CONDUIT AND CONDUCTOR SCHEDULE

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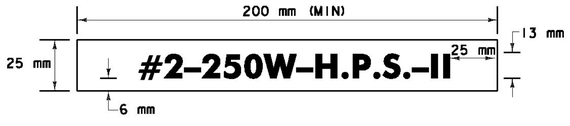
KEY	CONDUIT SIZE	CONDUCTORS FOR STREETLIGHTS	CONDUCTORS FOR GROUND	CONDUCTORS FOR SERVICE
A	50mm PVC	2 #6	1 #6	
B	50mm PVC	4 #6	1 #6	
C	50mm PVC	2 #2	1 #2	
D	50mm PVC	4 #2	1 #2	
E	50mm PVC	PULL CORD		
F	75mm PVC		1 #6	3 #1/0
G	50mm PVC	2 #2 & 2 #6	1 #2	
H	50mm PVC	2 #2 & 4 #6	1 #2	

GENERAL NOTES:

1. MAXIMUM OF 270 DEG. IN TOTAL BENDS PERMITTED IN SINGLE RUN OF CONDUIT.
2. STREET LIGHTS SHALL BE FUSED AT BASE WITH Y-TYPE FUSE KIT (EQUAL TO HOMAC [FLOOD SEAL]) FYC-6 AND 10 AMP FUSE.
3. CIRCUIT CONDUCTORS INCLUDING NEUTRAL CONDUCTOR SHALL BE CLEARLY IDENTIFIED BY CORROSION RESISTANT TAGS INDICATING CIRCUIT NUMBER AND PANEL SOURCES AT EVERY POLE BASE AND HANDHOLE.
4. UTILIZE APPROVED DUAL-RATED PARALLEL TAP CONNECTOR EQUAL TO ILSCO GTA SERIES WITH INSULATED COVER FOR TAPS AT POLE BASE.

DETAILS FOR TAGS ATTACHED TO STREET LIGHT POLES



LEGEND: BLACK OR WHITE (NON-REFL.) - STAMPED PRIOR TO PRINTING/PAINTING.
BACKGROUND: NATURAL ALUMINUM OR FLAT BLACK SURFACE, SAME AS POLE FINISH.

NOTES:
1. THE TAG SHALL BE MOUNTED ON ALL STREET LIGHT POLES IN SUCH A MANNER AS NOT TO BE EASILY REMOVED. SUCH AS WELDED, RIVETED, OR BOLTED WITH VANDAL PROOF BOLTS.
2. THE LETTERS SHALL BE PUNCHED, STAMPED, ENGRAVED, OR PHOTO-ETCHED. PUNCHING, STAMPING OR ENGRAVING SHALL PENETRATE ONE HALF THE BASE MATERIAL THICKNESS.
3. THE BASE MATERIAL FOR THE TAG SHALL BE ALUMINUM WITH A MINIMUM THICKNESS OF 2.54 mm.
4. THE TAG SHALL BE ATTACHED TO THE POLE TRANSFORMER BASE COVER.

GENERAL STREET LIGHT NOTES

POLES, ANCHOR BASES, ARMS, AND LUMINAIRES.

1. NO POLE SHALL BE INSTALLED WITHOUT A LUMINAIRE ALREADY ATTACHED.
2. ANCHOR BASE AND ANCHOR BOLT DIMENSIONS ARE SHOWN ON STANDARD SHEET E-180B.
3. ALL LIGHT POLES WHICH ARE PROVIDED WITH A BREAKAWAY FEATURE SHALL CONFORM TO THE REQUIREMENTS OF THE AASHTO 1985 STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS, SECTION 7 AND SUBSEQUENT REVISIONS.
4. A 12 FOOT OR LONGER ARM REQUIRES A 6 INCH OUTSIDE DIAMETER POLE TOP.
5. LUMINAIRES SHALL MEET SPECIFICATIONS AS SHOWN ON THE PLANS.
6. ALL ELECTRICAL MATERIAL AND ELECTRICAL WORK SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE AREA ELECTRICAL INSPECTOR AND/OR THE POWER COMPANY WITH JURISDICTION IN THE PROJECT AREA.
7. ALL WORK MUST MEET THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE, AS WELL AS LOCAL AND STATE CODES.
8. ALL STREET LIGHT POLES (EXCEPT ORNAMENTAL POLES) SHALL HAVE A METAL TAG ATTACHED TO THE POLE, SEE PLAN DETAIL SHEET. PAYMENT FOR TAGS WILL BE INCIDENTAL TO OTHER STREET LIGHTING ITEMS.
9. POLES, BASE PLATES, AND ARMS SHALL MEET THE THE LATEST SPECIFICATION OF EDITION OF AASHTO-AGC-ARTBA'S '' GUIDE TO STANDARDIZED HIGHWAY LIGHTING POLEHARDWARE'' OR AS OTHERWISE NOTED ON THE PLANS.
10. ANCHOR BOLTS WILL BE ACCEPTABLE WITH EITHER ROLLED OR CUT-IN THREADS WITH MINOR VARIATIONS FROM THE SPECIFIED DIAMETER.
11. ALL LIGHT POLES SHALL HAVE A BREAKAWAY DESIGN FEATURE UNLESS OTHERWISE NOTED ON THE PLANS.
12. ALL WELDS SHALL BE AT LEAST AS STRONG AS THE MATERIAL BEING WELDED.
13. LUMINAIRE SUPPORT ARMS IN A LENGTH OF 8 FEET ARE AVAILABLE IN EITHER SINGLE MEMBER OR TRUSS TYPE. PLAN SHEET SHALL SPECIFY WHICH IS TO BE USED. IF NOT SPECIFIED, OPTIONAL, OR IF REPLACEMENT, MATCH EXISTING OR SURROUNDING TYPE.
14. POLE OFFSET (FACE OF POLE TO BACK OF GUARDRAIL) SHALL BE EQUAL TO OR GREATER THAN THE DEFLECTION DISTANCE SHOWN IN THE CHART. (SEE VAOT STANDARD E-180B)
15. POLES FOR ORNAMENTAL LIGHTING ARE AVAILABLE IN MANY MATERIALS, SHAPES,STYLES AND LENGTHS, PLANS SHALL SPECIFY

CONDUIT

1. ALL CONDUIT SHALL BE AT LEAST PVC (SCHEDULE 80) OR RIGID GALVANIZED STEEL ELECTRICAL CONDUIT (AND CONFORM TO THE REQUIREMENTS OF UL-6). TYPE OF CONDUIT (P.V.C. OR STEEL) SHALL BE NOTED ON THE PLANS.

CONDUIT SLEEVE (SEE GENERAL PLANS)

1. MINIMUM WALL THICKNESS FOR RIGID PLASTIC PIPE SLEEVES SHALL BE 1/35TH THE DIAMETER. ALL CONDUIT RUNS UNDER ROADWAY SHALL BE INSTALLED IN RIGID PLASTIC OR STEEL PIPE SLEEVES. THE SLEEVE SHALL EXTEND TO WITHIN 600 mm OF THE SIDE OF A CONCRETE BASE OR PULLBOX. WHERE NO CONCRETE BASE OR PULLBOX IS PRESENT, THE SLEEVE SHALL EXTEND 1.2 m BEYOND THE OUTSIDE EDGE OF SHOULDER OR FACE OF CURB. BACKFILLING AROUND A SLEEVE SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

WIRE

1. ALL WIRING BETWEEN THE METER AND/OR POWER SOURCE AND THE FIRST POLE AND/OR PULLBOX AND BETWEEN POLES AND/OR PULLBOXES SHALL BE COPPER AND SIZED AS SPECIFIED ON THE PLANS. ALL WIRE SHALL HAVE TYPE XHHW INSULATION OR EQUIVALENT.

GROUNDING

1. ALL CONDUIT MUST INCLUDE A GROUNDING CONDUCTOR. RIGID STEEL CONDUIT SHALL BE PROPERLY CONNECTED AT THE JOINTS SO AS TO BE WATERTIGHT AND MAINTAIN ELECTRICAL CONTINUITY AND HAVE GROUNDING BUSHINGS SO AS TO ACT AS A GROUND CONDUCTOR.
2. ALUMINUM WIRE SHALL NOT BE USED FOR GROUND WIRE.
3. EVERY LIGHT POLE SHALL HAVE A GROUNDING ELECTRODE PER VAOT STANDARD SHEET E-180B.

GENERAL NOTES AND SPECIFICATIONS

1. THE SCOPE OF WORK IS TO PROVIDE ALL LABOR, MATERIALS, SERVICES, SUPPLIES, TOOLS, EQUIPMENT, TRANSPORTATION, AND FACILITIES NECESSARY TO FURNISH AND INSTALL A COMPLETE ELECTRICAL AND LIGHTING SYSTEM AS INDICATED ON THE DRAWINGS, SPECIFIED, OR AS MAY REASONABLY BE IMPLIED AS BEING INCIDENTAL TO THIS WORK.
2. SECURE AND PAY COSTS OF PERMITS, CERTIFICATES, LICENSES, INSPECTIONS, AND APPROVALS.
3. ALL MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE, AND ALL CODES, REGULATIONS AND REQUIREMENTS OF ALL MUNICIPAL, STATE, FEDERAL AND OTHER PUBLIC OR PRIVATE AUTHORITIES WHICH HAVE JURISDICTION. IN EACH CASE, CODES ARE MINIMUM REQUIREMENTS.
4. SHOP DRAWINGS: SUBMIT COMPLETE CATALOG INFORMATION FOR ALL MATERIALS AND EQUIPMENT TO BE PURCHASED AND USED ON THIS PROJECT, AS SPECIFIED ON THE DRAWINGS. DO NOT INSTALL MATERIALS OR EQUIPMENT WITHOUT APPROVAL BY THE OWNER. UNAPPROVED MATERIAL ALREADY INSTALLED SHALL BE SUBJECT TO REMOVAL AND REPLACEMENT WITH APPROVED MATERIALS AT THE CONTRACTOR'S EXPENSE.
5. THE FINISHED INSTALLATION SHALL BE COMPLETE IN EVERY RESPECT AND DETAIL, TESTED AND LEFT READY IN PERFECT OPERATING CONDITION FOR THE OWNER'S USE.
6. MATERIALS AND EQUIPMENT SHALL BE LISTED BY UNDERWRITERS' LABORATORIES AND SHALL BE INSTALLED IN ACCORDANCE WITH SUCH LISTINGS.
7. THE CONTRACTOR SHALL GUARANTEE THAT MATERIALS, EQUIPMENT AND WORKMANSHIP PROVIDED SHALL BE FREE FROM DEFECTS IN MATERIALS OR WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE OF THE WORK DONE UNDER THIS CONTRACT, AND SHALL REPLACE PARTS FOUND TO BE DEFECTIVE WITHIN THE PERIOD COVERED BY SUCH GUARNTEE, WITHOUT COST TO THE OWNER.
8. INSTALLATION SHALL BE MADE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
9. CONTRACTOR TO CONTACT DIGSAFE IN VERMONT STATE PRIOR TO COMMENCING WORK.
10. CONTRACTOR TO CONTACT UTILITY COMPANY FOR COORDINATION OF NEW ELECTRICAL SERVICE.
11. THE LAST CONCRETE POLE BASE AT THE END OF EACH CIRCUIT AND SOME PULLBOXES SHALL HAVE A CONDUIT SWEEP WITH CAP INSTALLED FOR FUTURE USE.

METER STANCHION/POWER DROPS

1. PER VAOT STANDARD E-175.
2. PANELBOARD SPECIFICATIONS:
   100A, 120/240V, 1PHASE, 3W, 22 KAIC, NEMA 3R

   MAIN BREAKER - 100A, 2P
   BRANCH CIRCUIT BREAKERS - (10) 30A, 2P

HANDHOLES

1. FOR DETAILS SEE STANDARD SHEET E-173.
   FOR SIZE/TYPES, REFER TO PLANS.

CONCRETE BASES

1. WHEN CONCRETE BASES ARE INSTALLED IN SLOPING GROUND, THE GREATEST EXPOSED HEIGHT TO KEEP ALL OF THE TOP ABOVE GROUND MUST BE DOUBLED AND THEN ADDED TO THE MINIMUM DEPTH FOR THE TOTAL BASE DEPTH.
2. CARE SHOULD BE TAKEN WHEN CONCRETE BASES, DRAINAGE STRUCTURES OR UTILITIES ARE CLOSE TOGETHER.

Stantec

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PROJECT NUMBER: NH 019-1(54)

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