

14. THE RED, YELLOW AND GREEN INDICATION FOR ALL VEHICULAR SIGNAL HEADS SHALL BE A 12 INCH LIGHT EMITTING DIODE (LED) MODULES AND FOLLOW ITE VTC SH-LED GUIDELINES. LED MODULES ACCEPTABLE FOR SIGNAL INSTALLATION SHALL BE DIALIGHT 433 SERIES OR APPROVED EQUAL. IF THE INDICATOR REQUIRES A GREEN LENS, THE INDICATOR LENS SHALL BE CLEAR AND HAVE NO TINT. INDICATORS FOR THE YELLOW AND RED MAY HAVE A TINTED LENS OR A CLEAR LENS.
15. ALL TRAFFIC SIGNAL HEADS SHALL BE FLAT BLACK IN COLOR, OUTFITTED WITH LOUVERED BACK PLATE, TUNNEL VISORS WITH $\frac{3}{4}$ SLOT, OPEN TO THE BOTTOM. ALL SIGNAL HEADS TO BE MANUFACTURED BY "MCCAIN" OR APPROVED EQUAL. IF DIRECTED BY THE ENGINEER, EXTRA BACK PLATES TO BE PROVIDED FOR STOCK.
16. ALL NEW PEDESTRIAN PUSH BUTTONS SHALL BE THE 2 INCH DIAMETER WITH INTERNATIONAL WALKING MAN SYMBOL SIGN. FOR MOUNTING HEIGHT AND ADDITIONAL DETAILS, SEE STANDARD PLAN SHEET NO. T-30.1.3.1 OF NDOT-SPRBC.
17. ALL INTERSECTIONS SHALL HAVE A BATTERY BACK UP SYSTEM. THE SYSTEM SHALL BE MOUNTED TO THE METERED SERVICE CABINET OF THE SYSTEM AND WILL BE A 24 VOLT OR 48 VOLT SYSTEM. THE CABINET SHALL BEAR A 508 UL LABEL. THE SYSTEM SHALL SUPPLY A MINIMUM UNINTERRUPTED CONTINUOUS POWER SUPPLY (UPS) SERVICE FOR UP TO 2 HOURS. THE SYSTEM SHALL FEATURE AN EVENT COUNTER AND TIMER. THE SYSTEM SHALL HAVE A TWO (2) YEAR PARTS AND LABOR TRANSFERABLE WARRANTY TO THE CITY OF SPARKS. THE UPS UNIT AND THE METERED PEDESTAL SHALL BE DESIGNED AS ONE COMPLETE UNIT. THE UPS SYSTEM SHALL BE A PIGGYBACK DESIGN SYSTEM AND HANG ON THE METERED SERVICE PEDESTAL.
18. WHEN CONTROLLER CABINETS ARE NOT LOCATED IN A SIDEWALK, THEY SHALL HAVE A CONCRETE SERVICE PAD INSTALLED IN FRONT OF THE CABINET, THE SAME WIDTH AS CABINET AND AT LEAST 3 FEET LONG. NO IMPROVEMENTS SHALL BE PERMITTED TO BLOCK CABINET DOOR IN COMPLIANCE WITH NEC. SPRINKLER SYSTEMS SHALL BE DIRECTED AWAY FROM AND NOT ALLOWED TO SPRAY CABINET OR PULL BOXES DIRECTLY.
19. ALL NEW TRAFFIC SIGNALS SHALL BE CONNECTED INTO THE CITY OF SPARKS TRAFFIC SIGNAL CENTRAL COMPUTER SYSTEM VIA THE NEAREST RECEIVER SITE BY FIBER-OPTIC OR AN APPROVED OTHER.
20. FOR COMMUNICATIONS EQUIPMENT CONTACT CITY OF SPARKS TRAFFIC ENGINEERING FOR LATEST SPECIFICATIONS.
21. THE LUMINAIRE FIXTURES SHALL BE 120 VOLT, 250 WATT EQUIVALENT LED, 180 DEGREE CUTOFF WITH FLAT GLASS, TYPE III DISTRIBUTION WITH AUTO/REG BALLAST AND DRIVER CONTROLS. PHOTO CELL TO BE LOCATED IN METERED SERVICE PEDESTAL.
22. PREEMPTION OF SIGNALS BY EMERGENCY VEHICLES SHALL BE PROVIDED BY INSTALLING MODEL 722 PHASE SECTOR DETECTORS WITH THE MODEL 762 OR 764 PHASE SELECTOR, OR AN APPROVED EQUAL.
23. LOOP DETECTORS SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF SPARKS SUPPLEMENTAL STANDARD DRAWING DETAILS FOR PUBLIC WORKS CONSTRUCTION.
24. THE CONTRACTOR SHALL PROVIDE AN UNDERGROUND SERVICE PEDESTAL. THE MAIN BREAKER SHALL BE 100 AMP MINIMUM (120/240 VAC, 60 HZ, SINGLE PHASE, 3 WIRE) IN ACCORDANCE WITH NDOT STANDARD PLAN T-30.1.6. INDIVIDUAL CIRCUIT BREAKERS SHALL INCLUDE 120 VOLT: 30 AMP 1-POLE CIRCUIT BREAKER FOR SIGNAL; 30 AMP 2-POLE CIRCUIT BREAKER FOR LIGHTING CONTACTOR; 20 AMP 1-POLE CIRCUIT BREAKER FOR STREET LIGHTS; 20 AMP 1-POLE CIRCUIT BREAKER FOR SIGNS; 15 AMP 1-POLE CIRCUIT BREAKER FOR CONTROL; AND A 15 AMP 1-POLE CIRCUIT BREAKER FOR GFI RECEPTACLE. THE CONDUCTOR TO THE CABINET FROM THE BREAKER SHALL BE A MINIMUM OF 10 GAUGE WIRE.

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

DRAWING No.



NOTES - TRAFFIC SIGNALS & POLES

S-407E

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