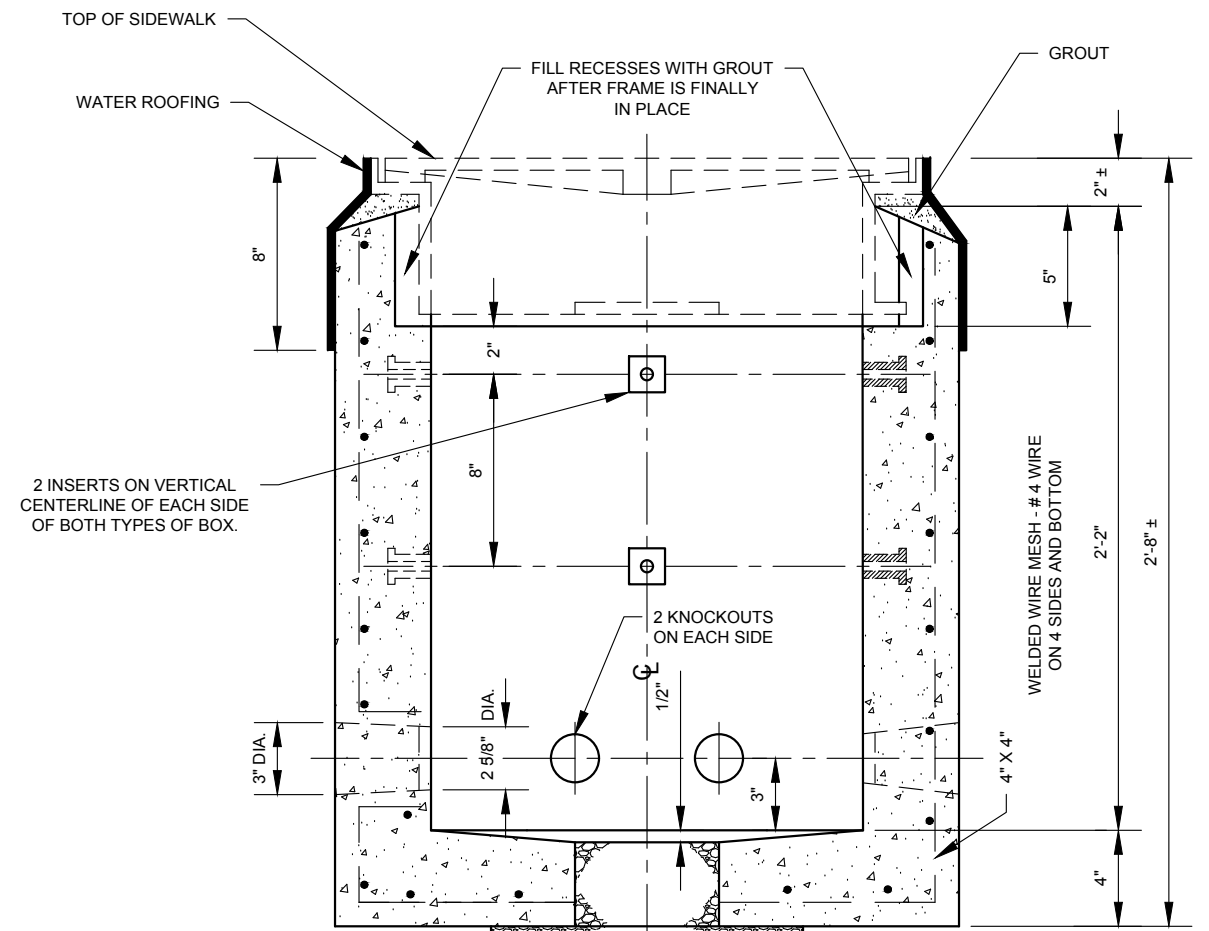
TOP VIEW
(WITHOUT METALLIC FRAME AND COVER)



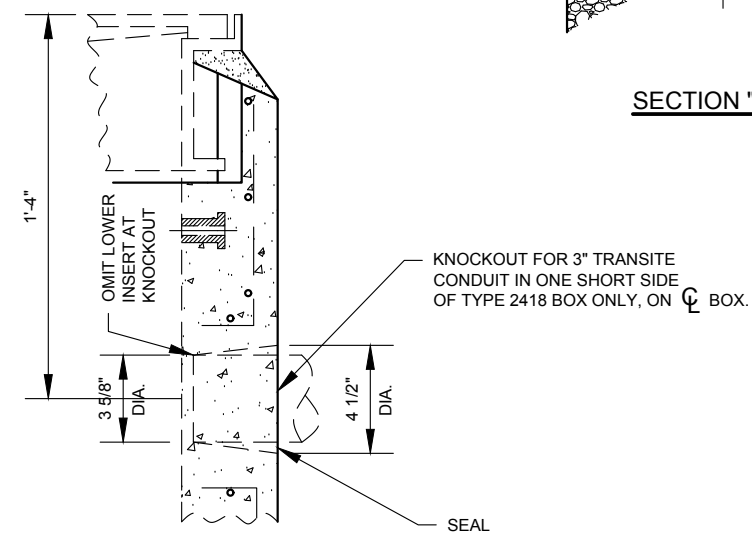
TYPICAL CONDUIT INSTALLATION

NOTES:

1. FOR CAST FRAME AND STEEL COVER SEE DWG. MISC-008_2.
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 HIGHGRADE PORTLAND CEMENT - 2 PARTS CLEAN SHARP SAND OR TRAP ROCK GRANITE OR GRAVEL SCREENINGS - 4 PARTS HARD CRUSHED ROCK OR GRAVEL (1" SIZE) - FRESH WATER.



SECTION "A - A"



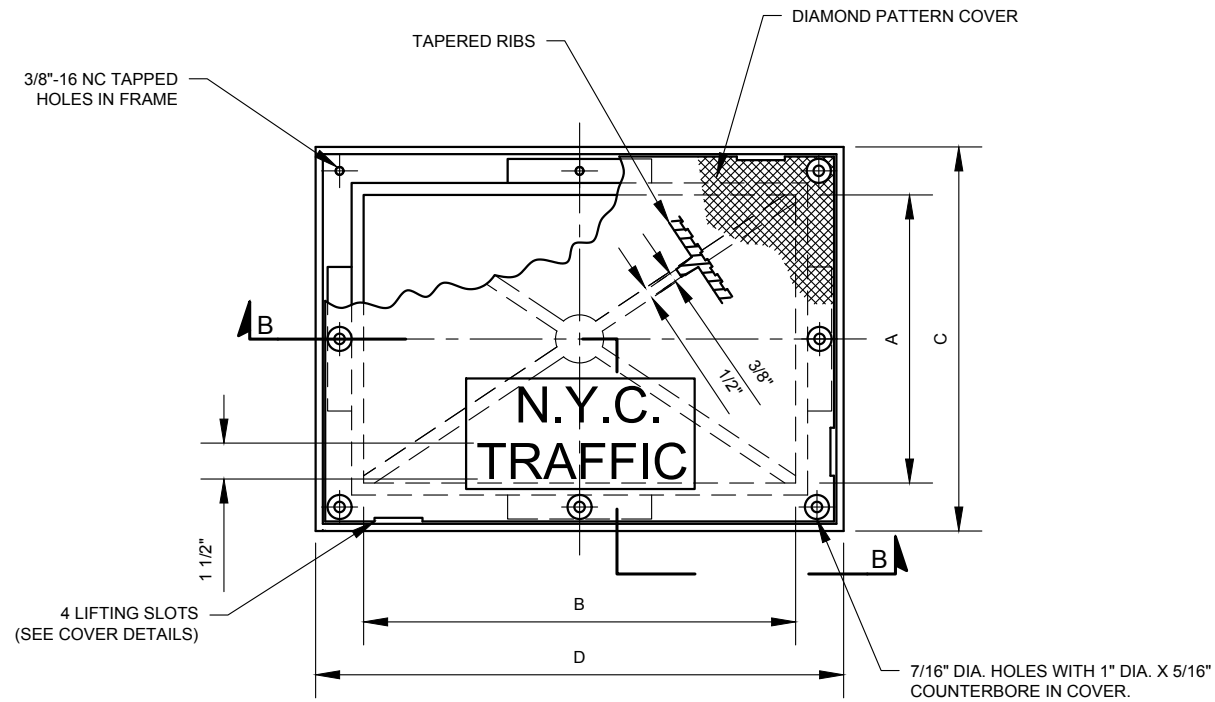
EXTRA KNOCKOUT IN TYPE 2418 BOX ONLY FOR "MK" DETECTOR

NYCDOT TRAFFIC SIGNAL STANDARD DRAWINGS, Jun 2020

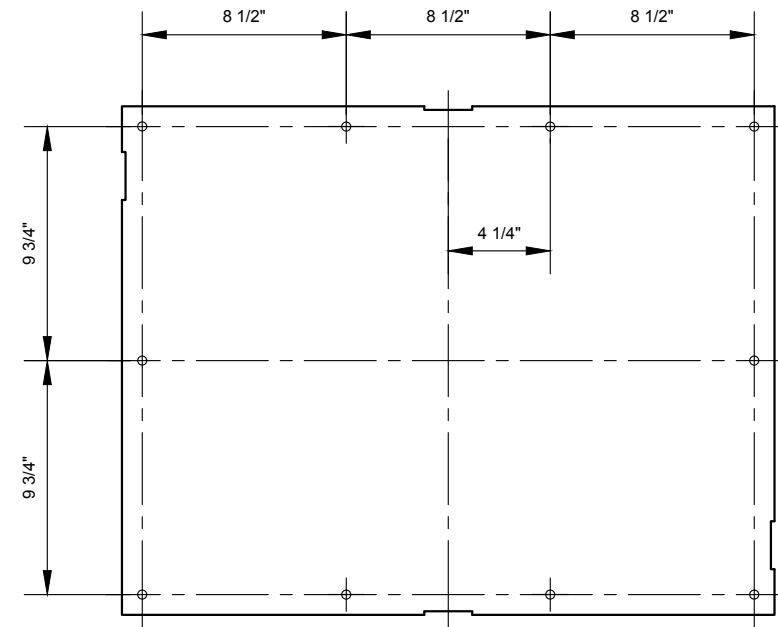


REVISION			
NO	DATE	BY	DESCRIPTION
1	05/2012	GPI	REPLICATED IN CADD
0	03/1963	JB	CREATED

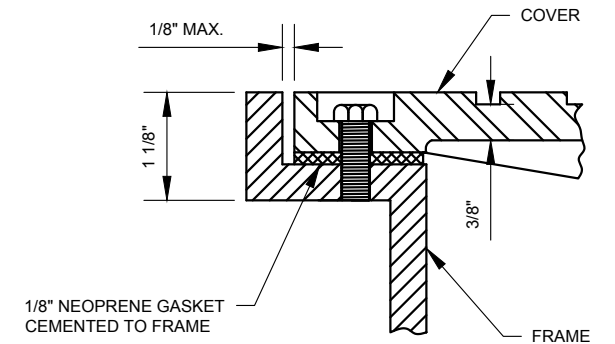
DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
PRECAST CONCRETE TRAFFIC SIDEWALK BOX		
SCALE: 1 1/2"=1'-0"	OLD DRAWING NO. LG-118-S	DRAWING NO. MISC-008_1



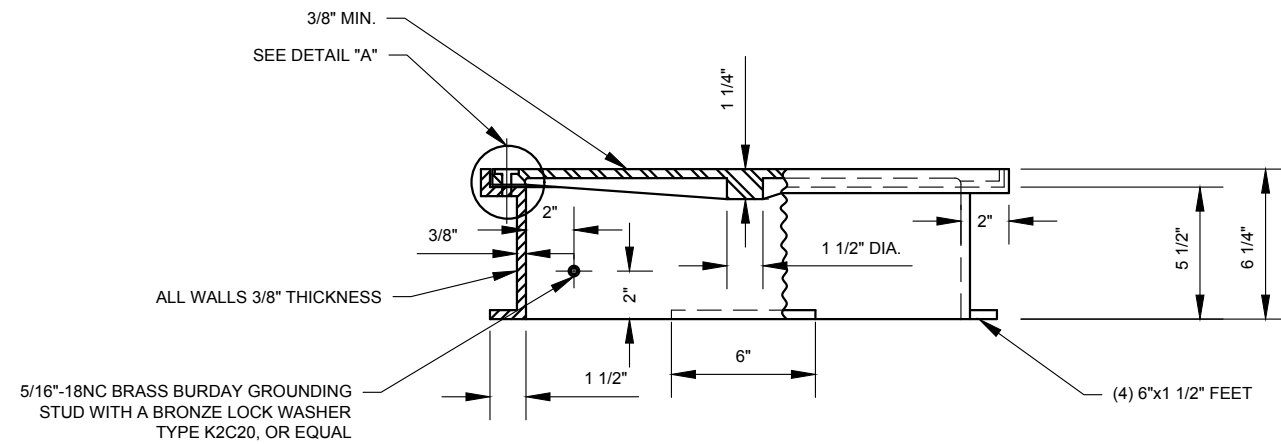
PLAN



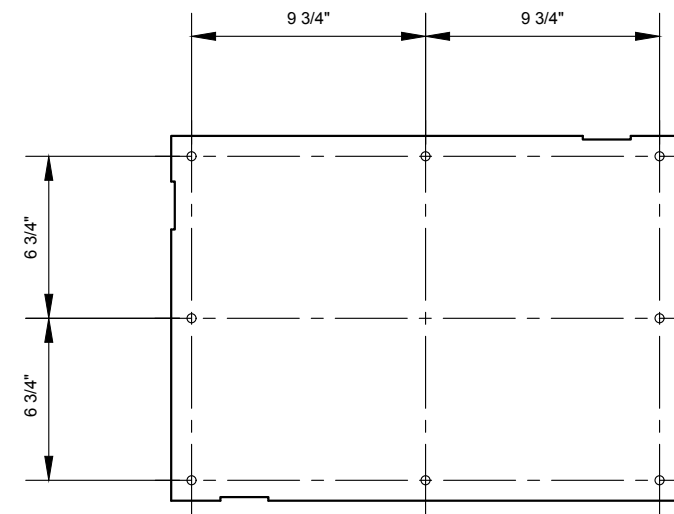
COVER FOR TYPE 2418



**DETAIL "A"
(TYPICAL)**



SECTIONAL - ELEVATION "B-B"



COVER FOR TYPE 1812

NOTES:

1. FOR DETAIL OF PRECAST CONCRETE TRAFFIC SIDEWALK BOX SEE DRAWING MISC-008_1.
2. ALL SCREWS IN COVER SHALL BE 3/8" HEX. HEAD, 7/8" 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.
5. FRAME AND COVER TO BE HOT - DIPPED GALVANIZED.
6. FRAME TO BE GRAY CAST IRON, AS PER ASTM SPEC. A48-62, CLASS 30.
7. COVER TO BE CAST STEEL AS PER ASTM SPEC. A27-65, GRADE 70-40. (ALTERNATE COVER MAY BE CAST NODULAR IRON, AS PER ASTM SPEC. A536-65T, GRADE 65-45-12).

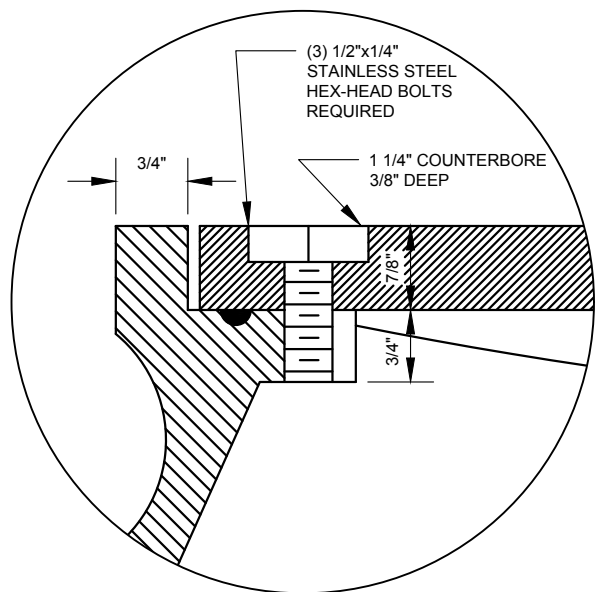
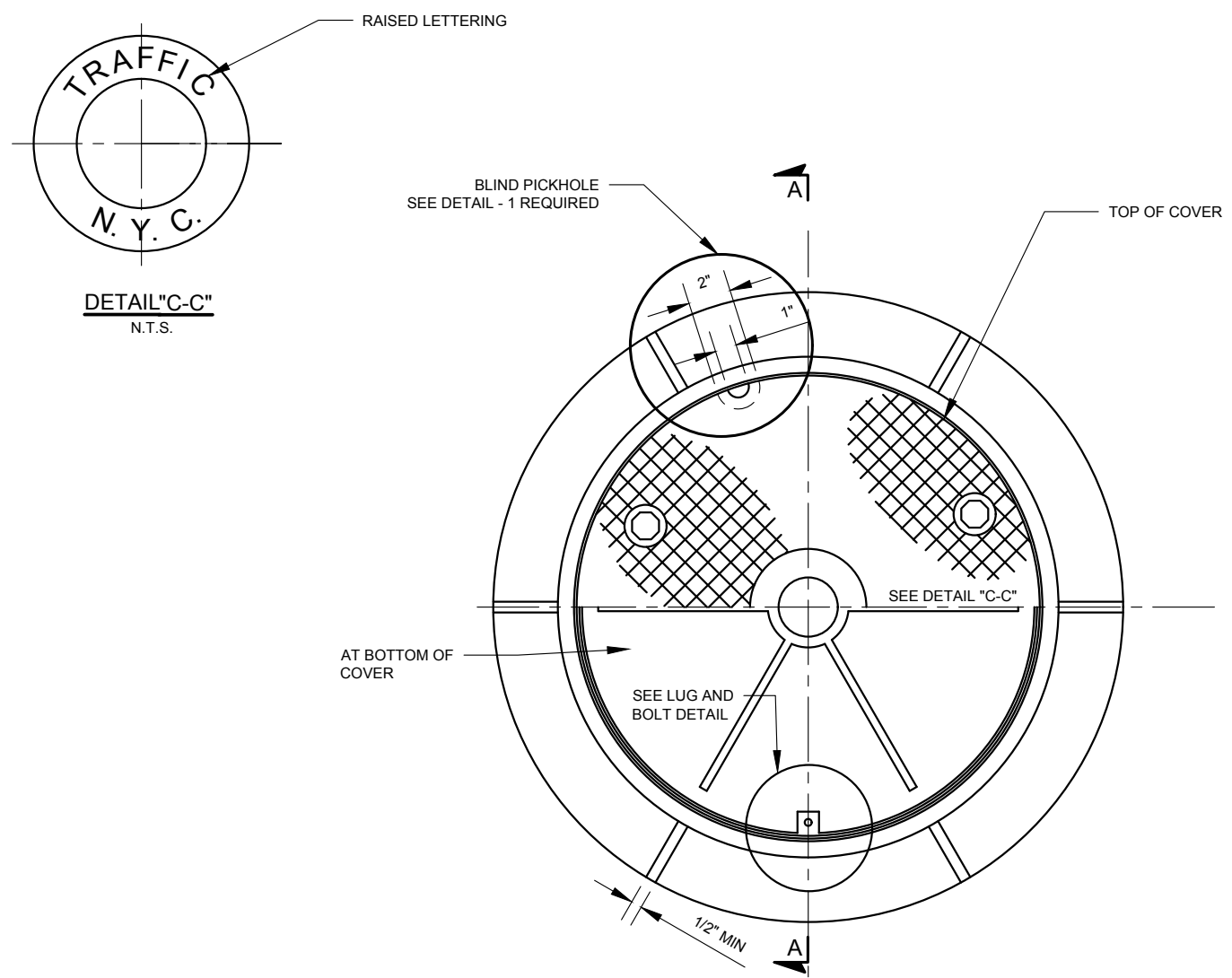
TYPE	DIMENSIONS				NO. OF SCREWS
	A	B	C	D	
1812	12"	18"	16"	22"	8
2418	18"	24"	22"	28"	10



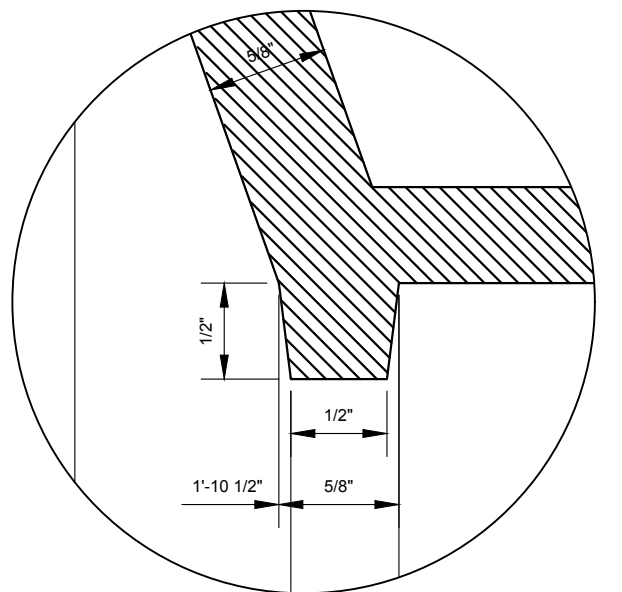
REVISION				
NO	DATE	BY	DESCRIPTION	
3	05/2012	GPI	REPLICATED	
2	4/1972	JB	CORRECTED NOTE NO.7	
1	12/1965	JB	REDRAWIN	
0	03/1963	JB	CREATED (SUPERSEDES LG-74-S)	

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C.,N.Y.11101		
PRECAST CONCRETE TRAFFIC SIDEWALK BOX		
SCALE:	OLD DRAWING NO.	DRAWING NO.
AS NOTED	LG-117S	MISC-008_2

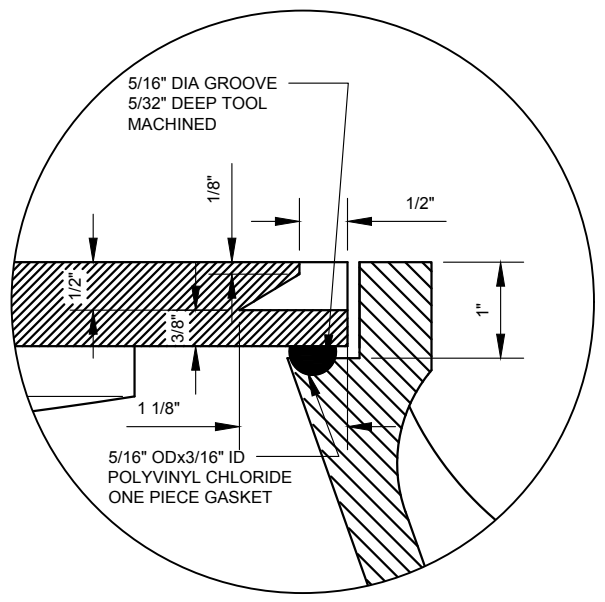
NYC DOT TRAFFIC SIGNAL STANDARD DRAWINGS, Jun 2020



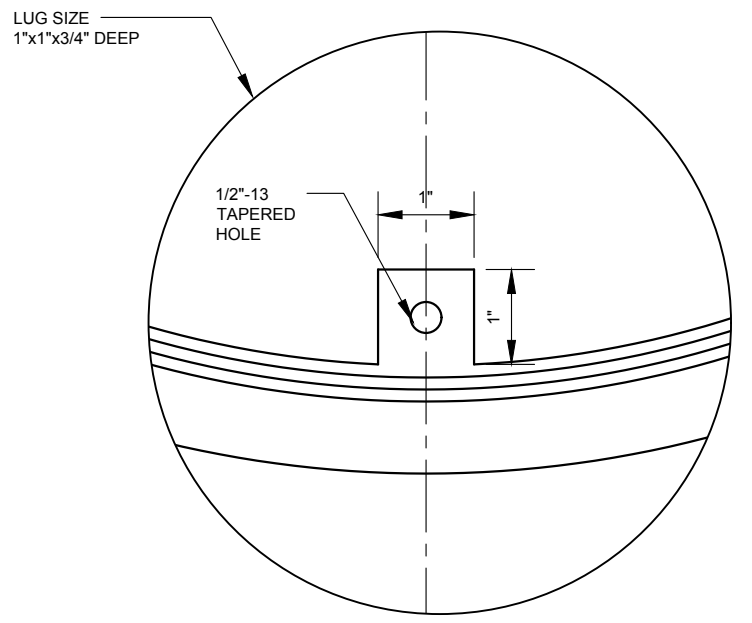
BOLT DETAIL
SCALE: 6" = 1'-0"



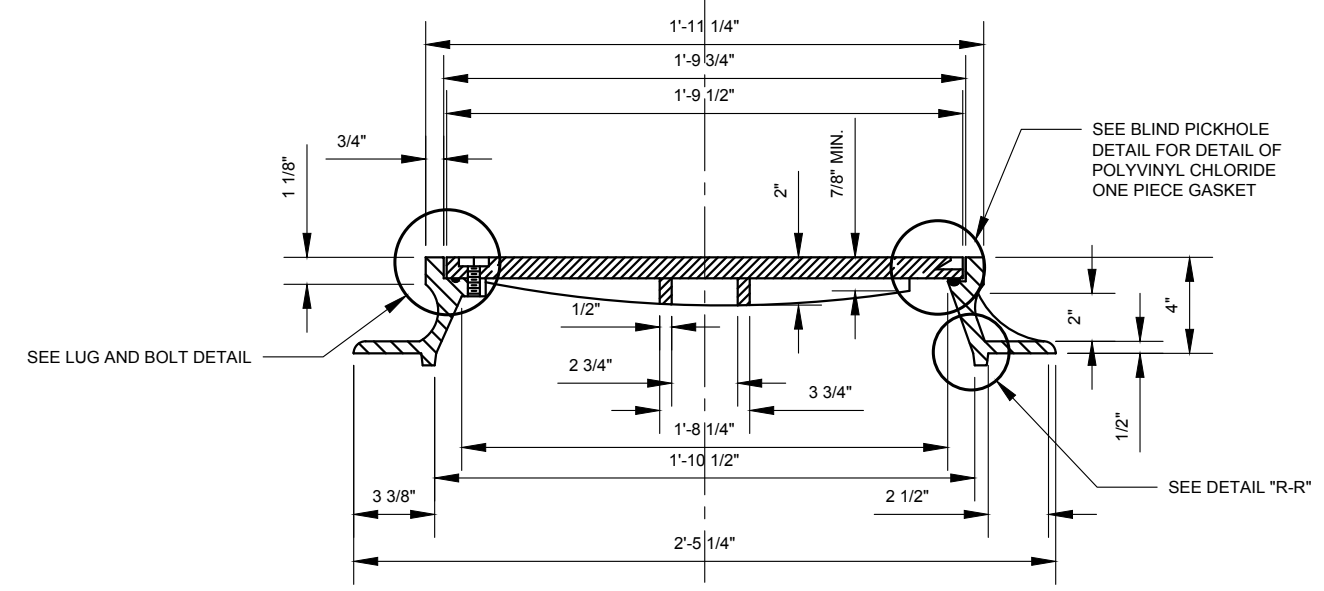
DETAIL R-R
SCALE: 1" = 1'-0"



BLIND PICKHOLE DETAIL
SCALE: 6" = 1'-0"
FOR REMOVING COVER FROM FRAME



LUG DETAIL
SCALE: 6" = 1'-0"



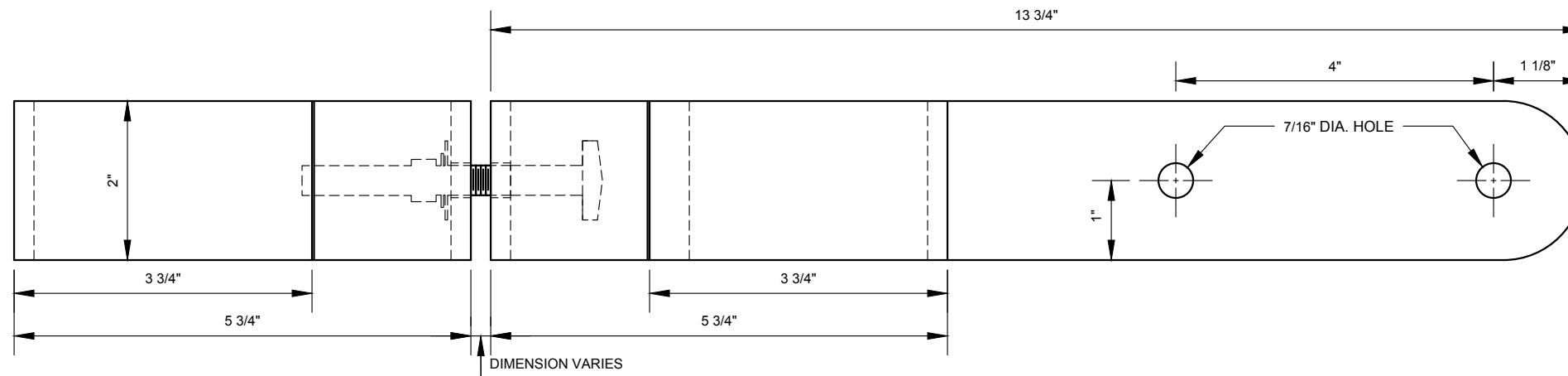
SECTION A-A
SCALE: 1 1/2" = 1'-0"

BEARING SURFACES BETWEEN FRAME
AND COVER TO BE TOOL MACHINED

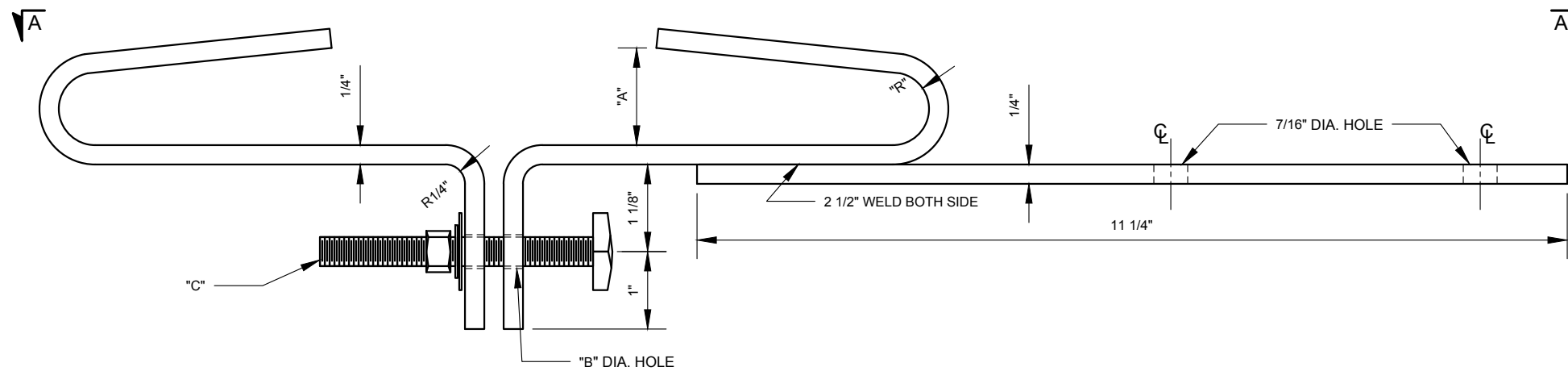


REVISION			
NO	DATE	BY	DESCRIPTION
1	05/2012	GPI	REPLICATED IN CADD
0	05/1964	RA	CREATED

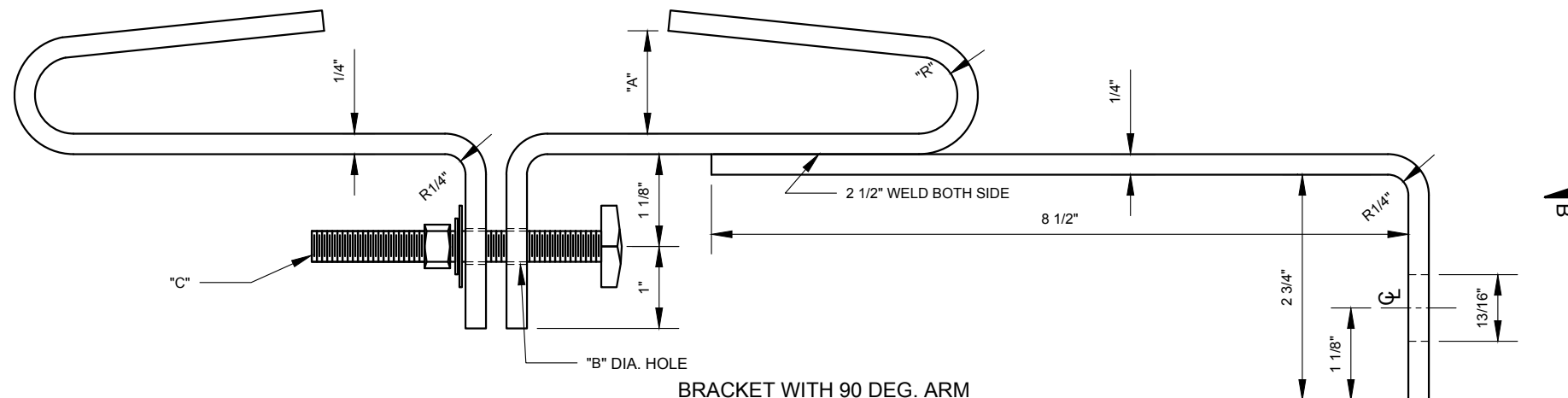
DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
FRAME AND COVER FOR TYPE C HANDBOX DETAIL		
SCALE: AS NOTED	OLD DRAWING NO. LG-146-S	DRAWING NO. MISC-009



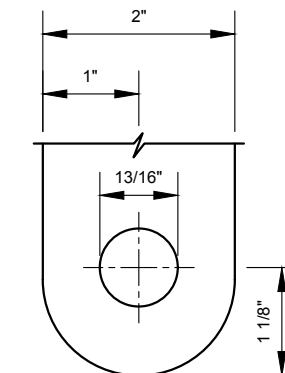
FRONT VIEW "A-A"



BRACKET WITH STRAIGHT ARM



BRACKET WITH 90 DEG. ARM



VIEW "B-B"

NOTES:

1. FINISH TO BE PAINTED, RED OXIDE ASTM A36 STEEL.
2. DIMENSIONS MAY VARY SUBSTANTIALLY TO DEAL WITH EXISTING FIELD CONDITIONS.

	A	R	B	C
1" THICK I-BEAM	1 3/8"	1/2"	7/16"	3/8"-16 x 4" LONG S.S. HEX BOLT ASSEMBLY WITH S.S. FLAT WASHER, LOCK WASHER & HEX NUT
3" THICK I-BEAM	3 1/2"	1 7/8"	9/16"	1/2"-13 x 4" LONG S.S. HEX BOLT ASSEMBLY WITH S.S. FLAT WASHER, LOCK WASHER & HEX NUT

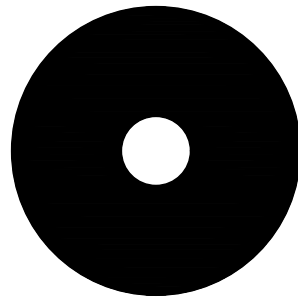


REVISION			
NO	DATE	BY	DESCRIPTION
2	01/2015	DR	REVISION TO REFLECT 3" THICK I-BEAM
1	05/2012	GPI	REPLICATED IN CADD
0	N/A	N/A	CREATED

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

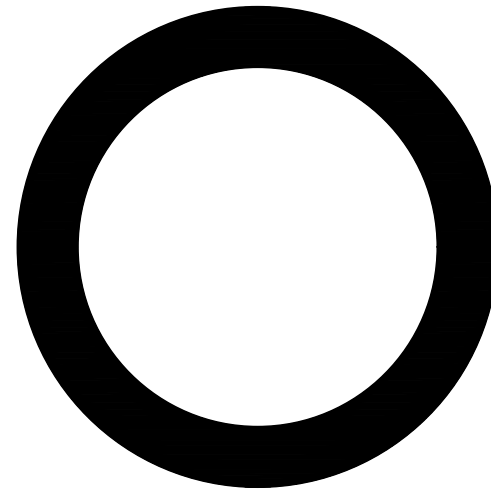
TRAFFIC SIGNAL "J" BRACKET

SCALE: 6" = 1'-0"	OLD DRAWING NO.	DRAWING NO. MISC-010
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BOLT GASKET

.125" THICK
 .364" ID
 1 1/2" OD
 NEOPRENE
 FLAME AND OIL RESISTANT
 DUROMETER IS SHORE A50
 TEMP RANGE IS -65 TO +260 F



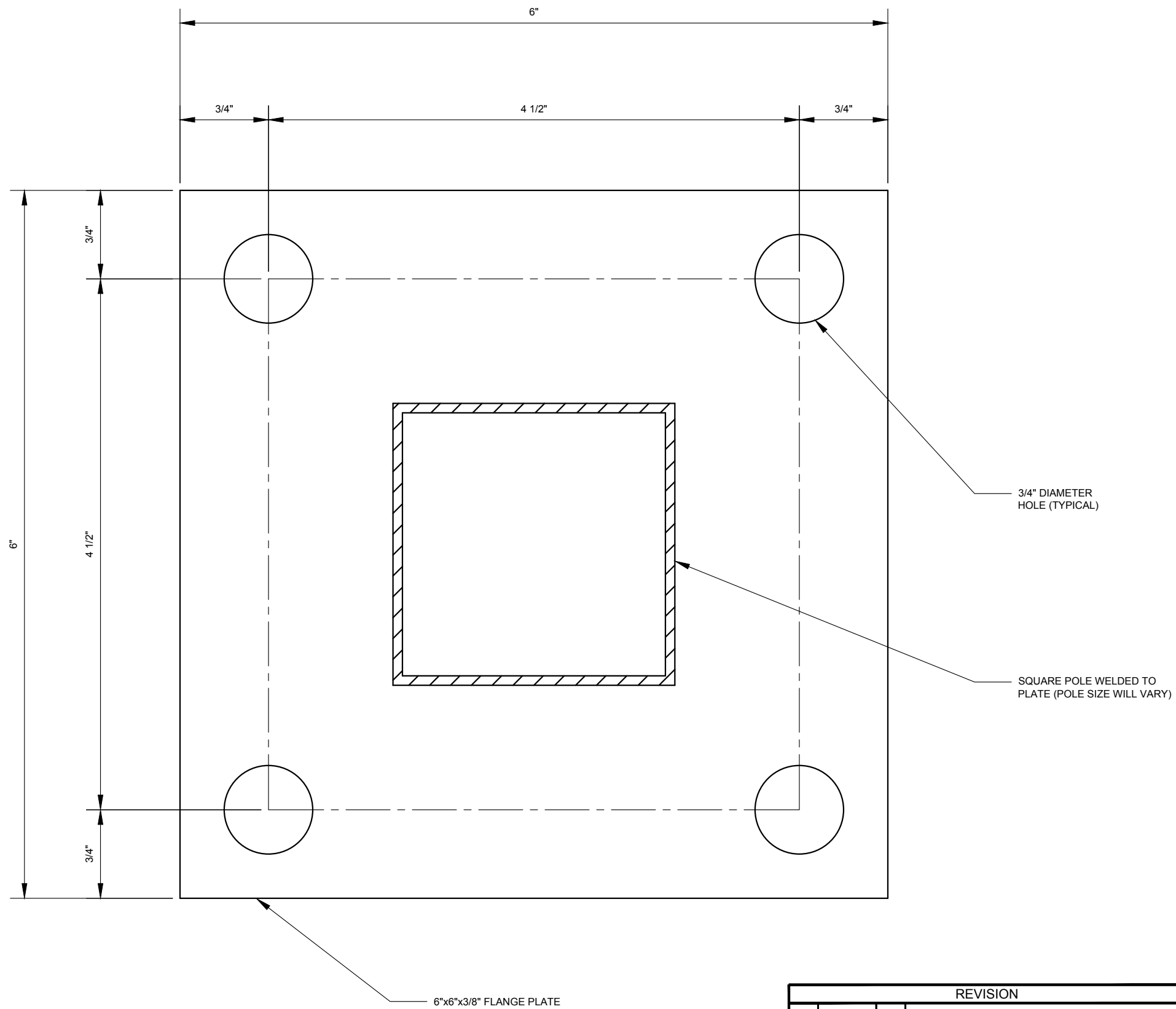
GASKET

1 7/8" ID
 2 1/2" OD
 .125" THICK



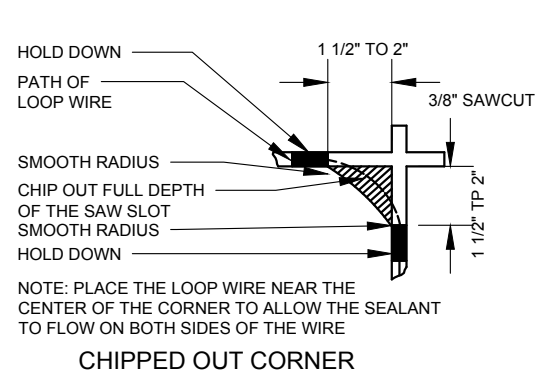
REVISION			
NO	DATE	BY	DESCRIPTION
1	05/2012	GPI	REPLICATED IN CADD
0	08/2003	JH	CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
GASKET AND BOLT GASKET DETAIL		
SCALE:	OLD DRAWING NO.	DRAWING NO.
1'-0" = 1'-0"	LB-13719S	MISC-011

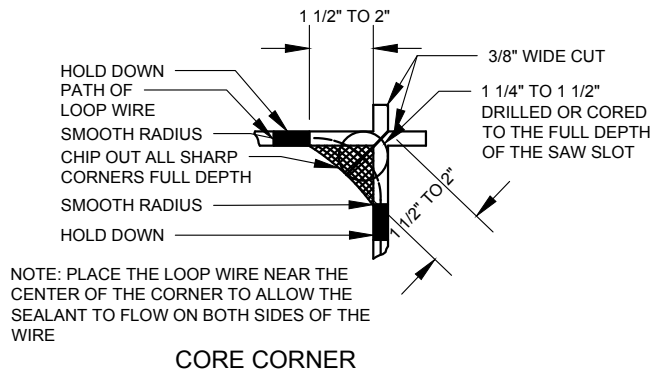


REVISION			
NO	DATE	BY	DESCRIPTION
1	05/2012	GPI	REPLICATED IN CADD
0	05/2005	JH	CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
6" SQ. FLANGE PLATE		
SCALE:	OLD DRAWING NO.	DRAWING NO.
1'-0" = 1'-0"	LB-504S	MISC-012

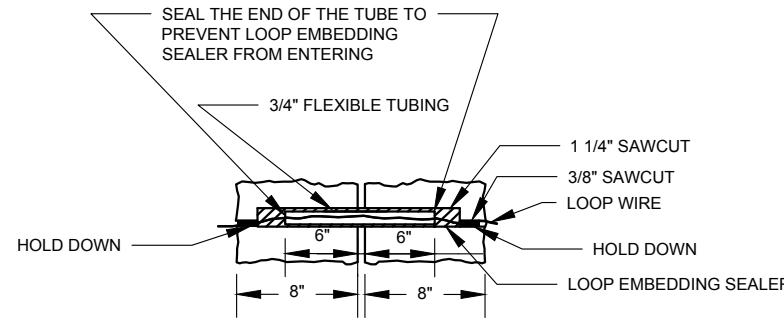


CHIPPED OUT CORNER

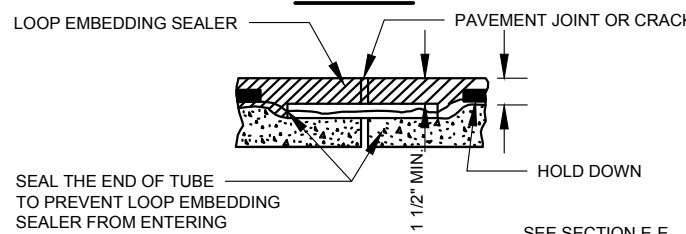


CORE CORNER

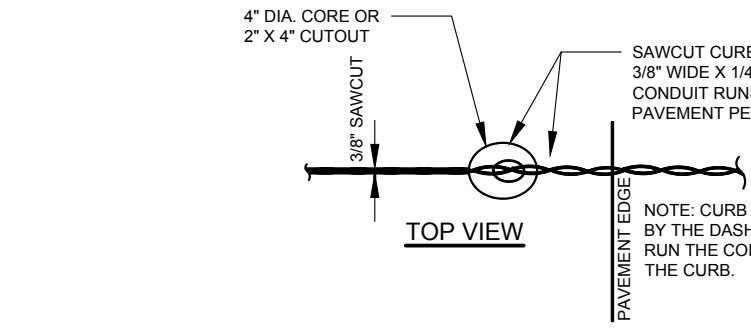
DETAIL "B" - CORNER DETAILS



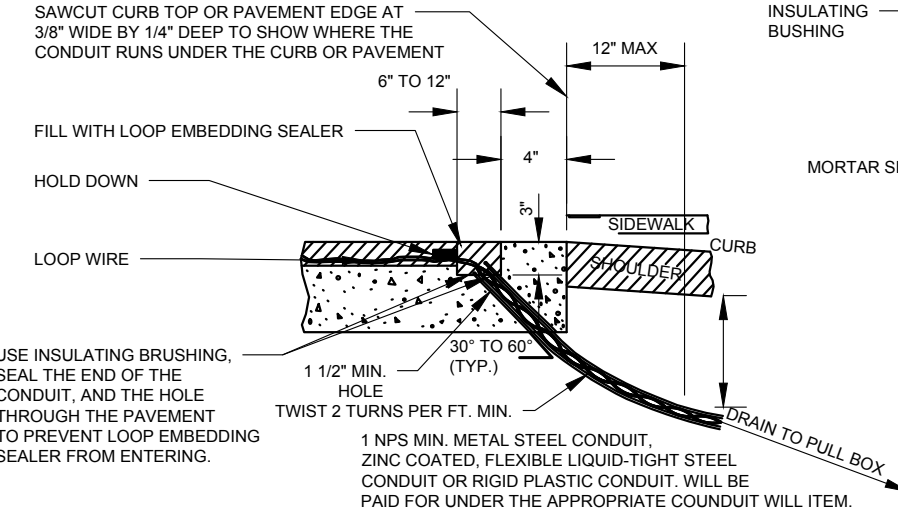
TOP VIEW



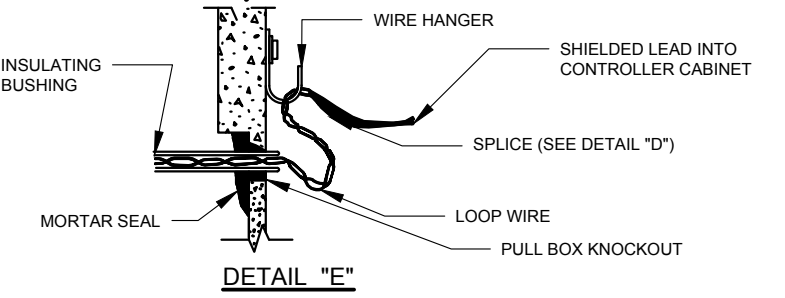
DETAIL "A" SIDE VIEW - CROSSING PAVEMENT JOINTS OR CRACKS



TOP VIEW

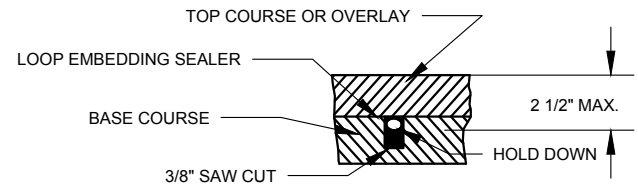


DETAIL "C" SIDE VIEW - LOOP LEAD IN AT PAVEMENT EDGE

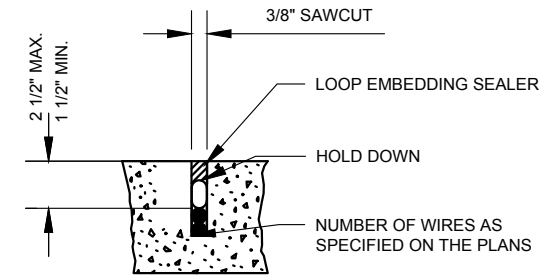


DETAIL "E"

NOTE: IF TOP COURSE IS MORE THAN 1 3/4" IN DEPTH THE SAWCUT SHALL BE MADE AFTER THE TOP COURSE IS PLACED.

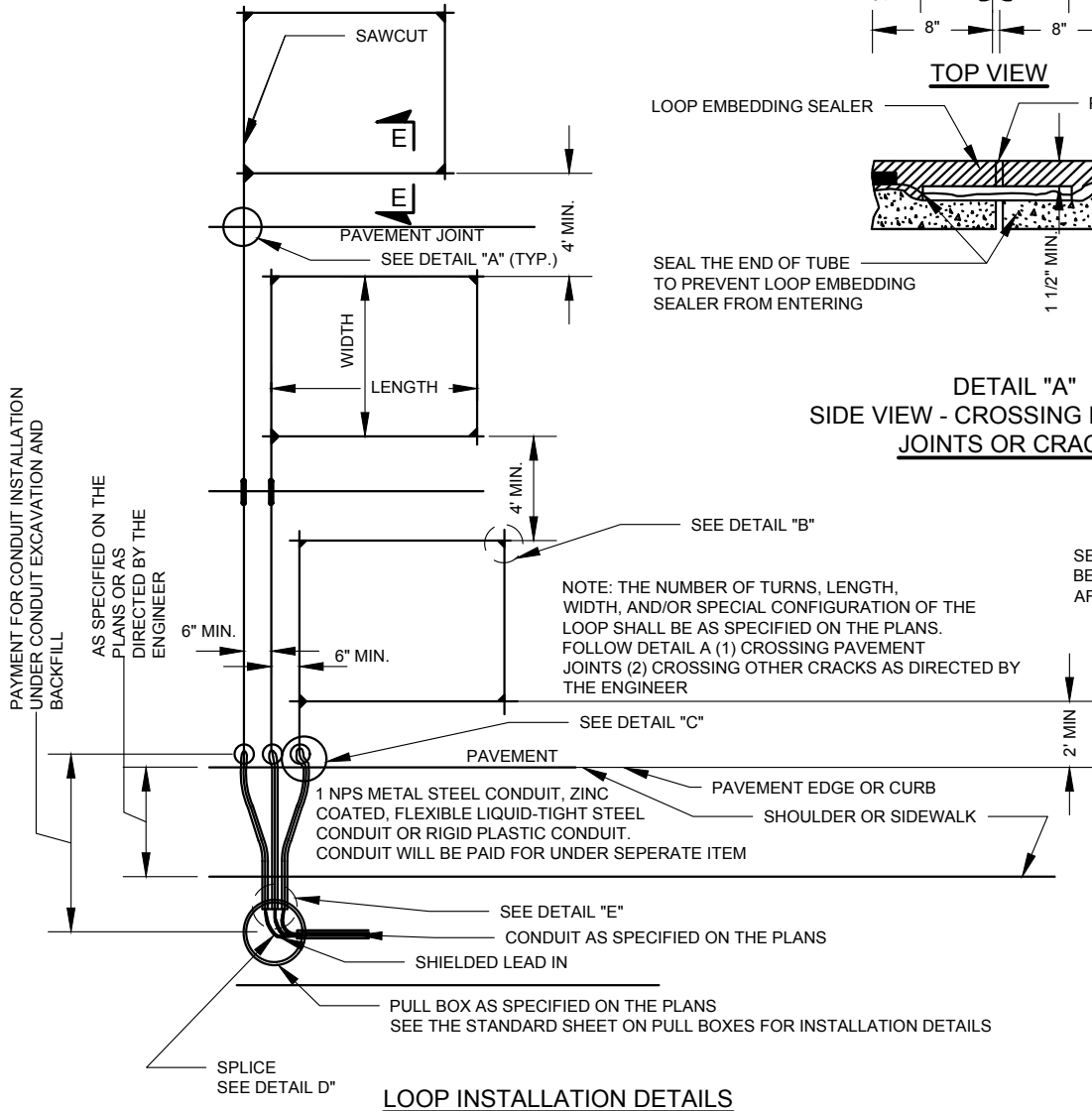


SAWCUT CROSS SECTION IN ASPHALT WHERE AN OVERLAY IS BEING PLACED

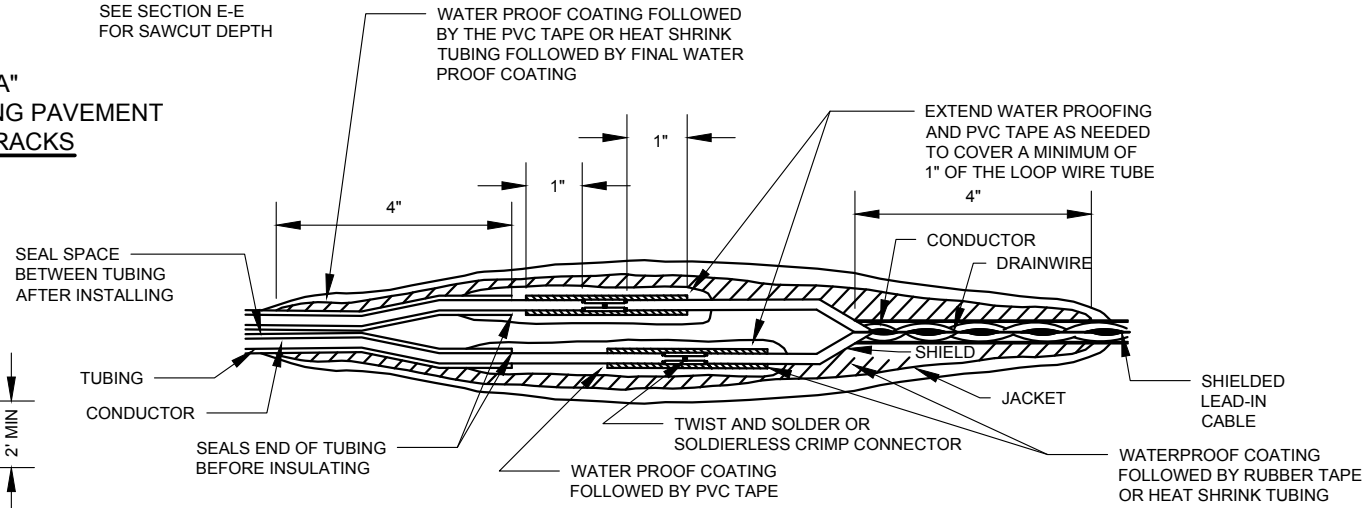


NOTE: USE SHORT (1") PIECE OF FLEXIBLE NEOPRENE RUBBER OR PLASTIC TUBING OR ROUND FOAM SEALER STRIPS AT 2'-0" CTRS. TO HOLD LOOP WIRES IN PLACE UNTIL SEALER SETS. DO NOT USE SHARP OBJECTS TO HOLD WIRES DOWN.

SAWCUT CROSS SECTION IN CONCRETE OR ASPHALT SECTION E-E



LOOP INSTALLATION DETAILS

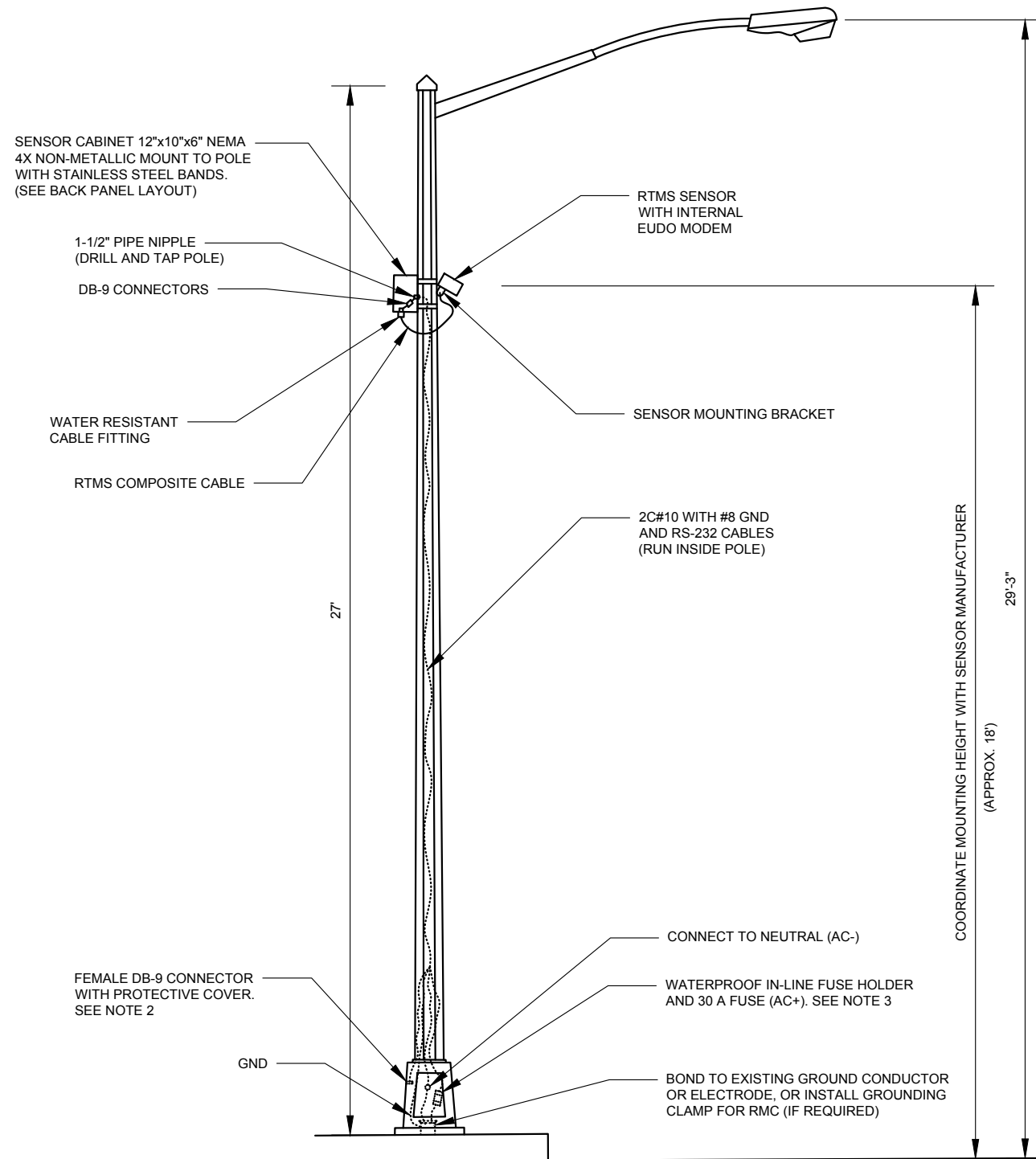


DETAIL "D" (SPlice DETAIL) NOTE: SEE STANDARD SPECIFICATIONS FOR FURTHER DETAILS

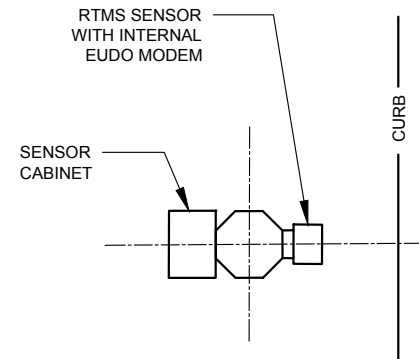
REVISION			
NO	DATE	BY	DESCRIPTION
1	05/2012	GPI	REPLICATED IN CADD
0	11/2008	JT	CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
INDUCTANCE LOOP VEHICLE DETECTOR INSTALLATION DETAILS		
SCALE:	OLD DRAWING NO.	DRAWING NO.
1 1/2" = 1'-0"		MISC-013

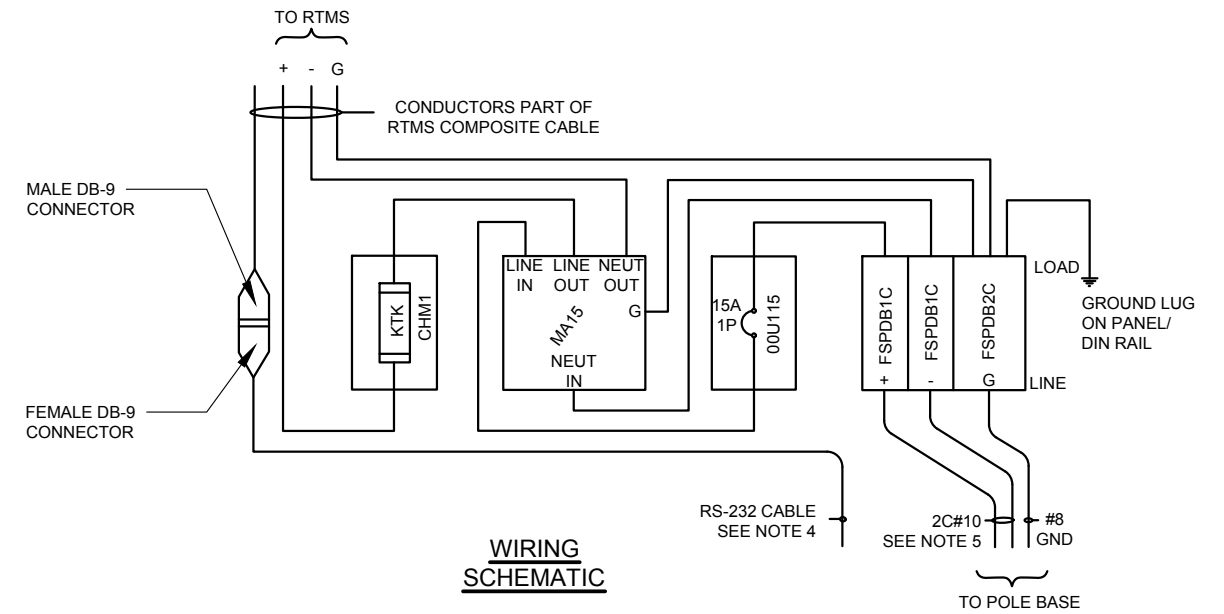




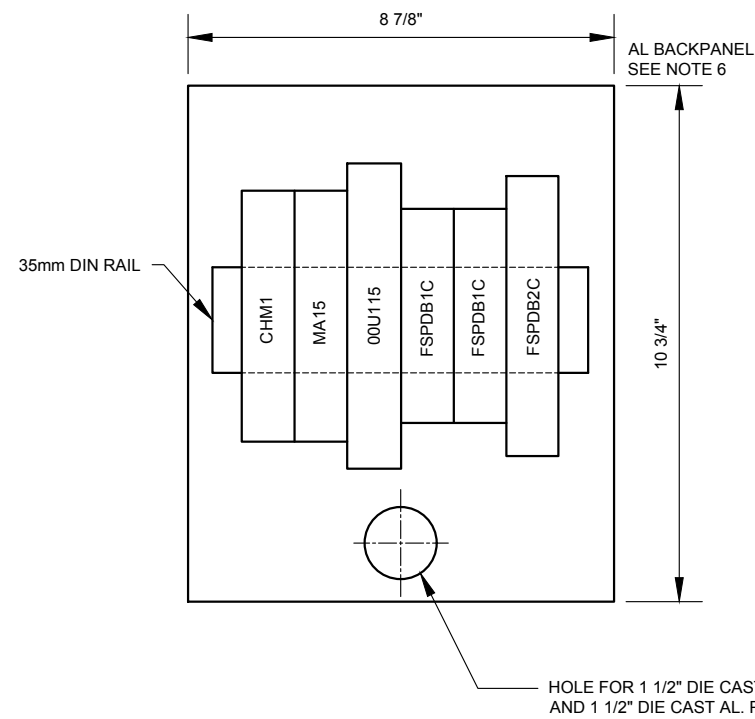
TYPICAL RTMS AND CABINET INSTALLATION SHOWN ON STREETLIGHT WITH OCTAGONAL FABRICATED STEEL POLE AND LUMINAIRE



TYPICAL RTMS SENSOR/SENSOR CABINET ALIGNMENT- MIDBLOCK LOCATION



WIRING SCHEMATIC



BACK PANEL LAYOUT

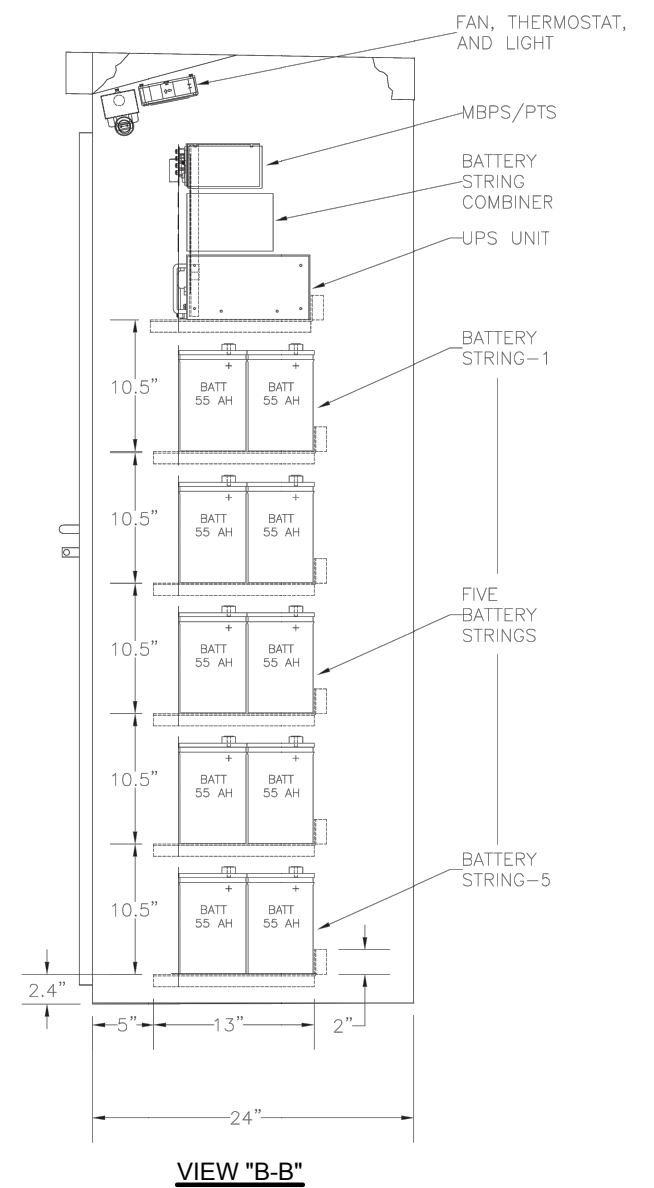
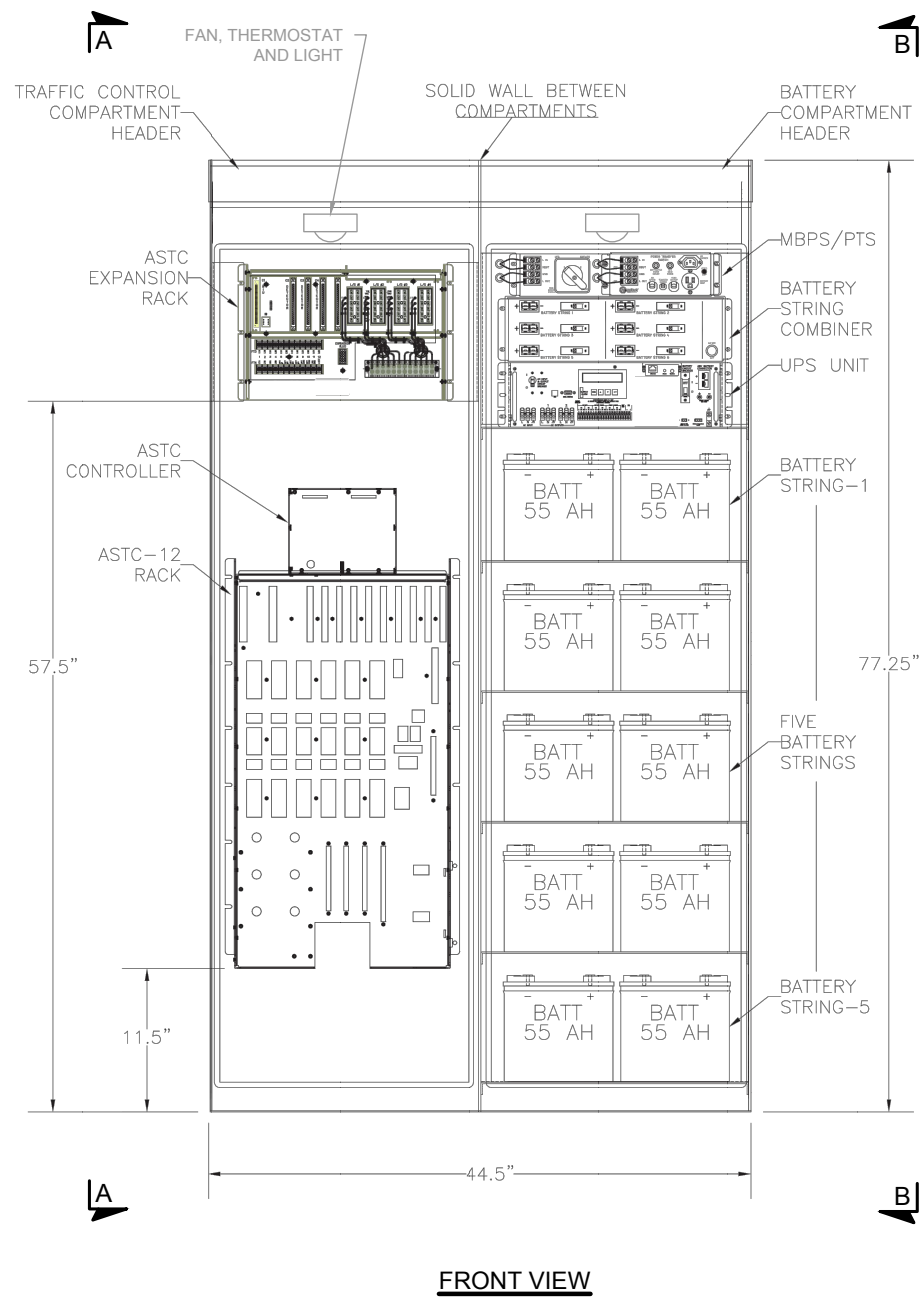
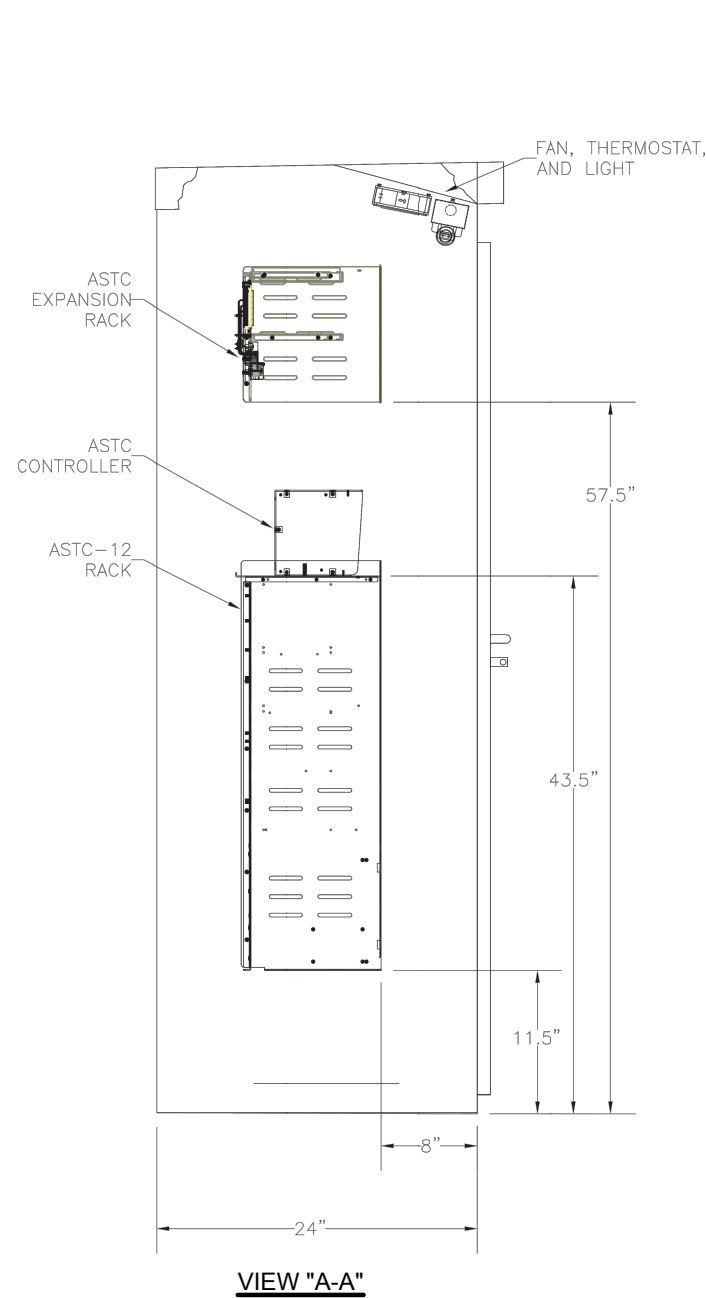
NOTES:

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" DP NORMAL SIZE NEMA 4x NON-METALLIC ENCLOSURE.



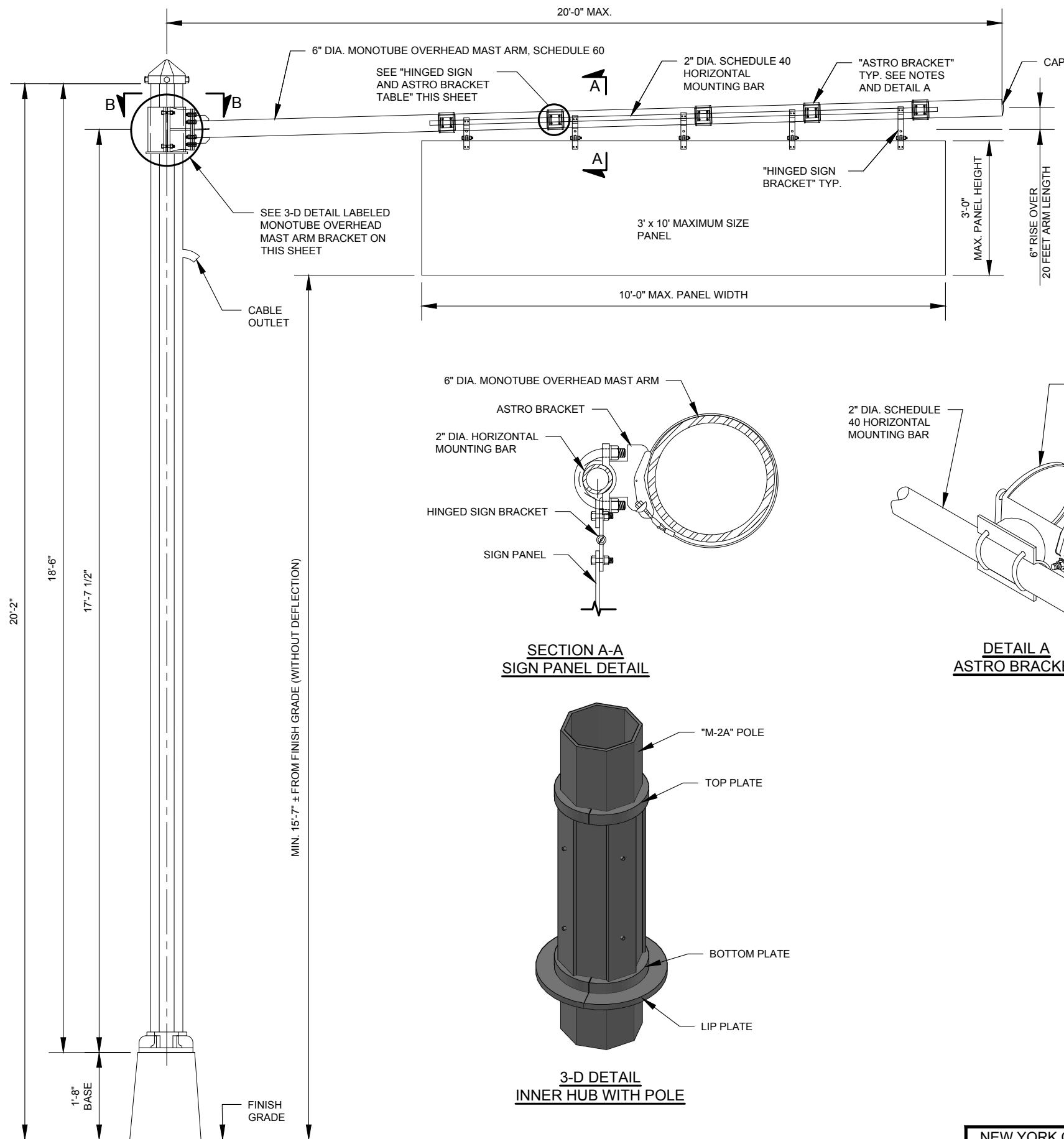
REVISION			
NO	DATE	BY	DESCRIPTION
1	05/2012	GPI	REPLICATED IN CADD
0	09/2008	XX	CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
REMOTE TRAFFIC MICROWAVE SENSOR (RTMS) INSTALLATION DETAILS		
SCALE:	OLD DRAWING NO.	DRAWING NO.
N.T.S.	D-1 D-2	MISC-014



REVISION			
NO	DATE	BY	DESCRIPTION
0	09/2008	GPI	CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
NEMA "R" GROUND MOUNT CONTROLLER CABINET EQUIPMENT ARRANGEMENT		
SCALE:	OLD DRAWING NO.	DRAWING NO.
N.T.S.		MISC-015

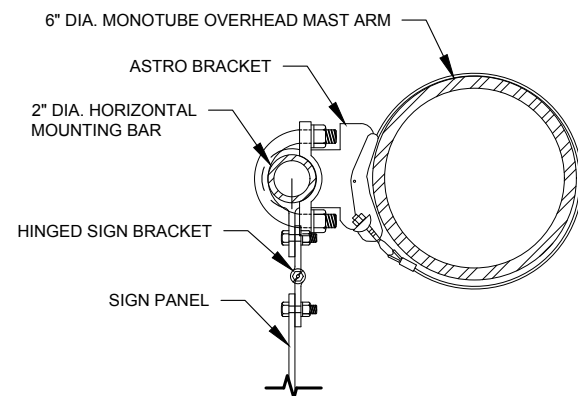


HINGED SIGN AND ASTRO BRACKET TABLE (QTY. REQUIRED)				
PANEL HEIGHT	3'-0" MAX. HEIGHT (ALL SIGN PANELS)			
PANEL WIDTH	UP TO 48"	48" TO 72"	72" TO 96"	96" TO 120"
ASTRO BRACKETS	2	3	4	5
HINGED SIGN BRACKETS	2	3	4	5

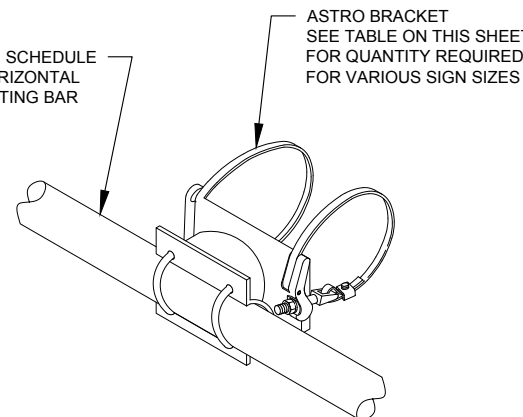
- NOTES:
1. MAXIMUM SIGN PANEL HEIGHT IS 36".
 2. ASTRO BRACKETS AND HINGED SIGN BRACKETS TO SUPPORT A MINIMAL LOAD OF 400 POUNDS EACH, TO INCLUDE A SAFETY FACTOR OF 2.

NOTES:

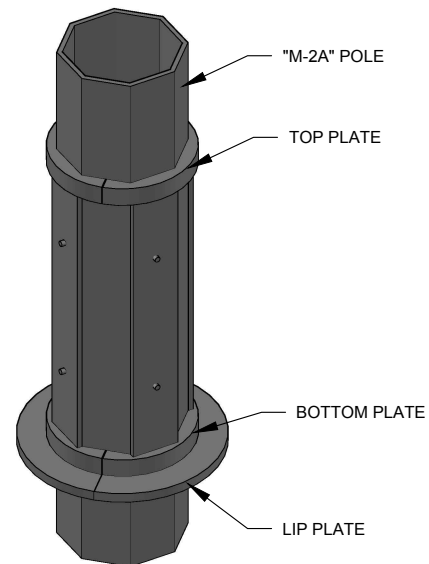
1. HARDWARE AS PER MANUFACTURER SPECIFIED OR APPROVED OTHER.
2. STRUCTURES SHALL BE DESIGNED IN ACCORDANCE WITH:
 - 2.1. THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 17TH EDITION, 2002, INCLUDING INTERIMS.
 - 2.2. AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS, 5TH EDITION 2009.
3. DESIGN WIND SPEED IS 90 MPH.
4. MAST ARM AND ALL CONNECTIONS SHALL SUPPORT LOADS PROVIDED IN TABLE INDICATED THIS DRAWING.
5. MAST ARM LOCATION SHALL BE DETERMINED IN THE FIELD TO PROVIDE A ROADWAY CLEARANCE OF 15'-6" MIN. TO ALL TRAFFIC SIGNS.
6. ASTRO BRACKETS AND HINGED SIGN CONNECTORS SHALL BE DESIGNED FOR LOADS INDICATED ON THIS DRAWING IN TABLE THIS DRAWING. CALCULATIONS SHALL BE PROVIDED SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW YORK.
7. MAST ARM IS DESIGNED FOR A TOTAL SIGNAGE AREA OF 30 S.F. SIGNS COULD BE INSTALLED AS ONE OR MULTIPLE BUT NOT TO EXCEED MAXIMUM AREA OF 30 S.F.
8. ALL BOLTS SHALL BE ASTM A325
9. MAST ARM AND HORIZONTAL MOUNTING BAR SHALL CONFORM TO ASTM A53, TYPE E, GRADE B. FY = 35 KSI.
10. STRUCTURAL STEEL SHALL CONFORM TO ASTM A709, GRADE 50.
11. ALL WELDING SHALL BE IN ACCORDANCE WITH NYS STEEL CONSTRUCTION MANUAL AND AASHTO D1.5, BRIDGE WELDING CODE.
12. ALL POLES, MAST ARMS AND CONNECTIONS SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM 123.
13. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR APPROVAL PRIOR TO FABRICATION.
14. LENGTH OF MOUNTING BAR SHALL BE 10'-0" WITH ASTRO AND HINGED BRACKETS SPACED EQUALLY ALONG MOUNTING BAR.
15. FOR SECTION "B-B", SEE DWG. MISC-016_2.
16. SEE NYCDOT STANDARD TRAFFIC SIGNAL DRAWINGS SHEET MA-001 FOR DETAILS OF "M-2A" POLE.



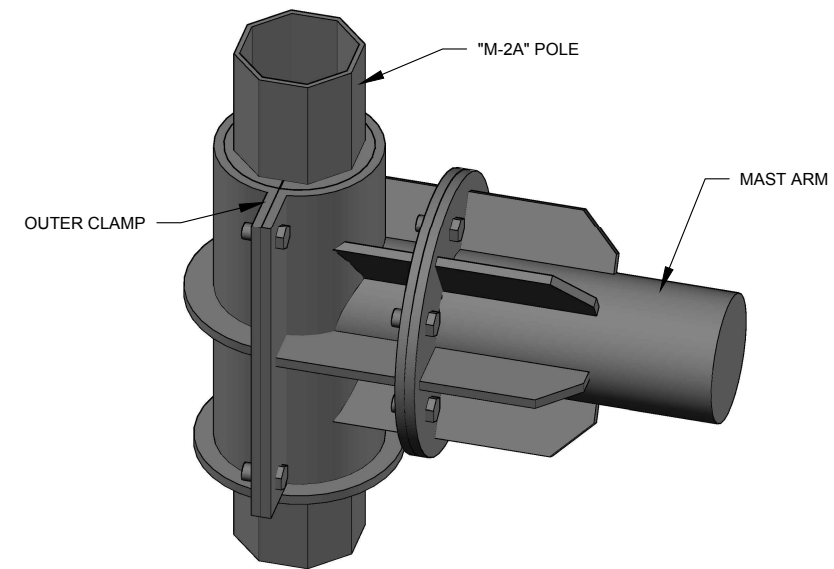
**SECTION A-A
SIGN PANEL DETAIL**



**DETAIL A
ASTRO BRACKET**



**3-D DETAIL
INNER HUB WITH POLE**



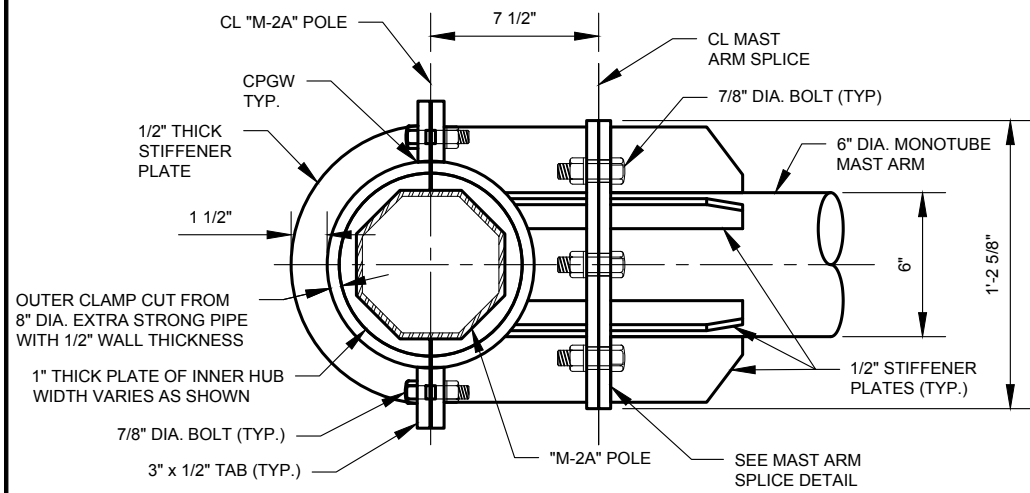
**3-D DETAIL
MONOTUBE OVERHEAD MAST ARM BRACKET WITH POLE**

REVISION			
NO	DATE	BY	DESCRIPTION
0	09/2008	GPI	CREATED

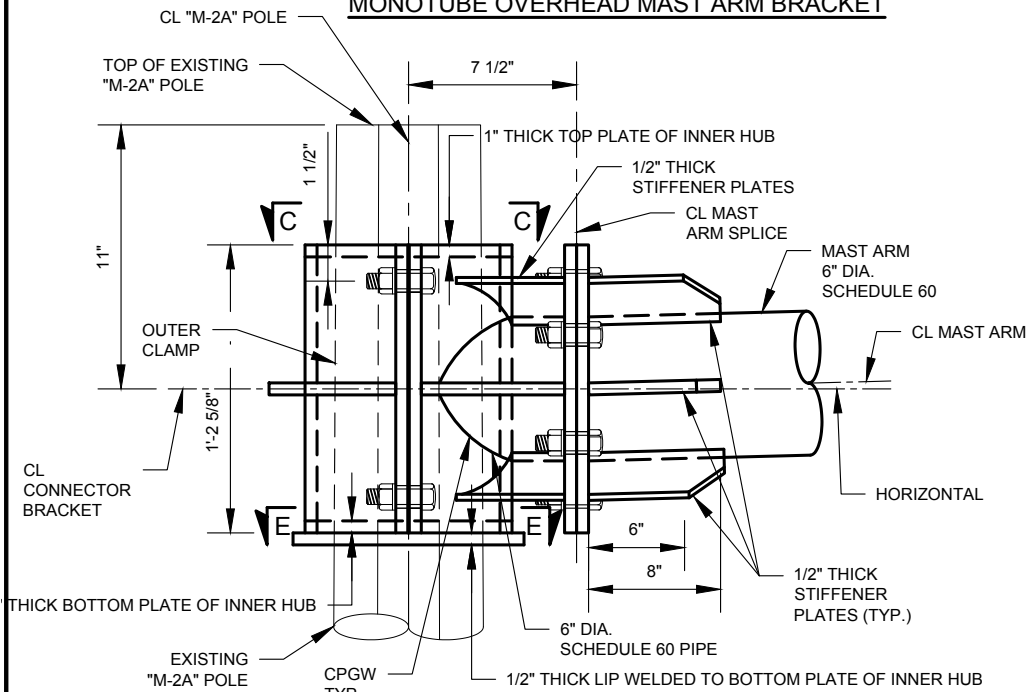
DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
MONOTUBE OVERHEAD SIGN MAST ARM		
SCALE:	OLD DRAWING NO.	DRAWING NO.
N.T.S.		MISC-016_1



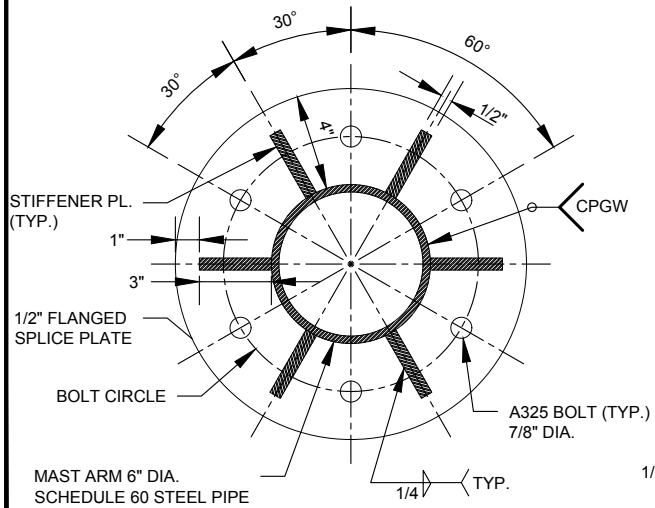
NYCDOT TRAFFIC SIGNAL STANDARD DRAWINGS, Jun 2020



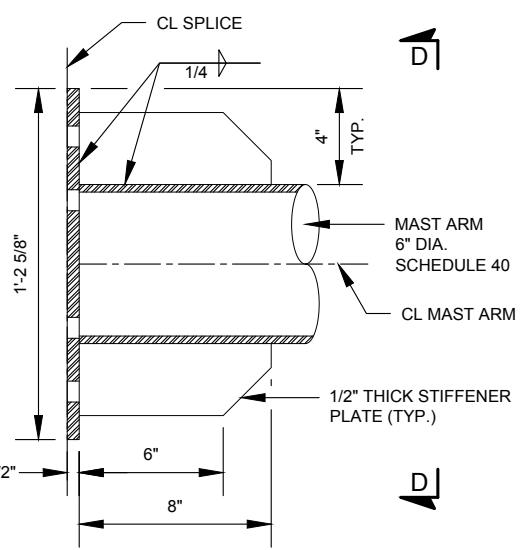
SECTION "B-B"
MONOTUBE OVERHEAD MAST ARM BRACKET



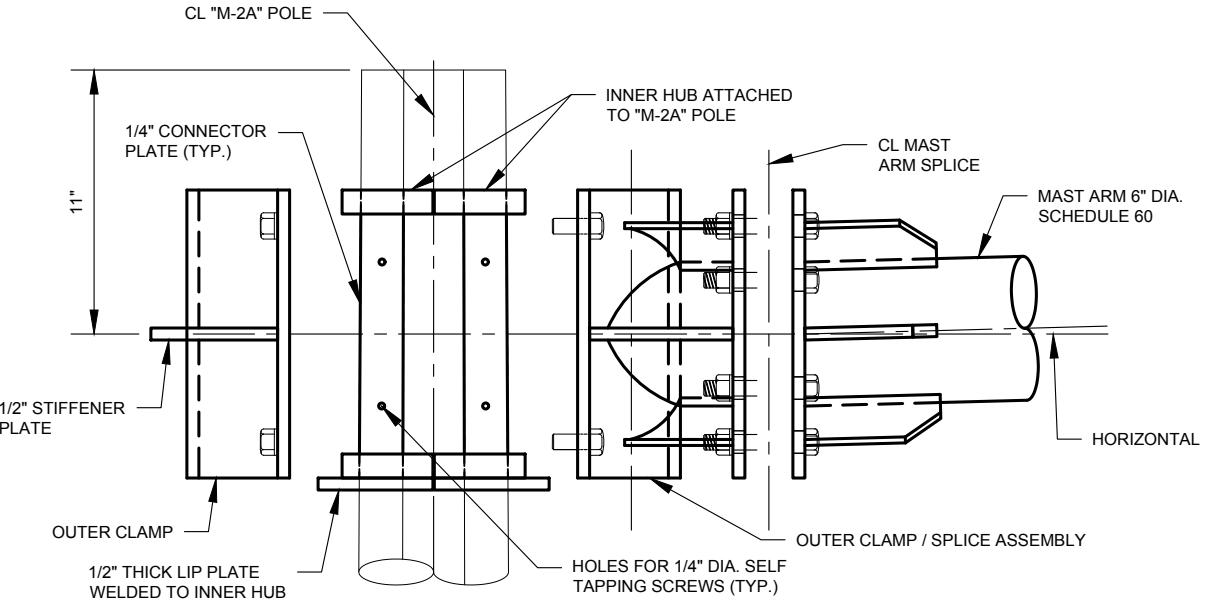
ELEVATION VIEW
MONOTUBE OVERHEAD MAST ARM BRACKET



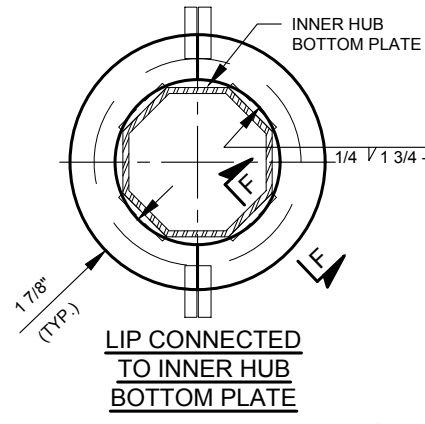
SECTION "D-D"
MAST ARM SPLICE
(ASTM A709)



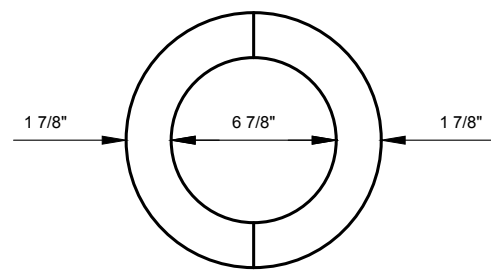
MAST ARM SPLICE DETAIL
(ASTM A709)



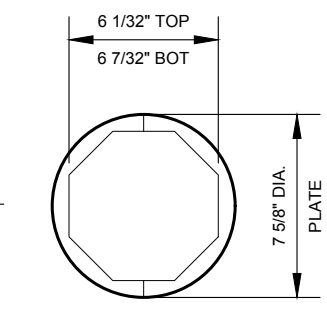
EXPLODED VIEW OF ASSEMBLY



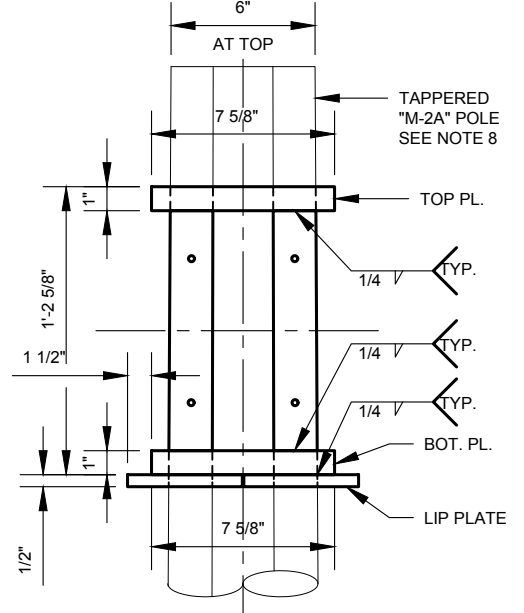
LIP CONNECTED TO INNER HUB BOTTOM PLATE



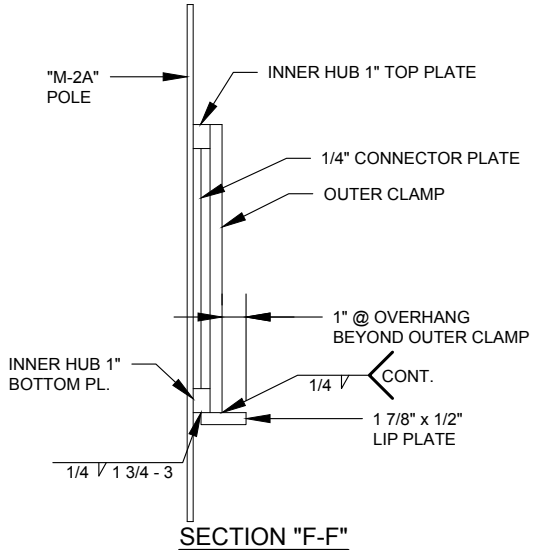
LIP PLATE DETAIL
(SEE NOTE 8)



INNER HUB TOP AND BOTTOM PLATE DETAIL
(SEE NOTE 8)

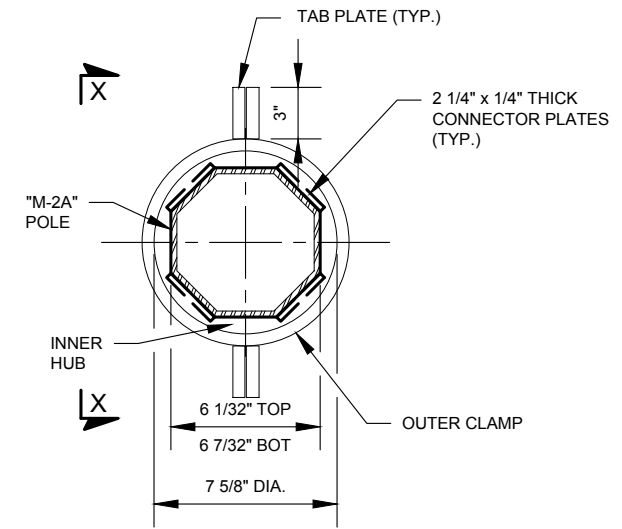


INNER HUB DETAIL
SECTION "X-X" (HALF CONNECTOR)
(OUTER CLAMP NOT SHOWN FOR CLARITY)



SECTION "F-F"

- ASSEMBLY PROCEDURE:**
1. INSTALL INNER HUB TO EXISTING "M-2A" POLE. CL OF HUB SHALL BE AT LOCATION INDICATED ON PLANS.
 2. FASTEN INNER HUB TO "M-2A" POLE USING SELF TAPPING SCREWS THROUGH HOLES IN PLATES PROVIDED.
 3. INSTALL OUTER CLAMP AROUND INNER HUB. FASTEN BY TIGHTENING FOUR BOLTS.
 4. INSTALL MAST ARM AT SPLICE CONNECTION.
 5. INSTALL SIGN MOUNTING BAR. LENGTH DETERMINED BY NYCDOT SIGN GROUP.
 6. INSTALL SIGNS USING APPROPRIATE NUMBER OF FASTENERS AS SPECIFIED IN TABLE.
 7. MAST ARM BRACKET SHALL BE FABRICATED TO ACCOMODATE A 6" RISE OVER 20 FEET OF MAST ARM LENGTH.
 8. ALL DIMENSIONS ARE BASED ON THE ARM BRACKET INSTALLED AT THE LOCATION ON THE NYCDOT STANDARD "M-2A" POLE AS SHOWN ON DWG. MISC-016_1. CONTRACTOR SHALL VERIFY THE DIMENSIONS PRIOR TO FABRICATION.

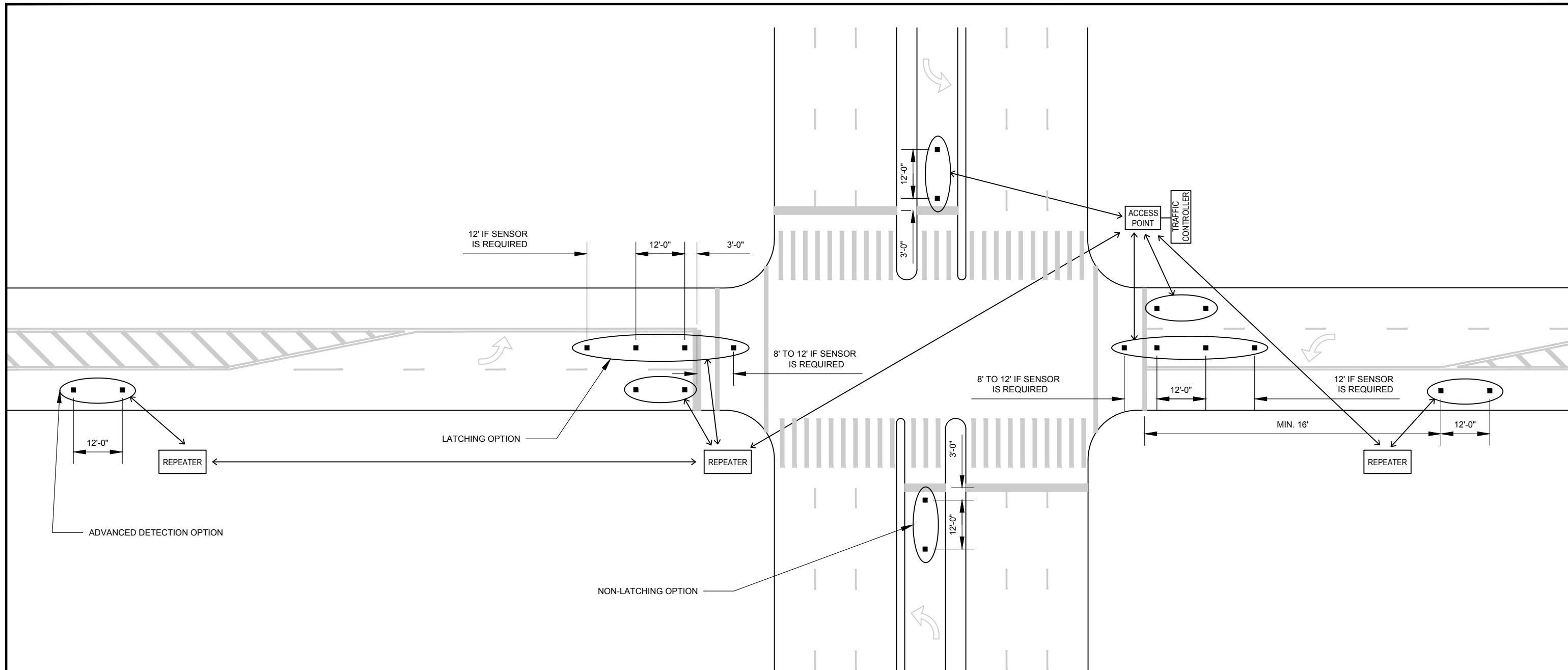


SECTION "C-C" (TOP)
SECTION "E-E" (BOT)
INNER HUB DETAIL

REVISION			
0	09/2008	GPI	CREATED
NO	DATE	BY	DESCRIPTION

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
MONOTUBE OVERHEAD SIGN MAST ARM		
SCALE:	OLD DRAWING NO.	DRAWING NO.
1 1/2" = 1'-0"		MISC-016_2





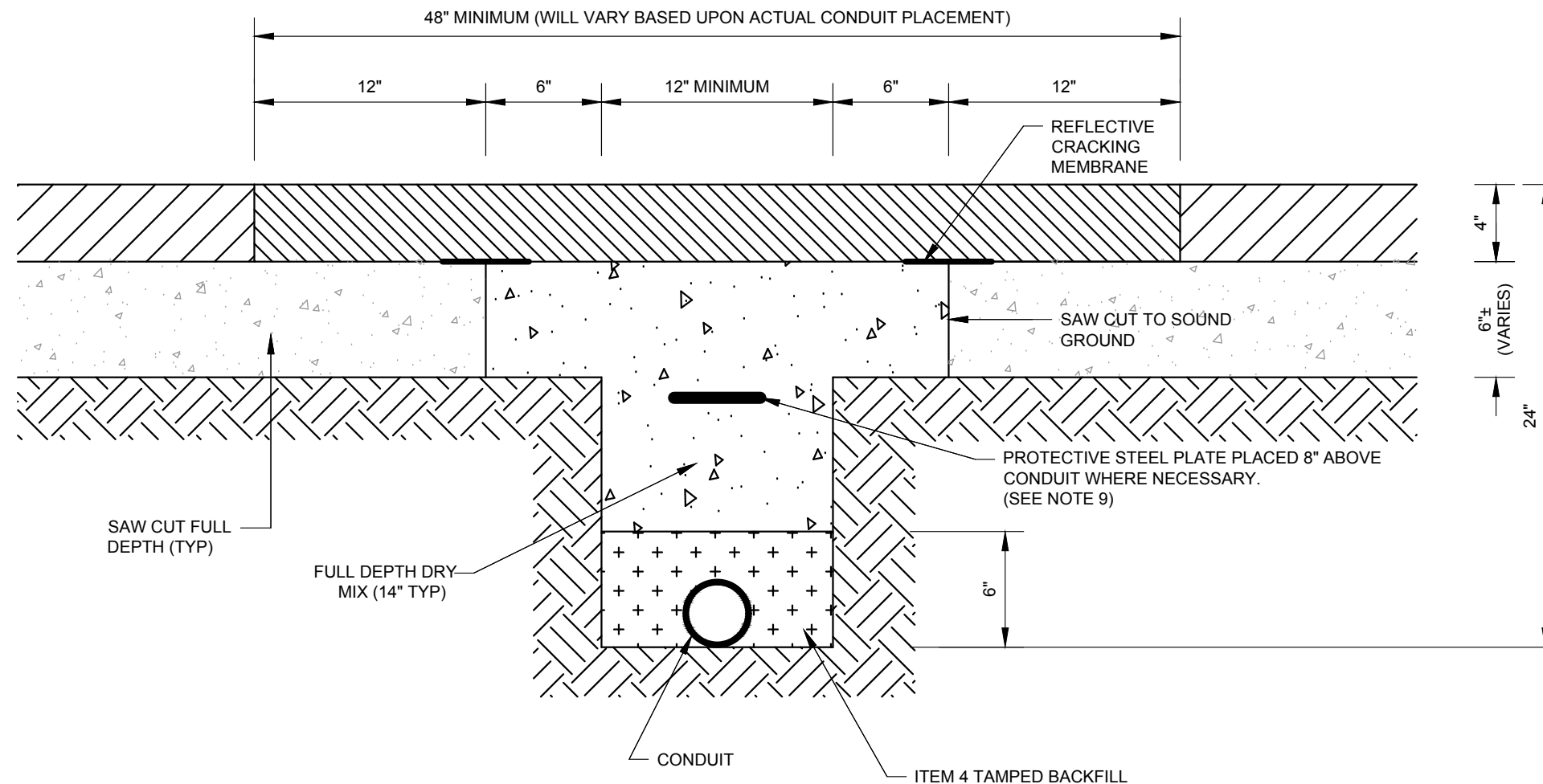
NOTES:

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 1,000 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.



REVISION			
NO	DATE	BY	DESCRIPTION
1	05/2013	GPI	REPLICATED IN CADD
0	05/2013	DR	CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
WIRELESS SENSOR EQUIPMENT LAYOUT		
SCALE:	OLD DRAWING NO.	DRAWING NO.
N.T.S.		MISC-017



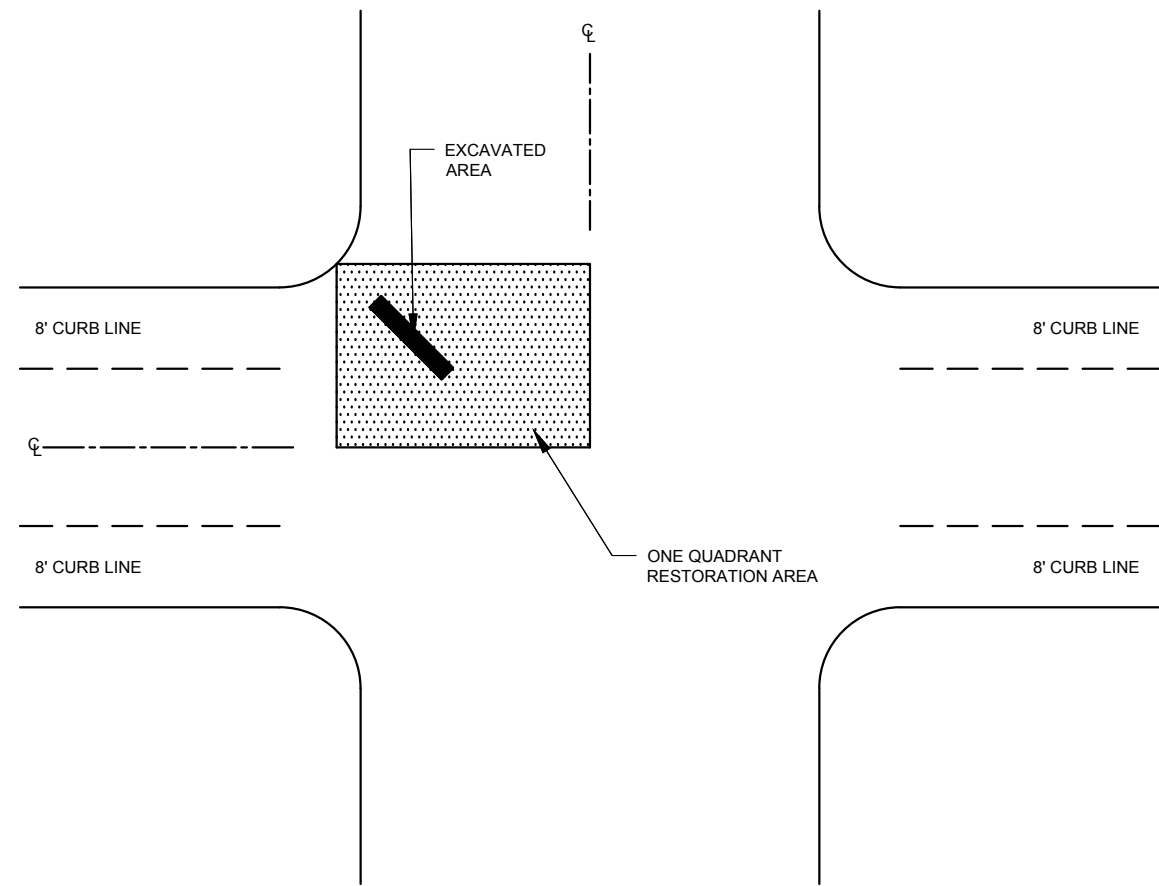
NOTES:

1. WIDTH OF TRENCH MUST BE NO LESS THAN 12" WIDE.
2. FULL DEPTH DRY MIX CONCRETE TO BE 3200 PSI TEST CONCRETE TO BE INSTALLED TO A HEIGHT OF MINIMUM OF 4" BELOW THE TOP OF EXISTING ASPHALT BASE.
3. EPOXY EXISTING CONCRETE BASE BEFORE ADDING DRY MIX CONCRETE. BRUSH AND SWEEP CLEAN BEFORE APPLYING EPOXY.
4. CONCRETE TO BE MIXED GRADUALLY AND THOROUGHLY ON SITE WITH A PORTABLE MIXER. ONE 80 LB BAG PER 3 LITERS OF WATER, OR SIX 80 LB BAGS PER 5 GAL OF WATER.
5. COMPACTED CLEAN GRANULAR ITEM 4 TO MAXIMUM OF 6" FROM BOTTOM OF TRENCH AND SHALL BE DAMPENED PRIOR TO ADDING DRY MIX.
6. ANY BENDS MUST BE SQUARED OFF ON THE OUTSIDE OF THE BEND AND CUT STRAIGHT ON THE INSIDE TO CONCRETE A SQUARE OR RECTANGULAR RESTORATION. NO IRREGULAR SHAPE CUTS.
7. ALL ROADWAY CUTS SHALL BE SAW CUTS.
8. DRY MIX SHALL BE DEPOSITED IN 2 HORIZONTAL LIFTS. EACH LIFT SHALL BE ENTIRELY COMPACTED. REFLECTIVE CRACKING MEMBRANE TO BE PLACED OVER FULL SAW CUT FOR BASE (6" WITH 3" OVERHANG).
9. PLATING SHALL BE NECESSARY WHERE THE TOP OF THE CONDUIT IS LESS THAN 18" BELOW GRADE. STEEL PLATE SHALL BE 8" WIDE NO LESS THAN 1/4" THICK AND BE 8" ABOVE THE HEIGHT OF THE CONDUIT.

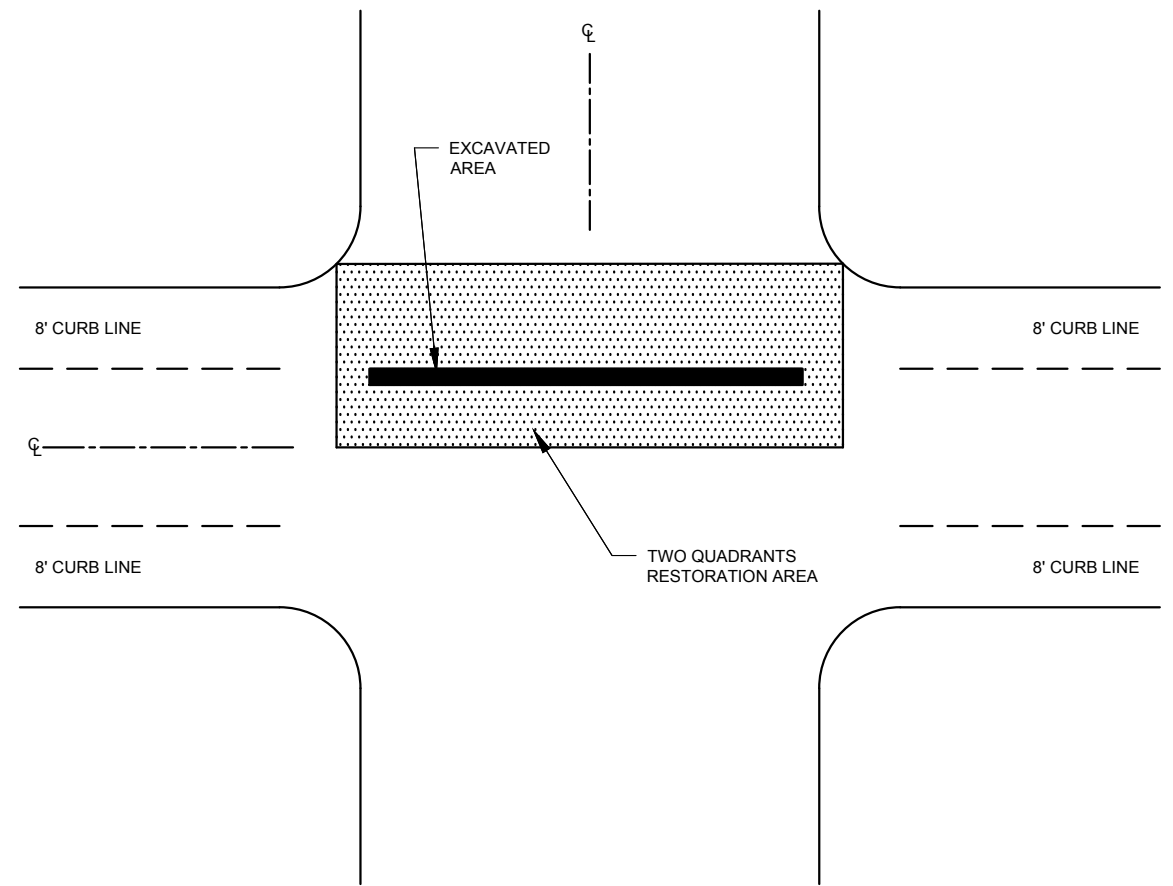


REVISION			
NO	DATE	BY	DESCRIPTION
2	7/2017	DR	AS PER NYCDOT HIGHWAY STANDARDS
1	07/2013	DR	REPLICATED IN CADD
0	03/1990	GL	LB-11322S CREATED
0	07/1991	GL	LB-11396S CREATED
0	03/1990	GL	LB-11323S CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
BACKFILLING		
SCALE:	OLD DRAWING NO.	DRAWING NO.
N.T.S.	LB-11323S LB-11396S, LS11322S	MISC-018



ONE QUADRANT



TWO QUADRANTS

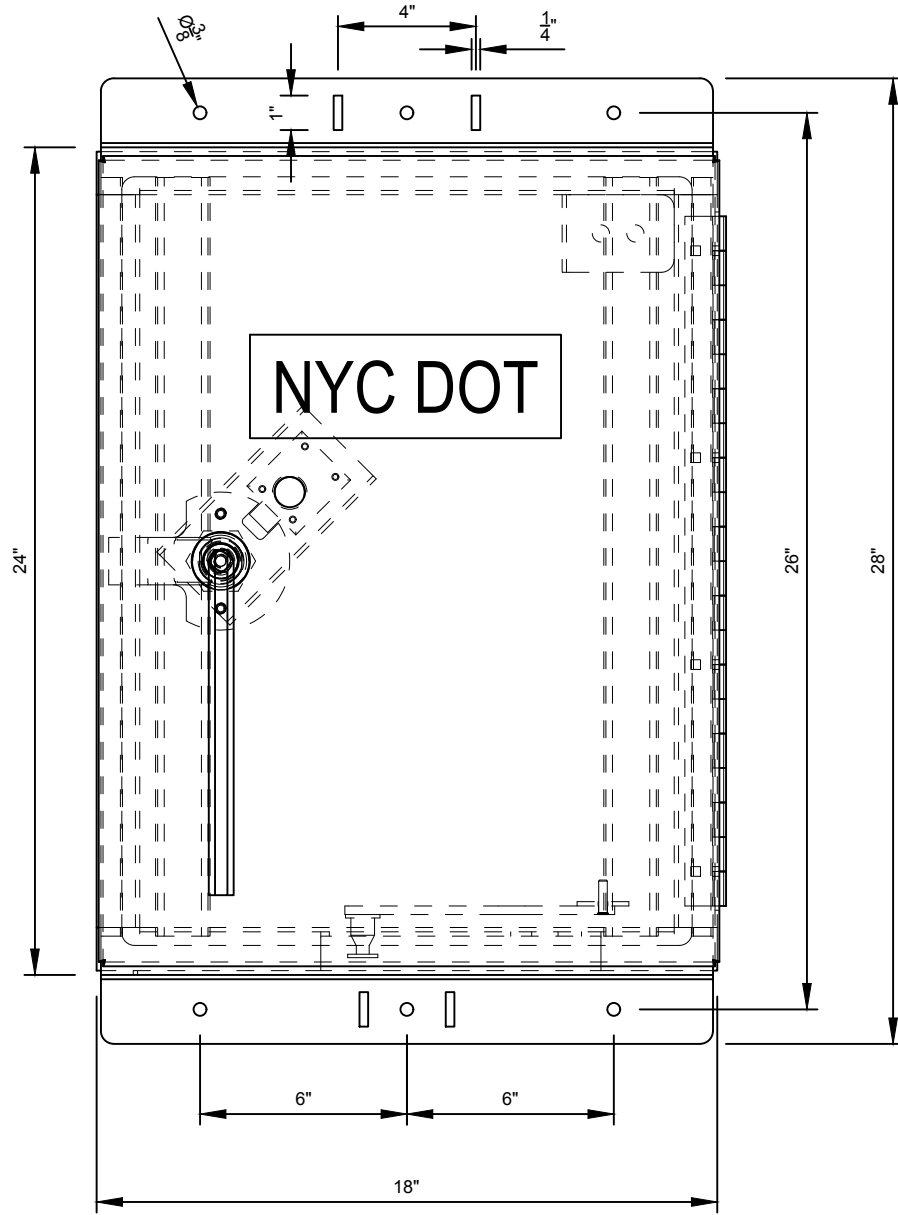
NOTES:

1. NORMAL LOCAL LAW 14 (LL-14) CUTBACKS ON THE BASE.
2. FULL CORNER QUADRANT RESTORATION FOR ALL QUADRANTS THAT WERE EXCAVATED



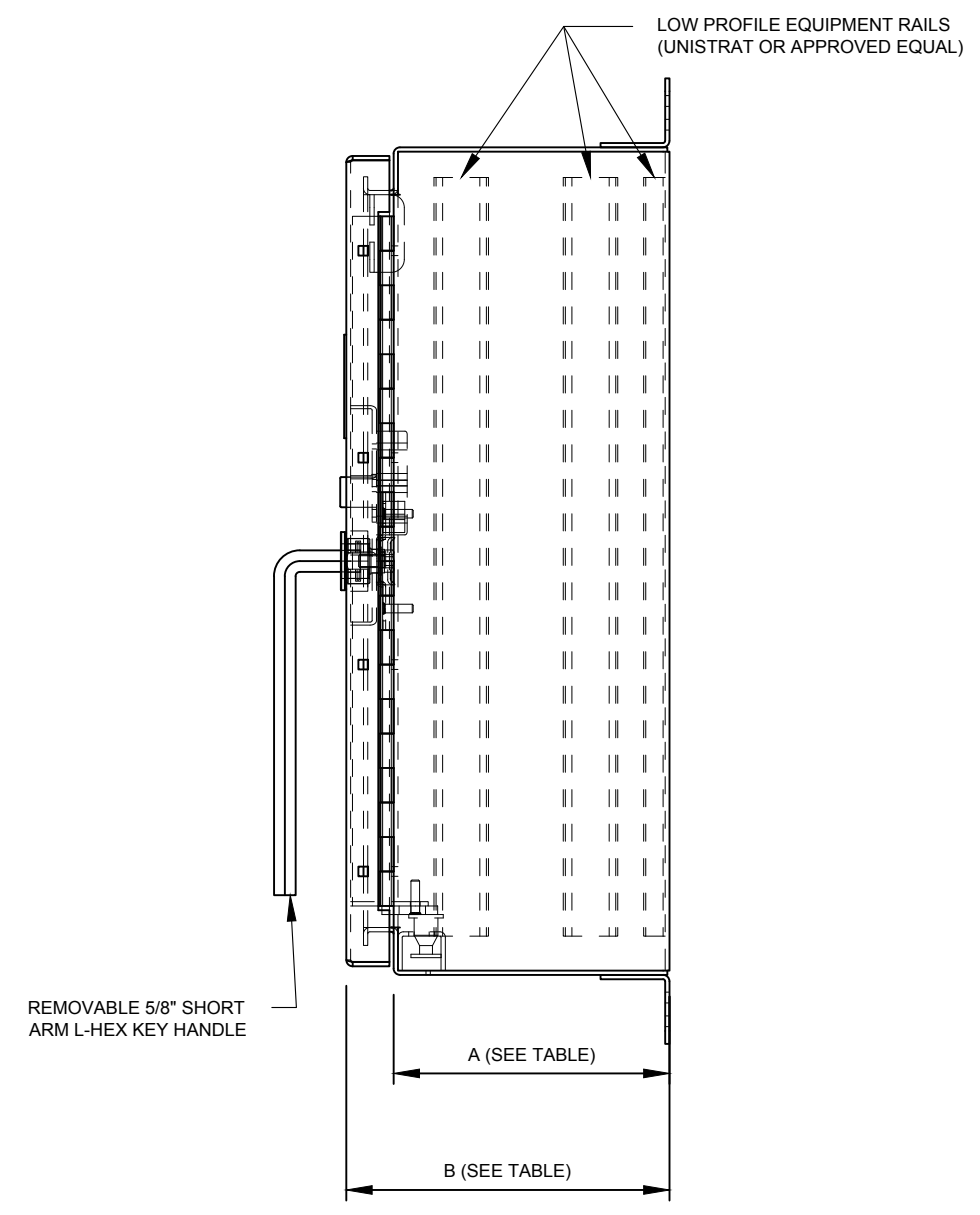
REVISION			
NO	DATE	BY	DESCRIPTION
0	07/2013	DR	CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
RESTORATION AREAS OUTSIDE PROLONGATED 8' CURB LANE		
SCALE:	OLD DRAWING NO.	DRAWING NO.
N.T.S.		MISC-019



NYC DOT

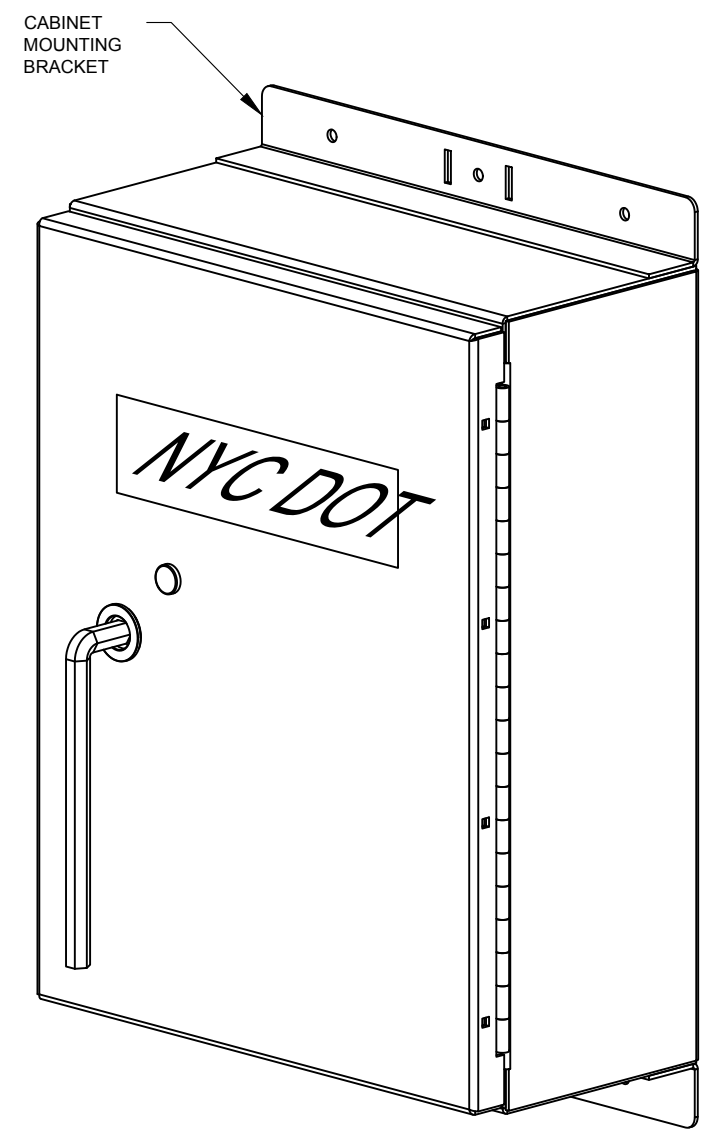
FRONT VIEW



LOW PROFILE EQUIPMENT RAILS
(UNISTRAT OR APPROVED EQUAL)

REMOVABLE 5/8" SHORT
ARM L-HEX KEY HANDLE

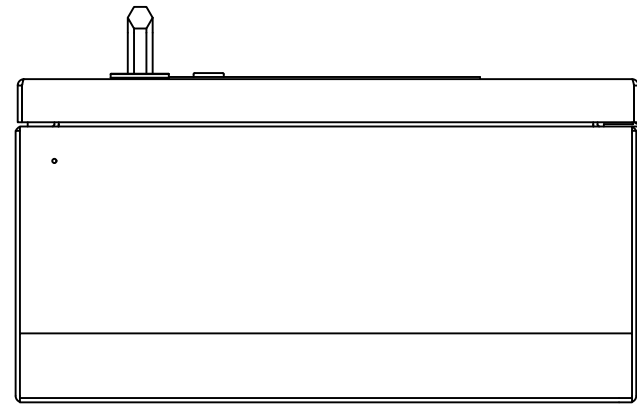
SIDE VIEW



CABINET MOUNTING
BRACKET

NYC DOT

ISOMETRIC VIEW



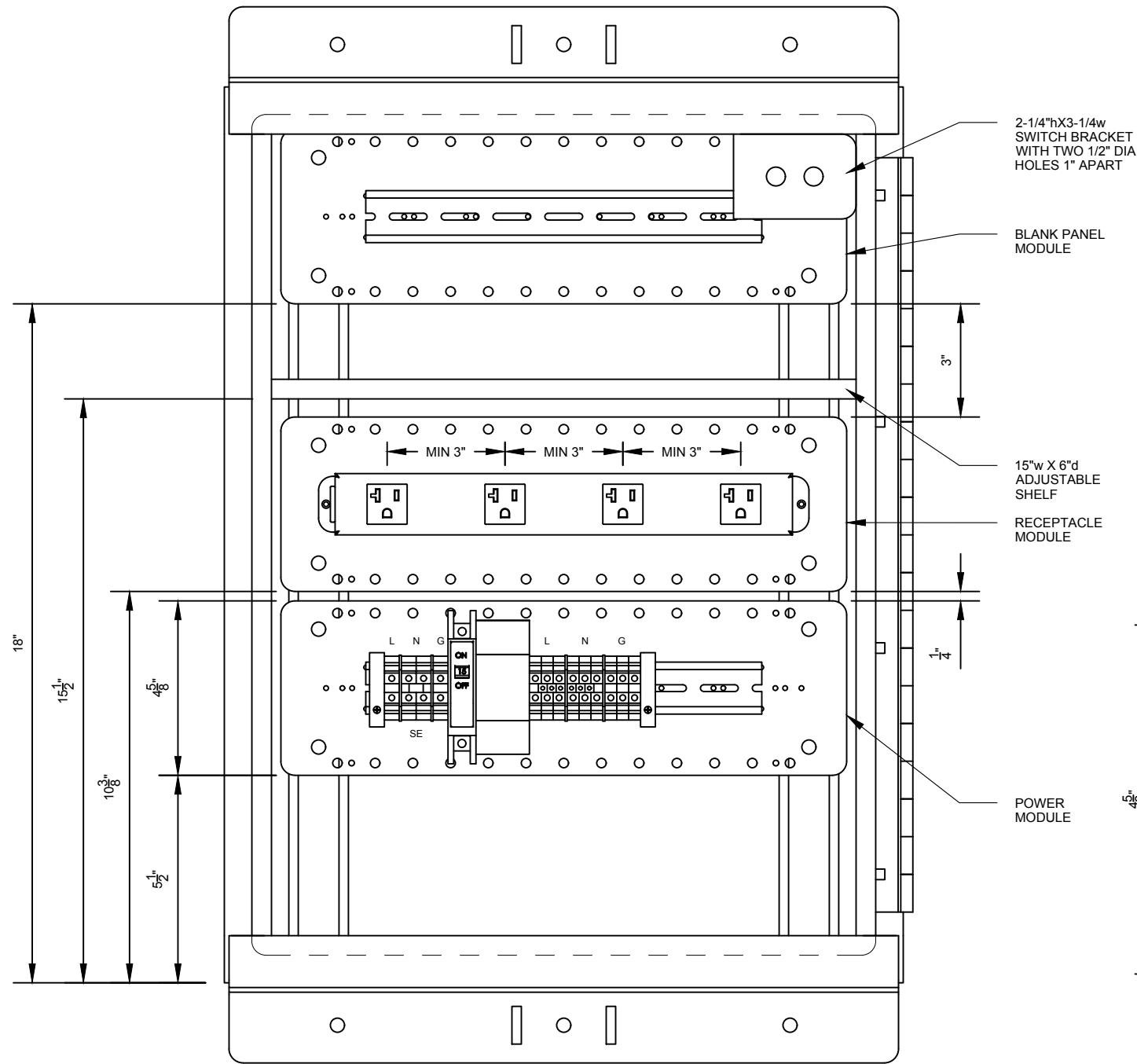
BOTTOM VIEW

ITS CABINET TYPE	CABINET DEPTH	
	A	B
STANDARD	8"	12"
DEEP	9-3/8"	13-3/8"

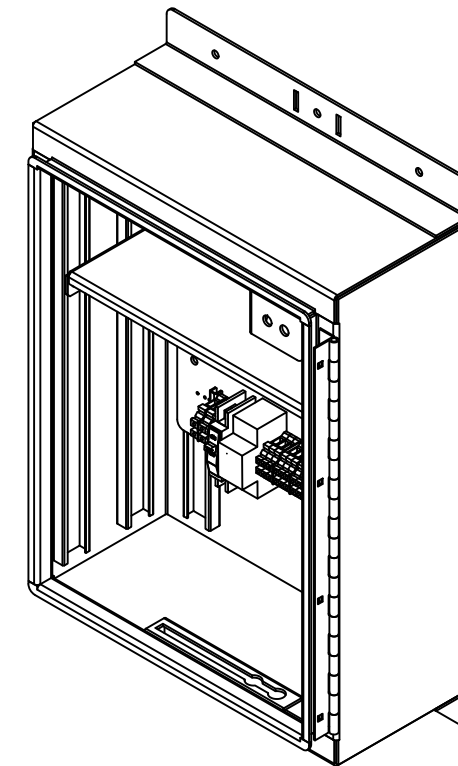


REVISION			
NO	DATE	BY	DESCRIPTION
2	03/2020	DR	ADD 12" CABINET DEPTH
1	07/2019	DR	REVISED MODULES
0	03/2014	DR	CREATED

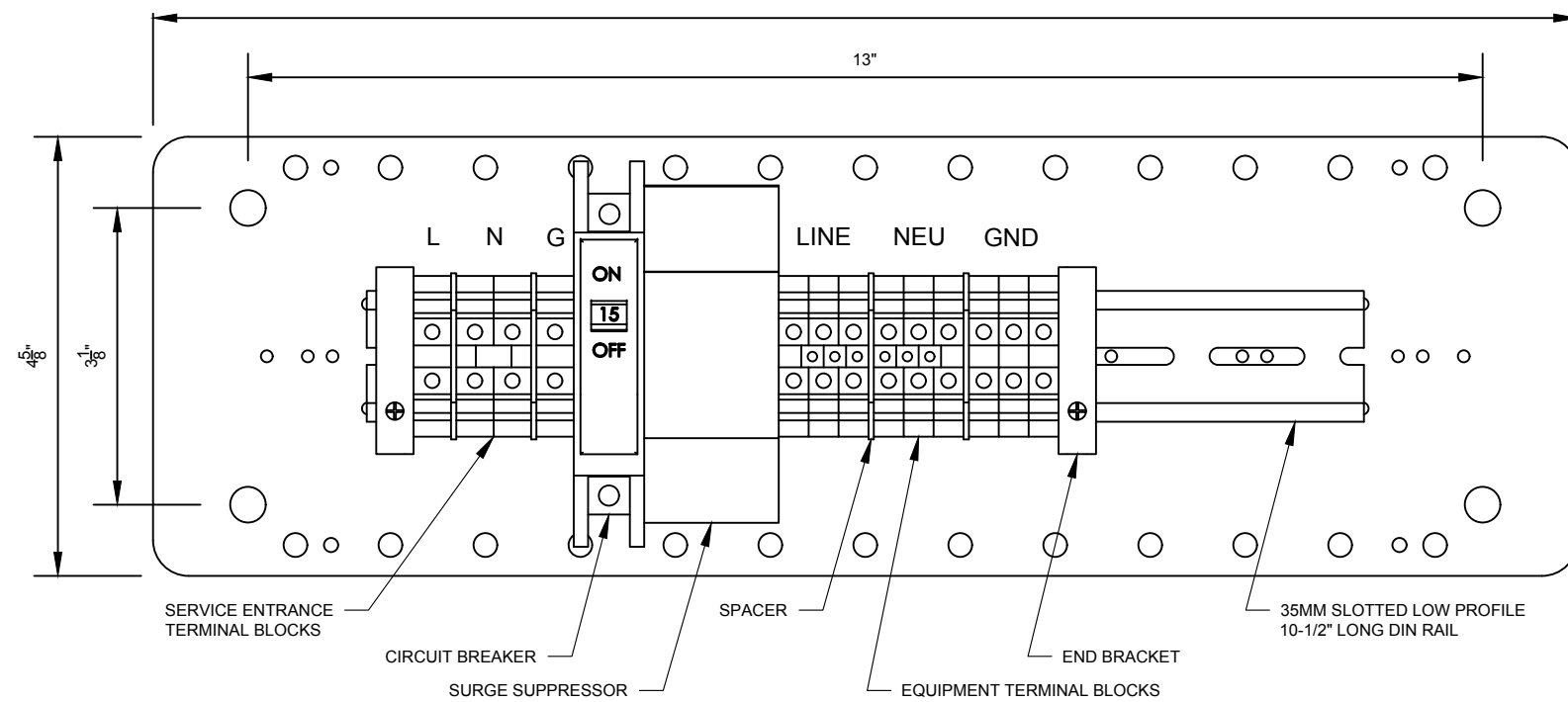
DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
ITS CABINET ASSEMBLY - CABINET		
SCALE:	OLD DRAWING NO.	DRAWING NO.
N.T.S.		MISC-020_1



MODULES ARANGMENT



ISOMETRIC VIEW
N.T.S.

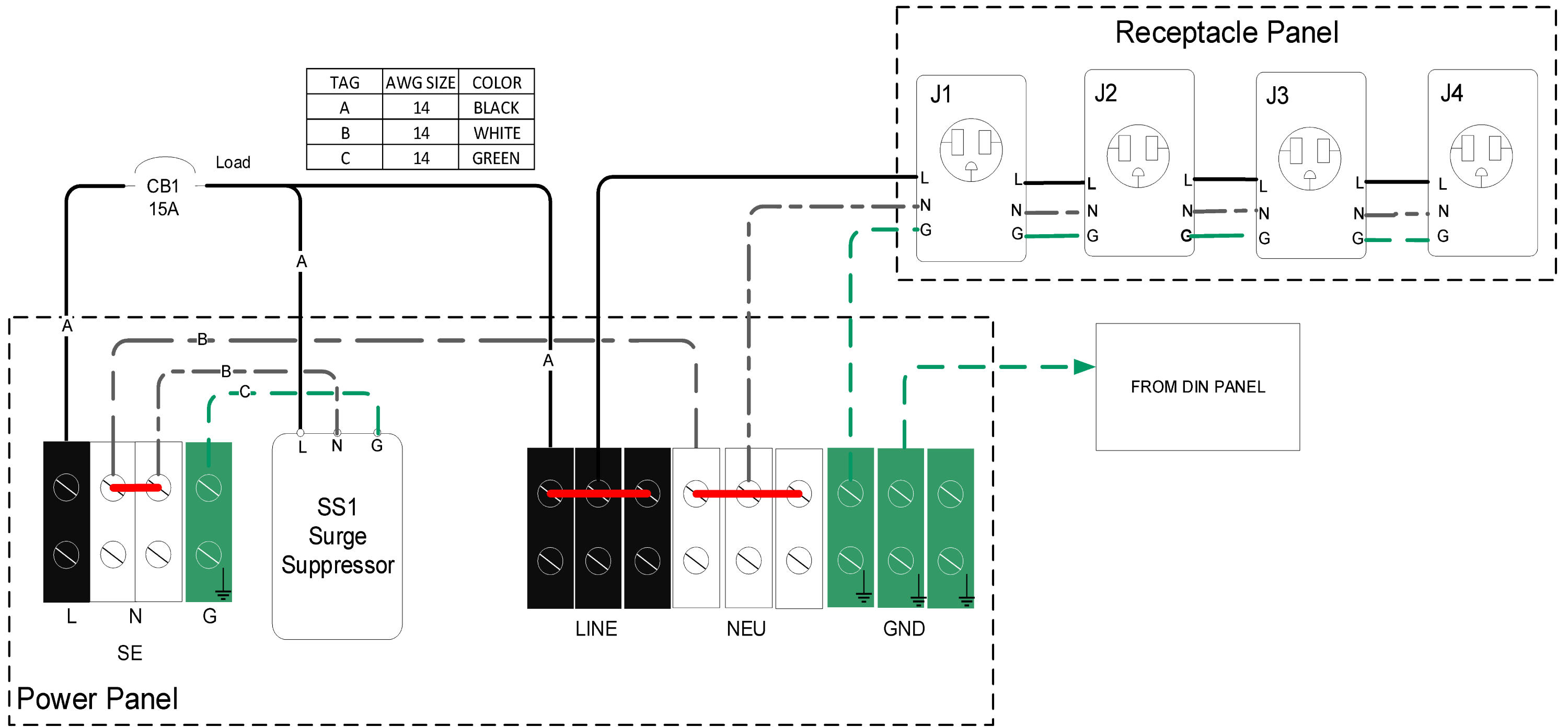


POWER MODULE
SCALE 6"=10"



REVISION				DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
1	06/2019	DR	REVISED MODULES	ITS CABINET ASSEMBLY - MODULES ARANGMENT		
0	03/2014	DR	CREATED			
NO	DATE	BY	DESCRIPTION	SCALE: 3"=1'-0"	OLD DRAWING NO.	DRAWING NO. MISC-020_2

TAG	AWG SIZE	COLOR
A	14	BLACK
B	14	WHITE
C	14	GREEN

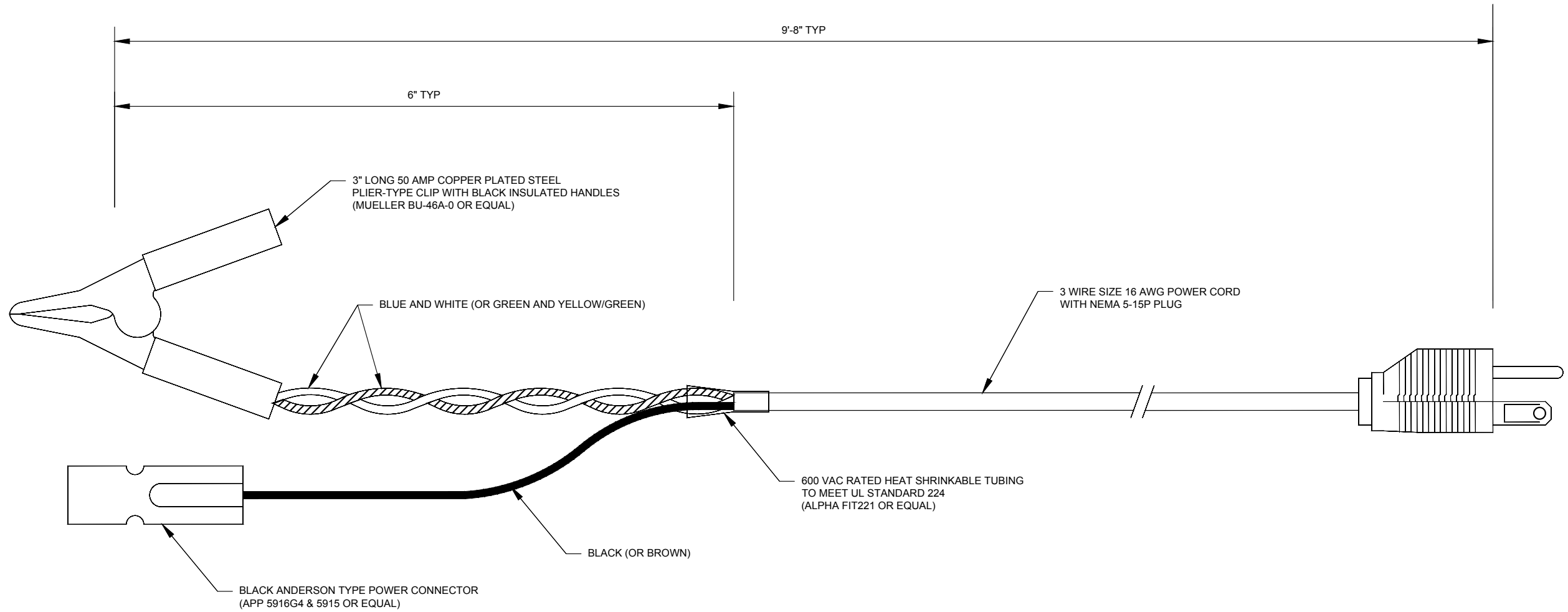


NYCDOT TRAFFIC SIGNAL STANDARD DRAWINGS, Jun 2020



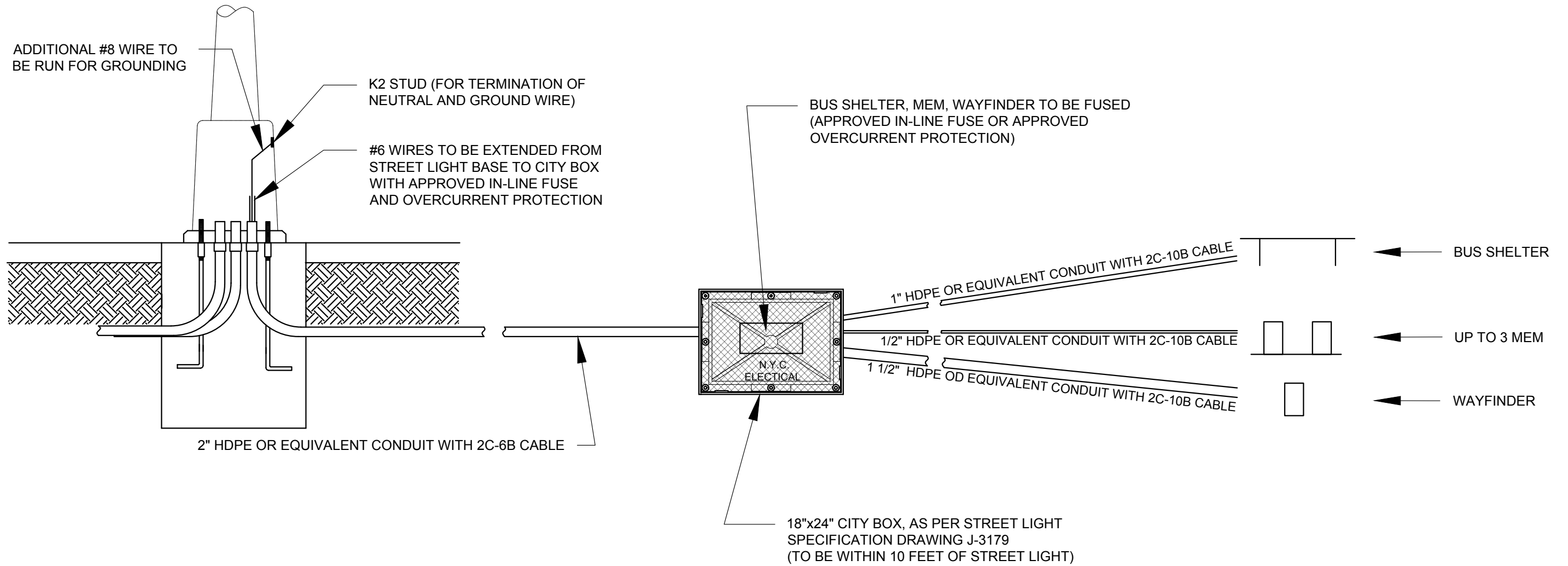
REVISION			
NO	DATE	BY	DESCRIPTION
0	06/2019	DR	REVISED MODULES

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
ITS CABINET ASSEMBLY - WIRING DIAGRAM		
SCALE:	OLD DRAWING NO.	DRAWING NO.
N.T.S.		MISC-020_3



REVISION			
NO	DATE	BY	DESCRIPTION
0	09/2014	DR	CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
ASTC POWER CORD		
SCALE:	OLD DRAWING NO.	DRAWING NO.
N.T.S.		MISC-021

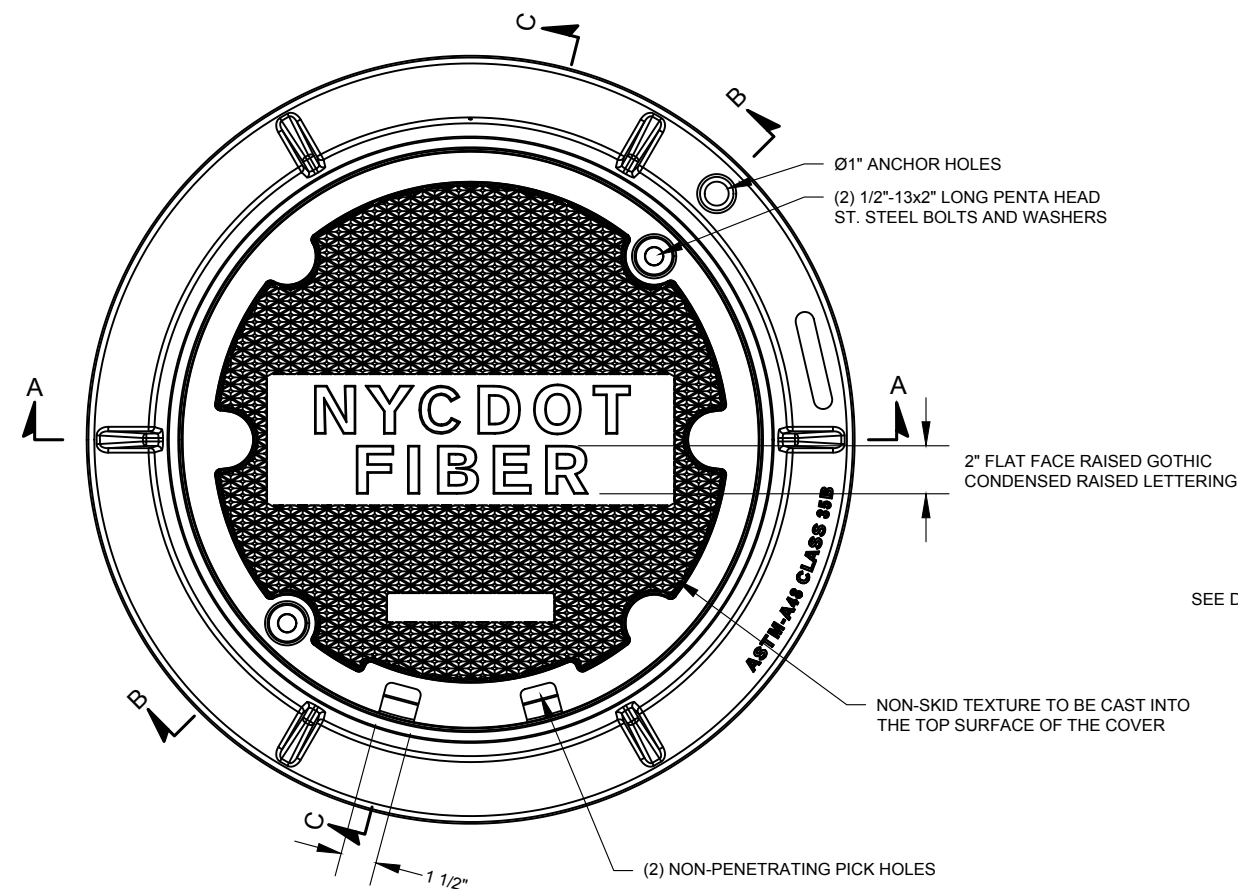


NOTES:

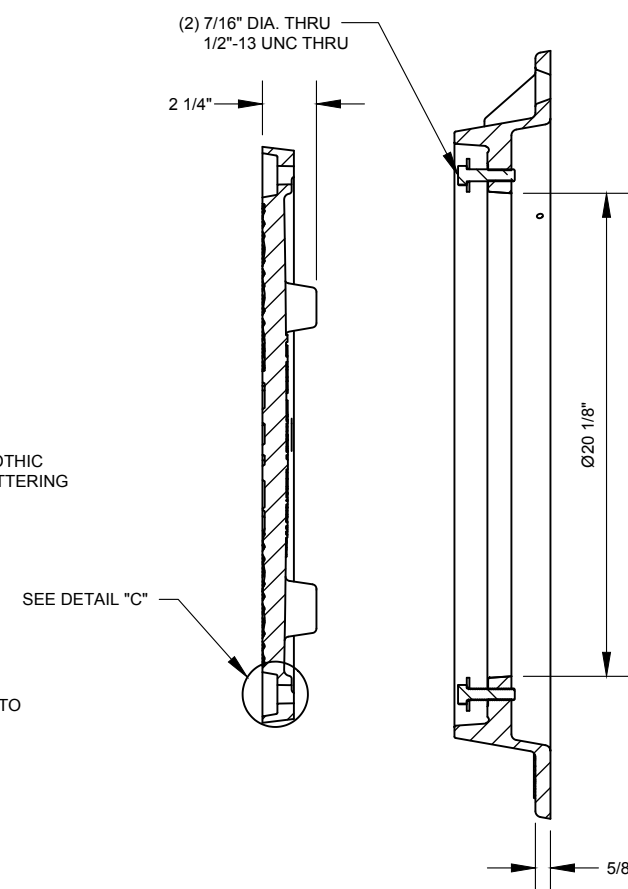
1. ALL CONDUITS TO BE INSTALLED 24 INCHES BELOW GRADE, OR WHAT FIELD CONDITIONS ALLOW.
2. ALL WIRES TO BE XLP (AS PER NYCDOT STREET LIGHT SPECIFICATION 700).
3. WIRES FROM THE CITY BOX TO EQUIP TO BE LABELED AS FOLLOWED:
 1 - BUS SHELTER = BUS
 2 - MONEY EXCHANGE MACHINE = MEM
 3 - WAYFINDER = WF
4. TAG SPECS AS PER NYCDOT STREET LIGHT GENERAL SPECIFICATION 2.5.
5. GROUNDING WIRE SHALL BE ATTACHED TO THE GROUNDING BOLT IN CITY BOX.
6. SPLIT BOLT CONNECTORS TO BE USED FOR NEUTRAL AND GROUND CONNECTIONS IN CITY BOX.
7. FOR CABLE SPECIFICATIONS SEE NYCDOT SPECIFICATIONS 4B & 4C.



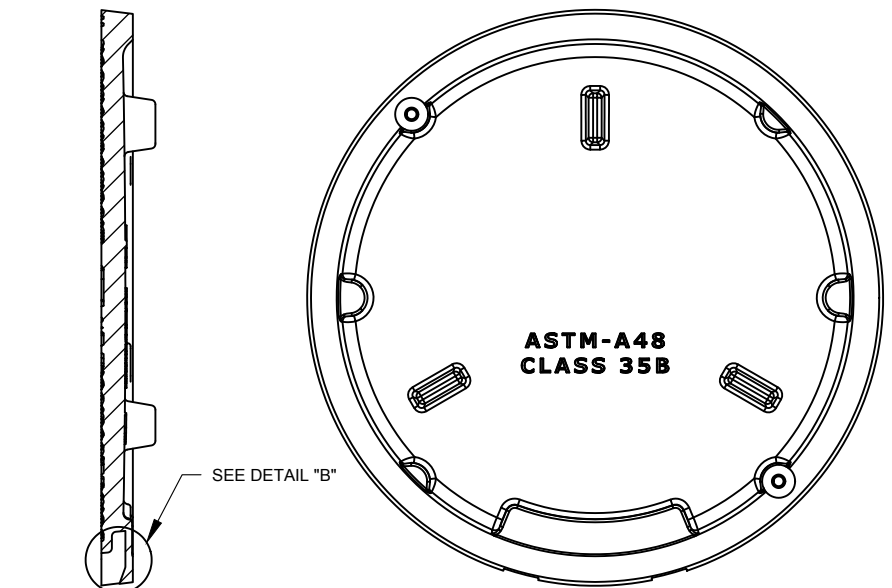
REVISION				DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
1	12/2018	DR	ADD CABLE DESIGNATIONS	TYPICAL DISTRIBUTION FOR NON-STREET LIGHTING LOAD		
0	05/2016	DR	CREATED			
NO	DATE	BY	DESCRIPTION	SCALE: N.T.S.	OLD DRAWING NO.	DRAWING NO. MISC-022



**COVER AND RING
TOP VIEW**

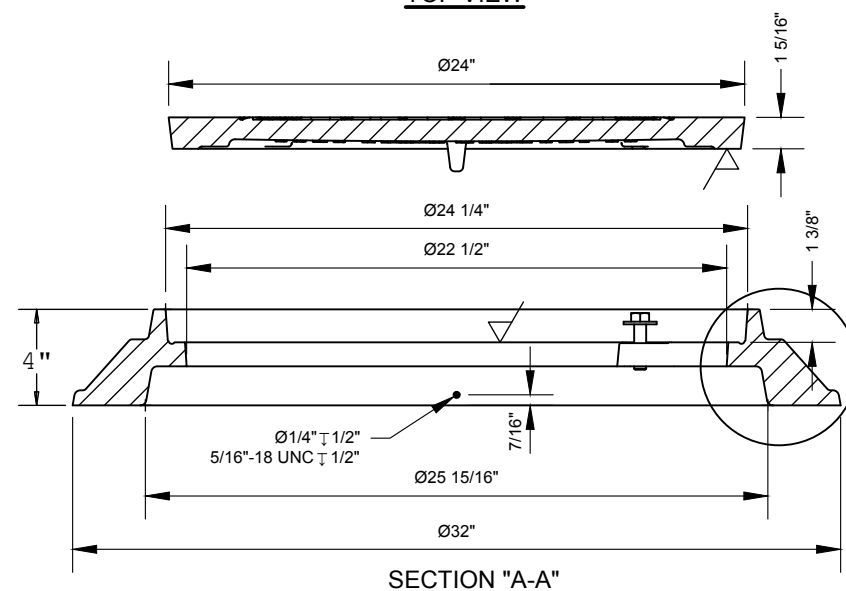


**COVER AND RING
SECTION "B-B"**

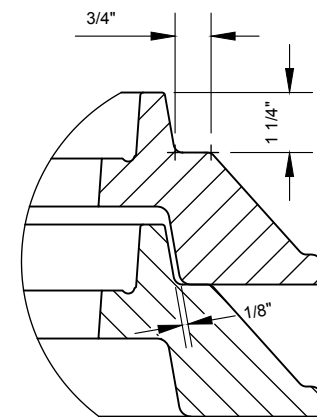


**COVER
SECTION "C-C"**

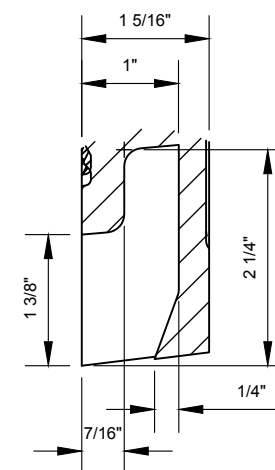
**COVER
BOTTOM VIEW**



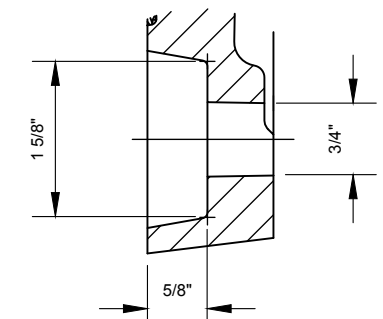
SECTION "A-A"



DETAIL "A"
SCALE: 3"=1'-0"



DETAIL "B"
SCALE: 6"=1'-0"



DETAIL "C"
SCALE: 6"=1'-0"

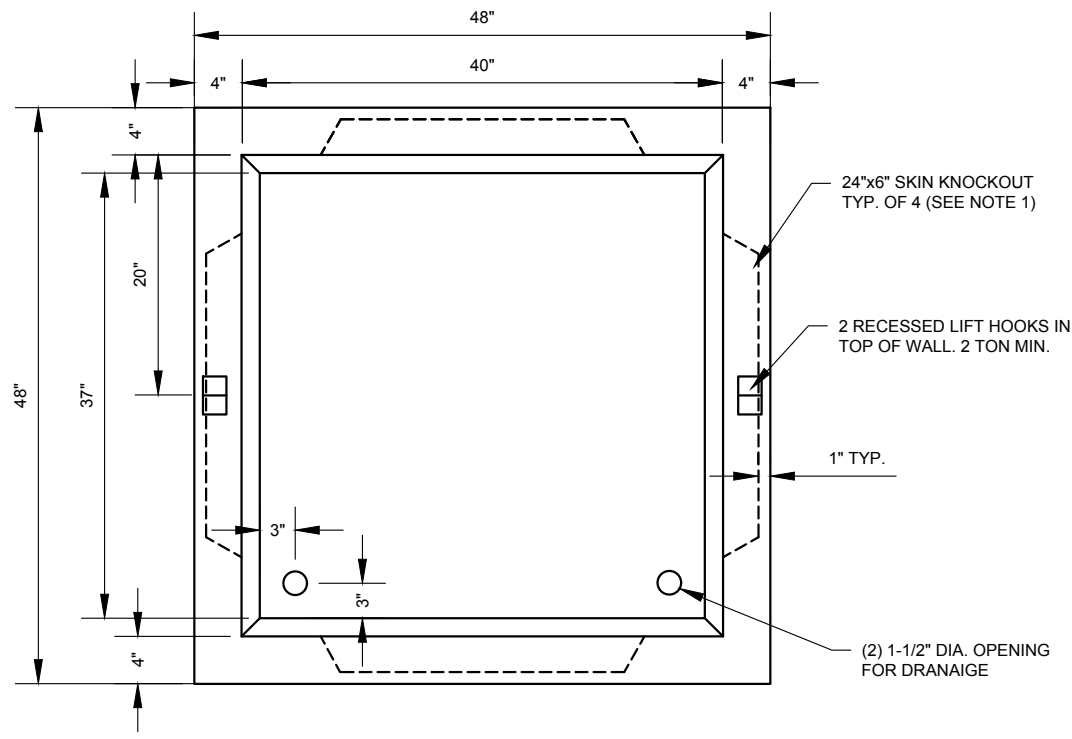
NOTES:

1. MANUFACTURER MARKINGS ON COVER AND RING ARE ACCEPTABLE.

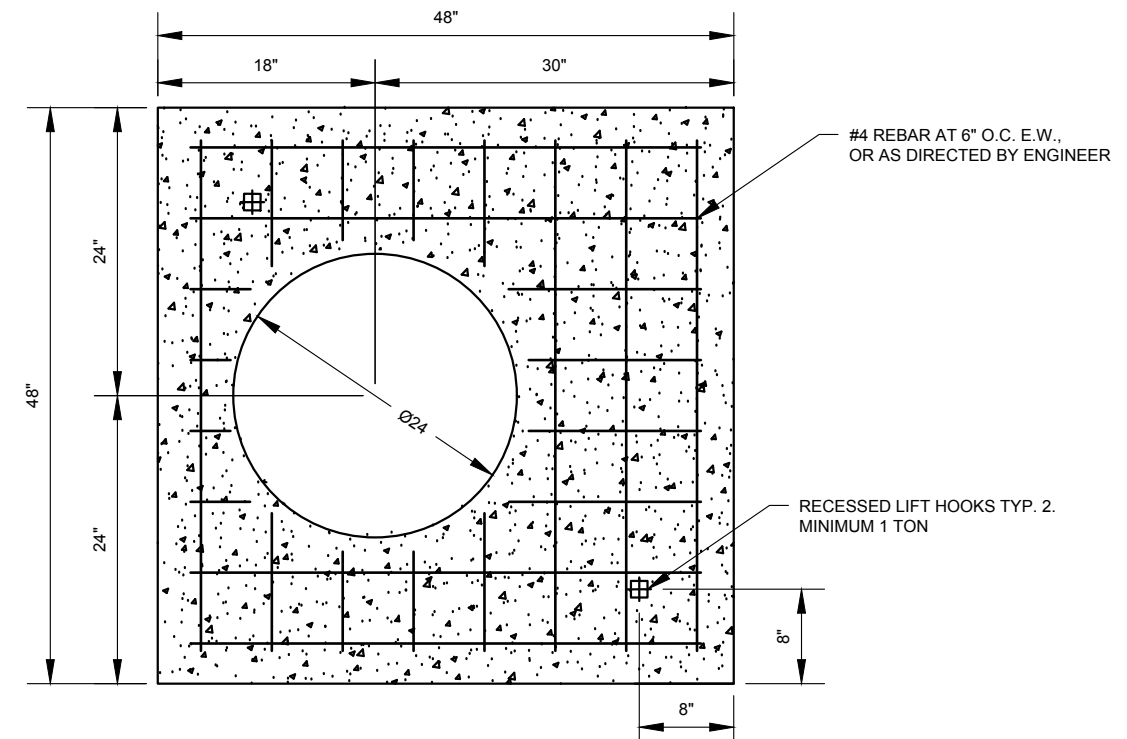


REVISION			
NO	DATE	BY	DESCRIPTION
0	07/2016	DR	CREATED

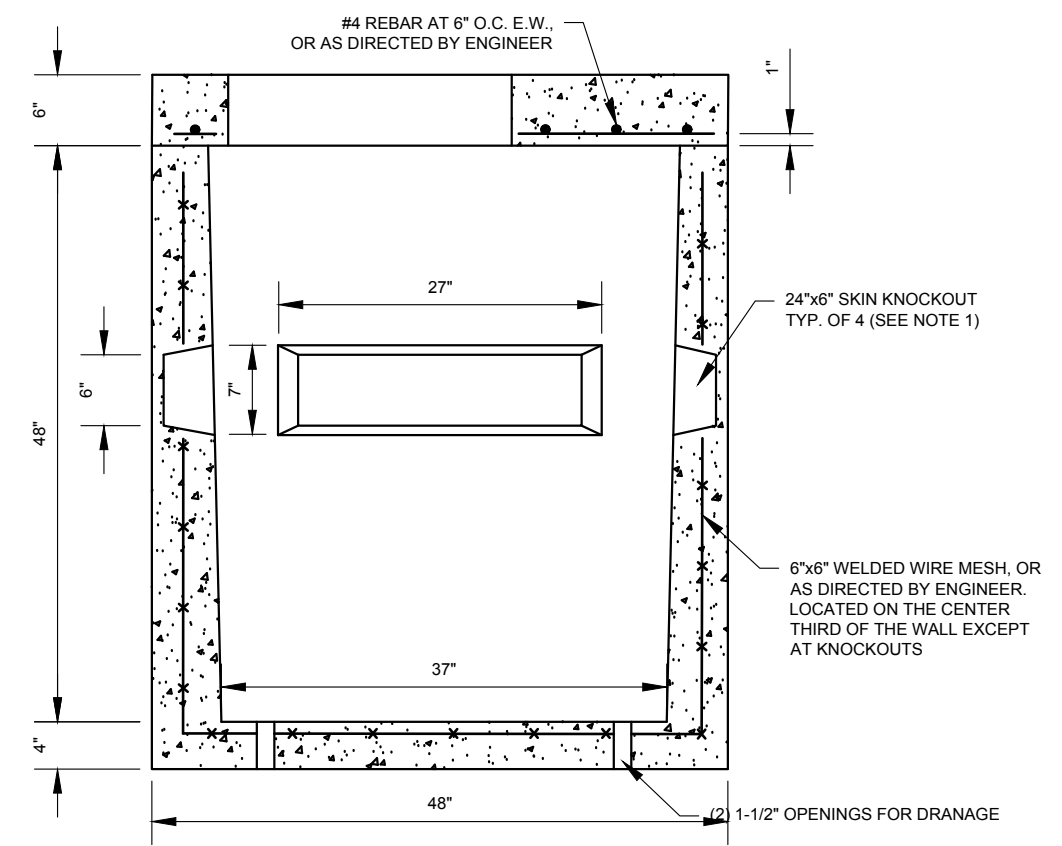
DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
24-INCH COVER AND RING FOR FIBER OPTIC MANHOLE		
SCALE:	OLD DRAWING NO.	DRAWING NO.
1 1/2"=1'-0"		MISC-023



PLAN



TOP SLAB



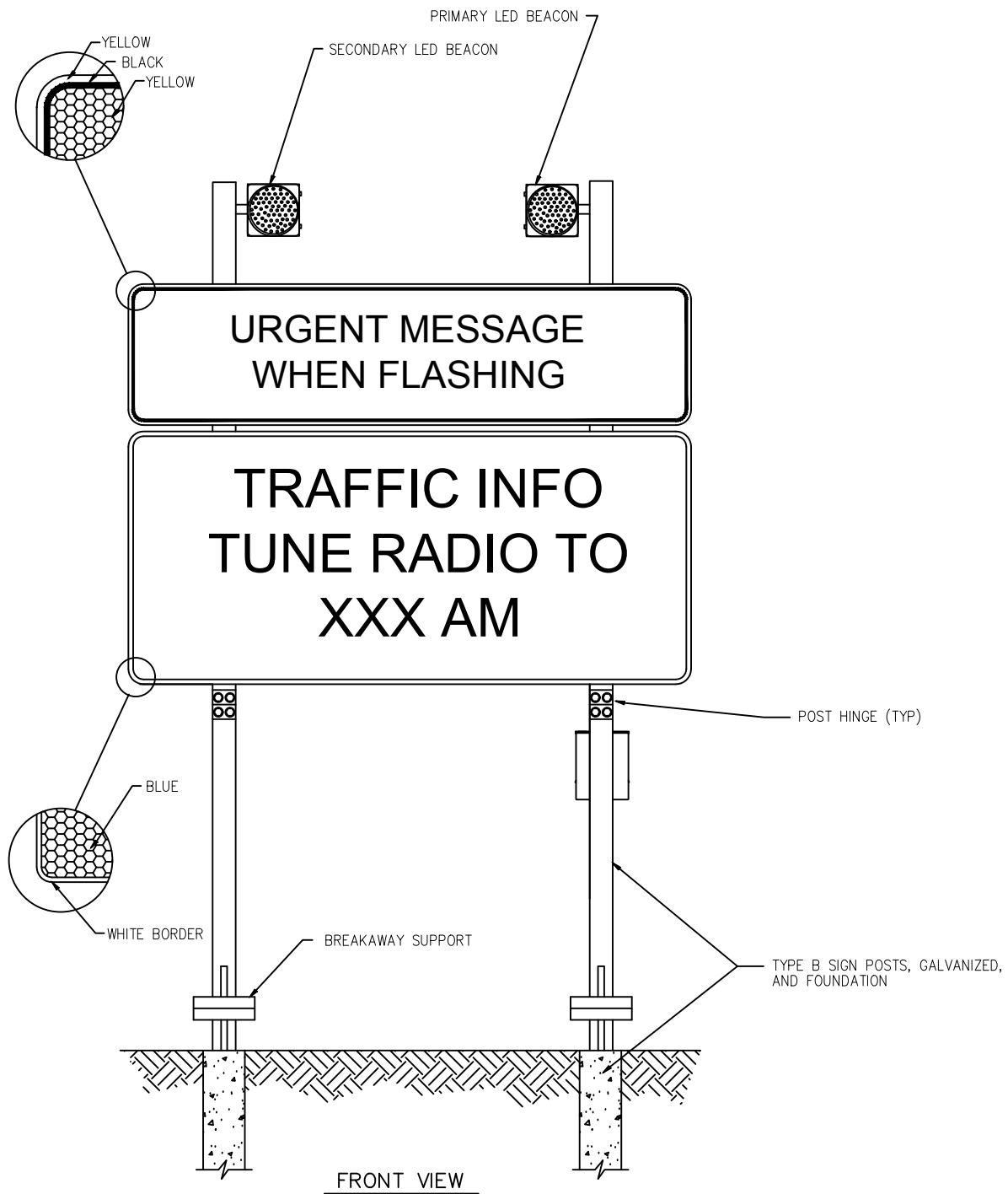
SECTION

NOTES:

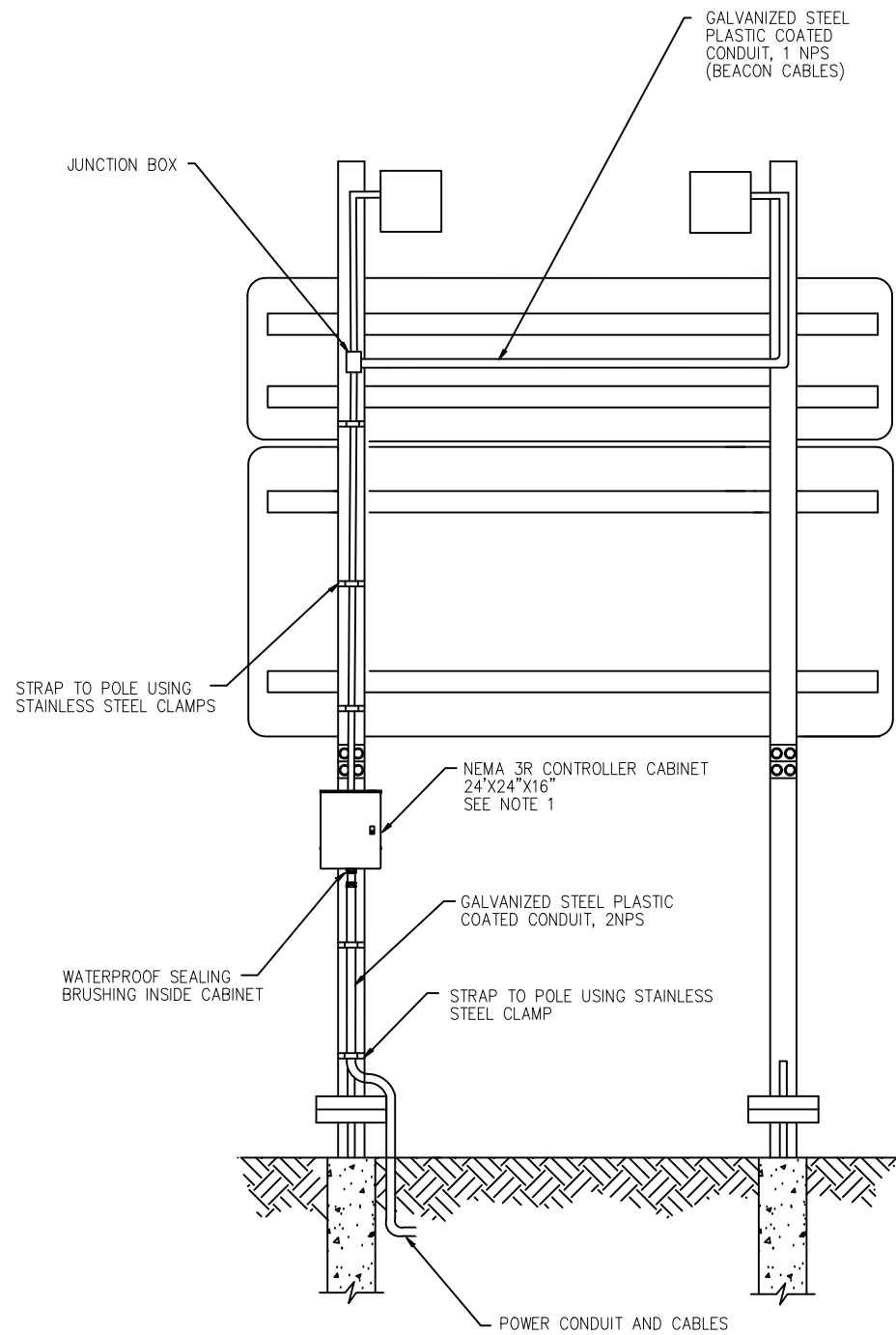
1. ACTUAL SIZE AND LOCATION OF KNOCKOUTS TO BE DETERMINED BY THE CONTRACTOR AND AS FIELD CONDITIONS PERMIT.
2. MANUFACTURED IN ACCORDANCE WITH NYSDOT 723-45
3. COMPRESSIVE STRENGTH MIN 3626 PSI @ 28 DAYS 704-03
4. AIR CONTENT 5.0-9.0% 704-03
5. ANTICIPATED METHOD OF CURING - RETENTION CURING AS PER 704-03
6. TOLERANCES AS PER NYSDOT 723-45 INSIDE DIMENSIONS NO GREATER THAN 7/16"
7. MARKING OF PIECES AS PER 723-45
8. LIFTING DEVICES AS SHOWN- MANUFACTURED AND RATED BY OUTSIDE VENDOR
9. METHOD OF MAINTAINING CONCRETE COVER OVER REINFORCING STEEL TO BE AS PER 704-03
10. REBAR ASTM A-615 GRADE 60 709-01

REVISION				DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
				PRECAST CONCRETE FIBER OPTIC PULLBOX		
				SCALE:	OLD DRAWING NO.	DRAWING NO.
0	07/2016	DR	CREATED	3/4"=1'-0"		MISC-024
NO	DATE	BY	DESCRIPTION			

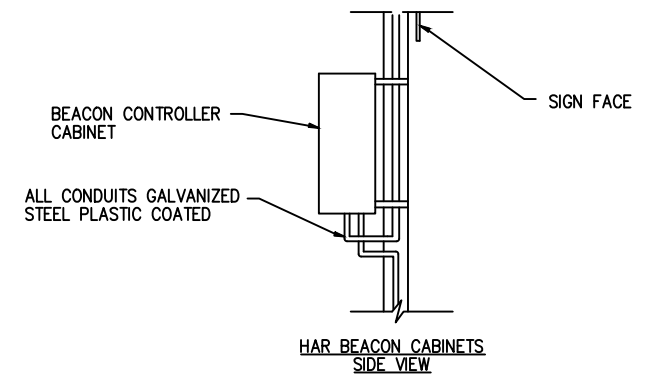




FRONT VIEW



BACK VIEW



HAR BEACON CABINETS SIDE VIEW

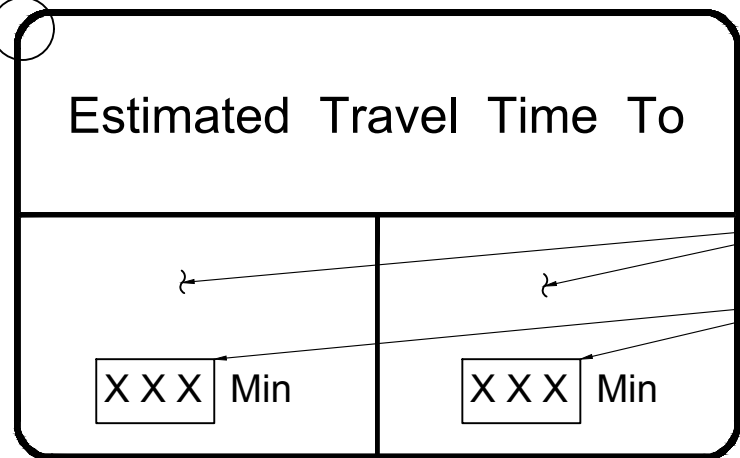
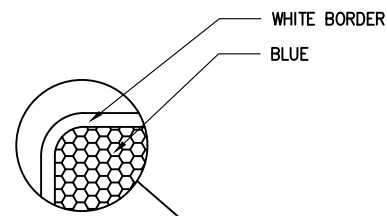
NOTES:

1. CABINET TO BE MOUNTED ON REAR OF SIGN POST OPPOSITE TRAFFIC WITH DOOR OPENING AWAY FROM TRAFFIC.
2. FOR SIGN POST AND FOOTING DETAILS REFER TO TABLE ON DWG P-016_1 .
3. BREAKAWAY BASES SHALL BE INSTALLED AT LOCATIONS NOT PROTECTED BY GUARD RAIL AND CALLED OUT IN THE PLANS. SEE DWG P-016_2 FOR DETAILS.
4. THE FIELD LOCATION OF SIGN STRUCTURE AND CABINET AND THE CONDUIT BETWEEN THEM SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.
5. EXTEND SIGN POSTS TO ALLOW FOR PLACEMENT OF BEACON HEADS.

NYCDOT TRAFFIC SIGNAL STANDARD DRAWINGS, Jun 2020



REVISION				DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
0	11/2017	DR	CREATED	HIGHWAY ADVISORY RADIO (HAR) FLASHING BEACON SYSTEM		
NO	DATE	BY	DESCRIPTION			
				SCALE:	OLD DRAWING NO.	DRAWING NO.
				N.T.S.		MISC-025



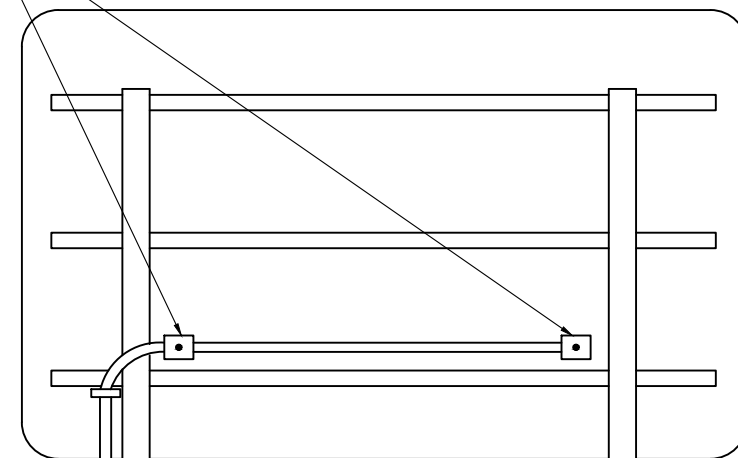
SEE NOTE 6
CHANGEABLE NUMERAL DISPLAY
SEE NOTE 5

POST HINGE (TYP)

POWER CONDUIT AND
CABLE

FRONT VIEW

JUNCTION BOX (TYP)



NEMA 3R CONTROLLER CABINET
SEE NOTE 1

WATERPROOF SEALING
BRUSHING INSIDE CABINET

GALVANIZED STEEL, PLASTIC COATED
CONDUIT, 2NPS STRAP TO POLE USING
STAINLESS STEEL CLAMPS

BREAKAWAY
SUPPORT

TYPE B SIGN POST, GALVANIZED, AND
FOUNDATION

BACK VIEW

NOTES:

1. CABINET TO BE MOUNTED ON POST OPPOSITE TRAFFIC WITH DOOR OPENING AWAY FROM TRAFFIC.
2. FOR SIGN POST AND FOOTING DETAILS REFER TO TABLE ON DWG P-016_1 .
3. BREAKAWAY BASES SHALL BE INSTALLED AT LOCATIONS NOT PROTECTED BY GUARD RAIL AND CALLED OUT IN THE PLANS. SEE DWG P-016_2 FOR DETAILS.
4. THE FIELD LOCATION OF SIGN STRUCTURE AND CABINET AND THE CONDUIT BETWEEN THEM SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.
5. THE CONTRACTOR SHALL SUBMIT HIS PROPOSED CHANGEABLE NUMERICAL DISPLAY AND MOUNTING SCHEME TO THE ENGINEER FOR APPROVAL.
6. FOR SIGN TEXT DATA LAYOUT, SEE DESIGN/CONSTRUCTIN DOCUMENTS

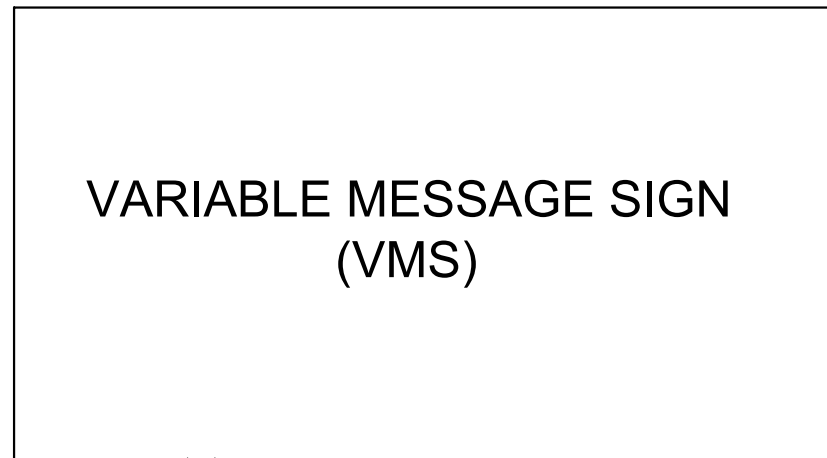


REVISION			
NO	DATE	BY	DESCRIPTION
0	11/2017	DR	CREATED

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

TRAVEL TIME SIGN (TTS) ASSEMBLY

SCALE:	OLD DRAWING NO.	DRAWING NO.
N.T.S.		MISC-026



VARIABLE MESSAGE SIGN
(VMS)

POST HINGE (TYP)

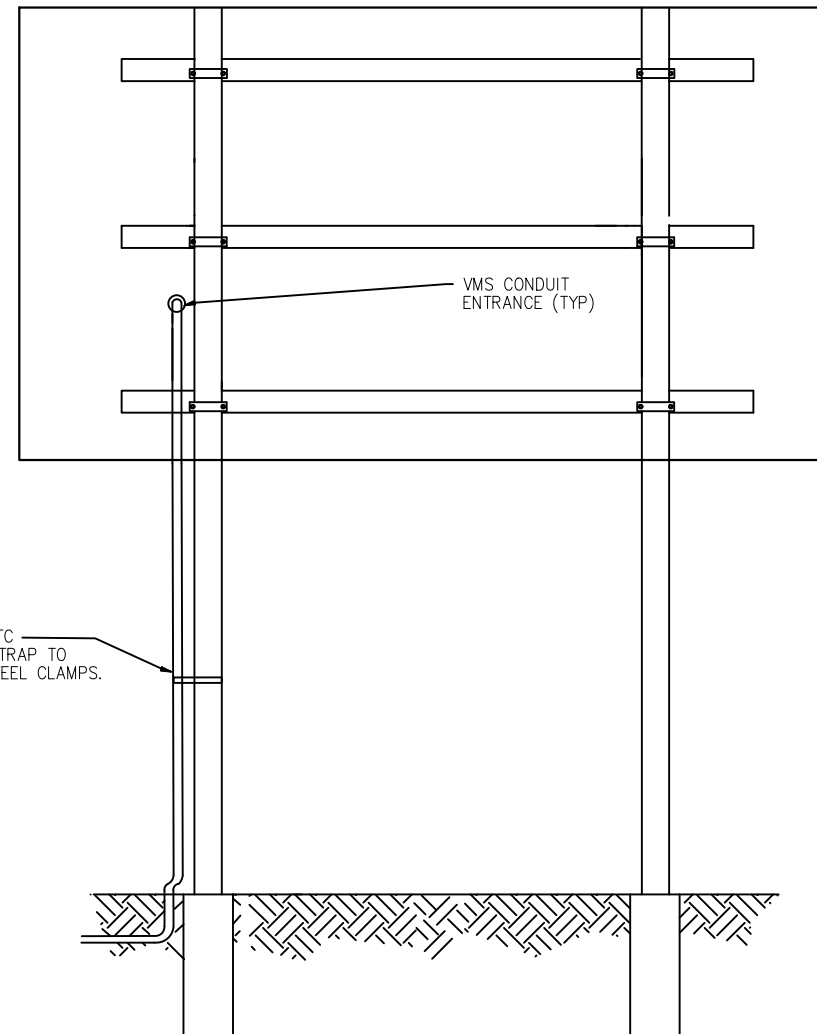
TYPE B SIGN POSTS,
GALVANIZED, AND
FOUNDATION
SEE NOTE 2

FRONT ELEVATION
N.T.S.

334 GROUND MOUNTED CABINET
AND FOUNDATION
SEE NOTE 3

GALVANIZED STEEL, PLASTIC
COATED CONDUIT, 2NPS STRAP TO
POLE USING STAINLESS STEEL CLAMPS.

VMS POWER AND
CONTROL CABLES



VMS CONDUIT
ENTRANCE (TYP)

REAR ELEVATION
N.T.S.

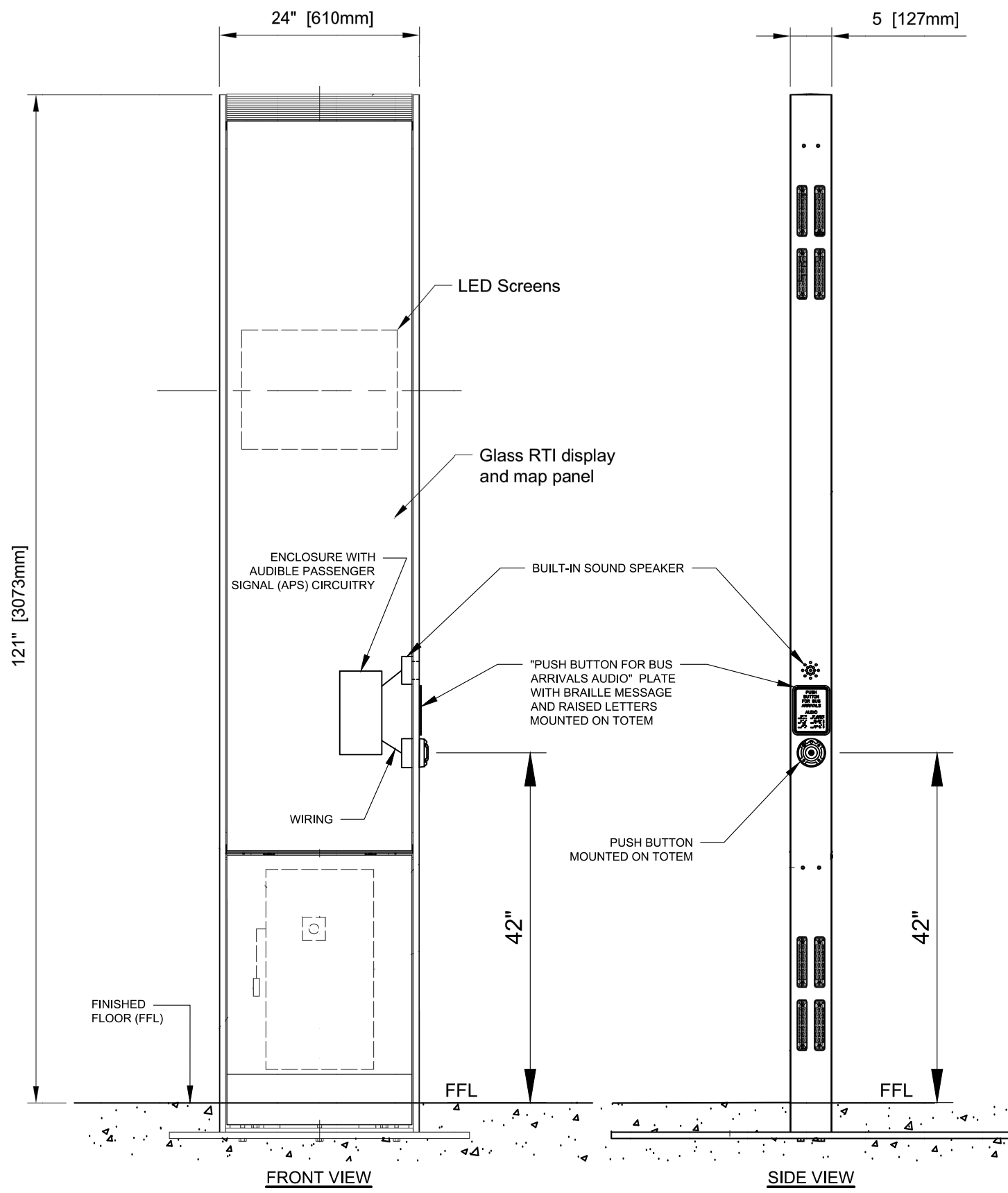
NOTES:

1. TYPE B SIGN POST AND BREAKAWAY BASE SHALL BE PAID UNDER ITEMS XXX AND YYY, RESPECTIVELY
2. REFER TO TABLE ON DRAWING FOR POST CODE. SEE NYSDOT STANDARD DWG. 645-10 FOR SIGN POST AND FOOTING DETAILS.
3. VMS GROUND MOUNTED CABINET AND CONCRETE FOUNDATION PAID UNDER ITEMS XXX AND YYY, RESPECTIVELY. SEE DWG. MISC-08 FOR DETAILS
4. ALL DIMENSIONS SHOWN IN INCHES.
5. THE FIELD LOCATION OF SIGN STRUCTURE AND CABINET AND THE CONDUIT BETWEEN THEM SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.
6. VMS TYPE I MAXIMUM DIMENSIONS SHOWN. VMS WEIGHT SHALL NOT EXCEED 1125 LBS.
7. CONDUIT ON STRUCTURES PAID UNDER ITEM NO. XXX "VARIABLE MESSAGE SIGN ASSEMBLY TYPE 1".

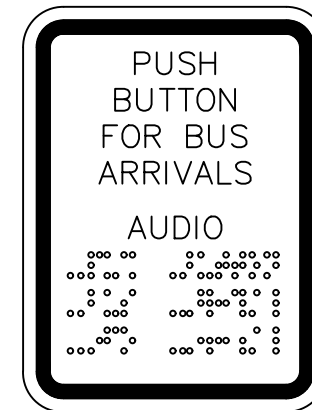


REVISION			
NO	DATE	BY	DESCRIPTION
0	11/2017	DR	CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
VARIABLE MESSAGE SIGN (VMS) ON NYSDOT TYPE B SIGN POSTS		
SCALE:	OLD DRAWING NO.	DRAWING NO.
N.T.S.		MISC-027



TOTEM WITH PUSH BUTTON



SIGN PLATE

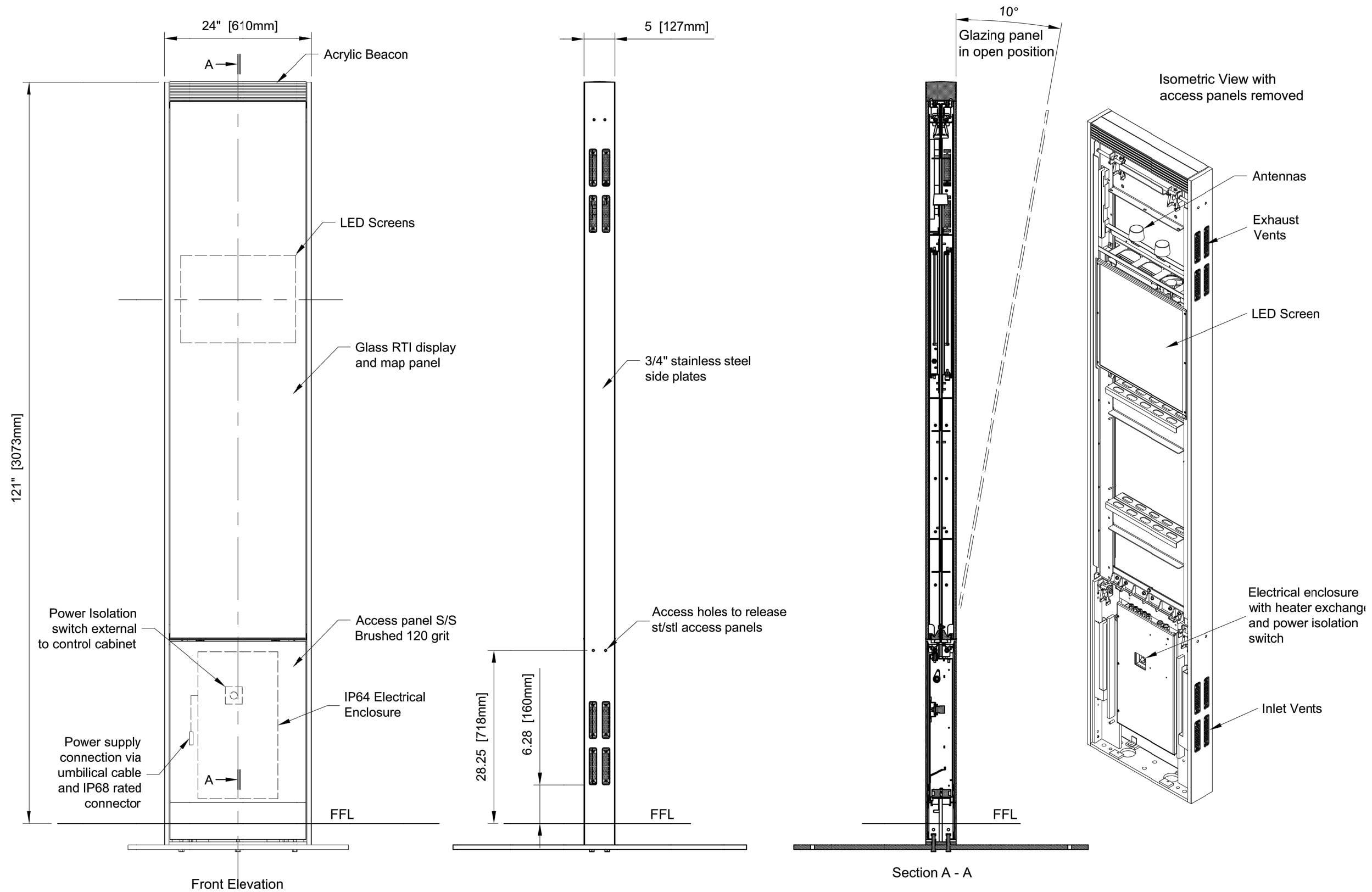
NOTES:

1. BRAILLE MESSAGE AND RAISED LETTERING TO COMPLY WITH CURRENT ADA STANDARDS FOR ACCESSIBLE DESIGN.

NYCDOT TRAFFIC SIGNAL STANDARD DRAWINGS, Jun 2020

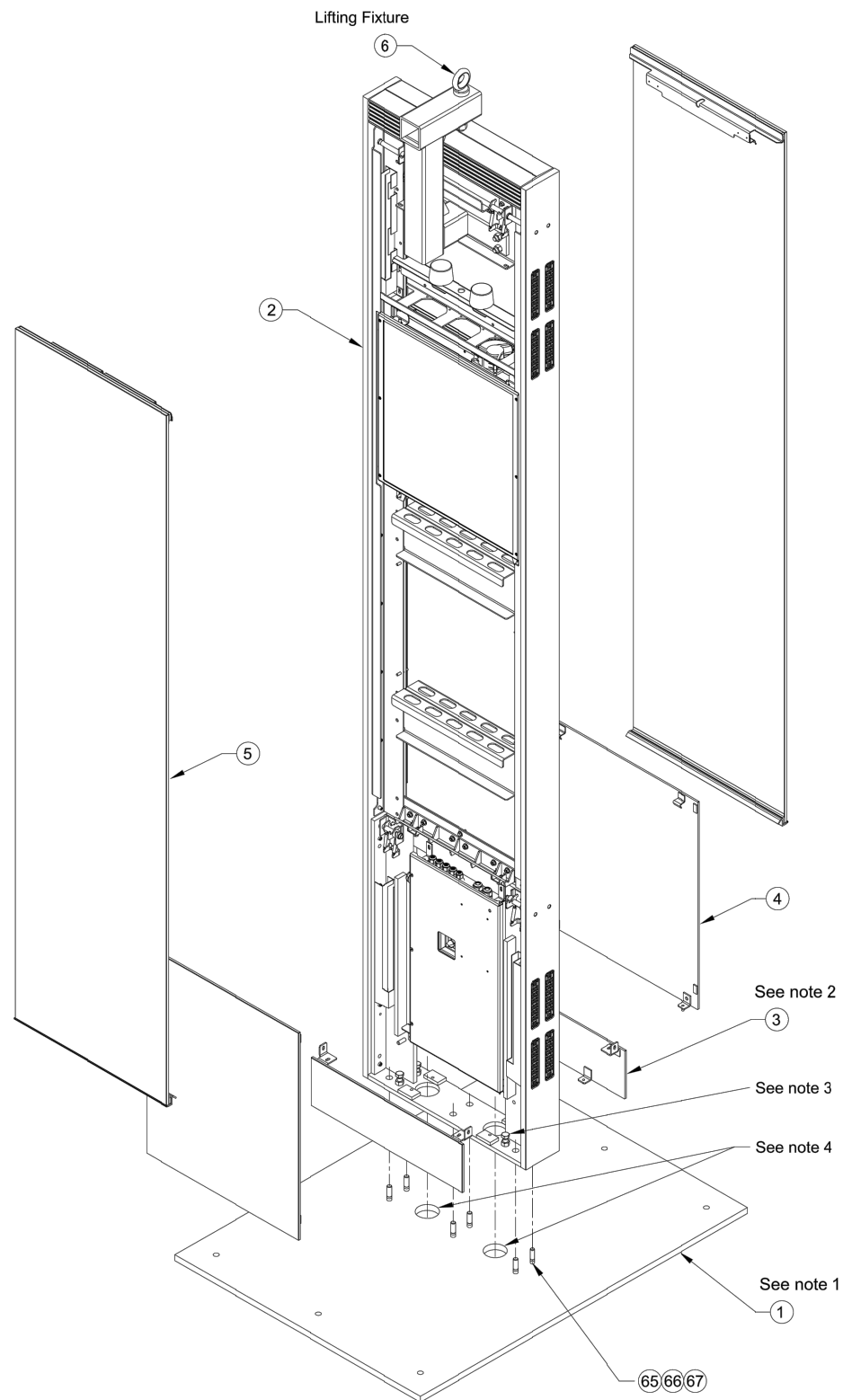


REVISION				DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
				WAYFINDER TOTEM WITH PUSH BUTTON		
SCALE:		OLD DRAWING NO.	DRAWING NO.			
3/4" = 1'-0"		N/A	MISC-028_1			
NO	DATE	BY	DESCRIPTION			
0	2/1/17	DR	CREATED			



REVISION				DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
				WAYFINDER TOTEM GENERAL ASSEMBLY 1 OF 2		
SCALE:		OLD DRAWING NO.	DRAWING NO.			
N.T.S.		N/A	MISC-028_2			
0	01/2018	DR	CREATED			
NO	DATE	BY	DESCRIPTION			

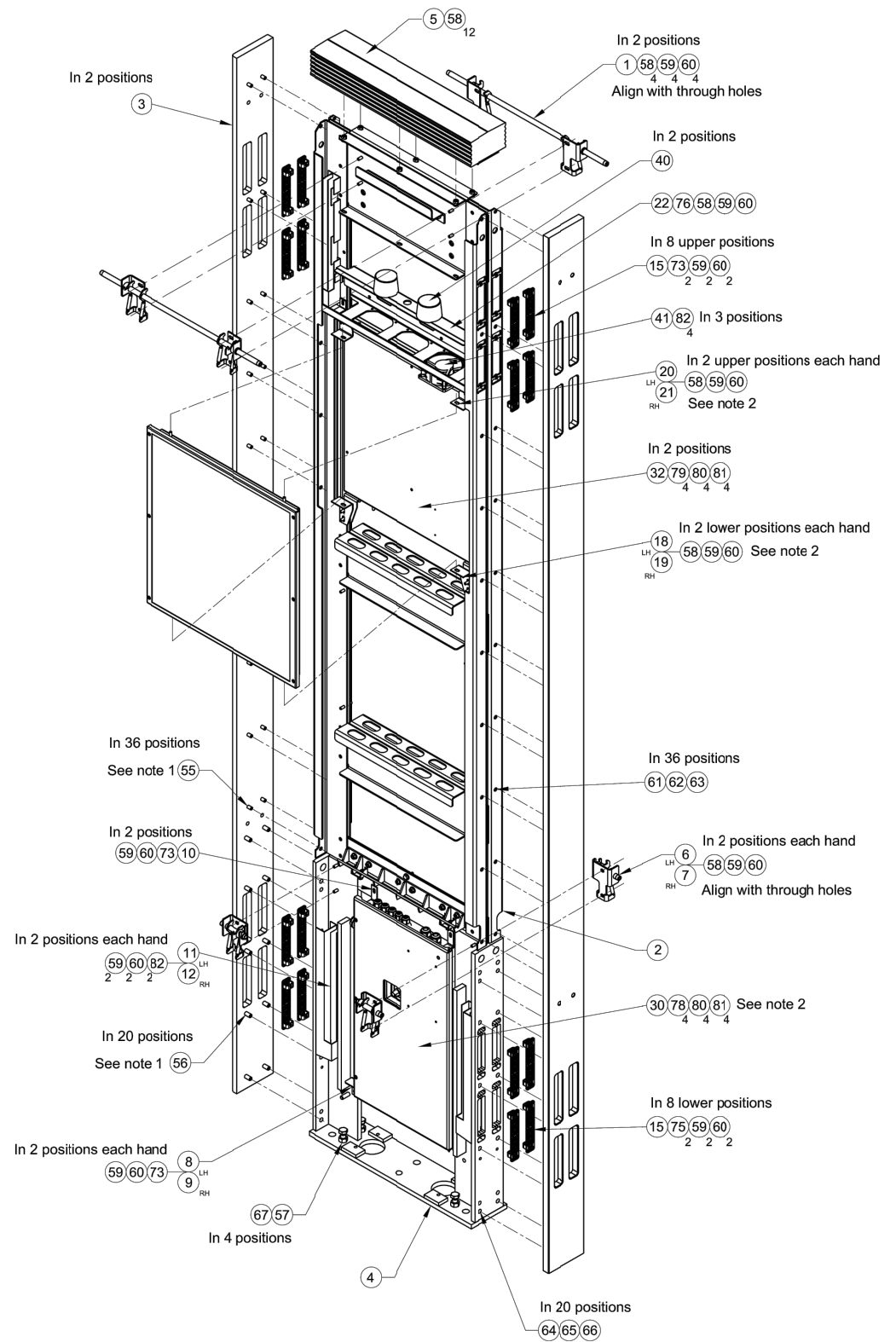




Notes

- 1 Item 1 is free issue to the foundation install sub contractor
The plate must be installed level all round
- 2 Fit item 3 [Skirt Panel] before fitting item 4 [Steel Access Panel]
- 3 The leveling bolts are to set the totem true and plumb and secured with the lock nuts
- 4 The 2" diameter electrical conduits are to pass through these two holes

Item	Qty	Drawing Number	Description	Item	Qty	Description
1	1	TEL-B472-03-079	SBS Totem Leveling Plate	67	6	1/2" UNC nut A194 Grade 6
2	1	TEL-B472-01-035	SBS Totem Framework Assembly	68	6	1/2" UNC washer normal s/s
3	2	TEL-B472-02-040	SBS Skirt Panel Welded Assembly	69	6	1/2" UNC washer spring s/s
4	2	TEL-B472-02-035	SBS Steel Access Panel Welded Assembly			
5	2	TEL-B472-01-038	SBS Glazing Panel Assembly - All S/Bonded			
6	1	TEL-B472-01-037	SBS Lifting Fixture Assembly			



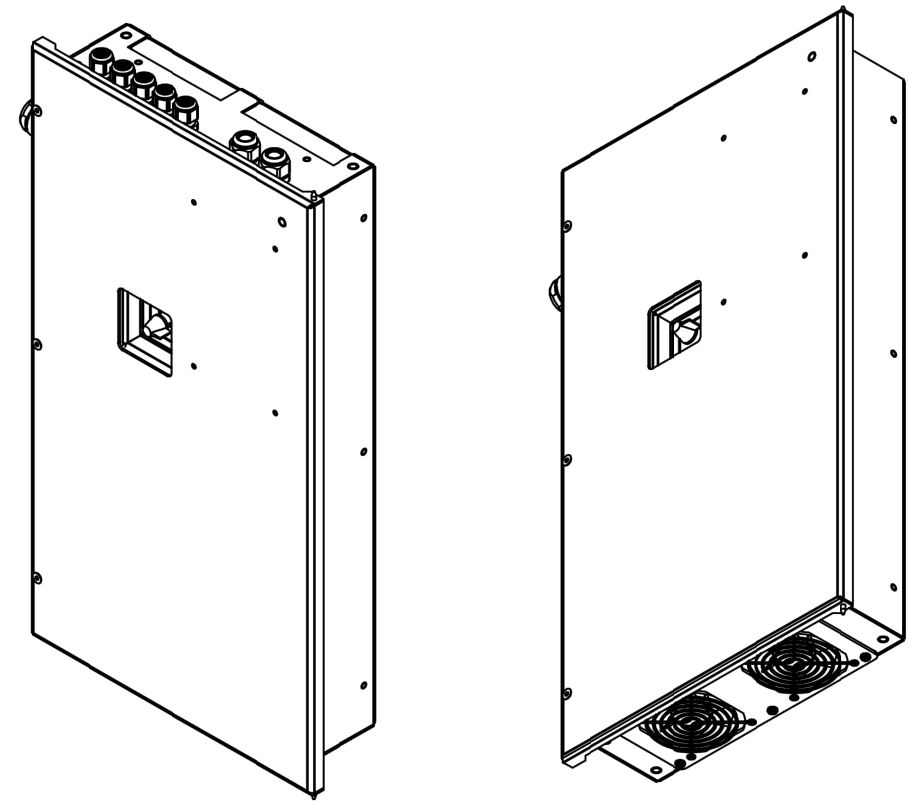
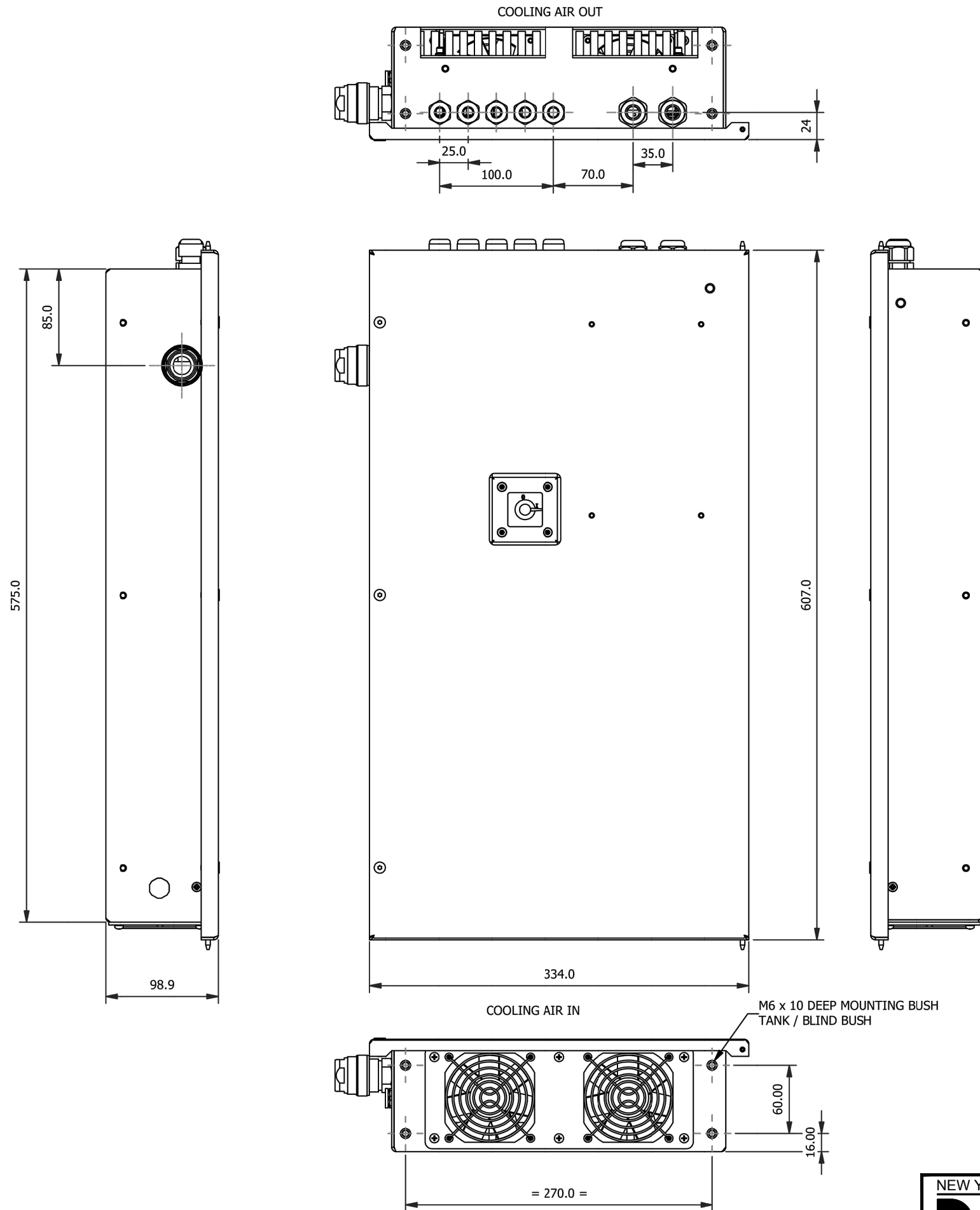
Notes

- 1 Secure fixings item 56 and 55 with loctite Nutlock 243
- 2 Fix mounting brackets to items 30, 31 and 32 before fitting to the totem



REVISION			
NO	DATE	BY	DESCRIPTION
0	01/2018	DR	CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
WAYFINDER TOTEM GENERAL ASSEMBLY 2 OF 2		
SCALE:	OLD DRAWING NO.	DRAWING NO.
N.T.S.	N/A	MISC-028_3

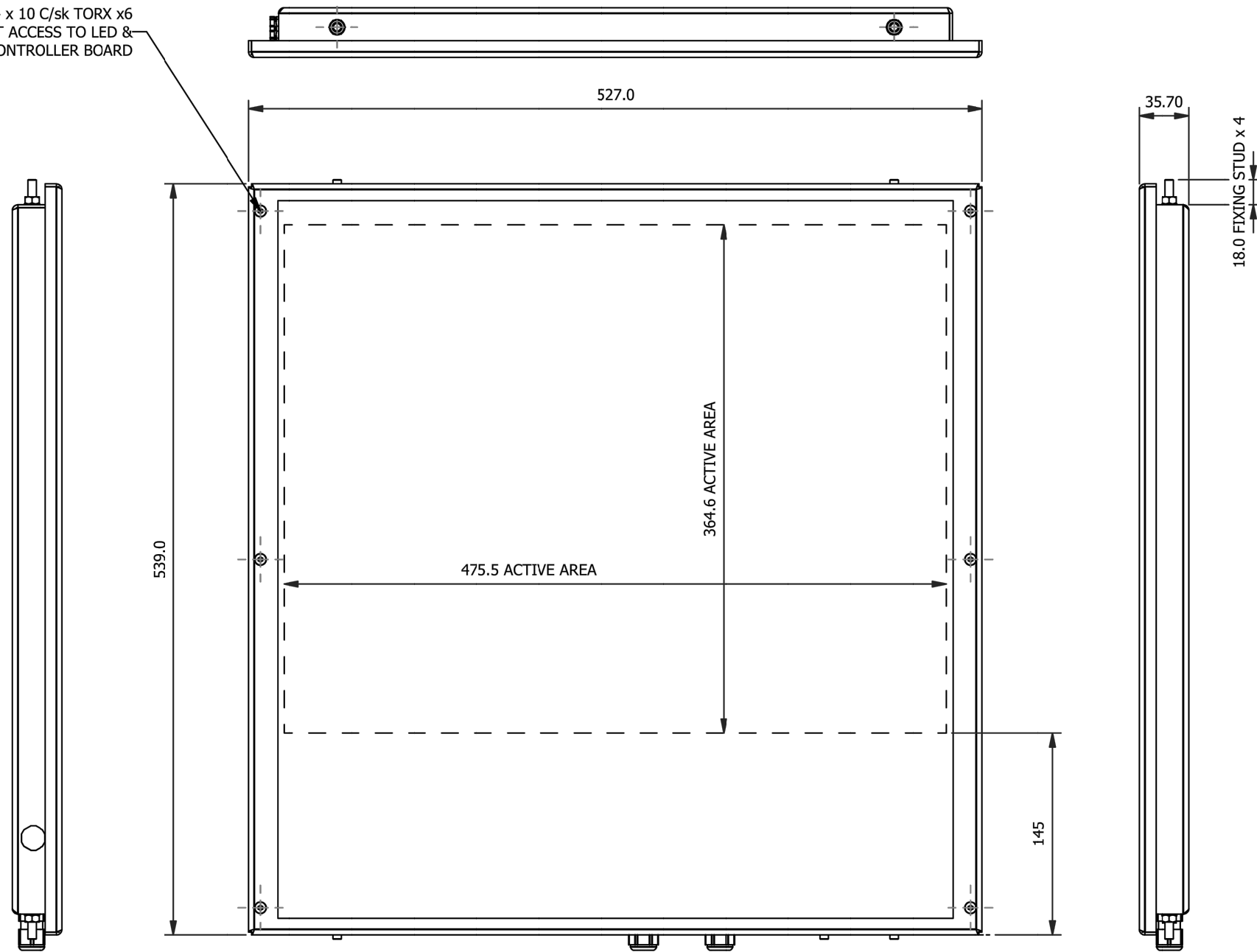


NOTES:
1. UNITS ARE MILLIMETERS



REVISION				DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
				WAYFINDER CONTROL ENCLOSURE ASSEMBLY		
SCALE:		OLD DRAWING NO.	DRAWING NO.			
N.T.S.		N/A	MISC-028_4			
NO	DATE	BY	DESCRIPTION			
0	01/2018	DR	CREATED			

M4 x 10 C/sk TORX x6
FRONT ACCESS TO LED &
CONTROLLER BOARD

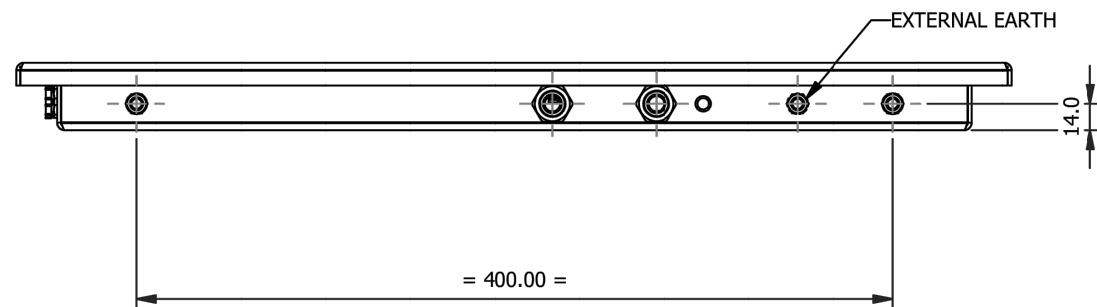


NOTES:

1. UNITS ARE MILLIMETERS

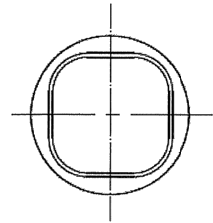
MATERIALS:-
HOUSING: ALUMINIUM
FRONT FRAME : STAINLESS STEEL
SCREEN: TOUGHENED 2mm AR GLASS
FIXINGS: STAINLESS STEEL

FINISH:-
FRONT FRAME: BLACK RAL9005 30% GLOSS
HOUSING: NATURAL.
FIXINGS: NATURAL.

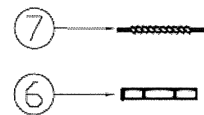
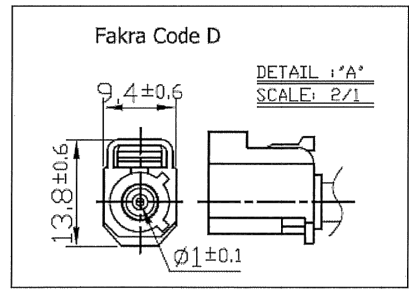
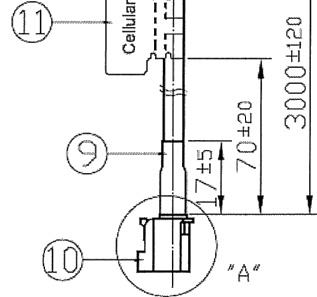
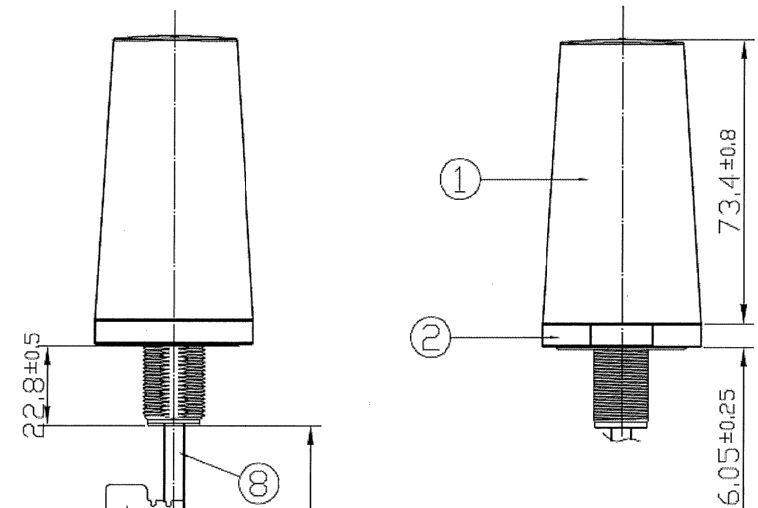


REVISION				DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C.,N.Y.11101		
				WAYFINDER LED DISPLAY ASSEMBLY		
SCALE:		OLD DRAWING NO.	DRAWING NO.			
N.T.S.		N/A	MISC-028_5			
0	01/2018	DR	CREATED			
NO	DATE	BY	DESCRIPTION			

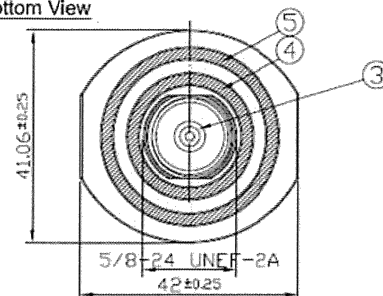
Top View



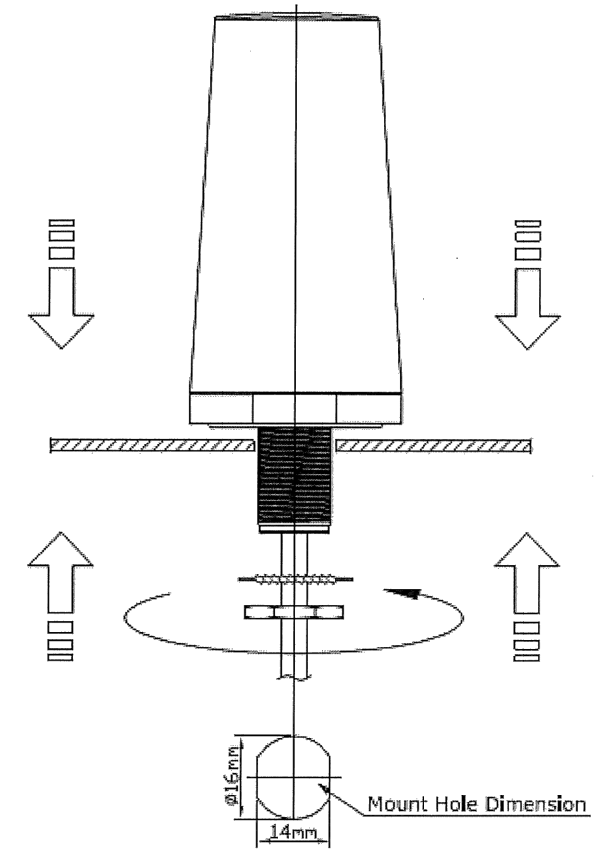
Side View



Bottom View



	Name	Material	Finish	QTY
1	Antenna Top	ABS	Black	1
2	Antenna Bottom	Zinc Alloy	Ni Plated	1
3	TLS Thread	Brass	Ni Plated	1
4	O Ring 1	NBR	Black	1
5	O Ring 2	NBR	Black	1
6	Nut	Brass	Ni Plated	1
7	Washer	Brass	Ni Plated	1
8	CFD200 Coaxial Cable	PVC	Black	1
9	Heat Shrink Tube	PE	Black	1
10	Fakra Code D	PA66	Violet	1
11	Cellular Label	Coated Paper	Blue	1



Recommended torque for mounting is 4.018 N.m or 41 kgf.cm
 Maximum torque for mounting is 9.8 N.m or 100 kgf.cm

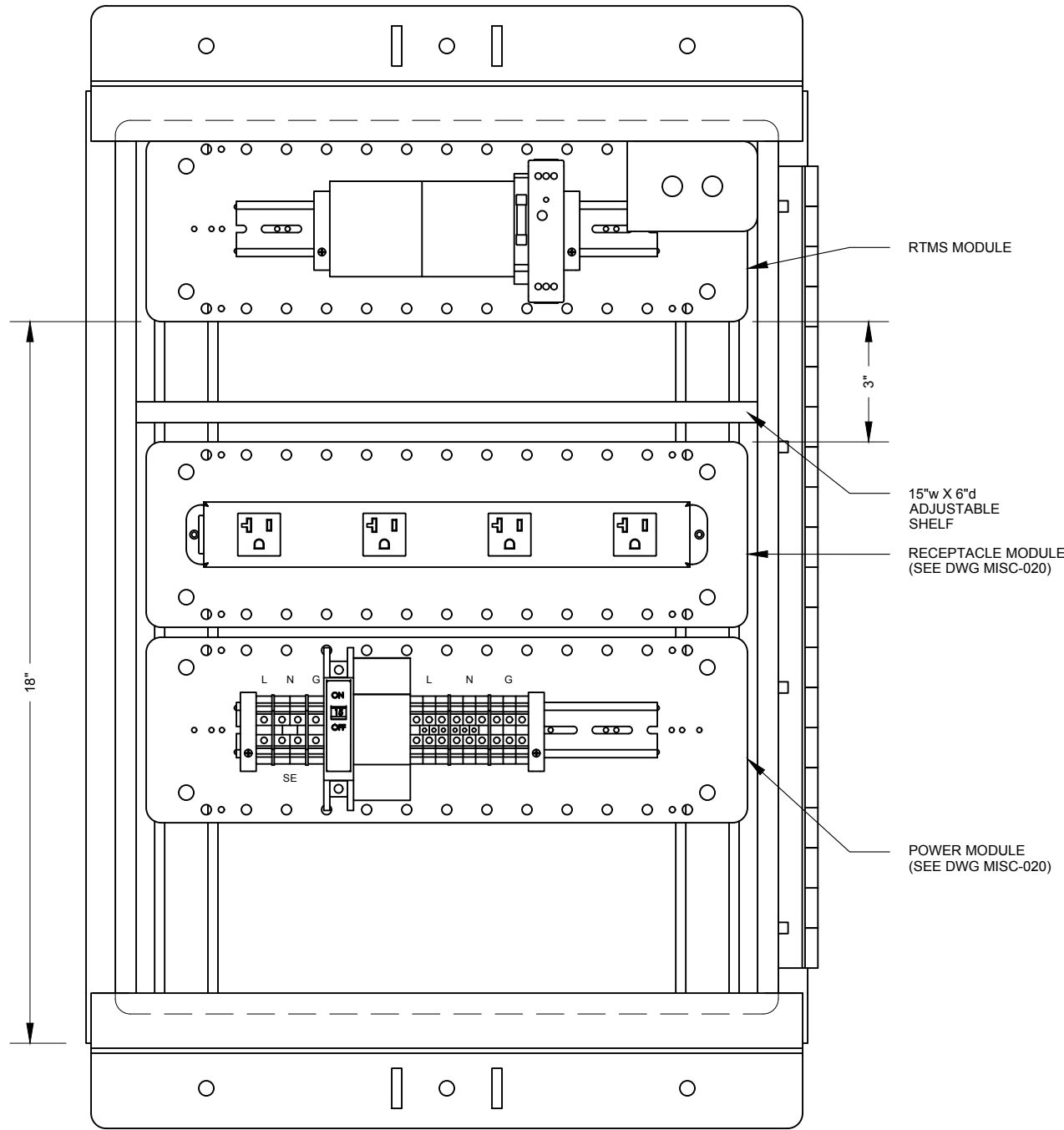
NOTES:

- UNITS ARE MILLIMETERS

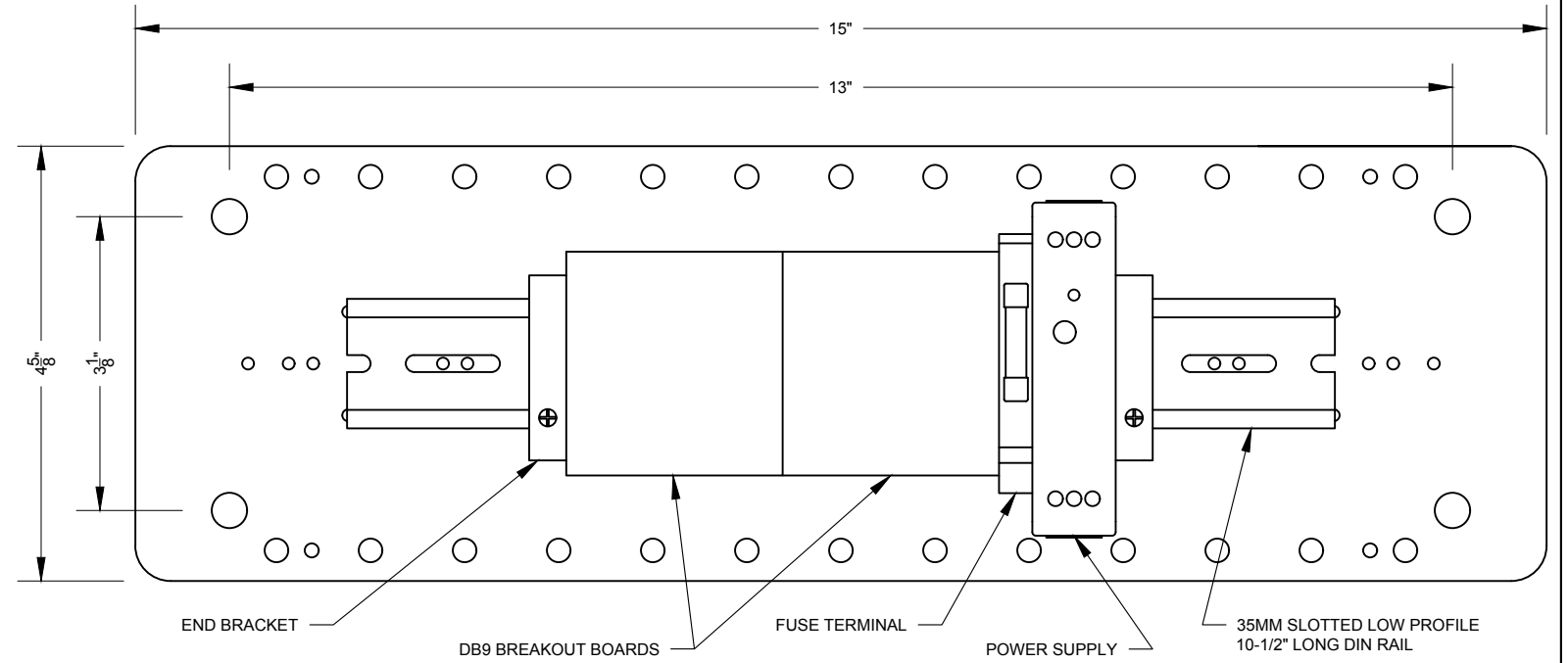


REVISION				DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
				WAYFINDER EXTERNAL ANTENNA		
SCALE:		OLD DRAWING NO.		DRAWING NO.		
N.T.S.		N/A		MISC-028_6		
NO	DATE	BY	DESCRIPTION			
0	01/2018	DR	CREATED			

NYCDOT TRAFFIC SIGNAL STANDARD DRAWINGS, Jun 2020



MODULES ARANGMENT



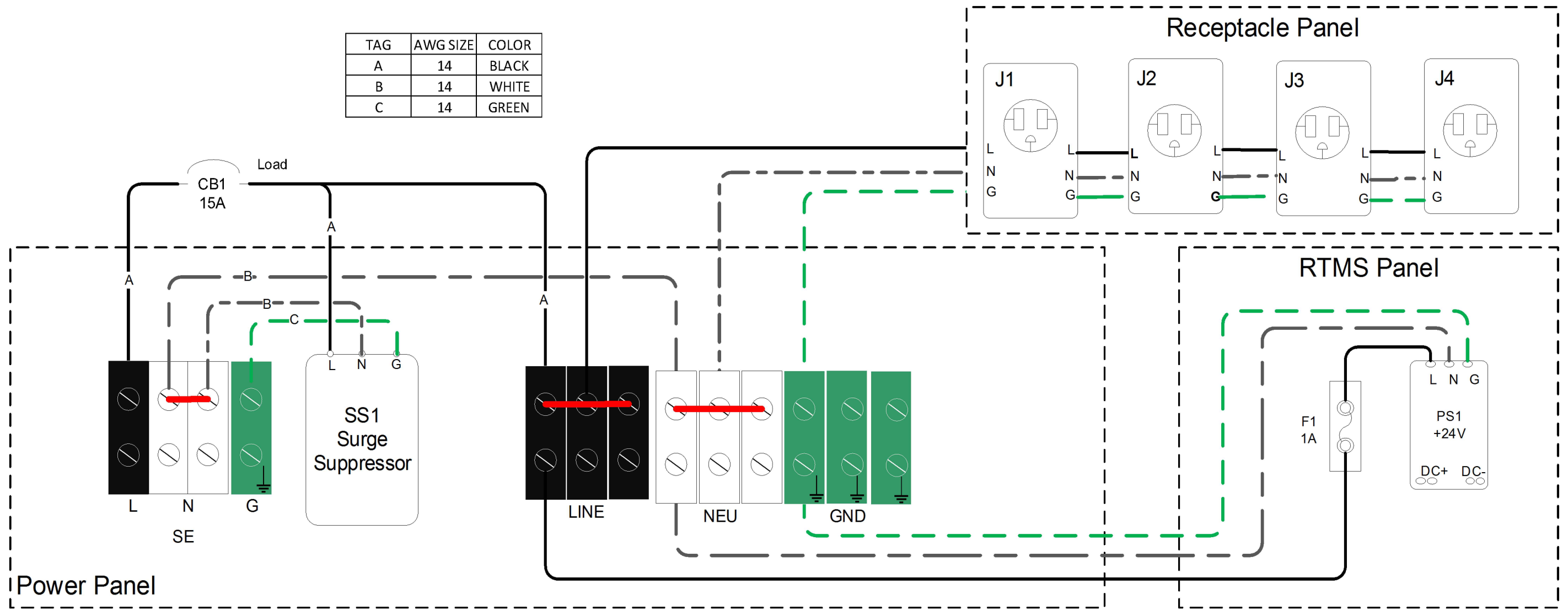
RTMS MODULE
SCALE 6"=1'0"



REVISION			
NO	DATE	BY	DESCRIPTION
0	07/2019	DR	CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
RTMS CABINET ASEMBLY - RTMS MODULE		
SCALE:	OLD DRAWING NO.	DRAWING NO.
N.T.S.		MISC-029_1

TAG	AWG SIZE	COLOR
A	14	BLACK
B	14	WHITE
C	14	GREEN

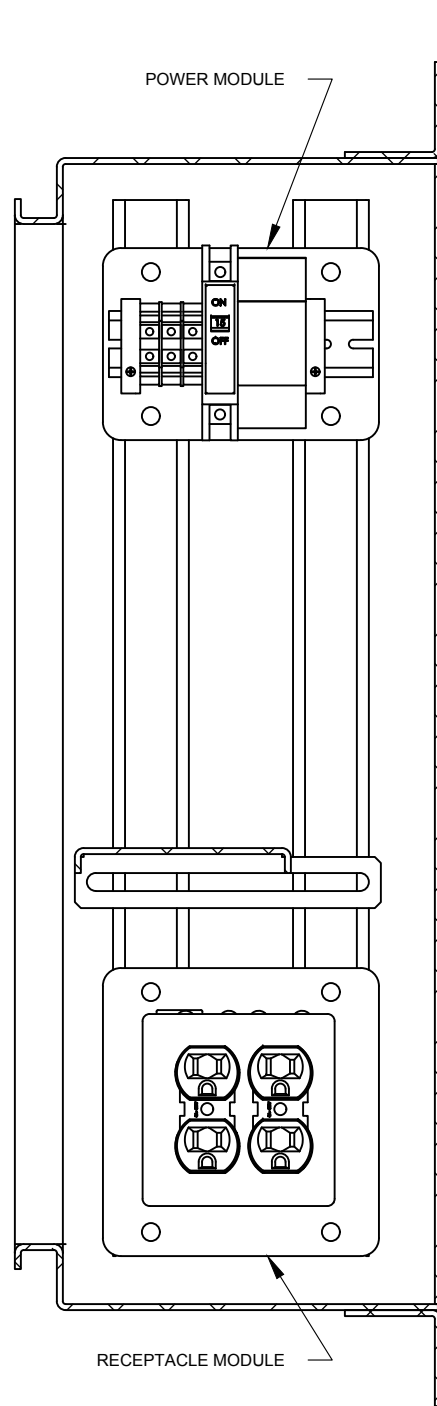


NYCDOT TRAFFIC SIGNAL STANDARD DRAWINGS, Jun 2020

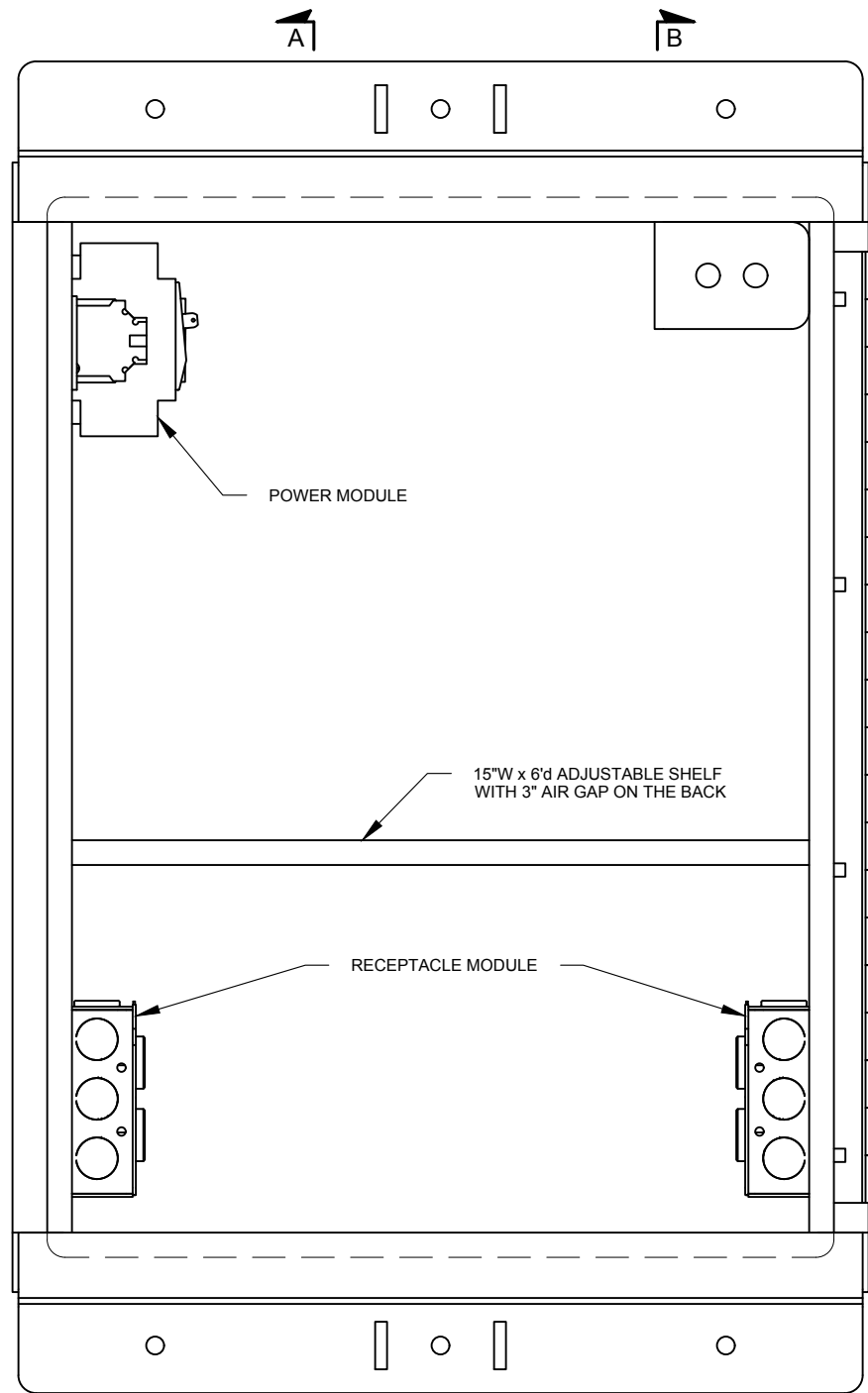


REVISION			
NO	DATE	BY	DESCRIPTION
0	06/2019	DR	CREATED

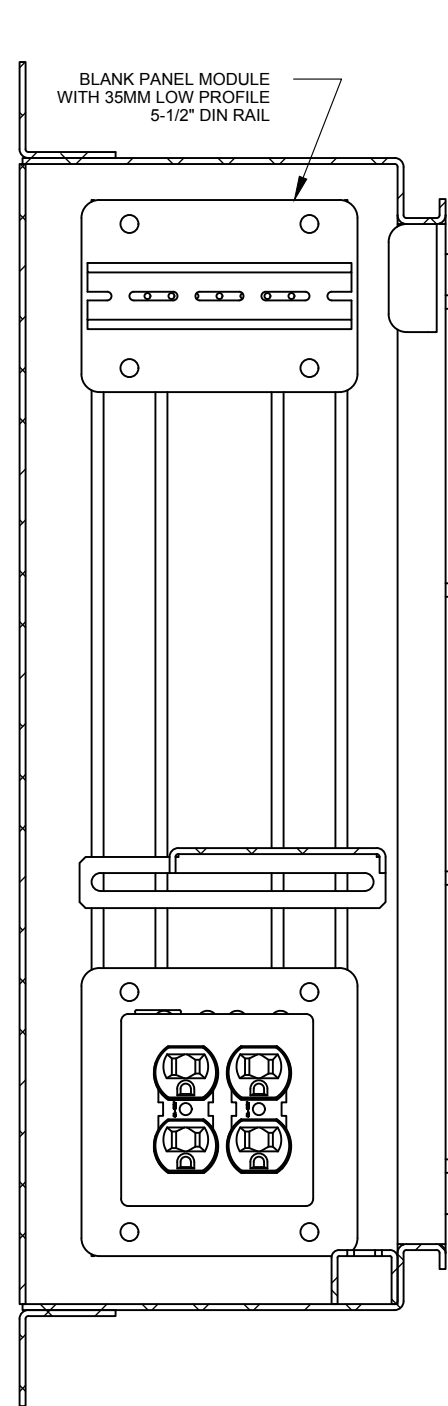
DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
RTMS CABINET ASSEMBLY - WIRING DIAGRAM		
SCALE:	OLD DRAWING NO.	DRAWING NO.
N.T.S.		MISC-029_2



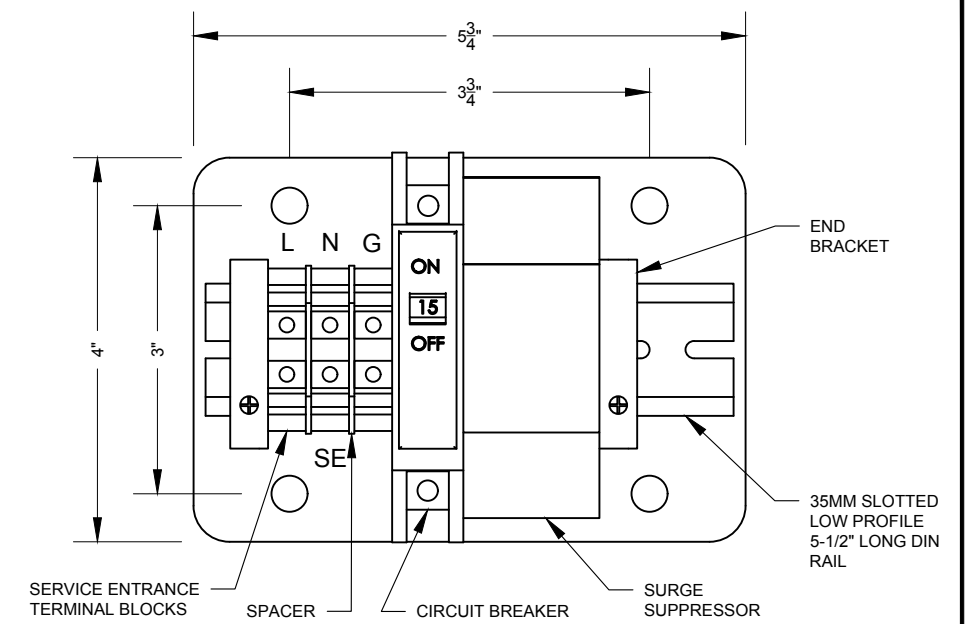
SECTION "A-A"



ADJUSTABLE SHELF

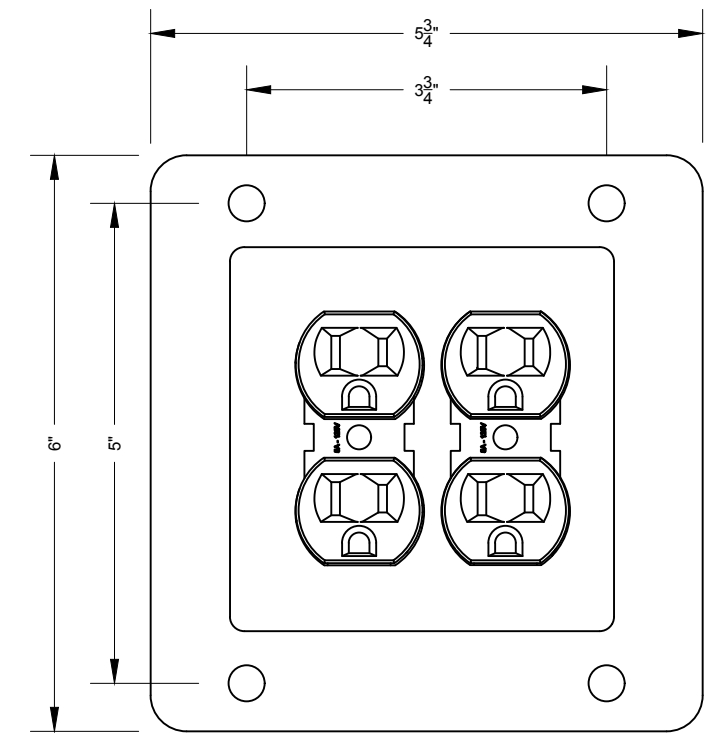


SECTION "B-B"



POWER MODULE

SCALE 6"=1'0"



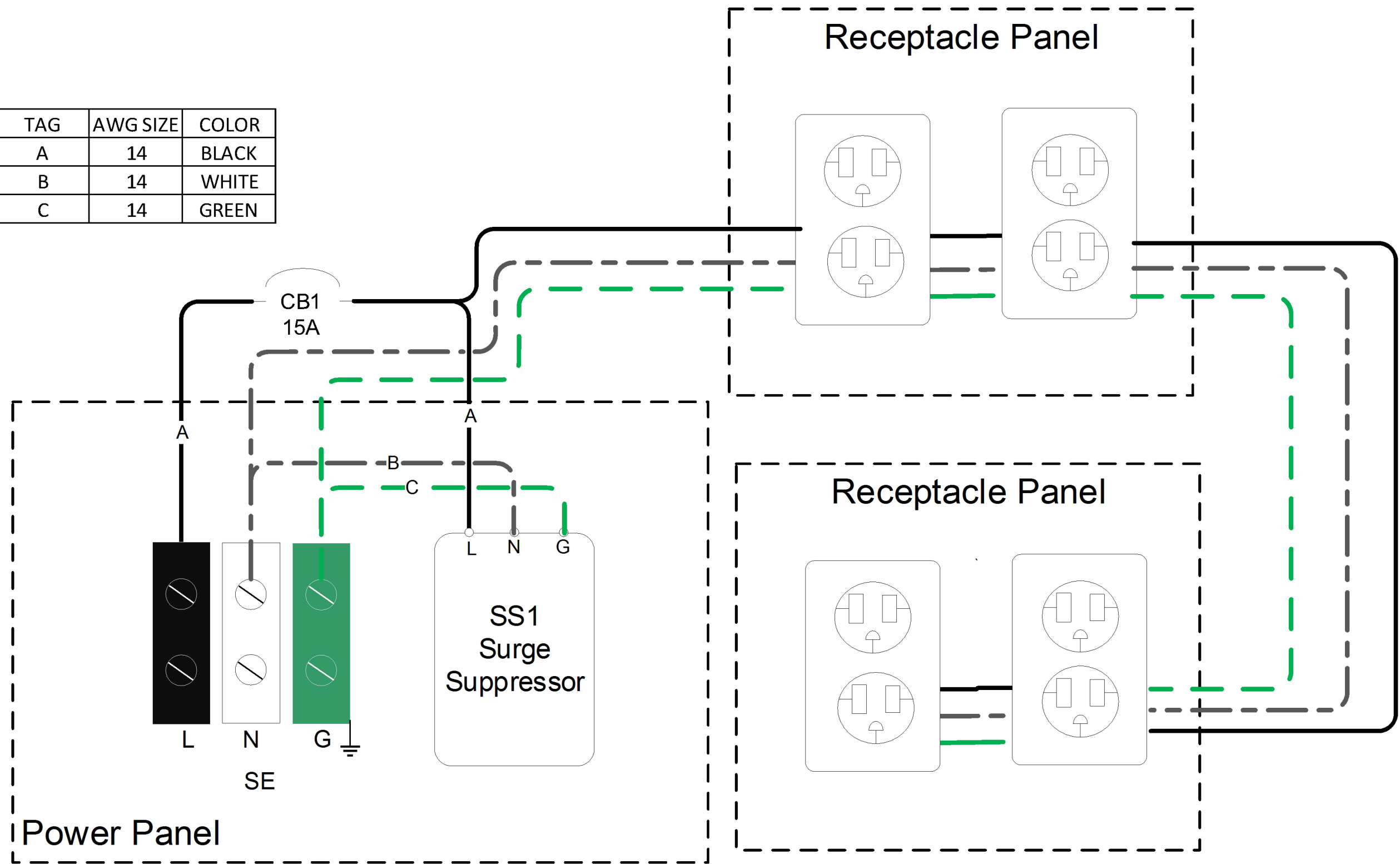
RECEPTACLE MODULE

SCALE 6"=1'0"



REVISION				DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
0	07/2019	DR	CREATED	FIBER OPTIC CABINET ASSEMBLY - MODULES ARRANGEMENT		
NO	DATE	BY	DESCRIPTION	SCALE: N.T.S.	OLD DRAWING NO.	DRAWING NO. MISC-030_1

TAG	AWG SIZE	COLOR
A	14	BLACK
B	14	WHITE
C	14	GREEN

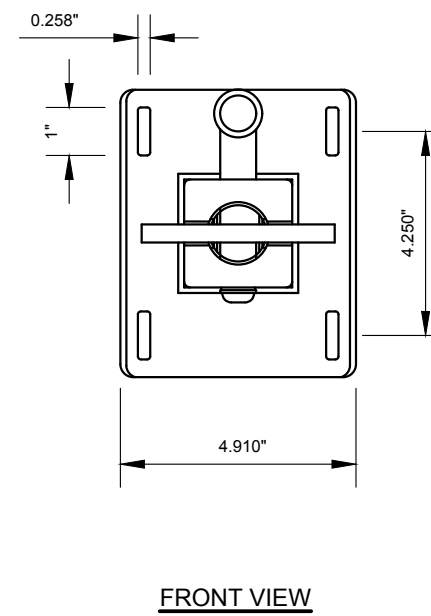
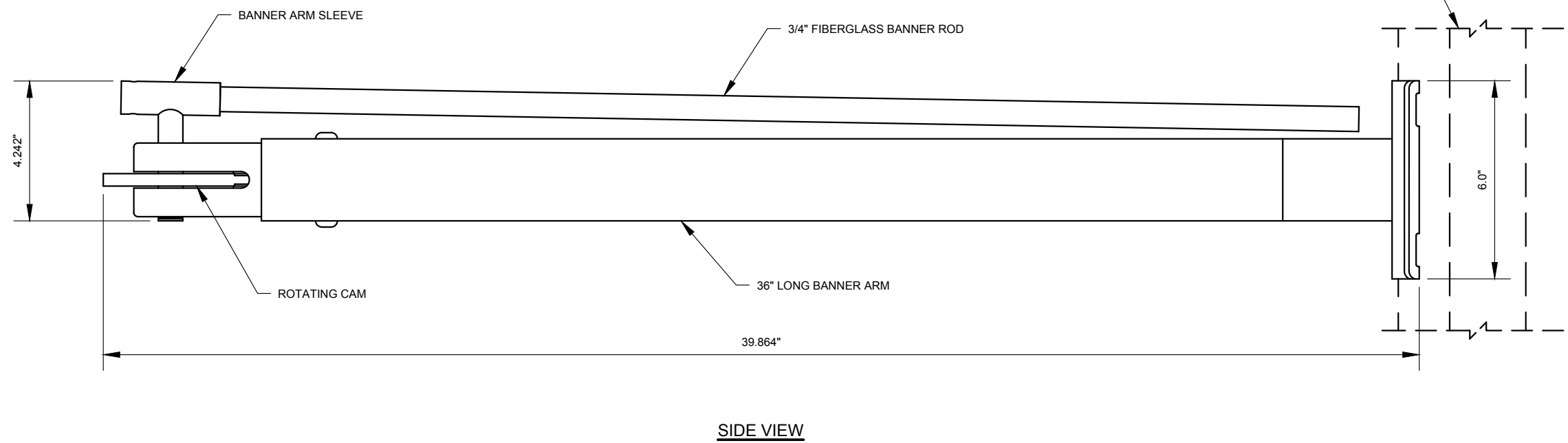
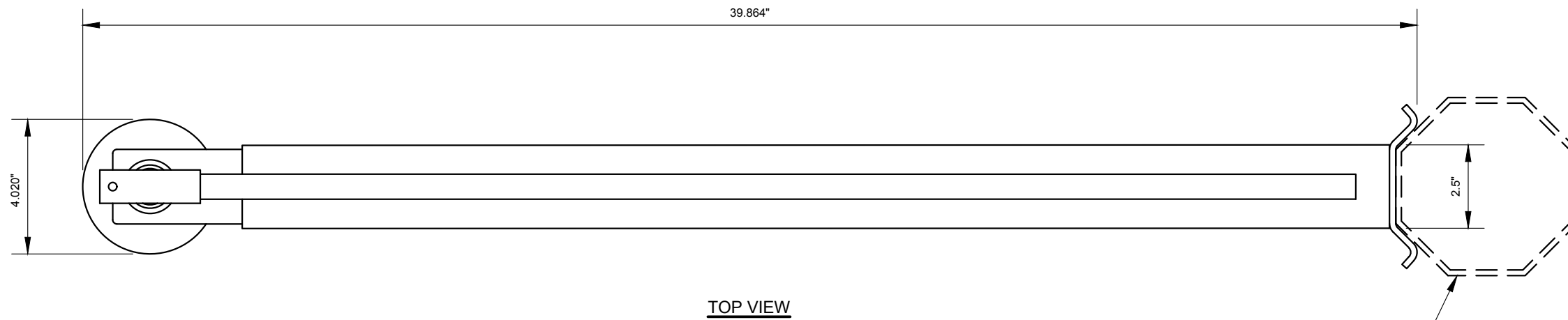


NYCDOT TRAFFIC SIGNAL STANDARD DRAWINGS, Jun 2020



REVISION			
NO	DATE	BY	DESCRIPTION
0	07/2019	DR	CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
FIBER OPTIC CABINET ASSEMBLY - WIRING DIAGRAM		
SCALE:	OLD DRAWING NO.	DRAWING NO.
N.T.S.		MISC-030_2



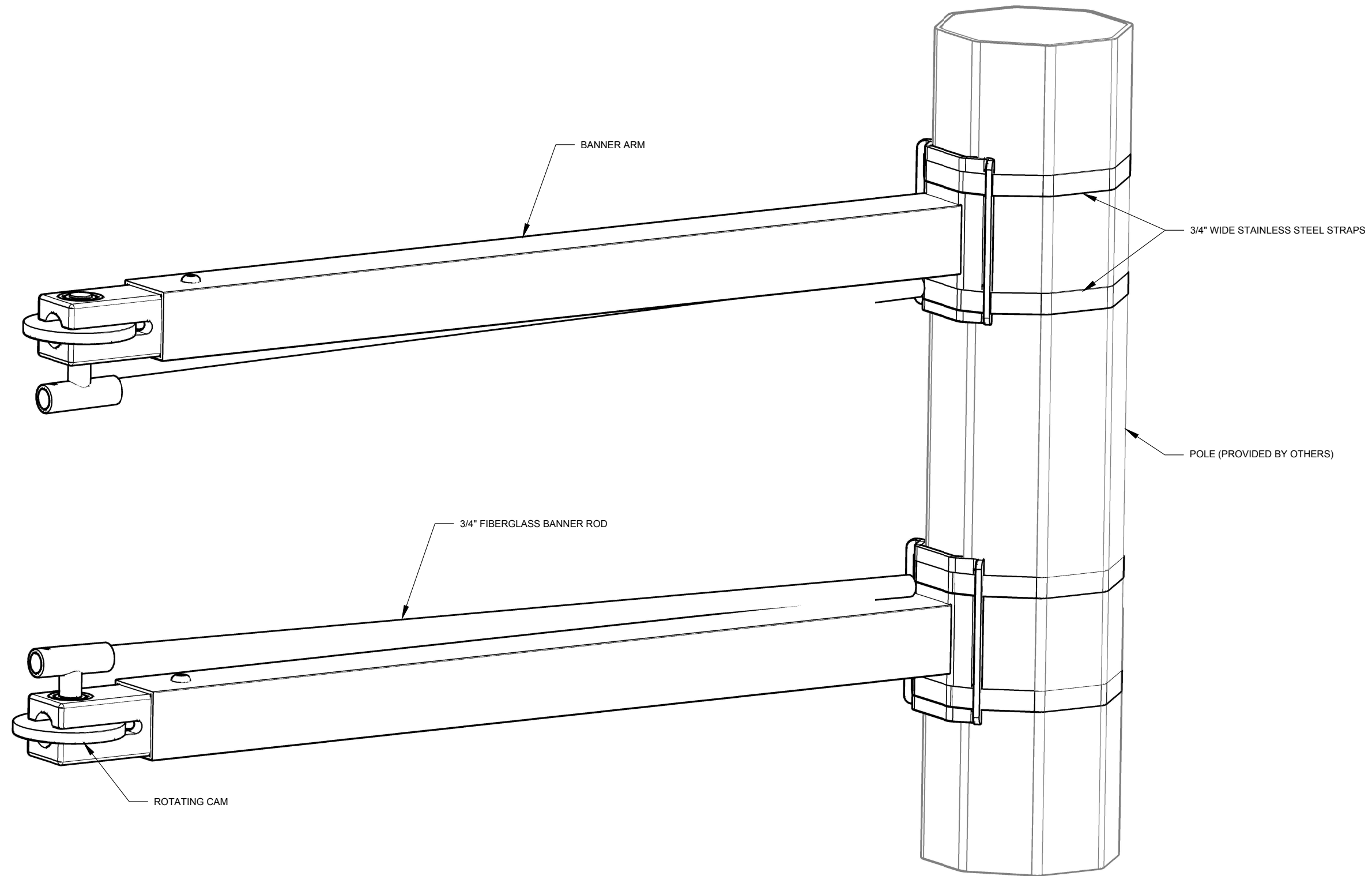
NOTES:

1. THE BANNER SIZE WILL BE EITHER EIGHT FEET BY THREE FEET OR EIGHT FEET BY EIGHTEEN INCHES.
2. THE FLEXIBLE BANNER BRACKET MUST REACT TO WIND LOAD NOT WIND SPEED AND BE ABLE TO ROTATE TO DEFLECT WIND SPEED GREATER THAN 25 MPH AND TO REPOSITION TO ITS ORIGINAL CONFIGURATION WITH WIND SPEEDS LESS THAN 25 MPH.
3. THE FLEXIBLE BANNER BRACKET MUST MEET OR EXCEED THE LATEST AASHTO STRUCTURAL DESIGN REQUIREMENT - TOPOGRAPHIC CATEGORY OF 1, STRUCTURE CLASS I WITH A 300-YEAR MRI AND EXPOSURE CATEGORY C.
4. THE FLEXIBLE BANNER BRACKET SHALL BE MADE OUT OF ALUMINUM AND POWDER COATED TO REDUCE EXPOSURE TO THE ELEMENTS.
5. ALL MOVING AND STATIONARY PARTS ASSOCIATED WITH THE ENTIRE BANNER BRACKET ITSELF SHOULD BE THAT OF CORROSION RESISTANT MATERIALS TO WATER, SALT-AIR, OXIDATION, ETC.
6. SPRINGS, CAMS OR OTHER MEANS USED FOR RE-CENTERING OF THE BANNER BRACKET MUST BE MADE OF A NON-CORRODING MATERIAL WITH ACCESS FOR PERIODIC LUBRICATION, SUCH AS STAINLESS STEEL



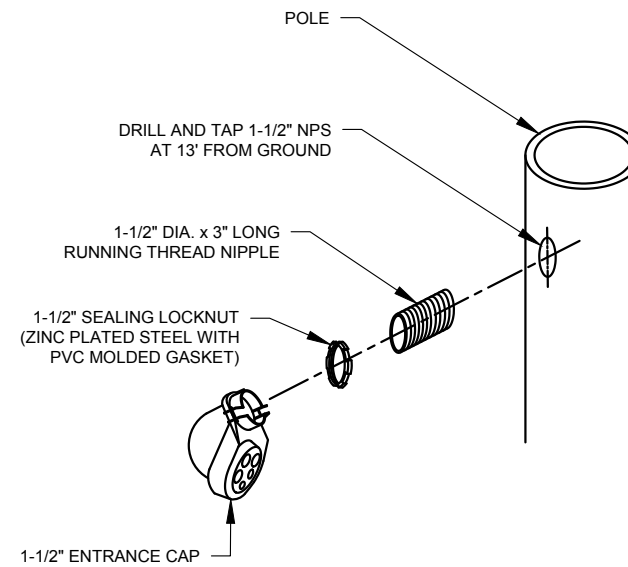
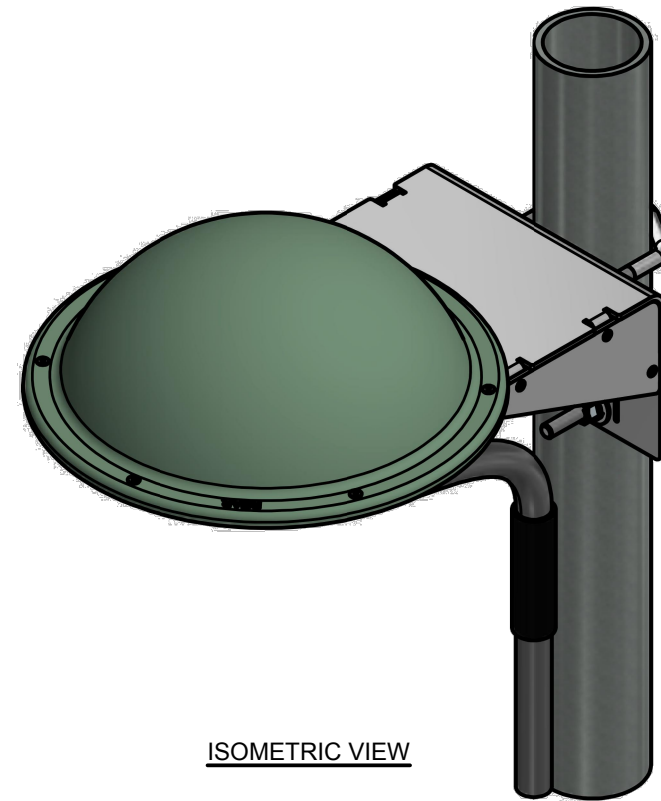
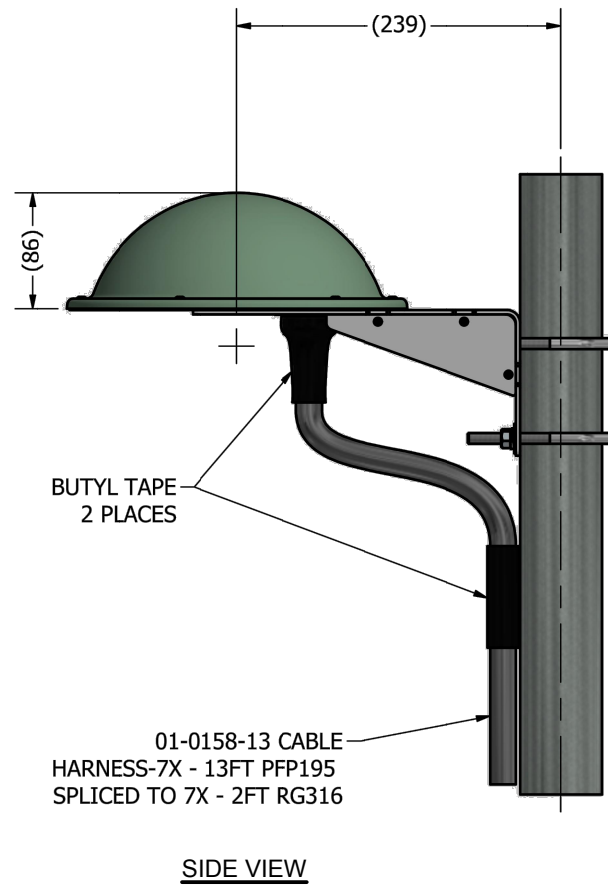
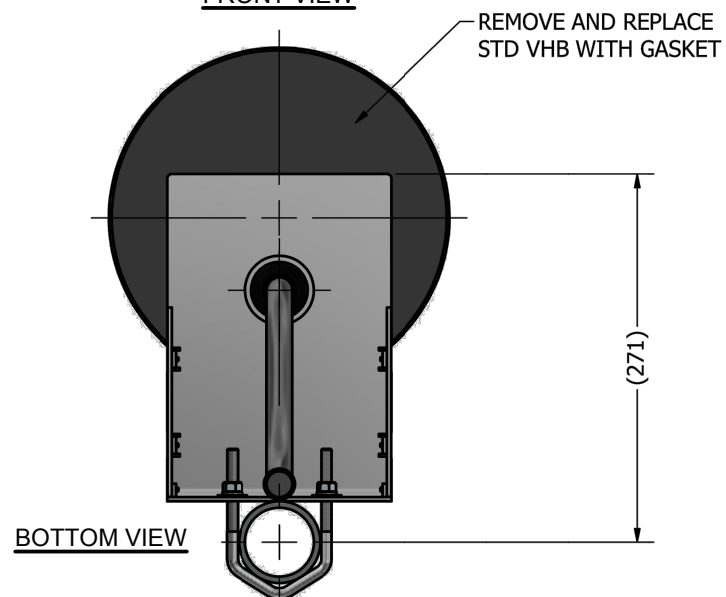
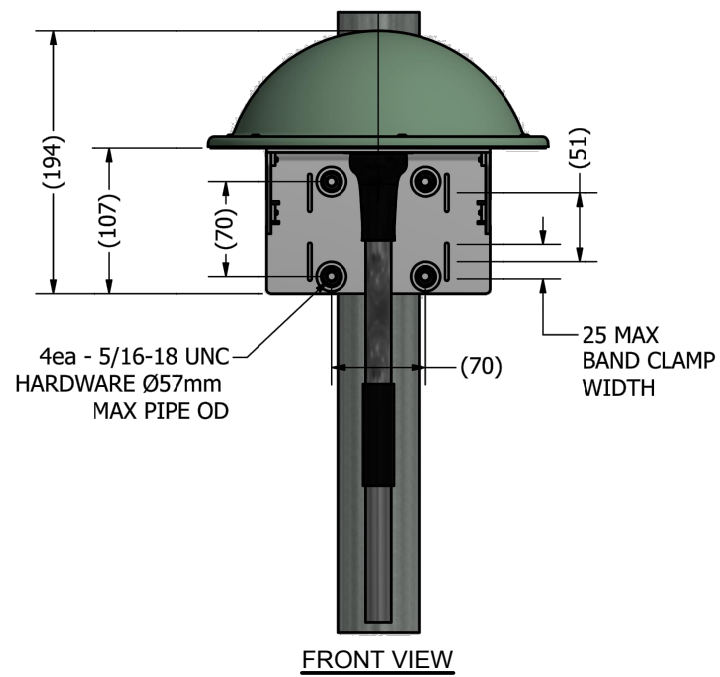
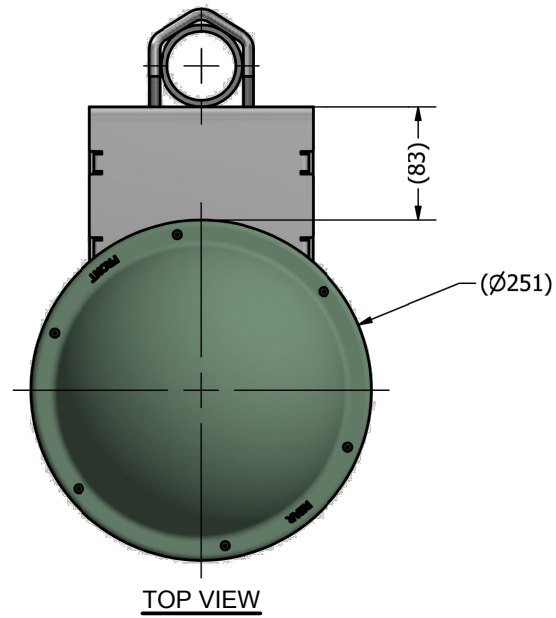
REVISION			
NO	DATE	BY	DESCRIPTION
0	11/2019	DR	CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
LOAD LIMITING BANNER BRACKET DETAILS		
SCALE:	OLD DRAWING NO.	DRAWING NO.
3"=1'-0"		MISC-031_1



REVISION			
NO	DATE	BY	DESCRIPTION
0	11/2019	DR	CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
LOAD LIMITING BANNER BRACKET POLE ARRANGEMENT		
SCALE:	OLD DRAWING NO.	DRAWING NO.
N.T.S.		MISC-031_2



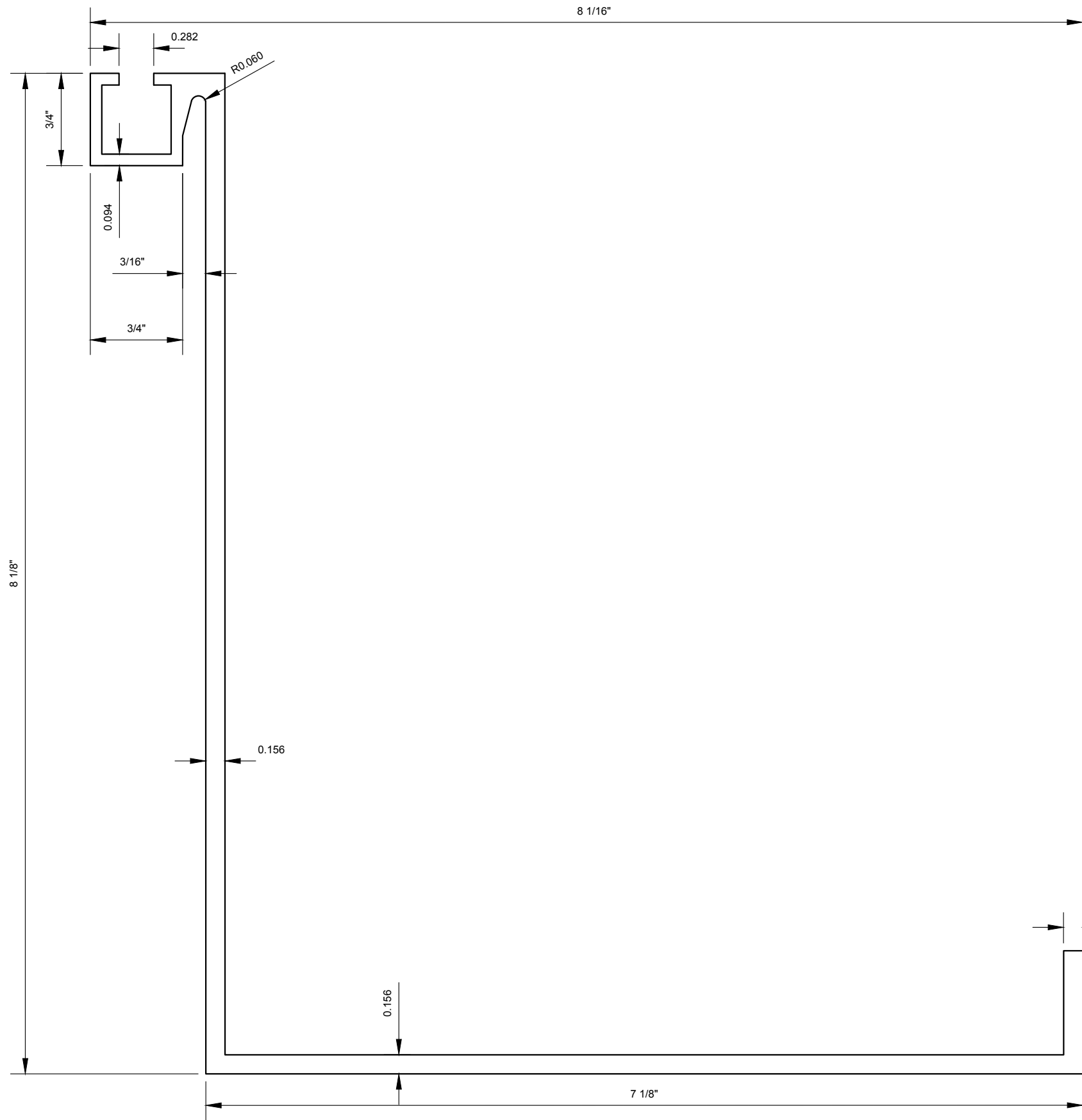
NOTES:

1. ANTENNA AND CABLE HARNESS TO BE SHIPPED PRE INSTALLED TO ALUMINUM BRACKET. MOUNTING HARDWARE SHIPPED LOOSE.
2. ALL MATERIAL SHALL BE ROHS COMPLIANT.
3. ANTENNA SHALL BE FACING AWAY FROM TRAFFIC.

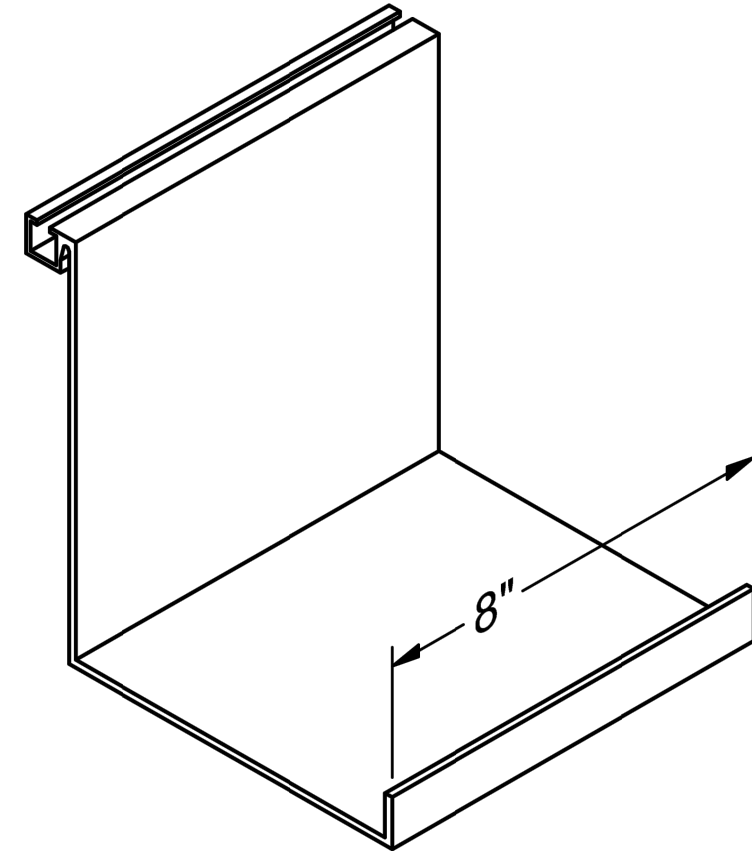


REVISION			
NO	DATE	BY	DESCRIPTION
0	02/2020	DR	CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
REMOTE POLE TOP MOUNT OF ASTC ANTENNA WITH BRACKET ASSEMBLY DETAIL		
SCALE:	OLD DRAWING NO.	DRAWING NO.
N.T.S.		MISC-032



SIDE VIEW
SCALE: 1'-0" = 1'-0"



ISOMETRIC VIEW
SCALE: N.T.S.

NOTES:

1. ALL MATERIAL SHALL BE ALUMINUM 6063-T6 IN MILL FINISH.



REVISION				DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
0	06/2020	DR	CREATED	ASTC CABINET BRACKET FOR COMMERCIAL CARRIER CELLULAR NETWORK MODEM KIT		
NO	DATE	BY	DESCRIPTION			
				SCALE:	OLD DRAWING NO.	DRAWING NO.
				AS NOTED		MISC-033



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



REVISION			
NO	DATE	BY	DESCRIPTION
1	05/2013	GPI	REPLICATED IN CADD
0	05/2013	DR	CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
SIGNALS ON "M-2A" POLES		
SCALE:	OLD DRAWING NO.	DRAWING NO.
N.T.S.		AI-001



DECORATIVE "M-2A" POLE DETAILS



REVISION			
NO	DATE	BY	DESCRIPTION
1	05/2013	GPI	REPLICATED IN CADD
0	05/2013	DR	CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
DECORATIVE "M-2A" POLE		
SCALE:	OLD DRAWING NO.	DRAWING NO.
N.T.S.		AI-002



SIGNAL SUSPENSION ASSEMBLY



"TWO-WAY" SPIDER ASSEMBLY



"THREE-WAY" SPIDER ASSEMBLY



"FOUR-WAY" SPIDER ASSEMBLY



SIGNAL WEATHERHEAD "L2A"



CONCENTRIC LINK "K2A"



TIE ROD ELBOW "J2A"



"TWO-WAY" SIGNAL HEAD TIE



"THREE-WAY" SIGNAL HEAD TIE



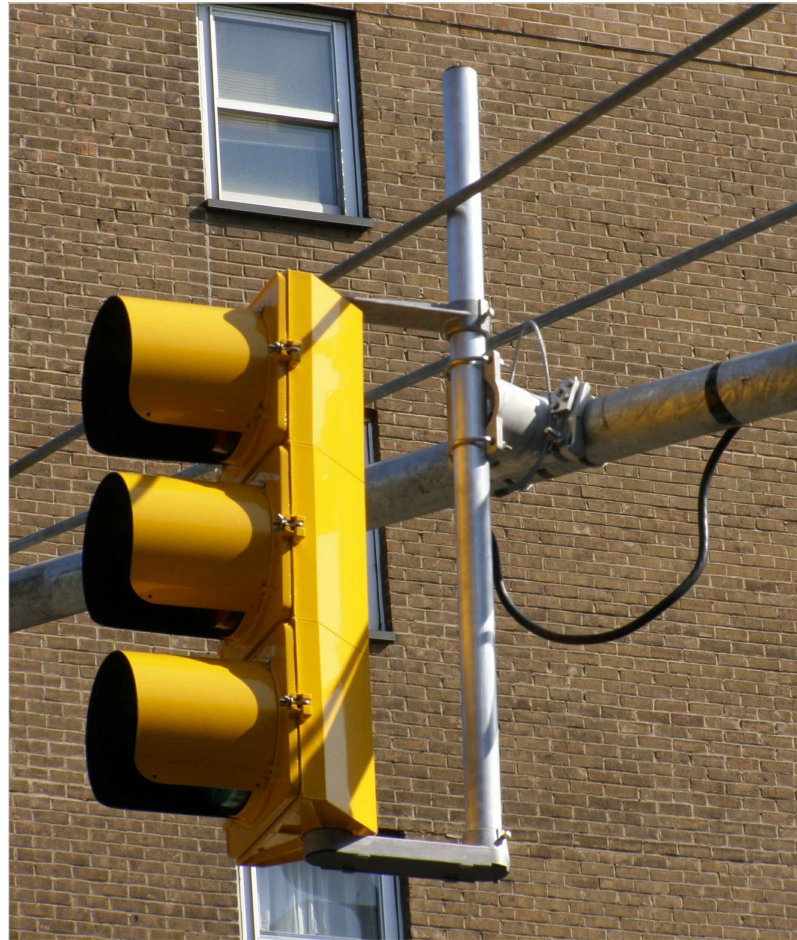
"FOUR-WAY" SIGNAL HEAD TIE

NYCDOT TRAFFIC SIGNAL STANDARD DRAWINGS, Jun 2020



REVISION			
NO	DATE	BY	DESCRIPTION
1	05/2013	GPI	REPLICATED IN CADD
0	05/2013	DR	CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
ARTICULATED MAST ARM SIGNAL INSTALLATION (SPIDER ASSEMBLIES)		
SCALE:	OLD DRAWING NO.	DRAWING NO.
N.T.S.		AI-003



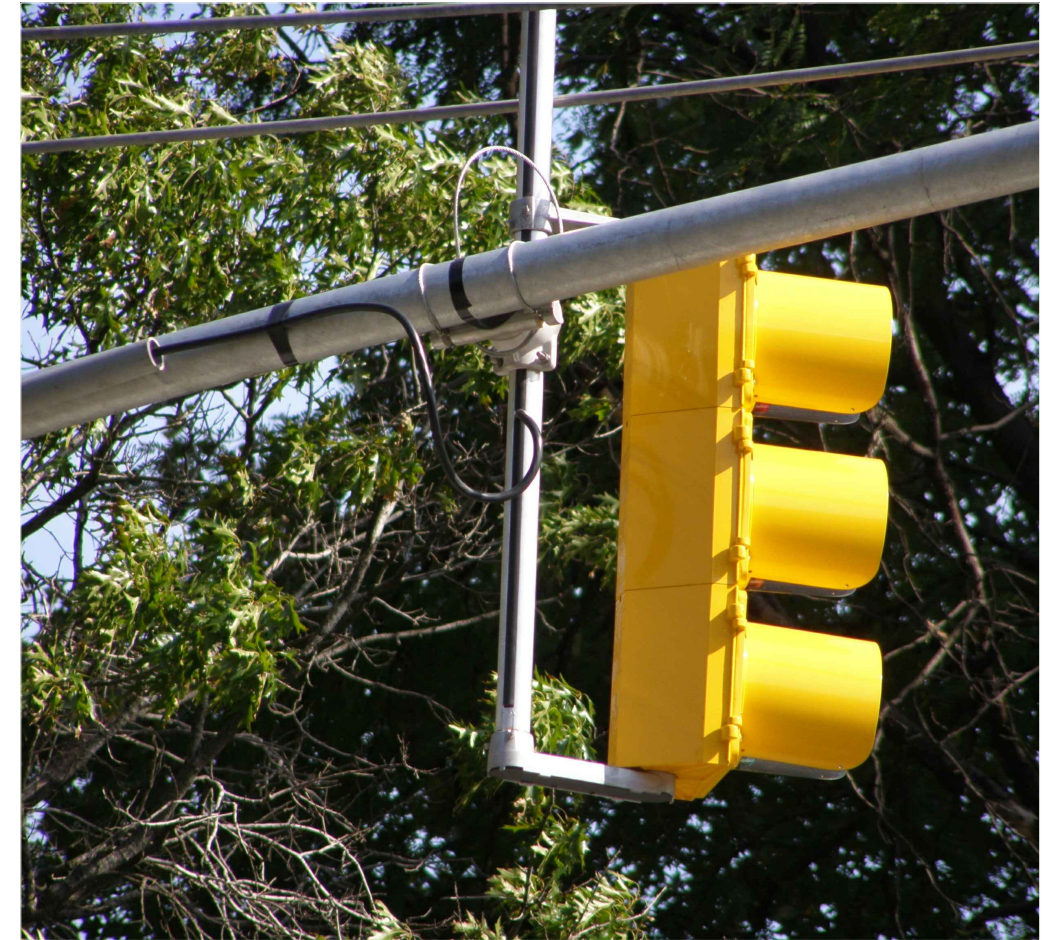
RIGID MAST ARM TRAFFIC SIGNAL INSTALLATION
FRONT VIEW



RIGID MAST ARM "ONE-WAY" ASSEMBLY



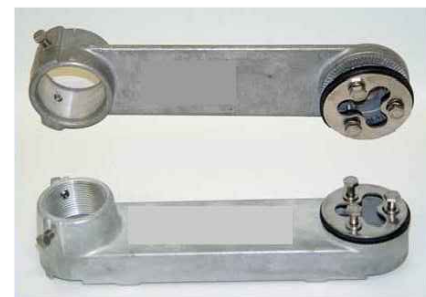
RIGID MAST ARM "TWO-WAY" ASSEMBLY



RIGID MAST ARM TRAFFIC SIGNAL INSTALLATION
BACK VIEW



MAST ARM CLAMP
FRONT VIEW



MOUNTING ARMS FOR TRAFFIC SIGNALS



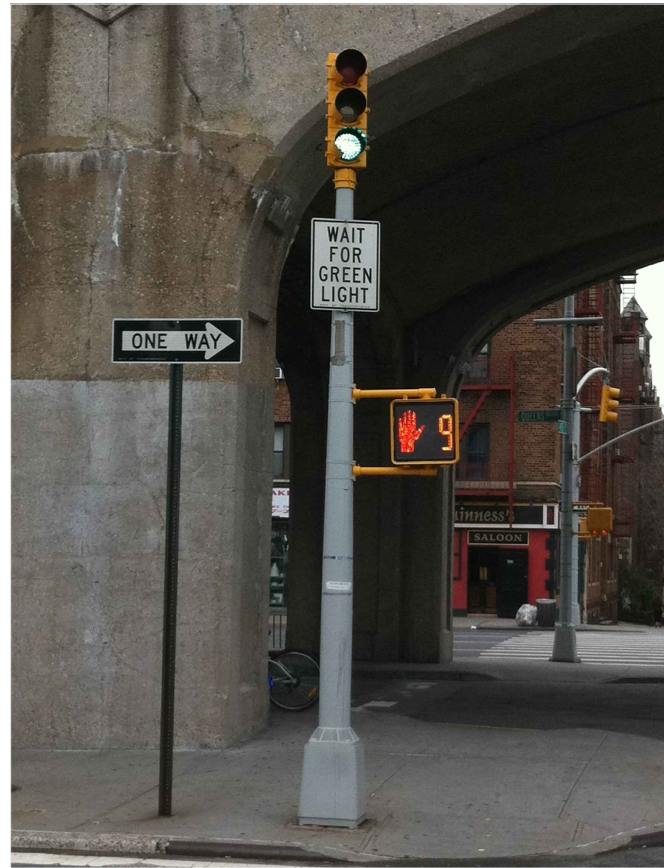
MAST ARM CLAMP
BACK VIEW

NYCDOT TRAFFIC SIGNAL STANDARD DRAWINGS, Jun 2020



REVISION			
NO	DATE	BY	DESCRIPTION
1	05/2013	GPI	REPLICATED IN CADD
0	05/2013	DR	CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
RIGID MAST ARM SIGNAL INSTALLATION		
SCALE:	OLD DRAWING NO.	DRAWING NO.
N.T.S.		AI-004



TRAFFIC AND PEDESTRIAN SIGNALS ON "S-14A" POLE



TRAFFIC SIGNAL ON "S-1a" POLE



SLIPFITTER POLE SIGNAL MOUNTING ASSEMBLY "3SPA"



SLIPFITTER "1SA"



SLIPFITTER "4SPA"



SERRATED TEE



CHASE NIPPLE



CLOSURE CAPS

NYC DOT TRAFFIC SIGNAL STANDARD DRAWINGS, Jun 2020

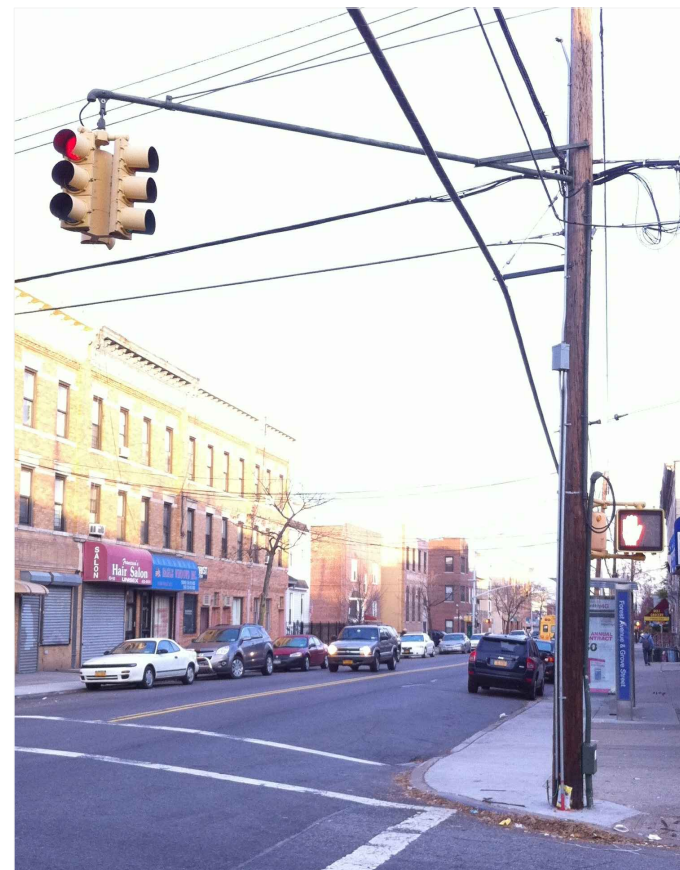


REVISION			
NO	DATE	BY	DESCRIPTION
1	05/2013	GPI	REPLICATED IN CADD
0	05/2013	DR	CREATED

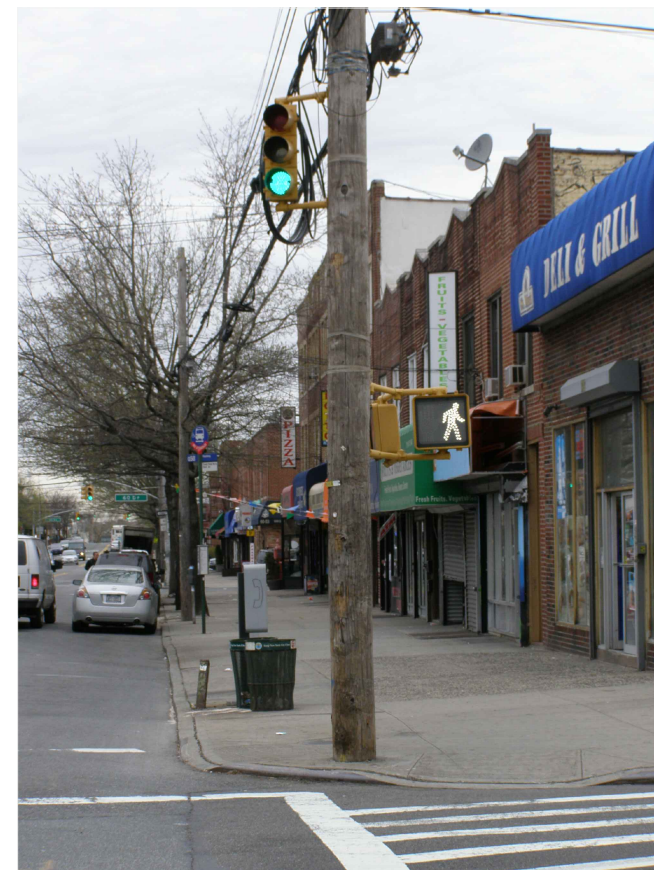
DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
SIGNALS ON "S-1a" POLES		
SCALE:	OLD DRAWING NO.	DRAWING NO.
N.T.S.		AI-005



"MAW-15" SIGNAL SUSPENSION ASSEMBLY



"MAW-15" ASSEMBLY



"WP" ASSEMBLY



WOOD POLE BRACKET "WP"



SIGNAL WEATHERHEAD "L2A"



CONCENTRIC LINK "K2A"



MAST ARM TRAFFIC SIGNAL HEAD "R2"

NYCDOT TRAFFIC SIGNAL STANDARD DRAWINGS, Jun 2020



REVISION				DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
1	05/2013	GPI	REPLICATED IN CADD	SIGNALS ON WOOD POLES		
0	05/2013	DR	CREATED			
NO	DATE	BY	DESCRIPTION	SCALE:	OLD DRAWING NO.	DRAWING NO.
				N.T.S.		AI-006



WOOD POLE BRACKETS "WP"



"WB-P" ASSEMBLY



"WB-2P" ASSEMBLY

PEDESTRIAN SIGNALS ON WOOD POLE



"VB-P" ASSEMBLY



"VB-2P" ASSEMBLY

PEDESTRIAN SIGNALS ON METAL POLE



PEDESTRIAN COUNTDOWN SIGNAL



LAWTON HUB



SERRATED TEE



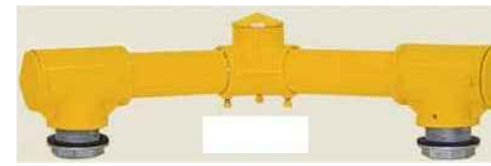
CLOSURE CAP



PEDESTRIAN SIGNAL MOUNTING ASSEMBLY "VB-P"



120° "Y" FITTING



PEDESTRIAN SIGNAL MOUNTING ASSEMBLY "VB-2P"



NYC DOT TRAFFIC SIGNAL STANDARD DRAWINGS, Jun 2020



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1	05/2013	GPI	REPLICATED IN CADD
0	05/2013	DR	CREATED

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PEDESTRIAN SIGNALS		
SCALE:	OLD DRAWING NO.	DRAWING NO.
N.T.S.		AI-007



APS ON TYPICAL METAL POLE



APS ON TYPICAL WOOD POLE



APS ON TYPICAL "APS POLE"



APS ON CONTROLLER CABINER



REVISION			
NO	DATE	BY	DESCRIPTION
1	04/2018	DR	NEW APS-WOOD POLE CONNECTION
0	05/2013	DR	CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
ACCESSIBLE PEDESTRIAN SIGNALS		
SCALE:	OLD DRAWING NO.	DRAWING NO.
N.T.S.		AI-008



OVERHEAD SIGN ON "GCP" POLE



OVERHEAD SIGN ON "M-2A" COMBO POLE



REVISION			
NO	DATE	BY	DESCRIPTION
1	05/2013	GPI	REPLICATED IN CADD
0	05/2013	DR	CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
OVERHEAD SIGN INSTALLATION EQUIPMENT		
SCALE:	OLD DRAWING NO.	DRAWING NO.
N.T.S.		AI-009

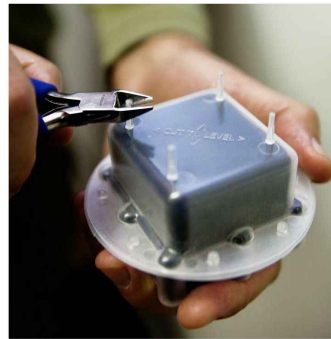


REVISION			
NO	DATE	BY	DESCRIPTION
1	05/2013	GPI	REPLICATED IN CADD
0	05/2013	DR	CREATED

DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C., N.Y. 11101		
SPEED SIGN UNIT		
SCALE:	OLD DRAWING NO.	DRAWING NO.
N.T.S.		AI-010



1. SENSOR AND SHELL ASSEMBLY



2. ADJUSTING SENSOR INSTALLATION HIGHT



3. CLEANING SENSOR HOLE



4. INITIAL EPOXY APPLICATION



5. PLACING THE SENSOR



6. FILLING SENSOR HOLE WITH EPOXY

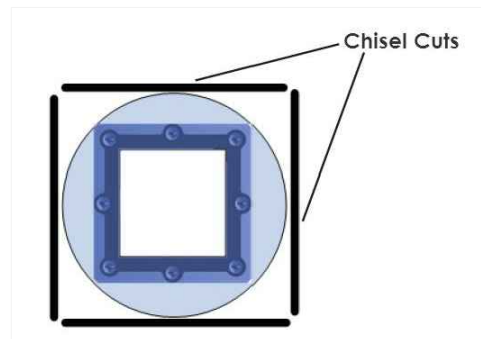


7. FILLING SENSOR HOLE WITH EPOXY UNTIL LEVELED WITH ROAD SURFACE



8. INSTALLED SENSOR

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

WIRELESS SENSOR REMOVAL PROCEDURE



REVISION			
NO	DATE	BY	DESCRIPTION
1	05/2013	GPI	REPLICATED IN CADD
0	05/2013	DR	CREATED

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

WIRELESS SENSOR

SCALE:	OLD DRAWING NO.	DRAWING NO.
N.T.S.		AI-011



LAWTON HUB



SERRATED TEE



CLOSURE CAP



FLASHING SIGNAL MOUNTING ASSEMBLY



REVISION				DEPARTMENT OF TRANSPORTATION BUREAU OF TRAFFIC OPERATIONS 34-02 QUEENS BLVD L.I.C.,N.Y.11101		
1	05/2013	GPI	REPLICATED IN CADD	SCHOOL ZONE FLASHER INSTALLATION EQUIPMENT		
0	05/2013	DR	CREATED			
NO	DATE	BY	DESCRIPTION	SCALE:	OLD DRAWING NO.	DRAWING NO.
				N.T.S.		AI-012



New York City Department of Transportation