| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 360 | 10-00403-00-TL | KANE | 44 | 1 |

**DESIGN DESIGNATION**

**TRAFFIC VOLUME =**
2020 ADT 29,000 ON STEARNS ROAD
2020 ADT 16,000 ON IL RTE 25

**POSTED SPEED LIMIT =**
45 MPH ON STEARNS ROAD (RANDALL TO IL25)
40 MPH ON IL 25/STEARNS ROAD (STEARNS TO DUNHAM)

FOR INDEX OF SHEETS, SEE SHEET NO. 2

**HIGHWAY STANDARDS**

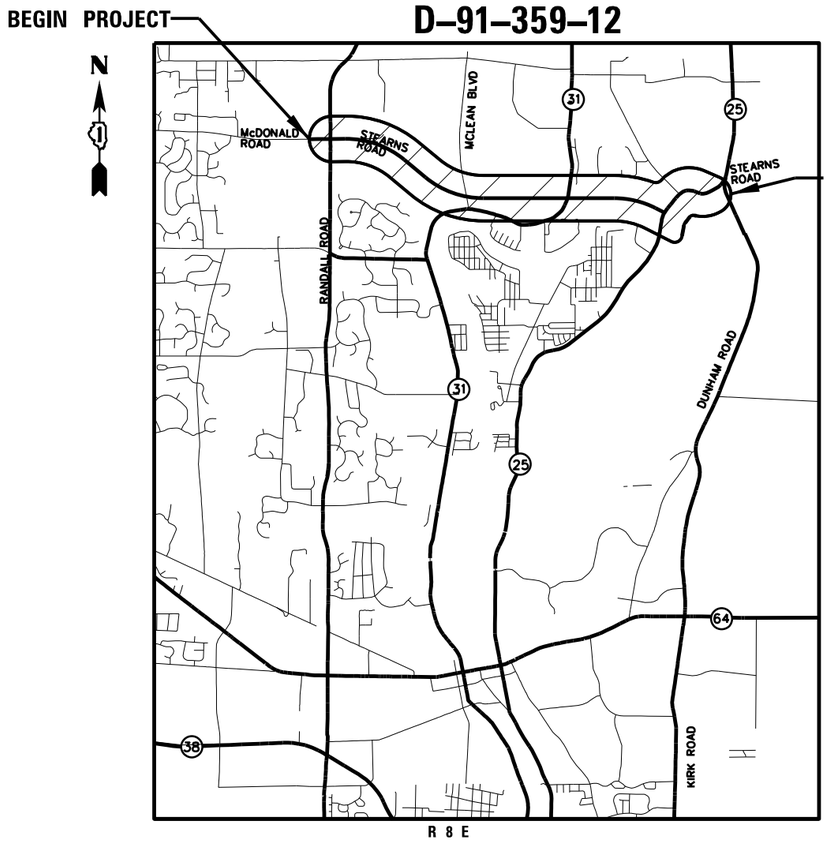
| STD. No. | DESCRIPTION |
|---|---|
| 602401-03 | MANHOLE TYPE A |
| 604001-03 | FRAME AND LIDS TYPE 1 |
| 701301-04 | LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS |
| 701311-03 | LANE CLOSURE, 2L, 2W, MOVING OPERATIONS 3-DAY ONLY |
| 720001-01 | SIGN PANEL MOUNTING DETAILS |
| 720006-03 | SIGN PANEL ERECTION DETAILS |
| 814006-02 | HANDHOLES |
| 814001-02 | DOUBLE HANDHOLES |
| 838001 | CONCRETE FOUNDATION DETAILS |
| 878001-09 | BREAKAWAY DEVICES |
| 886001-01 | DETECTOR LOOP INSTALLATIONS |

# PLANS FOR PROPOSED FEDERAL AID HIGHWAY

## PRE–FINAL PLAN SUBMITTAL

## F.A.P. 361 (STEARNS ROAD) (IL RTE 25)
## CH 34 (RANDALL ROAD) TO CH 17 (DUNHAM ROAD)
## TRAFFIC SYSTEM IMPROVEMENTS
## SECTION 11–00214–00–TL
## PROJECT NO.: CMM–4003
## KANE COUNTY

**D–91–359–12**




**LOCATION MAP**

NOT TO SCALE
GROSS & NET LENGTH = 21,600 FEET (4 MILES)


LOCATION OF SECTION INDICATED THUS: –

CHAD R. HAMMERL
062-054929
LICENSED PROFESSIONAL ENGINEER OF
STATE OF ILLINOIS

SIGNED _____
DATE _____
EXPIRES _____
FOR DRAWINGS _____ TO _____

JOHN E. ZIETLOW
062-046950
LICENSED PROFESSIONAL ENGINEER OF
STATE OF ILLINOIS

SIGNED _____
DATE _____
EXPIRES _____
FOR DRAWINGS _____ TO _____

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

APPROVED _____ 20 _____

KDOT–DIRECTOR OF TRANSPORTATION, COUNTY ENGINEER

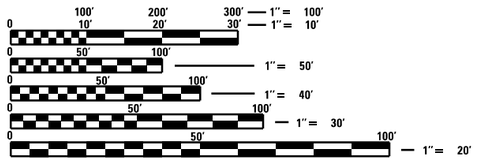
PASSED _____ 20 _____

RELEASING FOR BID BASED ON LIMITED REVIEW _____ 20 _____

ENGINEER OF DESIGN AND ENVIRONMENT

DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

**PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS**




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.

CALL J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1–800–893–0123
OR 811

**CONTRACT NO. XXXXX**

PROGRAM AND OFFICE ENGINEER: CHARLES F. RIDDLE, P.E. (847)705–4406 SCHAUMBURG, IL

JACOBS
525 WEST MONROE, SUITE 200
CHICAGO, IL 60661

1/23/2014

## INDEX OF SHEETS



## GENERAL NOTES

1. CONSTRUCTION SHOWN IN THESE PLANS WILL BE STAGED WITH STEARNS ROAD RECONSTRUCTION PROJECT (NO. 63598). CONTRACTOR WILL BE REQUIRED TO COORDINATE WITH ROADWAY CONSTRUCTION PROJECT. DURING COORDINATION, WORK ON THIS TRAFFIC SIGNAL SYSTEM IMPROVEMENTS PROJECT MAY BE IDLE.

2. ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE DETAILS, PLANS, AND THE SPECIAL PROVISIONS INCLUDED IN THE CONTRACT DOCUMENTS, AND THE LATEST EDITION OF THE FOLLOWING STATE OF ILLINOIS SPECIFICATIONS: "THE STANDARD SPECIFICATIONS FOR THE ROAD AND BRIDGE CONSTRUCTION" (REFERRED TO AS THE STANDARD SPECIFICATIONS), THE SUPPLEMENTAL STANDARD SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS, AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR TRAFFIC CONTROL ITEMS.

3. THE LOCATIONS OF UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE AND THE ENGINEER DOES NOT GUARANTEE THEIR ACCURACY. THE CONTRACTOR SHALL HAVE THE RESPECTIVE UTILITY COMPANIES FIELD LOCATE ALL THEIR FACILITIES PRIOR TO BEGINNING OF CONSTRUCTION. THE CONTRACTOR SHALL ALSO VERIFY THE DEPTHS OF THE EXISTING UTILITIES IF NECESSARY USING TEST HOLES. ALL RELOCATION OR LOWERING OF THE UTILITIES SHALL BE COORDINATED BY THE CONTRACTOR. TEST HOLES WILL INCLUDED IN THE COST OF MOBILIZATION.

4. THE CONTRACTOR SHALL CONTACT J.U.L.I.E. AT LEAST 48 HOURS PRIOR TO EXCAVATION TO DETERMINE WHICH UTILITIES ARE IN THE AREA.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UNDERGROUND AND SURFACE UTILITIES INCLUDING THOSE THAT MAY NOT BE SHOWN ON THE PLANS. ALL UTILITIES THAT ARE DAMAGED DURING THE CONSTRUCTION SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.

6. DURING CONSTRUCTION, THE CONTRACTOR SHALL INSURE POSITIVE SITE DRAINAGE AT THE CONCLUSION OF EACH DAY. ANY LOOSE MATERIAL DEPOSITED ON THE FLOW LINE OF GUTTERS, DRAINAGE STRUCTURE, DITCHES, ETC. SUCH THAT THE NATURAL FLOW LINE OF THE WATER IS OBSTRUCTED, SHALL BE REMOVED AT THE CLOSE OF EACH WORKING DAY BY THE RESPONSIBLE PARTY. AT THE CONCLUSION OF CONSTRUCTION OPERATIONS, ALL DRAINAGE STRUCTURE AND FLOW LINES SHALL BE FREE FROM DIRT AND DEBRIS. THIS WORK SHALL BE INCLUDED IN THE COST OF CONDUIT IN TRENCH, CONDUIT PUSHED OR CONCRETE FOUNDATION.

7. SEEDING SHALL NOT BE PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN, WET, OR IN AN UNTILLABLE CONDITION. LOCATION TO BE SEEDED WILL BE DETERMINED BY THE ENGINEER.

8. ONLY THOSE TREES DESIGNATED BY THE ENGINEER OR SHOWN ON THE PLANS SHALL BE REMOVED. ANY DAMAGE TO EXISTING TREES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

9. TEMPORARY ROADWAY AND SIDEWALK CLOSURES WILL BE PERMITTED ONLY WITH THE ENGINEER'S APPROVAL. REQUESTS FOR CLOSURES MUST BE SUBMITTED TO THE ENGINEER AT LEAST 7 DAYS BEFORE THE CLOSURE. TRAFFIC AND PEDESTRIAN CONTROL SHALL BE IN ACCORDANCE WITH IDOT STANDARDS.

10. THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE, AND LOCAL SAFETY REGULATIONS AS WELL AS THOSE SPECIFIED IN THE CONTRACT PLANS AND SPECIFICATIONS.

11. THE CONTRACTOR SHALL COMPLETE CLEAN UP AND RESTORATION OF THE ENTIRE PROJECT AREA WITHIN 7 DAYS OF CONTRACT COMPLETION DATE.

12. EXISTING CONDITIONS WERE OBTAINED FROM THE BEST AVAILABLE INFORMATION. INFORMATION SHOWN IS NOT GUARANTEED ALL-INCLUSIVE OR CORRECT. THE CONTRACTOR IS TO VERIFY THE EXISTING CONDITIONS PRIOR TO CONSTRUCTION.

13. UPON COMPLETION OF THE PROJECT AND ACCEPTANCE BY THE ENGINEER, THE CONTRACTOR WILL SUBMIT ONE FULL SIZED SET OF RECORD DRAWINGS MARKED IN RED TO THE ENGINEER. RECORD DRAWINGS ARE INCLUDED IN THE COST OF MOBILIZATION.

14. ALL EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR AS DESIGNATED ON THE PLANS. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE CREDITED THROUGH THE CONTRACTOR'S BID OF THE CONTRACT UNIT PRICES.

15. THE CONTRACTOR SHALL ENSURE THAT MAILBOXES ALONG THE ROUTE ARE NOT DAMAGED DUE TO CONSTRUCTION ACTIVITIES. MAILBOXES THAT ARE DAMAGED AS A RESULT OF CONSTRUCTION ACTIVITIES SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE AS SOON AS DAMAGED TO ALLOW MAIL DELIVERY.

16. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO COORDINATE WITH THE CANADIAN NATIONAL AND UNION PACIFIC RAILROADS WHENEVER CONSTRUCTION ACTIVITY IS WITHIN 25 FEET OF THE RAILROAD ROW. THE CONTRACTOR SHALL RETAIN FLAGMEN EMPLOYED AND DESIGNATED BY THE CANADIAN NATIONAL AND UNION PACIFIC RAILROADS TO MONITOR ONCOMING TRAIN TRAFFIC AND ADVISE CONTRACTOR PERSONNEL WHEN ACTIVITY ON OR NEAR THE RAILROAD RIGHT-OF-WAY MAY PROCEED. THIS ITEM WILL BE PAID FOR ACCORDING TO ARTICLE 107.12 AND WILL BE REIMBURSED ACCORDING TO ARTICLE 109.05.

17. THE SPECIAL PROVISIONS REFERENCE KCDOT CENTRAL FACILITY:

    KANE COUNTY DIVISION OF TRANSPORTATION
    41W011 BURLINGTON ROAD
    ST. CHARLES, IL 60175

    MR. THOMAS SZABO IS THE TRAFFIC MANAGER FOR KCDOT (630) 208-3139

18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION LAYOUT. WORK SHALL BE CONSIDERED INCIDENTAL UNDER MOBILIZATION.

19. ALL TRAVEL LANES ARE ANTICIPATED TO BE OPEN THROUGHOUT CONSTRUCTION. SHORT TERM LANE CLOSURES AND ALL USE OF FLAGGING OPERATION MUST OCCUR BETWEEN THE HOURS OF 9:00 A.M. AND 3:00 P.M. AND BE APPROVED BY THE ENGINEER.

20. EXISTING CONDITIONS , INCLUDING THE CONDITION AND AVAILABILITY OF CONDUIT, HAVE NOT BEEN FIELD VERIFIED. CONTRACTOR MUST VERIFY EXISTING CONDITIONS BEFORE COMMENCING WORK.

21. THE EXACT LOCATION OF ALL UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR BEFORE THE INSTALLATION OF ANY COMPONENT OF THE TRAFFIC SIGNAL SYSTEM.

22. EXISTING CONDITIONS SHOWN IN THESE PLANS INCLUDE ELEMENTS THAT WILL BE INSTALLED AS PART OF A ROADWAY RECONSTRUCTION AND ADD LANES PROJECT BETWEEN STEARNS ROAD AN IL 25 AND DUNHAM ROAD. CONTRACTOR MAY HAVE TO SUSPEND WORK WITHIN THE LIMITS OF THIS PROJECT TO ALLOW ROADWAY CONTRACTOR TO COMPLETE THEIR WORK. THE TIMELINE FOR THIS PROJECT IS BETWEEN FEBRUARY 2014 AND NOVEMBER 2015.

P:_2013\CIV\13908\700 CADD\02.General Notes.dgn


JACOBS
525 WEST MONROE
CHICAGO IL, 60661
312-251-3000


| | | | | | |
|---|---|---|---|---|---|
| USER NAME = | DESIGNED - CH | REVISED - | KANE COUNTY DIVISION OF TRANSPORTATION | INDEX OF SHEETS GENERAL NOTES | |
| | DRAWN - KB, DL | REVISED - | | | |
| PLOT SCALE = | CHECKED - KG | REVISED - | | SCALE: | SHEET NO. OF SHEETS STA. TO STA. |
| PLOT DATE = 1/23/2014 | DATE - $DATE | REVISED - | | | |

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 361 | 11-00214-00-TL | KANE | 44 | 2 |
| | | CONTRACT NO. XXXXX | | |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

1/23/2014

# SUMMARY OF QUANTITIES

| CODE OR ITEM NO. | ITEM DESCRIPTION | UNIT | TOTAL QUANTITY | MCDONALD RD @ BRIARGATE DR | STEARNS RD @ RANDALL RD | STEARNS RD @ UMBDENSTOCK RD | STEARNS RD @ MCLEAN BLVD | MCLEAN BLVD @ IL RTE 31 | STEARNS RD @ IL RTE 31 (OVERPASS) | STEARNS RD @ FOX RIVER | STEARNS RD @ BREWSTER CREEK | STEARNS RD @ IL RTE 25 | STEARNS RD @ GILBERT ST | STEARNS RD @ DUNHAM ROAD | INTERCONNECT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | CONSTRUCTION CODE | | | | | | | | | | | |
| 20200100 | EARTH EXCAVATION | CU YD | 2 | | | 1 | | | | | 1 | | | | |
| 42400200 | PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH | SQ FT | 86 | | | 18 | | | 18 | 32 | 18 | | | | |
| 67100100 | MOBILIZATION | L SUM | 1 | | | | | | | | | | | | 1 |
| 70102620 | TRAFFIC CONTROL AND PROTECTION, STANDARD 701501 | L SUM | 1 | | | | | | | | | | | | 1 |
| 70102630 | TRAFFIC CONTROL AND PROTECTION, STANDARD 701601 | L SUM | 1 | | | | | | | | | | | | 1 |
| 70102665 | TRAFFIC CONTROL AND PROTECTION, STANDARD 701606, SPECIAL | L SUM | 1 | | | | | | | | | | | | 1 |
| 70102635 | TRAFFIC CONTROL AND PROTECTION, STANDARD 701701 | L SUM | 1 | | | | | | | | | | | | 1 |
| 72000100 | SIGN PANEL - TYPE 1 | SQ FT | 30 | | | 7.5 | | | 15 | | 7.5 | | | | |
| 72400710 | RELCOCATE SIGN PANEL - TYPE 1 | SQ FT | 15 | | | 7.5 | | | | | 7.5 | | | | |
| 73700100 | REMOVE GROUND MOUNTED SIGN SUPPORT | EACH | 2 | | | 1 | | | | | 1 | | | | |
| 80500020 | SERVICE INSTALLATION - POLE MOUNTED | EACH | 2 | | | 1 | | | 1 | | | | | | |
| 81028200 | UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA. | FOOT | 4,125 | | | 926 | 188 | | 1160 | 373 | 1478 | | | | |
| 81028240 | UNGERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA | FOOT | 15,599 | | | | | | | | | | | | 15599 |
| 81100510 | CONDUIT ATTACHED TO STRUCTURE, 1 1/2" DIA., PVC COATED GALVANIZED STEEL | FOOT | 50 | | | | | | | | | | | | 50 |
| 81300540 | JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 12" X 12" X 4" | EACH | 2 | | | | | | | 2 | | | | | |
| 81400100 | HANDHOLE | EACH | 36 | | | | | | | | | | | | 36 |
| 81400300 | DOUBLE HANDHOLE | EACH | 15 | | | | | | | | | | | | 15 |
| 81702100 | ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO.12 | FOOT | 5,990 | | | 1920 | | | 1590 | 470 | 2010 | | | | |
| 81702120 | ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 8 | FOOT | 230 | | | | | | | 580 | | | | | |
| 81702150 | ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 2 | FOOT | 6,750 | | | | | | 1200 | 5550 | | | | | |
| 81702160 | ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 1/O | FOOT | 4,020 | | | | | | | | 4020 | | | | |
| 83800650 | BREAKAWAY DEVICE, COUPLING WITH STAINLESS STEEL SCREEN | EACH | 2 | | | 1 | | | | | 1 | | | | |
| 85000200 | MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION | EACH | 7 | 1 | 1 | | 1 | 1 | | | | 1 | 1 | 1 | |
| 86200200 | UNINTERRUPTABLE POWER SUPPLY, STANDARD | EACH | 2 | | | | | | | 2 | | | | | |
| 86300400 | CONTROLLER CABINET TYPE IV | EACH | 2 | | | | | | | 2 | | | | | |
| 87300010 | GROUNDING EXISTING HANDHOLE FRAME AND COVER | EACH | 15 | 1 | 3 | | 2 | 3 | 3 | 3 | | | | | |
| 87501200 | TRAFFIC SIGNAL POST, 16FT. | EACH | 5 | | | 1 | | | 2 | | 2 | | | | |
| 87800100 | CONCRETE FOUNDATION, TYPE A | FOOT | 25 | | | 5 | | | 10 | | 10 | | | | |
| 87800150 | CONCRETE FOUNDATION, TYPE C | FOOT | 6 | | | | | | | 6 | | | | | |
| 87900200 | DRILL EXISTING HANDHOLE | EACH | 15 | | 1 | | 2 | 3 | 4 | 4 | | 1 | | | |
| 88600100 | DETECTOR LOOP, TYPE I | FOOT | 219 | | | | | 219 | | | | | | | |
| 89502210 | MODIFY EXISTING CONTROLLER CABINET | EACH | 7 | 1 | 1 | | 1 | 1 | | | | 1 | 1 | 1 | |
| 89502375 | REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT | EACH | 3 | 1 | 1 | | | | | | | 1 | | | |

△ DENOTES ITEMS REQUIRING SPECIAL PROVISIONS

P:_2013\CIVIL\3900\700 CADD\03.Summary of Quantities.dgn

JACOBS
525 WEST MONROE
CHICAGO IL. 60661
312-251-3000

| | | | |
|---|---|---|---|
| USER NAME = | DESIGNED - CH | REVISED - | |
| | DRAWN - KB, DL | REVISED - | |
| PLOT SCALE = | CHECKED - KG | REVISED - | |
| PLOT DATE = 1/23/2014 | DATE - $DATE | REVISED - | |

**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

**SUMMARY OF QUANTITIES**

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

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 361 | 11-00214-00-TL | KANE | 44 | 3 |
| | | CONTRACT NO. XXXXX | | |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

1/23/2014

# SUMMARY OF QUANTITIES

| | CODE OR ITEM NO. | ITEM DESCRIPTION | UNIT | TOTAL QUANTITY | MCDONALD RD @ BRIARGATE DR | STEARNS RD @ RANDALL RD | STEARNS RD @ UMBDENSTOCK RD | STEARNS RD @ MCLEAN BLVD | MCLEAN BLVD @ IL RTE 31 | STEARNS RD @ IL RTE 31 (OVERPASS) | STEARNS RD @ FOX RIVER | STEARNS RD @ BREWSTER CREEK | STEARNS RD @ IL RTE 25 | STEARNS RD @ GILBERT ST | STEARNS RD @ DUNHAM ROAD | INTERCONNECT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | CONSTRUCTION CODE | | | | | | | | | | | |
| △ | X0323906 | CAMERA POLE, 45 FT | EACH | 4 | | | 1 | | | 1 | 1 | 1 | | | | |
| △ | X0323920 | POLE MOUNTED EQUIPMENT CABINET, TYPE B | EACH | 4 | | | 1 | | | 1 | 1 | 1 | | | | |
| △ | X0324599 | ROD AND CLEAN EXISTING CONDUIT | FOOT | 879 | | | | | 879 | | | | | | | |
| △ | X0325476 | RADAR VEHICLE DETECTION SYSTEM | EACH | 2 | | | 1 | | | | 1 | | | | | |
| △ | X0326362 | PAINT EXISTING STREET LIGHT/TRAFFIC EQUIPMENT COMPLETE | EACH | 4 | | | 1 | | | 1 | 1 | 1 | | | | |
| △ | X0326452 | VIDEO SYSTEM DETECTION PROCESSOR | EACH | 3 | 1 | 1 | | 1 | | | | | | | | |
| △ | X0326275 | RAILROAD RIGHT-OF-WAY ENTRY PERMIT | EACH | 1 | | | | | | | | | | | | |
| △ | X0326852 | RADAR SPEED SIGN | EACH | 6 | | | 2 | | | 2 | | 2 | | | | |
| △ | X8510300 | PAINT TRAFFIC SIGNAL POST | EACH | 4 | | | 2 | | | | | 2 | | | | |
| △ | X8710031 | FIBER OPTIC CABLE 36 FIBERS, SINGLE MODE | FOOT | 21,614 | | | | | | | | | | | | 21,614 |
| △ | XX004913 | REMOVE FIBER OPTIC CABLE FROM CONDUIT | FOOT | 760 | | | | | 760 | | | | | | | |
| △ | XX007251 | INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA | EACH | 10 | 1 | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | |
| △ | XX007953 | NETWORK CONFIGURATION | L SUM | 1 | | | | | | | | | | | | 1 |
| △ | XX008392 | OUTDOOR RATED NETWORK CABLE | FOOT | 7,249 | 75 | 500 | 1,194 | 120 | | 1,060 | 2,805 | 455 | 440 | 440 | 160 | |
| △ | XX008453 | ETHERNET MANAGED SWITCH, TYPE 1 | EACH | 7 | | | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | | |
| △ | XX008454 | ETHERNET MANAGED SWTICH, TYPE 2 | EACH | 2 | | | | 1 | | | | | | | 1 | |
| △ | XX008594 | FIBER OPTIC TERMINATIONS, 6 FIBER | EACH | 1 | 1 | | | | | | | | | | | |
| △ | XX008595 | FIBER OPTIC TERMINATIONS, 36 FIBER | EACH | 0 | | | | | | | | | | | | |
| △ | Z0033046 | RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM, LEVEL 2 | EACH | 6 | 1 | 1 | | 1 | | | | | 1 | 1 | 1 | |
| △ | Z0048665 | RAILROAD PROTECTIVE LIABILITY INSURANCE | L SUM | 1 | | | | | | | | | | | | 1 |
| △ | Z0076600 | TRAINEES | HOUR | 500 | | | | | | | | | | | | |
| △ | Z0076604 | TRAINEES TRAINING PROGRAM GRADUATE | HOUR | 500 | | | | | | | | | | | | |
| △ | XXXXXXXX | MALFUNCTION MANAGEMENT UNIT | EACH | 3 | | | | 1 | | | | | 1 | 1 | | |
| △ | XXXXXXXX | CORE EXISTNG FOUNDATION | EACH | 2 | | | | | | | 2 | | | | | |
| △ | XXXXXXXX | DYNAMIC MESSAGE SIGN, POLE MOUNTED | EACH | 2 | | | | | | | 2 | | | | | |
| △ | XXXXXXXX | ROAD WEATHER INFORMATION STATION | EACH | 1 | | | | | | | 1 | | | | | |
| △ | XXXXXXXX | METAL HELIX FOUNDATION, 10 FT | EACH | 4 | | | 1 | | | 1 | 1 | 1 | | | | |
| △ | XXXXXXXX | 20' EXTENSION POLE | EACH | 3 | | | | | | | | | 1 | 1 | 1 | |
| △ | XXXXXXXX | THREE CELL FABRIC INNERDUCT | FOOT | 18,445 | | | | | | | | | | | | 18,445 |
| △ | XXXXXXXX | ATMS SYSTEMS INTEGRATION - DATA PORTRAL MODULE | L SUM | 1 | | | | | | | | | | | | 1 |
| △ | XXXXXXXX | ATMS SYSTEMS INTEGRATION - TRAFFIC MANAGEMENT SYSTEMS MODULE | L SUM | 1 | | | | | | | | | | | | 1 |
| △ | XXXXXXXX | ATMS SYSTEMS INTEGRATION - DEVICE INTEGRATION | L SUM | 1 | | | | | | | | | | | | 1 |
| △ | XXXXXXXX | ATMS SYSTEMS INTEGRATION - TRAVELER INFORMATION SYSTEM MODULE | L SUM | 1 | | | | | | | | | | | | 1 |
| △ | XXXXXXXX | BATTERY BACKUP NIC CARD | EACH | 1 | | | | 1 | | | | | | | | |

△ DENOTES ITEMS REQUIRING SPECIAL PROVISIONS

JACOBS
525 WEST MONROE
CHICAGO IL, 60661
312-251-3000

| | | | |
|---|---|---|---|
| USER NAME = | DESIGNED - CH | REVISED - | |
| | DRAWN - KB, DL | REVISED - | |
| PLOT SCALE = | CHECKED - KG | REVISED - | |
| PLOT DATE = 1/23/2014 | DATE - $DATE | REVISED - | |

**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

**SUMMARY OF QUANTITIES**

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

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 361 | 11-00214-00-TL | KANE | 44 | 4 |
| | | CONTRACT NO. XXXXX | | |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

P:_2013\C941390\n700 CADD\04-Summary of Quantities.dgn

1/23/2014

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT LOCATED AT BRIARGATE DRIVE AND MCDONALD ROAD SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE VILLAGE OF SOUTH ELGIN, AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE VILLAGE'S TRAFFIC SIGNAL MAINTENANCE CONTRACTOR'S MAIN FACILITY.

1 EACH PTZ CAMERA

THE VILLAGE'S TRAFFIC SIGNAL MAINTENANCE CONTRACTOR IS MEADE ELECTRIC CO., LOCATED AT:

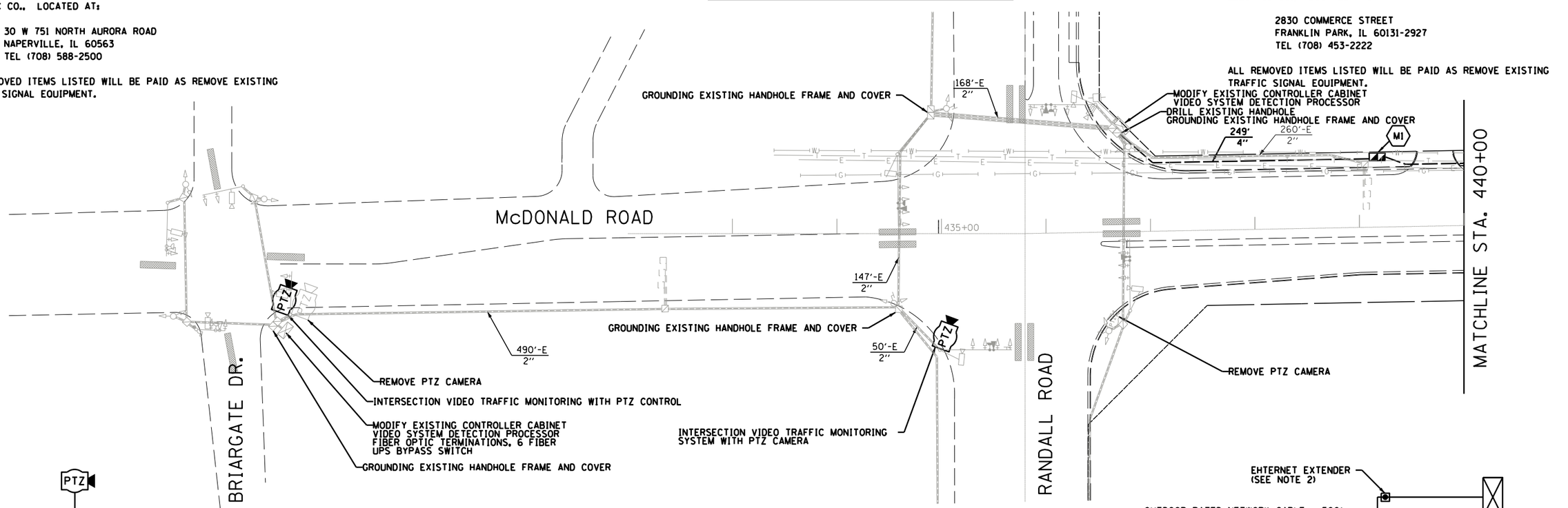
30 W 751 NORTH AURORA ROAD
NAPERVILLE, IL 60563
TEL (708) 588-2500

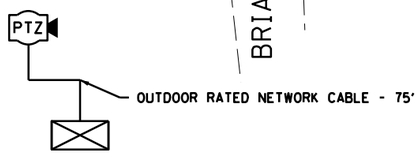
ALL REMOVED ITEMS LISTED WILL BE PAID AS REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT.

NOTES:

1. UNDERGROUND CONDUIT FOR FIBER OPTIC BACKBONE SHALL BE INSTALLED 2' BEHIND BACK OF CURB OR BACK OF SHOULDER UNLESS OTHERWISE INDICATED ON THE PLANS.
2. ETHERNET EXTENDER TO BE PLACED IN AN EXISTING TRAFFIC SIGNAL HANDHOLE NEAR THE MIDPOINT OF THE CCTV AND CONTROLLER CABINET. ETHERNET EXTENDER TO BE PAID FOR UNDER OUTDOOR RATED NETWORK CABLE.

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. SOD SHALL BE WATERED AS DIRECTED BY ENGINEER AND PER ACT 252.08 & 252.09 IN STP SPECS.




CABLE SCHEMATIC (BRIARGATE)

SEE COMMUNICATIONS SCHEMATIC SHEET 34 FOR NETWORK COMMUNICATIONS

## SCHEDULE OF QUANTITIES - MCDONALD ROAD AND BRIARGATE DRIVE

| PAY ITEM | UNIT | QUANTITY |
|---|---|---|
| MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION | EACH | 1 |
| GROUNDING EXISTING HANDHOLE FRAME AND COVER | EACH | 1 |
| MODIFY EXISTING CONTROLLER CABINET | EACH | 1 |
| REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT | EACH | 1 |
| VIDEO SYSTEM DETECTION PROCESSOR | EACH | 1 |
| INTERSECTON VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA | EACH | 1 |
| OUTDOOR RATED NETWORK CABLE | FOOT | 75 |
| FIBER OPTIC TERMINATIONS, 6 FIBER | EACH | 1 |
| RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM, LEVEL 2 | EACH | 1 |
| UPS BYPASS SWITCH | EACH | 1 |

INTERCONNECT PLAN LEGEND

| | PROPOSED | EXISTING |
|---|---|---|
| POLE MOUNTED CABINET, TYPE B | ⊠ | |
| CONTROLLER CABINET TYPE IV | ⊠ | ⊠ |
| MAST ARM ASSEMBLY AND POLE, STEEL | ○— | ○— |
| HANDHOLE | ◪ | ◪ |
| DOUBLE HANDHOLE | ◪◪ | ◪◪ |
| HEAVY DUTY HANDHOLE | H | H |
| G.S. CONDUIT IN GROUND (CIG) | --- | ═══ |
| DETECTOR LOOP | | □ |
| SYSTEM | S | |
| INTERSECTION | IP | I |
| STAINLESS STEEL JUNCTION BOX | J | |
| MANHOLE/HANDHOLE NUMBER | ⬡ | |
| INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA | PTZ | PTZ |
| VIDEO DETECTION CAMERA | ▶▬ | ▷▭ |
| RADAR SPEED SIGN | RSS | |
| ELECTRICAL SERVICE | ⊗ | ⊗ |
| RADAR VEHICLE DETECTION SYSTEM | | |

SEE TRAFFIC SIGNAL LEGEND SHEET 28 FOR ADDITIONAL SYMBOLS

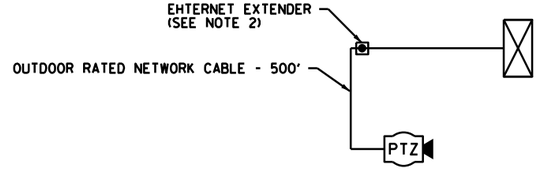
THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE KANE COUNTY, AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE COUNTY'S TRAFFIC SIGNAL MAINTENANCE CONTRACTOR'S MAIN FACILITY.

1 EACH PTZ CAMERA

THE COUNTY'S TRAFFIC SIGNAL MAINTENANCE CONTRACTOR IS H&H ELECTRIC CO., LOCATED AT:

2830 COMMERCE STREET
FRANKLIN PARK, IL 60131-2927
TEL (708) 453-2222

ALL REMOVED ITEMS LISTED WILL BE PAID AS REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT.




CABLE SCHEMATIC (RANDALL)

## SCHEDULE OF QUANTITIES - STEARNS ROAD AND RANDALL ROAD

| PAY ITEM | UNIT | QUANTITY |
|---|---|---|
| MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION | EACH | 1 |
| GROUNDING EXISTING HANDHOLE FRAME AND COVER | EACH | 3 |
| MODIFY EXISTING CONTROLLER CABINET | EACH | 1 |
| REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT | EACH | 1 |
| DRILL EXISTING HANDHOLE | EACH | 1 |
| REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT | EACH | 1 |
| VIDEO SYSTEM DETECTION PROCESSOR | EACH | 1 |
| INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA | EACH | 1 |
| OUTDOOR RATED NETWORK CABLE | FOOT | 500 |

## SCHEDULE OF QUANTITIES - INTERCONNECT (1 OF 18)

| PAY ITEM | UNIT | QUANTITY |
|---|---|---|
| UNGERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA | FOOT | 325 |
| DOUBLE HANDHOLE | EACH | 1 |

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CHICAGO IL, 60661
312-251-3000


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|---|---|---|---|
| USER NAME = | DESIGNED - CH | REVISED - ___ | |
| | DRAWN - KB, DL | REVISED - ___ | |
| PLOT SCALE = | CHECKED - KG | REVISED - ___ | |
| PLOT DATE = 1/23/2014 | DATE - $DATE | REVISED - ___ | |

**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

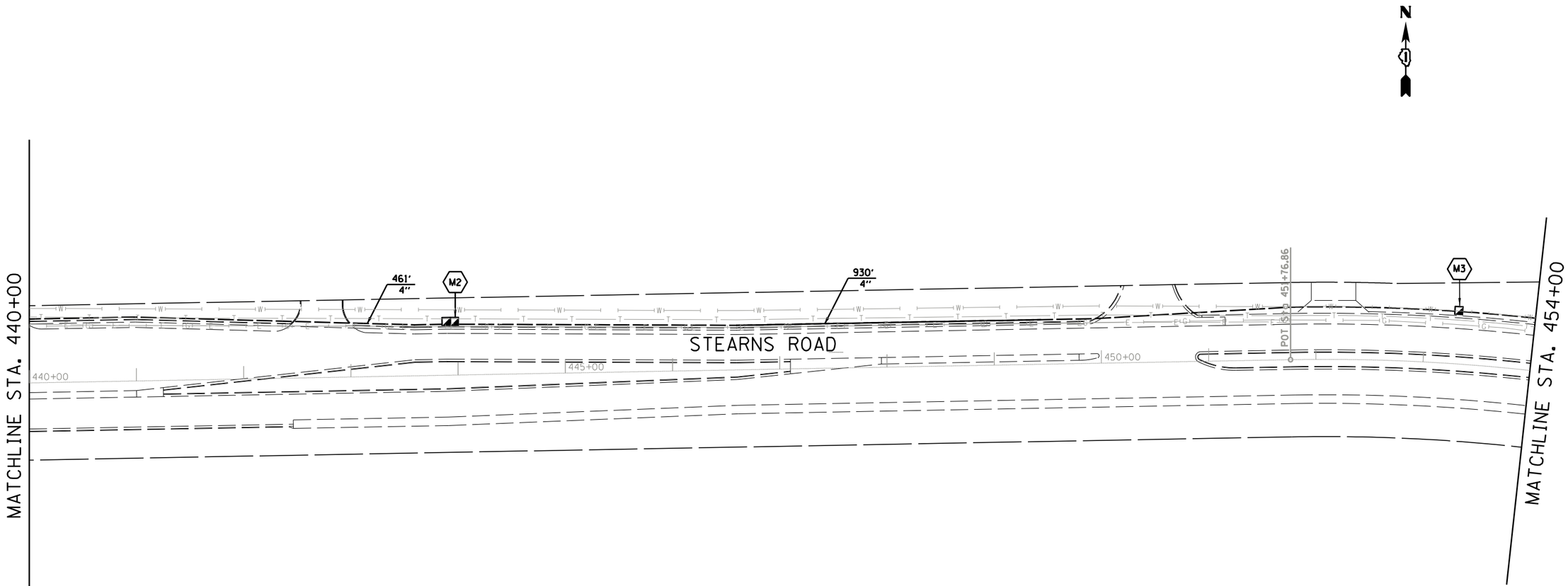
**ITS PLANS**
**STEARNS ROAD AND RANDALL ROAD (SHEET 1 OF 18)**

SCALE: | SHEET NO. __ OF ___ SHEETS | STA. _____ TO STA. _____

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 361 | 11-00214-00-TL | KANE | 44 | 5 |
| | | CONTRACT NO. XXXXX | | |

FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT

1/23/2014




**NOTES;**

1. UNDERGROUND CONDUIT FOR FIBER OPTIC BACKBONE SHALL BE INSTALLED 2' BEHIND BACK OF CURB OR BACK OF SHOULDER UNLESS OTHERWISE INDICATED ON THE PLANS.

**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. SOD SHALL BE WATERED AS DIRECTED BY ENGINEER AND PER ACT 252.08 & 252.09 IN STP SPECS.

SEE COMMUNICATIONS SCHEMATIC
SHEET 34 FOR NETWORK COMMUNICATIONS

INTERCONNECT PLAN LEGEND

| | PROPOSED | EXISTING |
|---|---|---|
| POLE MOUNTED CABINET, TYPE B | | |
| CONTROLLER CABINET TYPE IV | | |
| MAST ARM ASSEMBLY AND POLE, STEEL | | |
| HANDHOLE | | |
| DOUBLE HANDHOLE | | |
| HEAVY DUTY HANDHOLE | H | |
| G.S. CONDUIT IN GROUND (CIG) | --- | |
| DETECTOR LOOP | | |
| SYSTEM | S | |
| INTERSECTION | IP | I |
| STAINLESS STEEL JUNCTION BOX | | |
| MANHOLE/HANDHOLE NUMBER | | |
| INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA | IP PTZ | PTZ |
| VIDEO DETECTION CAMERA | | |
| RADAR SPEED SIGN | RSS | |
| ELECTRICAL SERVICE | | |
| RADAR VEHICLE DETECTION SYSTEM | | |

SEE TRAFFIC SIGNAL LEGEND SHEET 28 FOR ADDITIONAL SYMBOLS

SCHEDULE OF QUANTITIES - INTERCONNECT (2 OF 18)

| PAY ITEM | UNIT | QUANTITY |
|---|---|---|
| UNGERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA | FOOT | 1384 |
| HANDHOLE | EACH | 1 |
| DOUBLE HANDHOLE | EACH | 1 |

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CHICAGO IL, 60661
312-251-3000

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| USER NAME = | DESIGNED - CH | REVISED - ___ | |
| | DRAWN - KB, DL | REVISED - ___ | |
| PLOT SCALE = | CHECKED - KG | REVISED - ___ | |
| PLOT DATE = 1/23/2014 | DATE - $DATE | REVISED - ___ | |

**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

**ITS PLANS**
**STEARNS ROAD AND RANDALL ROAD (SHEET 2 OF 18)**

SCALE: | SHEET NO. __ OF ___ SHEETS | STA. _____ TO STA. _____

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 361 | 11-00214-00-TL | KANE | 44 | 6 |
| | | CONTRACT NO. XXXXX | | |

FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT

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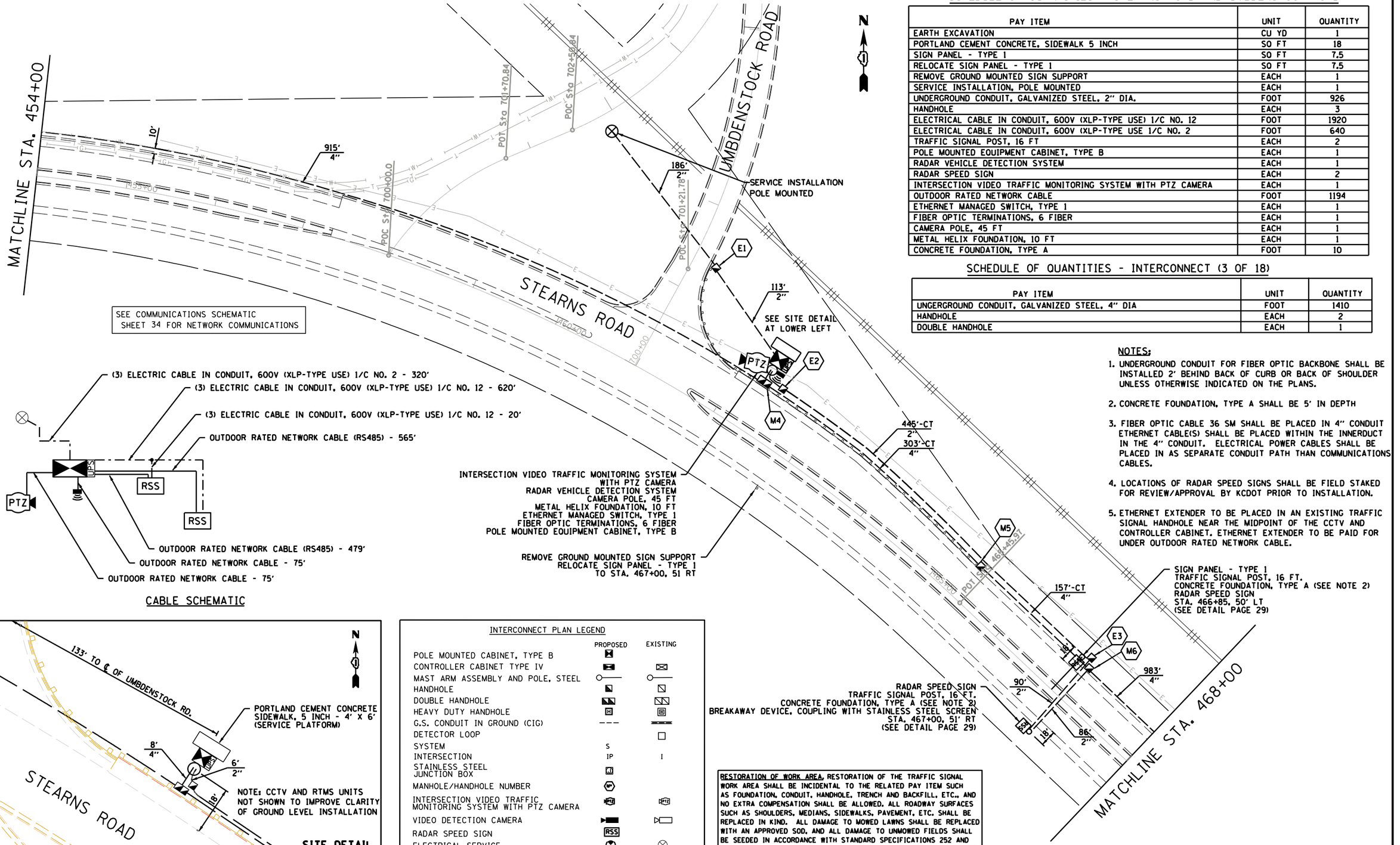
1/23/2014




## SCHEDULE OF QUANTITIES - STEARNS ROAD AND UMBDENSTOCK ROAD

| PAY ITEM | UNIT | QUANTITY |
|---|---|---|
| EARTH EXCAVATION | CU YD | 1 |
| PORTLAND CEMENT CONCRETE, SIDEWALK 5 INCH | SQ FT | 18 |
| SIGN PANEL - TYPE 1 | SQ FT | 7.5 |
| RELOCATE SIGN PANEL - TYPE 1 | SQ FT | 7.5 |
| REMOVE GROUND MOUNTED SIGN SUPPORT | EACH | 1 |
| SERVICE INSTALLATION, POLE MOUNTED | EACH | 1 |
| UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA. | FOOT | 926 |
| HANDHOLE | EACH | 3 |
| ELECTRICAL CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 12 | FOOT | 1920 |
| ELECTRICAL CABLE IN CONDUIT, 600V (XLP-TYPE USE 1/C NO. 2 | FOOT | 640 |
| TRAFFIC SIGNAL POST, 16 FT | EACH | 2 |
| POLE MOUNTED EQUIPMENT CABINET, TYPE B | EACH | 1 |
| RADAR VEHICLE DETECTION SYSTEM | EACH | 1 |
| RADAR SPEED SIGN | EACH | 2 |
| INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA | EACH | 1 |
| OUTDOOR RATED NETWORK CABLE | FOOT | 1194 |
| ETHERNET MANAGED SWITCH, TYPE 1 | EACH | 1 |
| FIBER OPTIC TERMINATIONS, 6 FIBER | EACH | 1 |
| CAMERA POLE, 45 FT | EACH | 1 |
| METAL HELIX FOUNDATION, 10 FT | EACH | 1 |
| CONCRETE FOUNDATION, TYPE A | FOOT | 10 |

## SCHEDULE OF QUANTITIES - INTERCONNECT (3 OF 18)

| PAY ITEM | UNIT | QUANTITY |
|---|---|---|
| UNGERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA | FOOT | 1410 |
| HANDHOLE | EACH | 2 |
| DOUBLE HANDHOLE | EACH | 1 |

NOTES;

1. UNDERGROUND CONDUIT FOR FIBER OPTIC BACKBONE SHALL BE INSTALLED 2' BEHIND BACK OF CURB OR BACK OF SHOULDER UNLESS OTHERWISE INDICATED ON THE PLANS.
2. CONCRETE FOUNDATION, TYPE A SHALL BE 5' IN DEPTH
3. FIBER OPTIC CABLE 36 SM SHALL BE PLACED IN 4" CONDUIT ETHERNET CABLE(S) SHALL BE PLACED WITHIN THE INNERDUCT IN THE 4" CONDUIT. ELECTRICAL POWER CABLES SHALL BE PLACED IN AS SEPARATE CONDUIT PATH THAN COMMUNICATIONS CABLES.
4. LOCATIONS OF RADAR SPEED SIGNS SHALL BE FIELD STAKED FOR REVIEW/APPROVAL BY KCDOT PRIOR TO INSTALLATION.
5. ETHERNET EXTENDER TO BE PLACED IN AN EXISTING TRAFFIC SIGNAL HANDHOLE NEAR THE MIDPOINT OF THE CCTV AND CONTROLLER CABINET. ETHERNET EXTENDER TO BE PAID FOR UNDER OUTDOOR RATED NETWORK CABLE.

## CABLE SCHEMATIC




**SITE DETAIL**
SCALE: 1"=20'

INTERCONNECT PLAN LEGEND

| | PROPOSED | EXISTING |
|---|---|---|
| POLE MOUNTED CABINET, TYPE B | ▣ | |
| CONTROLLER CABINET TYPE IV | ▣ | ▣ |
| MAST ARM ASSEMBLY AND POLE, STEEL | ○— | ○— |
| HANDHOLE | ▧ | ▧ |
| DOUBLE HANDHOLE | ▧▧ | ▧▧ |
| HEAVY DUTY HANDHOLE | H | H |
| G.S. CONDUIT IN GROUND (CIG) | --- | ═══ |
| DETECTOR LOOP | | □ |
| SYSTEM | S | |
| INTERSECTION | IP | I |
| STAINLESS STEEL JUNCTION BOX | JB | |
| MANHOLE/HANDHOLE NUMBER | MH | |
| INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA | PTZ | PTZ |
| VIDEO DETECTION CAMERA | ▶▬ | ▷▭ |
| RADAR SPEED SIGN | RSS | |
| ELECTRICAL SERVICE | ⊗ | ⊗ |
| RADAR VEHICLE DETECTION SYSTEM | ≈ | |

SEE TRAFFIC SIGNAL LEGEND SHEET 28 FOR ADDITIONAL SYMBOLS

**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. SOD SHALL BE WATERED AS DIRECTED BY ENGINEER AND PER ACT 252.08 & 252.09 IN STP SPECS.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CHICAGO IL, 60661
312-251-3000


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|---|---|---|---|
| USER NAME = | DESIGNED - CH | REVISED - | |
| | DRAWN - KB, DL | REVISED - | |
| PLOT SCALE = | CHECKED - KG | REVISED - | |
| PLOT DATE = 1/23/2014 | DATE - $DATE | REVISED - | |

**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

**ITS PLANS**
**STEARNS ROAD AND UMBDENSTOCK ROAD (SHEET 3 OF 18)**

SCALE: | SHEET NO. __ OF __ SHEETS | STA. _____ TO STA. _____

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 361 | 11-00214-00-TL | KANE | 44 | 7 |
| | | CONTRACT NO. XXXXX | | |

FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT

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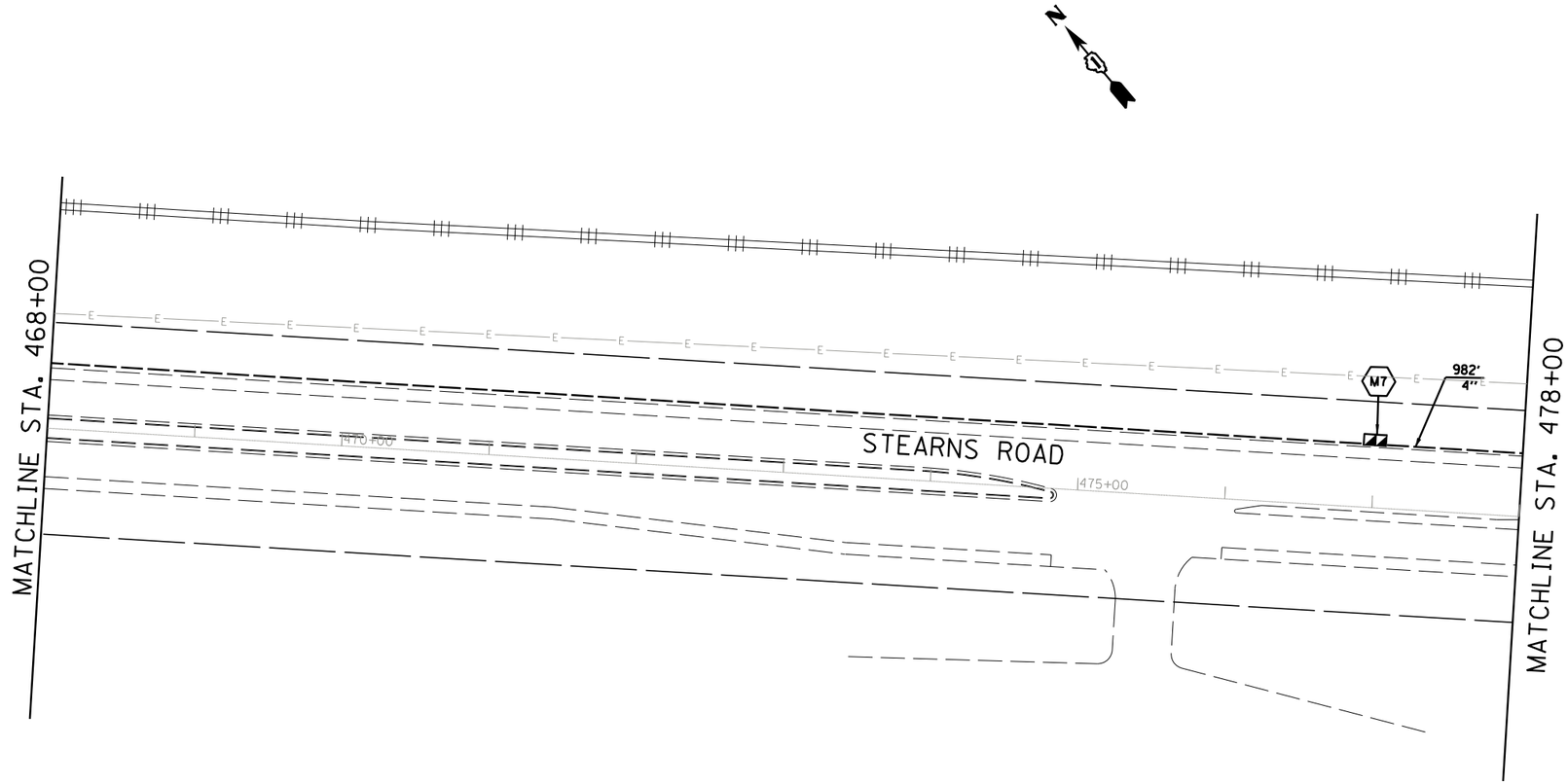


NOTES:

1. UNDERGROUND CONDUIT FOR FIBER OPTIC BACKBONE SHALL BE INSTALLED 2' BEHIND BACK OF CURB OR BACK OF SHOULDER UNLESS OTHERWISE INDICATED ON THE PLANS.

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.

SEE COMMUNICATIONS SCHEMATIC
SHEET 34 FOR NETWORK COMMUNICATIONS

## SCHEDULE OF QUANTITIES - INTERCONNECT (4 OF 18)

| PAY ITEM | UNIT | QUANTITY |
|---|---|---|
| UNGERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA | FOOT | 984 |
| DOUBLE HANDHOLE | EACH | 1 |

INTERCONNECT PLAN LEGEND

| | PROPOSED | EXISTING |
|---|---|---|
| POLE MOUNTED CABINET, TYPE B | ⊠ | |
| CONTROLLER CABINET TYPE IV | ⊠ | ⊠ |
| MAST ARM ASSEMBLY AND POLE, STEEL | ○— | ○— |
| HANDHOLE | ◪ | ◪ |
| DOUBLE HANDHOLE | ◪◪ | ◪◪ |
| HEAVY DUTY HANDHOLE | H | H |
| G.S. CONDUIT IN GROUND (CIG) | --- | ═══ |
| DETECTOR LOOP | | □ |
| SYSTEM | S | |
| INTERSECTION | IP | I |
| STAINLESS STEEL JUNCTION BOX | J | |
| MANHOLE/HANDHOLE NUMBER | M | |
| INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA | PTZ | PTZ |
| VIDEO DETECTION CAMERA | ▶▬ | ▷▭ |
| RADAR SPEED SIGN | RSS | |
| ELECTRICAL SERVICE | ⊗ | ⊗ |
| RADAR VEHICLE DETECTION SYSTEM | | |

SEE TRAFFIC SIGNAL LEGEND SHEET 28 FOR ADDITIONAL SYMBOLS

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312-251-3000

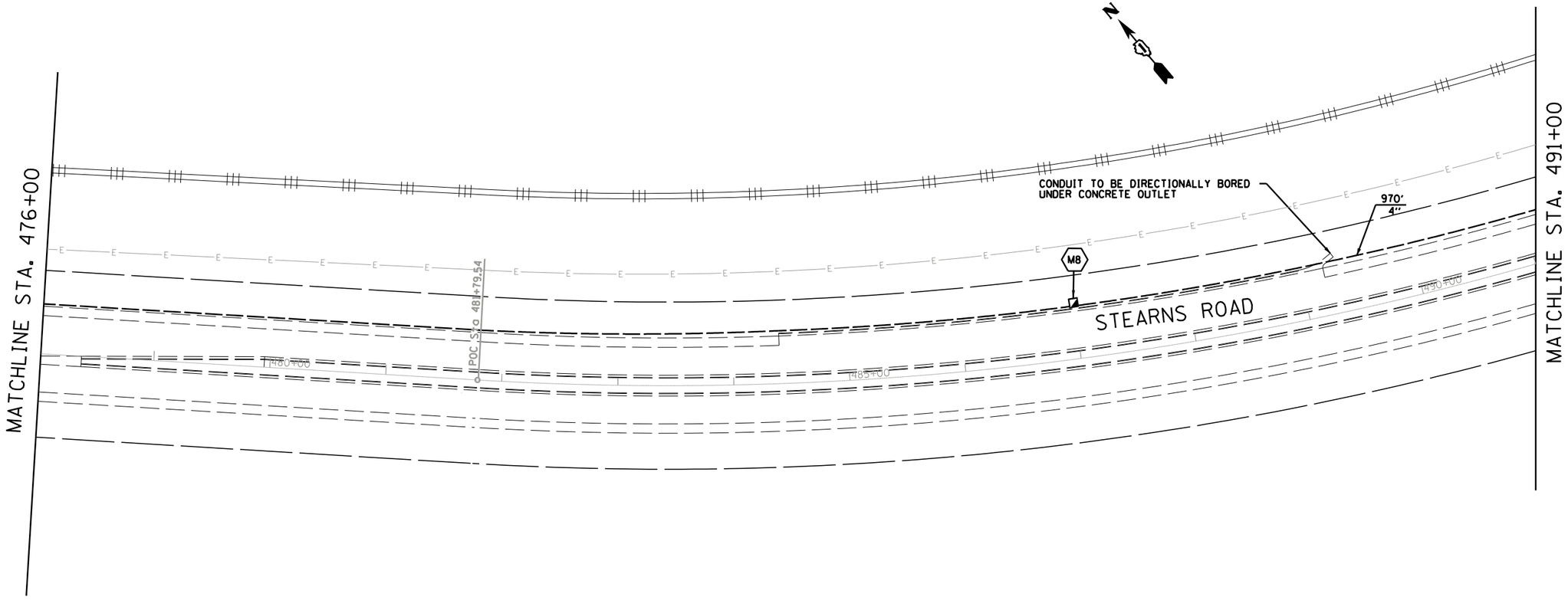
| | | |
|---|---|---|
| USER NAME = | DESIGNED - CH | REVISED - ___ |
| | DRAWN - KB, DL | REVISED - ___ |
| PLOT SCALE = | CHECKED - KG | REVISED - ___ |
| PLOT DATE = 1/23/2014 | DATE - $DATE | REVISED - ___ |

**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

**ITS PLANS**
**STEARNS ROAD (SHEET 4 OF 18)**

SCALE: | SHEET NO. __ OF ___ SHEETS | STA. _____ TO STA. _____

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 361 | 11-00214-00-TL | KANE | 44 | 8 |
| | | CONTRACT NO. XXXXX | | |
| FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT | | |




NOTES:

1. UNDERGROUND CONDUIT FOR FIBER OPTIC BACKBONE SHALL BE INSTALLED 2' BEHIND BACK OF CURB OR BACK OF SHOULDER UNLESS OTHERWISE INDICATED ON THE PLANS.

**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. SOD SHALL BE WATERED AS DIRECTED BY ENGINEER AND PER ACT 252.08 & 252.09 IN STP SPECS.

SEE COMMUNICATIONS SCHEMATIC
SHEET 34 FOR NETWORK COMMUNICATIONS

## SCHEDULE OF QUANTITIES - INTERCONNECT (5 OF 18)

| PAY ITEM | UNIT | QUANTITY |
|---|---|---|
| UNGERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA | FOOT | 1287 |
| HANDHOLE | EACH | 1 |

INTERCONNECT PLAN LEGEND

| | PROPOSED | EXISTING |
|---|---|---|
| POLE MOUNTED CABINET, TYPE B | ⊠ | |
| CONTROLLER CABINET TYPE IV | ⊠ | ⊠ |
| MAST ARM ASSEMBLY AND POLE, STEEL | ○— | ○— |
| HANDHOLE | ◪ | ◪ |
| DOUBLE HANDHOLE | ◪◪ | ◪◪ |
| HEAVY DUTY HANDHOLE | H | H |
| G.S. CONDUIT IN GROUND (CIG) | - - - | ═══ |
| DETECTOR LOOP | | □ |
| SYSTEM | S | |
| INTERSECTION | IP | I |
| STAINLESS STEEL JUNCTION BOX | J | |
| MANHOLE/HANDHOLE NUMBER | M | |
| INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA | PTZ | PTZ |
| VIDEO DETECTION CAMERA | ▶▬ | ▷▭ |
| RADAR SPEED SIGN | RSS | |
| ELECTRICAL SERVICE | ⊗ | ⊗ |
| RADAR VEHICLE DETECTION SYSTEM | ≋ | |

SEE TRAFFIC SIGNAL LEGEND SHEET 28 FOR ADDITIONAL SYMBOLS

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CHICAGO IL, 60661
312-251-3000

| | | | |
|---|---|---|---|
| USER NAME = | DESIGNED - CH | REVISED - ___ | |
| | DRAWN - KB, DL | REVISED - ___ | |
| PLOT SCALE = | CHECKED - KG | REVISED - ___ | |
| PLOT DATE = 1/23/2014 | DATE - $DATE | REVISED - ___ | |

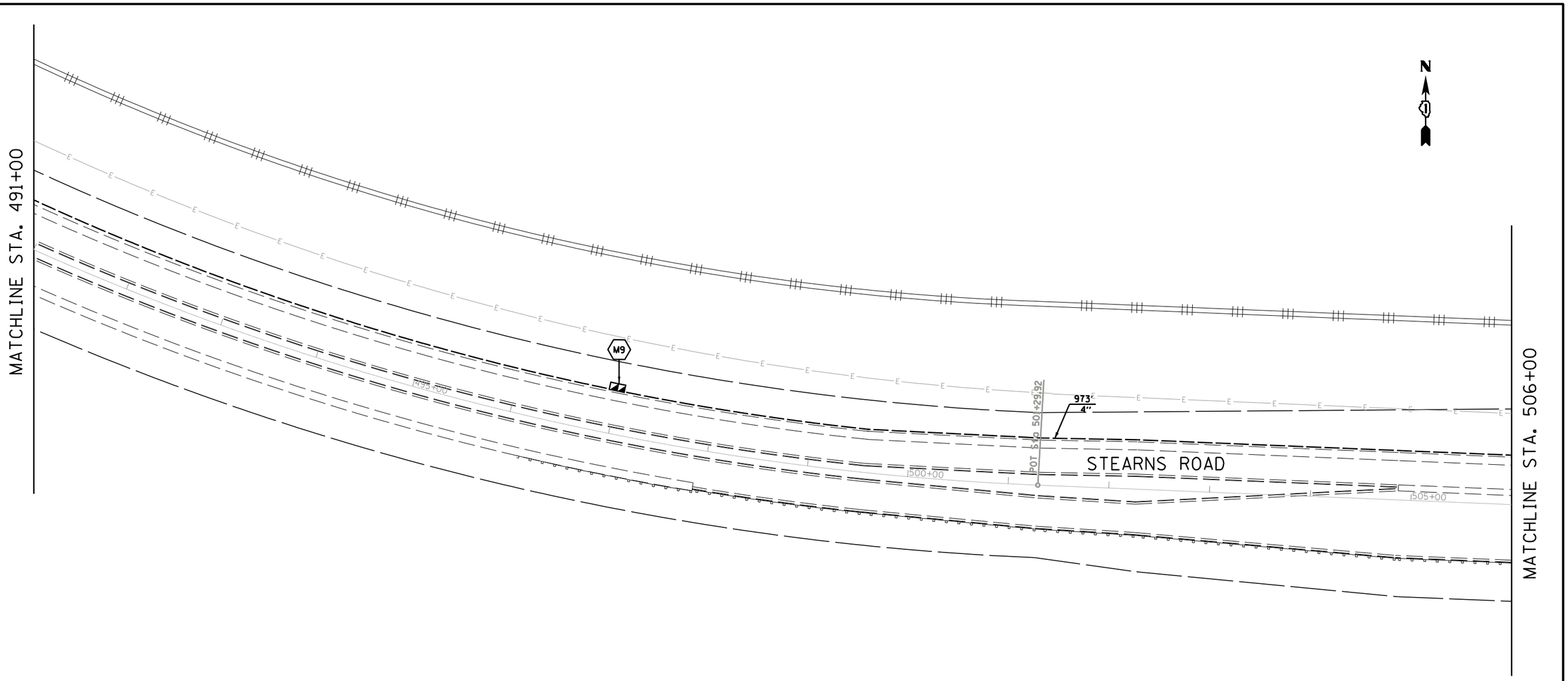
**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

**ITS PLANS**
**STEARNS ROAD (SHEET 5 OF 18)**

SCALE: | SHEET NO. __ OF ___ SHEETS | STA. _____ TO STA. _____

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 361 | 11-00214-00-TL | KANE | 44 | 9 |
| | | CONTRACT NO. XXXXX | | |
| FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT | | |

1/23/2014




NOTES;

1. UNDERGROUND CONDUIT FOR FIBER OPTIC BACKBONE SHALL BE INSTALLED 2' BEHIND BACK OF CURB OR BACK OF SHOULDER UNLESS OTHERWISE INDICATED ON THE PLANS.

**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. SOD SHALL BE WATERED AS DIRECTED BY ENGINEER AND PER ACT 252.08 & 252.09 IN STP SPECS.

SEE COMMUNICATIONS SCHEMATIC
SHEET 34 FOR NETWORK COMMUNICATIONS

## SCHEDULE OF QUANTITIES - INTERCONNECT (6 OF 18)

| PAY ITEM | UNIT | QUANTITY |
|---|---|---|
| UNGERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA | FOOT | 1490 |
| DOUBLE HANDHOLE | EACH | 1 |

## INTERCONNECT PLAN LEGEND

| | PROPOSED | EXISTING |
|---|---|---|
| POLE MOUNTED CABINET, TYPE B | ⊠ | |
| CONTROLLER CABINET TYPE IV | ⊠ | ⊠ |
| MAST ARM ASSEMBLY AND POLE, STEEL | ○— | ○— |
| HANDHOLE | ◪ | ◪ |
| DOUBLE HANDHOLE | ◪◪ | ◪◪ |
| HEAVY DUTY HANDHOLE | H | H |
| G.S. CONDUIT IN GROUND (CIG) | --- | --- |
| DETECTOR LOOP | | □ |
| SYSTEM | S | |
| INTERSECTION | IP | I |
| STAINLESS STEEL JUNCTION BOX | J | |
| MANHOLE/HANDHOLE NUMBER | M | |
| INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA | PTZ | PTZ |
| VIDEO DETECTION CAMERA | ▶▬ | ▷▭ |
| RADAR SPEED SIGN | RSS | |
| ELECTRICAL SERVICE | ⊗ | ⊗ |
| RADAR VEHICLE DETECTION SYSTEM | | |

SEE TRAFFIC SIGNAL LEGEND SHEET 28 FOR ADDITIONAL SYMBOLS

JACOBS
525 WEST MONROE
CHICAGO IL, 60661
312-251-3000

| | | |
|---|---|---|
| USER NAME = | DESIGNED - CH | REVISED - ___ |
| | DRAWN - KB, DL | REVISED - ___ |
| PLOT SCALE = | CHECKED - KG | REVISED - ___ |
| PLOT DATE = 1/23/2014 | DATE - $DATE | REVISED - ___ |

**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

**ITS PLANS**
**STEARNS ROAD (SHEET 6 OF 18)**

SCALE: | SHEET NO. __ OF ___ SHEETS | STA. _____ TO STA. _____

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 361 | 11-00214-00-TL | KANE | 44 | 10 |
| | | CONTRACT NO. XXXXX | | |

FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT

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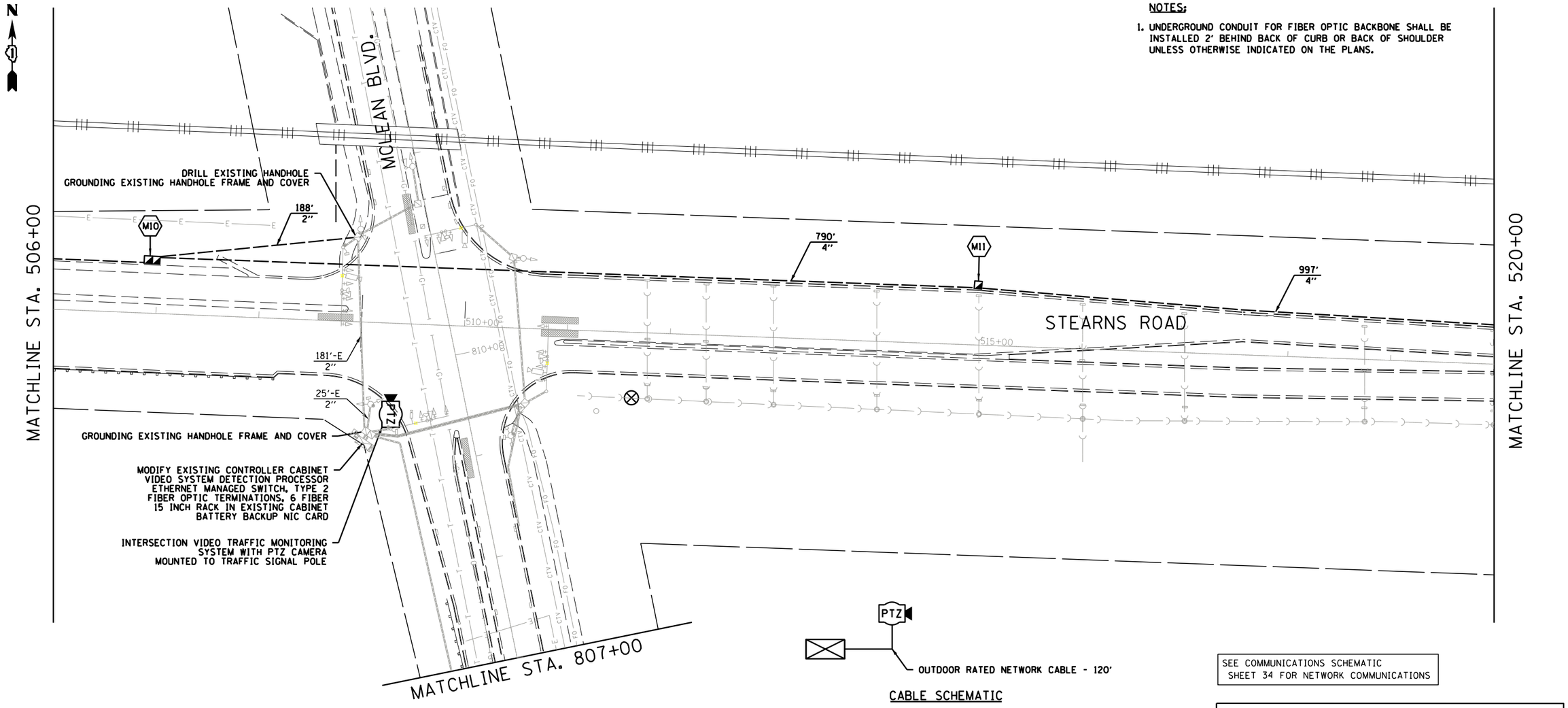
1/23/2014




NOTES;

1. UNDERGROUND CONDUIT FOR FIBER OPTIC BACKBONE SHALL BE INSTALLED 2' BEHIND BACK OF CURB OR BACK OF SHOULDER UNLESS OTHERWISE INDICATED ON THE PLANS.




CABLE SCHEMATIC

SEE COMMUNICATIONS SCHEMATIC
SHEET 34 FOR NETWORK COMMUNICATIONS

**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. SOD SHALL BE WATERED AS DIRECTED BY ENGINEER AND PER ACT 252.08 & 252.09 IN STP SPECS.

## SCHEDULE OF QUANTITIES - INTERCONNECT (7 OF 18)

| PAY ITEM | UNIT | QUANTITY |
|---|---|---|
| UNGERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA | FOOT | 1378 |
| HANDHOLE | EACH | 1 |
| DOUBLE HANDHOLE | EACH | 1 |

## SCHEDULE OF QUANTITIES - STEARNS ROAD AND MCLEAN BLVD

| PAY ITEM | UNIT | QUANTITY |
|---|---|---|
| UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA. | FOOT | 188 |
| MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION | EACH | 1 |
| GROUNDING EXISTING HANDHOLE FRAME AND COVER | EACH | 2 |
| DRILL EXISTING HANDHOLE | EACH | 1 |
| MODIFY EXISTING CONTROLLER CABINET | EACH | 1 |
| VIDEO SYSTEM DETECTION PROCESSOR | EACH | 1 |
| INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA | EACH | 1 |
| OUTDOOR RATED NETWORK CABLE | FOOT | 120 |
| ETHERNET MANAGED SWITCH, TYPE 2 | EACH | 1 |
| FIBER OPTIC TERMINATIONS, 6 FIBER | EACH | 1 |
| REOPTIMIZE TRAFFIC SIGNAL SYSTEM, LEVEL 2 | EACH | 1 |
| 15 INCH RACK IN EXISTING CABINET | EACH | 1 |
| BATTERY BACKUP NIC CARD | EACH | 1 |

## INTERCONNECT PLAN LEGEND

| | PROPOSED | EXISTING |
|---|---|---|
| POLE MOUNTED CABINET, TYPE B | ▣ | |
| CONTROLLER CABINET TYPE IV | ▣ | ▣ |
| MAST ARM ASSEMBLY AND POLE, STEEL | ○— | ○— |
| HANDHOLE | ◪ | ◪ |
| DOUBLE HANDHOLE | ◪◪ | ◪◪ |
| HEAVY DUTY HANDHOLE | H | H |
| G.S. CONDUIT IN GROUND (CIG) | --- | ═══ |
| DETECTOR LOOP | | □ |
| SYSTEM | S | |
| INTERSECTION | IP | I |
| STAINLESS STEEL JUNCTION BOX | J | |
| MANHOLE/HANDHOLE NUMBER | M | |
| INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA | PTZ | PTZ |
| VIDEO DETECTION CAMERA | ▶▬ | ▷▭ |
| RADAR SPEED SIGN | RSS | |
| ELECTRICAL SERVICE | E | ⊗ |
| RADAR VEHICLE DETECTION SYSTEM | | |

SEE TRAFFIC SIGNAL LEGEND SHEET 28 FOR ADDITIONAL SYMBOLS

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JACOBS
525 WEST MONROE
CHICAGO IL, 60661
312-251-3000


| | | | |
|---|---|---|---|
| USER NAME = | DESIGNED - CH | REVISED - ___ | |
| | DRAWN - KB, DL | REVISED - ___ | |
| PLOT SCALE = | CHECKED - KG | REVISED - ___ | |
| PLOT DATE = 1/23/2014 | DATE - $DATE | REVISED - ___ | |

**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

**ITS PLANS**
**STEARNS ROAD AND MCLEAN BLVD (SHEET 7 OF 18)**

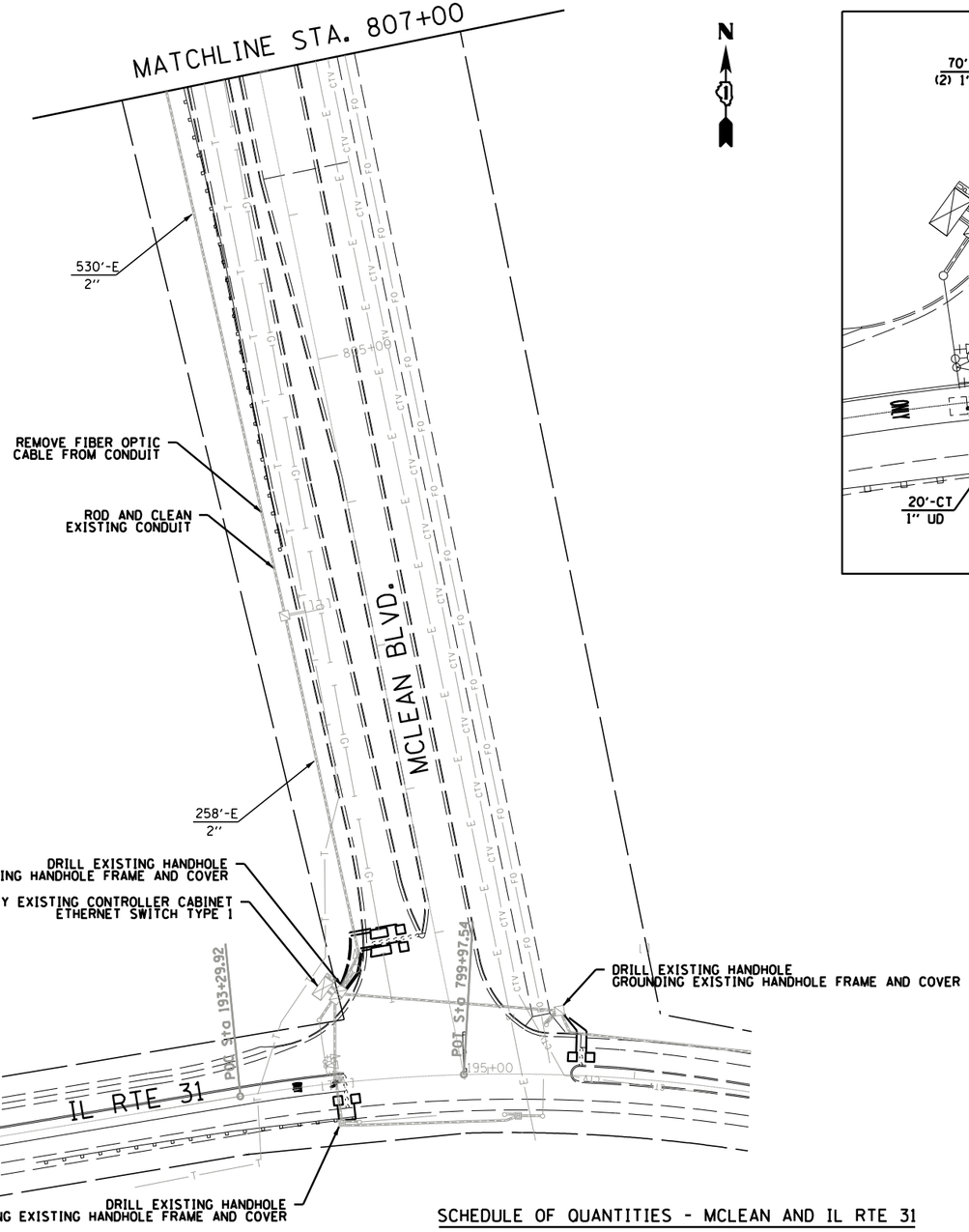
SCALE: | SHEET NO. ___ OF ___ SHEETS | STA. _____ TO STA. _____

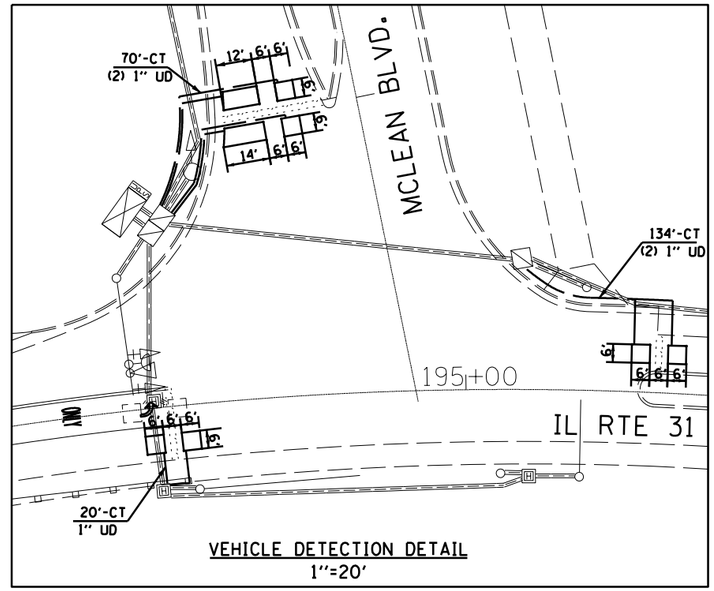
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 361 | 11-00214-00-TL | KANE | 44 | 11 |
| | | CONTRACT NO. XXXXX | | |
| FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT | | |

1/23/2014

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF OUTSIDE THE RIGHT-OF-WAY AT THE CONTRACTOR'S EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

879 FOOT FIBER OPTIC CABLE




VEHICLE DETECTION DETAIL
1"=20'

NOTES:

1. UNDERGROUND CONDUIT FOR FIBER OPTIC BACKBONE SHALL BE INSTALLED 2' BEHIND BACK OF CURB OR BACK OF SHOULDER UNLESS OTHERWISE INDICATED ON THE PLANS.

INTERCONNECT PLAN LEGEND

| | PROPOSED | EXISTING |
|---|---|---|
| POLE MOUNTED CABINET, TYPE B | ■ | |
| CONTROLLER CABINET TYPE IV | ■ | ⊠ |
| MAST ARM ASSEMBLY AND POLE, STEEL | ○— | ○— |
| HANDHOLE | ◪ | ◪ |
| DOUBLE HANDHOLE | ◪◪ | ◪◪ |
| HEAVY DUTY HANDHOLE | H | H |
| G.S. CONDUIT IN GROUND (CIG) | --- | ═══ |
| DETECTOR LOOP | | □ |
| SYSTEM | S | |
| INTERSECTION | IP | I |
| STAINLESS STEEL JUNCTION BOX | JB | |
| MANHOLE/HANDHOLE NUMBER | MH | |
| INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA | PTZ | PTZ |
| VIDEO DETECTION CAMERA | ▶▬ | ▷▭ |
| RADAR SPEED SIGN | RSS | |
| ELECTRICAL SERVICE | ⊗ | ⊗ |
| RADAR VEHICLE DETECTION SYSTEM | ▬ | |

SEE TRAFFIC SIGNAL LEGEND SHEET 28 FOR ADDITIONAL SYMBOLS

SCHEDULE OF QUANTITIES - MCLEAN AND IL RTE 31

| ITEM | UNIT | QUANTITY |
|---|---|---|
| MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION | EACH | 1 |
| GROUNDING EXISTING HANDHOLE FRAME AND COVER | EACH | 3 |
| DRILL EXISTING HANDHOLE | EACH | 3 |
| DETECTOR LOOP, TYPE I | FOOT | 219 |
| MODIFY EXISTING CONTROLLER CABINET | EACH | 1 |
| ROD AND CLEAN EXISTING CONDUIT | FOOT | 879 |
| REMOVE FIBER OPTIC CABLE FROM CONDUIT | FOOT | 879 |
| ETHERNET MANAGED SWITCH, TYPE 1 | EACH | 1 |
| ELECTRICAL CABLE IN CONDUIT, LEAD IN, NO. 14 1 PAIR | FOOT | 1250 |

**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. SOD SHALL BE WATERED AS DIRECTED BY ENGINEER AND PER ACT 252.08 & 252.09 IN STP SPECS.

SEE COMMUNICATIONS SCHEMATIC
SHEET 34 FOR NETWORK COMMUNICATIONS


JACOBS
525 WEST MONROE
CHICAGO IL, 60661
312-251-3000


| | | | |
|---|---|---|---|
| USER NAME = | DESIGNED - CH | REVISED - | |
| | DRAWN - KB, DL | REVISED - | |
| PLOT SCALE = | CHECKED - KG | REVISED - | |
| PLOT DATE = 1/23/2014 | DATE - $DATE | REVISED - | |

**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

**ITS PLANS**
**MCLEAN BLVD AND IL RTE 31 (SHEET 8 OF 18)**

SCALE: | SHEET NO. __ OF ___ SHEETS | STA. _____ TO STA. _____

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 361 | 11-00214-00-TL | KANE | 44 | 12 |
| | | CONTRACT NO. XXXXX | | |
| FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT | | |

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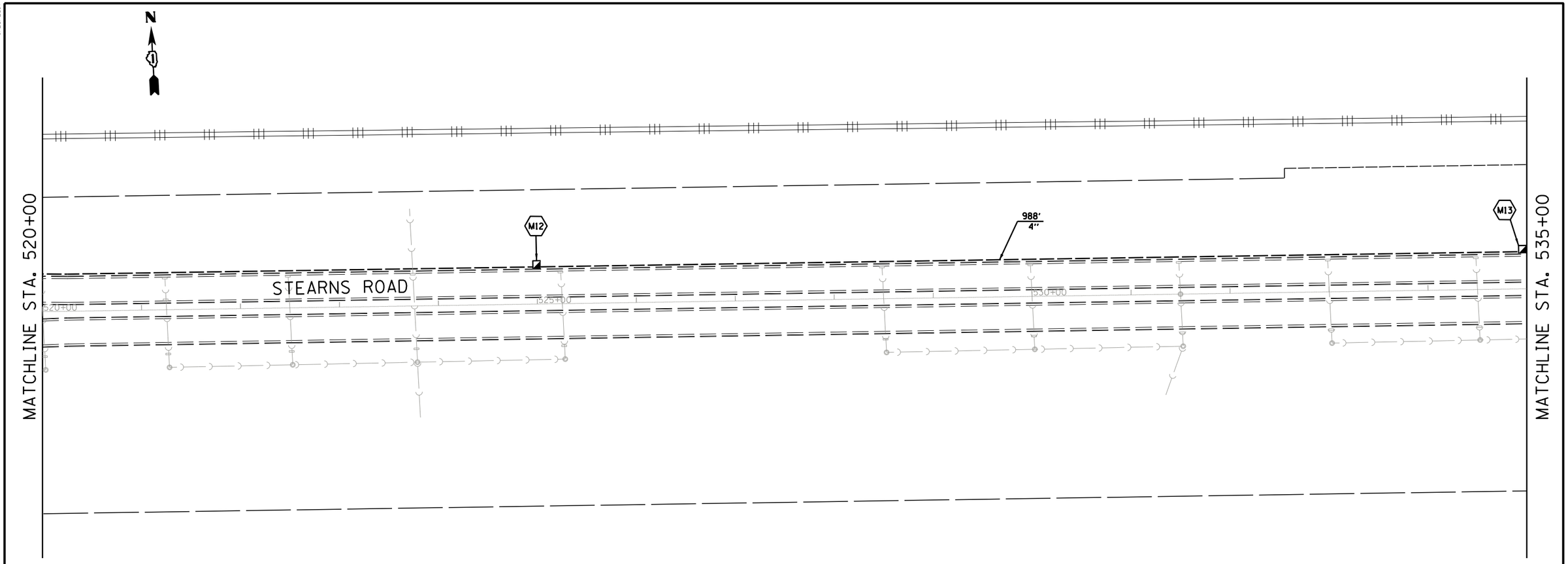
1/23/2014




NOTES;

1. UNDERGROUND CONDUIT FOR FIBER OPTIC BACKBONE SHALL BE INSTALLED 2' BEHIND BACK OF CURB OR BACK OF SHOULDER UNLESS OTHERWISE INDICATED ON THE PLANS.

**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. SOD SHALL BE WATERED AS DIRECTED BY ENGINEER AND PER ACT 252.08 & 252.09 IN STP SPECS.

SEE COMMUNICATIONS SCHEMATIC
SHEET 34 FOR NETWORK COMMUNICATIONS

SCHEDULE OF QUANTITIES - INTERCONNECT (9 OF 18)

| PAY ITEM | UNIT | QUANTITY |
|---|---|---|
| UNGERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA | FOOT | 1484 |
| HANDHOLE | EACH | 2 |

INTERCONNECT PLAN LEGEND

| | PROPOSED | EXISTING |
|---|---|---|
| POLE MOUNTED CABINET, TYPE B | ⊠ | |
| CONTROLLER CABINET TYPE IV | ▬⊠ | ⊠ |
| MAST ARM ASSEMBLY AND POLE, STEEL | ○— | ○— |
| HANDHOLE | ◪ | ◪ |
| DOUBLE HANDHOLE | ◪◪ | ◪◪ |
| HEAVY DUTY HANDHOLE | H | ▣ |
| G.S. CONDUIT IN GROUND (CIG) | --- | ═══ |
| DETECTOR LOOP | | □ |
| SYSTEM | S | |
| INTERSECTION | IP | I |
| STAINLESS STEEL JUNCTION BOX | ◪ | |
| MANHOLE/HANDHOLE NUMBER | ⬡ | |
| INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA | PTZ | PTZ |
| VIDEO DETECTION CAMERA | ▶▬ | ▷▭ |
| RADAR SPEED SIGN | RSS | |
| ELECTRICAL SERVICE | ⊗ | ⊗ |
| RADAR VEHICLE DETECTION SYSTEM | ≋▬ | |

SEE TRAFFIC SIGNAL LEGEND SHEET 28 FOR ADDITIONAL SYMBOLS

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JACOBS
525 WEST MONROE
CHICAGO IL, 60661
312-251-3000

| | | | |
|---|---|---|---|
| USER NAME = | DESIGNED - CH | REVISED - ___ | |
| | DRAWN - KB, DL | REVISED - ___ | |
| PLOT SCALE = | CHECKED - KG | REVISED - ___ | |
| PLOT DATE = 1/23/2014 | DATE - $DATE | REVISED - ___ | |

**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

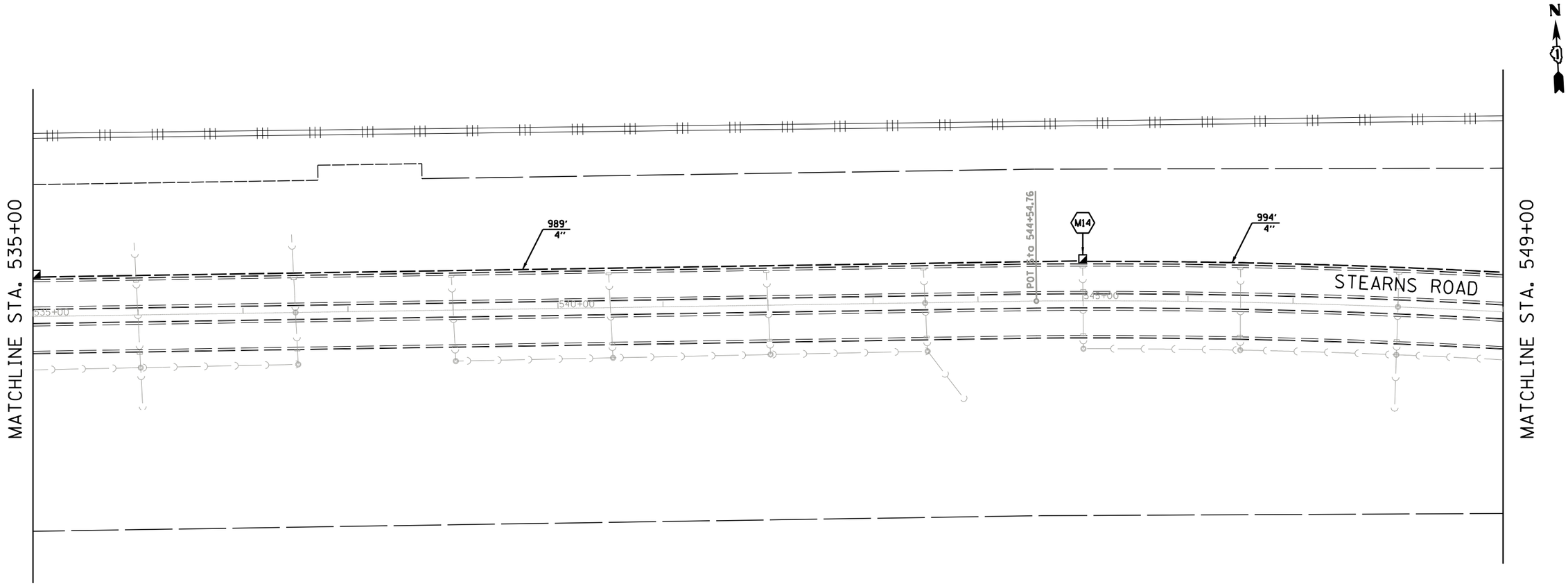
**ITS PLANS**
**STEARNS ROAD (SHEET 9 OF 18)**

SCALE: | SHEET NO. __ OF ___ SHEETS | STA. _____ TO STA. _____

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 361 | 11-00214-00-TL | KANE | 44 | 13 |
| | | CONTRACT NO. XXXXX | | |

FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT

1/23/2014




**NOTES:**

1. **UNDERGROUND CONDUIT FOR FIBER OPTIC BACKBONE SHALL BE INSTALLED 2' BEHIND BACK OF CURB OR BACK OF SHOULDER UNLESS OTHERWISE INDICATED ON THE PLANS.**

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. SOD SHALL BE WATERED AS DIRECTED BY ENGINEER AND PER ACT 252.08 & 252.09 IN STP SPECS.

SEE COMMUNICATIONS SCHEMATIC SHEET 34 FOR NETWORK COMMUNICATIONS

## SCHEDULE OF QUANTITIES - INTERCONNECT (10 OF 18)

| PAY ITEM | UNIT | QUANTITY |
|---|---|---|
| UNGERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA | FOOT | 1385 |
| HANDHOLE | EACH | 1 |

## INTERCONNECT PLAN LEGEND

| | PROPOSED | EXISTING |
|---|---|---|
| POLE MOUNTED CABINET, TYPE B | ⊠ | |
| CONTROLLER CABINET TYPE IV | ⊠ | ⊠ |
| MAST ARM ASSEMBLY AND POLE, STEEL | ○— | ○— |
| HANDHOLE | ◪ | ◪ |
| DOUBLE HANDHOLE | ◪◪ | ◪◪ |
| HEAVY DUTY HANDHOLE | H | ▣ |
| G.S. CONDUIT IN GROUND (CIG) | --- | ═══ |
| DETECTOR LOOP | | □ |
| SYSTEM | S | |
| INTERSECTION | IP | I |
| STAINLESS STEEL JUNCTION BOX | ▣ | |
| MANHOLE/HANDHOLE NUMBER | ⬡ | |
| INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA | PTZ | PTZ |
| VIDEO DETECTION CAMERA | ▶▬ | ▷▭ |
| RADAR SPEED SIGN | RSS | |
| ELECTRICAL SERVICE | E | ⊗ |
| RADAR VEHICLE DETECTION SYSTEM | ≋ | |

SEE TRAFFIC SIGNAL LEGEND SHEET 28 FOR ADDITIONAL SYMBOLS

P:_2013\CSX13900\700 CADD\SHEET_10.dgn

JACOBS
525 WEST MONROE
CHICAGO IL, 60661
312-251-3000

| | | | |
|---|---|---|---|
| USER NAME = | DESIGNED - CH | REVISED - ___ | |
| | DRAWN - KB, DL | REVISED - ___ | |
| PLOT SCALE = | CHECKED - KG | REVISED - ___ | |
| PLOT DATE = 1/23/2014 | DATE - $DATE | REVISED - ___ | |

**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

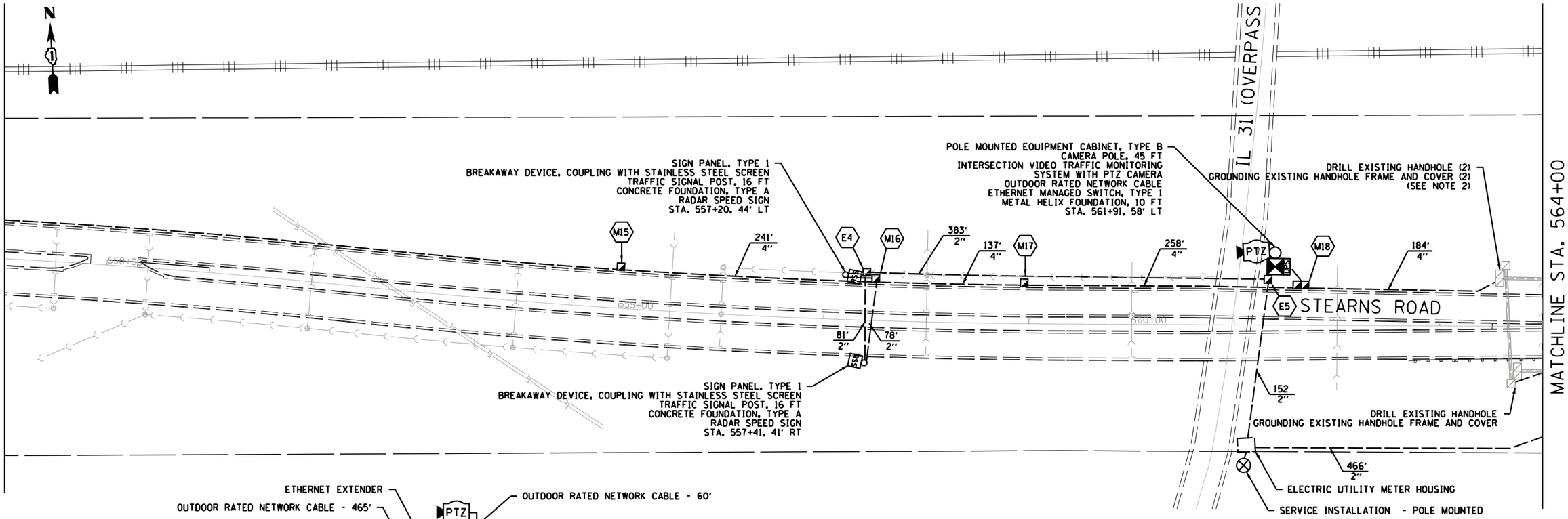
**ITS PLANS**
**STEARNS ROAD (SHEET 10 OF 18)**

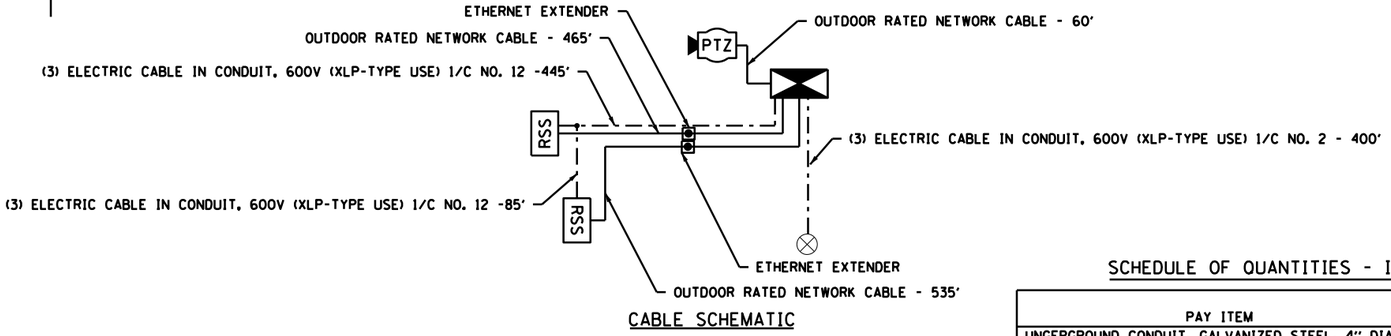
SCALE: | SHEET NO. __ OF ___ SHEETS | STA. _____ TO STA. _____

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 361 | 11-00214-00-TL | KANE | 44 | 14 |
| | | CONTRACT NO. XXXXX | | |

FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT

1/23/2014




CABLE SCHEMATIC

NOTES:

1. UNDERGROUND CONDUIT FOR FIBER OPTIC BACKBONE SHALL BE INSTALLED 2' BEHIND BACK OF CURB OR BACK OF SHOULDER UNLESS OTHERWISE INDICATED ON THE PLANS.
2. CONNECT DOUBLE HANDHOLE TO SINGLE HANDHOLE
3. ELECTRCAL DEVICE AND COMMUNICATIONS CABLES TO BE RUN IN SEPERATE CONDUITS/HANDHOLES.
4. ETHERNET EXTENDER TO BE PLACED IN A HANDHOLE NEAR THE MIDPOINT OF THE CCTV AND CONTROLLER CABINET. ETHERNET EXTENDER TO BE PAYED FOR UNDER OUTDOOR RATED NETWORK CABLE.

SCHEDULE OF QUANTITIES - INTERCONNECT (11 OF 18)

| PAY ITEM | UNIT | QUANTITY |
|---|---|---|
| UNGERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA | FOOT | 1418 |
| HANDHOLE | EACH | 3 |
| DOUBLE HANDHOLE | EACH | 1 |

SCHEDULE OF QUANTITIES - STEARNS ROAD AND IL RTE 31

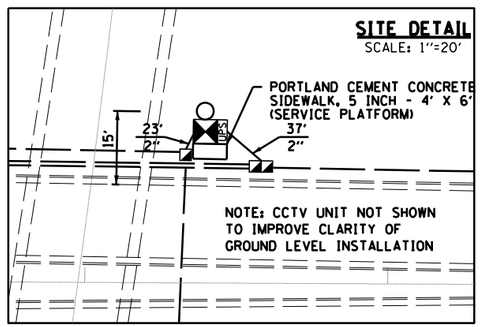
| PAY ITEM | UNIT | QUANTITY |
|---|---|---|
| SIGN PANEL, TYPE 1 | SQ FT | 15 |
| SERVICE INSTALLATION - POLE MOUNTED | EACH | 1 |
| UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA. | FOOT | 1160 |
| HANDHOLE | EACH | 2 |
| ELECTRICAL CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 12 | FOOT | 1590 |
| ELECTRICAL CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 2 | FOOT | 1200 |
| GROUNDING EXISTING HANDHOLE FRAME AND COVER | EACH | 3 |
| TRAFFIC SIGNAL POST, 16 FT | EACH | 2 |
| DRILL EXISTING HANDHOLE | EACH | 3 |
| POLE MOUNTED EQUIPMENT CABINET, TYPE B | EACH | 1 |
| RADAR SPEED SIGN | EACH | 2 |
| INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA | EACH | 1 |
| OUTDOOR RATED NETWORK CABLE | FOOT | 1060 |
| ETHERNET MANAGED SWITCH, TYPE 1 | EACH | 1 |
| CAMERA POLE, 45 FT | EACH | 1 |
| METAL HELIX FOUNDATION, 10 FT | EACH | 1 |

INTERCONNECT PLAN LEGEND

| | PROPOSED | EXISTING |
|---|---|---|
| POLE MOUNTED CABINET, TYPE B | | |
| CONTROLLER CABINET TYPE IV | | |
| MAST ARM ASSEMBLY AND POLE, STEEL | | |
| HANDHOLE | | |
| DOUBLE HANDHOLE | | |
| HEAVY DUTY HANDHOLE | H | H |
| G.S. CONDUIT IN GROUND (CIG) | | |
| DETECTOR LOOP | | |
| SYSTEM INTERSECTION | S IP | I |
| STAINLESS STEEL JUNCTION BOX | | |
| MANHOLE/HANDHOLE NUMBER | | |
| INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA | PTZ | PTZ |
| VIDEO DETECTION CAMERA | | |
| RADAR SPEED SIGN | RSS | |
| ELECTRICAL SERVICE | | |
| RADAR VEHICLE DETECTION SYSTEM | | |

SEE TRAFFIC SIGNAL LEGEND SHEET 28 FOR ADDITIONAL SYMBOLS

SITE DETAIL
SCALE: 1"=20'




SEE COMMUNICATIONS SCHEMATIC
SHEET 34 FOR NETWORK COMMUNICATIONS

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. SOD SHALL BE WATERED AS DIRECTED BY ENGINEER AND PER ACT 252.08 & 252.09 IN STP SPECS.

P:_2013\C9X13900\700 CADD\SHEET_11.dgn


JACOBS
525 WEST MONROE
CHICAGO IL, 60661
312-251-3000


| | | |
|---|---|---|
| USER NAME = | DESIGNED - CH | REVISED - ___ |
| | DRAWN - KB, DL | REVISED - ___ |
| PLOT SCALE = | CHECKED - KG | REVISED - ___ |
| PLOT DATE = 1/23/2014 | DATE - $DATE | REVISED - ___ |

KANE COUNTY
DIVISION OF TRANSPORTATION

ITS PLANS
STEARNS ROAD (SHEET 11 OF 18)

SCALE: | SHEET NO. __ OF ___ SHEETS | STA. _____ TO STA. _____

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 361 | 11-00214-00-TL | KANE | 44 | 15 |
| | | CONTRACT NO. XXXXX | | |
| FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT | | |

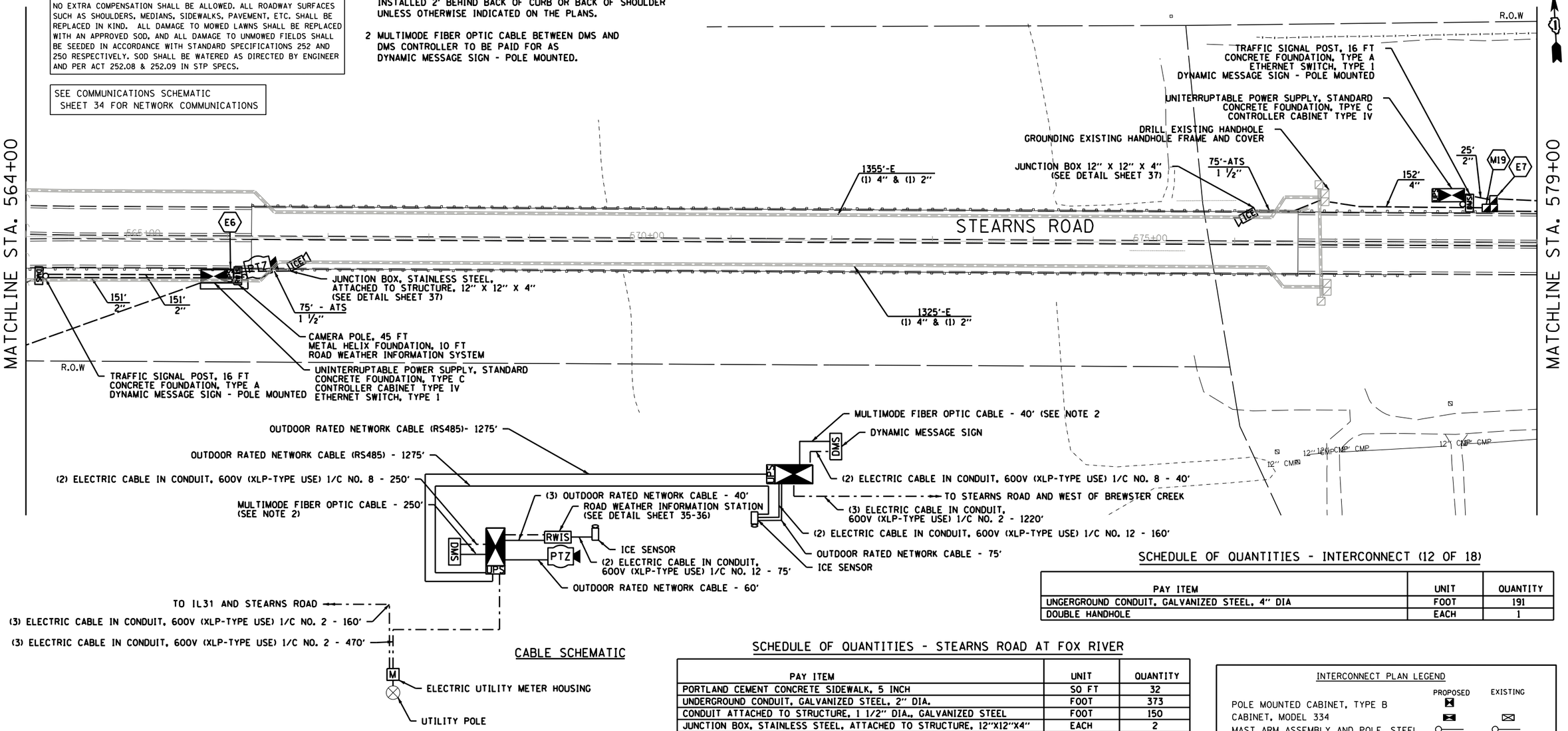
1/23/2014

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. SOD SHALL BE WATERED AS DIRECTED BY ENGINEER AND PER ACT 252.08 & 252.09 IN STP SPECS.

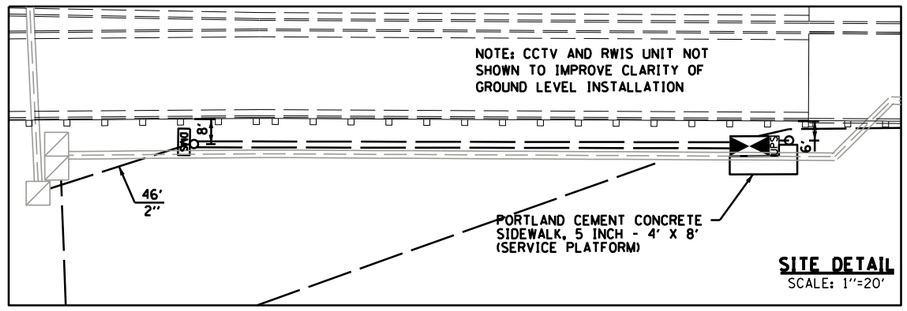
SEE COMMUNICATIONS SCHEMATIC SHEET 34 FOR NETWORK COMMUNICATIONS

NOTES;

1. UNDERGROUND CONDUIT FOR FIBER OPTIC BACKBONE SHALL BE INSTALLED 2' BEHIND BACK OF CURB OR BACK OF SHOULDER UNLESS OTHERWISE INDICATED ON THE PLANS.
2. MULTIMODE FIBER OPTIC CABLE BETWEEN DMS AND DMS CONTROLLER TO BE PAID FOR AS DYNAMIC MESSAGE SIGN - POLE MOUNTED.




## CABLE SCHEMATIC




## SITE DETAIL
SCALE: 1"=20'

## SCHEDULE OF QUANTITIES - INTERCONNECT (12 OF 18)

| PAY ITEM | UNIT | QUANTITY |
|---|---|---|
| UNGERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA | FOOT | 191 |
| DOUBLE HANDHOLE | EACH | 1 |

## SCHEDULE OF QUANTITIES - STEARNS ROAD AT FOX RIVER

| PAY ITEM | UNIT | QUANTITY |
|---|---|---|
| PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH | SQ FT | 32 |
| UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA. | FOOT | 373 |
| CONDUIT ATTACHED TO STRUCTURE, 1 1/2" DIA., GALVANIZED STEEL | FOOT | 150 |
| JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 12"X12"X4" | EACH | 2 |
| HANDHOLE | EACH | 1 |
| ELECTRICAL CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 12 | FOOT | 470 |
| ELECTRICAL CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 8 | FOOT | 580 |
| ELECTRICAL CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 2 | FOOT | 5500 |
| UNINTERRUPTABLE POWER SUPPLY, STANDARD | EACH | 2 |
| GROUNDING EXISTING HANDHOLE FRAME AND COVER | EACH | 1 |
| TRAFFIC SIGNAL POST, 16 FT | EACH | 2 |
| CONCRETE FOUNDATION, TYPE A | EACH | 2 |
| CONCRETE FOUNDATION, TYPE C | EACH | 2 |
| DRILL EXISTING HANDHOLE | EACH | 1 |
| CAMERA POLE, 45 FT | EACH | 1 |
| CONTROLLER CABINET TYPE IV | EACH | 2 |
| PAINT EXISTING STREET LIGHT/TRAFFIC EQUIPMENT COMPLETE | EACH | 1 |
| INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA | EACH | 1 |
| OUTDOOR RATED NETWORK CABLE | FOOT | 2805 |
| ETHERNET MANAGED SWITCH, TYPE 1 | EACH | 2 |
| METAL HELIX FOUNDATION, 10 FT | EACH | 1 |
| ROAD WEATHER INFORMATION STATION | EACH | 2 |
| DYNAMIC MESSAGE SIGN - POLE MOUNTED | EACH | 2 |

## INTERCONNECT PLAN LEGEND

| | PROPOSED | EXISTING |
|---|---|---|
| POLE MOUNTED CABINET, TYPE B | ⊠ | |
| CABINET, MODEL 334 | ⊠ | ⊠ |
| MAST ARM ASSEMBLY AND POLE, STEEL | ○— | ○— |
| HANDHOLE | ◪ | ◪ |
| DOUBLE HANDHOLE | ◪◪ | ◪◪ |
| HEAVY DUTY HANDHOLE | H | H |
| G.S. CONDUIT IN GROUND (CIG) | --- | --- |
| DETECTOR LOOP | | □ |
| SYSTEM | S | |
| INTERSECTION | IP | I |
| STAINLESS STEEL JUNCTION BOX | J | |
| MANHOLE/HANDHOLE NUMBER | M | |
| INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA | PTZ | PTZ |
| VIDEO DETECTION CAMERA | ▶▬ | ▷□ |
| RADAR SPEED SIGN | RSS | |
| ELECTRICAL SERVICE | E | ⊗ |
| RADAR VEHICLE DETECTION SYSTEM | | |

SEE TRAFFIC SIGNAL LEGEND SHEET 28 FOR ADDITIONAL SYMBOLS

P:\...2813\C9X13900\708 CADD\SHEET_12.dgn


JACOBS
525 WEST MONROE
CHICAGO IL, 60661
312-251-3000


| | | | |
|---|---|---|---|
| USER NAME = | DESIGNED - CH | REVISED - | |
| | DRAWN - KB, DL | REVISED - | |
| PLOT SCALE = | CHECKED - KG | REVISED - | |
| PLOT DATE = 1/23/2014 | DATE - $DATE | REVISED - | |

**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

**ITS PLANS**
**STEARNS ROAD (SHEET 12 OF 18)**

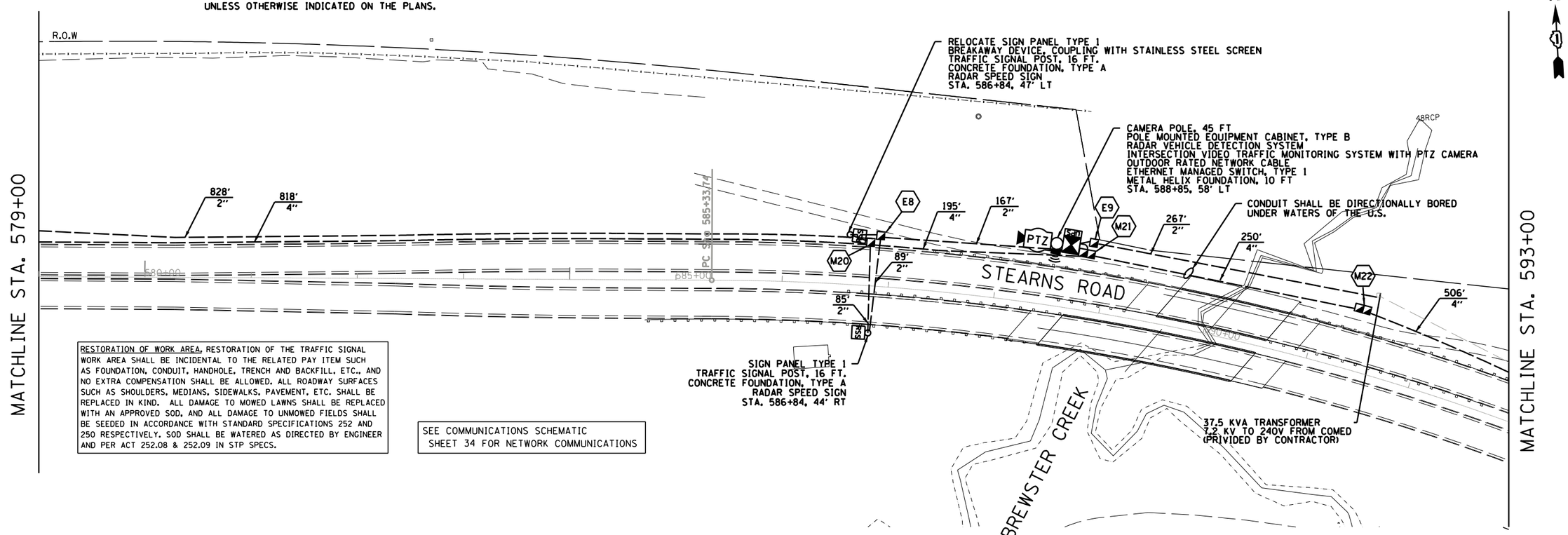
SCALE: | SHEET NO. __ OF __ SHEETS | STA. _____ TO STA. _____

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 361 | 11-00214-00-TL | KANE | 44 | 16 |
| | | CONTRACT NO. XXXXX | | |
| FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT | | |

1/23/2014

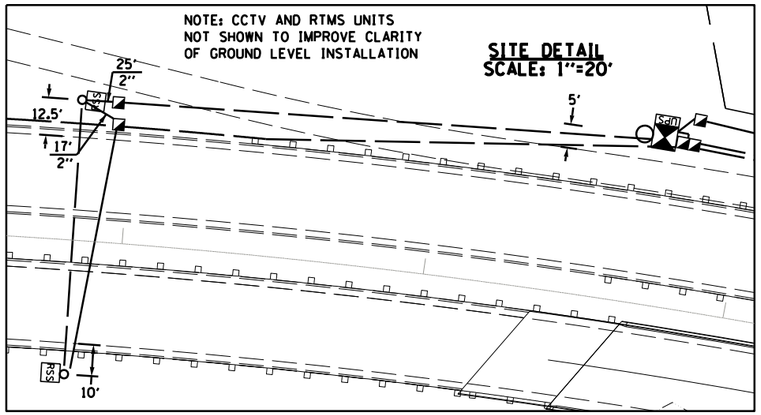
**NOTES:**

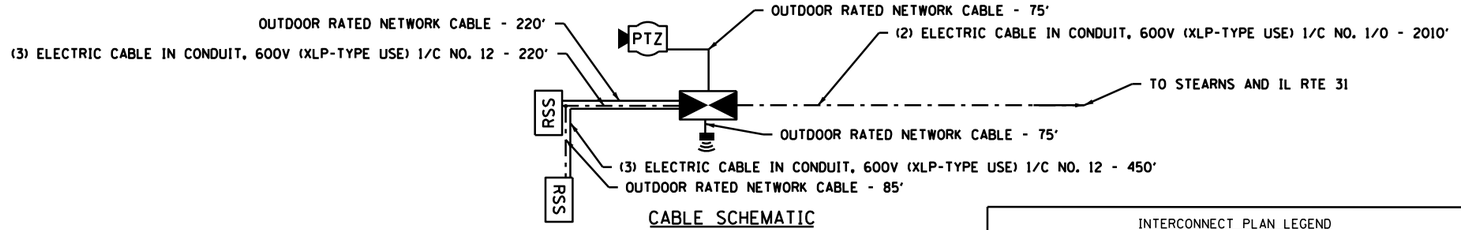
1. UNDERGROUND CONDUIT FOR FIBER OPTIC BACKBONE SHALL BE INSTALLED 2' BEHIND BACK OF CURB OR BACK OF SHOULDER UNLESS OTHERWISE INDICATED ON THE PLANS.




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. SOD SHALL BE WATERED AS DIRECTED BY ENGINEER AND PER ACT 252.08 & 252.09 IN STP SPECS.

SEE COMMUNICATIONS SCHEMATIC SHEET 34 FOR NETWORK COMMUNICATIONS




CABLE SCHEMATIC

## SCHEDULE OF QUANTITIES - INTERCONNECT (13 OF 18)

| PAY ITEM | UNIT | QUANTITY |
|---|---|---|
| UNGERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA | FOOT | 1366 |
| HANDHOLE | EACH | 1 |
| DOUBLE HANDHOLE | EACH | 2 |

## SCHEDULE OF QUANTITIES - STEARNS ROAD AT BREWSTER CREEK

| PAY ITEM | UNIT | QUANTITY |
|---|---|---|
| PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH | SQ FT | 18 |
| SIGN PANEL-TYPE 1 | SQ FT | 7.5 |
| RELOCATE SIGN PANEL-TYPE 1 | SQ FT | 7.5 |
| UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA. | FOOT | 1478 |
| HANDHOLE | EACH | 2 |
| ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 12 | FOOT | 2010 |
| ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 1/0 | FOOT | 4020 |
| UNINTERRUPTABLE POWER SUPPLY, STANDARD | EACH | 1 |
| TRAFFIC SIGNAL POST, 16 FT | EACH | 2 |
| CONCRETE FOUNDATION, TYPE A | FOOT | 10 |
| POLE MOUNTED EQUIPMENT CABINET, TYPE B | EACH | 1 |
| RADAR VEHICLE DETECTION SYSTEM | EACH | 1 |
| RADAR SPEED SIGN | EACH | 2 |
| INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA | EACH | 1 |
| OUTDOOR RATED NETWORK CABLE | FOOT | 455 |
| ETHERNET MANAGED SWITCH, TYPE 1 | EACH | 1 |
| CAMERA POLE, 45 FT | EACH | 1 |
| METAL HELIX FOUNDATION, 10 FT | EACH | 1 |

INTERCONNECT PLAN LEGEND

| | PROPOSED | EXISTING |
|---|---|---|
| POLE MOUNTED CABINET, TYPE B | | |
| CABINET, MODEL 334 | | |
| MAST ARM ASSEMBLY AND POLE, STEEL | | |
| HANDHOLE | | |
| DOUBLE HANDHOLE | | |
| HEAVY DUTY HANDHOLE | H | |
| G.S. CONDUIT IN GROUND (CIG) | | |
| DETECTOR LOOP | | |
| SYSTEM | S | |
| INTERSECTION | IP | I |
| STAINLESS STEEL JUNCTION BOX | | |
| MANHOLE/HANDHOLE NUMBER | | |
| INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA | | |
| VIDEO DETECTION CAMERA | | |
| RADAR SPEED SIGN | RSS | |
| ELECTRICAL SERVICE | | |
| RADAR VEHICLE DETECTION SYSTEM | | |

SEE TRAFFIC SIGNAL LEGEND SHEET 28 FOR ADDITIONAL SYMBOLS


JACOBS
525 WEST MONROE
CHICAGO IL, 60661
312-251-3000


| | | | |
|---|---|---|---|
| USER NAME = | DESIGNED - CH | REVISED - | |
| | DRAWN - KB, DL | REVISED - | |
| PLOT SCALE = | CHECKED - KG | REVISED - | |
| PLOT DATE = 1/23/2014 | DATE - *DATE | REVISED - | |

**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

**ITS PLANS**
**STEARNS ROAD (SHEET 13 OF 18)**

SCALE: | SHEET NO. __ OF __ SHEETS | STA. _____ TO STA. _____

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 361 | 11-00214-00-TL | KANE | 44 | 17 |
| | | CONTRACT NO. XXXXX | | |
| FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT | | |

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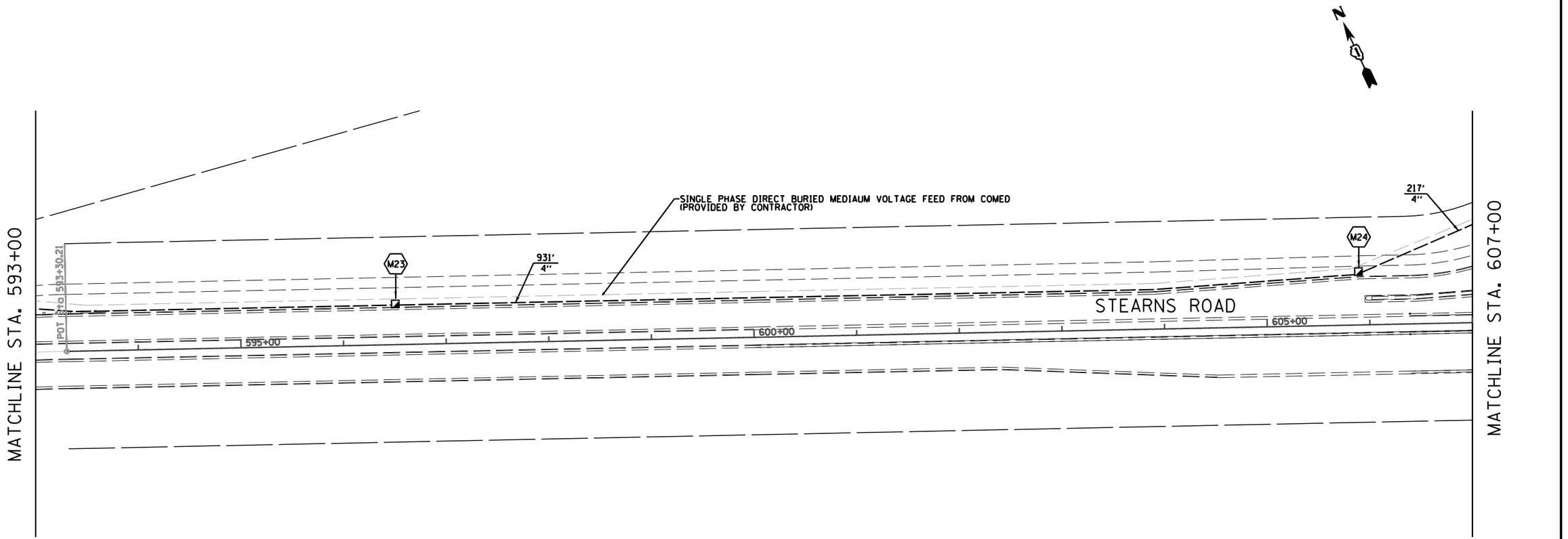


NOTES;

1. UNDERGROUND CONDUIT FOR FIBER OPTIC BACKBONE SHALL BE INSTALLED 2' BEHIND BACK OF CURB OR BACK OF SHOULDER UNLESS OTHERWISE INDICATED ON THE PLANS.

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. SOD SHALL BE WATERED AS DIRECTED BY ENGINEER AND PER ACT 252.08 & 252.09 IN STP SPECS.

SEE COMMUNICATIONS SCHEMATIC
SHEET 34 FOR NETWORK COMMUNICATIONS

## SCHEDULE OF QUANTITIES - INTERCONNECT (14 OF 18)

| PAY ITEM | UNIT | QUANTITY |
|---|---|---|
| UNGERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA | FOOT | 1394 |
| HANDHOLE | EACH | 2 |

## INTERCONNECT PLAN LEGEND

| | PROPOSED | EXISTING |
|---|---|---|
| POLE MOUNTED CABINET, TYPE B | ⊠ | |
| CABINET, MODEL 334 | ⊠ | ⊠ |
| MAST ARM ASSEMBLY AND POLE, STEEL | ○— | ○— |
| HANDHOLE | ◪ | ◪ |
| DOUBLE HANDHOLE | ◪◪ | ◪◪ |
| HEAVY DUTY HANDHOLE | H | H |
| G.S. CONDUIT IN GROUND (CIG) | --- | ═══ |
| DETECTOR LOOP | | □ |
| SYSTEM | S | |
| INTERSECTION | IP | I |
| STAINLESS STEEL JUNCTION BOX | J | |
| MANHOLE/HANDHOLE NUMBER | M | |
| INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA | PTZ | PTZ |
| VIDEO DETECTION CAMERA | ▶▬ | ▷▭ |
| RADAR SPEED SIGN | RSS | |
| ELECTRICAL SERVICE | E | ⊗ |
| RADAR VEHICLE DETECTION SYSTEM | | |

SEE TRAFFIC SIGNAL LEGEND SHEET 28 FOR ADDITIONAL SYMBOLS

JACOBS
525 WEST MONROE
CHICAGO IL, 60661
312-251-3000

| | | | |
|---|---|---|---|
| USER NAME = | DESIGNED - CH | REVISED - ___ | |
| | DRAWN - KB, DL | REVISED - ___ | |
| PLOT SCALE = | CHECKED - KG | REVISED - ___ | |
| PLOT DATE = 1/23/2014 | DATE - $DATE | REVISED - ___ | |

**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

**ITS PLANS**
**STEARNS ROAD (SHEET 14 OF 18)**

SCALE: | SHEET NO. __ OF ___ SHEETS | STA. _____ TO STA. _____

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 361 | 11-00214-00-TL | KANE | 44 | 18 |
| | | CONTRACT NO. XXXXX | | |

FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT

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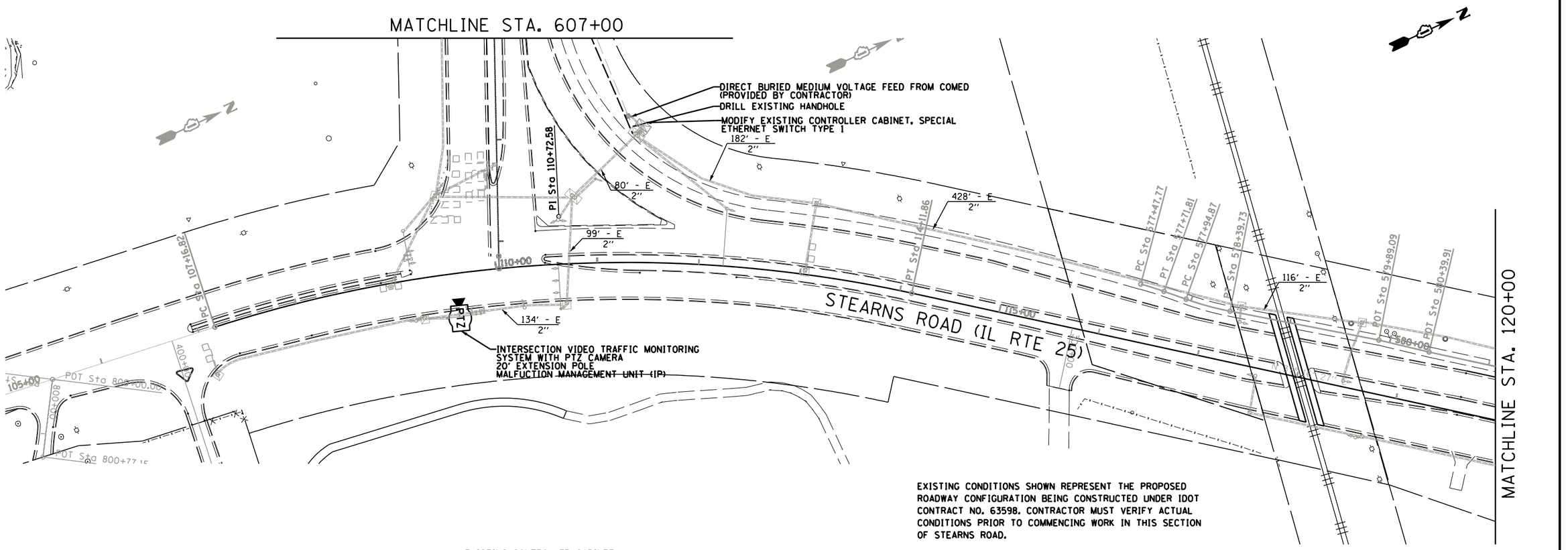



EXISTING CONDITIONS SHOWN REPRESENT THE PROPOSED ROADWAY CONFIGURATION BEING CONSTRUCTED UNDER IDOT CONTRACT NO. 63598. CONTRACTOR MUST VERIFY ACTUAL CONDITIONS PRIOR TO COMMENCING WORK IN THIS SECTION OF STEARNS ROAD.

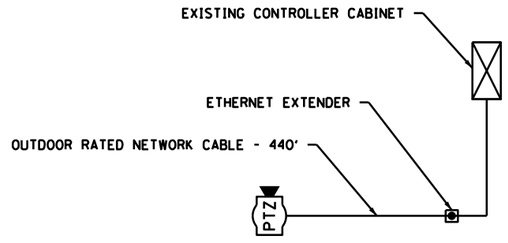
THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE KANE COUNTY, AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE COUNTY'S TRAFFIC SIGNAL MAINTENANCE CONTRACTOR'S MAIN FACILITY.

1 EACH MALFUNCTION MANAGEMENT UNIT

THE COUNTY'S TRAFFIC SIGNAL MAINTENANCE CONTRACTOR IS H&H ELECTRIC CO., LOCATED AT:

2830 COMMERCE STREET
FRANKLIN PARK, IL 60131-2927
TEL (708) 453-2222

ALL REMOVED ITEMS LISTED WILL BE PAID AS REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT.




CABLE SCHEMATIC

SEE COMMUNICATIONS SCHEMATIC SHEET 34 FOR NETWORK COMMUNICATIONS

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. SOD SHALL BE WATERED AS DIRECTED BY ENGINEER AND PER ACT 252.08 & 252.09 IN STP SPECS.

NOTES:

1. UNDERGROUND CONDUIT FOR FIBER OPTIC BACKBONE SHALL BE INSTALLED 2' BEHIND BACK OF CURB OR BACK OF SHOULDER UNLESS OTHERWISE INDICATED ON THE PLANS.
2. ETHERNET EXTENDER TO BE PLACED IN AN EXISTING TRAFFIC SIGNAL HANDHOLE NEAR THE MIDPOINT OF THE CCTV AND CONTROLLER CABINET. ETHERNET EXTENDER TO BE PAYED FOR UNDER OUTDOOR RATED NETWORK CABLE.

## SCHEDULE OF QUANTITIES - INTERCONNECT (15 OF 18)

| PAY ITEM | UNIT | QUANTITY |
|---|---|---|
| UNGERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA | FOOT | 103 |

## SCHEDULE OF QUANTITIES - STEARNS ROAD AND IL RTE 25

| PAY ITEM | UNIT | QUANTITY |
|---|---|---|
| MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION | EACH | 1 |
| DRILL EXISTING HANDHOLE | EACH | 1 |
| MODIFY EXISTING CONTROLLER CABINET, SPECIAL | EACH | 1 |
| REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT | EACH | 1 |
| INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA | EACH | 1 |
| OUTDOOR RATED NETWORK CABLE | FOOT | 440 |
| MALFUNCTION MANAGEMENT UNIT | EACH | 1 |
| ETHERNET MANAGED SWITCH, TYPE 1 | EACH | 1 |
| RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM, LEVEL 2 | EACH | 1 |
| 20' EXTENSION POLE | EACH | 1 |

SEE INTERCONNECT SCHEMATIC FOR INTERCONNECT CONDUIT, HANDHOLE, AND CABLE QUANTITIES

INTERCONNECT PLAN LEGEND

| | PROPOSED | EXISTING |
|---|---|---|
| POLE MOUNTED CABINET, TYPE B | | |
| CABINET, MODEL 334 | | |
| MAST ARM ASSEMBLY AND POLE, STEEL | | |
| HANDHOLE | | |
| DOUBLE HANDHOLE | | |
| HEAVY DUTY HANDHOLE | H | |
| G.S. CONDUIT IN GROUND (CIG) | | |
| DETECTOR LOOP | | |
| SYSTEM | S | |
| INTERSECTION | IP | I |
| STAINLESS STEEL JUNCTION BOX | | |
| MANHOLE/HANDHOLE NUMBER | | |
| INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA | PTZ | PTZ |
| VIDEO DETECTION CAMERA | | |
| RADAR SPEED SIGN | RSS | |
| ELECTRICAL SERVICE | | |
| RADAR VEHICLE DETECTION SYSTEM | | |

SEE TRAFFIC SIGNAL LEGEND SHEET 28 FOR ADDITIONAL SYMBOLS

JACOBS
525 WEST MONROE
CHICAGO IL, 60661
312-251-3000

| | | |
|---|---|---|
| USER NAME = | DESIGNED - CH | REVISED - ___ |
| | DRAWN - KB, DL | REVISED - ___ |
| PLOT SCALE = | CHECKED - KG | REVISED - ___ |
| PLOT DATE = 1/23/2014 | DATE - $DATE | REVISED - ___ |

KANE COUNTY
DIVISION OF TRANSPORTATION

ITS PLANS
STEARNS ROAD AND IL RTE 25 (SHEET 15 OF 18)

SCALE: | SHEET NO. __ OF ___ SHEETS | STA. _____ TO STA. _____

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 361 | 11-00214-00-TL | KANE | 44 | 19 |
| | | CONTRACT NO. XXXXX | | |

FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT

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1/23/2014

1/23/2014

EXISTING CONDITIONS SHOWN REPRESENT THE PROPOSED ROADWAY CONFIGURATION BEING CONSTRUCTED UNDER IDOT CONTRACT NO. 63598. CONTRACTOR MUST VERIFY ACTUAL CONDITIONS PRIOR TO COMMENCING WORK IN THIS SECTION OF STEARNS ROAD.

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE KANE COUNTY, AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE COUNTY'S TRAFFIC SIGNAL MAINTENANCE CONTRACTOR'S MAIN FACILITY.

1 EACH MALFUNCTION MANAGEMENT UNIT

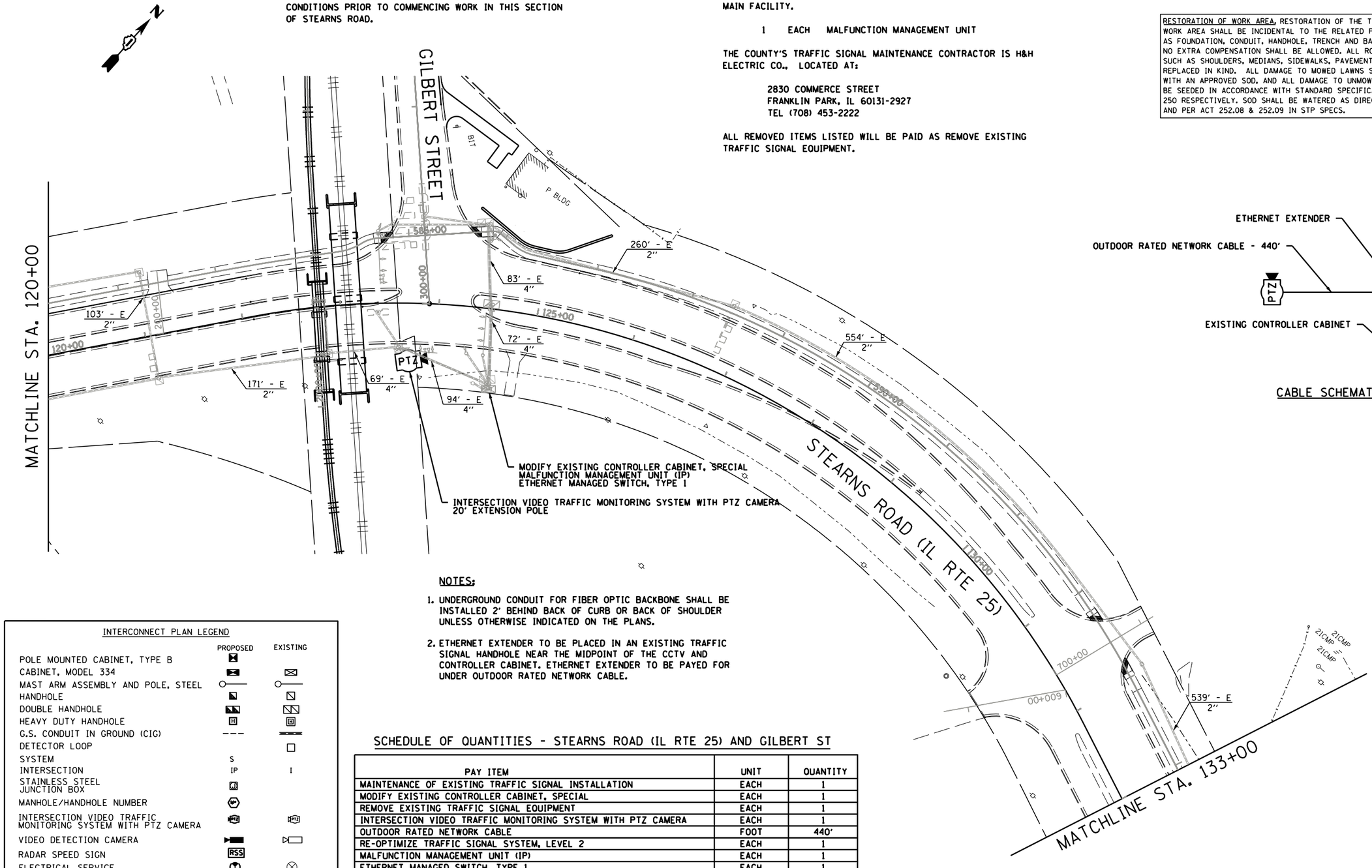
THE COUNTY'S TRAFFIC SIGNAL MAINTENANCE CONTRACTOR IS H&H ELECTRIC CO., LOCATED AT:

2830 COMMERCE STREET
FRANKLIN PARK, IL 60131-2927
TEL (708) 453-2222

ALL REMOVED ITEMS LISTED WILL BE PAID AS REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT.

SEE COMMUNICATIONS SCHEMATIC SHEET 34 FOR NETWORK COMMUNICATIONS

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. SOD SHALL BE WATERED AS DIRECTED BY ENGINEER AND PER ACT 252.08 & 252.09 IN STP SPECS.







CABLE SCHEMATIC

NOTES:

1. UNDERGROUND CONDUIT FOR FIBER OPTIC BACKBONE SHALL BE INSTALLED 2' BEHIND BACK OF CURB OR BACK OF SHOULDER UNLESS OTHERWISE INDICATED ON THE PLANS.
2. ETHERNET EXTENDER TO BE PLACED IN AN EXISTING TRAFFIC SIGNAL HANDHOLE NEAR THE MIDPOINT OF THE CCTV AND CONTROLLER CABINET. ETHERNET EXTENDER TO BE PAYED FOR UNDER OUTDOOR RATED NETWORK CABLE.

INTERCONNECT PLAN LEGEND

| | PROPOSED | EXISTING |
|---|---|---|
| POLE MOUNTED CABINET, TYPE B | | |
| CABINET, MODEL 334 | | |
| MAST ARM ASSEMBLY AND POLE, STEEL | | |
| HANDHOLE | | |
| DOUBLE HANDHOLE | | |
| HEAVY DUTY HANDHOLE | H | |
| G.S. CONDUIT IN GROUND (CIG) | | |
| DETECTOR LOOP | | |
| SYSTEM INTERSECTION | S IP | I |
| STAINLESS STEEL JUNCTION BOX | | |
| MANHOLE/HANDHOLE NUMBER | | |
| INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA | PTZ | PTZ |
| VIDEO DETECTION CAMERA | | |
| RADAR SPEED SIGN | RSS | |
| ELECTRICAL SERVICE | | |
| RADAR VEHICLE DETECTION SYSTEM | | |

SEE TRAFFIC SIGNAL LEGEND SHEET 28 FOR ADDITIONAL SYMBOLS

SCHEDULE OF QUANTITIES - STEARNS ROAD (IL RTE 25) AND GILBERT ST

| PAY ITEM | UNIT | QUANTITY |
|---|---|---|
| MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION | EACH | 1 |
| MODIFY EXISTING CONTROLLER CABINET, SPECIAL | EACH | 1 |
| REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT | EACH | 1 |
| INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA | EACH | 1 |
| OUTDOOR RATED NETWORK CABLE | FOOT | 440' |
| RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM, LEVEL 2 | EACH | 1 |
| MALFUNCTION MANAGEMENT UNIT (IP) | EACH | 1 |
| ETHERNET MANAGED SWITCH, TYPE 1 | EACH | 1 |
| 20' EXTENSION POLE | EACH | 1 |


JACOBS
525 WEST MONROE
CHICAGO IL, 60661
312-251-3000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|---|---|---|---|
| USER NAME = | DESIGNED - CH | REVISED - | |
| | DRAWN - KB, DL | REVISED - | |
| PLOT SCALE = | CHECKED - KG | REVISED - | |
| PLOT DATE = 1/23/2014 | DATE - $DATE | REVISED - | |

KANE COUNTY
DIVISION OF TRANSPORTATION

ITS PLANS
STEARNS ROAD AND GILBERT STREET (SHEET 16 OF 18)

SCALE: | SHEET NO. __ OF __ SHEETS | STA. _____ TO STA. _____

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 361 | 11-00214-00-TL | KANE | 44 | 20 |
| | | CONTRACT NO. XXXXX | | |

FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT

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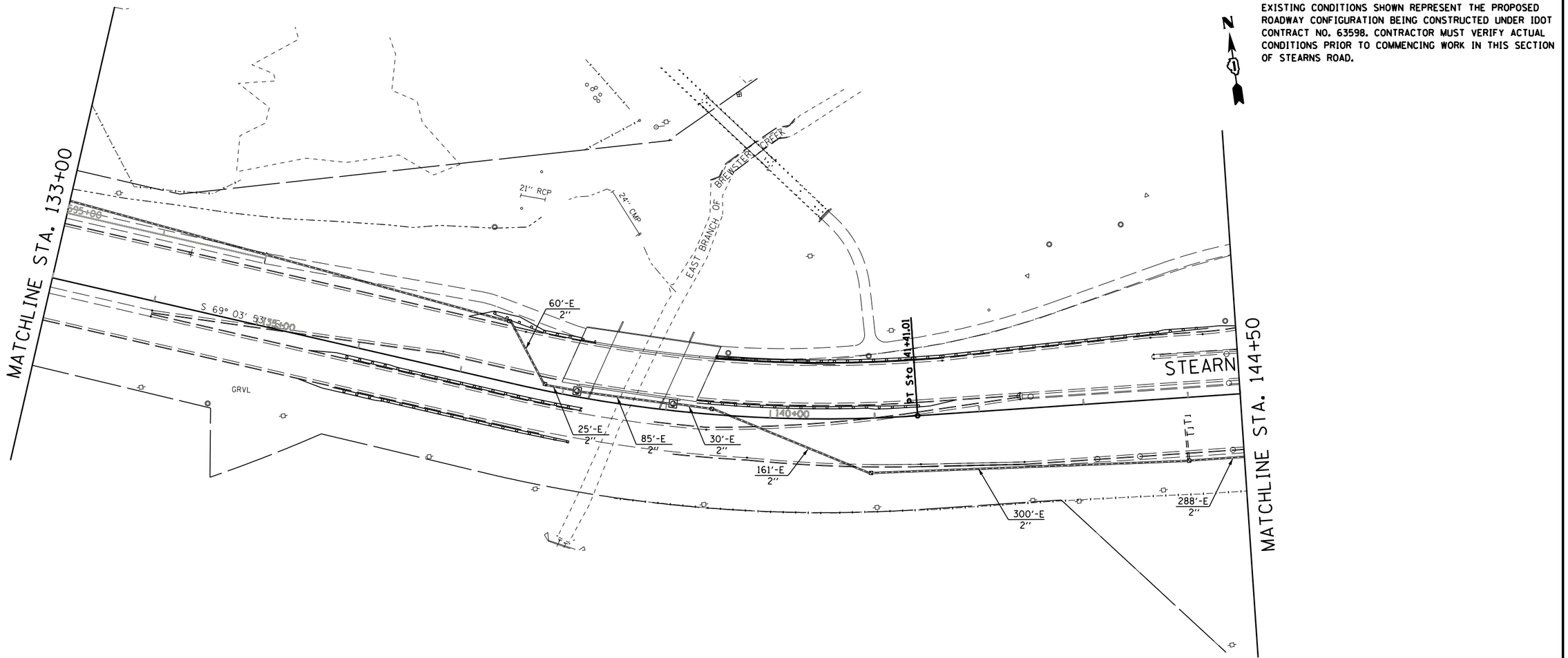
1/23/2014

EXISTING CONDITIONS SHOWN REPRESENT THE PROPOSED ROADWAY CONFIGURATION BEING CONSTRUCTED UNDER IDOT CONTRACT NO. 63598. CONTRACTOR MUST VERIFY ACTUAL CONDITIONS PRIOR TO COMMENCING WORK IN THIS SECTION OF STEARNS ROAD.




INTERCONNECT PLAN LEGEND

| | PROPOSED | EXISTING |
|---|---|---|
| POLE MOUNTED CABINET, TYPE B | | |
| CABINET, MODEL 334 | | |
| MAST ARM ASSEMBLY AND POLE, STEEL | | |
| HANDHOLE | | |
| DOUBLE HANDHOLE | | |
| HEAVY DUTY HANDHOLE | H | |
| G.S. CONDUIT IN GROUND (CIG) | --- | |
| DETECTOR LOOP | | |
| SYSTEM | S | |
| INTERSECTION | IP | I |
| STAINLESS STEEL JUNCTION BOX | | |
| MANHOLE/HANDHOLE NUMBER | | |
| INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA | PTZ | PTZ |
| VIDEO DETECTION CAMERA | | |
| RADAR SPEED SIGN | RSS | |
| ELECTRICAL SERVICE | | |
| RADAR VEHICLE DETECTION SYSTEM | | |

SEE TRAFFIC SIGNAL LEGEND SHEET 28 FOR ADDITIONAL SYMBOLS

SEE COMMUNICATIONS SCHEMATIC SHEET 34 FOR NETWORK COMMUNICATIONS

**NOTES:**

1. UNDERGROUND CONDUIT FOR FIBER OPTIC BACKBONE SHALL BE INSTALLED 2' BEHIND BACK OF CURB OR BACK OF SHOULDER UNLESS OTHERWISE INDICATED ON THE PLANS.

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. SOD SHALL BE WATERED AS DIRECTED BY ENGINEER AND PER ACT 252.08 & 252.09 IN STP SPECS.

JACOBS
525 WEST MONROE
CHICAGO IL, 60661
312-251-3000

| | | | |
|---|---|---|---|
| USER NAME = | DESIGNED - CH | REVISED - | |
| | DRAWN - KB, DL | REVISED - | |
| PLOT SCALE = | CHECKED - KG | REVISED - | |
| PLOT DATE = 1/23/2014 | DATE - $DATE | REVISED - | |

**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

**ITS PLANS**
**STEARNS ROAD AND DUNHAM ROAD (SHEET 17 OF 18)**

SCALE: | SHEET NO. __ OF ___ SHEETS | STA. _____ TO STA. _____

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 361 | 11-00214-00-TL | KANE | 44 | 21 |
| | | CONTRACT NO. XXXXX | | |
| FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT | | |

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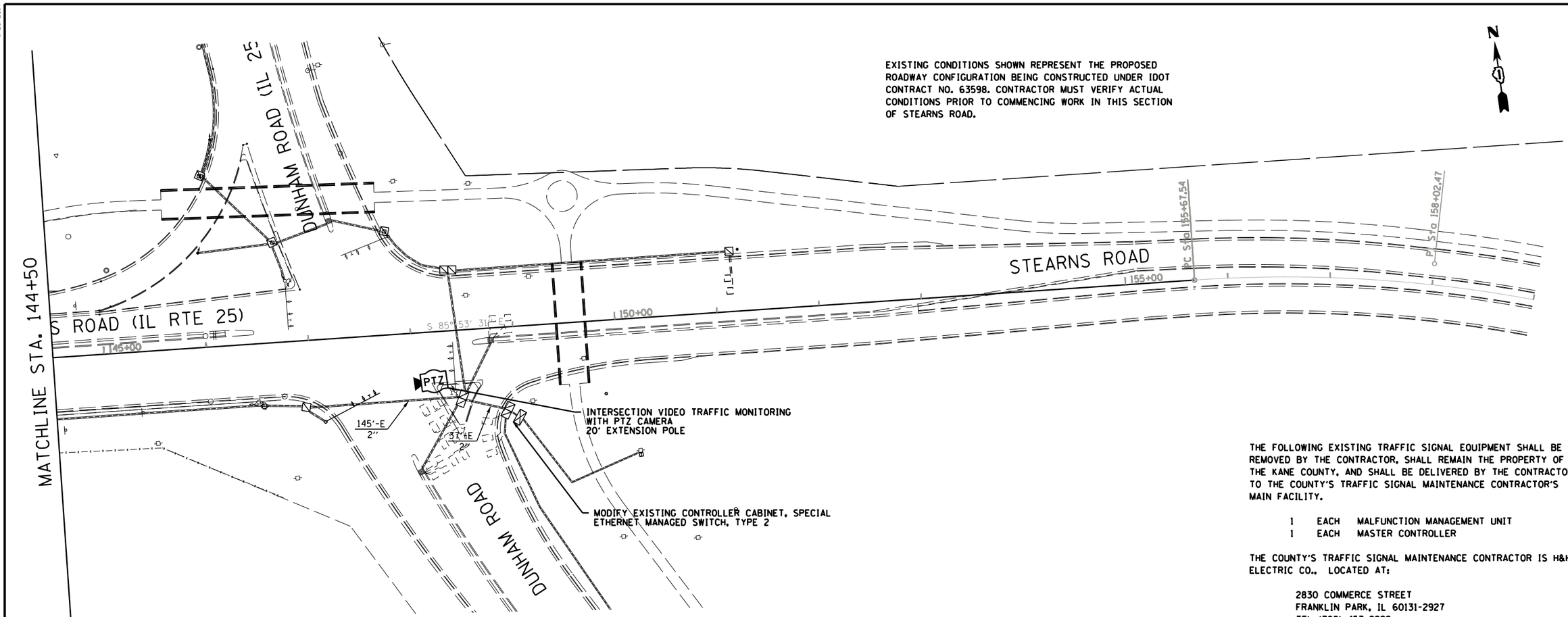


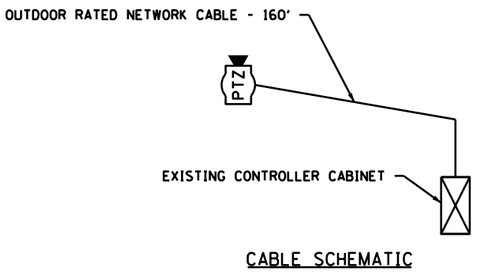

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE KANE COUNTY, AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE COUNTY'S TRAFFIC SIGNAL MAINTENANCE CONTRACTOR'S MAIN FACILITY.

1 EACH MALFUNCTION MANAGEMENT UNIT
1 EACH MASTER CONTROLLER

THE COUNTY'S TRAFFIC SIGNAL MAINTENANCE CONTRACTOR IS H&H ELECTRIC CO., LOCATED AT:

2830 COMMERCE STREET
FRANKLIN PARK, IL 60131-2927
TEL (708) 453-2222

ALL REMOVED ITEMS LISTED WILL BE PAID AS REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT.




CABLE SCHEMATIC

INTERCONNECT PLAN LEGEND

| | PROPOSED | EXISTING |
|---|---|---|
| POLE MOUNTED CABINET, TYPE B | ■ | |
| CABINET, MODEL 334 | ■ | ⊠ |
| MAST ARM ASSEMBLY AND POLE, STEEL | ○— | ○— |
| HANDHOLE | ◥ | ◹ |
| DOUBLE HANDHOLE | ◥◤ | ◹◿ |
| HEAVY DUTY HANDHOLE | H | H |
| G.S. CONDUIT IN GROUND (CIG) | - - - | ——— |
| DETECTOR LOOP | | □ |
| SYSTEM | S | |
| INTERSECTION | IP | I |
| STAINLESS STEEL JUNCTION BOX | SJ | |
| MANHOLE/HANDHOLE NUMBER | MH | |
| INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA | PTZ | PTZ |
| VIDEO DETECTION CAMERA | ▶▬ | ▷▭ |
| RADAR SPEED SIGN | RSS | |
| ELECTRICAL SERVICE | E | ⊗ |
| RADAR VEHICLE DETECTION SYSTEM | | |

SEE TRAFFIC SIGNAL LEGEND SHEET 28 FOR ADDITIONAL SYMBOLS

SEE COMMUNICATIONS SCHEMATIC SHEET 34 FOR NETWORK COMMUNICATIONS

SCHEDULE OF QUANTITIES - STEARNS ROAD (IL RTE 25) AND DUNHAM ROAD

| PAY ITEM | UNIT | QUANTITY |
|---|---|---|
| MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION | EACH | 1 |
| MODIFY EXISTING CONTROLLER CABINET | EACH | 1 |
| REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT | EACH | 1 |
| INTERSECTION VIDEO TRAFFIC MONITORING WITH PTZ CAMERA | FOOT | 160 |
| OUTDOOR RATED NETWORK CABLE | EACH | 1 |
| ETHERNET MANAGED SWICTH, TYPE 2 | EACH | 1 |
| RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM, LEVEL 2 | EACH | 1 |
| MALFUNCTION MANAGEMENT UNIT, SPECIAL | EACH | 1 |
| 20' EXTENSION POLE | EACH | 1 |

NOTES:

1. UNDERGROUND CONDUIT FOR FIBER OPTIC BACKBONE SHALL BE INSTALLED 2' BEHIND BACK OF CURB OR BACK OF SHOULDER UNLESS OTHERWISE INDICATED ON THE PLANS.

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. SOD SHALL BE WATERED AS DIRECTED BY ENGINEER AND PER ACT 252.08 & 252.09 IN STP SPECS.

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312-251-3000

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| USER NAME = | DESIGNED - CH | REVISED - ___ | |
| | DRAWN - KB, DL | REVISED - ___ | |
| PLOT SCALE = | CHECKED - KG | REVISED - ___ | |
| PLOT DATE = 1/23/2014 | DATE - $DATE | REVISED - ___ | |

KANE COUNTY
DIVISION OF TRANSPORTATION

ITS PLANS
STEARNS ROAD AND DUNHAM ROAD (SHEET 18 OF 18)

SCALE: | SHEET NO. __ OF ___ SHEETS | STA. _____ TO STA. _____

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 361 | 11-00214-00-TL | KANE | 44 | 22 |
| | | CONTRACT NO. XXXXX | | |
| FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT | | |

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1/23/2014

1/23/2014

## 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.

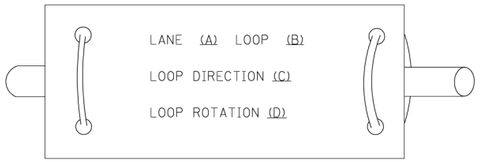
4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.

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

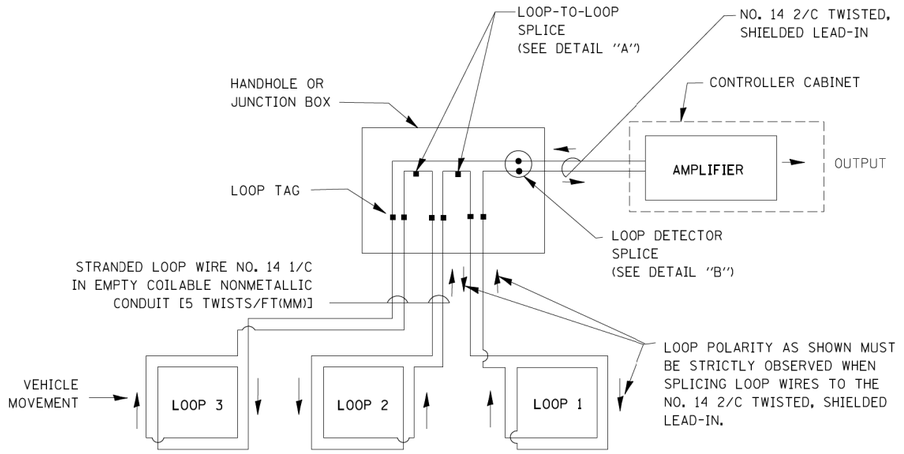



A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY

B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.

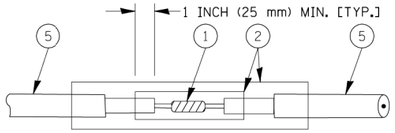
C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".

D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

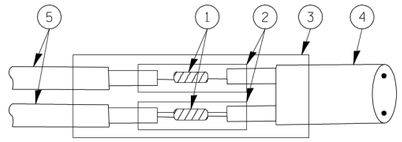



### DETECTOR LOOP WIRING SCHEMATIC

- 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.

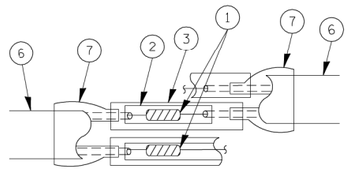



DETAIL "A"
LOOP-TO-LOOP SPLICE



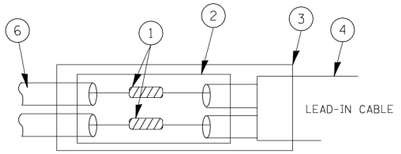

DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

### TYPE I LOOP




DETAIL "A"
LOOP-TO-LOOP SPLICE

### PRE-FORMED LOOP




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 LENGHT 6" (150 mm), UNDERWATER GRADE.

(4) NC. 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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**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

**DISTRICT 1**
**STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

SCALE: | SHEET NO. __ OF ___ SHEETS | STA. _____ TO STA. _____

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 361 | 11-00214-00-TL | KANE | 44 | 23 |
| | | CONTRACT NO. XXXXX | | |
| FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT | | |

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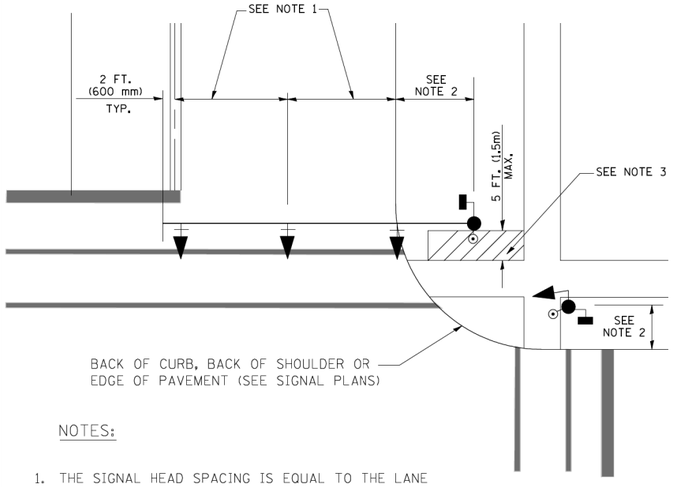
1/23/2014

## TRAFFIC SIGNAL MAST ARM AND SIGNAL POST

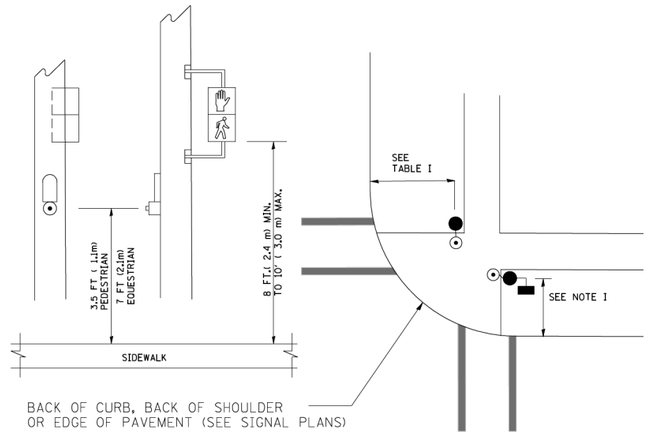
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.




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."

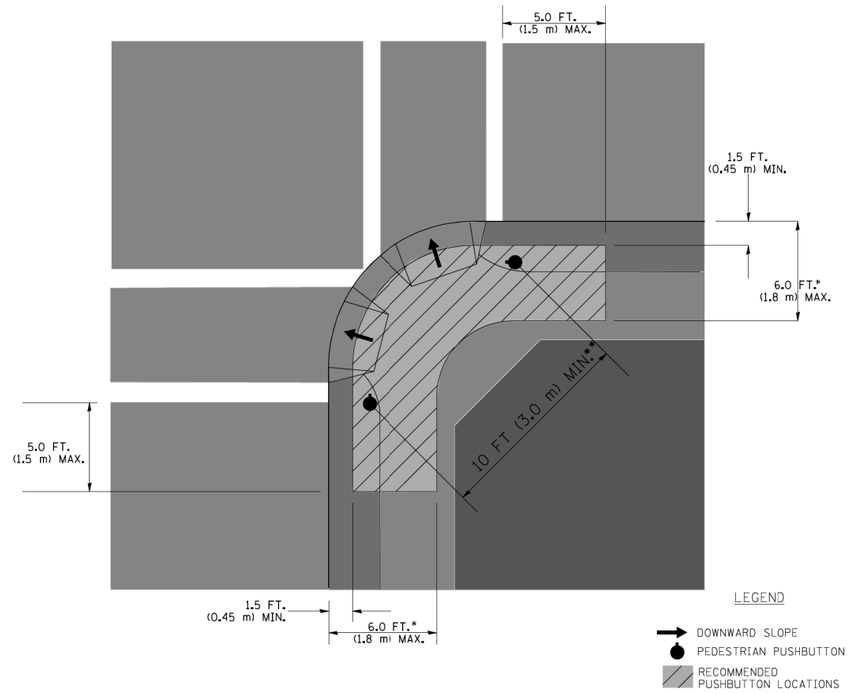
## PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST




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.

## 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.

## 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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312-251-3000


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| | DRAWN - KB, DL | REVISED - ___ | |
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| PLOT DATE = 1/23/2014 | DATE - $DATE | REVISED - ___ | |

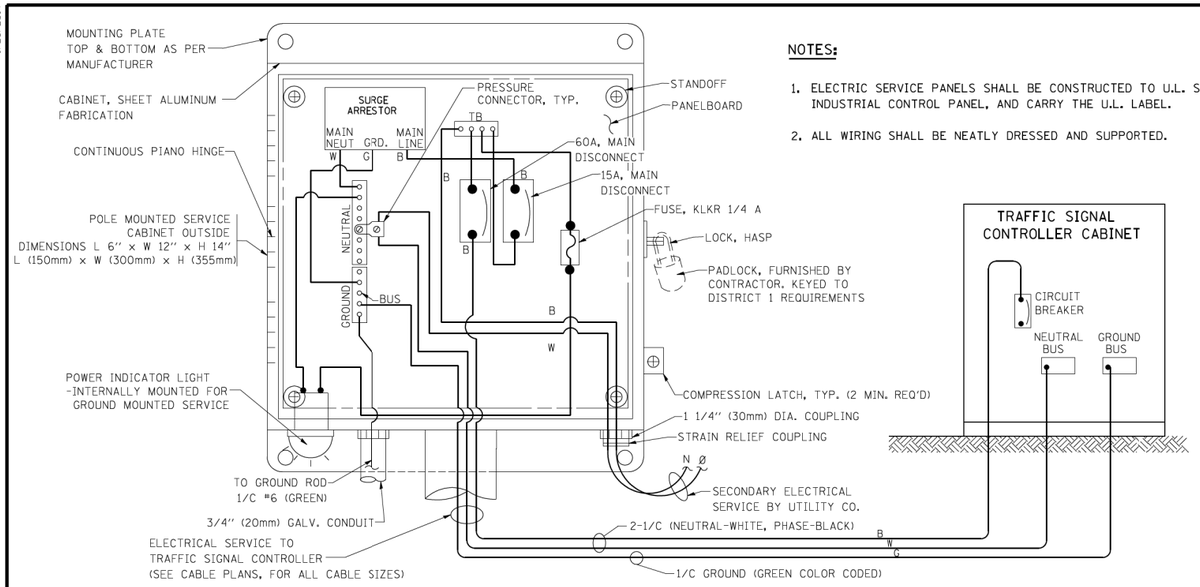
**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

**DISTRICT 1**
**STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

SCALE: | SHEET NO. __ OF ___ SHEETS | STA. _____ TO STA. _____

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 361 | 11-00214-00-TL | KANE | 44 | 24 |
| | | CONTRACT NO. XXXXX | | |
| FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT | | |

1/23/2014



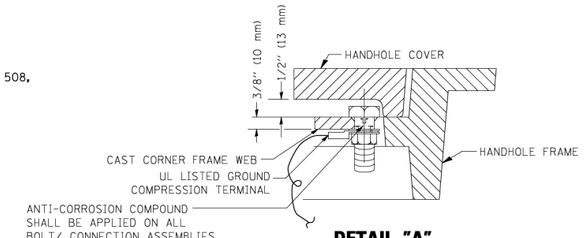

NOTES:

1. ELECTRIC SERVICE PANELS SHALL BE CONSTRUCTED TO U.L. STD 508, INDUSTRIAL CONTROL PANEL, AND CARRY THE U.L. LABEL.
2. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.

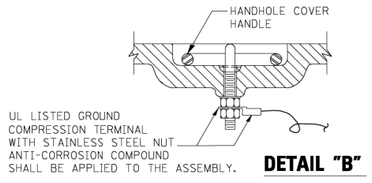
## ELECTRICAL SERVICE – PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)

## SERVICE INSTALLATION POLE MOUNT (SHOWN)

(NOT TO SCALE)




## DETAIL "A"

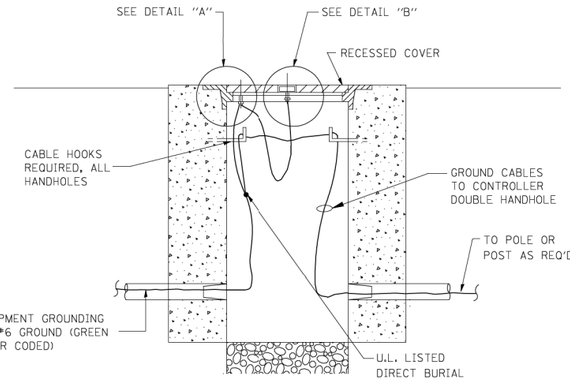



## DETAIL "B"

NOTES:

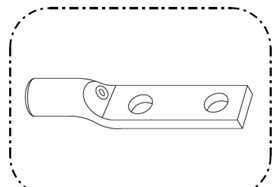
GROUNDING SYSTEM

1. 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.
2. 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.
3. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
4. THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.




## HANDHOLE COVER & FRAME – GROUNDING DETAIL

(NOT TO SCALE)

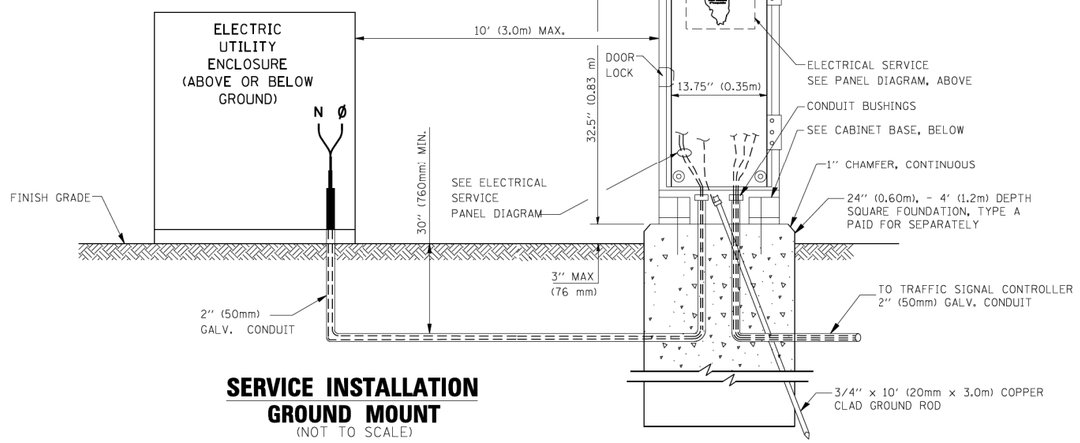


HEAVY-DUTY COMPRESSION TERMINAL (BURNDY TYPE YCHA OR APPROVED EQUAL)

¾" (20mm) HEAVY-DUTY GROUND ROD CLAMP (BURNDY TYPE GRC OR APPROVED EQUAL)

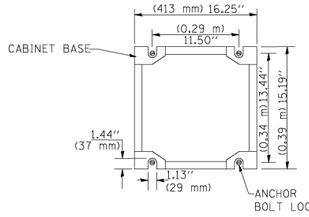
NOTES:

- 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.



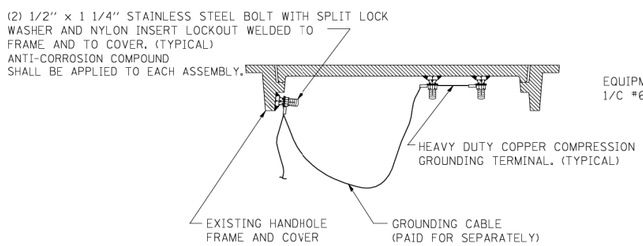

## SERVICE INSTALLATION GROUND MOUNT

(NOT TO SCALE)



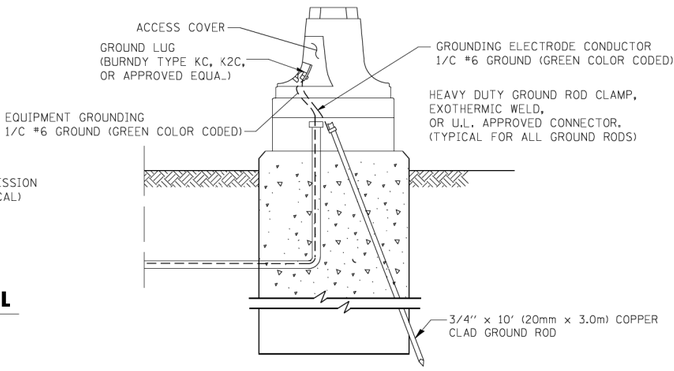

## CABINET – BASE BOLT PATTERN

(NOT TO SCALE)




## EXISTING HANDHOLE COVER & FRAME – GROUNDING DETAIL

(NOT TO SCALE)




## MAST ARM POLE / POST–GROUNDING DETAIL

(NOT TO SCALE)

P:\...2013\CAD\13900\700 CAD\STANDARD DETAIL 3.dgn

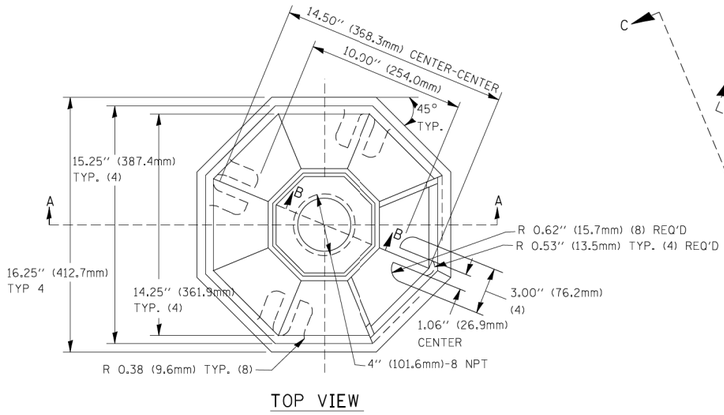
JACOBS
525 WEST MONROE
CHICAGO IL, 60661
312-251-3000

| | | | |
|---|---|---|---|
| USER NAME = | DESIGNED - CH | REVISED - ___ | KANE COUNTY DIVISION OF TRANSPORTATION |
| | DRAWN - KB, DL | REVISED - ___ | |
| PLOT SCALE = | CHECKED - KG | REVISED - ___ | |
| PLOT DATE = 1/23/2014 | DATE - $DATE | REVISED - ___ | |

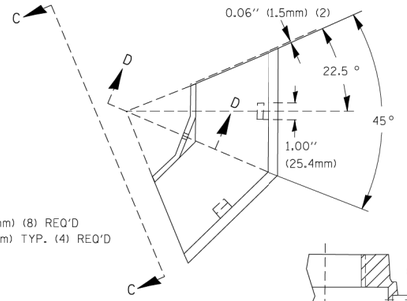
DISTRICT 1
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

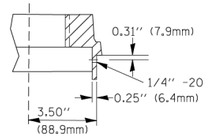
SCALE: | SHEET NO. __ OF ___ SHEETS | STA. _____ TO STA. _____

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 361 | 11-00214-00-TL | KANE | 44 | 25 |
| | | CONTRACT NO. XXXXX | | |
| FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT | | |

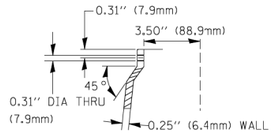



TOP VIEW

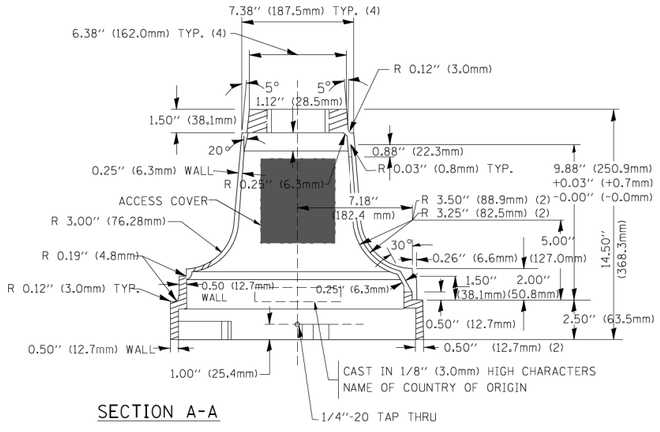


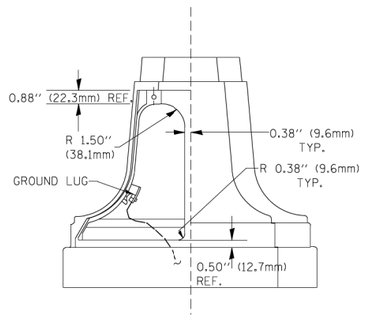

SECTION B-B



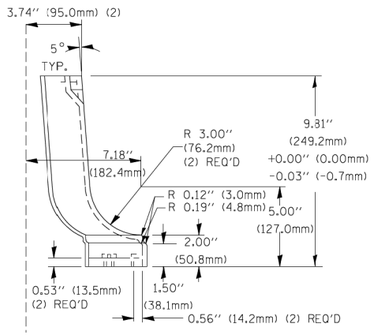

SECTION D-D



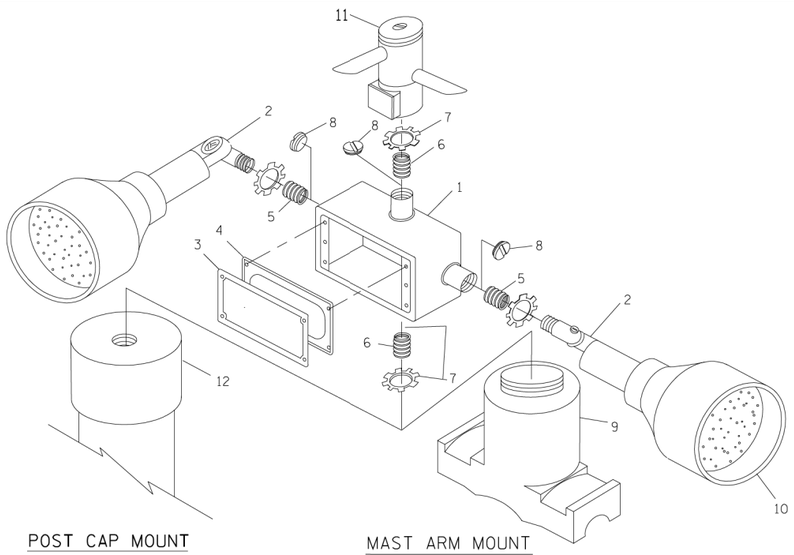

SECTION A-A




VIEW C-C




# TRAFFIC SIGNAL POST - MOUNTING BASE - TYPE A




POST CAP MOUNT

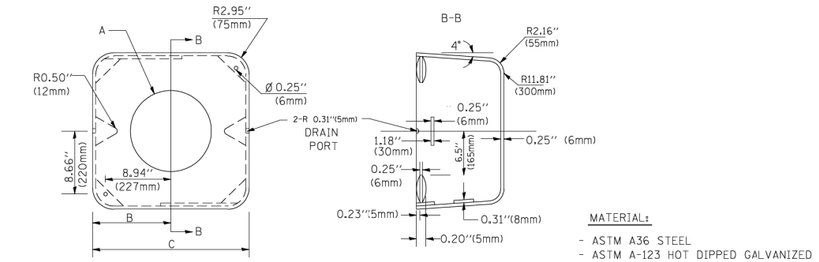
MAST ARM MOUNT

| 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 | ¾''(19 mm) CLOSE NIPPLE |
| 7 | ¾''(19 mm) LOCKNUT |
| 8 | ¾''(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:

1. ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
2. 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
3. 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 ¾''(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.

EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL




MATERIAL:
- ASTM A36 STEEL
- ASTM A-123 HOT DIPPED GALVANIZED

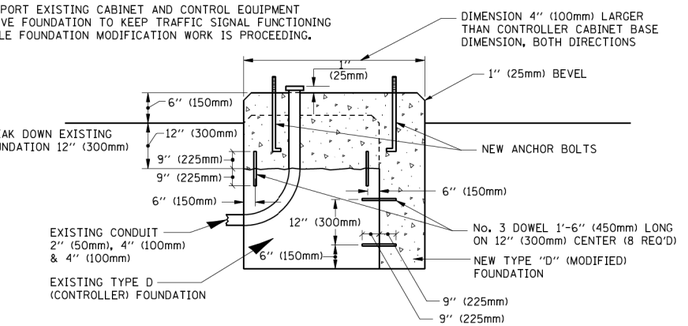
| A | B | C | HEIGHT | WEIGHT |
|---|---|---|---|---|
| VARIES | 9.5''(241mm) | 19''(483mm) | 7'' (178mm) - 12'' (300mm) | 53 lbs (24kg) |
| VARIES | 10.75''(273mm) | 21.5''(546mm) | 7'' (178mm) - 12'' (300mm) | 68 lbs (31 kg) |
| VARIES | 13.0''(330mm) | 26''(660mm) | 7'' (178mm) - 12'' (300mm) | 81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

## SHROUD

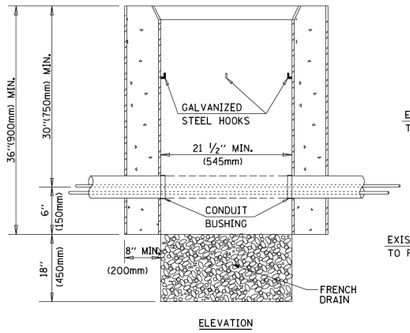
NOTES:

1. 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.
2. THE SUPPLIER SHALL VERIFIED THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
3. THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.

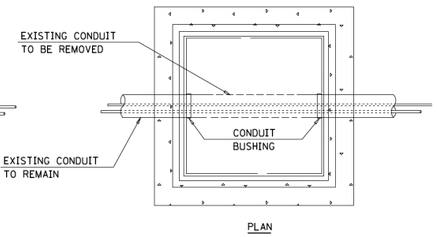
NOTE:
SUPPORT EXISTING CABINET AND CONTROL EQUIPMENT ABOVE FOUNDATION TO KEEP TRAFFIC SIGNAL FUNCTIONING WHILE FOUNDATION MODIFICATION WORK IS PROCEEDING.




## MODIFY EXISTING TYPE ''D'' FOUNDATION




ELEVATION




PLAN

NOTES:

1. HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
2. 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

JACOBS
525 WEST MONROE
CHICAGO IL, 60661
312-251-3000

| | | | |
|---|---|---|---|
| USER NAME = | DESIGNED - CH | REVISED - | |
| | DRAWN - KB, DL | REVISED - | |
| PLOT SCALE = | CHECKED - KG | REVISED - | |
| PLOT DATE = 1/23/2014 | DATE - $DATE | REVISED - | |

**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

**DISTRICT 1**
**STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

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| 361 | 11-00214-00-TL | KANE | 44 | 26 |
| | | CONTRACT NO. XXXXX | | |

FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT

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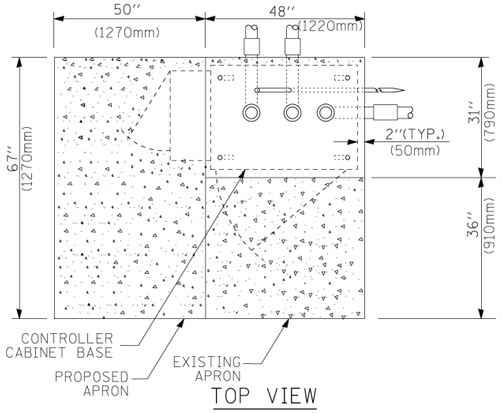
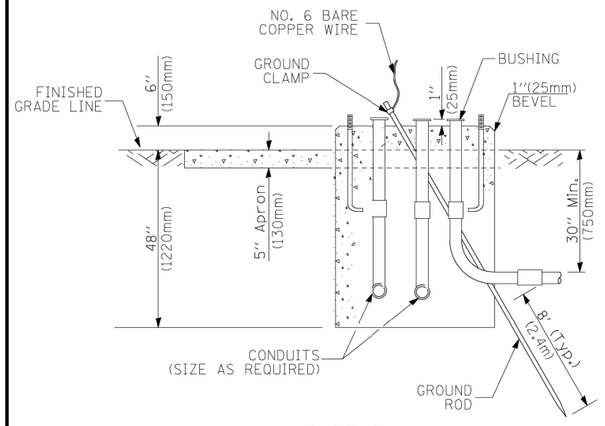
1/23/2014

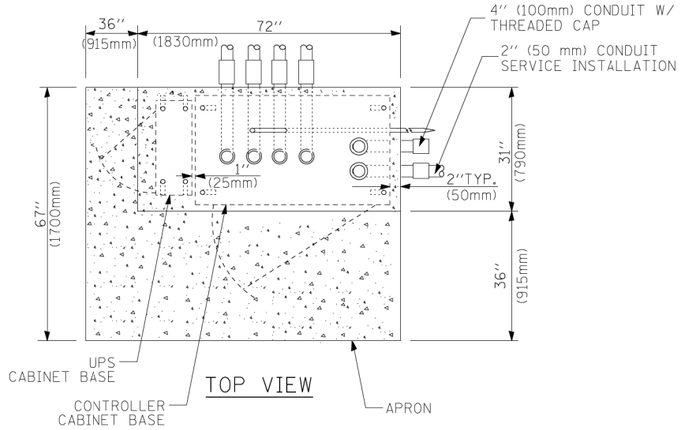
1/23/2014



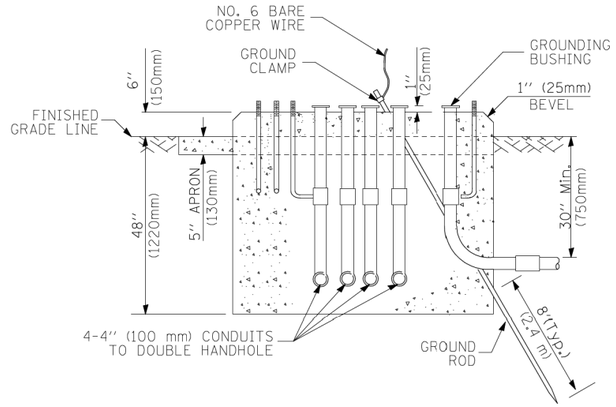

TOP VIEW



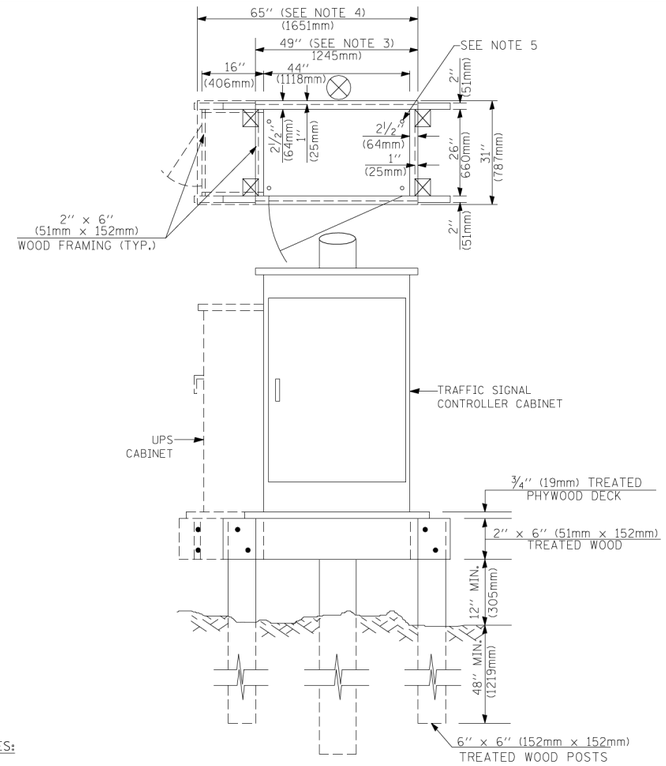

TYPE D
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET




TOP VIEW




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) |
| | 11'-0'' (3.4 m) | 36'' (900mm) | 30'' (750mm) | 12 | 7(22) |
| Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m) | 13'-0'' (4.0 m) | 36'' (900mm) | 30'' (750mm) | 12 | 7(22) |
| Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m) | 15'-0'' (4.6 m) | 36'' (900mm) | 30'' (750mm) | 12 | 7(22) |
| Greater than or equal to 56' (16.8 m) and less than 65' (19.8 m) | 21'-0'' (6.4 m) | 42'' (1060mm) | 36'' (900mm) | 16 | 8(25) |
| Greater than or equal to 65' (19.8 m) and up 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

P:_2013\C94\3900\700 CADD\STANDARD DETAIL 5.dgn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312-251-3000


| | | |
|---|---|---|
| USER NAME = | DESIGNED - CH | REVISED - ___ |
| | DRAWN - KB, DL | REVISED - ___ |
| PLOT SCALE = | CHECKED - KG | REVISED - ___ |
| PLOT DATE = 1/23/2014 | DATE - $DATE | REVISED - ___ |

**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

**DISTRICT 1**
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| 361 | 11-00214-00-TL | KANE | 44 | 27 |
| | | CONTRACT NO. XXXXX | | |

FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT

1/23/2014

# TRAFFIC SIGNAL LEGEND

| ITEM | REMOVAL | EXISTING | PROPOSED |
|---|---|---|---|
| CONTROLLER CABINET | R | | |
| RAILROAD CONTROL CABINET | | R R | R R |
| COMMUNICATIONS CABINET | R CC | E C C | C C |
| MASTER CONTROLLER | | EMC | MC |
| MASTER MASTER CONTROLLER | | EMMC | MMC |
| UNINTERRUPTIBLE POWER SUPPLY | R UPS | EUPS | UPS |
| SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT | R | P | P |
| TELEPHONE CONNECTION (P) POLE OR (G) GROUND MOUNT | R T | P T | P T |
| STEEL MAST ARM ASSEMBLY AND POLE | R | | |
| ALUMINUM MAST ARM ASSEMBLY AND POLE | R | | |
| STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE | R | | |
| STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH PTZ CAMERA | R PTZ | PTZ | PTZ |
| SIGNAL POST | R | | |
| TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM | R | | |
| GUY WIRE | R | | |
| SIGNAL HEAD | R | | |
| SIGNAL HEAD CONSTRUCTION STAGES (NUMBERS INDICATE THE CONSTRUCTION STAGE) | | | 2 |
| SIGNAL HEAD WITH BACKPLATE | R | | |
| SIGNAL HEAD OPTICALLY PROGRAMMED | R "P" | "P" | "P" |
| FLASHER INSTALLATION (S DENOTES SOLAR POWER) | R "F" | "F" | "F" |
| PEDESTRIAN SIGNAL HEAD | R | | |
| PEDESTRIAN PUSHBUTTON DETECTOR | R | | |
| ACCESSIBLE PEDESTRIAN PUSHBUTTON DETECTOR | R APS | APS | APS |
| ILLUMINATED SIGN "NO LEFT TURN" | R | | |
| ILLUMINATED SIGN "NO RIGHT TURN" | R | | |
| DETECTOR LOOP, TYPE I | | | |
| PREFORMED DETECTOR LOOP | | P | P |
| MICROWAVE VEHICLE SENSOR | R M | M | M |
| VIDEO DETECTION CAMERA | R V | V | V |
| VIDEO DETECTION ZONE | | | |
| PAN, TILT, ZOOM CAMERA | R PTZ | PTZ | PTZ |
| WIRELESS DETECTOR SENSOR | R W | W | W |
| WIRELESS ACCESS POINT | R | | |

| ITEM | REMOVAL | EXISTING | PROPOSED |
|---|---|---|---|
| EMERGENCY VEHICLE LIGHT DETECTOR | R | | |
| CONFIRMATION BEACON | R | | |
| HANDHOLE | R | | |
| HEAVY DUTY HANDHOLE | R H | H | H |
| DOUBLE HANDHOLE | R | | |
| JUNCTION BOX | R | | |
| GALVANIZED STEEL CONDUIT IN TRENCH (T) OR PUSHED (P) | | | |
| TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE | R | | |
| COMMON TRENCH | | | CT |
| COILABLE NONMETALLIC CONDUIT (EMPTY) | | | CNC |
| SYSTEM ITEM | | S | S |
| INTERSECTION ITEM | | I | IP |
| REMOVE ITEM | R | | |
| RELOCATE ITEM | RL | | |
| ABANDON ITEM | A | | |
| 12" (300mm) TRAFFIC SIGNAL SECTION | | R | R |
| 12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE | | R Y G | |
| SIGNAL FACE | | R Y G ◄Y ◄G | R Y G ◄Y ◄G |
| SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD | | R Y G ◄Y ◄G "P" | R Y G ◄Y ◄G "P" |
| 12" (300mm) PEDESTRIAN SIGNAL HEAD WALK/DON'T WALK SYMBOL | | DW W | |
| 12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, OUTLINED | | | |
| 12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, SOLID | | | |
| PEDESTRIAN SIGNAL HEAD, INTERNATIONAL SYMBOL, WITH COUNTDOWN TIMER | | C D | C D |
| RADIO INTERCONNECT | R | | |
| RADIO REPEATER | R ERR | ERR | RR |
| DENOTES NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE, ALL DETECTOR LOOP CABLE TO BE SHIELDED | | 5 | 5 |
| GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN) | | 1 | 1 |

| ITEM | REMOVAL | EXISTING | PROPOSED |
|---|---|---|---|
| ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1/C, UNLESS NOTED OTHERWISE | | I | I |
| COAXIAL CABLE | | C | C |
| VENDOR CABLE FOR CAMERA | | V | V |
| COPPER INTERCONNECT CABLE, NO. 18 3 PAIR TWISTED, SHIELDED | | 6 | 6 |
| FIBER OPTIC CABLE NO. 62.5/125, MM12F | | 12F | |
| FIBER OPTIC CABLE NO. 62.5/125, MM12F SM12F | | 24F | 24F |
| FIBER OPTIC CABLE NO. 62.5/125, (NUMBER OF FIBERS & TYPE TO BE NOTED ON PLANS) | | | |
| GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE | | C | C |
| CONTROLLER CABINET AND FOUNDATION TO BE REMOVED | RCF | | |
| STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED | RMF | | |
| ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED | RMF | | |
| STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE AND FOUNDATION TO BE REMOVED | RMF | | |
| SIGNAL POST AND FOUNDATION TO BE REMOVED | RMF | | |
| INTERSECTION & SAMPLING (SYSTEM) DETECTOR | | IS | IS |
| SAMPLING (SYSTEM) DETECTOR | | S | S |
| EXISTING INTERSECTION LOOP DETECTOR PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR | | P | |
| EXISTING PREFORMED INTERSECTION LOOP DETECTOR PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR | | PP | |
| PREFORMED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR | | PIS | PIS |
| PREFORMED SAMPLING (SYSTEM) DETECTOR | | PS | PS |

# RAILROAD SYMBOLS

| | EXISTING | PROPOSED |
|---|---|---|
| RAILROAD CONTROL CABINET | R R | R R |
| RAILROAD CANTILEVER MAST ARM | | |
| FLASHING SIGNAL | | |
| CROSSING GATE | | |
| CROSSBUCK | | |


JACOBS
525 WEST MONROE
CHICAGO IL. 60661
312-251-3000


| | | | |
|---|---|---|---|
| USER NAME = | DESIGNED - CH | REVISED - ___ | |
| | DRAWN - KB, DL | REVISED - ___ | |
| PLOT SCALE = | CHECKED - KG | REVISED - ___ | |
| PLOT DATE = 1/23/2014 | DATE - $DATE | REVISED - ___ | |

**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

**DISTRICT 1**
**STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

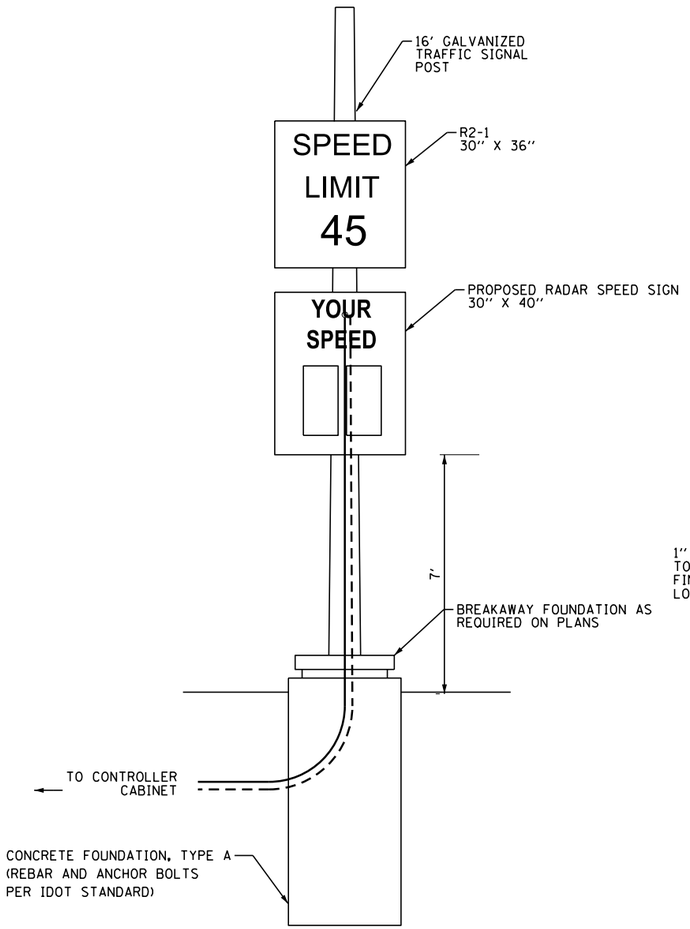
SCALE: | SHEET NO. __ OF __ SHEETS | STA. _____ TO STA. _____

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 361 | 11-00214-00-TL | KANE | 44 | 28 |
| | | CONTRACT NO. XXXXX | | |
| FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT | | |

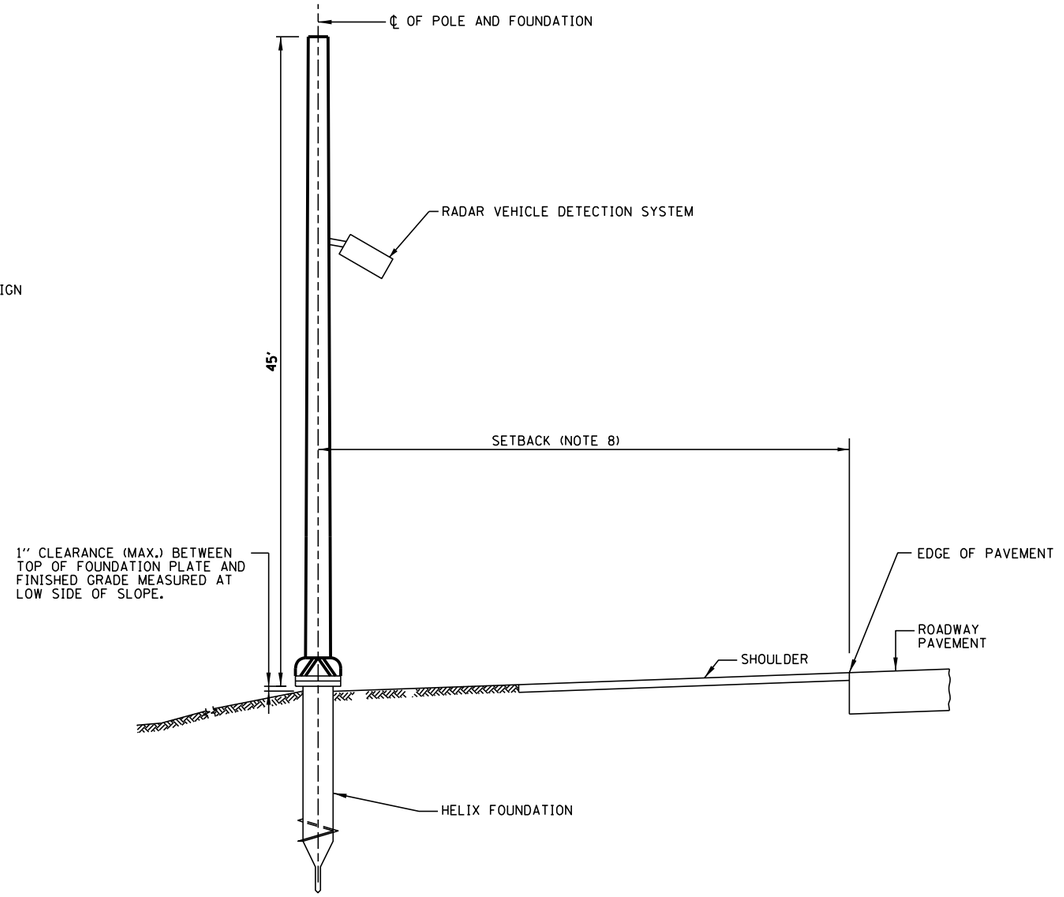
P:_2013\C9X139000_T08 CAD\SYSTANDARD DETAIL 6.dgn

1/23/2014

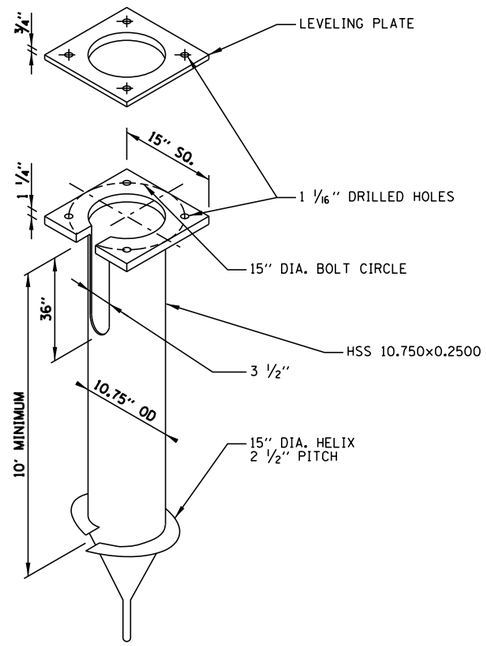
NOTES:
1. CONTRACTOR SHALL MODIFY THE CONFIGURATION BASED ON THE ACTUAL EQUIPMENT SUPPLIED. SUPPLIED EQUIPMENT SHALL BE APPROVED BY THE ENGINEER.
2. ALL EQUIPMENT SHALL BE INSTALLED PER IAW NFPA-70-2008, CHAPTER 8, AS APPLICABLE.
3. ALL EQUIPMENT SHALL BE BONDED TO THE CABINET GROUND BUS.
4. ALL EQUIPMENT SHALL BE HARDENED AND OPERATE OVER THE TEMPERATURE RANGE OF -35 TO +140 DEGREES FAHRENHEIT.
5. INSTALL STEERING DIODES TO DIRECT BATTERY CHARGE AND DISCHARGE.
6. CADWELD NO. 6 COPPER GROUND CABLE TO GROUND ROD.
7. THE HELIX FOUNDATION SHALL BE INSTALLED WITH ITS AXIS PLUMB.
8. POLE MOUNTED CAMERA ASSEMBLIES MUST BE LOCATED OUTSIDE THE CLEAR ZONE. REFER TO PLAN SHEET FOR SETBACK DISTANCE.
9. EXISTING SPEED LIMIT SIGNS MAY BE RELOCATED AT SHOWN ON PLANS.



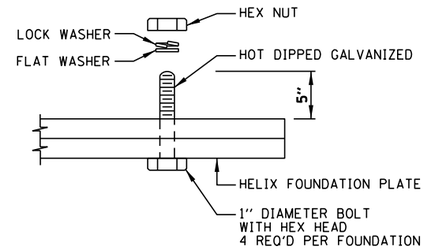

RADAR SPEED SIGN DETAIL
NOT TO SCALE




CCTV POLE DETAIL
NOT TO SCALE




HELIX FOUNDATION
NO SCALE




HELIX FOUNDATION
BASE ATTACHMENT DETAIL
NOT TO SCALE

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JACOBS
525 WEST MONROE
CHICAGO IL, 60661
312-251-3000

| | | |
|---|---|---|
| USER NAME = | DESIGNED - CH | REVISED - ___ |
| | DRAWN - KB, DL | REVISED - ___ |
| PLOT SCALE = | CHECKED - KG | REVISED - ___ |
| PLOT DATE = 1/23/2014 | DATE - $DATE | REVISED - ___ |

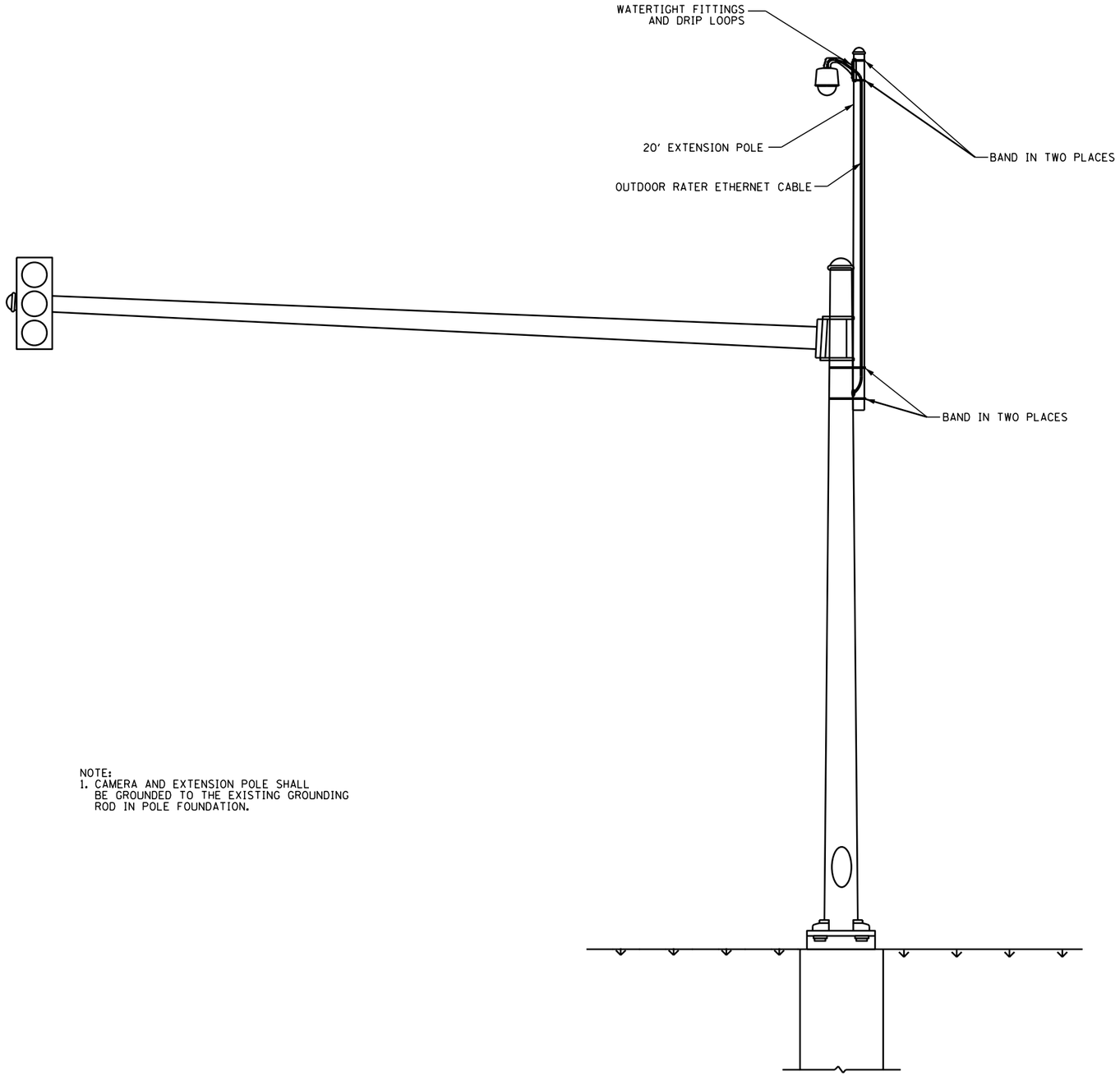
**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

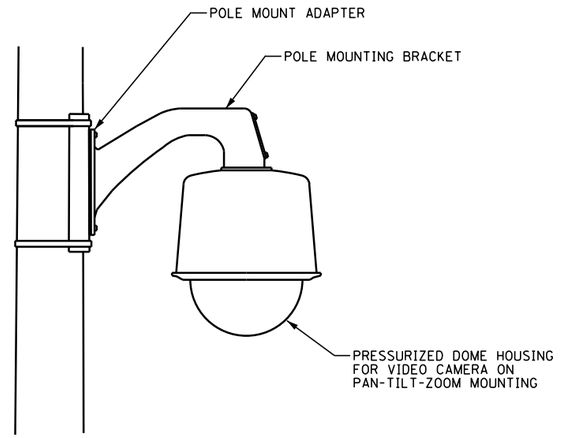
**RADAR SPEED SIGN AND CCTV POLE DETAIL**

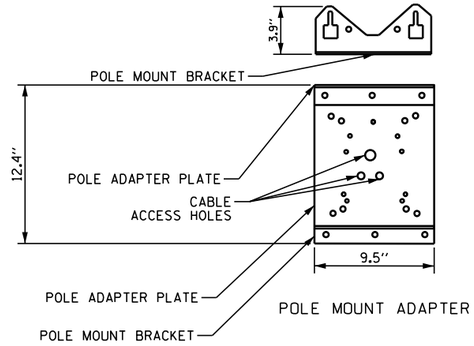
SCALE: | SHEET NO. __ OF ___ SHEETS | STA. _____ TO STA. _____

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 361 | 11-00214-00-TL | KANE | 44 | 29 |
| | | CONTRACT NO. XXXXX | | |
| FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT | | |

1/23/2014




NOTE:
1. CAMERA AND EXTENSION POLE SHALL BE GROUNDED TO THE EXISTING GROUNDING ROD IN POLE FOUNDATION.

DOME CAMERA INSTALLATION ON SIGNAL POLE
NOT TO SCALE

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JACOBS
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CHICAGO IL, 60661
312-251-3000

| | | | |
|---|---|---|---|
| USER NAME = | DESIGNED - CH | REVISED - | |
| | DRAWN - KB, DL | REVISED - | |
| PLOT SCALE = | CHECKED - KG | REVISED - | |
| PLOT DATE = 1/23/2014 | DATE - $DATE | REVISED - | |

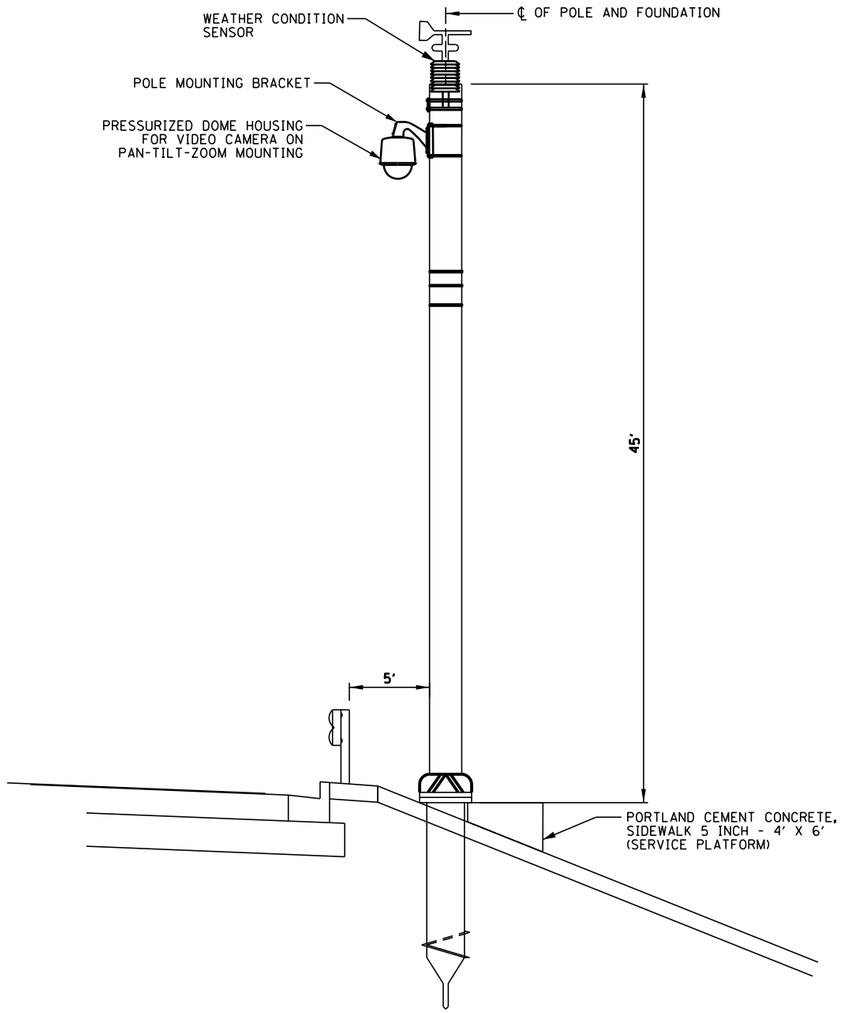
**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

**CCTV EXTENSION POLE AND FOUNDATION DETAIL**

SCALE: | SHEET NO. __ OF ___ SHEETS | STA. _____ TO STA. _____

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 361 | 11-00214-00-TL | KANE | 44 | 30 |
| | | CONTRACT NO. XXXXX | | |
| FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT | | |

1/23/2014




NOTE:

1. SERVICE PLATFORM SHALL HAVE A MAXIMUM SLOPE OF 1.5%

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JACOBS
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CHICAGO IL, 60661
312-251-3000

| | | | |
|---|---|---|---|
| USER NAME = | DESIGNED - CH | REVISED - ___ | |
| | DRAWN - KB, DL | REVISED - ___ | |
| PLOT SCALE = | CHECKED - KG | REVISED - ___ | |
| PLOT DATE = 1/23/2014 | DATE - $DATE | REVISED - ___ | |

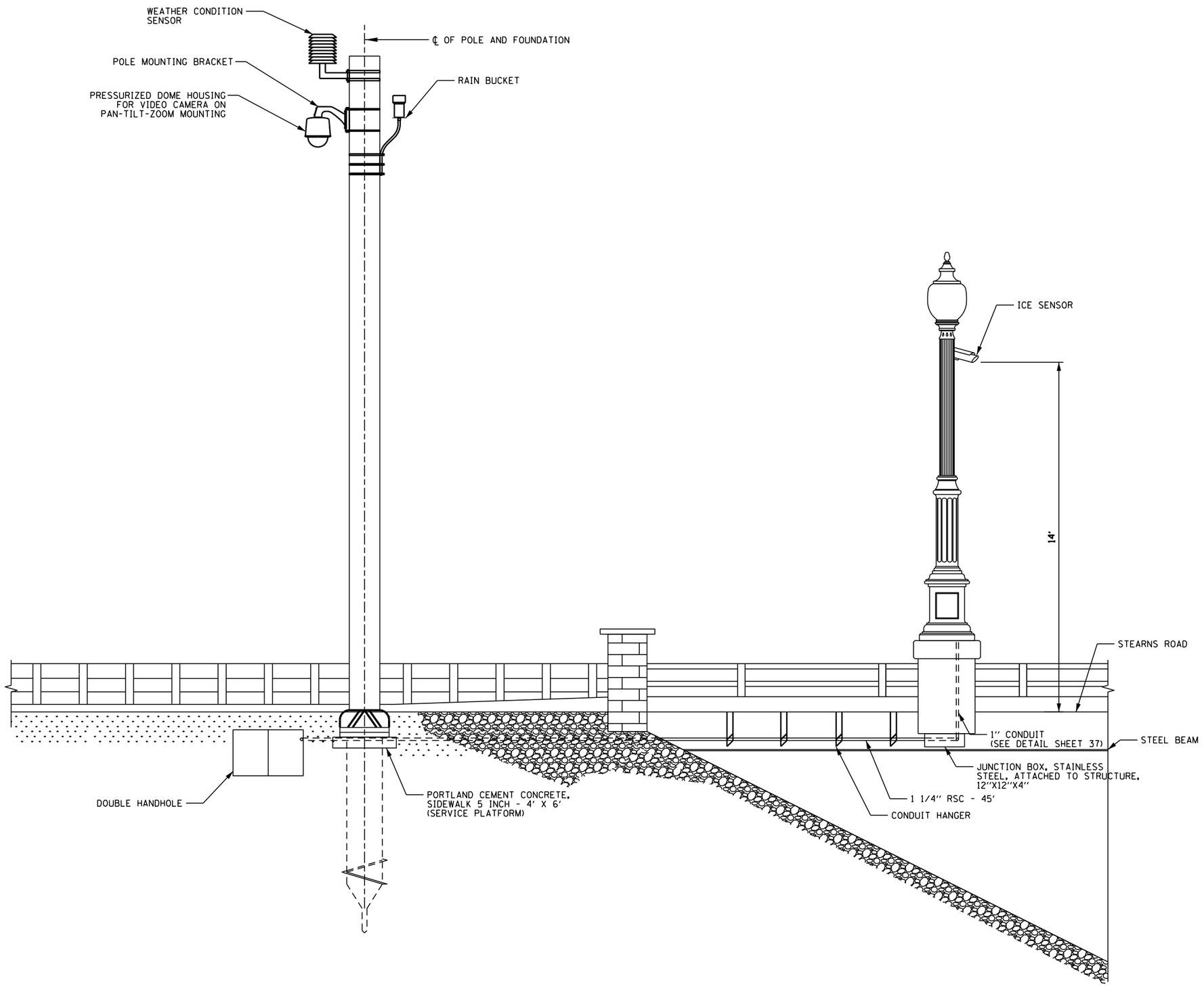
**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

**ROAD WEATHER INFORMATION SYSTEM DETAIL**

SCALE: | SHEET NO. __ OF ___ SHEETS | STA. _____ TO STA. _____

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 361 | 11-00214-00-TL | KANE | 44 | 31 |
| | | CONTRACT NO. XXXXX | | |
| FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT | | |

1/23/2014

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JACOBS
525 WEST MONROE
CHICAGO IL, 60661
312-251-3000


| | | |
|---|---|---|
| USER NAME = | DESIGNED - CH | REVISED - ___ |
| | DRAWN - KB, DL | REVISED - ___ |
| PLOT SCALE = | CHECKED - KG | REVISED - ___ |
| PLOT DATE = 1/23/2014 | DATE - *DATE | REVISED - ___ |

**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

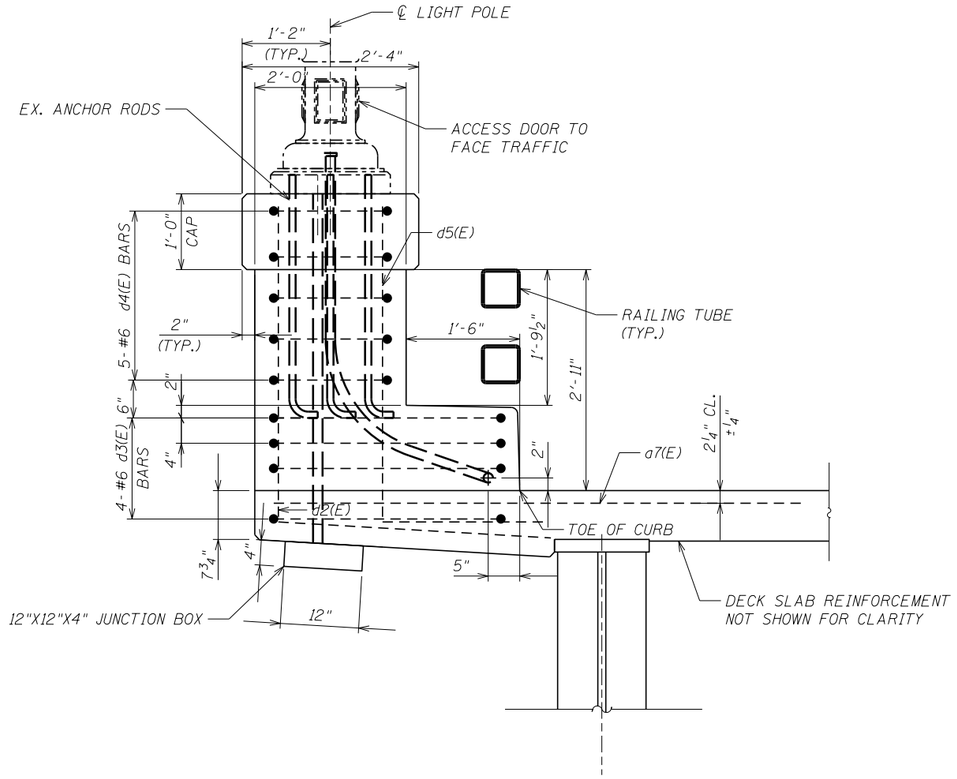
**ROAD WEATHER INFORMATION SYSTEM DETAIL**

SCALE: | SHEET NO. __ OF ___ SHEETS | STA. _____ TO STA. _____

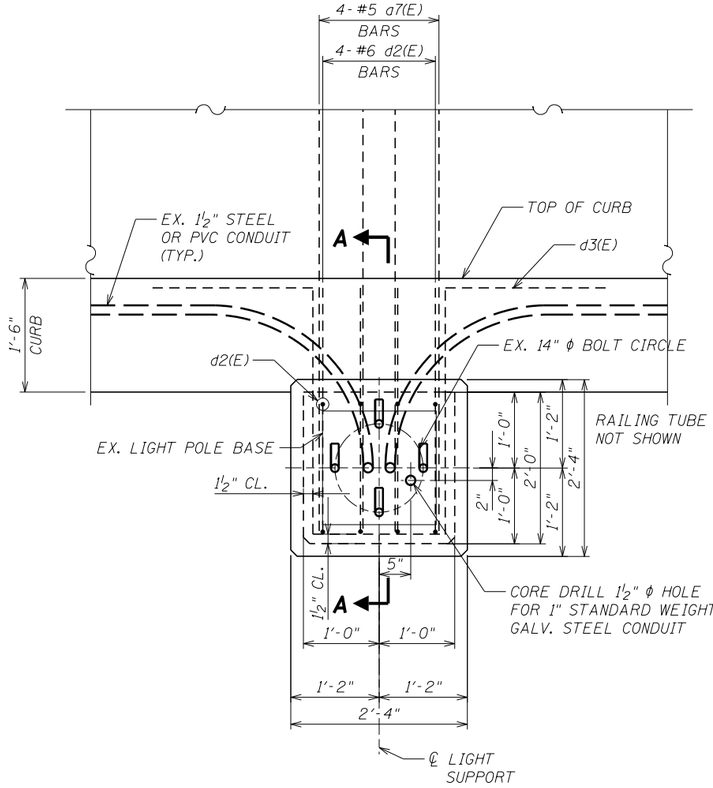
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 361 | 11-00214-00-TL | KANE | 44 | 32 |
| | | CONTRACT NO. XXXXX | | |

FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT

1/23/2014




**SECTION A-A**




**PLAN**

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525 WEST MONROE
CHICAGO IL. 60661
312-251-3000


| | | |
|---|---|---|
| USER NAME = | DESIGNED - CH | REVISED - ___ |
| | DRAWN - KB, DL | REVISED - ___ |
| PLOT SCALE = | CHECKED - KG | REVISED - ___ |
| PLOT DATE = 1/23/2014 | DATE - $DATE | REVISED - ___ |

**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

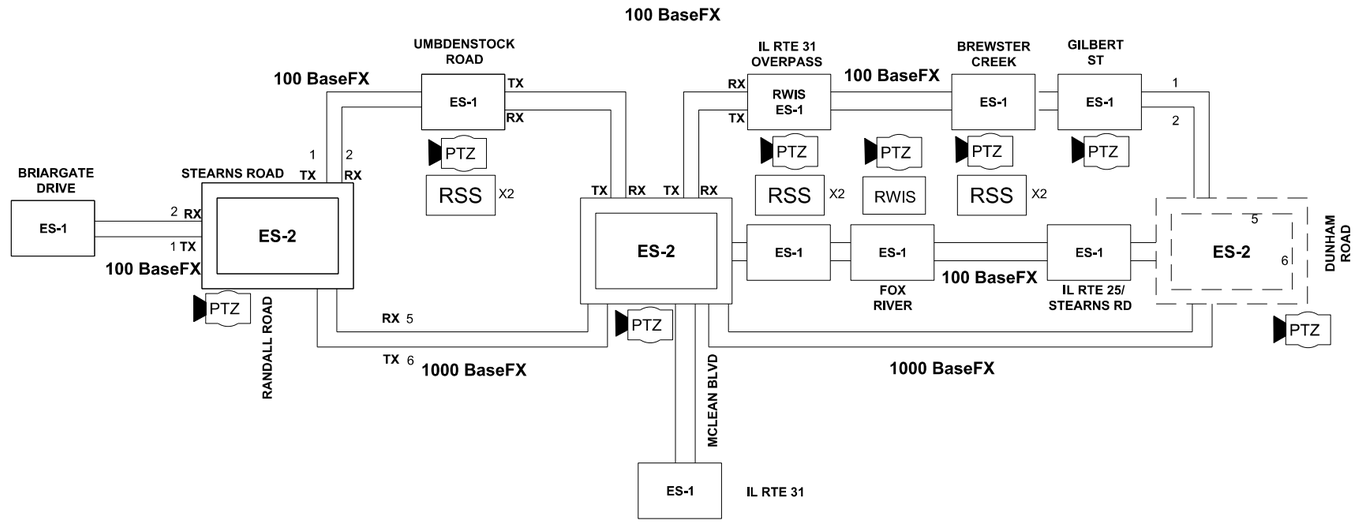
**LIGHTING FOUNDATION CONDUIT CORE DETAIL**

SCALE: | SHEET NO. __ OF ___ SHEETS | STA. _____ TO STA. _____

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 361 | 11-00214-00-TL | KANE | 44 | 33 |
| | | CONTRACT NO. XXXXX | | |

FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT

1/23/2014




# LEGEND

EXISTING

PROPOSED

ETHERNET SWITCH – TYPE 2

ETHERNET SWITCH – TYPE 1

PTZ — PAN/TILT/ZOOM CCTV CAMERA
(SEE CABINET DETAIL AND FIBER OPTIC SPLICING DIAGRAMS FOR DETAILS)

FIBER OPTIC CONNECTION

CAT-5e CONNECTION

CONTROL CABINET

DFS — DRIVER FEEDBACK SIGN

3 — FIBER NUMBER

RX — RECEIVE (CONNECTION ON GBIC MODULE)

TX — TRANSMIT (CONNECTION ON GBIC MODULE)

# NOTES

1. THE CONTRACTOR SHALL PROVIDE SOFTWARE ON A LAPTOP COMPUTER TO EMULATE THE OPERATIONS AT THE TRAFFIC MANAGEMENT CENTER. USING THE LAPTOP, THE CONTRACTOR WILL DEVELOP AND EXECUTE A TEST PLAN THAT DEMONSTRATES THAT ALL DEVICES, INSTALLED AS PART OF THIS PROJECT CAN BE CONTROLLED AT RANDALL RD USING THE NEW COMMUNICATIONS NETWORK..

2. THE TEST PLAN SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL A MINIMUM OF 30 DAYS PRIOR TO ANY TESTING.

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JACOBS
525 WEST MONROE
CHICAGO IL, 60661
312-251-3000

| | | |
|---|---|---|
| USER NAME = | DESIGNED - CH | REVISED - ___ |
| | DRAWN - KB, DL | REVISED - ___ |
| PLOT SCALE = | CHECKED - KG | REVISED - ___ |
| PLOT DATE = 1/23/2014 | DATE - $DATE | REVISED - ___ |

**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

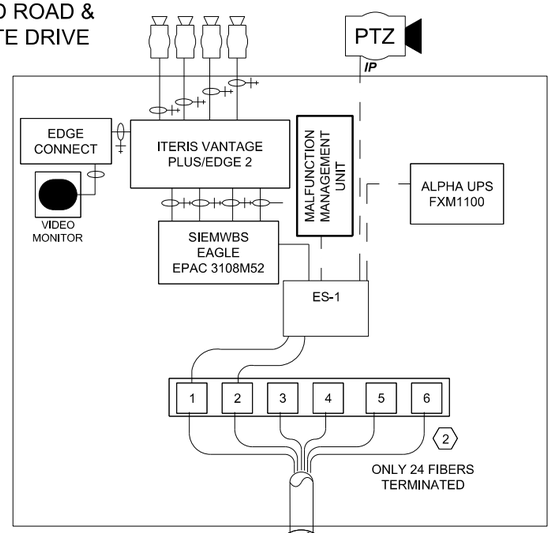
**FIBER OPTIC NETWORK DESIGN**

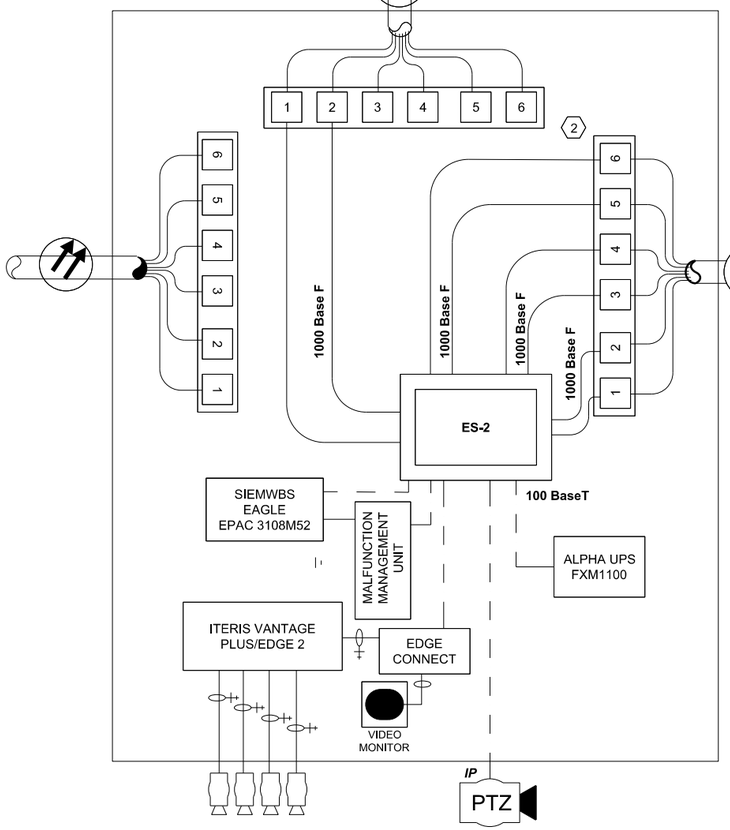
SCALE: | SHEET NO. __ OF ___ SHEETS | STA. _____ TO STA. _____

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 361 | 11-00214-00-TL | KANE | 44 | 34 |
| | | CONTRACT NO. XXXXX | | |
| FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT | | |

1/23/2014

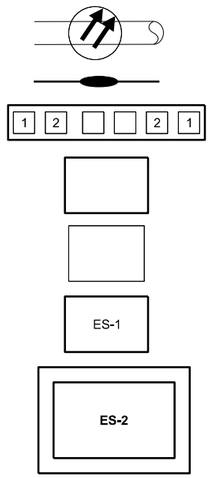
# McDONALD ROAD & BRIARGATE DRIVE




STEARNS ROAD & RANDALL ROAD

# LEGEND




FIBER OPTIC CABLE, BUFFER TUBE

OPTICAL FIBER WITH FUSION SPLICE

FIBER OPTIC CABLE, TERMINATION PANEL

EQUIPMENT TO BE INSTALLED

EXISTING EQUIPMENT

ETHERNET SWITCH, TYPE 1

ETHERNET SWITCH, TYPE 2

OPTICAL FIBER

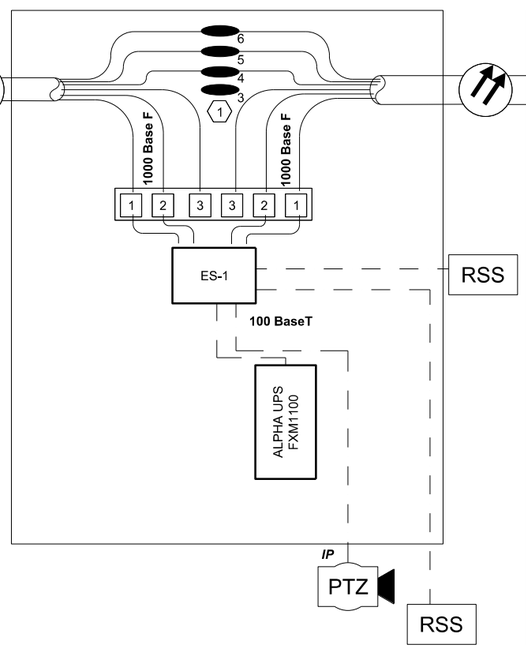
CAT-5E TWISTED-PAIR CABLE

N

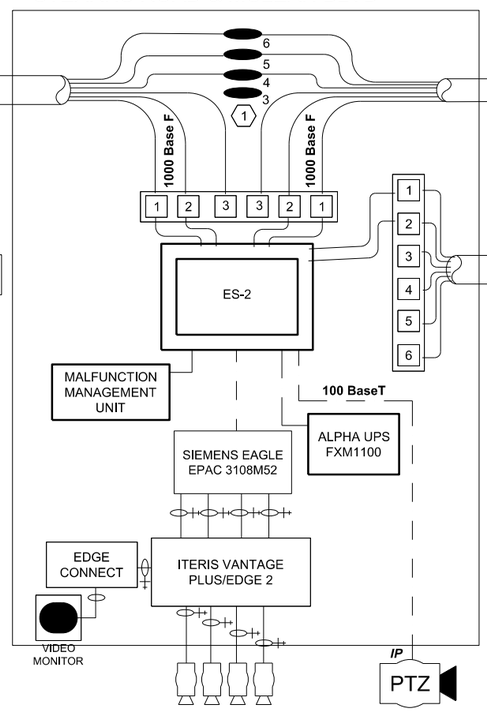
NOTES:

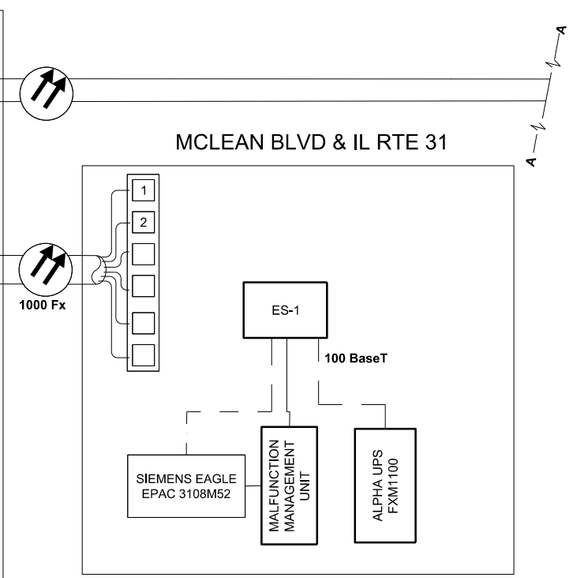
1. SPLICE THROUGH SM FIBERS 7-24. (**FIBER TERMINATION, 6 FIBERS**)
2. TERMINATE ALL SM FIBERS. (**FIBER TERMINATION, 36 FIBERS**)
3. ALL FIBERS, 1-6 , ARE IN THE BLUE BUFFER TUBE

STEARNS ROAD & UMBDENSTOCK ROAD




STEARNS ROAD & MCLEAN BLVD




TERMINATE 36 FIBERS ON MCLEAN BLVD AT STEARNS RD AND IL RTE 31

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JACOBS
525 WEST MONROE
CHICAGO IL, 60661
312-251-3000


| | | |
|---|---|---|
| USER NAME = | DESIGNED - CH | REVISED - ___ |
| | DRAWN - KB, DL | REVISED - ___ |
| PLOT SCALE = | CHECKED - KG | REVISED - ___ |
| PLOT DATE = 1/23/2014 | DATE - $DATE | REVISED - ___ |

**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

**CABINET DETAILS AND FIBER OPTIC SPLICING DIAGRAM**

SCALE: | SHEET NO. __ OF ___ SHEETS | STA. _____ TO STA. _____

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 361 | 11-00214-00-TL | KANE | 44 | 35 |
| | | CONTRACT NO. XXXXX | | |

FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT

1/23/2014

# LEGEND

FIBER OPTIC CABLE, BUFFER TUBE

OPTICAL FIBER WITH FUSION SPLICE

FIBER OPTIC CABLE, TERMINATION PANEL

EQUIPMENT TO BE INSTALLED

EXISTING EQUIPMENT

ES-1 — ETHERNET SWITCH, TYPE 1

ES-2 — ETHERNET SWITCH, TYPE 2

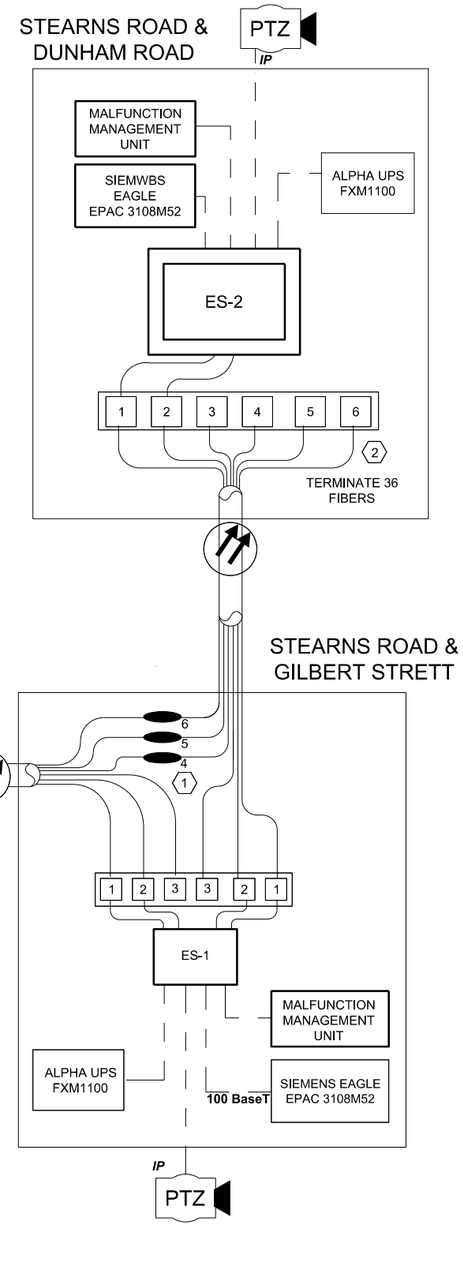
OPTICAL FIBER

CAT-5E TWISTED-PAIR CABLE

N

NOTES:

1. SPLICE THROUGH SM FIBERS 7-24. (**FIBER TERMINATION, 6 FIBERS**)
2. TERMINATE ALL SM FIBERS. (**FIBER TERMINATION, 36 FIBERS**)
3. ALL FIBERS, 1-6 , ARE IN THE BLUE BUFFER TUBE

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JACOBS
525 WEST MONROE
CHICAGO IL, 60661
312-251-3000


| | | |
|---|---|---|
| USER NAME = | DESIGNED - CH | REVISED - ___ |
| | DRAWN - KB, DL | REVISED - ___ |
| PLOT SCALE = | CHECKED - KG | REVISED - ___ |
| PLOT DATE = 1/23/2014 | DATE - *DATE_____ | REVISED - ___ |

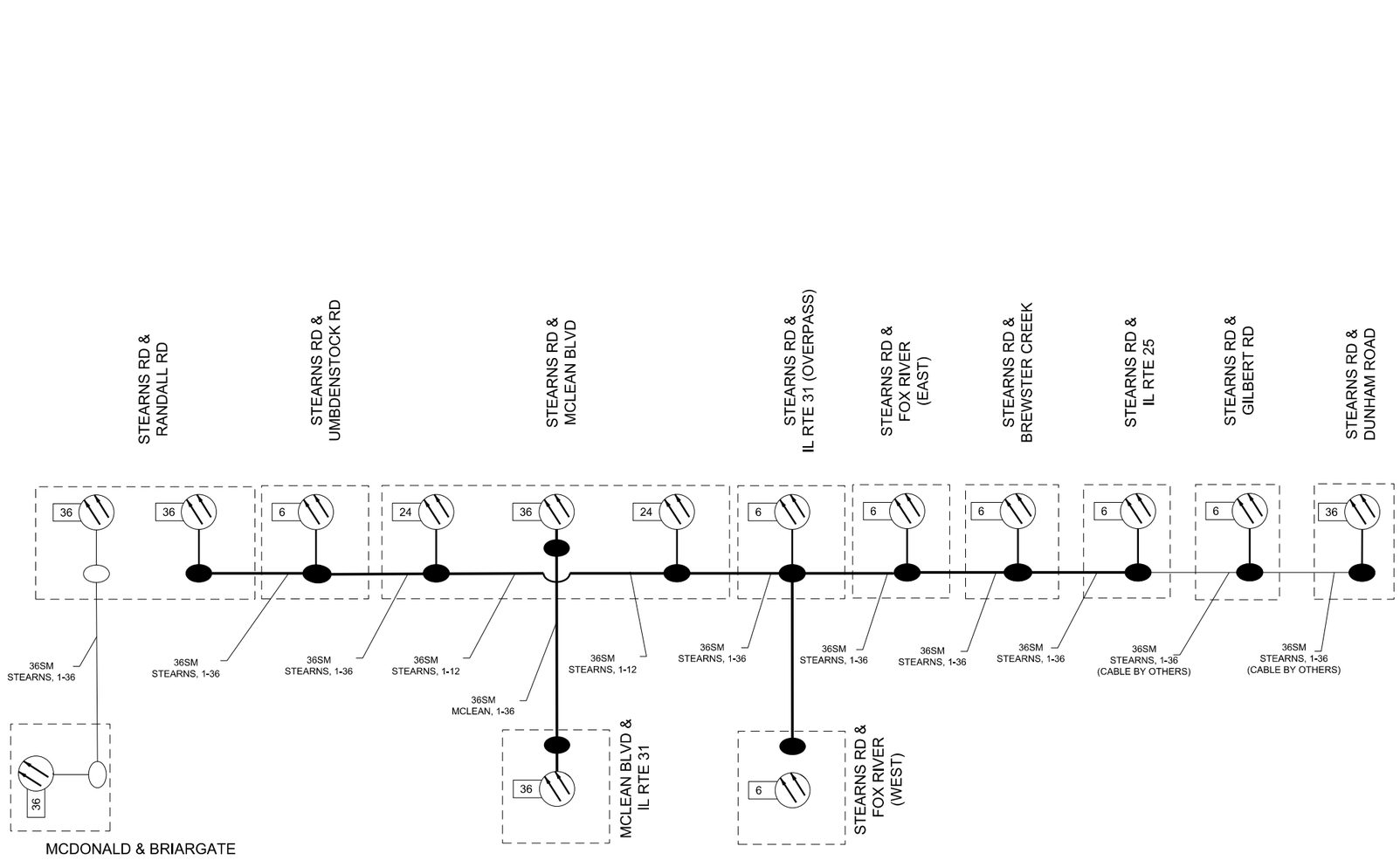
**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

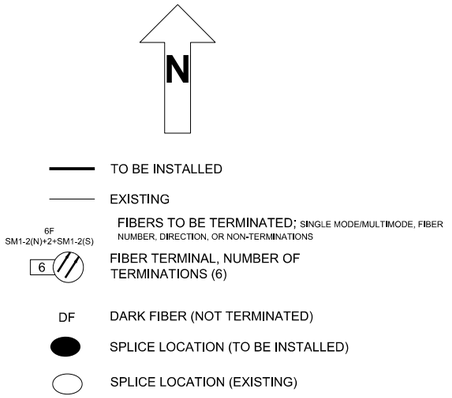
**CABINET DETAIL AND FIBER OPTIC SPLICING DIAGRAM**

SCALE: | SHEET NO. __ OF ___ SHEETS | STA. _____ TO STA. _____

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 361 | 11-00214-00-TL | KANE | 44 | 36 |
| | | CONTRACT NO. XXXXX | | |
| FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT | | |

1/23/2014




SCHEDULE OF QUANTITIES - STEARNS ROAD AND IL RTE 25

| PAY ITEM | UNIT | QUANTITY |
|---|---|---|
| INNERDUCT | FOOT | 18445 |
| 36 SM FO | FOOT | 21614 |
| F.O. TERMINATION 6 CNT | EACH | 7 |
| F.O. TERMINATION 24 CNT | EACH | 2 |
| F.O. TERMINATION 36 CNT | EACH | 6 |
| NETWORK CONFIGURATION | EACH | 1 |

P:_2013\C94X13900\700 CADD\CABINET DIAGRAM_3.dgn

JACOBS
525 WEST MONROE
CHICAGO IL, 60661
312-251-3000

| | | |
|---|---|---|
| USER NAME = | DESIGNED - CH | REVISED - ___ |
| | DRAWN - KB, DL | REVISED - ___ |
| PLOT SCALE = | CHECKED - KG | REVISED - ___ |
| PLOT DATE = 1/23/2014 | DATE - $DATE | REVISED - ___ |

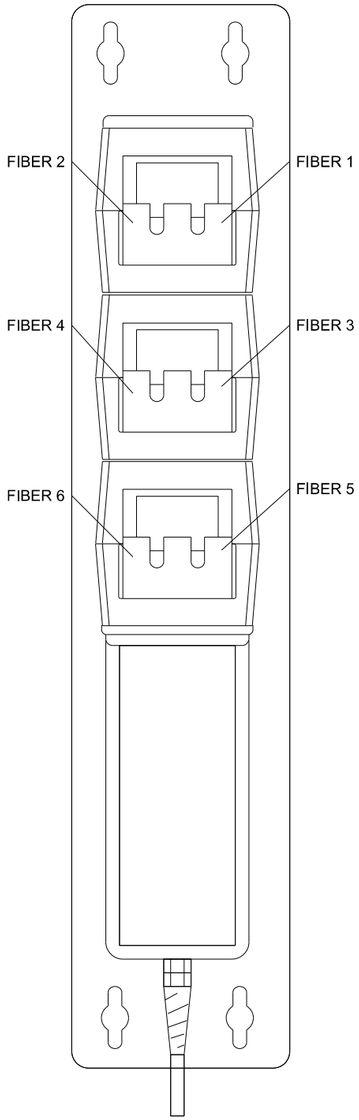
**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

**CABINET DETAIL AND FIBER OPTIC SPLICING DIAGRAM**

SCALE: | SHEET NO. __ OF ___ SHEETS | STA. _____ TO STA. _____

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 361 | 11-00214-00-TL | KANE | 44 | 37 |
| | | CONTRACT NO. XXXXX | | |
| FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT | | |

1/23/2014




| GATOR PATCH FIBER NUMBER | UMBDEN STOCK | IL RTE 31 | IL RTE 31 RWIS | FOX RIVER (WEST) | FOX RIVER (EAST) | BREWSTER CREEK | IL RTE 25 | GILBERT ST |
|---|---|---|---|---|---|---|---|---|
| 1 - BLUE | E1-BLU | E4-BRN | E1-BLU | E1-BLU | E4-BRN | E1-BLU | E4-BRN | E1-BLU |
| 2 - ORANGE | E2-ORG | E5-SLA | E2-ORG | E2-ORG | E5-SLA | E2-ORG | E5-SLA | E2-ORG |
| 3 - GREEN | E3-GRN | E6-WHT | E3-GRN | E3-GRN | E6-WHT | E3-GRN | E6-WHT | E3-GRN |
| 4 - BROWN | W3-GRN | W6-WHT | W3-GRN | W3-GRN | W6-WHT | W3-GRN | W6-WHT | W3-GRN |
| 5 - SLATE | W2-ORG | W5-SLA | W2-ORG | W2-ORG | W5-SLA | W2-ORG | W5-SLA | W2-ORG |
| 6 - WHITE | W1-BLU | W4-BRN | W1-BLU | W1-BLU | W4-BRN | W1-BLU | W4-BRN | W1-BLU |
| FIBER NUMBER IN BACKBONE SHEATH | | | | | | | | |
| BLUE | BLUE | BLUE | BLUE | BLUE | BLUE | BLUE | BLUE | |
| BUFFER TUBE COLOR IN BACKBONE SHEATH | | | | | | | | |

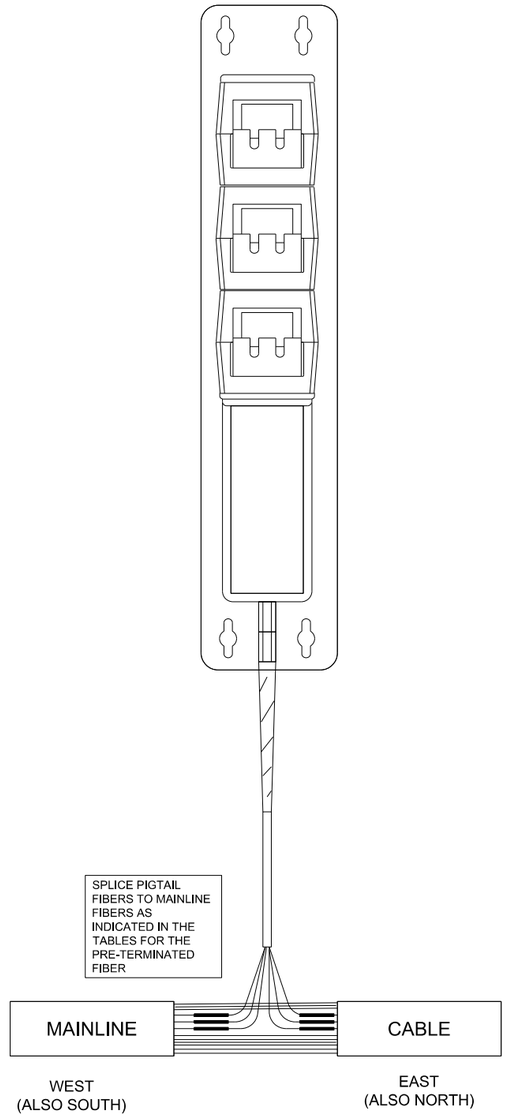
# PRE-TERMITNATED FIBER ASSIGNMENTS




DRAWING IS TYPICAL, SCHEMATIC AND NOT TO SCALE




DRAWING IS TYPICAL, SCHEMATIC AND NOT TO SCALE




P:_2013\CIV\13908\700 CADD\GATOR PATCH.dgn

JACOBS
525 WEST MONROE
CHICAGO IL, 60661
312-251-3000

| | | | |
|---|---|---|---|
| USER NAME = | DESIGNED - CH | REVISED - | |
| | DRAWN - KB, DL | REVISED - | |
| PLOT SCALE = | CHECKED - KG | REVISED - | |
| PLOT DATE = 1/23/2014 | DATE - $DATE | REVISED - | |

**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

**PRE-TERMINATED FIBER ASSIGNEMTS**

SCALE: | SHEET NO. __ OF ___ SHEETS | STA. _____ TO STA. _____

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 361 | 11-00214-00-TL | KANE | 44 | 38 |
| | | CONTRACT NO. XXXXX | | |
| FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT | | |

1/23/2014

| FIBER | TUBE | FIBER | CABLE IDENT FIBER NUMBER | | CONNECTION | | | | | | RANDALL RD | UMBDENSTOCK | MCLEAN | RTE 31 OVERPASS | RTE31 OVERPASS FOR RWIS | FOX RIVER | BREWSTER CREEK | IL RTE 25 | GILBERT ST | DUNHAM RD | CONNECTION | COMMENT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | BLUE | BLU | STEARNS | 1 | | | | | | | T | E/W | E/W | | E/W | | E/W | | E/W | T | | |
| 2 | | ORG | | 2 | | | | | | | T | E/W | E/W | | E/W | | E/W | | E/W | T | | |
| 3 | | GRN | | 3 | | | | | | | T | E/W | E/W | | E/W | | E/W | | E/W | T | | |
| 4 | | BRN | | 4 | | | | | | | T | | E/W | E/W | | W/E | | W/E | | T | | PATCHED AT MCLEAN |
| 5 | | SLA | | 5 | | | | | | | T | | E/W | E/W | | W/E | | W/E | | T | | PATCHED AT MCLEAN |
| 6 | | WHT | | 6 | | | | | | | T | | E/W | E/W | | W/E | | W/E | | T | | PATCHED AT MCLEAN |
| 7 | | RED | | 7 | | | | | | | T | | E/W | | | | | | | T | | |
| 8 | | BLK | | 8 | | | | | | | T | | E/W | | | | | | | T | | |
| 9 | | YEL | | 9 | | | | | | | T | | E/W | | | | | | | T | | |
| 10 | | VIO | | 10 | | | | | | | T | | E/W | | | | | | | T | | |
| 11 | | ROSE | | 11 | | | | | | | T | | E/W | | | | | | | T | | |
| 12 | | AQUA | | 12 | | | | | | | T | | E/W | | | | | | | T | | |
| 13 | ORANGE | BLU | STEARNS | 13 | | | | | | | T | | E/W | | | | | | | T | | |
| 14 | | ORG | | 14 | | | | | | | T | | E/W | | | | | | | T | | |
| 15 | | GRN | | 15 | | | | | | | T | | E/W | | | | | | | T | | |
| 16 | | BRN | | 16 | | | | | | | T | | E/W | | | | | | | T | | |
| 17 | | SLA | | 17 | | | | | | | T | | E/W | | | | | | | T | | |
| 18 | | WHT | | 18 | | | | | | | T | | E/W | | | | | | | T | | |
| 19 | | RED | | 19 | | | | | | | T | | E/W | | | | | | | T | | |
| 20 | | BLK | | 20 | | | | | | | T | | E/W | | | | | | | T | | |
| 21 | | YEL | | 21 | | | | | | | T | | E/W | | | | | | | T | | |
| 22 | | VIO | | 22 | | | | | | | T | | E/W | | | | | | | T | | |
| 23 | | ROSE | | 23 | | | | | | | T | | E/W | | | | | | | T | | |
| 24 | | AQUA | | 24 | | | | | | | T | | E/W | | | | | | | T | | |
| 25 | GREEN | BLU | STEARNS | 25 | | | | | | | T | | S | | | | | | | T | | |
| 26 | | ORG | | 26 | | | | | | | T | | S | | | | | | | T | | |
| 27 | | GRN | | 27 | | | | | | | T | | S | | | | | | | T | | |
| 28 | | BRN | | 28 | | | | | | | T | | S | | | | | | | T | | |
| 29 | | SLA | | 29 | | | | | | | T | | S | | | | | | | T | | |
| 30 | | WHT | | 30 | | | | | | | T | | S | | | | | | | T | | |
| 31 | | RED | | 31 | | | | | | | T | | S | | | | | | | T | | |
| 32 | | BLK | | 32 | | | | | | | T | | S | | | | | | | T | | |
| 33 | | YEL | | 33 | | | | | | | T | | S | | | | | | | T | | |
| 34 | | VIO | | 34 | | | | | | | T | | S | | | | | | | T | | |
| 35 | | ROSE | | 35 | | | | | | | T | | S | | | | | | | T | | |
| 36 | | AQUA | | 36 | | | | | | | T | | S | | | | | | | T | | |

P:_2013\C1X13900\700 CADD\FIBER ASSIGNMENTS.dgn

JACOBS
525 WEST MONROE
CHICAGO IL, 60661
312-251-3000

| | | | |
|---|---|---|---|
| USER NAME = | DESIGNED - CH | REVISED - ___ | KANE COUNTY DIVISION OF TRANSPORTATION |
| | DRAWN - KB, DL | REVISED - ___ | |
| PLOT SCALE = | CHECKED - KG | REVISED - ___ | FIBER ASSIGNMENTS |
| PLOT DATE = 1/23/2014 | DATE - $DATE | REVISED - ___ | SCALE: SHEET NO. __ OF ___ SHEETS STA. _____ TO STA. _____ |

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 361 | 11-00214-00-TL | KANE | 44 | 39 |
| | | CONTRACT NO. XXXXX | | |
| FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT | | |

1/23/2014

| FIBER | TUBE | FIBER | CABLE IDENT FIBER NUMBER | | CONNECTION | STEARNS | | | IL RTE 31 | CONNECTION | COMMENT |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | BLUE | BLU | MCLEAN | 1 | STEARNS/MCLEAN LINK | T | | | T | STEARNS/MCLEAN LINK | |
| 2 | | ORG | | 2 | STEARNS/MCLEAN LINK | T | | | T | STEARNS/MCLEAN LINK | |
| 3 | | GRN | | 3 | | T | | | T | | |
| 4 | | BRN | | 4 | | T | | | T | | |
| 5 | | SLA | | 5 | | T | | | T | | |
| 6 | | WHT | | 6 | | T | | | T | | |
| 7 | | RED | | 7 | | T | | | T | | |
| 8 | | BLK | | 8 | | T | | | T | | |
| 9 | | YEL | | 9 | | T | | | T | | |
| 10 | | VIO | | 10 | | T | | | T | | |
| 11 | | ROSE | | 11 | | T | | | T | | |
| 12 | | AQUA | | 12 | | T | | | T | | |
| 13 | ORANGE | BLU | MCLEAN | 13 | | T | | | T | | |
| 14 | | ORG | | 14 | | T | | | T | | |
| 15 | | GRN | | 15 | | T | | | T | | |
| 16 | | BRN | | 16 | | T | | | T | | |
| 17 | | SLA | | 17 | | T | | | T | | |
| 18 | | WHT | | 18 | | T | | | T | | |
| 19 | | RED | | 19 | | T | | | T | | |
| 20 | | BLK | | 20 | | T | | | T | | |
| 21 | | YEL | | 21 | | T | | | T | | |
| 22 | | VIO | | 22 | | T | | | T | | |
| 23 | | ROSE | | 23 | | T | | | T | | |
| 24 | | AQUA | | 24 | | T | | | T | | |
| 25 | GREEN | BLU | MCLEAN | 25 | | T | | | T | | |
| 26 | | ORG | | 26 | | T | | | T | | |
| 27 | | GRN | | 27 | | T | | | T | | |
| 28 | | BRN | | 28 | | T | | | T | | |
| 29 | | SLA | | 29 | | T | | | T | | |
| 30 | | WHT | | 30 | | T | | | T | | |
| 31 | | RED | | 31 | | T | | | T | | |
| 32 | | BLK | | 32 | | T | | | T | | |
| 33 | | YEL | | 33 | | T | | | T | | |
| 34 | | VIO | | 34 | | T | | | T | | |
| 35 | | ROSE | | 35 | | T | | | T | | |
| 36 | | AQUA | | 36 | | T | | | T | | |

| FIBER | TUBE | FIBER | CABLE IDENT FIBER NUMBER | | CONNECTION | RANDALL RD | | | MCDONALD RD | CONNECTION | COMMENT |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | BLUE | BLU | BRIARGATE | 1 | ITS SWITCH | T | | | T | ITS SWITCH | 100 M BPS LINK |
| 2 | | ORG | | 2 | ITS SWITCH | T | | | T | ITS SWITCH | 100 M BPS LINK |
| 3 | | GRN | | 3 | | T | | | T | | |
| 4 | | BRN | | 4 | | T | | | T | | |
| 5 | | SLA | | 5 | | T | | | T | | |
| 6 | | WHT | | 6 | | T | | | T | | |
| 7 | | RED | | 7 | | T | | | T | | |
| 8 | | BLK | | 8 | | T | | | T | | |
| 9 | | YEL | | 9 | | T | | | T | | |
| 10 | | VIO | | 10 | | T | | | T | | |
| 11 | | ROSE | | 11 | | T | | | T | | |
| 12 | | AQUA | | 12 | | T | | | T | | |
| 13 | ORANGE | BLU | BRIARGATE | 13 | | T | | | T | | |
| 14 | | ORG | | 14 | | T | | | T | | |
| 15 | | GRN | | 15 | | T | | | T | | |
| 16 | | BRN | | 16 | | T | | | T | | |
| 17 | | SLA | | 17 | | T | | | T | | |
| 18 | | WHT | | 18 | | T | | | T | | |
| 19 | | RED | | 19 | | T | | | T | | |
| 20 | | BLK | | 20 | | T | | | T | | |
| 21 | | YEL | | 21 | | T | | | T | | |
| 22 | | VIO | | 22 | | T | | | T | | |
| 23 | | ROSE | | 23 | | T | | | T | | |
| 24 | | AQUA | | 24 | | T | | | T | | |
| 25 | GREEN | BLU | BRIARGATE | 25 | | | | | | | |
| 26 | | ORG | | 26 | | | | | | | |
| 27 | | GRN | | 27 | | | | | | | |
| 28 | | BRN | | 28 | | | | | | | |
| 29 | | SLA | | 29 | | | | | | | |
| 30 | | WHT | | 30 | | | | | | | |
| 31 | | RED | | 31 | | | | | | | |
| 32 | | BLK | | 32 | | | | | | | |
| 33 | | YEL | | 33 | | | | | | | |
| 34 | | VIO | | 34 | | | | | | | |
| 35 | | ROSE | | 35 | | | | | | | |
| 36 | | AQUA | | 36 | | | | | | | |

P:\2013\C9X\13900\700 CAD\FIBER ASSIGNMENTS_2.dgn

JACOBS
525 WEST MONROE
CHICAGO IL, 60661
312-251-3000

| | | | |
|---|---|---|---|
| USER NAME = | DESIGNED - CH | REVISED - | |
| | DRAWN - KB, DL | REVISED - | |
| PLOT SCALE = | CHECKED - KG | REVISED - | |
| PLOT DATE = 1/23/2014 | DATE - $DATE | REVISED - | |

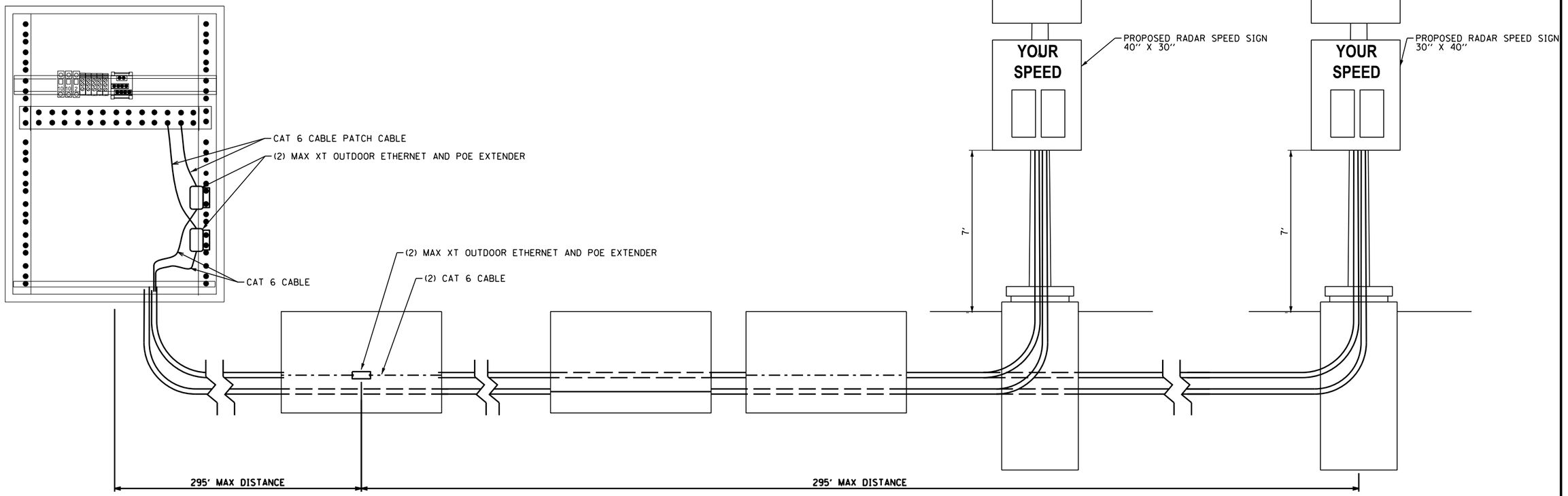
**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

**FIBER ASSIGNMENTS**

SCALE: | SHEET NO. __ OF ___ SHEETS | STA. _____ TO STA. _____

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 361 | 11-00214-00-TL | KANE | 44 | 40 |
| | | CONTRACT NO. XXXXX | | |
| FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT | | |

1/23/2014




RADAR SPEED SIGN DETAIL
NOT TO SCALE

P:_2013\C941390A\708 CADD\RSS Detail.dgn

JACOBS
525 WEST MONROE
CHICAGO IL. 60661
312-251-3000

| | | | |
|---|---|---|---|
| USER NAME = | DESIGNED - CH | REVISED - | |
| | DRAWN - KB, DL | REVISED - | |
| PLOT SCALE = | CHECKED - KG | REVISED - | |
| PLOT DATE = 1/23/2014 | DATE - $DATE | REVISED - | |

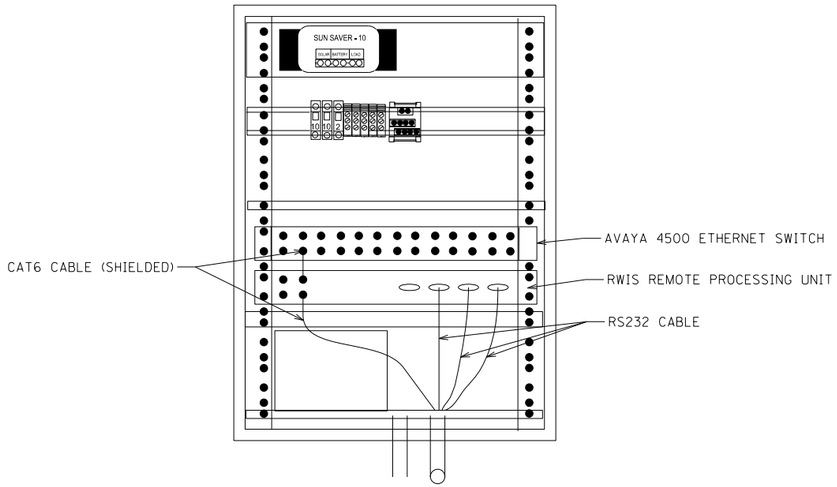
**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

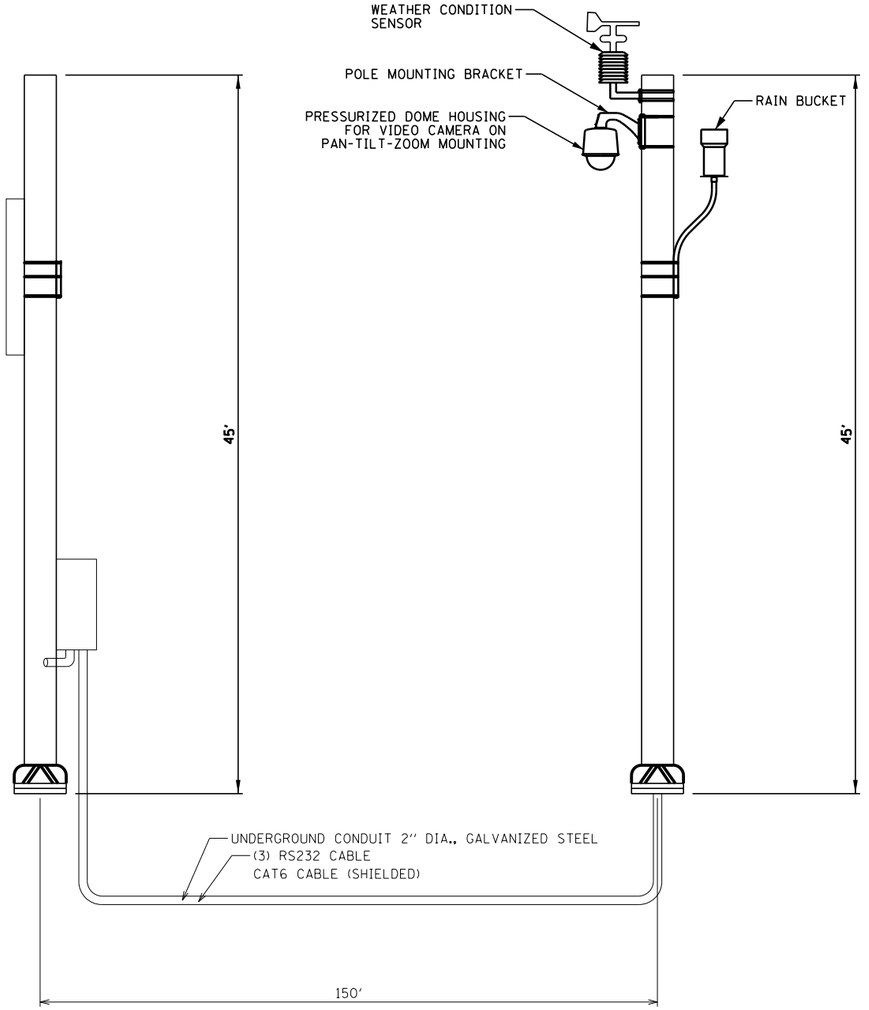
**RADAR SPEED SIGN DETAIL**

SCALE: | SHEET NO. __ OF ___ SHEETS | STA. _____ TO STA. _____

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 361 | 11-00214-00-TL | KANE | 44 | 41 |
| | | CONTRACT NO. XXXXX | | |
| FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT | | |

1/23/2014




P:\...2013\CMX13908\700 CADD\ITS System Detail.dgn


JACOBS
525 WEST MONROE
CHICAGO IL. 60661
312-251-3000


| | | |
|---|---|---|
| USER NAME = | DESIGNED - CH | REVISED - ___ |
| | DRAWN - KB, DL | REVISED - ___ |
| PLOT SCALE = | CHECKED - KG | REVISED - ___ |
| PLOT DATE = 1/23/2014 | DATE - $DATE | REVISED - ___ |

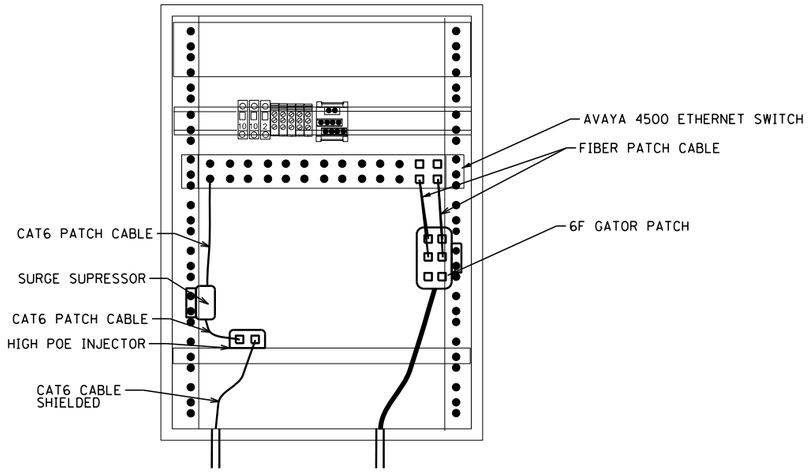
**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

**ITS SYSTEMS DETAIL**

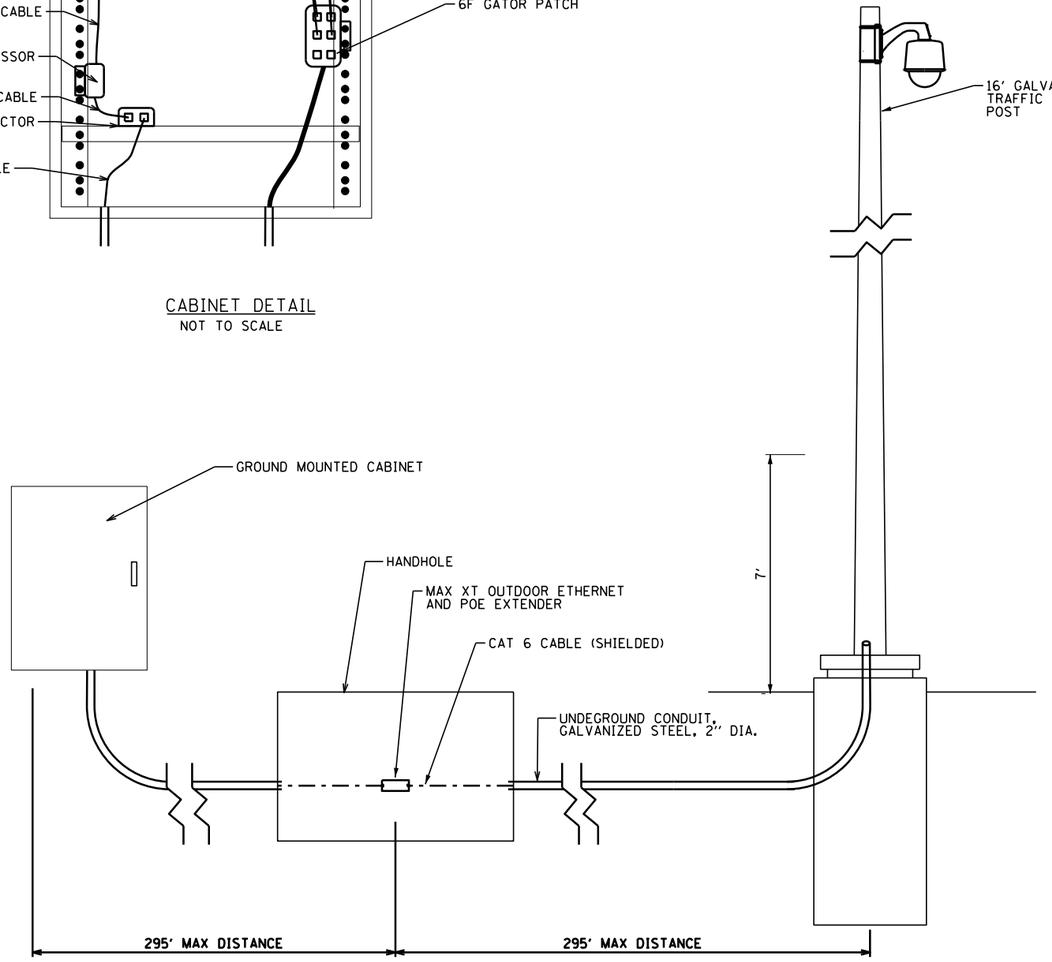
SCALE: | SHEET NO. __ OF ___ SHEETS | STA. _____ TO STA. _____

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 361 | 11-00214-00-TL | KANE | 44 | 42 |
| | | CONTRACT NO. XXXXX | | |
| FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT | | |

1/23/2014



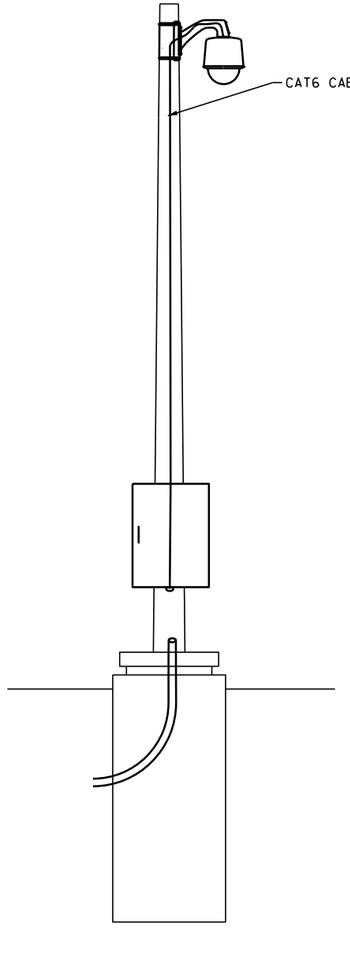

CABINET DETAIL
NOT TO SCALE




CCTV CAMERA DETAIL
NOT TO SCALE




CCTV CAMERA DETAIL
NOT TO SCALE




P:\2013\CSX\39000\700 CADD\Camera Replacement Detail.dgn

JACOBS
525 WEST MONROE
CHICAGO IL, 60661
312-251-3000

| | | | |
|---|---|---|---|
| USER NAME = | DESIGNED - CH | REVISED - | |
| | DRAWN - KB, DL | REVISED - | |
| PLOT SCALE = | CHECKED - KG | REVISED - | |
| PLOT DATE = 1/23/2014 | DATE - $DATE | REVISED - | |

**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

**CAMERA REPLACEMENT DETAIL**

SCALE: | SHEET NO. __ OF ___ SHEETS | STA. _____ TO STA. _____

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 361 | 11-00214-00-TL | KANE | 44 | 43 |
| | | CONTRACT NO. XXXXX | | |
| FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT | | |

1/23/2014

HANDHOLE
SPLICE
36-STRAND FIBER BACKBONE
ROUTED IN SAME PATHWAY ACROSS BRIDGE
HANDHOLE
SPLICE
RS485 (CAT6 SHIELDED)
RS485 (CAT6 SHIELDED)
DMS
6-STRAND SINGLEMODE FIBER
6-STRAND SINGLEMODE FIBER
DMS
MULTIMODE FIBER
12AWG (3 WIRE) 240v
ICE SENSOR
MULTIMODE FIBER
12 AWG (3 WIRE) 240v
FIBER PATCH CABLE
PRE-TERMINATED FIBER PATCH
DMS CONTROLLER
12AWG (2 WIRE) POWER
UPS
DMS CONTROLLER
FIBER PATCH CABLE
CAT 6
POWER SUPPLY
CAT 6
SWITCH
SWITCH
CAT6
CAT 6
CAT6
RWIS RPU
UPS
CAT6
POE INJECTOR
PRE-TERMINATED FIBER PATCH
POWER SUPPLY
RAIN TIPPING BUCKET
ENVIRONMENTAL SENSOR
CAMERA
FOX RIVER WEST (RWIS CABINET)
FOX RIVER EAST (CABINET)
RS485 (CAT6 SHIELDED)
12 AWG (2 WIRE)POWER
ICE SENSOR

LEGEND
FIBER
CAT6
POWER

P:_2013\CIVIL\9080\700 CAD\DRWIS_DMS_BLOCKDIAGRAM.dgn

JACOBS
525 WEST MONROE
CHICAGO IL, 60661
312-251-3000

| | | | |
|---|---|---|---|
| USER NAME = | DESIGNED - CH | REVISED - | |
| | DRAWN - KB, DL | REVISED - | |
| PLOT SCALE = | CHECKED - KG | REVISED - | |
| PLOT DATE = 1/23/2014 | DATE - $DATE | REVISED - | |

**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

**RWIS/DMS BLOCK DIAGRAM**

SCALE: | SHEET NO. __ OF __ SHEETS | STA. _____ TO STA. _____

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 361 | 11-00214-00-TL | KANE | 44 | 44 |
| | | CONTRACT NO. XXXXX | | |

FED. ROAD DIST. NO. _ | ILLINOIS | FED. AID PROJECT