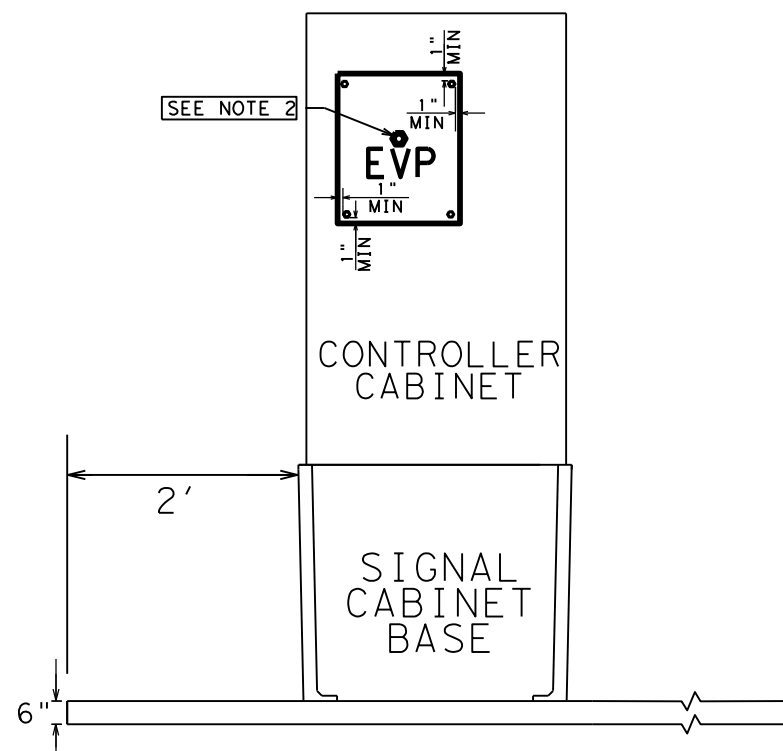
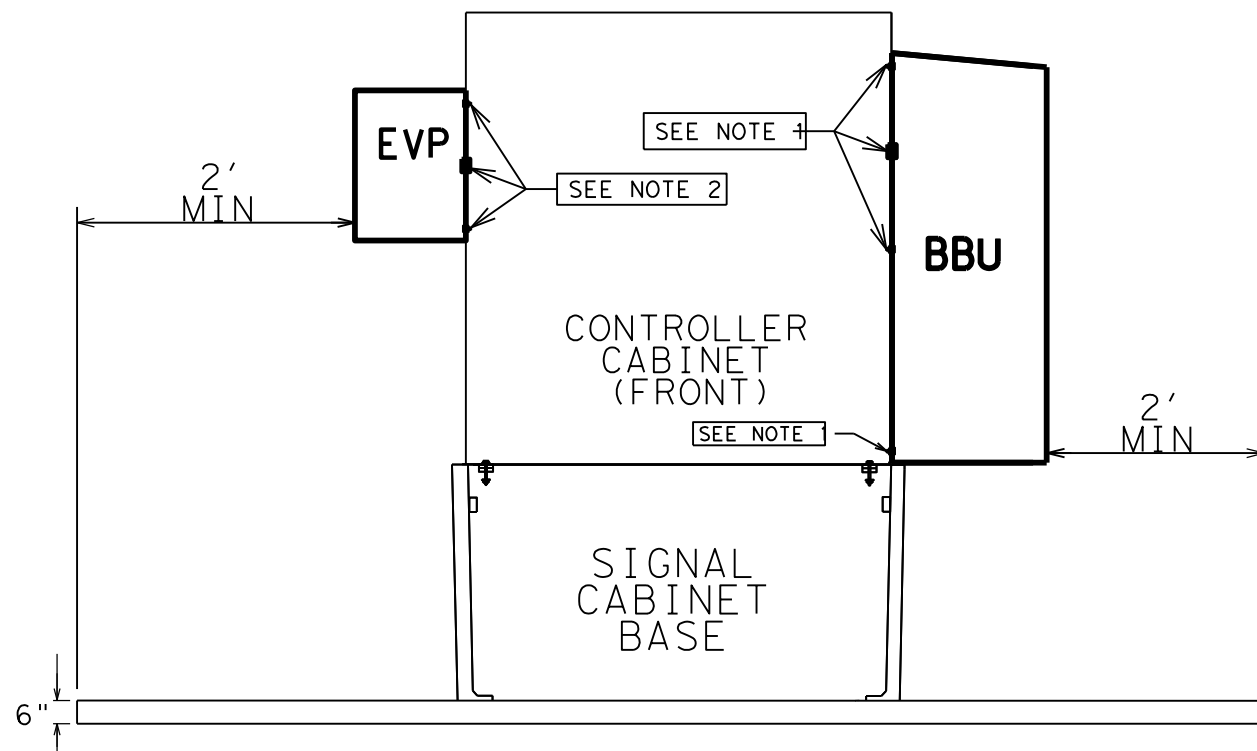


NOTES:

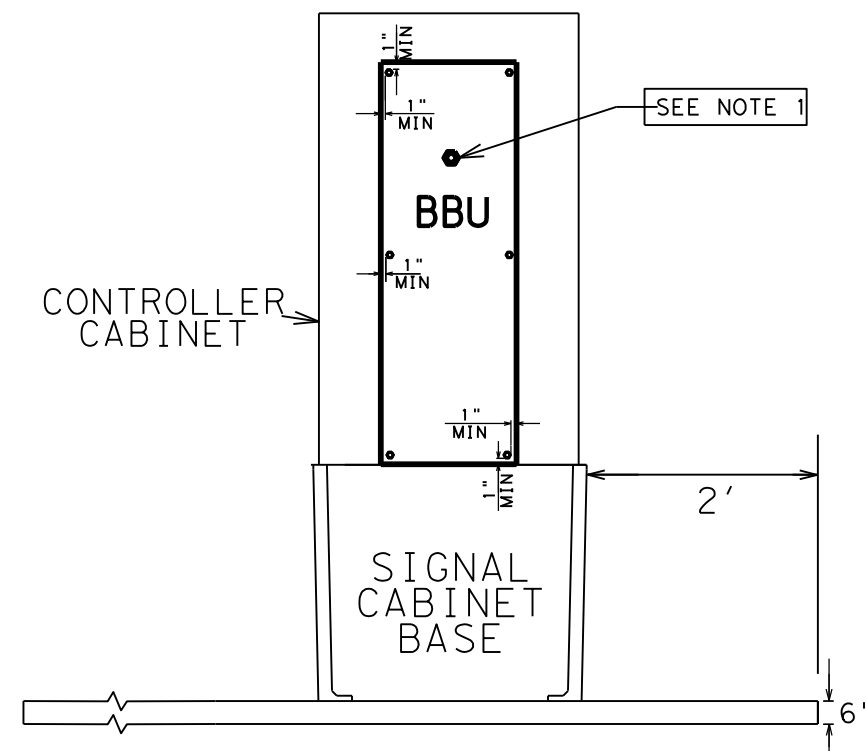
1. INSTALL 1/2" ALL THREAD NIPPLE WITH BONDING BUSHINGS ON BOTH ENDS AND 6 EA OF 1/2" X 1/2" 13 UNC MOUNTING BOLTS BETWEEN THE TWO CABINETS (SIGNAL AND BBU).
2. INSTALL 2" FITTING FOR EVP CABLES/WIRES AND 4 EA OF 1/2" X 1/2" 13 UNC MOUNTING BOLTS BETWEEN THE TWO CABINETS (SIGNAL AND EVP).
3. USE SILICON SEALANT TO SEAL BETWEEN THE CABINETS OF THE CONTROLLER, EVP AND BBU UNIT.
4. THE ABOVE WORK PERFORMED AND MATERIALS FURNISHED WILL NOT BE PAID FOR DIRECTLY, BUT WILL BE SUBSIDIARY TO PERTINENT ITEMS.



SIDE VIEW
(EVP)



ELEVATION VIEW

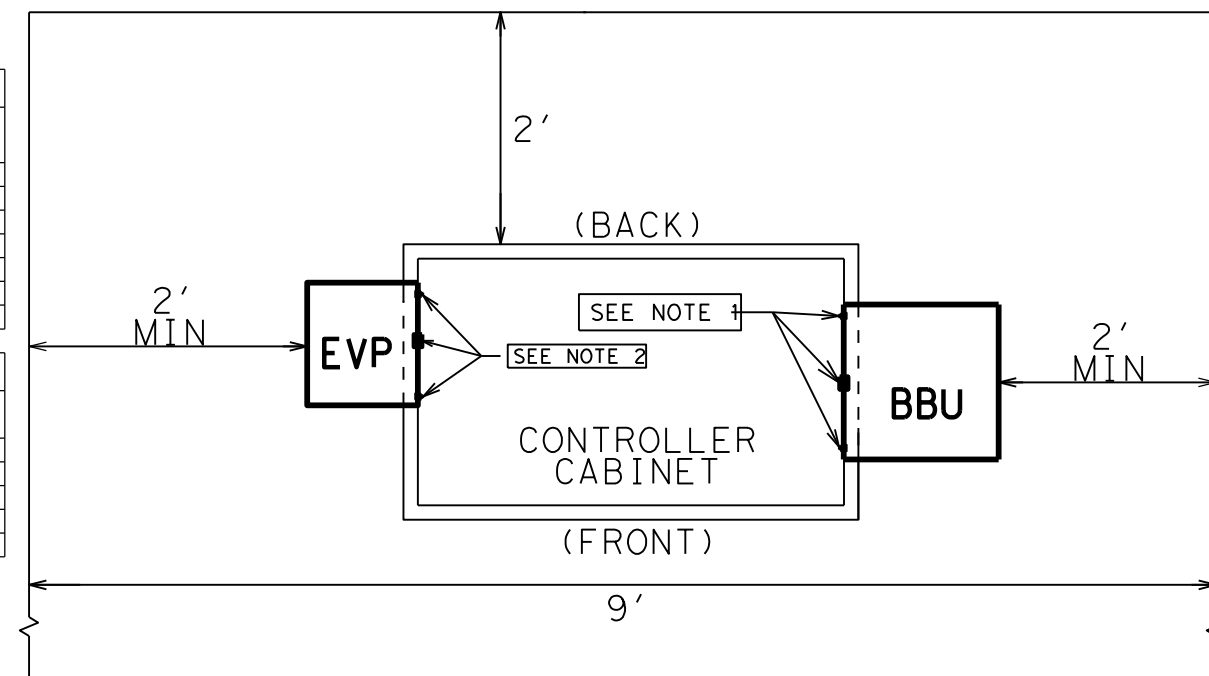


SIDE VIEW
(BBU)

REQUIRED CABLE/CONDUCTORS FOR EVP			
QUANTITY EACH	WIRE SIZE	COLOR	FUNCTION
1	#14	BLACK	120 VAC FOR EVP
1	#14	RED	120 VAC FOR FAN & CABINET LIGHT
1	#14	WHITE	AC NEUTRAL
1	#14	GREEN	CHASIS GROUND
1	#18	GRAY	LOGIC GROUND
4	#18	BLUE	PREEMPT COMMANDS
4	-	-	CABLE FROM DETECTOR UNIT

REQUIRED CONDUCTORS FOR BBU			
QUANTITY EACH	WIRE SIZE	COLOR	FUNCTION
1	-	BLACK	120 VAC FROM SERVICE
1	-	WHITE	AC NEUTRAL FROM SERVICE
1	#6	BLACK	120 VAC TO CONTROLLER
1	#6	WHITE	AC NEUTRAL TO CONTROLLER
1	#6	GREEN	GROUND

LEGEND:
EVP-EMERGENCY VEHICLE PREEMPTION CABINET.
BBU-BATTERY BACKUP UNIT.



PLAN VIEW

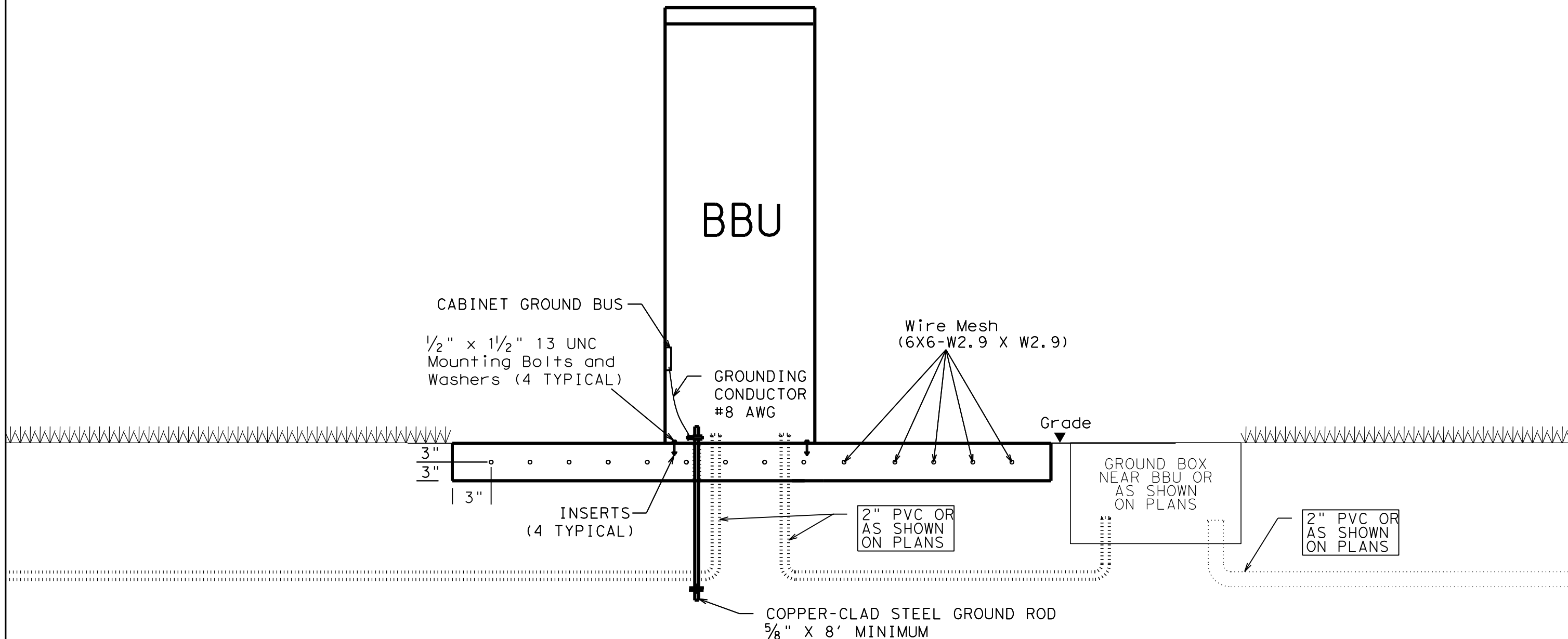
Texas Department of Transportation
© 2015

INSTALLATION OF BBU/EVP
EXTERNAL SIDE MOUNT CABINET
INSTALLATION DETAILS
DALLAS DISTRICT STANDARD

N. T. S. SHEET 1 OF 3

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	HIGHWAY NO.
6	(SEE TITLE SHEET)	FM 5
STATE	DISTRICT	COUNTY
TEXAS	DAL	COLLIN
CONTROL	SECTION	JOB
1392	01	044

SHEET NO. 29



NOTES:

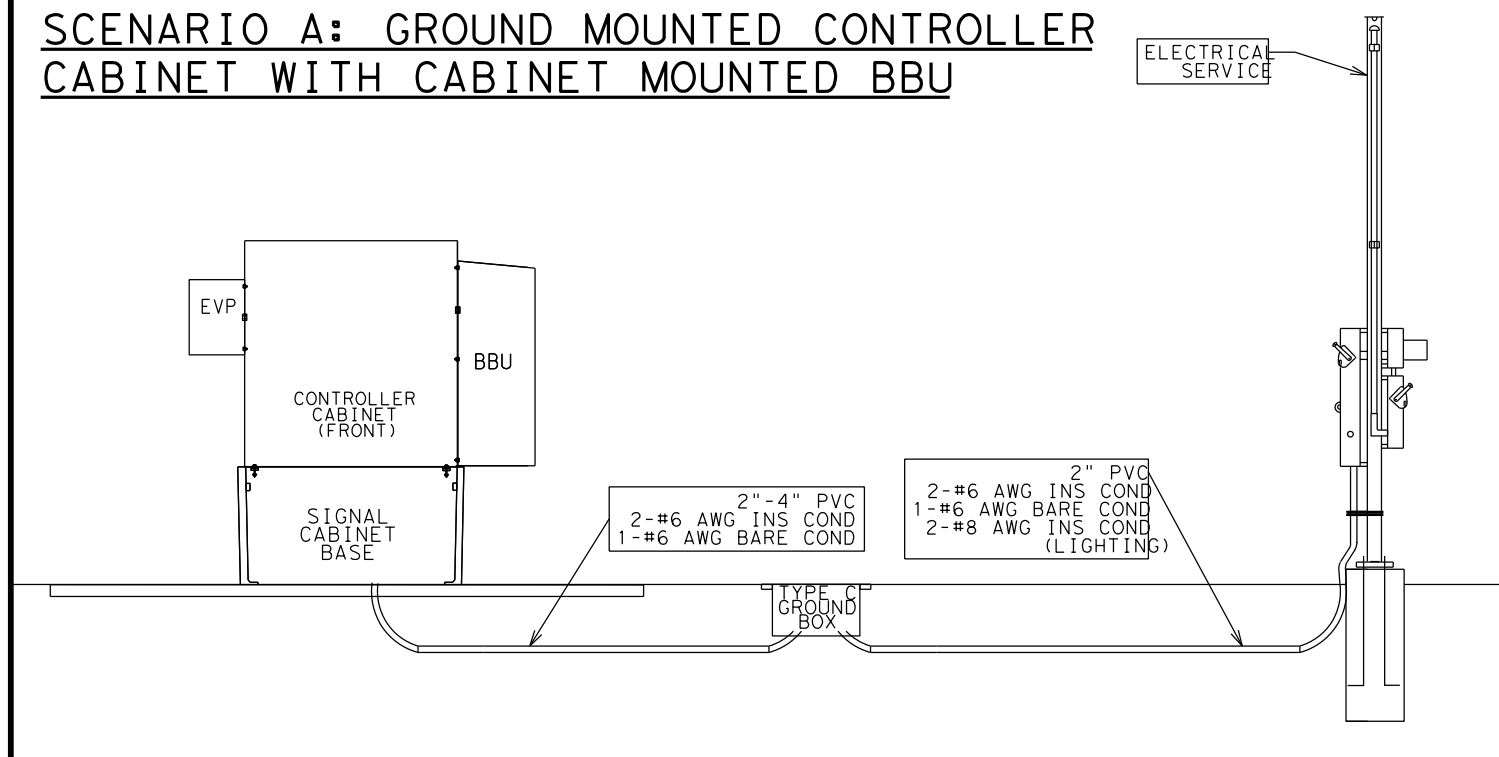
1. INSTALL A 5' X 5' CONCRETE PAD AT THE LOCATION DIRECTED BY THE ENGINEER. THE PAD MAY BE CAST-IN-PLACE OR PRE-CAST AS APPROVED BY THE ENGINEER.
2. PROVIDE WELDED WIRE MESH 6X6-W2.9 X W2.9 FOR REINFORCEMENT. PROVIDE JOINTS AND SPLICES IN THE MESH WITH A MINIMUM 6-INCH OVERLAP. PROVIDE A MINIMUM 3 INCH COVER BETWEEN WIRE MESH AND EDGE OF CONCRETE PAD.
3. PROVIDE CLASS B CONCRETE MINIMUM FOR THE CONCRETE PAD IN ACCORDANCE WITH ITEM 421. CONSTRUCT THE CONCRETE PAD IN ACCORDANCE WITH ITEM 531, EXCEPT FOR PAYMENT.
4. INSTALL THE BACK OF BBU CABINET 10" FROM THE EDGE OF CONCRETE PAD AND CENTER THE CABINET ON THE PAD FROM SIDE TO SIDE.
5. SUPPLY FOUR 1/2" X 1/2" 13 UNC STAINLESS STEEL INSERTS FOR ATTACHMENT OF THE BBU CABINET TO THE CONCRETE PAD. INSERTS MUST WITHSTAND A MINIMUM TORQUE OF 50 FT-LB AND A MINIMUM STRAIGHT PULL OUT STRENGTH OF 750 LBS.
6. BOND A #8 AWG COPPER GROUND WIRE AND AN 8 FT GROUND ROD TO THE REINFORCING MESH WITH A SUITABLE UL LISTED CLAMP, AND TERMINATE THE GROUND WIRE TO THE CABINET GROUNDING BUS.
7. INSTALL A PVC SLEEVE TO PREVENT THE GROUND ROD FROM DIRECT EMBEDMENT IN THE CONCRETE PAD.
8. THE ABOVE WORK PERFORMED AND MATERIALS FURNISHED WILL NOT BE PAID FOR DIRECTLY, BUT WILL BE SUBSIDIARY TO PERTINENT ITEMS.



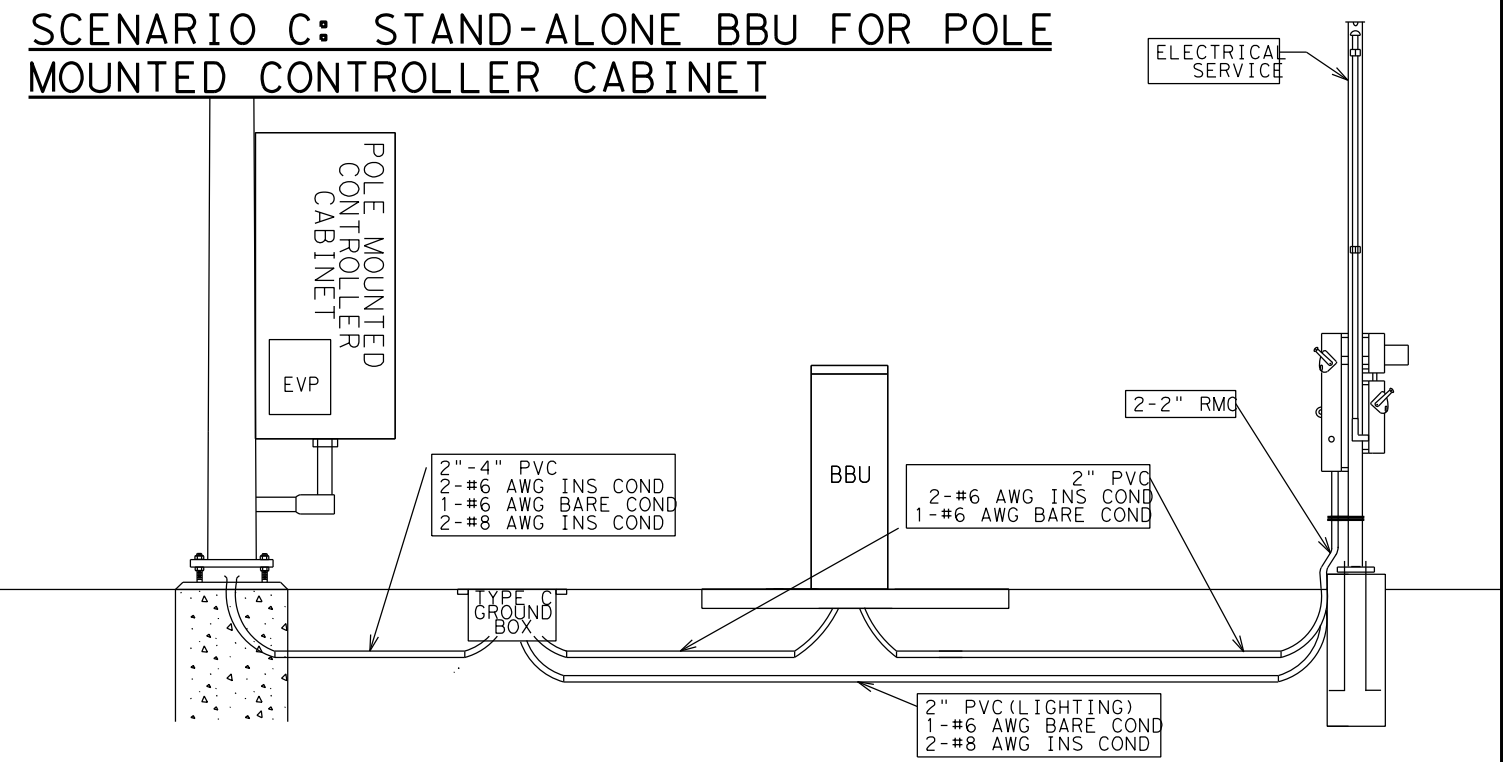
**INSTALLATION OF BBU/EVP
STAND ALONE BBU CABINET (GROUND MOUNT)
DALLAS DISTRICT STANDARD**

N. T. S.		SHEET 2 OF 3	
FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	HIGHWAY NO.	
6	(SEE TITLE SHEET)	FM 5	
STATE	DISTRICT	COUNTY	SHEET NO.
TEXAS	DALLAS	COLLIN	
CONTROL	SECTION	JOB	
0092	02	118, ETC.	

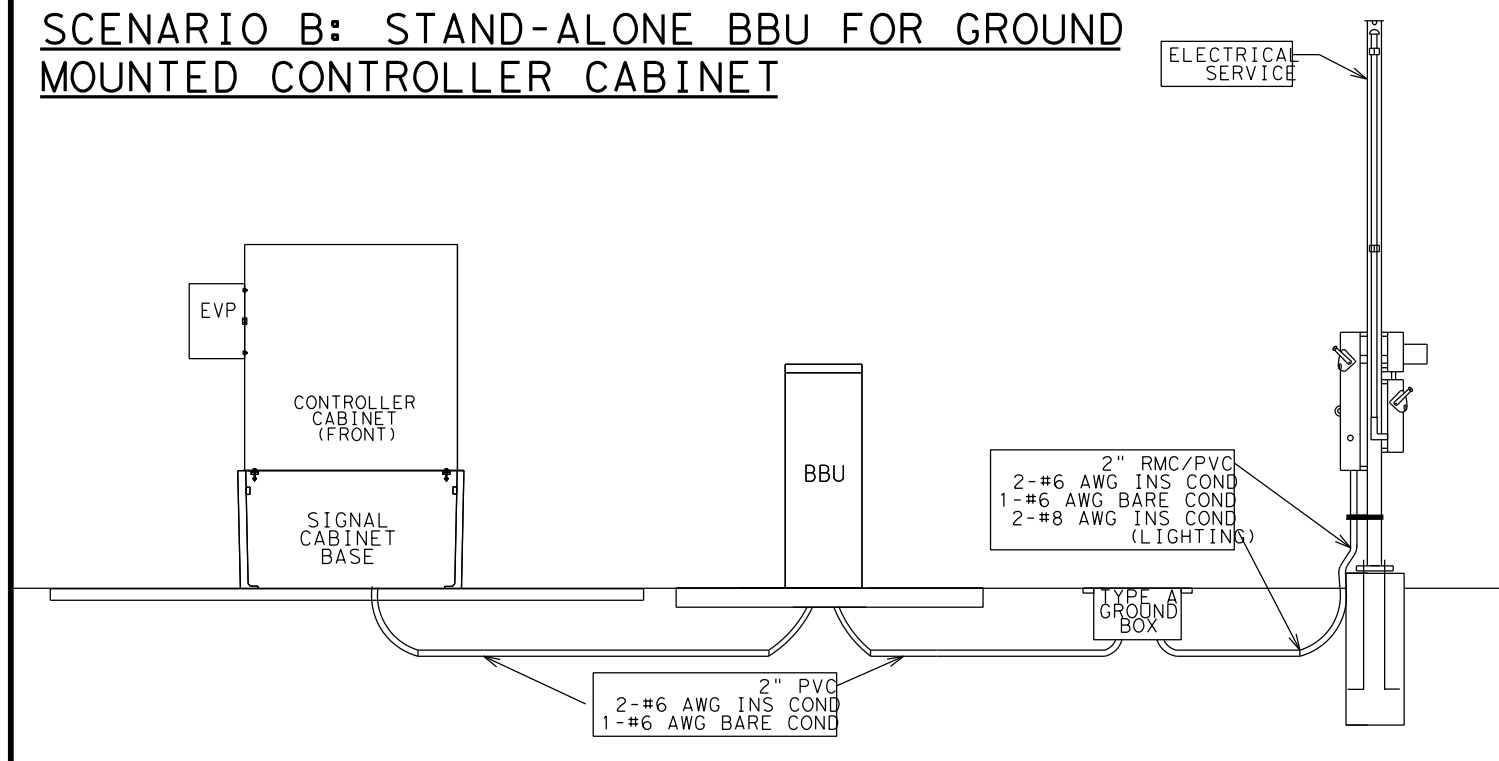
SCENARIO A: GROUND MOUNTED CONTROLLER CABINET WITH CABINET MOUNTED BBU



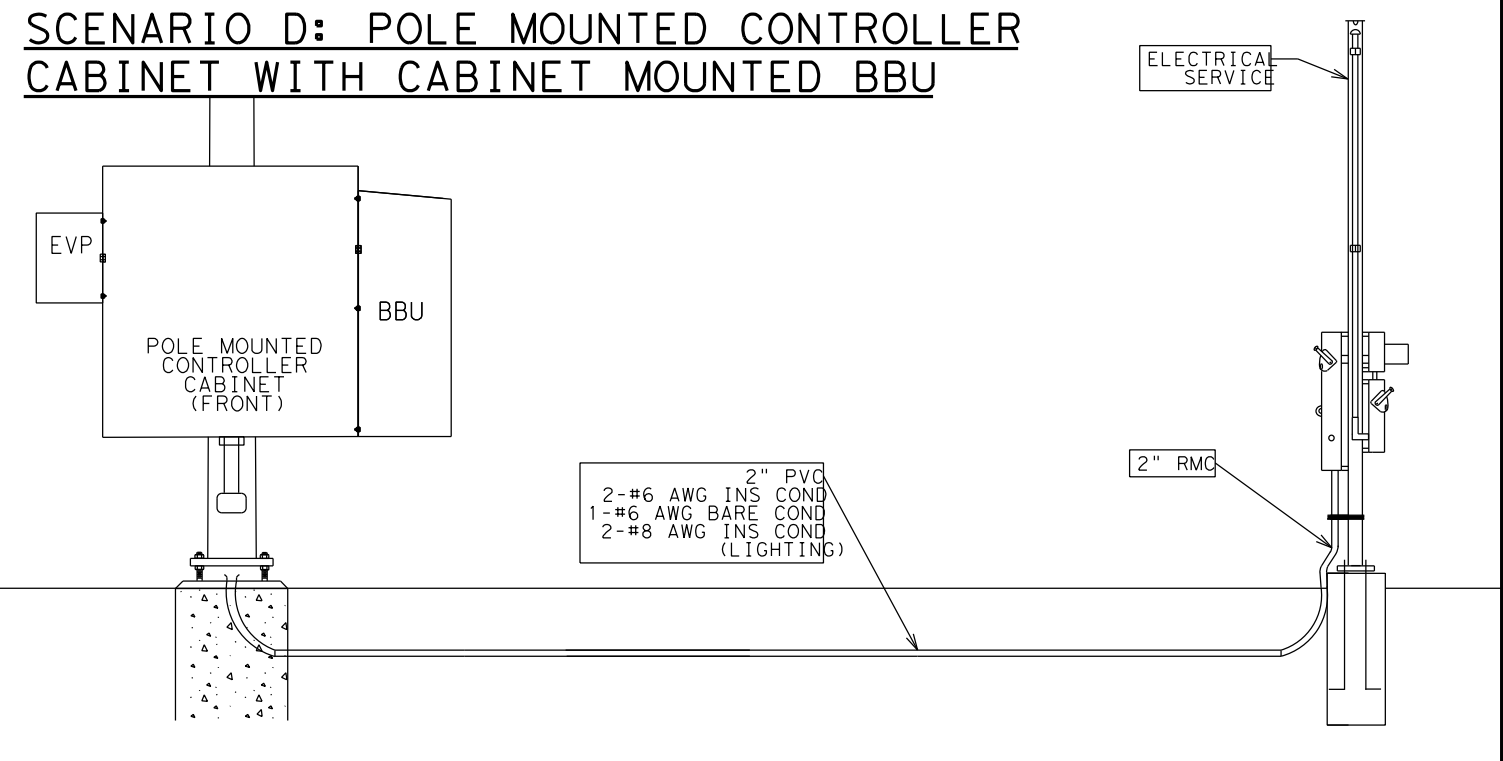
SCENARIO C: STAND-ALONE BBU FOR POLE MOUNTED CONTROLLER CABINET



SCENARIO B: STAND-ALONE BBU FOR GROUND MOUNTED CONTROLLER CABINET



SCENARIO D: POLE MOUNTED CONTROLLER CABINET WITH CABINET MOUNTED BBU



NOTE:

ABOVE SCENARIOS ARE TYPICAL BBU/EVP INSTALLATIONS USED IN THE DALLAS DISTRICT. SEE TRAFFIC SIGNAL DESIGN PLANS FOR GROUND BOX, CONDUIT AND CONDUCTOR QUANTITIES AND SIZES SPECIFIC TO EACH INTERSECTION.

**INSTALLATION OF BBU/EVP
INSTALLATION SCENARIOS
DALLAS DISTRICT STANDARD**

N. T. S.		SHEET 3 OF 3	
FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
6	(SEE TITLE SHEET)		
STATE	DISTRICT	COUNTY	SHEET NO.
TEXAS	18	COLLIN	
CONTROL	SECTION	JOB	