

ITEM 614, MAINTAINING TRAFFIC

A MINIMUM OF 1-LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES BY USE OF THE EXISTING PAVEMENT AND STANDARD DRAWING MT-97.10.

LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. THE MAXIMUM LANE CLOSURE LENGTH SHALL BE PER MT-97.10. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT, IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH CMS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

NOTIFICATION OF ROAD CLOSURE OR RESTRICTIONS

THE CONTRACTOR WILL ADVISE THE PROJECT ENGINEER A MINIMUM OF TWENTY-ONE (21) DAYS PRIOR TO THE FOLLOWING: THE START OF CONSTRUCTION ACTIVITIES, LANE RESTRICTIONS, LANE CLOSURES, AND OR ROAD CLOSURES. THE PROJECT ENGINEER WILL FORWARD THIS INFORMATION TO THE FOLLOWING:

DISTRICT PUBLIC INFORMATION OFFICER (PIO) BY FAX AT (614) 887-4510 OR EMAIL AT D05.PIO@DOT.STATE.OH.US

DISTRICT PERMIT SECTION BY FAX AT (614) 887-4525 OR EMAIL AT BRIAN.BOSCH@DOT.STATE.OH.US

CENTRAL OFFICE SPECIAL HAUL PERMITS SECTION BY FAX AT (614) 728-4099 OR EMAIL AT HAULING.PERMITS@DOT.STATE.OH.US

THE PIO WILL, IN TURN, NOTIFY THE PUBLIC, THE LOCAL EMERGENCY SERVICES, AFFECTED SCHOOLS AND BUSINESSES, AND ANY OTHER IMPACTED LOCAL PUBLIC AGENCY OF ANY OF THE ABOVE-MENTIONED ITEMS, VIA MEDIA SOURCES.

ITEM 630, GROUND MOUNTED SUPPORT, NO. 3 POST, AS PER PLAN

ALL GROUND MOUNTED SUPPORTS SHALL USE A SQUARE POST (TYPE S) WITH ANCHOR BASE PER STANDARD DRAWING TC-41.20.

ITEM 631, SCHOOL SPEED LIMIT ASSEMBLY, SOLAR-POWERED, AS PER PLAN

THIS ITEM SHALL INCLUDE ONE SOLAR-POWERED SCHOOL FLASHER ASSEMBLY THAT CONSISTS OF AN 36" X 72" (S5-H1) SIGN, TWO FORWARD FACING 12" AMBER LED BEACONS, ONE REAR FACING 12" AMBER LED BEACON, PEDESTAL POLE WITH MOUNTING HARDWARE, 130-WATT SOLAR PANEL WITH TOP OF PEDESTAL HARDWARE, CONTROL CABINET WITH FLASHER REGULATOR. SEE SHEET 8 FOR MOUNTING DETAILS.

THE SOLAR SYSTEM SHALL BE DESIGNED TO RUN A MINIMUM OF 6 HOURS PER DAY AND MAINTAIN COMMUNICATIONS AT ALL TIMES UNDER CONTINUOUS WORST-CASE (MINIMUM) INSOLATION FIGURES (USUALLY DECEMBER) FOR THE PROPOSED GEOGRAPHIC LOCATION, USING A PANEL ELEVATION ANGLE APPROPRIATE TO THE SITE LATITUDE, AT A SUSTAINED TEMPERATURE OF 25 DEGREES FAHRENHEIT (-4 DEGREES CELSIUS). TWO (2) 12VDC, 105 AMP-HR BATTERIES WILL BE REQUIRED PER SCHOOL FLASHER ASSEMBLY.

THE FLASHER CONTROL AND BATTERY SHALL BE HOUSED IN A SINGLE ALUMINUM ENCLOSURE WITH A NEMA RATING OF AT LEAST 3X. THE ENCLOSURE SHALL BE LARGE ENOUGH TO HOUSE TWO (2) 105 AMP-HR BATTERIES. ENCLOSURE EXTERIOR SURFACES SHALL BE NATURAL ALUMINUM FINISH WITH ENCLOSURE INTERIOR SURFACES THE SAME AS THE EXTERIOR. INSIDE THE ENCLOSURE, THE CONTROL ELECTRONICS AND BATTERIES SHALL BE SEPARATED IN A MANNER TO PREVENT DAMAGE TO THE CONTROL ELECTRONICS IF THE BATTERY ENVELOPE IS COMPROMISED.

AN RTC-AP22 TIME SWITCH SHALL BE FURNISHED AND INSTALLED IN THE CABINET. THE TIME SWITCH SHALL OPERATE ON 12 VOLT DC +/-2VDC. THE DC POWER SUPPLY SHALL BE AN INTEGRAL PART OF THE TIME SWITCH CIRCUIT BOARD FOR OPERATION IN SOLAR DC POWERED SYSTEMS. A SEPARATE 12VDC POWER SUPPLY MODULE IS NOT ACCEPTABLE.

THE TIME SWITCH SHALL USE DAY PLAN PROGRAMMING WITH THE ANNUAL EXCEPTION METHOD FOR EASE OF PROGRAMMING. THE TIME SWITCH SHALL HAVE THE OPTION OF 2-WAY PROGRAMMING OVER A 2-WAY RADIO NETWORK, A WIFI NETWORK, CELLULAR M2M NETWORKS OR AN ETHERNET NETWORK. THE TIME SWITCH SHALL HAVE THE OPTION OF UPDATING ITS TIME-OF-DAY FROM A GPS RECEIVER. THE TIME SWITCH SHALL BE EQUIPPED WITH A MEANS FOR MOUNTING TO A SUITABLE BACK PLANE. MOUNTING HOLES THAT PROVIDE CLEARANCE FOR AT LEAST A NO. 10 SCREW WILL BE ACCEPTABLE. THE TIME SWITCH SHALL NOT EXCEED 8-3/8"H X 4-7/8"W X 2"D WITHOUT HARNESS AND 10-3/8"H X 4-7/8"W X 2"D WITH HARNESS. A CASE SHALL BE PROVIDED TO PROTECT THE TIME SWITCH CIRCUITRY FROM DUST.

THE TIME SWITCH SHALL FASTEN SECURELY TO THE CASE AND MUST BE EASILY REMOVABLE FROM THE CASE WITH THE USE OF SIMPLE TOOLS. INTERFACE TO THE POWER SOURCE AND TO THE CONTROLLED DEVICE SHALL BE PROVIDED BY MEANS OF A 48" QUICK MATING HARNESS. THE DC POWER INPUTS SHALL BE PROTECTED WITH A FUSE AND MOV.

THE RTC M2M MODEM SHALL BE INSTALLED IN EACH CABINET FOR FUTURE USE.

THE SOLAR PANEL MANUFACTURER MUST TEST PANEL ACCORDING TO IEC61215 OR EQUIVALENT APPROVED STANDARD. SOLAR PANEL MOUNTING MUST BE RATED FOR 90 MPH DESIGN WIND.

ITEM 631, SCHOOL SPEED LIMIT ASSEMBLY, SOLAR-POWERED, AS PER PLAN (CONT'D)

THE POLE SHALL CONSIST OF A 16' NATURAL ALUMINUM PEDESTAL POLE PER CMS 725.21 WITH BREAKAWAY TRANSFORMER BASE PER STANDARD DRAWING HL-10.13 WITH ONE END THREADED AND SCREW-IN FOUNDATION. AN ALUMINUM POLE COLLAR SHALL BE USED.

SOFTWARE SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR'S REPRESENTATIVE TO RUN THE COMPATIBLE PROGRAM OF THE RTC-AP22. TRAINING FOR THE PROGRAM SHALL BE PROVIDED BY THE CONTRACTOR'S REPRESENTATIVE FOR EIGHT HOURS AT THE LOCATION AGREED UPON BY THE ODOT D-5 TRAFFIC ENGINEER, BRIAN BOSCH, WHICH MAY INCLUDE ON-SITE INSTALLATION LOCATIONS. THE SOFTWARE SHALL HAVE UNLIMITED USE AND NO RESTRICTION ON THE NUMBER OF USERS.

THE ENTIRE SCHOOL ZONE FLASHER AND SIGN ASSEMBLY SHALL CONFORM TO THE CONTRACT DOCUMENTS AND MEET THE REQUIREMENTS SET FORTH IN THE OMUTCD.

ALL COMPONENTS SHALL BE MADE AVAILABLE TO THE PURCHASER FOR SERVICING FOR FIVE YEARS AFTER EXPIRATION OF THE MANUFACTURER'S WARRANTY OR SHALL BE SO IDENTIFIED THAT THEY MAY BE PURCHASED FROM INDUSTRIAL ELECTRONICS SUPPLIERS. EACH UNIT SHALL BE WARRANTED TO BE FREE FROM DEFECTS IN MATERIAL AND WORKMANSHIP FOR A PERIOD OF TWO YEARS FROM INSTALLATION DATE OF FIFTEEN (15) MONTHS FROM THE DATE OF SHIPMENT FROM THE FACTORY, WHICHEVER OCCURS FIRST. THE LED SIGNAL BEACONS SHALL MEET THE CURRENT ITE VEHICLE TRAFFIC CONTROL SIGNAL HEADS (VTCSH) STANDARD. THE MANUFACTURER OF THE SIGNAL BEACON SHALL BE LISTED ON THE DEPARTMENT'S QUALIFIED PRODUCTS LIST FOR LED SIGNAL LAMPS.

ANY WARRANTY SERVICE REQUIRED SHALL BE PROMPTLY PERFORMED AT THE MANUFACTURER'S FACILITY OR THE MANUFACTURER'S AUTHORIZED SERVICE AGENCY. THE PURCHASER WILL PAY TRANSPORTATION COSTS TO SUCH SERVICE POINT, AND THE MANUFACTURER WILL PAY THOSE COSTS TO RETURN THE UNIT BY NORMAL SURFACE TRANSPORTATION MEANS.

ALL PROGRAMMING CABLES AND CONNECTORS ARE TO BE FURNISHED AND INSTALLED. INCIDENTAL TO THIS ITEM, EIGHT ADDITIONAL PROGRAMMING CABLES SHALL BE FURNISHED AND SUPPLIED TO THE ODOT D-5 TRAFFIC ENGINEER, BRIAN BOSCH FOR FUTURE MAINTENANCE PURPOSES.

PAYMENT SHALL BE MADE AT THE CONTACT UNIT PRICE FOR EACH ASSEMBLY INSTALLED, TESTED, AND ACCEPTED AS DESCRIBED ABOVE. ALL INCIDENTALS AND MATERIALS REQUIRED TO INSTALL THE SCREW-IN FOUNDATION AND INSTALL THE POLE TO THE FOUNDATION AS SHOWN IN THE PLANS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE.

DESIGN AGENCY



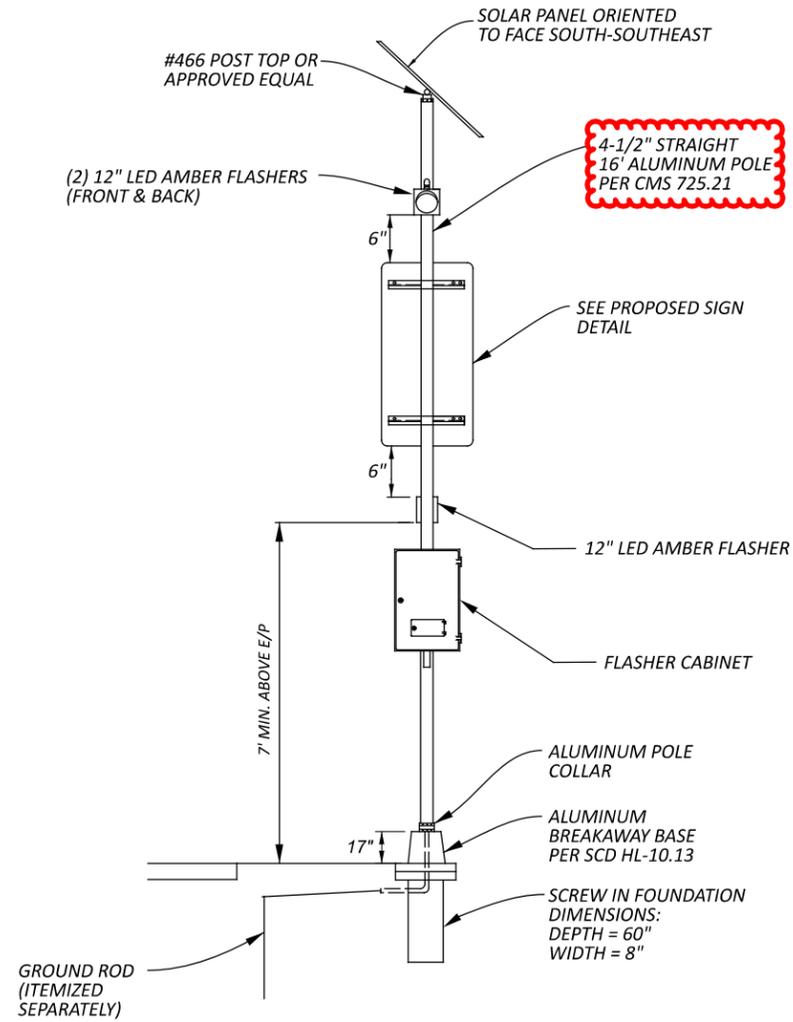
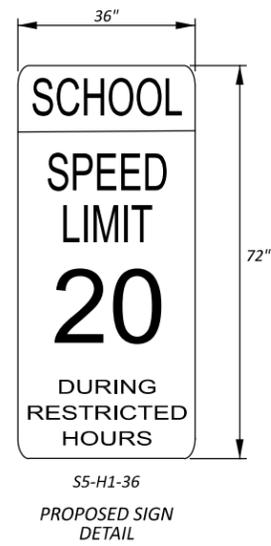
DESIGNER RMA

REVIEWER JSL 12/07/22

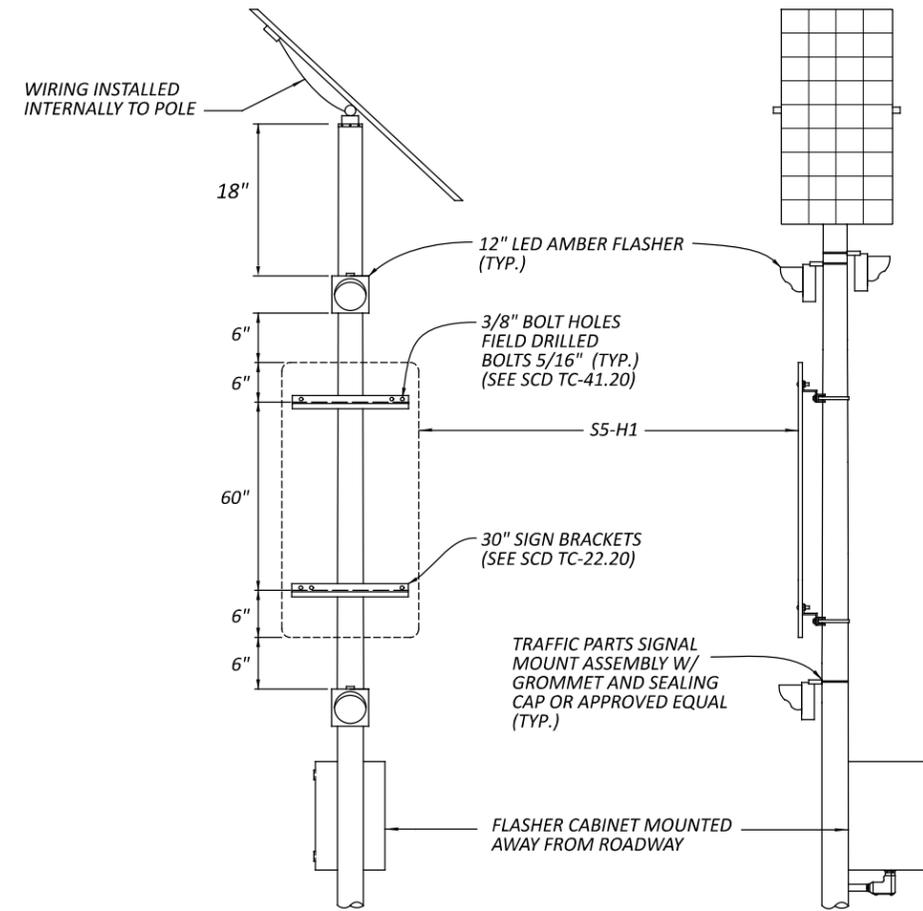
PROJECT ID 109619

SHEET TOTAL 5 26

SOLAR-POWERED SCHOOL FLASHER ASSEMBLY



DETAIL 1 - BACK VIEW



DETAIL 2 - FRONT VIEW

DETAIL 3 - SIDE VIEW

