## Accubid Activity #16 Accubid Office Building – 38 GROUNDING

### Procedure

1. Start the program Accubid Pro 13 [Start, All Programs, Trimble, Classic 13, Accubid Pro 13]

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- 2. Press the CAPS LOCK Key ON
- 3. From the Job Schedule Screen open the file, Accubid Office Building.
- 4. If not already selected, select the Takeoff tab at the bottom of the screen.
- 5. Make sure that the **L100 v8 us neca imp** is the currently selected database. If not, switch to it by clicking on the Database menu and choosing the Select command.
- 6. Set the Breakdown as shown in Figure 1:

V	Job		ACCUBID OFFICE BUILDING - LB    ACCUBID OFFICE BUILDING				
V	Drawing	Тур	E5.1 ELECTRICAL ONE LINE DIAGRAM				
V	Area	Тур	MAIN BUILDING				
V	Phase	Тур	BASEMENT				
V	System	Тур	38 GROUNDING				
V	Bid Item	Тур	BASE BID				
V	Lb Factor		STANDARD				
<b>V</b> :	Show deleted takeoffs						

Figure 1

7. In the takeoff area, choose Takeoff: FEEDER CABLE Double click on:[Line 8] GROUNDING[Line 9] #2/0 BARE-CU

8. In the Create/Modify Takeoff Description window change the Takeoff Description as shown in Figure 2 and Click OK.

Cre	eate/Modify Takeoff Description	$\mathbf{X}$
	#2/0 BARE-CU MAIN SYSTEM GND	
	OK Cancel	
Figu	ire 2	

1

9. In the Measure takeoff window change the Cable Length to 75.00 and click OK.

Measure Takeoff										
Calculator Notes			Measurement Ir	nformation	Reve	rse Takeoff				
Probe Information Scale: No Scale Length:	~	0. Backspace CE C 7 8 9 / sqrt 4 5 6 * %	Measureme Cable Length Cable Makeup Parallel Runs	nt ∨ariable Length	Va	ilue 75.00 15.00 1				^
Count:		1 2 3 1/x 0 +/ . + = Send Value								Ŧ
									P	
Takeoff Label:	#2/0 BARE-CU	MAIN SYSTEM GND								
Item / Assembly Name	#2/0 BARE-C	:U								
Item Information:	Material \$:	229.87 Labor Hours:	1.89 Avgl	_en:	75.00					
		Item Description		Quantity	Base	Fct 1	Fct 2	Catalog Number		*
1 #2/0 BARE CO	PPER			90.00	Len 💌	1.00	1.0	BARE-SD-2/0-7STR-CU-500R		
										Ŧ
] 4									Þ	
		OK Cancel	Add	Delete						:

Figure 3

10. From the Takeoff: ITEM DATABASE continue adding the items and quantities as shown in Figure 4 (Traverse Codes are shown next to each item). Add the CONNECT OWNER'S 500 KVA from Takeoff: TEMPORARY ITEMS.

	Item Description	Quantity	
1	#2/0 BARE COPPER	90.00	ITEM DATABASE
2	#8 TO #10x 7/8 PLAS ANCHOR (3/16)	3.00	8, 2, 10, 2
3	#10x 1 P/H SELF-TAP SCREVV	3.00	8, 5, 2, 22
4	1-H CABLE STRAP	3.00	4, 6, 2, 1
5	CONNECT OWNER'S 500 KVA	1.00	TEMPORARY ITEMS
6			

Figure 4

11. Right click in the Item Description list in the Audit Trail Description area and click Finish. The takeoff displays in the Audit Trail Description as shown in Figure 5.

<b>V</b>	Job		ACCUBID OFFICE BUILDING - LB    ACCUBID OFFICE BUI	ILDING				
V	Drawing	Тур	E5.1 ELECTRICAL ONE LINE DIAGRAM					
V	Area	Тур	MAIN BUILDING					
7	Phase	. Typ BASEMENT						
V	System	Тур	38 GROUNDING					
V	Bid Item	Тур	BASE BID					
7	Lb Factor							
	Show deleted takeoffs							
	Audit Trail Description				Count			
	1 #2/0 B.A	#2/0 BARE-CU MAIN SYSTEM GND						
	2							



12. In the takeoff area, choose Takeoff: FEEDER CABLEDouble click on:[Line 8] GROUNDING[Line 3] #6 BARE-CU

13. In the Create/Modify Takeoff Description window change the Takeoff Description as shown in Figure 6 and Click OK.

Create/Modify Takeoff Description	×
#6 BARE-CU COMM GND	
OK Cancel	

Figure 6

14. In the Measure Takeoff window change the Cable Length to 20.00 and Cable Makeup Length to 5.00 as shown in Figure 7 and click OK.

Mea	asure Takeoff							
Ca	Calculator Notes	Measurement I	nformation	🗌 Reve	rse Takeoff			
	Probe Information         0.           Scale:         No Scale         ▼           Backspace         CE         C           Length:         4         5         6         %           Count:         1         2         3         1/x           0         +/-         .         +         =	Measureme Cable Length Cable Makeup Parailel Runs	nt Variable Length	Va	lue 20.00 5.00 1			▲
	Send Value	•						Þ
Tak Item	akeoff Label: #6 BARE-CU COMM GND em / Assembly Name: #6 BARE-CU							
ltem	em Information: Material \$: 14.85 Labor Hours:	0.26 Avg	Len:	20.00				
	Item Description		Quantity	Base	Fct 1	Fct 2	Catalog Number	-
	1 #6 BARE COPPER		25.00	Len 💌	1.00	1.0	BARE-SD-6-7STR-CU-315R	
								Ŧ
14	4							Þ
	OK Cancel	Add	Delete					.:

Figure 7

15. Add the items shown in Figure 8 to the Item Description list takeoff. When completed, right click on the Item Description area and click Finish.

	Item Description	Quantity	
1	# 6 BARE COPPER	25.00	ITEM DATABASE
2	#8 TO #10x 7/8 PLAS ANCHOR (3/16)	3.00	8, 2, 10, 2
3	#10x1 P/H SELF-TAP SCREW	3.00	8, 5, 2, 22
4	1-H CABLE STRAP	3.00	4, 6, 2, 1
5	COMM GROUND BUS COMPLETE	1.00	TEMPORARY ITEMS
6			



### 16. Set the Breakdown as shown in Figure 9.

<b>V</b>	Job		ACCUBID OFFICE BUILDING - LB    ACCUBID OFFICE BUILDING	-
<b>V</b>	Drawing	Тур	E5.1 ELECTRICAL ONE LINE DIAGRAM	-
V	Area	Тур	MAIN BUILDING	-
V	Phase	Тур	RISER	-
V	System	Тур	38 GROUNDING	-
V	Bid Item	Тур	BASE BID	-
7	Lb Factor		STANDARD	-
	Show deleted (	takeoffs		



17. Choose Takeoff: FEEDER CABLEDouble click on:[Line 8] GROUNDING[Line 9] #2/0 BARE-CU

18. In the Create/Modify Takeoff Description change the description as shown in Figure 10 and click OK.

Create/Modify Takeoff Description	×
#2/0 BARE-CU RISER GND	
OK Cancel	

Figure 10

19. In the Measure	Takeoff	window	make tl	he change	s shown	in Fi	igure	11	and	click	OK
Measure Takeoff											

						L
Calculator Notes	Measurement Information	🔲 Reverse Takeo	ff			
Darke Information	Measurement Variable	Value				*
	Cable Length	65.00				
Scale: No Scale 🗸 Backspace CE C	Count	1.00				
789//sqrt	Cable Makeup Length	10.00				
Length: 4 5 6 × %	Parallel Runs	1				
Send						Ŧ
Send Value	4				Þ	
						_
Takeoff Label: #2/0 BARE-CU RISER GND						
Item / Assembly Name: #2/0 BARE-CU						
Item Information: Material \$: 191.56 Labor Hours:	1.98 Avg Len:	65.00				
Item Description	Quantity	Base Fct 1	Fct 2	Catalog Number		*
1 #2/0 BARE COPPER	75.00 L	.en 1.00	0 1.0	BARE-SD-2/0-7STR-CU-500R		
2 1/2" SLEEVE & SEAL	4.00	Cint 💌 4.00	1.0			
						-
4					Þ	
, 		_				
OK Cancel	Add Delete					

Figure 11

20. From the Takeoff: FEEDER CABLE FITTINGS Double click: [Line 15] 1-H CABLE STRAP/ FASTEN (L - 3')

21. In the Measure Takeoff window change the Length to 65 and click OK.

Measure Takeoff								
Calculator Notes	Measurement Ir	formation	🗌 Reve	rse Takeoff				
Probe Information         0.           Scale:         No Scale         Backspace         CE         C           // Sqrt         // Sqrt         // Sqrt         // Sqrt           Length:         4         5         6         * %           Count:         1         2         - 1/x           0         +/-         +         =	Measuremen Length # runs affecter	nt Variable 3	Va	alue 65.00 1				A
Send Send Value	4							- F
Takeoff Label:     #2/0 BARE-CU RISER GND       Item / Assembly Name:     #2/0 BARE-CU       Item Information:     Material \$:     6.44	2.99 Avg l	.en:	65.00					
Item Description		Quantity	Base	Fct 1	Fct 2		Catalog Number	-
1 1-H STRAP #14/2 & #12/2		22.00	Len 💌	1.00	3.0	890-MC		_
2 #8 TO #10x 7/8 PLAS ANCHOR (3/16)		22.00	Len	1.00	3.0	7569		
3 #10x 1 P/H SELF-TAP SCREW		22.00	Len	1.00	3.0			
4								
OK Cancel	Add	Delete						.:

Figure 12

22. Add the TEMPORARY ITEM, SUB ER GROUND BUS COMPLETE (Count = 4) to the takeoff. Right click in the Item Description and click Finish.

	Item Description	Quantity
1	#2/0 BARE COPPER	75.00
2	1/2" SLEEVE & SEAL	4.00
3	1-H STRAP #14/2 & #12/2	22.00
4	#8 TO #10x 7/8 PLAS ANCHOR (3/16)	22.00
5	#10x 1 P/H SELF-TAP SCREW	22.00
6	SUB ER GROUND BUS COMPLETE	4.00
7		
-		

Figure 13

23. Choose Takeoff: FEEDER CABLE Double click on: [Line 8] GROUNDNG [Line 3] #6 BARE-CU

24. Change the Takeoff Description to: #6 BARE-CU COMM RISER GND and click OK.

Create/Modify Takeoff Description	×
#6 BARE-CU COMM RISER GND	
OK Cancel	

Figure 14

25. In the Measure Takeoff window make the changes shown in Figure 15 and click OK.

medsure rakeon							
Calculator Notes	Measurement Ir	formation	🔲 Reve	rse Takeoff	:		
Proho Information	Measuremer	nt Variable	Va	lue			*
	Cable Length			65.00			
Scale: No Scale 🛛 🖌 Backspace CE C	Count			1.00			
7 8 9 / sqrt	Cable Makeup I	Length		10.00			
Length: 4 5 6 × %	Parallel Runs			1			
Count 1 2 3 · 1/x							
Send							Ŧ
	4						F
Takeoff Label: #6 BARE-CU COMM RISER GND							
Item / Assembly Name: #6 BARE-CU							
Item Information: Material \$: 44.56 Labor Hours:	1.17 Avg L	.en:	65.00				
Item Description		Quantity	Base	Fct 1	Fct 2	Catalog Number	<b>A</b>
1 # 6 BARE COPPER		75.00	Len	1.00	1.0	BARE-SD-6-7STR-CU-315R	
2 1/2" SLEEVE & SEAL		4.00	Cnt 💌	4.00	1.0		
							$\overline{\mathbf{v}}$
4							.⊧
OK Cancel	6 bbA	Delete					
							.:

Figure 15

26. From the Takeoff: FEEDER CABLE FITTINGS Double click: [Line 15] 1-H CABLE STRAP/ FASTEN (L - 3')

27. In the Measure Takeoff window change the Length to 65 and click OK.

28. Add the TEMPORARY ITEM, COMM GROUND BUS COMPLETE (Count = 4) to the takeoff. Right click in the Item Description and click Finish.

	Item Description	Quantity
1	# 6 BARE COPPER	75.00
2	1/2" SLEEVE & SEAL	4.00
3	1-H STRAP #14/2 & #12/2	22.00
4	#8 TO #10x 7/8 PLAS ANCHOR (3/16)	22.00
5	#10x 1 P/H SELF-TAP SCREW	22.00
6	COMM GROUND BUS COMPLETE	4.00
7		

Figure 16

29. Change the Breakdown as shown in Figure 17.

V	Job		ACCUBID OFFICE BUILDING - LB    ACCUBID OFFICE BUILDING	-
V	Drawing	Тур	E5.1 ELECTRICAL ONE LINE DIAGRAM	-
7	Area	Тур	MAIN BUILDING	-
7	Phase	Тур	Typical - FLOORS 1-4	-
V	System	Тур	38 GROUNDING	-
7	Bid Item	Тур	BASE BID	-
<b>V</b>	Lb Factor		STANDARD	-
	Show deleted I	akeoffs		

Figure 17

30. Using Takeoff: FEEDER CABLE Double Click on: [Line 8] GROUNDING [Line 3] #6 BARE-CU

# 31. Edit the Takeoff Description as shown in Figure 18 and click OK.

Create/Modify Takeoff Description	<
#6 BARE-CU TRAY GND	
OK Cancel	

Figure 18

### 32. Make the changes shown in Figure 19 and click OK.

Measure Takeoff										
Calculator Notes			Measurement Ir	formation	🔲 Reve	rse Takeof	f			
Probe Information		0.	Measuremer Cable Length	nt Variable	Va	ilue 220.00				^
Scale: No Scale	*	Backspace CE C 7 8 9 / sqrt	Cable Makeup Parallel Runs	Length		10.00 1				
Length:		456 * %			i					
Count:										-
Send		Send Value	•						Þ	
Takeoff Label:	#6 BARE-CU TR	RAY GND								
Item / Assembly Name:	#6 BARE-CU	J								
Item Information:	Material \$:	136.66 Labor Hours:	2.35 Avg L	.en:	220.00					
		Item Description		Quantity	Base	Fct 1	Fct 2	Catalog Number		-
1 # 6 BARE COP	PER			230.00	Len 💌	1.00	) 1.0	BARE-SD-6-7STR-CU-315R		
										~
•									Þ	
		OK Cancel	Add	Delete						

Figure 19

33. Using the ITEM DATABASE add the items and quantities as shown in Figure 20, and right click then click on Finish to complete the takeoff.

	Item Description	Quantity	
1	# 6 BARE COPPER	230.00	ITEM DATABASE
2	1-H CABLE STRAP	3.00	8, 2, 10, 2
3	#8 TO #10x 7/8 PLAS ANCHOR (3/16)	3.00	8, 5, 2, 22
4	#10x1 P/H SELF-TAP SCREW	3.00	4, 6, 2, 1
5	# 4 TO #2/0 CABLE TRAY CLAMP	25.00	7, 4, 10
6			

Figure 20

34. Using Takeoff: FEEDER CABLE Double Click on: [Line 8] GROUNDING [Line 3] #6 BARE-CU

35. Edit the Takeoff Description as shown in Figure 21 and click OK.

Create/Modify Takeoff Description	×
#6 BARE-CU - TFRM GND	
OK Cancel	

Figure 21

36. Make the changes shown in Figure 22 and click OK.

Calcalator Notes			Measurement II	nformation	Rever	se Takeoff				
Probe Information		0.	Cable Logath	nt variable	Val	ue				^
Capler Ma Caple		Backspace CE C	Cable Length	Lonath	_	5.00				
Scale. No Scale	P	7 8 9 7 south	Capie Makeup	Length		5.00				
Length:			Faraller Runs							
Count:										
[ Court ]	L									Ŧ
Sena		Send Value	4						Þ	
	DANE-CO - III	RM GND								
Item / Assembly Name: Item Information: Mate	#6 BARE-CU erial \$:	6.54 Labor Hours:	0.11 Avg	Len:	6.00					
Item / Assembly Name:	#6 BARE-CU erial \$:	6.54 Labor Hours:	0.11 Avg	Len:	6.00 Base	Fct 1	Fct 2	Catalog Number		
Item / Assembly Name: Item Information: Mate	#6 BARE-CU erial \$:	6.54 Labor Hours:	0.11 Avg	Len: Quantity 11.00 I	6.00 Base Len ▼	Fct 1 1.00	Fct 2 1.0	Catalog Number BARE-SD-6-7STR-CU-315R		-
Item / Assembly Name:	#6 BARE-CU erial \$:	6.54 Labor Hours:	0.11 Avg	Len: Quantity 11.00 I	6.00 Base Len 💌	Fct 1 1.00	Fct 2 1.0	Catalog Number BARE-SD-6-7STR-CU-315R		*

Figure 22

37. From the Takeoff: FEEDER CABLE FITTINGS

Double click:

[Line 15] 1-H CABLE STRAP/ FASTEN (L - 3')

- 38. In the Measure Takeoff window change the Length to 6 and click OK.
- 39. Add the ITEM 3/8" CONN AC-90 / MC DC SS [4, 2, 1, 1] Quantity = 1 to the takeoff.
- 40. Right Click in the Item Description and click Finish.
- 41. Using a Green Highlighter color the MDB #2/0 GND and the TRMR #6 GND (TL1, TL2, TL3, & TL4) shown on E5.1 Electrical One-Line Diagram.
- 42. Save your estimate.