#### STATE OF ILLINOIS

# DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS

## PROPOSED HIGHWAY PLANS

F.A.P. ROUTE 353 / U.S. ROUTE 30 (LINCOLN HWY)

SECTION 13-I WILLIAM ST TO VANCINA LN

PROJECT -- (ADVANCED CONTRACT)

PAVEMENT WIDENING AND TRAFFIC SIGNAL INSTALLATION

WILL COUNTY

C-91-057-10

#### FOR INDEX OF SHEETS, SEE SHEET NO. 2

PROJECT IS LOCATED IN THE VILLAGE OF NEW LENOX

#### **DESIGN DESIGNATION**

 $\bigcirc$ 

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 $\circ$ 

2,340 (20) OTHER PRINCIPAL ARTERIAL 4.27 (FD-20)

#### TRAFFIC DATA:

	ADT (1998)	DESIGN SPEED	POSTED SPEED
U.S. RTE 30	16, 000	45	40
MARLEY ROAD	2, 500	30	30

LOCATION 1
STA 136+64.49 TO
STA 160+51.71

NOTE: The control of t

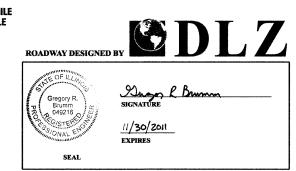
NEW LENOX TOWNSHIP (N.T.S.)
GROSS LENGTH = 3,826 FT. = 0.725 MILE
NET LENGTH = 3,826 FT. = 0.725 MILE

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 - MICHELLE AQUINO - (847) 705-4606 PROJECT MANAGER - RAJENDRA SHAH - (847) 705-4555

**CONTRACT NO. 60152** 



\*67-1=66

#### D-91-219-02



### STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS

SUBMITTED JANUARY 27, 20 10

Diane M. O'Harly AK
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

March 19, 2010

Scott P. Statt P.P. (A)

acting Engineer of Design and Environme

Chisting M. Reed 160

DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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#### INDEX OF SHEETS

- 1 COVER SHEET
- 2 INDEX OF SHEETS, LIST OF ILLINOIS DOT HIGHWAY STANDARDS, GENERAL NOTES, COMMITMENTS
- 3-5 SUMMARY OF QUANTITIES
- 6-8 SCHEDULE OF QUANTITIES
- 9-10 TYPICAL SECTIONS
- 11-13 ALIGNMENT, TIES AND BENCHMARKS
- 14-15 REMOVAL PLANS
- 16-17 ROADWAY PLANS
- 18-19 EROSION AND SEDIMENT CONTROL PLAN
- 20-25 DRAINAGE & UTILITIES
- 26 NOT USED
- 27-28 INTERSECTION DETAILS
- 29-30 PAVEMENT MARKING PLANS
- 31-32 TRAFFIC SIGNAL PLANS
- 33-41 SUE PLANS
- 42 DRIVEWAY DETAILS DISTANCE BETWEEN R.O.W. AND FACE OF CURB & EDGE OF SHOULDER >= 15' (BD-01)
- 43 DETAIL OF STORM SEWER CONNECTION TO EXISTING SEWER (BD-07)
- TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS (TC-10)
- 45 TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT) (TC-11)
- 46 DISTRICT ONE TYPICAL PAVEMENT MARKINGS (TC-13)
- 47 ARTERIAL ROAD INFORMATION SIGN (TC-22)
- 48 DRIVEWAY ENTRANCE SIGNING (TC-26)
- 49-54 DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN
- 55-67 CROSS SECTIONS

#### HIGHWAY STANDARDS

000001-05 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS 280001-05 TEMPORARY EROSION CONTROL SYSTEMS 424001-05 CURB RAMPS FOR SIDEWALKS 542301-02 PRECAST REINFORCED CONCRETE FLARED END SECTION 542311-01 GRATING FOR CONCRETE FLARED END SECTION (FOR 24" THRU 54" PIPE) 602301-02 INLET, TYPE A 602401-02 MANHOLE, TYPE A 602601-02 PRECAST REINFORCED CONCRETE FLAT SLAB TOP 602701-02 MANHOLE STEPS 604001-03 FRAME AND LIDS, TYPE 1 604056-03 FRAME AND GRATE, TYPE 11V 606001-04 CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER 666001-01 RIGHT-OF-WAY MARKERS 701001-02 OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 4.5 M (15') AWAY 701006-03 OFF-ROAD OPERATIONS, 2L, 2W, 4.5 M (15') TO 600 MM (24\*) FROM PAVEMENT EDGE 701011-02 OFF-ROAD MOVING OPERATIONS, 2L, 2W, DAY ONLY 701901-01 TRAFFIC CONTROL DEVICES 720001-01 SIGN PANEL MOUNTING DETAILS 720006-02 SIGN PANEL ERECTION DETAILS 780001-02 TYPICAL PAVEMENT MARKINGS 781001-03 TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS 814001-02 HANDHOLES 814006-02 DOUBLE HANDHOLES 857001-01 STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES 862001-01 UNINTERRUPTABLE POWER SUPPLY (UPS) 873001-02 TRAFFIC SIGNAL GROUNDING & BONDING 880001-01 SPAN WIRE MOUNTED SIGNALS AND FLASHING BEACON INSTALLATION 880006-01 TRAFFIC SIGNAL MOUNTING DETAILS

#### GENERAL NOTES

DIMENSIONS ARE IN ENGLISH UNITS UNLESS NOTED OTHERWISE.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING MATERIALS.

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL"JULIE" AT 1-800-892-0123 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS FACILITIES. (48 HOUR NOTIFICATION REQUIRED.)

THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS PRIOR TO THE PLACEMENT OF ANY TEMPORARY TRAFFIC CONTROL DEVICES.

10 FT. TRANSITIONS SHALL BE USED TO MATCH PROPOSED ITEMS OF WORK 10 EXISTING ITEMS IN THE FIELD, UNLESS OTHERWISE SHOWN, THE TRANSITIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PROPOSED ITEM OF WORK SPECIFIED.

THE ENGINEER SHALL BE THE SOLE JUDGE CONCERNING CURING TIME FOR THE VARIOUS HOT-MIX ASPHALT LIFTS.

DURING CONSTRUCTION OPERATIONS, LOOSE MATERIAL DEPOSITS THAT OBSTRUCT THE FLOW OF WATER IN DRAINING THE AREA SHALL BE REMOVED BEFORE THE END OF EACH WORK DAY. AT THE CONCLUSION OF CONSTRUCTION OPERATIONS, ALL DRAINAGE STRUCTURES (NEW AND EXISTING) SHALL BE FREE FROM ALL DIRT AND DEBRIS. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

THE RESIDENT ENGINEER SHOULD CONTACT CORA MATHIS, AREA TRAFFIC FIELD ENGINEER, AT (815) 485-6475 PRIOR TO INSTALLING ANY PERMANENT PAVEMENT MARKINGS.

ALL DAMAGE TO EXISTING PAVEMENT MARKINGS OR RAISED REFLECTIVE PAVEMENT MARKERS OUTSIDE THE REMOVAL LOCATIONS SHOWN IN THE PLANS SHALL BE REPLACED AT NOT ADDITIONAL COST TO THE DEPARTMENT.

WHEN ARTIFICIAL LIGHTING IS UTILIZED IN NIGHT OPERATIONS, THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTIONS IN PREVENTING ADVERSE VISIBILITY TO THE MOTORING PUBLIC AND ADJOINING PROPERTIES.

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

MAILBOXES INTERFERING WITH CONSTRUCTION OPERATIONS SHALL BE RELOCATED IN ACCORDANCE WITH ARTICLE 107.20 OF THE STANDARD SPECIFICATIONS.

ROW AND TEMPORARY EASEMENTS HAVE BEEN OBTAINED BY OTHERS FOR THIS CONTRACT. THE ENGINEER SHALL VERIFY ALL AVAILABLE ROW WITH LAND ACQUISITION PRIOR TO THE BEGINNING OF CONSTRUCTION.

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NONE

SCALE: N.T.S.

FILE NAME =	USER NAME = \$USER\$	DESIGNED -	REVISED -
\$FILELS		DRAWN -	REVISED -
	PLOT SCALE = #SCALE#	CHECKED -	REVISED -
	PLOT DATE = \$DATE\$	DATE -	REVISED -

PAY ITEM #	PAY ITEM		UNIT	TOTAL	IOO% STATE ROADWAY IOOO-1A	100% NEW LENOX UTILITY ADJ Y060	50% STATE 50% NEW LENOX SIGNALS Y031-1F	100% NEW LENOX FPE SIGNALS Y031-3D
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)		UNIT	8	8 8	7000	1031 11	1031 30
20200100	EARTH EXCAVATION		CU YD	1180	1180			
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL		CU YD	1268	1268			
20800150	TRENCH BACKFILL		CU YD	55	55			
21101615	TOPSOIL FURNISH AND PLACE, 4"		SQ YD	4834	4834			
25000210	SEEDING, CLASS 2A		ACRE	1	1			
25000400	NITROGEN FERTILIZER NUTRIENT		POUND	90	90			
25000500	PHOSPHORUS FERTILIZER NUTRIENT		POUND	90	90			
25000600	POTASSIUM FERTILIZER NUTRIENT		POUND	90	90			
25100630	EROSION CONTROL BLANKET		SQ YD	4834	4834			
28000400	PERIMETER EROSION BARRIER		FOOT	1859	1859			
35501316	HOT-MIX ASPHALT BASE COURSE, 8"		SQ YD	71	71			
40600100	BITUMINOUS MATERIALS (PRIME COAT)		GALLON	8	8			
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50		TON	331	331			
42300200	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 6 INCH		SQ YD	102	102			
42400610	TEMPORARY SIDEWALK		SQ FT	1203	1203			
42400800	DETECTABLE WARNINGS		SQ FT	56	56			
44000200	DRIVEWAY PAVEMENT REMOVAL		SQ YD	1178	1178			
44000300	CURB REMOVAL		FOOT	356	356			
44000500	COMBINATION CURB AND GUTTER REMOVAL		FOOT	584	584			
44000600	SIDEWALK REMOVAL		SQ FT	1224	1224			
44003100	MEDIAN REMOVAL		SQ FT	348	348			
44200124	PAVEMENT PATCHING, TYPE III, 10 INCH		SQ YD	41	41			
48101500	AGGREGATE SHOULDERS, TYPE B 6"		SQ YD	1229	1229			
50105220	PIPE CULVERT REMOVAL		FOOT	134	134			
542D0220	PIPE CULVERTS, CLASS D, TYPE 1 15"		FOOT	67	67			
54213681	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 36"		EACH	1	1			
54247170	GRATING FOR CONCRETE FLARED END SECTION 36"		EACH	1	1			-
550A0050	STORM SEWERS, CLASS A, TYPE 1 12"		FOOT	24	24			
550A0070	STORM SEWERS, CLASS A, TYPE 1 15"		FOOT	94	94			
550A0160	STORM SEWERS, CLASS A, TYPE 1 36"		FOOT	14	14			
55039700	STORM SEWERS TO BE CLEANED		FOOT	214	214			
55100700	STORM SEWER REMOVAL 15"		FOOT	166	166			
60221100	MANHOLES, TYPE A, 5'-DIAMETER, TYPE 1 FRAME, CLOSED LID		EACH	1	1			
60236825	INLETS, TYPE A, TYPE 11V FRAME AND GRATE		EACH	1	1			
60255500	MANHOLES TO BE ADJUSTED		EACH	4	4			
60250500	CATCH BASINS TO BE ADJUSTED WITH NEW TYPE 1 FRAME, CLOSED I	LID	EACH	,	1			
60265700	VALVE VAULTS TO BE ADJUSTED		EACH	1	-	1		
60500040	REMOVING MANHOLES		EACH	1	1	1		
NAME =	USER NAME = DESIGNED -	REVISED -			1	<u> </u>	1	
	DRAWN -	REVISED - REVISED - REVISED -			DE		OF ILLINOIS OF TRANSPOR	TATION

	SUMMARY OF QU	ANTITIES		F.A.P. RTE.	SECTION	COUNTY	TOTAL	SHEET NO.
				353	13-I	WILL	67	3
						CONTRAC	T NO.	60152
SCALE: NTS	SHEET NO. 1 OF 3 SHEETS	STA.	TO STA.		ILLINOIS FED. A	D PROJECT		

PAY ITEM #	PAY ITEM	UNIT	TOTAL		100% NEW LENOX UTILITY ADJ Y060	1	100% NEW LENOX FPD SIGNALS Y031-3D
60600605	CONCRETE CURB, TYPE B	FOOT	44	44			
60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	663	663			
66600105	FURNISHING AND ERECTING RIGHT-OF-WAY MARKERS	EACH	7	7			
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	12	12			
67100100	MOBILIZATION	L SUM	1	1			
70101800	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1			
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	20	20			
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	765	765			
72000100	SIGN PANEL - TYPE 1	SQ FT	61.5	61.5			
72000200	SIGN PANEL - TYPE 2	SQ FT	20	20			
72400100	REMOVE SIGN PANEL ASSEMBLY - TYPE A	EACH	3	3			
72400310	REMOVE SIGN PANEL - TYPE 1	SQ FT	9	9			
73000100	WOOD SIGN SUPPORT	FOOT	111	111			
78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	499. 2	499.2			
78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	16387	16387			
78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	2133	2133			
78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	376	376			
78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	213	213			
78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	178	178			
78300100	PAVEMENT MARKING REMOVAL	SQ FT	6723	6723			
81000600	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	246			246	
81018500	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	30			30	
81400100	HANDHOLE	EACH	3			3	
81400300	DOUBLE HANDHOLE	EACH	2			2	
81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	246			246	
85700205	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1			1	
87200400	SPAN WIRE	FOOT	653			653	
87200500	TETHER WIRE	FOOT	584			584	
87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	750			750	
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	792			792	
87301805	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	50			50	
87302212	ELECTRIC CABLE AERIAL SUSPENDED, SIGNAL, NO. 14 2C	FOOT	1629			1629	
87302225	ELECTRIC CABLE AERIAL SUSPENDED, SIGNAL, NO. 14 3C	FOOT	2662			2662	
87302245	ELECTRIC CABLE AERIAL SUSPENDED, SIGNAL, NO. 14 5C	FOOT	1347			1347	
87302255	ELECTRIC CABLE AERIAL SUSPENDED, SIGNAL, NO. 14 7C	FOOT	2909			2909	
88030030	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, SPAN WIRE MOUNTED	EACH	4			4	
88030120	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, SPAN WIRE MOUNTED	EACH	8			8	
88700200	LIGHT DETECTOR	EACH	3				3
(			ı				

*SPECIALTY	MEMS
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							1
FILE NAME =	USER NAME =	DESIGNED -	REVISED -		SUMMARY OF QUANTITIES	F.A.P. SECTION	COUNTY TOTAL SHEET
		DRAWN -	REVISED ~	STATE OF ILLINOIS	SOMMANT OF GOARTITIES	353 13-I	WILL 67 4
	PLOT SCALE =	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION			CONTRACT NO. 60152
	PLOT DATE =	DATE -	REVISED -		SCALE: NTS SHEET NO. 2 OF 3 SHEETS STA. TO STA.	ILLINOIS FED. A	AID PROJECT

					ŗ	100%	50% STATE	100% NEW
	PAY ITEM #	PAY ITEM	UNIT	TOTAL QUANTITY		NEW LENOX UTILITY ADJ	50% NEW LENOX SIGNALS	LENOX FPD SIGNALS
¥	88700300	LIGHT DETECTOR AMPLIFIER	EACH	1	I000-1A	Y060	Y031-1F	Y031-3D 1
,,								
*	X0301023	CONFIRMATION BEACON	EACH	3				3
	X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	101.4	101.4			
	X0322936	REMOVE EXISTING FLARED END SECTION	EACH	1	1			
¥	X0323651	REMOVE AND REINSTALL EXISTING LIGHTING UNIT	EACH	1		1		
	X0712400	TEMPORARY PAVEMENT	SQ YD	2206	2206			
	X4022000	TEMPORARY ACCESS (COMMERCIAL ENTRANCE)	EACH	2	2			
	X4024000	TEMPORARY ACCESS (FIELD ENTRANCE)	EACH	1	1			
*	X8050015	SERVICE INSTALLATION - POLE MOUNTED	EACH	1			1	
*	X8620020	UNINTERRUPTIBLE POWER SUPPLY	EACH	1			1	
×	X8730027	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	50			50	
¥	X8730350	ELECTRIC CABLE AERIAL SUSPENDED NO. 20 3/C, TWISTED, SHIELDED	FOOT	1033	www.hunanananananananananananananananananana			1033
	Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1			
	Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	4	4			
*	88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	6			6	
*	X0326884	TRAFFIC SIGNAL WOOD POLE, 45 FT, CLASS 5	EACH	4			4	
*	X0326883	TRAFFIC SIGNAL WOOD POLE, 15 FT, CLASS 5	EACH	6			6	
×	X0326885	VIDEO DETECTION SYSTEM	EACH	1			1	
	28000520	ABOVE GRADE INLET FILTERS	EACH	8	8			
	28000305	TEMPORARY DITCH CHECKS	FOOT	151	151			
	X0326886	BRICK SIGN AND CONCRETE FOUNDATION REMOVAL AND RELOCATION	L SUM	1	1			
	X03Z690Z	LIMESTONE SCREENINGS, 2"	5@ YD	29	29			
	X4021000	TEMPORARY ACCESS (PRIVATE ENTRANCE)	EACH	1	/			
				1		L	L	

\*SPECIALTY ITEMS

FILE NAME =	USER NAME =	DESIGNED -	REVISED -			SUMMARY OF QU	IANTITIES		F.A.P.	SECTION	COUNTY	TOTAL SHI
		DRAWN ~	REVISED -	STATE OF ILLINOIS			ANTITLO		353	13-I	WILL	67
	PLOT SCALE =	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION					555		CONTRAC	CT NO. GOI
	PLOT DATE =	DATE -	REVISED -		SCALE: NTS	SHEET NO. 3 OF 3 SHEETS	STA.	TO STA.		ILLINOIS FED.	AID PROJECT	71 1401 001.

#### REMOVAL SCHEDULE

PAY	CODE #	20100110	44000200	44000300	44000500	44000600	44003100						
		TREE REMOV	DRIVE	CURB REM	COMB CURB	SIDEWALK	MEDIAN						
LOG	CATION	6-15	PAVEMENT		GUTTER REM	REMOVAL	REMOVAL						
			REM										
ROAD	STATION	UNIT -	SQ YD	FOOT	FOOT	SQ FT	SQ FT						
J. S. ROUTE 30 132+00 - 147+00			657	231									
(LINCOLN HWY.)	147+00 - 162+00								202	58	511	1224	192
	179+50 - 194+50	8	319	67									
	SUBTOTAL	8.0	1178.0	356.0	511.0	1224.0	192.0						
MARLEY RD	MARLEY RD. (S)				73		156						
	MARLEY RD. (N)												
	SUBTOTAL	0.0	0.0	0.0	73.0	0.,0	156.0						
TOTAL		8	1178	356	584	1224	348						

#### ROADWAY SCHEDULE

PAY	CODE #	35501316	40600100	40603310	42300200	42400610	42400800	44200124	48101500	60600605	60603800	66600105	X0712400	X4021000	X4022000	X4024000	
		HMA	BIT	HMA SC	PCC	TEMP	DETECTABLE	PAVT PATCH	AGGREGATE	CONC	COMB	FUR ERECT	TEMP	TEMP	TEMP	TEMP	LIMESTONE
LOC	CATION	BASE CSE 8	MATLS	"C" N50	DRIVEWAY	SIDEWALK	WARNINGS	T3 10	SHLDS B 6	CURB TB	CC&G	ROW	PAVEMENT	ACCESS	ACCESS	ACCESS	SCREEN, 2
			PR CT		PAVT 6						TB6.12	MARKERS		- PRIV ENT	- COM ENT	- FLD ENT.	
ROAD	STATION	SQ YD	GALLON	TON	SQ YD	SQ FT	SQ FT	SQ YD	SQ YD	FOOT	FOOT	EACH	SQ YD	EACH	EACH	EACH	SQ YD
U.S. ROUTE 30	132+00 - 147+00		87						482			2	582		1		
(LINCOLN HWY.)	147+00 - 162+00	71	150	8	102	1203	56		211	44	606	3	998	1		1	29
	179+50 - 194+50		84					41	536		57		559		1		
	SUBTOTAL	71	321	8	102	1203	56	41	1229	44	663	5	2139	1	2	1	29
MARLEY RD	MARLEY RD. (S)		10										67				
V-10-10-10-10-10-10-10-10-10-10-10-10-10-	MARLEY RD. (N)											2					
	SUBTOTAL	0 .	10	0	0	0	0	0	0	0	0	2	67	0	0	0	0
TOTAL		71	331	8	102	1203	56	41	1229	44	663	7	2206	1	2	1	29

#### EROSION & LANDSCAPING SCHEDULE

PAY	CODE #	21101615	25000210	25000400	25000500	25000600	25100630	28000400		
		TOPSOIL	SEEDING	NITROGEN	PHOSPHORUS	POTASSIUM	EROSION	PERIMETER	TEMPORARY	ABOVE
LOC	CATION	F & P 4	CL 2A	FERT NUTR	FERT NUTR	FERT NUTR	CONTR	EROS BAR	DITCH	GRADE
							BLANKET		CHECKS	INLET
										FILTERS
ROAD	STATION	SQ YD	ACRE	POUND	POUND	POUND	SQ YD	FOOT	FOOT	EACH
U.S. ROUTE 30	132+00 - 147+00	987	0, 2	18	18	18	987	902		
(LINCOLN HWY.)	147+00 - 162+00	683	0.14	13	13	13	683	413		5
	179+50 - 194+50	3164	0.65	59	59	59	3164 .	544	151	3
	SUBTOTAL	4834	1	90	90	90	4834	1859	151	8
MARLEY RD	MARLEY RD. (S)									
	MARLEY RD. (N)									
	SUBTOTAL	0	0	0	0	0	0	0	0	0
TOTAL		4834	1	90	90	90	4834	1859	151	

FILE	E NAME =	USER NAME =	DESIGNED -	REVISED -			SCHEDULE OF QUA	NTITIES		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			DRAWN -	REVISED -	STATE OF ILLINOIS					353	13-I	WILL	67	6
- 1		PLOT SCALE =	CHECKED ~	REVISED -	DEPARTMENT OF TRANSPORTATION	****						CONTRA	CT NO. 6	0152
L		PLOT DATE =	DATE -	REVISED -		SCALE: NTS	SHEET NO. 1 OF 3 SHEETS	STA.	TO STA.		ILLINOIS FEI	D. AID PROJECT		

#### DRAINAGE & UTILITY SCHEDULE

######################################		20800150	50105220	542D0220	54213681	54247170	550A0050	550A0070	550A0160	55039700	55100700	60221100	60236825	60255500	60250500	60265700	60500040	X0322936	X0323651	Z0018500
		TRENCH	PIPE	P CUL	PRC FLAR	GRATING-C	STORM SEW	STORM SEW	STORM SEW	SS	STORM	MAN TA 5	INLETS TA	MAN	CB ADJ	VV ADJUST	REMOV	REM EX	REM &	DRAINAGE
LO	CATION	BACKFILL	CULVERT	CL D 1 15	END SEC 36	FL END S 36	CL A 1 12	CL A 1 15	CL A 1 36	CLEANED	SEWER	DIA T1F CL	T11V F&G	ADJUST	NEW T1F CL		MANHOLES	FLAR	REIN EX	STR
			REMOV								REM 15							END SEC	LT UNIT	CLEANED
ROAD	STATION	CU YD	FOOT	FOOT	EACH	EACH	FOOT	FOOT	FOOT	FOOT	FOOT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
U.S. ROUTE 30	132+00 - 147+00													1						
(LINCOLN HWY.)	147+00 - 162+00	1					24	27		214	22		1	2		1			1	4
	179+50 - 194+50	54	134	67	1	1		67	14		144	1		1	1		1	1		
	SUBTOTAL	55	134	67	1	1	24	94	14	214	166	1	1	4	1	1	1	1	1	4
MARLEY RD	MARLEY RD. (S)																			
	MARLEY RD. (N)																			
	SUBTOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL		55	134	67	1	1	24	94	14	214	166	1	1	4	1	1	1	1	1	4

#### PAVEMENT MARKING & SIGNING SCHEDULE

						LINEIT INAMA								
		70300100	72000100	72000200	72400100	72400310	73000100	78000100	78000200	78000400	78000600	78000650	78100100	78300100
		SHORT	SIGN	SIGN	REMOV	REMOV	WOOD	THPL	THPL	THPL	THPL	THPL	RAISED	PAVT
LO	CATION	-TERM	PANEL	PANEL	SIN PAN	SIGN	SIN	PVT MK	PVT MK	PVT MK	PVT MK	PVT MK	REFL PAVT	MARKING
		PAVT	T1	T2	ASSY TA	PANEL T1	SUPPORT	LTR & SYM	LINE 4	LINE 6	LINE 12	LINE 24	MKR	REMOVAL
		MKING												
ROAD	STATION	FOOT	SQ FT	SQ FT	EACH	SQ FT	FOOT	SQ FT	FOOT	FOOT	FOOT	FOOT	EACH	SQ FT
.S. ROUTE 30	132+00 - 147+00	199	9				16	36. 4	5115	149	90		52	2170
LINCOLN HWY.)	147+00 - 162+00	373	9		1	9	16	202.8	7165	1110	111	166	86	3241
	179+50 - 194+50	166	43.5	10	2		64	182	3379	780	175	47	40	1050
	SUBTOTAL	738	61.5	10	3	9	96	421.2	15659	2039	376	213	178	6461
MARLEY RD	MARLEY RD. (S)	6		10			15	41.6	88	44				0
	MARLEY RD. (N)	21						36.4	640	50				262
	SUBTOTAL	27	0.0	10	0	0	15	78.0	728	94	0	0	0	262
TOTAL		765	61.5	20	3	9	111	499.2	16387	2133	376	213	178	6723

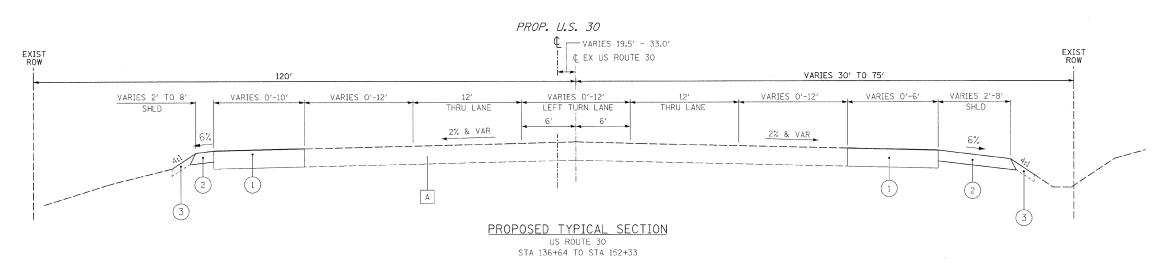
FILE NAME =	USER NAME =	DESIGNED -	REVISED -			SCHEDULE OF QUANTITIES		F.A.P.	SECTION	COUNTY TOTAL SHEETS
	4.	DRAWN -	REVISED -	STATE OF ILLINOIS		CONEDUCE OF GOARTHEE		353	13-I	WILL 67
	PLOT SCALE =	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION					***	CONTRACT NO. 601
	PLOT DATE =	DATE -	REVISED -		SCALE: NTS	SHEET NO. 2 OF 3 SHEETS STA.	TO STA.		ILLINOIS FED. A	ID PROJECT

#### U.S. 30 EARTHWORK SCHEDULE

A SHRINKAGE FACTOR OF 15% WAS USED FOR EARTH EXCAVATION ADJUSTMENT

LOCA	TION	EARTH EXCAVATION	REM & DISP UNS MATL	EMBANKMENT	EMBANKMENT (ADJ. FOR SHRINKAGE)	BALANCE WASTE (+ OR SHORTAGE (-)
STA T	O STA	CU YD	CU YD	CU YD	CU YD	CU YD
ÜS	30	1 00 10				
13600	13700	9	0	0	7	7
13700	13800	18	0	O.	15	15
13800	13900	20	Ö	0	17	17
13900	14000	24	Ö	Ö	20	20
14000	14100	29	2	1	25	23
14100	14200	16	21	27	14	-14
14200	14300	6	45	54	5	-50
14300	14400	6	36	36	5	-31
14400	14500	3	23	18	2	-15
14500	14600	4	22	15	4	-12
14600	14649	1 1	4	2	1 1	-2
14649	14700	† to	0	- 6	0	0
14700	14800	9	17	<del>                                     </del>	8	7
14800	14900	111	79	23	9	-14
14900	14934	1	21	8	1	-17
14934	15233	0	0	0	Ö	0
15233	15300	8	9	11	7	-4
15300	15400	26	17	20	22	2
15400	15500	24	18	14	21	<u> </u>
15500	15600	18	31	21	16	-5
15600	15700	20	26	19	17	-2
15700	15736	4	4	3	3	0
15736	15795	+ - 5	Ö	7	0	0
15795	15800	1	0	<del>                                     </del>	0	0
15800	15900	22	2	1 1	19	18
15900	16000	17	6	0	19	14
16000	16052	4	0	1 0	3	3
16052	17975	1 0	ŏ	<u> </u>	0	<u></u>
17975	18000	1 2	2	1	2	0
18000	18100	16	15	8	14	6
18100	18200	134	84	48	113	66
18200	18300	222	187	89		100
18300	18400	153	197	115	189	
18400	18500	115	177	82	130	16 16
18500	18600	191	192	50	98	113
18600	18635	47	36	13	162 40	27
	10000		30		40	12
TOTALS =		1180	1268	679	1003	324

FILE NAME =	USER NAME =	DESIGNED -	REVISED -			SCHEDULE OF QUAN	UTITIES		F.A.P.	SECTION	COUNTY TOTAL SHEET
		DRAWN -	REVISED -	STATE OF ILLINOIS		CONTEDUCE OF GOAL	111111111111111111111111111111111111111		353	13-I	WILL 67 8
	PLOT SCALE =	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION							CONTRACT NO. 60152
	PLOT DATE =	DATE -	REVISED -		SCALE: NTS	SHEET NO. 3 OF 3 SHEETS	STA.	TO STA.		ILLINOIS FED. A	ID PROJECT

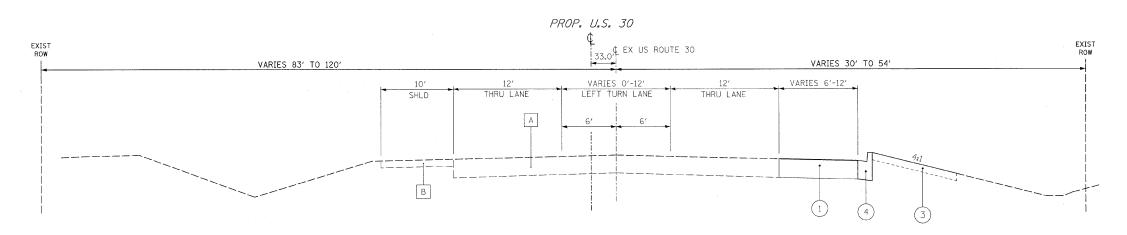


#### EXISTING LEGEND

- A HOT-MIX ASPHALT, 10" AND VARIES
- B AGGREGATE SHOULDERS
- C COMBINATION CONCRETE CURB AND GUTTER TYPE B-6.12

#### PROPOSED LEGEND

- (1) TEMPORARY PAVEMENT 10"
- 2) AGGREGATE SHOULDERS, TYPE B 6"
- (3) TOPSOIL FURNISH & PLACE, 4"
- COMBINATION CONCRETE CURB & CUTTER, TYPE B-6.12



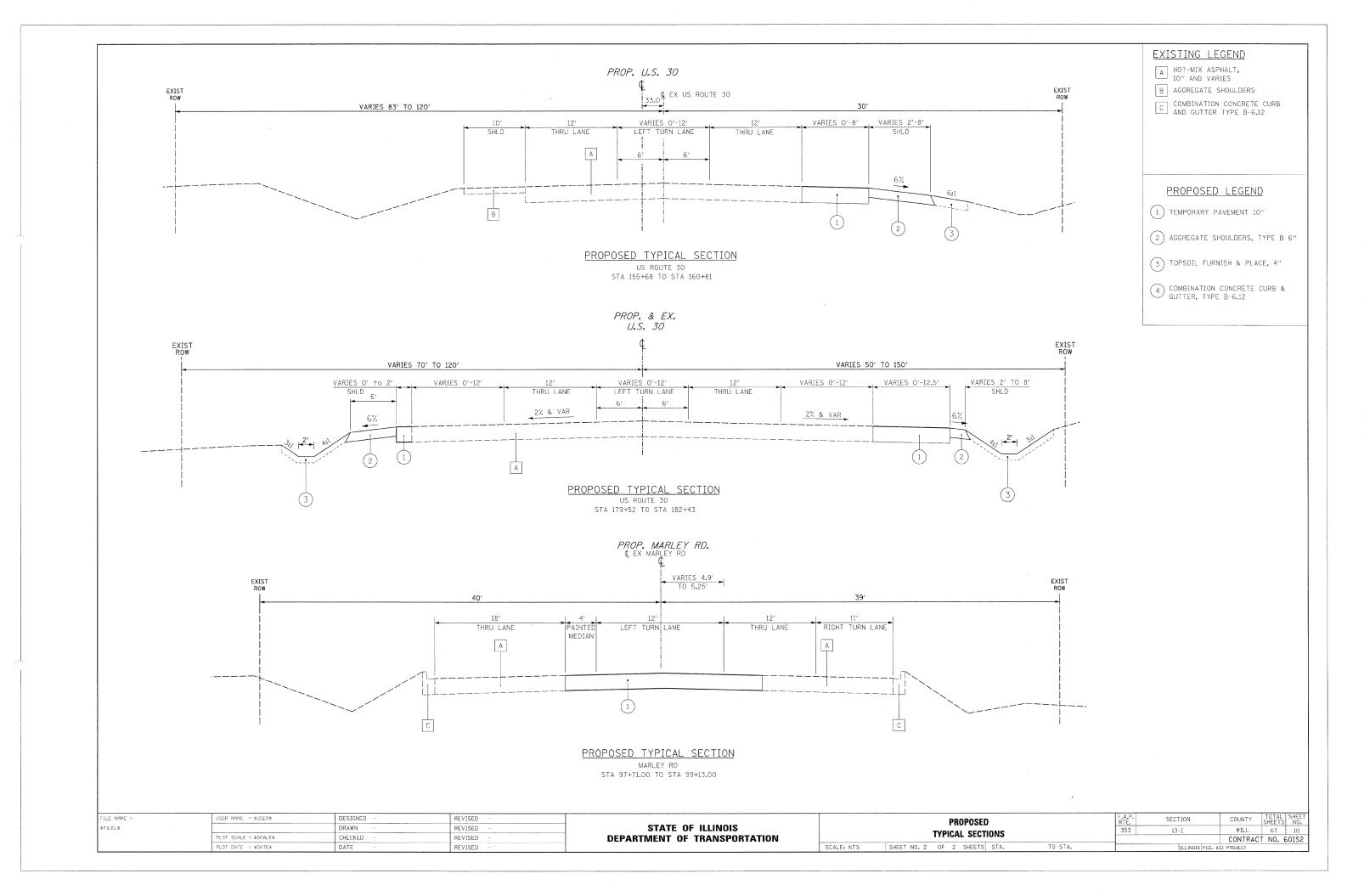
#### PROPOSED TYPICAL SECTION

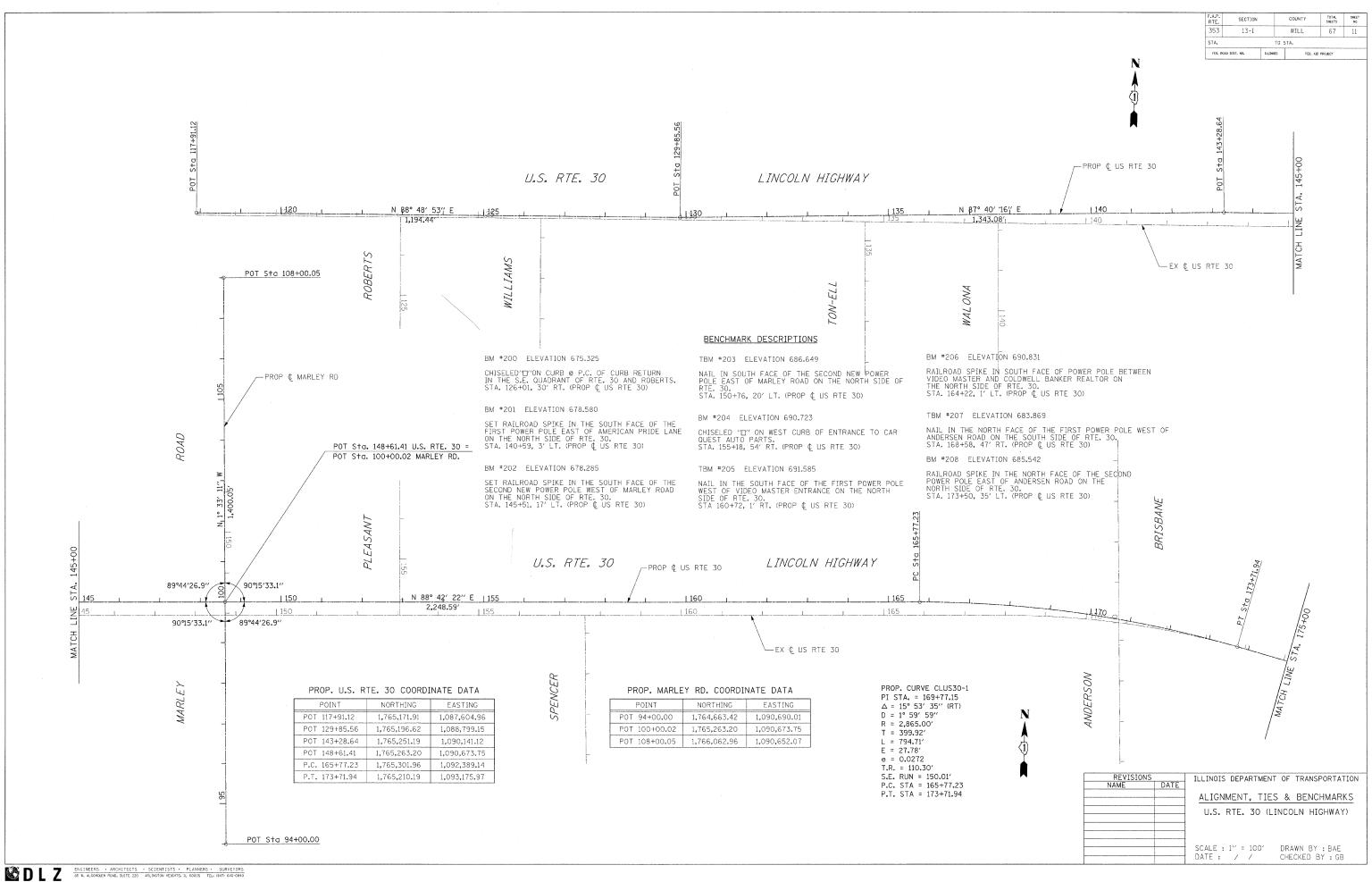
US ROUTE 30 STA 152+33 TO STA 155+68

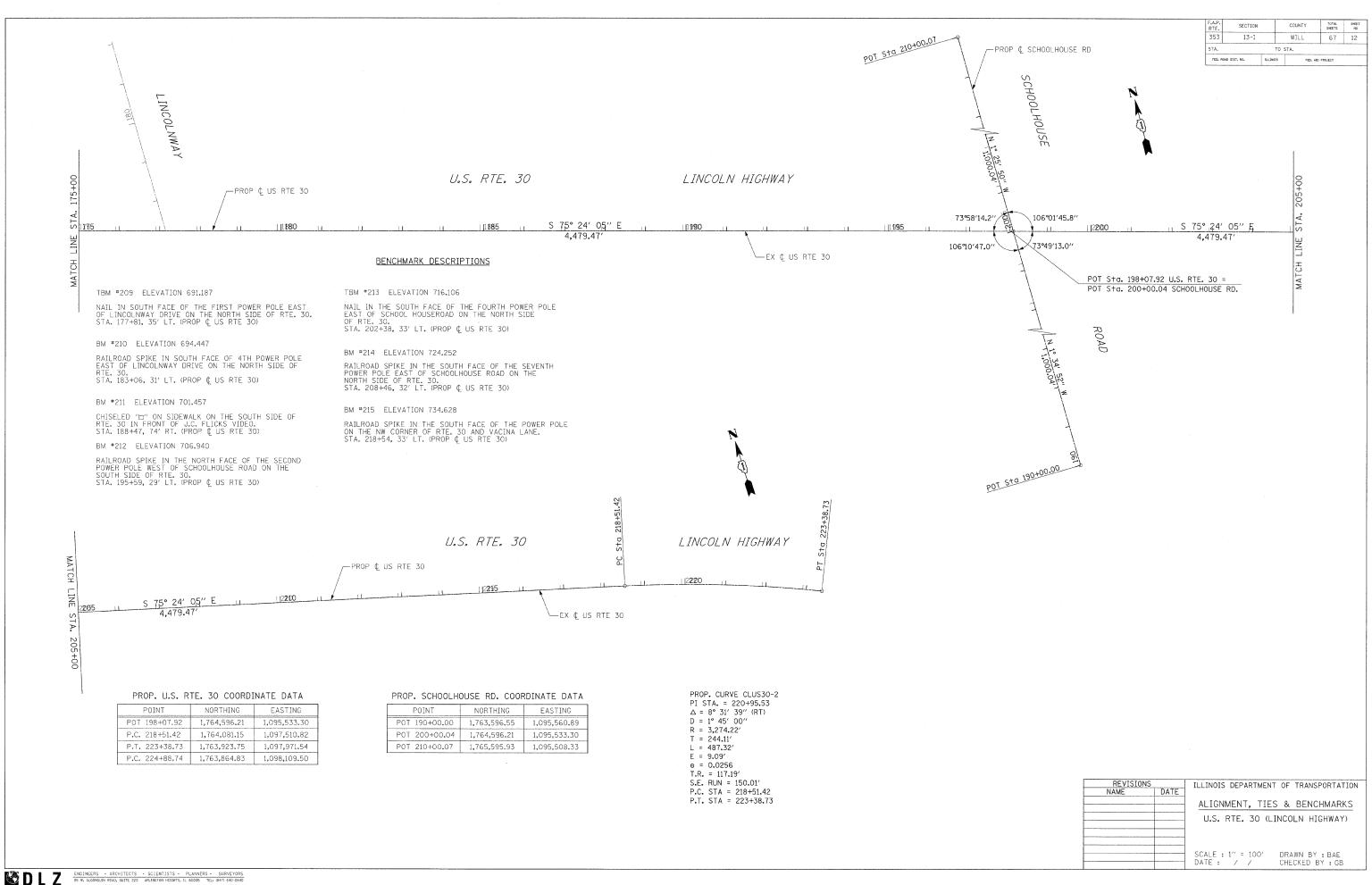
HOT-MIX ASPHALT MIXTURE REQUIREMENTS	
MIXTURE TYPE	AIR VOIDS @ Ndes
TEMPORARY ROAD (PAVEMENT)	
HMA SURFACE COURSE, MIX "D", N50 (IL-9.5 mm); 1/2"	4% @ 50 Gyr.
TEMP. PAVEMENT (HMA BINDER IL-19 mm); 8 1/2 " (2 TO 3 LIFTS (2 1/4" MIN.))	4% @ 50 Gyr.
PATCHING	
CLASS D PATCH (HMA BINDER IL-19 mm)	4% @ 70 Gyr.
DRIVEWAY	
HMA SURFACE COURSE, MIX "C", N50 (IL-9.5 mm); 2"	4% @ 50 Gyr.
HMA BASE COURSE (HMA BINDER IL-19 mm); CE-8", PE-6"	4% @ 50 Gyr.

- THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SO YD/IN. FOR "PERCENT OF RAP" SEE DISTRICT ONE SPECIAL PROVISIONS
- THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 70-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG .64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS.

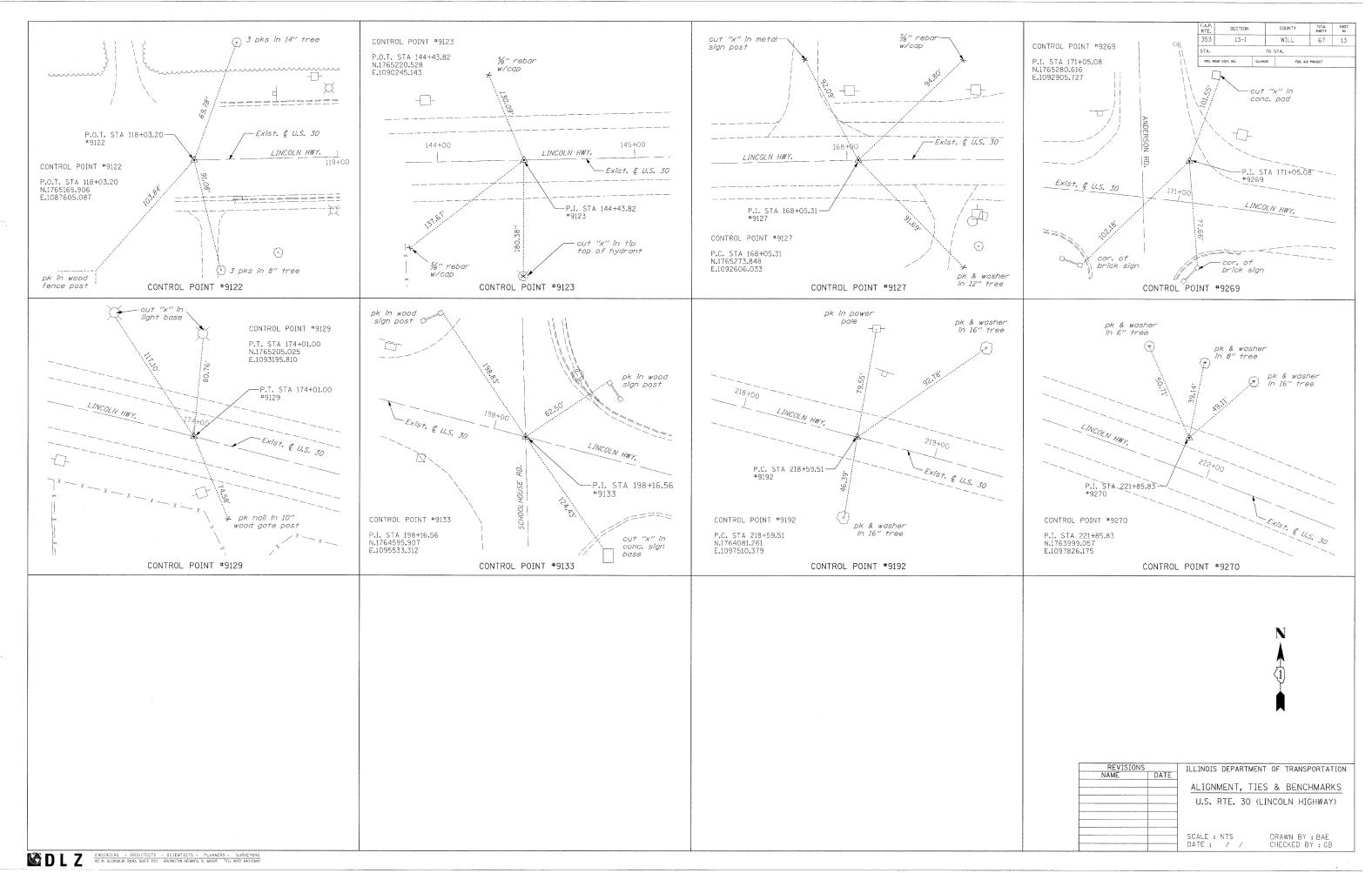
FILE NAME =	USER NAME = \$USER\$	DESIGNED -	REVISED -			PROPOSED		F.A.P. RTE.	SECTION	COUNTY TOTAL SHEET SHEETS NO.
\$FILEL\$		DRAWN -	REVISED -	STATE OF ILLINOIS		TYPICAL SECTIONS		353	13-I	WILL 67 9
	PLOT SCALE = \$SCALE\$	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION		TIFICAL SECTIONS				CONTRACT NO. 60152
	PLOT DATE = \$DATE\$	DATE -	REVISED -		SCALE: NTS	SHEET NO. 1 OF 2 SHEETS STA.	TO STA.		ILLINOIS FED	. AID PROJECT

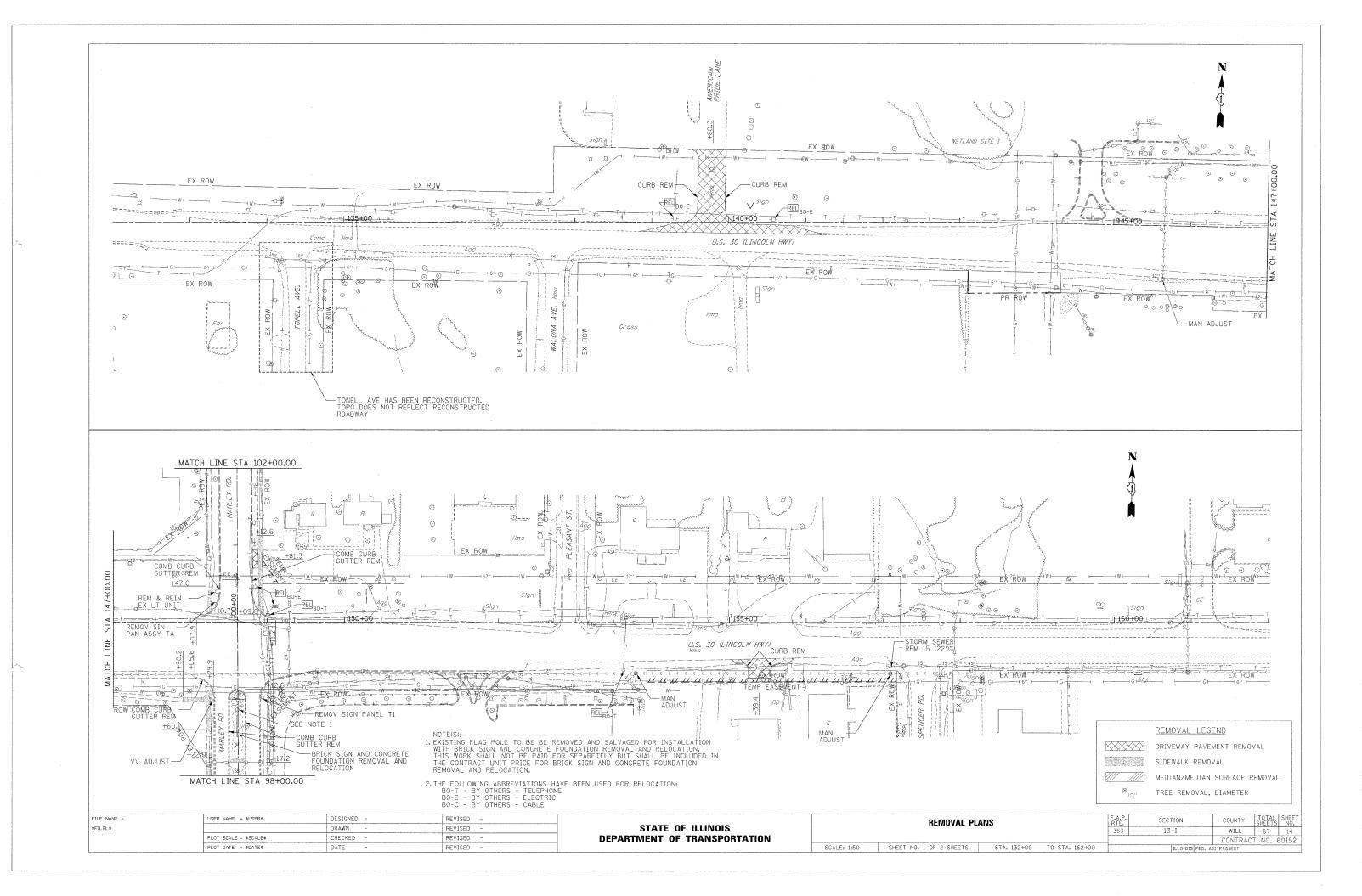


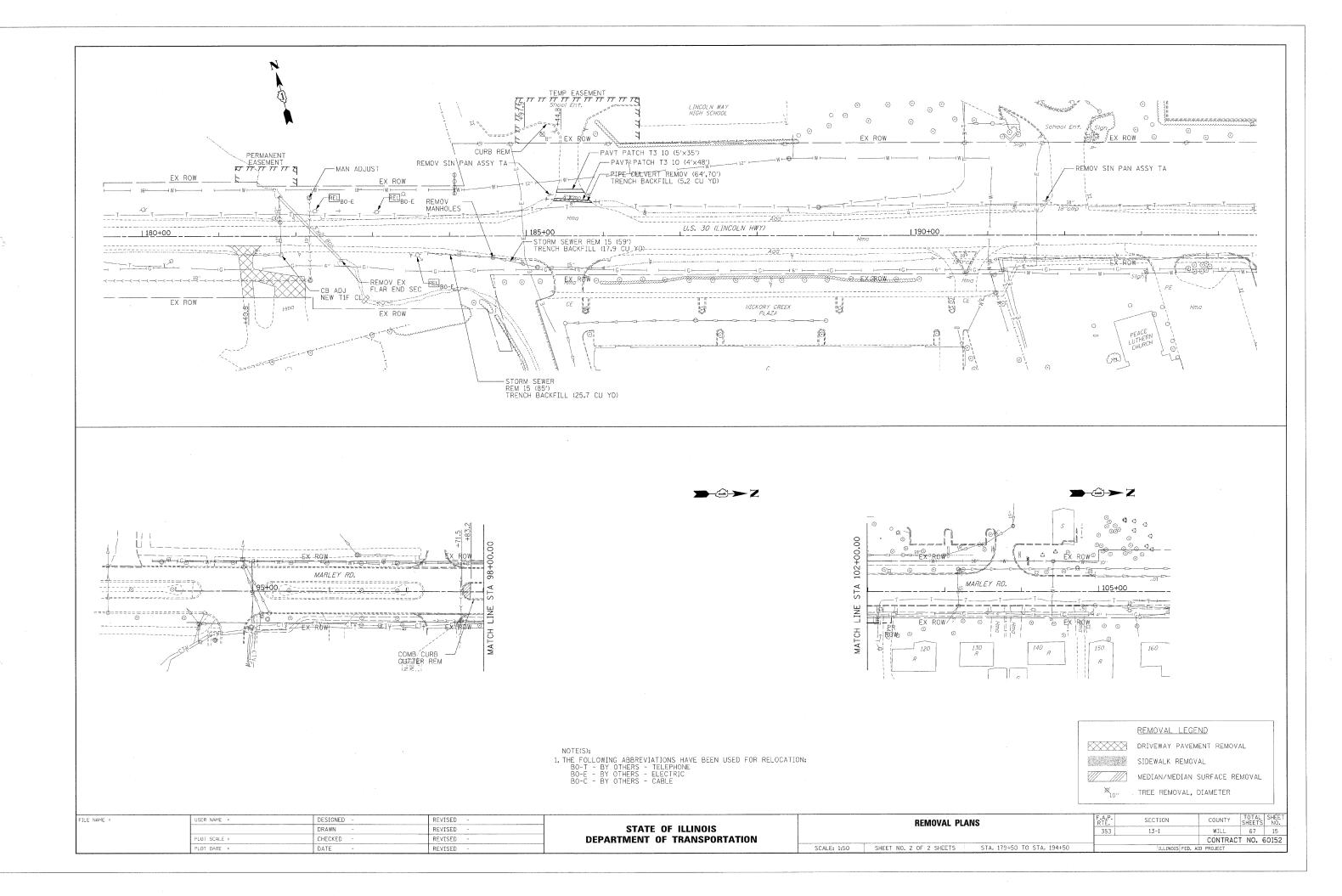


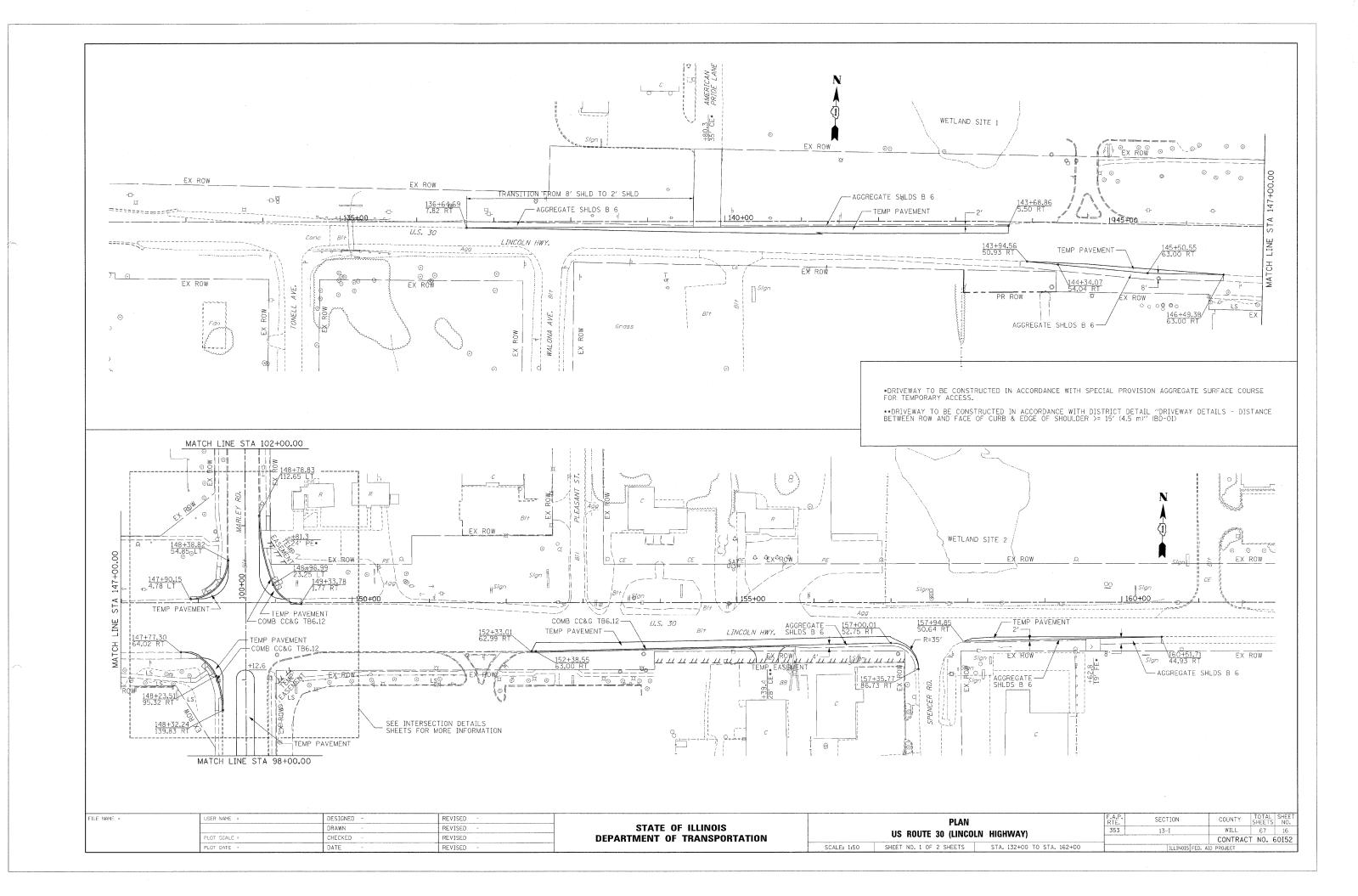


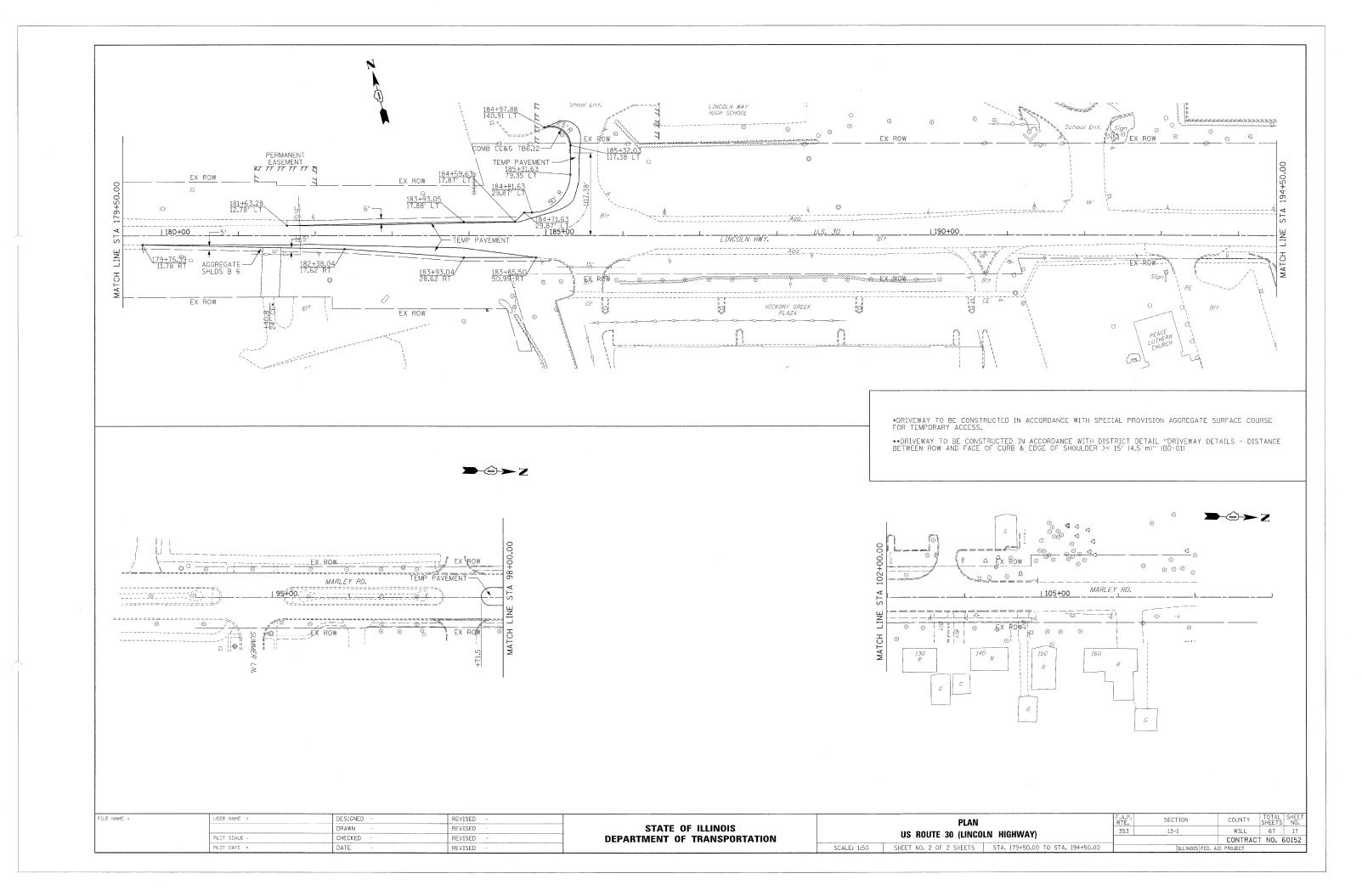
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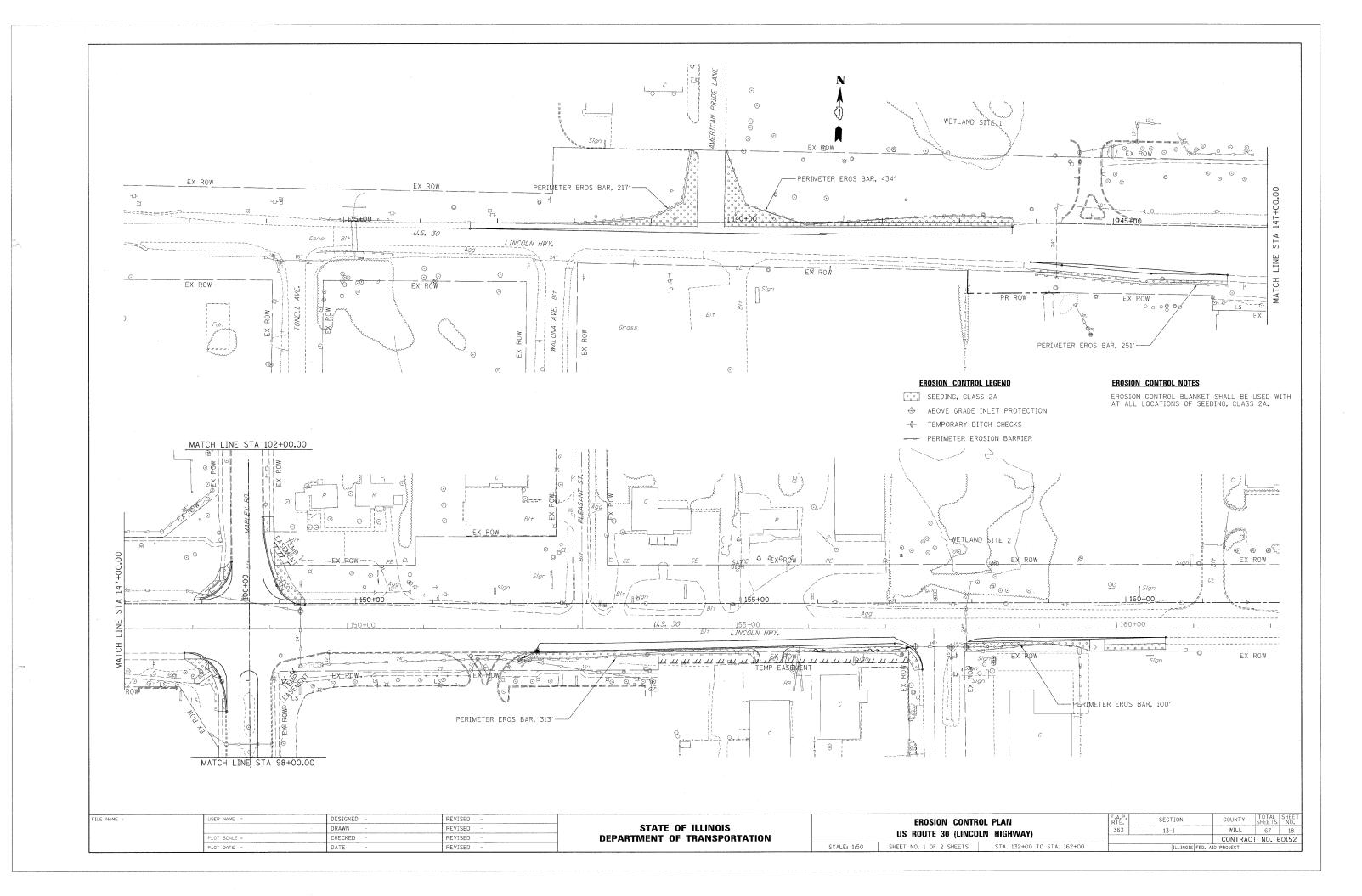


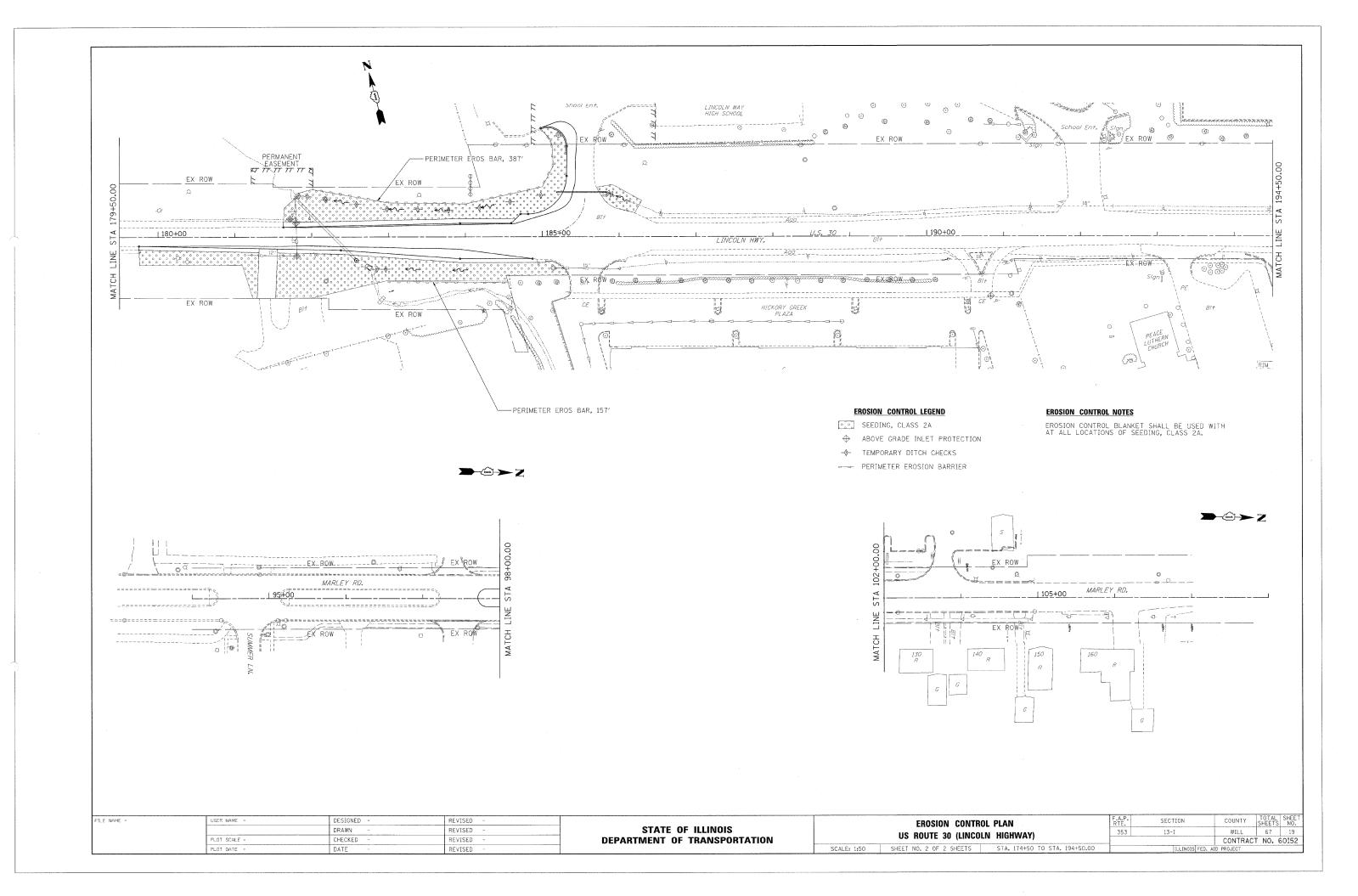


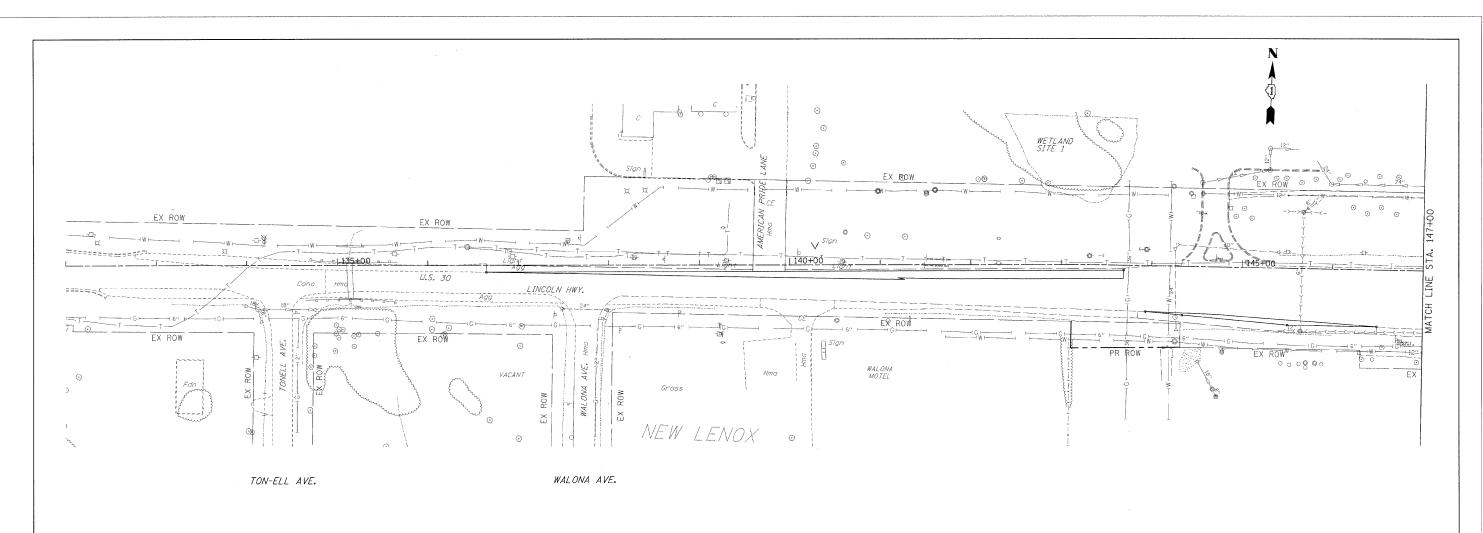






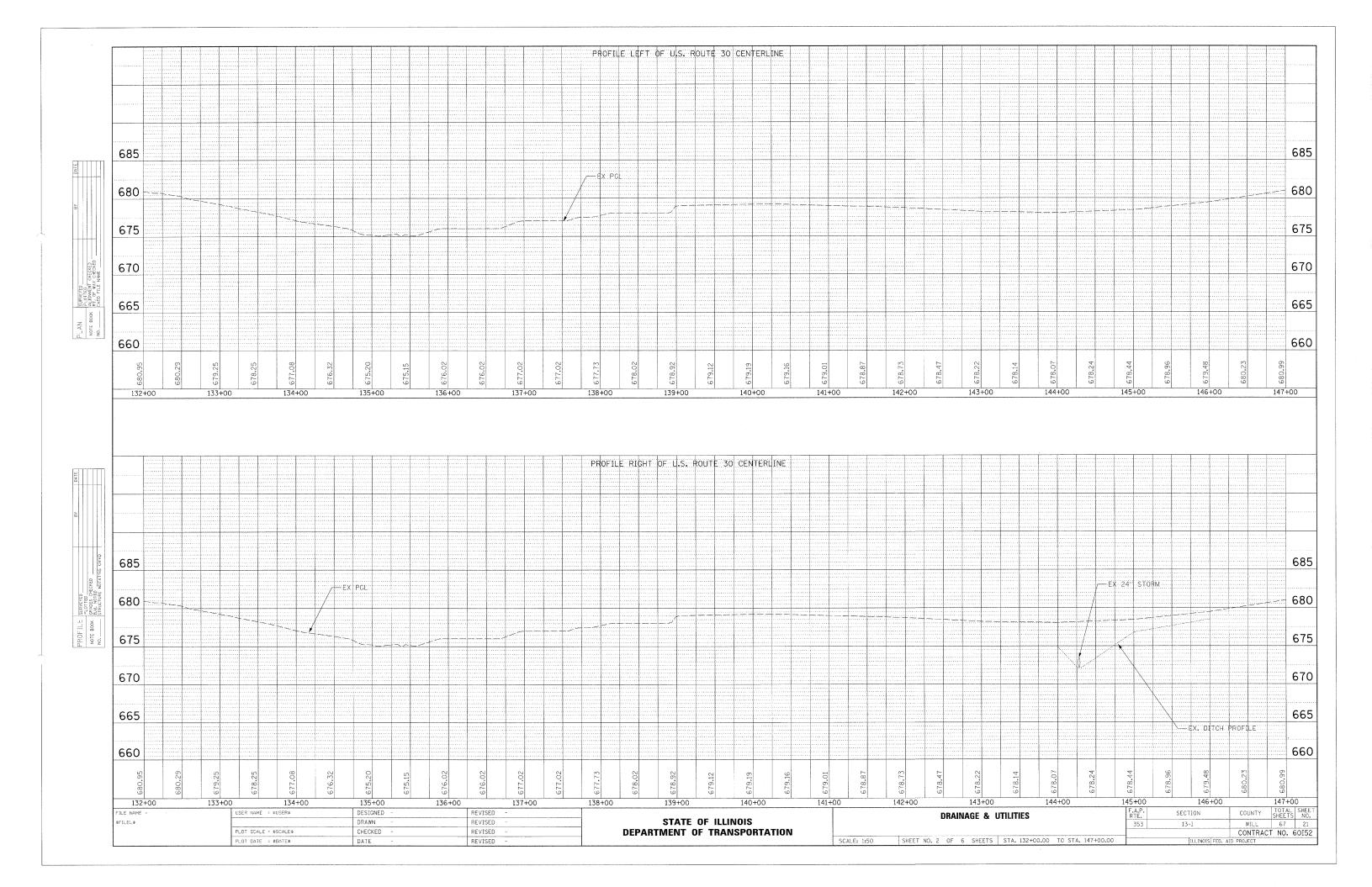


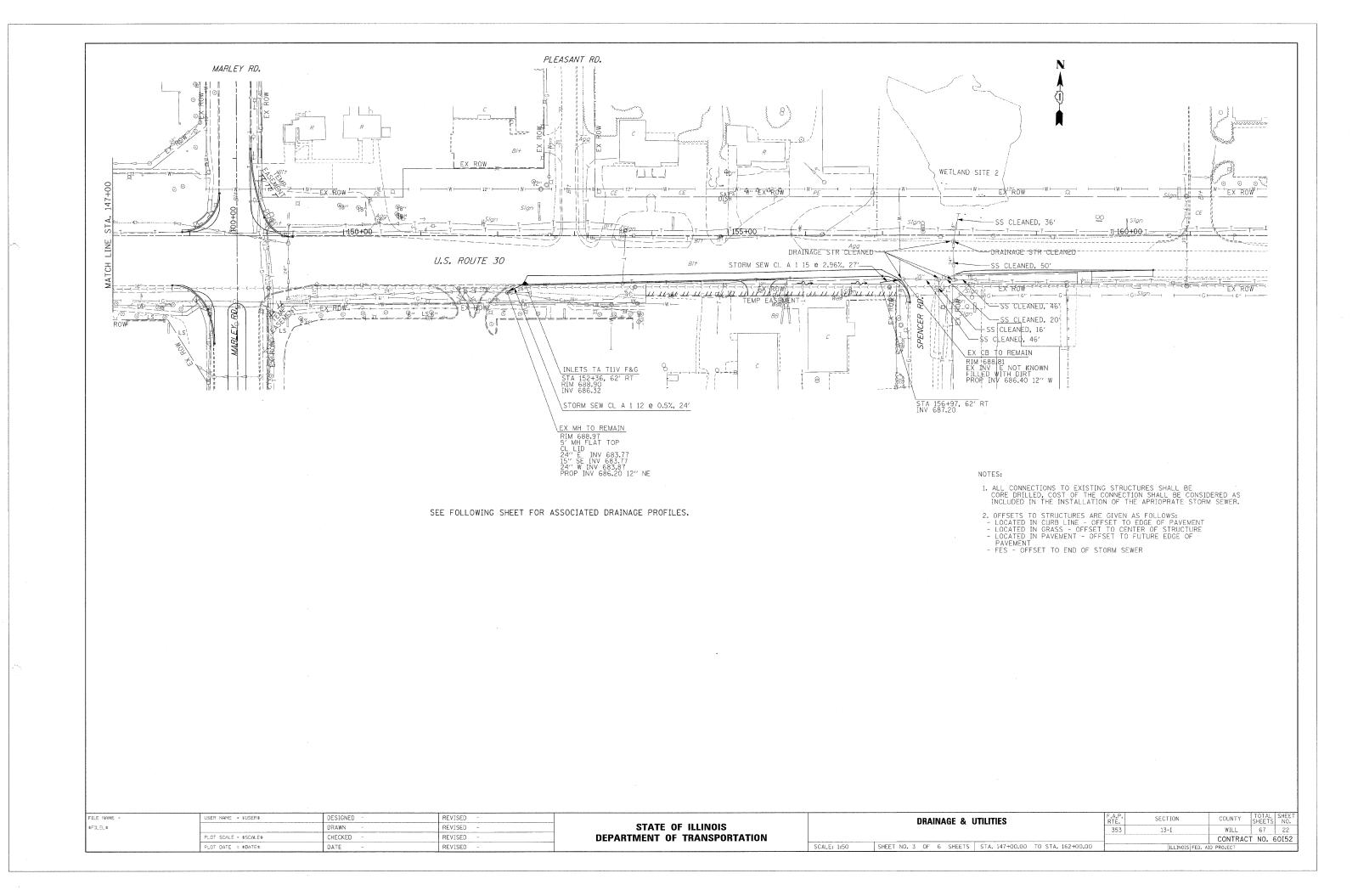


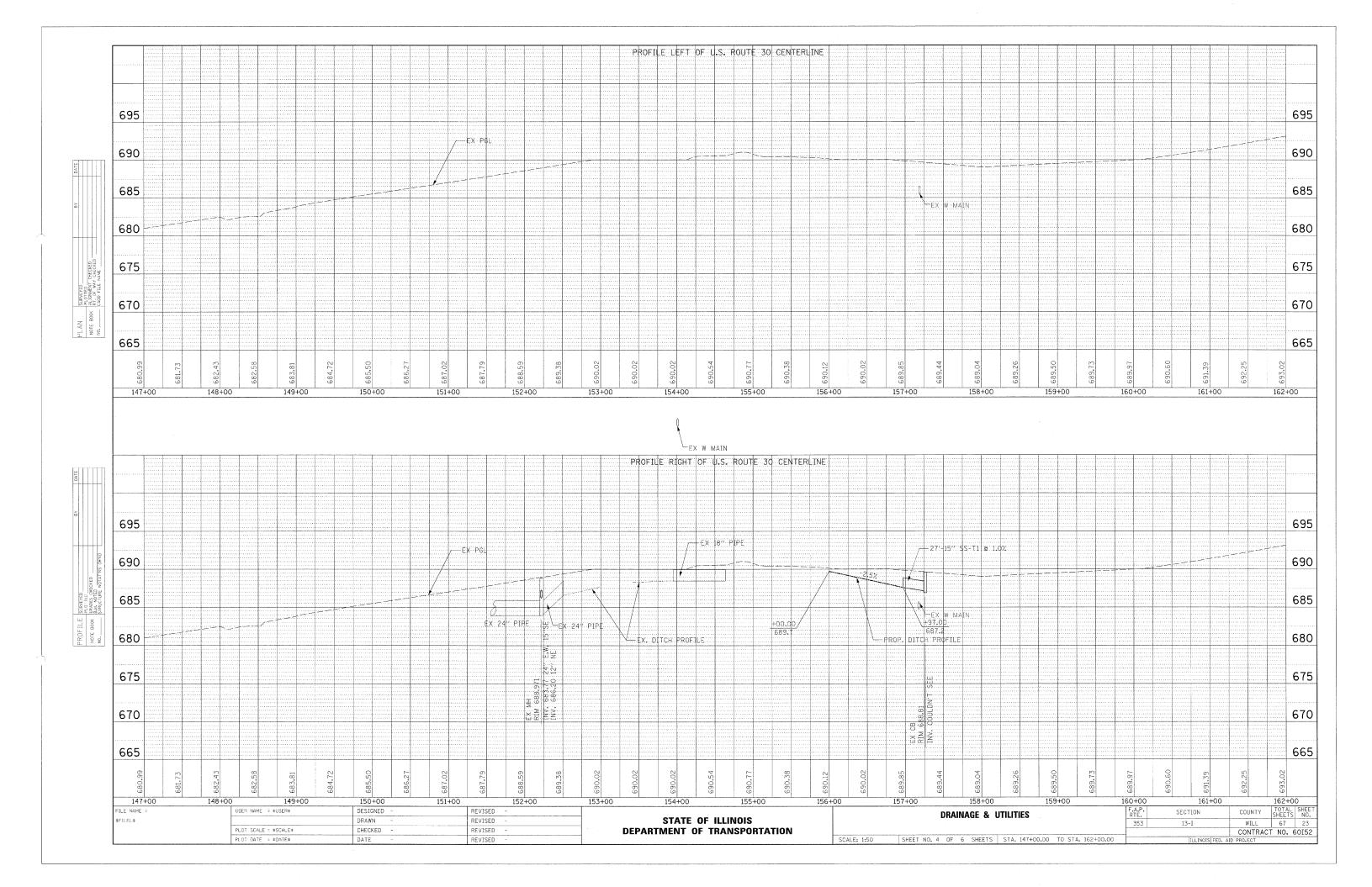


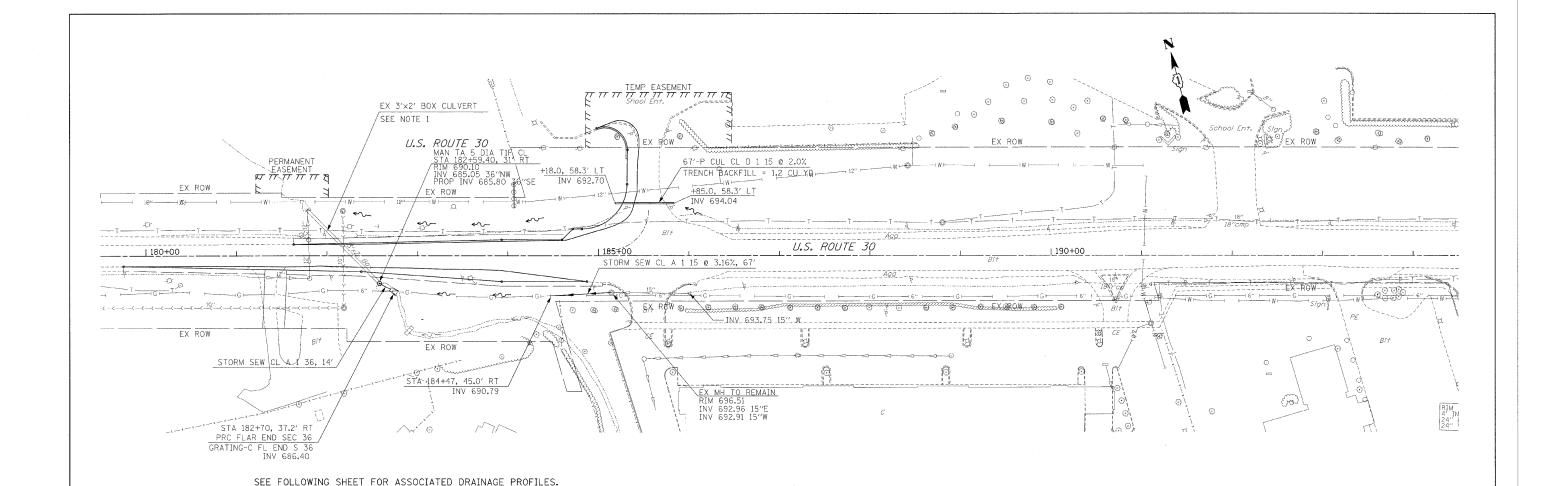
SEE FOLLOWING SHEET FOR ASSOCIATED DRAINAGE PROFILES.

F	FILE NAME =	USER NAME = \$USER\$	DESIGNED -	REVISED -			DRAINAGE & UTILITIES	F.A.P. RTE.	SECTION	COUNTY TOTAL SHEET SHEETS NO.
	#FILEL#		DRAWN -	REVISED ~	STATE OF ILLINOIS			353	13-I	WILL 67 20
		PLOT SCALE = #SCALE#	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION					CONTRACT NO. 60152
		PLOT DATE = \$DATE\$	DATE -	REVISED -		SCALE: 1:50	SHEET NO. 1 OF 6 SHEETS STA. 132+00.00 TO STA. 147+00.00		ILLINOIS FED. A	ID PROJECT







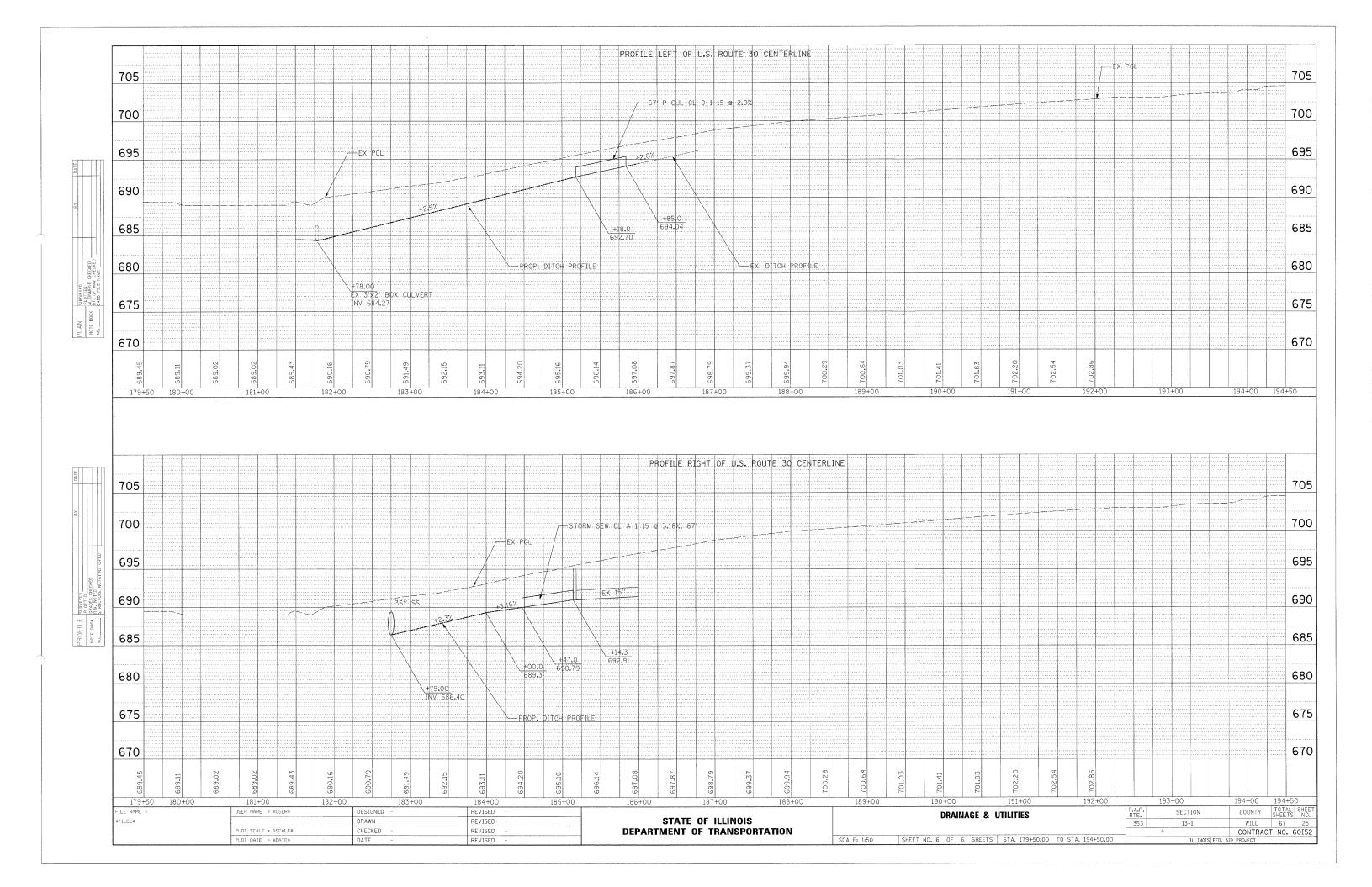


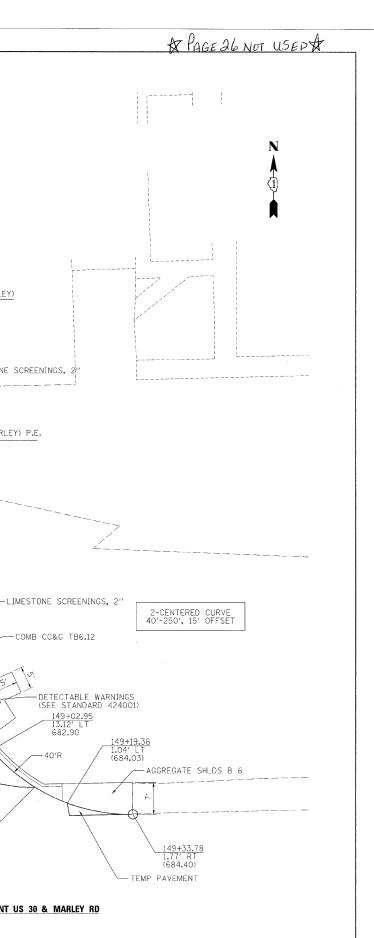
#### NOTES:

- 1. EXISTING 3'x2' BOX CULVERT WAS EXTENDED WITH 36" PIPE TO BE VERIFIED IN THE FIELD.
- 2. OFFSETS TO STRUCTURES ARE GIVEN AS FOLLOWS:

   LOCATED IN CURB LINE OFFSET TO EDGE OF PAVEMENT
   LOCATED IN GRASS OFFSET TO CENTER OF STRUCTURE
   LOCATED IN PAVEMENT OFFSET TO FUTURE EDGE OF
  PAVEMENT
   FES OFFSET TO END OF STORM SEWER
- 3. ALL CONNECTIONS TO EXISTING STRUCTURES SHALL BE CORE DRILLED, COST OF THE CONNECTION SHALL BE CONSIDERED AS INCLUDED IN THE INSTALLATION OF THE APRIOPRATE STORM SEWER.

FILE NAME =	USER NAME = \$USER\$	DESIGNED -	REVISED -		DRAINAGE & UTILITIES	F.A.P. SECTION	COUNTY TOTAL SHEET
\$FILEL\$		DRAWN -	REVISED -	STATE OF ILLINOIS	DIMINIOL & OTHER LEG	353 13-I	WILL 67 24
	PLOT SCALE = \$SCALE\$	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION			CONTRACT NO. 60152
	PLOT DATE ~ \$DATE\$	DATE -	REVISED -		SCALE: 1:50 SHEET NO. 5 OF 6 SHEETS STA. 179+50.00 TO STA. 194+50.00	ILLINOIS FED.	AID PROJECT





NORTHEAST QUADRANT US 30 & MARLEY RD

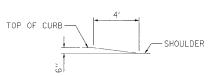
+12.60 (MARLEY)

LIMESTONE SCREENINGS, 2

+81.3 (MARLEY) P.E.

-FACE OF CURB -BACK OF CURB (SEE DETAIL) EDGE OF PAVEMENT -

**CURB TRANSITION INTO SHOULDER** 



**DETAIL OF CURB HEIGHT TRANSITION** 

148+78.83 112.65' LT (680.52)

148+78.83 112.65′ LT 680.93

148+78.83 112.65' LT 681.35

148+89.39 44.88' LT 681.77

148+96.99 23.25' LT 682.25

SCALE: 1 : 10

(680,88)-

(680.35)-

(681.90)-

TEMP PAVEMENT-

250' R

(682.78)—

(683,25)—

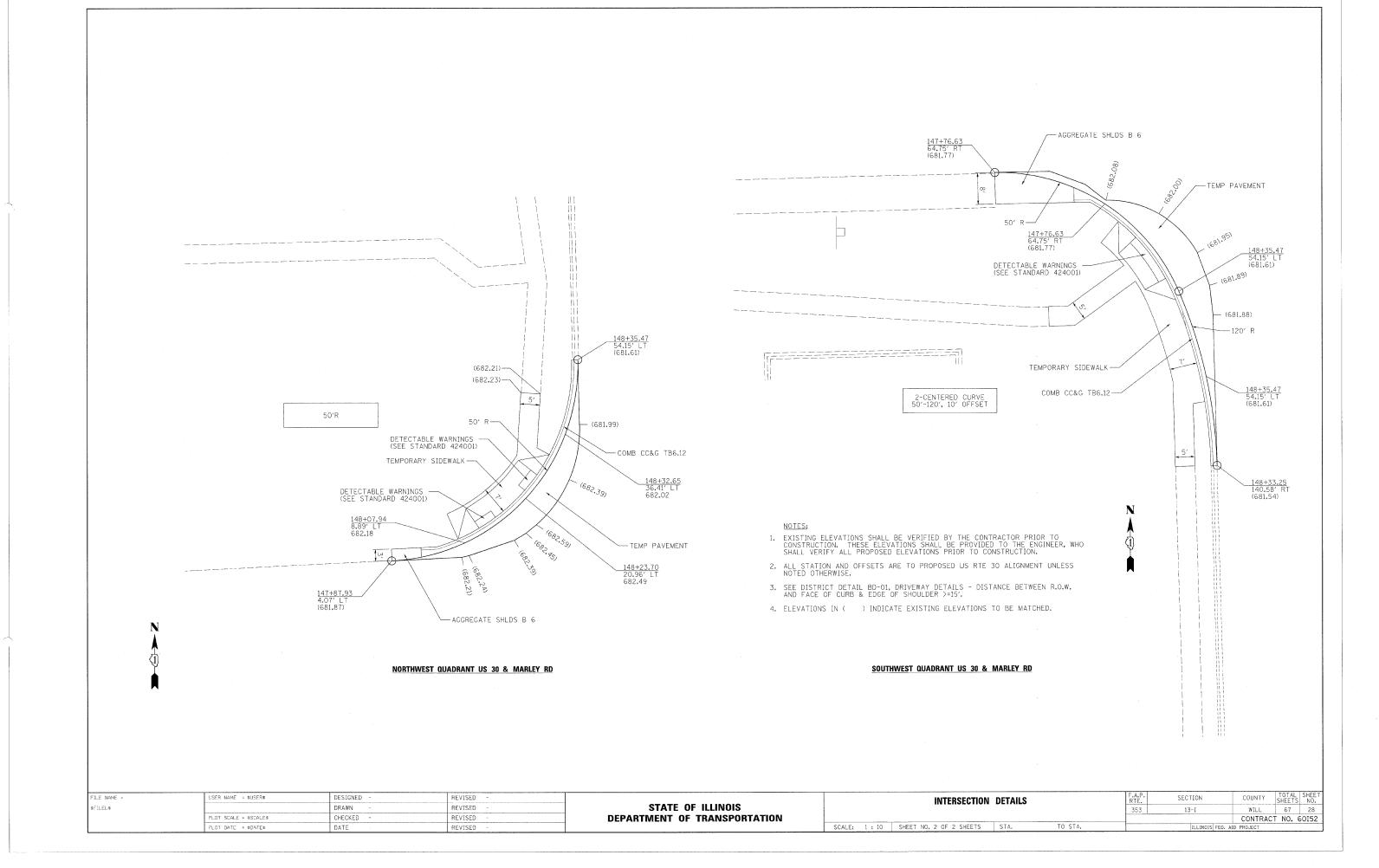
149+12.24 4.72' LT (683.59)

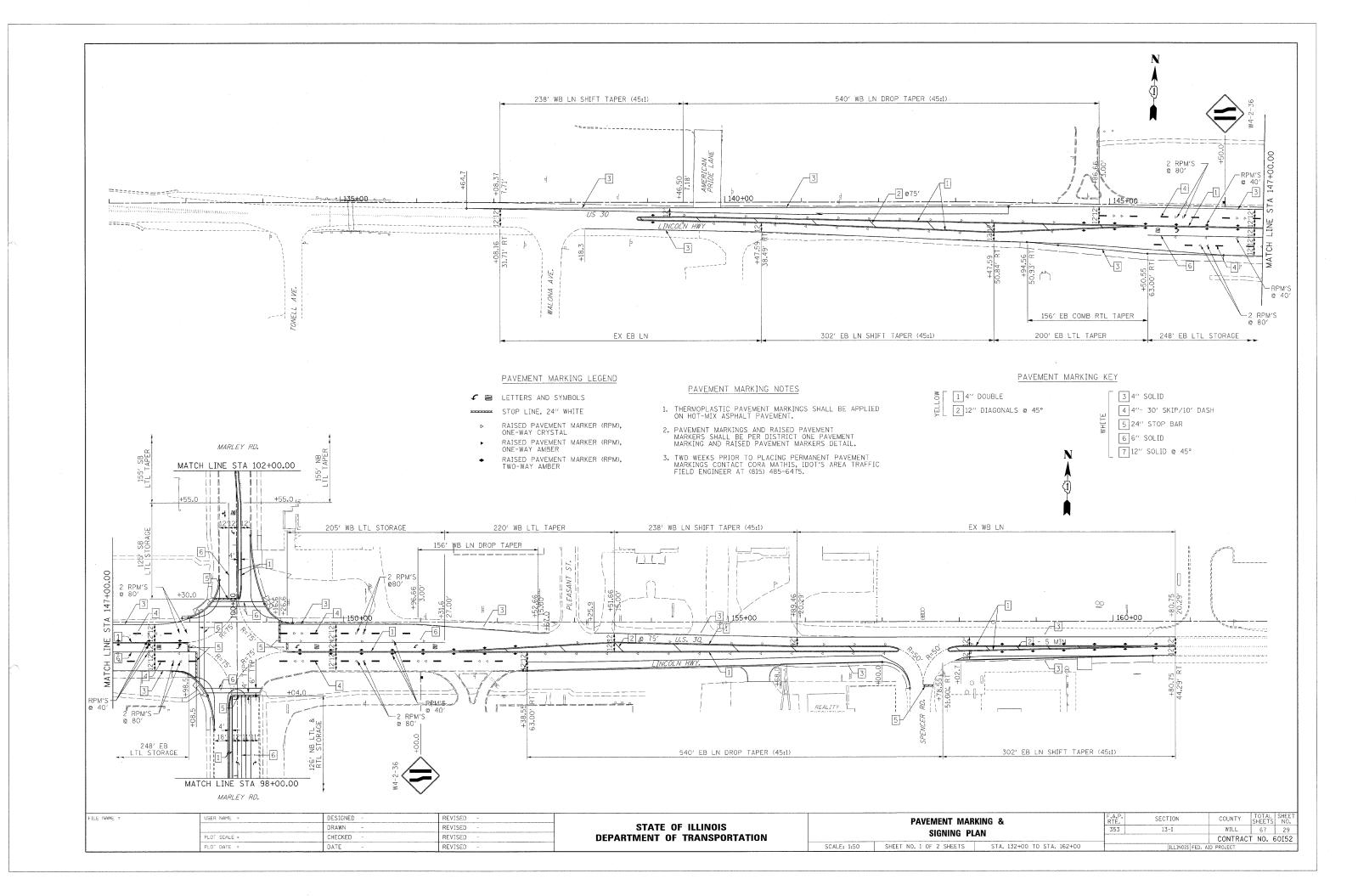
- 1. EXISTING ELEVATIONS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. THESE ELEVATIONS SHALL BE PROVIDED TO THE ENGINEER, WHO SHALL VERIFY ALL PROPOSED ELEVATIONS PRIOR TO CONSTRUCTION.
- 2. ALL STATION AND OFFSETS ARE TO PROPOSED US RTE 30 ALIGNMENT UNLESS NOTED OTHERWISE.
- 3. ELEVATIONS IN ( ) INDICATE EXISTING ELEVATIONS TO BE MATCHED.

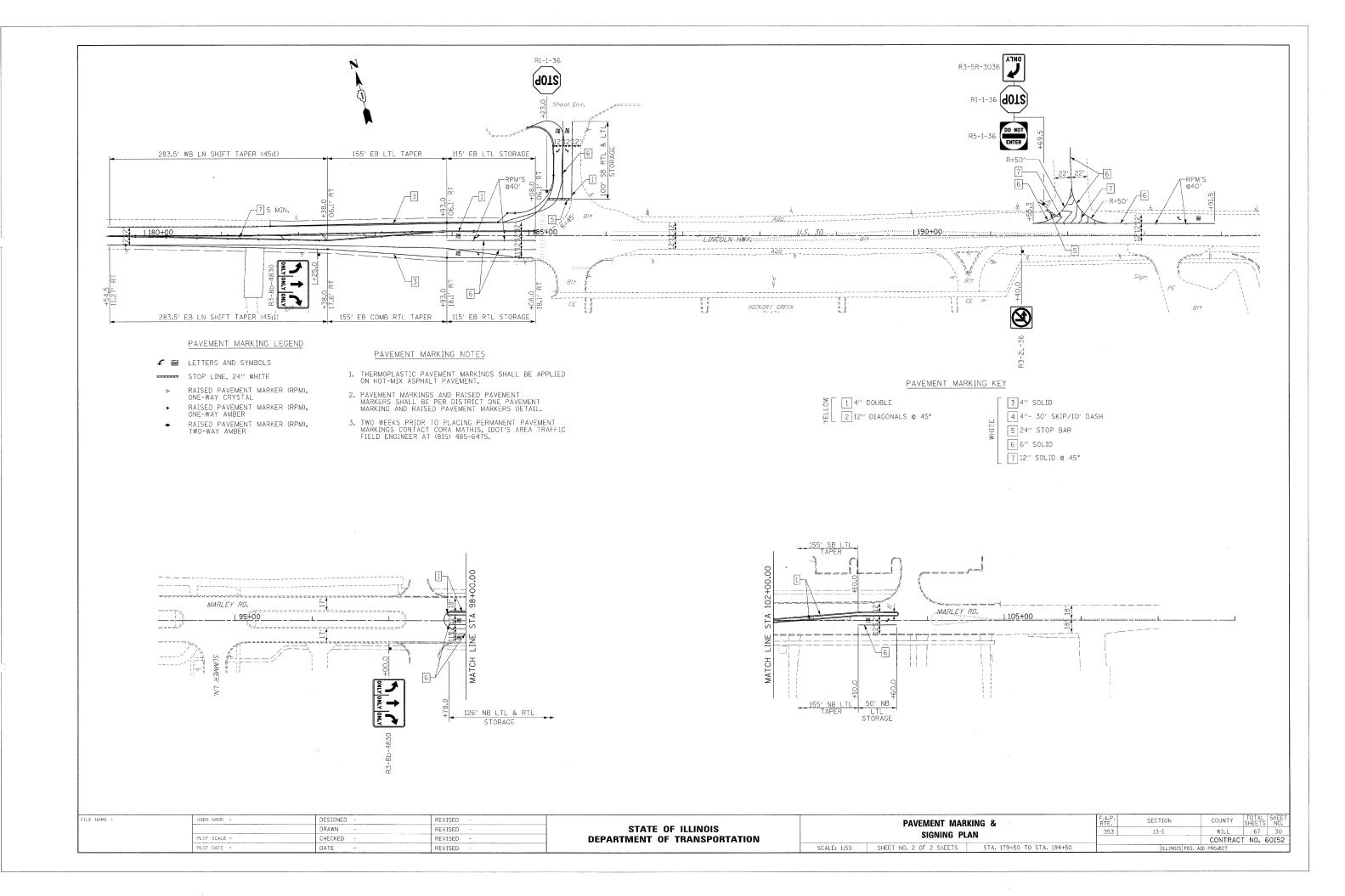
FILE NAME =	USER NAME = \$USER\$	DESIGNED -	REVISED -	
\$FILEL\$		DRAWN -	REVISED -	
	PLOT SCALE = #SCALE#	CHECKED -	REVISED -	
	PLOT DATE = \$DATE\$	DATE -	REVISED -	

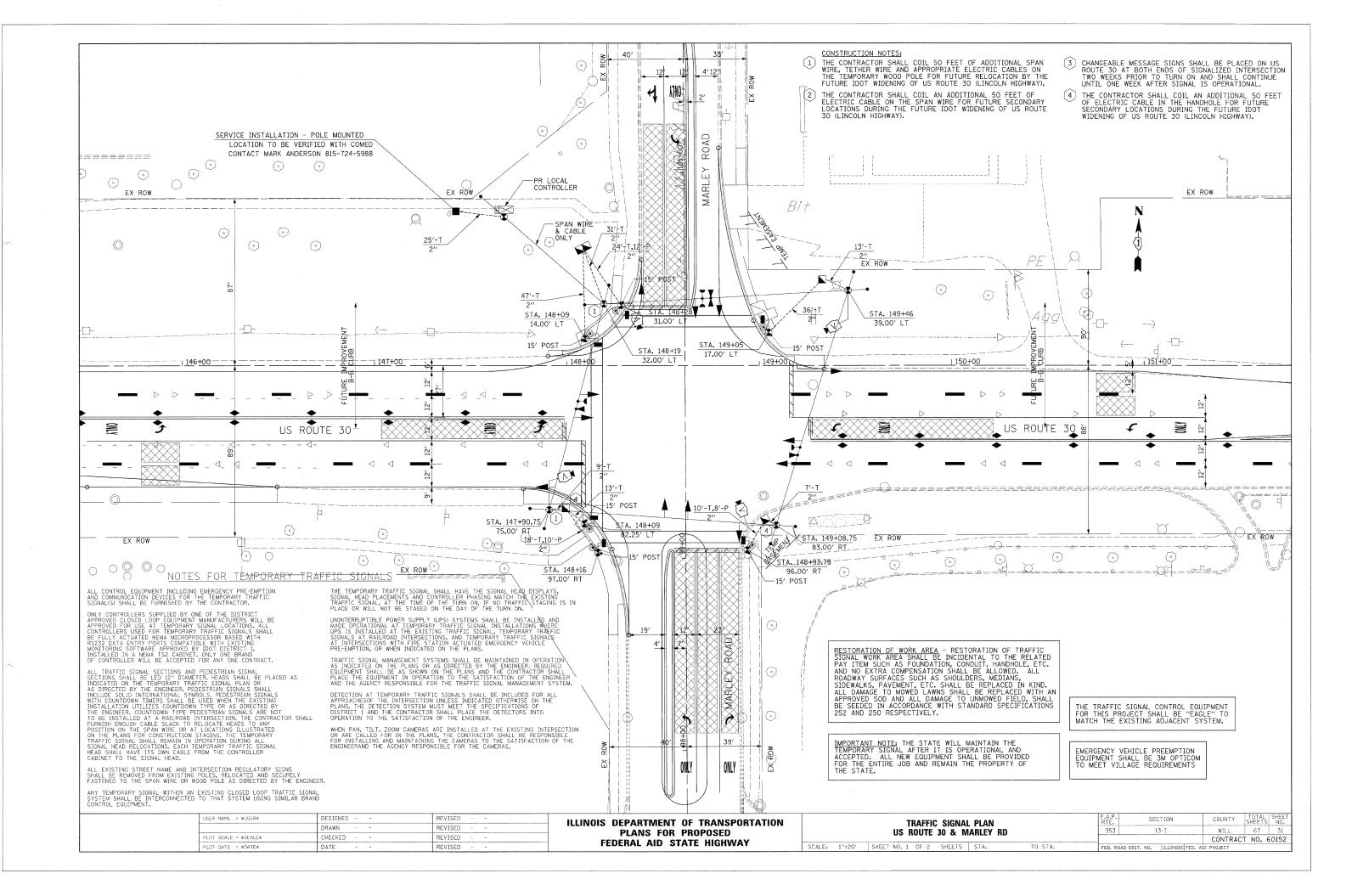
STATE	E OF	ILLINOIS
DEPARTMENT	0F	TRANSPORTATION

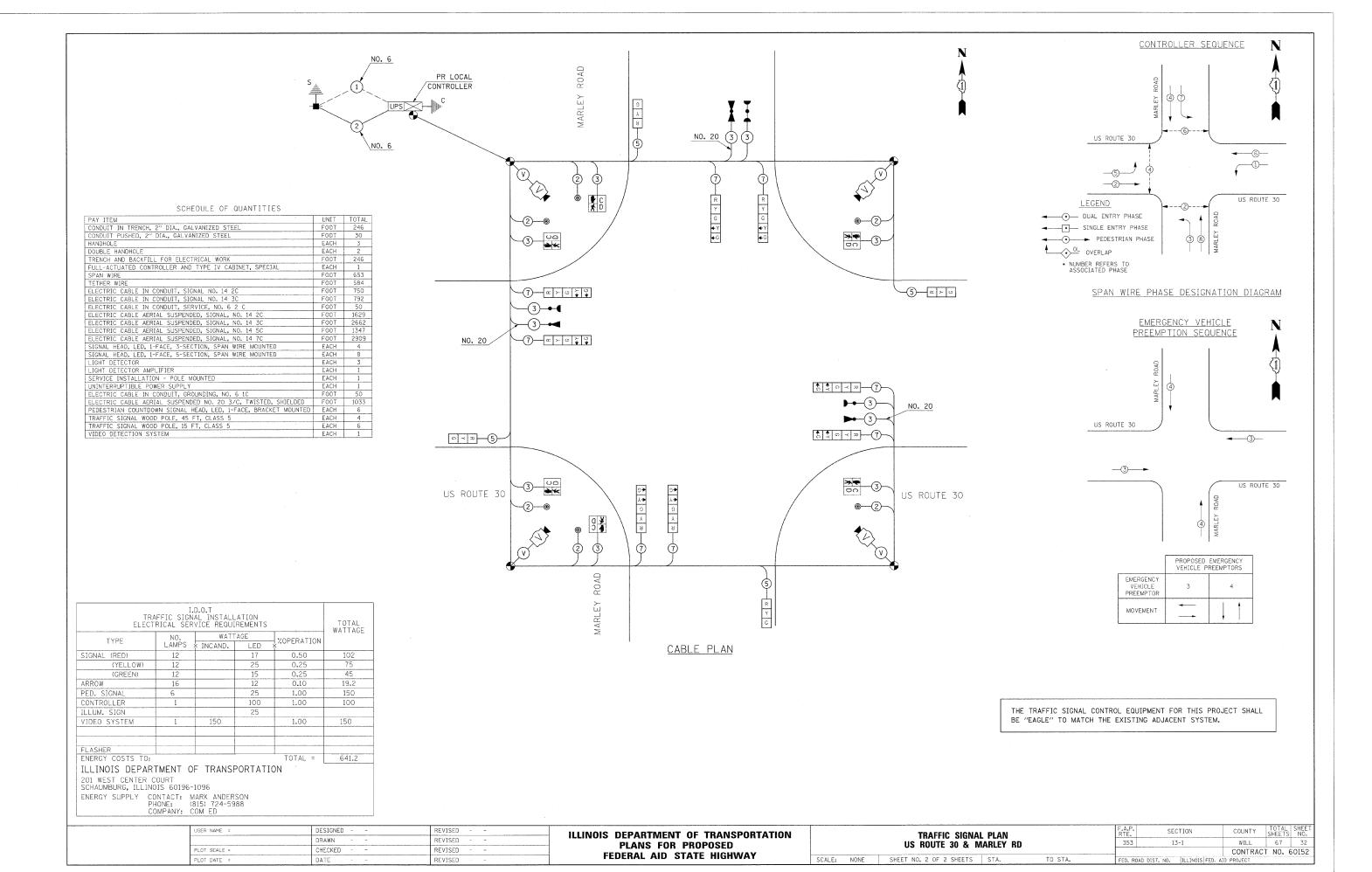
	INTERS	ECTION	DETAILS		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
					353	13-I	WILL	67	27
		Parker skins a seminar in an Manker motor	0 (g. 100 100 1 100 100 100 100 100 100 100				CONTRACT	NO.	60152
SHEET	NO. 1 OF 2	SHEETS	STA.	TO STA.		ILLINOIS FED. AI	D PROJECT		

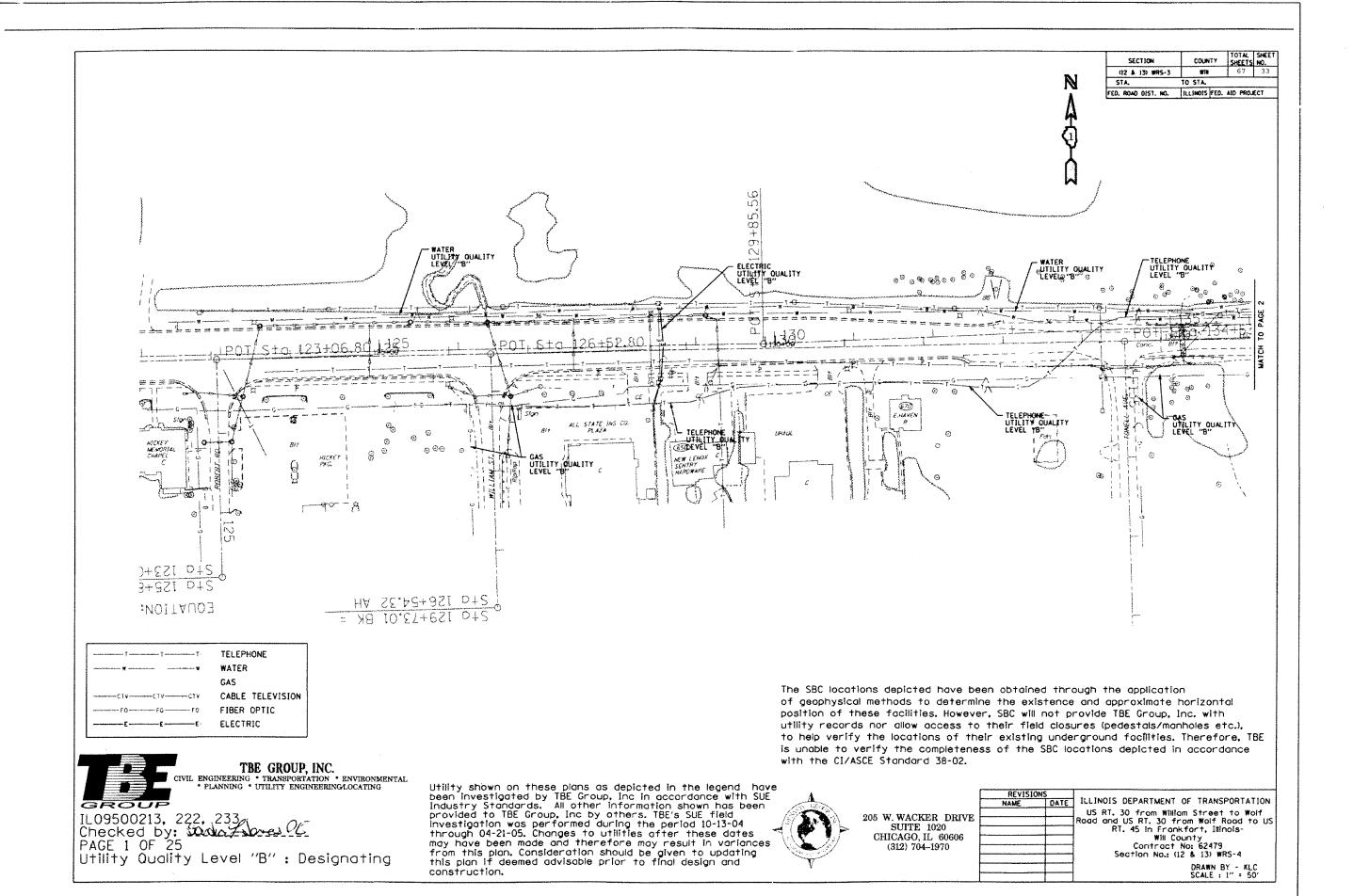




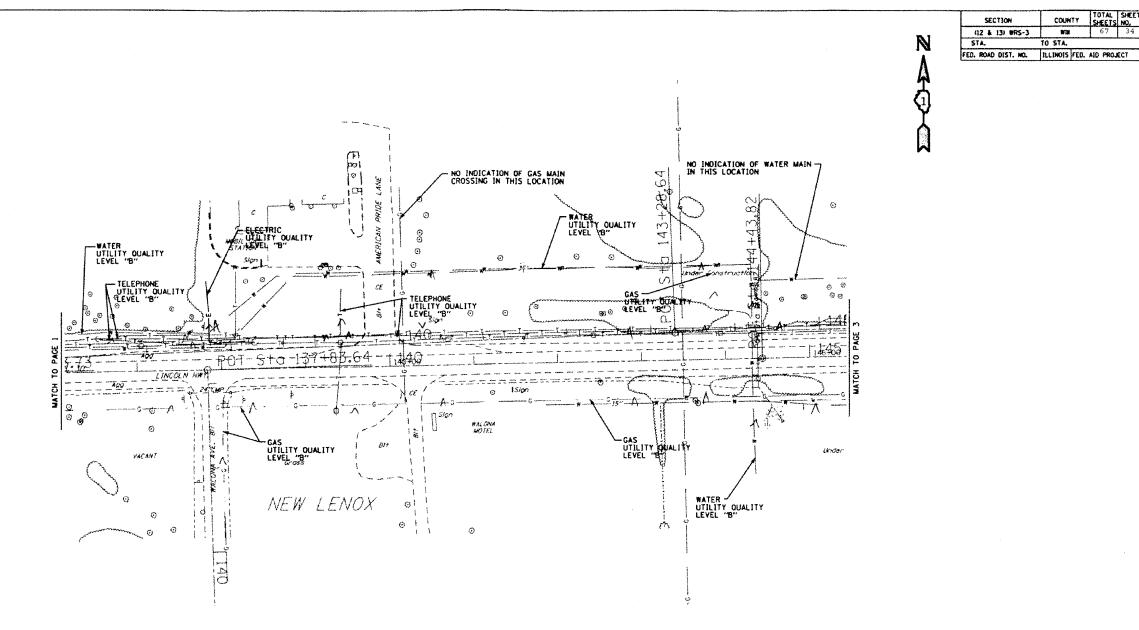








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of geophysical methods to determine the existence and approximate horizontal position of these facilities. However, SBC will not provide TBE Group, Inc. with utility records nor allow access to their field closures (pedestals/manholes etc.), to help verify the locations of their existing underground facilities. Therefore, TBE is unable to verify the completeness of the SBC locations depicted in accordance with the CI/ASCE Standard 38-02.

The SBC locations depicted have been obtained through the application

GROUP

TBE GROUP, INC.

CIVIL ENGINEERING • TRANSPORTATION • ENVIRONMENTAL

• PLANNING • UTILITY ENGINEERINGLOCATING

IL09500213, 222, 233 Checked by: Saver Ser PAGE 2 OF 25

Utility Quality Level "B": Designating

Utility shown on these plans as depicted in the legend have been investigated by TBE Group. Inc in accordance with SUE Industry Standards. All other information shown has been provided to TBE Group. Inc by others. TBE's SUE field investigation was performed during the period 10-13-04 through 04-21-05. Changes to utilities after these dates may have been made and therefore may result in variances from this plan. Consideration should be given to updating this plan if deemed advisable prior to final design and construction.

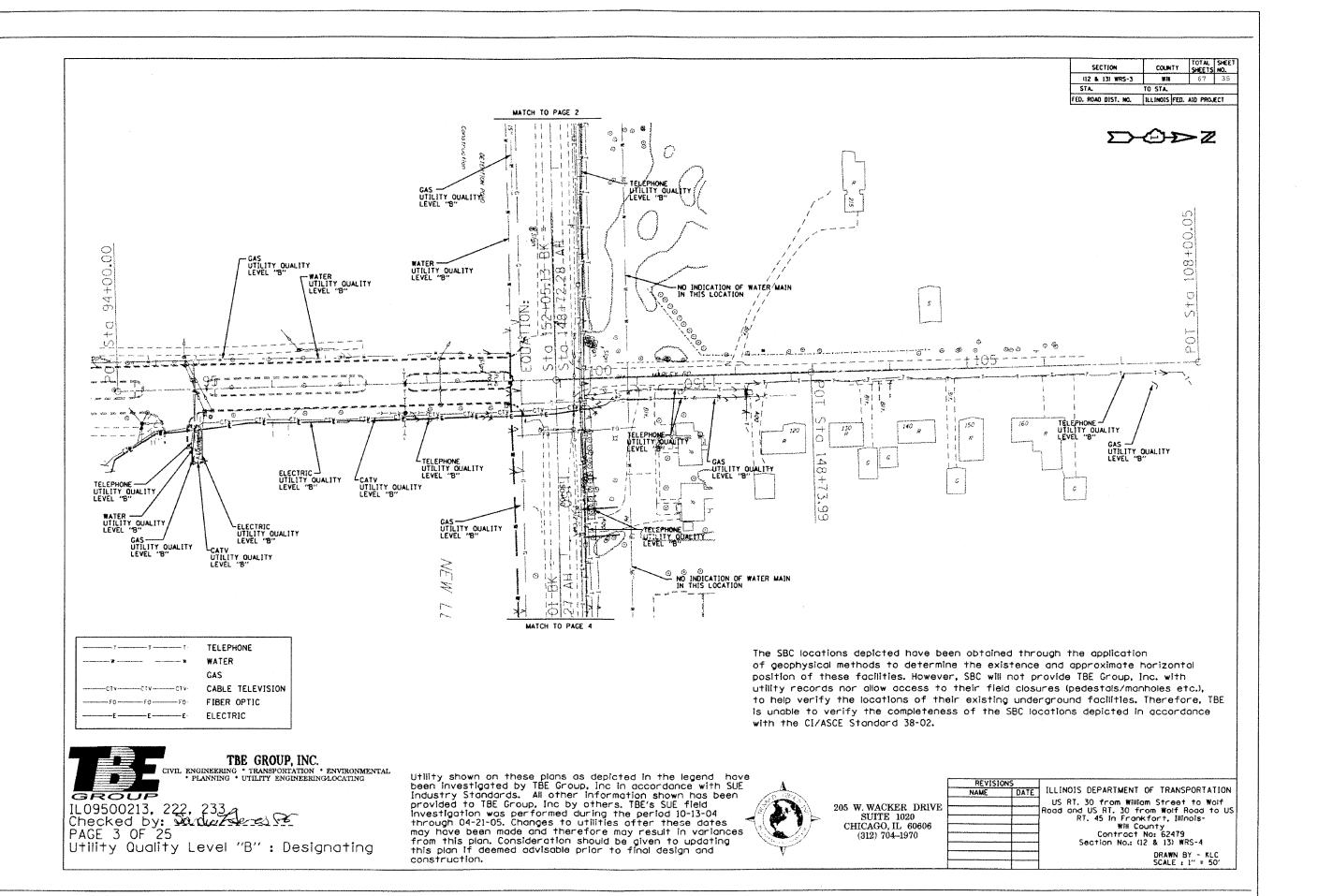


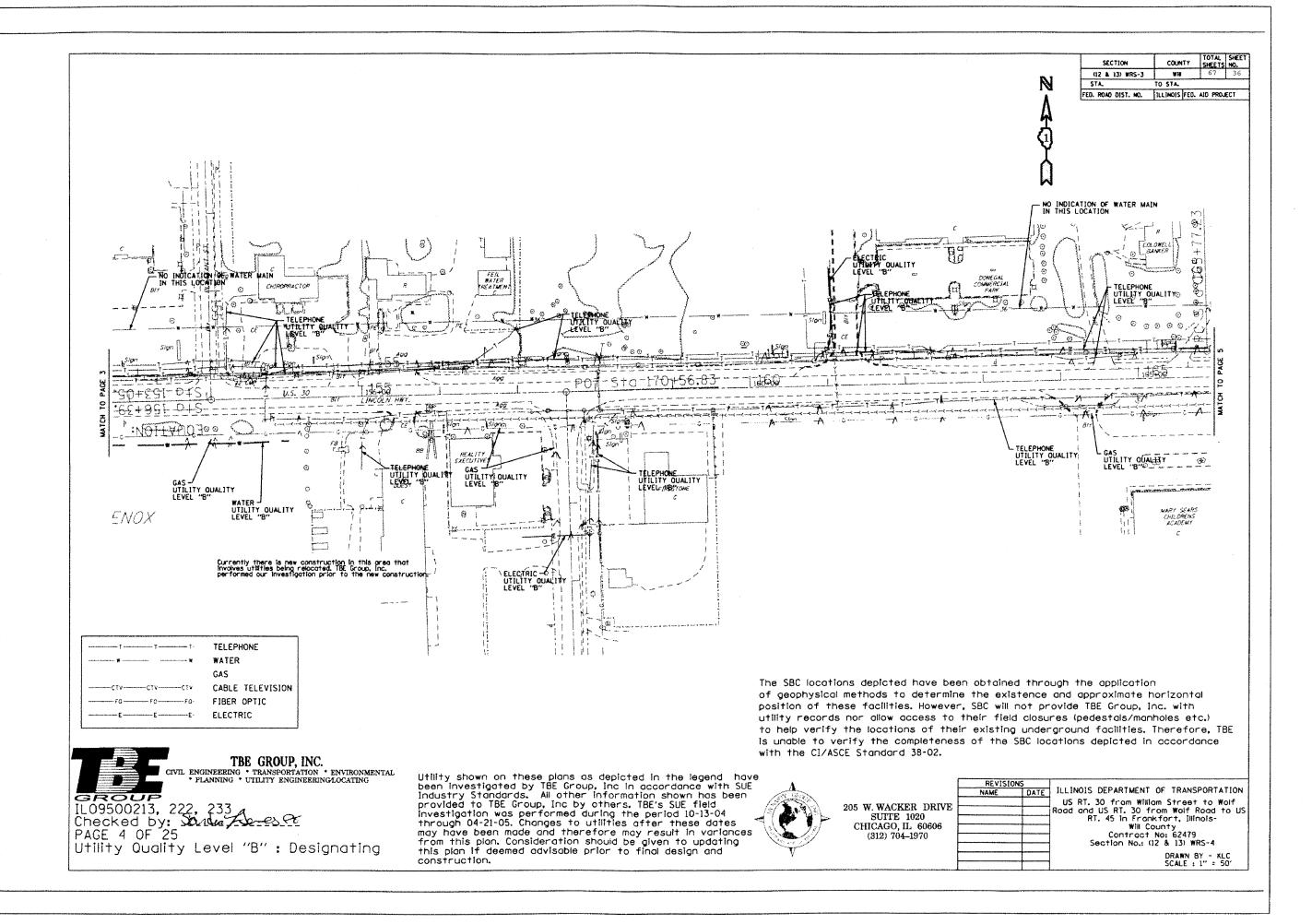
205 W. WACKER DRIVE SUITE 1020 CHICAGO, IL 60606 (312) 704–1970

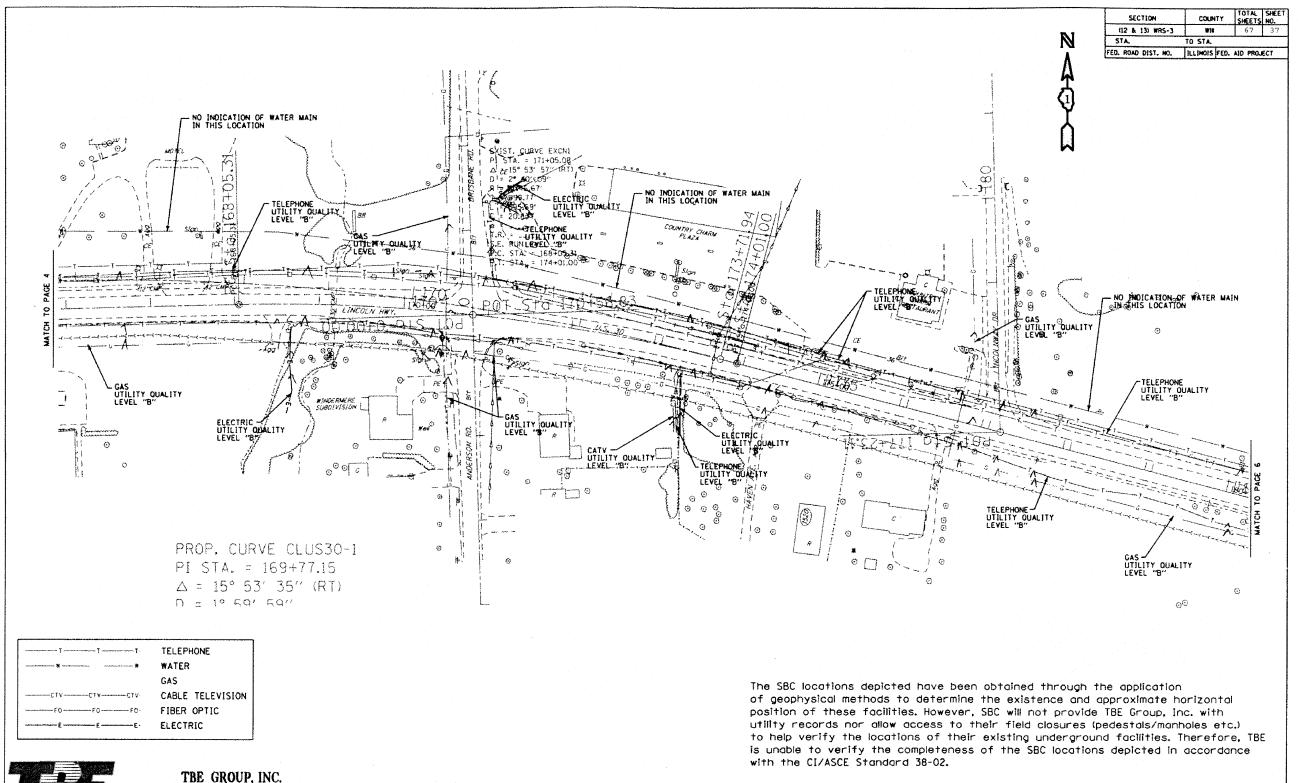
REVISIONS				
NAME	DATE	] 1		
		1_		
		R		
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		4		
		4		

ILLINOIS DEPARTMENT OF TRANSPORTATION
US RT. 30 from William Street to Wolf
Road and US RT. 30 from Wolf Road to US
RT. 45 in Frankfort, IllinoisWill County
Contract No: 62479
Section No: (12 & 13) WRS-4

DRAWN BY - KLC SCALE : 1" = 50"







TBE GROUP, INC.

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• PLANNING • UTILITY ENGINEERINGLOCATING

IL09500213, 222, 233 Checked by: 5200274000 PAGE 5 OF 25

Utility Quality Level "B": Designating

Utility shown on these plans as depicted in the legend have been investigated by TBE Group. Inc in accordance with SUE Industry Standards. All other information shown has been provided to TBE Group, Inc by others. TBE's SUE field investigation was performed during the period 10-13-04 through 04-21-05. Changes to utilities after these dates may have been made and therefore may result in variances from this plan. Consideration should be given to updating this plan if deemed advisable prior to final design and construction.

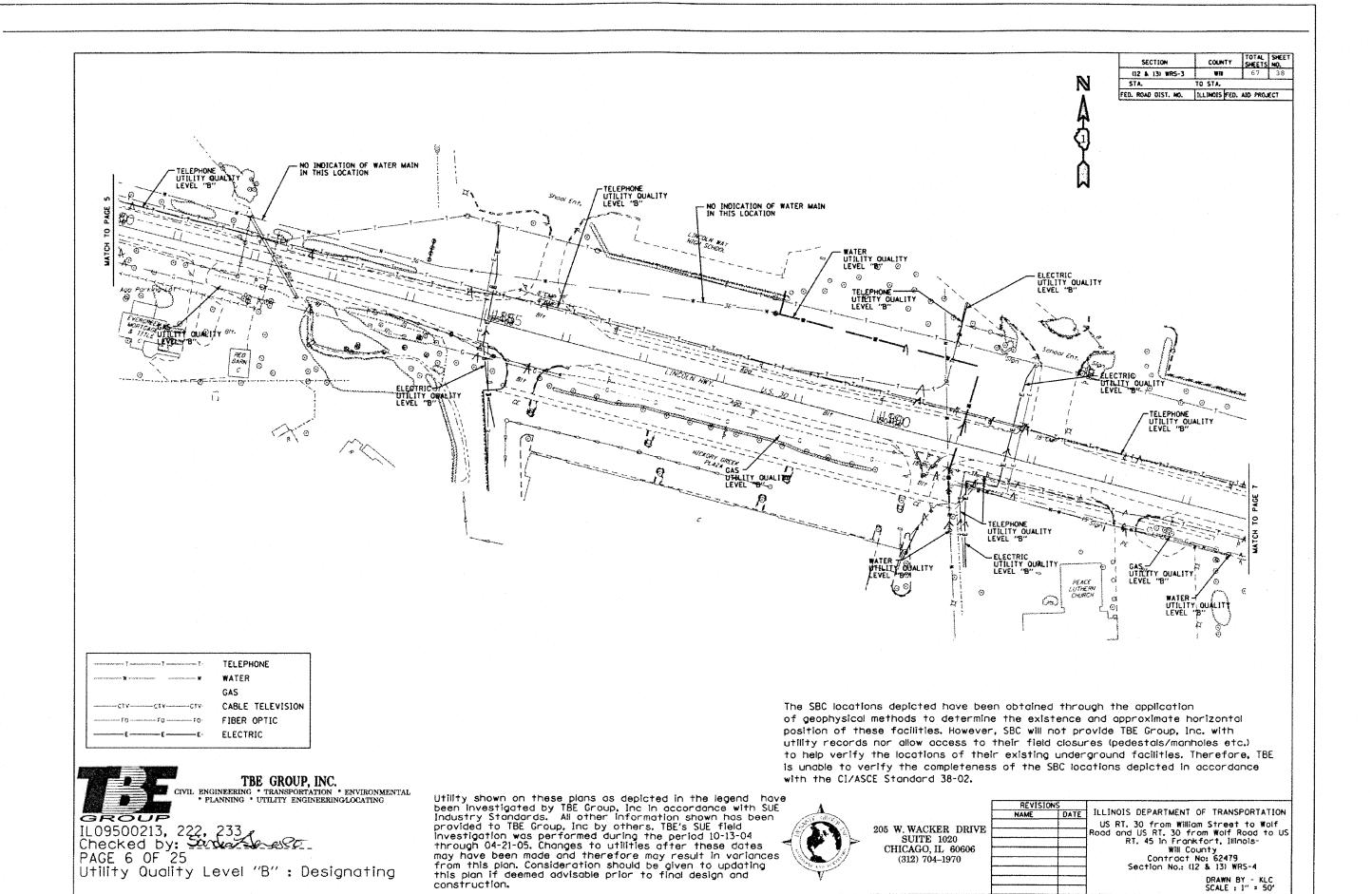


205 W. WACKER DRIVE SUITE 1020 CHICAGO, IL 60606 (312) 704–1970

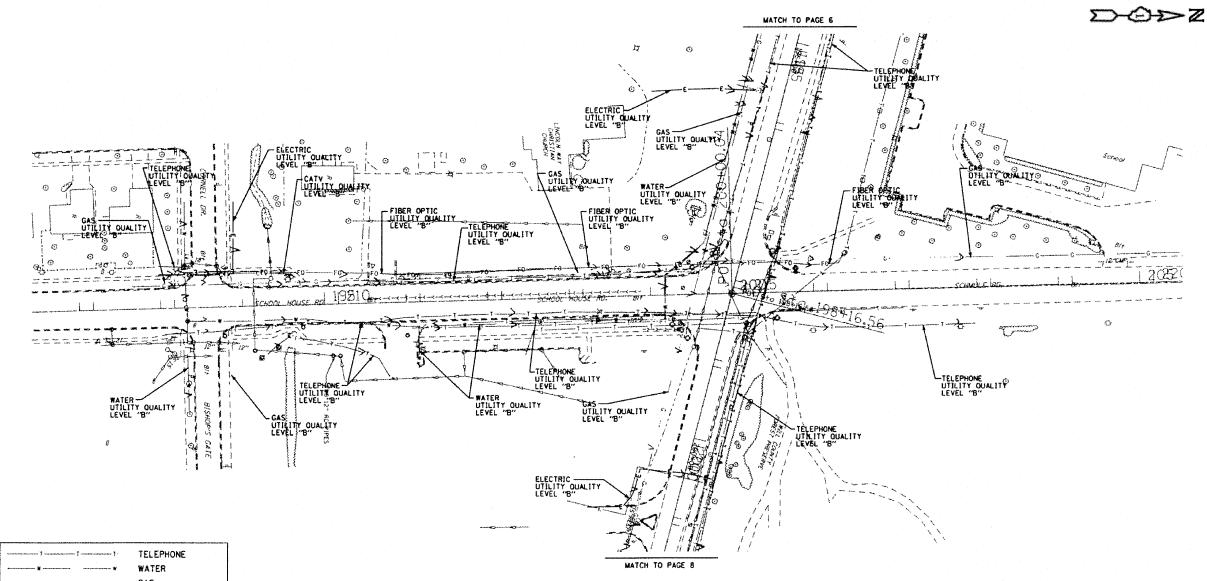
NAME DATE IL

ILLINOIS DEPARTMENT OF TRANSPORTATION
US RT. 30 from William Street to Wolf
Road and US RT. 30 from Wolf Road to US
RT. 45 In Fronkfort, IllinoisWill County
Contract No: 62479
Section No.: (12 & 13) WRS-4

DRAWN BY - KLC SCALE : 1" = 50"



 SECTION	COUNTY	TOTAL SHEETS	SHEE NO.
(12 & 13) WRS-3	WIN	67	39
STA.	TO STA.		
FED. ROAD DIST. NO.	ILLINOIS FED.	AID PROJ	ECT



The SBC locations depicted have been obtained through the application of geophysical methods to determine the existence and approximate horizontal position of these facilities. However, SBC will not provide TBE Group, Inc. with utility records nor allow access to their field closures (pedestals/manholes etc.), to help verify the locations of their existing underground facilities. Therefore, TBE is unable to verify the completeness of the SBC locations depicted in accordance with the CI/ASCE Standard 38-02.



TBE GROUP, INC.

CIVIL ENGINEERING • TRANSPORTATION • ENVIRONMENTAL

• PLANNING • UTILITY ENGINEERINGLOCATING

IL09500213, 222, 233 Checked by: Savardores Co. PAGE 7 OF 25

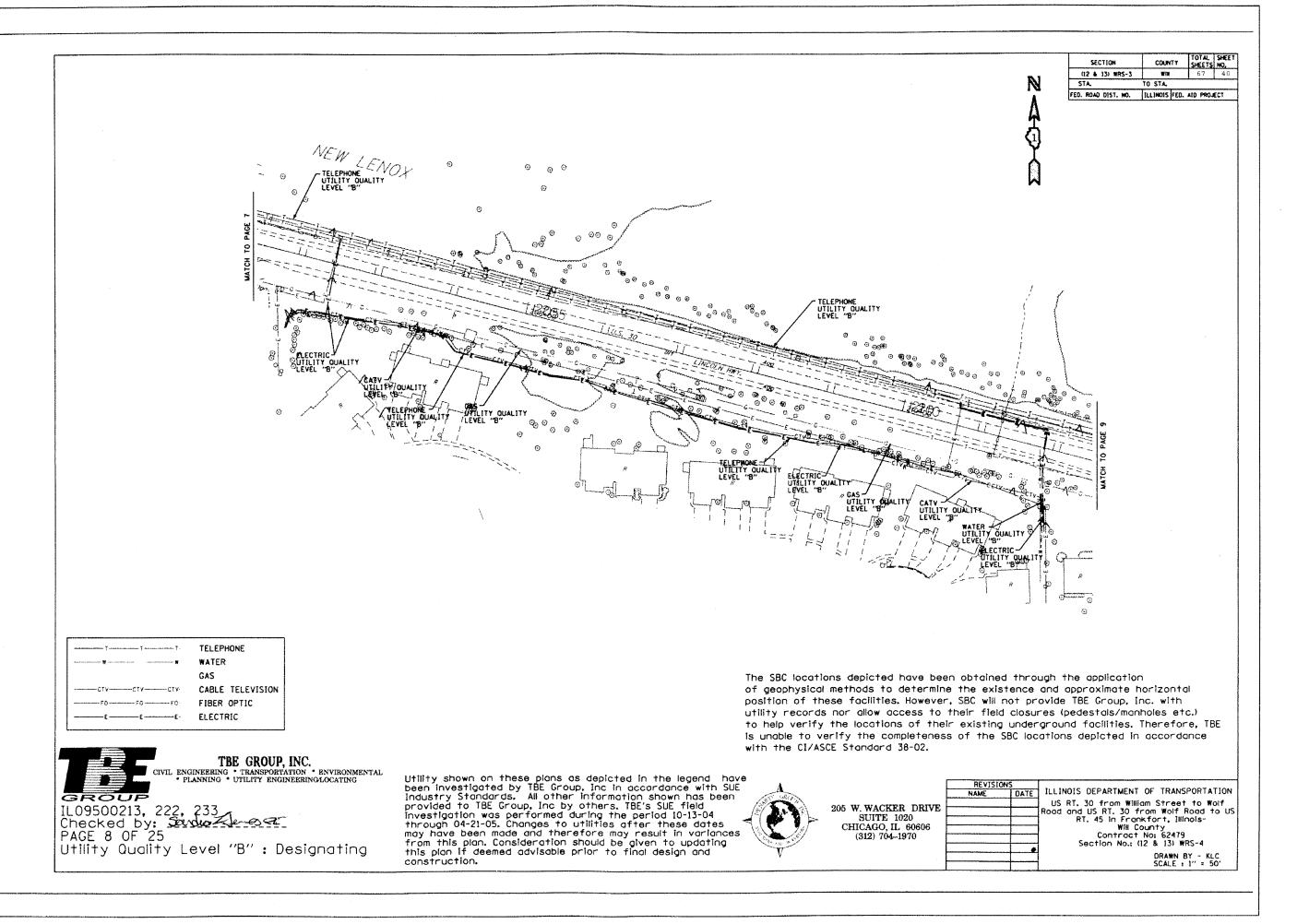
Utility Quality Level "B" : Designating

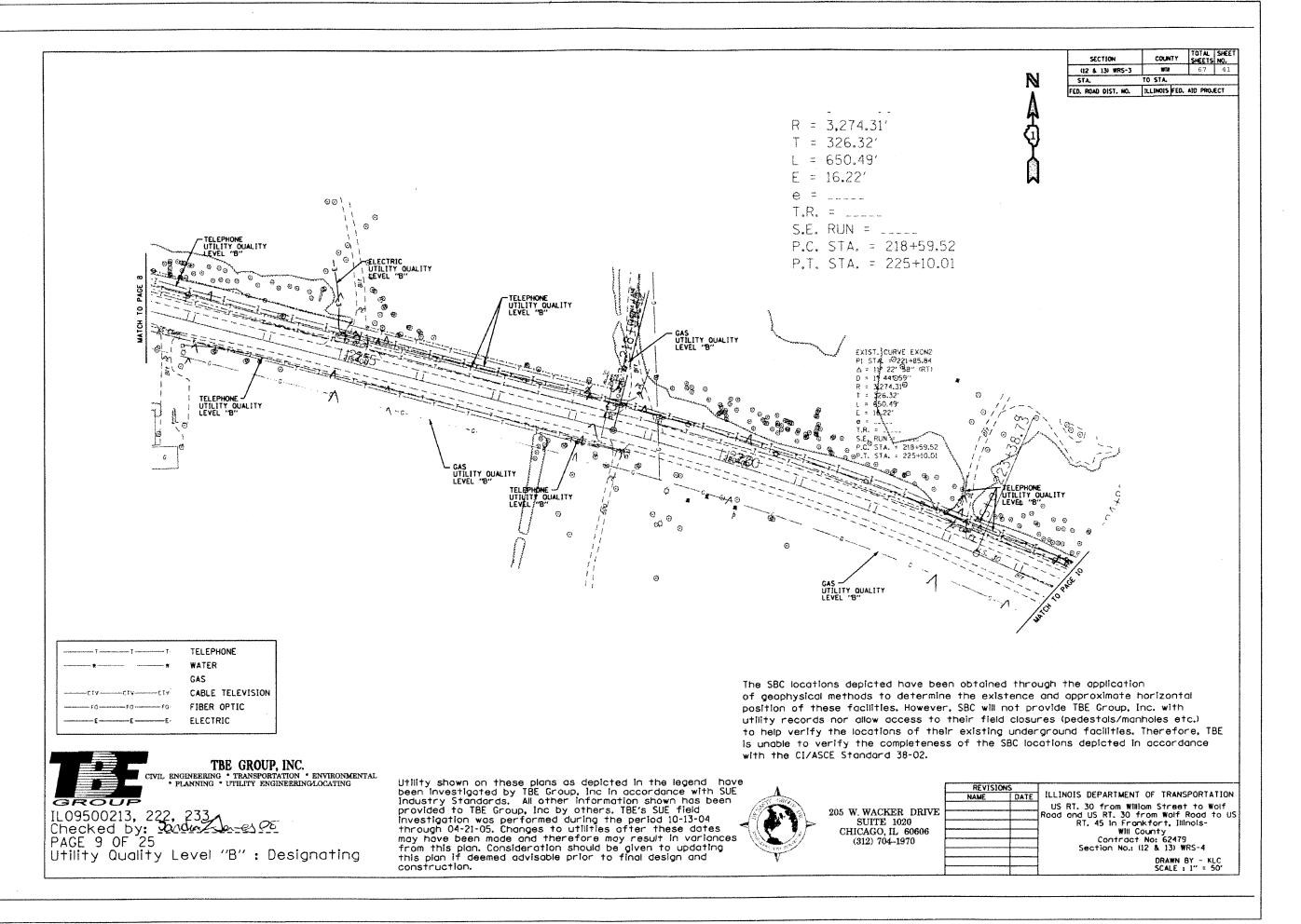
Utility shown on these plans as depicted in the legend have been investigated by TBE Group, Inc in accordance with SUE Industry Standards. All other information shown has been provided to TBE Group, Inc by others. TBE's SUE field investigation was performed during the period 10-13-04 through 04-21-05. Changes to utilities after these dates may have been made and therefore may result in variances from this plan. Consideration should be given to updating this plan if deemed advisable prior to final design and construction.



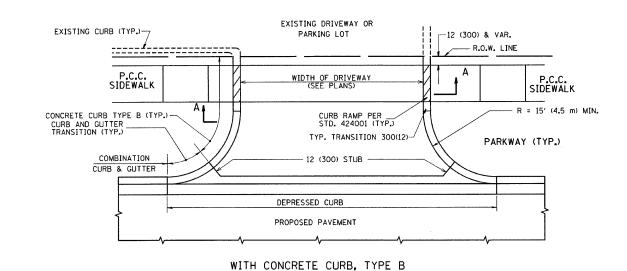
205 W. WACKER DRIVE SUITE 1020 CHICAGO, II. 60606 (312) 704-1970

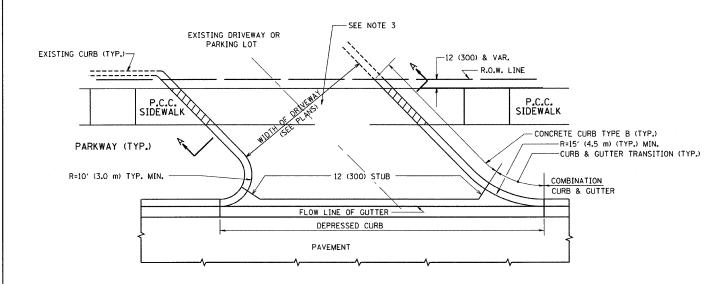
REVISIONS		
NAME	DATE	ILLINOIS DEPARTMENT OF TRANSPORTATION
		US RT. 30 from William Street to Wolf
		Road and US RT. 30 from Wolf Road to US
		RT. 45 in Frankfort, Illinois-
		Will County
		Contract No: 62479
		Section No.: (12 & 13) WRS-4
		DRAWN BY - KLC
		SCALE : 1" * 50'

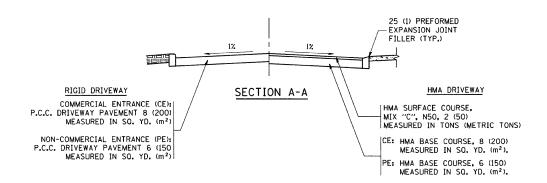




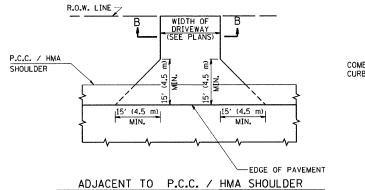
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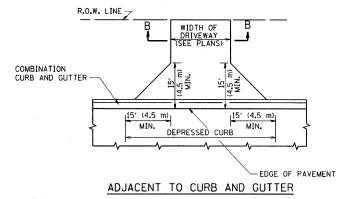


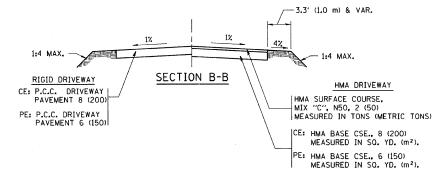




WITH CONCRETE CURB, TYPE B







# RURAL FIELD ENTRANCE (FE)

HMA SURFACE COURSE, MIX "C", N50, 2 (50) MEASURED IN TONS (METRIC TONS)

AGGREGATE BASE CSE., TYPE A 8 (200) MEASURED IN SQ. YD. (m²).

# GENERAL NOTES:

DRIVEWAY SLOPES, LOCATIONS, & GEOMETRIC LAYOUT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "HANDBOOK FOR POLICY ON PERMITS FOR ACCESS DRIVEWAYS TO STATE HIGHWAYS". FOR FURTHER LAYOUT REOUIREMENTS, REFER TO ILLUSTRATIONS IN THE PERMIT HANDBOOK, DRIVEWAYS SHALL BE REPLACED IN KIND, UNLESS OTHERWISE NOTED ON THE PLANS.

COMMERCIAL DRIVEWAYS SHALL BE CONSTRUCTED WITH CONCRETE CURB, TYPE B RETURNS EXCEPT WHEN THE SIDEWALK EDGE IS 4 FEET (1.2 METERS) OR LESS FROM THE BACK OF CURB, CONSTRUCT A FLARE DRIVEWAY WITHOUT CURB.

THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC PERMIT OFFICE AT 8477 705-4131 FOR ANY QUESTIONS ON DRIVEWAYS SHOWN IN THE PLANS; SPECIFICALLY IN REFERENCE TO ADDITIONAL AND/OR RELOCATION/REMOVAL OF A DRIVEWAY.

COMBINATION CONCRETE CURB & GUTTER SHALL BE MEASURED STRAIGHT ACROSS THE DRIVEWAY. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THE CURB & GUTTER TRANSITION.

1 (25) PREFORMED EXPANSION JOINT FILLER WILL NOT BE PAID SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE P.C.C. DRIVEWAY PAVEMENT OR P.C.C. SIDEWALK.

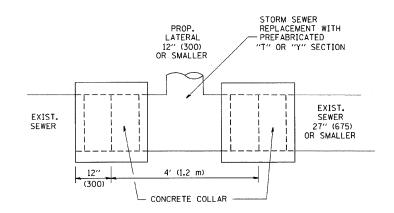
WHEN THE P.C.C. SIDEWALK EXTENDS THROUGH THE DRIVEWAY, THE THICKNESS OF THE SIDEWALK IN THE DRIVEWAY AREA SHALL BE THE SAME AS THE DRIVEWAY THICKNESS. SIDEWALK WILL BE PAID FOR AS P.C.C. SIDEWALK OF THE THICKNESS SPECIFIED. SIDEWALK CROSS SLOPE THRU DRIVEWAY AREA TO BE A MAXIMUM OF 1:50.

SCALE: NONE

FILE NAME =	USER NAME = gaglianobt	DESIGNED - R. SHAH	REVISED - T. HOLTZ 04-08-97
W:\diststd\22x34\bdØ1.dgn		DRAWN -	REVISED - M. GOMEZ 04-06-01
	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED - P. LaFLUER 04-15-03
	PLOT DATE = 1/4/2008	DATE - 11-04-95	REVISED - R. BORO 01-01-07

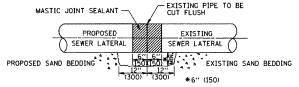
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

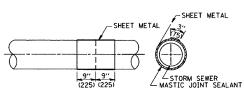
DRIVEWAY DETAILS - DISTANCE BETWEEN R.O.W.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ND FACE OF CURD & FROM OF CHOULDED > - 15' // 5 m)	353	13-I	WILL	67	42
ND FACE OF CURB & EDGE OF SHOULDER > = 15'(4.5 m)		BD0156-07 (BD-01)	CONTRACT	NO. 60	152
SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED, RO	DAD DIST. NO. 1 ILLINOIS FED. AL	D PROJECT		

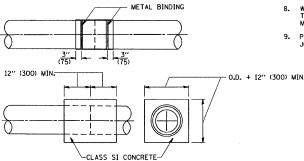


#### DETAIL "A"

LATERAL CONNECTION TO EXISTING SEWER
OF 27" (675) OR SMALLER





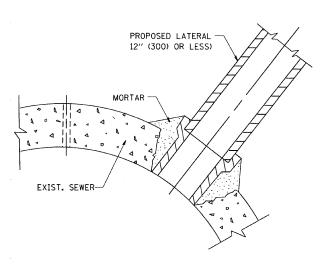


DETAIL "B"

CLASS SI CONCRETE COLLAR

#### CONSTRUCTION SEQUENCE

- CUT THE EXISTING END OF THE PIPE SO AS TO PRESENT A FLUSH BUTT JOINT, BRUSH AND CLEAN ALL PIPES.
- 2. APPLY THE MASTIC JOINT SEALANT TO THE FIRST 6" (150) OF EACH PIPE.
- 3. BUTT THE PIPES TOGETHER LEAVING A MINIMUM OF 12'  $\times$  6' (300  $\times$  150) DEEP EXCAVATION UNDER AND AROUND EACH PIPE END.
- 4. CUT A PIECE OF SHEET METAL GAGE NO. 19 1.1 (0.0418) 18" (450) WIDE BY THE OUTSIDE CIRCUMFERANCE OF THE PIPE PLUS 3" (75) LONG.
- 5. WRAP THE SHEET METAL AROUND THE PIPES, 9" (225) ON EACH SIDE OF THE JOINT, STARTING AT THE TOP OF THE PIPE.
- 6. LAP THE SHEET METAL AT LEAST 3" (75)
  AT THE TOP OF THE PIPE AND PLACE THE
  MASTIC JOINT SEALANT BETWEEN THE LAP.
- PLACE TWO METAL BANDS AROUND THE SHEET METAL AND TIGHTEN.
- 8. WIPE OFF ANY EXCESS MASTIC JOINT SEALANT THAT OOZES OUT FROM BETWEEN THE SHEET METAL AND THE PIPES.
- 9. PLACE CLASS SI CONCRETE AROUND THE JOINT.



# DETAIL "C"

PROPOSED LATERAL
CONNECTION TO EXISTING SEWER
OF 30" (750) OR LARGER

# NOTES

#### MATERIA

MATERIAL USED FOR THE TEE OR WYE SECTION SHALL BE COMPATIBLE WITH THE EXISTING STORM SEWER OR THE PROPOSED STORM SEWER.

#### CONSTRUCTION METHODS

- I. THIS WORK SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE APPLICABLE PORTIONS OF SECTION 550 OF THE STANDARD SPECIFICATIONS.
- II. CONNECTION TO AN EXISTING STORM SEWER SHALL BE BY EITHER OF THE FOLLOWING METHODS:

  A) PROPOSED STORM SEWER CONNECTION TO EXISTING SEWER OF 27" (675) OR SMALLER SEE DETAIL "A" AND "B".
  - B) PROPOSED STORM SEWER CONNECTION TO EXISTING SEWER OF 30" (750) OR LARGER SEE DETAIL "C".

IF THE EXISTING SEWER PIPE IS CRACKED, BROKEN OR OTHERWISE DAMAGED BY THE CONTRACTOR IN MAKING THE CIRCULAR OPENING, THE CONTRACTOR SHALL REPLACE THAT SECTION OF PIPE WITH PIPE EQUAL AND SIMILAR IN ALL RESPECTS TO THE PIPE IN THE EXISTING SEWER, IN A CAREFUL WORMMANLIKE MANNER, WITHOUT EXTRA COMPENSATION.

# GENERAL

CARE MUST BE TAKEN TO PREVENT DEBRIS FROM ENTERING THE SEWER.
ALL DEBRIS WHICH ENTERS THE SEWER MUST BE REMOVED. THE SEWER MUST
BE LEFT CLEAN AND UNOBSTRUCTED UPON COMPLETION OF THE CONTRACT.

CARE MUST BE TAKEN TO PREVENT ANY PART OF THE NEW PIPE CONNECTION FROM PROJECTING INTO THE EXISTING SEWER.

### BASIS OF PAYMENT

TEE OR WYE CONNECTIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR STORM SEWER TEE OR WYE OF THE TYPE AND SIZE SPECIFIED IN THE PLANS, THIS PRICE SHALL INCLUDE ALL EXCAVATION OF THE TRENCH, REMOVAL OF THE EXISTING STORM SEWER, FURNISHING AND INSTALLING THE SPECIFIED TEE OR WYE SECTION, FURNISHING AND INSTALLING THE REQUIRED CONCRETE COLLAR, AND ALL OTHER MATERIAL NECESSARY TO COMPLETE THIS WORK AS SHOWN AND SPECIFIED.

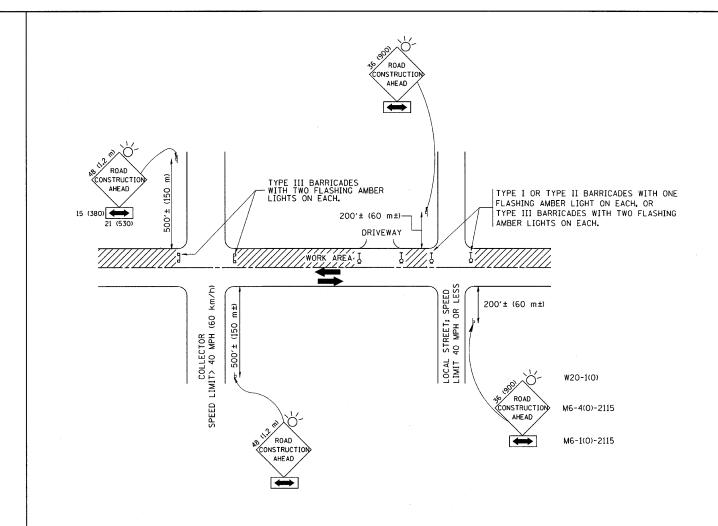
REMOVAL AND REINSTALLATION OF EXISTING STORM SEWER ADJACENT TO THE PROPOSED TEE OR WYE SECTION, FOR THE PURPOSE OF FACILITATING THE INSTALLATION OF THE TEE OR WYE SECTION, WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE WORK.

TRENCH BACKFILL, EXCAVATION IN ROCK AND REMOVAL AND REPLACEMENT OF UNSUITABLE MATERIAL BELOW PLAN BEDDING GRADE WILL BE PAID FOR SEPARATELY.

CONCRETE COLLAR FOR CONNECTING A PROPOSED STORM SEWER TO AN EXISTING STORM SEWER WILL NOT BE PAID PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE PROPOSED STORM SEWER.

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

FILE NAME =	USER NAME = gaglianobt	DESIGNED - M. DE YONG	REVISED - M. DE YONG 05-08-92		DETAIL OF STORM SEWER	F.A.P. SECTION	COUNTY TOTAL SHEET NO.
W:\diststd\22x34\bd07.dgn		DRAWN -	REVISED - R. SHAH 09-09-94	STATE OF ILLINOIS	CONNECTION TO EXISTING SEWER	353 13-I	WILL 67 43
	PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED - R. SHAH 10-25-94	DEPARTMENT OF TRANSPORTATION		BD500-01 (BD-7)	CONTRACT NO. 60152
	PLOT DATE = 1/4/2008	DATE - 07-25-90	REVISED - R. SHAH 06-12-96		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1   ILLINOIS FED.	. AID PROJECT



### TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

# NOTES:

- A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS
- 1. 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:
- O) ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROLLE.
- b) 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.
- 2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
- d) ONE ROAD CONSTRUCTION AHEAD SIGN 48  $\times$  48 (1.2 m  $\times$  1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
- b) 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.
- 3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (MG-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (MG-4).

SCALE: NONE

#### B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:

USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.

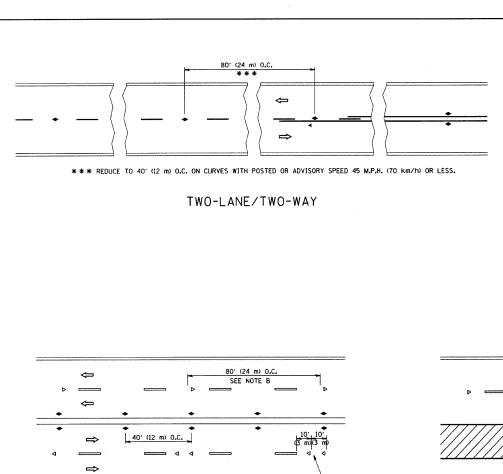
- C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.
- D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

FILE NAME =	USER NAME = gaglianobt	DESIGNED - LHA	REVISED - J. OBERLE 10-18-95
W:\diststd\22x34\tc10.dgn		DRAWN -	REVISED - A. HOUSEH 03-06-96
	PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED - A. HOUSEH 10-15-96
	PLOT DATE = 1/4/2008	DATE - 06-89	REVISED -T, RAMMACHER 01-06-00

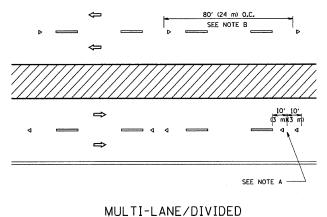
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC	CONTRO	L AND F	PROTECTION	FOR
SIDE ROAD	S, INTER	SECTIONS	S, AND DRIV	/EWAYS
SHEET NO. 1	OF 1	SHEETS	STA.	TO STA.



SEE NOTE A-

MULTI-LANE/UNDIVIDED



80' (24 m)

# GENERAL NOTES

3 @ 40' (12 m) O.C.

LANE REDUCTION TRANSITION

- 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.

# LANE MARKER NOTES

- 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.
- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.

# SYMBOLS

---- YELLOW STRIPE

SEE NOTE A

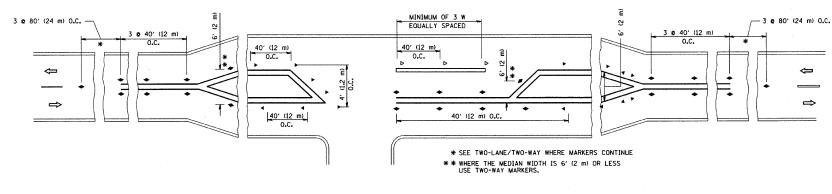
TWO-WAY LEFT TURN

40' (12 m) O.C.

- WHITE STRIPE
- ✓ ONE-WAY AMBER MARKER
- ONE-WAY CRYSTAL MARKER (₩/O)
- ◆ TWO-WAY AMBER MARKER

# DESIGN NOTES

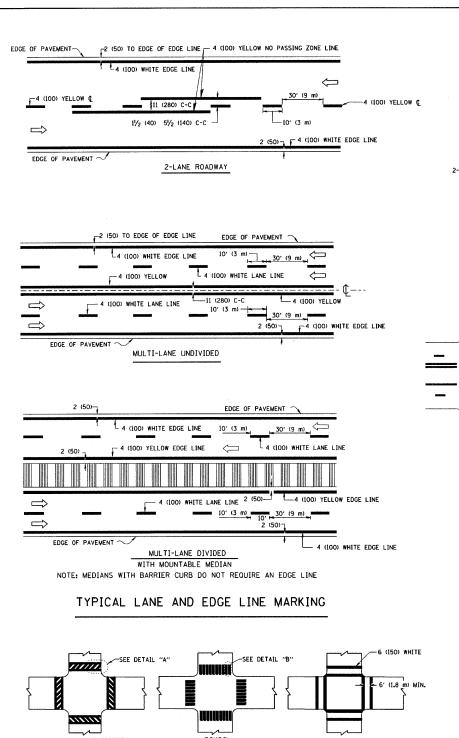
- 1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
- EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
- 3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHOULD BE INCLUDED IN THE PLANS.
- MARKERS SHOULD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

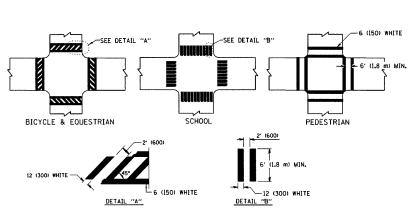


LEFT TURN

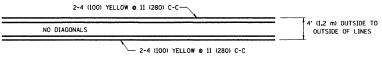
All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = gaglianobt	DESIGNED -	REVISED - T. RAMMACHER 09-19-94		TYPICAL APPLICATIONS	F.A.P.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Wi\diststd\22x34\tc11.dgn		DRAWN -	REVISED - T. RAMMACHER 03-12-99	STATE OF ILLINOIS		353	13-I	MILL	67	45
	PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED -T. RAMMACHER 01-06-00	DEPARTMENT OF TRANSPORTATION	RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)		TC-11	CONTRACT	T NO. 60	JI52
	PLOT DATE = 1/4/2008	DATE -	REVISED -		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. R	ROAD DIST. NO. 1   ILLINOIS FED. A	ID PROJECT		

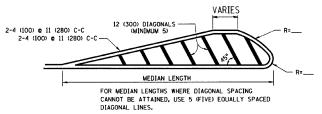




TYPICAL CROSSWALK MARKING

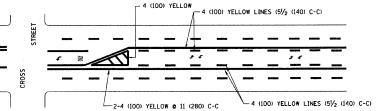


#### 4' (1.2 m) WIDE MEDIANS ONLY

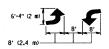


DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h))
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

# MEDIANS OVER 4' (1.2 m) WIDE

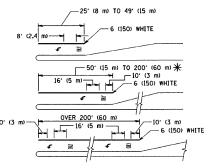


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

# TYPICAL PAINTED MEDIAN MARKING

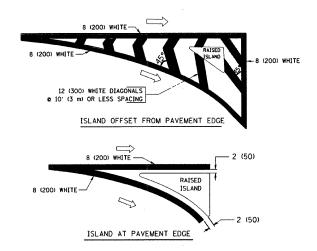


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.  $\P$  AREA = 15.6 SO. FT. (1.5 m² )  $\P$  AREA = 20.8 SO. FT. (1.9 m²)

\* 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



# TYPICAL ISLAND MARKING

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 UNDIVEDED PAVEMENT	2 2 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 <b>e</b> 4 (100)	SOL ID SOL ID	YELLOW YELLOW	5½ (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 MOUNTABLE MEDIANS IN YELLOW: EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
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 6 4 (100) EACH DIRECTION	SKIP-DASH AND SOLID	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5½ (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE
	8' (2.4m) LEFT ARROW	IN PAIRS	WHITE	SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 <b>e</b> 6 (150) 12 (300) <b>e</b> 45° 12 (300) <b>e</b> 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (500) APART 2' (500) 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°	SOLID	YELLOW: TWO WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
	NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS		WHITE: ONE WAY TRAFFIC	SEE THIOR PAINTED MEDIAN MAINTING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIACONALS: 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 (0VER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m: LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R":3.6 SO. FT. (0.33 m <sup>2</sup> ) EACH "X":=54.0 SO. FT. (5.0 m <sup>2</sup> )
SHOULDER DIAGONALS	12 (300) <b>@</b> 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))

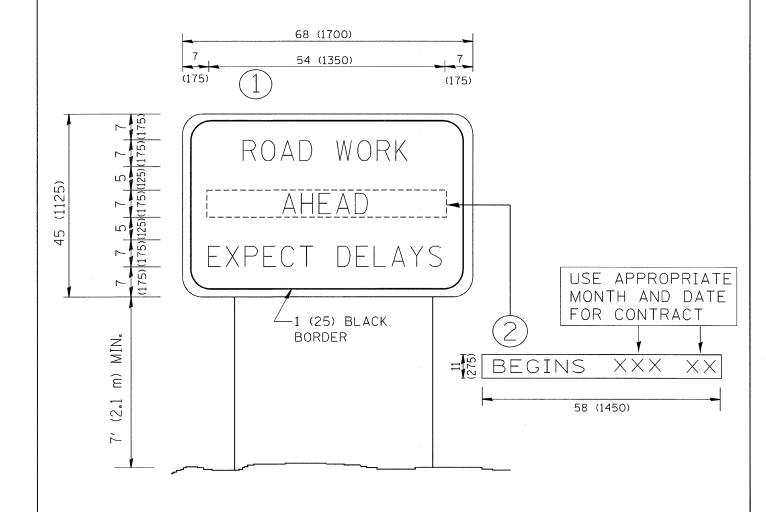
FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

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

FILE NAME =	USER NAME = gaglianobt	DESIGNED	-	EVERS	REVISED	-T. RAMMACHER 10-27-94
W:\diststd\22x34\tcl3.dgn		DRAWN	-		REVISED	-A. HOUSEH 10-09-96
	PLOT SCALE = 50.000 '/ IN.	CHECKED	-		REVISED	- A. HOUSEH 10-17-96
	PLOT DATE = 1/4/2008	DATE	-	03-19-90	REVISED	-T. RAMMACHER 01-06-00

STATE	OF	ILLINOIS
<b>DEPARTMENT</b>	OF	TRANSPORTATION

1	DISTRICT ONE					SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
١		TYPICAL PAVEMENT MARKINGS					WILL	67	46
I		I TPICAL PAVEIVIENT	WANKING	3		TC-13	CONTRACT	NO. 6	0152
I	SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



# NOTES:

- 1. USE BLACK LETTERING ON ORANGE BACKGROUND.
- 2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
- 3. ERECT 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.

FILE NAME =	USER NAME = gaglianobt	DESIGNED -	REVISED - R. MIRS 09-15-97			ARTERIAL ROAD INFORMATION SIGN		F.A.P.	SECTION	COUNTY	TOTAL SHEET SHEETS NO.
W:\diststd\22x34\tc22.dgn		DRAWN -	REVISED - R. MIRS 12-11-97	STATE OF ILLINOIS	İ			353	13-I	WILL	67 47
	PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED -T. RAMMACHER 02-02-99	DEPARTMENT OF TRANSPORTATION					TC-22	CONTRAC	CT NO. 60152
	PLOT DATE = 1/4/2008	DATE -	REVISED - C. JUCIUS 01-31-07		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA.	TO STA.	FED. ROAD	DIST. NO. 1 ILLINOIS FE	D. AID PROJECT	



3.0" RADIUS, 0.5" BORDER, WHITE ON GREEN; REFLECTORIZED "DRIVEWAY" D; "ENTRANCE" D; STANDARD ARROW CUSTOM 12.0" x 5.0"

# NOTES:

- 1. HALF OF THE SIGNS WILL REQUIRE A LEFT HAND FACING ARROW.
- 2. TWO SIGNS SHALL BE USED AT EACH COMMERCIAL ENTRANCE PLACED BACK-TO-BACK: ONE WITH A RIGHT HAND ARROW (SHOWN) SHALL BE PLACED ON THE NEAR RIGHT SIDE THE DRIVEWAY AND ONE WITH A LEFT HAND ARROW SHALL BE PLACED ON THE FAR LEFT SIDE OF THE DRIVEWAY.
- 3. SIGNS TO BE PAID FOR AS ITEM "TEMPORARY INFORMATION SIGNING".

FILE NAME =	USER NAME = gaglianobt	DESIGNED ~	REVISED - C. JUCIUS 02-15-07			DRIVEWAY ENTRANCE SIG	CMING
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*	PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION			
	PLOT DATE = 1/4/2008	DATE -	REVISED -		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA	. TO STA.

COUNTY SHEETS NO.
WILL 67 48
CONTRACT NO. 60152

F.A.P. RTE. 353

13-I

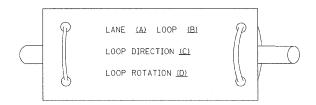
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FED. ROAD DIST. NO. 1 ILLINOIS FED.

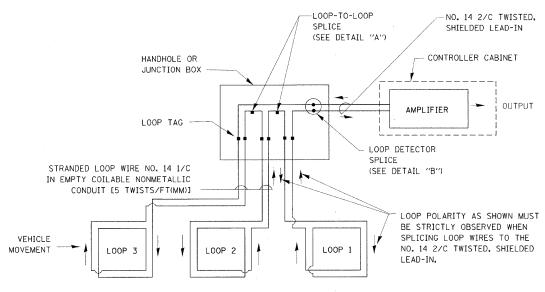
# LOOP DETECTOR NOTES

- 1. EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE EMPTY COILABLE NONMETALLIC CONDUIT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). EMPTY COILABLE NONMETALLIC CONDUIT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
- 2. THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.
- 3. EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.
- 4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
- 5. IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND 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.
- 6. LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.
- 7. PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

### LOOP LEAD-IN CABLE TAG

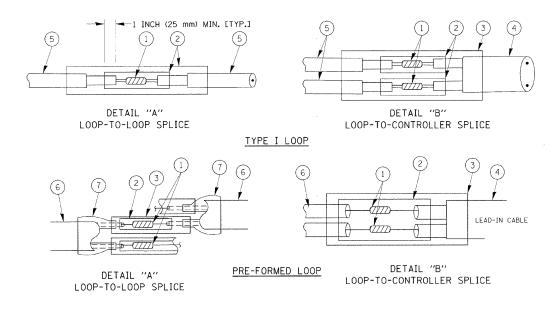


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.



#### DETECTOR LOOP WIRING SCHEMATIC

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



# LOOP DETECTOR SPLICE

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

SCAL

7 XL POLYOLEFIN 2 CONDUCTOR
BREAKOUT SEALS. TYCO CBR-2 OR APPROVED EQUAL

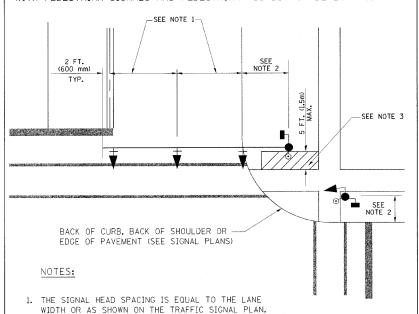
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	.ºLOT DATE = 10/6/2009	DATE		10/28/09	REVISED	-

STATE	OF	ILLINOIS
DEPARTMENT	OF '	TRANSPORTATION

	DISTRICT	ONE		F.A.P. RTE.	SEC	TION	COUNTY	TOTAL	SHEET NO.
STANDARD TRAFFIC SIGNAL DESIGN DETAILS				353	13	-I	WILL	67	49
STANDAR	D TRAFFIC SIGNA	AL DESIGN	DETAILS				CONTRACT	NO. 60	152
LE:	SHEET NO. 1 OF 6 SHEETS	STA.	TO STA.	FED. RO	AD DIST. NO.	ILLINOIS FED. AI	D PROJECT		

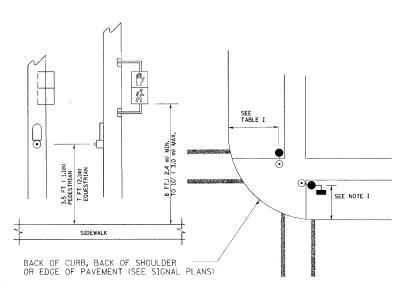
### TRAFFIC SIGNAL MAST ARM AND SIGNAL POST

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



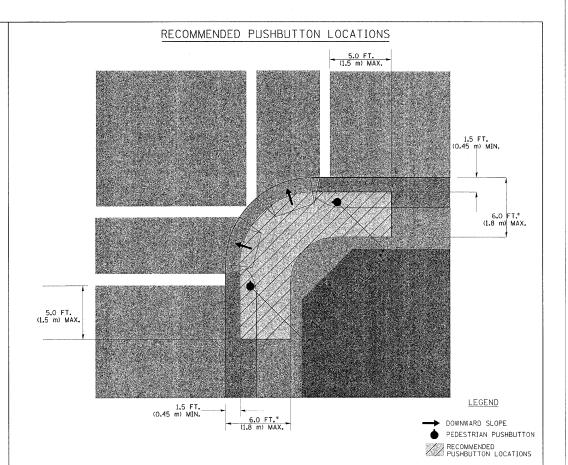
- 2. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
- 3. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE MAST ARM SHAFT OR THE SIGNAL POST.
- 4. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO 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 LEYEL 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."



- 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.

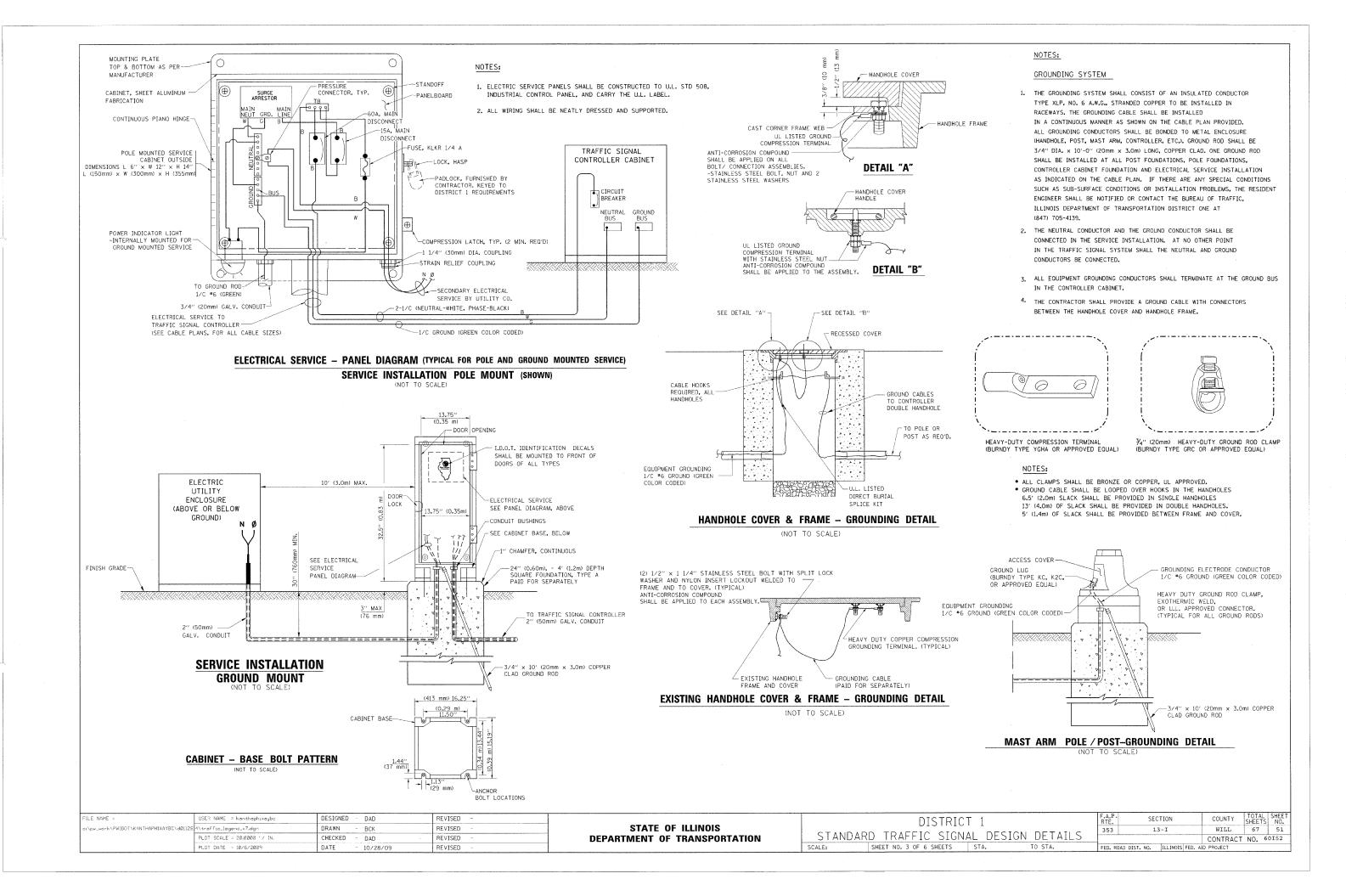
# TRAFFIC SIGNAL EQUIPMENT OFFSET

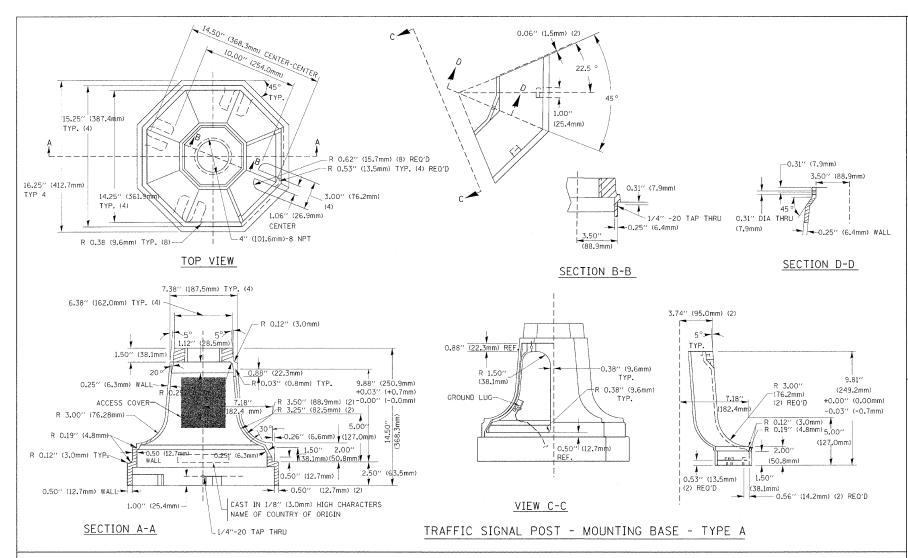
TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 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.

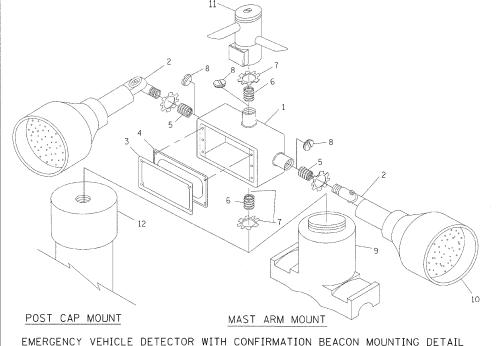
#### NOTES.

- 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 TO THE 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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	PLOT DATE = 10/6/2009	DATE ~ 10/28/09	REVISED -		SCALE: SHEET NO. 2 OF 6 SHEETS STA. TO STA.	FED. ROAD DIST. NO. ILLINOIS FO	ED. AID PROJECT







NOTES:										
ALL ELECTRIC GALVANIZED	AL ITEMS,	EXCEPT	ITEMS	#2	AND	*11	SHALL	BE	ALUMINUM	OR

74 '19 mm) LOCKNUT
74''(19 mm) HOLE PLUG
SADDLE BRACKET - GALV.
6 WATT PAR 38 LED FLOOD LAMP
DETECTOR UNIT
POST CAP [18 FT. (5.4 m) POST MIN.]

IDENTIFICATION

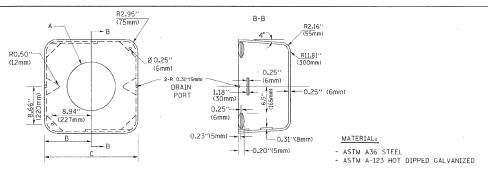
1 QUTLET BOX- GALV. 21 CU,IN. (0.000344 CU-M)
2 LAMP HOLDER AND COVER
3 OUTLET BOX COVER

2. ITEM #1- OZ/GEDNEY FSX-1-50 OR EQUIVALENT ITEM #2- MULBERRY CON-0-SHADE LAMP SHIELD OR EQUIVALENT ITEM #9- "BAND-IT" SADDLE BRACKET OR EQUIVALENT

RUBBER COVER GASKET
REDUCING BUSHING
4"(19 mm) CLOSE NIPPLE

ITEM NO.

3. WHEN POST MOUNTING IS SPECIFIED, ITEM \*9 SHALL NOT BE REQUIRED. THE DETECTION UNIT SHALL BE MOUNTED DIRECTLY ON TOP OF THE CAP BY DRILLING AND TAPPING A 3/"(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.

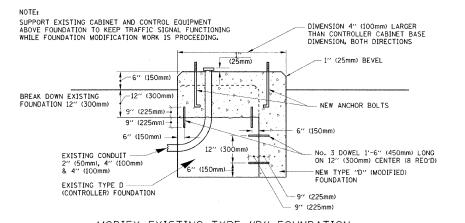


Α	В	С	HEIGHT	WEIGHT
VARIES	9.5"(241mm)	19''(483mm)	7" (178mm) - 12" (300mm)	53 lbs (24kg)
VARIES	10.75"(273mm)	21.5"(546mm)	7" (178mm) - 12" (300mm)	68 lbs (31 kg)
VARIES	13,0"(330mm)	26"(660mm)	7'' (178mm) - 12'' (300mm)	81 lbs (37 kg)
VARIES	18.5"(470mm)	37''(940mm)	7" (178mm) - 12" (300mm)	126 lbs (57 kg)

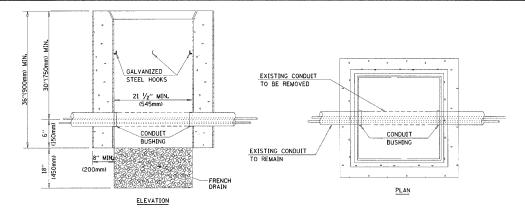
# SHROUD

#### 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.
- 2. THE SUPPLIER SHALL VERIFIED THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
- 3. THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.



# MODIFY EXISTING TYPE "D" FOUNDATION



# NOTES:

ST

SCALE:

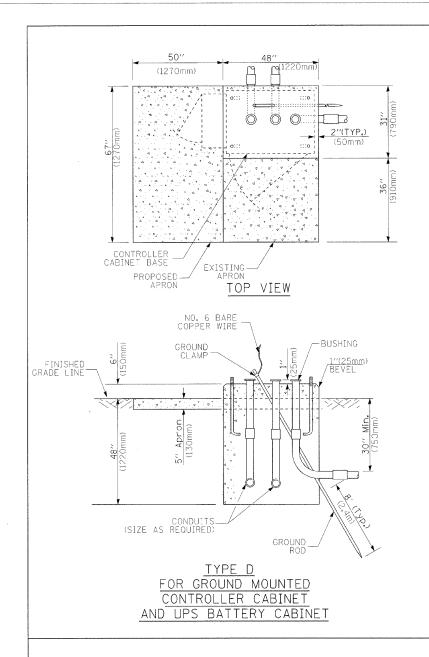
- 1. HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
- 2. REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCIDENTAL TO THE HANDHOLE.

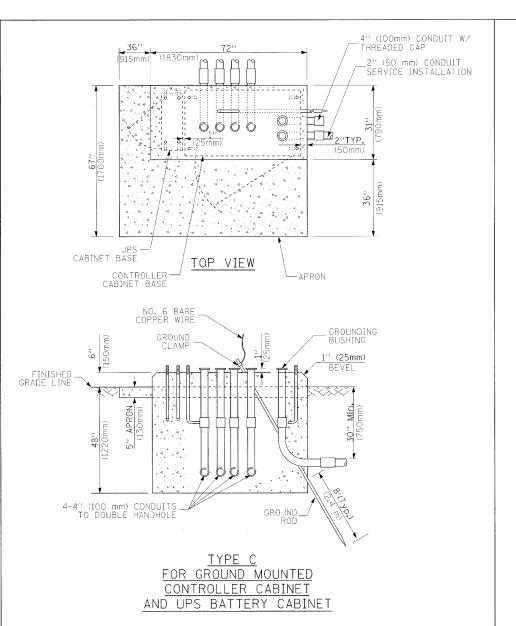
# HANDHOLE TO INTERCEPT EXISTING CONDUIT

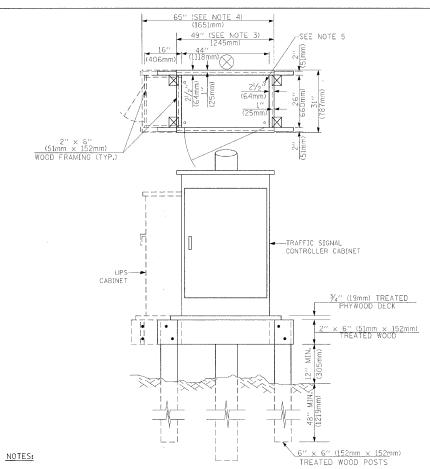
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	PLOT DATE = 10/6/2009	DATE - 10/28/09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT 1  TANDARD TRAFFIC SIGNAL DESIGN DETAILS  SHEET NO. 4 OF 6 SHEETS STA. TO STA. TO STA. FED. ROAD DIST. NO.   ILLINOIS  FED. AID PROJECT									
TANDARD TRAFFIC SIGNAL DESIGN DETAILS CONTRACT NO. 60152		DISTRICI	1		F.A.P. RTE.	SECTION	COUNTY		SHEET NO.
CONTRACT NO. 60152	TANDARD TRAFFIC SICNAL DESIGN DETAILS				353	13-I WILL		67	52
SHEET NO 4 OF 6 SHEETS STA TO STA LEED BOAD DIST NO THE MODEST	IANDA	RD TRAFFIC SIGNA	4F DESIGN	DE LAIL 2			CONTRACT	NO. 6	0152
STILLET NO. 1 OF O STILLETS STATE TO STATE PED. NOAD DIST. NO. ILLETNOIS PED. AID TROSECT		SHEET NO. 4 OF 6 SHEETS	STA.	TO STA.	FED. RO	DAD DIST. NO.   ILLINOIS FED. 4	ID PROJECT		







- 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  $16^{\prime\prime}$  x  $25^{\prime\prime}$  (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)	00.011	6.0+L
BRACKET MOUNTED (MAST ARM POLE OR SIGNAL POLE)	20.0+L 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	VERTICAL	CABLE	LENGTH	
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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	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
30' (9.1 m) and less than 40' (12.2 m)	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 <sub>*</sub> 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:

- 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

FILE NAME =	USER NAME = kanthaphixaybo	DESIGNED - DAG	REVISED -			DISTRICT 1	F.A.P. RTE.	SECTION	COUNTY TOTAL SHEET SHEET NO.
c:\pw_work\PWIDOT\KANTHAPHIXAYBC\dØ1126	4\traffic_legend_v7.dgn	DRAWN - BCK	REVISED -	STATE OF ILLINOIS	STANDA		353	13-I	WILL 67 53
	PLOT SCALE = 20.0000 '/ IN.	CHECKED - DAD	REVISED -	DEPARTMENT OF TRANSPORTATION	STANDA	200/00/00			CONTRACT NO. 60152
	PLOT DATE = 10/6/2009	DATE - 10/28/09	REVISED -	· ·	SCALE:	SHEET NO. 5 OF 6 SHEETS STA. TO STA.	FED. ROAD DIST. N	O. ILLINOIS FED. AI	ID PROJECT

# TRAFFIC SIGNAL LEGEND

ITEM	REMOVAL	EXISTING	PROPOSED	ITEM	REMOVAL	EXISTING	PROPOSED	<u>ITEM</u>	REMOVAL	EXISTING	PROPOSED	
CONTROLLER CABINET	R	$\boxtimes$	$\blacksquare$	EMERGENCY VEHICLE LIGHT DETECTOR	$\stackrel{R}{\lessdot}\!$	$\bowtie$	•	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1/C, UNLESS NOTED OTHERWISE			1	
RAILROAD CONTROL CABINET		R R		CONFIRMATION BEACON	$R_{O-O}$	<b>○</b> —(]	<b>⊷</b>			~/		
OMMUNICATIONS CABINET	C C R	ECC	CC	HANDHOLE	R □			COAXIAL CABLE		—(c)—	— <u>c</u> —	
ASTER CONTROLLER		EMC	MC					VENDOR CABLE FOR CAMERA				
ASTER MASTER CONTROLLER	R	EMMC	MMC	HEAVY DUTY HANDHOLE	H R	H	H	COPPER INTERCONNECT CABLE,				
NINTERRUPTIBLE POWER SUPPLY	UPS	EUPS	UPS	DOUBLE HANDHOLE	R R			NO. 18 3 PAIR TWISTED, SHIELDED		<u> </u>	-6-	
ERVICE INSTALLATION, P) POLE OR (G) GROUND MOUNT	R	-O-P	- <b></b> -	JUNCTION BOX GALVANIZED STEEL CONDUIT	Lactoria		_	FIBER OPTIC CABLE NO. 62.5/125, MM12F		— <u>12F</u> —		
ELEPHONE CONNECTION P) POLE OR (G) GROUND MOUNT	R	P	P	IN TRENCH (T) OR PUSHED (P)		The state of the s		FIBER OPTIC CABLE			<del>(24F)</del>	
TEEL MAST ARM ASSEMBLY AND POLE	R	0	•	TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE	K			NO. 62.5/125, MM12F SM12F		,-	_	
LUMINUM MAST ARM ASSEMBLY AND POLE	R			COMMON TRENCH			ст	FIBER OPTIC CABLE NO. 62.5/125, (NUMBER OF FIBERS & TYPE TO BE		<del>-</del>		
TEEL COMBINATION MAST ARM SSEMBLY AND POLE WITH LUMINAIRE	R <sub>O-</sub> ; <del></del>	O-X	• <del>×</del>	COILABLE NONMETALLIC CONDUIT (EMPTY) SYSTEM ITEM		S	CNC S	NOTED ON PLANS)  GROUND ROD AT (C) CONTROLLER,		C .	C	
TEEL COMBINATION MAST ARM SSEMBLY AND POLE WITH PTZ CAMERA	R PTZ]1	Q——— PīZļi	₽TZ <b>I</b>	INTERSECTION ITEM		I	IP	(H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE		C <sub>1[]</sub>	C	
IGNAL POST	RO	0	•	REMOVE ITEM	R			CONTROLLER CABINET AND FOUNDATION TO BE REMOVED	RCF			
EMPORARY WOOD POLE (CLASS 5 OR	R ⊗	$\otimes$	•	RELOCATE ITEM	RL				RMF			
ETTER) 45 FOOT (13.7m) MINIMUM  UY WIRE	R	>	>	ABANDON ITEM  12" (300mm) TRAFFIC SIGNAL SECTION	А	R	R	STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED	O			
GNAL HEAD	R 		<b>→</b>					ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED	RMF			
GNAL HEAD CONSTRUCTION STAGES UMBERS INDICATE THE CONSTRUCTION STAGE)			2	12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE				STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE AND	RMF O-X			
GNAL HEAD WITH BACKPLATE	+C> R	+1>	+-			(R)	R	FOUNDATION TO BE REMOVED				
IGNAL HEAD OPTICALLY PROGRAMMED	R →>''P''	-[>″p″	<b>-►</b> "P"	SIGNAL FACE			G <b>4</b> Y	SIGNAL POST AND FOUNDATION TO BE REMOVED	RMF			
ASHER INSTALLATION DENOTES SOLAR POWER)	O-Ď′′F′′	O-D″F″	<b>●►</b> "F"	,		<b>◆</b> Y)	♣Υ ◆G	INTERSECTION & SAMPLING (SYSTEM) DETECTOR		[IS]	IS	
DESTRIAN SIGNAL HEAD	R -	-[	-1			R	R	SAMPLING (SYSTEM) DETECTOR			S	
EDESTRIAN PUSHBUTTON DETECTOR	R .⊚	<b>©</b>	<b>©</b>	SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD			Š	Y G	EXISTING INTERSECTION LOOP DETECTOR PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR		[P]	
CCESSIBLE PEDESTRIAN PUSHBUTTON DETECTOR	R APS	@APS	APS			(+ y) (+ G) ('P)''	◆Y ◆G	EXISTING PREFORMED INTERSECTION LOOP DETECTOR	חל	1-4 PP		
LUMINATED SIGN NO LEFT TURN"	R	9	•	404 (700 ) PERSONNIN CIONA USAR			"P"	PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECT(	DR	<b>-</b>		
LUMINATED SIGN	R			12" (300mm) PEDESTRIAN SIGNAL HEAD WALK/DON'T WALK SYMBOL		w		PREFORMED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR		PIS	PIS	
NO RIGHT TURN"			<b>®</b>	12" (300mm) PEDESTRIAN SIGNAL HEAD				PREFORMED SAMPLING (SYSTEM) DETECTOR		[PS]	PS	
ETECTOR LOOP, TYPE I				INTERNATIONAL SYMBOL, OUTLINED							-	
REFORMED DETECTOR LOOP		   P	Р	12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, SOLID		<b>*</b>	*	RAILROAD	<b>SYMBOL</b>	S		
ICROWAVE VEHICLE SENSOR	R (M)1	M	<b> M</b> ■	PEDESTRIAN SIGNAL HEAD, INTERNATIONAL SYMBOL, WITH COUNTDOWN TIMER		<b>₽</b> C <b>®</b> D	<b>₽</b> C <b>★</b> D		<u>E</u>	XISTING	PROPOSED	
IDEO DETECTION CAMERA	R [ <b>√</b> ]☐	(V)	$\bigcirc$	RADIO INTERCONNECT	-  -  R	111110		RAILROAD CONTROL CABINET		R R	₽-4	
IDEO DETECTION ZONE								RAILROAD CANTILEVER MAST ARM	X <del>0</del> 2	XX	X <del>eX X</del>	
	R_			RADIO REPEATER	RERR	ERR	RR	FLASHING SIGNAL		$\times \Theta \times$	<b>X⊖X</b>	
AN, TILT, ZOOM CAMERA		PTZI	PTZ•	DENOTES NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE,		_5		CROSSING GATE		X0X>	X-X-	
IRELESS DETECTOR SENSOR	R R	<b>W</b>	W	ALL DETECTOR LOOP CABLE TO BE SHIELDED  GROUND CABLE IN CONDUIT		æ.		CROSSBUCK:	_	<b>≥</b>	*	
VIRELESS ACCESS POINT				NO. 6 SOLID COPPER (GREEN)		1			IE A		TOTAL	
E NAME = USER NAME = kanthaphixa www.ork.\PWIDOT\KANTHAPHIXAYBC\dØ112614\traffic_legend_v7.dgn		ESIGNED - DAG/BCK RAWN - BCK	REVISED -		E OF ILLINOI			DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAILS	8 353	SECTION 13-I	COUNTY TOTAL SHEETS	
PLOT SCALE = 20.0000 '/ PLOT DATE = 10/6/2009		HECKED - DAD ATE - 10/28/09	REVISED - REVISED -	DEPARTMENT	OF TRANSP	PORTATION	SCALE: N			T. NO.   ILLINOIS FED	CONTRACT NO.	

