

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED
HIGHWAY PLANS

FAP ROUTE 846A: IL 53
SOUTH OF ARSENAL ROAD TO HOFF ROAD
SECTION: FAP 0846A 23 PATCH
PATCHING
WILL COUNTY

FOR INDEX OF SHEETS, SEE SHEET NO. 2

THIS PROJECT IS LOCATED WITHIN
THE CITY OF WILMINGTON.

TRAFFIC DATA:

IL ROUTE 53:
SOUTH OF ARSENAL ROAD TO HOFF ROAD
ADT (2023) = 5,250 VPD
SPEED LIMIT = 55 MPH

OTHER PRINCIPAL ARTERIAL

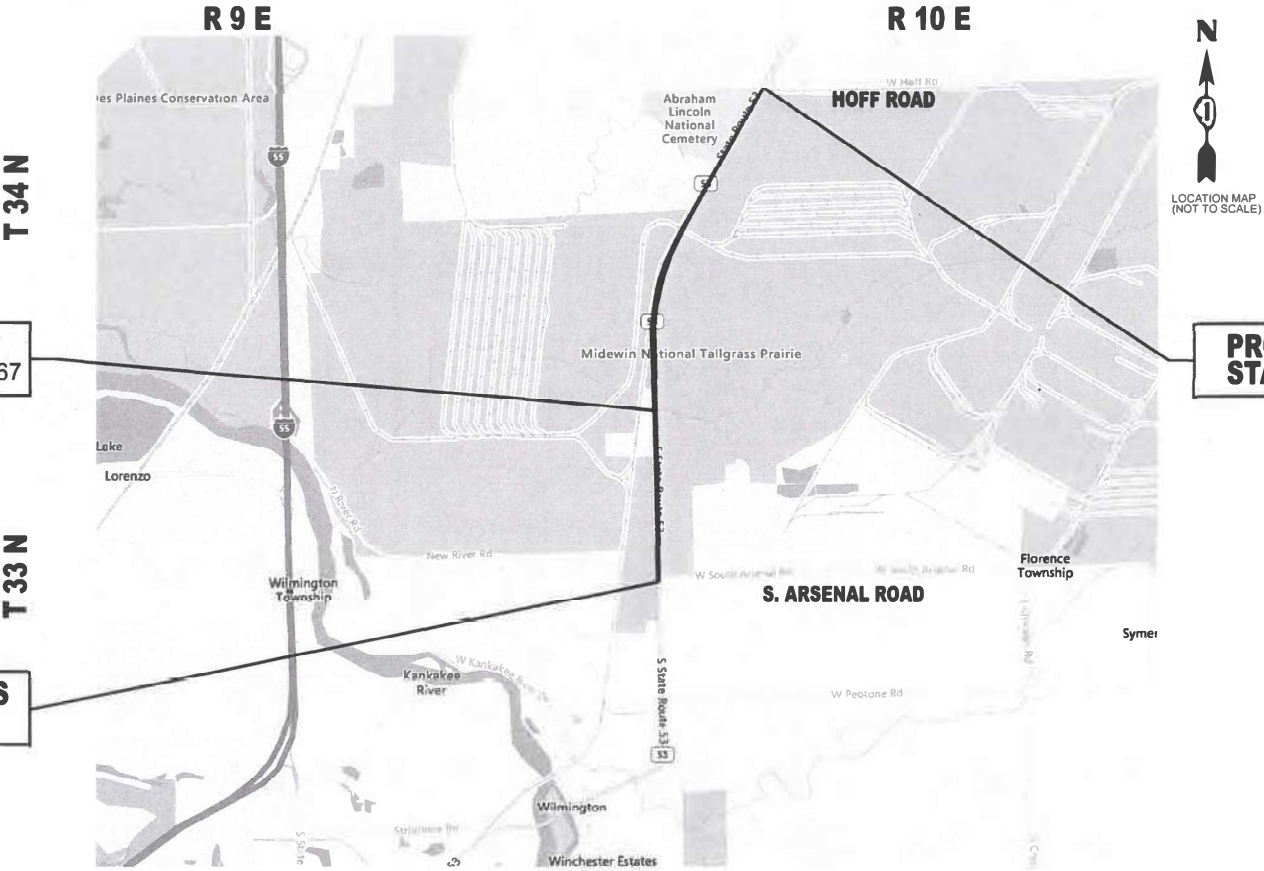
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	FAP 0846A 23 PATCH	WILL	30	1
		ILLINOIS	CONTRACT NO. 62U88	

D-91-123-23



LOCATION OF SECTION INDICATED THUS: -

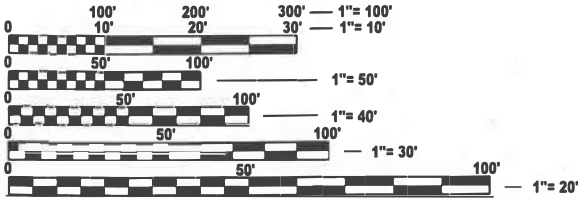
C-91-173-23



BRIDGE OMISSION
STA. 138+00 TO STA. 139+67

PROJECT ENDS
STA. 289+53

PROJECT BEGINS
STA. 60+00



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

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

PROJECT ENGINEER: VESELIN VELICHKOV (847) 705-4432
PROJECT MANAGER: FAWAD AQUEEL

CONTRACT NO. 62U88

FLORENCE TOWNSHIP, JACKSON TOWNSHIP, WILMINGTON TOWNSHIP

GROSS LENGTH = 22,953 FT. = 4.35 MILES
NET LENGTH = 22,786 FT. = 4.32 MILES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED Oct. 22, 2024
Joseph Rios REGIONAL ENGINEER

December 6, 2024
Scott A. Etk ENGINEER OF DESIGN AND ENVIRONMENT

December 6, 2024
James M. Quinn DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION 13

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OF THE STATE OF ILLINOIS

MODEL: General Notes [Sheet]
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INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	INDEX OF SHEETS, HIGHWAY STANDARDS, GENERAL NOTES
3	SUMMARY OF QUANTITIES
4	EXISTING AND PROPOSED TYPICAL SECTIONS
5-13	ROADWAY AND PAVEMENT MARKING PLANS
14-16	TRAFFIC SIGNAL MODERNIZATION PLAN
17	DETECTOR LOOP REPLACEMENT PLAN
18	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS (TC-10)
19	RAISED REFLECTIVE PAVEMENT MARKERS (SNOW PLOW RESISTANT) (TC-11)
20	DISTRICT ONE TYPICAL PAVEMENT MARKINGS (TC-13)
21	TRAFFIC CONTROL AND PROTECTION AND TURN BAYS (TC-14)
22	ARTERIAL ROAD INFORMATION SIGN (TC-22)
23-29	DISTRICT 1 - STANDARD TRAFFIC SIGNAL DESIGN DETAILS (TS-05)
30	DISTRICT 1 - DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING (TS-07)

STATE STANDARDS

STANDARD NO.	DESCRIPTION
000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
642006-01	SHOULDER RUMBLE STRIPS, 8 IN.
701101-05	OFF-RD OPERATIONS, MULTILANE, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
701421-08	LANE CLOSURE, MULTILANE, DAY OPERATIONS ONLY FOR SPEEDS ≥ 45 MPH TO 55 MPH
701426-09	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPER., FOR SPEEDS ≥ 45 MPH
701501-06	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
701601-09	URBAN LANE CLOSURE, MUTILANE 1W OR 2W WITH NONTRAVERSABLE MEDIAN
701701-10	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701901-10	TRAFFIC CONTROL DEVICES
886001-01	DETECTOR LOOP INSTALLATIONS

GENERAL NOTES

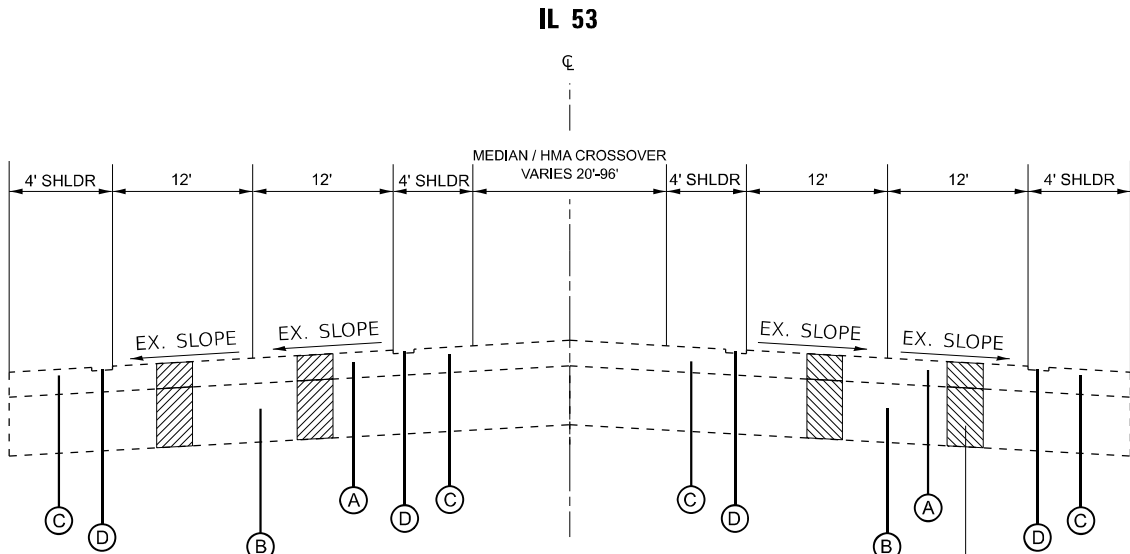
- BEFORE STARTING ANY EXCAVATION THE CONTRACTOR SHALL CALL "JULIE" AT 800-892-0123 FOR FIELD LOCATIONS OF BURIED ELECTRIC, (48 HOUR NOTIFICATION REQUIRED).
- THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, AND THE CITY OF WILMINGTON.
- THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION OF THE DEPARTMENT.
- ALL DAMAGE TO EXISTING PAVEMENT MARKINGS OR RAISED REFLECTIVE PAVEMENT MARKERS OUTSIDE THE REMOVAL LINE SHOWN ON THE PLANS WILL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
- BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD FOR FUTURE REFERENCE, ALL EXISTING PAVEMENT MARKING LINES (AND RAISED REFLECTIVE PAVEMENT MARKERS) IN ORDER THAT THESE LOCATIONS CAN BE RE-ESTABLISHED FOR STRIPING. EXACT LOCATIONS OF ALL PAVEMENT MARKINGS SHALL BE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
- ALL PATCHING LOCATIONS IS TO BE DETERMINED IN THE FIELD BY THE ENGINEER. EACH PATCH IS TO HAVE 4" SUBBASE GRANULAR MATERIAL AND POSSIBLY 12" AGGREGATE SUBGRADE IMPROVEMENT WITH FABRIC BASED ON TESTING BY MATERIALS.
- THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT KALPANA.KANNAN-HOSADURGA@ILLINOIS.GOV A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.
- THE RESIDENT ENGINEER SHALL CONTACT ERIC CAMPOS, ARTERIAL TRAFFIC FIELD ENGINEER, AT ERIC.CAMPOS@ILLINOIS.GOV A MINIMUM OF TWO (2) WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT MARKINGS.
- 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 ACCORDING TO ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED.
- SAW CUTTING PRIOR TO ANY REMOVAL ITEMS NOTED ON THE PLANS OR DIRECTED BY THE ENGINEER SHALL BE CONSIDERED INCLUDED IN THE COST OF THE ITEMS BEING REMOVED.
- THE AGGREGATE GRADATION FOR THE AGGREGATE SHOULDER IMPROVEMENT 12" LOWER LIFT SHALL BE CS 1 OR RR 1.
- GEOTECHNICAL FABRIC FOR GROUND STABILIZATION AND/OR AGGREGATE SUBGRADE IMPROVEMENT (CU YD) HAVE BEEN PROVIDED FOR USE AT THE LOCATIONS INDICATED FOR SOILS THAT TEND TO BE UNSTABLE AND/OR UNSUITABLE. THE ACTUAL NEED FOR REMOVAL AND REPLACEMENT WITH ABOVE ITEM WILL BE DETERMINED IN THE FIELD AT THE TIME OF CONSTRUCTION BY THE GEOTECHNICAL ENGINEER. ALL POTENTIALLY UNSTABLE SOILS SHOULD BE TESTED WITH A STATIC OR DYNAMIC CONE PENETROMETER AND TREATED IN ACCORDANCE WITH ARTICLE 301.04 OF THE SSRBC AND IDOT SUBGRADE STABILITY MANUAL. IF UNSTABLE AND/OR UNSUITABLE SOILS ARE ENCOUNTERED, THEN THE QUANTITY SHALL BE DEDUCTED AND NO ADDITIONAL COMPENSATION WILL BE DUE TO THE CONTRACTOR.
- THE "ROAD CONSTRUCTION AHEAD" SIGNS SHALL REMAIN INSTALLED UNTIL COMPLETION OF THE PROJECT OR WHEN NO ROADWAY HAZARDS REMAIN WITHIN THE WORK ZONE.
- OVERNIGHT LANE CLOSURES SHALL NOT BE ALLOWED FOR REHABILITATION PROJECTS INVOLVING DAYTIME MILLING AND RESURFACING OPERATIONS AND CLASS D PATCHING UNLESS OTHER CONDITIONS WARRANT EXTENDED LANE CLOSURES AS DETERMINED AND APPROVED IN WRITING BY THE ENGINEER OR AS PROVIDED IN THE CONTRACT SPECIFICATIONS.
- ALL DAMAGE TO EXISTING RUMBLE STRIPS WILL BE REPLACED IN KIND IF IMPACTED AT THE CONTRACTOR EXPENSE.
- DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.

	USER NAME = Nedal.Qarut	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX OF SHEETS, STATE STANDARDS & GENERAL NOTES IL 53: SOUTH OF ARSENAL ROAD TO HOFF ROAD			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -					846	FAP 0846A 23 PATCH	WILL	30	2
	PLOT SCALE = 0.16666633 ' / in	CHECKED -	REVISED -					CONTRACT NO. 62U88				
	PLOT DATE = 10/24/2024	DATE -	REVISED -		SCALE: Full Size 1 = 1	SHEET	OF	SHEETS	STA. ____+____	TO STA. ____+____	ILLINOIS FED. AID PROJECT	

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EXISTING TYPICAL

STA. 60+00 TO STA. 289+53
BRIDGE OMISSION: STA. 138+00 TO STA. 139+67

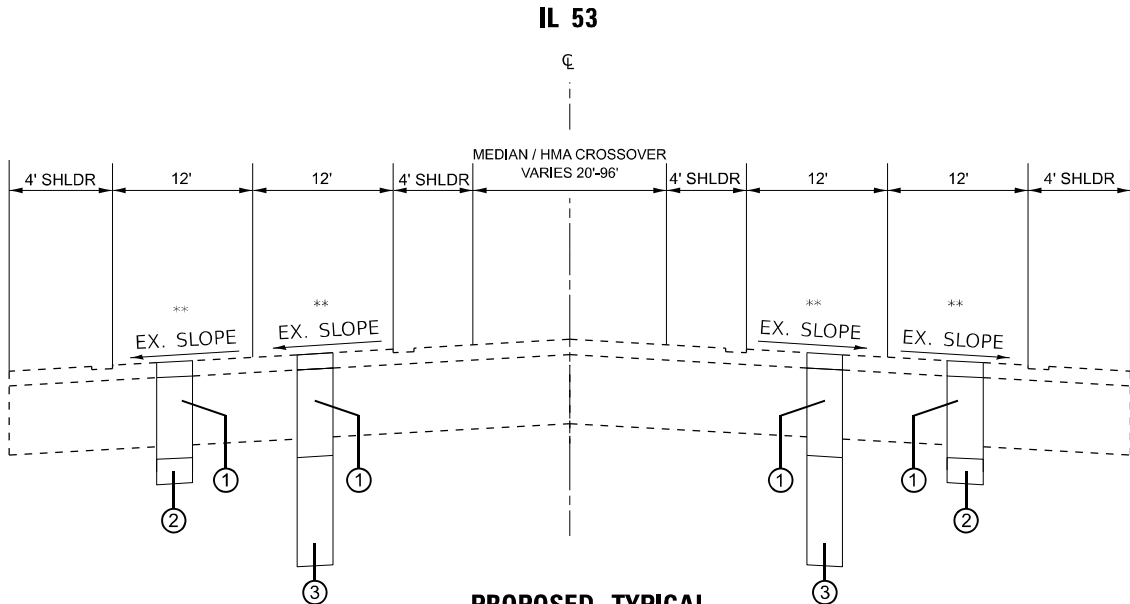
REMOVAL LOCATIONS OF CLASS D PATCH (SPECIAL)
IS TO BE DETERMINED IN THE FIELD BY THE
ENGINEER.

EXISTING LEGEND

- (A) PORTLAND CEMENT CONCRETE WHITETOPPING 4"
- (B) HOT-MIX ASPHALT PAVEMENT 5-8"±
- (C) HOT-MIX ASPHALT SHOULDER
- (D) SHOULDER RUMBLE STRIPS, 8"

PROPOSED LEGEND

- ① CLASS D PATCHES, 12" (SPECIAL)
 - ② SUBBASE GRANULAR MATERIAL TYPE B, 4"
 - ③ AGGREGATE SUBGRADE IMPROVEMENT 12"
- * = SEE NOTE 11 & 12 ON SHEET 2



PROPOSED TYPICAL

STA. 60+00 TO STA. 289+53
BRIDGE OMISSION: STA. 138+00 TO STA. 139+67

** = PATCHING LOCATIONS TO BE DETERMINED
IN THE FIELD BY THE ENGINEER.

HOT-MIX ASPHALT MIXTURE REQUIREMENTS		QUALITY MANAGEMENT PROGRAM (QMP)
MIXTURE TYPE	AIR VOIDS @ N des	
CLASS D PATCHES (SPECIAL) 12"		
POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "E", IL-9.5, N70, 2"	4.0% AT 70 GYR.	QC/QA
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70, 10"	4.0% AT 70 GYR.	QC/QA
QMP DESIGNATION: QUALITY CONTROL/QUALITY ASSURANCE (QC/QA); QUALITY CONTROL FOR PERFORMANCE (QCP); PAY FOR PERFORMANCE (PFP)		

NOTE 1: THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN.

NOTE 2: THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76-22" AND FOR NON-POLYMERIZED
HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY RECLAIMED MATERIALS SPECIFICATIONS.

USER NAME = Nedat.Qarut	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 0.16666667" / in.	CHECKED -	REVISED -
PLOT DATE = 10/10/2024	DATE -	REVISED -

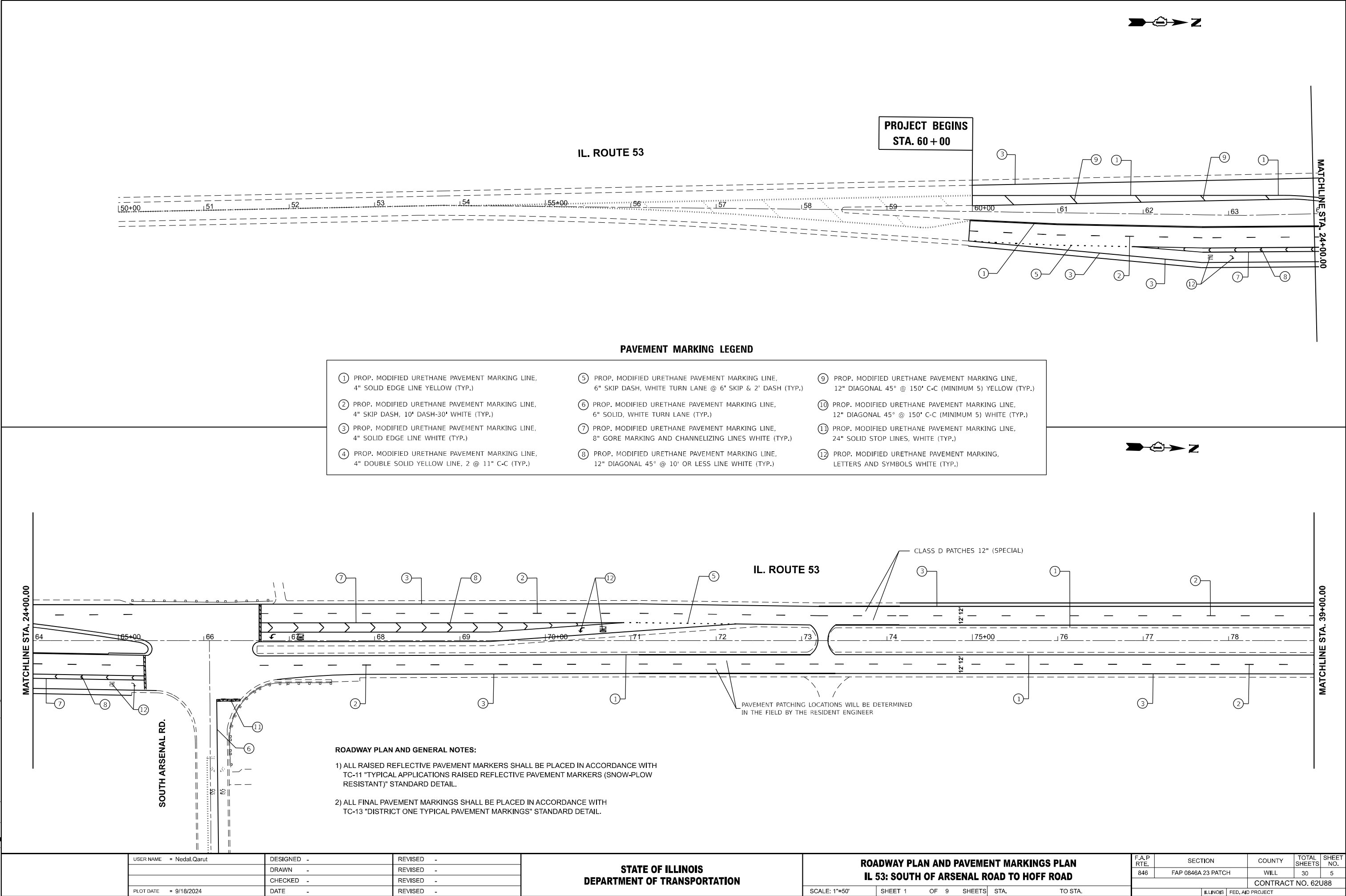
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS
IL 53: SOUTH OF ARSENAL ROAD TO HOFF ROAD

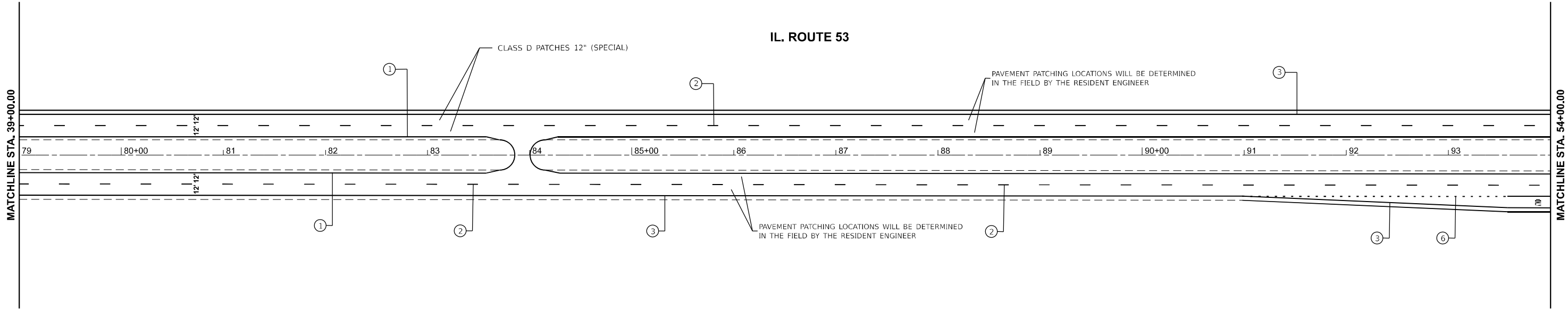
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F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 62U88				
ILLINOIS FED. AID PROJECT				

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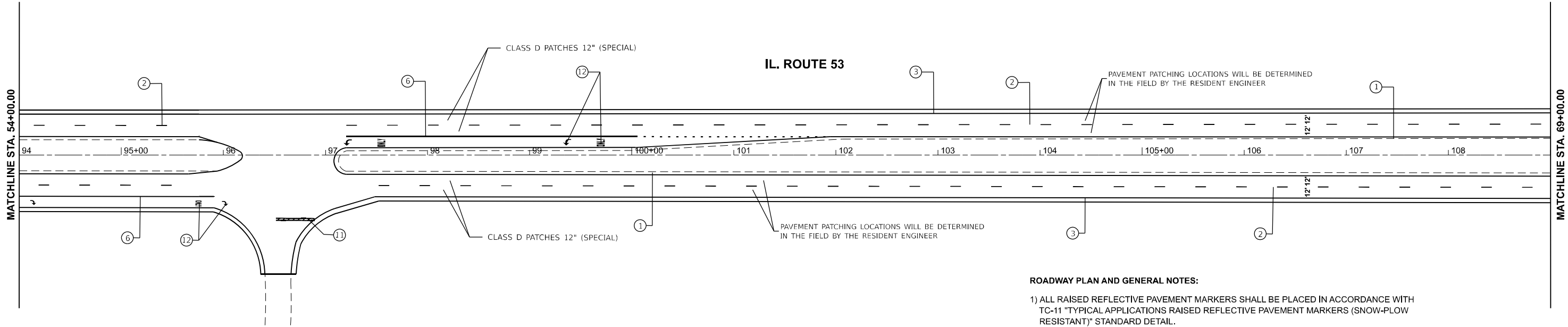


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PAVEMENT MARKING LEGEND

① PROP. MODIFIED URETHANE PAVEMENT MARKING LINE, 4" SOLID EDGE LINE YELLOW (TYP.)	⑤ PROP. MODIFIED URETHANE PAVEMENT MARKING LINE, 6" SKIP DASH, WHITE TURN LANE @ 6' SKIP & 2' DASH (TYP.)	⑨ PROP. MODIFIED URETHANE PAVEMENT MARKING LINE, 12" DIAGONAL 45° @ 150' C-C (MINIMUM 5) YELLOW (TYP.)
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④ PROP. MODIFIED URETHANE PAVEMENT MARKING LINE, 4" DOUBLE SOLID YELLOW LINE, 2 @ 11" C-C (TYP.)	⑧ PROP. MODIFIED URETHANE PAVEMENT MARKING LINE, 12" DIAGONAL 45° @ 10' OR LESS LINE WHITE (TYP.)	⑫ PROP. MODIFIED URETHANE PAVEMENT MARKING, LETTERS AND SYMBOLS WHITE (TYP.)



ROADWAY PLAN AND GENERAL NOTES:

- 1) ALL RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED IN ACCORDANCE WITH TC-11 "TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)" STANDARD DETAIL.
- 2) ALL FINAL PAVEMENT MARKINGS SHALL BE PLACED IN ACCORDANCE WITH TC-13 "DISTRICT ONE TYPICAL PAVEMENT MARKINGS" STANDARD DETAIL.

USER NAME	= Nedal.Qarut	DESIGNED	-	REVISED	-
		DRAWN	-	REVISED	-
		CHECKED	-	REVISED	-
PLOT DATE	= 9/18/2024	DATE	-	REVISED	-

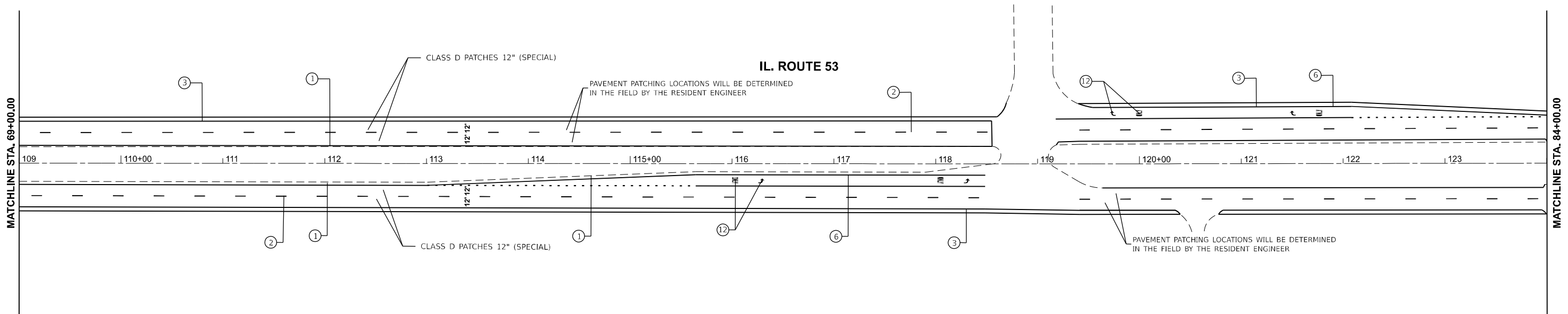
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROADWAY PLAN AND PAVEMENT MARKINGS PLAN
IL 53: SOUTH OF ARSENAL ROAD TO HOFF ROAD

SCALE: 1"=50' SHEET 2 OF 9 SHEETS STA. TO STA.

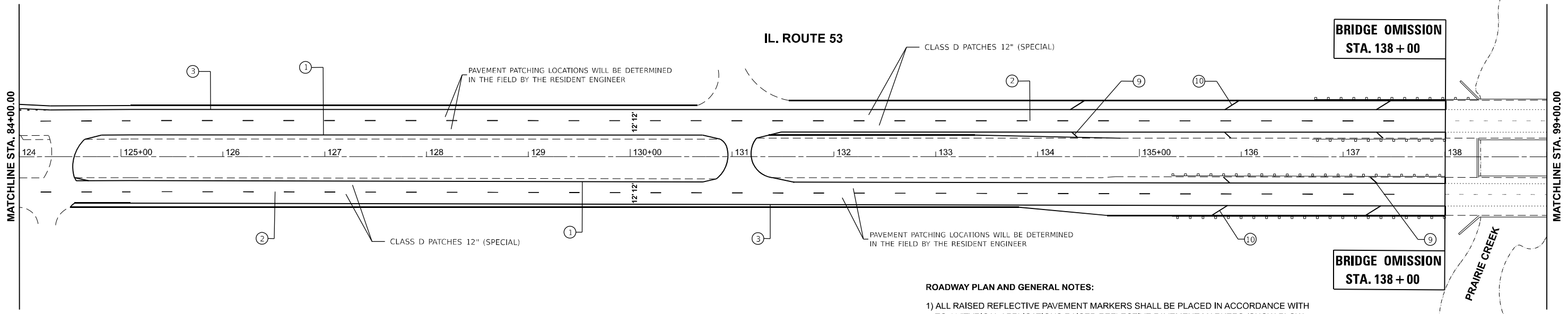
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CONTRACT NO. 62U88				
ILLINOIS FED. AID PROJECT				

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PAVEMENT MARKING LEGEND

- | | | |
|--|---|--|
| ① PROP. MODIFIED URETHANE PAVEMENT MARKING LINE, 4" SOLID EDGE LINE YELLOW (TYP.) | ⑤ PROP. MODIFIED URETHANE PAVEMENT MARKING LINE, 6" SKIP DASH, WHITE TURN LANE @ 6' SKIP & 2' DASH (TYP.) | ⑨ PROP. MODIFIED URETHANE PAVEMENT MARKING LINE, 12" DIAGONAL 45° @ 150' C-C (MINIMUM 5) YELLOW (TYP.) |
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| ④ PROP. MODIFIED URETHANE PAVEMENT MARKING LINE, 4" DOUBLE SOLID YELLOW LINE, 2 @ 11" C-C (TYP.) | ⑧ PROP. MODIFIED URETHANE PAVEMENT MARKING LINE, 12" DIAGONAL 45° @ 10' OR LESS LINE WHITE (TYP.) | ⑫ PROP. MODIFIED URETHANE PAVEMENT MARKING, LETTERS AND SYMBOLS WHITE (TYP.) |



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USER NAME	= Nedal.Qarut	DESIGNED	-	REVISED	-
		DRAWN	-	REVISED	-
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PLOT DATE	= 10/10/2024	DATE	-	REVISED	-

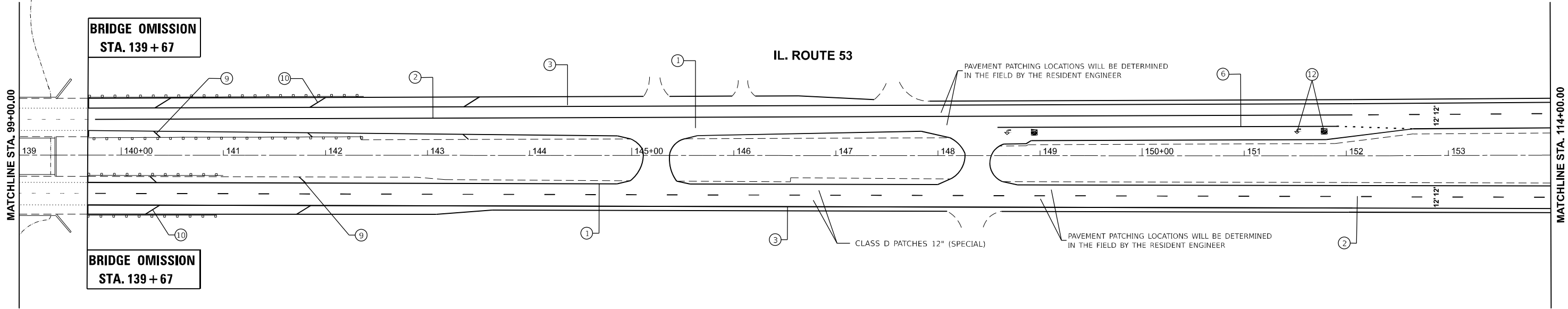
STATE OF ILLINOIS
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ROADWAY PLAN AND PAVEMENT MARKINGS PLAN
IL 53: SOUTH OF ARSENAL ROAD TO HOFF ROAD

SCALE: 1"=50' SHEET 3 OF 9 SHEETS STA. TO STA.

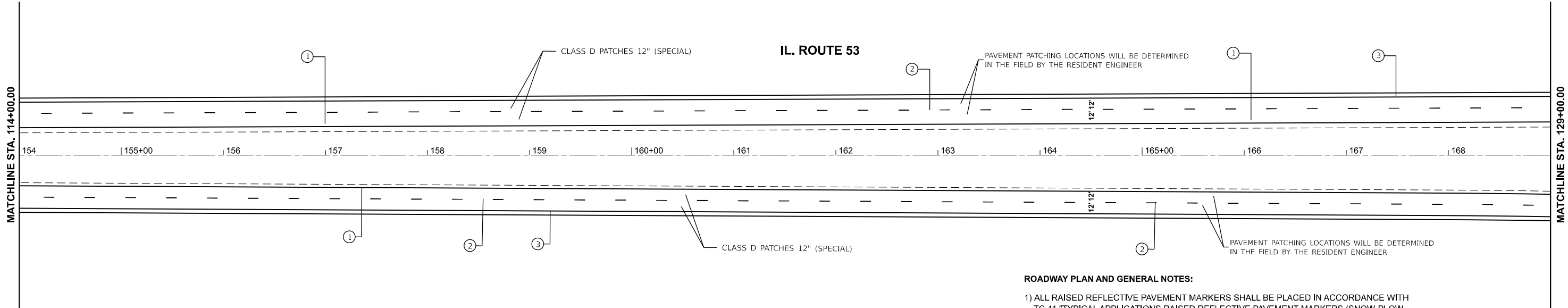
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846	FAP 0846A 23 PATCH	WILL	30	7
CONTRACT NO. 62U88				
ILLINOIS FED. AID PROJECT				

MODEL: IL-53 - RdwyPlan07
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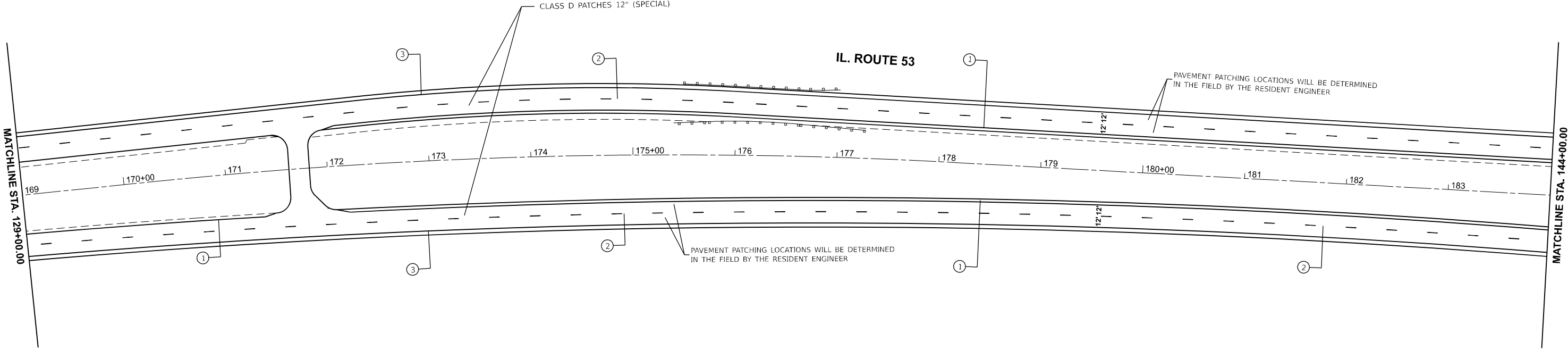
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DEPARTMENT OF TRANSPORTATION

ROADWAY PLAN AND PAVEMENT MARKINGS PLAN
IL 53: SOUTH OF ARSENAL ROAD TO HOFF ROAD

SCALE: 1"=50' SHEET 4 OF 9 SHEETS STA. TO STA.

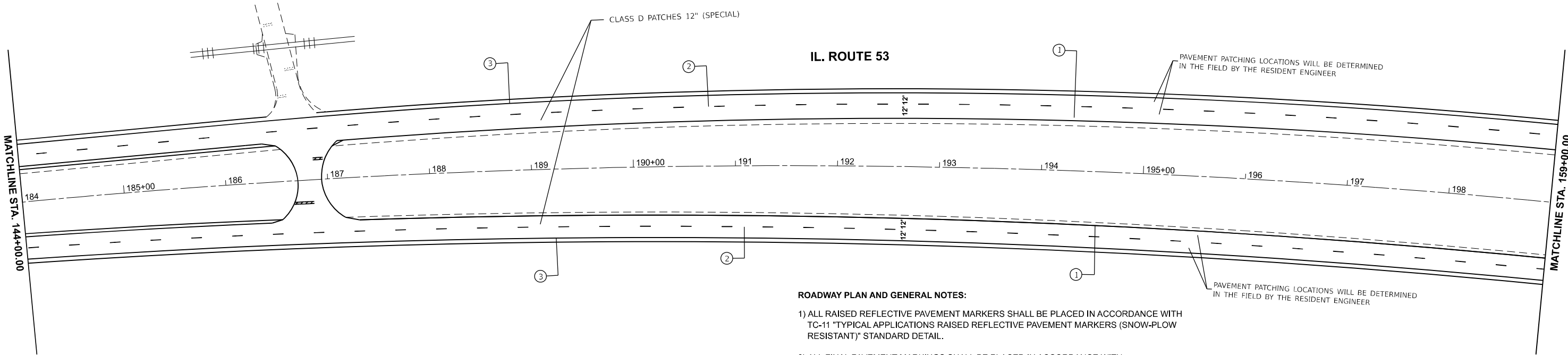
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	FAP 0846A 23 PATCH	WILL	30	8
CONTRACT NO. 62U88				
ILLINOIS FED. AID PROJECT				

MODEL: IL-53 - RdwyPlan09
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ROADWAY PLAN AND GENERAL NOTES:

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- 2) ALL FINAL PAVEMENT MARKINGS SHALL BE PLACED IN ACCORDANCE WITH TC-13 "DISTRICT ONE TYPICAL PAVEMENT MARKINGS" STANDARD DETAIL.

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		DRAWN	-	REVISED	-
		CHECKED	-	REVISED	-
PLOT DATE	= 9/18/2024	DATE	-	REVISED	-

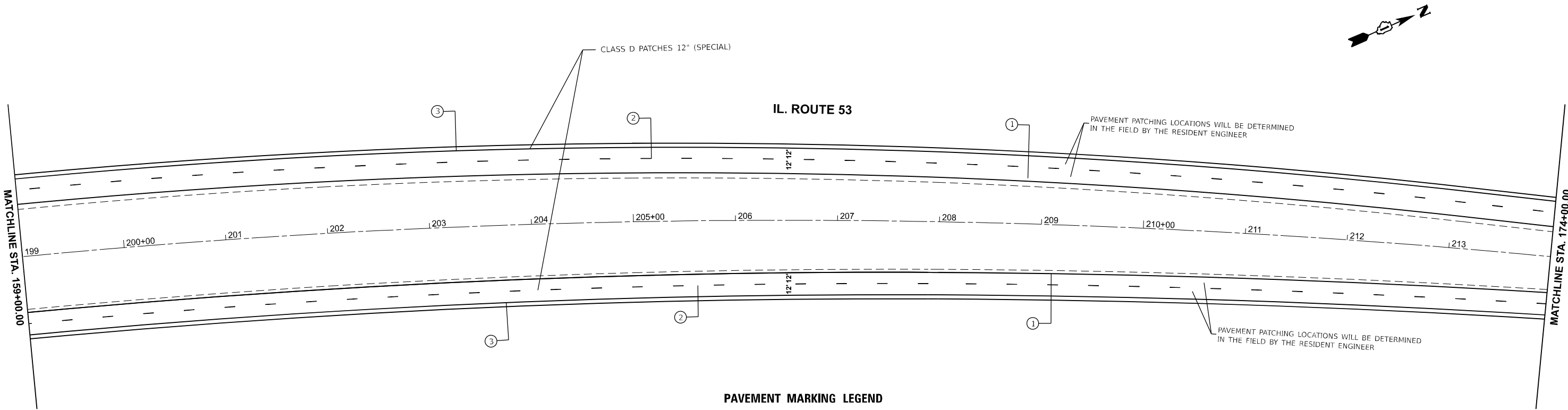
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROADWAY PLAN AND PAVEMENT MARKINGS PLAN
IL 53: SOUTH OF ARSENAL ROAD TO HOFF ROAD

SCALE: 1"=50' SHEET 5 OF 9 SHEETS STA. TO STA.

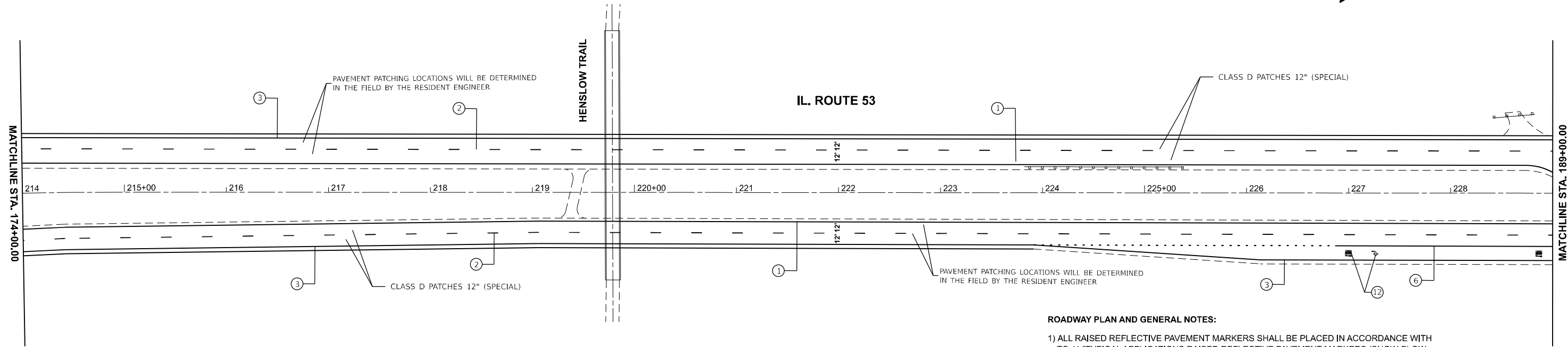
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	FAP 0846A 23 PATCH	WILL	30	9
CONTRACT NO. 62U88				
ILLINOIS FED. AID PROJECT				

MODEL: IL-53 - RdwyPlan11
FILE NAME: c:\pwy_work\pwy\plan\mdd82405\0112323-shd-plan.dgn



PAVEMENT MARKING LEGEND

① PROP. MODIFIED URETHANE PAVEMENT MARKING LINE, 4" SOLID EDGE LINE YELLOW (TYP.)	⑤ PROP. MODIFIED URETHANE PAVEMENT MARKING LINE, 6" SKIP DASH, WHITE TURN LANE @ 6' SKIP & 2' DASH (TYP.)	⑨ PROP. MODIFIED URETHANE PAVEMENT MARKING LINE, 12" DIAGONAL 45° @ 150' C-C (MINIMUM 5) YELLOW (TYP.)
② PROP. MODIFIED URETHANE PAVEMENT MARKING LINE, 4" SKIP DASH, 10' DASH-30' WHITE (TYP.)	⑥ PROP. MODIFIED URETHANE PAVEMENT MARKING LINE, 6" SOLID, WHITE TURN LANE (TYP.)	⑩ PROP. MODIFIED URETHANE PAVEMENT MARKING LINE, 12" DIAGONAL 45° @ 150' C-C (MINIMUM 5) WHITE (TYP.)
③ PROP. MODIFIED URETHANE PAVEMENT MARKING LINE, 4" SOLID EDGE LINE WHITE (TYP.)	⑦ PROP. MODIFIED URETHANE PAVEMENT MARKING LINE, 8" GORE MARKING AND CHANNELIZING LINES WHITE (TYP.)	⑪ PROP. MODIFIED URETHANE PAVEMENT MARKING LINE, 24" SOLID STOP LINES, WHITE (TYP.)
④ PROP. MODIFIED URETHANE PAVEMENT MARKING LINE, 4" DOUBLE SOLID YELLOW LINE, 2 @ 11" C-C (TYP.)	⑧ PROP. MODIFIED URETHANE PAVEMENT MARKING LINE, 12" DIAGONAL 45° @ 10' OR LESS LINE WHITE (TYP.)	⑫ PROP. MODIFIED URETHANE PAVEMENT MARKING, LETTERS AND SYMBOLS WHITE (TYP.)



ROADWAY PLAN AND GENERAL NOTES:

- 1) ALL RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED IN ACCORDANCE WITH TC-11 "TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)" STANDARD DETAIL.
- 2) ALL FINAL PAVEMENT MARKINGS SHALL BE PLACED IN ACCORDANCE WITH TC-13 "DISTRICT ONE TYPICAL PAVEMENT MARKINGS" STANDARD DETAIL.

	USER NAME	= Nedal.Qarut	DESIGNED	-	REVISED	-
			DRAWN	-	REVISED	-
			CHECKED	-	REVISED	-
	PLOT DATE	= 9/18/2024	DATE	-	REVISED	-

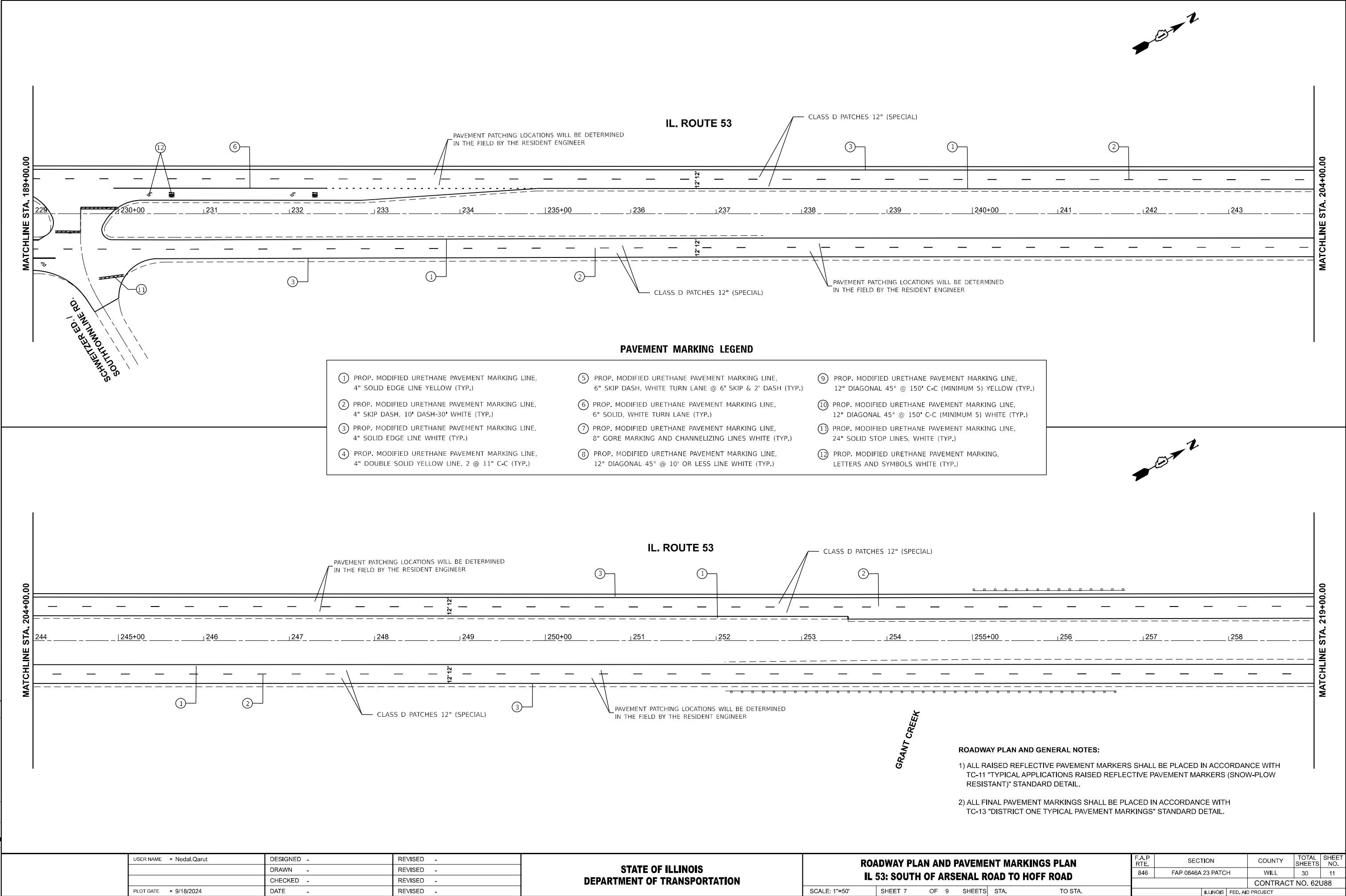
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROADWAY PLAN AND PAVEMENT MARKINGS PLAN
IL 53: SOUTH OF ARSENAL ROAD TO HOFF ROAD

SCALE: 1"=50' SHEET 6 OF 9 SHEETS STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	FAP 0846A 23 PATCH	WILL	30	10
CONTRACT NO. 62U88				
ILLINOIS FED. AID PROJECT				

MODEL: IL-53 - RdwyPlan13
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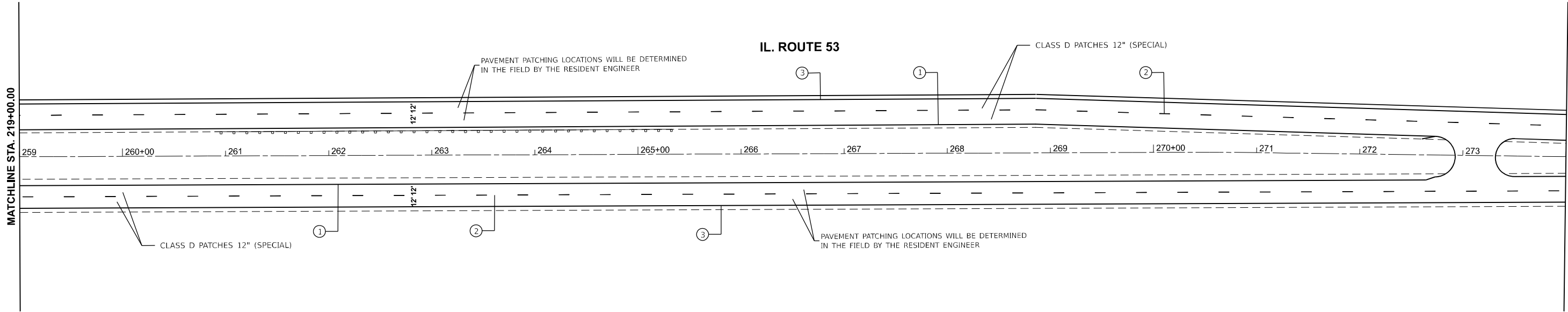
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			DRAWN	-	REVISED	-
			CHECKED	-	REVISED	-
	PLOT DATE	= 9/18/2024	DATE	-	REVISED	-

STATE OF ILLINOIS	
DEPARTMENT OF TRANSPORTATION	

ROADWAY PLAN AND PAVEMENT MARKINGS PLAN			
IL 53: SOUTH OF ARSENAL ROAD TO HOFF ROAD			
SCALE: 1"=50'	SHEET 7	OF 9 SHEETS	STA. TO STA.

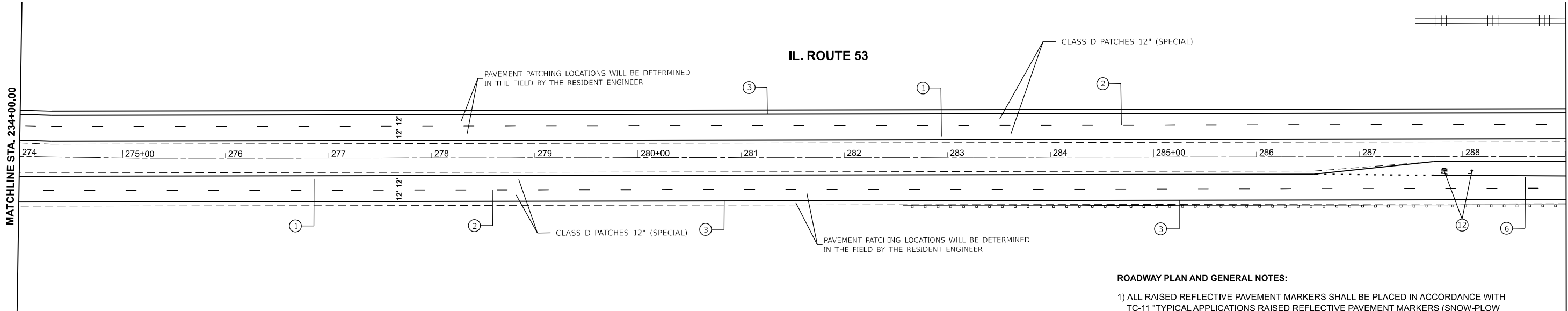
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	FAP 0846A 23 PATCH	WILL	30	11
		CONTRACT NO. 62U88		
		ILLINOIS	FED. AID PROJECT	

MODEL: IL-53 - RdwyPlan15
FILE NAME: c:\pwy_work\pwydgt\arut\mdd82405\D112323-shd-plan.dgn



PAVEMENT MARKING LEGEND

① PROP. MODIFIED URETHANE PAVEMENT MARKING LINE, 4" SOLID EDGE LINE YELLOW (TYP.)	⑤ PROP. MODIFIED URETHANE PAVEMENT MARKING LINE, 6" SKIP DASH, WHITE TURN LANE @ 6' SKIP & 2' DASH (TYP.)	⑨ PROP. MODIFIED URETHANE PAVEMENT MARKING LINE, 12" DIAGONAL 45° @ 150' C-C (MINIMUM 5) YELLOW (TYP.)
② PROP. MODIFIED URETHANE PAVEMENT MARKING LINE, 4" SKIP DASH, 10' DASH-30' WHITE (TYP.)	⑥ PROP. MODIFIED URETHANE PAVEMENT MARKING LINE, 6" SOLID, WHITE TURN LANE (TYP.)	⑩ PROP. MODIFIED URETHANE PAVEMENT MARKING LINE, 12" DIAGONAL 45° @ 150' C-C (MINIMUM 5) WHITE (TYP.)
③ PROP. MODIFIED URETHANE PAVEMENT MARKING LINE, 4" SOLID EDGE LINE WHITE (TYP.)	⑦ PROP. MODIFIED URETHANE PAVEMENT MARKING LINE, 8" GORE MARKING AND CHANNELIZING LINES WHITE (TYP.)	⑪ PROP. MODIFIED URETHANE PAVEMENT MARKING LINE, 24" SOLID STOP LINES, WHITE (TYP.)
④ PROP. MODIFIED URETHANE PAVEMENT MARKING LINE, 4" DOUBLE SOLID YELLOW LINE, 2 @ 11" C-C (TYP.)	⑧ PROP. MODIFIED URETHANE PAVEMENT MARKING LINE, 12" DIAGONAL 45° @ 10' OR LESS LINE WHITE (TYP.)	⑫ PROP. MODIFIED URETHANE PAVEMENT MARKING, LETTERS AND SYMBOLS WHITE (TYP.)



ROADWAY PLAN AND GENERAL NOTES:

- 1) ALL RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED IN ACCORDANCE WITH TC-11 "TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)" STANDARD DETAIL.
- 2) ALL FINAL PAVEMENT MARKINGS SHALL BE PLACED IN ACCORDANCE WITH TC-13 "DISTRICT ONE TYPICAL PAVEMENT MARKINGS" STANDARD DETAIL.

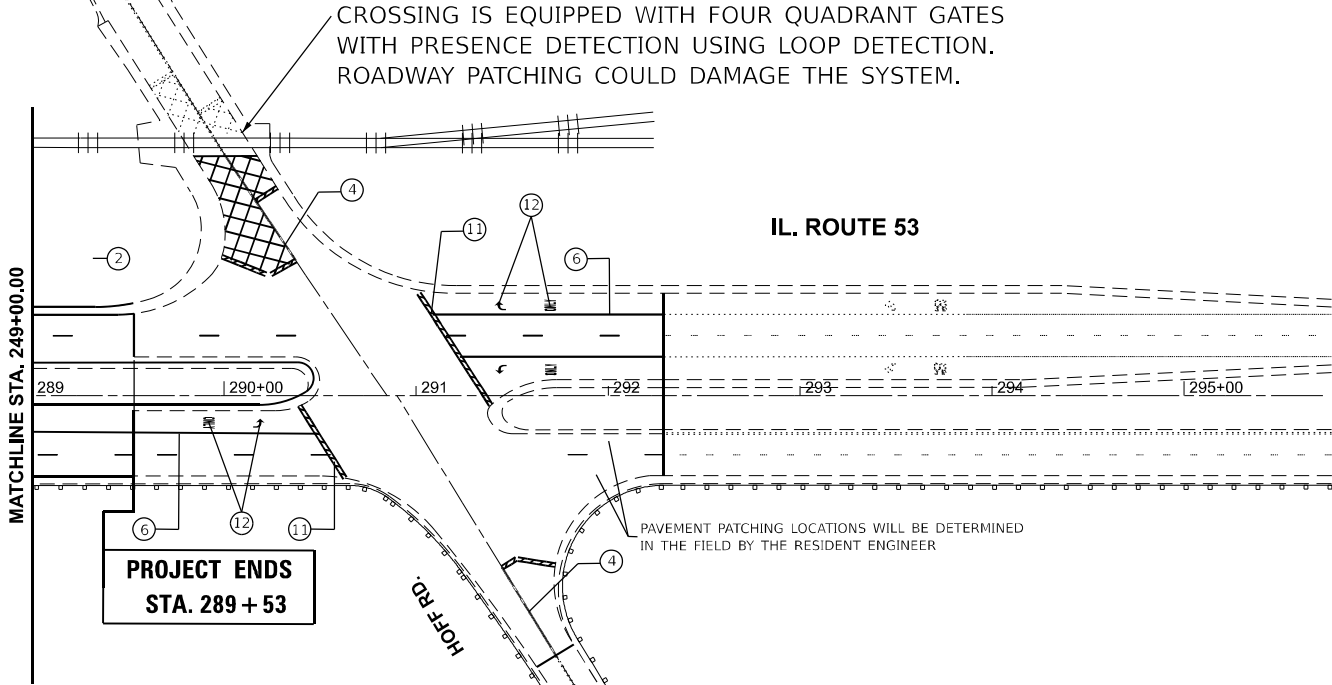
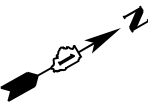
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			DRAWN	-	REVISED	-
			CHECKED	-	REVISED	-
	PLOT DATE	= 9/18/2024	DATE	-	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROADWAY PLAN AND PAVEMENT MARKINGS PLAN
IL 53: SOUTH OF ARSENAL ROAD TO HOFF ROAD

SCALE: 1"=50' SHEET 8 OF 9 SHEETS STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	FAP 0846A 23 PATCH	WILL	30	12
CONTRACT NO. 62U88				
ILLINOIS FED. AID PROJECT				



ROADWAY PLAN AND GENERAL NOTES:

- 1) ALL RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED IN ACCORDANCE WITH TC-11 "TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)" STANDARD DETAIL.
- 2) ALL FINAL PAVEMENT MARKINGS SHALL BE PLACED IN ACCORDANCE WITH TC-13 "DISTRICT ONE TYPICAL PAVEMENT MARKINGS" STANDARD DETAIL.

PAVEMENT MARKING LEGEND

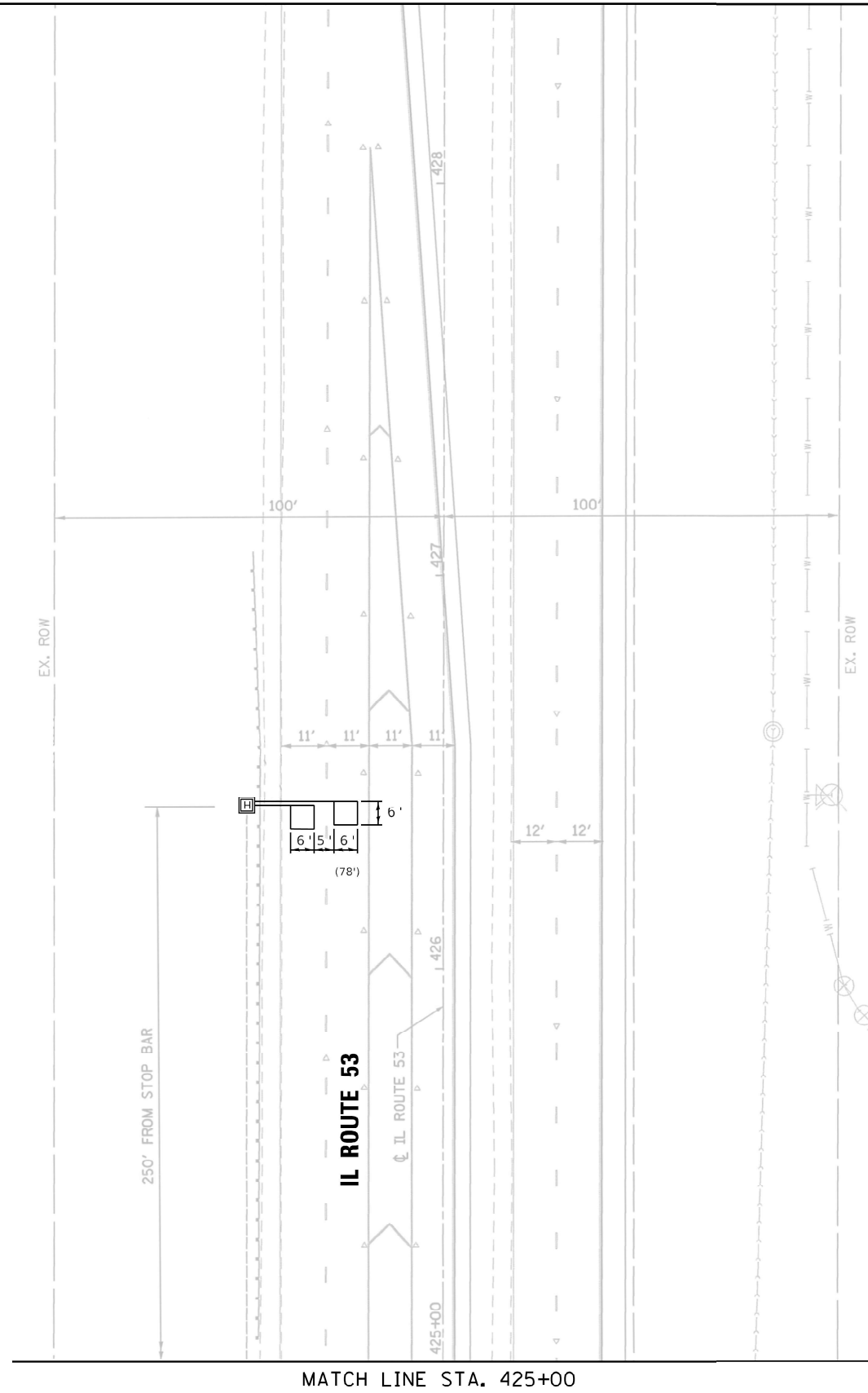
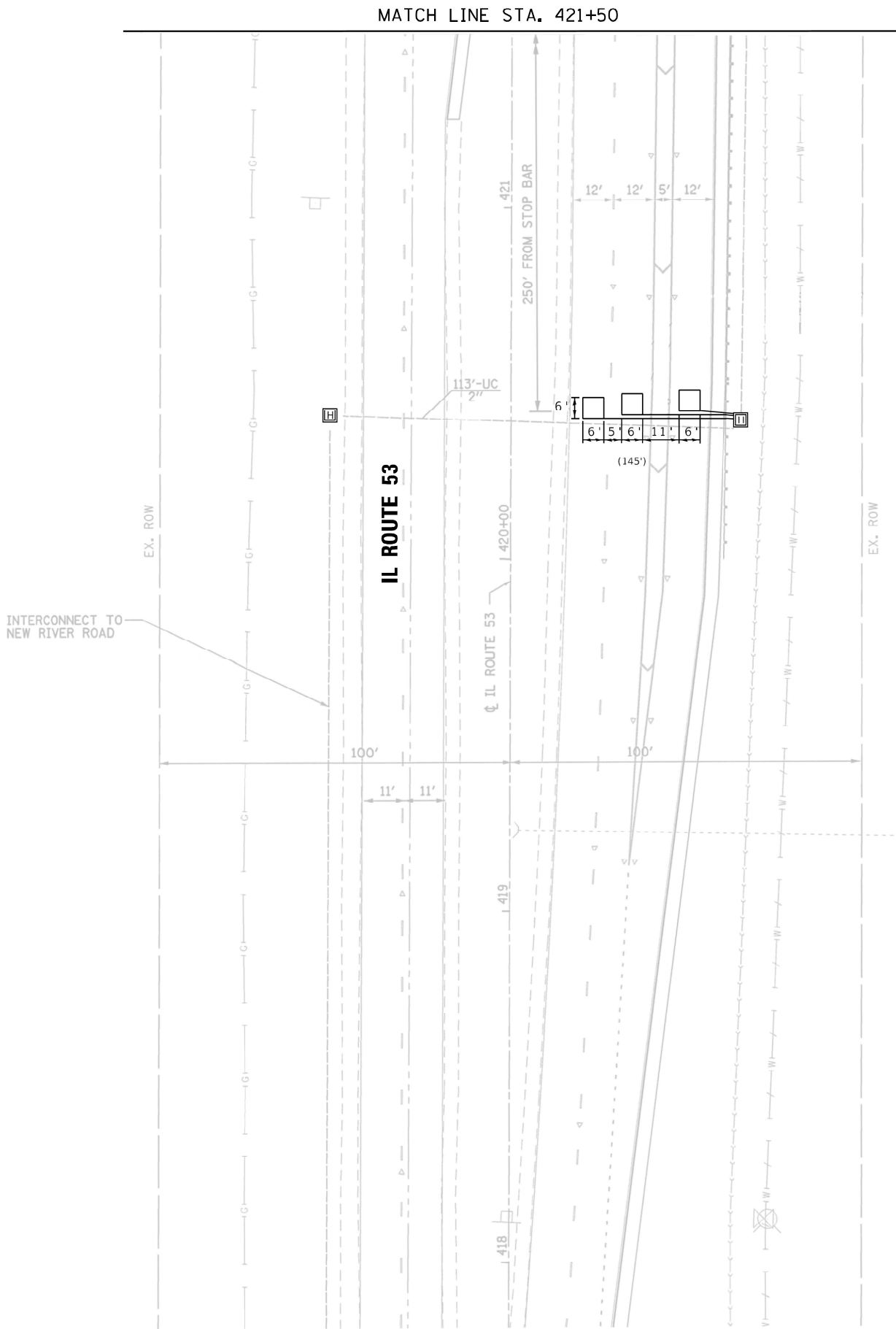
① PROP. MODIFIED URETHANE PAVEMENT MARKING LINE, 4" SOLID EDGE LINE YELLOW (TYP.)	⑤ PROP. MODIFIED URETHANE PAVEMENT MARKING LINE, 6" SKIP DASH, WHITE TURN LANE @ 6' SKIP & 2' DASH (TYP.)	⑨ PROP. MODIFIED URETHANE PAVEMENT MARKING LINE, 12" DIAGONAL 45° @ 150' C-C (MINIMUM 5) YELLOW (TYP.)
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④ PROP. MODIFIED URETHANE PAVEMENT MARKING LINE, 4" DOUBLE SOLID YELLOW LINE, 2 @ 11" C-C (TYP.)	⑧ PROP. MODIFIED URETHANE PAVEMENT MARKING LINE, 12" DIAGONAL 45° @ 10' OR LESS LINE WHITE (TYP.)	⑫ PROP. MODIFIED URETHANE PAVEMENT MARKING, LETTERS AND SYMBOLS WHITE (TYP.)

MODEL: IL-53 - RdwyPlan17
FILE NAME: c:\pawork\pawork\arun\082405\0112323-sh-plan.dgn

	USER NAME	= Nedal.Qarut	DESIGNED	-	REVISED	-	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ROADWAY PLAN AND PAVEMENT MARKINGS PLAN IL 53: SOUTH OF ARSENAL ROAD TO HOFF ROAD	SCALE: 1"=50'	SHEET 9 OF 9 SHEETS	STA. TO STA.	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			DRAWN	-	REVISED	-						846	FAP 0846A 23 PATCH	WILL	30	13
			CHECKED	-	REVISED	-						CONTRACT NO. 62U88				
	PLOT DATE	= 9/18/2024	DATE	-	REVISED	-						ILLINOIS FED. AID PROJECT				



MODEL Default
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TS 7582
EAGLE 6J

USER NAME = Jakob.Larson	DESIGNED - J.LARSON	REVISED -
	DRAWN - J.LARSON	REVISED -
PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 5/29/2024	DATE - 5/24/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL MODERNIZATION PLAN (SHEET 2 OF 2)
IL ROUTE 53 AND SOUTH ARSENAL ROAD

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	FAP 0846A 23	WILL	30	15
CONTRACT NO. 62U88				
ILLINOIS FED. AID PROJECT				

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	13	11	50	71.5
(YELLOW)	13	20	5	13.0
(GREEN)	13	12	45	70.2
PERMISSIVE ARROW	8	10	10	8.0
PED. SIGNAL	-	20	100	-
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	1	150	100	150.0
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
			TOTAL =	437.7

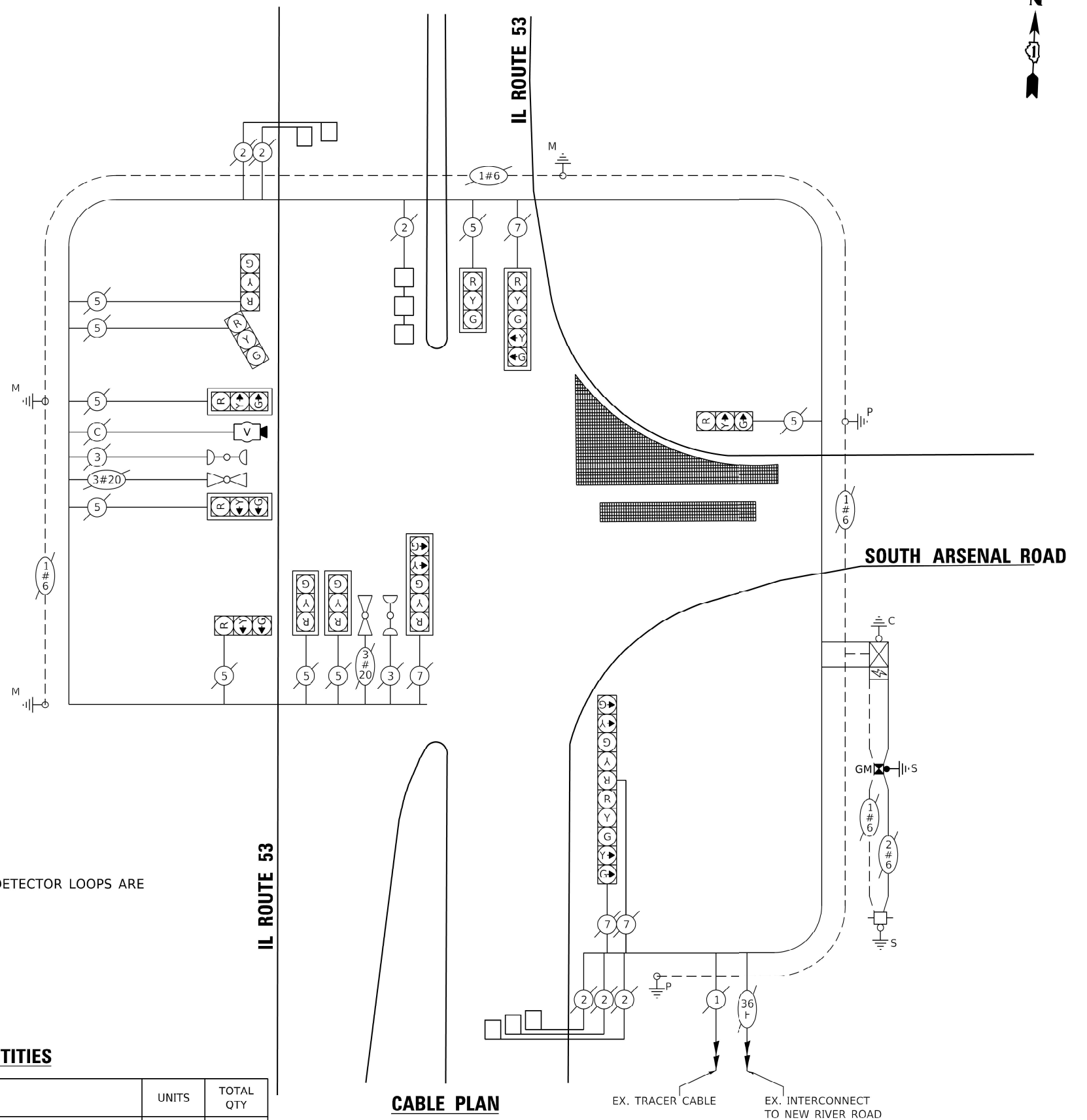
ENERGY SUPPLY: CONTACT: RICK OSTER
PHONE: 779-231-0625
COMPANY: COMMONWEALTH EDISON
ACCOUNT NUMBER: ---

	ITEM DESCRIPTION	UNITS	TOTAL QTY
*	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
	CONCRETE FOUNDATION, TYPE A	FOOT	4
	DETECTOR LOOP, TYPE 1	FOOT	319
	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	287
	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
	SERVICE INSTALLATION, GROUND MOUNTED, METERED	EACH	1
	VIDEO VEHICLE DETECTION SYSTEM, SINGLE APPROACH	EACH	1

	DESIGNED -	J.LARSON	REVISED -
	DRAWN -	J.LARSON	REVISED -
	CHECKED -		REVISED -
	DATE -	5/24/2024	REVISED -

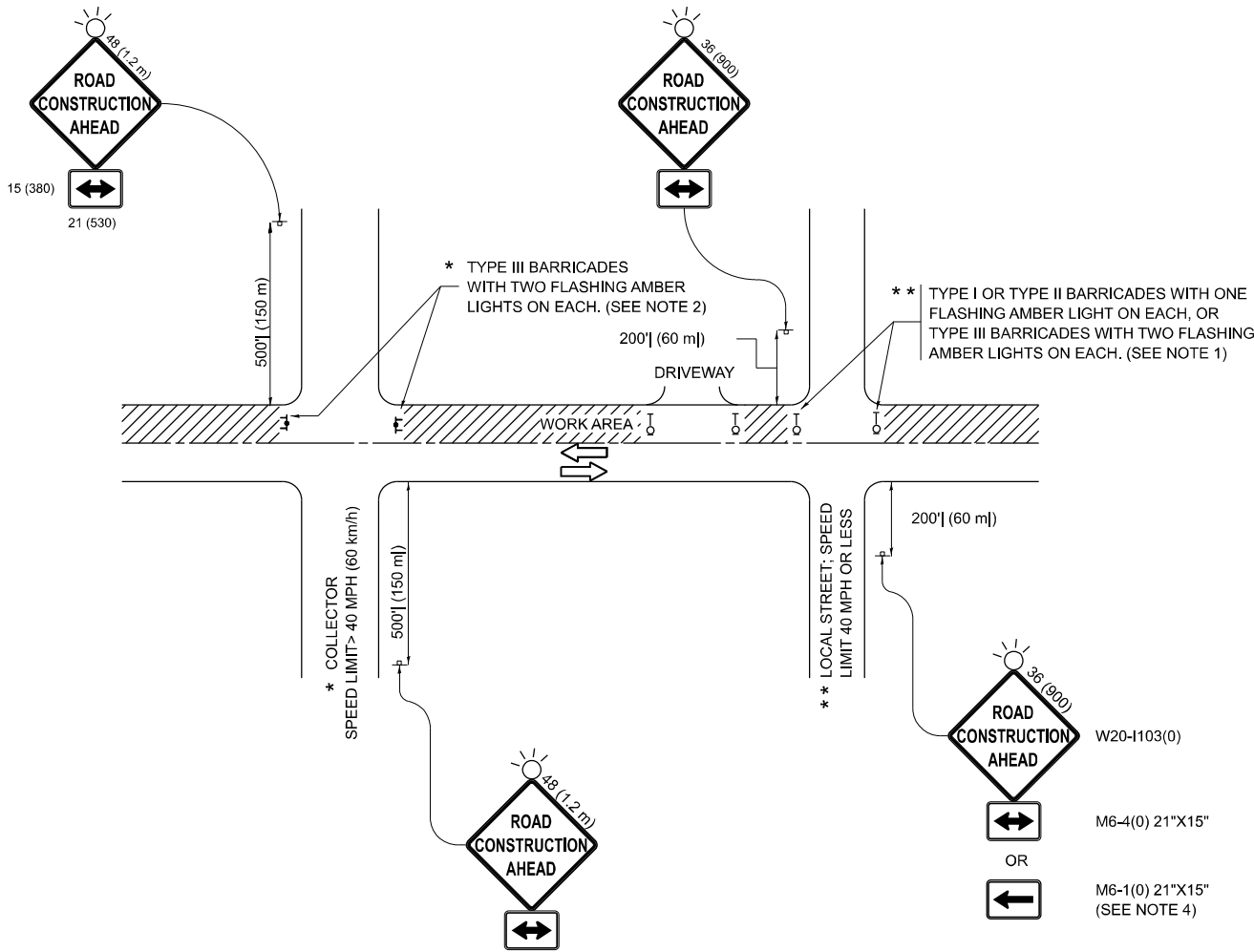
SCALE:	SHEET	OF	SHEETS	STA.	TO STA.
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F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	FAP 0846A 23	WILL	30	16
		CONTRACT NO. 62U88		
ILLINOIS		FED. AID PROJECT		



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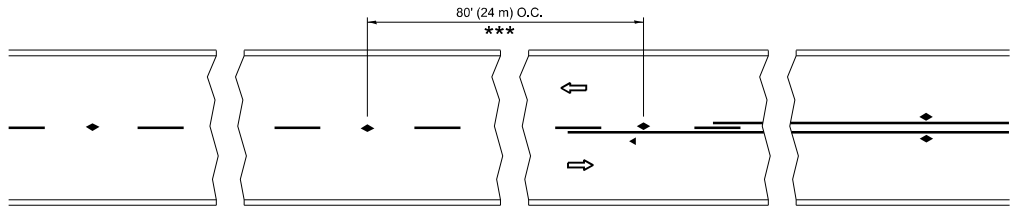


NOTES:

- 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.
- WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).
- 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.

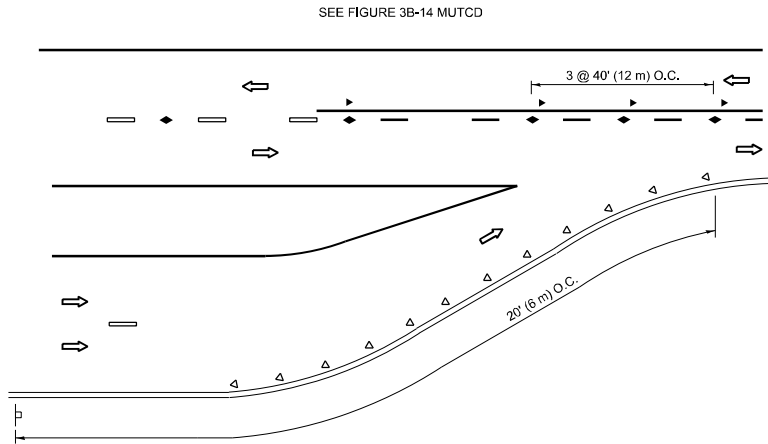
All dimensions are in inches (millimeters)
unless otherwise shown.

	USER NAME = Nedat.Qarut	DESIGNED - L.H.A.	REVISED - T. RAMMACHER 01-06-00	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS	F.A.P RTE.					SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED - A. SCHUETZE 07-01-13			846	FAP 0846A 23 PATCH	WILL	30	18				
	PLOT SCALE = 0.16666633" / in.	CHECKED -	REVISED - A. SCHUETZE 09-15-06			TC-10					CONTRACT NO. 62U88			
	PLOT DATE = 8/6/2024	DATE - 06-89	REVISED - D. SENDERAK 05-03-24			SCALE:	SHEET	OF	SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT		

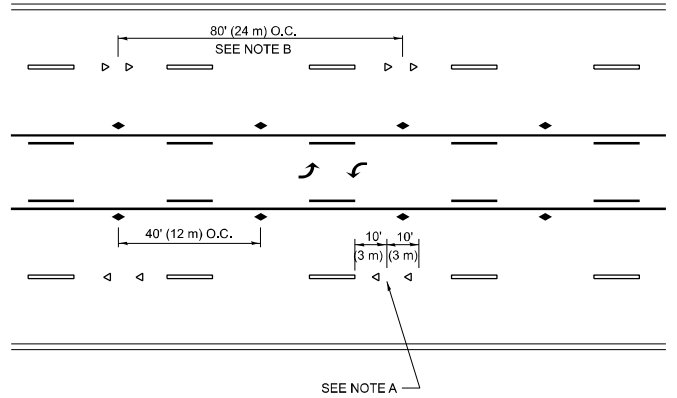


*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

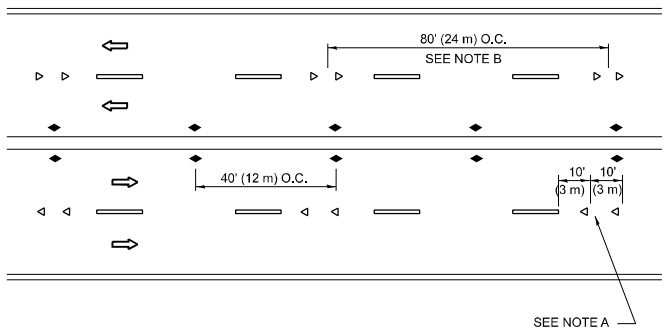
TWO-LANE/TWO-WAY



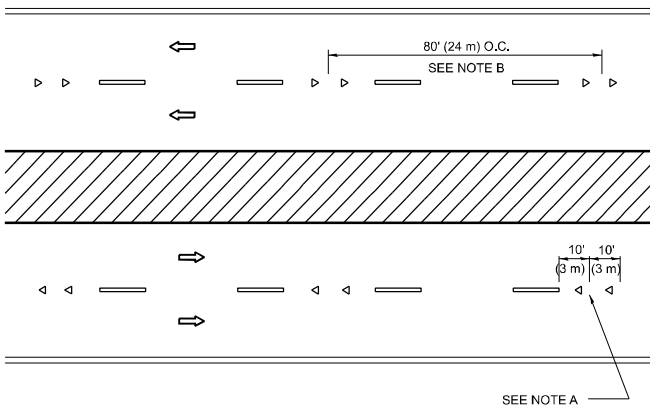
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

- MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
- MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
- MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.
- MARKERS ARE TO BE USED ADJACENT TO BOTH SOLID WHITE LINES IN DUAL LEFT TURN LANES

SYMBOLS

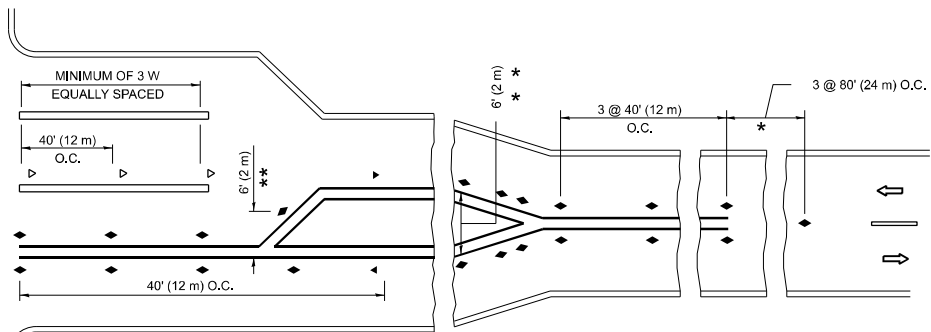
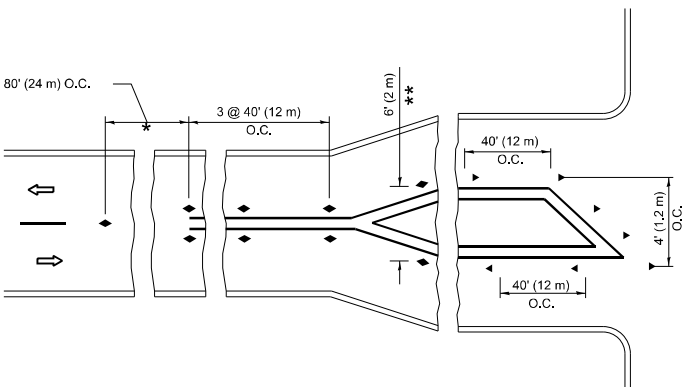
- YELLOW STRIPE
- WHITE STRIPE
- ONE-WAY AMBER MARKER
- ONE-WAY CRYSTAL MARKER (W/O)
- TWO-WAY AMBER MARKER

LANE MARKER NOTES

- USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.
- REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H (20 km/h) LOWER THAN POSTED SPEEDS.

DESIGN NOTES

- DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
- EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
- THE EXACT MARKER LIMITS, SPACING, AND COLOR SHALL BE INCLUDED IN THE PLANS WHEN STANDARD SPECIFICATIONS ARE NOT BEING USED.
- MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.



- * SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE
- ** WHERE THE MEDIAN WIDTH IS 6' (2 m) OR LESS USE TWO-WAY MARKERS.

TURN LANES

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

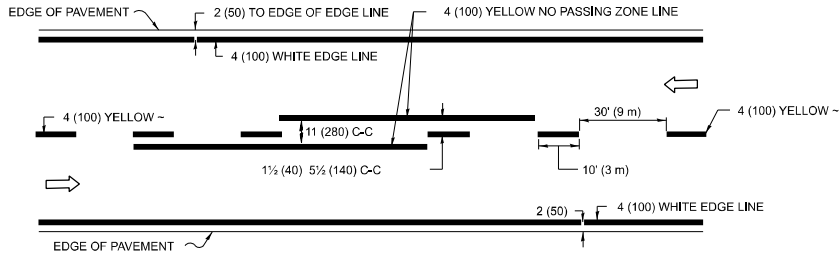
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL APPLICATIONS
RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)

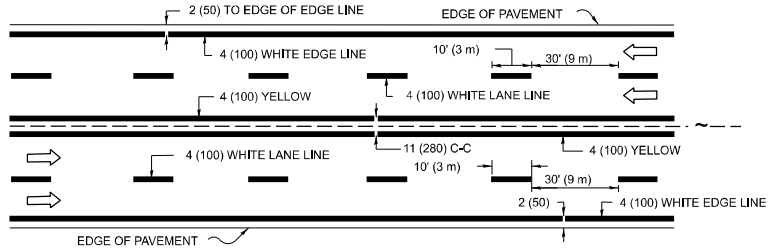
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	FAP 0846A 23 PATCH	WILL	30	19
TC-11		CONTRACT NO. 62U88		
ILLINOIS		FED. AID PROJECT		

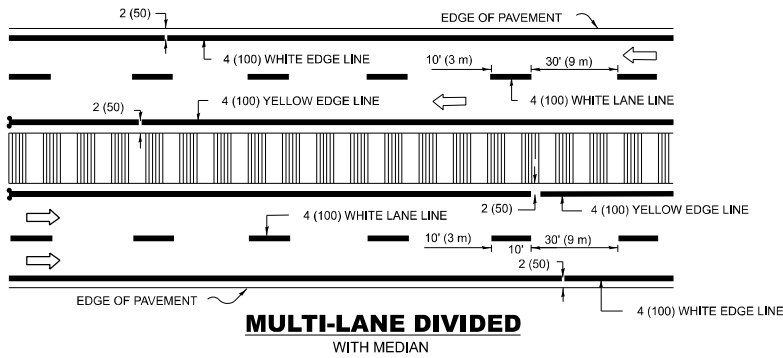
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2-LANE ROADWAY

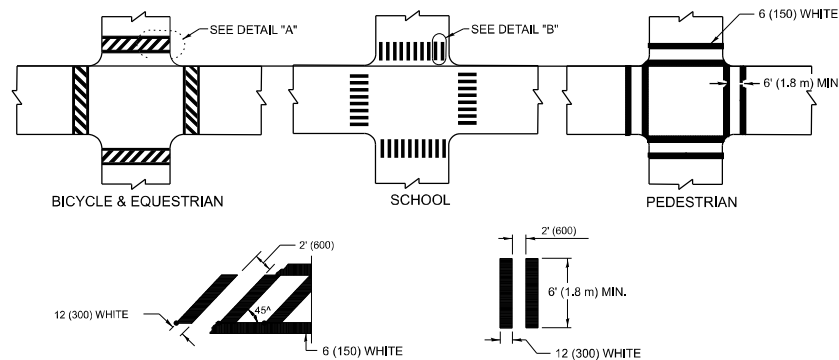


MULTI-LANE UNDIVIDED



MULTI-LANE DIVIDED
WITH MEDIAN

TYPICAL LANE AND EDGE LINE MARKING

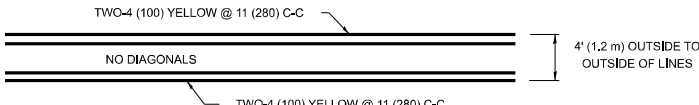


DETAIL "A"

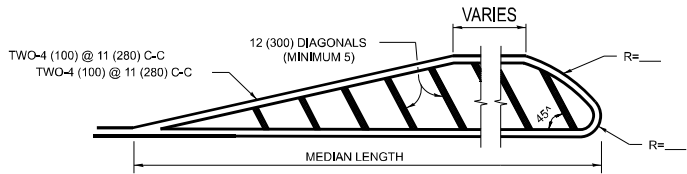
DETAIL "B"

TYPICAL CROSSWALK MARKING

* MARKINGS SHALL BE INSTALLED PARALLEL TO THE CENTERLINE OF THE ROAD WHICH IT CROSSES

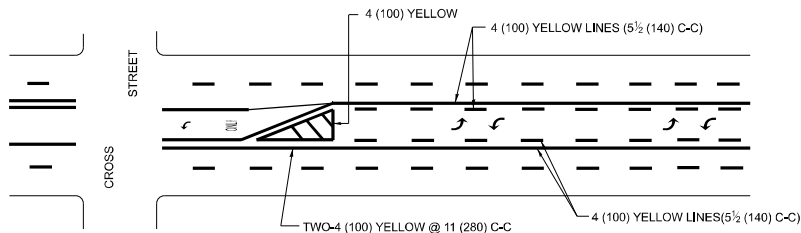


4' (1.2 m) WIDE MEDIANS ONLY

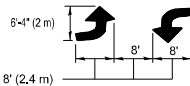


DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

MEDIANS OVER 4' (1.2 m) WIDE

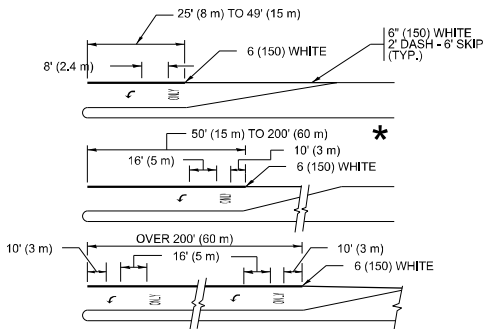


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

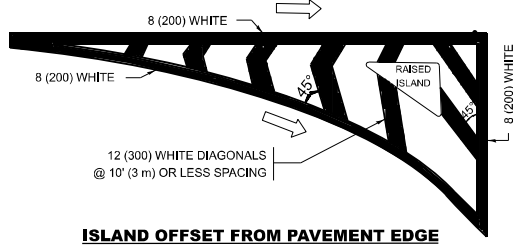


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
AREA = 15.6 SQ. FT. (1.5 m²) ONLY AREA = 20.8 SQ. FT. (1.9 m²)

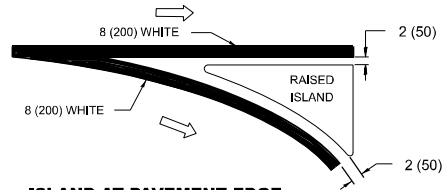
* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING

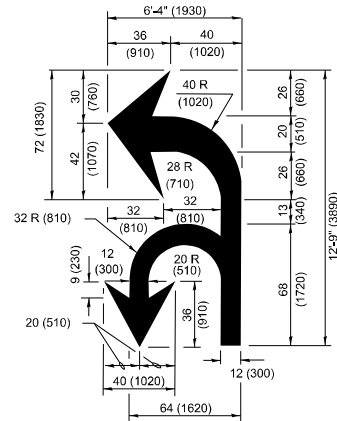


ISLAND OFFSET FROM PAVEMENT EDGE

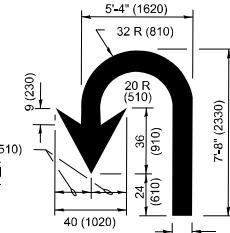


ISLAND AT PAVEMENT EDGE

TYPICAL ISLAND MARKING



COMBINATION LEFT AND U-TURN



U-TURN

LANE REDUCTION TRANSITION

* LANE REDUCTION ARROWS REQUIRED AT SPEEDS OF 45 MPH OR GREATER OR WHEN SPECIFIED IN PLANS.

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5 1/2 (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MEDIANS IN YELLOW
TURN LANE MARKINGS	6 (150) LINE: FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH: 5 1/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES: "RR" IS 8' (1.8 m) LETTERS: 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: *R*=3.6 SQ. FT. (0.33 m ²) EACH *X*=54.0 SQ. FT. (5.0 m ²)
SHOULDER DIAGONALS (REQUIRED FOR SHOULDERS ≥ 8')	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))
U TURN ARROW	SEE DETAIL	SOLID	WHITE	16.3 SF
2 ARROW COMBINATION LEFT AND U TURN	SEE DETAIL	SOLID	WHITE	30.4 SF

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO
STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE
CONSTRUCTION AND STATE STANDARD 780001.

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

USER NAME = Nedat.Qarut	DESIGNED - EVERS	REVISED - C. JUCIUS 09-09-09
DRAWN -	REVISD - C. JUCIUS 07-01-13	
PLOT SCALE = 0.16666633" / in.	CHECKED -	REVISED - C. JUCIUS 12-21-15
PLOT DATE = 9/18/2024	DATE - 03-19-90	REVISED - C. JUCIUS 04-12-16

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
TYPICAL PAVEMENT MARKINGS

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

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	FAP 0846A 23 PATCH	WILL	30	20
TC-13		CONTRACT NO. 62U88		
		ILLINOIS	FED. AID PROJECT	

TURN BAY ENTRANCE AT START
OF LANE CLOSURE TAPER

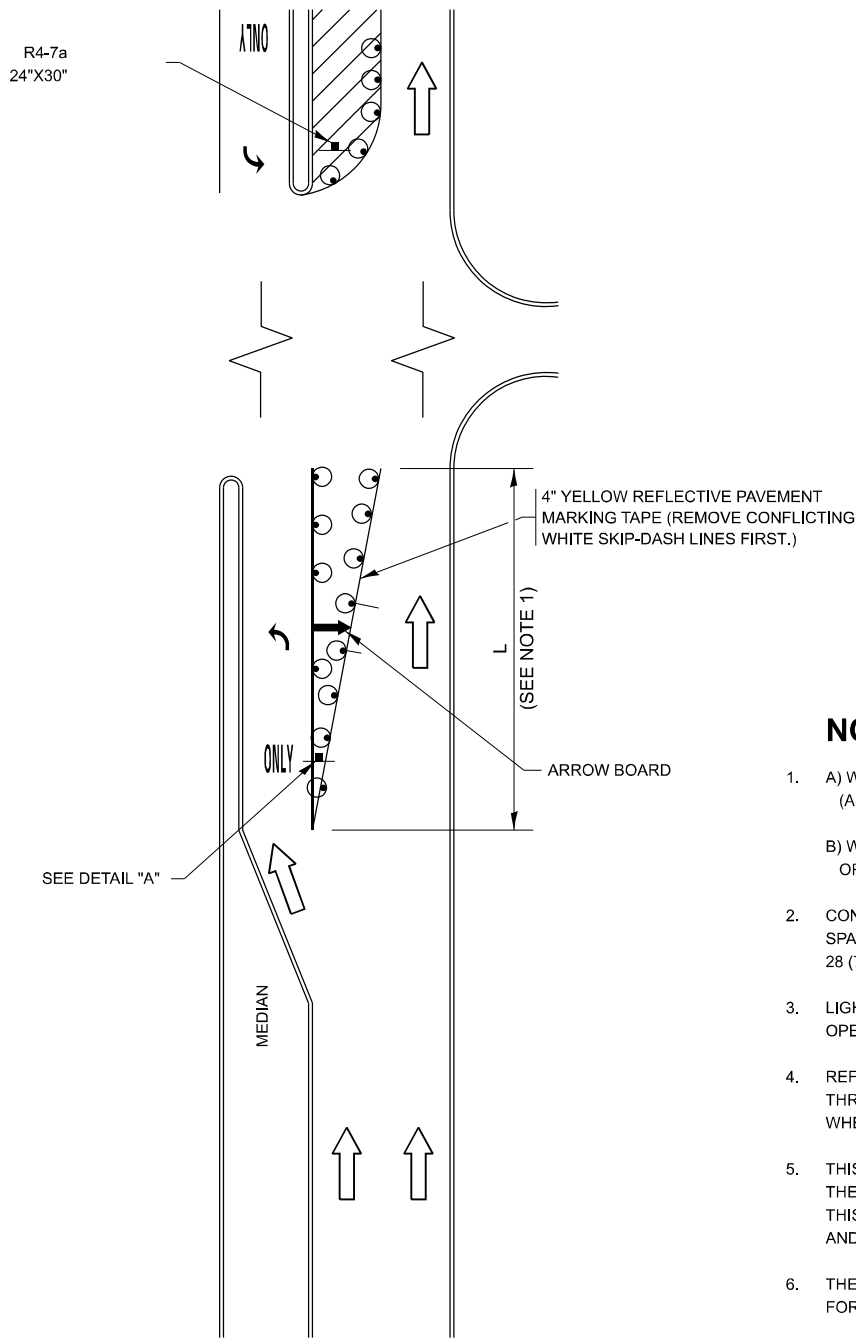
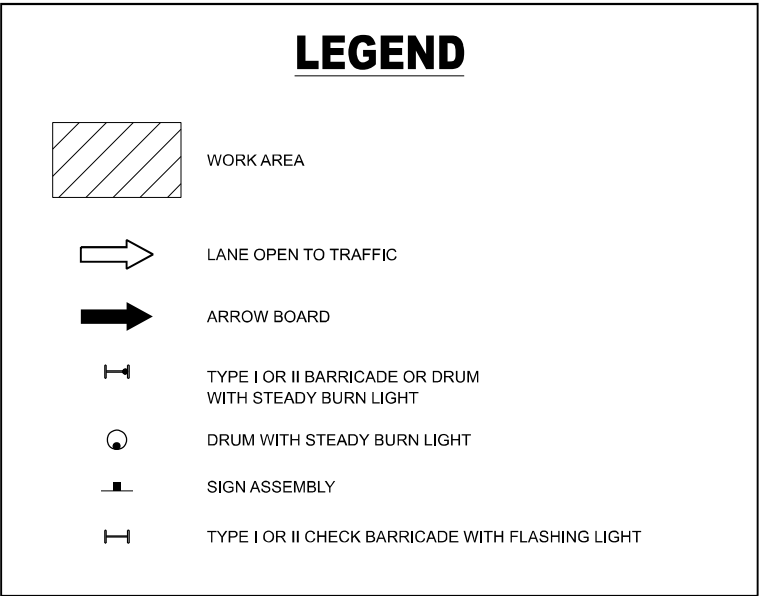


FIGURE 1

LEGEND



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" R3-1100R 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

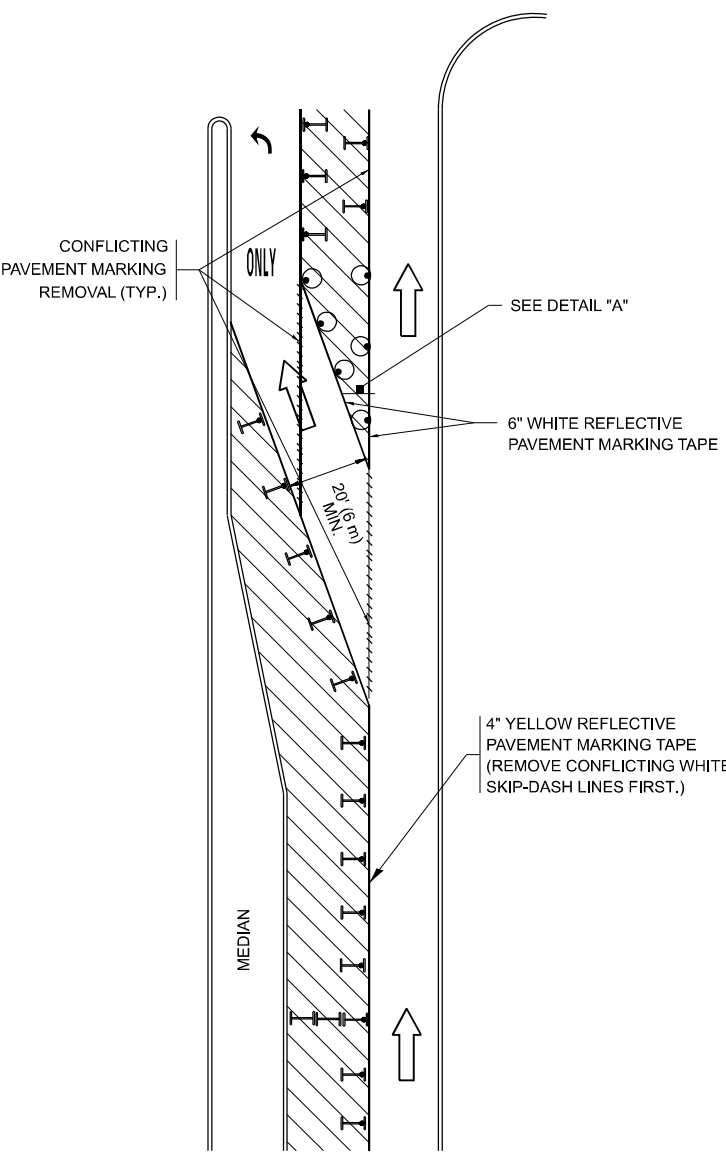
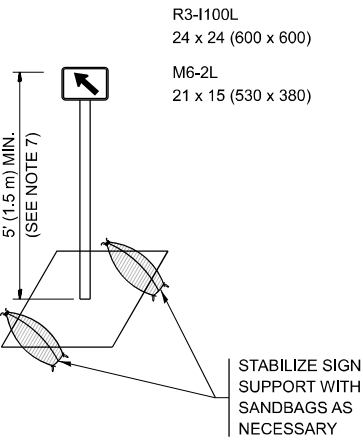


FIGURE 2



DETAIL A

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

MODEL: TC-14 (Sheet)
FILE NAME: c:\p\work\qarut\qarut\082405\012323-sh-Traffic.dgn

USER NAME	= Nedat.Qarut
DESIGNED	- T. RAMMACHER 09-08-94
DRAWN	- A. HOUSEH 11-07-95
PLOT SCALE	= 0.16666633" / in.
PLOT DATE	= 9/18/2024
CHECKED	- A. HOUSEH 10-12-96
DATE	- T. RAMMACHER 01-06-00

REVISED	- R. BORO 09-14-09
REVISED	- A. SCHUETZE 07-01-13
REVISED	- A. SCHUETZE 09-15-16
REVISED	-

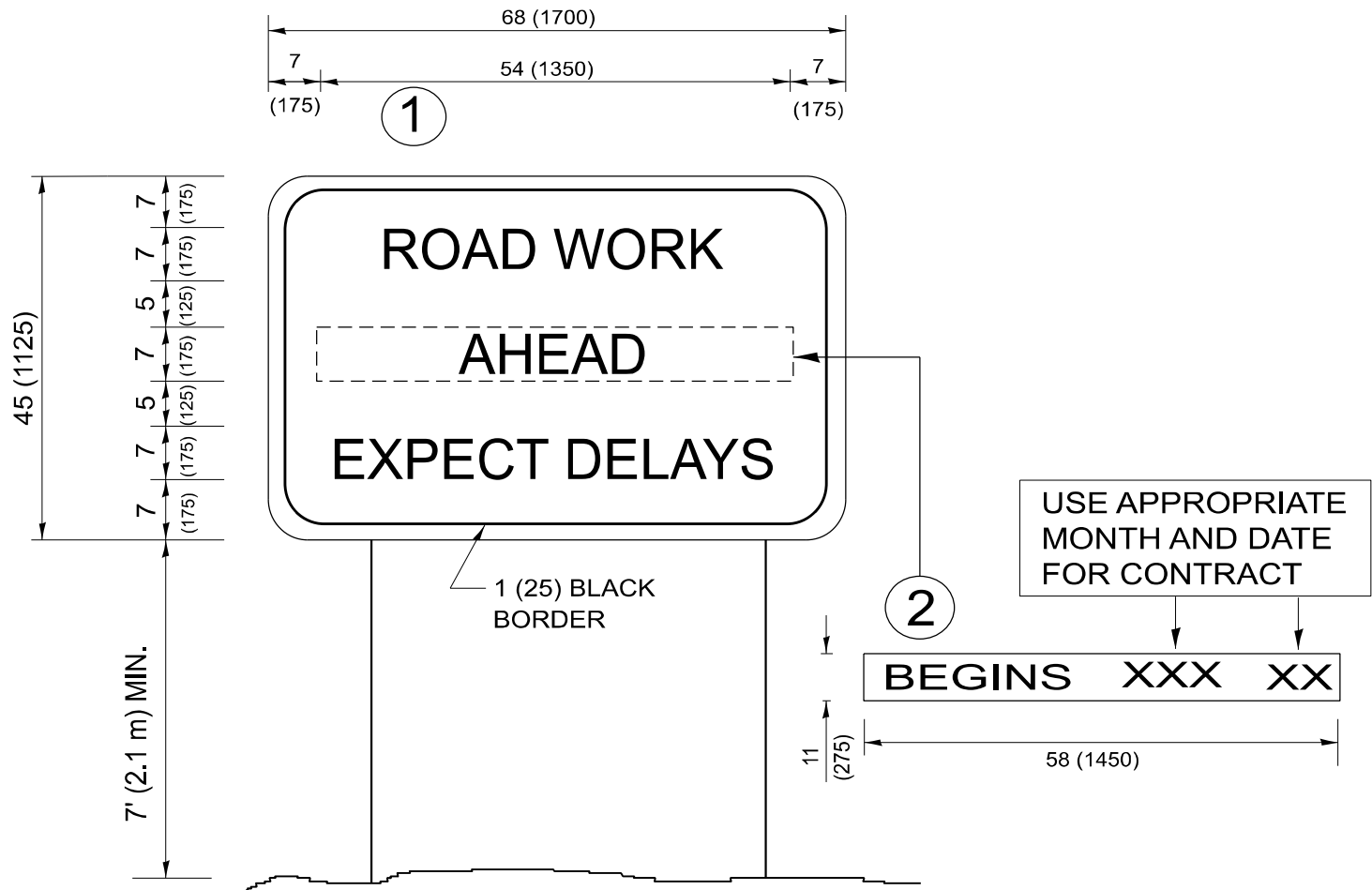
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL AND PROTECTION AT TURN BAYS
(TO REMAIN OPEN TO TRAFFIC)

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	FAP 0846A 23 PATCH	WILL	30	21
TC-14		CONTRACT NO. 62U88		
ILLINOIS		FED. AID PROJECT		

MODEL: TC-22 [Sheet]
FILE NAME: c:\p\work\pwork\garum\082405\D112323-sh-Dist\Std.dgn



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 SIGN ① WITH INSTALLED PANEL ② ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL ② SOON 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.

USER NAME	= Nedat.Qarut	DESIGNED	-
DRAWN	-	REVISED	- R. MIRS 09-15-97
PLOT SCALE	= 0.16666633" / in.	CHECKED	-
PLOT DATE	= 9/18/2024	DATE	-
		REVISED	- T. RAMMACHER 02-02-99
		REVISED	- C. JUCIUS 01-31-07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ARTERIAL ROAD
INFORMATION SIGN

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

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	FAP 0846A 23 PATCH	WILL	30	22
TC-22		CONTRACT NO. 62U88		
		ILLINOIS	FED. AID PROJECT	

TRAFFIC SIGNAL LEGEND

(NOT TO SCALE)

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

MODEL: TS-05 [Sheet]
FILE NAME: c:\pdx_work\pdx\qarut\ud882405\12323-sh-TrafficSignal.dgn

	USER NAME = Nedat.Qarut	DESIGNED - IP	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS		F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - IP	REVISED -				846	FAP 0846A 23 PATCH	WILL	30	23
	PLOT SCALE = 0.16666633" / in.	CHECKED - LP	REVISED -				TS-05		CONTRACT NO. 62U88		
	PLOT DATE = 9/18/2024	DATE - 9/29/2016	REVISED -				SCALE: NONE	SHEET 1 OF 7 SHEETS	STA.	TO STA.	

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EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE EMPTY COILABLE NONMETALLIC CONDUIT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). EMPTY COILABLE NONMETALLIC CONDUIT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.

THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.

EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF LOK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.

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

IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVEHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.

LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.

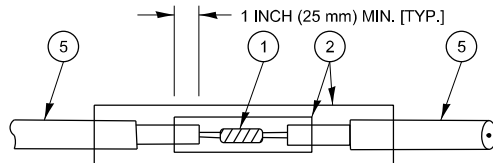
PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

Diagram illustrating the components of a rectangular loop:

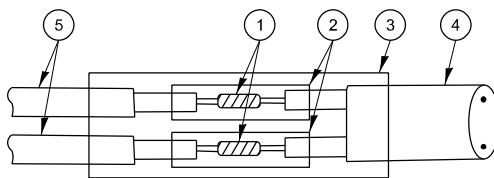
- LANE (A) LOOP (B)
- LOOP DIRECTION (C)
- LOOP ROTATION (D)

-
- Diagram illustrating the wiring configuration for a loop detector system, showing the connection between the loop wires and the controller cabinet.
- Key components and labels:
- HANDHOLE OR JUNCTION BOX**: The central connection point for the loop wires.
 - LOOP TAG**: Labels for the individual loop wires entering the junction box.
 - STRANDED LOOP WIRE NO. 14 1/C IN EMPTY COILABLE NONMETALLIC CONDUIT [5 TWISTS/FT (MM)]**: Description of the loop wire specifications.
 - LOOP-TO-LOOP SPLICE (SEE DETAIL "A")**: Indicated by arrows pointing to the splicing points within the junction box.
 - NO. 14 2/C TWISTED, SHIELDED LEAD-IN**: The shielded lead-in wire connecting the junction box to the controller cabinet.
 - CONTROLLER CABINET**: The main unit housing the amplifier.
 - AMPLIFIER**: The component responsible for processing the loop signal.
 - OUTPUT**: The signal output from the amplifier.
 - LOOP DETECTOR SPLICE (SEE DETAIL "B")**: Indicated by arrows pointing to the splicing points between the loop wires and the lead-in wire.
 - LOOP POLARITY AS SHOWN MUST BE STRICTLY OBSERVED WHEN SPLICING LOOP WIRES TO THE NO. 14 2/C TWISTED, SHIELDED LEAD-IN.**: A critical note regarding the correct polarity of the loop wires.
 - VEHICLE MOVEMENT**: Indicated by arrows showing the direction of traffic flow through the loops.
 - LOOP 1, LOOP 2, LOOP 3**: The individual loop areas installed in the pavement.

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

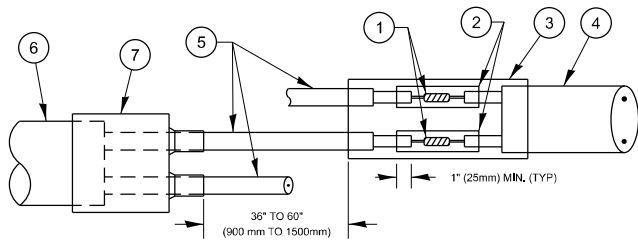


DETAIL "A"
LOOP-TO-LOOP SPLICE



DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

DETAIL "A"
LOOP-TO-LOOP SPLICE



PRE-FORMED LOOP

DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

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

USER NAME = Nedal.Qarut	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 0.166666633' / in.	CHECKED -	REVISED -
PLOT DATE = 9/18/2024	DATE -	REVISED -

DISTRICT ONE

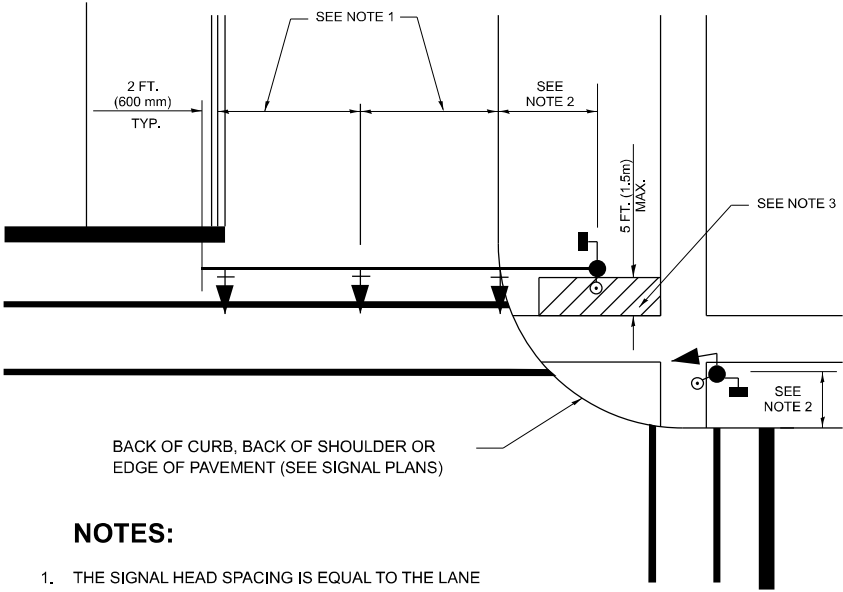
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE	SHEET 2	OF 7	SHEETS	STA.	TO STA.
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F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	FAP 0846A 23 PATCH	WILL	30	24
TS-05		CONTRACT NO. 62U88		
ILLINOIS		FED. AID PROJECT		

TRAFFIC SIGNAL MAST ARM AND SIGNAL POST

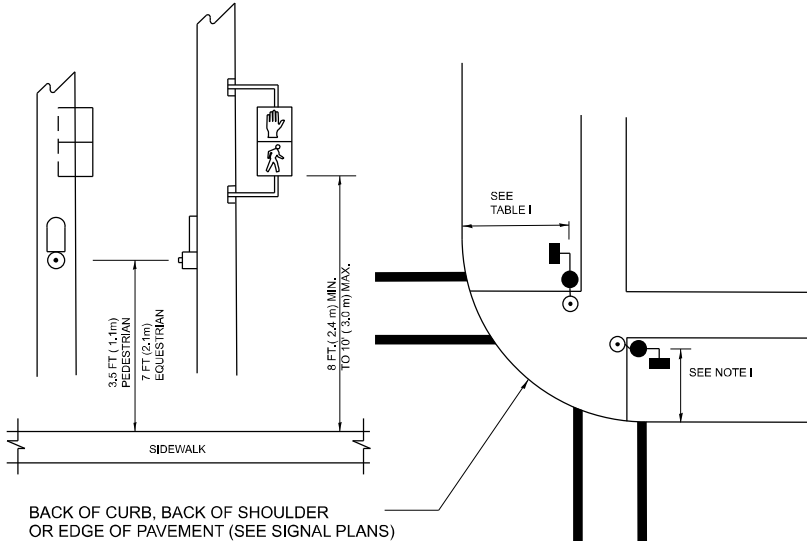
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



NOTES:

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

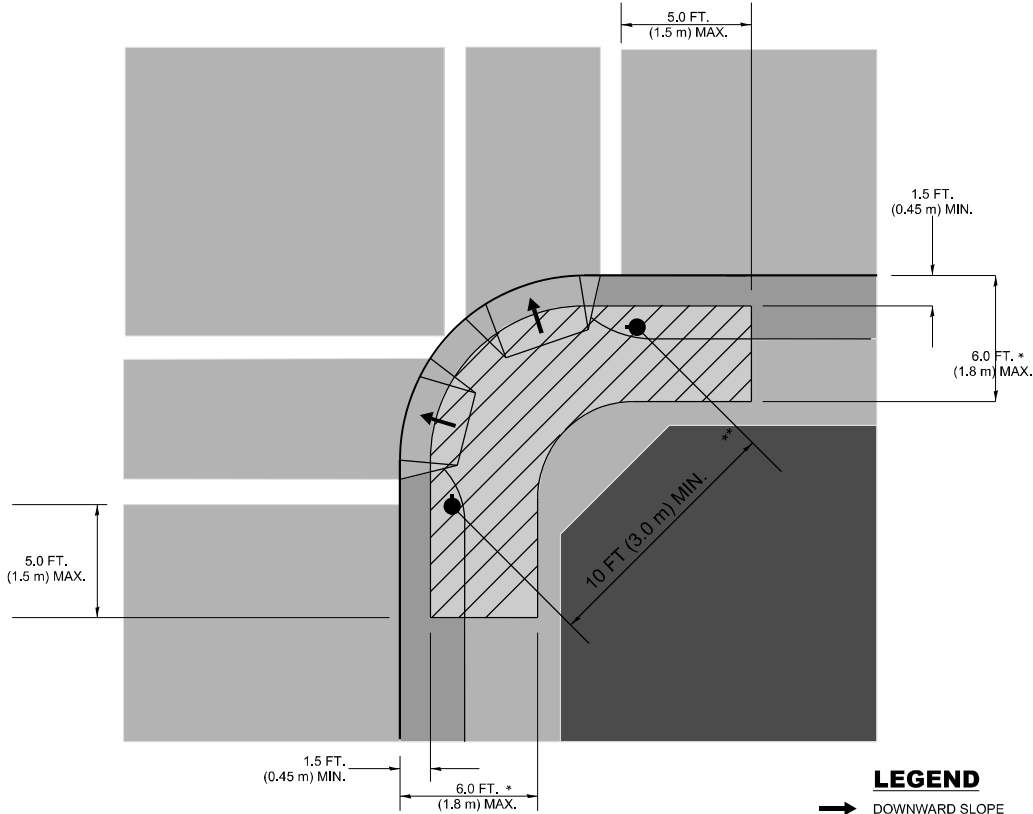
PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST



NOTES:

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

RECOMMENDED PUSHBUTTON LOCATIONS



LEGEND

- DOWNWARD SLOPE
- PEDESTRIAN PUSHBUTTON
- RECOMMENDED PUSHBUTTON LOCATIONS

* WHERE THERE ARE CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON BETWEEN 1.5 FT (0.45 m) AND 6 FT (1.8 m) FROM THE EDGE OF THE CURB, SHOULDER, OR PAVEMENT, IT SHOULD NOT BE FURTHER THAN 10 FT (3 m) FROM THE EDGE OF CURB, SHOULDER, OR PAVEMENT.

** WHERE THERE ARE CONSTRAINTS ON A PARTICULAR CORNER THAT MAKE IT IMPRACTICAL TO PROVIDE THE 10 FT (3 m) SEPERATION BETWEEN THE TWO PEDESTRIAN PUSHBUTTONS, THE PUSHBUTTONS MAY BE PLACED CLOSER TOGETHER OR ON THE SAME POLE.

NOTES:

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

TRAFFIC SIGNAL EQUIPMENT OFFSET

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

NOTES:

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

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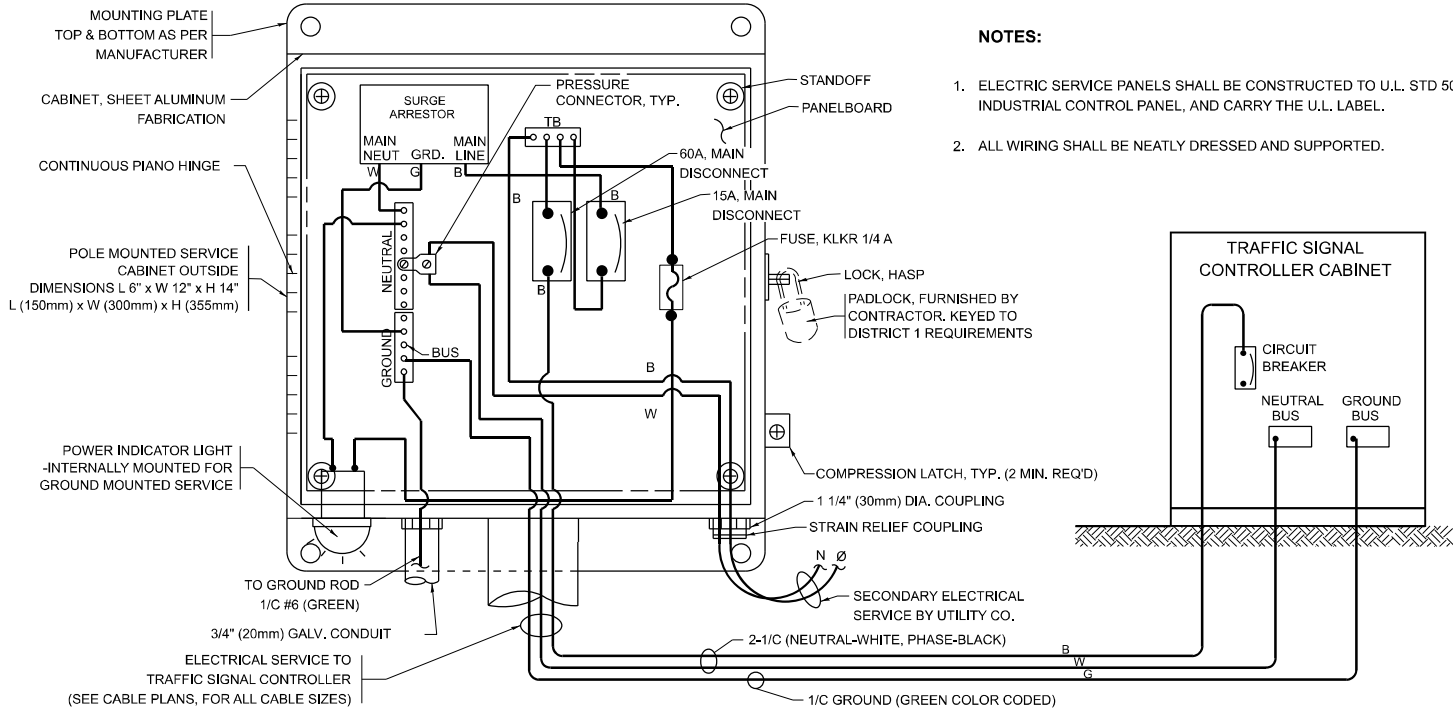
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

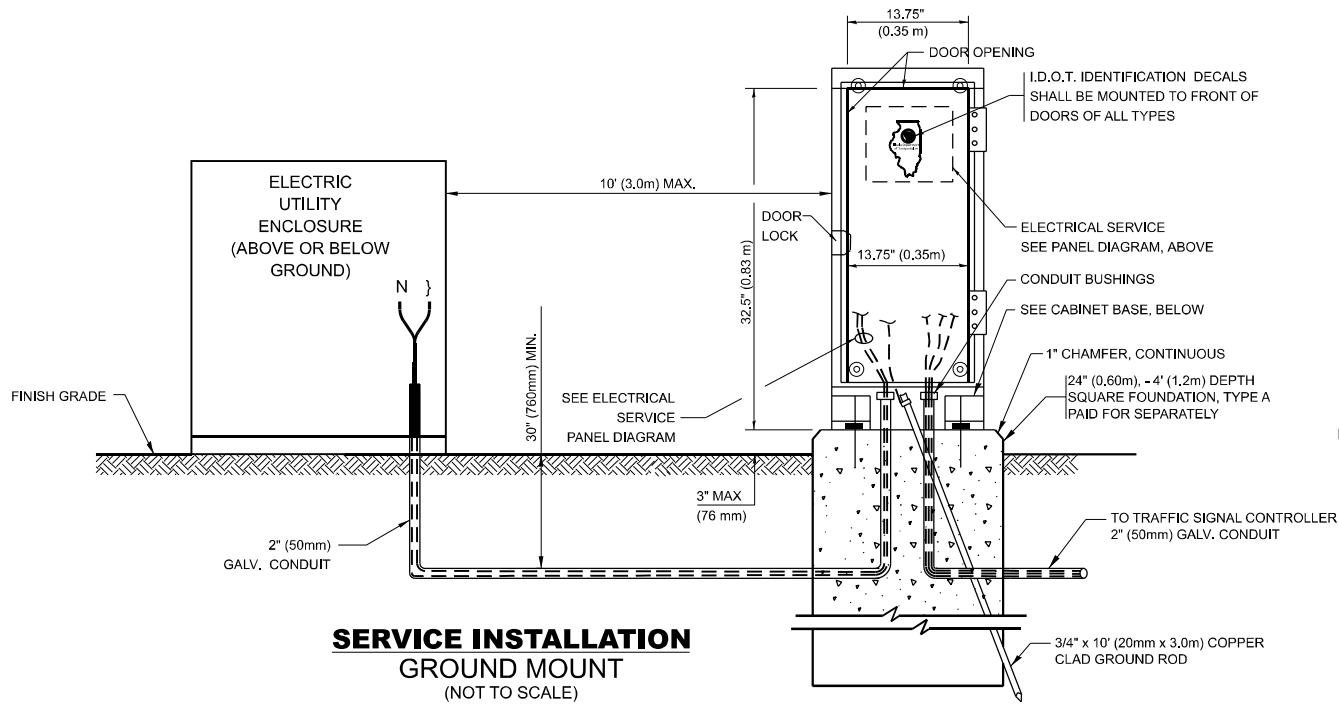
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STANDARD TRAFFIC SIGNAL DESIGN DETAILS

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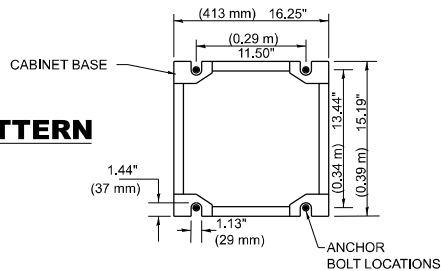
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	FAP 0846A 23 PATCH	WILL	30	25
TS-05		CONTRACT NO. 62U88		
ILLINOIS		FED. AID PROJECT		



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



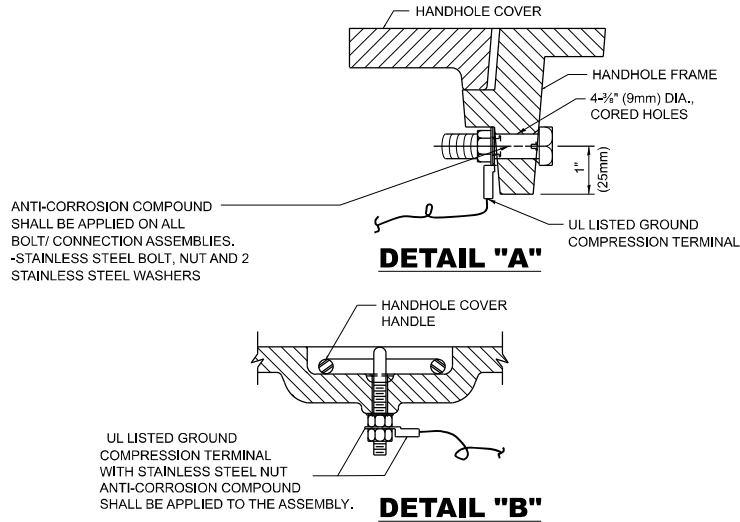
SERVICE INSTALLATION
GROUND MOUNT
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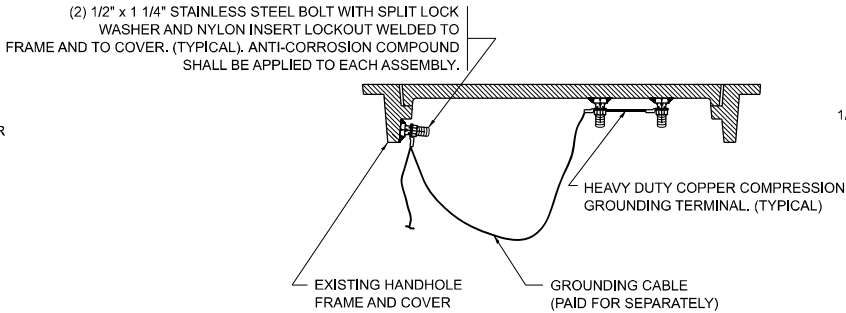
CABINET - BASE BOLT PATTERN
(NOT TO SCALE)

NOTES:

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



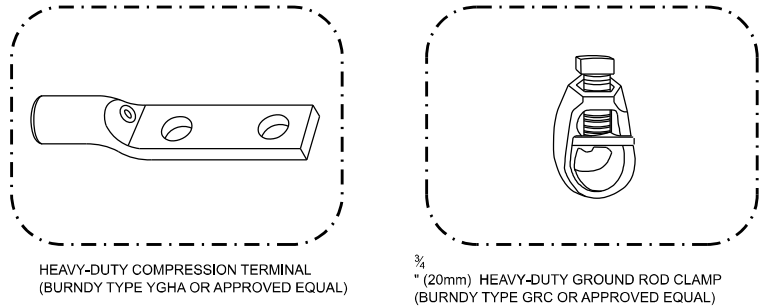
HANDHOLE COVER & FRAME - GROUNDING DETAIL
(NOT TO SCALE)



EXISTING HANDHOLE COVER & FRAME - GROUNDING DETAIL
(NOT TO SCALE)

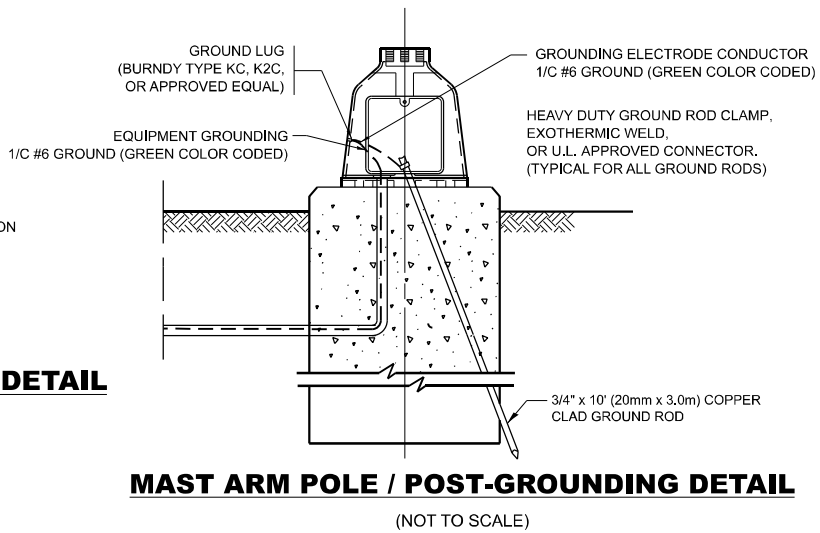
NOTES:
GROUNDING SYSTEM

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



NOTES:

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



MAST ARM POLE / POST-GROUNDING DETAIL
(NOT TO SCALE)

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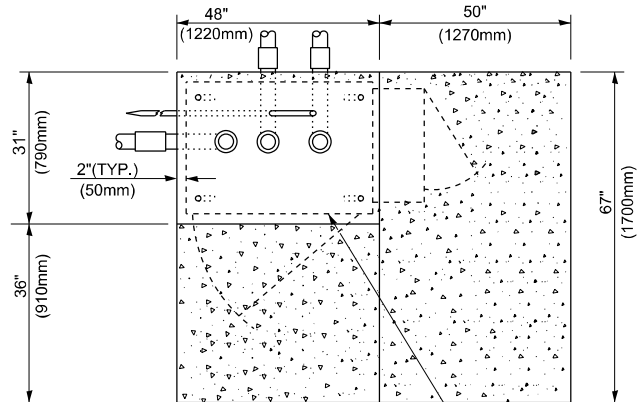
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

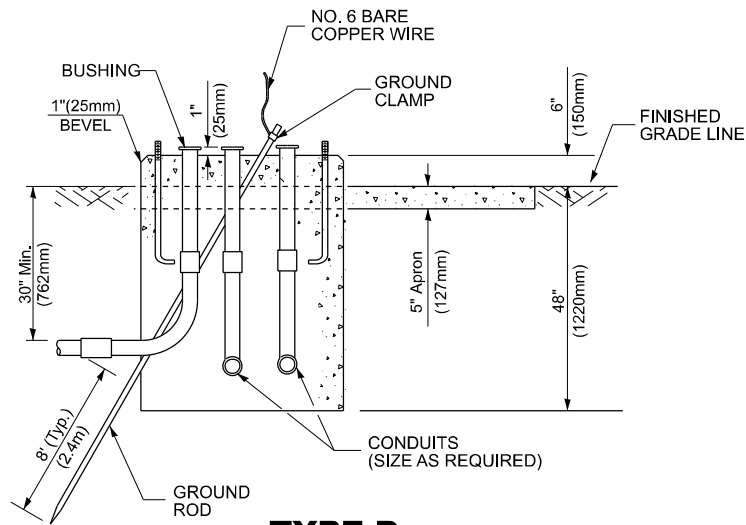
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STANDARD TRAFFIC SIGNAL DESIGN DETAILS

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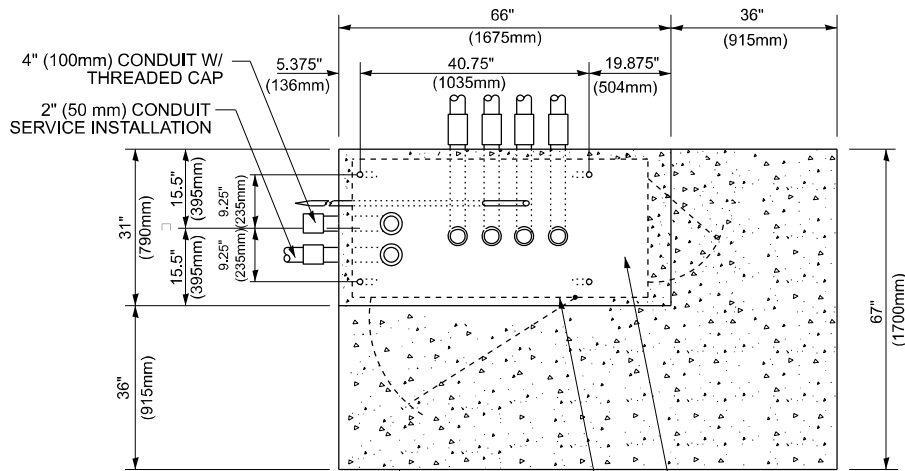
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846	FAP 0846A 23 PATCH	WILL	30	26
TS-05		CONTRACT NO. 62U88		
ILLINOIS		FED. AID PROJECT		



TOP VIEW



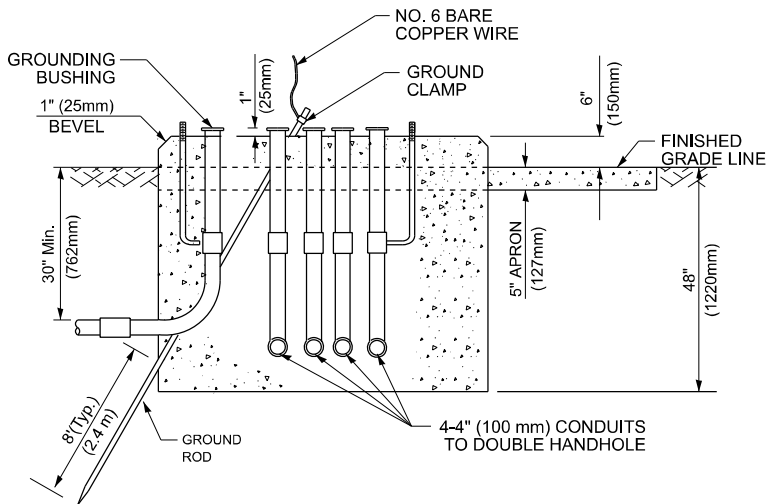
TYPE D
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET



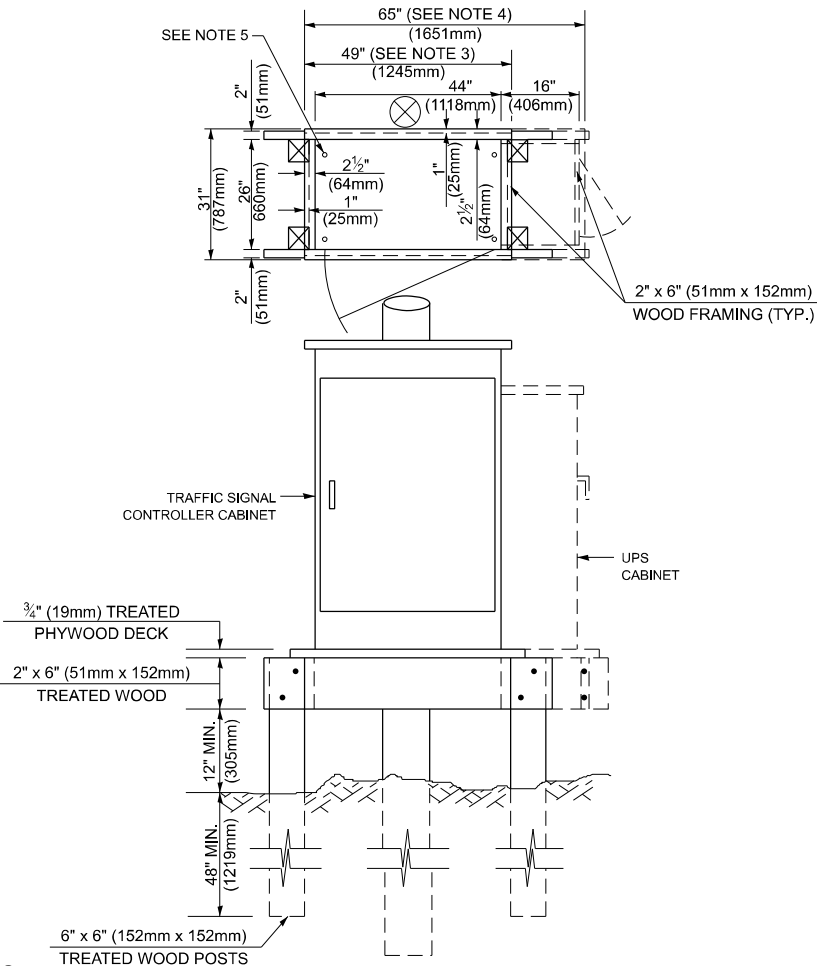
TOP VIEW

NOTE:

TOP OF FOUNDATION SHALL
BE HIGHER THAN TOP OF
DOUBLE HANDHOLE



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



NOTES:

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

TEMPORARY SIGNAL CONTROLLER
WOOD SUPPORT PLATFORM

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

CABLE SLACK

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

VERTICAL CABLE LENGTH

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

DEPTH OF FOUNDATION

Mast Arm Length	① Foundation Depth	Foundation Diameter	Spiral Diameter	Quantity of Rebars	Size of Rebars
Less than 30' (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m)	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
	11'-0" (3.4 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 56' (16.8 m) and less than 65' (19.8 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
Greater than or equal to 65' (19.8 m) and up to 75' (22.9 m)	25'-0" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)

NOTES:

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

DEPTH OF MAST ARM FOUNDATIONS, TYPE E

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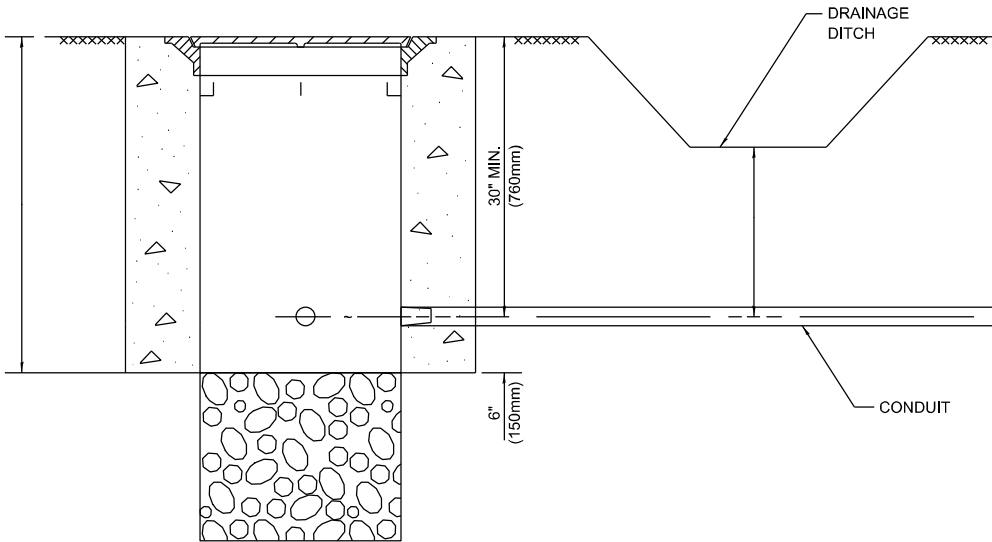
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

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

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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TS-05		CONTRACT NO. 62U88		
		ILLINOIS FED. AID PROJECT		

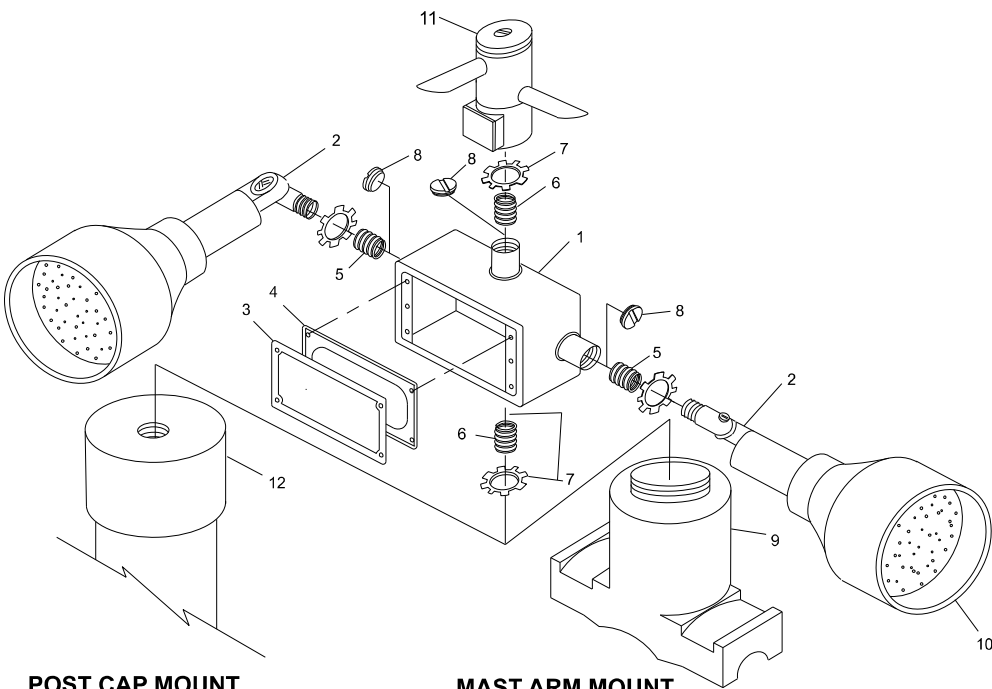


NOTES:

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

HANDHOLE WITH MINIMUM CONDUIT DEPTH

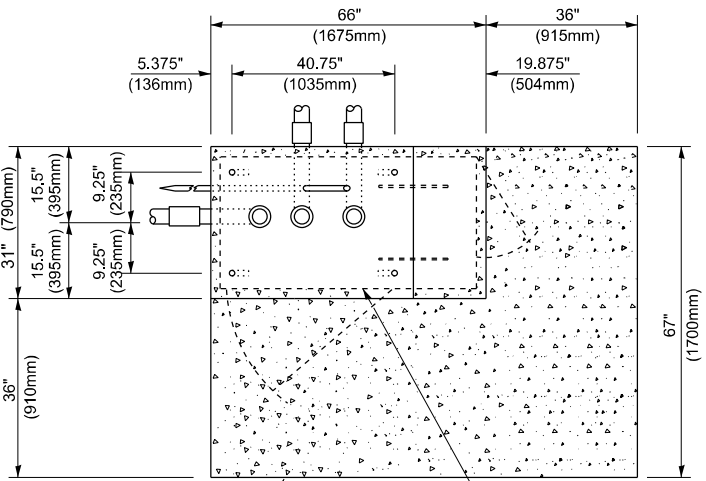
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POST CAP MOUNT

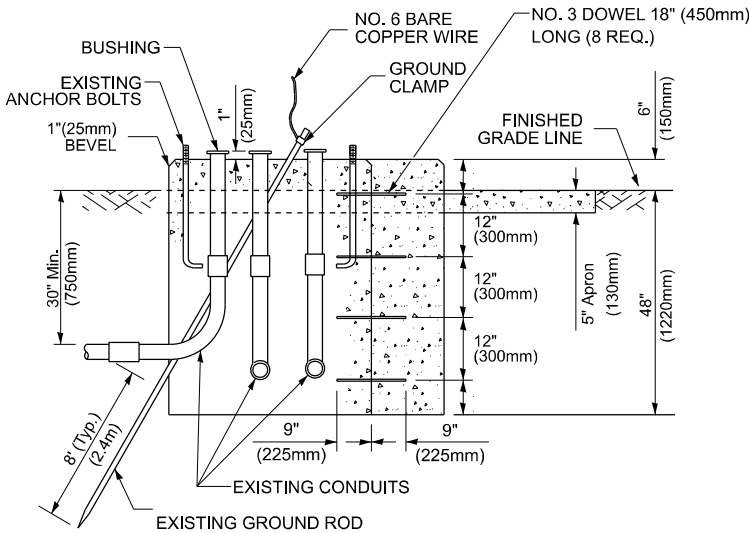
MAST ARM MOUNT

EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL



TOP VIEW

(NOT TO SCALE)



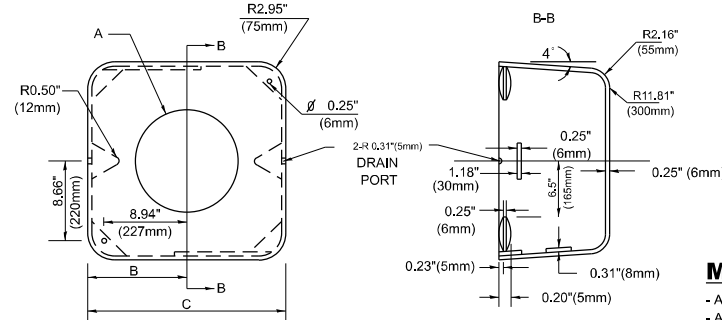
MODIFY EXISTING TYPE "D" FOUNDATION TO TYPE "C" FOUNDATION

(NOT TO SCALE)

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

NOTES:

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



MATERIAL

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

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

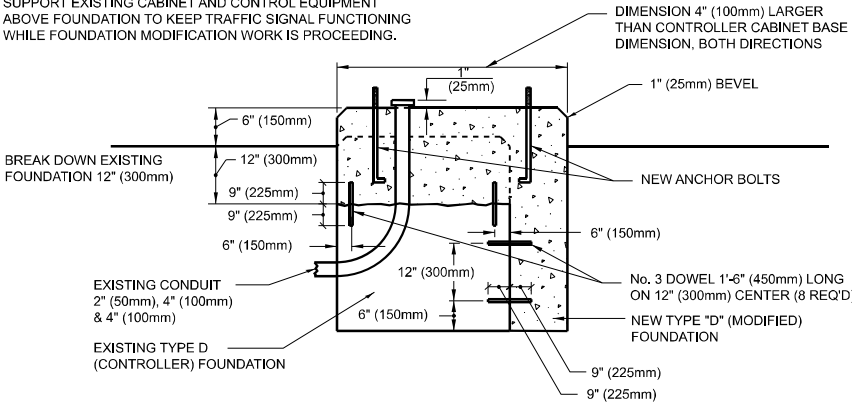
SHROUD

NOTES:

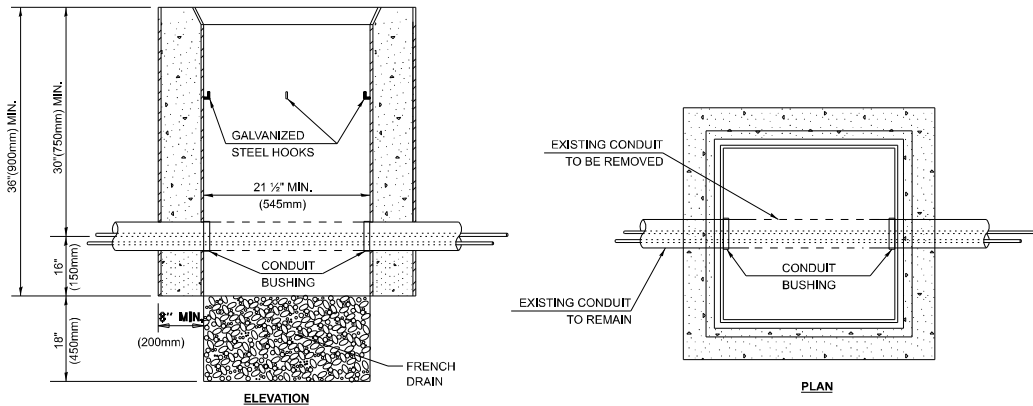
- DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
- THE SUPPLIER SHALL VERIFIED THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
- THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.

NOTE:

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



MODIFY EXISTING TYPE "D" FOUNDATION



NOTES:

- HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
- REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCLUDED WITH THE COST OF THE HANDHOLE.

HANDHOLE TO INTERCEPT EXISTING CONDUIT

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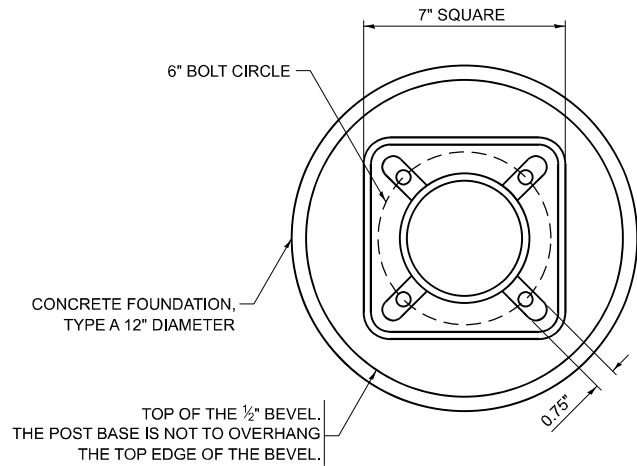
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STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS

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

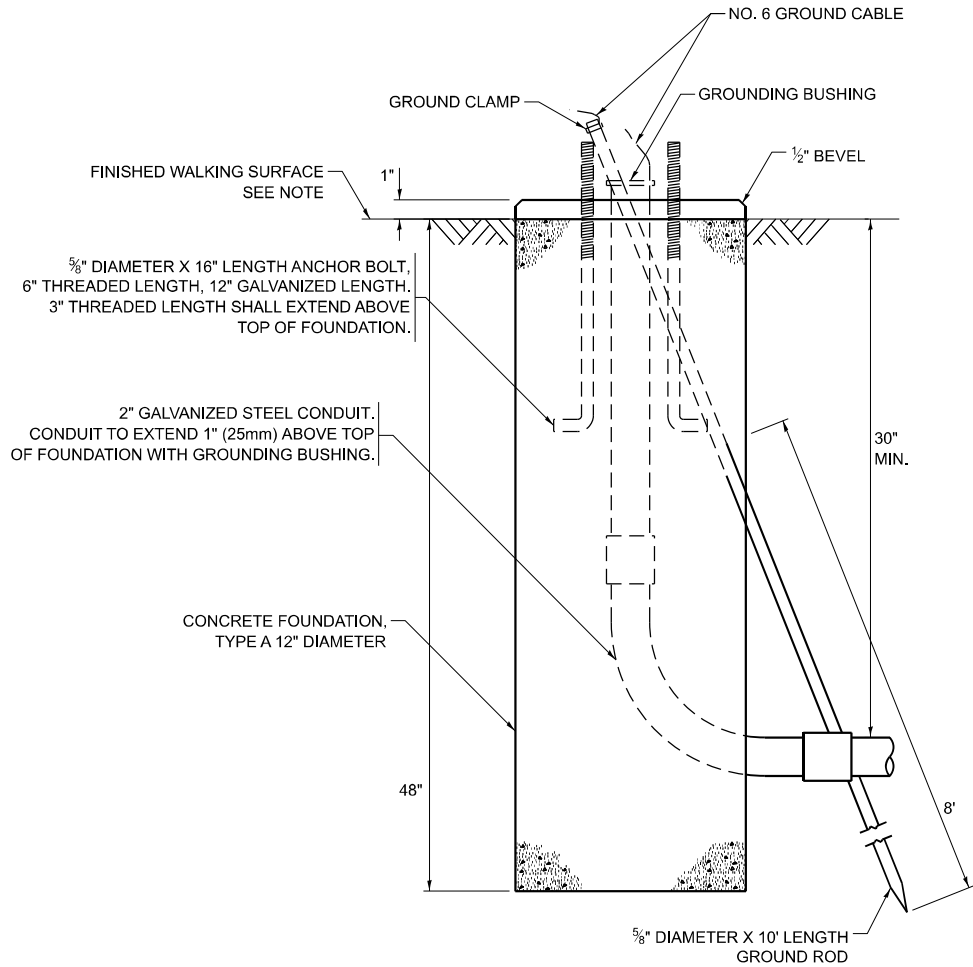
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TS-05		CONTRACT NO. 62U88		
ILLINOIS		FED. AID PROJECT		



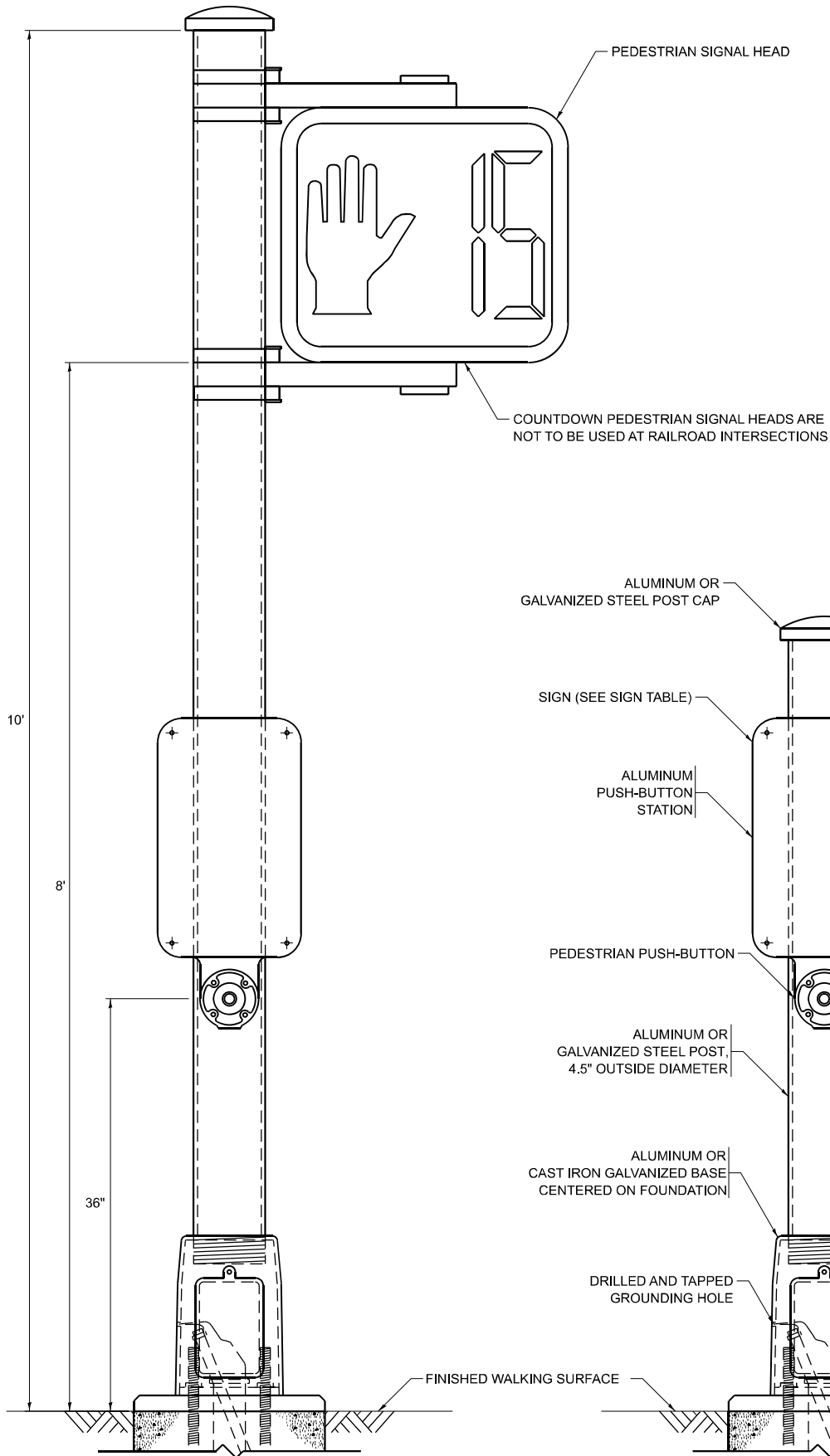
BOLT PATTERN

NOTE:

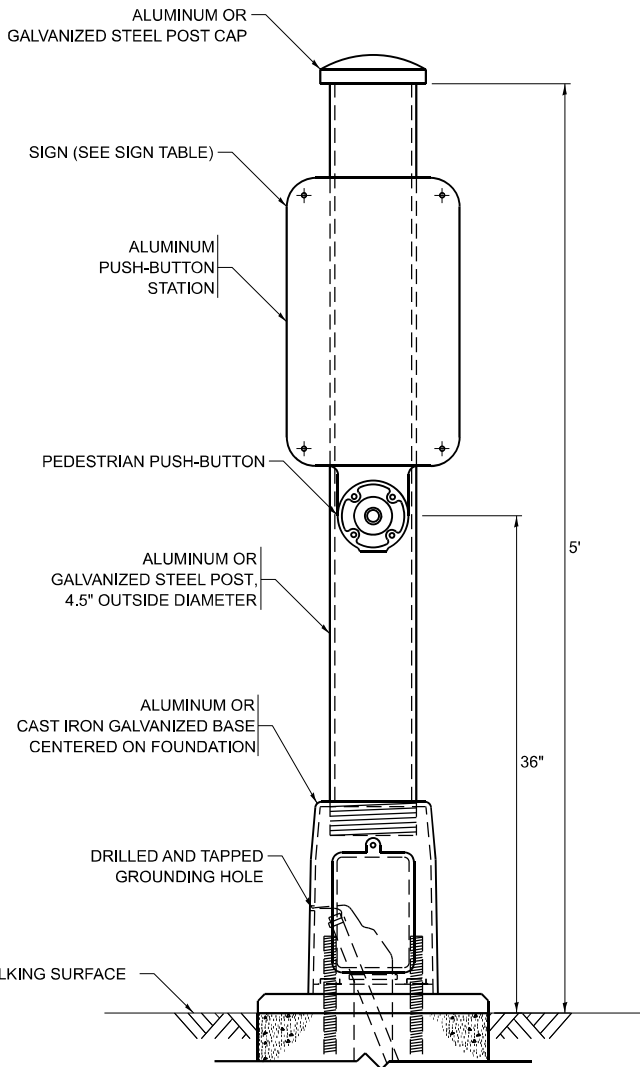
1. IF THE PEDESTRIAN SIGNAL POST FOUNDATION IS INSTALLED WITHIN OR BEHIND A BARRIER CURB, THE TOP OF THE FOUNDATION SHALL BE INSTALLED FLUSH WITH THE TOP OF THE BARRIER CURB.



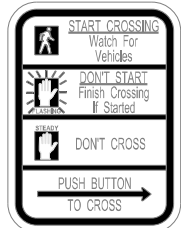
CONCRETE FOUNDATION,
TYPE A 12-INCH DIAMETER



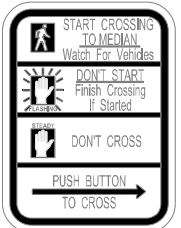
PEDESTRIAN SIGNAL POST, 10 FT.



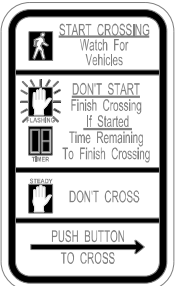
PEDESTRIAN SIGNAL POST, 5 FT.



R10-3b



R10-3d



R10-3e

SIGN TABLE

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

NOTES:

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

MODEL: TS-5641 [Sheet]
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USER NAME = Nedat.Qarut	DESIGNED - IP	REVISED - 10-15-2020
	DRAWN - IP	REVISED -
PLOT SCALE = 0.16666633' / in.	CHECKED - LP	REVISED -
PLOT DATE = 9/18/2024	DATE - 10-15-2018	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

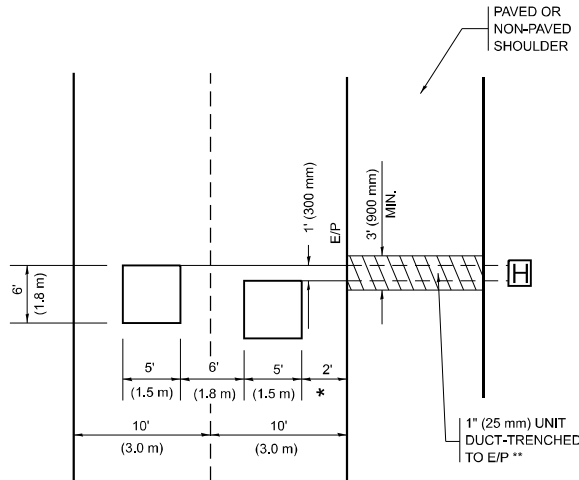
DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

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

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	FAP 0846A 23 PATCH	WILL	30	29
TS-05		CONTRACT NO. 62U88		
ILLINOIS		FED. AID PROJECT		

LOOPS NEXT TO SHOULDERS

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

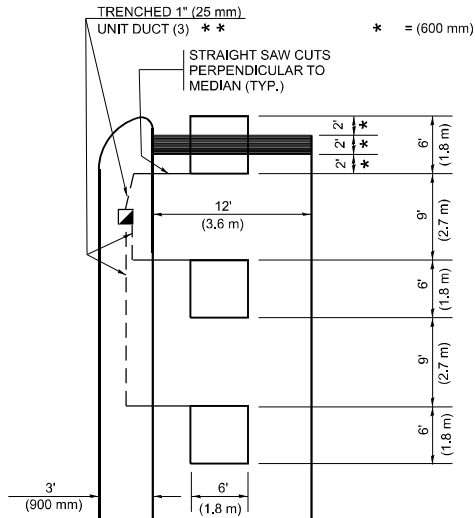


* = (600 mm)

** 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.

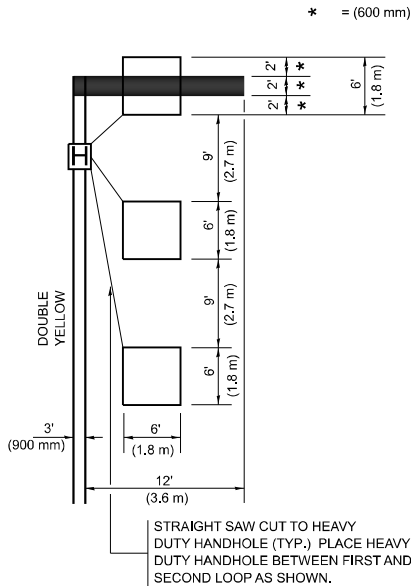


* = (600 mm)

** 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

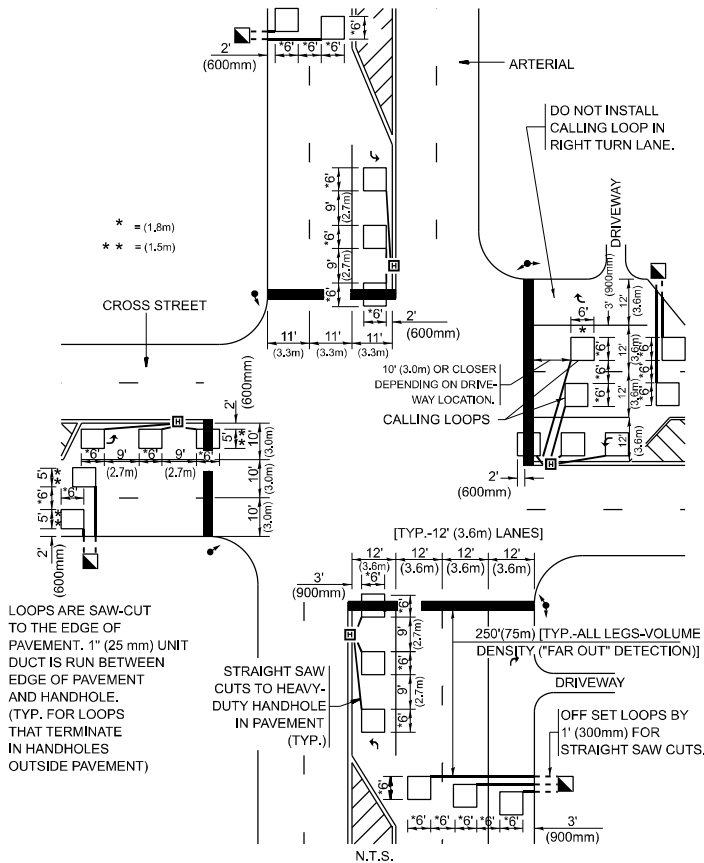
LEFT TURN LANES WITHOUT MEDIANS
VOLUME DENSITY ("FAR OUT" DETECTION)
ON SAME APPROACH
(PROTECTED / PERMITTED LEFT TURN PHASING)



* = (600 mm)

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

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



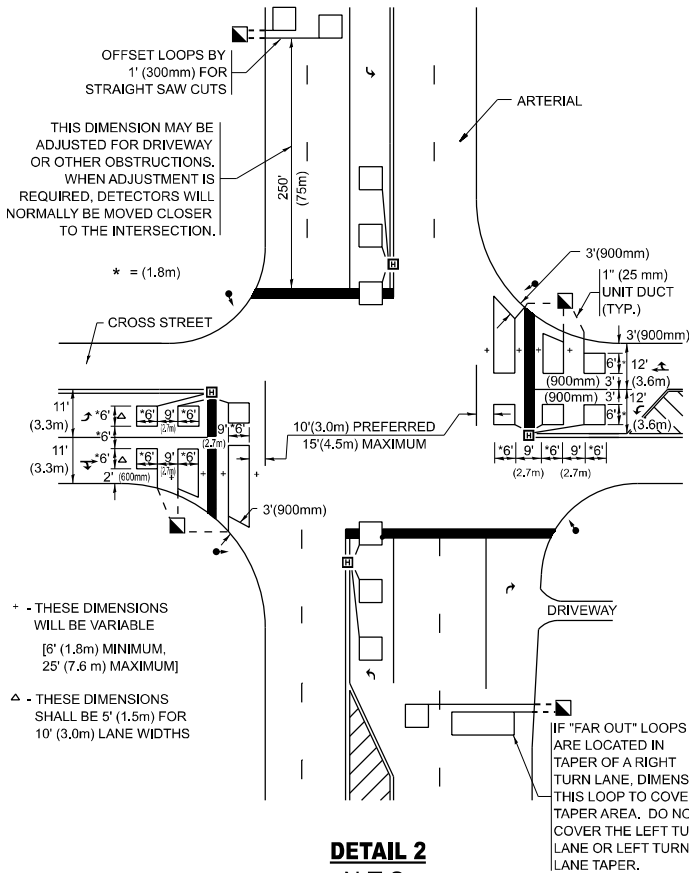
* = (1.8m)
** = (1.5m)

LOOPS ARE SAW-CUT
TO THE EDGE OF
PAVEMENT. 1" (25 mm) UNIT
DUCT IS RUN BETWEEN
EDGE OF PAVEMENT
AND HANDHOLE.
(TYP. FOR LOOPS
THAT TERMINATE
IN HANDHOLES
OUTSIDE PAVEMENT)

STRAIGHT SAW
CUTS TO HEAVY-
DUTY HANDHOLE
IN PAVEMENT
(TYP.)

DETAIL 1
N.T.S.

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



OFFSET LOOPS BY
1' (300mm) FOR
STRAIGHT SAW CUTS

THIS DIMENSION MAY BE
ADJUSTED FOR DRIVEWAY
OR OTHER OBSTRUCTIONS.
WHEN ADJUSTMENT IS
REQUIRED, DETECTORS WILL
NORMALLY BE MOVED CLOSER
TO THE INTERSECTION.

* = (1.8m)

- THESE DIMENSIONS
WILL BE VARIABLE
[6' (1.8m) MINIMUM,
25' (7.6 m) MAXIMUM]

- THESE DIMENSIONS
SHALL BE 5' (1.5m) FOR
10' (3.0m) LANE WIDTHS

DETAIL 2
N.T.S.

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.

MODEL: TS-07 (Sheet)
FILE NAME: c:\p\work\pwr\qarum\dd882405\D112323-sh-DistSds.dgn

USER NAME = Nedat.Qarut	DESIGNED -	REVISED -
DRAWN	REVISED -	REVISED -
PLOT SCALE = 0.16666633' / in.	CHECKED - R.K.F.	REVISED -
PLOT DATE = 9/18/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT 1 - DETECTOR LOOP INSTALLATION
DETAILS FOR ROADWAY RESURFACING

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

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	FAP 0846A 23 PATCH	WILL	30	30
TS-07		CONTRACT NO. 62U88		
ILLINOIS		FED. AID PROJECT		