BROWNSVILLE
PUBLIC UTILITIES BOARD

Date: August 20, 2021
To: All Vendors
Subject: Addendum #1

REFERENCE: **B079-21, AIRPORT SUBSTATION SELF SUPPORTING STEEL STRUCTURE**

This Addendum forms part of the contract and clarifies, corrects or modifies original bid document.

Question 1: There is missing information on the loads location and accessories required. The sketch submitted did not indicate distance between conductors and minimum height to the ground. Please advise.

Answer 1: Please see the attached Bill Of Material (BOM) as reference.

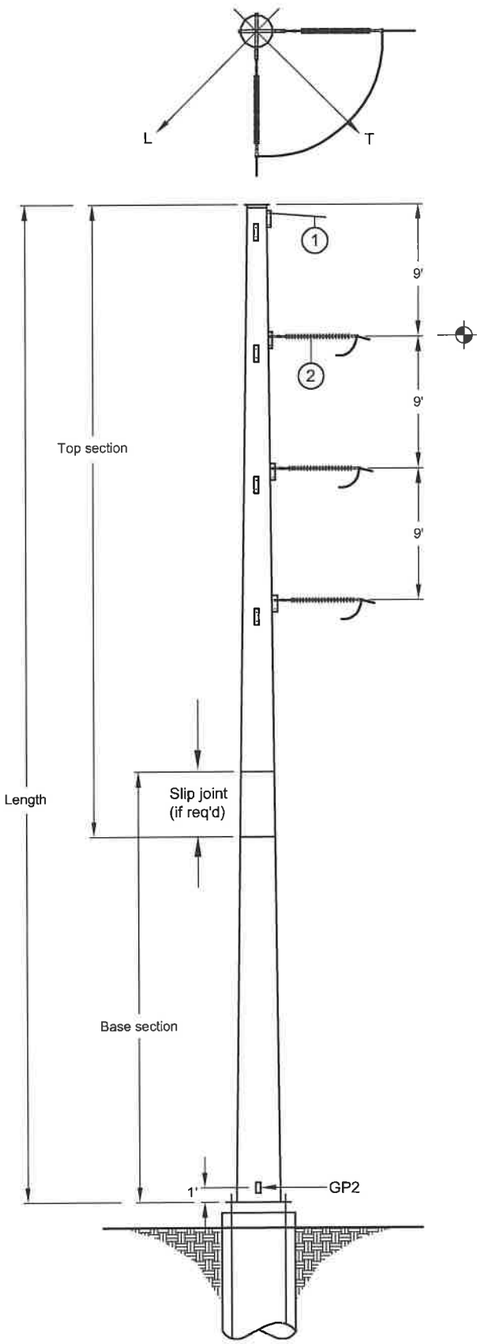
The signature of the company agent, for the acknowledgement of this addendum, shall be required. **Complete information below and return via e-mail to: hlopez@brownsville-pub.com or to dsolitaire@brownsville-pub.com.**

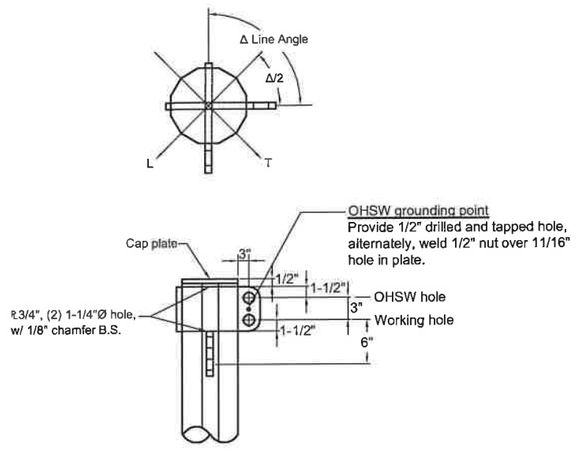
I hereby acknowledge receipt of this addendum.

Company: _____
Agent Name: _____
Agent Signature: _____
Address: _____
City: _____ **State:** _____ **Zip:**_____
Phone #:_____ **E-mail address:**_____

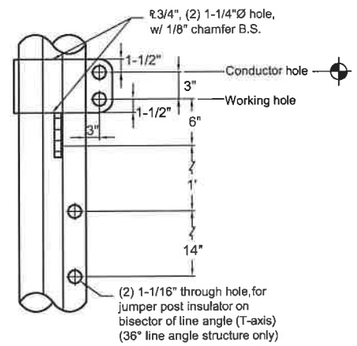
If you have any further questions about the Bid, call 956-983-6375.

Hugo E. Lopez
BY: Hugo E. Lopez
Purchasing





POLE TOP DETAIL



CONDUCTOR ATTACHMENT DETAIL

NOTES FOR POLE TOP ASSEMBLY

1. Pole top assembly includes insulators, hardware and OHSW assemblies.
2. Pole, foundation, grounding, and other items are included in separate construction units.
3. Pole top assembly includes:

REF.	REQ'D	DESCRIPTION	MFR.	CATALOG NO.	RUS CODE	DETAIL DWG.
1	3	OHSW deadend assembly				TM-4DS
2	6	138kV deadend insulator assembly				TM-2D

4. Form jumpers to maintain 57" clearance to structure.
5. Three jumper post insulators (TM-3JP) required for 36 degree line angle structure.

NOTES FOR STEEL POLE MATERIALS AND LABOR

1. Pole shall be galvanized steel. Pole to have base plate and anchor bolts.
2. Design capacity with 795 KCM 26/7 ACSR conductors and 3/8" EHS shield wire:
   Wind span 160
   Weight span 190
   Line angle See Table Below
   Specific load cases and loading trees are shown elsewhere.
3. Poles shall be single piece or may have a single slip joint.
4. Wire attachments shall be through vangs welded to pole shaft.
5. Ladder clips for standard ladders are required. Working ladder clips opposite the climbing ladders shall be included for the top 40 feet of the pole.
6. Overall length "L" is shown by the pole designation.
   Estimates of section lengths and weights are as follows:

Pole Type	Length	Line Angle	Section lengths and approx. weights			
			Top		Base	
			Length	Wt.	Length	Wt.
DA-60	60	89°	.	.	.	.
DA-65	65	36°	.	.	.	.
DA-60	60	124°	.	.	.	.

7. The following limiting dimensions shall apply:
   Anchor bolt circle: 38" Max.
   Top diameter: 12" Min.
   Taper: 0.40" Per ft.
8. Construction unit DA-XX includes assembling the pole (slip joint) and erecting the pole on the foundation.
9. Foundation, pole top assembly and grounding assemblies are separate construction units.
10. Slip joints shall be assembled according to pole manufacturer's instructions including application of full specified jacking force.
11. The poles shall have a lifting fang and be designed to allow erection by crane or in some cases aerial means. If aerial erection is designated, pole shaft sections shall be designed so the maximum weight of any lifted section shall not exceed 18,000 lbs.

PRELIMINARY
Not For Bid or Construction
18-Dec-20

CITY OF BROWNSVILLE
Brownsville, Texas

Airport Substation
138kV Large Angle Deadend, Δ=36° to 125°

No	Date	Drawn	Designed	Checked	Revisions	Proj. No.
0	10/2/20	EMS	.	.	ORIGINAL ISSUE	419-834
1						
2						
3						
4						
5						
6						
7						

APPROVED BY:

ESC engineering
FORT COLLINS COLORADO
(970) 224-9100 ESC@THINKESC.COM
TEXAS REGISTRATION # F-006446

DA

				Circuit 1		Circuit 2	Circuit 3					
				NEW 30 Deg	NEW 125 Deg	NEW 90 Deg	Existing					
				Structure	Structure	Structure	Structure					QTY to be
	Item	Code No.	Description	71520	74413	52473	53734	Sub 1	Sub 2	Sub 3	Misc.	ORDERED
Shield and Conductor DE Assemblies	1	E	Curved Deadend Tee, Hughes Bros AS2720-C4.5-15									0
	2	E	7/8" x 16" Machine Bolt (J9066) Static Wire									0
	3	E	7/8" x 18" Machine Bolt (J9068) Top Insulator									0
	4	E	7/8" x 20" Machine Bolt (J9070) Mid Insulator									0
	5	E	7/8" x 22" Machine Bolt (J9072) Bottom Insulator									0
	6	E	Spring Clip Washer for 7/8" Bolt (C205-0436)									0
	7	E1156-00	230kV Deadend Insulator (NGK:301-SL570-EJ, 30 kip)	6	6	6	3	3	3	3		**30**
	8	E1037-00	Static Wire Strain Clamp (Hubbell/Anderson ADS60N)	2	3	3	2	2	2	2		**16**
	9	E1130-00	795/954 MCM Alum. Dead-End Strain Clamp (SD130S)	6	6	6	3	3	3	3		**30**
	10	D-4	Power Anchor									0
	11	E	Insulator, Fiberglass, Strain (Maclean GCC21-144R)									0
	12	D-8	Pole Grounding Assembly									0
Post Jumper Assembly	1	-	230kV Post Jumper Insulator (NGK L3-SN471-13)	3								**3**
	2	-	Suspension, Bolted, Aluminum Jumper Clamp (Hubbell 976423002)	3								**3**
	3	-	1" x ??" Machine Bolt (Jxxxx) Top Insulator (Hughes Bros B102x-x)	2								**2**
	4	-	1" x ??" Machine Bolt (Jxxxx) Middle Insulator (Hughes Bros B102x-x)	2								**2**
	5	-	1" x ??" Machine Bolt (Jxxxx) Bottom Insulator (Hughes Bros B102x-x)	2								**2**
	6	E	Spring Clip Washer for 1" Bolt (Hughes Bros 2702.10)	3								**3**
	7		Locknuts, 1" square (Hughes Bros MF100)	6								**6**
Grounding	1	-	Copper Compression Lug, 2/0 AWG - 1/2" Stud (Burndy YA26N)	1	1	1						**3**
	2	-	1/2" - 13 x 3/4" Grade 18-8 Stanless Steel Hex Cap Screw (Fastenal 70203)	3	3	3		2	2	2		**15**
	3	-	1/2" Stainless Steel Lock Washer (Fastenal 1171071)	3	3	3		2	2	2		**15**
	4	-	Copper Clad Steel, 7#8, 40% Conductivity (ACA Copperweld)	15 FT	15 FT	15 FT						**45 FT**
	5	-	Connector, Ground Rod Clamp, 3/4" (Burndy GRC34)	1	1	1						**3**
	6	-	Ground Rod, 3/4" x 10'-0" Solid Steel w/Copper Jacket (Southern C341013)	1	1	1						**3**
	7	-	Parallel Groove Clamp, 3/8" Steel to #4 AWG Copper (Hubbell ST4)	2	2	2		2	2	2		**12**
	8	-	#4 AWG, Copper Conductor, Bare, Solid, Soft Drawn	6 FT	6 FT	6 FT		6 FT	6 FT	6 FT		**36 FT**
	9	-	Copper Compression Lug, #4 AWG, 1/2" Stud (Burndy YA4CN)	2	2	2		2	2	2		**12**
Wire	1	-	795 kcmil 26/7 ACSR "Drake" Conductor								2050 FT	**2,050 FT**
	2	-	3/8" EHS Steel Static Wire								800 FT	**800 FT**