

MODEL: SUPDELNAMES  
FILENAMES: STEELS



USER NAME = \$USERS	DESIGNED - THG	REVISED -
	DRAWN - MAS	REVISED -
PLOT SCALE = \$\$SCALE\$	CHECKED - TJS	REVISED -
PLOT DATE = \$DATES	DATE - 07-09-2024	REVISED -

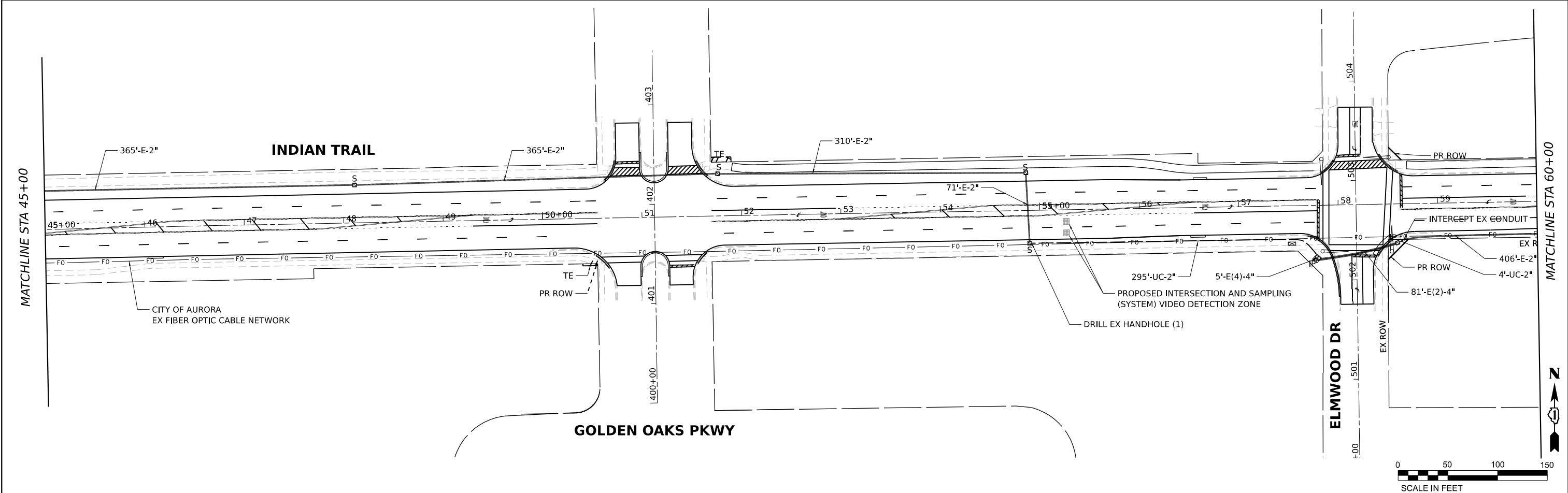
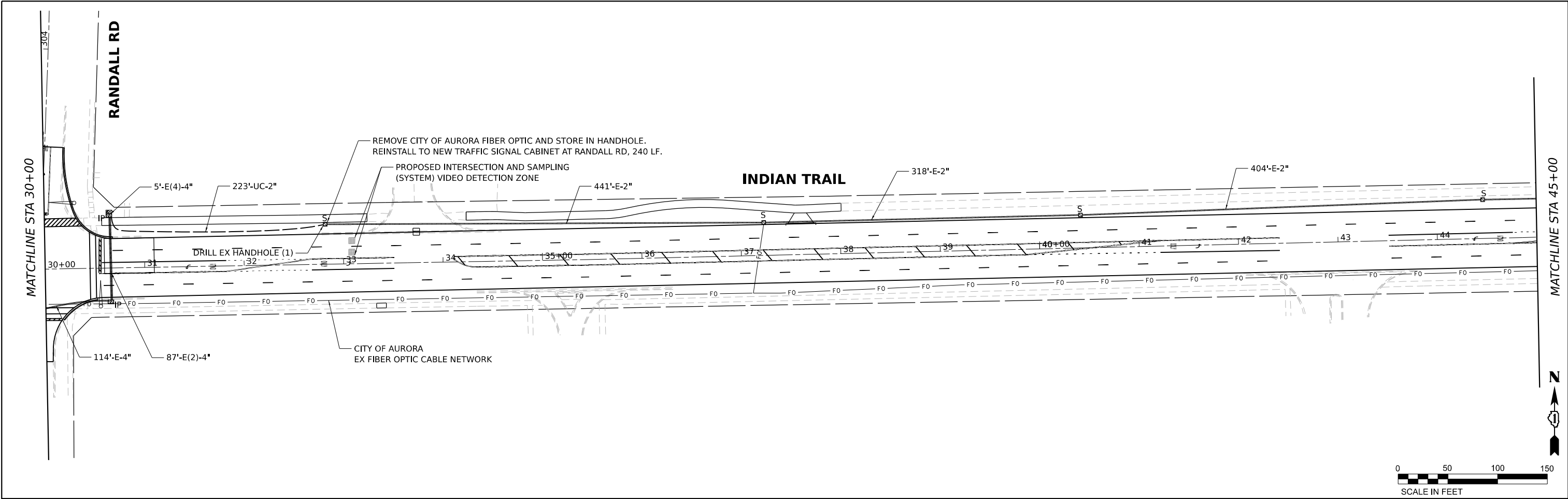
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

INTERCONNECT PLAN

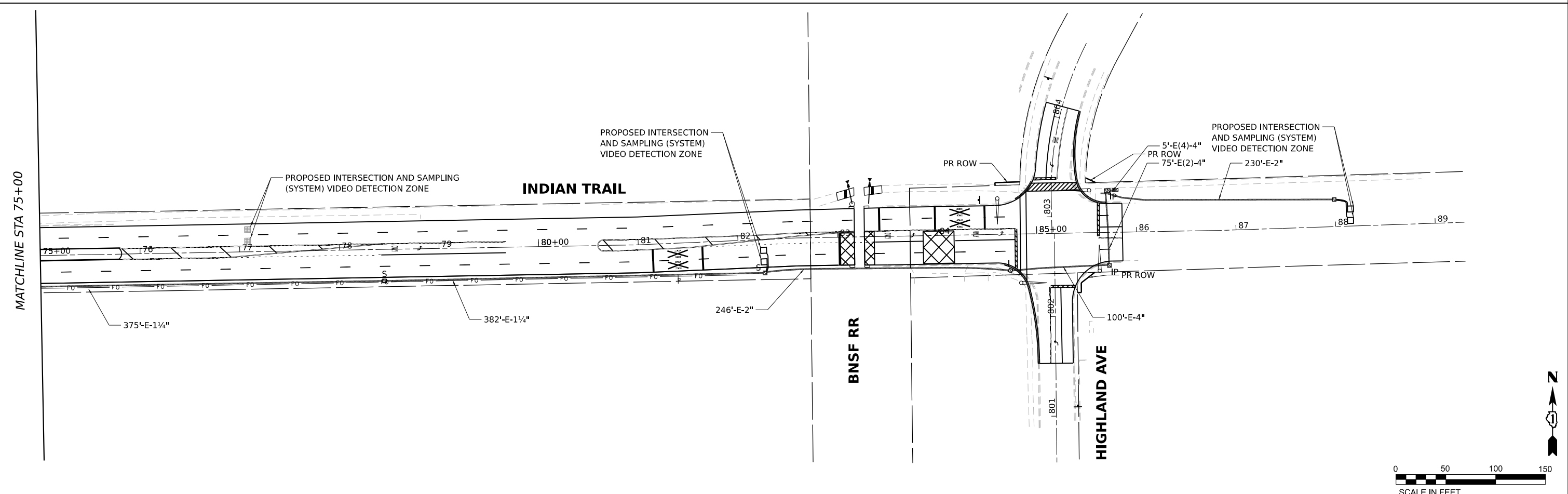
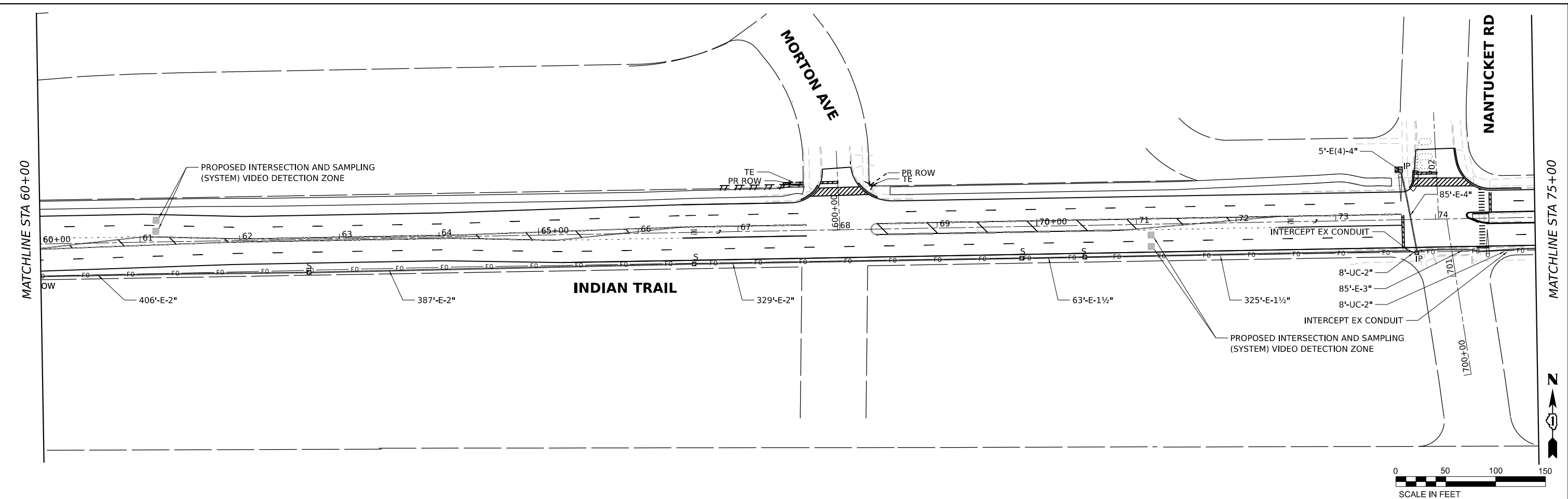
SCALE: 1"=50'    SHEET 1    OF 3    SHEETS    STA. 0+00    TO STA. 30+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1503	21-00339-00-CH	KANE	132	101
CONTRACT NO. 61J91				
ILLINOIS    FED. AID PROJECT				









MODEL: SUPDELNAMES  
FILENAMES: STEELS



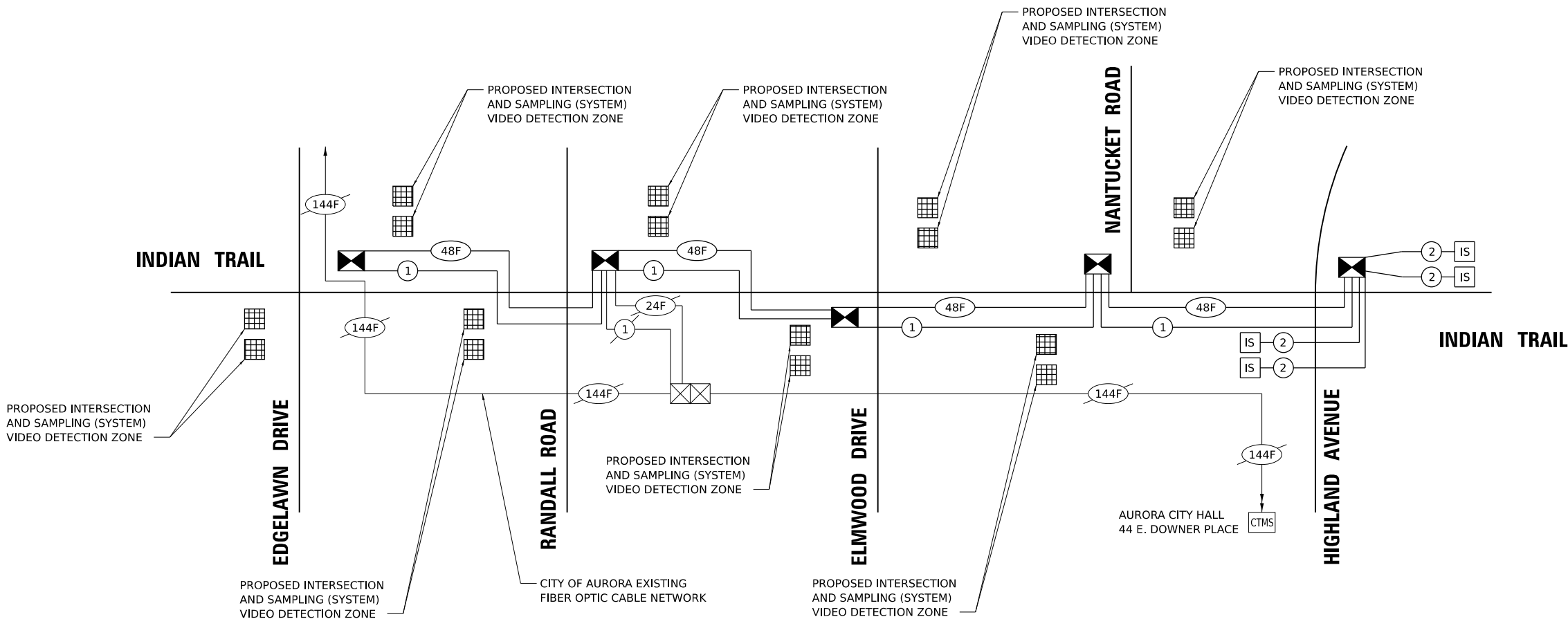
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DRAWN - MAS	REVISED -	
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PLOT DATE = \$DATES	DATE - 07-09-2024	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

INTERCONNECT PLAN			
SCALE: 1"=50'	SHEET 3	OF 3 SHEETS	STA. 60+00 TO STA. 89+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1503	21-00339-00-CH	KANE	132	103
CONTRACT NO. 61J91				
ILLINOIS		FED. AID PROJECT		

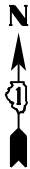




SCHEDULE OF QUANTITIES

	ITEM DESCRIPTION	UNITS	TOTAL QTY.
#	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	1,443
	TRANSCEIVER - FIBER OPTIC	EACH	5
	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	9,090
	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	9,090
*	ROD AND CLEAN EXISTING CONDUIT	FOOT	1,000
	FIBER OPTIC CABLE 48 FIBERS, SINGLE MODE	FOOT	9,090
	OPTIMIZE TRAFFIC SIGNAL SYSTEM	EACH	1
	DRILL EXISTING HANDHOLE	EACH	4
	INTERCEPT EXISTING CONDUIT	EACH	3
	REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT	FOOT	240
	CENTRALIZED SYSTEM FIELD INTEGRATION / SETUP	L SUM	1

\* NOMINAL QUANTITY TO BE USED AS NEEDED AND AS APPROVED BY THE ENGINEER  
# INCLUDES 300 LF CONTINGENCY FOR REPLACEMENT OF DAMAGED CONDUIT TO BE REPLACED AS APPROVED BY ENGINEER



ECONOLITE

MODEL: S:\MODEL\NAMES  
FILE NAME: S:\FILES



USER NAME = \$USERS	DESIGNED - THG	REVISED -
	DRAWN - MAS	REVISED -
PLOT SCALE = \$\$SCALE\$	CHECKED - TJS	REVISED -
PLOT DATE = \$DATES	DATE - 07-09-2024	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

INTERCONNECT SCHEMATIC

SCALE: NONE' SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1503	21-00339-00-CH	KANE	132	104
CONTRACT NO. 61J91				
ILLINOIS FED. AID PROJECT				












NOTES:

1. THIS PROJECT INCLUDES INSTALLATION OF NEW COMBINATION SIGNAL/LIGHTING MAST ARMS AT FOUR INTERSECTIONS, RELOCATION OF ONE LIGHT POLE, AND RELOCATION OF LUMINAIRES ON EXISTING COMBINATION SIGNAL/LIGHTING MAST ARMS.
2. THE CONTRACTOR SHALL REQUEST A FORMAL MAINTENANCE TRANSFER OF EXISTING LIGHTING FROM THE CITY BEFORE ANY LIGHTING WORK, OR OTHERWISE BEGINS.
3. THE QUANTITIES OF RACEWAY WHERE INDICATED ON THESE PLANS ARE APPROXIMATIONS ONLY, THE CONTRACTOR SHALL FIELD VERIFY ALL LENGTHS AND SHALL INSTALL RACEWAYS IN COMPLETE COMPLIANCE WITH THE SPECIFIED REQUIREMENTS.
4. THE CONTRACTOR SHALL NOTIFY J.U.L.I.E. TO LOCATE AND MARK /STAKE ALL UNDERGROUND UTILITIES.
5. THE CONTRACTOR SHALL VERIFY LOCATIONS OF UNDERGROUND/OVERHEAD UTILITIES PRIOR TO INSTALLATION OF LIGHT POLES AMMO CONDUITS. IF THERE IS A CONFLICT WITH THE LIGHT POLES/CONDUITS AS SHOWN ON PLANS, THE CONTRACTOR SHALL SUGGEST ALTERNATIVE LOCATIONS AMMO COORDINATE WITH THE ENGINEER PRIOR TO PERFORMING CONSTRUCTION WORK.
6. TRENCHES FOR LIGHTING RACEWAYS SHALL HAVE A MINIMUM DEPTH OF 30".
7. LIGHTING SYSTEM INSTALLATION SHALL CONFORM TO THE LATEST IDOT STANDARDS, NEC AND LOCAL CODES.
8. ALL ELECTRICAL EQUIPMENT AND PRODUCTS SHALL BE U/L LISTED AND LABELED,
9. THE CONTRACTOR SHALL TAKE CARE WHEN INSTALLING UNIT DUCT TO AVOID CONFLICTS WITH EXISTING UNDERGROUND UTILITIES AND TREES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE AS DETERMINED BY THE ENGINEER.
10. THE CONTRACTOR SHALL TAKE CARE WHEN INSTALLING LIGHT POLE FOUNDATIONS TO AVOID CONFLICTS WITH UNDERGROUND UTILITIES. WHEN CONFLICTS ARE ENCOUNTERED, THE CONTRACTOR SHALL REQUEST TO RELOCATE THE FOUNDATION. THE NEW LOCATION SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.

BILL OF MATERIALS

PAY ITEM NAME	UNIT	QUANTITY
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	90
UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	40
UNIT DUCT, 600V, 2-1C NO.4, 1/C NO.6 GROUND, (XLP-TYPE USE), 1 1/4" DIA. POLYETHYLENE	FOOT	300
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 10	FOOT	1420
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 8	FOOT	2840
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 6	FOOT	1449
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 4	FOOT	1128
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 2	FOOT	1770
LIGHT POLE FOUNDATION, 24" DIAMETER	FOOT	7
BREAKAWAY DEVICE, TRANSFORMER BASE, 15 INCH BOLT CIRCLE	EACH	1
REMOVAL OF POLE FOUNDATION	EACH	1
RELOCATE EXISTING LIGHTING UNIT	EACH	1
INTERCEPT EXISTING CONDUIT	EACH	3
EXPOSE AND RELOCATE EXISTING UNIT DUCT	FOOT	60
RELOCATE EXISTING LUMINAIRE	EACH	7
LUMINAIRE SAFETY CABLE ASSEMBLY	EACH	7
MAINTENANCE OF LIGHTING SYSTEM	CAL MO	10

LEGEND

- EXISTING LIGHTING UNIT TO BE MAINTAINED
- EXISTING LIGHTING UNIT TO BE RELOCATED
- UNIT DUCT, 600V, 3-1/C (NO. 2, 4, OR 8), 1/C (NO. 6 OR 10) GROUND [XLP-TYPE USE] 1 1/4" DIA. POLYETHYLENE (SEE PLANS)
- EXISTING LIGHTING CONTROLLER
- RIGID GALVANIZED STEEL CONDUIT, 3" DIA.
- ELECTRIC CABLE IN CONDUIT, SEE PLANS FOR CABLE TYPE
- RELOCATED LIGHTING UNIT, 40 FT. MH, 8 FT MAST ARM, LED LUMINAIRE, WITH BREAKAWAY DEVICE
- COMBINATION SIGNAL/LIGHT POLE, 45 FT MH, 8 FT MAST ARM, RELOCATED LED LUMINAIRE
- GROUND ROD 5/8" X 10 FT

MODEL, SUGGESTED NAMES  
FILE NAMES, SHEETS



Stanley Consultants INC.  
8501 West Higgins Road, Suite 120, Chicago, Illinois 60631-2801  
www.stanleyconsultants.com  
Mass Fire Registration No. 184-021533

USER NAME = \$USERS\$	DESIGNED - CMN	REVISED -
	DRAWN - CMN	REVISED -
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PLOT DATE = \$DATES\$	DATE - 07-09-2024	REVISED -

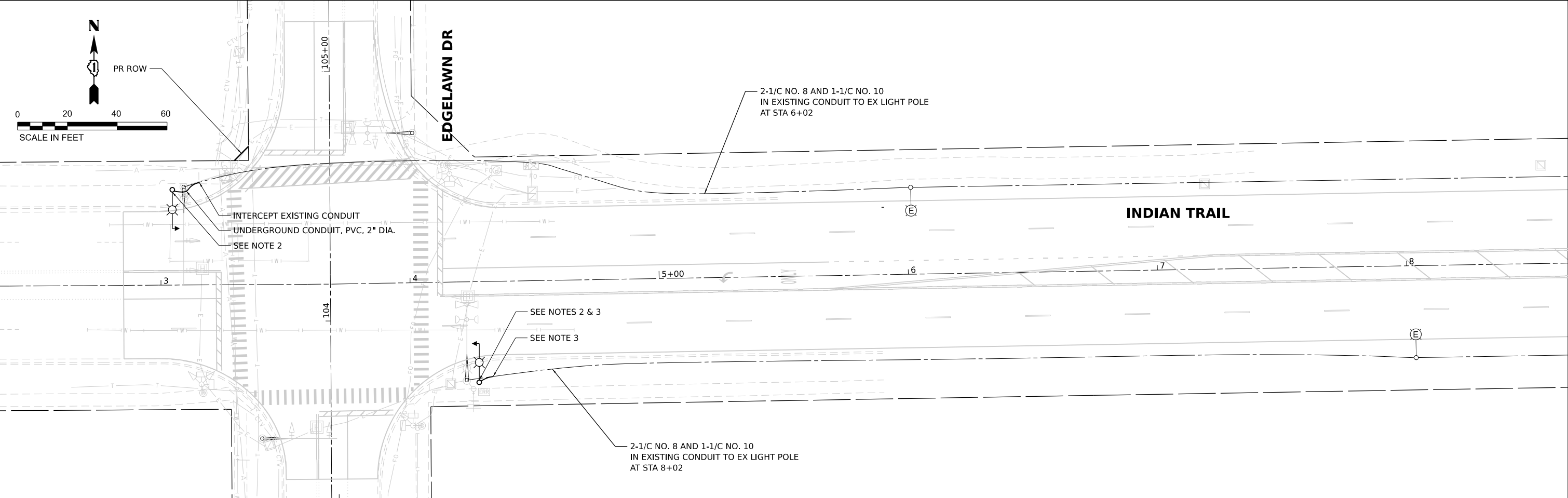
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

LIGHTING GENERAL NOTES, BILL OF MATERIALS, AND LEGEND

SCALE: NONE    SHEET 1    OF 1    SHEETS    STA.    TO STA.

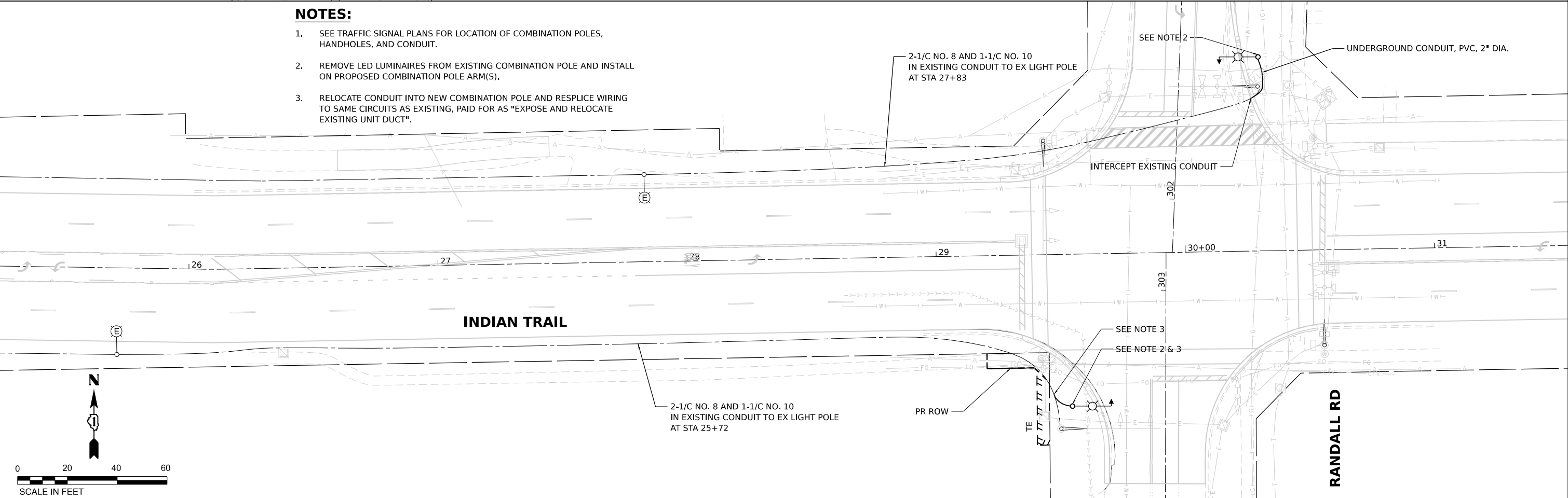
F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1503	21-003339-00-CH	KANE	132	105
CONTRACT NO. 61J91				
		ILLINOIS	FED. AID PROJECT	





**NOTES:**

- 1. SEE TRAFFIC SIGNAL PLANS FOR LOCATION OF COMBINATION POLES, HANDHOLES, AND CONDUIT.
- 2. REMOVE LED LUMINAIRES FROM EXISTING COMBINATION POLE AND INSTALL ON PROPOSED COMBINATION POLE ARM(S).
- 3. RELOCATE CONDUIT INTO NEW COMBINATION POLE AND RESPLICE WIRING TO SAME CIRCUITS AS EXISTING, PAID FOR AS "EXPOSE AND RELOCATE EXISTING UNIT DUCT".



MODEL: S:\MODEL\NAMES  
FILE NAME: 61J91



USER NAME	= \$USERS	DESIGNED -	THG	REVISED -	
DRAWN	-	MAS		REVISED -	
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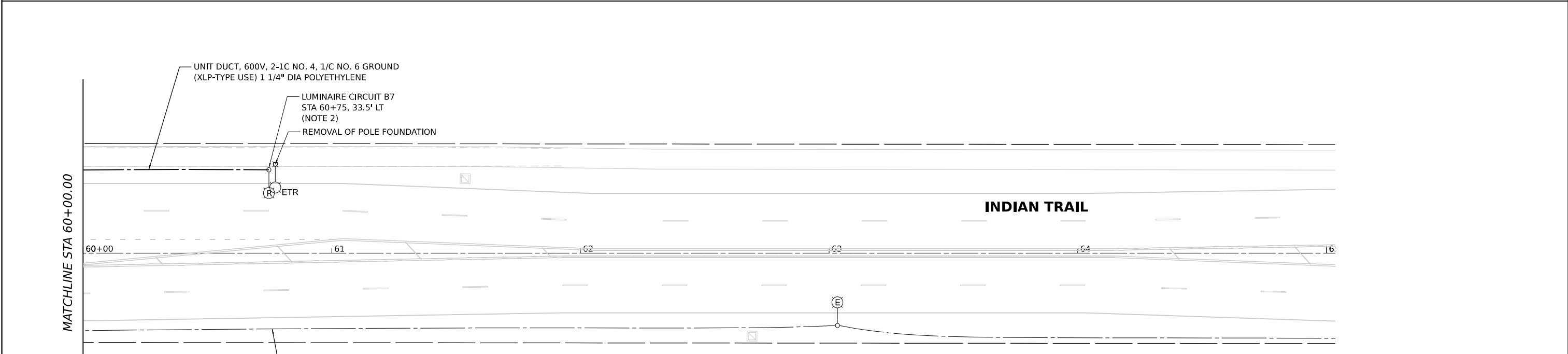
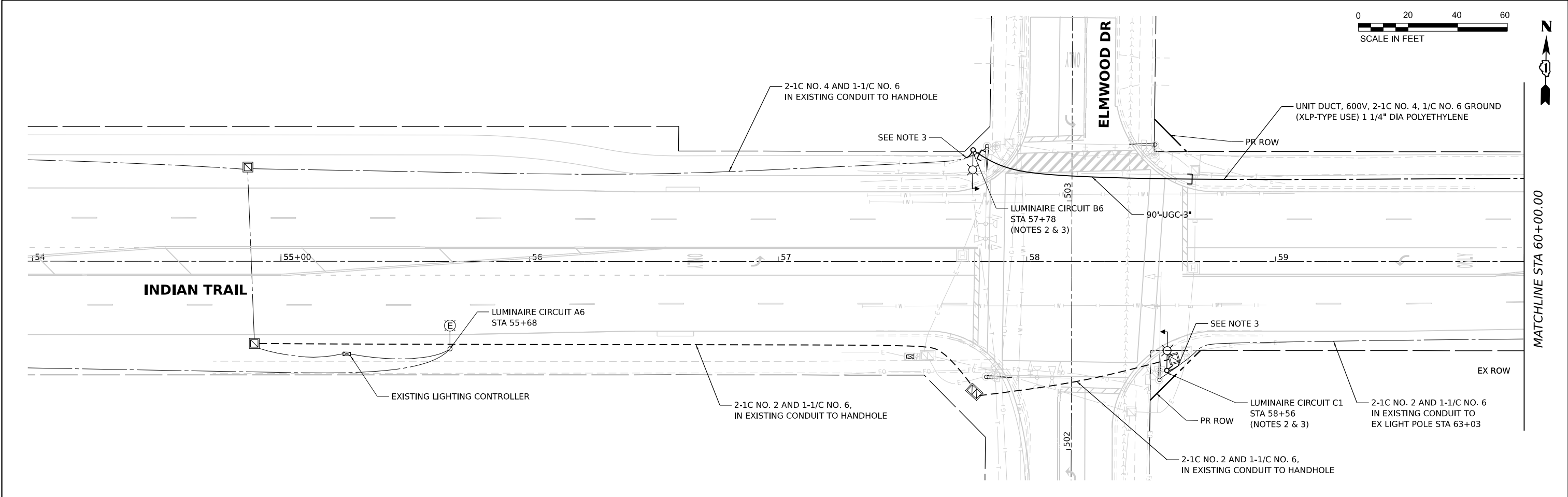
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**LIGHTING PLAN**

SCALE: 1"=20'    SHEET 1    OF 3    SHEETS    STA.    TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1503	21-00339-00-CH	KANE	132	106
CONTRACT NO. 61J91				
ILLINOIS FED. AID PROJECT				

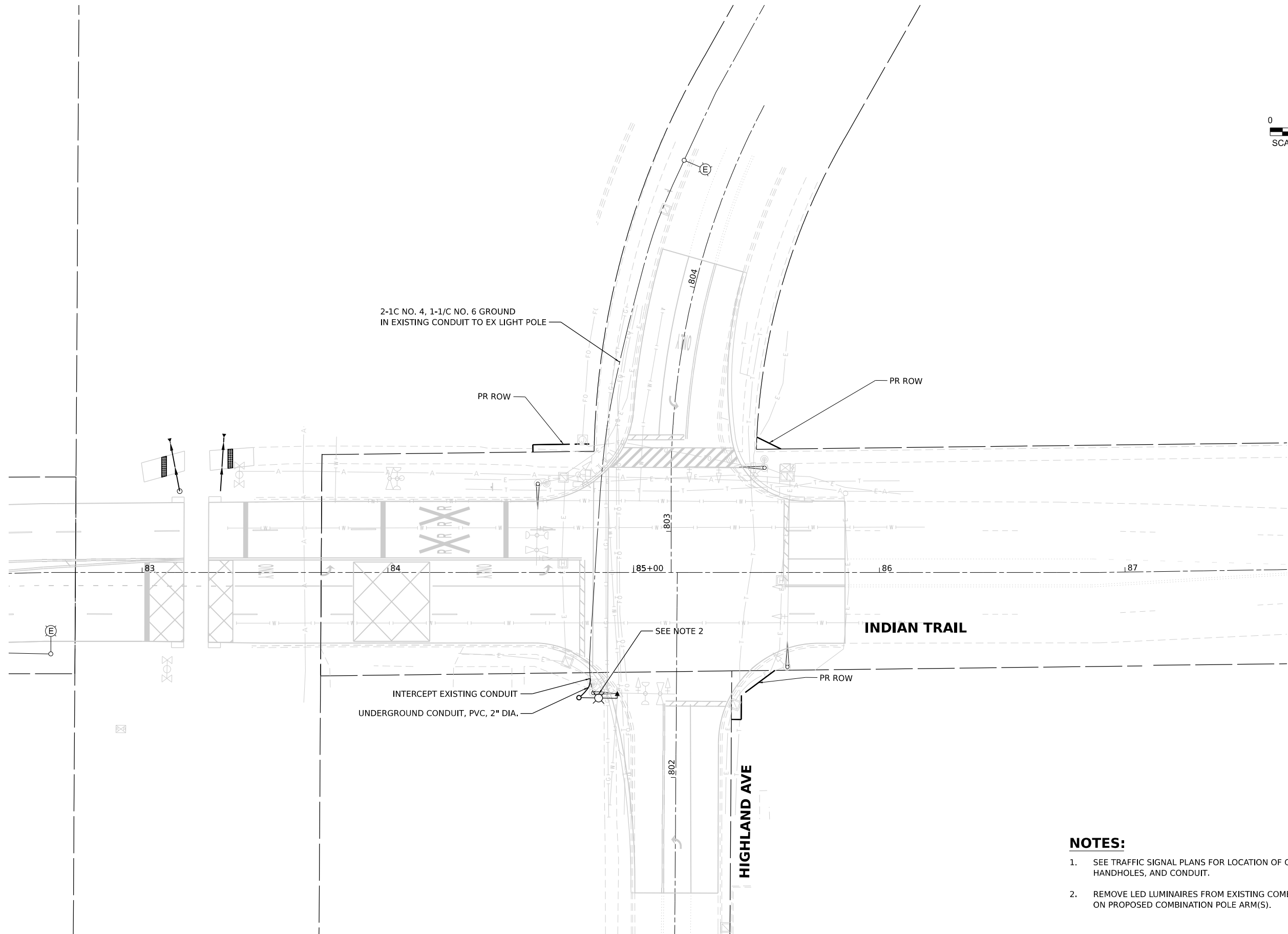
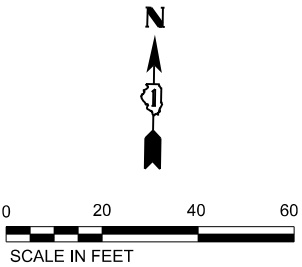




NOTES:

- 1. SEE TRAFFIC SIGNAL PLANS FOR LOCATION OF COMBINATION POLES, HANDHOLES, AND CONDUIT.
- 2. REMOVE LED LUMINAIRES FROM EXISTING COMBINATION POLE AND INSTALL ON PROPOSED COMBINATION POLE ARM(S).
- 3. RELOCATE CONDUIT INTO NEW COMBINATION POLE AND RESPLICE WIRING TO SAME CIRCUITS AS EXISTING, PAID FOR AS "EXPOSE AND RELOCATE EXISTING UNIT DUCT".





**NOTES:**

- SEE TRAFFIC SIGNAL PLANS FOR LOCATION OF COMBINATION POLES, HANDHOLES, AND CONDUIT.
- REMOVE LED LUMINAIRES FROM EXISTING COMBINATION POLE AND INSTALL ON PROPOSED COMBINATION POLE ARM(S).

MODEL, SHEET NAMES  
FILE NAMES, SHEETS



USER NAME = \$USERS\$	DESIGNED - THG	REVISED -
	DRAWN - MAS	REVISED -
PLOT SCALE = \$\$SCALE\$	CHECKED - TJS	REVISED -
PLOT DATE = \$DATES\$	DATE - 07-09-2024	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**LIGHTING PLAN**

SCALE: 1"=20'    SHEET 3    OF 3    SHEETS    STA.    TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1503	21-00339-00-CH	KANE	132	108
CONTRACT NO. 61J91				
		ILLINOIS	FED. AID PROJECT	

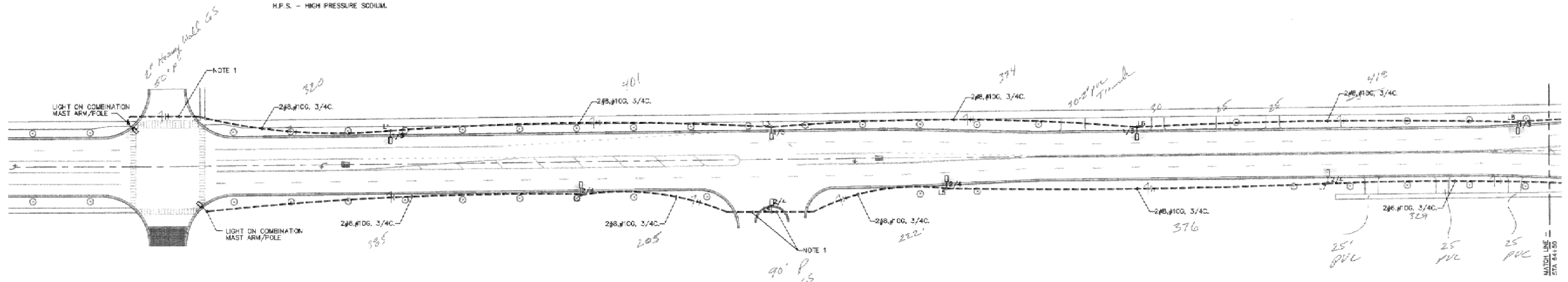


ELECTRICAL SYMBOLS' LIST

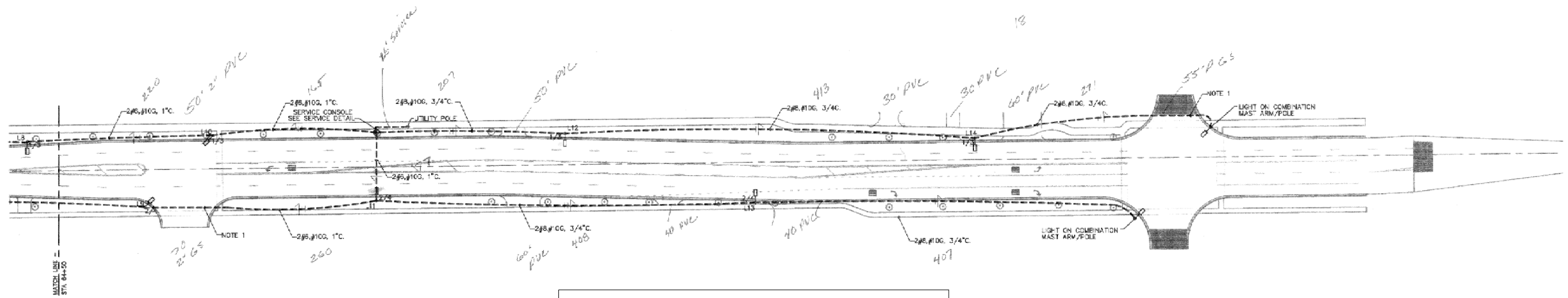
- - POLE-MOUNTED H/O LUMINAIRE. SEE ELECTRICAL EQUIPMENT SCHEDULE.  
-H- - UNDERGROUND BRANCH CIRCUIT WIRING IN UNIDUCT (UNLESS OTHERWISE NOTED),  
DUCT AND AWG SIZE AS NOTED. SLASHES INDICATE NUMBER OF WIRES.  
-H- - UNDERGROUND BRANCH CIRCUIT WIRING IN CONCRETE-ENCASED RIGID PVC CONDUIT. CONDUIT  
AND AWG SIZE AS NOTED. SLASHES INDICATE NUMBER OF WIRES. (UNDER INDIAN TRAIL ONLY)  
1 - EQUIPMENT GROUND CONDUCTOR  
⊙ - PEDESTAL-MOUNT SERVICE EQUIPMENT.  
H.P.S. - HIGH PRESSURE SODIUM.



SCALE : 1" = 50'



- NOTES  
1. PUSH CONDUIT UNDER ROADWAY.  
2. CUT OPEN TRENCH UNLESS NOTED OTHERWISE (SEE NOTE 1).



FOR INFORMATION ONLY

K. L. B. E. R  
ENGINEERING  
CONSULTANTS, INC.  
236 W. 30TH ST. BATAVIA, IL 60510  
(708) 466-1213 (708) 466-9472 FAX  
ELECTRICAL-MECHANICAL-ENGINEERS

ENGINEERING ENTERPRISES, INC.  
CIVIL ENGINEERS & LAND SURVEYORS  
52 WHEELER ROAD  
SUGAR GROVE, ILLINOIS 60554 (708) 466-9350

AURORA CENTRAL CATHOLIC HIGH SCHOOL  
157 NORTH ROOT STREET  
AURORA, IL 60505 (708) 898-8806

WEST INDIAN TRAIL IMPROVEMENTS  
AURORA, ILLINOIS

STREET LIGHTING PLAN

DATE MARCH, 1995  
DWG. NO. AU940210  
2033

USER NAME = \$USERS	DESIGNED -	REVISED -
DRAWN - CMN	REVISED -	
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PLOT DATE = \$DATES	DATE - 07-09-2024	REVISED -

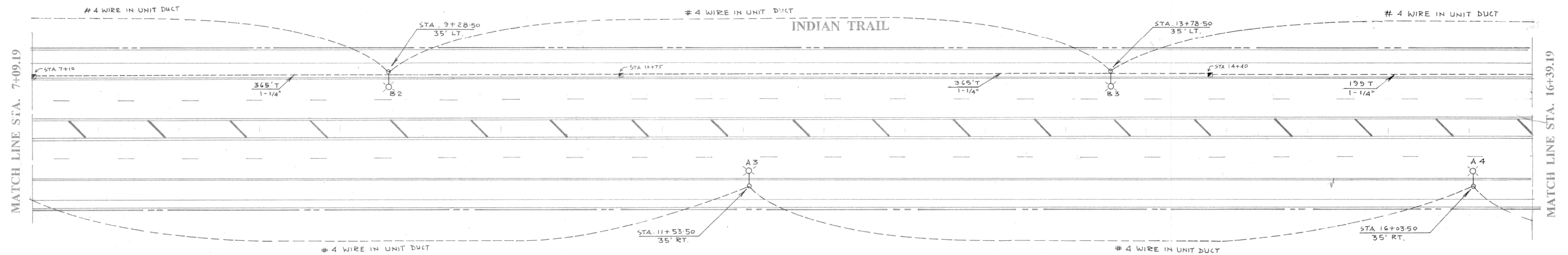
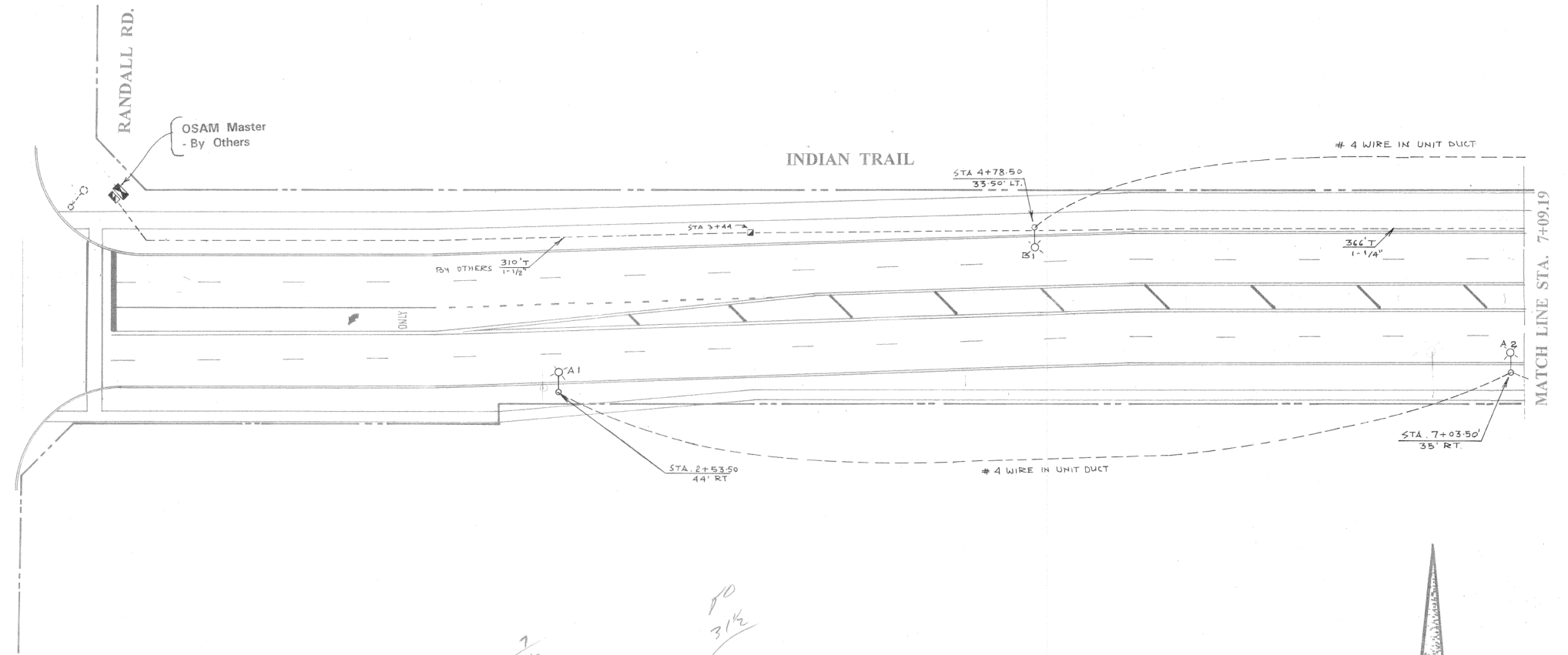
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING STREET LIGHTING LAYOUT FOR INFORMATION ONLY			
SCALE: NONE	SHEET 1	OF 8 SHEETS	STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1503	21-00339-00-CH	KANE	132	109
CONTRACT NO. 61J91				
ILLINOIS FED. AID PROJECT				

MODEL, SYMBOL NAMES  
FILE NAMES, STYLES





FOR INFORMATION ONLY

D	INDIAN TRAIL RECONSTRUCTION									
F										
E										
D	SCALE H 1"=30'		DRAWN STP		DESIGNED PL		DRAWING NUMBER			
C	DATE 04/795		CHECKED PL		APPROVED PJH					
B										
A										
TRAFFIC SIGNALS INTERCONNECT & STREET LIGHTING										
CITY OF AURORA, ILLINOIS							TOTAL SHEETS		SHEET NUMBER	
BY		DATE					37		27	
REVISIONS										
ENGINEERING DEPARTMENT										

USER NAME = \$USERS	DESIGNED -	REVISED -
	DRAWN - CMN	REVISED -
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PLOT DATE = \$DATES	DATE - 07-09-2024	REVISED -

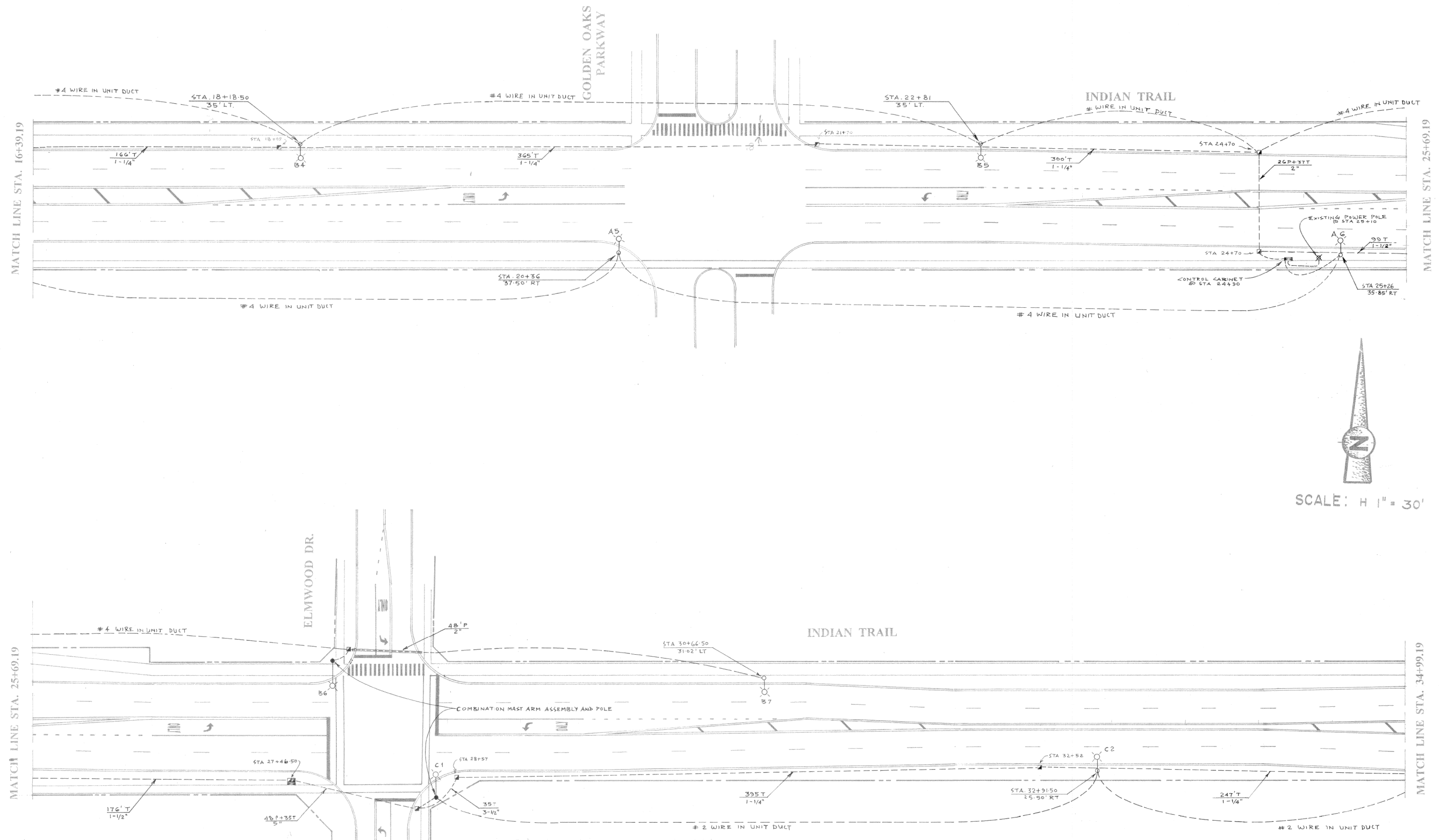
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING STREET LIGHTING LAYOUT  
FOR INFORMATION ONLY

SCALE: NONE SHEET 3 OF 8 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1503	21-00339-00-CH	KANE	132	110
CONTRACT NO. 61J91				
ILLINOIS FED. AID PROJECT				





SCALE: 1" = 30'

FOR INFORMATION ONLY

F		INDIAN TRAIL RECONSTRUCTION													
E	SCALE		H 1"=30'		DRAWN		STP		DESIGNED		PL		DRAWING NUMBER		
D	DATE		04/95		CHECKED		PL		APPROVED		PJH				
C	TRAFFIC SIGNALS INTERCONNECT &														
B	STREET LIGHTING														
A	CITY OF AURORA, ILLINOIS														
BY		DATE		ENGINEERING DEPARTMENT								TOTAL SHEETS		SHEET NUMBER	
REVISIONS												37		28	

USER NAME	= \$USERS	DESIGNED	-	REVISED	-
DRAWN	- CMN	CHECKED	- THG	REVISED	-
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PLOT DATE	= \$DATES				

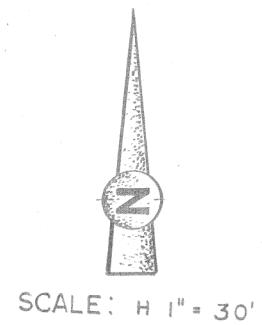
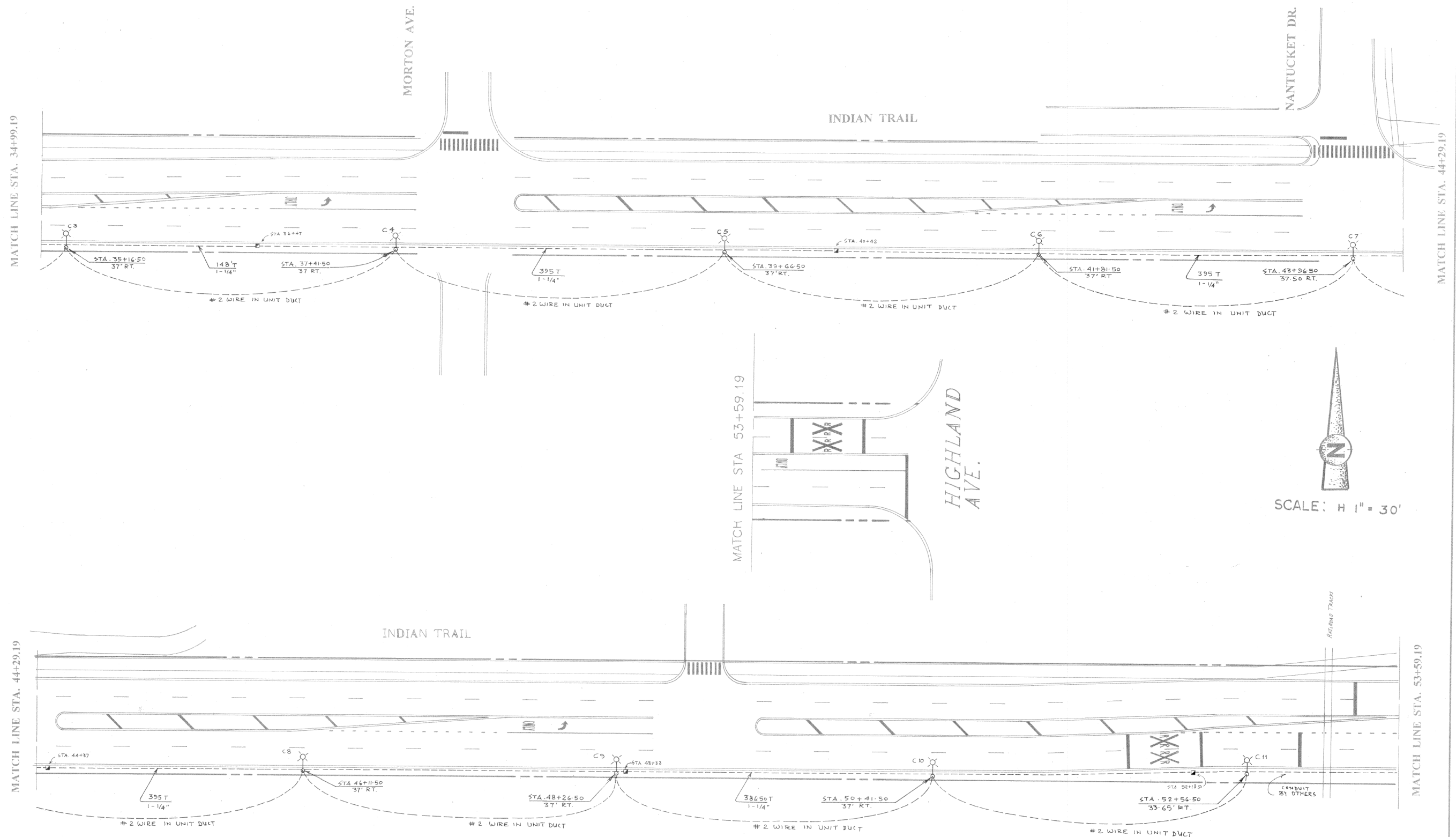
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING STREET LIGHTING LAYOUT FOR INFORMATION ONLY			
SCALE: NONE	SHEET 4	OF 8	SHEETS
STA.	TO STA.		

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1503	21-00339-00-CH	KANE	132	111
CONTRACT NO. 61J91				
ILLINOIS FED. AID PROJECT				

MODEL: SUGDEN/NAME\$  
FILE NAME: \$FILES\$





FOR INFORMATION ONLY

INDIAN TRAIL RECONSTRUCTION									
SCALE	H 1"=30'	DRAWN	STP	DESIGNED	PL	DRAWING NUMBER			
DATE	04/95	CHECKED	PL	APPROVED	PJH				
TRAFFIC SIGNALS INTERCONNECT & STREET LIGHTING									
CITY OF AURORA, ILLINOIS							TOTAL SHEETS	37	SHEET NUMBER
ENGINEERING DEPARTMENT								29	

USER NAME	= \$USERS	DESIGNED	-	REVISED	-
DRAWN	- CMN	CHECKED	- THG	REVISED	-
PLOT SCALE	= \$SCALES	DATE	- 07-09-2024	REVISED	-
PLOT DATE	= \$DATES				

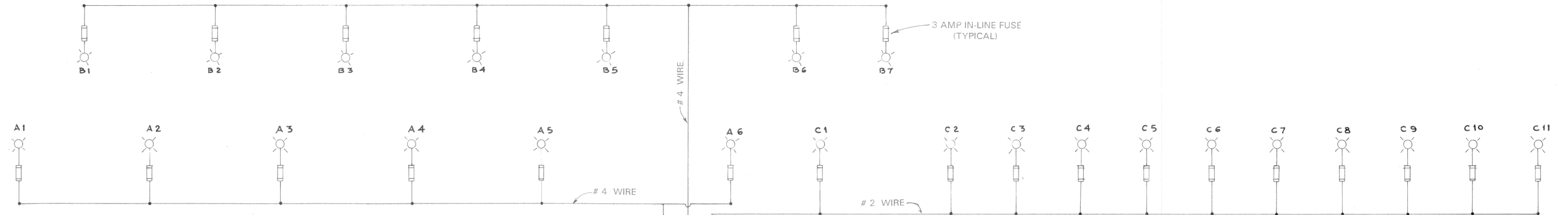
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING STREET LIGHTING LAYOUT  
FOR INFORMATION ONLY

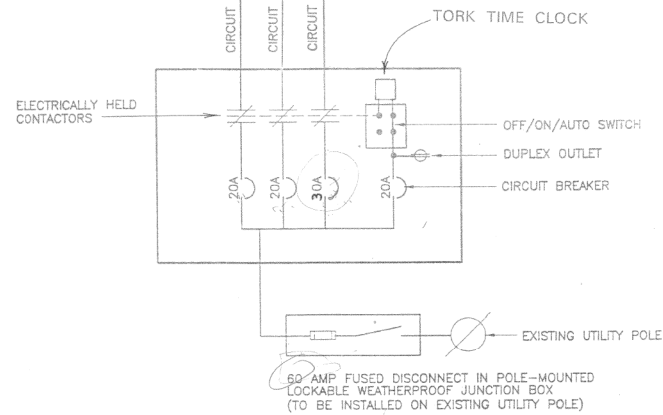
SCALE: NONE SHEET 5 OF 8 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1503	21-00339-00-CH	KANE	132	112
CONTRACT NO. 61J91				
ILLINOIS FED. AID PROJECT				





LUMINAIRE SHALL BE HIGH PRESSURE SODIUM,  
310 WATT, GENERAL ELECTRIC DECASHIELD III  
CAT. # DSMF 31SOA1GMC3DB



CONTROL CABINET  
STA. 24 + 90

FOR INFORMATION ONLY

ROADWAY LIGHTING NOTES

1. IT IS THE INTENTION OF THE DRAWINGS AND SPECIFICATIONS TO CALL FOR FINISHED WORK, TESTED AND READY FOR OPERATION.
2. UNDER THIS CONTRACT ANY MATERIAL OR LABOR NOT SPECIFICALLY MENTIONED OR NOTED IN THE DRAWINGS OR SPECIFICATIONS, THAT IS NECESSARY TO COMPLETE THE ELECTRICAL WORK SHALL BE FURNISHED BY THE CONTRACTOR WITHOUT ADDITIONAL COST TO THE OWNER.
3. BEFORE FINAL ACCEPTANCE, THE ELECTRICAL EQUIPMENT AND MATERIALS AND WORK PROVIDED UNDER THIS CONTRACT SHALL BE TESTED, TESTS MAY BE MAD PROGRESSIVELY AS PARTS OF THE WORK ARE COMPLETED OR MAY BE MADE IN THE PRESENCE OF THE ENGINEER. ITEMS WHICH FAIL TO TEST SATISFACTORILY SHALL BE REPAIRED OR REPLACED AND THE SYSTEM OR COMPONENT SHALL BE RETESTED.

27  
3.3  
69  
75.9  
  
24  
3.1  
72  
31.2  
  
24  
72  
744

C			INDIAN TRAIL RECONSTRUCTION							
F			SCALE	NTS	DRAWN	STP	DESIGNED	PL	DRAWING NUMBER	
D			DATE	03/95	CHECKED	PL	APPROVED	PJH		
C			STREET LIGHT - WIRING DIAGRAM							
B										
A										
	BY	DATE	<u>CITY OF AURORA, ILLINOIS</u>						TOTAL SHEETS	SHEET NUMBER
	REVISIONS		<u>ENGINEERING DEPARTMENT</u>						37	30

USER NAME	= \$USERS	DESIGNED	-	REVISED	-
DRAWN	- CMN	CHECKED	- THG	REVISED	-
PLOT SCALE	= \$SCALE\$	DATE	- 07-09-2024	REVISED	-
PLOT DATE	= \$DATES				

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING STREET LIGHTING LAYOUT  
FOR INFORMATION ONLY

SCALE: NONE SHEET 6 OF 8 SHEETS STA. TO STA.

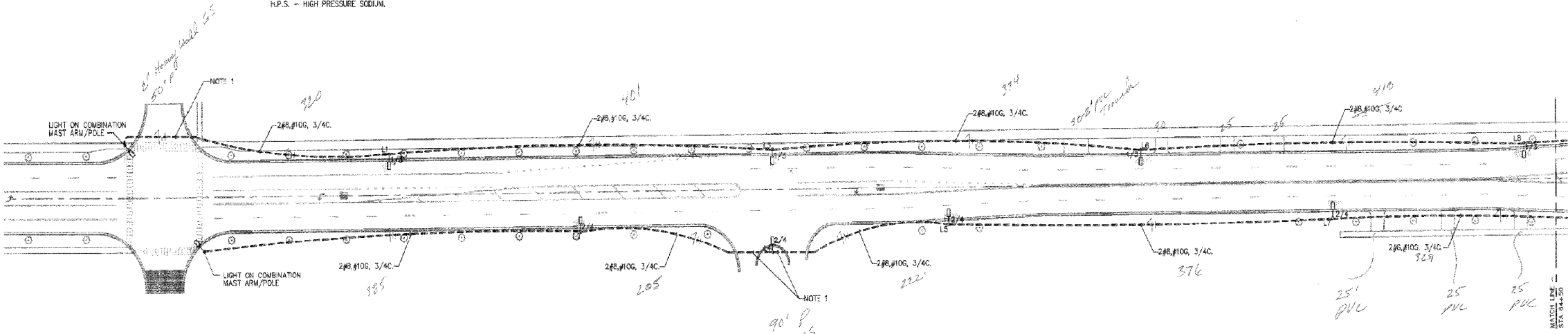
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1503	21-00339-00-CH	KANE	132	113
CONTRACT NO. 61J91				
ILLINOIS FED. AID PROJECT				

MODEL, SUPPLEMENTAL  
FILE NAMES, SHEETS

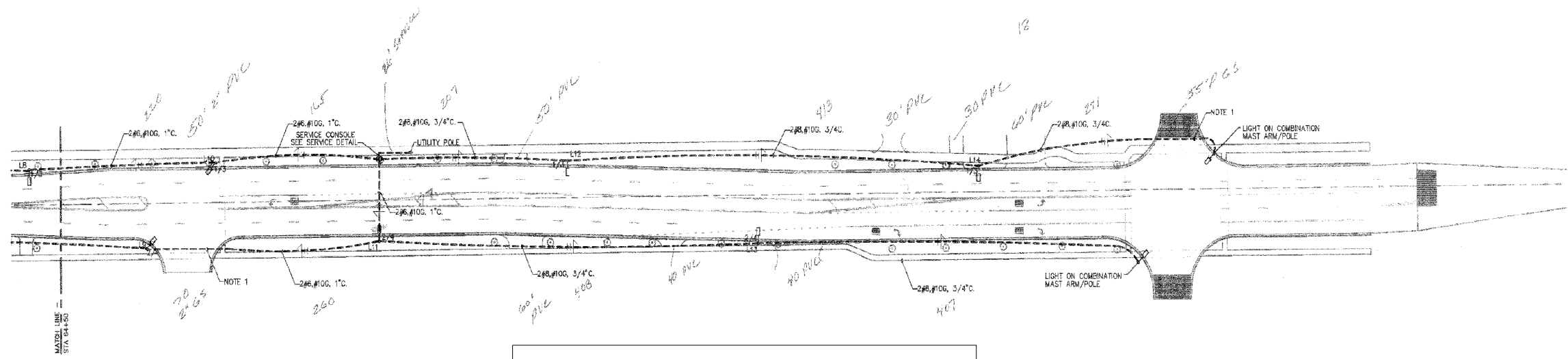


ELECTRICAL SYMBOLS' LIST

- - POLE-MOUNTED HID LUMINAIRE. SEE ELECTRICAL EQUIPMENT SCHEDULE.
- - UNDERGROUND BRANCH CIRCUIT WIRING IN UNIDUCT (UNLESS OTHERWISE NOTED). DUCT AND AWG SIZE AS NOTED. SLASHES INDICATE NUMBER OF WIRES.
- - UNDERGROUND BRANCH CIRCUIT WIRING IN CONCRETE-ENCASED RIGID PVC CONDUIT. CONDUIT AND AWG SIZE AS NOTED. SLASHES INDICATE NUMBER OF WIRES. (UNDER INDIAN TRAIL ONLY)
- - EQUIPMENT GROUND CONDUCTOR.
- ⊙ - PEDESTAL-MOUNT SERVICE EQUIPMENT.
- H.P.S. - HIGH PRESSURE SODIUM.



- NOTES
- 1. PUSH CONDUIT UNDER ROADWAY.
  - 2. OUT OPEN TRENCH UNLESS NOTED OTHERWISE (SEE NOTE 1).



FOR INFORMATION ONLY

K. L. BENE R  
ENGINEERING  
CONSULTANTS, INC.  
236 WEBSTER ST. BATAVIA, IL 60510  
(708)406-1213 (708)406-9472 FAX  
ELECTRICAL-MECHANICAL ENGINEERS

ENGINEERING ENTERPRISES, INC.  
CIVIL ENGINEERS & LAND SURVEYORS  
52 WHEELER ROAD  
SUGAR GROVE, ILLINOIS 60554 (708)466-9350

AURORA CENTRAL CATHOLIC HIGH SCHOOL  
157 NORTH ROOT STREET  
AURORA, IL 60505 (708)898-8806

WEST INDIAN TRAIL IMPROVEMENTS  
AURORA, ILLINOIS

STREET LIGHTING PLAN

DATE MARCH, 1995  
DWG. NO. AUB40210  
SHEET 20 OF 33

USER NAME = \$USERS	DESIGNED -	REVISED -
DRAWN - CMN	REVISED -	
PLOT SCALE = \$SCALES	CHECKED - THG	REVISED -
PLOT DATE = \$DATES	DATE - 07-09-2024	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING STREET LIGHTING LAYOUT  
FOR INFORMATION ONLY

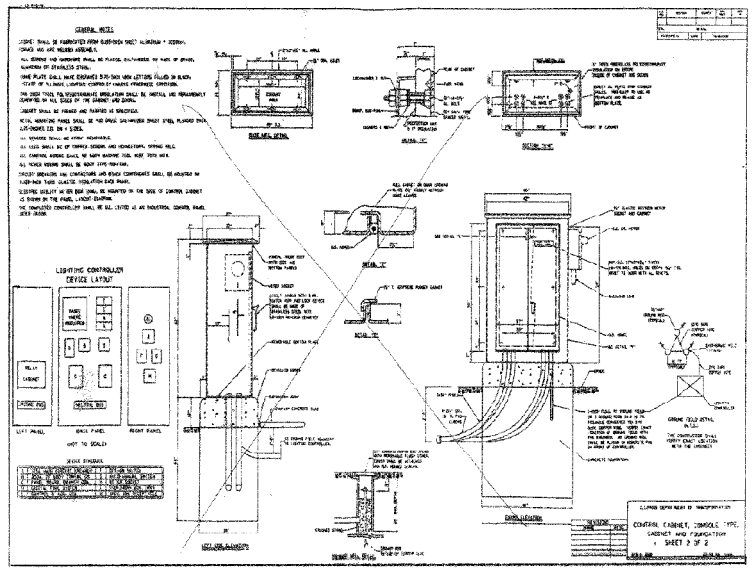
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1503	21-00339-00-CH	KANE	132	114
CONTRACT NO. 61J91				
ILLINOIS FED. AID PROJECT				

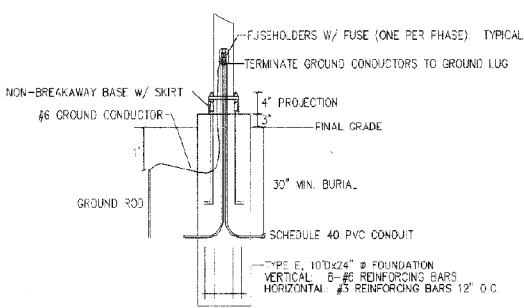
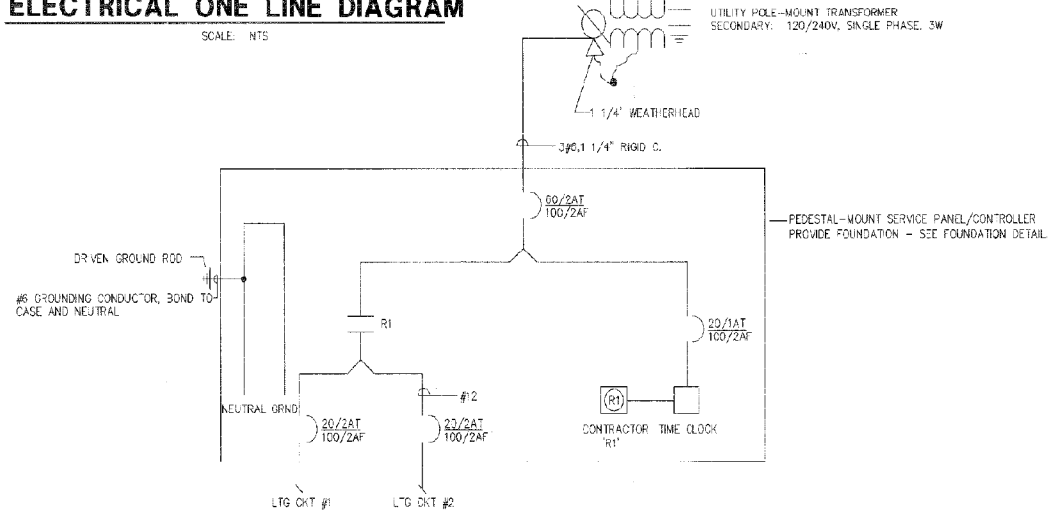
MODEL, SYMBOL NAMES  
FILE NAMES, STYLES



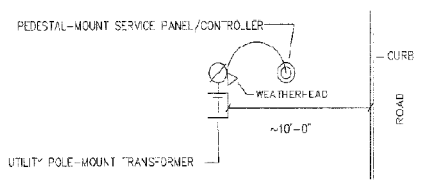
ELECTRICAL EQUIPMENT SCHEDULE							
TAG	LUMINAIRE	POLE AND LUMINAIRE BRACKET	BALLAST	BALLAST TYPE	LAMP(S)	LOCATION	REMARKS
1	1 - G.E. #05MF3150A16WC3CB	MILLERBERND CO. OR EQUAL (SEE SPECIFICATIONS)	ADVANCE #71AB360 OR EQUAL TWO WINDING, REG LAG		1 - G.E. #LW310,310 WATT H.P.S.	52-33 35LT	895.8
2						54-33 34RT	894.8
3						56-33 35LT	895.0
4						56-33 35RT	897.6
5						58-17 33RT	898.0
6						60-17 32LT	700.7
7						62-17 32RT	700.5
8						64-17 31LT	701.3
9						65-40 39RT	702.1
10						66-13 35LT	702.5
11						67-85 35RT	702.3
12						69-85 34LT	700.4
13						71-85 42RT	700.4
14						74-17 23LT	698.6



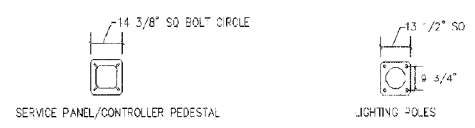
**ELECTRICAL ONE LINE DIAGRAM**  
SCALE: NTS



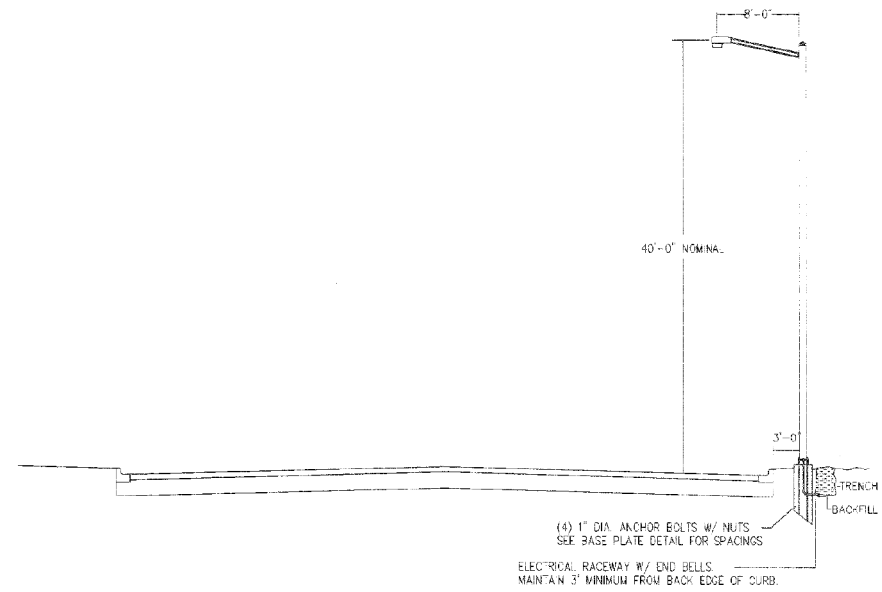
**FOUNDATION DETAIL**  
SCALE: 3/8" = 1'-0"



**SERVICE DETAIL - TYPICAL**  
SCALE: 1/8" = 1'-0"



**BASE PLATE DETAILS**  
SCALE: 3/8" = 1'-0"



**FOR INFORMATION ONLY**

**WEST INDIAN TRAIL ROAD POLE SECTION**  
SCALE: 1" = 8'-0"

ENGINEERING ENTERPRISES, INC.  
CIVIL ENGINEERS & LAND SURVEYORS  
52 WHEELER ROAD  
SUGAR GROVE, ILLINOIS 60554 (708)466-9350

AURORA CENTRAL CATHOLIC HIGH SCHOOL  
157 NORTH ROOT STREET  
AURORA, IL 60505 (708)898-8806

WEST INDIAN TRAIL IMPROVEMENTS  
AURORA, ILLINOIS

STREET LIGHTING DETAILS

DATE MAR. 1995  
DWS. NO. AU940210  
SHEET 21 OF 33

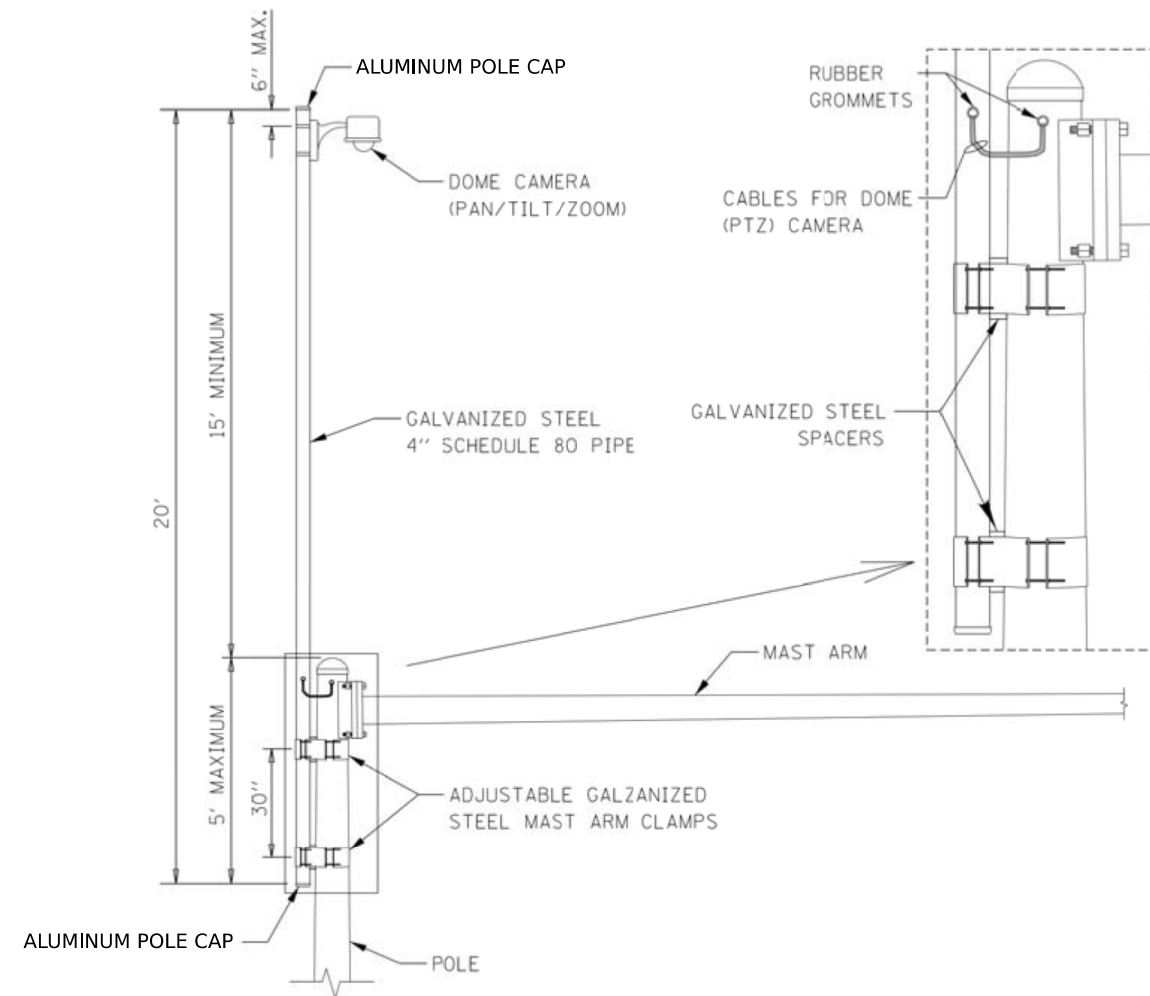
USER NAME = \$USERS	DESIGNED -	REVISED -
PLOT SCALE = \$SCALES	DRAWN - CMN	REVISED -
PLOT DATE = \$DATES	CHECKED - THG	REVISED -
	DATE - 07-09-2024	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING STREET LIGHTING LAYOUT  
FOR INFORMATION ONLY  
SCALE: NONE SHEET 8 OF 8 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1503	21-00339-00-CH	KANE	132	115
CONTRACT NO. 61J91				
ILLINOIS FED. AID PROJECT				



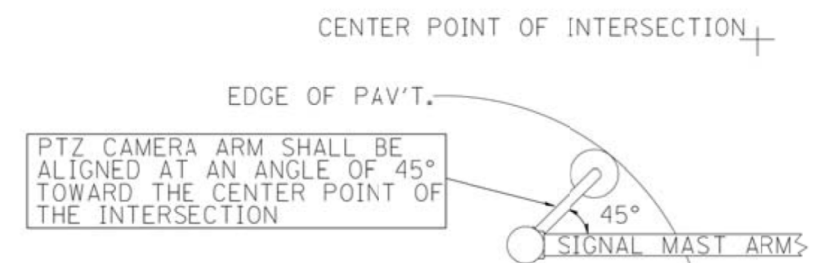


### CAMERA MOUNTING ASSEMBLY DETAIL

(NOT TO SCALE)

#### NOTES:

- THE MAST ARM IS TAPERED.
- INSTALL EXTENSION POLE VERTICAL AND PLUMB BY MODIFYING/INSTALLING BRACKETS AS NECESSARY. ADDITIONAL SPACERS REQUIRED ARE INCLUDED IN THE COST OF THE CAMERA MOUNTING ASSEMBLY OF THE TYPE SPECIFIED.
- SPACERS ARE TO BE INTEGRATED OR MANUFACTURED WITH THE MAST ARM BRACKETS



### PTZ CAMERA MOUNTING DETAILS (SECONDARY LOCATION) (NO SCALE)

MODEL: SUPPLEMENTAL  
FILE NAME: ST-116

USER NAME = \$USERS	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = \$\$SCALE\$	CHECKED -	REVISED -
PLOT DATE = \$DATES	DATE - 07-09-2024	REVISED -

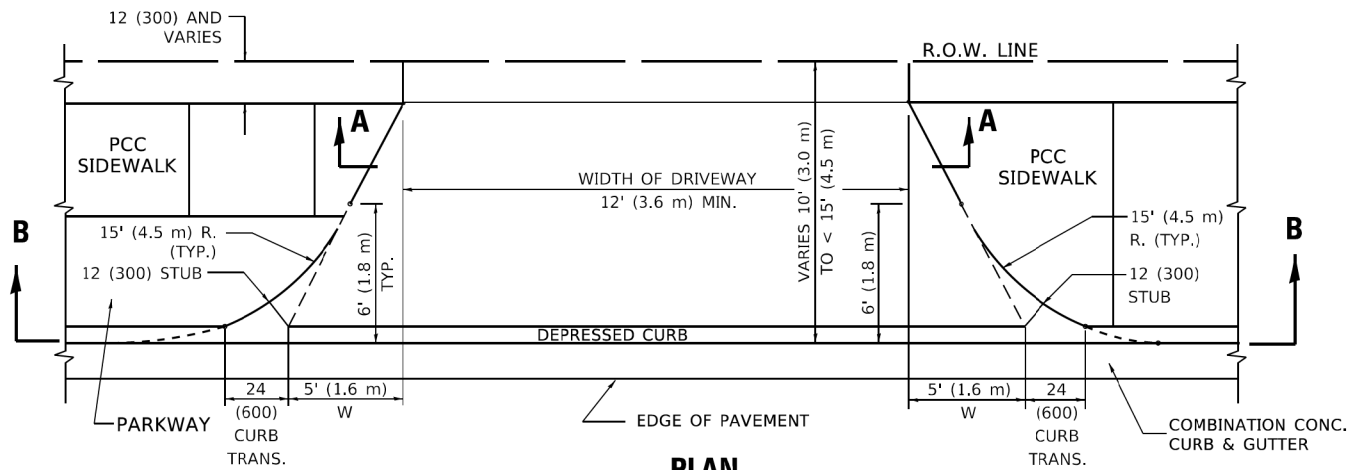
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

#### CAMERA MOUNTING DETAIL

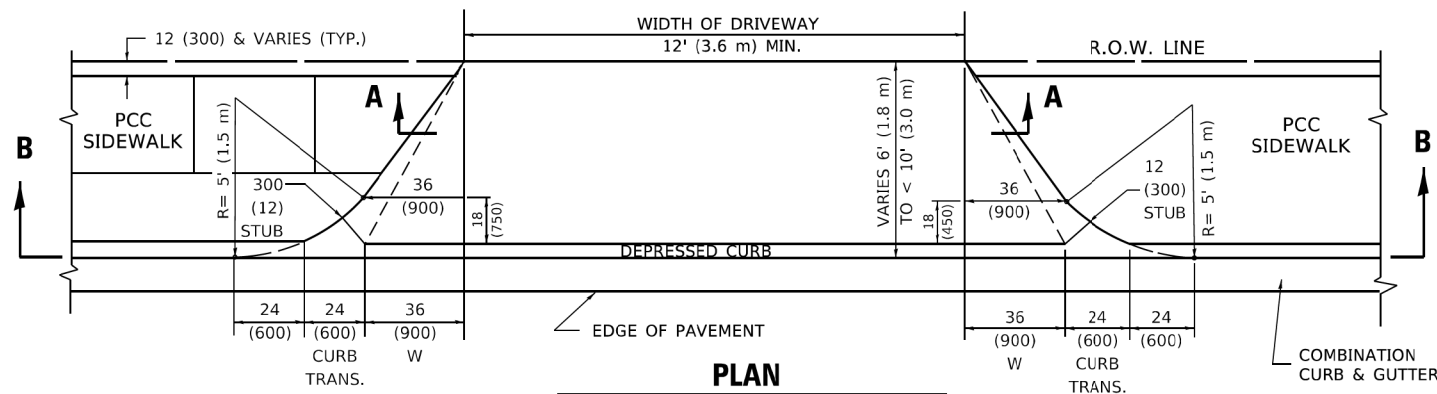
SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1503	21-00339-00-CH	KANE	132	116
CONTRACT NO. 61J91				
ILLINOIS FED. AID PROJECT				

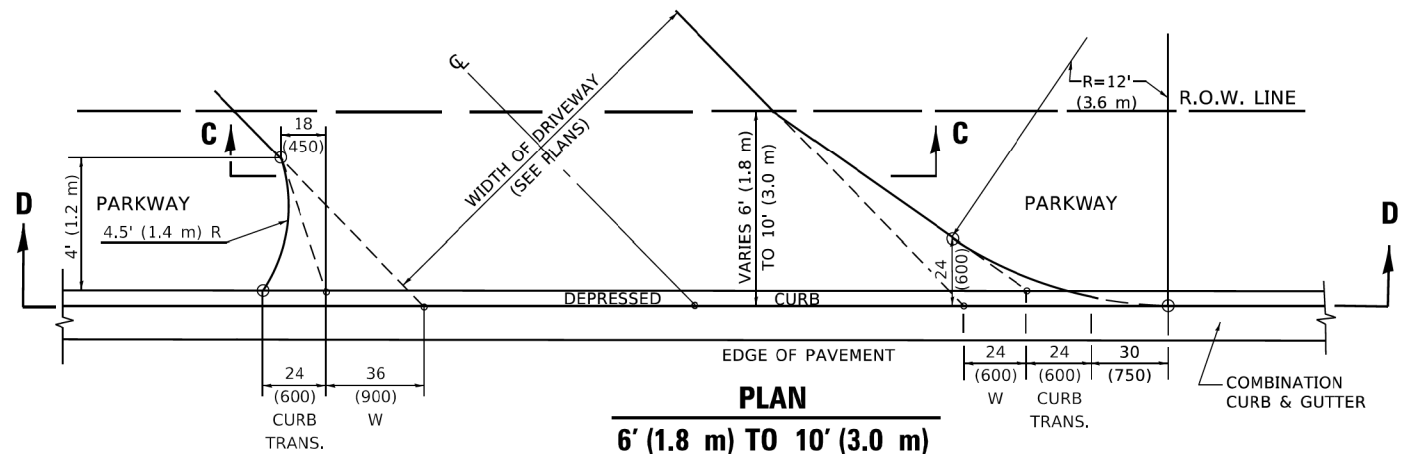




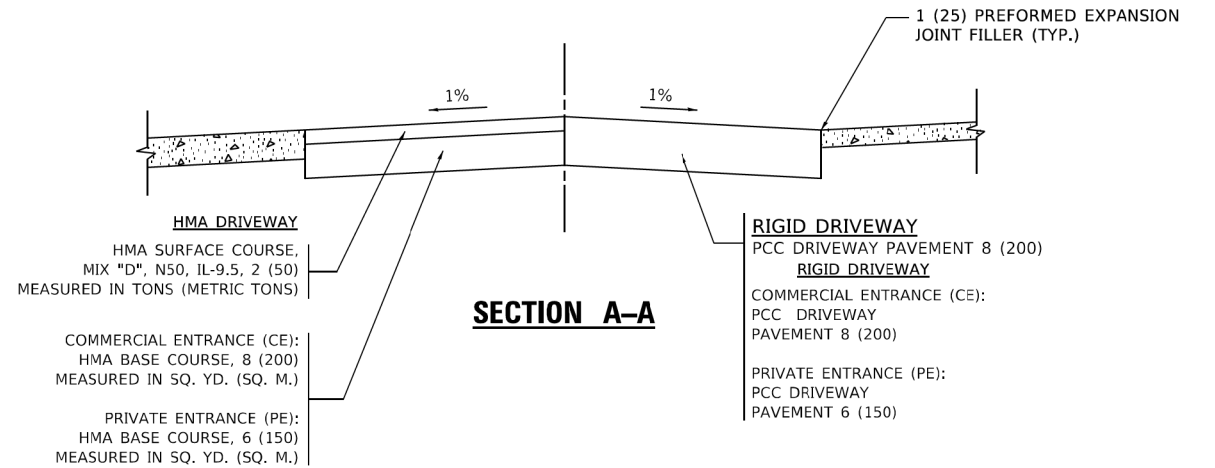
**PLAN**  
10' (3.0 m) TO < 15' (4.5 m)



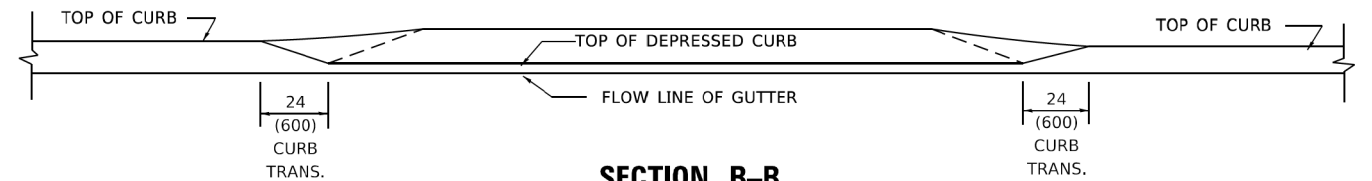
**PLAN**  
6' (1.8 m) TO < 10' (3.0 m)



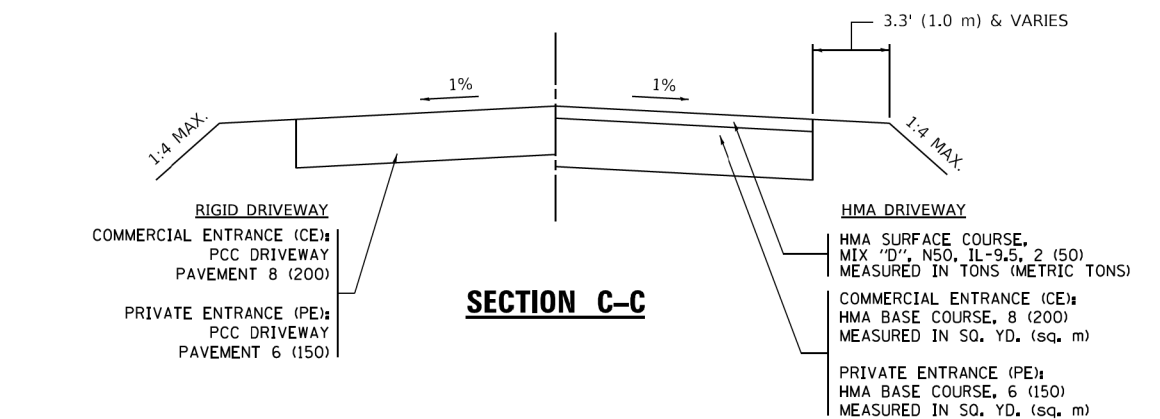
**PLAN**  
6' (1.8 m) TO 10' (3.0 m)



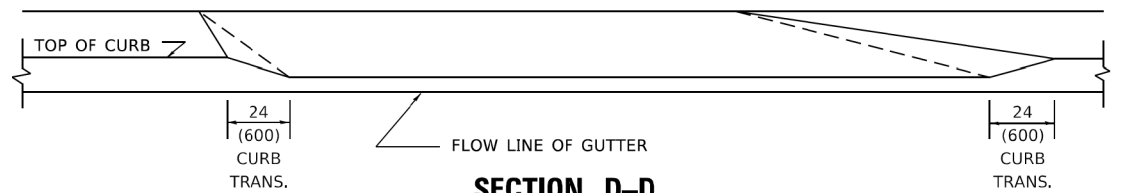
**SECTION A-A**



**SECTION B-B**



**SECTION C-C**



**SECTION D-D**

**GENERAL NOTES**

- DRIVEWAY SLOPES, LOCATIONS, & GEOMETRIC LAYOUT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "HANDBOOK FOR POLICY ON PERMITS FOR ACCESS DRIVEWAYS TO STATE HIGHWAYS". FOR FURTHER LAYOUT REQUIREMENTS, REFER TO ILLUSTRATION 10 IN THE PERMIT HANDBOOK. WHERE SIDEWALKS EXIST, DRIVEWAYS SHALL BE REPLACED WITH RIGID PAVEMENT. WHERE NO SIDEWALKS EXIST, DRIVEWAYS SHALL BE REPLACED IN KIND. SIDEWALK CROSS SLOPE THRU DRIVEWAY AREA TO BE A MAXIMUM OF 1:50.
- WHEN THE DISTANCE BETWEEN R.O.W. AND THE BACK OF CURB IS EQUAL TO OR LESS THAN 8' (2.4 m), THE PCC SIDEWALK SHALL EXTEND TO THE BACK OF CURB.
- "W" VARIES FROM 36 (900) TO 5' (1.5 m) PROPORTIONAL TO THE LENGTH (L), FROM 6' (1.8 m) TO 10' (3 m).

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)  
UNLESS OTHERWISE NOTED.

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

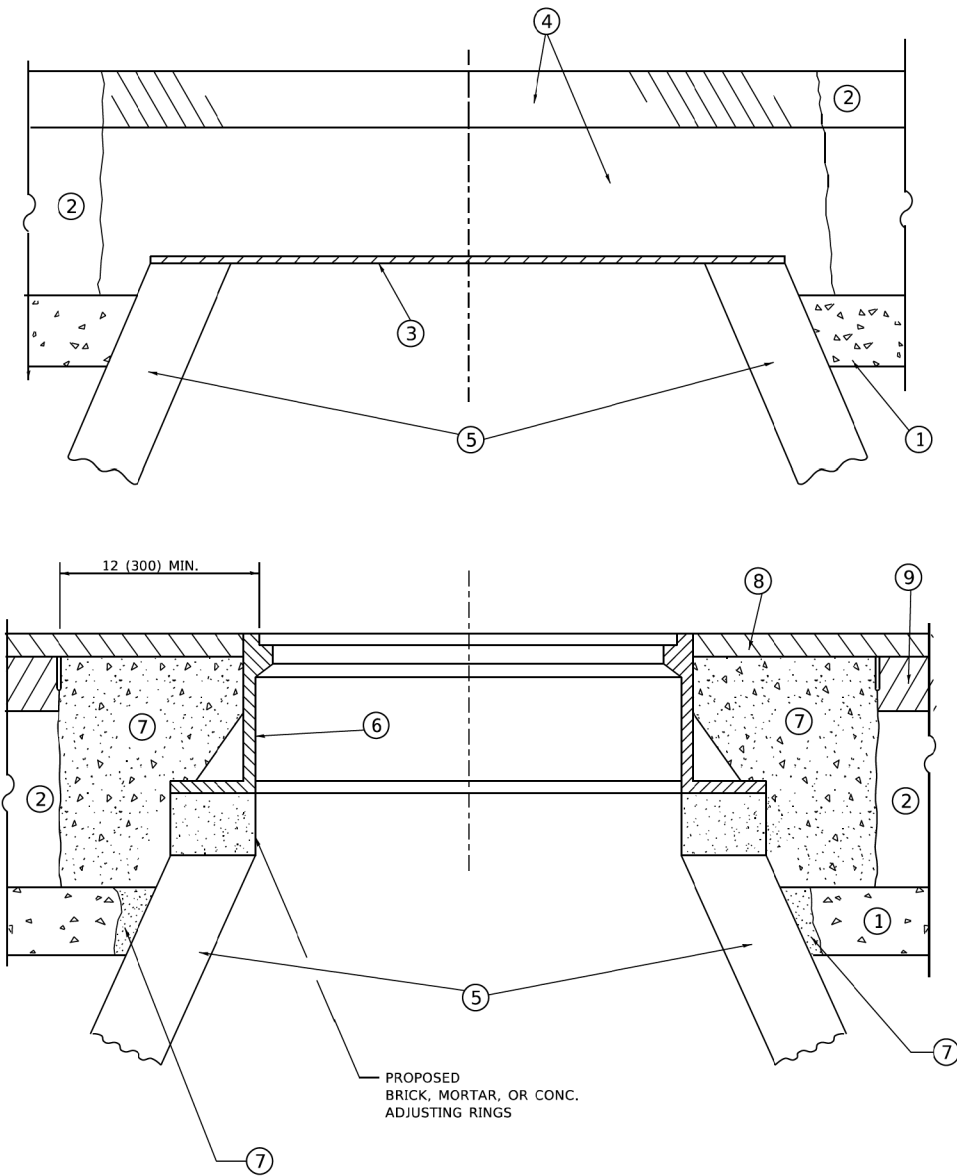
**DISTRICT ONE DETAILS  
BD-02**

SCALE: NONE SHEET 1 OF 16 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1503	21-00339-00-CH	KANE	132	117
CONTRACT NO. 61J91				
ILLINOIS FED. AID PROJECT				

USER NAME = \$USERS	DESIGNED - R. SHAH	REVISED - R. BORO 01-01-07
PLOT SCALE = \$SCALES	DRAWN -	REVISED - R. BORO 09-06-11
PLOT DATE = \$DATES	CHECKED -	REVISED - K. SMITH 08-27-19
	DATE - 11-06-95	REVISED - K. SMITH 11-18-22





**DETAILS FOR FRAMES AND LIDS ADJUSTMENT  
WITH MILLING**

**NOTES**

- EXISTING BROKEN FRAMES AND LIDS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SHALL BE REPLACED AS DIRECTED BY THE ENGINEER. REPLACEMENT FRAMES AND LIDS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED.
- IF THE EXISTING LIDS ARE OPEN, THE FRAME WILL BE ADJUSTED TO THE ELEVATION OF THE MILLED PAVEMENT SURFACE PRIOR TO THE MILLING OPERATION. THE FRAME WILL NOT BE REMOVED AND COVERED BY THE METAL PLATE.
- CITY OF CHICAGO CASTINGS ARE THE PROPERTY OF THE CITY AND THE CONTRACTOR SHALL NOTIFY THE CITY FOR REMOVAL AND DISPOSITION OF THE CASTINGS.
- THE METAL PLATE USED TO COVER THE STRUCTURE SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.
- THE CONTRACTOR SHALL REMOVE ALL TRAFFIC CONTROL DEVICES BY THE END OF EACH WORK SHIFT.

**CONSTRUCTION PROCEDURES**

**STAGE 1 (BEFORE PAVEMENT MILLING)**

- REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE.
- REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
- COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE.
- BACKFILL WITH CRUSHED STONE AND HMA SURFACE MIX APPROVED BY THE ENGINEER. (MIN. 3 (80) HMA TO REMAIN AFTER MILLING).

**STAGE 2 (AFTER PAVEMENT MILLING)**

- REMOVE THE HMA SURFACE MIX AND CRUSHED STONE.
- INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.
- THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS PP-2\* CONCRETE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.

\* UNLESS OTHERWISE SPECIFIED IN THE PLANS.

THE PROCEDURE EXPLAINED ABOVE SHALL CONFORM TO THE APPLICABLE PORTIONS OF SECTIONS 353, 406, 602, AND 603 OF THE STANDARD SPECIFICATIONS EXCEPT THAT "THE CONTRACTOR SHALL ADJUST THE STRUCTURES TO THE FINISHED PAVEMENT ELEVATION NO MORE THAN 5 CALENDAR DAYS PRIOR TO PLACEMENT OF THE FINAL LIFT OF SURFACE UNLESS APPROVED BY THE ENGINEER."

**LEGEND**

- |  |                               |
|--|-------------------------------|
| ① SUB-BASE GRANULAR MATERIAL                 | ⑥ FRAME AND LID (SEE NOTES)   |
| ② EXISTING PAVEMENT                          | ⑦ CLASS PP-2* CONCRETE        |
| ③ 36 (900) DIAMETER METAL PLATE              | ⑧ PROPOSED HMA SURFACE COURSE |
| ④ PROPOSED CRUSHED STONE AND HMA SURFACE MIX | ⑨ PROPOSED HMA BINDER COURSE  |
| ⑤ EXISTING STRUCTURE                         |                               |

**LOCATION OF STRUCTURES**

THE CONTRACTOR WILL BE REQUIRED TO KEEP A RECORD OF THE LOCATIONS OF THE BURIED STRUCTURES ACCORDING TO THE STATION AND DISTANCE LEFT OR RIGHT OF THE CENTERLINE OF PAVEMENT. UPON COMPLETION OF THE WORK, THE CONTRACTOR WILL DELIVER THE RECORD TO THE ENGINEER.

**BASIS OF PAYMENT**

- REMOVING FRAMES AND LIDS ON DRAINAGE AND UTILITY STRUCTURES IN THE PAVEMENT PRIOR TO MILLING, AND ADJUSTING TO FINAL GRADE PRIOR TO PLACING THE SURFACE COURSE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR "FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)."
- THIS WORK WILL NOT BE PAID FOR WHEN DRAINAGE AND UTILITY STRUCTURES ARE SPECIFIED FOR PAYMENT AS STRUCTURE RECONSTRUCTION.
- NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY.
- WHEN STRUCTURES ARE TO BE ADJUSTED OR RECONSTRUCTED, THE LOWERING AND RAISING OF THE FRAMES AND LIDS WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE CORRESPONDING PAY ITEM.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

MODEL, SPODE NAMES  
FILE NAMES, SHEETS



USER NAME = \$USERS	DESIGNED - R. SHAH	REVISED - R. BORO 03-09-11
	DRAWN -	REVISED - R. BORO 12-06-11
PLOT SCALE = \$\$SCALE\$	CHECKED -	REVISED - K. SMITH 11-18-22
PLOT DATE = \$DATES	DATE - 10-25-94	REVISED - K. SMITH 09-15-23

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE DETAILS  
BD-08**

SCALE: NONE SHEET 2 OF 16 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1503	21-00339-00-CH	KANE	132	118
CONTRACT NO. 61J91				
ILLINOIS FED. AID PROJECT				

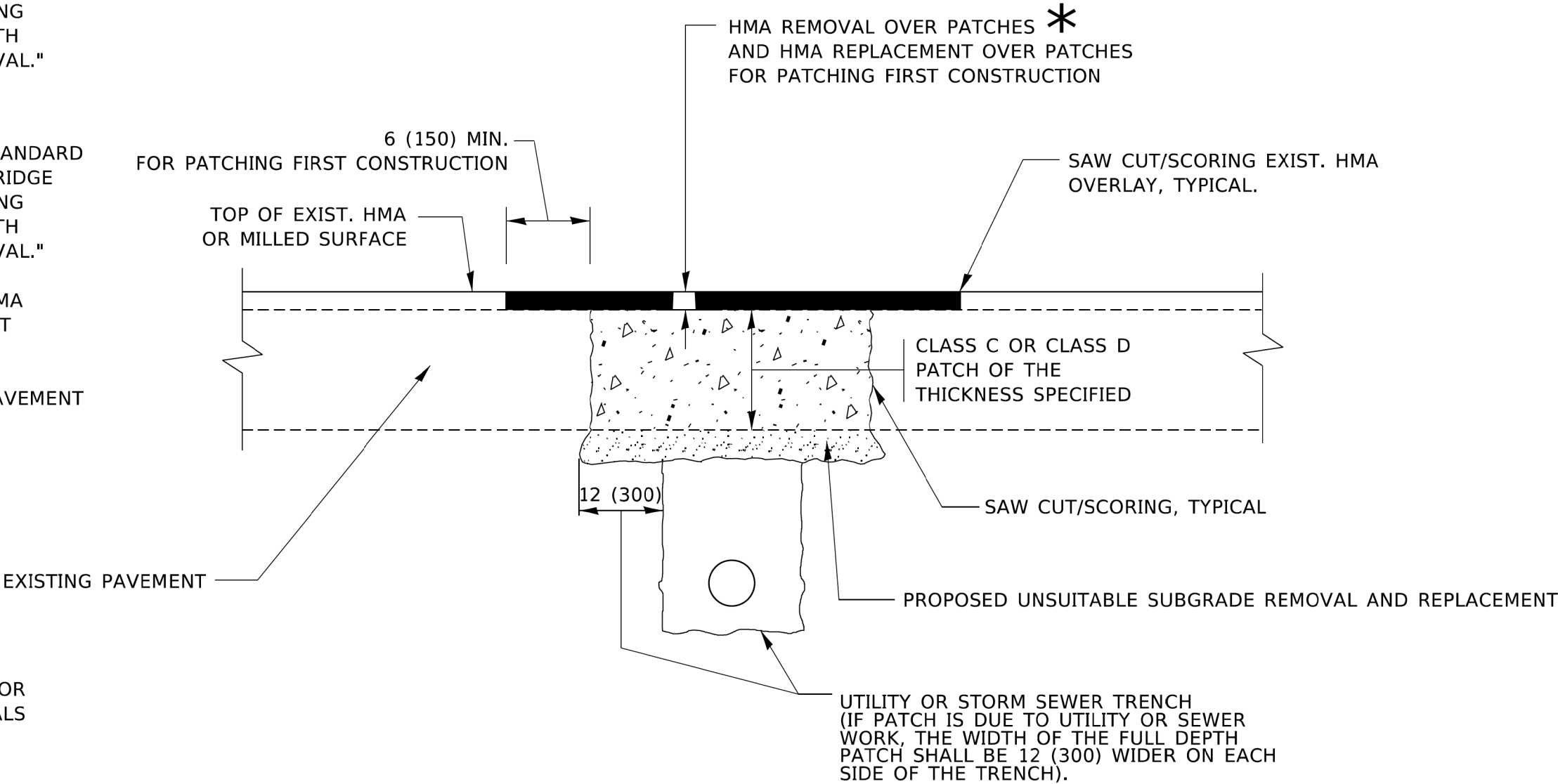


METHOD OF MEASUREMENT

REFER TO SECTION 442 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND THE RECURRING SPECIAL PROVISION "PATCHING WITH HOT-MIX ASPHALT OVERLAY REMOVAL."

BASIS OF PAYMENT

- 1. REFER TO SECTION 442 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND THE RECURRING SPECIAL PROVISION "PATCHING WITH HOT-MIX ASPHALT OVERLAY REMOVAL."
- 2. SAW CUT/SCORING OF EXISTING HMA OVERLAY IS INCLUDED IN THE COST OF PAVEMENT PATCHING.
- 3. SAW CUT/SCORING OF EXISTING PAVEMENT IS INCLUDED IN THE COST OF PAVEMENT PATCHING.



\* SEE TYPICAL SECTIONS FOR THICKNESS AND MATERIALS

SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

- 1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
- 2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
- 3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

SEQUENCE OF CONSTRUCTION (MILLING FIRST)

- 1. MILL HMA FIRST IF THERE IS AT LEAST 4½ INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
- 2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

MODEL NUMBER  
FILE NAME: ST-22



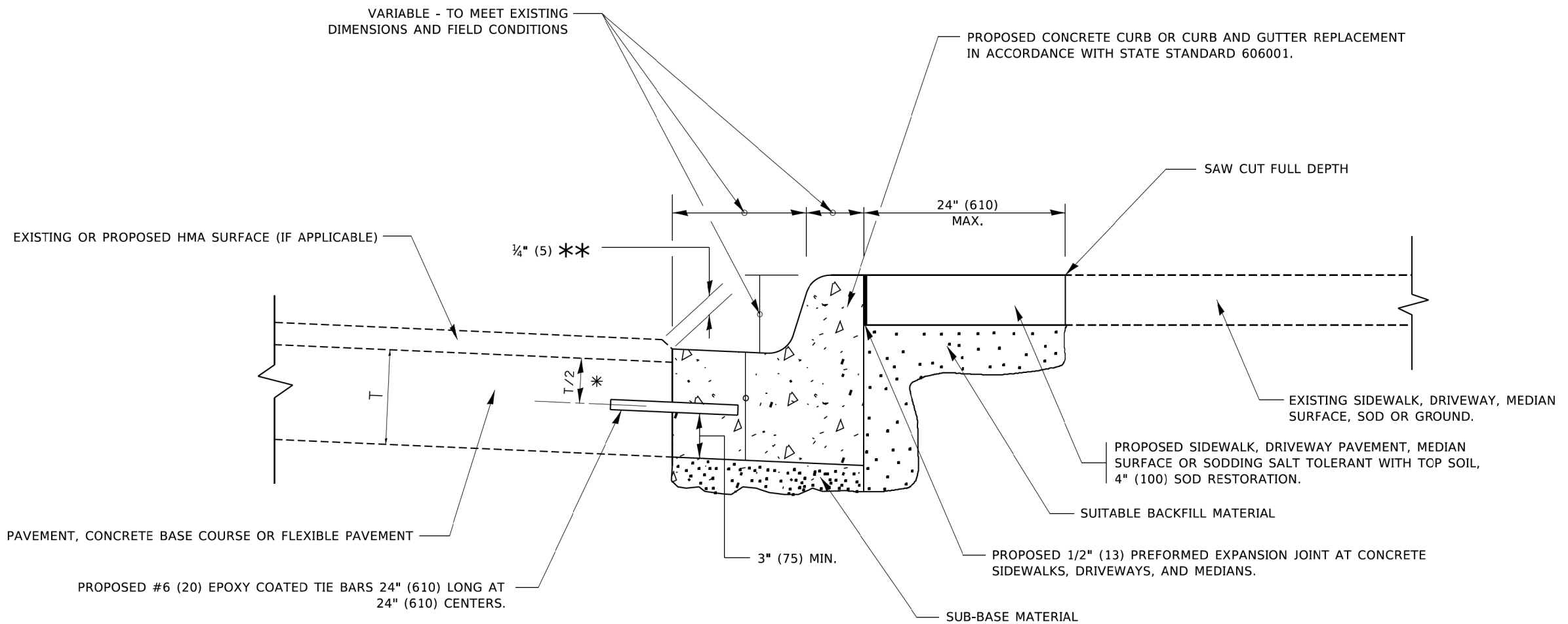
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	DRAWN -	REVISED - R. BORO 09-04-07
PLOT SCALE = \$SCALE\$	CHECKED -	REVISED - K. ENG 10-27-08
PLOT DATE = \$DATES	DATE - 10-25-94	REVISED - K. SMITH 11-18-22

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE DETAILS			
BD-22			
SCALE: NONE	SHEET 3	OF 16 SHEETS	STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1503	21-00339-00-CH	KANE	132	119
CONTRACT NO. 61J91				
ILLINOIS FED. AID PROJECT				





- \* 3" (75) MINIMUM FROM TOP AND BOTTOM OF THE CONCRETE PAVEMENT OR BASE COURSE.
- \*\* IF THE FINAL SURFACE OF THE PAVEMENT IS CONCRETE, THE GUTTER IS TO BE FLUSH WITH THE PAVEMENT.

# CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

MODEL, SYMBOL NAMES  
FILE NAMES, STYLES



USER NAME = \$USERS	DESIGNED - A. HOUSEH	REVISED - A. ABBAS 03-21-97
	DRAWN -	REVISED - M. GOMEZ 01-22-01
PLOT SCALE = \$SCALE\$	CHECKED -	REVISED - R. BORO 12-15-09
PLOT DATE = \$DATES	DATE - 03-11-94	REVISED - K. SMITH 07-11-19

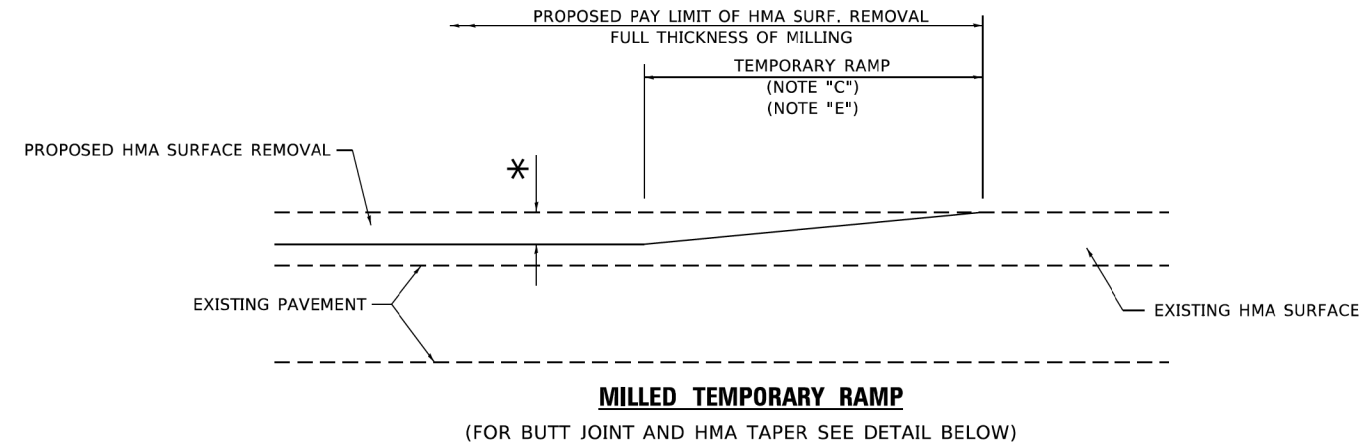
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE DETAILS  
BD-24

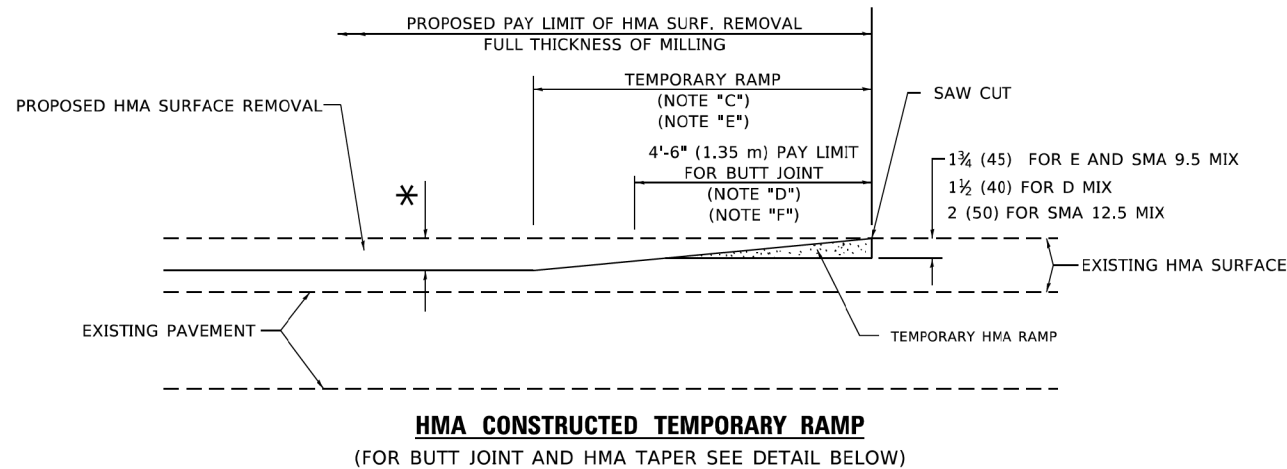
SCALE: NONE SHEET 4 OF 16 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1503	21-00339-00-CH	KANE	132	120
CONTRACT NO. 61J91				
ILLINOIS FED. AID PROJECT				



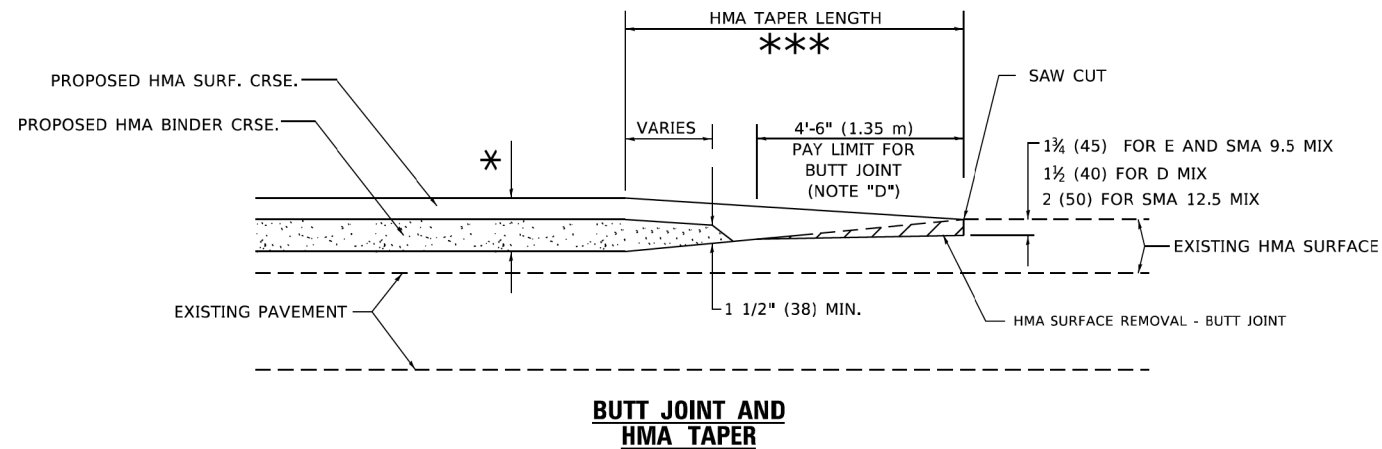


**OPTION 1**

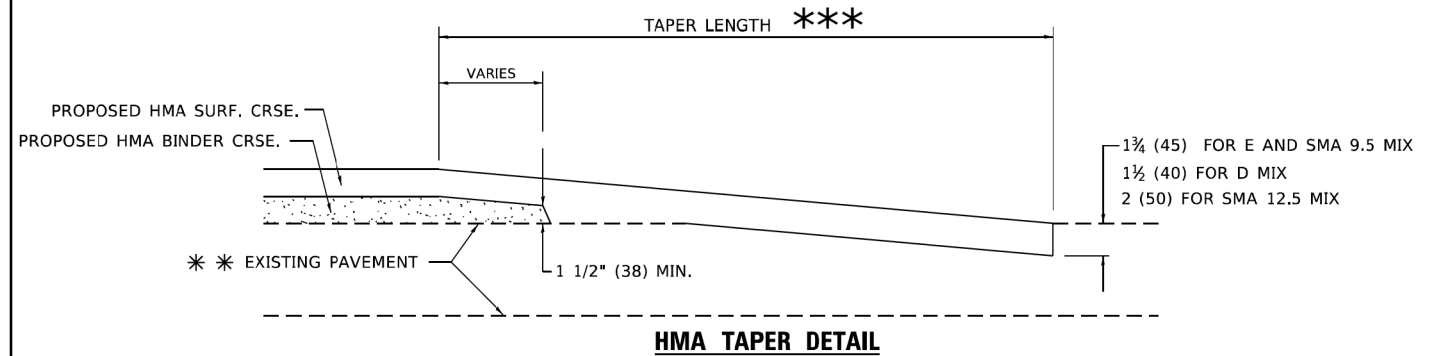
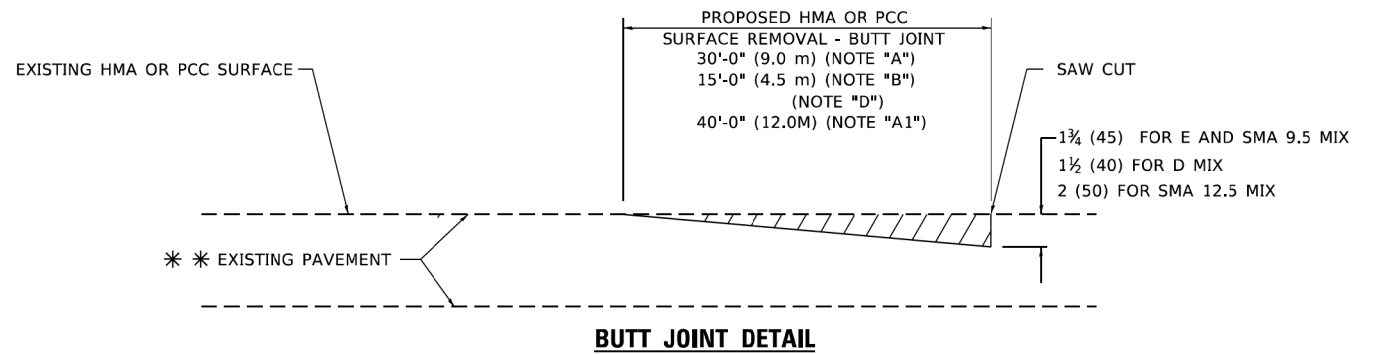


**OPTION 2**

**TYPICAL TEMPORARY RAMP**



**TYPICAL BUTT JOINT AND HMA TAPER  
FOR MILLING AND RESURFACING**



**TYPICAL BUTT JOINT AND HMA TAPER  
FOR RESURFACING ONLY**

\*\*\* PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

**GENERAL NOTES**

- MAINLINE ARTERIAL ROADWAYS AND MAJOR SIDE ROADS.
- INTERSTATES
- MINOR SIDE ROADS.
- THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
- THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
- TAPER THE TEMP. RAMP AT A RATE OF 3' - 4" (1.02m) PER 1 INCH (25 mm) OF MILLING THICKNESS.  
\* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
- SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".  
\*\*\* 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")  
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

**BASIS OF PAYMENT**

- THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL- BUTT JOINT".
- THE TEMPORARY RAMP AND SAW CUT SHALL BE INCLUDED IN THE UNIT COST FOR HMA OR PCC SURFACE REMOVAL-BUTT JOINT.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

MODEL, SHEET NAMES  
FILE NAMES, SHEETS



Stanley Consultants INC.  
8501 West Higgins Road, Suite 170, Chicago, Illinois 60631-2801  
www.stanleyconsultants.com  
Main Title Registration No. 184-021533

USER NAME = \$USERS	DESIGNED - M. DE YONG	REVISED - A. ABBAS 03-21-97
	DRAWN -	REVISED - M. GOMEZ 04-06-01
PLOT SCALE = \$SCALE\$	CHECKED -	REVISED - R. BORO 01-01-07
PLOT DATE = \$DATES	DATE - 06-13-90	REVISED - K. SMITH 11-18-22

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE DETAILS  
BD-32

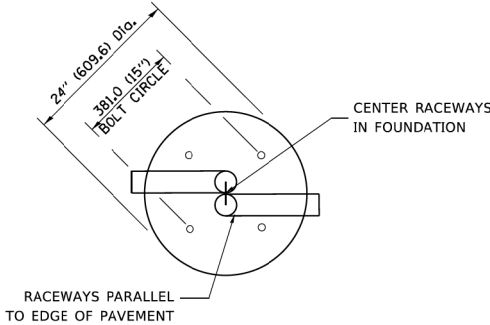
SCALE: NONE SHEET 5 OF 16 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1503	21-00339-00-CH	KANE	132	121
CONTRACT NO. 61J91				
ILLINOIS FED. AID PROJECT				

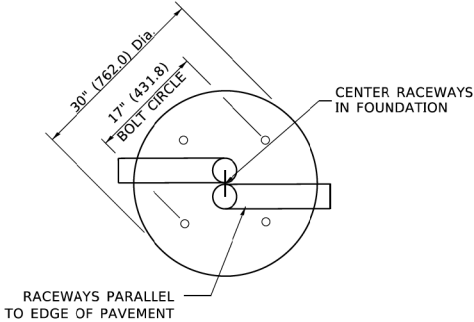


LIGHT POLE FOUNDATION DEPTH TABLE  
 40 FT. (12.192 m) TO 47.5 FT. (14.478 m) MOUNTING HEIGHT

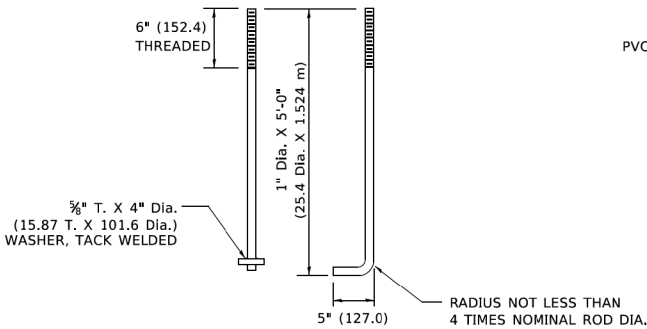
SOIL CONDITIONS	DESIGN DEPTH "D" OF FOUNDATION	
	SINGLE ARM POLE	TWIN ARM POLE
SOFT CLAY Qu = 0.375 TON/SQ. FT.	13'-0" (3.96 m)	15'-0" (4.57 m)
MEDIUM CLAY Qu = 0.75 TON/SQ.FT	9'-6" (2.09 m)	10'-9" (3.23 m)
STIFF CLAY Qu = 1.50 TON/SQ. FT.	7'-0" (2.13 m)	8'-0" (2.44 m)
LOOSE SAND φ = 34°	9'-0" (2.74 m)	10'-0" (3.05 m)
MEDIUM SAND φ = 37.5°	8'-3" (2.52 m)	9'-0" (2.74 m)
DENSE SAND φ = 40°	7'-9" (2.36 m)	9'-0" (2.74 m)



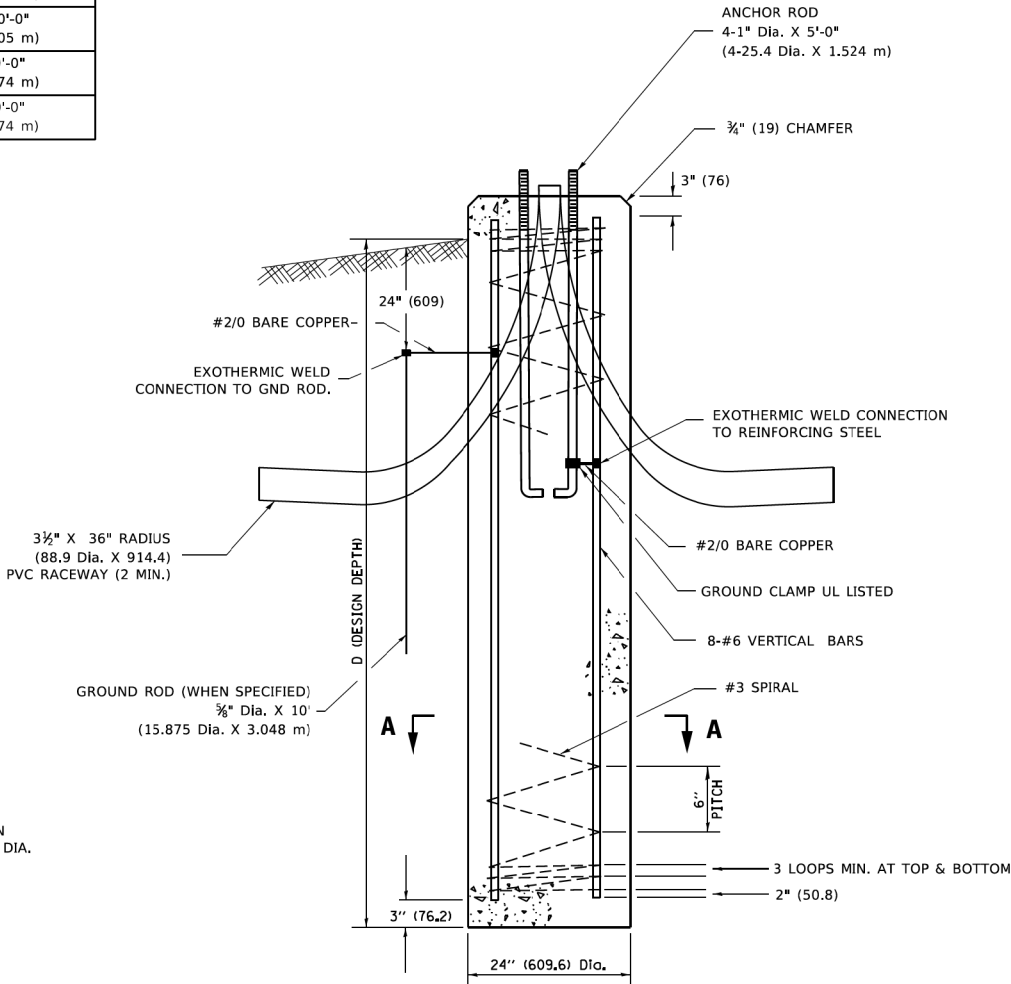
TOP VIEW



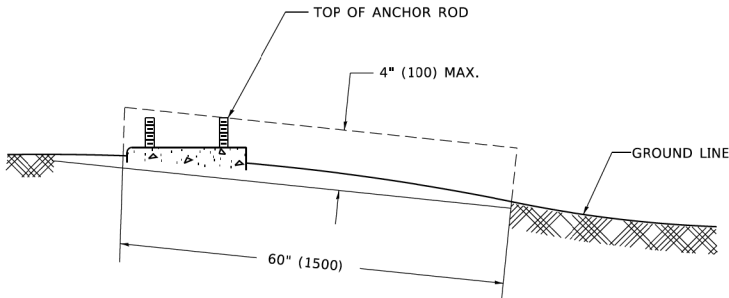
TOP VIEW



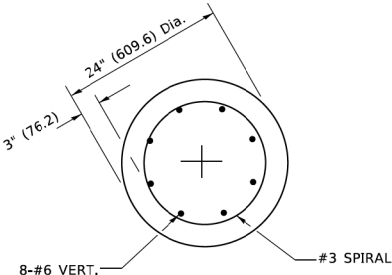
ANCHOR ROD DETAIL



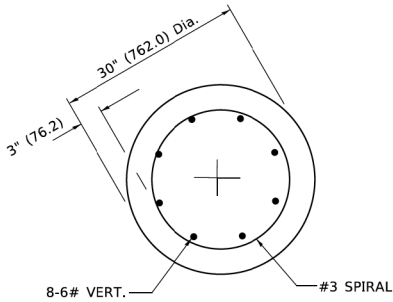
FOUNDATION DETAIL



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 DH, 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 23#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 ERECTED.
- THE RACEWAYS SHALL PROJECT 1" (25.4 mm) ABOVE THE TOP OF THE FOUNDATION.

MODEL, SHEET NAMES  
 FILE NAMES, SHEETS



USER NAME	= \$USERS	DESIGNED	-	REVISED	-	04-22-02
DRAWN	-	CHECKED	-	REVISED	-	
PLOT SCALE	= \$SCALES	DATE	-	REVISED	-	
PLOT DATE	= \$DATES					

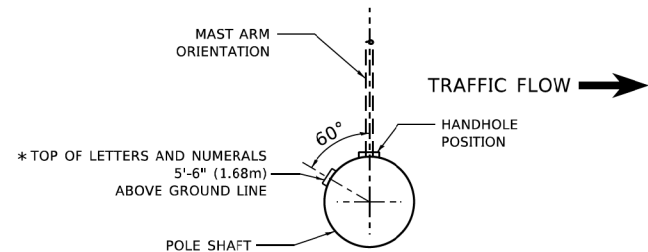
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

DISTRICT ONE DETAILS  
 BE-301

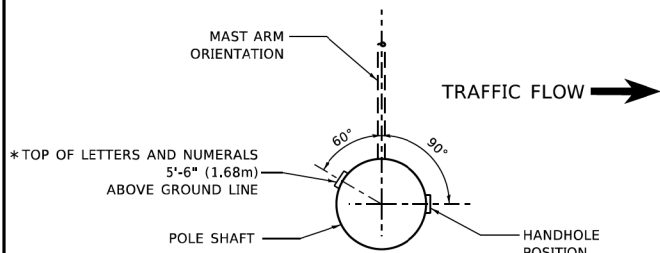
SCALE: NONE SHEET 6 OF 16 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1503	21-00339-00-CH	KANE	132	122
CONTRACT NO. 61J91				
ILLINOIS FED. AID PROJECT				

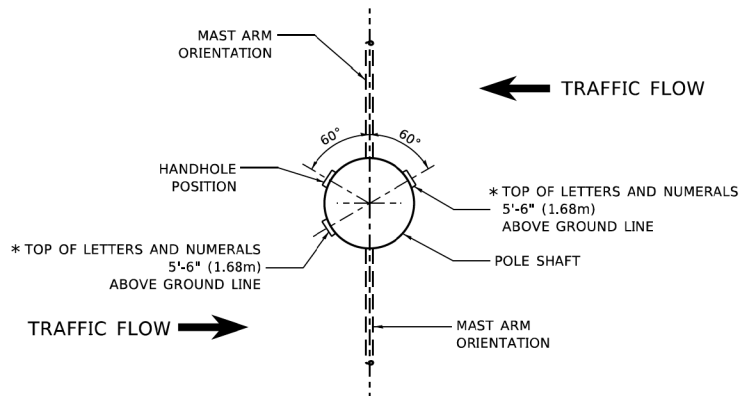




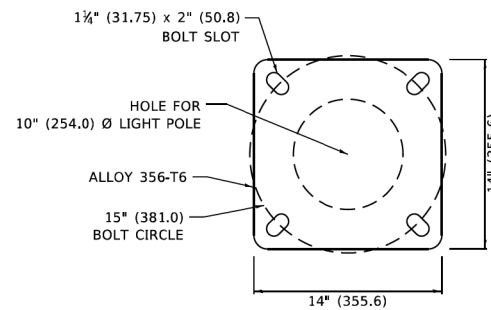
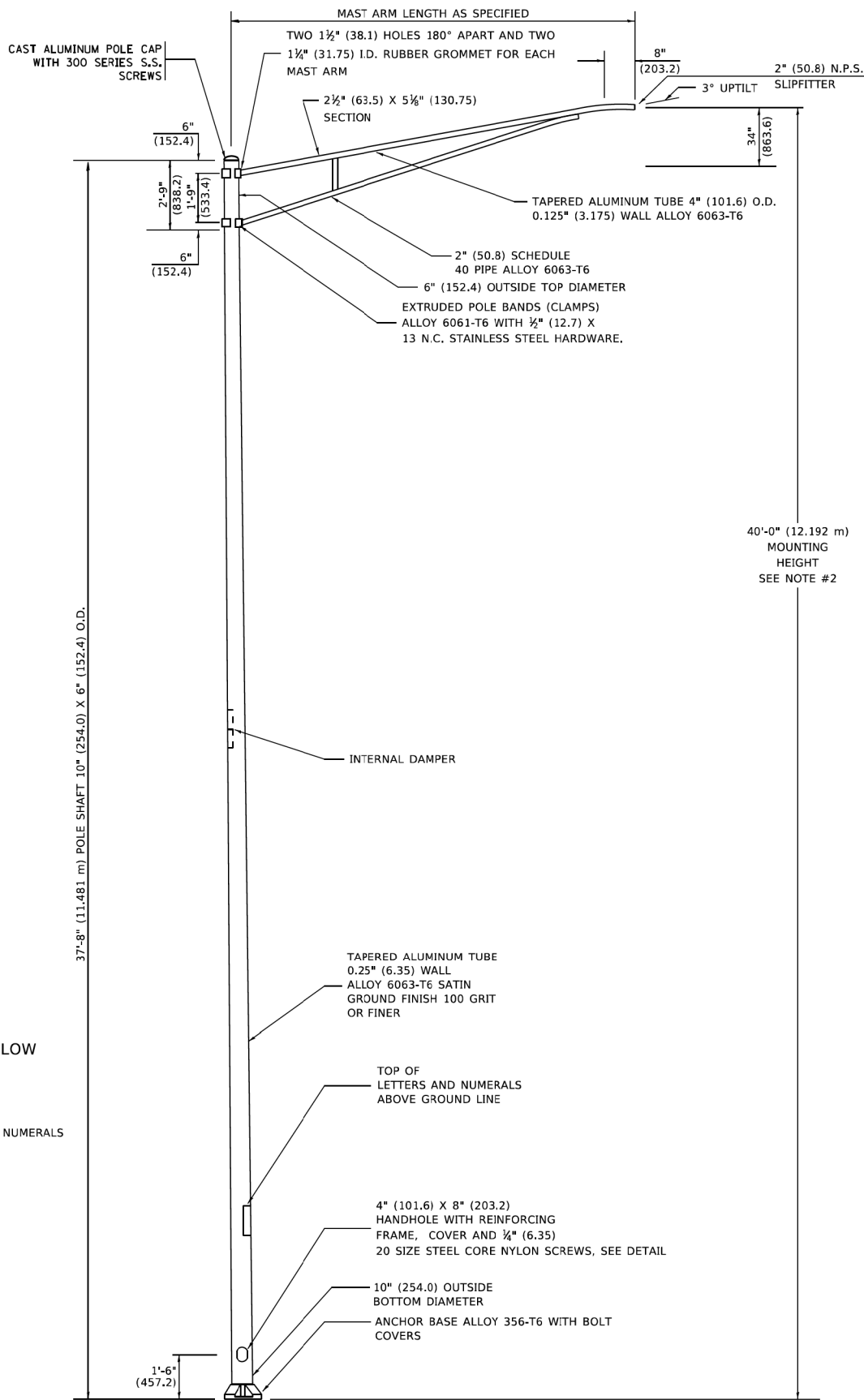
**POSITION OF HANDHOLE AND  
POLE NUMBER FOR SINGLE  
MAST ARM POLES MOUNTED  
ON BRIDGE PARAPET OR  
BARRIER WALL**



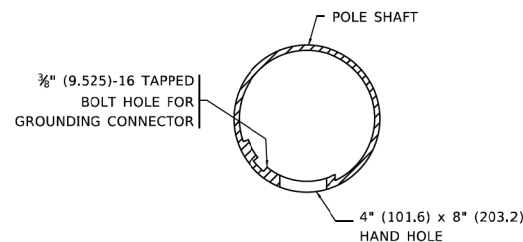
**POSITION OF HANDHOLE AND  
POLE NUMBER FOR SINGLE  
MAST ARM POLES**



**POSITION OF HANDHOLE AND  
POLE NUMBER FOR TWIN  
MAST ARM POLES**



**LIGHT POLE BASE PLATE DETAIL**  
15 INCH (381.0) BOLT CIRCLE



**HANDHOLE DETAIL**  
(N.T.S.)

**NOTES**

1. ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
2. MOUNTING HEIGHT IS DEFINED AS THE DISTANCE FROM THE CENTERLINE OF THE TENON TO THE BOTTOM OF THE ANCHOR BASE.
3. THE LIGHT POLE WILL MEET AASHTO DESIGN CRITERIA AS SPECIFIED.
4. THE INSTALLING CONTRACTOR WILL PROVIDE A UL LISTED GROUNDING CONNECTOR. BURNDY K2C23, T&B SP4DL OR APPROVED EQUAL.
5. LIGHT POLES WILL NOT BE INSTALLED WITHOUT MAST ARMS AND LUMINAIRES.
6. LIGHT POLES WILL BE SET PLUMB ON THE FOUNDATION WITHOUT THE USE OF LEVELING NUTS, WASHERS OR SHIMS.
7. LIGHTING UNIT IDENTIFICATION NUMBERS SHALL BE INSTALLED BEFORE THE LIGHTING UNIT IS ENERGIZED.

MODEL: SHELDELNAMES  
FILE NAME: SHEETS

**Stanley Consultants INC.**  
8501 West Higgins Road, Suite 750, Chicago, Illinois 60631-2801  
www.stanleyconsultants.com  
EPA Form 104-001533

USER NAME = \$USERS	DESIGNED -	REVISED - R. Tomsons 09-06-00
	DRAWN -	REVISED - R. Tomsons 09-02-03
PLOT SCALE = \$SCALE\$	CHECKED -	REVISED - R. Tomsons 01-18-13
PLOT DATE = \$DATES	DATE - 07-09-2024	REVISED - 06/13/2022

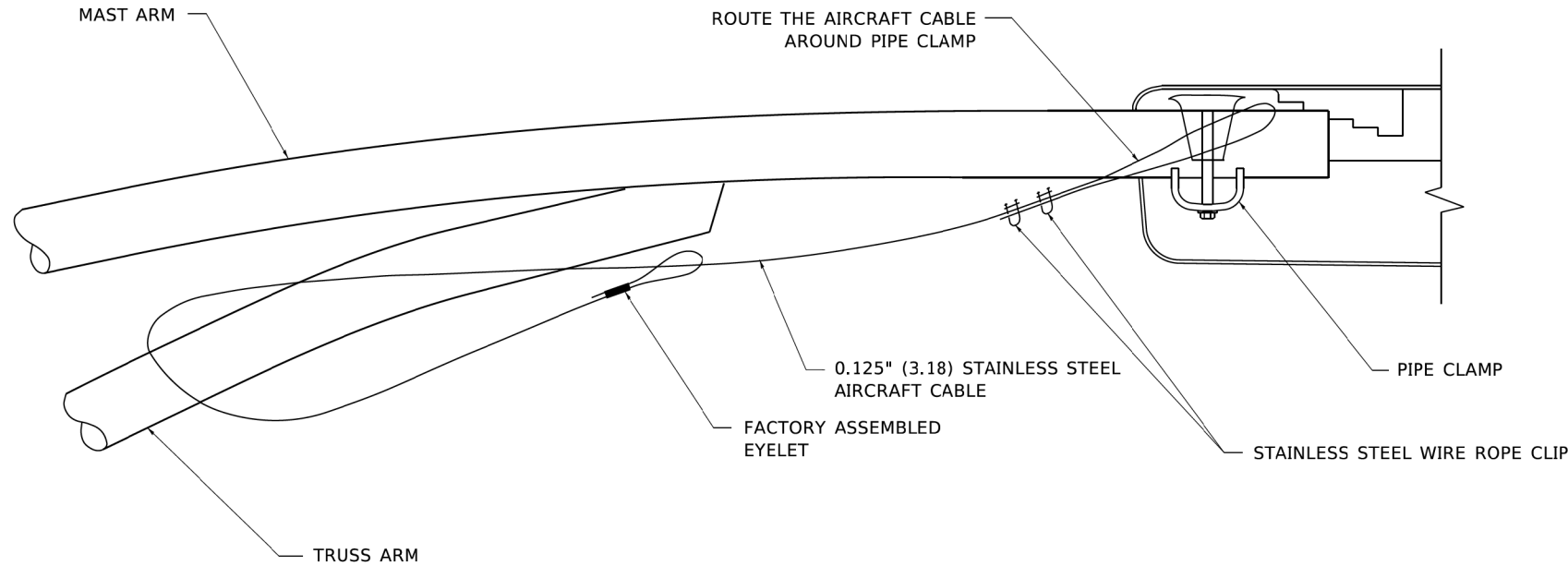
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE DETAILS  
BE-401**

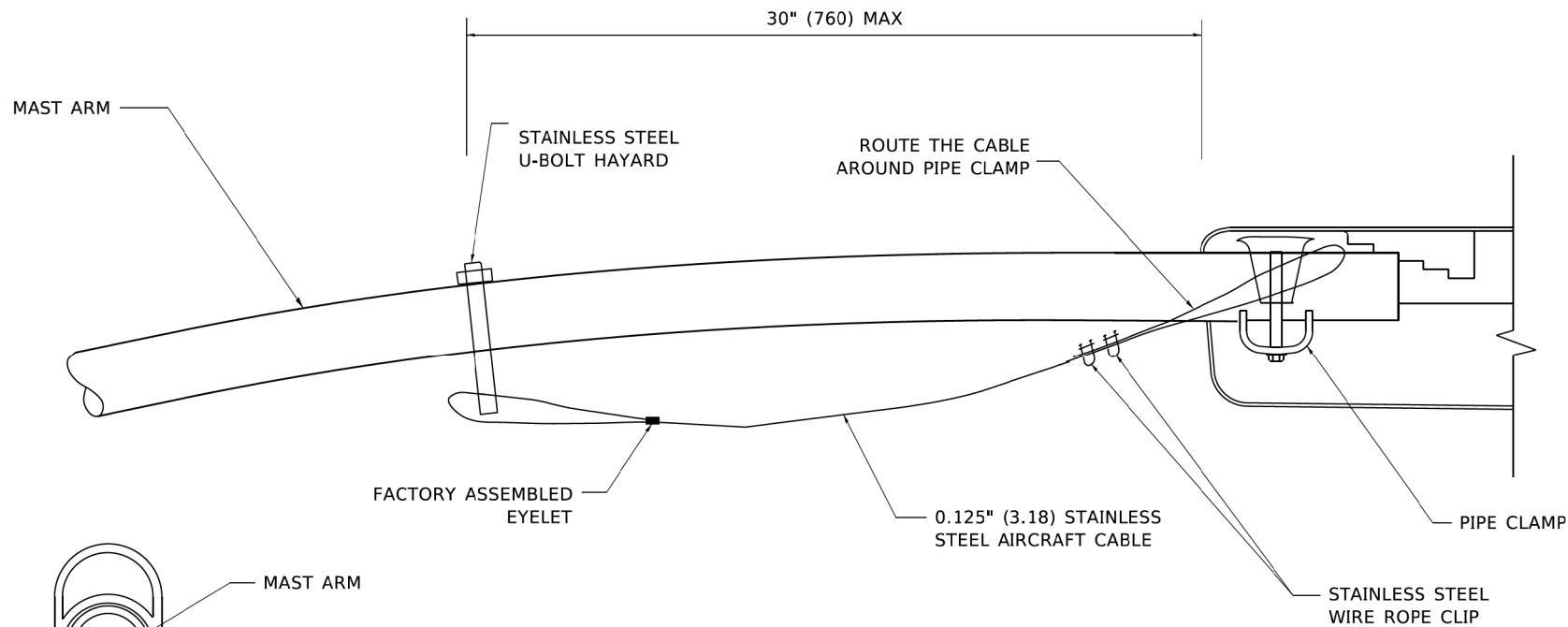
SCALE: NONE SHEET 7 OF 16 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1503	21-00339-00-CH	KANE	132	123
CONTRACT NO. 61J91				
ILLINOIS FED. AID PROJECT				

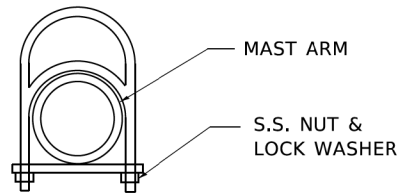




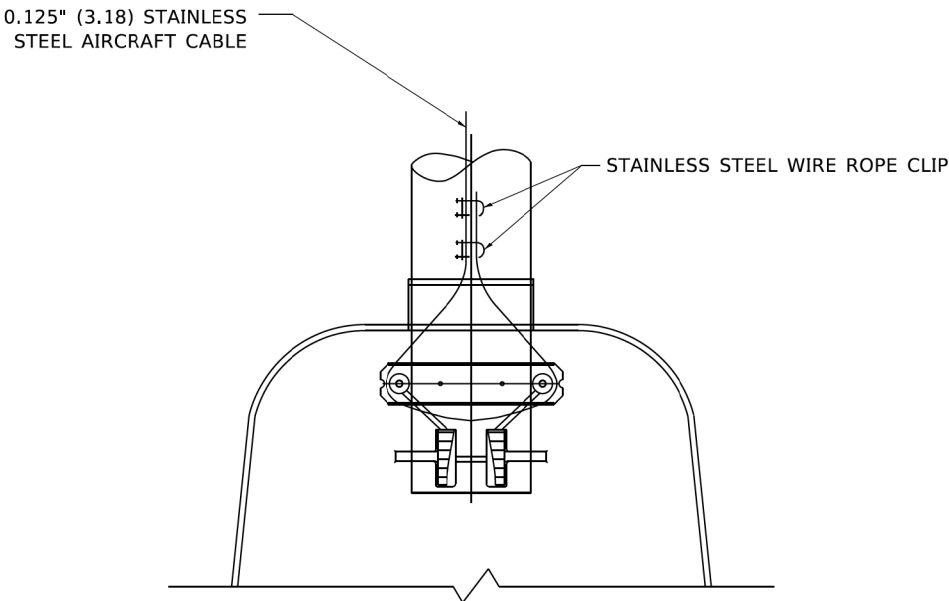
**SIDE VIEW (TRUSS ARM)**  
**N.T.S.**



**SIDE VIEW (SINGLE MEMBER OR DAVIT ARM)**  
**N.T.S.**



**STAINLESS STEEL  
U-BOLT HAYARD**



**BOTTOM VIEW**  
**N.T.S.**

**NOTES:**

1. ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN.
2. CONTRACTOR SHALL ADJUST THE WIRE CLIP TO ELIMINATE ANY SLACK FROM THE WIRE ROPE.
3. THE 0.125" (3.18) STAINLESS STEEL AIRCRAFT CABLE SHALL REMAIN VISIBLE FROM THE GROUND LEVEL.
4. THE BREAKING STRENGTH OF THE CABLE SHALL BE 1700 LBS. MIN.

MODEL: SHELLENAMES  
FILE NAME: SHELLENAMES



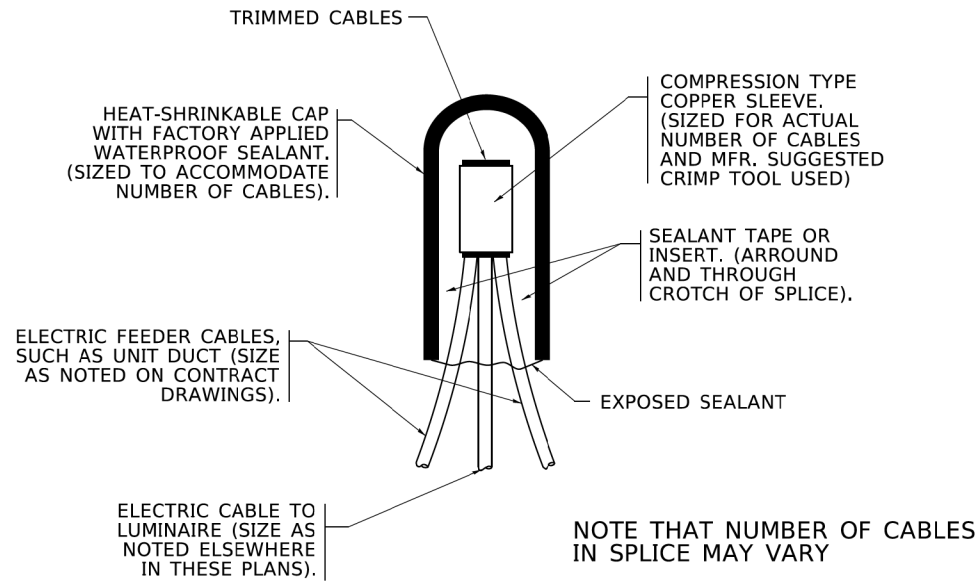
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	DATE - 07-09-2024	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

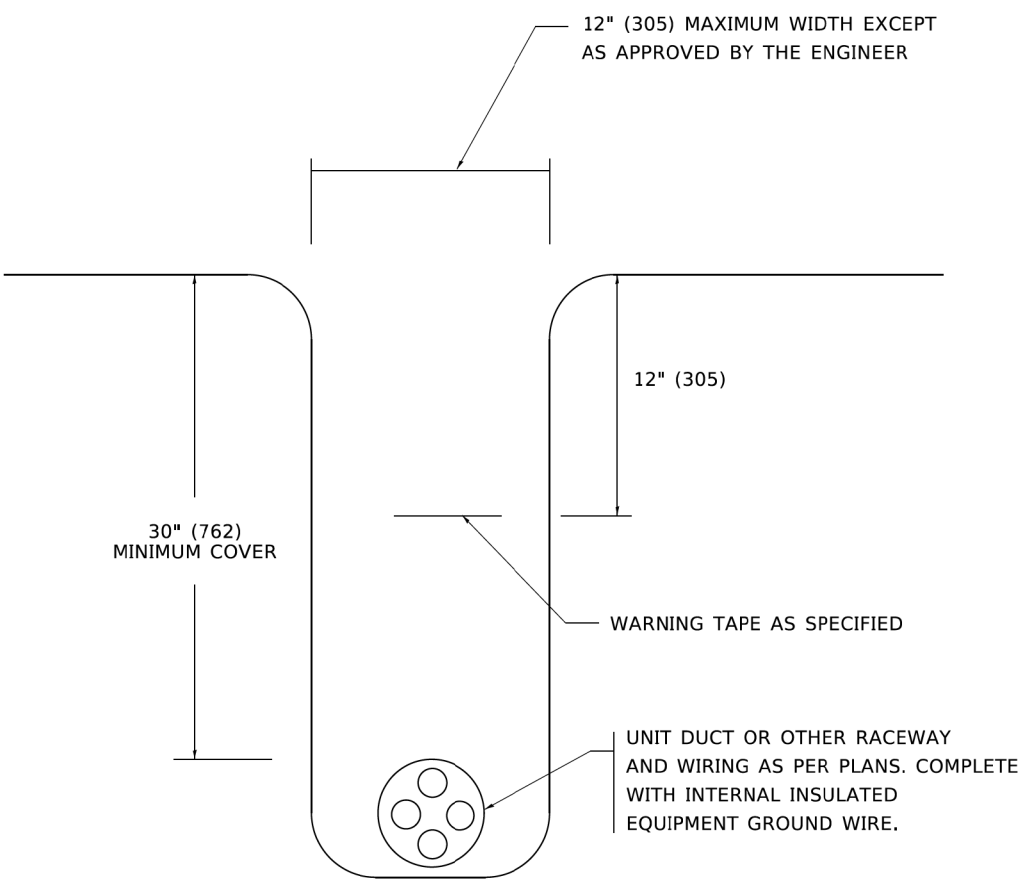
DISTRICT ONE DETAILS			
BE-701			
SCALE: NONE	SHEET 8	OF 16 SHEETS	STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1503	21-00339-00-CH	KANE	132	124
CONTRACT NO. 61J91				
ILLINOIS FED. AID PROJECT				

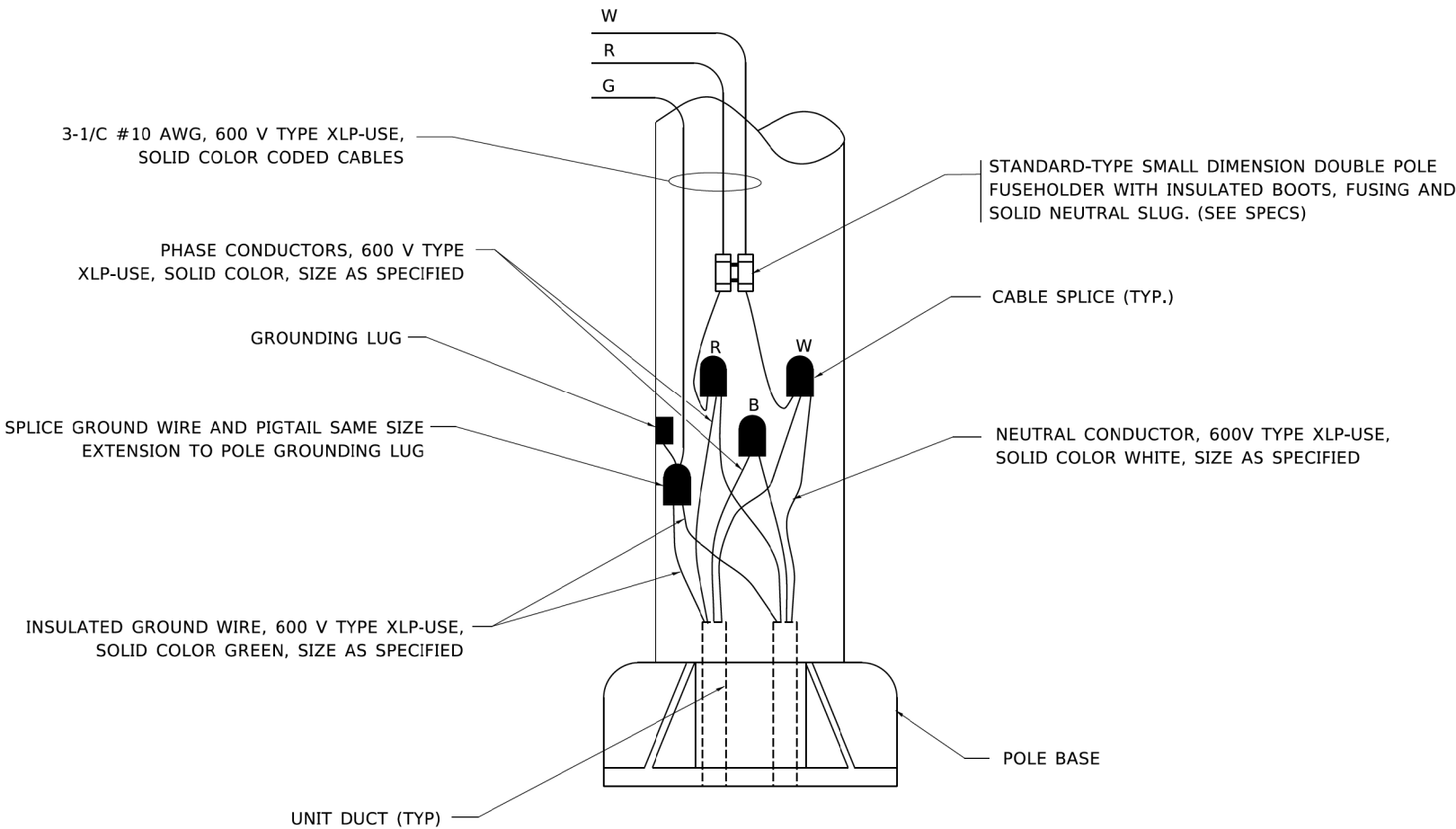




**TYPICAL SPLICE DETAIL**  
**N.T.S.**



**TYPICAL WIRING IN TRENCH DETAIL**  
**N.T.S.**



**POLE WIRING DETAIL**  
**N.T.S.**

MODEL: SHELTER  
FILE NAME: SHELTER



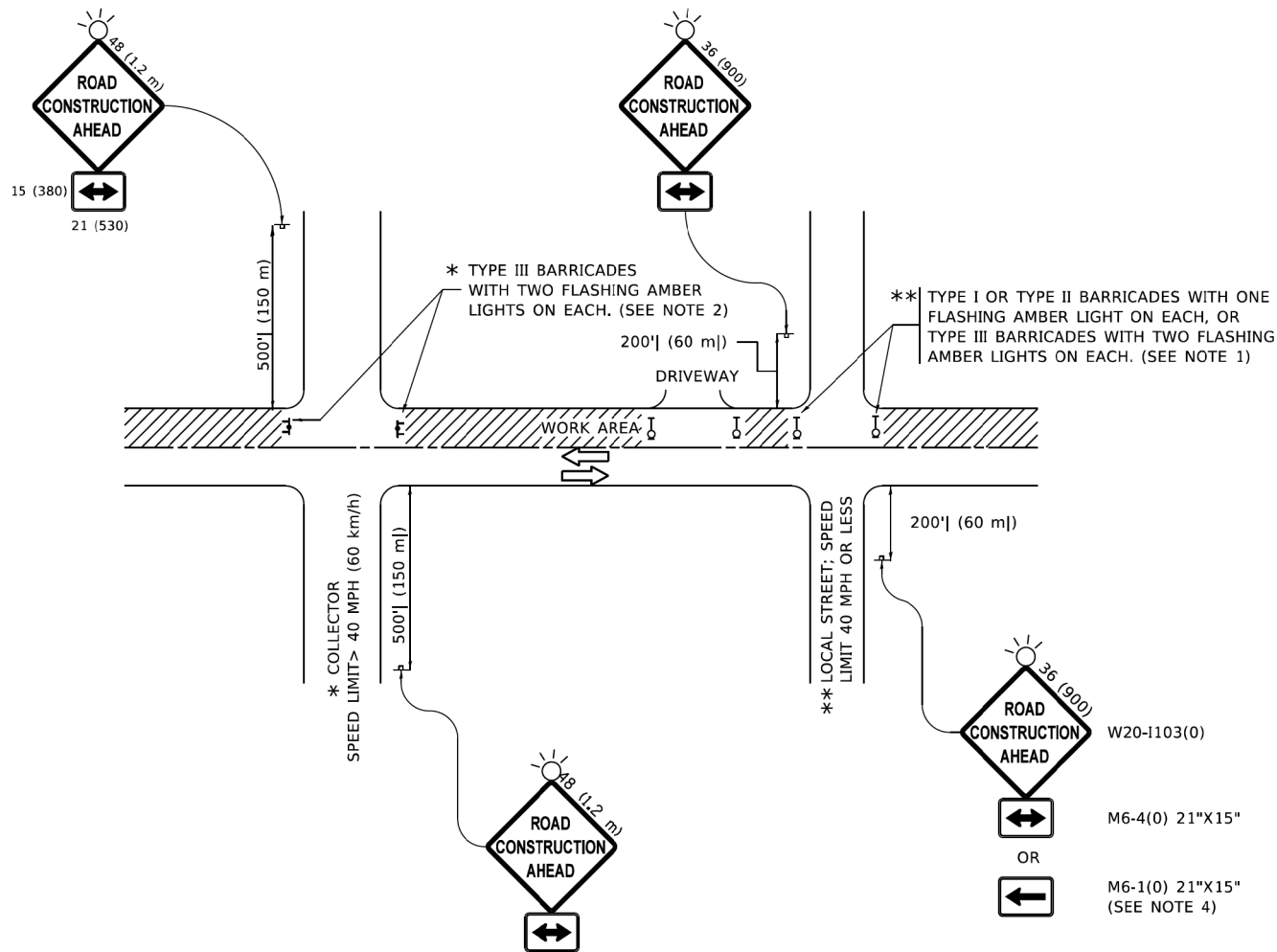
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	DRAWN -	REVISED -
PLOT SCALE = \$SCALE\$	CHECKED -	REVISED -
PLOT DATE = \$DATES	DATE - 08/08/2003	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE DETAILS			
BE-702			
SCALE: NONE	SHEET 9	OF 16 SHEETS	STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1503	21-00339-00-CH	KANE	132	125
CONTRACT NO. 61J91				
ILLINOIS FED. AID PROJECT				





NOTES:

- SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
  - ONE "ROAD CONSTRUCTION AHEAD" SIGN 36 x 36 (900x900) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
  - THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
- SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
  - ONE "ROAD CONSTRUCTION AHEAD" SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
  - THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
- CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT.
- SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).
- WHEN WORK IS BEING PERFORMED ON A SIDE ROAD OR DRIVEWAY, FOLLOW THE APPLICABLE STANDARD(S). THE DIRECTIONAL ARROW (M6-1 OR M6-4) SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE TRAFFIC CONTROL SET-UP.
- ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAYS UNLESS OTHERWISE SPECIFIED IN THE PLANS OR BY THE ENGINEER.
- THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

MODEL, SYMBOL NAMES  
FILE NAMES, STYLES



USER NAME = \$USERS	DESIGNED - L.H.A.	REVISED - T. RAMMACHER 01-06-08
	DRAWN -	REVISED - A. SCHUETZE 07-01-13
PLOT SCALE = \$\$SCALE\$	CHECKED -	REVISED - A. SCHUETZE 09-15-16
PLOT DATE = \$DATES	DATE - 06-89	REVISED - D. SENDERAK 05-03-24

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE DETAILS  
TC-10

SCALE: NONE SHEET 10 OF 16 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1503	21-00339-00-CH	KANE	132	126
CONTRACT NO. 61J91				
ILLINOIS FED. AID PROJECT				







TURN BAY ENTRANCE AT START  
OF LANE CLOSURE TAPER

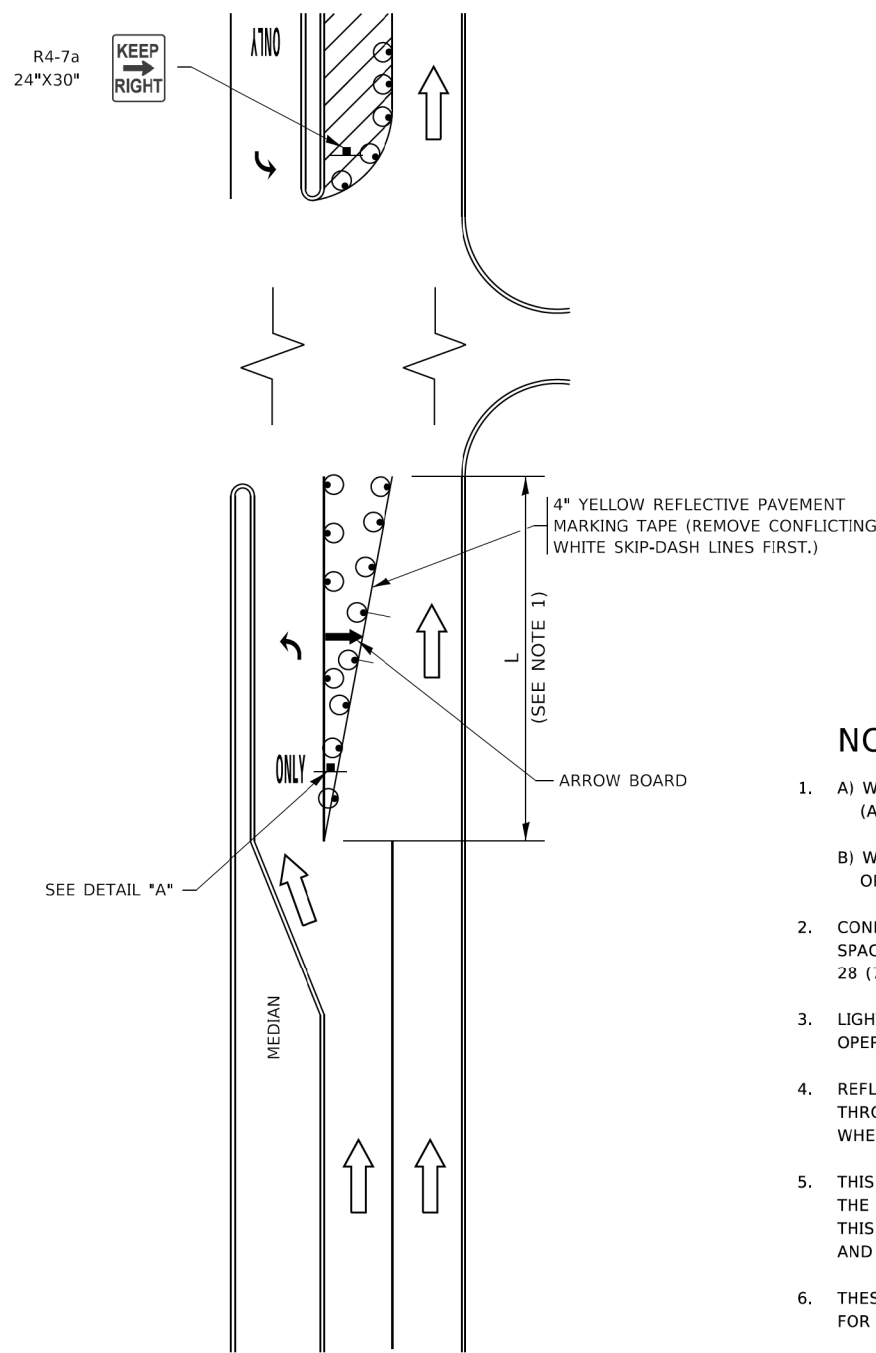


FIGURE 1

LEGEND

- WORK AREA
- LANE OPEN TO TRAFFIC
- ARROW BOARD
- TYPE I OR II BARRICADE OR DRUM WITH STEADY BURN LIGHT
- DRUM WITH STEADY BURN LIGHT
- SIGN ASSEMBLY
- TYPE I OR II CHECK BARRICADE WITH FLASHING LIGHT

NOTES:

- A) WHEN "L" IS  $\leq$  THE STORAGE LENGTH OF THE TURN LANE (AS SHOWN IN FIG. 1), USE FIGURE 1.  
B) WHEN "L" IS  $>$  THE STORAGE LENGTH OF THE TURN LANE OR THE TURN LANE IS WITHIN THE LANE CLOSURE, USE FIGURE 2.
- CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT.
- LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.
- REFLECTIVE TEMPORARY PAVEMENT MARKINGS SHALL BE PLACED THROUGHOUT THE BARRICADED AREAS OF EACH TURN BAY AS SHOWN WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN (14) DAYS.
- THIS APPLICATION ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE RIGHT LANE(S) AND THE RIGHT TURN BAY IS TO REMAIN OPEN. UNDER THIS CONDITION, "RIGHT TURN LANE" R3-I100R 24 x 24 (600 x 600) AND M6-2R 21 x 15 (530 x 380) SHALL BE USED.
- THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
- THE SIGNS SHALL BE MOUNTED ABOVE THE BARRICADES/DRUMS ON SEPARATE SIGN SUPPORTS THAT MEET NCHRP 350 OR MASH REQUIREMENTS.
- TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

TURN BAY ENTRANCE  
WITHIN A LANE CLOSURE

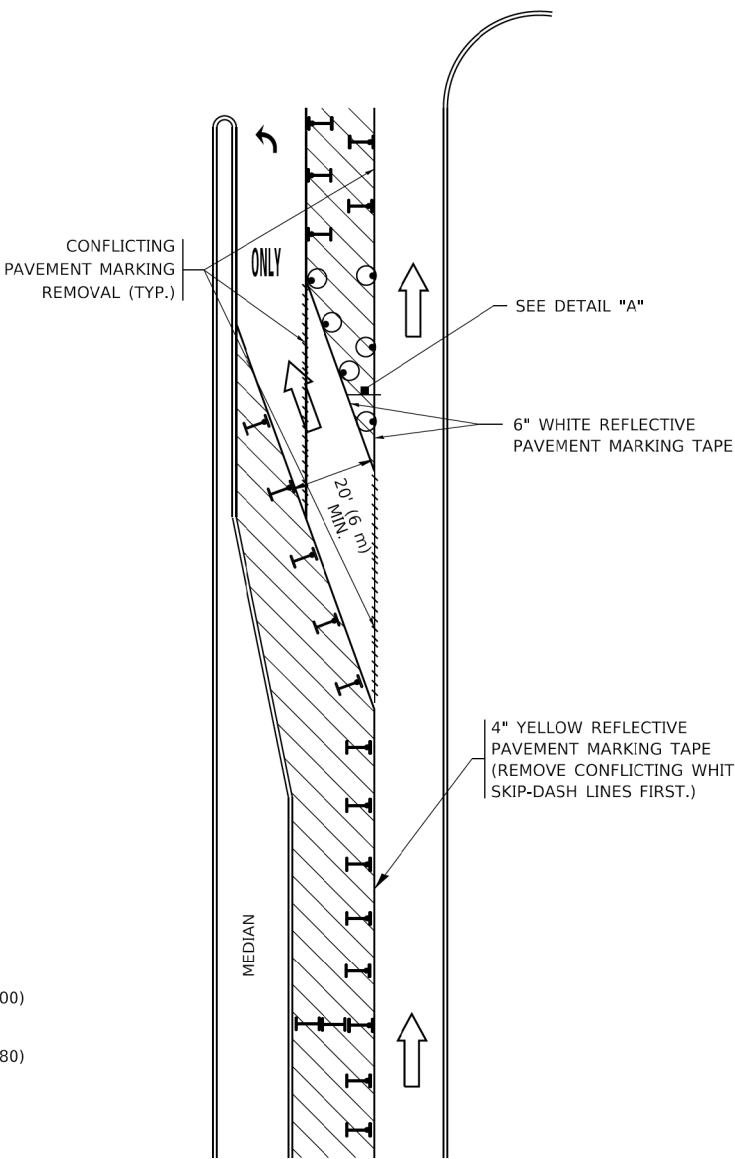
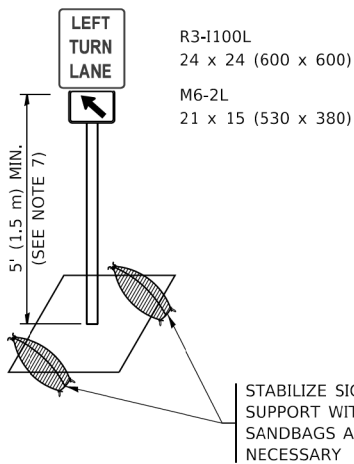


FIGURE 2



DETAIL A

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

USER NAME	= \$USERS	DESIGNED	- T. RAMMACHER 09-08-04	REVISED	- R. BORO 09-14-09
		DRAWN	-	REVISED	- A. SCHUETZE 07-01-13
PLOT SCALE	= \$SCALE\$	CHECKED	-	REVISED	- A. SCHUETZE 09-15-16
PLOT DATE	= \$DATES	DATE	- 01-06-00	REVISED	-

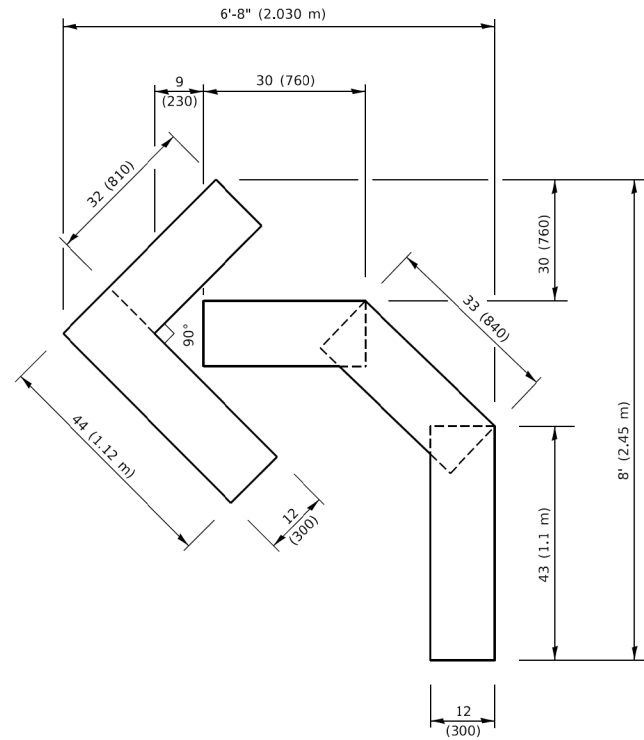
DESIGNED	- T. RAMMACHER 09-08-04	REVISED	- R. BORO 09-14-09
DRAWN	-	REVISED	- A. SCHUETZE 07-01-13
CHECKED	-	REVISED	- A. SCHUETZE 09-15-16
DATE	- 01-06-00	REVISED	-

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE DETAILS			
TC-14			
SCALE: NONE	SHEET 12	OF 16 SHEETS	STA. TO STA.

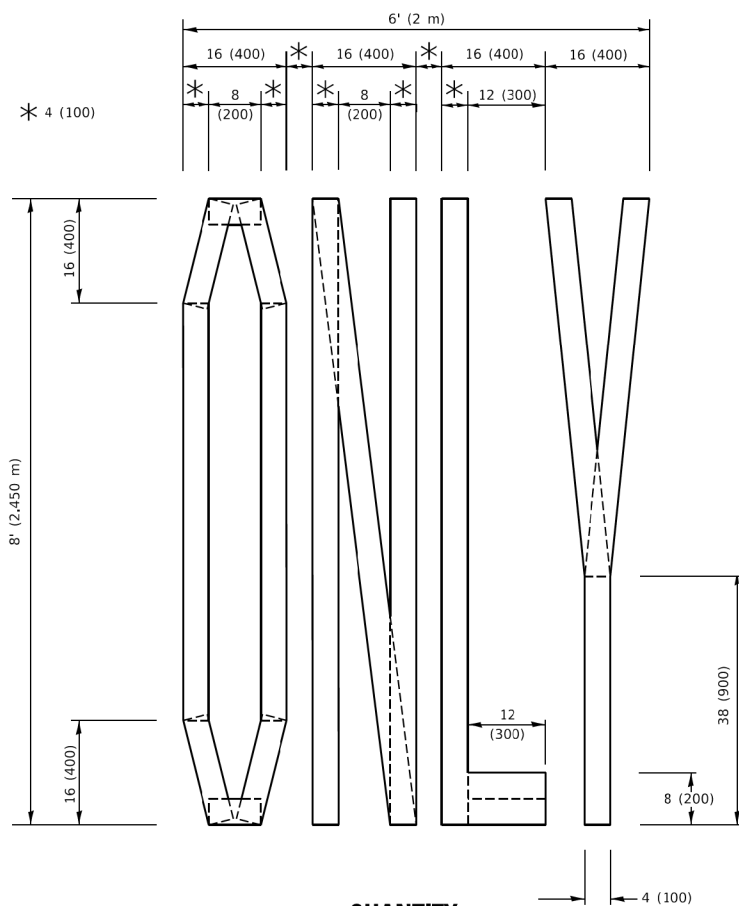
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1503	21-00339-00-CH	KANE	132	128
CONTRACT NO. 61J91				
ILLINOIS FED. AID PROJECT				





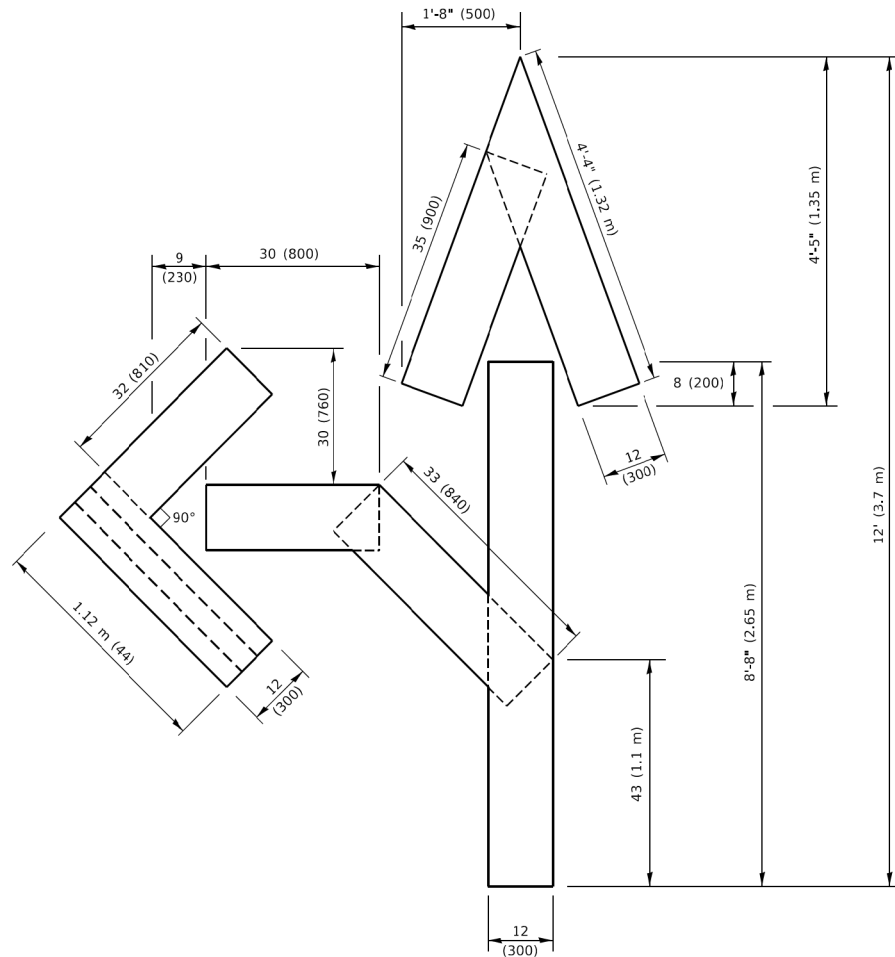
**QUANTITY**

4 (100) LINE = 45.5 ft. (13.9 m)  
15.2 sq. ft. (1.41 sq. m)



**QUANTITY**

4 (100) LINE = 64.1 ft. (19.5 m)  
21.4 sq. ft. (1.99 sq. m)

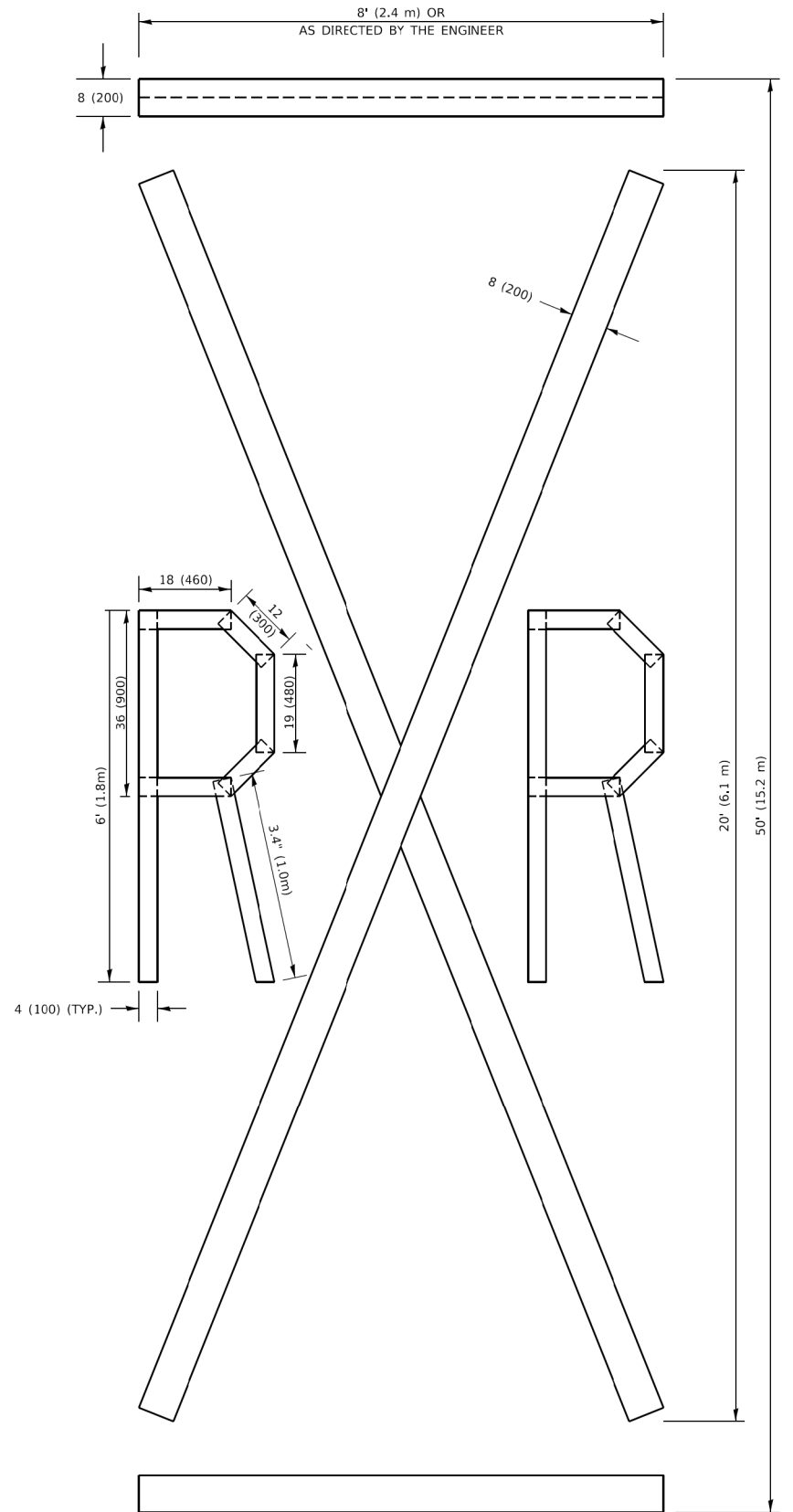


**QUANTITY**

4 (100) LINE = 82.5 ft. (25.1 m)  
27.5 sq. ft. (2.53 sq. m)

**NOTE:**

ALL QUANTITIES OF PLACEMENT ARE REPRESENTED  
IN LINEAR FEET OF 4" LINES TO MATCH THE  
4" TEMPORARY TAPE PAY ITEM AND REPRESENTS  
THE TOTAL QUANTITY OF 4" TAPE REQUIRED.



**QUANTITY**

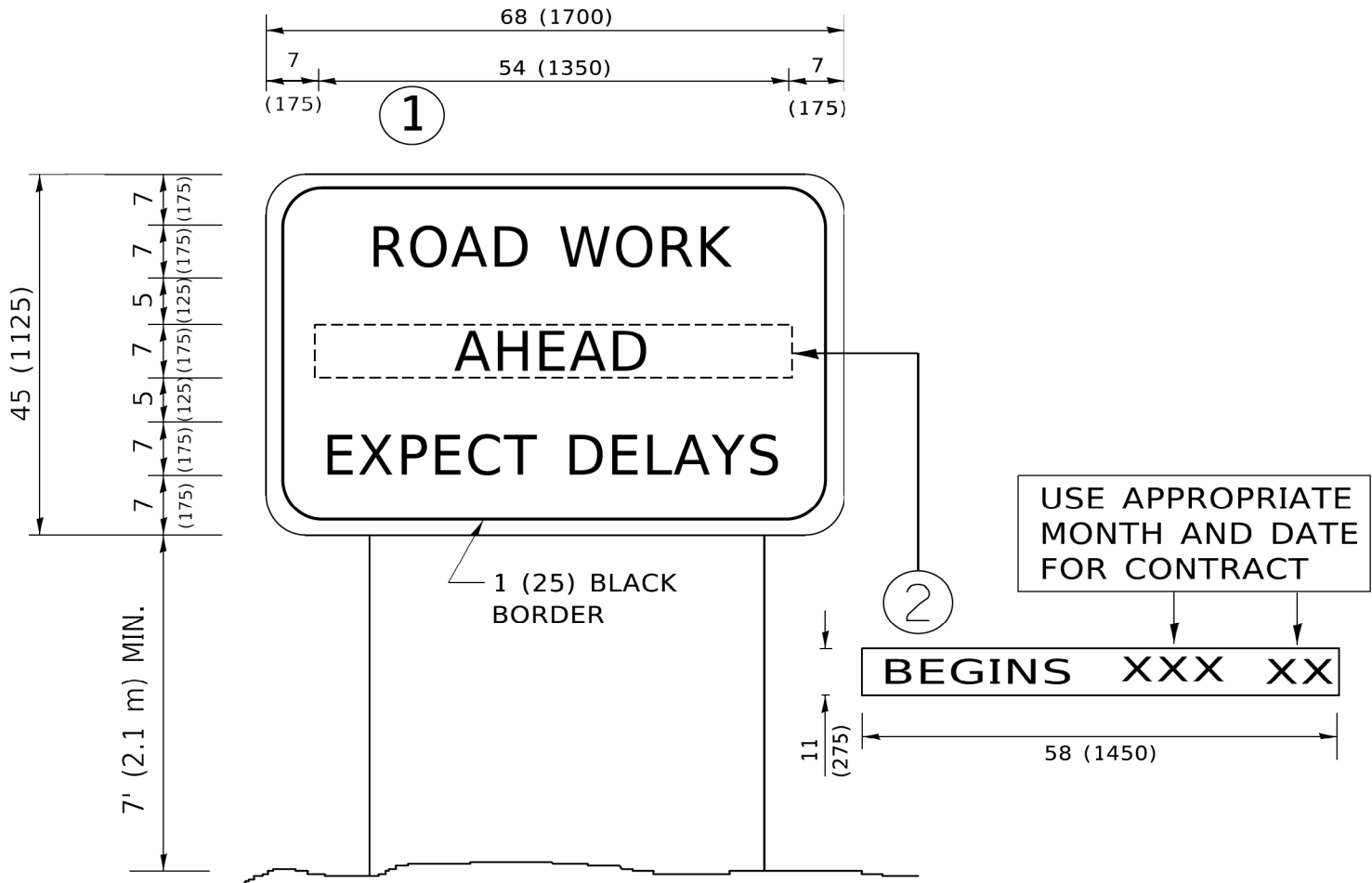
4 (100) LINE = 225.9 ft. (68.9 m)  
75.3 sq. ft. (6.99 sq. m)

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

USER NAME = \$USERS	DESIGNED -	REVISED - T. RAMMACHER 03-02-94
	DRAWN -	REVISED - E. GOMEZ 08-28-00
PLOT SCALE = \$SCALE\$	CHECKED -	REVISED - E. GOMEZ 08-28-00
PLOT DATE = \$DATES	DATE - 09-18-94	REVISED - A. SCHUETZE 09-15-16

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1503	21-00339-00-CH	KANE	132	129
CONTRACT NO. 61J91				
ILLINOIS FED. AID PROJECT				





NOTES:

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN①WITH INSTALLED PANEL②ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL②SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)  
UNLESS OTHERWISE SHOWN.

MODEL: SIGNELNAMES  
FILE NAME: STILES



USER NAME = \$USERS	DESIGNED -	REVISED - R. MIRS 09-15-97
	DRAWN -	REVISED - R. MIRS 12-11-97
PLOT SCALE = \$\$SCALE\$	CHECKED -	REVISED - T. RAMMACHER 02-02-99
PLOT DATE = \$DATES	DATE - 07-09-2024	REVISED - C. JUCIUS 01-31-07

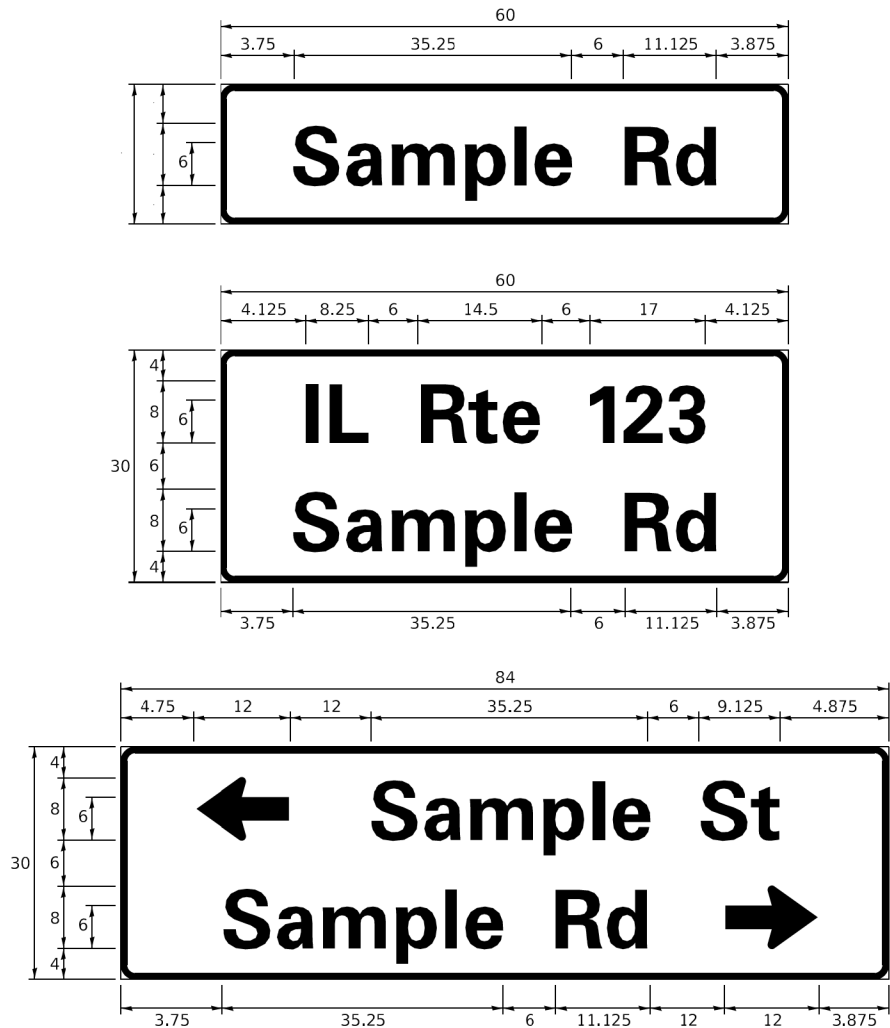
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE DETAILS			
TC-22			
SCALE: NONE	SHEET 14	OF 16 SHEETS	STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1503	21-00339-00-CH	KANE	132	130
CONTRACT NO. 61J91				
ILLINOIS FED. AID PROJECT				



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)
- 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

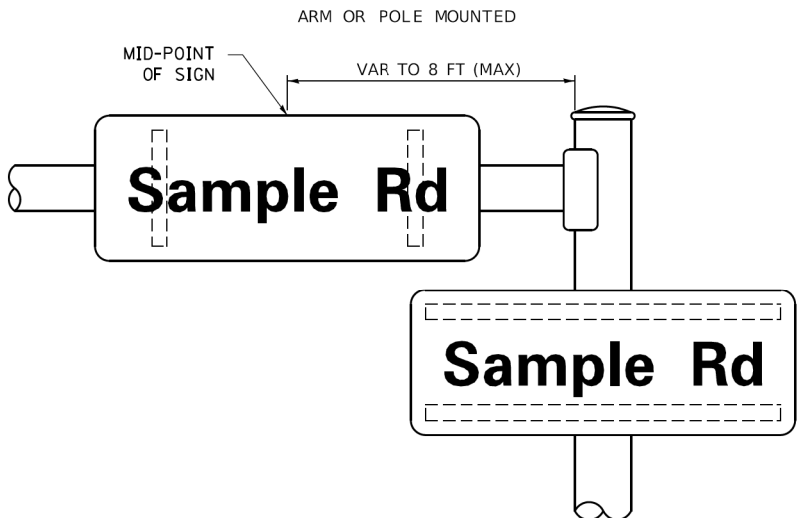
- WESTERN REMAC, INC.  
WOODRIDGE, IL

PARTS LISTING:

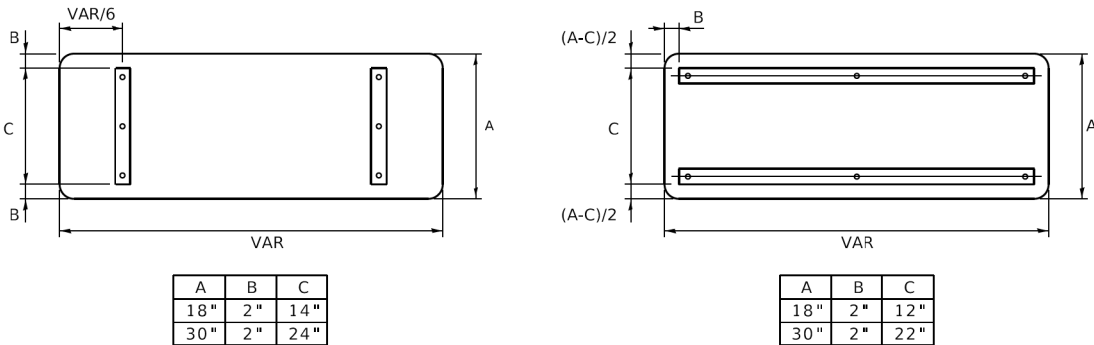
SIGN CHANNEL  
SIGN SCREWS  
PART #HPN053 (MED. CHANNEL)  
1/4" x 14 x 1" H.W.H. #3  
SELF TAPPING WITH NEOPRENE WASHER  
PART #HPN034 (UNIVERSAL)  
CHANNEL CLAMPS WITH STAINLESS STEEL STRAPPING

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

MOUNTING LOCATION



SUPPORTING CHANNELS



STANDARD ALPHABETS SPACING CHART

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

FHWA SERIES "C"				FHWA SERIES "D"			
CHARACTER	LEFT SPACING (INCH)	WIDTH (INCH)	RIGHT SPACING (INCH)	CHARACTER	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	1.630	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

MODEL, SYMBOL NAMES  
FILE NAMES, SYMBOLS



USER NAME = \$USERS	DESIGNED - LP/IP	REVISED - LP 07/01/2015
DRAWN - LP	REVISED -	
PLOT SCALE = \$SCALES	CHECKED - IP	REVISED -
PLOT DATE = \$DATES	DATE - 10/01/2014	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE DETAILS  
TS-02

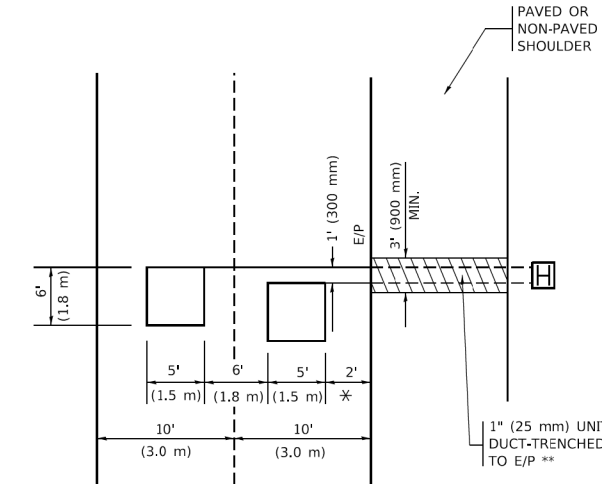
SCALE: NONE SHEET 15 OF 16 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1503	21-00339-00-CH	KANE	132	131
CONTRACT NO. 61J91				
ILLINOIS FED. AID PROJECT				



LOOPS NEXT TO SHOULDERS

PROVIDE A PAVEMENT REPLACEMENT  
NOTE WHICH SHOULD EQUAL  
3' (900 mm) X WIDTH OF  
PAVED SHOULDER.

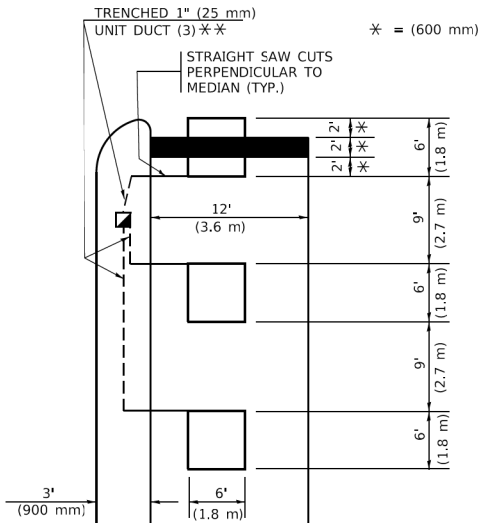


\* = (600 mm)

\*\* UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS  
BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

LEFT TURN LANES WITH MEDIANS  
VOLUME DENSITY ("FAR OUT" DETECTION)  
ON SAME APPROACH  
(PROTECTED / PERMITTED LEFT TURN PHASING)

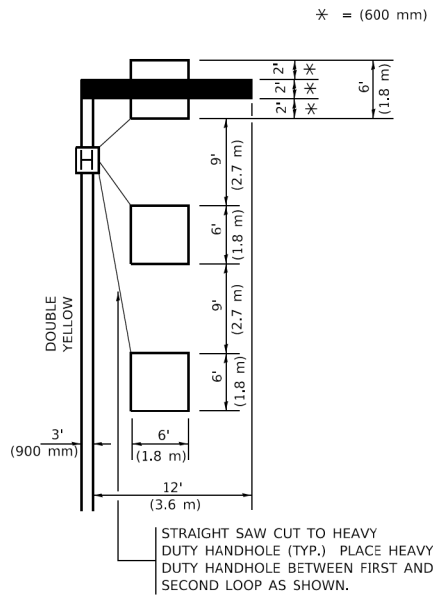
HANDHOLE LOCATION MAY  
VARY DEPENDING ON GEOMETRICS  
AND DESIGN OF TRAFFIC SIGNALS.  
HEAVY-DUTY HANDHOLES TO BE  
USED WHEN THE MEDIAN IS  
MOUNTABLE. REFER TO STANDARD  
814001 TO ENSURE THAT HANDHOLE  
FITS IN MEDIAN.



\*\* UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS  
BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO  
PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

LEFT TURN LANES WITHOUT MEDIANS  
VOLUME DENSITY ("FAR OUT" DETECTION)  
ON SAME APPROACH  
(PROTECTED / PERMITTED LEFT TURN PHASING)



NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO  
PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

NOTES:

VEHICLES LOOP DETECTORS

\* ALL LEAD IN CABLE SHALL BE TWO CONDUCTOR NO. 14 TWISTED,  
SHIELDED.

\* EACH DETECTOR LOOP SHALL HAVE ITS OWN SAW CUT FROM THE  
LOOP TO THE EDGE OF PAVEMENT OR TO A HANDHOLE IN THE  
PAVEMENT.

\* EACH DETECTOR LOOP SHALL HAVE ITS OWN ONE INCH (25 mm) UNIT  
DUCT BETWEEN THE EDGE OF PAVEMENT AND THE FIRST  
HANDHOLE OR JUNCTION BOX. EACH UNIT DUCT RUN SHALL BE  
SHOWN ON THE PLANS BY THE DESIGNER, BUT SHALL NOT BE PAID  
FOR SEPARATLY. THIS ITEM IS INCIDENTAL TO THE PAY ITEM  
FOR DETECTOR LOOPS.

\* ONE DIMENSION OF ALL DETECTOR LOOPS SHALL BE SIX FEET  
(1.8 m)

\* EACH LANE OF NON-LOCKING, PRESENCE DETECTION AND EACH  
LANE OF A DOUBLE LEFT TURN LANE REQUIRES A SEPARATE  
INDUCTIVE LOOP DETECTOR AND LEAD IN CABLE.

\* WHEN NON-LOCKING, PRESENCE DETECTION IS USED, MORE  
THAN ONE LOOP PER LANE IS REQUIRED BEHIND THE STOP BAR  
(i.e. 1-1/2, 1-3/4, 2).

\* WHEN SYSTEM LOOPS ARE REQUIRED ON AN APPROACH OF AN  
INTERSECTION, THE LOOPS USED FOR VOLUME DENSITY AND  
INTERSECTION TIMING SHALL ALSO BE USED AS SYSTEM  
DETECTORS. EACH ONE OF THESE TYPE OF LOOPS REQUIRES A  
SEPARATE TWO CONDUCTOR NO. 14 TWISTED SHIELDED CABLE  
AND A SEPARATE INDUCTIVE LOOP DETECTOR WHEN NEW  
CONTROLLERS ARE UTILIZED. THE DESIGNER SHALL LABEL THESE  
TYPES OF LOOPS AS "INTERSECTION AND SAMPLING (SYSTEM)  
DETECTORS" ON THE SIGNAL LAYOUT, THE INTERCONNECT PLAN  
AND THE SYSTEM CABLE PLAN. WHEN AN EXISTING CONTROLLER IS  
UTILIZED FOR THIS TYPE OF DETECTION, THE PAY ITEM "INDUCTIVE  
LOOP DETECTOR WITH SYSTEM OUTPUT" SHOULD BE USED.

PLACEMENT OF DETECTORS

THE FOLLOWING FIGURES REPRESENT THE MOST COMMON DETECTOR  
LOOP LOCATIONS AND SIZES. ADJUSTMENTS WILL BE NECESSARY FOR  
SPECIFIC GEOMETRIC CONSIDERATIONS.

LOCATIONS AND DEMENSIONS OF DETECTOR LOOPS ARE REQUIRED  
ON ALL SIGNAL LAYOUT PLAN SHEETS.

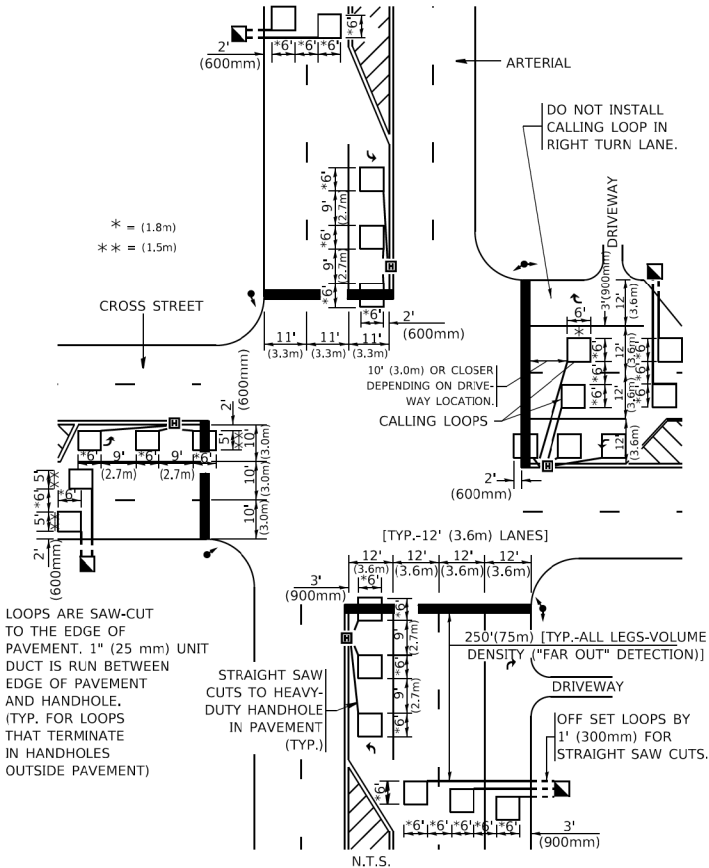
"FAR OUT" DETECTION REFERS TO LOCKING, PRESENCE TYPE  
DETECTION LOCATED IN THRU LANES, RIGHT TURN LANES, AND RIGHT  
TURN LANE TAPER AREAS (IF APPLICABLE), USUALLY 250' (75 m) IN  
ADVANCE OF STOP BARS. "UPTIGHT" DETECTION REFERS TO  
NON-LOCKING PRESENCE TYPE DETECTION LOCATED IN ALL LANES AND  
10'-15' (3.0 m-4.5 m) BEHIND THE CROSSING STREET'S EDGE OF  
PAVEMENT EXTENDED.

NOTE:

ALL DETAILS AND NOTES SHOWN ARE FROM THE I.D.O.T. DISTRICT 1  
TRAFFIC SIGNAL DESIGN GUIDELINES DATED JANUARY 1995

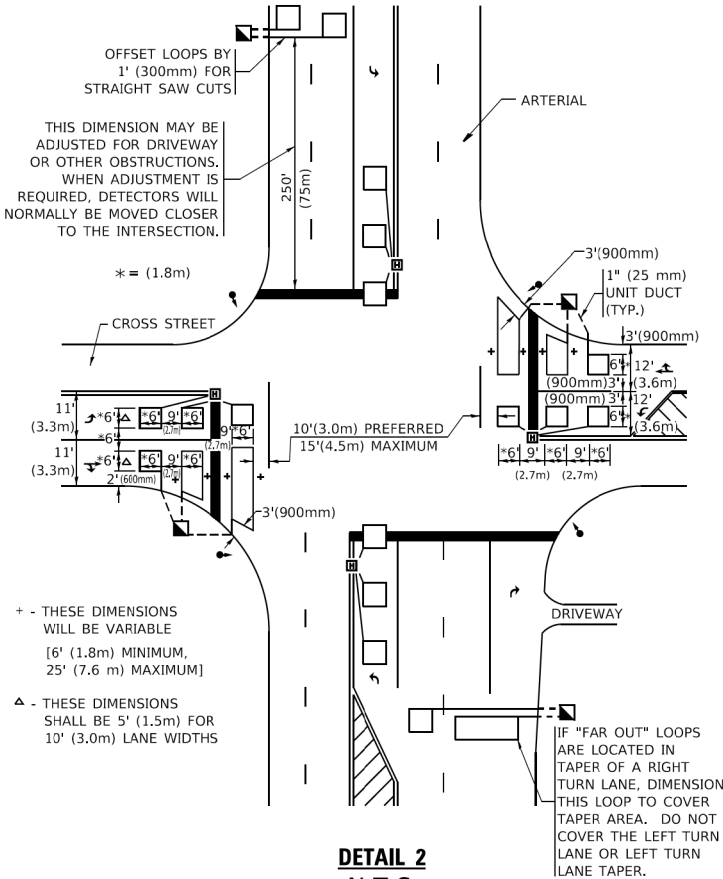
THIS DRAWING HAS BEEN PREPARED TO ASSIST THE RESIDENT ENGINEER  
FOR ALL ROADWAY RESURFACING OR S.M.A.R.T. PROJECTS WHERE THE  
DIMENSIONS ARE NOT SHOWN ON THE PLANS AND THE FINAL LOCATIONS  
FOR CROSSWALKS OR STOP BARS ARE NOT DETERMINED.

ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION)  
CROSS STREET-NON VOLUME DENSITY ("FAR OUT" DETECTION)



DETAIL 1  
N.T.S.

ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION)  
CROSS STREET-NON VOLUME DENSITY ("UPTIGHT" PRESENCE DETECTION)



DETAIL 2  
N.T.S.

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE DETAILS  
TS-07

SCALE: NONE SHEET 16 OF 16 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1503	21-00339-00-CH	KANE	132	132
CONTRACT NO. 61J91				
ILLINOIS FED. AID PROJECT				

USER NAME = \$USERS	DESIGNED -	REVISED - LP 07/01/2015
PLOT SCALE = \$SCALE\$	DRAWN -	REVISED -
PLOT DATE = \$DATES	CHECKED - R.K.F.	REVISED -
	DATE -	REVISED -