
Appendix B

Utility Cost Estimates

Sample Utility Cost Estimate B-2

Checklist for Utility Relocation Estimates B-6

ESTIMATE OF WORK TO BE PERFORMED

CONTRACT NUMBER: _____

LOCATION: _____

FEDERAL-AID NO.: _____

Description:

This estimate is based on items of total cost of relocation.

1. Preliminary Engineering

a. Work Time

<u>Labor Group</u>	<u>Hours</u>	<u>Rate per Hour</u>	<u>Amount</u>
Engineering	5	\$2.50	\$12.50
Foreman	3	2.25	<u>6.75</u>
			\$19.25

b. Vacation Allowance

<u>Labor Group</u>	<u>Earnings</u>	<u>Percentage</u>	<u>Amount</u>
Engineering	\$12.50	.045573	\$0.57
Foreman	6.75	.0611326	<u>0.41</u>

Total Cost of Item 1: \$0.98

\$20.23

- 2. Social Security Taxes (2.06% of item 1) \$0.48
- 3. Retirement Expense (6.00% of item 1) 1.40
- 3(a) Holiday Expense (3% of item 1) 0.60
- 4. General Engineering Administrative Expenses (3% of item 1) 0.70
- 5. Workers' Compensation, Public Liability, & Property Damage Insurance 0.23

Total Cost of Items 2 through 5: \$2.81

\$2.81

6. Labor

a. Work Time

<u>Labor Group</u>	<u>Hours</u>	<u>Rate per Hr.</u>	<u>Amount</u>
Engineering	16	\$2.50	\$ 40.00
Foreman	48	2.25	108.00
Lineman	288	1.75	504.00
Accounting	6	1.50	<u>9.00</u>
			\$661.00

b. Vacation Allowance

<u>Labor Group</u>	<u>Earnings</u>	<u>Percentage</u>	<u>Amount</u>
Engineering	\$ 40.00	.045573	\$ 1.82
Foreman	108.00	.061396	6.63
Lineman	504.00	.061396	30.94
Accounting	9.00	.057231	<u>0.52</u>
			\$39.91

Total Cost of Item 6: \$700.91
\$700.91

7. Social Security Taxes (2.06% of item 6)	\$14.44
8. Retirement Expense (6.00% of item 6)	42.05
8(a) Holiday Expense (3% of item 6)	19.83
9. General Engineering, Administrative Expenses (3.00% of item 6)	21.03
10. Public Liability & Property Damage Insurance (see note)	<u>7.01</u>

Total Cost of Items 7 through 10: \$84.53
\$84.53

11. Materials & Supplies

a. Materials To Be Installed

<u>Quantity</u>	<u>Item</u>	<u>Price</u>	<u>Amount</u>
3 ea.	Poles 25' treated	\$14.25 ea.	\$ 42.75
4 ea.	Poles 30' treated	17.10 ea.	68.40
5 ea.	Poles 40' treated	21.90 ea.	109.50
12 ea.	Crossarms, 6 pin	3.10 ea.	37.20
6 ea.	Anchor rods, 3/8"	1.40 ea.	8.40
12 ea.	Insulators	0.55 ea.	6.60
9 ea.	Brackets	1.24 ea.	11.16
43 ea.	Bolts, Thimbleys	0.51 ea.	21.93
11,000 ft.	Wire, Copper No. 4	12.00 M'	132.00
4,000 ft.	Wire, Steel No. 9	3.84 M'	15.36
31 ea.	Washers, sq. 1 1/4" x 2 1/2"	2.80 C	<u>0.87</u>
			\$454.17

b. Handling Cost

5% of \$454.17 \$ 22.70

Total Cost of Item 11 "a" and "b": \$476.87

\$476.87

c. Material recovered from other than temporary use

<u>Quantity</u>	<u>Item</u>	<u>Price</u>	<u>Amount</u>
1 ea.	Poles, 20' treated	\$11.00	\$ 11.00
2 ea.	Poles, 25' treated	14.25	28.50
5 ea.	Poles, 30' treated	17.10	85.50
1 ea.	Poles, 35' treated	18.90	18.90
3 ea.	Poles, 40' treated	21.50	64.50
8 ea.	Crossarms, 4 pin	3.10	24.80
9 ea.	Insulators	0.55	4.95
9 ea.	Brackets	1.24	11.16
32 ea.	Bolts, Thimbleys	0.51	16.32
3,000 ft.	Wire, Copper No. 4	12.00 M'	36.00
18 ea.	Washers, square 3/4" x 2 1/4"	28.00 CWT	<u>0.34</u>
			\$301.97

d. Less 15% for loss in service life on poles

(15%) of \$208.40, total pole cost) \$ 31.26

For material recovered, credit of: \$270.71

\$270.71

12. Equipment

<u>Type or class</u>	<u>Miles or hrs.</u>	<u>Percentages</u>	<u>Amount</u>
Passenger Car	48 miles	.0912	\$ 4.38
Pickup, 1 ton	198 miles	.045	8.91
Truck, 2½ ton	311 miles	.0706	21.96
Digger	24 hours	3.166	<u>75.98</u>
Total Cost of Item 12:			\$111.23
			<u>\$111.23</u>

SUMMARY:

	<u>Totals</u>	<u>Participating Totals</u>
Item 1 - Preliminary Engineering	\$ 20.23	\$ 20.23
Item 2 - Social Security Taxes on Engineering	\$0.48	
Item 3 - Retirement Expenses on Engineering	1.40	
Item 4 - General Engr. & Administrative Expenses on Engr.	0.70	
Item 5 - Public Liability & Property Damage on Engr.	<u>0.23</u>	
Total Cost of Items 2,3,4,5:	\$2.81	2.81
Item 6 - Labor on Construction	700.91	700.91
Item 7 - Social Security Taxes on Construction	\$ 14.44	
Item 8 - Retirement Expenses on Construction	42.05	
Item 9 - General Engr. & Administrative Expenses on Constr.	21.03	
Item 10- Public Liability & Property Damage on Constr.	<u>7.01</u>	
Total Cost of Items 6,7,8,9,10:	\$ 84.53	84.53
Item 11- Material installed (a-b)	476.87	476.87
Item 11- Material recovered (c-d)	Minus: (270.71)	(270.71)
Item 12- Equipment	<u>111.23</u>	<u>111.23</u>
Grand Totals:	\$1,125.87	\$1,125.87

(NOTE: The above quantities and percentages are used only as an example.)

CHECKLIST FOR UTILITY RELOCATION ESTIMATES

A) Preliminary Engineering Estimate:

All items have been completed with amounts shown for each applicable item and any appropriate attachments should be included.

1. Prior Rights (Utilities Manual Section 4.3.2)

- ☐ Documentation of Compensable Interest
- or
- ☐ Executed agreement between DelDOT and utility.

The Department must approve all documentation.

2. Preliminary Engineering Estimate — Estimate of costs associated with engineering and right-of-way acquisition necessary to prepare the design plans and construction estimate (PS&E package).

- ☐ Preliminary Engineering Estimate — see Section A. Utility Cost Estimate Format

The Department may waive detailed Preliminary Estimate.

3. Use of Consulting Engineer (Utilities Manual Section 4.3.4.4)

- ☐ Request to Utility Engineer requesting authorization for approval/authorization of consultant.
- ☐ Preliminary sketches, estimates, and fee schedule.
- ☐ Approval by State (and FHWA if applicable.)
- ☐ Agreement conforming to FHWA and US DOT regulations if federal involvement.

B) Construction Estimate (PS&E):

1. DelDOT approval of Preliminary Engineering Estimate — Notice to Proceed. The utility must have this before starting the PS&E design package to remain eligible for reimbursement. The Utilities Section of Transportation Solutions, Engineering Support provides the Notice to Proceed for Preliminary Engineering. Any materials purchased or work performed prior to authorization by the Utilities office will be done at the Company's sole expense.

2. PS&E Package (Utilities Manual Section 4.3.4.5). Four (4) complete sets of:

- ☐ Detailed estimate of work to be performed — see Section B. Utility Cost Estimate Format.
- ☐ Marked color-coded plans indicating:
 1. existing to remain,
 2. existing to remove,
 3. proposed reimbursable,
 4. proposed non-reimbursable.
- ☐ Terms under which utility is crossing or occupying highway r/w

- ☐ Description of facility to be located within the r/w
- ☐ Description of installations construction, traffic protection, maintenance, access restrictions and any special conditions
- ☐ List of materials to be installed, removed or abandoned.
- ☐ Salvage Credit itemized list
- ☐ Expired Service Life Credit

A) Betterment (Utilities Manual Section 4.3.1)

1. In the event of betterment, two (2) complete PS&E packages are required. One is the Construction Estimate outlined above and the second is the Betterment Estimate including any upgrade of facilities made solely for the benefit of and at the election of the utility.

2. Betterment Estimate: PS&E Package (Utilities Manual Section 4.3.4.5).

Four (4) complete sets of:

- ☐ Detailed estimate of work to be performed — Section B. Utility Cost Estimate Format.
- ☐ Marked color-coded plans indicating:
 1. existing to remain,
 2. existing to remove,
 3. proposed reimbursable,
 4. proposed non-reimbursable.
- ☐ Terms under which utility is crossing or occupying highway r/w
- ☐ Description of facility to be located within the r/w
- ☐ Description of installations construction, traffic protection, maintenance, access restrictions and any special conditions
- ☐ List of materials to be installed, removed or abandoned.
- ☐ Salvage Credit itemized list
- ☐ Expired Service Life Credit