

STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

PLANS FOR PROPOSED  
FEDERAL AID HIGHWAY

WOLF ROAD AT WILTSE DRIVE  
INTERSECTION IMPROVEMENTS  
TRAFFIC SIGNAL MODERNIZATION AND REPLACEMENT  
SECTION NO.: 23-00102-00-TL  
PROJECT NO. KBZK(227)  
CITY OF NORTHLAKE  
COOK COUNTY

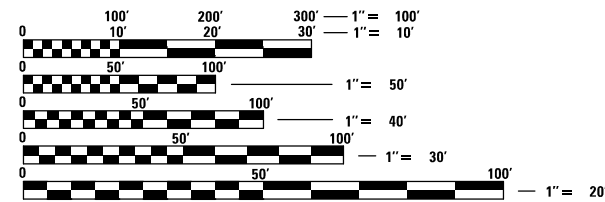
FOR INDEX OF SHEETS, SEE SHEET NO. 2

| F.A.U. RTE. | SECTION        | COUNTY   | TOTAL SHEETS       | SHEET NO. |
|-------------|----------------|----------|--------------------|-----------|
| 2690        | 23-00102-00-TL | COOK     | 39                 | 1         |
|             |                | ILLINOIS | CONTRACT NO. 61K94 |           |



**DESIGN DESIGNATION** FUNCTIONAL CLASSIFICATION: 5-MAJOR COLLECTOR  
DESIGN SPEED=30 M.P.H. (WOLF ROAD)  
POSTED SPEED=30 M.P.H. (WOLF ROAD)

**TRAFFIC DATA:** 2022  
ADT = 11,800 (WOLF ROAD)  
2,000 (WILTSE DRIVE)



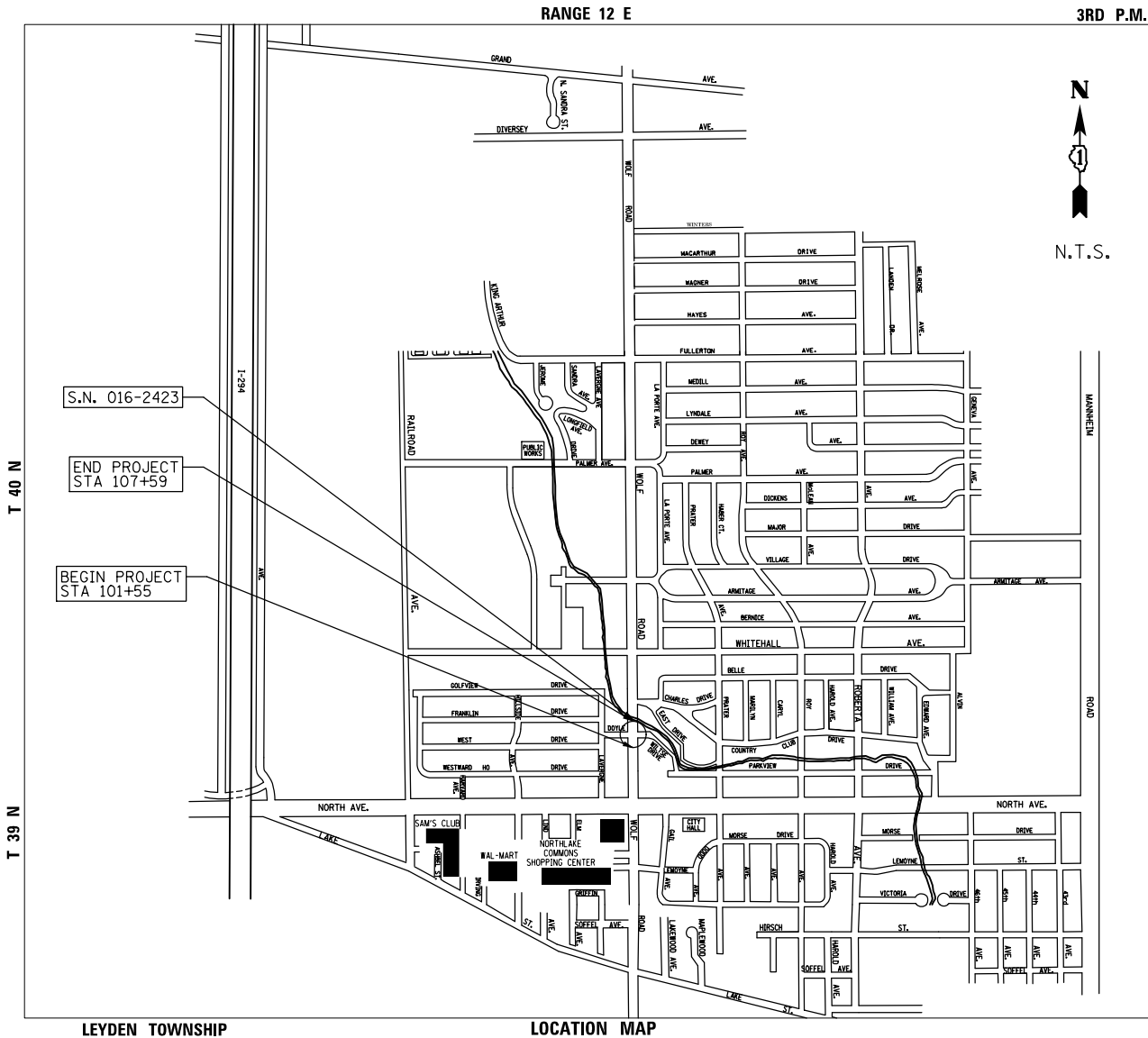
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

**CHRISTOPHER B. BURKE ENGINEERING, LTD.**  
9575 W. Higgins Road, Suite 600  
Rosemont, Illinois 60018  
(847) 823-0500

PROFESSIONAL DESIGN FIRM NO. 184-00175-0014  
EXPIRATION DATE: APRIL 30, 2025

CONTRACT NO. 61K94



LEYDEN TOWNSHIP N.T.S.  
GROSS LENGTH OF PROJECT = 604 FEET (0.12 MI.)  
NET LENGTH OF PROJECT = 604 FEET (0.12 MI.)

**JOSEPH DEFRENZA**  
REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS  
062-076672  
Joseph Defrenza  
ENGINEER  
9/30/24  
DATE  
ILLINOIS REGISTRATION No. 062-076672  
EXPIRATION DATE: 11/30/2025  
THIS SEAL AND SIGNATURE PERTAINS TO SHEETS 1-18, 39

**ELIZABETH A. JENSEN**  
LICENSED PROFESSIONAL ENGINEER OF ILLINOIS  
062-067808  
Elizabeth A. Jensen  
ENGINEER  
9/30/24  
DATE  
ILLINOIS REGISTRATION No. 062-067808  
EXPIRATION DATE: 11-30-2025  
THIS SEAL AND SIGNATURE PERTAINS TO SHEETS 19-32

**RICHARD J. JEZIERNY**  
REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS  
062-073769  
Richard J. Jezierny  
ENGINEER  
9/30/24  
DATE  
ILLINOIS REGISTRATION No. 062-073769  
EXPIRATION DATE: 11/30/25  
THIS SEAL AND SIGNATURE PERTAINS TO SHEETS 33-38

APPROVED  
CITY OF NORTHLAKE, MAYOR

PASSED  
DISTRICT 1 ENGINEER OF LOCAL ROADS AND STREETS  
NOV 7, 2024  
RELEASED FOR BID BASED ON LIMITED REVIEW  
NOV 7, 2024  
REGIONAL ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

FEDERAL AID PROGRAM ENGINEER: CARMEN E. RAMOS, P.E., SCHAUMBURG, IL

**GENERAL NOTES**

**INDEX OF SHEETS**

| SHEET NO. | DESCRIPTION  |
|-----------|--|
| 1         | TITLE SHEET  |
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| 13        | PROPOSED PLAN  |
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**HIGHWAY STANDARDS**

|           |  |
|-----------|--|
| 000001-08 | - STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS                                  |
| 424001-12 | - PERPENDICULAR CURB RAMPS FOR SIDEWALKS   |
| 424006-06 | - DIAGONAL CURB RAMPS FOR SIDEWALKS  |
| 424021-07 | - DEPRESSED CORNER FOR SIDEWALKS   |
| 442201-03 | - CLASS C AND D PATCHES  |
| 606001-08 | - CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER                  |
| 701101-05 | - OFF-ROAD OPERATIONS, MULTILANE, 15' (4.5M) TO 24" (600MM) FROM PAVEMENT EDGE   |
| 701427-05 | - LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATION, FOR SPEEDS ≤ 40 MPH |
| 701701-10 | - URBAN LANE CLOSURE, MULTILANE INTERSECTION                                     |
| 701801-06 | - SIDEWALK, CORNER OR CROSSWALK CLOSURE  |
| 701901-10 | - TRAFFIC CONTROL DEVICES  |
| 720016-04 | - MAST ARM MOUNTED STREET NAME SIGNS   |
| 805001-01 | - ELECTRIC SERVICE INSTALLATION DETAILS  |
| 814001-03 | - HANDHOLES  |
| 814006-03 | - DOUBLE HANDHOLES   |
| 857001-01 | - STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES                        |
| 862001-01 | - UNINTERRUPTABLE POWER SUPPLY (UPS)   |
| 873001-02 | - TRAFFIC SIGNAL GROUNDING & BONDING   |
| 877001-08 | - STEEL MAST ARM ASSEMBLY AND POLE, 16' THROUGH 55'                              |
| 878001-11 | - CONCRETE FOUNDATION DETAILS  |
| 880001-01 | - SPAN WIRE MOUNTED SIGNALS AND FLASHING BEACON INSTALLATION                     |
| 880006-01 | - TRAFFIC SIGNAL MOUNTING DETAILS  |
| 886001-01 | - DETECTOR LOOP INSTALLATIONS  |
| 886006-01 | - TYPICAL LAYOUTS FOR DETECTION LOOPS  |

**SPECIFICATIONS, STANDARDS, SPECIAL PROVISIONS, AND PERMITS**

- ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", ADOPTED JANUARY 1, 2022; THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS", ADOPTED JANUARY 1, 2025; THE LATEST EDITION OF THE "ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" (IMUTCD); "THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS" 2020 EIGHTH EDITION; THE "ILLINOIS URBAN MANUAL " AND THE "ILLINOIS URBAN MANUAL FIELD MANUAL FOR INSPECTION OF EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES"; THE "AMERICANS WITH DISABILITIES ACT OF 1990 ACCESSIBILITY GUIDELINES"; THE "DRAFT" REHABILITATION ACT OF 1973 (SECTION 504); THE PUBLIC RIGHTS-OF-WAY ACCESSIBILITY GUIDELINES; THE "DETAILS" IN THE PLANS AND THE "SPECIAL PROVISIONS" INCLUDED IN THE CONTRACT DOCUMENTS.
- ANY IDOT HIGHWAY STANDARD REFERENCED IN THE PLANS OR SPECIAL PROVISIONS SHALL BE INTERPRETED AS THE LATEST IDOT HIGHWAY STANDARD.

**GENERAL NOTES**

- THE CITY OF NORTHLAKE (OWNER) AND OWNER'S REPRESENTATIVE SHALL BE NOTIFIED IN WRITING A MINIMUM OF THREE (3) FULL BUSINESS DAYS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
- THE LOCATION OF EXISTING DRAINAGE STRUCTURES, UNDERGROUND UTILITIES, SUCH AS WATER MAIN, SEWERS, GAS LINES, ETC., AS SHOWN ON THE PLANS, HAS BEEN DETERMINED FROM THE BEST AVAILABLE INFORMATION AND IS GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. HOWEVER, THE CITY AND THE ENGINEER DO NOT GUARANTEE THEIR ACCURACY AND DO NOT ASSUME RESPONSIBILITY IN THE EVENT THAT DURING CONSTRUCTION, UTILITIES OTHER THAN THOSE SHOWN MAY BE ENCOUNTERED, AND THAT THE ACTUAL LOCATION OF THOSE WHICH ARE SHOWN MAY BE DIFFERENT FROM THE LOCATION AS SHOWN ON THE DRAWINGS. THE EXACT HORIZONTAL AND VERTICAL LOCATIONS SHALL BE DETERMINED IN THE FIELD BY THE CONTRACTOR.
- NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN THE SURFACE AND/OR SUBSURFACE FEATURES INDICATED ON THE DRAWINGS AND EXISTING FIELD CONDITONS.
- THE CONTRACTOR SHALL CALL "J.U.L.I.E." AT (800) 892-0123 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, CABLE AND GAS FACILITIES AND THE CITY OF NORTHLAKE FOR FIELD LOCATIONS OF BURIED WATER, SANITARY AND STORM FACILITIES. TWO (2) WORKING DAYS IN ADVANCE NOTICE IS REQUIRED.
- THE CONTRACT DOCUMENTS ARE NOT INTENDED TO SHOW EVERY AND ALL DETAILS OF WORK TO BE PERFORMED OR EQUIPMENT TO BE SUPPLIED. THE INTENT OF THE CONTRACT DOCUMENTS IS TO ILLUSTRATE THE CONCEPTUAL DESIGN AND LAYOUT. THE CONTRACTOR SHALL BE KNOWLEDGEABLE AND REGULARLY ENGAGED IN THE TYPE OF WORK DESCRIBED BY THESE CONTRACT DOCUMENTS AND SHALL BE RESPONSIBLE FOR UNDERSTANDING THEIR INTENT. ANY WORK TO BE PERFORMED OR ITEM OF EQUIPMENT TO BE SUPPLIED WHICH IS NOT SPECIFICALLY CALLED FOR BY THESE CONTRACT DOCUMENTS BUT WHICH IS NECESSARY TO PROVIDE A COMPLETE AND SUCCESSFUL WORKING SYSTEM SHALL BE INCLUDED IN THE CONTRACTOR'S SCOPE OF WORK.
- THE WORK PERFORMED UNDER THIS CONTRACT SHALL IN NO WAY INTERFERE WITH THE NORMAL OPERATION OF ANY EXISTING UTILITY SERVICE. THE CONTRACTOR SHALL FURNISH ALL NECESSARY ITEMS OF EQUIPMENT REQUIRED TO MAINTAIN SUCH NORMAL OPERATION AT ALL TIMES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEANS/METHODS AND TECHNIQUES OF CONSTRUCTION. OWNER'S REPRESENTATIVE/ENGINEER'S REVIEW OF SAME DOES NOT RELIEVE CONTRACTOR OF THIS RESPONSIBILITY. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SAFETY AND JOB SITE SAFETY.
- THE GENERAL OR SUB-CONTRACTOR SHALL LIMIT THEIR CONSTRUCTION AND STAGING ACTIVITIES TO THE AREAS DESIGNATED ON THE PLANS. ANY DAMAGE TO AREAS BEYOND THESE LIMITS SHALL BE RETURNED TO THE STATE IT WAS FOUND PRIOR TO NEW CONSTRUCTION, EXCEPT WHERE NEW WORK IS SHOWN, BY THE CONTRACTOR TO THE SATISFACTION OF THE OWNER AND ENGINEER.

- THE CONTRACTOR SHALL TAKE PRECAUTION BY PRESERVING EXISTING TREES WITHIN THE RIGHT OF WAY. IF ANY DAMAGE OCCURS, TREES SHALL BE REPLACED IN KIND PER ARTICLE 201.07 REPAIR OR REPLACEMENT OF EXISTING PLANT MATERIAL REQUIREMENTS STATED HEREIN.
- ALL TREE PROTECTION, PRUNING AND ROOT PRUNING SHALL BE COMPLETED BEFORE CONSTRUCTION OPERATIONS COMMENCE IN ANY AREA. AT NO TIME SHALL THE CONTRACTOR PRUNE OR REMOVE ANY TREES UNLESS SPECIFICALLY DIRECTED BY THE ENGINEER.

**DEMOLITION NOTES**

- THE CONTRACTOR WILL BE REQUIRED TO RELOCATE OR REMOVE AND REINSTALL SIGNS WHICH INTERFERE WITH CONSTRUCTION OPERATIONS, AND TO TEMPORARILY RESET ALL SUCH SIGNS DURING CONSTRUCTION OPERATIONS. ANY EXISTING SIGN DAMAGED DURING THE REMOVAL AND REPLACEMENT PROCESS SHALL BE REPLACED BY THE CONTRACTOR.
- ALL SAWCUTTING SHALL BE FULL DEPTH TO PROVIDE A CLEAN EDGE TO MATCH NEW CONSTRUCTION. MATCH EXISTING ELEVATIONS AT POINTS OF CONNCTION FOR NEW AND EXISTING PAVEMENT, CURB, SIDEWALKS, ETC. ALL SAWCUT LOCATIONS INDICATED ON THE PLANS ARE APPROXIMATE AND MAY BE ADJUSTED IN THE FIELD TO ACCOMMODATE CONDITIONS, JOINTS, MATERIAL TYPE, ETC. REMOVE MINIMUM AMOUNT NECESSARY FOR INSTALLATION OF PROPOSED IMPROVEMENTS.
- ALL CONCRETE SAWCUTTING SHALL UTILIZE A "WET CUTTING METHOD" AND SHALL BE THOROUGHLY CLEANED AT THE END OF EACH WORKING DAY.
- ALL SAWCUTTING SHALL BE PERFORMED PRIOR TO BEGINNING REMOVAL.
- KEEP ALL CITY STREETS FREE AND CLEAR OF CONSTRUCTION RELATED DIRT, DUST AND/OR DEBRIS.

**UTILITY NOTES**

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE OWNERS OF EXISTING FACILITIES SO THAT THE UTILITIES AND THEIR APPURTENANCES MAY BE LOCATED AND ADJUSTED OR MOVED, IF NECESSARY, PRIOR TO THE START OF CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL COOPERATE WITH ALL UTILITY OWNERS AS PROVIDED FOR IN THE STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UNDERGROUND OR SURFACE UTILITIES EVEN THOUGH THEY MAY NOT BE SHOWN ON THE PLANS. ANY UTILITY THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE ENGINEER AS COORDINATED WITH THE CITY.
- WHENEVER DURING CONSTRUCTION OPERATIONS ANY LOOSE MATERIAL IS DEPOSITED IN THE FLOW LINE OF DRAINAGE STRUCTURES SUCH THAT THE NATURAL FLOW OF WATER IS OBSTRUCTED, IT SHALL BE REMOVED AT THE CLOSE OF EACH WORKING DAY. AT THE CONCLUSION OF CONSTRUCTION OPERATIONS, ALL UTILITY STRUCTURES SHALL BE FREE FROM DIRT AND DEBRIS.
- ANY EXISTING OR PROPOSED STORM SEWER DAMAGED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR.
- ADJUST MANHOLE OR VAULT RIM ELEVATIONS TO FINAL GRADE AT TIME OF FINAL PAVING.
- STRUCTURE ADJUSTMENTS: PRECAST CONCRETE ADJUSTMENT RINGS ARE NOT TO EXCEED 12 INCHES IN OVERALL HEIGHT AND SHALL BE USED IF AN ADJUSTMENT TO THE FINISHED GRADE ESTABLISHED BY THE RESIDENT ENGINEER IS NECESSARY. MAXIMUM TWO RINGS.
- THE FINAL RING (AND ALL RINGS UNDER 2") ON ALL NEW STRUCTURES AND STRUCTURE ADJUSTMENTS SHALL BE RUBBER. MASTIC SHALL BE PLACED BETWEEN EACH RING. NO EZ-STIK SHALL BE USED.
- THE CONTRACTOR SHALL DETERMINE IF FLAT SLAB TOPS ARE REQUIRED FOR PROPOSED STORM SEWER STRUCTURES. SUPPLYING FLAT SLAB TOPS SHALL BE INCLUDED IN THE COST OF THE PROPOSED STORM SEWER STRUCTURES.

- THE CONTRACTOR SHALL NOT OPEN OR SHUT ANY WATER VALVES OR FIRE HYDRANTS. CONTACT WATER DEPARTMENT FOR THEM TO TURN VALVES OR OPERATE HYDRANTS. UNAUTHORIZED USE SHALL SUBJECT THE OFFENDER TO ARREST AND PROSECUTION.
- BACKFILLING STORM SEWER CONSTRUCTED UNDER THE ROADWAY SPECIFIED UNDER ART. 550.07(b,c) OF THE SSRBC WILL NOT BE ALLOWED.

**LANDSCAPING NOTES**

- CONTRACTOR SHALL NOT PLACE TOPSOIL AND SEEDING UNTIL THE TEMPERATURE IS 80° OR LESS AND THE FORECAST FOR THE NEXT 7 DAYS SHOWS TEMPERATURES OF 80° OR LESS. IF ALL OTHER PAY ITEMS ARE COMPLETED, THE CONTRACTOR WILL NOT BE CHARGED WORKING DAYS FOR DELAYS IN PARKWAY RESTORATION DUE TO TEMPERATURE.
- WHEN DIRECTED BY THE ENGINEER, SUPPLEMENTAL WATERING SHALL BE APPLIED TO ALL SEEDED AREAS PRIOR TO FINAL ACCEPTANCE AT A RATE SPECIFIED BY THE ENGINEER.
- THE CONTRACTOR SHALL ADHERE TO LIMITS OF RESTORATION SHOWN. AREAS OUTSIDE THESE LIMITS THAT ARE DAMAGED OR DISTURBED BY THE CONTRACTOR SHALL BE RESTORED BY THE CONTRACTOR.

**SOIL EROSION AND SEDIMENTATION CONTROL NOTES**

- ILLINOIS URBAN MANUAL SHALL GOVERN ALL SOIL EROSION AND SEDIMENT CONTROL, AND RELATED WORK.
- SOIL EROSION AND SEDMINET CONTROL FEATURES SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITY.
- ALL STORM SEWER STRUCTURES THAT ARE, OR WILL BE, FUNCTIONING DURING CONSTRUCTION SHALL BE PROTECTED, FILTERED, OR OTHERWISE TREATED TO REMOVE SEDIMENT. INLET PROTECTORS, IN CONFORMANCE WITH CITY REQUIREMENTS SHALL BE USED IN PAVED AREAS TO PREVENT SILTATION AND DISCHARGE INTO WATERWAYS.
- ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED.
- ALL TEMPORARY AND PERMANENT SEDIMENT AND EROSION CONTROL MEASURES MUST BE MAINTAINED, REPAIRED, AND INSPECTED IN CONFORMANCE WITH ALL APPLICABLE IEPA-NPDES PHASE II REQUIREMENTS.
- REPORT RELEASES OF REPORTABLE QUANTITIES OF OIL OR HAZARDOUS MATERIALS IF THEY OCCUR IN ACCORDANCE WITH THE IEPA NPDES REQUIREMENTS.
- ANY AND ALL DEWATERING REQUIRED TO KEEP EXCAVATIONS DRY SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

**STAKING NOTES**

- THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL SECTION OR SUBSECTION MONUMENTS OR PROPERTY OR REFERENCE MARKERS UNTIL THE ENGINEER, HIS AGENT OR AN AUTHORIZED SURVEYOR HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATIONS.

**MISCELLANEOUS NOTES**

- DIMENSIONS: IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION.
- STOCKPILING OF EXCAVATED MATERIALS ON SITE SHALL BE MINIMIZED TO THE GREATEST EXTENT PRACTICABLE. THE CONTRACTOR SHALL PROCEED PROMPTLY WITH UNDERGROUND WORK IMMEDIATELY FOLLOWING EXCAVATION AND SHALL BACKFILL ALL EXCAVATIONS IMMEDIATELY FOLLOWING APPROVAL OF COMPLETED WORK BY THE OWNER.

|  |  |               |           |   |   |                           |                |        |              |           |
|--|--|---------------|-----------|---|---|---------------------------|----------------|--------|--------------|-----------|
| FILE NAME =                              | USER NAME = jdefrenza                                      | DESIGNED JMD  | REVISED - | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>INDEX OF SHEETS, GENERAL NOTES AND HIGHWAY STANDARDS</b> | F.A.U RTE.                | SECTION        | COUNTY | TOTAL SHEETS | SHEET NO. |
| N:\NORTHLAKE\940032HR - Municipal Review | Projects\940032 HR 400\940032HR405\Civil\DRAWN_HR_0901.SHT | DRAWN HR_0901 | REVISED - |   |   | 2690                      | 23-00102-00-TL | COOK   | 39           | 2         |
| Default                                  | PLOT SCALE = 2"  | CHECKED MEW   | REVISED - |   |   | <b>CONTRACT NO. 61K94</b> |                |        |              |           |
|  | PLOT DATE = 11/7/2024                                      | DATE -        | REVISED - |   |   | SCALE: N.T.S.             | SHEET 1        | OF 1   | SHEETS       | STA.      |

| SUMMARY OF QUANTITIES |  |       |                   | CONSTRUCTION<br>TYPE CODE                      |
|-----------------------|--|-------|-------------------|--|
| CODE<br>NUMBER        | ITEM   | UNIT  | TOTAL<br>QUANTITY | 0021 SAFETY (STU<br>80% FEDERAL, 20%<br>LOCAL) |
| 20101000              | TEMPORARY FENCE                                      | FOOT  | 250               | 250  |
| 20200100              | EARTH EXCAVATION                                     | CU YD | 90                | 90   |
| 20400800              | FURNISHED EXCAVATION                                 | CU YD | 10                | 10   |
| 20800150              | TRENCH BACKFILL                                      | CU YD | 45                | 45   |
| 21101615              | TOPSOIL FURNISH AND PLACE, 4"                        | SQ YD | 160               | 160  |
| 25000110              | SEEDING, CLASS 1A                                    | ACRE  | 0.25              | 0.25   |
| 25100630              | EROSION CONTROL BLANKET                              | SQ YD | 160               | 160  |
| 31101100              | SUBBASE GRANULAR MATERIAL, TYPE B                    | CU YD | 10                | 10   |
| 31101180              | SUBBASE GRANULAR MATERIAL, TYPE B 2"                 | SQ YD | 160               | 160  |
| 31101200              | SUBBASE GRANULAR MATERIAL, TYPE B 4"                 | SQ YD | 100               | 100  |
| 40600290              | BITUMINOUS MATERIALS (TACK COAT)                     | POUND | 70                | 70   |
| 40604062              | HOT MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N70 | TON   | 10                | 10   |
| 42400200              | PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH             | SQ FT | 1470              | 1470   |
| 42400800              | DETECTABLE WARNINGS                                  | SQ FT | 90                | 90   |
| 44000100              | PAVEMENT REMOVAL                                     | SQ YD | 30                | 30   |
| 44000157              | HOT-MIX ASPHALT SURFACE REMOVAL, 2"                  | SQ YD | 110               | 110  |

\* SPECIALTY ITEM

|  |  |              |           |   |                              |  |                |                    |                 |              |  |
|--|--|--------------|-----------|---|------------------------------|--|----------------|--------------------|-----------------|--------------|--|
| FILE NAME =                              | USER NAME = jdefrenzo                      | DESIGNED JMD | REVISED - | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>SUMMARY OF QUANTITIES</b> | F.A.U<br>RTE.                                      | SECTION        | COUNTY             | TOTAL<br>SHEETS | SHEET<br>NO. |  |
| N:\NDRTHLAKE\940032HR - Municipal Review | Projects\940032 HR 402's\940032HR405\Civil | DRAWN HR     | REVISED - |   |                              | 2690   | 23-00102-00-TL | COOK               | 39              | 3            |  |
| Default                                  | PLOT SCALE = 2'                            | CHECKED MEW  | REVISED - |   |                              | SCALE: N.T.S.   SHEET 1 OF 6 SHEETS   STA. TO STA. |                | CONTRACT NO. 61K94 |                 |              |  |
|  | PLOT DATE = 11/7/2024                      | DATE -       | REVISED - |   |                              | ILLINOIS FED. AID PROJECT                          |                |                    |                 |              |  |

| SUMMARY OF QUANTITIES |   |        |                | CONSTRUCTION TYPE CODE                   |
|-----------------------|---|--------|----------------|--|
| CODE NUMBER           | ITEM  | UNIT   | TOTAL QUANTITY | 0021 SAFETY (STU 80% FEDERAL, 20% LOCAL) |
| 44000300              | CURB REMOVAL                                      | FOOT   | 30             | 30                                       |
| 44000500              | COMBINATION CURB AND GUTTER REMOVAL               | FOOT   | 210            | 210                                      |
| 44000600              | SIDEWALK REMOVAL                                  | SQ FT  | 1700           | 1700                                     |
| 44201357              | CLASS C PATCHES, TYPE III, 10 INCH                | SQ YD  | 70             | 70                                       |
| 44201359              | CLASS C PATCHES, TYPE IV, 10 INCH                 | SQ YD  | 40             | 40                                       |
| * 56103000            | DUCTILE IRON WATER MAIN 6"                        | FOOT   | 20             | 20                                       |
| * 56103300            | DUCTILE IRON WATER MAIN 12"                       | FOOT   | 20             | 20                                       |
| * 56400500            | FIRE HYDRANTS TO BE REMOVED                       | EACH   | 1              | 1  |
| * 56400820            | FIRE HYDRANT WITH AUXILIARY VALVE AND VALVE BOX   | EACH   | 1              | 1  |
| 60600605              | CONCRETE CURB, TYPE B                             | FOOT   | 60             | 60                                       |
| 60603800              | COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12 | FOOT   | 210            | 210                                      |
| 67100100              | MOBILIZATION                                      | L SUM  | 1              | 1  |
| 70102635              | TRAFFIC CONTROL AND PROTECTION, STANDARD 701701   | L SUM  | 1              | 1  |
| 70102640              | TRAFFIC CONTROL AND PROTECTION, STANDARD 701801   | L SUM  | 1              | 1  |
| 70107025              | CHANGEABLE MESSAGE SIGN                           | CAL DA | 120            | 120                                      |
| * 72000100            | SIGN PANEL - TYPE 1                               | SO FT  | 12             | 12                                       |

\* SPECIALTY ITEM

| SUMMARY OF QUANTITIES |  |       |                | CONSTRUCTION TYPE CODE                   |
|-----------------------|--|-------|----------------|--|
| CODE NUMBER           | ITEM   | UNIT  | TOTAL QUANTITY | 0021 SAFETY (STU 80% FEDERAL, 20% LOCAL) |
| * 72000200            | SIGN PANEL - TYPE 2  | SQ FT | 35             | 35                                       |
| * 78000200            | THERMOPLASTIC PAVEMENT MARKING - LINE 4"                       | FOOT  | 30             | 30                                       |
| * 78000600            | THERMOPLASTIC PAVEMENT MARKING - LINE 12"                      | FOOT  | 450            | 450                                      |
| * 78000650            | THERMOPLASTIC PAVEMENT MARKING - LINE 24"                      | FOOT  | 110            | 110                                      |
| 78300202              | PAVEMENT MARKING REMOVAL - WATER BLASTING                      | SQ FT | 790            | 790                                      |
| * 81028200            | UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.                 | FOOT  | 857            | 857                                      |
| * 81028220            | UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.                 | FOOT  | 158            | 158                                      |
| * 81028240            | UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.                 | FOOT  | 466            | 466                                      |
| * 81028740            | UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 1 1/2" DIA. | FOOT  | 40             | 40                                       |
| * 81400100            | HANDHOLE   | EACH  | 5              | 5  |
| * 81400200            | HEAVY-DUTY HANDHOLE  | EACH  | 2              | 2  |
| * 81400300            | DOUBLE HANDHOLE  | EACH  | 2              | 2  |
| * 81702130            | ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 6       | FOOT  | 435            | 435                                      |
| * 81702140            | ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 4       | FOOT  | 1730           | 1730                                     |
| * 83600200            | LIGHT POLE FOUNDATION, 24" DIAMETER                            | FOOT  | 10             | 10                                       |
| * 84200804            | REMOVAL OF POLE FOUNDATION                                     | EACH  | 1              | 1  |

\* SPECIALTY ITEM

|  |  |              |           |   |                              |  |                |        |                    |           |
|--|--|--------------|-----------|---|------------------------------|--|----------------|--------|--------------------|-----------|
| FILE NAME =                              | USER NAME = jdefrenze                      | DESIGNED JMD | REVISED - | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>SUMMARY OF QUANTITIES</b> | F.A.U. RTE.  | SECTION        | COUNTY | TOTAL SHEETS       | SHEET NO. |
| N:\NORTH LAKE\940032HR - Municipal Revis | Projects\940032 HR 400's\940032HR405\Civil | DRAWN HR GJP | REVISED - |   |                              | 2690   | 23-00102-00-TL | COOK   | 39                 | 5         |
| Default                                  | PLOT SCALE = 2"                            | CHECKED MEW  | REVISED - |   |                              | SCALE: N.T.S.   SHEET 3 OF 6 SHEETS   STA. TO STA. |                |        | CONTRACT NO. 61K94 |           |
|  | PLOT DATE = 11/7/2024                      | DATE -       | REVISED - |   |                              | (ILLINOIS) FED. AID PROJECT                        |                |        |                    |           |

| SUMMARY OF QUANTITIES |  |      |                | CONSTRUCTION TYPE CODE                   |  |
|-----------------------|--|------|----------------|--|--|
| CODE NUMBER           | ITEM   | UNIT | TOTAL QUANTITY | 0021 SAFETY (STU 80% FEDERAL, 20% LOCAL) |  |
| * 84400105            | RELOCATE EXISTING LIGHTING UNIT                                    | EACH | 1              | 1  |  |
| * 87301215            | ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C                        | FOOT | 1422           | 1422                                     |  |
| * 87301225            | ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C                        | FOOT | 1782           | 1782                                     |  |
| * 87301245            | ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C                        | FOOT | 2151           | 2151                                     |  |
| * 87301255            | ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C                        | FOOT | 857            | 857                                      |  |
| * 87301305            | ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR                  | FOOT | 2480           | 2480                                     |  |
| * 87301805            | ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C                      | FOOT | 104            | 104                                      |  |
| * 87301900            | ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C | FOOT | 1109           | 1109                                     |  |
| * 87502500            | TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.                       | EACH | 2              | 2  |  |
| * 87700230            | STEEL MAST ARM ASSEMBLY AND POLE, 38 FT.                           | EACH | 2              | 2  |  |
| * 87700250            | STEEL MAST ARM ASSEMBLY AND POLE, 42 FT.                           | EACH | 2              | 2  |  |
| * 87800100            | CONCRETE FOUNDATION, TYPE A  | FOOT | 12             | 12                                       |  |
| * 87800150            | CONCRETE FOUNDATION, TYPE C  | FOOT | 4              | 4  |  |
| * 87800415            | CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER                       | FOOT | 48             | 48                                       |  |
| * 88030020            | SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED              | EACH | 8              | 8  |  |
| * 88030050            | SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED               | EACH | 2              | 2  |  |

\* SPECIALTY ITEM

|   |  |              |           |   |                              |  |                |        |                                  |           |  |
|---|--|--------------|-----------|---|------------------------------|--|----------------|--------|----------------------------------|-----------|--|
| FILE NAME =                               | USER NAME = jdefrenza                      | DESIGNED JMD | REVISED - | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>SUMMARY OF QUANTITIES</b> | F.A.U. RTE.                                  | SECTION        | COUNTY | TOTAL SHEETS                     | SHEET NO. |  |
| N:\NORTH LAKE\940032HR - Municipal Review | Projects\940032 HR 400'a\940032HR405\Civil | DRAWN HR GJC | REVISED - |   |                              | 2690   | 23-00102-00-TL | COOK   | 39                               | 6         |  |
| Default                                   | PLOT SCALE = 2'                            | CHECKED MEW  | REVISED - |   |                              | SCALE: N.T.S.                                |                |        | SHEET 4 OF 6 SHEETS STA. TO STA. |           |  |
|   | PLOT DATE = 11/7/2024                      | DATE -       | REVISED - |   |                              | ILLINOIS FED. AID PROJECT CONTRACT NO. 61K94 |                |        |                                  |           |  |

| SUMMARY OF QUANTITIES |   |       |                | CONSTRUCTION TYPE CODE                   |  |
|-----------------------|---|-------|----------------|--|--|
| CODE NUMBER           | ITEM  | UNIT  | TOTAL QUANTITY | 0021 SAFETY (STU 80% FEDERAL, 20% LOCAL) |  |
| * 88030100            | SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED                      | EACH  | 2              | 2  |  |
| * 88030110            | SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED                     | EACH  | 2              | 2  |  |
| * 88102717            | PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER | EACH  | 8              | 8  |  |
| * 88200510            | TRAFFIC SIGNAL BACKPLATE, RETROREFLECTIVE                                 | EACH  | 10             | 10                                       |  |
| * 88500100            | INDUCTIVE LOOP DETECTOR   | EACH  | 8              | 8  |  |
| * 88600100            | DETECTOR LOOP, TYPE I   | FOOT  | 526            | 526                                      |  |
| * 88700200            | LIGHT DETECTOR  | EACH  | 2              | 2  |  |
| * 88700300            | LIGHT DETECTOR AMPLIFIER  | EACH  | 1              | 1  |  |
| * 89000100            | TEMPORARY TRAFFIC SIGNAL INSTALLATION                                     | EACH  | 1              | 1  |  |
| * 89502375            | REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT                                  | EACH  | 1              | 1  |  |
| * 89502380            | REMOVE EXISTING HANDHOLE  | EACH  | 5              | 5  |  |
| * 89502382            | REMOVE EXISTING DOUBLE HANDHOLE   | EACH  | 1              | 1  |  |
| * 89502385            | REMOVE EXISTING CONCRETE FOUNDATION                                       | EACH  | 8              | 8  |  |
| * X0324085            | EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C           | FOOT  | 323            | 323                                      |  |
| * X1200230            | PRESSURE TESTING AND DISINFECTION   | L SUM | 1              | 1  |  |
| * X1400150            | SERVICE INSTALLATION, GROUND MOUNTED, METERED                             | EACH  | 1              | 1  |  |

\* SPECIALTY ITEM

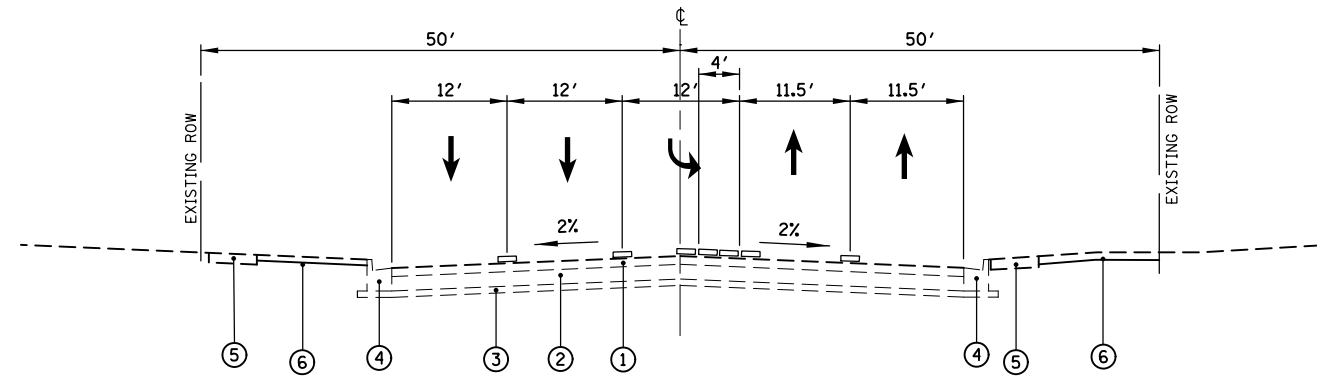
|  |  |              |           |   |                              |  |  |             |                |        |              |                    |
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| FILE NAME =                              | USER NAME = jdefranza                      | DESIGNED JMD | REVISED - | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>SUMMARY OF QUANTITIES</b> |  |  | F.A.U. RTE. | SECTION        | COUNTY | TOTAL SHEETS | SHEET NO.          |
| N:\NDRTHLAKE\940332HR - Municipal Review | Projects\940332 HR 400'a\940332HR405\Civil | DRAWN HR CJC | REVISED - |   |                              |  |  | 2690        | 23-00102-00-TL | COOK   | 39           | 7                  |
|  | PLOT SCALE = 2'                            | CHECKED MEW  | REVISED - |   | SCALE: N.T.S.                |  |  | SHEET 5     | OF 6 SHEETS    | STA.   | TO STA.      | CONTRACT NO. 61K94 |
| Default                                  | PLOT DATE = 11/21/2024                     | DATE -       | REVISED - |   | ILLINOIS FED. AID PROJECT    |  |  |             |                |        |              |                    |

| SUMMARY OF QUANTITIES |   |       |                | CONSTRUCTION TYPE CODE                   |
|-----------------------|---|-------|----------------|--|
| CODE NUMBER           | ITEM  | UNIT  | TOTAL QUANTITY | 0021 SAFETY (STU 80% FEDERAL, 20% LOCAL) |
| * X1400367            | PEDESTRIAN SIGNAL POST, 30 FT.                    | EACH  | 2              | 2  |
| * X1400378            | PEDESTRIAN SIGNAL POST, 5 FT.                     | EACH  | 3              | 3  |
| * X5610712            | WATER MAIN REMOVAL, 12"                           | FOOT  | 20             | 20                                       |
| * X5630006            | CUT AND CAP EXISTING 6" WATER MAIN                | EACH  | 1              | 1  |
| * X5630712            | CONNECTION TO EXISTING WATER MAIN 12"             | EACH  | 2              | 2  |
| * X8100105            | CONDUIT SPLICE                                    | EACH  | 2              | 2  |
| * X8570232            | FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET | EACH  | 1              | 1  |
| * X8620200            | UNINTERRUPTABLE POWER SUPPLY (SPECIAL)            | EACH  | 1              | 1  |
| * X8760200            | ACCESSIBLE PEDESTRIAN SIGNALS                     | EACH  | 8              | 8  |
| * X8780012            | CONCRETE FOUNDATION, TYPE A 12-INCH DIAMETER      | FOOT  | 20             | 20                                       |
| * X8809005            | LED SIGNAL FACE, LENS COVER                       | EACH  | 14             | 14                                       |
| * X8950508            | REMOVE CABLE FROM CONDUIT                         | FOOT  | 345            | 345                                      |
| Z0013798              | CONSTRUCTION LAYOUT                               | L SUM | 1              | 1  |
| * Z0033024            | MAINTAIN EXISTING LIGHTING SYSTEM                 | L SUM | 1              | 1  |
| * Z0073509            | PERMANENT TRAFFIC SIGNAL TIMING                   | EACH  | 1              | 1  |
| * Z0073510            | TEMPORARY TRAFFIC SIGNAL TIMING                   | EACH  | 1              | 1  |

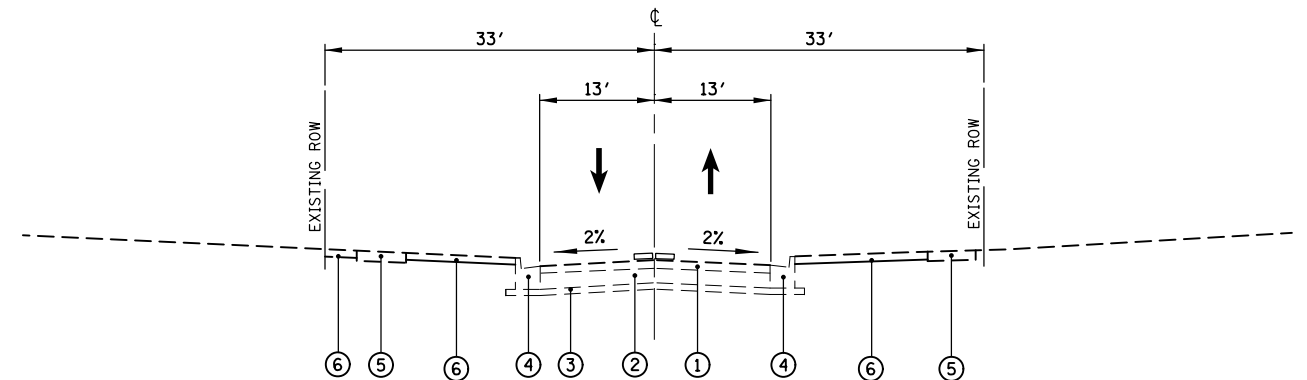
\* SPECIALTY ITEM

|  |   |              |           |   |                              |                           |                |              |              |           |
|--|---|--------------|-----------|---|------------------------------|---------------------------|----------------|--------------|--------------|-----------|
| FILE NAME =                              | USER NAME = jdefrenza                       | DESIGNED JMD | REVISED - | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>SUMMARY OF QUANTITIES</b> | F.A.U. RTE.               | SECTION        | COUNTY       | TOTAL SHEETS | SHEET NO. |
| N:\NDRTHLAKE\940032HR - Municipal Review | Projects\940032 HR 402's\940032HR4025\Civil | DRAWN HRG    | REVISED - |   |                              | 2690                      | 23-00102-00-TL | COOK         | 39           | 8         |
| Default                                  | PLOT SCALE = 2'                             | CHECKED MEW  | REVISED - |   |                              | CONTRACT NO. 61K94        |                |              |              |           |
|  | PLOT DATE = 11/21/2024                      | DATE -       | REVISED - |   |                              | ILLINOIS FED. AID PROJECT |                |              |              |           |
|  |   |              |           | SCALE: N.T.S.   |                              | SHEET 6 OF 6 SHEETS       |                | STA. TO STA. |              |           |





**EXISTING AND PROPOSED TYPICAL SECTION**  
WOLF ROAD AT WILTSE DRIVE  
SOUTHBOUND APPROACH



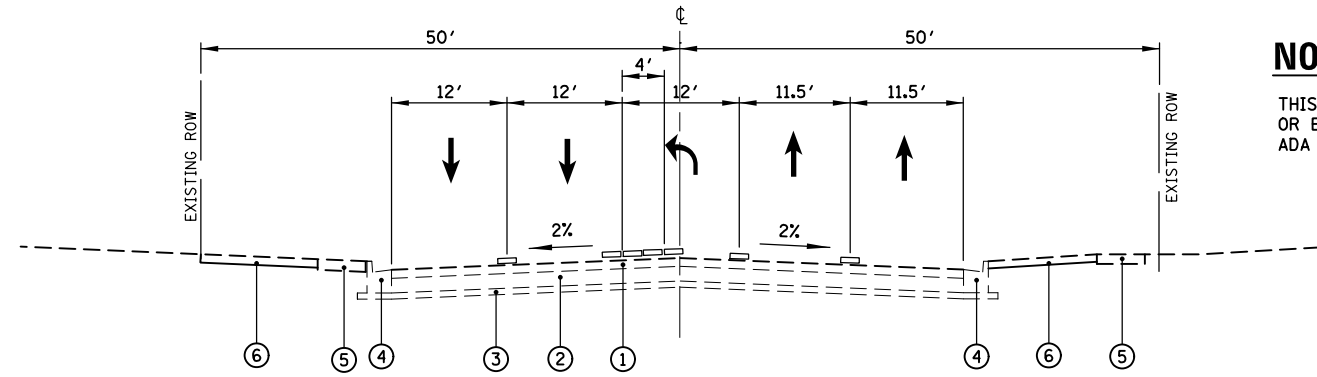
**EXISTING AND PROPOSED TYPICAL SECTION**  
WOLF ROAD AT WILTSE DRIVE  
WESTBOUND APPROACH

**LEGEND**

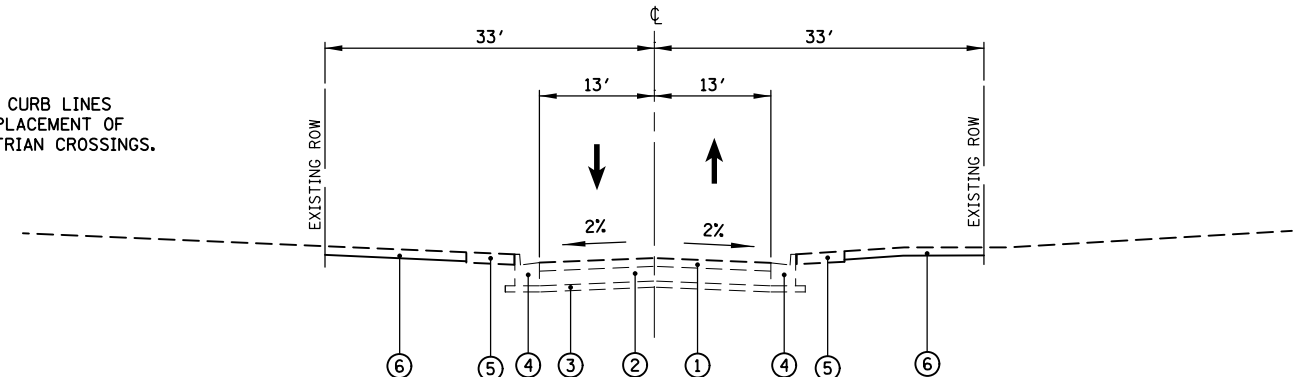
- ① EXISTING HMA PAVEMENT
- ② EXISTING PCC BASE COURSE
- ③ EXISTING SUBBASE GRANULAR MATERIAL
- ④ EXISTING COMBINATION CONCRETE CURB AND GUTTER
- ⑤ EXISTING CONCRETE SIDEWALK
- ⑥ TOPSOIL FURNISH AND PLACE, 4" SEEDING, CLASS 1A EROSION CONTROL BLANKET

**NOTE:**

THIS PROJECT WILL NOT ALTER EXISTING CURB LINES OR EDGES OF PAVEMENT, EXCEPT FOR REPLACEMENT OF ADA CURB RAMPS FOR SIGNALIZED PEDESTRIAN CROSSINGS.



**EXISTING AND PROPOSED TYPICAL SECTION**  
WOLF ROAD AT WILTSE DRIVE  
NORTHBOUND APPROACH



**EXISTING AND PROPOSED TYPICAL SECTION**  
WOLF ROAD AT WILTSE DRIVE  
EASTBOUND APPROACH

**HOT-MIX ASPHALT MIXTURE REQUIREMENTS**

| HMA RESURFACING  |               |           |
|--|---------------|-----------|
| MIXTURE TYPE   | AIR Voids     | QMP       |
| HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N70; 2"                 | 4.0% @ 70 GYR | LR 1030-2 |
| QMP DESIGNATION: QUALITY CONTROL/QUALITY ASSURANCE (QC/QA) PER LR 1030-2 |               |           |

**NOTES**

1. THE UNIT WEIGHT USED TO CALCULATE ALL HMA MIXTURE QUANTITIES IS 112 LBS/SY/IN.
2. THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY RECLAIMED MATERIALS SPECIFICATIONS.

|   |  |              |           |
|---|--|--------------|-----------|
| FILE NAME =                               | USER NAME = jdefrenza                    | DESIGNED JMD | REVISED - |
| N:\NORTH LAKE\940032HR - Municipal Review | Projects\940032 HR 400\940032HR405\Civil | DRAWN CJC    | REVISED - |
| Default                                   | PLOT SCALE = 2"                          | CHECKED MEW  | REVISED - |
|   | PLOT DATE = 11/7/2024                    | DATE -       | REVISED - |

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TYPICAL SECTIONS**

SCALE: N.T.S. SHEET 1 OF 1 SHEETS STA. TO STA.

| F.A.U. RTE.               | SECTION        | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|----------------|--------|--------------|-----------|
| 2690                      | 23-00102-00-TL | COOK   | 39           | 9         |
| CONTRACT NO. 61K94        |                |        |              |           |
| ILLINOIS FED. AID PROJECT |                |        |              |           |

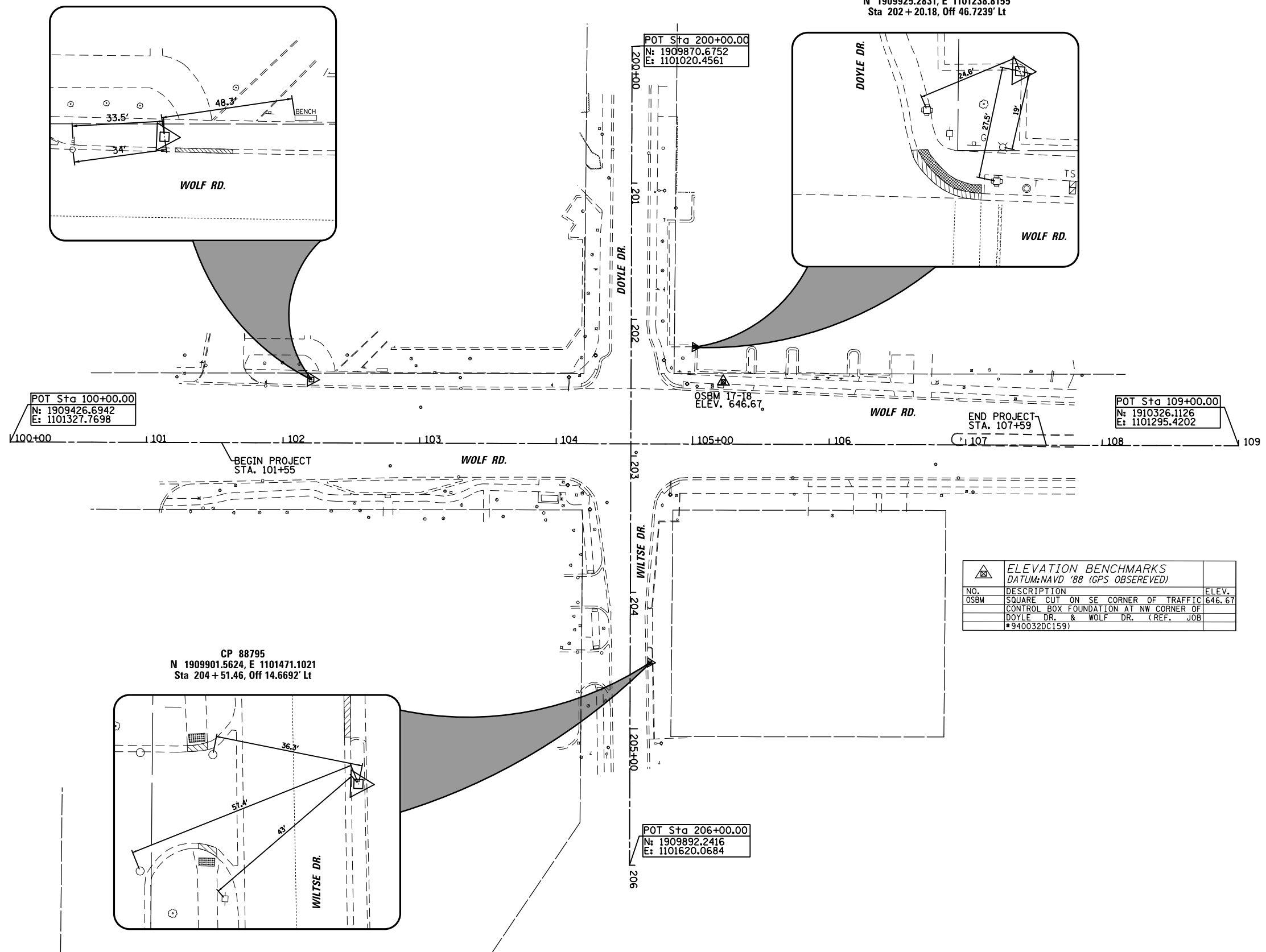
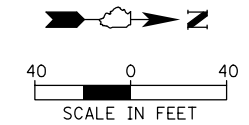
| EARTHWORK SCHEDULE - WOLF RD & WILTSE DR |                  |              |                       |                           |                                    |
|--|------------------|--------------|-----------------------|---------------------------|------------------------------------|
| LOCATION                                 | STATION          | OFFSET       | EARTH EXCAVATION (CY) | FURNISHED EXCAVATION (CY) | DESCRIPTION                        |
| NW CORNER                                | 104+59           | -80'         | 1.3                   | -                         | HANDHOLE                           |
| NW CORNER                                | 104+80           | -66'         | 1.8                   | -                         | 26' MAST ARM FOUNDATION            |
| NW CORNER                                | 104+95           | -51'         | 0.5                   | -                         | 16' TRAFFIC SIGNAL POST FOUNDATION |
| NW CORNER                                | 105+09           | -102'        | 2.6                   | -                         | CONTROLLER CABINET FOUNDATION      |
| NW CORNER                                | 105+10           | -95'         | 2.0                   | -                         | DOUBLE HANDHOLE                    |
| NW CORNER                                | 105+41           | -21'         | 1.5                   | -                         | HEAVY DUTY HANDHOLE                |
| NW CORNER                                | 107+85           | -47'         | 1.3                   | -                         | HANDHOLE                           |
| NW CORNER                                | 202+16 TO 202+39 | -22' TO -29' | 2.8                   | -                         | PRO CC TYPE B                      |
| NW CORNER                                | 202+18 TO 202+52 | -16' TO -47' | 7.8                   | -                         | PRO CCC&G B-6.12                   |
| NW CORNER                                | 202+24 TO 202+33 | -23' TO -27' | 0.3                   | -                         | PRO PCC SIDEWALK 5"                |
| NW CORNER                                | 202+45 TO 202+50 | -38' TO -42' | 0.4                   | -                         | PRO PCC SIDEWALK 5"                |
| NW CORNER                                | 202+46 TO 202+51 | -42' TO -44' | 0.1                   | -                         | PRO CC TYPE B                      |
| NE CORNER                                | 104+79           | 44'          | 0.1                   | -                         | PED SIGNAL POST FOUNDATION (5')    |
| NE CORNER                                | 104+90           | 40'          | 3.4                   | -                         | 48' MAST ARM FOUNDATION            |
| NE CORNER                                | 104+95           | 31'          | 0.1                   | -                         | PED SIGNAL POST FOUNDATION (5')    |
| NE CORNER                                | 105+17           | 20'          | 1.3                   | -                         | HANDHOLE                           |
| NE CORNER                                | 203+16 TO 203+48 | -50' TO -16' | 7.9                   | -                         | PRO CCC&G B-6.12                   |
| NE CORNER                                | 203+27 TO 203+40 | -36' TO -50' | -                     | 6.30                      | LANDSCAPE REST.                    |
| NE CORNER                                | 203+33 TO 203+37 | -19' TO -29' | 1.1                   | -                         | PRO CC TYPE B                      |
| SE CORNER                                | 101+94           | 19'          | 1.3                   | -                         | HANDHOLE                           |

| EARTHWORK SCHEDULE - WOLF RD & WILTSE DR |                  |            |                       |                           |                                    |
|--|------------------|------------|-----------------------|---------------------------|------------------------------------|
| LOCATION                                 | STATION          | OFFSET     | EARTH EXCAVATION (CY) | FURNISHED EXCAVATION (CY) | DESCRIPTION                        |
| SE CORNER                                | 104+16           | 36'        | 0.5                   | -                         | 16' TRAFFIC SIGNAL POST FOUNDATION |
| SE CORNER                                | 104+17           | 46'        | 2.9                   | -                         | 38' MAST ARM FOUNDATION            |
| SE CORNER                                | 104+22           | 41'        | 0.1                   | -                         | PED SIGNAL POST FOUNDATION (5')    |
| SE CORNER                                | 104+39           | 16'        | 1.3                   | -                         | HANDHOLE                           |
| SE CORNER                                | 203+17 TO 203+37 | 50' TO 25' | 5.0                   | -                         | PRO CCC&G B-6.12                   |
| SE CORNER                                | 203+20 TO 203+28 | 38' TO 40' | 0.8                   | -                         | PRO CC TYPE B                      |
| SE CORNER                                | 203+28 TO 203+33 | 27' TO 30' | 0.1                   | -                         | PRO PCC SIDEWALK 5"                |
| SE CORNER                                | 203+32 TO 203+34 | 27' TO 33' | 0.6                   | -                         | PRO CC TYPE B                      |
| SE CORNER                                | 203+36 TO 203+54 | 29' TO 31' | 0.2                   | -                         | PRO PCC SIDEWALK 5"                |
| SW CORNER                                | 104+02           | -50'       | 3.4                   | -                         | 44' MAST ARM FOUNDATION            |
| SW CORNER                                | 104+20           | -49'       | 0.1                   | -                         | PED SIGNAL POST FOUNDATION (5')    |
| SW CORNER                                | 104+26           | -52'       | 0.5                   | -                         | 16' TRAFFIC SIGNAL POST FOUNDATION |
| SW CORNER                                | 104+33           | -65'       | 0.1                   | -                         | PED SIGNAL POST FOUNDATION (5')    |
| SW CORNER                                | 104+37           | -17'       | 1.5                   | -                         | HEAVY DUTY HANDHOLE                |
| SW CORNER                                | 202+17 TO 202+51 | 15' TO 48' | 7.9                   | -                         | PRO CCC&G B-6.12                   |

SUBTOTAL = 62.6 6.3  
 SHRINKAGE / SWELL FACTOR (15%) = 9.4 0.9  
 TOTAL = 72.0 7.2

CP 88802  
 N 1909645.5853, E 1101273.4763  
 Sta 102 + 20.70, Off 46.3906' Lt

CP 88317  
 N 1909925.2831, E 1101238.8155  
 Sta 202 + 20.18, Off 46.7239' Lt



POT Sta 100+00.00  
 N: 1909426.6942  
 E: 1101327.7698

POT Sta 200+00.00  
 N: 1909870.6752  
 E: 1101020.4561

POT Sta 109+00.00  
 N: 1910326.1126  
 E: 1101295.4202

POT Sta 206+00.00  
 N: 1909892.2416  
 E: 1101620.0684

CP 88795  
 N 1909901.5624, E 1101471.1021  
 Sta 204 + 51.46, Off 14.6692' Lt

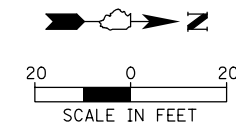
| ELEVATION BENCHMARKS<br>DATUM: NAVD '88 (GPS OBSERVED) |  |        |
|--|--|--------|
| NO.  | DESCRIPTION  | ELEV.  |
| OSBM   | SQUARE CUT ON SE CORNER OF TRAFFIC CONTROL BOX FOUNDATION AT NW CORNER OF DOYLE DR. & WOLF DR. (REF. JOB #940032DC159) | 646.67 |

|   |  |              |           |
|---|--|--------------|-----------|
| FILE NAME =                               | USER NAME = jdefrenza                    | DESIGNED JMD | REVISED - |
| N:\NORTH LAKE\940032HR - Municipal Review | Projects\940032 HR 400\940032HR405\Civil | DRAWN CJC    | REVISED - |
| Default                                   | PLOT SCALE = 80'                         | CHECKED MEW  | REVISED - |
|   | PLOT DATE = 11/7/2024                    | DATE -       | REVISED - |

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

|                              |         |             |              |
|------------------------------|---------|-------------|--------------|
| ALIGNMENT, TIES & BENCHMARKS |         |             |              |
| SCALE: 1" = 40'              | SHEET 1 | OF 1 SHEETS | STA. TO STA. |

|                           |                |        |              |           |
|---------------------------|----------------|--------|--------------|-----------|
| F.A.U. RTE.               | SECTION        | COUNTY | TOTAL SHEETS | SHEET NO. |
| 2690                      | 23-00102-00-TL | COOK   | 39           | 11        |
| CONTRACT NO. 61K94        |                |        |              |           |
| ILLINOIS FED. AID PROJECT |                |        |              |           |



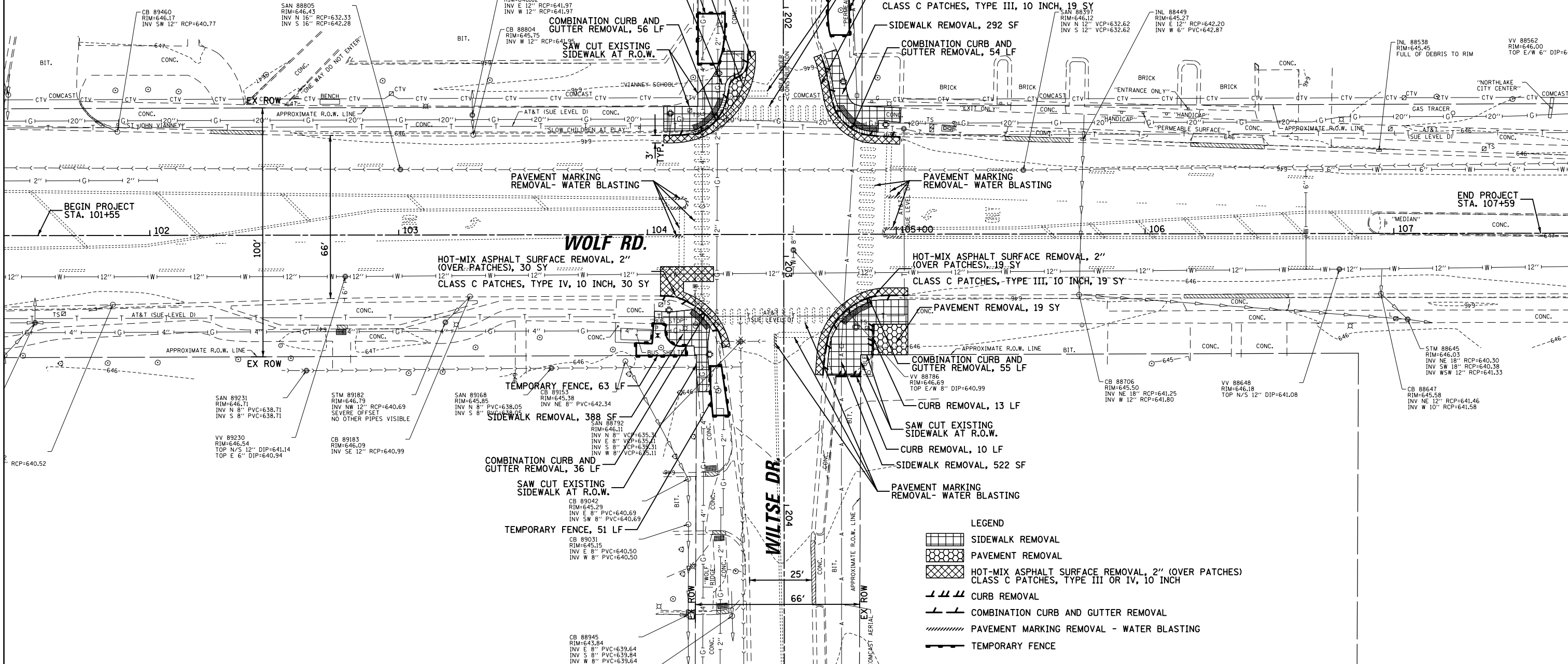
LOCATIONS OF EXISTING UTILITIES SHOWN HEREON ARE THE  
 COMPILATION OF FIELD LOCATIONS AND UTILITY ATLASES  
 NOTE: CONTRACTOR SHALL "WATCH & PROTECT" AT&T FACILITIES  
 IF ENCOUNTERED

HOT-MIX ASPHALT SURFACE REMOVAL, 2"  
 (OVER PATCHES), 19 SY  
 CLASS C PATCHES, TYPE III, 10 INCH, 19 SY

PAVEMENT REMOVAL, 8 SY  
 TEMPORARY FENCE, 60 LF  
 TEMPORARY FENCE, 57 LF

PAVEMENT MARKING  
 REMOVAL- WATER BLASTING  
 TEMPORARY FENCE, 57 LF  
 HOT-MIX ASPHALT SURFACE REMOVAL, 2"  
 (OVER PATCHES), 19 SY  
 CLASS C PATCHES, TYPE III, 10 INCH, 19 SY

COMBINATION CURB AND  
 GUTTER REMOVAL, 56 LF  
 SAW CUT EXISTING  
 SIDEWALK AT R.O.W.  
 SIDEWALK REMOVAL, 292 SF  
 COMBINATION CURB AND  
 GUTTER REMOVAL, 54 LF



HOT-MIX ASPHALT SURFACE REMOVAL, 2"  
 (OVER PATCHES), 30 SY  
 CLASS C PATCHES, TYPE IV, 10 INCH, 30 SY

HOT-MIX ASPHALT SURFACE REMOVAL, 2"  
 (OVER PATCHES), 19 SY  
 CLASS C PATCHES, TYPE III, 10 INCH, 19 SY

TEMPORARY FENCE, 63 LF

CONC. PAVEMENT REMOVAL, 19 SY

COMBINATION CURB AND  
 GUTTER REMOVAL, 36 LF

COMBINATION CURB AND  
 GUTTER REMOVAL, 55 LF

SAW CUT EXISTING  
 SIDEWALK AT R.O.W.

CURB REMOVAL, 13 LF

TEMPORARY FENCE, 51 LF

SAW CUT EXISTING  
 SIDEWALK AT R.O.W.

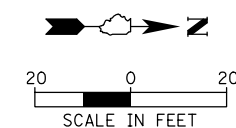
CURB REMOVAL, 10 LF

SIDEWALK REMOVAL, 522 SF

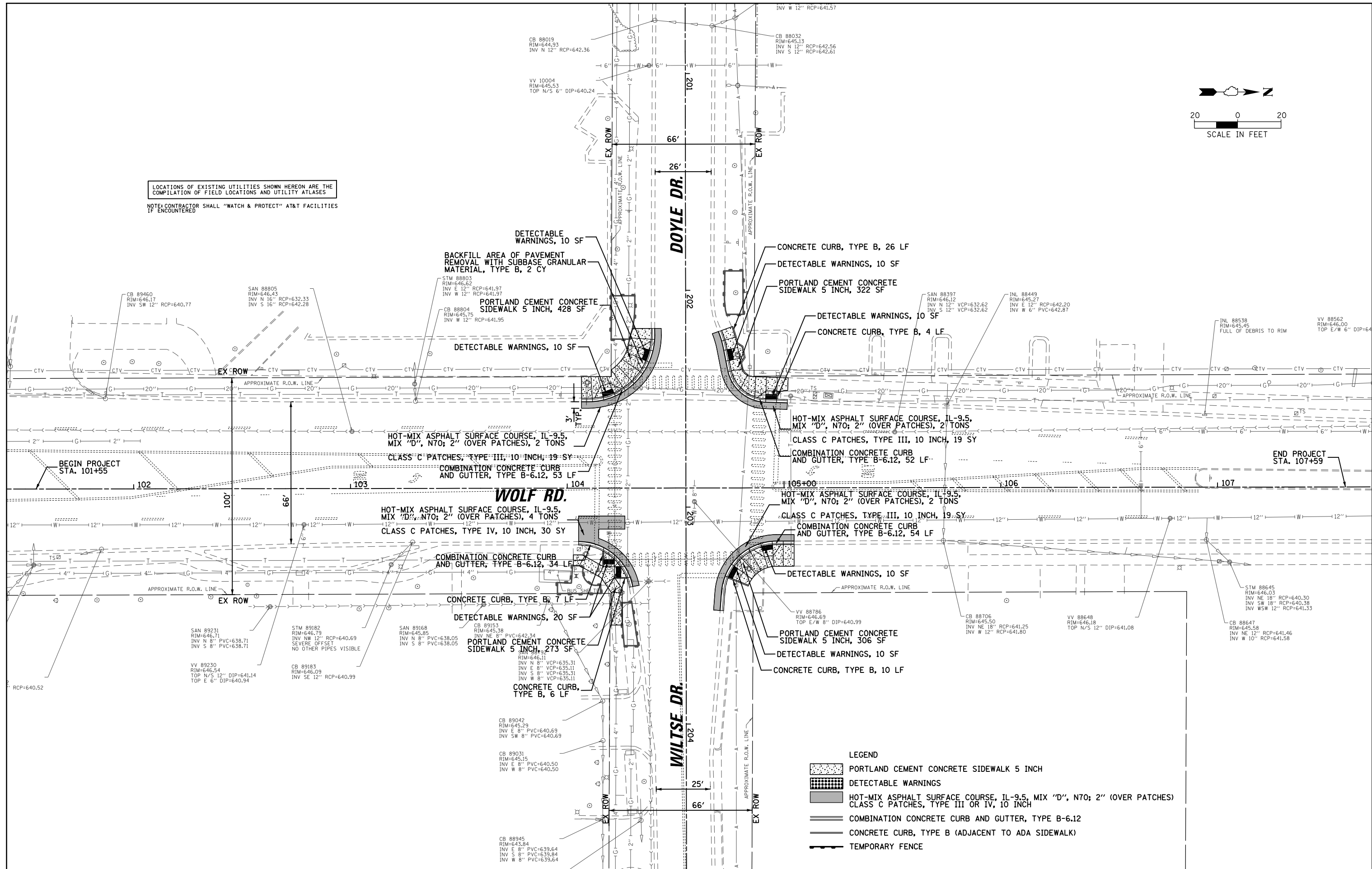
PAVEMENT MARKING  
 REMOVAL- WATER BLASTING

- LEGEND
- SIDEWALK REMOVAL
  - PAVEMENT REMOVAL
  - HOT-MIX ASPHALT SURFACE REMOVAL, 2" (OVER PATCHES)  
CLASS C PATCHES, TYPE III OR IV, 10 INCH
  - CURB REMOVAL
  - COMBINATION CURB AND GUTTER REMOVAL
  - PAVEMENT MARKING REMOVAL - WATER BLASTING
  - TEMPORARY FENCE

|  |   |              |           |   |                     |                |             |             |         |                           |              |           |
|--|---|--------------|-----------|---|---------------------|----------------|-------------|-------------|---------|---------------------------|--------------|-----------|
| FILE NAME =                              | USER NAME = jdfrenza                                    | DESIGNED JMD | REVISED - | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>REMOVAL PLAN</b> |                |             | F.A.U. RTE. | SECTION | COUNTY                    | TOTAL SHEETS | SHEET NO. |
| N:\NORTHLAKE\940032HR - Municipal Review | Projects\940032 HR 400\940032HR405\Civil\DRAWN\CUC1.SHT | CHECKED MEW  | REVISED - |   | 2690                | 23-00102-00-TL | COOK        | 39          | 12      |                           |              |           |
| Default                                  | PLOT SCALE = 48'  | DATE -       | REVISED - |   | CONTRACT NO. 61K94  |                |             |             |         |                           |              |           |
|  | PLOT DATE = 11/7/2024                                   |              | REVISED - |   | SCALE: 1" = 20'     | SHEET 1        | OF 1 SHEETS | STA.        | TO STA. | ILLINOIS FED. AID PROJECT |              |           |



LOCATIONS OF EXISTING UTILITIES SHOWN HEREON ARE THE  
 COMPILATION OF FIELD LOCATIONS AND UTILITY ATLASES  
 NOTE: CONTRACTOR SHALL "WATCH & PROTECT" AT&T FACILITIES  
 IF ENCOUNTERED



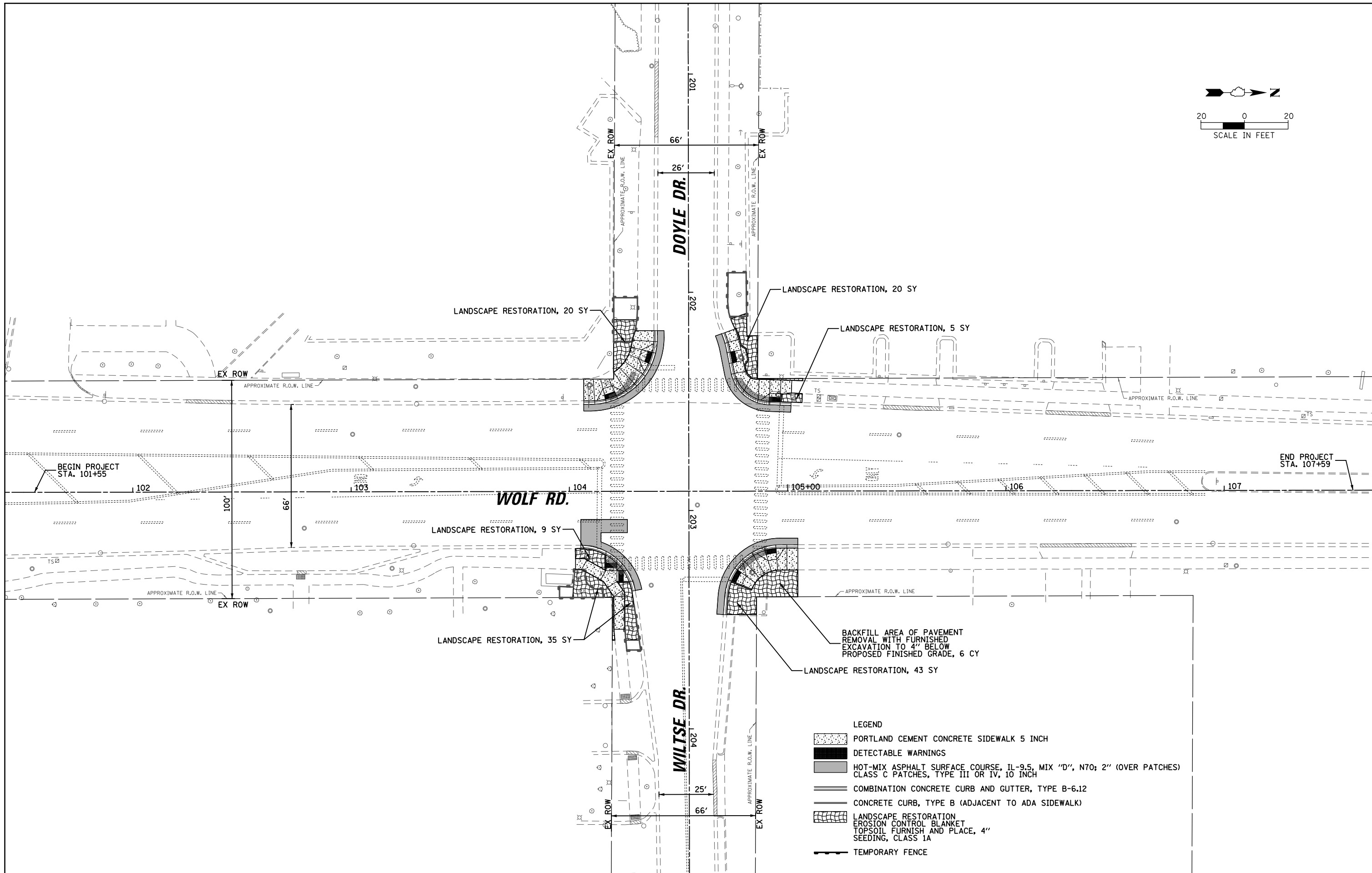
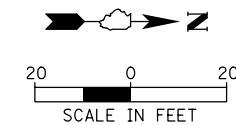
- LEGEND**
- PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH
  - DETECTABLE WARNINGS
  - HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N70; 2" (OVER PATCHES)
  - CLASS C PATCHES, TYPE III OR IV, 10 INCH
  - COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12
  - CONCRETE CURB, TYPE B (ADJACENT TO ADA SIDEWALK)
  - TEMPORARY FENCE

|   |   |              |           |
|---|---|--------------|-----------|
| FILE NAME =                               | USER NAME = jdfrenza                                    | DESIGNED JMD | REVISED - |
| N:\NORTH LAKE\940032HR - Municipal Review | Projects\940032 HR 400\940032HR405\Civil\DRAWN\0301.SHT | DRAWN CJC    | REVISED - |
| Default                                   | PLOT DATE = 11/7/2024                                   | CHECKED MEW  | REVISED - |
|   |   | DATE -       | REVISED - |

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

|                      |         |             |              |
|----------------------|---------|-------------|--------------|
| <b>PROPOSED PLAN</b> |         |             |              |
| SCALE: 1" = 20'      | SHEET 1 | OF 1 SHEETS | STA. TO STA. |

| F.A.U. RTE.               | SECTION        | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|----------------|--------|--------------|-----------|
| 2690                      | 23-00102-00-TL | COOK   | 39           | 13        |
| CONTRACT NO. 61K94        |                |        |              |           |
| ILLINOIS FED. AID PROJECT |                |        |              |           |



- LEGEND**
- PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH
  - DETECTABLE WARNINGS
  - HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N70; 2" (OVER PATCHES) CLASS C PATCHES, TYPE III OR IV, 10 INCH
  - COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12
  - CONCRETE CURB, TYPE B (ADJACENT TO ADA SIDEWALK)
  - LANDSCAPE RESTORATION  
EROSION CONTROL BLANKET  
TOPSOIL FURNISH AND PLACE, 4"  
SEEDING, CLASS 1A
  - TEMPORARY FENCE

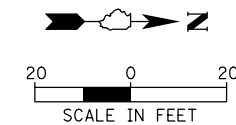
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| FILE NAME =                               | USER NAME = jdefrenza                    | DESIGNED JMD | REVISED - |
| N:\NORTH LAKE\940032HR - Municipal Review | Projects\940032 HR 400\940032HR405\Civil | DRAWN JOC    | REVISED - |
| Default                                   | PLOT SCALE = 48'                         | CHECKED MEW  | REVISED - |
|   | PLOT DATE = 11/7/2024                    | DATE -       | REVISED - |

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

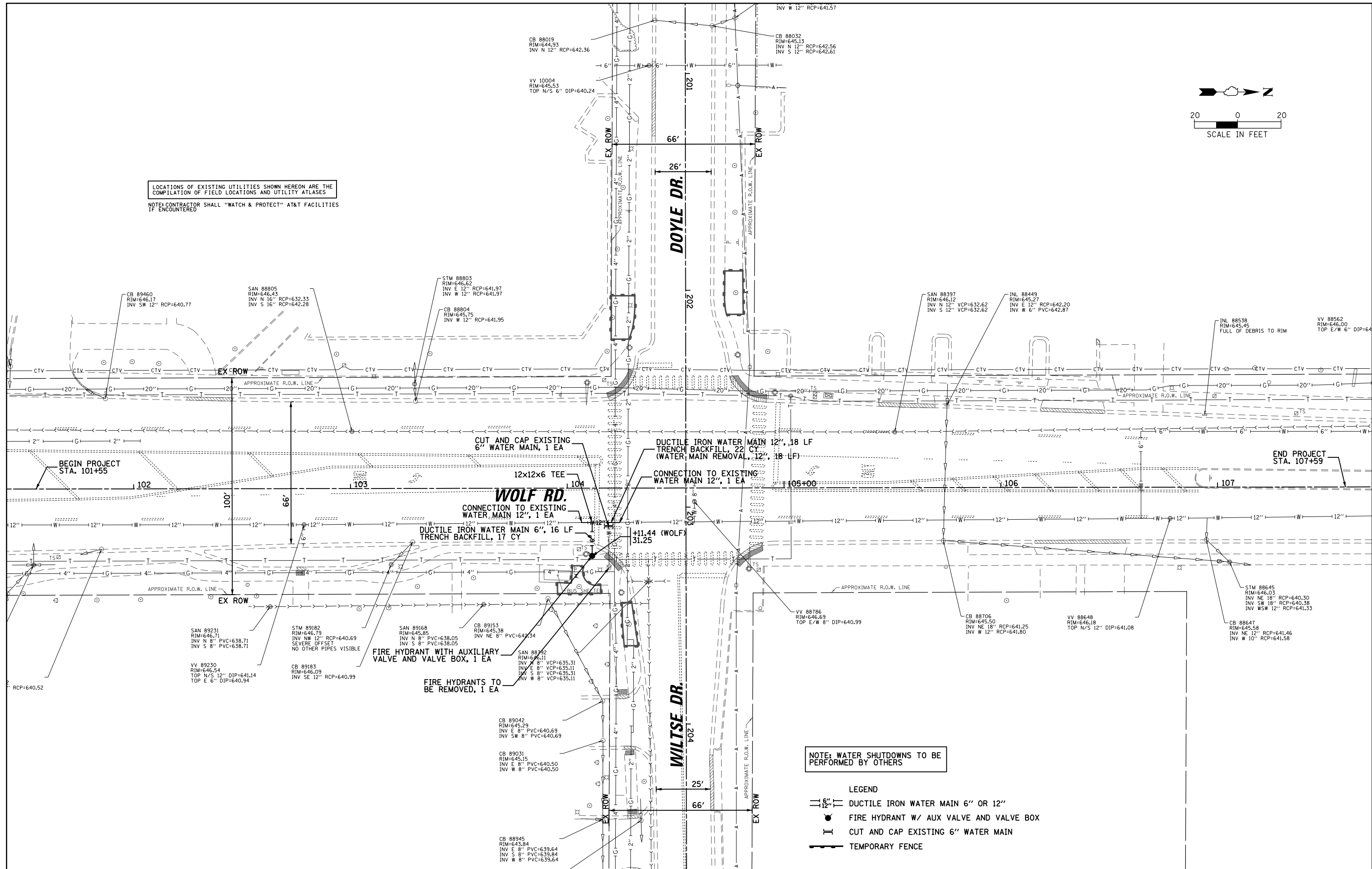
**EROSION CONTROL AND LANDSCAPING PLAN**

SCALE: 1" = 20'    SHEET 1    OF 1    SHEETS    STA.    TO STA.

|                           |                |        |              |           |
|---------------------------|----------------|--------|--------------|-----------|
| F.A.U. RTE.               | SECTION        | COUNTY | TOTAL SHEETS | SHEET NO. |
| 2690                      | 23-00102-00-TL | COOK   | 39           | 14        |
| CONTRACT NO. 61K94        |                |        |              |           |
| ILLINOIS FED. AID PROJECT |                |        |              |           |



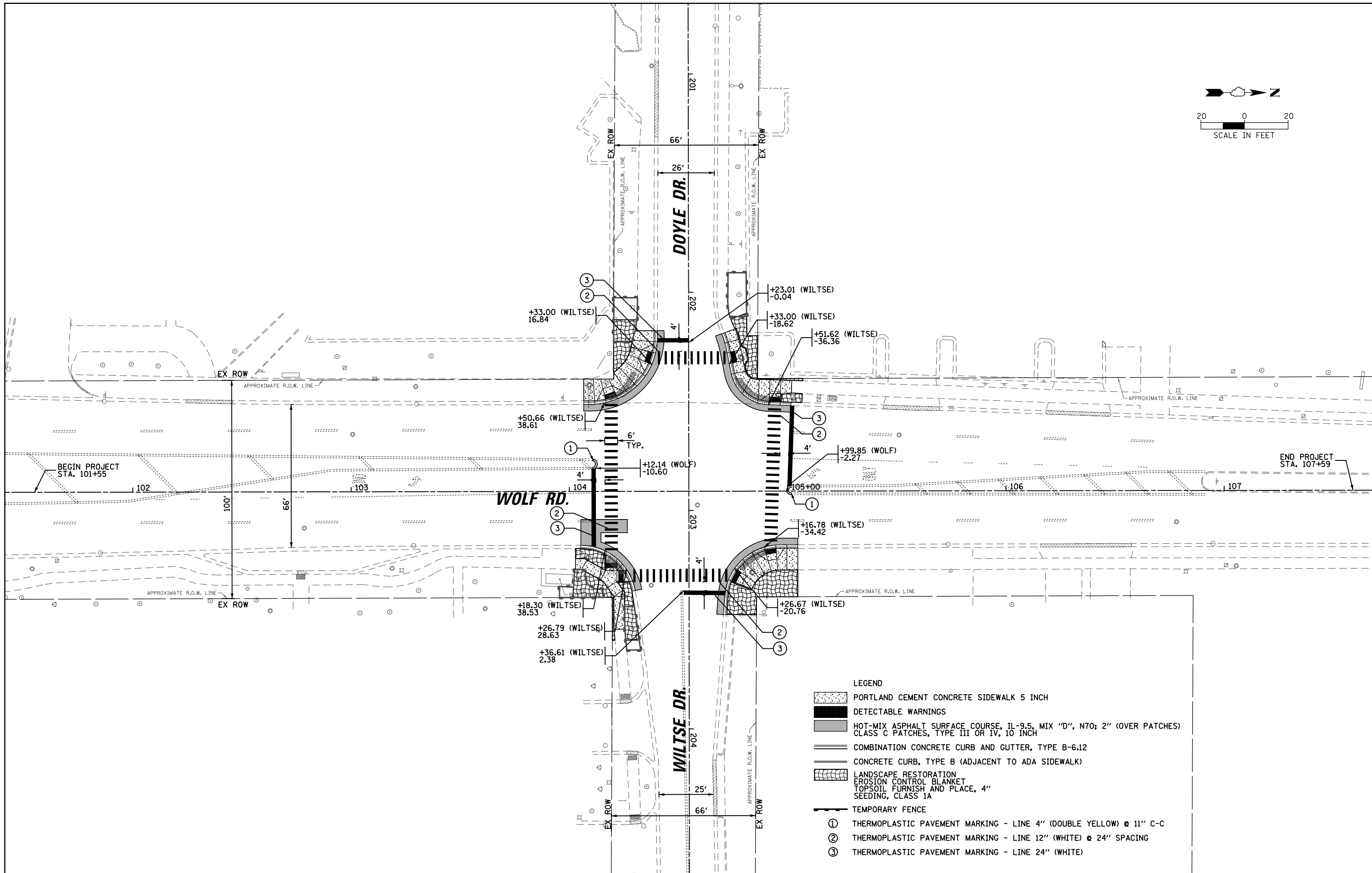
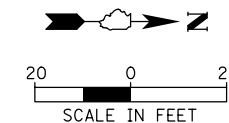
LOCATIONS OF EXISTING UTILITIES SHOWN HEREON ARE THE  
 COMPILATION OF FIELD LOCATIONS AND UTILITY ATLASES  
 NOTE: CONTRACTOR SHALL "WATCH & PROTECT" AT&T FACILITIES  
 IF ENCOUNTERED



NOTE: WATER SHUTDOWNS TO BE  
 PERFORMED BY OTHERS

- LEGEND
- DUCTILE IRON WATER MAIN 6" OR 12"
  - FIRE HYDRANT W/ AUX VALVE AND VALVE BOX
  - CUT AND CAP EXISTING 6" WATER MAIN
  - TEMPORARY FENCE

|   |   |              |           |   |                              |                    |                |        |              |           |         |
|---|---|--------------|-----------|---|------------------------------|--------------------|----------------|--------|--------------|-----------|---------|
| FILE NAME =                               | USER NAME = jdfrenza  | DESIGNED JMD | REVISED - | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>PROPOSED UTILITY PLAN</b> | F.A.U. R.E.        | SECTION        | COUNTY | TOTAL SHEETS | SHEET NO. |         |
| N:\NORTH LAKE\940032HR - Municipal Review | Projects\940032 HR 400\940032HR405\Civil\DRAWING\940032HR405.01.SHT | DRAWN PHC    | REVISED - |   |                              | 2690               | 23-00102-00-TL | COOK   | 39           | 15        |         |
| Default                                   | PLOT SCALE = 48"  | CHECKED MEW  | REVISED - |   |                              | CONTRACT NO. 61K94 |                |        |              |           |         |
|   | PLOT DATE = 11/7/2024   | DATE -       | REVISED - |   |                              | SCALE: 1" = 20'    | SHEET 1        | OF 1   | SHEETS       | STA.      | TO STA. |



- LEGEND**
- PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH
  - DETECTABLE WARNINGS
  - HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N70; 2" (OVER PATCHES) CLASS C PATCHES, TYPE III OR IV, 10 INCH
  - COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12
  - CONCRETE CURB, TYPE B (ADJACENT TO ADA SIDEWALK)
  - LANDSCAPE RESTORATION EROSION CONTROL BLANKET TOPSOIL FURNISH AND PLACE, 4" SEEDING, CLASS 1A
  - TEMPORARY FENCE
  - ① THERMOPLASTIC PAVEMENT MARKING - LINE 4" (DOUBLE YELLOW) @ 11" C-C
  - ② THERMOPLASTIC PAVEMENT MARKING - LINE 12" (WHITE) @ 24" SPACING
  - ③ THERMOPLASTIC PAVEMENT MARKING - LINE 24" (WHITE)

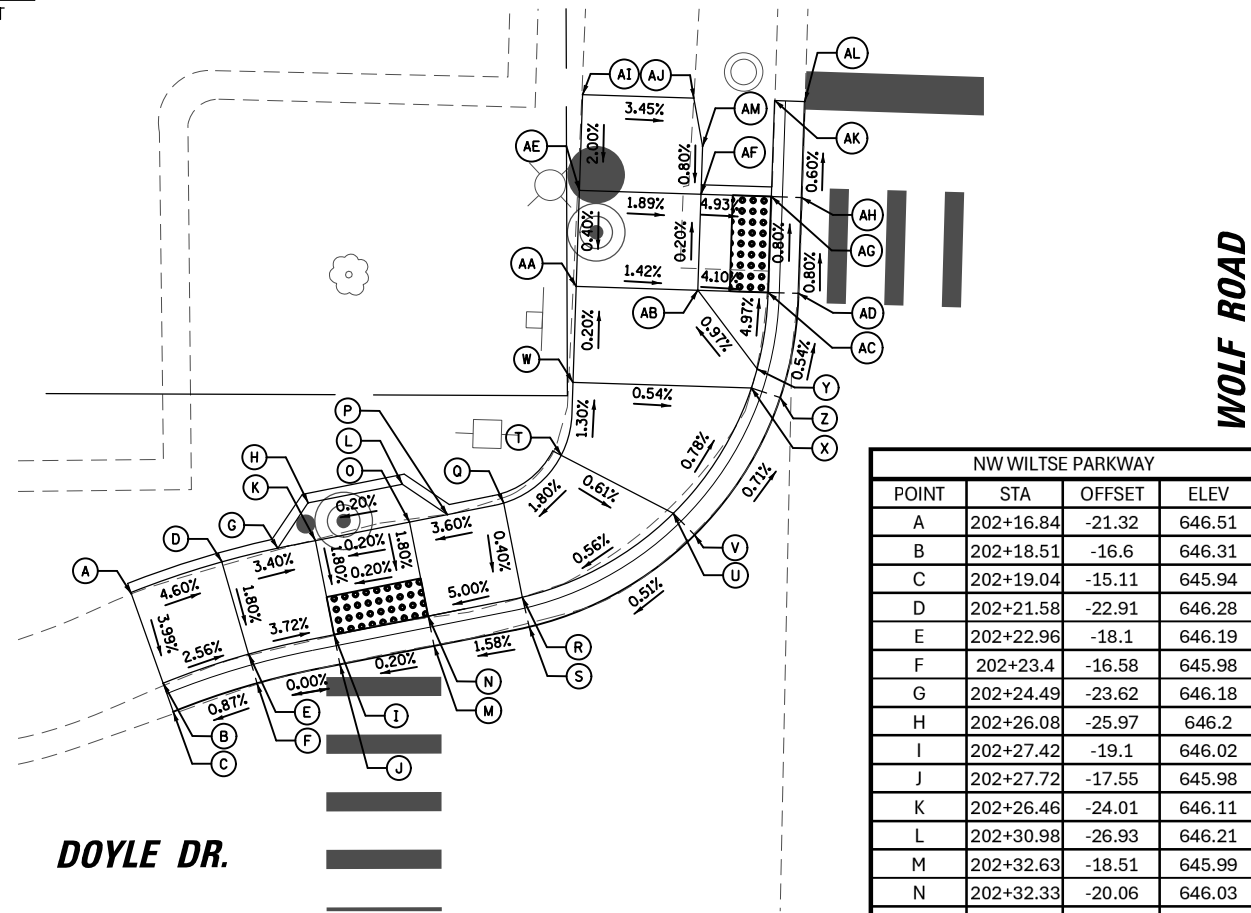
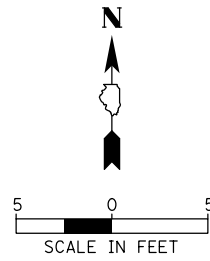
|   |  |              |           |
|---|--|--------------|-----------|
| FILE NAME =                               | USER NAME = jdefrenza  | DESIGNED JMD | REVISED - |
| N:\NORTH LAKE\940032HR - Municipal Review | Projects\940032 HR 400's\940032HR405\Civil\DRAWING\940032HR405.DWG | DRAWN CJC    | REVISED - |
| Default                                   | PLOT SCALE = 48'   | CHECKED MEW  | REVISED - |
|   | PLOT DATE = 11/7/2024  | DATE -       | REVISED - |

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

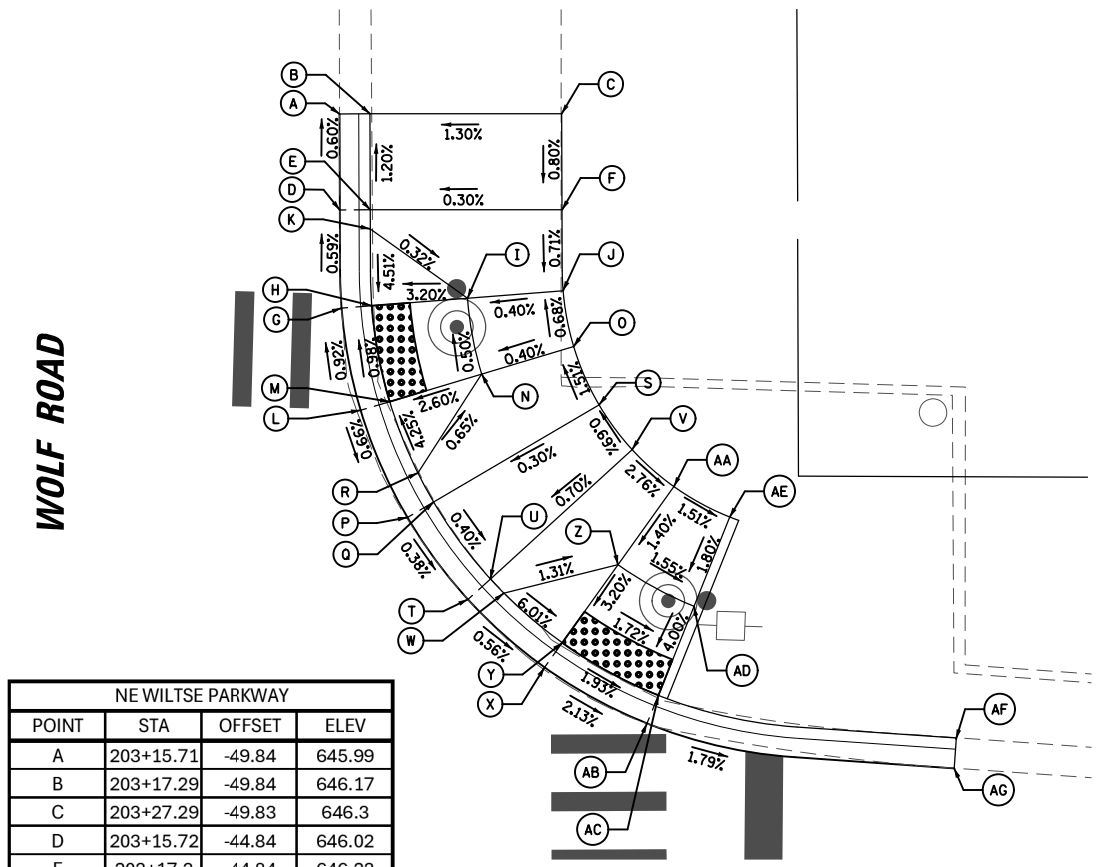
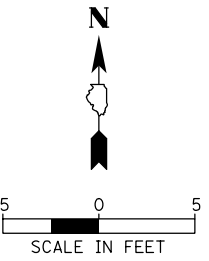
|                              |         |             |              |
|------------------------------|---------|-------------|--------------|
| <b>PAVEMENT MARKING PLAN</b> |         |             |              |
| SCALE: 1" = 20'              | SHEET 1 | OF 1 SHEETS | STA. TO STA. |

|                           |                |        |              |           |
|---------------------------|----------------|--------|--------------|-----------|
| F.A.U. RTE.               | SECTION        | COUNTY | TOTAL SHEETS | SHEET NO. |
| 2690                      | 23-00102-00-TL | COOK   | 39           | 16        |
| CONTRACT NO. 61K94        |                |        |              |           |
| ILLINOIS FED. AID PROJECT |                |        |              |           |





| NW WILTSE PARKWAY |           |        |        |
|-------------------|-----------|--------|--------|
| POINT             | STA       | OFFSET | ELEV   |
| A                 | 202+16.84 | -21.32 | 646.51 |
| B                 | 202+18.51 | -16.6  | 646.31 |
| C                 | 202+19.04 | -15.11 | 645.94 |
| D                 | 202+21.58 | -22.91 | 646.28 |
| E                 | 202+22.96 | -18.1  | 646.19 |
| F                 | 202+23.4  | -16.58 | 645.98 |
| G                 | 202+24.49 | -23.62 | 646.18 |
| H                 | 202+26.08 | -25.97 | 646.2  |
| I                 | 202+27.42 | -19.1  | 646.02 |
| J                 | 202+27.72 | -17.55 | 645.98 |
| K                 | 202+26.46 | -24.01 | 646.11 |
| L                 | 202+30.98 | -26.93 | 646.21 |
| M                 | 202+32.63 | -18.51 | 645.99 |
| N                 | 202+32.33 | -20.06 | 646.03 |
| O                 | 202+31.37 | -24.97 | 646.12 |
| P                 | 202+33.33 | -25.37 | 646.19 |
| Q                 | 202+36.27 | -25.95 | 646.3  |
| R                 | 202+37.23 | -21.03 | 646.28 |
| S                 | 202+37.59 | -19.5  | 646.07 |
| T                 | 202+39.27 | -28.43 | 646.37 |
| U                 | 202+45.1  | -25.4  | 646.33 |
| V                 | 202+46.21 | -24.27 | 646.12 |
| W                 | 202+39.89 | -32.23 | 646.32 |
| X                 | 202+49.18 | -31.93 | 646.27 |
| Y                 | 202+49.49 | -32.92 | 646.27 |
| Z                 | 202+50.68 | -31.42 | 646.06 |
| AA                | 202+40.06 | -37.23 | 646.31 |
| AB                | 202+46.4  | -37.02 | 646.22 |
| AC                | 202+50.06 | -36.9  | 646.07 |
| AD                | 202+51.64 | -36.85 | 646.03 |
| AE                | 202+40.24 | -42.23 | 646.33 |
| AF                | 202+46.58 | -42.02 | 646.21 |
| AG                | 202+50.23 | -41.9  | 646.03 |
| AH                | 202+51.81 | -41.84 | 645.99 |
| AI                | 202+40.41 | -47.23 | 646.43 |
| AJ                | 202+46.21 | -47.03 | 646.23 |
| AK                | 202+50.41 | -46.89 | 646.34 |
| AL                | 202+51.99 | -46.84 | 645.96 |
| AM                | 202+46.66 | -44.52 | 646.23 |



| NE WILTSE PARKWAY |           |        |        |
|-------------------|-----------|--------|--------|
| POINT             | STA       | OFFSET | ELEV   |
| A                 | 203+15.71 | -49.84 | 645.99 |
| B                 | 203+17.29 | -49.84 | 646.17 |
| C                 | 203+27.29 | -49.83 | 646.3  |
| D                 | 203+15.72 | -44.84 | 646.02 |
| E                 | 203+17.3  | -44.84 | 646.23 |
| F                 | 203+27.3  | -44.83 | 646.26 |
| G                 | 203+15.8  | -39.72 | 646.05 |
| H                 | 203+17.38 | -39.85 | 646.05 |
| I                 | 203+22.36 | -40.23 | 646.21 |
| J                 | 203+27.35 | -40.61 | 646.23 |
| K                 | 203+17.3  | -43.84 | 646.23 |
| L                 | 203+16.79 | -34.39 | 646.1  |
| M                 | 203+18.3  | -34.85 | 646.1  |
| N                 | 203+23.09 | -36.28 | 646.23 |
| O                 | 203+27.89 | -37.71 | 646.25 |
| P                 | 203+19.22 | -28.81 | 646.06 |
| Q                 | 203+20.58 | -29.61 | 646.27 |
| R                 | 203+19.76 | -31.13 | 646.27 |
| S                 | 203+29.21 | -34.66 | 646.3  |
| T                 | 203+22.36 | -24.54 | 646.04 |
| U                 | 203+23.54 | -25.59 | 646.25 |
| V                 | 203+30.93 | -32.33 | 646.32 |
| W                 | 203+24.23 | -24.86 | 646.25 |
| X                 | 203+26.35 | -20.99 | 646.01 |
| Y                 | 203+27.27 | -22.27 | 646.01 |
| Z                 | 203+30.18 | -26.34 | 646.17 |
| AA                | 203+33.1  | -30.4  | 646.24 |
| AB                | 203+31.69 | -18.06 | 645.88 |
| AC                | 203+32.27 | -19.52 | 645.9  |
| AD                | 203+34.14 | -24.16 | 646.1  |
| AE                | 203+36.01 | -28.8  | 646.19 |
| AF                | 203+47.8  | -17.25 | 645.79 |
| AG                | 203+47.69 | -15.7  | 645.59 |

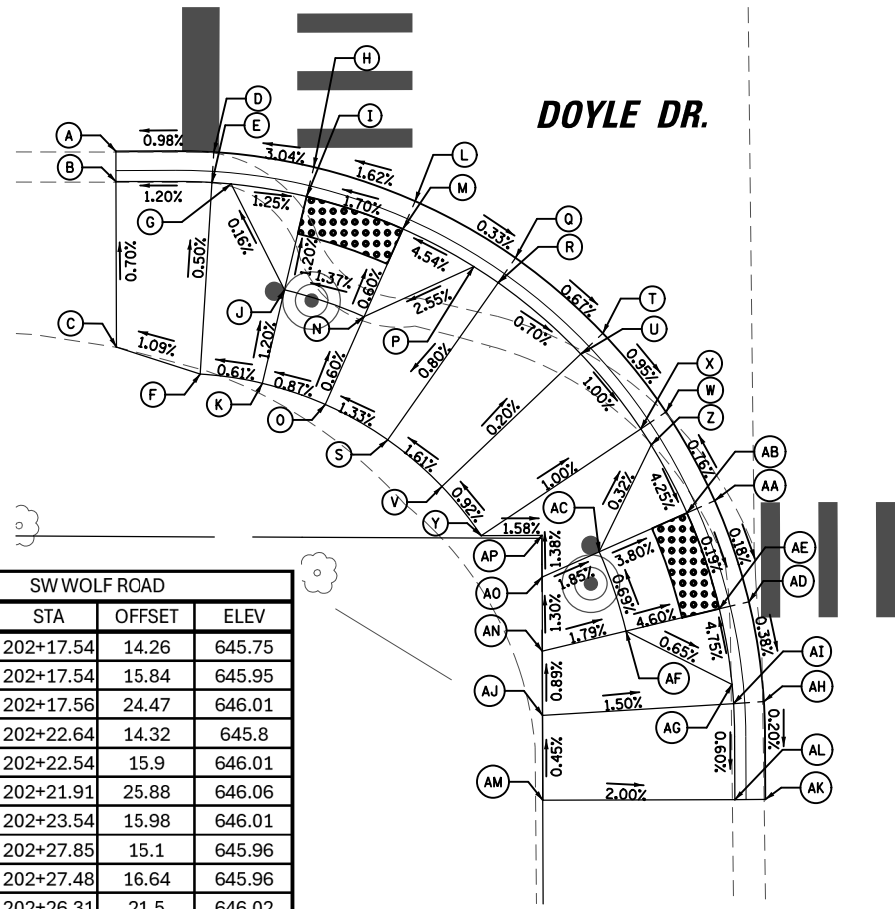
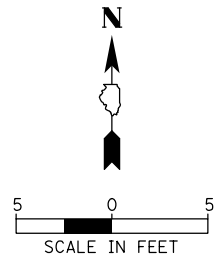
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|--|---|----------------|-----------|
| FILE NAME =                              | USER NAME = jdefrenza                                       | DESIGNED JMD   | REVISED - |
| N:\NORTHLAKE\940032HR - Municipal Review | Projects\940032 HR 400\940032HR405\Civil\DRAWN_HR_CIVIL.SHT | DRAWN HR_CIVIL | REVISED - |
| Default                                  | PLOT SCALE = 10'  | CHECKED MEW    | REVISED - |
|  | PLOT DATE = 11/7/2024                                       | DATE -         | REVISED - |

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ADA RAMP GRADING PLAN

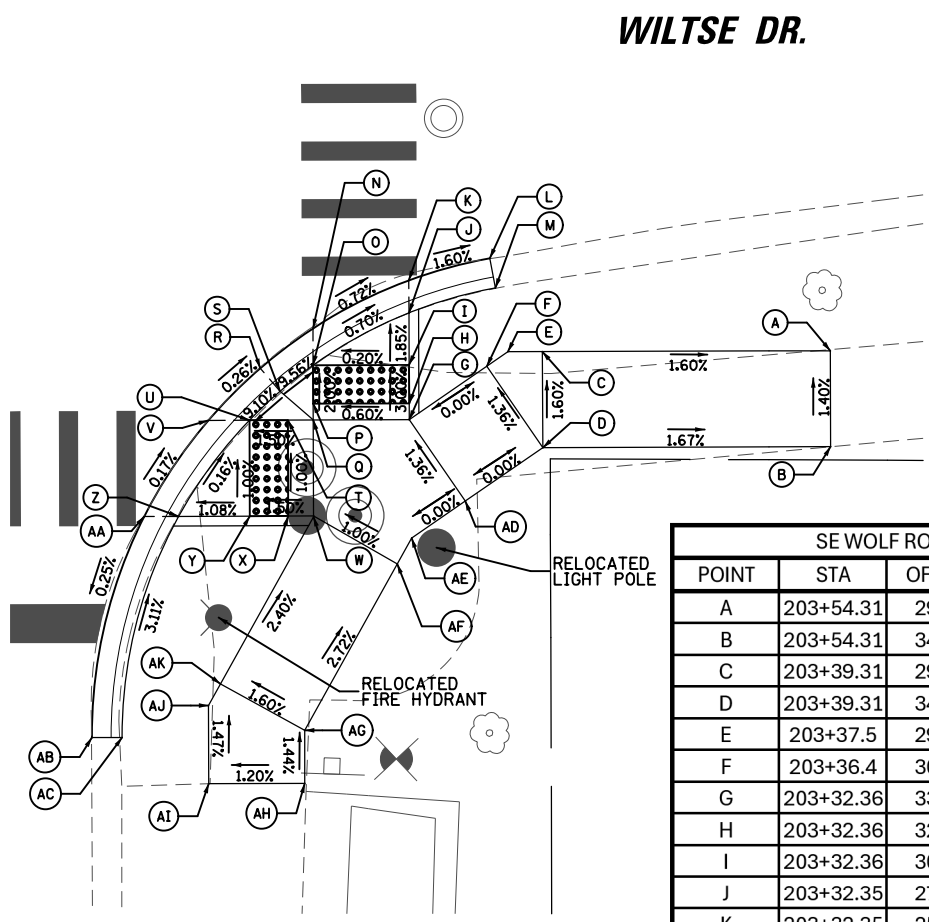
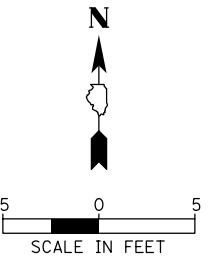
SCALE: 1" = 5' SHEET 1 OF 2 SHEETS STA. TO STA.

|                           |                |        |                    |           |
|---------------------------|----------------|--------|--------------------|-----------|
| F.A.U. RTE.               | SECTION        | COUNTY | TOTAL SHEETS       | SHEET NO. |
| 2690                      | 23-00102-00-TL | COOK   | 39                 | 17        |
| ILLINOIS FED. AID PROJECT |                |        | CONTRACT NO. 61K94 |           |



| SW WOLF ROAD |           |        |        |
|--------------|-----------|--------|--------|
| POINT        | STA       | OFFSET | ELEV   |
| A            | 202+17.54 | 14.26  | 645.75 |
| B            | 202+17.54 | 15.84  | 645.95 |
| C            | 202+17.56 | 24.47  | 646.01 |
| D            | 202+22.64 | 14.32  | 645.8  |
| E            | 202+22.54 | 15.9   | 646.01 |
| F            | 202+21.91 | 25.88  | 646.06 |
| G            | 202+23.54 | 15.98  | 646.01 |
| H            | 202+27.85 | 15.1   | 645.96 |
| I            | 202+27.48 | 16.64  | 645.96 |
| J            | 202+26.31 | 21.5   | 646.02 |
| K            | 202+25.15 | 26.36  | 646.08 |
| L            | 202+33.12 | 16.89  | 646.05 |
| M            | 202+32.48 | 18.33  | 646.05 |
| N            | 202+30.45 | 22.9   | 646.08 |
| O            | 202+28.42 | 27.47  | 646.11 |
| P            | 202+36.17 | 20.3   | 646.24 |
| Q            | 202+38.35 | 19.86  | 646.03 |
| R            | 202+37.44 | 21.15  | 646.24 |
| S            | 202+31.68 | 29.32  | 646.16 |
| T            | 202+42.89 | 23.78  | 645.99 |
| U            | 202+41.75 | 24.87  | 646.2  |
| V            | 202+34.5  | 31.76  | 646.22 |
| W            | 202+46.18 | 27.9   | 645.94 |
| X            | 202+44.86 | 28.77  | 646.15 |
| Y            | 202+36.54 | 34.31  | 646.25 |
| Z            | 202+45.4  | 29.61  | 646.15 |
| AA           | 202+48.71 | 32.51  | 645.98 |
| AB           | 202+47.26 | 33.15  | 645.98 |
| AC           | 202+42.69 | 35.17  | 646.17 |
| AD           | 202+50.48 | 37.78  | 645.97 |
| AE           | 202+48.94 | 38.15  | 645.97 |
| AF           | 202+44.08 | 39.3   | 646.2  |
| AG           | 202+49.6  | 42.09  | 646.16 |
| AH           | 202+51.25 | 42.99  | 645.95 |
| AI           | 202+49.68 | 43.09  | 646.16 |
| AJ           | 202+39.73 | 43.7   | 646.31 |
| AK           | 202+51.32 | 48.09  | 645.94 |
| AL           | 202+49.74 | 48.09  | 646.13 |
| AM           | 202+39.74 | 48.11  | 646.33 |
| AN           | 202+39.72 | 40.34  | 646.28 |
| AO           | 202+39.72 | 36.48  | 646.23 |
| AP           | 202+39.71 | 34.31  | 646.2  |

WOLF RD.



| SE WOLF ROAD |           |        |        |
|--------------|-----------|--------|--------|
| POINT        | STA       | OFFSET | ELEV   |
| A            | 203+54.31 | 29.45  | 645.93 |
| B            | 203+54.31 | 34.45  | 646    |
| C            | 203+39.31 | 29.48  | 646.17 |
| D            | 203+39.31 | 34.48  | 646.25 |
| E            | 203+37.5  | 29.48  | 646.18 |
| F            | 203+36.4  | 30.23  | 646.18 |
| G            | 203+32.36 | 33.01  | 646.18 |
| H            | 203+32.36 | 32.15  | 646.16 |
| I            | 203+32.36 | 30.15  | 646.1  |
| J            | 203+32.35 | 27.45  | 646.05 |
| K            | 203+32.35 | 25.76  | 646.05 |
| L            | 203+36.57 | 24.6   | 645.98 |
| M            | 203+36.86 | 26.15  | 646.21 |
| N            | 203+27.35 | 28.26  | 646.09 |
| O            | 203+27.36 | 30.16  | 646.09 |
| P            | 203+27.36 | 32.16  | 646.13 |
| Q            | 203+27.36 | 33.02  | 646.15 |
| R            | 203+24.6  | 30.32  | 646.09 |
| S            | 203+25.63 | 31.52  | 646.3  |
| T            | 203+26.03 | 33.02  | 646.13 |
| U            | 203+24.03 | 33.02  | 646.1  |
| V            | 203+21.89 | 33.03  | 646.1  |
| W            | 203+27.37 | 38.02  | 646.2  |
| X            | 203+26.04 | 38.02  | 646.18 |
| Y            | 203+24.04 | 38.02  | 646.15 |
| Z            | 203+20.34 | 38.03  | 646.11 |
| AA           | 203+18.55 | 38.03  | 646.11 |
| AB           | 203+15.8  | 49.55  | 646.08 |
| AC           | 203+17.38 | 49.54  | 646.48 |
| AD           | 203+35.27 | 37.25  | 646.25 |
| AE           | 203+32.47 | 39.17  | 646.25 |
| AF           | 203+31.72 | 40.52  | 646.25 |
| AG           | 203+26.88 | 49.18  | 646.52 |
| AH           | 203+26.89 | 51.95  | 646.56 |
| AI           | 203+21.89 | 51.95  | 646.5  |
| AJ           | 203+21.88 | 47.88  | 646.44 |
| AK           | 203+22.51 | 46.76  | 646.44 |

WOLF RD.

|   |  |              |           |
|---|--|--------------|-----------|
| FILE NAME =                               | USER NAME = jdefrenza                      | DESIGNED JMD | REVISED - |
| N:\NORTH LAKE\940032HR - Municipal Review | Projects\940032 HR 400's\940032HR405\Civil | DRAWN CJC    | REVISED - |
| Default                                   | PLOT SCALE = 10'                           | CHECKED MEW  | REVISED - |
|   | PLOT DATE = 11/7/2024                      | DATE -       | REVISED - |

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

|                       |         |             |              |
|-----------------------|---------|-------------|--------------|
| ADA RAMP GRADING PLAN |         |             |              |
| SCALE: 1" = 5'        | SHEET 1 | OF 2 SHEETS | STA. TO STA. |

|                           |                |        |              |           |
|---------------------------|----------------|--------|--------------|-----------|
| F.A.U R.T.E.              | SECTION        | COUNTY | TOTAL SHEETS | SHEET NO. |
| 2690                      | 23-00102-00-TL | COOK   | 39           | 18        |
| CONTRACT NO. 61K94        |                |        |              |           |
| ILLINOIS FED. AID PROJECT |                |        |              |           |

# TRAFFIC SIGNAL LEGEND

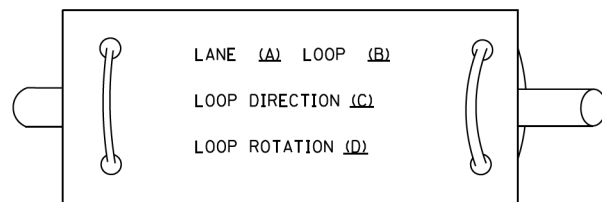
(NOT TO SCALE)

| ITEM   | EXISTING | PROPOSED | ITEM   | EXISTING | PROPOSED | ITEM  | EXISTING | PROPOSED |
|--|----------|----------|--|----------|----------|---|----------|----------|
| CONTROLLER CABINET   |          |          | HANDHOLE<br>-SQUARE                                |          |          | SIGNAL HEAD   |          |          |
| COMMUNICATION CABINET  |          |          | HANDHOLE<br>-ROUND                                 |          |          | -(P) PROGRAMMABLE SIGNAL HEAD   |          |          |
| MASTER CONTROLLER  |          |          | HEAVY DUTY HANDHOLE<br>-SQUARE                     |          |          | SIGNAL HEAD WITH BACKPLATE  |          |          |
| MASTER MASTER CONTROLLER   |          |          | HEAVY DUTY HANDHOLE<br>-ROUND                      |          |          | -(P) PROGRAMMABLE SIGNAL HEAD   |          |          |
| UNINTERRUPTABLE POWER SUPPLY                                       |          |          | DOUBLE HANDHOLE                                    |          |          | -(RB) RETROREFLECTIVE BACKPLATE   |          |          |
| SERVICE INSTALLATION<br>-(P) POLE MOUNTED                          |          |          | JUNCTION BOX                                       |          |          | PEDESTRIAN SIGNAL HEAD<br>AT RAILROAD INTERSECTIONS   |          |          |
| SERVICE INSTALLATION<br>-(G) GROUND MOUNTED                        |          |          | RAILROAD CANTILEVER MAST ARM                       |          |          | PEDESTRIAN SIGNAL HEAD<br>WITH COUNTDOWN TIMER  |          |          |
| -(GM) GROUND MOUNTED METERED                                       |          |          | RAILROAD FLASHING SIGNAL                           |          |          | ILLUMINATED SIGN<br>"NO LEFT TURN"/"NO RIGHT TURN"  |          |          |
| TELEPHONE CONNECTION   |          |          | RAILROAD CROSSING GATE                             |          |          | NUMBER OF CONDUCTORS, ELECTRIC<br>CABLE NO. 14, UNLESS NOTED OTHERWISE.<br>ALL DETECTOR LOOP CABLE TO BE SHIELDED |          |          |
| STEEL MAST ARM ASSEMBLY AND POLE                                   |          |          | RAILROAD CROSSBUCK                                 |          |          | GROUND CABLE IN CONDUIT,<br>NO. 6 SOLID COPPER (GREEN)  |          |          |
| ALUMINUM MAST ARM ASSEMBLY AND POLE                                |          |          | RAILROAD CONTROLLER CABINET                        |          |          | ELECTRIC CABLE IN CONDUIT, TRACER<br>NO. 14 1/C   |          |          |
| STEEL COMBINATION MAST ARM<br>ASSEMBLY AND POLE WITH LUMINAIRE     |          |          | UNDERGROUND CONDUIT (UC),<br>GALVANIZED STEEL      |          |          | COAXIAL CABLE   |          |          |
| SIGNAL POST<br>-(BM) BARREL MOUNTED - TEMPORARY                    |          |          | TEMPORARY SPAN WIRE,<br>TETHER WIRE, AND CABLE     |          |          | VENDOR CABLE  |          |          |
| WOOD POLE  |          |          | SYSTEM ITEM  |          |          | COPPER INTERCONNECT CABLE,<br>NO. 18, 3 PAIR TWISTED, SHIELDED  |          |          |
| GUY WIRE   |          |          | INTERSECTION ITEM                                  |          |          | FIBER OPTIC CABLE<br>-NO. 62.5/125, MM12F   |          |          |
| SIGNAL HEAD  |          |          | REMOVE ITEM  |          |          | -NO. 62.5/125, MM12F SM12F  |          |          |
| SIGNAL HEAD WITH BACKPLATE   |          |          | RELOCATE ITEM                                      |          |          | -NO. 62.5/125, MM12F SM24F  |          |          |
| SIGNAL HEAD OPTICALLY PROGRAMMED                                   |          |          | ABANDON ITEM                                       |          |          | GROUND ROD  |          |          |
| FLASHER INSTALLATION<br>-(FS) SOLAR POWERED                        |          |          | CONTROLLER CABINET AND<br>FOUNDATION TO BE REMOVED |          |          | -(C) CONTROLLER   |          |          |
| PEDESTRIAN SIGNAL HEAD   |          |          | MAST ARM POLE AND<br>FOUNDATION TO BE REMOVED      |          |          | -(M) MAST ARM   |          |          |
| PEDESTRIAN PUSH BUTTON<br>-(APS) ACCESSIBLE PEDESTRIAN PUSH BUTTON |          |          | SIGNAL POST AND<br>FOUNDATION TO BE REMOVED        |          |          | -(P) POST   |          |          |
| RADAR DETECTION SENSOR   |          |          | DETECTOR LOOP, TYPE I                              |          |          | -(S) SERVICE  |          |          |
| VIDEO DETECTION CAMERA   |          |          | PREFORMED DETECTOR LOOP                            |          |          |   |          |          |
| RADAR/VIDEO DETECTION ZONE   |          |          | SAMPLING (SYSTEM) DETECTOR                         |          |          |   |          |          |
| PAN, TILT, ZOOM (PTZ) CAMERA                                       |          |          | INTERSECTION AND SAMPLING<br>(SYSTEM) DETECTOR     |          |          |   |          |          |
| EMERGENCY VEHICLE LIGHT DETECTOR                                   |          |          | QUEUE AND SAMPLING<br>(SYSTEM) DETECTOR            |          |          |   |          |          |
| CONFIRMATION BEACON  |          |          | WIRELESS DETECTOR SENSOR                           |          |          |   |          |          |
| WIRELESS INTERCONNECT  |          |          | WIRELESS ACCESS POINT                              |          |          |   |          |          |
| WIRELESS INTERCONNECT RADIO REPEATER                               |          |          |  |          |          |   |          |          |

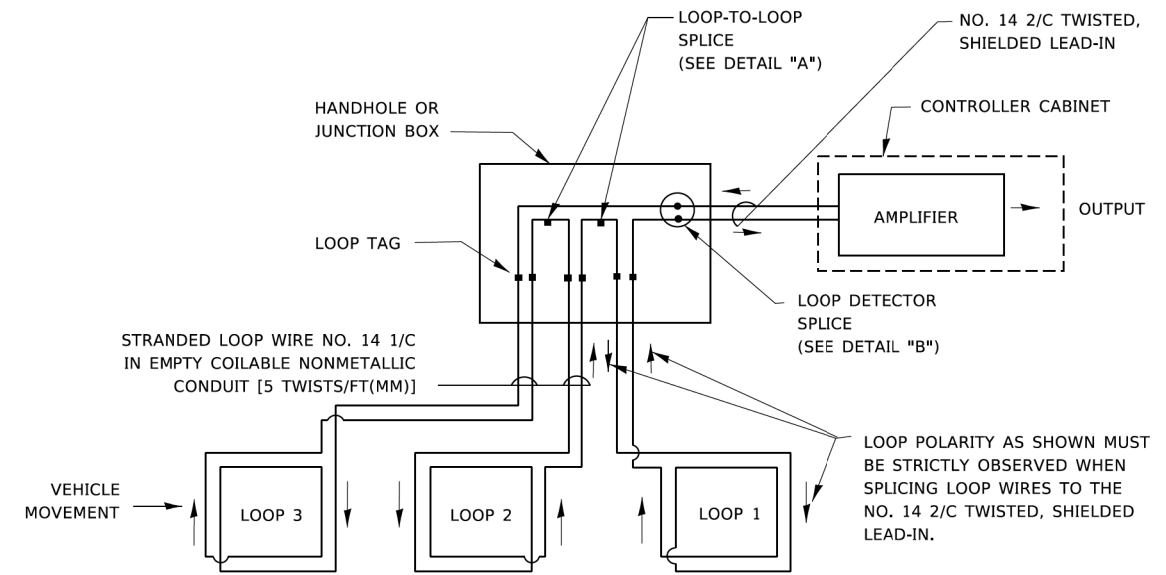
**LOOP DETECTOR NOTES**

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 DIVESHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.
6. LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.
7. PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

**LOOP LEAD-IN CABLE TAG**

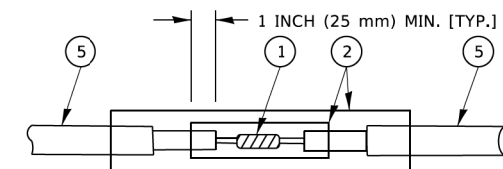


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

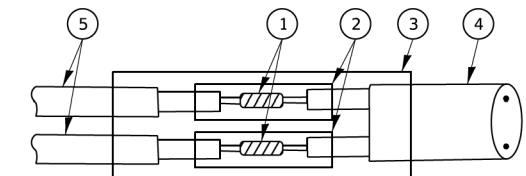


**DETECTOR LOOP WIRING SCHEMATIC**

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

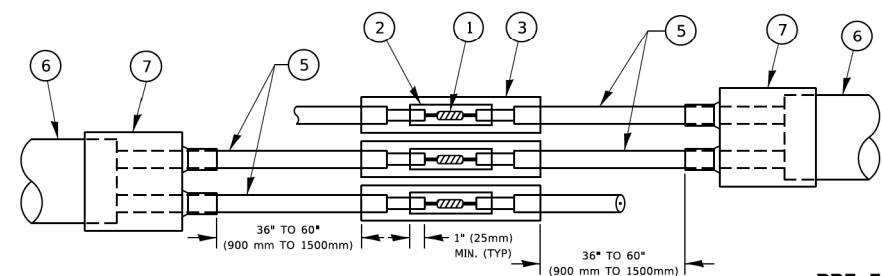


DETAIL "A"  
LOOP-TO-LOOP SPLICE

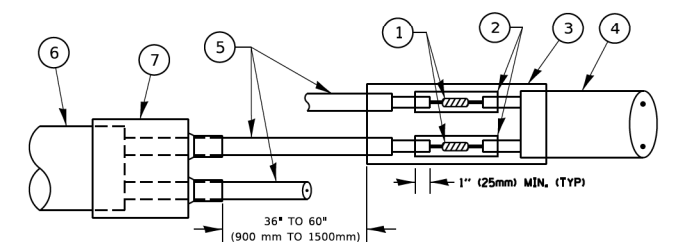


DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

**TYPE I LOOP**



DETAIL "A"  
LOOP-TO-LOOP SPLICE



DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

**PRE-FORMED LOOP**

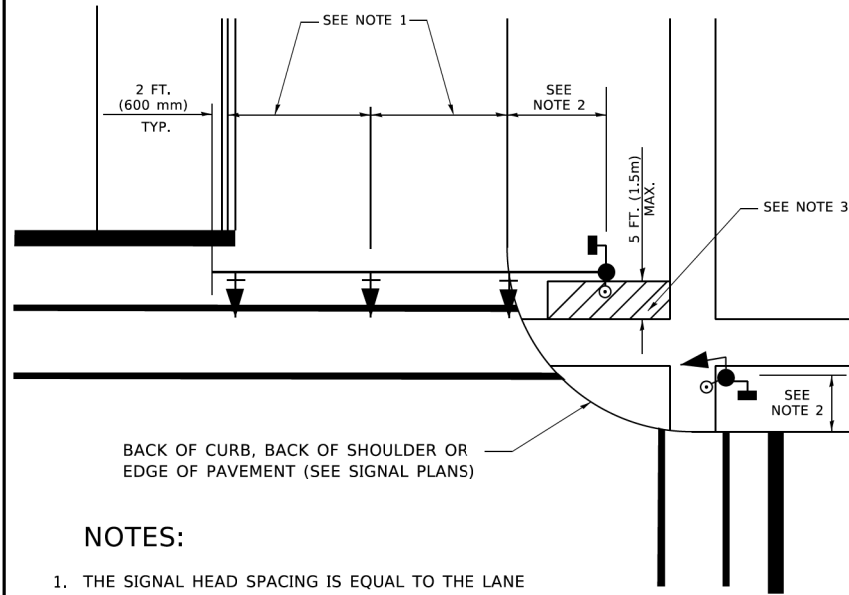
**LOOP DETECTOR SPLICE**

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

|                             |            |           |   |  |                           |                        |              |                 |              |              |
|-----------------------------|------------|-----------|---|--|---------------------------|------------------------|--------------|-----------------|--------------|--------------|
| USER NAME = footemj         | DESIGNED - | REVISED - | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>DISTRICT ONE<br/>STANDARD TRAFFIC SIGNAL DESIGN DETAILS</b> | F.A. RTE. 2690            | SECTION 23-00102-00-TL | COUNTY C00K  | TOTAL SHEETS 39 | SHEET NO. 20 |              |
| PLOT SCALE = 50,0000' / in. | DRAWN -    | REVISED - |   |  | SCALE: NONE               | SHEET 2 OF 7 SHEETS    | STA. TO STA. | <b>TS-05</b>    |              | CONTRACT NO. |
| PLOT DATE = 3/4/2019        | CHECKED -  | REVISED - |   |  | ILLINOIS FED. AID PROJECT |                        |              |                 |              |              |
|                             | DATE -     | REVISED - |   |  |                           |                        |              |                 |              |              |

**TRAFFIC SIGNAL MAST ARM AND SIGNAL POST**

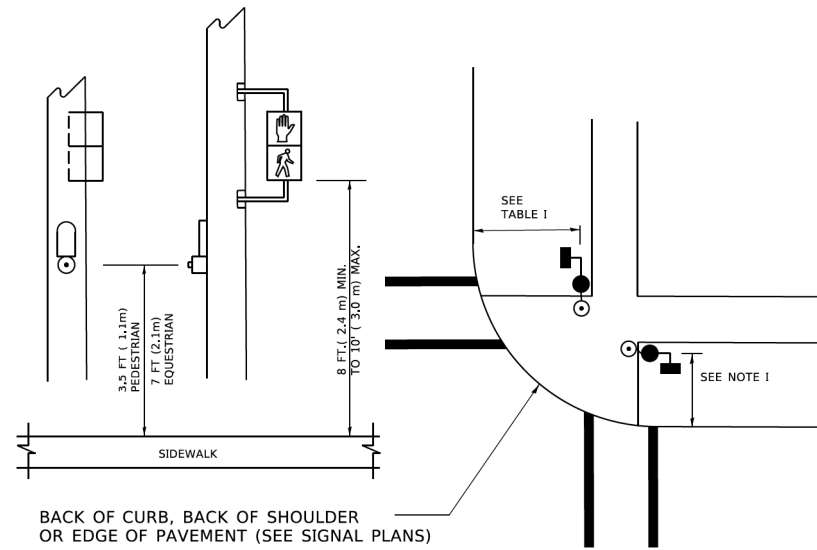
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



**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."

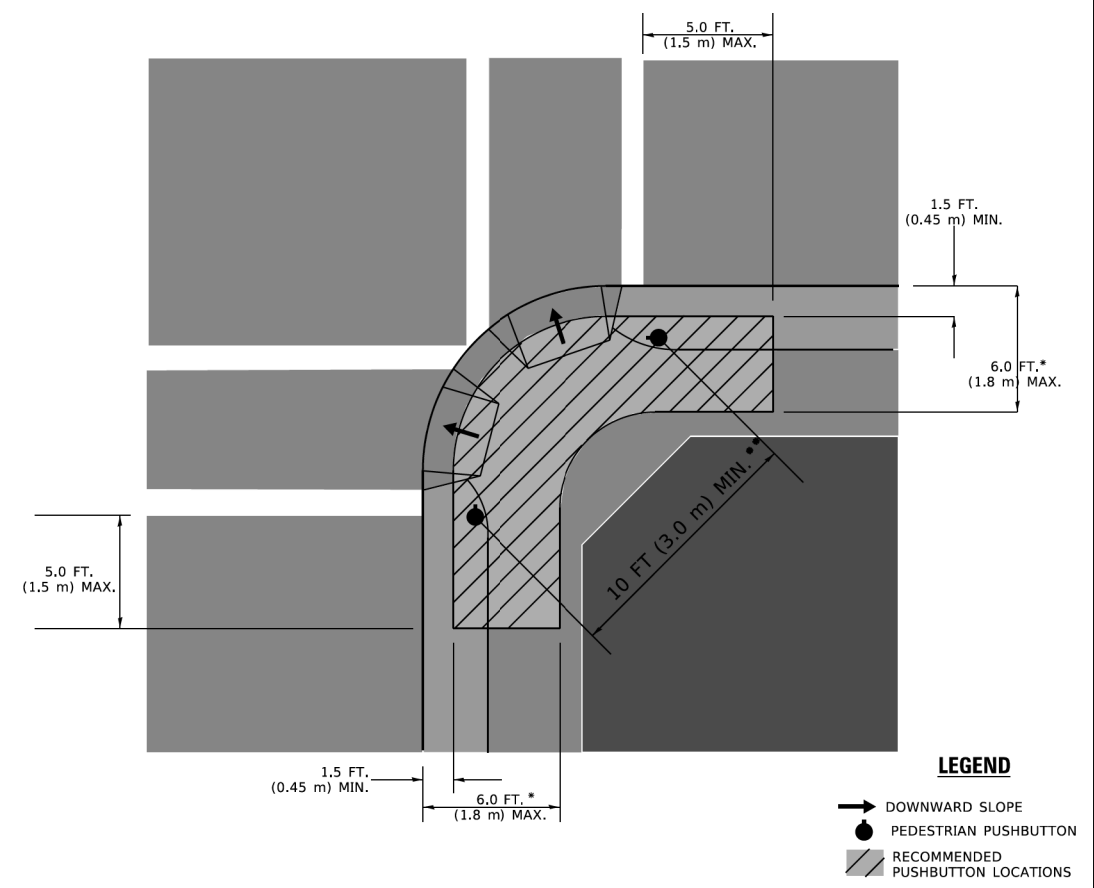
**PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST**



**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**



**LEGEND**

- DOWNWARD SLOPE
- PEDESTRIAN PUSHBUTTON
- ▨ 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 (0.5m), MINIMUM 10 FT (3.0m)  |
| TRAFFIC SIGNAL POST                | 4 FT (1.2m)   | SHOULDER WIDTH + 2 FT (0.5m), MINIMUM 10 FT (3.0m)  |
| PEDESTRIAN SIGNAL POST             | 4 FT (1.2m)   | SHOULDER WIDTH + 2 FT (0.5m), MINIMUM 10 FT (3.0m)  |
| PEDESTRIAN PUSHBUTTON POST         | 4 FT (1.2m)   | SHOULDER WIDTH + 2 FT (0.5m), MINIMUM 10 FT (3.0m)  |
| TEMPORARY WOOD POLE                | 6 FT (1.8m)   | SHOULDER WIDTH + 2 FT (0.5m), MINIMUM 10 FT (3.0m)  |
| CONTROLLER CABINET                 | 6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2   | SHOULDER WIDTH + 6 FT (1.3m), 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 (1.3m), 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 TOTHE 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.

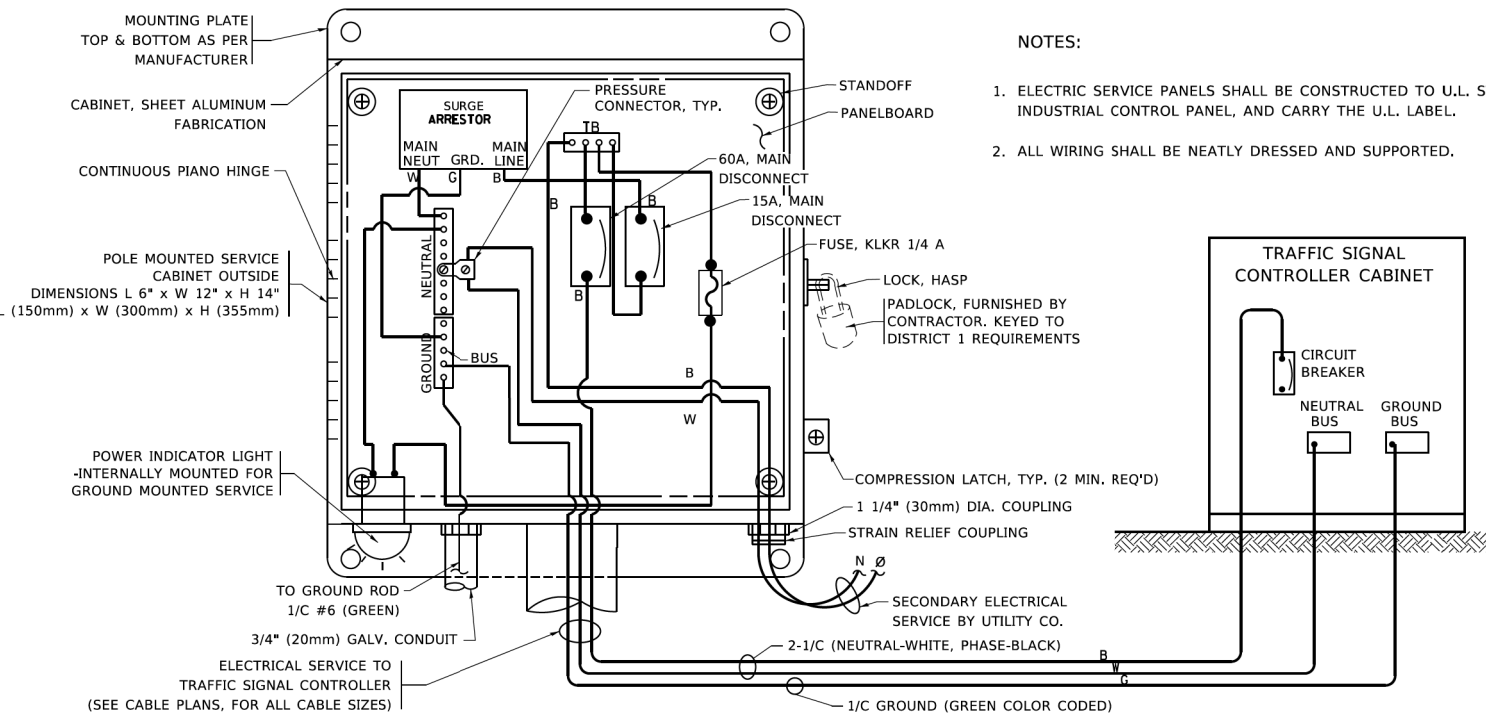
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|------------------------------|------------|-----------|
| USER NAME = footemj          | DESIGNED - | REVISED - |
|                              | DRAWN -    | REVISED - |
| PLOT SCALE = 50,0000 ' / in. | CHECKED -  | REVISED - |
| PLOT DATE = 3/4/2019         | DATE -     | REVISED - |

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

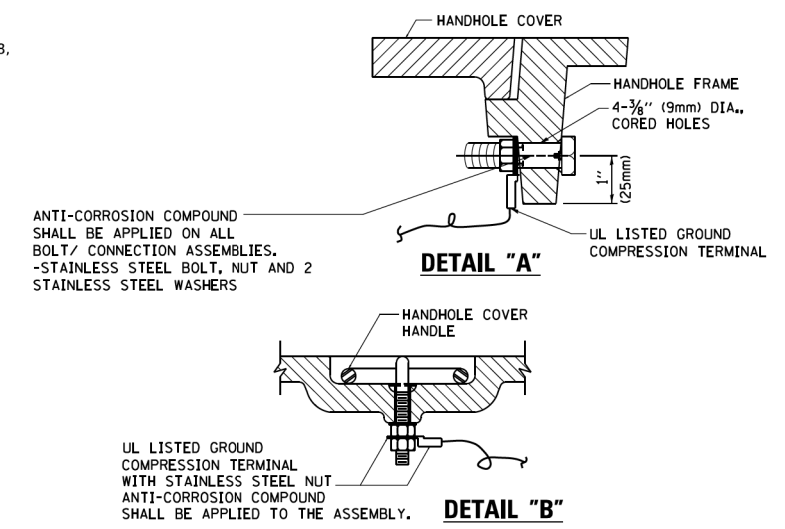
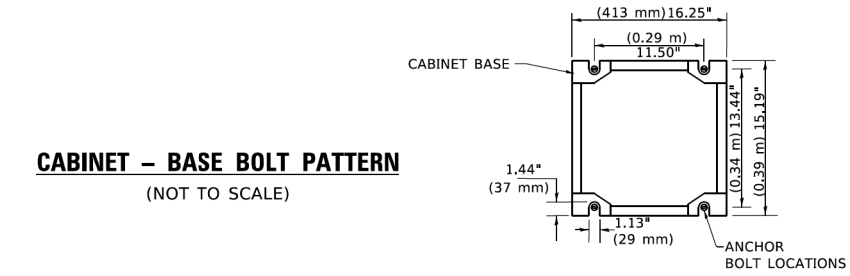
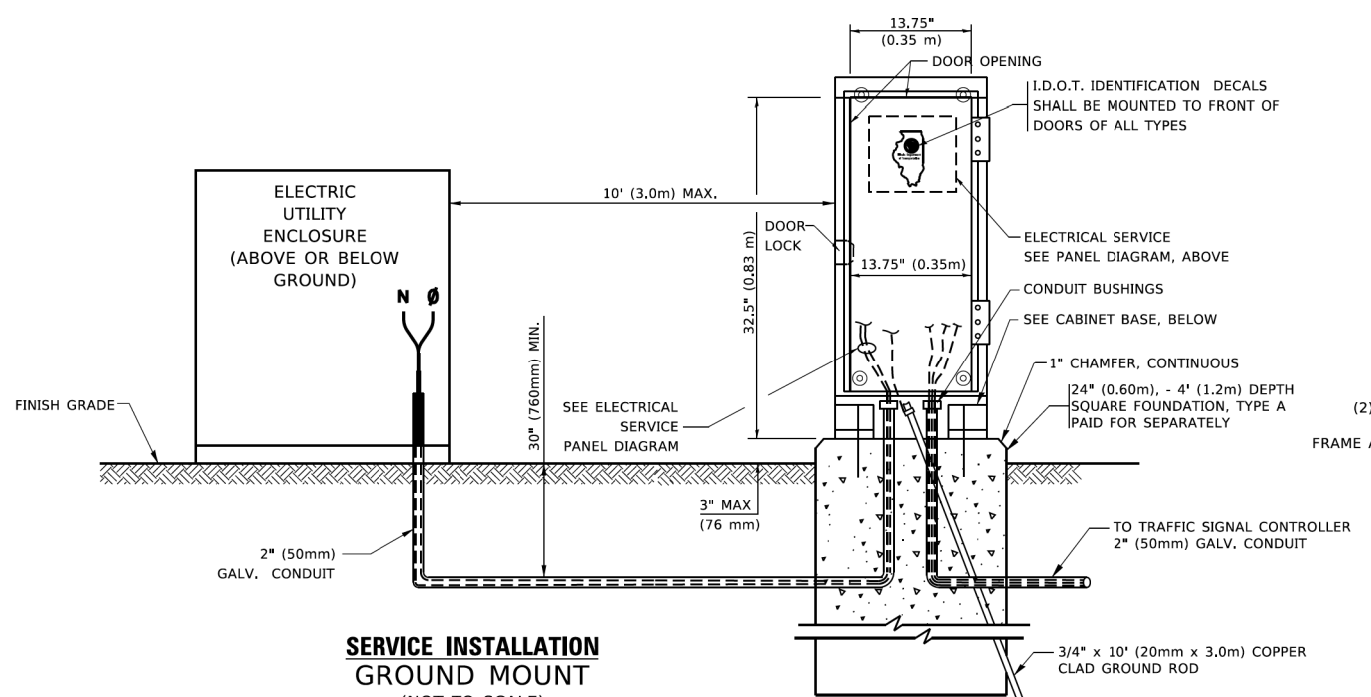
**DISTRICT ONE  
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

SCALE: NONE SHEET 3 OF 7 SHEETS STA. TO STA.

|                           |                |              |              |           |
|---------------------------|----------------|--------------|--------------|-----------|
| F.A. RTE.                 | SECTION        | COUNTY       | TOTAL SHEETS | SHEET NO. |
| 2690                      | 23-00102-00-TL | COOK         | 39           | 21        |
| TS-05                     |                | CONTRACT NO. |              |           |
| ILLINOIS FED. AID PROJECT |                |              |              |           |

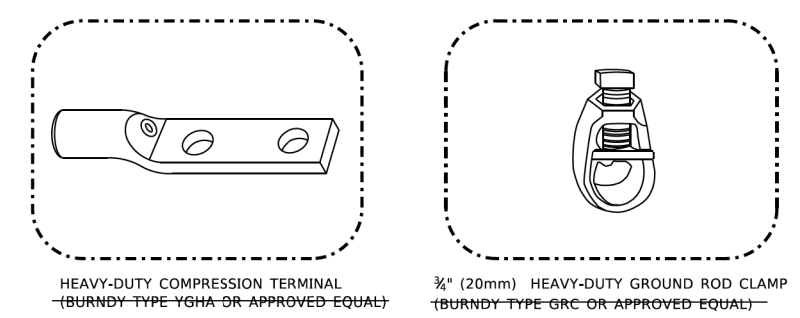
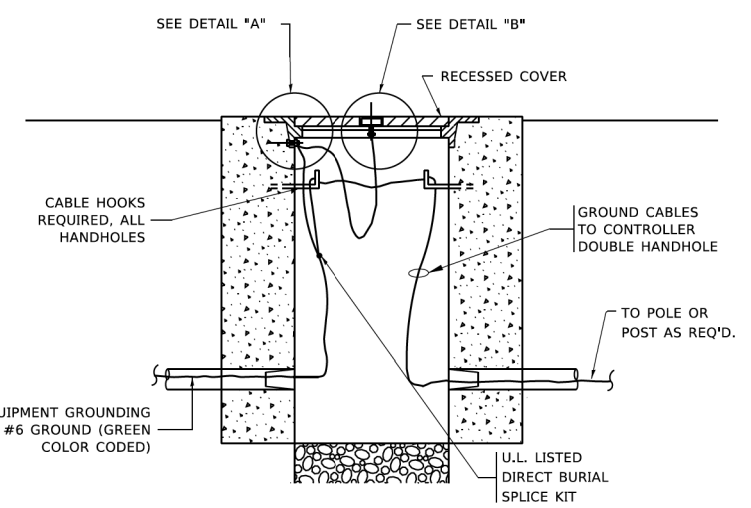


**ELECTRICAL SERVICE – PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)**  
**SERVICE INSTALLATION POLE MOUNT (SHOWN)**  
 (NOT TO SCALE)



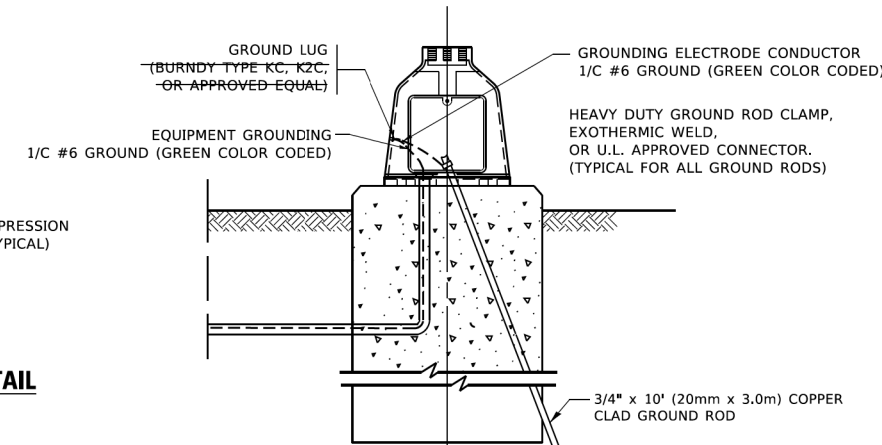
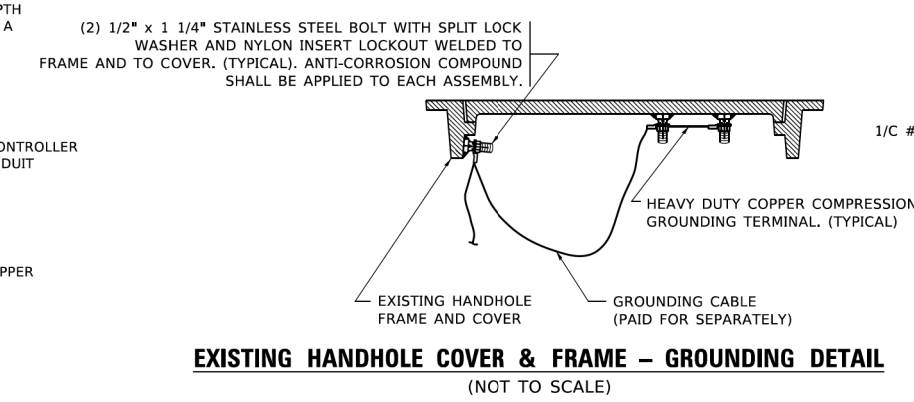
**NOTES:**  
**GROUNDING SYSTEM**

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.



**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.

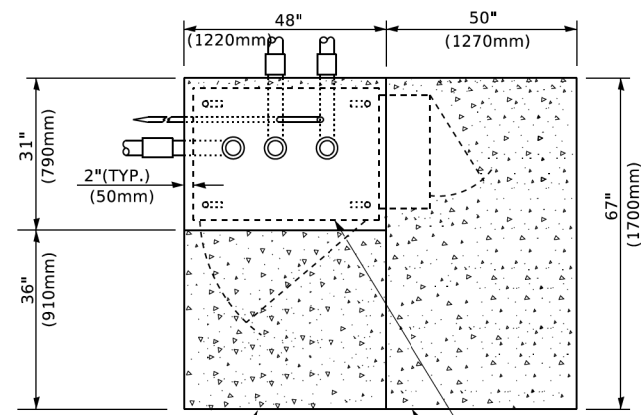


|                              |            |           |
|------------------------------|------------|-----------|
| USER NAME = footemj          | DESIGNED - | REVISED - |
|                              | DRAWN -    | REVISED - |
| PLOT SCALE = 50,0000 ' / in. | CHECKED -  | REVISED - |
| PLOT DATE = 3/4/2019         | DATE -     | REVISED - |

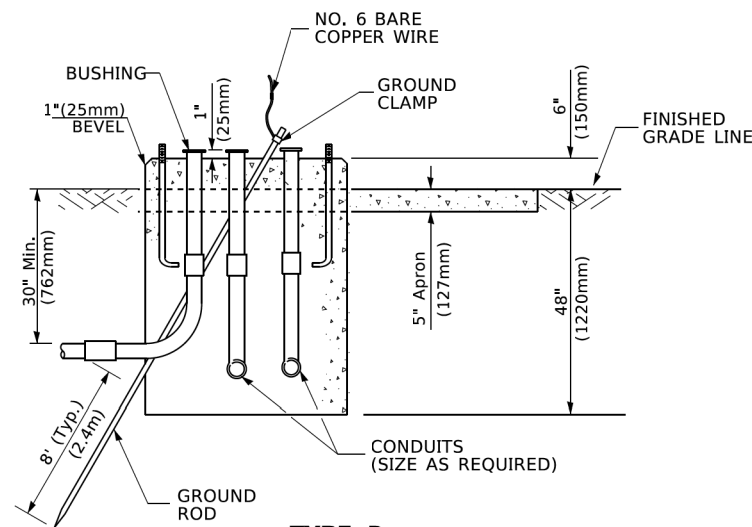
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

|   |         |             |              |
|---|---------|-------------|--------------|
| <b>DISTRICT ONE</b>                           |         |             |              |
| <b>STANDARD TRAFFIC SIGNAL DESIGN DETAILS</b> |         |             |              |
| SCALE: NONE                                   | SHEET 4 | OF 7 SHEETS | STA. TO STA. |

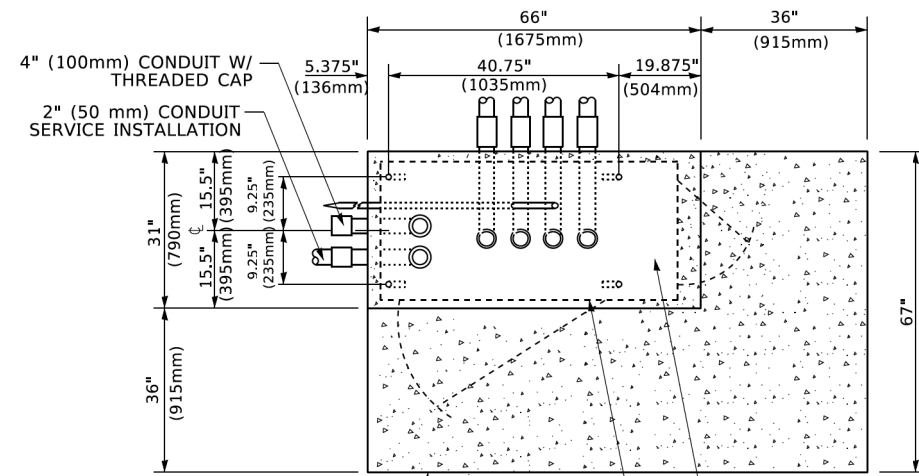
|                           |                |              |              |           |
|---------------------------|----------------|--------------|--------------|-----------|
| F.A. RTE.                 | SECTION        | COUNTY       | TOTAL SHEETS | SHEET NO. |
| 2690                      | 23-00102-00-TL | C00K         | 39           | 22        |
| <b>TS-05</b>              |                | CONTRACT NO. |              |           |
| ILLINOIS FED. AID PROJECT |                |              |              |           |



**TOP VIEW**



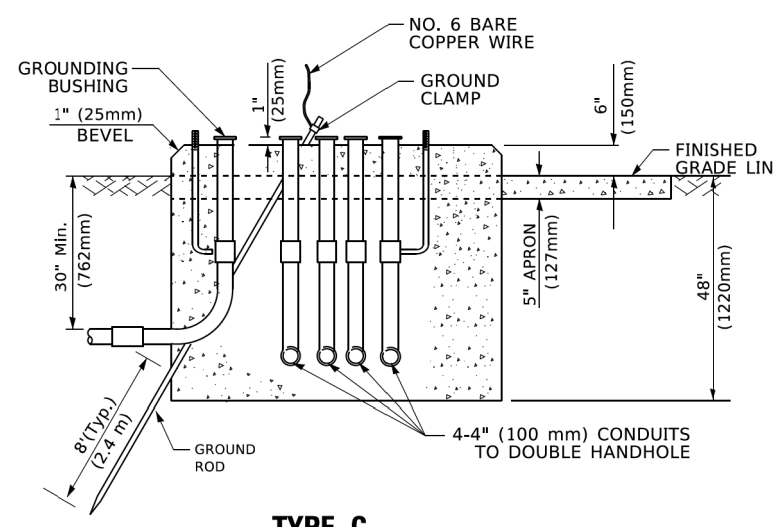
**TYPE D  
FOR GROUND MOUNTED  
CONTROLLER CABINET  
AND UPS BATTERY CABINET**



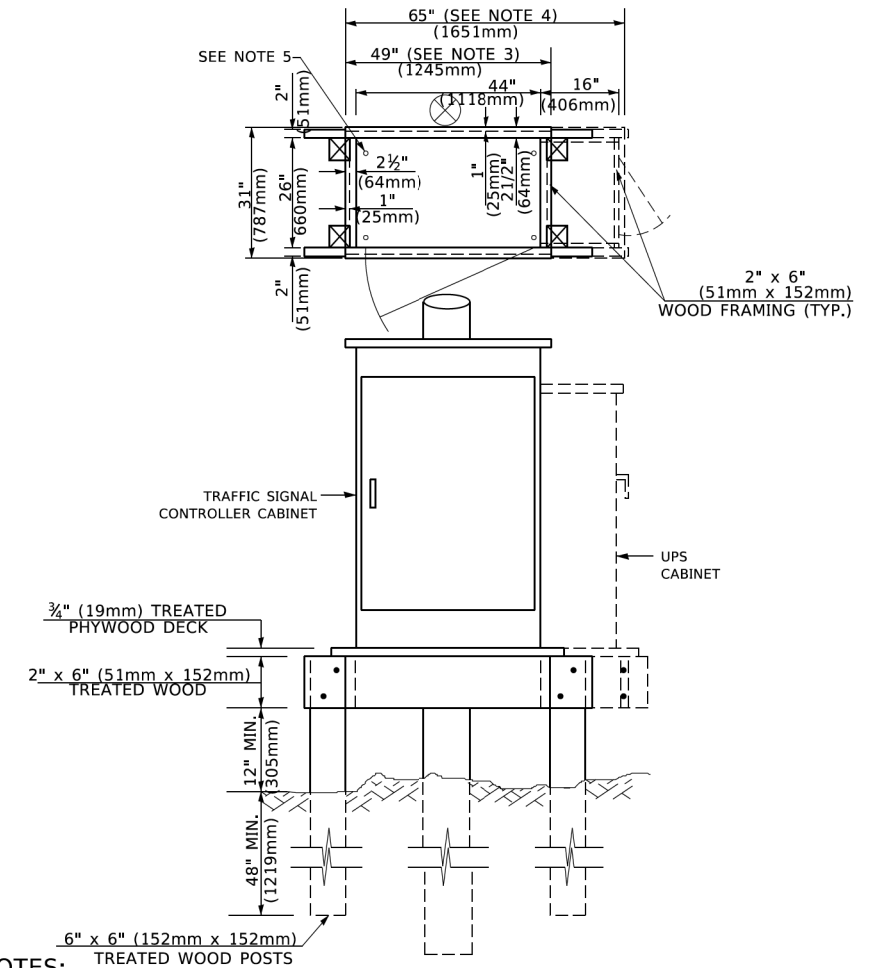
**TOP VIEW**

**NOTE:**

TOP OF FOUNDATION SHALL BE HIGHER THAN TOP OF DOUBLE HANDHOLE



**TYPE C  
FOR GROUND MOUNTED  
SUPER P (TYPE IV) AND SUPER R (TYPE V)  
CONTROLLER CABINETS**



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

**VERTICAL CABLE LENGTH**

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

**DEPTH OF FOUNDATION**

| MAST ARM LENGTH  | ① FOUNDATION DEPTH | FOUNDATION DIAMETER | SPIRAL DIAMETER | QUANTITY OF REBARS | SIZE OF REBARS |
|--|--------------------|---------------------|-----------------|--------------------|----------------|
| Less than 30' (9.1 m)  | 10'-0" (3.0 m)     | 30" (750mm)         | 24" (600mm)     | 8                  | 6(19)          |
| Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m)  | 13'-6" (4.1 m)     | 30" (750mm)         | 24" (600mm)     | 8                  | 6(19)          |
| Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m) | 11'-0" (3.4 m)     | 36" (900mm)         | 30" (750mm)     | 12                 | 7(22)          |
| Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)     | 13'-0" (4.0 m)     | 36" (900mm)         | 30" (750mm)     | 12                 | 7(22)          |
| Greater than or equal to 56' (16.8 m) and less than 65' (19.8 m) | 15'-0" (4.6 m)     | 36" (900mm)         | 30" (750mm)     | 12                 | 7(22)          |
| Greater than or equal to 65' (19.8 m) and less than 75' (22.9 m) | 21'-0" (6.4 m)     | 42" (1060mm)        | 36" (900mm)     | 16                 | 8(25)          |
| Greater than or equal to 75' (22.9 m)                            | 25'-0" (7.6 m)     | 42" (1060mm)        | 36" (900mm)     | 16                 | 8(25)          |

**NOTES:**

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

**DEPTH OF MAST ARM FOUNDATIONS, TYPE E**

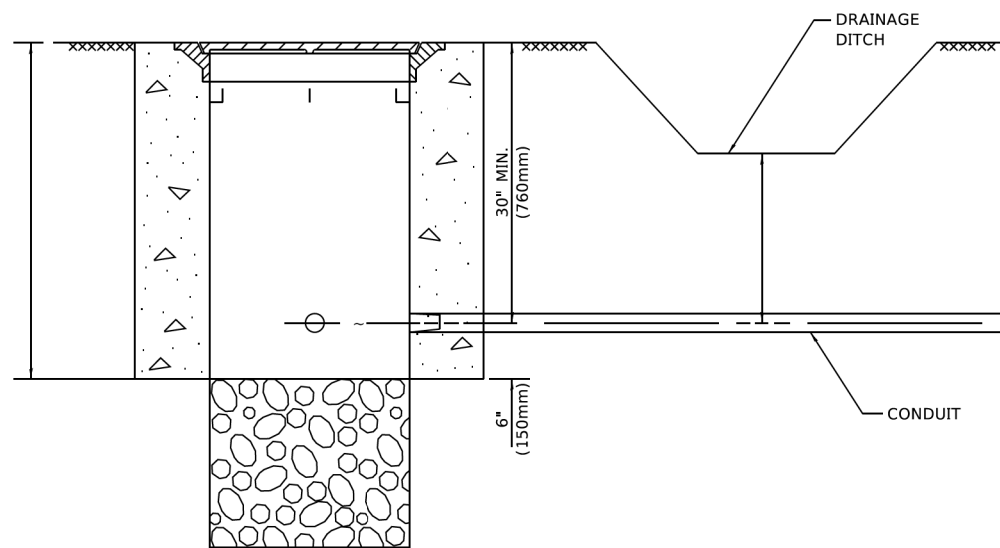
|                             |            |           |
|-----------------------------|------------|-----------|
| USER NAME = footemj         | DESIGNED - | REVISED - |
|                             | DRAWN -    | REVISED - |
| PLOT SCALE = 50,0000' / in. | CHECKED -  | REVISED - |
| PLOT DATE = 3/4/2019        | DATE -     | REVISED - |

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE  
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

SCALE: NONE SHEET 5 OF 7 SHEETS STA. TO STA.

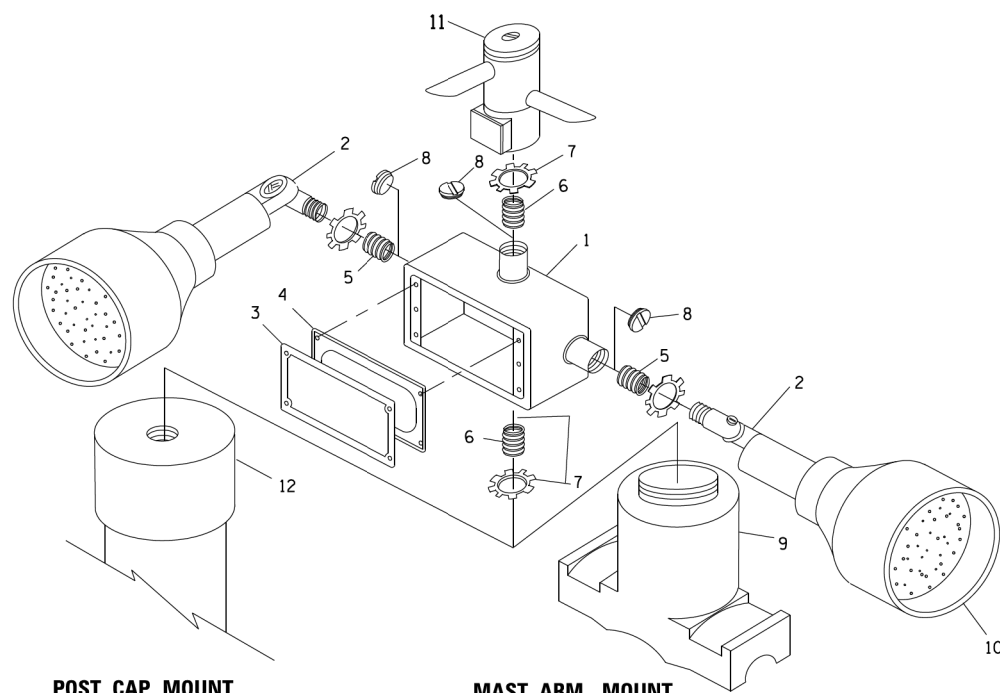
|                           |                        |              |                 |              |
|---------------------------|------------------------|--------------|-----------------|--------------|
| F.A. RTE. 2690            | SECTION 23-00102-00-TL | COUNTY COOK  | TOTAL SHEETS 39 | SHEET NO. 23 |
| TS-05                     |                        | CONTRACT NO. |                 |              |
| ILLINOIS FED. AID PROJECT |                        |              |                 |              |



**NOTES:**

1. CONDUIT DEPTH SHALL BE A MINIMUM OF 30" (760mm) BELOW THE BOTTOM OF THE DRAINAGE DITCH OR ANY SLOPING GROUND
2. THE MINIMUM CONDUIT DEPTH APPLIES TO ALL CONDUIT PLACED UNDER ROADWAY PAVEMENT, MULTI-USE PATHS, SIDEWALKS AND SOIL SURFACES.
3. THE MINIMUM CONDUIT DEPTH APPLIES TO ALL HANDHOLES, HEAVY DUTY HANDHOLES AND DOUBLE HANDHOLES.

**HANDHOLE WITH MINIMUM CONDUIT DEPTH**  
(NOT TO SCALE)

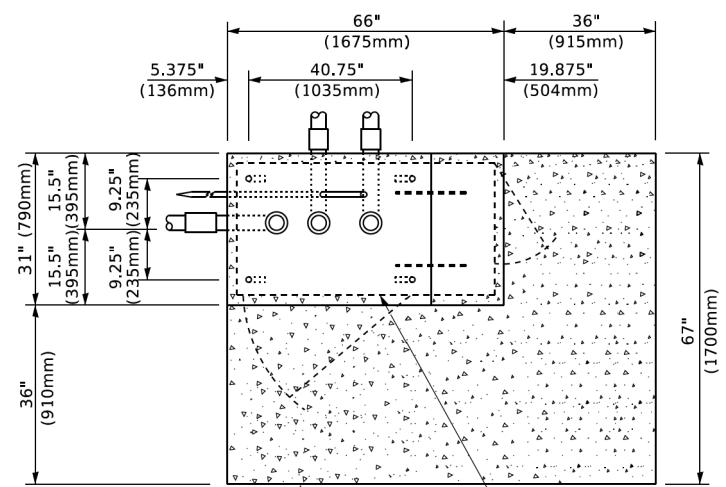


**POST CAP MOUNT**      **MAST ARM MOUNT**  
**EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION**  
**BEACON MOUNTING DETAIL**

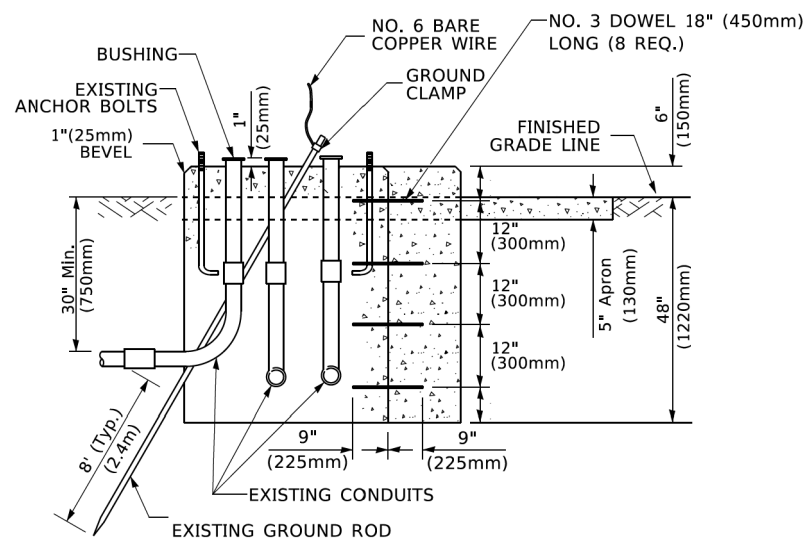
| ITEM NO. | IDENTIFICATION                              |
|----------|---|
| 1        | OUTLET BOX- GALV. 21 CU.IN. (0.000344 CU-M) |
| 2        | LAMP HOLDER AND COVER                       |
| 3        | OUTLET BOX COVER                            |
| 4        | RUBBER COVER GASKET               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

**NOTES:**

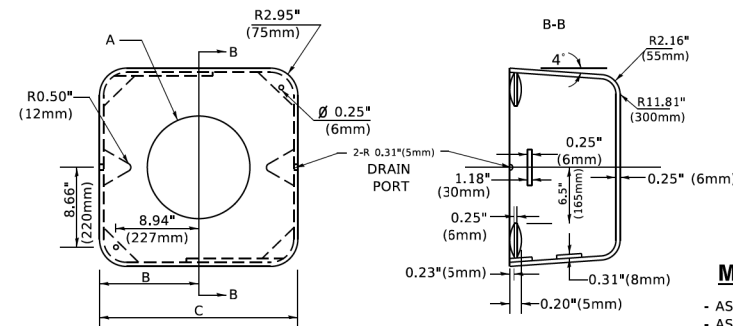
1. ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
2. ITEM #1- OZ/GEDNEY FSX-1-50 OR EQUIVALENT  
ITEM #2- MULBERRY CON-O-SHADE LAMP SHIELD OR EQUIVALENT  
ITEM #9- "BAND-IT" SADDLE BRACKET OR EQUIVALENT
3. WHEN POST MOUNTING IS SPECIFIED, ITEM #9 SHALL NOT BE REQUIRED.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



**TOP VIEW**  
(NOT TO SCALE)



**MODIFY EXISTING TYPE "D" FOUNDATION**  
**TO TYPE "C" FOUNDATION**  
(NOT TO SCALE)



**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) |

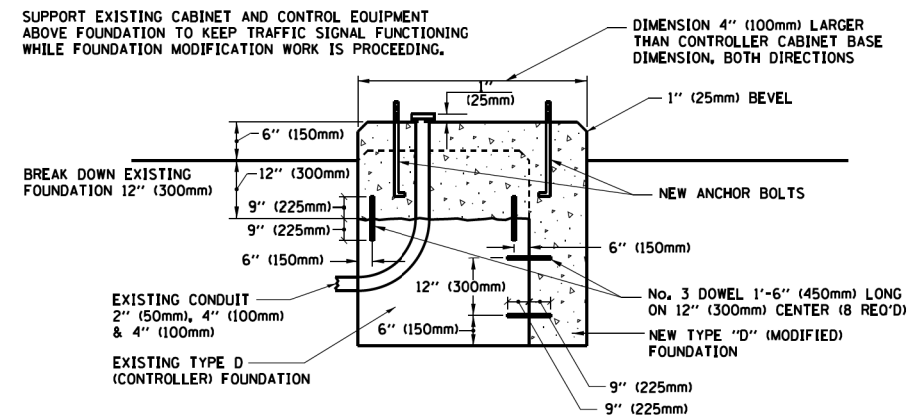
**SHROUD**

**NOTES:**

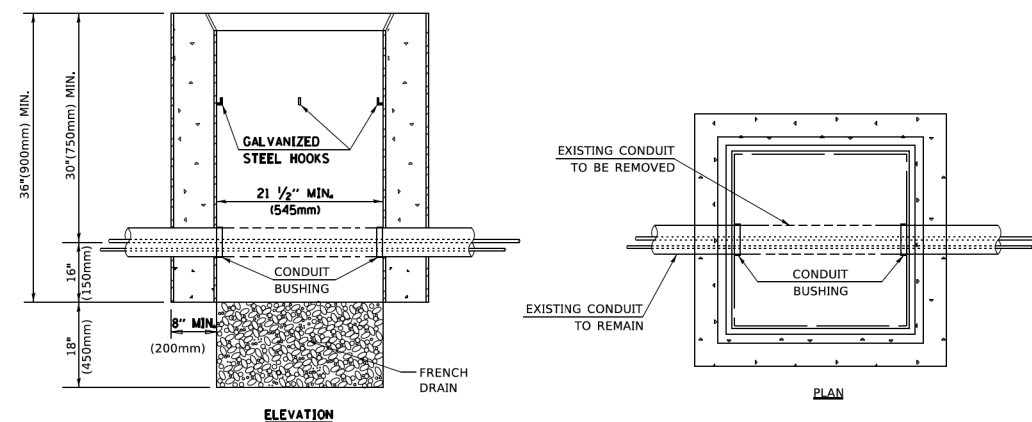
1. DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
2. THE SUPPLIER SHALL VERIFIED THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
3. THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE 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**



**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 INCLUDED WITH THE COST OF THE HANDHOLE.

**HANDHOLE TO INTERCEPT EXISTING CONDUIT**

|                             |            |           |
|-----------------------------|------------|-----------|
| USER NAME = footemj         | DESIGNED - | REVISED - |
|                             | DRAWN -    | REVISED - |
| PLOT SCALE = 50.0000" / in. | CHECKED -  | REVISED - |
| PLOT DATE = 3/4/2019        | DATE -     | REVISED - |

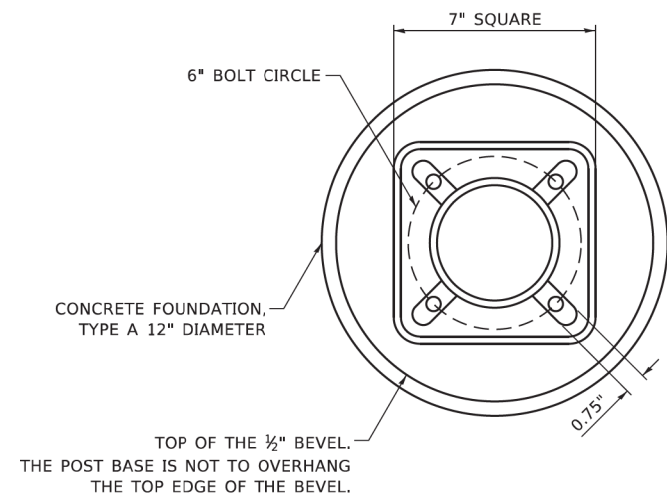
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE**  
**STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

SCALE: NONE    SHEET 6 OF 7 SHEETS    STA. TO STA.

|                           |                        |              |                 |              |
|---------------------------|------------------------|--------------|-----------------|--------------|
| F.A. RTE. 2690            | SECTION 23-00102-00-TL | COUNTY C00K  | TOTAL SHEETS 39 | SHEET NO. 24 |
| TS-05                     |                        | CONTRACT NO. |                 |              |
| ILLINOIS FED. AID PROJECT |                        |              |                 |              |

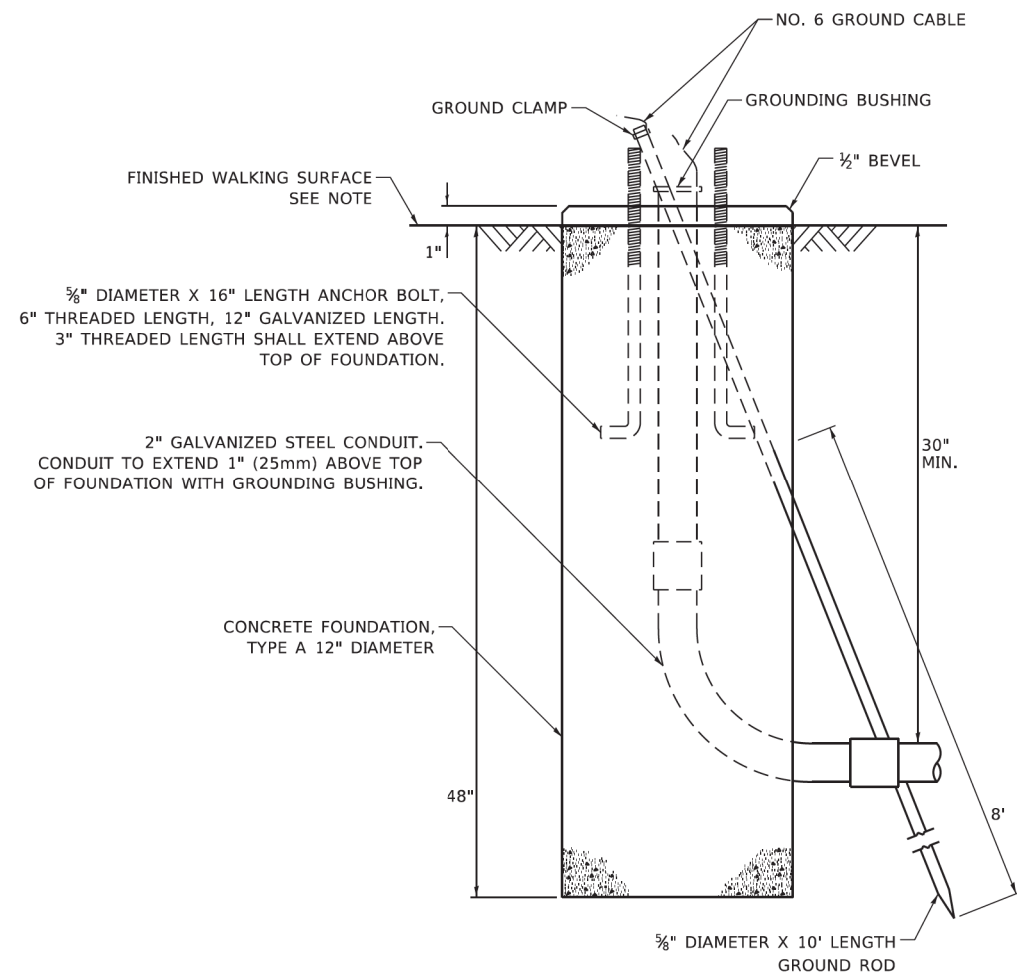




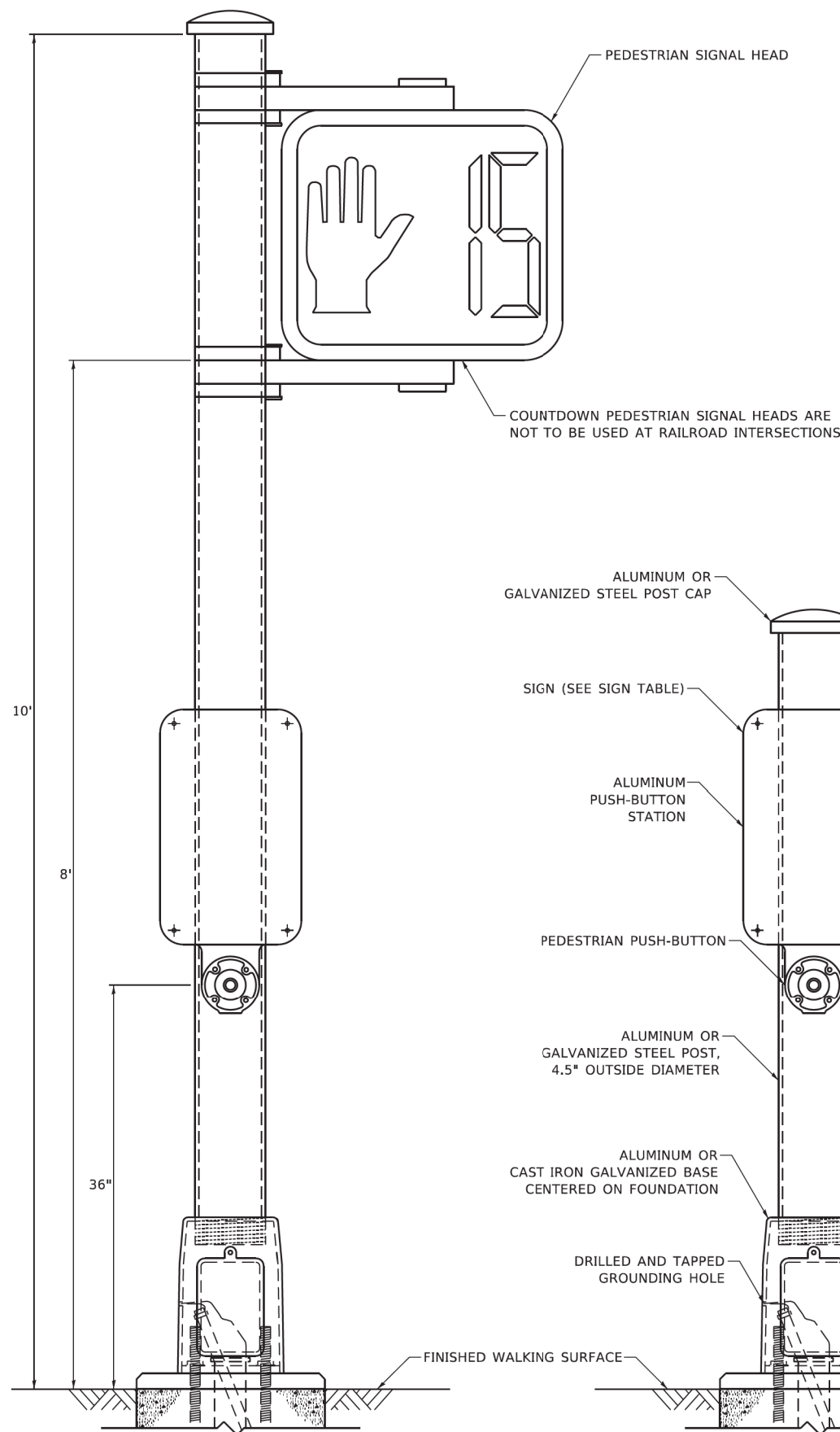
**BOLT PATTERN**

**NOTE:**

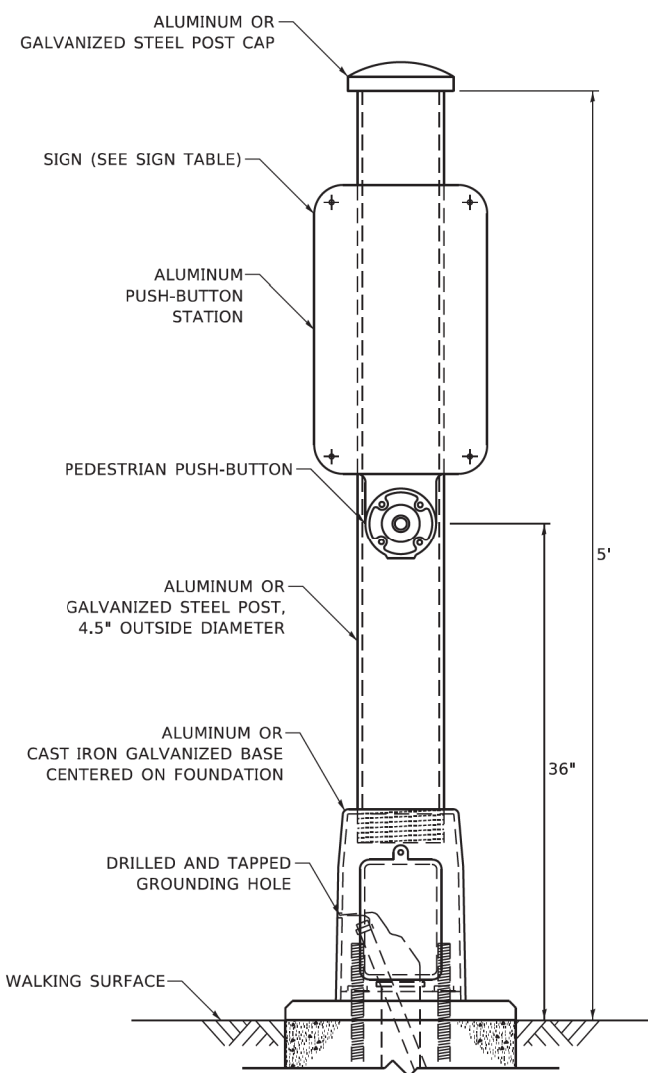
1. IF THE PEDESTRIAN SIGNAL POST FOUNDATION IS INSTALLED WITHIN OR BEHIND A BARRIER CURB, THE TOP OF THE FOUNDATION SHALL BE INSTALLED FLUSH WITH THE TOP OF THE BARRIER CURB.



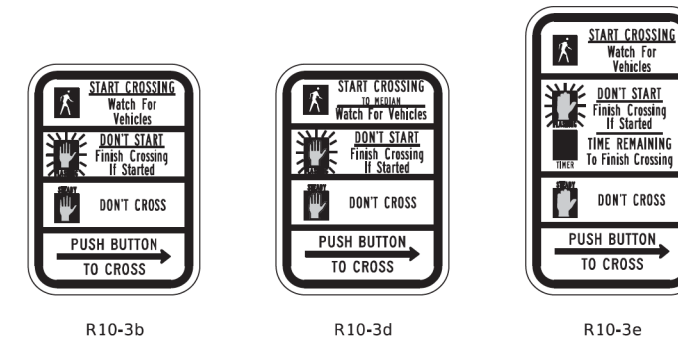
**CONCRETE FOUNDATION,  
TYPE A 12-INCH DIAMETER**



**PEDESTRIAN SIGNAL POST, 10 FT.**



**PEDESTRIAN SIGNAL POST, 5 FT.**



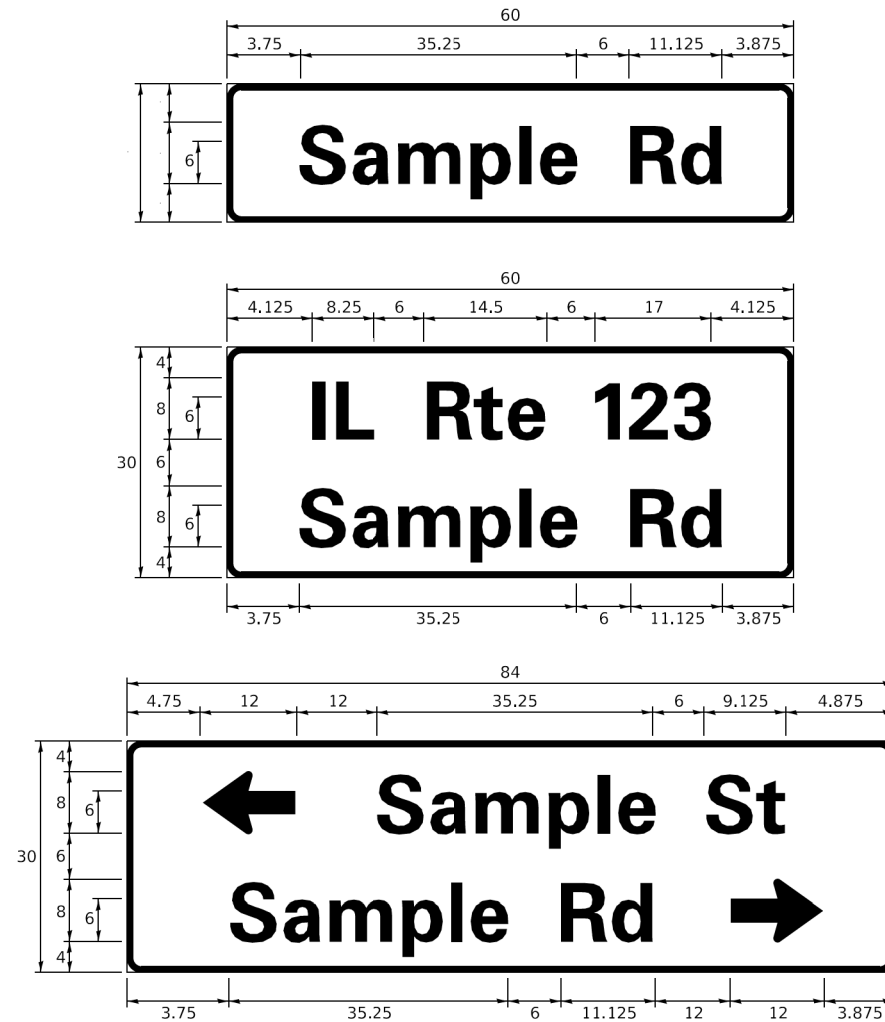
**SIGN TABLE**

| SIGN                   | DIMENSIONS |
|------------------------|------------|
| R10-3b (RAILROAD ONLY) | 9" X 12"   |
| R10-3d (RAILROAD ONLY) | 9" X 12"   |
| R10-3e                 | 9" X 15"   |

**NOTES:**

1. THE SIGN PANELS SHALL BE TYPE AP SHEETING.
2. THE ARROW ON SIGNS FOR PUSH-BUTTONS SERVING TWO DIRECTIONS ON THE SAME PHASE SHALL BE BI-DIRECTIONAL.
3. THE SIGN FOR DUAL-CALL PUSH-BUTTONS SHALL HAVE NO ARROW.

**SIGN PANEL – TYPE 1 OR TYPE 2**



| DESIGN SERIES | AREA (SQ FT) | SIGN PANEL TYPE | SHEETING TYPE | QTY. REQUIRED |
|---------------|--------------|-----------------|---------------|---------------|
| D OR C        | -            | 1 OR 2          | ZZ            | -             |

**COMMON STREET NAME ABBREVIATIONS AND WIDTHS**

| NAME          | ABBREVIATION | WIDTH (INCH) |            |
|---------------|--------------|--------------|------------|
|               |              | SERIES "C"   | SERIES "D" |
| AVENUE        | Ave          | 15.000       | 18.250     |
| BOULEVARD     | Blvd         | 17.125       | 20.000     |
| CIRCLE        | Cir          | 11.125       | 13.000     |
| COURT         | Ct           | 8.250        | 9.625      |
| DRIVE         | Dr           | 8.625        | 10.125     |
| HIGHWAY       | Hwy          | 18.375       | 22.000     |
| ILLINOIS      | IL           | 7.000        | 8.250      |
| LANE          | Ln           | 9.125        | 10.750     |
| PARKWAY       | Pkwy         | 23.375       | 27.375     |
| PLACE         | Pl           | 7.125        | 7.750      |
| ROAD          | Rd           | 9.625        | 11.125     |
| ROUTE         | Rte          | 12.625       | 14.500     |
| STREET        | St           | 8.000        | 9.125      |
| TERRACE       | Ter          | 12.625       | 14.625     |
| TRAIL         | Tr           | 7.750        | 9.125      |
| UNITED STATES | US           | 10.375       | 12.250     |

**GENERAL NOTES**

- WHERE MAST ARM MOUNTED STREET NAME SIGNS ARE SPECIFIED, THE MAST ARM ASSEMBLY AND POLES SHALL BE DESIGNED TO SUPPORT THE LOADINGS CALLED FOR ON STANDARDS 877001, 877002, 877006, 877011 AND 877012. AS APPLICABLE, PLUS TWO (2) SIGN PANELS 2'-6" x 8'-0" MOUNTED AS SHOWN. THE DESIGN SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS FOR 80 M.P.H. WIND VELOCITY.
- ALL SIGNS SHALL CONSIST OF A WHITE LEGEND AND BORDER (TYPE ZZ SHEETING) ON A GREEN BACKGROUND (TYPE ZZ SHEETING), UNLESS OTHERWISE NOTED.
- THE SIGN LENGTH SHALL BE IN 6-INCH INCREMENTS, BUT THE OVERALL LENGTH SHALL NOT EXCEED 8'-0". ALL BORDERS IF POSSIBLE, BUT MAY BE REDUCED TO 5" WHEN SPACING IS CRITICAL. A MINIMUM OF 2-1/2" SHALL BE INCLUDED BETWEEN THE WORD AND THE RIGHT AND LEFT EDGES OF THE SIGN.
- A PREFERRED METHOD FOR THE SIGN DESIGN IS TO USE SERIES "D" LETTER ON A ONE-LINE SIGN 18" IN HEIGHT AND A MAXIMUM OF 8'-0" IN WIDTH. IF SERIES "D" DOES NOT FIT ON A 8'-0" SIGN, THEN SERIES "C" SHOULD BE TRIED. IF SERIES "C" DOES NOT FIT ON A 8'-0" SIGN, A 30" HIGH TWO-LINE SIGN CAN BE USED. THE CROSSROAD DESIGNATION AS TO STREET, AVENUE, ETC. SHOULD BE SPELLED OUT ON THE SECOND LINE, IF THE ABBREVIATION CANNOT FIT ON THE FIRST LINE.
- LED ILLUMINATED STREET NAME SIGNS CAN BE USED IN PLACE OF REGULAR SIGN PANELS BUT ANY SPECIAL WORDING AND SYMBOLOGY MUST BE APPROVED BY THE DEPARTMENT. GENERAL DESIGN REQUIREMENT AS LISTED ABOVE (COLOR, FONT, SIZE, ETC.) MUST BE FOLLOWED.
- ~~SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM SHALL BE USED FOR ALL SIGNS ATTACHED TO SIGNAL POLES AND POSTS.~~

**LOCAL SUPPLIERS:**

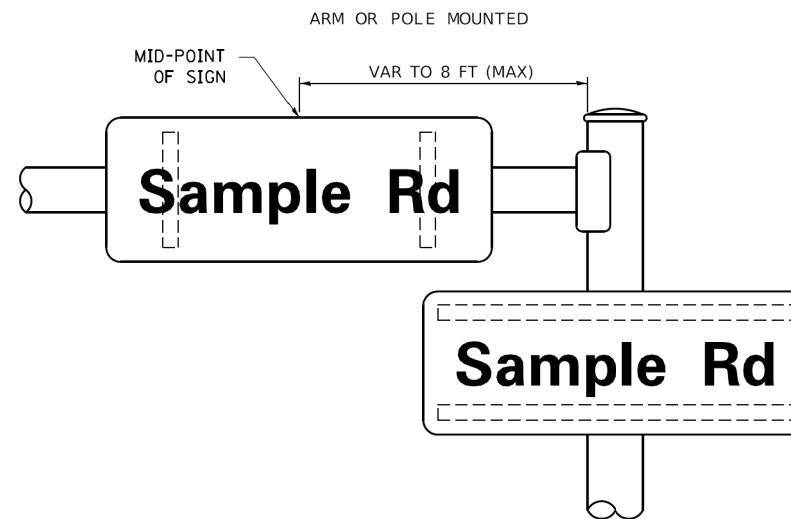
- J.O. HERBERT COMPANY, INC  
MIDLOTHIAN, VA
- WESTERN REMAC, INC.  
WOODRIDGE, IL

**PARTS LISTING:**

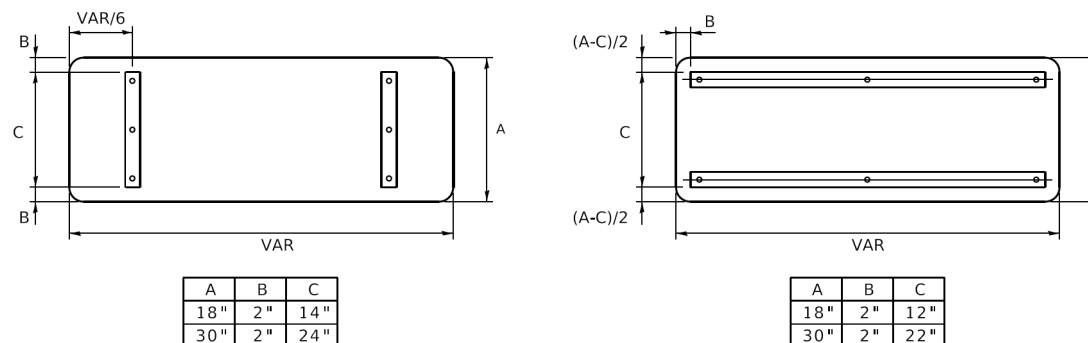
- SIGN CHANNEL PART #HPN053 (MED. CHANNEL)
- SIGN SCREWS 1/4" x 14 x 1" H.W.H. #3
- SELF TAPPING WITH NEOPRENE WASHER
- BRACKETS PART #HPN034 (UNIVERSAL)
- CHANNEL CLAMPS WITH STAINLESS STEEL STRAPPING

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

**MOUNTING LOCATION**



**SUPPORTING CHANNELS**



**STANDARD ALPHABETS SPACING CHART**

(8") UPPER CASE AND (6") LOWER CASE

| CHARACTER | FHWA SERIES "C"     |              |                      | CHARACTER | FHWA SERIES "D"     |              |                      |
|-----------|---------------------|--------------|----------------------|-----------|---------------------|--------------|----------------------|
|           | LEFT SPACING (INCH) | WIDTH (INCH) | RIGHT SPACING (INCH) |           | LEFT SPACING (INCH) | WIDTH (INCH) | RIGHT SPACING (INCH) |
| A         | 0.240               | 5.122        | 0.240                | A         | 0.240               | 6.804        | 0.240                |
| B         | 0.880               | 4.482        | 0.480                | B         | 0.960               | 5.446        | 0.400                |
| C         | 0.720               | 4.482        | 0.720                | C         | 0.800               | 5.446        | 0.800                |
| D         | 0.880               | 4.482        | 0.720                | D         | 0.960               | 5.446        | 0.800                |
| E         | 0.880               | 4.082        | 0.480                | E         | 0.960               | 4.962        | 0.400                |
| F         | 0.880               | 4.082        | 0.240                | F         | 0.960               | 4.962        | 0.240                |
| G         | 0.720               | 4.482        | 0.720                | G         | 0.800               | 5.446        | 0.800                |
| H         | 0.880               | 4.482        | 0.880                | H         | 0.960               | 5.446        | 0.960                |
| I         | 0.880               | 1.120        | 0.880                | I         | 0.960               | 1.280        | 0.960                |
| J         | 0.240               | 4.082        | 0.880                | J         | 0.240               | 5.122        | 0.960                |
| K         | 0.880               | 4.482        | 0.480                | K         | 0.960               | 5.604        | 0.400                |
| L         | 0.880               | 4.082        | 0.240                | L         | 0.960               | 4.962        | 0.240                |
| M         | 0.880               | 5.284        | 0.880                | M         | 0.960               | 6.244        | 0.960                |
| N         | 0.880               | 4.482        | 0.880                | N         | 0.960               | 5.446        | 0.960                |
| O         | 0.720               | 4.722        | 0.720                | O         | 0.800               | 5.684        | 0.800                |
| P         | 0.880               | 4.482        | 0.720                | P         | 0.960               | 5.446        | 0.240                |
| Q         | 0.720               | 4.722        | 0.720                | Q         | 0.800               | 5.684        | 0.800                |
| R         | 0.880               | 4.482        | 0.480                | R         | 0.960               | 5.446        | 0.400                |
| S         | 0.480               | 4.482        | 0.480                | S         | 0.400               | 5.446        | 0.400                |
| T         | 0.240               | 4.082        | 0.240                | T         | 0.240               | 4.962        | 0.240                |
| U         | 0.880               | 4.482        | 0.880                | U         | 0.960               | 5.446        | 0.960                |
| V         | 0.240               | 4.962        | 0.240                | V         | 0.240               | 6.084        | 0.240                |
| W         | 0.240               | 6.084        | 0.240                | W         | 0.240               | 7.124        | 0.240                |
| X         | 0.240               | 4.722        | 0.240                | X         | 0.400               | 5.446        | 0.400                |
| Y         | 0.240               | 5.122        | 0.240                | Y         | 0.240               | 6.884        | 0.240                |
| Z         | 0.480               | 4.482        | 0.480                | Z         | 0.400               | 5.446        | 0.400                |
| a         | 0.320               | 3.842        | 0.640                | a         | 0.400               | 4.562        | 0.720                |
| b         | 0.720               | 4.082        | 0.480                | b         | 0.800               | 4.802        | 0.480                |
| c         | 0.480               | 4.002        | 0.240                | c         | 0.480               | 4.722        | 0.240                |
| d         | 0.480               | 4.082        | 0.720                | d         | 0.480               | 4.802        | 0.800                |
| e         | 0.480               | 4.082        | 0.320                | e         | 0.480               | 4.722        | 0.320                |
| f         | 0.320               | 2.480        | 0.160                | f         | 0.320               | 2.882        | 0.160                |
| g         | 0.480               | 4.082        | 0.720                | g         | 0.480               | 4.802        | 0.800                |
| h         | 0.720               | 4.082        | 0.640                | h         | 0.800               | 4.722        | 0.720                |
| i         | 0.720               | 1.120        | 0.720                | i         | 0.800               | 1.280        | 0.800                |
| j         | 0.000               | 2.320        | 0.720                | j         | 0.000               | 2.642        | 0.800                |
| k         | 0.720               | 4.322        | 0.160                | k         | 0.800               | 5.122        | 0.160                |
| l         | 0.720               | 1.120        | 0.720                | l         | 0.800               | 1.280        | 0.800                |
| m         | 0.720               | 6.724        | 0.640                | m         | 0.800               | 7.926        | 0.720                |
| n         | 0.720               | 4.082        | 0.640                | n         | 0.800               | 4.722        | 0.720                |
| o         | 0.480               | 4.082        | 0.480                | o         | 0.480               | 4.882        | 0.480                |
| p         | 0.720               | 4.082        | 0.480                | p         | 0.800               | 4.802        | 0.480                |
| q         | 0.480               | 4.082        | 0.720                | q         | 0.480               | 4.802        | 0.800                |
| r         | 0.720               | 2.642        | 0.160                | r         | 0.800               | 3.042        | 0.160                |
| s         | 0.320               | 3.362        | 0.240                | s         | 0.320               | 3.762        | 0.240                |
| t         | 0.080               | 2.882        | 0.080                | t         | 0.080               | 3.202        | 0.080                |
| u         | 0.640               | 4.082        | 0.720                | u         | 0.720               | 4.722        | 0.800                |
| v         | 0.160               | 4.722        | 0.160                | v         | 0.160               | 5.684        | 0.160                |
| w         | 0.160               | 7.524        | 0.160                | w         | 0.160               | 9.046        | 0.160                |
| x         | 0.000               | 5.202        | 0.000                | x         | 0.000               | 6.244        | 0.000                |
| y         | 0.160               | 4.962        | 0.160                | y         | 0.160               | 6.004        | 0.160                |
| z         | 0.240               | 3.362        | 0.240                | z         | 0.240               | 4.002        | 0.240                |
| 1         | 0.720               | 1.680        | 0.880                | 1         | 0.800               | 2.000        | 0.960                |
| 2         | 0.480               | 4.482        | 0.480                | 2         | 0.800               | 5.446        | 0.800                |
| 3         | 0.480               | 4.482        | 0.480                | 3         | 1.440               | 5.446        | 0.800                |
| 4         | 0.240               | 4.962        | 0.720                | 4         | 0.160               | 6.004        | 0.960                |
| 5         | 0.480               | 4.482        | 0.480                | 5         | 0.800               | 5.446        | 0.800                |
| 6         | 0.720               | 4.482        | 0.720                | 6         | 0.800               | 5.446        | 0.800                |
| 7         | 0.240               | 4.482        | 0.720                | 7         | 0.560               | 5.446        | 0.560                |
| 8         | 0.480               | 4.482        | 0.480                | 8         | 0.800               | 5.446        | 0.800                |
| 9         | 0.480               | 4.482        | 0.480                | 9         | 0.800               | 5.446        | 0.800                |
| 0         | 0.720               | 4.722        | 0.720                | 0         | 0.800               | 5.684        | 0.800                |
| -         | 0.240               | 2.802        | 0.240                | -         | 0.240               | 2.802        | 0.240                |

|                             |                   |                         |
|-----------------------------|-------------------|-------------------------|
| USER NAME = footemj         | DESIGNED - LP/IP  | REVISED - LP 07/01/2015 |
|                             | DRAWN - LP        | REVISED -               |
| PLOT SCALE = 50.0000' / in. | CHECKED - IP      | REVISED -               |
| PLOT DATE = 3/4/2019        | DATE - 10/01/2014 | REVISED -               |

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

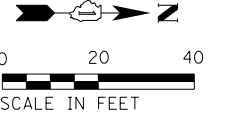
**MAST ARM MOUNTED STREET NAME SIGNS**  
SCALE: SHEET OF SHEETS STA. TO STA.

|                           |                |        |              |           |
|---------------------------|----------------|--------|--------------|-----------|
| F.A. RTE.                 | SECTION        | COUNTY | TOTAL SHEETS | SHEET NO. |
| 2690                      | 23-00102-00-TL | C00K   | 39           | 26        |
| CONTRACT NO.              |                |        |              |           |
| ILLINOIS FED. AID PROJECT |                |        |              |           |

**REMOVAL NOTES:**

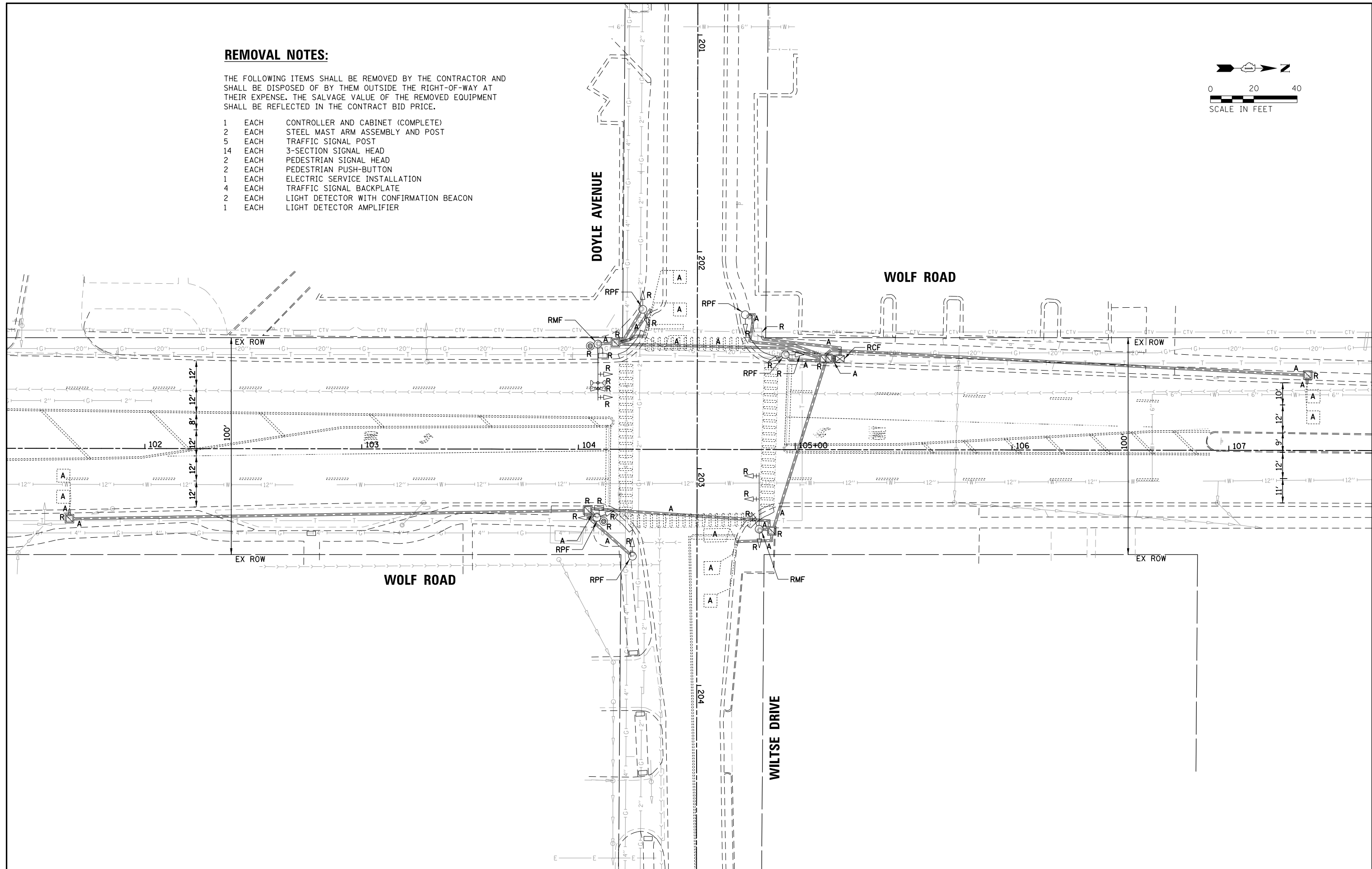
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 1 EACH CONTROLLER AND CABINET (COMPLETE)
- 2 EACH STEEL MAST ARM ASSEMBLY AND POST
- 5 EACH TRAFFIC SIGNAL POST
- 14 EACH 3-SECTION SIGNAL HEAD
- 2 EACH PEDESTRIAN SIGNAL HEAD
- 2 EACH PEDESTRIAN PUSH-BUTTON
- 1 EACH ELECTRIC SERVICE INSTALLATION
- 4 EACH TRAFFIC SIGNAL BACKPLATE
- 2 EACH LIGHT DETECTOR WITH CONFIRMATION BEACON
- 1 EACH LIGHT DETECTOR AMPLIFIER



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

**CHRISTOPHER B. BURKE**  
ENGINEERING LTD.  
9575 West Higgins Road, Suite 600  
Rosemont, Illinois 60018  
(847) 923-0500



|  |  |                     |           |
|--|--|---------------------|-----------|
| FILE NAME =                              | USER NAME = jdefrenza                        | DESIGNED - PJA      | REVISED - |
| N:\NORTHLAKE\940032HR - Municipal Review | Projects\940032 HR 400's\940032HR405\Traffic | DRAWN - WILTSE, PJA | REVISED - |
|  | PLOT SCALE = 48"                             | CHECKED - EAJ       | REVISED - |
|  | PLOT DATE = 11/7/2024                        | DATE -              | REVISED - |

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**EXISTING TRAFFIC SIGNAL EQUIPMENT  
REMOVAL PLAN  
WOLF ROAD AND WILTSE DRIVE / DOYLE AVENUE**

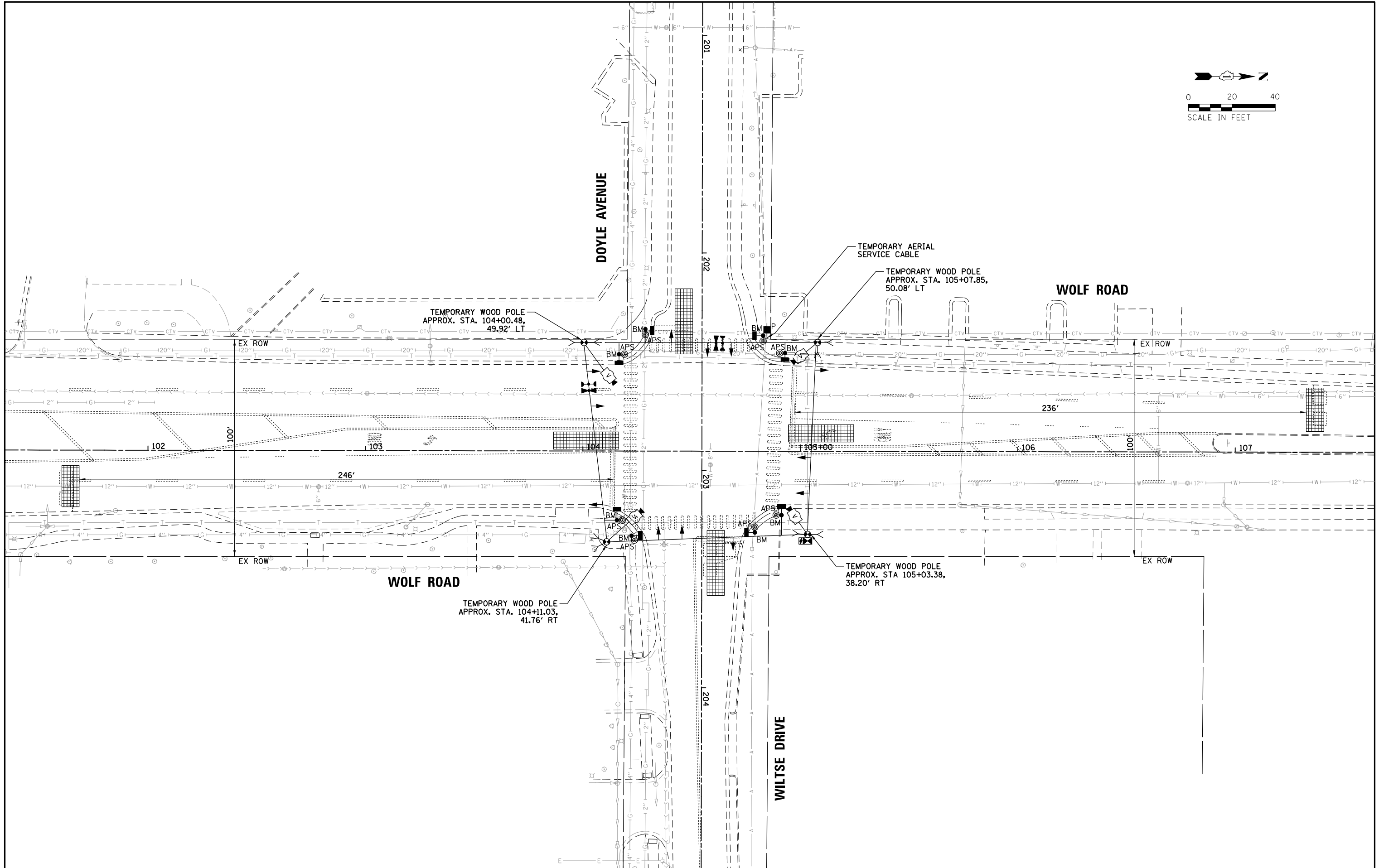
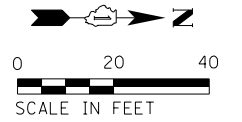
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|--------|-----------|----|--------|------|----|------|
| SCALE: | SHEET NO. | OF | SHEETS | STA. | TO | STA. |
|--------|-----------|----|--------|------|----|------|

|                     |                |        |                           |           |
|---------------------|----------------|--------|---------------------------|-----------|
| F.A.U. RTE.         | SECTION        | COUNTY | TOTAL SHEETS              | SHEET NO. |
| 2690                | 23-00102-00-TL | COOK   | 39                        | 27        |
| FED. ROAD DIST. NO. |                |        | ILLINOIS FED. AID PROJECT |           |

CONTRACT NO. 61K94

|               |  |                          |  |
|---------------|--|--------------------------|--|
| DATE          |  | BY                       |  |
| SURVEYED      |  | CHECKED                  |  |
| PLOTTED       |  | REVISIONS                |  |
| NOTE BOOK NO. |  | STRUCTURE NOTATIONS CHKD |  |
| NO.           |  | NO.                      |  |
| DATE          |  | BY                       |  |
| SURVEYED      |  | CHECKED                  |  |
| PLOTTED       |  | REVISIONS                |  |
| NOTE BOOK NO. |  | STRUCTURE NOTATIONS CHKD |  |
| NO.           |  | NO.                      |  |

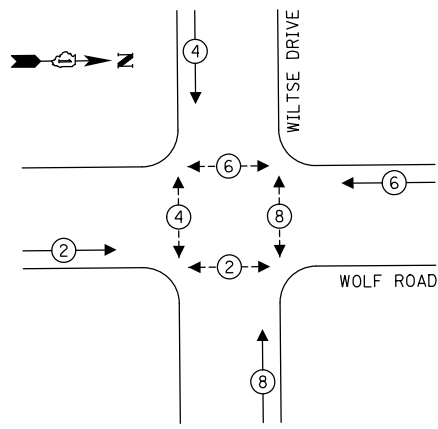
CHRISTOPHER B. BURKE  
ENGINEERING LTD.  
9575 West Higgins Road, Suite 600  
Rosemont, Illinois 60018  
(847) 823-0500



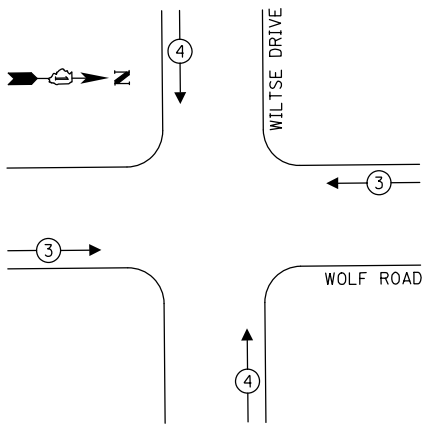
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| FILE NAME =                              | USER NAME = jdefrenza                     | DESIGNED - PJA   | REVISED - | STATE OF ILLINOIS<br>DEPARTMENT OF TRANSPORTATION | TEMPORARY TRAFFIC SIGNAL INSTALLATION PLAN<br>WOLF ROAD AND WILTSE DRIVE /DOYLE AVENUE | F.A.U. RTE.                                   | SECTION        | COUNTY | TOTAL SHEETS | SHEET NO. |  |
| N:\NORTHLAKE\940032HR - Municipal Review | Projects\940032 HR 400's\940032HR405\Tran | BURKE-WILTSE.sht | REVISED - |   |  | 2690  | 23-00102-00-TL | COOK   | 39           | 28        |  |
|  | PLOT SCALE = 48"                          | CHECKED - EAJ    | REVISED - |   |  | CONTRACT NO. 61K94                            |                |        |              |           |  |
|  | PLOT DATE = 11/7/2024                     | DATE -           | REVISED - |   |  | FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT |                |        |              |           |  |
| SCALE:                                   |   |                  |           |   |  | SHEET NO. OF SHEETS STA. TO STA.              |                |        |              |           |  |

SURVEYED \_\_\_\_\_ DATE \_\_\_\_\_  
 PLOTTED \_\_\_\_\_ CHECKED \_\_\_\_\_  
 REVISIONS \_\_\_\_\_ FILE NAME \_\_\_\_\_  
 CADD FILE NAME \_\_\_\_\_  
 PLAN \_\_\_\_\_ NO. \_\_\_\_\_  
 ENGINEERING LTD.  
**CHRISTOPHER B. BURKE**  
 9575 West Higgins Road, Suite 600  
 Rosemont, Illinois 60018  
 (847) 823-0500  
 SURVEYED \_\_\_\_\_ DATE \_\_\_\_\_  
 PLOTTED \_\_\_\_\_ CHECKED \_\_\_\_\_  
 REVISIONS \_\_\_\_\_ NOTATIONS CHKD \_\_\_\_\_  
 PROFILE \_\_\_\_\_ NO. \_\_\_\_\_  
 NOTE BOOK \_\_\_\_\_  
 STRUCTURE \_\_\_\_\_

### TEMPORARY CONTROLLER SEQUENCE



### TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE



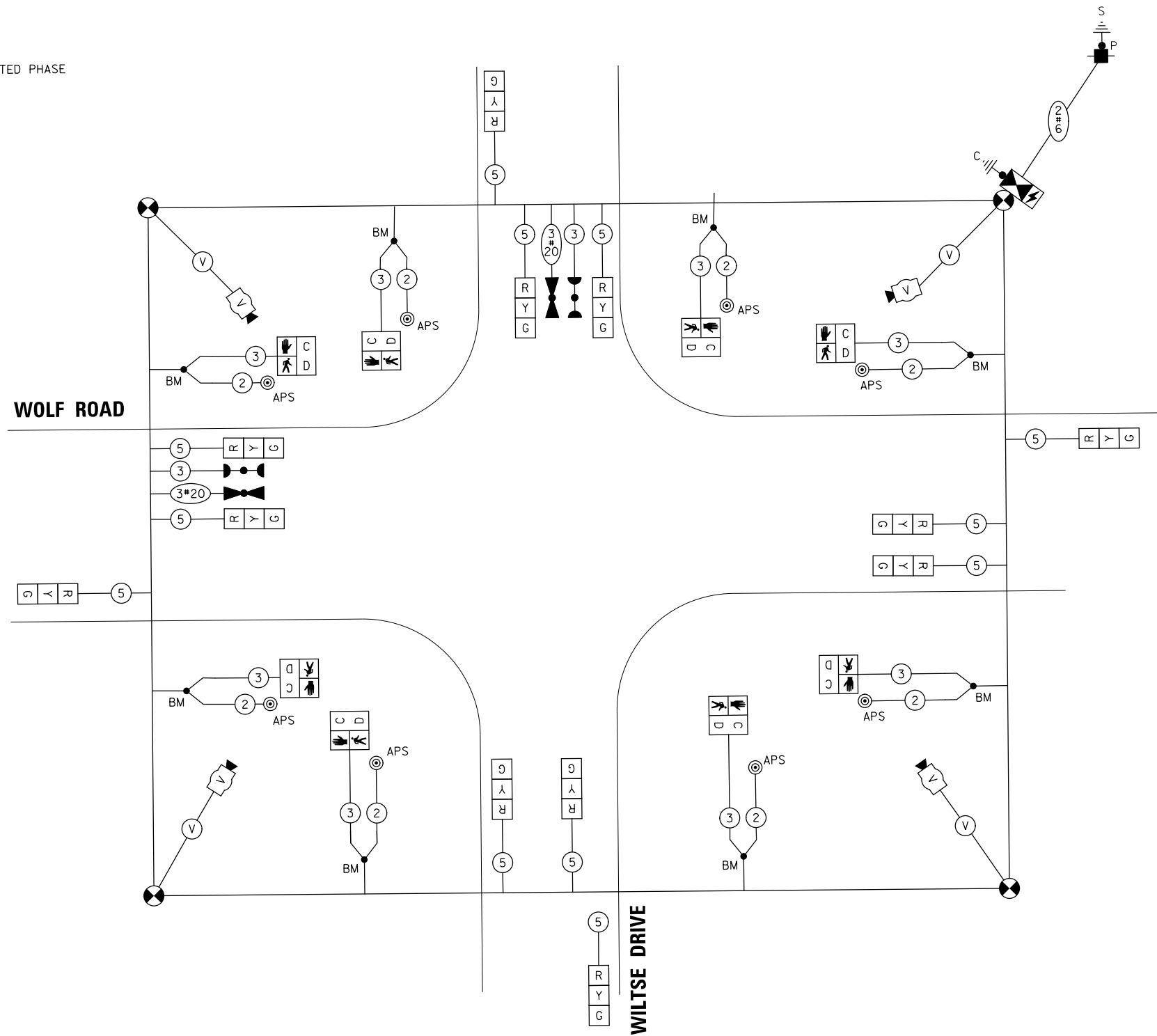
#### LEGEND:

- ⊙\* PROTECTED PHASE
- ⊙\*--- PROTECTED/PERMITTED PHASE
- ⊙\*--- PEDESTRIAN PHASE
- OL OVERLAP

### TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

| TYPE                             | QUANTITY | LED WATTAGE | TOTAL WATTAGE |
|----------------------------------|----------|-------------|---------------|
| <b>SIGNAL HEAD</b>               |          |             |               |
| 3-SECTION                        | 12       | 11          | 132           |
| 4-SECTION                        | -        | 14          | -             |
| 5-SECTION                        | -        | 13          | -             |
| <b>PROGRAMMABLE SIGNALS</b>      |          |             |               |
| 3-SECTION                        | -        | 22          | -             |
| 4-SECTION                        | -        | 32          | -             |
| 5-SECTION                        | -        | 28          | -             |
| PED. SIGNAL                      | 8        | 15          | 120           |
| CONTROLLER                       | 1        | 150         | 150           |
| MASTER CONTROLLER                | -        | 100         | -             |
| UPS                              | 1        | 25          | 25            |
| DETECTION RADAR                  | -        | 20          | -             |
| VIDEO                            | 4        | 20          | 80            |
| NETWORK SWITCH II OR III         | -        | 25          | -             |
| BLANK-OUT SIGN                   | -        | 35          | -             |
| CELLULAR MODEM                   | -        | 15          | -             |
| <b>TOTAL SERVICE WIRE SIZING</b> |          |             | <b>507</b>    |
| UPS CHARGING                     | 1        | 225         | 225           |
| BATTERY HEATER MAT               | 1        | 180         | 180           |
| CABINET HEATER                   | 1        | 200         | 200           |
| FLASHER                          | -        | 15          | -             |
| LED STREET NAME SIGN             | -        | 120         | -             |
| LUMINAIRE                        | -        | 240         | -             |
| <b>TOTAL SERVICE WIRE SIZING</b> |          |             | <b>1112</b>   |

ENERGY COSTS TO:  
 CITY OF NORTHLAKE  
 55 NORTH AVE  
 NORTHLAKE, IL 60164  
 ENERGY SUPPLY: CONTACT: LISA WILLIAMS  
 PHONE: (773) 270-7020  
 COMPANY: COMMONWEALTH EDISON  
 ACCOUNT NUMBER: 307-576-6111



**TEMPORARY CABLE PLAN**  
 (NOT TO SCALE)

|  |   |                    |           |
|--|---|--------------------|-----------|
| FILE NAME =                              | USER NAME = jdefrenza                   | DESIGNED - PJA     | REVISED - |
| N:\NORTHLAKE\940032HR - Municipal Review | Projects\940032 HR 400\940032HR405\Trsf | DRAWN - WILTSE.shp | REVISED - |
|  |   | CHECKED - EAJ      | REVISED - |
|  |   | DATE -             | REVISED - |

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

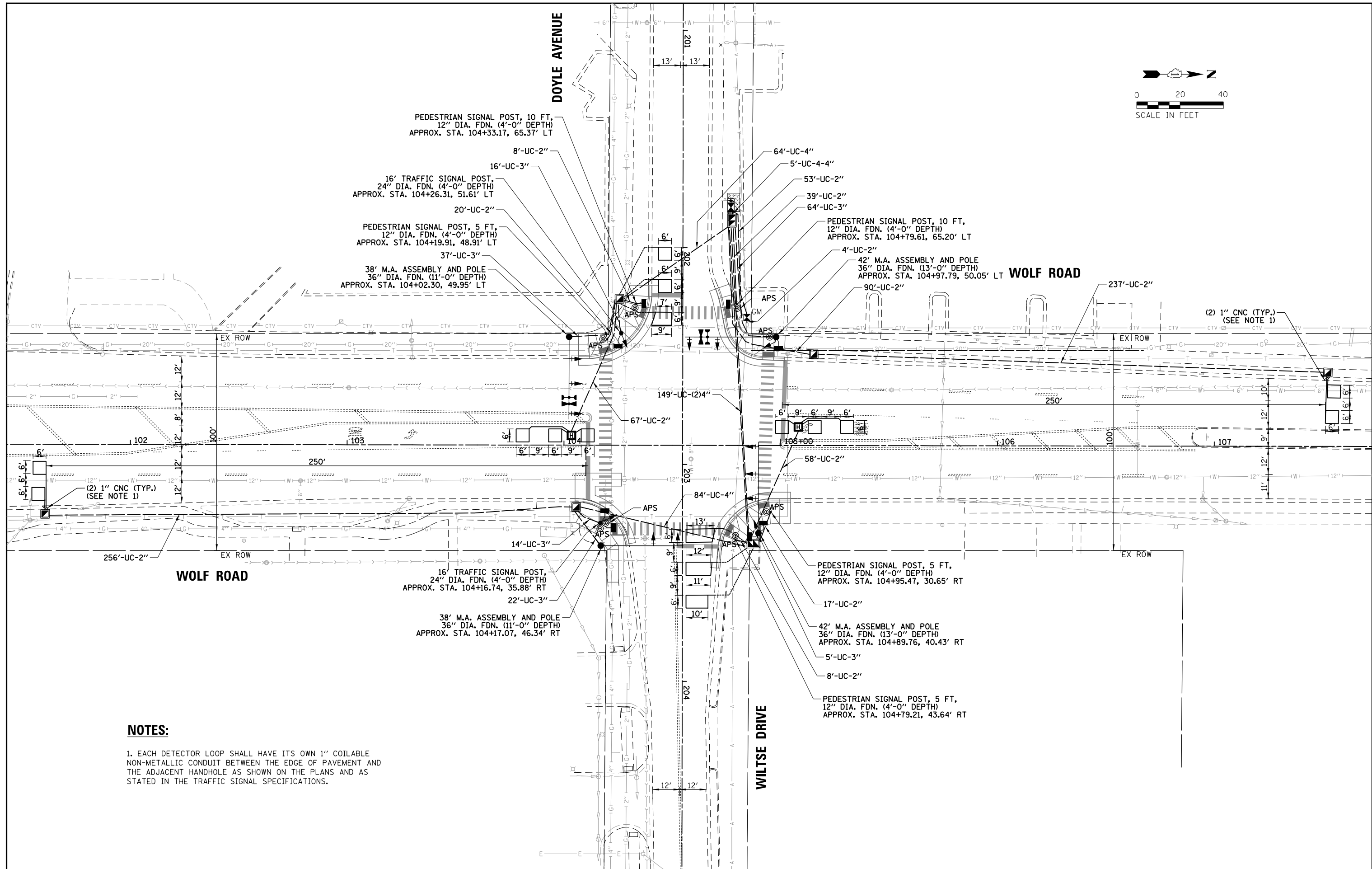
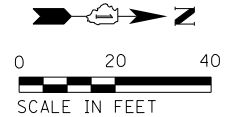
|   |           |           |              |
|---|-----------|-----------|--------------|
| <b>TEMPORARY CABLE PLAN AND TEMPORARY PHASE DESIGNATION DIAGRAM</b> |           |           |              |
| <b>WOLF ROAD AND WILTSE DRIVE /DOYLE AVENUE</b>                     |           |           |              |
| SCALE:  | SHEET NO. | OF SHEETS | STA. TO STA. |

|   |                |        |              |           |
|---|----------------|--------|--------------|-----------|
| F.A.U. RTE.                                   | SECTION        | COUNTY | TOTAL SHEETS | SHEET NO. |
| 2690  | 23-00102-00-TL | COOK   | 39           | 29        |
| CONTRACT NO. 61K94                            |                |        |              |           |
| FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT |                |        |              |           |

|          |             |        |              |
|----------|-------------|--------|--------------|
| DATE     | BY          | DATE   | BY           |
|          |             |        |              |
| PLANNING | ENGINEERING | DESIGN | CONSTRUCTION |
| NO.      | NO.         | NO.    | NO.          |
| NO.      | NO.         | NO.    | NO.          |

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 9575 West Higgins Road, Suite 600  
 Rosemont, Illinois 60018  
 (847) 823-0500

|      |     |      |     |
|------|-----|------|-----|
| DATE | BY  | DATE | BY  |
|      |     |      |     |
| NO.  | NO. | NO.  | NO. |
| NO.  | NO. | NO.  | NO. |



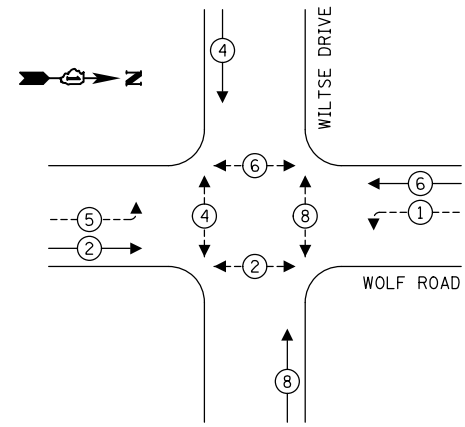
**NOTES:**

1. EACH DETECTOR LOOP SHALL HAVE ITS OWN 1" COILABLE NON-METALLIC CONDUIT BETWEEN THE EDGE OF PAVEMENT AND THE ADJACENT HANDHOLE AS SHOWN ON THE PLANS AND AS STATED IN THE TRAFFIC SIGNAL SPECIFICATIONS.

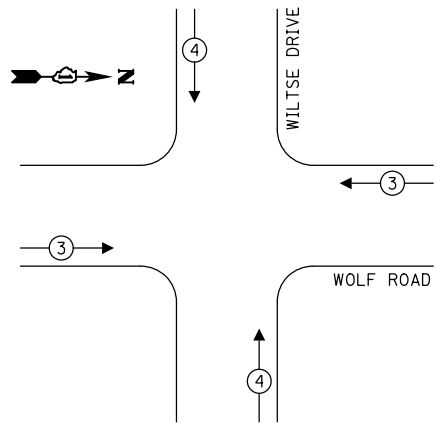
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| FILE NAME =                              | USER NAME = jdfrenza  | DESIGNED - PJA | REVISED - | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>TRAFFIC SIGNAL MODERNIZATION PLAN<br/>WOLF ROAD AND WILTSE DRIVE /DOYLE AVENUE</b> | F.A.U. R.T.E.       | SECTION        | COUNTY           | TOTAL SHEETS | SHEET NO. |
| N:\NORTHLAKE\940032HR - Municipal Review | Projects\940032 HR 400's\940032HR405\Traffic\BROWN-WILTSE.srh\A.MOD.dgn | DRAWN - WILTSE | REVISED - |   |   | 2690                | 23-00102-00-TL | COOK             | 39           | 30        |
|  | PLOT SCALE = 40'  | CHECKED - EAJ  | REVISED - |   |   | CONTRACT NO. 61K94  |                |                  |              |           |
|  | PLOT DATE = 11/7/2024   | DATE -         | REVISED - |   |   | FED. ROAD DIST. NO. | ILLINOIS       | FED. AID PROJECT |              |           |

DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 SURVEYED \_\_\_\_\_ PLOTTED \_\_\_\_\_  
 NOTE BOOK \_\_\_\_\_ REVISIONS \_\_\_\_\_  
 NO. \_\_\_\_\_ DATE \_\_\_\_\_ FILE NAME \_\_\_\_\_  
 PLAN NO. \_\_\_\_\_  
 ENGINEERING LTD.  
**CHRISTOPHER B. BURKE**  
 9575 West Higgins Road, Suite 600  
 Rosemont, Illinois 60018  
 (847) 923-0500  
 DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 SURVEYED \_\_\_\_\_ PLOTTED \_\_\_\_\_  
 NOTE BOOK \_\_\_\_\_ REVISIONS \_\_\_\_\_  
 NO. \_\_\_\_\_ DATE \_\_\_\_\_ FILE NAME \_\_\_\_\_  
 PLAN NO. \_\_\_\_\_  
 ENGINEERING LTD.  
**CHRISTOPHER B. BURKE**  
 9575 West Higgins Road, Suite 600  
 Rosemont, Illinois 60018  
 (847) 923-0500

**PROPOSED CONTROLLER SEQUENCE**



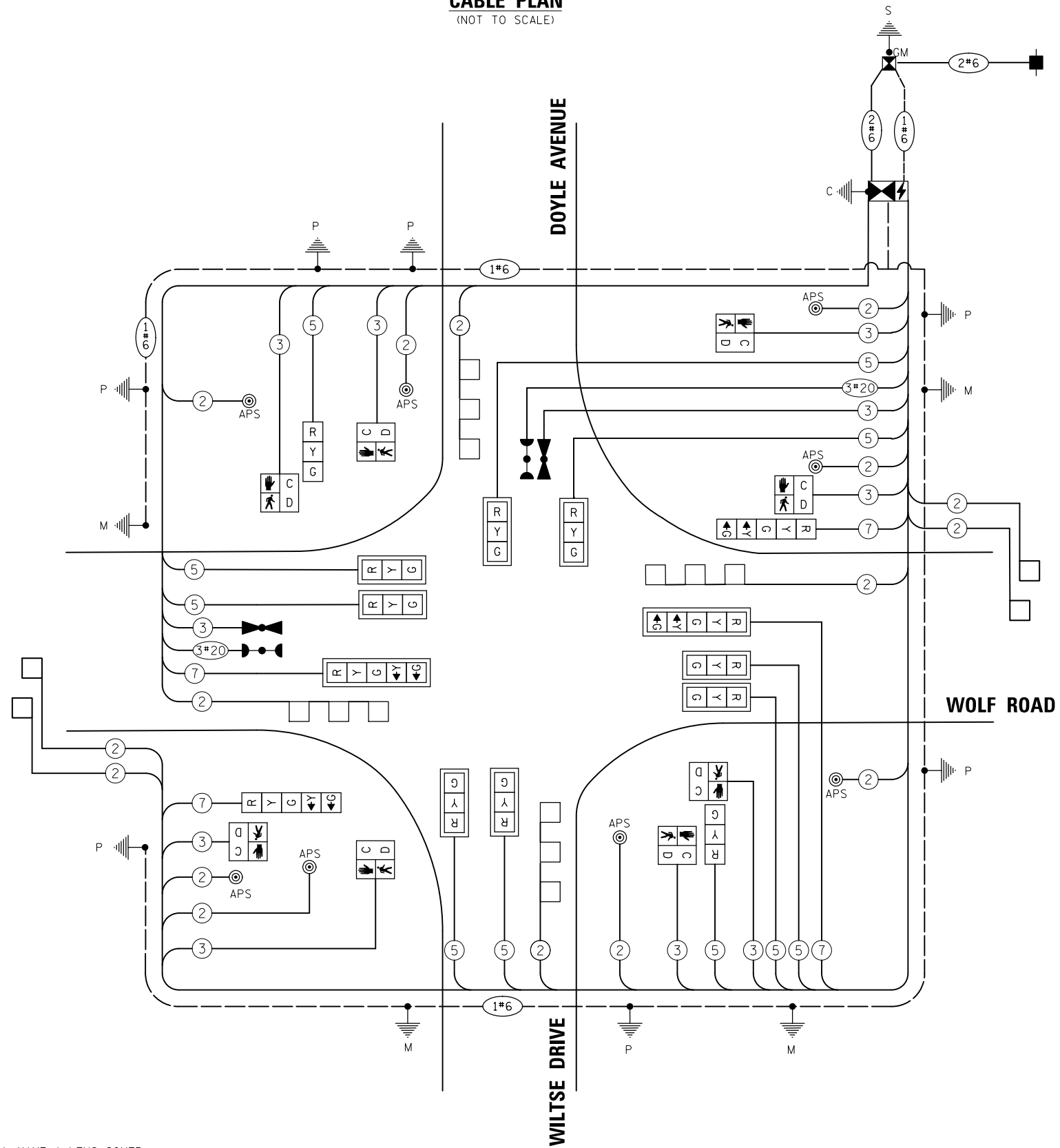
**PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**LEGEND:**

- ← ⊙ → PROTECTED PHASE
- ← ⊙ - - → PROTECTED/PERMITTED PHASE
- ← ⊙ ⊙ → PEDESTRIAN PHASE
- ← ⊙ ⊙ ⊙ → OVERLAP

**CABLE PLAN**  
(NOT TO SCALE)



**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

| TYPE                             | QUANTITY | LED WATTAGE | TOTAL WATTAGE |
|----------------------------------|----------|-------------|---------------|
| <b>SIGNAL HEAD</b>               |          |             |               |
| 3-SECTION                        | 10       | 11          | 110           |
| 4-SECTION                        | -        | 14          | -             |
| 5-SECTION                        | 4        | 13          | 52            |
| <b>PROGRAMMABLE SIGNALS</b>      |          |             |               |
| 3-SECTION                        | -        | 22          | -             |
| 4-SECTION                        | -        | 32          | -             |
| 5-SECTION                        | -        | 28          | -             |
| PED. SIGNAL                      | 8        | 15          | 120           |
| CONTROLLER                       | 1        | 150         | 150           |
| MASTER CONTROLLER                | -        | 100         | -             |
| UPS                              | 1        | 25          | 25            |
| DETECTION RADAR                  | -        | 20          | -             |
| VIDEO                            | -        | 20          | -             |
| NETWORK SWITCH II OR III         | -        | 25          | -             |
| BLANK-OUT SIGN                   | -        | 35          | -             |
| CELLULAR MODEM                   | -        | 15          | -             |
| <b>TOTAL SERVICE WIRE SIZING</b> |          |             | <b>457</b>    |
| UPS CHARGING                     | 1        | 225         | 225           |
| BATTERY HEATER MAT               | 1        | 180         | 180           |
| CABINET HEATER                   | 1        | 200         | 200           |
| FLASHER                          | -        | 15          | -             |
| LED STREET NAME SIGN             | -        | 120         | -             |
| LUMINAIRE                        | -        | 240         | -             |
| <b>TOTAL SERVICE WIRE SIZING</b> |          |             | <b>1114</b>   |

**NOTES:**

1. ALL RED SIGNAL INDICATIONS SHALL HAVE A LENS COVER.

ENERGY COSTS TO:  
 CITY OF NORTHLAKE  
 55 NORTH AVE  
 NORTHLAKE, IL 60164  
 ENERGY SUPPLY: CONTACT: LISA WILLIAMS  
 PHONE: (773) 270-7020  
 COMPANY: COMMONWEALTH EDISON  
 ACCOUNT NUMBER: 307-576-6111

|  |   |                               |           |
|--|---|-------------------------------|-----------|
| FILE NAME =                              | USER NAME = jdefrenza                   | DESIGNED - PJA                | REVISED - |
| N:\NORTHLAKE\940032HR - Municipal Review | Projects\940032 HR 400\940032HR405\Tran | DRAWN - WILTSE, sHUA, CAB.dgn | REVISED - |
|  | PLOT SCALE = 48"                        | CHECKED - EAJ                 | REVISED - |
|  | PLOT DATE = 11/7/2024                   | DATE -                        | REVISED - |

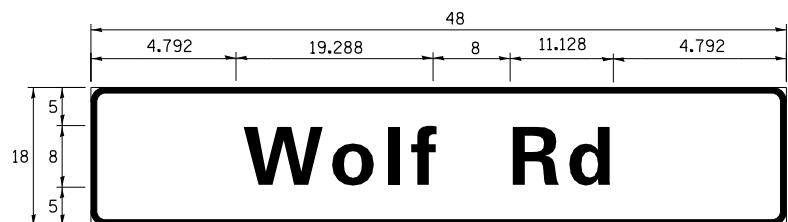
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

|   |                     |              |  |
|---|---------------------|--------------|--|
| <b>CABLE PLAN AND PHASE DESIGNATION DIAGRAM</b> |                     |              |  |
| <b>WOLF ROAD AND WILTSE DRIVE /DOYLE AVENUE</b> |                     |              |  |
| SCALE: N.T.S.                                   | SHEET NO. OF SHEETS | STA. TO STA. |  |

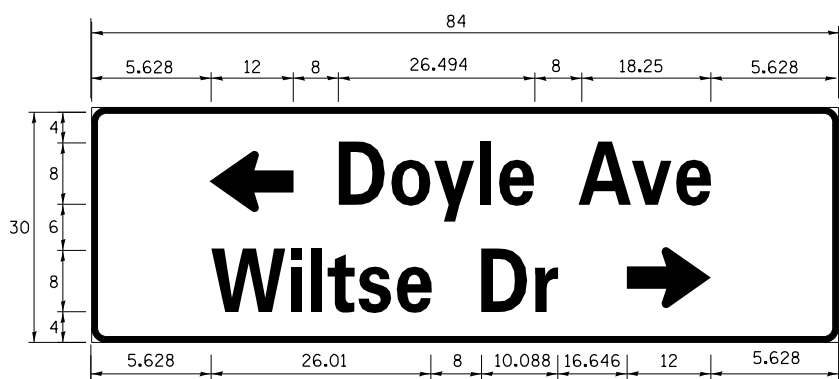
|   |                |        |              |           |
|---|----------------|--------|--------------|-----------|
| F.A.U. RTE.                                   | SECTION        | COUNTY | TOTAL SHEETS | SHEET NO. |
| 2690  | 23-00102-00-TL | COOK   | 39           | 31        |
| CONTRACT NO. 61K94                            |                |        |              |           |
| FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT |                |        |              |           |

**SIGN PANEL – TYPE 1**

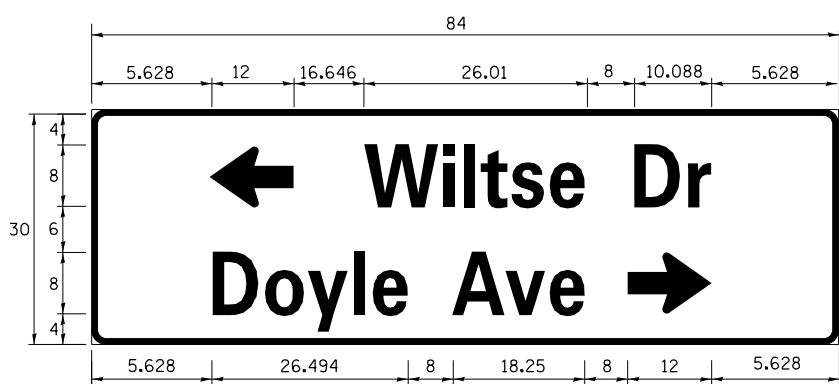
ALL DIMENSIONS ARE IN INCHES UNLESS NOTED OTHERWISE



| DESIGN SERIES | AREA (SQ FT) | SIGN PANEL TYPE | SHEETING TYPE | QTY. REQUIRED |
|---------------|--------------|-----------------|---------------|---------------|
| D             | 6            | 1               | ZZ            | 2             |



| DESIGN SERIES | AREA (SQ FT) | SIGN PANEL TYPE | SHEETING TYPE | QTY. REQUIRED |
|---------------|--------------|-----------------|---------------|---------------|
| D             | 17.5         | 2               | ZZ            | 1             |



| DESIGN SERIES | AREA (SQ FT) | SIGN PANEL TYPE | SHEETING TYPE | QTY. REQUIRED |
|---------------|--------------|-----------------|---------------|---------------|
| D             | 17.5         | 2               | ZZ            | 1             |

**SCHEDULE OF QUANTITIES**

| ITEM  | UNIT  | QUANTITY |
|---|-------|----------|
| SIGN PANEL - TYPE 1   | SQ FT | 12       |
| SIGN PANEL - TYPE 2   | SQ FT | 35       |
| UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.                            | FOOT  | 857      |
| UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.                            | FOOT  | 158      |
| UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.                            | FOOT  | 466      |
| HANDHOLE  | EACH  | 5        |
| HEAVY-DUTY HANDHOLE   | EACH  | 2        |
| DOUBLE HANDHOLE   | EACH  | 2        |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C                               | FOOT  | 1422     |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C                               | FOOT  | 1782     |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C                               | FOOT  | 2151     |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C                               | FOOT  | 857      |
| ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR                         | FOOT  | 2480     |
| ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C                             | FOOT  | 104      |
| ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C        | FOOT  | 1109     |
| TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.                              | EACH  | 2        |
| STEEL MAST ARM ASSEMBLY AND POLE, 38 FT.                                  | EACH  | 2        |
| STEEL MAST ARM ASSEMBLY AND POLE, 42 FT.                                  | EACH  | 2        |
| CONCRETE FOUNDATION, TYPE A   | FOOT  | 12       |
| CONCRETE FOUNDATION, TYPE C   | FOOT  | 4        |
| CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER                              | FOOT  | 48       |
| SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED                     | EACH  | 8        |
| SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED                      | EACH  | 2        |
| SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED                      | EACH  | 2        |
| SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED                     | EACH  | 2        |
| PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER | EACH  | 8        |
| TRAFFIC SIGNAL BACKPLATE, RETROREFLECTIVE                                 | EACH  | 10       |
| INDUCTIVE LOOP DETECTOR   | EACH  | 8        |
| DETECTOR LOOP, TYPE I   | FOOT  | 526      |
| LIGHT DETECTOR  | EACH  | 2        |
| LIGHT DETECTOR AMPLIFIER  | EACH  | 1        |
| TEMPORARY TRAFFIC SIGNAL INSTALLATION                                     | EACH  | 1        |
| REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT                                  | EACH  | 1        |
| REMOVE EXISTING HANDHOLE  | EACH  | 5        |
| REMOVE EXISTING DOUBLE HANDHOLE   | EACH  | 1        |
| REMOVE EXISTING CONCRETE FOUNDATION                                       | EACH  | 8        |
| EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C           | FOOT  | 323      |
| FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET                         | EACH  | 1        |
| SERVICE INSTALLATION, GROUND MOUNTED, METERED                             | EACH  | 1        |
| PEDESTRIAN SIGNAL POST, 10 FT.  | EACH  | 2        |
| PEDESTRIAN SIGNAL POST, 5 FT.   | EACH  | 3        |
| UNINTERRUPTABLE POWER SUPPLY, SPECIAL                                     | EACH  | 1        |
| ACCESSIBLE PEDESTRIAN SIGNALS   | EACH  | 8        |
| CONCRETE FOUNDATION, TYPE A 12-INCH DIAMETER                              | FOOT  | 20       |
| LED SIGNAL FACE, LENS COVER   | EACH  | 14       |
| PERMANENT TRAFFIC SIGNAL TIMING   | EACH  | 1        |
| TEMPORARY TRAFFIC SIGNAL TIMING   | EACH  | 1        |

**NOTES:**

1. THE MAST ARM MOUNTED STREET NAME SIGNS SHALL BE THE COLOR BLUE TO MATCH THE EXISTING SIGN COLOR.
2. FOR ADDITIONAL DESIGN AND INSTALLATION INFORMATION PLEASE SEE MAST ARM MOUNTED STREET NAME SIGNS DETAIL.

|      |    |          |         |
|------|----|----------|---------|
| DATE | BY | SURVEYED | PLANNED |
|      |    | NOTED    | NOTED   |
|      |    | CHECKED  | CHECKED |
|      |    | BY       | BY      |
|      |    | DATE     | DATE    |
|      |    | NO.      | NO.     |

**CHRISTOPHER B. BURKE** ENGINEERING LTD.  
 9575 West Higgins Road, Suite 600  
 Rosemont, Illinois 60018  
 (847) 823-0500

|      |    |          |         |
|------|----|----------|---------|
| DATE | BY | SURVEYED | PLANNED |
|      |    | NOTED    | NOTED   |
|      |    | CHECKED  | CHECKED |
|      |    | BY       | BY      |
|      |    | DATE     | DATE    |
|      |    | NO.      | NO.     |

|  |   |                      |           |
|--|---|----------------------|-----------|
| FILE NAME =                              | USER NAME = jdefrenza                   | DESIGNED - PJA       | REVISED - |
| N:\NORTHLAKE\940032HR - Municipal Review | Projects\940032 HR 400\940032HR405\Tran | DRAWN - WILTSE, sRJA | REVISED - |
|  | PLLOT SCALE = 48"                       | CHECKED - EAJ        | REVISED - |
|  | PLLOT DATE = 11/7/2024                  | DATE -               | REVISED - |

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

|  |  |
|--|--|
| <b>MAST ARM MOUNTED STREET NAME SIGN<br/>         AND SCHEDULE OF QUANTITIES</b> |  |
| <b>WOLF ROAD AT WILTSE DRIVE / DOYLE AVENUE</b>                                  |  |
| SCALE:   | SHEET NO. ___ OF ___ SHEETS STA. _____ TO STA. _____ |

|                    |                |        |   |           |
|--------------------|----------------|--------|---|-----------|
| F.A.U. RT#         | SECTION        | COUNTY | TOTAL SHEETS                                  | SHEET NO. |
| 2690               | 23-00102-00-TL | COOK   | 39  | 32        |
| CONTRACT NO. 61K94 |                |        | FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT |           |



## LIGHTING GENERAL NOTES

1. THE EXACT LOCATIONS OF ALL UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR BEFORE THE INSTALLATION OF ANY EQUIPMENT. FOR THE LOCATIONS OF THE UTILITIES, CALL JULIE AT (800) 892-0123. FOR THE LOCATIONS OF IDOT ELECTRICAL EQUIPMENT AND UNDERGROUND CABLES CALL MEADE ELECTRIC CO. AT (773) 287-7672
2. BEFORE INSTALLING LIGHT STANDARDS NEAR OVERHEAD AND UNDERGROUND ELECTRIC UTILITIES SHALL CALL COM ED FOR LOCATION APPROVAL AND MINIMUM CLEARANCE REQUIREMENTS.
3. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR JOB SITE SAFETY AS WELL AS SUPERVISION/ DIRECTION AND MEANS/METHODS OF CONSTRUCTION.
4. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE FOLLOWING SPECIFICATIONS, WHICH ARE HEREBY MADE A PART HEREOF:
  - A. "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", AS PREPARED BY IDOT.
  - B. "THE NATIONAL ELECTRICAL CODE".
  - C. MUNICIPAL CODES & STANDARDS.
5. NO MATERIALS SHALL BE DELIVERED TO THE JOB SITE UNTIL ALL PERTINENT EQUIPMENT SUBMITTALS HAVE BEEN REVIEWED BY THE ENGINEER.
6. ALL UNDERGROUND CONDUITS SHALL BE INSTALLED BY DIRECTIONAL BORING METHOD. SOME LOCATIONS MAY REQUIRE TRENCHING AND/OR HAND DIGGING. CONTRACTOR SHALL PROVIDE PRIOR NOTICE TO ENGINEER BEFORE TRENCHING.
7. ALL UNDERGROUND WIRING SHALL BE XLP TYPE-USE, EXTRA ABRASION RESISTANCE, 600 VOLTS, BURIED A MINIMUM 30 INCHES BELOW FINISHED GRADE, FOLLOWING THE ROADWAY OR SIDEWALK EDGE.
8. NO POLES SHALL BE ERECTED UNTIL THE RESPECTIVE FOUNDATIONS HAVE CURED, (IF APPLICABLE) AND HAVE BEEN REVIEWED BY THE ENGINEER.
9. TO MAINTAIN THE STRUCTURAL INTEGRITY OF LIGHT POLES WITH MAST ARMS, THEY SHALL NOT BE ERECTED AND LEFT TO STAND WITHOUT LUMINAIRES.
10. ALL POLE HANDHOLES SHALL FACE AWAY FROM TRAFFIC.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ESTABLISHMENT OF THE TOP OF FOUNDATION ELEVATION WITH THE FINISHED GRADE.
12. THE CONTRACTOR SHALL LABEL ALL WIRES WITH WIRE MARKERS INDICATING THE CIRCUIT ID IN EVERY CONTROLLER, POLE BASE, HANDHOLE AND SPLICE/CONNECTION POINT. WIRE MARKERS SHALL BE WHITE NYLON WITH INTEGRAL MECHANICAL FASTENER WITH MINIMUM 3/4" X 1" WRITEABLE AREA.
13. THE ELECTRICAL CONTRACTOR SHALL FURNISH TWO SETS OF FULL SIZE RECORD DRAWINGS TO THE ENGINEER UPON COMPLETION OF THE LIGHTING AND ELECTRICAL IMPROVEMENTS. THE DRAWINGS SHALL SHOW THE INSTALLED LOCATIONS OF ALL LIGHT POLES, UNDERGROUND CONDUITS/WIRING, HANDHOLES, JUNCTION BOXES & CONTROLLER CABINETS. THE DRAWINGS WILL BE REVIEWED BY THE ENGINEER.
14. UPON COMPLETION OF THE PROPOSED LIGHTING IMPROVEMENTS AND BEFORE ANY CABLE SPLICING, THE CONTRACTOR SHALL PERFORM ELECTRICAL TESTING AND VERIFY THAT THE INSTALLATION COMPLIES WITH THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION IN ILLINOIS.
15. THE LIGHT POLE LOCATIONS SHALL COMPLY WITH THE MINIMUM CLEAR WIDTH FOR ADA REQUIREMENTS FOR CLEAR WIDTH OF SIDEWALK, AND SHALL COMPLY WITH BDE CHAPTER 17-4.04 AND PROWAG R301.3.1.
16. LIGHTING SHALL BE OPERATIONAL EVERY NIGHT, DUSK TO DAWN.

## LIGHTING BILL OF MATERIALS

| DESCRIPTION  | UNIT  | QUANTITY |
|--|-------|----------|
| TRENCH BACKFILL  | CU YD | 5        |
| UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 1 1/2" DIA. | FOOT  | 40       |
| ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO.6        | FOOT  | 435      |
| ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 4/C NO.4        | FOOT  | 1730     |
| LIGHT POLE FOUNDATION, 24' DIAMETER                            | FOOT  | 10       |
| REMOVAL OF POLE FOUNDATION                                     | EACH  | 1        |
| RELOCATE EXISTING LIGHTING UNIT                                | EACH  | 1        |
| CONDUIT SPLICE   | EACH  | 2        |
| REMOVE CABLE FROM CONDUIT                                      | FOOT  | 345      |
| MAINTAIN EXISTING LIGHTING SYSTEM                              | L SUM | 1        |

### ABBREVIATIONS

|      |                           |
|------|---------------------------|
| A    | AMPS                      |
| BOC  | BACK OF CURB              |
| CKT  | CIRCUIT                   |
| DIA  | DIAMETER                  |
| FT   | FOOT                      |
| FOC  | FACE OF CURB              |
| GND  | GROUND                    |
| HD   | HEAVY DUTY                |
| HDPE | HIGH DENSITY POLYETHYLENE |
| HH   | HAND HOLE                 |
| HPS  | HIGH PRESSURE SODIUM      |
| PVC  | POLYVINYL CHLORIDE        |
| RGS  | RIGID GALVANIZED STEEL    |
| ROW  | RIGHT OF WAY              |
| STA  | STATION                   |
| V    | VOLTS                     |
| W    | WATTS                     |

THE CITY OF NORTHLAKE OWNS AND MAINTAINS  
THE EXISTING LIGHTING SYSTEM

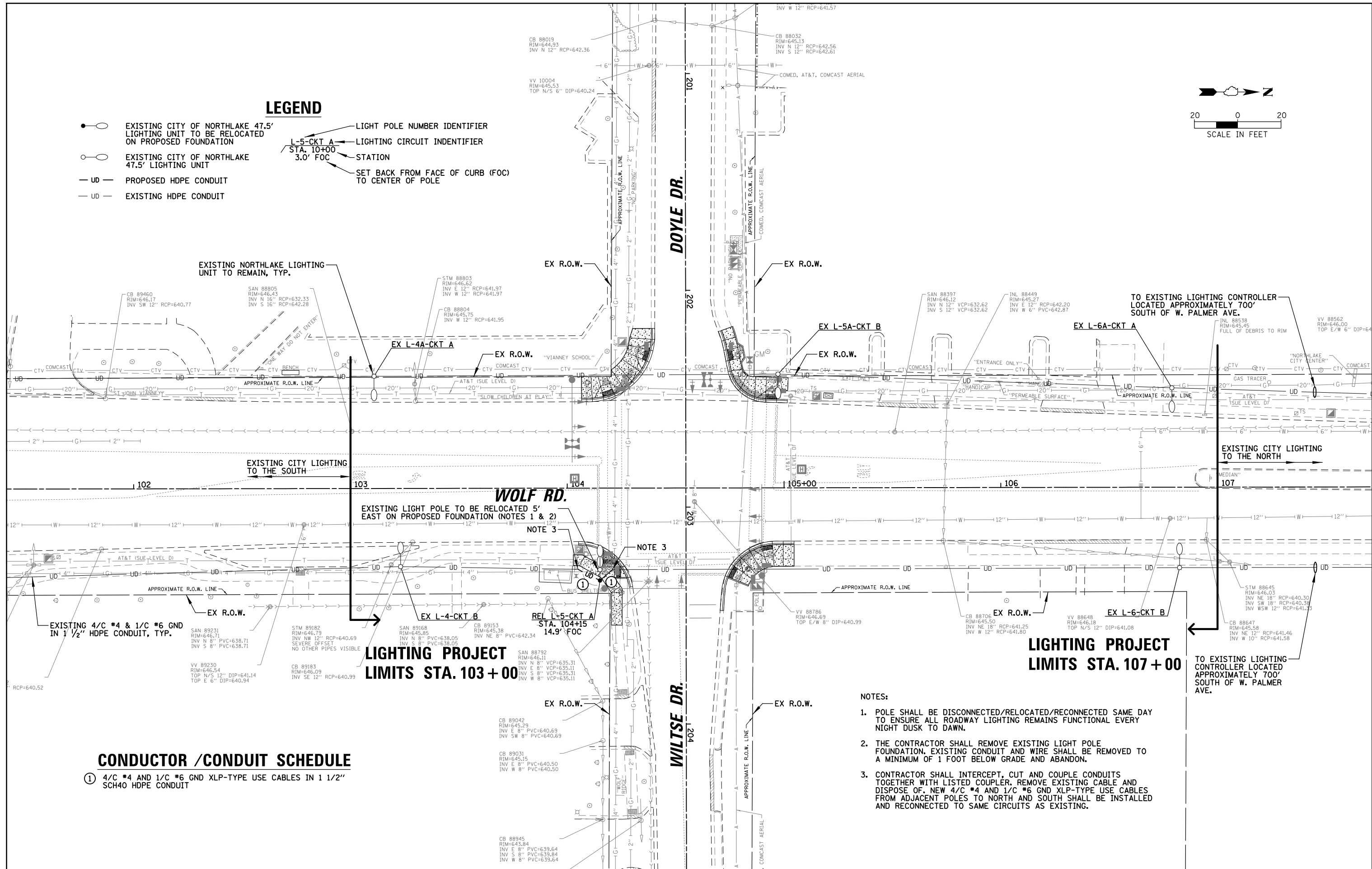
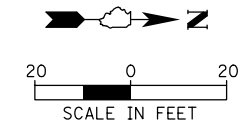
#### CAUTION NOTICE TO CONTRACTOR

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THE LOCATION AND/OR ELEVATION OF EXISTING AND PROPOSED UTILITIES AS SHOWN ON THESE PLANS. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INFORM ENGINEER OF ANY EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS.

|  |   |              |           |   |   |                           |                |        |                 |              |  |
|--|---|--------------|-----------|---|---|---------------------------|----------------|--------|-----------------|--------------|--|
| FILE NAME =                              | USER NAME = jdefrenza                     | DESIGNED RJJ | REVISED - | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>GENERAL NOTES &amp; LIGHTING BILL OF MATERIALS</b> | F.A.U<br>RTE.             | SECTION        | COUNTY | TOTAL<br>SHEETS | SHEET<br>NO. |  |
| N:\NORTHLAKE\940032HR - Municipal Review | Projects\940032 HR 400's\940032HR405\Mech | DRWN:DJL     | REVISED - |   |   | 2690                      | 23-00102-00-TL | COOK   | 39              | 33           |  |
| Default                                  | PLOT SCALE = 48'                          | CHECKED RJJ  | REVISED - |   |   | CONTRACT NO. 61K94        |                |        |                 |              |  |
|  | PLOT DATE = 11/7/2024                     | DATE -       | REVISED - |   |   | ILLINOIS FED. AID PROJECT |                |        |                 |              |  |

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

- LEGEND**
- EXISTING CITY OF NORTHLAKE 47.5' LIGHTING UNIT TO BE RELOCATED ON PROPOSED FOUNDATION
  - EXISTING CITY OF NORTHLAKE 47.5' LIGHTING UNIT
  - UD — PROPOSED HDPE CONDUIT
  - UD — EXISTING HDPE CONDUIT
  - LIGHT POLE NUMBER IDENTIFIER
  - L-5-CKT A LIGHTING CIRCUIT IDENTIFIER
  - STA. 10+00 3.0' FOC STATION
  - SET BACK FROM FACE OF CURB (FOC) TO CENTER OF POLE



**CONDUCTOR /CONDUIT SCHEDULE**

- ① 4/C #4 AND 1/C #6 GND XLP-TYPE USE CABLES IN 1 1/2" SCH40 HDPE CONDUIT

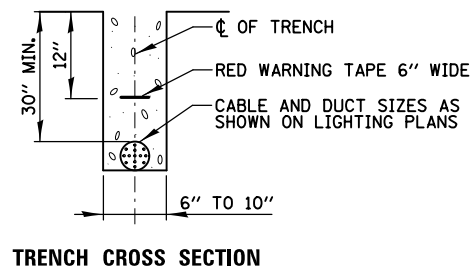
**LIGHTING PROJECT LIMITS STA. 103 + 00**

**LIGHTING PROJECT LIMITS STA. 107 + 00**

**NOTES:**

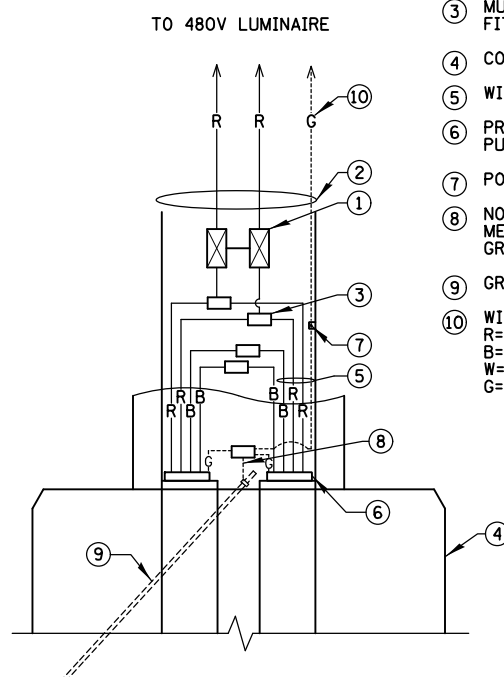
1. POLE SHALL BE DISCONNECTED/RELOCATED/RECONNECTED SAME DAY TO ENSURE ALL ROADWAY LIGHTING REMAINS FUNCTIONAL EVERY NIGHT DUSK TO DAWN.
2. THE CONTRACTOR SHALL REMOVE EXISTING LIGHT POLE FOUNDATION. EXISTING CONDUIT AND WIRE SHALL BE REMOVED TO A MINIMUM OF 1 FOOT BELOW GRADE AND ABANDON.
3. CONTRACTOR SHALL INTERCEPT, CUT AND COUPLE CONDUITS TOGETHER WITH LISTED COUPLER. REMOVE EXISTING CABLE AND DISPOSE OF. NEW 4/C #4 AND 1/C #6 GND XLP-TYPE USE CABLES FROM ADJACENT POLES TO NORTH AND SOUTH SHALL BE INSTALLED AND RECONNECTED TO SAME CIRCUITS AS EXISTING.

|  |   |              |           |   |  |                    |                 |              |                           |           |  |
|--|---|--------------|-----------|---|--|--------------------|-----------------|--------------|---------------------------|-----------|--|
| FILE NAME =                              | USER NAME = jdfrenza                    | DESIGNED RJJ | REVISED - | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>PROPOSED LIGHTING PLAN (1 OF 1)</b> | F.A.U. RTE.        | SECTION         | COUNTY       | TOTAL SHEETS              | SHEET NO. |  |
| N:\NORTHLAKE\940032HR - Municipal Review | Projects\940032 HR 400\940032HR405\Mech | DRAWN RJJ    | REVISED - |   |  | 2690               | 23-00102-00-TL  | COOK         | 39                        | 34        |  |
| Default                                  | PLOT SCALE = 40'                        | CHECKED RJJ  | REVISED - |   |  | CONTRACT NO. 61K94 |                 |              |                           |           |  |
|  | PLOT DATE = 11/7/2024                   | DATE -       | REVISED - |   |  | SCALE: 40'         | SHEET OF SHEETS | STA. TO STA. | ILLINOIS FED. AID PROJECT |           |  |



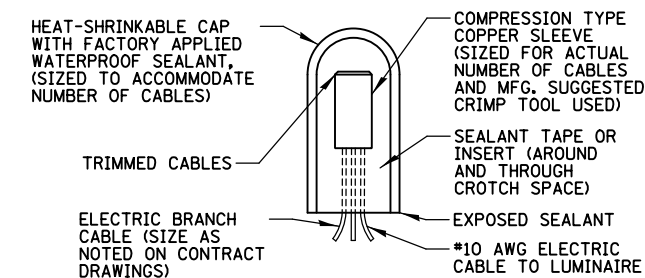
**ELECTRIC CONDUIT INSTALLATION**  
N.T.S.

—— PHASE CONDUCTOR  
 - - - - GROUND CONDUCTOR  
 - - - - NEUTRAL CONDUCTOR



**LIGHT POLE HANDHOLE WIRING DIAGRAM**  
N.T.S.

- ① 5A FUSE 2-POLE BREAKAWAY FUSE HOLDER & INSULATING BOOTS
- ② \*10 XLP-TYPE USE POLE WIRES COLOR TO MATCH BRANCH WIRING
- ③ MULTIPLE COMPRESSION FITTINGS (SPlice), TYP.
- ④ CONCRETE FOUNDATION
- ⑤ WIRES AS SHOWN ON PLANS
- ⑥ PROPOSED LIGHTING DUCT PULLED THROUGH PVC RACEWAY
- ⑦ POLE GROUND LUG
- ⑧ NO. 6 GROUND WIRE MECHANICALLY CLAMPED TO GROUND ROD
- ⑨ GROUND ROD
- ⑩ WIRE COLOR  
 R=RED  
 B=BLACK  
 W=WHITE  
 G=GREEN

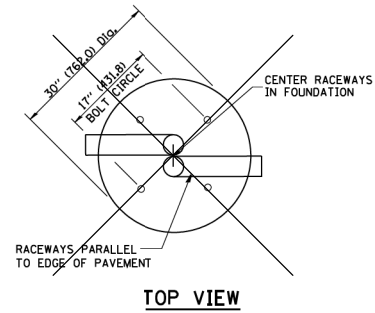
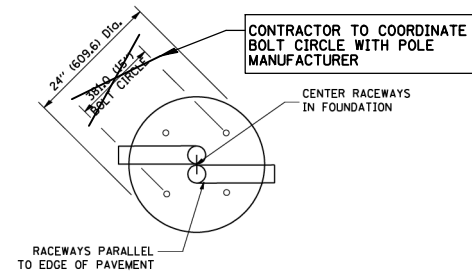


**SPlicing ELECTRIC CABLE**  
N.T.S.

|  |   |              |           |   |                                  |                 |              |                           |                |        |              |           |
|--|---|--------------|-----------|---|----------------------------------|-----------------|--------------|---------------------------|----------------|--------|--------------|-----------|
| FILE NAME =                              | USER NAME = jdefrenza                     | DESIGNED RJJ | REVISED - | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>LIGHTING DETAILS (1 OF 4)</b> |                 |              | F.A.U. RTE.               | SECTION        | COUNTY | TOTAL SHEETS | SHEET NO. |
| N:\NORTHLAKE\940032HR - Municipal Review | Projects\940032 HR 400's\940032HR405\Mech | DRAWN BY JPH | REVISED - |   |                                  |                 |              | 2690                      | 23-00102-00-TL | COOK   | 39           | 35        |
| Default                                  | PLOT SCALE = 48"                          | CHECKED RJJ  | REVISED - |   | CONTRACT NO. 61K94               |                 |              |                           |                |        |              |           |
|  | PLOT DATE = 11/7/2024                     | DATE -       | REVISED - |   | SCALE: N.T.S.                    | SHEET OF SHEETS | STA. TO STA. | ILLINOIS FED. AID PROJECT |                |        |              |           |

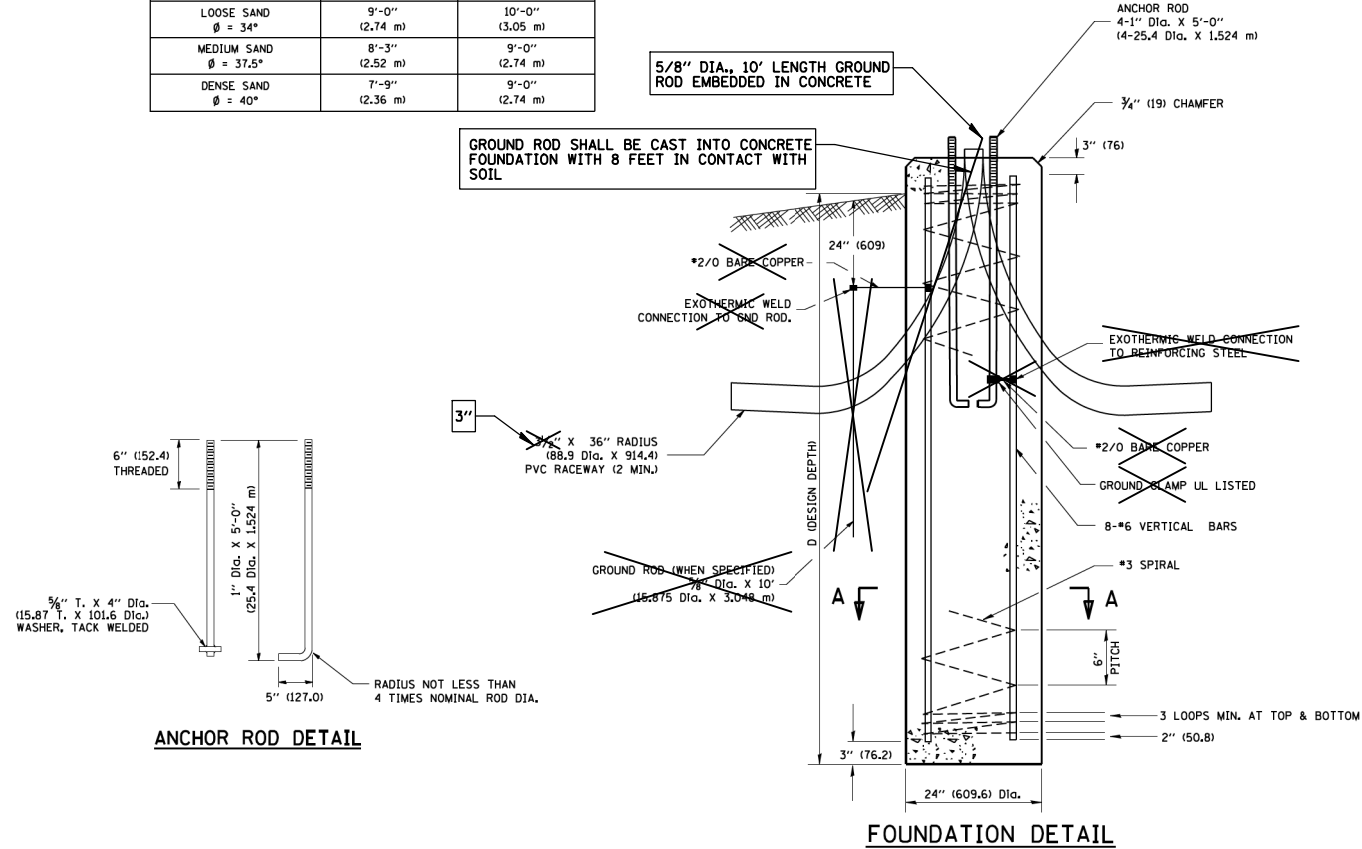
**LIGHT POLE FOUNDATION DEPTH TABLE**  
40 FT. (12.192 m) TO 47.5 FT. (14.478 m) MOUNTING HEIGHT

| SOIL CONDITIONS                      | DESIGN DEPTH "D" OF FOUNDATION |                    |
|--------------------------------------|--------------------------------|--------------------|
|                                      | SINGLE ARM POLE                | TWIN ARM POLE      |
| SOFT CLAY<br>Qu = 0.375 TON/SQ. FT.  | 13'-0"<br>(3.96 m)             | 15'-0"<br>(4.57 m) |
| MEDIUM CLAY<br>Qu = 0.75 TON/SQ. FT. | 9'-6"<br>(2.93 m)              | 10'-9"<br>(3.23 m) |
| STIFF CLAY<br>Qu = 1.50 TON/SQ. FT.  | 7'-0"<br>(2.13 m)              | 8'-0"<br>(2.44 m)  |
| LOOSE SAND<br>φ = 34°                | 9'-0"<br>(2.74 m)              | 10'-0"<br>(3.05 m) |
| MEDIUM SAND<br>φ = 37.5°             | 8'-3"<br>(2.52 m)              | 9'-0"<br>(2.74 m)  |
| DENSE SAND<br>φ = 40°                | 7'-9"<br>(2.36 m)              | 9'-0"<br>(2.74 m)  |

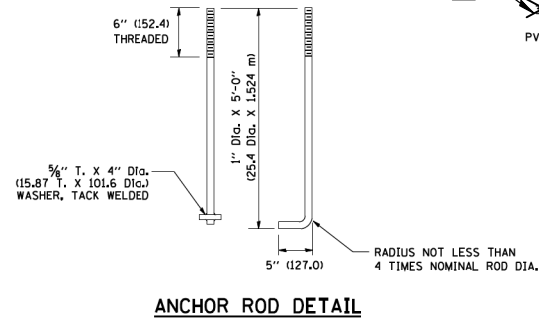


**TOP VIEW**

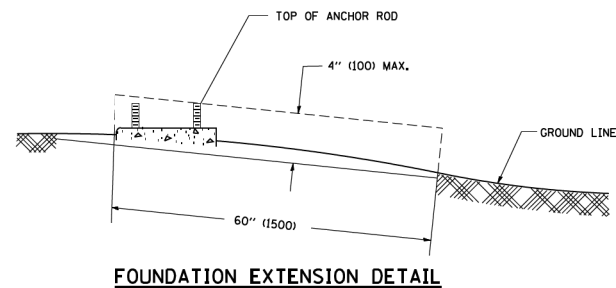
**TOP VIEW**



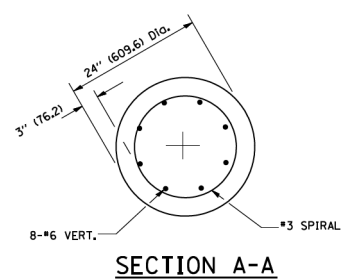
**FOUNDATION DETAIL**



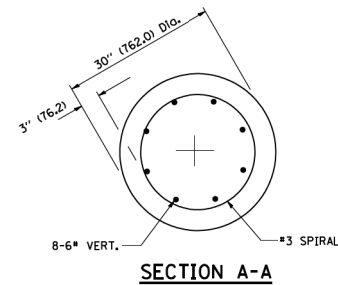
**ANCHOR ROD DETAIL**



**FOUNDATION EXTENSION DETAIL**



**SECTION A-A**



**SECTION A-A**

**NOTES**

- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- THE ANCHOR RODS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED.
- THE FOUNDATION SHALL NOT PROTRUDE MORE THAN 100MM (4 IN.) ABOVE THE FINISHED GRADE WITHIN A 60 IN. (1.5 m) CHORD ACROSS THE FOUNDATION, WITH ANCHOR RODS INCLUDED, IN ACCORDANCE WITH AASHTO GUIDELINES. IF THE FOUNDATION HEIGHT, INCLUDING ANCHOR RODS, EXTENDS BEYOND THESE SPECIFIED LIMITS, THE FOUNDATION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. SEE FOUNDATION EXTENSION DETAIL.
- THE HOLE FOR THE FOUNDATION SHALL BE MADE BY DRILLING WITH AN AUGER, OF THE SAME DIAMETER AS THE FOUNDATION. IF SOIL CONDITIONS REQUIRE THE USE OF A LINER TO FORM THE HOLE, THE LINER SHALL BE WITHDRAWN AS THE CONCRETE IS DEPOSITED.
- THE TOP OF THE FOUNDATION SHALL BE CONSTRUCTED LEVEL. A LINER OR FORM SHALL BE USED TO PRODUCE A UNIFORM SMOOTH SIDE TO THE TOP OF THE FOUNDATION. FOUNDATION TOP SHALL BE CHAMFERED 3/4-IN. (20 mm).
- THE CONCRETE SHALL BE CLASS SI. CONCRETE SHALL CURE ACCORDING TO ARTICLE 1020.13 BEFORE LIGHT POLES ARE INSTALLED.
- THE ANCHOR ROD SHALL BE A HOOK ROD TYPE. COLD BENDING OF THE ANCHOR ROD WILL NOT BE ALLOWED. THE RADIUS OF THE HOOK BEND SHALL NOT BE LESS THAN 4 TIMES THE NOMINAL DIAMETER OF THE ANCHOR ROD. A TACK WELDED ANCHOR ROD MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER.
- THE ANCHOR RODS SHALL BE ACCORDING TO ASTM F1554 GRADE 725 (GRADE 105). NUTS SHALL BE HEXAGON NUTS ACCORDING TO ASTM A 194 2H OR ASTM A 563 0H, AND WASHERS SHALL BE ACCORDING TO ASTM F 436.
- ANCHOR RODS, NUTS AND WASHERS SHALL BE COMPLETELY GALVANIZED BY EITHER THE HOT-DIPPED PROCESS CONFORMING WITH AASHTO M 232, THE MECHANICAL PLATING METHOD CONFORMING TO AASHTO M 298, CLASS 50 WITH A MAXIMUM COATING THICKNESS OF 150 UM(6 MILS) OR THE ELECTROLYTIC PROCESS ACCORDING TO ASTM F 1136.
- THE ANCHOR RODS SHALL BE THREADED A MINIMUM OF 6 INCHES (150 mm) WITH A MINIMUM OF 3 INCHES (75 mm) OF THREADED ANCHOR ROD EMBEDDED IN THE FOUNDATION.
- ANCHOR RODS SHALL PROJECT 2 3/4" (69.9 mm) ABOVE THE TOP OF THE FOUNDATION. IF BREAKAWAY COUPLINGS ARE SPECIFIED, THE CONTRACTOR SHALL CAREFULLY COORDINATE THE ANCHOR ROD PROJECTION WITH THE INSTALLATION REQUIREMENTS OF THE BREAKAWAY COUPLINGS.
- THE CONTRACTOR SHALL USE A #3 SPIRAL AT 6" (152.4 mm) PITCH OR MAY SUBSTITUTE #3 TIES AT 12" (304.8 mm) O.C. WITH THE APPROVAL OF THE ENGINEER.
- THE CABLE TRENCHES AND FOUNDATION SHALL BE BACK FILLED AND COMPACTED AS SPECIFIED BEFORE THE LIGHT POLE IS ERRECTED.
- THE RACEWAYS SHALL PROJECT 1" (25.4 mm) ABOVE THE TOP OF THE FOUNDATION.

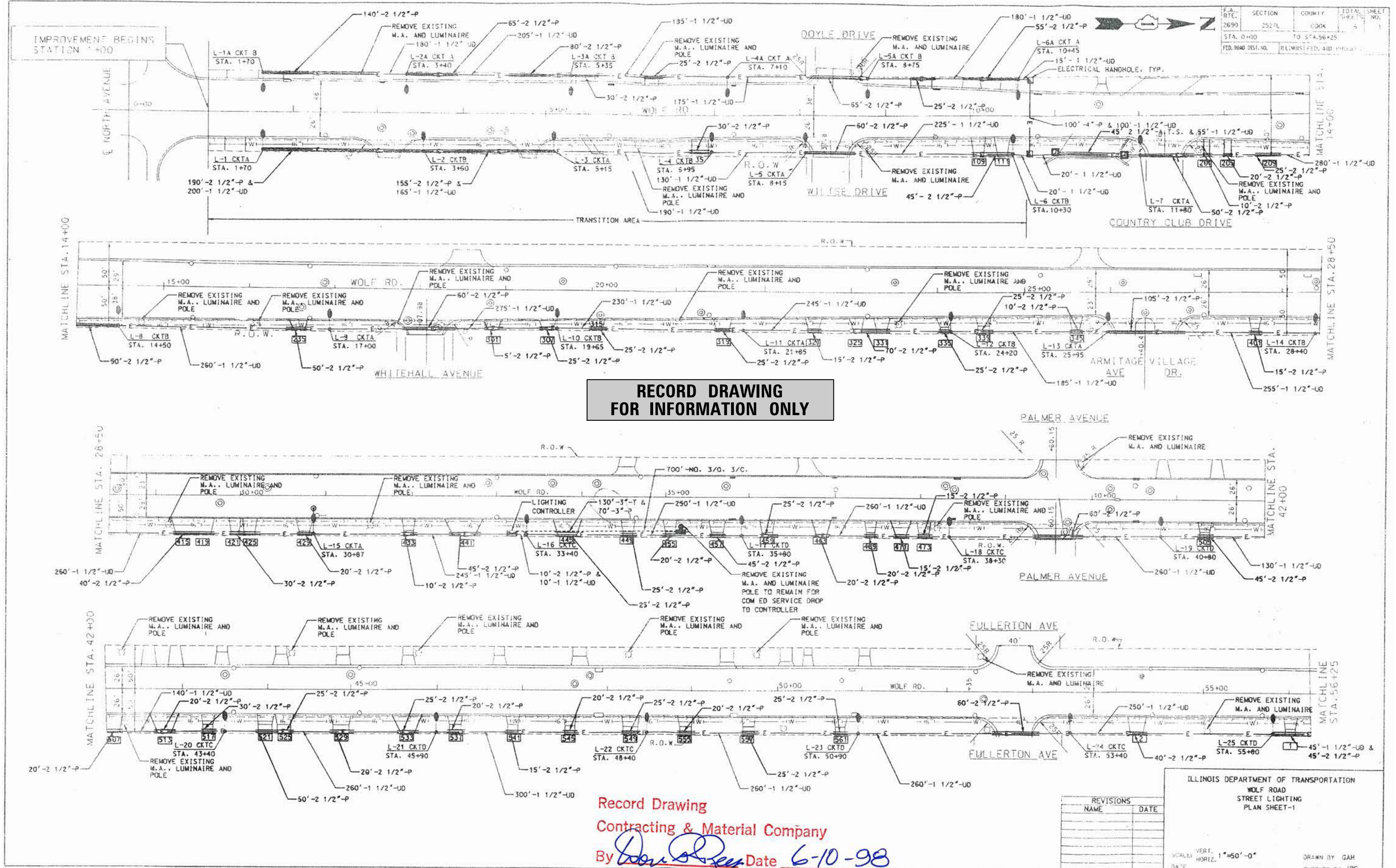
PAID FOR UNDER "LIGHT POLE FOUNDATION, 24" DIAMETER".

**IDOT STANDARD BE-301  
MODIFIED FOR THIS PROJECT**

**LIGHT POLE FOUNDATION**

N.T.S.

|  |   |              |           |   |                           |                    |                 |              |                           |           |  |
|--|---|--------------|-----------|---|---------------------------|--------------------|-----------------|--------------|---------------------------|-----------|--|
| FILE NAME =                              | USER NAME = jdefrenza                     | DESIGNED RJJ | REVISED - | STATE OF ILLINOIS<br>DEPARTMENT OF TRANSPORTATION | LIGHTING DETAILS (2 OF 4) | F.A.U. RTE.        | SECTION         | COUNTY       | TOTAL SHEETS              | SHEET NO. |  |
| N:\NORTHLAKE\940032HR - Municipal Review | Projects\940032 HR 400's\940032HR405\Mech | DRAWN BY RJJ | REVISED - |   |                           | 2690               | 23-00102-00-TL  | COOK         | 39                        | 36        |  |
|  | PLOT SCALE = 48"                          | CHECKED RJJ  | REVISED - |   |                           | CONTRACT NO. 61K94 |                 |              |                           |           |  |
| Default                                  | PLOT DATE = 11/7/2024                     | DATE -       | REVISED - |   |                           | SCALE: N.T.S       | SHEET OF SHEETS | STA. TO STA. | ILLINOIS FED. AID PROJECT |           |  |



**RECORD DRAWING  
FOR INFORMATION ONLY**

Record Drawing  
Contracting & Material Company  
By *[Signature]* Date 6-10-98

| REVISIONS |      |
|-----------|------|
| NAME      | DATE |
|           |      |
|           |      |
|           |      |

ILLINOIS DEPARTMENT OF TRANSPORTATION  
WOLF ROAD  
STREET LIGHTING  
PLAN SHEET-1

SCALE: VERT. 1"=50'-0"  
DATE:                      DRAWN BY GAH  
CHECKED BY JPC

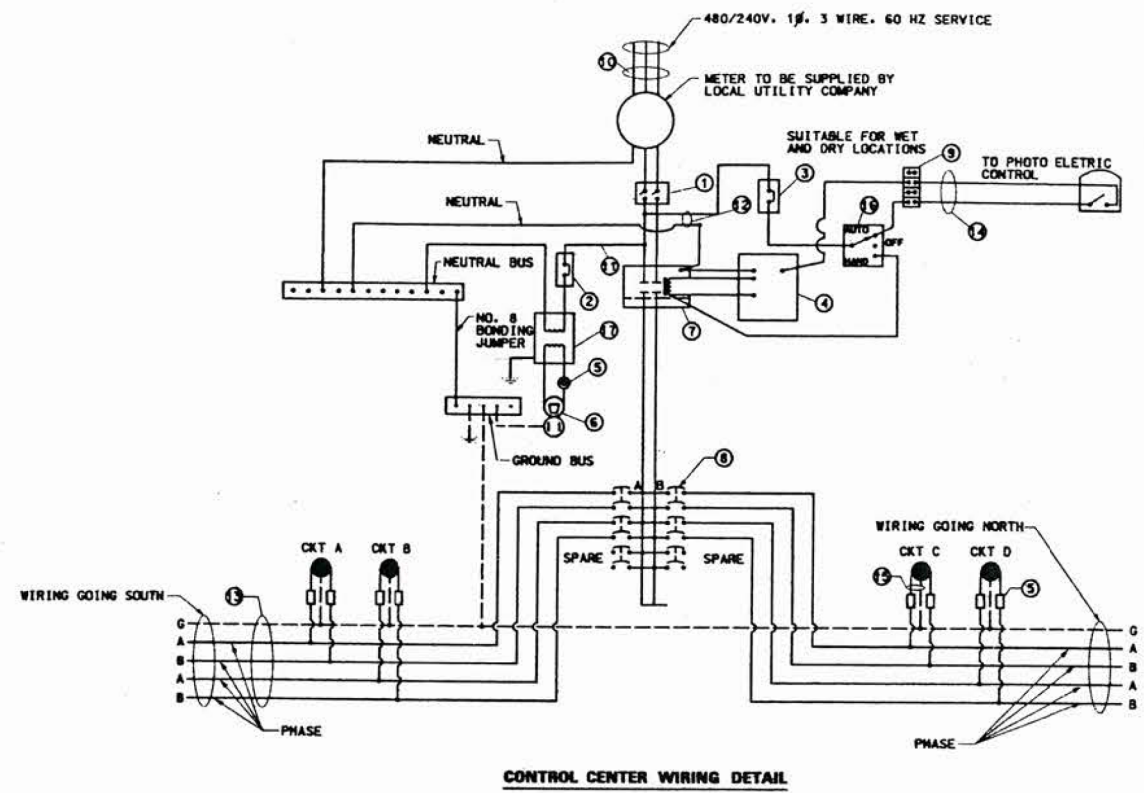
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|--|---|--------------|-----------|
| FILE NAME =                              | USER NAME = jdfrenza                      | DESIGNED RJJ | REVISED - |
| N:\NORTHLAKE\940032HR - Municipal Review | Projects\940032 HR 400's\940032HR405\Mech | DRAWN BY JPH | REVISED - |
| Default                                  | PLOT SCALE = 48"                          | CHECKED RJJ  | REVISED - |
|  | PLOT DATE = 11/7/2024                     | DATE -       | REVISED - |

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

LIGHTING DETAILS (3 OF 4)

SCALE: N.T.S SHEET OF SHEETS STA. TO STA.

| F.A.U. RTE.               | SECTION        | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|----------------|--------|--------------|-----------|
| 2690                      | 23-00102-00-TL | COOK   | 39           | 37        |
| CONTRACT NO. 61K94        |                |        |              |           |
| ILLINOIS FED. AID PROJECT |                |        |              |           |



| ITEM                                    | SPECIFICATION OR EQUAL  |
|---|---|
| 1 MAIN CIRCUIT BREAKER                  | 200 AMPERE, 2 POLE, 480 VOLT RATING   |
| 2 LAMPHOLDER CIRCUIT BREAKER            | 15 AMPERE, 1 POLE, 240 VOLT RATING  |
| 3 PHOTOELECTRIC CONTROL CIRCUIT BREAKER | 15 AMPERE, 1 POLE, 240 VOLT RATING  |
| 4 AUXILIARY RELAY                       | 240 VOLT SPST 60 HZ COIL  |
| 5 FUSE                                  | 5 AMPERE  |
| 6 LAMPHOLDER WITH OUTLET                | 120 VOLT PORCELAIN LAMPHOLDER WITH PULL CHAIN & LAMP, & GROUNDED OUTLET           |
| 7 REMOTE CONTROL SWITCH                 | 200 AMPERE, 2 POLE, 480 VOLT RATING   |
| 8 BRANCH LINE CIRCUIT BREAKERS          | 60 AMPERE, 2 POLE, 480 VOLT RATING  |
| 9 FOUR POINT TERMINAL BLOCK             | 600 VOLT  |
| 10 SERVICE CABLES                       | 3-600V (XLP-TYPE USE) NO. 3/0   |
| 11 LAMPHOLDER WIRE                      | 2-600V XLP NO. 10   |
| 12 CONTROL WIRE                         | 2-600V XLP NO. 10   |
| 13 BRANCH LINE CABLES                   | 4-600V XLP NO. 4 AND 1-1/2" DIA. 600V XLP NO. 6 GROUND IN A 1 1/2" DIA. UNIT DUCT |
| 14 PHOTOELECTRIC CONTROL WIRE           | 3-600V XLP NO. 10   |
| 15 LIGHTING POLE WIRE                   | 2-600V XLP NO. 10 CABLES WITH POLE GROUND AND FUSING                              |
| 16 HAND-AUTO-OFF CONTROL SWITCH         | 10 AMPERE, 3 POLE, 240 VOLT   |
| 17 DRY TYPE TRANSFORMER                 | 0.5 KVA, 240/120 VOLT   |

PHOTO CELL FISHER PIERCE SERIES 7700 240 VOLT SPST PHOTO CELL TO BE MOUNTED ON TOP OF THE NEAREST POLE SOUTH OF THE CONTROL CENTER.

### RECORD DRAWING FOR INFORMATION ONLY

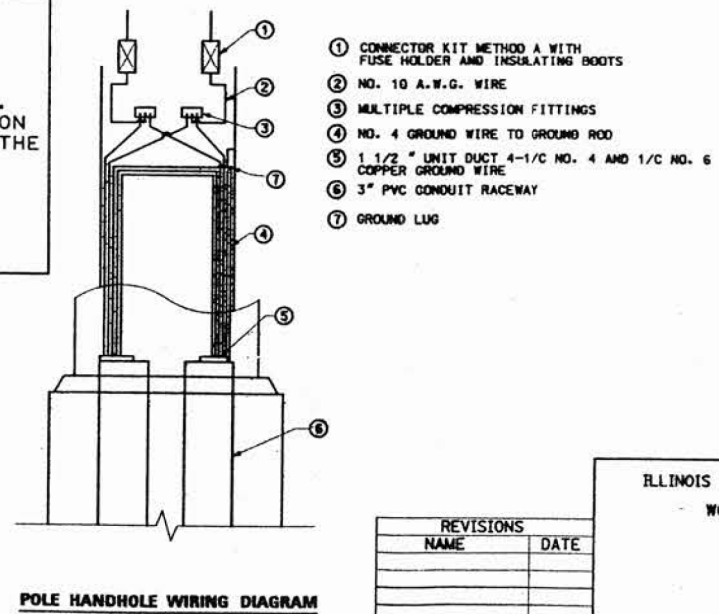
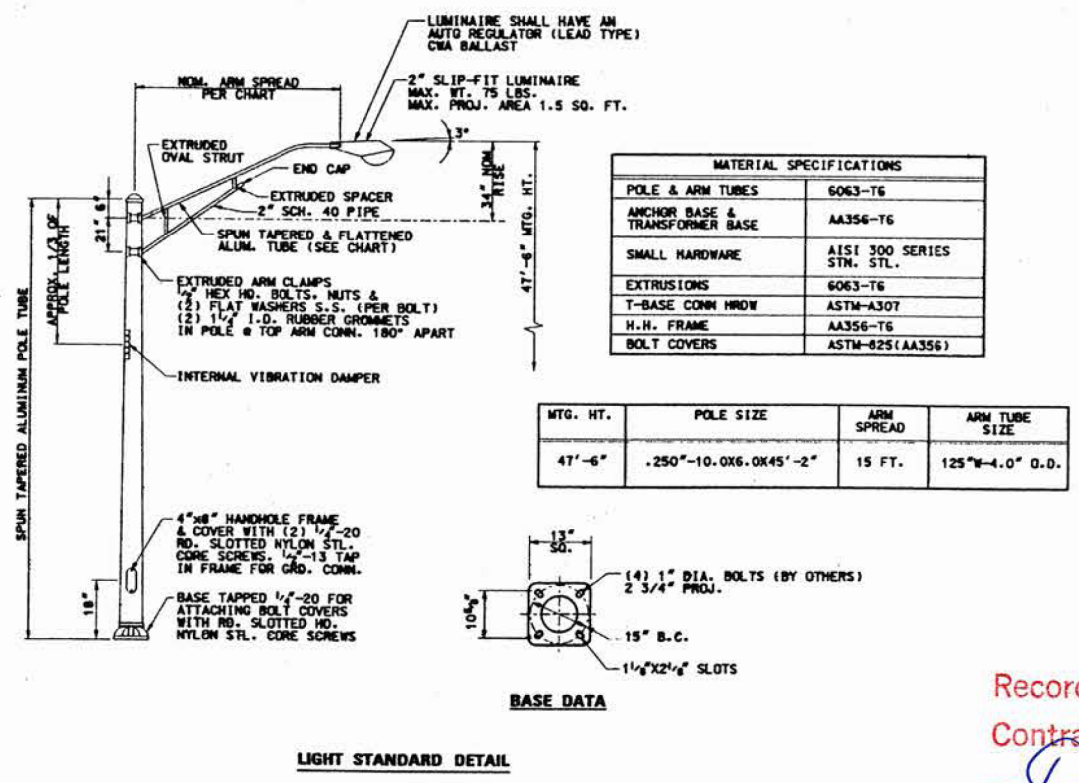
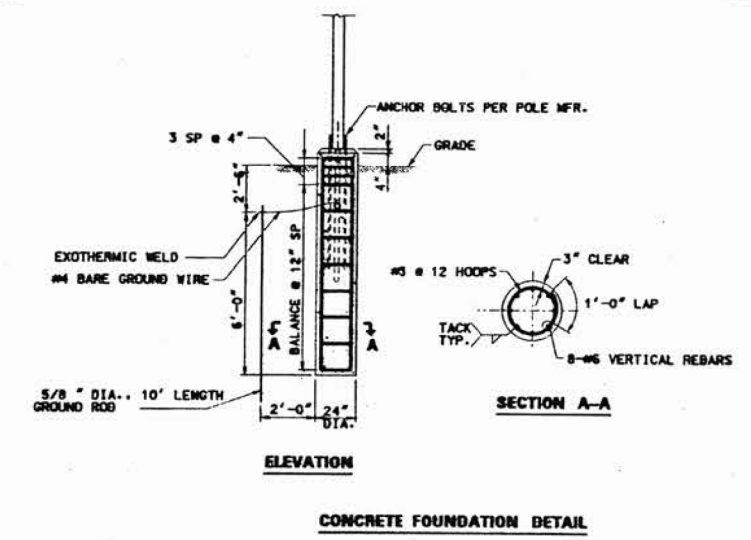
| CIRCUIT NUMBER | TOTAL LIGHT STANDARDS | TOTAL AMPERAGE LOAD |
|----------------|-----------------------|---------------------|
| A              | 11                    | 12.1A               |
| B              | 10                    | 11A                 |
| C              | 7                     | 7.7A                |
| D              | 6                     | 6.6A                |

### LIGHTING CIRCUIT AMPERAGE LOADS

NOTE:  
ALL CONDUCTORS IN THE UNIT DUCT RUNS SHALL HAVE INDIVIDUALLY COLOR CODED INSULATION THROUGHOUT THE ENTIRE LENGTH OF THE CONDUCTOR. THE COLOR IDENTIFICATION FOR THE SYSTEM GROUND SHALL BE GREEN. THE FOUR (4) PHASE CONDUCTORS SHALL BE IN ACCORDANCE WITH STANDARD I. D. O. T. PRACTICES FOR WIRING MULTICONDUCTOR CIRCUITS IN SINGLE UNIT DUCT RUNS.

### 24 IN. DIA. FOUNDATION DEPTH TABLE DESIGN BASE ON 80 M.P.H. AASHTO WIND LOADING

| TYPE OF SOIL            | FOUNDATION DEPTH D | REINFORCEMENT IN FOUNDATION |                 |
|-------------------------|--------------------|-----------------------------|-----------------|
|                         |                    | VERTICAL BARS               | HORIZONTAL BARS |
| ROCK OR SOLIDIFIED SLAB | 5'-0"              | NONE                        | NONE            |
| DENSE SAND              | 7'-9"              | 8-#6 x 7'-4"                | #5 x 73'        |
| MEDIUM SAND             | 8'-3"              | 8-#6 x 7'-10"               | #5 x 78'        |
| LOOSE SAND              | 9'-0"              | 8-#6 x 8'-7"                | #5 x 85'        |
| STIFF CLAY              | 7'-0"              | 8-#6 x 6'-7"                | #5 x 66'        |
| MEDIUM CLAY             | 9'-6"              | 8-#6 x 9'-1"                | #5 x 90'        |
| SOFT CLAY               | 13'-0"             | 8-#6 x 12'-7"               | #5 x 122'       |

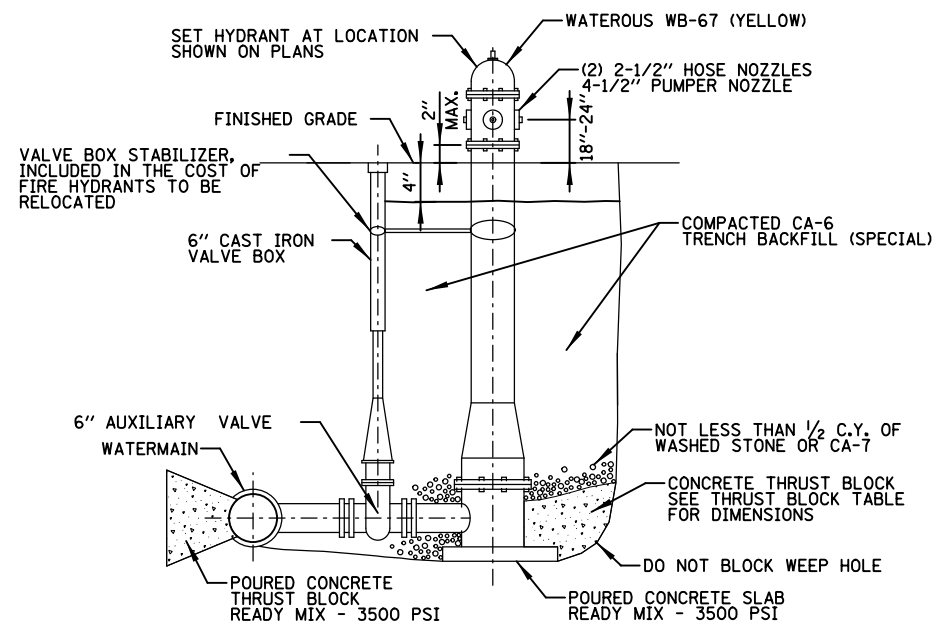


| REVISIONS |      |
|-----------|------|
| NAME      | DATE |
|           |      |
|           |      |
|           |      |

ILLINOIS DEPARTMENT OF TRANSPORTATION  
WOLF ROAD STREET LIGHTING  
DETAILS - 1  
SCALE: VERT. NTS  
HORIZ. DATE  
DRAWN BY GAH  
CHECKED BY JPC

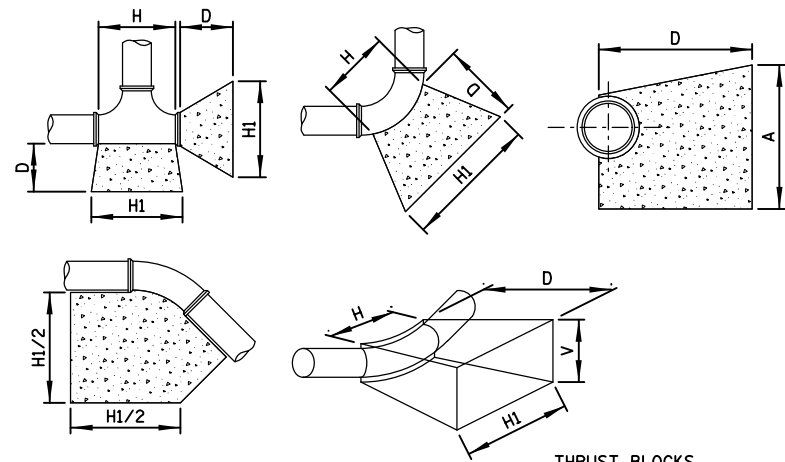
Record Drawing  
Contracting & Material Company  
By *Don Piper* Date 6-10-98

FEDERAL-AID COORDINATOR: PHILIP MARCYN (847) 705-4189



**FIRE HYDRANT**  
N.T.S.

NOTE:  
HEIGHT FROM FINISHED GRADE TO WATERMAIN ELEVATION VARIES

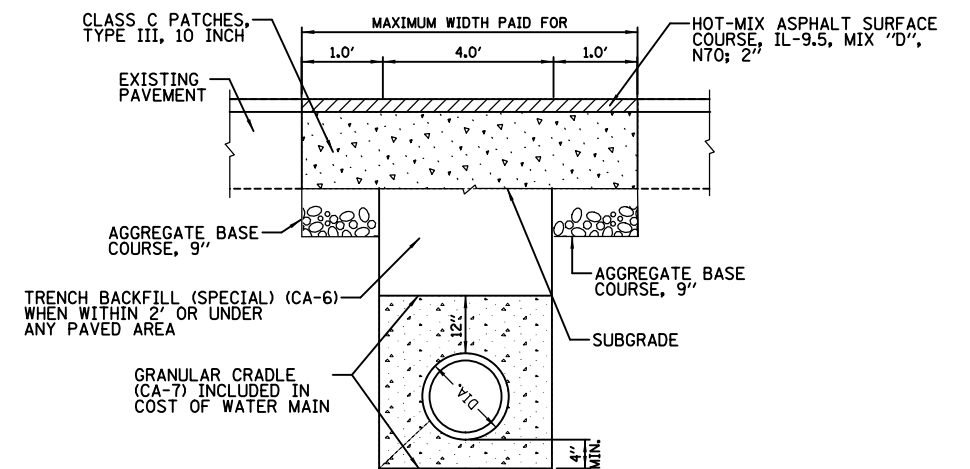


THRUST BLOCKS  
FOR DIMENSIONS SEE TABLE A

| SIZE OF PIPE | TAPPING TEES, SLEEVES AND PLUGS |     |     |     |        | 90° BENDS |     |     |     |        | 45° BENDS OR LESS |     |     |     |        |
|--------------|---------------------------------|-----|-----|-----|--------|-----------|-----|-----|-----|--------|-------------------|-----|-----|-----|--------|
|              | H1                              | H   | V   | D   | C. FT. | H1        | H   | V   | D   | C. FT. | H1                | H   | V   | D   | C. FT. |
| 12"          | 54"                             | 30" | 24" | 24" | 13.40  | 54"       | 32" | 36" | 36" | 18.15  | 42"               | 18" | 24" | 24" | 9.60   |
| 8"           | 36"                             | 18" | 18" | 18" | 5.05   | 39"       | 18" | 24" | 18" | 7.50   | 30"               | 11" | 18" | 18" | 3.95   |
| 6"           | 24"                             | 16" | 18" | 18" | 3.50   | 30"       | 16" | 18" | 18" | 4.05   | 24"               | 10" | 16" | 18" | 3.20   |
| 4"           | 20"                             | 13" | 15" | 15" | 2.15   | 24"       | 12" | 13" | 13" | 1.75   | 20"               | 8"  | 12" | 12" | 1.20   |

**WATERMAIN THRUST BLOCKING - TABLE A**  
N.T.S.

NOTE:  
THRUST BLOCKING TO BE INSTALLED AT ALL HORIZONTAL AND VERTICAL BENDS, CAPS, VALVES, HYDRANTS AND AT LOCATIONS DIRECTED BY ENGINEER. THRUST BLOCK TO BE READY MIXED PORTLAND CEMENT CONCRETE, PLACED BETWEEN SOLID GROUND AND FITTING, AND SHALL BE ANCHORED IN SUCH A MANNER THAT PIPE AND FITTING WILL BE ACCESSIBLE FOR REPAIR. ALL ENDS OD 1 1/4" OR MORE, ALL TEES AND ALL PLUGS SHALL BE PROTECTED AS SHOWN. WHERE CONDITIONS PREVENT THE USE OF CONCRETE THRUST BLOCKS, RESTRAINED JOINTS OF A TYPE APPROVED BY THE ENGINEER MAY BE USED.



**TYPICAL DETAIL FOR WATER MAIN**  
**UNDER PAVEMENT TO BE PATCHED**  
N.T.S.