

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED FEDERAL AID HIGHWAY

| | | | | |
|-----------------------|----------------|--------------------------------|--------------|-----------|
| F. A. U. NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 0384 0393 | 09-00054-00-LT | GRUNDY | 11 | 1 |
| STA. 23+48 (RIDGE) | | TO STA. 35+88 (MCEVILLY) | | |
| FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT ARA-003 (341) | | |

CONTRACT #87438

INDEX OF SHEETS

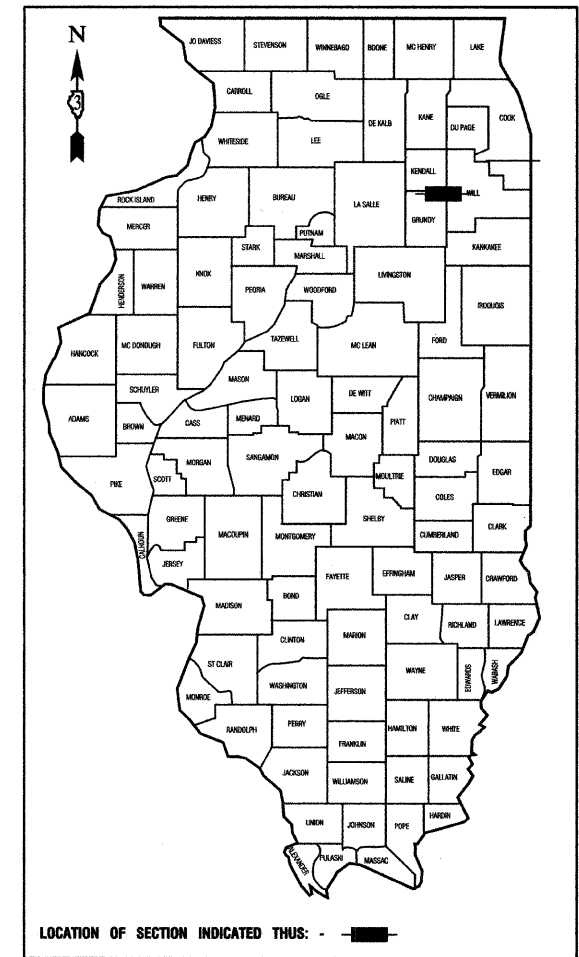
1. COVER SHEET
2. SUMMARY OF QUANTITIES
- 3.-5. STREET LIGHTING PLANS
6. SINGLE LINE DIAGRAM
- 7.-11. DETAIL DRAWINGS

STATE STANDARDS

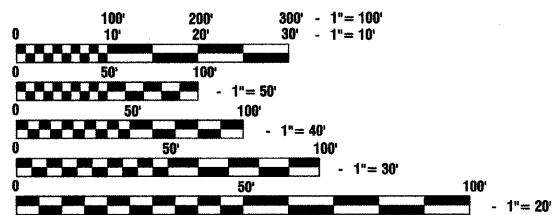
- | | |
|-----------|--|
| 000001-05 | STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS |
| 701501-05 | URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED |
| 701606-06 | URBAN LANE CLOSURE, MULTILANE, 2W, WITH MOUNTABLE MEDIAN |
| 701701-06 | URBAN LANE CLOSURE, MULTILANE INTERSECTION |
| 701801-04 | LANE CLOSURE, MULTILANE 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE |
| 701901-01 | TRAFFIC CONTROL DEVICES |

FAU 0384 (RIDGE ROAD)
FAU 0393 (MCEVILLY ROAD)
STREET LIGHTING
SECTION NO.: 09-00054-00-LT
PROJECT NO.: ARA-003 (341)
VILLAGE of MINOOKA
GRUNDY COUNTY
JOB NO.: C-93-016-10

| | RIDGE ROAD | MCEVILLY ROAD |
|---|----------------------|----------------------|
| 2007 ADT - | 13,700 | 8,200 |
| 2030 ADT - | 30,000 | 14,000 |
| POSTED SPEED LIMIT - | 40 MPH | 35 MPH |
| DESIGN PERIOD - | 20 YEARS | 20 YEARS |
| DESIGN SPEED - | 45 MPH | 40 MPH |
| FUNCTIONAL CLASSIFICATION - | URBAN MINOR ARTERIAL | URBAN MINOR ARTERIAL |
| I.E.S. ROADWAY CLASSIFICATION - | MAJOR | COLLECTOR |
| I.E.S. PEDESTRIAN AREA CLASSIFICATION - | LOW | MEDIUM |



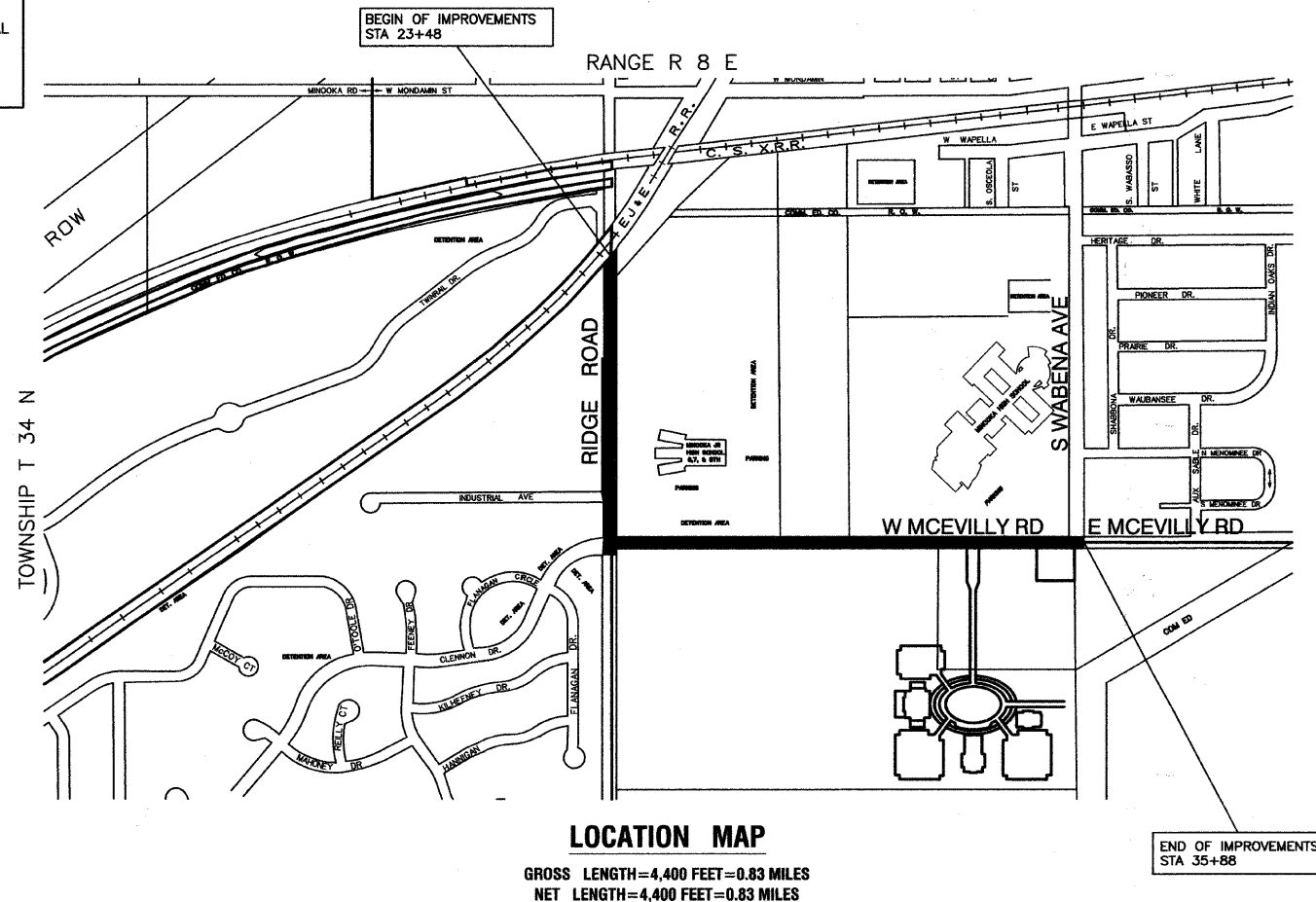
SCALES
 PLAN - 1"=50'
 PROFILE HORIZ. - 1"=50'
 PROFILE VERT. - 1"=5'
 CROSS SECTIONS - 1"=10'



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES, REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES, IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J. U. L. I. E.
 JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
 1-800-892-0123 or 811

CONTRACT NO. 87438



STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

Approved: 10/21/09
Petrus J. Brennan
 President, Village of Minooka

Passed: 10-28-09
Kenneth B. Jany
 District 3 Engineer of Local Roads & Streets

Released for Bid Based on Limited Review: 10-28-09
Harvey F. Ryan
 Deputy Director of Highways, Regional Engineer

PRINTED BY THE AUTHORITY OF
THE STATE OF ILLINOIS

PREPARED BY OR UNDER THE DIRECT SUPERVISION OF:

S.P.V.
10/21/09



LICENSE EXPIRES: 11/30/11

CONSULTANTS: ROBINSON ENGINEERING, LTD. 708-331-6700

| | |
|-------------------|--|
| DATE | |
| BY | |
| REVISIONS | |
| PLOTTED | |
| ALIGNMENT CHECKED | |
| GRADES CHECKED | |
| NOTE BOOK | |
| NO. | |
| DATE | |
| BY | |
| REVISIONS | |
| PLOTTED | |
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| GRADES CHECKED | |
| NOTE BOOK | |
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| DATE | |
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| NO. | |
| DATE | |
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| PLOTTED | |
| ALIGNMENT CHECKED | |
| GRADES CHECKED | |
| NOTE BOOK | |
| NO. | |

SUMMARY OF QUANTITIES

| S.I. | CODE NO. | PAY ITEM | UNIT | QUAN | CONSTRUCTION TYPE CODE | | LIGHTS |
|------|----------|--|-------|------|------------------------|---------|--------|
| | | | | | | YO30-1E | |
| | 21300010 | EXPLORATION TRENCH, SPECIAL | FOOT | 100 | | | 100 |
| | 25000210 | SEEDING, CLASS 2A | ACRE | 0.4 | | | 0.4 |
| | 25100105 | MULCH, METHOD 1 | ACRE | 0.4 | | | 0.4 |
| * | 42400200 | PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH | SQ FT | 100 | | | 100 |
| * | 44000600 | SIDEWALK REMOVAL | SQ FT | 100 | | | 100 |
| | 67100100 | MOBILIZATION | L SUM | 1 | | | 1 |
| | 70102620 | TRAFFIC CONTROL AND PROTECTION, STANDARD 701501 | L SUM | 1 | | | 1 |
| | 70102625 | TRAFFIC CONTROL AND PROTECTION, STANDARD 701606 | L SUM | 1 | | | 1 |
| | 70102635 | TRAFFIC CONTROL AND PROTECTION, STANDARD 701701 | L SUM | 1 | | | 1 |
| | 70102640 | TRAFFIC CONTROL AND PROTECTION, STANDARD 701801 | L SUM | 1 | | | 1 |
| | 80400100 | ELECTRIC SERVICE INSTALLATION | EACH | 1 | | | 1 |
| | 80400200 | ELECTRIC UTILITY SERVICE CONNECTION | L SUM | 1 | | | 1 |
| | 81018600 | CONDUIT PUSHED, 2.5" DIA., GALVANIZED STEEL | FOOT | 350 | | | 350 |
| | 81702440 | ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 3-1/C NO. 1/0 | FOOT | 150 | | | 150 |
| | 81900200 | TRENCH AND BACKFILL FOR ELECTRICAL WORK | FOOT | 4250 | | | 4250 |
| | 82102250 | LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT | EACH | 25 | | | 25 |
| | 83600200 | LIGHT POLE FOUNDATION, 24" DIAMETER | FOOT | 230 | | | 230 |
| | 83600215 | LIGHT POLE FOUNDATION, 24" DIAMETER, OFFSET | FOOT | 20 | | | 20 |
| | 83800105 | BREAKAWAY DEVICE, TRANSFORMER BASE, 11.5 INCH BOLT CIRCLE | EACH | 25 | | | 25 |
| | XX001579 | LIGHTING CONTROLLER, CONSOLE TYPE | EACH | 1 | | | 1 |
| | XX006937 | GROUND ROD, 5/8" DIA. X 10 FT. | EACH | 25 | | | 25 |
| | XX008226 | UNIT DUCT, WITH 6-1/C NO. 4 AND 1/C NO. 6 GROUND, 600V (XLP-TYPE USE), 1 1/2" POLYETHYLENE | FOOT | 4600 | | | 4600 |
| | XX008227 | LIGHT POLE, ALUMINUM, 40 FT. M.H. 10 FT. SCROLL ARM (SPECIAL) | EACH | 25 | | | 25 |

* - INDICATES SPECIALTY ITEMS

GENERAL NOTES :

- ALL WORK TO CONFORM TO THE NATIONAL ELECTRICAL CODE AND ANY APPLICABLE LOCAL CODES.
- CONTRACTOR TO VERIFY LOCATION OF ALL UNDERGROUND UTILITIES BEFORE TRENCHING OR AUGERING.
- BEFORE INSTALLING STANDARDS NEAR OVERHEAD FACILITIES CALL ComEd FOR APPROVAL OF LOCATION.
- FOR LOCATION OF EXISTING UNDERGROUND ELECTRICAL CABLE CALL ComEd.
- ALL CONDUIT TO BE 2" DIAMETER UNLESS OTHERWISE SPECIFIED.
- ANY TREE TRIMMING REQUIRED AS DIRECTED BY THE ENGINEER SHALL BE PERFORMED BY THE CONTRACTOR, AND THE COST OF THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO RESTORE ANY SPECIALIZED LANDSCAPING, (i.e. DECORATIVE ROCKS, SHRUBS, PLANTS, ETC.) OR SHALL REPLACE IT, THE COST OF WHICH SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- CARE IS TO BE TAKEN AS NOT TO DAMAGE ANY OF THE EXISTING TRAFFIC SIGNAL CONDUITS, DETECTORS AND EQUIPMENT. IF ANY OF THE TRAFFIC SIGNAL CONDUIT AND/OR EQUIPMENT IS DAMAGED, THE CONTRACTOR SHALL REPAIR AND/OR REPLACE THE CONDUIT AND/OR EQUIPMENT AT NO COST TO THE COUNTY, STATE, OR THE VILLAGE.
- THE CONTRACTOR SHALL MAKE SPECIAL NOTE OF THE REQUIREMENT FOR BURIED WARNING TAPE, SPECIFIED AS PART OF "TRENCH AND BACKFILL FOR ELECTRICAL WORK". THE INSTALLATION OF THE TAPE SHALL BE INSPECTED AND APPROVED BY THE RESIDENT ENGINEER PRIOR TO BACKFILLING OR DURING PLOWING OPERATIONS, AS APPLICABLE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ESTABLISHMENT OF FINISHED GRADE. THE RESIDENT ENGINEER MAY ASSIST THE CONTRACTOR, AS APPLICABLE, BUT THE RESPONSIBILITY FOR COORDINATING THE FINISHED GRADE ELEVATION WITH THE TOP OF THE FOUNDATION HEIGHTS AND THE LIGHT SHALL REMAIN WITH THE CONTRACTOR.
- NO POLES SHALL BE ERECTED UNTIL THE RESPECTIVE FOUNDATIONS HAVE CURED, AS APPROVED BY THE ENGINEER.
- THE CONTRACTOR SHALL MAKE SPECIAL NOTE OF THE REQUIREMENTS FOR WIRE MARKERS AND SHALL TAG ALL WIRE MARKERS AND SHALL TAG ALL WIRE ACCORDINGLY.
- EQUIPMENT GROUND CONDUCTORS SHALL BE SPLICED AND BONDED AT EACH LIGHT POLE OR OTHER PIECE OF EQUIPMENT.
- CONDUIT AND UNIT DUCT MUST BE POSITIONED IN THE FIELD TO AVOID CONFLICT WITH TREES, BUSHES, DRAINS AND OTHER UTILITIES AND LANDSCAPING.
- ALL DISTURBED AREAS WHERE RESTORATION IS NOT COVERED BY APPLICABLE SECTIONS OF THE SPECIAL PROVISIONS MUST BE RESTORED TO THE SATISFACTION OF THE ENGINEER. THE WORK MUST BE CONSIDERED INCIDENTAL TO THE CONTRACT. SEPARATE PAYMENT WILL NOT BE MADE.
- THE EXACT LOCATIONS OF ALL UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR BEFORE THE INSTALLATION OF ANY COMPONENTS OF THE LIGHTING SYSTEM. FOR THE LOCATIONS OF THE UTILITIES, CALL JULIE TOLL FREE AT 1-800-892-0123. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE EXISTING TRAFFIC SIGNAL CABLES AND CONDUITS.

SCHEDULE OF QUANTITIES - MCEVILLY ROAD

| | FROM STA: | 12+28 | 13+98 | 15+68 | 17+38 | 18+63 | 20+13 | 21+63 | 23+13 | 24+98 | 26+83 | 28+68 | 29+98 | 31+38 | 32+68 | 34+28 |
|--|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| SEEDING, CLASS 2A | SQ YD | 0.016 | 0.016 | 0.016 | 0.016 | 0.016 | 0.016 | 0.016 | 0.016 | 0.016 | 0.016 | 0.016 | 0.016 | 0.016 | 0.016 | 0.016 |
| MULCH, METHOD 1 | SQ YD | 0.016 | 0.016 | 0.016 | 0.016 | 0.016 | 0.016 | 0.016 | 0.016 | 0.016 | 0.016 | 0.016 | 0.016 | 0.016 | 0.016 | 0.016 |
| PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH | SQ FT | 50 | 0 | 0 | 0 | 50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SIDEWALK REMOVAL | SQ FT | 50 | 0 | 0 | 0 | 50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CONDUIT PUSHED, 2.5" DIA., GALVANIZED STEEL | FOOT | 51 | 0 | 0 | 0 | 50 | 0 | 0 | 0 | 0 | 0 | 54 | 0 | 46 | 0 | 0 |
| ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 3-1/C NO. 1/0 | FOOT | 150 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TRENCH AND BACKFILL FOR ELECTRICAL WORK | FOOT | 320 | 170 | 170 | 125 | 150 | 150 | 150 | 185 | 185 | 185 | 130 | 140 | 130 | 160 | 160 |
| UNIT DUCT, WITH 6-1/C NO. 4 AND 1/C NO. 6 GROUND, 600V (XLP-TYPE USE), 1 1/2" POLYETHYLENE | FOOT | 180 | 176 | 176 | 131 | 156 | 156 | 156 | 191 | 191 | 191 | 136 | 146 | 136 | 166 | 166 |

SCHEDULE OF QUANTITIES - RIDGE ROAD

| | FROM STA: | 23+18 | 25+03 | 26+80 | 28+73 | 30+58 | 32+43 | 34+28 | 36+08 | 37+68 |
|--|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| SEEDING, CLASS 2A | SQ YD | 0.016 | 0.016 | 0.016 | 0.016 | 0.016 | 0.016 | 0.016 | 0.016 | 0.016 |
| MULCH, METHOD 1 | SQ YD | 0.016 | 0.016 | 0.016 | 0.016 | 0.016 | 0.016 | 0.016 | 0.016 | 0.016 |
| PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH | SQ FT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SIDEWALK REMOVAL | SQ FT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CONDUIT PUSHED, 2.5" DIA., GALVANIZED STEEL | FOOT | 60 | 0 | 83 | 0 | 0 | 0 | 0 | 27 | 0 |
| ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 3-1/C NO. 1/0 | FOOT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TRENCH AND BACKFILL FOR ELECTRICAL WORK | FOOT | 185 | 177 | 193 | 185 | 185 | 185 | 180 | 160 | 167 |
| UNIT DUCT, WITH 6-1/C NO. 4 AND 1/C NO. 6 GROUND, 600V (XLP-TYPE USE), 1 1/2" POLYETHYLENE | FOOT | 191 | 183 | 199 | 191 | 191 | 191 | 186 | 166 | 242 |

FILE NAME = 09230-QUAN-01 - P01

| | | |
|----------------------|-----------------|------------|
| USER NAME = | DESIGNED -- DWS | REVISED -- |
| | CHECKED -- PAP | REVISED -- |
| PLOT SCALE = N/A | DRAWN -- MJD | REVISED -- |
| PLOT DATE = 10-21-09 | CHECKED -- PAP | REVISED -- |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

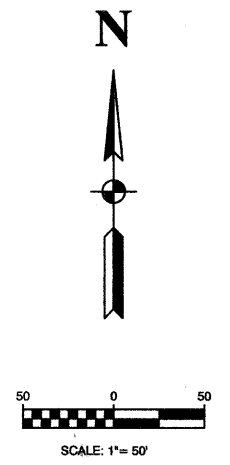
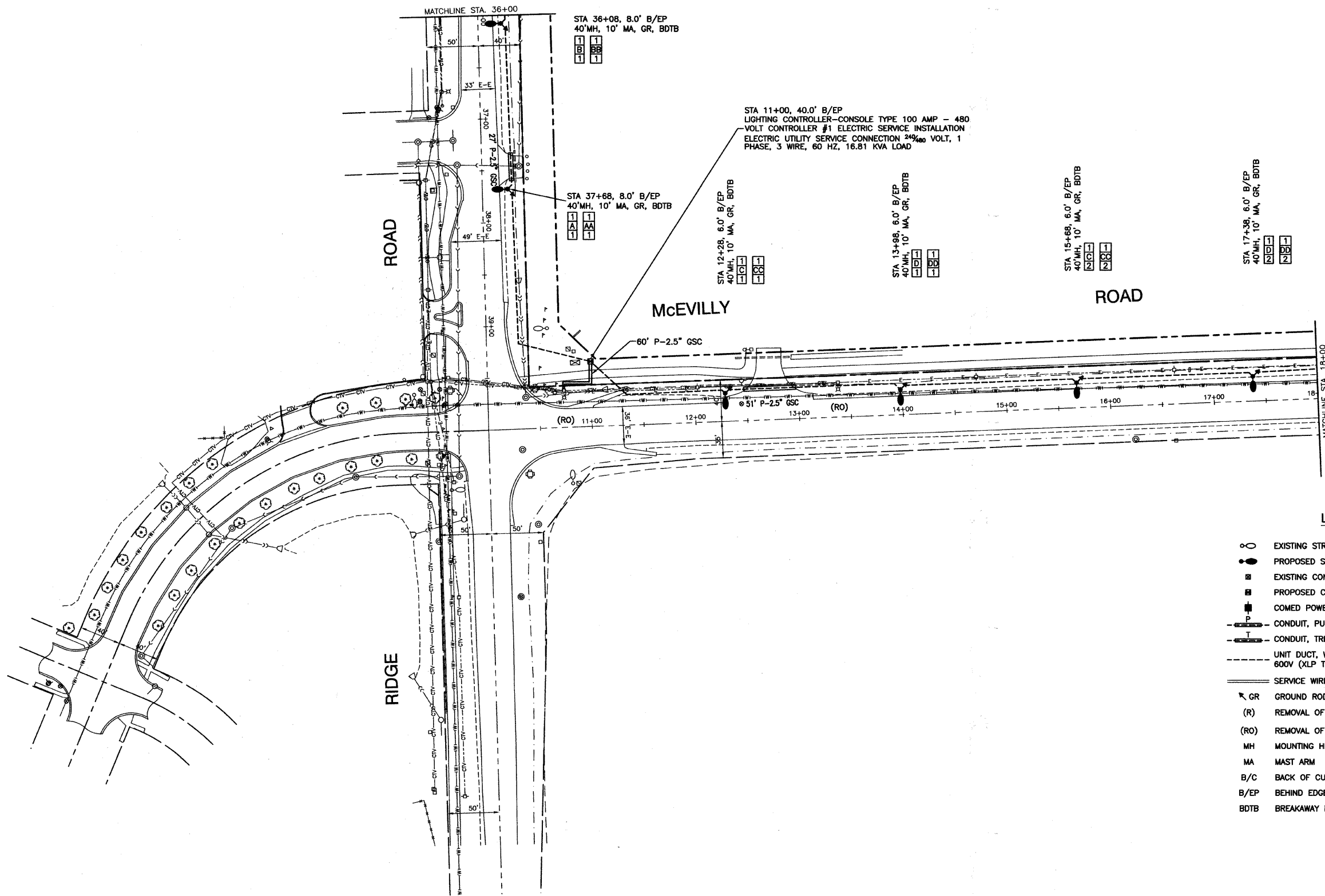
RIDGE ROAD & MCEVILLY ROAD
STREET LIGHTING
SINGLE LINE WIRING DIAGRAM

| | | | | |
|---|----------------|--------------------------|--------------|----------------------|
| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 0389 | 09-00054-00-LT | GRUNDY | 11 | 2 |
| SCALE: N/A | | SHEET NO. 2 OF 11 SHEETS | | STA. N/A TO STA. N/A |
| FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT ARA-003 (341) | | | | |



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| DATE | BY |
| REVISIONS | PLANNED |
| ALIGNED | CHECKED |
| NOTE BOOK | NO. |
| NO. | |

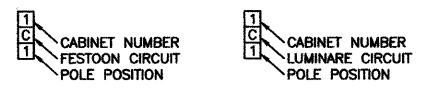
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| DATE | BY |
| REVISIONS | PLANNED |
| GRADES | CHECKED |
| NOTE BOOK | NO. |
| NO. | |



LEGEND:

- EXISTING STREET LIGHT-250W HPS
- PROPOSED STREET LIGHT-250W HPS
- EXISTING CONTROLLER
- PROPOSED CONTROLLER, CONSOLE TYPE
- COMED POWER POLE FOR SERVICE CONNECTION
- P — CONDUIT, PUSHED, GALVANIZED STEEL
- T — CONDUIT, TRENCHED, GALVANIZED STEEL
- U — UNIT DUCT, W/ 6-1/C, NO.4 AWG AND 1/C NO.6 GROUND, 600V (XLP TYPE USE) IN 1-1/2\"/>
- S — SERVICE WIRE, 3-1/C, NO. 1/0 AWG.
- GR GROUND ROD, 5/8\"/>
- (R) REMOVAL OF EXISTING STREET LIGHT (SALVAGE)
- (RO) REMOVAL OF EXISTING STREET LIGHT (BY OTHERS)
- MH MOUNTING HEIGHT
- MA MAST ARM
- B/C BACK OF CURB
- B/EP BEHIND EDGE OF PAVEMENT
- BDTB BREAKAWAY DEVICE, TRANSFORMER BASE, 11.5\"/>

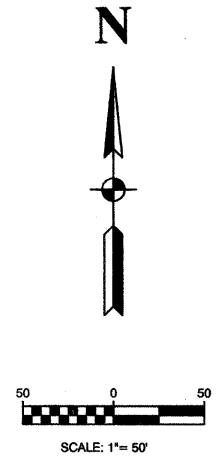
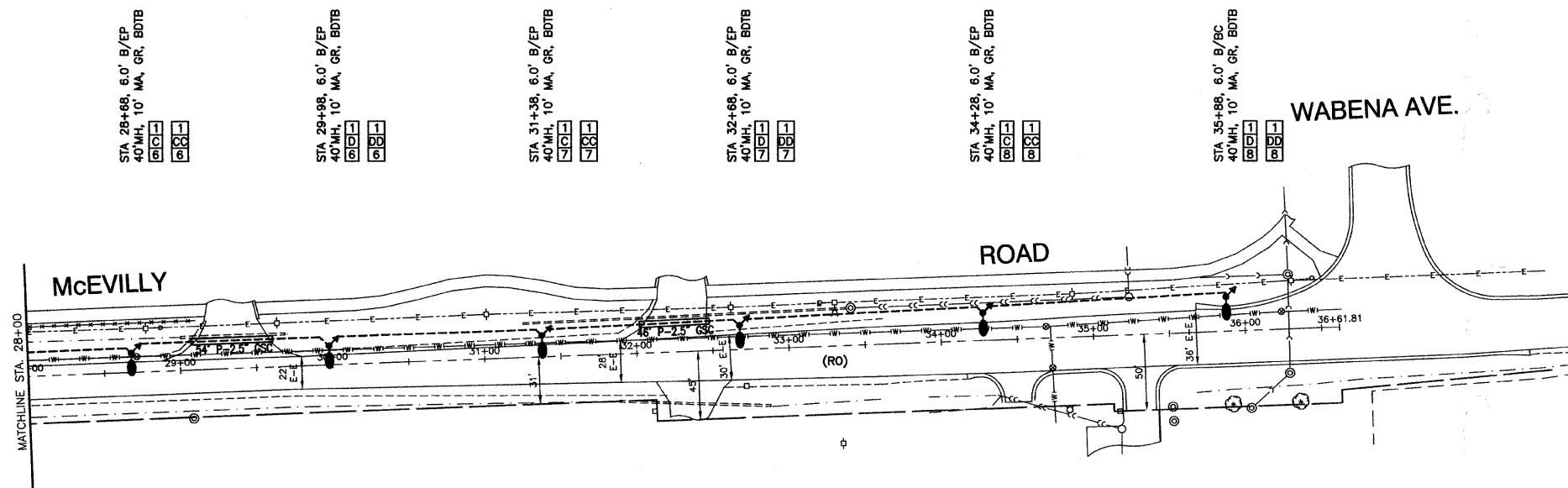
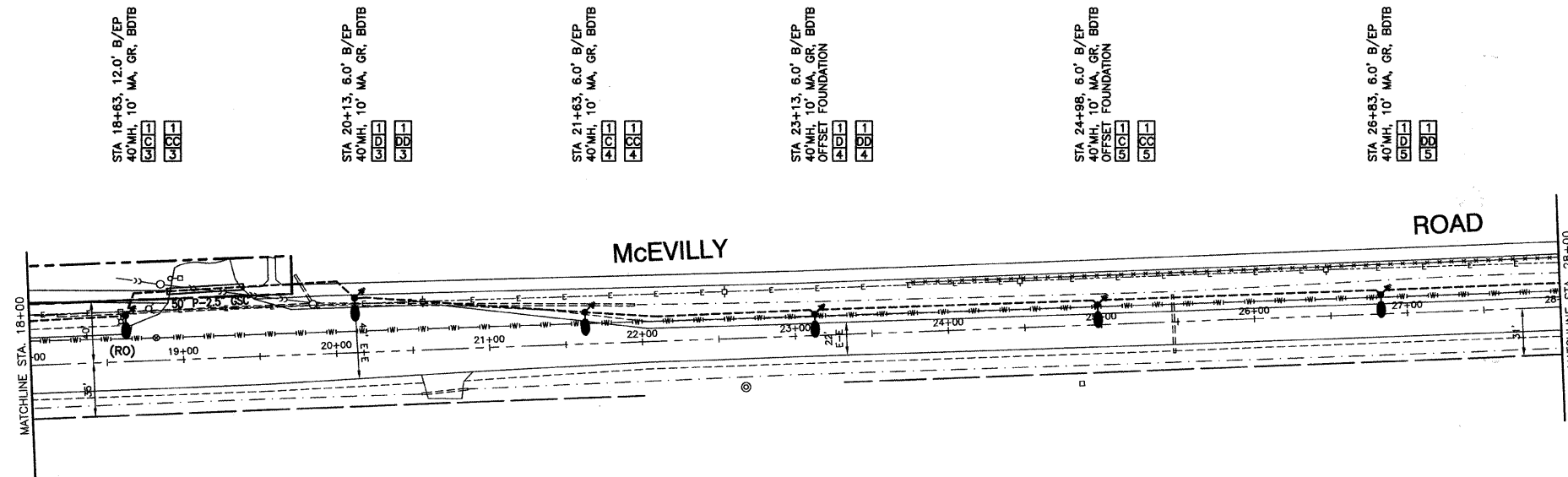
POLE IDENTIFICATION



| | | | | | | | | | | | | | |
|--------------------------------------|----------------------|--------------------|-----------|---|--|----------------|--------|----|--------------------|---------|--------|-----------------|--------------|
| FILE NAME = 09330-PLAN-01 - IDOT P02 | USER NAME = | DESIGNED — DWS | REVISED — | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | RIDGE ROAD & MCEVILLY ROAD STREET LIGHTING PLAN SHEET | | | | F.A.U RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | PLOT SCALE = 1"=50' | CHECKED — PAP | REVISED — | | 0393 | 09-00054-00-LT | GRUNDY | 11 | 3 | | | | |
| | PLOT DATE = 10-21-09 | DRAWN — RG/KWM/MJD | REVISED — | | SCALE: 1"=50' SHEET NO. 3 OF 11 SHEETS STA. 10+00 TO STA. 18+00 | | | | CONTRACT NO. 87438 | | | | |
| | | CHECKED — PAP | REVISED — | | FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT ARA-003 (341) | | | | | | | | |

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| PLAN | REVISIONS | DATE |
| | PLOTTED | |
| NOTE BOOK NO. | ALIGNMENT CHECKED | |
| | GRADE CHECKED | |
| | CADD FILE NAME | |

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|-----------|----------------|------|
| PROFILE | REVISIONS | DATE |
| | PLOTTED | |
| NOTE BOOK | GRADES CHECKED | |
| | E.M. NOTED | |



LEGEND:

- EXISTING STREET LIGHT-250W HPS
- PROPOSED STREET LIGHT-250W HPS
- EXISTING CONTROLLER
- PROPOSED CONTROLLER, CONSOLE TYPE
- COMED POWER POLE FOR SERVICE CONNECTION
- P — CONDUIT, PUSHED, GALVANIZED STEEL
- T — CONDUIT, TRENCHED, GALVANIZED STEEL
- UNIT DUCT, W/ 6-1/C, NO.4 AWG AND 1/C NO.6 GROUND, 600V (XLP TYPE USE) IN 1-1/2" DIAMETER POLYETHYLENE
- SERVICE WIRE, 3-1/C, NO. 1/0 AWG.
- GR GROUND ROD, 5/8" DIA. x 10'
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- (RO) REMOVAL OF EXISTING STREET LIGHT (BY OTHERS)
- MH MOUNTING HEIGHT
- MA MAST ARM
- B/C BACK OF CURB
- B/EP BEHIND EDGE OF PAVEMENT
- BDTB BREAKAWAY DEVICE, TRANSFORMER BASE, 11.5" BOLT CIRCLE

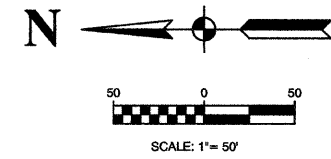
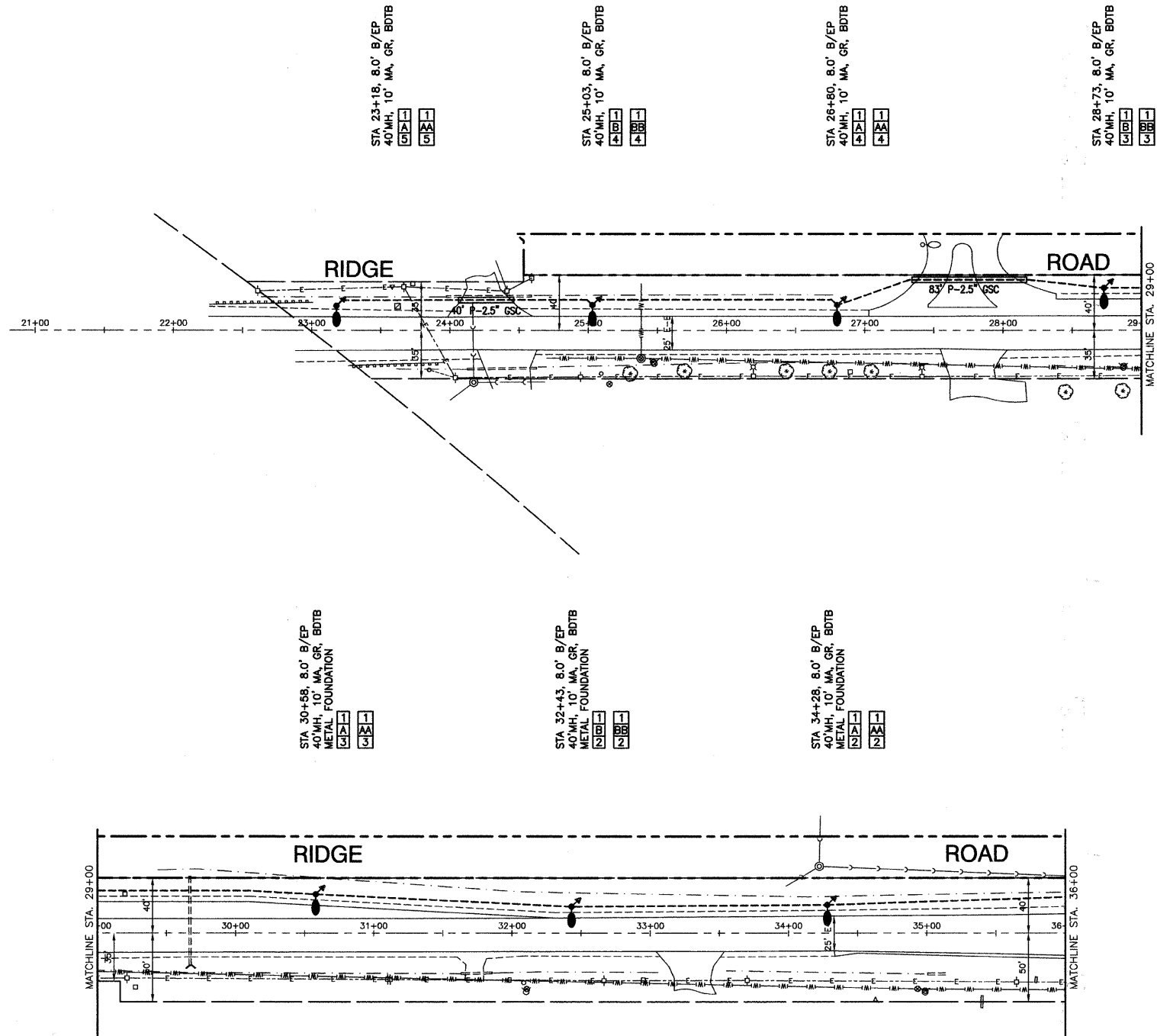
POLE IDENTIFICATION



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| FILE NAME = 09330-PLAN-01 - IDOT P03 | USER NAME = | DESIGNED -- DWS | REVISED -- | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | RIDGE ROAD & MCEVILLY ROAD STREET LIGHTING PLAN SHEET | F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | PLOT SCALE = 1"=50' | CHECKED -- PAP | REVISED -- | | | 0393 | 09-00054-00-LT | GRUNDY | 11 | 4 |
| PLOT DATE = 10-21-09 | DRAWN -- RG/KWM/MJD | REVISED -- | | SCALE: 1"=50' | SHEET NO. 4 OF 11 SHEETS | STA. 18+00 TO STA. 36+61.81 | FED. ROAD DIST. NO. 3 | ILLINOIS | FED. AID PROJECT ARA-003 (341) | CONTRACT NO. 87438 |

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| PLAN | REVISIONS | DATE |
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| NOTE BOOK NO. | ALIGNMENT CHECKED | |
| | CAUD FILE NAME | |

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| PROFILE | REVISIONS | DATE |
| | PLOTTED | |
| NOTE BOOK NO. | GRADES CHECKED | |
| | S.M. NOTED | |



- LEGEND:**
- EXISTING STREET LIGHT-250W HPS
 - PROPOSED STREET LIGHT-250W HPS
 - EXISTING CONTROLLER
 - PROPOSED CONTROLLER, CONSOLE TYPE
 - COMED POWER POLE FOR SERVICE CONNECTION
 - P — CONDUIT, PUSHED, GALVANIZED STEEL
 - T — CONDUIT, TRENCHED, GALVANIZED STEEL
 - UNIT DUCT, W/ 6-1/C, NO.4 AWG AND 1/C NO.6 GROUND, 600V (XLP TYPE USE) IN 1-1/2" DIAMETER POLYETHYLENE
 - SERVICE WIRE, 3-1/C, NO. 1/0 AWG.
 - GR GROUND ROD, 5/8" DIA. x 10'
 - (R) REMOVAL OF EXISTING STREET LIGHT (SALVAGE)
 - (RO) REMOVAL OF EXISTING STREET LIGHT (BY OTHERS)
 - MH MOUNTING HEIGHT
 - MA MAST ARM
 - B/C BACK OF CURB
 - B/EP BEHIND EDGE OF PAVEMENT
 - BDTB BREAKAWAY DEVICE, TRANSFORMER BASE, 11.5" BOLT CIRCLE

POLE IDENTIFICATION



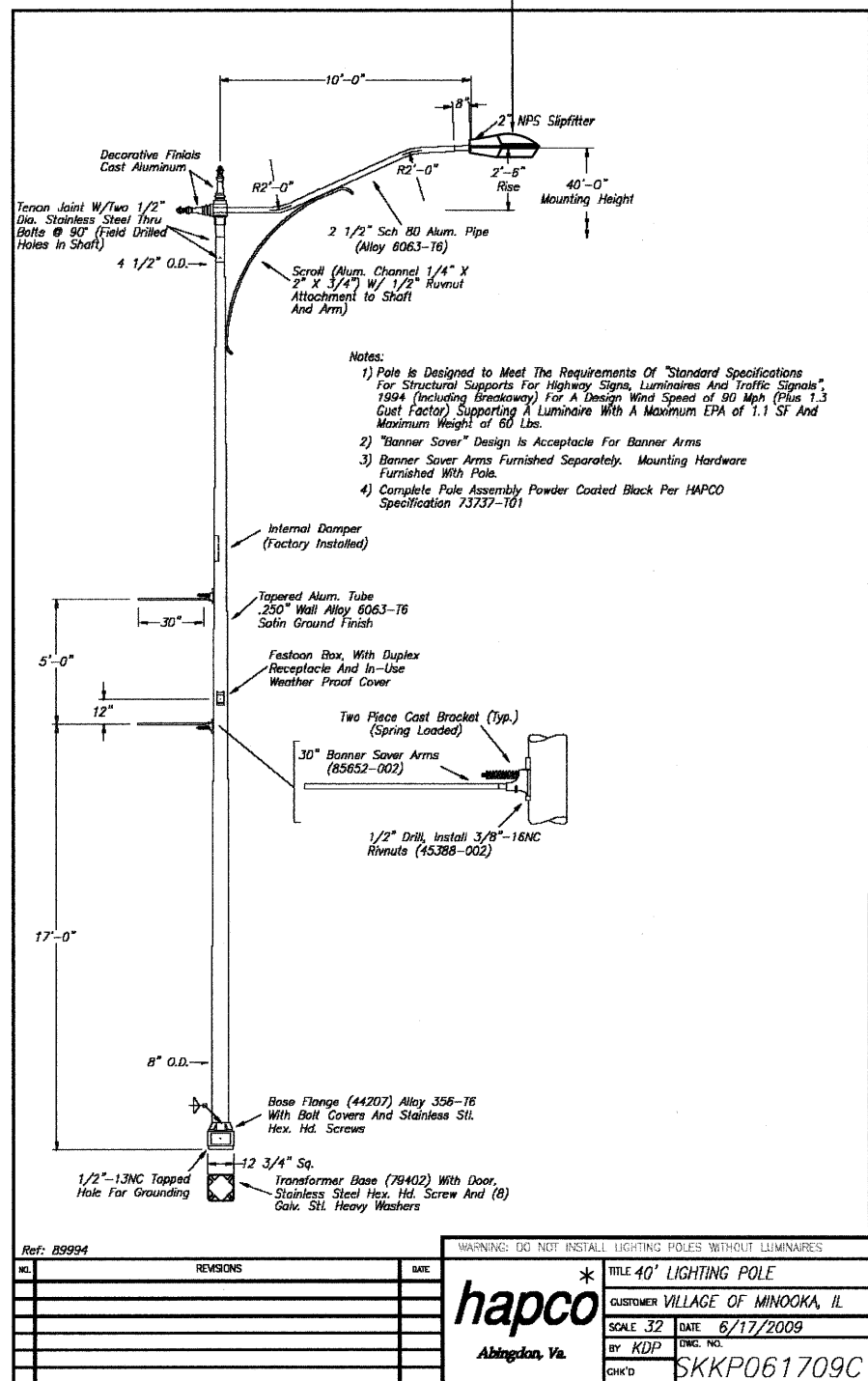
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| FILE NAME = 09330-PLAN-01 - IDOT P01 | USER NAME = | DESIGNED — DWS | REVISION — | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | RIDGE ROAD & MCEVILLY ROAD STREET LIGHTING PLAN SHEET | | | F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | PLOT SCALE = 1"=50' | CHECKED — PAP | REVISION — | | 0993 | 09-00054-00-LT | GRUNDY | 11 | 5 | | | |
| | PLOT DATE = 10-21-09 | DRAWN — RG/KWM/MJD | REVISION — | | SCALE: 1"=50' SHEET NO. 5 OF 11 SHEETS STA. 23+00 TO STA. 36+00 | | | CONTRACT NO. 87438 | | | | |
| | | CHECKED — PAP | REVISION — | | FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT ARA-003 (341) | | | | | | | |

LUMINAIRE:
 250 WATT HIGH PRESSURE SODIUM LAMP
 240 VOLT BALLAST
 I.E.S. TYPE: MC III LIGHT DISTRIBUTION,
 FULL CUTOFF
 LENS TYPE: FLAT
 INITIAL LAMP LUMENS: 28,000
 LAMP LIFE: 24,000 HOURS

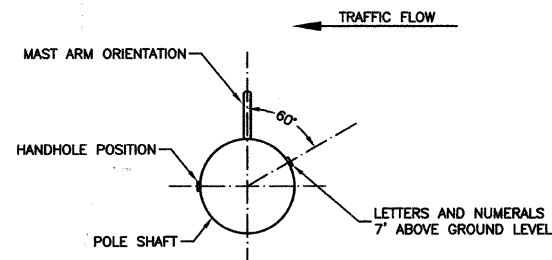
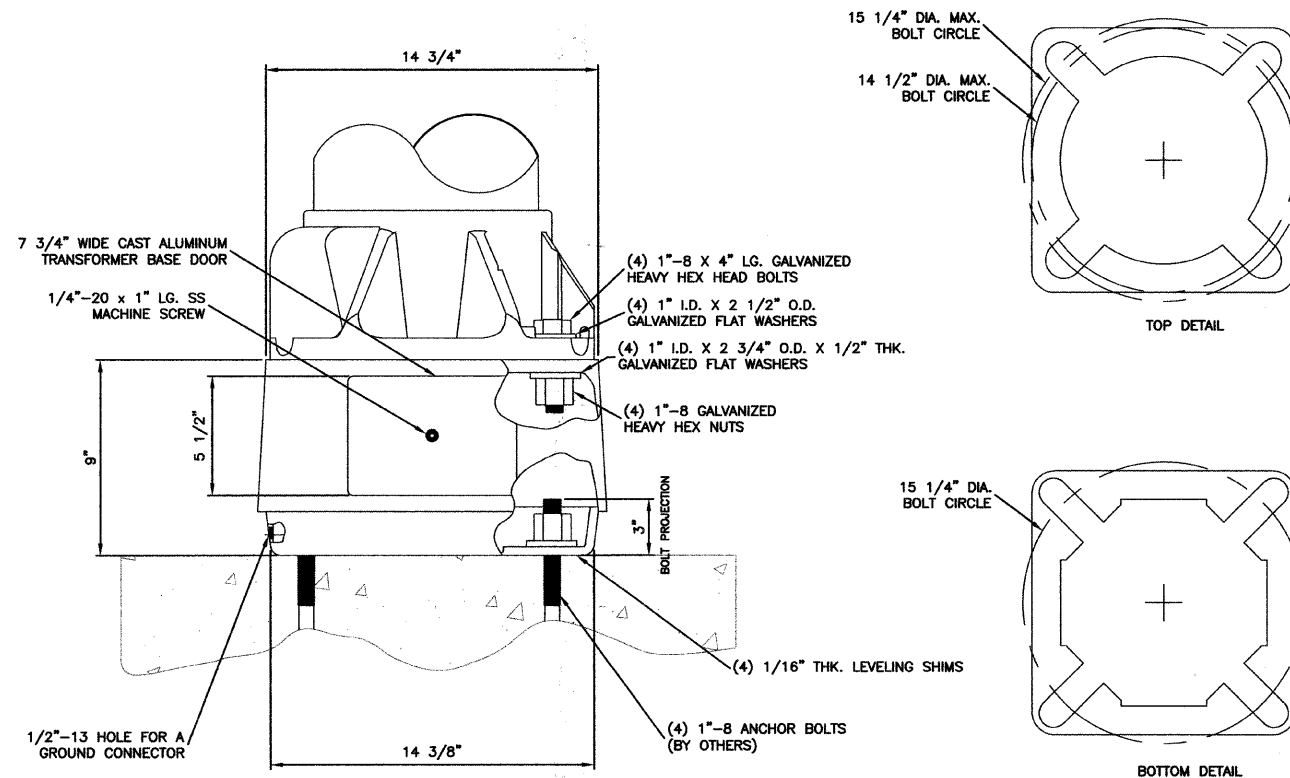
IMPORTANT NOTE:
 TRANSFORMER BASE AND LIGHTPOLE
 TO BE LEVELED AS ONE UNIT. USING
 LEVELING SHIMS IF REQUIRED.

| | |
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TYPICAL POLE INSTALLATION



FILE NAME = 06330-DLS-01 - P02

| | | |
|----------------------|-----------------|------------|
| USER NAME = | DESIGNED -- DWS | REVISED -- |
| PLOT SCALE = N/A | CHECKED -- PAP | REVISED -- |
| PLOT DATE = 10-21-09 | DRAWN -- MJD | REVISED -- |
| | CHECKED -- PAP | REVISED -- |

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

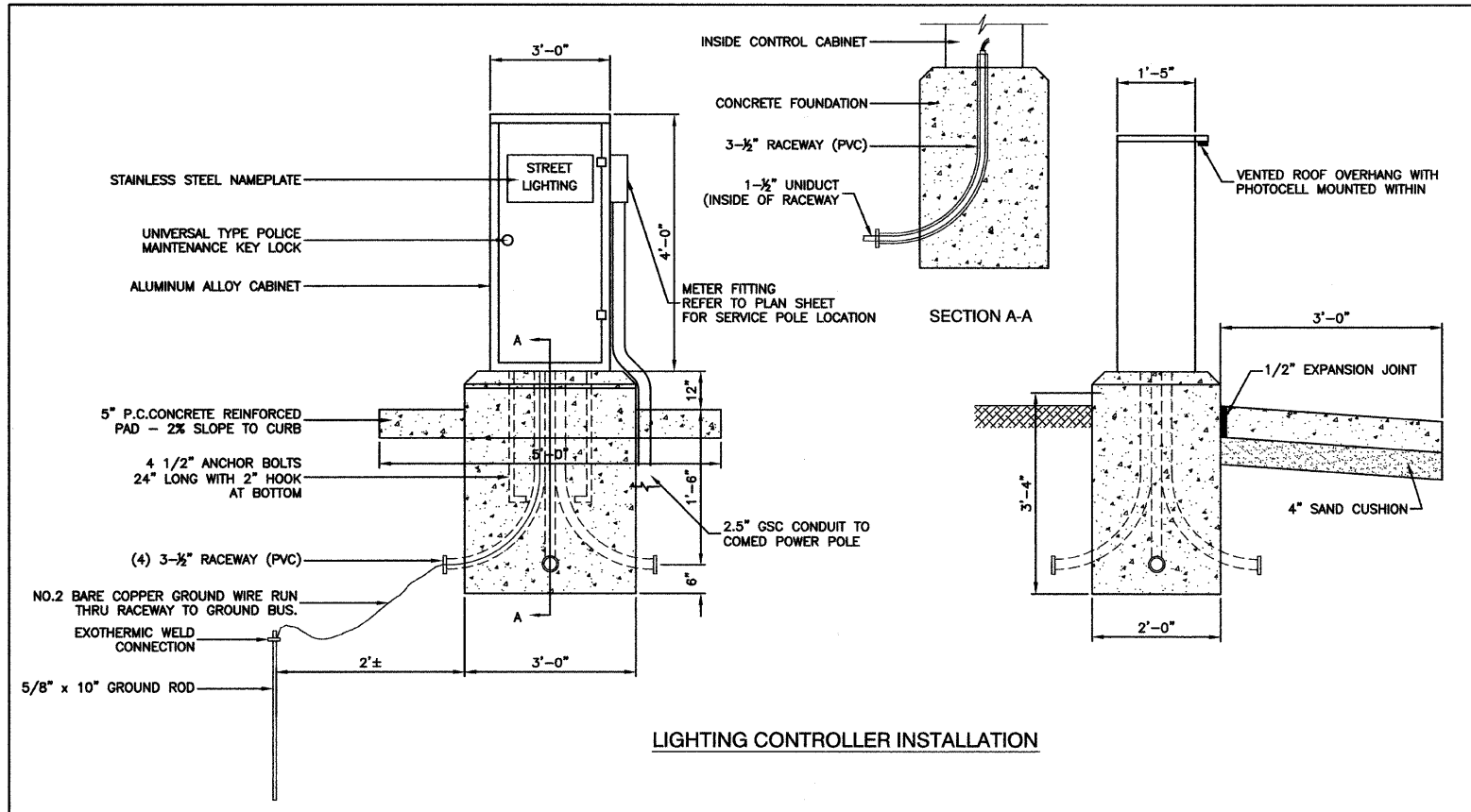
RIDGE ROAD & McEVILLY ROAD
 STREET LIGHTING
 DETAILS

SCALE: N/A SHEET NO. 7 OF 11 SHEETS STA. N/A TO STA. N/A

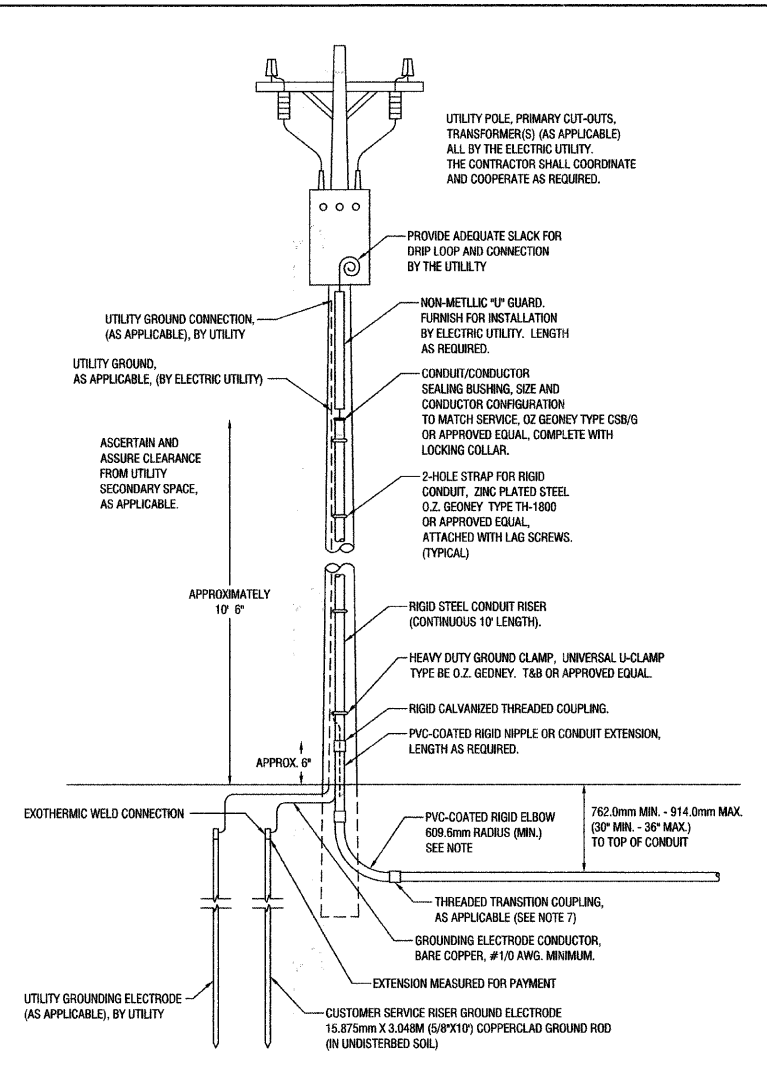
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|---|----------------|--------|--------------|-----------|
| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 0393 | 09-00054-00-LT | GRUNDY | 11 | 7 |
| CONTRACT NO. 87438 | | | | |
| FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT ARA-003 (341) | | | | |

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| BY | |
| REVISIONS | |
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| NO. | |
| FILE NAME | |
| PLAN | |
| NOTE BOOK | |

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| GRADES | |
| CHECKED | |
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| FILE NAME | |
| PROFILE | |
| NOTE BOOK | |



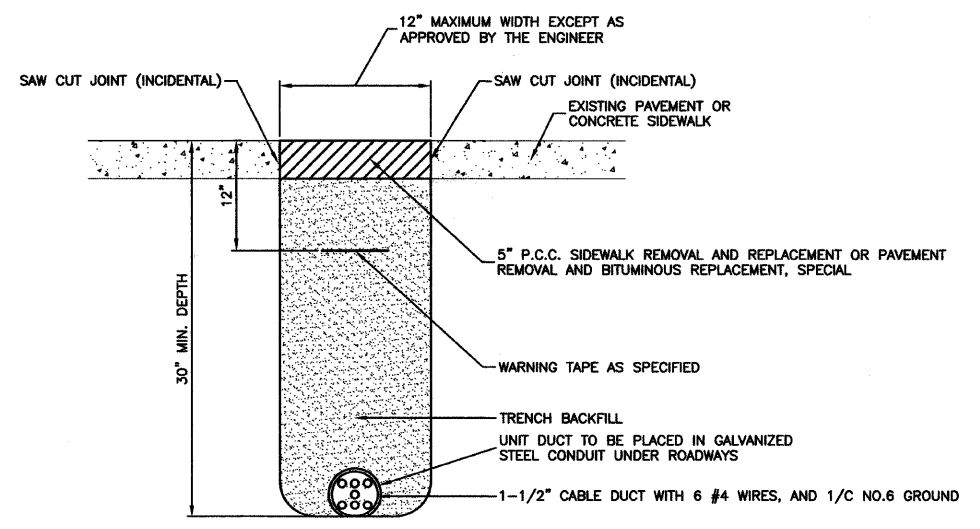
LIGHTING CONTROLLER INSTALLATION



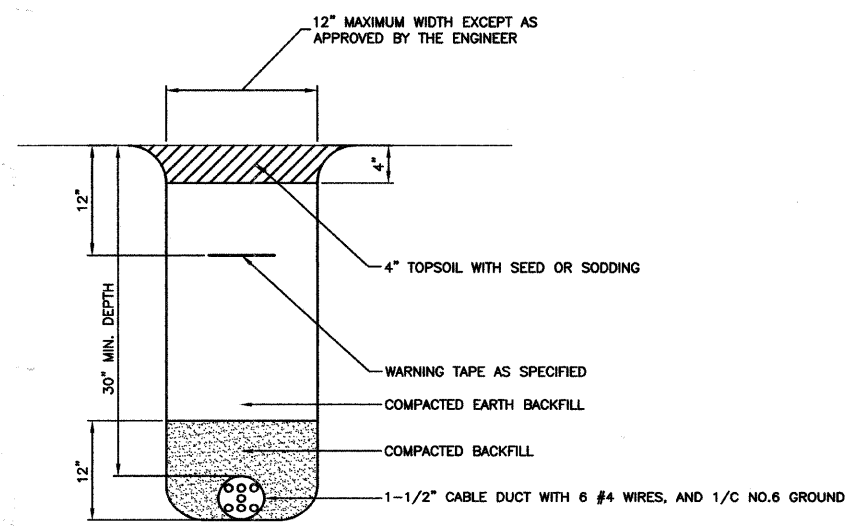
240/480 VOLT, 10, 3 WIRE, 60HZ SERVICE
16.81 KVA LOAD, CONTROLLER #1

- NOTES:
- SERVICE VOLTAGE SHALL BE AS INDICATED ELSEWHERE IN THE DRAWINGS.
 - UNLESS OTHERWISE INDICATED, ITEMS AND WORK SHALL BE INCLUDED AND PAID AS PART OF ELECTRIC UTILITY SERVICE INSTALLATION.
 - CONDUIT AND CONNECTOR DIAMETER SHALL MATCH THE DIAMETER OF THE SERVICE CONDUCTOR RACEWAY AS INDICATED.
 - PVC COATED RACEWAYS AND ACCESSORIES SHALL BE CAREFULLY INSTALLED WITH MF RECOMMENDED TOOLS AND PROCEDURES TO AVOID DAMAGE. ANY DAMAGE SHALL BE REPAIRED WITH COMPATIBLE PVC TOUCH-UP MATERIAL TO THE SATISFACTION OF THE ENGINEER OR THE DAMAGED MATERIAL SHALL BE REPLACED AT NO ADDITIONAL COST.
 - THE CONTRACTOR SHALL OBTAIN INSPECTION AND APPROVAL BY THE ENGINEER OF SERVICE RISER GROUND ELECTRODE, RISER ELBOW, NIPPLE AND CONNECTION TO SERVICE CONDUCTOR RACEWAY EXTENSION BEFORE BACKFILL AND SHALL ALSO OBTAIN INSPECTION OF SERVICE RISER AND SEALING BUSHING BEFORE UTILITY "U" GUARD INSTALLATION AND SERVICE CONNECTION.
 - THE SERVICE METER SOCKET, AS APPLICABLE, MOUNTED ELSEWHERE AS INCLUDED SHALL BE INCLUDED AND PAID AS PART OF THE ELECTRICAL UTILITY SERVICE INSTALLATION PAY ITEM.
 - THE SERVICE CONDUCTOR RACEWAY SHALL BE AS INDICATED AND SHALL BE MEASURED SEPARATELY FOR PAYMENT. WHEN THE RACEWAY IS PVC-COATED RIGID GALVANIZED STEEL, THE COUPLING SHALL BE THE SAME. WHEN THE RACEWAY IS PVC CONDUIT (IN CONCRETE), THE COUPLING SHALL BE A METALIC TO NON-METALIC ADAPTER. WHEN THE RACEWAY IS ENCASED IN CONCRETE, THE CONCRETE SHALL EXTEND TO COVER THE COUPLING.
 - PLANS AND DETAILS INDICATE THE GENERAL NATURE AND REQUIREMENTS. THEY DO NOT SHOW EVERY ACCESSORY AND ATTACHMENT, AND THEY DO NOT RELIEVE THE CONTRACTOR OF THE REQUIREMENTS OF THE SPECIFICATIONS AND SPECIAL PROVISION TO ASCERTAIN UTILITY REQUIREMENTS AND TO COORDINATE ACCORDINGLY, FURNISHING ALL ITEMS AND WORK NOT PROVIDED BY THE UTILITY, BUT NECESSARY FOR A COMPLETE SERVICE INSTALLATION.

SERVICE CONNECTION FOR ALL CONTROLLERS



HOT-MIX ASPHALT PAVEMENT OR CONCRETE SIDEWALK REMOVAL AND REPLACEMENT



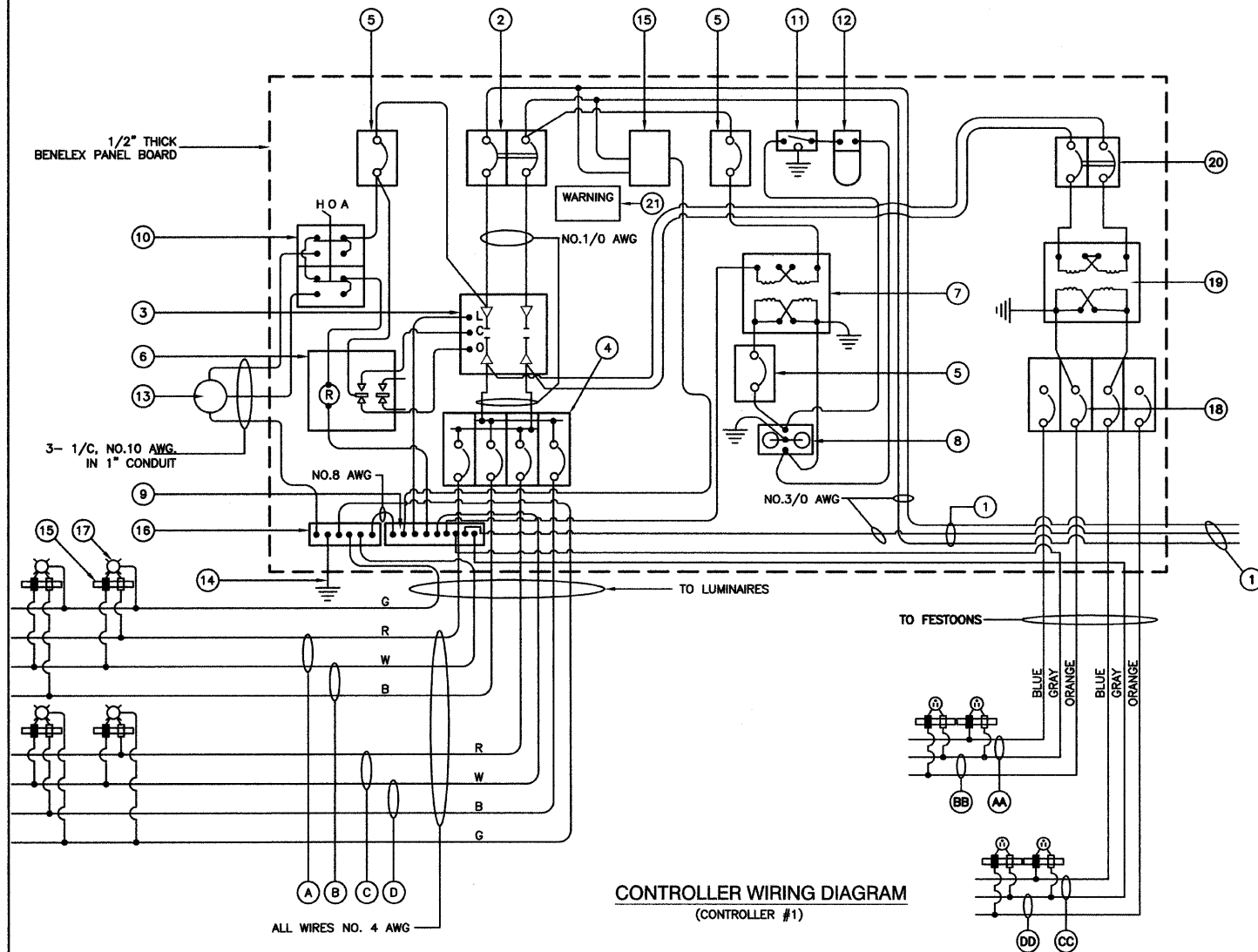
TRENCH DETAIL



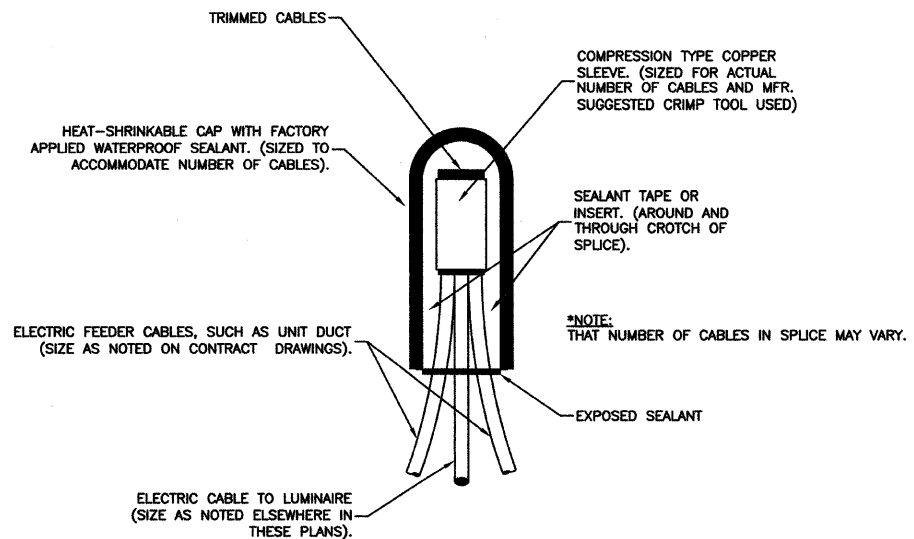
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| FILE NAME = 08330-DTLS-01 - P03 | USER NAME = | DESIGNED -- DWS | REVISED -- | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | RIDGE ROAD & McEVILLY ROAD STREET LIGHTING DETAILS | | | | F.A.U. RFE. 0384 | SECTION 09-00054-00-LT | COUNTY GRUNDY | TOTAL SHEETS 11 | SHEET NO. 8 |
| | PLOT SCALE = N/A | CHECKED -- PAP | REVISED -- | | SCALE: N/A | SHEET NO. 8 | OF 11 SHEETS | STA. N/A | TO STA. N/A | CONTRACT NO. 87438 | | | |
| | PLOT DATE = 10-21-09 | DRAWN -- MJD | REVISED -- | | FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT ARA-003 (341) | | | | | | | | |
| | | CHECKED -- PAP | REVISED -- | | | | | | | | | | |

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| NOTE BOOK | |
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| FILE NAME | |



CONTROLLER WIRING DIAGRAM
(CONTROLLER #1)



SPLICING ELECTRIC CABLES
BASIC MATERIALS AND METHODS

CONTROLLER BILL OF MATERIALS

- ① 3-1/2" DIA. GALVANIZED STEEL CONDUIT FOR 240/480 VOLT, 1Ø, 3 WIRE, 60HZ. SERVICE.
- ② (1) 100 AMP MAIN CIRCUIT BREAKER, 2 POLE, 600 VOLT, 100 AMP BASE, NON-INTERCHANGEABLE TRIP INTERRUPTING RATING NEMA - 14000 AMP AT 480 V.
- ③ (1) 100 AMP REMOTE CONTROL CONTACTOR SWITCH, ELECTRICALLY OPERATED, MECHANICALLY HELD, 2 POLE, SINGLE THROW, MINIMUM 60 AMP, 600 VOLT
- ④ (4) 30 AMP CIRCUIT BREAKER, 1 POLE, 240 VOLT, 100 AMP BASE, NON-INTERCHANGEABLE TRIP RATING NEMA - 14000 AMP AT 240 VOLTS.
- ⑤ (3) 20 AMP CONTROL CIRCUIT-CIRCUIT BREAKER, 1 POLE, 240 VOLT, 100 AMP BASE, NON-INTERCHANGEABLE TRIP INTERRUPTING RATING NEMA 14000 AMP AT 240 V.
- ⑥ (1) 20 AMP, 1 POLE DOUBLE THROW, 240 VOLT RELAY
- ⑦ (1) 1.5 KVA, SINGLE PHASE, ENCAPSULATED TRANSFORMER 240x480/120x240 VOLT, 60 HZ.
- ⑧ (1) 20 AMP, 120 VOLT DUPLEX GFCI RECEPTACLE.
- ⑨ NEUTRAL BUS BAR, 1/4"x1"x12" LONG MOUNTED ON PANEL WITH TAPS.
- ⑩ 3 POSITION SELECTOR SWITCH
- ⑪ SWITCH FOR LIGHTING FIXTURE MOUNTED IN BOX.
- ⑫ WEATHER-PROOF INCANDESCENT LIGHTING FIXTURE WITH 60 WATT, 120 V LAMP.
- ⑬ PHOTOCCELL MOUNTED TO CABINET, 240 V.
- ⑭ NO.2 AWG INSULATED GROUND WIRE.
- ⑮ IN-LINE FUSEHOLDER WITH FUSE AS NOTED IN FUSE TABLE.
- ⑯ GROUND BUS BAR 1/4"x1"x12" MINIMUM LENGTH MOUNTED ON PANEL WITH TAPS.
- ⑰ LUMINAIRE
- ⑱ (4) 30 AMP CIRCUIT BREAKER, 1 POLE, 600 VOLT, 100 AMP BASE, NON-INTERCHANGEABLE TRIP INTERRUPTING RATING NEMA - 14000 AMP AT 240 VOLTS.
- ⑳ 5.0 KVA, SINGLE PHASE, ENCAPSULATED TRANSFORMER 240x480/120x240 V, 60HZ
- ㉑ (1) 30 AMP CIRCUIT BREAKER, 2 POLE, 600 VOLT, 250 AMP BASE, NONE-INTERCHANGEABLE TRIP INTERRUPTING RATING NEMA - 14000 AMP AT 480 VOLTS.
- ⚠ WARNING PLATE TO READ: WARNING, MAINTENANCE CIRCUIT IS LIVE WHEN MAIN BREAKER IS SWITCHED OFF.

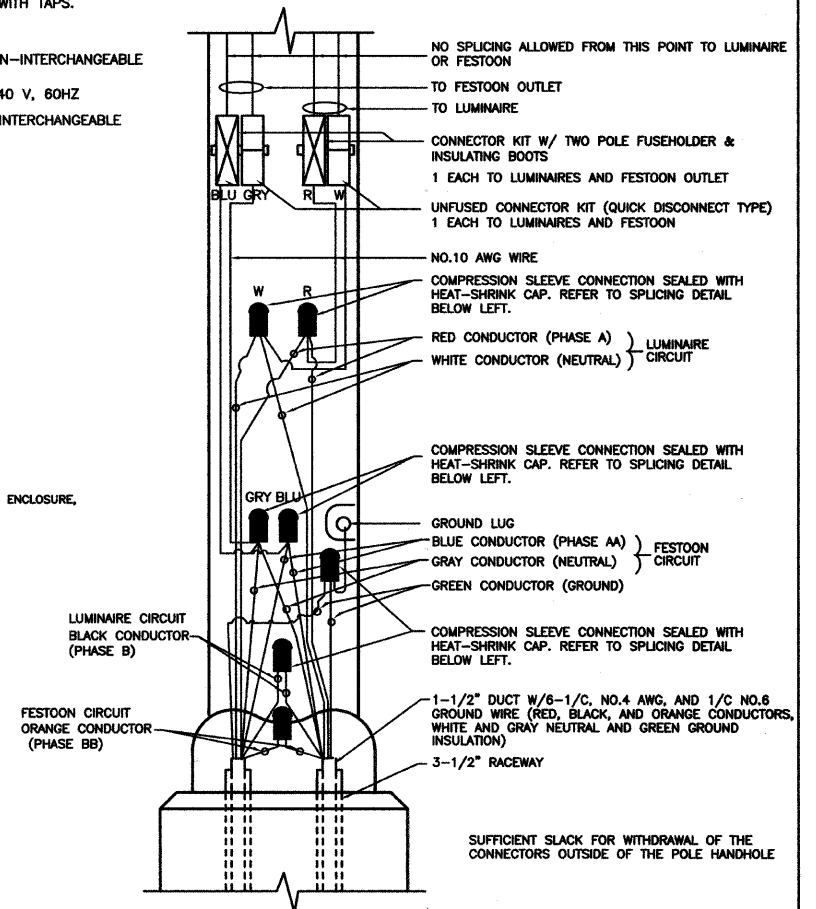
- Ⓐ LUMINAIRE CIRCUIT, 240V
- Ⓑ LUMINAIRE CIRCUIT, 240V
- Ⓒ LUMINAIRE CIRCUIT, 240V
- Ⓓ LUMINAIRE CIRCUIT, 240V
- ⒶⒶ FESTOON CIRCUIT, 120V
- ⒷⒷ FESTOON CIRCUIT, 120V
- ⒸⒸ FESTOON CIRCUIT, 120V
- ⒹⒹ FESTOON CIRCUIT, 120V

GENERAL NOTES FOR CONTROL CABINET

1. ENTIRE CONTROL CABINET SHALL BE GROUNDED.
2. ALL WIRING SHALL BE TAGGED WITH SELF-STICKING WIRE MARKERS.
3. GROUND BUS TO BE COLOR CODED GREEN, NEUTRAL BUS WHITE, AND BONDED TO CABINET ENCLOSURE, BY LISTED PRESSURE CONNECTORS OR LISTED CLAMPS.
4. ALL INTERNAL CONTROLLER WIRING TO BE NO.12 AWG UNLESS OTHERWISE SPECIFIED.
5. CABINET WIRING INSULATION TO BE TYPE XHHW OR APPROVED EQUAL.
6. CABINET SHALL BE SUITABLE FOR USE AS SERVICE ENTRANCE RATED.

| NOMINAL WATTAGE | FUSE SIZE |
|-----------------|-----------|
| LUMINAIRE 250W | 3.5 AMP |
| FESTOON | 6.0 AMP |

FUSE SIZE TABLE



POLE HANDHOLE WIRING DIAGRAM

TYPICAL FOR LUMINAIRE INSTALLATION WITH FESTOON
(A & AA PHASE SHOWN)



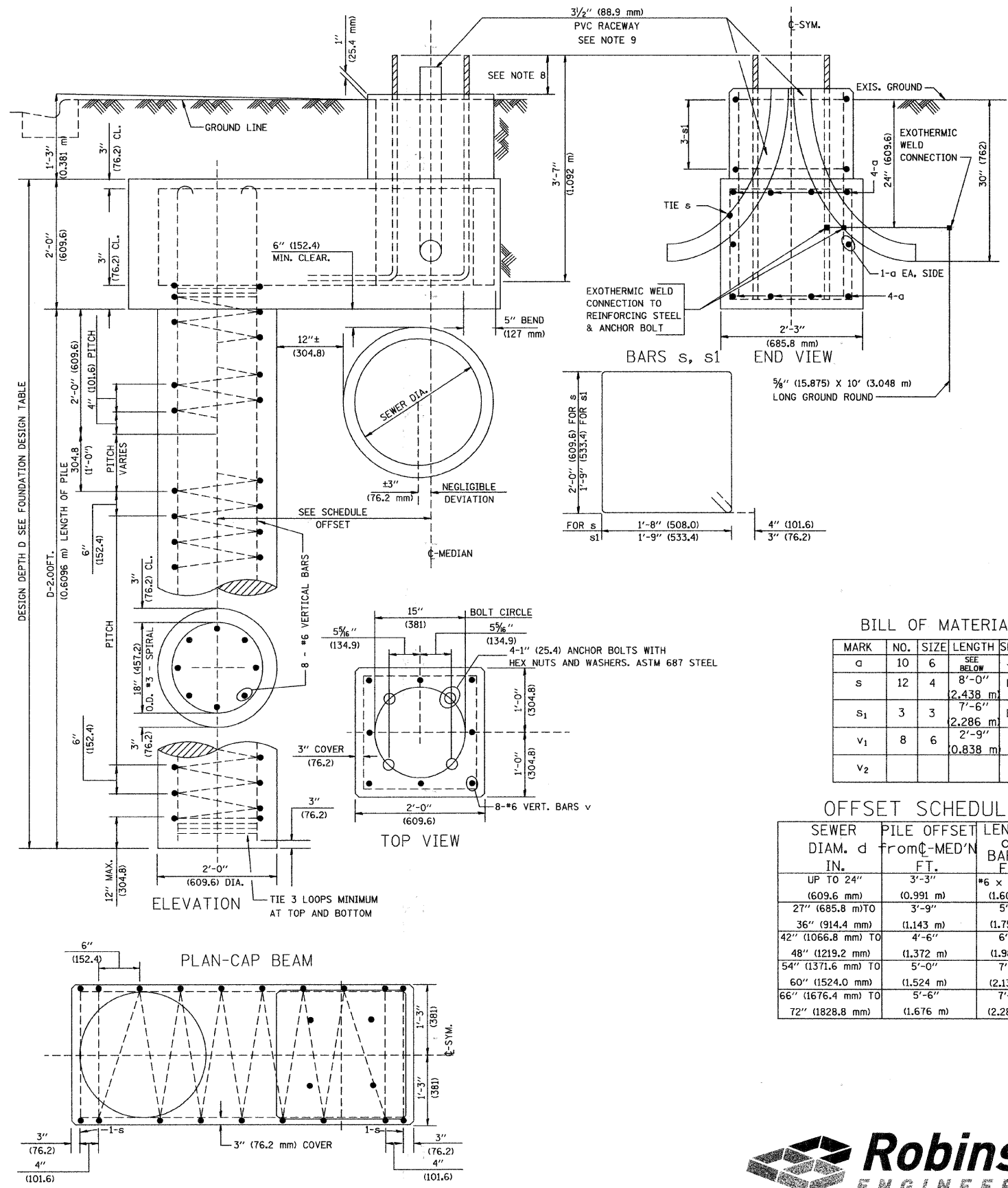
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| FILE NAME = 09330-DTLS-01 - P04 | USER NAME = | DESIGNED - DWS | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | RIDGE ROAD & McEVILLY ROAD STREET LIGHTING DETAILS | F.A.U. R/E | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | |
| | CHECKED - PAP | REVISIONS | | | | 0384 | 09-0054-00-LT | GRUNDY | 11 | 9 | |
| PLOT SCALE = N/A | DRAWN - MJD | REVISIONS | | | | CONTRACT NO. 87438 | | | | | |
| PLOT DATE = 10-21-09 | CHECKED - PAP | REVISIONS | | | | SCALE: N/A SHEET NO. 9 OF 11 SHEETS STA. N/A TO STA. N/A FED. ROAD DIST. NO. 3 ILLINOIS FED. AID PROJECT ARA-003 (341) | | | | | |

FOUNDATION DESIGN TABLE

| TYPE OF SOIL | DESIGN DEPTH OF FOUNDATION | | REINFORCEMENT IN FOUNDATION | | | |
|-------------------------|----------------------------|----------------------------|---------------------------------|------------------------------|---------------------------------|------------------------------|
| | SINGLE ARM D | TWIN ARM D | SINGLE ARM | | TWIN ARM | |
| | | | VERT BARS | SPIRAL | VERT BARS | SPIRAL |
| SOFT CLAY | 13'-0" (3.962 m) | 15'-0" (4.572 m) | 8-#6X12'-6" (3.810 m) | #3X122' (37.186 m) | 8-#6X14'-3" (4.343 m) | #3X141' (42.977 m) |
| MEDIUM CLAY | 9'-6" (2.896 m) | 10'-9" (3.277 m) | 8-#6X9'-0" (2.743 m) | #3X90' (27.432 m) | 8-#6X10'-0" (3.048 m) | #3X100' (30.480 m) |
| STIFF CLAY | 7'-0" (2.134 m) | 8'-0" (2.438 m) | 8-#6X6'-6" (1.981 m) | #3X66' (20.112 m) | 8-#6X7'-6" (2.286 m) | #3X76' (23.165 m) |
| LOOSE SAND | 9'-0" (2.743 m) | 10'-0" (3.048 m) | 8-#6X8'-6" (2.591 m) | #3X85' (25.908 m) | 8-#6X9'-6" (2.896 m) | #3X94' (28.651 m) |
| MEDIUM SAND | 8'-3" (2.515 m) | 9'-0" (2.743 m) | 8-#6X8'-0" (2.438 m) | #3X78' (23.774 m) | 8-#6X8'-6" (2.591 m) | #3X85' (25.908 m) |
| DENSE SAND | 7'-9" (2.362 m) | 9'-0" (2.743 m) | 8-#6X7'-6" (2.286 m) | #3X73' (22.250 m) | 8-#6X8'-6" (2.591 m) | #3X85' (25.908 m) |
| ROCK OR SOLIDIFIED SLAG | 5'-0" (1.524 m) | 5'-0" (1.524 m) | NONE | NONE | NONE | NONE |

NOTES

- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- THE ENGINEER SHALL DETERMINE THE CLASS OF SOIL DURING EXCAVATION AND SELECT THE DESIGN DEPTH OF FOUNDATION FROM THE DESIGN TABLE.
- EXCAVATION OF THE POLE FOUNDATION SHALL BE MADE WITH AN AUGER, 24" (609.6 mm) OR 30" (762.0 mm) IN DIAMETER.
- THE ANCHOR ROD SHALL BE A HOOK ROD TYPE. COLD BENDING OF THE ANCHOR ROD WILL NOT BE ALLOWED. THE RADIUS OF THE HOOK BEND SHALL NOT BE LESS THAN 4 TIMES THE NOMINAL DIAMETER OF THE ANCHOR ROD. A TACK WELDED ANCHOR ROD MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER.
- THE ANCHOR BOLTS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED IN THE FORM.
- THE ANCHOR RODS SHALL BE ACCORDING TO ASTM F1554 GRADE 725 (GRADE 105). NUTS SHALL BE HEXAGON NUTS ACCORDING TO ASTM A 194 2H OR ASTM A 563 DH, AND WASHERS SHALL BE ACCORDING TO ASTM F 436.
- THE CONTRACTOR SHALL COORDINATE EXTENSION OF ANCHOR BOLTS ABOVE TOP OF FOUNDATION WITH THE BREAKAWAY DEVICE MANUFACTURER'S REQUIREMENTS. IF LIGHT POLE IS MOUNTED WITHOUT BREAKAWAY DEVICE, ANCHOR BOLTS SHALL PROJECT 2 3/4" (69.9 mm) ABOVE TOP OF THE FOUNDATION. THE CONTRACTOR SHALL CONFIRM ANCHOR BOLT EXTENTION WITH ENGINEER.
- RACEWAYS SHALL PROJECT 1" (25.4 mm) ABOVE THE TOP OF THE FOUNDATION.
- THE CABLE TRENCH SHALL BE BACKFILLED AND FIRMLY COMPACTED BEFORE THE LIGHT IS ERECTED.



BILL OF MATERIAL

| MARK | NO. | SIZE | LENGTH | SHAPE |
|----------------|-----|------|-----------|-------|
| a | 10 | 6 | SEE BELOW | — |
| s | 12 | 4 | 2.438 m | □ |
| s ₁ | 3 | 3 | 2.286 m | □ |
| v ₁ | 8 | 6 | 0.838 m | — |
| v ₂ | | | | |

OFFSET SCHEDULE

| SEWER DIAM. d IN. | PILE OFFSET from C-MED'N FT. | LENGTH of BAR a FT. |
|----------------------|------------------------------|----------------------|
| UP TO 24" (609.6 mm) | 3'-3" (0.991 m) | #6 x 5'-3" (1.600 m) |
| 27" (685.8 mm) TO | 3'-9" | 5'-9" |
| 36" (914.4 mm) TO | 4'-6" (1.43 m) | 6'-6" |
| 48" (1219.2 mm) TO | 5'-0" (1.372 m) | 7'-0" |
| 54" (1371.6 mm) TO | 5'-6" (1.524 m) | 7'-6" |
| 60" (1524.0 mm) TO | 6'-0" (1.676 m) | 8'-0" |
| 66" (1676.4 mm) TO | 6'-6" (1.981 m) | 8'-6" |
| 72" (1828.8 mm) | 7'-0" (2.134 m) | 9'-0" |

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