

GENERAL INSTALLATION GUIDE LINES:

1. BE SURE THE SURFACE OF THE CONCRETE WALL IS FLAT AND SMOOTH.
2. ONE FASTENER SHOULD BE INSTALLED IN EACH OF THE SADDLE RACKS ELONGATED HOLES.
3. INSTALL EACH DROP-IN ANCHOR AS SHOWN ON THIS DRAWING AND AS DESCRIBED BELOW.
 - A. DRILL A 5/8" DIA HOLE 2-3/32" DEEP.
 - B. BLOW OUT HOLE.
 - C. DRIVE ANCHOR 3/32" TO 5/32" BELOW THE SURFACE OF THE CONCRETE SURFACE.
 - D. EXPAND ANCHOR WITH FRT112 SETTING TOOL. ANCHOR IS PROPERLY SET WHEN SHOULDER OF SETTING TOOL IS FLUSH WITH THE TOP OF ANCHOR.
4. INSTALL THE FLAT WASHER AND TIGHTEN THE CAP SCREW JUST ENOUGH TO ATTAIN A SNUG FIT. AVOID HIGH SCREW TORQUE WHICH INDUCES COMPRESSIVE STRESS.

BILL OF MATERIAL

ITEM NUMBER	CATELOG NUMBER	DESCRIPTION	QUANTITY REQUIRED
①	FSRM-12	1/2"-13 DROP-IN ANCHOR MATERIAL: 303 STAINLESS STEEL	4
②	FFW316-18-40	FLAT WASHER ID-.562, OD-1.250, THK-.078 MATERIAL:316 STAINLESS STEEL	4
③	FHC316-16-040	1/2"-13 X 1 1/4" LG. HEX HEAD CAP SCREW MATERIAL:316 STAINLESS STEEL	4
④	3SR3	3SR3 SADDLE RACK MATERIAL: POLYCARBONATE*	1
⑤	3SRL	3SRL LOCK (OPTIONAL) MATERIAL: POLYCARBONATE*	3 MAX
⑥	FRT-112	SETTING TOOL (USED TO INSTALL CATALOG NO. FSRM-12 DROP-IN ANCHOR)	AS REQ'D

NOTES:

1. SADDLE RACK AND LOCK ARE ALSO AVAILABLE IN GLASS REINFORCED NYLON. ADD "N" SUFFIX TO CATELOG NUMBER.
2. REFER TO DWG. 613.15 TO 613.19 FOR ELECTRICAL MANHOLE DETAILS.

ISSUED: 8/2015
REVISION APPROVAL

RECOMMENDED: *Adil Raj*
PROJECT MANAGER

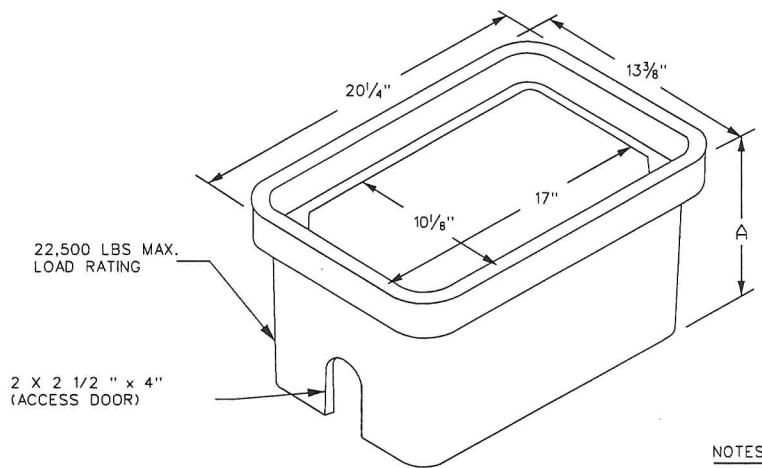
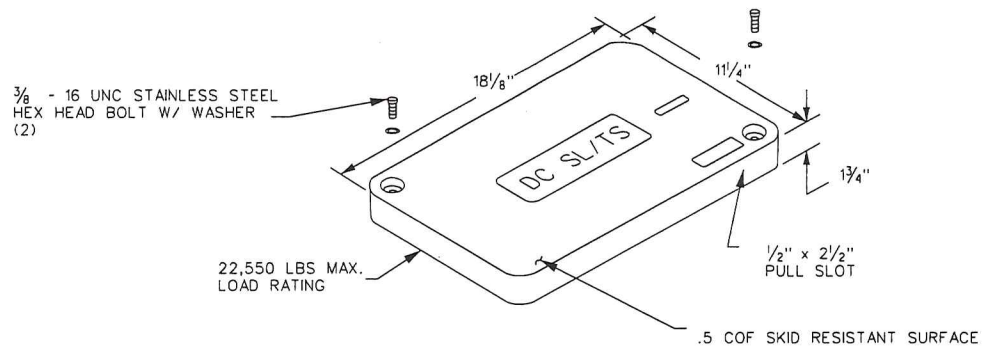
APPROVED: *Muhammed Khelid*
CHIEF ENGINEER

CABLE RACK ASSEMBLY

d.

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION

DWG. NO. 614.01



NOTES:

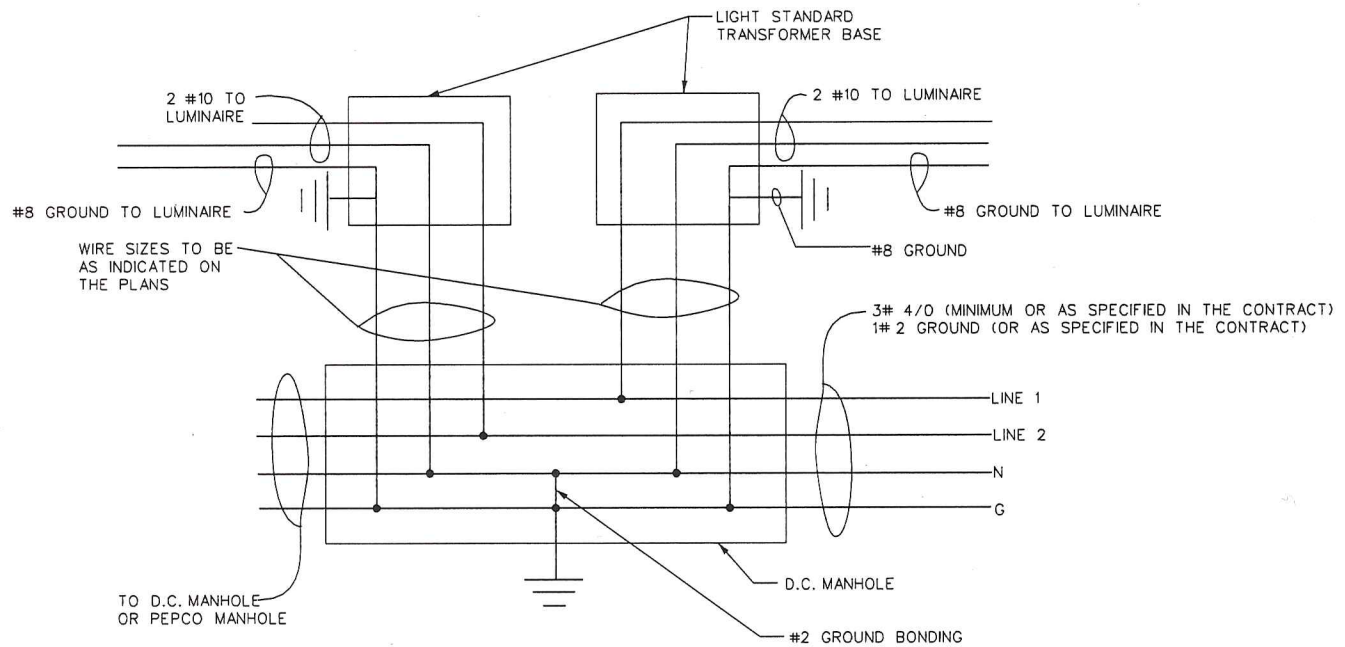
1. TYPICAL HANDHOLE SIZES MAY INCREASE DEPENDING ON THE ACTURAL ELECTRICAL WORK. ITEMS MUST BE APPROVED BY DDOT IN A CASE BY CASE BASIS.
2. MINIMUM LOAD RATINGS ARE FOR SIDEWALKS AND DRIVEWAYS.

ISSUED: 8/2015	RECOMMENDED:
REVISION	APPROVAL
	<i>Adil Raza</i> PROJECT MANAGER
	APPROVED: <i>Muhammed Kholid</i> CHIEF ENGINEER

HANDHOLE DETAILS

d. DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION

DWG. NO: 614.02



TYPICAL CABLE INSTALLATION
NOT TO SCALE

ISSUED: 8/2015

RECOMMENDED:

Adil Raza
PROJECT MANAGER

REVISION APPROVAL

APPROVED:

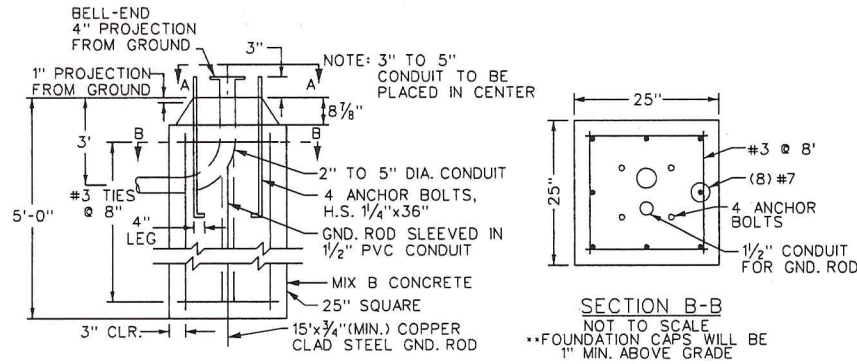
Muhammed Khalid
CHIEF ENGINEER

STREETLIGHT
CABLE INSTALLATION

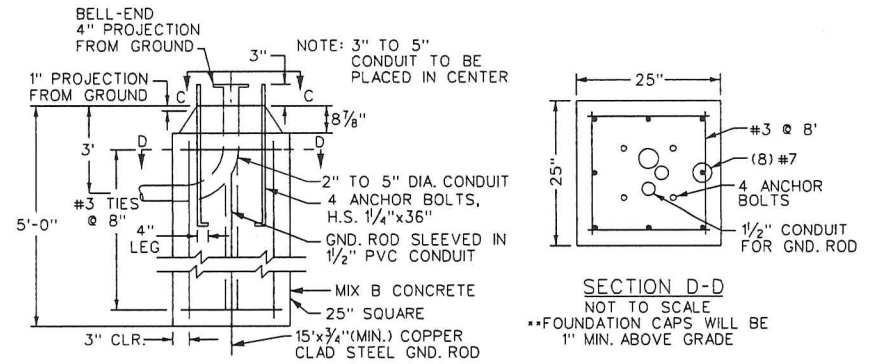
d.

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION

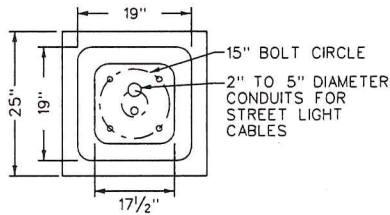
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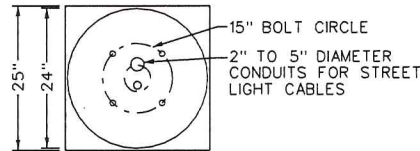
TYPICAL GROUND MOUNTED POLE FOUNDATION
WITHOUT TRAFFIC SIGNAL



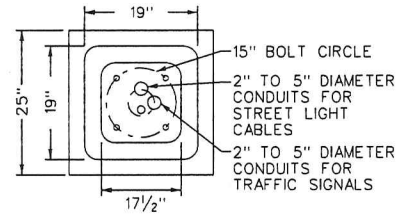
TYPICAL GROUND MOUNTED POLE FOUNDATION
WITH TRAFFIC SIGNAL



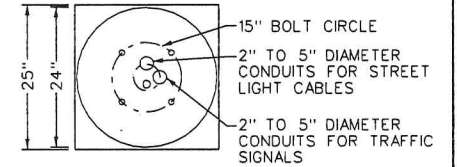
SECTION A-A
NOT TO SCALE
PENDANT POST CAP DETAIL



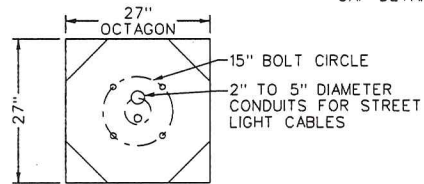
SECTION A-A
NOT TO SCALE
#16 AND #18
UPRIGHT POST
CAP DETAIL



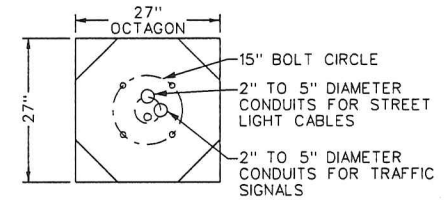
SECTION C-C
NOT TO SCALE
PENDANT POST CAP DETAIL



SECTION C-C
NOT TO SCALE
#16 AND #18 UPRIGHT
POST CAP DETAIL



SECTION A-A
NOT TO SCALE
TWIN 20 CAP DETAILS



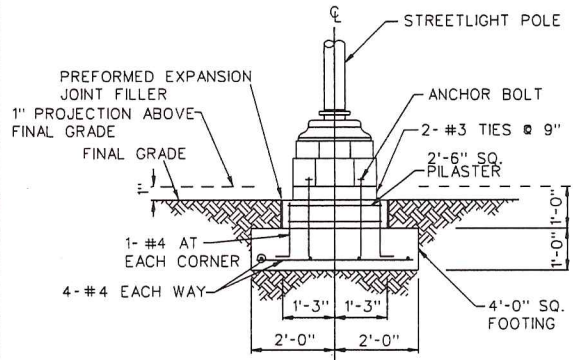
SECTION C-C
NOT TO SCALE
TWIN-20 POST CAP DETAIL

ISSUED: 8/2015	RECOMMENDED: <i>Adil Raza</i>
REVISION	APPROVAL
	PROJECT MANAGER
	APPROVED: <i>Muhammed Khalid</i>
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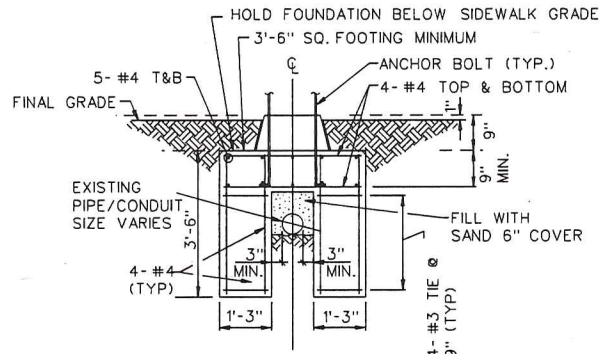
STREETLIGHT
FOUNDATIONS CAP DETAILS

d. DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION

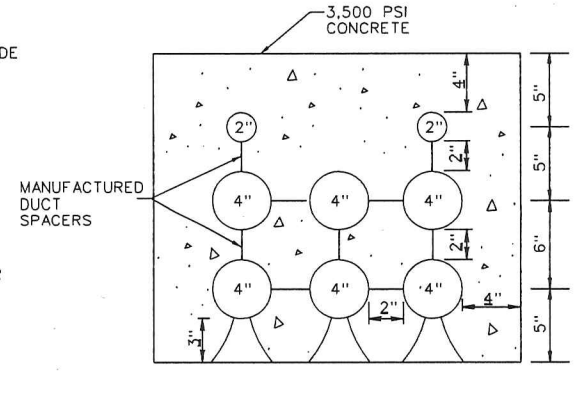
DWG. NO. 614.04



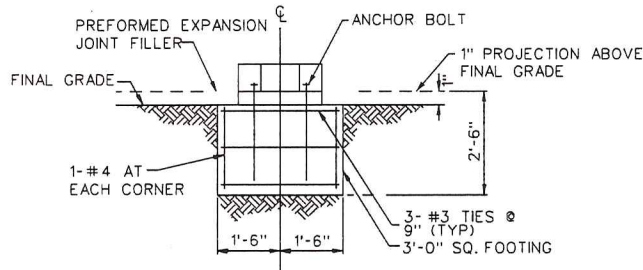
STREETLIGHT SPREAD FOOTING DETAIL I



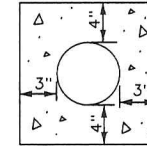
STREETLIGHT POLE SADDLE FOUNDATION



TYPICAL 6 DUCT BANK CONFIGURATION



STREETLIGHT SPREAD FOOTING DETAIL II



1 DUCT BANK CONFIGURATION

NOTES:

1. SADDLE AND SPREAD FOOTING CONDUIT ENTRY SHALL BE DETERMINED BY FIELD CONDITIONS.
2. SEE DRAWINGS 614.10 TO 614.17 FOR STREETLIGHT POLE DETAILS.
3. FOR ELECTRICAL MANHOLE DETAILS, SEE DWG. NOS. 613.15 TO 613.19.
4. CAP DETAIL SHALL COMFORM TO POLE BASE SCHEDULED TO BE INSTALLED.
5. REFER TO DWG. 613.25 FOR ELECTRICAL CONDUIT INSTALLATION DETAILS

DUCT BANK NOTES:

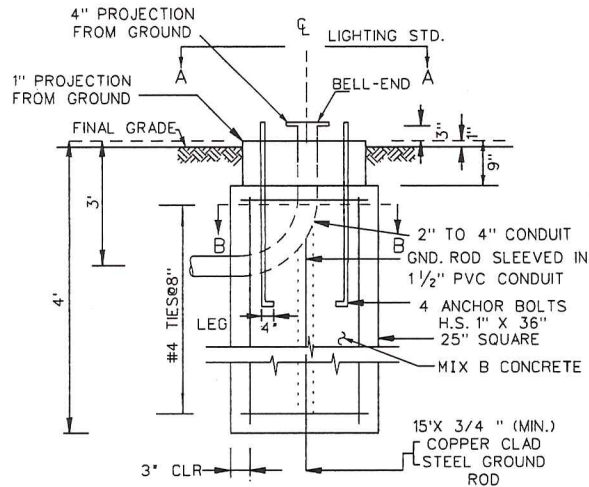
1. USE SPACERS FOR THE SPECIFIED CONDUIT SIZES.
2. SPACERS @ 5'-0" AND INSTALL WITHIN 1' OF COUPLING.

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	APPROVED: <i>Muhammed Khalid</i>
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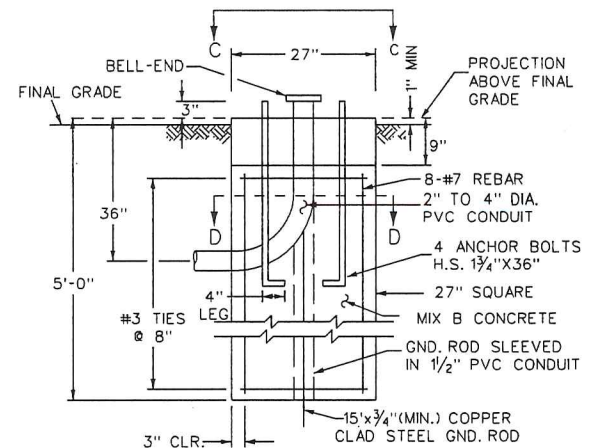
STREETLIGHT FOUNDATIONS AND TYPICAL CONDUIT CONFIGURATION DETAILS

d. DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION

DWG. NO. 614.05



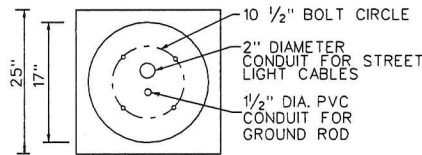
NO. 14-N POLE FOUNDATION
10 1/2" BOLT CIRCLE FOUNDATION



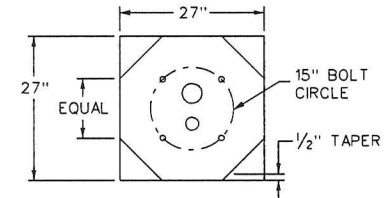
TWIN 20 GROUND MOUNTED POLE FOUNDATION
15" BOLT CIRCLE FOUNDATION

NOTES:

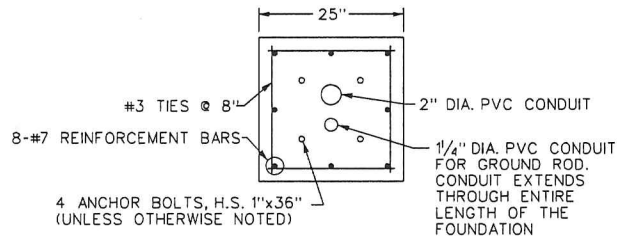
1. FOUNDATION CAPS SHALL BE 1" MINIMUM ABOVE GRADE
2. 3" TO 5" DIAMETER CONDUIT TO BE PLACED IN CENTER
3. THE DISTANCE OF CENTER OF FOUNDATION TO FACE OF CURB IS TO BE 3', UNLESS OTHERWISE NOTED
4. DOOR OF TRANSFORMER BASE TO BE 90 FROM CURB



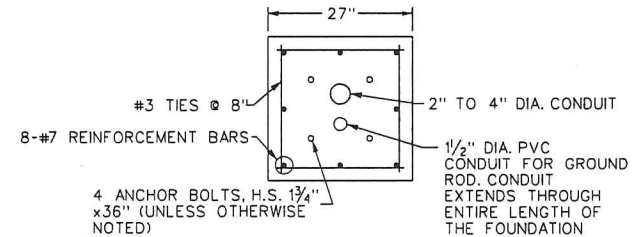
SECTION A-A
NOT TO SCALE



SECTION C-C
NOT TO SCALE



SECTION B-B
NOT TO SCALE



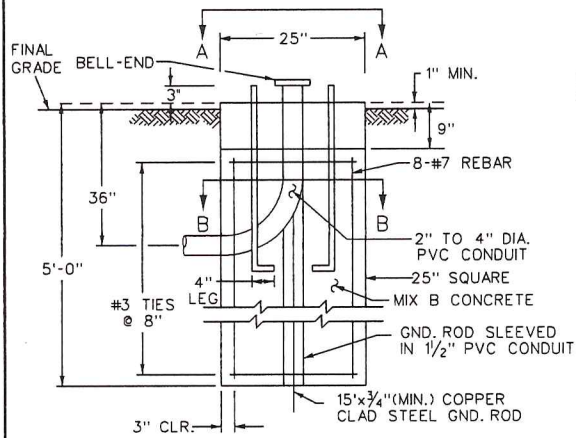
SECTION D-D
NOT TO SCALE

ISSUED: 8/2015	RECOMMENDED: <i>Adil Raj</i>
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	PROJECT MANAGER
	APPROVED: <i>Muhammed Kholid</i>
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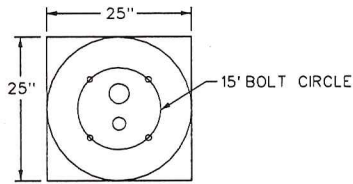
**STREETLIGHT
BOLT CIRCLE FOUNDATIONS - 1**

d. DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION

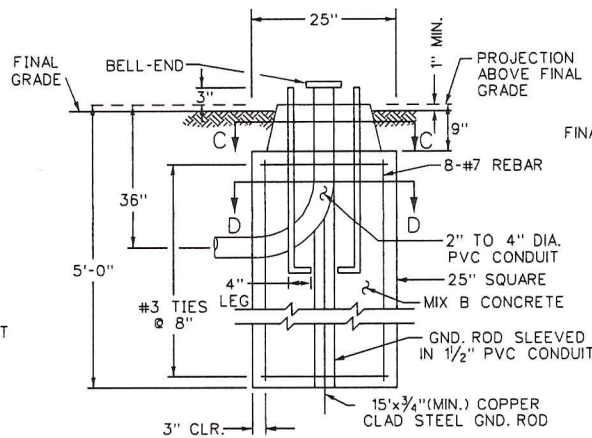
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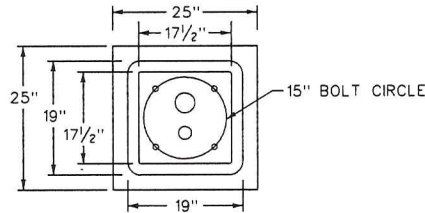
NO. 16 & 18 GROUND MOUNTED POLE
15" BOLT CIRCLE FOUNDATION



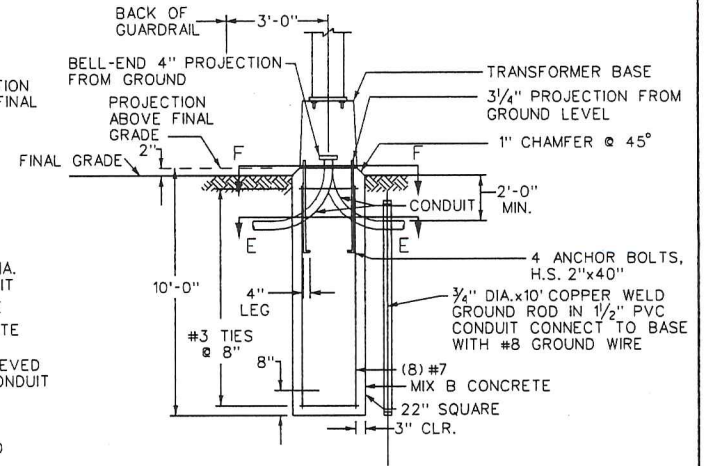
SECTION A-A
NOT TO SCALE



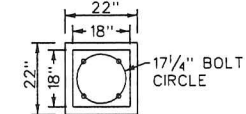
TYPICAL GROUND MOUNTED PENDANT POLE
15" BOLT CIRCLE FOUNDATION



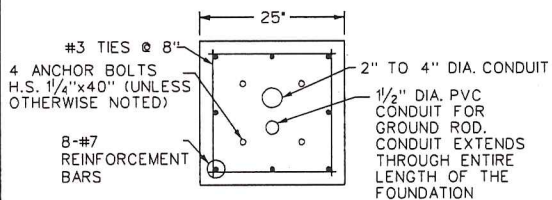
SECTION C-C
NOT TO SCALE



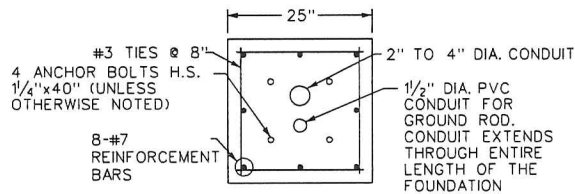
TYPICAL GROUND MOUNTED 40' PENDANT POLE
17 1/4" BOLT CIRCLE FOUNDATION



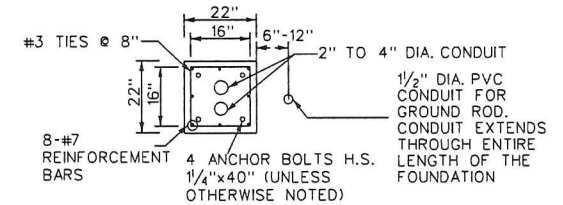
SECTION F-F
NOT TO SCALE



SECTION B-B
NOT TO SCALE



SECTION D-D
NOT TO SCALE



SECTION E-E
NOT TO SCALE

ISSUED:	8/2015
REVISION	APPROVAL

RECOMMENDED:
Asif Raza
PROJECT MANAGER

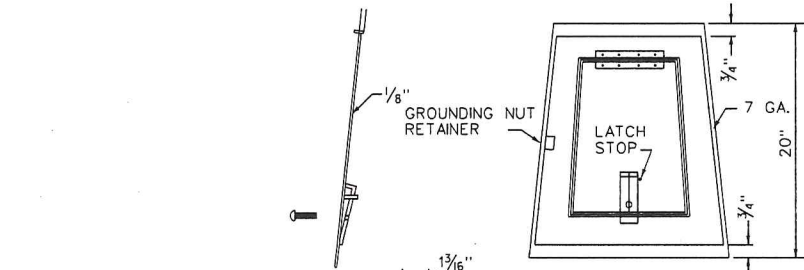
APPROVED:
Muhammed Kholid
CHIEF ENGINEER

**STREETLIGHT
BOLT CIRCLE FOUNDATIONS - 2**

d.

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION

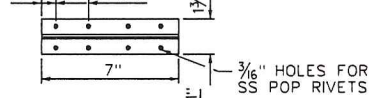
DWG. NO. 614.07



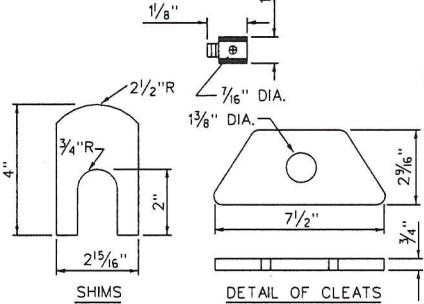
1/2 - 13 x 2" ALLEN BUTTON HEAD SS TAMPER RESISTANT SCREW (2)



LATCH



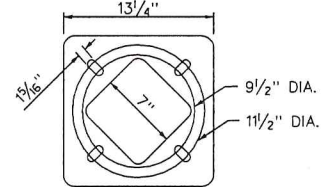
3/16" HOLES FOR SS POP RIVETS



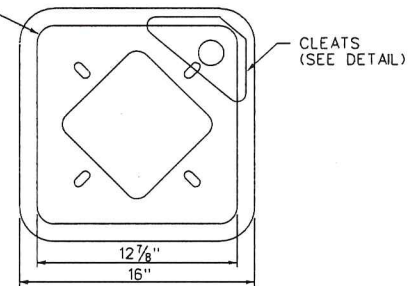
BASE TO BE FURNISHED WITH CONNECTING HARDWARE

4 PCS 1"-8 UN x 4" LONG A325 HEX HD BOLTS WITH 1PC FLAT WASHER, 1PC LOCK WASHER AND HEAVY HEX NUT H.D. GALVANIZED.

FRONT VIEW OF BASE

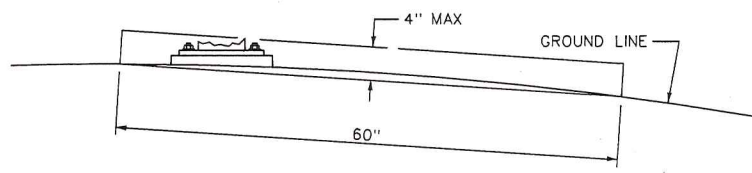


TOP VIEW OF BASE

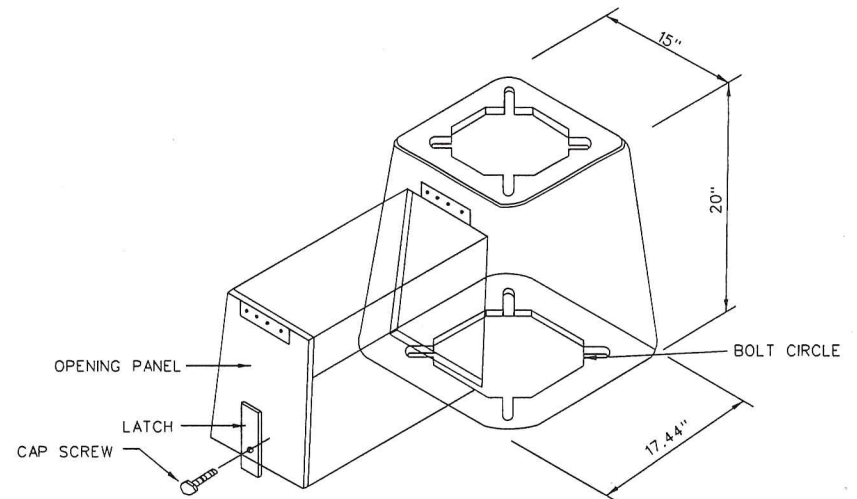


BOTTOM VIEW OF BASE

STANDARD TRANSFORMER BASE DETAIL



BREAK-AWAY SUPPORT STUB HEIGHT MEASUREMENT



TYPICAL "BREAK-AWAY" CAST ALUMINUM TRANSFORMER BASE

GENERAL NOTES:

1. SHEAR BASE SHALL BE CAST IN A PERMANENT MOLD, USING ALUMINUM ALLOY 356F.
2. SHEAR BASE SHALL HAVE THE ABILITY TO SHEAR ON IMPACT WHEN STRUCK BY A VEHICLE WEIGHING 1800 LBS. AND TRAVELING AT SPEEDS BETWEEN 20 MPH AND 60 MPH.
3. WASHERS SHALL BE USED NEXT TO THE CASTING. WASHER SIZE FOR BASE SHOWN IS 2 3/4" x 1/2", BOTH TOP AND BOTTOM BOLTS.
4. DESIGNED IN ACCORDANCE WITH THE LATEST AASHTO STANDARD SPECIFICATION FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS.
5. BASE COMMONLY USED FOR STANDARD HEIGHT STREETLIGHT POLES OF THE PENDANT ARM TYPE, FOR LOCATIONS EXPOSED TO VEHICULAR COLLISION.
6. WEIGHT OF BASE SHOWN IS 36.8 POUNDS.
7. BREAK-AWAY BASE SHALL BE NCHRP REPORT 350, TL-3, CERTIFIED.
8. FOR ELECTRICAL MANHOLE DETAILS, SEE DWG. NOS. 613.15 TO 613.19.

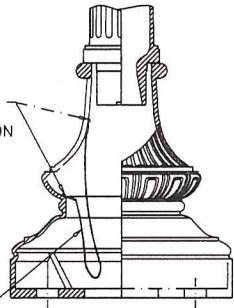
ISSUED: 8/2015	RECOMMENDED: <i>Adil Raj</i>
REVISION	APPROVAL
	PROJECT MANAGER
	APPROVED: <i>Muhammed Khalid</i>
	CHIEF ENGINEER

STREETLIGHT TRANSFORMER BASE DETAILS

d. DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION

DWG. NO. 614.08

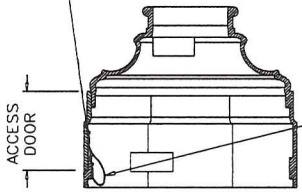
LANYARD EYE END FITTINGS SECURED TO ACCESS DOOR AND INSIDE OF BASE BY 1/4"-20X1/2" LONG TAMPER RESISTANT BUTTON HEAD SCREWS. SEE DETAIL A FOR EYE END FITTING ORIENTATION



3/32" DIA. X 24" LONG NYLON COATED STEEL WIRE LANYARD

#16&18 TWO PIECE BASE WITH DOOR LANYARD

LANYARD EYE END FITTINGS SECURED TO ACCESS DOOR AND INSIDE OF BASE BY 1/4"-20X1/2" LONG TAMPER RESISTANT BUTTON HEAD SCREWS. SEE DETAIL B FOR EYE END FITTING ORIENTATION

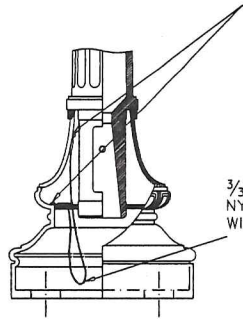


3/32" DIA. X 24" LONG NYLONCOATED STEEL WIRE LANYARD

ACCESS DOOR

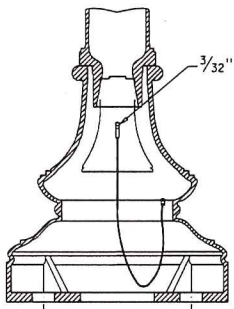
#25 OCTAGONAL TWO PIECE BASE WITH DOOR LANYARD

LANYARD EYE END FITTINGS SECURED TO ACCESS DOOR AND INSIDE OF BASE BY 1/4"-20X1/2" LONG TAMPER RESISTANT BUTTON HEAD SCREWS. SEE DETAIL C FOR EYE END FITTING ORIENTATION



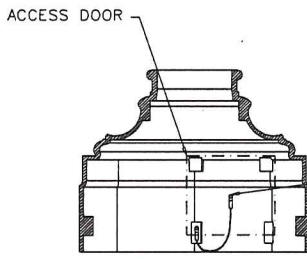
3/32" DIA. X 24" LONG NYLONCOATED STEEL WIRE LANYARD

14N BASE WITH DOOR LANYARD



3/32" THK. EYE END TAB

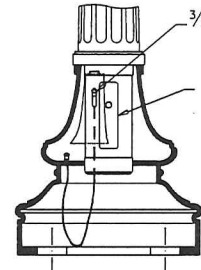
DETAIL - A
REAR SECTION VIEW OF BASE WITH ACCESS DOOR AND EYE END FITTING ORIENTATIONS
N.T.S



ACCESS DOOR

3/32" THK. EYE END TAB

DETAIL - B
REAR SECTION VIEW OF BASE WITH ACCESS DOOR AND EYE END FITTING ORIENTATIONS
N.T.S



3/32" THK. EYE END TAB

HANDHOLE

DETAIL - C
REAR SECTION VIEW OF BASE WITH ACCESS DOOR AND EYE END FITTING ORIENTATIONS
N.T.S

ISSUED: 8/2015

REVISION APPROVAL

RECOMMENDED: *Adil Raj*
PROJECT MANAGER

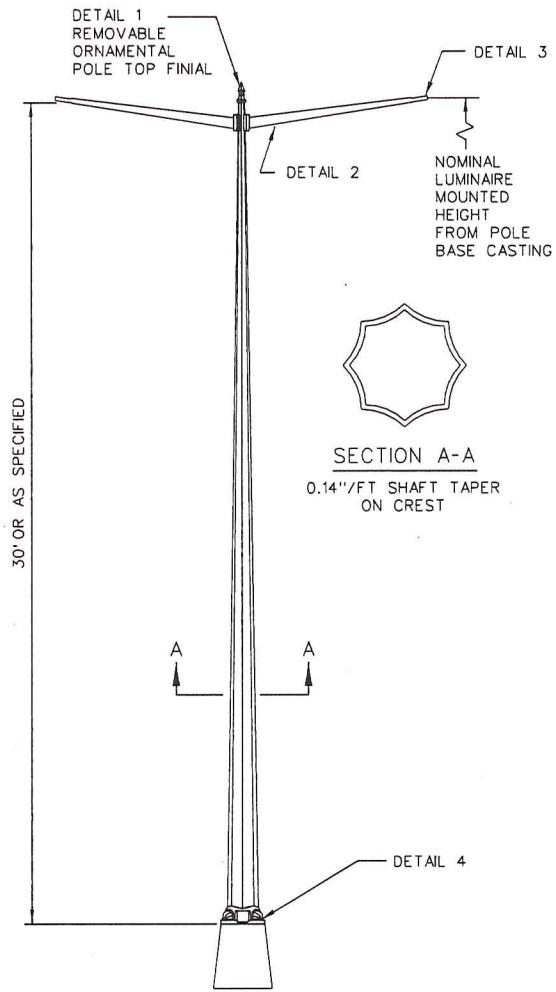
APPROVED: *Muhammed Kholid*
CHIEF ENGINEER

STREETLIGHT BASE WITH DOOR LANYARD

d.

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION

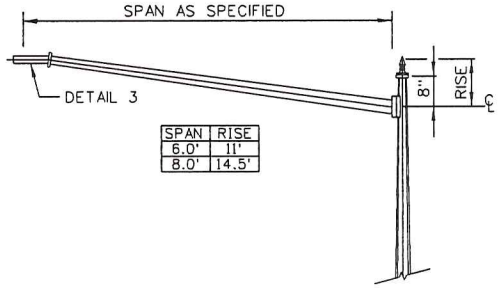
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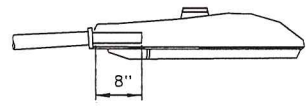
SECTION A-A
0.14\"/>

PENDANT POST

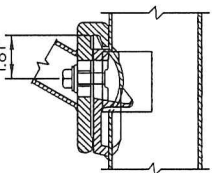
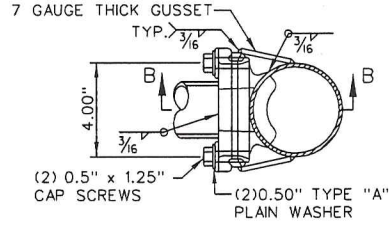
MOUNTING HEIGHT FROM POLE BASE CASTING (FT)	SINGLE ARM SPAN (FT)		TWIN ARM SPANS (FT)		POLE TUBE		
	6.8	10	6.8	10	BASE DIA. (IN)	TOP DIA. (IN)	LENGTH (FT)
30	6.8	10	6.8	10	8.00	4.01	28.50
30	12.15		12.15		9.50	5.51	28.50



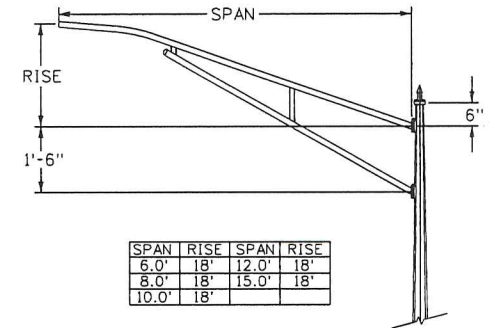
DETAIL 2 - TYPICAL ONE LUMINAIRE ARM



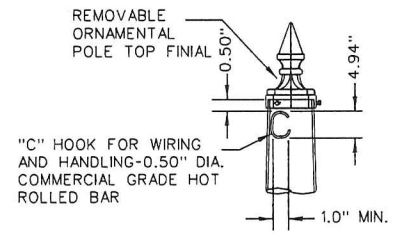
DETAIL 3 - ARM TERMINAL
LEVEL LUMINAIRE ON ARM



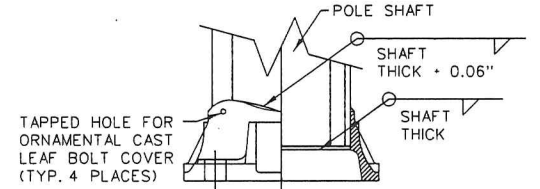
SECTION B-B
LUMINAIRE ARM ATTACHMENT



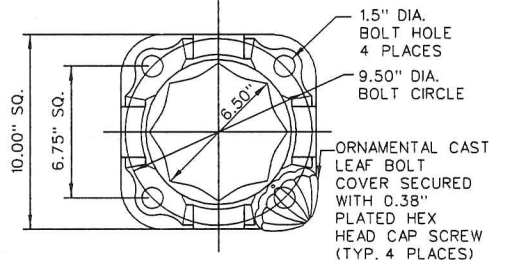
TRUSS TYPE LUMINAIRE ARM



DETAIL 1 - POLE TOP



DETAIL 4 - POLE BASE CASTING

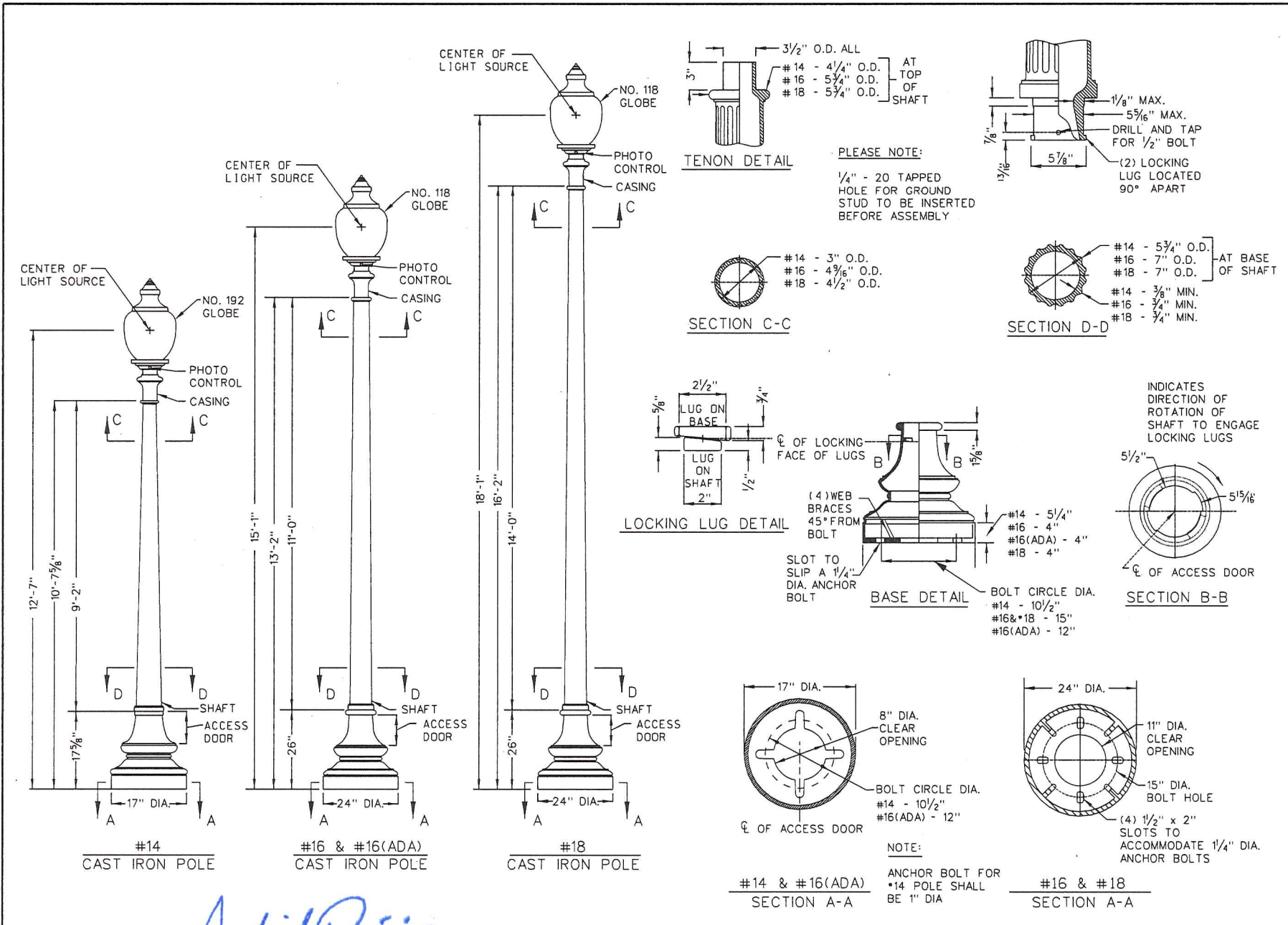


ISSUED: 8/2015	RECOMMENDED: <i>Adil Riaz</i>
REVISION	APPROVAL
APPROVED: <i>Muhammed Khalid</i>	PROJECT MANAGER
	CHIEF ENGINEER

STREETLIGHT
PENDANT POLE

d. DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION

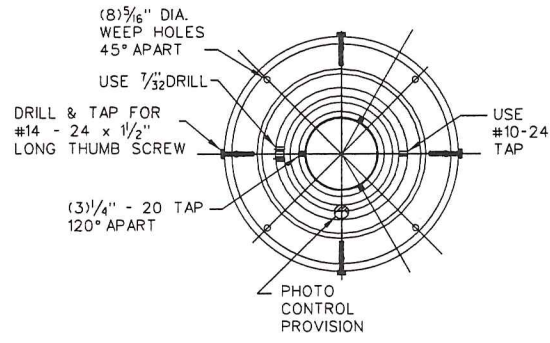
DWG. NO. 614.10



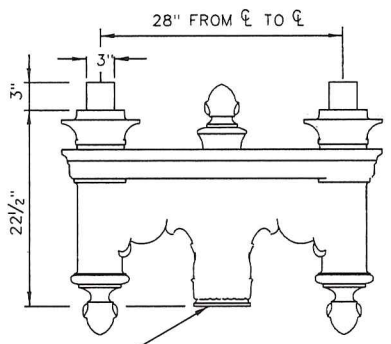
ISSUED: 8/2015	RECOMMENDED: <i>Adil Rijaz</i>
REVISION	APPROVAL
	PROJECT MANAGER
	APPROVED: <i>Muhammed Khalid</i>
	CHIEF ENGINEER

**STREETLIGHT
STANDARD POLES - 1**

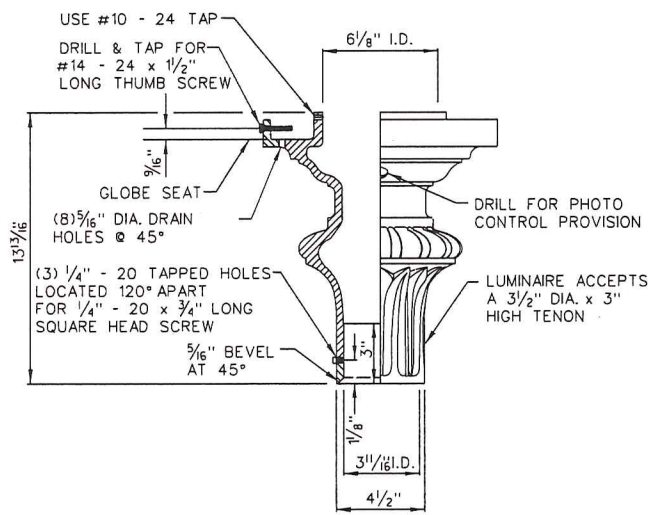
d. DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION



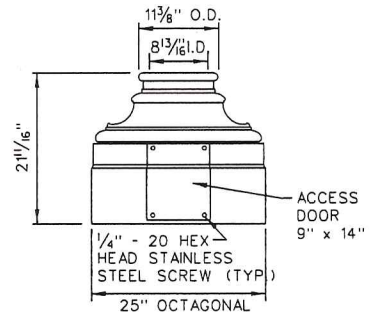
PLAN VIEW



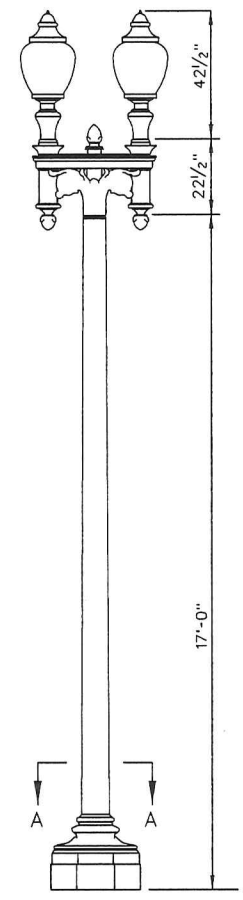
2-WAY BRACKET



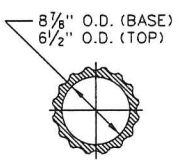
#16, #18 AND TWIN 20 CASING



2 PIECE OCTAGONAL BASE



TWIN 20



SECTION A-A
SECTION B-B

ISSUED:	8/2015
REVISION	APPROVAL

RECOMMENDED: *Adil Riaz*
PROJECT MANAGER

APPROVED: *Muhammed Khalid*
CHIEF ENGINEER

STREETLIGHT
STANDARD POLES - 2

d.

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION

DWG. NO. 614.12