

- ### GENERAL NOTES
- ALL LAMPS SHALL BE HIGH PRESSURE SODIUM UNLESS OTHERWISE NOTED.
 - 250WATT LAMPS SHALL HAVE INITIAL LUMEN OUTPUT OF 29000 LUMENS. OPERATING VOLTAGE SHALL BE 480 VOLTS FOR ALL LUMINAIRES.
 - ALL BALLASTS SHALL BE REGULATOR TYPE.
 - REFRACTORS SHALL BE PRESSED PRISMATIC BOROSILICATE GLASS.
 - ALL FUSES AND FUSEHOLDERS SHALL BE IN-LINE TYPE AND WATERPROOF.
 - RIGID CONDUIT, INSTALLED ON STRUCTURES, SHALL BE SUPPORTED AT LEAST EVERY 10 FEET AND WITHIN 3 FEET OF JUNCTION BOXES, LUMINAIRES, ETC.
 - CONDUIT ACCESSORIES, SUCH AS EXPANSION JOINTS, PULLBOXES, CONDULETS, ELBOWS, FLEXIBLE CONDUIT, ETC., SHALL BE INCLUDED IN THE PRICE BID FOR CONDUIT.
 - THE CONTRACTOR SHALL INSTALL A NYLON PULL CORD OR GALVANIZED PULL WIRE IN EACH EMPTY CONDUIT. THE COST OF THIS ITEM WILL NOT BE PAID FOR SEPARATELY AND SHALL BE INCLUDED IN THE COST OF THE CONDUIT.
 - THE CONTRACTOR SHALL SUBMIT PHOTOMETRIC DATA AND DESIGN CALCULATIONS, FOR THE LUMINAIRES, TO VERIFY THE LIGHTING DESIGN CRITERIA.
- LIGHTING DESIGN CRITERIA:
- LIGHT LOSS FACTOR = 0.7
- AVERAGE MAINTAINED ILLUMINATION FOR KIA PARKWAY = 0.6 fc
UNIFORMITY RATIO (AVG./MIN.) = 3.1:1
- AVERAGE MAINTAINED ILLUMINATION FOR KIA BOULEVARD = 0.8 fc
UNIFORMITY RATIO (AVG./MIN.) = 4.0:1
- AVERAGE MAINTAINED ILLUMINATION FOR TRUCK ROAD = 0.6 fc
UNIFORMITY RATIO (AVG./MIN.) = 3.0:1
- AVERAGE MAINTAINED ILLUMINATION FOR INTERCHANGE = 1.0 fc
UNIFORMITY RATIO (AVG./MIN.) = 2.5:1
- WIND SPEED = 90 M.P.H.
- THE LIGHTING CONTRACTOR SHALL FURNISH A ONE YEAR WRITTEN WARRANTY FOR PARTS AND DEFECTIVE WORKMANSHIP ON THE LUMINAIRES, POLES, LIGHTING CONTROL PANEL AND ALL THE OTHER ELECTRICAL EQUIPMENT
 - THE CONTRACTOR SHALL BEWARE OF OVERHEAD POWER LINES AND LOCATE LIGHTING TOWERS SUCH THAT THEY WILL HAVE 10 FEET MINIMUM CLEARANCE FROM DISTRIBUTION LINES OR 20 FEET MINIMUM CLEARANCE FROM TRANSMISSION LINES.

LUMINAIRE SPECIFICATION

A. THE REFLECTOR SHALL CONSIST OF HIGH PURITY (#3002 ALLOY) ALUMINUM OF MINIMUM 0.08" THICK SHEET. FLAT LENS SHALL BE 1/8" FULLY TEMPERED GLASS. PRESSED PRISMATIC OR CLEAR DROP LENS SHALL BE MANUFACTURED OF BOROSILICATE GLASS. THE REFLECTOR AND LENS OPTICAL ASSEMBLY SHALL BE DESIGNED TO PROVIDE THE IES PATTERN SPECIFIED. THE SOCKET SHALL BE PULSE RATED, NICKEL-PLATED AND LAMP GRIP PORCELAIN ENCLOSED. IT SHALL PREVENT UNDUE LAMP VIBRATION AND BACKOUT.

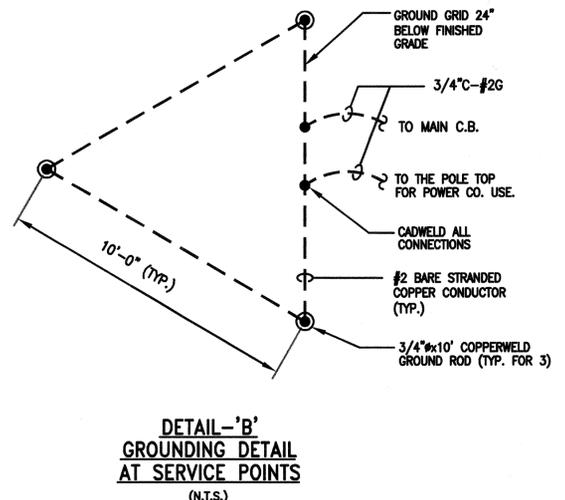
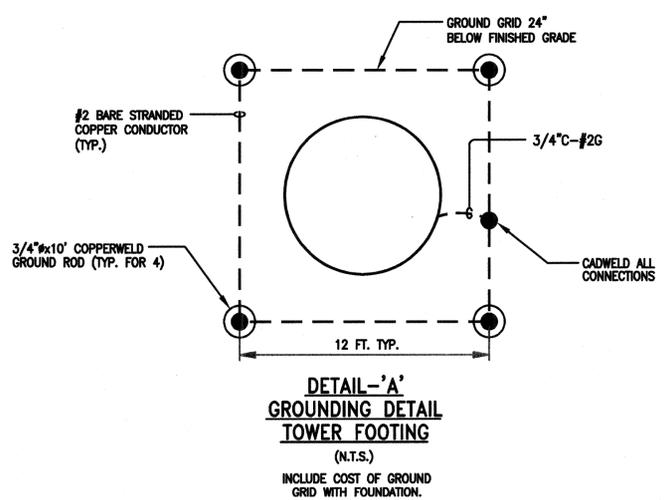
B. BALLAST SHALL BE HIGH POWER FACTOR TYPE AS SPECIFIED. IT SHALL RELIABLY START THE LAMP IN AMBIENT TEMPERATURES TO MINUS 40F. THE PLUG-IN HPS STARTER SHALL BE TOTALLY ENCAPSULATED WITH A MATERIAL THAT ELECTRICALLY AND THERMALLY INSULATES ALL COMPONENTS FROM LAMP AND BALLAST HEAT. A PROTECTED STARTER SHALL BE PROVIDED TO SENSE AN INOPERATIVE LAMP AND SHUT DOWN AUTOMATICALLY TO PREVENT CONTINUOUS PULSING AND THERMAL DAMAGE TO ITSELF AND THE BALLAST SECONDARY WINDINGS. THE LUMINAIRE SHALL BE UL/CUL LISTED FOR 40C AMBIENT. (347V, 400W HPS RESTRICTED TO 25C AMBIENT.)

C. QUICK DISCONNECT ELECTRICAL ASSEMBLY: THE FIXTURE DOOR SHALL CONTAIN ALL BALLAST COMPONENTS AND BE HINGED FOR FAST TOOL-FREE REMOVAL AND REPLACEMENT. COMPLETE REPLACEMENT SHALL TAKE LESS THAN 60 SECONDS.

D. ANSI LAMP LABEL: A SELF-ADHESIVE LABEL SHALL BE PROVIDED WHICH IDENTIFIES THE LAMP TYPE AND SIZE. IT SHALL MEET ANSI C-136 STANDARDS.

E. MECHANICAL CONSTRUCTION: THE HOUSING, DOOR AND FITTER SHALL BE DIE CAST ALUMINUM. THEY SHALL UNDERGO A SIX STAGE CLEANING AND PRETREATMENT PROCESS AND OVERCOATED WITH AN ELECTROSTATICALLY APPLIED 2 TO 4 MIL COAT OF TGIC POLYESTER POWDER PAINT CURED AT 425F. THE FINISH SHALL WITHSTAND A 160 INCH-POUND IMPACT MEASURED WITH A STANDARD GARDNER IMPACT TESTER. IT SHALL HAVE PASSED A 1000 HOUR SALT SPRAY TEST AS SPECIFIED BY ASTM B-117. IT SHALL EXHIBIT NO CRACKING OR LOSS OF ADHESION FROM A 180° BEND OVER A 1" MANDRELL DIAMETER PER ASTM D522. ALL EXTERNAL HARDWARE SHALL BE CORROSION RESISTANT. HOUSING ACCESS SHALL NOT REQUIRE TOOLS. THE FITTER SHALL BE BUILT IN AND ACCOMMODATE A STANDARD 2 INCH TEMON OR ARM. UNITS CAN BE TILED BETWEEN 0° AND 15° OR 27° AND 45°. ELECTRICAL CONNECTION SHALL BE INSIDE THE FITTER ASSEMBLY AND NOT REQUIRE FIXTURE ENTRY. A TERMINAL BLOCK LOCATED INSIDE THE FITTER SHALL BE PROVIDED.

F. WARRANTY: THE ELECTRICAL ASSEMBLY SHALL BE FULLY WARRANTED FOR A PERIOD OF 5 YEARS AND THE HOUSING FOR A PERIOD OF 2 YEARS FROM THE DATE OF INSTALLATION ACCEPTANCE.



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REVISION	DATE

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
Office of Urban Design

Lighting Details

CSNHS-0008-00(232)
I-85 Interchange @
CR 98/Gabbettville Road

DRAWING No.
25-03

AS-BUILT