

NOTES

- 1 AT THESE LOCATIONS, PROVIDE ELECTRICAL DUCT IN ACCORDANCE WITH NEC REQUIREMENTS FOR AN APPROVED RACEWAY FOR ELECTRICAL CIRCUITS. SEE TABLE "B"
2 INSTALL ALL BORE PITS OUTSIDE THE CLEAR ZONE, AS DEFINED BY THE 2011 AASHTO ROADSIDE DESIGN GUIDE OR AS DIRECTED BY THE ENGINEER.
3 LOCATE ALL JUNCTION BOXES OUTSIDE CLEAR ZONE AND IN AN AREA UNLIKELY TO BE USED BY TRAFFIC.
4 LOCATE PROPOSED CONTROL SYSTEM IN AN AREA ACCESSIBLE FOR MAINTENANCE VEHICLES AND OUTSIDE OF CLEAR ZONE AS DEFINED BY THE 2011 AASHTO ROADSIDE DESIGN GUIDE.
5 INSTALL RIGID GALVANIZED CONDUIT (RGC) ABOVE GROUND, AND POLYVINYL CHLORIDE (PVC) SCHEDULE 40 CONDUIT UNDERGROUND, EXCEPT AS MODIFIED ON THESE PLANSHEETS OR IN APPLICABLE SECTIONS OF THE ROADWAY STANDARD DRAWINGS FOR THIS PROJECT.
6 ALL IN GROUND JUNCTION BOXES SHALL BE 18" HIGH AND ALL FORMED OPENINGS SHALL BE 6" HIGH, UNLESS OTHERWISE NOTED.
7 CONTRACTOR SHALL RECORD THE GPS COORDINATES OF EACH JUNCTION BOX WITHIN 3' ACCURACY, IN THE JUNCTION BOX SUMMARY, TABLE C. PROVIDE A COPY OF THE JUNCTION BOX SUMMARY WITH THESE COORDINATES TO THE LIGHTING ENGINEER DURING PROJECT INSPECTION.
8 POLE NUMBERING CONVENTION: CONTROL SYSTEM-POLE #-CKT # (A-3-2). JUNCTION BOXES SHOWN NEAR LIGHT STANDARDS (LSJB & HMJB) ARE SHOWN FOR CLARITY. THESE JUNCTION BOXES ARE TO BE USED AS A TEE POINT FOR CIRCUITRY TO THE STANDARD, AND SHALL BE INSTALLED FOR BEST ALIGNMENT OF CIRCUITRY WHILE MAINTAINING THE OFFSETS SHOWN IN TABLE "C". SEE STANDARD DRAWINGS 1401.01 AND 1406.01 FOR INSTALLATION DETAILS.
9 SERVICE POLE SHALL NOT BE INSTALLED PRIOR TO COORDINATION WITH THE LOCAL UTILITY. PROVIDE PROOF OF COORDINATION AND PROOF OF NEED TO THE ENGINEER AFTER CONSULTING WITH THE LOCAL UTILITY. THE SERVICE POLE MAY BE DELETED FROM THE CONTRACT IF NOT REQUIRED. REFER TO ARTICLE 1407-3 OF THE 2024 NCDOT STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES.
10 WHERE A CURRENT TRANSFORMER (CT) CABINET IS REQUIRED, THE CT CABINET AND ASSOCIATED HARDWARE IS INCIDENTAL TO THE PAY ITEM FOR THE LIGHTING CONTROL PANEL.
11 WHERE IT IS NOTED (BY LEGEND OR A DELTA NOTE) THAT EXISTING LIGHTING IS TO BE REMOVED, EXISTING FOUNDATIONS, CONDUIT AND CONDUCTOR MAY BE REMOVED OR ABANDONED. SEE ARTICLE 1400-10 OF THE STANDARD SPECIFICATIONS. REFER TO LIGHTING SPECIAL PROVISIONS.
12 SEE BRIDGE CONDUIT DETAIL SHEET E6
13 ADD A STUB OF DUCT HERE TO EXTEND CURRENT DUCT TO THE ADJACENT JUNCTION BOX AS SHOWN.
14 REMOVE AND DISPOSE OF CONTROL PANEL.
15 INSTALL LIGHTING POLES BEHIND RETAINING WALL. INSTALL SHORTER POLES SUCH THAT MOUNTING HEIGHT IS UNIFORM WITH REST OF PROJECT.
16 JB9 IS TO BE ABANDONED. INSTALL JBB2 WITHIN CONCRETE OF NEW BULB-OUT AND CONNECT TO CONTROL SYSTEM "B".
17 CONTRACTOR SHALL INTERCEPT EXISTING 1.5" CONDUIT, CONNECT NEW 1.5" CONDUIT TO EXISTING 1.5" CONDUIT, AND INSTALL NEW CONDUCTOR, SIZED AS SHOWN BETWEEN TERMINATION POINTS.

PLANS AND DETAILS FOR PROPOSED LIGHTING /ELECTRICAL CONSTRUCTION

LEGEND

- PROPOSED 120' HIGH MAST STANDARD W/ HM FOUNDATION, JUNCTION BOX & 8 HM LED LUMINAIRES. 560W MAX, 54,000 MIN. MAINTAINED DELIVERED LUMENS, TYPE V. MAXIMUM BUG RATING 5-0-5.
PROPOSED 100' HIGH MAST STANDARD W/ HM FOUNDATION, JUNCTION BOX & 6 HM LED LUMINAIRES. 560W MAX, 54,000 MIN. MAINTAINED DELIVERED LUMENS, TYPE V. MAXIMUM BUG RATING 5-0-5.
PROPOSED 80' HIGH MAST STANDARD W/ HM FOUNDATION, JUNCTION BOX & 8 HM LED LUMINAIRES. 335W MAX, 27,000 MIN. MAINTAINED DELIVERED LUMENS, TYPE V. MAXIMUM BUG RATING 5-0-5.
EXISTING 100' HIGH MAST POLE TO BE LEFT IN PLACE.
EXISTING 100' HIGH MAST POLE TO BE REMOVED.
PROPOSED LIGHT STANDARD TYPE MTLT IS 45' WITH 15' SINGLE ARM. INCLUDES STANDARD FOUNDATION TYPE R1 OR R2, JUNCTION BOX & 150W MAX LED ROADWAY LUMINAIRE. IES DISTRIBUTION:TYPE II OR III AS REQUIRED. MAXIMUM BUG RATING 3-0-3.
EXISTING SINGLE ARM LIGHT STANDARD TO BE LEFT IN PLACE.
EXISTING SINGLE ARM LIGHT STANDARD TO BE REMOVED AND DISPOSED OF, UNLESS OTHERWISE NOTED IN A DELTA NOTE. ABANDON OR REMOVE FOUNDATION.
EXISTING TWIN ARM LIGHT STANDARD TO BE LEFT IN PLACE.
PROPOSED CONTROL SYSTEM WITH JUNCTION BOX. SEE PLANS FOR BREAKER SIZES.
EXISTING CONTROL SYSTEM, LEAVE IN PLACE UNLESS SPECIFIED OTHERWISE.
EXISTING ELECTRICAL JUNCTION BOX TO BE LEFT IN PLACE, UNLESS OTHERWISE NOTED.
PROPOSED ELECTRICAL JUNCTION BOX. SIZED AS SHOWN IN TABLE C, SHEETS E-1A-E-1D.
EXISTING ELECTRICAL JUNCTION BOX, TO BE REMOVED.

ROADWAY STANDARDS

THE FOLLOWING ROADWAY ENGLISH STANDARDS AS APPEAR IN "NCDOT ROADWAY STANDARD DRAWINGS", ROADWAY DESIGN UNIT-N.C. DEPARTMENT OF TRANSPORTATION RALEIGH, N.C., DATED JANUARY 2024 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

Table with 2 columns: STD NO. and TITLE. Lists standards such as 1401.01 HIGH MOUNT STANDARD, 1402.01 HIGH MOUNT FOUNDATION, etc.

ALL WORK SHALL BE IN CONFORMANCE WITH DIVISION 14 OF THE STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES, DATED JANUARY 2024.

SCOPE OF WORK

PLACE ROADWAY LIGHTING SYSTEM INTO SERVICE BY PROVIDING AND INSTALLING LIGHT STANDARDS WITH LIGHT EMITTING DIODE LUMINAIRES, UNDERGROUND CIRCUITRY, CONTROL SYSTEM AND JUNCTION BOXES.

DESIGN CRITERIA

- 0.6 AVERAGE FOOTCANDLE ON TRAVEL LANES
4:1 AVERAGE TO MINIMUM UNIFORMITY RATIO ON TRAVEL LANES
2024 AASHTO ROADWAY LIGHTING DESIGN GUIDE
2013 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS, 6TH EDITION AND LATEST INTERIM SPECIFICATIONS VALID AT THE TIME OF LETTING (HANDHOLE SHAFT DIAMETER REQUIREMENT AND HANDHOLE PLACEMENT REQUIREMENT WAIVED)
FATIGUE CATEGORY II SHALL BE USED IN DESIGN
DESIGN HIGH MOUNT SUPPORT FOR BASIC WIND SPEED OF 90 MPH
DESIGN HIGH MOUNT STANDARD FOUNDATION FOR BASIC WIND SPEED OF 90 MPH. ANY CONTRACTOR-DESIGNED SITE SPECIFIC FOUNDATION DESIGN SHALL BE DESIGNED FOR THE SAME WIND SPEED
2020 NATIONAL ELECTRICAL CODE
2011 AASHTO ROADSIDE DESIGN GUIDE

TABLE "A" CIRCUITRY CONDUCTOR CONDUIT TYPE & SIZE. Table with 3 columns: PLAN SYMBOL, DESCRIPTION, CONTRACT ITEM. Lists conductor and conduit specifications for various circuit types.

ABBREVIATIONS

Table of abbreviations: BD BURIED, LT LIGHT, TL TRENCHLESS, MH MOUNTING HEIGHT, etc.

- 1 REFERENCE TO CORRESPONDING NOTE AS NUMBERED.
PROPOSED FEEDER CIRCUIT. CONTROL SYSTEM (A), CIRCUIT NUMBER (1), PLAN SYMBOL (6). SEE TABLE A, THIS SHEET.
PROPOSED 30' CLASS 4 SERVICE POLE AND LATERAL 3 #1/0 USE 2" CONDUIT
PROPOSED ELECTRICAL DUCT SIZE 2", 3" OR 4" TYPE (TL) OR (BD) LOCATION: SEE TABLE B, SHEET E-1A.
2", 3" OR 4" ELEC. DUCT TL & BD
EXISTING ELECTRICAL DUCT SIZE 2", 3" OR 4"
EXISTING FEEDER CIRCUIT, TO BE RETAINED.
EXISTING FEEDER CIRCUIT, TO BE ABANDONED.
PROPOSED FORMED OPENING.

COMPUTED BY: MSQ DATE:
CHECKED BY: RGH DATE:

