09-18-2020 LETTING ITEM 003

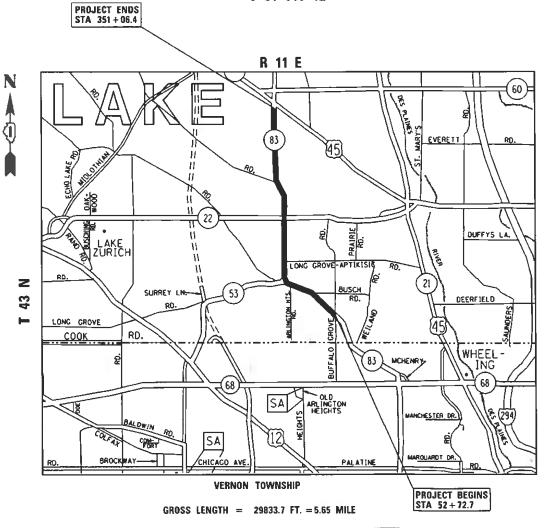
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

PROPOSED HIGHWAY PLANS

FAP ROUTE 344: IL 83 (MCHENRY RD) US 45 TO BUFFALO GROVE RD SECTION (44X–R&530B)RS PROJECT: NHPP–GM3G(849)

PRECAST CONCRETE PANELS AND CLASS B PATCHING LAKE COUNTY

C-91-513-12



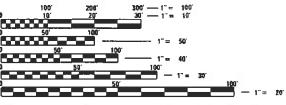
FOR INDEX OF SHEETS, SEE SHEET NO. 2

IMPROVEMENT IS LOCATED IN THE VILLAGES OF BUFFALO GROVE, LONG GROVE AND VERNON HILLS

TRAFFIC DATA

2019 ADT = 47900

POSTED SPEED LIMIT = 35-45 MPH



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 EXCAVATORS 1-800-892-0123 OR 811

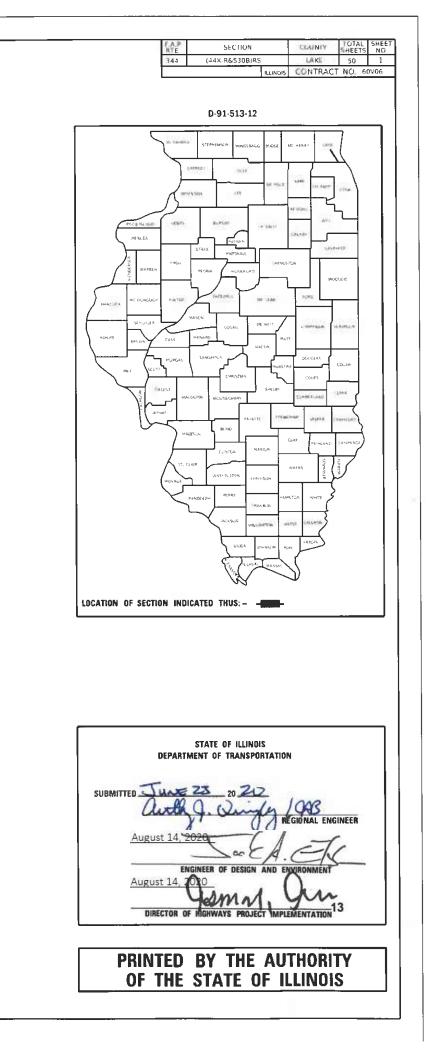
CONTRACT NO. 60V06

PROJECT MANAGER: J. ALAIN MIDY (847) 221-3056

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INDEX OF SHEETS

<u>r no.</u>	DESCRIPTION	
1	TITLE SHEET	
2	INDEX OF SHEETS, STATE STANDARDS, AND GENERAL NOTES	
3-4	SUMMARY OF OUANTITIES	
5	TYPICAL SECTIONS	
6-16	ROADWAY & PAVEMENT MARKING PLANS	
17-25	DETECTOR LOOPS REPLACEMENT PLANS	
26-44	PRECAST CONCRETE PAVEMENT SLABS (BD 57)	
45	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS AND DRIVEWAYS (TC-10)	
46	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW PLOW RESISTANT) (TC-11)	
47	DISTRICT ONE TYPICAL PAVEMENT MARKINGS (TC-13)	
48	TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TC-14)	
49	ARTERIAL ROAD INFORMATION SIGNING (TC-22)	
50	DISTRICT 1 - DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING (TS-07)	

STATE STANDARDS

STANDARD NO	DESCRIPTION
*	
420001-09	PAVEMENT JOINTS
420101-06	24' (7.2 m) JOINTED PCC PAVEMENT
701101-05	OFF-ROAD OPERATIONS, MULTILANE, 15' TO 24" FROM PAVEMENT EDGE
701106-02	OFF-ROAD OPERATIONS, MULTILANE, MORE THAN 15' AWAY
701421-08	LANE CLOSURE, MULTILANE, DAY OPERATIONS ONLY, FOR SPEEDS >45 MPH TO 55 MPH
701422-10	LANE CLOSURE, MULTILANE, FOR SPEEDS >45 MPH TO 55 MPH
701426-09	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATIONS FOR SPEEDS > 45 MPH
701601-09	URBAN LANE CLOSURE, MULTILANE, 1W or 2W WITH NONTRAVERSABLE MEDIAN
701701-10	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701801-06	SIDEWALK, CORNER OR CROSSWALK CLOSURE
701901-08	TRAFFIC CONTROL DEVICES

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GENERAL NOTES:

DRE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" 800-892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, PHONE AND GAS FACILITIES (48 HOUR NOTIFICATION IS REOUIRED).

CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH ITY COMPANIES AND THE VILLAGES OF BUFFALO GROVE, LONG GROVE VERNON HILLS.

CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD CE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE ARTMENT.

DRE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD FUTURE REFERENCE, ALL EXISTING PAVEMENT MARKING LINES AND GED REFLECTIVE PAVEMENT MARKERS IN ORDER THAT THESE LOCATIONS BE RE-ESTABLISHED FOR STRIPING. CT LOCATIONS OF ALL PAVEMENT MARKINGS SHALL BE AS DIRECTED BY ENGINEER.

RESIDENT ENGINEER SHALL CONTACT AREA TRAFFIC ENGINEER WALTER RNY VIA EMAIL AT wolter.czgrny@illinois.gov A MINIMUM OF TWO (2) <s prior to the placement of permanent pavement markings.

CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL RVISOR FOR ARTERIALS AT: Kalpana.Kannan-Hosadurga@illinois.gov INIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK, walter.czarny@

HALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND RING OF MATERIALS.

THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ACCESS TO ABUTTING PROPERTY AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT.

DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.

DOUBLE LANE MARKERS ARE TO BE USED AS SHOWN ON THE DISTRICT ONE DETAIL "TYPICAL APPLICATIONS - RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)" SHOWN IN THE PLANS.

ALL PAVEMENT PATCHING LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.

THESE PLANS HAVE BEEN PREPARED FROM NOTES RECEIVED FROM THE BUREAU OF ONSTRUCTION.

ALL TEMPORARY PAVEMENT MARKINGS SHALL BE TYPE III TAPE>

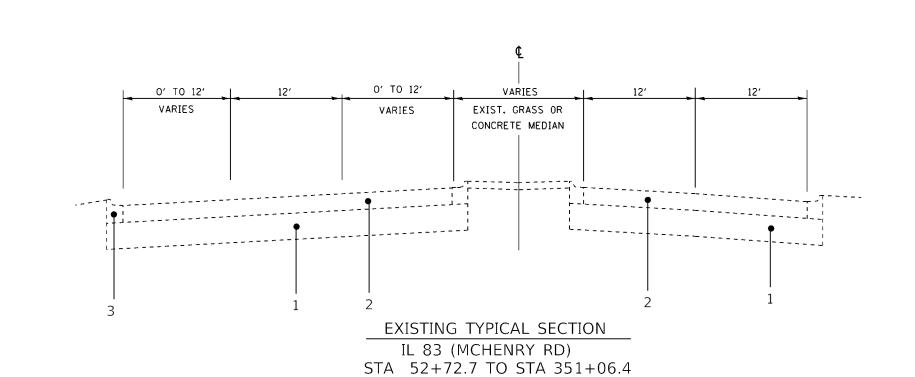
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Т	E STANDARDS,		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.				
NOTES		344	(44X-R&530B)RS	LAKE	50	2					
_	NUTES				CONTRACT	NO. 60	V06				
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	SUMMARY OF QUANTITIES				CONSTRUC	TION TYPE COD	E 000	6		CINAL		
				0006							ARY OF QUANTITIES	
CODE NO	ITEM	UNIT	TOTAL OUANTITIES URBAN	80% FED 20% STATE					CODE NO		ITEM	UNI
* 21101615	TOPSOIL FURNISH AND PLACE, 4"	SO YD	600	600					* 66901003	REGULATED S	UBSTANCES FINAL CONSTRUCTION	LSU
* 25000400	NITROGEN FERTILIZER NUTRIENT	POUND	2	2					67000400	ENGINEER'S	FIELD OFFICE. TYPE A	CAL N
* 25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	2	2					67100100	MOBILIZATIO	N	LSU
* 25200110	SODDING, SALT TOLERANT	SO YD	600	600					70100310	TRAFFIC CON STANDARD 70	TROL AND PROTECTION, 01421	LSU
											ROL AND PROTECTION,	_
25200200	SUPPLEMENTAL WATERING	UNIT	6	6					70100320	STANDARD 701		L SUN
42001 300	PROTECTIVE COAT	SO YD	1052	1052					70102630	TRAFFIC CON STANDARD 70	TROL AND PROTECTION, 1601	L SU
44200966	CLASS B PATCHES, TYPE I, 10 INCH	SO YD	30	30					70102635	TRAFFIC CON STANDARD 70	TROL AND PROTECTION. 1701	L SU
44200970	CLASS B PATCHES, TYPE II, 10 INCH	SO YD	280	280					70102640	TRAFFIC CONT STANDARD 701	ROL AND PROTECTION. 801	LSUN
44200974	CLASS B PATCHES, TYPE III, 10 INCH	SO YD	200	200					70300510		RKING TAPE, TYPE III -	50 F
										LETTERS AND	SYMBOLS	
									70300520		RKING TAPE, TYPE III 4"	FOOT
44200976	CLASS B PATCHES, TYPE IV, 10 INCH	SO YD	200	200					10300520		INTINUTAFE, TIFE III 4	
4421 3200	SAW CUTS	FOOT	8040	8040					70300540	PAVEMENT MAF	RKING TAPE, TYPE III 6"	FOOT
60251740	CATCH BASINS TO BE ADJUSTED WITH NEW TYPE 24 FRAME AND GRATE	EACH	20	20					70300550	PAVEMENT MAR	RKING TAPE, TYPE III 8"	FOOT
60255500	MANHOLES TO BE ADJUSTED	EACH	40	40					70300560	PAVEMENT MAR	RKING TAPE, TYPE III 12"	FOOT
60255800	MANHOLES TO BE ADJUSTED WITH NEW TYPE 1 FRAME, CLOSED LID	EACH	15	15					70300570	PAVEMENT MAR	RKING TAPE, TYPE III 24"	FOOT
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*	78009000	MODIFIED URE	THANE PAVEMENT MARKING - SYMBOLS	SO FT	3240	3240				*	x7800956	PREFORMED PL TYPE B-INLAI	ASTIC PAVEMENT MARKING. D	FO
*	78009004	MODIFIED URET	HANE PAVEMENT MARKING -LINE 4	" F00T	62360	62360					Z0004562		CONCRETE CURB AND GUTTER	FOC
*	78009006	MODIFIED URET	HANE PAVEMENT MARKING -LINE 6	," F00T	11100	11100					Z0018500	DRAINAGE ST	RUCTURES TO BE CLEANED	EACH
*	78009008	MODIFIED URETH	HANE PAVEMENT MARKING - LINE &	F00T	1 300	1 300					Z0018600	DRAINAGE ST	RUCTURES TO BE RECONSTRUCTED	EACH
*	78009012	MODIFIED URET	HANE PAVEMENT MARKING -LINE 1	2 ^{,4} F00T	700	700					Z0030850	TEMPORARY II	NFORMATION SIGNING	50 F
*	78009024	MODIFIED URETH	HANE PAVEMENT MARKING -LINE 24	1' ⁰ F00T	1600	1600				ø	Z0076600	TRAINEES		нои
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*	78100100	RAISED REFLE	CTIVE PAVEMENT MARKER	EACH	100	100								
	78300200	RAISED REFLEC	CTIVE PAVEMENT MARKER REMOVAL	EACH	100	100				-				
-														
*	88600600	DETECTOR LOC	OP REPLACEMENT	FOOT	4471	4471								
	X0326767	PROFILE DIAM	OND GRINDING CONCRETE PAVEMEN	T SO YD	2120	2120								
ĺ	X0327772	PRECAST CONC	RETE PAVEMENT SLABS 10"	SO FT	1 3608	1 3608								
-														
}	x0327980	PAVEMENT MAR	RKING REMOVAL - WATER BLASTIN	G SOFT	31423	31423								
-														
*	x2700003	GROOVING FOR	RECESSED PAVEMENT MARKING 8"	FOOT	15000	15000								
	X4423015	DOWEL BARS 1	1/2" RETROFIT	ЕАСН	1890	1890								
	x7030005	TEMPORARY PA	VEMENT MARKING REMOVAL	SO FT	20792	20792								_
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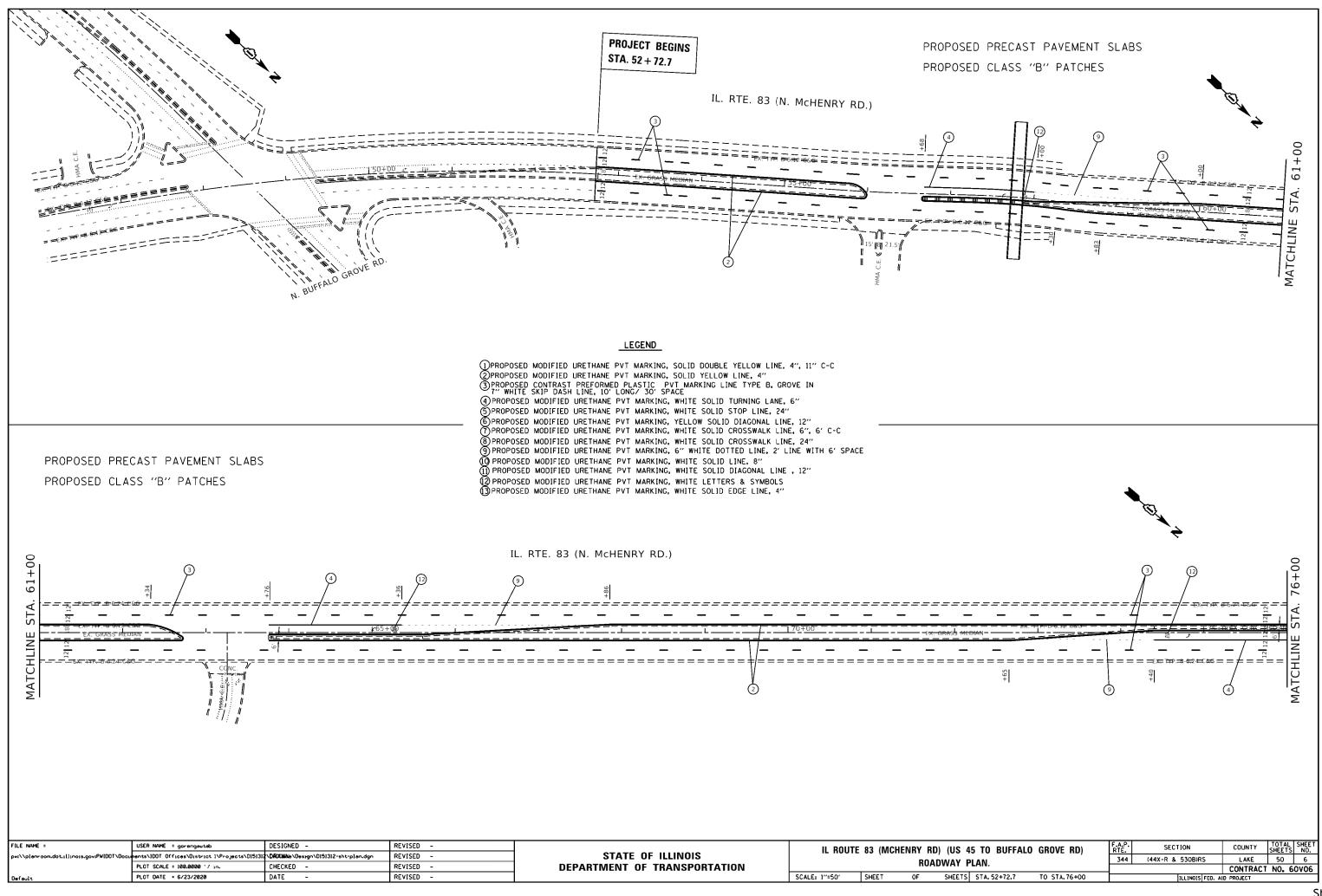
PRECAST CONCRETE PAVEMENT SLAB SCHEDULE

	IL 83 (MCHENRY RD)														
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	FΤ	FΤ	LANE NO 1	LANE NO 2	LANE NO 1	LANE NO 2									
BUFFALO GROVE RD	12	6	6	10	7	9									
(TO IL 53)	12	9	1	1	1	1									
	12	15		1											
IL 53 TO IL 22	12	6	7	4	13	9									
	12	9	1	1	2	2									
	12	15			1										
GILMER RD	12	6	5	3	8	10									
(TO IL 25)	12	9	1	1	3	4									
	12	15		1		1									
GILMER RD	12	6	8	2	16	18									
	12	9	1		3	3									
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		PLOT SCALE = 100.0000 '/ in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION	EXISTING ITFICAL SECTION. FRECAST SLAD FATCHING SCHEDULE					CONTRACT	T NO. 60V06			
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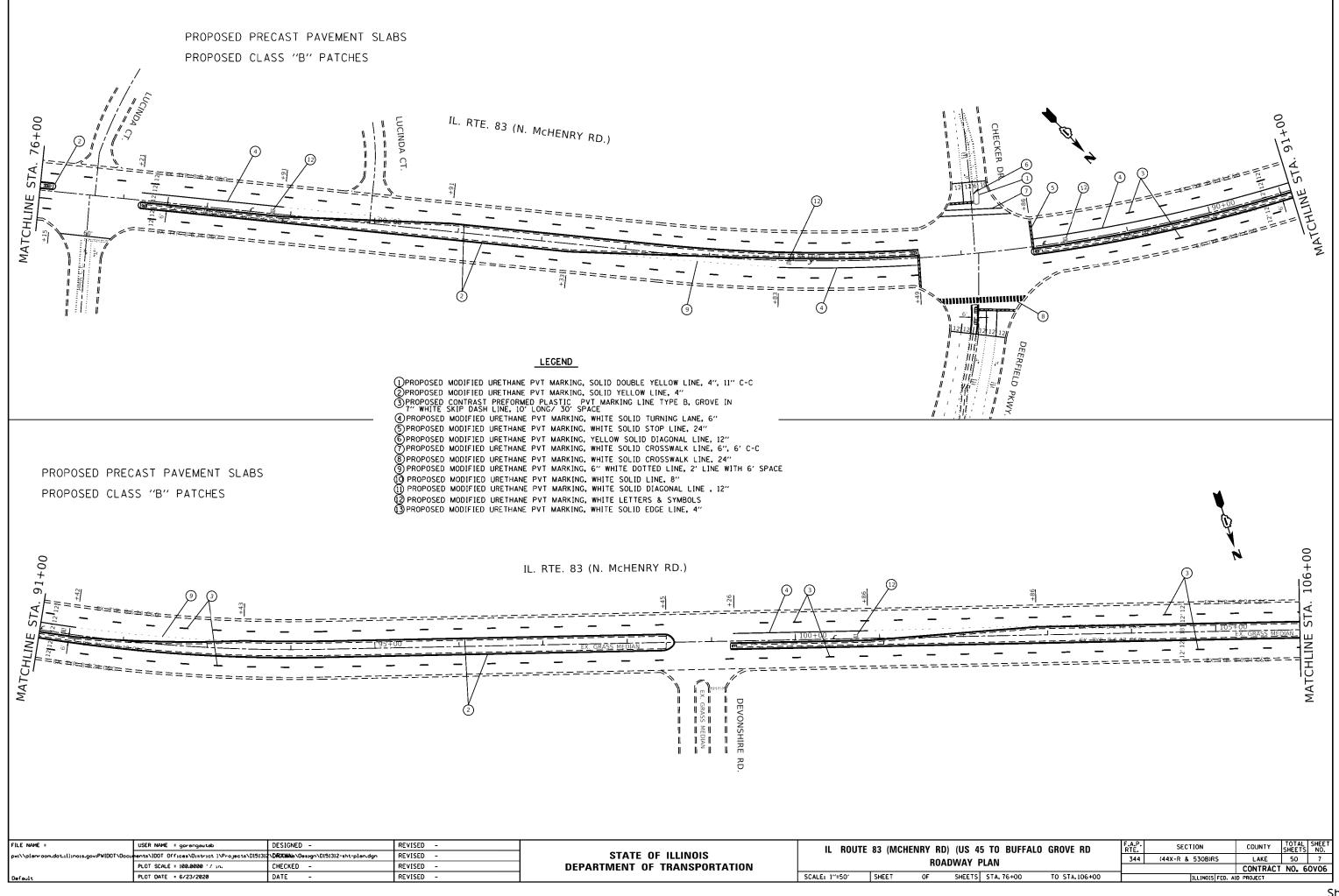
LEGEND

- 1 EXISTING AGGREGATE SUBGRADE, 12"
- 2 EXISTING P.C.C. PAVEMENT, ± 9 1/4"
- ³ EXISTING CURB AND GUTTER

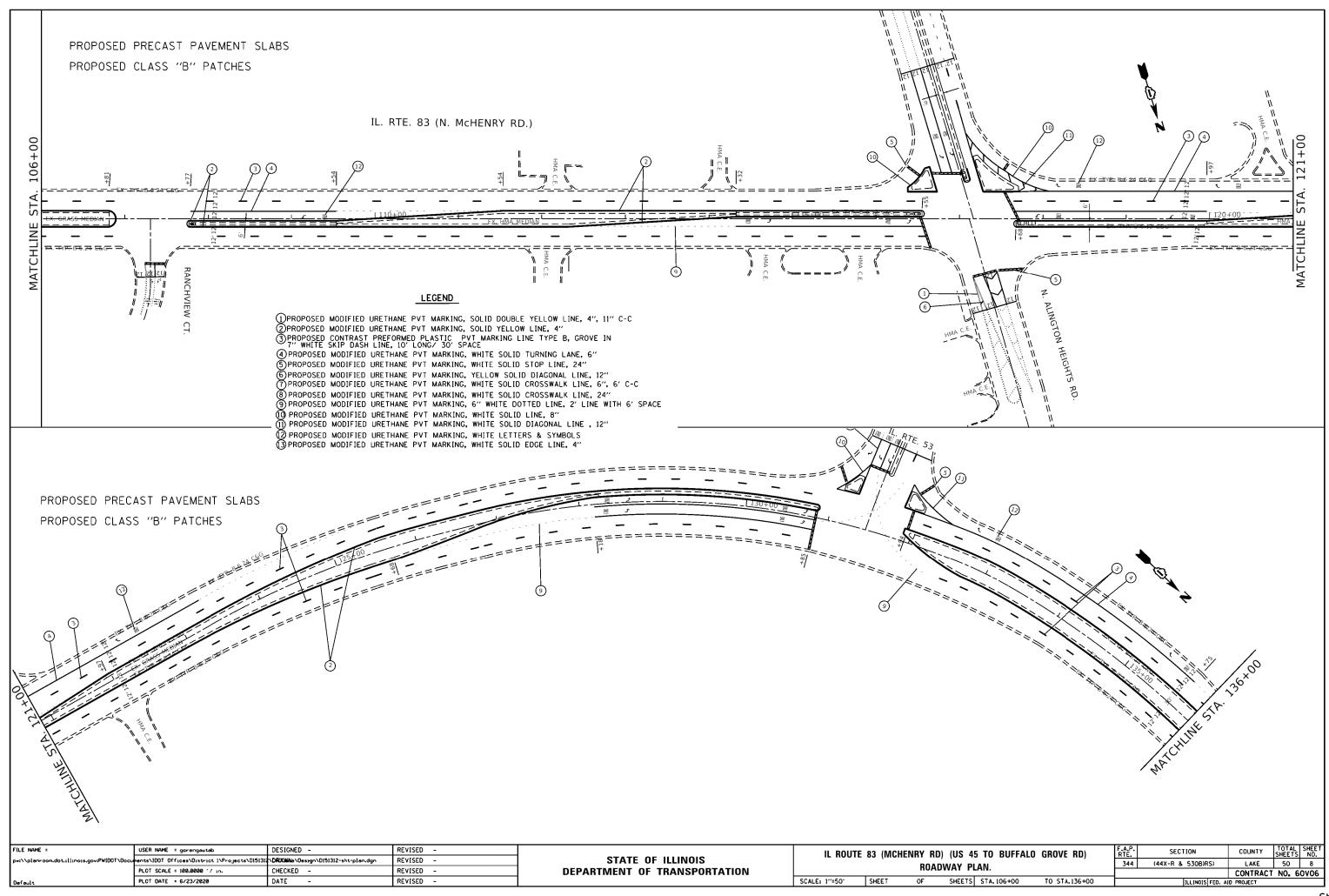


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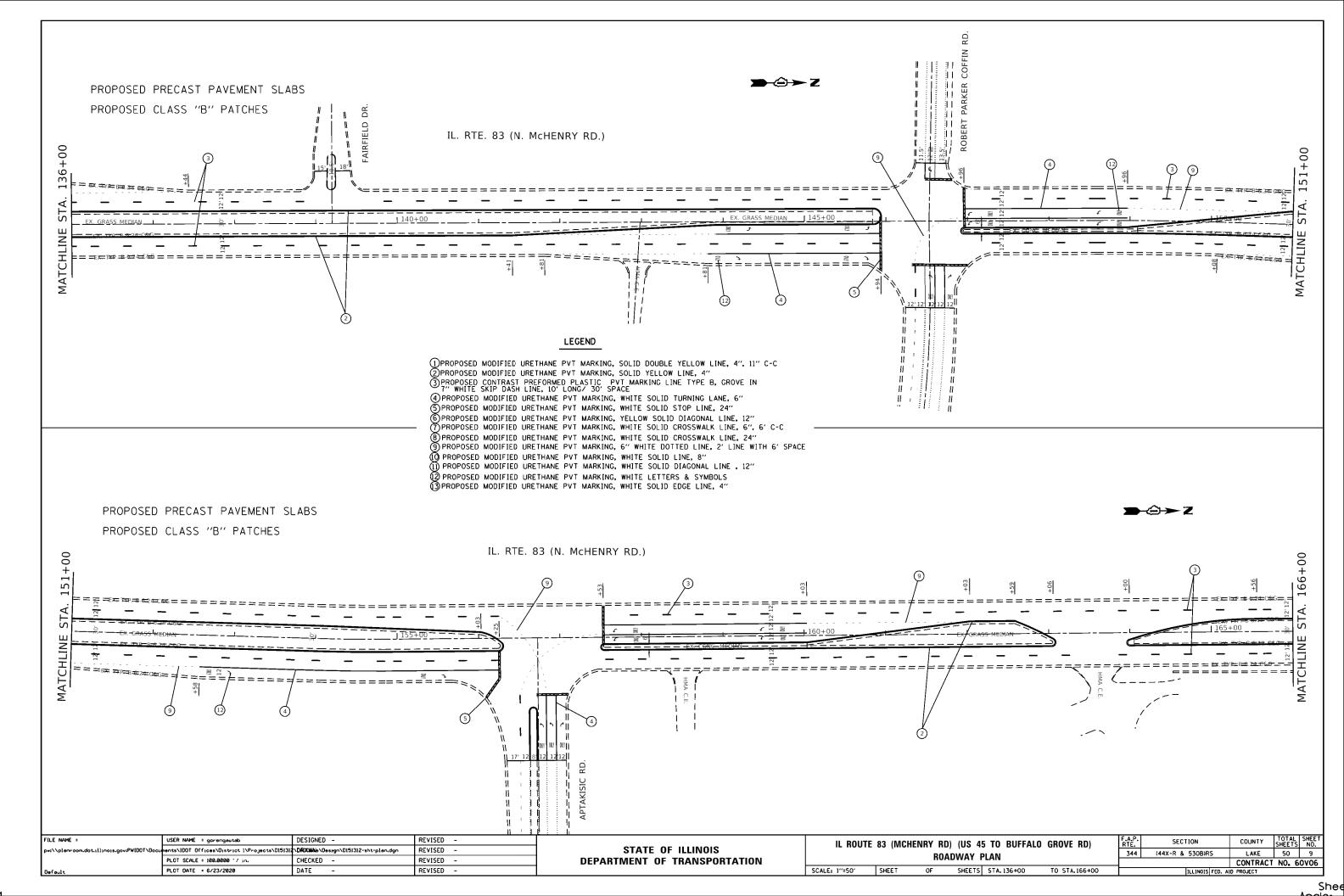
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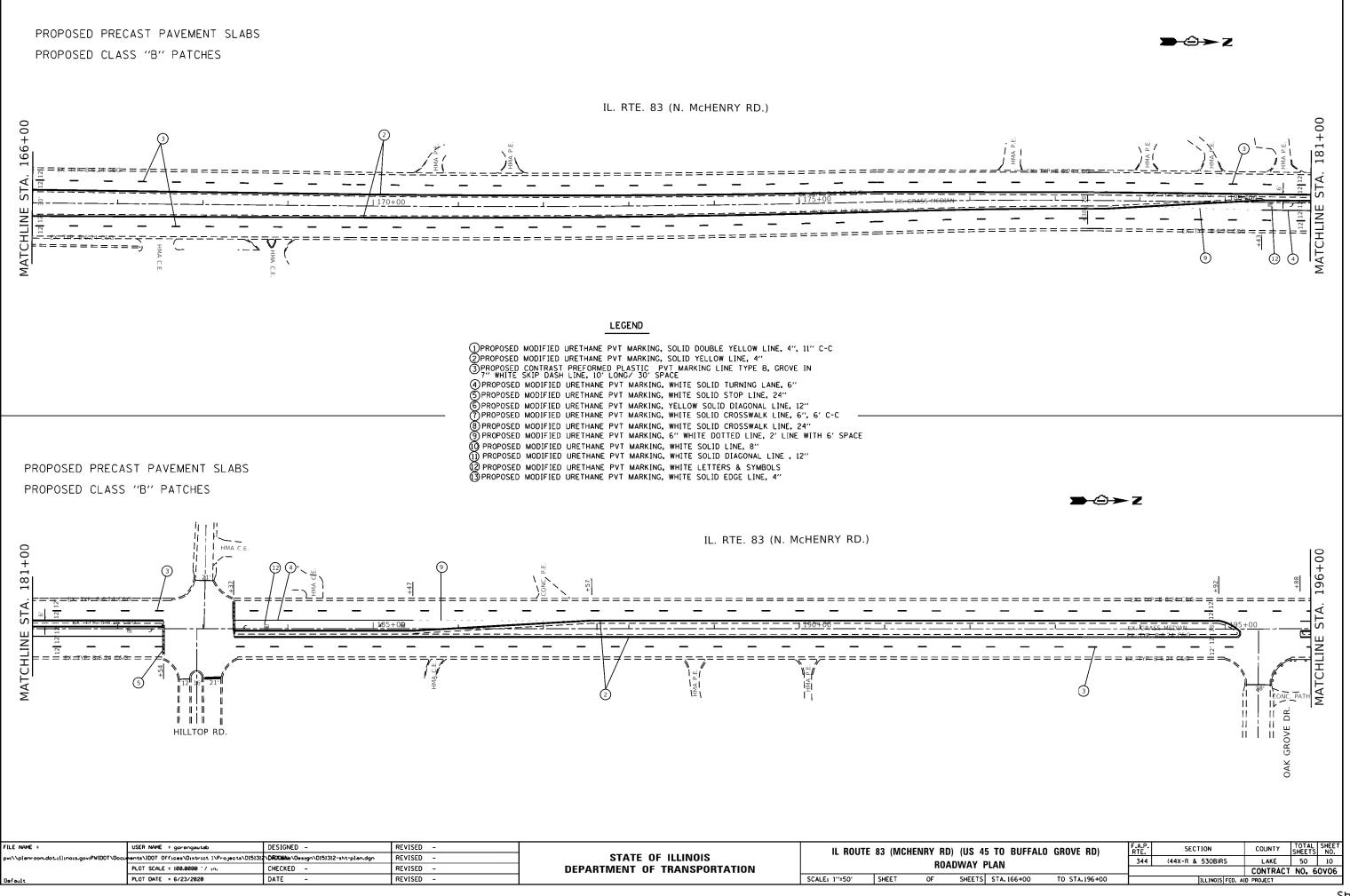


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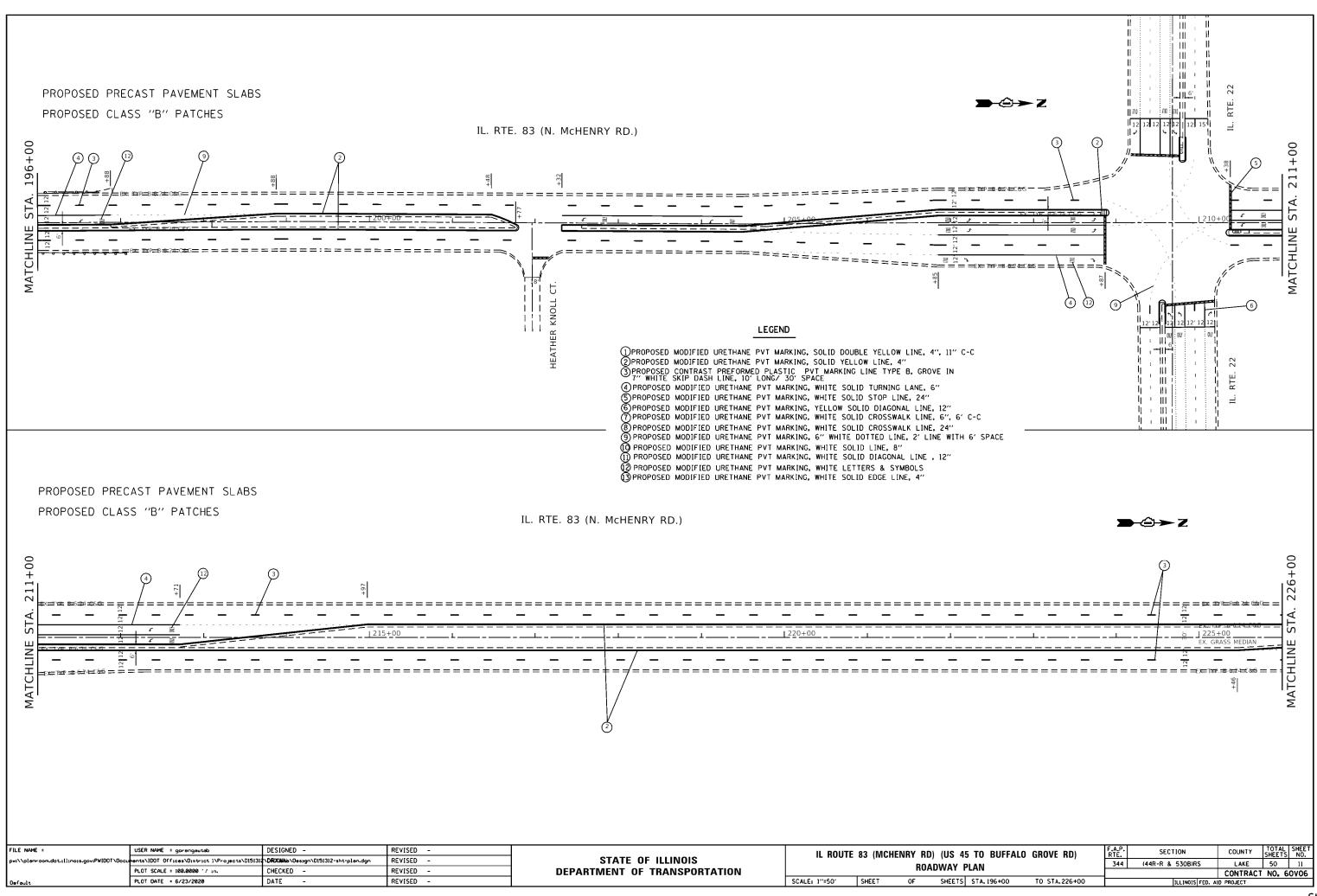
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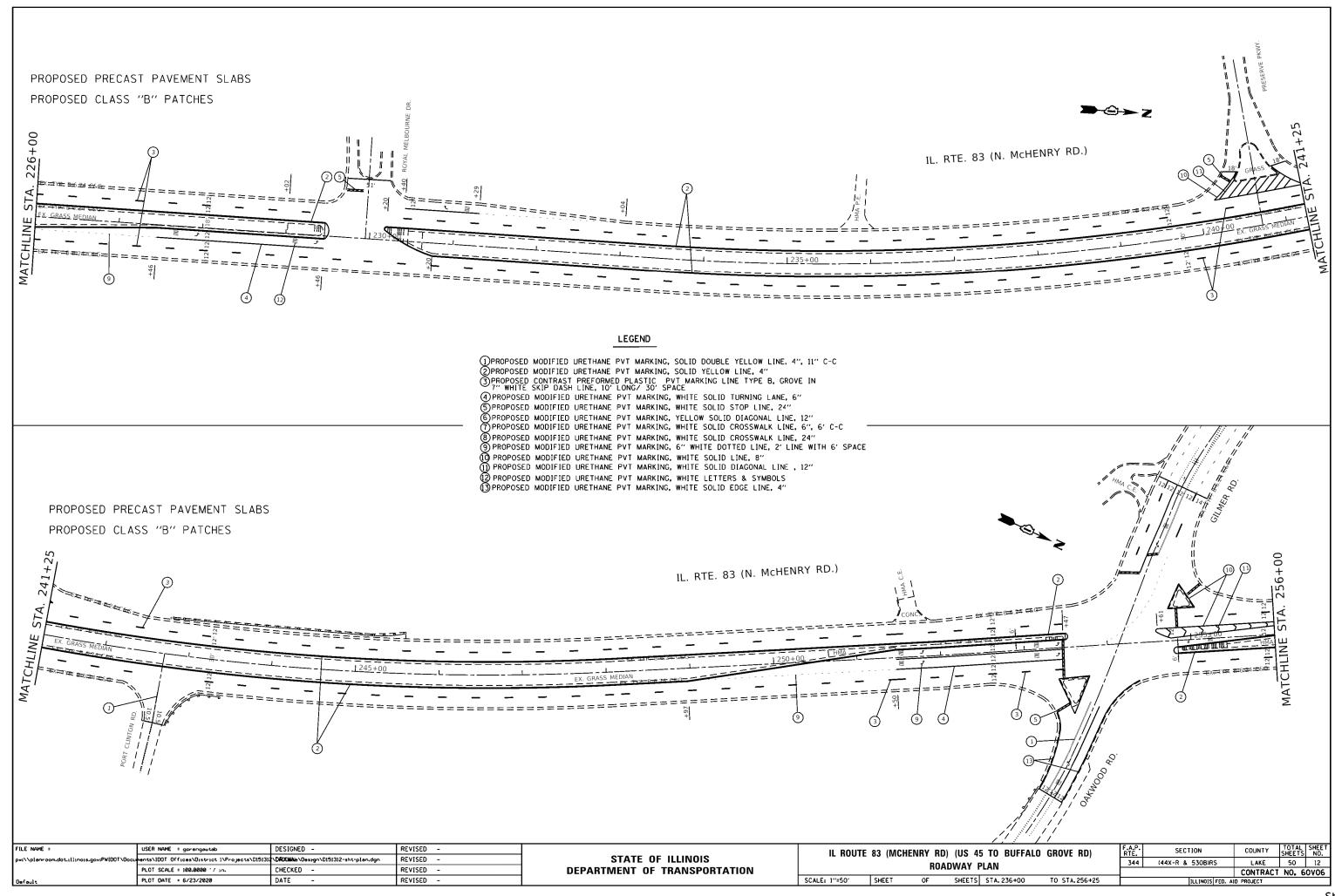


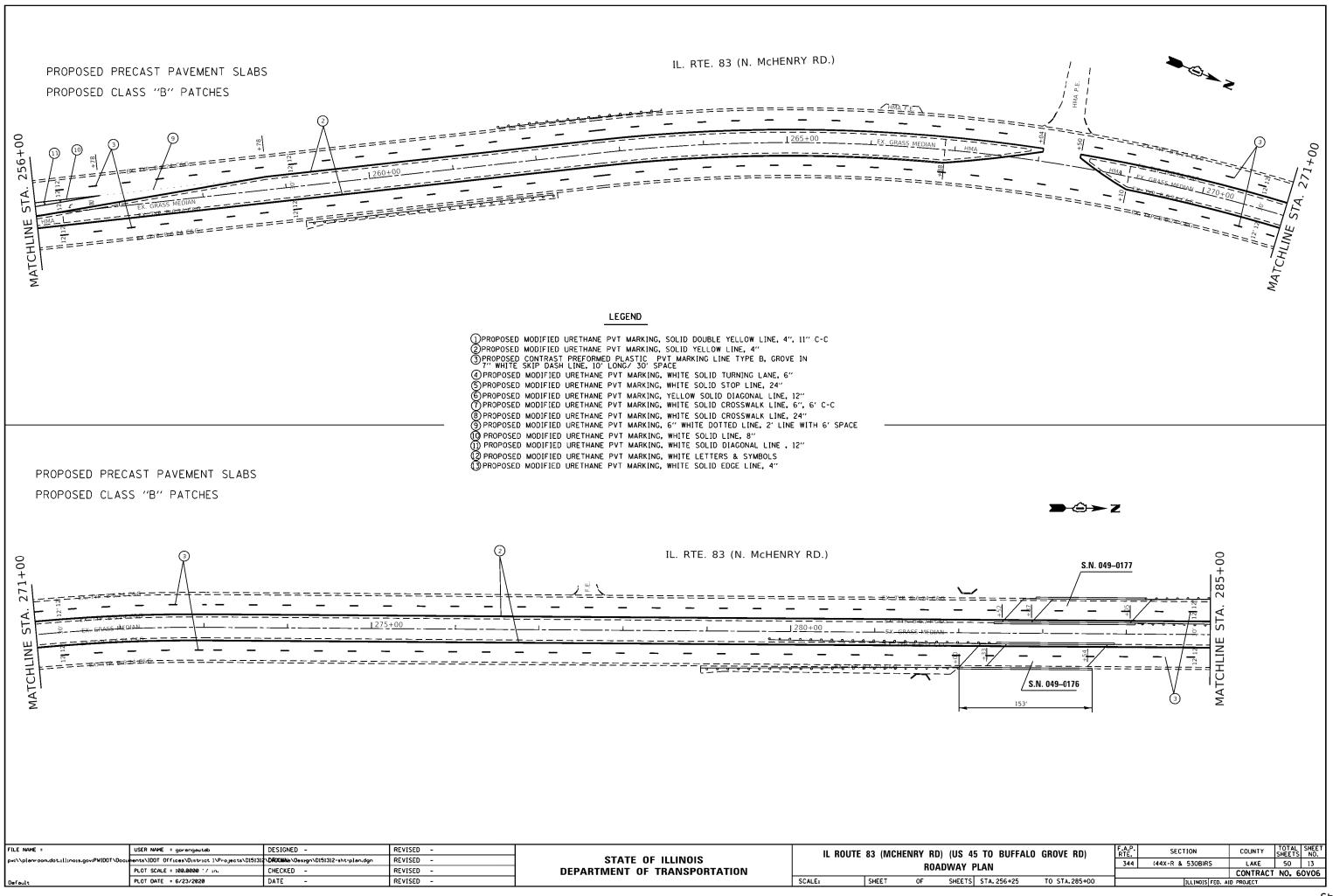


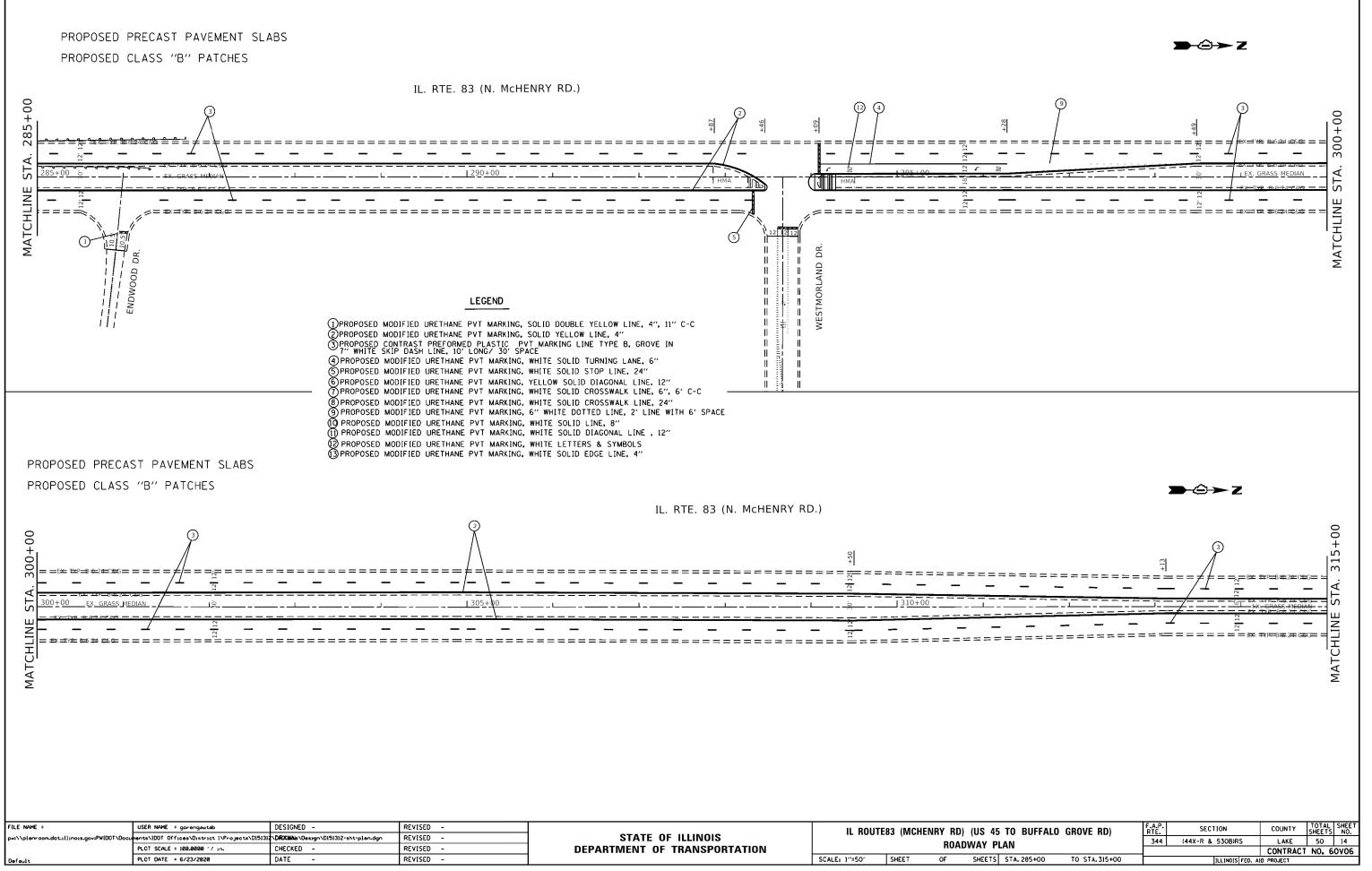
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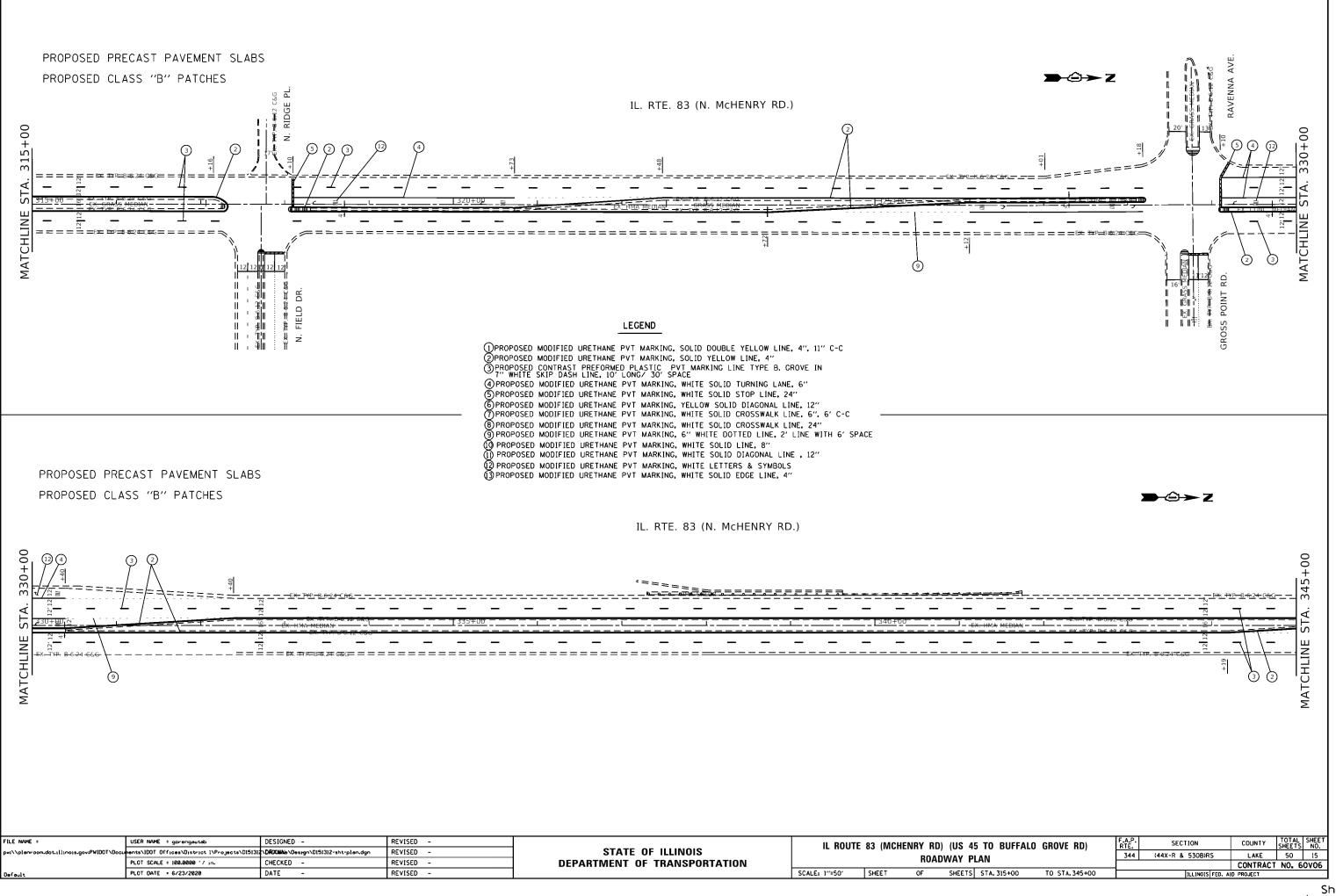






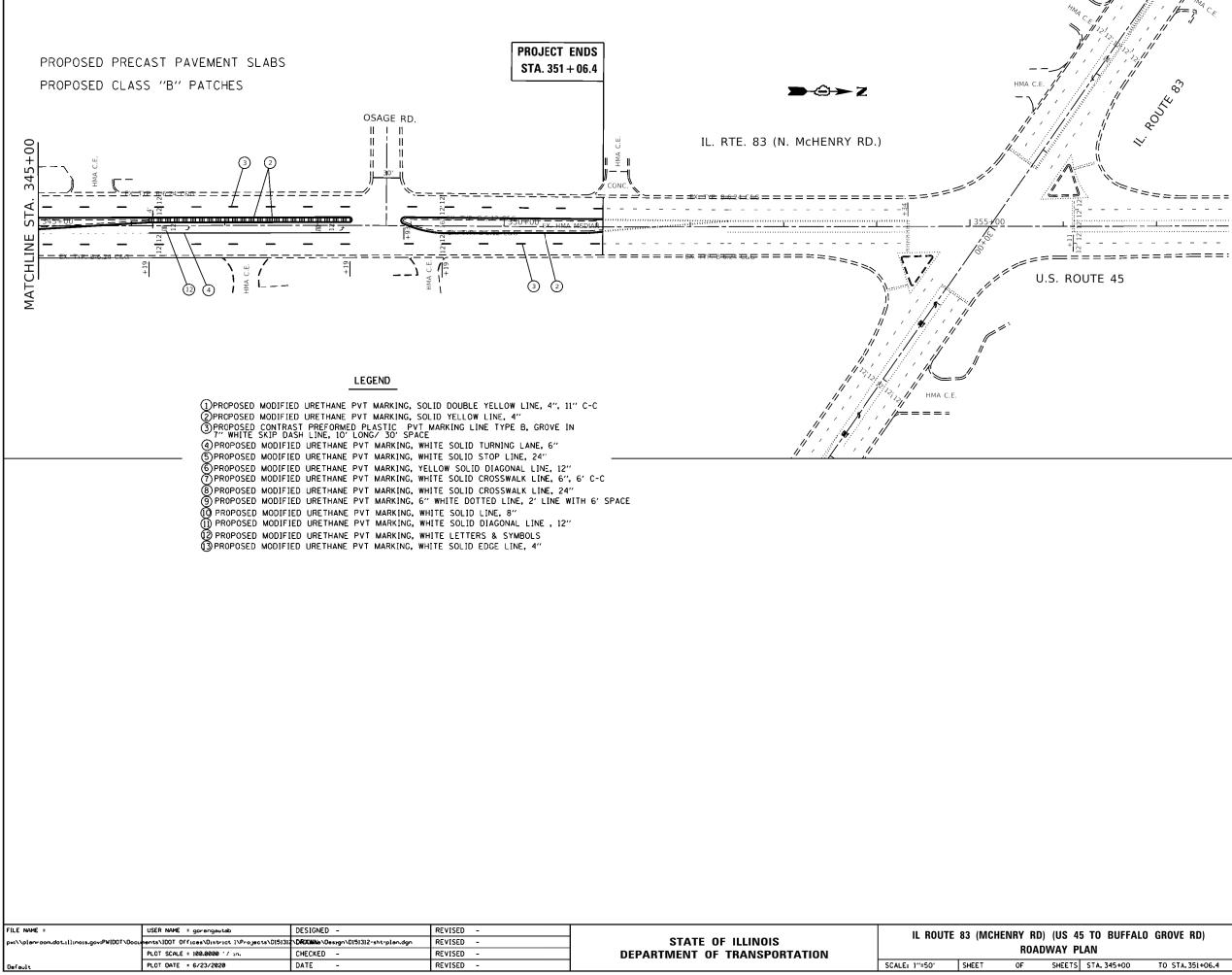
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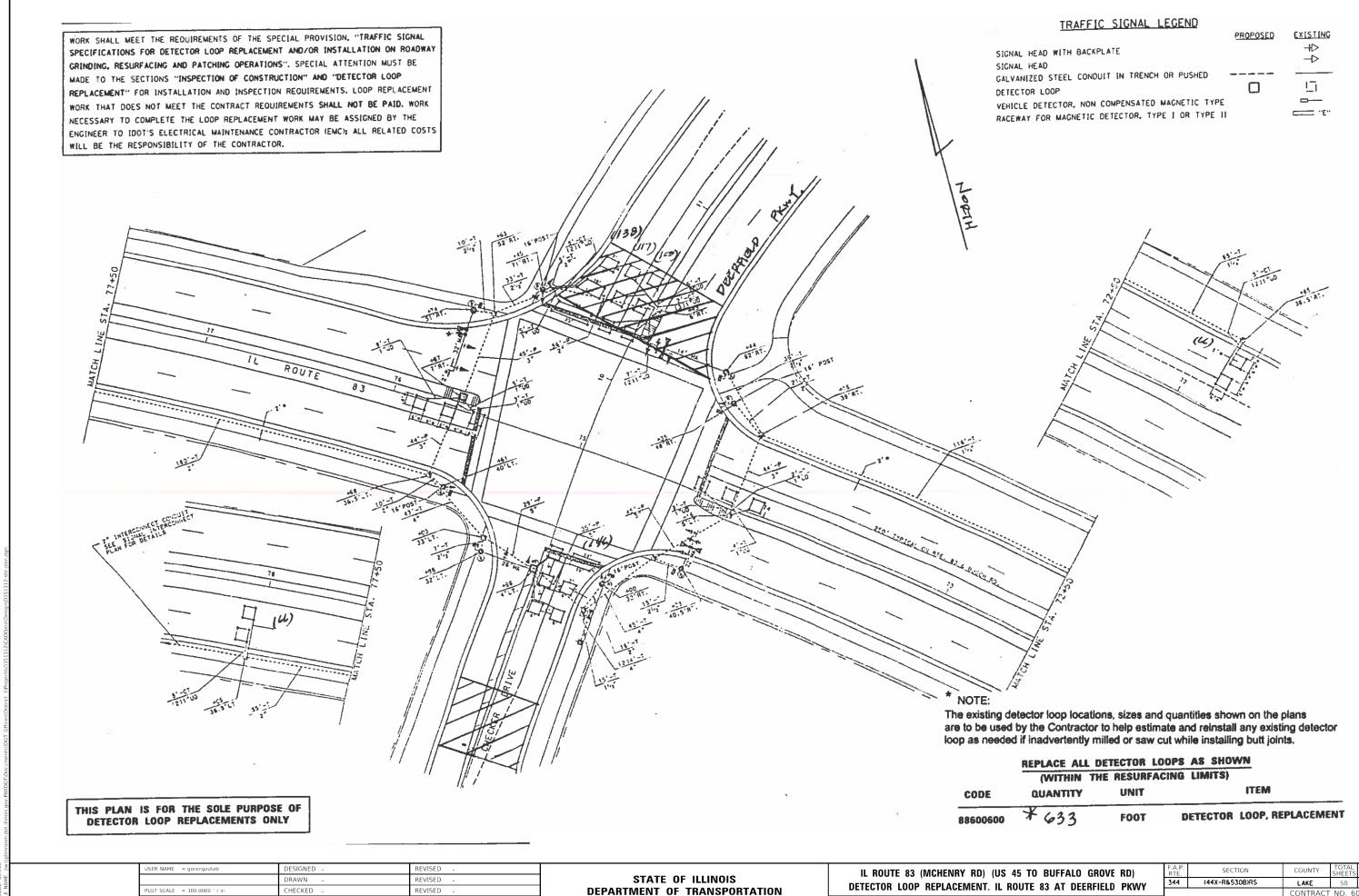
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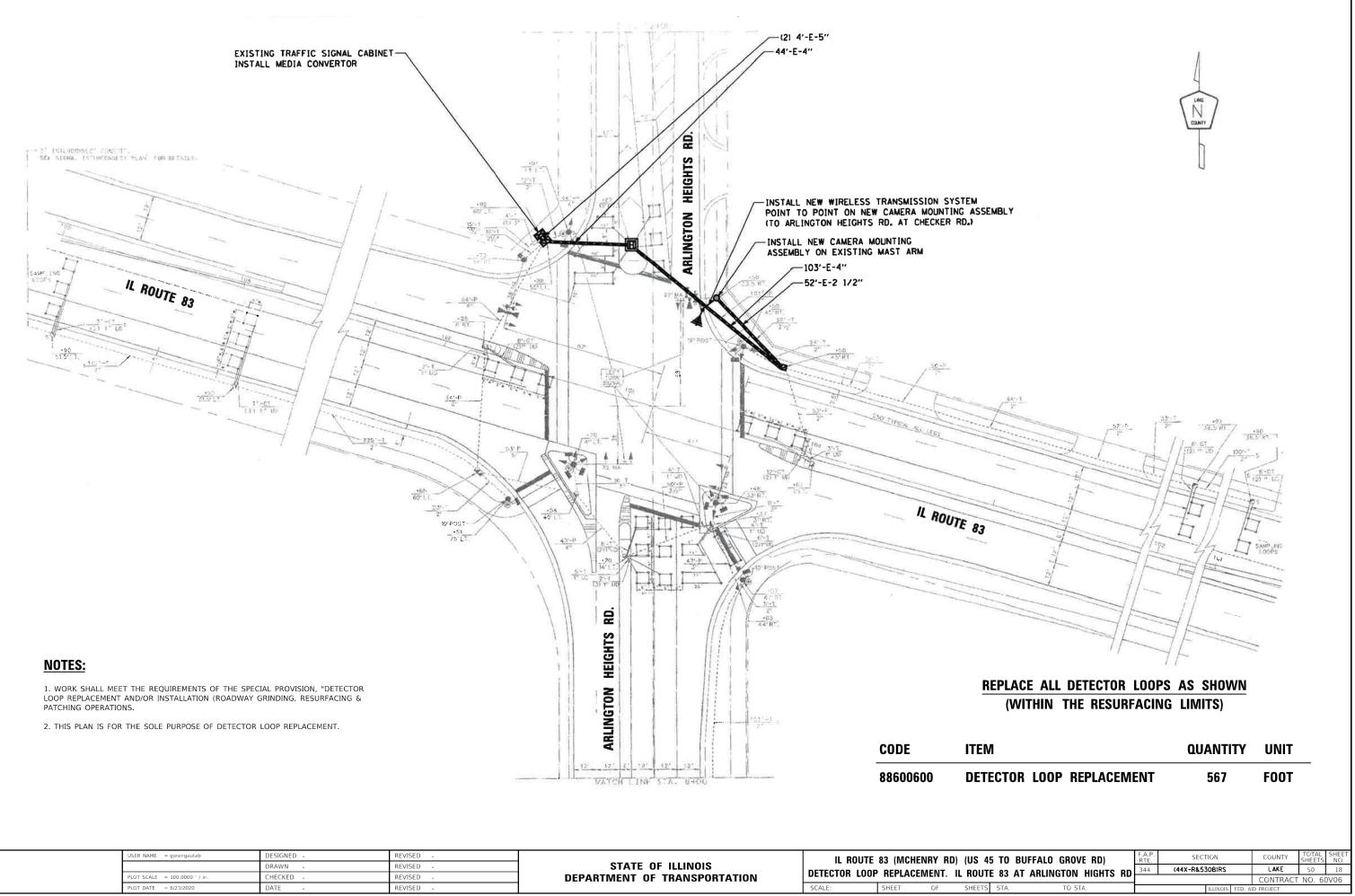
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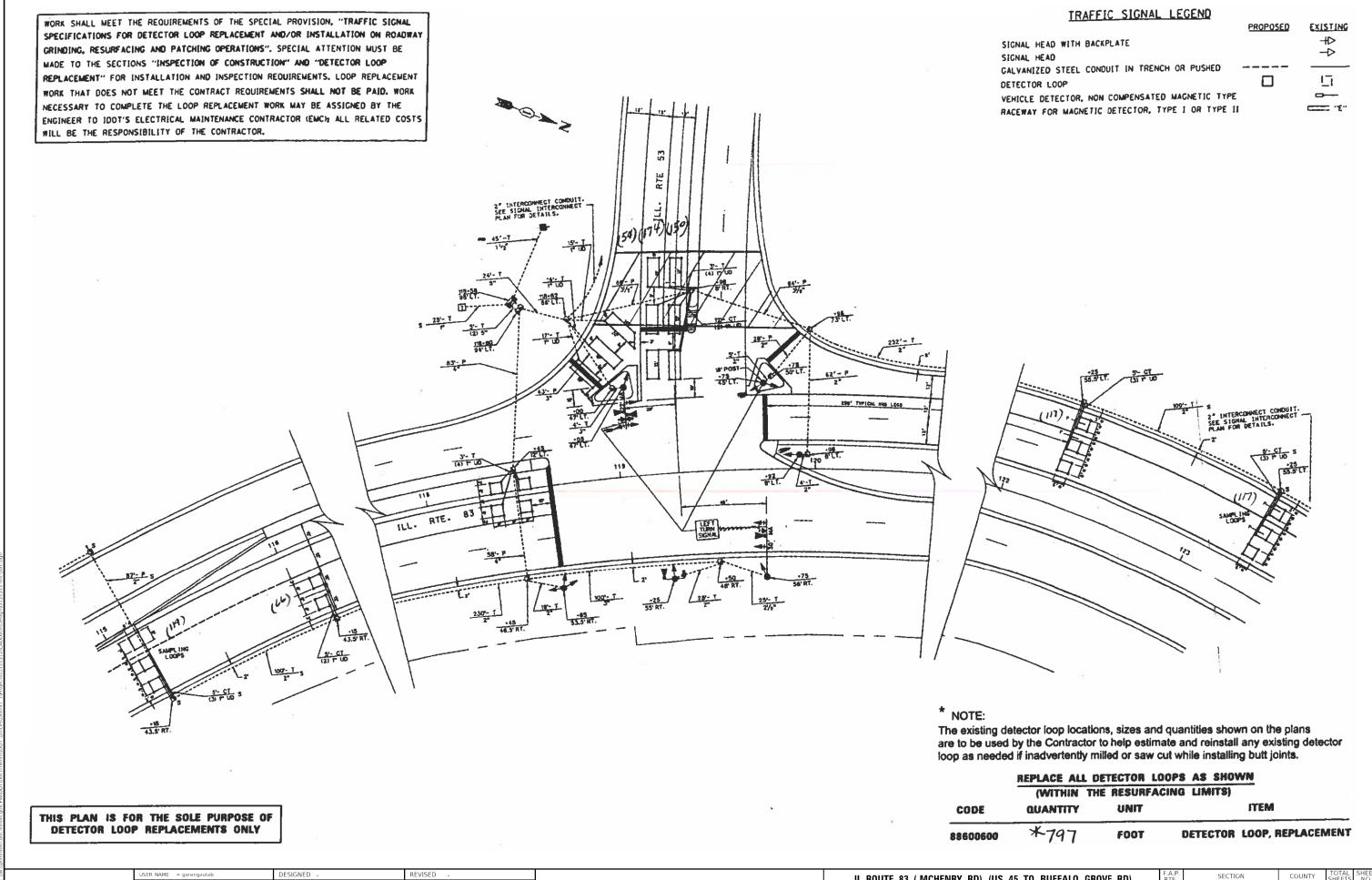
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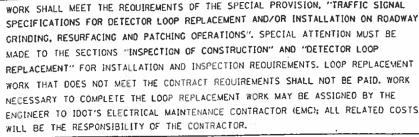
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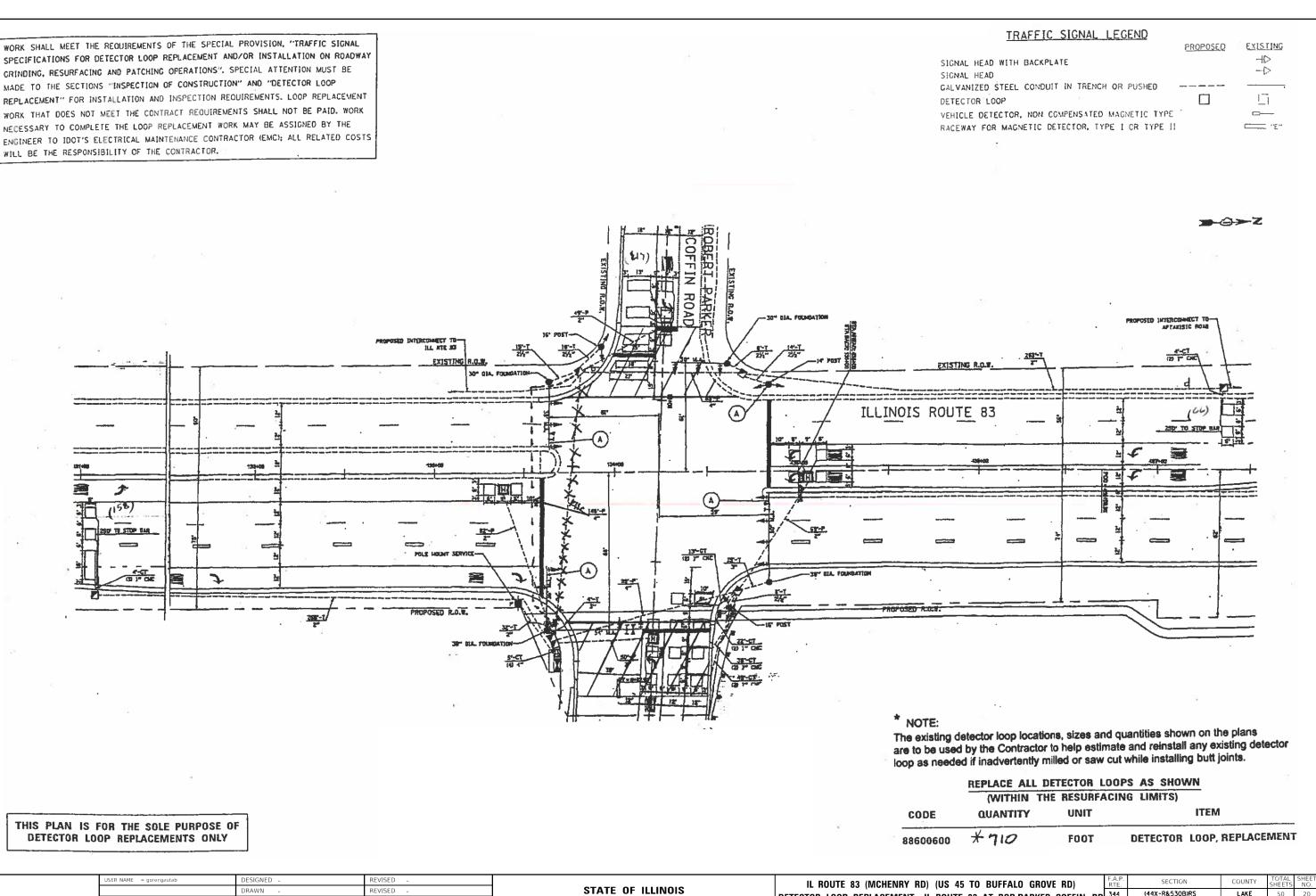
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DETECTOR LOOP REPLACEMENT. IL ROUT **DEPARTMENT OF TRANSPORTATION** SCALE: SHEET

SHEET OF

(WITHIN QUANTITY	THE RESURFA	CING LIMITS) ITEM
* 710	FOOT	DETECTOR LOOP, REPLACEMENT

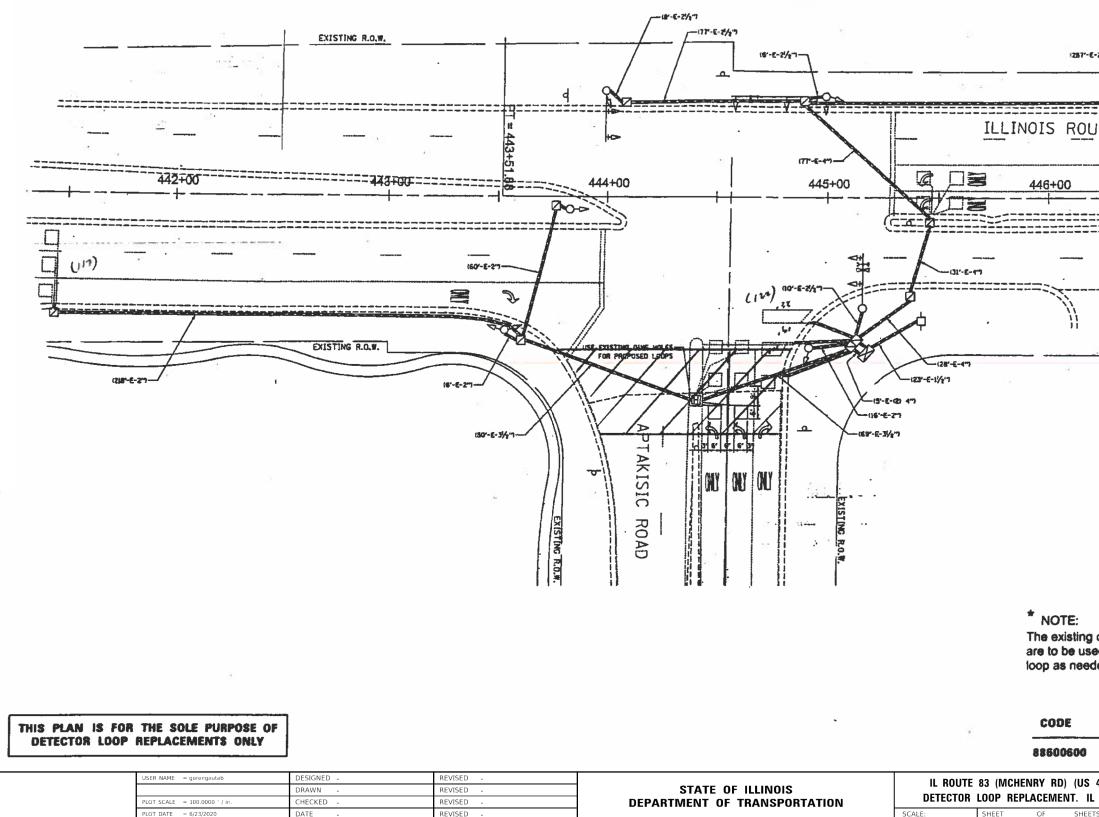
45	TO B	UFFALO GROVE RD)	F.A.P. RTE.	SEC	TION		COUNTY	TOTAL SHEETS	SHEET NO.
F	83 41	ROB.PARKER COFFIN RE	344	(44X-R&5	30B)RS		LAKE	50	20
	UJ AI	NOD.I ANKEN COITIN HE	<u> </u>				CONTRACT	NO. 60	0V06
S	STA.	TO STA.			ILLINOIS	FED. A	ID PROJECT		

WORK SHALL MEET THE REQUIREMENTS OF THE SPECIAL PROVISION, "TRAFFIC SIGNAL SPECIFICATIONS FOR DETECTOR LOOP REPLACEMENT AND/OR INSTALLATION ON ROADWAY GRINDING, RESURFACING AND PATCHING OPERATIONS". SPECIAL ATTENTION MUST BE MADE TO THE SECTIONS "INSPECTION OF CONSTRUCTION" AND "DETECTOR LOOP REPLACEMENT" FOR INSTALLATION AND INSPECTION REQUIREMENTS. LOOP REPLACEMENT WORK THAT DOES NOT MEET THE CONTRACT REQUIREMENTS SHALL NOT BE PAID. WORK NECESSARY TO COMPLETE THE LOOP REPLACEMENT WORK MAY BE ASSIGNED BY THE ENGINEER TO IDOT'S ELECTRICAL MAINTENANCE CONTRACTOR (EMC) ALL RELATED COSTS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

OT DATE = 6/23/2020

DATE

REVISED



TRAFFIC SIGN	IAL_L	EGEND				
			PROP	<u>QSED</u>	EXISTIN	<u>C</u>
SIGNAL HEAD WITH BACKPLATE SIGNAL HEAD					-Þ	
GALVANIZED STEEL CONDULT IN TH DETECTOR LOOP	RENCH	OR PUSHED	 []	5	
VEHICLE DETECTOR, NON COMPENS			_	-	-	
RACEWAY FOR MAGNETIC DETECTOR	, TYPE	I OR TYPE II			<u>۳۲</u>	
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-2,2-						
EXISTING R.O.W.				<u> </u>		
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detector loop locations, sizes and by the Contractor to help es						
led if inadvertently milled or sa						
REPLACE ALL DETECTOR			<u>/N</u>			
(WITHIN THE RESURF QUANTITY UNIT	ACIN	u LIMITS)	ITEM	t		
X-305 FOOT		DETECTOR			CEMEN	- T
1-200 FUUI	L + 2				TOTAL	
45 TO BUFFALO GROVE RD)	F.A.P. RTE. 344	SECTION		COUNTY	TOTAL SHEETS	SHEE NO.

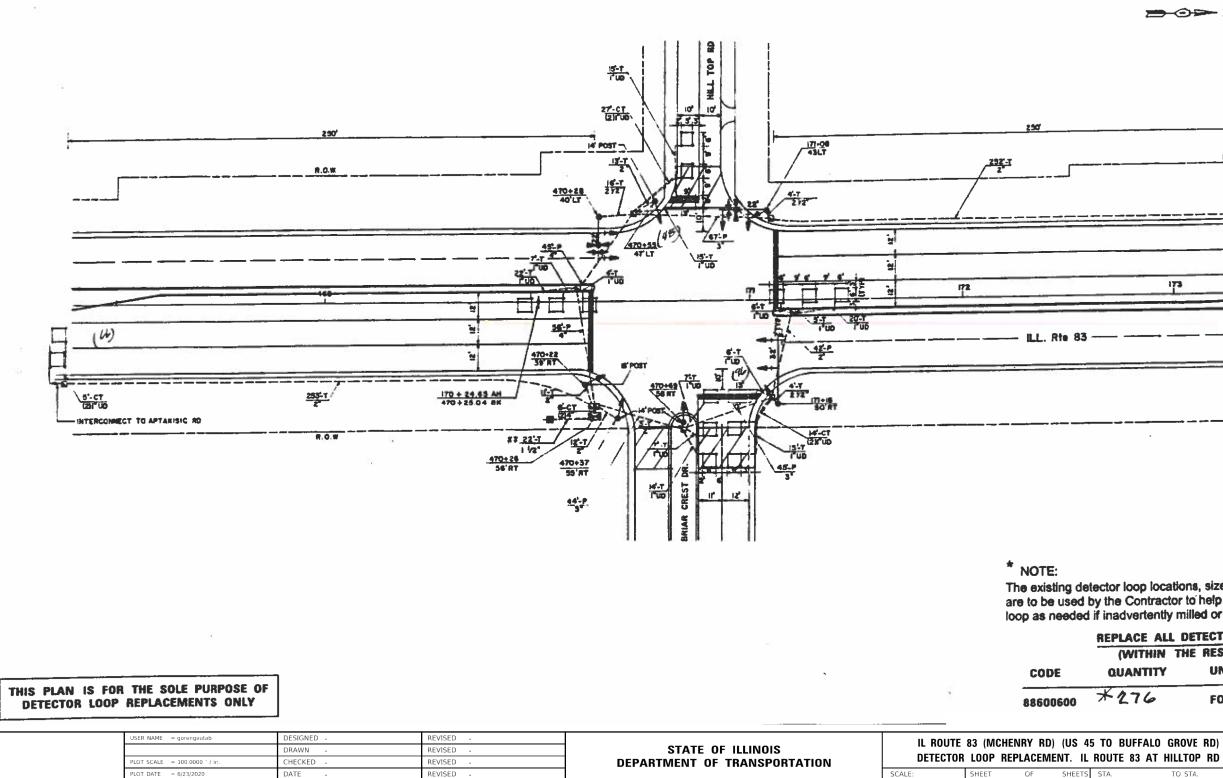
4	5 TO B	UFFALO GROVE RD)	RTE.	SECT	IUN		COUNTI	SHEETS	NO.	
F		3 AT APTAKISIC RD	344	(44X-R&5	30B)RS		LAKE	50	21	
		S AT AT TAKISTO TID					CONTRACT	NO. 60)V06	
ΤS	STA.	TO STA.			ILLINOIS	FED. Al	ID PROJECT			

SCALE:

OF

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WORK SHALL MEET THE REQUIREMENTS OF THE SPECIAL PROVISION. "TRAFFIC SIGNAL SPECIFICATIONS FOR DETECTOR LOOP REPLACEMENT AND/OR INSTALLATION ON ROADWAY GRINDING, RESURFACING AND PATCHING OPERATIONS". SPECIAL ATTENTION MUST BE MADE TO THE SECTIONS "INSPECTION OF CONSTRUCTION" AND "DETECTOR LOOP REPLACEMENT" FOR INSTALLATION AND INSPECTION REQUIREMENTS. LOOP REPLACEMENT WORK THAT DOES NOT MEET THE CONTRACT REQUIREMENTS SHALL NOT BE PAID. WORK NECESSARY TO COMPLETE THE LOOP REPLACEMENT WORK MAY BE ASSIGNED BY THE ENGINEER TO IDDT'S ELECTRICAL MAINTENANCE CONTRACTOR (EMC); ALL RELATED COSTS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.



TRAFFIC SIGNAL LEGEND
NAL HEAD WITH BACKPLATE -+D NAL HEAD
VANIZED STEEL CONDUIT IN TRENCH OR PUSHED
EWAY FOR MAGNETIC DETECTOR. TYPE 1 OR TYPE 11
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4- <u>c7</u> (23 ⁴ UD
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3
R.O.W
etector loop locations, sizes and quantities shown on the plans I by the Contractor to help estimate and reinstall any existing detector I if inadvertently milled or saw cut while installing butt joints.
REPLACE ALL DETECTOR LOOPS AS SHOWN (WITHIN THE RESURFACING LIMITS)

 QUANTITY
 UNIT
 ITEM

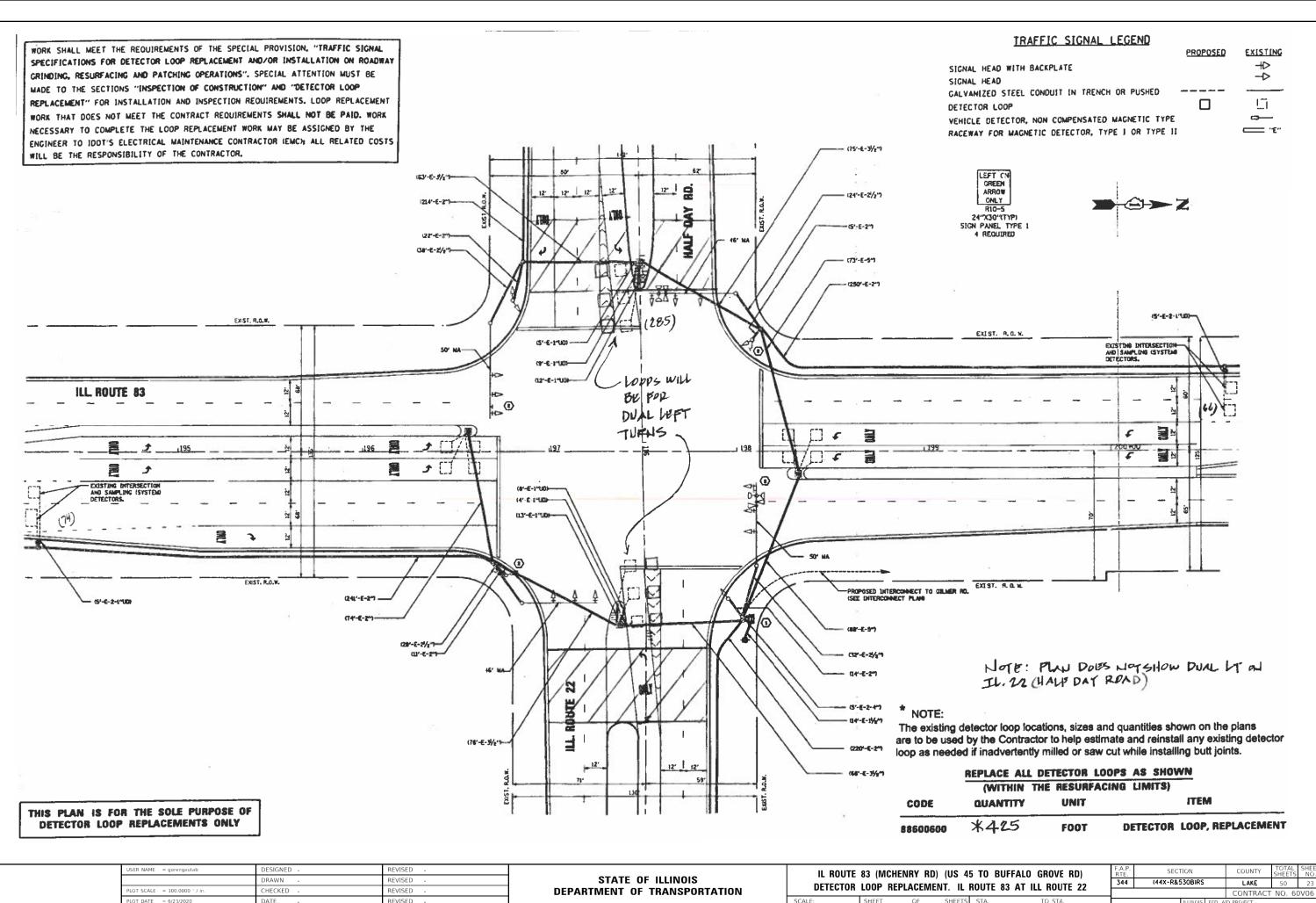
 # 2.76
 FOOT
 DETECTOR
 LOOP, REPLACEMENT

 45 TO BUFFALO GROVE RD)
 F.A.P. RTE.
 SECTION
 COUNTY
 TOTAL SHI SHEETS N

 11 BOUTE 83 AT HULLTOP RD
 344
 (44X-R&530B)RS
 LAKE
 50
 2

 SHEETS
 STA.
 TO STA.
 344
 (44X-R&530B)RS
 LAKE
 50
 22

 CONTRACT NO. 60V06

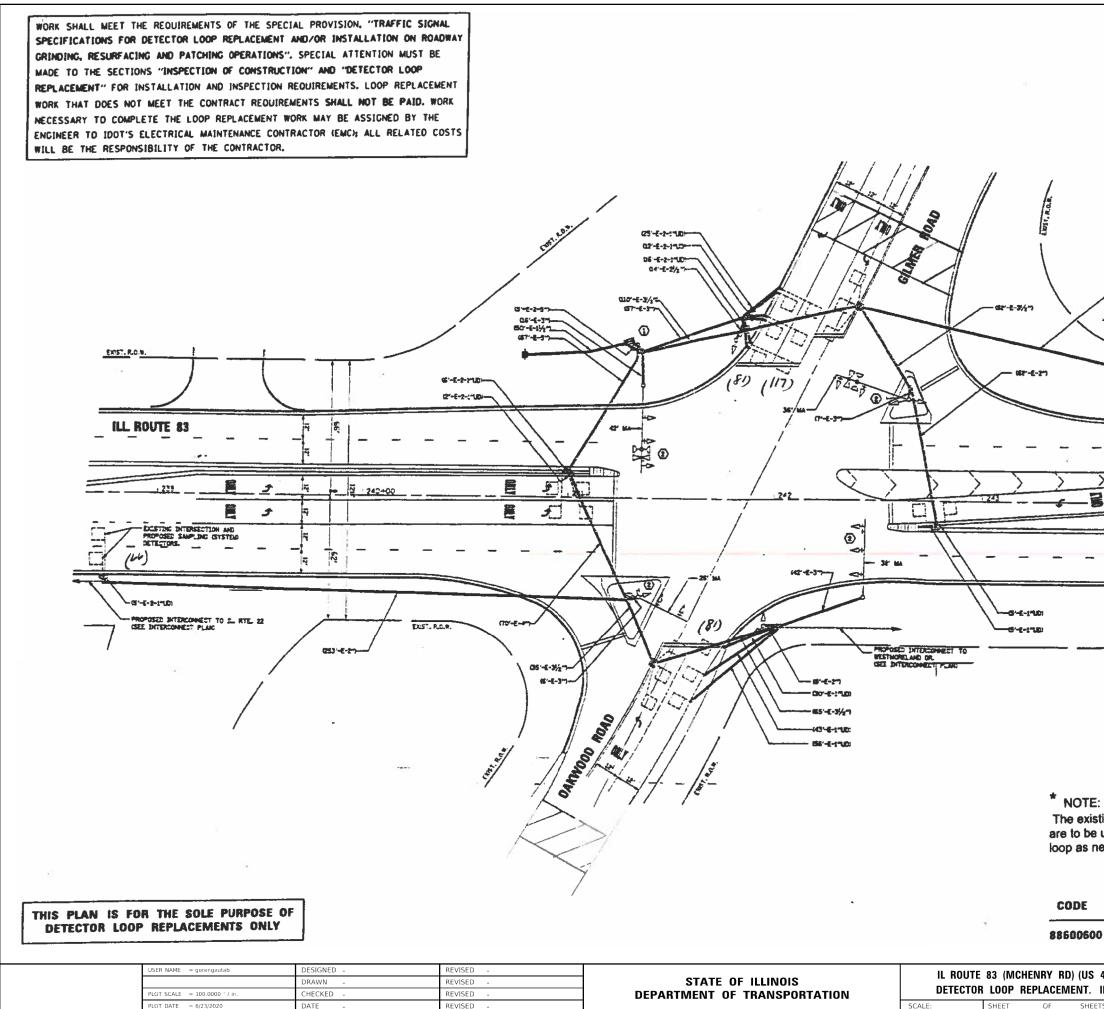


SCALE

SHEET SHEE OF

*425	FOOT	DETECTOR	LOOP	, REPLACEMENT

45	5 TO B	UFFALO GROVE RD)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	ROUTE	83 AT ILL ROUTE 22	344	(44X-R&530B)RS	LAKE	50	23
	IUUIL	03 AT ILL HOUTE 22			CONTRACT	NO. 60	0V06
TS	STA.	TO STA.		ILLINOIS FED. 4	ID PROJECT		

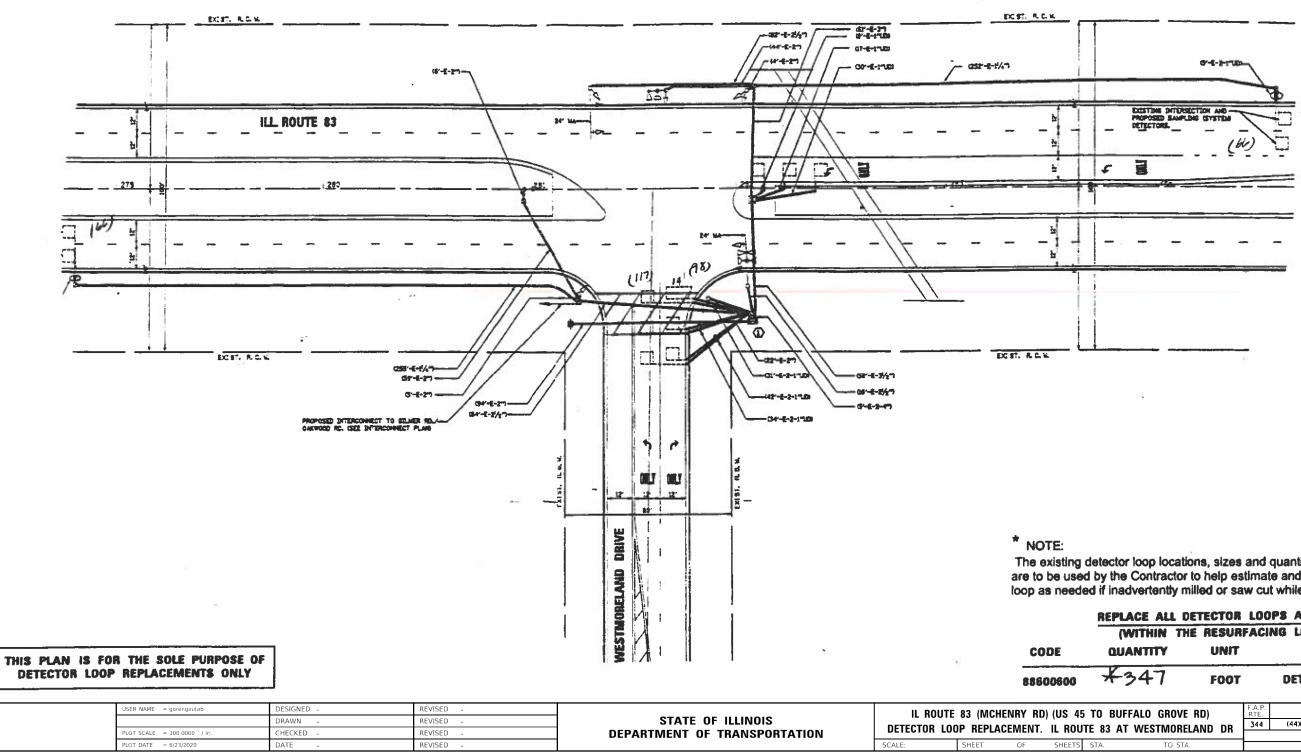


TRAFFIC SIGNAL LEGEND	PROPOSED	EXISTING
SIGNAL HEAD WITH BACKPLATE SIGNAL HEAD GALVANIZED STEEL CONDUIT IN TRENCH OR PUSHED DETECTOR LOOP VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE RACEWAY FOR MAGNETIC DETECTOR, TYPE 1 OR TYPE IN		
- 977-6-27		
6·1-2:11		
EXIST. R.O.W.	<u> </u>	
		

The existing detector loop locations, sizes and quantities shown on the plans are to be used by the Contractor to help estimate and reinstall any existing detector loop as needed if inadvertently milled or saw cut while installing butt joints.

(WITHIN THE RESU	RFACIN	G LIMITS)				
QUANTITY UNIT	r		ITEN	•		
¥411 F00	r	DETECTOR	LOOP,	REPLAC	EME	VT
5 TO BUFFALO GROVE RD)	F.A.P. RTE.	SECTION		COUNTY	TOTAL SHEETS	SHEE NO.
•		SECTION	RS	COUNTY L AKE		
45 TO BUFFALO GROVE RD) L ROUTE 83 AT GILMER RD	RTE.		85		SHEETS 50	24

WORK SHALL MEET THE REQUIREMENTS OF THE SPECIAL PROVISION. "TRAFFIC SIGNAL SPECIFICATIONS FOR DETECTOR LOOP REPLACEMENT AND/OR INSTALLATION ON ROADWAY GRINDING, RESURFACING AND PATCHING OPERATIONS". SPECIAL ATTENTION MUST BE MADE TO THE SECTIONS "INSPECTION OF CONSTRUCTION" AND "DETECTOR LOOP REPLACEMENT" FOR INSTALLATION AND INSPECTION REQUIREMENTS. LOOP REPLACEMENT WORK THAT DOES NOT MEET THE CONTRACT REQUIREMENTS SHALL NOT BE PAID. WORK NECESSARY TO COMPLETE THE LOOP REPLACEMENT WORK MAY BE ASSIGNED BY THE ENGINEER TO IDOT'S ELECTRICAL MAINTENANCE CONTRACTOR (EMC); ALL RELATED COSTS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.



TRAFFIC SIGNAL LEGEND

PROPOSED

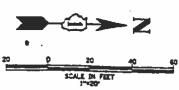
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SIGNAL HEAD WITH BACKPLATE SIGNAL HEAD CALVANIZED STEEL CONDULT IN TRENCH OR PUSHED DETECTOR LOOP VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II



The existing detector loop locations, sizes and quantities shown on the plans are to be used by the Contractor to help estimate and reinstall any existing detector loop as needed if inadvertently milled or saw cut while installing butt joints.

	(WITHIN TH			PS AS					
	QUANTITY	UNIT				ITE	M		
)	¥347	FOOT		DETE	CTOR	LOO	P, REPLA	CEME	NT
45 T(0 BUFFALO GROVE	RD)	F.A.P. RTE.	SE	CTION		COUNTY	TOTAL SHEETS	SHEET NO.
	83 AT WESTMORE	,	344	(44X-R8	\$30B)RS		LAKE	50	25
							CONTRACT	NO. 6	0V06
rs st.	A. TO STA.				ILLINOI	S FED. A	ID PROJECT		

FABRICATION GENERAL NOTES

MATERIALS

- 1. EPOXY COATED DOWEL BARS USED SHALL COMPLY WITH ASTM A 615 GRADE 60
- 2. ALL EMBEDDED LIFTING HARDWARE USED SHALL BE GALVANIZED.
- A. FOR LIFTING INSERTS, INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATION INCLUDING MINIMUM EDGE DISTANCE AND SPACING REQUIREMENTS. UNLESS THE CONTRACTOR AND FABRICATOR WILL BE USING A LIFTING BEAM OR ROLLING SHEAVE TO ENSURE THAT EACH OF THE FOUR INSERTS WILL SHARE THE LOAD EQUALLY, TWO OF THE FOUR INSERTS MUST BE CAPABLE OF CARRYING THE TOTAL LOAD WITH A 4:1 SAFETY FACTOR WHILE ADJUSTING FOR THE ANGLE OF THE CABLES AND THE STRENGTH OF THE CONCRETE OVER TIME. THE INSERT SHOULD BE RECESSED A MINIMUM OF 1½" UNLESS THE SLAB IS TO BE OVERLAID IMMEDIATELY AFTER PLACEMENT. THE INSERT SHALL LEAVE A MAXIMUM $1\frac{1}{4}$ " DIAMETER THREADED HOLE TO BE GROUTED AFTER SLAB INSTALLATION. IF THE INSERT IS IN-STALLED WITH A FULL SLAB PENETRATION. THE LIFTING INSERT CAN BE USED AS A BEDDING GROUT PORT AT THE CONTRACTOR'S DIS-CRETION
- B. FOR LIFTING PLATES. INSTALLATION MUST BE IN ACCORD-ANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND HAVE A STANDARD 5:1 SAFETY FACTOR FOR LIFTING HARDWARE. UNLESS A LIFTING BEAM IS USED TO SPACE THE FOUR PICK POINTS DIRECTLY ABOVE THE INSERTS, THE LIFTING HARDWARE MUST BE RATED FOR USE WITH CABLES AT AN ANGLE AND TWO OF THE FOUR DEVICES MUST BE CAPABLE OF LIFTING THE FULL LOAD AS WITH THE INSERTS REFERENCED IN THE PREVIOUS NOTE.
- 3. REINFORCEMENT USED SHALL BE EPOXY COATED, IN ACCORDANCE WITH ASTM A706 GRADE 60 AND IN COMPLIANCE WITH ARTICLE 1006.10 OF THE STANDARD SPECIFICATIONS.
- 4. CONCRETE COVER OVER REINFORCEMENT TO BE MAINTAINED USING WIRE OR THERMOPLASTIC CHAIRS OR SPACERS OR AN APPROVED ΕΟΠΙΛΑΙ ΕΝΤ
- 5. CONCRETE USED SHALL MEET THE FOLLOWING REQUIREMENTS:
- A. CONCRETE USED SHALL BE CLASS PC (f'C = 4,500 PSI @ 28 DAYS) IN ACCORDANCE WITH SECTION 1020 OF THE STANDARD SPECIFICATIONS.
- B. MINIMUM STRIPPING STRENGTH OF CONCRETE SHALL BE 3,000 PSI.
- C. CONCRETE MIX DESIGN TO BE SUBMITTED AND APPROVED PRIOR TO FABRICATION
- D. CURING OF CONCRETE SLABS TO BE IN ACCORDANCE WITH THE SPECIFIED METHODS OF SECTION 1020 OF THE STANDARD SPECIFICATIONS. THE CURING PROCEDURE TO BE USED SHALL BE SUBMITTED AND APPROVED PRIOR TO FABRICATION

SLAB DESIGN

- 6. FOR STANDARD SLABS:
 - A. USE SLAB DIMENSIONS SHOWN ON THE DISTRICT STANDARD DRAWINGS FOR DESIGN SLAB THICKNESS, WIDTH, AND LENGTH. ACTUAL WIDTH TO BE MODIFIED WITH ON-SITE SAW CUTS TO FIT THE OPENING
 - B. USE TWO LAYERS OF REINFORCEMENT WITH A MINIMUM STEEL AREA RATIO OF 0.2%.
 - C. SIZE ANY PREFORMED SLOTS THAT ARE DESIGNED FOR CONSECUTIVE STANDARD SLABS CONSISTENT WITH THE THICKNESS OF THE SLAB SUCH THAT THE BOTTOM OF THE OPENING IS AT LEAST $2\frac{1}{2}$ " ($|\frac{1}{4}$ ") WIDE AND AT LEAST $\frac{1}{2}$ " OF GROUT COVER IS PROVIDED UNDER THE DOWEL

- D. FOR STANDARD SLABS WITH WIDE OPEN SLOTS AND/OR EMBEDDED DOWEL BARS, IT SHALL BE THE CONTRACTOR'S OPTION TO EITHER PRE-INSTALL/EMBED THE DOWEL BARS INTO THE SLABS AT THE PRECAST PLANT AND PARTIALLY RETROFIT THE EMBEDDED DOWELS INTO ADJACENT PAVEMENT SLABS IN THE FIELD, OR TO FULLY RETROFIT THE DOWEL BARS INTO BOTH THE INSTALLED PRECAST SLAB AND ANY ADJACENT SLAB IN THE FIELD DURING PLACEMENT IN ACCORDANCE WITH CONTRACT SPECIFICATIONS AND THE GENERAL NOTES FOR INSTALLATION. THE LOCATIONS AND SPACING OF THE DOWEL BARS IN THE STANDARD SLABS SHALL BE SHOWN ON THE DISTRICT STANDARD DRAWINGS AND WITHIN THE SPECIFIED TOLERANCES FOR ALIGNMENT. FOR DOWEL BAR RETROFITTING WITH STANDARD SLAB INSTALLATION, A STANDARD TEMPLATE SHALL BE USED TO LOCATE THE CUTS AND POSITION THE DOWEL SLOTS CONSISTENTLY.
- E. FOR STANDARD ISOLATED SLABS WITH NARROW ELONGATED PREFORMED DOWEL SLOTS, THE CENTERPOINT BETWEEN THE WHEEL PATH SLOTS SHALL BE MARKED.

7. FOR CUSTOM SLABS:

- A. USE SLAB DIMENSIONS SHOWN ON THE DISTRICT STANDARD DRAWINGS FOR DESIGN SLAB THICKNESS. LENGTHS AND WIDTHS OF EACH CUSTOM SLAB SHALL BE ACCURATE DIMENSIONS BASED ON FIELD SURVEY DATA COLLECTED BY THE CONTRACTOR TO DEVELOP WORKING DRAWINGS FOR THE SLAB. MINIMUM AND MAXIMUM DIMENSIONS FOR LENGTHS AND WIDTHS ARE NOTED ON THE STANDARD DRAWINGS.
- B. FOR ANY CUSTOM SLAB FABRICATED TO REPLACE EXISTING WARPED PAVEMENT AT AN ISOLATED LOCATION, THE CUSTOM SLAB SHALL BE FABRICATED ON A SINGLE PLANE. THE SLAB THICK-NESS OR BEDDING MATERIAL SHALL BE ADJUSTED TO ALLOW FOR THE ELEVATION OF ALL FOUR (4) CORNERS OF THE CUSTOM SLAB TO BE FLUSH OR HIGHER THAN THE EXISTING OR ADJOINING PAVE MENT WHEN INSTALLED. THE SURFACE OF ALL CUSTOM SLABS RE-PLACING WARPED PAVEMENT SHALL RECEIVE A COMPLETE PROFILE DIAMOND GRIND AFTER INSTALLATION AND GROUTING TO PROVIDE A SMOOTH SURFACE AND LEAVE ALL EDGES FLUSH WITH THE AD-JOINING PAVEMENTS. THE PROFILE GRINDING OPERATION FOR CUSTOM SLABS REPLACING ANY WARPED PAVEMENTS, ON CURVED RAMPS OR SUPERELEVATED MAINLINE SECTIONS, SHALL BE IN AC-CORDANCE WITH CONTRACT SPECIAL PROVISIONS FOR PROFILE DIAMOND GRINDING PRECAST CONCRETE PAVEMENT SLABS AND PAID FOR SEPARATELY. FOR CONSECUTIVELY PLACED CUSTOM SLABS FABRICATED TO REPLACE EXISTING WARPED PAVEMENT, FULL SURVEYS FOR X, Y, AND Z DIMENSIONS SHALL BE TAKEN BY THE CONTRACTOR BEFORE FABRICATION IN ORDER TO MATCH EXISTING GRADES AT ALL CORNERS DURING INSTALLATION.
- C FOR ALL CLISTOM SLABS WITH WIDE OPEN SLOTS. THE DOWEL BARS SHALL BE FULLY RETROFITTED INTO ADJACENT PAVEMENT SLABS DURING FIELD INSTALLATION OF THE PRECAST SLAB IN ACCORDANCE WITH CONTRACT SPECIFICATIONS AND GENERAL NOTES FOR INSTALL -ATION
- D. FOR ALL CUSTOMS SLABS WITH NARROW ELONGATED PREFORMED DOWEL SLOTS, THE DOWEL BARS SHALL BE SLID INTO PREDRILLED HOLES IN THE ADAJECENT PAVEMENT SLABS DURING FIELD INSTALLATION OF THE PRECAST SLAB IN ACCORDANCE WITH CONTRACT SPECIFICATIONS AND GENERAL NOTES FOR INSTALLATION

USER NAME = gorengautab	DESIGNED - O. PATEL	REVISED - D.G. 6-14					F.A. P RTE.	SECTION	COUNTY SH	OTAL SHEET IEETS NO.
	DRAWN -	REVISED - 0.6. 9-16	STATE OF ILLINOIS		PRECAST CONCRETE PA	VEMENT SLABS	344	(44X-R&530B)RS	LAKE	50 26
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED - D.G. 8-19	DEPARTMENT OF TRANSPORTATION		-			BD 57	CONTRACT NO	O. 60V06
PLOT DATE = 6/19/2020	DATE - 10-25-2013	REVISED -		SCALE: NONE	SHEET 1 OF 19 SHEETS	STA. TO STA.	FED.	ROAD DIST. NO. 1 ILLINOIS FED	. AID PROJECT	

8. ALL FABRICATED SLABS:

- A. THE MAXIMUM ALLOWABLE JOINT WIDTH CAN NOT BE LESS THAN THE TOTAL OF THE ALLOWABLE SLAB FABRICATION TOLERANCES.
- B. BEDDING GROUT PORT HOLES SHALL BE LOCATED ON TRANSVERSE LINES ACROSS THE SLAB THAT ARE PARALLEL WITH EXISTING TRANSVERSE JOINTS EACH PORT HOLE SHALL BE EVENLY DISTRIBUTED ON EACH LINE. THE DISTANCE BETWEEN BEDDING GROUT PORT HOLES SHALL NOT EXCEED 4'-0". WITH THE PORT HOLES AT THE END OF THE TRANSVERSE LINES TO BE NO LESS THAN 1'-8" AND NO MORE THAN 3'-0" OFF A LONGITUDINAL JOINT. THE TRANSVERSE LINES FOR PORT HOLES SHALL BE NO MORE THAN 4'-0" APART, AND NO LESS THAN 1'-8" AND NO MORE THAN 2'-6" OFF OF A TRANSVERSE JOINT.
- C. RECESS LIFTING DEVICES 1 1/2" MINIMUM BELOW THE SURFACE OF THE SLAB TO ALLOW FOR A MINIMUM GROUT COVER OF 1" ON SLABS THAT WILL NOT BE OVERLAID.

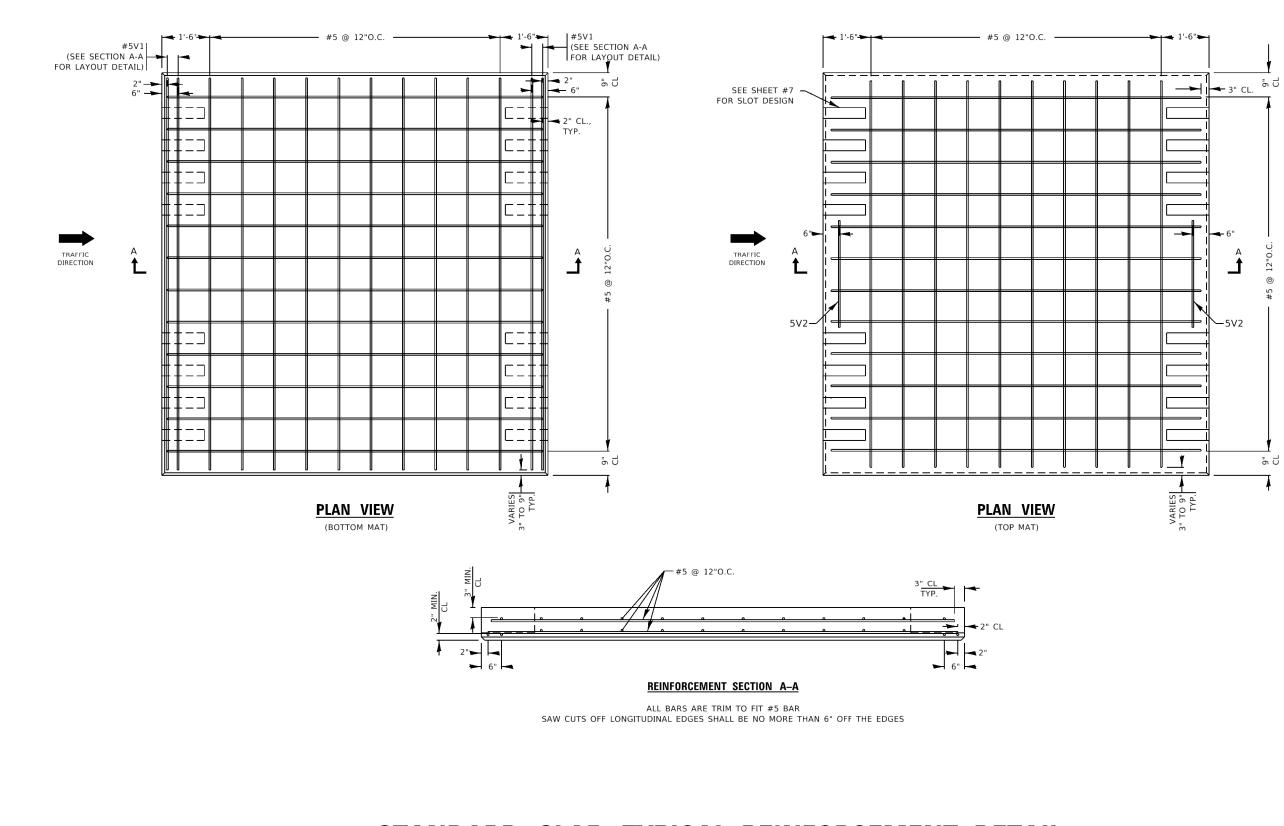
FABRICATION

- 9. PREPARE WORKING DRAWINGS THAT SHALL INCLUDE THE FOLLOWING INFORMATION
- A. SLAB LAYOUT DRAWING FOR TYPICAL STANDARD SLABS AND FOR EACH CUSTOM SLAB TO BE FABRICATED. WITH ACCURATE DIMENSIONS CITED
- B. REINFORCEMENT SIZES, SPACING, NUMBER OF MATS, AND METHOD OF MAINTAINING CONCRETE COVER.
- C. SIZES AND LOCATIONS FOR EMBEDDED DOWELS, OF DOWEL BARS TO BE RETROFITTED AFTER PLACEMENT OF THE SLAB, AND OF PREFORMED SLOTS AT THE FEMALE END OF STANDARD SLABS FOR CONSECUTIVE PLACEMENT.
- D. SIZE AND LOCATION OF GROUT PORTS, LIFTING ANCHORS, AND GROUT SEAL GASKETS.
- E. COMPRESSIVE STRENGTH AND AIR CONTENT OF CONCRETE
- F. CONCRETE CURING METHOD TO BE USED.
- G. MARKING LEGEND FOR EACH SLAB TO INDICATE PRECAST MANUFACTURER, AND DATE OF PRODUCTION: AND FOR EACH CUSTOM SLAB TO INCLUDE CONTRACT NUMBER AND MARK NUMBER OF THE SLAB.
- H. WEIGHT OF EACH SLAB.

10. PERFORM A PRE-POUR INSPECTION OF THE FORMS TO CONFIRM THAT THEY ARE ASSEMBLED IN ACCORDANCE WITH THE FOLLOWING TOLERANCES:

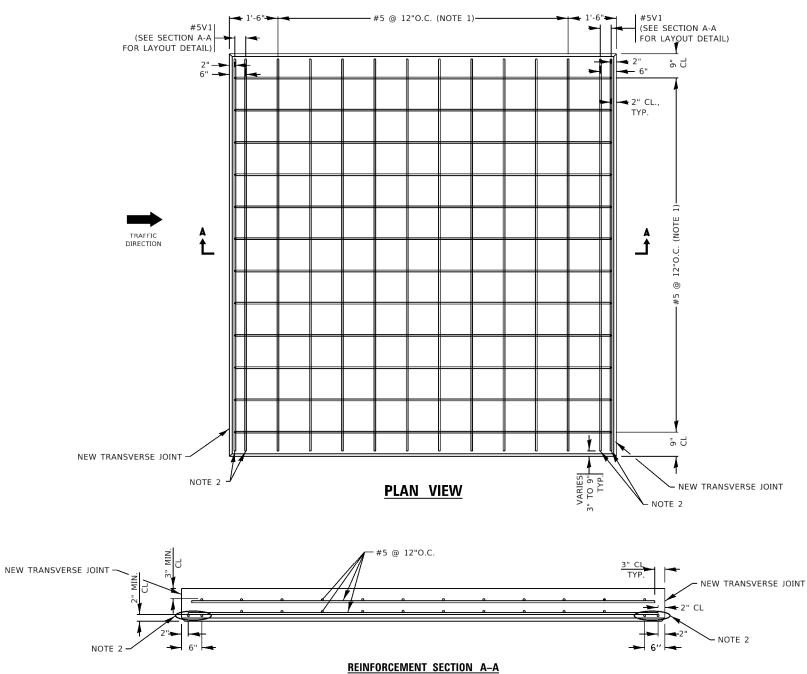
LENGTH AND WIDTH + %" DIAGONALS ±∛16" DOWEL VARIANCE FROM LEVEL, SQUARENESS TO EDGE OF SLAB. AND LOCATION. ±%" EDGE SQUARENESS - 1/8" IN 10" (IN RELATION TO TOP AND BOTTOM SURFACES).

- 11. INCLUDE A 1 INCH CHAMFER ALONG ALL BOTTOM EDGES OF SLABS. AND A STONED EDGE TO ALL TOP EDGES OF THE SLAB.
- 12. THE EXPOSED SURFACES OF ALL PREFORMED SLOTS FOR DOWEL BARS SHALL BE SANDBLASTED.
- 13. ACCURATELY SCREED TOP OF SLAB TO MEET SURFACE AND THICKNESS TOLERANCES.
- 14. THE FINAL FINISH SHALL MATCH THE SURROUNDING PAVEMENT WITH FITHER AN ARTIFICIAL TURE DRAG FINISH TO TOP OF SLAB IN ACCORDANCE WITH ARTICLE 420.09(e)(2) OF THE STANDARD SPECIFICATIONS, OR A TINED FINISH IN ACCORDANCE WITH ARTICLE 420.09(e)(1) OF THE STANDARD SPECIFICATIONS.
- 15. AFTER REMOVAL OF FORMS AND ANY BLOCKOUTS, NO SPALLS OF THE FINISHED SURFACE WILL BE ALLOWED.



STANDARD SLAB TYPICAL REINFORCEMENT DETAIL

USER NAME = gorengautab	DESIGNED - O. PATEL	REVISED - D.G. 6-14					F.A. P. RTF	SECTION	COUNTY TOTAL SHEET
	DRAWN -	REVISED - D.G. 9-16	STATE OF ILLINOIS		PRECAST CONCRETE PA	VEMENT SLABS	344	(44X-R&530B)RS	LAKE 50 27
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION					BD 57	CONTRACT NO. 60V06
PLOT DATE = 6/19/2020	DATE - 10-25-2013	REVISED -		SCALE: NONE	SHEET 2 OF 19 SHEETS	STA. TO STA.		ILLINOIS FED	AID PROJECT



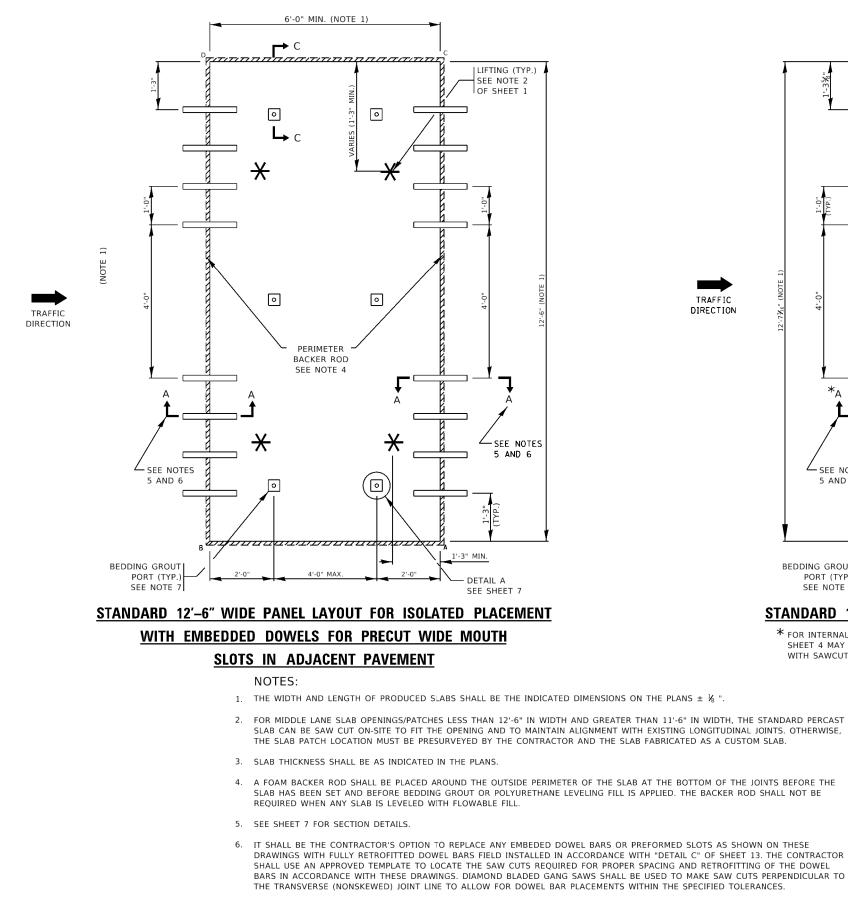
ALL BARS ARE TRIM TO FIT #5 BAR SAW CUTS OFF LONGITUDINAL EDGES SHALL BE NO MORE THAN 6" OFF THE EDGES

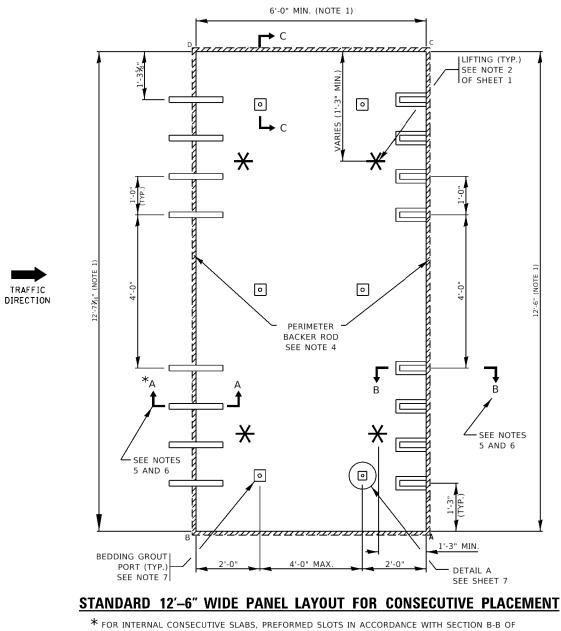
CUSTOM SLAB TYPICAL REINFORCEMENT DETAIL

USER NAME = gorengautab	DESIGNED - O. PATEL	REVISED - D.G. 6-14				F.A. P. BTE	SECTION	COUNTY TOTAL SHEET
	DRAWN -	REVISED - D.G. 9-16	STATE OF ILLINOIS		PRECAST CONCRETE PAVEMENT SLABS	344	(44X-R&530B)RS	LAKE 50 28
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION				BD 57	CONTRACT NO. 60V06
PLOT DATE = 6/19/2020	DATE - 10-25-2013	REVISED -		SCALE: NONE	SHEET 3 OF 19 SHEETS STA. TO STA.		ILLINOIS FED. /	ID PROJECT

NOTES:

- 1. FOR ALL CUSTOM SLABS OF TRAPEZOID SHAPES, THIS REINFORCEMENT SHALL BE LAID OUT IN A PERPENDICULAR GRID PATTERN, NOT SKEWED.
- 2. THIS REINFORCEMENT SHALL BE PARALLEL TO THE NEW TRANSVERSE JOINT.

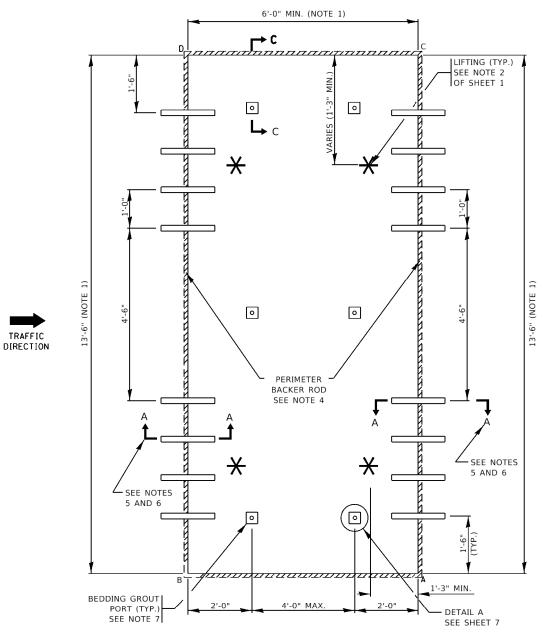


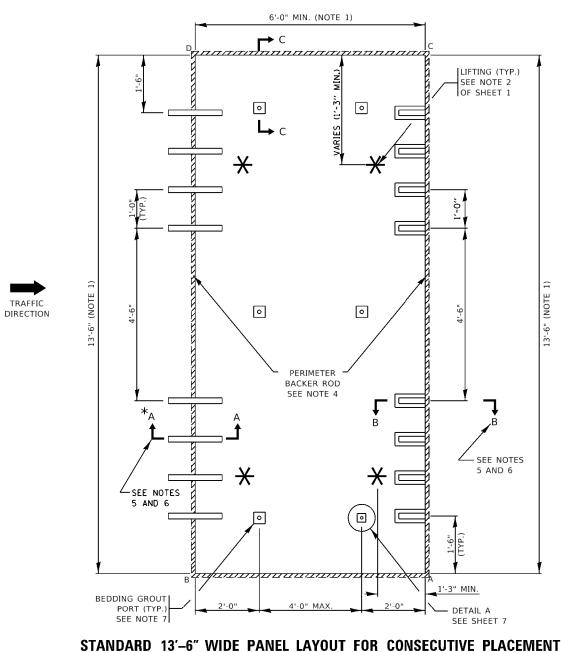


SHEET 4 MAY BE USED IN-PLACE OF EMBEDDED DOWELS OR OF FIELD RETROFITTED DOWEL BARS WITH SAWCUT SLOTS. ALL PREFORMED SLOTS MUST BE FILLED BEFORE BEING OPENED TO TRAFFIC.

7. SEE NOTE 8 ON SHEET 1 FOR LOCATING BEDDING GROUT PORTS.

USER NAME = gorengautab	DESIGNED - O. PATEL	REVISED - D.G. 6-14				F.A.P. RTF.	SECTION	COUNTY	TOTAL SHEET SHEETS NO.
	DRAWN -	REVISED - D.G. 9-16	STATE OF ILLINOIS		PRECAST CONCRETE PAVEMENT SLABS	344	(44X-R&530B)RS	LAKE	50 29
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED - D.G. 8-19	DEPARTMENT OF TRANSPORTATION				BD 57	CONTRAC	T NO. 60V06
PLOT DATE = 6/19/2020	DATE - 10-25-2013	REVISED -		SCALE: NONE	SHEET 4 OF 19 SHEETS STA. TO STA.		ILLINOIS FED. A	ID PROJECT	





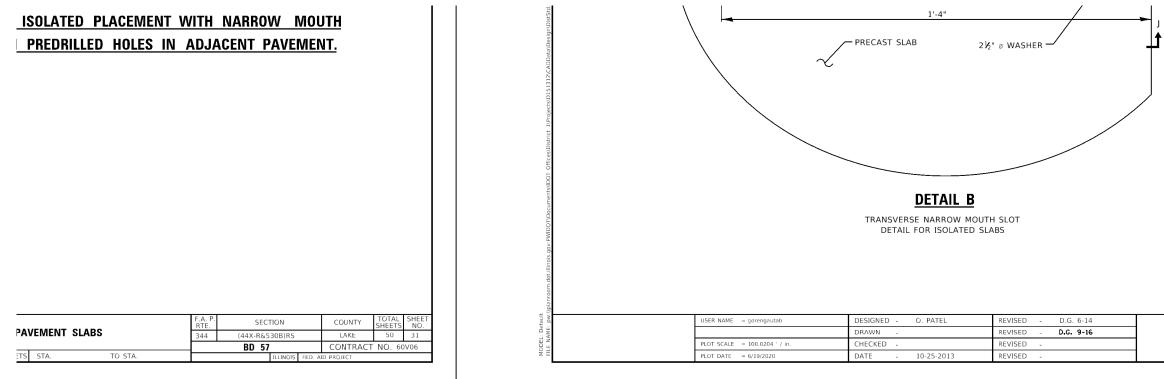
STANDARD 13'-6" WIDE PANEL LAYOUT FOR ISOLATED PLACEMENT WITH EMBEDDED DOWELS FOR PRECUT WIDE MOUTH SLOTS IN ADACENT PAVEMENT.

NOTES:

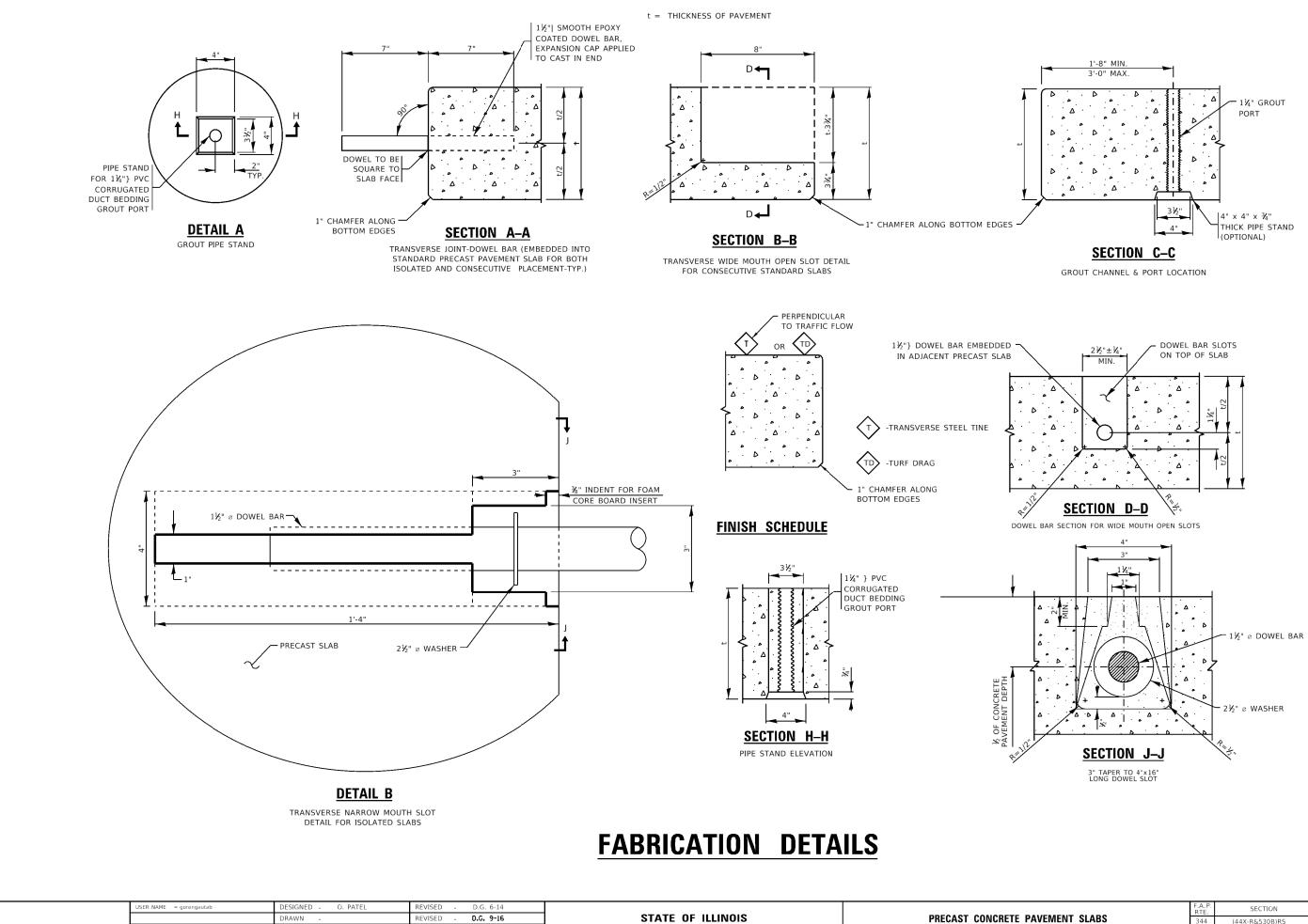
- 1. The width and length of produced slabs shall be the indicated dimensions on the plans \pm ½ ".
- 2. FOR MIDDLE LANE SLAB OPENINGS/PATCHES LESS THAN 13'-6" IN WIDTH AND GREATER THAN 12'-6" IN WIDTH, THE STANDARD PERCAST SLAB CAN BE SAW CUT ON-SITE TO FIT THE OPENING AND TO MAINTAIN ALIGNMENT WITH EXISTING LONGITUDINAL JOINTS. OTHERWISE, THE SLAB PATCH LOCATION MUST BE PRESURVEYED BY THE CONTRACTOR AND THE SLAB FABRICATED AS A CUSTOM SLAB.
- 3. SLAB THICKNESS SHALL BE AS INDICATED IN THE PLANS.
- 4. A FOAM BACKER ROD SHALL BE PLACED AROUND THE OUTSIDE PERIMETER OF THE SLAB AT THE BOTTOM OF THE JOINTS BEFORE THE SLAB HAS BEEN SET AND BEFORE BEDDING GROUT OR POLYURETHANE LEVELING FILL IS APPLIED. THE BACKER ROD SHALL NOT BE REQUIRED WHEN ANY SLAB IS LEVELED WITH FLOWABLE FILL.
- 5. SEE SHEET 7 FOR SECTION DETAILS.
- 6. IT SHALL BE THE CONTRACTOR'S OPTION TO REPLACE ANY EMBEDED DOWEL BARS OR PREFORMED SLOTS AS SHOWN ON THESE DRAWINGS WITH FULLY RETROFITTED DOWEL BARS FIELD INSTALLED IN ACCORDANCE WITH "DETAIL C" OF SHEET 13, THE CONTRACTOR SHALL USE AN APPROVED TEMPLATE TO LOCATE THE SAW CUTS REQUIRED FOR PROPER SPACING AND RETROFITTING OF THE DOWEL BARS IN ACCORDANCE WITH THESE DRAWINGS. DIAMOND BLADED GANG SAWS SHALL BE USED TO MAKE SAW CUTS PERPENDICULAR TO THE TRANSVERSE (NONSKEWED) JOINT LINE TO ALLOW FOR DOWEL BAR PLACEMENTS WITHIN THE SPECIFIED TOLERANCES.
- 7. SEE NOTE 8 ON SHEET 1 FOR LOCATING BEDDING GROUT PORTS.

USER NAME = gorengautab	DESIGNED - O. PATEL	REVISED - D.G. 6-14				F.A.P. BTE	SECTION	COUNTY TO	TAL SHEET
	DRAWN -	REVISED - D.G. 9-16	STATE OF ILLINOIS		PRECAST CONCRETE PAVEMENT SLABS	344	(44X-R&530B)RS	LAKE 5	0 30
PLOT SCALE = 100.0204 * / in.	CHECKED -	REVISED - D.G. 8-19	DEPARTMENT OF TRANSPORTATION				BD 57	CONTRACT NO). 60V06
PLOT DATE = 6/19/2020	DATE - 10-25-2013	REVISED -		SCALE: NONE	SHEET 5 OF 19 SHEETS STA. TO STA.		ILLINOIS FED.	AID PROJECT	

* FOR INTERNAL CONSECUTIVE SLABS, PREFORMED SLOTS IN ACCORDANCE WITH SECTION B-B OF SHEET 5 MAY BE USED IN-PLACE OF EMBEDDED DOWELS OR OF FIELD RETROFITTED DOWEL BARS WITH SAWCUT SLOTS. ALL PREFORMED SLOTS MUST BE FILLED BEFORE BEING OPENED TO TRAFFIC.



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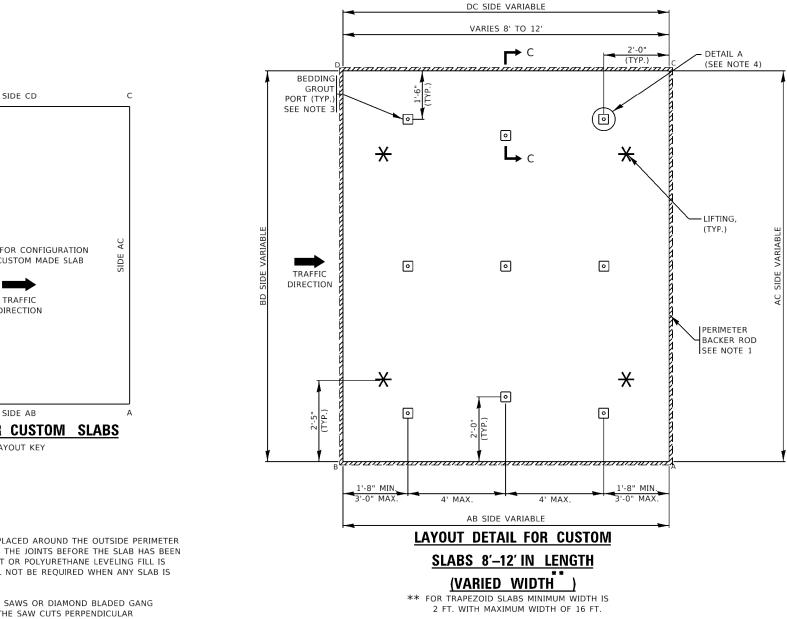
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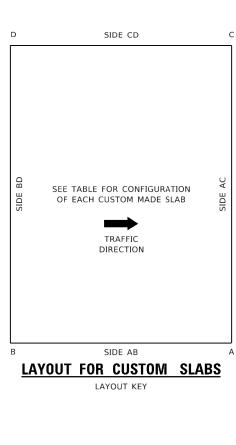
			F.A.P. RTE.	SECT	FION		COUNTY	TOTAL SHEETS	SHEET NO.
ETE PA	/EMENT	SLABS	344	(44X-R&53	BOB)RS		LAKE	50	32
				BD 57			CONTRACT	NO. 60	0V06
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FOR NON STANDARD SLABS, UPON COMPLETION BY THE CONTRACTOR A SLAB LAYOUT WILL BE ADDED WITH SLAB DIMENSIONS TO INCLUDE BUT NOT BE LIMITED TO THE TABLE SHOWN BELOW.

Ľ		MAINLINE		RAMP				VARIABL	.ES (FT.)		*	*	*	*				DIAGON	ALS (FT.)
EXAMF	STATION NUMBER	LANE	RAMP ID.	LANE NO.	MARK NO.	LANE TYPE	AB (FT.)	AC (FT.)	BD (FT.)	CD (FT.)	SIDE	BD SIDE	CD SIDE	SIDE	AREA (SQ.FT.)	VOLUME (CU. FT.)	WEIGHT (TONS)	AD	BC







NOTES:

- 1. A FOAM BACKER ROD SHALL BE PLACED AROUND THE OUTSIDE PERIMETER OF THE SLAB AT THE BOTTOM OF THE JOINTS BEFORE THE SLAB HAS BEEN SET AND BEFORE BEDDING GROUT OR POLYURETHANE LEVELING FILL IS APPLIED. THE BACKER ROD SHALL NOT BE REQUIRED WHEN ANY SLAB IS LEVELED WITH A FLOWABLE FILL.
- 2. EITHER SINGLE DIAMOND BLADED SAWS OR DIAMOND BLADED GANG SAWS SHALL BE USED TO MAKE THE SAW CUTS PERPENDICULAR TO THE TRANSVERSE (NONSKEWED) JOINT LINE TO ALLOW FOR DOWEL BAR PLACEMENTS WITHIN THE SPECIFIED TOLERANCES.
- 3. SEE NOTE 8 ON SHEET 1 FOR LOCATING BEDDING GROUT PORTS.
- 4. SEE SHEET 7 FOR SECTION DETAILS.

USER NAME = gorengautab	DESIGNED - O. PATEL	REVISED - D.G. 6-14				F.A. P. RTE.	SECTION	COUNTY TO SH)TAL SHEET IEETS NO.
	DRAWN -	REVISED - D.C. 9-16	STATE OF ILLINOIS		PRECAST CONCRETE PAVEMENT SLABS	344	(44X-R&530B)RS	LAKE	50 33
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION				BD 57	CONTRACT NO	O. 60V06
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INSTALLATION GENERAL NOTES

ALIGNMENT

- 1. WHEN THE TRANSVERSE JOINTS OF ANY PRECAST SLAB CAN NOT BE ALIGNED WITH TRANSVERSE JOINTS IN ADJACENT LANES, A MINIMUM 2'-0" OFFSET BETWEEN JOINTS SHALL BE PROVIDED.
- 2. THE LONGITUDINAL JOINT OF ANY ISOLATED OR CONSECUTIVE STANDARD PRECAST SLAB MUST BE ALIGNED TO BE PARALLEL WITH EXISTING LONGITUDINAL JOINTS. NO LONGITUDINAL OFFSETS SHALL BE ALLOWED. THE WIDTH OF ANY OF THE STANDARD PRECAST SLABS SHALL BE SAW CUT ON-SITE TO BE ALIGNED WITH THE EXISTING LONGITUDINAL JOINTS IN ADJACENT LANES OF EXISTING CONCRETE PAVEMENTS. THE WIDTH OF THE PRECAST SLAB SHALL BE NO MORE THAN 1#2 INCH LESS THAN THE WIDTH OF THE EXISTING SLAB BEING REPLACED. IF A STANDARD SLAB DOES NOT COMPLY WITH TOLERANCES FOR MAXIMUM AND MINIMUM WIDTHS FOR A DESIGNATED LOCATION, THEN A CUSTOM SLAB SHALL BE REQUIRED TO BE PRODUCED AND PLACED
- 3. THE TRANSVERSE JOINT OF ANY PRECAST SLAB SHALL BE NO LESS THAN 4'-0" DISTANCE FROM AN EXISTING TRANSVERSE JOINT THAT REMAINS, OR NO LESS THAN 2'-0" DISTANCE PAST ANY EXISTING TRANSVERSE JOINT THAT IS REMOVED AND REPLACED WITH A PRECAST SLAB
- 4. PRIOR TO THE PLACEMENT OF AN ISOLATED STANDARD PRECAST SLAB IN A MIDDLE LANE, THE WIDTH BETWEEN EXISTING LONGITUDINAL CONCRETE PAVEMENTJOINTS SHALL BE MEASURED BY THE CONTRACTOR UNDER MAINTENANCE OF TRAFFIC PROVIDED BY THE CONTRACTOR. ONLY APPROXIMATE WIDTHS SHALL BE MEASURED BY AND PROVIDED BY THE DESIGNER FOR BIDDING PURPOSES. THE CONTRACTOR'S WIDTH MEASUREMENTS SHALL BE USED TO DETERMINE THE NEED FOR ANY ON-SITE SAWCUTS OF THE LONGITUDINAL EDGES TO FIT THE OPENING AND TO ALIGN THE SAW CUT EDGE(S) WITH ANY EXISTING LONGITUDINAL JOINTS. THE LONGITUDINAL EDGES OF ANY STANDARD SLAB SHALL NOT BE SAW CUT MORE THAN 6 INCHES OFF THE ORIGINAL EDGE. NO NEW LONGITUDINAL JOINT SHALL BE ALLOWED INSIDE THE EXISTING JOINT BY MORE THAN 3#8 INCH. IF THESE TOLERANCES CAN NOT BE MET, THEN A CUSTOM SLAB SHALL BE REQUIRED. FOR ISOLATED STANDARDS SLABS PLACED IN THE OUTSIDE OR INSIDE LANES THE NEW CONCRETE LONGITUDINAL JOINT SHALL MATCH THE EXISTING JOINT. THE STANDARD PRECAST SLAB MAY EXTEND INTO THE EXISTING HMA SHOULDERS NO MORE THAN 6 INCHES TO ALLOW FOR PROPER ALIGNMENT OF THE CONCRETE JOINTS. THE ONLY ALTERNATIVE TO ON-SITE SAW CUTTING OF ISOLATED STANDARD SIZES PRE-FABRICATED SLABS IS TO DESIGN AND FABRICATE EACH SLAB, TAKING WIDTH MEASUREMENTS AT THE BEGINNING OF A PROJECT AND THEN FABRICATING THE SLAB TO FIT THE SPECIFIC OPENING DIMENSIONS.
- 5. FOR STANDARD SLAB PLACEMENTS, A TEMPLATE SUPPLIED BY THE PRECAST FABRICATOR SHALL BE USED TO LOCATE THE PERIMETER SAW CUTS FOR THE SLAB. THE TEMPLATE MAY BE USED TO MARK LONGITUDINAL EDGE SAW CUT LOCATIONS ON A PRECAST SLAB TO FIT THE SAME PATCH OPENING THAT THE TEMPLATE WAS USED FOR TO LOCATE A PERIMETER SAW CUT. IF THE SLAB DOWEL BAR IS RETROFITTED OR FABRICATED FOR INSERTED DOWELS, THE TEMPLATE MAY ALSO BE USED FOR THE EMBEDDED /SLOTTED DOWEL BAR LOCATIONS TO BE RETROFITTED OR INSERTED INTO EXISTING PAVEMENT.

LOAD TRANSFER

- 6. ACROSS STANDARD SLABS
- A. THE EMBEDDED DOWEL BARS OF ISOLATED STANDARD PRECAST SLABS SHALL BE RETROFITTED INTO EXISTING CONRETE PAVEMENT IN ACCORDANCE WITH DETAIL D (SEE SHEET 14)
- B. THE EMBEDDED DOWEL BARS OF CONSECUTIVE STANDARD SLABS SHALL BE:
- i) RETROFITTED INTO THE EXISTING CONCRETE PAVEMENT AT THE LOCATION OF THE FIRST SLAB PLACEMENT IN ACCORDANCE WITH DETAIL D (SEE SHEET 14).
- ii) RETROFITTED INTO THE PREFORMED SLOTS OF ADJACENT PRECAST SLABS IN ACCORDANCE WITH DETAIL E (SEE SHEET 15).
- iii) EITHER FULLY RETROFITTED INTO THE PREFORMED SLOT OF THE LAST INSTALLED CONSECUTIVE PRECAST SLAB AND THE ADJACENT CONCRETE PAVEMENT IN ACCORDANCE WITH DETAIL F (SEE SHEET 16), OR PARTIALLY RETROFIT AN EMBEDDED DOWEL BAR OF A STANDARD ISOLATED SLAB INTO ADJACENT PAVEMENT AS THE LAST INSTALLED CONSECUTIVE PRECAST SLAB IN ACCORDANCE WITH DETAIL D (SEE SHEET 14).
- C. FOR PRECAST STANDARD SLABS WITH NO EMBEDDED DOWEL BARS AND WITHOUT NARROW MOUTH PREFORMED SLOTS FOR DOWEL INSERTIONS. THE DOWEL BARS SHALL BE FULLY RETROFITTED ACROSS ALL TRANSVERSE JOINTS IN THE FIELD IN ACCORDANCE WITH DETAIL C (SEE SHEET 13). THE LOCATIONS AND SPACING OF ALL FIELD RETROFITTED DOWEL BARS SHALL COMPLY WITH THE SPECIFIED TOLERANCES AS SHOWN ON SHEETS 4 AND 5.

- D. FOR PRECAST STANDARD SLABS WITH LONG AND NARROW MOUTH PREFORMED SLOTS AS SHOWN ON SHEET 6. THE LOCATIONS FOR PREDRILLED HOLES FOR DOWEL BAR INSERTIONS SHALL BE ALIGNED WITH THE PREFORMED SLOTS IN THE SPECIFIC PANEL BEING PLACED. ONLY GANG DRILLS WILL BE USED TO DRILL THE HOLES. THE HOLES SHALL BE PARALLEL TO THE GRADE AND CENTERLINE OF THE PAVEMENT WITH A TOLERANCE OF & INCH IN 12 INCHES. THE DRILLING OPERATION SHALL NOT CRACK OR SPALL THE PAVEMENT. BEFORE SLAB PLACEMENT, THE DOWEL BARS SHALL BE PLACED WITHIN THE ELONGATED SLOTS AND THE PREDRILLED HOLES THOROUGHLY CLEANED OF DRILLING DEBRIS. AFTER SLAB PLACEMENT, THE DOWEL BARS WILL BE SLID INTO THE PREDRILLED HOLES AND EPOXIED IN ACCORDANCE WITH ARTICLE 442.06(a)(2) OF THE STANDARD SPECIFICATIONS WITH RETENTION DISKS OR WASHERS PLACED AGAINST THE FACE OF THE SLAB. SEE DETAIL G OF SHEET 17. IMMEDIATELY PRIOR TO FILLING THE PREFORMED SLOT WITH BACKFILL GROUT. THE EXPOSED ENDS OF THE DOWEL BARS SHALL BE CLEANED AND LIGHTLY OILED IN SUCH A MANNER AS TO NOT CONTAMINATE THE SURFACE OF ANY CLEANED SLOT AND THE FOAM CORE BOARD SHALL BE INSERTED AT THE FACE OF THE ADJACENT SLAB
- 7. ACROSS CUSTOM MADE SLABS
 - A. THE DOWEL BARS OF CUSTOM DESIGNED PRECAST SLABS PLACED CONSECUTIVELY, PLACED ON WARPED GRADES, OR PLACED ON RAMPS SHALL BE FULLY RETROFITTED ACROSS THE JOINT IN THE FIELD IN ACCORDANCE WITH DETAIL C (SEE SHEET 13). FOR ALL SUCH CUSTOM SLABS, THE DOWELS BETWEEN ANY EXISTING CONCRETE PAVEMENT AND ANY ADJACENT PRECAST SLABS, AND BETWEEN CONSECUTIVELY PLACED CUSTOM PRECAST SLABS SHALL BE 1'-0" ON CENTER ACROSS THE ENTIRE JOINT.
 - B. THE DOWEL BARS OF CLISTOM DESIGNED ISOLATED PRECAST SLAPS PLACED ON TANGENT MAINLINE PAVEMENT FOR MID SLAB CRACK REPAIR OR FOR JOINT REPLACEMENT CAN BE EITHER RETROFITTED ACROSS THE JOINT IN ACCORDANCE WITH DETAIL C (SEE SHEET 13), OR FULLY INSERTED INTO THE ADJACENT PAVEMENT IN ACCORDANCE WITH DETAIL G (SEE SHEET 17). THE LOCATIONS AND SPACING OF ALL FIELD RETROFITTED OR FIELD INSERTED DOWEL BARS SHALL COMPLY WITH THE SPECIFIED TOLERANCES AS SHOWN ON SHEETS 4 AND 5. FIELD INSERTION OF DOWEL BARS SHALL BE IN ACCORDANCE WITH NOTE 6(D) ABOVE
 - C. NO END DOWEL BARS SHALL BE RETROFITTED OR INSERTED WITHIN 8" OR NO MORE THAN 1'-7" FROM THE CORNER OF THE PRECAST SLAB OR ADJOINING CONCRETE PAVEMENT SLAB THAT EXISTS.

LONGITUDINAL TIE BAR STITCHING

- 8. THE LOCATIONS OF LONGITUDINAL TIE BARS SHALL BE DETERMINED BASED ON THE CRITERIA THAT LONGITUDINAL TIES SHALL BE REQUIRED FOR ANY CLASS B FULL DEPTH REPAIR AND PRECAST REPAIR GREATER THAN 20 FT. IN LENGTH OR WITH ANY PRECAST REPAIR THAT REOUIRES MORE THAN 3 CONSECUTIVE PRECAST SLABS.
- 9. THE SPACING BETWEEN TIE BARS SHALL BE NO LESS THAN 24 INCHES. TIE BAR INSERTIONS SHALL BE NO LESS THAN 24 INCHES FROM ANY EXISTING TRANSVERSE IOINT OR FROM THE LOAD TRANSFER JOINTS OF ANY PLACED PRECAST SLAB OR CAST-IN-PLACE CONCRETE PATCH IN EITHER LANE ADJACENT TO THE LONGITUDINAL JOINT. THE PROCEDURE AND LOCATIONS FOR TIE BAR STITCHING SHALL BE IN ACCORDANCE WITH DETAIL H (SEE SHEET 19).

MATERIALS

- 10.FOR GRADE SUPPORTED PRECAST SLABS, THE BEDDING AND UNDERSEALING MATERIAL FOR LEVELING AND SUPPORT SHALL CONSIST OF:
- A. LEVELING SAND SHALL BE 100% CRUSHED FINE AGGREGATE OF AN FA-6, FA-20, OR FA-21 GRADATION AS SPECIFIED IN SECTION 1003 OF THE STANDARD SPECIFICATIONS. THE FINE AGGREGATE SHALL BE REASONABLY FREE FROM AN EXCESS OF SOFT AND UNSOUND PARTICLES AND OTHER OBJECTIONABLE MATTER. THE TYPICAL THICKNESS OF THE LEVELING SAND LAYER SHALL BE APPROXIMATELY 1/4 INCH WITH A MAXIMUM THICKNESS OF 1 INCH.
- FOR GRADE SUPPORTED SLABS, UNDERSEALING GROUT SHALL BE USED AFTER SLAB INSTALLATION TO FILL ALL VOIDS BENEATH THE PRECAST PANELS. THE MIXTURE USED FOR UNDERSEALING GROUT SHALL CONSIST OF PORTLAND CEMENT, FLY ASH, GROUND GRANULATED BLAST FURNACE SLAG (OPTIONAL), A SUPERPLASTICIZER, AND WATER ALL IN ACCORDANCE WITH DIVISION 1000 OF THE STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL SUBMIT THE PROPOSED MIX DESIGN FOR UNDERSEALING GROUT TO THE ENGINEER FOR DEPARTMENT APPROVAL PRIOR TO PLACEMENT. THE UNDERSEALING GROUT PRODUCED SHALL BE IN ACCORDANCE WITH THE FOLLOWING
- 1) THE UNDERSEALING GROUT SHALL REMAIN FLUID AND NOT EXHIBIT A RESISTANCE TO FLOW FOR A MINIMUM OF ONE HOUR. THE GROUT MIXTURE SHALL HAVE A FLOW RATE OF 15 TO 25 SECONDS AS MEASURED BY ASTM C 939 TO ENSURE FLUIDITY

iv) COARSE AGGREGATE, IF USED, SHALL BE IN ACCORDANCE WITH SECTION 1004 OF THE STANDARD SPECIFICATIONS WITH A MAXIMUM AGGREGATE SIZE OF 1#2INCH

FOLLOWING

A. FOR DOWEL BAR RETROFITS OR INSERTIONS, FOR THE FILLING OF ANY GROUT PORT HOLES USED FOR HIGH DENSITY FOAM INJECTIONS, FOR THE FILLING OF DOWEL SLOTS AND FOR THE FILLING OF RECESSED LIFTING DEVICES, THE BACKFILL MATERIAL SHALL BE:

2) HIGHWAY DB RETROFIT MORTAR AS MANUFACTURED BY DAYTON SUPERIOR. MIAMISBURG, OHIO.

3) A DEPARTMENT APPROVED EQUIVALENT THAT HAS BEEN TESTED AS A RAPID SET CONCRETE PATCHING MATERIAL PER THE AASHTO NATIONAL TRANSPORTATION PRODUCT EVALUATION PROGRAM (NTPEP), WHICH CONFORMS TO ASTM C 928. THE GROUT MATERIAL IS REQUIRED TO PROVIDE A COMPRESSIVE STRENGTH OF 4,000 PSI IN 24 HOURS (OPENING TO TRAFFIC AFTER 3,000 PSI) PER ASTM C 39, EXHIBITS EXPANSION OF LESS THAN 0.10 PERCENT PER ASTM C 531, AND HAS A CALCULATED DURABILITY FACTOR OF 90.0 PERCENT MINIMUM AT THE END OF 300 FREEZE-THAW CYCLES PER ASTM C 666. THE PROPOSED MATERIAL SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO ANY PLACEMENT.

B. FOR TIE BAR STITCHING AN APPROVED CHEMICAL ADHESIVE IN ACCORDANCE WITH ARTICLE 1027.01 OF THE STANDARD SPECIFICATIONS SHALL BE USED AS THE ANCHORING MATERIAL FOR STITCHED TIE BARS.

USER NAME = gorengautab	DESIGNED - O. PATEL	REVISED - D.G. 6-14				F.A.P. RTE.	SECTION	COUNTY TOTAL SHEET SHEETS NO.
	DRAWN -	REVISED - D.C. 9-16	STATE OF ILLINOIS		PRECAST CONCRETE PAVEMENT SLABS	344	(44X-R&530B)RS	LAKE 50 34
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION				BD 57	CONTRACT NO. 60V06
PLOT DATE = 6/19/2020	DATE - 10-25-2013	REVISED -		SCALE: NONE	SHEET 9 OF 19 SHEETS STA. TO STA.		ILLINOIS FED.	AID PROJECT

i) THE UNDERSEALING GROUT SHALL ACHIEVE AN INITIAL SET IN LESS THAN 4 HOURS AND A COMPRESSIVE STRENGTH AS MEASURED BY ASTM C 942 OF 300 PSI BEFORE OPENING THE SLAB TO TRAFFIC AND A COMPRESSIVE STRENGTH OF 500 PSI IN 12 HOURS.

11. FOR PRECAST SLABS SUPPORTED AND LEVELED BY FLOWABLE FILL PLACED BEFORE SLAB INSTALLATION, THE FLOWABLE FILL SHALL CONSIST OF PORTLAND CEMENT, FLY ASH, COARSE AND/OR FINE AGGREGATES, WATER, AND AIR ENTRAINING ADMIXTURE (OPTIONAL). THE CONTRACTOR SHALL SUBMIT THE PROPOSED MIX DESIGN FOR FLOWABLE FILL TO THE ENGINEER FOR DEPARTMENT APPROVAL PRIOR TO PLACEMENT. THE FLOWABLE FILL PRODUCED SHALL BE IN ACCORDANCE WITH THE FOLLOWING

i) PORTLAND CEMENT SHALL BE TYPE 1 CEMENT IN ACCORDANCE WITH SECTION 1001 OF THE STANDARD SPECIFICATIONS.

ii) FLY ASH SHALL BE IN ACCORDANCE WITH SECTION 1010 OF THE STANDARD SPECIFICATIONS

iii) FINE AGGREGATE SHALL BE IN ACCORDANCE WITH SECTION 1003 OF THE STANDARD SPECIFICATIONS.

v) IF AN AIR ENTRAINMENT ADMIXTURE IS USED, THE AIR CONTENT OF THE FLOWABLE FILL SHALL NOT EXCEED 35% OF THE FLOWABLE FILL VOLUME.

vi) THE COMPRESSIVE STRENGTH OF THE FLOWABLE FILL MIXTURE SHALL NOT BE LESS THAN 50 PSI AT 3 DAYS, NOR LESS THAN 75 PSI OR GREATER THAN 150 PSI AT 28 DAYS

vii) THE FINAL SET TIME SHALL BE DETERMINED IN ACCORDANCE WITH ASTM C403 ON A TRIAL BATCH SPECIMEN

viii) THE MAXIMUM THICKNESS OF THE LEVELING FILL SHALL BE 1 INCH

12. FOR PRECAST SLABS SUPPORTED AND LEVELED BY HIGH-DENSITY FOAM PLACED AFTER SLAB INSTALLATION, THE HIGH-DENSITY FOAM SHALL BE EXPANDING POLYURETHANE FOAM HAVING A WATER INSOLUBLE DILUENT AND SHALL BE IN ACCORDANCE WITH THE

 DENSITY (LBS./CU. FT.)-AIR RISE TENSILE STRENGTH (PSI) ASTM D 1623 6.0 MIN 100 MIN FLONGATION (%) 5.1 COMPRESSIVE STRENGTH (PSI) ASTM D 1621 (AT YIELD) 100 MIN. VOLUME CHANGE (% OF ORGINAL) 0

THE MANUFACTURER SHALL PROVIDE DOCUMENTATION THAT THE LOT(S) OF FOAM MEETS THE SPECIFIED PROPERTIES. MANUFACTURER'S CERTIFICATION SHALL LIST LOT NUMBER(S) AND DOCUMENTATION OF COMPLIANCE WITH THE SPECIFICATION.

ii) THE MAXIMUM THICKNESS OF THE HIGH DENSITY FOAM SHALL BE 1 INCH.

13. HARDWARE GROUT/ADHESIVES

1) FIVE STAR HIGHWAY PATCH AS MANUFACTURED BY FIVE STAR PRODUCTS INC. FAIRFIELD CONNECTICUT

C. FOR DOWEL BAR INSERTIONS, AN APPROVED CHEMICAL ADHESIVE OR EPOXY IN ACCORDANCE WITH ARTICLE 1027.01 OF THE STANDARD SPECIFICATIONS SHALL BE USED WITH PLACEMENT IN ACCORDANCE WITH ARTICLE 442.06 (a)(2) OF THE STANDARD SPECIFICATIONS WITH RETENTION DISCS OR WASHERS PLACED AGAINST THE FACE OF THE SLAB

- **INSTALLATION GENERAL NOTES**
- EPOXY COATED DOWEL BARS SHALL COMPLY WITH THE REQUIREMENTS OF ARTICLE 14. 1006.06 (b) OF THE STANDARD SPECIFICATIONS. ANY ADDITIONAL MATERIAL REQUIRED FOR DOWEL BAR RETROFITTING SHALL BE IN ACCORDANCE WITH THE SPECIAL PROVISION FOR "DOWEL BAR RETROFIT".
- EPOXY COATED TIE BARS FOR STITCHING SHALL COMPLY WITH THE REOUIREMENTS OF 15 ARTICLE 1006 10 OF THE STANDARD SPECIFICATIONS
- THE BACKER ROD USED AS A SEAL RESERVOIR GASKET AROUND THE PERIMETER OF A 16. SLAB, NEAR THE TOP OF THE JOINTS, SHALL BE A CLOSED-CELL. PLASTIC FOAM ROD COMPATIBLE WITH THE SEALANT AND THE ELEVATED TEMPERATURES OF FINAL JOINT SEALANT APPLICATION. A CLOSED CELL PLASTIC FOAM BACKER ROD OF 3/8 " DIAMETER SHALL BE PINNED OR NAILED TO THE FINISHED BASE AROUND THE PERIMETER OF EACH OPENING BEFORE THE PANELS ARE SET.

EQUIPMENT

- 17. FOR BASE PREPARATION, A MECHANICALLY-CONTROLLED SCREEDING DEVICE OR STRAIGHTEDGE DEVICE CAPABLE OF GRADING FULLY COMPACTED FINE AGGREGATE USED AS THE LEVELING SAND TO A TOLERANCE OF 1/8 INCH PER 6 FT. LENGTHS OF PLACEMENT.
- 18. CHIPPING HAMMERS SHALL BE HAND HELD AND HAVE A MAXIMUM WEIGHT OF 30 LBS. PRIOR TO ANY HANDLE MODIFICATION WHERE APPLICABLE
- WITH ANY FIELD RETROFITTING OF DOWEL BARS, A TEMPLATE SHALL BE ROUTINELY 19. USED FOR ALL STANDARD SLABS IN ORDER TO LOCATE AND ALIGN THE SAWCUTS CONSISTENTLY, EITHER SINGLE DIAMOND BLADED SAWS OR DIAMOND BLADED GANG SAWS SHALL BE USED TO MAKE SAW CUTS PERPENDICULAR TO THE TRANSVERSE (NONSKEWED) JOINT LINE TO ALLOW FOR DOWEL BAR PLACEMENTS WITHIN THE FOLLOWING TOLERANCES:
 - ± 1/2 INCH OF THE MIDDLE OF THE CONCRETE SLAB DEPTH.
 - ± 1/2 INCH OF BEING CENTERED OVER THE TRANSVERSE JOINT
 - ± 1/4 " FROM PARALLEL TO THE CENTERLINE OVER 12 INCHES OF THE BAR \pm 1/4 " FROM PARALLEL TO THE ROADWAY SURFACE OVER 12 INCHES OF THE BAR SAWCUTS SAWED ACROSS SKEWED JOINTS SHOULD ALLOW EQUAL LENGTH OF THE DOWEL BAR TO BE PLACED ACROSS THE TRANSVERSE JOINT. THE ALIGNMENT OF SAWCUTS MUST
- BE PARALLEL TO THE ROADWAY CENTERLINE, REGARDLESS OF TRANSVERSE JOINT SKEW. 20. WITH ANY FIELD INSERTIONS OF DOWEL BARS INTO PREDRILLED HOLES, THE DRILLING
- MACHINE SHALL BE IN ACCORDANCE WITH ARTICLE 442.03(g) OF THE STANDARD SPECIFICATIONS. HAND HELD DRILLING TOOLS WILL NOT BE ALLOWED.
- 21. THE COMPRESSOR FOR AIR BLASTING SHALL HAVE A MINIMUM CAPACITY OF 120 CFM. THE COMPRESSED AIR SHALL BE FREE FROM OIL AND OTHER CONTAMINANTS.
- CONSOLIDATION EQUIPMENT USED TO CONSOLIDATE THE CONCRETE REPAIR MATERIAL IN 22. THE RETROFITTED DOWEL BAR SLOTS SHALL BE INTERNAL VIBRATORS WITH A MAXIMUM DIAMETER OF 1 INCH AND SHALL HAVE A RESILIENT COVERING THAT WILL NOT DAMAGE THE EPOXY COATED REINFORCEMENT DURING USE. ANY VIBRATORS OR RODS USED FOR CONSOLIDATION OF THE REPAIR MATERIAL FOR NARROW MOUTH SLOTS SHALL HAVE A DIAMETER OF LESS THAN 1 INCH.
- 23. BATCHING EQUIPMENT FOR FLOWABLE FILL SHALL HAVE DEVICES DESIGNED TO MEASURE THE SPECIFIED QUANTITIES OF EACH COMPONENT MATERIAL, AND MIXING SHALL BE OF SUFFICIENT DURATION TO INSURE UNIFORM CONSISTENCY OF THE MIXTURE, NO WATER WILL BE ADDED TO THE FLOWABLE FILL MIXTURE AFTER BATCHING. WATER CONTENT SHALL BE MAINTAINED SUCH THAT COMPRESSIVE STRENGTHS ARE ACHIEVED AND A UNIFORM, FLOWABLE MIXTURE IS DEVELOPED THAT IS ESSENTIALLY SELF-LEVELLING WHEN PLACED.
- EQUIPMENT FOR HIGH-DENSITY FOAM INJECTION SHALL INCLUDE A TRUCK MOUNTED 24. PUMPING UNIT CAPABLE OF INJECTING THE POLYURETHANE BETWEEN THE CONCRETE AND THE SLAB SUBBASE. THE PUMP SHALL BE CAPABLE OF CONTROLLING THE RATE OF RISE OF THE PAVEMENT SLAB. A LEVELING UNIT SHALL BE PROVIDED TO ENSURE THE SLABS ARE RAISED TO AN EVEN PLANE, WITH VERTICAL ELEVATION DIFFERENCE ACROSS ANY CORNER NOT TO EXCEED 1/4 INCH.
- 25. EQUIPMENT FOR MIXING AND PUMPING ANY GROUT/ADHESIVE MATERIALS FOR BEDDING THE SLABS, RETROFITTING DOWEL BARS, OR CROSS STITCHING TIE BARS SHALL BE IN ACCORDANCE WITH THE MATERIAL MANUFACTURER'S INSTRUCTIONS AND THE SPECIFICATIONS

REMOVAL /INSTALLATION:

PERIMETER SAWCUTTING OF THE REMOVAL AREA AND SAWCUTTING OF THE DOWEL BAR 26. SLOTS SHALL NOT BE CARRIED OUT MORE THAN (1) WEEK IN ADVANCE OF THE EXPECTED DATE OF REPAIR. THE CONTRACTOR SHALL USE A TEMPLATE TO PRECISELY DELINEATE THE LIMITS OF THE AREAS TO BE REPAIRED AS DEFINED ON THE CONTRACT DOCUMENTS AND APPROVED SHOP DRAWINGS. WITHIN A TOLERANCE OF 1/2 INCH. REPAIRS SHALL BE NO LESS THAN THE FULL WIDTH OF A LANE AND THE FULL DEPTH OF CONCRETE

- 27 REMOVAL OF EXISTING PAVEMENT SHALL BE IN ACCORDANCE WITH SECTION 440 OF THE STANDARD SPECIFICATIONS EXCEPT AS FOLLOWS:
 - A, THE OUTER LIMITS OF THE REPAIR AREA WILL BE SAWCUT FULL DEPTH AND SHALL NOT EXTEND (OVERCUT) BY MORE THAN 10 INCHES INTO THE ADJACENT CONCRETE THAT IS TO REMAIN IN PLACE. OVERCUTS SHALL BE FILLED WITH A PRODUCT ACCEPT-ABLE TO THE DEPARTMENT. THE OUTER LIMITS FOR REPAIR SHALL BE MARKED OUT BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO ANY SAWCUTTING
 - B. REMOVAL OF CONCRETE WITHIN THE PERIMETER SAWCUTS SHALL BE BY THE LIFT-OUT METHOD, AND CONCRETE BETWEEN SAWCUTS FOR DOWEL BAR RETROFITS SHALL BE REMOVED USING JACKHAMMER AND HAND TOOLS. THE CONTRACTOR SHALL ENSURE THAT REMOVALS ARE CARRIED OUT WITHOUT DAMAGING THE ADJACENT CONCRETE PAVEMENT OR ASPHALT SHOULDER OR DISTURBING THE UNDERLYING BASE. HEAVY BREAKING EQUIPMENT SUCH AS HOE RAMS SHALL NOT BE USED IN THE REMOVAL OPERATION. THE CONCRETE PAVEMENT SHALL NOT BE BROKEN IN PLACE
 - C. IF DURING THE REMOVAL PROCESS THE ADJACENT CONCRETE IN THE SAME LANE OR IN AN ADJACENT LANE THAT CAN ONLY BE REPAIRED DURING NIGHT TIME LANE CLOSURES, IS DAMAGED OR CRACKED DUE TO THE CONTRACTOR'S REMOVAL PROCEDURE THE DAMAGED AREA SHALL BE CUT BACK FULL DEPTH TO SOUND CONCRETE AND REPLACED WITH PRECAST SLABS AT THE CONTRACTOR'S EXPENSE. IF CONCRETE IN THE ADJOINING LANE IS DAMAGED DURING THE REMOVAL PROCESS AND WEEKEND REPAIRS ARE POSSIBLE, THE DAMAGED CONCRETE SHALL BE REPAIRED IN ACCORDANCE SECTION 442 OF THE STANDARD SPECIFICATIONS AT THE CONTRACTOR'S EXPENSE. ASPHALT SHOULDER DAMAGED DURING THE REMOVAL PROCESS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL PROVIDE A PROPOSAL FOR REPAIRS TO THE ENGINEER FOR DEPARTMENT APPROVAL
 - D. DISPOSAL OF EXCAVATED MATERIALS FROM THE REMOVAL OF CONCRETE SHALL BE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS AT THE CONTRACTOR'S EXPENSE
 - E. ALL SLURRY FROM SAW CUTTING OPERATIONS SHALL BE THOROUGHLY SCRAPED AND REMOVED FROM THE PAVEMENT SURFACE BEFORE THE PAVEMENT IS OPENED TO TRAFFIC. DISPOSAL OF SLURRY SHALL BE IN ACCORDANCE WITH ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS AT THE CONTRACTORS EXPENSE.
- 28. ANY AREAS OF SUBBASE WHICH ARE BELOW THE REQUIRED ELEVATION OF THE FINISHED SUBBASE, SHALL BE BUILT UP TO GRADE WITH SATISFACTORY COMPACTED GRANULAR MATERIAL
- 29. LEVELING MATERIAL PLACED BEFORE SLAB INSTALLATION SHALL BE EITHER A FLOWABLE FILL OR A FINE AGGREGATE MEETING THE REQUIREMENTS OF THIS CONTRACT DOCUMENT. FLOWABLE FILL SHALL BE USED AS A LEVELING MATERIAL ONLY ON TANGENT PAVEMENT SECTIONS. GRADE CONTROL SHALL BE ESTABLISHED FOR ALL LEVELING MATERIAL USING STRINGLINES, LASER GUIDANCE, OR OTHER APPROVED METHODS. THE TEMPERATURE OF THE FLOWABLE FILL MIXTURE AS MANUFACTURED AND DELIVERED SHALL BE AT LEAST 50° F NONFLOWABLE FILL WILL BE ALLOWED IF THE ANTICIPATED AIR TEMPERATURE WILL BE 36°F OR LESS WITHIN 24 HOURS OF SLAB PLACEMENT. THE FLOWABLE FILL MUST OBTAIN FINAL SET BEFORE THE PAVEMENT MAY BE OPENED TO TRAFFIC.
- 30. WHEN FLOWABLE FILL IS USED AS THE LEVELING MATERIAL WITH SLAB INSTALLATION. A PERIMETER BACKER ROD WILL NOT BE REQUIRED AROUND THE PERIMETER OF THE SLAB.
- 31. LEVELING MATERIAL PLACED IMMEDIATELY AFTER SLAB INSTALLATION SHALL ONLY BE A HIGH-DENSITY POLYURETHANE FOAM MEETING THE REQUIREMENTS OF THIS CONTRACT DOCUMENT. PLACEMENT OF POLYURETHANE FOAM SHALL FILL ALL VOIDS BENEATH THE PRECAST PANELS THAT MAY BE PRESENT AFTER PLACING THE PANELS OVER THE PRE-PARED SUBBASE AND LEVELING AGGREGATE. PLACEMENT OF THE POLYURETHANE SHALL UTILIZE THE UNDERSLAB GROUT PORT HOLES AS SHOWN ON THE PLANS. THE PORT HOLES ARE TO BE FILLED WITH THE DOWEL BAR BACKFILLING MATERIAL
- 32. FOLLOWING PROPER REMOVAL OF EXISTING PAVEMENTS AND ACCEPTABLE BASE PREPARATION/LEVELING, THE CONTRACTOR SHALL HAVE ALL EQUIPMENT REQUIRED FOR PANEL INSTALLATION ON-SITE PRIOR TO BEGINNING PANEL INSTALLATION. LIFTING AND TRANSPORTING EQUIPMENT SHALL NOT DAMAGE THE PREPARED SUBBASE/LEVELING MATERIALS PRIOR TO OR DURING PANEL INSTALLATION. PRIOR TO SLAB INSTALLATION. ALL VERTICAL SURFACES OF SURROUNDING PAVEMENT SHALL BE COATED WITH A BOND BREAKER SUCH AS FORM OIL OR A CURING COMPOUND.
- 33. PANELS SHALL BE INSTALLED ONE AT A TIME, AND SHALL BE INSTALLED IN SUCH A MANNER THAT THE SUBBASE/LEVELING MATERIAL OR ANY REMAINING PAVEMENT IS NOT DAMAGED DURING INSTALLATION. DURING PLACEMENT OF THE SLABS, USE TIE OFF ROPES TO AVOID CHIPPING OR SPALLING EDGES OF THE PRECAST UNITS. USE WOOD SHIMS OR WEDGES TO GUIDE THE SLAB INTO THE CORRECT POSITION. THE USE OF STEEL PRY BARS THAT CHIP EDGES SHOULD BE AVOIDED.

MAINTAIN SLOPE.

35. IF A SET PRECAST SLAB IS OPENED TO TRAFFIC BEFORE ANY GROUTING OPERATIONS, THE CONTRACTOR SHALL MEET THE FOLLOWING REQUIREMENTS:

ii) ASPHALT SHOULDERS SHALL BE BACKFILLED TO MAINTAIN HORIZONTAL ALIGNMENT.

iv) NARROW MOUTH DOWEL SLOTS MAY BE LEFT OPEN.

v) ALL GROUTING MEETING THE REQUIREMENTS OF THIS CONTRACT SHALL BE COMPLETED WITHIN 48 HOURS OF EACH SLAB'S PLACEMENT.

B. TIE BARS - A FOAM BOARD GASKET SHALL BE INSERTED INTO THE LONGITUDINAL JOINT AT THE STITCHING LOCATION AND THE TIEBAR HOLE PREDRILLED THROUGH THE GASKET AFTER PREDRILLED HOLES ARE AIR BLASTED PRESSURE INJECT THE APPROVED ADHESIVE INTO THE PREDRILLED HOLES, LEAVING SOME VOLUME FOR THE BAR TO OCCUPY THE HOLE. INSERT THE TIEBAR INTO THE HOLE. LEAVING ABOUT I INCH FROM THE TOP OF THE TIE BAR TO THE PAVEMENT SURFACE. REMOVE EXCESS ADHESIVE AND FINISH FLUSH WITH THE PAVEMENT SURFACE

C. FILL LIFTING INSERT HOLES AND GROUT PORTS WITH THE APPROVED GROUT USED FOR DOWEL BAR RETROFITTING

38.

AFTER INSTALLATION AND GROUTING IS COMPLETED ALL LONGITUDINAL AND TRANSVERSE JOINTS SHALL BE SEALED IN ACCORDANCE WITH ARTICLE 420.12 OF THE STANDARD SPECIFICATIONS

USER NAME = gorengautab	DESIGNED - O. PATEL	REVISED - D.G. 6-14	STATE OF ILLINOIS				F.A. P. RTE	SECTION	COUNTY	TOTAL SHEET
	DRAWN -	REVISED - D.G. 9-16		PRECAST CONCRETE PAVEMENT SLABS				(44X-R&530B)RS	LAKE	50 35
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED - D.G. 8-19	DEPARTMENT OF TRANSPORTATION					BD 57	CONTRACT NO. 60V06	
PLOT DATE = 6/19/2020	DATE -	REVISED -		SCALE: NONE	SHEET 10 OF 19 SHEETS	STA. TO STA.	ILLINOIS FED. A		AID PROJECT	

34. IMMEDIATELY AFTER THE SLAB HAS BEEN SET AND LEVELED, SURVEY THE VERTICAL ELEVATION ACROSS ALL CORNERS TO VERIFY THE VERTICAL DIFFERENCE ABOVE ADJACENT CONCRETE IS 1/4 INCH ACROSS ALL CORNERS. ALL PRECAST SLABS SHALL RECEIVE A PROFILE DIAMOND GRIND THAT MAY INCLUDE UP TO 4' OF THE SURROUNDING PAVEMENT TO

i) DURING INSTALLATION, INCOMPRESSIBLE SHIMS, APPROVED BY THE ENGINEER, SHALL BE PLACED IN THE DOWNSTREAM TRAVERSE JOINT TO CORRECT AND MAINTAIN HORIZONTAL ALIGNMENT OF THE SLAB. INCLUDE SHIMS ON THE LONGITUDINAL JOINT FOR SLABS SUBJECTED TO TURNING PRESSURES. THE TOTAL THICKNESS OF SHIMS USED IN ANY JOINT SHALL BE EQUAL TO OR LESS THAN $rac{3}{4}$ ". SHIMS SHALL BE REMOVED BEFORE JOINT SEALING OPERATIONS, EQUIPMENT AND METHODS USED FOR REMOVING SHIMS SHALL BE SUCH AS TO PREVENT CRACKING, SHATTERING OR SPALLING OF PAVEMENT REMAINING IN PLACE. THE WORK TO REMOVE THE SHIMS SHALL ALSO BE INCLUDED IN THE COST OF THE PRECAST SLAB

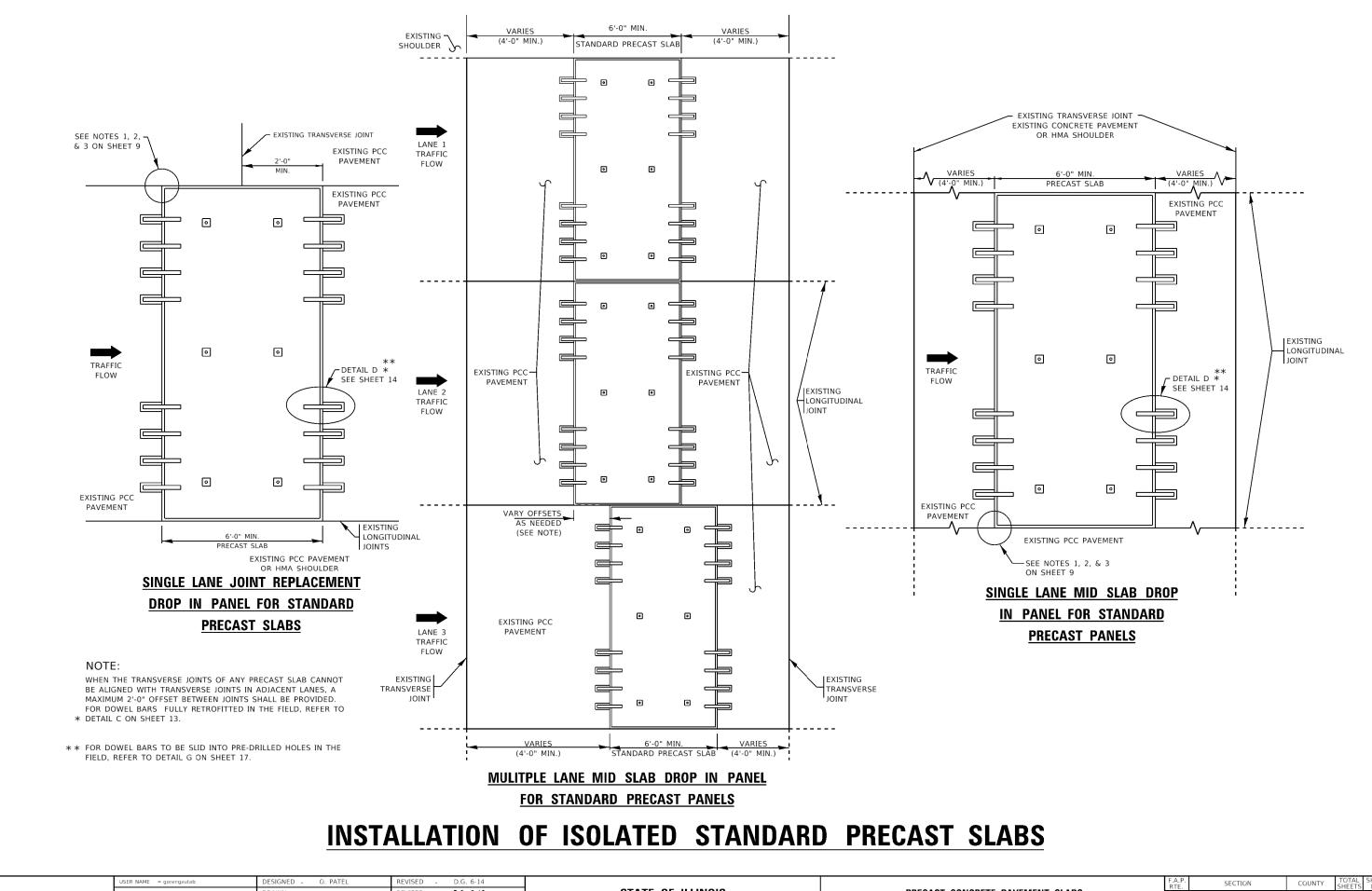
iii) WIDE MOUTH DOWEL SLOTS LEFT OPEN SHALL BE TEMPORARILY FILLED WITH A COMPRESSION SEAL APPROVED BY THE ENGINEER TO WITHIN 1 INCH FLUSH WITH THE PAVEMENT SURFACE

^{36.} PRIOR TO DOWEL BAR PLACEMENT, THE TRANSVERSE JOINT SHALL BE CAULKED WITH A SILICONE SEALANT AT THE BOTTOM AND SIDES OF THE SLOT. THE CAULKING FILLER SHOULD NOT BE PLACED ANY FARTHER THAN 1/2 INCH OUTSIDE EITHER SIDE OF THE JOINT, AND APPLIED SUFFICIENTLY TO PREVENT ANY PATCHING MATERIAL FROM ENTERING THE JOINT AT THE BOTTOM OR SIDES OF THE SLOT. EXCESSIVE SEALANT AROUND THE SLOT DOES NOT ALLOW THE CONCRETE PATCHING MATERIAL TO BOND TO THE SIDES OF THE SLOT. BEFORE PLACEMENT, THE DOWEL BARS SHOULD BE LIGHTLY COATED WITH PARTING COMPOUND AND FULLY RETROFITTED DOWEL BARS PLACED ON A CHAIR THAT WILL PROVIDE A MINIMUM 1/2 INCH CLEARANCE BETWEEN THE BOTTOM OF THE DOWEL AND THE BOTTOM OF THE SLOT. FOR ANY DOWEL BARS INSERTED INTO PREDRILLED EPOXIED HOLES, AN APPURATUS CAPABLE OF MAINTAINING VERTICAL ALIGNMENT OF THE DOWEL AND TO PROVIDE A MINIMUM 1/2 INCH CLEARANCE BETWEEN THE BOTTOM OF THE DOWEL AND THE BOTTOM OF THE SLOT SHAL BE PROVIDED BY THE CONTRCTOR. A 3/8 INCH THICK FOAM INSERT SHOULD BE PLACED AT THE MIDDLE OF THE DOWEL TO MAINTAIN THE TRANSVERSE JOINT. THE FOAM INSERT SHOULD FIT TIGHTLY AROUND THE DOWEL, THE BOTTOM, AND THE EDGES OF THE SLOT, AND BE UP TO THE SURFACE OF THE EXISTING CONCRETE SURFACE. THE FOAM INSERT SHOULD BE CAPABLE OF REMAINING IN A VERTICAL POSITION AND HELD TIGHTLY TO ALL EDGES DURING PLACEMENT OF THE PATCH. IF FOR ANY REASON THE FOAM INSERT SHIFTS DURING PLACEMENT OF THE CONCRETE PATCHING MATERIAL, THE WORK SHALL BE REJECTED AND REDONE AT THE CONTRACTOR'S EXPENSE.

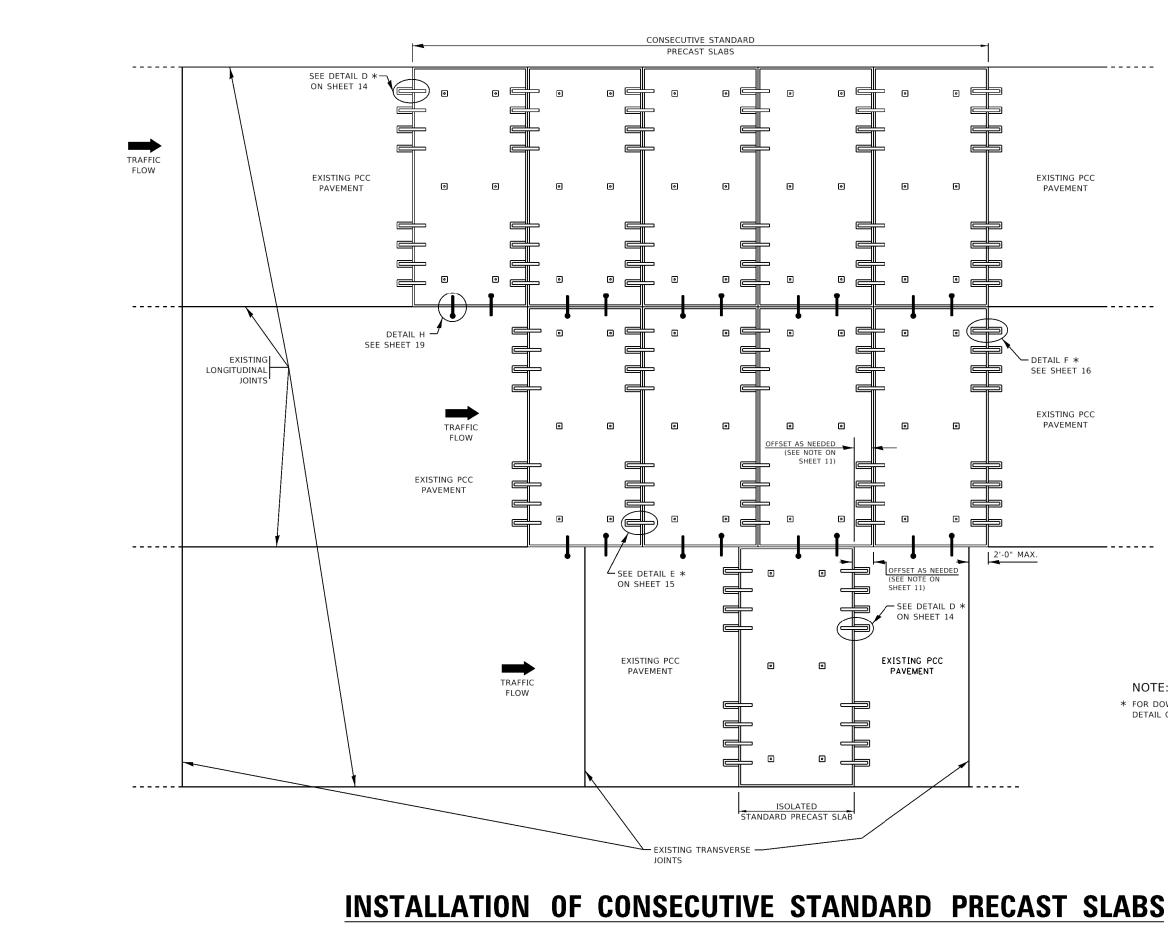
37. PLACEMENT OF HARDWARE GROUT/ADHESIVES:

A. DOWEL BARS - THE PLACEMENT OF ANY APPROVED BACKFILL MATERIAL FOR DOWEL BAR RETROFITTING OR FOR DOWEL BAR INSERTIONS SHALL BE IN ACCORDANCE WITH THE SPECIAL PROVISION FOR "DOWEL BAR RETROFIT". THE PAVEMENT WILL NOT BE OPENED TO TRAFFIC UNTIL THE BACKFILL MATERIAL AROUND THE PAVEMENT HARDWARE OBTAINS 3,000 PSI COMPRESSIVE STRENGTH. ALL CONCRETE SURFACES WITHIN THE SLOT SHALL BE SOLID, FREE FROM LOOSE OR UNSOUND FRAGMENTS. BEFORE GROUTING, SANDBLAST ALL EXPOSED SURFACES IN THE DOWEL BAR SLOT FOLLOWED BY AIR BLASTING TO REMOVE ANY DUST, RESIDUE OR DEBRIS LEFT IN THE SLOT. UPON COMPLETION OF THE RETROFITTING WORK, THE GROUT OR CONCRETE PATCH MATERIAL SHALL FILL ALL SLOTS TO THE SURFACE OF THE EXISTING PAVEMENTS. ANY SLOTS INSUFFICIENTLY FILLED BELOW EXISTING PAVEMENT SURFACES SHALL BE REDONE AT THE CONTRACTOR'S EXPENSE.

PLACEMENT OF UNDERSEALING GROUT SHALL FILL ALL VOIDS BENEATH THE PRECAST PANELS AND GROUT PORT HOLES THAT MAY BE PRESENT AFTER PLACING THE PANELS OVER THE PREPARED SUBBASE AND LEVELING AGGREGATE. PLACEMENT OF THE UNDERSEALING GROUT SHALL UTILIZE THE UNDERSLAB GROUT PORT HOLES AS SHOWN ON THE PLANS. PLACEMENT OF UNDERSEALING GROUT SHALL NOT OCCUR UNTIL AFTER ALL HARDWARE DEVICES ARE PLACED AND GROUTED. IF UNDERSEALING GROUT FILLS ANY LONGITUDINAL JOINT TO WITHIN 9" OF THE SLAB SURFACE, A 9" SAW CUT OF THE JOINT SHALL BE REQUIRED DURING INSTALLATION. IF UNDERSEALING GROUT FILLS ANY TRANSVERSE JOINT TO WITHIN 9" OF THE SLAB SURFACE. THEN A 9" SAW CUT OF THE JOINT SHALL BE REQUIRED FOLLOWED BY REMOVAL AND FULL RETROFITTING OF ALL SEVERED DOWEL BARS ACROSS THE JOINT



	USER NAME = gorengautab	DESIGNED - O. PATEL	REVISED - D.G. 6-14		PRECAST CONCRETE PAVEMENT SLABS		F.A.P. BTE	SECTION	COUNTY	TOTAL SHEET SHEETS NO
		DRAWN -	REVISED - D.G. 9-16	STATE OF ILLINOIS			344	(44X-R&530B)RS	LAKE	50 36
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED - D.G. 8-19	DEPARTMENT OF TRANSPORTATION				BD 57	CONTRACT N	NO. 60V06
	PLOT DATE = 6/19/2020	DATE - 10-25-2013	REVISED -		SCALE: NONE	SHEET 11 OF 19 SHEETS STA. TO STA.	ILLINOIS FED. AID		ID PROJECT	



USER NAME = gorengautab	DESIGNED - O. PATEL	REVISED - D.G. 9-16				F.A.P. BTE	SECTION	COUNTY TOTAL	SHEET
	DRAWN -	REVISED -	STATE OF ILLINOIS		PRECAST CONCRETE PAVEMENT SLABS	344	(44X-R&530B)RS	LAKE 50	37
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION				BD 57	CONTRACT NO. 6	50V06
PLOT DATE = 6/19/2020	DATE - 10-25-2013	REVISED -		SCALE: NONE	SHEET 12 OF 19 SHEETS STA. TO STA.		ILLINOIS FED. AI	D PROJECT	

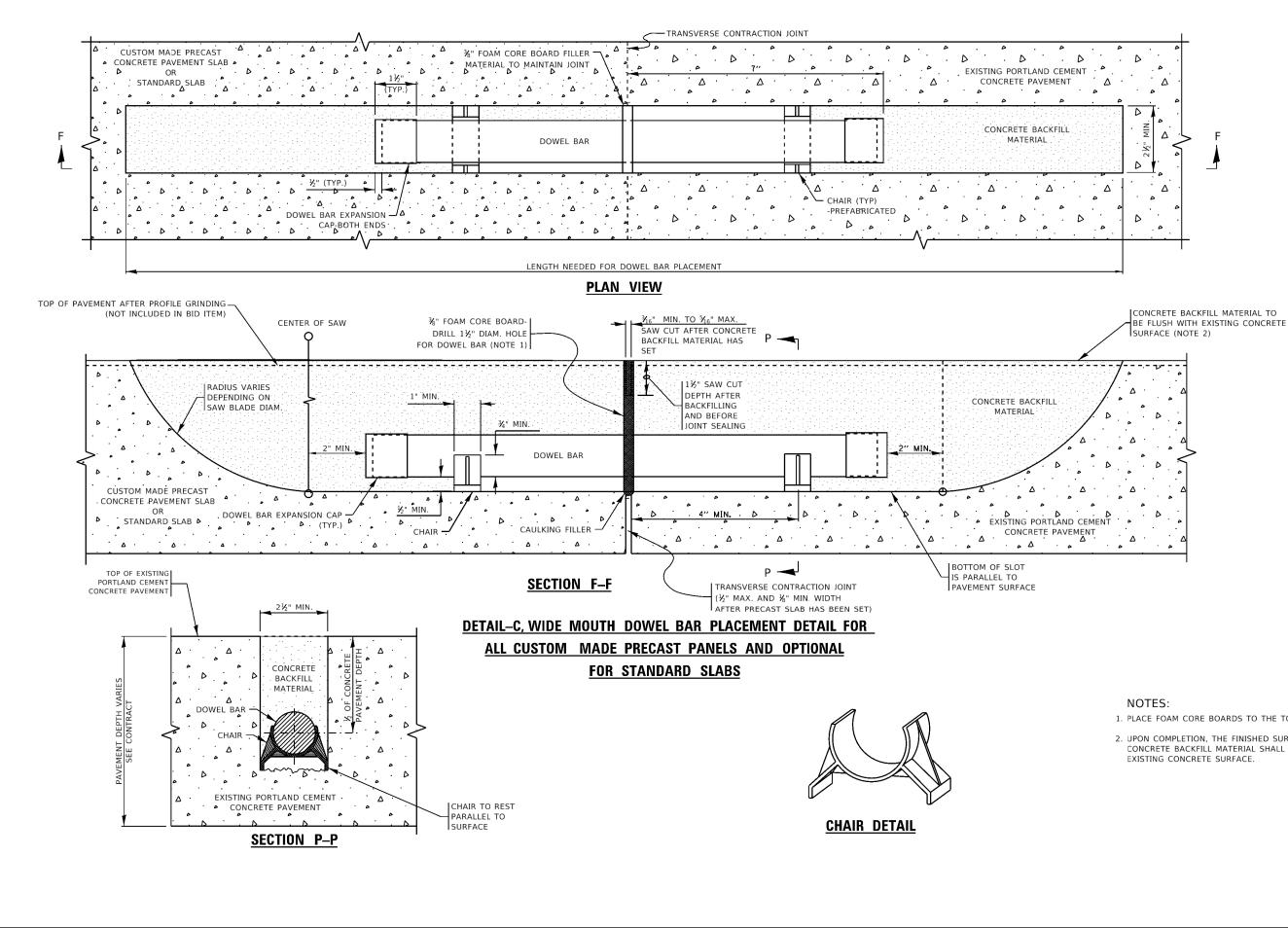
NOTE:

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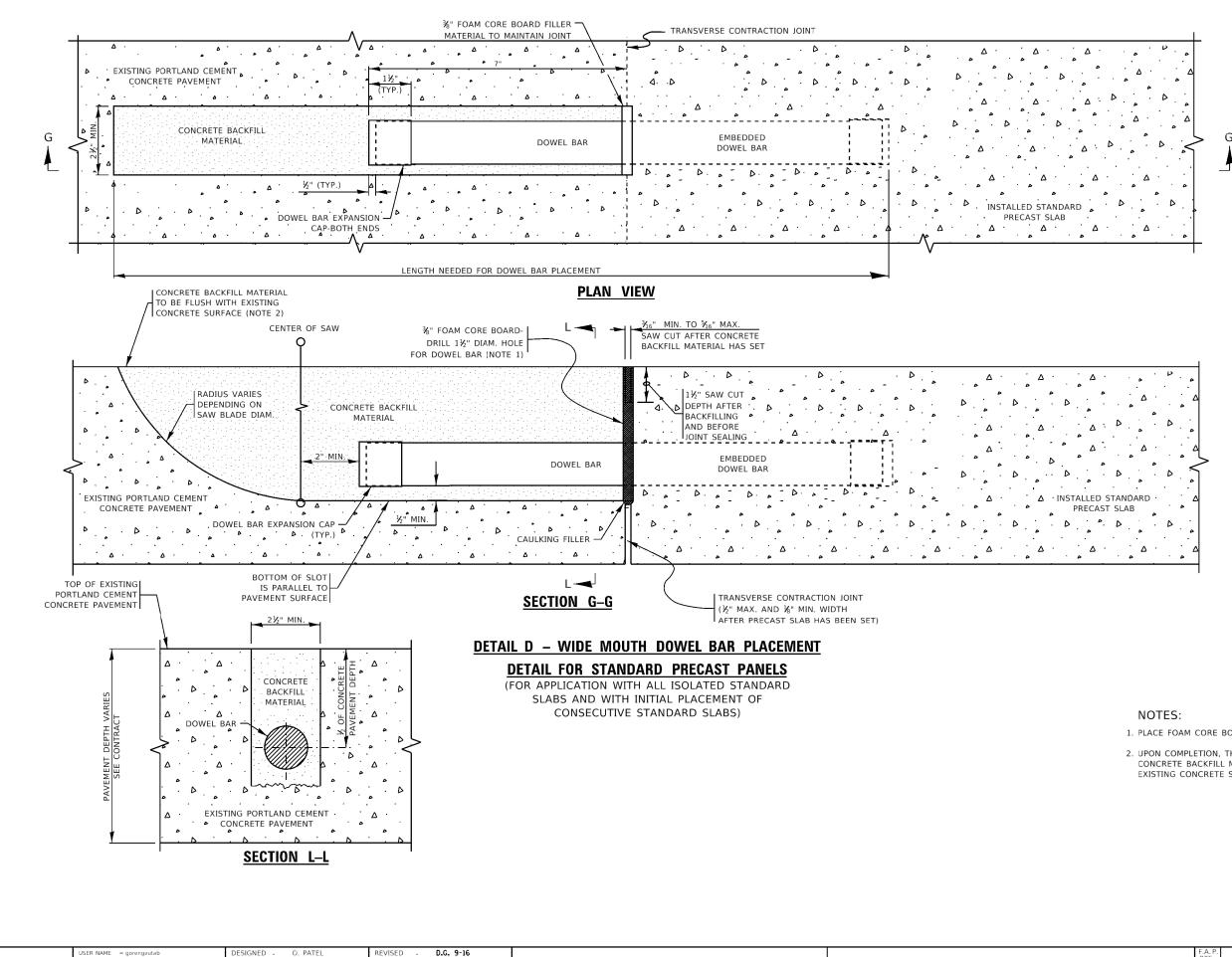
* FOR DOWEL BARS FULLY RETROFITTED IN THE FIELD, REFER TO DETAIL C ON SHEET 13.



O. PATEL D.G. 9-16 DESIGNED REVISED ISER NAME = gorengautat STATE OF ILLINOIS PRECAST CONCRETE P DRAWN REVISED OT SCALE = 100.0000 ' / in HECKED REVISED **DEPARTMENT OF TRANSPORTATION** SCALE: NONE SHEET 13 OF 19 SHEET OT DATE = 6/19/2020 DATE 10-25-2013 REVISED

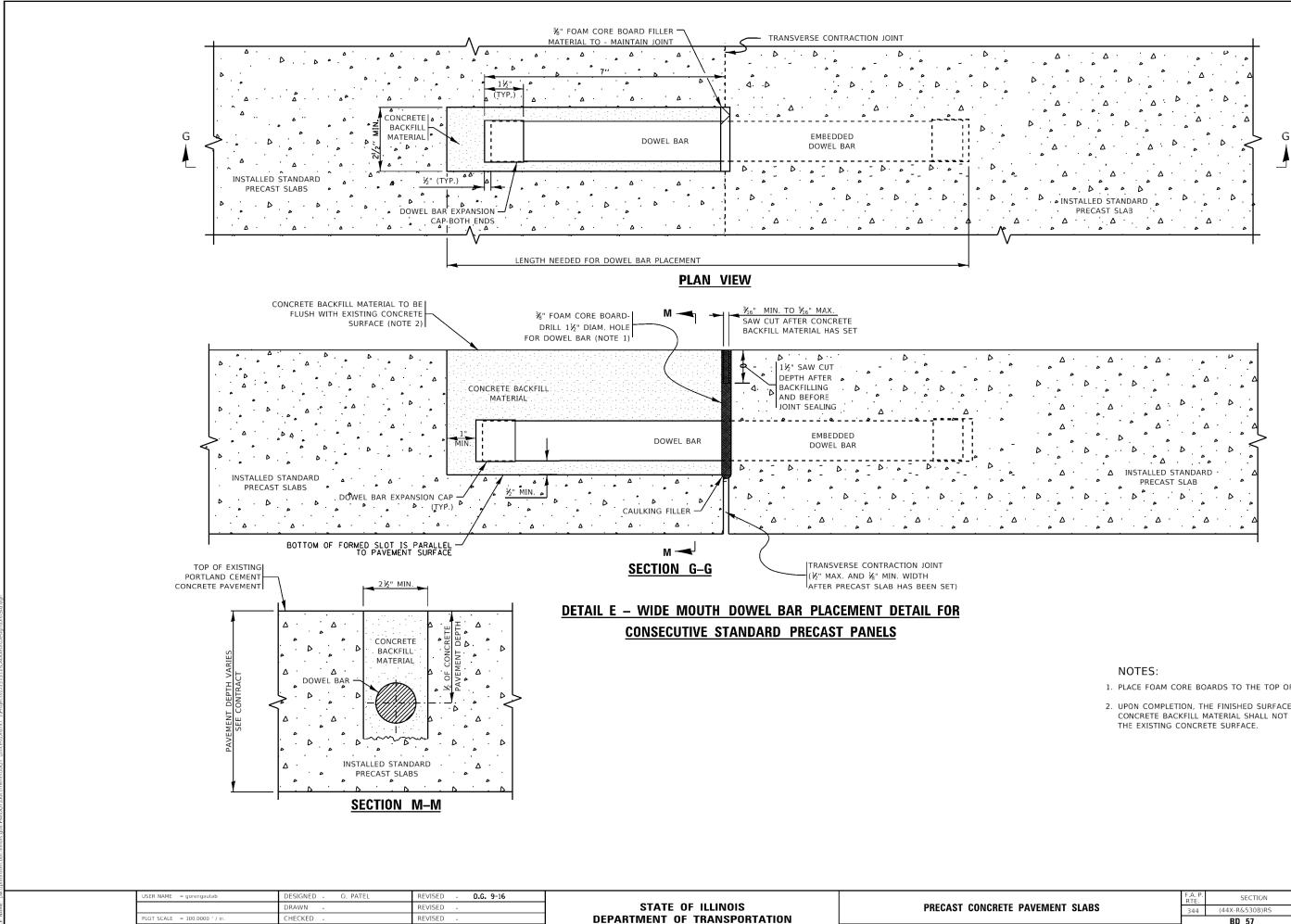
- 1. PLACE FOAM CORE BOARDS TO THE TOP OF PATCH.
- 2. UPON COMPLETION, THE FINISHED SURFACE OF THE CONCRETE BACKFILL MATERIAL SHALL NOT BE BELOW

		F.A.P. RTE.	SECT	FION	COUNTY	TOTAL SHEETS	SHEET NO.	
'A	VEMENT SLABS		344	(44X-R&530	B)RS	LAKE	50	38
				BD 57		CONTRACT	NO. 60	0V06
ΤS	STA.	TO STA.			ILLINOIS FED.	AID PROJECT		



USER NAME = gorengautab	DESIGNED - O. PATEL	REVISED - D.G. 9-16				F.A.P. BTE	SECTION	COUNTY	TOTAL SHEET
	DRAWN -	REVISED -	STATE OF ILLINOIS		PRECAST CONCRETE PAVEMENT SLABS	344	(44X-R&530B)RS	LAKE	50 39
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION				BD 57	CONTRACT	NO. 60V06
PLOT DATE = 6/19/2020	DATE - 10-25-2013	REVISED -		SCALE: NONE	SHEET 14 OF 19 SHEETS STA. TO STA.		ILLINOIS FED.	AID PROJECT	

- 1. PLACE FOAM CORE BOARDS TO THE TOP OF PATCH.
- 2. UPON COMPLETION, THE FINISHED SURFACE OF THE CONCRETE BACKFILL MATERIAL SHALL NOT BE BELOW EXISTING CONCRETE SURFACE.



SCALE: NONE SHEET 15 OF 19 SHEET

OT DATE = 6/19/2020

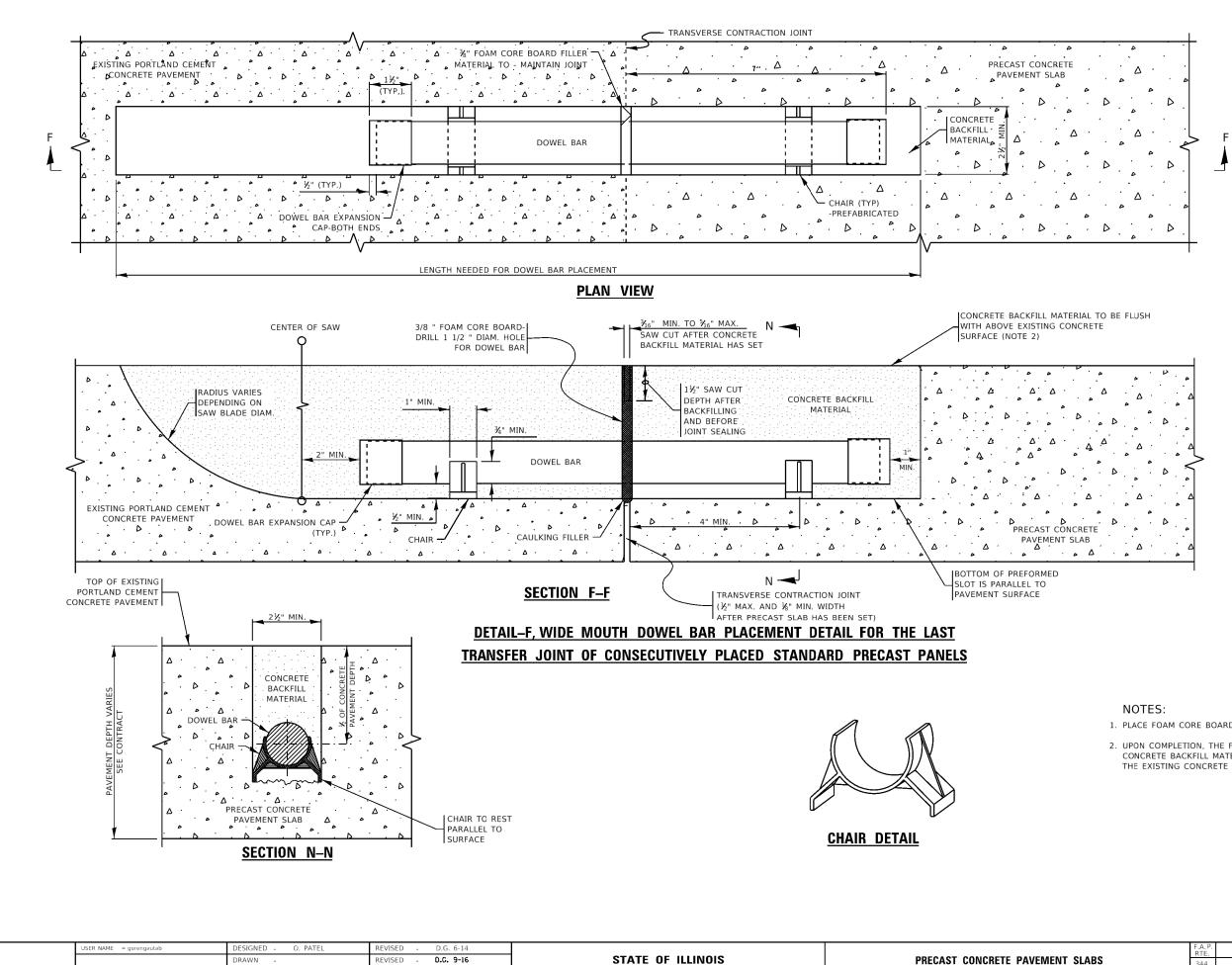
DATE

10-25-2013

REVISED

- 1. PLACE FOAM CORE BOARDS TO THE TOP OF PATCH.
- 2. UPON COMPLETION, THE FINISHED SURFACE OF THE CONCRETE BACKFILL MATERIAL SHALL NOT BE BELOW

			F.A. P. RTE.	SEC	TION	COUNTY	TOTAL SHEETS	SHEET NO.
YA	VEMENT SLABS		344	(44X-R&53)	DB)RS	LAKE	50	40
				BD 57		CONTRACT	NO. 6	i0V06
TS	STA.	TO STA.			ILLINOIS FED. A	ID PROJECT		



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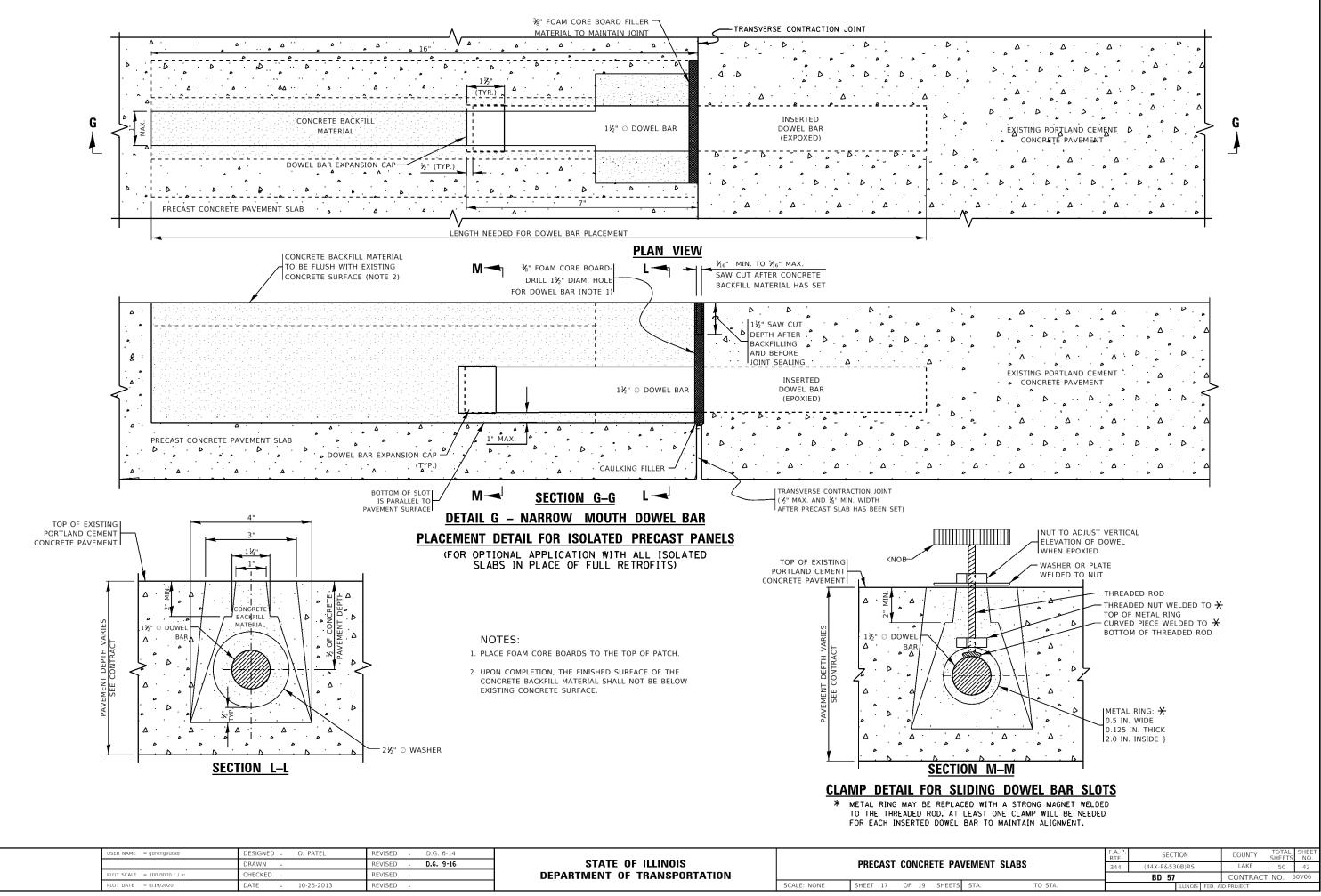
DATE

REVISED

REVISED

- 1. PLACE FOAM CORE BOARDS TO THE TOP OF PATCH.
- 2. UPON COMPLETION, THE FINISHED SURFACE OF THE CONCRETE BACKFILL MATERIAL SHALL NOT BE BELOW THE EXISTING CONCRETE SURFACE.

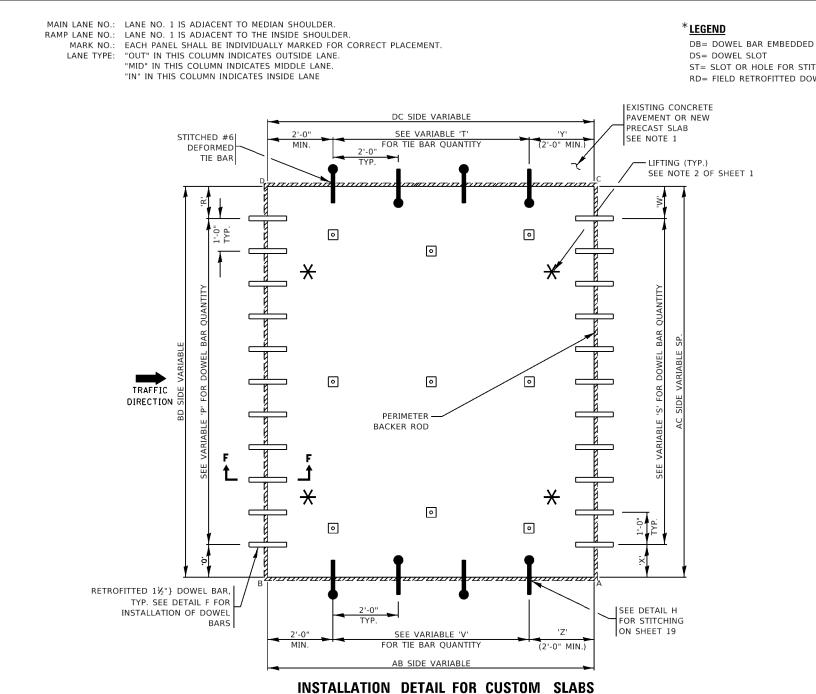
			F.A.P. RTE.	SEC	TION		COUNTY	TOTAL SHEETS	SHEET NO.
'AI	VEMENT	SLABS	344	(44X-R&53	0B)RS		LAKE	50	41
				BD 57			CONTRACT	NO. 6	0V06
ΤS	STA.	TO STA.			ILLINOIS	FED. Al	D PROJECT		



PA	STA. TO STA.	344	(44X-R&530B)RS		LAKE	50	42	
	STA. TO STA.			BD 57		CONTRACT	NO. 6	50V06
ΤS	STA. TO STA.		ILLINOIS	FED. A	ID PROJECT			

FOR NON STANDARD SLABS, UPON COMPLETION BY THE CONTRACTOR A SLAB LAYOUT WILL BE ADDED WITH SLAB DIMENSIONS TO INCLUDE BUT NOT BE LIMITED TO THE TABLE SHOWN BELOW.

Ŀ			MAINLINE		PAMP								VAR	ABLES								*	*	*	*				DIAGON	LS (FT.)
EXAMF	ROUTE	STATION NUMBER	LANE NO.	RAMP ID.	RAMP LANE NO.	MARK NO.	LANE TYPE	AB (FT.)	AC (FT.)	BD (FT.)	CD (FT.)	P (NO.)	Q (FT.)	R (FT.)	S (NO.)	T (NO.)	V (NO.)	W (FT.)	X (FT.)	Y (FT.)	Z (FT.)	AB SIDE	SIDE	SIDE	AC SIDE	AREA (SQ.FT.)	VOLUME (CU. FT.)	(TONS)	AD	вс

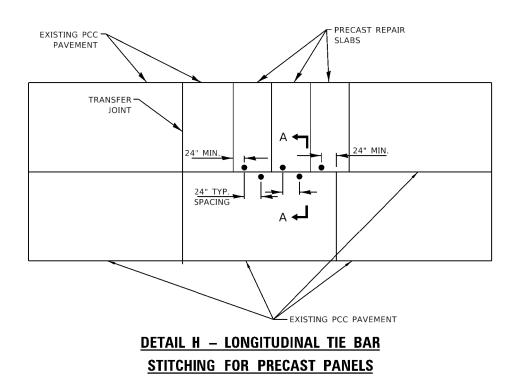


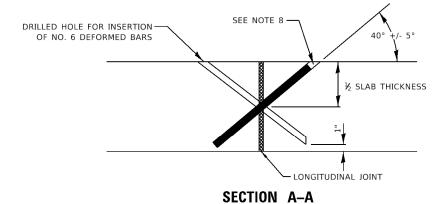
USER NAME = gorengautab	DESIGNED - O. PATEL	REVISED - D.G. 9-16				F.A.P. BTE	SECTION	COUNTY	TOTAL SHEE
	DRAWN -	REVISED -	STATE OF ILLINOIS		PRECAST CONCRETE PAVEMENT SLABS	344	(44X-R&530B)RS	LAKE	50 43
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION				BD 57	CONTRACT	NO. 60V06
PLOT DATE = 6/19/2020	DATE - 10-25-2013	REVISED -		SCALE: NONE	SHEET 18 OF 19 SHEETS STA. TO STA.		ILLINOIS FED. A	ID PROJECT	

ST= SLOT OR HOLE FOR STITCHED TIE BAR RD= FIELD RETROFITTED DOWEL BARS

NOTES:

- 1. NO STITCHING OF DEFORMED TIE BARS IS REQUIRED WHEN PRECAST SLAB IS PLACED ADJACENT TO HMA SHOULDER.
- 2. TIE BAR STITCHING SHALL BE REQUIRED WHEN THE REPAIR AREA LENGTH EXCEEDS 20 FT. OR WHEN MORE THAN 3 PRECAST SLAB ARE PLACED IN SEQUENCE.





CROSS AT THE MID-DEPTH OF THE SLAB.)

DRILLED.

1.

- 3. TIE-BAR DIAMETER. CHOOSE A GANG-MOUNTED DRILL IF A HIGHER PRODUCTIVITY IS NEEDED.
- TRANSFER JOINT.
- 5. HOLE BOTTOMS ARE NO MORE THAN 1 INCH FROM THE SLAB BOTTOM.
- 6. AIR BLOW THE HOLES TO REMOVE DUST AND DEBRIS AFTER DRILLING.
- THE ADHESIVE IS ACCEPTABLE FOR SMALL QUANTITIES.)
- 8.
- 9. REMOVE EXCESS ADHESIVE AND FINISH FLUSH WITH THE PAVEMENT SURFACE.

USER NAME = gorengautab	DESIGNED - O. PATEL	REVISED - D.G. 9-16				F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEET SHEETS NO.
	DRAWN -	REVISED -	STATE OF ILLINOIS		PRECAST CONCRETE PAVEMENT SLABS	344	(44X-R&530B)RS	LAKE	50 44
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION				BD 57	CONTRAC	T NO. 60V06
PLOT DATE = 6/19/2020	DATE - 10-25-2013	REVISED -		SCALE: NONE	SHEET 19 OF 19 SHEETS STA. TO STA.		ILLINOIS FED. /	AID PROJECT	

NOTES FOR TIE BAR STITCHING:

DRILL HOLES THAT ARE ORIENTED AT 40° | 5° ANGLE TO THE PAVEMENT SURFACE SO THAT THEY INTERSECT THE LONGITUDINAL CRACK OR JOINT AT ABOUT MID-DEPTH. (IT IS IMPORTANT TO START DRILLING THE HOLE AT A CONSISTENT DISTANCE FROM THE JOINT, IN ORDER TO CONSISTENTLY

2. HOLE CENTERLINES ARE PERPENDICULAR TO THE JOINT(IN PLAN VIEW) AT EACH LOCATION BEING

SELECT A DRILL THAT MINIMIZES DAMAGE TO THE CONCRETE SURFACE, SUCH AS A HYDRAULIC POWERED DRILL. SELECT A DRILL DIAMETER NO MORE THAN 0.375 IN. LARGER THAN THE

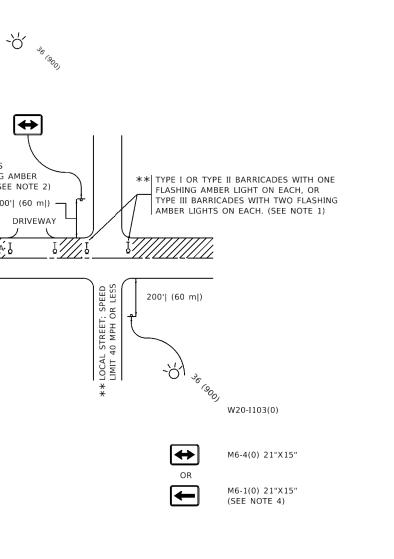
4. DRILL HOLES WITH NO LESS THAN A 24 INCH BAR SPACING. ADJACENT HOLES ARE DRILLED IN OPPOSITE DIRECTIONS ACROSS THE JOINT. THE HOLES AND INSERTED TIE BAR SHALL BE NO LESS THAN 24 INCHES FROM ANY EXISTING TRANSVERSE JOINT OR ANY PRECAST OR REPAIR

7. INJECT ADHESIVE INTO THE HOLE, LEAVING SOME VOLUME FOR THE BAR TO OCCUPY THE HOLE. (POURING

INSERT THE NO. 6 EPOXY COATED DEFORMED TIE BAR INTO THE HOLE, LEAVING ABOUT 1 IN. FROM THE TOP OF BAR TO THE PAVEMENT SURFACE. DEFORMED TIE BARS SHALL BE EPOXY COATED.

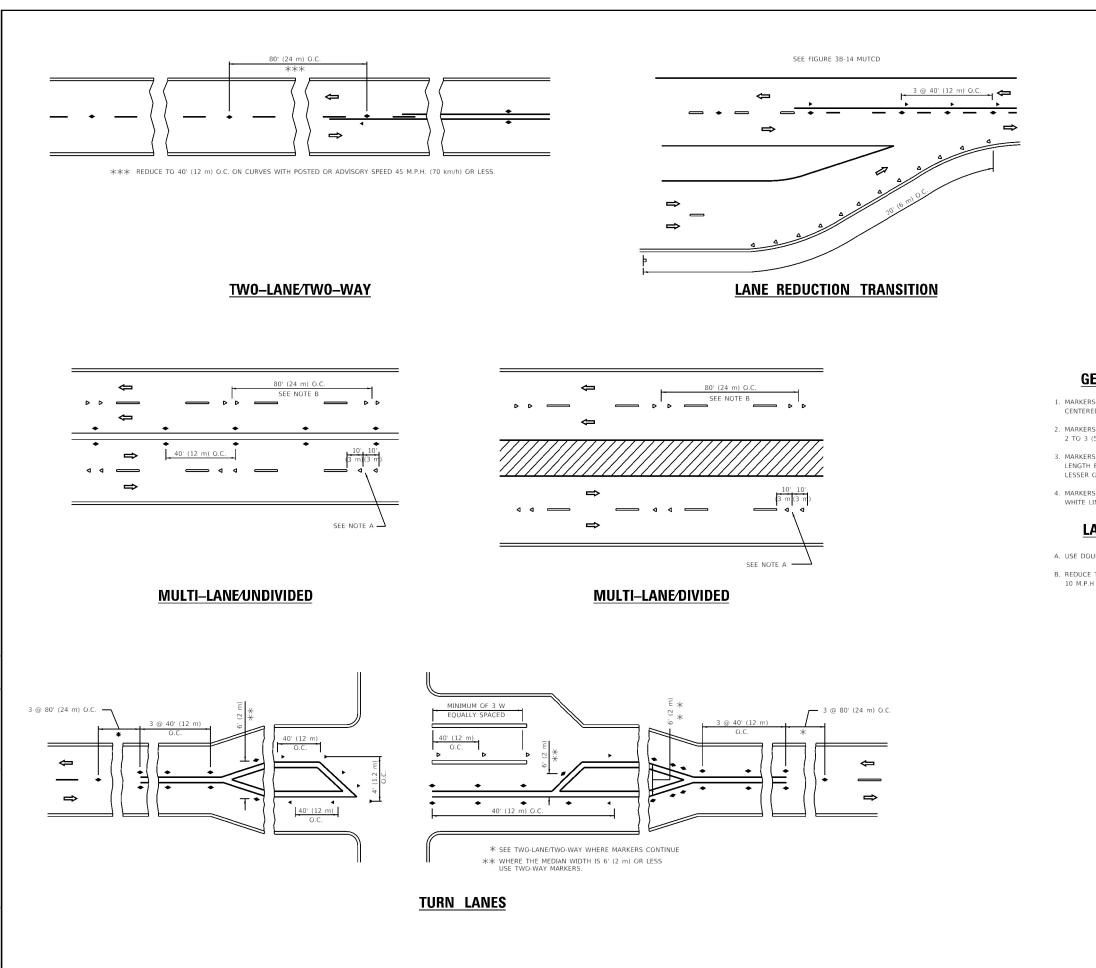
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15 (380) 21 (530)	(E 051) (E
	DRIVEWA
	SPEED LIMITS 40 MPH (60 km/h)
	[↔]
NOTES:	
	SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS AWING AND AS DIRECTED BY THE ENGINEER:
MOUNTED ON I b) THE CLOSED PO BLOCKING WITH	INSTRUCTION AHEAD" SIGN 36 x 36 (900x900) WITH A FLASHER IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE. ORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY H TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF CTION OF THE CLOSED PORTION.
2. SIDE ROAD WITH A	SPEED LIMIT GREATER THAN 40 MPH (60 km/h) DRAWING AND AS DIRECTED BY THE ENGINEER:
	NSTRUCTION AHEAD" SIGN 48 x 48 (1.2 m x 1.2 m) WITH A NTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE ROUTE.
	ORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY H TYPE III BARRICADES, 1/2 OF THE CROSS SECTION D PORTION
3. CONES MAY BE SUB	ASTITUTED FOR BARRICADES OR DRUMS AT HALF THE AY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710)
WHEN THE SIDE RO 4. SIGNING AND THE V	DAD LIES BETWEEN THE BEGINNING OF THE MAINLINE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL F THE DOUBLE HEADED ARROW (M6-4).

USER NAME = gorengautab	DESIGNED - L.H.A.	REVISED - A. HOUSEH 10-15-96	· · · · · · · · · · · · · · · · · · ·		TRAFFIC CONTROL AND PROTECTION FOR	F.A.P. BTE	SECTION	COUNTY	OTAL SH	έT
	DRAWN -	REVISED - T. RAMMACHER 01-06-00	STATE OF ILLINOIS			344	(44X-R&530B)RS	LAKE	50 4	,÷
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED - A. SCHUETZE 07-01-13	DEPARTMENT OF TRANSPORTATION	3	DE ROADS, INTERSECTIONS, AND DRIVEWAYS		TC-10	CONTRACT	O. 60V06	_
PLOT DATE = 6/19/2020	DATE - 06-89	REVISED _ A. SCHUETZE 09-15-16		SCALE: NONE	SHEET 1 OF 1 SHEETS STA. TO STA.		ILLINOIS FED. /	AID PROJECT		_

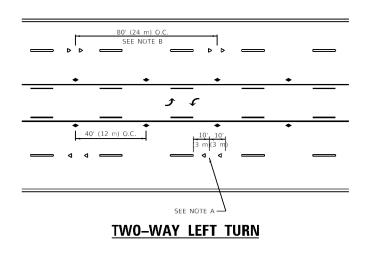


- WHEN WORK IS BEING PERFORMED ON A SIDE ROAD OR DRIVEWAY, FOLLOW THE APPLICABLE STANDARD(S). THE DIRECTIONAL ARROW (M6-1 OR M6-4) SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE TRAFFIC CONTROL SET-UP.
- 6. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAYS UNLESS OTHERWISE SPECIFIED IN THE PLANS OR BY THE ENGINEER.
- 7. 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 = gorengautab	DESIGNED -	REVISED - T. RAMMACHER 03-12-99		TYPICAL APPLICATIONS	F.A.P. BTE	SECTION	COUNTY	TOTAL SHEET
	DRAWN -	REVISED - T. RAMMACHER 01-06-00	STATE OF ILLINOIS		344	(44X-R&530B)RS	LAKE	50 46
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED - C. JUCIUS 09-09-09	DEPARTMENT OF TRANSPORTATION	RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)		TC-11	CONTRACT	NO. 60V06
PLOT DATE = 6/19/2020	DATE -	REVISED - C. JUCIUS 07-01-13		SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.		ILLINOIS FEE	D. AID PROJECT	



GENERAL NOTES

- 1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
- 2. 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.
- 4. MARKERS ARE TO BE USED ADJACENT TO BCTH SOLID WHITE LINES IN DUAL LEFT TURN LANES

LANE MARKER NOTES

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

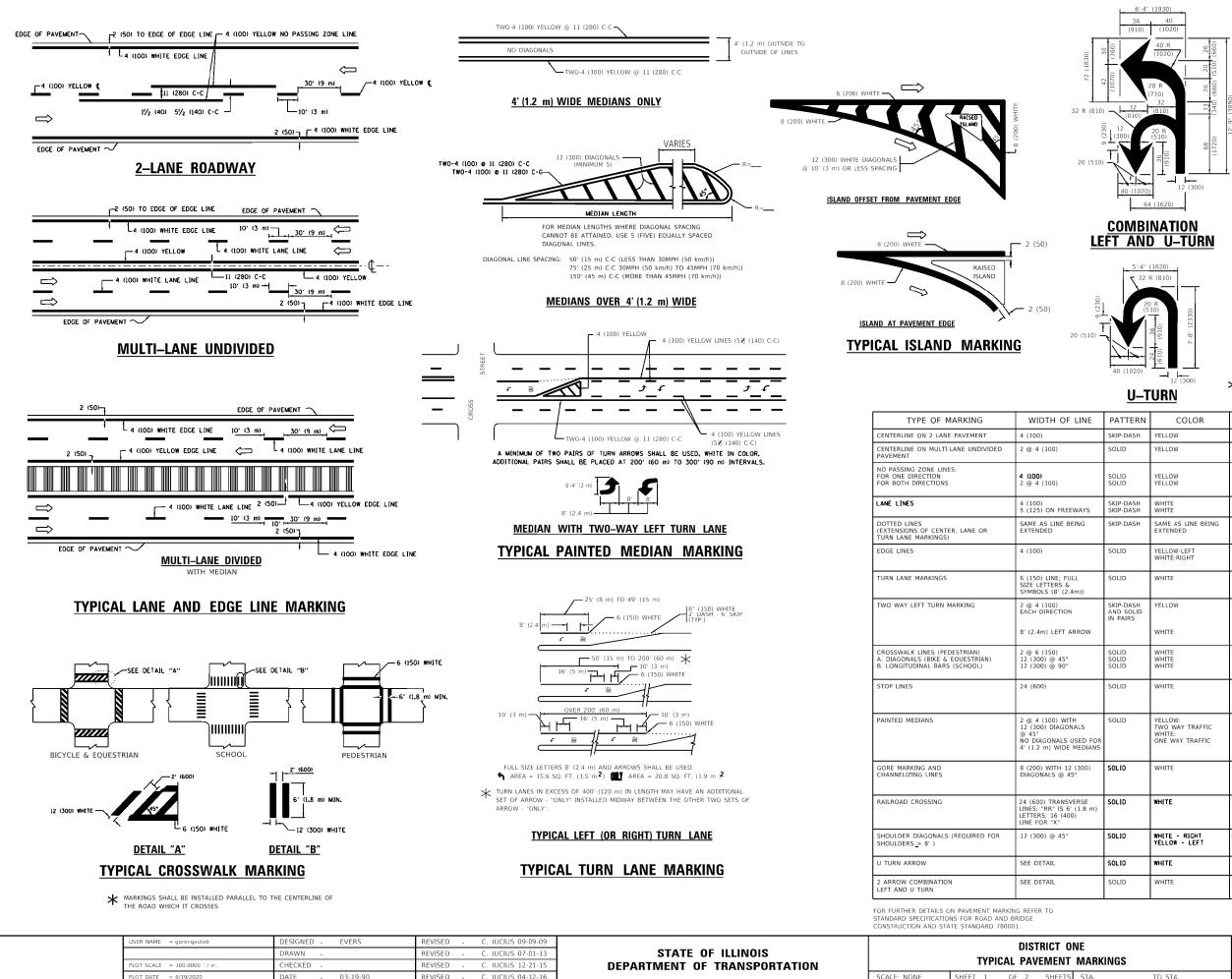
SYMBOLS

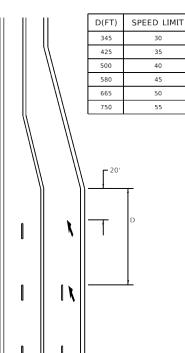
- YELLOW STRIPE
- WHITE STRIPE
- ONE-WAY AMBER MARKER
- ◀ ONE-WAY CRYSTAL MARKER (W/O)
- TWO-WAY AMBER MARKER

DESIGN NOTES

- 1. 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.
- 3. 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.

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





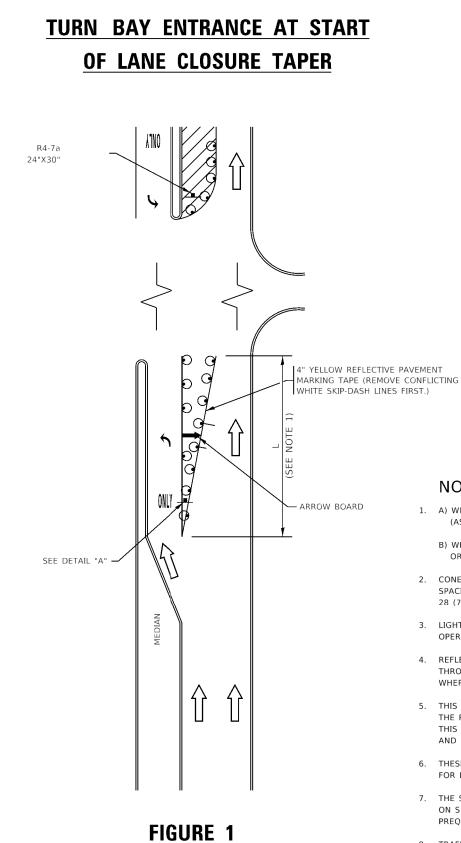
LANE REDUCTION TRANSITION

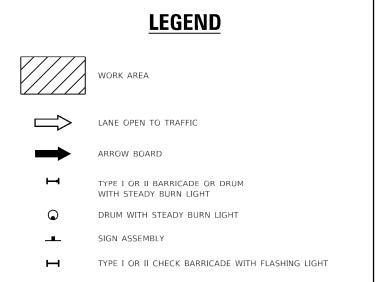
★ LANE REDUCTION ARROWS REQUIRED AT SPEEDS OF 45 MPH OR GREATER OR WHEN SPECIFIED IN PLANS.

F LINE	PATTERN	COLOR	SPACING / REMARKS
	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
	SOLID	YELLOW	11 (280) C-C
	SOLID SOLID	YELLOW YELLOW	5½ (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
EEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
BEING	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MEDIANS IN YELLOW
FULL & 2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
ON ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5½ (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
0	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.
	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
VITH ONALS 5 USED FOR DE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
12 (300) 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))
SVERSE 6' (1.8 m) 400)	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ, FT. (0.33 m 2 XX=54.0 SQ. FT. (5.0 m 2
0	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))
	SOLID	WHITE	16.3 SF
	SOLID	WHITE	30.4 SF

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

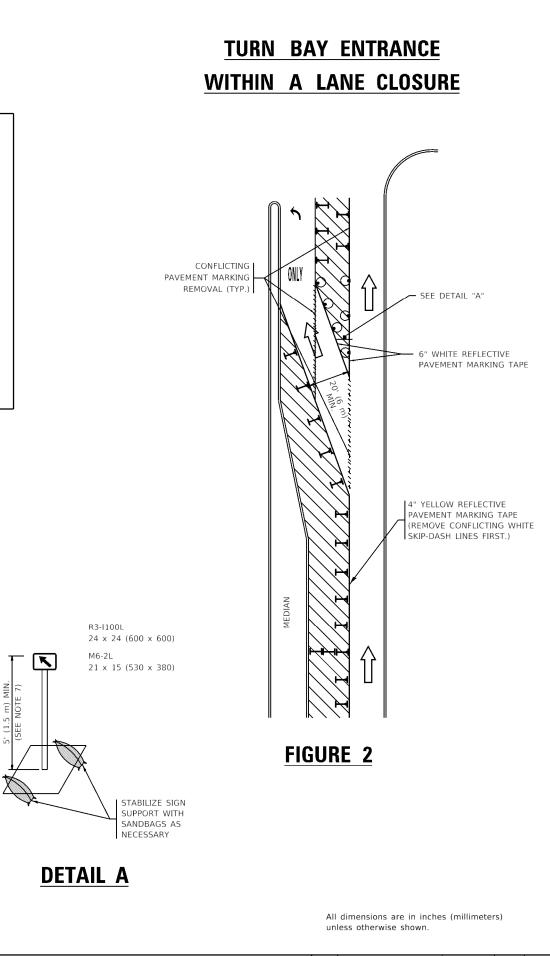
ONE T MARKINGS		SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		(44X-R&530B)RS	LAKE	50	47	
T MANKING5		TC–13	CONTRACT	NO. 60)V06	
TS STA. TO STA.		ILLINOIS FED. AID PROJECT				



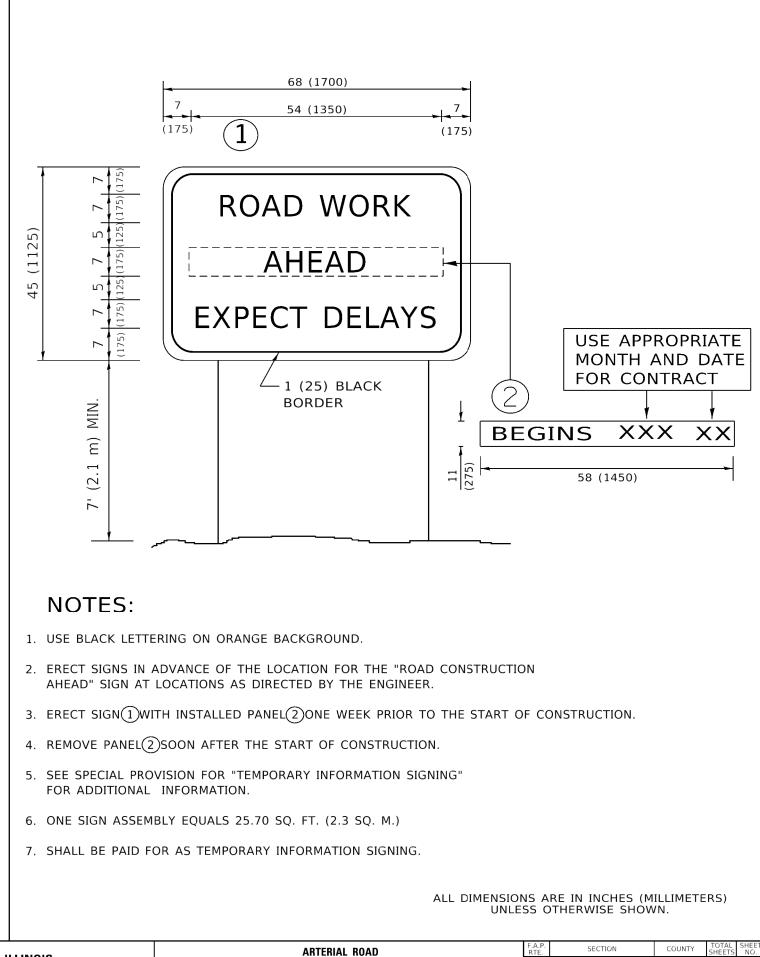


NOTES:

- 1. A) WHEN "L" IS ≤ 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.
- 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.
- 3. LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.
- 4. 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.
- 5. 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.
- 6. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
- 7. THE SIGNS SHALL BE MOUNTED ABOVE THE BARRICADES/DRUMS ON SEPARATE SIGN SUPPORTS THAT MEET NCHRP 350 OR MASH PREQUIREMENTS.
- 8. 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.



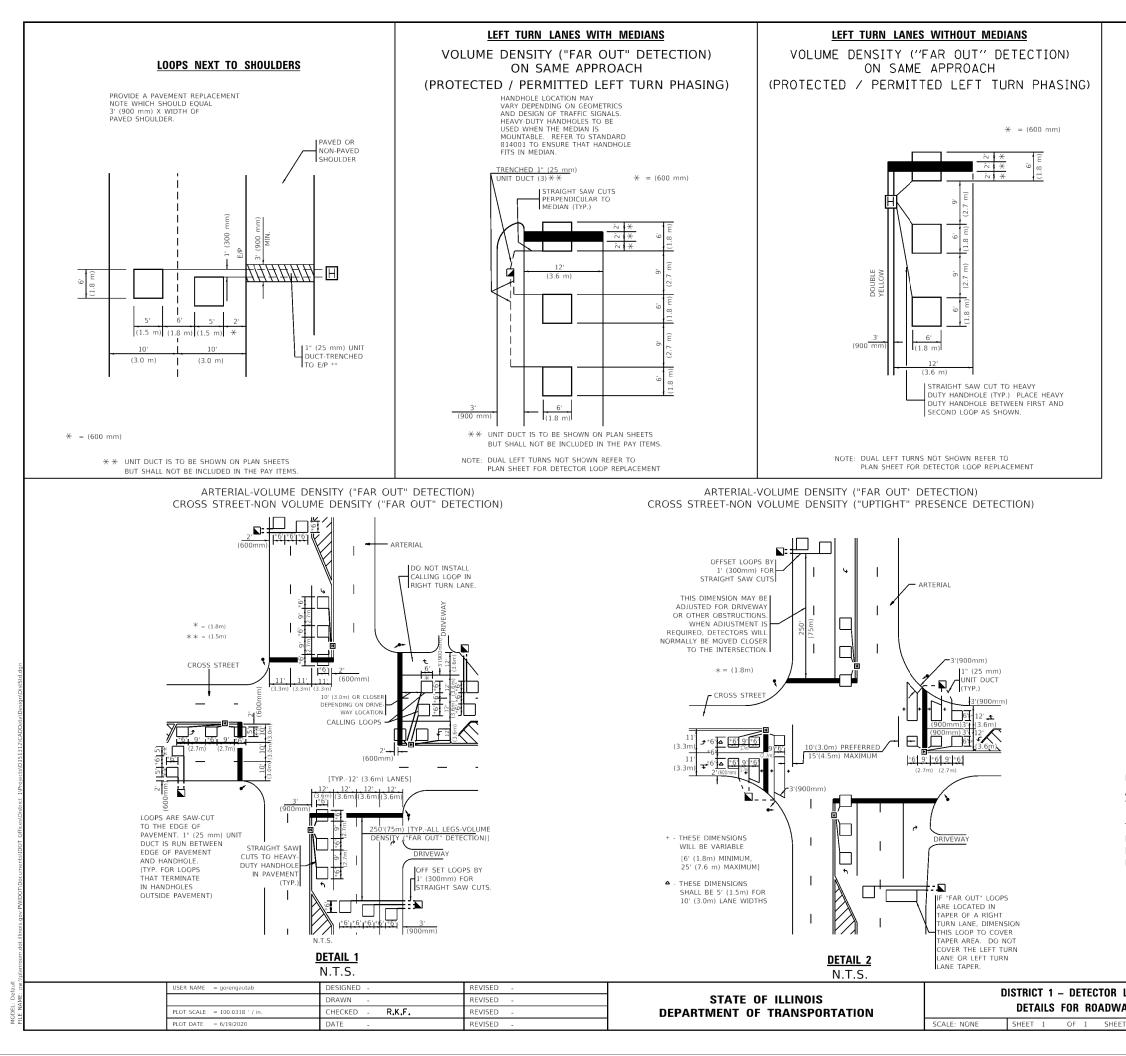
USER NAME = gorengautab	DESIGNED -T. RAMMACHER 09-08-94	REVISED - R. BOP	DRO 09-14-09		TRAFF	IC CONTRO	L AND	PROTEC	TION AT TUP	RN BAYS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEET SHEETS NO.
	DRAWN - A. HOUSEH 11-07-95		ETZE 07-01-13	STATE OF ILLINOIS		(TO RE			O TRAFFIC)		344	(44X-R&530B)RS	LAKE	50 48
PLOT SCALE = 100.0000 ' / in.	CHECKED - A. HOUSEH 10-12-96	REVISED - A. SCHUE	ETZE 09-15-16	DEPARTMENT OF TRANSPORTATION		(10 6		UPEN	U INAFFIC)			TC-14	CONTRACT	NO. 60V06
PLOT DATE = 6/19/2020	DATE -T. RAMMACHER 01-06-00	REVISED -			SCALE: NONE	SHEET 1	OF 1	SHEETS	STA.	TO STA.		ILLINOIS FED. A	AID PROJECT	



USER NAME = gorengautab	DESIGNED -	REVISED - R. MIRS 09-15-97				ARTERIA	
	DRAWN -	REVISED - R. MIRS 12-11-97	STATE OF ILLINOIS				
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -T. RAMMACHER 02-02-99	DEPARTMENT OF TRANSPORTATION			INFORMAT	TION
PLOT DATE = 6/19/2020	DATE -	REVISED - C. JUCIUS 01-31-07		SCALE: NONE	SHEET 1	OF 1 S	SHEETS

ALL	DIMENSIONS	ARE	IN	INCHES	6 (MILLIMETERS)
	UNLESS	ОТН	ER	WISE S	HOWN.

ROAD N SIGN		F.A.P. RTE.				COUNTY	TOTAL SHEETS	SHEET NO.	
		344	344 (44X-R&530B)RS			LAKE	50	49	
				TC-22			CONTRACT NO. 60V06		
ΤS	STA.	TO STA.			ILLINOIS	FED. A	D PROJECT		



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 <u>ALL</u> 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, <u>MORE</u> 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. <u>EACH</u> ONE OF THESE TYPE OF LOOPS REQUIRES A <u>SEPARATE</u> TWO CONDUCTOR NO. 14 TWISTED SHIELDED CABLE AND A <u>SEPARATE</u> 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 <u>ALL</u> 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.

LOOP INSTALLATION AY RESURFACING		F.A.P. RTE.	SECTION			COUNTY	TOTAL SHEETS	SHEET NO.	
		344	(44X-R&530B)RS			LAKE	50	50	
				TS-07			CONTRACT	NO. 6	0V06
TS	STA.	TO STA.			ILLINOIS	FED. AI	D PROJECT		