

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

| ROUTE                      | SECTION | COUNTY   | TOTAL SHEETS | SHEET NO. |
|----------------------------|---------|----------|--------------|-----------|
| I-39 (FAR 39) / US 24      | 102-2)L | WOODFORD | 10           | 1         |
| PROJECT CONTRACT NO. 68E83 |         |          |              |           |

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PROPOSED  
HIGHWAY PLANS

FAI 39 (I-39/US 24)  
SECTION (102-2)L  
WOODFORD COUNTY  
C-94-030-19  
PROJECT NUMBER NHPP-J4VJ(485)

D-94-018-19

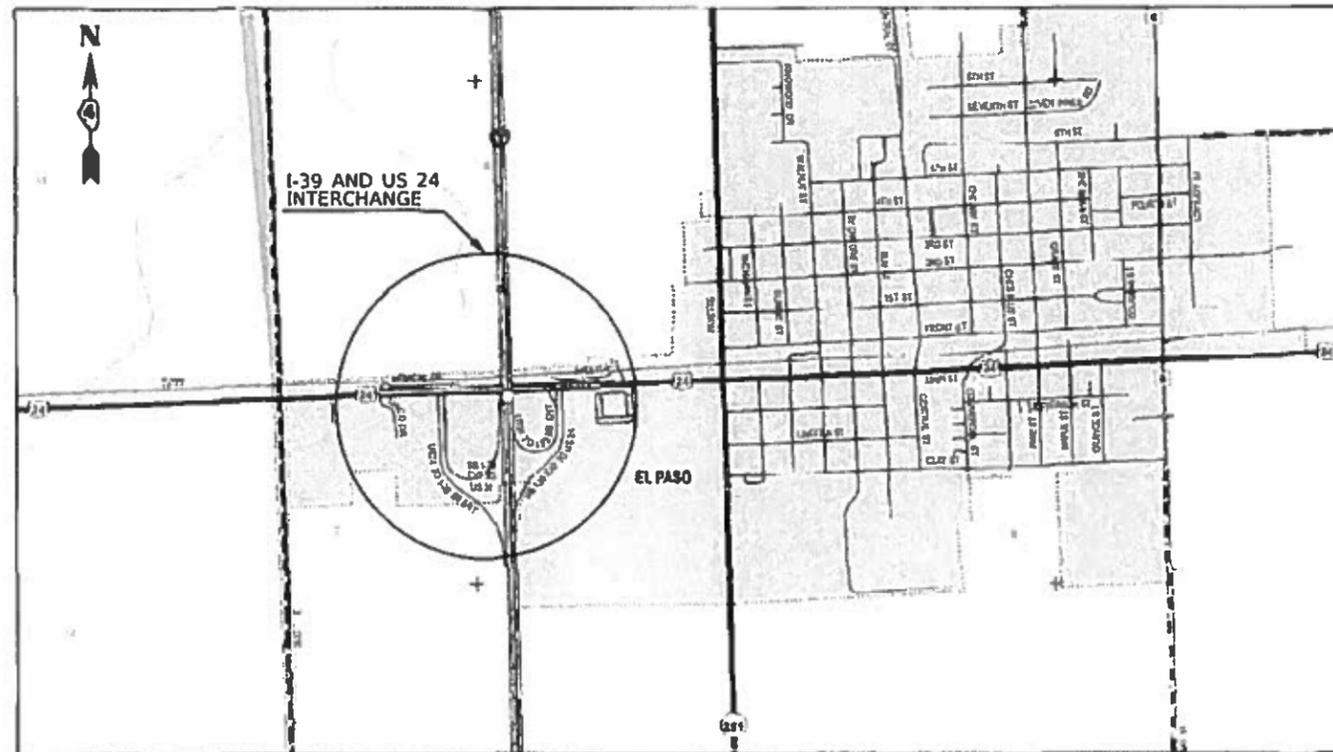


HIGHWAY STANDARDS

SEE SHEET 2 FOR A LIST OF APPLICABLE HIGHWAY STANDARDS

PROJECT DESCRIPTION

REMOVAL OF EXISTING HIGH MAST LIGHTING SYSTEM AND INSTALLATION OF NEW LIGHT POLES, FOUNDATIONS, LUMINAIRES, ELECTRICAL CABLE, LIGHTING CONTROLLER, AND SERVICE INSTALLATION AT THE INTERCHANGE OF I-39 AND US-24 IN EL PASO.



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

PROJECT ENGINEER: ERIC HOWALD (309) 671-4481  
PROJECT MANAGER: BEN TELLEFSON (309) 671-4477  
CATALOG NO. 35714-00D  
CONTRACT NO. 68E83

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUBMITTED March 21 2019  
James A. James  
REGION THREE ENGINEER

May 10 2019  
Eric A. Howald  
ENGINEER OF DESIGN AND ENVIRONMENT

May 19 2019  
Paul P. Chitt  
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS

NO COMMITMENTS HAVE BEEN MADE IN CONJUNCTION WITH THIS PROJECT.

| HIGHWAY STANDARDS |   |
|-------------------|---|
| STANDARD          | APPLICATION   |
| 000001-07         | STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS                 |
| 001006            | DECIMAL OF AN INCH AND OF A FOOT                              |
| 701006-05         | OFF-ROAD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE    |
| 701001-02         | OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 15' AWAY               |
| 701101-05         | OFF-ROAD OPERATIONS, MULTILANE, 15' TO 24" FROM PAVEMENT EDGE |
| 701106-02         | OFF-ROAD OPERATIONS, MULTILANE, MORE THAN 15' AWAY            |
| 701451-05         | RAMP CLOSURE, FREEWAY/ EXPRESSWAY                             |
| 701456-05         | PARTIAL EXIT RAMP CLOSURE FREEWAY / EXPRESSWAY                |
| 701901-08         | TRAFFIC CONTROL DEVICES                                       |
| 821101-02         | LUMINAIRE WIRING IN POLE                                      |
| 830021-03         | LIGHT POLE STEEL TENON TOP                                    |
| 836001-04         | LIGHT POLE FOUNDATION   |
| 838001-01         | BREAKAWAY DEVICES   |

**CONSTRUCTION NOTES**

1. THE LOCATION OF ALL UTILITIES AND PRIVATELY OWNED FACILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO THE INSTALLATION OF ANY COMPONENTS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING EXISTING IDOT ELECTRICAL FACILITIES AT HIS/HER OWN EXPENSE IF REQUIRED. THE CONTRACTOR SHALL ALSO BE LIABLE FOR ANY DAMAGE TO IDOT FACILITIES RESULTING FROM INACCURATE LOCATING.
3. ELECTRICAL WORK SHALL CONFORM WITH NATIONAL, STATE, AND LOCAL CODES.
4. THE LOCATIONS FOR LIGHT POLES ARE PROVIDED FOR REFERENCE ONLY. THE ENGINEER OF TRAFFIC SHALL BE NOTIFIED FOR LOCATION VERIFICATION BEFORE INSTALLATION.
5. ALL HIGHWAY LIGHTING STRUCTURES SHALL BE BONDED IN ACCORDANCE WITH NEC REQUIREMENTS. THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR "UNIT DUCT, 600V, 2-1C NO.6, 1/C NO.8 GROUND, (XLP-TYPE USE), 1" DIA. POLYETHYLENE" AND SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS (INCLUDING CLAMPS, HARDWARE, ELECTRICAL CABLE, AND ALL OTHER ITEMS REQUIRED TO BOND THE STRUCTURES.)
6. THE CONTRACTOR SHALL PROVIDE ELECTRICAL CABLE SLACK IN ACCORDANCE WITH ARTICLE 873.03.
7. ELECTRICAL CABLE WILL BE MEASURED FOR PAYMENT IN ACCORDANCE WITH ARTICLE 817.04.
8. POTHOLING TO LOCATE EXISTING UNDERGROUND UTILITIES SHALL BE INCLUDED IN THE CONTRACT BID PRICE FOR THE UNIT-DUCT PAY ITEM.
9. ALL SURPLUS MATERIALS SHALL BE DISPOSED OF IN ACCORDANCE WITH ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS.
10. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR PLACING UNIT-DUCT OR CONDUIT AT GREATER THAN 2 FT. MINIMUM DEPTH TO AVOID OBSTACLES SUCH AS UNDERGROUND UTILITIES.
11. THE CONTRACTOR IS RESPONSIBLE FOR THE COST OF UNCOVERING OR HAND DIGGING AROUND UTILITIES AS NECESSARY. THIS COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT PRICES FOR THE UNIT-DUCT AND CONDUIT.
12. THE CONTRACTOR SHALL VERIFY FIELD CONDITIONS PRIOR TO BIDDING. THERE WILL BE NO ADDITIONAL COMPENSATION PAID FOR CLAIMS THAT ARISE FROM A FAILURE TO FULLY INVESTIGATE EXISTING FIELD CONDITIONS.
13. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF THE EXISTING LIGHTING SYSTEM COMPLETELY (LIGHT POLES, HIGH MAST LIGHT TOWERS, CONCRETE AND METAL FOUNDATIONS, LUMINAIRES, WIRING, ETC.) AS SHOWN IN THE PLANS. THIS WORK SHALL BE INCLUDED IN THE UNIT BID PRICE FOR "REMOVE EXISTING LIGHTING SYSTEM."
14. THE CONTRACTOR SHALL FURNISH AND INSTALL NEW FUSEHOLDERS, FUSES, SURGE ARRESTORS, AND LUMINAIRE WIRING INSIDE THE POLE. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PRICE OF THE PROPOSED LUMINAIRES.
15. THE CONTRACTOR SHALL DISPOSE OF THE EXISTING LIGHT POLES, HIGH MAST LIGHT TOWERS, CONCRETE AND METAL FOUNDATIONS, LUMINAIRES, WIRING, ETC. OFF THE JOB SITE. THE SALVAGE COST OF THESE ITEMS SHALL BE INCLUDED IN THE BID PRICES FOR "REMOVE EXISTING LIGHTING SYSTEM."
16. COILABLE POLYETHYLENE DUCT MAY BE SUBSTITUTED FOR PVC PUSHED OR TRENCHED.
17. THE EXISTING LIGHTING SYSTEM SHALL REMAIN IN OPERATION UNTIL THE PROPOSED LIGHTING SYSTEM IS FULLY OPERATIONAL.
18. THE COST OF THE PROPOSED 1.0 FT. LUMINAIRE ARM SHALL BE INCLUDED IN THE COST OF THE PROPOSED LIGHT POLE.
19. THE CONTRACTOR SHALL REMOVE EXISTING METAL HELIX FOUNDATIONS BY EXCAVATING 36", CUTTING THE FOUNDATION, AND BACKFILLING AS REQUIRED TO MATCH THE EXISTING GRADE. THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE FOR "REMOVE EXISTING LIGHTING SYSTEM."
20. THE COST OF THE OVERHEAD SERVICE CABLE AND SERVICE CABLE FROM THE DISCONNECT TO THE LIGHTING CONTROLLER SHALL BE INCLUDED IN THE COST OF THE PROPOSED ELECTRIC SERVICE.

MODEL: \\MODELS\NAMES  
FILE: \\MODELS\FILES

|                         |                  |                 |
|-------------------------|------------------|-----------------|
| USER NAME = \$USERS     | DESIGNED - _____ | REVISED - _____ |
|                         | DRAWN - _____    | REVISED - _____ |
| PLOT SCALE = \$\$SCALES | CHECKED - _____  | REVISED - _____ |
| PLOT DATE = \$DATES     | DATE - _____     | REVISED - _____ |

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**HIGHWAY STANDARDS AND CONSTRUCTION NOTES  
I-39 & US 24 INTERCHANGE - EL PASO**

SCALE: \_\_\_\_\_ SHEET \_\_\_\_ OF \_\_\_\_ SHEETS STA. \_\_\_\_\_ TO STA. \_\_\_\_\_

| F.A.P.<br>RTE.            | SECTION  | COUNTY   | TOTAL<br>SHEETS    | SHEET<br>NO. |
|---------------------------|----------|----------|--------------------|--------------|
| 39                        | (102-2)L | WOODFORD | 10                 | 2            |
|                           |          |          | CONTRACT NO. 68E83 |              |
| ILLINOIS FED. AID PROJECT |          |          |                    |              |

## SUMMARY OF QUANTITIES

**WOODFORD COUNTY**

CONST. TYPE  
 CODE 0021      90%  
 FEDERAL      10%  
 STATE OVERHEAD  
 LIGHTING      RURAL

| CODE     | ITEM DESCRIPTION  | UNIT  | TOTAL QTY. |        |
|----------|---|-------|------------|--------|
| 67100100 | MOBILIZATION  | L SUM | 1.0        | 1.0    |
| 80400100 | ELECTRIC SERVICE INSTALLATION   | EACH  | 1.0        | 1.0    |
| 81028350 | UNDERGROUND CONDUIT, PVC, 2" DIA.   | FOOT  | 520.0      | 520.0  |
| 81603000 | UNIT DUCT, 600V, 2-1C NO.8, 1/C NO.8 GROUND, (XLP-TYPE USE), 3/4" DIA. POLYETHYLENE | FOOT  | 8328.0     | 8328.0 |
| 82110008 | LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H                                       | EACH  | 21.0       | 21.0   |
| 82500335 | LIGHTING CONTROLLER, PEDESTAL MOUNTED, 240VOLT, 100AMP                              | EACH  | 1.0        | 1.0    |
| 83060840 | LIGHT POLE, GALVANIZED STEEL, 50 FT. M.H., TENON MOUNT                              | EACH  | 17.0       | 17.0   |
| 83060845 | LIGHT POLE, GALVANIZED STEEL, 50 FT. M.H., TENON MOUNT-TWIN                         | EACH  | 2.0        | 2.0    |
| 83600358 | LIGHT POLE FOUNDATION, METAL, 15" BOLT CIRCLE, 8 5/8" X 8'                          | EACH  | 19.0       | 19.0   |
| 83800650 | BREAKAWAY DEVICE, COUPLING WITH STAINLESS STEEL SCREEN                              | EACH  | 76.0       | 76.0   |
| X0325541 | REMOVE EXISTING LIGHTING SYSTEM   | L SUM | 1.0        | 1.0    |
| X7010216 | TRAFFIC CONTROL AND PROTECTION, (SPECIAL)   | L SUM | 1.0        | 1.0    |

MODEL: MODELNAME\$  
FILE NUMBER: 31111

|                         |                  |                 |
|-------------------------|------------------|-----------------|
| USER NAME = \$USERS     | DESIGNED - _____ | REVISED - _____ |
|                         | DRAWN - _____    | REVISED - _____ |
| PLOT SCALE = \$\$CALE\$ | CHECKED - _____  | REVISED - _____ |
| PLOT DATE = \$DATE\$    | DATE - _____     | REVISED - _____ |

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES  
I-39 & US 24 INTERCHANGE - EL PASO**

SCALE: \_\_\_\_\_ SHEET \_\_\_\_ OF \_\_\_\_ SHEETS STA. \_\_\_\_\_ TO STA. \_\_\_\_\_

| F.A.P. RTE.               | SECTION  | COUNTY   | TOTAL SHEETS       | SHEET NO. |
|---------------------------|----------|----------|--------------------|-----------|
| 39                        | (102-2)L | WOODFORD | 10                 | 3         |
|                           |          |          | CONTRACT NO. 68E83 |           |
| ILLINOIS FED. AID PROJECT |          |          |                    |           |

**LIGHT POLE SCHEDULE**

| POLE NO. | ROUTE | STATION | POLE TYPE                          | SETBACK (FT.) | MOUNTING HEIGHT (FT.) | ARM LENGTH (FT.) | LUMINAIRE   |
|----------|-------|---------|------------------------------------|---------------|-----------------------|------------------|---|
| 1        | I-39  | 477+60  | GALVANIZED STEEL, TENON MOUNT      | 30.0          | 50.0                  | 1.0              | LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H     |
| 2        | I-39  | 480+10  | GALVANIZED STEEL, TENON MOUNT      | 30.0          | 50.0                  | 1.0              | LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H     |
| 3        | I-39  | 482+60  | GALVANIZED STEEL, TENON MOUNT      | 30.0          | 50.0                  | 1.0              | LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H     |
| 4        | I-39  | 494+35  | GALVANIZED STEEL, TENON MOUNT      | 30.0          | 50.0                  | 1.0              | LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H     |
| 5        | I-39  | 496+55  | GALVANIZED STEEL, TENON MOUNT      | 30.0          | 50.0                  | 1.0              | LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H     |
| 6        | I-39  | 498+75  | GALVANIZED STEEL, TENON MOUNT      | 5.0           | 50.0                  | 1.0              | LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H     |
| 7        | US 24 | 93+85   | GALVANIZED STEEL, TENON MOUNT      | 5.0           | 50.0                  | 1.0              | LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H     |
| 8        | US 24 | 96+25   | GALVANIZED STEEL, TENON MOUNT      | 30.0          | 50.0                  | 1.0              | LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H     |
| 9        | US 24 | 99+35   | GALVANIZED STEEL, TENON MOUNT      | 30.0          | 50.0                  | 1.0              | LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H     |
| 10       | US 24 | 101+00  | GALVANIZED STEEL, TWIN TENON MOUNT | 30.0          | 50.0                  | 1.0              | LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H X 2 |
| 11       | US 24 | 103+35  | GALVANIZED STEEL, TENON MOUNT      | 30.0          | 50.0                  | 1.0              | LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H     |
| 12       | US 24 | 105+70  | GALVANIZED STEEL, TENON MOUNT      | 30.0          | 50.0                  | 1.0              | LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H     |
| 13       | US 24 | 109+45  | GALVANIZED STEEL, TENON MOUNT      | 30.0          | 50.0                  | 1.0              | LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H     |
| 14       | US 24 | 111+55  | GALVANIZED STEEL, TENON MOUNT      | 30.0          | 50.0                  | 1.0              | LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H     |
| 15       | US 24 | 113+65  | GALVANIZED STEEL, TENON MOUNT      | 30.0          | 50.0                  | 1.0              | LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H     |
| 16       | US 24 | 115+35  | GALVANIZED STEEL, TWIN TENON MOUNT | 30.0          | 50.0                  | 1.0              | LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H X 2 |
| 17       | US 24 | 117+65  | GALVANIZED STEEL, TENON MOUNT      | 30.0          | 50.0                  | 1.0              | LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H     |
| 18       | US 24 | 119+95  | GALVANIZED STEEL, TENON MOUNT      | 30.0          | 50.0                  | 1.0              | LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H     |
| 19       | US 24 | 122+50  | GALVANIZED STEEL, TENON MOUNT      | 30.0          | 50.0                  | 1.0              | LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H     |

MODEL: \$MODELNAME\$  
FILE NAME: \$FILE\$

|                        |                  |                 |
|------------------------|------------------|-----------------|
| USER NAME = \$USERS    | DESIGNED - _____ | REVISED - _____ |
|                        | DRAWN - _____    | REVISED - _____ |
| PLOT SCALE = \$SCALE\$ | CHECKED - _____  | REVISED - _____ |
| PLOT DATE = \$DATE\$   | DATE - _____     | REVISED - _____ |

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES AND LIGHT POLE SCHEDULE  
I-39 & US 24 INTERCHANGE - EL PASO**

SCALE: \_\_\_\_\_ SHEET \_\_\_\_ OF \_\_\_\_ SHEETS STA. \_\_\_\_\_ TO STA. \_\_\_\_\_

|             |          |          |                    |           |
|-------------|----------|----------|--------------------|-----------|
| F.A.P. RTE. | SECTION  | COUNTY   | TOTAL SHEETS       | SHEET NO. |
| 39          | (102-2)L | WOODFORD | 10                 | 4         |
|             |          |          | CONTRACT NO. 68E83 |           |
|             |          | ILLINOIS | FED. AID PROJECT   |           |



**LEGEND**

-  EXISTING LIGHTING CONTROLLER AND CONCRETE FOUNDATION
-  EXISTING ELECTRICAL SERVICE
-  EXISTING 50'MH LIGHT POLE (WEATHERING STEEL) AND METAL HELIX FOUNDATION
-  EXISTING TOWER LIGHTING STRUCTURE AND CONCRETE FOUNDATION
-  EXISTING UNIT-DUCT

**NOTE:**  
EXISTING METAL HELIX FOUNDATIONS SHALL BE REMOVED BY EXCAVATING 36", CUTTING THE FOUNDATION AND BACKFILLING AS REQUIRED TO MATCH THE EXISTING GRADE.

| DESCRIPTION                     | UNIT  | QTY. |
|---------------------------------|-------|------|
| REMOVE EXISTING LIGHTING SYSTEM | L SUM | 1.0  |

REMOVE EXISTING EXISTING LIGHTING SYSTEM - QTY. 1 LUMP SUM (INCLUDES ALL ITEMS LISTED BELOW)  
THE FOLLOWING ITEMS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR OFF OF THE RIGHT-OF-WAY:

| QTY. | ITEM   |
|------|--|
| 1.0  | LIGHTING CONTROLLER CABINET (RE-USE EX. FOUNDATION)                                    |
| 1.0  | ELECTRICAL SERVICE INSTALLATION  |
| 6.0  | TOWER LIGHTING STRUCTURE, COMPLETE WITH HIGH MAST LUMINAIRES                           |
| 6.0  | TOWER LIGHTING CONCRETE FOUNDATION (PARTIAL REMOVAL IN ACCORDANCE WITH ARTICLE 895.05) |
| 9.0  | LIGHT POLE, WEATHERING STEEL, WITH HPS LUMINAIRE                                       |
| 9.0  | METAL HELIX FOUNDATION (SEE NOTE)  |

MODEL: S:\MODELS\MAMES  
FILE NAME: STILES

|                          |                  |                 |
|--------------------------|------------------|-----------------|
| USER NAME = \$USERS      | DESIGNED - _____ | REVISED - _____ |
|                          | DRAWN - _____    | REVISED - _____ |
| PLOT SCALE = \$\$SCALE\$ | CHECKED - _____  | REVISED - _____ |
| PLOT DATE = \$DATES      | DATE - _____     | REVISED - _____ |

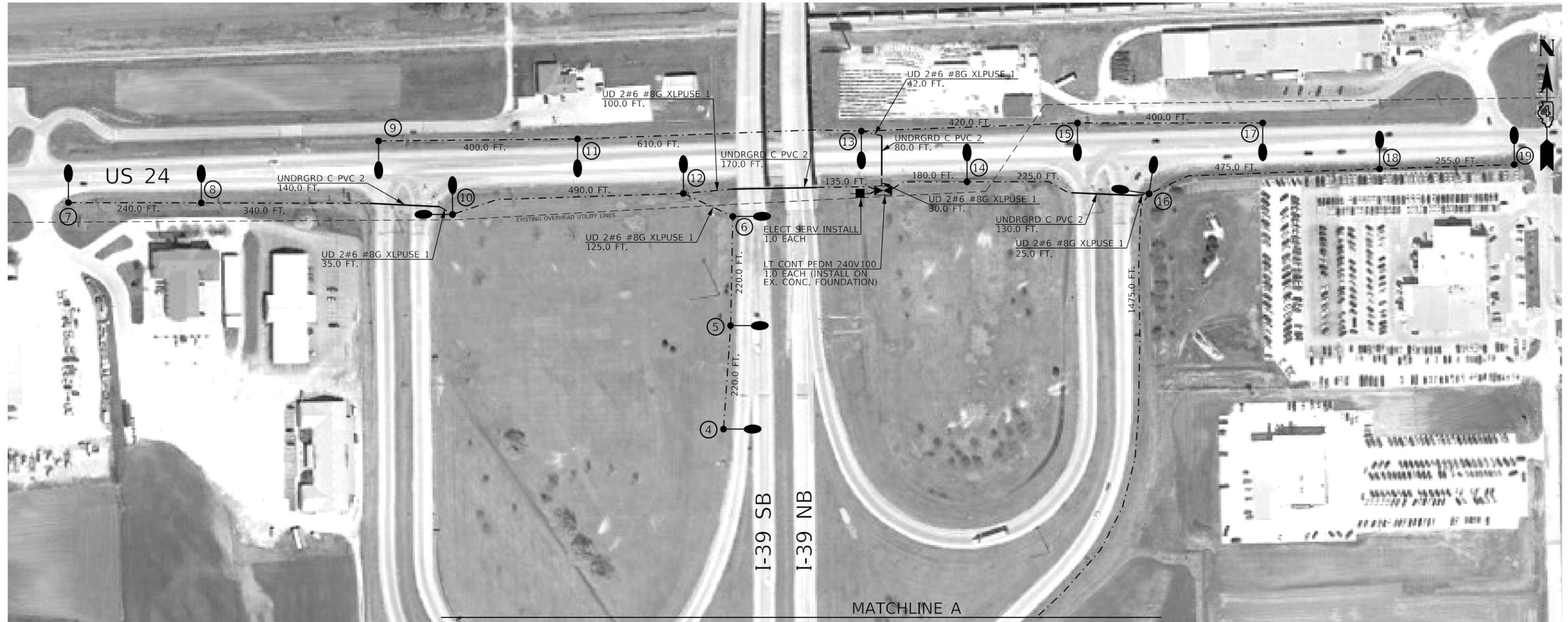
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**EXISTING LIGHTING PLANS & REMOVAL ITEMS  
I-39 & US 24 INTERCHANGE - EL PASO**

SCALE: \_\_\_\_\_ SHEET \_\_\_\_ OF \_\_\_\_ SHEETS STA. \_\_\_\_\_ TO STA. \_\_\_\_\_

|                           |          |          |                    |           |
|---------------------------|----------|----------|--------------------|-----------|
| F.A.P. RTE.               | SECTION  | COUNTY   | TOTAL SHEETS       | SHEET NO. |
| 39                        | (102-2)L | WOODFORD | 10                 | 5         |
|                           |          |          | CONTRACT NO. 68E83 |           |
| ILLINOIS FED. AID PROJECT |          |          |                    |           |

NOT TO SCALE



**NOTES:**  
 1. TWIN-TENON MOUNT LUMINAIRES SHALL BE MOUNTED WITH 90° BETWEEN ARMS.  
 2. LIGHT POLES 7, 8, 18, 19 ARE TO BE INSTALLED IN THE APPROXIMATE LOCATION OF EXISTING LIGHT POLES.  
 3. EXISTING OVERHEAD UTILITY LINES RUN ALONG AND CROSS US 24 AS SHOWN IN THE PLANS.  
 4. ALL SPLICES, AS SHOWN IN PROPOSED CIRCUIT DIAGRAM, SHALL BE LOCATED IN THE BASE OF LIGHT POLES.

**LEGEND**

|  |   |
|--|---|
|  | PROPOSED LIGHTING CONTROLLER, PEDESTAL MOUNT (ON EX. FOUNDATION)                |
|  | PROPOSED 50' MH LIGHT POLE (GALVANIZED STEEL, TENON-MOUNT) AND LUMINAIRE        |
|  | PROPOSED 50' MH LIGHT POLE (GALVANIZED STEEL, TENON-MOUNT, TWIN) AND LUMINAIRES |
|  | PROPOSED LIGHT POLE NUMBER  |
|  | PROPOSED PVC CONDUIT 3" DIA.  |
|  | PROPOSED UNIT-DUCT  |
|  | PROPOSED ELECTRICAL SERVICE   |
|  | EXISTING OVERHEAD UTILITY LINES   |

| DESCRIPTION   | UNIT | QTY.   |
|---|------|--------|
| ELECTRIC SERVICE INSTALLATION   | EACH | 1.0    |
| UNDERGROUND CONDUIT, PVC, 2" DIA.   | FOOT | 520.0  |
| UNIT DUCT, 600V, 2-1C NO.8, 1/C NO.8 GROUND, (XLP-TYPE USE), 3/4" DIA. POLYETHYLENE | FOOT | 6828.0 |
| LIGHTING CONTROLLER, PEDESTAL MOUNTED, 240VOLT, 100AMP                              | EACH | 1.0    |
| LIGHT POLE, GALVANIZED STEEL, 50 FT. M.H., TENON MOUNT                              | EACH | 14.0   |
| LIGHT POLE, GALVANIZED STEEL, 50 FT. M.H., TENON MOUNT-TWIN                         | EACH | 2.0    |
| LIGHT POLE FOUNDATION, METAL, 15" BOLT CIRCLE, 8 5/8" X 8'                          | EACH | 16.0   |
| BREAKAWAY DEVICE, COUPLING WITH STAINLESS STEEL SCREEN                              | EACH | 64.0   |
| LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H                                       | EACH | 18.0   |

MODEL: SMOBELNAMES  
FILE NAME: STILES

|                       |                   |                   |
|-----------------------|-------------------|-------------------|
| USER NAME = \$USERS   | DESIGNED - _____  | REVISED - _____   |
| DRAWN - _____         | REVISIONS - _____ | REVISIONS - _____ |
| PLOT SCALE = \$SCALES | CHECKED - _____   | REVISIONS - _____ |
| PLOT DATE = \$DATES   | DATE - _____      | REVISIONS - _____ |

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PROPOSED LIGHTING PLANS  
I-39 & US 24 INTERCHANGE - EL PASO**

SCALE: \_\_\_\_\_ SHEET \_\_\_\_\_ OF \_\_\_\_\_ SHEETS STA. \_\_\_\_\_ TO STA. \_\_\_\_\_

|                           |          |          |                    |           |
|---------------------------|----------|----------|--------------------|-----------|
| F.A.P. RTE.               | SECTION  | COUNTY   | TOTAL SHEETS       | SHEET NO. |
| 39                        | (102-2)L | WOODFORD | 10                 | 6         |
|                           |          |          | CONTRACT NO. 68E83 |           |
| ILLINOIS FED. AID PROJECT |          |          |                    |           |

NOT TO SCALE



| DESCRIPTION   | UNIT | QTY.   |
|---|------|--------|
| UNIT DUCT, 600V, 2-1C NO.8, 1/C NO.8 GROUND, (XLP-TYPE USE), 3/4" DIA. POLYETHYLENE | FOOT | 1500.0 |
| LIGHT POLE, GALVANIZED STEEL, 50 FT. M.H., TENON MOUNT                              | EACH | 3.0    |
| LIGHT POLE FOUNDATION, METAL, 15" BOLT CIRCLE, 8 5/8" X 8'                          | EACH | 3.0    |
| BREAKAWAY DEVICE, COUPLING WITH STAINLESS STEEL SCREEN                              | EACH | 12.0   |
| LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H                                       | EACH | 3.0    |

LEGEND

- PROPOSED 50'MH LIGHT POLE (GALVANIZED STEEL, TENON-MOUNT) AND LUMINAIRE
- PROPOSED UNIT-DUCT
- PROPOSED LIGHT POLE NUMBER

MODEL: 1408ELNAMES  
FILE NAME: 37115

|                        |                  |                 |
|------------------------|------------------|-----------------|
| USER NAME = \$USERS    | DESIGNED - _____ | REVISED - _____ |
|                        | DRAWN - _____    | REVISED - _____ |
| PLOT SCALE = \$SCALE\$ | CHECKED - _____  | REVISED - _____ |
| PLOT DATE = \$DATE\$   | DATE - _____     | REVISED - _____ |

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PROPOSED LIGHTING PLANS - CONTINUED  
I-39 & US 24 INTERCHANGE - EL PASO

SCALE: \_\_\_\_\_ SHEET \_\_\_\_ OF \_\_\_\_ SHEETS STA. \_\_\_\_\_ TO STA. \_\_\_\_\_

|                |          |          |                    |              |
|----------------|----------|----------|--------------------|--------------|
| F.A.P.<br>RTE. | SECTION  | COUNTY   | TOTAL<br>SHEETS    | SHEET<br>NO. |
| 39             | (102-2)L | WOODFORD | 10                 | 7            |
|                |          |          | CONTRACT NO. 68E83 |              |
|                |          | ILLINOIS | FED. AID PROJECT   |              |

NOT TO SCALE

**LUMINAIRE PERFORMANCE TABLE - 1**

**GIVEN CONDITIONS**

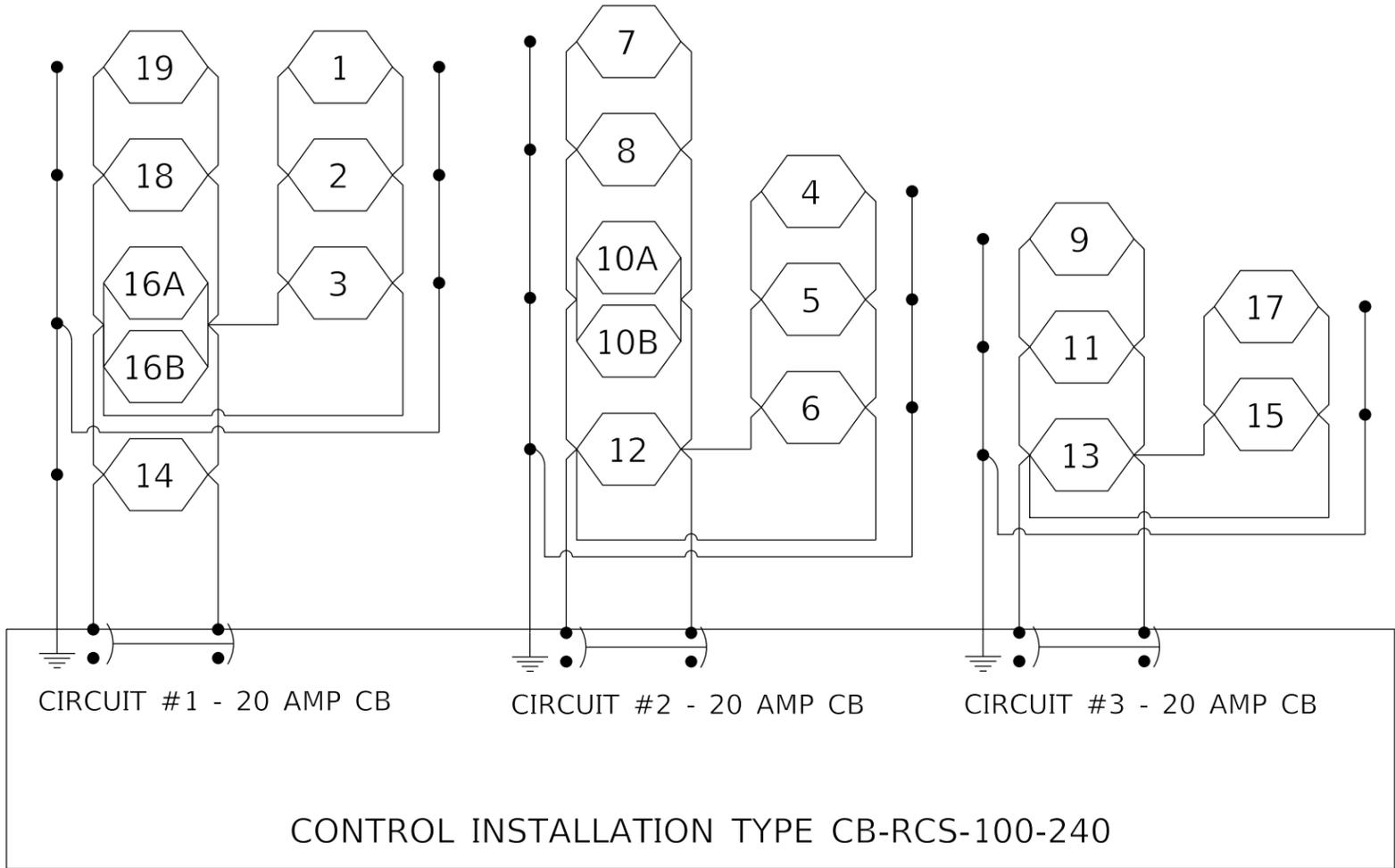
|                        |   |           |
|------------------------|---|-----------|
| <b>ROADWAY DATA</b>    | Lane Width (12 ft or specify)                           | 12 ft     |
|                        | Number of Lanes (in each direction or in one direction) | 1         |
|                        | Median Width (N/A or specify)                           | 22 ft     |
|                        | I.E.S. Surface Classification (R3 or specify)           | R3        |
|                        | Q-Zero Value (0.07 or specify)                          | 0.07      |
| <b>LIGHT POLE DATA</b> | Mounting Height (ft)                                    | 50 ft     |
|                        | Arm Length (ft)   | 1 ft      |
|                        | Set-Back from edge of pavement (white line)             | 30 ft     |
| <b>LUMINAIRE DATA</b>  | Luminaire   | Roadway   |
|                        | I.E.S. Lateral Distribution (Type I, II, III, IV, or V) | III       |
|                        | I.E.S. Vertical Distribution (L-M-S)                    | M         |
|                        | Dimming Protocol (0-10V or Dali)                        | 0-10V     |
| <b>LAYOUT DATA</b>     | Spacing (to Nearest 5 ft)                               | 350 ft    |
|                        | Configuration (Opposite, Staggered, 1 Sided, or Median) | Staggered |

- NOTES:**
- Variations from the above specified I.E.S. distribution may be requested and will be subject to review by the Engineer. B-U-G rating shall be U=0.
  - Total light loss factor is the product of "Lumen Depreciation" (LLD) = 0.90, "Dirt Depreciation" (LDF) = 0.80, and "Equipment factors" (EF) = 0.95. The value of 0.684 unless Higher value is approved.
  - A Lumen Depreciation value greater than 0.90 for LED light sources must be approved by the Engineer and shall only be acceptable based upon I.E.S. LM-80 or LM-84 and TM-21 test reports.

**PERFORMANCE REQUIREMENTS**

**NOTE:** These performance requirements shall be the minimum acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

|                    |   |        |
|--------------------|---|--------|
| <b>ILLUMINANCE</b> | Average Illuminance, $E_{AVE}$ (fc)               | 0.6 fc |
|                    | Uniformity Ratio, $E_{AVE}/E_{MIN}$               | 3.0:1  |
| <b>LUMINANCE</b>   | Average Luminance, $L_{AVE}$ (cd/m <sup>2</sup> ) | N/A    |
|                    | Uniformity Ratio, $L_{AVE}/L_{MIN}$               | N/A    |
|                    | Uniformity Ratio, $L_{MAX}/L_{MIN}$               | N/A    |
|                    | Max. Veiling Luminance Ratio, $L_V/L_{AVE}$       | 0.3:1  |



MODEL: 140DELNAME15  
FILE NAME: 31115

|                        |                   |                   |
|------------------------|-------------------|-------------------|
| USER NAME = \$USERS    | DESIGNED - _____  | REVISED - _____   |
| DRAWN - _____          | REVISIONS - _____ | REVISIONS - _____ |
| PLOT SCALE = \$SCALE\$ | CHECKED - _____   | REVISIONS - _____ |
| PLOT DATE = \$DATES    | DATE - _____      | REVISIONS - _____ |

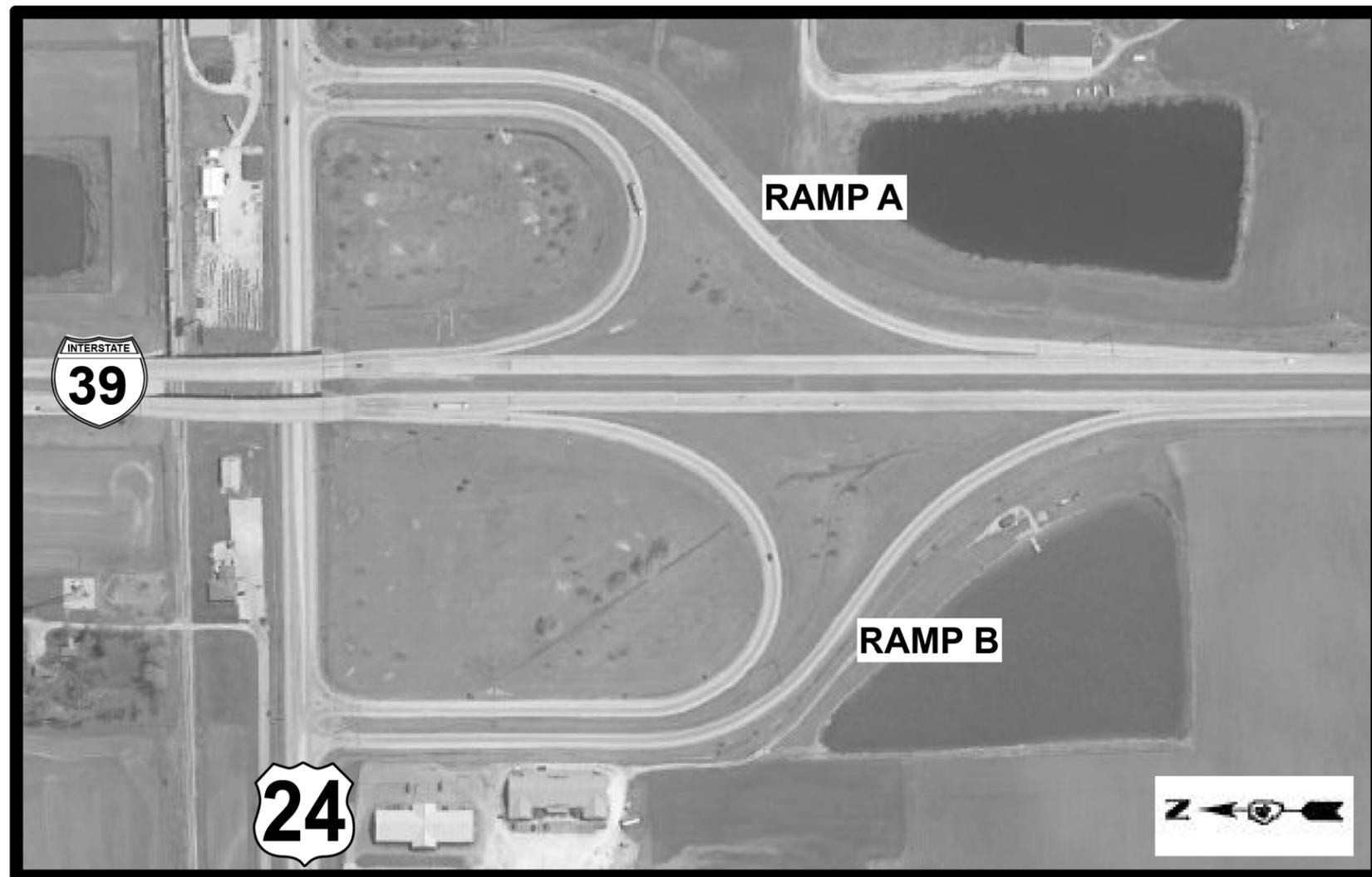
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PROPOSED LIGHTING CIRCUIT  
I-39 & US 24 INTERCHANGE - EL PASO**

SCALE: \_\_\_\_\_ SHEET \_\_\_\_\_ OF \_\_\_\_\_ SHEETS STA. \_\_\_\_\_ TO STA. \_\_\_\_\_

|             |          |          |                  |           |
|-------------|----------|----------|------------------|-----------|
| F.A.P. RTE. | SECTION  | COUNTY   | TOTAL SHEETS     | SHEET NO. |
| 39          | (102-2)L | WOODFORD | 10               | 8         |
|             |          |          | CONTRACT NO.     | 68E83     |
|             |          | ILLINOIS | FED. AID PROJECT |           |

NOT TO SCALE

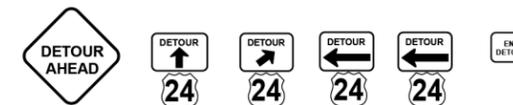


**Traffic Management for Closure of Ramps A & B:**

**Northbound I-39 to US 24:**

Exit Ramp A to be closed using Standard 701451.

Detour Signage: Traffic detour to use Exit 22- IL 116.



All detour signage to be temporarily mounted. A black on orange sign - 6" letters- US 24 may be substituted for route sign. Locations shall be discussed at Pre-Construction Meeting.

**Westbound US 24 to NB I-39:**

Entrance Ramp B to be closed using Standard 701451.

Detour Signage: Traffic detour to use IL 251.



All detour signage to be temporarily mounted. A black on orange sign - 6" letters- SB I-39 may be substituted for route sign. Locations shall be discussed at Pre-Construction Meeting.

Additional flaggers and appropriate signs may be needed at the intersection on US 24 to guide traffic to the detour. Cost for flaggers and signs shall be included in the cost of the detour work.

The ramp detour/closure is based upon the contractor's crane taking up the ramp lane. In the event the contractor can work within the shoulder area and maintain a minimum 10' lane, Standard 701456 may be used and traffic stopped for a maximum ten minutes for the tower lowering.

MODEL: \\MODELS\NAME\$ FILE: \\NAME\$.STB

|                        |                  |                 |
|------------------------|------------------|-----------------|
| USER NAME = \$USERS    | DESIGNED - _____ | REVISED - _____ |
|                        | DRAWN - _____    | REVISED - _____ |
| PLOT SCALE = \$SCALE\$ | CHECKED - _____  | REVISED - _____ |
| PLOT DATE = \$DATE\$   | DATE - _____     | REVISED - _____ |

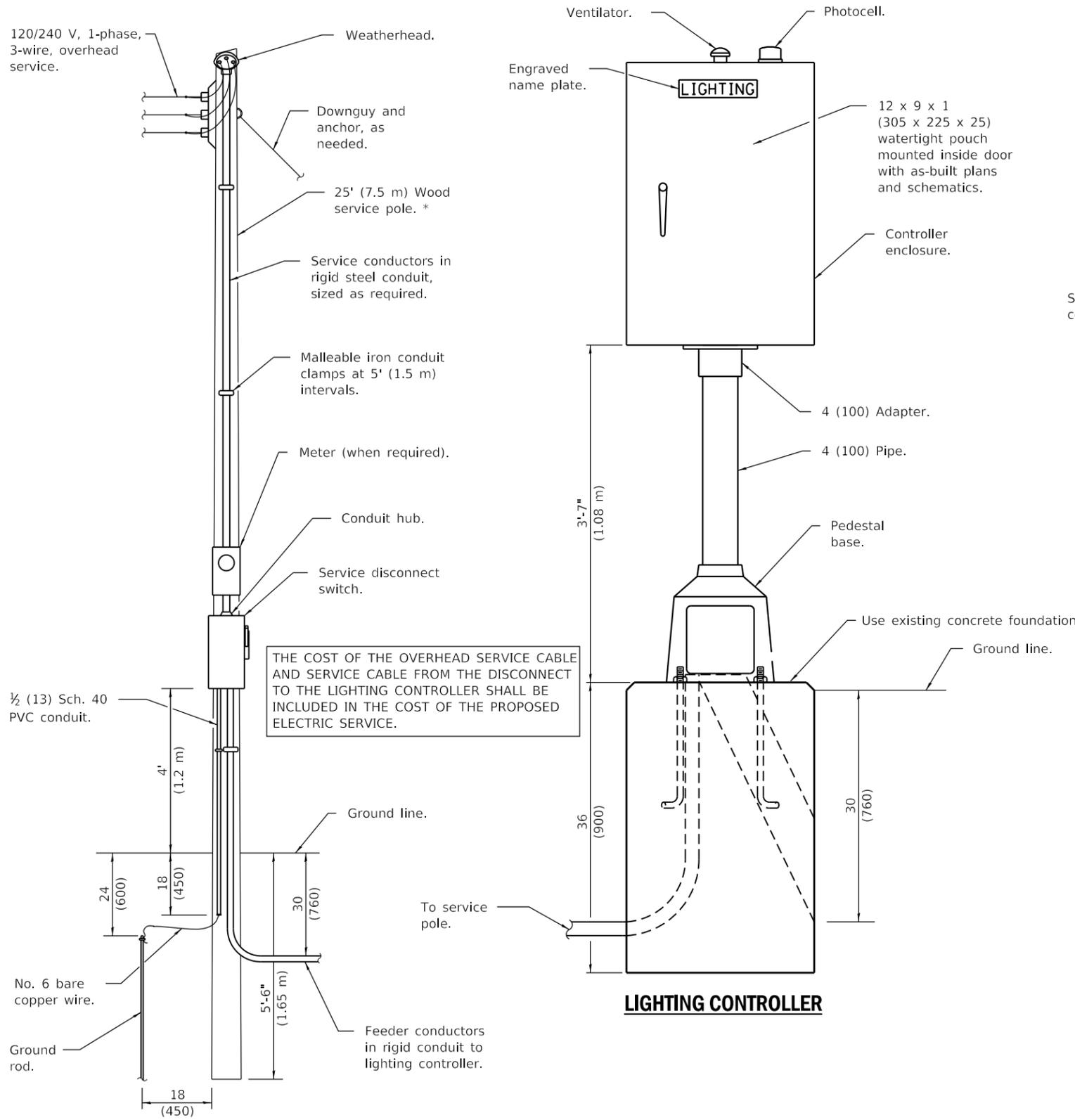
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PROPOSED TRAFFIC CONTROL DETAILS  
I-39 & US 24 INTERCHANGE - EL PASO**

SCALE: \_\_\_\_\_ SHEET \_\_\_\_ OF \_\_\_\_ SHEETS STA. \_\_\_\_\_ TO STA. \_\_\_\_\_

|                           |          |          |              |           |
|---------------------------|----------|----------|--------------|-----------|
| F.A.P. RTE.               | SECTION  | COUNTY   | TOTAL SHEETS | SHEET NO. |
| 39                        | (102-2)L | WOODFORD | 10           | 9         |
| CONTRACT NO.              |          |          | 68E83        |           |
| ILLINOIS FED. AID PROJECT |          |          |              |           |

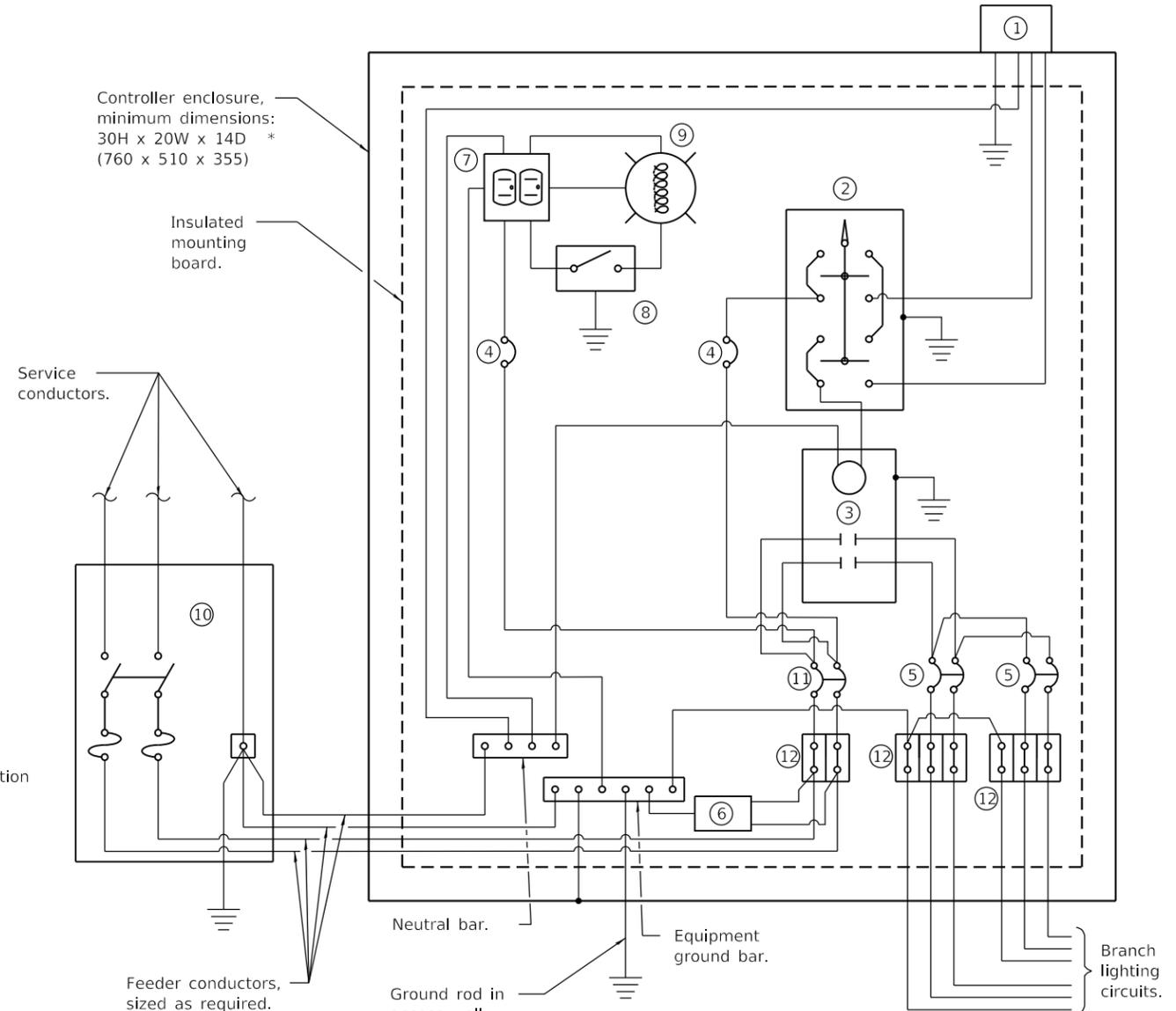
NOT TO SCALE



**ELECTRIC SERVICE INSTALLATION**

(Typical overhead service shown. Cut pole off for underground service and treat cut surface with preservative. Consult utility company standards for exact requirements.)

\* Size larger as needed.



**CONTROL SCHEMATIC**

- ① Photocell with integral surge arrester.
- ② HAND-OFF-AUTO selector switch.
- ③ 100 amp\*, electrically held contactor.
- ④ 15 amp, 1-pole circuit breaker.
- ⑤ 20 amp\*, 2-pole circuit breaker (QTY 3.0 PLUS 2 SPARES).
- ⑥ Surge arrester.
- ⑦ GFCI duplex receptacle.
- ⑧ Single-pole, single-throw switch.
- ⑨ LED light bulb, enclosed and gasketed with 800 lumen lamp.
- ⑩ Service disconnect switch - 2-pole, 3-wire, 60 amp\*, fused at 60 amp\*, solid neutral in NEMA 4X enclosure having lockable external handle.
- ⑪ 60 amp\*, 2-pole circuit breaker.
- ⑫ Terminal block sized for conductors as shown on plans.

\* Size larger as needed.

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

MODEL: 140821M001  
FILE NAME: 111111

|                       |                  |                 |
|-----------------------|------------------|-----------------|
| USER NAME = \$USERS   | DESIGNED - _____ | REVISED - _____ |
| PLOT SCALE = \$SCALES | DRAWN - _____    | REVISED - _____ |
| PLOT DATE = \$DATES   | CHECKED - _____  | REVISED - _____ |
|                       | DATE - _____     | REVISED - _____ |

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PROPOSED LIGHTING CONTROLLER DETAIL  
I-39 & US 24 INTERCHANGE - EL PASO**

SCALE: \_\_\_\_\_ SHEET \_\_\_\_\_ OF \_\_\_\_\_ SHEETS STA. \_\_\_\_\_ TO STA. \_\_\_\_\_

|                           |          |          |                    |           |
|---------------------------|----------|----------|--------------------|-----------|
| F.A.P. RTE.               | SECTION  | COUNTY   | TOTAL SHEETS       | SHEET NO. |
| 39                        | (102-2)L | WOODFORD | 10                 | 10        |
|                           |          |          | CONTRACT NO. 68E83 |           |
| ILLINOIS FED. AID PROJECT |          |          |                    |           |

NOT TO SCALE