

Ten-Year Airport Capital Improvement Program (CIP) 2012-2022



Three Rivers Municipal Dr Haines Airport
Three Rivers, MI

October 27, 2011

Michigan State Block Grant Program

Submitted by:

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PROBABLE PROJECT COST

THREE RIVERS MUNICIPAL DR. HAINES AIRPORT
THREE RIVERS, MI
TAXIWAY AND APRON REHABILITATION
BASED ON FY 2012 DOLLARS

I70.MKT.CRM

10/27/11

ITEM	FAA					UNIT	
NO	SPEC	DESCRIPTION	QUANTITY	UNITS	PRICE	TOTAL	
1	P-101	PAVEMENT REPAIR	8,200	LF	\$20.00	\$164,000.00	
2	P-605	MISC. CRACK SEALING WITH ROUTING	5,500	LF	\$2.50	\$13,750.00	
3	P-605	MISC. JOINT AND CRACK SEALING, AS SPECIFIED	14,000	LF	\$2.00	\$28,000.00	
4	P-620	PAVEMENT MARKING	1,850	SF	\$2.00	\$3,700.00	
5	M-100	MAINTENANCE AND PROTECTION OF TRAFFIC	1	LS	\$10,000.00	\$10,000.00	
6	M-200	MOBILIZATION (4% MAXIMUM)	1	LS	\$8,550.00	\$8,550.00	
CONSTRUCTION COST						\$228,000.00	
DESIGN ENGINEERING & ADMINISTRATION (10%+/-)						\$23,000.00	
CONSTRUCTION INSPECTION & ADMINISTRATION (12%+/-)						\$27,000.00	
TOTAL PROJECT COST						\$278,000.00	

JUSTIFICATION

As of 2007 the taxiways and apron had PCI ratings between 72-78, which is still in the preventative maintenance range (see attached PCI map). The Taxiways and Apron at Three Rivers Airport have significant longitudinal and transverse cracking. Airplanes are backtaxiing on the runway in order to avoid the taxiway because the cracks are so wide, which is a safety concern. The taxiway cracks were not able to be fixed in the runway project because there wasn't enough funding, so they are being added to the apron project. This project would extend the life of the pavement by sealing all the cracks and repairing pavement as necessary.

This project is not expected to cause any significant environmental impacts and should fall under a categorical exclusion.



PROBABLE PROJECT COST

THREE RIVERS MUNICIPAL DR. HAINES AIRPORT
THREE RIVERS, MI
SNOW REMOVAL EQUIPMENT BUILDING
BASED ON FY 2012 DOLLARS

I70.MKT.CRM

06/30/11

ITEM NO	FAA SPEC	DESCRIPTION	QUANTITY	UNITS	UNIT PRICE	TOTAL
1		SNOW REMOVAL EQUIPMENT BUILDING	1	LS	\$180,000.00	\$180,000.00
		CONSTRUCTION COST				\$180,000.00
		ENGINEERING & ADMINISTRATION (25%)				\$43,000.00
TOTAL PROJECT COST						\$223,000.00

JUSTIFICATION

The airport recently bought new snow removal equipment and they do not have a place to store it. An SRE building is important to house equipment to keep it out of the harsh weather, and give airport personnel a place to repair and maintain the equipment. This will keep the equipment running at a higher performance for a longer period of time.

This project is not expected to cause any significant environmental impacts and should fall under a categorical exclusion.



PROBABLE PROJECT COST

THREE RIVERS MUNICIPAL DR. HAINES AIRPORT 170.MKT.CRM
 THREE RIVERS, MI
 REHABILITATE ENTRANCE ROAD AND NEW PARKING AREA, CONSTRUCT NEW TERMINAL BUILDING 10/03/11
 BASED ON FY 2012 DOLLARS

ITEM NO	FAA SPEC	DESCRIPTION	QUANTITY	UNITS	UNIT PRICE	TOTAL
1	P-152	UNCLASSIFIED EXCAVATION	700	CY	\$10.00	\$7,000.00
2	P-152	PAVEMENT EXCAVATION	1,400	SY	\$5.00	\$7,000.00
3	P-156	SOIL EROSION CONTROL MEASURES	1	LS	\$11,500.00	\$11,500.00
4	P-208	AGGREGATE BASE COURSE	230	CY	\$35.00	\$8,050.00
5	P-411	BITUMINOUS SURFACE COURSE	700	TON	\$75.00	\$52,500.00
6	P-603	TACK COAT	150	GAL	\$4.00	\$600.00
7	P-605	JOINT SEALING	160	LF	\$5.00	\$800.00
8	P-620	PAVEMENT MARKING	530	SF	\$2.00	\$1,060.00
9	F-162	AUTOMATIC GATE WITH KEYPAD	1	LS	\$12,000.00	\$12,000.00
10	D-705	6-INCH UNDERDRAIN	700	LF	\$8.00	\$5,600.00
11	D-705	CLEANOUTS	4	EACH	\$600.00	\$2,400.00
12	T-905	TOPSOIL, SEED AND MULCH	2,300	SY	\$5.00	\$11,500.00
13	NA	TERMINAL BUILDING	1	LS	\$400,000.00	\$400,000.00
14	M-100	MAINTENANCE AND PROTECTION OF TRAFFIC	1	LS	\$8,500.00	\$8,500.00
15	M-200	MOBILIZATION (4% MAXIMUM)	1	LS	\$21,490.00	\$21,490.00
CONSTRUCTION COST						\$550,000.00
ENGINEERING & ADMINISTRATION						\$30,000.00
TOTAL PROJECT COST						\$580,000.00

JUSTIFICATION

The main parking area at Three Rivers Airport is currently gravel. It also does not drain well and causes a maintenance problem for the airport. In addition, the entrance road is beginning to deteriorate and will need a rehabilitation by 2014. The existing terminal building is not meeting the needs of the airport. It consists of several different renovations and additions and is not one cohesive structure.

This project is not expected to cause any significant environmental impacts and should fall under a categorical exclusion.



PROBABLE PROJECT COST

THREE RIVERS MUNICIPAL DR. HAINES AIRPORT
 THREE RIVERS, MI
 REHABILITATE RUNWAY 9/27 AND AIRFIELD SIGNAGE
 BASED ON FY 2012 DOLLARS

170.MKT.CRM

10/03/11

ITEM NO	FAA SPEC	DESCRIPTION	QUANTITY	UNITS	UNIT PRICE	TOTAL
1	P-152	UNCLASSIFIED EXCAVATION	3,400	CY	\$7.00	\$23,800.00
2	P-153	COLD MILL EXISTING BITUMINOUS PAVEMENT	40,000	SY	\$2.00	\$80,000.00
3	P-156	COMPLIANCE W/ POLLUTION, EROSION AND SILTATION CONTROL				
			1	LS	\$10,000.00	\$10,000.00
4	P-208	FINE GRADE & COMPACT EXISTING AGGREGATE BASE COURSE				
			40,000	SY	\$1.50	\$60,000.00
5	P-411	BITUMINOUS SURFACE COURSE	8,200	TON	\$75.00	\$615,000.00
6	P-603	BITUMINOUS TACK COAT	4,300	GAL	\$2.00	\$8,600.00
7	P-605	JOINT SEALING	2,000	LF	\$5.00	\$10,000.00
8	P-620	RUNWAY AND TAXIWAY PAINTING	31,000	SF	\$0.50	\$15,500.00
9	L-125	AIRFIELD GUIDANCE SIGN	22	EACH	\$4,000.00	\$88,000.00
10	L-125	REMOVE AIRFIELD GUIDANCE SIGN	22	EACH	\$300.00	\$6,600.00
11	T-905	TOPSOIL, SEED AND MULCH	10,200	SY	\$5.00	\$51,000.00
12	M-100	MAINTENANCE AND PROTECTION OF TRAFFIC	1	LS	\$17,000.00	\$17,000.00
13	M-200	MOBILIZATION (4% MAXIMUM)	1	LS	\$39,500.00	\$39,500.00
CONSTRUCTION COST						\$1,025,000.00
DESIGN ENGINEERING & ADMINISTRATION (10%+/-)						\$103,000.00
CONSTRUCTION INSPECTION & ADMINISTRATION (12%+/-)						\$123,000.00
TOTAL PROJECT COST						\$1,251,000.00

JUSTIFICATION

Runway 9-27 had a PCI of 74 as of 2007. This is the most recent pavement inspection data available at this time. The repair work completed in year 2010 will only extend the pavement life for approximately 5-8 years. By 2015 (year planned for construction) the PCI will be well into the recommended major rehabilitation phase.

This project is not expected to cause any significant environmental impacts and should fall under a categorical exclusion.



PROBABLE PROJECT COST

THREE RIVERS MUNICIPAL DR. HAINES AIRPORT
THREE RIVERS, MI
REHABILITATE RUNWAY 5/23
BASED ON FY 2012 DOLLARS

170.MKT.CRM

10/27/11

ITEM NO	FAA SPEC	DESCRIPTION	QUANTITY	UNITS	UNIT PRICE	TOTAL
1	P-152	UNCLASSIFIED EXCAVATION	2,600	CY	\$7.00	\$18,200.00
2	P-153	COLD MILL EXISTING BITUMINOUS PAVEMENT	26,800	SY	\$2.00	\$53,600.00
3	P-156	COMPLIANCE W/ POLLUTION, EROSION AND SILTATION CONTROL				
			1	LS	\$11,500.00	\$11,500.00
4	P-208	FINE GRADE & COMPACT EXISTING AGGREGATE BASE COURSE				
			26,800	SY	\$1.50	\$40,200.00
5	P-411	BITUMINOUS SURFACE COURSE	5,450	TON	\$75.00	\$408,750.00
6	P-603	BITUMINOUS TACK COAT	2,800	GAL	\$2.00	\$5,600.00
7	P-605	JOINT SEALING	850	LF	\$5.00	\$4,250.00
8	P-620	RUNWAY AND TAXIWAY PAINTING	16,800	SF	\$1.00	\$16,800.00
9	T-905	TOPSOIL, SEED AND MULCH	9,000	SY	\$5.00	\$45,000.00
10	M-100	MAINTENANCE AND PROTECTION OF TRAFFIC	1	LS	\$20,000.00	\$20,000.00
11	M-200	MOBILIZATION (4%)	1	LS	\$25,100.00	\$25,100.00
CONSTRUCTION COST						\$649,000.00
DESIGN ENGINEERING & ADMINISTRATION (10%+/-)						\$65,000.00
CONSTRUCTION INSPECTION & ADMINISTRATION (12%+/-)						\$78,000.00
TOTAL PROJECT COST						\$792,000.00

JUSTIFICATION

Runway 5-23 had a PCI of 70 as of 2007. This is the most recent pavement inspection data available at this time. The repair work that took place in 2010 will only extend the pavement life for approximately 5-8 years. By 2017 (year planned for construction) the PCI will be well into the recommended major rehabilitation phase.

This project is not expected to cause any significant environmental impacts and should fall under a categorical exclusion.



PROBABLE PROJECT COST

THREE RIVERS MUNICIPAL DR. HAINES AIRPORT
 THREE RIVERS, MI
 TAXIWAY LIGHTING IMPROVEMENTS
 BASED ON FY 2012 DOLLARS

170.MKT.CRM
 10/03/11

ITEM NO	FAA SPEC	DESCRIPTION	QUANTITY	UNITS	UNIT PRICE	TOTAL
1	L-108	CABLE TRENCH, 18" AND LESS WIDTH, 18" DEPTH	32,000	LF	\$2.50	\$80,000.00
2	L-108	UNDERGROUND CABLE, 1/C, #8, 5000V, L824, TYPE C, IN TRENCH OR DUCT	25,000	LF	\$1.50	\$37,500.00
3	L-108	MISC. BARE COUNTERPOISE WIRE, #6, SOLID, IN TRENCH OR DUCT	18,500	LF	\$1.00	\$18,500.00
4	L-109	FURNISH & INSTALL SPECIFIED ELECTRICAL VAULT EQUIPMENT	1	LS	\$45,000.00	\$45,000.00
5	L-109	ELECTRIC HANDHOLE	22	EACH	\$800.00	\$17,600.00
6	L-110	MISC. HDPE CONDUIT, 2", INSTALLED BY DIRECTIONAL DRILLING	600	LF	\$35.00	\$21,000.00
7	L-125	MEDIUM INTENSITY EDGE LIGHT, L861, (MIRL/MITL), 30" HIGH, 6.6A,	161	EACH	\$800.00	\$128,800.00
8	L-125	LENS & LAMP FOR MITL, TYPE L861T, 360 BLUE COLOR	175	EACH	\$100.00	\$17,500.00
9	L-125	REMOVE EXISTING MEDIUM INTENSITY STAKE MOUNTED LIGHT	148	EACH	\$50.00	\$7,400.00
10	L-125	REMOVE EXISTING MEDIUM INTENSITY BASE MOUNTED LIGHT	13	EACH	\$150.00	\$1,950.00
11	M-100	MAINTENANCE AND PROTECTION OF TRAFFIC	1	LS	\$20,000.00	\$20,000.00
12	M-200	MOBILIZATION (4% MAXIMUM)	1	LS	\$15,750.00	\$15,750.00
CONSTRUCTION COST						\$411,000.00
DESIGN ENGINEERING & ADMINISTRATION (10%+/-)						\$41,000.00
CONSTRUCTION INSPECTION & ADMINISTRATION (12%+/-)						\$49,000.00
TOTAL PROJECT COST						\$501,000.00

JUSTIFICATION

A majority of airfield signage is approximately 20-30 years old and some do not meet current state/federal standards. A number of signs have been damaged or knocked over by snow plow equipment over the years. Taxiway lighting circuits have required a substantial amount of maintenance and repair over the years. In 2006 the lighting circuit for Taxiway D was tied into an existing circuit for Taxiway A and B and numerous failures have since occurred at individual edge light units along Taxiway D. Buried transformers for light bases that are no longer in use may still be drawing power from this circuit. Taxiway C lighting is approaching 20 years old and maintenance efforts to replace failed light units and bulbs continues to increase yearly.



PROBABLE PROJECT COST

THREE RIVERS MUNICIPAL DR. HAINES AIRPORT
 THREE RIVERS, MI
 EXTEND RUNWAY 9 BY 800 FT
 BASED ON FY 2012 DOLLARS

170.MKT.CRM

06/30/11

ITEM NO	FAA SPEC	DESCRIPTION	QUANTITY	UNITS	UNIT PRICE	TOTAL
1	P-152	UNCLASSIFIED EXCAVATION	12,000	CY	\$7.00	\$84,000.00
2	P-156	SOIL EROSION AND SEDIMENTATION CONTROL	1	LS	\$25,000.00	\$25,000.00
3	P-208	CRUSHED AGGREGATE BASE COURSE	2,500	CY	\$35.00	\$87,500.00
4	P-411	BITUMINOUS PAVEMENT	2,100	TON	\$75.00	\$157,500.00
5	P-603	BITUMINOUS TACK COAT	430	GAL	\$5.00	\$2,150.00
6	P-620	RUNWAY & TAXIWAY PAINTING	35,000	SF	\$1.00	\$35,000.00
7	P-620	PAINT REMOVAL	13,000	SF	\$1.00	\$13,000.00
8	D-705	6-INCH UNDERDRAIN	2,400	LF	\$8.00	\$19,200.00
9	D-705	CLEANOUTS	8	EACH	\$600.00	\$4,800.00
10	D-710	STABILIZATION FABRIC	76,000	SF	\$0.20	\$15,200.00
11	T-905	TOPSOIL, SEED & MULCH	14,800	SY	\$3.00	\$44,400.00
12	L-108	NO. 8 AWG, 600V, 1/C AIRPORT LIGHTING CABLE	2,200	LF	\$3.00	\$6,600.00
13	L-108	COUNTERPOISE WIRE	2,200	LF	\$1.50	\$3,300.00
14	L-110	2-INCH DIA. PVC CONDUIT IN TRENCH	2,200	LF	\$10.00	\$22,000.00
15	L-115	ELECTRIC JUNCTION CAN	4	EACH	\$800.00	\$3,200.00
16	L-125	MEDIUM INTENSITY R/W LIGHTS, BASE MOUNTED	8	EACH	\$900.00	\$7,200.00
17	L-125	REMOVE AND REPLACE R/W END LIGHTS	8	EACH	\$300.00	\$2,400.00
18	L-125	RELOCATE PAPI SYSTEM (4 box)	1	LS	\$11,500.00	\$11,500.00
19	L-125	RELOCATE REIL SYSTEM	1	LS	\$6,000.00	\$6,000.00
20	M-100	MAINTENANCE AND PROTECTION OF TRAFFIC	1	LS	\$25,000.00	\$25,000.00
21	M-200	MOBILIZATION (4% MAXIMUM)	1	LS	\$23,050.00	\$23,050.00
CONSTRUCTION COST						\$598,000.00
DESIGN ENGINEERING & ADMINISTRATION (10%+/-)						\$60,000.00
CONSTRUCTION INSPECTION & ADMINISTRATION (12%+/-)						\$72,000.00
TOTAL PROJECT COST						\$730,000.00

JUSTIFICATION

Three Rivers Airport is planning for the future, and would like to accommodate larger aircraft than what currently use the airport. It is understood that justification for the length and an environmental assessment will be needed before this project can begin.



