

PROJECT TITLE : PUBLIC PLAZA TRANSFORMER PAD - PHASE 2
 LOCATION : ZULUETA ST., BRGY. 3, SILAY CITY

SCOPE OF WORKS:

1. ELECTRICAL WORKS

BILL OF MATERIALS AND COST ESTIMATES

	DESCRIPTION	QTY.	UNIT	SIZE/ SPECS.	UNIT COST	AMOUNT
I	ELECTRICAL WORKS					
	I-1. POLE					
A.	MATERIALS					
	CONCRETE POLE, PRESTRESSED CLASS 3		PCS.	40', 1400kgs(min load break)		
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	CONSTRUCTION FOREMAN ELECTRICIAN LABORER					
	I-2. PRIMARY ASSEMBLY					
A.	MATERIALS					
	CARRIAGE BOLT		PCS.	3/8" x 4-1/4", HOT DIPPED GALVANIZED		
	DOUBLE ARMING BOLT		PCS.	5/8" x 20", HOT DIPPED GALVANIZED		
	DOUBLE ARMING BOLT		PCS.	5/8" x 22", HOT DIPPED GALVANIZED		
	MACHINE BOLT		PCS.	1/2" X 10' HOT DIPPED GALVANIZED		
	MACHINE BOLT		PCS.	1/2" X 6' HOT DIPPED GALVANIZED		
	EYE BOLT, OVAL, FORGED		PCS.	5/8" X 12" HOT DIPPED GALVANIZED		
	BRACE, CROSSARM, STEEL, FLAT		PCS.	28" LONG HOT DIPPED GALVANIZED		
	BRACE, CROSSARM, STEEL, FLAT DIAGONAL		PCS.	7" LONG HOT DIPPED GALVANIZED		
	BRACKET, INSULATED		PCS.	W/O 3" GROOVE SPOOL INSULATOR		
	CLAMP, CONDUCTOR DEADEND STRAIN		PCS.	#1/0		
	CLAMP, CONDUCTOR LOOP DEADEND		PCS.	#1/0		
	CLEVIS SECONDARY SWINGING, WITHOUT SPOOL		PCS.	HOT DIPPED GALVANIZED		
	CROSSARM, STEEL		PCS.	3" x 4" x 8', HDG		
	INSULATOR, PIN, PORCELAIN, BROWN		PCS.	7.2/12.5kV, ANSI 55-4		
	INSULATOR, SPOOL		PCS.	3" GROOVE Ø, ANSI Class 53-4		
	INSULATOR, SUSPENSION, CLEVIS CLEVIS TYPE		PCS.	#6, 10000#		
	NUT, EYE, CONVENTIONAL		PCS.	5/8" Ø		
	LOCK NUT, MF TYPE		PCS.	1/2" Ø		
	LOCK NUT, MF TYPE		PCS.	3/8" Ø		
	LOCK NUT, MF TYPE		PCS.	5/8" Ø		
	PIN, CROSSARM, LONG SHANK		PCS.	1" Ø., 5" LONG		
	ARMOR ROD, ACSR PREFORMED		SETS	#1/0, DOUBLE SUPPORT		
	TAPE, ARMOR, ALUMINUM ALLOY		MTS.	0.05' x 930'		
	WASHER, ROUND		PCS.	1-3/8" Ø, 12GA., 9/16" HOLE		
	WASHER, SQUARE FLAT		PCS.	2-1/4" x 2-1/4" x 3/16", 13/16" HOLE		
	TIE WIRE, ALUMINUM ALLOY, SOFT		MTS.	#4 AWG, SOLID		

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I-3. SECONDARY ASSEMBLY**A. MATERIALS**

MACHINE BOLT	PCS.	1/2" x 10", HOT DIPPED GALVANIZED
MACHINE BOLT	PCS.	5/8" x 10", HOT DIPPED GALVANIZED
LOCK NUT, MF TYPE	PCS.	1/2" Ø
LOCK NUT, MF TYPE	PCS.	5/8" Ø
SECNDARY RACK INSULATOR	PCS.	3-SPOOL, 8" SPACING W/ SPOOL
WASHER, ROUND	PCS.	1 -3/8" Ø, 12GA., 9/16" HOLE
WASHER, SQUARE, FLAT	PCS.	2-1/4" x 2-1/4" x 3/16", 13/16" HOLE
TIE WIRE, ALUMINUM ALLOY, SOFT	MTS.	#4 AWG, SOLID

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I-4. GROUNDING ASSEMBLY**A. MATERIALS**

CONNECTOR, COMPRESSION	PCS.	YHD150
CONNECTOR, GROUND ROD (CLAMP)	PCS.	5/8" Ø STEEL
GROUND ROD, STEEL	PCS.	5/8" Ø X 10'
WIRE, GROUND, SOFT IRON	MTS.	CLASS C, 5/16'Ø, S-STRAND

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I-5. GUY ASSEMBLY**A. MATERIALS**

ATTACHMENT, BUY, FORMED STRAP	PCS.	5/8" BOLT
MACHINE BOLT	PCS.	5/8" x 10", HOT DIPPED GALVANIZED
CABLE EXTENSION ARM	SETS	26-1/2" to 44-1/2" FROM CENTER OF POLE, 3 - 1/2" X 2- 1/4" X 5/16" WITH T - SUPPORT, 2-1/4" X 2-1/4" X 14"
CLAMP, ANCHOR BONDING	PCS.	SINGLE EYE ROD
CLAMP, GUY STRAIGHT, LIGHT DUTY\	PCS.	3-BOLT, 7/16" MAX.
POLE CLAMP, TYPE RL	PCS.	HOT DIPPED GALVANIZED
CONNECTOR, COMPRESSION	PCS.	#6-#1/0 to #6-#2, YHD150
GUY GUARD, FULL ROUND YELLOW	PCS.	8 ft. PLASTIC, 1" Ø
NUT, LOCK, MF TYPE	PCS.	5/8" Ø
WASHER, SQUARE, FLAT	PCS.	2-1/4" x 2-1/4" x 3/16", 13/16" HOLE
GROUNDING WIRE, ALUMINUM	MTS.	#4 AWG, 3-STRAND, MHD
WIRE, GUY, STEEL, HIGH STRENGTH	MTS.	7-STRAND

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I-6. ANCHOR ASSEMBLY**A. MATERIALS**

ANCHOR LOG, TREATED	PCS.	8" Ø x 4' - 8,000#
ROD, ANCHOR, THREADED, THIMBLE EYE	PCS.	5/8" x 7'
WASHER, SQUARE, FLAT	PCS.	4" x 4" x 1/2", 3/16" HOLE
		TOTAL OF MATERIALS

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I-7. TRANSFORMER ASSEMBLY**A. MATERIALS**

DOUBLE ARMING BOLT	PC.	5/8" x 18", HOT DIPPED GALVANIZED
EYE BOLT, OVAL, FORGED	PC.	5/8" x 14", HOT DIPPED GALVANIZED
THW WIRE, STRANDED (SEC. LEAD)	MTS.	#2 AWG
THW WIRE, STRANDED (PRIM. LEAD)	MTS.	#500 MCM
U-BOLT CONNECTOR	PCS.	#2 COPPER
U-BOLT CONNECTOR	PCS.	500 MCM
FUSE LINK, UNIVERSAL, BOTTOM HEAD	PCS.	25k
NUT, GALVANIZED	PCS.	5/8" Ø
LOCK NUT, MF TYPE	PCS.	5/8" Ø
TRANSFORMER, 2HV BUSHING, ROTARY TAP CHANGER	UNITS	167 kVA, 7.62/13.2Y-120/240V, 60Hz ADDITIVE, COPPER TO COPPER PRIM & SEC. WINDING
WASHER, SQUARE, FLAT	PCS.	2-1/4" x 2-1/4" x 3/16", 13/16" hole

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I-8. MISCELLANEOUS ASSEMBLY**A. MATERIALS**

LIGHTNING ARRESTER	PCS.	10 KV
CONNECTION, COMPRESSION	PCS.	#6-#1/0 to #6-#2, YHD150
CONNECTOR, HOTLINE CLAMP	PCS.	#336-6 run to #2/0-6
FUSE CUTOFF	PCS.	100 Amp. 7.8/13.5kV
FUSE LINK, UNIVERSAL, BOTTOM HEAD	PCS.	25k, 25A
INSULATOR, PIN, PORCELAIN, BROWN	PCS.	7.2/12.5kV, ANSI 55-4
PIN, CROSSARM, LONG SHANK CONDUCTOR:	PCS.	1" Ø, 5" LONG
CONDUCTOR, BARE, ACSR	MTS.	#1/0 AWG, 6/1 STRAND

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I-9. OTHERS**A. MATERIALS**

CONDUCTOR, XLPE COPPER	MTS.	#1/0 AWG
CONDUCTOR, POLY INSULATED, COPPER	MTS.	#500 MCM
CROSSARM, STEEL	PCS.	3" x 4" x 8', HDG

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I-10. PRIMARY METERING ASSEMBLY**A. MATERIALS**

PVC ADAPTER, MALE	PCS.	1" Ø
AUTO WIRE	MTS.	#10 AWG, STRANDED, 8 ASST. COLORS
CLOSE NIPPLE	PCS.	1" x 2" x 1" Ø
CONDUCTOR, THW, COPPER	MTS.	#1/0 AWG
CONDULET "T"	PCS.	1" Ø
PVC COUPLING	PCS.	1"Ø
ELECTRICAL TAPE	ROLLS	BIG
ERICSON COUPLING	PCS.	1"Ø
GUY GUARD, FULL ROUND YELLOW	PCS.	8FT. PLASTIC, 1" Ø
kWH METER, TRANSFORMER RATED BOTTOM CONNECTED, DIGITAL WITH 5 YEARS WARRANTY BATTERY	UNIT	3PH, 4-WIRE, CL20, 120- 480V, 60 Hz, FORM 48A, TA 2.5, KH 1.8, MODEM READY W/ FF. SOFT SWITCHES: TOUT (T SWITCH), kVAR (K SWITCH), EVENT LOG (E SWITCH), BASIC RECOR DING (R SWITCH), GEKV2C FITZALL, BRAND NEW W/ ERC SEAL & CERT., 3PH SERVICE (CT RATED)
LOCKNUT & BUSHING	PAIRS	1"Ø
RUBBER TAPE	ROLLS	BIG
PVC SOLVENT	CAN	120CC
CURRENT TRANSFORMER	UNITS	OUTDOOR TYPE, WOUND TYPE, 15 KV, 110 KV BIL, CTR 20:5A W/ ADAPTER PLATES & TERMINAL CON- NECTOR, ANSI ACCURACY CLASS, 0.3 THRU B-2, RATING FACTOR - 1.5 @ 30° C. FREQ. = 60 HZ., DRY TYPE CAST RESIN INSULATION
POTENTIAL TRANSFORMER	UNITS	OUTDOOR TYPE, 8400:120V VOLTAGE RATIO 70:1,110 BIL, SINGLE BUSHING W/ ADAPTER PLATES & TERMI- NAL CONNECTOR, ANSI ACCURACY CLASS, 0.3 THRU BURDEN Y, DRY TYPE, CAST RESIN INSULATION
THW WIRE, STRANDED	MTS.	#6 AWG, GREEN

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