

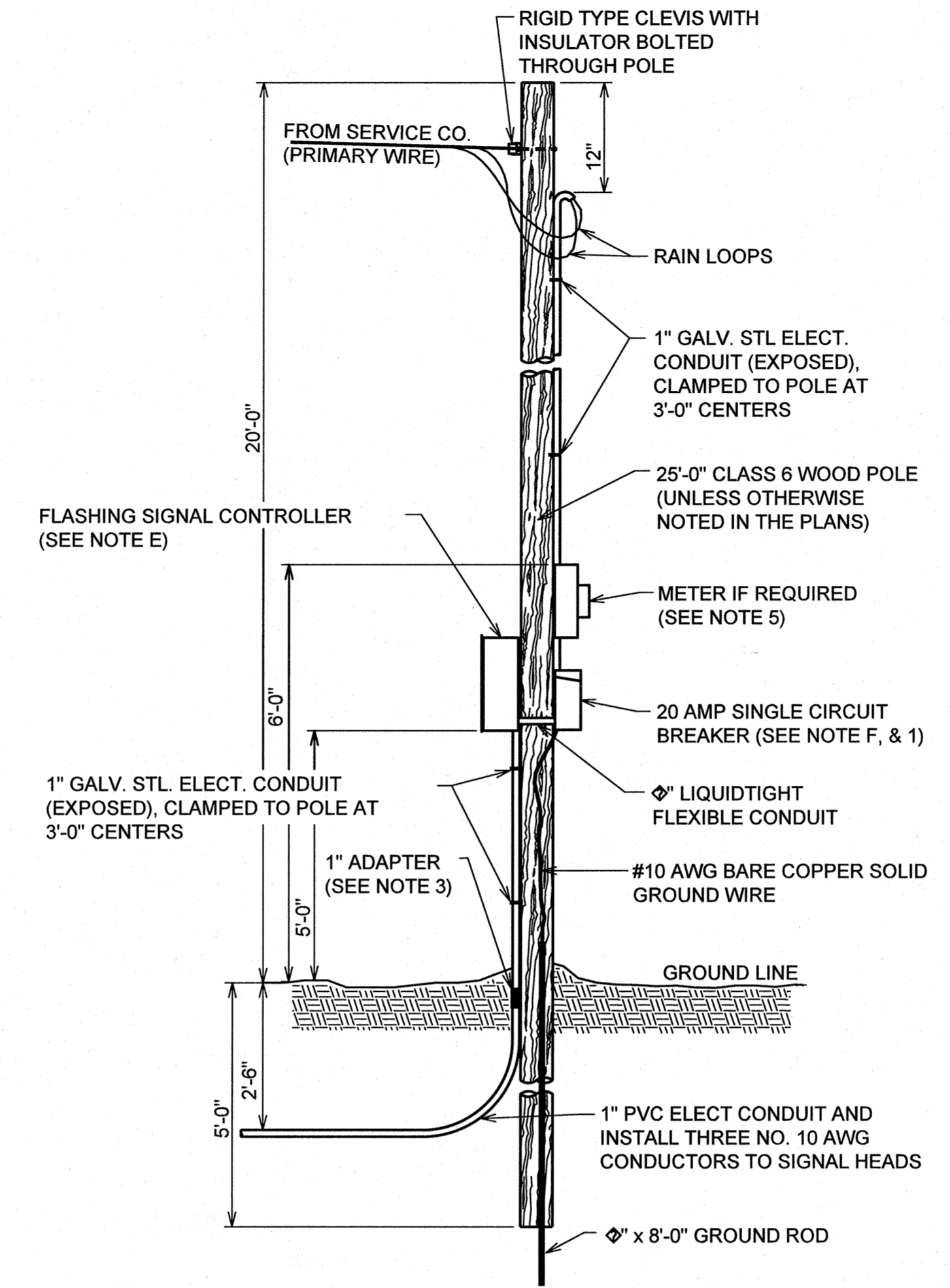
DESCRIPTION	REVISIONS	DATE
MODIFIED NOTE K		7/08/2011

**MATERIAL SPECIFICATIONS**

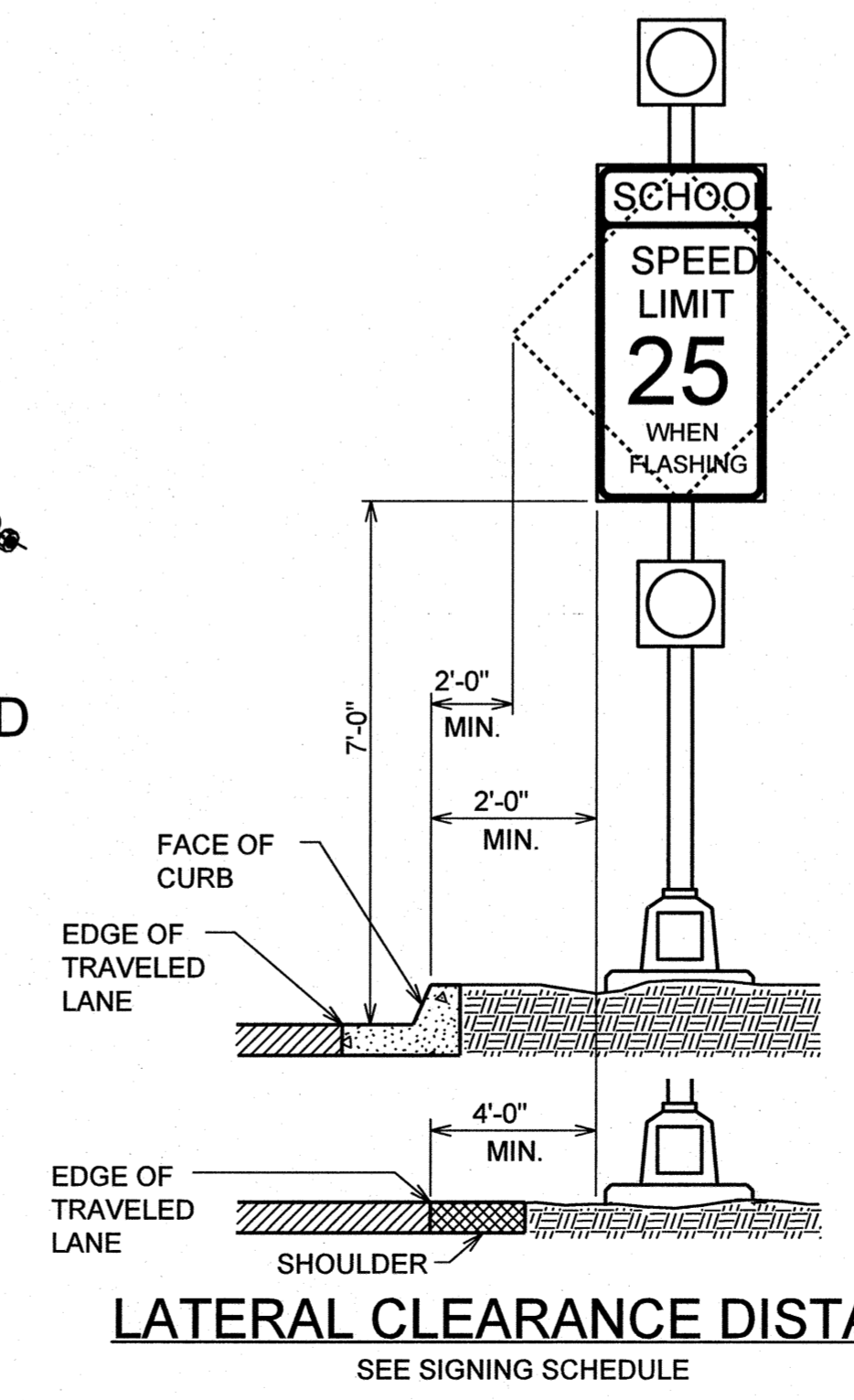
- A. ELECTRICAL CONDUIT AND FITTINGS SHALL BE IN ACCORDANCE WITH SECTION 802 OF THE 2009 STANDARD SPECIFICATIONS AND MAY BE EITHER RIGID GALV. STEEL OR SCH. 40 PVC PLASTIC.
- B. ELECTRICAL CONDUCTORS FROM THE POWER SERVICE INSULATOR TO THE CONTROLLER, AND TO THE FLASHING SIGNAL HEADS SHALL BE A NO. 10 AWG. TYPE THHN. ELECTRICAL WIRING FROM THE FOOTING TO THE SIGNAL HEADS SHALL BE INSTALLED WITHIN THE SUPPORTING SIGN POLE.
- C. ALL CONDUITS OR STRAPS SHALL BE GALVANIZED MALLEABLE IRON.
- D. THE SERVICE POLE SHALL BE TREATED FULL LENGTH IN ACCORDANCE WITH AMERICAN WOOD PRESERVERS ASSOCIATION SPECIFICATIONS, TO BE AT LEAST 7.5 LBS. PER CUBIC FOOT RETENTION OF CREOSOTE OR 0.38 PENTACHLOROPHENOL MEASURED BY THE EMPTY CELL PROCESS. WOOD POLES SHALL COMPLY WITH THE LATEST REVISIONS OF ANSI STANDARD 05.1.
- E. THE FLASHER CONTROLLER SHALL BE A TYPE I FLASHER FOR 24 HOUR OPERATION OR A TYPE II FLASHER FOR TIMED OPERATION, IN A CAST ALUMINUM, NEMA 3R RAIN TIGHT, LOCKABLE ENCLOSURE. CONTROLLER SHALL CONFORM TO SECTION 827 OF THE 2009 STANDARD SPECIFICATIONS.
- F. THE ENCLOSURE FOR THE CIRCUIT BREAKER SHALL BE A N.E.M.A. 3R RAIN TIGHT ENCLOSURE, AND SHALL BE LOCKED IN ACCORDANCE WITH THE POWER COMPANY REQUIREMENTS. CIRCUIT BREAKERS SHALL BE I-POLE, 120 VOLT, RATED AT 20 AMP.
- G. SIGNAL HEADS USED SHALL BE ONE-WAY, ONE SECTION ( WITH YELLOW LENS AND TUNNEL VISOR (V-1), CONFORMING TO SECTION 831 OF THE 2009 STANDARD SPECIFICATIONS. SIGNAL HEAD SIZE SHALL BE EITHER A S-8 (8") OR S-22 (12") AS SPECIFIED ON THE PLANS.
- H. ANCHOR BOLTS SHALL BE ASTM A-572 OR A-36, MODIFIED TO 50,000 PSI YIELD STRENGTH WITH A HEAVY DUTY FLAT WASHER, HEAVY DUTY LOCK WASHER AND HEAVY DUTY HEX NUT, ALL GALVANIZED AS PER ASTM A-153.
- I. THE FUSE HOLDER LOCATED IN THE POLE BASE SHALL BE WATERPROOF, IN-LINE, BREAK-A-WAY TYPE INCLUDING A 10 AMP KTK FUSE.
- J. THE PIPE POST SHALL BE 4" @ 10.79 SCH. 40 GALV. STEEL. PIPE LENGTH WILL VARY DUE TO SIGN SIZES AND FIELD CONDITIONS. THE CONTRACTOR SHALL VERIFY AND ADJUST THE PIPE POST LENGTH AS REQUIRED. MINIMUM LENGTH OF 12", UNLESS OTHERWISE SPECIFIED IN THE SIGNING SCHEDULE. SPUN ALUMINUM SCH.40 OR 80 PIPE, AS REQUIRED, MAY BE USED AS AN ALTERNATE POST MATERIAL.
- K. ALL COST OF THE FHWA APPROVED SQUARE CAST ALUMINUM BASE WITH A PLASTIC DOOR, GROUNDING LUG AND A CAST ALUMINUM BASE COLLAR SHALL BE INCLUDED IN THE PRICE BID FOR REGULATORY OR WARNING SIGN ASSEMBLY.
- L. COST OF CONCRETE AND STEEL IN THE FOOTING SHALL BE INCLUDED IN THE PRICE BID OF REGULATORY OR WARNING SIGN ASSEMBLY PAY ITEM. FOR CONCRETE AND STEEL QUANTITIES SEE STANDARD FGS2-1 (LATEST REVISION).

**GENERAL NOTES**

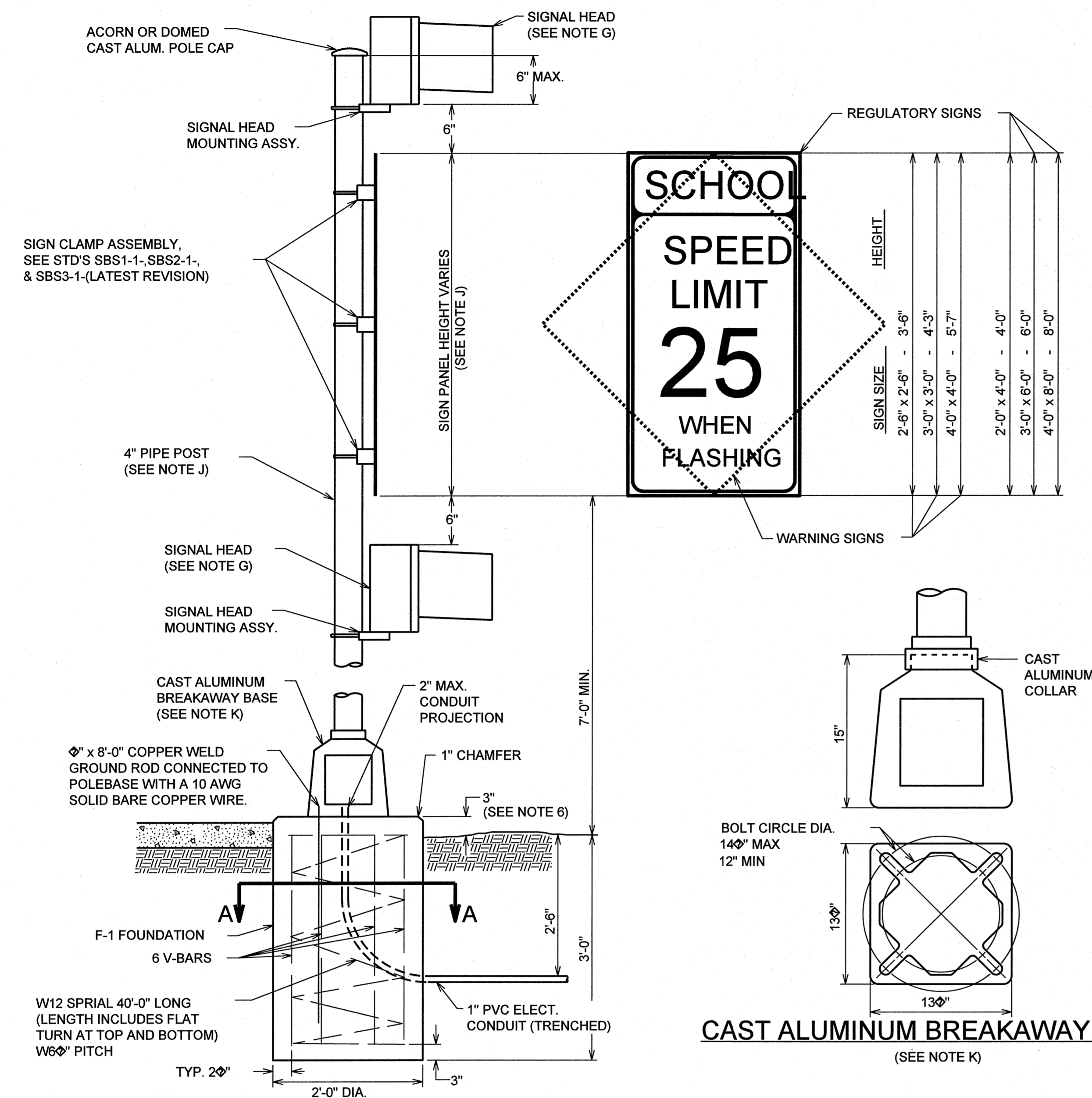
1. SERVICE POLE: PRIMARY SERVICE SHALL BE FURNISHED TO A SERVICE POLE. THE INSTALLATION SHALL INCLUDE GROUND ROD, METER BASE, INSULATORS, CABLES, CONDUIT, SERVICE HEAD, SERVICE BRACKET, CIRCUIT BREAKERS AND ALL OTHER ITEMS NECESSARY TO COMPLETE THE WORK. THE CONTRACTOR SHALL COORDINATE WITH THE POWER COMPANY TO GET THE CONNECTION AT THE PROPER TIME. THE EQUIPMENT, CONSTRUCTION AND INSTALLATION ON THE SERVICE POLE SHALL BE SUBJECT TO THE APPROVAL OF THE POWER COMPANY. THE COST OF MATERIALS AND INSTALLATION OF THE SERVICE POLE, AS DESCRIBED ABOVE, INCLUDING ANY PERMITS OR CHARGES BY POWER COMPANY FOR THE CONNECTION SHALL BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS.
2. ON PROJECTS WHERE SERVICE POLES ARE INSTALLED THE SERVICE POLE SHALL BE INSTALLED AS CLOSE TO THE RIGHT-OF-WAY AS POSSIBLE. LOCATION SHALL BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION TO PROVIDE THE MAXIMUM CLEARZONE DISTANCE POSSIBLE.
3. INSTALL A CONDUIT COUPLING ADAPTOR, OR COMPRESSION COUPLING IF NECESSARY TO CONNECT CONDUITS OF DISSIMILAR MATERIALS.
4. THE PRIMARY WIRING SHALL BE PROVIDED BY THE LOCAL UTILITY CO., UNLESS OTHERWISE SPECIFIED.
5. THE CONTRACTOR SHALL INSTALL THE REQUIRED METERING EQUIPMENT FURNISHED BY LOCAL UTILITY CO., UNLESS OTHERWISE SPECIFIED.
6. WHEN POLE FOUNDATION IS PLACED IN SOIL AREAS, THE FOUNDATION SHALL EXTEND A MAXIMUM OF 3" ABOVE GROUND LINE. WHEN FOUNDATION IS PLACED IN SIDEWALK OR OTHER SURFACED AREA, THE FOUNDATION TOP SHALL BE FLUSH WITH THE SURFACE.



**TYPICAL SERVICE POLE**

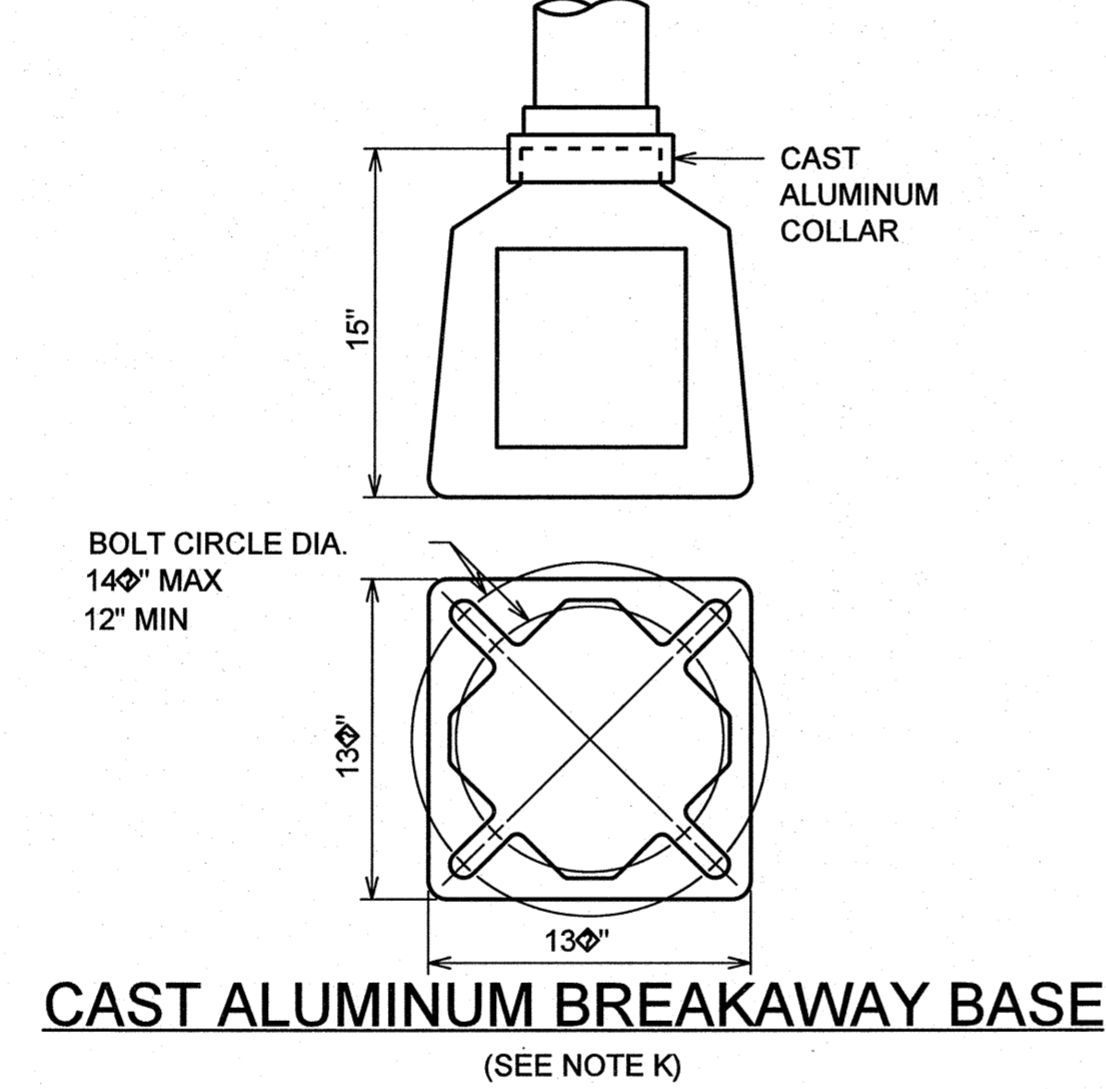


**LATERAL CLEARANCE DISTANCE**  
SEE SIGNING SCHEDULE

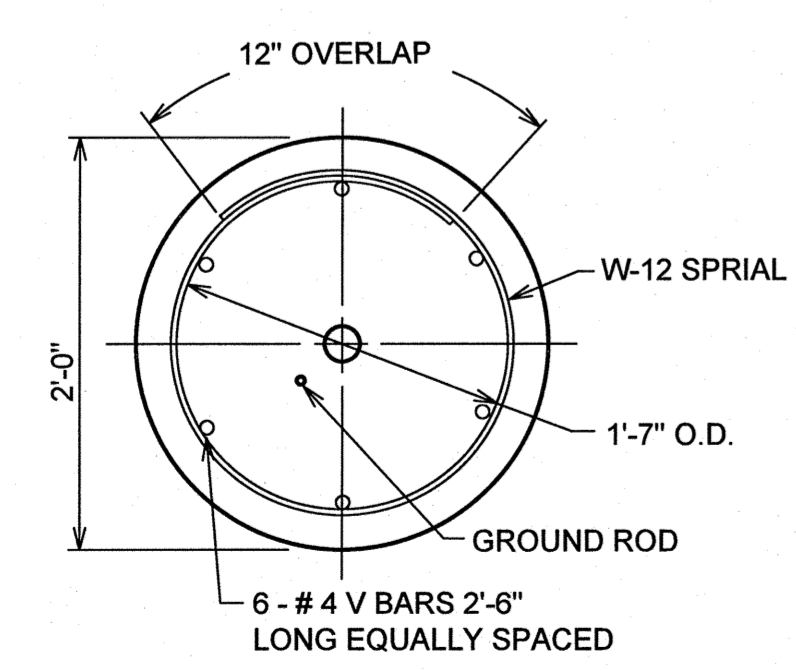


**TYPICAL FLASHING REGULATORY / WARNING SIGN**

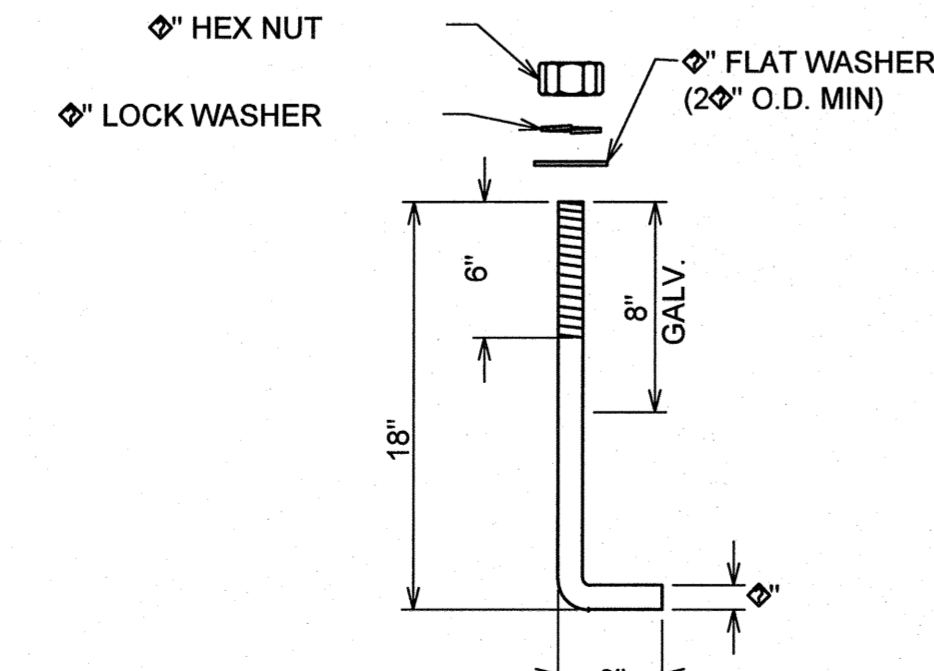
STRUCTURAL CONCRETE = 0.35 CY  
REINFORCING STEEL = 27 LBS



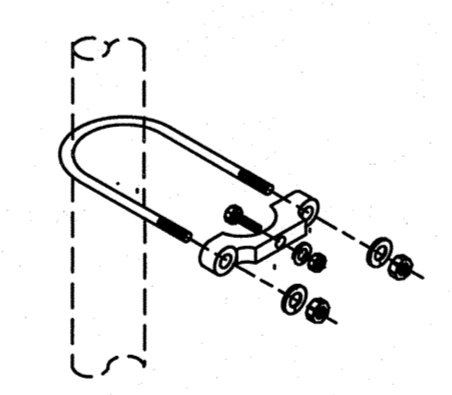
**CAST ALUMINUM BREAKAWAY BASE**  
(SEE NOTE K)



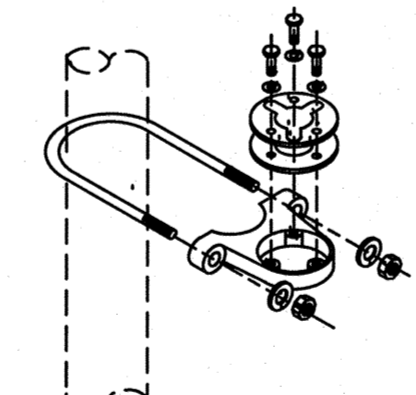
**SECTION "A-A"**



**ANCHOR BOLT DETAIL**  
(SEE NOTE H)



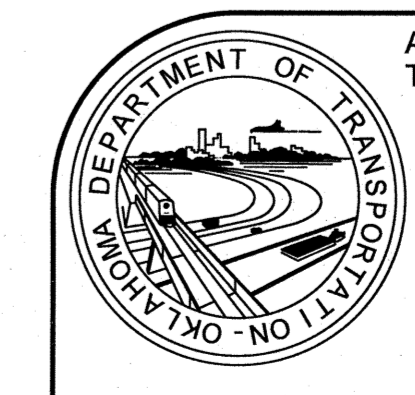
**SIGN CLAMP**



**SIGNAL HEAD MOUNTING**

**MOUNTING ASSEMBLYS**

BASIS OF PAYMENT		
ITEM NO.	ITEM	UNIT
836	REGULATORY OR WARNING SIGN ASSEMBLY	EA



APPROVED BY  
TRAFFIC ENGINEER: *David Smith* DATE: 7/27/09

**TRAFFIC STANDARD**  
**REGULATORY AND WARNING SIGN**  
**WITH FLASHING SIGNAL**

2009 SPECIFICATIONS