06-11-2021 LETTING ITEM 080

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## STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

(97-2-1) WS-1 TILINOIS CONTRACT NO. 78847

D-99-023 - 21



# STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** REGION FIVE ENGINEER May 7, 2021

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

FOR INDEX OF SHEETS, SEE SHEET NO. 3 FOR SUMMARY OF QUANTITIES, SEE SHEET NOS. 4-5

## TRAFFIC DATA

ROADWAY CLASSIFICATION = INTERSTATE DESIGN SPEED = 70 MPH CURRENT EB AND WB ADT (2019) = 12,700 SU = 3.4 % MU = 36.4 %

## **PROPOSED HIGHWAY PLANS**

F.A.I. ROUTE 64 (I-64) **SECTION (97-2-1) WS-1** PROJECT STP-VHRA(070) **VIRTUAL WEIGH STATION** WHITE COUNTY

C-99-031-21

R 10 W

**TOWNSHIPS** 

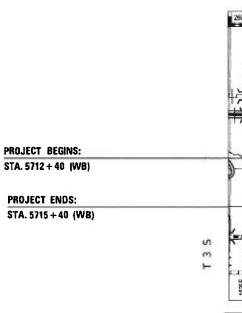
DESIGN DESIGNATION: N/A

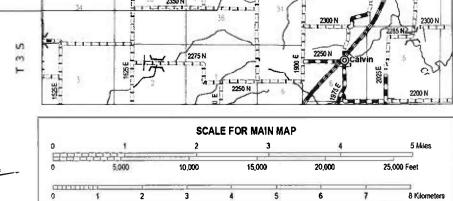
COORDINATE SYSTEM: N/A

POSTED SPEED: 70 MPH

JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION 1-800-892-0123 OR 811

PROJECT ENGINEER: VALERIE ROLLA





GROSS LENGTH = 300.00 FT. = 0.057 MILES NET LENGTH = 300.00 FT. = 0.057 MILES

REV. - MS

CONTRACT NO. 78847

Grayville

R 11 W

Prepared By: Charles

Examined By:

Examined By:

Examined By:

DISTRICT OPERATIONS ENGINEER

Examined By:

DISTRICT PROJECT IMPLEMENTATION ENGINEER

Examined By:

Examined By: DISTRICT MATERIALS ENGINEER

USER NAME = meaning	DESIGNED - F. EPPERT	REVISED -
	DRAWN - M. CONROY	REVISED -
PLOT SCALE = 24.8888 1/ ft.	CHECKED - A. BAH	REVISED -
PLOT DATE = 3/15/2021	DATE - 3/11/2021	REVISED -
1111-771-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-		



					SIGNAT	URE SHEET
SCALE: N-T-S	SHEET	1	OF.	1	SHEETS	STA.

09 (97-2-1) WS-1

#### **INDEX OF SHEETS**

- 1 COVER SHEET
- 2 SIGNATURE SHEET
- 3 GENERAL NOTES & HIGHWAY STANDARDS
- 4–5 SUMMARY OF QUANTITIES
- 6 TYPICAL SECTIONS
- 7 SCHEDULE OF QUANTITIES
- 8 PLAN SHEET
- 9 EROSION CONTROL PLAN
- 10-22 WEIGH IN MOTION DETAILS

#### **HIGHWAY STANDARDS**

STANDARD SYMBOLS, ABBREVATIONS AND PATTERNS
AREAS OF REINFORCEMENT BARS
DECIMAL OF AN INCH AND OF A FOOT
TEMPORARY EROSION CONTROL SYSTEMS
BAR REINFORCEMENT FOR CRC PAVEMENT
CLASS A PATCHES
PIPE UNDERDRAINS
CONCRETE HEADWALL FOR PIPE UNDERDRAINS
STEEL PLATE BEAM GUARDRAIL
SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
TRAFFIC BARRIER TERMINAL, TYPE 2
OFF-RD OPERATIONS, MULTILANE, 15' TO 24' FROM PAVEMENT EDGE
OFF-RD OPERATIONS, MULTILANE, MORE THAN 15' AWAY
APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
LANE CLOSURE, FREEWAY/EXPRESSWAY
TRAFFIC CONTROL DEVICES
OBJECT AND TERMINAL MARKERS
TYPICAL PAVEMENT MARKINGS
TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS
GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS
ELECTRICAL SERVICE INSTALLATION DETAILS
HANDHOLES
BREAKAWAY DEVICES
CONCRETE FOUNDATIONS DETAILS
DETECTOR LOOP INSTALLATIONS

#### **GENERAL NOTES**

- AT ALL LOCATIONS WHERE THE PROPOSED HOT MIX ASPHALT OR CONCRETE PAVEMENT JOINS AN EXISTING HOT MIX ASPHALT OR CONCRETE PAVEMENT, A FULL DEPTH SAWED JOINT SHALL BE CONSTRUCTED. THE COST OF THIS JOINT WILL BE INCLUDED IN THE COST OF THE TYPE OF PAVEMENT BEING CONSTRUCTED.
- 2. EXISTING PIPE UNDERDRAIN OUTLETS IN THE FORESLOPES OR MEDIAN SLOPES SHALL BE PRESERVED AND PROTECTED DURING CONSTRUCTION. ANY DAMAGE TO AN UNDERDRAIN OUTLET RESULTING FROM CONSTRUCTION ACTIVITY SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

#### **COMMITMENTS**

NONE

9	<b>YA</b>	В	N	A
0				

USER NAME = mconroy	DESIGNED	-	F. EPPERT	REVISED -
	DRAWN	-	M. CONROY	REVISED -
PLOT SCALE = 24.0000 '/ ft.	CHECKED	-	A. BAH	REVISED -
PLOT DATE = 3/15/2021	DATE	-	3/11/2021	REVISED -

	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
GENERAL NOTES & HIGHWAY STANDARDS	64	D9 (97-2-1) WS-1	WHITE	22	3
			CONTRACT	NO.	78847
SCALE: N-T-S   SHEET 1 OF 1 SHEETS   STA. TO STA.		ILLINOIS FED. AI	D PROJECT		

				80% FEDERAL 20% STATE
CODE NO .	ITEM	UNIT	TOTAL QUANTITY	ROADWAY 0004 RURAL
.,,,		- UNIT	QO/MITTER	NOTAL
20400800	FURNISHED EXCAVATION	CU YD	255	255
25000210	SEEDING, CLASS 2A	ACRE	0.50	0.50
25000350	SEEDING, CLASS 7	ACRE	0.50	0.50
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	45	45
23000400	NTIROGEN FERTILIZER NOTRIENT	POUND	43	45
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	45	45
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	45	45
25100115	MULCH, METHOD 2	ACRE	0.50	0.50
25100630	EROSION CONTROL BLANKET	SQ YD	210	210
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	45	45
28000400	PERIMETER EROSION BARRIER	FOOT	177	177
44004000	PAVED DITCH REMOVAL	FOOT	110	110
44200628	CLASS A PATCHES, TYPE IV, 14 INCH	SQ YD	800	800
	, , , , , , , , , , , , , , , , , , , ,			
44213000	PATCHING REINFORCEMENT	SQ YD	800	800
44213200	SAW CUTS	FOOT	948	948

AA	BNA

USER NAME = mconroy	DESIGNED	-	F. EPPERT	REVISED -
	DRAWN	-	M. CONROY	REVISED -
PLOT SCALE = 24.0000 '/ ft.	CHECKED	-	A. BAH	REVISED -
PLOT DATE = 3/15/2021	DATE	-	3/11/2021	REVISED -

STATE O	F ILLINOIS
DEPARTMENT OF	TRANSPORTATION

						F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	SU	MM	ARY OF Q	JANTITIES		64	D9 (97-2-1) WS-1	WHITE	22	4
								CONTRACT	NO.	78847
SCALE: N-T-S	SHEET 1	OF	2 SHEET:	STA.	TO STA.		ILLINOIS FED. AI	D PROJECT		

					80% FEDERAL 20% STATE
					ROADWAY
	CODE			TOTAL	0004
	NO.	ITEM	UNIT	QUANTITY	RURAL
	44213204	TIE BARS 3/4"	EACH	1138	1138
	542A0229	PIPE CULVERTS, CLASS A, TYPE 1 24"	FOOT	95	95
	54213669	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 24"	EACH	2	2
	60100060	CONCRETE HEADWALLS FOR PIPE DRAINS	EACH	1	1
	60108100	PIPE UNDERDRAINS 4" (SPECIAL)	FOOT	18	18
*	63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	37.5	37.5
*	63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	1	1
*	63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	1	1
	67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	4	4
	67100100	MOBILIZATION	L SUM	1	1
	70100800	TRAFFIC CONTROL AND PROTECTION, STANDARD 701401	L SUM	1	1
	70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	10	10
	70107025	CHANGEABLE MESSAGE SIGN	CAL DA	14	14
*	72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	2	2

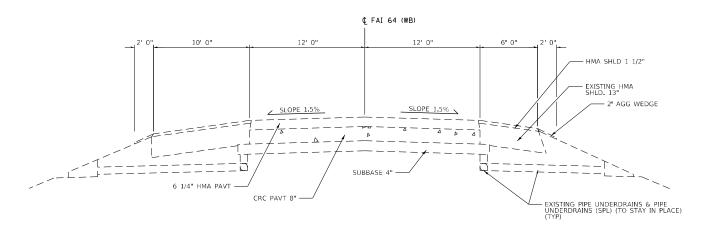
					80% FEDERAL
					20% STATE
					ROADWAY
	CODE			TOTAL	0004
	NO.	I TEM	UNIT	QUANTITY	RURAL
*	78009004	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"	FOOT	675	675
*	78200005	GUARDRAIL REFLECTORS, TYPE A	EACH	4	4
	81028360	UNDERGROUND CONDUIT, PVC, 2 1/2" DIA.	FOOT	293	293
	81400100	HANDHOL E	EACH	1	1
	81702400	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 3-1/C NO. 2	FOOT	270	270
	81702441	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 2-12/C, 1-12/C GROUND	FOOT	23	23
	X8050115	SERVICE INSTALLATION, TYPE A (MODIFIED)	EACH	1	1
	Z0026290	FURNISHING AND INSTALLING WEIGH-IN- MOTION COMPONENTS	L SUM	1	1

#### \* SPECIALTY ITEM



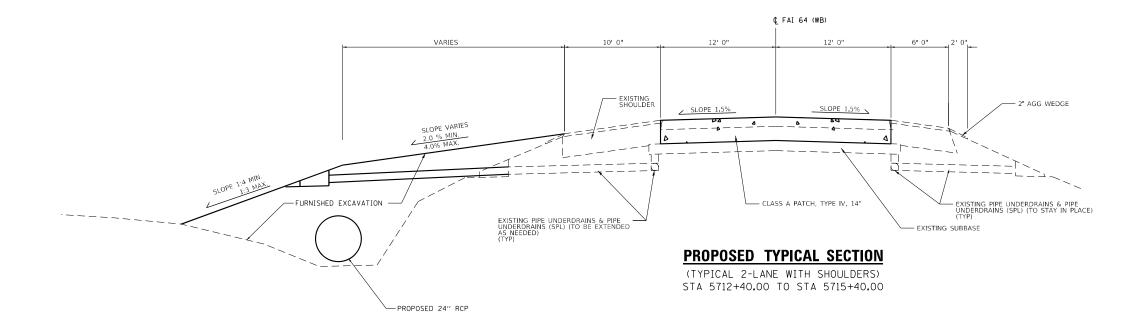
USER NAME = mconroy	DESIGNED	-	F. EPPERT	REVISED -
	DRAWN	-	M. CONROY	REVISED -
PLOT SCALE = 24.0000 '/ ft.	CHECKED	-	A. BAH	REVISED -
PLOT DATE = 3/15/2021	DATE	-	3/11/2021	REVISED -

						F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
		SU	WIWI.	\KY	OF QU		64	D9 (97-2-1) WS-1	WHITE	22	5	
								CONTRACT	NO.	78847		
SCALE: N-T-S SHEET 2 OF 2 SHEETS STA. TO STA.									ILLINOIS FED. AI	D PROJECT		



#### **EXISTING TYPICAL SECTION**

(TYPICAL 2-LANE WITH SHOULDERS) STA 5712+40.00 TO STA 5715+40.00



ABNA

DRAWN - M. CONROY	USER NAME = mconroy	mconroy DESIGNED - F. EPPERT	REVISED -
PLOT SCALE = 120.0000 '/ ft. CHECKED - A. BAH REVISED -		DRAWN - M. CONROY	REVISED -
	PLOT SCALE = 120.0000 '/ ft.	120.0000 '/ ft. CHECKED - A. BAH	REVISED -
PLOT DATE = 4/20/2021 DATE - 3/11/2021 REVISED -	PLOT DATE = 4/20/2021	4/20/2021 DATE - 3/11/2021	REVISED -

STATE OF	: ILLINOIS
DEPARTMENT OF	TRANSPORTATION

								F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
					IY	PIC	AL SECT	64	D9 (97-2-1) WS-1	WHITE	22	6		
												CONTRACT	NO.	78847
	SCALE:	N-T-S	SHEET	1	OF	1	SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT				
_											122111010			•

#### PAVEMENT SCHEDULE

			CL A PATCH	PATCH	TIE BARS 3/4	SAW CUTS
STATION	STATION	OFFSET	T4 14	REINFORCEMENT		
			(SQ YD)	(SQ YD)	(EACH)	(FOOT)
5712+40.00	5715+40.00	LT	400	400.00	569	624
5712+40.00	5712+40.00 5715+40.00		400	400.00	569	324
	TOTALS		800	800	1138	948

#### **SEEDING SCHEDULE**

			SEEDING	SEEDING CL	NITROGEN	PHOSPHOROUS	POTASSIUM	MULCH
			CL 2A	7	FERT NUTR	FERT NUTR	FERT NUTR	METHOD 2
STATION	STATION	OFFSET						
			(ACRE)	(ACRE)	(POUND)	(POUND)	(POUND)	(ACRE)
5712+85.30	5716+10.40	LT	0.50	0.50	45	45	45	0.50
	TOTALS		0.50	0.50	45	45	45	0.50

#### **EROSION CONTROL SCHEDULE**

			EROSION	TEMP EROS	PERIMETER EROS
			CONTR	CONTR SEED	BAR
STATION	STATION STATION		BLANKET		
			(SQ YD)	(POUND)	(FOOT)
5712+85.30	5716+10.40	LT	210	45	
5712+85.00	5713+29.80	LT			39
5712+85.00	5713+24.30	LT			39
5714+29.90	5714+76.00	LT			46
5714+29.90	5714+78.00	LT			53
	TOTALS		210	45	177

#### **DRAINAGE SCHEDULE**

				P CUL CL A 1	PRC FLAR END	CONC HDWL	PIPE	PAVED
				24	SEC 24	FOR P DRAIN	UNDERDRAIN	DITCH
STATION	OFFSET	STATION	OFFSET				4 SP	REMOVAL
				(FOOT)	(EACH)	(EACH)	(FOOT)	(FOOT)
5713+30.18	LT	5714+25.09	LT	95				
5713+30.18	LT	5713+30.18	LT		1			
5713+22.00	LT	5714+32.00	LT					110
5714+25.09	LT	5714+25.09	Ľ		1			
5714+74.10	LT	5714+74.10	LT			1	18	
	TOTAI	LS		95	2	1	18	110

#### **GUARDRAIL SCHEDULE**

			SPBGR TY A	TRAF BAR	TR BAR TRM	GRDRAIL	TERMINAL
			6FT POSTS	TRM T2	T1 SPL TAN	REF TYPE A	MARKER - DA
STATION	STATION	OFFSET					
			(FOOT)	(EACH)	(EACH)	(EACH)	(EACH)
5713+53.00	5714+28.00	LT	37.5	1		4	
5714+28.00	5714+53.00	LT			1		
5712+40.00	5715+40.00	LT					2
	TOTALS		37.5	1	1	4	2

#### **ELECTRICAL SCHEDULE**

STATION	STATION	OFFSET	UNDRGRD C PVC 2 1/2	HANDHOLE	EC C XLP USE 3-1C 2	EC C XLP 2-12C 1-12CG	SERV INSTALL TY A MOD
			(FOOT)	(EACH)	(FOOT)	(FOOT)	(EACH)
5713+57.00	5715+88.21	LT	270				
5713+57.00	5713+66.00	LT	23				
5715+88.21	5715+88.21	LT		1			
5713+57.00	5715+88.21	LT			270		
5713+57.00	5713+66.00	LT				23	
5713+76.00	5713+76.00	LT					1
	TOTALS		293	1	270	23	1

#### PAVEMENT MARKING SCHEDULE

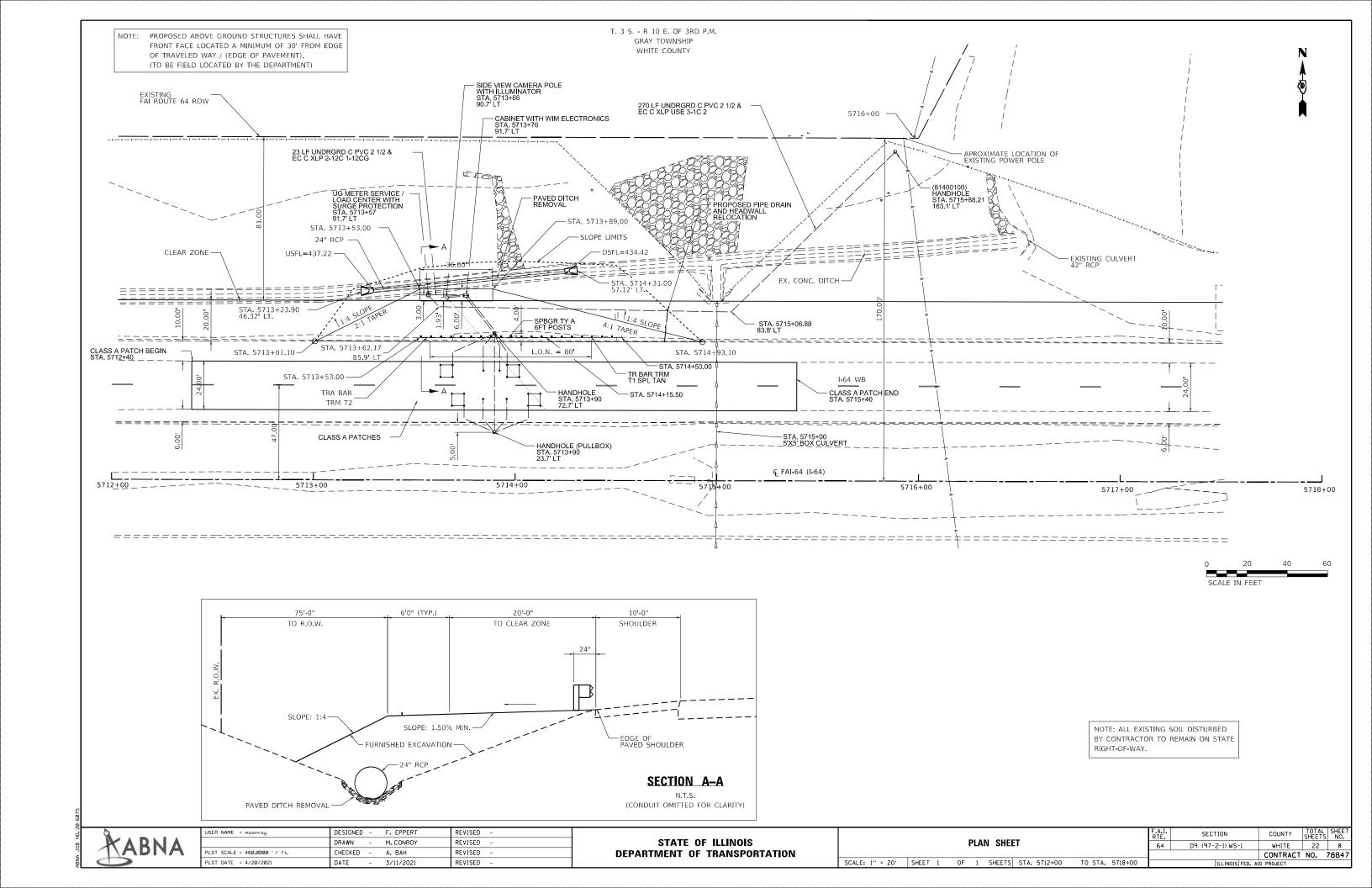
			MOD URETH
			PM LINE 4
STATION	STATION	OFFSET	
			(FOOT)
5712+40.00	5715+40.00	LT	300
5712+40.00	5715+40.00	LT	300
5712+40.00	5715+40.00	LT	75
	TOTALS		675

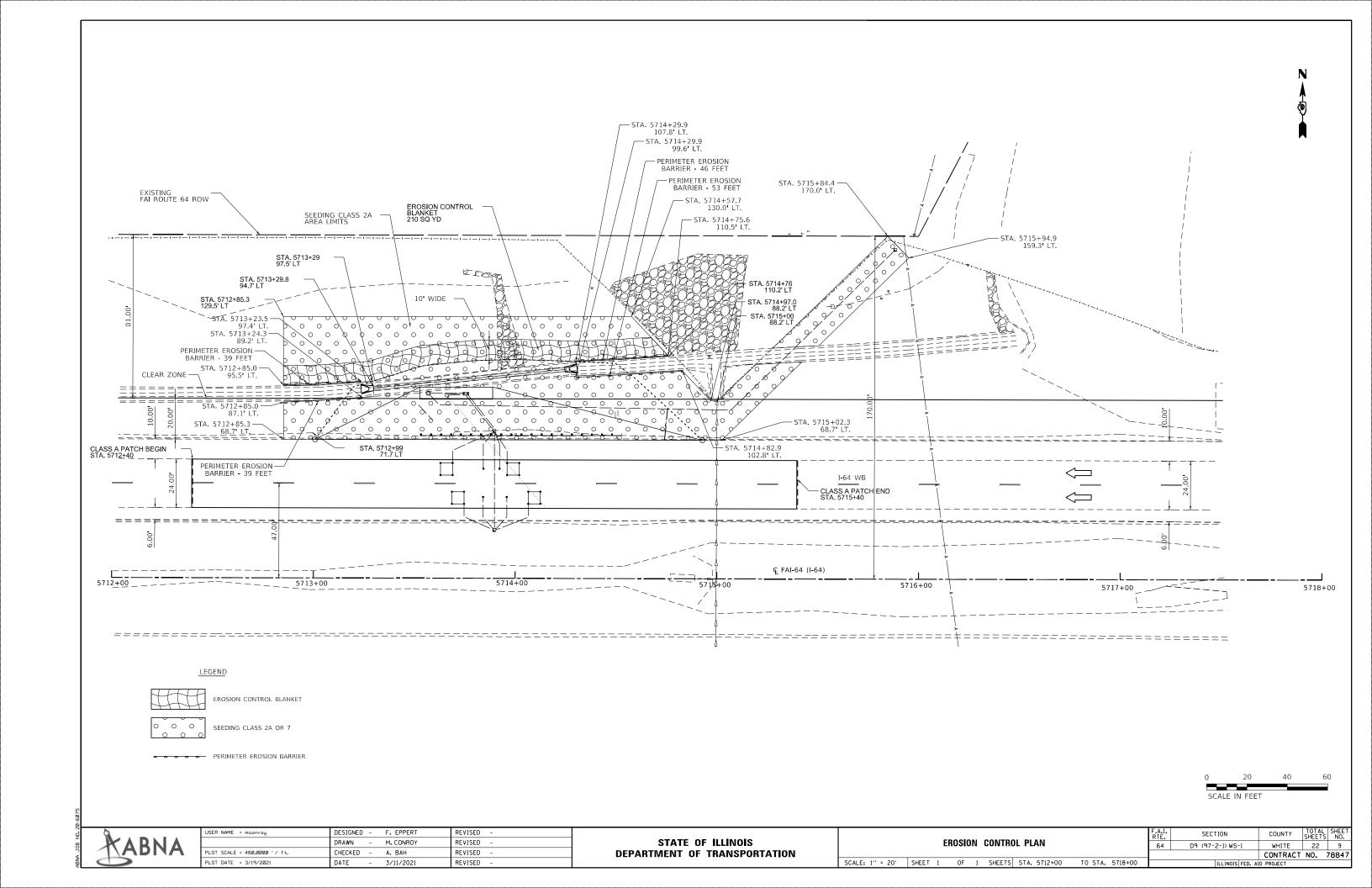
ABNA

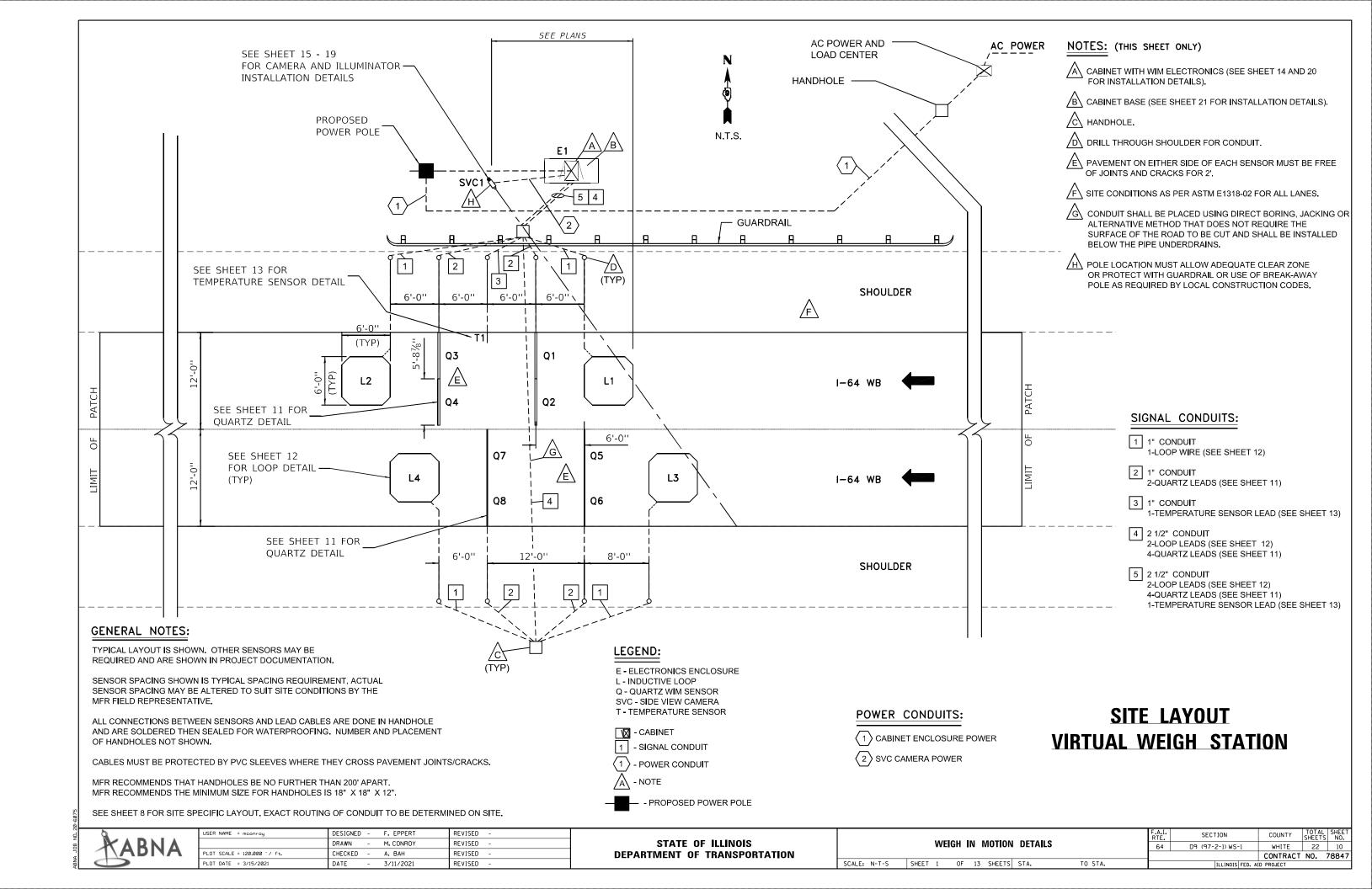
USER NAME = mconroy	DESIGNED	-	F. EPPERT	REVISED -
	DRAWN	-	M. CONROY	REVISED -
PLOT SCALE = 24.0000 '/ ft.	CHECKED	-	A. BAH	REVISED -
PLOT DATE = 4/20/2021	DATE	-	3/11/2021	REVISED -

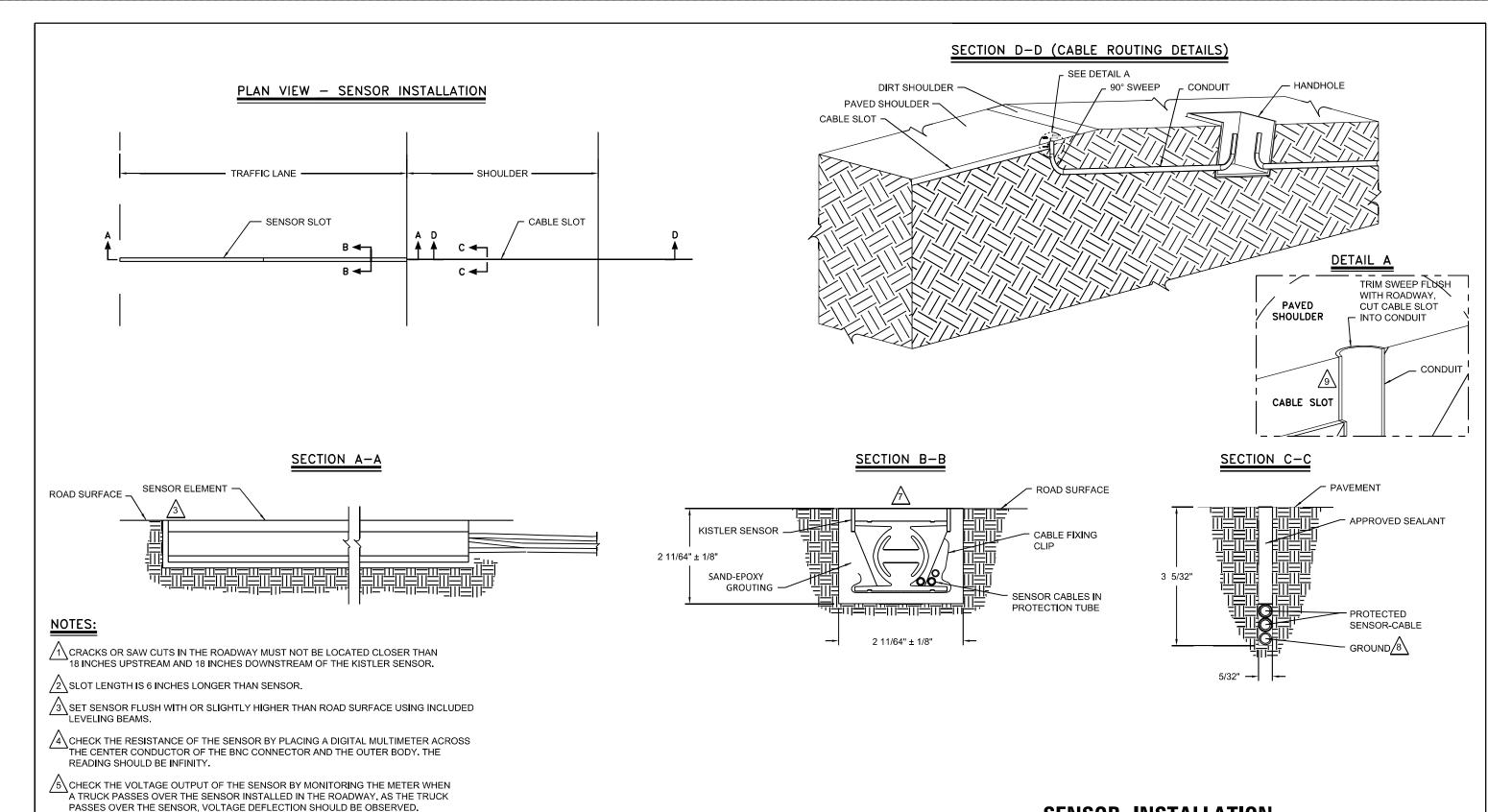
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

Ī		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ı	SCHEDULE OF QUANTITIES	64	D9 (97-2-1) WS-1	WHITE	22	7
ı				CONTRACT	NO.	78847
ı	SCALE: N-T-S   SHEET 1 OF 1 SHEETS   STA. TO STA.		ILLINOIS FED. A	ID PROJECT		









## SENSOR INSTALLATION



GROUND BUSBAR.

COVER WITH LOOP SEALANT.

USER NAME = mconroy	DESIGNED	-	F. EPPERT	REVISED -
	DRAWN	-	M. CONROY	REVISED -
PLOT SCALE = 12:6.864 ': / ft.	CHECKED	-	A. BAH	REVISED -
PLOT DATE = 3/15/2021	DATE	-	3/11/2021	REVISED -

6 FOR INSTALLATION PROCESS REFER TO MANUNFACTURER'S INSTRUCTION MANUAL.

SENSOR MUST BE GROUND FLUSH WITH ROAD SURFACE AFTER GROUT HAS CURED.

IF SIGNIFICANT NOISE SOURCES ARE IDENTIFIED, OVERHEAD POWER SOURCES ETC.,
CONNECT GROUND WIRE. THE OTHER END OF GROUND WIRE CONNECTS TO CABINET

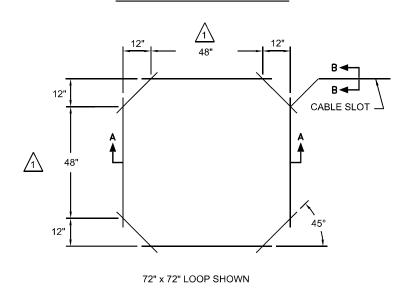
9 CORE DRILL OR CUT NOTCH IN PAVED SHOULDER FOR SWEEP. PLUG SWEEP OPENING,

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

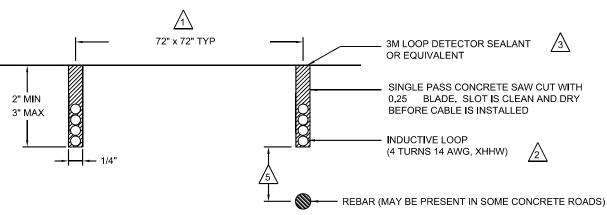
LAUTION IN MOTION DETAILS					RTE.	SECTION	COUNTY	SHEETS	NO.
WEIGH IN MOTION DETAILS				64	D9 (97-2-1) WS-1	WHITE	22	11	
							CONTRACT	NO.	78847
SCALE: N-T-S SHEET	2 OF	13 SHEETS	STA.	TO STA.		ILLINOIS FED. A	D PROJECT		

## CABLE ROUTING DETAILS SEE DETAIL B CONDUIT 7 HANDHOLE -90° SWEEP DIRT SHOULDER PAVED SHOULDER CABLE SLOT DETAIL B TRIM SWEEP FLUSH WITH ROADWAY, PAVED CUT CABLE SLOT INTO CONDUIT SHOULDER CONDUIT CABLE SLOT

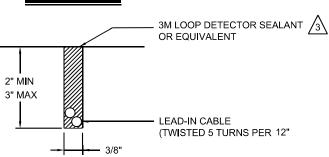
#### LOOP DIMENSION DETAIL











#### **NOTES:**

LOOP SIZE AS SPECIFIED ON SITE LAYOUT.

NUMBER OF TURNS AS SPECIFIED ON SITE LAYOUT.

3 USE CAULKING GUN PER MANUFACTURER'S SPECIFICATIONS.

4 LOOP INSTALLATION PER MANUFACTURER'S MANUALS - PERMANENT OCTAGON LOOPS

IF THE LOOP IS INSTALLED OVER REBAR, THERE MUST BE A MINIMUM OF 2 INCHES OF CONCRETE BELOW AND A MINIMUM OF 1.00 INCH OF FILL ABOVE THE WIRES.

CORE DRILL OR CUT NOTCH IN PAVED SHOULDER FOR SWEEP. PLUG SWEEP OPENING, COVER WITH LOOP SEALANT.

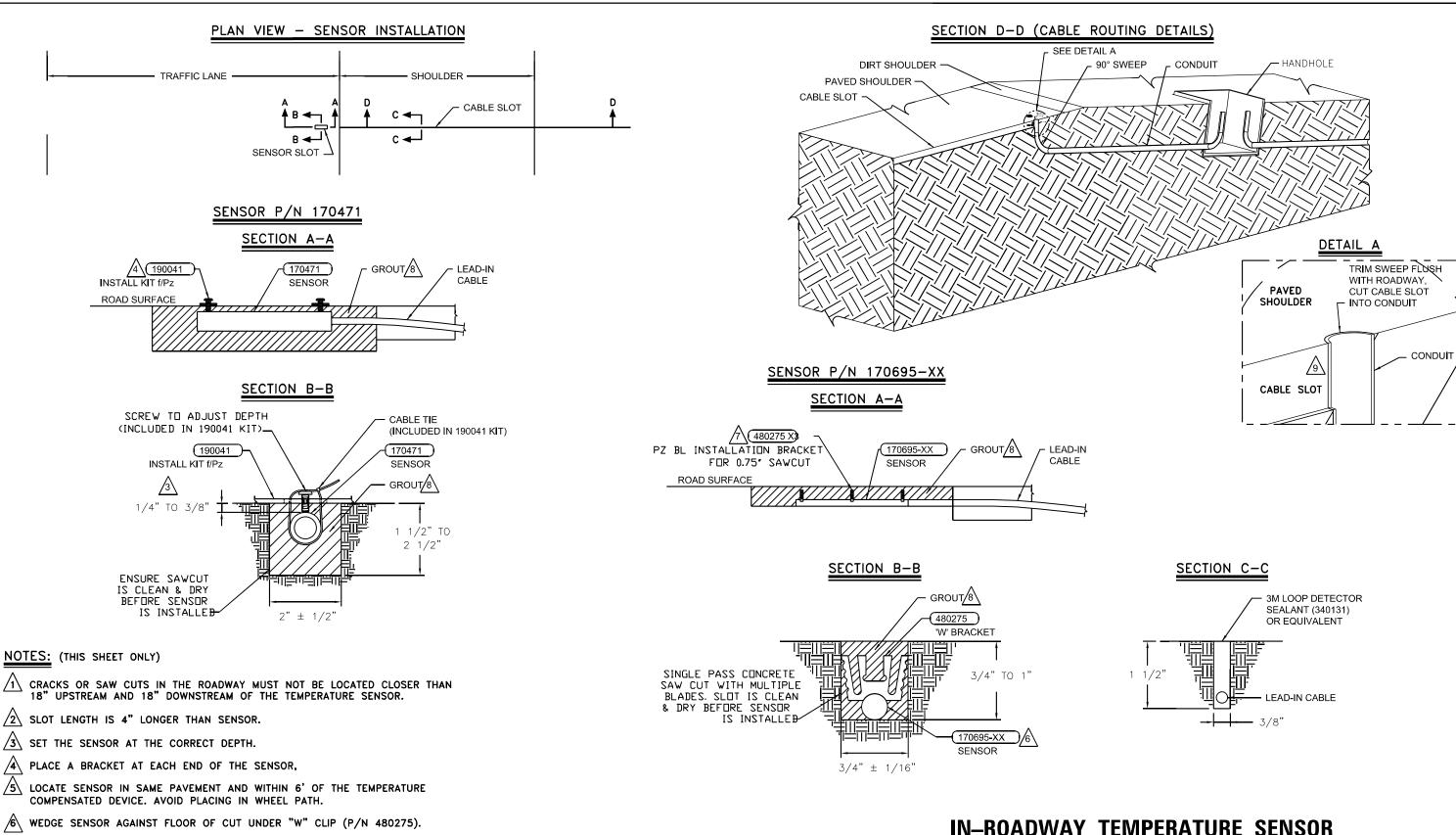
/7\ NON-METALLIC FLEX OR PVC CONDUIT.

USER NAME = mconroy	DESIGNED - F. EPPER	REVISED -
	DRAWN - M. CONRO	r REVISED -
PLOT SCALE = 12:6.868 ':' / ft.	CHECKED - A. BAH	REVISED -
PLOT DATE = 3/15/2021	DATE - 3/11/2021	. REVISED -

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

					F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	WEIGH IN MOTION DETAILS				64	D9 (97-2-1) WS-1	WHITE	22	12
							CONTRACT	NO.	78847
SCALE: N-T-S	SHEET 3 OF 1	13 SHEETS	STA.	TO STA.		ILLINOIS FED. A	D PROJECT		

**DETECTION LOOP INSTALLATION** 



#### IN-ROADWAY TEMPERATURE SENSOR

9 CORE DRILL OR CUT COVER WITH LOOP S		SHOULDER FOR	SWEEP.	PLUG SWEEP	OPENING	•
<b>Q</b>	USER NAME = mconroy	DESIGNE	) - F.	EPPERT	REVISED -	
		DRAWN	_ M	CONBOY	REVISED -	

CHECKED -

DATE

A. BAH

3/11/2021

REVISED

REVISED

SPACE THREE BRACKETS (P/N 480275) EVENLY OVER THE LENGTH OF THE SENSOR,

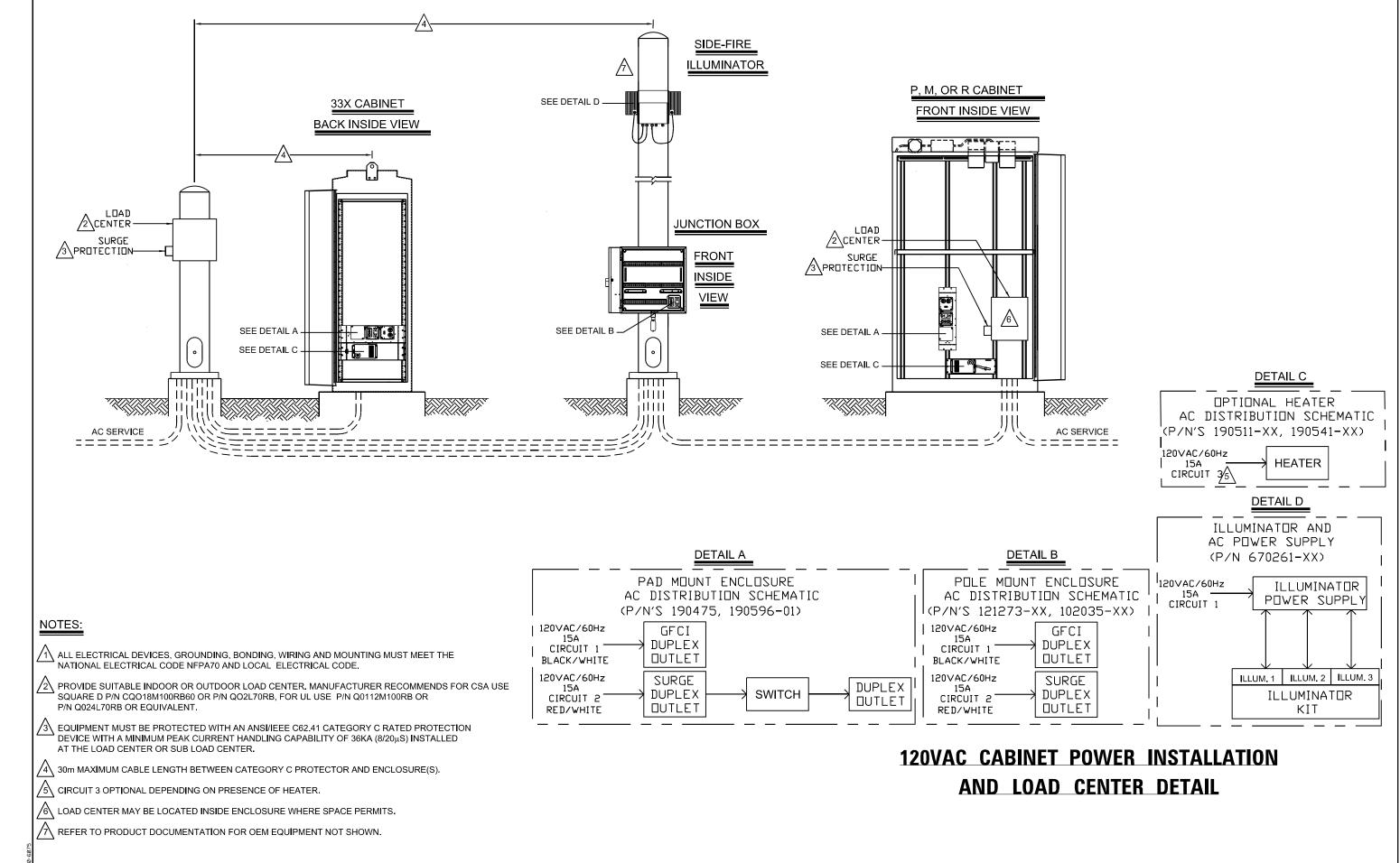
USE GROUT OF SAME TYPE AS THAT OF SENSOR BEING COMPENSATED: PIEZO — USE AS475 (340028) OR PU200 (IT2000285) KISTLER - USE KISTLER GROUT (340139) OR FLEXOLITH (340082)

PLOT SCALE = 12:6.865 ':' / ft.

PLOT DATE = 3/15/2021

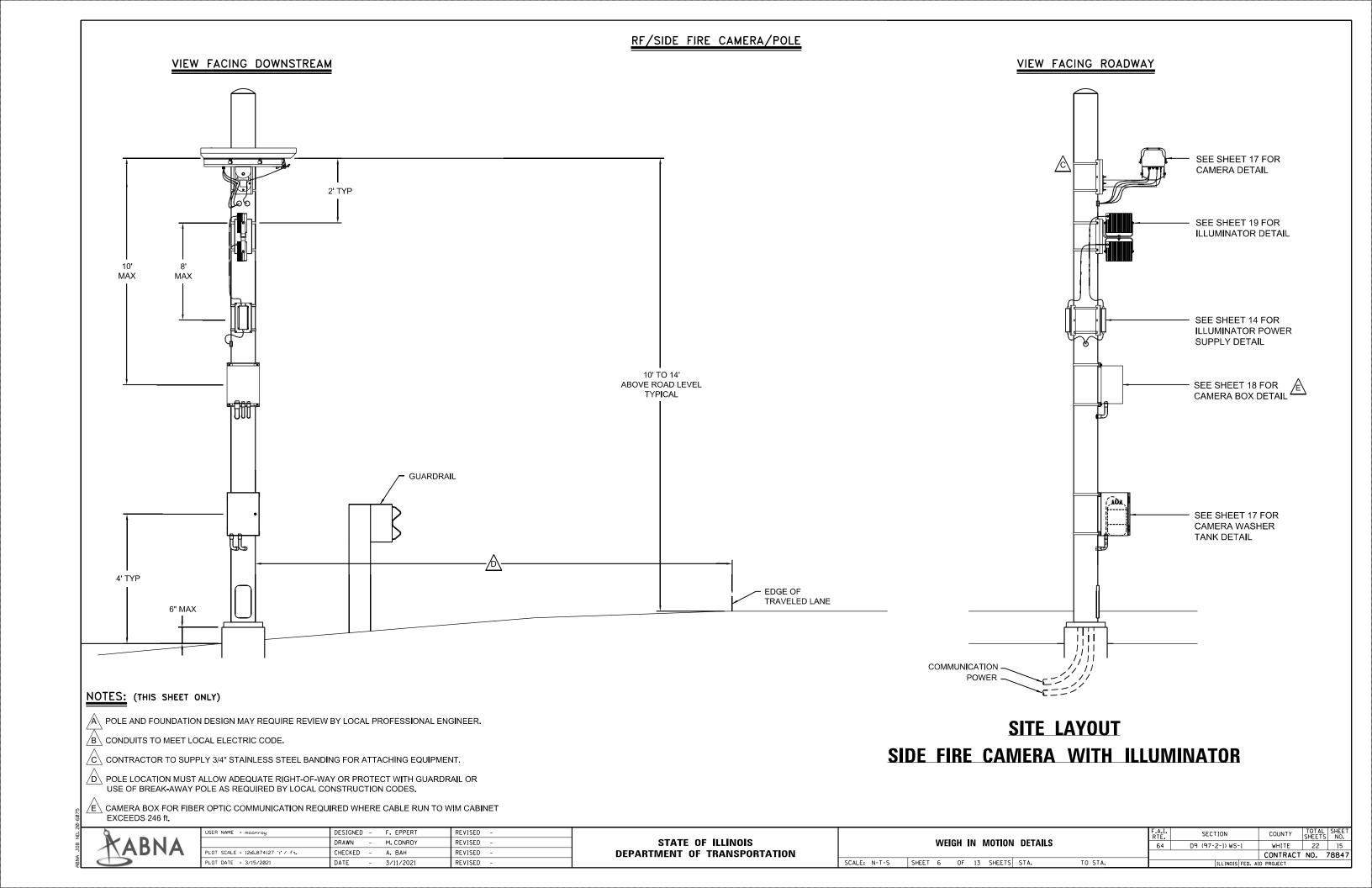
STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

SECTION COUNTY WEIGH IN MOTION DETAILS 64 D9 (97-2-1) WS-1 WHITE 22 13 CONTRACT NO. 78847 SCALE: N-T-S SHEET 4 OF 13 SHEETS STA. TO STA.



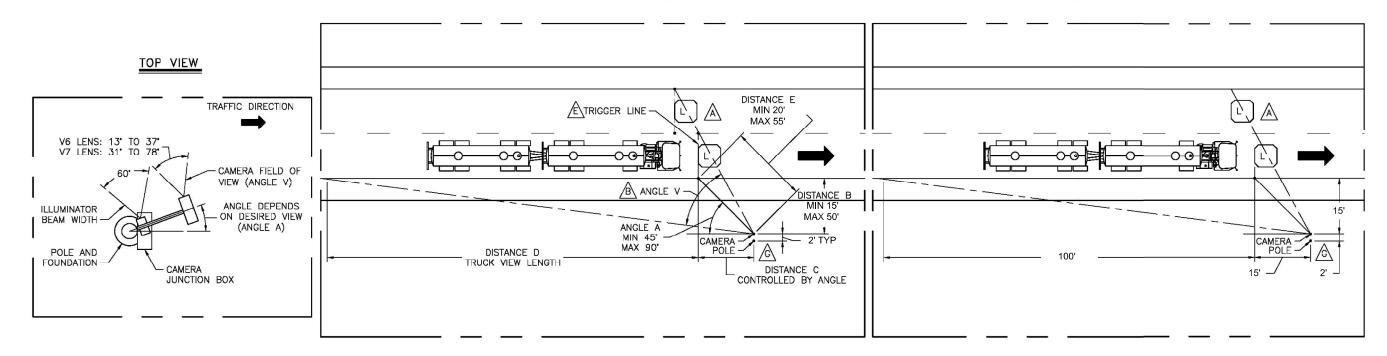
ABNA

REVISED F. EPPER SECTION STATE OF ILLINOIS ORAWN M. CONROY REVISED WEIGH IN MOTION DETAILS 64 D9 (97-2-1) WS-1 WHITE 22 14 **DEPARTMENT OF TRANSPORTATION** CHECKED -A. BAH REVISED CONTRACT NO. 78847 SCALE: N-T-S SHEET 5 OF 13 SHEETS STA. REVISED DATE



#### CAMERA/POLE GEOMETRY

#### TYPICAL LAYOUT



#### NOTES: (THIS SHEET ONLY)

ADDITIONAL LANES MAY BE COVERED BY A SINGLE CAMERA. TRIGGER LOOPS IN ADJACENT LANES SHOULD BE IN-LINE WITH THE UPSTREAM EDGE OF THE CAMERA FIELD OF VIEW.

NOTE: VEHICLES IN CLOSER LANE MAY BE BLOCKED BY THE VEHICLES IN FARTHER LANES.

ANGLE V IS CONTROLLED BY CAMERA ZOOM. SEE TOP VIEW.

DISTANCE E LIMITED BY ILLUMINATOR RANGE

 $E = \sqrt{B^2 + C^2}$ 

FOR NON-TYPICAL LAYOUTS, USE 3EGRO015 - SIDE FIRE CAMERA POSITION CALCULATOR TO POSITION CAMERA.

MAGE CAPTURE TO BE TRIGGERED BY LEADING EDGE OF LOOP SIGNAL.

THE "IDENTIFICATION" VIEW CONFIGURATION PROVIDES AN ENHANCED VIEW OF THE TRACTOR CAB COMPARED TO THE REST OF THE TRUCK. THIS CONFIGURATION IS RECOMMENDED AS IT ALLOWS FOR BETTER VEHICLE IDENTIFICATION. THE "CLASSIFICATION" VIEW PROVIDES A LESS DISTORTED VIEW OF THE ENTIRE TRUCK; IDEAL FOR IDENTIFICATION OF VEHICLE CLASS.

POLE TO BE POSITIONED AWAY FROM CAMERA LOCATION TO ACCOUNT FOR CAMERA LENS/POLE OFFSET.

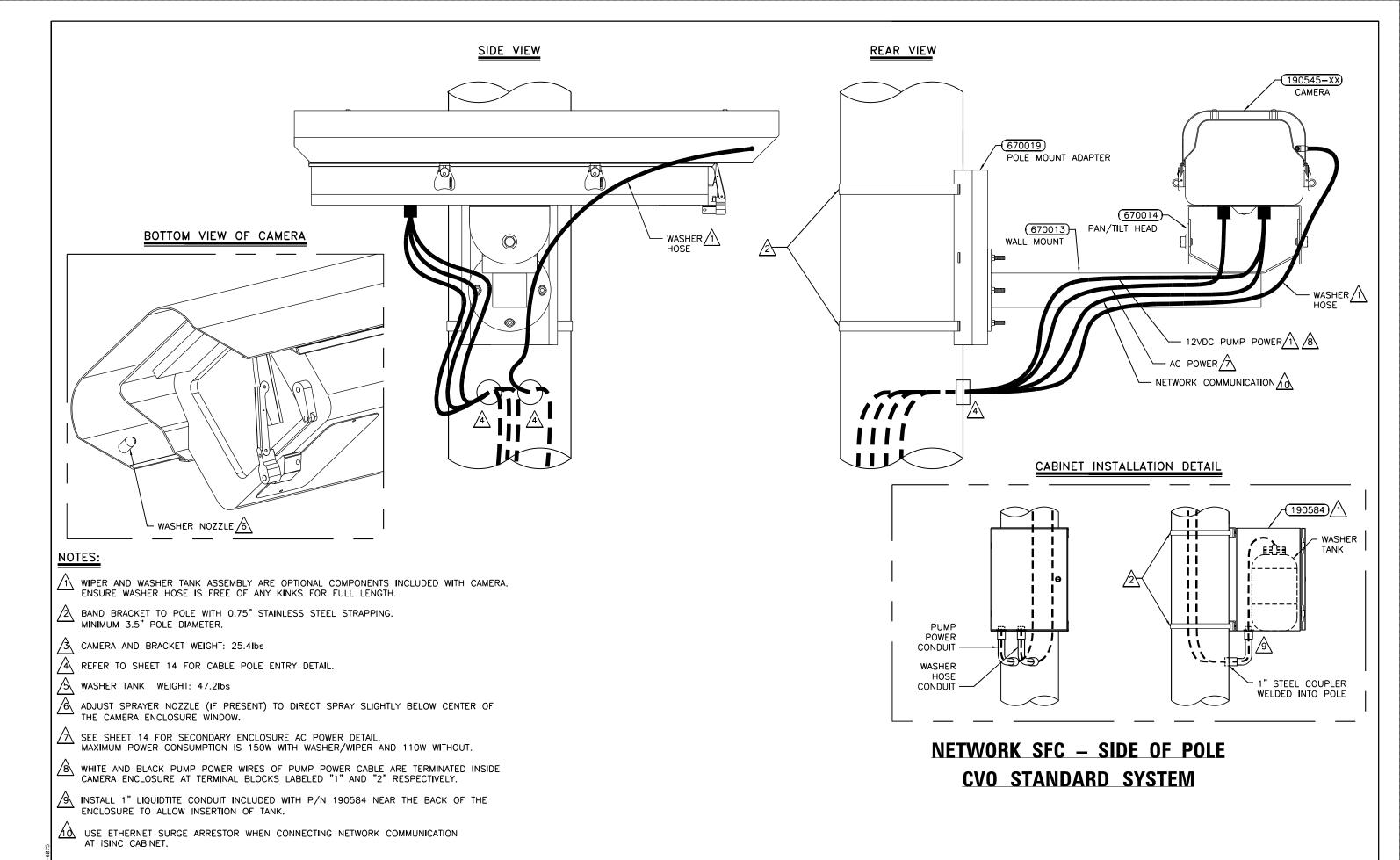
A	CONFIGURATION TYPE		DISTANCE					
7-7	CONFIGURATION TIFE	В	B C D E					
	IDENTIFICATION VIEW (RECOMMENDED)	15'	15'	100'	21.2'	45'	54°	
	CLASSIFICATION VIEW (OPTIONAL)	30'	20'	100'	36.1'	56'	51°	

## SITE LAYOUT SIDE FIRE CAMERA WITH ILLUMINATOR

9	KA	В	N	A

USER NAME = mconroy	DESIGNED	-	F. EPPERT	REVISED -
	DRAWN	-	M. CONROY	REVISED -
PLOT SCALE = 24.0000 '/ ft.	CHECKED	-	A. BAH	REVISED -
PLOT DATE = 3/15/2021	DATE	-	3/11/2021	REVISED -

					WEIGH IN MOTION DETAILS						
WEIGH IN MOTION DETAILS					64	D9 (97-2-1) WS-1	WHITE	22	16		
									CONTRACT	NO.	78847
ALE: N-T-S	SHEET 7	OF	13	SHEETS	STA.	TO STA.		ILLINOIS FED. A	ID PROJECT		



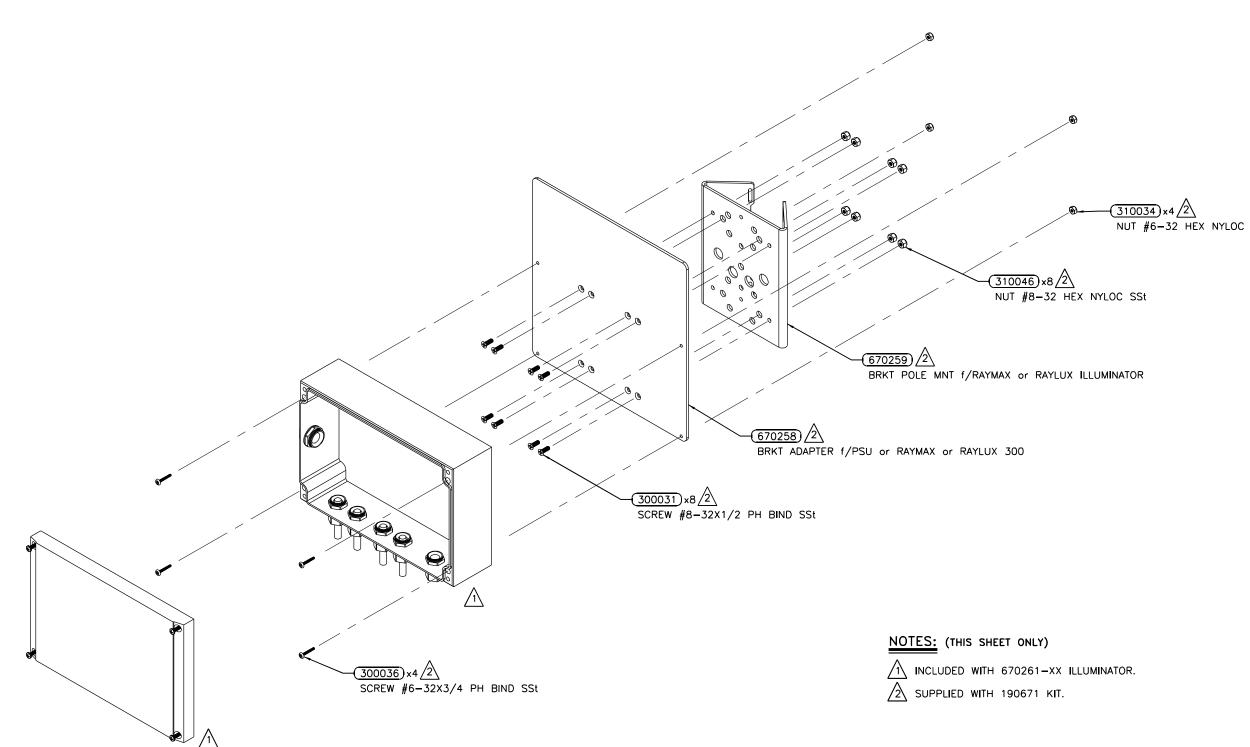
10.20	<b>Q</b>	USER NAME = mconroy	DESIGNED - F. EPPERT	REVISED -			F.A.I. RTE.		
8	<b>X</b> A B N A		DRAWN - M. CONROY	REVISED -	STATE OF ILLINOIS	WEIGH IN MOTION DETAILS			
٦ ک	ADITA	PLOT SCALE = 12:6.858 ':' / ft.	CHECKED - A. BAH	REVISED -	DEPARTMENT OF TRANSPORTATION				
ABN		PLOT DATE = 3/15/2021	DATE - 3/11/2021	REVISED -		SCALE: N-T-S SHEET 8 OF 13 SHEETS STA. TO STA.			

SECTION

D9 (97-2-1) WS-1

WHITE 22 17
CONTRACT NO. 78847

#### STEP 1 - ASSEMBLE POWER SUPPLY TO ADAPTER PLATE 670258 AND POLE MOUNT BRACKET 670259



# RAYTEC VARIABLE ANGLE CVO SF ILLUMINATOR

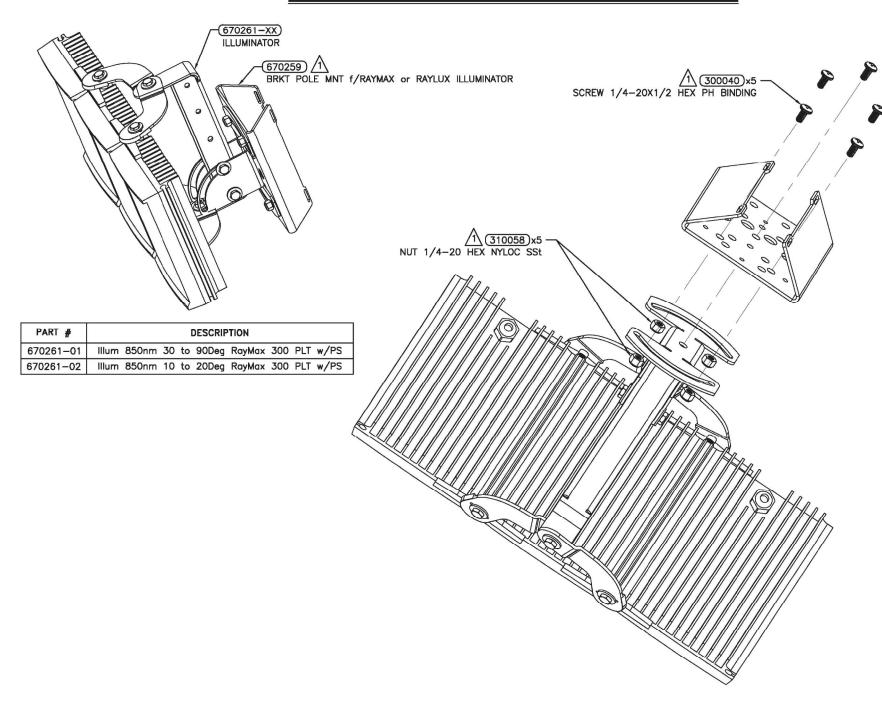
ABNA

USER NAME = mconroy	DESIGNED	-	F. EPPERT	REVISED -
	DRAWN	-	M. CONROY	REVISED -
PLOT SCALE = 12:6.877 ':' / ft.	CHECKED	-	A. BAH	REVISED -
PLOT DATE = 3/15/2021	DATE	-	3/11/2021	REVISED -

STATE OF	: ILLINOIS
DEPARTMENT OF	TRANSPORTATION

	WEIGH IN MOTION DETAILS	RTE.	SECTION	con
	64	D9 (97-2-1) WS-1	WH	
				CONT
SCALE: N-T-S	SHEET 9 OF 13 SHEETS STA. TO STA.		ILLINOIS FED. A	ID PROJE

#### STEP 2 - ASSEMBLE ILLUMINATOR TO POLE MOUNT BRACKET 670259



NOTES: (THIS SHEET ONLY)

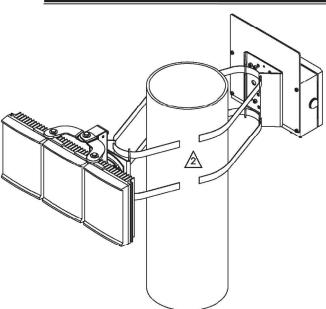
SUPPLIED WITH 190671 KIT.

USE 1/2" STAINLESS STEEL BANDING AND BUCKLES OR MOUNTING BRACKET ON THE POLE. REFER TO BRACKET INSTALLATION INSTRUCTIONS AND LOCAL CODE FOR REQUIREMENTS.

#### STEP 3 - MOUNT ASSEMBLIES TO POLE TO SUIT SITE CONDITIONS

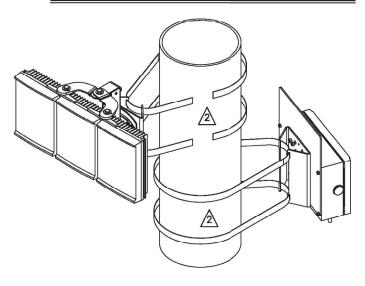
#### STEP 3A - ASSEMBLIES ON POLE USING SAME BANDING

ORIENT ANGLE TO EACH OTHER AS REQUIRED



#### STEP 3B - ORIENT ASSEMBLIES ON POLE AT DIFFERENT ELEVATIONS

ANGLE EACH ASSEMBLY ON POLE AS REQUIRED

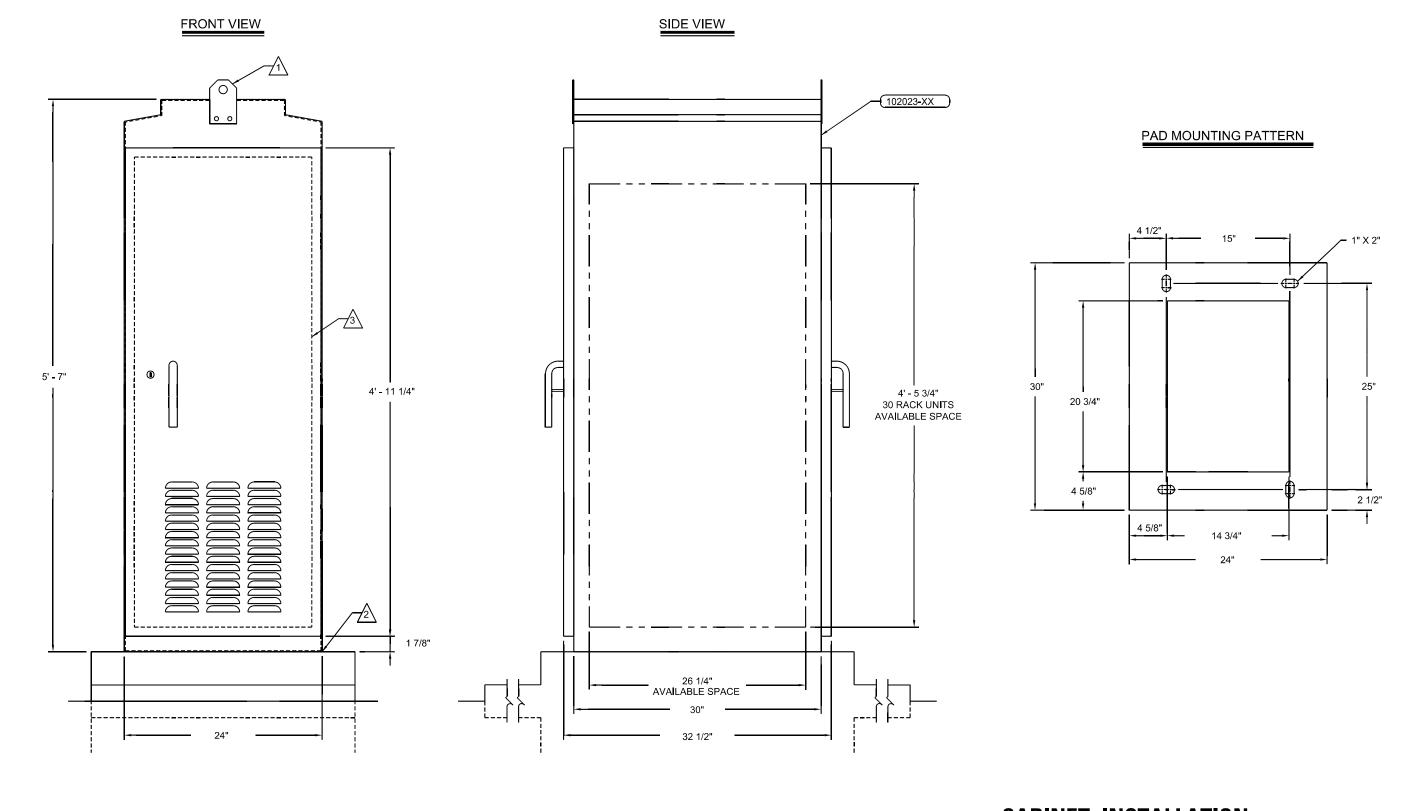


RAYTEC VARIABLE ANGLE
CVO SF ILLUMINATOR

BABNA

USER NAME = mconroy	DESIGNED	-	F. EPPERT	REVISED -
	DRAWN	-	M. CONROY	REVISED -
PLOT SCALE = 24.0000 '/ ft.	CHECKED	-	A. BAH	REVISED -
PLOT DATE = 3/15/2021	DATE	-	3/11/2021	REVISED -

	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
WEIGH IN MOTION DETAILS	64	D9 (97-2-1) WS-1	WHITE	22	19
			CONTRACT	NO.	78847
SCALE: N-T-S   SHEET 10 OF 13 SHEETS   STA. TO STA.		ILLINOIS FED. AI	D PROJECT		



### NOTES:

LIFTING EYE. MAY BE UNBOLTED AND ROTATED 180° FOR STORAGE.

SEAL CABINET TO FOUNDATION JOINT WITH SILICONE SEALANT TO PREVENT WATER INTRUSION. LOCATE CABINET ABOVE HIGH WATER LEVEL.

REMOVABLE 19" EIA RACK.

3	ABNA	

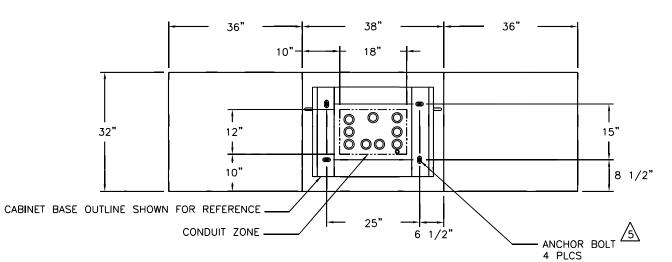
USER NAME = mconroy	DESIGNED -	F. EPPERT	REVISED -	
	DRAWN -	M. CONROY	REVISED -	S
PLOT SCALE = 12:6.869 ':' / ft.	CHECKED -	A. BAH	REVISED -	DEPARTM
PLOT DATE = 3/15/2021	DATE -	3/11/2021	REVISED -	

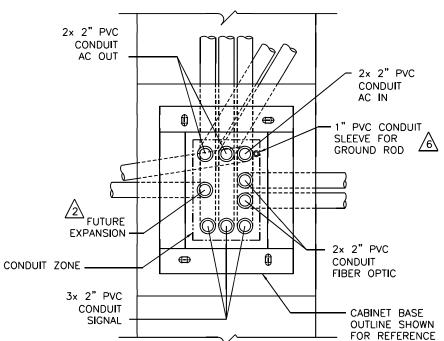
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

									F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ı	WEIGH IN MOTION DETAILS						64	D9 (97-2-1) WS-1	WHITE	22	20		
											CONTRACT	NO.	78847
	SCALE: N-T-S	SHEET	11	OF	13	SHEETS	STA.	TO STA.		ILLINOIS FED. AID PROJECT			

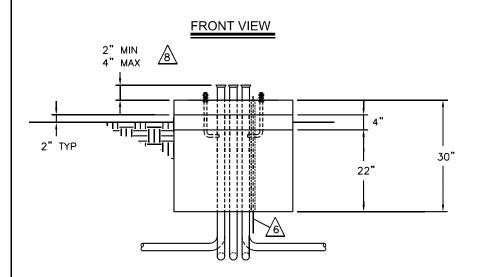
**CABINET INSTALLATION** 

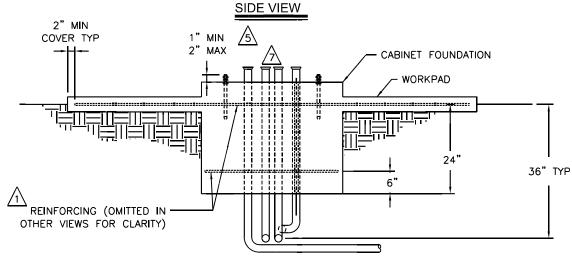






DETAIL A - MINIMUM CONDUITS





#### NOTES:

INSTALL REINFORCING MATS. #4 BAR 12" ON CENTER EACH WAY. EPOXY
COAT OR GALVANIZE. REINFORCEMENTS ARE MINIMUM REQUIREMENTS AND MAY BE
SUPERSEDED BY LOCAL CONSTRUCTION CODES.

SPARE CONDUIT MUST BE CAPPED, STUBBED 24" PAST FOUNDATION, AND LABELED.

ALL CONDUITS SHOWN SHALL BE FURNISHED AND INSTALLED IN FOUNDATION IN ACCORDANCE WITH LOCAL CODES. CAP IF NOT USED. ADDITIONAL CONDUITS MAY BE REQUIRED. CONDUITS SHALL EXIT FOUNDATION IN DIRECTION APPROPRIATE FOR SITE GEOMETRY.

CONCRETE SHALL HAVE COMPRESSIVE STRENGTH OF 3000 PSI MINIMUM.

 $\stackrel{\frown}{\longrightarrow}$  CABINET ANCHORS MUST BE GALVANIZED OR STAINLESS STEEL AND MAY BE CAST IN PLACE, CHEMICAL OR EXPANSION TYPE DRILLED INTO BASE. TYPICAL SIZE IS 3/4" NC imes 12" imes 4".

GROUND ROD MUST BE PROVIDED TO MEET LOCAL ELECTRICAL CODE.

SEAL ALL CONDUIT ENDS WITH STEEL WOOL AND DUCT SEAL TO REDUCE RODENT OR INSECT INTRUSION AND MOISTURE. DO NOT USE PERMANENT SEALANT AS CONDUITS MAY NEED TO BE REENTERED IN THE FUTURE FOR CABLE REPLACEMENT OR ADDITIONS.

#### NOTES: (CONTINUED)

THE CABINET BASE CONDUIT MUST BE HIGHER THAN SURROUNDING PULL BOXES.
THE HEIGHT OF CONDUITS ENDING IN THE CABINET MUST BE HIGHER THAN THE OTHER END TO PREVENT WATER ENTRY DUE TO HYDROSTATIC PRESSURE. ALL CONDUITS SHALL HAVE END BELLS INSTALLED OR NO SHARP EDGES.

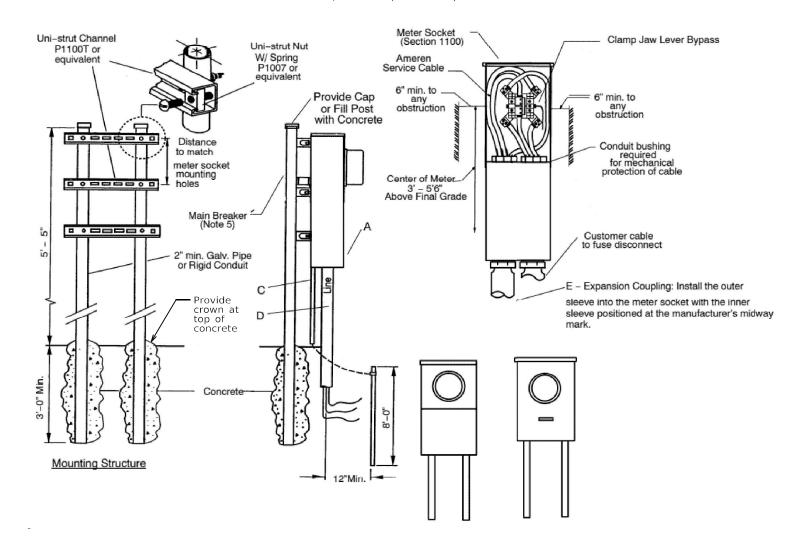
### **CABINET FOUNDATION INSTALLATION**



USER NAME = mconroy	DESIGNED	-	F. EPPERT	REVISED -
	DRAWN	-	M. CONROY	REVISED -
PLOT SCALE = 12:6.8703 ':" / ft.	CHECKED	-	A. BAH	REVISED -
PLOT DATE = 3/15/2021	DATE	-	3/11/2021	REVISED -

	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
WEIGH IN MOTION DETAILS	64	D9 (97-2-1) WS-1	WHITE	22	21
			CONTRACT	NO.	78847
SCALE: N-T-S   SHEET 12 OF 13 SHEETS   STA. TO STA.		ILLINOIS FED. A	D PROJECT		

NOTE: COST INCLUDED IN SERVICE INSTALLATION, TYPE A (MODIFIED)



### **GENERAL NOTES:**

THE INSTALLATION OF ALL ENTRANCE EQUIPMENT, CONDUCTORS AND CONDUIT SHALL CONFORM TO LOCAL CODES OR THE LATEST NEC REQUIREMENTS.

ALL MATERIAL SHALL BE FURNISHED AND INSTALLED BY CONTRACTOR.

NEC APPROVED GROUND REQUIRED.

DIFFERENT ARRANGEMENTS OF THE SERVICE EQUIPMENT (FUSE/BREAKER BOX) MAY BE USED SIDE-BY-SIDE OR BELOW METER.

REFER TO AMEREN SECTION 1100 FOR METER SOCKETS OR COMBO UNITS REQUIREMENT.

INSTRUMENT RATED METER SOCKETS IN IL: STOCK# 4054378 - 8 TERMINAL AND STOCK# 4054353-13 TERMINAL.

REFER TO AMEREN SECTION 200 FOR METER MOUNTING HEIGHT.

WHEN AN EXPANSION COUPLING IS REQUIRED, IT SHOULD BE INSTALLED SO THAT THE OUTER SLEEVE INTO THE METER SOCKET WITH THE INNER SLEEVE POSITIONED AT THE MANUFACTURER'S MIDWAY MARK.

## UNDERGROUND METER SERVICE /LOAD CENTER AMEREN ELECTRIC METER REQUIRMENTS



USER NAME = mconroy	DESIGNED	-	F. EPPERT	REVISED -
	DRAWN	-	M. CONROY	REVISED -
PLOT SCALE = 24.0000 '/ ft.	CHECKED	-	A. BAH	REVISED -
PLOT DATE = 3/15/2021	DATE	-	3/11/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE:

WEIGH IN MOTION DETAILS							RTE.	SECTION	COUNTY	SHEETS	NO.	
							64	D9 (97-2-1) WS-1	WHITE	22	22	
										CONTRACT	NO.	78847
N-T-S	SHEET	13	OF	13	SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT				