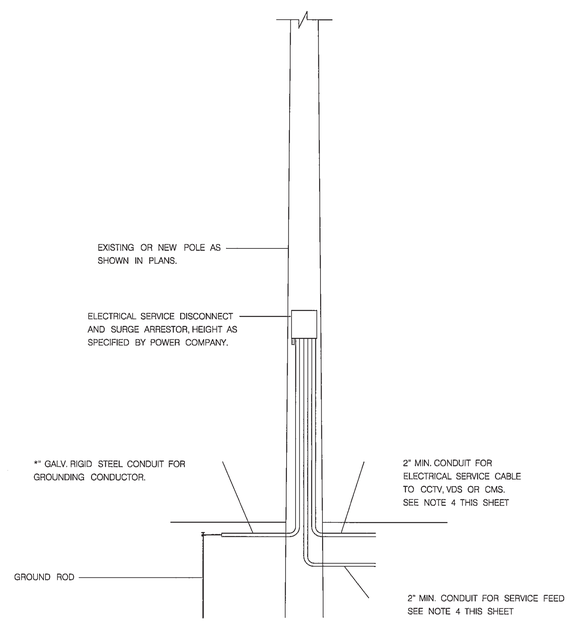
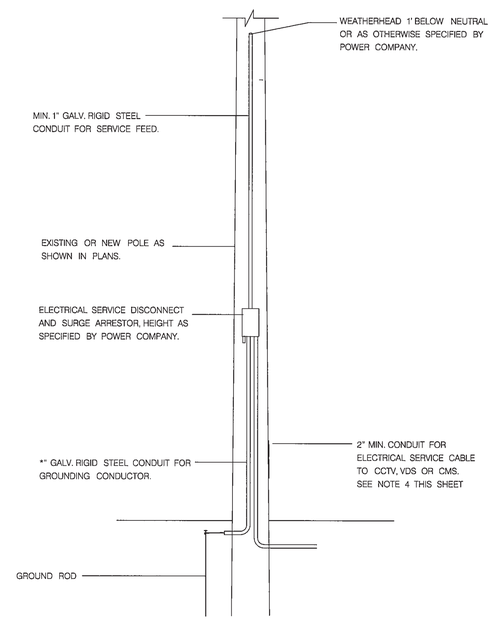
ELECTRICAL SERVICE INSTALLATION FOR CMS, VDS AND CCTV SYSTEMS



ELECTRICAL POWER SERVICE ASSEMBLY, UNDERGROUND SERVICE POINT

NOT TO SCALE



ELECTRICAL POWER SERVICE ASSEMBLY AERIAL SERVICE POINT

NOT TO SCALE

ELECTRICAL SERVICE GENERAL NOTES

1. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL ELECTRICAL SERVICE EQUIPMENT AND MATERIALS FOR CCTV, VDS AND CMS INSTALLATIONS IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, INCLUDING SECTIONS 937 (VIDEO DETECTION SYSTEM) 936 (CCTV SYSTEM), AND 631 (PERMANENT CHANGEABLE MESSAGE SIGN), THE PLANS, AND THE GEORGIA SPECIFICATIONS. ALL MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH APPLICABLE CODES AND ANY REQUIREMENTS OF THE UTILITY POLE OWNER. THE CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION WITH UTILITY POLE OWNERS AND THE ELECTRICAL SERVICE PROVIDER.

2. THE CONTRACTOR SHALL FURNISH AND INSTALL NEW GROUND ROD AND CONDUCTOR ASSEMBLIES AT ALL ELECTRICAL SERVICE ASSEMBLIES FOR CCTV AND CMS SYSTEMS ON NEW AND EXISTING POLES. GROUNDING TO EXISTING GROUND RODS AT EXISTING POLES IS NOT PERMITTED EXCEPT WHEN REQUIRED BY THE POLE OWNER. WHEN TYING TO EXISTING GROUND RODS, THE NEW SERVICE DISCONNECT GROUND CONDUCTOR SHALL BE ATTACHED TO THE NEW GROUND ROD FIRST, THEN ROUTED TO THE EXISTING GROUND ROD. GROUND RODS SHALL BE MINIMUM 10 FEET IN LENGTH. RESISTANCE TO GROUND FROM THE GROUND CONDUCTOR CLAMP SHALL BE MEASURED WITH A THREE-POINT EARTH GROUND TEST MEGGER IN THE PRESENCE OF THE ENGINEER. MAXIMUM RESISTANCE TO GROUND AS TESTED SHALL BE 10 OHMS.

3. THE CONTRACTOR SHALL FURNISH AND INSTALL ELECTRICAL SERVICE ASSEMBLIES, INCLUDING ALL MATERIALS SUCH AS CONDUIT, SERVICE CONDUCTORS, DISCONNECT BREAKER, SURGE ARRESTOR, ETC. THE REQUIREMENTS FOR CCTV SYSTEMS ARE IN SECTION 936 OF THE GEORGIA SPECIFICATIONS AND THIS TYPICAL DETAIL. THE REQUIREMENTS FOR VIDEO DETECTION SYSTEMS ARE IN SECTION 937 OF THE GEORGIA SPECIFICATIONS AND THIS TYPICAL DETAIL. THE REQUIREMENTS FOR CMS SYSTEMS ARE IN SECTION 631 OF THE GEORGIA SPECIFICATIONS AND THIS TYPICAL DETAIL, AND SHALL ALSO BE IN FULL ACCORDANCE WITH THE CMS MANUFACTURER'S RECOMMENDATIONS. THE CMS MANUFACTURER'S RECOMMENDATIONS FOR CMS SYSTEM ELECTRICAL SERVICE SHALL BE INCLUDED IN THE SUBMITTAL DATA REQUIRED IN SECTION 631.1.03 AND SHALL INCLUDE SPECIFICATIONS FOR CONDUIT AND CONDUCTORS, GROUNDING, MAIN DISCONNECT BREAKERS AND BRANCH CIRCUIT BREAKERS AS NEEDED, SURGE ARRESTORS, ETC. IN LIEU OF SPECIFIC REQUIREMENTS BY THE CMS MANUFACTURER FOR ANY PARTICULAR ITEM OR MATERIAL, THE ELECTRICAL SERVICE ASSEMBLY REQUIREMENTS SPECIFIED FOR A CCTV SYSTEM SHALL PREVAIL.

4. ALL ABOVEGROUND ELECTRICAL SERVICE CONDUIT SHALL BE GALVANIZED RIGID STEEL. ALL ELECTRICAL SERVICE CONDUIT BODIES, SUCH AS LBS AND COUPLINGS, SHALL BE GALVANIZED RIGID STEEL OR ALUMINUM. RISER CONDUIT BENDS, INCLUDING INTO THE BASE OF THE DISCONNECT HOUSING, SHALL BE MADE ONLY BY LB OR SIMILAR CONDUIT BODIES. STREET ELBOWS AND SWEEPS ARE NOT PERMITTED. ALL UNDERGROUND ELECTRICAL SERVICE CONDUIT SHALL BE SCHEDULE 40 PVC.

GEORGIA
DEPARTMENT OF TRANSPORTATION

- NO SCALE -

REVISION DATES		
09/01/2005		

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: TRAFFIC SAFETY & DESIGN
ATMS PLANS

ELECTRICAL SERVICE DETAIL

ITS-12
DRAWING No. 28-13

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