GENERAL NOTES

- 1. REFER TO THE LIGHTING PLANS FOR THE ACTUAL CONFIGURATION AND LOCATION OF LIGHT STANDARDS.
- 2. FOR CONDUIT, PULL OR SPLICE BOX, CONTROL CENTER, AND CABINET DETAILS, SEE LIGHTING PLAN LCC ELEVATIONS.
- POLE CAPS ARE REQUIRED.
- 4. BREAK-AWAY TRANSFORMER BASES SHALL BE INCLUDED ON ALL LIGHT STANDARDS. FOR DETAILS SEE STANDARD PLAN NO. M-613-1 SHEET 2 OF 4.
- 5. CABINET BASE OR PAD AND LEVELING CONCRETE SHALL BE CLASS B CONCRETE. CLASS D CONCRETE MAY BE SUBSTITUTED AT NO ADDITIONAL COST.
- 6. WELDING OF STEEL SHALL CONFORM TO THE REQUIREMENTS OF ANSI/AWS D1.1 ALL AREAS TO BE WELDED SHALL BE GROUND TO BRIGHT METAL.

  ALL WELDING AND REQUIRED TESTING SHALL BE COMPLETE BEFORE ANY MATERIAL IS GALVANIZED. ALL CIRCUMFERENTIAL WELDS SHALL BE

  NONDESTRUCTIVELY TESTED USING THE ENHANCED MAGNETIC PARTICLE METHOD IN ACCORDANCE WITH SUBSECTION 509.18 (D) OF THE STANDARD SPECIFICATIONS. THE ACCEPTANCE CRITERIA IS STATED IN TABLE 6.1 DF ANSI/AWS D1.1.
- 7. SPECIAL LIGHT STANDARDS SHALL BE DESIGNED BY THE CONTRACTOR AND CONSTRUCTED TO THE DESIGN CRITERIA LISTED ON THIS SHEET AND IN THE SPECIAL PROVISIONS. ENTIRE ASSEMBLY SHALL BE FURNISHED BY THE SAME MANUFACTURER. CONNECTIONS WITH THE FOUNDATIONS SHALL ACCOMMODATE THE DETAILS OF THESE PLANS.
- 8. WDRKING DRAWINGS AND DESIGN CALCULATIONS SHALL BE SUBMITTED TO THE ENGINEER IN ACCORDANCE WITH SECTION 105.
- 9. SPECIAL LIGHT STANDARD OFFSET WILL VARY PER SITE CONDITIONS. SEE LIGHTING PLANS FOR SETBACK INSTRUCTIONS.
- 10. SPECIAL LIGHT STANDARDS SHALL NOT BE PLACED IN DITCHES OR OTHER LOW AREAS. EMBANKMENT MATERIAL SHALL BE SDIL EMBANKMENT WITH A MINIMUM R VALUE OF 70. EMBANKMENT SHALL BE COMPACTED TO A MINIMUM RELATIVE COMPACTION OF 95% AS DETERMINED IN ACCORDANCE WITH AASHTO T180. IF APPROPRIATE MATERIAL IS NOT AVAILABLE FROM THE PROJECT SITE, SELECT MATERIAL SHALL BE IMPORTED. EMBANKMENT MATERIAL WILL NOT BE MEASURED AND PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN ITEM 503, DRILLED CAISSON (24 INCH) OR ITEM 613, LIGHT STANDARD FOUNDATION SPECIAL.
- 11. EMBANKMENT MATERIAL SHALL BE PLACED SO THAT THE GRADE IS LEVEL WITHIN 2'-0" OF THE FDUNDATION IN ALL DIRECTIONS.
- 12. ALL LIGHT POLES, ARMS, AND LUMINAIRES SHALL BE PAINTED DR COATED IN ACCORDANCE WITH PROJECT SPECIAL PROVISION 519, METAL COATING SYSTEMS.

## **FOUNDATIONS**

- 1. DRILLED CAISSONS ARE THE DEFAULT FOUNDATION TYPE AND SHALL BE USED EVERYWHERE EXCEPT AS DEFINED IN NOTE 2. DETAILS FOR DRILLED CAISSON FOUNDATIONS ARE SHOWN ON SHEETS 2 AND 3 OF 4.
- 2. DUE TO THE PRESENCE OF SHOT ROCK, SPREAD FOOTINGS MAY BE USED AS AN ALTERNATE FOUNDATION TYPE. ALTERNATE SPREAD FOOTING FOUNDATIONS SHALL ONLY BE USED WHEN BEARING ON SHOT ROCK, REFER TO DETAILS SHOWN ON SHEET 4 OF 4. THE ALTERNATE SPREAD FOOTING FOUNDATION DETAILS PROVIDED IN THESE PLANS MAY ALSO BE USED FOR (NON-SPECIAL) LIGHT STANDARDS TO BE CONSTRUCTED ON SHOT ROCK, AS DIRECTED BY THE ENGINEER. REFER TO THE LIGHTING PLANS FOR MORE INFORMATION.
- 3. THE CONTRACTOR MAY OBTAIN SOIL SAMPLES FOR SULFATE TESTING AT EACH FOUNDATION SITE. THE RESULTS OF SULFATE TESTING MAY BE USED TO DETERMINE THE SULFATE EXPOSURE LEVEL, RATHER THAN USING THE DEFAULT LEVEL II AS STATED IN THE GENERAL NOTES SHEET.

## **PAYMENT**

- 1. SPECIAL LIGHT STANDARDS SHALL BE PAID FOR UNDER ITEM 613, LIGHT STANDARD METAL (35 FOOT) (SPECIAL) (2 ARM).
- 2. DRILLED CAISSONS SHALL BE PAID FOR UNDER ITEM 503, DRILLED CAISSON (24 INCH).
- 3. ALTERNATE SPREAD FOOTING FOUNDATIONS SHALL BE PAID FOR UNDER ITEM 613, LIGHT STANDARD FOUNDATION SPECIAL.

## LUMINAIRE AND ELECTRIC

1. FOR ELECTRIC AND LUMINAIRE INFORMATION, SEE LIGHTING PLANS.

## DESIGN CRITERIA

- 1. SPECIAL LIGHT STANDARDS SHALL BE DESIGNED IN ACCORDANCE WITH THE AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS, 4TH EDITIONS INCLUDING INTERIMS THROUGH 2006. SPECIAL LIGHT STANDARDS SHALL BE DESIGNED AND CONSTRUCTED TO THE FATIGUE REQUIREMENTS IN THESE PUBLICATIONS. ALL MEMBERS SHALL BE DESIGNED FOR MINIMUM DESIGN LIFE OF 50 YEARS.
- 2. A DESIGN WIND VELOCITY OF 100 MPH AND ONE 12 FOOT LANE WITH A 65 MPH TRUCK-INDUCED GUST LOADING SHALL BE USED FOR DESIGN.
- 3. GALLOPING LDADS ARE EXCLUDED FROM FATIGUE DESIGN AND CATEGORY 2 FATIGUE IMPORTANCE FACTORS SHALL BE USED.
- 4. FOUNDATION DETAILS HAVE BEEN PREPARED IN ACCORDANCE WITH THIS CRITERIA. FOR ADDITIONAL FOUNDATION DESIGN PARAMETERS, SEE SHEETS 3 AND 4 OF 4.

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Colorado Department of Transportation



Region 1

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