

GENERAL NOTES

CONSTRUCTION SPECIFICATIONS: LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT, STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES, 2006, EXCEPT AS SUPPLEMENTED OR AMENDED BY THE PLANS, SUPPLEMENTAL SPECIFICATIONS, AND/OR SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS: THE STRUCTURAL DESIGN SHALL BE IN ACCORDANCE WITH AASHTO "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS", FIFTH EDITION 2009, AND MEET THE "AMPLIFICATION FACTOR" METHOD FOR DETERMINING STRESSES.

CONCRETE: CONCRETE FOR APRON SHALL BE CLASS "M" CONCRETE. CONCRETE FOR DRILLED SHAFT SHALL BE CLASS "S"

REINFORCING STEEL: ALL REINFORCING STEEL SHALL BE GRADE 420 (ENGLISH GRADE 60).

GALVANIZING: ANCHOR BOLTS AND OTHER STEEL COMPONENTS AND ACCESSORIES SHALL BE GALVANIZED IN ACCORDANCE WITH SUBSECTION 811.12 UNLESS OTHERWISE SPECIFIED.

ANCHOR BOLTS: ANCHOR BOLTS SHALL BE AASHTO M314-90 (ASTM 1554) HAVING GRADE 55 UNC SERIES (OR APPROVED EQUAL) AND GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A153 FOR THE ENTIRE LENGTH. NUTS SHALL CONFORM TO ASTM A563 GRADE "A" HEAVY HEX AND FLAT WASHERS TO ASTM F436. NUTS SHALL BE TIGHTENED TO 1/6 TURN BEYOND SNUG TIGHT. ANCHOR BOLTS SHALL BE FURNISHED IN A PREPOSITIONED ANCHOR BOLT ASSEMBLY (TWO TEMPLATES REQUIRED).

MISCELLANEOUS HARDWARE: ALL SCREWS, BOLTS, NUTS AND LOCK WASHERS SHALL BE STAINLESS STEEL OR GALVANIZED, AND SHALL BE COMPATIBLE WITH MATERIALS TO BE FASTENED. NO SELF TAPPING SCREWS SHALL BE USED UNLESS APPROVED.

PLUMB: THE MOUNTING POLE SHALL NOT BE OUT OF PLUMB BY MORE THAN 0.0025 MEASURED AS THE RATIO OF THE HORIZONTAL OFFSET FROM VERTICAL BETWEEN ANY TWO POINTS ON THE CENTERLINE OF THE MOUNTING POLE AND THE VERTICAL DISTANCE BETWEEN THEM.

CONCRETE FOOTING: LOCATION OF THE FOOTING SHALL BE AS SHOWN, OR AS DIRECTED BY THE PROJECT ENGINEER. THE LOCATION OF THE POLE AND FOOTING SHALL NOT CONFLICT WITH IN-PLACE UTILITIES.

TAPERED ALUMINUM MOUNTING POLE: POLE AND ASSOCIATED COMPONENTS SHALL BE FABRICATED FROM ALUMINUM AND SHALL BE DESIGNED FOR 177 KPH (110 MPH) WIND ZONE. THE MOUNTING POLE SHALL BE A TAPERED ALUMINUM POLE 7.62 METERS (25 FEET) IN LENGTH. POLE SHALL, WITH THE EXCEPTION OF THE POLE WALL THICKNESS, CONFORM TO AASHTO TECHNICAL BULLETIN NO. 270 "A GUIDE TO STANDARDIZED HIGHWAY LIGHTING POLE HARDWARE" FOR DIMENSIONED TETHERED HAND HOLE COVER WITH CHAIN, AND POLE CAP ATTACHED WITH STAINLESS STEEL HEX. SCREW. THE POLE SHALL HAVE A CAST ALUMINUM POLE CAP AND A CAST ALUMINUM FRANGIBLE TRANSFORMER BASE. THERE SHALL BE AN INTERNAL STEEL DAMPER CABLE INSTALLED IN THE POLE ACCORDING TO THE PLANS. POLE SHALL BE SPUN FROM EXTRUDED ALUMINUM TUBE.

UNDERGROUND JUNCTION BOX: JUNCTION BOX AND ITS COVER SHALL BE FABRICATED FROM CARBON FILLED HIGH-DENSITY POLYETHYLENE OR FIBERGLASS REINFORCED POLYMER CONCRETE. BOX SHALL BE STRAIGHT WALLED AND INSTALLED IN A 150 mm (6") THICK CONCRETE APRON UNLESS SHOWN OTHERWISE ON THE PLANS. BOX AND COVER SHALL BE DESIGNED FOR A MINIMUM OF 53 KN (12000 LBS.) INCIDENTAL TRAFFIC LOAD APPLICATIONS. BOX COVER SHALL HAVE STAINLESS STEEL FASTENERS AND WASHERS. UNLESS NOTED OTHERWISE, THE NOMINAL DIMENSIONS OF THE BOX SHALL BE 300 mm x 300 mm x 300 mm (12"x12"x12").

TRAFFIC SENSOR: THE TRAFFIC SENSOR SHALL BE A POLE MOUNTED ELECTRONIC INTEGRATED SYSTEMS, INC. (EIS) REMOTE TRAFFIC MICROWAVE SENSOR (RTMS) MODEL G4 THAT IS A SIDE FIRING MICROWAVE DOPPLER RADAR UNIT.

CONTACTS : THE CONTACT PERSON FOR LOCATING THE FINAL ROADSIDE POSITION OF THE RADAR TRAFFIC SENSOR AND RECORDER SYSTEM INSTALLATION, SPECIFYING THE STANDARD CONTROL CABINET LOCK, PROVIDING THE ACOUSTIC MODEM, MAKING THE ARRANGEMENT WITH THE LOCAL TELEPHONE COMPANY TO CONNECT THE TELEPHONE LINE, CONNECTING THE SYSTEM WIRING AND PERFORMING ACCEPTANCE TESTING IS THE AUTOMATIC TRAFFIC RECORDER TECHNICIAN (225-935-0260 OR 225-485-1210).

SOLAR PANELS: THE TWO SOLAR PANELS SHALL BE POLE MOUNTED 50 WATT EQUIPPED WITH UNIVERSAL MOUNTS WITH BRACKETS FOR SIDE MOUNTED USE. THE SOLAR PANELS SHALL BE ROTATED AND ANGLED FREELY, WITHOUT OBSTRUCTION, AS RECOMMENDED BY THE MANUFACTURER FOR PROPER OPERATION AND MAINTENANCE.

CONTROL CABINET: CONTROL CABINET SHALL BE A POLE MOUNTED TYPE, FABRICATED OF UNPAINTED SHEET ALUMINUM ACCORDING TO THE NEMA TS2 CONTROLLER HOUSING SPECIFICATIONS FOR ADVANCED TRANSPORTATION CONTROLLER TYPE 2070 ATC AND CONFORM TO ATC 2070 PART 3.7 CABINET ASSEMBLY ENVIRONMENTAL AND OPERATING REQUIREMENTS. THE SHEET ALUMINUM SHALL BE TYPE 5052-H32, ASTM B209 AND NO LESS THAN 63 GAUGE AMERICAN STANDARD 1.524 mm (0.060") MINIMUM THICKNESS. THE CABINET SHALL BE VENTED, ITS SUPPORT AND ATTACHMENTS SHALL BE ADEQUATELY REINFORCED TO CARRY THE WEIGHT OF ALL INSTRUMENTS AND ACCESSORIES, AND IT SHALL BE EQUIPPED WITH ONE SHEET ALUMINUM SHELF. THE CABINET SHALL COME EQUIPPED WITH A TWENTY CONNECTOR TERMINAL STRIP AND A DOOR FITTED WITH A CONTINUOUS PIANO HINGE AND A NO. 2 CORBIN LOCK, ONE KEY, A STAINLESS STEEL HANDLE FABRICATED FROM A 16 mm MINIMUM DIAMETER SHAFT OR A SQUARE SHAFT OF EQUIVALENT CROSS-SECTIONAL AREA, AND A THREE POINT LATCH AND A GASKET PROVIDED AT THE DOOR FACING. THE LOCK AND LATCH SYSTEM SHALL BE ONE THAT CANNOT BE RELEASED UNTIL THE LOCK IS RELEASED. THE GASKET SHALL ACT AS A PERMANENT DUST AND WEATHER RESISTANT SEAL MADE OF A NONABSORBENT, RESILIENT MATERIAL THAT WILL MAINTAIN ITS PROPERTIES AFTER LONG-TERM EXPOSURE TO THE OUTDOOR ENVIROMENT.

TRAFFIC RECORDER: THE TRAFFIC RECORDER SHALL BE A PEEK TRAFFIC, INC. AUTOMATIC DATA RECORDER MODEL ADR 1000 SL4RT/14C/PCM THAT IS A PORTABLE TRAFFIC RECORDER. THE TRAFFIC RECORDER SHALL BE EQUIPPED WITH ALL CABLES REQUIRED FOR OPERATION AND PROVIDED WITH A CONTACT CLOSURE BOARD TO ADAPT THE RECORDER TO THE SENSOR SIGNALS.

BATTERY: THE TWO BATTERIES SHALL BE 12 VOLT, 75 AMP-HOUR, SEALED, RECHARGEABLE, LEAD-ACID TYPE.

REGULATOR: THE REGULATOR SHALL BE A SOLID-STATE BATTERY CHARGE CONTROLLER FOR USE IN A 12 VOLT, 15 AMP PHOTOVOLTAIC SYSTEM USING PULSE-WIDTH MODULATION (PWM) SERIES CONTROL TECHNOLOGY THAT MAY BE THE MODEL PROSTAR-15 BY MORNINGSTAR CORPORATION OR AN APPROVED EQUAL.

ACOUSTIC MODEM: THE MODEM SHALL BE A LOW POWER STANDBY DATA MODEM IN A 2 WIRE CONFIGURATION OPERATING IN AN AUTO DIAL MODE. IT SHALL BE ENVIRONMENTALLY HARDENED AND DESIGNED TO MEET THE PERFORMANCE DEMANDS OF INDUSTRIAL AND COMMERCIAL APPLICATIONS WITH A POWER SAVING STANDBY MODE THAT PROVIDES INSTANTANEOUS RECOVERY. IT SHALL ACCEPT THE MODEM/DTE INTERFACE COMMAND STRINGER DOWNLOAD PROVIDED BY THE DEPARTMENT AND THEREBY PROVIDE COMPATIBLE OPERATION/ COMMUNICATION WITH THE DATA TERMINAL EQUIPMENT IN USE. THE MODEM MAY BE THE MODEL V.3600LP SERIES BY DATA CONNECT ENTERPRISE OR AN APPROVED EQUAL.

INTERNAL DAMPER:

PURPOSE: TO CONTROL AND DAMP OUT WIND INDUCED VIBRATIONS.

INSTALLATION: THRUST THROUGH THE HAND HOLE AND UP THE MOUNTING POLE A LENGTH OF FLEXIBLE PLASTIC TUBING ENCASING THREE GALVANIZED STRANDED STEEL CABLES. CAUTION: BEFORE INSTALLATION OF THE DAMPER, AN INSPECTION SHALL BE MADE BY AN AUTHORIZED ELECTRICIAN TO REASONABLY ENSURE THAT THE WIRING AND ELECTRICAL COMPONENTS WILL ALLOW FOR EASY INSERTION. IF NOT, THEY MAY REQUIRE TEMPORARY REMOVAL DURING INSTALLATION. AFTER INSTALLATION, AN ELECTRICAL INSPECTION IS REQUIRED TO VERIFY THE ADEQUATE AND SAFE OPERATION OF THE ELECTRICAL SYSTEM.

STEP NO.1: INSERT SQUARE CUT (LEAD END) OF PLASTIC TUBE THROUGH THE HAND HOLE IN THE POLE AND SNAKE IT UP INSIDE THE POLE. POSITION AND RETAIN THE LOWER END OF THE PLASTIC TUBE BY RESTING ITS NOTCH ON THE BOTTOM EDGE OF THE HAND HOLE AND AVOID KINKING IT..

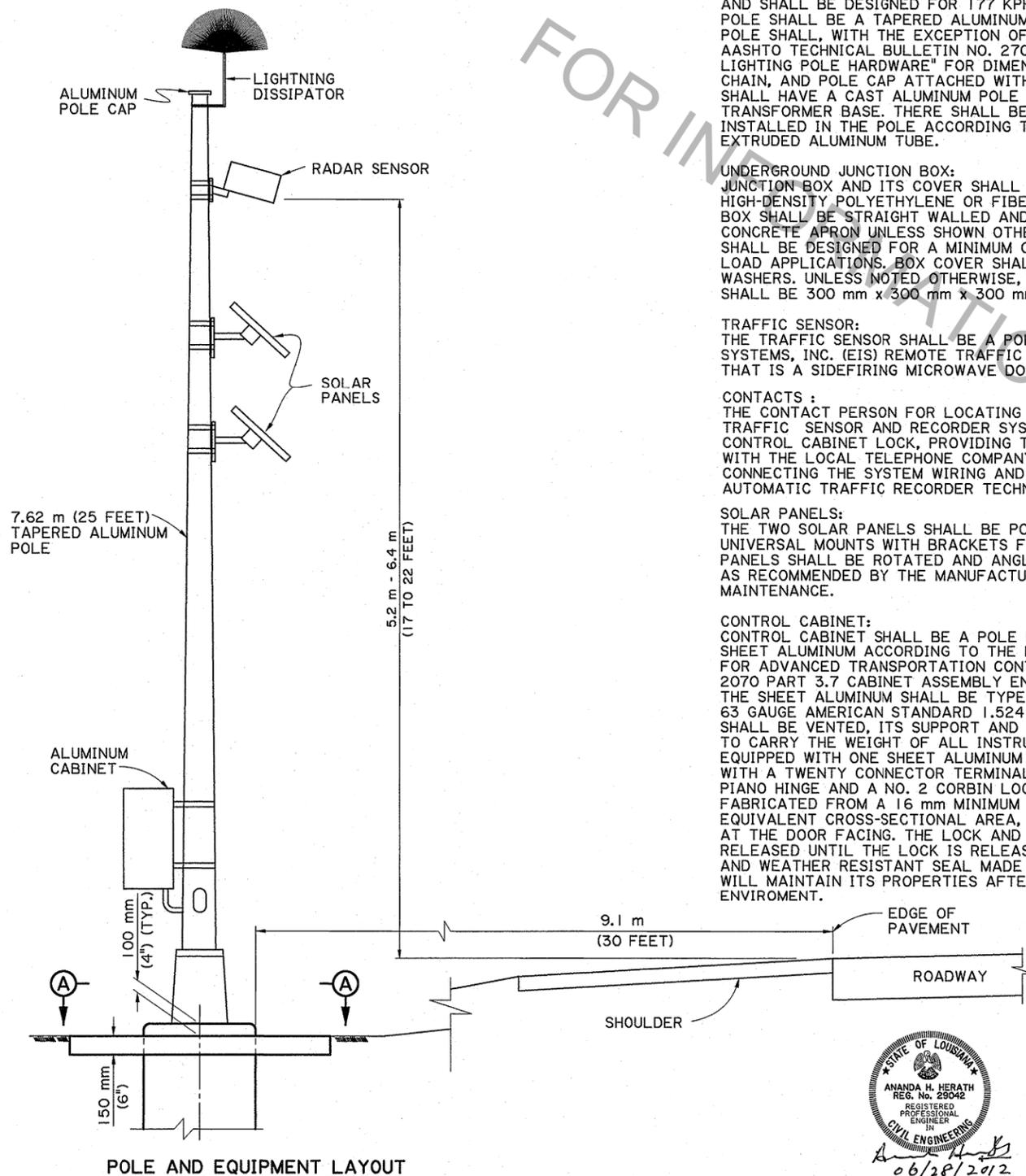
STEP NO. 2: INSERT THE 3-CABLE ASSEMBLY BY ITS TAPED END FIRST INTO PLASTIC TUBE. ONCE THE CABLE ASSEMBLY IS INSERTED IN THE PLASTIC TUBE TO WITHIN APPROXIMATELY AN INCH OF THE LOWER END, INSERT THE COMBINED ASSEMBLY THROUGH THE HAND HOLE INTO THE POLE. THIS MAY BE ACCOMPLISHED WITH A CURVED METAL PLATE INSERTED INTO THE HAND HOLE TO LEVER THE ASSEMBLY INTO THE POLE LIKE A SHOE HORN. ONCE THE COMBINED ASSEMBLY IS INSERTED INTO THE POLE, IT WILL FALL DOWN INSIDE THE POLE UNTIL IT RESTS ON THE PLATE WELDED TO ITS BASE. TO REASONABLY INSURE THAT THE ELECTRICAL WIRING IN THE POLE IS NOT DAMAGED BY THE FALL OF COMBINED ASSEMBLY, IT IS ESSENTIAL THAT IT BE RELEASED NEAR THE INSIDE WALL OF THE POLE SO THAT IT FALLS TIGHT TO WALL.

- MATERIALS: A) ONE 6.1 METERS (20 FT.) LENGTH OF 32 mm (1 1/4")-POLYETHYLENE TUBE X 2 mm (0.095") WALLS.
 B) A THREE 6.1 METERS (20 FT.) LENGTHS OF 9.5 mm (3/8") DIAMETERS, 7 STRAND GALVANIZED STEEL GUY WIRE CABLE GRADE 110.
 C) VINYL ELECTRICAL TAPE 19 mm (3/4") WIDE.

THE CONTRACTOR MAY UTILIZE A MANUFACTURER INSTALLED VIBRATION CONTROL SYSTEM WITH APPROVAL.

LIGHTNING DISSIPATOR: THE LIGHTNING DISSIPATOR SHALL BE A LIGHTNING MASTER CORPORATION MODEL # LM-PP-31A POLE MOUNTED STREAMER-RETARDING AIR TERMINAL PROVIDING STATIC DISSIPATING QUALITIES USING THE POLE AND THE TRANSFORMER BASE AS A CONDUCTOR TO GROUND AND OR AN APPROVED EQUAL.

NOTES: SEE SPECIAL PROVISION, NS RADAR TRAFFIC SENSOR AND RECORDER SYSTEM FOR ADDITIONAL DETAILS AND REQUIREMENTS. PAYMENT WILL BE MADE UNDER ITEM: NS-736-00100 RADAR TRAFFIC SENSOR AND RECORDER SYSTEM, PER EACH.



FOR INFORMATIONAL PURPOSES ONLY

STATE OF LOUISIANA
 ANANDA H. HERATH
 REG. NO. 29042
 REGISTERED PROFESSIONAL ENGINEER
 CIVIL ENGINEERING
 06/28/2012

STATE OF LOUISIANA
 JAMES C. PORTER
 REG. NO. 10375
 REGISTERED PROFESSIONAL ENGINEER
 CIVIL ENGINEERING
 06/28/2012
NOT TO SCALE

SHEET NUMBER									
DESIGNED	CHECKED	DRAWN	REVISION OR CHANGE	ORDER	DESCRIPTION	DATE	NO.	BY	DATE
J. PORTER	A. HERATH	J. KOEMPEL	J. PORTER	1	OF 2				
TRAFFIC RECORDER SYSTEM									
BRIDGE & STRUCTURAL DESIGN									