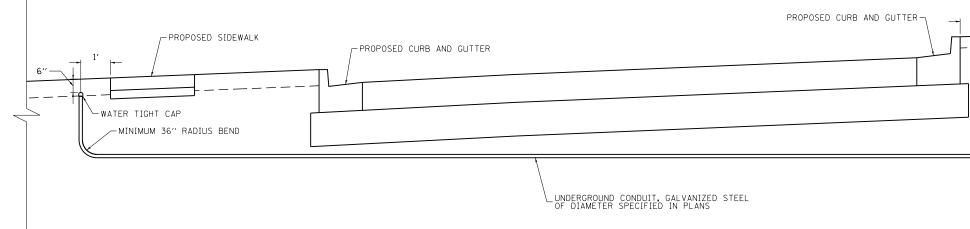


SCALE: 1" = 50' SHEET 5 OF 6 SHEETS STA 100+00 TO STA 109+00

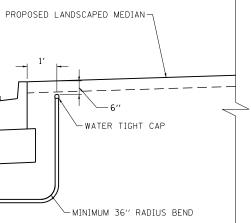




USER NAME = mrciss	DESIGNED - WBL	REVISED -				FAP RTE	SECTION	COUNTY TO	DTAL SHEET
FILENAME = DINNNNN-sht-Irrig-Details.dgn DRAWN - MKW		REVISED -	STATE OF ILLINOIS	IRRIGATION PLAN	DETAILS	336	06-00329-01-PW	MCHENRY 1	751 502
PLOT SCALE = N.T.S. ( in.	CHECKED - RCB	REVISED -	DEPARTMENT OF TRANSPORTATION			I		CONTRACT NO	D. 61E53
PLOT DATE = 4/25/2018	DATE - 4-26-2018	REVISED -		SCALE: NONE SHEET 6 OF 6 SHEETS			ILLINOIS FED. AI	D PROJECT	

NOTES:

- 1. CONTRACTOR SHALL COORDINATE WITH AND PROVIDE ADEOUATE AS BUILT DRAWINGS TO THE VILLAGE OF ALGONOUIN OF THE INSTALLED UNDERGROUND CONDUITS.
- ALL ENDS SHALL BE CAPPED WITH WATER TIGHT CAPS. CAPS ARE INCLUDED IN THE COST OF THE UNDERGROUND CONDUIT, GALVANIZED STEEL, OF THE SPECIFIED DIAMTER.



# TRAFFIC SIGNAL SCHEDULE OF QUANTITIES

PAY ITEM #	PAY ITEM NAME	UNIT	QTY TOTAL	RANDALL & HARNISH	RANDALL & BUNKER HILL/ HUNTINGTON	RANDALL & STONEGATE	RANDALL & ALGONQUIN	RANDALL & COSTCO/ AMC DRIVEWAY	RANDALL & POLARIS/ ACORN	ALGONQUIN & CRYSTAL LAKE	INTERCONNECT
72000100	SIGN PANEL - TYPE 1	SQ FT	300		60	30	60	30	60	60	
80500010	SERVICE INSTALLATION - GROUND MOUNTED	EACH	3		1	1	1				
80500020	SERVICE INSTALLATION - POLE MOUNTED	EACH	3					1	1	1	
81028200	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	10,501		24	19	29	14	25	90	10,300
81028220	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	573	40	106	83	50	58	142	94	
	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3 1/2" DIA.	FOOT	226		27	27	97	47		28	
81028240	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	4,537	316	662	712	1,100	672	578	497	
81400100	HANDHOLE	EACH	27		2	4		4	2	2	13
81400300	DOUBLE HANDHOLE	EACH	14		2	2	4	2	2	2	
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	4								4
86400100	TRANSCEIVER - FIBER OPTIC	EACH	6		1	1	1	1	1	1	
87100140	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, 12F	FOOT	800								800
	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 12 1C	FOOT	18,760								18,760
	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	12,993	2,365	3,887	1,292	1,979	1,152	1,582	736	
	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	20,611	3,754	4,279	2,930	3,319	2,599	2,644	1,086	
	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 SC	FOOT	24,729	0,, 04	3,773	5,106	5,714	4,680	3,437	2,019	
	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 JC	FOOT	8,345		2,232	3,200	1,806	4,000	1,828	2,015	
	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	4,788		1,000	485	1,122	464	889	828	
	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 18 SC ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	355		50	50	50	50	50	105	
		FOOT	6,144	265	933	968		923	854	808	
	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C				955	908	1,393	925		808	
	TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	4	3		2		2	1	2	
	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	6			2		2		2	
	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 18 FT.	EACH	1				1				
87702840	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 22 FT.	EACH	2				1		1		
	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 24 FT.	EACH	2				1		1		
	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 26 FT.	EACH	1						1		
	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 28 FT.	EACH	3		1		1		1		
	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 30 FT.	EACH	1		1						
	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 32 FT.	EACH	2		2						
87702910	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 36 FT.	EACH	1						1		
87702960	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 46 FT.	EACH	3							3	
87702970	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 48 FT.	EACH	2						2		
87702985	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 52 FT.	EACH	2		1					1	
87702990	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 54 FT.	EACH	2		2						
87703000	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 55 FT.	EACH	1						1		
87703020	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 58 FT.	EACH	1			1					
87703030	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 60 FT.	EACH	2		1		1				
87703040	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 62 FT.	EACH	1			1					
87703070	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 66 FT.	EACH	1				1				
87703080	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 68 FT.	EACH	1					1			
	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 70 FT.	EACH	1				1				
	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 74 FT.	EACH	1			1	1			1	
	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 75 FT.	EACH	1				-	1			
	STEEL COMBINATION MAST ARM ASSEMBLY AND FOLE 75 TT.	EACH	2			2		-			
	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH DUAL MAST ARMS, 24 FT. AND 52 FT.	EACH				2		1			
			1					1			
	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH DUAL MAST ARMS, 32 FT. AND 34 FT.	EACH	1	45	45		-	1	-		
	CONCRETE FOUNDATION, TYPE A	FOOT	84	12	12	20	4	20	4	12	
	CONCRETE FOUNDATION, TYPE C	FOOT	24		4	4	4	4	4	4	
87800415	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	409		105	32	60	32	120	60	
87800420	CONCRETE FOUNDATION, TYPE E 42-INCH DIAMETER	FOOT	209		21	42	96	50			
87900100	DRILL EXISTING FOUNDATION	EACH	1	1							
87900200	DRILL EXISTING HANDHOLE	EACH	10	8							2
88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	91		14	18	20	18	14	7	
	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	6			2		2		2	
88030070	SIGNAL HEAD, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED	EACH	4							4	
		EACH	4							4	

USER NAME = mrciss	DESIGNED - BTW	REVISED -		TRAFFIC SIGNALS				F A P R T F	SECTION	COUNTY TOTAL SHEET	
FILENAME = DINNNNN-sht-TSP-Sum-1	DRAWN - BTW	REVISED -	STATE OF ILLINOIS							MCHENRY 1751 503	
PLOT SCALE = 40.0000 ' / in.	CHECKED - GR	REVISED -	DEPARTMENT OF TRANSPORTATION	SCHEDULE OF QUANTITIES					CONTRACT NO. 61E53		
PLOT DATE = 4/25/2018	DATE - 4-26-2018	REVISED -		SCALE: NONE	SHEET 1	OF 66 SHEETS STA	TO STA		ILLINOIS FED. AID PROJECT		

# TRAFFIC SIGNAL SCHEDULE OF QUANTITIES

PAY ITEM #	PAY ITEM NAME	UNIT	QTY TOTAL	RANDALL & HARNISH	RANDALL & BUNKER HILL/ HUNTINGTON	RANDALL & STONEGATE	RANDALL & ALGONQUIN	RANDALL & COSTCO/ AMC DRIVEWAY	RANDALL & POLARIS/ ACORN	ALGONQUIN & CRYSTAL LAKE	INTERCONNECT
88030100	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	2							2	
88030110	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	26		8		8		8	2	
88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	44	8	8	4	8	4	8	4	
88200510	TRAFFIC SIGNAL BACKPLATE, RETROREFLECTIVE	EACH	121		22	18	28	18	22	13	
88700200	LIGHT DETECTOR	EACH	22		4	4	4	4	4	2	
88700300	LIGHT DETECTOR AMPLIFIER	EACH	6		1	1	1	1	1	1	
89000100	TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	4		1		1		1	1	
89502210	MODIFY EXISTING CONTROLLER CABINET	EACH	2								2
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	4		1		1		1	1	
89502380	REMOVE EXISTING HANDHOLE	EACH	37		9		4		2	3	19
89502382	REMOVE EXISTING DOUBLE HANDHOLE	EACH	5		1		1		2	1	
89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	34		9		7		9	9	
X0323914	FIBER OPTIC CABLE SPLICE - LATERAL	EACH	10	1	1	1	1	1	1	1	3
X0324085	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	5,437		1,113	1,067	1,284	975	675	323	
X0324599	ROD AND CLEAN EXISTING CONDUIT	FOOT	7,140								7,140
X0327698	LED INTERNALLY ILLUMINATED STREET NAME SIGN	EACH	28	4	4	4	4	4	4	4	
X1400102	OUTDOOR RATED NETWORK CABLE	FOOT	600	100	100		300		100		
X1400156	RADAR VEHICLE DETECTION SYSTEM, SINGLE APPROACH, FAR BACK	EACH	14		2	2	4	2	2	2	
X1400201	RADAR VEHICLE DETECTION SYSTEM, SINGLE APPROACH, STOP BAR	EACH	4			2		2			
X1400215	REMOTE CONTROLLED VIDEO SYSTEM	EACH	4	1	1		1		1		
X8570226	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	8	1	1	1		1	1	1	2
X8570231	FULL-ACTUATED CONTROLLER AND TYPE V CABINET, SPECIAL	EACH	1				1				
X8600105	MASTER CONTROLLER (SPECIAL)	EACH	1								1
X8620200	UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	9	1	1	1	1	1	1	1	2
X8710200	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM36F	FOOT	19,600								19,600
X8760055	PEDESTRIAN PUSH-BUTTON POST, TYPE A	EACH	8		2	2		3		1	
X8760200	ACCESSIBLE PEDESTRIAN SIGNALS	EACH	48	8	8	6	8	6	8	4	
X8950510	REMOVE FIBER OPTIC CABLE FROM CONDUIT	FOOT	19,500								19,500
Z0033056	OPTIMIZE TRAFFIC SIGNAL SYSTEM	EACH	1								1
Z0033072	VIDEO VEHICLE DETECTION SYSTEM	EACH	6		1	1	1	1	1	1	
Z0073510	TEMPORARY TRAFFIC SIGNAL TIMING	EACH	4		1		1		1	1	
	DATA AGGREGATOR	EACH	3								3

### **TRAFFIC SIGNAL GENERAL NOTES:**

- 1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION. THIS SHALL INCLUDE LOCATING THE MAST ARM FOUNDATIONS AND VERIFYING THE MAST ARM LENGTHS.
- 2. THE EXACT LOCATION OF ALL UTILITES SHALL BE FIELD VERIFIED BY THE CONTRACTOR BEFORE ORDERING ANY MATERIALS AND STARTING ANY WORK. FOR LOCATIONS OF UTILITIES, LOCALLY OWNED EQUIPMENT, LEASED ENFORCEMENT CAMERA SYSTEM FACILITIES AND IDOT UNDERGROUND FACILITIES, CONTACT THE LOCAL COUNTIES, MUNICIPALITIES AND IDOT FOR LOCATES. THE CONTRACTOR SHALL CALL "JULIE" AT (800) 892-0123 OR 811. FOR FIELD LOCATIONS OF BURIED UTILITIES (48 HOURS NOTIFICATION REQUIRED).
- 3. THE CONTRACTOR SHALL CHECK THE PROPOSED TRAFFIC SIGNAL EQUIPMENT LOCATIONS FOR OVERHEAD UTILITY CONFLICTS. THE CONTRACTOR SHALL COORDINATE ANY CONFLICTS WITH THE UTILITY COMPANIES AND THE RESIDENT ENGINEER BEFORE ORDERING MATERIALS.
- 4. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, LOCAL GOVERNMENT AGENCIES AND IDOT.
- 5. ALL TYPE IV SIGNAL CABINETS SHALL BE 65 INCHES HIGH MODIFIED TYPE IV CABINETS WITH AN ADDITIONAL SHELF. CONTRACTOR SHALL PROVIDE CABINET SHOP DRAWINGS FOR COUNTY REVIEW AND APPROVAL PRIOR TO ORDERING MATERIALS.
- 6. FOUNDATIONS FOR TRAFFIC SIGNAL MAST ARM ASSEMBLIES SHALL HAVE A MINIMUM DEPTH OF 15 FT, AS SPECIFIED IN PLANS. FOUNDATION DEPTHS FOR MAST ARMS LESS THAN 50 FT, SPECIFIED IN DISTRICT ONE STANDARD TS-05 AND HIGHWAY STANDARD 878001-10 SHALL NOT APPLY.

### **TEMPORARY TRAFFIC SIGNAL GENERAL NOTES:**

- ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
- 2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERES WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATABLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS1 OR TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
- 3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE 12". HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY OTHER POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.
- 4. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SIGNAL SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
- 5. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROLER EQUIPMENT.

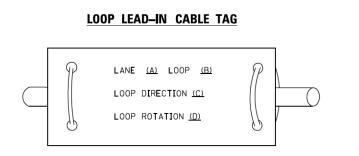
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PLOT DATE = 4/25/2018	DATE - 4-26-2018	REVISED -		SCALE: NONE SHEET 2 OF 66 SHEETS STA TO STA					ILLINOIS FED.	AID PROJECT	

6. EXISTING EMERGENCY VEHICLE PREEMPTION (EVP) EQUIPMENT SHALL BE RETURNED TO THE FIRE PROTECTION DISTRICT AS INDICATED IN THE REMOVAL PLANS. THE EQUIPMENT SHALL BE DELIVERED TO 1020 W ALGONOUIN ROAD, LAKE IN THE HILLS, IL 60156. CONTACT FIRE PROTECTION DISTRICT AT 847-658-8233 TO SCHEDULE AN APPOINTMENT FOR DELIVERY. REQUIREMENTS FOR REMOVAL, STORAGE AND DELIVERY OF COUNTY EQUIPMENT AS NOTED IN THE TRAFFIC SIGNAL SPECIFICATIONS SHALL ALSO APPLY TO THE EVP EQUIPMENT.

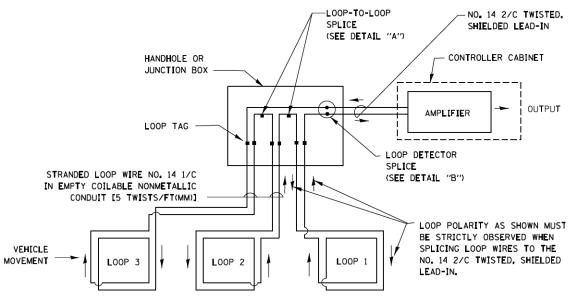
TEM	EXISTING	PROPOSED	ITEM	EXISTING	PROPOSED	ITEM	EXISTING	PROPOSED
ONTROLLER CABINET	$\boxtimes$		HANDHOLE -SQUARE			SIGNAL HEAD -(P) PROGRAMMABLE SIGNAL HEAD	R R	RR
OMMUNICATION CABINET	ECC	CC	-ROUND			AT / TROORAMINABLE STORE TIERD		R     R       Y     Y       G     G <b>4</b> Y <b>4</b> Y <b>4</b> G <b>4</b> G
MASTER CONTROLLER	EMC	МС	HEAVY DUTY HANDHOLE -SQUARE -ROUND	H D	E ©			
MASTER MASTER CONTROLLER	ЕММС	ммс	DOUBLE HANDHOLE			SIGNAL HEAD WITH BACKPLATE		
UNINTERRUPTABLE POWER SUPPLY	\$	Z	JUNCTION BOX		•	-(P) PROGRAMMABLE SIGNAL HEAD -(RB) RETROREFLECTIVE BACKPLATE		R R R Y Y
ERVICE INSTALLATION (P) POLE MOUNTED	-D- <sup>P</sup>	- <b>-</b> P	RAILROAD CANTILEVER MAST ARM	X <del>OX X</del> X	X <del>eI X</del>			G G G •Y •Y •Y •G •G •G
SERVICE INSTALLATION			RAILROAD FLASHING SIGNAL	XoX	X+X		P RB	P RB
-(G) GROUND MOUNTED -(GM) GROUND MOUNTED METERED	$\boxtimes^{C}\boxtimes^{CM}$	⊠ <sup>G</sup> ⊠ <sup>GM</sup>	RAILROAD CROSSING GATE	X <del>oX</del> >	X+1-	PEDESTRIAN SIGNAL HEAD		F
TELEPHONE CONNECTION	ET	Т	RAILROAD CROSSBUCK	<b></b>	¥ 	AT RAILROAD INTERSECTIONS	) F	<b>₩</b> ★
STEEL MAST ARM ASSEMBLY AND POLE	0	•	RAILROAD CONTROLLER CABINET		*	PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER	C C D	<b>₽</b> C <b>⊼</b> D
ALUMINUM MAST ARM ASSEMBLY AND POLE	$\bigcirc$		UNDERGROUND CONDUIT (UC), GALVANIZED STEEL					
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE	o-☆—	•★	TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE			ILLUMINATED SIGN "NO LEFT TURN"/"NO RIGHT TURN"		9
SIGNAL POST -(BM) BARREL MOUNTED - TEMPORARY	0	• • BM	SYSTEM ITEM	S	SP	NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE.	5	5
NOOD POLE	$\otimes$	Θ	INTERSECTION ITEM	Ι	IP	ALL DETECTOR LOOP CABLE TO BE SHIELDED		
GUY WIRE	>	~ ~	REMOVE ITEM		R	GROUND CABLE IN CONDUIT, NO. 6 SOLID COPPER (GREEN)	(1#6)	[1•6]
IGNAL HEAD	->	-	RELOCATE ITEM ABANDON ITEM		RL	ELECTRIC CABLE IN CONDUIT, TRACER NO. 14 1/C		
SIGNAL HEAD WITH BACKPLATE	+>	+►	CONTROLLER CABINET AND		RCF	COAXIAL CABLE		— <u>c</u> —
SIGNAL HEAD OPTICALLY PROGRAMMED	$- \rightarrow + \rightarrow \rightarrow \rightarrow$	→ <sup>P</sup> +→ <sup>P</sup>	FOUNDATION TO BE REMOVED			VENDOR CABLE	, _ /	
FLASHER INSTALLATION -(FS) SOLAR POWERED	ord ord FS	← F ↔ FS	MAST ARM POLE AND FOUNDATION TO BE REMOVED		RMF		— <u>v</u> —	
A SY SOLAR FORENES	⋳⋳⋗ <sup>₣</sup> ⋴⋳⋺ <sup>₣</sup> ऽ	<b>₽</b> ► <sup>F</sup> <b>₽</b> ► <sup>FS</sup>	SIGNAL POST AND FOUNDATION TO BE REMOVED		RPF	COPPER INTERCONNECT CABLE, NO. 18, 3 PAIR TWISTED, SHIELDED		6*18
PEDESTRIAN SIGNAL HEAD	-0	-1	DETECTOR LOOP, TYPE I	$\Box = \bigcirc$		FIBER OPTIC CABLE -NO. 62.5/125, MM12F	12F	-(12F)
PEDESTRIAN PUSH BUTTON -(APS) ACCESSIBLE PEDESTRIAN PUSH BUTTON		I I I I I I I I I I I I I I I I I I I	PREFORMED DETECTOR LOOP	P (P)	P P	-NO. 62.5/125, MM12F SM12F -NO. 62.5/125, MM12F SM24F	24F	24F
RADAR DETECTION SENSOR	RJ	R	SAMPLING (SYSTEM) DETECTOR	s (ŝ)	s (s)		36F	
/IDEO DETECTION CAMERA			INTERSECTION AND SAMPLING (SYSTEM) DETECTOR	IS (ÎŜ)	IS (IS			
RADAR/VIDEO DETECTION ZONE			QUEUE AND SAMPLING (SYSTEM) DETECTOR		<u>as</u> (05)	GROUND ROD -(C) CONTROLLER -(M) MAST ARM	<u>≟<sup>C</sup> ≟<sup>M</sup> ≟<sup>P</sup> ≟<sup>S</sup></u>	
PAN, TILT, ZOOM (PTZ) CAM <b>e</b> ra	PTZJ	PTZ	WIRELESS DETECTOR SENSOR	(i) (i)	<b>_</b> ©	-(P) POST -(S) SERVICE		
EMERGENCY VEHICLE LIGHT DETECTOR	$\bowtie$	-	WIRELESS ACCESS POINT					
CONFIMATION BEACON	D0	н						
WIRELESS INTERCONNECT	0++++ - -	<b>⊷</b> ++   <del> </del>						
WIRELESS INTERCONNECT RADIO REPEATER	ERR	RR						

### 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.

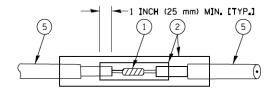


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP •1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

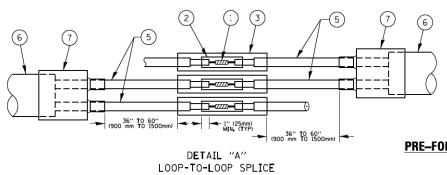


### DETECTOR LOOP WIRING SCHEMATIC

- 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.



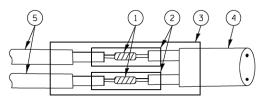
DETAIL "A" LOOP-TO-LOOP SPLICE



### LOOP DETECTOR SPLICE

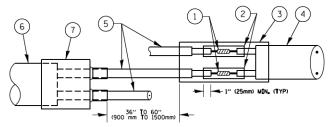
- $\stackrel{\frown}{(1)}$  western union splice soldered with rosin core flux. All exposed suf-OF THE SOLDER SHALL BE SMOOTH, THE WESTERN UNION SPLICES SHALL BE S
- (2) WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER
- (3) WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGHT 6" (150 mm), UNDERWATER
- (4) NO. 14 2/C TWISTED, SHIELDED CABLE.

FILE NAME =	USER NAME = footemj	DESIGNED - DAD	REVISED - DAG 1-1-14			DISTRICT ONE		F.A.P.	SECTION	COUNTY TOTAL SHEET
c:\pw_work\pw1dot\footemj\d0108315\ts05.	lgn	DRAWN - BCK	REVISED -	STATE OF ILLINOIS	STANDARD TRAFFIC SIGNAL DESIGN DETAILS		336	06-00329-01-PW	MCHENRY 1751 506	
	PLOT SCALE = 50.0000 '/ in.	CHECKED - DAD	REVISED -	DEPARTMENT OF TRANSPORTATION	STANDARD TRAFFIC SIGNAL DESIGN DETAILS				TS-05	CONTRACT NO. 61E53
	PLOT DATE = 1/13/2014	DATE - 10-28-09	REVISED -		SCALE: NONE SHEET NO. 2 OF 7 SHEETS STA. TO STA.		FED. ROAD		ID PROJECT	





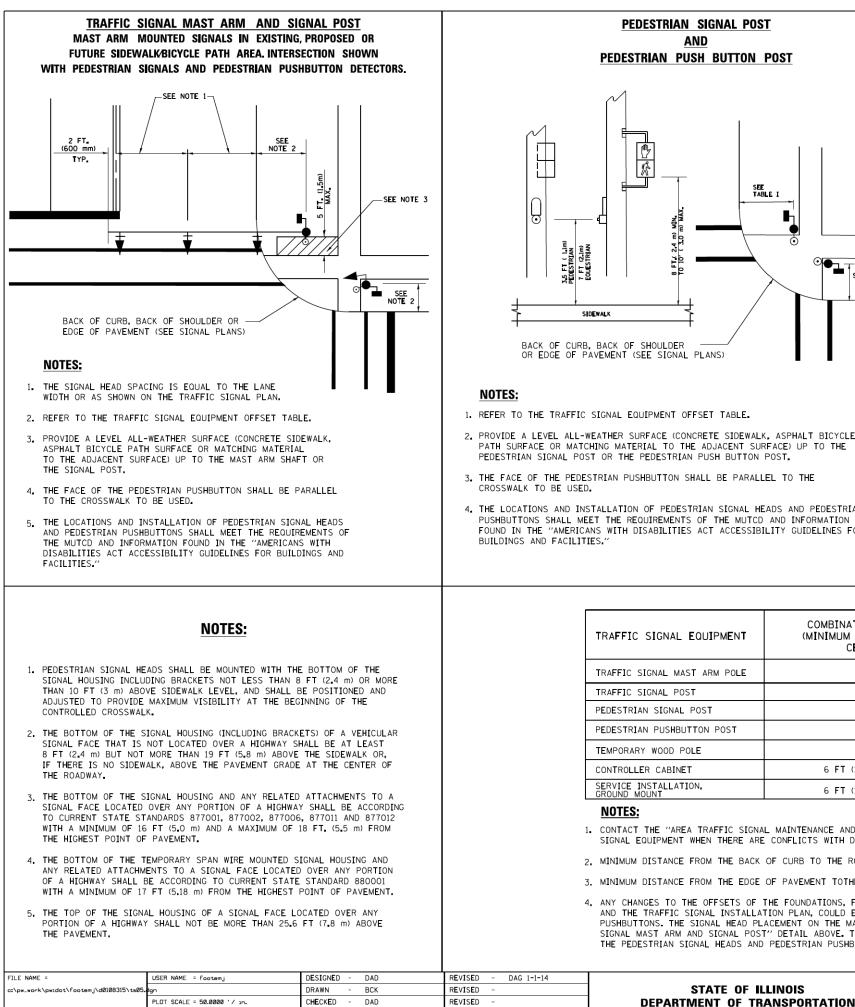
### TYPE | LOOP



### PRE-FORMED LOOP

### DETAIL "B" LOOP-TO-CONTROLLER SPLICE

JRFACES STAGGERED.	(5) LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.
STAGGERED.	6 PRE-FORMED LOOP
R GRAD <b>E</b>	
R GRAD <b>E.</b>	T SCHOLEFIN 2 CONDUCTOR BREAKOUT SEALS. TYCO CBR-2 OR APPROVED EQUAL

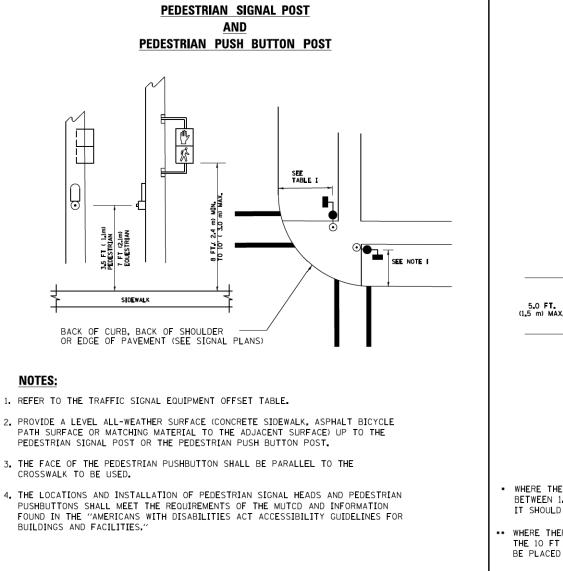


PLOT DATE = 1/13/2014

DATE

10-28-09

REVISED



### TRAFFIC SIGNAL EQUIPMENT OFFSET

TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOU
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOUL
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOUL
PEDESTRIAN PUSHBUTTON POST	4 FT (1.2m)	SHOU
TEMPORARY WOOD POLE	6 FT (1.8m)	SHOU
CONTROLLER CABINET	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOUL
SERVICE INSTALLATION, GROUND MOUNT	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOUL
10750		

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.

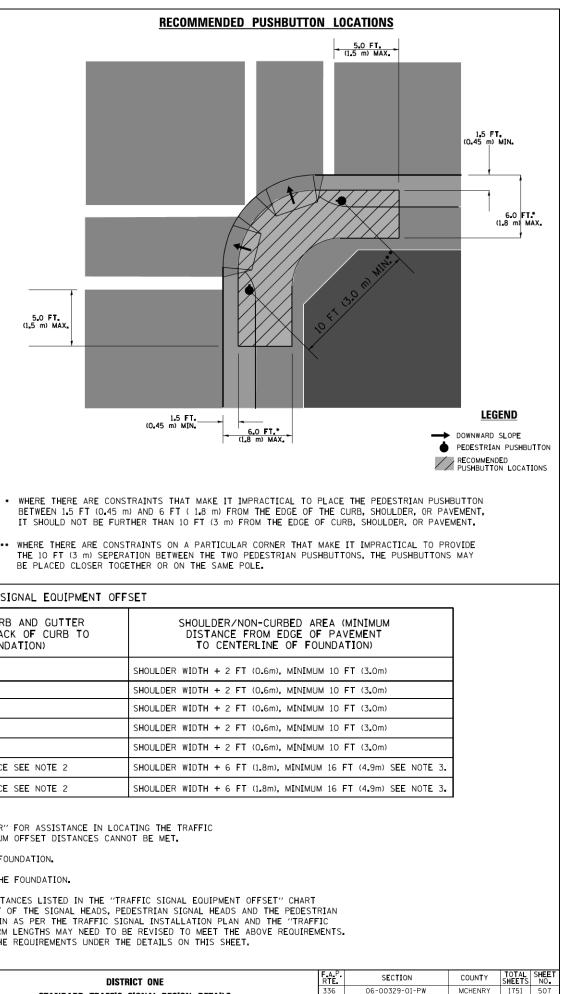
2. MINIMUM DISTANCE FROM THE BACK OF CURB TO THE ROADWAY SIDE OF THE FOUNDATION.

**STATE OF ILLINOIS** 

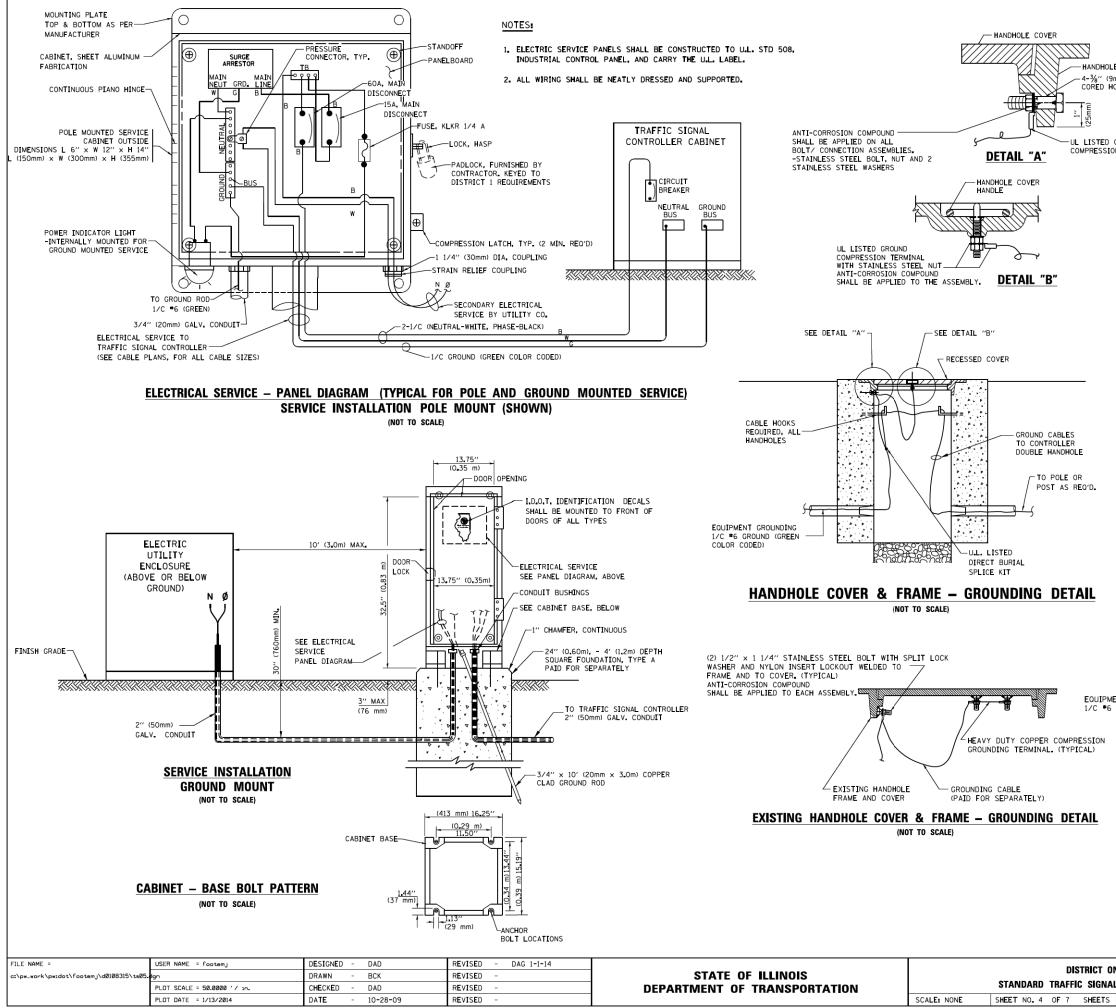
3. MINIMUM DISTANCE FROM THE EDGE OF PAVEMENT TOTHE ROADWAY SIDE OF THE FOUNDATION.

4. ANY CHANGES TO THE OFFSETS OF THE FOUNDATIONS, FROM THE MINIMUM DISTANCES LISTED IN THE "TRAFFIC SIGNAL EQUIPMENT OFFSET" CHART AND THE TRAFFIC SIGNAL INSTALLATION PLAN, COULD EFFECT THE PLACEMENT OF THE SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS AND THE PEDESTRIAN PUSHBUTTONS. THE SIGNAL HEAD PLACEMENT ON THE MAST ARMS SHALL REMAIN AS PER THE TRAFFIC SIGNAL INSTALLATION PLAN AND THE "TRAFFIC SIGNAL MAST ARM AND SIGNAL POST" DETAIL ABOVE. THE PROPOSED MAST ARM LENGTHS MAY NEED TO BE REVISED TO MEET THE ABOVE REQUIREMENTS. THE PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS MUST MEET THE REQUIREMENTS UNDER THE DETAILS ON THIS SHEET.

SCALE: NONE



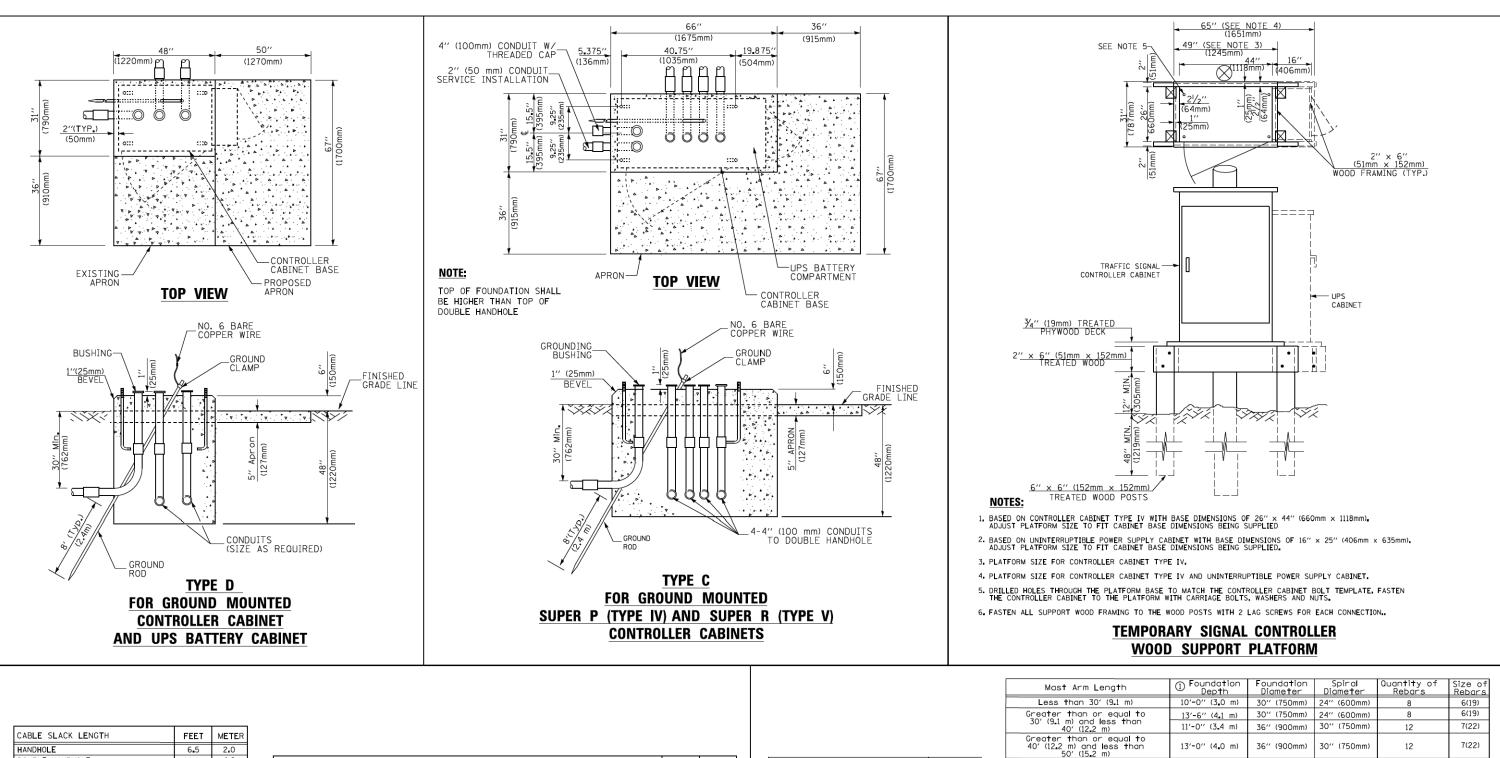
STANDARD TRAFFIC SIGNAL DESIGN DETAILS TS-05 CONTRACT NO. 61E53 SHEET NO. 3 OF 7 SHEETS STA. TO STA. FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT



### <u>NOTES:</u> <u>Grounding</u> System

DLE FRAME (9mm) DIA., HOLES ) GROUND ION TERMINAL		TYPE XLP, N RACEWAYS. T IN A CONTIN ALL GROUNDI (HANDHOLE, F 3/4" DIA. × SHALL BE IN CONTROLLER AS INDICATE SUCH AS SUE ENGINEER SH	IO. 6 A.W.G., STRA THE GROUNDING CA UUOUS MANNER AS ING CONDUCTORS 3 20ST, MAST ARM, 10'-O'' (20mm x ISTALLED AT ALL CABINET FOUNDA' D ON THE CABLE B-SURFACE CONDIT MALL BE NOTIFIED 20ARTMENT OF TRA	CONSIST OF AN INSULA NDED COPPER TO BE INS BLE SHALL BE INSTALLE( SHOWN ON THE CABLE PI SHALL BE BONDED TO ME CONTROLLER, ETC.), GROL 3.0m) LONG, COPPER CLAI POST FOUNDATIONS, POLI (ION AND ELECTRICAL SE PLAN. IF THERE ARE AN IONS OR INSTALLATION I OR CONTACT THE BURGAI NSPORTATION DISTRICT (	TALLED IN AN PROVIDED TAL ENCLOSUF IND ROD SHAL D. ONE GROUN E FOUNDATION RVICE INSTAL IY SPECIAL CO PROBLEMS, TH J OF TRAFFIC	L BE ID ROD IS, LATION DNDITION E RESIDE	
	2.	CONNECTED I	IN THE SERVICE I	THE GROUND CONDUCTOR NSTALLATION. AT NO OT EM SHALL THE NEUTRAL	HER POINT		
			NT GROUNDING CO	NDUCTORS SHALL TERMIN	IATE AT THE	GROUND	BUS
	4.			IDE A GROUND CABLE WIT R and Handhole Frame.	TH CONNECTOR	85	
				¥// (20mm) HEAVY-1 - ВЫЯНОУТ ТУРЕ СЯС (			
	• ALL • GRO 6_5' 13'	UND CABLE (2_Om) SLA( (4_Om) OF SI	SHALL BE LOOPE( CK SHALL BE PRO LACK SHALL BE F	OR COPPER, UL APPROVE OVER HOOKS IN THE H VIDED IN SINGLE HANDH ROVIDED IN DOUBLE HAN OVIDED BETWEEN FRAME	ANDHOLES IOLES NDHOLES		
(BURNI	PROVED			GROUNDING E 1/C *6 GROU HEAVY DUTY ( EXOTHERMIC W OR U.L. APPR( (TYPICAL FOR	ND (GREEN C GROUND ROD /ELD, DVED CONNEC	OLOR CO CLAMP, TOR.	
ľ	MAST	ARM PO	DLE / POST-( (NOT TO SCAL			m) COPP	ĒR
ONE			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET
			336	06-00329-01-PW	MCHENRY	1751	508

••	L DESIGN DETAILS		336	336 06-00329-01-PW						MCHENRY	1751	5	08
AL DESIGN DETAILS				TS05					CONTRACT NO			53	
	STA.	TO STA.	FED_ R	OAD D	ST. NO.	1	ILLINOIS	FED.	AID	PROJECT			



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

CABLE SLACK

VERTICAL CABLE LENGTH	FEET	METER
MAST ARM POLE ( MAST ARM MOUNTED SIGNAL HEAD)		
(L = MAST ARM LENGTH - DISTANCE TO SIGNAL HEAD FROM END OF ARM)	20.0+L	6.0+L
BRACKET MOUNTED (MAST ARM POLE OR SIGNAL POLE)	13.0	4_0
PEDESTRIAN PUSH BUTTON	6.0	2_0
SERVICE INSTALLATION POLE MOUNT TO SERVICE DROP	13.5	4.1
SERVICE INSTALLATION POLE MOUNT TO GROUND	13.5	4.1
SERVICE INSTALLATION GROUND MOUNT	6.0	2.0
FOUNDATION (SIGNAL POST, MAST ARM POLE, CONTROLLER CABINET, SERVICE-GROUND MOUNT)	3_0	1.0

### VERTICAL CABLE LENGTH

FOUNDATION	DEPTH
TYPE A - Signal Post	4'-0" (1_2m)
TYPE C - CONTROLLER W/ UPS	4'-0" (1_2m)
TYPE D - CONTROLLER	4'-0'' (1.2m)
SERVICE INSTALLATION, GROUND MOUNT, TYPE A - SQUARE	4'-0'' (1_2m)

**DEPTH OF FOUNDATION** 

Mast Arm Length	① Foundation Depth	Foundation Diameter	Spiral Diameter	Quantity of Rebars	Size of Rebars				
Less than 30' (9.1 m)	10'-0'' (3_0 m)	30'' (750mm)	24" (600mm)	8	6(19)				
Greater than or equal to	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 <b>.</b> 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 <b>.</b> 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 <b>.</b> 6 m)	42'' (1060mm)	36'' (900mm)	16	8(25)				
NOTES:									
1. These foundation depths are for s	These foundation depths are for sites which have cohesive soils (clayey silt, sandy clay, etc.) along								

FILE NAME =	USER NAME = footemj	DESIGNED - DAG	REVISED - DAG 1-1-14			DISTRICT ONE	F.A.P. SEC	CTION COU	JNTY TOTAL SHEET
c:\pw_work\pwidot\footemj\d0108315\ts05.	ign	DRAWN - BCK	REVISED -	STATE OF ILLINOIS			336 06-0032	29-01-PW MCHE	IENRY 1751 509
	PLOT SCALE = 50.0000 '/ in.	CHECKED - DAD	REVISED -	DEPARTMENT OF TRANSPORTATION		STANDARD TRAFFIC SIGNAL DESIGN DETAILS	TS-0!	5 CONT	TRACT NO. 61E53
	PLOT DATE = 1/13/2014	DATE - 10-28-09	REVISED -		SCALE: NONE	SHEET NO. 5 OF 7 SHEETS STA. TO STA.		ILLINOIS FED. AID PROJE	

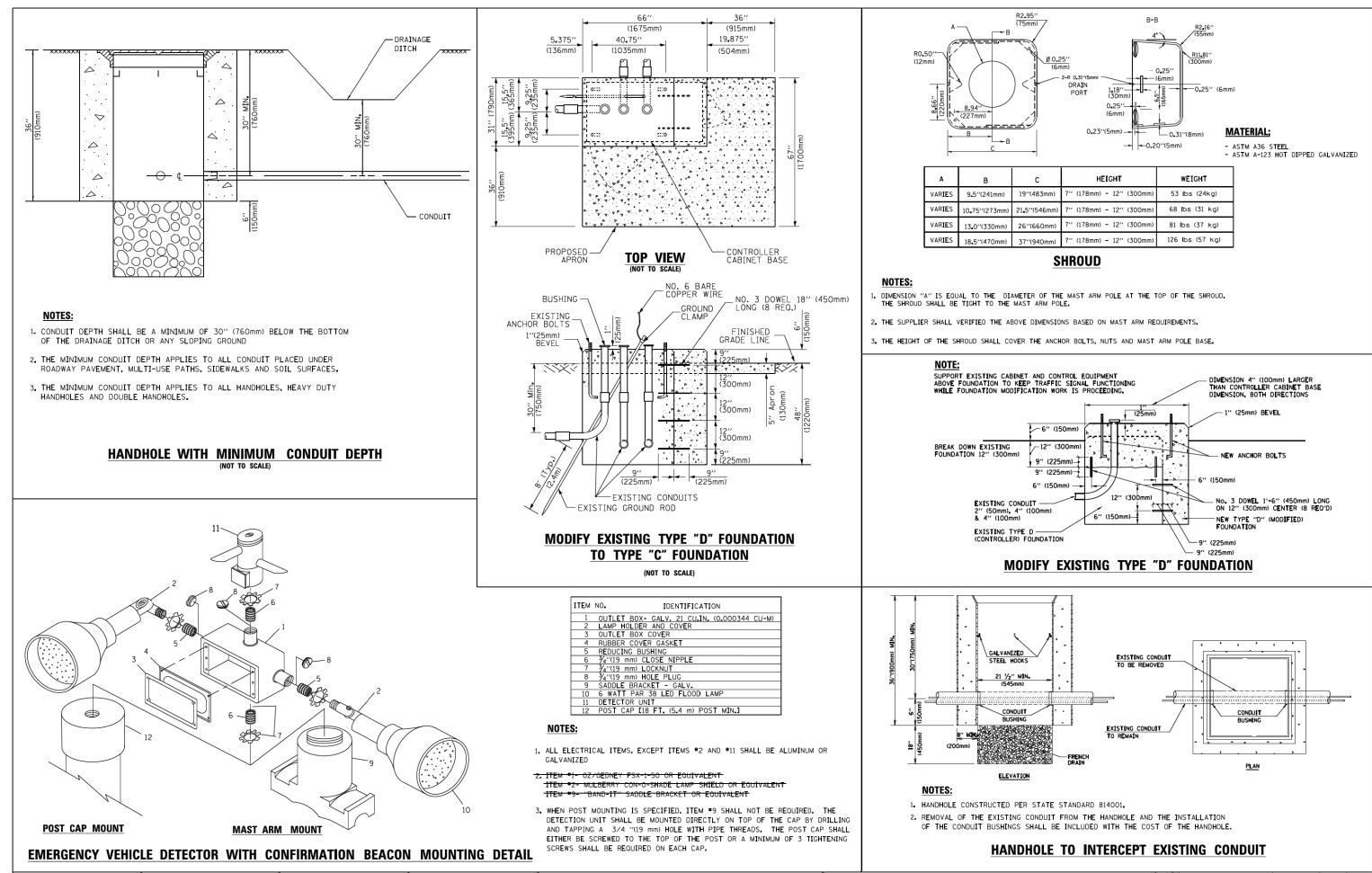
The length of the shoft, with an average Unconfined Compressive Solicy and the shoft, with an average Unconfined Compressive Strength (00) > 1.0 tst (100 kpc). This strength shall be verified by boring data prior to construction or with testing by the Engineer during foundation drilling. The Bureau of Bridges & structures should be contacted for a revised design if other conditions are encountered.

2. Combination mast arm assemblies under 55 feet (16.8 m) shall use 36" (900 mm) diameter foundations.

3. Combination mast arm assemblies under 56 feet (16.8 m) through 75 feet (22.9 m) shall use 42" (1060 mm) diameter foundations

4. For mast arm assemblies with dual arms refer to state standard 878001...

# DEPTH OF MAST ARM FOUNDATIONS, TYPE E

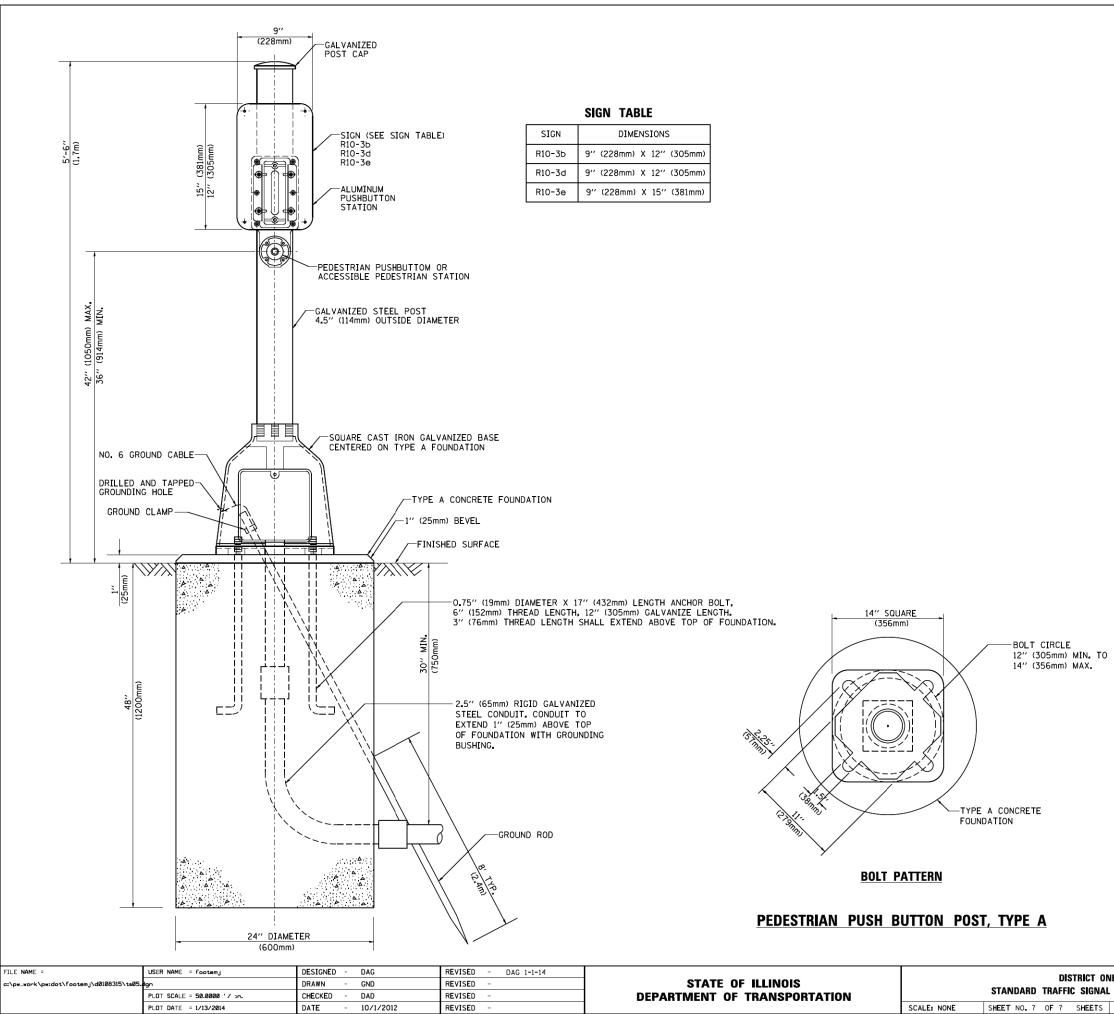


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	PLOT SCALE = 50.0000 '/ 10.	CHECKED	-	DAD	REVISED	-		1
	PLOT DATE = 1/13/2014	DATE	-	10-28-09	REVISED	-		1

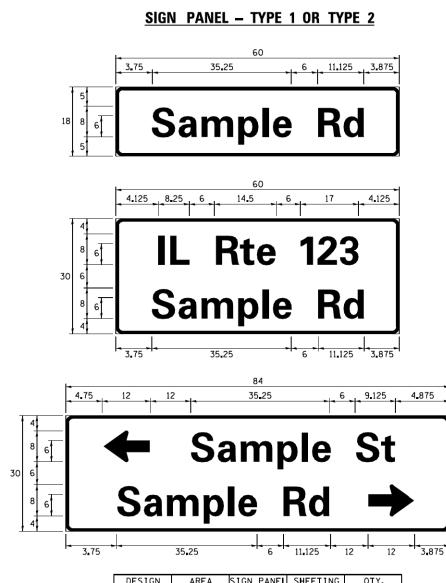
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		DISTRICT ON Standard traffic signal
	SCALE: NONE	SHEET NO. 6 OF 7 SHEETS

	С	HEIGHT	WEIGHT
1)	19''(483mm)	7" (178mm) - 12" (300mm)	53 lbs (24kg)
im)	21.5''(546mm)	7" (178mm) - 12" (300mm)	68 lbs (31 kg)
m)	26''(660mm)	7" (178mm) - 12" (300mm)	81 lbs (37 kg)
m)	37''(940mm)	7" (178mm) - 12" (300mm)	126 lbs (57 kg)

		F.A.P. RTE	SECTION	COUNTY	TOTAL	SHEET	
		336	06-00329-01-PW	MCHENRY	SHEETS 1751	NO. 510	
				TS05	CONTRACT	NO.	51E53
SHEETS	STA.	TO STA.	FED. R	DAD DIST. NO. 1 ILLINOIS FED. AI	D PROJECT		



ONE AL DESIGN DETAILS		F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		336	06-00329-01-PW	MCHENRY	1751	511	
			TS05	CONTRACT	NO.	51E53	
5	STA.	TO STA.	FED. R	DAD DIST. NO. 1 ILLINOIS FED. A	D PROJECT		



SERIES	(SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	REQUIRED
D OR C	-	1 OR 2	ZZ	-

ALL DIMENSIONS ARE IN INCHES EXCEPT NOTED OTHERWISE

# **COMMON STREET NAME ABBREVIATIONS**

AND WIDTHS

NAME	NAME ABBREVATION		(INCH)
NAME	ABBREVALION	SERIES "C"	SERIES "D"
AVENUE	Ave	15.000	18.250
BOULEVARD	Blvd	17.125	20.000
CIRCLE	Cir	11.125	13.000
COURT	C <b>†</b>	8.250	9.625
DRIVE	Dr	8.625	10.125
HIGHWAY	Hwy	18.375	22.000
ILLINOIS	IL	7.000	8.250
LANE	Ln	9.125	10.750
PARKWAY	Pkwy	23.375	27.375
PLACE	ΡI	7.125	7.750
ROAD	Rd	9.625	11_125
ROUTE	Rte	12.625	14.500
STREET	S <b>†</b>	8.000	9.125
TERRACE	Ter	12.625	14_625
TRAIL	Īr	7.750	9.125
UNITED STATES	US	10.375	12.250

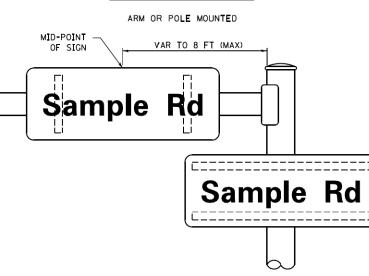
# **GENERAL NOTES**

- 1. WHERE MAST ARM MOUNTED STREET NAME SIGNS ARE SPECIFIED, THE MAST ARM ASSEMBLY AND POLES SHALL BE DESIGNED TO SUPPORT THE LOADINGS CALLED FOR ON STANDARDS 877001, 877002, 877006, 877011 AND 877012, AS APPLICABLE, PLUS TWO (2) SIGN PANELS 2'-6" × 8'-0" MOUNTED AS SHOWN. THE DESIGN SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS FOR 80 M.P.H. WIND VELOCITY.
- 2. ALL SIGNS SHALL CONSIST OF A WHITE LEGEND AND BORDER (TYPE ZZ SHEETING) ON A GREEN BACKGROUND (TYPE ZZ SHEETING)
- 3. THE SIGN LENGTH SHALL BE IN 6-INCH INCREMENTS, BUT THE OVERALL LENGTH SHALL NOT EXCEED 8'-O". ALL BORDERS SHALL BE 7/4" WIDE. CORNER RADIUS SHALL BE 1-7/8". THE SPACING BETWEEN THE WORDS SHOULD BE 6". IF POSSIBLE, BUT MAY BE REDUCED TO 5" WHEN SPACING IS CRITICAL. A MINIMUM OF 2-1/2" SHALL BE INCLUDED BETWEEN THE WORD AND THE RIGHT AND LEFT EDGES OF THE SIGN.
- 4. A PREFERRED METHOD FOR THE SIGN DESIGN IS TO USE SERIES "D" LETTER ON A ONE-LINE SIGN 18" IN HEIGHT AND A MAXIMUM OF 8'-O" IN WIDTH. IF SERIES "D" DOES NOT FIT ON A 8"-O" SIGN, THEN SERIES "C" SHOULD BE TRIED. IF SERIES "C" DOES NOT FIT ON A 8'-O" SIGN, A 30" HIGH TWO-LINE SIGN CAN BE USED. THE CROSSROAD DESIGNATION AS TO STREET, AVENUE, ETC. SHOULD BE SPELLED OUT ON THE SECOND LINE, IF THE ABBREVIATION CANNOT FIT ON THE FIRST LINE.
- 5. LED ILLUMINATED STREET NAME SIGNS CAN BE USED IN PLACE OF REGULAR SIGN PANELS BUT ANY SPECIAL WORDING AND SYMBOLOGY MUST BE APPROVED BY THE DEPARTMENT. GENERAL DESIGN REQUIREMENT AS LISTED ABOVE (COLOR, FONT, SIZE, ETC.) MUST BE FOLLOWED.
- 6. SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM SHALL BE USED FOR ALL SIGNS ATTACHED TO SIGNAL POLES AND POSTS.

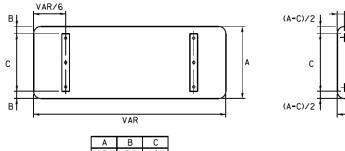
LOCAL SUPPLIERS	PARTS LISTING	
<ul> <li>J.O. HERBERT COMPANY, INC MIDLOTHIAN, VA</li> </ul>	SIGN CHANNEL SIGN SCREWS	PART ♥HPN053 (MED. CHANNEL) 1/4″ × 14 × 1″ H.W.H. ♥3
		SELF TAPPING WITH NEOPRENE WASHER
- WESTERN REMAC, INC. WOODRIDGE, IL	BRACKETS	PART •HPN034 (UNIVERSAL) CHANNEL CLAMPS WITH STAINLESS STEEL STRAPPING

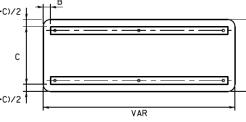
OTHER BRANDS OF MOUNTING HARDWARE ARE ACCEPTABLE, BASED UPON THE DEPARTMENT'S APPROVAL AND -COMPATIBILITY WITH THE CHANNEL/BRACKET OF THE ABOVE PRODUCT.

# MOUNTING LOCATION



# SUPPORTING CHANNELS





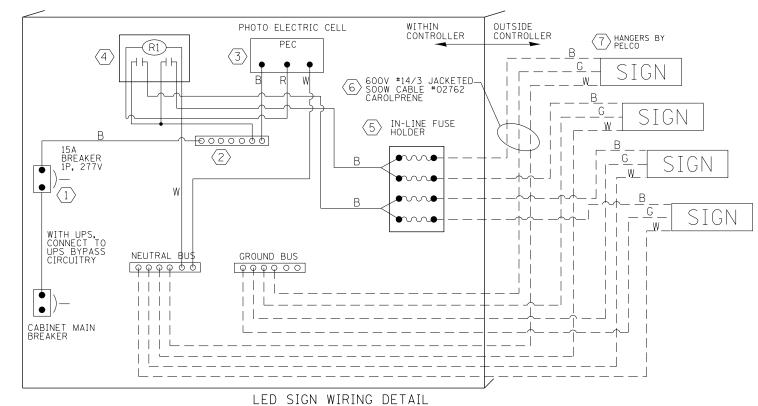
A B C

					18"     2"     12"       30"     2"     22"			
FILE NAME =	USER NAME = drivakosgn	DESIGNED - LP/IP	REVISED - LP 07/01/2015		DISTRICT ONE	F.A.P RTF	SECTION	COUNTY TOTAL SHEET
pw1\\IL084EBIDINTEG.1ll1no15.gov1PWIDOT\Do	uments\IDOT Offices\District 1\Projects\Dist	t6 <b>10R2419M</b> \CADDete\C <b>4D</b> Sheets\ts02.dgn	REVISED -	STATE OF ILLINOIS	MAST ARM MOUNTED STREET NAME SIGNS	336 06	6-00329-01-PW	MCHENRY 1751 512
	PLOT SCALE = 50.0000 ' / 10.	CHECKED - IP	REVISED -	DEPARTMENT OF TRANSPORTATION	WAST ANWI WOUNTED STREET WAWE SIGNS		TS-02	CONTRACT NO. 61E53
Default	PLOT DATE = 7/31/2015	DATE - 10/01/2014	REVISED -		SCALE: SHEET OF SHEETS STA. TO STA.		ILLINOIS FED. A	ID PROJECT

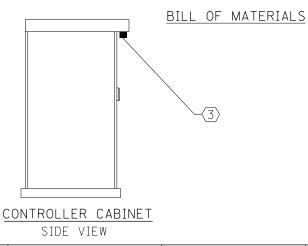
# STANDARD ALPHABETS SPACING CHART

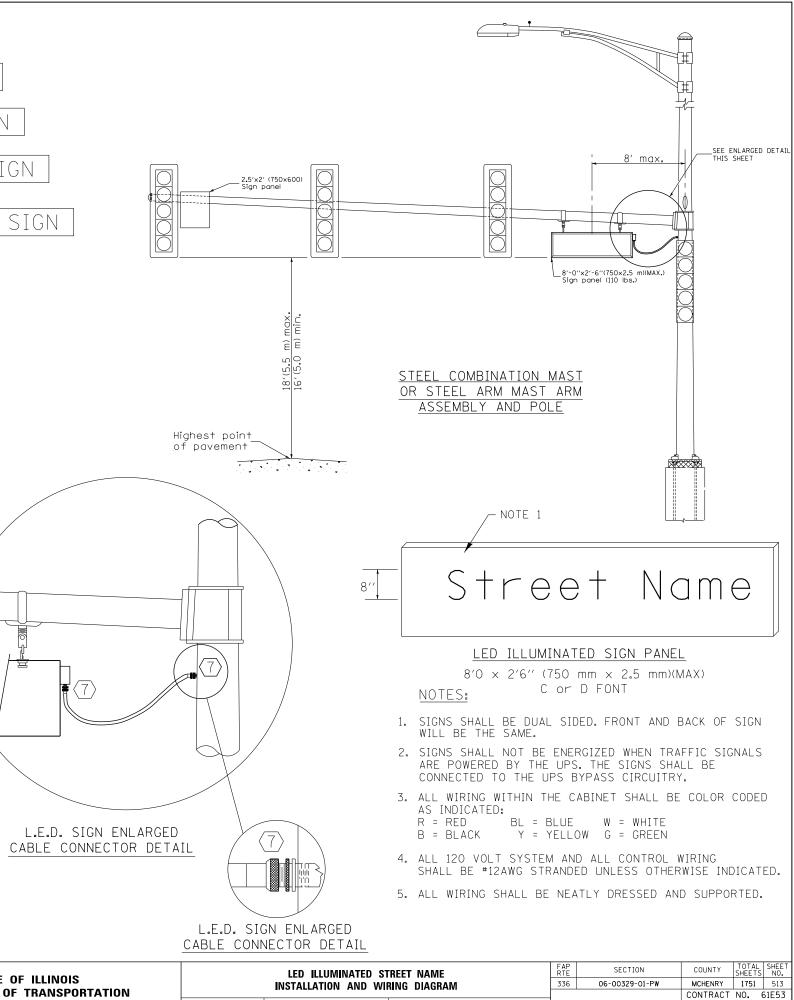
(8") UPPER CASE AND (6") LOWER CASE

	FHWA SEF				FHWA SEF		
	FINA SE	TES C			FINA SER	VIES D	
HARACTER	LEFT SPACING (INCH)	WIDTH (INCH)	RIGHT SPACING (INCH)	CHARACTER	LEFT SPACING (INCH)	WIDTH (INCH)	RIGHT SPACING (INCH)
Α	0.240	5.122	0.240	A	0.240	6.804	0.240
B	0.880	4.482	0.480	B	0.960	5.446	0.400
C D	0.720	4.482	0.720	C D	0.800 0.960	5.446 5.446	0.800 0.800
E	0.880	4.082	0. 480	E	0.960	4.962	0.400
F	0.880	4.082	0.240	F	0.960	4.962	0.240
G	0.720	4.482	0.720	G	0.800	5.446	0.800
Н	0.880	4.482	0.880	Н	0.960	5.446	0.960
I	0.880	1.120	0.880	I	0.960	1.280	0.960
J	0.240	4.082	0.880	J	0.240	5.122	0.960
K	0.880	4.482	0.480	K L	0.960 0.960	5.604 4.962	0.400
M	0.880	5.284	0.880	M	0.960	6.244	0.960
N	0.880	4.482	0.880	N	0.960	5.446	0.960
0	0.720	4.722	0.720	0	0.800	5.684	0.800
Р	0.880	4.482	0.720	Р	0.960	5.446	0.240
0	0.720	4.722	0.720	0	0.800	5.684	0.800
R S	0.880	4.482	0.480 0.480	R S	0.960	5.446 5.446	0.400 0.400
T T	0.480	4.482	0.480	T	0.400	4.962	0.240
U	0.880	4.482	0.880	U	0.960	5.446	0.960
V	0.240	4.962	0.240	V	0.240	6.084	0.240
W	0.240	6.084	0.240	W	0.240	7.124	0.240
Х	0.240	4.722	0.240	Х	0.400	5.446	0.400
Y	0.240	5.122	0.240	Y	0.240	6.884	0.240
Z	0.480	4.482 3.842	0.480	Z	0.400	5.446 4.562	0.400
a b	0. 320	4.082	0.840	a b	0.400	4. 802	0. 120
c	0.480	4.002	0.240	c	0.480	4.722	0.240
d	0.480	4.082	0.720	d	0.480	4.802	0.800
е	0.480	4.082	0.320	е	0.480	4.722	0.320
f	0.320	2.480	0.160	f	0.320	2.882	0.160
g	0.480	4.082	0.720	g	0.480	4.802	0.800
h i	0.720	4.082	0.640	h I	0.800 0.800	4.722	0.720 0.800
i	0.000	2. 320	0.720	i	0.000	2.642	0.800
ĸ	0.720	4.322	0.160	k	0.800	5.122	0.160
I	0.720	1.120	0.720	I	0.800	1.280	0.800
m	0.720	6.724	0.640	m	0.800	7.926	0.720
n	0.720	4.082	0.640	n	0.800	4.722	0.720
0	0.480	4.082	0.480 0.480	0	0.480 0.800	4.882	0.480 0.480
P Q	0. 120	4.082	0. 720	р q	0.480	4.802	0.480
r	0.720	2.642	0.160	r	0.800	3.042	0.160
s	0.320	3.362	0.240	S	0.320	3.762	0.240
+	0.080	2.882	0.080	+	0.080	3.202	0.080
U	0.640	4.082	0.720	U	0.720	4.722	0.800
v w	0.160	4.722 7.524	0.160	v w	0.160 0.160	5.684 9.046	0.160 0.160
×	0.000	5.202	0.000	×	0.000	6.244	0.000
х У	0.160	4.962	0.160	ý	0.160	6.004	0.160
z	0.240	3.362	0.240	z	0.240	4.002	0.240
1	0.720	1.680	0.880	1	0.800	2.000	0.960
2	0.480	4.482	0.480	2	0.800	5.446	0.800
3	0.480	4.482	0.480	3	1.440	5.446	0.800
4 5	0.240	4.962 4.482	0.720 0.480	4 5	0.160 0.800	6.004 5.446	0.960 0.800
6	0.480	4.482	0. 720	6	0.800	5.446	0.800
7	0.240	4.482	0.720	7	0.560	5.446	0.560
8	0.480	4.482	0.480	8	0.800	5.446	0.800
9	0.480	4.482	0.480	9	0.800	5.446	0.800
0	0.720	4.722	0.720	0	0.800	5.684	0.800
-	0.240	2.802	0.240	-	0.240	2.802	0.240
				1			



DESCRIPTION	MANUFACTURER	MODEL	NOTES
(1) CIRCUIT BREAKER		15 AMPERE	Molded case, Thermal Mag. min. R.I. of 14K R.M.S. symmetrical ampere at 277V.
2 TERMINAL BLOCK	MARATHON	1502 DJSV	
3 PHOTO ELECTRIC CONTROL	FISHER PIERCE	B124-1.5-07762	
(4) CONTROL RELAY	SQUARE D	8501X020V02	BOLT ON W/SCREW TERMINAL
5 INLINE FUSE HOLDER WITH 5 AMP FUSE	BUSSMAN	S-8000 BK/S-8-3-4-R	
(6) ELECTRIC CABLE, NO. 14, 3/C (BLACK, WHITE, GREEN)	CAROLPRENE/SOOW	02762	
⟨7⟩ SIGN MOUNTING HARDWARE	PELCO	SE-5015	S.S. HARDWARE





TO STA

ALD PROJECT

USER NAME = mrciss	DESIGNED - GR	REVISED -			LED ILLUMINATED STREET NA
FILENAME =	DRAWN - GR	REVISED -	STATE OF ILLINOIS		INSTALLATION AND WIRING DIA
PLOT SCALE = 100.0000 ' / in.	CHECKED	REVISED -	DEPARTMENT OF TRANSPORTATION		INSTALLATION AND WIRING DIA
PLOT DATE = 4/25/2018	DATE - 4-26-2018	REVISED -		SCALE: NONE	SHEET 1 OF 1 SHEETS STA

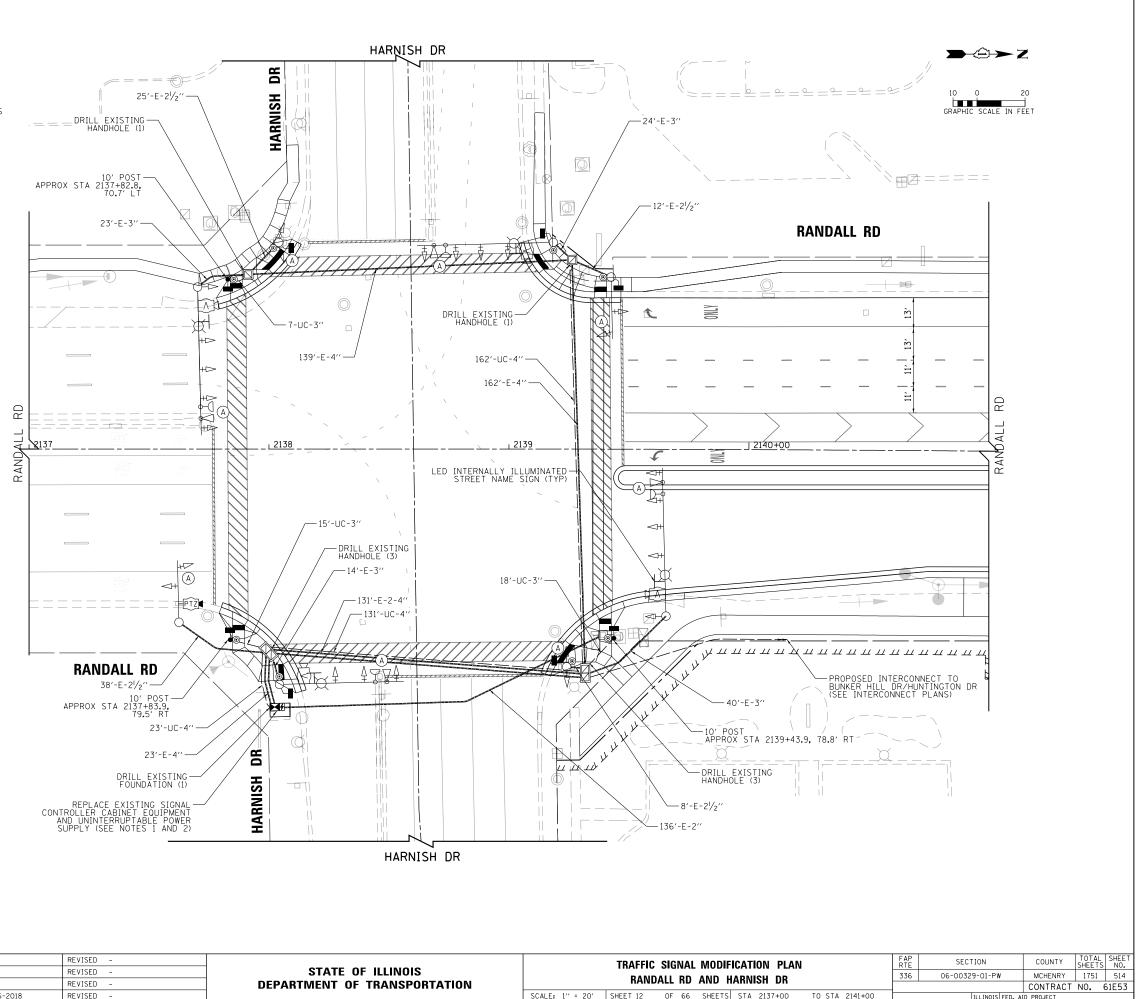
# NOTES:

- THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT 1. SYSTEM.
- 2. REMOVE EXISTING SIGNAL CABINET, ALL EQUIPMENT CONTAINED THEREIN AND UNINTERRUPTABLE POWER SUPPLY PER REMOVAL NOTES. INSTALL NEW FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL AND UNINTERRUPTABLE POWER SUPPLY, SPECIAL PER THE SPECIFICATIONS FOR REMOVE AND REPLACE TRAFFIC SIGNAL CABINET AND EQUIPMENT.

### **REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT**

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR AND SHALL REMAIN THE PROPERTY OF THE AGENCY LISTED BELOW. THE CONTRACTOR SHALL SAFELY STORE AND DELIVER ALL EQUIPMENT TO BE RETURNED TO THE LISTED AGENCY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS. AGENCY: MCHENRY COUNTY - DIVISION OF TRANSPORTATION

- EACH CONTROLLER AND CABINET (COMPLETE) 1
- EACH UNINTERRUPTABLE POWER SUPPLY

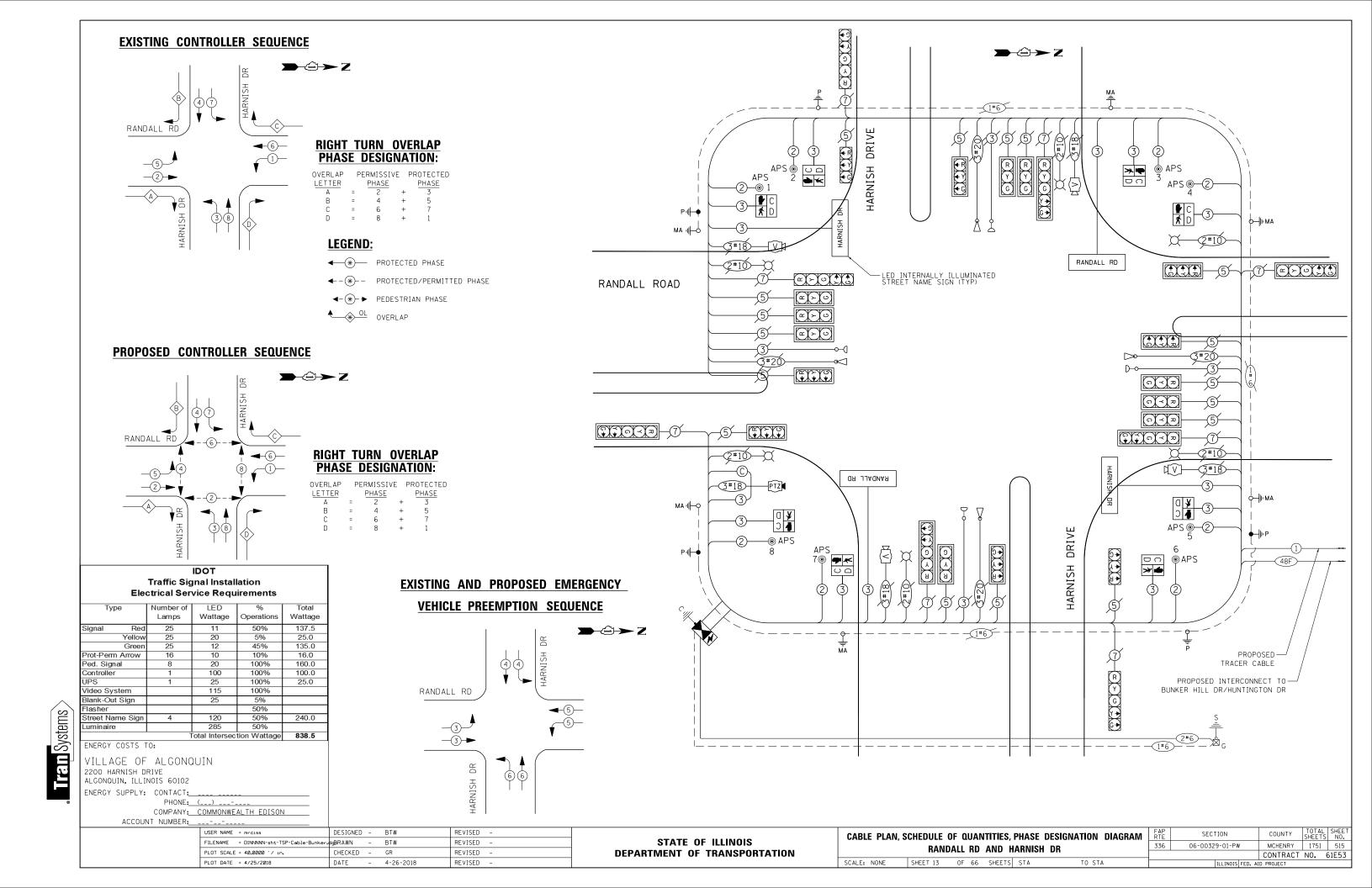


ILLINOIS FED. AID PROJECT



**TELD** Systems

USER NAME = mrciss	DESIGNED -	BTW	REVISED -			TRAFFIC	SIGNAL	MODIFIC
FILENAME = DINNNNN-sht-TSP-Install-Harnis	h-DuRaja,₩N –	BTW	REVISED -	STATE OF ILLINOIS	l			
PLOT SCALE = 40.0000 ' / in.	CHECKED -	GR	REVISED -	DEPARTMENT OF TRANSPORTATION	1	KAND	ALL KD	AND HA
PLOT DATE = 4/25/2018	DATE –	4-26-2018	REVISED -		SCALE: 1" = 20'	SHEET 12	OF 66	SHEETS



### NOTES:

- THE TEMPORARY TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS 1. PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.
- BARREL MOUNTED POSTS WITH PEDESTRIAN SIGNAL HEADS AND 2. PUSH-BUTTONS SHALL BE PROVIDED FOR ALL CROSSWALKS THAT ARE ACTIVE DURING THE CONSTRUCTION STAGE. BARREL MOUNTED POSTS SHALL BE RELOCATED AS NEEDED, TO ENSURE THAT ALL ACTIVE PEDESTRIAN SIGNALS AND PUSH-BUTTONS ARE LOCATED PER DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS. REFER TO NOTES ON TEMPORARY CABLE PLAN FOR ACTIVE PEDESTRIAN PHASES BY CONSTRUCTION STAGE. INACTIVE PEDESTRIAN SIGNAL HEADS SHALL BE DE-ENERGIZED AND BAGGED. INACTIVE PUSH-BUTTONS SHALL BE DE-ENERGIZED AND COVERED OR REMOVED.

### **REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT**

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR AND SHALL REMAIN THE PROPERTY OF THE AGENCY LISTED BELOW. THE CONTRACTOR SHALL SAFELY STORE AND DELIVER ALL EQUIPMENT TO BE RETURNED TO THE LISTED AGENCY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

- AGENCY: ALGONQUIN LAKE IN THE HILLS FIRE PROTECTION DISTRICT
- 2 EACH LIGHT DETECTOR
- EACH CONFIRMATION BEACON LIGHT DETECTOR AMPLIFIER FACH

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR AND SHALL REMAIN THE PROPERTY OF THE AGENCY LISTED BELOW. THE CONTRACTOR SHALL SAFELY STORE AND DELIVER ALL EQUIPMENT TO BE RETURNED TO THE LISTED AGENCY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

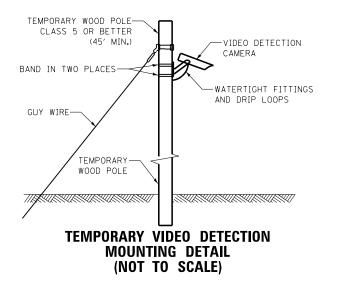
AGENCY: MCHENRY COUNTY - DIVISION OF TRANSPORTATION

- EACH CONTROLLER AND CABINET (COMPLETE)
- EACH UNINTERRUPTABLE POWER SUPPLY

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 3-SECTION SIGNAL HEAD 10 EACH 5-SECTION SIGNAL HEAD TRAFFIC SIGNAL BACKPLATE PEDESTRIAN SIGNAL HEAD EACH 10 EACH
- EACH 6
- PEDESTRIAN PUSH-BUTTON EACH
- EACH
- STEEL MAST ARM AND POLE TRAFFIC SIGNAL POST FACH 4
- SERVICE INSTALLATION EACH

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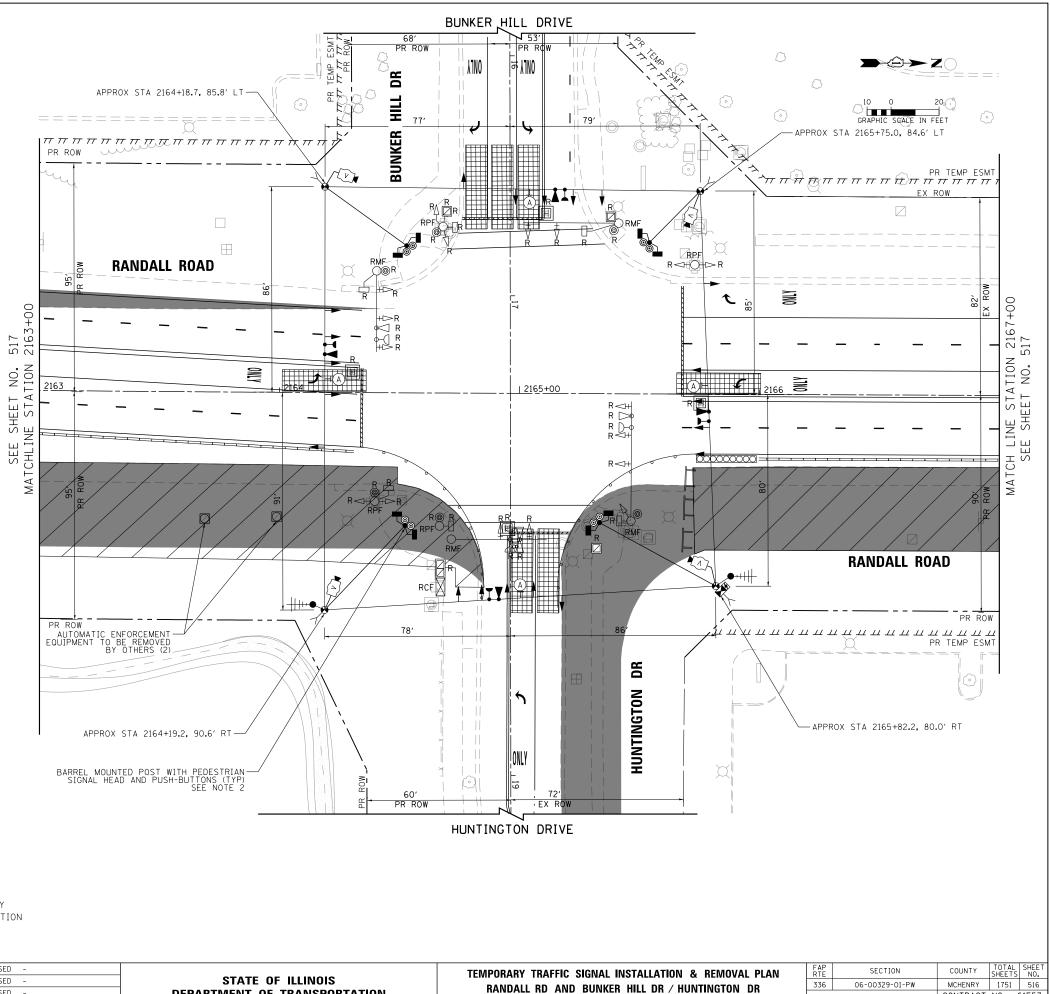


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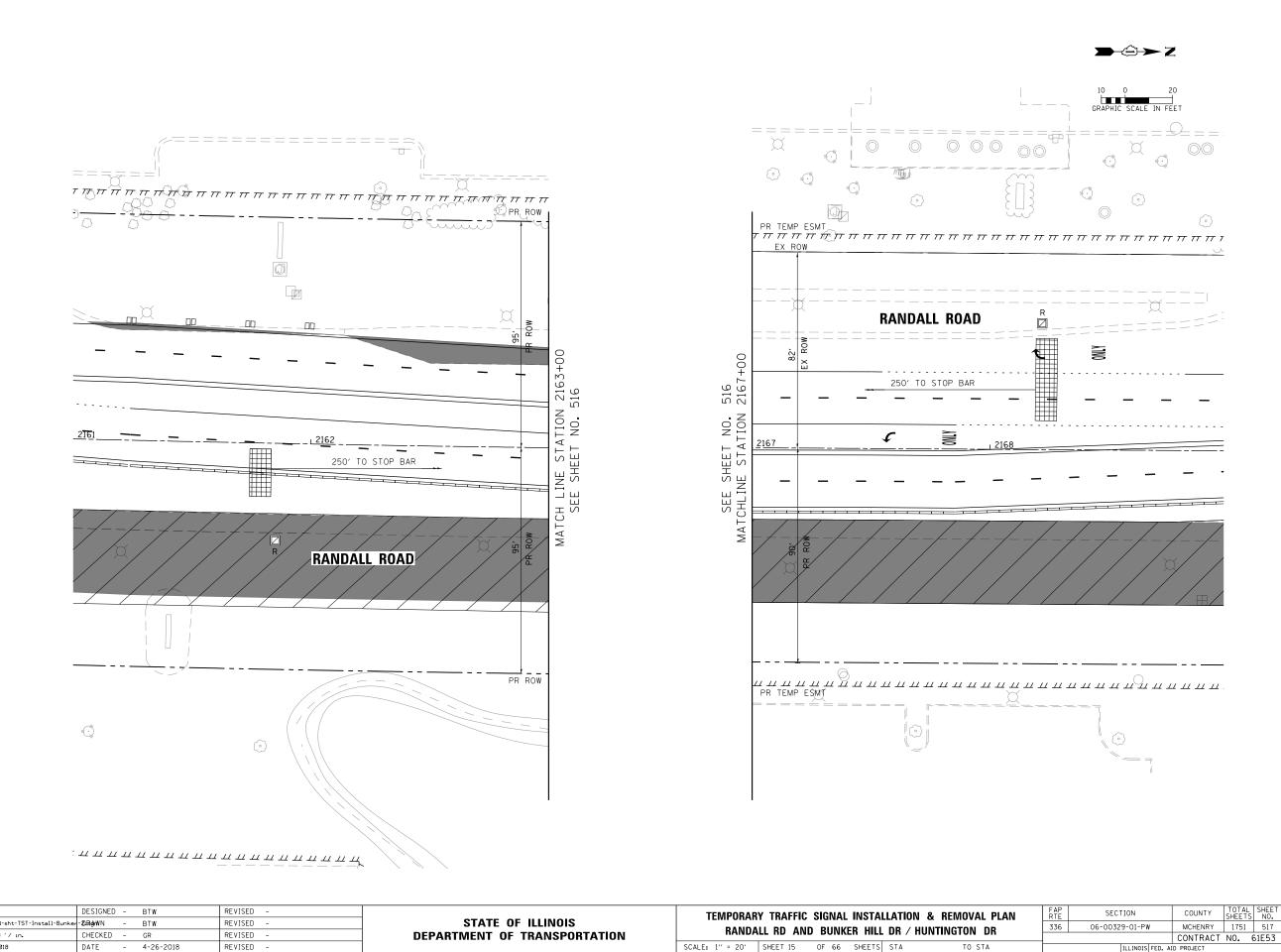
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R10-5 4 REQUIRED 30′′X36′′ SIGN PANEL TYPE 1 A INCLUDED IN THE COST OF TEMPORARY TRAFFIC SIGNAL INSTALLATION



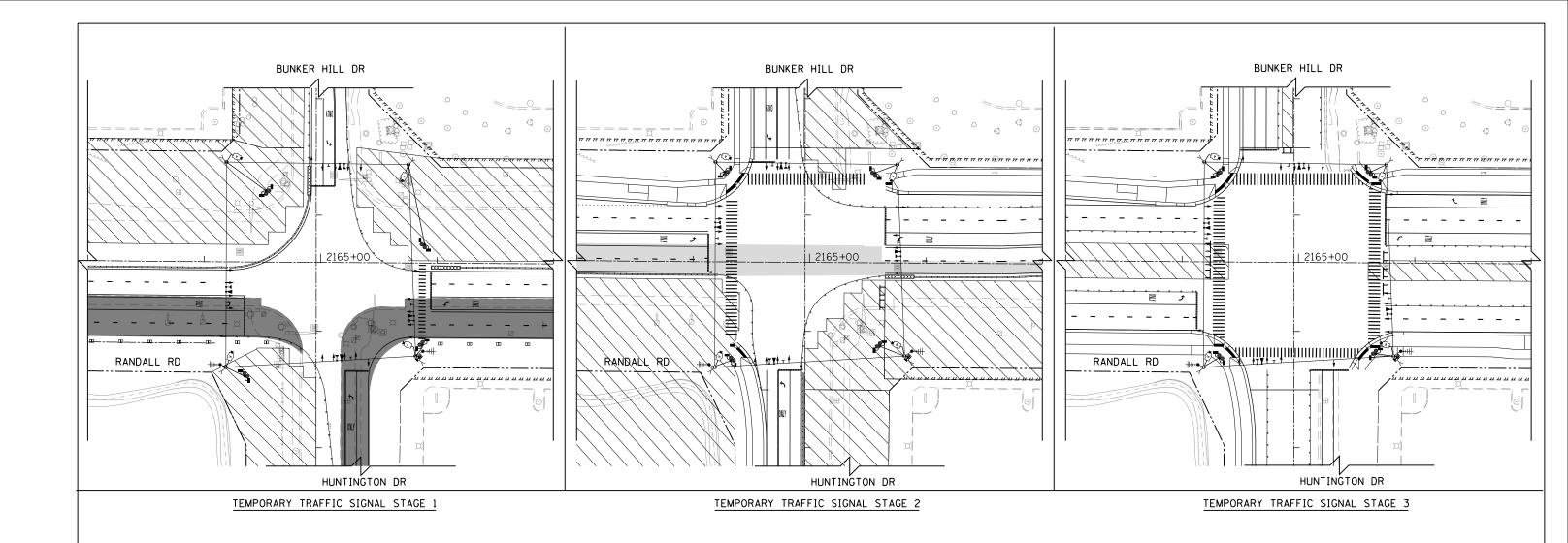
USER NAME = mrciss	DESIGNED - BTW	REVISED -		TEMPORAR	Y TRAFFIC	SIGNAL	INSTALLA
FILENAME = DINNNNN-sht-TST-Install-Bunke	-Du—BTW – BTW	REVISED -	STATE OF ILLINOIS				
PLOT SCALE = 40.0000 ' / in.	CHECKED - GR	REVISED -	DEPARTMENT OF TRANSPORTATION	KANDA	LL RD AND	RONK	R HILL D
PLOT DATE = 4/25/2018	DATE - 4-26-2018	REVISED -		SCALE: 1" = 20'	SHEET 14	0F 66	SHEETS S

CONTRACT NO. 61E53 STA 2163+00 TO STA 2167+00 ILLINOIS FED. AID PROJECT





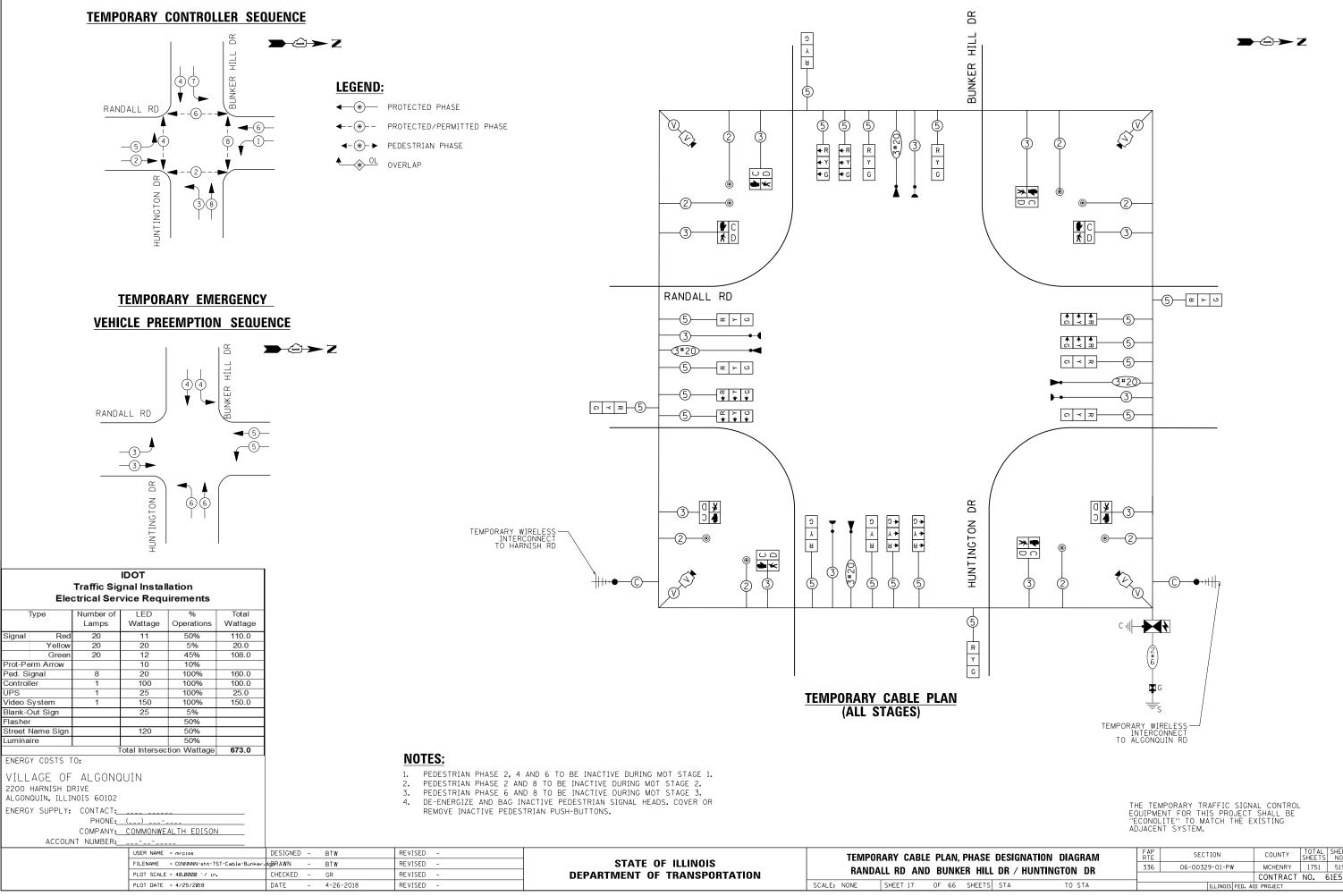
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FILENAME = DINNNNN-sht-TST-Install-Bunker	-20.Bogł₩N –	BTW	REVISED -	STATE OF ILLINOIS				
PLOT SCALE = 40.0000 '/ in.	CHECKED -	GR	REVISED -	DEPARTMENT OF TRANSPORTATION	KANDA	ALL RD AND	) RONK	EK HILL
PLOT DATE = 4/25/2018	DATE –	4-26-2018	REVISED -		SCALE: 1" = 20'	SHEET 15	OF 66	SHEETS



USER NAME = mrclss FILENAME = DINNNNN-sht-TST-MOT-Bunker. PLOT SCALE = 80,0000 '/ in.	DESIGNED -	BTW BTW	REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION			AFFIC SIGNAL D BUNKER HIL		AGING PLAN JNTINGTON DR	FAP RTE 336	SECTION 06-00329-01-PW	COUNTY MCHENRY	TOTAL SHEETS	HEET NO. 518
PLOT DATE = 4/25/2018	DATE -	4-26-2018	REVISED -	DEFARIMENT OF TRANSFORTATION	SCALE: 1" = 40'	SHEET 16	OF 66 SHEETS	STA	TO STA		ILLINOIS FED.	CONTRACT	NU. 611	.53

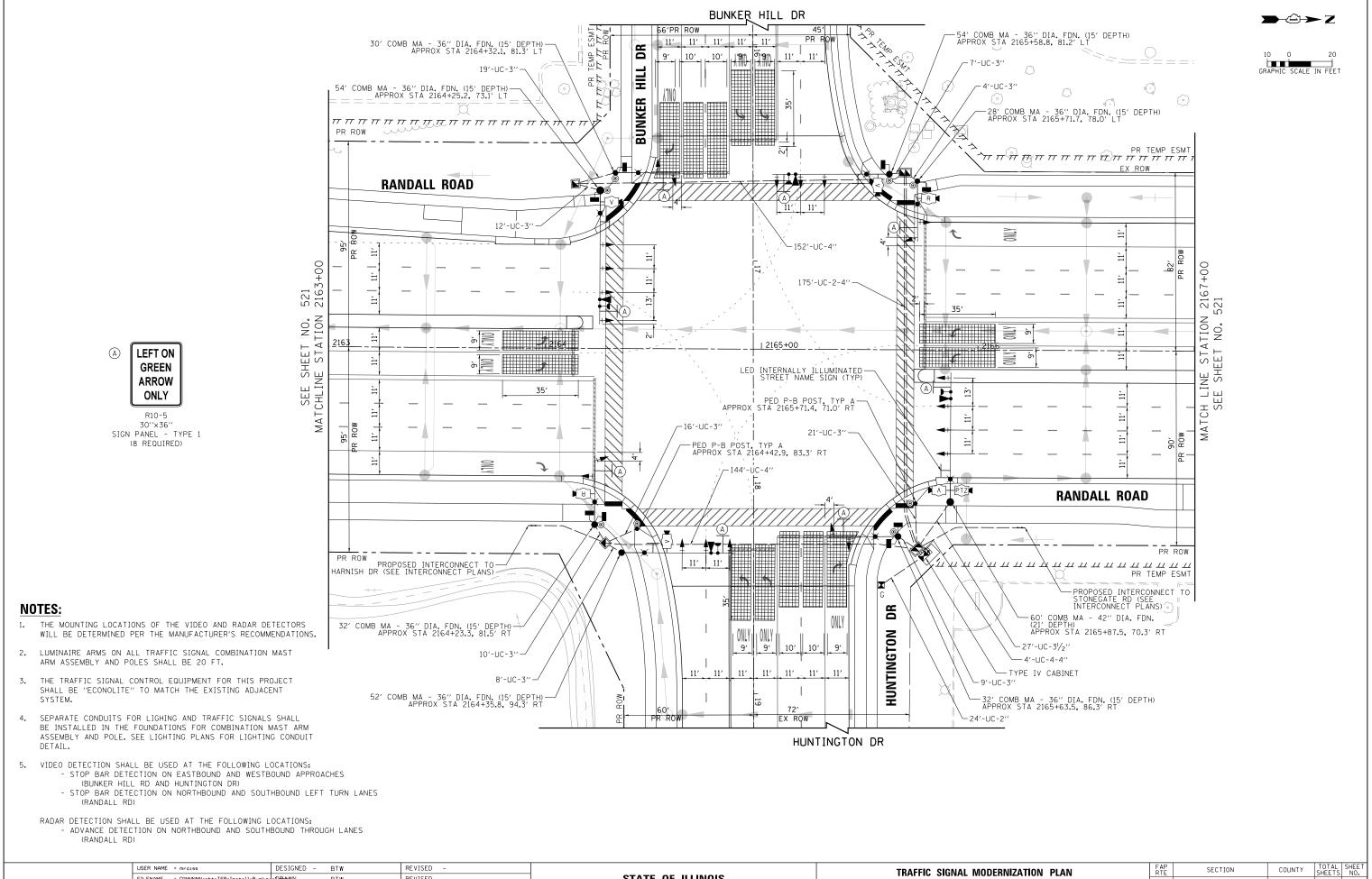
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GRAPHIC SCALE IN FEET



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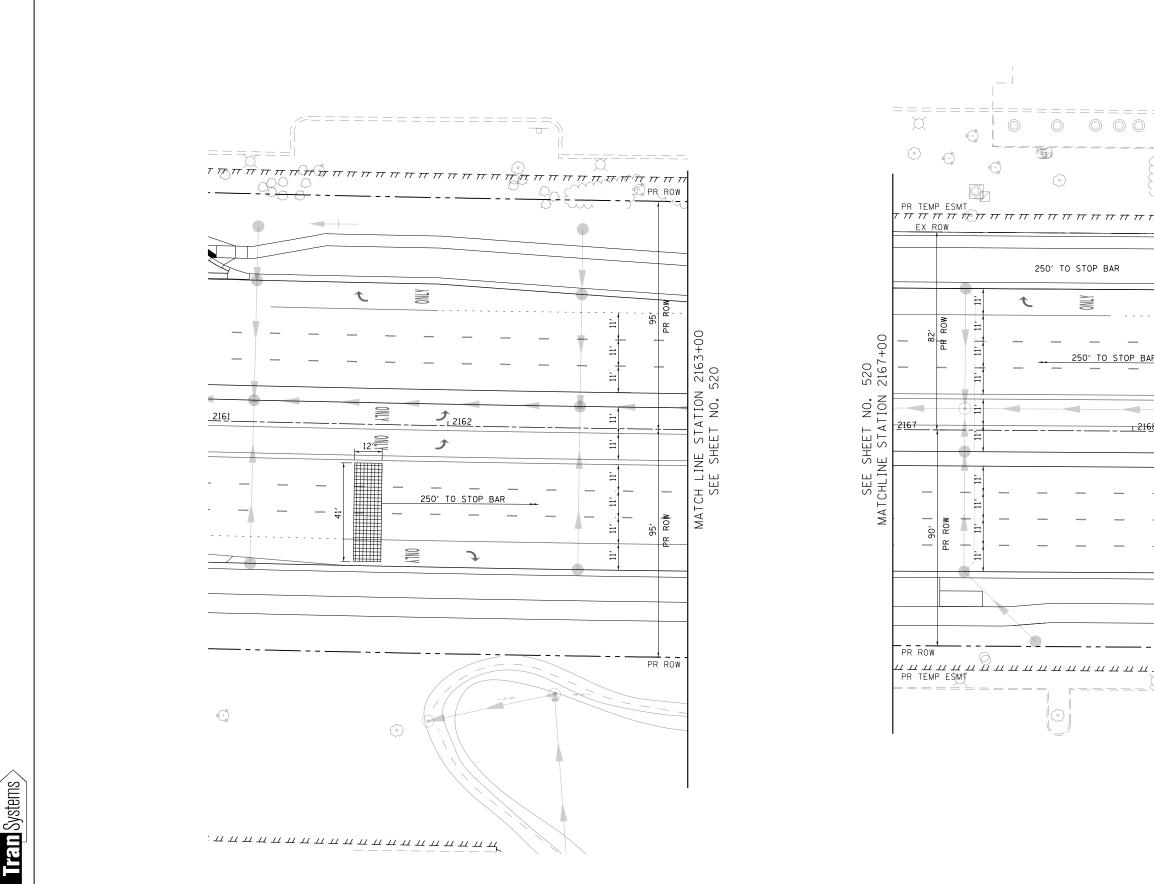
E	DESIGN	IATION DIAGRAM	FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	DR / H	UNTINGTON DR	336	06-00329-01-PW	MCHENRY	1751	519
					CONTRACT	NO. 6	61E53
TS	STA	TO STA		ILLINOIS FED. AI	D PROJECT		



USER NAME = mrciss	DESIGNED -	BTW	REVISED -			TRAFFIC	SIGNAL MODERNIZATION PLA	N	F A P R T F	SECTION	COUNTY	TOTAL SHEET
FILENAME = DINNNNN-sht-TSP-Install-Bunker	-10 <del>rga</del> wn -	BTW	REVISED -	STATE OF ILLINOIS	BAND				336	06-00329-01-PW	MCHENRY	1751 520
PLOT SCALE = 40.0000 '/ in.	CHECKED -	GR	REVISED -	DEPARTMENT OF TRANSPORTATION	KAND	ALL KU AN	ID BUNKER HILL DR / HUNTIN	IGTON DR			CONTRACT	NO. 61E53
PLOT DATE = 4/25/2018	DATE –	4-26-2018	REVISED -		SCALE: 1" = 20'	SHEET 18	OF 66 SHEETS STA 2163+00	TO STA 2167+00		ILLINOIS FED. A	ID PROJECT	

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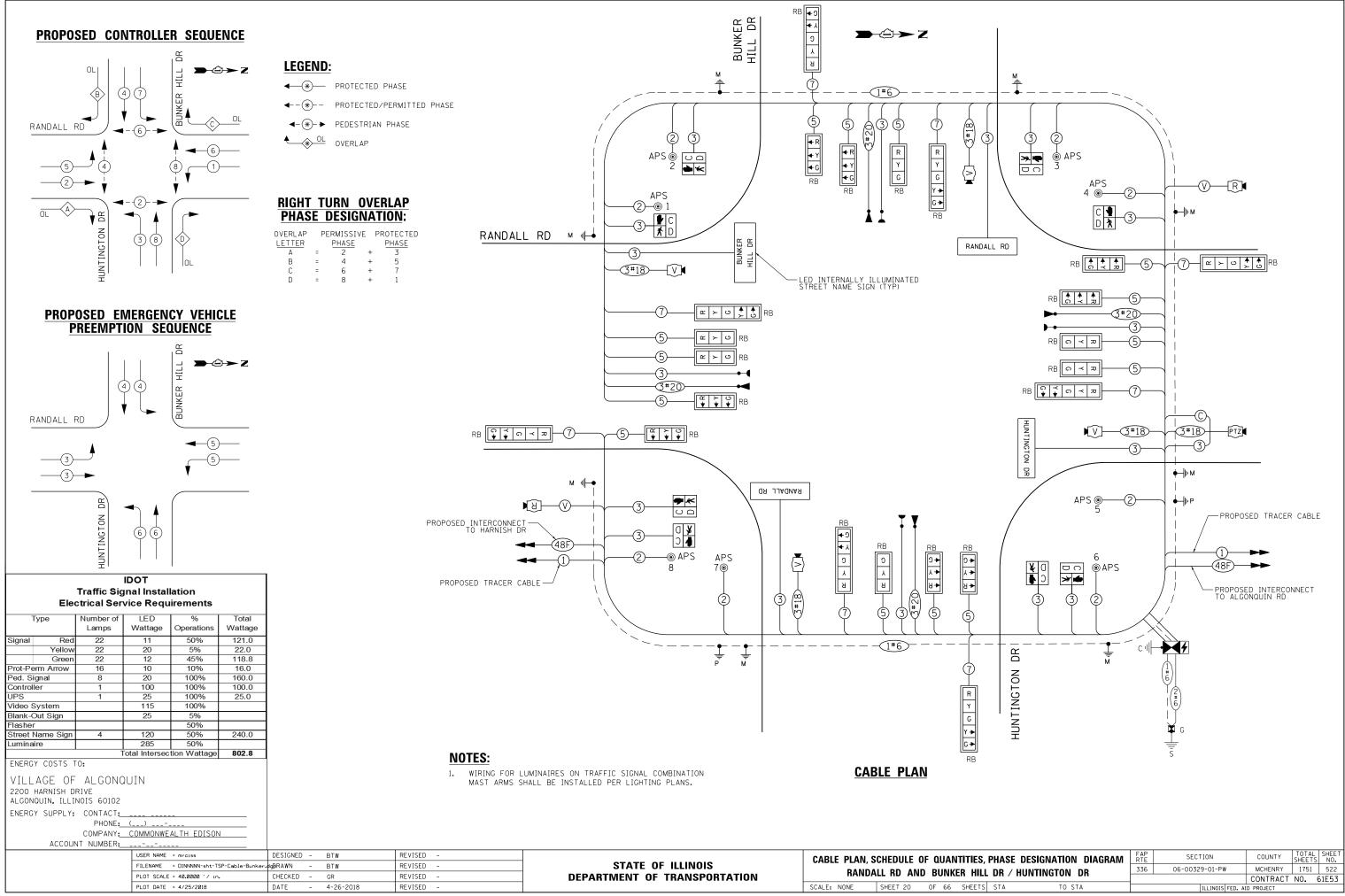
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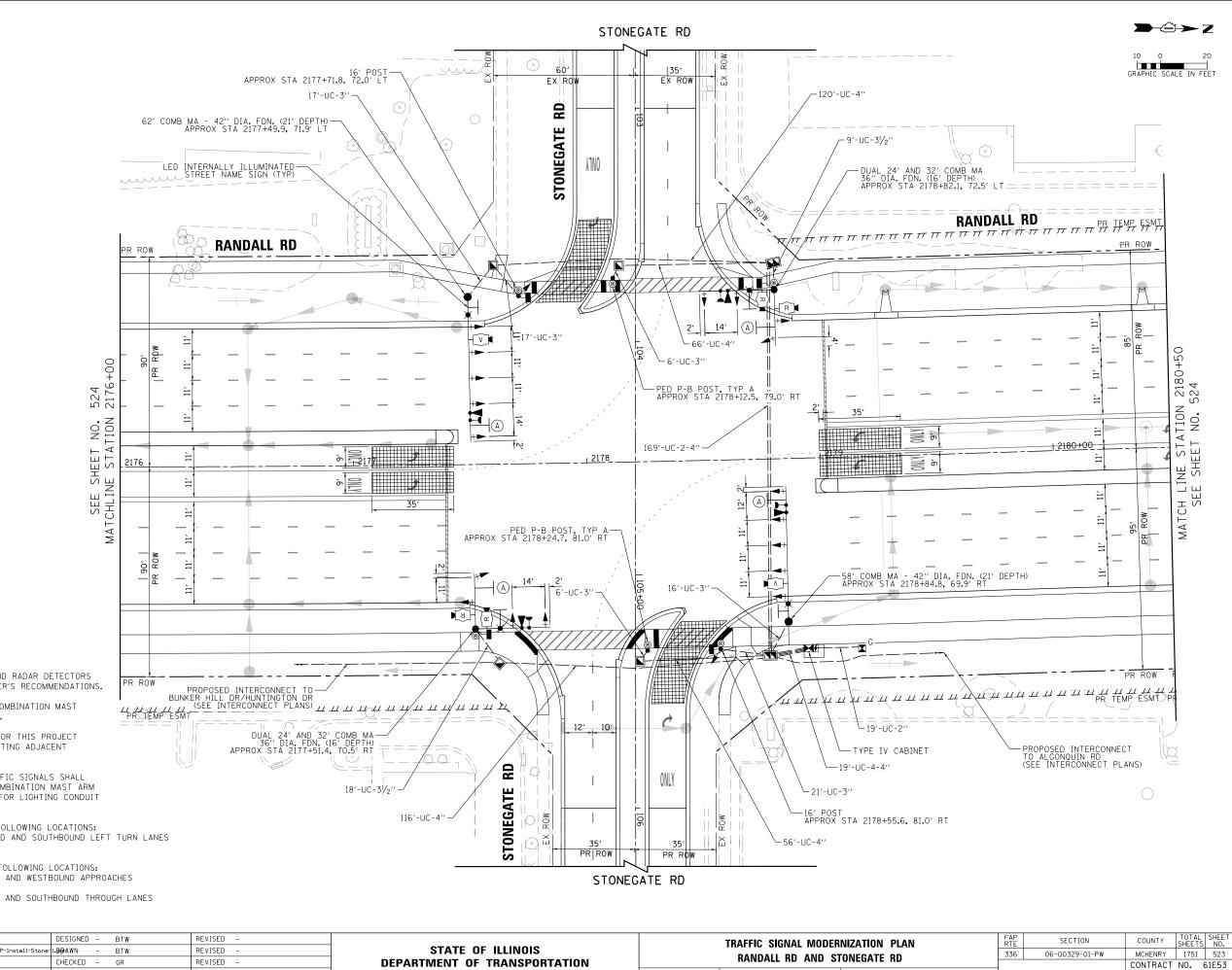
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	FILENAME = DINNNNN-sht-TSP-Install-Bunker-2		INNNNN-sht-TSP-Install-Bunker-28BgWN - BTW REVISED -		STATE OF ILLINOIS	RANDALL RD AT BUNKER HILL DR /HUNTINGTON DR					336	06-00329-01-PW	MCHENRY	1751	521	
PLOT SCALE = 40.0000 ' / in. CI		CHECKED -	GR	REVISED -	DEPARTMENT OF TRANSPORTATION	KANDALL	LKUAI	RONKE	K HILL	DR / HUNTINGTON	DK			CONTRACT	NO. 6	51E53
	PLOT DATE = 4/25/2018 DAT		4-26-2018	REVISED -		SCALE: 1" = 20' SHE	HEET 19	OF 66	SHEETS	STA TO	) STA		ILLINOIS FED. 4	AID PROJECT		

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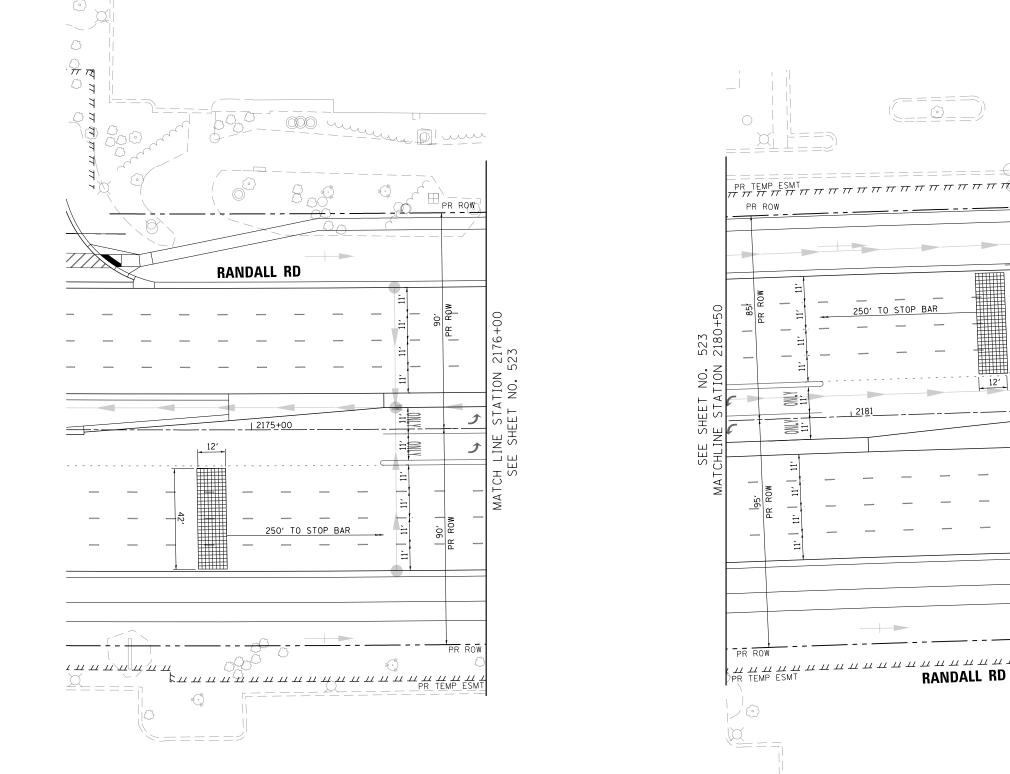
### NOTES:

- THE MOUNTING LOCATIONS OF THE VIDEO AND RADAR DETECTORS 1. WILL BE DETERMINED PER THE MANUFACTURER'S RECOMMENDATIONS.
- 2. LUMINAIRE ARMS ON ALL TRAFFIC SIGNAL COMBINATION MAST ARM ASSEMBLY AND POLES SHALL BE 20 FT.
- THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT 3. SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.
- SEPARATE CONDUITS FOR LIGHING AND TRAFFIC SIGNALS SHALL BE INSTALLED IN THE FOUNDATIONS FOR COMBINATION MAST ARM 4. ASSEMBLY AND POLE. SEE LIGHTING PLANS FOR LIGHTING CONDUIT DETAIL.
- 5. VIDEO DETECTION SHALL BE USED AT THE FOLLOWING LOCATIONS: STOP BAR DETECTION ON NORTHBOUND AND SOUTHBOUND LEFT TURN LANES (RANDALL RD)
  - RADAR DETECTION SHALL BE USED AT THE FOLLOWING LOCATIONS: - STOP BAR DETECTION ON EASTBOUND AND WESTBOUND APPROACHES
    - (STONEGATE RD)
    - ADVANCE DETECTION ON NORTHBOUND AND SOUTHBOUND THROUGH LANES (RANDALL RD)

USER NAME = mrclss DESIGNED - BTW REVISED -	TRAFFIC SIGNAL MODERNIZ
FILENAME = DINNNNN-sht-TSP-Install-Stone-IL-DBRAWN - BTW REVISED - STATE OF ILLINOIS	
PLOT SCALE = 40.0000 // In. CHECKED - GR REVISED - DEPARTMENT OF TRANSPORTATION	RANDALL RD AND STON
PLOT DATE = 4/25/2018 DATE - 4-26-2018 REVISED - SCALE: 1'' = 20' SHEE	SHEET 21 OF 66 SHEETS S



STONEGATE RD	550	00 00525 01 1 1		MONENT	1151	1 52
				CONTRACT	NO.	61E5
S STA 2176+00 TO STA 2180+50		ILLINOIS FEE	D. AI	D PROJECT		



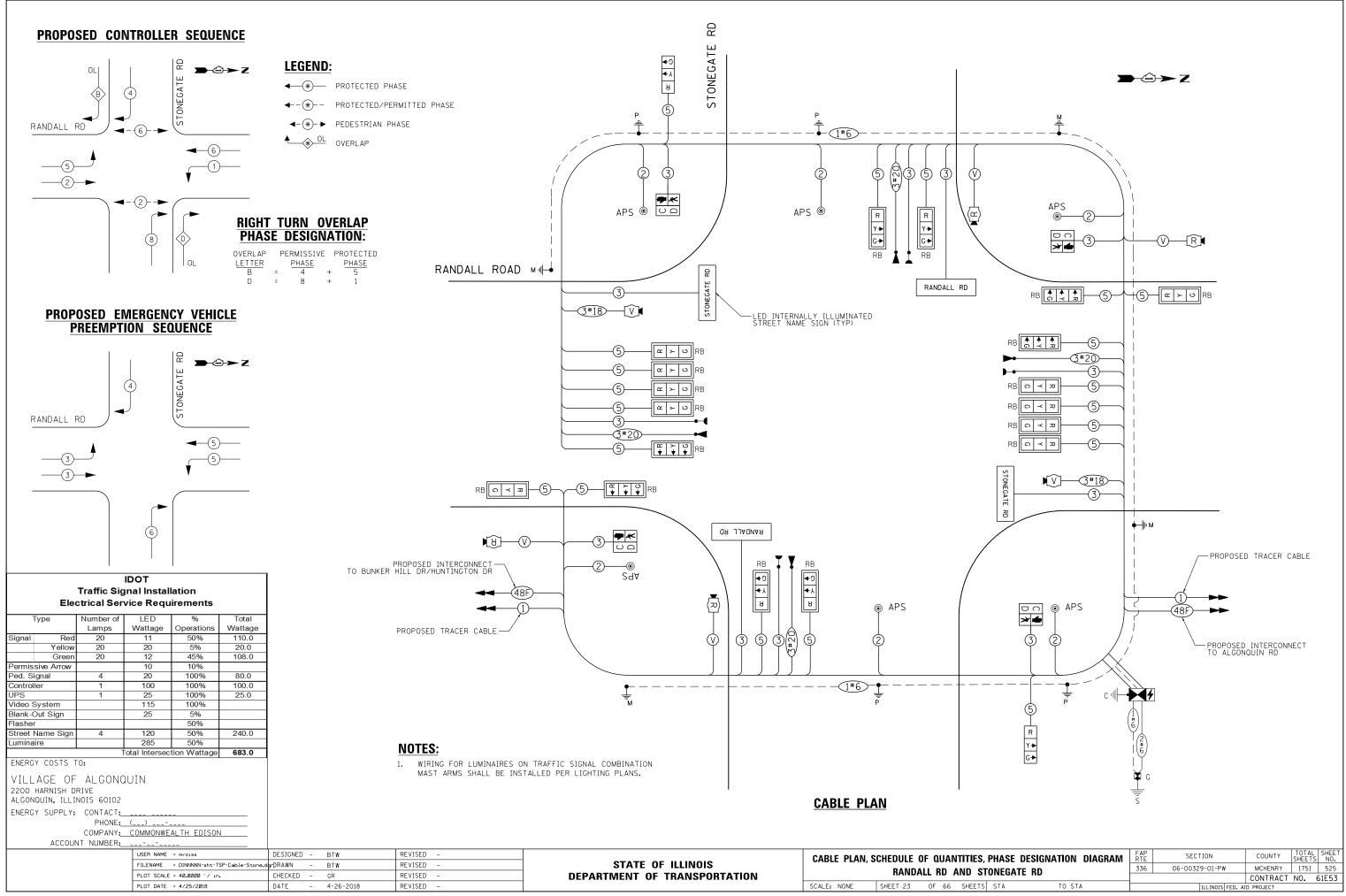


	USER NAME = mrciss	DESIGNED -	BTW	REVISED -		TRAFFIC SIGNAL MODERNIZATION PLAN			FAP	SECTION	COUNTY TOTAL SHEET		
	FILENAME = DINNNNN-sht-TSP-Install-Stone-2		BTW	REVISED -	STATE OF ILLINOIS	RANDALL RD AND STONEGATE RD						06-00329-01-PW	MCHENRY 1751 524
PLOT SCALE = 40.0000 ' / in. C		CHECKED -	GR	REVISED -	DEPARTMENT OF TRANSPORTATION		KANDA	ALL KU AND S	IUNEGATI	E KD			CONTRACT NO. 61E53
PLOT DATE = 4/25/2018 DAT		DATE –	4-26-2018	REVISED -		SCALE: 1'' = 20'	SHEET 22	OF 66 SHEETS	STA	TO STA		ILLINOIS FED. A	ID PROJECT

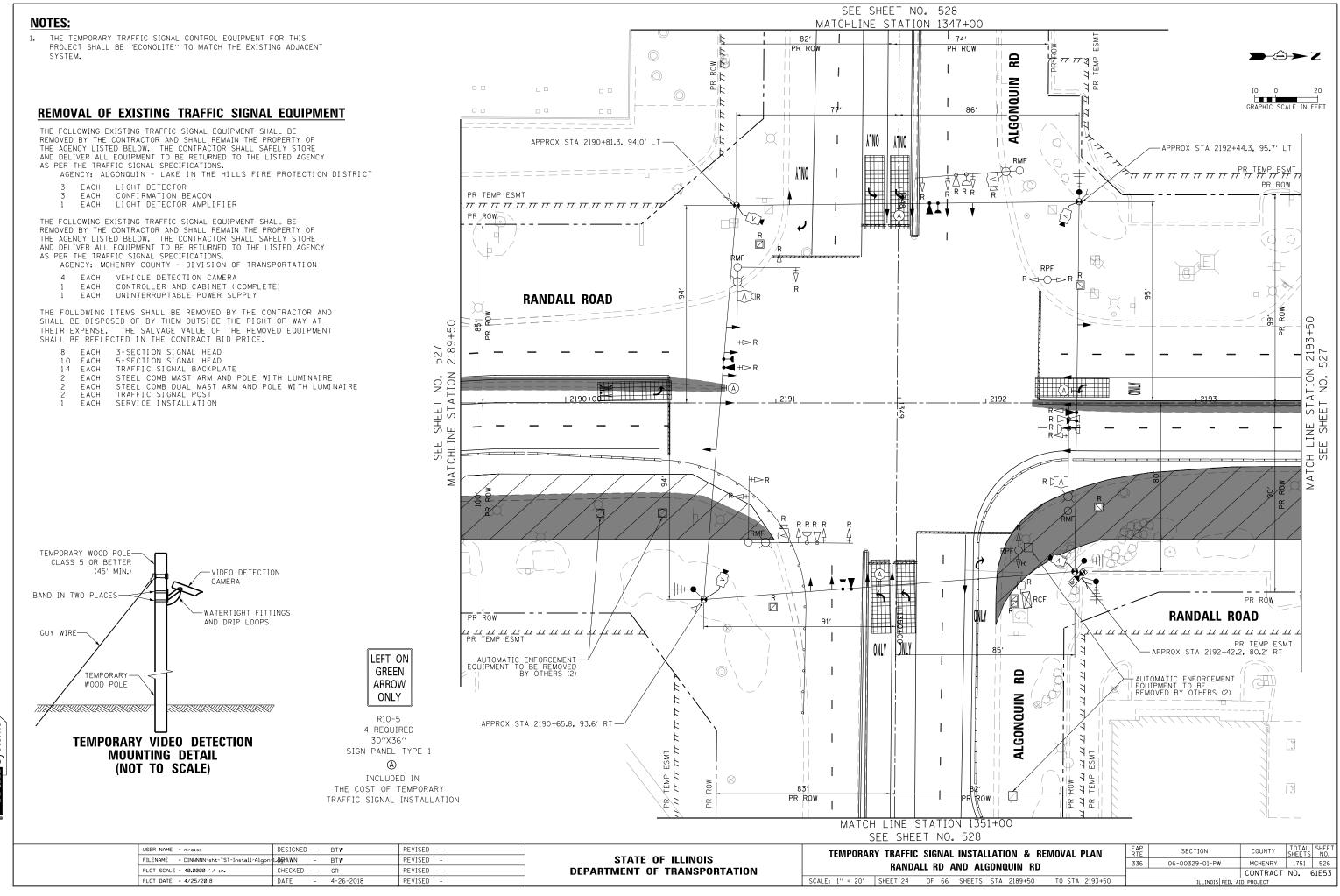
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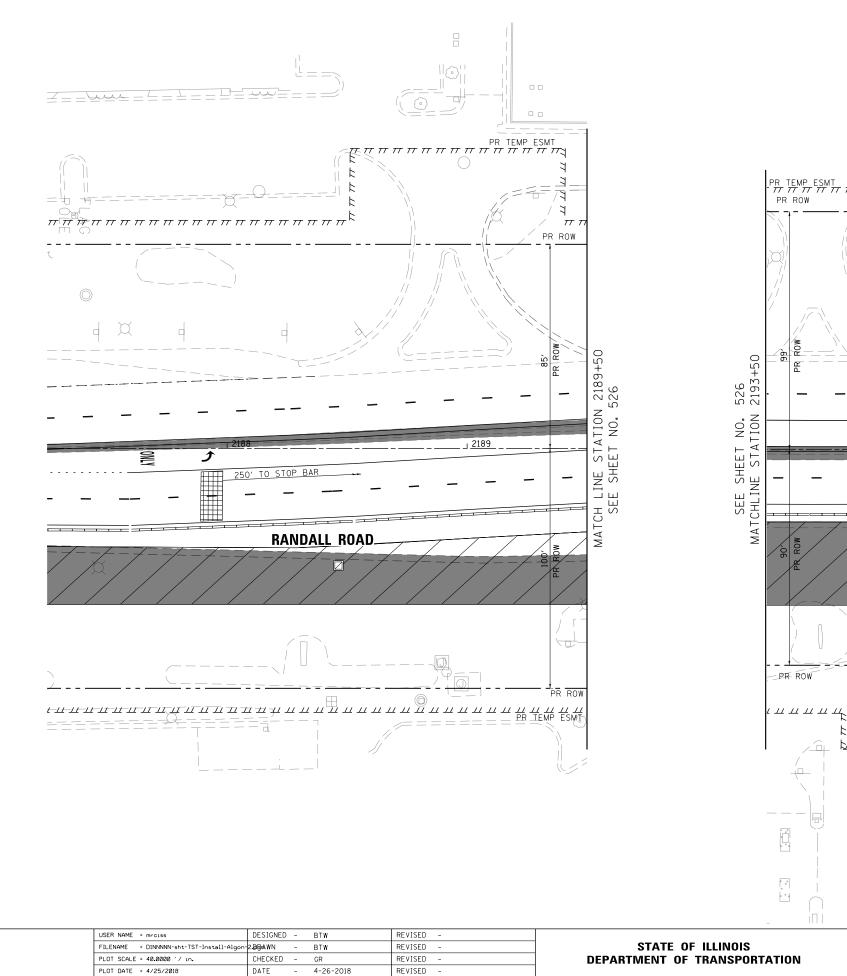
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TEMPORAR	Y TRAFFIC	NAL	FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.					
	RANDA	IR	DΑ			336	06-00329-01-PW	MCHENRY	1751	527		
	10,01070		<u> </u>					CONTRACT	NO. 0	61E53		
SCALE: 1" = 20'	SHEET 25	OF	66	SHEETS	STA	TO STA	ILLINOIS FED. AID PROJECT					

RANDALL ROAD

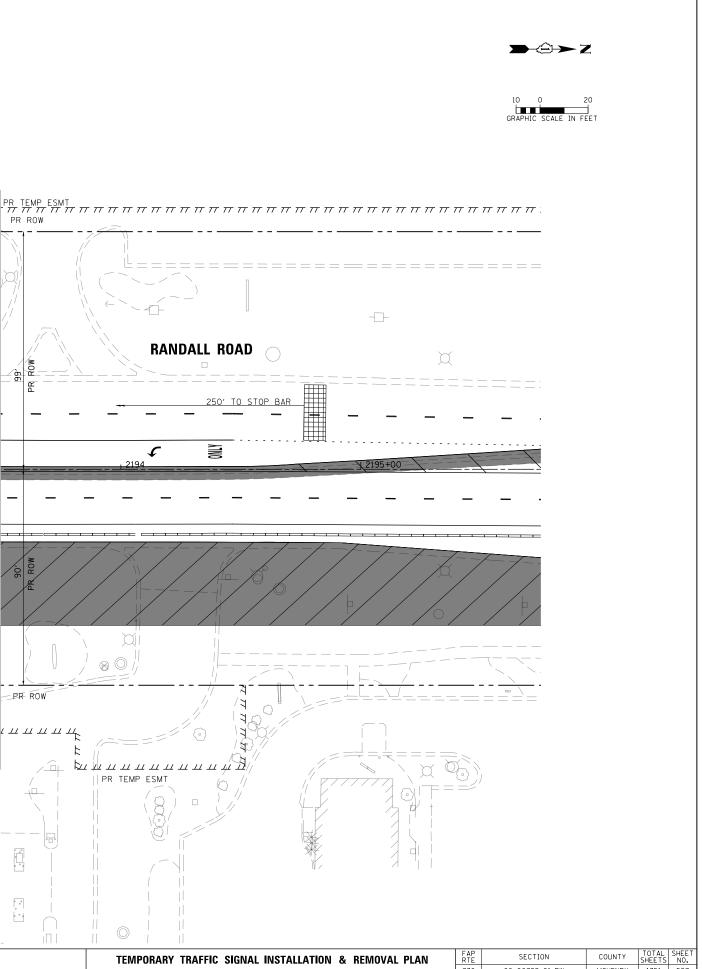
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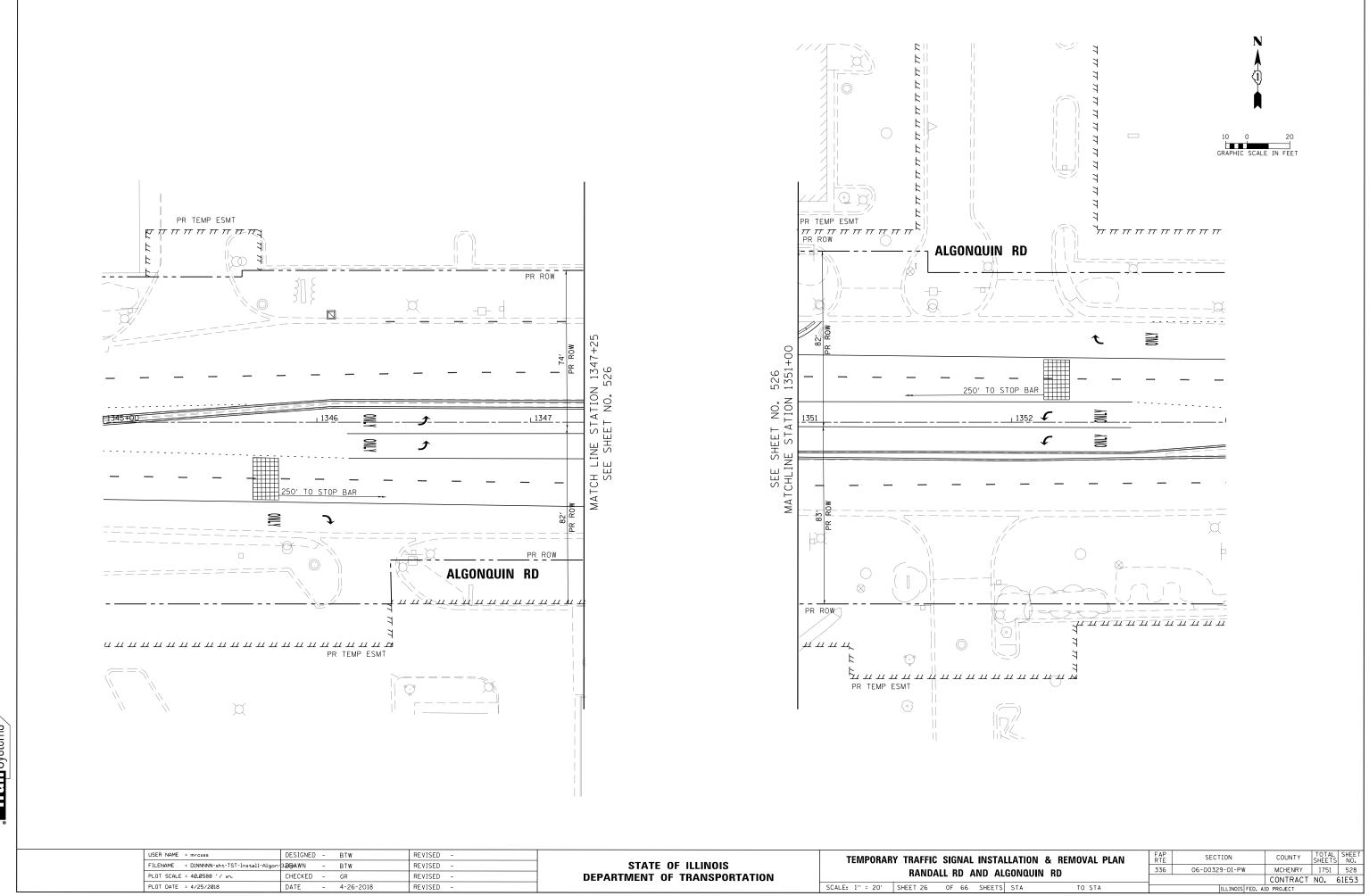
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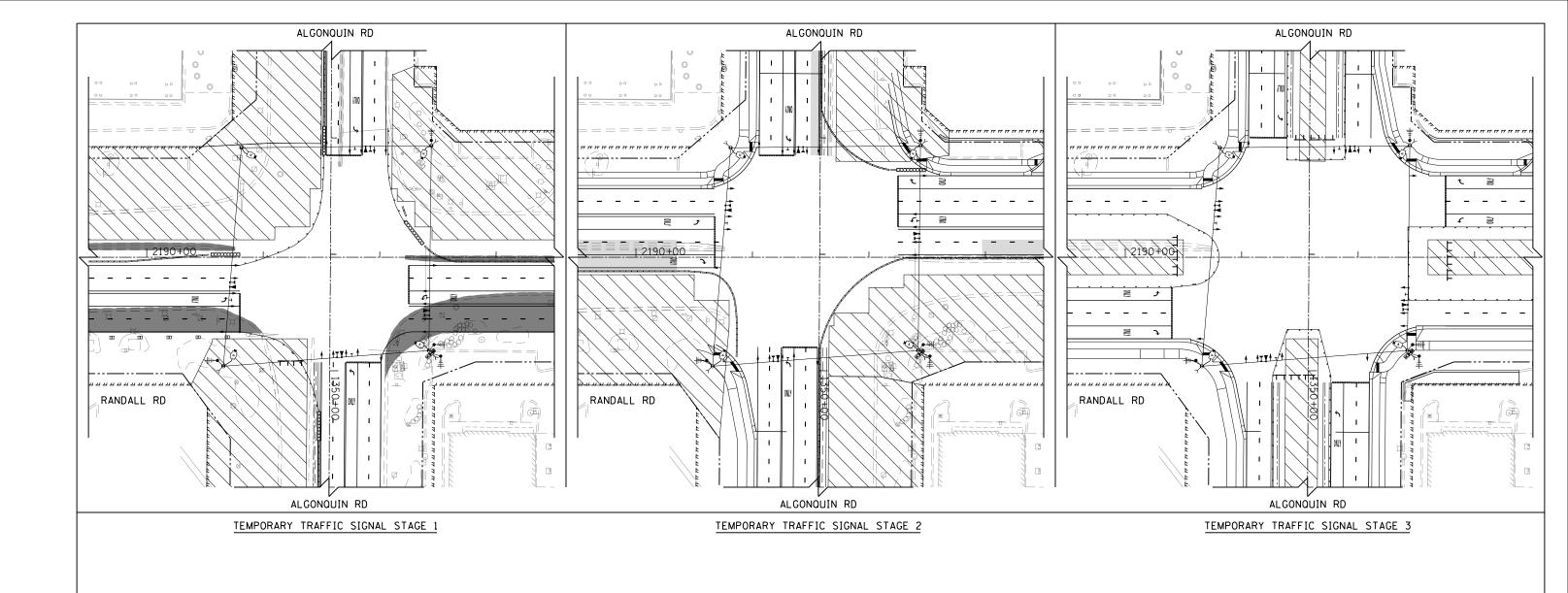
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USER NAME = mrciss	DESIGNED -	BTW	REVISED -		TEMPORAR	Y TRAFFIC	SIGNAL	INSTAL	
FILENAME = DINNNNN-sht-TST-Install-Algon-	3 <b>.08</b> 5∧4₩N –	BTW	REVISED -	STATE OF ILLINOIS					
PLOT SCALE = 40.0588 ′ / In.	CHECKED -	GR	REVISED -	DEPARTMENT OF TRANSPORTATION		RANDAL	LL KD A	IND AL	ыU
PLOT DATE = 4/25/2018	DATE –	4-26-2018	REVISED -		SCALE: 1" = 20'	SHEET 26	0F 66	SHEETS	S

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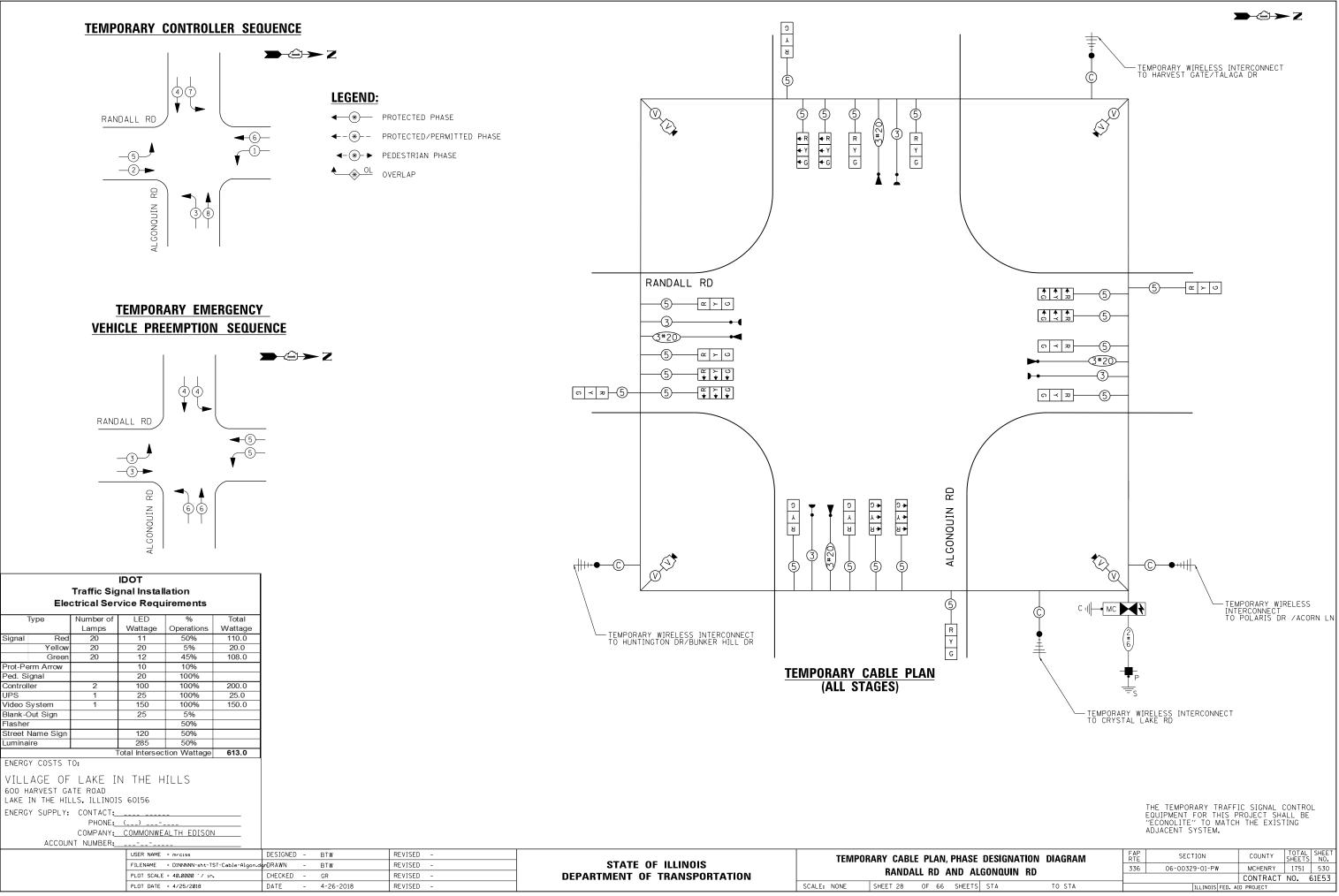




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FILENAME = DINNNNN-sht-TST-MOT-Algon.dgn	DRAWN - BTW	REVISED -	STATE OF ILLINOIS		336	06-00329-01-PW	MCHENRY 1751 529
PLOT SCALE = 80.0000 '/ in.	CHECKED - GR	REVISED -	DEPARTMENT OF TRANSPORTATION	RANDALL RD AND ALGONQUIN RD			CONTRACT NO. 61E53
PLOT DATE = 4/25/2018 DATE -		REVISED -		SCALE: 1'' = 40' SHEET 27 OF 66 SHEETS STA TO STA		ILLINOIS FED. /	AID PROJECT



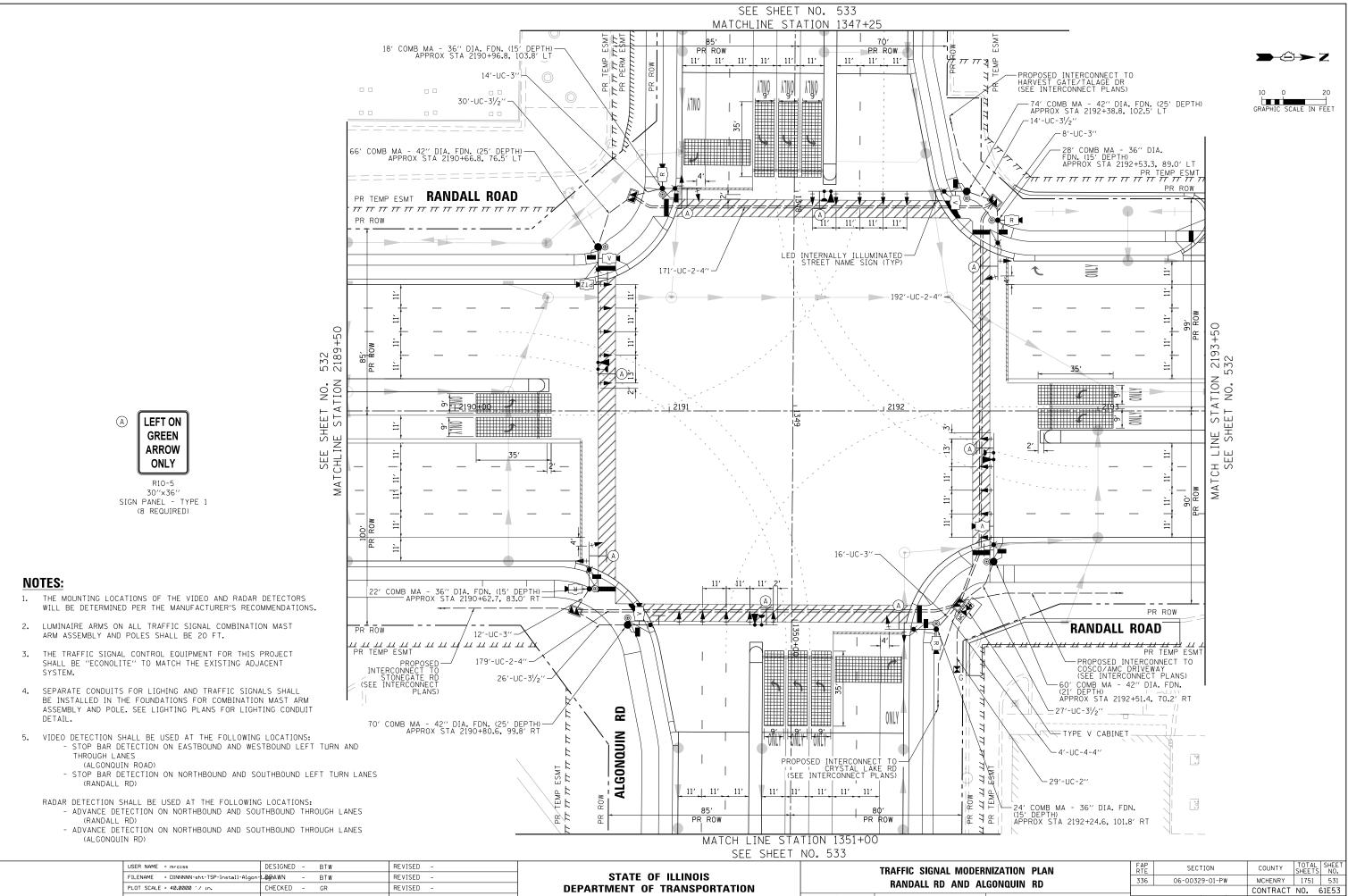
20 0 40 GRAPHIC SCALE IN FEET



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E DESIGNA	TION DIAGRAM	F A P R T E	SECTION	COUNTY	TOTAL	SHEET NO.	
ALGONQUIN	RD	336	06-00329-01-PW	MCHENRY	1751	530	
				CONTRACT	NO.	61E53	
IS STA	TO STA	ILLINOIS FED. AID PROJECT					



**DEPARTMENT OF TRANSPORTATION** SCALE: 1" = 20' SHEET 29 OF 66 SHEE

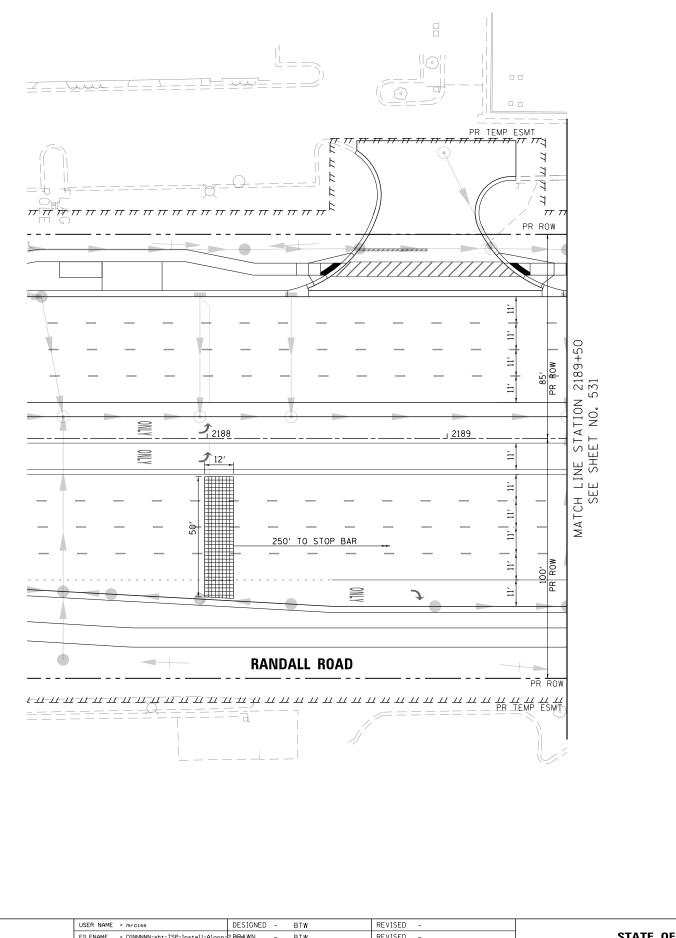
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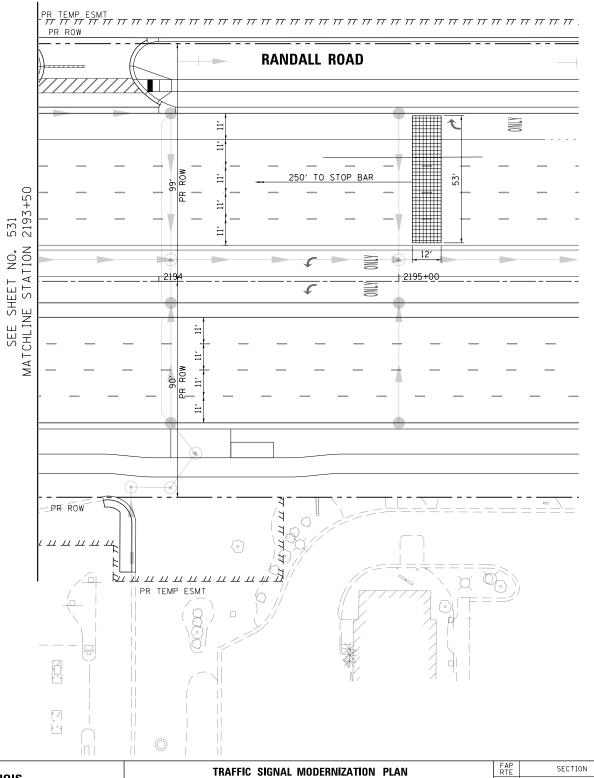
DATE

- 4-26-2018

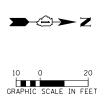
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ALGUNUUIN KD							CONTRACT	NO.	61E	
	STA	2189+50	TO STA	2193+50	I	LLINOIS	FED. A	D PROJECT		

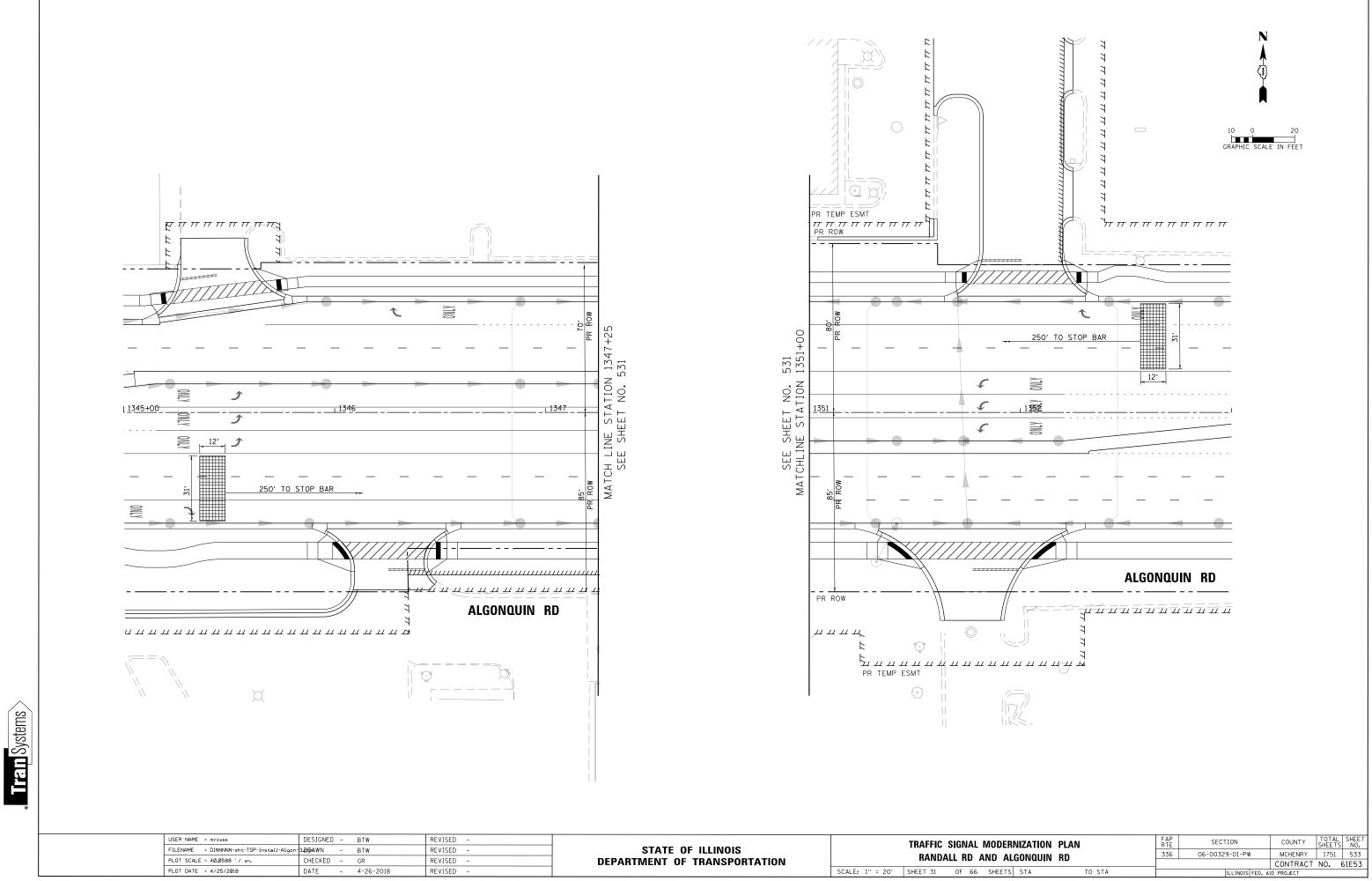




USER NAME = mrciss FILENAME = DINNNNN-sht-TSP-Install-Algon	DESIGNED – 2.0869-AWN –	BTW BTW	REVISED - REVISED -	STATE OF ILLINOIS			SIGNAL MO	
PLOT SCALE = 40.0000 ' / in.	CHECKED -	GR	REVISED -	DEPARTMENT OF TRANSPORTATION		KANDA	LL RD AND	J ALG
PLOT DATE = 4/25/2018	DATE –	4-26-2018	REVISED -		SCALE: 1'' = 20'	SHEET 30	OF 66 SH	HEETS

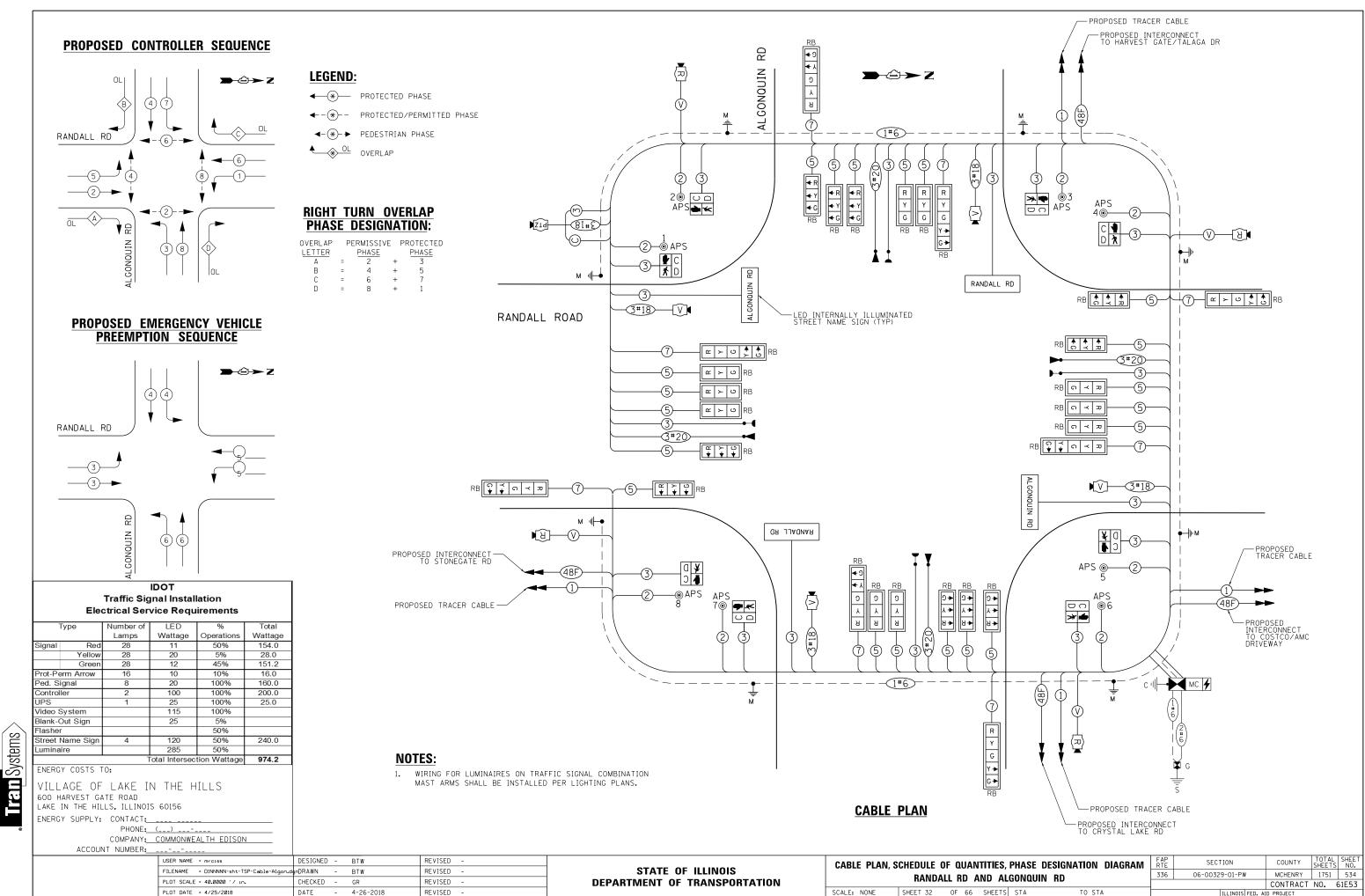


F A P R T E	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.						
336	06-00329-01-PW	MCHENRY	1751	532						
		CONTRACT	NO. 0	61E53						
STA TO STA ILLINOIS FED. AID PROJECT										
	RTE	RTE SECTION 336 06-00329-01-PW	RTE         SECTION         COUNTY           336         06-00329-01-PW         MCHENRY           CONTRACT         CONTRACT	RTE         SECTION         COUNTY         SHEETS           336         06-00329-01-PW         MCHENRY         1751           CONTRACT NO.						

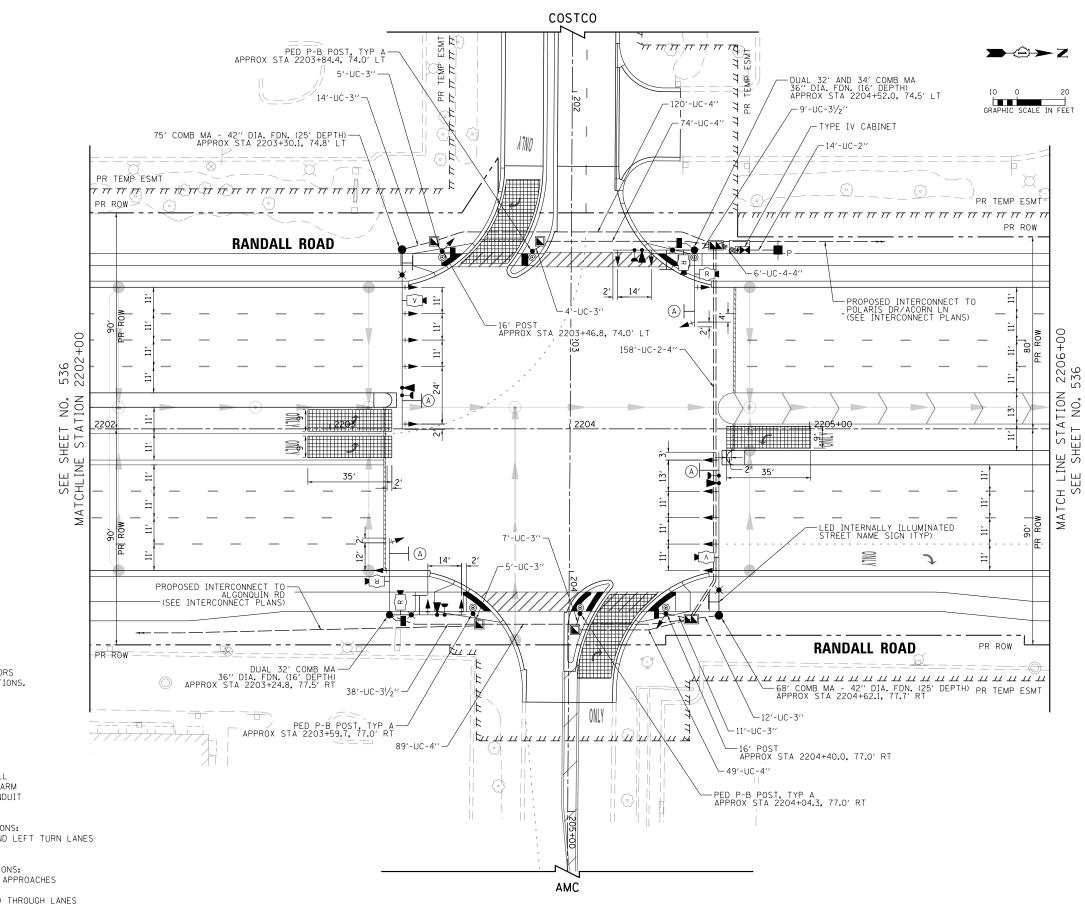


TO STA

USER NAME = mrciss	DESIGNED -	BTW	REVISED -		TRAFFIC SIGNAL MODERNIZATIO
FILENAME = DINNNNN-sht-TSP-Install-Algon-	3 <b>.ÐB</b> ∧AWN –	BTW	REVISED -	STATE OF ILLINOIS	
PLOT SCALE = 40.0588 ' / in.	CHECKED -	GR	REVISED -	DEPARTMENT OF TRANSPORTATION	RANDALL RD AND ALGONQUI
PLOT DATE = 4/25/2018	DATE –	4-26-2018	REVISED -		SCALE: 1" = 20' SHEET 31 OF 66 SHEETS STA



ALGONQUIN RD			336	06-00329-01-PW		MUHENRT	1/51	0.
					CONTRACT	NO.	61E	
ETS	STA	TO STA		ILLINOIS	FED. A	D PROJECT		



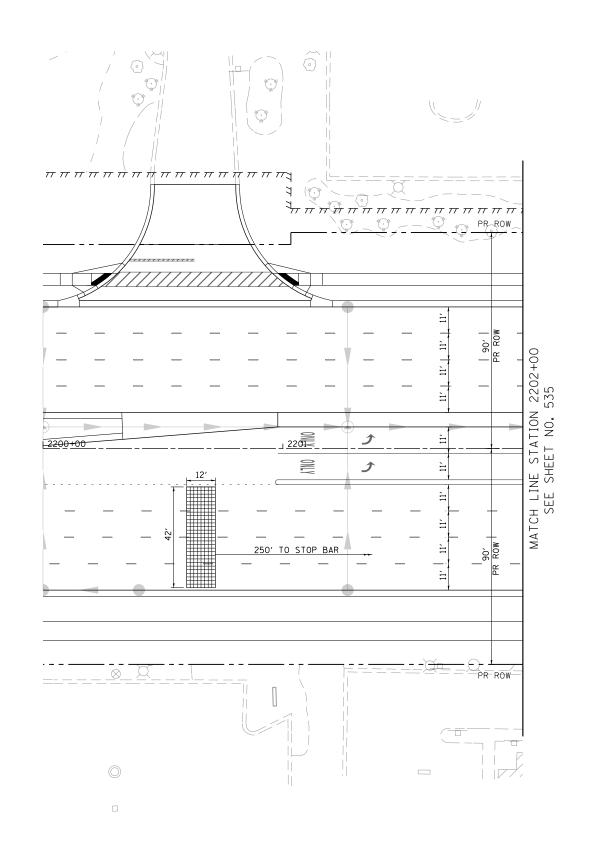


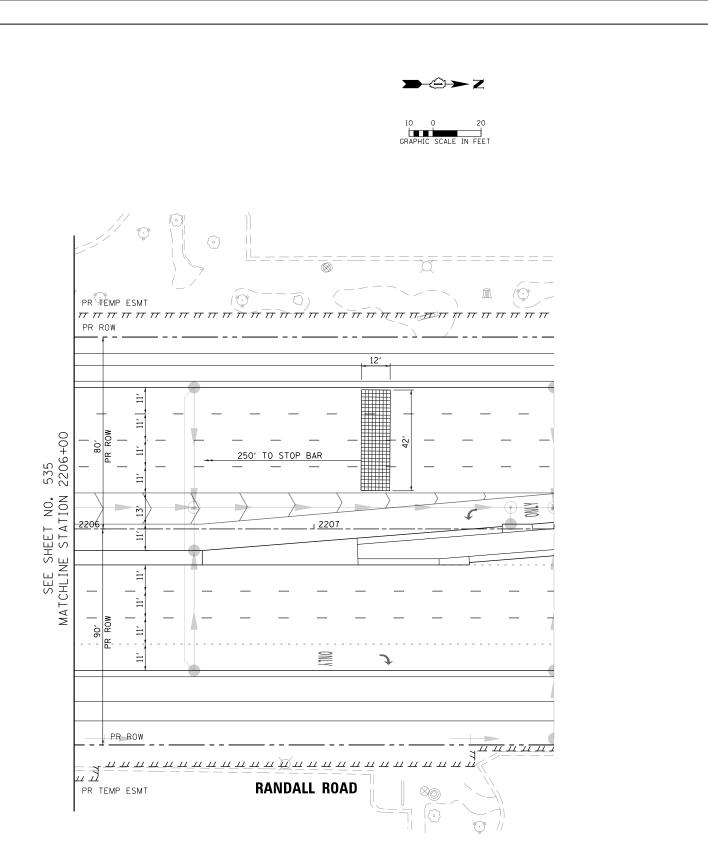
### NOTES:

- 1. THE MOUNTING LOCATIONS OF THE VIDEO AND RADAR DETECTORS WILL BE DETERMINED PER THE MANUFACTURER'S RECOMMENDATIONS.
- LUMINAIRE ARMS ON ALL TRAFFIC SIGNAL COMBINATION MAST ARM ASSEMBLY AND POLES SHALL BE 20 FT.
- THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.
- 4. SEPARATE CONDUITS FOR LIGHING AND TRAFFIC SIGNALS SHALL BE INSTALLED IN THE FOUNDATIONS FOR COMBINATION MAST ARM ASSEMBLY AND POLE. SEE LIGHTING PLANS FOR LIGHTING CONDUIT DETAIL.
- 5. VIDEO DETECTION SHALL BE USED AT THE FOLLOWING LOCATIONS:
   STOP BAR DETECTION ON NORTHBOUND AND SOUTHBOUND LEFT TURN LANES (RANDALL RD)
  - RADAR DETECTION SHALL BE USED AT THE FOLLOWING LOCATIONS: - STOP BAR DETECTION ON EASTBOUND AND WESTBOUND APPROACHES
    - (COSCO AND AMC DRIVEWAYS) - ADVANCE DETECTION ON NORTHBOUND AND SOUTHBOUND THROUGH LANES
    - (RANDALL RD)

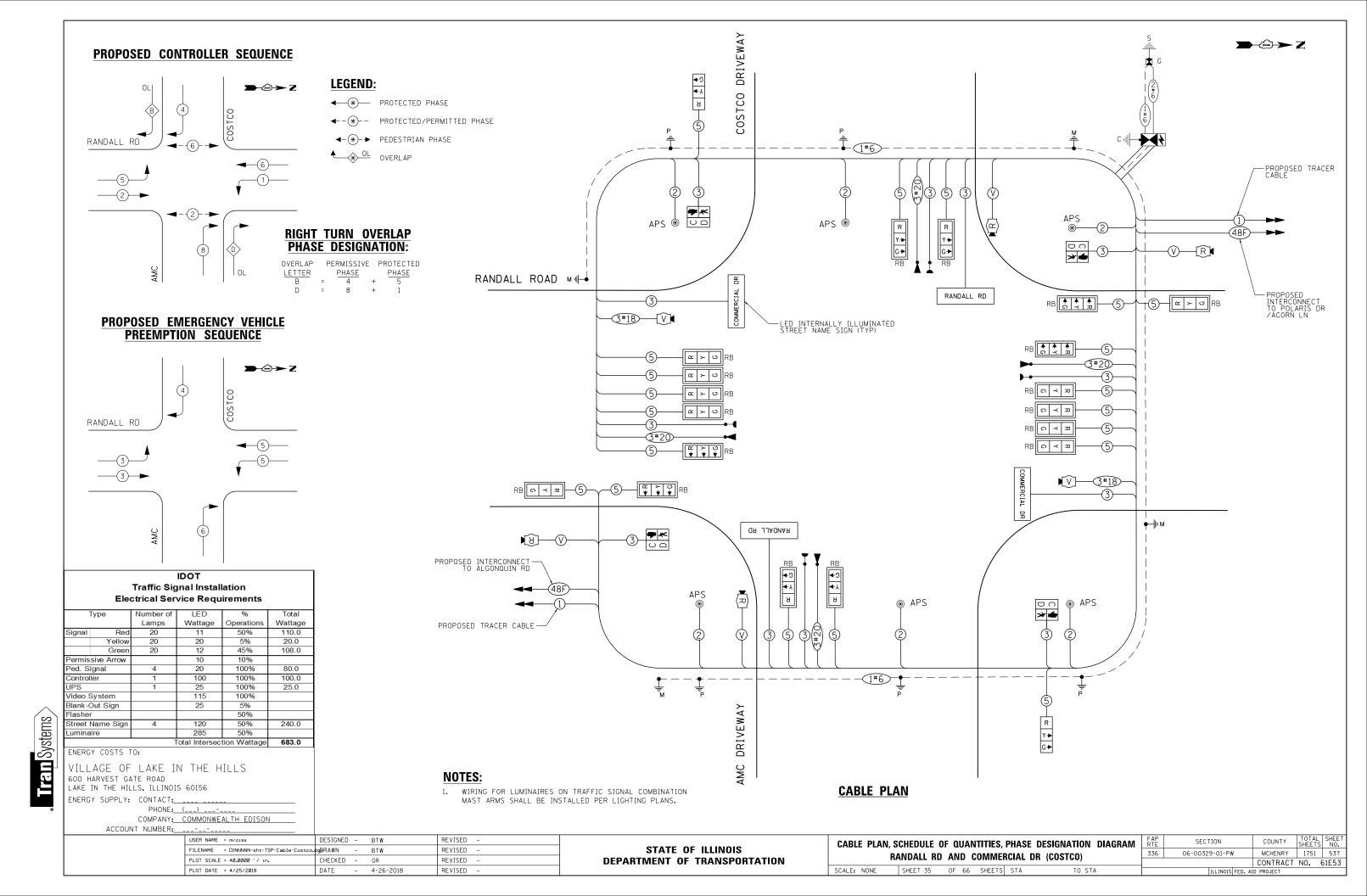
	USER NAME = mrciss	DESIGNED -	BTW	REVISED -			TRAFFIC	SIGNA		FRNI7A	TION PL	N	FAP	SECTION	COUNTY TOTAL	
-	FILENAME = DINNNNN-sht-TSP-Install-Costco	-1Da5gak₩N –	BTW	REVISED -	STATE OF ILLINOIS	п							336	06-00329-01-PW	MCHENRY 1751	535
	PLOT SCALE = 40.0000 '/ in.	CHECKED -	GR	REVISED -	DEPARTMENT OF TRANSPORTATION	ĸ	ANDALL RI	U AND	COIVIN	IERUIAL	. DK (CU	5100)				61E53
	PLOT DATE = 4/25/2018	DATE –	4-26-2018	REVISED -		SCALE: 1" = 20' SHEET 33 OF 66 SHEETS STA 2202+00 TO STA 2206+00								ILLINOIS FED.	AID PROJECT	







USER NAME = mrciss	DESIGNED -	BTW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL MODERNIZATION PLAN							FAP	SECTION	COUNTY	TOTAL	SHEET
FILENAME = DINNNNN-sht-TSP-Install-Costco	-208a)+WN –	BTW	REVISED -	STATE OF ILLINOIS								336	06-00329-01-PW	MCHENRY	1751	536
PLOT SCALE = 40.0000 ' / in.	CHECKED -	GR	REVISED -	DEPARTMENT OF TRANSPORTATION	К	ANDALL RI	U AND	CUIV	VINERU	CIAL DR (CO	JS1C0)			CONTRAC	T NO.	61E53
PLOT DATE = 4/25/2018	DATE -	4-26-2018	REVISED -		SCALE: 1" = 20' SHEET 34 OF 66 SHEETS STA TO STA						ILLINOIS FED. A	ID PROJECT				



## NOTES:

- 1. THE TEMPORARY TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.
- DUE TO THE PRESENCE OF A RED LIGHT RUNNING (RLR) CAMERA AT THIS 2. INTERSECTION, THE CONTRACTORS SHALL NOTIFY THE VILLAGE AND RLR CAMERA COMPANY PRIOR TO THE START OF CONSTRUCTION. THE VILLAGE OR THE RLR CAMERA COMPANY SHALL MAKE THE CAMERA INOPERATIVE FOR THE TIME OF CONSRUCTION. ANY RLR CAMERA EQUIPMENT THAT IS IN CONFLICT WITH THE PROPOSED CONSTRUCTION SHALL BE REMOVED BY ITS RESPECTIVE OWNERS PRIOR TO THE START OF CONSTRUCTION. THE RLR CAMERA COMPANY FOR THIS INTERSECTION IS: REDFLEX TRAFFIC SYSTEMS, INC. 23751 N. 23RD AVE., STE 150

PHOENIX, AZ 85085-1854 PHONE: 623-207-2000

# **REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT**

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR AND SHALL REMAIN THE PROPERTY OF THE AGENCY LISTED BELOW. THE CONTRACTOR SHALL SAFELY STORE AND DELIVER ALL EQUIPMENT TO BE RETURNED TO THE LISTED AGENCY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS. AGENCY: ALGONQUIN - LAKE IN THE HILLS FIRE PROTECTION DISTRICT

- 4
- EACH LIGHT DETECTOR EACH CONFIRMATION BEACON 4
- LIGHT DETECTOR AMPLIFIER EACH 1

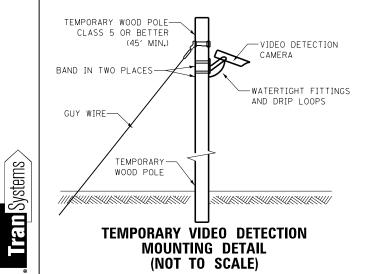
THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR AND SHALL REMAIN THE PROPERTY OF THE AGENCY LISTED BELOW. THE CONTRACTOR SHALL SAFELY STORE AND DELIVER ALL EQUIPMENT TO BE RETURNED TO THE LISTED AGENCY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

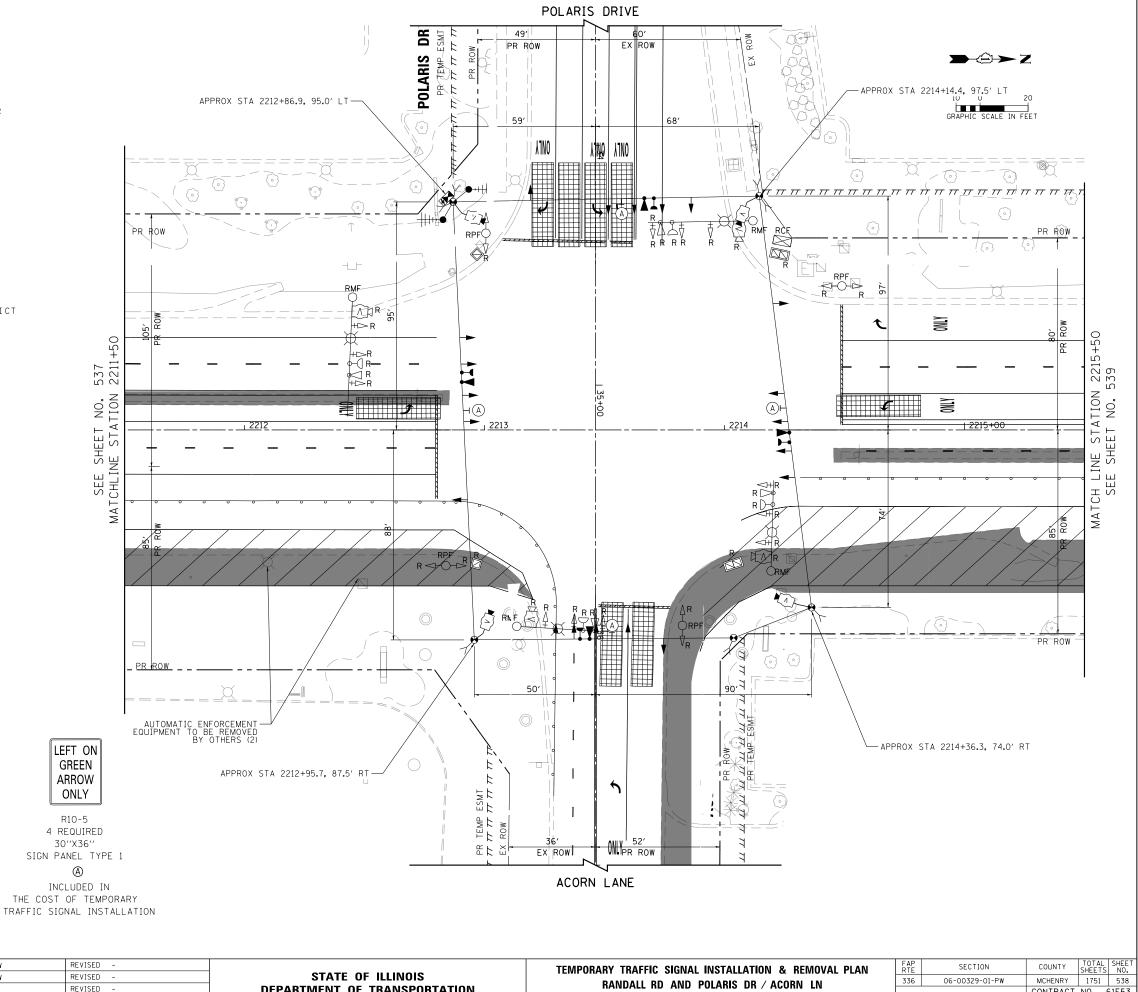
AGENCY: MCHENRY COUNTY - DIVISION OF TRANSPORTATION

- EACH VEHICLE DETECTION CAMERA 4
- EACH CONTROLLER AND CABINET (COMPLETE) EACH UNINTERRUPTABLE POWER SUPPLY

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 14 EACH 3-SECTION SIGNAL HEAD
- EACH 5-SECTION SIGNAL HEAD
- 12 EACH TRAFFIC SIGNAL BACKPLATE
- TRAFFIC SIGNAL POST 4 EACH
- 4 EACH
- EACH SERVICE INSTALLATION





USER NAME = mrciss	DESIGNED -	BTW	REVISED -		TEMPORAR	RY TRAFFIC	SIGNAL	INISTAL	١A
FILENAME = DINNNNN-sht-TST-Install-Polari	s-DLBa∲nWN –	BTW	REVISED -	STATE OF ILLINOIS					
PLOT SCALE = 40.0000 ' / in.	CHECKED -	GR	REVISED -	DEPARTMENT OF TRANSPORTATION	F	RANDALL RD	AND P	PULAKIS	) U
PLOT DATE = 4/25/2018	DATE -	4-26-2018	REVISED -		SCALE: 1" = 20'	SHEET 36	OF 66	SHEETS	ST

LEFT ON

GREEN

ARROW

ONLY

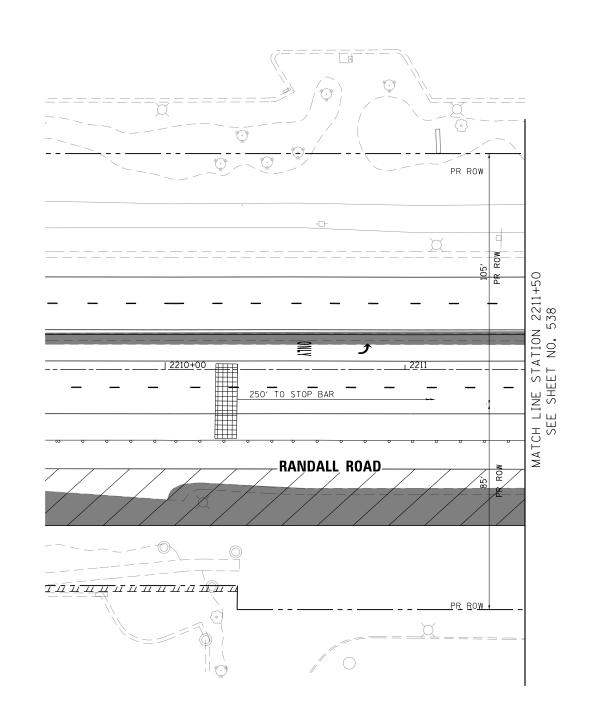
R10-5

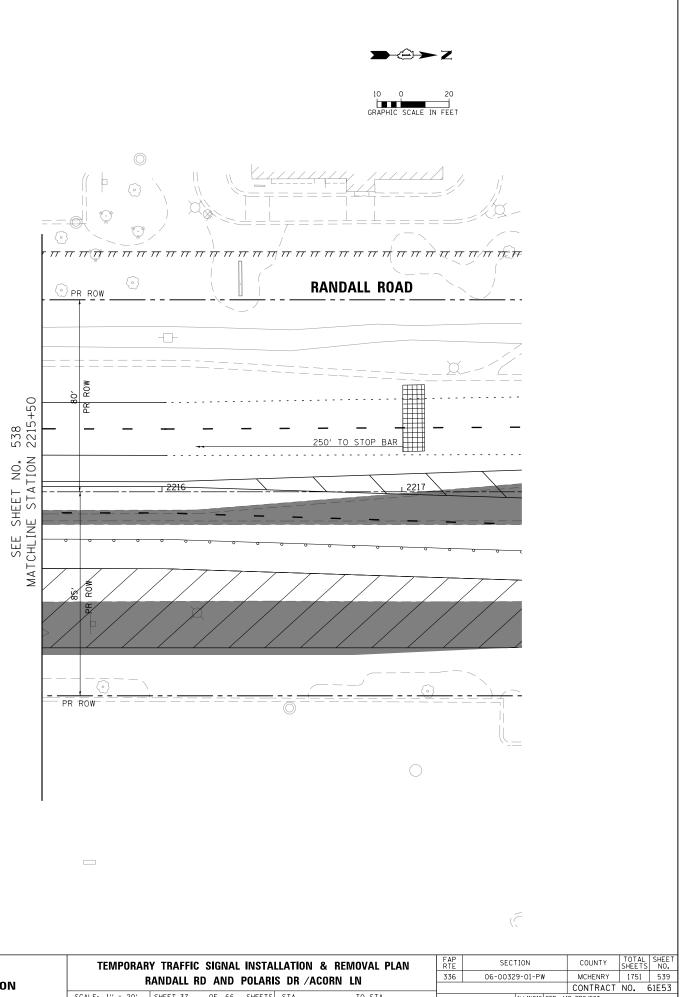
4 REQUIRED

30′′X36′′

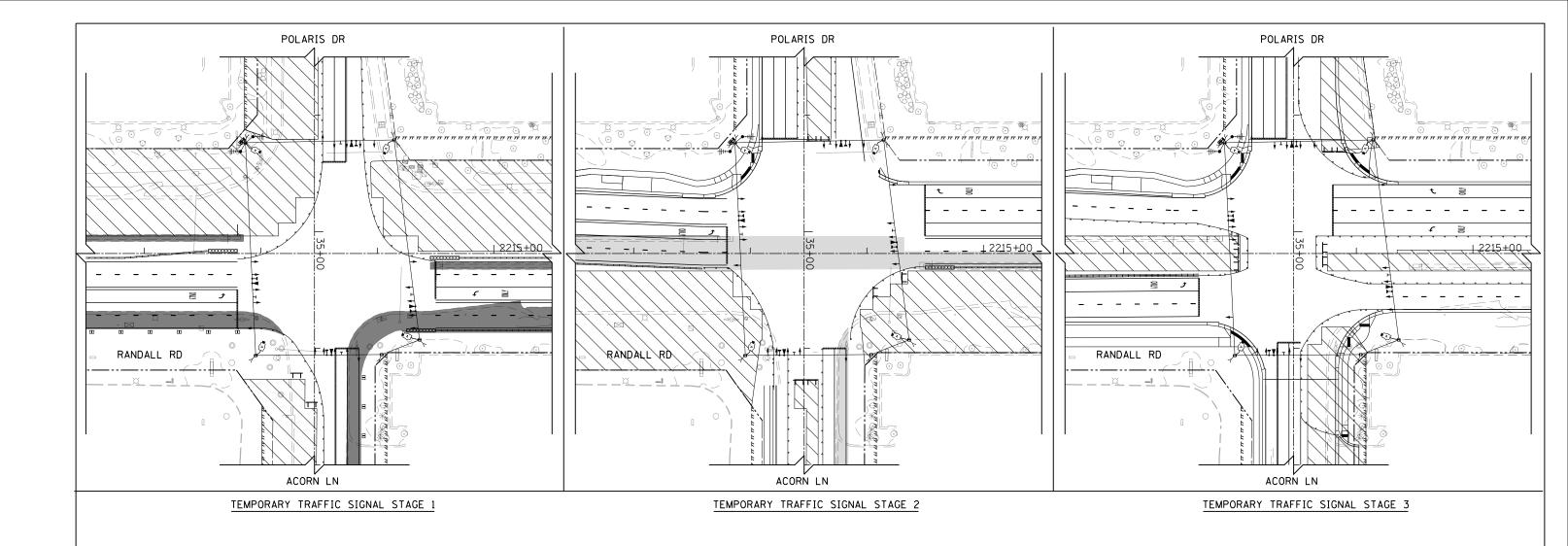
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CONTRACT NO. 61E53 STA 2211+00 TO STA 2216+00 ILLINOIS FED. AID PROJECT





USER NAME = mrciss	DESIGNED - BTW	REVISED -		TEMPORARY TRAFFIC SIGNAL INSTALLATION & REMOVAL PLAN	F A P R T F	SECTION	COUNTY TOTAL
FILENAME = DINNNNN-sht-TST-Install-Polary	511	REVISED -	STATE OF ILLINOIS	RANDALL RD AND POLARIS DR /ACORN LN	336	06-00329-01-PW	MCHENRY 1751
PLOT SCALE = 40.0000 ' / in. PLOT DATE = 4/25/2018	CHECKED - GR DATE - 4-26-2018	REVISED -	DEPARTMENT OF TRANSPORTATION	SCALE: 1" = 20' SHEET 37 OF 66 SHEETS STA TO STA	_		CONTRACT NO.
·		•	•			* *	

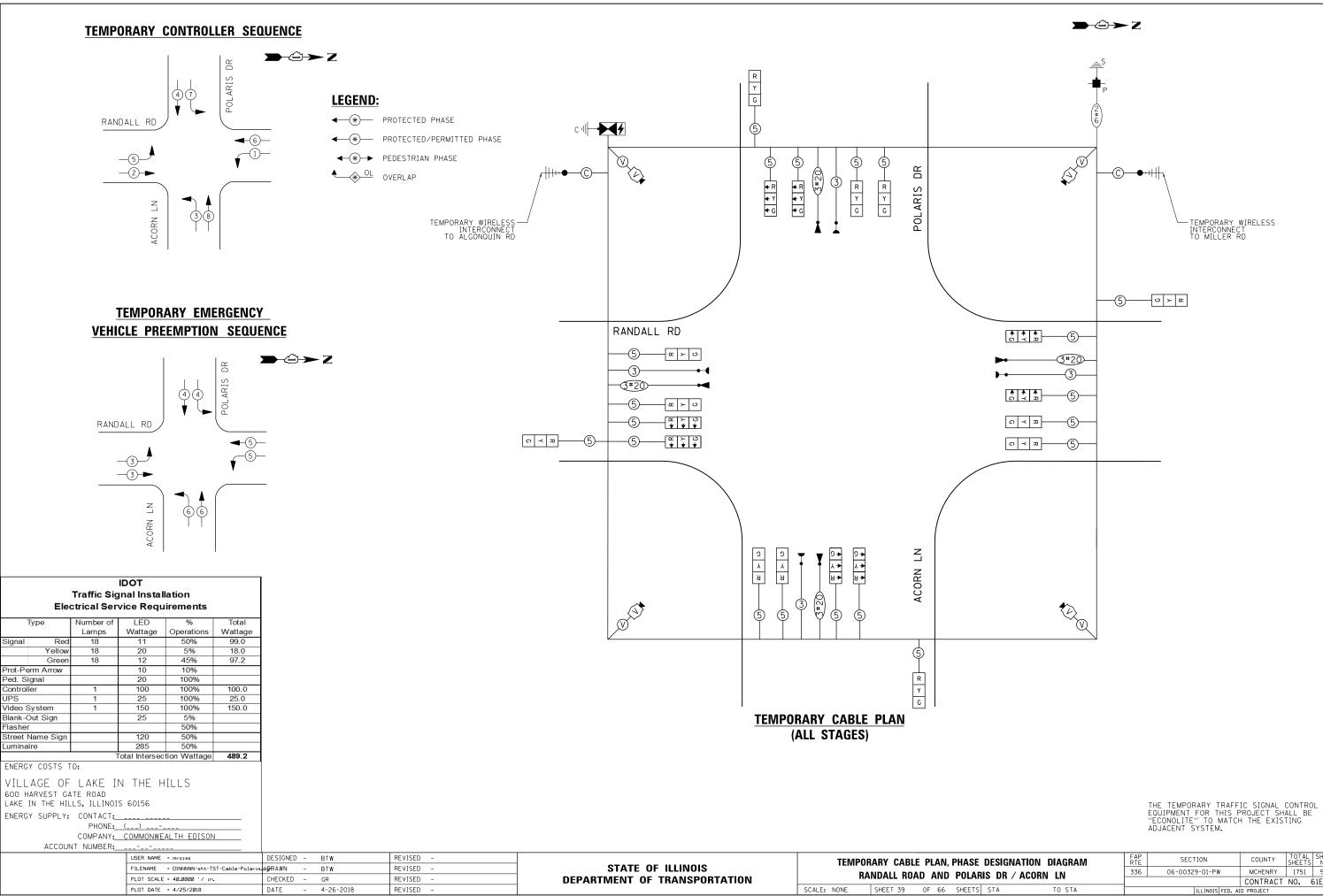


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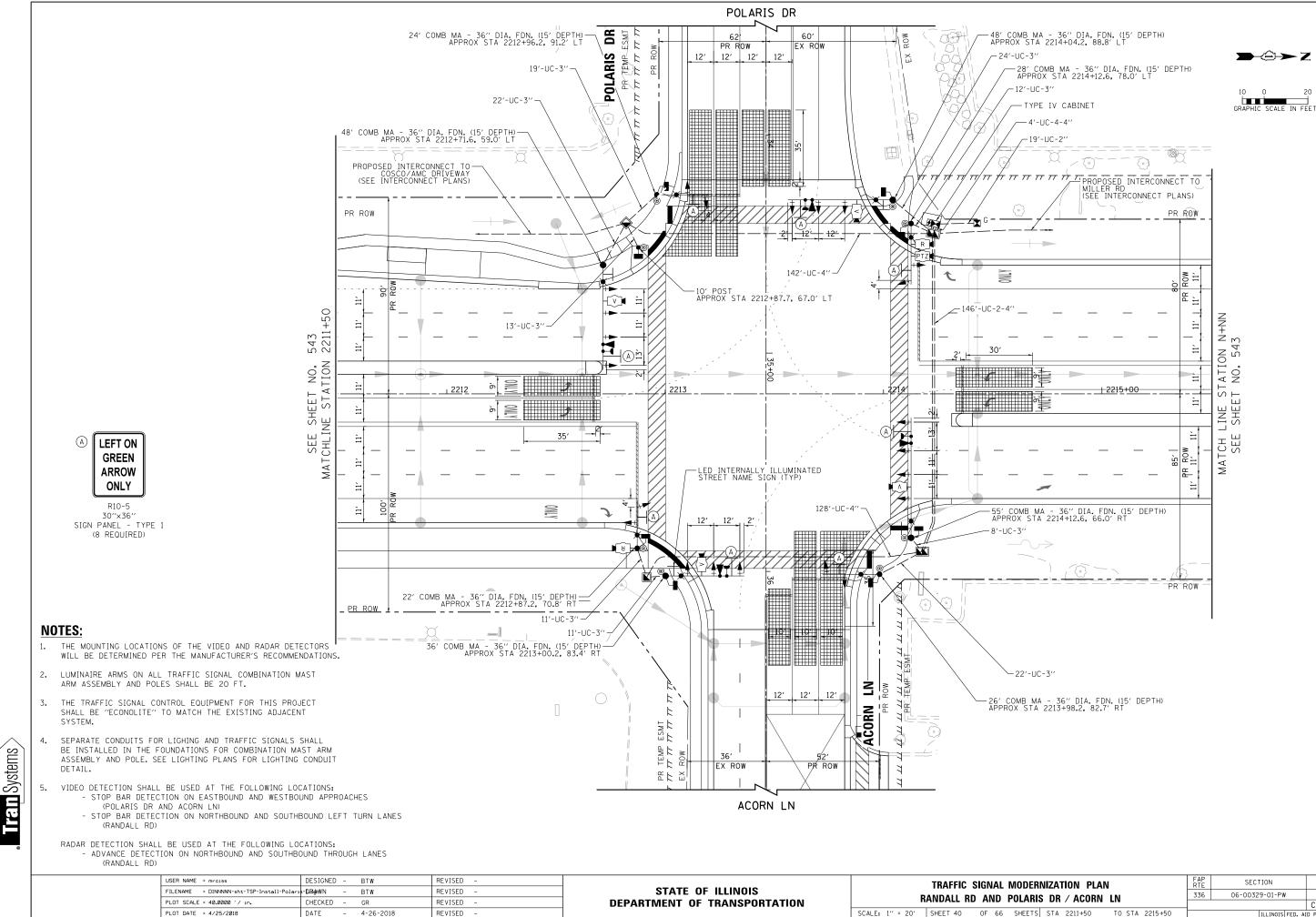
USER NAME = mrciss	DESIGNED - BTW	REVISED -		TEMPORARY TRAFFIC SIGNAL INSTALLATION, M.O.T. STAGING PLAN	FAP	SECTION	COUNTY TOT	AL SHEET
FILENAME = DINNNNN-sht-TST-MOT-Polaris.do	∎nDRAWN – BTW	REVISED -	STATE OF ILLINOIS	RANDALL RD AND POLARIS DR / ACORN LN	336	06-00329-01-PW	MCHENRY 175	51 540
PLOT SCALE = 80.0000 '/ in.	CHECKED - GR	REVISED -	DEPARTMENT OF TRANSPORTATION	RAINDALL ND AIND FULANIS DN / ACUNIN LIN			CONTRACT NO.	61E53
PLOT DATE = 4/25/2018	DATE - 4-26-2018	REVISED -		SCALE: 1" = 40' SHEET 38 OF 66 SHEETS STA TO STA		ILLINOIS FED.	AID PROJECT	

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GRAPHIC SCALE IN FEET



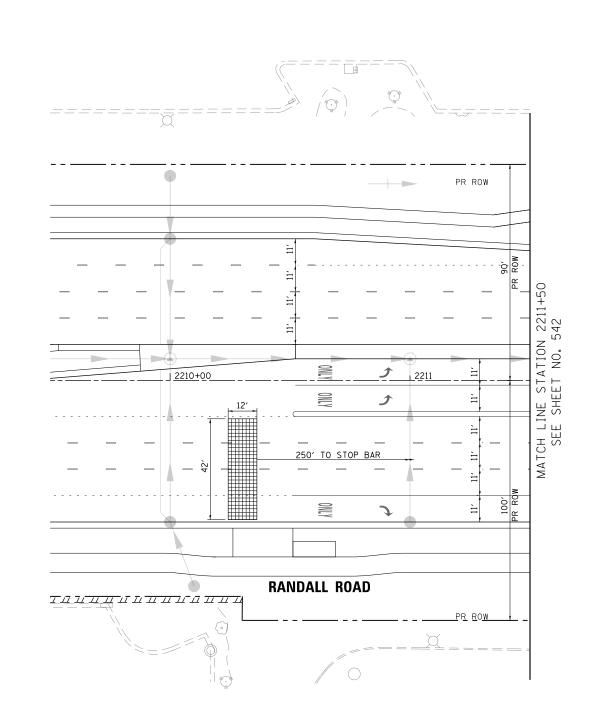
E	DESIGNA	TION DIAGRAM	FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
٨R	RIS DR / ACORN LN		336	06-00329-01-PW	MCHENRY	1751	541
~	AIS DR / ACURIN LIN				CONTRACT	NO. 0	61E53
٢S	S STA TO STA ILLINOIS FED. AID PROJECT						

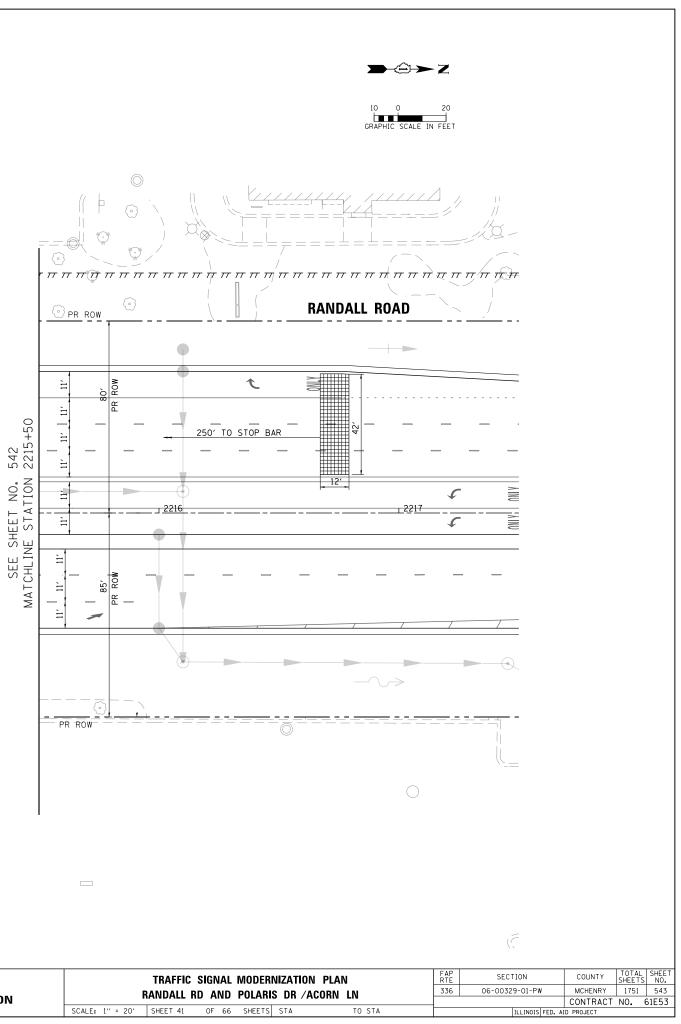


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RNIZATION PLAN	F A P R T E	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
RIS DR / ACORN LN	336	06-00329-01-PW	MCHENRY	1751	542
			CONTRACT	NO. 6	61E53
TS STA 2211+50 TO STA 2215+50		ILLINOIS FED. AI	D PROJECT		

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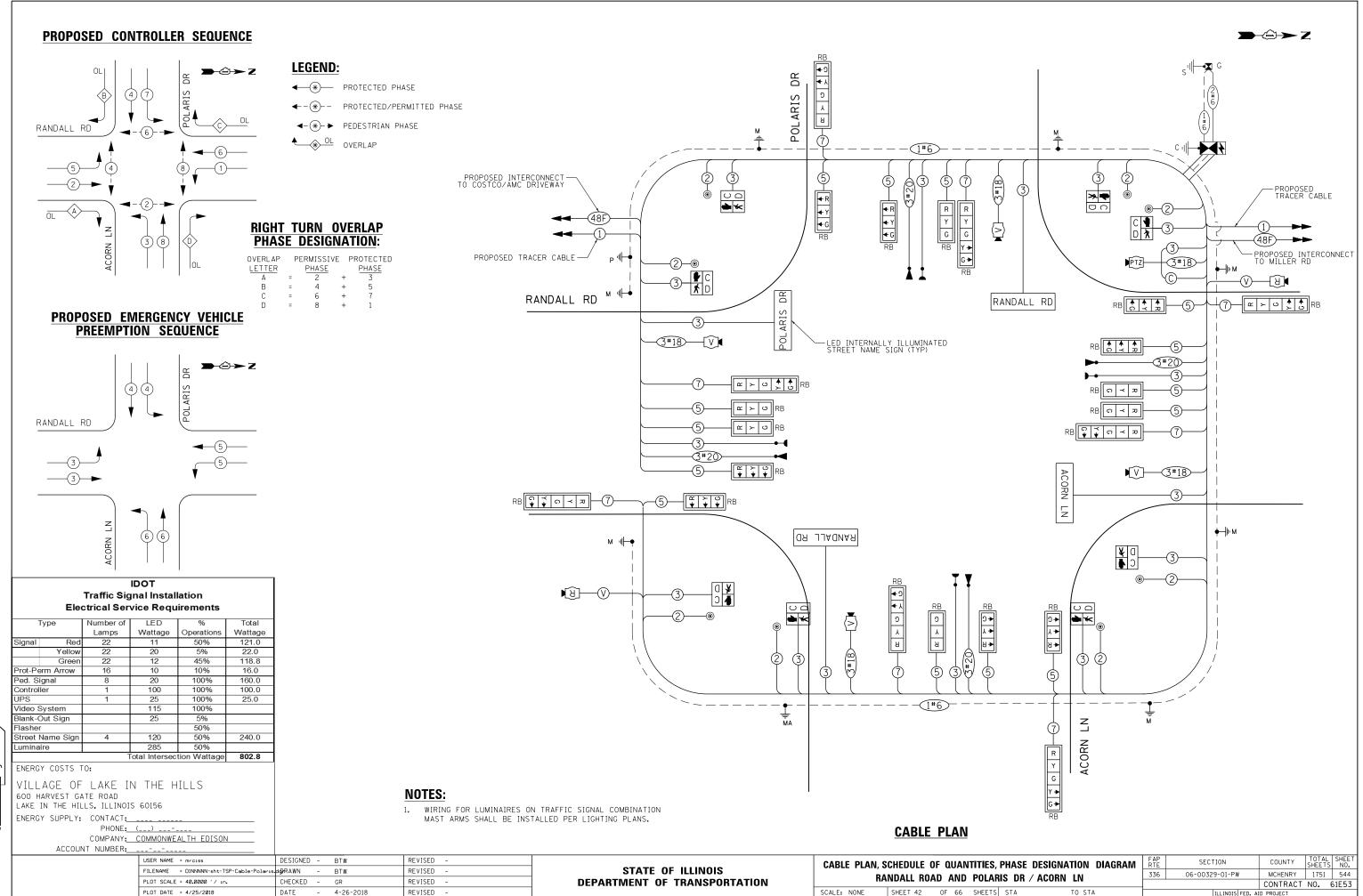




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USER NAME = mrciss	DESIGNED -	BTW	REVISED -			TRAFFIC S		MODER	
FILENAME = DINNNNN-sht-TSP-Install-Polari	s-DRaAjwNN –	BTW	REVISED -	STATE OF ILLINOIS	-				
PLOT SCALE = 40.0000 ' / in.	CHECKED -	GR	REVISED -	DEPARTMENT OF TRANSPORTATION	ł	ANDALL RE	J AND	PULAKI	5 DK /A
PLOT DATE = 4/25/2018	DATE –	4-26-2018	REVISED -		SCALE: 1" = 20'	SHEET 41	OF 66	SHEETS	STA



ren Systems

### NOTES:

- 1. THE TEMPORARY TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.
- 2. DUE TO THE PRESENCE OF A RED LIGHT RUNNING (RLR) CAMERA AT THIS INTERSECTION, THE CONTRACTORS SHALL NOTIFY THE VILLAGE AND RLR CAMERA COMPANY PRIOR TO THE START OF CONSTRUCTION. THE VILLAGE OR THE RLR CAMERA COMPANY SHALL MAKE THE CAMERA INOPERATIVE FOR THE TIME OF COMPARE COMPANY STALL MARE THE CAMERA HOUSE ATTACT FOR THE TIME OF CONSTRUCTION. ANY RLR CAMERA EQUIPMENT THAT IS IN CONFLICT WITH THE PROPOSED CONSTRUCTION SHALL BE REMOVED BY ITS RESPECTIVE OWNERS PRIOR TO THE START OF CONSTRUCTION. THE RLR CAMERA COMPANY FOR THIS INTERSECTION IS: REDFLEX TRAFFIC SYSTEMS, INC.

23751 N. 23RD AVE., STE 150 PHOENIX, AZ 85085-1854 PHONE: 623-207-2000

### **REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT**

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR AND SHALL REMAIN THE PROPERTY OF THE AGENCY LISTED BELOW. THE CONTRACTOR SHALL SAFELY STORE AND DELIVER ALL EOUIPMENT TO BE RETURNED TO THE LISTED AGENCY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

AGENCY: ALGONQUIN - LAKE IN THE HILLS FIRE PROTECTION DISTRICT

- EACH LIGHT DETECTOR
- EACH CONFIRMATION BEACON
- EACH LIGHT DETECTOR AMPLIFIER

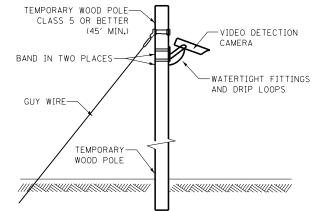
THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR AND SHALL REMAIN THE PROPERTY OF THE AGENCY LISTED BELOW. THE CONTRACTOR SHALL SAFELY STORE AND DELIVER ALL EQUIPMENT TO BE RETURNED TO THE LISTED AGENCY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS. AGENCY: MCHENRY COUNTY - DIVISION OF TRANSPORTATION

- EACH VEHICLE DETECTION CAMERA 4
- CONTROLLER AND CABINET (COMPLETE) UNINTERRUPTABLE POWER SUPPLY FACH
- FACH

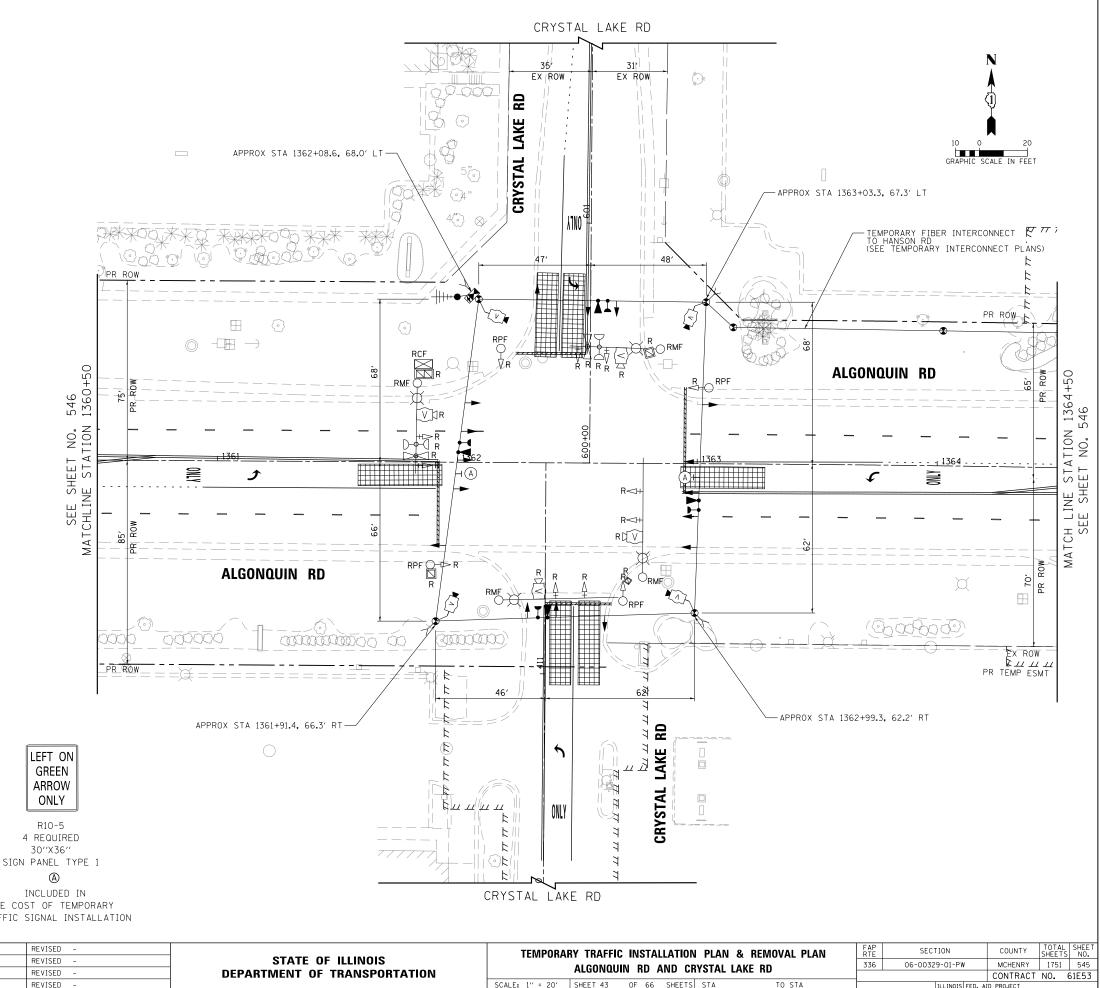
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 4 EACH 3-SECTION SIGNAL HEAD
- E A C H 5-SECTION SIGNAL HEAD
- 11 EACH TRAFFIC SIGNAL BACKPLATE
- 4 EACH STEEL COMB MAST ARM AND POLE WITH LUMINAIRE
- EACH TRAFFIC SIGNAL POST 4
- 1 EACH SERVICE INSTALLATION

TET Systems



# **TEMPORARY VIDEO DETECTION** MOUNTING DETAIL (NOT TO SCALE)



	INCLU	DED IN
THE CO	DST OF	TEMPORARY
TRAFFIC	SIGNA	INSTALLATION

LEFT ON

GREEN ARROW

ONLY

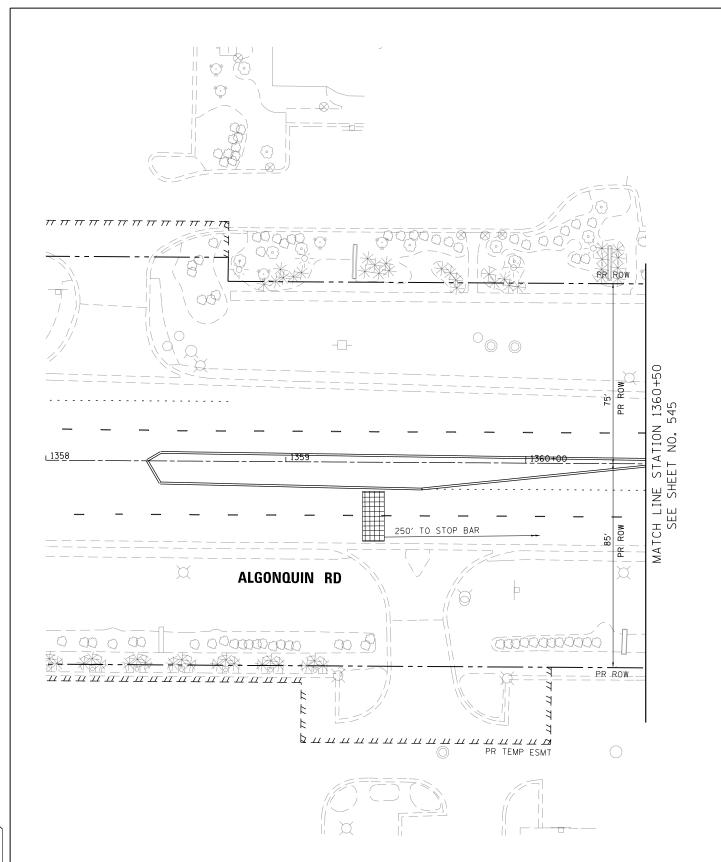
R10-5

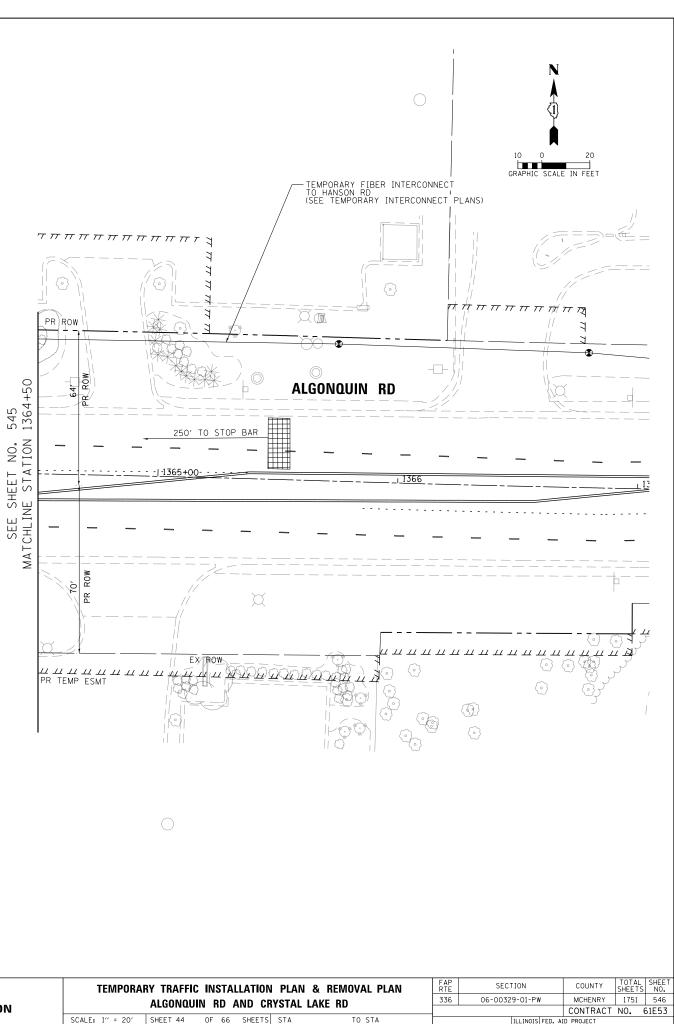
30''X36''

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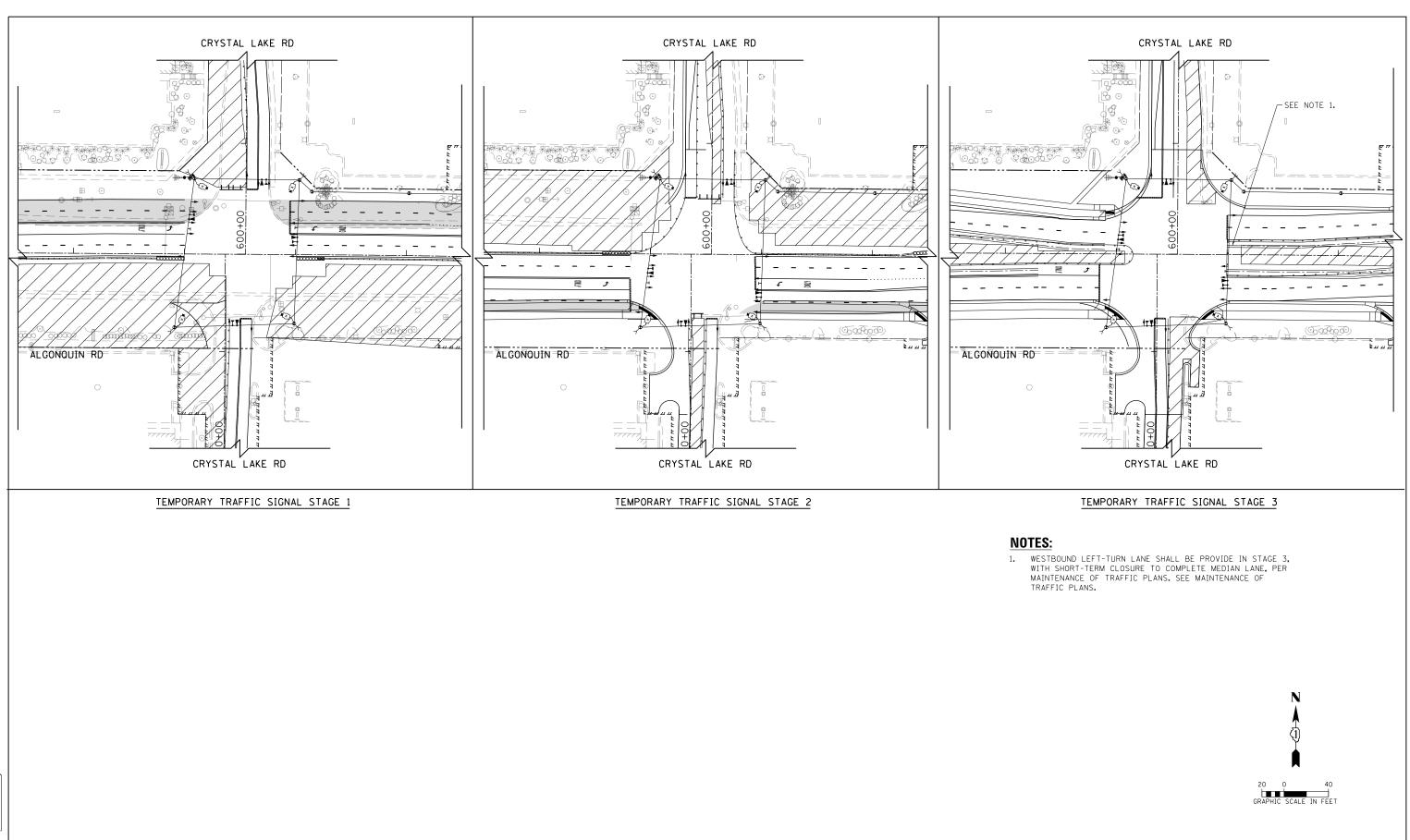
USER NAME = mrciss	DESIGNED -	BTW	REVISED -	STATE OF ILLINOIS	TEMPORA	RY TRAFFIC	INSTAL	LATION	Ρ
FILENAME = DINNNNN-sht-TST-Install-Cryste PLOT SCALE = 40.0000 '/ in.	CHECKED -	BTW GR	REVISED - REVISED -	DEPARTMENT OF TRANSPORTATION		ALGONQUI	N RD A	ND CR	YST
PLOT DATE = 4/25/2018	DATE –	4-26-2018	REVISED -		SCALE: 1" = 20'	SHEET 43	OF 66	SHEETS	ST





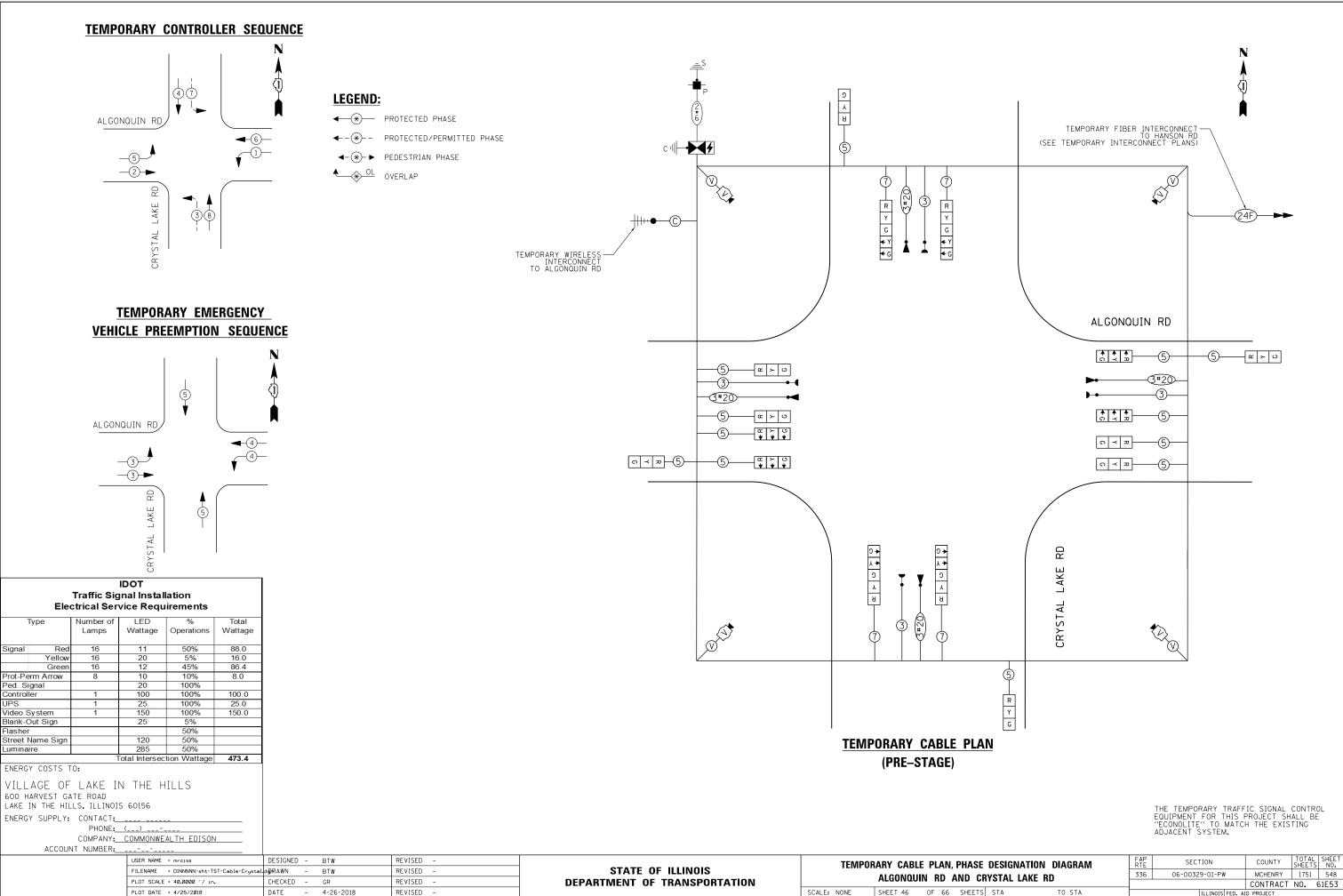
**Tran** Systems

USER NAME = mrciss	DESIGNED -	BTW	REVISED -		TEMPORA	RV TRAFFIC	INSTALL	ΔΤΙΟΝ
FILENAME = DINNNNN-sht-TST-Install-Crysta	11-22Rakaj₩N –	BTW	REVISED -	STATE OF ILLINOIS				
PLOT SCALE = 40.0000 ' / in.	CHECKED -	GR	REVISED -	DEPARTMENT OF TRANSPORTATION	1	ALGONQUI	n kd an	ID CRY
PLOT DATE = 4/25/2018	DATE -	4-26-2018	REVISED -		SCALE: 1" = 20'	SHEET 44	OF 66 S	SHEETS





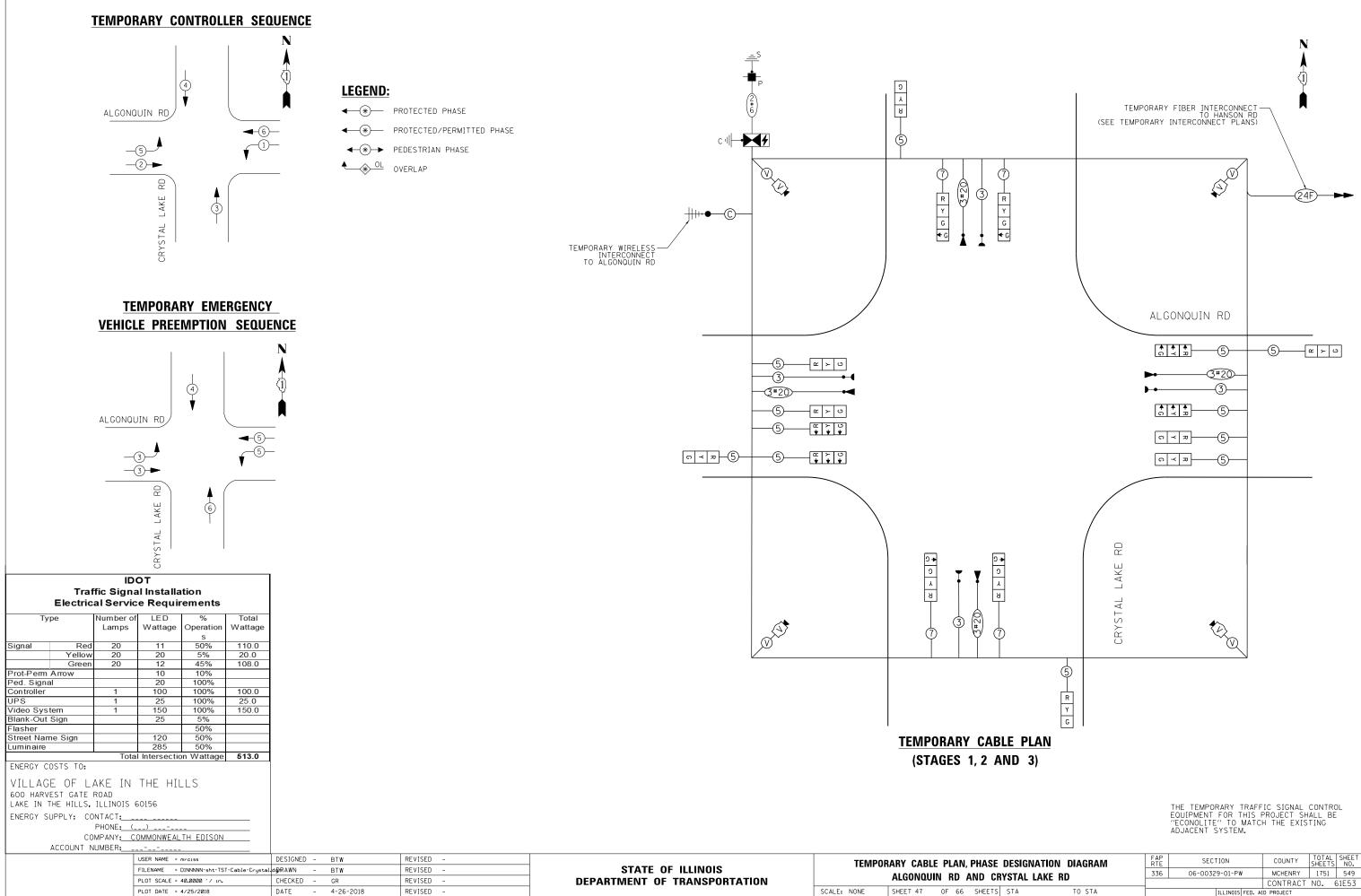
USER NAME = mrciss	DESIGNED - BTW	REVISED -		TEMPORARY TRAFFIC SIGNAL INSTALLATION, M.O.T. STAGING PLAN	FAP RTE	SECTION	COUNTY TOT	TAL SHEET ETS NO.
FILENAME = DINNNNN-sht-TST-MOT-Crystal.do	nDRAWN - BTW	REVISED -	STATE OF ILLINOIS	ALGONQUIN RD AND CRYSTAL LAKE RD	336	06-00329-01-PW	MCHENRY 175	/51 547
PLOT SCALE = 80.0000 '/ in.	CHECKED – GR	REVISED -	DEPARTMENT OF TRANSPORTATION	ALGONADIN IND AND CHISTAL LAKE IND			CONTRACT NO.	. 61E53
PLOT DATE = 4/25/2018	DATE - 4-26-2018	REVISED -		SCALE: 1'' = 40' SHEET 45 OF 66 SHEETS STA TO STA		ILLINOIS FED.	AID PROJECT	



Systems

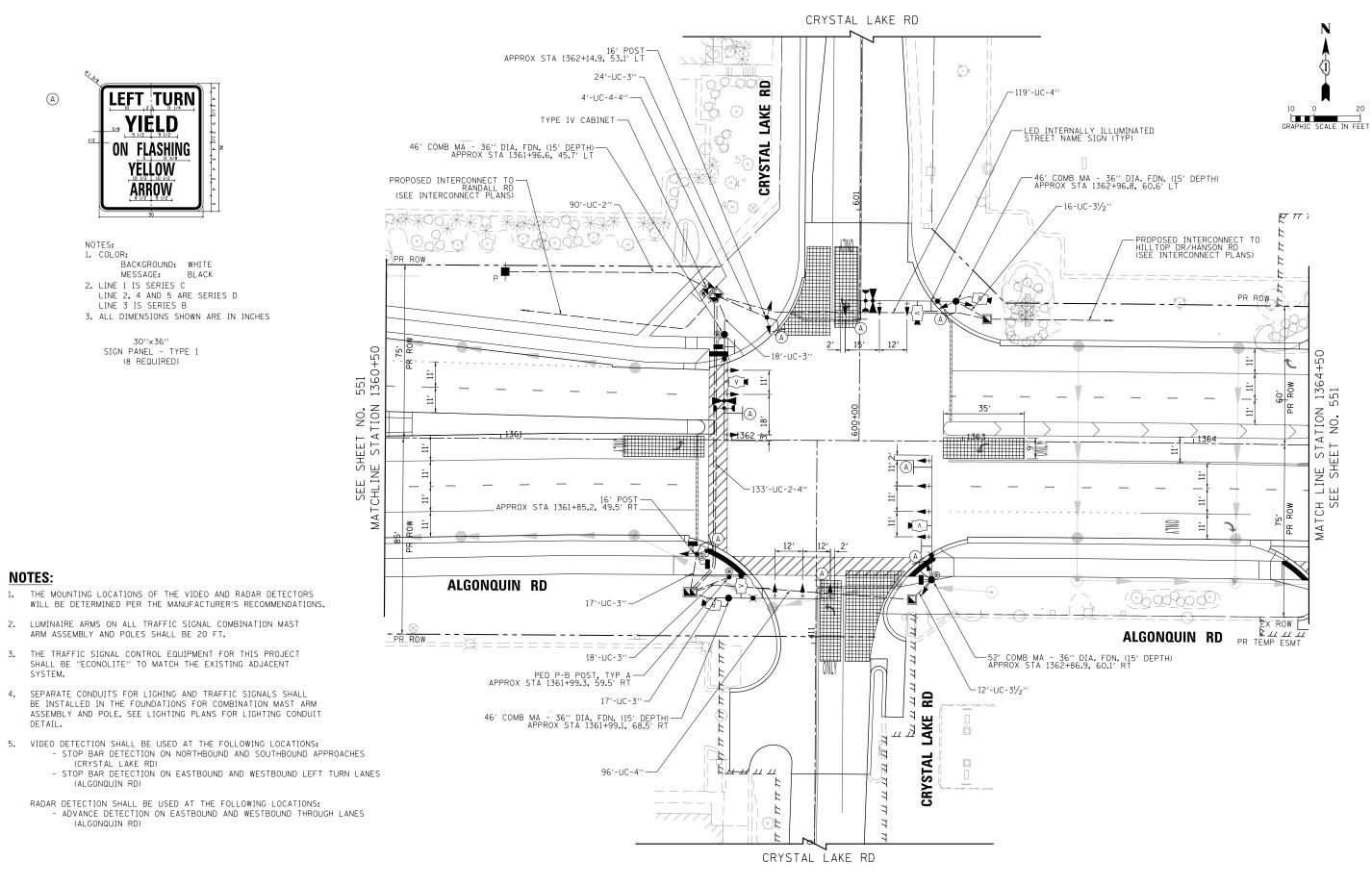
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E	DESIGNATION DIAGRAM	RTE	SECTION	COUNTY	SHEETS	NO.
B	YSTAL LAKE RD	336	06-00329-01-PW	MCHENRY	1751	548
				CONTRACT	NO. 6	61E53
S	STA TO STA		ILLINOIS FED. A	ID PROJECT		



Systems 

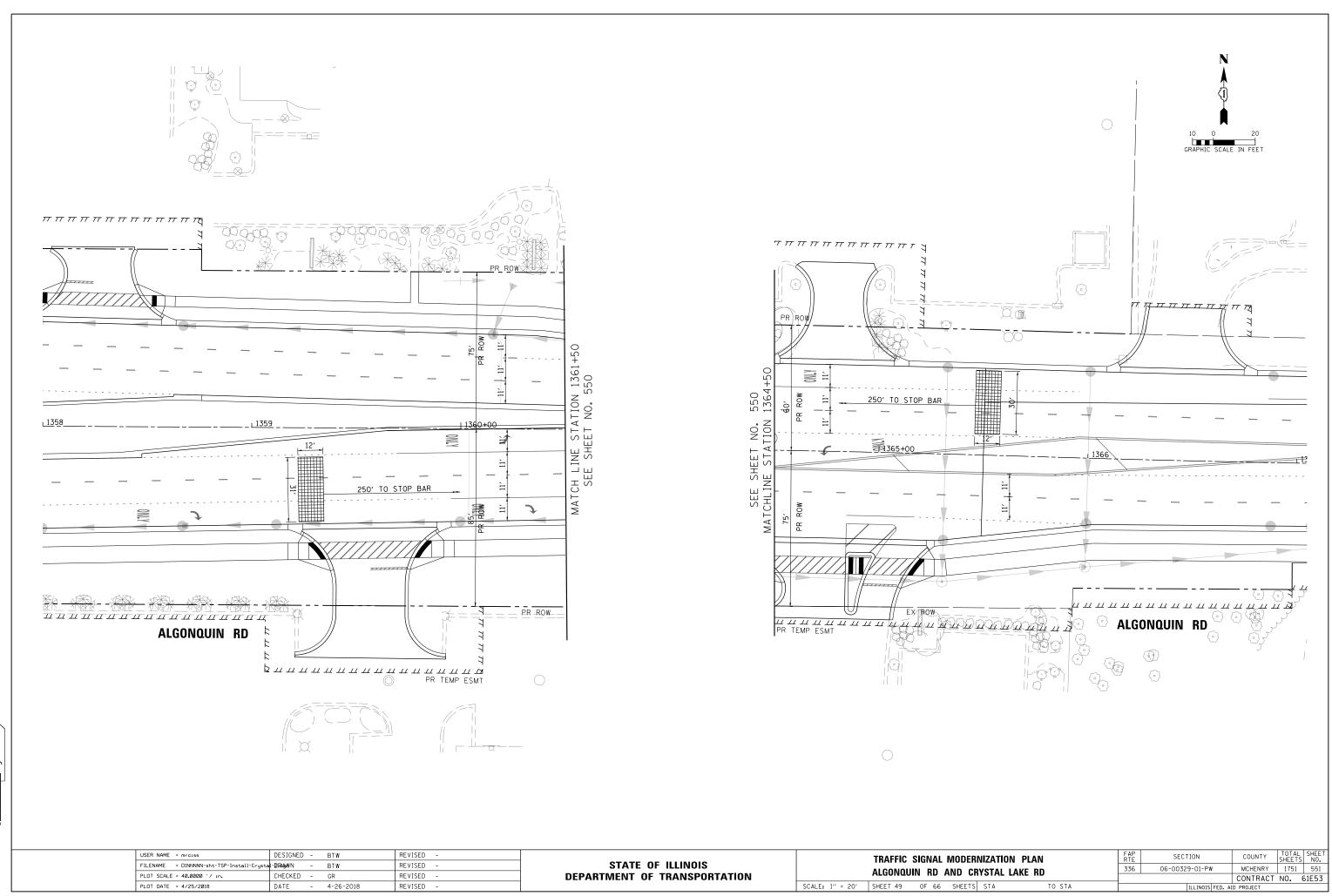
E	DESIGN/	ATION DIAGRAM	F A P R T E	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CR	ι ιΔτρύ	AKE BD	336	06-00329-01-PW	MCHENRY	1751	549
	RYSTAL LAKE RD				CONTRACT	NO. 6	61E53
٢S	STA	TO STA		ILLINOIS FED. A	ID PROJECT		



USER NAME = mrciss FILENAME = DINNNNN-sht-TSP-install-Crysta PLOT SCALE = 40.0000 '/ in.	DESIGNED – BTW J-DR&WN – BTW CHECKED – GR	REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		TRAFFIC SI Algonquin		
PLOT DATE = 4/25/2018	DATE - 4-26-2018	REVISED -	DEFANTIVIEWE OF TRANSFORTATION	SCALE: 1" = 10'	SHEET 48	OF 66 SHE	EETS

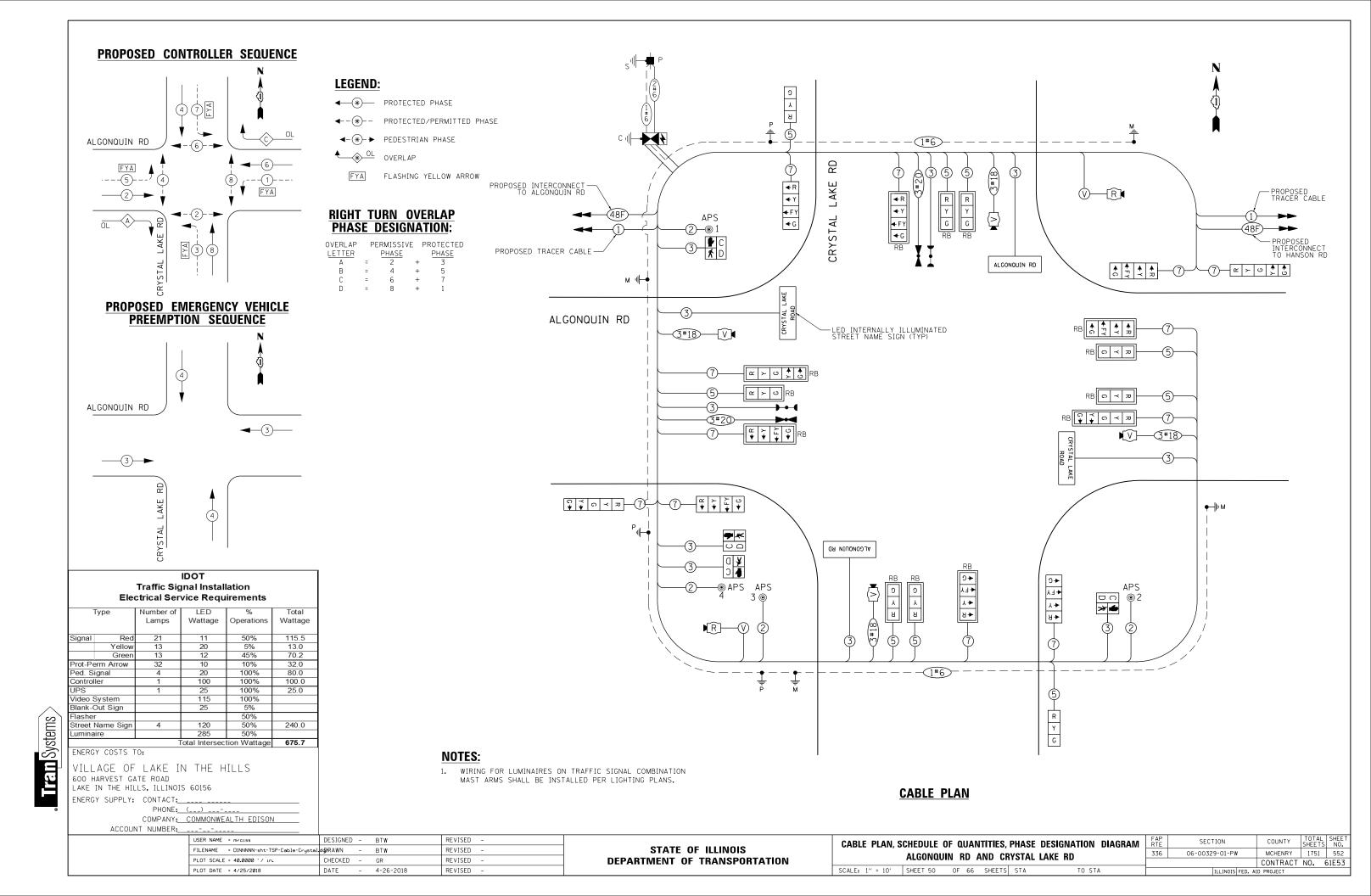
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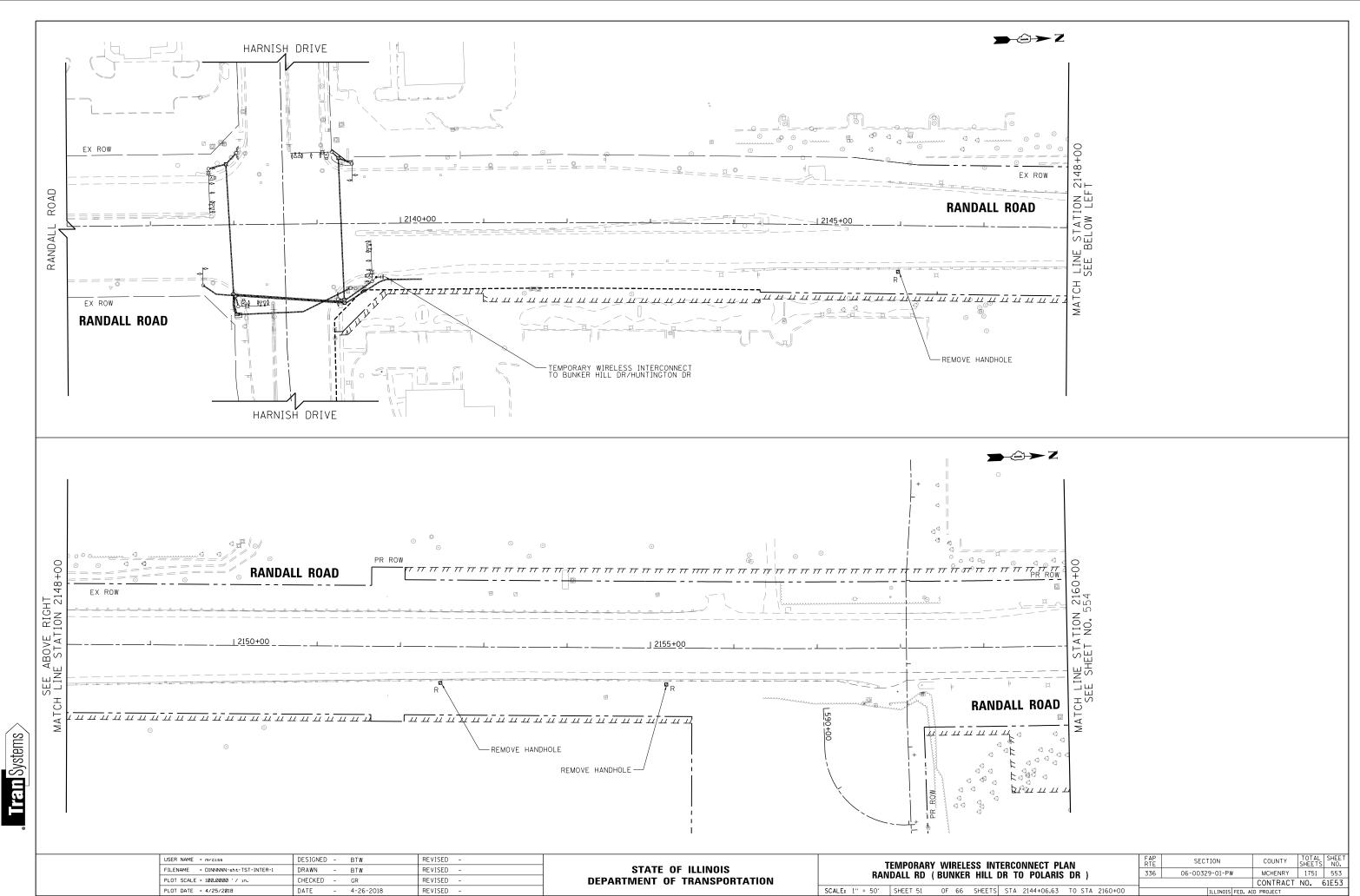
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ALGONQUIN	рп		I		
	ΠU	PR TEMP ESMT			
- 36" DIA. FDN. (15' DEPTH) 1362+86.9, 60.1' RT					
····					
				TOT	
RNIZATION PLAN	FAP RTE	SECTION	COUN	JULE 13	
	336	06-00329-01-P			550
CRYSTAL LAKE RD	550			ACT NO.	61E53



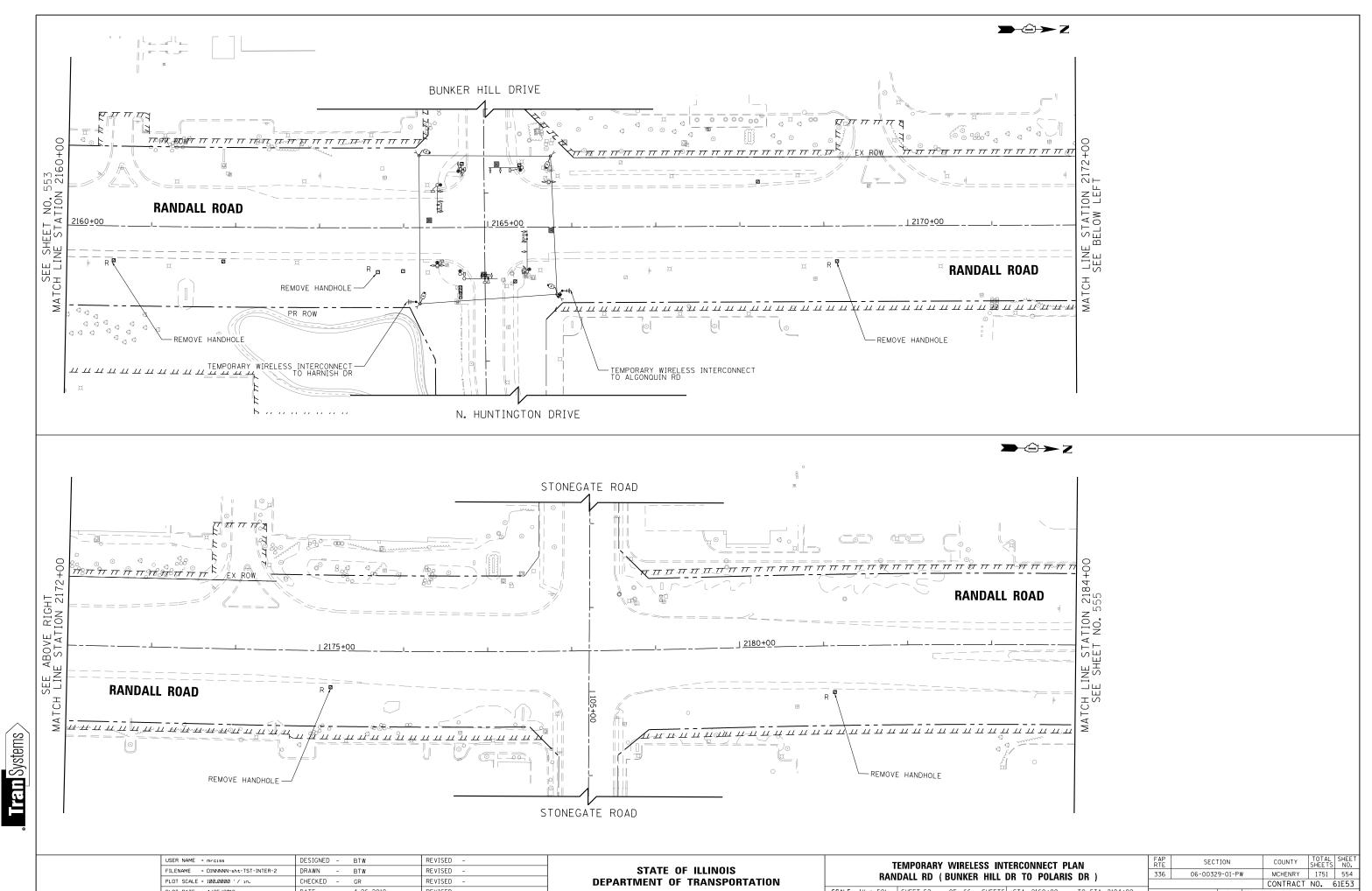
USER NAME = mrciss	DESIGNED -	BTW	REVISED -			TRAFFIC S			NIZATION
FILENAME = DINNNNN-sht-TSP-Install-Crysta	1-12Ra4a,₩N –	BTW	REVISED -	STATE OF ILLINOIS					
PLOT SCALE = 40.0000 ' / in.	CHECKED -	GR	REVISED -	DEPARTMENT OF TRANSPORTATION		ALGONQUI	N KU /	AND CR	YSTAL L
PLOT DATE = 4/25/2018	DATE –	4-26-2018	REVISED -		SCALE: 1" = 20'	SHEET 49	OF 66	SHEETS	STA

Iran Systems



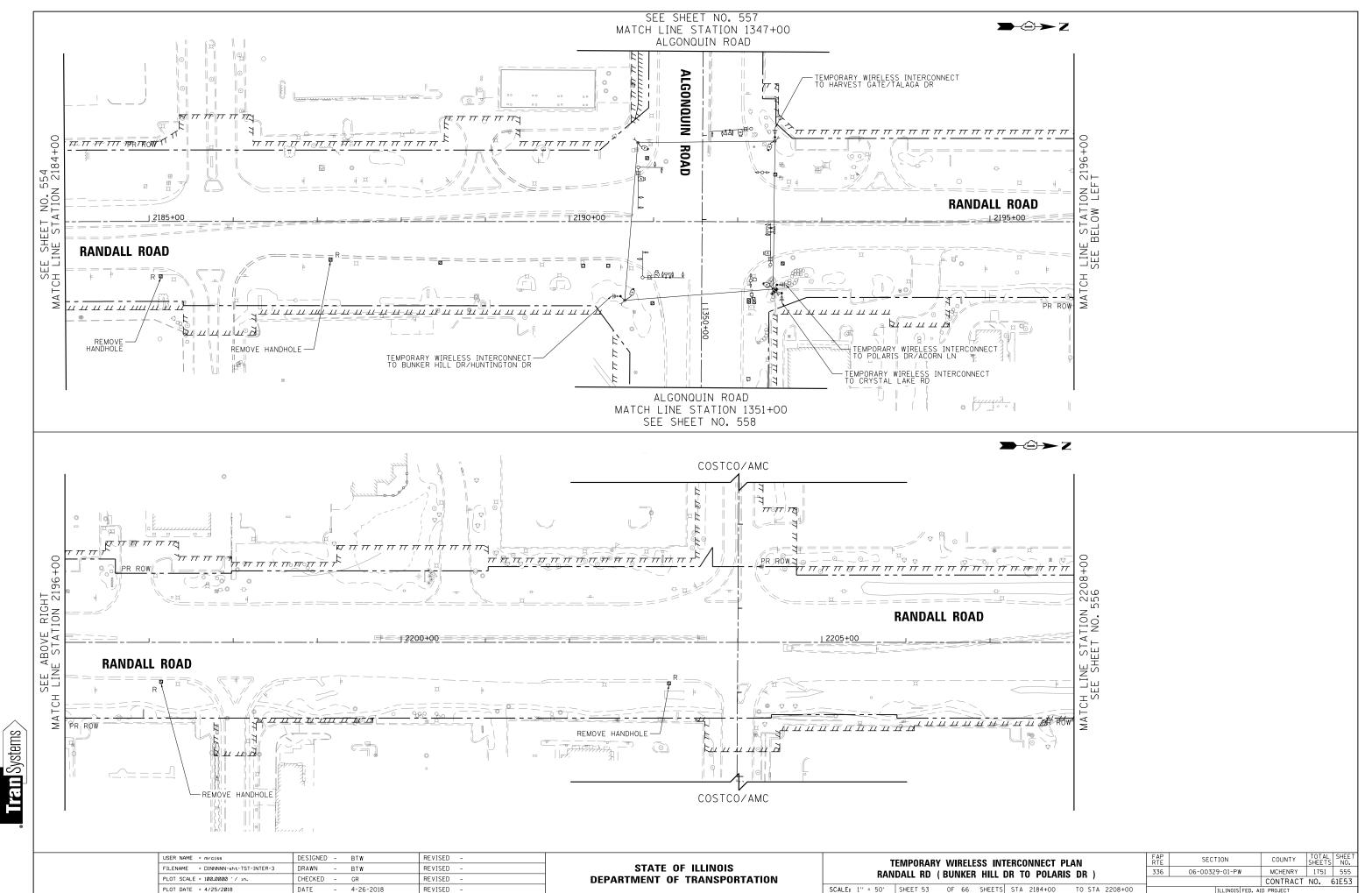


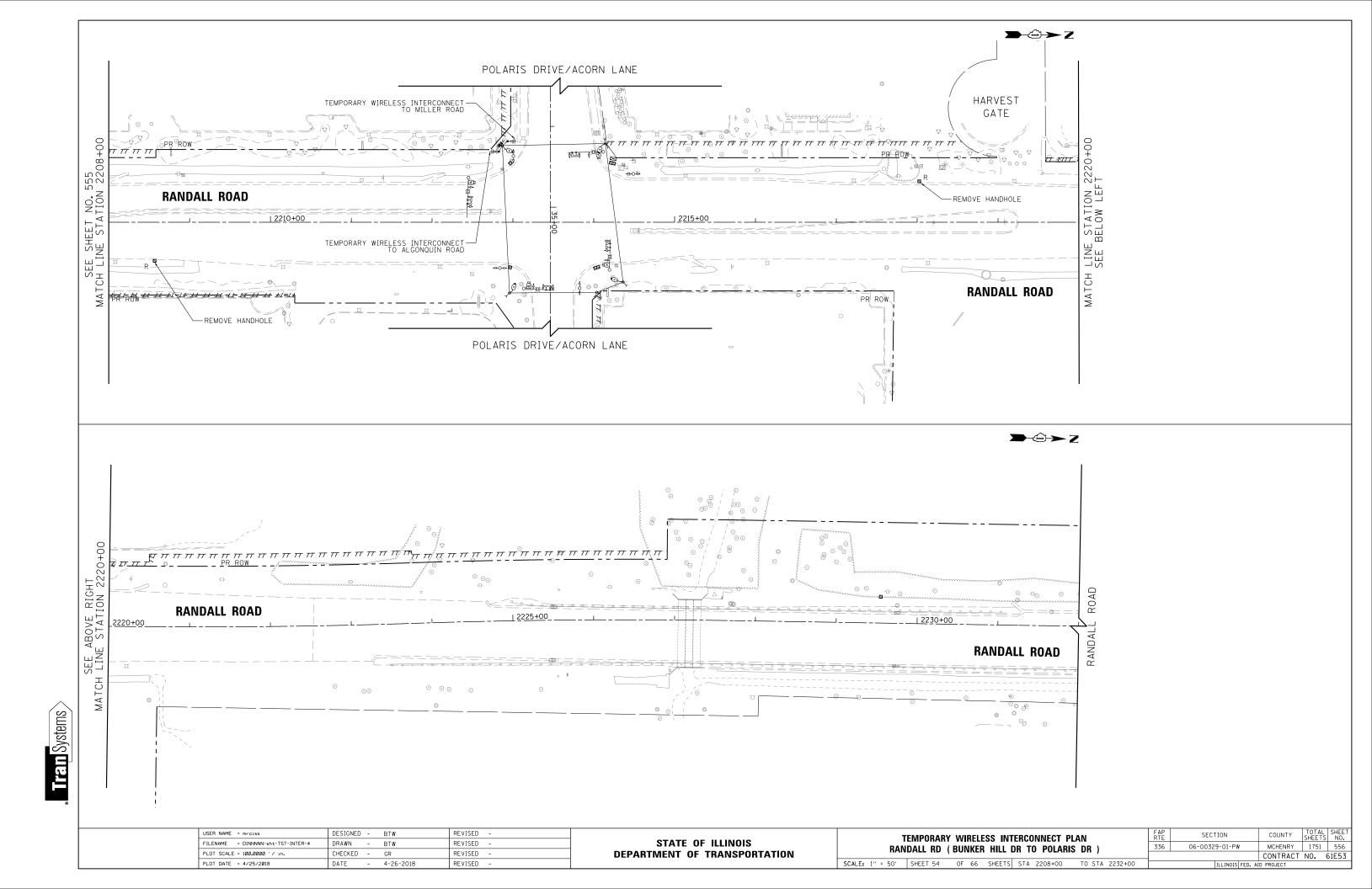
NTERCONNECT PLAN	FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
L DR TO POLARIS DR )	336	06-00329-01-PW	MCHENRY	1751	553
			CONTRACT	NO. 6	61E53
TS STA 2144+06.63 TO STA 2160+00		ILLINOIS FED. AI	D PROJECT		

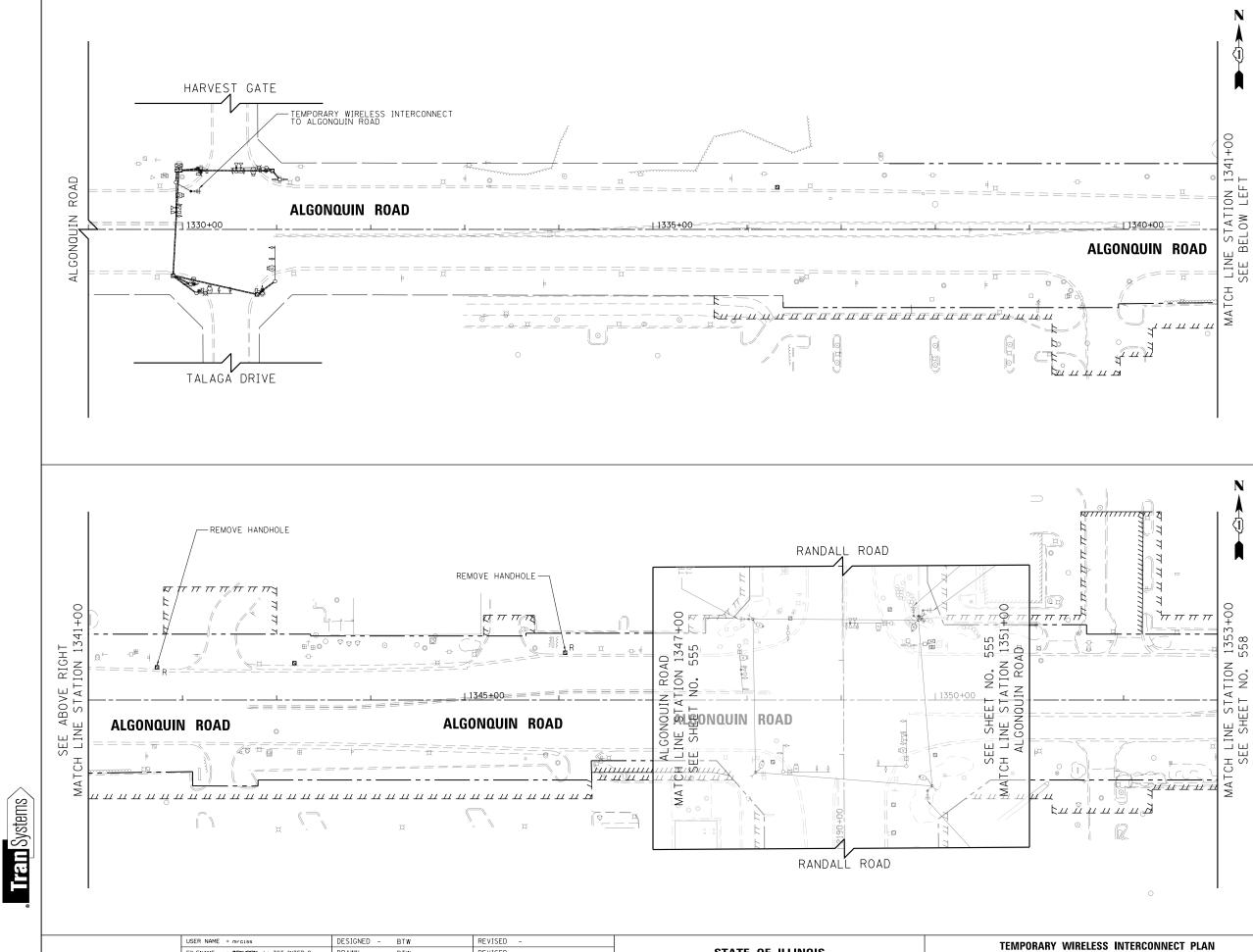


USER NAME = mrciss FILENAME = DINNNNN-sht-TST-INTER-2	DESIGNED - BTW DRAWN - BTW	REVISED - REVISED -	STATE OF ILLINOIS		ARY WIRELESS INT
PLOT SCALE = 100.0000 ' / in.	CHECKED - GR	REVISED -	DEPARTMENT OF TRANSPORTATION	KANDALL K	D (BUNKER HILL D
PLOT DATE = 4/25/2018	DATE - 4-26-2018	REVISED -		SCALE: 1" = 50' SHEET 5	2 OF 66 SHEETS

. DR TO POLARIS DR ) TS STA 2160+00 TO STA 2184+00 ATD PROJECT

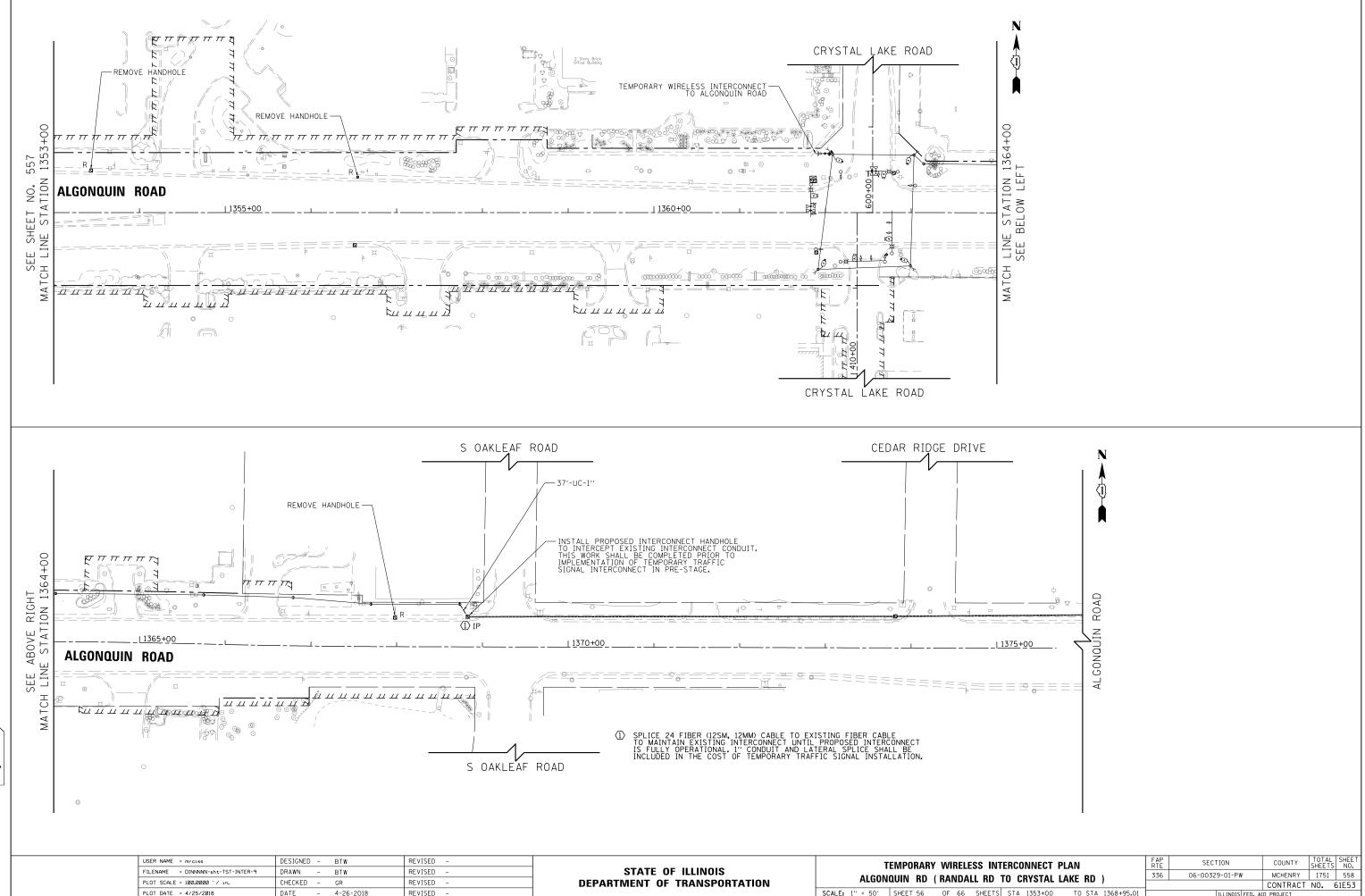






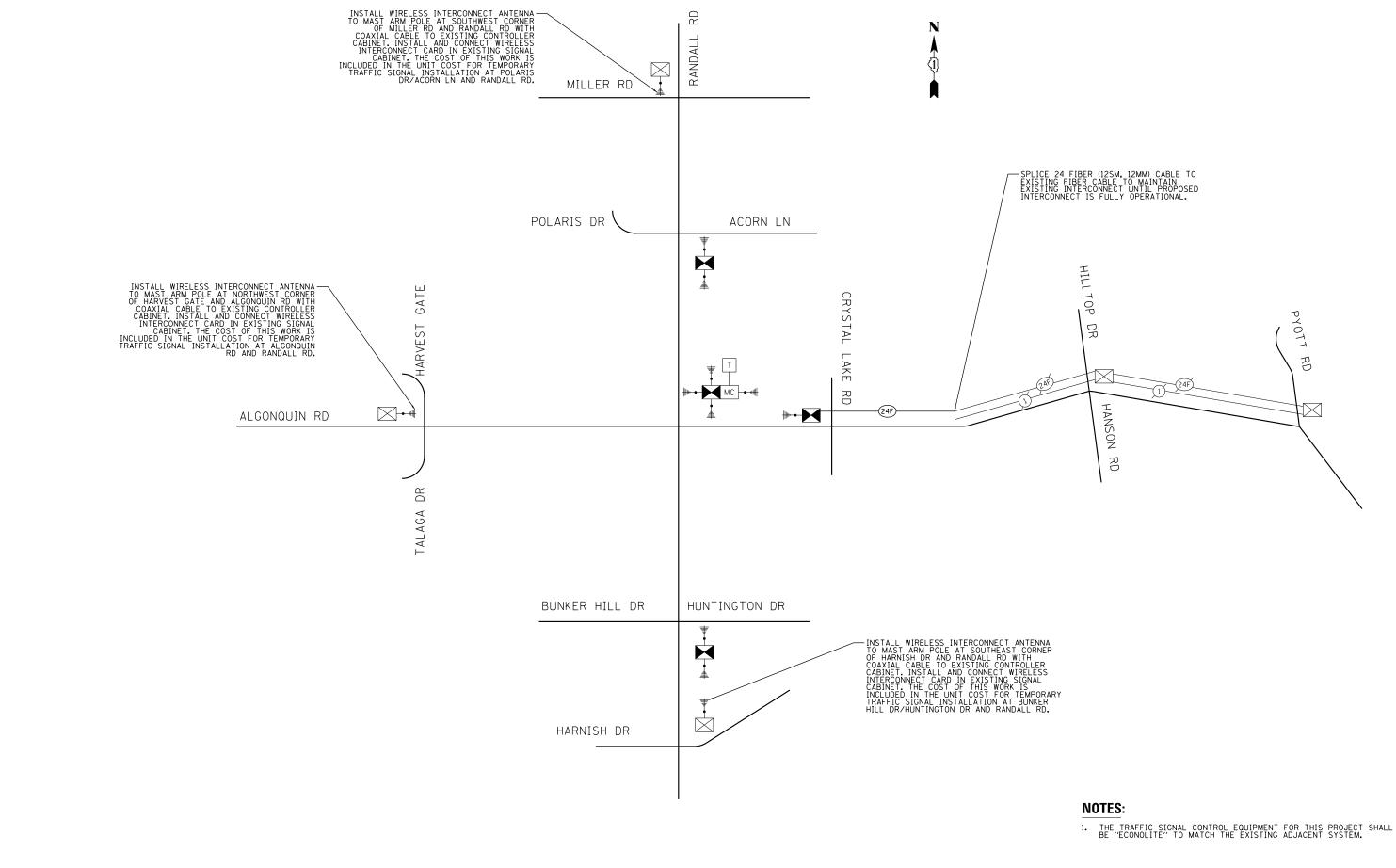
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FILENAME = BERNNBRAN-sht-TST-INTER-8	DRAWN - BT	TW	REVISED -	STATE OF ILLINOIS				
PLOT SCALE = 100.0000 ' / in.	CHECKED - GR	۹	REVISED -	DEPARTMENT OF TRANSPORTATION	ALGON	UUIN KD	( RANDAL	LKDI
PLOT DATE = 4/25/2018	DATE - 4-2	-26-2018	REVISED -		SCALE: 1" = 50'	SHEET 55	OF 66	SHEETS

F A P R T E	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	06-00329-01-PW	MCHENRY	1751	557
		CONTRACT	NO. 0	61E53
	ILLINOIS FED. AI	D PROJECT		
	RTE	RTE         SECTION           336         06-00329-01-PW	RTE         SECTION         COUNTY           336         06-00329-01-PW         MCHENRY	RTE         SECTION         COUNTY         SHEETS           336         06-00329-01-PW         MCHENRY         1751           CONTRACT NO.



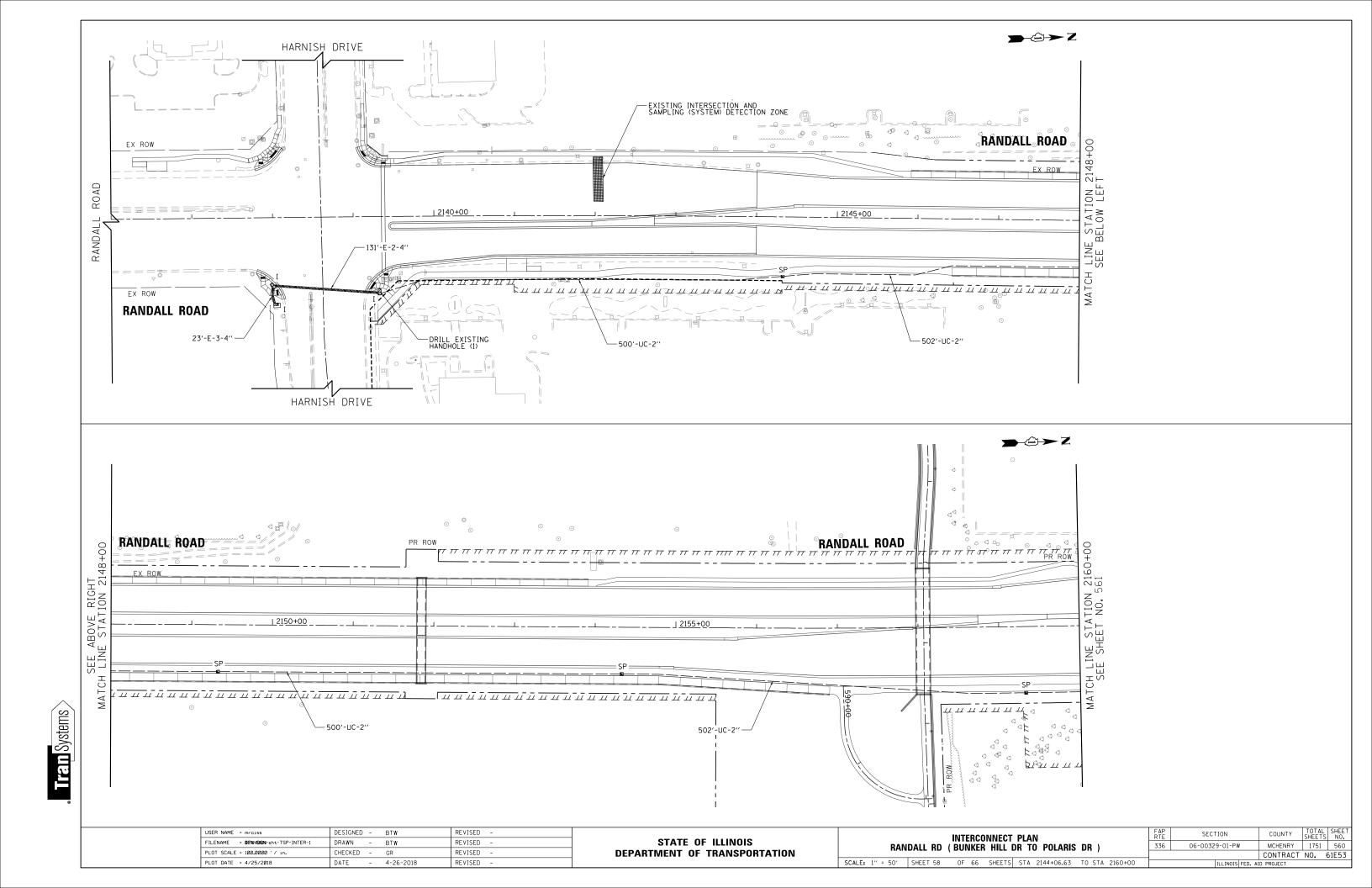
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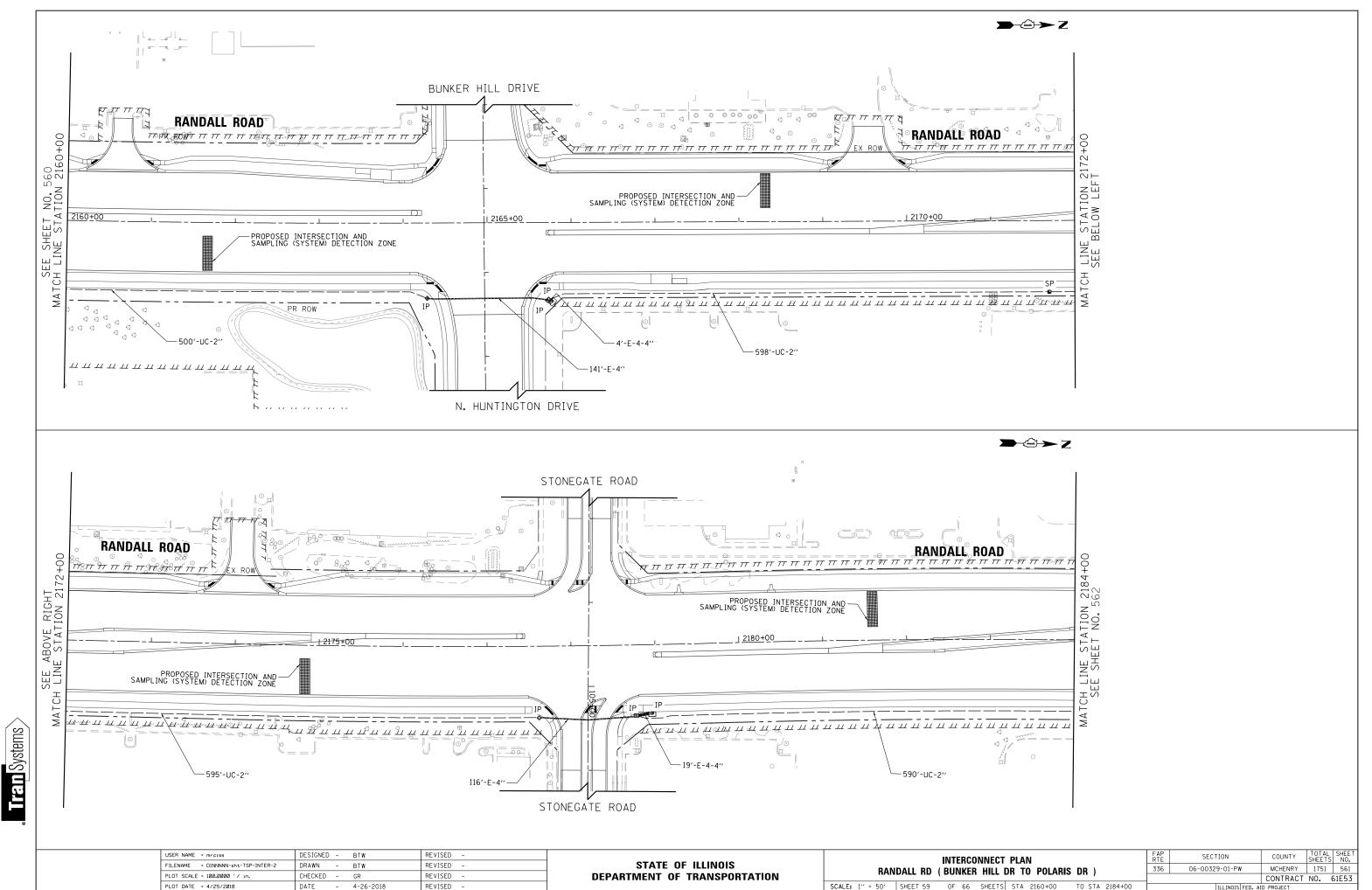
USER NAME = mrciss DESIGNED - BTW REVISED		TEMPOR/	ARY WIRELESS	INTERCOM
FILENAME = DINNNN-sht-TST-INTER-9 DRAWN - BTW REVISED	ED - STATE OF ILLINOIS			
PLOT SCALE = 100.0000 '/ In. CHECKED - GR REVISED	ED - DEPARTMENT OF TRANSPORTATION	ALGONQUIN R	D (RANDALL	AD TO CH
PLOT DATE = 4/25/2018 DATE - 4-26-2018 REVISED	ED -	SCALE: 1" = 50' SHEET 50	6 OF 66 S⊢	EETS STA



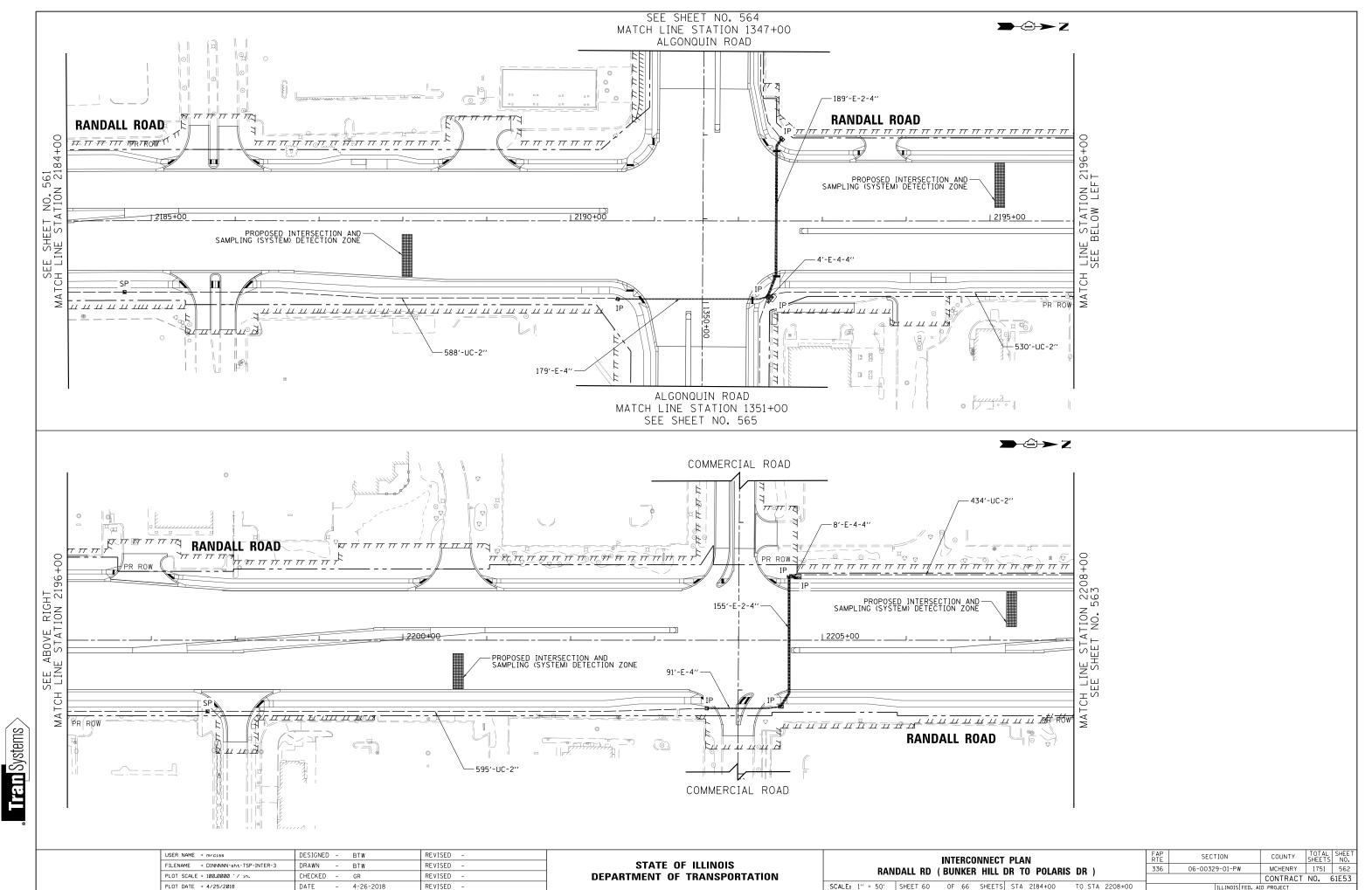
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FILENAME = DINNNNN-sht-TST-INTER-SCHEM	DRAWN - BTW	REVISED -	STATE OF ILLINOIS	DA				POLARIS DR )	336	06-00329-01-PW	MCHENRY 1751 559
PLOT SCALE = 40.0000 ' / in.	CHECKED - GR	REVISED -	DEPARTMENT OF TRANSPORTATION	n <i>r</i>		( DUINKEN HILL		FULARIS DR			CONTRACT NO. 61E53
PLOT DATE = 4/25/2018	DATE - 4-26-2018	REVISED -		SCALE: NONE	SHEET 57	OF 66 SHEE	IS STA	TO STA		ILLINOIS FED. 4	ID PROJECT

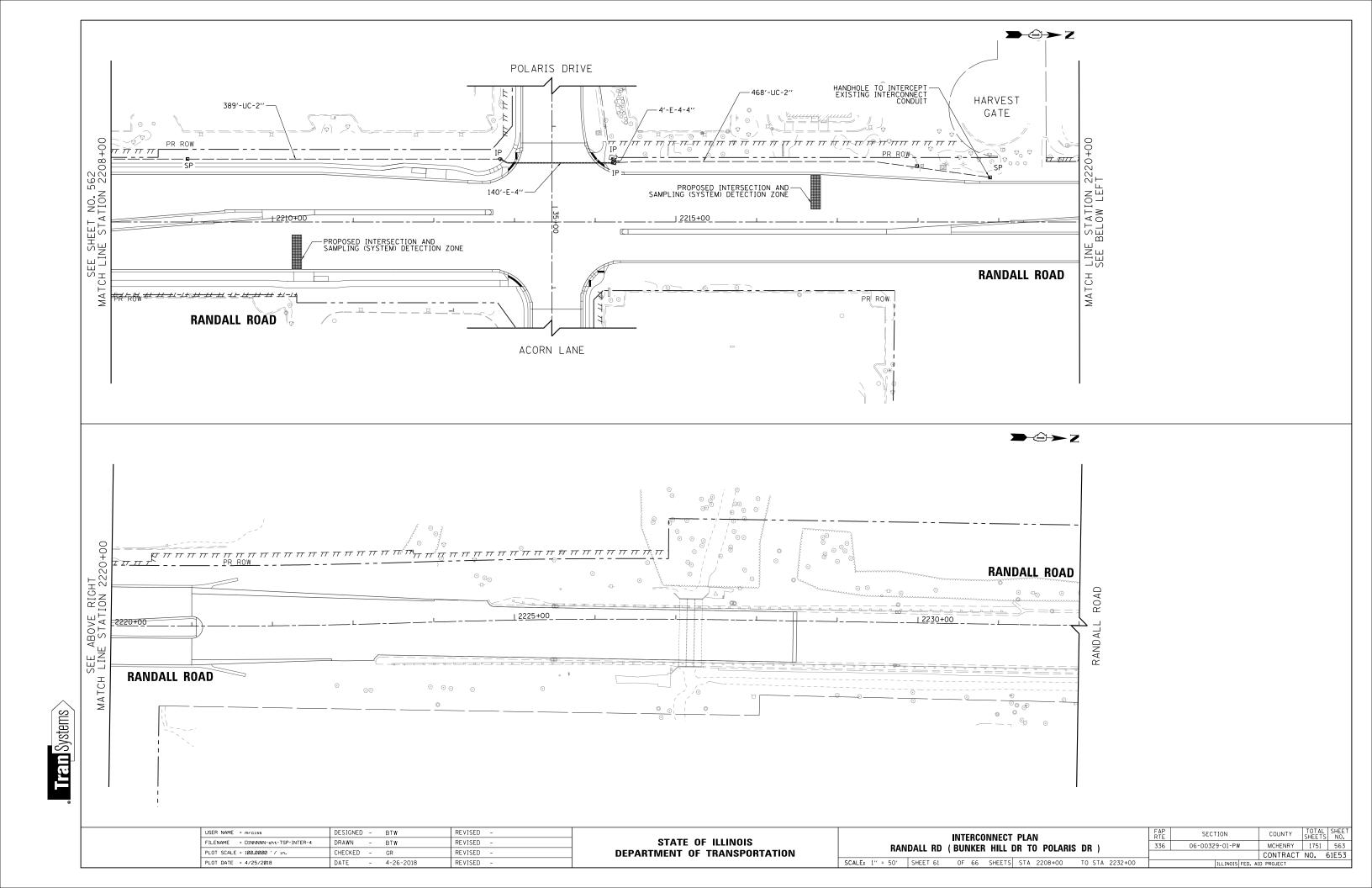
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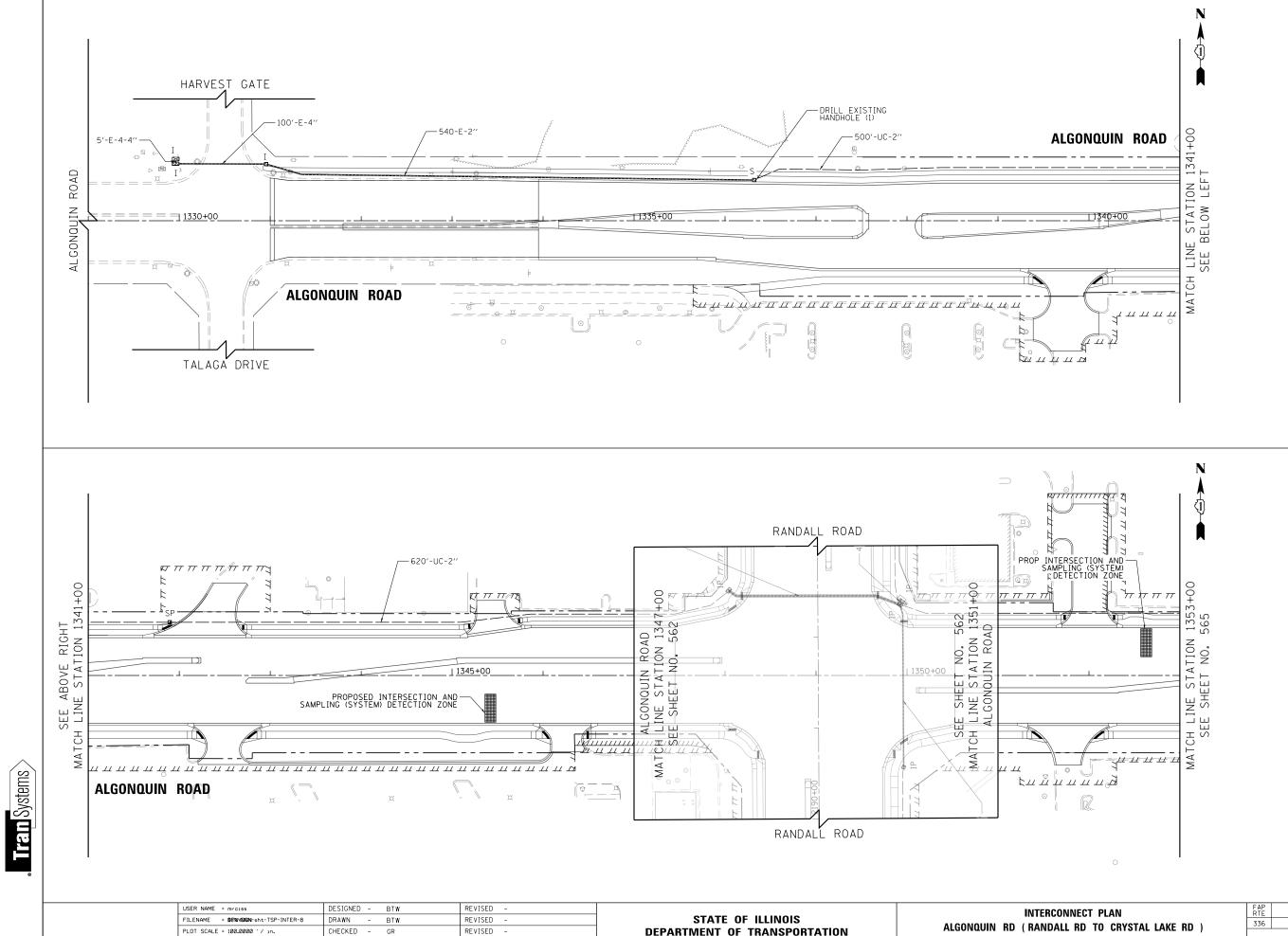




FILENAME = DINNNNN-sht-TSP-INTER-2	DRAWN -	BTW	REVISED -	STATE OF ILLINOIS	DAN			
PLOT SCALE = 100.0000 ' / in.	CHECKED -	GR	REVISED -	DEPARTMENT OF TRANSPORTATION	RAN	DALL RD	( BUNKE	K HILL D
PLOT DATE = 4/25/2018	DATE –	4-26-2018	REVISED -		SCALE: 1" = 50'	SHEET 59	OF 66	SHEETS



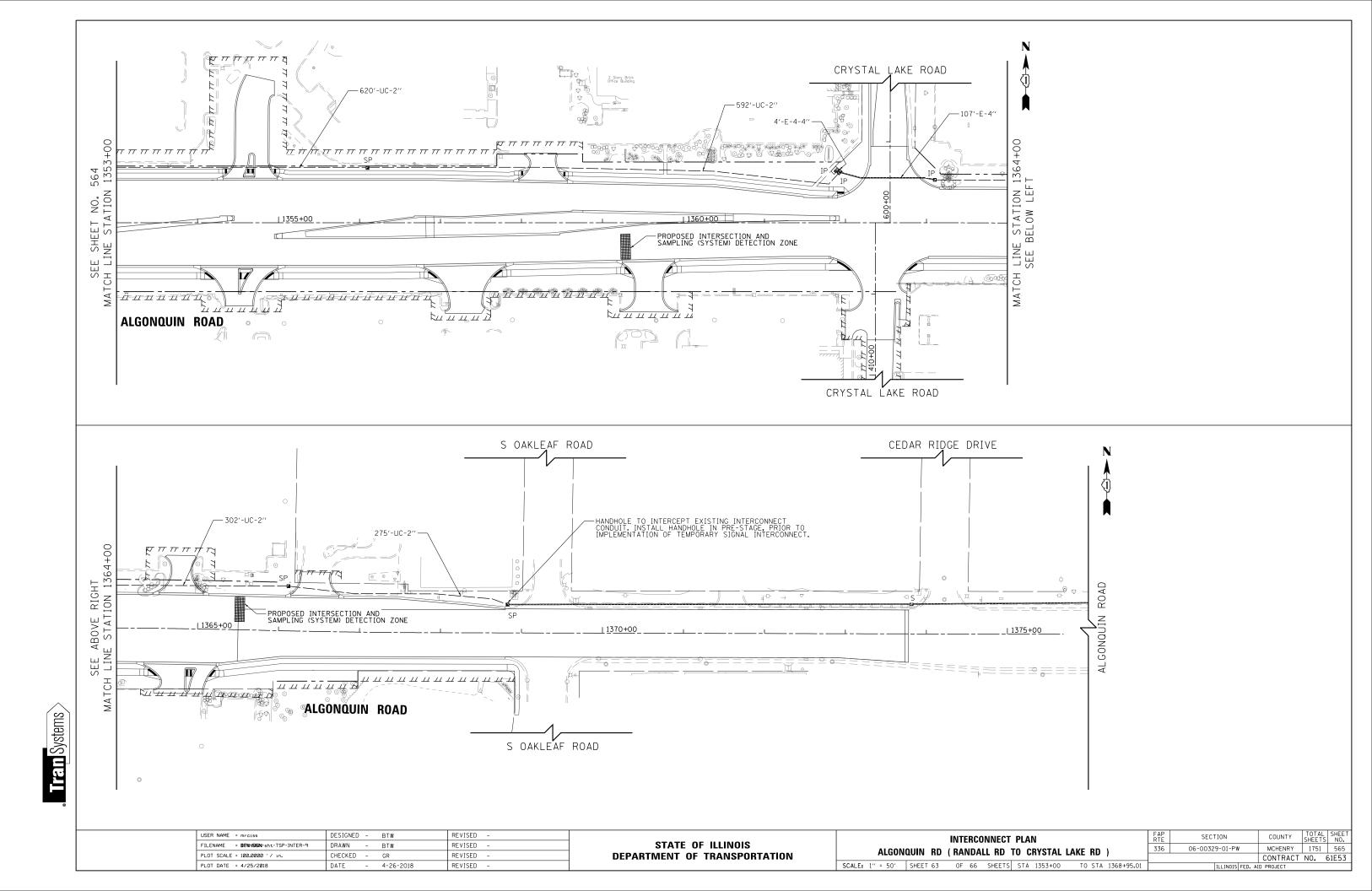


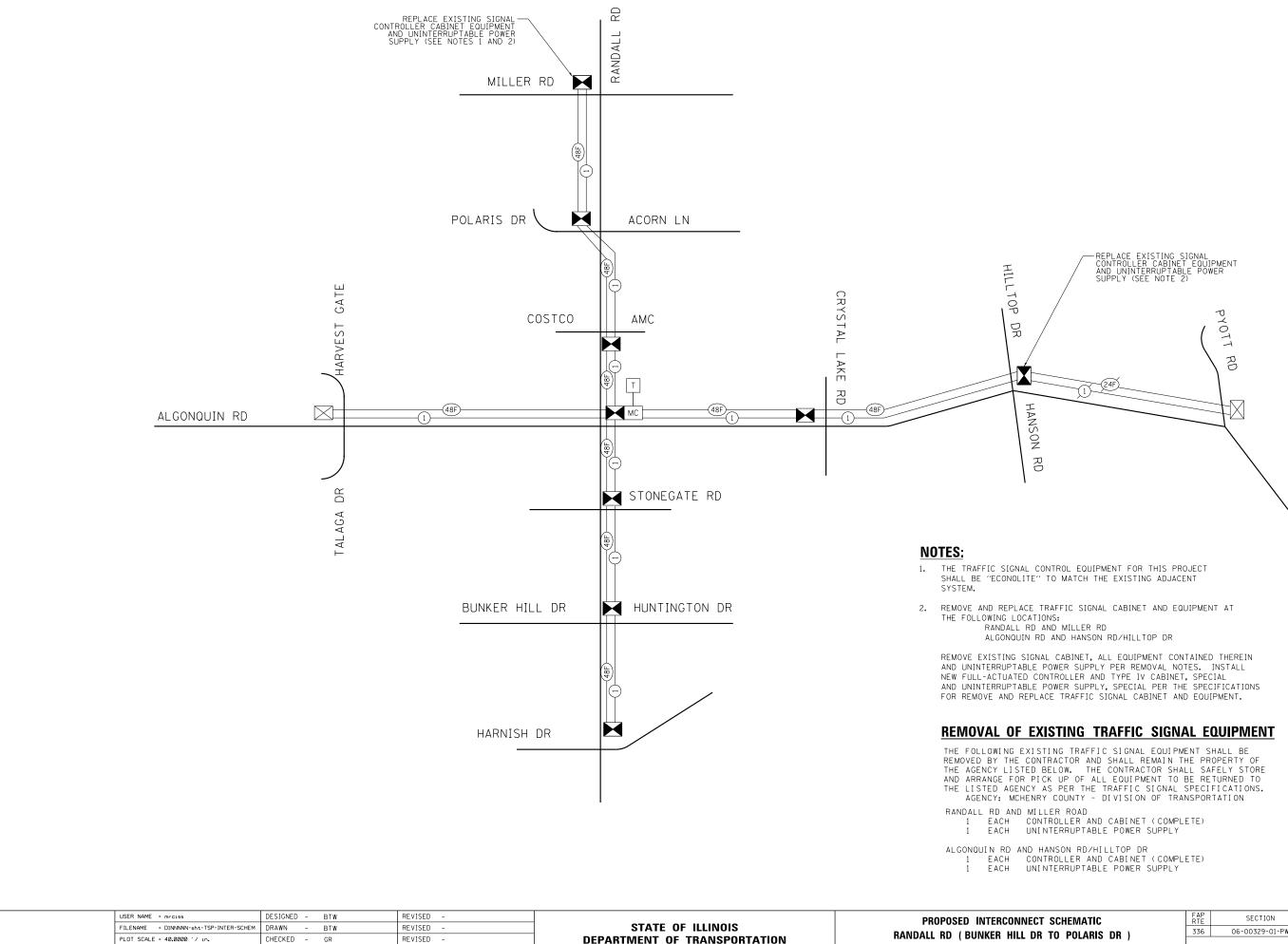


PLOT DATE = 4/25/2018

DATE

NED - BTW	REVISED -		INTERCONNECT PLAN	FAP RTE	SECTION	COUNTY	TOTAL SHEET SHEETS NO.
V – ВТW	REVISED -	STATE OF ILLINOIS	ALGONQUIN RD ( RANDALL RD TO CRYSTAL LAKE RD )	336	06-00329-01-PW	MCHENRY	1751 564
ED – GR	REVISED -	DEPARTMENT OF TRANSPORTATION	ALGUNUUIN KD (KANDALL KD TU CKYSTAL LAKE KD )			CONTRACT	NO. 61E53
- 4-26-2018	REVISED -		SCALE: 1" = 50' SHEET 62 OF 66 SHEETS STA 1334+00 TO STA 1353+00		ILLINOIS FED. A	ID PROJECT	





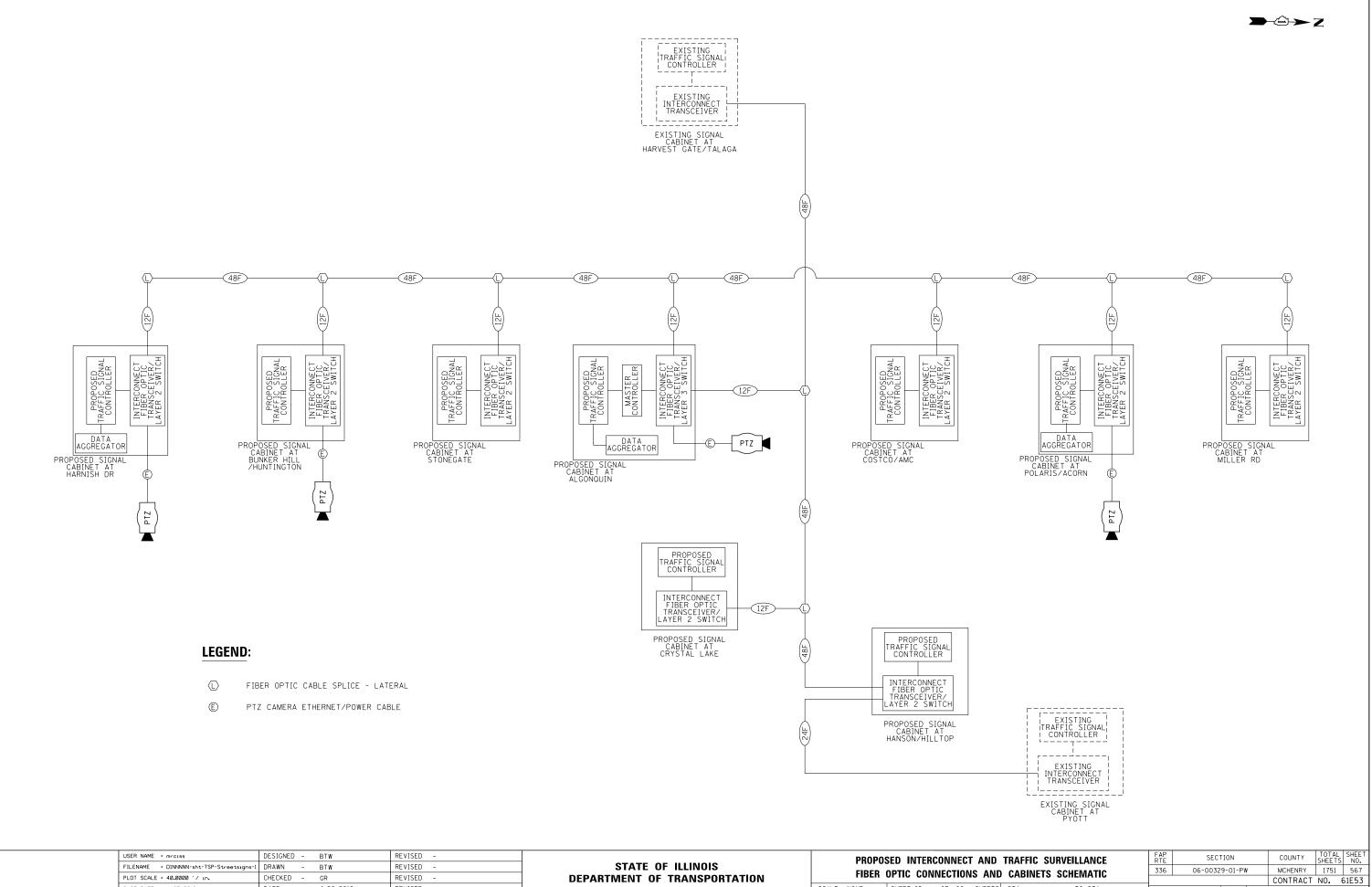
PLOT DATE = 4/25/2018

RANDALL RD (BUNKER HILL SCALE: NONE SHEET 64 OF 66 SHEET

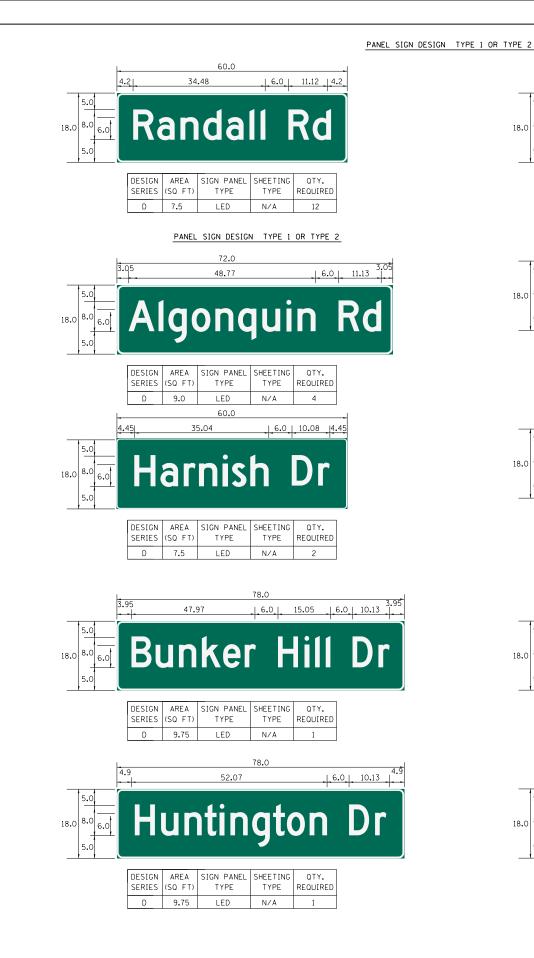
**DEPARTMENT OF TRANSPORTATION** 

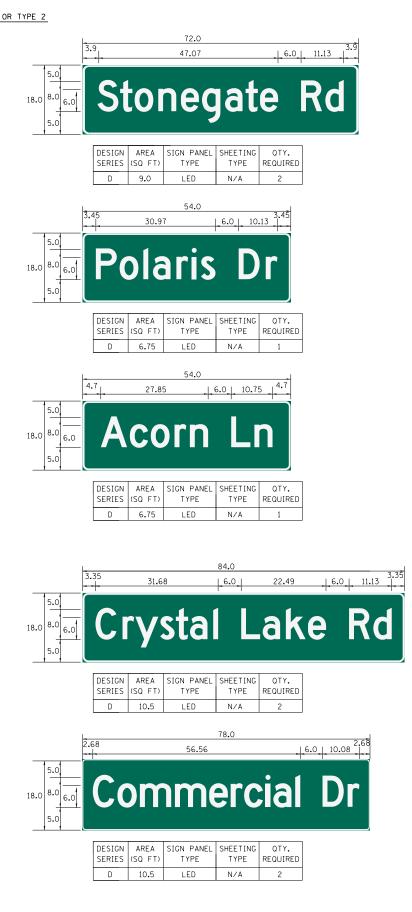
	DEGIGINED		511	HETTOED
-TSP-INTER-SCHEM	DRAWN	-	BTW	REVISED -
10.	CHECKED	-	GR	REVISED -
	DATE	-	4-26-2018	REVISED -

NECT SCHEMATIC	FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
DR TO POLARIS DR )		06-00329-01-PW	MCHENRY	1751	566		
			CONTRACT	NO. 6	51E53		
TS STA TO STA	ILLINOIS FED. AID PROJECT						



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FILEN	ENAME = DINNNNN-sht-TSP-Streetsigns-1	DRAWN - BTW	REVISED -	STATE OF ILLINOIS	FIBER	OPTIC CONNECTIONS AND CABINETS SCHEMATIC	336	06-00329-01-PW	MCHENRY 1	1751 567
PLOT	T SCALE = 40.0000 ' / in.	CHECKED - GR	REVISED -	DEPARTMENT OF TRANSPORTATION	FIDEN	UPTIC CONNECTIONS AND CADINETS SCHEWATIC			CONTRACT NO	0. 61E53
PLOT	T DATE = 4/25/2018	DATE - 4-26-2018	REVISED -		SCALE: NONE	SHEET 65 OF 66 SHEETS STA TO STA		ILLINOIS FED. A	AID PROJECT	





USER NAME = mrciss	DESIGNED -	BTW	REVISED -				MAST ARM M	OUNTED		FAP	SECTION	COUNTY	TOTAL	SHEET
FILENAME = DINNNNN-sht-TSP-Streetsigns-2	DRAWN -	BTW	REVISED -	STATE OF ILLINOIS						336	06-00329-01-PW	MCHENRY	1751	568
PLOT SCALE = 40.0000 '/ in.	CHECKED -	GR	REVISED -	DEPARTMENT OF TRANSPORTATION	STREET NAME SIGNS						CONTRACT		61E53	
PLOT DATE = 4/25/2018	DATE –	4-26-2018	REVISED -		SCALE: NONE	SHEET 66	OF 66 SHEETS	STA	TO STA		ILLINOIS FED. A	ID PROJECT	-	

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# NOTES:

1. FOR ADDITIONAL DESIGN AND INSTALLATION INFORMATION. PLEASE SEE DISTRICT ONE 'MAST ARM MOUNTED STREET NAME SIGNS" DETAIL AND "LED ILLUMINATED STREET NAME INSTALLATION AND WIRING DIAGRAM DETAIL".

	SCHEDULE OF QUANTITIES		_
ITEM NO.	ITEM NAME	UNIT	QUANTITY
80400100	ELECTRIC SERVICE INSTALLATION	EACH	6
80400200	UTILITY SERVICE CONNECTION	LSUM	1
81028200	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	520
81028210	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FOOT	30
81028220	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	4407
81100300	CONDUIT ATTACHED TO STRUCTURE, 1" DIA., GALVANIZED STEEL	FOOT	335
81100500	CONDUIT ATTACHED TO STRUCTURE, 1 1/2" DIA., GALVANIZED STEEL	FOOT	30
81200100	CONDUIT EMBEDDED IN STRUCTURE, 1" DIA., GALVANIZED STEEL	FOOT	1727
81200240	CONDUIT EMBEDDED IN STRUCTURE, 2 1/2" DIA., PVC	FOOT	798
81300100	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE 4"X4"X3"	EACH	26
81300320	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE 8''X8''X6''	EACH	6
81304000	JUNCTION BOX, STAINLESS STEEL, EMBEDDED IN STRUCTURE 8"X8"X6"	EACH	4
81304100	JUNCTION BOX EMBEDDED IN STRUCTURE 12"X12"X6"	EACH	2
81603037	UNIT DUCT, 600V, 2-1C NO. 6, 1/C NO. 6 GROUND, (XLP-TYPE USE), 1 1/4" DIA. POLYETHYLENE	FOOT	2272
81603110	UNIT DUCT, 600V, 4-1C NO. 4, 1/C NO. 6 GROUND, (XLP-TYPE USE), 1 1/2" DIA. POLYETHYLENE	FOOT	25517
81702110	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 10	FOOT	8041
81702120	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 8	FOOT	5842
81702400	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 3-1/C NO. 2	FOOT	150
81702440	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 3-1/C NO. 1/0	FOOT	150
81800415	AERIAL CABLE, 4-1/C NO. 6, WITH MESSENGER WIRE	FOOT	21000
82500350	LIGHTING CONTROLLER, BASE MOUNTED, 240V, 100AMP	EACH	2
82500370	LIGHTING CONTROLLER, BASE MOUNTED, 240V, 200AMP	EACH	3
83007500	LIGHT POLE, ALUMINUM, 35 FT, M.H., 12 FT. MAST ARM	EACH	12
83050800	LIGHT POLE, ALUMINUM, 47.5 FT. M.H., 12 FT. MAST ARM	EACH	155
83600200	LIGHT POLE FOUNDATION, 24" DIAMETER	FOOT	1820
83800105	BREAKAWAY DEVICE, TRANSFORMER BASE, 11.5 INCH BOLT CIRCLE	EACH	12
83800205	BREAKAWAY DEVICE, TRANSFORMER BASE, 15 INCH BOLT CIRCLE	EACH	155
84200500	REMOVAL OF LIGHTING UNIT, SALVAGE	EACH	6
84200600	REMOVAL OF LIGHTING UNIT, NO SALVAGE	EACH	94
84200804	REMOVAL OF POLE FOUNDATION	EACH	99
84500130	REMOVAL OF LIGHTING CONTROLLER FOUNDATION	EACH	3
X0322141	REMOVE TEMPORARY WOOD POLE	EACH	83
X0327004	TEMPORARY WOOD POLE, 60 FT., CLASS 4 WITH 15' MOUNTING ARM	EACH	83
X1400202	LUMINAIRE (SPECIAL)	EACH	31
X8210040	TEMPORARY LUMINAIRE, HIGH PRESSURE SODIUM VAPOR, HORIZONTAL MOUNT, 400 WATT	EACH	75
X8211000	UNDERPASS LUMINAIRE (SPECIAL)	EACH	26
X8211125	LUMINAIRE, LED, HORIZONTAL MOUNT, SPECIAL	EACH	188
X8250505	LIGHTING CONTROLLER, SPECIAL	EACH	1
X8360120	LIGHT POLE FOUNDATION, SPECIAL	EACH	12
X8950077	REMOVE AND RELOCATE EXISTING LIGHTING CONTROLLER	EACH	3
Z0033020	LUMINAIRE SAFETY CABLE ASSEMBLY	EACH	12
Z0033028	MAINTENANCE OF LIGHTING SYSTEM	CAL MO	22

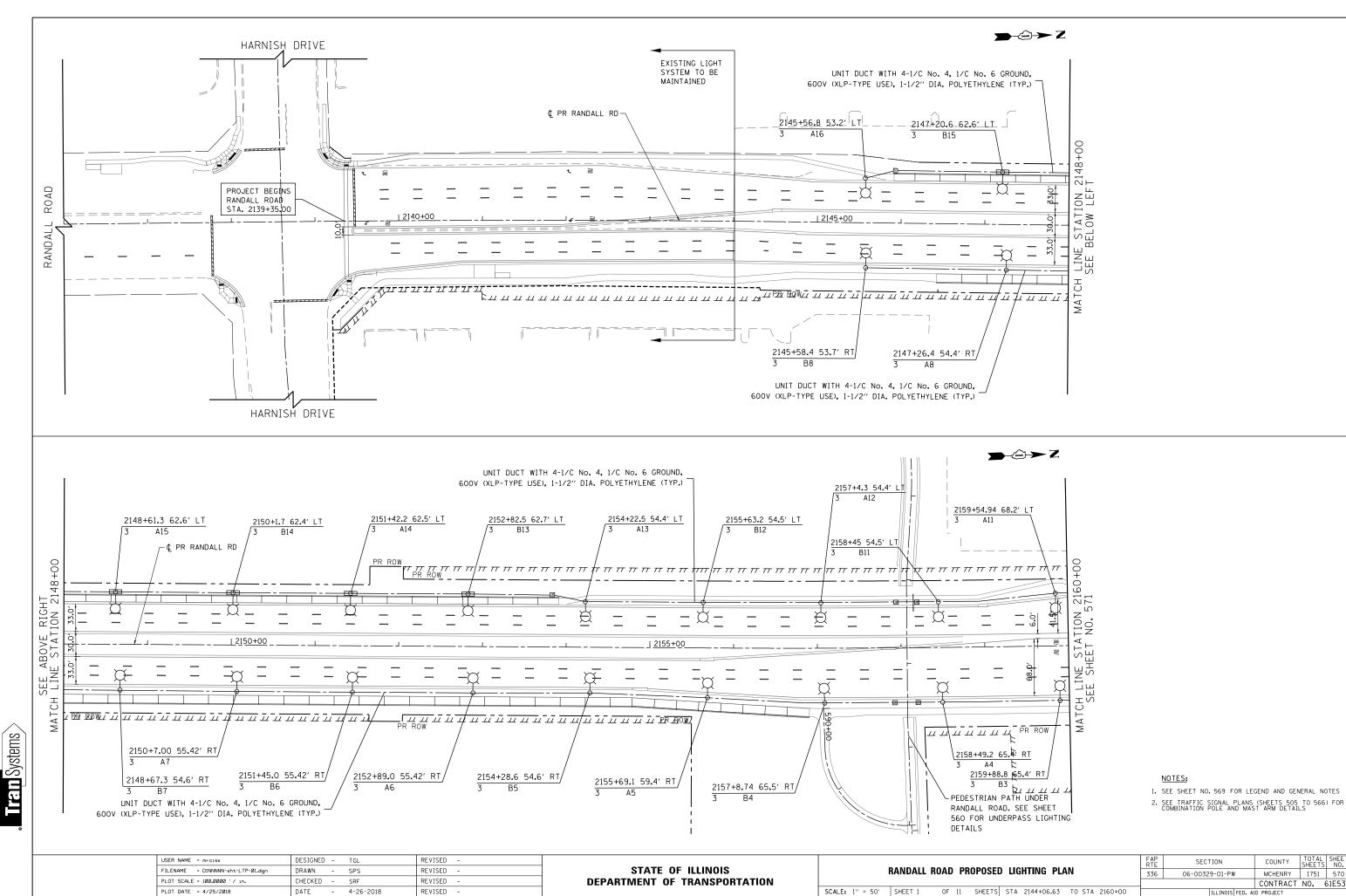
### <u>GENERAL NOTES</u>

- ROADWAY LIGHTING REQUIREMENTS FOR THIS PROJECT SHALL COMPLY WITH THE IDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION). IDOT AND RECURRING SPECIAL PROVISIONS, CONTRACT SPECIAL PROVISIONS, AND THE AMERICAN NATIONAL STANDARD PRACTICE FOR ROADWAY LIGHTING AND THE ANSI/IES RP-8.
- 2. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MARK THE PROPOSED LOCATIONS OF ALL LIGHT POLES AND THE LIGHTING CONTROLLER FOR EXAMINATION AND CONFIRMATION WITH THE ENGINEER. THE EXACT LOCATIONS OF ALL ITEMS SHALL BE CONFIRMED WITH THE ENGINEER PRIOR TO STARTING WORK.
- 3. TO MAINTAIN THE STRUCTURAL INTEGRITY OF ALUMINUM POLES WITH MAST ARMS, THEY SHALL NOT BE ERECTED AND LEFT TO STAND WITHOUT LUMINAIRES. NOTE THAT THE CONTRACTOR SHALL NOT BE PAID FOR POLES UNTIL LUMINAIRES ARE INSTALLED. NO POLES SHALL BE ERECTED UNTIL THE RESPECTIVE FOUNDATIONS HAVE CURED, AS APPROVED BY THE ENGINEER.
- 5. THE CONTRACTOR SHALL VERIFY THE REQUIREMENTS FOR THE ELECTRICAL SERVICE FOR THE PROPOSED ROADWAY LIGHTING. IT IS THE CONTRACTOR'S RESPONSIBILITY FOR TIMELY NOTIFICATION AND COORDINATION WITH THE ELECTRIC UTILITY COMPANY.
- 6. THE LIGHTING CONTROLLER SHALL BE CONSTRUCTED TO UL STANDARD 508.
- 7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ESTABLISHMENT OF FINISHED GRADE. THE ENGINEER MAY ASSIST THE CONTRACTOR, AS APPLICABLE, BUT THE RESPONSIBILITY FOR COORDINATING THE FINISHED GRADE ELEVATION WITH THE TOP OF THE FOUNDATIONS HEIGHTS AND THE LIKE SHALL REMAIN WITH THE CONTRACTOR.
- 8. THE CONTRACTOR SHALL MAKE SPECIAL NOTE OF THE REQUIREMENT FOR BURIED WARNING TAPE, SPECIFIED AS PART OF "UNDERGROUND RACEWAYS". THE INSTALLATION OF THE TAPE SHALL BE INSPECTED AND APPROVED BY THE RESIDENT ENGINEER PRIOR TO BACKFILLING OR DURING PLOWING OPERATIONS, AS APPLICABLE.
- 9. THE POLE SETBACK FOR THE PROPOSED LIGHTING UNITS SHALL BE 5 FEET MIN. FROM FACE OF CURB TO THE CENTER OF POLE, UNLESS OTHERWISE INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
- 10. ALL UNIT DUCT FOR LIGHTING RUNS SHALL CONTAIN A INSULATED, GREEN TRACER WIRE 1/C, NO. 12, IN DUCT STRANDED. THE COST OF THE TRACER WIRE SHALL BE INCLUDED IN THE COST OF THE PAY ITEM UNIT DUCT, 600V, 4-1C NO. 4, 1/C NO. 6 GROUND (XLP-TYPE USE), 1 1/2" DIA. POLYETHYLENE UNLESS OTHERWISE NOTED.
- 11. TRACER CABLE SHALL BE SPLICED (WIRE NUT SPLICE) IN ALL POLE HANDHOLES WITHIN CIRCUIT AND TRACER CABLE TO BE GROUNDED AT THE END POLES, END OF CIRCUIT (GROUNDED WITH SYSTEM GROUND TO LIGHT POLE GROUNDING LUG).
- 12. ALL WIRE SPLICING TO BE PERFORMED IN POLE HANDHOLE AND NOT IN TRANSFORMER BASE.
- 13. MCDOT WILL INSTALL IDENTIFICATION NUMBERS AT ALL NEW NEW LIGHT POLES.

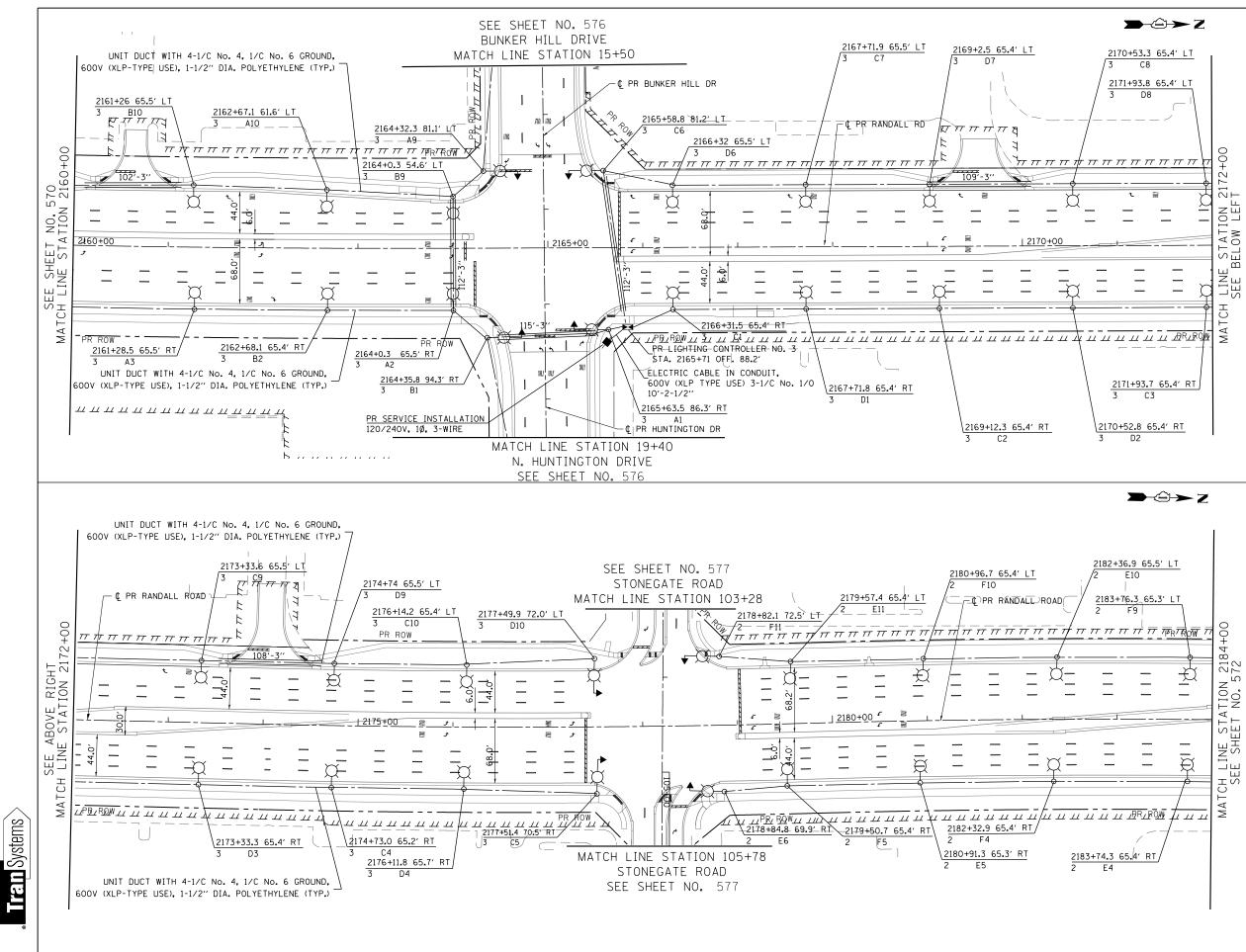
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USER NAME = mrciss	DESIGNED - TGL	REVISED -		RANDALL ROAD PROPOSED LIGHTING PLAN	FAP BTE SECTION	COUNTY TOTAL SHEET
FILENAME = DINNNNN-sht-LT-GEN.dgn	DRAWN - SPS	REVISED -	STATE OF ILLINOIS	GENERAL NOTES, LEGEND, AND SCEDULE OF QUANTITIES	336 06-00329-01-PW	MCHENRY 1751 569
PLOT SCALE = 100.0000 ' / in.	CHECKED - SRF	REVISED -	DEPARTMENT OF TRANSPORTATION		1	CONTRACT NO. 61E53
PLOT DATE = 4/26/2018	DATE - 4-26-2018	REVISED -		SHEET 1 OF 1 SHEETS	ILLINOIS FE	D. AID PROJECT

LEGEN	ND
~~X	PR LIGHTING UNIT: 47.5' M.H. ALUMINUM POLE, 12 FT. MAST ARM, LED LIGHT FIXTURE
⊶Q_▲	PR COMBINATION TRAFFIC SIGNAL AND LIGHTING UNIT, 45 FT MOUNTING HEIGHT, 20 FT MAST ARM WITH LED LIGHT FIXTURE
r¤∙ A	PR COMBINATION TRAFFIC SIGNAL AND LIGHTING UNIT, 45 FT MOUNTING HEIGHT, 20 FT DUAL MAST ARMS WITH LED LIGHT FIXTURES
<b>₽</b>	PR LIGHTING UNIT: 47.5′ M.H. ALUMINUM POLE, 12 FT. MAST ARM, LED LIGHT FIXTURE, MOUNTED ON WALL
⊶€	PR LIGHTING UNIT: 35' M.H. ALUMINUM POLE, 12 FT. MAST ARM, LED LIGHT FIXTURE (STONEGATE SYSTEM)
o−j€	EXISTING LIGHTING UNIT TO BE MAINTAINED
Ĩ	EXISTING PRIVATE LIGHTING UNIT
E <b>^</b>	EXISTING COMBINATION SIGNAL POLE $\prime$ LIGHTING UNIT
o–₽	EXISTING LIGHTING UNIT TO BE REMOVED
o−_RR	EXISTING LIGHTING UNIT TO BE RELOCATED
<u>~</u> ₩	EXISTING PRIVATE LIGHTING UNIT TO BE REMOVED BY OTHERS
	RELOCATED LIGHT LOCATION
JB	PR LIGHTING STAINLESS STEEL JUNCTION BOX
	PR LIGHTING CONTROLLER 120/240V, 1-PH, 3-WIRE
-#-	PR SERVICE INSTALLATION, VOLTAGE AS INDICATED ON PLANS
	PR UNIT DUCT WITH CABLE (TYPE AND SIZE AS INDICATED ON THE PLANS)
	EXISTING COMBINATION SIGNAL POLE / LIGHTING UNIT TO BE REMOVED INCLUDED IN COST OF TRAFFIC SIGNAL REMOVAL
	TEMPORARY LUMINAIRE, 400W, HPS, M-C-111 ATTACHED TO TEMP TRAFFIC SIGNAL POLE, 15' M.A., 45' MOUNTING HEIGHT
<b>~_</b> ŢŢ	TEMPORARY LIGHTING UNIT, 400W LUMINAIRE, HPS, M-C-111 ATTACHED TO WOOD POLE, CLASS 4 WITH 15 FOOT MAST ARM, 47.5' MOUNTING HEIGHT
$\otimes$	TEMPORARY WOOD POLE, CLASS 4
AC	AERIAL CABLE 4-1/C NO. 6 WITH MESSENGER WIRE, UNLESS OTHERWISE NOTED
xxxx x	CIRCUIT DESIGNATION SCHEME LIGHTING UNIT STATION OFFSET FROM PROPOSED BASELINE TO CENTER OF POLE (LT/RT) +XX Y.Y' LT XX LUMINAIRE CIRCUIT & NUMBER - CONTROLLER DESIGNATION



	FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
ED LIGHTING PLAN		06-00329-01-PW	MCHENRY	1751	570		
			CONTRACT	NO. 6	61E53		
TS STA 2144+06.63 TO STA 2160+00	ILLINOIS FED. AID PROJECT						

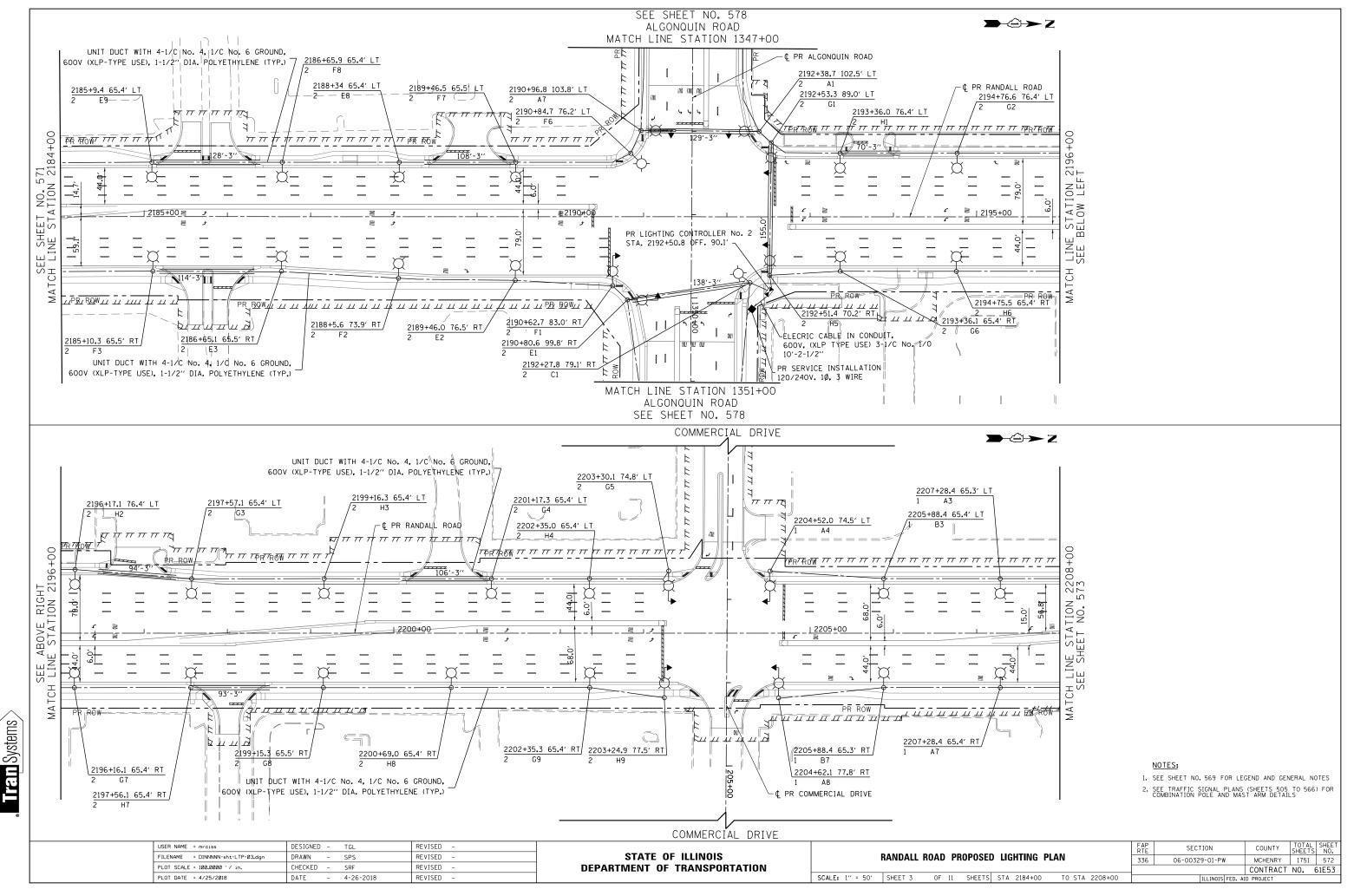


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FILENAME = DINNNNN-sht-LTP-02.dgn	DRAWN - SPS	REVISED -	STATE OF ILLINOIS	RANDALL ROAD PROPOSED LIGHTING PLAN		06-00329-01-PW	MCHENRY 1751	571
PLOT SCALE = 100.0000 ' / in.	CHECKED - SRF	REVISED -	DEPARTMENT OF TRANSPORTATION				CONTRACT NO.	61E53
PLOT DATE = 4/25/2018	DATE - 4-26-2018	REVISED -		SCALE: 1" = 50' SHEET 2 OF 11 SHEETS STA 2160+00 TO STA 2184+00		ILLINOIS FED.	AID PROJECT	

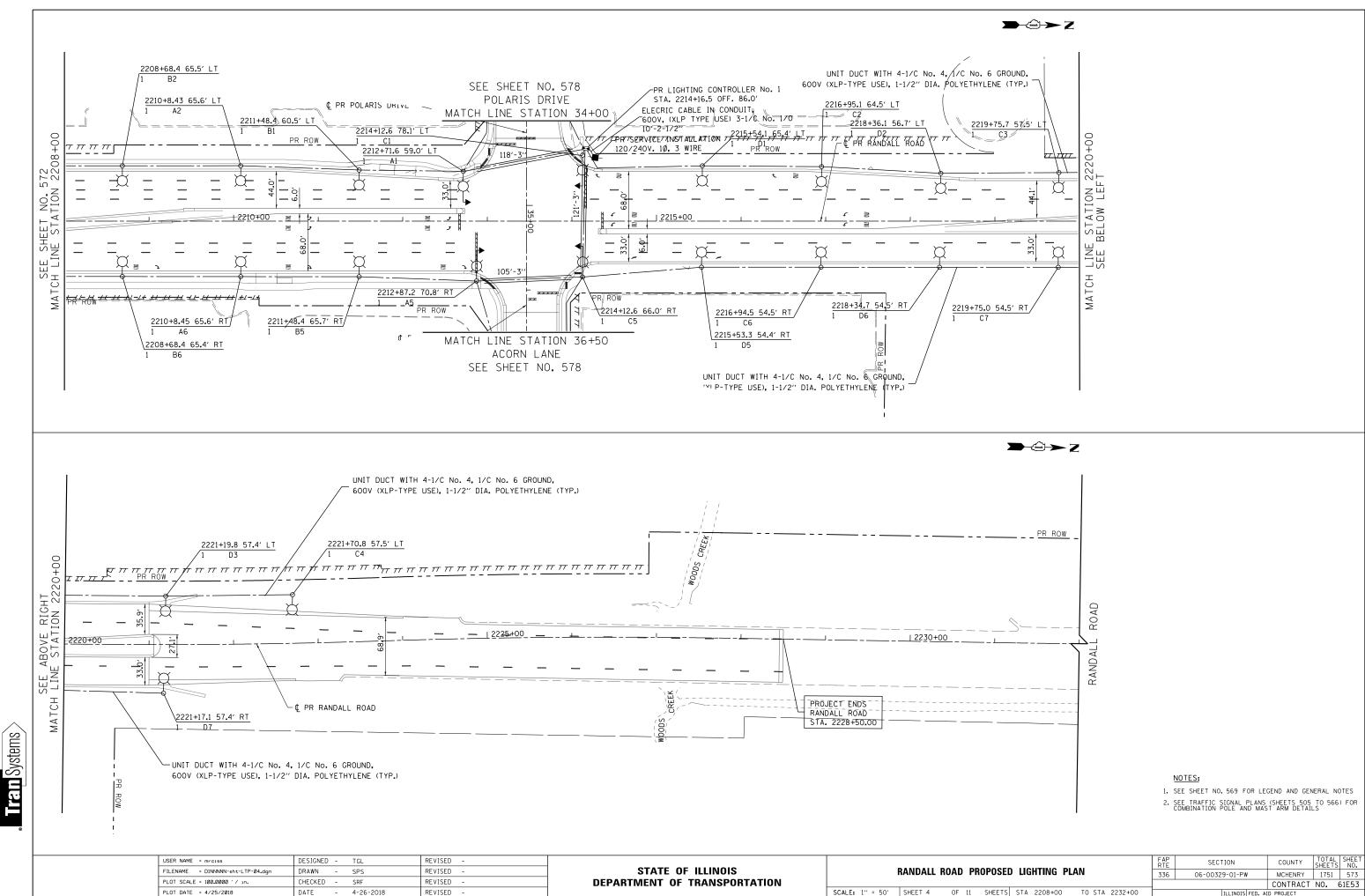
NOTES:

1. SEE SHEET NO. 569 FOR LEGEND AND GENERAL NOTES

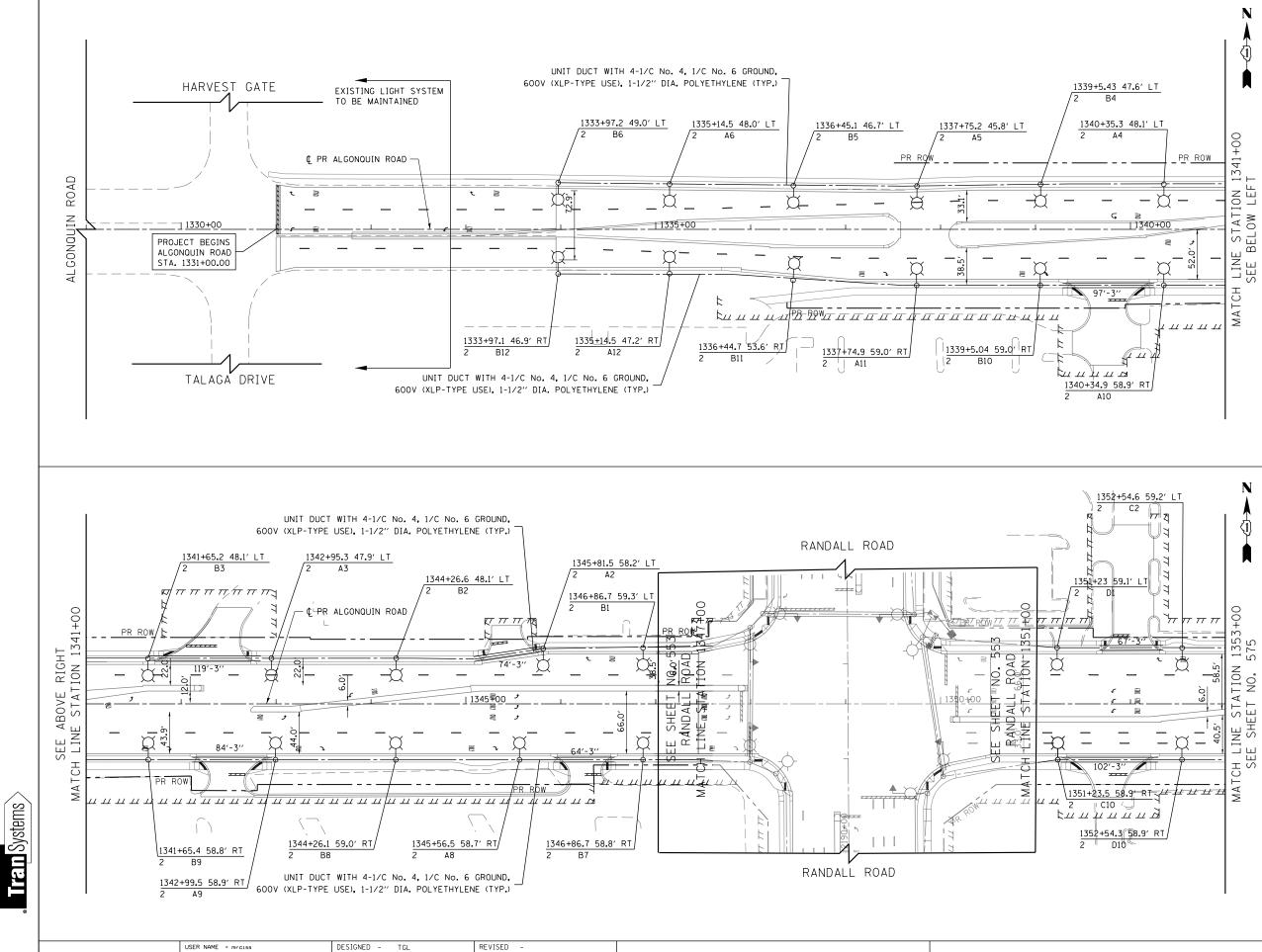
 SEE TRAFFIC SIGNAL PLANS (SHEETS 505 TO 566) FOR COMBINATION POLE AND MAST ARM DETAILS



	FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
ED LIGHTING PLAN		06-00329-01-PW	MCHENRY	1751	572	
			CONTRACT	NO. 6	61E53	
TS STA 2184+00 TO STA 2208+00	ILLINOIS FED. AID PROJECT					



	FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ED LIGHTING PLAN	336	06-00329-01-PW	MCHENRY	1751	573
			CONTRACT	NO. 6	61E53
TS STA 2208+00 TO STA 2232+00		ILLINOIS FED. AI	D PROJECT		

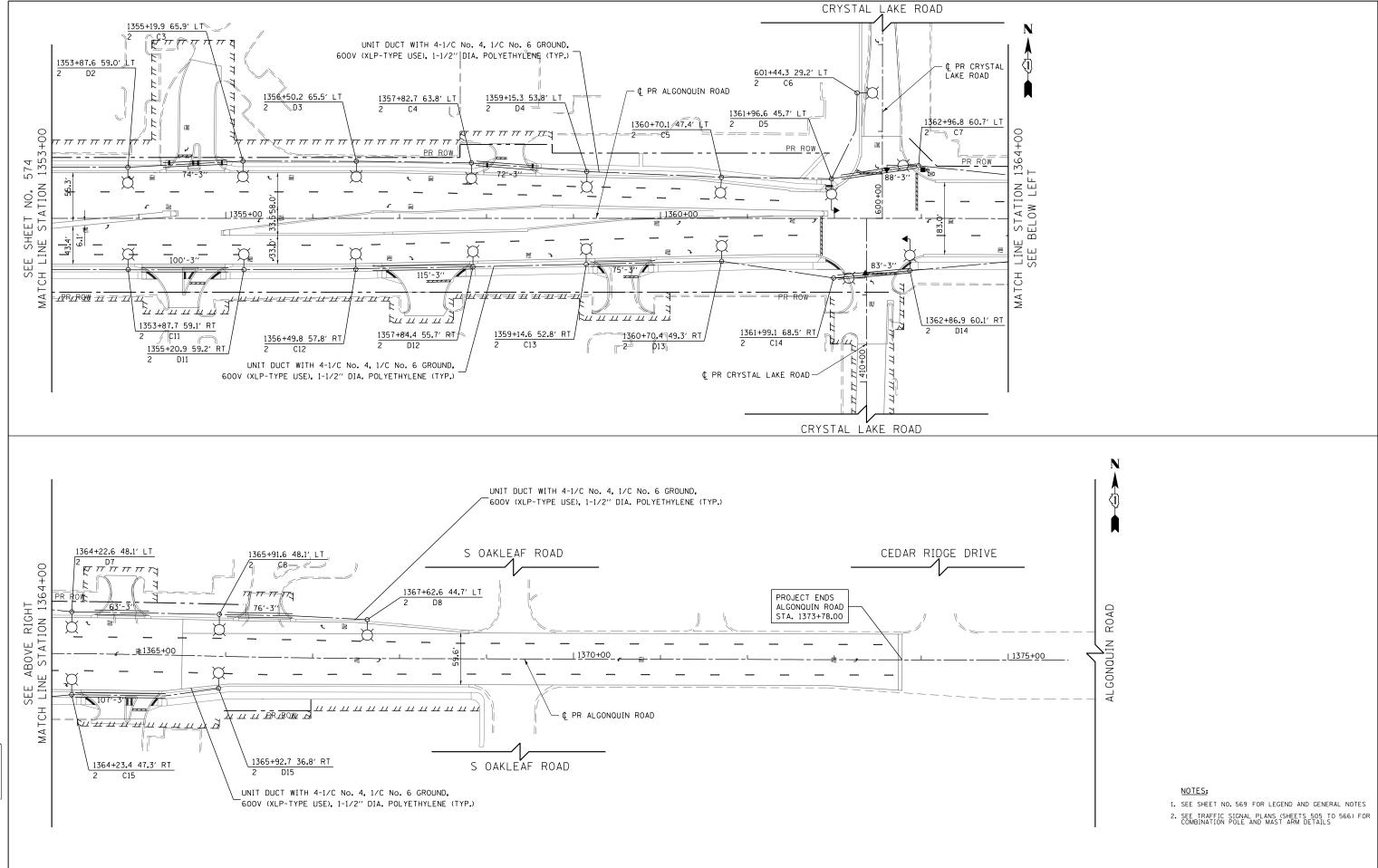


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PLOT SCALE = 100.0000 ' / in.	CHECKED - SRF	F	REVISED -	DEPARTMENT OF TRANSPORTATION				CONTRACT NO. 61E53
PLOT DATE = 4/25/2018	DATE - 4-2	26-2018	REVISED -		SCALE: 1" = 50' SHEET 5 OF 11 SHEETS STA 1329+00 TO STA 1353+00		ILLINOIS FED.	AID PROJECT

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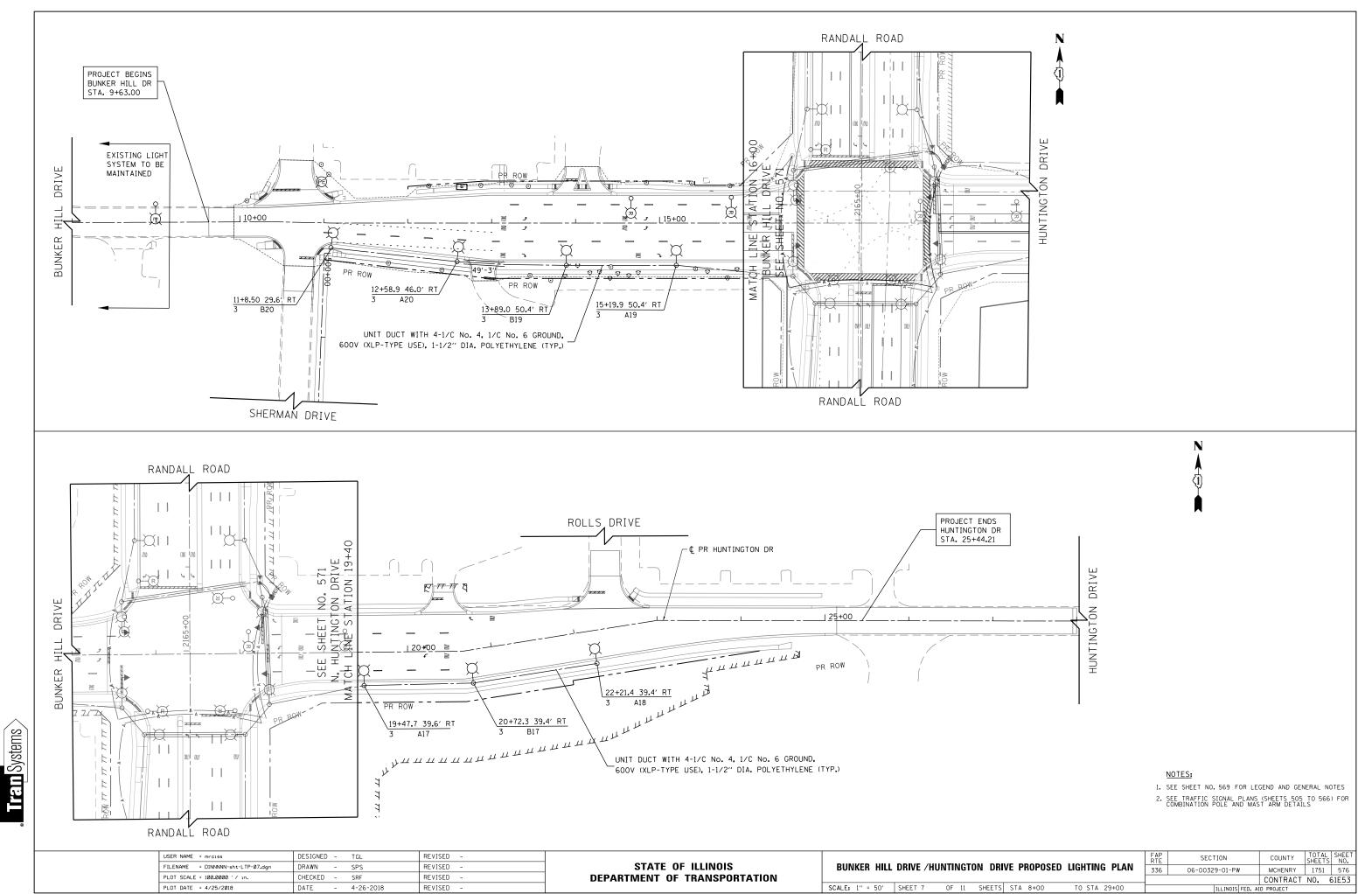
1. SEE SHEET NO. 569 FOR LEGEND AND GENERAL NOTES

2. SEE TRAFFIC SIGNAL PLANS (SHEETS 505 TO 566) FOR COMBINATION POLE AND MAST ARM DETAILS

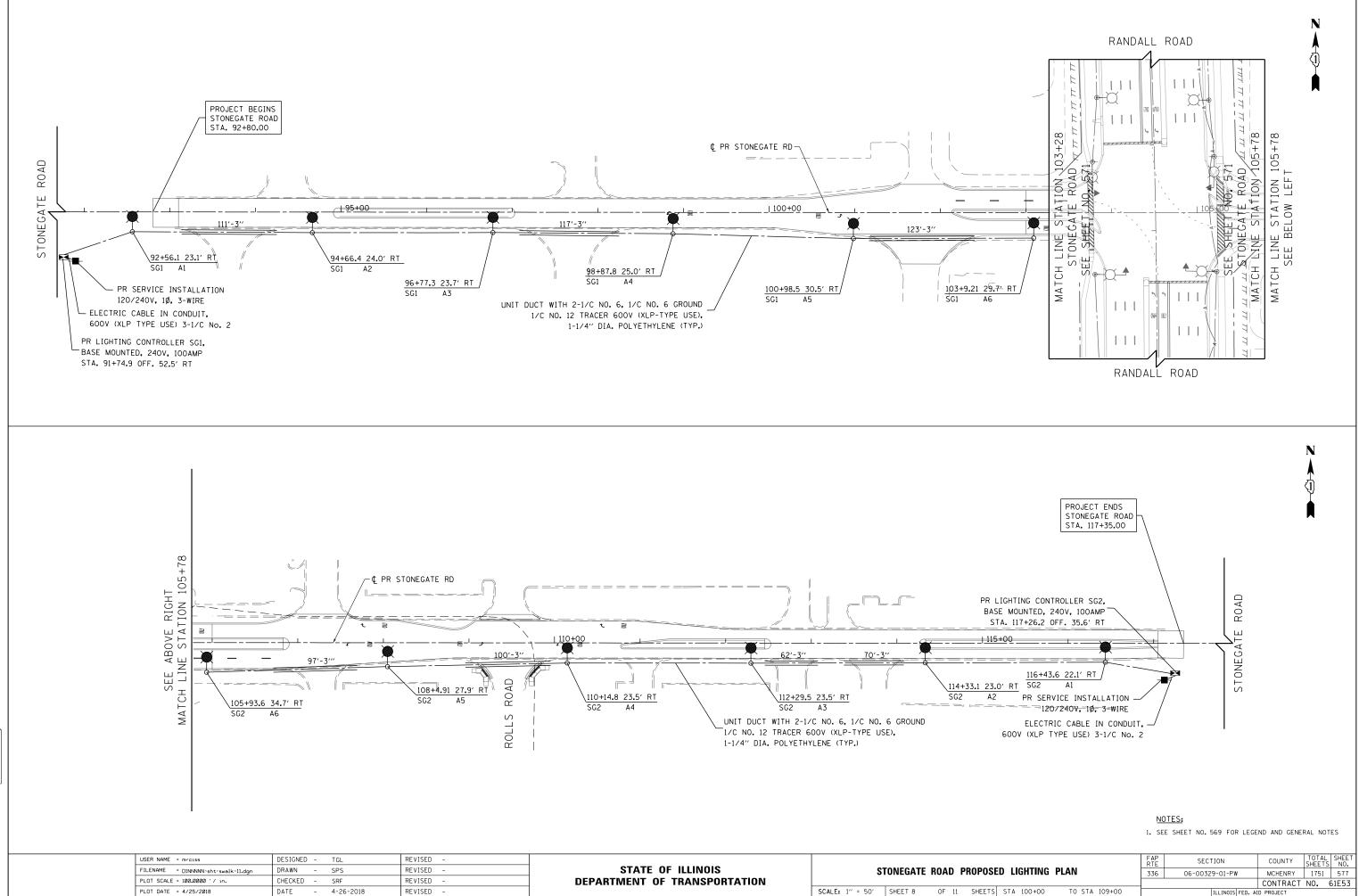


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FILENAME = DINNNNN-sht-LTP-06.dgn	DRAWN - SPS	REVISED -	STATE OF ILLINOIS	ALGONQUIN ROAD PROPOSED LIGHTING PLAN	336 06-00329-01-PW	MCHENRY 1751 575
PLOT SCALE = 100.0000 '/ in.	CHECKED - SRF	REVISED -	DEPARTMENT OF TRANSPORTATION			CONTRACT NO. 61E53
PLOT DATE = 4/25/2018	DATE - 4-26-2018	REVISED -		SCALE: 1" = 50' SHEET 6 OF 11 SHEETS STA 1353+00 TO STA 1376+00	ILLINOIS FED	AID PROJECT

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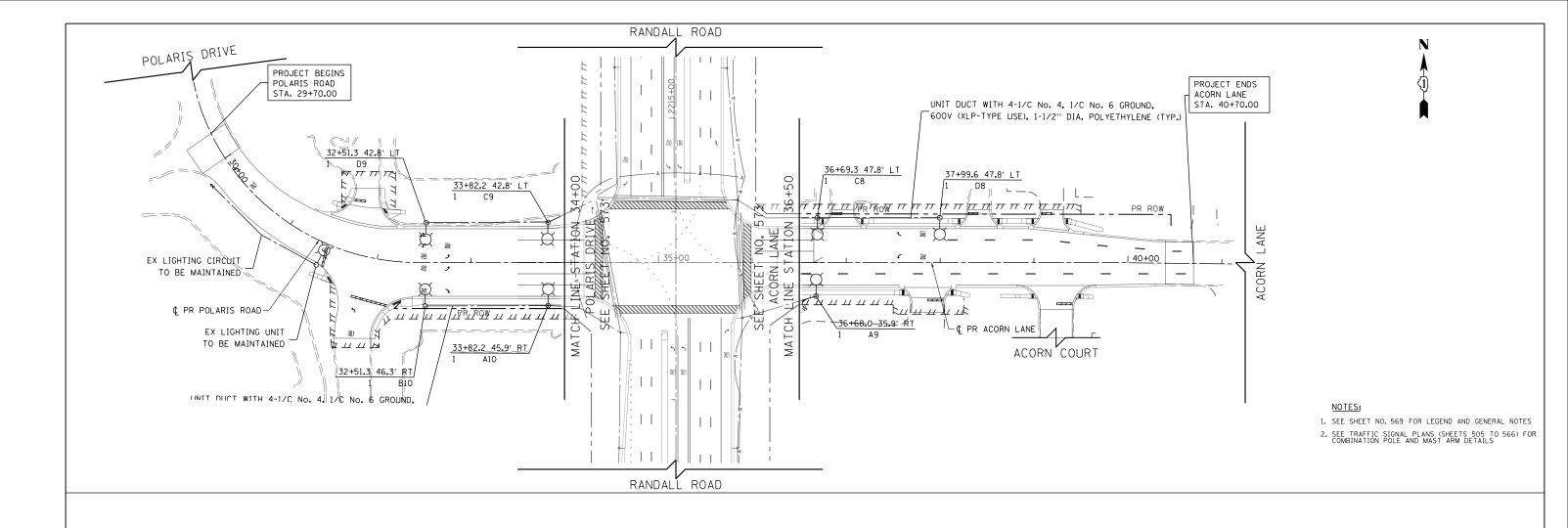


	FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
RIVE PROPOSED LIGHTING PLAN	336	06-00329-01-PW	MCHENRY	1751	576
			CONTRACT	NO. 6	61E53
TS STA 8+00 TO STA 29+00		ILLINOIS FED. AI	D PROJECT		

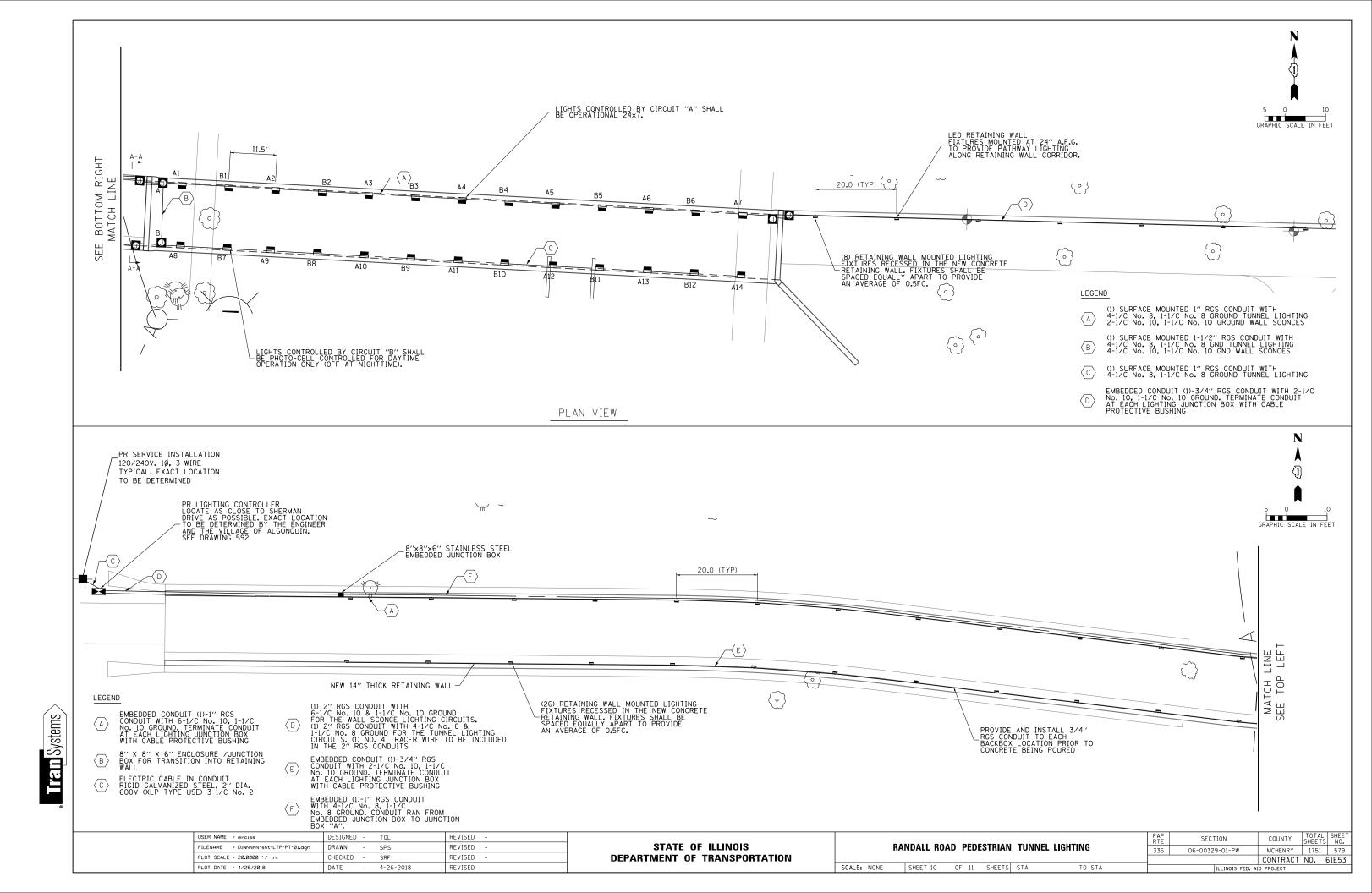


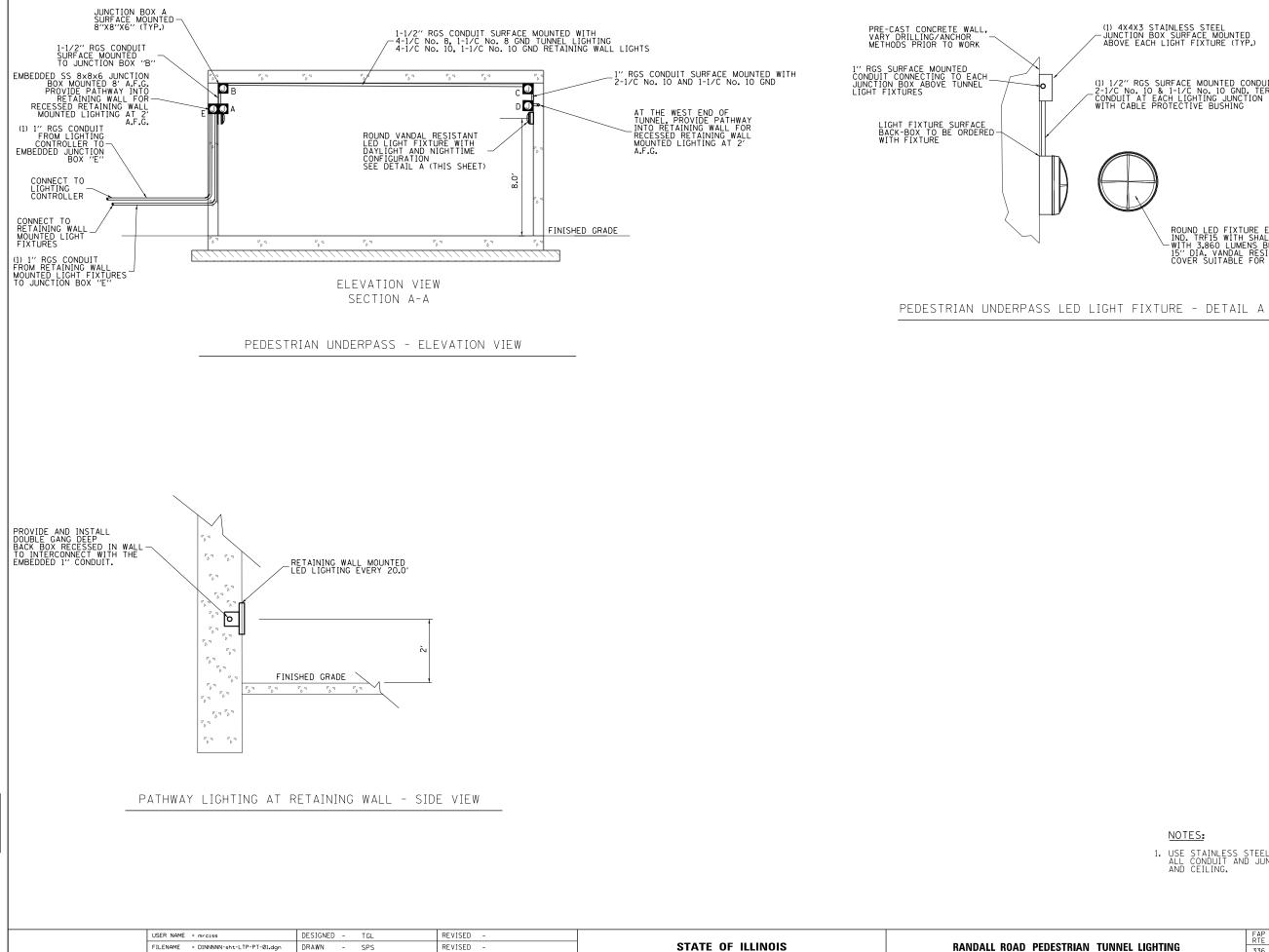
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					F A P R T E	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SE	DL	GHTING	PLAN		336	06-00329-01-PW	MCHENRY	1751	577
							CONTRACT	NO. 6	61E53
ΤS	STA	100+00	TO STA	109+00		ILLINOIS FED. A	ID PROJECT		
_									



USER NAME = mrciss	DESIGNED - TGL	REVISED -			F A P R T F	SECTION	COUNTY TOTAL SHEET
FILENAME = DINNNNN-sht-LTP-09.dgn	DRAWN - SPS	REVISED -	STATE OF ILLINOIS	POLARIS DRIVE /ACORN LANE PROPOSED LIGHTING PLAN	336	06-00329-01-PW	MCHENRY 1751 578
PLOT SCALE = 100.0000 ' / in.	CHECKED - SRF	REVISED -	DEPARTMENT OF TRANSPORTATION				CONTRACT NO. 61E53
PLOT DATE = 4/25/2018	DATE - 4-26-2018	REVISED -		SCALE: 1" = 50' SHEET 9 OF 11 SHEETS STA 28+00 TO STA 41+00		ILLINOIS FED.	AID PROJECT





**Train** Systems

FILENAME = DINNNNN-sht-LTP-PT-01.dom

PLOT SCALE = 20.0000 '/ in.

PLOT DATE = 4/25/2018

DRAWN - SPS

CHECKED – SRF

- 4-26-2018

DATE

REVISED

REVISED

REVISED

SCALE: NONE SHEET 10 OF 11 SHEET

**DEPARTMENT OF TRANSPORTATION** 

(1) 4X4X3 STAINLESS STEEL -JUNCTION BOX SURFACE MOUNTED ABOVE EACH LIGHT FIXTURE (TYP.)

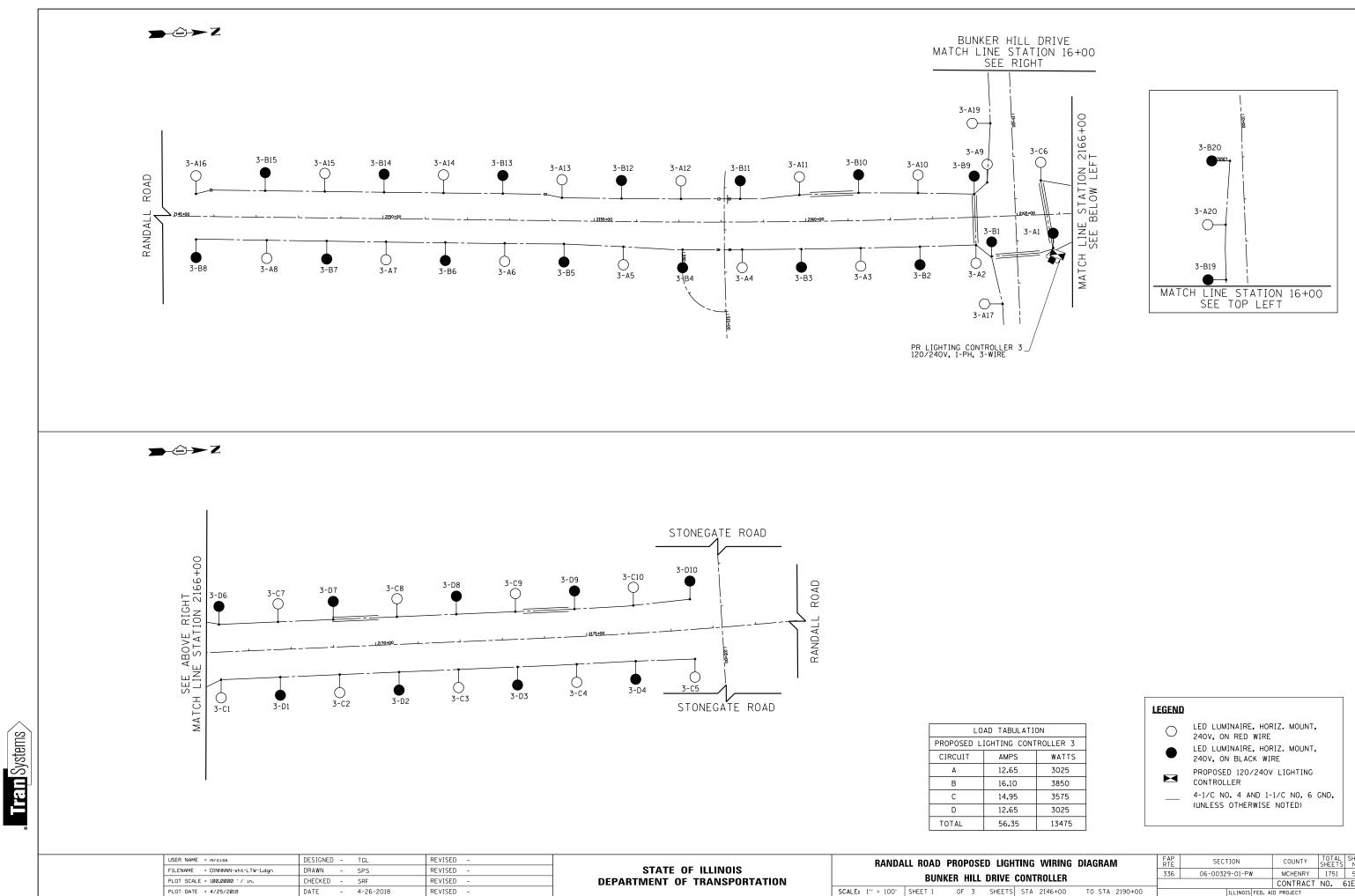
(1) 1/2" RGS SURFACE MOUNTED CONDUIT WITH 2-1/C No. 10 & 1-1/C No. 10 GND. TERMINATE CONDUIT AT EACH LIGHTING JUNCTION WITH CABLE PROTECTIVE BUSHING

ROUND LED FIXTURE EQUAL TO COOPER IND. TRF15 WITH SHALLOW CASTING BACK-BOX -WITH 3,860 LUMENS BULB HOUSED IN A 15″ DIA. VANDAL RESISTANT POLYCARBONATE COVER SUITABLE FOR WET LOCATIONS IP65

# NOTES:

1. USE STAINLESS STEEL ANCHORS AND FASTENERS TO FASTEN ALL CONDUIT AND JUNCTION BOXES TO THE TUNNEL WALL AND CEILING.

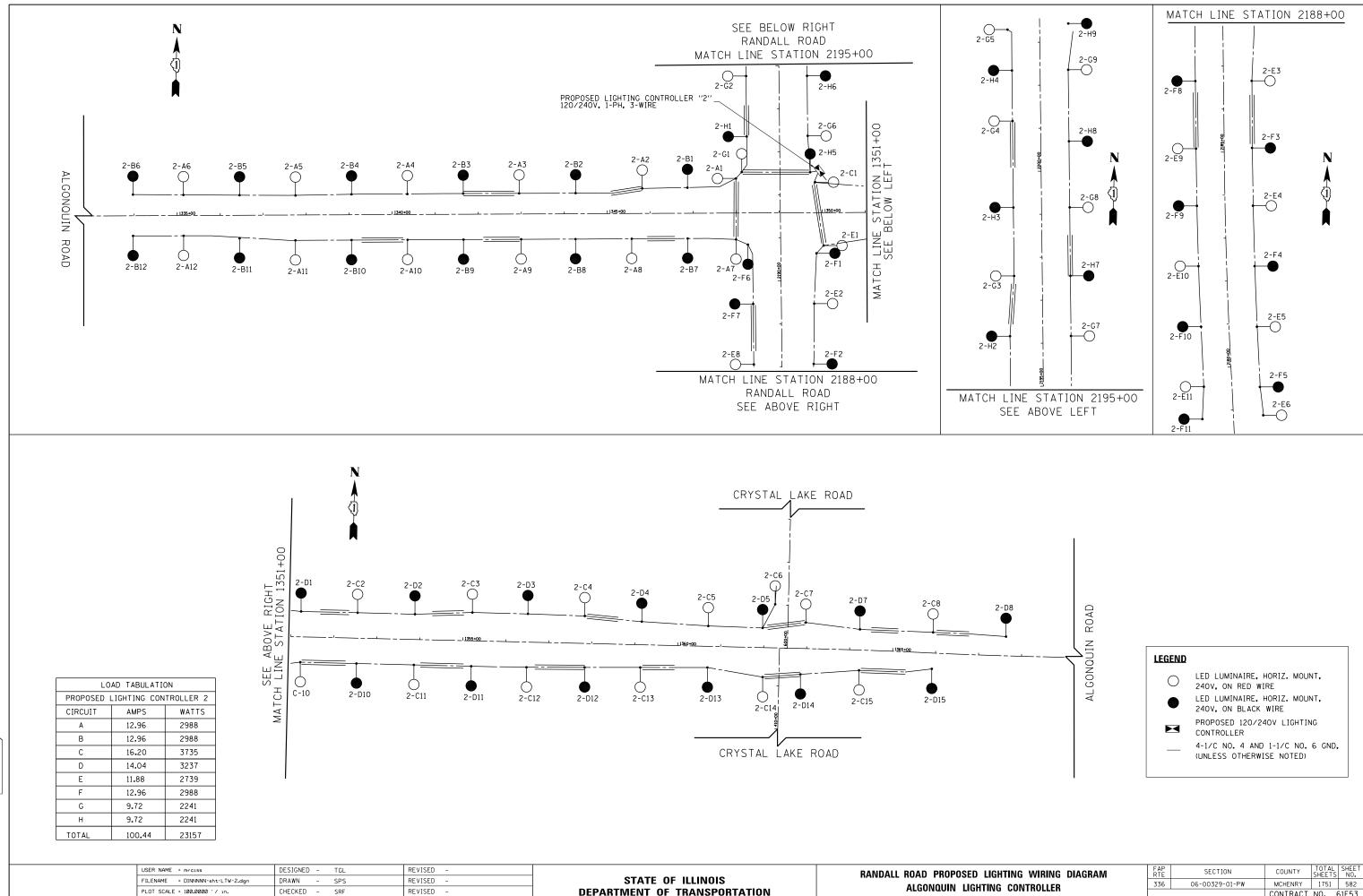
		FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
٩N	TUNNEL LIGHTING	336	06-00329-01-PW	MCHENRY	1751	580
				CONTRACT	NO. 6	51E53
TS	STA TO STA		ILLINOIS FED. AI	D PROJECT		



BULATION					
G CONTROLLER 3					
PS WATTS					
65	3025				
10	3850				
95	3575				
65	3025				
35	13475				

LEGEND	
$\bigcirc$	LED LUMINAIRE, HORIZ. MOUNT, 240V, ON RED WIRE
•	LED LUMINAIRE, HORIZ. MOUNT, 240V, ON BLACK WIRE
	PROPOSED 120/240V LIGHTING CONTROLLER
	4-1/C NO. 4 AND 1-1/C NO. 6 GND, (UNLESS OTHERWISE NOTED)

HTING WIRING DIAGRAM	F A P R T E	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTROLLER	336	06-00329-01-PW	MCHENRY	1751	581
GUNINULLEN			CONTRACT	NO. 6	61E53
S STA 2146+00 TO STA 2190+00		ILLINOIS FED. A	ID PROJECT		



ITED Systems

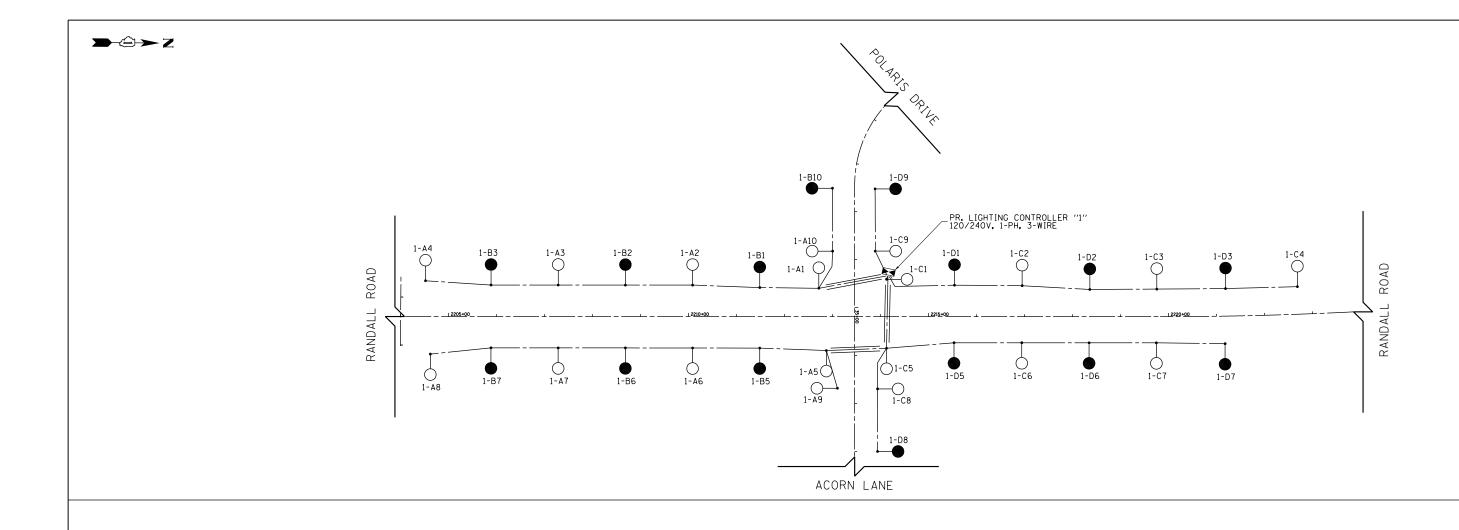
PLOT DATE = 4/25/2018

DATE - 4-26-2018

REVISED -

SCALE: 1" = 100' SHEET 2 OF 3 SHEETS

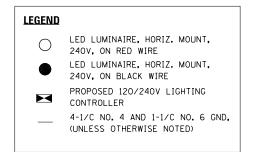
H	TING W	/IRING	DIAGRAM	F A P R T E	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C	CONTR			336	06-00329-01-PW	MCHENRY	1751	582
9	CONTR	ULLIN				CONTRACT	NO. 0	61E53
S	STA 218	38+00	TO STA 2195+00		ILLINOIS FED. AI	D PROJECT		

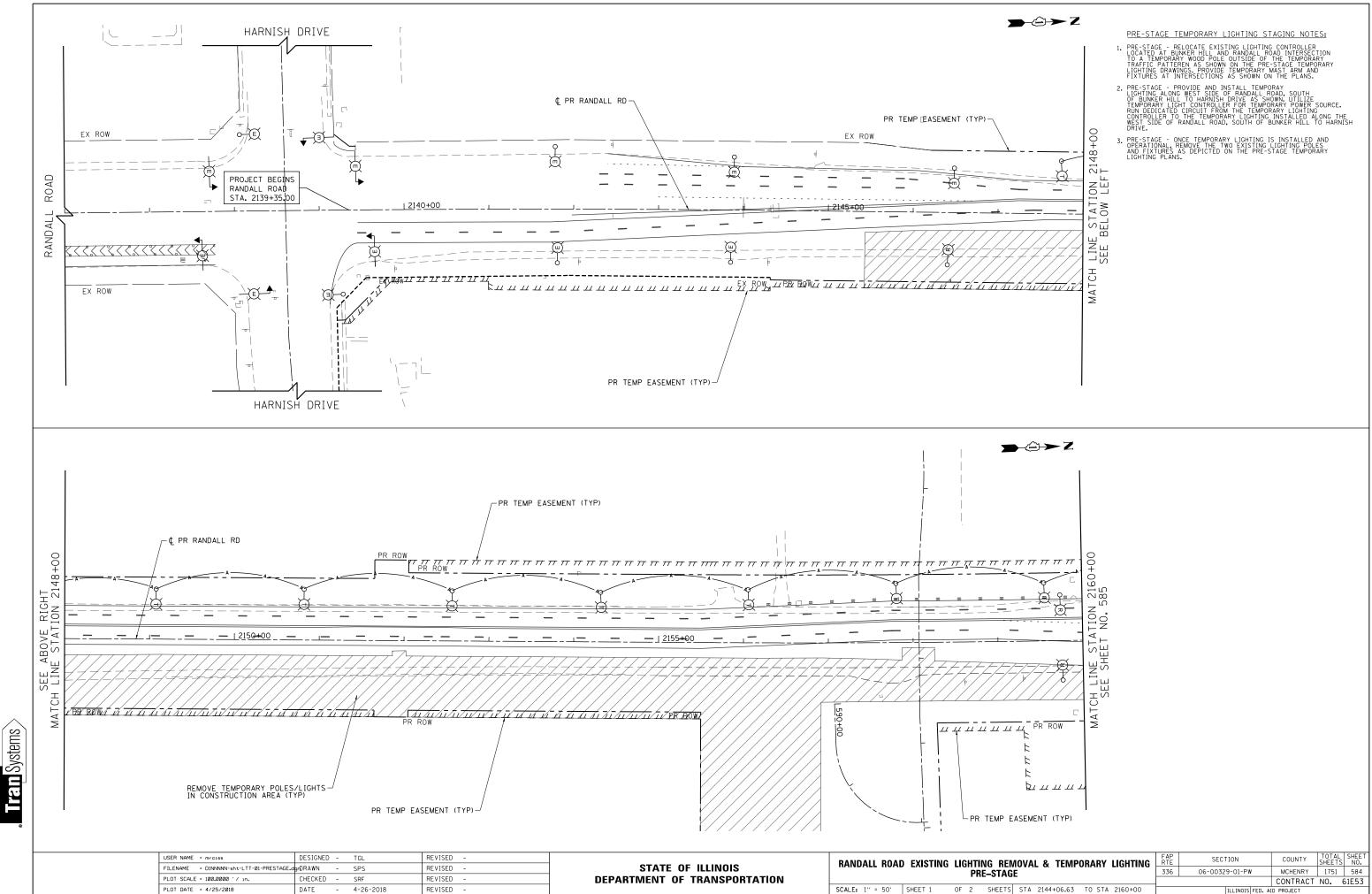


LO	LOAD TABULATION						
PROPOSED I	_IGHTING CON	TROLLER 1					
CIRCUIT	AMPS	WATTS					
А	11.88	2739					
В	7.56	1743					
С	9.72	2241					
D	9.72	2241					
TOTAL	38.88	8964					

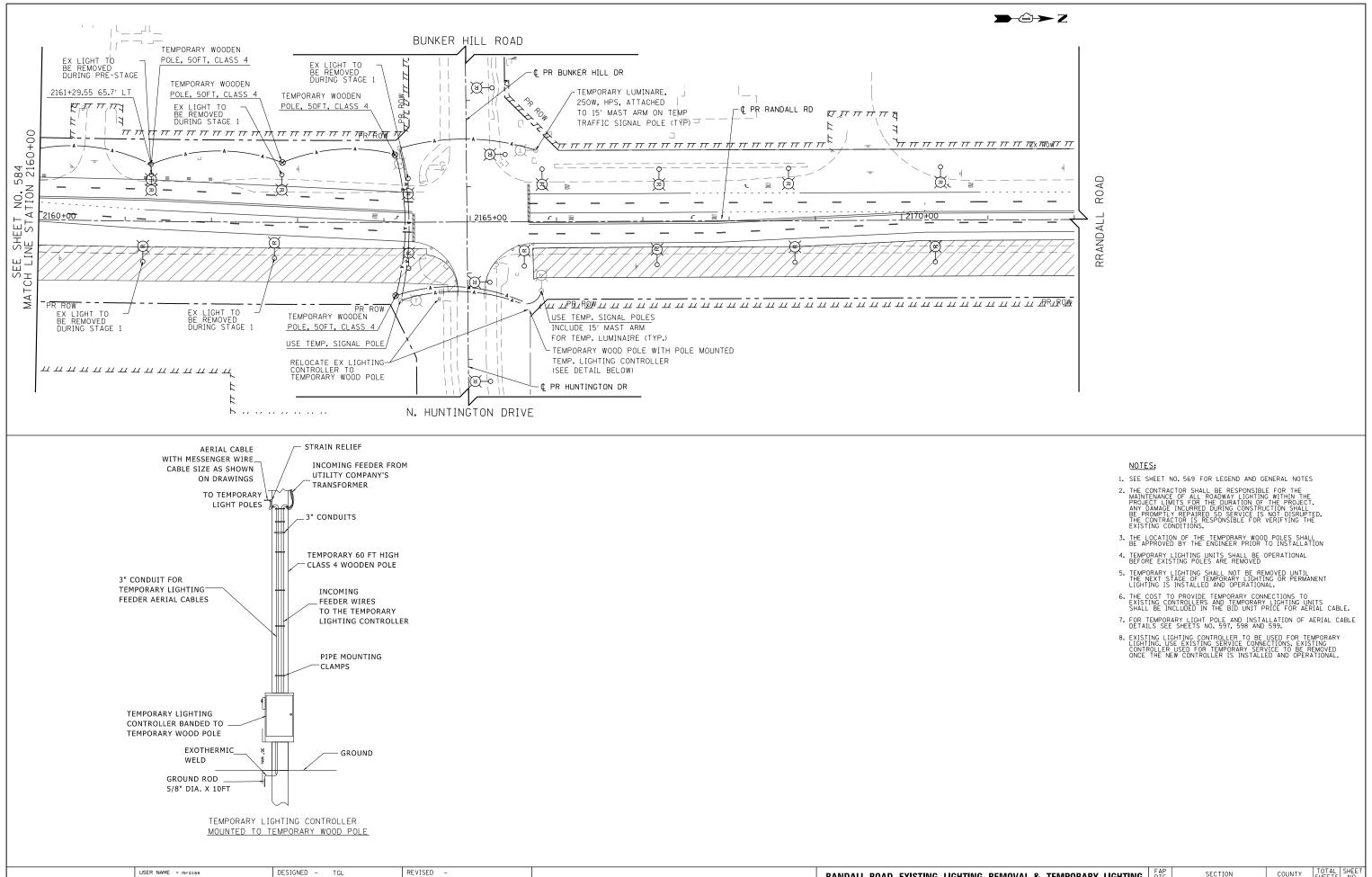
USER NAME = mrciss	DESIGNED - TGL	REVISED -		RANDALL ROAD PROPOSED LIGHTING WIRING DIAGRAM	FAP RTE SECTION	COUNTY TOTAL SHEET SHEETS NO.
FILENAME = DINNNNN-sht-LTW-3.dgn	DRAWN - SPS	REVISED -	STATE OF ILLINOIS		336 06-00329-01-PW	MCHENRY 1751 583
PLOT SCALE = 100.0000 '/ in.	CHECKED - SRF	REVISED -	DEPARTMENT OF TRANSPORTATION	POLARIS DRIVE /ACORN CONTROLLER	_	CONTRACT NO. 61E53
PLOT DATE = 4/25/2018	DATE - 4-26-2018	REVISED -		SCALE: 1" = 100' SHEET 3 OF 3 SHEETS STA 2204+50 TO STA 2223+00	ILLINOIS	ED. AID PROJECT

Iran Systems



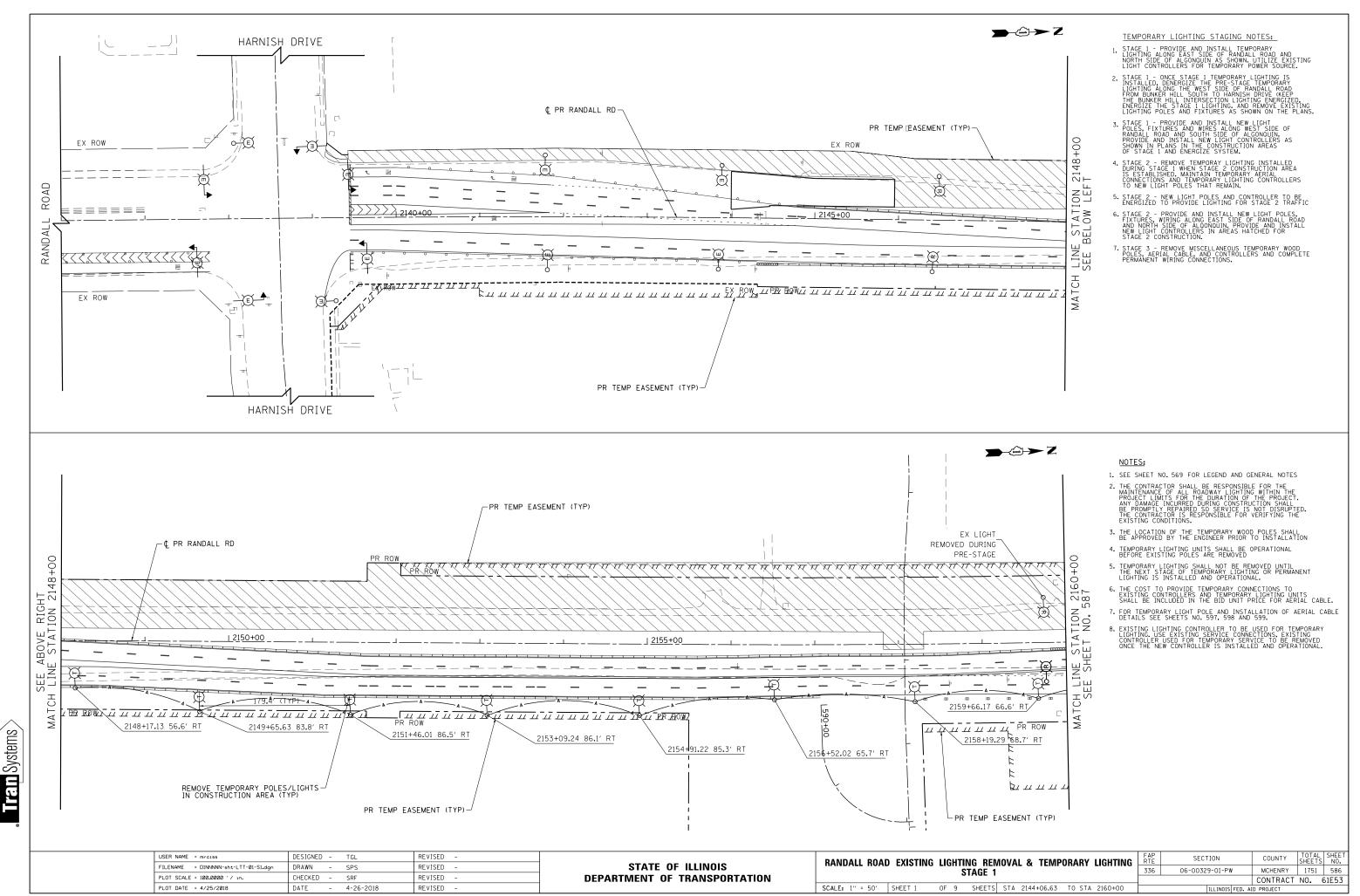


AG	E			330	00 00023	5 01 1	r	WCHLINKT	1151	1 20
	_							CONTRACT	NO.	61E5
ETS	STA	2144+06.63	TO STA 2160+00			ILLINOIS	FED. A	ID PROJECT		

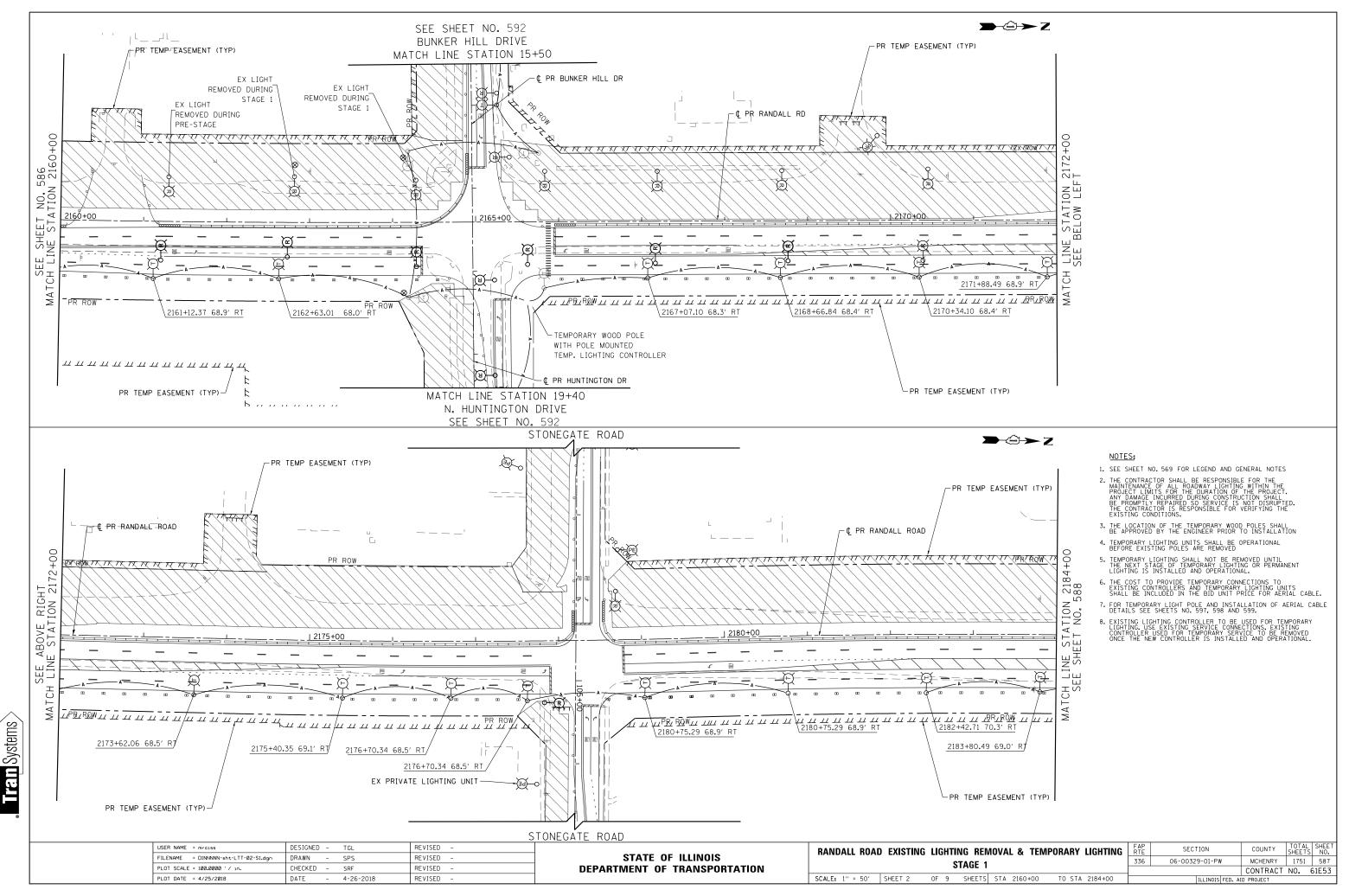


USER NAME = mrciss	DESIGNED -	TGL	REVISED -		RANDALL ROAD EXISTING LIGHTING REMOVAL & TEMPORARY LIGHTING	PORARY LIGHTING	FAP RTE	SECTION	COUNTY TOTAL SHEET SHEETS NO.			
FILENAME = DINNNNN-sht-LTT-01-PRESTAGE.d	9rDRAWN -	SPS	REVISED -	STATE OF ILLINOIS	PRE-STAGE		336	06-00329-01-PW	MCHENRY 1751 585			
PLOT SCALE = 100.0000 '/ in.	CHECKED -	SRF	REVISED -	DEPARTMENT OF TRANSPORTATION			FNL-	-STAGE				CONTRACT NO. 61E53
PLOT DATE = 4/25/2018	DATE –	4-26-2018	REVISED -		SCALE: 1" = 50' SH	HEET 2	OF 2 5	SHEETS STA 2160+00	TO STA 2184+00		ILLINOIS FED. A	ID PROJECT

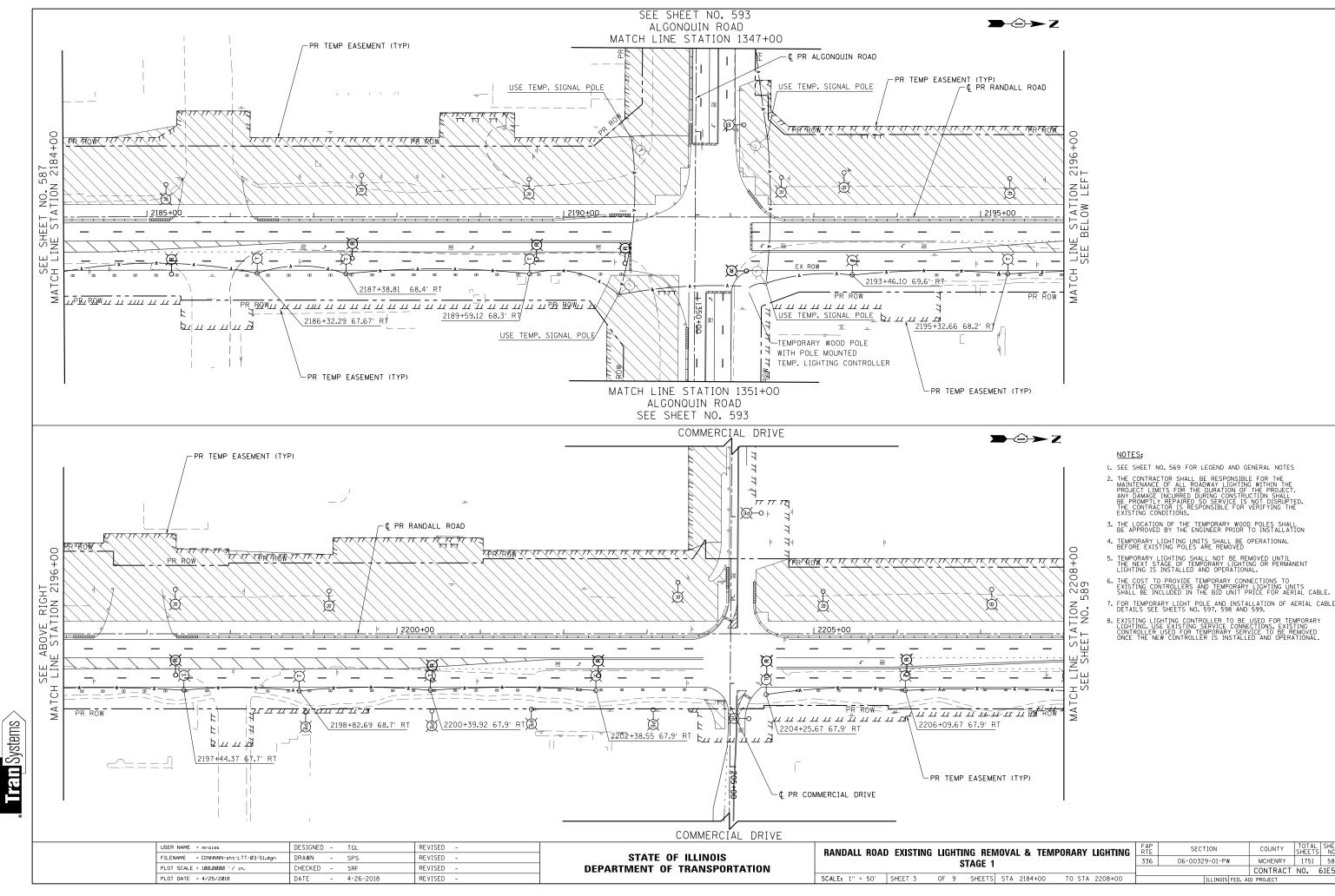
Iran Systems



EMOVAL & TEMPORARY LIGHTING	F A P R T E	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1	336	06-00329-01-PW	MCHENRY	1751	586
-			CONTRACT	NO. 6	51E53
S STA 2144+06.63 TO STA 2160+00		ILLINOIS FED. AI	D PROJECT		

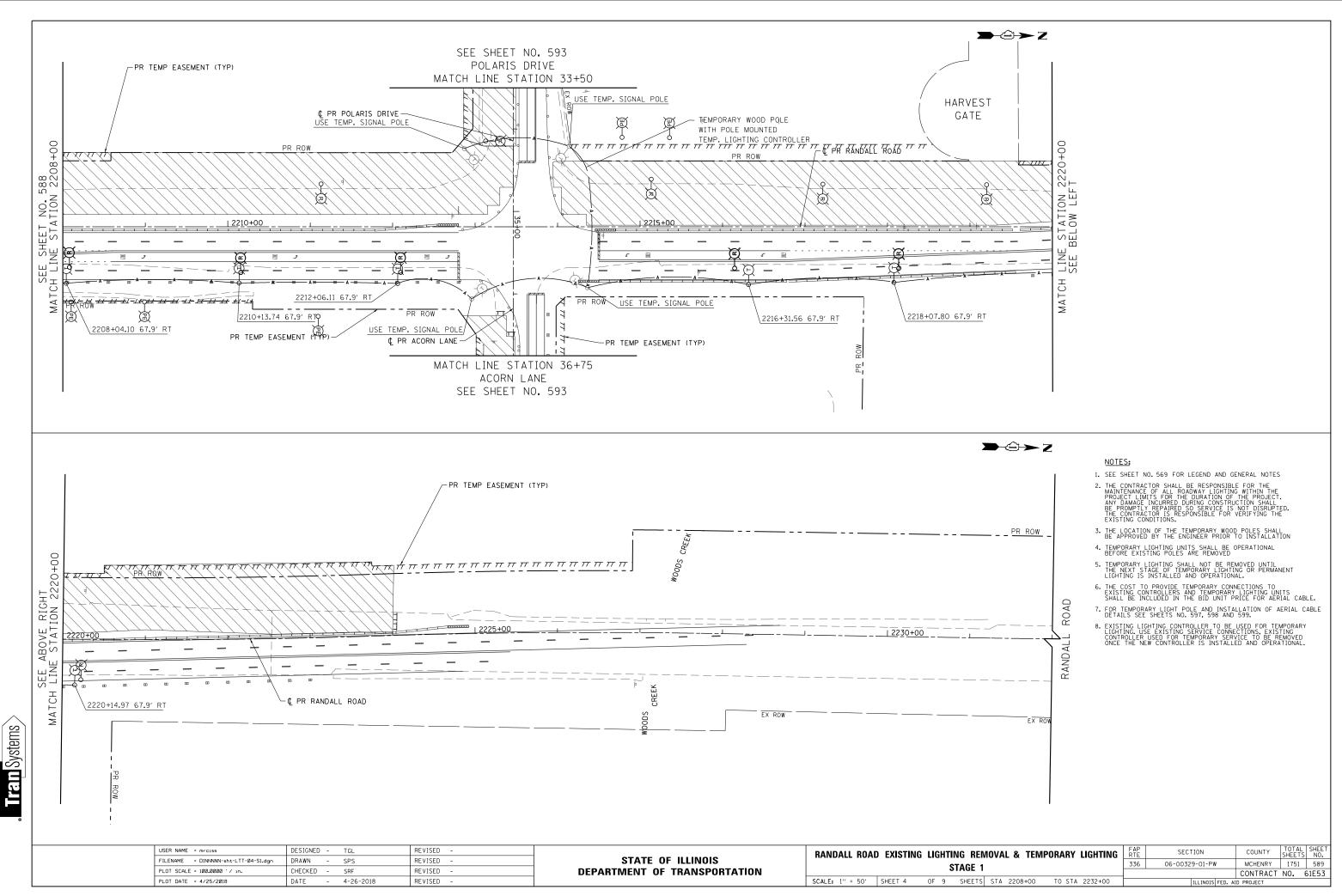


EMOVAL & TEMPORARY LIGHTING	F A P R T E	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
1	336	06-00329-01-PW	MCHENRY	1751	587		
			CONTRACT	NO. 0	61E53		
TS STA 2160+00 TO STA 2184+00	ILLINOIS FED. AID PROJECT						

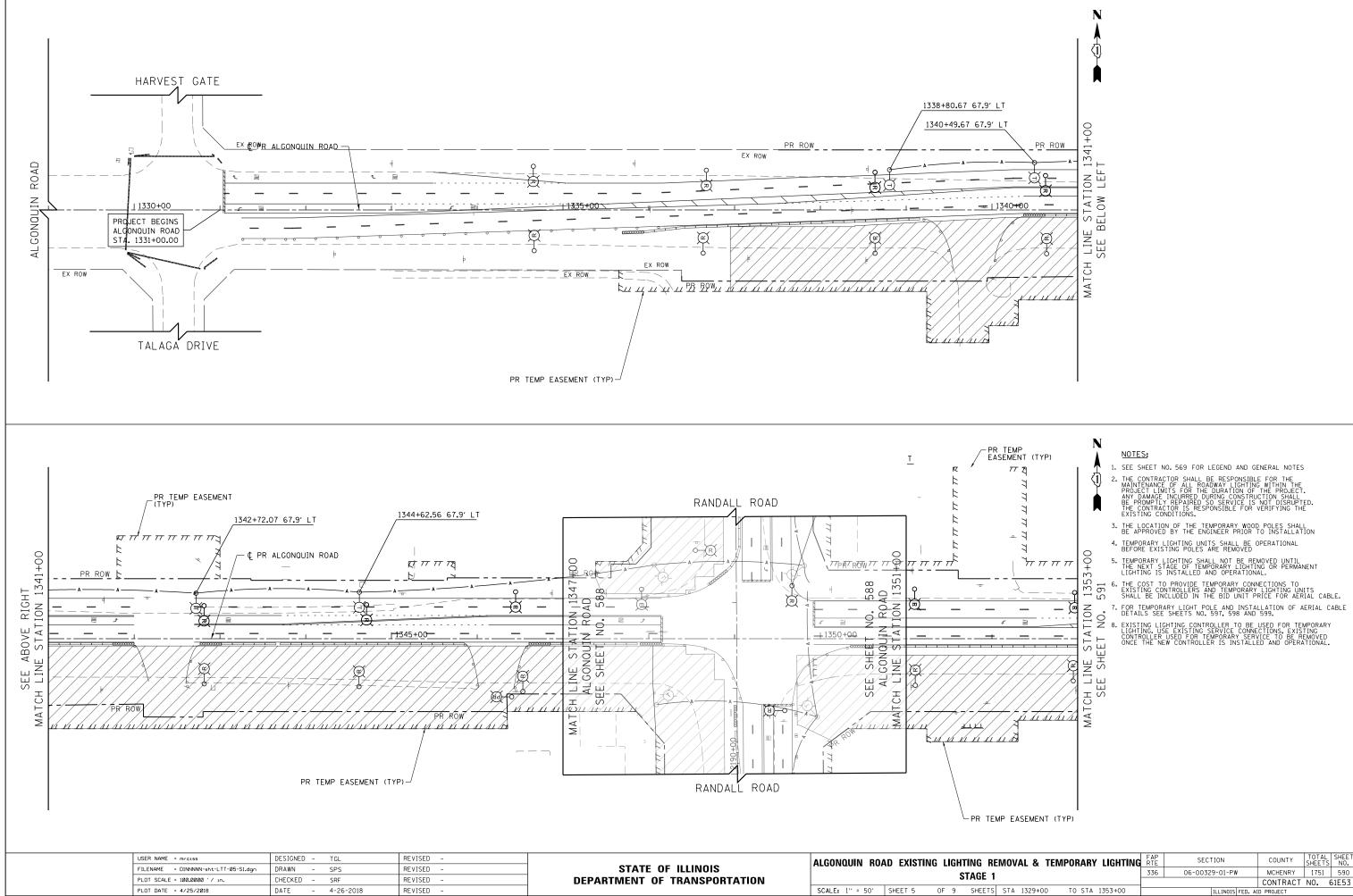


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EMOVAL & TEMPORARY LIGHTING	FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
1		06-00329-01-PW	MCHENRY	1751	588		
•			CONTRACT	NO. 6	61E53		
S STA 2184+00 TO STA 2208+00	ILLINOIS FED. AID PROJECT						

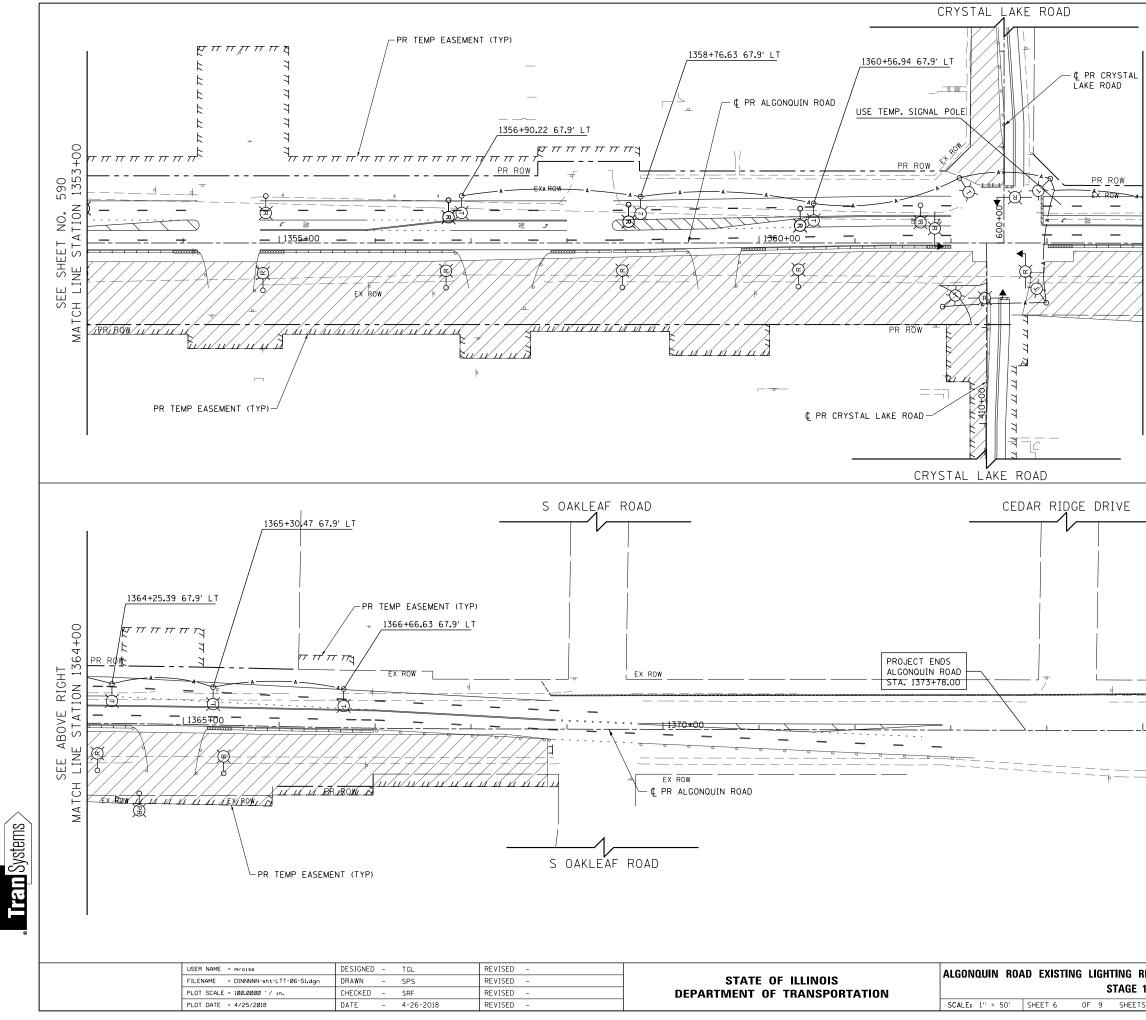


EMOVAL & TEMPORARY LIGHTING	F A P R T E	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
1		06-00329-01-PW	MCHENRY	1751	589		
			CONTRACT	NO. 6	61E53		
S STA 2208+00 TO STA 2232+00	ILLINOIS FED. AID PROJECT						



nc		ALQ	ICIVIFURA	٩NI	LIGHTING	RIE					SHEETS	NU.
1			336	06-00329-01-PW			MCHENRY	1751	590			
										CONTRACT	NO. 6	61E53
rs	STA	1329+0	0 TO S	STA	1353+00			ILL INOIS	FED. AI	D PROJECT		

- CABLE



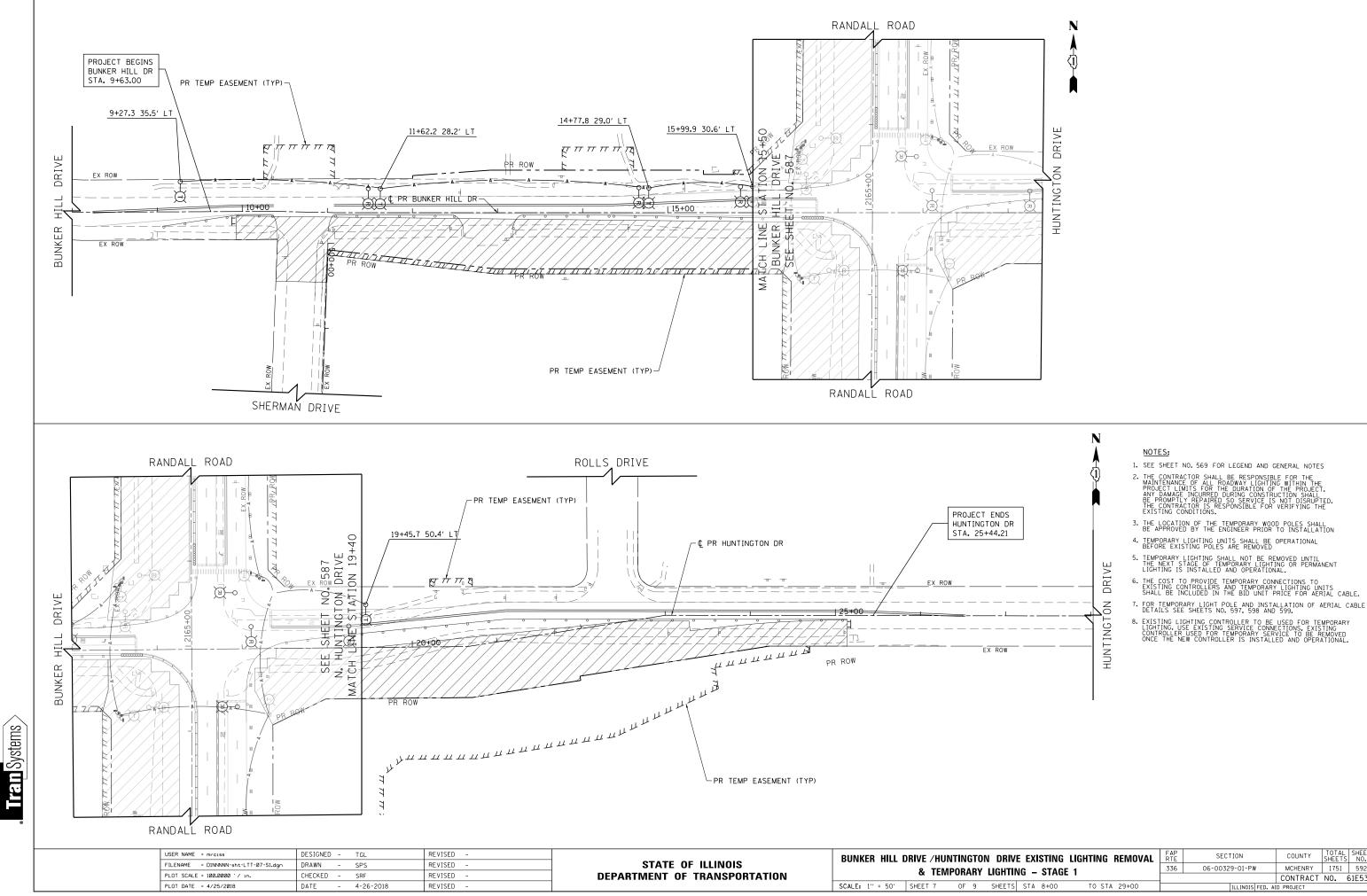
LINE STATION 1364+00	SEE BELOW LEFT
ATCH	0)

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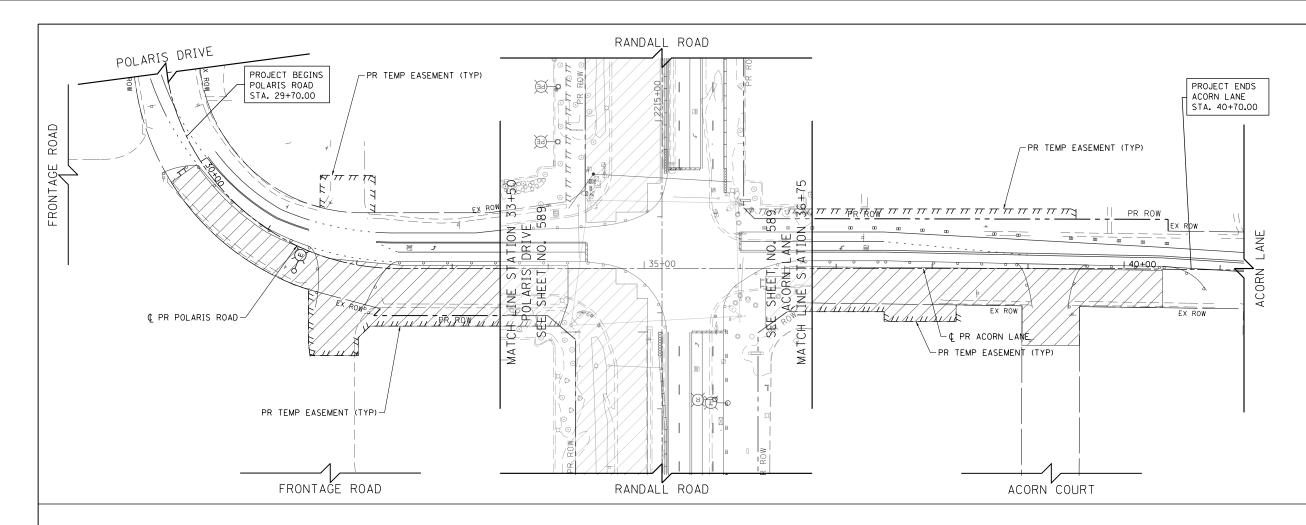
**(1)** 

	N	NOTES:
1		1. SEE SHEET NO. 569 FOR LEGEND AND GENERAL NOTES
		2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL PROAWAY LIGHTING WITHIN THE PROJECT LIMITS FOR THE DURATION OF THE PROJECT. ANY DAMAGE INCURRED DURING CONSTRUCTION SHALL BE PROMPTLY REPAIRED SO SERVICE IS NOT DISRUPTED. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE EXISTING CONDITIONS.
		3. THE LOCATION OF THE TEMPORARY WOOD POLES SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION
		4. TEMPORARY LIGHTING UNITS SHALL BE OPERATIONAL BEFORE EXISTING POLES ARE REMOVED
		5. TEMPORARY LIGHTING SHALL NOT BE REMOVED UNTIL THE NEXT STAGE OF TEMPORARY LIGHTING OR PERMANENT LIGHTING IS INSTALLED AND OPERATIONAL.
EX ROW	OAD	6. THE COST TO PROVIDE TEMPORARY CONNECTIONS TO EXISTING CONTROLLERS AND TEMPORARY LIGHTING UNITS SHALL BE INCLUDED IN THE BID UNIT PRICE FOR AERIAL CABLE.
	RO,	7. FOR TEMPORARY LIGHT POLE AND INSTALLATION OF AERIAL CABLE DETAILS SEE SHEETS NO. 597, 598 AND 599.
	ZN	<ol> <li>EXISTING LIGHTING CONTROLLER TO BE USED FOR TEMPORARY LIGHTING, USE EXISTING SERVICE CONNECTIONS, EXISTING CONTROLLER USED FOR TEMPORARY SERVICE TO BE REMOVED ONCE THE NEW CONTROLLER IS INSTALLED AND OPERATIONAL.</li> </ol>
	ALGONOUIN	
		FAP SECTION COUNTY TOTAL SHEET
	ADV I	CUTING FAP SECTION COUNTY TOTAL SHEET

REMOVAL & TEMPORARY		LIGHTING	RTE	RTE			COUNTY	SHEETS	NO.			
1			336 06-00329-01-PW			l –	MCHENRY	1751	591			
										CONTRACT	NO.	61E53
S	STA	1353+C	0 TO	STA	1376+00			ILLINOIS	FED. AI	D PROJECT		



IVE EXISTING LIGHTING REMOVAL	F A P R T E	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ING – STAGE 1	336	06-00329-01-PW	MCHENRY	1751	592
			CONTRACT	NO. 6	61E53
S STA 8+00 TO STA 29+00		ILLINOIS FED. AI	D PROJECT		



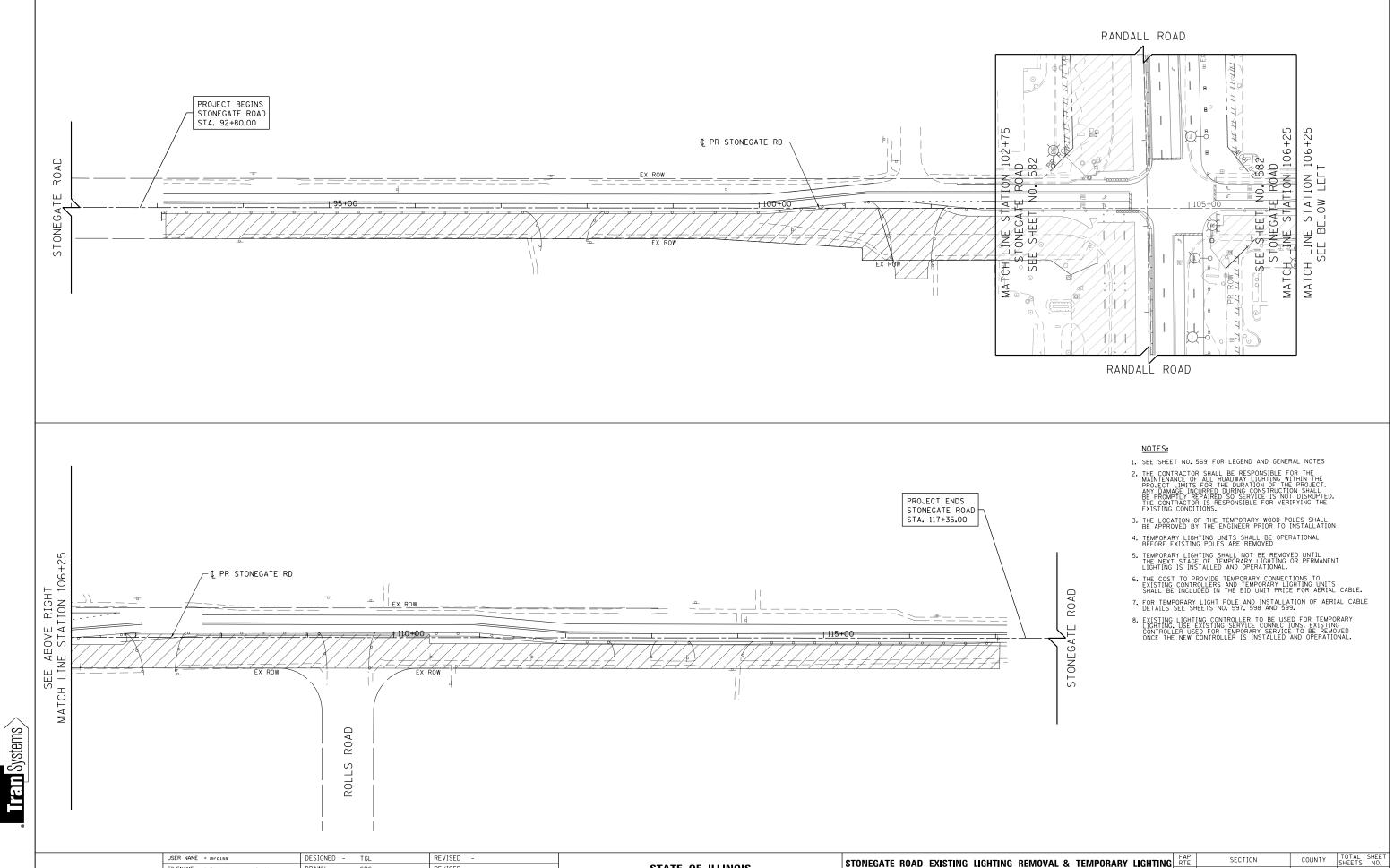
USER NAME = mrciss	DESIGNED - TGL	REVISED -		POLARIS DRIVE /ACORN LANE EXISTING LIGHTING REMOVAL	F A P R T F	SECTION	COUNTY TOTAL SH	HEET NO.
FILENAME = DINNNNN-sht-LTT-08-Sl.dgn	DRAWN - SPS	REVISED -	STATE OF ILLINOIS	& TEMPORARY LIGHTING – STAGE 1	336	06-00329-01-PW MCHENRY	MCHENRY 1751 5	593
PLOT SCALE = 100.0000 ' / in.	CHECKED - SRF	REVISED -	DEPARTMENT OF TRANSPORTATION		_		CONTRACT NO. 61E	53
PLOT DATE = 4/25/2018	DATE - 4-26-2018	REVISED -		SCALE: 1" = 50' SHEET 8 OF 9 SHEETS STA 28+00 TO STA 41+00		ILLINOIS FED. A	AID PROJECT	

## NOTES:

1. SEE SHEET NO. 569 FOR LEGEND AND GENERAL NOTES

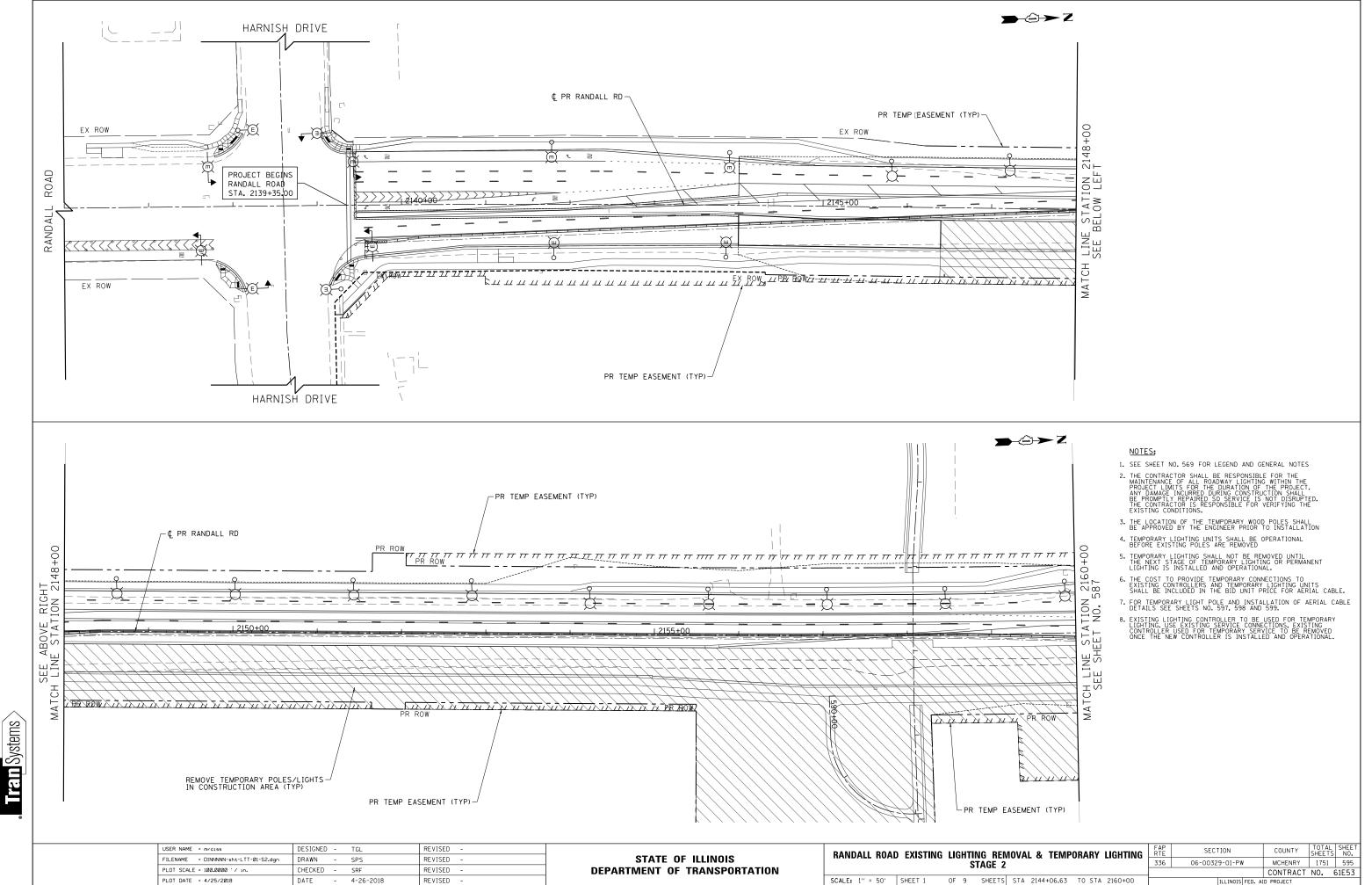
N

- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL ROADWAY LIGHTING WITHIN THE PROJECT LIMITS FOR THE DURATION OF THE PROJECT. ANY DAMAGE INCURRED DURING CONSTRUCTION SHALL BE PROMPILY REPAIRED SO SERVICE IS NOT DISRUPTED. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE EXISTING CONDITIONS.
- THE LOCATION OF THE TEMPORARY WOOD POLES SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION
- TEMPORARY LIGHTING UNITS SHALL BE OPERATIONAL BEFORE EXISTING POLES ARE REMOVED
- 5. TEMPORARY LIGHTING SHALL NOT BE REMOVED UNTIL THE NEXT STAGE OF TEMPORARY LIGHTING OR PERMANENT LIGHTING IS INSTALLED AND OPERATIONAL.
- 6. THE COST TO PROVIDE TEMPORARY CONNECTIONS TO EXISTING CONTROLLERS AND TEMPORARY LIGHTING UNITS SHALL BE INCLUDED IN THE BID UNIT PRICE FOR AERIAL CABLE.
- 7. FOR TEMPORARY LIGHT POLE AND INSTALLATION OF AERIAL CABLE DETAILS SEE SHEETS NO. 597, 598 AND 599.
- 8. EXISTING LIGHTING CONTROLLER TO BE USED FOR TEMPORARY LIGHTING. USE EXISTING SERVICE CONNECTIONS, EXISTING CONTROLLER USED FOR TEMPORARY SERVICE TO BE REMOVED ONCE THE NEW CONTROLLER IS INSTALLED AND OPERATIONAL.

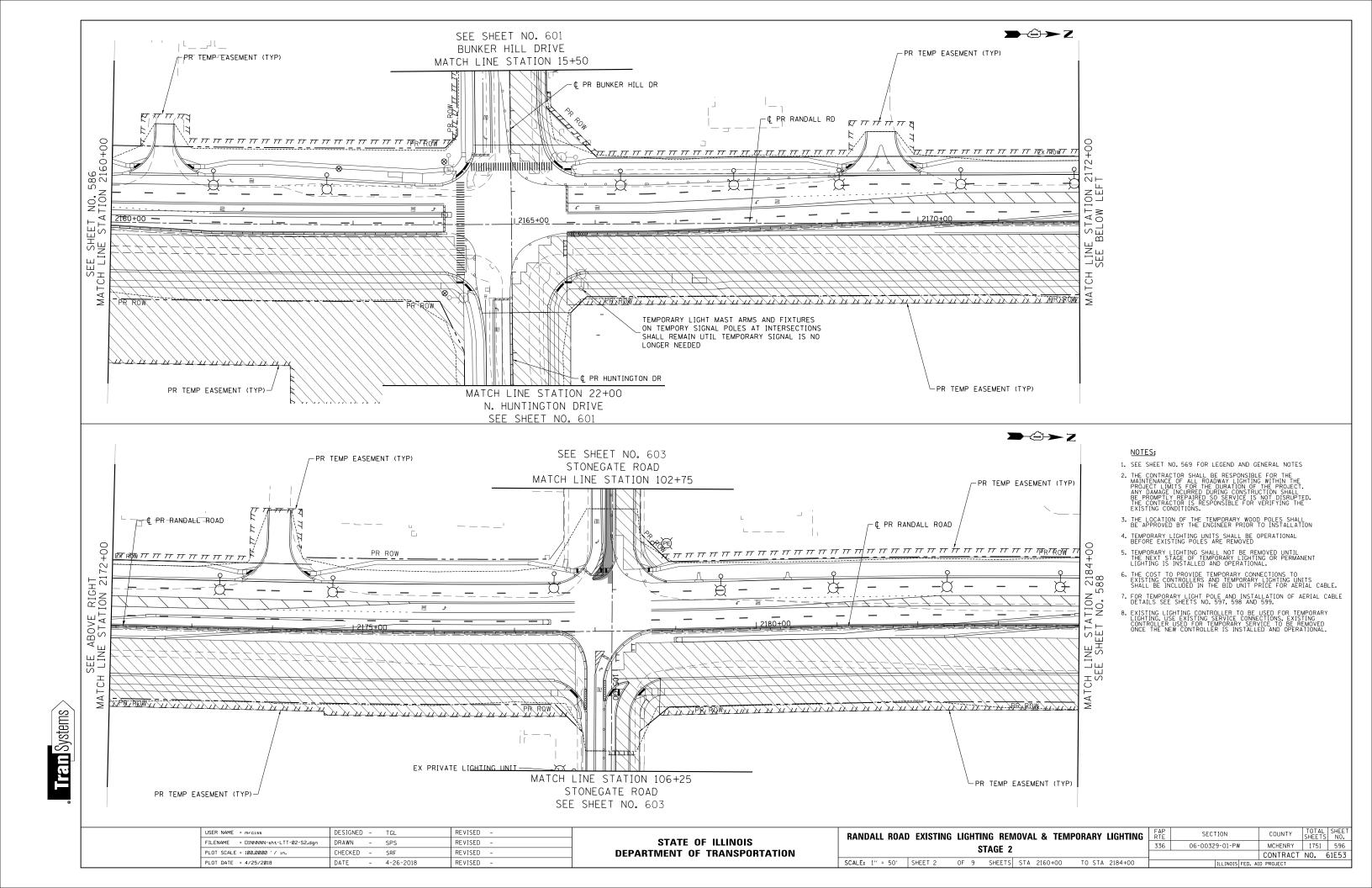


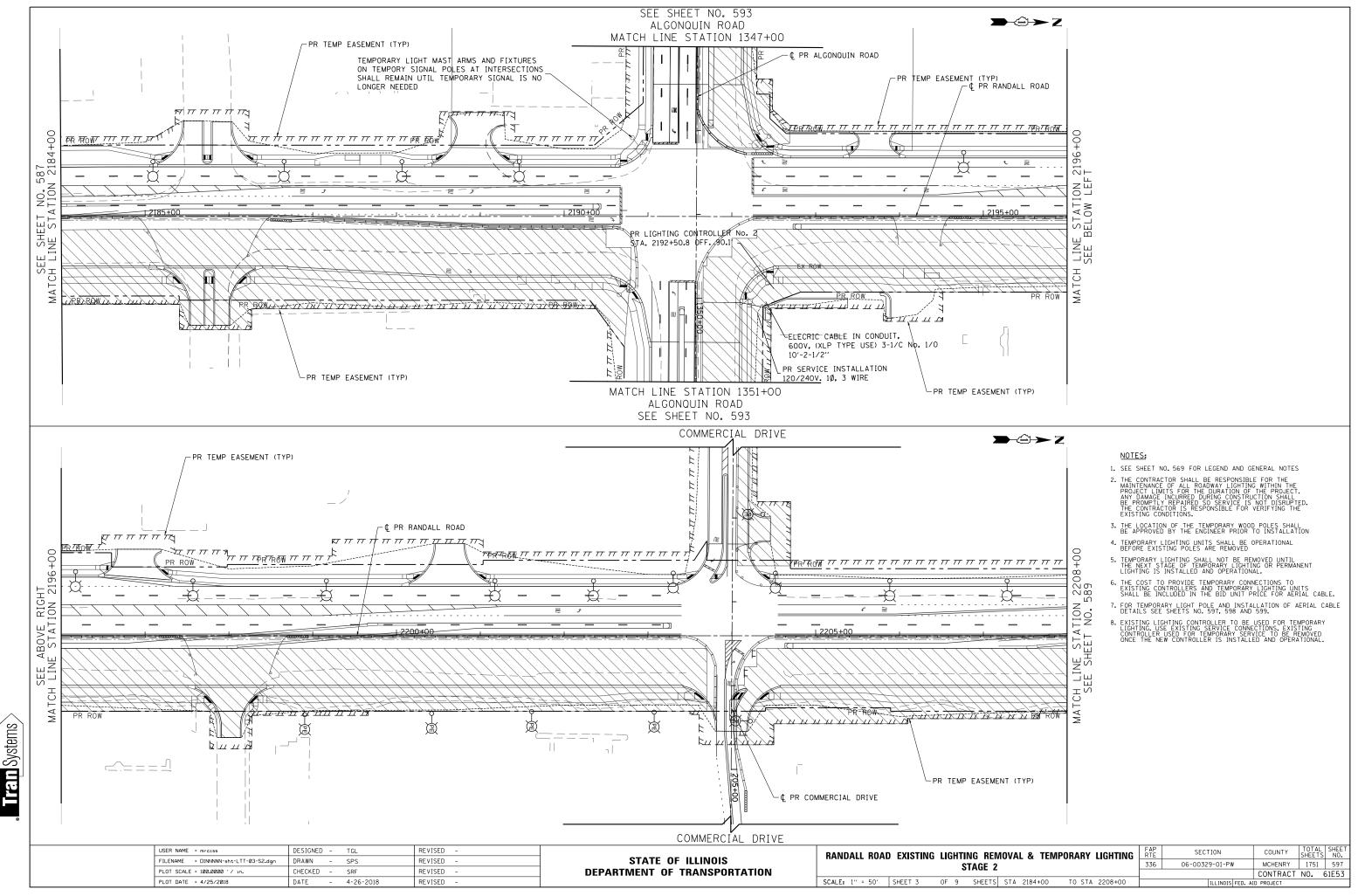
USER NAME = mrciss	DESIGNED - TGL	REVISED -		STONEGATE ROA	D EXISTING	G LIGHTING	• DEI
FILENAME = DINNNNN-sht-swalk-11.dgn	DRAWN - SPS	REVISED -	STATE OF ILLINOIS	STUNEGATE NUA	DEVISING		
PLOT SCALE = 100.0000 ' / in.	CHECKED - SRF	REVISED -	DEPARTMENT OF TRANSPORTATION			STAG	iE 1
PLOT DATE = 4/25/2018	DATE - 4-26-2018	REVISED -		SCALE: 1" = 50'	SHEET 9	OF 9 SHE	IEETS

nL	IVI U V A	LQ	ILIVIEUNAN	LIGHTING						DUFFIC	1.0.
1					336	06-0032	9-01-PW		MCHENRY	1751	594
•									CONTRACT	NO. 6	61E53
TS	STA	100+00	TO STA	109+00			ILLINOIS FED	. AID	PROJECT		

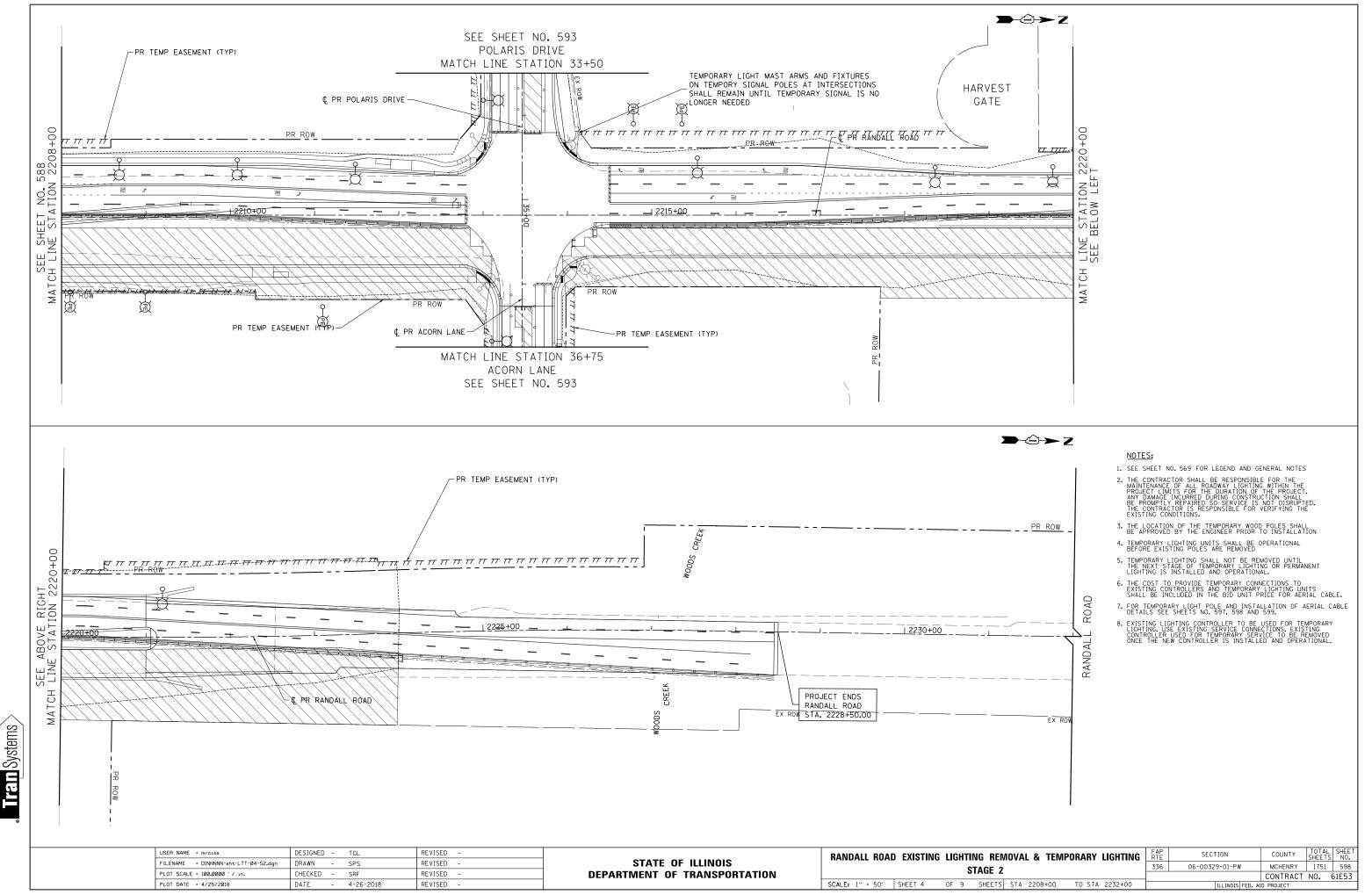


2					336	06-0032	9-01-PV	/	MCHENRY	1751	595
_									CONTRACT	NO.	61E5
ТS	STA	2144+06.63	TO STA	2160+00			ILL INOIS	FED. AI	D PROJECT		

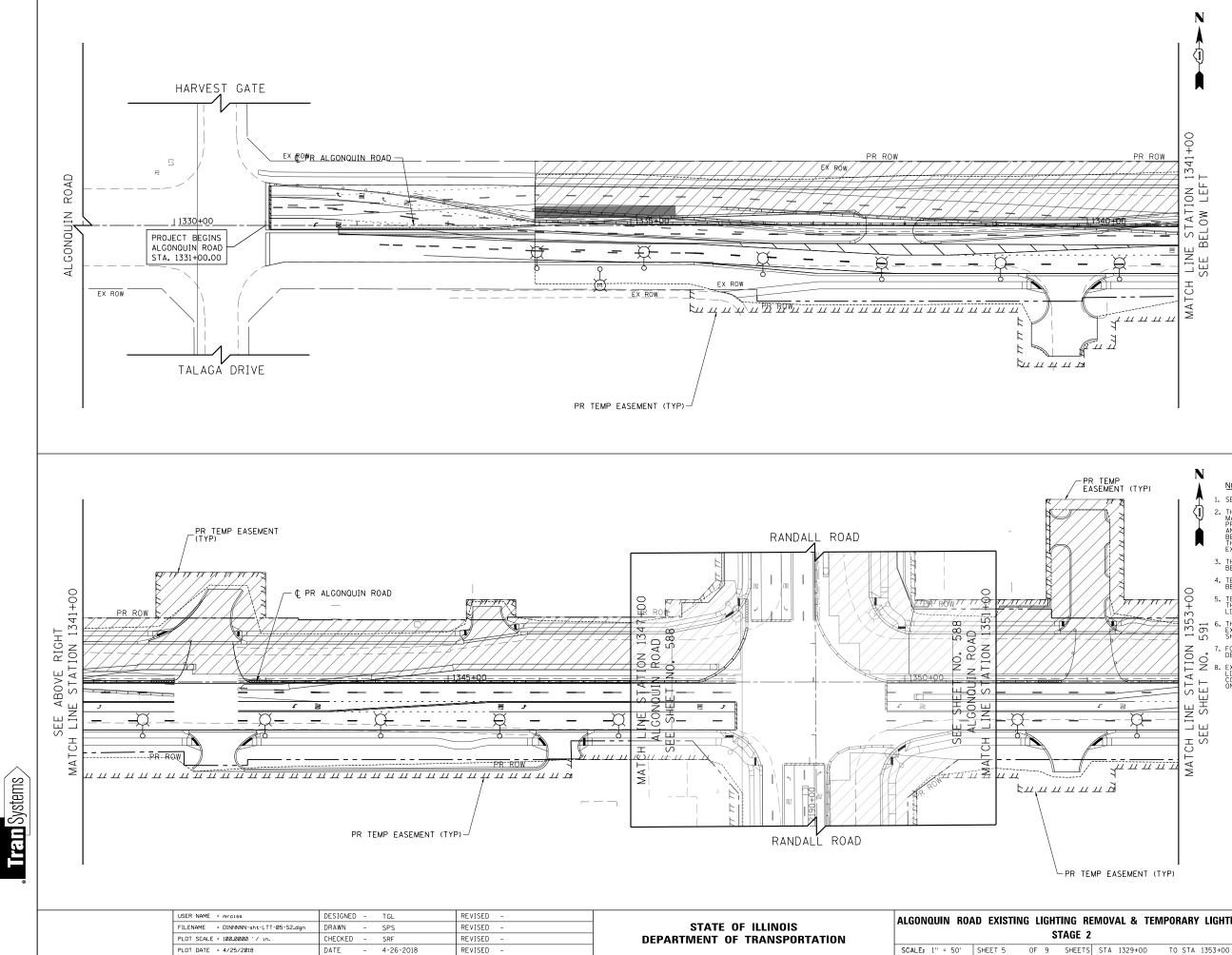




~										
-								CONTRACT	NO.	61E
٢S	STA	2184+00	TO STA	2208+00		ILLINOIS	FED. AI	ID PROJECT		



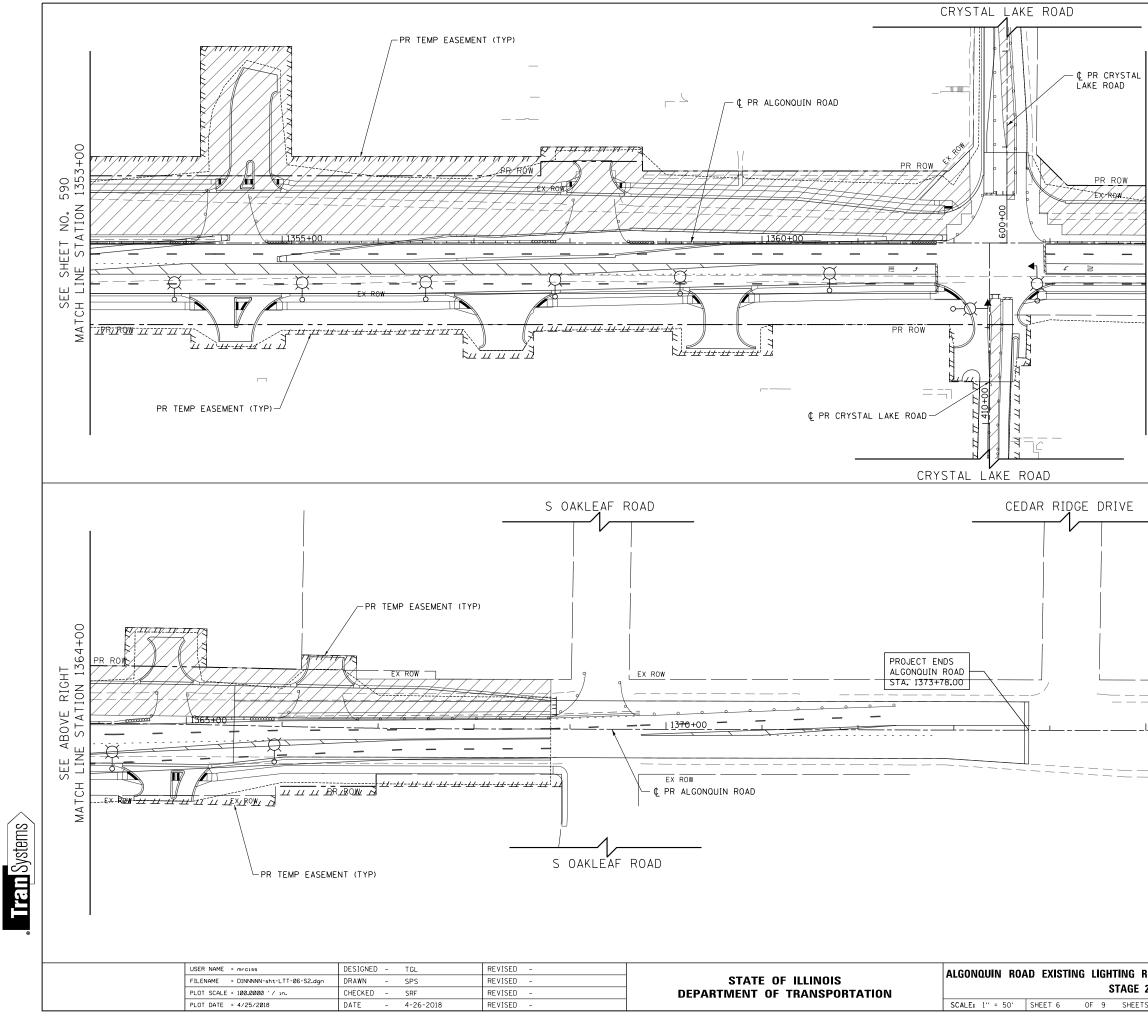
_							CONTRACT	NO.	-6
S	STA	2208+00	TO STA	2232+00	ILLINOIS	FED. A	ID PROJECT		_
									_



### NOTES:

- 1. SEE SHEET NO. 569 FOR LEGEND AND GENERAL NOTES
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL ROADWAY LIGHTING WITHIN THE PROJECT LIMITS FOR THE DURATION OF THE PROJECT. ANY DAMAGE INCURRED DURING CONSTRUCTION SHALL BE PROMPTLY REPARED SO SERVICE IS NOT DISRUFTED. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE EXISTING CONDITIONS.
- 3. THE LOCATION OF THE TEMPORARY WOOD POLES SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION
- 4. TEMPORARY LIGHTING UNITS SHALL BE OPERATIONAL BEFORE EXISTING POLES ARE REMOVED
- TEMPORARY LIGHTING SHALL NOT BE REMOVED UNTIL THE NEXT STAGE OF TEMPORARY LIGHTING OR PERMANENT LIGHTING IS INSTALLED AND OPERATIONAL.
- TO PROVIDE TEMPORARY CONNECTIONS TO CONTROLLERS AND TEMPORARY LIGHTING UNITS INCLUDED IN THE BID UNIT PRICE FOR AERIAL CABLE. THE COST EXISTING SHALL BE
- FOR TEMPORARY LIGHT POLE AND INSTALLATION OF AERIAL CABLE DETAILS SEE SHEETS NO. 597, 598 AND 599.
- EXISTING LIGHTING CONTROLLER TO BE USED FOR TEMPORARY LIGHTING, USE EXISTING SERVICE CONNECTIONS, EXISTING CONTROLLER USED FOR TEMPORARY SERVICE TO BE REMOVED ONCE THE NEW CONTROLLER IS INSTALLED AND OPERATIONAL.

RE	MOVA	AL & TE	MPORAR	' LIGHTING	FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2			336	06-00329-01-PW	MCHENRY	1751	599		
~							CONTRACT	NO. 0	61E53
٢S	STA	1329+00	TO STA	1353+00		ILLINOIS FED. AI	D PROJECT		



LINE STATION 1364+00	SEE BELOW LEFT
MATCH	

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KEIVIUVAL & TEIVIPUKAKY LIGHTING		RIE			000.111	SHEE IS	NU.					
2			336	06-00329-01-PW		MCHENRY	1751	600				
~										CONTRACT	NO. 0	61E53
S	STA	1353+0	0 T0	STA	1376+00			ILLINOIS	FED. AI	D PROJECT	-	
											-	