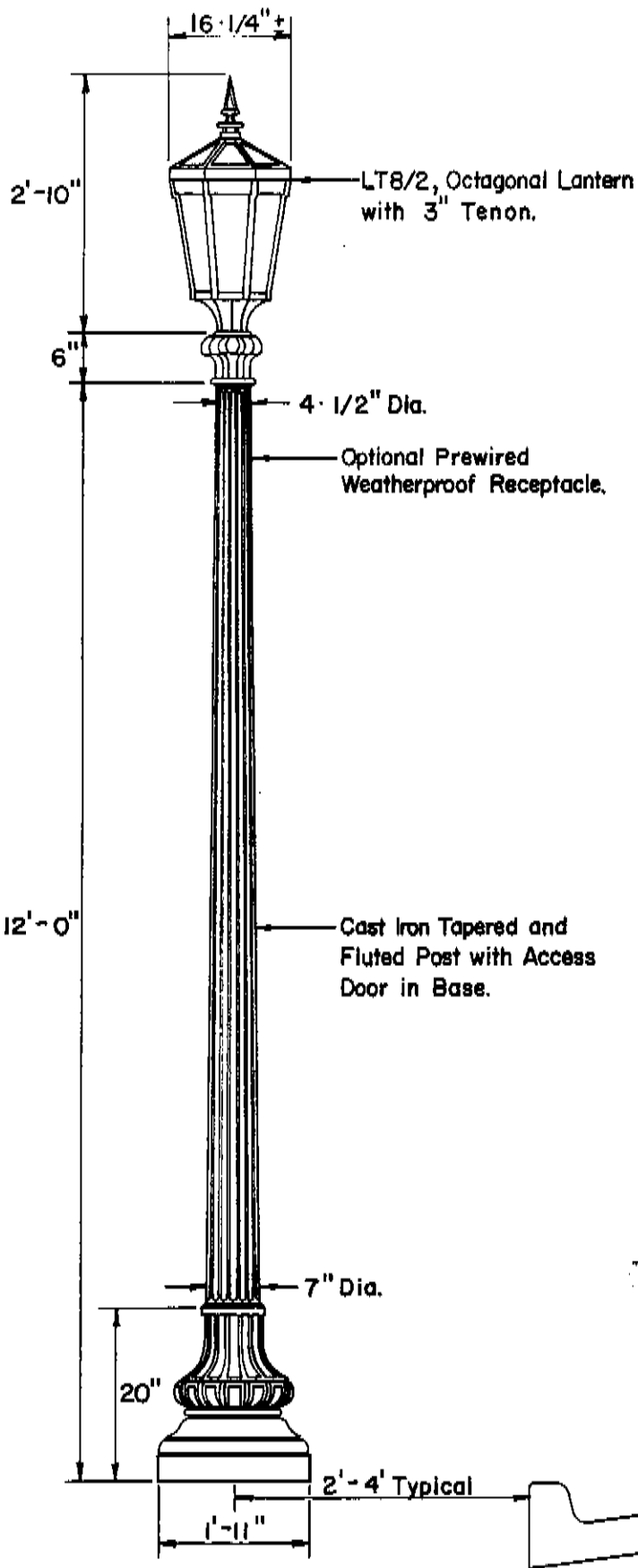


**STREET LIGHTING
AND
ELECTRICAL DETAILS**



Post Height	12'-0"
Light Center Height	13'-6"
Overall Height	15'-4"

NOTES

SINGLE LUMINAIRE AND POST ASSEMBLY SHALL BE USED BETWEEN INTERSECTIONS AND SHALL BE SPACED AT 75 FOOT INTERVALS (AVG.) EACH SIDE OF STREET (OR ONE UNIT PER EACH 37.5 LINEAL FEET OF STREET LENGTH).

OPTIONAL EQUIPMENT AND POLE STYLE WILL BE REVIEWED FOR APPROVAL BY THE CITY ENGINEER UPON SUBMISSION OF COMPLETE PERFORMANCE AND CATALOG DATA.

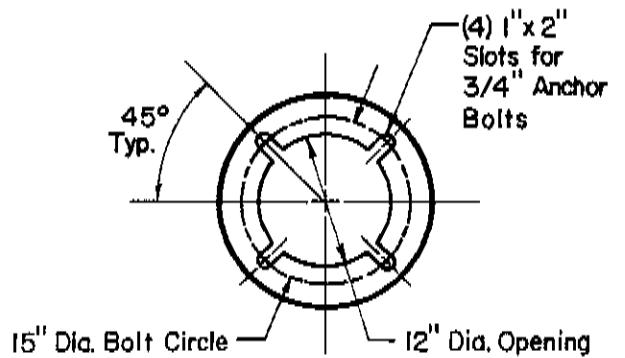
LUMINAIRE FURNISHED WITH 150 WATT/240 VOLT HIGH PRESSURE SODIUM BALLAST AND SOCKET ASSEMBLY.

POST OF HEAVY-DUTY CAST IRON CONSTRUCTION.

POST ANCHORED BY MEANS OF (4) 3/4" L-TYPE GALVANIZED ANCHOR BOLTS LOCATED ON A 15" BOLT CIRCLE. (ANCHOR BOLTS FURNISHED WITH POST)

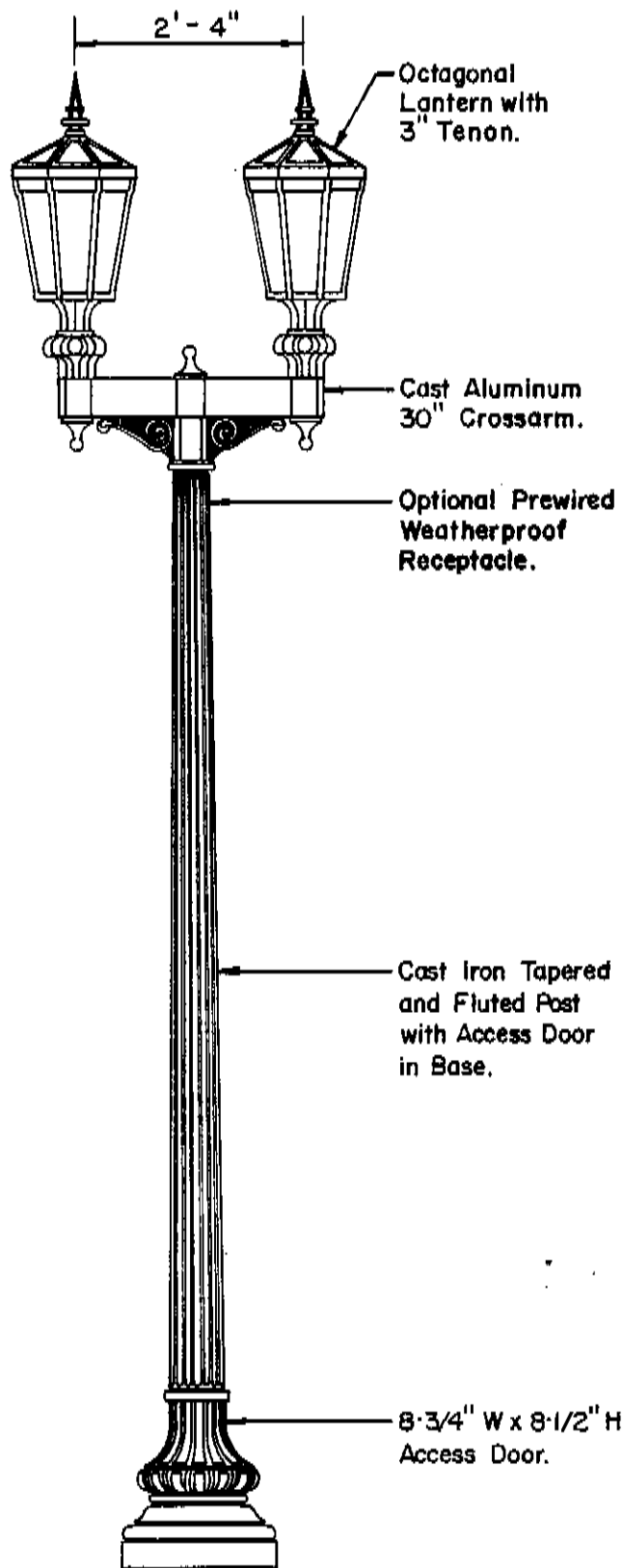
POST FURNISHED PRIME PAINTED WITH RED OXIDE PRIMER AS STANDARD.

SEE STANDARD DRAWING No. SL-3 DECORATIVE STREET LIGHT BASE DETAIL FOR ADDITIONAL NOTES.



POST ANCHOR DETAIL

CITY OF KENT, OHIO			
DEPARTMENT OF PUBLIC SERVICE			
ENGINEERING DIVISION			
CONSTRUCTION STANDARDS			
DECORATIVE STREET LIGHT			
SINGLE LUMINAIRE AND POST ASSEMBLY			
DATE	1-87	BY	CLW
		NO.	SL-1
CITY ENGINEER <i>B. A. Brubaker</i>			



Post Height.....	12'-0"
Light Center Height ...	14'-5"
Overall Height	16'-3"

NOTES

DOUBLE LUMINAIRE AND POST ASSEMBLY SHALL BE USED AT INTERSECTION CORNERS.

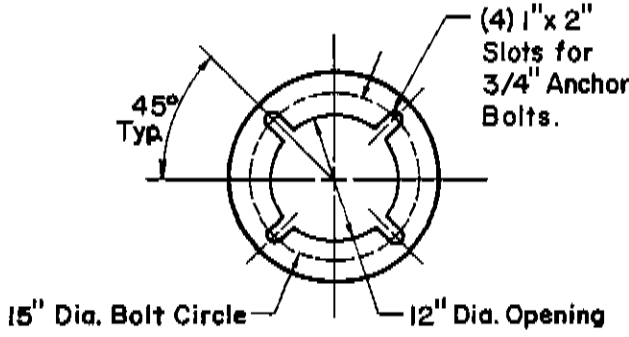
LUMINAIRS FURNISHED WITH 150 WATT/ 240 VOLT HIGH PRESSURE SODIUM BALLAST AND SOCKET ASSEMBLIES.

POST OF HEAVY-DUTY CAST IRON CONSTR.

POST ANCHORED BY MEANS OF (4) 3/4" L-TYPE GALVANIZED ANCHOR BOLTS LOCATED ON A 15" BOLT CIRCLE. (ANCHOR BOLTS FURNISHED WITH POST)

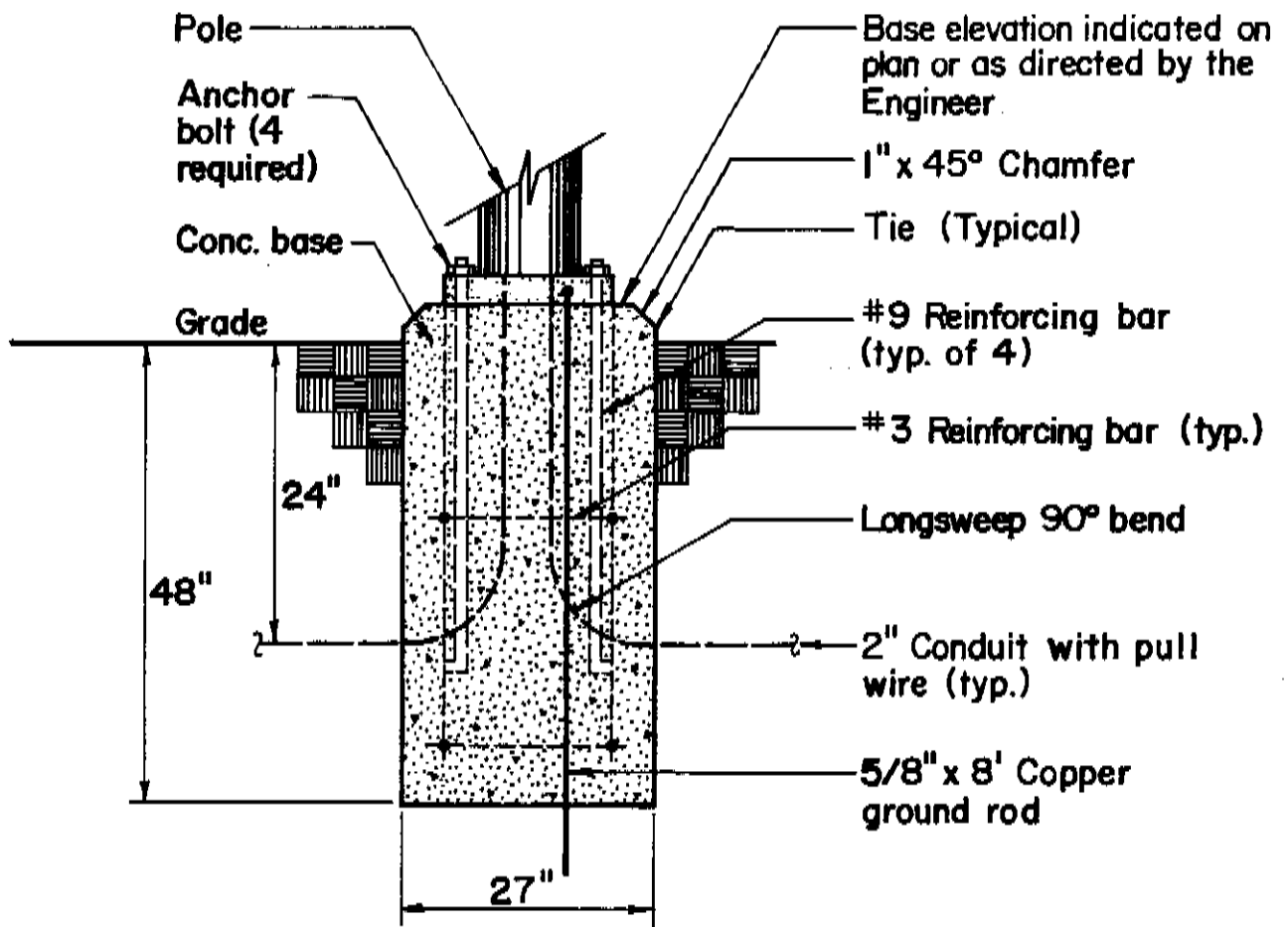
POST FURNISHED AS STANDARD PRE-FINISHED FLAT BLACK.

SEE STANDARD DRAWING No. SL-3 DECORATIVE STREET LIGHT BASE DETAIL FOR ADDITIONAL NOTES.



POST ANCHOR DETAIL

CITY OF KENT, OHIO DEPARTMENT OF PUBLIC SERVICE ENGINEERING DIVISION		
CONSTRUCTION STANDARDS		
DECORATIVE STREET LIGHT DOUBLE LUMINAIRE AND POST ASSEMBLY		
DATE	1-87	BY CLW NO. SL-2
CITY ENGINEER <i>B. Allen Brubaker</i>		

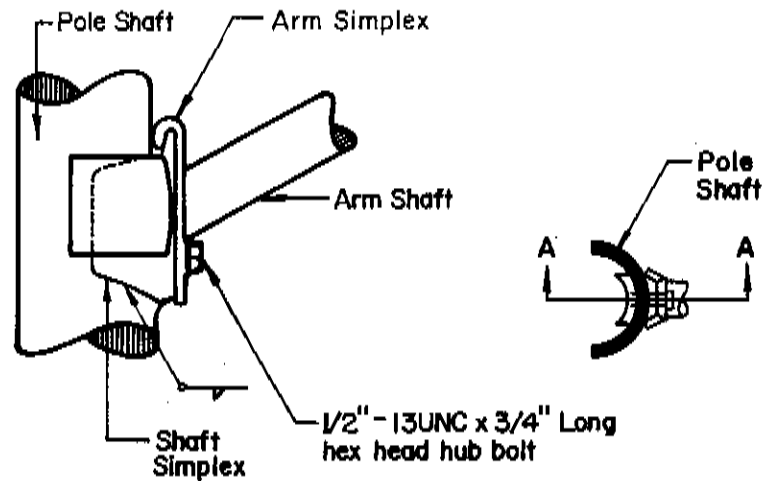
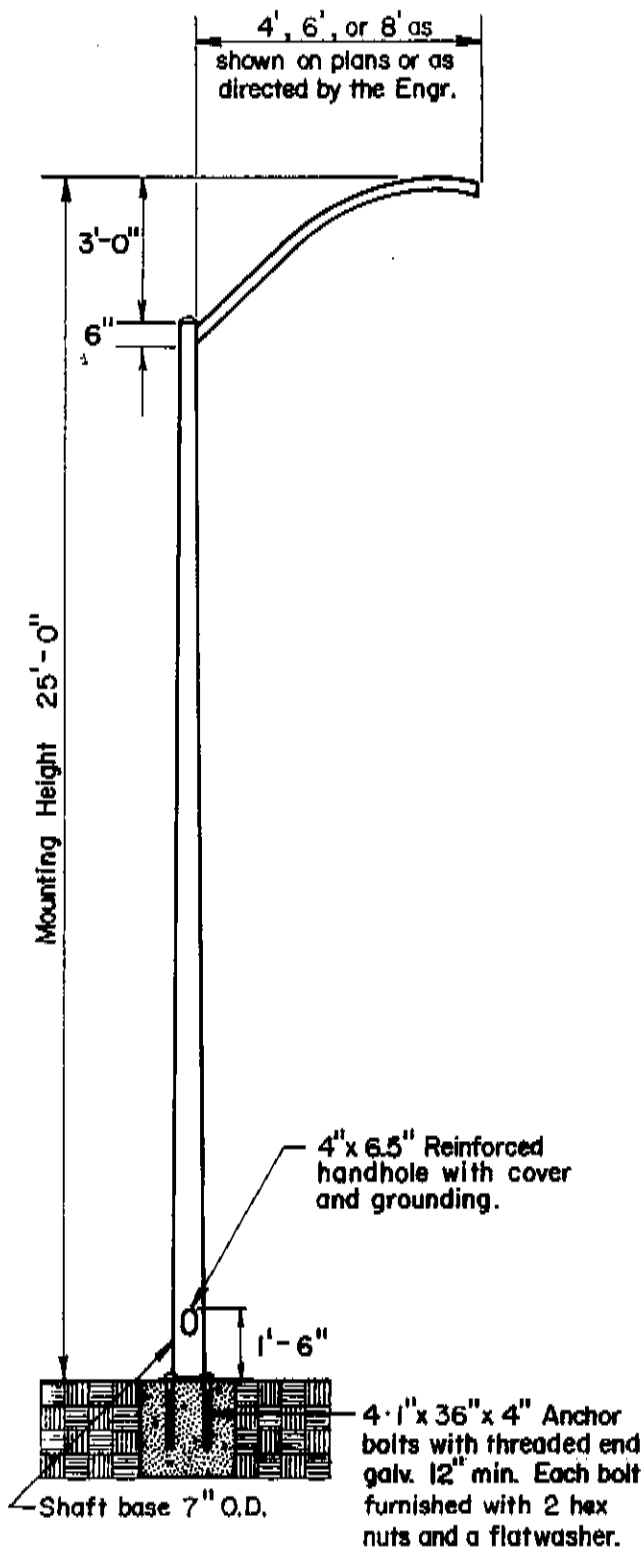


BASE DETAIL

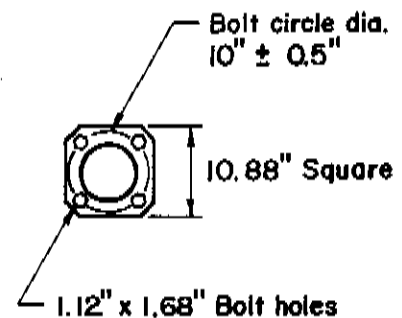
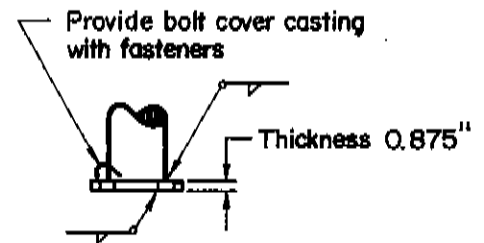
NOTES

1. ALL CONDUCTORS SHALL BE #6 THW COPPER WITH GROUNDING CONDUCTOR WHICH SHALL HAVE A GREEN JACKET.
2. PULL BOXES SHALL BE PROVIDED AT DIRECTION CHANGES AND SHALL BE 18" SQUARE x 36" DEEP, PRECAST CONCRETE OR CAST-IN PLACE CONCRETE. REFERENCE O.D.Q.T. CONSTRUCTION MATERIAL SPECIFICATION ITEM No. 625 AND O.D.Q.T. STANDARD DRAWING HL-10.
3. AFTER INSTALLATION, ALL LIGHT POLES & FIXTURES SHALL BE PAINTED WITH 2 COATS OF INDUSTRIAL BLACK ENAMEL PAINT.
4. FOR FIXTURE WIRING AT BASE OF POLE ELECTRICAL CONTRACTOR SHALL PROVIDE BUSSMAN FUSE HOLDERS TYPE HEB-AK. PROVIDE 10A DUEL ELEMENT TIME DELAY FUSE FOR LUMINAIRES. EXTEND No. 10 AWG WIRE FROM FUSE HOLDER TO FIXTURE BALLAST(S). PROVIDE INSULATING BOOTS TYPE IA0512 OVER ENTIRE FUSE HOLDER ASSEMBLY.
5. ELECTRICAL CONTRACTOR SHALL PROVIDE SAME FUSE HOLDER AND INSULATING BOOTS AS INDICATED IN NOTE ABOVE WHEN WIRING OF RECEPTACLE AT BASE OF POLE. FUSE AT
- 20A. FEEDER FOR RECEPTACLE WIRING SHALL BE COLOR CODED THROUGHOUT CONDUIT SYSTEM TO READILY IDENTIFY IT FROM THE LIGHTING FEEDER.
6. WIRE NUTS SHALL NOT BE ACCEPTABLE FOR SPLICING OF FEEDERS IN FIXTURE BASES.
7. GROUNDING CONDUCTOR IN CONDUIT SYSTEM SHALL BE ELECTRICALLY CONTINUOUS WITH TAPS MADE INSIDE FIXTURE BASES. TAPS SHALL BE MADE WITH BURNDY CONNECTORS TYPE KSUIT OR EQUAL. EXTEND No. 10 AWG WIRE FROM TAP TO POLE AND RECEPTACLE.
8. CONDUIT SHALL BE PROVIDED THROUGHOUT FOR STREET LIGHTING SYSTEM & SHALL BE 2" PVC SCHEDULE 40 UNLESS NOTED OTHERWISE.

CITY OF KENT, OHIO			
DEPARTMENT OF PUBLIC SERVICE ENGINEERING DIVISION			
CONSTRUCTION STANDARDS			
DECORATIVE STREET LIGHT BASE DETAIL			
DATE	4/7/88	BY	CLW
		NO.	SL-3
CITY ENGINEER		<i>J. Allen</i>	



SECTION A-A



POLE BASE DETAIL

NOTES

1. POLE SHAFT: ASTM A595 GRADE A TAPER $\pm .14$ "/FT. GAUGE 11.
2. BASE PLATE: ASTM A36.
3. ARM SHAFT: 2.375" O.D. x .154" WALL TUBE 36 KSI MINIMUM YIELD STRENGTH.
4. ANCHOR BOLTS: ASTM A36 MODIFIED TO 55 KSI MINIMUM YIELD STRENGTH.
5. ENTIRE UNIT SHALL BE HOT DIP GALVANIZED (GV).
6. POLE SHALL BE VALMONT INDUSTRIES DS 50 SERIES OR EQUAL.

CITY OF KENT, OHIO DEPARTMENT OF PUBLIC SERVICE ENGINEERING DIVISION			
CONSTRUCTION STANDARDS			
STANDARD STREET LIGHT POLE DETAIL			
DATE	1/8/87	BY	CLW NO. SL-4
CITY ENGINEER		<i>S. Allen Rantaker</i>	

TOP SQUARE PORTION OF THE FOUNDATION SHALL BE FORMED AND BE 6" - 8" THICK.

TOP OF FOUNDATION MUST BE LEVEL.

SIZE OF CONG. FDN. SEE TABLE AT RIGHT

BOLTS MUST PROJECT 2-1/4" ABOVE CONG.

BASE ELEVATION AS SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER

SEE CHAMFER DETAIL

POLE HEIGHT	MIN. FNDN. DEPTH "D"	No. 4 TIE-BARS REQUIRED
LESS THAN 40'	6'-0"	4
40' THRU 44'	8'-0"	5
45' THRU 49'	9'-0"	5
50' THRU 55'	10'-0"	6

* FOUNDATION DEPTHS ARE MINIMUMS. BASED ON APPROVED SOILS INVESTIGATION, ANALYSIS, AND RECOMMENDATIONS, DEPTHS MAY BE INCREASED BY THE CITY OF KENT ENGINEER.

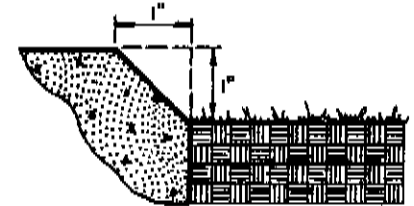
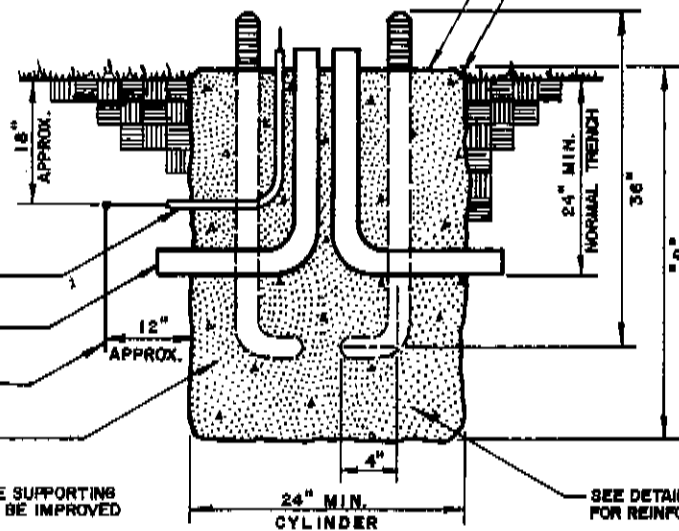
3/4" ELECTRICAL METALLIC TUBING

2'-2" PVC 90° LONGSWEEP BEND

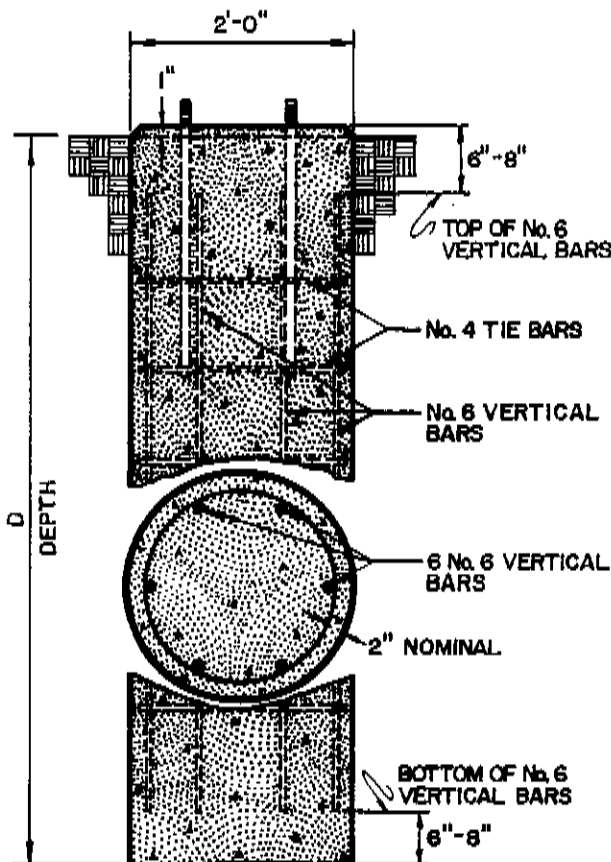
5/8" x 8' COPPER GROUND ROD

O.D.O.T. CLASS "C" CONCRETE

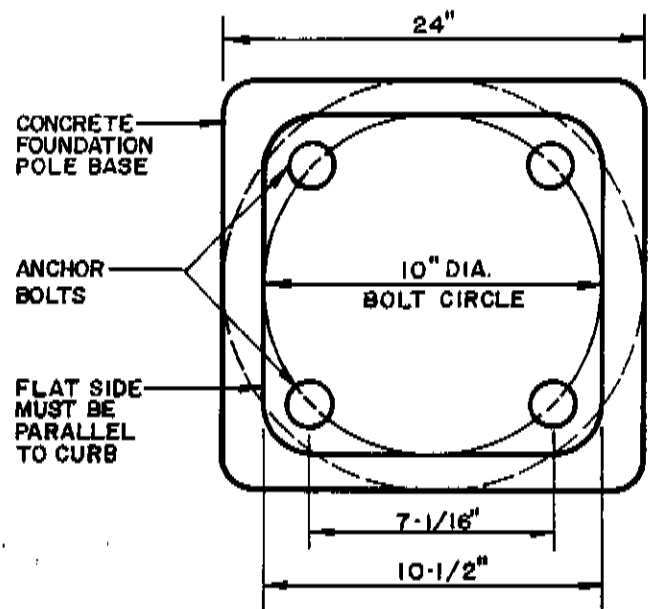
APPEARANCE OF POLE SUPPORTING BENDING LOADS CAN BE IMPROVED BY PROPER RAKING.



CHAMFER DETAIL



REINFORCING STEEL DETAIL



REINFORCING STEEL MAY BE ASSEMBLED IN CAGES BY APPROVED WELDING OF BARS.

SUBJECT TO APPROVAL OF THE ENGINEER CAGES MAY BE ASSEMBLED IN A SPIRAL CONFORMATION.

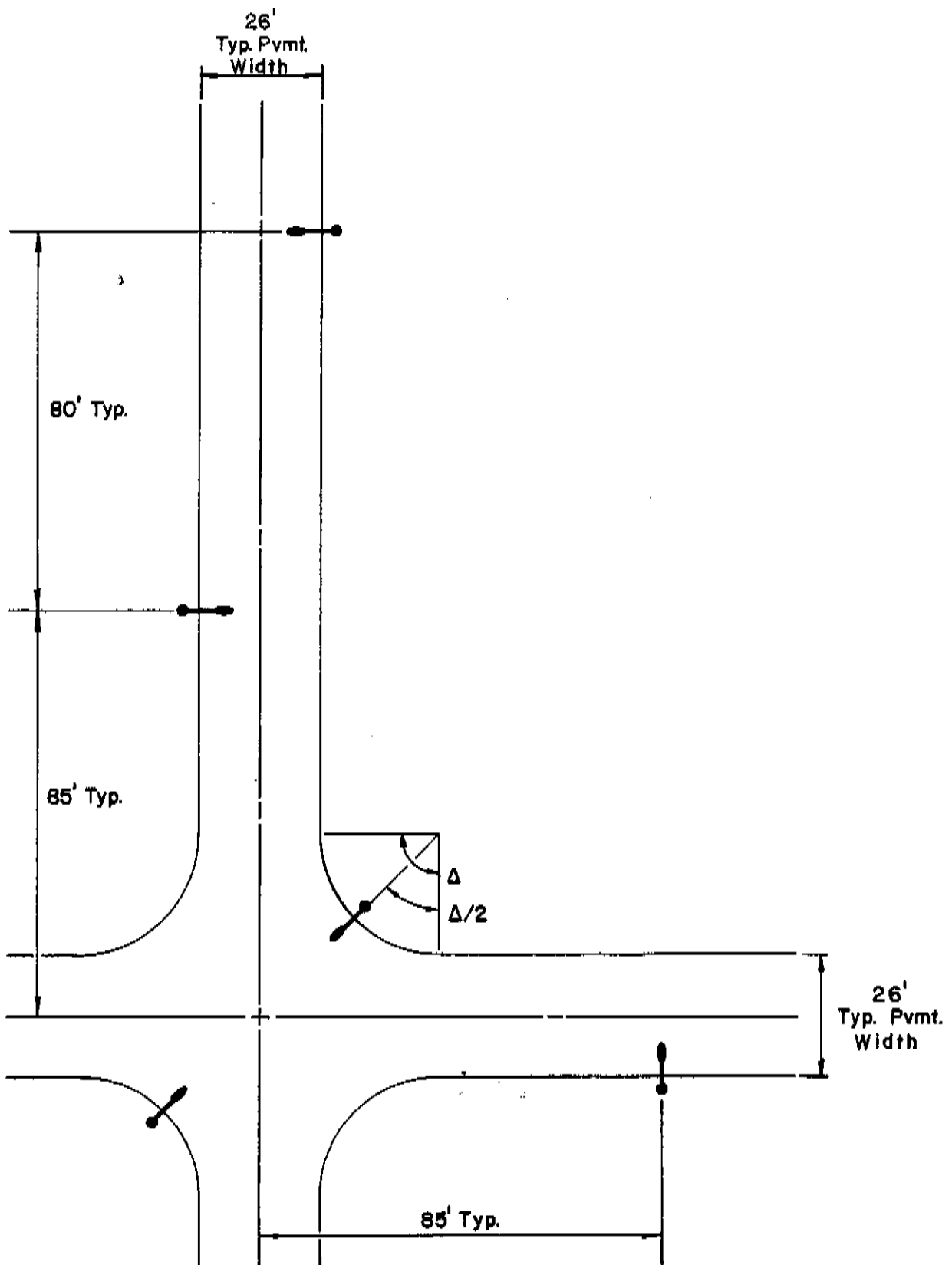
CITY OF KENT, OHIO
DEPARTMENT OF PUBLIC SERVICE
ENGINEERING DIVISION


CONSTRUCTION STANDARDS

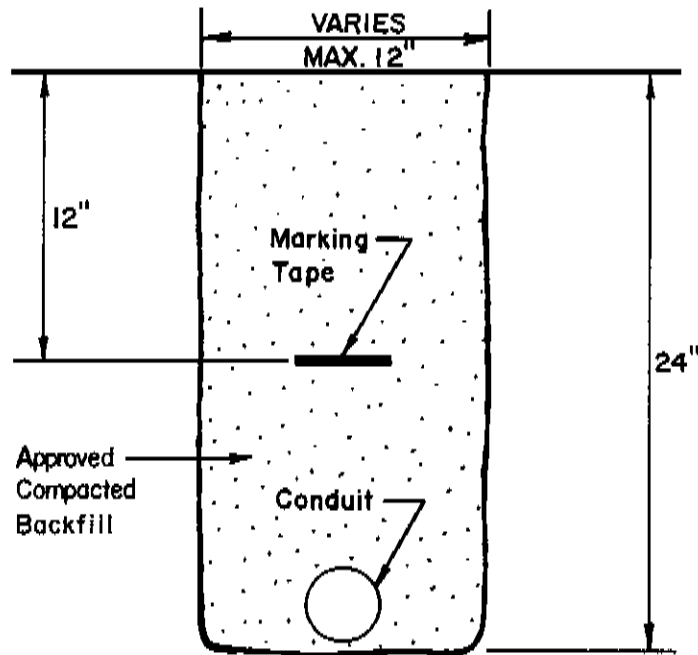
STANDARD STREET LIGHT
FOUNDATION DETAIL

DATE 12/4/87 BY CLM NO. SL-5

CITY ENGINEER *P. Alan Bumbach*



CITY OF KENT, OHIO DEPARTMENT OF PUBLIC SERVICE ENGINEERING DIVISION			
CONSTRUCTION STANDARDS			
STANDARD STREET LIGHTING TYPICAL LAYOUT / SPACING PLAN			
DATE	1/8/67	BY	CLW
CITY ENGINEER			
		NO.	SL-6



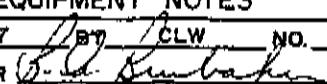
4" WIDE PLASTIC MARKING TAPE SHALL BE PLACED 1' BELOW FINISHED GRADE AND SHALL BE PLACED DIRECTLY OVER THE ELECTRICAL CONDUIT. TAPE SHALL BE YELLOW IN COLOR AND SHALL HAVE THE WORDS "BURIED ELECTRICAL CONDUIT" PRINTED REPEATEDLY ALONG IT'S ENTIRE LENGTH.

CITY OF KENT, OHIO DEPARTMENT OF PUBLIC SERVICE ENGINEERING DIVISION			
CONSTRUCTION STANDARDS			
STANDARD STREET LIGHT ELECTRICAL CONDUIT TRENCH DETAIL			
DATE	1-87	BY	CLW NO. SL-7
CITY ENGINEER <i>D. G. Buntak</i>			

EQUIPMENT NOTES

1. POLE - Steel, anchor base 22' x 7" 11 gauge, without mast arm, unpainted hot dipped galvanized steel 4" x 6-1/2" handhole, J hook and 1/2" grounding nut, without anchor bolts and nuts. Union Metal design 1400A and 1402A. Union Metal 1400A, F-220FP or Valmont DS50-7.0-A220PP.
2. ARM - Mast, street light unpainted hot dipped galvanized steel 6' x 2" for Union Metal steel pole design 1400A and 1402A complete with mounting cap screws (2 bolt simplex). Union Metal cat. no. B2 or Valmont PS50-08-036PP.
3. ARM - Mast, street light unpainted hot dipped galvanized steel 8' x 2" for Union Metal steel pole design 1400A complete with mounting cap screws (2 bolt simplex). Union Metal cat. no. C2 or Valmont PS50-08-036PP.
4. LUMINAIRE - Street light HPS streamlined 2-way 100 watt, 120 volt, internal reactor normal power factor ballast with twist lock receptacle for photocontrol and slipfitter for 1-1/4" to 2" pipe, IKS Type III distribution (clear lamp) Westinghouse 394P919G06 or approved equal.
5. CONTROL - Photoelectric street light 1,000 watt, 2.0 - 5.0 footcandle cadmium sulfide cell unit with 3 prong twist lock plug base. Set for 2.0 +/- 0.5 FC turn on and 4.0 to 6.0 FC turn off.
6. LAMP - High pressure sodium clear, 100W. mogul base.
7. BOLT - Anchor with galvanized threads and DBL nuts, 1" x 40" F/anchor base poles - (furnished in sets of four) (see Electrical Note No. 11)
8. PULL BOX - Blackburn ITT, cat. #SDRP or approved equal.

EQUIPNOTE - 1/9/87

CITY OF KENT, OHIO DEPARTMENT OF PUBLIC SERVICE ENGINEERING DIVISION			
CONSTRUCTION STANDARDS			
STANDARD STREET LIGHT EQUIPMENT NOTES			
DATE	1 - 87	BY	CLW
CITY ENGINEER			

ELECTRICAL NOTES

1. The Contractor shall use copper wire direct burial cable. Direct burial cable installed in 2" PVC pipe conduit. Conduit shall be cleaned of all debris before installation of wire. The trench shall have a minimum 24" depth and maximum 12" width.
2. Final connections at the transformer shall be performed by Ohio Edison Company. The Contractor shall leave 10' tails at the transformer for Ohio Edison at termination. Contact Ohio Edison when working in area of existing transformer.
3. Street lighting materials and construction shall conform to Ohio Department of Transportation Construction and Materials Specifications Item No. 625 "Highway Lighting".
4. The Contractor shall install a 1" x 10' galvanized ground rod at each pole and shall ground pole using #6 ground wire. The ground rod shall be installed a minimum of five feet from any existing water main.
5. The Contractor shall verify the location of all existing underground utilities before constructing the foundations for all light poles and any excavations.
6. All crossing under existing or proposed pavements shall be made using minimum 2" galvanized iron pipe conduit from back of curb to back of curb, or 2" diameter schedule 80 PVC encased in concrete.
7. Backfill around light pole foundations:
 - a. The Contractor shall make the excavation wide enough to accomodate hand-compaction equipment between foundation and excavation walls.
 - b. Backfill material shall be approved prior to use and tested as outlined in ASTM D-698 to determine maximum dry density and optimum moisture content.
 - c. The Contractor shall place approved backfill in controlled lifts not exceeding 6" loose measure. Compact each lift to 98% maximum dry density per ASTM D-98 prior to placing next lift.

CITY OF KENT, OHIO			
DEPARTMENT OF PUBLIC SERVICE			
ENGINEERING DIVISION			
CONSTRUCTION STANDARDS			
STANDARD STREET LIGHT			
ELECTRICAL NOTES			
DATE	1-87	By	CLW
CITY ENGINEER	<i>P. A. Buntch</i>		
		NO	SL-9

- d. Use vibrating base-plate compactor for granular soil; use "jumping jack" or similar for silty or cohesive soil.
8. 2-Conductor wire is acceptable for installation from the foundation to the luminaire.
9. Poles and arm masts shall meet or exceed State of Ohio specifications; and shall be unpainted hot dipped galvanized steel.
10. Each light shall be individually fused in a weather proofed fuse holder and shall be accessible through the handhole.
11. Anchor bolts shall be steel with 85,000 PSI minimum yeild strength. Galvanized minimum 2" below threads.
12. All wiring shall be clearly and permanently marked to assure proper connections.

ELECNOTE - 1/9/87

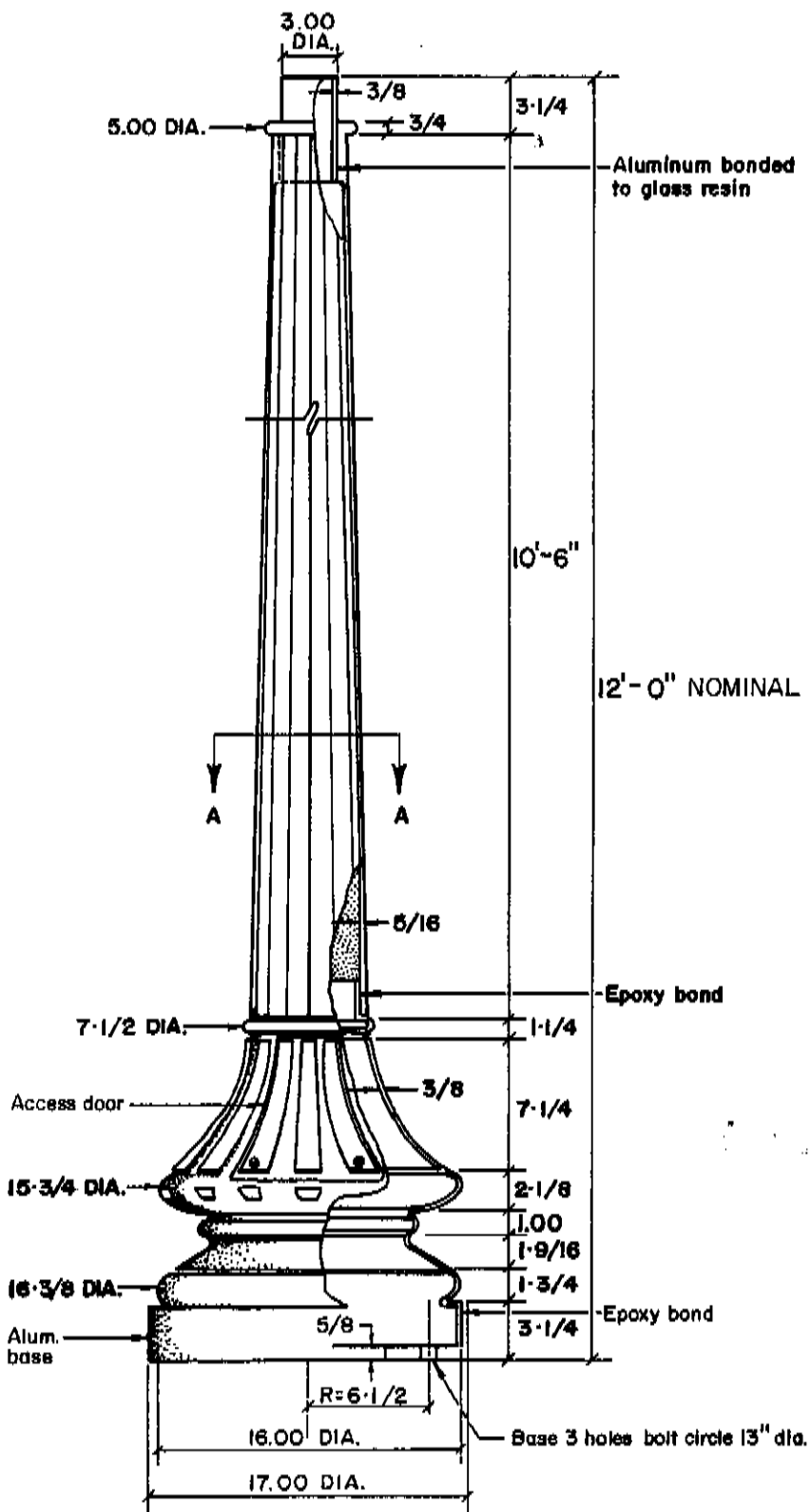
CITY OF KENT, OHIO			
DEPARTMENT OF PUBLIC SERVICE			
ENGINEERING DIVISION			
CONSTRUCTION STANDARDS			
STANDARD STREET LIGHT			
ELECTRICAL NOTES			
DATE	1-87	BY	J. CLW
CITY ENGINEER	<i>J. C. Bamber</i>		
		NO.	SL-10

POLE

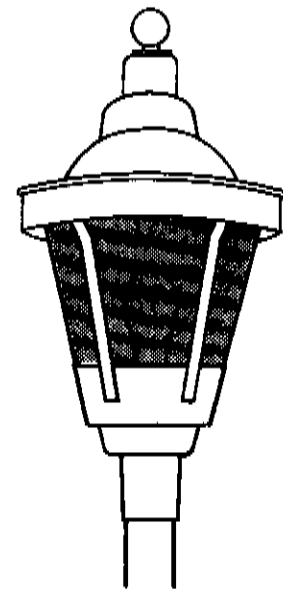
MAIN STREET LIGHTING WINDSOR SERIES
AF802 - BK

LUMINAIRE

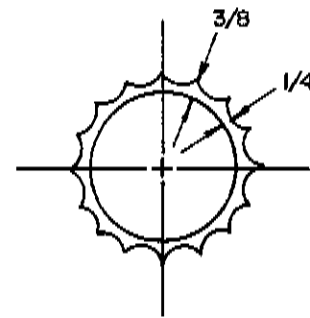
HOLOPHANE
RLPT-100-HPI2BK33R-R-RLPTCBK



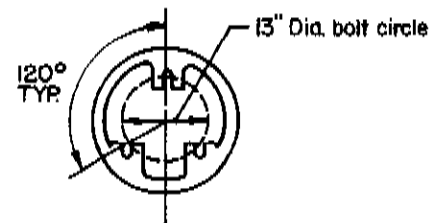
POLE & BASE



CUPOLA



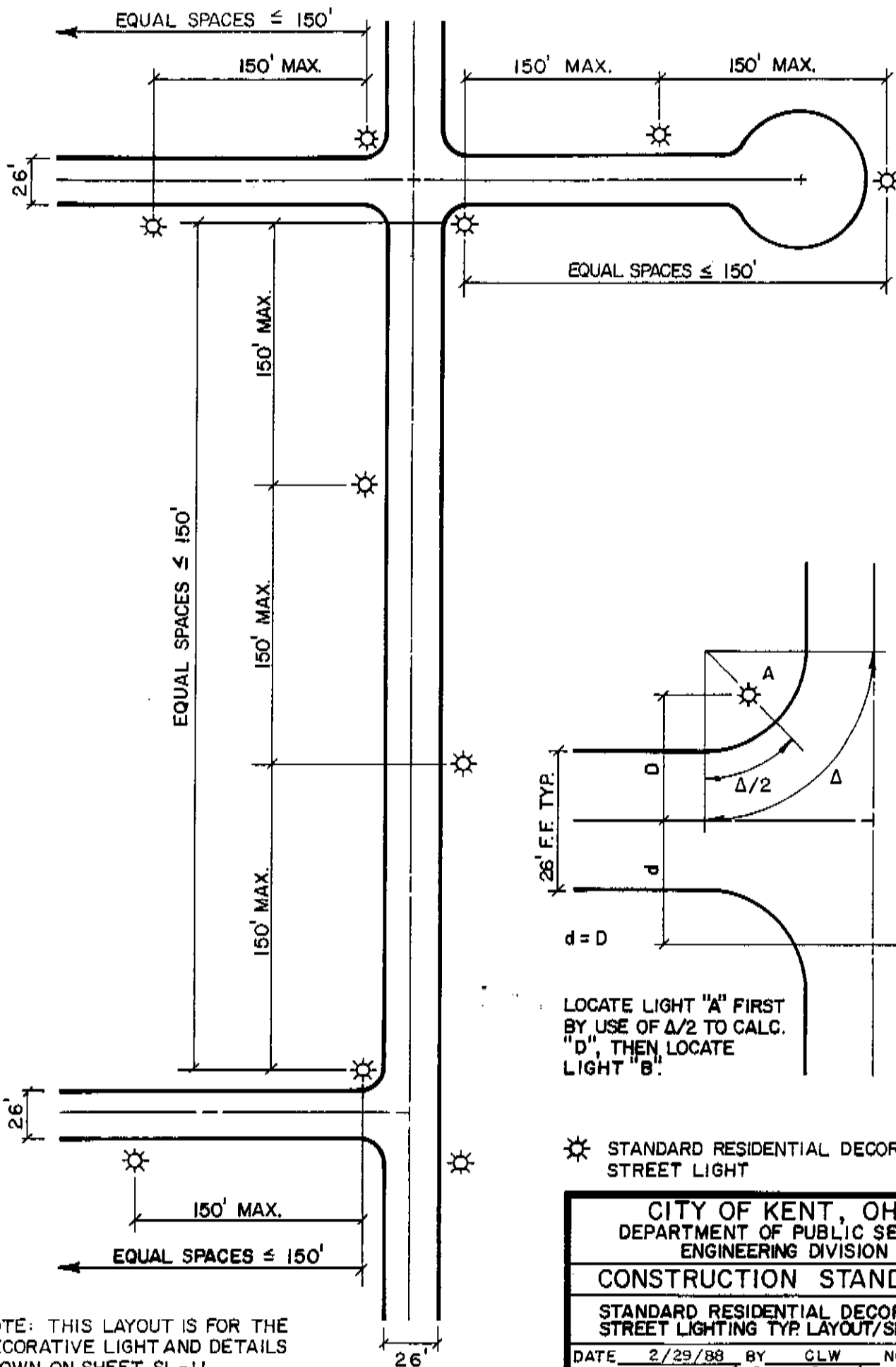
SECTION A-A



BASE PLATE

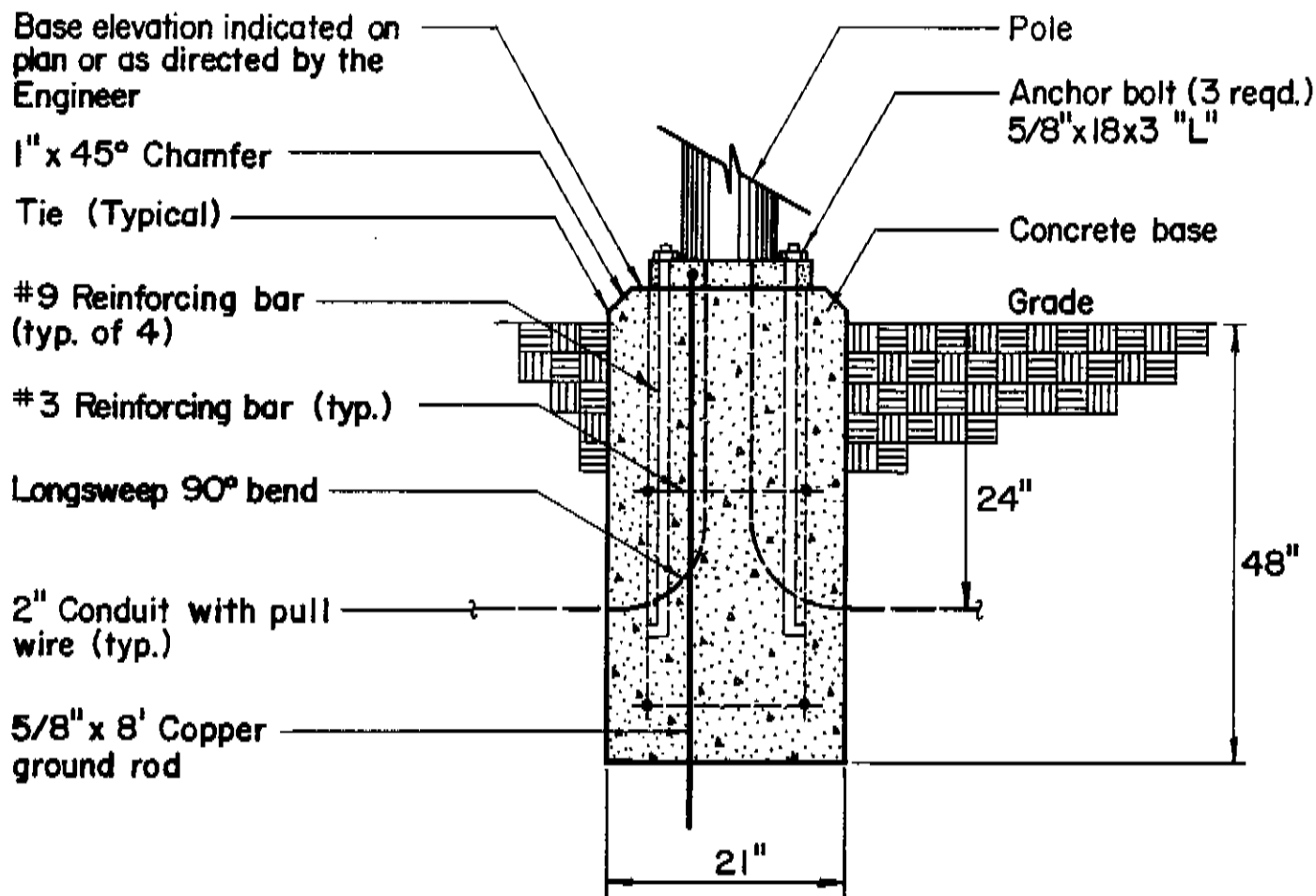
NOTE: SEE SHEET SL-12 FOR BASE DETAILS

CITY OF KENT, OHIO DEPARTMENT OF PUBLIC SERVICE ENGINEERING DIVISION			
CONSTRUCTION STANDARDS			
STANDARD RESIDENTIAL DECORATIVE LUMINAIRE AND POST ASSEMBLY			
DATE	2/29/88	BY	CLW
CITY ENGINEER	<i>B. Alan Sumbaker</i>		
	NO.	SL-11	



NOTE: THIS LAYOUT IS FOR THE DECORATIVE LIGHT AND DETAILS SHOWN ON SHEET SL-11.

CITY OF KENT, OHIO DEPARTMENT OF PUBLIC SERVICE ENGINEERING DIVISION		
CONSTRUCTION STANDARDS		
STANDARD RESIDENTIAL DECORATIVE STREET LIGHTING TYP. LAYOUT/SPACING		
DATE	2/29/88	BY CLW NO. SL-12
CITY ENGINEER <i>A. De Rumbaker</i>		



FOUNDATION DETAIL

1. ALL CONDUCTORS SHALL BE #6 THW COPPER WITH GROUNDING CONDUCTOR WHICH SHALL HAVE A GREEN JACKET.
2. PULL BOXES SHALL BE PROVIDED AT DIRECTION CHANGES AND SHALL BE 18" SQUARE x 36" DEEP, PRECAST CONCRETE OR CAST-IN PLACE CONCRETE. REFERENCE O.D.O.T. CONSTRUCTION MATERIAL SPECIFICATION ITEM No. 625 AND O.D.O.T. STANDARD DRAWING HL-10.
3. CONDUIT SHALL BE PROVIDED THROUGHOUT FOR STREET LIGHTING SYSTEM & SHALL BE 2" PVC SCHEDULE 40 UNLESS NOTED OTHERWISE.
4. FOR FIXTURE WIRING AT BASE OF POLE ELECTRICAL CONTRACTOR SHALL PROVIDE BUSSMAN FUSE HOLDERS TYPE HEB-AK. PROVIDE 10A DUEL ELEMENT TIME DELAY FUSE FOR LUMINAIRES. EXTEND No. 10 AWG WIRE FROM FUSE HOLDER TO FIXTURE BALLAST(S). PROVIDE INSULATING BOOTS TYPE IA0512 OVER ENTIRE FUSE HOLDER ASSEMBLY.
5. ELECTRICAL CONTRACTOR SHALL PROVIDE SAME FUSE HOLDER AND INSULATING BOOTS AS INDICATED IN NOTE ABOVE WHEN WIRING OF RECEPTACLE AT BASE OF POLE. FUSE AT
- 20A. FEEDER FOR RECEPTACLE WIRING SHALL BE COLOR CODED THROUGHOUT CONDUIT SYSTEM TO READILY IDENTIFY IT FROM THE LIGHTING FEEDER.
6. WIRE NUTS SHALL NOT BE ACCEPTABLE FOR SPLICING OF FEEDERS IN FIXTURE BASES.
7. GROUNDING CONDUCTOR IN CONDUIT SYSTEM SHALL BE ELECTRICALLY CONTINUOUS WITH TAPS MADE INSIDE FIXTURE BASES. TAPS SHALL BE MADE WITH BURNDY CONNECTORS TYPE KSU17 OR EQUAL. EXTEND No. 10 AWG WIRE FROM TAP TO POLE AND RECEPTACLE.

CITY OF KENT, OHIO			
DEPARTMENT OF PUBLIC SERVICE ENGINEERING DIVISION			
CONSTRUCTION STANDARDS			
RESIDENTIAL DECORATIVE STREET LIGHT BASE DETAIL			
DATE	4/7/88	BY	CLW NO. SL-13
CITY ENGINEER	<i>B. Allen Brubaker</i>		