



BOLTON & MENK, INC.

Consulting Engineers & Surveyors

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June 21, 2010

Kathy Bailey, City Administrator
 City of Blue Earth
 125 West Sixth Street
 P.O. Box 38
 Blue Earth, MN 56013-0038

RE: 2010 Airport Improvements
 Blue Earth Municipal Airport
 Blue Earth, Minnesota
 BMI Project No.: T41.022275

Dear Kathy:

Attached is the bid abstract for the above-referenced project. Two bids were received at City Hall at 2:00 p.m. on Thursday June 17, 2010. The project Schedule of Unit Prices was split into three (3) schedules to include the following work:

- Based Bid: Phase 1 and 2 - Taxiway A / Parallel Taxiway B Construction / Filtration Basin Construction / Apron Area Improvements
- Alternative A: Phase 1 and 2 – Taxiway A and Parallel Taxiway B Bituminous Pavement
- Alternative B: Phase 1 and 2 – Taxiway A and Parallel Taxiway B Concrete Pavement

A summary of the bids received is below:

Bidders	Base Bid	Alt. A.	Alt. B	Alt. A Total	Alt. B Total
Southern Minnesota Construction	\$2,041,209.19	\$591,926.50	\$644,531.25	\$2,633,135.69	\$2,685,740.94
Mathiowetz Construction Company	\$2,078,942.86	\$731,872.00	\$623,259.25	\$2,810,814.86	\$2,702,202.11
<i>Engineer's Estimate</i>	<i>\$2,217,372.70</i>	<i>\$522,721.00</i>	<i>\$785,490.00</i>	<i>\$2,740,138.70</i>	<i>\$3,002,907.90</i>

All bids were tabulated and found to be correct. The apparent low bidder for both Alternative A and Alternative B is Southern Minnesota Construction. Alternative A is 3.91% and Alternative B is 10.56% below the Engineer's Estimate.

The attached Life Cycle Cost Analyses (LCCA) was performed for both Alternatives A and B. The attached LCCA Evaluation Summary for the two alternatives results in the following:

- Alternative A (Bituminous) has a first cost of \$31.03/square yard in addition to the \$107.01/square yard for the project base bid. The 30 year Present Worth Life Cycle cost is \$150.90.



June 23, 2010
Kathy Bailey
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- Alternative B (Concrete) has a first cost of \$33.79/square yard in addition to the \$107.01/square yard for the project base bid. The 30 year Present Worth Life Cycle Cost is \$142.00.

As shown in the Evaluation Summary, Alternate A is ranked as 1 for first cost and 2 for the PWL Cycle. Alternate B is ranked 2 for the first cost and 1 for the PWL Cycle.

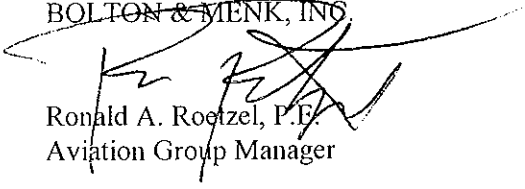
Due to the fact that Alternate A and Alternate B first cost prices are within 9.2% of each other and the Present Worth Life Cycle Costs are within 6%, the FAA permits the Owner to select either the bituminous Alternative A or concrete Alternative B.

If the Council wishes to move forward with the project at this time, we would recommend awarding the selected alternative to Southern Minnesota Construction, subject to grant approval and funding availability.

FAA will participate in 95% of eligible project costs as a part of a Federal Entitlement and Discretionary grant for the City of Blue Earth. Attached is the cost and funding breakdown scenario for your review. The total local share for Alternative A is projected to be \$167,957 and Alternative B is \$170,587.

Sincerely,

BOLTON & MENK, INC.



Ronald A. Roetzel, P.E.
Aviation Group Manager

Enclosure

cc: Airport Manager
Russell Fish, P.E., Bolton & Menk, Inc.
Ronald Roetzel, P.E., Bolton & Menk, Inc.

2010 Airport Improvements
Blue Earth Municipal Airport
Life Cycle Cost Analysis Evaluation
Alternate A - P-401 Bituminous Pavement

ANALYSIS LIFE (N): 30 Years
 EXPECTED LIFE: 30 Years
 INFLATION FACTOR: (%) 2.8 %

Base Bid + Alternate A - P-401 Bituminous Pavement

YEAR (N)	ACTIVITY	ITEM DESCRIPTION	UNIT	COST	QUANTITY	TOTAL COST	PRESENT WORTH FACTOR	PRESENT WORTH
0	INITIAL CONSTRUCTION	BASE BID	-	\$ 107.01	-	\$2,041,209	1.0000	\$2,041,209
0	INITIAL CONSTRUCTION	5" BITUMINOUS PAVEMENT / 6" BASE / TACK COAT / SAWED & SEALED JOINTS	SY	\$ 31.03	19,075	\$591,926	1.0000	\$591,926
1							0.9728	\$0
2							0.9463	\$0
3							0.9205	\$0
4							0.8954	\$0
5							0.8710	\$0
6	MAINTENANCE	ROUTE AND SEAL CRACKS	LF	\$ 1.50	5,420	\$8,130	0.8473	\$6,889
7							0.8242	\$0
8							0.8018	\$0
9							0.7799	\$0
10	MAINTENANCE	SURFACE TREATMENT	SY	\$ 2.60	19,075	\$49,595	0.7587	\$37,628
11							0.7380	\$0
12							0.7179	\$0
13							0.6984	\$0
14							0.6794	\$0
15							0.6609	\$0
16							0.6429	\$0
17							0.6253	\$0
18							0.6083	\$0
19							0.5917	\$0
20	REHABILITATION	MILL AND 2.5" OVERLAY (10 year life)	SY	\$ 15.75	19,075	\$300,431	0.5756	\$172,935
21							0.5599	\$0
22							0.5447	\$0
23	MAINTENANCE	ROUTE AND SEAL CRACKS	LF	\$ 1.50	5,420	\$8,130	0.5299	\$4,308
24							0.5154	\$0
25							0.5014	\$0
26							0.4877	\$0
27	MAINTENANCE	SURFACE TREATMENT	SY	\$ 2.60	19,075	\$49,595	0.4744	\$23,530
28							0.4615	\$0
29							0.4490	\$0
30							0.4367	\$0

SUBTOTAL \$2,878,424
 LESS: SALVAGE VALUE \$0
 PRESENT WORTH \$ 150.90 per SY **\$2,878,424**

Notes:
 Year 6: Route and seal crack maintenance includes routing and sealing of all sawcut joints installed when the pavement was initially constructed.
 Year 10: Surface treatment maintenance includes routing & sealing cracks based on historical data, slurry seal treatment and remarking of the entire bituminous pavement surface area.
 Year 20: Rehabilitation costs include routing & sealing cracks based on historical data, mill & overlay 2.5" pavement, mobilization, and remarking of the entire bituminous pavement surface area.
 Year 23: Route and seal crack maintenance includes routing and sealing of all sawcut joints installed when the pavement was initially constructed.
 Year 27: Surface treatment maintenance includes routing & sealing cracks based on historical data, slurry seal treatment and remarking of the entire bituminous pavement surface area.
 No salvage value at the end of the 30 year LCCA due to the expected 30 year expected life.

**2010 Airport Improvements
Blue Earth Municipal Airport
Life Cycle Cost Analysis Evaluation
Alternate B - P-501 Concrete Pavement**

ANALYSIS LIFE (N): 30 Years
 EXPECTED LIFE: 40 Years
 INFLATION FACTOR (%): 2.8 %

Base Bid + Alternate B - P-501 Concrete Pavement

YEAR (N)	ACTIVITY	ITEM DESCRIPTION	UNIT	COST PER SYD	QUANTITY	TOTAL COST	PRESENT WORTH FACTOR (4%)	PRESENT WORTH
0	INITIAL CONSTRUCTION	BASE BID	-	\$ 107.01	-	\$2,041,209	1.0000	\$2,041,209
0	INITIAL CONSTRUCTION	6" CONCRETE PAVEMENT / 5" BASE / JOINT SEALING FILLER	SY	\$ 33.79	19,075	\$644,531	1.0000	\$644,531
1							0.9728	\$0
2							0.9463	\$0
3							0.9205	\$0
4							0.8954	\$0
5							0.8710	\$0
6							0.8473	\$0
7							0.8242	\$0
8							0.8018	\$0
9							0.7799	\$0
10							0.7587	\$0
11							0.7380	\$0
12							0.7179	\$0
13							0.6984	\$0
14							0.6794	\$0
15							0.6609	\$0
16							0.6429	\$0
17	MAINTENANCE	ROUTE & RESEAL JOINTS	LF	\$ 2.10	30,900	\$64,890	0.6253	\$40,578
18							0.6083	\$0
19							0.5917	\$0
20							0.5756	\$0
21							0.5599	\$0
22							0.5447	\$0
23							0.5299	\$0
24							0.5154	\$0
25							0.5014	\$0
26							0.4877	\$0
27	MAINTENANCE	ROUTE & RESEAL JOINTS AND CRACKS, FULL DEPTH SLAB REPLACEMENT AT 5% OF TRANSVERSE JOINTS - (700 LF)	LF	\$ 2.10	30,900	\$64,890	0.4744	\$30,767
27			LF	\$ 66.00	700	\$46,200	0.4744	\$21,919
28							0.4615	\$0
29							0.4490	\$0
30							0.4367	\$0

SUBTOTAL \$2,779,025
 LESS: SALVAGE VALUE (\$70,370)
 PRESENT WORTH \$ 142.00 per SY **\$2,708,654**

Notes:

*Year 17: Route and reseal joint maintenance includes resealing of all the original sawcut joints installed when the pavement was initially constructed.
 Year 27: Route and reseal joints and cracks and 5% slab replacement includes routing and sealing random cracks within the entire original concrete pavement area and full depth replacement for 3' on both sides at 5% of the transverse joints throughout the entire pavement area.
 Salvage value at the end of the 30 year LCCA based upon the 40 year expected life.*

**2010 Airport Improvements
Blue Earth Municipal Airport**

**Life Cycle Cost Analysis Evaluation
Summary**

Alternatives	Pavement Only First Cost (\$/SY)	Total Project Present Worth Life Cycle (\$/SY)	Construction Time (Days)
Alternate A - P401 (30 year life with 1 overlay)	\$31.03	\$150.90	96
Alternate B - P501 (40 year life)	\$33.79	\$142.00	96

Comparative Ranking of Alternatives

Alternatives	Pavement Only First Cost (\$/SY)	Total Project Present Worth Life Cycle (\$/SY)	Construction Time (Days)
Alternate A - P401 (30 year life with 1 overlay)	1	2	96
Alternate B - P501 (40 year life)	2	1	96

CIP - Blue Earth Municipal Airport (SBU)

UPDATED JUNE 21, 2010

State Fed FY	Description	FAA %	Funding % Rates	Local %	Project Cost	FAA Entitlement Funding	Federal Discretionary Funding	State Funding	Local Funding	Other Programs	Project Bid Date	Federal Entitlement Balance FY 2010						
2007	Airport Master Plan, Airport Layout Plan Update	95%	0%	5%	80,000	76,000	0	0	4,000	0	-	\$992,000						
2008	Show Removal Equipment - Tractor & Blower	95%	0%	5%	117,239	111,852	0	0	5,887	0	-	-						
2009	Runway 16/34 Engineering Design (4,600')	95%	0%	5%	350,000	332,500	0	0	17,500	0	-	-						
2010	Fuel Dispenser Credit Card System, Emergency Generator	0%	PR	PR	74,014	0	0	45,910	38,104	0	-	-						
2010	Update Airport Zoning (Grant Pending)	0%	PR	PR	41,800	0	0	19,991	22,109	0	-	-						
TOTAL FY 2007 - FY 2010												\$663,552.95	\$520,352.00	\$0.00	\$65,601.00	\$77,599.95	\$0.00	\$380,000.00
2010	Runway 16 Approach Land Acquisition - PHASE I	95%	0%	5%	175,000	166,250	0	0	8,750	0	-	\$225,830						
2010	Parallel Taxiway, Apron Extension & Reconstruction, Taxiway A Reconstruction - ENGINEERING & CONSTRUCTION	95%	0%	5%	2,944,136	2,258,830	2,571,099	0	147,207	0	6/17/2010	Entitlements / Discretionary \$150,000						
2011	Runway 16-34 Reconstruction, Lighting, Taxiway Reconstruction	95%	0%	5%	3,700,000	0	3,515,000	0	185,000	0	FY 2011 Entitlement Balance 4/15/2011	Federal Discretionary \$150,000						
2011	FBO Hangar Pedestrian Walkway	0%	50%	50%	40,000	0	0	20,000	20,000	0	-	\$0						
2012	Airfield/Departure Building Expansion	0%	70%	30%	105,000	0	0	73,500	31,500	0	FY 2012 Entitlement Balance 4/15/2012	\$150,000						
2012	Spray Wash Facility Roof	0%	70%	30%	85,000	0	0	59,500	25,500	0	4/15/2012	-						
2013	Hangar Site Taxiway (South End) - Phase I	95%	0%	5%	150,000	142,500	0	0	7,500	0	FY 2013 Entitlement Balance 4/15/2013	\$300,000						
2015	Taxiway Widening, T-Hangar Site Preparation - North End	95%	0%	5%	238,000	226,100	0	0	11,900	0	FY 2014 Entitlement Balance FY 2016 Entitlement Balance 4/15/2015	\$307,500 \$457,500						
2015	10 Unit T-Hangar Building (STATE HANGAR LOAN)	0%	50%	50%	450,000	0	0	0	90,000	360,000	4/15/2015	\$231,400						
2015	Airport Terminal Fencing, Hangar Site Access Road	95%	0%	5%	130,000	123,500	0	0	6,500	0	4/15/2015	\$107,900						
Summary for Airport - Blue Earth Municipal Airport												\$8,017,135.69	\$6,086,095.91	\$153,000.00	\$533,856.78	\$380,000.00		

BASE BID + ALT. A (BITUMINOUS)

June 21, 2010

SBU - Blue Earth Municipal Airport											Federal Entitlement Balance FY 2009:	Federal Entitlement Balance FY 2010:
State Year	Fed Year	Description	FAA %	State %	Local %	Project Cost	FAA Entitlement Funding	FAA Discretionary Funding	State Funding	Local Funding	Anticipated Grant Date	Federal Entitlement Balance
	2009	Design Engineering	95%	0%	5%	\$330,000	\$313,500	\$0	\$0	\$16,500	Mar-10	\$242,080
	2010	Runway 16 Approach Land Acquisition - Phase I	95%	0%	5%	\$175,000	\$166,250	\$0	\$0	\$8,750	Mar-10	\$392,080
	2010	Parallel Taxiway, Apron Extension & Reconstruction & Taxiway A Reconstruction	95%	0%	5%	\$2,944,136	\$2,25,830	\$2,571,099	\$0	\$147,207	Mar-10	\$225,830
2010		Update Airport Zoning	0%	70%	30%	\$40,000	\$0	\$0	\$28,000	\$12,000	Jun-10	\$0
TOTAL FY 2010: \$3,159,136							\$392,080	\$2,571,099	\$28,000	\$167,957		
FY 2011 Entitlement Balance											\$150,000	
	2011	Runway 16 Approach Land Acquisition - Phase II	95%	0%	5%	\$0	\$0	\$0	\$0	\$0	Apr-10	\$150,000
	2011	Rwy 16-34 Reconstruction(3,400'), Hangar Taxiway Reconstruction	95%	0%	5%	\$3,700,000	\$150,000	\$3,365,000	\$0	\$185,000	Apr-10	\$0
TOTAL FY 2011: \$3,700,000							\$150,000	\$3,365,000	\$0	\$185,000		
Summary for Airport = Blue Earth Municipal Airport											FY 2012 Entitlement Balance	\$150,000
TOTAL FY 2009 - FY2011: \$7,189,136							\$855,560	\$5,936,099	\$28,000	\$369,457		

Project Cost (Design and Construction): \$6,974,136

BASE BID + ALT. B (CONCRETE)

June 21, 2010

SBU - Blue Earth Municipal Airport											Federal Entitlement Balance FY 2009:		Federal Entitlement Balance FY 2010:				
State Year	Fed Year	Description	FAA %	State %	Local %	Project Cost	FAA Entitlement Funding	FAA Discretionary Funding	State Funding	Local Funding	Anticipated Grant Date	Federal Entitlement Balance	State Funding	Local Funding			
	2009	Design Engineering	95%	0%	5%	\$330,000	\$313,500	\$0	\$0	\$16,500	Mar-10	\$242,080	\$0	\$0			
	2010	Runway 16 Approach Land Acquisition - Phase I	95%	0%	5%	\$175,000	\$166,250	\$0	\$0	\$8,750	Mar-10	\$392,080	\$0	\$0			
	2010	Parallel Taxiway, Apron Extension & Reconstruction & Taxiway A Reconstruction	95%	0%	5%	\$2,996,741	\$225,830	\$2,621,074	\$0	\$149,837	Mar-10	\$225,830	\$0	\$0			
2010		Update Airport Zoning	0%	70%	30%	\$40,000	\$0	\$0	\$28,000	\$12,000	Jun-10	\$0	\$28,000	\$12,000			
TOTAL FY 2010:							\$3,211,741	\$2,621,074	\$28,000	\$170,587							
											FY 2011 Entitlement Balance		\$150,000				
	2011	Runway 16 Approach Land Acquisition - Phase II	95%	0%	5%	\$0	\$0	\$0	\$0	\$0	Apr-10	\$150,000	\$0	\$0			
	2011	Rwy 16-34 Reconstruction(3,400'); Hangar Taxi Lane Reconstruction (Concrete Runway)	95%	0%	5%	\$4,000,000	\$150,000	\$3,650,000	\$0	\$200,000	Apr-10	\$0	\$0	\$200,000			
TOTAL FY 2011:							\$4,000,000	\$150,000	\$3,650,000	\$0	\$200,000						
Summary for Airport = Blue Earth Municipal Airport											TOTAL FY 2009 - FY2011:		\$7,541,741	\$855,580	\$6,271,074	\$28,000	\$387,087

Project Cost (Design and Construction): \$7,326,741