

Lawrence Municipal Airport

Engineering Cost Justification - Basic Services - Design (rev 1)

Install Wildlife Fence

Description	Principal / Electrical Engineering Hours	Project Engineer Hours	Engineer Hours	Financial / Operation Hours	Associate Engineer Hours	Project Planner Hours	Engineer / CAD Technician Hours	Clerical Hours	Total Hours
Design Phase									
Engineering Design									
Project Formulation & Scope	8	6	8			4	2	3	31
Project Management	6	3	2			1	1	2	15
Coordination - FAA & Sponsor	2	2	4				2	3	13
Pre-Design Meeting/Call	1	2	2			1	1		7
Client Meeting & Discussions	6	2	15			2	5		30
Meetings with Project Team	2	3	3			1	2	1	12
Previous Exhibits, Plans & Reports Review	2	6	5				6		19
FAA Standards Check	1	4	4			1	3		13
Survey Coordination & Data Input	4	6	4				12		26
Project Layouts	8	12	10			2	20		52
Demolition - Removals		1	2				2		5
Earthwork & Grading	1	1	1				2		5
Fence and Gate Details	4	5	3				12		24
Cross Sections		1	1				1		3
Permits		1	4				2	1	8
Fence Tie-Ins & Transitions		4	4				4		12
Construction Safety & Phasing Plan	1	5	4				6	1	17
Operations and Traffic Plans		1	2				2		5
Construction Observation Plan		2	4					2	8
Electrical Investigation	2	2					1		5
Electrical - Gates	10	2					6		18
Signage		1	1				1		3
Seeding & Reclamation		1	2				1		4
Miscellaneous Designs	2	5	4				5		16
Quantities & Costs	1	6	4				3		14
Engineer's Report	1	6	4				1	2	14
Bid & Construction Documents & General Specifications	2	15	18				6	16	57
Technical Specifications	1	8	12					10	31
Document & Plan Reviews	9	12	10			2	5	4	42
2 Submittals ea. to Sponsor & FAA	1	4	4				2	2	13
Other Project Issues	3	4	2			1	2	2	14
Travel	18		8						26
TOTALS	96	133	151	0	0	15	118	49	562

1. Direct Salary Costs				
Title	Hours		Rate	Cost
Principal	96		\$45.00	\$4,320.00
Project Engineer	133		\$38.00	\$5,054.00
Engineer	151		\$34.00	\$5,134.00
Finance/Ops.	0		\$29.00	\$0.00
Associate Engineer	0		\$30.00	\$0.00
Project Planner	15		\$38.00	\$570.00
CAD Technician	118		\$22.00	\$2,596.00
Clerical	49		\$17.00	\$833.00
Total Direct Salary Costs (100%)				\$18,507.00
2. Labor, General & Administrative Overhead				
Percentage of Direct Salary Costs (189%)				\$34,978.23
3. Direct Non-Salary Expenses				
a. Travel	3	Air Trips	\$ 350.00	\$ 1,050.00
	30	Auto Miles	\$ 0.55	\$ 16.50
	Total			\$ 1,066.50
b. Per Diem	Calendar Days		6	Total
	Per Diem cost (Per Day)		\$ 51.00	\$ 306.00
	Rental Car Cost (Per Day)		\$ 85.00	\$ 510.00
	Lodging Cost (Per Night)		\$ 95.00	\$ 285.00
c. Materials and Supplies				\$ 1,500.00
d. Printing				\$ 200.00
Total Direct Nonsalary Expenses				\$ 3,867.50
4. Subtotal from Items 1, 2 & 3 above				
Item Number 1			\$	18,507.00
Item Number 2			\$	34,978.23
Item Number 3			\$	3,867.50
Total:			\$	57,352.73
5. Subconsultants				
Surveying			\$	33,100.00
Total of Subconsultants			\$	33,100.00
6. Profit (Fixed Fee)				
Fixed Fee (15% of Items 1 & 2)			\$	8,022.78
7. Total:			\$	98,475.51

**Lawrence Municipal Airport**  
**Engineering Cost Justification - Bidding (rev 1)**  
**Install Wildlife Fence**

Description	Principal / Electrical Engineering Hours	Project Engineer Hours	Engineer Hours	Financial / Operation Hours	Associate Engineer Hours	Project Planner Hours	Engineer / CAD Technician Hours	Clerical Hours	Total Hours
Bidding Phase									
Advertisement & Notices		1	1					2	4
Plan/Addenda Distribution		1	1				2	1	5
Pre-Bid Meeting	3		2						5
Client Meeting & Discussions	1	1	1						3
Review & Addendums	1	2	2				1	2	8
Contractor Coordination & Inquiries	2	6	2						10
Bidding & Award	1	3	2					1	7
Travel	6								6
TOTALS	14	14	11	0	0	0	3	6	48

1. Direct Salary Costs				
Title	Hours		Rate	Cost
Principal	14		\$45.00	\$630.00
Project Engineer	14		\$38.00	\$532.00
Engineer	11		\$34.00	\$374.00
Finance/Ops.	0		\$29.00	\$0.00
Associate Engineer	0		\$30.00	\$0.00
Project Planner	0		\$38.00	\$0.00
CAD Technician	3		\$22.00	\$66.00
Clerical	6		\$17.00	\$102.00
Total Direct Salary Costs (100%)				\$1,704.00
2. Labor, General & Administrative Overhead				
Percentage of Direct Salary Costs (189%)				\$3,220.56
3. Direct Non-Salary Expenses				
a. Travel	1	Air Trips	\$ 350.00	\$ 350.00
	0	Auto Miles	\$ 0.55	\$ -
	Total			\$ 350.00
b. Per Diem	Calendar Days		1	Total
	Per Diem cost (Per Day)		\$ 51.00	\$ 51.00
	Rental Car Cost (Per Day)		\$ 85.00	\$ 85.00
	Lodging Cost (Per Night)		\$ 95.00	\$ -
c. Materials and Supplies				\$ 500.00
d. Printing				\$ 150.00
Total Direct Nonsalary Expenses				\$ 1,136.00
4. Subtotal from Items 1, 2 & 3 above				
Item Number 1			\$	1,704.00
Item Number 2			\$	3,220.56
Item Number 3			\$	1,136.00
Total:			\$	6,060.56
5. Subconsultants				
Total of Subconsultants			\$	-
6. Profit (Fixed Fee)				
Fixed Fee (15% of Items 1 & 2)			\$	738.68
7. Total:			\$	6,799.24

Lawrence Municipal Airport

Engineering Cost Justification - Project Administration (rev 1)

Install Wildlife Fence

Description	Principal / Electrical Engineering Hours	Project Engineer Hours	Engineer Hours	Financial / Operation Hours	Associate Engineer Hours	Project Planner Hours	Engineer / CAD Technician Hours	Clerical Hours	Total Hours
Design Phase									
<i>Project Administration</i>									
Administration - Contracts & Application	1	8	1	2				2	14
Admin. - Budget & Schedules	1	3	1	1				1	7
Admin. - DBE Plan & Goals Coordination	3	20	4					2	29
Admin. - Invoicing	1	3		1				1	6
Admin. - Environmental Review & Coordination	2	3				2	1	1	9
Admin. - Reproduction & Shipping					1		2	2	5
TOTALS	8	37	6	4	1	2	3	9	70

1. Direct Salary Costs			
Title	Hours	Rate	Cost
Principal	8	\$45.00	\$360.00
Project Engineer	37	\$38.00	\$1,406.00
Engineer	6	\$34.00	\$204.00
Finance/Ops.	4	\$29.00	\$116.00
Associate Engineer	1	\$30.00	\$30.00
Project Planner	2	\$38.00	\$76.00
CAD Technician	3	\$22.00	\$66.00
Clerical	9	\$17.00	\$153.00
Total Direct Salary Costs (100%)			\$2,411.00
2. Labor, General & Administrative Overhead			
Percentage of Direct Salary Costs (189%)			\$4,556.79
3. Direct Non-Salary Expenses			
Total Direct Nonsalary Expenses			\$ -
4. Subtotal from Items 1, 2 & 3 above			
Item Number 1		\$	2,411.00
Item Number 2		\$	4,556.79
Item Number 3		\$	-
Total:		\$	6,967.79
5. Subconsultants			
Total of Subconsultants			\$ -
6. Profit (Fixed Fee)			
Fixed Fee (15% of Items 1 & 2)			\$ 1,045.17
7. Total:			\$ 8,012.96

Lawrence Municipal Airport  
Engineering Cost Justification - Construction Services (rev 1)  
Install Wildlife Fence

Description	Principal / Electrical Engineering Hours	Project Engineer Hours	Resident Engineer Hours	Financial / Operation Hours	Project Planner Hours	Engineer / CAD Technician Hours	Clerical Hours	Total Hours
Preconstruction								
Administration	2	2	1	2	1		1	9
Submittals	1	4	2				1	8
Preconstruction Conference	3	1	4				1	9
Office Coordination - Admin.	1	3	2				1	7
Client Meetings & Discussions	2	1	4					7
Construction Survey Staking - Coord.		3	4			3		10
"For Construction" Plans & Specs	1	3	3			6	2	15
Reproduction & Shipping			1			2	2	5
Other	1	3	4					8
Travel	6		2					8
Construction (All-day Insp. for 7 Days and Half-Day Insp. for 43 Days )								
Project Management & Administration	2	2	3	3			1	11
Notams			2					2
Routine Reports	2	3	10				2	17
Inspection	3	3	120					126
Quantities & Payments	1	5	8					14
Quality Acceptance Control		2	2				1	5
Traffic, Safety & Security Plan		1	2					3
Submittals	1	2	3					6
Office Coordination	2	8	8				2	20
Change Orders	1	5	4			2	1	13
Client Meetings & Discussions	3	2	10					15
Final Inspection	3	3	6					12
Final Follow - up	1	2	6					9
Final Advertising and Acceptance		2	2				1	5
Other	4	5	10				2	21
Travel	12	6	5					23
Close-out								
ALP Construction Revisions	1	1			1	6	1	10
Record Drawings	1	4	8			10		23
Construction Report	2	10	12				4	28
Misc. Reports/Forms		3	2					5
Client Meetings & Discussions	1	1	2					4
Other	1	2	3	1		2	1	10
Travel								0
Totals	58	92	255	6	2	31	24	468

1. Direct Salary Costs				
Title	Hours		Rate	Cost
Principal	58		\$ 45.00	\$ 2,610.00
Project Engineer	92		\$ 38.00	\$ 3,496.00
Resident Engineer	255		\$ 34.00	\$ 8,670.00
Finance/Ops.	6		\$ 29.00	\$ 174.00
Project Planner	2		\$ 38.00	\$ 76.00
CAD Technician	31		\$ 22.00	\$ 682.00
Clerical	24		\$ 17.00	\$ 408.00
Total Direct Salary Costs (100%)			\$	16,116.00
2. Labor, General & Administrative Overhead				
Percentage of Direct Salary Costs (189%)			\$	30,459.24
3. Direct Non-Salary Expenses				
a. Travel	4	Air Trips	\$ 350.00	\$ 1,400.00
	400	Auto Miles	\$ 0.55	\$ 220.00
	Total		\$	1,620.00
b. Per Diem	Calendar Days		8	Total
	Per Diem cost (Per Day)		\$ 51.00	\$ 408.00
	Rental Car Cost (Per Day)		\$ 85.00	\$ 680.00
	Lodging Cost (Per Night)		\$ 95.00	\$ 380.00
c. Materials and Supplies			\$	1,000.00
d. Printing			\$	150.00
Total Direct Nonsalary Expenses			\$	4,238.00
4. Subtotal from Items 1, 2 & 3 above				
Item Number 1			\$	16,116.00
Item Number 2			\$	30,459.24
Item Number 3			\$	4,238.00
Total:			\$	50,813.24
5. Subconsultants				
Surveying			\$	15,000.00
Acceptance/QA Testing			\$	6,500.00
Total of Subconsultants			\$	21,500.00
6. Profit (Fixed Fee)				
Fixed Fee (15% of Items 1 & 2)			\$	6,986.29
7. Total:			\$	79,299.53