

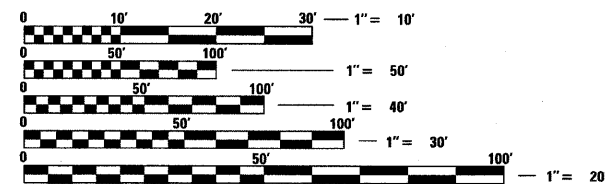
INDEX OF SHEETS

- 1 COVER SHEET
- 2-3 SUMMARY OF QUANTITIES
- 4-8 STANDARD TRAFFIC SIGNAL DESIGN STANDARDS
- 9 EXISTING TRAFFIC SIGNAL EQUIPMENT TO BE REMOVED - LAKE STREET
- 10-11 TRAFFIC SIGNAL MODIFICATION PLAN - LAKE STREET
- 12 CABLE PLAN AND PHASE DESIGNATION DIAGRAM - LAKE STREET
- 13 TRAFFIC SIGNAL MODIFICATION PLAN - RIVER STREET
- 14 CABLE PLAN AND PHASE DESIGNATION DIAGRAM - RIVER STREET
- 15 EXISTING TRAFFIC SIGNAL EQUIPMENT TO BE REMOVED - STOLP AVENUE
- 16 TRAFFIC SIGNAL MODIFICATION PLAN - STOLP AVENUE
- 17 CABLE PLAN AND PHASE DESIGNATION DIAGRAM - STOLP AVENUE
- 18 TRAFFIC SIGNAL MODIFICATION PLAN - BROADWAY AVENUE
- 19 CABLE PLAN AND PHASE DESIGNATION DIAGRAM - BROADWAY AVENUE
- 20 EXISTING TRAFFIC SIGNAL EQUIPMENT TO BE REMOVED - LINCOLN AVENUE
- 21 TRAFFIC SIGNAL MODIFICATION PLAN - LINCOLN AVENUE
- 22 CABLE PLAN AND PHASE DESIGNATION DIAGRAM - LINCOLN AVENUE
- 23 EXISTING TRAFFIC SIGNAL EQUIPMENT TO BE REMOVED - ROOT STREET
- 24 TRAFFIC SIGNAL MODIFICATION PLAN - ROOT STREET
- 25 CABLE PLAN AND PHASE DESIGNATION DIAGRAM - ROOT STREET
- 26 MAST ARM MOUNTED STREET NAME SIGNS - ROOT STREET
- 27 TRAFFIC SIGNAL MODIFICATION PLAN - UNION STREET
- 28 CABLE PLAN AND PHASE DESIGNATION DIAGRAM - UNION STREET
- 29 EXISTING TRAFFIC SIGNAL EQUIPMENT TO BE REMOVED - OHIO STREET
- 30 TRAFFIC SIGNAL MODIFICATION PLAN - OHIO STREET
- 31 CABLE PLAN AND PHASE DESIGNATION DIAGRAM - OHIO STREET
- 32 MAST ARM MOUNTED STREET NAME SIGNS - OHIO STREET
- 33-35 INTERCONNECT PLAN
- 36-38 INTERCONNECT SCHEMATIC
- 39 TRAFFIC CONTROL AND PROTECTION DETAIL
- 40-44 MISCELLANEOUS DETAILS

HIGHWAY STANDARDS

- 424001-05 CURB RAMPS FOR SIDEWALKS
- 701006-03 OFF-ROAD OPERATIONS, 2L, 2W, 15' TO 24" FROM EDGE OF PAVEMENT
- 701011-02 OFF-ROAD MOVING OPERATIONS, 2L, 2W, DAY ONLY
- 701101-02 OFF-ROAD OPERATIONS, MULTILANE, 15' TO 24" FROM PAVEMENT EDGE
- 701301-03 LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
- 701601-06 URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE 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
- 720001-01 SIGN PANEL MOUNTING DETAILS
- 720006-02 SIGN PANEL ERECTION DETAILS
- 720016-02 MAST ARM MOUNTED STREET NAME SIGNS
- 805001-01 ELECTRICAL SERVICE INSTALLATION DETAILS
- 814001-02 HANDHOLES
- 814006-02 DOUBLE HANDHOLES
- 857001-01 STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES
- 862001-01 UNINTERRUPTIBLE POWER SUPPLY (UPS)
- 873001-02 TRAFFIC SIGNAL GROUNDING & BONDING
- 877001-04 STEEL MAST ARM ASSEMBLY AND POLE 16' THROUGH 55'
- 877011-04 STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 16' THROUGH 55'
- 878001-08 CONCRETE FOUNDATION DETAILS
- 880006-01 TRAFFIC SIGNAL MOUNTING DETAILS
- 886001-01 DETECTOR LOOP INSTALLATIONS
- 000001-05 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 825001 LIGHTING CONTROLLER, 240V, POLE MOUNTED

J.U.L.I.E.
JOINT UTILITY LOCATING INFORMATION FOR EXCAVATION
 1-800-892-0123 (CALL 48 HOURS IN ADVANCE)



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.

CONTRACT NO: 63300

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS**

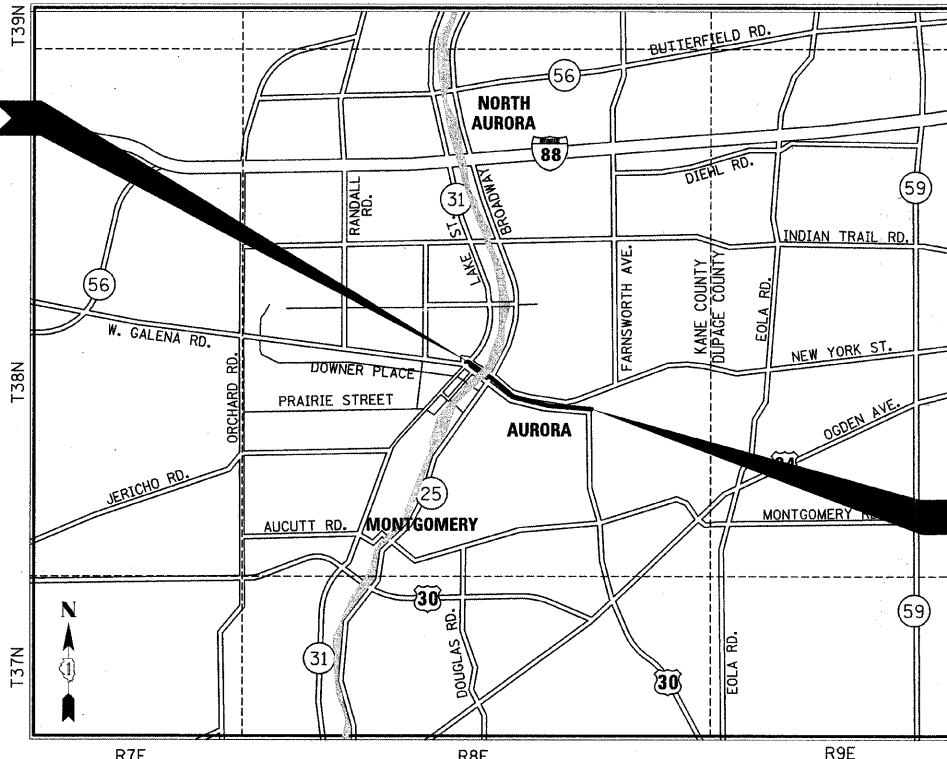
**PROPOSED
 PLANS FOR
 TRAFFIC SIGNAL INTERCONNECT
 AND MODERNIZATION**

**CONGESTION MITIGATION AIR QUALITY
 ROUTE: GALENA BOULEVARD
 FROM LOCUST STREET TO OHIO STREET
 SECTION 08-00270-00-TL
 PROJECT NO. CMM-9003 (042)
 KANE COUNTY
 JOB NO.: C-91-437-08**

THIS IMPROVEMENT IS LOCATED
 IN THE CITY OF AURORA

BEGIN PROJECT
 GALENA BOULEVARD
 STA: 4982 + 00.00

END PROJECT
 GALENA BOULEVARD
 STA: 5069 + 00.00



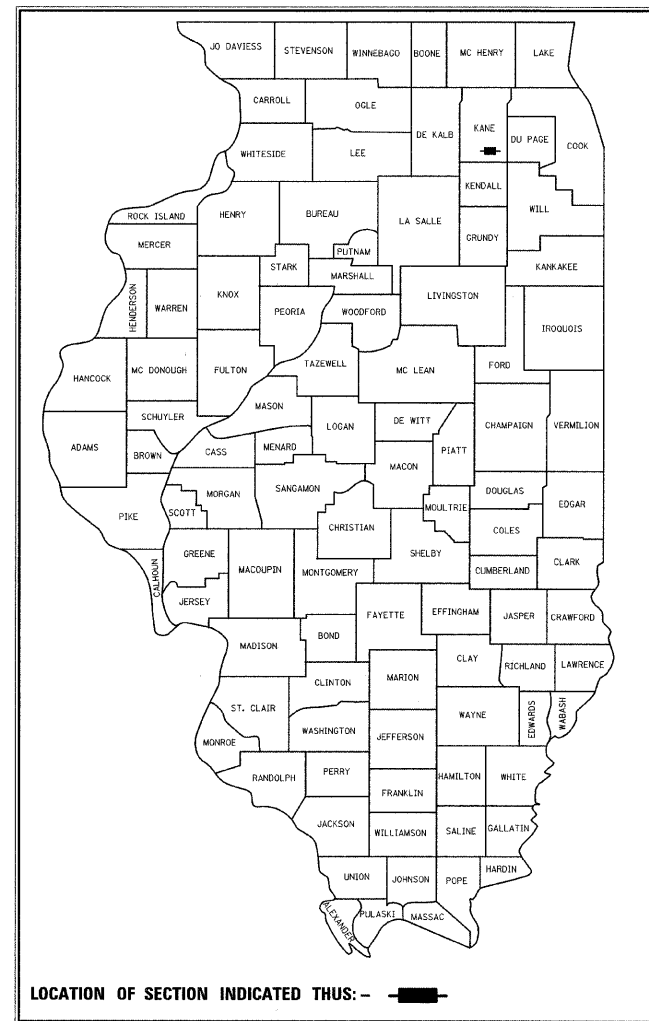
**LOCATION MAP
 SCALE : N.T.S**

EXISTING ADT (2007) = 12,300
 POSTED/DESIGN SPEED = 30 M.P.H.
 PROJECT GROSS LENGTH = 8,700.00 FEET = 1.65 MILES
 PROJECT NET LENGTH = 8,700.00 FEET = 1.65 MILES
 DESIGN DESIGNATION = MINOR ARTERIAL

ANTHONY P. SIMMONS, P.E.
 REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS
 NO. 062-058414
 EXPIRES: 11/30/2011
 SEC GROUP, INC.

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|-------------|----------------|--------|--------------|-----------|
| | 08-00270-00-TL | KANE | 44 | 1 |

CONTRACT NO. 63300



**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS**

APPROVED December 17 2009
E.J. Salto
 CITY OF AURORA, CITY TRAFFIC ENGINEER

PASSED DECEMBER 17 2009
Christina Har
 DISTRICT 1 ENGINEER OF LOCAL ROADS & STREETS

RELEASING FOR BID
 BASED ON LIMITED
 REVIEW December 17, 2009
Diana M. O'Keefe
 DEPUTY DIRECTOR OF HIGHWAYS, REGION 1 ENGINEER

PRINTED BY THE AUTHORITY
 OF THE STATE OF ILLINOIS

Illinois Professional Design Firm # 184-000108

SEC Group, Inc.
 Engineering
 Surveying
 Planning
 Landscape Architecture

McHenry • Yorkville • New Lenox • Chicago
 www.secgroupinc.com

DISTRICT 1 - LOCAL ROADS ENGINEER: MARILYN D. SOLOMON (847) 705-4407

SUMMARY OF QUANTITIES

| CODE NUMBER | PAY ITEM DESCRIPTION | UNIT | TOTAL QUANTITY | Y031-F | | | | | | | | | |
|-------------|---|-------|----------------|-------------|--------------|--------------|-----------------|----------------|-------------|--------------|-------------|--------------|------|
| | | | | LAKE STREET | RIVER STREET | STOLP AVENUE | BROADWAY AVENUE | LINCOLN AVENUE | ROOT STREET | UNION STREET | OHIO STREET | INTERCONNECT | |
| 87704050 | STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 24 FT. (SPECIAL) | EACH | 1 | | | | | 1 | | | | | |
| 87704060 | STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 26 FT. (SPECIAL) | EACH | 1 | | | 1 | | | | | | | |
| 87704070 | STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 28 FT. (SPECIAL) | EACH | 3 | 1 | | 1 | | 1 | | | | | |
| 87704080 | STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 32 FT. (SPECIAL) | EACH | 2 | 1 | | | | 1 | | | | | |
| 87704100 | STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 34 FT. (SPECIAL) | EACH | 1 | 1 | | | | | | | | | |
| 87800100 | CONCRETE FOUNDATION, TYPE A | FOOT | 76 | 16 | | 12 | | 16 | 16 | | | 16 | |
| 87800150 | CONCRETE FOUNDATION, TYPE C | FOOT | 12 | 4 | | | | 4 | | | | 4 | |
| 87800400 | CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER | FOOT | 157.5 | 37 | | 30 | | 33.5 | 10 | | | 47 | |
| 87900200 | DRILL EXISTING HANDHOLE | EACH | 77 | 13 | | 15 | | 10 | 16 | 10 | | 11 | 2 |
| 88030020 | SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED | EACH | 18 | 3 | | 4 | | 3 | 2 | | | 6 | |
| 88030050 | SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED | EACH | 8 | 1 | | 3 | | 3 | 1 | | | | |
| 88030070 | SIGNAL HEAD, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED | EACH | 2 | 2 | | | | | | | | | |
| 88030080 | SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED | EACH | 4 | 4 | | | | | | | | | |
| 88030110 | SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED | EACH | 4 | | | | | 1 | | | | 3 | |
| 88030210 | SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED | EACH | 7 | | | 2 | | 1 | 3 | | | 1 | |
| 88030240 | SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED | EACH | 4 | | | | | 1 | | | | 3 | |
| 88102747 | PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER | EACH | 24 | 4 | | 4 | | 4 | 4 | 4 | | 4 | |
| 88200210 | TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM | EACH | 26 | 7 | | 4 | | 4 | 2 | | | 9 | |
| 88500100 | INDUCTIVE LOOP DETECTOR | EACH | 14 | 5 | | | | | 4 | 5 | | | |
| 88600100 | DETECTOR LOOP, TYPE I | FOOT | 808.4 | 195.6 | | | | | 247 | 365.8 | | | |
| 88700200 | LIGHT DETECTOR | EACH | 10 | 2 | | 2 | | 2 | 2 | | | 2 | |
| 88700300 | LIGHT DETECTOR AMPLIFIER | EACH | 5 | 1 | | 1 | | 1 | 1 | | | 1 | |
| 88800100 | PEDESTRIAN PUSH-BUTTON | EACH | 24 | 4 | | 4 | | 4 | 4 | 4 | | 4 | |
| 89502300 | REMOVE ELECTRIC CABLE FROM CONDUIT | FOOT | 22554.5 | 3373.5 | | 2474 | | 4740 | 3205 | 2290 | | 6472 | |
| 89502375 | REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT | EACH | 6 | 1 | | 1 | | 1 | 1 | 1 | | 1 | |
| 89502380 | REMOVE EXISTING HANDHOLE | EACH | 5 | 1 | | | | 2 | 1 | | | 1 | |
| 89502385 | REMOVE EXISTING CONCRETE FOUNDATION | EACH | 31 | 8 | | 5 | | 7 | 3 | | | 8 | |
| XD322925 | ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C | FOOT | 5142 | | | | | | | | | | 5142 |
| XD324007 | OPTIMIZE TRAFFIC SIGNAL SYSTEM | EACH | 1 | | | | | | | | | | 1 |
| XD324256 | FIBER OPTIC CABLE SPLICE | EACH | 1 | | | | | | | | | | 1 |
| XD325035 | PAINT NEW COMBINATION MAST ARM AND POLE, UNDER 40 FT | EACH | 5 | | | | | | 1 | | | 4 | |
| XD325134 | WIRELESS INTERCONNECT (COMPLETE) | EACH | 1 | | | | | | | | | | 1 |
| 842 00500 | REMOVAL OF EXISTING LIGHTING UNIT, SALVAGE | EACH | 5 | | 2 | 2 | | 1 | | | | | |
| XD325810 | WIRELESS ETHERNET RADIO | EACH | 5 | | | 1 | | 1 | | | | | 3 |
| XB050010 | SERVICE INSTALLATION - GROUND MOUNTED | EACH | 1 | | | 1 | | | | | | | |
| XB050015 | SERVICE INSTALLATION - POLE MOUNTED | EACH | 4 | 1 | | | | 1 | 1 | | | 1 | |
| XB510300 | PAINT TRAFFIC SIGNAL POST | EACH | 19 | 4 | | 3 | | 4 | 4 | | | 4 | |
| XB620020 | UNINTERRUPTABLE POWER SUPPLY | EACH | 5 | 1 | | 1 | | 1 | 1 | | | 1 | |
| XB710020 | FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F | FOOT | 5142 | | | | | | | | | | 5142 |
| XB730027 | ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C | FOOT | 2898.5 | 653 | | 348.5 | | 489.5 | 423 | 390 | | 594.5 | |
| X021 744 | LIGHT POLE, SPECIAL (DECORATIVE ORNAMENTAL) | EACH | 4 | | 2 | 1 | | 1 | | | | | |
| XD003584 | VIDEO BELDEN 8281 COAXIAL CABLE IN CONDUIT | FOOT | 644.5 | | 228 | 64 | | 127.5 | 225 | | | | |
| XD003552 | VIDEO DETECTION SYSTEM | EACH | 3 | | | 1 | | 1 | | | | 1 | |
| X01 30250 | ELECTRIC CABLE IN CONDUIT, NO. 20 3/C TWISTED SHIELDED | FOOT | 2352.5 | 392.5 | 218 | 283.5 | | 518 | 639 | | | 301.5 | |
| XD005937 | L.E.D. INTERNALLY ILLUMINATED STREET NAME SIGN | EACH | 8 | 3 | | 2 | | 3 | | | | | |
| XD006923 | GROUND EXISTING HANDHOLE FRAME AND COVER | EACH | 22 | 4 | | 4 | | 3 | 4 | | | 7 | |
| XD006927 | RELOCATE INTERNALLY ILLUMINATED STREET NAME SIGN | EACH | 1 | | | 1 | | | | | | | |
| XD007251 | INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA | EACH | 4 | | 1 | 1 | | 1 | 1 | | | | |
| XD007487 | LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT (SPECIAL) | EACH | 6 | | | 3 | | 3 | | | | | |
| XX007952 | TERMINAL SERVER | EACH | 1 | | | | | | | | | | 1 |
| XX007992 | ETHERNET SWITCH | EACH | 1 | | | | | | | | | | 1 |
| XX007993 | CENTRALIZED SYSTEM FIELD INTEGRATION / SETUP | L SUM | 1 | | | | | | | | | | 1 |

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| PLAN | REVIEWED | DATE |
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| NOTE BOOK | PLOTTED | |
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| | STRUCTURE NOTATIONS CHKD | |

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

SCALE: SHEET NO. OF SHEETS STA. TO STA.

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|---|----------------|--------|--------------|-----------|
| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 08-00270-00-TL | KANE | 44 | 3 |
| CONTRACT NO. 63300 | | | | |
| FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | | | |

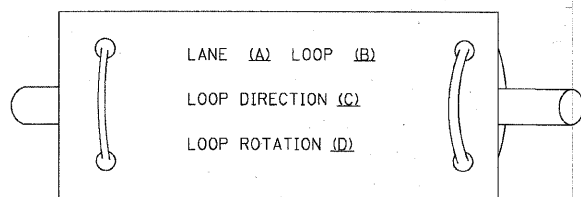
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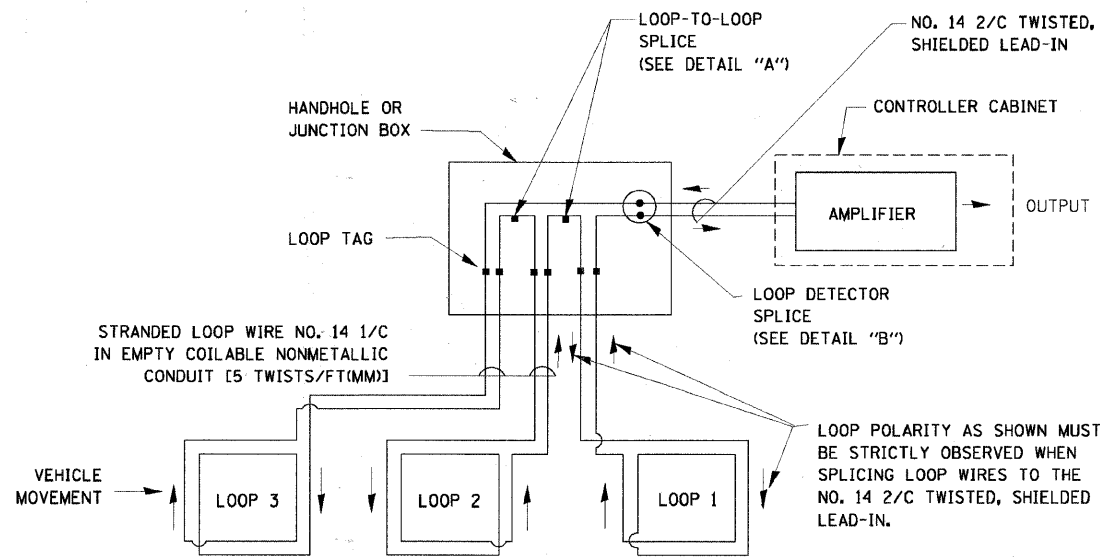
LOOP DETECTOR NOTES

1. EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE EMPTY COILABLE NONMETALLIC CONDUIT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). EMPTY COILABLE NONMETALLIC CONDUIT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
2. THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.
3. EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.
4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
5. IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVEHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.
6. LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.
7. PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

LOOP LEAD-IN CABLE TAG

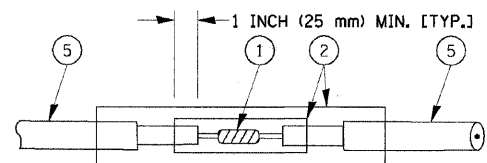


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

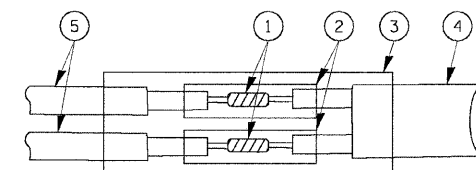


DETECTOR LOOP WIRING SCHEMATIC

- LOOPS SHALL BE SPLICED IN SERIES.
- SAW-CUTS SHALL BE A MINIMUM WIDTH OF 5/16" (8 mm).
- SAW-CUT DEPTHS SHALL BE 3" (75 mm). IF IN CONCRETE, THE SAW-CUT DEPTH SHALL BE TO THE TOP OF THE REINFORCEMENT.
- LOOP CORNERS SHALL BE DRILLED WITH A 2" (50 mm) DIAMETER CORE.

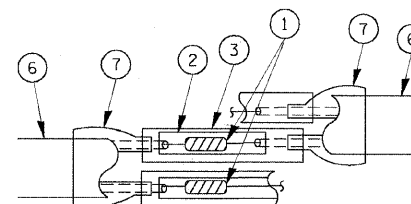


DETAIL "A" LOOP-TO-LOOP SPLICE

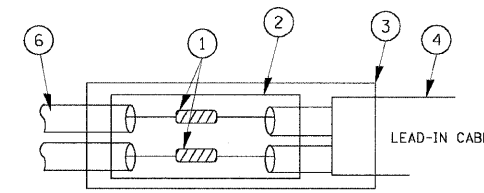


DETAIL "B" LOOP-TO-CONTROLLER SPLICE

TYPE I LOOP



DETAIL "A" LOOP-TO-LOOP SPLICE



DETAIL "B" LOOP-TO-CONTROLLER SPLICE

LOOP DETECTOR SPLICE

- 1 WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH.
- 2 WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- 3 WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGTH 6" (150 mm), UNDERWATER GRADE.
- 4 NO. 14 2/C TWISTED, SHIELDED CABLE.
- 5 LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.
- 6 PRE-FORMED LOOP
- 7 XL POLYOLEFIN 2 CONDUCTOR BREAKOUT SEALS, TYCO CBR-2 OR APPROVED EQUAL

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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE
 STANDARD TRAFFIC SIGNALS
 DESIGN DETAILS**

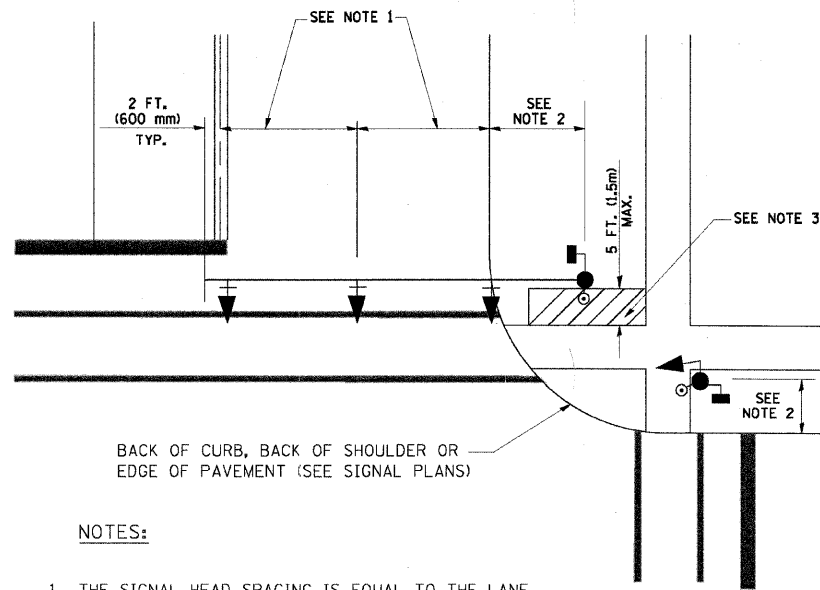
SCALE: SHEET NO. OF SHEETS STA. TO STA.

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| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 08-00270-00-TL | KANE | 44 | 4 |
| FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | | CONTRACT NO. 63300 | |

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TRAFFIC SIGNAL MAST ARM AND SIGNAL POST

MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



NOTES:

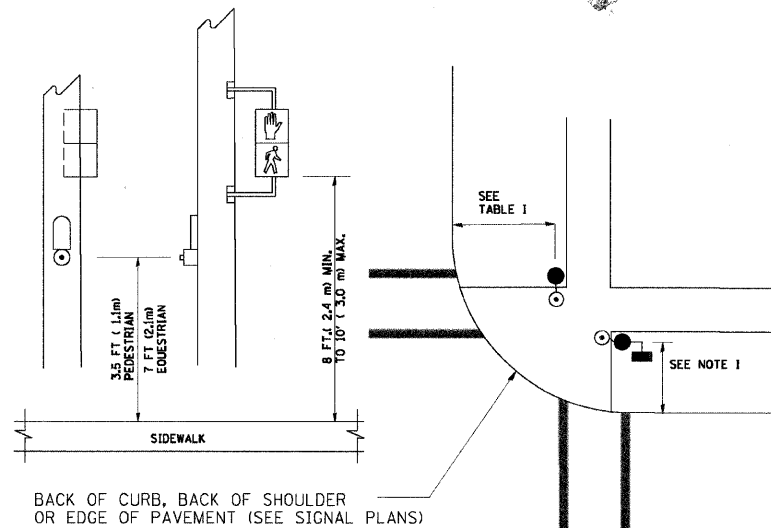
1. THE SIGNAL HEAD SPACING IS EQUAL TO THE LANE WIDTH OR AS SHOWN ON THE TRAFFIC SIGNAL PLAN.
2. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
3. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE MAST ARM SHAFT OR THE SIGNAL POST.
4. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
5. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

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| DESCRIPTION | |

NOTES:

1. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 8 FT (2.4 m) OR MORE THAN 10 FT (3 m) ABOVE SIDEWALK LEVEL, AND SHALL BE POSITIONED AND ADJUSTED TO PROVIDE MAXIMUM VISIBILITY AT THE BEGINNING OF THE CONTROLLED CROSSWALK.
2. THE BOTTOM OF THE SIGNAL HOUSING (INCLUDING BRACKETS) OF A VEHICULAR SIGNAL FACE THAT IS NOT LOCATED OVER A HIGHWAY SHALL BE AT LEAST 8 FT (2.4 m) BUT NOT MORE THAN 19 FT (5.8 m) ABOVE THE SIDEWALK OR, IF THERE IS NO SIDEWALK, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE ROADWAY.
3. THE BOTTOM OF THE SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001, 877002, 877006, 877011 AND 877012 WITH A MINIMUM OF 16 FT (5.0 m) AND A MAXIMUM OF 18 FT. (5.5 m) FROM THE HIGHEST POINT OF PAVEMENT.
4. THE BOTTOM OF THE TEMPORARY SPAN WIRE MOUNTED SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARD 880001 WITH A MINIMUM OF 17 FT (5.18 m) FROM THE HIGHEST POINT OF PAVEMENT.
5. THE TOP OF THE SIGNAL HOUSING OF A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL NOT BE MORE THAN 25.6 FT (7.8 m) ABOVE THE PAVEMENT.

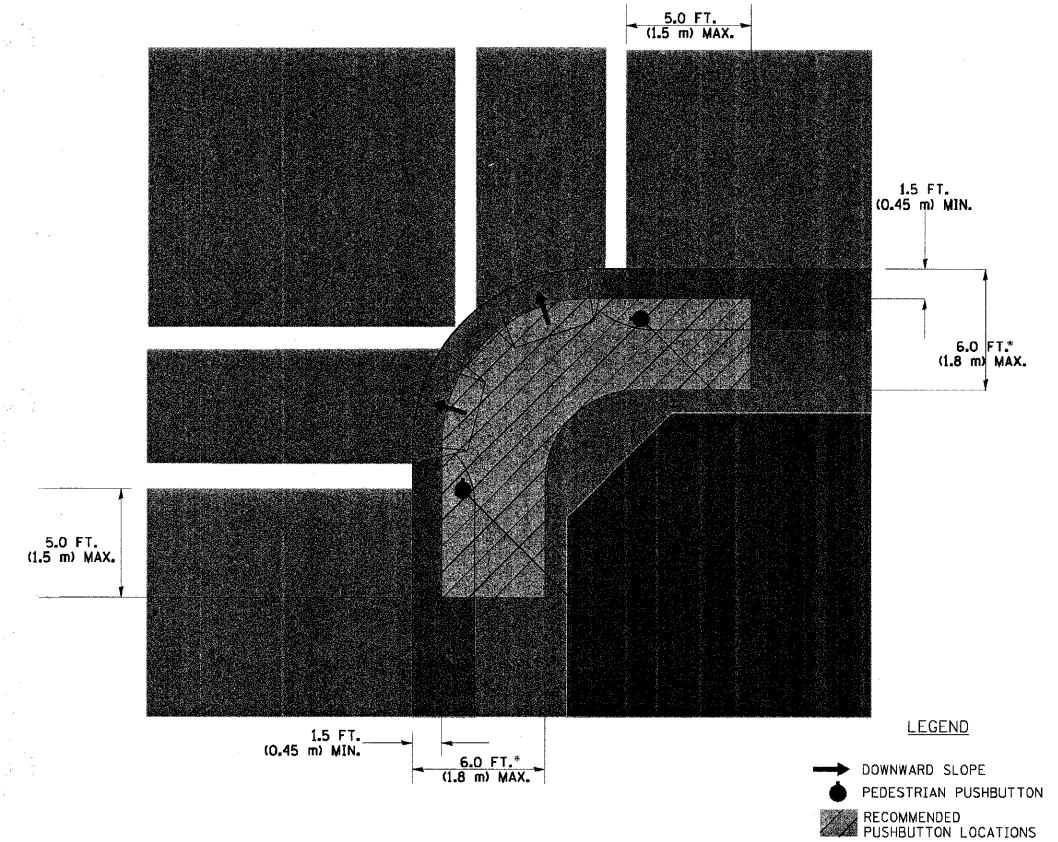
PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST



NOTES:

1. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
2. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE PEDESTRIAN SIGNAL POST OR THE PEDESTRIAN PUSH BUTTON POST.
3. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
4. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

RECOMMENDED PUSHBUTTON LOCATIONS



- WHERE THERE ARE CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON BETWEEN 1.5 FT (0.45 m) AND 6 FT (1.8 m) FROM THE EDGE OF THE CURB, SHOULDER, OR PAVEMENT, IT SHOULD NOT BE FURTHER THAN 10 FT (3 m) FROM THE EDGE OF CURB, SHOULDER, OR PAVEMENT.
- WHERE THERE ARE CONSTRAINTS ON A PARTICULAR CORNER THAT MAKE IT IMPRACTICAL TO PROVIDE THE 10 FT (3 m) SEPERATION BETWEEN THE TWO PEDESTRIAN PUSHBUTTONS, THE PUSHBUTTONS MAY BE PLACED CLOSER TOGETHER OR ON THE SAME POLE.

TRAFFIC SIGNAL EQUIPMENT OFFSET

| TRAFFIC SIGNAL EQUIPMENT | COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION) | SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION) |
|------------------------------------|---|---|
| TRAFFIC SIGNAL MAST ARM POLE | 6 FT (1.8m) | SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m) |
| TRAFFIC SIGNAL POST | 4 FT (1.2m) | SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m) |
| PEDESTRIAN SIGNAL POST | 4 FT (1.2m) | SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m) |
| PEDESTRIAN PUSHBUTTON POST | 4 FT (1.2m) | SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m) |
| TEMPORARY WOOD POLE | 6 FT (1.8m) | SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m) |
| CONTROLLER CABINET | 6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2 | SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3. |
| SERVICE INSTALLATION, GROUND MOUNT | 6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2 | SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3. |

NOTES:

1. CONTACT THE "AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS ENGINEER" FOR ASSISTANCE IN LOCATING THE TRAFFIC SIGNAL EQUIPMENT WHEN THERE ARE CONFLICTS WITH DITCHES OR THE MINIMUM OFFSET DISTANCES CANNOT BE MET.
2. MINIMUM DISTANCE FROM THE BACK OF CURB TO THE ROADWAY SIDE OF THE FOUNDATION.
3. MINIMUM DISTANCE FROM THE EDGE OF PAVEMENT TO THE ROADWAY SIDE OF THE FOUNDATION.
4. ANY CHANGES TO THE OFFSETS OF THE FOUNDATIONS, FROM THE MINIMUM DISTANCES LISTED IN THE "TRAFFIC SIGNAL EQUIPMENT OFFSET" CHART AND THE TRAFFIC SIGNAL INSTALLATION PLAN, COULD EFFECT THE PLACEMENT OF THE SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS AND THE PEDESTRIAN PUSHBUTTONS. THE SIGNAL HEAD PLACEMENT ON THE MAST ARMS SHALL REMAIN AS PER THE TRAFFIC SIGNAL INSTALLATION PLAN AND THE "TRAFFIC SIGNAL MAST ARM AND SIGNAL POST" DETAIL ABOVE. THE PROPOSED MAST ARM LENGTHS MAY NEED TO BE REVISED TO MEET THE ABOVE REQUIREMENTS. THE PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS MUST MEET THE REQUIREMENTS UNDER THE DETAILS ON THIS SHEET.

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STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

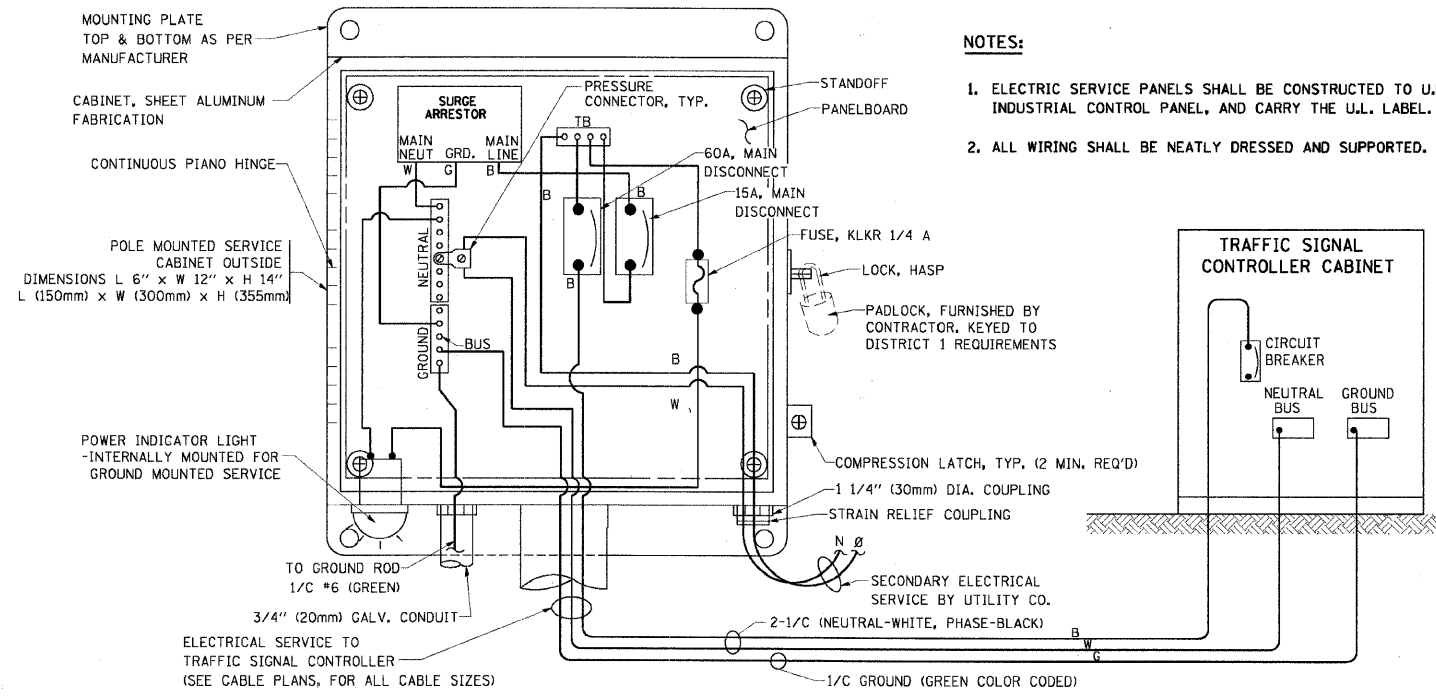
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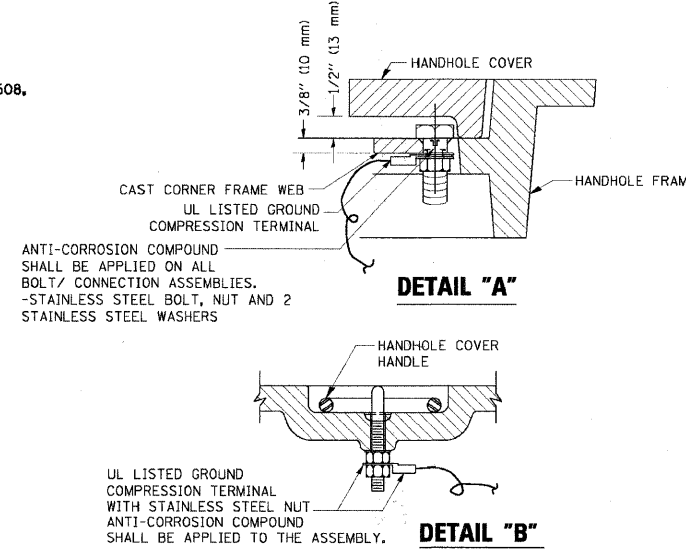
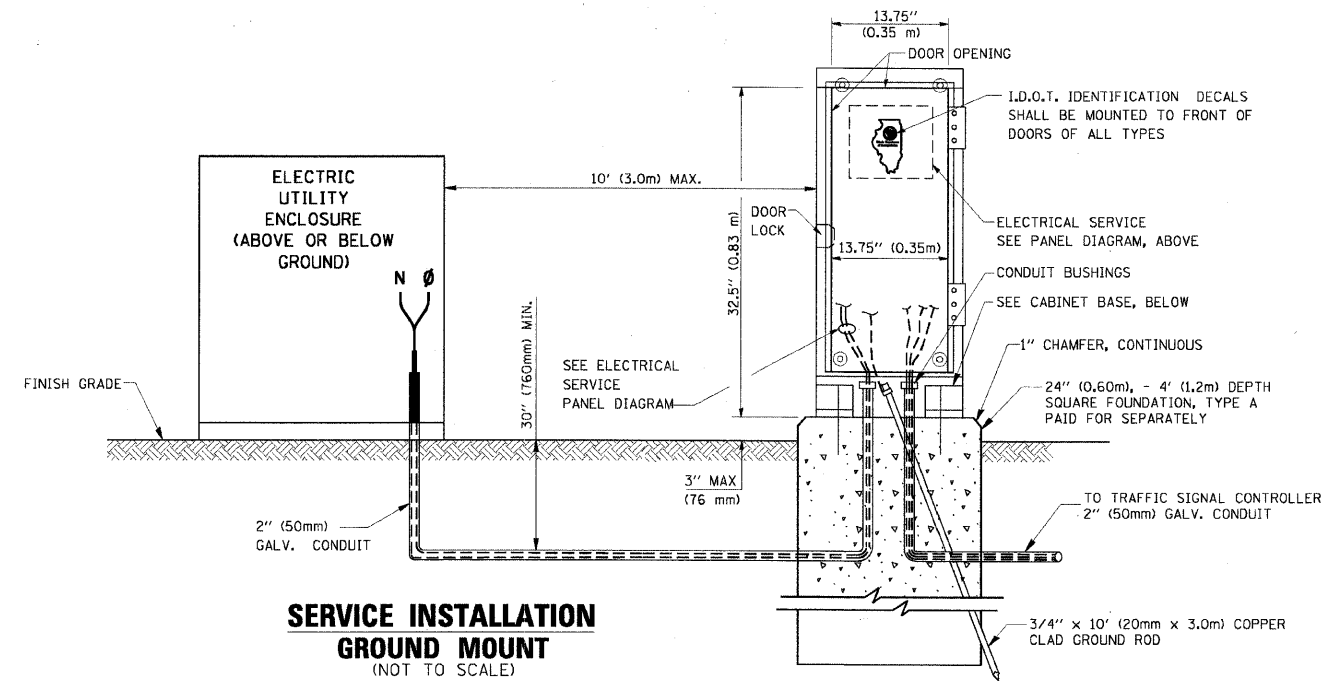
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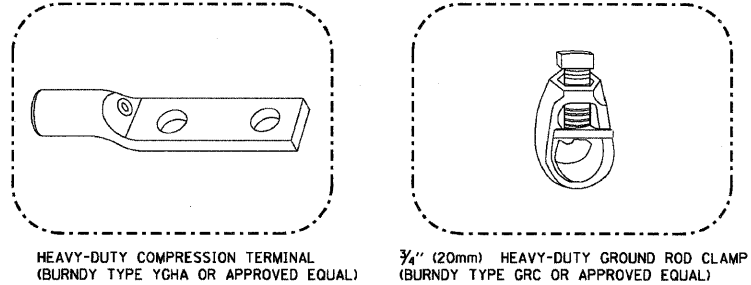
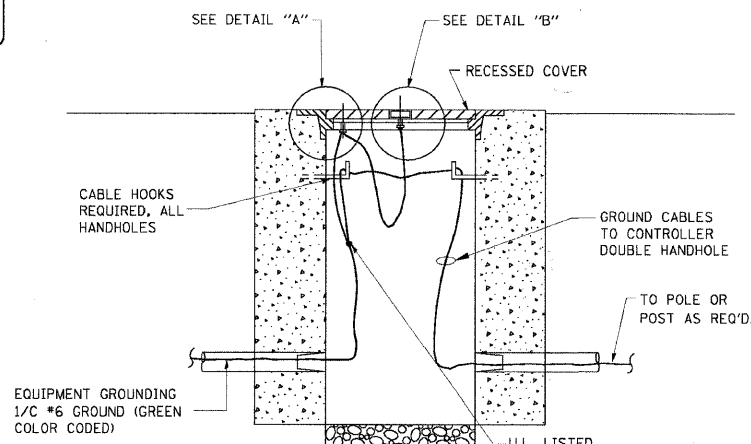
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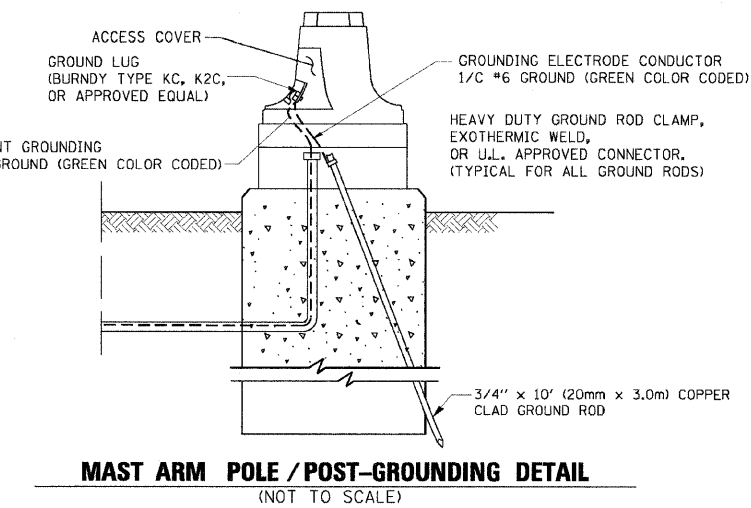
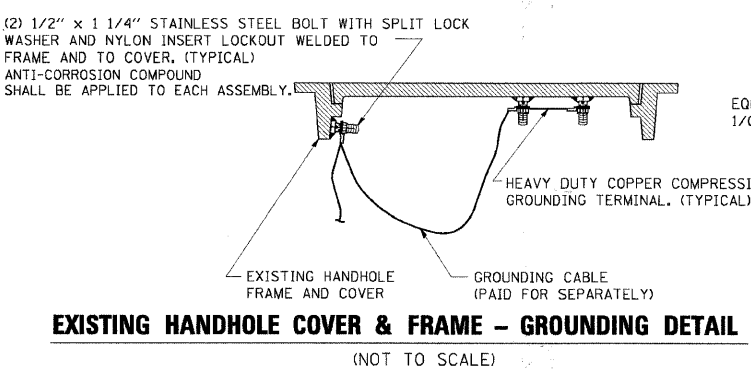
ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)
SERVICE INSTALLATION POLE MOUNT (SHOWN)
 (NOT TO SCALE)



- NOTES:**
- GROUNDING SYSTEM**
- THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, POST, MAST ARM, CONTROLLER, ETC.). GROUND ROD SHALL BE 3/4" DIA. x 10'-0" (20mm x 3.0m) LONG, COPPER CLAD. ONE GROUND ROD SHALL BE INSTALLED AT ALL POST FOUNDATIONS, POLE FOUNDATIONS, CONTROLLER CABINET FOUNDATION AND ELECTRICAL SERVICE INSTALLATION AS INDICATED ON THE CABLE PLAN. IF THERE ARE ANY SPECIAL CONDITIONS SUCH AS SUB-SURFACE CONDITIONS OR INSTALLATION PROBLEMS, THE RESIDENT ENGINEER SHALL BE NOTIFIED OR CONTACT THE BUREAU OF TRAFFIC, ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE AT (847) 705-4139.
 - THE NEUTRAL CONDUCTOR AND THE GROUND CONDUCTOR SHALL BE CONNECTED IN THE SERVICE INSTALLATION. AT NO OTHER POINT IN THE TRAFFIC SIGNAL SYSTEM SHALL THE NEUTRAL AND GROUND CONDUCTORS BE CONNECTED.
 - ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
 - THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.

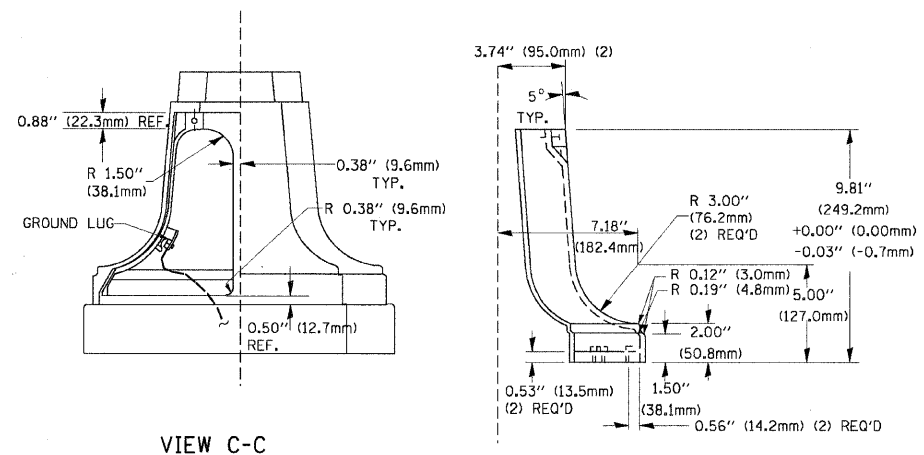
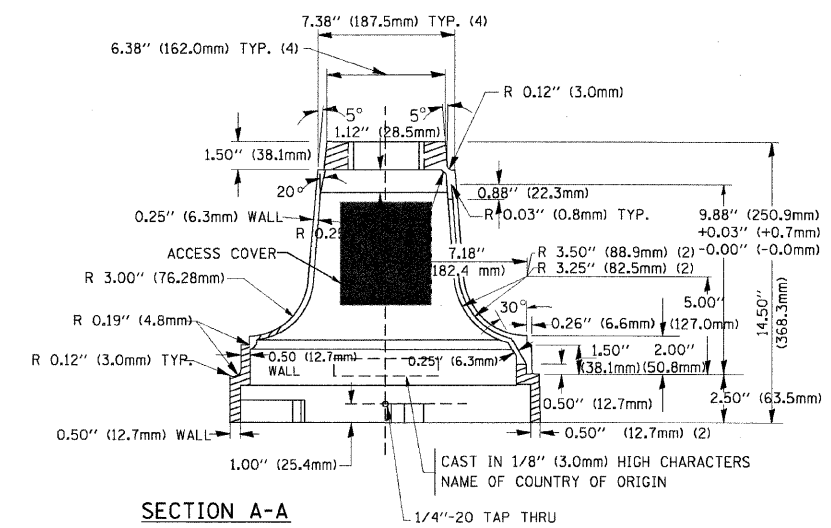
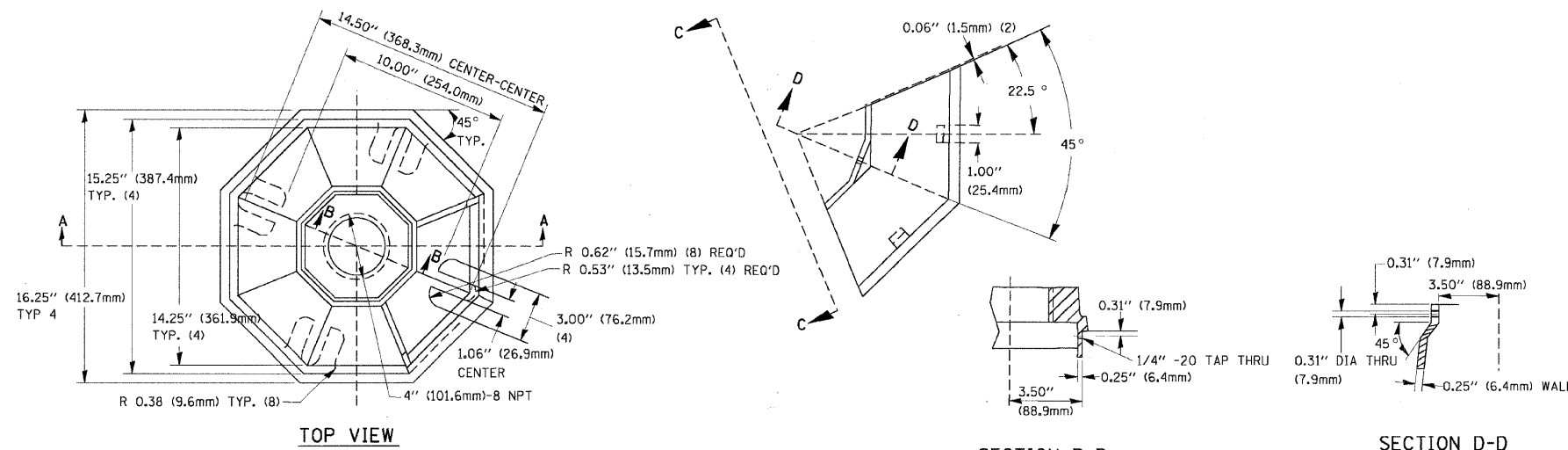


- NOTES:**
- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
 - GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.

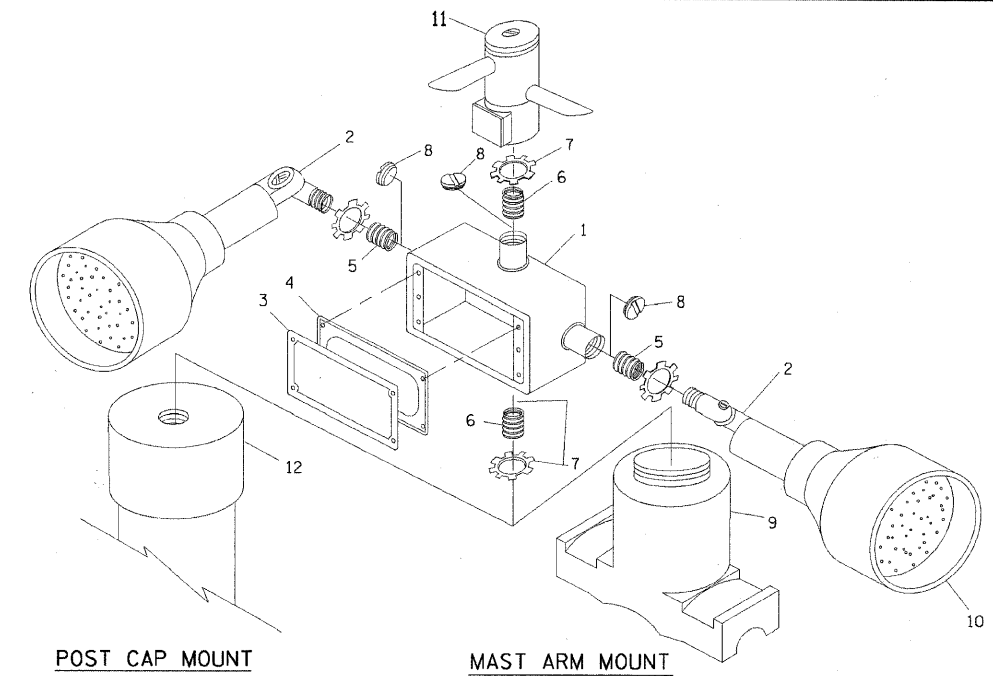


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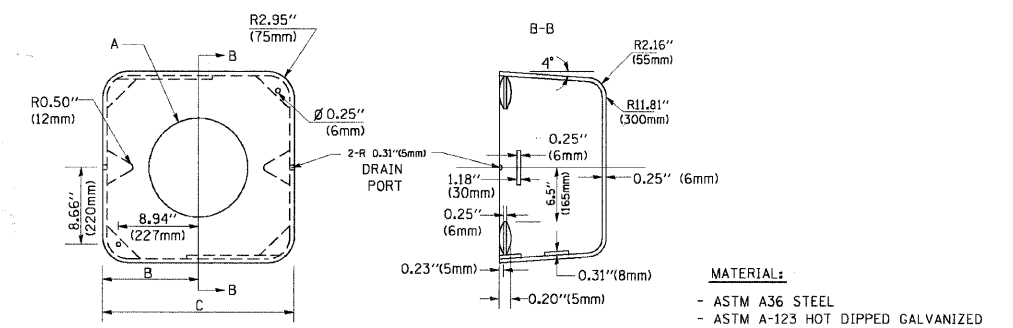


TRAFFIC SIGNAL POST - MOUNTING BASE - TYPE A



| ITEM NO. | IDENTIFICATION |
|----------|---|
| 1 | OUTLET BOX- GALV. 21 CU.IN. (0.000344 CU-M) |
| 2 | LAMP HOLDER AND COVER |
| 3 | OUTLET BOX COVER |
| 4 | RUBBER COVER GASKET |
| 5 | REDUCING BUSHING |
| 6 | 3/4" (19 mm) CLOSE NIPPLE |
| 7 | 3/4" (19 mm) LOCKNUT |
| 8 | 3/4" (19 mm) HOLE PLUG |
| 9 | SADDLE BRACKET - GALV. |
| 10 | 6 WATT PAR 38 LED FLOOD LAMP |
| 11 | DETECTOR UNIT |
| 12 | POST CAP [18 FT. (5.4 m) POST MIN.] |

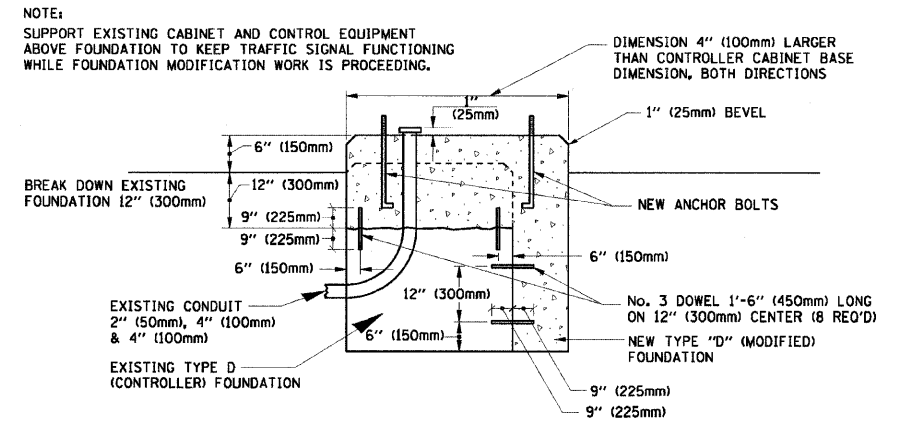
- NOTES:
- ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
 - ITEM #1- OZ/GEDNEY FSX-1-50 OR EQUIVALENT
ITEM #2- MULBERRY CON-O-SHADE LAMP SHIELD OR EQUIVALENT
ITEM #9- "BAND-IT" SADDLE BRACKET OR EQUIVALENT
 - WHEN POST MOUNTING IS SPECIFIED, ITEM #9 SHALL NOT BE REQUIRED. THE DETECTION UNIT SHALL BE MOUNTED DIRECTLY ON TOP OF THE CAP BY DRILLING AND TAPPING A 3/4" (19 mm) HOLE WITH PIPE THREADS. THE POST CAP SHALL EITHER BE SCREWED TO THE TOP OF THE POST OR A MINIMUM OF 3 TIGHTENING SCREWS SHALL BE REQUIRED ON EACH CAP.



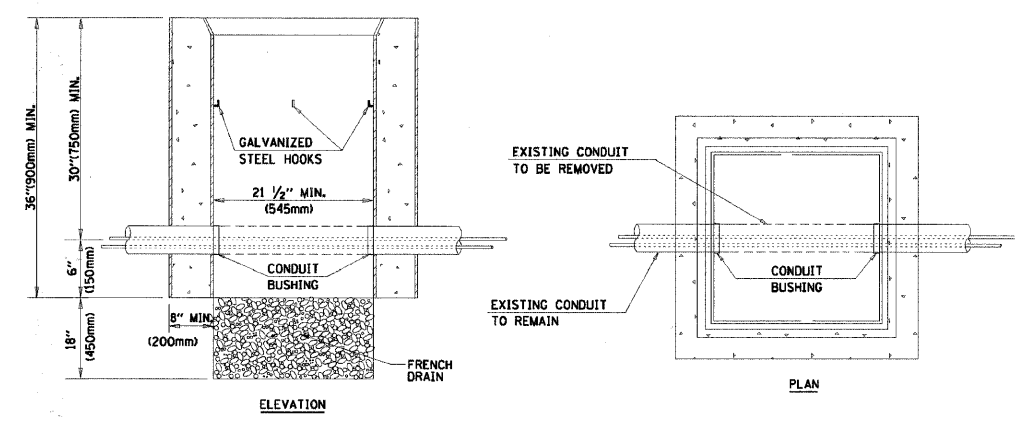
| A | B | C | HEIGHT | WEIGHT |
|-----------|----------------|---------------|--------------------------|-----------------|
| VARIABLES | 9.5" (241mm) | 19" (483mm) | 7" (178mm) - 12" (300mm) | 53 lbs (24kg) |
| VARIABLES | 10.75" (273mm) | 21.5" (546mm) | 7" (178mm) - 12" (300mm) | 68 lbs (31 kg) |
| VARIABLES | 13.0" (330mm) | 26" (660mm) | 7" (178mm) - 12" (300mm) | 81 lbs (37 kg) |
| VARIABLES | 18.5" (470mm) | 37" (940mm) | 7" (178mm) - 12" (300mm) | 126 lbs (57 kg) |

SHROUD

- NOTES:
- DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
 - THE SUPPLIER SHALL VERIFY THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
 - THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.



MODIFY EXISTING TYPE "D" FOUNDATION

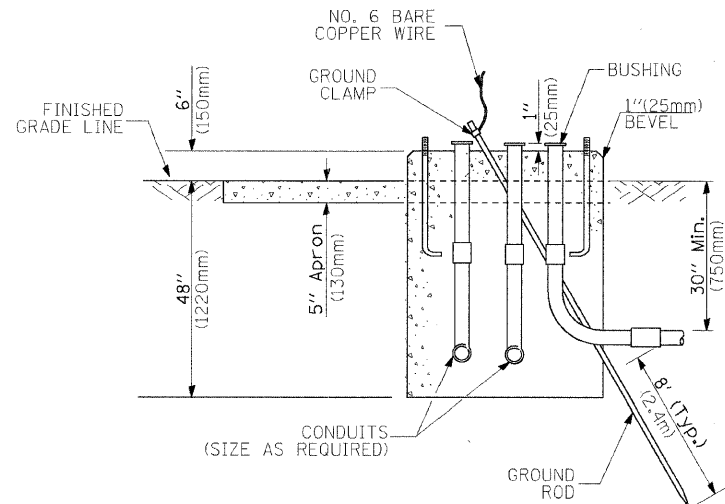
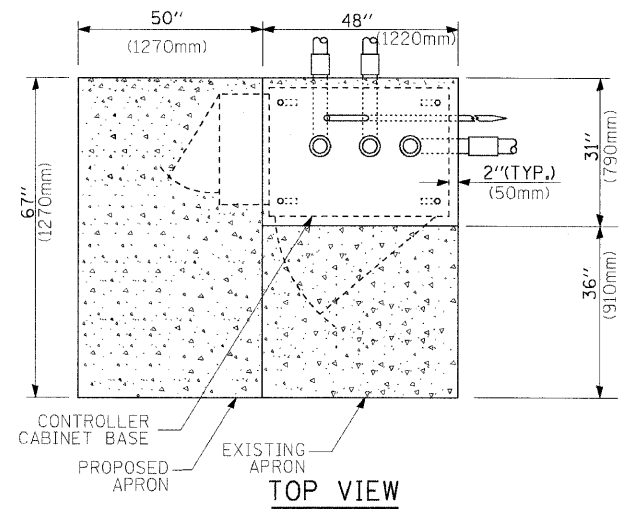


- NOTES:
- HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
 - REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCIDENTAL TO THE HANDHOLE.

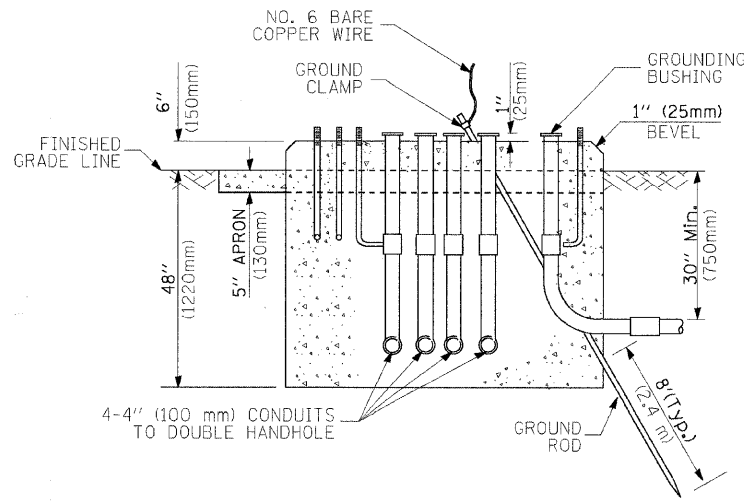
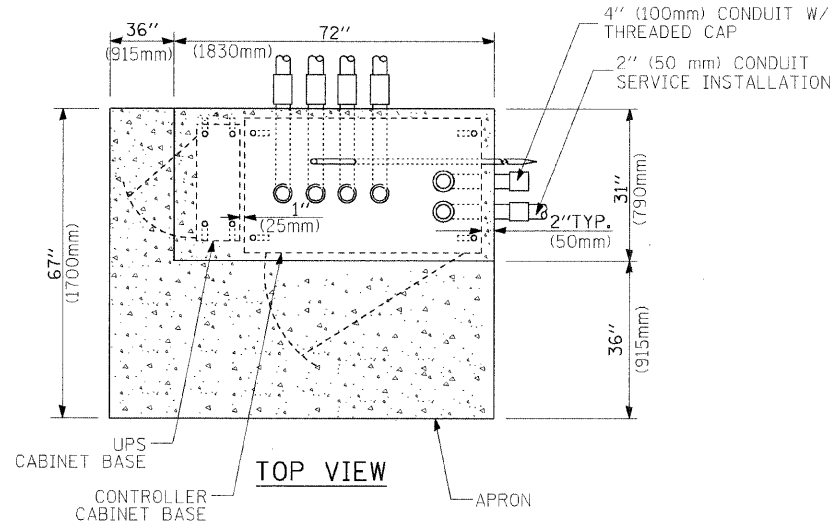
HANDHOLE TO INTERCEPT EXISTING CONDUIT

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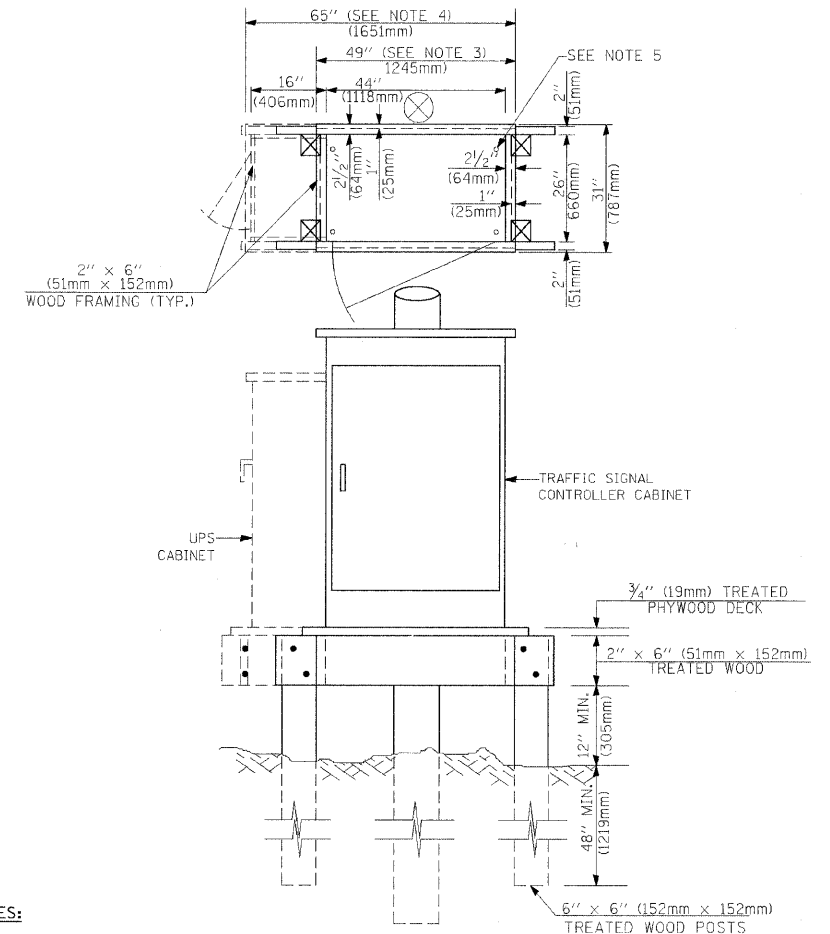
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**TYPE D
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET**



**TYPE C
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET**



NOTES:

1. BASED ON CONTROLLER CABINET TYPE IV WITH BASE DIMENSIONS OF 26" x 44" (660mm x 1118mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
2. BASED ON UNINTERRUPTIBLE POWER SUPPLY CABINET WITH BASE DIMENSIONS OF 16" x 25" (406mm x 635mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
3. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV.
4. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV AND UNINTERRUPTIBLE POWER SUPPLY CABINET.
5. DRILLED HOLES THROUGH THE PLATFORM BASE TO MATCH THE CONTROLLER CABINET BOLT TEMPLATE. FASTEN THE CONTROLLER CABINET TO THE PLATFORM WITH CARRIAGE BOLTS, WASHERS AND NUTS.
6. FASTEN ALL SUPPORT WOOD FRAMING TO THE WOOD POSTS WITH 2 LAG SCREWS FOR EACH CONNECTION.

**TEMPORARY SIGNAL CONTROLLER
WOOD SUPPORT PLATFORM**

| CABLE SLACK LENGTH | FEET | METER |
|---|------|-------|
| HANDHOLE | 6.5 | 2.0 |
| DOUBLE HANDHOLE | 13.0 | 4.0 |
| SIGNAL POST | 2.0 | 0.6 |
| MAST ARM | 2.0 | 0.6 |
| CONTROLLER CABINET | 1.5 | 0.5 |
| FIBER OPTIC AT CABINET | 13.0 | 4.0 |
| ELECTRIC SERVICE AT (CABINET OR SERVICE LOCATION) | 1.5 | 0.5 |
| GROUND CABLE (SIGNAL POST, MAST ARM, CABINET) | 1.5 | 0.5 |
| GROUND CABLE (BETWEEN FRAME AND COVER) | 5.0 | 1.6 |

CABLE SLACK

| VERTICAL CABLE LENGTH | FEET | METER |
|---|--------|-------|
| MAST ARM POLE (MAST ARM MOUNTED SIGNAL HEAD) (L = MAST ARM LENGTH - DISTANCE TO SIGNAL HEAD FROM END OF ARM) | 20.0+L | 6.0+L |
| BRACKET MOUNTED (MAST ARM POLE OR SIGNAL POLE) | 13.0 | 4.0 |
| PEDESTRIAN PUSH BUTTON | 6.0 | 2.0 |
| SERVICE INSTALLATION POLE MOUNT TO SERVICE DROP | 13.5 | 4.1 |
| SERVICE INSTALLATION POLE MOUNT TO GROUND | 13.5 | 4.1 |
| SERVICE INSTALLATION GROUND MOUNT | 6.0 | 2.0 |
| FOUNDATION (SIGNAL POST, MAST ARM POLE, CONTROLLER CABINET, SERVICE-GROUND MOUNT) | 3.0 | 1.0 |

VERTICAL CABLE LENGTH

| FOUNDATION | DEPTH |
|---|--------------|
| TYPE A - Signal Post | 4'-0" (1.2m) |
| TYPE C - CONTROLLER W/ UPS | 4'-0" (1.2m) |
| TYPE D - CONTROLLER | 4'-0" (1.2m) |
| SERVICE INSTALLATION, GROUND MOUNT, TYPE A - SQUARE | 4'-0" (1.2m) |

DEPTH OF FOUNDATION

| Mast Arm Length | ① Foundation Depth | Foundation Diameter | Spiral Diameter | Quantity of Rebars | Size of Rebars |
|--|--------------------|---------------------|-----------------|--------------------|----------------|
| Less than 30' (9.1 m) | 10'-0" (3.0 m) | 30" (750mm) | 24" (600mm) | 8 | 6(19) |
| Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m) | 13'-6" (4.1 m) | 30" (750mm) | 24" (600mm) | 8 | 6(19) |
| Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m) | 11'-0" (3.4 m) | 36" (900mm) | 30" (750mm) | 12 | 7(22) |
| Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m) | 13'-0" (4.0 m) | 36" (900mm) | 30" (750mm) | 12 | 7(22) |
| Greater than or equal to 55' (16.8 m) and less than 65' (19.8 m) | 15'-0" (4.6 m) | 36" (900mm) | 30" (750mm) | 12 | 7(22) |
| Greater than or equal to 65' (19.8 m) and less than 75' (22.9 m) | 21'-0" (6.4 m) | 42" (1060mm) | 36" (900mm) | 16 | 8(25) |
| Greater than or equal to 75' (22.9 m) | 25'-0" (7.6 m) | 42" (1060mm) | 36" (900mm) | 16 | 8(25) |

NOTES:

1. These foundation depths are for sites which have cohesive soils (clayey silt, sandy clay, etc.) along the length of the shaft, with an average Unconfined Compressive Strength (Qu) > 1.0 tsf (100 kpa). This strength shall be verified by boring data prior to construction or with testing by the Engineer during foundation drilling. The Bureau of Bridges & Structures should be contacted for a revised design if other conditions are encountered.
2. Combination mast arm assemblies under 55 feet (16.8 m) shall use 36" (900 mm) diameter foundations.
3. Combination mast arm assemblies under 56 feet (16.8 m) through 75 feet (22.9 m) shall use 42" (1060 mm) diameter foundations.
4. For mast arm assemblies with dual arms refer to state standard 878001.

DEPTH OF MAST ARM FOUNDATIONS, TYPE E

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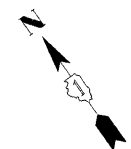
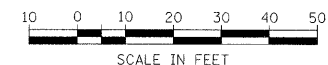
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE
STANDARD TRAFFIC SIGNALS
DESIGN DETAILS**

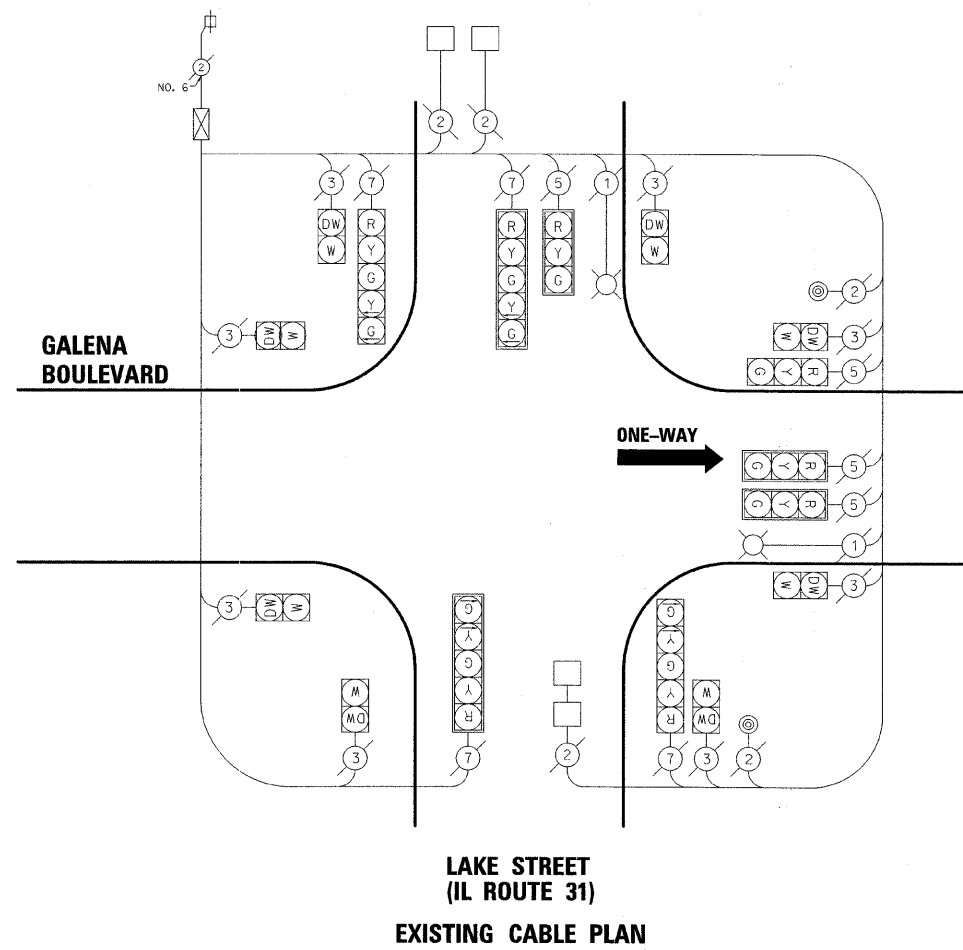
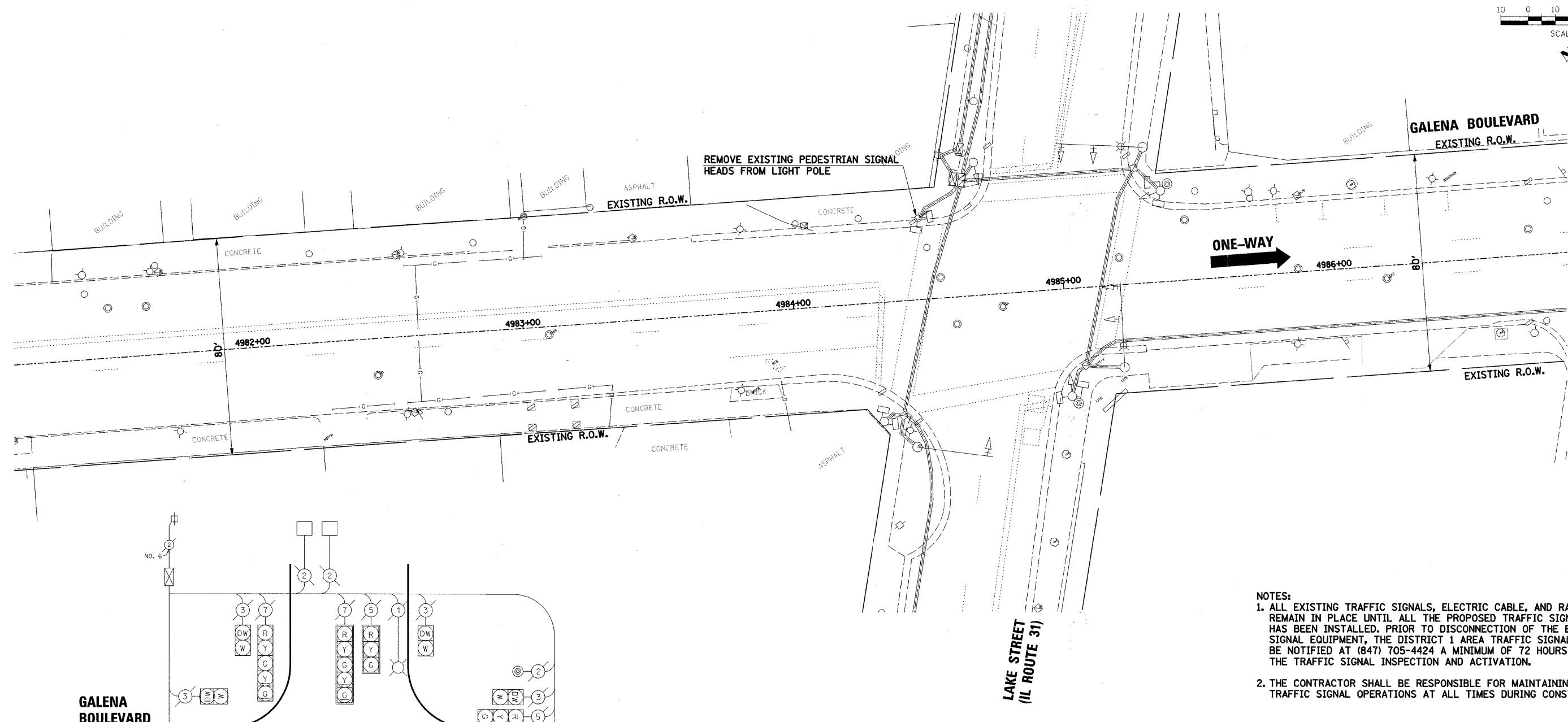
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| BY | |
| REVISIONS | |
| NO. | |
| DESCRIPTION | |



- NOTES:**
- ALL EXISTING TRAFFIC SIGNALS, ELECTRIC CABLE, AND RACEWAYS SHALL REMAIN IN PLACE UNTIL ALL THE PROPOSED TRAFFIC SIGNAL EQUIPMENT HAS BEEN INSTALLED. PRIOR TO DISCONNECTION OF THE EXISTING TRAFFIC SIGNAL EQUIPMENT, THE DISTRICT 1 AREA TRAFFIC SIGNAL ENGINEER SHALL BE NOTIFIED AT (847) 705-4424 A MINIMUM OF 72 HOURS IN ADVANCE OF THE TRAFFIC SIGNAL INSPECTION AND ACTIVATION.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EXISTING TRAFFIC SIGNAL OPERATIONS AT ALL TIMES DURING CONSTRUCTION.

EXISTING EQUIPMENT TO BE REMOVED LEGEND

- EXISTING SIGNAL HEAD TO BE REMOVED
- EXISTING SERVICE INSTALLATION TO BE REMOVED
- EXISTING SIGNAL POST AND FOUNDATION TO BE REMOVED
- EXISTING ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED
- EXISTING CONTROLLER AND FOUNDATION TO BE REMOVED
- EXISTING HANDHOLE TO BE REMOVED
- EXISTING PEDESTRIAN SIGNAL HEAD TO BE REMOVED
- EXISTING PEDESTRIAN PUSHBUTTON TO BE REMOVED
- EMERGENCY VEHICLE LIGHT DETECTOR TO BE REMOVED
- CONFIRMATION BEACON TO BE REMOVED
- EXISTING HEAVY-DUTY HANDHOLE TO BE REMOVED
- EXISTING STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED

THE EXISTING CONDUITS AND VEHICLE DETECTORS (WHERE APPLICABLE) SHALL BE ABANDONED.

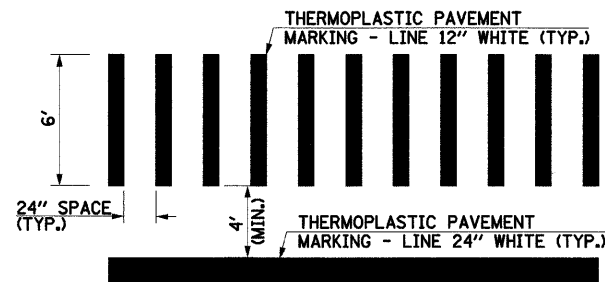
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY HIM OUTSIDE THE RIGHT-OF-WAY AT HIS EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE. THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT (SEE SCHEDULE OF QUANTITIES FOR REMOVAL ITEMS TO BE PAID FOR SEPERATELY).

- 1 EACH STEEL MAST ARM ASSEMBLY AND POLE
- 2 EACH STEEL COMBINATION MAST ARM ASSEMBLY AND POLE
- 4 EACH TRAFFIC SIGNAL POSTS
- 8 EACH TRAFFIC SIGNAL HEADS
- 5 EACH TRAFFIC SIGNAL BACKPLATES
- 8 EACH PEDESTRIAN SIGNAL HEADS
- 2 EACH PEDESTRIAN PUSH BUTTONS
- 1 EACH SERVICE INSTALLATION

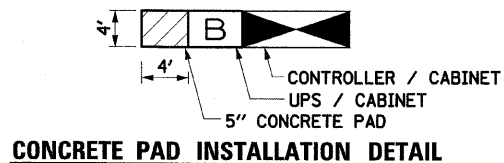
THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE CITY OF AURORA AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE MAINTENANCE FACILITY DESIGNATED BY THE CITY. THIS WORK SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT.

- 1 EACH TRAFFIC SIGNAL CONTROLLER AND CABINET (COMPLETE)
- 2 EACH LUMINAIRE

| | | | | | | | | | | | |
|---|--------------------|--------------------------------|------------------------|---|--|---|---------|--------------------------|--------------|-----------|--|
| FILE NAME = ...\\fin_dwg\698.5.ssg@la.lake.dgn | USER NAME = .USERL | DESIGNED - DRAWN <i>BAH</i> | REVISED - REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | EXISTING TRAFFIC SIGNAL EQUIPMENT TO BE REMOVED LAKE STREET (IL ROUTE 31) | F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | |
| PLOT SCALE = #SCALE# | CHECKED <i>APS</i> | REVISED - REVISED - | 08-00270-00-TL | | | KANE | 44 | 9 | | | |
| PLOT DATE = 12/17/2009 | DATE - | REVISED - REVISED - | CONTRACT NO. 63300 | | | | | | | | |
| | | | | | | SCALE: | | SHEET NO. OF SHEETS STA. | | TO STA. | |
| | | | | | | FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT | | | | | |

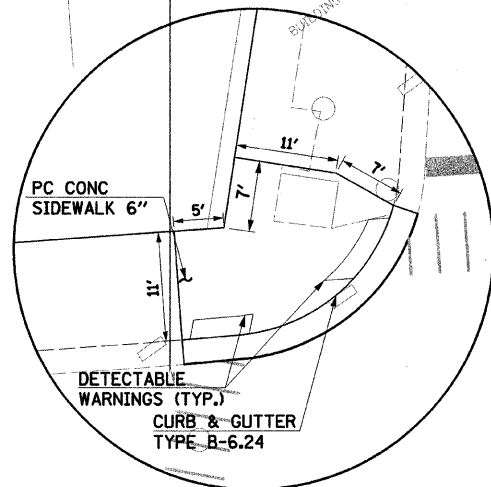
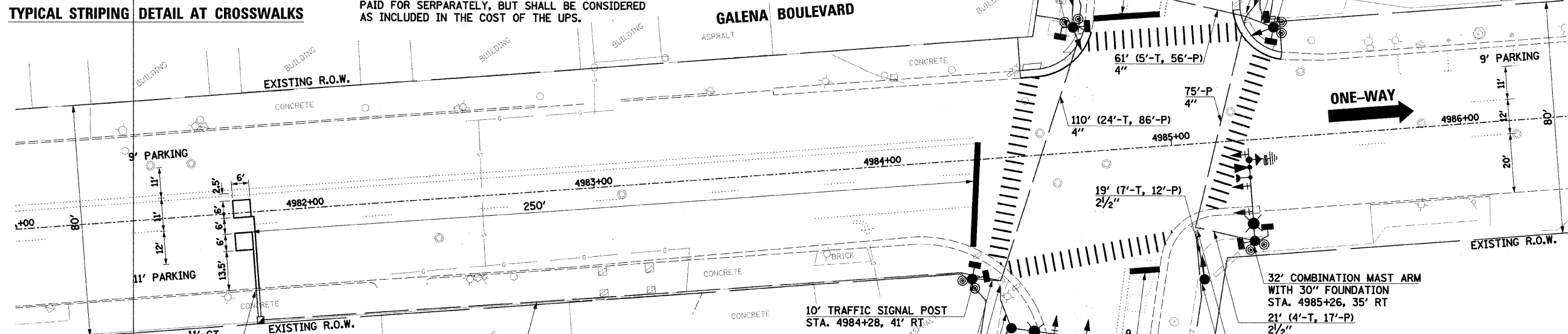
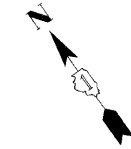
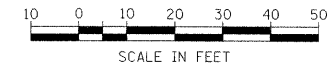


TYPICAL STRIPING DETAIL AT CROSSWALKS

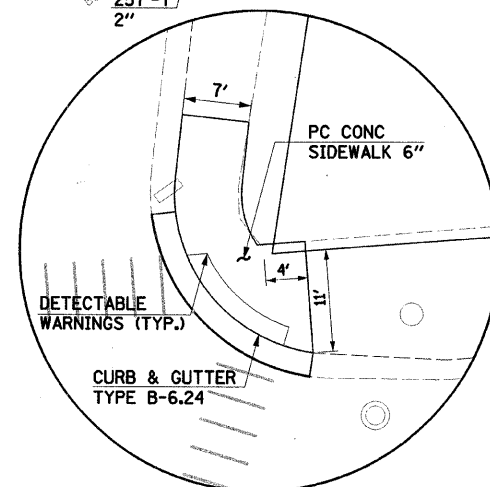


CONCRETE PAD INSTALLATION DETAIL

NOTE: THE CONTRACTOR SHALL INSTALL A 5" CONCRETE MAINTENANCE PAD ADJACENT TO THE PROPOSED TYPE C FOUNDATION. THE COST OF THE PAD WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS INCLUDED IN THE COST OF THE UPS.



NW CORNER DETAIL



NE CORNER DETAIL

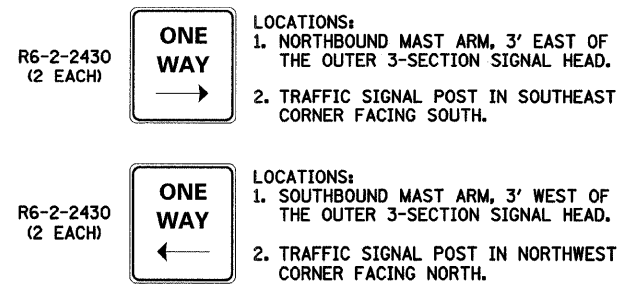
NOTE: SIDEWALK CURB & GUTTER REMOVAL SHALL BE PROVIDED AS NECESSARY.

NOTES:
 1. THE WIRELESS ANTENNA SHALL BE MOUNTED ON THE EASTBOUND MAST ARM, 3' SOUTH OF THE OUTER 3-SECTION SIGNAL HEAD OR AS DIRECTED BY THE ENGINEER (SEE MOUNTING DETAIL).
 2. A MINIMUM OF ONE EAST-WEST AND ONE NORTH-SOUTH CROSSWALK SHALL REMAIN OPEN AT ALL TIMES IN ORDER TO MAINTAIN PEDESTRIAN ACCESS.

TRAFFIC SIGNAL LEGEND

| | PROPOSED | EXISTING | | PROPOSED | EXISTING |
|--|----------|----------|--|----------|----------|
| CONTROLLER | | | DETECTOR LOOP | | |
| SERVICE INSTALLATION | | | CAST IRON JUNCTION BOX | | |
| SIGNAL HEAD | | | EMERGENCY VEHICLE LIGHT DETECTOR | | |
| SIGNAL HEAD WITH BACKPLATE | | | CONFIRMATION BEACON | | |
| SIGNAL HEAD, PEDESTRIAN | | | SIGNAL HEAD OPTICALLY PROGRAMMED | | |
| SIGNAL POST | | | CONDUIT SPLICE | | |
| MAST ARM ASSEMBLY AND POLE, STEEL | | | WOOD POLE | | |
| MAST ARM ASSEMBLY AND POLE, ALUMINUM | | | RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II | | |
| COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE | | | VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE | | |
| UNIT DUCT | UD | | RAILROAD CONTROL CABINET | | |
| COMMON TRENCH | CT | | TELEPHONE CONNECTION | | |
| HANDHOLE | | | ILLUMINATED SIGN "NO LEFT TURN" | | |
| HEAVY DUTY HANDHOLE | | | ILLUMINATED SIGN "NO RIGHT TURN" | | |
| DOUBLE HANDHOLE | | | UNINTERRUPTIBLE POWER SUPPLY | | |
| G.S. CONDUIT IN TRENCH (T) OR PUSHED (P) | | | VIDEO DETECTION CAMERA | | |
| PEDESTRIAN PUSHBUTTON DETECTOR | | | VIDEO DETECTION AREA | | |
| PAN/TILT/ZOOM CAMERA | | | WIRELESS ANTENNA | | |

PROPOSED TRAFFIC SIGNS



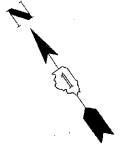
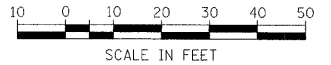
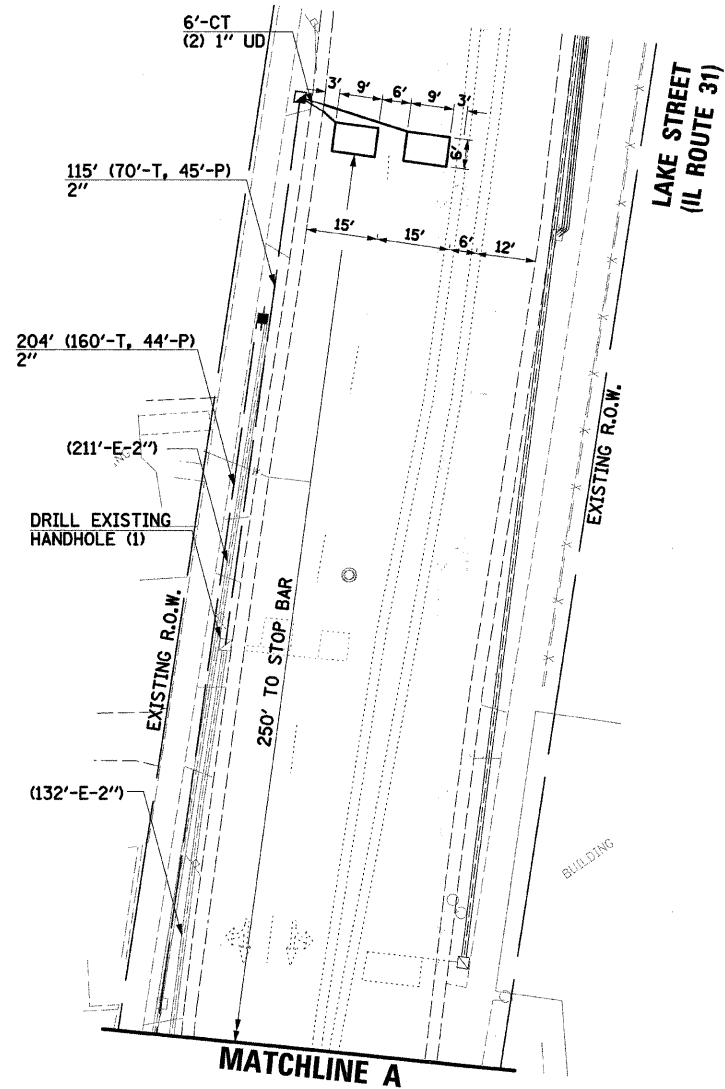
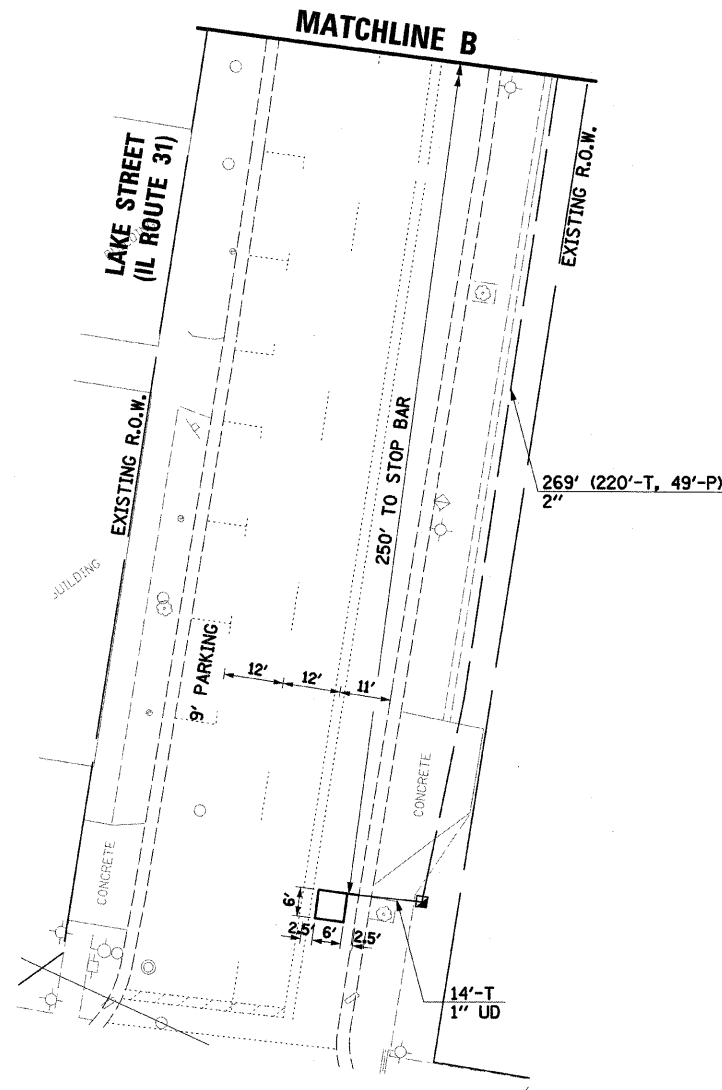
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE OPTICOM AS REQUIRED BY THE CITY OF AURORA.

RESTORATION OF WORK AREA:
 RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

| | | |
|-----------|-----------|---------|
| PLAN | REVISIONS | DATE |
| NO. | BY | |
| NOTE BOOK | ALIGNED | CHECKED |
| | FILE NAME | |

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| PROFILE | REVISIONS | DATE |
| NO. | BY | |
| NOTE BOOK | GRADES CHECKED | |
| | STRUCTURE NOTATIONS CHECKED | |



RESTORATION OF WORK AREA:
 RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

TRAFFIC SIGNAL LEGEND

| | PROPOSED | EXISTING | | PROPOSED | EXISTING |
|--|----------|----------|--|----------|----------|
| CONTROLLER | | | DETECTOR LOOP | | |
| SERVICE INSTALLATION | | | CAST IRON JUNCTION BOX | | |
| SIGNAL HEAD | | | EMERGENCY VEHICLE LIGHT DETECTOR | | |
| SIGNAL HEAD WITH BACKPLATE | | | CONFIRMATION BEACON | | |
| SIGNAL HEAD, PEDESTRIAN | | | SIGNAL HEAD OPTICALLY PROGRAMMED | | |
| SIGNAL POST | | | CONDUIT SPLICE | | |
| MAST ARM ASSEMBLY AND POLE, STEEL | | | WOOD POLE | | |
| MAST ARM ASSEMBLY AND POLE, ALUMINUM | | | RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II | | |
| COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE | | | VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE | | |
| UNIT DUCT | UD | | RAILROAD CONTROL CABINET | | |
| COMMON TRENCH | CT | | TELEPHONE CONNECTION | | |
| HANDHOLE | | | ILLUMINATED SIGN "NO LEFT TURN" | | |
| HEAVY DUTY HANDHOLE | | | ILLUMINATED SIGN "NO RIGHT TURN" | | |
| DOUBLE HANDHOLE | | | UNINTERRUPTABLE POWER SUPPLY | | |
| G.S. CONDUIT IN TRENCH (T) OR PUSHED (P) | | | VIDEO DETECTION CAMERA | | |
| PEDESTRIAN PUSHBUTTON DETECTOR | | | VIDEO DETECTION AREA | | |
| PAN/TILT/ZOOM CAMERA | | | WIRELESS ANTENNA | | |

FILE NAME = ...\\fsm_dwg\6930_5.s1g@lb.lake2.dgn

USER NAME = .USER.
 PLOT SCALE = #SCALE#
 PLOT DATE = 12/17/2009

DESIGNED -
 DRAWN BAH
 CHECKED APS
 DATE -

REVISED -
 REVISED -
 REVISED -
 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL MODERNIZATION PLAN
 LAKE STREET (IL ROUTE 31)
 (SHEET 2 OF 2)

SCALE: SHEET NO. OF SHEETS STA. TO STA.

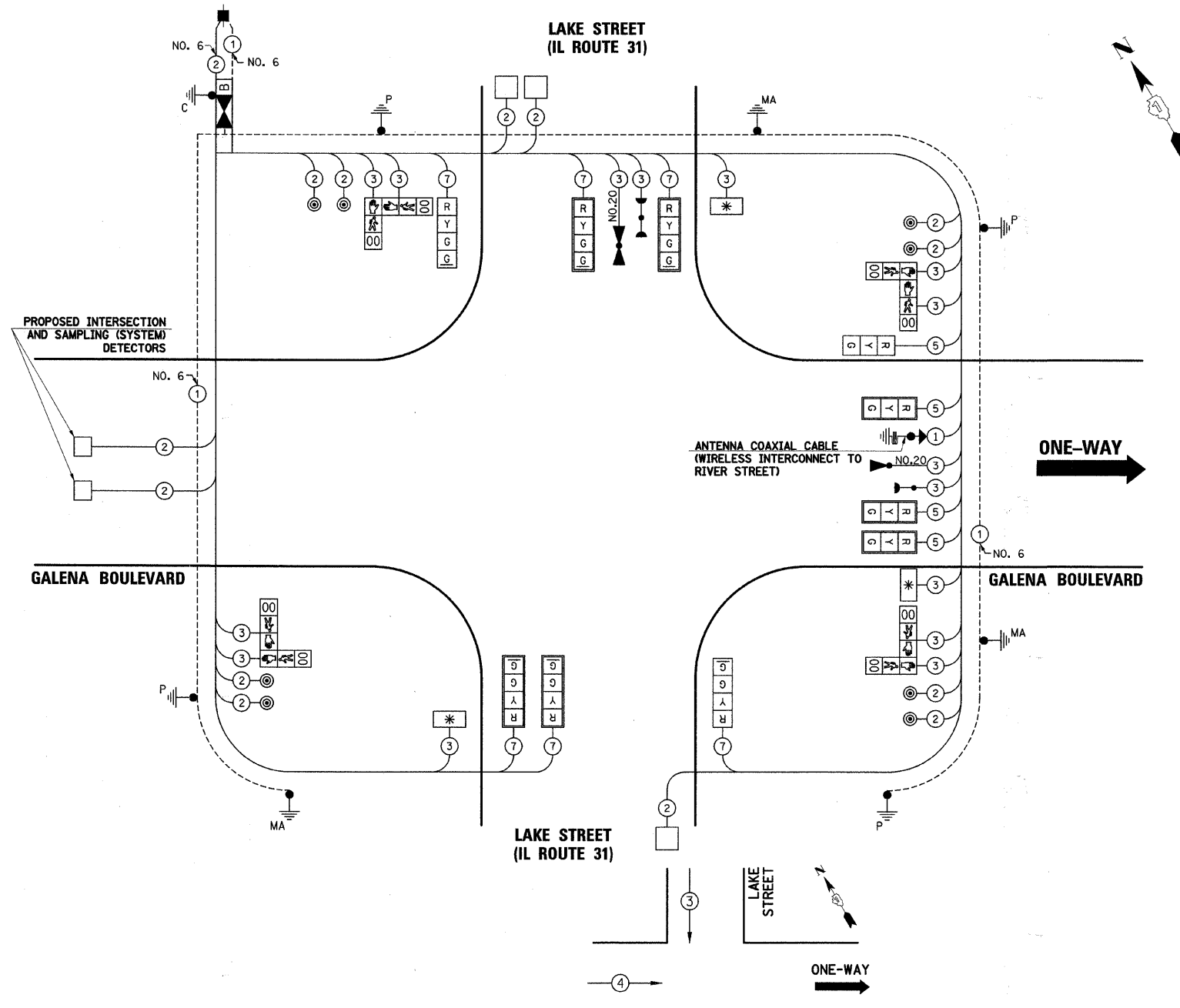
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|---|----------------|--------|--------------------|-----------|
| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 08-00270-00-TL | KANE | 44 | 11 |
| FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT | | | CONTRACT NO. 63300 | |

CABLE PLAN LEGEND

- EXISTING** **PROPOSED**
- 8" (200mm) TRAFFIC SIGNAL SECTION
 - 12" (300mm) TRAFFIC SIGNAL SECTION
 - 12" (300mm) PEDESTRIAN SIGNAL SECTION
 - 12" (300mm) PEDESTRIAN SIGNAL SECTION
 - CONTROLLER CABINET
 - SERVICE INSTALLATION
 - TELEPHONE INSTALLATION
 - VEHICLE DETECTOR, INDUCTION LOOP
 - MAGNETIC DETECTOR
 - EMERGENCY VEHICLE LIGHT DETECTOR
 - CONFIRMATION BEACON
 - PUSHBUTTON DETECTOR
 - LUMINAIRE
 - DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
 - GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
 - FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
 - SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
 - RAILROAD CONTROL CABINET
 - ILLUMINATED SIGN "NO LEFT TURN"
 - ILLUMINATED SIGN "NO RIGHT TURN"
 - WIRELESS ANTENNA
 - GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (HH), OR CONTROLLER (C)
 - GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
 - GROUND ROD AT ELECTRIC SERVICE INSTALLATION
 - UNINTERRUPTIBLE POWER SUPPLY
 - LED STREET NAME SIGN
 - VIDEO DETECTION CAMERA
 - PAN/TILT/ZOOM CAMERA

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| DATE | |
| BY | |
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| DATE | |
| BY | |
| REVISION | |
| NO. | |
| DATE | |
| BY | |
| REVISION | |
| NO. | |



SCHEDULE OF QUANTITIES

| PAY ITEM DESCRIPTION | UNIT | LAKE STREET |
|---|-------|-------------|
| PORTLAND CEMENT CONCRETE SIDEWALK 6 INCH | SQ FT | 486 |
| DETECTABLE WARNINGS | SQ FT | 55 |
| COMBINATION CURB AND GUTTER REMOVAL | FOOT | 58 |
| SIDEWALK REMOVAL | SQ FT | 439 |
| COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24 | FOOT | 58 |
| SIGN PANEL - TYPE 1 | SQ FT | 20 |
| THERMOPLASTIC PAVEMENT MARKING - LINE 12" | FOOT | 460 |
| THERMOPLASTIC PAVEMENT MARKING - LINE 24" | FOOT | 34 |
| PAVEMENT MARKING REMOVAL | SQ FT | 366 |
| CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL | FOOT | 716 |
| CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL | FOOT | 57 |
| CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL | FOOT | 39 |
| CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL | FOOT | 138 |
| CONDUIT PUSHED, 2 1/2" DIA., GALVANIZED STEEL | FOOT | 55 |
| CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL | FOOT | 217 |
| HANDHOLE | EACH | 3 |
| DOUBLE HANDHOLE | EACH | 1 |
| TRENCH AND BACKFILL FOR ELECTRICAL WORK | FOOT | 848 |
| MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION | EACH | 1 |
| FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL | EACH | 1 |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C | FOOT | 1026 |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C | FOOT | 2023.5 |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C | FOOT | 801.5 |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C | FOOT | 803.5 |
| ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR | FOOT | 1809.5 |
| ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C | FOOT | 221.5 |
| TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT. | EACH | 1 |
| TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT. | EACH | 1 |
| TRAFFIC SIGNAL POST, GALVANIZED STEEL 15 FT. | EACH | 2 |
| STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 28 FT. (SPECIAL) | EACH | 1 |
| STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 32 FT. (SPECIAL) | EACH | 1 |
| STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 34 FT. (SPECIAL) | EACH | 1 |
| CONCRETE FOUNDATION, TYPE A | FOOT | 16 |
| CONCRETE FOUNDATION, TYPE C | FOOT | 4 |
| CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER | FOOT | 37 |
| DRILL EXISTING HANDHOLE | EACH | 13 |
| SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED | EACH | 3 |
| SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED | EACH | 1 |
| SIGNAL HEAD, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED | EACH | 2 |
| SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED | EACH | 4 |
| PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER | EACH | 4 |
| TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM | EACH | 7 |
| INDUCTIVE LOOP DETECTOR | EACH | 5 |
| DETECTOR LOOP, TYPE I | FOOT | 195.6 |
| LIGHT DETECTOR | EACH | 2 |
| LIGHT DETECTOR AMPLIFIER | EACH | 1 |
| PEDESTRIAN PUSH-BUTTON | EACH | 8 |
| REMOVE ELECTRIC CABLE FROM CONDUIT | FOOT | 3373.5 |
| REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT | EACH | 1 |
| REMOVE EXISTING HANDHOLE | EACH | 1 |
| REMOVE EXISTING CONCRETE FOUNDATION | EACH | 8 |
| SERVICE INSTALLATION - POLE MOUNTED | EACH | 1 |
| PAINT TRAFFIC SIGNAL POST | EACH | 4 |
| UNINTERRUPTIBLE POWER SUPPLY | EACH | 1 |
| ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C | FOOT | 653 |
| ELECTRIC CABLE IN CONDUIT, NO. 20 3/C TWISTED SHIELDED | FOOT | 392.5 |
| L.E.D. INTERNALLY ILLUMINATED STREET NAME SIGN | EACH | 3 |
| GROUND EXISTING HANDHOLE FRAME AND COVER | EACH | 4 |

| I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS | | | | | |
|---|-----------|---------|-----|-------------|---------------|
| TYPE | NO. LAMPS | WATTAGE | | % OPERATION | TOTAL WATTAGE |
| | | INCAND. | LED | | |
| SIGNAL (RED) | 10 | | 17 | 0.50 | 85 |
| (YELLOW) | 10 | | 25 | 0.25 | 62.5 |
| (GREEN) | 10 | | 15 | 0.25 | 37.5 |
| ARROW | 6 | | 12 | 0.10 | 7.2 |
| PED. SIGNAL | 8 | | 25 | 1.00 | 200 |
| CONTROLLER | 1 | | 100 | 1.00 | 100 |
| UPS | 1 | | 25 | 1.00 | 25 |
| LED SIGN | 3 | | 60 | 0.50 | 90 |
| TOTAL = | | | | | 607.2 |

ENERGY COSTS TO: CITY OF AURORA
 44 E. DOWNER PLACE
 AURORA, ILLINOIS 60507-2067

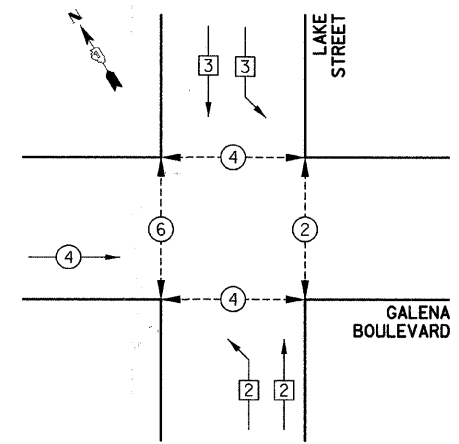
ENERGY SUPPLY CONTACT: MARK SCHERIBEL
 PHONE: (630) 723-2128
 COMPANY: COMMONWEALTH EDISON

| FOUNDATION (DEPTH) | FT. (m) | CABLE SLACK | FT. (m) | VERTICAL | FT. (m) |
|--------------------|-------------|------------------|-----------|-------------------|----------------------|
| TYPE A - POST | 4 (1.2) | HANDHOLE | 6.5 (2.0) | ALL FOUNDATIONS | 3.5 (1.0) |
| C - CONTROLLER | 4 (1.2) | DOUBLE HANDHOLE | 13 (4.0) | MAST ARM (L) POLE | 20'+L-2'=(6m+L-0.6m) |
| D - CONTROLLER | 4 (1.2) | SIGNAL POST | 2 (1.0) | | |
| E - M.A. LENGTH | | CONTROLLER CAB. | 1 (0.5) | BRACKET MOUNTED | 13 (4.0) |
| <30' | 30" (900mm) | FIBER OPTIC | 13 (4.0) | PED. PUSHBUTTON | 4 (1.2) |
| <40' | 30" (750mm) | ELECTRIC SERVICE | 1 (0.5) | ELECTRIC SERVICE | 13.5 (4.1) |
| <40' | 36" (900mm) | GROUND CABLE | 1 (0.5) | SERVICE TO GROUND | 13.5 (4.1) |
| <50' | 36" (900mm) | | | POST MOUNTED | 6 (1.8) |
| >50' | 36" (900mm) | | | | |

EMERGENCY VEHICLE PREEMPTION SEQUENCE

| PROPOSED EMERGENCY VEHICLE PREEMPTORS | | |
|---------------------------------------|---|---|
| PROPOSED EMERGENCY VEHICLE PREEMPTORS | 3 | 4 |
| MOVEMENT | ↓ | ↑ |

CONTROLLER SEQUENCE



CONTROLLER SEQUENCE LEGEND

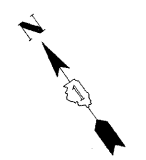
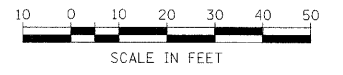
- DUAL ENTRY PHASE
- SINGLE ENTRY PHASE
- OVERLAP
- NUMBER REFERRING TO ASSOCIATED PHASE
- PEDESTRIAN PHASE

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE OPTICOM AS REQUIRED BY THE CITY OF AURORA.

PHASE DESIGNATION DIAGRAM

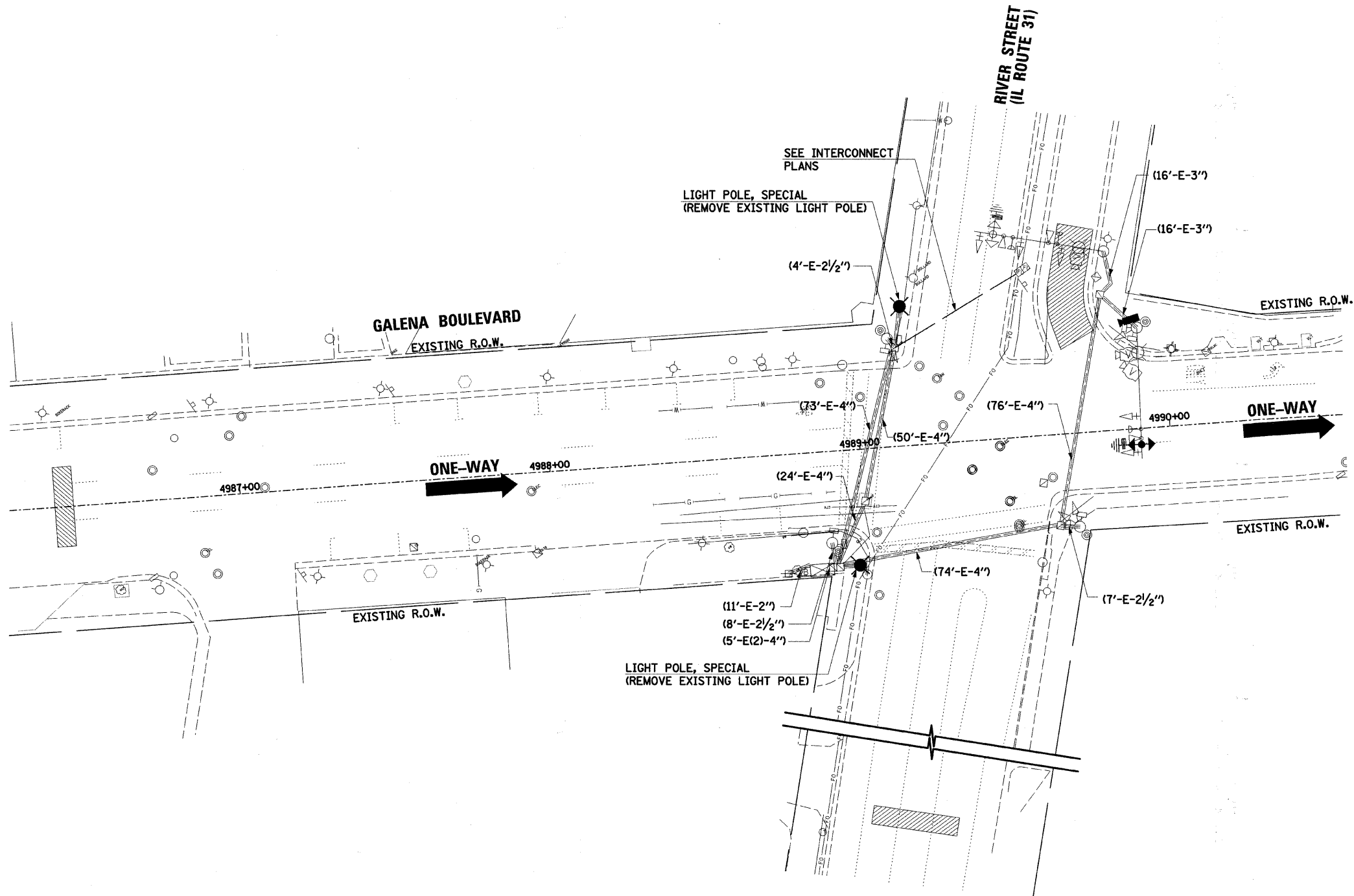
THIS LOCATION IS CURRENTLY PART OF A CITY OF AURORA RESURFACING PROJECT. THIS LOCATION IS ALSO CURRENTLY PART OF CITY OF AURORA TRAFFIC SIGNAL PROJECT. COORDINATION WITH THOSE CONTRACTS WILL BE REQUIRED.



- NOTES:
1. THE WIRELESS ANTENNA SHALL BE MOUNTED ON THE EASTBOUND MAST ARM, 3' NORTH OF THE OUTER 3-SECTION SIGNAL HEAD OR AS DIRECTED BY THE ENGINEER (SEE MOUNTING DETAIL).
 2. THE PAN/TILT/ZOOM CAMERA SHALL BE MOUNTED ON THE COMBINATION MAST ARM POLE IN THE NORTHEAST CORNER BETWEEN THE MAST AND LUMINAIRE ARMS.

TRAFFIC SIGNAL LEGEND

| | PROPOSED | EXISTING |
|--|----------|----------|
| CONTROLLER | | |
| SERVICE INSTALLATION | | |
| SIGNAL HEAD | | |
| SIGNAL HEAD WITH BACKPLATE | | |
| SIGNAL HEAD, PEDESTRIAN | | |
| SIGNAL POST | | |
| MAST ARM ASSEMBLY AND POLE, STEEL | | |
| MAST ARM ASSEMBLY AND POLE, ALUMINUM | | |
| COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE | | |
| UNIT DUCT | UD | |
| COMMON TRENCH | CT | |
| HANDHOLE | | |
| HEAVY DUTY HANDHOLE | | |
| DOUBLE HANDHOLE | | |
| G.S. CONDUIT IN TRENCH (T) OR PUSHED (P) | | |
| PEDESTRIAN PUSHBUTTON DETECTOR | | |
| PAN/TILT/ZOOM CAMERA | | |
| DETECTOR LOOP | | |
| CAST IRON JUNCTION BOX | | |
| EMERGENCY VEHICLE LIGHT DETECTOR | | |
| CONFIRMATION BEACON | | |
| SIGNAL HEAD OPTICALLY PROGRAMMED | | |
| CONDUIT SPLICE | | |
| WOOD POLE | | |
| RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II | | |
| VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE | | |
| RAILROAD CONTROL CABINET | | |
| TELEPHONE CONNECTION | | |
| ILLUMINATED SIGN "NO LEFT TURN" | | |
| ILLUMINATED SIGN "NO RIGHT TURN" | | |
| UNINTERRUPTIBLE POWER SUPPLY | | |
| VIDEO DETECTION CAMERA | | |
| VIDEO DETECTION AREA | | |
| WIRELESS ANTENNA | | |



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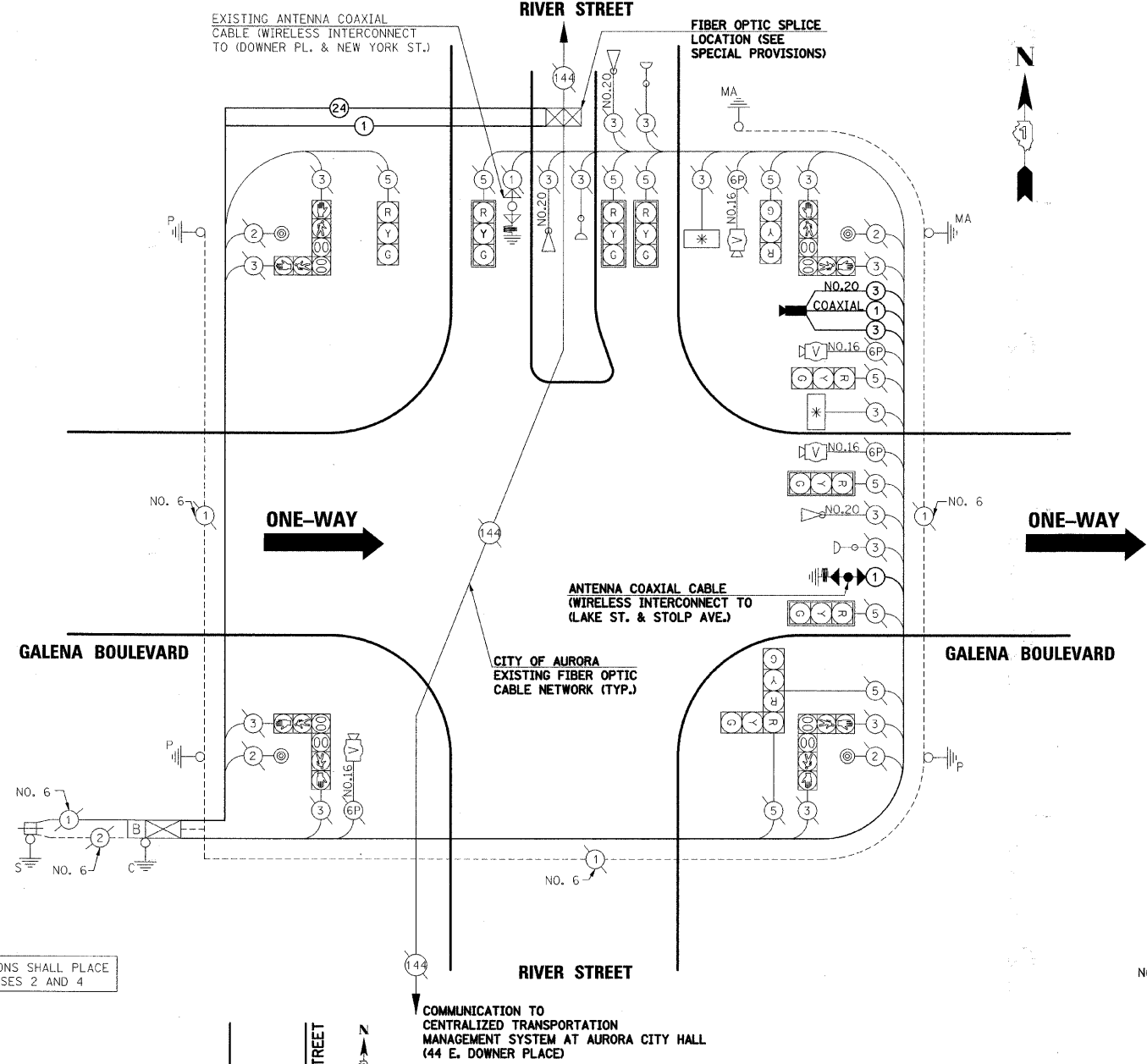
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

| | | | |
|---|-----------|-----------|--------------|
| TRAFFIC SIGNAL MODERNIZATION PLAN RIVER STREET (IL ROUTE 31) | | | |
| SCALE: | SHEET NO. | OF SHEETS | STA. TO STA. |

| | | | | |
|---------------------|---------------------------|--------|--------------|-----------|
| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 08-00270-00-TL | KANE | 44 | 13 |
| CONTRACT NO. 63300 | | | | |
| FED. ROAD DIST. NO. | ILLINOIS FED. AID PROJECT | | | |

CABLE PLAN LEGEND

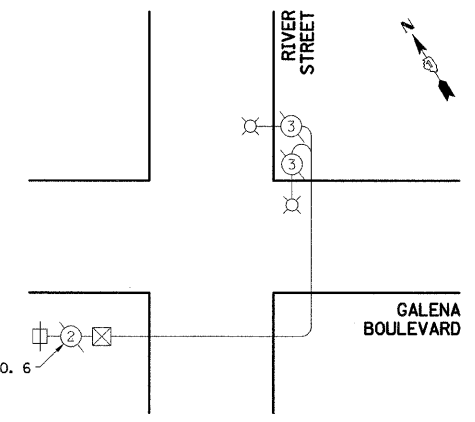
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|-----------------|-----------------|---|
| EXISTING | PROPOSED | |
| | | 8" (200mm) TRAFFIC SIGNAL SECTION |
| | | 12" (300mm) TRAFFIC SIGNAL SECTION |
| | | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| | | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| | | CONTROLLER CABINET |
| | | SERVICE INSTALLATION |
| | | TELEPHONE INSTALLATION |
| | | VEHICLE DETECTOR, INDUCTION LOOP |
| | | MAGNETIC DETECTOR |
| | | EMERGENCY VEHICLE LIGHT DETECTOR |
| | | CONFIRMATION BEACON |
| | | PUSHBUTTON DETECTOR |
| | | LUMINAIRE |
| | | DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED. |
| | | GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN) |
| | | FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F |
| | | SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD. |
| | | RAILROAD CONTROL CABINET |
| | | ILLUMINATED SIGN "NO LEFT TURN" |
| | | ILLUMINATED SIGN "NO RIGHT TURN" |
| | | WIRELESS ANTENNA |
| | | GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (HH), OR CONTROLLER (C) |
| | | GROUND ROD AT POST (P) OR MAST ARM POLE (MA) |
| | | GROUND ROD AT ELECTRIC SERVICE INSTALLATION |
| | | UNINTERRUPTABLE POWER SUPPLY |
| | | LED STREET NAME SIGN |
| | | VIDEO DETECTION CAMERA |
| | | PAN/TILT/ZOOM CAMERA |



ALL PUSHBUTTONS SHALL PLACE A CALL IN PHASES 2 AND 4

SCHEDULE OF QUANTITIES

| PAY ITEM DESCRIPTION | UNIT | RIVER STREET |
|--|------|--------------|
| MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION | EACH | 1 |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C | FOOT | 223 |
| REMOVE EXISTING LIGHT POLE | EACH | 2 |
| LIGHT POLE, SPECIAL | EACH | 2 |
| VIDEO BELDEN 8281 COAXIAL CABLE IN CONDUIT | FOOT | 228 |
| ELECTRIC CABLE IN CONDUIT, NO. 20 3/C TWISTED SHIELDED | FOOT | 218 |
| INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA | EACH | 1 |

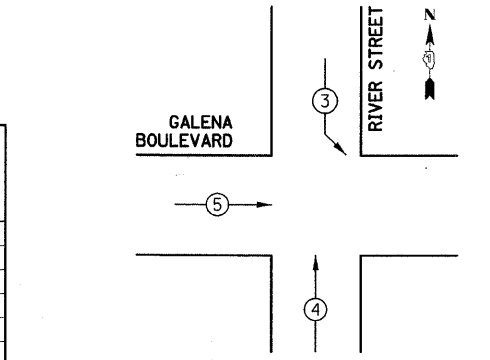


LIGHTING CABLE PLAN

| I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS | | | | | |
|---|-----------|---------|-----|-------------|---------------|
| TYPE | NO. LAMPS | WATTAGE | | % OPERATION | TOTAL WATTAGE |
| | | INCAND. | LED | | |
| SIGNAL (RED) | 9 | | 17 | 0.50 | 76.5 |
| (YELLOW) | 9 | | 25 | 0.25 | 56.3 |
| (GREEN) | 9 | | 15 | 0.25 | 33.8 |
| ARROW | | | 12 | 0.10 | |
| PED. SIGNAL | 8 | | 25 | 1.00 | 200.0 |
| CONTROLLER | 1 | | 100 | 1.00 | 100.0 |
| UPS | 1 | | 25 | 1.00 | 25.0 |
| LED SIGN | 2 | | 60 | 0.50 | 60.0 |
| VIDEO SYSTEM | 1 | | 15 | 1.00 | 15.0 |
| LUMINAIRE | 2 | | 250 | 0.50 | 125.0 |
| TOTAL = | | | | | 691.6 |

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION
201 WEST CENTER COURT
SCHAUMBURG, ILLINOIS 60196-1096

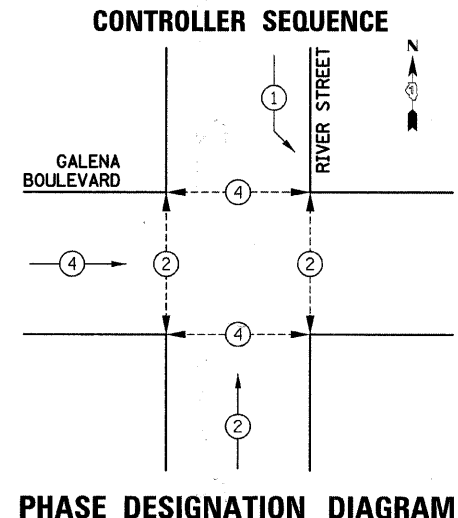
ENERGY SUPPLY CONTACT: MARK SCHERIBEL
PHONE: (630) 723-2128
COMPANY: COMMONWEALTH EDISON



EMERGENCY VEHICLE PREEMPTION SEQUENCE

| PROPOSED EMERGENCY VEHICLE PREEMPTORS | | | |
|---------------------------------------|---|---|---|
| PROPOSED EMERGENCY VEHICLE PREEMPTORS | 3 | 4 | 5 |
| MOVEMENT | | | |

| FOUNDATION (DEPTH) | FT. (m) | CABLE SLACK | FT. (m) | VERTICAL | FT. (m) |
|--------------------|-------------|------------------|-----------|-------------------|------------|
| TYPE A - POST | 4 (1.2) | HANDHOLE | 6.5 (2.0) | ALL FOUNDATIONS | 3.5 (1.0) |
| C - CONTROLLER | 4 (1.2) | DOUBLE HANDHOLE | 13 (4.0) | MAST ARM (L) POLE | 20'+L-2= |
| D - CONTROLLER | 4 (1.2) | SIGNAL POST | 2 (1.0) | (6m+L-0.6m) | |
| E - M.A. LENGTH | | CONTROLLER CAB. | 1 (0.5) | BRACKET MOUNTED | 13 (4.0) |
| <30' | 30" (900mm) | FIBER OPTIC | 13 (4.0) | PED. PUSHBUTTON | 4 (1.2) |
| <40' | 30" (750mm) | ELECTRIC SERVICE | 1 (0.5) | ELECTRIC SERVICE | 13.5 (4.1) |
| <40' | 36" (900mm) | GROUND CABLE | 1 (0.5) | SERVICE TO GROUND | 13.5 (4.1) |
| <50' | 36" (900mm) | | | POST MOUNTED | 6 (1.8) |
| >50' | 36" (900mm) | | | | |

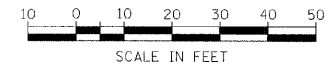


PHASE DESIGNATION DIAGRAM

| CONTROLLER SEQUENCE LEGEND | |
|----------------------------|--------------------------------------|
| | DUAL ENTRY PHASE |
| | SINGLE ENTRY PHASE |
| | OVERLAP |
| | NUMBER REFERRING TO ASSOCIATED PHASE |
| | PEDESTRIAN PHASE |

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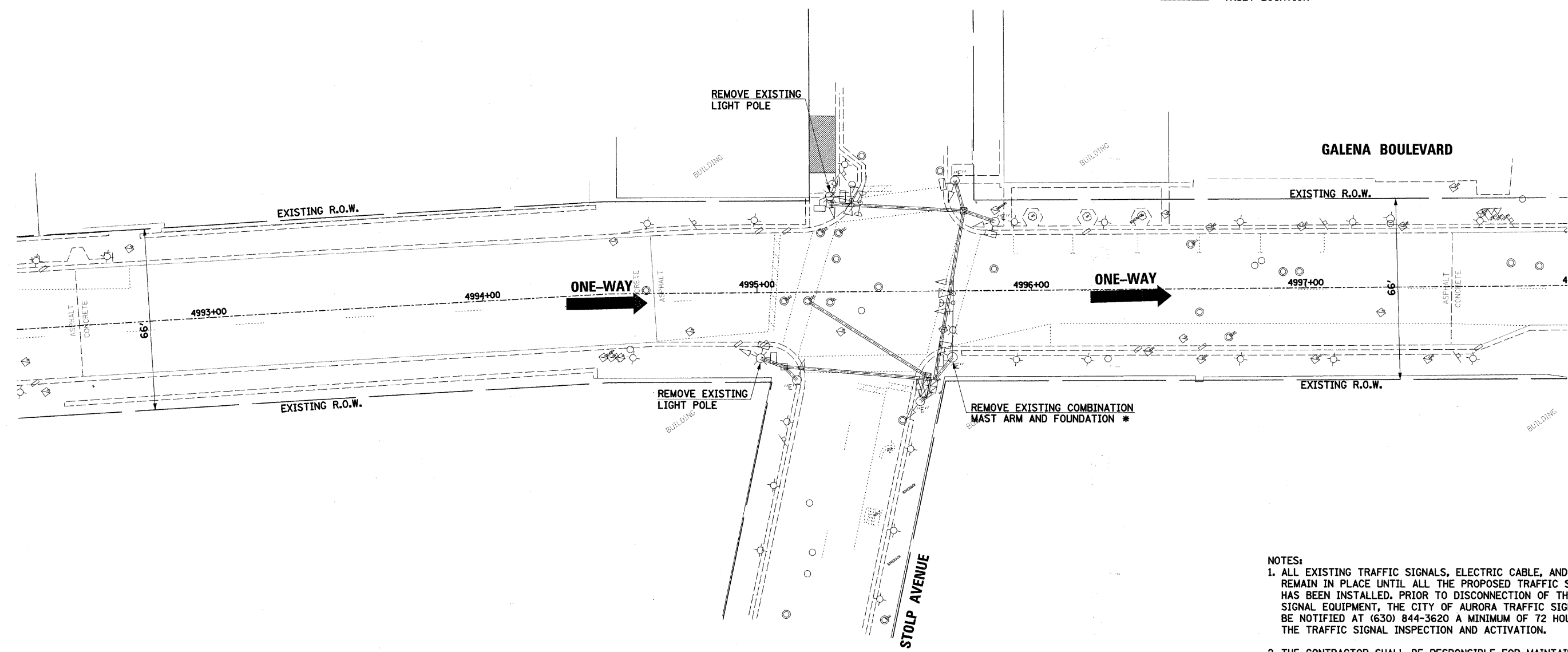
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EXISTING SIDEWALK
VAULT LOCATION

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- NOTES:**
1. ALL EXISTING TRAFFIC SIGNALS, ELECTRIC CABLE, AND RACEWAYS SHALL REMAIN IN PLACE UNTIL ALL THE PROPOSED TRAFFIC SIGNAL EQUIPMENT HAS BEEN INSTALLED. PRIOR TO DISCONNECTION OF THE EXISTING TRAFFIC SIGNAL EQUIPMENT, THE CITY OF AURORA TRAFFIC SIGNAL ENGINEER SHALL BE NOTIFIED AT (630) 844-3620 A MINIMUM OF 72 HOURS IN ADVANCE OF THE TRAFFIC SIGNAL INSPECTION AND ACTIVATION.
 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EXISTING TRAFFIC SIGNAL OPERATIONS AT ALL TIMES DURING CONSTRUCTION.

THE EXISTING CONDUITS AND VEHICLE DETECTORS (WHERE APPLICABLE) SHALL BE ABANDONED.

* THE EXISTING WIRELESS EQUIPMENT AND LED INTERNALLY ILLUMINATED STREET NAME SIGN SHALL BE RELOCATED IN ACCORDANCE WITH THE SPECIAL PROVISIONS.

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY HIM OUTSIDE THE RIGHT-OF-WAY AT HIS EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE. THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT (SEE SCHEDULE OF QUANTITIES FOR REMOVAL ITEMS TO BE PAID FOR SEPERATELY).

- 1 EACH STEEL COMBINATION MAST ARM ASSEMBLY AND POLE
- 4 EACH TRAFFIC SIGNAL POSTS
- 10 EACH TRAFFIC SIGNAL HEADS
- 2 EACH TRAFFIC SIGNAL BACKPLATES
- 8 EACH PEDESTRIAN SIGNAL HEADS
- 1 EACH SERVICE INSTALLATION

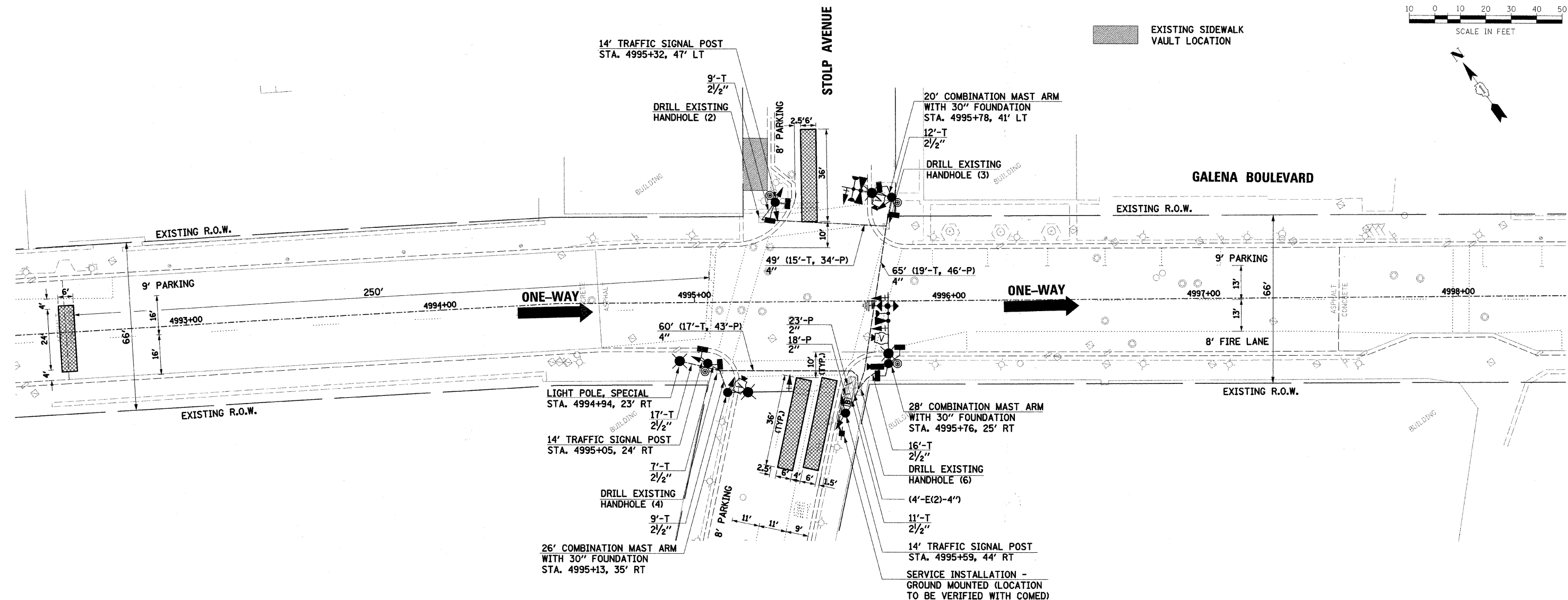
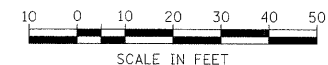
THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE CITY OF AURORA AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE MAINTENANCE FACILITY DESIGNATED BY THE CITY. THIS WORK SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT.

- 1 EACH TRAFFIC SIGNAL CONTROLLER
- 3 EACH LUMINAIRE
- 2 EACH CONFIRMATION BEACON
- 2 EACH LIGHT DETECTOR

EXISTING EQUIPMENT TO BE REMOVED LEGEND

- EXISTING SIGNAL HEAD TO BE REMOVED
- EXISTING SERVICE INSTALLATION TO BE REMOVED
- EXISTING SIGNAL POST AND FOUNDATION TO BE REMOVED
- EXISTING ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED
- EXISTING CONTROLLER AND FOUNDATION TO BE REMOVED
- EXISTING HANDHOLE TO BE REMOVED
- EXISTING PEDESTRIAN SIGNAL HEAD TO BE REMOVED
- EXISTING PEDESTRIAN PUSHBUTTON TO BE REMOVED
- EMERGENCY VEHICLE LIGHT DETECTOR TO BE REMOVED
- CONFIRMATION BEACON TO BE REMOVED
- EXISTING HEAVY-DUTY HANDHOLE TO BE REMOVED
- EXISTING STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED

| | | | | | | | | | | |
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| FILE NAME = ...\\fin.dwg\698.5.sig@3a.stolp.dgn | USER NAME = .USER. | DESIGNED - DRAWN <i>BAH</i> | REVISED - REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | EXISTING TRAFFIC SIGNAL EQUIPMENT TO BE REMOVED STOLP AVENUE | F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| PLOT SCALE = @SCALE@ | CHECKED <i>APS</i> | REVISED - REVISED - | 08-00270-00-TL | | | KANE | 44 | 15 | | |
| PLOT DATE = 12/17/2009 | DATE - | REVISED - REVISED - | CONTRACT NO. 63300 | | | | | | | |
| | | | | | | FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | | | |



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PROPOSED TRAFFIC SIGNS

- W14-2-3030 (1 EACH)**
 LOCATION:
1. COMBINATION MAST ARM POLE IN NORTHEAST CORNER FACING SOUTH.
- R6-2-2430 (2 EACH)**
 LOCATIONS:
1. TRAFFIC SIGNAL POST IN NORTHWEST CORNER FACING SOUTH.
2. TRAFFIC SIGNAL POST IN SOUTHEAST CORNER FACING SOUTH.
- R6-2-2430 (2 EACH)**
 LOCATIONS:
1. TRAFFIC SIGNAL POST IN NORTHWEST CORNER FACING NORTH.
2. COMBINATION MAST ARM POLE IN SOUTHEAST CORNER FACING NORTH.

- NOTES:**
- THE WIRELESS ANTENNA SHALL BE MOUNTED ON THE EASTBOUND MAST ARM, 3' SOUTH OF THE OUTER 3-SECTION SIGNAL HEAD OR AS DIRECTED BY THE ENGINEER (SEE MOUNTING DETAIL).
 - THE PAN/TILT/ZOOM CAMERA SHALL BE MOUNTED ON THE COMBINATION MAST ARM POLE IN THE SOUTHEAST CORNER BETWEEN THE MAST AND LUMINAIRE ARMS.
 - A MINIMUM OF ONE EAST-WEST AND ONE NORTH-SOUTH CROSSWALK SHALL REMAIN OPEN AT ALL TIMES IN ORDER TO MAINTAIN PEDESTRIAN ACCESS.

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE OPTICOM AS REQUIRED BY THE CITY OF AURORA.

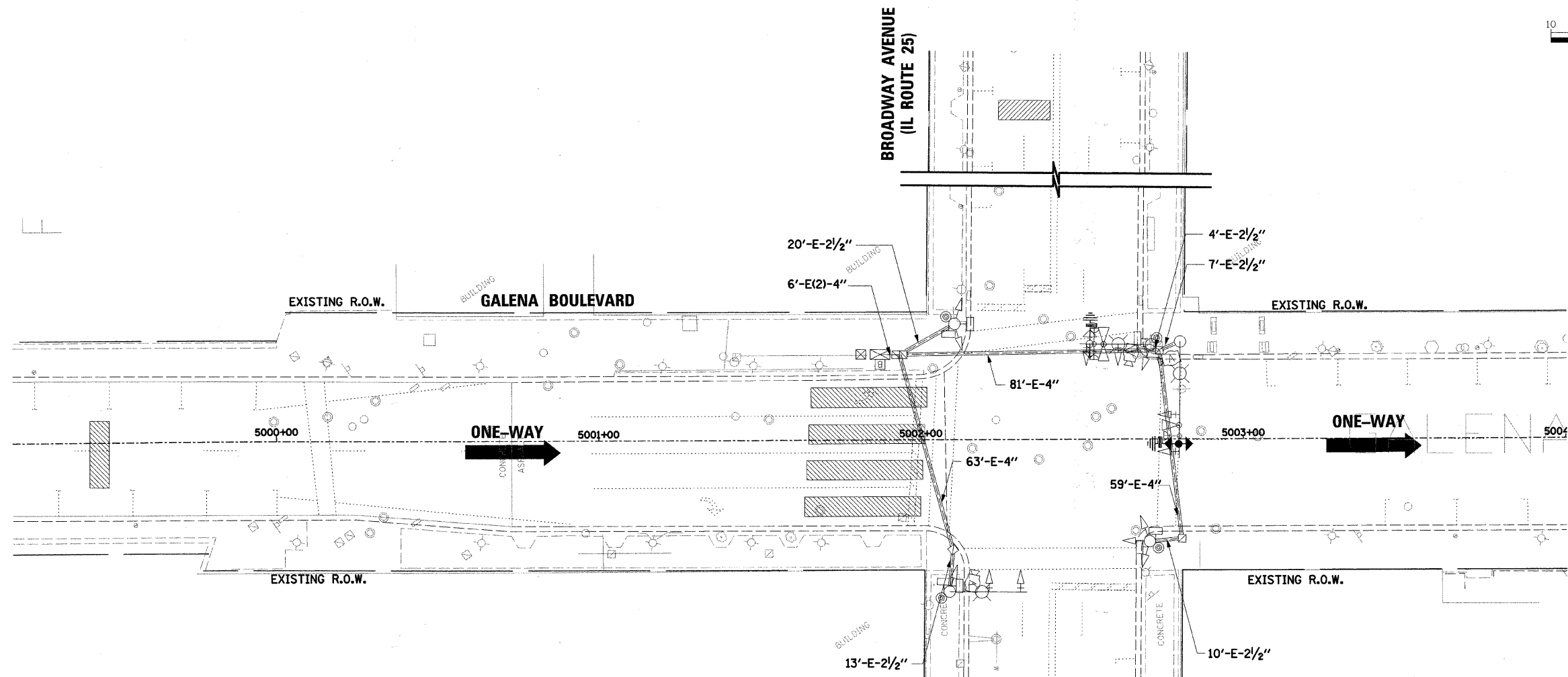
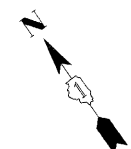
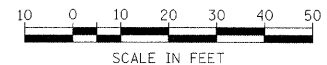
RESTORATION OF WORK AREA:
RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

TRAFFIC SIGNAL LEGEND

| | PROPOSED | EXISTING | | PROPOSED | EXISTING |
|--|----------|----------|--|----------|----------|
| CONTROLLER | | | DETECTOR LOOP | | |
| SERVICE INSTALLATION | | | CAST IRON JUNCTION BOX | | |
| SIGNAL HEAD | | | EMERGENCY VEHICLE LIGHT DETECTOR | | |
| SIGNAL HEAD WITH BACKPLATE | | | CONFIRMATION BEACON | | |
| SIGNAL HEAD, PEDESTRIAN | | | SIGNAL HEAD OPTICALLY PROGRAMMED | | |
| SIGNAL POST | | | CONDUIT SPLICE | | |
| MAST ARM ASSEMBLY AND POLE, STEEL | | | WOOD POLE | | |
| MAST ARM ASSEMBLY AND POLE, ALUMINUM | | | RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II | | |
| COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE | | | VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE | | |
| UNIT DUCT | UD | | RAILROAD CONTROL CABINET | | |
| COMMON TRENCH | CT | | TELEPHONE CONNECTION | | |
| HANDHOLE | | | ILLUMINATED SIGN "NO LEFT TURN" | | |
| HEAVY DUTY HANDHOLE | | | ILLUMINATED SIGN "NO RIGHT TURN" | | |
| DOUBLE HANDHOLE | | | UNINTERRUPTABLE POWER SUPPLY | | |
| G.S. CONDUIT IN TRENCH (T) OR PUSHED (P) | | | VIDEO DETECTION CAMERA | | |
| PEDESTRIAN PUSHBUTTON DETECTOR | | | VIDEO DETECTION AREA | | |
| PAN/TILT/ZOOM CAMERA | | | WIRELESS ANTENNA | | |

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| | CHECKED | |
| | BY | |
| | NO. | |
| | FILE NAME | |

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| PROFILE | SURVEYED | DATE |
| | PLOTTED | |
| | GRADES CHECKED | |
| | BY | |
| | NO. | |
| | FILE NAME | |



TRAFFIC SIGNAL LEGEND

| | PROPOSED | EXISTING | | PROPOSED | EXISTING |
|--|----------|----------|--|----------|----------|
| CONTROLLER | | | DETECTOR LOOP | | |
| SERVICE INSTALLATION | | | CAST IRON JUNCTION BOX | | |
| SIGNAL HEAD | | | EMERGENCY VEHICLE LIGHT DETECTOR | | |
| SIGNAL HEAD WITH BACKPLATE | | | CONFIRMATION BEACON | | |
| SIGNAL HEAD, PEDESTRIAN | | | SIGNAL HEAD OPTICALLY PROGRAMMED | | |
| SIGNAL POST | | | CONDUIT SPLICE | | |
| MAST ARM ASSEMBLY AND POLE, STEEL | | | WOOD POLE | | |
| MAST ARM ASSEMBLY AND POLE, ALUMINUM | | | RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II | | |
| COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE | | | VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE | | |
| UNIT DUCT | UD | | RAILROAD CONTROL CABINET | | |
| COMMON TRENCH | CT | | TELEPHONE CONNECTION | | |
| HANDHOLE | | | ILLUMINATED SIGN "NO LEFT TURN" | | |
| HEAVY DUTY HANDHOLE | | | ILLUMINATED SIGN "NO RIGHT TURN" | | |
| DOUBLE HANDHOLE | | | UNINTERRUPTABLE POWER SUPPLY | | |
| G.S. CONDUIT IN TRENCH (T) OR PUSHED (P) | | | VIDEO DETECTION CAMERA | | |
| PEDESTRIAN PUSHBUTTON DETECTOR | | | VIDEO DETECTION AREA | | |
| PAN/TILT/ZOOM CAMERA | | | WIRELESS ANTENNA | | |

NOTE:
THE WIRELESS ANTENNA SHALL BE MOUNTED ON THE EASTBOUND MAST ARM, 3' NORTH OF THE OUTER SIGNAL HEAD OR AS DIRECTED BY THE ENGINEER (SEE MOUNTING DETAIL).

THIS LOCATION IS CURRENTLY PART OF AN IDOT TRAFFIC SIGNAL MODERNIZATION PROJECT. THIS LOCATION IS ALSO CURRENTLY PART OF A CITY OF AURORA TRAFFIC SIGNAL INTERCONNECT PROJECT. COORDINATION WITH THOSE CONTRACTS WILL BE REQUIRED.

SERVICE LOCATIONS ARE BEING COORDINATED WITH COMED AS PART OF THE IDOT TRAFFIC SIGNAL MODERNIZATION CONTRACT.

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DRAWN BAH
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PLOT SCALE = #SCALE#
PLOT DATE = 12/17/2009

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REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL MODERNIZATION PLAN
BROADWAY AVENUE (IL ROUTE 25)

SCALE: SHEET NO. OF SHEETS STA. TO STA.

| | | | | |
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| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 08-00270-00-TL | KANE | 44 | 18 |
| FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT | | | CONTRACT NO. 63300 | |

CABLE PLAN LEGEND

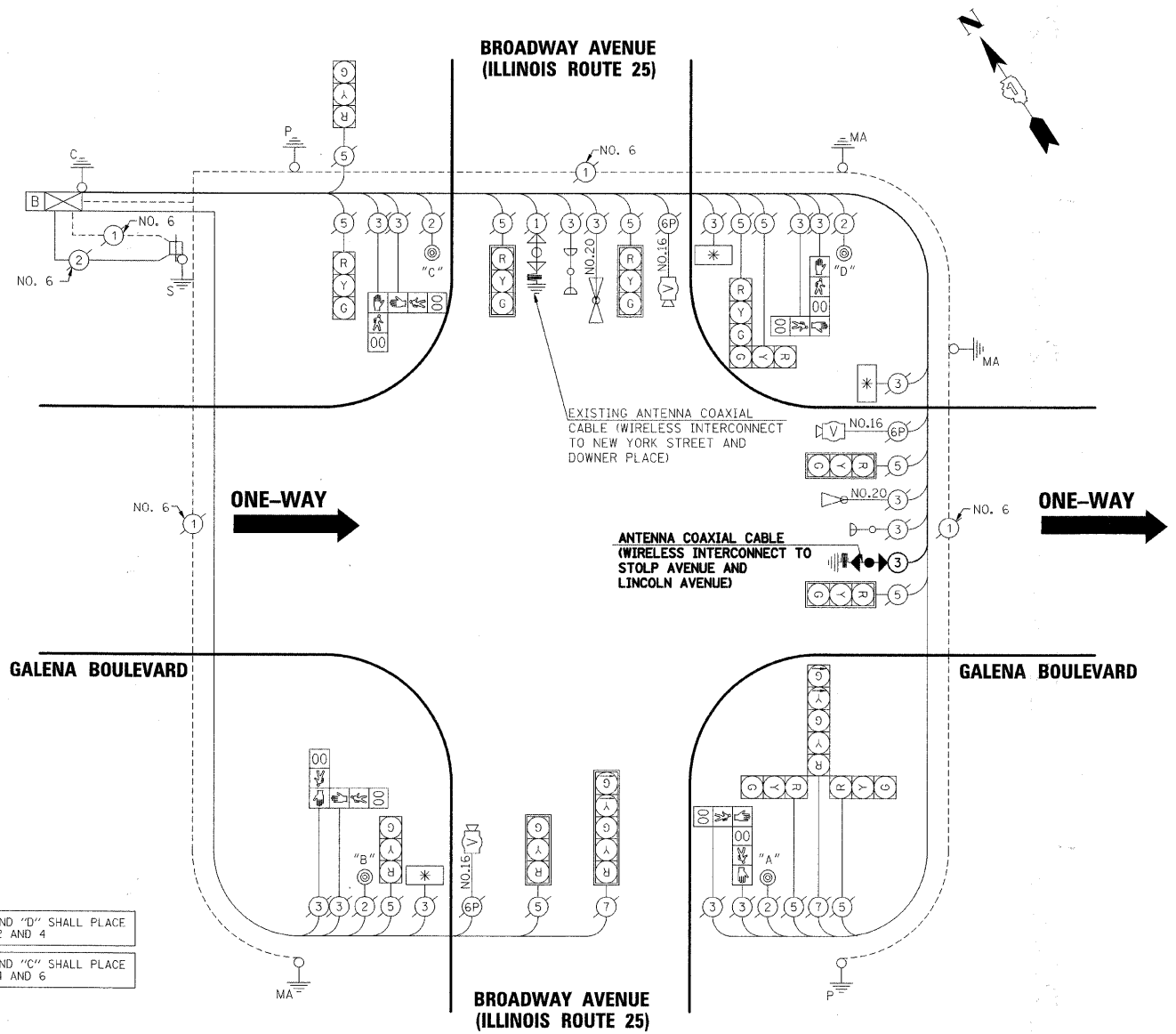
- | | | |
|-----------------|-----------------|---|
| EXISTING | PROPOSED | |
| | | 8" (200mm) TRAFFIC SIGNAL SECTION |
| | | 12" (300mm) TRAFFIC SIGNAL SECTION |
| | | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| | | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| | | CONTROLLER CABINET |
| | | SERVICE INSTALLATION |
| | | TELEPHONE INSTALLATION |
| | | VEHICLE DETECTOR, INDUCTION LOOP |
| | | MAGNETIC DETECTOR |
| | | EMERGENCY VEHICLE LIGHT DETECTOR |
| | | CONFIRMATION BEACON |
| | | PUSHBUTTON DETECTOR |
| | | LUMINAIRE |
| | | DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED. |
| | | GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN) |
| | | FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F |
| | | SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD. |
| | | RAILROAD CONTROL CABINET |
| | | ILLUMINATED SIGN "NO LEFT TURN" |
| | | ILLUMINATED SIGN "NO RIGHT TURN" |
| | | WIRELESS ANTENNA |
| | | GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (HH), OR CONTROLLER (C) |
| | | GROUND ROD AT POST (P) OR MAST ARM POLE (MA) |
| | | GROUND ROD AT ELECTRIC SERVICE INSTALLATION |
| | | UNINTERRUPTIBLE POWER SUPPLY |
| | | LED STREET NAME SIGN |
| | | VIDEO DETECTION CAMERA |
| | | PAN/TILT/ZOOM CAMERA |

| | | |
|-----------|------|-------------|
| DATE | BY | REVISION |
| | | |
| PLAN | DATE | BY |
| | | |
| NOTE BOOK | NO. | DESCRIPTION |
| | | |
| NO. | | |

| | | |
|-----------|------|-------------|
| DATE | BY | REVISION |
| | | |
| PROFILE | DATE | BY |
| | | |
| NOTE BOOK | NO. | DESCRIPTION |
| | | |
| NO. | | |

SCHEDULE OF QUANTITIES

| PAY ITEM DESCRIPTION | UNIT | BROADWAY AVENUE |
|---|------|-----------------|
| MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION | EACH | 1 |



PUSHBUTTONS "A" AND "D" SHALL PLACE A CALL IN PHASES 2 AND 4
 PUSHBUTTONS "B" AND "C" SHALL PLACE A CALL IN PHASES 4 AND 6

| I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS | | | | | |
|---|-----------|---------|-----|-------------|---------------|
| TYPE | NO. LAMPS | WATTAGE | | % OPERATION | TOTAL WATTAGE |
| | | INCAND. | LED | | |
| SIGNAL (RED) | 14 | | 17 | 0.50 | 119 |
| (YELLOW) | 14 | | 25 | 0.25 | 87.5 |
| (GREEN) | 14 | | 15 | 0.25 | 52.5 |
| ARROW | 4 | | 12 | 0.10 | 4.8 |
| PED. SIGNAL | 8 | | 25 | 1.00 | 200 |
| CONTROLLER | 1 | | 100 | 1.00 | 100 |
| LUMINAIRE | 3 | | 60 | 0.50 | 90 |
| VIDEO SYSTEM | 1 | | 310 | 0.50 | 465 |
| | | | 15 | 1.00 | 15 |
| | | | | TOTAL = | 1158.8 |

ENERGY COSTS TO: CITY OF AURORA
 44 E. DOWNER PLACE
 AURORA, ILLINOIS 60507-2067

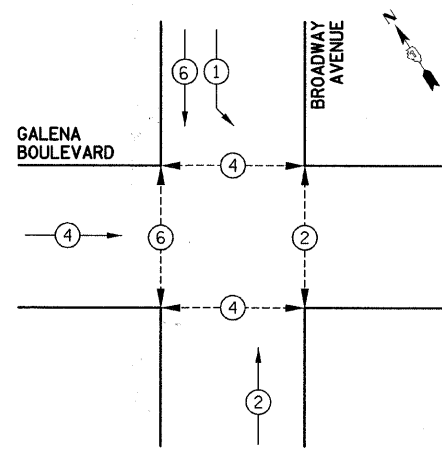
ENERGY SUPPLY CONTACT: MARK SCHERIBEL
 PHONE: (630) 723-2128
 COMPANY: COMMONWEALTH EDISON

| FOUNDATION (DEPTH) | FT. (m) | CABLE SLACK | FT. (m) | VERTICAL | FT. (m) |
|--------------------|-------------|------------------|-----------|-------------------|---------------------|
| TYPE A - POST | 4 (1.2) | HANDHOLE | 6.5 (2.0) | ALL FOUNDATIONS | 3.5 (1.0) |
| C - CONTROLLER | 4 (1.2) | DOUBLE HANDHOLE | 13 (4.0) | MAST ARM (L) POLE | 20'-H-2=(6m+L-0.6m) |
| D - CONTROLLER | 4 (1.2) | SIGNAL POST | 2 (1.0) | BRACKET MOUNTED | 13 (4.0) |
| E - M.A. LENGTH | | CONTROLLER CAB. | 1 (0.5) | PED. PUSHBUTTON | 4 (1.2) |
| <30' | 30" (900mm) | FIBER OPTIC | 13 (4.0) | ELECTRIC SERVICE | 13.5 (4.1) |
| <40' | 30" (750mm) | ELECTRIC SERVICE | 1 (0.5) | SERVICE TO GROUND | 13.5 (4.1) |
| <40' | 36" (900mm) | GROUND CABLE | 1 (0.5) | POST MOUNTED | 6 (1.8) |
| <50' | 36" (900mm) | | | | |
| >50' | 36" (900mm) | | | | |

EMERGENCY VEHICLE PREEMPTION SEQUENCE

| PROPOSED EMERGENCY VEHICLE PREEMPTORS | | |
|---------------------------------------|---|---|
| PROPOSED EMERGENCY VEHICLE PREEMPTORS | 3 | 4 |
| MOVEMENT | ↑ | → |

CONTROLLER SEQUENCE

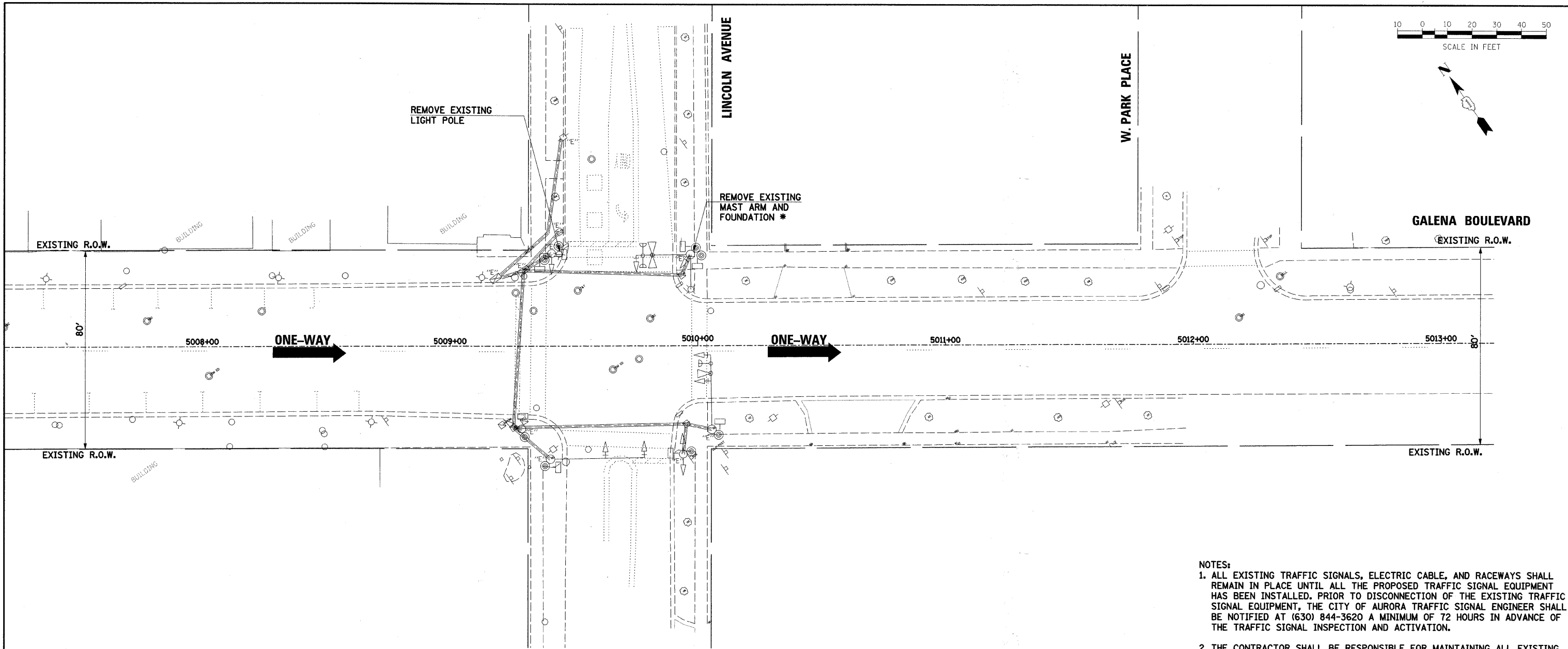


PHASE DESIGNATION DIAGRAM

| CONTROLLER SEQUENCE LEGEND | |
|----------------------------|--------------------------------------|
| | DUAL ENTRY PHASE |
| | SINGLE ENTRY PHASE |
| | OVERLAP |
| | NUMBER REFERRING TO ASSOCIATED PHASE |
| | PEDESTRIAN PHASE |

| | | |
|-----------|--------------------|------|
| PLAN | SURVEYED | DATE |
| NOTE BOOK | ALIGNED | |
| NO. | RT. OF WAY CHECKED | |
| | NO. | |
| | BY | |
| | DATE | |

| | | |
|-----------|-----------------------------|------|
| PROFILE | SURVEYED | DATE |
| NOTE BOOK | GRADES CHECKED | |
| NO. | B.M. NOTED | |
| | STRUCTURE NOTATIONS CHECKED | |
| | NO. | |
| | BY | |
| | DATE | |



- NOTES:**
- ALL EXISTING TRAFFIC SIGNALS, ELECTRIC CABLE, AND RACEWAYS SHALL REMAIN IN PLACE UNTIL ALL THE PROPOSED TRAFFIC SIGNAL EQUIPMENT HAS BEEN INSTALLED. PRIOR TO DISCONNECTION OF THE EXISTING TRAFFIC SIGNAL EQUIPMENT, THE CITY OF AURORA TRAFFIC SIGNAL ENGINEER SHALL BE NOTIFIED AT (630) 844-3620 A MINIMUM OF 72 HOURS IN ADVANCE OF THE TRAFFIC SIGNAL INSPECTION AND ACTIVATION.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EXISTING TRAFFIC SIGNAL OPERATIONS AT ALL TIMES DURING CONSTRUCTION.

* THE EXISTING WIRELESS EQUIPMENT SHALL BE RELOCATED IN ACCORDANCE WITH THE SPECIAL PROVISIONS.

THE EXISTING CONDUITS AND VEHICLE DETECTORS (WHERE APPLICABLE) SHALL BE ABANDONED.

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY HIM OUTSIDE THE RIGHT-OF-WAY AT HIS EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE. THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT (SEE SCHEDULE OF QUANTITIES FOR REMOVAL ITEMS TO BE PAID FOR SEPERATELY).

- 2 EACH STEEL MAST ARM ASSEMBLY AND POLE
- 1 EACH STEEL COMBINATION MAST ARM ASSEMBLY AND POLE
- 3 EACH TRAFFIC SIGNAL POSTS
- 10 EACH TRAFFIC SIGNAL HEADS
- 5 EACH TRAFFIC SIGNAL BACKPLATES
- 8 EACH PEDESTRIAN SIGNAL HEADS
- 8 EACH PEDESTRIAN PUSH BUTTONS
- 1 EACH SERVICE INSTALLATION

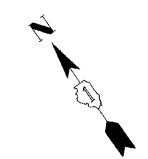
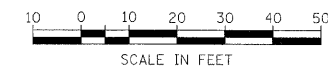
THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE CITY OF AURORA AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE MAINTENANCE FACILITY DESIGNATED BY THE CITY. THIS WORK SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT.

- 1 EACH TRAFFIC SIGNAL CONTROLLER AND CABINET (COMPLETE)
- 2 EACH LUMINAIRE
- 2 EACH CONFIRMATION BEACON
- 2 EACH LIGHT DETECTOR

EXISTING EQUIPMENT TO BE REMOVED LEGEND

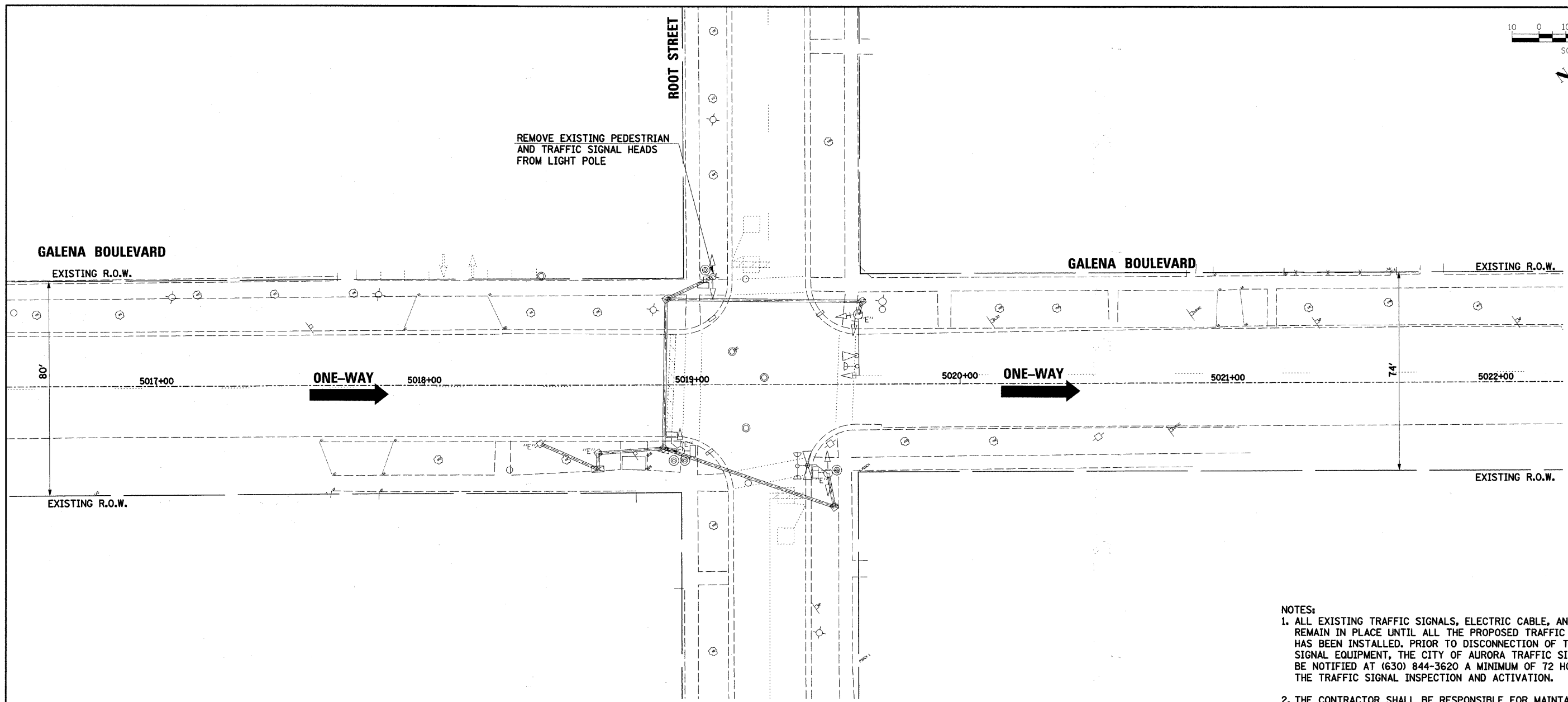
- EXISTING SIGNAL HEAD TO BE REMOVED
- EXISTING SERVICE INSTALLATION TO BE REMOVED
- EXISTING SIGNAL POST AND FOUNDATION TO BE REMOVED
- EXISTING ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED
- EXISTING CONTROLLER AND FOUNDATION TO BE REMOVED
- EXISTING HANDHOLE TO BE REMOVED
- EXISTING PEDESTRIAN SIGNAL HEAD TO BE REMOVED
- EXISTING PEDESTRIAN PUSHBUTTON TO BE REMOVED
- EMERGENCY VEHICLE LIGHT DETECTOR TO BE REMOVED
- CONFIRMATION BEACON TO BE REMOVED
- EXISTING HEAVY-DUTY HANDHOLE TO BE REMOVED
- EXISTING STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED

| | | | | | | | | | | | |
|--|------------------------|--------------------|-----------|---|---|-----------|---------------------|--------------|---------------------|---------------------------|--|
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| | PLOT SCALE = #SCALE# | DRAWN <i>BAH</i> | REVISED - | | | | 08-00270-00-TL | KANE | 44 | 20 | |
| | PLOT DATE = 12/17/2009 | CHECKED <i>APS</i> | REVISED - | | | SCALE: | SHEET NO. OF SHEETS | STA. TO STA. | CONTRACT NO. 63300 | | |
| | | DATE - | REVISED - | | | | | | FED. ROAD DIST. NO. | ILLINOIS FED. AID PROJECT | |



| | |
|--------------|--|
| DATE | |
| BY | |
| PLANNING | |
| DESIGN | |
| CONSTRUCTION | |
| OPERATION | |
| MAINTENANCE | |
| REVISION | |
| NO. | |

| | |
|--------------|--|
| DATE | |
| BY | |
| PLANNING | |
| DESIGN | |
| CONSTRUCTION | |
| OPERATION | |
| MAINTENANCE | |
| REVISION | |
| NO. | |



- NOTES:**
- ALL EXISTING TRAFFIC SIGNALS, ELECTRIC CABLE, AND RACEWAYS SHALL REMAIN IN PLACE UNTIL ALL THE PROPOSED TRAFFIC SIGNAL EQUIPMENT HAS BEEN INSTALLED. PRIOR TO DISCONNECTION OF THE EXISTING TRAFFIC SIGNAL EQUIPMENT, THE CITY OF AURORA TRAFFIC SIGNAL ENGINEER SHALL BE NOTIFIED AT (630) 844-3620 A MINIMUM OF 72 HOURS IN ADVANCE OF THE TRAFFIC SIGNAL INSPECTION AND ACTIVATION.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EXISTING TRAFFIC SIGNAL OPERATIONS AT ALL TIMES DURING CONSTRUCTION.

EXISTING EQUIPMENT TO BE REMOVED LEGEND

- EXISTING SIGNAL HEAD TO BE REMOVED
- EXISTING SERVICE INSTALLATION TO BE REMOVED
- EXISTING SIGNAL POST AND FOUNDATION TO BE REMOVED
- EXISTING ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED
- EXISTING CONTROLLER AND FOUNDATION TO BE REMOVED
- EXISTING HANDHOLE TO BE REMOVED
- EXISTING PEDESTRIAN SIGNAL HEAD TO BE REMOVED
- EXISTING PEDESTRIAN PUSHBUTTON TO BE REMOVED
- EMERGENCY VEHICLE LIGHT DETECTOR TO BE REMOVED
- CONFIRMATION BEACON TO BE REMOVED
- EXISTING HEAVY-DUTY HANDHOLE TO BE REMOVED
- EXISTING STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY HIM OUTSIDE THE RIGHT-OF-WAY AT HIS EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE. THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT (SEE SCHEDULE OF QUANTITIES FOR REMOVAL ITEMS TO BE PAID FOR SEPERATELY).

- 1 EACH MAST ARM ASSEMBLY AND POLE
- 2 EACH TRAFFIC SIGNAL POST
- 9 EACH TRAFFIC SIGNAL HEADS
- 4 EACH PEDESTRIAN SIGNAL HEADS
- 4 EACH PEDESTRIAN PUSHBUTTONS
- 1 EACH TRAFFIC SIGNAL BACKPLATES
- 1 EACH SERVICE INSTALLATION

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE CITY OF AURORA AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE MAINTENANCE FACILITY DESIGNATED BY THE CITY. THIS WORK SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT.

- 1 EACH TRAFFIC SIGNAL CONTROLLER
- 2 EACH LIGHT DETECTOR
- 2 EACH CONFIRMATION BEACONS

FILE NAME =
...fin_dwg\690_5_s1g86a-root.dgn

USER NAME = _USER_

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DRAWN *BAH*
CHECKED *APS*
DATE -

REVISIONS

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REVISIONS

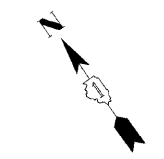
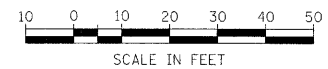
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|-----|------|-------------|
| NO. | DATE | DESCRIPTION |
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**EXISTING TRAFFIC SIGNAL EQUIPMENT TO BE REMOVED
ROOT STREET**

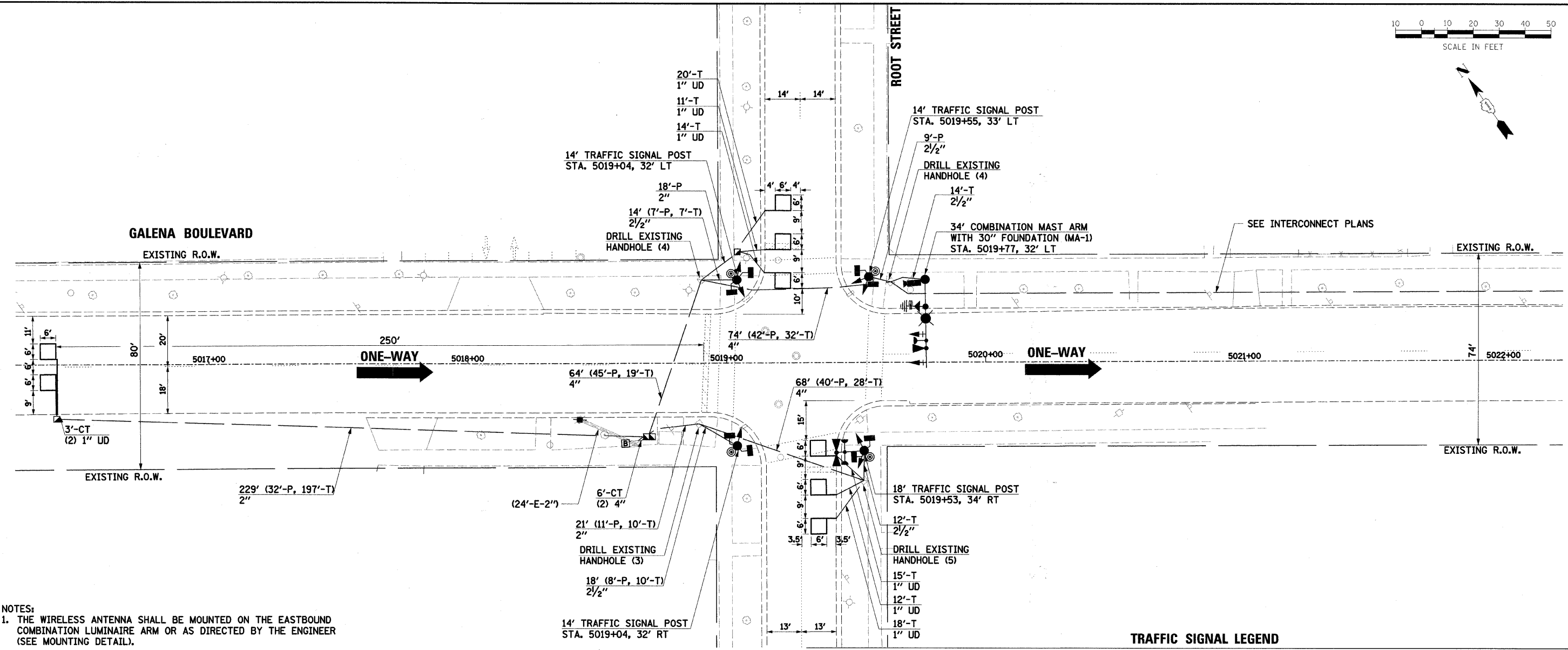
SCALE: SHEET NO. OF SHEETS STA. TO STA.

| | | | | |
|---|----------------|--------|--------------|-----------|
| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 08-00270-00-TL | KANE | 44 | 23 |
| CONTRACT NO. 63300 | | | | |
| FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | | | |



| | |
|----------------|------|
| PLAN | DATE |
| SURVEYED | BY |
| ALIGNED | |
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| RT. OF WAY | |
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| NO. | |
| NOTE BOOK | |
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| PROFILE | DATE |
| SURVEYED | BY |
| NOTED | |
| CHECKED | |
| BLM. NOTED | |
| STRUCTURE | |
| NOTATING | |
| CHKD | |
| NO. | |
| NOTE BOOK | |
| NO. | |



- NOTES:**
1. THE WIRELESS ANTENNA SHALL BE MOUNTED ON THE EASTBOUND COMBINATION LUMINAIRE ARM OR AS DIRECTED BY THE ENGINEER (SEE MOUNTING DETAIL).
 2. ALL PROPOSED TRAFFIC SIGNAL MAST ARMS AND POSTS, SHALL BE PAINTED BLACK.
 3. THERE IS NO LIGHTING CONTROLLER PROPOSED FOR THIS INTERSECTION. THE CIRCUIT BREAKER AND THE DISCONNECT SHALL BE INSTALLED WITHIN THE TRAFFIC SIGNAL CABINET. THE PHOTOCCELL SHALL BE MOUNTED ON THE TRAFFIC SIGNAL CABINET AWAY FROM DIRECT SUNLIGHT. THIS WORK SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF THE NEW TRAFFIC SIGNAL CONTROLLER.
 4. A MINIMUM OF ONE EAST-WEST AND ONE NORTH-SOUTH CROSSWALK SHALL REMAIN OPEN AT ALL TIMES IN ORDER TO MAINTAIN PEDESTRIAN ACCESS.

PROPOSED TRAFFIC SIGNS

R6-2-2430 (2 EACH)
LOCATIONS:
 1. TRAFFIC SIGNAL POST IN SOUTHEAST CORNER FACING SOUTH.
 2. TRAFFIC SIGNAL POST IN NORTHWEST CORNER FACING SOUTH.

R6-2-2430 (2 EACH)
LOCATIONS:
 1. TRAFFIC SIGNAL POST IN NORTHWEST CORNER FACING NORTH.
 2. TRAFFIC SIGNAL POST IN SOUTHEAST CORNER FACING NORTH.

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE OPTICOM AS REQUIRED BY THE CITY OF AURORA.

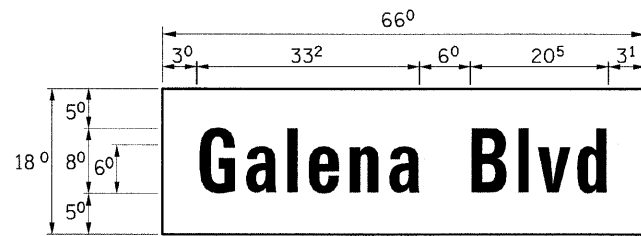
RESTORATION OF WORK AREA:
 RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

| | PROPOSED | EXISTING | | PROPOSED | EXISTING |
|--|----------|----------|--|----------|----------|
| CONTROLLER | | | DETECTOR LOOP | | |
| SERVICE INSTALLATION | | | CAST IRON JUNCTION BOX | | |
| SIGNAL HEAD | | | EMERGENCY VEHICLE LIGHT DETECTOR | | |
| SIGNAL HEAD WITH BACKPLATE | | | CONFIRMATION BEACON | | |
| SIGNAL HEAD, PEDESTRIAN | | | SIGNAL HEAD OPTICALLY PROGRAMMED | | |
| SIGNAL POST | | | CONDUIT SPLICE | | |
| MAST ARM ASSEMBLY AND POLE, STEEL | | | WOOD POLE | | |
| MAST ARM ASSEMBLY AND POLE, ALUMINUM | | | RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II | | |
| COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE | | | VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE | | |
| UNIT DUCT | UD | | RAILROAD CONTROL CABINET | | |
| COMMON TRENCH | CT | | TELEPHONE CONNECTION | | |
| HANDHOLE | | | ILLUMINATED SIGN "NO LEFT TURN" | | |
| HEAVY DUTY HANDHOLE | | | ILLUMINATED SIGN "NO RIGHT TURN" | | |
| DOUBLE HANDHOLE | | | UNITERRUPTABLE POWER SUPPLY | | |
| G.S. CONDUIT IN TRENCH (T) OR PUSHED (P) | | | VIDEO DETECTION CAMERA | | |
| PEDESTRIAN PUSHBUTTON DETECTOR | | | VIDEO DETECTION AREA | | |
| PAN/TILT/ZOOM CAMERA | | | WIRELESS ANTENNA | | |

Upper Case To Lower Case
Spacing Chart 8-6 Inch Series "C & D"

EXAMPLE, 2 ③ DENOTES 3/8"

PANEL SIGN DESIGN TYPE 1



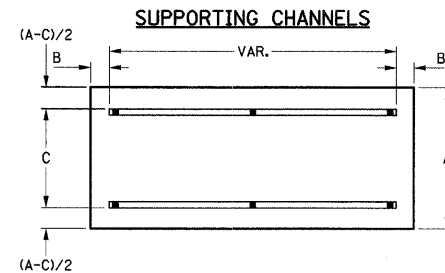
MA-1

8.25 Sq. Ft each

2 Required

Design Series D

NOTE:
THESE SIGNS SHALL BE MOUNTED ON THE FRONT AND BACK OF THE MAST ARM POLE PER THE SINGLE ARM DETAIL AT RIGHT OR AS DIRECTED BY THE ENGINEER.



| A | B | C |
|-----|----|-----|
| 18" | 2" | 12" |
| 30" | 2" | 22" |

SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM shall be used. See Note #5

| FIRST LETTER | SECOND LETTER | | | | | | | | | | | | | | | |
|--------------|---------------|----|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|
| | acde goq | | bhikl mnpru | | fw | | j | | st | | vy | | x | | z | |
| | C | D | C | D | C | D | C | D | C | D | C | D | C | D | C | D |
| A W X | 12 | 14 | 14 | 15 | 12 | 14 | 06 | 10 | 11 | 14 | 06 | 10 | 11 | 12 | 12 | 14 |
| B | 14 | 15 | 20 | 21 | 14 | 15 | 11 | 12 | 14 | 15 | 12 | 14 | 12 | 14 | 16 | 17 |
| C E G | 14 | 15 | 20 | 21 | 12 | 14 | 06 | 10 | 12 | 14 | 12 | 14 | 14 | 15 | 14 | 15 |
| D O Q R | 14 | 15 | 20 | 21 | 14 | 15 | 06 | 10 | 12 | 14 | 12 | 14 | 14 | 15 | 14 | 15 |
| F | 05 | 06 | 14 | 15 | 06 | 10 | 05 | 06 | 06 | 10 | 06 | 10 | 06 | 10 | 11 | 12 |
| H I M N | 20 | 21 | 22 | 24 | 20 | 21 | 14 | 15 | 16 | 17 | 16 | 17 | 20 | 21 | 20 | 21 |
| J U | 20 | 21 | 20 | 21 | 16 | 17 | 14 | 15 | 16 | 17 | 16 | 17 | 16 | 17 | 20 | 21 |
| K L | 11 | 12 | 16 | 17 | 11 | 12 | 05 | 06 | 11 | 12 | 11 | 12 | 11 | 12 | 12 | 14 |
| P | 12 | 14 | 14 | 15 | 12 | 14 | 05 | 06 | 11 | 12 | 11 | 12 | 12 | 14 | 12 | 14 |
| S | 12 | 14 | 16 | 17 | 12 | 14 | 06 | 10 | 12 | 14 | 12 | 14 | 12 | 14 | 12 | 14 |
| T | 11 | 12 | 16 | 17 | 06 | 10 | 06 | 10 | 11 | 12 | 11 | 12 | 11 | 12 | 12 | 14 |
| V | 06 | 10 | 14 | 15 | 11 | 12 | 06 | 10 | 12 | 14 | 12 | 14 | 12 | 14 | 12 | 14 |
| Y | 05 | 06 | 14 | 15 | 06 | 10 | 05 | 06 | 05 | 07 | 05 | 06 | 06 | 10 | 11 | 12 |
| Z | 16 | 17 | 22 | 24 | 16 | 17 | 12 | 14 | 16 | 17 | 16 | 17 | 16 | 17 | 20 | 21 |

| LETTERS | 6 INCH UPPER CASE LETTERS | | 8 INCH UPPER CASE LETTERS | | LETTERS | 6 INCH LOWER CASE LETTERS | |
|---------|---------------------------|----------------|---------------------------|----------------|---------|---------------------------|----------------|
| | SERIES | | SERIES | | | SERIES | |
| | C | D | C | D | | C | D |
| A | 3 ⁶ | 5 ⁰ | 5 ⁰ | 6 ⁵ | a | 3 ⁵ | 4 ² |
| B | 3 ² | 4 ⁰ | 4 ³ | 5 ³ | b | 3 ⁵ | 4 ² |
| C | 3 ² | 4 ⁰ | 4 ³ | 5 ³ | c | 3 ⁵ | 4 ¹ |
| D | 3 ² | 4 ⁰ | 4 ³ | 5 ³ | d | 3 ⁵ | 4 ² |
| E | 3 ⁰ | 3 ⁵ | 4 ⁰ | 4 ⁷ | e | 3 ⁵ | 4 ² |
| F | 3 ⁰ | 3 ⁵ | 4 ⁰ | 4 ⁷ | f | 2 ³ | 2 ⁶ |
| G | 3 ² | 4 ⁰ | 4 ³ | 5 ³ | g | 3 ⁵ | 4 ² |
| H | 3 ² | 4 ⁰ | 4 ³ | 5 ³ | h | 3 ⁵ | 4 ² |
| I | 0 ⁷ | 0 ⁷ | 1 ¹ | 1 ² | i | 1 ¹ | 1 ¹ |
| J | 3 ⁰ | 3 ⁶ | 4 ⁰ | 5 ⁰ | j | 2 ⁰ | 2 ² |
| K | 3 ² | 4 ¹ | 4 ³ | 5 ⁴ | k | 3 ⁵ | 4 ² |
| L | 3 ⁰ | 3 ⁵ | 4 ⁰ | 4 ⁷ | l | 1 ¹ | 1 ¹ |
| M | 3 ⁷ | 4 ⁵ | 5 ¹ | 6 ¹ | m | 6 ⁰ | 7 ⁰ |
| N | 3 ² | 4 ⁰ | 4 ³ | 5 ³ | n | 3 ⁵ | 4 ² |
| O | 3 ⁴ | 4 ² | 4 ⁵ | 5 ⁵ | o | 3 ⁶ | 4 ³ |
| P | 3 ² | 4 ⁰ | 4 ³ | 5 ³ | p | 3 ⁵ | 4 ² |
| Q | 3 ⁴ | 4 ² | 4 ⁵ | 5 ⁵ | q | 3 ⁵ | 4 ² |
| R | 3 ² | 4 ⁰ | 4 ³ | 5 ³ | r | 2 ⁶ | 3 ² |
| S | 3 ² | 4 ⁰ | 4 ³ | 5 ³ | s | 3 ⁶ | 4 ² |
| T | 3 ⁰ | 3 ⁵ | 4 ⁰ | 4 ⁷ | t | 2 ⁷ | 3 ² |
| U | 3 ² | 4 ⁰ | 4 ³ | 5 ³ | u | 3 ⁵ | 4 ² |
| V | 3 ⁵ | 4 ⁴ | 4 ⁷ | 6 ⁰ | v | 4 ² | 4 ⁷ |
| W | 4 ⁴ | 5 ² | 6 ⁰ | 7 ⁰ | w | 5 ⁵ | 6 ⁴ |
| X | 3 ⁴ | 4 ⁰ | 4 ⁵ | 5 ³ | x | 4 ⁴ | 5 ¹ |
| Y | 3 ⁶ | 5 ⁰ | 5 ⁰ | 6 ⁶ | y | 4 ⁶ | 5 ³ |
| Z | 3 ² | 4 ⁰ | 4 ³ | 5 ³ | z | 3 ⁶ | 4 ³ |

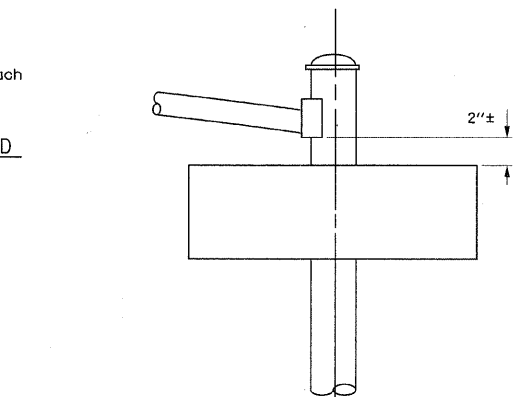
Lower Case To Lower Case
Spacing Chart 6 Inch Series "C & D"

| FIRST LETTER | SECOND LETTER | | | | | | | | | | | | | | | |
|--------------|---------------|----|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|
| | acde goq | | bhikl mnpru | | fw | | j | | st | | vy | | x | | z | |
| | C | D | C | D | C | D | C | D | C | D | C | D | C | D | C | D |
| ad h g i j | 16 | 17 | 22 | 24 | 16 | 17 | 12 | 14 | 14 | 15 | 14 | 15 | 16 | 17 | 16 | 17 |
| l m n q u | | | | | | | | | | | | | | | | |
| b f k o p s | 12 | 14 | 16 | 17 | 11 | 12 | 05 | 06 | 11 | 12 | 11 | 12 | 12 | 14 | 12 | 14 |
| c e | 12 | 14 | 16 | 17 | 12 | 14 | 06 | 10 | 12 | 14 | 12 | 14 | 12 | 14 | 12 | 14 |
| r | 06 | 10 | 12 | 14 | 06 | 10 | 03 | 03 | 05 | 06 | 05 | 06 | 06 | 10 | 06 | 10 |
| t z | 12 | 14 | 16 | 17 | 12 | 14 | 06 | 10 | 11 | 12 | 11 | 12 | 12 | 14 | 12 | 14 |
| v y | 11 | 12 | 14 | 15 | 11 | 12 | 05 | 06 | 06 | 10 | 06 | 10 | 11 | 12 | 11 | 12 |
| w | 11 | 12 | 14 | 15 | 11 | 12 | 05 | 06 | 11 | 12 | 11 | 12 | 11 | 12 | 12 | 14 |
| x | 12 | 14 | 16 | 17 | 11 | 12 | 05 | 06 | 11 | 12 | 11 | 12 | 11 | 12 | 12 | 14 |

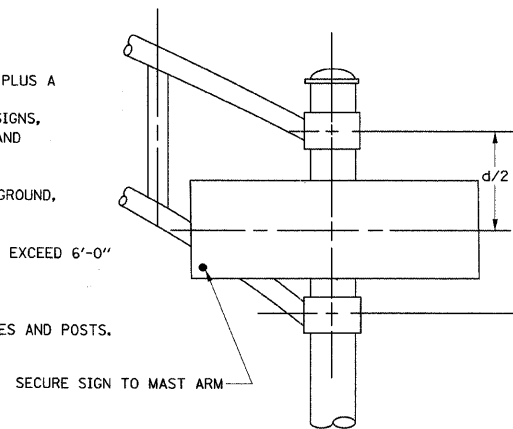
| NUMBER | 6 INCH SERIES | | 8 INCH SERIES | |
|--------|----------------|----------------|----------------|----------------|
| | C | D | C | D |
| 1 | 1 ² | 1 ⁴ | 1 ⁵ | 2 ⁰ |
| 2 | 3 ² | 4 ⁰ | 4 ³ | 5 ³ |
| 3 | 3 ² | 4 ⁰ | 4 ³ | 5 ³ |
| 4 | 3 ⁵ | 4 ³ | 4 ⁷ | 5 ⁷ |
| 5 | 3 ² | 4 ⁰ | 4 ³ | 5 ³ |
| 6 | 3 ² | 4 ⁰ | 4 ³ | 5 ³ |
| 7 | 3 ² | 4 ⁰ | 4 ³ | 5 ³ |
| 8 | 3 ² | 4 ⁰ | 4 ³ | 5 ³ |
| 9 | 3 ² | 4 ⁰ | 4 ³ | 5 ³ |
| 0 | 3 ⁴ | 4 ² | 4 ⁵ | 5 ⁵ |

Number To Number
Spacing Chart 8 Inch Series "C & D"

| FIRST LETTER | SECOND LETTER | | | | | | | | | | | | | | | | | | | |
|--------------|---------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| | 0 | | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | | 8 | | 9 | |
| | C | D | C | D | C | D | C | D | C | D | C | D | C | D | C | D | C | D | C | D |
| 0 9 | 16 | 17 | 16 | 17 | 14 | 15 | 12 | 14 | 14 | 15 | 14 | 15 | 16 | 17 | 12 | 14 | 16 | 17 | 16 | 17 |
| 1 | 20 | 21 | 20 | 21 | 20 | 21 | 16 | 17 | 14 | 15 | 20 | 21 | 20 | 21 | 14 | 15 | 20 | 21 | 20 | 21 |
| 2 3 4 | 14 | 15 | 14 | 15 | 14 | 15 | 12 | 14 | 12 | 14 | 14 | 15 | 14 | 15 | 11 | 12 | 16 | 17 | 14 | 15 |
| 5 | 14 | 15 | 14 | 15 | 14 | 15 | 11 | 12 | 11 | 12 | 14 | 15 | 14 | 15 | 11 | 12 | 14 | 15 | 14 | 15 |
| 6 | 16 | 17 | 14 | 15 | 14 | 15 | 12 | 15 | 12 | 14 | 14 | 15 | 14 | 15 | 11 | 12 | 14 | 15 | 14 | 15 |
| 7 | 12 | 14 | 12 | 14 | 14 | 15 | 12 | 15 | 05 | 06 | 12 | 14 | 14 | 15 | 11 | 12 | 14 | 15 | 12 | 14 |
| 8 | 16 | 17 | 16 | 17 | 14 | 15 | 12 | 15 | 12 | 14 | 14 | 15 | 16 | 17 | 12 | 14 | 16 | 17 | 14 | 15 |



SINGLE ARM



DUAL ARM

GENERAL NOTES

- WHERE MAST ARM MOUNTED STREET NAME SIGNS ARE SPECIFIED, THE MAST ARM AND POLES SHALL BE DESIGNED TO SUPPORT THE LOADINGS CALLED FOR ON STANDARDS 2374 THROUGH 2377, AS APPLICABLE, PLUS A 2'-6" BY 6'-0" SIGN PANEL MOUNTED AS SHOWN. THE DESIGN SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS FOR 80 M.P.H. WIND VELOCITY.
- ALL SIGNS SHALL HAVE A WHITE REFLECTORIZED LEGEND AND BORDER ON A GREEN REFLECTORIZED BACKGROUND, TYPE A SHEETING.
- THE SIGN LENGTH SHOULD BE INCREASED IN 6-INCH INCREMENTS, BUT THE OVERALL LENGTH SHOULD NOT EXCEED 6'-0"
- ALL BORDERS SHALL BE 3/4" WIDE AND CORNER RADIUS SHALL BE 2/4"
- SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM SHALL BE USED FOR ALL SIGNS ATTACHED TO SIGNAL POLES AND POSTS.

LOCAL SUPPLIERS OF THE SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM ARE:

- A.K.T. CORPORATION, SCHAUMBURG, IL.
- AMERICAN FABRICATION CO., CHICAGO HEIGHTS, IL.
- TUCKER COMPANY, INC., WAUWATOSA, WI.
- WESTERN TRAFFIC CONTROL, INC., CICERO, IL.

PARTS LISTING:

- SIGN CHANNEL: PART 3HPN053 (MED. CHANNEL)
- SIGN SCREWS: 1/4" X 14 X 1" H.W.H. #3
- BRACKETS: SELF TAPPING WITH NEOPREEM WASHER
- PART #HPN034 (UNIVERSAL)
- CHANNEL CLAMPS WITH STAINLESS STEEL STRAPPING

OTHER BRANDS OF MOUNTING HARDWARE ARE ACCEPTABLE, BASED UPON THE DEPARTMENT'S APPROVAL AND COMPATIBILITY WITH THE CHANNEL/BRACKET OF THE ABOVE PRODUCT.

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| NO. | |

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PLOT DATE = 12/17/2009

DESIGNED -
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DATE -

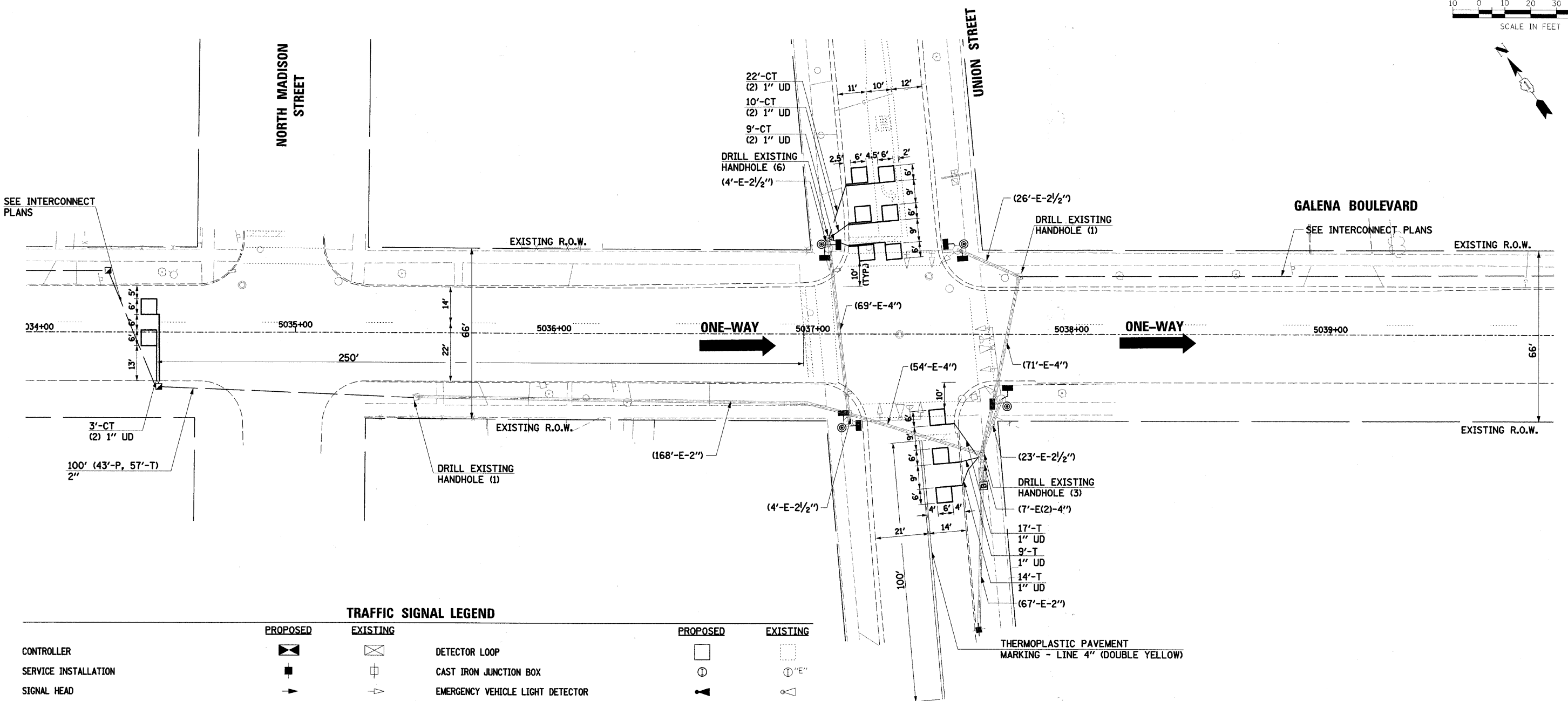
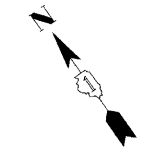
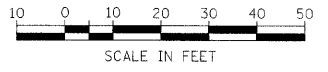
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MAST ARM MOUNTED
STREET NAME SIGNS
ROOT STREET

SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE. SECTION 08-00270-00-TL COUNTY KANE TOTAL SHEETS 44 SHEET NO. 26 CONTRACT NO. 63300
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT



| | | |
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| PROFILE | BY | DATE |
| SURVEYED | | |
| DESIGNED | | |
| CHECKED | | |
| NOTED | | |
| FILE NAME | | |

TRAFFIC SIGNAL LEGEND

| | PROPOSED | EXISTING | | PROPOSED | EXISTING |
|--|----------|----------|--|----------|----------|
| CONTROLLER | | | DETECTOR LOOP | | |
| SERVICE INSTALLATION | | | CAST IRON JUNCTION BOX | | |
| SIGNAL HEAD | | | EMERGENCY VEHICLE LIGHT DETECTOR | | |
| SIGNAL HEAD WITH BACKPLATE | | | CONFIRMATION BEACON | | |
| SIGNAL HEAD, PEDESTRIAN | | | SIGNAL HEAD OPTICALLY PROGRAMMED | | |
| SIGNAL POST | | | CONDUIT SPLICE | | |
| MAST ARM ASSEMBLY AND POLE, STEEL | | | WOOD POLE | | |
| MAST ARM ASSEMBLY AND POLE, ALUMINUM | | | RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II | | |
| COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE | | | VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE | | |
| UNIT DUCT | UD | | RAILROAD CONTROL CABINET | | |
| COMMON TRENCH | CT | | TELEPHONE CONNECTION | | |
| HANDHOLE | | | ILLUMINATED SIGN "NO LEFT TURN" | | |
| HEAVY DUTY HANDHOLE | | | ILLUMINATED SIGN "NO RIGHT TURN" | | |
| DOUBLE HANDHOLE | | | UNINTERRUPTABLE POWER SUPPLY | | |
| G.S. CONDUIT IN TRENCH (T) OR PUSHED (P) | | | VIDEO DETECTION CAMERA | | |
| PEDESTRIAN PUSHBUTTON DETECTOR | | | VIDEO DETECTION AREA | | |
| PAN/TILT/ZOOM CAMERA | | | WIRELESS ANTENNA | | |

THE EXISTING CONDUITS AND VEHICLE DETECTORS (WHERE APPLICABLE) SHALL BE ABANDONED.

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE CITY OF AURORA AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE MAINTENANCE FACILITY DESIGNATED BY THE CITY. THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT (SEE SCHEDULE OF QUANTITIES FOR REMOVAL ITEMS TO BE PAID FOR SEPERATELY).

| | | |
|---|------|---------------------------|
| 1 | EACH | TRAFFIC SIGNAL CONTROLLER |
| 4 | EACH | PEDESTRIAN PUSHBUTTONS |
| 8 | EACH | PEDESTRIAN SIGNAL HEADS |

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

RESTORATION OF WORK AREA:
 RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

CABLE PLAN LEGEND

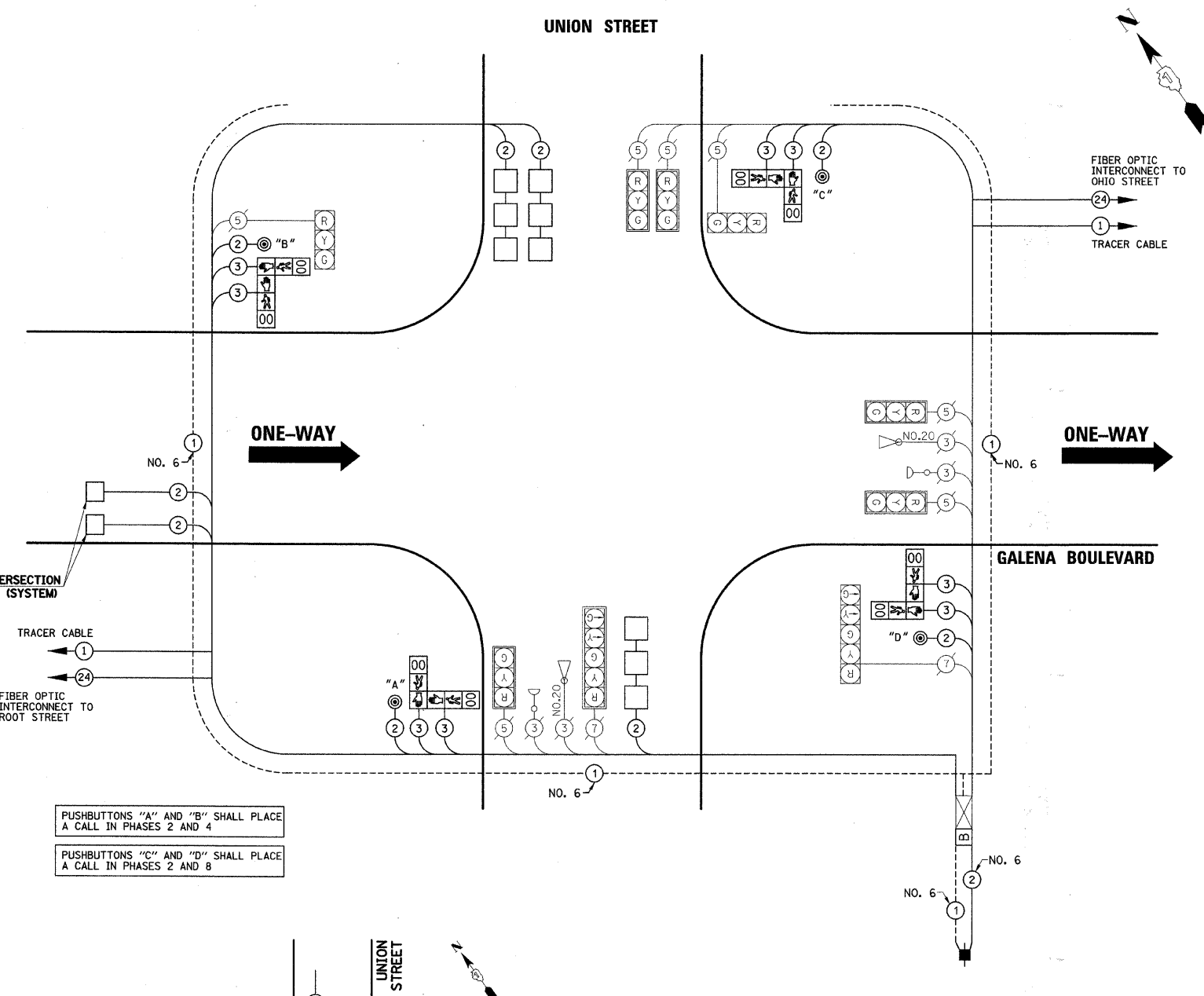
- | | | |
|-----------------|-----------------|---|
| EXISTING | PROPOSED | |
| | | 8" (200mm) TRAFFIC SIGNAL SECTION |
| | | 12" (300mm) TRAFFIC SIGNAL SECTION |
| | | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| | | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| | | CONTROLLER CABINET |
| | | SERVICE INSTALLATION |
| | | TELEPHONE INSTALLATION |
| | | VEHICLE DETECTOR, INDUCTION LOOP |
| | | MAGNETIC DETECTOR |
| | | EMERGENCY VEHICLE LIGHT DETECTOR |
| | | CONFIRMATION BEACON |
| | | PUSHBUTTON DETECTOR |
| | | LUMINAIRE |
| | | DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED. |
| | | GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN) |
| | | FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F |
| | | SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD. |
| | | RAILROAD CONTROL CABINET |
| | | ILLUMINATED SIGN "NO LEFT TURN" |
| | | ILLUMINATED SIGN "NO RIGHT TURN" |
| | | WIRELESS ANTENNA |
| | | GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C) |
| | | GROUND ROD AT POST (P) OR MAST ARM POLE (MA) |
| | | GROUND ROD AT ELECTRIC SERVICE INSTALLATION |
| | | UNINTERRUPTIBLE POWER SUPPLY |
| | | LED STREET NAME SIGN |
| | | VIDEO DETECTION CAMERA |
| | | PAN/TILT/ZOOM CAMERA |

SCHEDULE OF QUANTITIES

| PAY ITEM DESCRIPTION | UNIT | UNION STREET |
|---|------|--------------|
| THERMOPLASTIC PAVEMENT MARKING - LINE 4" | FOOT | 200 |
| CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL | FOOT | 57 |
| CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL | FOOT | 43 |
| TRENCH AND BACKFILL FOR ELECTRICAL WORK | FOOT | 134 |
| MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION | EACH | 1 |
| FULL-ACTUATED CONTROLLER IN EXISTING CABINET | EACH | 1 |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C | FOOT | 459 |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C | FOOT | 974 |
| ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR | FOOT | 1174 |
| ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C | FOOT | 84.5 |
| DRILL EXISTING HANDHOLE | EACH | 10 |
| PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER | EACH | 4 |
| INDUCTIVE LOOP DETECTOR | EACH | 5 |
| DETECTOR LOOP, TYPE I | FOOT | 365.8 |
| PEDESTRIAN PUSH-BUTTON | EACH | 4 |
| REMOVE ELECTRIC CABLE FROM CONDUIT | FOOT | 2290 |
| REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT | EACH | 1 |
| ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C | FOOT | 390 |

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PUSHBUTTONS "A" AND "B" SHALL PLACE A CALL IN PHASES 2 AND 4

PUSHBUTTONS "C" AND "D" SHALL PLACE A CALL IN PHASES 2 AND 8

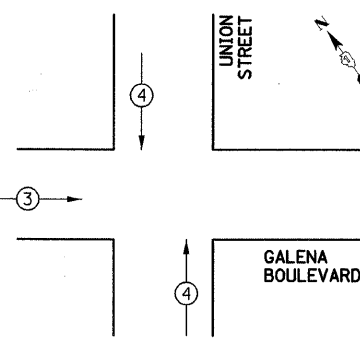
| I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS | | | | |
|---|-----------|---------|------|---------------|
| TYPE | NO. LAMPS | WATTAGE | | TOTAL WATTAGE |
| | | INCAND. | LED | |
| SIGNAL (RED) | 9 | 17 | 0.50 | 76.5 |
| (YELLOW) | 9 | 25 | 0.25 | 56.3 |
| (GREEN) | 9 | 15 | 0.25 | 33.8 |
| ARROW | 4 | 12 | 0.10 | 4.8 |
| PED. SIGNAL | 8 | 25 | 1.00 | 200 |
| CONTROLLER | 1 | 100 | 1.00 | 100 |
| UPS | 1 | 25 | 1.00 | 25 |
| TOTAL = | | | | 496.4 |

ENERGY COSTS TO: CITY OF AURORA
44 E. DOWNER PLACE
AURORA, ILLINOIS 60507-2067

ENERGY SUPPLY CONTACT: MARK SCHERIBEL
PHONE: (630) 723-2128
COMPANY: COMMONWEALTH EDISON

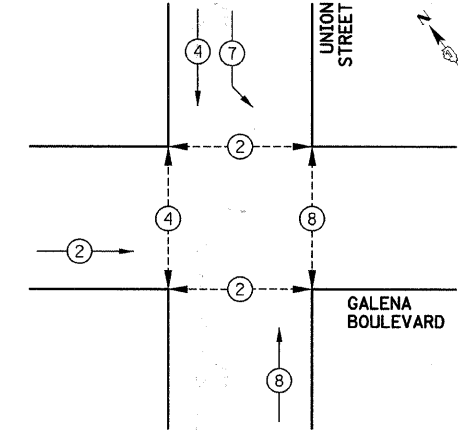
| FOUNDATION (DEPTH) | FT. (m) | CABLE SLACK | FT. (m) | VERTICAL | FT. (m) |
|--------------------|-------------|------------------|-----------|-------------------|--------------------------|
| TYPE A - POST | 4 (1.2) | HANDHOLE | 6.5 (2.0) | ALL FOUNDATIONS | 3.5 (1.0) |
| C - CONTROLLER | 4 (1.2) | DOUBLE HANDHOLE | 13 (4.0) | MAST ARM (L) POLE | 20'+L-2'= (6m+L-0.6m) |
| D - CONTROLLER | 4 (1.2) | SIGNAL POST | 2 (1.0) | BRACKET MOUNTED | 13 (4.0) |
| E - M.A. LENGTH | | CONTROLLER CAB. | 1 (0.5) | PED. PUSHBUTTON | 4 (1.2) |
| <30' | 30" (900mm) | FIBER OPTIC | 13 (4.0) | ELECTRIC SERVICE | 13.5 (4.1) |
| <40' | 30" (750mm) | ELECTRIC SERVICE | 1 (0.5) | SERVICE TO GROUND | 13.5 (4.1) |
| <40' | 36" (900mm) | GROUND CABLE | 1 (0.5) | POST MOUNTED | 6 (1.8) |
| <50' | 36" (900mm) | | | | |
| >50' | 36" (900mm) | | | | |

EMERGENCY VEHICLE PREEMPTION SEQUENCE



| PROPOSED EMERGENCY VEHICLE PREEMPTORS | |
|---------------------------------------|---------|
| PROPOSED EMERGENCY VEHICLE PREEMPTORS | 3 4 |
| MOVEMENT | ← → ↑ ↓ |

CONTROLLER SEQUENCE

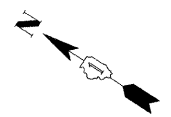
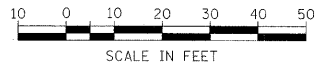


CONTROLLER SEQUENCE LEGEND

- DUAL ENTRY PHASE
- SINGLE ENTRY PHASE
- OVERLAP
- PEDESTRIAN PHASE
- NUMBER REFERRING TO ASSOCIATED PHASE

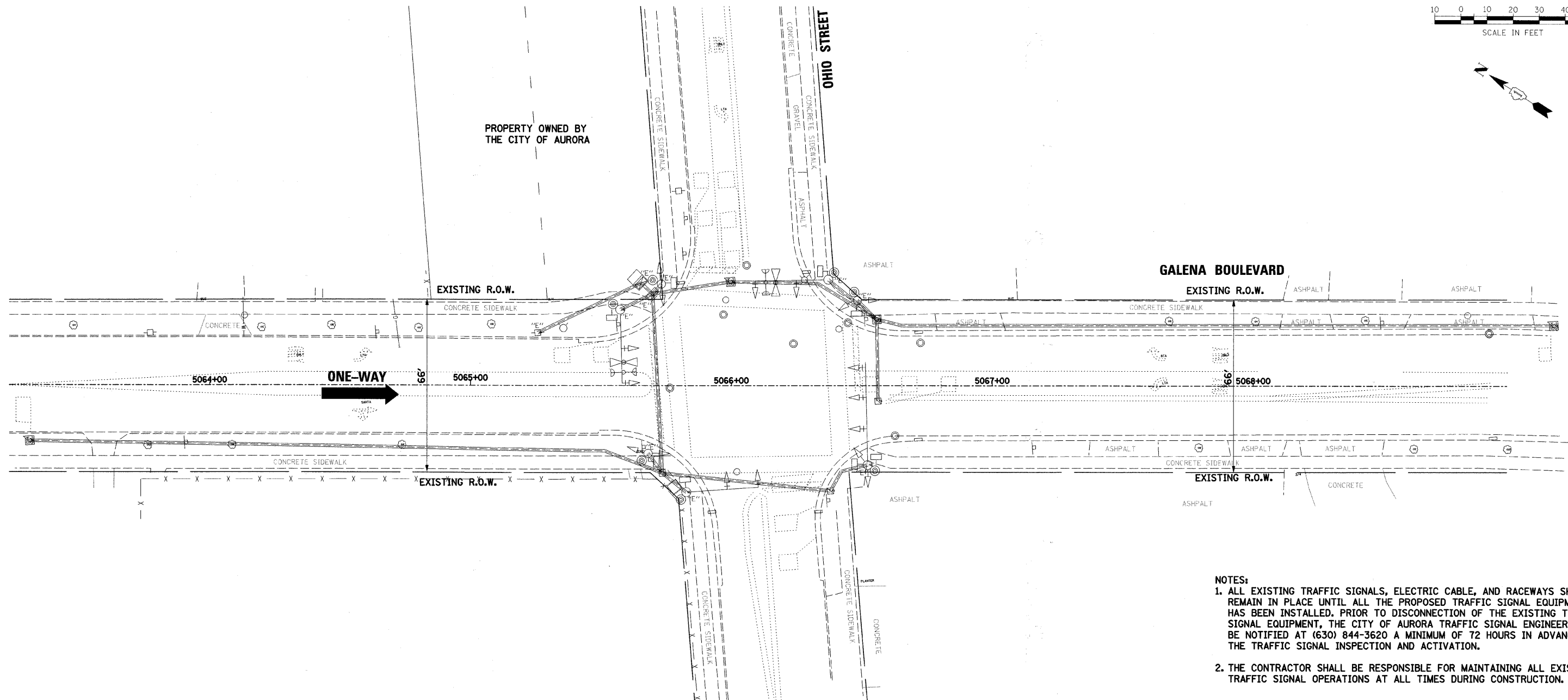
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

PHASE DESIGNATION DIAGRAM



| | | |
|------|--------------------|------|
| PLAN | SURVEYED | DATE |
| | PLOTTED | |
| | CHECKED | |
| | RT. OF WAY CHECKED | |
| | NO. _____ | |
| | CADD FILE NAME | |

| | | |
|---------|--------------------------|------|
| PROFILE | SURVEYED | DATE |
| | PLOTTED | |
| | CHECKED | |
| | BAW NOTED | |
| | STRUCTURE NOTATIONS CHKD | |
| | NO. _____ | |



- NOTES:**
- ALL EXISTING TRAFFIC SIGNALS, ELECTRIC CABLE, AND RACEWAYS SHALL REMAIN IN PLACE UNTIL ALL THE PROPOSED TRAFFIC SIGNAL EQUIPMENT HAS BEEN INSTALLED. PRIOR TO DISCONNECTION OF THE EXISTING TRAFFIC SIGNAL EQUIPMENT, THE CITY OF AURORA TRAFFIC SIGNAL ENGINEER SHALL BE NOTIFIED AT (630) 844-3620 A MINIMUM OF 72 HOURS IN ADVANCE OF THE TRAFFIC SIGNAL INSPECTION AND ACTIVATION.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EXISTING TRAFFIC SIGNAL OPERATIONS AT ALL TIMES DURING CONSTRUCTION.

THE EXISTING CONDUITS AND VEHICLE DETECTORS (WHERE APPLICABLE) SHALL BE ABANDONED.

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY HIM OUTSIDE THE RIGHT-OF-WAY AT HIS EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE. THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT (SEE SCHEDULE OF QUANTITIES FOR REMOVAL ITEMS TO BE PAID FOR SEPERATELY).

- 1 EACH COMBINATION MAST ARM ASSEMBLY AND POLE
- 3 EACH MAST ARM ASSEMBLY AND POLE
- 3 EACH TRAFFIC SIGNAL POST
- 17 EACH TRAFFIC SIGNAL HEADS
- 7 EACH PEDESTRIAN PUSHBUTTONS
- 8 EACH PEDESTRIAN SIGNAL HEADS
- 9 EACH TRAFFIC SIGNAL BACKPLATES
- 1 EACH SERVICE INSTALLATION

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE CITY OF AURORA AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE MAINTENANCE FACILITY DESIGNATED BY THE CITY. THIS WORK SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT.

- 1 EACH TRAFFIC SIGNAL CONTROLLER AND CABINET (COMPLETE)
- 2 EACH LIGHT DETECTOR
- 2 EACH CONFIRMATION BEACON
- 1 EACH LUMINAIRE

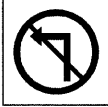
EXISTING EQUIPMENT TO BE REMOVED LEGEND

- EXISTING SIGNAL HEAD TO BE REMOVED
- EXISTING SERVICE INSTALLATION TO BE REMOVED
- EXISTING SIGNAL POST AND FOUNDATION TO BE REMOVED
- EXISTING ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED
- EXISTING CONTROLLER AND FOUNDATION TO BE REMOVED
- EXISTING HANDHOLE TO BE REMOVED
- EXISTING PEDESTRIAN SIGNAL HEAD TO BE REMOVED
- EXISTING PEDESTRIAN PUSHBUTTON TO BE REMOVED
- EMERGENCY VEHICLE LIGHT DETECTOR TO BE REMOVED
- CONFIRMATION BEACON TO BE REMOVED
- EXISTING HEAVY-DUTY HANDHOLE TO BE REMOVED
- EXISTING STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED

| | | | | | | | | | | | |
|---|------------------------|--------------------|-----------|---|--|---|----------------------------------|--------------------|--------------|-----------|--|
| FILE NAME = ...\\fin...dwg\690_5_ssg88a_ohio.dgn | USER NAME = _USER_ | DESIGNED - | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | EXISTING TRAFFIC SIGNAL EQUIPMENT TO BE REMOVED OHIO STREET | F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | |
| | PLOT SCALE = \$SCALE\$ | DRAWN <i>BAH</i> | REVISED - | | | | | KANE | 44 | 29 | |
| | PLOT DATE = 12/17/2009 | CHECKED <i>APS</i> | REVISED - | | | SCALE: | SHEET NO. OF SHEETS STA. TO STA. | CONTRACT NO. 63300 | | | |
| | | DATE - | REVISED - | | | FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT | | | | | |

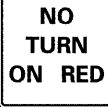
PROPOSED TRAFFIC SIGNS

R3-2-2424
(2 EACH)

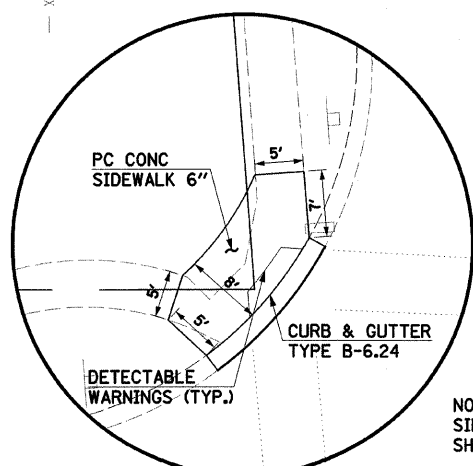
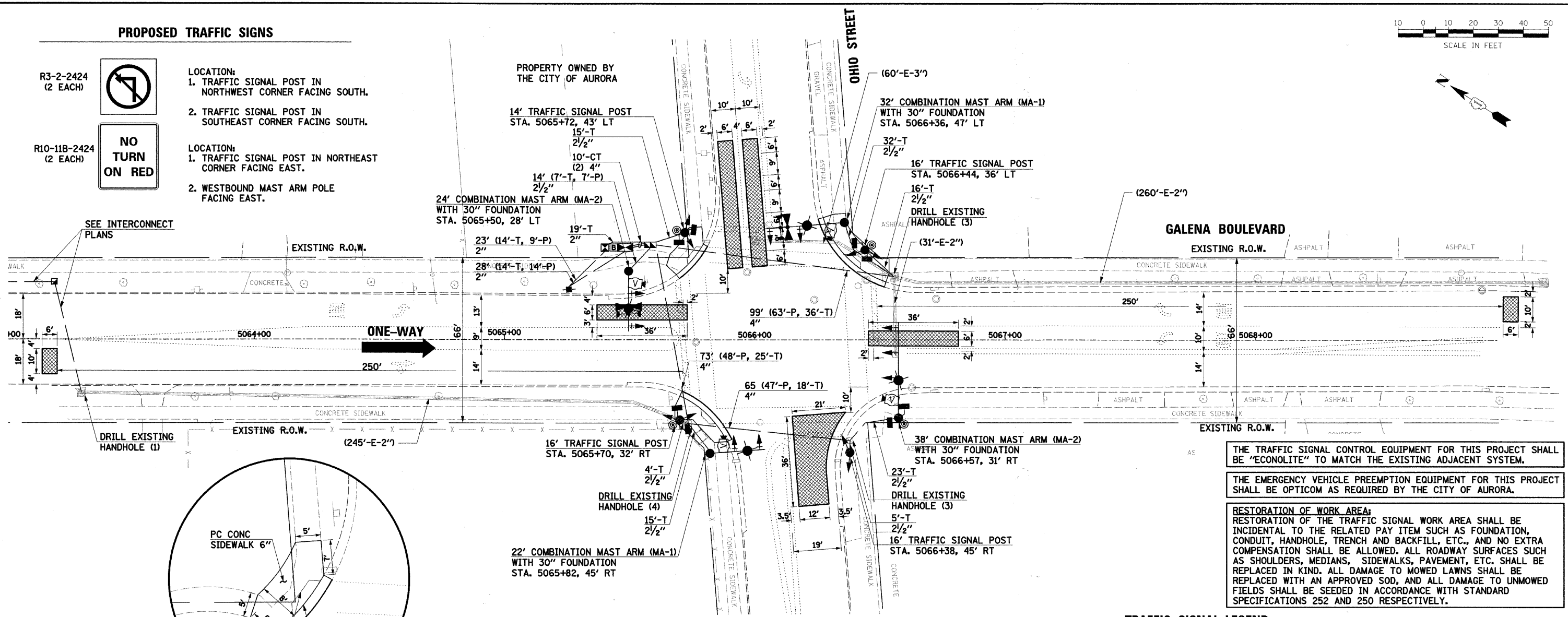
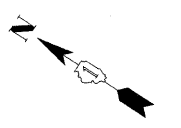
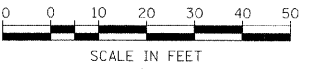


- LOCATION:
1. TRAFFIC SIGNAL POST IN NORTHWEST CORNER FACING SOUTH.
2. TRAFFIC SIGNAL POST IN SOUTHEAST CORNER FACING SOUTH.

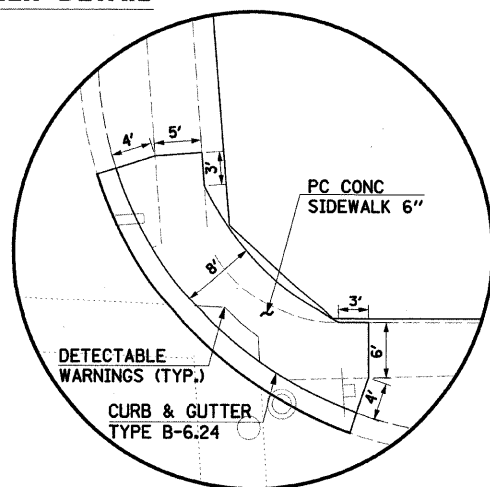
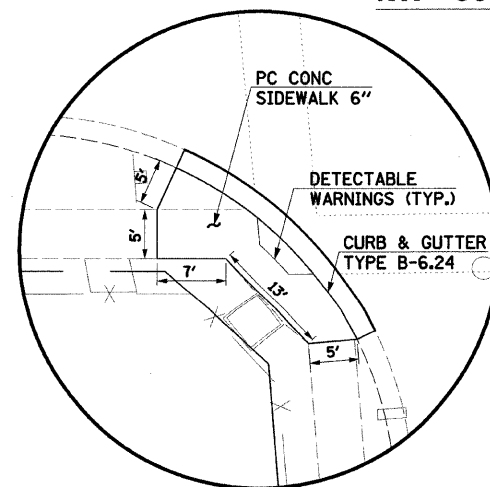
R10-11B-2424
(2 EACH)



- LOCATION:
1. TRAFFIC SIGNAL POST IN NORTHEAST CORNER FACING EAST.
2. WESTBOUND MAST ARM POLE FACING EAST.



NOTE:
SIDEWALK AND CURB & GUTTER REMOVAL SHALL BE PROVIDED AS NECESSARY.



- NOTES:
1. ALL PROPOSED TRAFFIC SIGNAL MAST ARMS AND POSTS, SHALL BE PAINTED BLACK.
2. PHOTOCELL SHALL BE MOUNTED ON THE LIGHTING CONTROLLER CABINET AWAY FROM DIRECT SUNLIGHT. THIS WORK AND THE COST OF THE LIGHTING CONTROLLER CABINET AND FOUNDATION SHALL BE INCLUDED IN THE COST OF THE LIGHTING CONTROLLER.
3. A MINIMUM OF ONE EAST-WEST AND ONE NORTH-SOUTH CROSSWALK SHALL REMAIN OPEN AT ALL TIMES IN ORDER TO MAINTAIN PEDESTRIAN ACCESS.

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE OPTICOM AS REQUIRED BY THE CITY OF AURORA.

RESTORATION OF WORK AREA:
RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

TRAFFIC SIGNAL LEGEND

| | PROPOSED | EXISTING | | PROPOSED | EXISTING |
|--|----------|----------|--|----------|----------|
| CONTROLLER | | | DETECTOR LOOP | | |
| SERVICE INSTALLATION | | | CAST IRON JUNCTION BOX | | |
| SIGNAL HEAD | | | EMERGENCY VEHICLE LIGHT DETECTOR | | |
| SIGNAL HEAD WITH BACKPLATE | | | CONFIRMATION BEACON | | |
| SIGNAL HEAD, PEDESTRIAN | | | SIGNAL HEAD OPTICALLY PROGRAMMED | | |
| SIGNAL POST | | | CONDUIT SPLICE | | |
| MAST ARM ASSEMBLY AND POLE, STEEL | | | WOOD POLE | | |
| MAST ARM ASSEMBLY AND POLE, ALUMINUM | | | RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II | | |
| COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE | | | VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE | | |
| UNIT DUCT | UD | | RAILROAD CONTROL CABINET | | |
| COMMON TRENCH | CT | | TELEPHONE CONNECTION | | |
| HANDHOLE | | | ILLUMINATED SIGN "NO LEFT TURN" | | |
| HEAVY DUTY HANDHOLE | | | ILLUMINATED SIGN "NO RIGHT TURN" | | |
| DOUBLE HANDHOLE | | | UNINTERRUPTABLE POWER SUPPLY | | |
| G.S. CONDUIT IN TRENCH (T) OR PUSHED (P) | | | VIDEO DETECTION CAMERA | | |
| PEDESTRIAN PUSHBUTTON DETECTOR | | | VIDEO DETECTION AREA | | |
| PAN/TILT/ZOOM CAMERA | | | WIRELESS ANTENNA | | |

| | | |
|------|----------|------|
| PLAN | SURVEYED | DATE |
| | PLOTTED | |
| | CHECKED | |
| | BY | |
| | NO. | |

| | | |
|---------|----------|------|
| PROFILE | SURVEYED | DATE |
| | PLOTTED | |
| | CHECKED | |
| | BY | |
| | NO. | |

FILE NAME = ...\\in.dwg\690_5.sig\8b.chso.dgn

USER NAME = _USER_

PLOT SCALE = #SCALE#

PLOT DATE = 12/17/2009

DESIGNED -

DRAWN BAH

CHECKED APS

DATE

REVISED -

REVISED -

REVISED -

REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

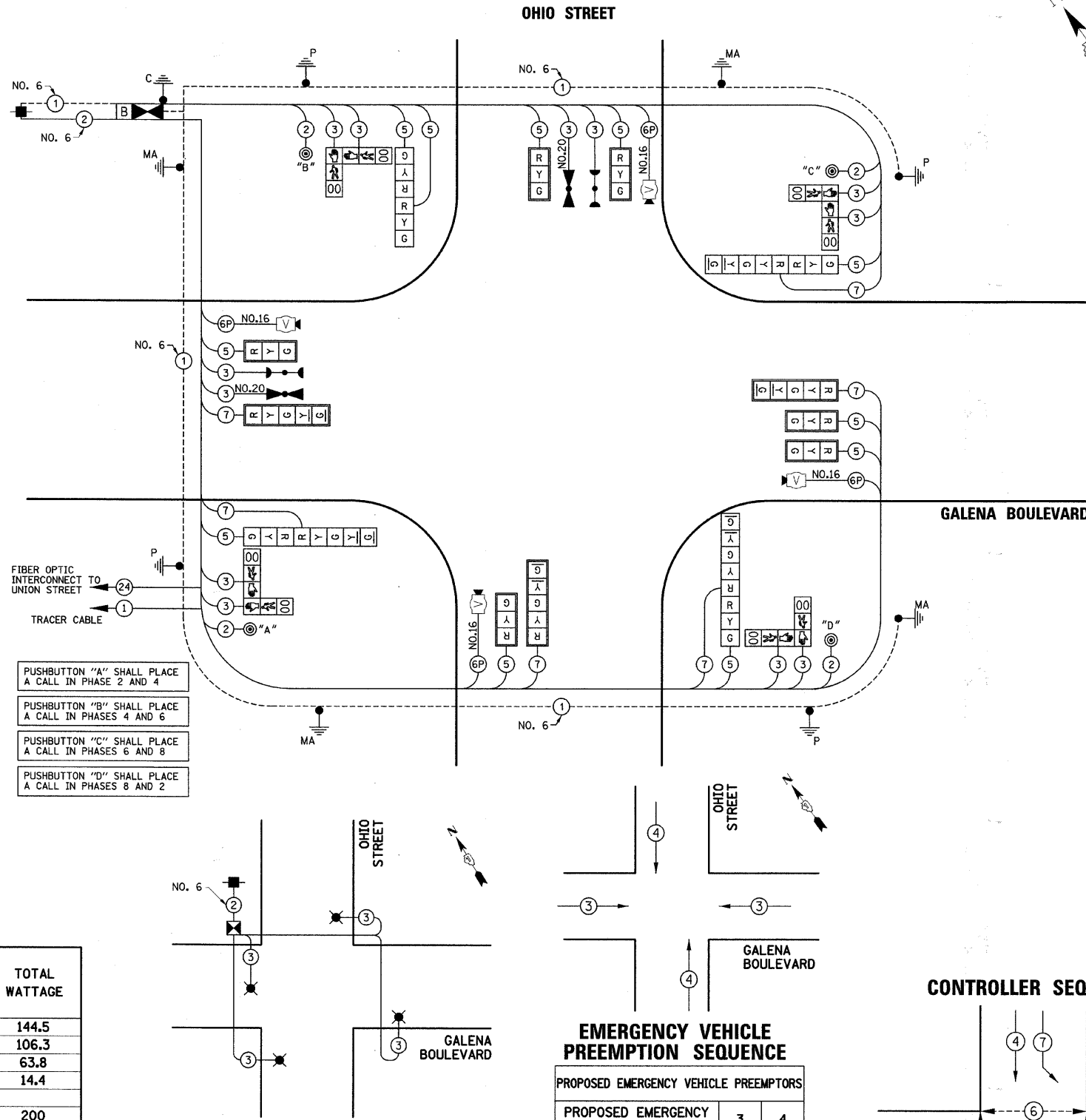
TRAFFIC SIGNAL MODERNIZATION PLAN
OHIO STREET

SCALE: SHEET NO. OF SHEETS STA. TO STA.

| | | | | |
|---|----------------|--------|--------------|-----------|
| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 08-00270-00-TL | KANE | 44 | 30 |
| CONTRACT NO. 63300 | | | | |
| FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | | | |

CABLE PLAN LEGEND

| EXISTING | PROPOSED | DESCRIPTION |
|----------|----------|---|
| | | 8" (200mm) TRAFFIC SIGNAL SECTION |
| | | 12" (300mm) TRAFFIC SIGNAL SECTION |
| | | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| | | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| | | CONTROLLER CABINET |
| | | SERVICE INSTALLATION |
| | | TELEPHONE INSTALLATION |
| | | VEHICLE DETECTOR, INDUCTION LOOP |
| | | MAGNETIC DETECTOR |
| | | EMERGENCY VEHICLE LIGHT DETECTOR |
| | | CONFIRMATION BEACON |
| | | PUSHBUTTON DETECTOR |
| | | LUMINAIRE |
| | | DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED. |
| | | GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN) |
| | | FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F |
| | | SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD. |
| | | RAILROAD CONTROL CABINET |
| | | ILLUMINATED SIGN "NO LEFT TURN" |
| | | ILLUMINATED SIGN "NO RIGHT TURN" |
| | | WIRELESS ANTENNA |
| | | GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C) |
| | | GROUND ROD AT POST (P) OR MAST ARM POLE (MA) |
| | | GROUND ROD AT ELECTRIC SERVICE INSTALLATION |
| | | UNINTERRUPTIBLE POWER SUPPLY |
| | | LED STREET NAME SIGN |
| | | VIDEO DETECTION CAMERA |
| | | PAN/TILT/ZOOM CAMERA |



SCHEDULE OF QUANTITIES

| PAY ITEM DESCRIPTION | UNIT | OHIO STREET |
|---|-------|-------------|
| PORTLAND CEMENT CONCRETE SIDEWALK 6 INCH | SQ FT | 561 |
| DETECTABLE WARNINGS | SQ FT | 42 |
| COMBINATION CURB AND GUTTER REMOVAL | FOOT | 87 |
| SIDEWALK REMOVAL | SQ FT | 416 |
| COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6-24 | FOOT | 87 |
| SIGN PANEL - TYPE 1 | SQ FT | 44.5 |
| ELECTRICAL SERVICE INSTALLATION | EACH | 1 |
| CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL | FOOT | 47 |
| CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL | FOOT | 117 |
| CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL | FOOT | 99 |
| CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL | FOOT | 23 |
| CONDUIT PUSHED, 2 1/2" DIA., GALVANIZED STEEL | FOOT | 7 |
| CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL | FOOT | 158 |
| DOUBLE HANDHOLE | EACH | 1 |
| ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 10 | FOOT | 812 |
| TRENCH AND BACKFILL FOR ELECTRICAL WORK | FOOT | 253 |
| LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT | EACH | 4 |
| LIGHTING CONTROLLER TYPE CB-RC8 60 AMP - 240 VOLT | EACH | 1 |
| FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL | EACH | 1 |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C | FOOT | 534 |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C | FOOT | 1410.5 |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C | FOOT | 1768.5 |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C | FOOT | 1063.5 |
| ELECTRIC CABLE IN CONDUIT, COMMUNICATION NO. 16 6 PAIR | FOOT | 776 |
| ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C | FOOT | 86 |
| TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT. | EACH | 1 |
| TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT. | EACH | 3 |
| STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 22 FT. | EACH | 1 |
| STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 24 FT. | EACH | 1 |
| STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 32 FT. | EACH | 1 |
| STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 38 FT. | EACH | 1 |
| CONCRETE FOUNDATION, TYPE A | FOOT | 16 |
| CONCRETE FOUNDATION, TYPE C | FOOT | 4 |
| CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER | FOOT | 47 |
| DRILL EXISTING HANDHOLE | EACH | 11 |
| SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED | EACH | 6 |
| SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED | EACH | 3 |
| SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED | EACH | 1 |
| SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED | EACH | 3 |
| PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER | EACH | 4 |
| TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM | EACH | 9 |
| LIGHT DETECTOR | EACH | 2 |
| LIGHT DETECTOR AMPLIFIER | EACH | 1 |
| PEDESTRIAN PUSH-BUTTON | EACH | 4 |
| REMOVE ELECTRIC CABLE FROM CONDUIT | FOOT | 6472 |
| REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT | EACH | 1 |
| REMOVE EXISTING HANDHOLE | EACH | 1 |
| REMOVE EXISTING CONCRETE FOUNDATION | EACH | 8 |
| PAINT NEW COMBINATION MAST ARM AND POLE, UNDER 40 FT | EACH | 4 |
| SERVICE INSTALLATION - POLE MOUNTED | EACH | 1 |
| PAINT TRAFFIC SIGNAL POST | EACH | 4 |
| UNINTERRUPTIBLE POWER SUPPLY | EACH | 1 |
| ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C | FOOT | 594.5 |
| VIDEO DETECTION SYSTEM | EACH | 1 |
| ELECTRIC CABLE IN CONDUIT, NO. 20 3/C TWISTED SHIELDED | FOOT | 301.5 |
| GROUND EXISTING HANDHOLE FRAME AND COVER | EACH | 7 |

DATE: _____ BY: _____
 SURVEYED _____ PLOTTED _____ CHECKED _____
 NOTE BOOK _____ PLAN NO. _____
 NO. _____

DATE: _____ BY: _____
 SURVEYED _____ PLOTTED _____ CHECKED _____
 NOTE BOOK _____ PROFILE NO. _____
 NO. _____

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS

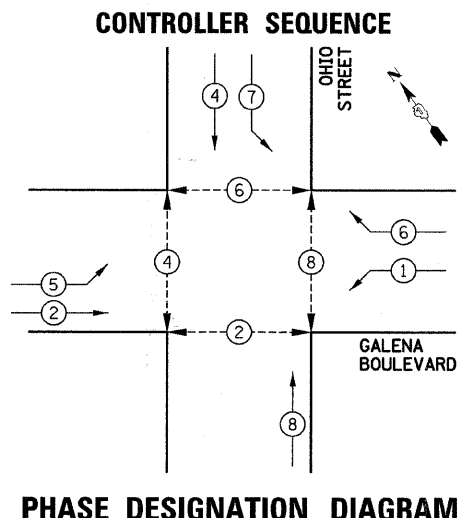
| TYPE | NO. LAMPS | WATTAGE | | % OPERATION | TOTAL WATTAGE |
|----------------|-----------|---------|-----|-------------|---------------|
| | | INCAND. | LED | | |
| SIGNAL (RED) | 17 | | 17 | 0.50 | 144.5 |
| (YELLOW) | 17 | | 25 | 0.25 | 106.3 |
| (GREEN) | 17 | | 15 | 0.25 | 63.8 |
| ARROW | 12 | | 12 | 0.10 | 14.4 |
| PED. SIGNAL | 8 | | 25 | 1.00 | 200 |
| CONTROLLER | 1 | | 100 | 1.00 | 100 |
| UPS | 1 | | 25 | 1.00 | 25 |
| VIDEO SYSTEM | 1 | | 15 | 1.00 | 15 |
| LUMINAIRE | 4 | | 250 | 0.50 | 500 |
| TOTAL = | | | | | 1169 |

ENERGY COSTS TO: CITY OF AURORA
 44 E. DOWNER PLACE
 AURORA, ILLINOIS 60507-2067

ENERGY SUPPLY CONTACT: MARK SCHERIBEL
 PHONE: (630) 723-2128
 COMPANY: COMMONWEALTH EDISON

LIGHTING CABLE PLAN

| FOUNDATION (DEPTH) | FT. (m) | CABLE SLACK | FT. (m) | VERTICAL | FT. (m) |
|--------------------|-------------|------------------|-----------|-------------------|-------------|
| TYPE A - POST | 4 (1.2) | HANDHOLE | 6.5 (2.0) | ALL FOUNDATIONS | 3.5 (1.0) |
| C - CONTROLLER | 4 (1.2) | DOUBLE HANDHOLE | 13 (4.0) | MAST ARM (L) POLE | 20'+L-2= |
| D - CONTROLLER | 4 (1.2) | SIGNAL POST | 2 (1.0) | | (6m+L-0.6m) |
| E - M.A. LENGTH | | CONTROLLER CAB. | 1 (0.5) | BRACKET MOUNTED | 13 (4.0) |
| <30' | 30" (900mm) | FIBER OPTIC | 13 (4.0) | PED. PUSHBUTTON | 4 (1.2) |
| <40' | 30" (750mm) | ELECTRIC SERVICE | 1 (0.5) | ELECTRIC SERVICE | 13.5 (4.1) |
| <40' | 36" (900mm) | GROUND CABLE | 1 (0.5) | SERVICE TO GROUND | 13.5 (4.1) |
| <50' | 36" (900mm) | | | POST MOUNTED | 6 (1.8) |
| >50' | 36" (900mm) | | | | |



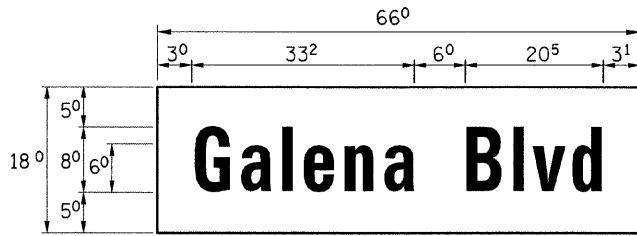
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE OPTICOM AS REQUIRED BY THE CITY OF AURORA.

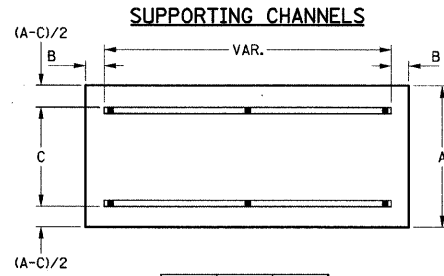
DATE
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REL. OF WAY CHECKED
CADD FILE NAME
RT. OF WAY CHECKED

DATE
BY
SURVEYED
PLOTTED
NOTE BOOK
NO.
CHECKED
BLANK NOTED
STRUCTURE NOTATIONS CHKD

PANEL SIGN DESIGN TYPE 1

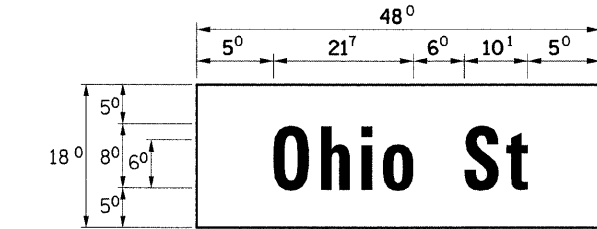


MA-1
8.25 Sq. Ft each
2 Required
Design Series D

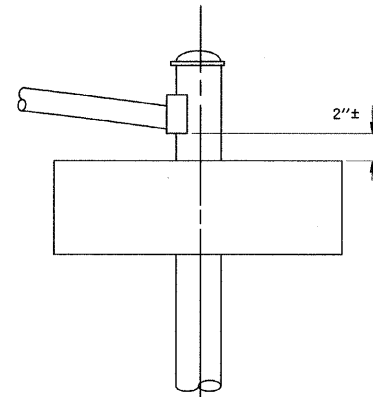


| | | |
|-----|----|-----|
| A | B | C |
| 18" | 2" | 12" |
| 30" | 2" | 22" |

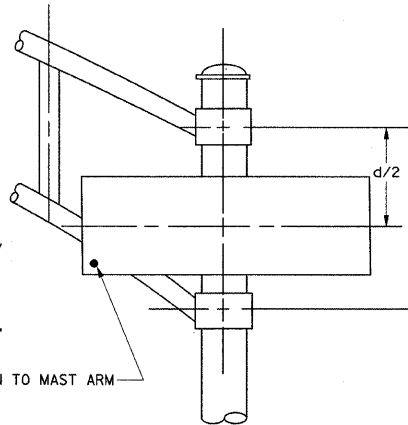
SIGNIFIX ALUMINUM CHANNEL FRAMING SYSTEM shall be used. See Note #5



MA-2
6.00 Sq. Ft each
2 Required
Design Series D



SINGLE ARM



DUAL ARM

GENERAL NOTES

- WHERE MAST ARM MOUNTED STREET NAME SIGNS ARE SPECIFIED, THE MAST ARM AND POLES SHALL BE DESIGNED TO SUPPORT THE LOADINGS CALLED FOR ON STANDARDS 2374 THROUGH 2377, AS APPLICABLE, PLUS A 2'-6" BY 6'-0" SIGN PANEL MOUNTED AS SHOWN. THE DESIGN SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS FOR 80 M.P.H. WIND VELOCITY.
- ALL SIGNS SHALL HAVE A WHITE REFLECTORIZED LEGEND AND BORDER ON A GREEN REFLECTORIZED BACKGROUND, TYPE A SHEETING.
- THE SIGN LENGTH SHOULD BE INCREASED IN 6-INCH INCREMENTS, BUT THE OVERALL LENGTH SHOULD NOT EXCEED 6'-0"
- ALL BORDERS SHALL BE 3/4" WIDE AND CORNER RADIUS SHALL BE 2 1/4".
- SIGNIFIX ALUMINUM CHANNEL FRAMING SYSTEM SHALL BE USED FOR ALL SIGNS ATTACHED TO SIGNAL POLES AND POSTS.

LOCAL SUPPLIERS OF THE SIGNIFIX ALUMINUM CHANNEL FRAMING SYSTEM ARE:

- A.K.T. CORPORATION, SCHAUMBURG, IL.
- AMERICAN FABRICATION CO., CHICAGO HEIGHTS, IL.
- TUCKER COMPANY, INC., WAUWATOSA, WI.
- WESTERN TRAFFIC CONTROL, INC., CICERO, IL.

PARTS LISTING:

- SIGN CHANNEL: PART 3HPN053 (MED. CHANNEL)
- SIGN SCREWS: 1/4" X 14 X 1" H.W.H. #3
- BRACKETS: SELF TAPPING WITH NEOPREEM WASHER
- CHANNEL CLAMPS WITH STAINLESS STEEL STRAPPING: PART #HPN034 (UNIVERSAL)

OTHER BRANDS OF MOUNTING HARDWARE ARE ACCEPTABLE, BASED UPON THE DEPARTMENT'S APPROVAL AND COMPATIBILITY WITH THE CHANNEL/BRACKET OF THE ABOVE PRODUCT.

Upper Case To Lower Case Spacing Chart 8-6 Inch Series "C & D"

EXAMPLE, 2 ③ DENOTES 3/8"

| FIRST LETTER | SECOND LETTER | | | | | | | | | | | | | | | | | |
|--------------|---------------|----|-----------|----|----|----|-----|----|----|----|-----|----|-----|----|----|----|----|----|
| | a c d e | | b h i k l | | | | f w | | j | | s t | | v y | | x | | z | |
| | C | D | C | D | C | D | C | D | C | D | C | D | C | D | C | D | C | D |
| A W X | 12 | 14 | 14 | 15 | 12 | 14 | 06 | 10 | 11 | 14 | 06 | 10 | 11 | 12 | 12 | 14 | 14 | 15 |
| B | 14 | 15 | 20 | 21 | 14 | 15 | 11 | 12 | 14 | 15 | 12 | 14 | 12 | 14 | 16 | 17 | | |
| C E G | 14 | 15 | 20 | 21 | 12 | 14 | 06 | 10 | 12 | 14 | 12 | 14 | 14 | 15 | 14 | 15 | | |
| D O Q R | 14 | 15 | 20 | 21 | 14 | 15 | 06 | 10 | 12 | 14 | 12 | 14 | 14 | 15 | 14 | 15 | | |
| F | 05 | 06 | 14 | 15 | 06 | 10 | 05 | 06 | 06 | 10 | 06 | 10 | 06 | 10 | 11 | 12 | | |
| H I M N | 20 | 21 | 22 | 24 | 20 | 21 | 14 | 15 | 16 | 17 | 16 | 17 | 20 | 21 | 20 | 21 | | |
| J U | 20 | 21 | 20 | 21 | 16 | 17 | 14 | 15 | 16 | 17 | 16 | 17 | 16 | 17 | 20 | 21 | | |
| K L | 11 | 12 | 16 | 17 | 11 | 12 | 05 | 06 | 11 | 12 | 11 | 12 | 11 | 12 | 12 | 14 | | |
| P | 12 | 14 | 14 | 15 | 12 | 14 | 05 | 06 | 11 | 12 | 11 | 12 | 12 | 14 | 12 | 14 | | |
| S | 12 | 14 | 16 | 17 | 12 | 14 | 06 | 10 | 12 | 14 | 12 | 14 | 12 | 14 | 12 | 14 | | |
| T | 11 | 12 | 16 | 17 | 06 | 10 | 06 | 10 | 11 | 12 | 11 | 12 | 11 | 12 | 12 | 14 | | |
| V | 06 | 10 | 14 | 15 | 11 | 12 | 06 | 10 | 12 | 14 | 12 | 14 | 12 | 14 | 12 | 14 | | |
| Y | 05 | 06 | 14 | 15 | 06 | 10 | 05 | 06 | 05 | 07 | 05 | 06 | 06 | 10 | 11 | 12 | | |
| Z | 16 | 17 | 22 | 24 | 16 | 17 | 12 | 14 | 16 | 17 | 16 | 17 | 16 | 17 | 20 | 21 | | |

Lower Case To Lower Case Spacing Chart 6 Inch Series "C & D"

| FIRST LETTER | SECOND LETTER | | | | | | | | | | | | | | | | | |
|--------------|---------------|----|-------------|----|----|----|-----|----|----|----|-----|----|-----|----|----|----|---|---|
| | a d h g i j | | b f k o p s | | | | c e | | r | | t z | | v y | | w | | x | |
| | C | D | C | D | C | D | C | D | C | D | C | D | C | D | C | D | C | D |
| a d h g i j | 16 | 17 | 22 | 24 | 16 | 17 | 12 | 14 | 14 | 15 | 14 | 15 | 16 | 17 | 16 | 17 | | |
| l m n q u | | | | | | | | | | | | | | | | | | |
| b f k o p s | 12 | 14 | 16 | 17 | 11 | 12 | 05 | 06 | 11 | 12 | 11 | 12 | 12 | 14 | 12 | 14 | | |
| c e | 12 | 14 | 16 | 17 | 12 | 14 | 06 | 10 | 12 | 14 | 12 | 14 | 12 | 14 | 12 | 14 | | |
| r | 06 | 10 | 12 | 14 | 06 | 10 | 03 | 03 | 05 | 06 | 05 | 06 | 06 | 10 | 06 | 10 | | |
| t z | 12 | 14 | 16 | 17 | 12 | 14 | 06 | 10 | 11 | 12 | 11 | 12 | 12 | 14 | 12 | 14 | | |
| v y | 11 | 12 | 14 | 15 | 11 | 12 | 05 | 06 | 06 | 10 | 06 | 10 | 11 | 12 | 11 | 12 | | |
| w | 11 | 12 | 14 | 15 | 11 | 12 | 05 | 06 | 11 | 12 | 11 | 12 | 11 | 12 | 12 | 14 | | |
| x | 12 | 14 | 16 | 17 | 11 | 12 | 05 | 06 | 11 | 12 | 11 | 12 | 11 | 12 | 12 | 14 | | |

Number To Number Spacing Chart 8 Inch Series "C & D"

| FIRST LETTER | SECOND LETTER | | | | | | | | | | | | | | | | | | | |
|--------------|---------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| | 0 | | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | | 8 | | 9 | |
| | C | D | C | D | C | D | C | D | C | D | C | D | C | D | C | D | C | D | C | D |
| 0 9 | 16 | 17 | 16 | 17 | 14 | 15 | 12 | 14 | 14 | 15 | 14 | 15 | 16 | 17 | 12 | 14 | 16 | 17 | 16 | 17 |
| 1 | 20 | 21 | 20 | 21 | 20 | 21 | 16 | 17 | 14 | 15 | 20 | 21 | 20 | 21 | 14 | 15 | 20 | 21 | 20 | 21 |
| 2 3 4 | 14 | 15 | 14 | 15 | 14 | 15 | 12 | 14 | 12 | 14 | 14 | 15 | 14 | 15 | 11 | 12 | 16 | 17 | 14 | 15 |
| 5 | 14 | 15 | 14 | 15 | 14 | 15 | 11 | 12 | 11 | 12 | 14 | 15 | 14 | 15 | 11 | 12 | 14 | 15 | 14 | 15 |
| 6 | 16 | 17 | 14 | 15 | 14 | 15 | 12 | 15 | 12 | 14 | 14 | 15 | 14 | 15 | 11 | 12 | 14 | 15 | 14 | 15 |
| 7 | 12 | 14 | 12 | 14 | 14 | 15 | 12 | 15 | 05 | 06 | 12 | 14 | 14 | 15 | 11 | 12 | 14 | 15 | 12 | 14 |
| 8 | 16 | 17 | 16 | 17 | 14 | 15 | 12 | 15 | 12 | 14 | 14 | 15 | 16 | 17 | 12 | 14 | 16 | 17 | 14 | 15 |

| LETTERS | 6 INCH UPPER CASE LETTERS | | 8 INCH UPPER CASE LETTERS | | LETTERS | 6 INCH LOWER CASE LETTERS | |
|---------|---------------------------|----------------|---------------------------|----------------|---------|---------------------------|----------------|
| | SERIES | | SERIES | | | SERIES | |
| | C | D | C | D | | C | D |
| A | 3 ⁶ | 5 ⁰ | 5 ⁰ | 6 ⁵ | a | 3 ⁵ | 4 ² |
| B | 3 ² | 4 ⁰ | 4 ³ | 5 ³ | b | 3 ⁵ | 4 ² |
| C | 3 ² | 4 ⁰ | 4 ³ | 5 ³ | c | 3 ⁵ | 4 ¹ |
| D | 3 ² | 4 ⁰ | 4 ³ | 5 ³ | d | 3 ⁵ | 4 ² |
| E | 3 ⁰ | 3 ⁵ | 4 ⁰ | 4 ⁷ | e | 3 ⁵ | 4 ² |
| F | 3 ⁰ | 3 ⁵ | 4 ⁰ | 4 ⁷ | f | 2 ³ | 2 ⁶ |
| G | 3 ² | 4 ⁰ | 4 ³ | 5 ³ | g | 3 ⁵ | 4 ² |
| H | 3 ² | 4 ⁰ | 4 ³ | 5 ³ | h | 3 ⁵ | 4 ² |
| I | 0 ⁷ | 0 ⁷ | 1 ¹ | 1 ² | i | 1 ¹ | 1 ¹ |
| J | 3 ⁰ | 3 ⁶ | 4 ⁰ | 5 ⁰ | j | 2 ⁰ | 2 ² |
| K | 3 ² | 4 ¹ | 4 ³ | 5 ⁴ | k | 3 ⁵ | 4 ² |
| L | 3 ⁰ | 3 ⁵ | 4 ⁰ | 4 ⁷ | l | 1 ¹ | 1 ¹ |
| M | 3 ⁷ | 4 ⁵ | 5 ¹ | 6 ¹ | m | 6 ⁰ | 7 ⁰ |
| N | 3 ² | 4 ⁰ | 4 ³ | 5 ³ | n | 3 ⁵ | 4 ² |
| O | 3 ⁴ | 4 ² | 4 ⁵ | 5 ⁵ | o | 3 ⁶ | 4 ³ |
| P | 3 ² | 4 ⁰ | 4 ³ | 5 ³ | p | 3 ⁵ | 4 ² |
| Q | 3 ⁴ | 4 ² | 4 ⁵ | 5 ⁵ | q | 3 ⁵ | 4 ² |
| R | 3 ² | 4 ⁰ | 4 ³ | 5 ³ | r | 2 ⁶ | 3 ² |
| S | 3 ² | 4 ⁰ | 4 ³ | 5 ³ | s | 3 ⁶ | 4 ² |
| T | 3 ⁰ | 3 ⁵ | 4 ⁰ | 4 ⁷ | t | 2 ⁷ | 3 ² |
| U | 3 ² | 4 ⁰ | 4 ³ | 5 ³ | u | 3 ⁵ | 4 ² |
| V | 3 ⁵ | 4 ⁴ | 4 ⁷ | 6 ⁰ | v | 4 ² | 4 ⁷ |
| W | 4 ⁴ | 5 ² | 6 ⁰ | 7 ⁰ | w | 5 ⁵ | 6 ⁴ |
| X | 3 ⁴ | 4 ⁰ | 4 ⁵ | 5 ³ | x | 4 ⁴ | 5 ¹ |
| Y | 3 ⁶ | 5 ⁰ | 5 ⁰ | 6 ⁶ | y | 4 ⁶ | 5 ³ |
| Z | 3 ² | 4 ⁰ | 4 ³ | 5 ³ | z | 3 ⁶ | 4 ³ |

| NUMBER | 6 INCH SERIES | | 8 INCH SERIES | |
|--------|----------------|----------------|----------------|----------------|
| | C | D | C | D |
| 1 | 1 ² | 1 ⁴ | 1 ⁵ | 2 ⁰ |
| 2 | 3 ² | 4 ⁰ | 4 ³ | 5 ³ |
| 3 | 3 ² | 4 ⁰ | 4 ³ | 5 ³ |
| 4 | 3 ⁵ | 4 ³ | 4 ⁷ | 5 ⁷ |
| 5 | 3 ² | 4 ⁰ | 4 ³ | 5 ³ |
| 6 | 3 ² | 4 ⁰ | 4 ³ | 5 ³ |
| 7 | 3 ² | 4 ⁰ | 4 ³ | 5 ³ |
| 8 | 3 ² | 4 ⁰ | 4 ³ | 5 ³ |
| 9 | 3 ² | 4 ⁰ | 4 ³ | 5 ³ |
| 0 | 3 ⁴ | 4 ² | 4 ⁵ | 5 ⁵ |

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STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

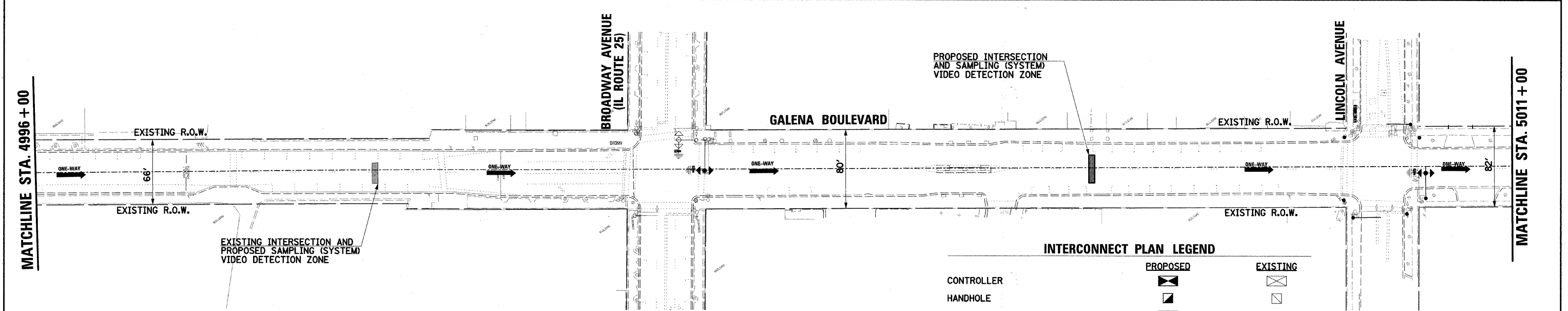
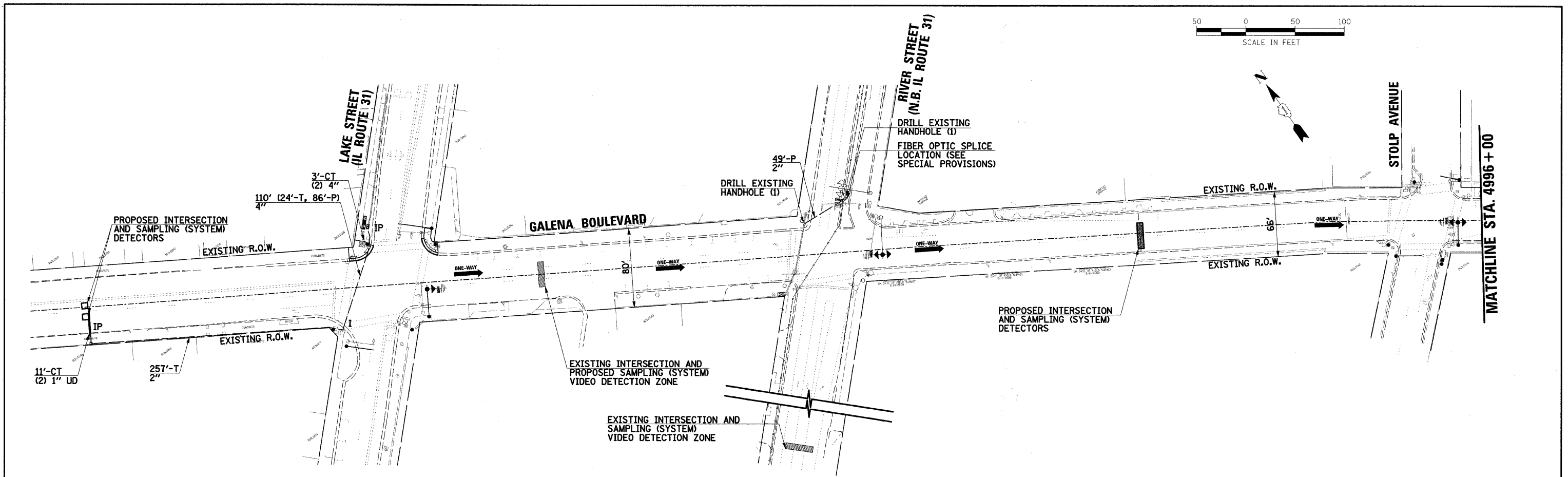
MAST ARM MOUNTED STREET NAME SIGNS OHIO STREET

SCALE: SHEET NO. OF SHEETS STA. TO STA.

| | | | | |
|---|----------------|--------|--------------|-----------|
| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 08-00270-00-TL | KANE | 44 | 32 |
| CONTRACT NO. 63300 | | | | |
| FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | | | |

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INTERCONNECT PLAN LEGEND

| | PROPOSED | EXISTING |
|--|----------|----------|
| CONTROLLER | | |
| HANDHOLE | | |
| DOUBLE HANDHOLE | | |
| HEAVY-DUTY HANDHOLE | | |
| G.S. CONDUIT IN TRENCH (T) OR PUSHED (P) | | |
| DETECTOR LOOP | | |
| UNIT DUCT | UD | |
| SYSTEM | S | |
| INTERSECTION | IP | I |
| MAST ARM ASSEMBLY AND POLE, STEEL | | |
| WIRELESS ANTENNA | | |
| VIDEO DETECTION ZONE | | |

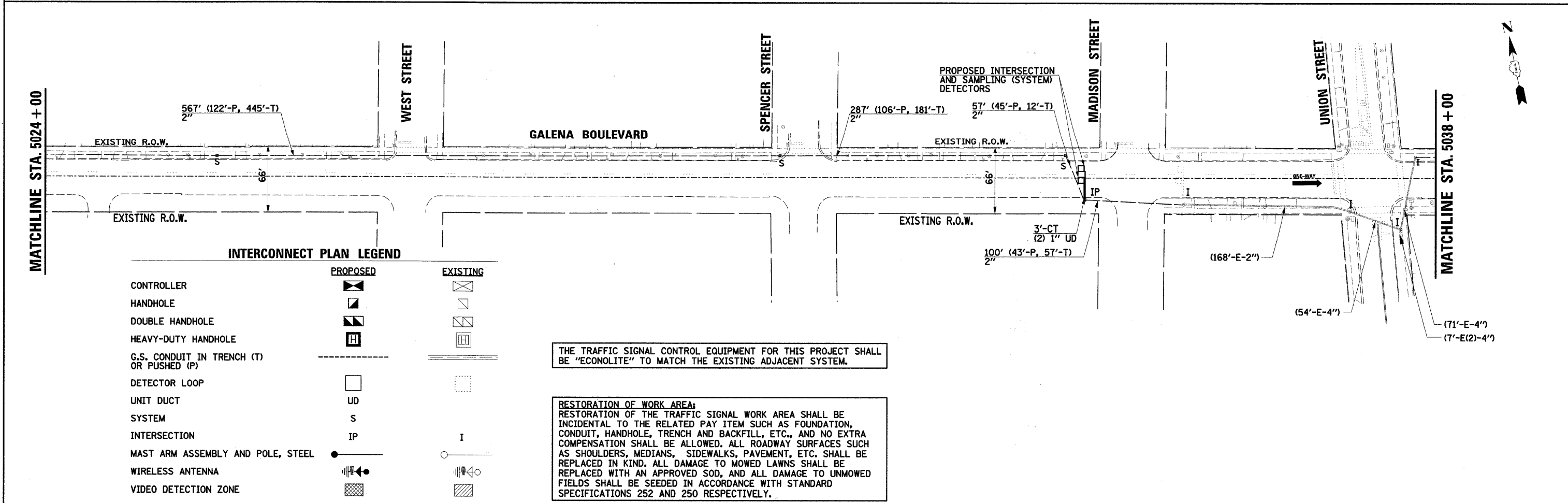
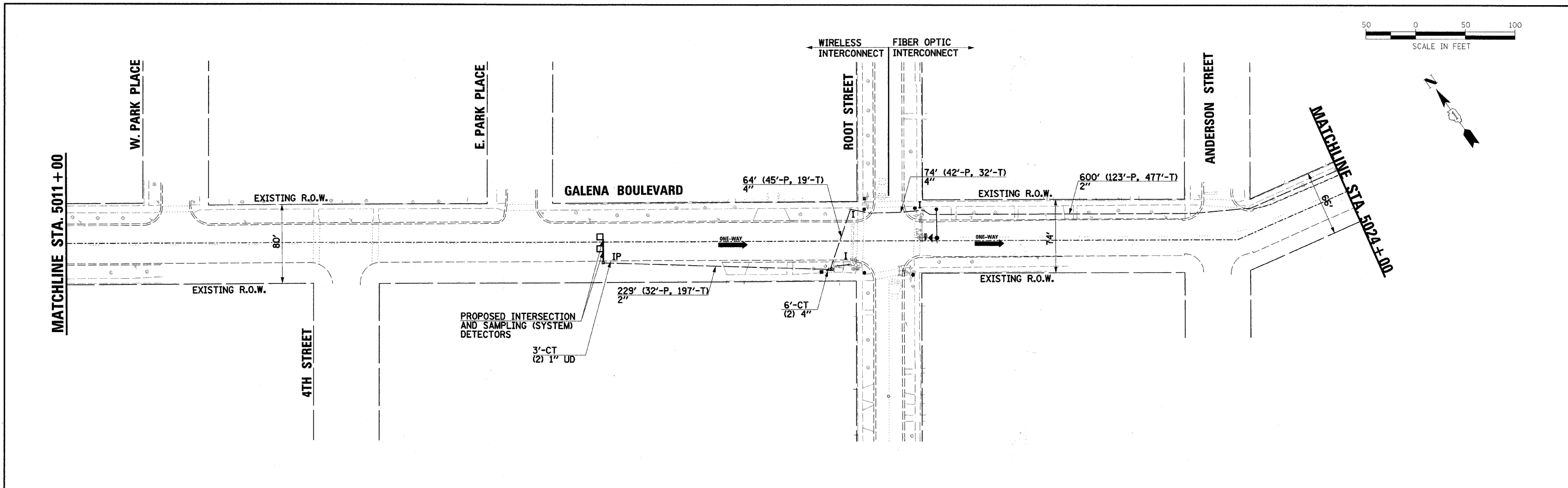
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

NOTE:
THE PROPOSED TERMINAL SERVER AND ETHERNET SWITCH SHALL BE INSTALLED WITHIN THE EXISTING TRAFFIC SIGNAL CONTROLLER CABINET AT RIVER STREET (SEE SPECIAL PROVISIONS).

RESTORATION OF WORK AREA:
RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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INTERCONNECT PLAN LEGEND

| | PROPOSED | EXISTING |
|---|----------|----------|
| CONTROLLER | | |
| HANDHOLE | | |
| DOUBLE HANDHOLE | | |
| HEAVY-DUTY HANDHOLE | | |
| G.S. CONDUIT IN TRENCH (T) OR PUSHED (P) | | |
| DETECTOR LOOP | | |
| UNIT DUCT | UD | |
| SYSTEM | S | |
| INTERSECTION | IP | I |
| MAST ARM ASSEMBLY AND POLE, STEEL | | |
| WIRELESS ANTENNA | | |
| VIDEO DETECTION ZONE | | |

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

RESTORATION OF WORK AREA:
RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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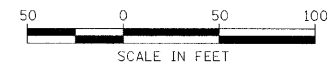
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

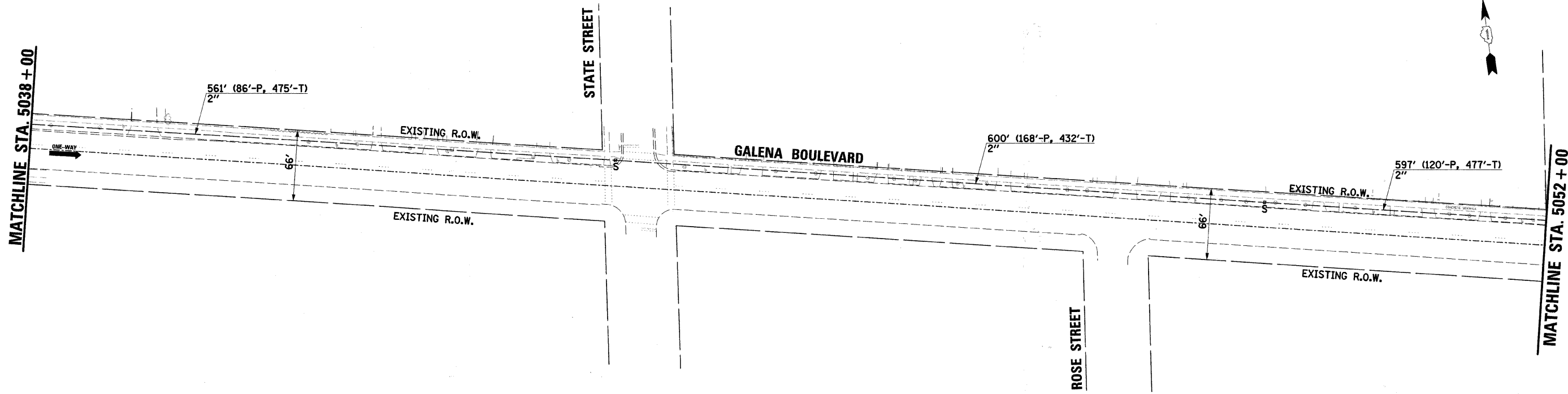
**INTERCONNECT PLAN
(SHEET 2 OF 3)**

SCALE: SHEET NO. OF SHEETS STA. TO STA.

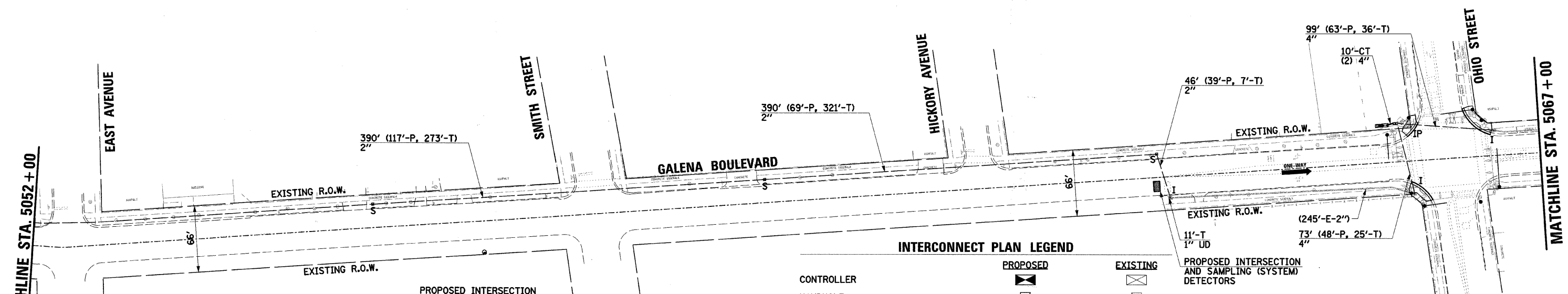
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| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 08-00270-00-TL | KANE | 44 | 34 |
| CONTRACT NO. 63300 | | | | |
| FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | | | |



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| | FILE NAME | |



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| | PLOTTED | |
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| | NO. | |
| | FILE NAME | |



INTERCONNECT PLAN LEGEND

| | PROPOSED | EXISTING |
|--|----------|----------|
| CONTROLLER | [Symbol] | [Symbol] |
| HANDHOLE | [Symbol] | [Symbol] |
| DOUBLE HANDHOLE | [Symbol] | [Symbol] |
| HEAVY-DUTY HANDHOLE | [Symbol] | [Symbol] |
| G.S. CONDUIT IN TRENCH (T) OR PUSHED (P) | [Symbol] | [Symbol] |
| DETECTOR LOOP | [Symbol] | [Symbol] |
| UNIT DUCT | UD | [Symbol] |
| SYSTEM | S | [Symbol] |
| INTERSECTION | IP | I |
| MAST ARM ASSEMBLY AND POLE, STEEL | [Symbol] | [Symbol] |
| WIRELESS ANTENNA | [Symbol] | [Symbol] |
| VIDEO DETECTION ZONE | [Symbol] | [Symbol] |

PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTORS

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

RESTORATION OF WORK AREA:
 RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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DEPARTMENT OF TRANSPORTATION

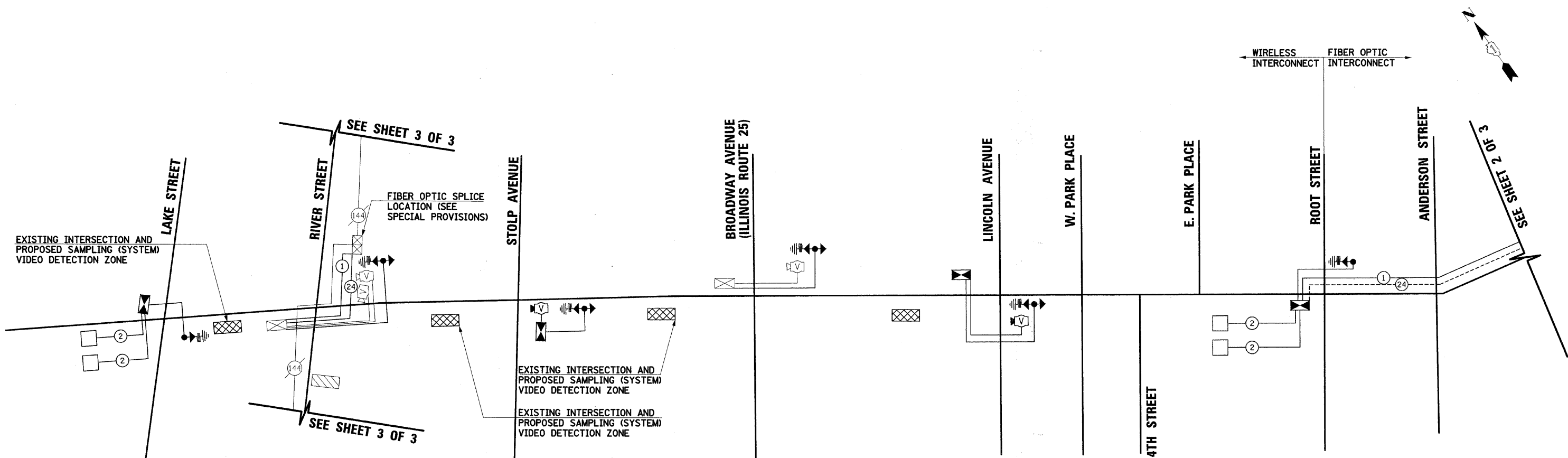
INTERCONNECT PLAN
(SHEET 3 OF 3)

SCALE: SHEET NO. OF SHEETS STA. TO STA.

| | | | | |
|---|----------------|--------|--------------------|-----------|
| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 08-00270-00-TL | KANE | 44 | 35 |
| FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | | CONTRACT NO. 63300 | |

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INTERCONNECT SCHEMATIC LEGEND

- | | | | |
|--|--|--|--|
| | EXISTING INTERSECTION CONTROLLER | | EXISTING FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F |
| | PROPOSED INTERSECTION CONTROLLER | | PROPOSED FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F |
| | EXISTING MASTER CONTROLLER | | EXISTING INTERCONNECT CABLE - NO. 62.5/125 12F FIBER OPTIC CABLE |
| | PROPOSED MASTER CONTROLLER | | PROPOSED INTERCONNECT CABLE - NO. 62.5/125 12F FIBER OPTIC CABLE |
| | MASTER MASTER CONTROLLER | | EXISTING INTERCONNECT CABLE - NO. 18 3 PAIR TWISTED, SHIELDED |
| | EXISTING INTERSECTION & SAMPLING (SYSTEM) DETECTORS | | PROPOSED INTERCONNECT CABLE - NO. 18 3 PAIR TWISTED, SHIELDED |
| | PROPOSED INTERSECTION & SAMPLING (SYSTEM) DETECTORS | | EXISTING LOOP DETECTOR CABLE 2/C TWISTED, SHIELDED |
| | EXISTING INTERSECTION LOOP DETECTORS PROPOSED SAMPLING (SYSTEM) DETECTORS | | PROPOSED LOOP DETECTOR CABLE 2/C TWISTED, SHIELDED |
| | EXISTING SAMPLING (SYSTEM) DETECTORS | | EXISTING ELECTRIC CABLE 1/C (AS SPECIFIED) |
| | PROPOSED SAMPLING (SYSTEM) DETECTORS | | PROPOSED ELECTRIC CABLE 1/C (AS SPECIFIED) |
| | EXISTING SAMPLING (SYSTEM) DETECTORS PROPOSED INTERSECTION & SAMPLING (SYSTEM) DETECTORS | | EXISTING TELEPHONE CONNECTION |
| | EXISTING SAMPLING (SYSTEM) DETECTORS PROPOSED SAMPLING (SYSTEM) DETECTORS | | PROPOSED TELEPHONE CONNECTION |
| | EXISTING PREFORMED INTERSECTION & SAMPLING (SYSTEM) DETECTORS | | EXISTING VIDEO DETECTION CAMERA |
| | PROPOSED PREFORMED INTERSECTION & SAMPLING (SYSTEM) DETECTORS | | PROPOSED VIDEO DETECTION CAMERA |
| | EXISTING SAMPLING (SYSTEM) PREFORMED DETECTORS | | EXISTING SAMPLING (SYSTEM) VIDEO DETECTION ZONE |
| | PROPOSED SAMPLING (SYSTEM) PREFORMED DETECTORS | | PROPOSED SAMPLING (SYSTEM) VIDEO DETECTION ZONE |
| | PROPOSED WIRELESS ANTENNA | | CENTRALIZED TRANSPORTATION MANAGEMENT SYSTEM |
| | EXISTING WIRELESS ANTENNA | | |

SCHEDULE OF QUANTITIES

| PAY ITEM DESCRIPTION | UNIT | INTERCONNECT |
|---|-------|--------------|
| CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL | FOOT | 3093 |
| CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL | FOOT | 1043 |
| HANDHOLE | EACH | 8 |
| TRENCH AND BACKFILL FOR ELECTRICAL WORK | FOOT | 3093 |
| TRANSCEIVER | EACH | 8 |
| DRILL EXISTING HANDHOLE | EACH | 2 |
| ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C | FOOT | 5142 |
| OPTIMIZE TRAFFIC SIGNAL SYSTEM | EACH | 1 |
| FIBER OPTIC CABLE SPLICE | EACH | 1 |
| * WIRELESS INTERCONNECT (COMPLETE) | EACH | 1 |
| WIRELESS ETHERNET RADIO | EACH | 3 |
| FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F | FOOT | 5142 |
| TERMINAL SERVER | EACH | 1 |
| ETHERNET SWITCH | EACH | 1 |
| CENTRALIZED SYSTEM FIELD INTEGRATION / SETUP | L SUM | 1 |

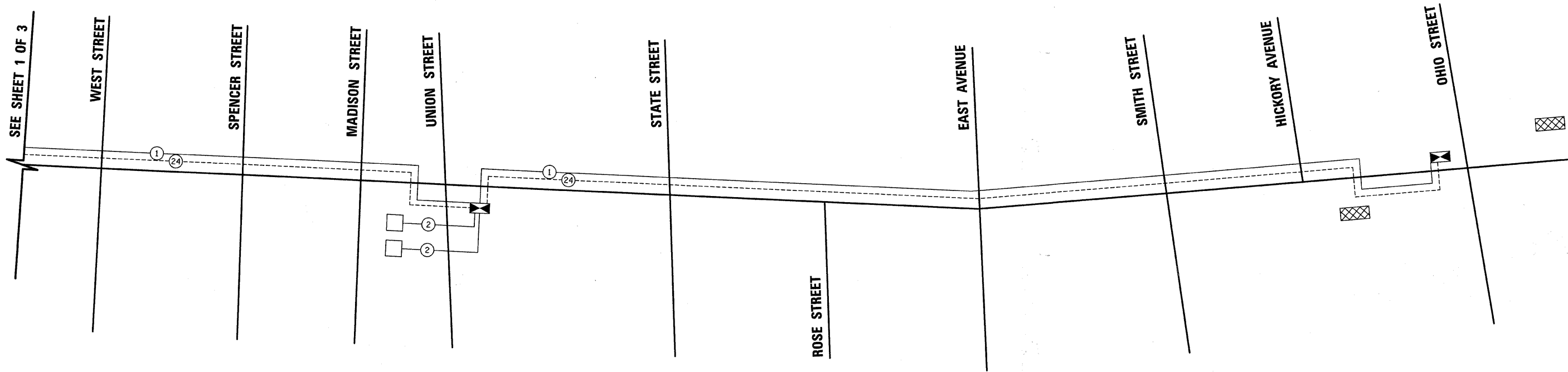
NOTE:
SEE WIRING DETAIL FOR COMBINATION OF WIRELESS AND FIBER OPTIC INTERCONNECT SYSTEMS.

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

* THREE WIRELESS ETHERNET RADIOS ARE INCLUDED FOR THE RIVER STREET INTERSECTIONS WITH DOWNER PLACE, BENTON STREET, AND NORTH AVENUE.

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INTERCONNECT SCHEMATIC LEGEND

- EXISTING INTERSECTION CONTROLLER
- PROPOSED INTERSECTION CONTROLLER
- EXISTING MASTER CONTROLLER
- PROPOSED MASTER CONTROLLER
- MASTER MASTER CONTROLLER
- EXISTING INTERSECTION & SAMPLING (SYSTEM) DETECTORS
- PROPOSED INTERSECTION & SAMPLING (SYSTEM) DETECTORS
- EXISTING INTERSECTION LOOP DETECTORS PROPOSED SAMPLING (SYSTEM) DETECTORS
- EXISTING SAMPLING (SYSTEM) DETECTORS
- PROPOSED SAMPLING (SYSTEM) DETECTORS
- EXISTING SAMPLING (SYSTEM) DETECTORS PROPOSED INTERSECTION & SAMPLING (SYSTEM) DETECTORS
- EXISTING SAMPLING (SYSTEM) DETECTORS PROPOSED SAMPLING (SYSTEM) DETECTORS
- EXISTING PREFORMED INTERSECTION & SAMPLING (SYSTEM) DETECTORS
- PROPOSED PREFORMED INTERSECTION & SAMPLING (SYSTEM) DETECTORS
- EXISTING SAMPLING (SYSTEM) PREFORMED DETECTORS
- PROPOSED SAMPLING (SYSTEM) PREFORMED DETECTORS
- PROPOSED WIRELESS ANTENNA
- EXISTING WIRELESS ANTENNA
- EXISTING FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F
- PROPOSED FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F
- EXISTING INTERCONNECT CABLE - NO. 62.5/125 12F FIBER OPTIC CABLE
- PROPOSED INTERCONNECT CABLE - NO. 62.5/125 12F FIBER OPTIC CABLE
- EXISTING INTERCONNECT CABLE - NO. 18 3 PAIR TWISTED, SHIELDED
- PROPOSED INTERCONNECT CABLE - NO. 18 3 PAIR TWISTED, SHIELDED
- EXISTING LOOP DETECTOR CABLE 2/C TWISTED, SHIELDED
- PROPOSED LOOP DETECTOR CABLE 2/C TWISTED, SHIELDED
- EXISTING ELECTRIC CABLE 1/C (AS SPECIFIED)
- PROPOSED ELECTRIC CABLE 1/C (AS SPECIFIED)
- EXISTING TELEPHONE CONNECTION
- PROPOSED TELEPHONE CONNECTION
- EXISTING VIDEO DETECTION CAMERA
- PROPOSED VIDEO DETECTION CAMERA
- EXISTING SAMPLING (SYSTEM) VIDEO DETECTION ZONE
- PROPOSED SAMPLING (SYSTEM) VIDEO DETECTION ZONE
- CENTRALIZED TRANSPORTATION MANAGEMENT SYSTEM

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

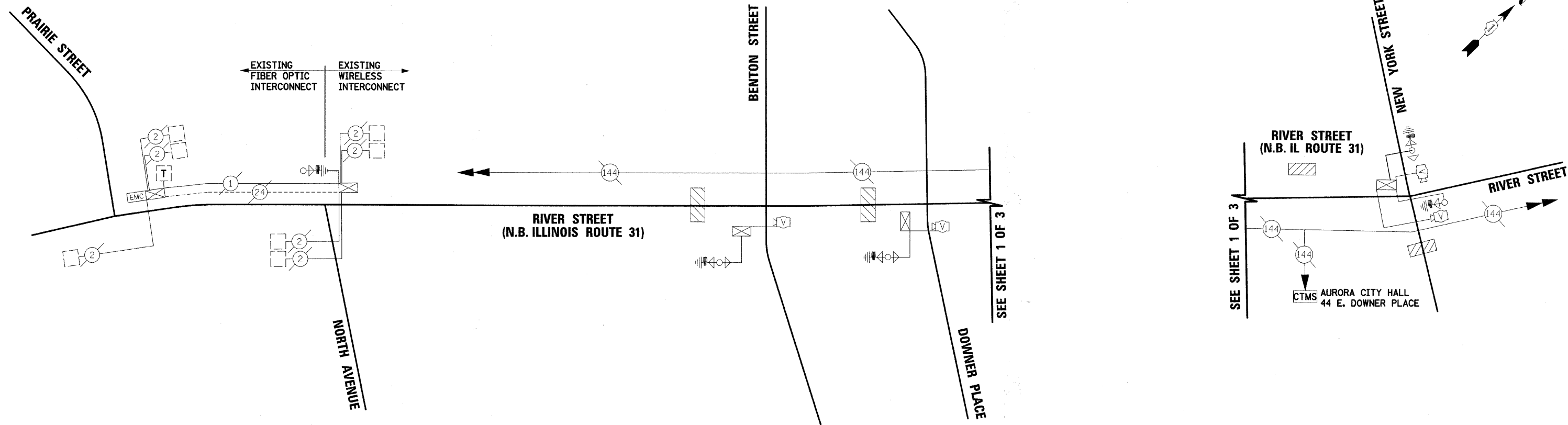
**INTERCONNECT SCHEMATIC
SHEET 2 OF 3**

SCALE: SHEET NO. OF SHEETS STA. TO STA.

| | | | | |
|---------------------|----------------|--------|---------------------------|-----------|
| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 08-00270-00-TL | KANE | 44 | 37 |
| FED. ROAD DIST. NO. | | | ILLINOIS FED. AID PROJECT | |
| CONTRACT NO. 63300 | | | | |

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| | STRUCTURE NOTATIONS CHECKED | |
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INTERCONNECT SCHEMATIC LEGEND

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| | EXISTING INTERSECTION CONTROLLER | | EXISTING FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F |
| | PROPOSED INTERSECTION CONTROLLER | | PROPOSED FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F |
| | EXISTING MASTER CONTROLLER | | EXISTING INTERCONNECT CABLE - NO. 62.5/125 12F FIBER OPTIC CABLE |
| | PROPOSED MASTER CONTROLLER | | PROPOSED INTERCONNECT CABLE - NO. 62.5/125 12F FIBER OPTIC CABLE |
| | MASTER MASTER CONTROLLER | | EXISTING INTERCONNECT CABLE - NO. 18 3 PAIR TWISTED, SHIELDED |
| | EXISTING INTERSECTION & SAMPLING (SYSTEM) DETECTORS | | PROPOSED INTERCONNECT CABLE - NO. 18 3 PAIR TWISTED, SHIELDED |
| | PROPOSED INTERSECTION & SAMPLING (SYSTEM) DETECTORS | | EXISTING LOOP DETECTOR CABLE 2/C TWISTED, SHIELDED |
| | EXISTING INTERSECTION LOOP DETECTORS PROPOSED SAMPLING (SYSTEM) DETECTORS | | PROPOSED LOOP DETECTOR CABLE 2/C TWISTED, SHIELDED |
| | EXISTING SAMPLING (SYSTEM) DETECTORS | | EXISTING ELECTRIC CABLE 1/C (AS SPECIFIED) |
| | PROPOSED SAMPLING (SYSTEM) DETECTORS | | PROPOSED ELECTRIC CABLE 1/C (AS SPECIFIED) |
| | EXISTING SAMPLING (SYSTEM) DETECTORS PROPOSED INTERSECTION & SAMPLING (SYSTEM) DETECTORS | | EXISTING TELEPHONE CONNECTION |
| | EXISTING SAMPLING (SYSTEM) DETECTORS PROPOSED SAMPLING (SYSTEM) DETECTORS | | PROPOSED TELEPHONE CONNECTION |
| | EXISTING PREFORMED INTERSECTION & SAMPLING (SYSTEM) DETECTORS | | EXISTING VIDEO DETECTION CAMERA |
| | PROPOSED PREFORMED INTERSECTION & SAMPLING (SYSTEM) DETECTORS | | PROPOSED VIDEO DETECTION CAMERA |
| | EXISTING SAMPLING (SYSTEM) DETECTORS PREFORMED DETECTORS | | EXISTING SAMPLING (SYSTEM) VIDEO DETECTION ZONE |
| | PROPOSED SAMPLING (SYSTEM) DETECTORS PREFORMED DETECTORS | | PROPOSED SAMPLING (SYSTEM) VIDEO DETECTION ZONE |
| | PROPOSED WIRELESS ANTENNA | | CENTRALIZED TRANSPORTATION MANAGEMENT SYSTEM |
| | EXISTING WIRELESS ANTENNA | | |

NOTE:
 THE EXISTING MASTER CONTROLLER AT PRAIRIE STREET SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE CITY OF AURORA, AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE MAINTENANCE FACILITY DESIGNATED BY THE CITY. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE UNIT BID PRICES OF THE CONTRACT.

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

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 PLOT SCALE = *SCALE*
 PLOT DATE = 12/17/2009

DESIGNED -
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

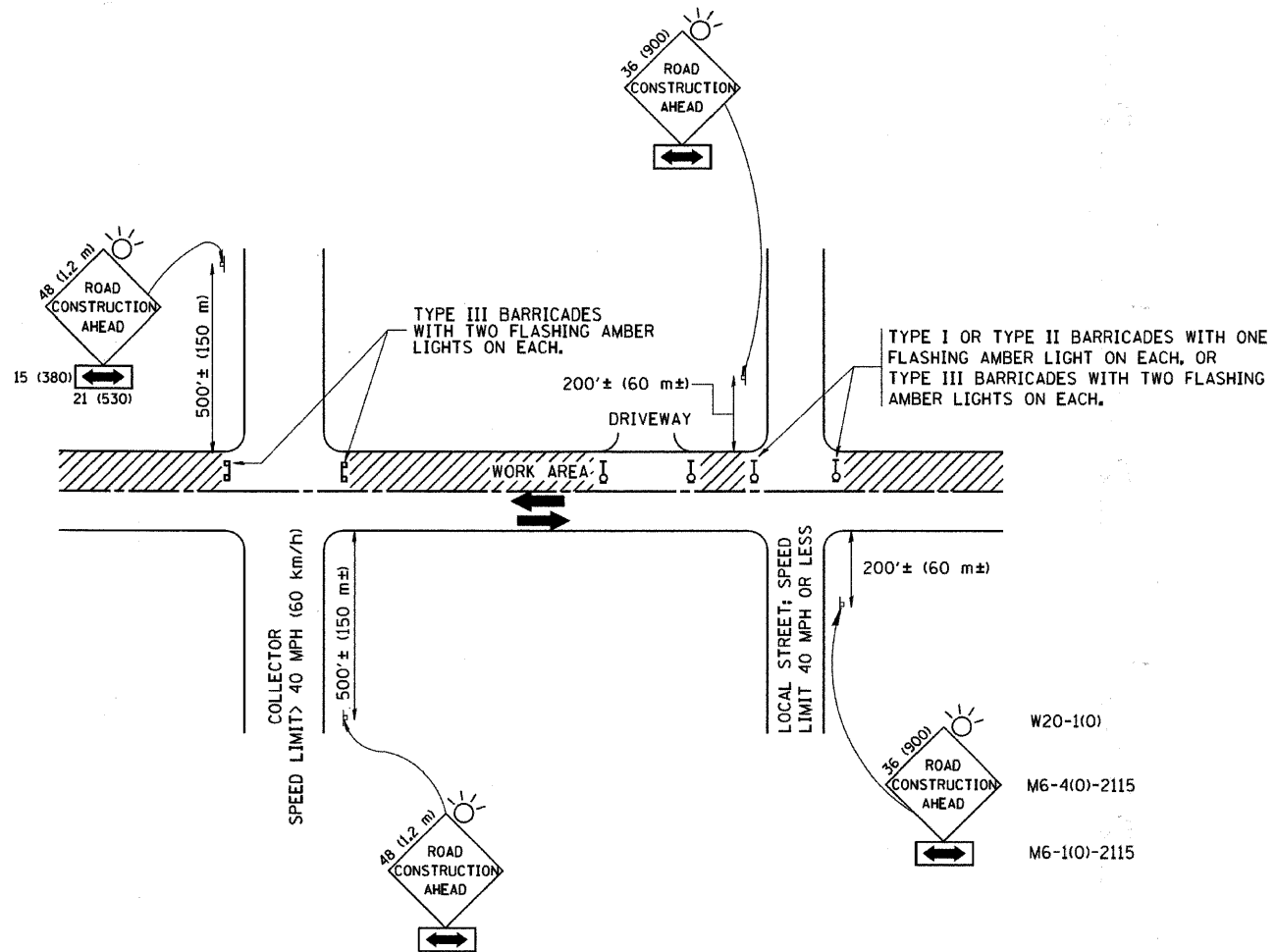
INTERCONNECT SCHEMATIC
 SHEET 3 OF 3

SCALE: SHEET NO. OF SHEETS STA. TO STA.

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| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 08-00270-00-TL | KANE | 44 | 38 |
| CONTRACT NO. 63300 | | | FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | |

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TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

NOTES:

A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS

- SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
 - THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
- SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - ONE ROAD CONSTRUCTION AHEAD SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
 - THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
- WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:

USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.

C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.

D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

All dimensions are in millimeters (inches) unless otherwise shown.

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 PLOT DATE = 12/17/2009

DESIGNED -
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

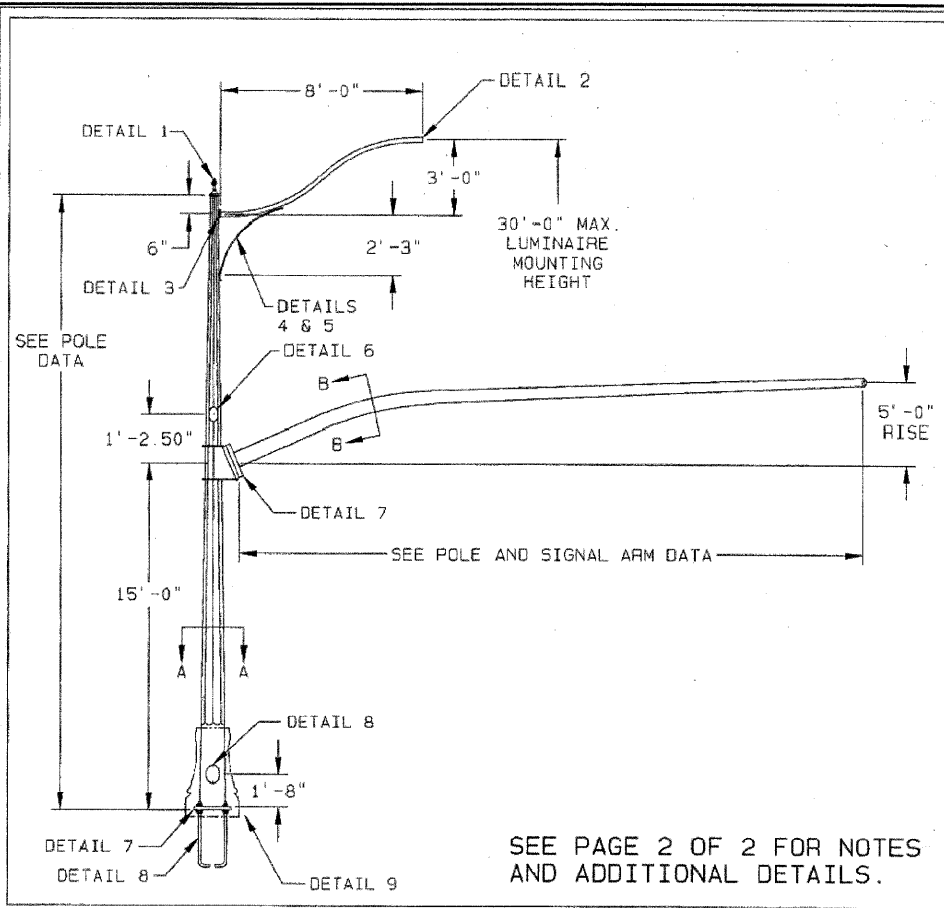
TRAFFIC CONTROL AND PROTECTION
 FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

SCALE: SHEET NO. OF SHEETS STA. TO STA.

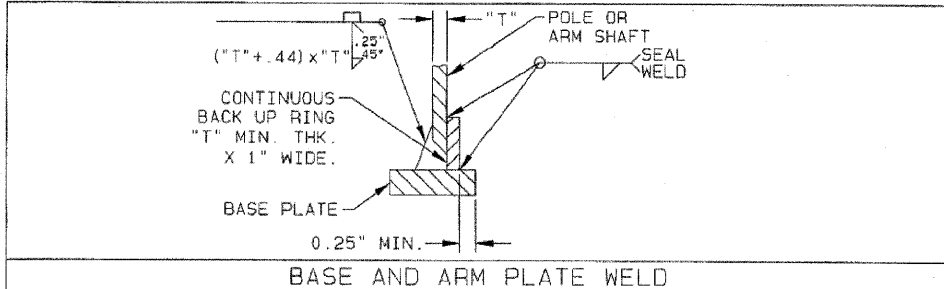
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| CONTRACT NO. 63300 | | | | |
| FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | | | |

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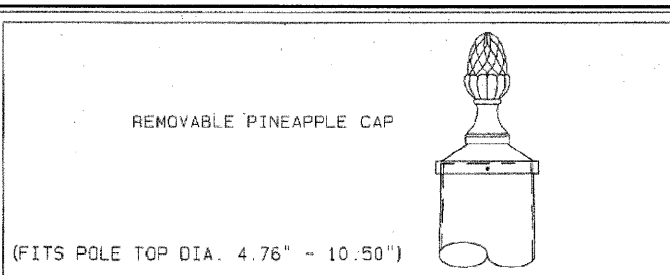
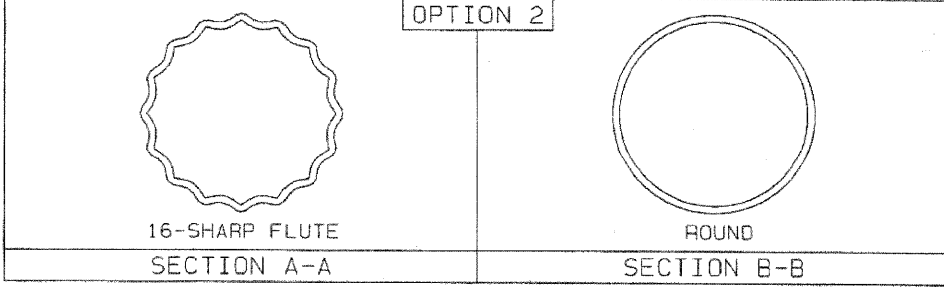
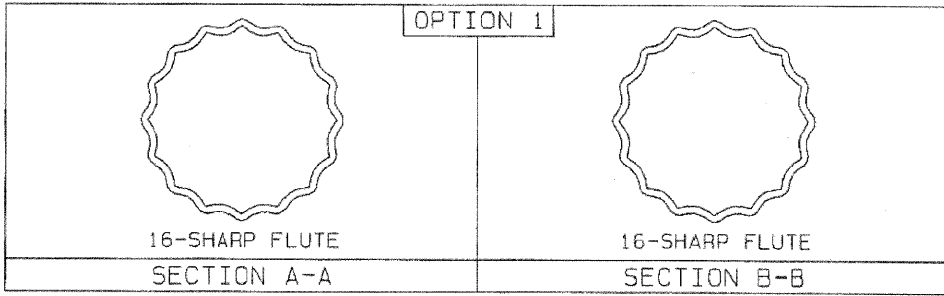
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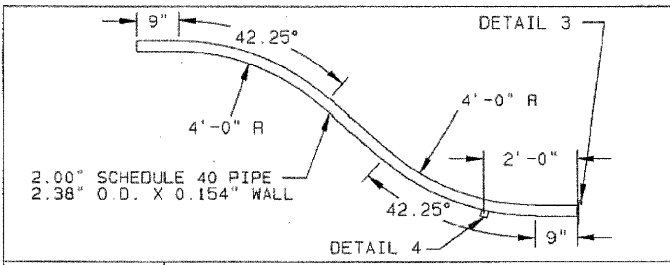
SEE PAGE 2 OF 2 FOR NOTES AND ADDITIONAL DETAILS.



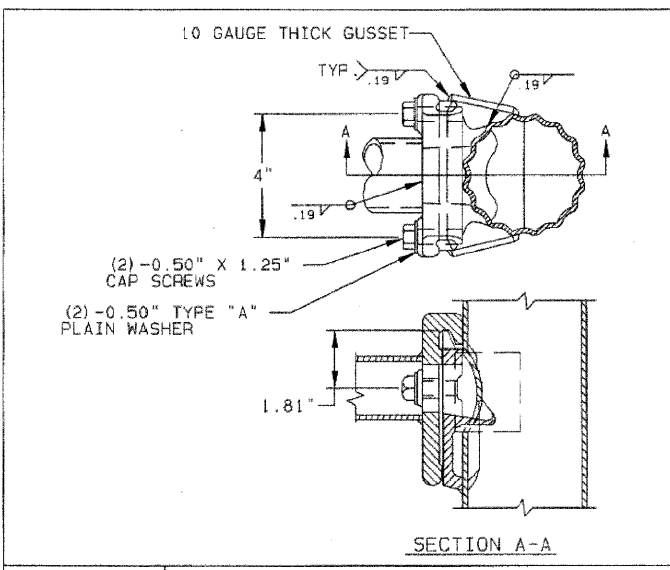
BASE AND ARM PLATE WELD



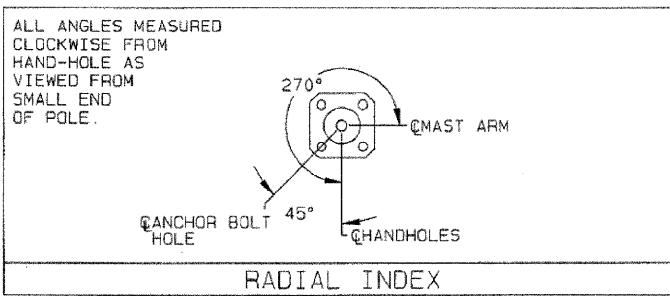
DETAIL 1 PINEAPPLE CAP ASSEMBLY



DETAIL 2 LUMINAIRE ARM



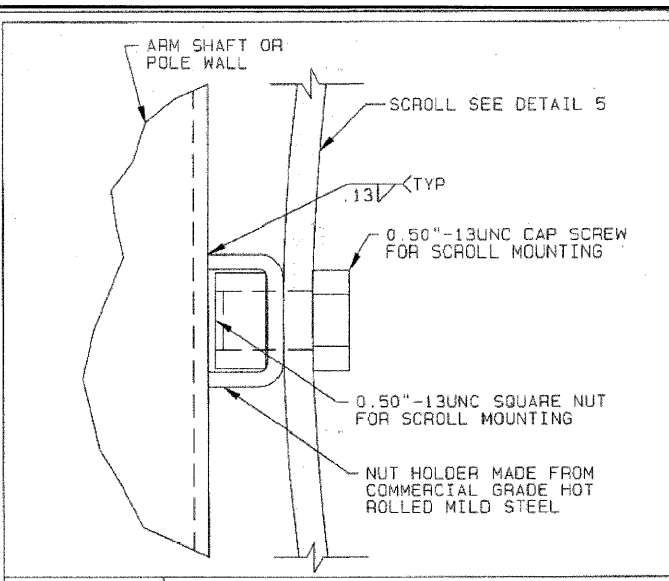
DETAIL 3 LUMINAIRE ARM ATTACHMENT



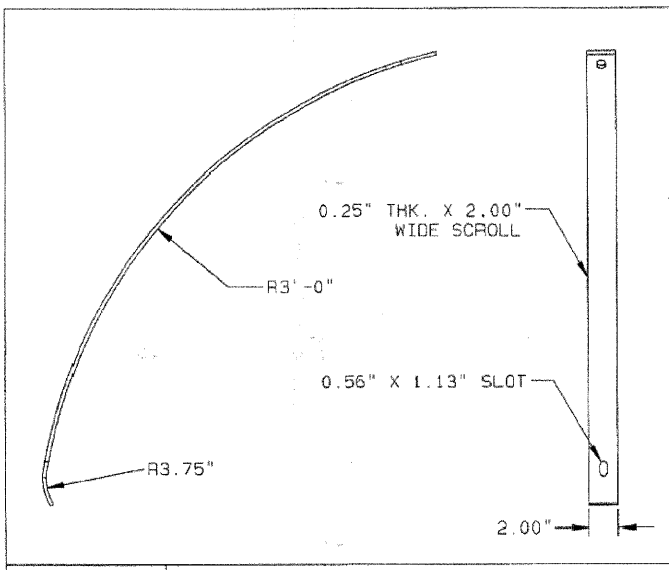
ALL ANGLES MEASURED CLOCKWISE FROM HAND-HOLE AS VIEWED FROM SMALL END OF POLE.

BASE COAT: HOT DIP GALVANIZE
TOP COAT: TGIC OR URETHANE POLYESTER POWDER
COLOR: BLACK
VALMONT SPEC: F283A

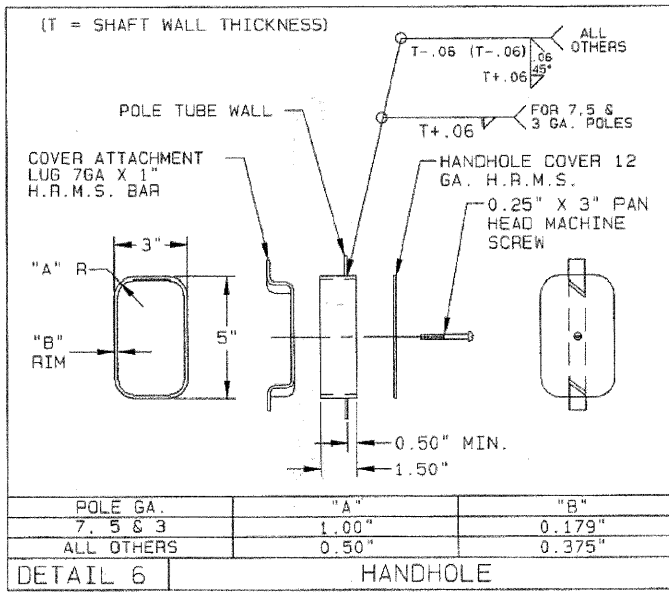
FINISH NOTE



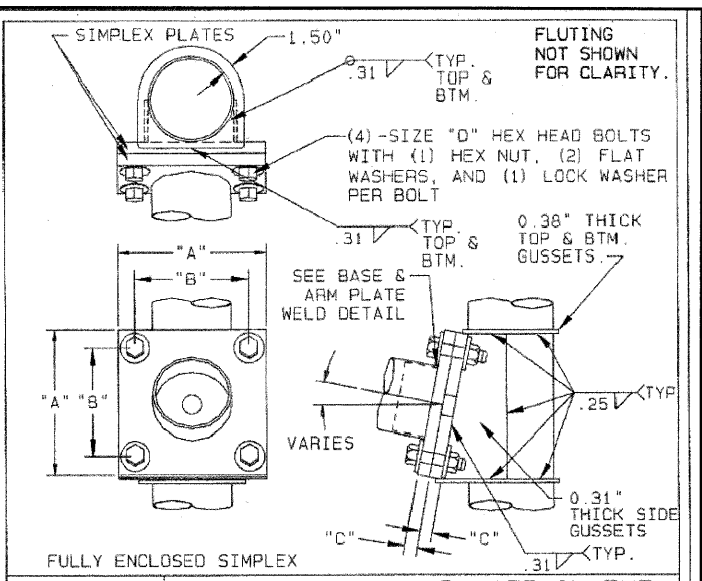
DETAIL 4 SCROLL ATTACHMENT



DETAIL 5 SCROLL ARM



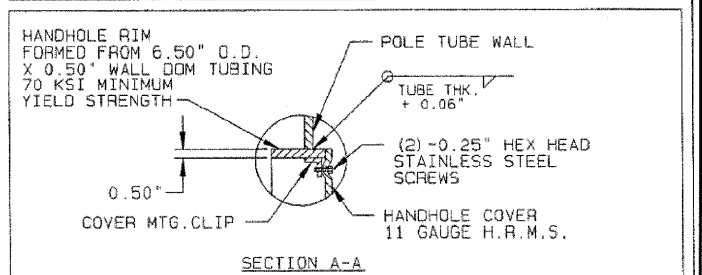
DETAIL 6 HANDHOLE



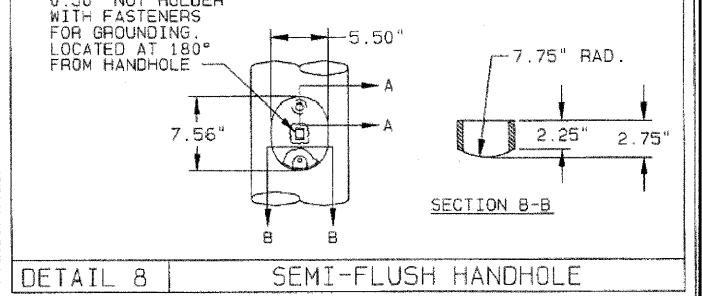
DETAIL 7 SINGLE SIGNAL ARM ATTACHMENT

SIGNAL ARM ATTACHMENT DATA

| ARM SPAN (FT) | "A" (IN) | "B" (IN) | "C" (IN) | "D" |
|---------------|----------|----------|----------|---------------|
| 20.00 | 17.25 | 14.00 | 1.75 | 1.25" X 5.25" |
| | | | | |
| | | | | |
| | | | | |
| | | | | |



SECTION A-A



DETAIL 8 SEMI-FLUSH HANDHOLE

| | | |
|----------------------------------|--------------------|-------------|
| REV | DATE | DESCRIPTION |
| BCM 09/18/07 | BCM 09/20/07 | |
| FILE NAME = | USER NAME = .USER. | DESIGNED - |
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| | | CHECKED APS |
| | | DATE - |

| | | |
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| SOLD TO: | SHIP TO: | JOB |
| P.O. #: | AGENT: LIGHTING SOLUTIONS | TITLE: TRAFFIC SIGNAL STRUCTURES |
| STATE OF ILLINOIS | DEPARTMENT OF TRANSPORTATION | |

VALMONT INDUSTRIES, INC. RESERVES THE RIGHT TO INSTALL VARIOUS, ENGINEER APPROVED, MATERIAL HANGING ACCOMMODATIONS TO FACILITATE THE MANUFACTURING PROCESS.

MISCELLANEOUS DETAILS

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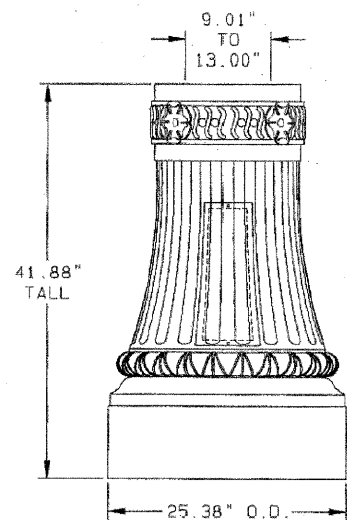
valmont

Valley, NE 68064
(402) 359-2201

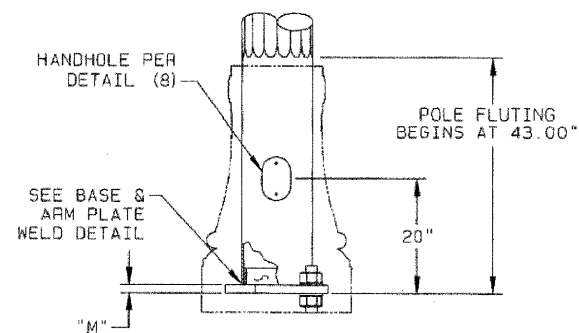
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| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 08-00270-00-TL | KANE | 44 | 40 |
| CONTRACT NO. 63300 | | | | |
| FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | | | |

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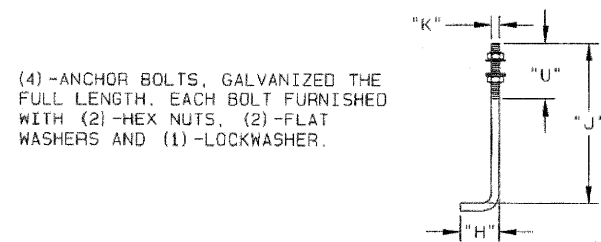
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DETAIL 9 HN25AB DECORATIVE BASE



DETAIL 10 HN25AB POLE BASE



DETAIL 11 ANCHOR BOLT

NOTES:

- POLE AND ARM SHAFTS 13.00" AND SMALLER-CONFORMS TO ASTM DESIGNATION: A595 GR. A WITH 55,000 P.S.I. MINIMUM YIELD STRENGTH. LINEAR TAPER-0.14"/FT. POLE AND ARM SHAFTS LARGER THAN 13.00"-CONFORMS TO ASTM DESIGNATION: M-223 A572 GR. 65 WITH A 65,000 P.S.I. MINIMUM YIELD STRENGTH. LINEAR TAPER-0.14"/FT.
- BASE PLATE AND SIMPLEX PLATES-CONFORM TO AASHTO M-183 (ASTM: A36).
- ANCHOR BOLTS-ALL STRUCTURES: ASTM F1554 GR.55 55,000 P.S.I. MINIMUM YIELD STRENGTH. (AASHTO M314)
- TRAFFIC SIGNAL ARM END CAP SECURED IN PLACE WITH 3 STAINLESS STEEL SET SCREWS. (TRAFFIC SIGNAL ARM END CAP PROVIDED WITH (2) ADDITIONAL STAINLESS STEEL HEX BOLTS).
- ALL NON-STAINLESS THREADED FASTENERS TO BE HOT DIP GALVANIZED TO ASTM DESIGNATION: A153 (AASHTO M232).
- SIMPLEX CONNECTING BOLTS-ASTM DESIGNATION: A325 (M164) GALVANIZED TO ASTM DESIGNATION: A153 LUBRICATE THREADS IN FIELD IF NECESSARY BEFORE INSTALLATION.
- ALL VEHICULAR AND/OR PEDESTRIAN SIGNAL LIGHTS AND NECESSARY HARDWARE FOR ATTACHMENT TO BE FIELD LOCATED AND FURNISHED BY OTHERS.
- POLES AND ARMS TO BE GALVANIZED TO ASTM DESIGNATION: A123 (AASHTO M111). ACCESSORIES TO BE HOT DIP GALVANIZED TO ASTM DESIGNATION: A153 (AASHTO M232).
- ACCESS HOLES IN ARMS AT SIGNALS TO BE FIELD DRILLED BY CONTRACTOR-LOCATED AS SHOWN IN PLANS.
- LUMINAIRE ARM SHAFT CONFORMS TO 2" SCHEDULE 40 PIPE W/ 36,000 PSI MIN. YIELD STRENGTH.
- SHAFT GAUGE OR THICKNESS ARE AS FOLLOWS: 11 GA.= 0.1196", 7 GA.= 0.1793", 5 GA.= 0.2092", 3 GA.=0.2391", AND 2" SCHED.40 PIPE = 0.154".

LOADING AND ALLOWABLE STRESS CRITERIA: 1994 AASHTO "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR SIGNS, LUMINAIRES AND TRAFFIC SIGNALS".

STATE OF ILLINOIS

GENERAL NOTES

POLE AND SIGNAL ARM DATA - OPTION 1

| POLE TUBE | | | POLE BASE | | | | ANCHOR BOLT | | | | SIGNAL ARM TUBE | | | MAXIMUM LUMINAIRE ARM SPAN (FT) | |
|----------------|---------------|-------------|--------------------|-----------------|----------------------|---------------|----------------------|---------------|-----------------|---------------|------------------------|---------------------|---------------------|---------------------------------|-----------|
| BASE DIA. (IN) | TOP DIA. (IN) | LENGTH (FT) | GAUGE OR THK. (IN) | SQUARE "S" (IN) | BOLT CIRCLE "Y" (IN) | THK. "M" (IN) | HOLE / SLOT "Z" (IN) | DIA. "K" (IN) | LENGTH "J" (IN) | HOOK "H" (IN) | THREAD LENGTH "U" (IN) | FIXED END DIA. (IN) | GAUGE OR THICK (IN) | | SPAN (FT) |
| 12.50 | 8.65 | 27.50 | 5 | 17.00 | 17.00 | 1.50 | 1.75 | 1.50 | 54.00 | 6.00 | 8.00 | 9.00 | 7 | 20.00 | 8.00 |

POLE AND SIGNAL ARM DATA - OPTION 2

| POLE TUBE | | | POLE BASE | | | | ANCHOR BOLT | | | | SIGNAL ARM TUBE | | | MAXIMUM LUMINAIRE ARM SPAN (FT) | |
|----------------|---------------|-------------|--------------------|-----------------|----------------------|---------------|----------------------|---------------|-----------------|---------------|------------------------|---------------------|---------------------|---------------------------------|-----------|
| BASE DIA. (IN) | TOP DIA. (IN) | LENGTH (FT) | GAUGE OR THK. (IN) | SQUARE "S" (IN) | BOLT CIRCLE "Y" (IN) | THK. "M" (IN) | HOLE / SLOT "Z" (IN) | DIA. "K" (IN) | LENGTH "J" (IN) | HOOK "H" (IN) | THREAD LENGTH "U" (IN) | FIXED END DIA. (IN) | GAUGE OR THICK (IN) | | SPAN (FT) |
| 12.50 | 8.65 | 27.50 | 5 | 17.00 | 17.00 | 1.50 | 1.75 | 1.50 | 54.00 | 6.00 | 8.00 | 8.00 | 7 | 20.00 | 8.00 |

JOB
TITLE TRAFFIC SIGNAL STRUCTURES

VALMONT INDUSTRIES, INC. RESERVES THE RIGHT TO INSTALL VARIOUS, ENGINEER APPROVED, MATERIAL HANGING ACCOMMODATIONS TO FACILITATE THE MANUFACTURING PROCESS.

valmont
Valley, NE 68064
(402) 359-2201

ORDER NUMBER: 42203-07
PAGE NUMBER: 2 OF 2
DRAWING NUMBER: IL4Z20307
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

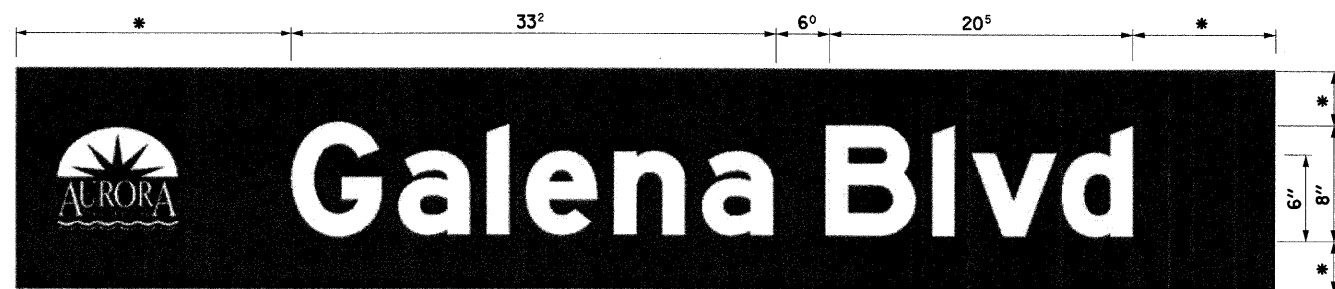
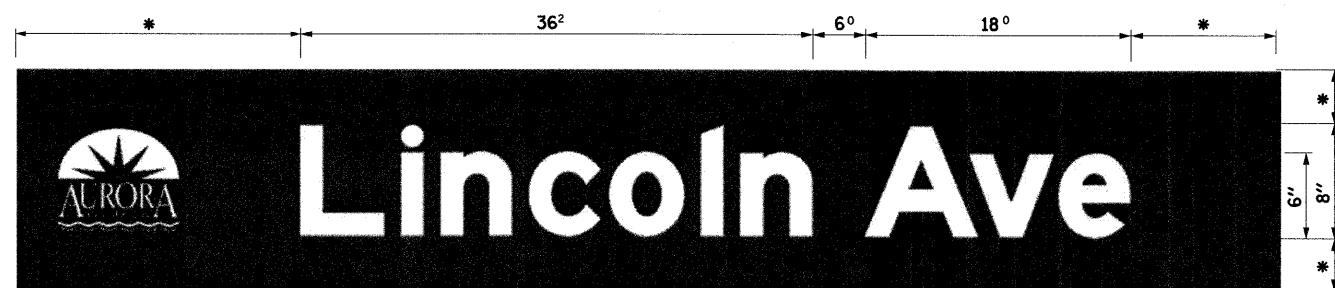
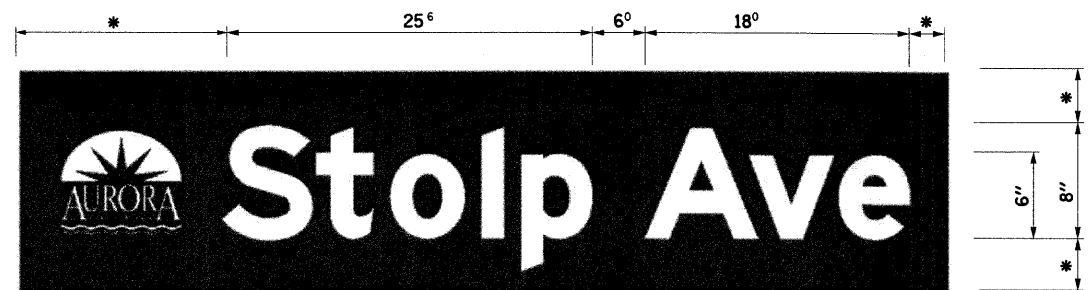
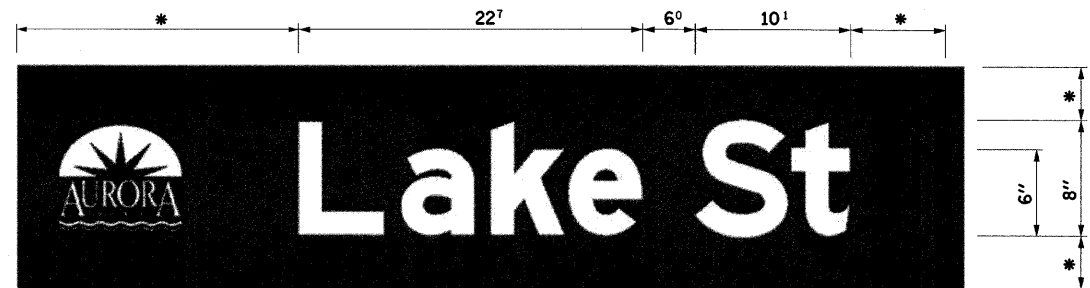
MISCELLANEOUS DETAILS

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F.A. RTE. SECTION COUNTY TOTAL SHEETS SHEET NO.
08-00270-00-TL KANE 44 41
CONTRACT NO. 63300
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

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| PLAN | SURVEYED | DATE |
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| | GRADES CHECKED | |
| | STRUCTURE NOTATIONS CHK'D | |
| | NOTE BOOK | |
| | NO. | |

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| PROFILE | SURVEYED | DATE |
| | PLOTTED | BY |
| | GRADES CHECKED | |
| | STRUCTURE NOTATIONS CHK'D | |
| | NOTE BOOK | |
| | NO. | |



* PER MANUFACTURERS SPECIFICATIONS FOR THE CITY OF AURORA.

LED STREET NAME SIGNS (CLEARVIEW FONT - DESIGN SERIES "D")

NOTE:
THESE SIGNS SHALL BE INSTALLED AT THE LOCATIONS INDICATED IN THE PLANS.
SEE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.

**UPPER CASE TO LOWER CASE
SPACING CHART 8-6 INCH SERIES "C & D"**

| FIRST LETTER | SECOND LETTER | | | | | | | | | | | | | | | |
|--------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| | a c d e | | b h i k l | | f w | | j | | s t | | v y | | x | | z | |
| | C | D | C | D | C | D | C | D | C | D | C | D | C | D | C | D |
| A W X | 1 ² | 1 ⁴ | 1 ⁴ | 1 ⁵ | 1 ² | 1 ⁴ | 0 ⁶ | 1 ⁰ | 1 ¹ | 1 ⁴ | 0 ⁶ | 1 ⁰ | 1 ¹ | 1 ² | 1 ² | 1 ⁴ |
| B | 1 ⁴ | 1 ⁵ | 2 ⁰ | 2 ¹ | 1 ⁴ | 1 ⁵ | 1 ¹ | 1 ² | 1 ⁴ | 1 ⁵ | 1 ² | 1 ⁴ | 1 ² | 1 ⁴ | 1 ⁶ | 1 ⁷ |
| C E G | 1 ⁴ | 1 ⁵ | 2 ⁰ | 2 ¹ | 1 ² | 1 ⁴ | 0 ⁶ | 1 ⁰ | 1 ² | 1 ⁴ | 1 ² | 1 ⁴ | 1 ⁴ | 1 ⁵ | 1 ⁴ | 1 ⁵ |
| D O Q R | 1 ⁴ | 1 ⁵ | 2 ⁰ | 2 ¹ | 1 ⁴ | 1 ⁵ | 0 ⁶ | 1 ⁰ | 1 ² | 1 ⁴ | 1 ² | 1 ⁴ | 1 ⁴ | 1 ⁵ | 1 ⁴ | 1 ⁵ |
| F | 0 ⁵ | 0 ⁶ | 1 ⁴ | 1 ⁵ | 0 ⁶ | 1 ⁰ | 0 ⁵ | 0 ⁶ | 0 ⁶ | 1 ⁰ | 0 ⁶ | 1 ⁰ | 0 ⁶ | 1 ⁰ | 1 ¹ | 1 ² |
| H I M N | 2 ⁰ | 2 ¹ | 2 ² | 2 ⁴ | 2 ⁰ | 2 ¹ | 1 ⁴ | 1 ⁵ | 1 ⁶ | 1 ⁷ | 1 ⁶ | 1 ⁷ | 2 ⁰ | 2 ¹ | 2 ⁰ | 2 ¹ |
| J U | 2 ⁰ | 2 ¹ | 2 ⁰ | 2 ¹ | 1 ⁶ | 1 ⁷ | 1 ⁴ | 1 ⁵ | 1 ⁶ | 1 ⁷ | 1 ⁶ | 1 ⁷ | 1 ⁶ | 1 ⁷ | 2 ⁰ | 2 ¹ |
| K L | 1 ¹ | 1 ² | 1 ⁶ | 1 ⁷ | 1 ¹ | 1 ² | 0 ⁵ | 0 ⁶ | 1 ¹ | 1 ² | 1 ¹ | 1 ² | 1 ¹ | 1 ² | 1 ² | 1 ⁴ |
| P | 1 ² | 1 ⁴ | 1 ⁴ | 1 ⁵ | 1 ² | 1 ⁴ | 0 ⁵ | 0 ⁶ | 1 ¹ | 1 ² | 1 ¹ | 1 ² | 1 ² | 1 ⁴ | 1 ² | 1 ⁴ |
| S | 1 ² | 1 ⁴ | 1 ⁶ | 1 ⁷ | 1 ² | 1 ⁴ | 0 ⁶ | 1 ⁰ | 1 ² | 1 ⁴ | 1 ² | 1 ⁴ | 1 ² | 1 ⁴ | 1 ² | 1 ⁴ |
| T | 1 ¹ | 1 ² | 1 ⁶ | 1 ⁷ | 0 ⁶ | 1 ⁰ | 0 ⁵ | 1 ⁰ | 1 ¹ | 1 ² | 1 ¹ | 1 ² | 1 ¹ | 1 ² | 1 ² | 1 ⁴ |
| V | 0 ⁶ | 1 ⁰ | 1 ⁴ | 1 ⁵ | 1 ¹ | 1 ² | 0 ⁶ | 1 ⁰ | 1 ² | 1 ⁴ | 1 ² | 1 ⁴ | 1 ² | 1 ⁴ | 1 ² | 1 ⁴ |
| Y | 0 ⁵ | 0 ⁶ | 1 ⁴ | 1 ⁵ | 0 ⁶ | 1 ⁰ | 0 ⁵ | 0 ⁶ | 0 ⁵ | 0 ⁷ | 0 ⁵ | 0 ⁶ | 0 ⁶ | 1 ⁰ | 1 ¹ | 1 ² |
| Z | 1 ⁶ | 1 ⁷ | 2 ² | 2 ⁴ | 1 ⁶ | 1 ⁷ | 1 ² | 1 ⁴ | 1 ⁶ | 1 ⁷ | 1 ⁶ | 1 ⁷ | 1 ⁶ | 1 ⁷ | 2 ⁰ | 2 ¹ |

**LOWER CASE TO LOWER CASE
SPACING CHART 6 INCH SERIES "C & D"**

| FIRST LETTER | SECOND LETTER | | | | | | | | | | | | | | | |
|--------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| | a c d e | | b h i k l | | f w | | j | | s t | | v y | | x | | z | |
| | C | D | C | D | C | D | C | D | C | D | C | D | C | D | C | D |
| a d h g l j | 1 ⁶ | 1 ⁷ | 2 ² | 2 ⁴ | 1 ⁶ | 1 ⁷ | 1 ² | 1 ⁴ | 1 ⁴ | 1 ⁵ | 1 ⁴ | 1 ⁵ | 1 ⁶ | 1 ⁷ | 1 ⁶ | 1 ⁷ |
| l m n q u | | | | | | | | | | | | | | | | |
| b f k o p s | 1 ² | 1 ⁴ | 1 ⁶ | 1 ⁷ | 1 ¹ | 1 ² | 0 ⁵ | 0 ⁶ | 1 ¹ | 1 ² | 1 ¹ | 1 ² | 1 ² | 1 ⁴ | 1 ² | 1 ⁴ |
| c e | 1 ² | 1 ⁴ | 1 ⁶ | 1 ⁷ | 1 ² | 1 ⁴ | 0 ⁶ | 1 ⁰ | 1 ² | 1 ⁴ | 1 ² | 1 ⁴ | 1 ² | 1 ⁴ | 1 ² | 1 ⁴ |
| r | 0 ⁶ | 1 ⁰ | 1 ² | 1 ⁴ | 0 ⁶ | 1 ⁰ | 0 ³ | 0 ³ | 0 ⁵ | 0 ⁶ | 0 ⁵ | 0 ⁶ | 0 ⁶ | 1 ⁰ | 0 ⁶ | 1 ⁰ |
| t z | 1 ² | 1 ⁴ | 1 ⁶ | 1 ⁷ | 1 ² | 1 ⁴ | 0 ⁶ | 1 ⁰ | 1 ¹ | 1 ² | 1 ¹ | 1 ² | 1 ² | 1 ⁴ | 1 ² | 1 ⁴ |
| v y | 1 ¹ | 1 ² | 1 ⁴ | 1 ⁵ | 1 ¹ | 1 ² | 0 ⁵ | 0 ⁶ | 0 ⁶ | 1 ⁰ | 0 ⁶ | 1 ⁰ | 1 ¹ | 1 ² | 1 ¹ | 1 ² |
| w | 1 ¹ | 1 ² | 1 ⁴ | 1 ⁵ | 1 ¹ | 1 ² | 0 ⁵ | 0 ⁶ | 1 ¹ | 1 ² | 1 ¹ | 1 ² | 1 ¹ | 1 ² | 1 ² | 1 ⁴ |
| x | 1 ² | 1 ⁴ | 1 ⁶ | 1 ⁷ | 1 ¹ | 1 ² | 0 ⁵ | 0 ⁶ | 1 ¹ | 1 ² | 1 ¹ | 1 ² | 1 ¹ | 1 ² | 1 ² | 1 ⁴ |

**NUMBER TO NUMBER
SPACING CHART 8 INCH SERIES "C & D"**

| FIRST NUMBER | SECOND LETTER | | | | | | | | | | | | | | | | | | | |
|--------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| | 0 | | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | | 8 | | 9 | |
| | C | D | C | D | C | D | C | D | C | D | C | D | C | D | C | D | C | D | C | D |
| 0 9 | 1 ⁶ | 1 ⁷ | 1 ⁶ | 1 ⁷ | 1 ⁴ | 1 ⁵ | 1 ² | 1 ⁴ | 1 ⁴ | 1 ⁵ | 1 ⁴ | 1 ⁵ | 1 ⁶ | 1 ⁷ | 1 ² | 1 ⁴ | 1 ⁶ | 1 ⁷ | 1 ⁶ | 1 ⁷ |
| 1 | 2 ⁰ | 2 ¹ | 2 ⁰ | 2 ¹ | 2 ⁰ | 2 ¹ | 1 ⁶ | 1 ⁷ | 1 ⁴ | 1 ⁵ | 2 ⁰ | 2 ¹ | 2 ⁰ | 2 ¹ | 1 ⁴ | 1 ⁵ | 2 ⁰ | 2 ¹ | 2 ⁰ | 2 ¹ |
| 2 3 4 | 1 ⁴ | 1 ⁵ | 1 ⁴ | 1 ⁵ | 1 ⁴ | 1 ⁵ | 1 ² | 1 ⁴ | 1 ² | 1 ⁴ | 1 ⁴ | 1 ⁵ | 1 ⁴ | 1 ⁵ | 1 ¹ | 1 ² | 1 ⁶ | 1 ⁷ | 1 ⁴ | 1 ⁵ |
| 5 | 1 ⁴ | 1 ⁵ | 1 ⁴ | 1 ⁵ | 1 ⁴ | 1 ⁵ | 1 ¹ | 1 ² | 1 ¹ | 1 ² | 1 ⁴ | 1 ⁵ | 1 ⁴ | 1 ⁵ | 1 ¹ | 1 ² | 1 ⁴ | 1 ⁵ | 1 ⁴ | 1 ⁵ |
| 6 | 1 ⁶ | 1 ⁷ | 1 ⁴ | 1 ⁵ | 1 ⁴ | 1 ⁵ | 1 ² | 1 ⁵ | 1 ² | 1 ⁴ | 1 ⁴ | 1 ⁵ | 1 ⁴ | 1 ⁵ | 1 ¹ | 1 ² | 1 ⁴ | 1 ⁵ | 1 ⁴ | 1 ⁵ |
| 7 | 1 ² | 1 ⁴ | 1 ² | 1 ⁴ | 1 ⁴ | 1 ⁵ | 1 ² | 1 ⁵ | 0 ⁵ | 0 ⁶ | 1 ² | 1 ⁴ | 1 ⁴ | 1 ⁵ | 1 ¹ | 1 ² | 1 ⁴ | 1 ⁵ | 1 ² | 1 ⁴ |
| 8 | 1 ⁶ | 1 ⁷ | 1 ⁶ | 1 ⁷ | 1 ⁴ | 1 ⁵ | 1 ² | 1 ⁵ | 1 ² | 1 ⁴ | 1 ⁴ | 1 ⁵ | 1 ⁶ | 1 ⁷ | 1 ² | 1 ⁴ | 1 ⁶ | 1 ⁷ | 1 ⁴ | 1 ⁵ |

| LETTERS | 6 INCH UPPER CASE LETTERS | | | | LETTERS | 6 INCH LOWER CASE LETTERS | |
|---------|---------------------------|----------------|----------------|----------------|---------|---------------------------|----------------|
| | SERIES | | SERIES | | | SERIES | |
| | C | D | C | D | | C | D |
| A | 3 ⁶ | 5 ⁰ | 5 ⁰ | 6 ⁵ | a | 3 ⁵ | 4 ² |
| B | 3 ² | 4 ⁰ | 4 ³ | 5 ³ | b | 3 ⁵ | 4 ² |
| C | 3 ² | 4 ⁰ | 4 ³ | 5 ³ | c | 3 ⁵ | 4 ¹ |
| D | 3 ² | 4 ⁰ | 4 ³ | 5 ³ | d | 3 ⁵ | 4 ² |
| E | 3 ⁰ | 3 ⁵ | 4 ⁰ | 4 ⁷ | e | 3 ⁵ | 4 ² |
| F | 3 ⁰ | 3 ⁵ | 4 ⁰ | 4 ⁷ | f | 2 ³ | 2 ⁶ |
| G | 3 ² | 4 ⁰ | 4 ³ | 5 ³ | g | 3 ⁵ | 4 ² |
| H | 3 ² | 4 ⁰ | 4 ³ | 5 ³ | h | 3 ⁵ | 4 ² |
| I | 0 ⁷ | 0 ⁷ | 1 ¹ | 1 ² | i | 1 ¹ | 1 ¹ |
| J | 3 ⁰ | 3 ⁶ | 4 ⁰ | 5 ⁰ | j | 2 ⁰ | 2 ² |
| K | 3 ² | 4 ¹ | 4 ³ | 5 ⁴ | k | 3 ⁵ | 4 ² |
| L | 3 ⁰ | 3 ⁵ | 4 ⁰ | 4 ⁷ | l | 1 ¹ | 1 ¹ |
| M | 3 ⁷ | 4 ⁵ | 5 ¹ | 6 ¹ | m | 6 ⁰ | 7 ⁰ |
| N | 3 ² | 4 ⁰ | 4 ³ | 5 ³ | n | 3 ⁵ | 4 ² |
| O | 3 ⁴ | 4 ² | 4 ⁵ | 5 ⁵ | o | 3 ⁶ | 4 ³ |
| P | 3 ² | 4 ⁰ | 4 ³ | 5 ³ | p | 3 ⁵ | 4 ² |
| Q | 3 ⁴ | 4 ² | 4 ⁵ | 5 ⁵ | q | 3 ⁵ | 4 ² |
| R | 3 ² | 4 ⁰ | 4 ³ | 5 ³ | r | 2 ⁶ | 3 ² |
| S | 3 ² | 4 ⁰ | 4 ³ | 5 ³ | s | 3 ⁶ | 4 ² |
| T | 3 ⁰ | 3 ⁵ | 4 ⁰ | 4 ⁷ | t | 2 ⁷ | 3 ² |
| U | 3 ² | 4 ⁰ | 4 ³ | 5 ³ | u | 3 ⁵ | 4 ² |
| V | 3 ⁵ | 4 ⁴ | 4 ⁷ | 6 ⁰ | v | 4 ² | 4 ⁷ |
| W | 4 ⁴ | 5 ² | 6 ⁰ | 7 ⁰ | w | 5 ⁵ | 6 ⁴ |
| X | 3 ⁴ | 4 ⁰ | 4 ⁵ | 5 ³ | x | 4 ⁴ | 5 ¹ |
| Y | 3 ⁶ | 5 ⁰ | 5 ⁰ | 6 ⁶ | y | 4 ⁶ | 5 ³ |
| Z | 3 ² | 4 ⁰ | 4 ³ | 5 ³ | z | 3 ⁶ | 4 ³ |

| NUMBER | 6 INCH SERIES | | 8 INCH SERIES | |
|--------|----------------|----------------|----------------|----------------|
| | C | D | C | D |
| 1 | 1 ² | 1 ⁴ | 1 ⁵ | 2 ⁰ |
| 2 | 3 ² | 4 ⁰ | 4 ³ | 5 ³ |
| 3 | 3 ² | 4 ⁰ | 4 ³ | 5 ³ |
| 4 | 3 ⁵ | 4 ³ | 4 ⁷ | 5 ⁷ |
| 5 | 3 ² | 4 ⁰ | 4 ³ | 5 ³ |
| 6 | 3 ² | 4 ⁰ | 4 ³ | 5 ³ |
| 7 | 3 ² | 4 ⁰ | 4 ³ | 5 ³ |
| 8 | 3 ² | 4 ⁰ | 4 ³ | 5 ³ |
| 9 | 3 ² | 4 ⁰ | 4 ³ | 5 ³ |
| 0 | 3 ⁴ | 4 ² | 4 ⁵ | 5 ⁵ |

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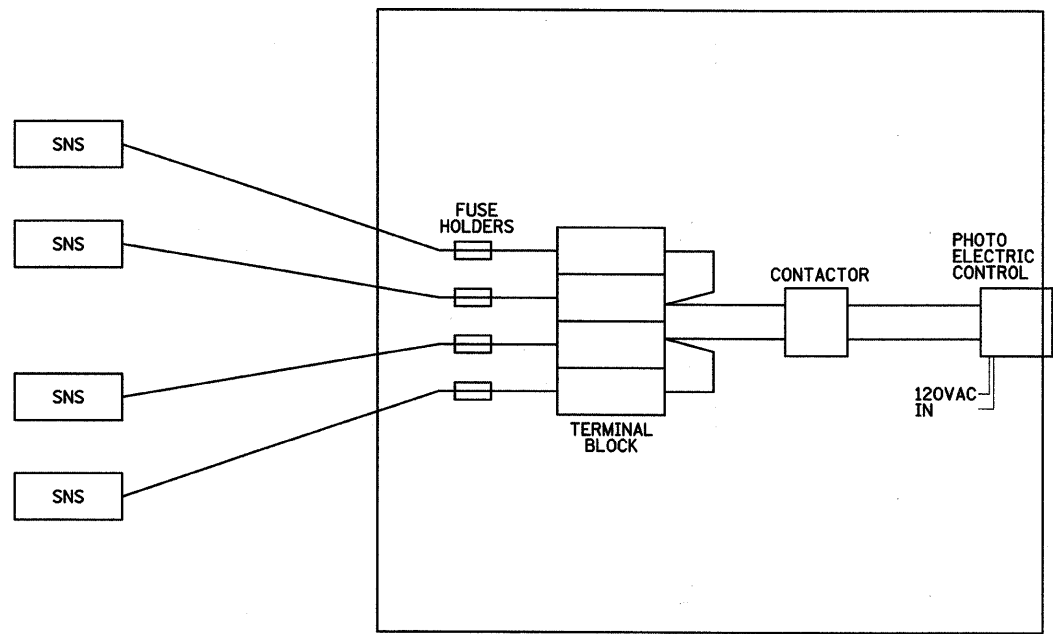
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS DETAILS

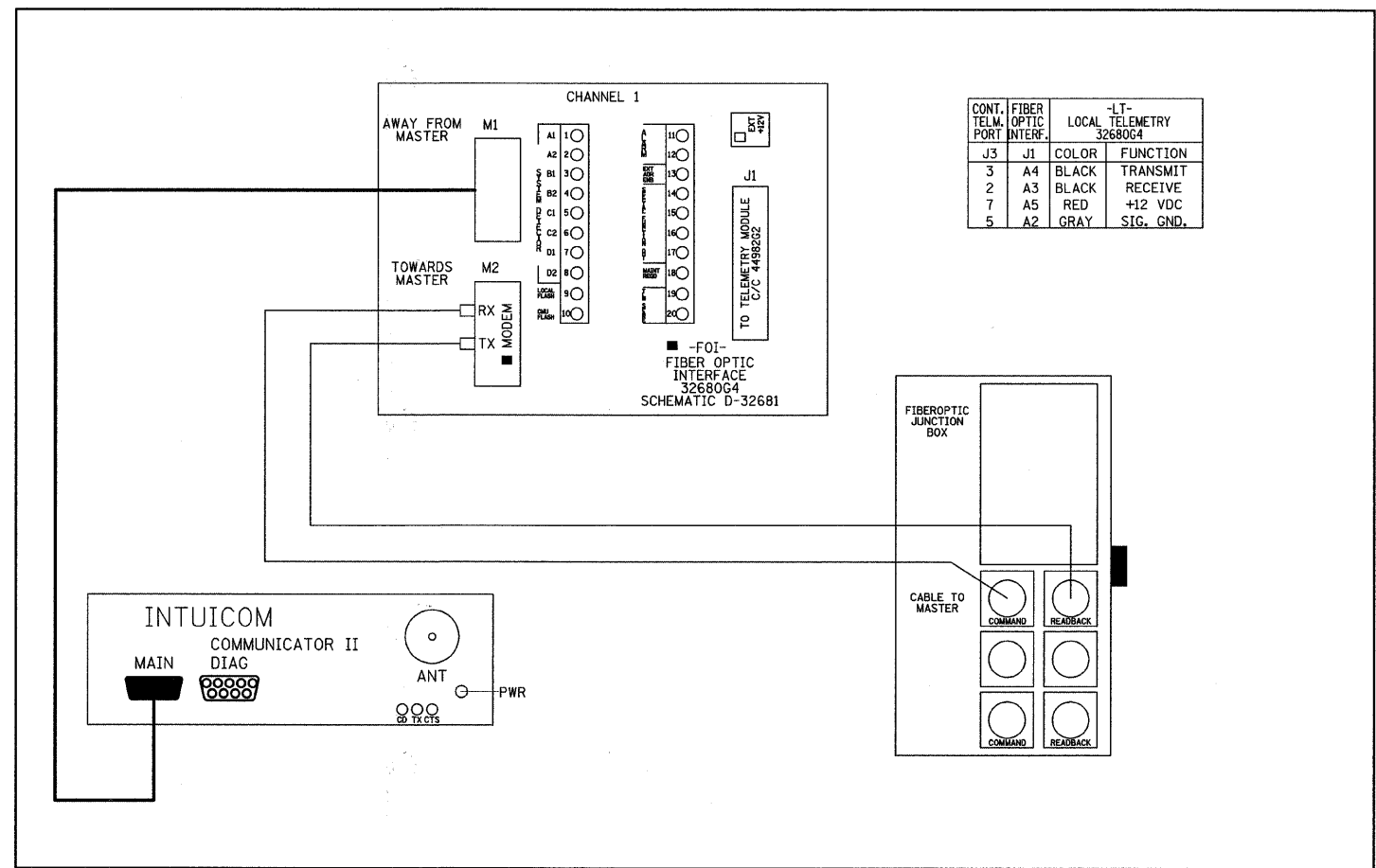
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F.A. RTE. SECTION 08-00270-00-TL COUNTY KANE TOTAL SHEETS 44 SHEET NO. 42 CONTRACT NO. 63300 FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

PLAN SURVEYED BY DATE
 PLOTTED BY
 NOTE BOOK NO.
 CHECKED BY
 STRUCTURE NO.
 CADD FILE NAME



LED STREET NAME SIGNS - PHOTOCELL WIRING DETAIL

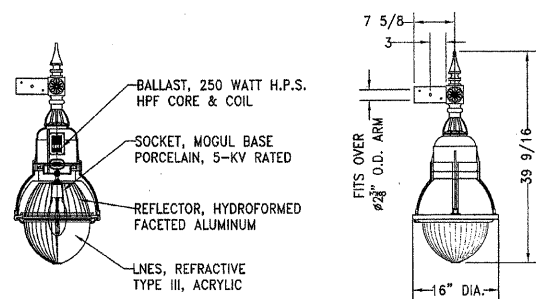


WIRING DETAIL FOR COMBINATION OF WIRELESS AND FIBER OPTIC INTERCONNECT SYSTEMS

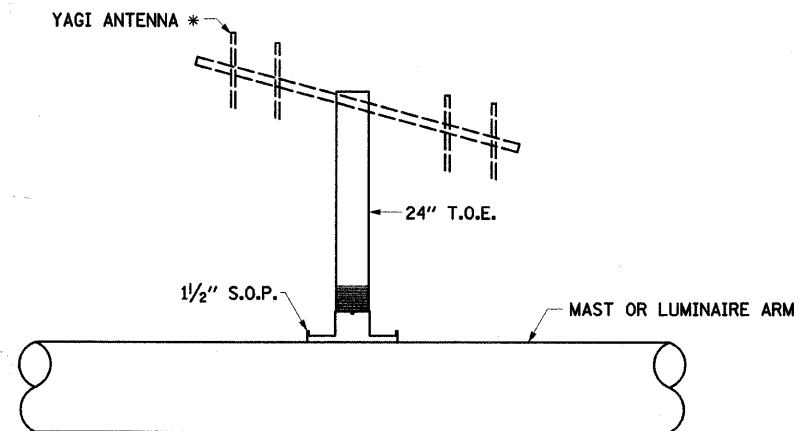
PROFILE SURVEYED BY DATE
 PLOTTED BY
 NOTE BOOK NO.
 CHECKED BY
 STRUCTURE NO.

NOTES:

- LUMINAIRE SHALL BE A MODEL AL-32000 LUMINAIRE, ARM END MOUNTED AS MANUFACTURED BY BEACON PRODUCTS OR AN EQUAL APPROVED BY THE CITY OF AURORA.
- ALL CAST ALUMINUM PARTS ARE COPPER FREE ALLOY A356. ALL EXTRUDED ALUMINUM PARTS ARE ALLOY 6051-T6.
- LENS: ACRYLIC PRISMATIC TYPE III ACRYLIC.
- OPTICS: HYDROFORMED FACETED REFLECTOR WITH LIGHT SOURCE: 250 WATT H.P.S., ED-28 LAMP, (BY OTHERS). BALLAST: 250 WATT H.P.S., HPF CORE & COIL.
- VOLTAGE: 240 VOLTS HZ:60.
- FIXTURE SHALL BE NRTL LISTED FOR WET LOCATION.
- FASTNERS: ALL FASTNERS ARE STAINLESS STEEL (TAMPER RESISTANT OPTIONAL, SPANNER HD (SHAKE EYE) SPECIAL TOOL REQUIRED, NOT PROVIDED).
- FINISH: BEACOTE III POLYESTHER POWDER COAT ELECTROSTATICALLY APPLIED AND THERMOCLURED. COLOR (SPECIFY).



AL-32000 LUMINAIRE, ARM END MOUNTED



WIRELESS ANTENNA MOUNTING DETAIL

* OR EQUAL APPROVED BY THE CITY OF AURORA.

MISCELLANEOUS DETAILS

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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS DETAILS

SCALE: SHEET NO. OF SHEETS STA. TO STA.

| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|----------------|--------|--------------|-----------|
| | 08-00270-00-TL | KANE | 44 | 43 |
| CONTRACT NO. 63300 | | | | |
| FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | | | |

| | | |
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| PLAN | SURVEYED | DATE |
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| | CAD FILE NAME | |
| NOTE BOOK NO. | | |

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| PROFILE | SURVEYED | DATE |
| | PLOTTED | |
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| | STRUCTURE | |
| | NOTATYNS | |
| | CHKD | |
| NOTE BOOK NO. | | |

CONSTRUCTION:
 THE LIGHTING POST SHALL BE HIGH-STRENGTH THICK WALLED CAST IRON. THE POLE MATERIAL SHALL CONFORM TO A.S.T.M. A48, CLASS 30 CAST IRON. THE SHAFT SHALL HAVE A DEEP 8-FLUTE PATTERN AND DECORATIVE BASE DESIGN. THE BASE SHALL HAVE AN 18 1/2" DIAMETER.

THERE SHALL BE (2) ACCESS DOORS IN THE BASE AND (1) HINGED ACCESS DOOR IN THE PEDESTAL. ALL HARDWARE SHALL BE STAINLESS STEEL. A GROUNDING LUG SHALL BE PROVIDED INSIDE ONE ACCESS DOOR.

DIMENSIONS:
 THE POST SHALL HAVE A LUMINAIRE MOUNTING HEIGHT OF 12'-3". THE BASE SHALL HAVE AN 18 1/2" DIAMETER.

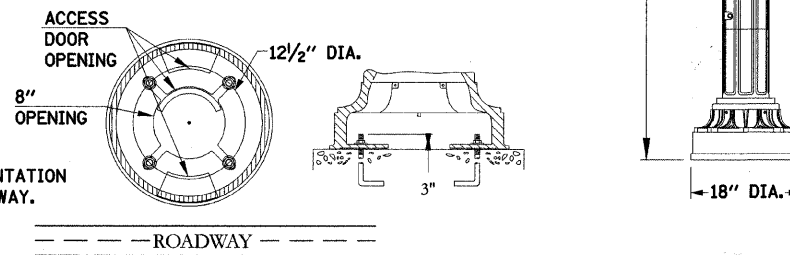
LUMINAIRE MOUNTING:
 A 3" DIAMETER BY 3" TALL TENON WITH UNDERCUT SHALL BE AN INTEGRAL PART OF THE POLE PROVIDED FOR POST TOP MOUNTING OF LUMINAIRE.

INSTALLATION: (SEE DRAWING FOR DETAILS)
 THE LIGHTING POLE SHALL BE PROVIDED WITH (4) 3/4" DIAMETER X 24" LONG "L-TYPE" ANCHOR BOLTS. EACH ANCHOR BOLT SHALL BE SUPPLIED ASSEMBLED WITH (2) NUTS, (2) FLAT WASHERS AND (1) SPLIT LOCK WASHER. THE POLE SHALL HAVE A 12" DIAMETER BOLT CIRCLE AND REQUIRES A 3" ANCHOR BOLT PROJECTION. ALL ANCHORAGE HARDWARE SHALL BE FULLY GALVANIZED.

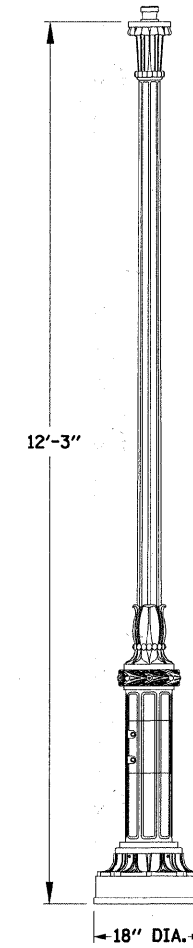
FINISH:
 THE POLE SHALL BE SUPPLIED PRIME PAINTED WITH RED OXIDE PRIMER.

CATALOG NUMBER: SCI-B-F-12'
 COLOR: BLACK

INSTALLATION DETAIL



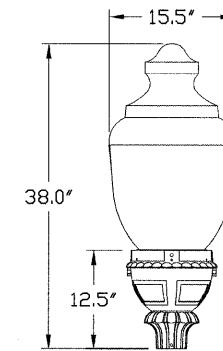
NOTE:
 ANCHOR BOLT ORIENTATION PARALLEL TO ROADWAY.



LIGHT POLE, SPECIAL (POLE DETAIL)

SENTRY ELECTRIC = SCI-B-F-12' CAST IRON "B" SERIES POLE (SEE SPECIAL PROVISIONS)

- FEATURES:**
- SIX DIFFERENT ACORN GLOBE CONFIGURATIONS.
 - ORNAMENTAL HEAVY GAGE CAST ALUMINUM POLE TOP SLIPFITTER.
 - INTEGRAL BALLAST.
 - MOGUL BASE SOCKET STANDARD.
 - MEDIUM BASE SOCKET AVAILABLE (CONTACT FACTORY).
 - UV STABILIZED FOR COLOR CLARITY.
 - IMPACT RESISTANT DOWN TO -40° F.
 - TERMINAL BOARD STANDARD.
 - ALUMINUM BALLAST COVER.
 - TWIST LOCK PE RECEPTACLE MOUNTED IN DOOR.
 - LUMINAIRE SHIPPED AS COMPONENTS: BALLAST, OPTICAL.



GLOBE 1H

LIGHT POLE, SPECIAL (LUMINAIRE DETAIL)

GE PATRIARCH LUMINAIRE (SEE SPECIAL PROVISIONS)

| | | | | | | | | | | |
|---|--------------------|------------------------|-----------|---|------------------------------|---------------------------|---------|--------|--------------|-----------|
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| | | DRAWN <i>BAH</i> | REVISED - | | | 08-00270-00-TL | KANE | 44 | 44 | |
| | | CHECKED <i>APS</i> | REVISED - | | | CONTRACT NO. 63300 | | | | |
| | | DATE - | REVISED - | | | ILLINOIS FED. AID PROJECT | | | | |
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