

**MICHIGAN AIRPORT DEVELOPMENT
PROGRAM PACKAGE
MDOT Airports Division**

**Airport Capital Improvement Plan
2012-2021**

Prepared for:

**James Clements Airport
Bay City, Michigan**

August 2011

Contact:

Mr. Darwin Baranski
James Clements Airport
800 South Water Street
Bay City, MI 48708
989-894-8313
fax 989-894-0704

Prepared by:

Mead&Hunt

**MICHIGAN STATE BLOCK GRANT PROGRAM
AIRPORT CAPITAL IMPROVEMENT PROGRAM (CIP) FY-2012* to FY-2021**

*ACIP includes current development year (2012 already programmed - minor changes acceptable)

Airport Name: James Clements Airport		Airport Identifier: 3CM		Date prepared: 6/30/11	Revised: 9/12/11						
Associated City: Bay City, MI		Prepared By: Bob Leisenring									
Sponsor: City of Bay City		Sponsor email address & phone: dbaranski@baycitymi.org/ 989-894-8313									
NPIAS Airport Code: B		FINAL ACIP due to MDOT AERO: no later than 8/04/10									
Development Year	Project Description	Shown on ALP? (Yes or No)	ACIP Code**	NPIAS Priority Rating**	Federal Entitlements	Federal Apportionment	Federal Discretionary	State	Local	Total	Remarks/Item Justification - Provide as much detail as possible.
	(Carryover-\$139,571)										
2012	Reconstruct Taxistreet (E. of Twy C), Upgrade Access Road, & Install Security Gates	Yes	RE-TW-IM	66	\$285,000			\$7,500	\$7,500	\$300,000	This project includes the pavement reconstruction and drainage improvements of the taxi streets and access roads south of the historical hangar and east of taxiway C. The project will also include installation of new security gates in this area and near the terminal building to restrict access to the airside of the facility. These pavements are assumed to have a PCI index of less than 40, resulting in the need for reconstruction. (CAT Ex Required)
	(Carryover-\$4,571)										
2013	Design Hangar Taxistreet (N. of Twy D) & Taxiway D Rehabilitation	Yes	RE-TW-IM	66	\$23,750			\$625	\$625	\$25,000	An early design of this project would allow for better bidding of the project.
2013	Rehabilitate Dora Historical Hangar - Phase I	Yes							\$500,000	\$500,000	The existing hangar is approx. 100x100 with office space and houses a number of based aircraft. The building is in need of major repairs if it is going to continue to be used. The building has historical value to the community and they are very interested in maintaining historical value of the building. A study was completed to determine the full cost to rehabilitate the hangar.
	(Carryover-\$130,821)										
2014	Hangar Taxistreet (N. of Twy D) & Taxiway D Rehabilitation	Yes	RE-TW-IM	66	\$280,821	\$56,429		\$8,875	\$8,875	\$355,000	This project includes the rehabilitation of 3 existing taxi streets/approaches in the south I hangar area. The taxi streets are approximately 20 years old and are in need of rehabilitation. The pavement was rated with a PCI index of 70 in 2008. The project will also connect the northern ends of the taxiway in accordance with the current ALP. (CAT Ex Required)
2014	Seaplane Facility - Phase II	Yes	CA-SB-CO	63		\$180,500		\$4,750	\$4,750	\$190,000	The airport has regular activity by seaplane aircraft. Some of these aircraft come in and need maintenance and fueling. The airport would also like to attract other potential tenants with seaplanes. This is the second phase of construction which will include installation of area lighting and a floating dock.
2014	Rehab. Dora Historical Hangar - Phase II	Yes							\$150,000	\$150,000	See Phase I Justification
	(Carryover-\$0)										
2015	Taxiway A, B, & C North Rehabilitation	Yes	RE-TW-IM	66	\$150,000		\$838,000	\$26,000	\$26,000	\$1,040,000	This project includes the rehabilitation of 3 existing taxiways. The taxiways are approximately 20 years old and are in need of rehabilitation. The pavement was rated with a PCI index of 73 on average in 2008. (CAT Ex Required)
2015	Rehab. Dora Historical Hangar, Phase III	Yes							\$150,000	\$150,000	See Phase I Justification
	(Carryover-\$0)										
2016	Design Security Fencing	Yes	ST-EQ-SE	41	\$14,250			\$375	\$375	\$15,000	An early design of this project would allow for better bidding of the project.
	(Carryover-\$135,750)										
2017	Security Fencing	Yes	ST-EQ-SE	41	\$223,250			\$5,875	\$5,875	\$235,000	This project includes the installation of new 10' security fencing around the northern perimeter of the airport and then to the south to the administration building. These areas have been used by people entering the airport without permission. (CAT Ex Required)
	(Carryover-\$62,500)										
2018	Design Runway 18/36 Rehabilitation	Yes	RE-RW-IM	70	\$66,500			\$1,750	\$1,750	\$70,000	An early design of this project would allow for better bidding of the project.
	(Carryover-\$146,000)										
2019	Runway 18/36 Rehabilitation	Yes	RE-RW-IM	70	\$296,000		\$701,500	\$26,250	\$26,250	\$1,050,000	This project includes the rehabilitation of runway 18/36. In 2008 the PCI index was 84 therefore in 2018 the pavement will most likely be below the rehabilitation threshold of 70. (CAT Ex Required)
	(Carryover-\$0)										
2020	Design Runway 5/23 Lighting, Sign, & PAPI Replacement	Yes	RE-RW-LI	70	\$23,750			\$625	\$625	\$25,000	An early design of this project would allow for better bidding of the project.
	(Carryover-\$126,250)										
2021	Runway 5/23 Lighting, Sign, & PAPI Replacement	Yes	RE-RW-LI	70	\$276,250	\$80,000		\$9,375	\$9,375	\$375,000	This project includes the rehabilitation of the lighting and the approach aids for runway 5/23. This lighting is more than 20 years old and will most likely be experiencing high maintenance costs for the airport. (CAT Ex Required)

* Proposed airport development must be shown on current FAA approved ALP prior to funding project
**In accordance with FAA Order 5100.39A, Appendix 6 - Fields need to be completed

ENGINEERING COST ESTIMATE

PROJECT: Reconstruct Taxistreet (E. of Twy C), Upgrade Access Road, & Install Security Gates

LOCATION: James Clements Airport

CITY: Bay City, MI

DATE: 6/21/11

PREPARED BY: RAL, BJH

FINAL DESIGN

PROJECT PROGRAMMING

FEASIBILITY STUDY

STATE PLANNING

BASED ON FY 2011 DOLLARS

WORK DESCRIPTION: Reconstruct taxistreets south of historical hangar (25,500 SFT), pave access road (7,800 SFT), and install two electronic access gates.

ITEM DESCRIPTION	UNIT	QTY	UNIT PRICE	ITEM COST
Mobilization and General Conditions	LS	1	\$ 15,000.00	\$ 15,000
Safety and Security	LS	1	\$ 5,000.00	\$ 5,000
Access Gate - Electronic	EA	2	\$ 20,000.00	\$ 40,000
Fencing	LF	200	\$ 30.00	\$ 6,000
Unclassified Excavation (27")	CY	2,774	\$ 5.00	\$ 13,870
Sand Subbase (18")	CY	1,849	\$ 18.00	\$ 33,282
Pulverized Gravel Base (6")	CY	617	\$ 25.00	\$ 15,425
Bituminous Surface (3")	TON	667	\$ 80.00	\$ 53,360
Pavement Removal/Pulverizing	SY	2,831	\$ 2.50	\$ 7,078
Pavement Marking	LS	1	\$ 2,000.00	\$ 2,000
Drainage Pipe	LF	500	\$ 45.00	\$ 22,500
Drainage Structure (incl cover)	EA	3	\$ 2,500.00	\$ 7,500
Turfing and Mulching	AC	2	\$ 2,500.00	\$ 5,000
				CONSTRUCTION TOTAL = \$ 226,015
				CONSTRUCTION CONTINGENCIES (10%) = \$ 22,601
				CONSTRUCTION TOTAL = \$ 248,616
				ENGINEERING DESIGN = \$ 24,000
				CONSTRUCTION ADMIN = \$ 27,000
				\$ 299,616
PROJECT YEAR BUDGET ESTIMATE =				\$ 300,000



Note: These costs were developed without the benefit of field surveys or soils investigation. A final cost estimate will be dependent upon development of these items and further design.

ENGINEERING COST ESTIMATE

PROJECT: Hangar Taxistreet (N. of Twy D) & Taxiway D Rehabilitation
 LOCATION: James Clements Airport
 CITY: Bay City
 DATE: 6/21/11
 PREPARED BY: RAL, BJH

FINAL DESIGN
 PROJECT PROGRAMMING
 FEASIBILITY STUDY
 STATE PLANNING
 BASED ON FY 2011 DOLLARS

WORK DESCRIPTION: At south hangar area, rehabilitate 3 taxistreets and taxiway D (71355 SFT total). Rehabilitate hangar approaches (10000 SFT). Connect north end of each taxistreet with new pavement (13450 SFT).

ITEM DESCRIPTION	UNIT	QTY	UNIT PRICE	ITEM COST
Mobilization and General Conditions	LS	1	\$ 15,000.00	\$ 15,000
Safety and Security	LS	1	\$ 10,000.00	\$ 10,000
Unclassified Excavation (33")	CY	2,000	\$ 4.00	\$ 8,000
Sand Subbase (24")	CY	1,000	\$ 18.00	\$ 18,000
Gravel Base (6")	CY	300	\$ 40.00	\$ 12,000
Bituminous Surface (3")	TON	1,950	\$ 80.00	\$ 156,000
Cold Mill Existing Pavement	SY	9,050	\$ 1.50	\$ 13,575
Fine Grade & Compact Aggregate Base	SY	9,050	\$ 1.50	\$ 13,575
Pavement Marking (Taxiway)	LS	1	\$ 5,000.00	\$ 5,000
Drainage Pipe	LF	250	\$ 45.00	\$ 11,250
Drainage Structure (incl cover)	EA	2	\$ 2,500.00	\$ 5,000
Turfing and Mulching	AC	3	\$ 4,000.00	\$ 12,000
CONSTRUCTION TOTAL =				\$ 279,400
CONSTRUCTION CONTINGENCIES (15%) =				\$ 41,910
CONSTRUCTION TOTAL =				\$ 321,310
ENGINEERING DESIGN (7%) =				\$ 22,492
CONSTRUCTION ADMIN (10%) =				\$ 32,131
				\$ 375,933
PROJECT YEAR BUDGET ESTIMATE =				\$ 380,000



Note: These costs were developed without the benefit of field surveys or soils investigation. A final cost estimate will be dependent upon development of these items and further design.

ENGINEERING COST ESTIMATE

PROJECT: Taxiway A, B, & C North Rehabilitation
 LOCATION: James Clements Airport
 CITY: Bay City
 DATE: 6/21/11
 PREPARED BY: RAL, BJH

FINAL DESIGN
 PROJECT PROGRAMMING
 FEASIBILITY STUDY
 STATE PLANNING
 BASED ON FY 2011 DOLLARS

WORK DESCRIPTION: Rehabilitate taxiway A, B, and C north of rwy 5-23 (316300 SFT total). Install new taxiway edge reflectors.

ITEM DESCRIPTION	UNIT	QTY	UNIT PRICE	ITEM COST
Mobilization and General Conditions	LS	1	\$ 45,000.00	\$ 45,000
Safety and Security	LS	1	\$ 20,000.00	\$ 20,000
Taxiway Edge Reflector	EA	200	\$ 50.00	\$ 10,000
Bituminous Surface (3")	TON	6,400	\$ 80.00	\$ 512,000
Pulverize Existing Pavement	SY	35,200	\$ 2.00	\$ 70,400
Fine Grade & Compact Aggregate Base	SY	35,200	\$ 1.50	\$ 52,800
Salvage Aggregate Base Course	CYD	2,000	\$ 8.00	\$ 16,000
Pavement Marking (Taxiway)	LS	1	\$ 30,000.00	\$ 30,000
Turfing and Mulching	AC	5	\$ 3,000.00	\$ 15,000
CONSTRUCTION TOTAL =				\$ 771,200
CONSTRUCTION CONTINGENCIES (15%) =				\$ 115,680
CONSTRUCTION TOTAL =				\$ 886,880
ENGINEERING DESIGN (7%) =				\$ 62,082
CONSTRUCTION ADMIN (10%) =				\$ 88,688
\$				1,037,650
PROJECT YEAR BUDGET ESTIMATE =				\$ 1,040,000



Note: These costs were developed without the benefit of field surveys or soils investigation.
 A final cost estimate will be dependent upon development of these items and further design.

ENGINEERING COST ESTIMATE

PROJECT: Security Fencing
 LOCATION: James Clements Airport
 CITY: Bay City
 DATE: 6/21/11
 PREPARED BY: RAL, BJH

FINAL DESIGN
 PROJECT PROGRAMMING
 FEASIBILITY STUDY
 STATE PLANNING
 BASED ON FY 2011 DOLLARS

WORK DESCRIPTION: Install 5000 feet of security fence around northern perimeter then along east side south to admin building

ITEM DESCRIPTION	UNIT	QTY	UNIT PRICE	ITEM COST
Mobilization and General Conditions	LS	1	\$ 15,000.00	\$ 15,000
Safety and Security	LS	1	\$ 5,000.00	\$ 5,000
Security Fencing	LF	5,000	\$ 28.00	\$ 140,000
Access Gates - Manual	EA	2	\$ 12,000.00	\$ 24,000
Ditch Crossing	EA	2	\$ 750.00	\$ 1,500
CONSTRUCTION TOTAL =				\$ 185,500
CONSTRUCTION CONTINGENCIES (15%) =				\$ 27,825
CONSTRUCTION TOTAL =				\$ 213,325
ENGINEERING DESIGN (7%) =				\$ 14,933
CONSTRUCTION ADMIN (10%) =				\$ 21,333
				\$ 249,590
PROJECT YEAR BUDGET ESTIMATE =				\$ 250,000



Note: These costs were developed without the benefit of field surveys or soils investigation.
 A final cost estimate will be dependent upon development of these items and further design.

ENGINEERING COST ESTIMATE

PROJECT: Runway 18/36 Rehabilitation
 LOCATION: James Clements Airport
 CITY: Bay City, MI
 DATE: 6/21/2011
 PREPARED BY: RAL, BJH

___ FINAL DESIGN
 ___ PROJECT PROGRAMMING
 ___ FEASIBILITY STUDY
 STATE PLANNING
 BASED ON FY 2011 DOLLARS

WORK DESCRIPTION: Rehabilitate Runway 18/36 (3800'x75')

ITEM DESCRIPTION	UNIT	QTY	UNIT PRICE	ITEM COST
Mobilization and General Conditions	LS	1	\$ 50,000.00	\$ 50,000
Safety and Security	LS	1	\$ 25,000.00	\$ 25,000
Bituminous Surface (3")	TON	5,800	\$ 90.00	\$ 522,000
Pulverize Existing Pavement	SY	31,700	\$ 2.50	\$ 79,250
Fine Grade & Compact Aggregate Base	SY	31,700	\$ 2.50	\$ 79,250
Salvage Pulverized Material (3")	CY	2,700	\$ 6.00	\$ 16,200
Pavement Marking	LS	1	\$ 30,000.00	\$ 30,000
Pavement Joints (75' @ 100' intervals)	LF	2,850	\$ 3.00	\$ 8,550
Turfing and Mulching	AC	4	\$ 4,000.00	\$ 16,000
CONSTRUCTION TOTAL = \$				826,250
CONSTRUCTION CONTINGENCIES (15%) = \$				123,938
CONSTRUCTION TOTAL = \$				950,188
ENGINEERING DESIGN (7%) = \$				66,513
CONSTRUCTION ADMIN (10%) = \$				95,019
				\$ 1,111,719
PROJECT YEAR BUDGET ESTIMATE = \$				1,120,000



Note: These costs were developed without the benefit of field surveys or soils investigation.
 A final cost estimate will be dependent upon development of these items and further design.

ENGINEERING COST ESTIMATE

PROJECT: Runway 5/23 Lighting, Sign, & PAPI Replacement
 LOCATION: James Clements Airport
 CITY: Bay City, MI
 DATE: 6/21/2011
 PREPARED BY: BJH, RAL

FINAL DESIGN
 PROJECT PROGRAMMING
 FEASIBILITY STUDY
 STATE PLANNING
 BASED ON FY 2011 DOLLARS

WORK DESCRIPTION: Replace runway 5/23 MIRL's, signs, and PAPI.

ITEM DESCRIPTION	UNIT	QTY	UNIT PRICE	ITEM COST
Mobilization and General Conditions	LS	1	\$ 35,000.00	\$ 35,000
Safety and Security	LS	1	\$ 15,000.00	\$ 15,000
Cable, 5KV, CIC (incl. Counterpoise)	LF	10,000	\$ 3.00	\$ 30,000
Cable, 600V, Direct Burial (incl. Counterpoise)	LF	7,000	\$ 2.50	\$ 17,500
Elec. Manhole	EA	4	\$ 4,000.00	\$ 16,000
Elec. Handhole	EA	12	\$ 1,500.00	\$ 18,000
Electrical Duct	LF	500	\$ 50.00	\$ 25,000
MIRL (incl. Lens & Lamp)	EA	44	\$ 750.00	\$ 33,000
Vault Equipment / Regulator	EA	1	\$ 15,000.00	\$ 15,000
Remove MIRL, Base Mounted	EA	44	\$ 150.00	\$ 6,600
Guidance / Hold Short Signs	EA	14	\$ 3,000.00	\$ 42,000
Remove Guidance / Hold Short Signs	EA	14	\$ 200.00	\$ 2,800
PAPI	EA	2	\$ 20,000.00	\$ 40,000
CONSTRUCTION TOTAL = \$				295,900
CONSTRUCTION CONTINGENCIES (15%) = \$				44,385
CONSTRUCTION TOTAL = \$				340,285
ENGINEERING DESIGN (7%) = \$				23,820
CONSTRUCTION ADMIN (10%) = \$				34,029
				\$ 398,133
PROJECT YEAR BUDGET ESTIMATE = \$				400,000



Note: These costs were developed without the benefit of field surveys or soils investigation.
 A final cost estimate will be dependent upon development of these items and further design.

