

APPENDIX D: COST ESTIMATES

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	Fairbanks International Airport, Eastside Master Plan - CIP Projects	Project Total
1	Resurface/Reconstruct/Lighting Runway 2R-20L	\$ 7,500,000
2	Reconstruct/Reconfigure East Apron	\$ 15,700,000
3	Floatpond Dredging and Slip Expansion Feasibility	\$ 500,000
4	Resurface University Avenue and Provide Pedestrian Path	\$ 8,700,000
5	Expand Public Parking; Provide Electrical Service, Add Fencing/Signs	\$ 1,600,000
6	Continuous Fencing and Gates Along Lease Lots (fence and gate locations to be determined)	\$ 2,600,000
7	Slip Expansion Phase 1, Floatplane Ramp, and Float Pond Taxilane Development	\$ 11,100,000
8	Extend Taxiways C and Power and Relocate Float Pond Road for Lease Lot Expansion	\$ 3,900,000
9	Extend Taxiway D and Power and Relocate Float Pond Road for Lease Lot Expansion	\$ 3,100,000
10	Slip Expansion and Power Phase 2	\$ 4,200,000
11	Resurface Ski Strip	\$ 1,200,000
TOTAL		\$ 60,100,000



ENGINEER'S ESTIMATE

Fairbanks International Airport, Eastside Master Plan - CIP Projects

PROJECT: 1 - Resurface/Reconstruct/Lighting Runway 2R-20L and Taxiway B Gate

Item No.	Pay Item	Pay Unit	Quantity	Unit Price	Amount
===== BASIC BID =====					
P-162a	Pavement Cold Planing	Square Yard	173,000	\$ 5	\$ 865,000
P-152a	Unclassified Excavation	Cubic Yard	48,800	\$ 18	\$ 878,400
P-154b	Subbase Course	Ton	2,900	\$ 30	\$ 87,000
P-209b	Crushed Aggregate Base Course	Ton	1,600	\$ 30	\$ 48,000
P-401a	Hot Mix Asphalt, Type II; Class A	Ton	990	\$ 130	\$ 128,700
P-401c	Asphalt Cement, PG 52-28	Ton	53	\$ 450	\$ 23,850
---	Runway & Taxiway Lighting	Lump Sum	All Required	\$ 745,000	\$ 745,000
---	Paint	Lump Sum	All Required	\$ 342,000	\$ 342,000
---	Aircraft Gate (Taxiway B)	Lump Sum	All Required	\$ 250,000	\$ 250,000
P-661a	Standard Sign	Square Foot	100	\$ 200	\$ 20,000
---	20% Contingency	Contingent Sum	All Required	\$ 677,590	\$ 677,590
---	Soft Cost @ 35%	Lump Sum	All Required	\$ 1,422,939	\$ 1,422,939
Total Base Bid (BB):					\$ 5,488,479
Design Engineering (DE) at 15% +Aeronautical Survey/NAVAIDS:					\$ 800,000
Construction Engineering (CE) at 15%:					\$ 823,272
Subtotal (BB + DE + CE):					\$ 7,111,751
(ICAP) at 5.31%					\$ 377,634
Project Total:					\$ 7,489,385
Project Rounded Total:					\$ 7,500,000

ASSUMPTIONS

Resurface/Reconstruct/Lighting Runway 2R-20L

- Resurface paved runway approximately 4500 feet by 75 feet plus 10-foot paved shoulders.
- Reconstruct 1,500 feet of runway in areas with failing pavement
- Provide new lighting along runway and taxiway approaches (including removal of old)
- Shift taxiways S and R
- Repave taxiway Q and C connector
- Repave taxiway C along runway length
- Include aircraft gate on Taxiway B
- Design Engineering includes Aeronautical Survey and NAVAIDS

ASSUMPTIONS (CONT'D)

	Existing		Proposed	
	Length (ft)	Width (ft)	Length (ft)	Width (ft)
1. Dimensions:				
Runway	6500	160	4500	95
Reconstructed Runway	--	--	1500	95
Taxiway C (parallel)	4500	80	4500	55
Taxiway C (connector)	280	55	280	75
Taxiway Q (35' wide + 10' shoulders)	280	55	280	55
Taxiway R (35' wide + 10' shoulders)	280	55	280	55
Taxiway S (55' wide + 10' shoulders)	280	55	280	75
Taxiway S Run-up	--	--	190	150
Taxiway B	280	75	--	--
2. Resurfaced Runway:	Depth (IN)	Length (FT)	Area (SF)	Volume (CF)
Crushed Aggregate Base Course	6	3,000	285,000	142,500
Hot Mix Asphalt, Type II, Class A	4	3,000	285,000	95,000
3. Reconstructed Runway:				
Subbase Course	60	1,500	142,500	712,500
Crushed Aggregate Base Course	6	1,500	142,500	71,250
Hot Mix Asphalt, Type II, Class A	4	1,500	142,500	47,500
Unclassified Excavation	70	1,500	142,500	831,250
4. Resurfaced Taxiway (C & Q):				
Crushed Aggregate Base Course	6	5,060	283,900	141,950
Hot Mix Asphalt, Type II, Class A	4	5,060	283,900	94,633
5. Reconstructed Taxiway (R & S):				
Subbase Course	24	560	36,400	72,800
Crushed Aggregate Base Course	6	560	36,400	18,200
Hot Mix Asphalt, Type II, Class A	4	560	36,400	12,133
Unclassified Excavation	34	560	36,400	103,133
5. Demolished Pavement (Runway and Taxiway B):				
Remove Pavement		2,280	341,000	
Crushed Aggregate Base Course	3	2,280	341,000	85,250
6. Estimating Factor:				
Subbase Course (P-154b) = 1.944 ton/cy				
Crushed Aggregate Base Course (P-209b) = 1.944 ton/cy				
Hot Mix Asphalt Type II, Class A (P-401a) = 2.039 ton/cy				
5.3% for Asphalt Cement, PG 52-28 (P-401c)				
7. Soft cost includes typical contractor furnished items (G-items in DOT&PF airport project specifications):				
10% Mobilization / Demobilization				
25% Various Contractor Furnished Services				



ENGINEER'S ESTIMATE

Fairbanks International Airport, Eastside Master Plan - CIP Projects

PROJECT: 2 - Reconstruct/Reconfigure East Apron

DESCRIPTION: TWY C Shifted 150' of Ski Strip; Expanded Hangar Lease Area

Item No.	Pay Item	Pay Unit	Quantity	Unit Price	Amount
===== BASIC BID =====					
P-162a	Pavement Cold Planing	Square Yard	226,000	\$ 5	\$ 1,130,000
P-152a	Unclassified Excavation	Cubic Yard	71600	\$ 18	\$ 1,288,800
P-154b	Subbase Course	Ton	3,550	\$ 30	\$ 106,500
P-209b	Crushed Aggregate Base Course	Ton	4000	\$ 30	\$ 120,000
P-401a	Hot Mix Asphalt, Type II; Class A	Ton	2,800	\$ 130	\$ 364,000
P-401c	Asphalt Cement, PG 52-28	Ton	150	\$ 450	\$ 67,500
---	Anchor Tie Downs	Each	239	\$ 1,000	\$ 239,000
---	Paint	Lump Sum	All Required	\$ 599,000	\$ 599,000
P-661a	Standard Sign	Square Foot	100	\$ 200	\$ 20,000
---	Electrical to tie downs	Lump Sum	All Required	\$ 2,500,000	\$ 2,500,000
---	Taxiway Lighting	Lump Sum	All Required	\$ 600,300	\$ 600,300
---	20% Contingency	Contingent Sum	All Required	\$ 1,407,020	\$ 1,407,020
---	Soft Cost @ 35%	Lump Sum	All Required	\$ 2,954,742	\$ 2,954,742
Total Base Bid (BB):					\$ 11,396,862
Design Engineering (DE) at 15%:					\$ 1,709,529
Construction Engineering (CE) at 15%:					\$ 1,709,529
Subtotal (BB + DE + CE):					\$ 14,815,921
(ICAP) at 5.31%					\$ 786,725
Project Total:					\$ 15,602,646
Project Rounded Total:					\$ 15,700,000

ASSUMPTIONS

Reconstruct/Reconfigure East Apron, Provide Power to Tie Downs

- Resurface paved apron, dimensions vary.
- Resurface existing Taxiway D along apron and from apron to Floatpond Road
- Resurface existing Taxiway C along apron to Taxiway T connector.
- Shift Taxiway C approximately 200-ft west from Taxiway T connector to Taxiway W connector.
- Resurface connector Taxiways U, V, and W (including compass rose).
- Dedicate a parallel vehicle road approximately 32-feet east of Taxiway D.
- Expand Hangar Lease Area by approximately 830-ft. Leave existing pavement as-is.
- Provide power to the 230 tie-downs
- Add taxiway lighting along TWY C and connector TWY U, V, and W (including removal of existing)

1. Dimensions:	Length (ft.)	Width (ft.)	Area (SF)
Apron (south of Taxiway T)	2,065	260	536,900
Apron (north of Taxiway T)	1,710	500	855,000
Taxiway C (south of Taxiway T)	2,470	50	123,500
Taxiway C (Taxiway T to end of apron)	1,710	25	42,750
Taxiway C (Apron to Taxiway W)	1,920	45	86,400
Taxiway D (to end of Apron)	3,875	50	193,750
Taxiway D (Apron to Floatpond Rd.)	1,915	80	153,200
Parallel road (32-ft from TWY D)	5,785	24	138,840
Taxiway T connector	230	45	10,350
Taxiway U connector	100	45	4,500
Taxiway V connector	100	45	4,500
Taxiway W connector	690	45	31,050

2. Apron/Taxiway/Road Structural Section:	Depth (IN)
Unclassified Excavation	34
Subbase Course	24
Crushed Aggregate Base Course	6
Hot Mix Asphalt Type II, Class A	4

3. Estimating Factor:

- Subbase Course (P-154b) = 1.944 ton/cy
- Crushed Aggregate Base Course (P-209b) = 1.944 ton/cy
- Hot Mix Asphalt Type II, Class A (P-401a) = 2.039 ton/cy
- 5.3% for Asphalt Cement, PG 52-28 (P-401c)

- ### 4. Soft cost includes typical contractor furnished items (G-items in DOT&PF airport project specifications):
- 10% Mobilization / Demobilization
 - 25% Various Contractor Furnished Services



ENGINEER'S ESTIMATE

Fairbanks International Airport, Eastside Master Plan - CIP Projects

PROJECT: 3 - Floatpond Dredging, Slip Expansion, Floatplane Ramp, and Taxilane Feasibility

Item No.	Pay Item	Pay Unit	Quantity	Unit Price	Amount
===== BASIC BID =====					
---	Feasibility Study	Lump Sum	All Required	\$ 500,000	\$ 500,000
Project Rounded Total:					\$ 500,000

ASSUMPTIONS

Floatpond Dredging and Slip Expansion Feasibility

Includes bathymetric survey, materials investigation, environmental overview, engineering study of slip expansion feasibility, dredging, floatplane ramp, and conversion of Floatpond Road to taxilane



ENGINEER'S ESTIMATE

Fairbanks International Airport, Eastside Master Plan - CIP Projects

PROJECT: 4 - Resurface/Realign University Avenue and Provide Pedestrian Pathway (FHWA)

Item No.	Pay Item	Pay Unit	Quantity	Unit Price	Amount
===== BASIC BID =====					
P-151c	Clearing & Grubbing	Acre	6	\$ 10,000	\$ 60,000
P-162a	Pavement Cold Planing	Square Yard	77,000	\$ 5	\$ 385,000
P-152a	Unclassified Excavation	Cubic Yard	23,800	\$ 18	\$ 428,400
P-154b	Subbase Course	Ton	1,300	\$ 30	\$ 39,000
P-209b	Crushed Aggregate Base Course	Ton	850	\$ 30	\$ 25,500
P-401a	Hot Mix Asphalt, Type II; Class A	Ton	890	\$ 130	\$ 115,700
P-401c	Asphalt Cement, PG 52-28	Ton	48	\$ 450	\$ 21,600
---	Paint	Lump Sum	All Required	\$ 455,000	\$ 455,000
F-162a	8' Chain-Link Fence	Linear Foot	3,500	\$ 50	\$ 175,000
---	Manual Vehicle Gate	Each	2	\$ 2,000	\$ 4,000
P-661a	Standard Sign	Square Foot	250	\$ 200	\$ 50,000
---	Flashing Pedestrian Crosswalk	Each	3	\$ 30,000	\$ 90,000
---	Relocate Railroad	Lump Sum	All Required	\$ 1,495,000	\$ 1,495,000
---	Active At-Grade Rail Crossing	Each	1	\$ 45,000	\$ 45,000
---	Relocate Powerline	Lump Sum	All Required	\$ 490,000	\$ 490,000
---	20% Contingency	Contingent Sum	All Required	\$ 775,840	\$ 775,840
---	Soft Cost @ 35%	Lump Sum	All Required	\$ 1,629,264	\$ 1,629,264
				Total Base Bid (BB):	\$ 6,284,304
				Design Engineering (DE) at 15%:	\$ 942,646
				Construction Engineering (CE) at 15%:	\$ 942,646
				Subtotal (BB + DE + CE):	\$ 8,169,595
				(ICAP) at 5.31%	\$ 433,806
				Project Total:	\$ 8,603,401
				Project Rounded Total:	\$ 8,700,000

ASSUMPTIONS

- Resurface University Avenue and provide an 8-foot Multi-use Pathway on east side of road
- Resurface existing roadway from East Ramp entrance to West Ramp terminal (~4.6 miles)
- Realign University Ave. and the rail to create new lease lots.
- Include at least 3 crosswalks with flashing beacons across University Ave.
- Assumed 65-ft wide clearing/grubbing for realigned road
- Include at least 3 bus stop pullouts (12-ft wide x 120-ft long).

1. Dimensions:	<u>Length (FT)</u>	<u>Width (FT)</u>	<u>Area (SF)</u>	
Roadway	24,600	28	688,800	
Pathway	24,600	8	196,800	
Realigned Roadway	3,500	28	98,000	
Realigned Rail	3,500			
Relocated Powerline	3,500			

2. Repaved Roadway Structural Section:	<u>Depth (IN)</u>	<u>Length (FT)</u>	<u>Area (SF)</u>	<u>Volume (CF)</u>
Crushed Aggregate Base Course	4	24,600	688,800	229,600
Hot Mix Asphalt Type II, Class A	4	24,600	688,800	229,600

3. Pathway Structural Section:				
Unclassified Excavation	16	24,600	196,800	262,400
Subbase Course	12	24,600	196,800	196,800
Crushed Aggregate Base Course	2	24,600	196,800	32,800
Hot Mix Asphalt Type II, Class A	2	24,600	196,800	32,800

4. Realigned Roadway Structural Section:				
Unclassified Excavation	32	3,500	98,000	261,333
Subbase Course	24	3,500	98,000	196,000
Crushed Aggregate Base Course	4	3,500	98,000	32,667
Hot Mix Asphalt Type II, Class A	4	3,500	98,000	32,667

5. Estimating Factor:

- Subbase Course (P-154b) = 1.944 ton/cy
- Crushed Aggregate Base Course (P-209b) = 1.944 ton/cy
- HMA, Type II, Class A (P-401a) = 2.039 ton/cy
- 5.3% for Asphalt Cement, PG 52-28 (P-401c)
- Clearing and Grubbing = 43560 sf/acre

6. Soft cost includes typical contractor furnished items (G-items in DOT&PF airport project specifications):

- 10% Mobilization / Demobilization
- 25% Various Contractor Furnished Services



ENGINEER'S ESTIMATE

Fairbanks International Airport, Eastside Master Plan - CIP Projects

PROJECT: 5 - Expand Public Parking; Provide Electrical Service, Add Fencing/Signs East of South University Avenue

Item No.	Pay Item	Pay Unit	Quantity	Unit Price	Amount
===== BASIC BID =====					
P-151c	Clearing & Grubbing	Acre	1	\$ 10,000	\$ 10,000
P-152a	Unclassified Excavation	Cubic Yard	3,750	\$ 18	\$ 67,500
P-154b	Subbase Course	Ton	220	\$ 30	\$ 6,600
P-208c	Crushed Aggregate Surface Course	Ton	80	\$ 40	\$ 3,200
F-162a	8' Chain-link fence	Linear Foot	9,850	\$ 50	\$ 492,500
F-161	Gate - Manual Vehicle	Each	5	\$ 2,000	\$ 10,000
P-661a	Standard Sign	Square Foot	100	\$ 200	\$ 20,000
---	Power to Parking Area	Lump Sum	All Required	\$ 89,000	\$ 89,000
---	20% Contingency	Contingent Sum	All Required	\$ 139,760	\$ 139,760
---	Soft Cost @35%	Lump Sum	All Required	\$ 293,496	\$ 293,496
Total Base Bid (BB):					\$ 1,132,056
Design Engineering (DE) at 15%:					\$ 169,808
Construction Engineering (CE) at 15%:					\$ 169,808
Subtotal (BB + DE + CE):					\$ 1,471,673
(ICAP) at 5.31%					\$ 78,146
Project Total:					\$ 1,549,819
Project Rounded Total:					\$ 1,600,000

ASSUMPTIONS

Expand Public Parking; Provide Electrical Service, Add Fencing/Signs East of South University Avenue
 Expand parking lot by approximately 250 feet by 135 feet. Include dressing up existing.
 Provide power to parking lot expansion
 Construct 9,900 feet of fence
 Construct 5 Gates

ASSUMPTIONS (CONT'D)

- | | <u>Length (ft.)</u> | <u>Width (ft.)</u> | |
|--------------------------------------|---------------------|--------------------|--|
| 1. Dimensions:
Gravel Parking Lot | 135 | 250 | |
-
- | | <u>Depth (in)</u> | <u>Area (SF)</u> | <u>Volume (CF)</u> |
|--|-------------------|------------------|--------------------|
| 2. Expanded Parking Lot Structural Section:
Unclassified Excavation | 30 | 33,750 | 84,375 |
| Subbase Course | 24 | 33,750 | 67,500 |
| Crushed Aggregate Surface Course | 6 | 33,750 | 16,875 |
-
- | | <u>Depth (in)</u> | <u>Area (SF)</u> | <u>Volume (CF)</u> |
|---|-------------------|------------------|--------------------|
| 3. Existing Parking Lot Structural Section:
Crushed Aggregate Surface Course | 2 | 33,750 | 5,625 |
4. Estimating Factor:
Subbase Course (P-154b) = 1.944 ton/cy
Crushed Aggregate Surface Course (P-208c) = 1.944 ton/cy
5. Soft cost includes typical contractor furnished items
(G-items in DOT&PF airport project specifications):
10% Mobilization / Demobilization
25% Various Contractor Furnished Services



ENGINEER'S ESTIMATE

Fairbanks International Airport, Eastside Master Plan - CIP Projects

PROJECT: 6 - Continuous Fencing and Gates Along Lease Lots (fence and gate locations to be determined with tenants)

Item No.	Pay Item	Pay Unit	Quantity	Unit Price	Amount
===== BASIC BID =====					
F-162a	8' Chain-Link Fence	Linear Foot	8,500	\$ 50	\$ 425,000
F-161	Gate - Powered Vehicle	Each	11	\$ 60,000	\$ 660,000
F-161	Gate - Lease lot	Each	40	\$ 2,000	\$ 80,000
---	20% Contingency	Contingent Sum	All Required	\$ 233,000	\$ 233,000
---	Soft Cost @ 35%	Lump Sum	All Required	\$ 489,300	\$ 489,300
Total Base Bid (BB):					\$ 1,887,300
Design Engineering (DE) at 15%:					\$ 283,095
Construction Engineering (CE) at 15%:					\$ 283,095
Subtotal (BB + DE + CE):					\$ 2,453,490
(ICAP) at 5.31%:					\$ 130,280
Project Total:					\$ 2,583,770
Project Rounded Total:					\$ 2,600,000

ASSUMPTIONS

Continuous Fencing and Gates - Along Lease Lots (fence and gate locations to be determined)

- Construct approximately 8,500 feet of fence
- Construct 10 gates across roadways + 1 at north side of Floatpond Road
- Construct 40 gates across lease lots

1. Soft cost includes typical contractor furnished items (G-items in DOT&PF airport project specifications):
 - 10% Mobilization / Demobilization
 - 25% Various Contractor Furnished Services



ENGINEER'S ESTIMATE

Fairbanks International Airport, Eastside Master Plan - CIP Projects

PROJECT: 7 - Slip Expansion Phase 1, Relocate Power, Floatplane Ramp, and Floatpond Taxilane Development.

Item No.	Pay Item	Pay Unit	Quantity	Unit Price	Amount
===== BASIC BID =====					
P-151c	Clearing & Grubbing	Acre	10	\$ 10,000	\$ 100,000
P-162a	Pavement Cold Planing	Square Yard	23,600	\$ 5.00	\$ 118,000
P-152a	Unclassified Excavation	Cubic Yard	29,500	\$ 18.00	\$ 531,000
P-154b	Subbase Course	Ton	1,850	\$ 30.00	\$ 55,500
P-209b	Crushed Aggregate Base Course	Ton	690	\$ 30.00	\$ 20,700
P-401a	Hot Mix Asphalt, Type II; Class A	Ton	540	\$ 130	\$ 70,200
P-401c	Asphalt Cement, PG 52-28	Ton	29	\$ 450	\$ 13,050
---	Extend Power	Lump Sum	All Required	\$ 700,000	\$ 700,000
	Taxiway Lighting	Lump Sum	All Required	\$ 528,000	\$ 528,000
---	Construct Floatpond Finger	Each	2	\$ 627,000	\$ 1,254,000
---	Construct Slips	Each	20	\$ 35,500	\$ 710,000
---	Float Plane Ramp	Each	1	\$ 500,000	\$ 500,000
---	Paint	Lump Sum	All Required	\$ 380,000	\$ 380,000
---	Standard Sign	Square Foot	100	\$ 200	\$ 20,000
---	20% Contingency	Contingent Sum	All Required	\$ 1,000,090	\$ 1,000,090
---	Soft Cost @ 35%	Lump Sum	All Required	\$ 2,100,189	\$ 2,100,189
				Total Base Bid (BB):	\$ 8,100,729
				Design Engineering (DE) at 15%:	\$ 1,215,109
				Construction Engineering (CE) at 15%:	\$ 1,215,109
				Subtotal (BB + DE + CE):	\$ 10,530,948
				(ICAP) at 5.31%	\$ 559,193
				Project Total:	\$ 11,090,141
				Project Rounded Total:	\$ 11,100,000

ASSUMPTIONS

Slip Expansion Phase 1, Floatplane Ramp, and Float Pond Taxilane Development

- Repave existing Floatplane Road
- Construct a paved parallel taxilane 150-ft from Ski Strip, including taxiway lighting
- Construct two floatpond fingers to increase slips (20 new slips)
- Extend power to new fingers and slips north of the fingers (approximately 3,500 ft)
- Construct new concrete floatplane ramp
- Resurface connector taxiways T, U, V, & W on the west side of the Ski Strip (+ upgrade lighting).

1. Dimensions:	Length (FT)	Width (FT)	Area (SF)
Floatpond Road	5,200	28	145,600
Taxilane	5,200	55	286,000
Taxiway T	165	45	7,425
Taxiway U	235	45	10,575
Taxiway V	230	45	10,350
Taxiway W	230	45	10,350

2. Taxilane/way Structural Section:	Depth (IN)	Area (SF)	Volume (CF)
Unclassified Excavation	34	324,700	114,600
Subbase Course	24	324,700	162,350
Crushed Aggregate Base Course	6	324,700	649,400
Hot Mix Asphalt Type II, Class A	4	324,700	974,100

3. Floatplane Road Structural Section:	Depth (IN)	Area (SF)	Volume (CF)
Crushed Aggregate Base Course	4	145,600	436,800
Hot Mix Asphalt Type II, Class A	4	145,600	436,800

4. Estimating Factor:
- Subbase Course (P-154b) = 1.944 ton/cy
 - Crushed Aggregate Surface Course (P-208c) = 1.944 ton/cy
 - HMA, Type II, Class A (P-401a) = 2.039 ton/cy
 - 5.3% for Asphalt Cement, PG 52-28 (P-401c)
 - Clearing and Grubbing = 43560 sf/acre

5. Soft cost includes typical contractor furnished items (G-items in DOT&PF airport project specifications):
- 10% Mobilization / Demobilization
 - 25% Various Contractor Furnished Services



ENGINEER'S ESTIMATE

Fairbanks International Airport, Eastside Master Plan - CIP Projects

PROJECT: 8 - Extend Taxiways C and Power and Relocate Floatpond Road for Lease Lot Expansion

Item No.	Pay Item	Pay Unit	Quantity	Unit Price	Amount
===== BASIC BID =====					
P-162a	Pavement Cold Planing	Square Yard	8,400	\$ 5.00	\$ 42,000
P-151c	Clearing & Grubbing	Acre	10	\$ 10,000	\$ 100,000
P-152a	Unclassified Excavation	Cubic Yard	31,800	\$ 18.00	\$ 572,400
P-154b	Subbase Course	Ton	1,600	\$ 30.00	\$ 48,000
P-209b	Crushed Aggregate Base Course	Ton	380	\$ 30.00	\$ 11,400
P-208c	Crushed Aggregate Surface Course	Ton	120	\$ 40.00	\$ 4,800
P-401a	Hot Mix Asphalt, Type II; Class A	Ton	310	\$ 130	\$ 40,300
P-401c	Asphalt Cement, PG 52-28	Ton	17	\$ 450	\$ 7,650
F-162a	8' Chain-link Fence	Linear Foot	2,000	\$ 50.00	\$ 100,000
---	Guardrail	Linear Foot	1,250	\$ 30.00	\$ 37,500
---	Extend Taxiway Lighting	Lump Sum	All Required	\$ 168,000	\$ 168,000
---	Relocate Power	Lump Sum	All Required	\$ 370,000	\$ 370,000
---	Paint	Lump Sum	All Required	\$ 212,000	\$ 212,000
P-661a	Standard Sign	Square Foot	100	\$ 200	\$ 20,000
---	20% Contingency	Contingent Sum	All Required	\$ 346,810	\$ 346,810
---	Soft Cost @ 35%	Lump Sum	All Required	\$ 728,301	\$ 728,301
				Total Base Bid (BB):	\$ 2,809,161
				Design Engineering (DE) at 15%:	\$ 421,374
				Construction Engineering (CE) at 15%:	\$ 421,374
				Subtotal (BB + DE + CE):	\$ 3,651,909
				(ICAP) at 5.31%	\$ 193,916
				Project Total:	\$ 3,845,826
				Project Rounded Total:	\$ 3,900,000

ASSUMPTIONS

Extend Taxiway C and Power and Relocate Floatpond Road for Lease Lot Expansion

- Extend Taxiway C approximately 2,600 feet by 45 feet (25' TWY + 10' Shoulders), PHASE 1
- Extend Taxiway C to campground and resurface campground taxiway
- Extend Floatpond Rd from University Ave. pullout to lease lots (approximately 4,000' by 28')
- Extend lighting along Taxiway C extension (only one light along lease lots)
- Provide power along Taxiway C expansion

1. Dimensions:	Length (ft.)	Width (ft.)	Area (SF)
Taxiway C Extension to Lease Lots	2,600	45	117,000
Taxiway C into Campground (Paved)	450	45	20,250
Taxiway C into Campground (Gravel)	1,200	45	54,000
Floatplane Rd. Extension	4,000	28	112,000

2. Paved Taxiway Structural Section:	Depth (IN)	Area (SF)	Volume (CF)
Unclassified Excavation	34	137,250	388,875
Subbase Course	24	137,250	274,500
Crushed Aggregate Base Course	6	137,250	68,625
Hot Mix Asphalt Type II, Class A	4	137,250	45,750

3. Gravel Taxiway Structural Section:	Depth (IN)	Area (SF)	Volume (CF)
Unclassified Excavation	6	54,000	27,000
Crushed Aggregate Surface Course	6	54,000	27,000

4. Roadway Structural Section:	Depth (IN)	Area (SF)	Volume (CF)
Unclassified Excavation	32	112,000	298,667
Subbase Course	24	112,000	224,000
Crushed Aggregate Base Course	4	112,000	37,333
Hot Mix Asphalt Type II, Class A	4	112,000	37,333

5. Estimating Factor:
- Subbase Course (P-154b) = 1.944 ton/cy
 - Crushed Aggregate Base Course (P-209b) = 1.944 ton/cy
 - HMA, Type II, Class A (P-401a) = 2.039 ton/cy
 - 5.3% for Asphalt Cement, PG 52-28 (P-401c)
 - Clearing and Grubbing = 43560 sf/acre

6. Soft cost includes typical contractor furnished items (G-items in DOT&PF airport project specifications):
- 10% Mobilization / Demobilization
 - 25% Various Contractor Furnished Services



ENGINEER'S ESTIMATE

Fairbanks International Airport, Eastside Master Plan - CIP Projects

PROJECT: 9 - Extend Taxiway D, Extend Power, and Relocate Floatpond Road for Lease Lot Expansion

Item No.	Pay Item	Pay Unit	Quantity	Unit Price	Amount
===== BASIC BID =====					
P-162a	Pavement Cold Planing	Square Yard	4,600	\$ 5	\$ 23,000
P-151c	Clearing & Grubbing	Acre	8	\$ 10,000	\$ 80,000
P-152a	Unclassified Excavation	Cubic Yard	22,100	\$ 18	\$ 397,800
P-154b	Subbase Course	Ton	1,150	\$ 30	\$ 34,500
P-209b	Crushed Aggregate Base Course	Ton	270	\$ 30	\$ 8,100
P-401a	Hot Mix Asphalt, Type II; Class A	Ton	200	\$ 130	\$ 26,000
P-401c	Asphalt Cement, PG 52-28	Ton	11	\$ 450	\$ 4,950
F-162a	8' Chain-link Fence	Linear Foot	1,600	\$ 50	\$ 80,000
---	Guardrail	Linear Foot	1,500	\$ 30	\$ 45,000
---	Extend Taxiway Lighting	Lump Sum	All Required	\$ 65,000	\$ 65,000
---	Relocate Power	Lump Sum	All Required	\$ 414,000	\$ 414,000
---	Paint	Lump Sum	All Required	\$ 172,000	\$ 172,000
P-661a	Standard Sign	Square Foot	100	\$ 200	\$ 20,000
---	20% Contingency	Contingent Sum	All Required	\$ 274,070	\$ 274,070
---	Soft Cost @ 35%	Lump Sum	All Required	\$ 575,547	\$ 575,547
Total Base Bid (BB):					\$ 2,219,967
Design Engineering (DE) at 15%:					\$ 332,995
Construction Engineering (CE) at 15%:					\$ 332,995
Subtotal (BB + DE + CE):					\$ 2,885,957
(ICAP) at 5.31%					\$ 153,244
Project Total:					\$ 3,039,201
Project Rounded Total:					\$ 3,100,000

ASSUMPTIONS

Extend Taxiways C and D, Extend Power, and Relocate Floatpond Road for Lease Lot Expansion

- Extend Taxiway D approximately 1,500 feet by 45 feet
- Extend Taxiway C approximately 1,450 feet by 45 feet
- Extend Floatpond Rd approximately 1,600 feet by 28 feet
- Extend lighting along Taxiway C (1,450'), one side only
- Provide power along Taxiway C (1,450') and D (1,500') expansion

1. Dimensions:	Length (ft.)	Width (ft.)	Area (SF)
Taxiway C	1,450	45	65,250
Taxiway D (extension)	1,500	45	67,500
Floatpond Road	1,600	28	44,800

2. Taxiway Extension Structural Section:	Depth (IN)	Area (SF)	Volume (CF)
Unclassified Excavation	34	132,750	376,125
Subbase Course	24	132,750	265,500
Crushed Aggregate Base Course	6	132,750	66,375
Hot Mix Asphalt Type II, Class A	4	132,750	44,250

3. Roadway Structural Section:	Depth (IN)	Area (SF)	Volume (CF)
Unclassified Excavation	32	44,800	119,467
Subbase Course	24	44,800	89,600
Crushed Aggregate Base Course	4	44,800	14,933
Hot Mix Asphalt Type II, Class A	4	44,800	14,933

4. Estimating Factor:
- Subbase Course (P-154b) = 1.944 ton/cy
 - Crushed Aggregate Base Course (P-209b) = 1.944 ton/cy
 - HMA, Type II, Class A (P-401a) = 2.039 ton/cy
 - 5.3% for Asphalt Cement, PG 52-28 (P-401c)
 - Clearing and Grubbing = 43560 sf/acre

5. Soft cost includes typical contractor furnished items (G-items in DOT&PF airport project specifications):
- 10% Mobilization / Demobilization
 - 25% Various Contractor Furnished Services



ENGINEER'S ESTIMATE

Fairbanks International Airport, Eastside Master Plan - CIP Projects

PROJECT: 10 - Slip Expansion and Power Phase 2

Item No.	Pay Item	Pay Unit	Quantity	Unit Price	Amount
===== BASIC BID =====					
---	Construct Floatpond Finger	Each	1	\$ 627,000	\$ 627,000
---	Construct Slips	Each	10	\$ 35,500	\$ 355,000
---	Extend Power	Lump Sum	All Required	\$ 894,000	\$ 894,000
---	20% Contingency	Contingent Sum	All Required	\$ 375,200	\$ 375,200
---	Soft Cost @ 35%	Lump Sum	All Required	\$ 787,920	\$ 787,920
Total Base Bid (BB):					\$ 3,039,120
Design Engineering (DE) at 15%:					\$ 455,868
Construction Engineering (CE) at 15%:					\$ 455,868
Subtotal (BB + DE + CE):					\$ 3,950,856
(ICAP) at 5.31%:					\$ 209,790
Project Total:					\$ 4,160,646
Project Rounded Total:					\$ 4,200,000

ASSUMPTIONS

Slip Expansion and Power Phase 2

Construct a new floatplane finger with approximately 10 slips
 Extend power to new finger and slips south of the finger (3,200' + 5*250')

1. Estimating Factor:

Subbase Course (P-154b) = 1.944 ton/cy
 Crushed Aggregate Surface Course (P-208c) = 1.944 ton/cy

2. Soft cost includes typical contractor furnished items

(G-items in DOT&PF airport project specifications):
 10% Mobilization / Demobilization
 25% Various Contractor Furnished Services



ENGINEER'S ESTIMATE

Fairbanks International Airport, Eastside Master Plan - CIP Projects

PROJECT: 11 - Resurface Ski Strip

Item No.	Pay Item	Pay Unit	Quantity	Unit Price	Amount
===== BASIC BID =====					
P-152a	Unclassified Excavation	Cubic Yard	5,200	\$ 18	\$ 93,600
P-208c	Crushed Aggregate Surface Course	Ton	380	\$ 40	\$ 15,200
P-167a	Dust Palliative	Lump Sum	All Required	\$ 400,000	\$ 400,000
---	20% Contingency	Contingent Sum	All Required	\$ 101,760	\$ 101,760
---	Soft Cost @ 35%	Lump Sum	All Required	\$ 213,696	\$ 213,696
Total Base Bid (BB):					\$ 824,256
Design Engineering (DE) at 15%:					\$ 123,638
Construction Engineering (CE) at 15%:					\$ 123,638
Subtotal (BB + DE + CE):					\$ 1,071,533
(ICAP) at 5.31%:					\$ 56,898
Project Total:					\$ 1,128,431
Project Rounded Total:					\$ 1,200,000

ASSUMPTIONS

Resurface Ski Strip

Resurface existing gravel runway 2,900 feet by 60 feet + 10-foot shoulders.
Assume construction will excavate and replace 9" of surface course

1. Dimensions:	Length (ft.)	Width (ft.)	Area (SF)
Gravel Runway	2,900	80	232,000

2. Apron Structural Section:	Depth (IN)	Area (SF)	Volume (CF)
Unclassified Excavation	6	232,000	116,000
Crushed Aggregate Surface Course	6	232,000	116,000

3. Estimating Factor:

Crushed Aggregate Surface Course (P-208c) = 1.944 ton/cy

4. Soft cost includes typical contractor furnished items

(G-items in DOT&PF airport project specifications):

10% Mobilization / Demobilization

25% Various Contractor Furnished Services