### MICHIGAN AIRPORT DEVELOPMENT PROGRAM

## AIP CAPITAL IMPROVEMENT PLAN 2010-2019

### FEDERAL/STATE/LOCAL



### **Ann Arbor Municipal Airport**

### Ann Arbor, MI

Date of Latest ALP - **2008**ACIP Airport Code - **A**Airport Identifier - ARB



MDOT-AERO 2700 E AIRPORT SERVICE DRIVE LANSING, MICHIGAN 48906 Prepared by: **URS Corporation** 

Sponsor: City of Ann Arbor
Submitted by: Matt Kulhanek
Date: August 21, 2009

Revised: November 18, 2009

File: M:\Resources\Airport\5 Year Plans\2009\Ann Arbor\Ann Arbor 2009 Rev 3 CIP.xls
Tab: TITLE Page 1 of 23 Date: 12/01/2009

# MICHIGAN STATE BLOCK GRANT PROGRAM TEN-YEAR AIRPORT CAPITAL IMPROVEMENT PROGRAM (CIP) FY-2010\* to FY-2020 \*ACIP includes current development year (2010 already programmed - minor changes acceptable) Airport Name: Ann Arbor Municipal Airport Associated City: Ann Arbor, MI Sponsor: City of Ann Arbor Sponsor email address & phone

Airport Name:	Ann Arbor Municipal Airport										Date prepared: 11/18/2009
Associated City:	Ann Arbor, MI										Prepared By: URS Corporation
Sponsor:	City of Ann Arbor										Sponsor email address & phone: 734-994-2841 MJKulhanek@A2gov.org
Airport Identifier:	FINAL ACIP due to MDOT AERO: no later than 12/1/09									FINAL ACIP due to MDOT AERO: no later than 12/1/09	
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.
2010	Available Entitlements				\$ 150,000						
	Windcone, Signage and Taxiway Marking	NA	ST-OT-IN	43	\$ 48,450	\$ -		\$ 1,275	\$ 1,275	\$ 51,000	Existing signs and Windcone will be upgraded to use LED lights. Additional signage and marking to meet FAA requirements are provided.
L	Exhibit A Property Map	NA	PL-PL-MA	68	\$ 38,000	\$ -		\$ 1,000	\$ 1,000	\$ 40,000	Airport needs to develop an Exhibit A property Map to comply with Federal Standards
					.,			,,,,,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		Local paid work will be reimbursed.
1		1									Airport replaced 40 LED MITL light fixtures. No labor was involved in this work.  Airport will bid work to install Radio Control Equipment for the lighting system. No radio control currently exists.
<u> </u>	Reimburse for Lighting Improvements	NA	CA-RW-EX	56	\$ 22,800	\$ -		\$ 600	\$ -	\$ 23,400	Local share is still shown for work in this year for other projects. This reimbursement will likely be used to cover the local share.
	Final Design Runway & Taxiway Extension	NA	CA-RW-EX	- 00	\$ 40,750	\$ 21,000		\$ 1,625	\$ 1,625	\$ 65,000	Provide for final design of Runway and Taxiway Extension.
0011	AU-Li- F. Of Co.	1		+	\$ - \$ 150,000					<del>                                     </del>	
2011	Available Entitlements				φ 150,000						
											Existing runway will be lengthened to 4300°. Runway will also be shifted 150° to the west to provide clearance over State Road on the East side of the airport. Paralle
1	800' Runway & Taxiway Extension Construction	Yes	CA-RW-EX	56	\$ 150,000	\$ 1,048,900		\$ 31,550	\$ 31,550	\$ 1,262,000	taxiway will be extended to match the new runway. Connector taxiway on the southeast side will be relocated to the new runway end. All taxiway lights will be proposed with LED fixtures.
					\$ -	\$ -				\$ -	
					\$	\$ -				\$ -	
					\$ -						
2012	Available Entitlements	1			\$ 150,000						
	Carryover for Future Project	\$ -			s -	s -		s -	\$ -	\$ -	
	,	<u> </u>			\$ -	\$ -				\$ -	
					\$ -	\$ -				\$ -	
	Carryover				\$ 150,000						
2013	Available Entitlements				\$ 300,000						
1											The current parking lot is too small for daily usage. Additional space passenger traffic requires increasing the parking lot size. (28 spaces). Airport Drive relocation is
-	Terminal Parking Lot Expansion & Relocate Airport Drive Phase I	Yes	OT-OT-PA	23	\$ 236,550	\$ -	1	\$ 6,225	\$ 6,225	\$ 249,000	Prequired to expand parking lot.
<u> </u>		-		<del>                                     </del>	\$ -	\$ -				\$ -	
	Carryover	<del> </del>		+	\$ - \$ 63,450	ъ -	1			<b>a</b> -	
2014	Available Entitlements	1		<del>                                     </del>	\$ 213,450						<u> </u>
	Rehabilitate Existing Airport Access Road	Yes	OT-GT-AC	23	\$ 213,450	\$ 106,700		\$ 8,425	\$ 8,425	\$ 337,000	Existing access road is over 20 years old and needs rehabilitation.
					\$ -	\$ -				\$ -	
<u> </u>					\$ -	\$ -				\$ -	
<u> </u>		1			\$ -						
2015	Available Entitlements			-	\$ 150,000					-	1
<u> </u>	Carryover for Future Project	\$ -		<u> </u>	\$ -	\$ -		\$ -	\$ -	\$ -	0
					\$ -	\$ -				\$ -	
	Carryover				\$ 150,000						
2016	Available Entitlements	1			\$ 300,000						Control of the Contro
<u> </u>	Terminal Building Expansion and Renovation	Yes	CA-TE-IM	44	\$ 295,450	\$ -		\$ 7,775	\$ 7,775	\$ 311,000	Existing terminal building is too small to meet current needs. Additional insulation will be added to existing building to conserve energy. Renovations will be necessary to meet current ADA and other codes.
					\$ -	\$ -				\$ -	
	Carryover				\$ 4,550						
2017	Available Entitlements			ļ	\$ 154,550						
	SRE Equipment (Truck and Tractor)	NA	ST-EQ-SN	48	\$ 154,550	\$ 333,750		\$ 12,850	\$ 12,850	\$ 514,000	Existing equipment from city is aging and will need to be replaced. No FAA funding has been used for existing Snow Removal Equipment.
ļ		ļ			\$ -	\$ -				\$ -	
		1			\$ -						<u> </u>
2018	Available Entitlements	-		-	\$ 150,000					-	1
	Rehabilitate MIRL (Runway Edge Lights)	Yes	RE-RW-LI	72	\$ 130,150	\$ -		\$ 3,425	\$ 3,425	\$ 137,000	Replace all MIRL and guidance signs with new LED units. Project will reduce operating costs and downtime due to more efficient longer lasting bulbs.
	Reconstruct SE and NE Taxiways	Yes	RE-TW-IM	68	\$ 19,850	\$ 1,074,550		\$ 28,800	\$ 28,800	\$ 1,152,000	Pavements are aging and will need replacement. PCI was 80 and 82 for these pavements in 2005.
-		<del> </del>			\$ -		1				
1											Apron pavement is aging and will need reconstruction. 5" concrete overlay will provide cost effective construction. There has been a steady growth in transient
											corporate flights into the airport along with the continual expansion of helicopter activity requiring increased aircraft parking. The airport is also experiencing a growth
	Rehabilitate and Expand Apron	Yes	RE-AP-IM	62	\$ 150,000	\$ 945,350		\$ 28,825	\$ 28,825	\$ 1,153,000	in tie-down activity in conjunction with an increased activity on football weekends and other similar community and University event days. The terminal aircraft parking papron is frequently full on many weekdays with large corporate aircraft and tie-down users. PCI in the Apron was 90 in 2005.
	Terminal Apron Lighting	Yes	ST-AP-LI	1	\$ -	\$ 103,550		\$ 2,725			Apron lights are old and require replacement. LED replacement lights will be installed.
					\$ -						
2020	Available Entitlements				\$ 150,000						
1											Currently, a detention pond is blocking development of additional corporate hangar space. Relocation of the pond will develop new corporate hangar space and
<u> </u>	Hangar Site Work	Yes	ST-PB-MS	40	\$ 121,600	\$ -	1	\$ 3,200	\$ 3,200	\$ 128,000	a paron. Pipe will need to tie into drainage system that outlets in pond to the northwest. Pavements will be crossed by pipe and will be restored.
	Rehabilitate Rwy and Txy Conc. Joint Seals and Remark	Yes	RE-RW-IM	72	\$ 28,400	\$ 47,600		\$ 2,000	\$ 2,000	\$ 80,000	Preventative maintenance on existing pavements. Repair failed concrete joints. Markings will be faded. Remark all existing markings.
					\$ -	,		,,,,,			

<sup>\*\*</sup>In accordance with FAA Order 5100.39A, Appendix 6 - Fields need to be completed

### Year 0 To Year 5 Capital Improvement Plan 2010-2019

Prepared By: URS Corporation

Location: Ann Arbor Municipal Airport
Ann Arbor, MI

			Projects	T			Funding
	E	stimated Cost	Description			Funds	Description
2010	\$	51,000	Windcone, Signage and Taxiway Marking	] [	-	\$ (180,000)	2010 Project Total Cost from Left
	\$	40,000	Exhibit A Property Map			\$ -	Non-Primary Entitlement Carryover
	\$	24,000	Reimburse for Lighting Improvements			\$ 150,000	2010 Non-Primary Entitlement
-	\$	65,000	Final Design Runway & Taxiway Extension			\$ 21,000	Discetionary / State Aportionment
Year 1						\$ 4,500	State Match (2.5%)
>						\$ 4,500	Local Match (2.5%)
							Unused Non-Primary Entitlement
	\$	180,000	Total	lacksquare		\$ -	Balance
				_			
2011	\$	1,262,000	800' Runway & Taxiway Extension Construction	1 6	-	\$ (1,262,000)	2011 Project Total Cost from Left
						\$ -	Non-Primary Entitlement Carryover
						\$ 150,000	2011 Non-Primary Entitlement
2						\$ 1,048,900	Discetionary / State Aportionment
Year						\$ 31,550	State Match (2.5%)
>						\$ 31,550	Local Match (2.5%)
						\$ -	Unused Non-Primary Entitlement
	\$	1,262,000	Total	H		\$ -	Balance
2012	\$	-	Carryover for Future Project	] [	-	\$ -	2012 Project Total Cost from Left
						\$ -	Non-Primary Entitlement Carryover
						\$ 150,000	2012 Non-Primary Entitlement
က						\$ -	Discetionary / State Aportionment
Year						\$ -	State Match (2.5%)
>						\$ -	Local Match (2.5%)
						\$ (150,000)	Unused Non-Primary Entitlement
	\$	-	Total	H		\$ -	Balance
2013	\$	249,000	Terminal Parking Lot Expansion & Relocate Airport Drive Phase I	l	-	\$ (249,000)	2013 Project Total Cost from Left
						\$ 150,000	Non-Primary Entitlement Carryover
						\$ 150,000	2013 Non-Primary Entitlement
4						\$ -	Discetionary / State Aportionment
Year 4						\$ 6,225	State Match (2.5%)
>						\$ 6,225	Local Match (2.5%)
						\$ (63,450)	Unused Non-Primary Entitlement
	\$	249,000	Total	$\blacksquare$		\$ -	Balance
2014	\$	337,000	Rehabilitate Existing Airport Access Road	7 .	-	\$ (337,000)	2014 Project Total Cost from Left
						\$ 63,450	Non-Primary Entitlement Carryover
						\$ 150,000	2014 Non-Primary Entitlement
2				]		\$ 106,700	Discetionary / State Aportionment
Year				]		\$ 8,425	State Match (2.5%)
>				7		\$ 8,425	Local Match (2.5%)
				1		\$ -	Unused Non-Primary Entitlement
	\$	337,000	Total	$\blacksquare$		\$ -	Balance

Date: 12/01/2009

### YEAR 6 TO YEAR 10 CAPITAL IMPROVEMENT PLAN 2010-2019

Prepared By: URS Corporation

LOCATION: Ann Arbor Municipal Airport

Ann Arbor, MI

		PROJECTS	]			FUNDING
	Estimated Cost	DESCRIPTION			FUNDS	DESCRIPTION
2015	\$ -	Carryover for Future Project	▎┌▶	\$	-	2015 Project Total Cost from Left
			1	\$	-	Non-Primary Entitlement Carryover
			1	\$	150,000	2015 Non-Primary Entitlement
9			1	\$	-	Discetionary / State Aportionment
Year 6			1	\$	-	State Match (2.5%)
			1	\$	-	Local Match (2.5%)
			4	\$		Unused Non-Primary Entitlement
	\$ -	TOTAL		\$	-	Balance
2016	A 011 000	Townsian I Building Community and Doministra	1	Φ.	(011 000)	2010 Built at Tatal Ocation in 1-4
2010	\$ 311,000	Terminal Building Expansion and Renovation	┨	\$		2016 Project Total Cost from Left
			1	\$		Non-Primary Entitlement Carryover
			1	\$	150,000	2016 Non-Primary Entitlement
Year 7			1	\$		Discetionary / State Aportionment
χe			1	\$		State Match (2.5%) Local Match (2.5%)
			1	\$		Unused Non-Primary Entitlement
	\$ 311,000	ΤΟΤΔΙ	┧	\$	(4,330)	Balance
	Ψ 011,000	ITOTAL	_	Ψ		24.4.700
2017	\$ 514,000	SRE Equipment (Truck and Tractor)	1 →	\$	(514.000)	2017 Project Total Cost from Left
		4.5.	1	\$		Non-Primary Entitlement Carryover
			1	\$		2017 Non-Primary Entitlement
ω			1	\$	333,750	Discetionary / State Aportionment
Year 8			1	\$		State Match (2.5%)
>			1	\$	12,850	Local Match (2.5%)
			1	\$	-	Unused Non-Primary Entitlement
	\$ 514,000	TOTAL		\$	-	Balance
			7			
2018	\$ 137,000	Rehabilitate MIRL (Runway Edge Lights)	▎┌▶	\$	(1,289,000)	2018 Project Total Cost from Left
	\$ 1,152,000	Reconstruct SE and NE Taxiways	4	\$	-	Non-Primary Entitlement Carryover
			4	\$		2018 Non-Primary Entitlement
r 9			4	\$		Discetionary / State Aportionment
Year 9			4	\$		State Match (2.5%)
			4	\$	32,225	Local Match (2.5%)
	<b>A</b> 4 000 000	TOTAL	4	\$	-	Unused Non-Primary Entitlement
	\$ 1,289,000	IOTAL		\$	-	Balance
2019	\$ 1,153,000	Rehabilitate and Expand Apron	1 _	\$	(1 262 000)	2019 Project Total Cost from Left
		Terminal Apron Lighting	†   <b>"</b>	\$	1,202,000)	Non-Primary Entitlement Carryover
	Ψ 109,000	Treminal Apron Lighting	1	\$	150,000	2019 Non-Primary Entitlement
10			1	\$		Discetionary / State Aportionment
ar 1			1	\$		State Match (2.5%)
Yes			1	\$		Local Match (2.5%)
			1	\$		Unused Non-Primary Entitlement
	\$ 1,262,000	TOTAL		\$	-	Balance
			-			
2020	\$ 128,000	Hangar Site Work	] ┌▶	\$	(208,000)	2020 Project Total Cost from Left
	\$ 80,000	Rehabilitate Rwy and Txy Conc. Joint Seals and Remark		\$		Non-Primary Entitlement Carryover
			]	\$	150,000	2020 Non-Primary Entitlement
			]	\$	47,600	Discetionary / State Aportionment
			1	\$	5,200	State Match (2.5%)
			]	\$	5,200	Local Match (2.5%)
			]	\$	-	Unused Non-Primary Entitlement
	\$ 208,000	TOTAL	$\Box$	\$	-	Balance

### Consultant URS Corporation

(Preparer) William M. Malinowski, P.E

### **Ann Arbor Municipal Airport**

YEAR (PROJECT NUMBER): 2010(1)

DESCRIPTION: Windcone, Signage and Taxiway Marking

Work Item Description	Quantity	Unit	Price	Amount
•				
LED Windcone Replacement	1	Each	\$ 8,000.00	\$ 8,000
Upgrade existing signs with LED lamps (1 Panel)	1	Each	\$ 700.00	\$ 700
Upgrade existing signs with LED lamps (2 Panel)	7	Each	\$ 800.00	\$ 5,600
Upgrade existing signs with LED lamps (3 Panel)	3	Each	\$ 900.00	\$ 2,700
Taxiway marking	1,500	SFT	\$ 2.00	\$ 3,000
				\$ -
New Taxiway Signs				\$ -
New panel inserts for existing signs	17	Each	\$ 150.00	\$ 2,550
Relocate sign on new base	2	Each	\$ 1,000.00	\$ 2,000
New 2 Panel Sign	1	Each	\$ 5,000.00	\$ 5,000
New 1 Panel Sign	1	Each	\$ 4,500.00	\$ 4,500
Add 1 Panel to Existing Sign	1	Each	\$ 4,000.00	\$ 4,000
				\$ -
				\$ =
				\$ -
	TOTAL CONSTR			\$ 38,050.00
	ENGINEERING			\$ 6,000.00
	CONSTRUCTIO			\$ 5,000.00
	CONTINGENCY	<b>,</b>	5%	\$ 1,902.50
	TOTAL*			\$ 51,000.00
	TOTAL FEDERA	AL DOLLARS	95%	\$ 48,450
	TOTAL STATE [	DOLLARS	2.5%	\$ 1,275

<sup>\*</sup> Amount rounded up to the nearest thousand dollars.

TOTAL LOCAL DOLLARS

2.5%

\$

1,275 1,275

### **DESCRIPTION AND JUSTIFICATION:**

Existing signs and Windcone will be upgraded to use LED lights. Additional signage and marking to meet FAA requirements are provided.

ALP STATUS	ENV.	PURPOSE:	Standards	6
NA	Categorical Ex.	COMPONENT:	Other	7
	Expected	TYPE:	nstrument Appr. Aide	7
<u> </u>			PRIORITY NUMBER	43

YEAR (PROJECT NUMBER): 2010(2)

**DESCRIPTION: Exhibit A Property Map** 

Work Item Description	Quantity	Unit	Price	Α	mount
Prepare Exhibit A property Map	1	Lump Sum	\$ 40,000.00	\$	40,000
				\$	-
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				\$	-
	TOTAL CONSTR				40,000.00

**ENGINEERING DESIGN** CONSTRUCTION ADMIN. \$ CONTINGENCY TOTAL\* 40,000.00 \$ TOTAL FEDERAL DOLLARS 95% \$ 38,000 TOTAL STATE DOLLARS 2.5% 1,000 \$ TOTAL LOCAL DOLLARS 2.5% 1,000 \$ \* Amount rounded up to the nearest thousand dollars.

### DESCRIPTION AND JUSTIFICATION:

Airport needs to develop an Exhibit A property Map to comply with Federal Standards

ALP STATUS	ENV.	PURPOSE:	Standards	6
	Categorical Ex.	COMPONENT:	Other	7
	Expected	TYPE:	nstrument Appr. Aide	7
			PRIORITY NUMBER	68

(Preparer) William M. Malinowski, P.E

#### **Ann Arbor Municipal Airport**

YEAR (PROJECT NUMBER): 2010(3)

**DESCRIPTION: Reimburse for Lighting Improvements** 

Work Item Description	Quantity	Unit	Price	Α	mount
40 LED MITL Fixtures	1	LS	\$ 8,280.00	\$	8,280
				\$	-
Radio Control Equipment and Installation	1	LS	\$ 15,000.00	\$	15,000
				\$	-
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	TOTAL CONOTO				22 200 00

**TOTAL CONSTRUCTION** \$ 23,280.00 **ENGINEERING DESIGN** CONSTRUCTION ADMIN. \$ CONTINGENCY TOTAL\* 24,000.00 \$ TOTAL FEDERAL DOLLARS 95% \$ 22.800 TOTAL STATE DOLLARS 2.5% \$ 600 TOTAL LOCAL DOLLARS \$ \* Amount rounded up to the nearest thousand dollars.

### **DESCRIPTION AND JUSTIFICATION:**

Local paid work will be reimbursed.

Airport replaced 40 LED MITL light fixtures. No labor was involved in this work.

Airport will bid work to install Radio Control Equipmrnt for the lighting system. No radio control currently exists.

Local share is still shown for work in this year for other projects. This reimbursement will likely be used to cover the local share.

ALP STATUS	ENV.	PURPOSE:	Standards	6
NA	Categorical Ex.	COMPONENT:	Other	7
	Expected	TYPE:	nstrument Appr. Aide	7
			PRIORITY NUMBER	56

YEAR (PROJECT NUMBER): 2010(4)

**DESCRIPTION: Final Design Runway & Taxiway Extension** 

Work Item Description	Quantity	Unit	Price	A	mount
First Davis Durana 0 Tarkan Establis					05.000
Final Design Runway & Taxiway Extension				\$	65,000
				\$	-
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	TOTAL CONSTRU	IOTION	l	\$	65,000.00

**ENGINEERING DESIGN** CONSTRUCTION ADMIN. \$ CONTINGENCY TOTAL\* 65,000.00 \$ **TOTAL FEDERAL DOLLARS** 95% \$ 61,750 TOTAL STATE DOLLARS 2.5% 1,625 \$ 1,625 TOTAL LOCAL DOLLARS 2.5% \$ \* Amount rounded up to the nearest thousand dollars.

DESCRIPTION AND JUSTIFICATION:
Provide for final design of Runway and Taxiway Extension.

ALP STATUS	ENV.	PURPOSE:	Standards	6
NA	Categorical Ex.	COMPONENT:	Other	7
	Expected	TYPE:	nstrument Appr. Aide	7
			PRIORITY NUMBER	56

YEAR (PROJECT NUMBER): 2011(1)

DESCRIPTION: 800' Runway & Taxiway Extension Construction

Work Item Description	Quantity	Unit	Price	Amount
Mobilization and Safety Security	1	Lump Sum	\$ 100,000.00	\$ 100,000
Pavement Removal	3,500	SYD	\$ 20.00	\$ 70,000
Runway Lighting	12	Each	\$ 950.00	\$ 11,400
Taxiway Lighting	20	Each	\$ 950.00	\$ 19,000
Relocate Existing Taxiway & Threshold Lights	11	Each	\$ 300.00	\$ 3,300
#8 Cable in Conduit	3,800	LFT	\$ 3.00	\$ 11,400
#6 Solid Counterpoise Wire	3,800	LFT	\$ 2.00	\$ 7,600
Replace Existing Txy Lights with LED Lamps	218	Each	\$ 550.00	\$ 119,900
Relocate Existing VASI	1	Each	\$ 10,000.00	\$ 10,000
Relocate REIL	2	Set	\$ 5,000.00	\$ 10,000
Relocate PAPI	1	set	\$ 10,000.00	\$ 10,000
Relocate ODAL'S	1	Lump Sum	\$ 15,000.00	\$ 15,000
Unclassified Excavation	40,000	CYD	\$ 4.00	\$ 160,000
Drainage	1	Lump Sum	\$ 40,000.00	\$ 40,000
6 Inch Aggregate Base Course	2,700	CYD	\$ 30.00	\$ 81,000
6 Inch Concrete Pavement	15,000	SYD	\$ 22.00	\$ 330,000
Runway Grooving	12,000	SYD	\$ 2.00	\$ 24,000
Turfing & Mulching	5	Acres	\$ 2,000.00	\$ 10,000
Marking	1	Lump Sum	\$ 50,000.00	\$ 50,000
Approach Markers	8	Each	\$ 350.00	\$ 2,800
Centerline monument	2	Each	\$ 1,000.00	\$ 2,000
				\$ -

TOTAL CONSTRUCTION \$ 1,087,400.00 **ENGINEERING FINAL DESIGN** CONSTRUCTION ADMIN. 120,000.00 CONTINGENCY 5% 54,370.00 TOTAL\* 1,262,000.00 TOTAL FEDERAL DOLLARS 95% \$ 1,198,900 TOTAL STATE DOLLARS 2.5% \$ 31,550 TOTAL LOCAL DOLLARS 31,550 2.5% \$ \* Amount rounded up to the nearest thousand dollars.

#### **DESCRIPTION AND JUSTIFICATION:**

Existing runway will be lengthened to 4300'. Runway will also be shifted 150' to the west to provide clearance over State Road on the East side of the airport. Parallel taxiway will be extended to match the new runway. Connector taxiway on the southeast side will be relocated to the new runway end. All taxiway lights will be replaced with LED fixtures.

ALP STATUS	ENV.	PURPOSE:	Capacity	7
Yes	EA in previous year	COMPONENT:	Runway	10
		TYPE:	Extension/Expansion	6
			PRIORITY NUMBER	56

Consultant URS Corporation
(Preparer) William M. Malinowski, P.E.

Ann Arbor Municipal Airport
YEAR (PROJECT NUMBER): 2012(1)

DESCRIPTION: Carryover for Future Project

	ion. Gurryovor ion				
Work Item Description	Quantity	Unit	Price	Am	ount
				\$	-
				\$	-
				\$	-
				\$	-
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				\$	-
	TOTAL CONSTR	RUCTION		\$	-
	ENGINEERING	DESIGN		\$	-
	CONSTRUCTIO			\$	-
	CONTINGENCY			\$	-
	TOTAL*			\$	-
	TOTAL FEDERA	L DOLLARS	95%	\$	-
	TOTAL STATE [	OOLLARS	2.5%	\$ \$ \$	-
	TOTAL LOCAL [	OOLLARS	2.5%	\$	-
	* Amount rounded u	p to the nearest thous			
		•			
DESCRIPTION AND JUSTIFICATION:					
ALD OT THE					
ALP STATUS	ENV.	PURPOSE:		##	N/A
ALP STATUS	ENV.	PURPOSE: COMPONENT:			N/A
ALP STATUS	ENV.			#1	

YEAR (PROJECT NUMBER): 2013(1)

DESCRIPTION: Terminal Parking Lot Expansion & Relocate Airport Drive Phase I

Work Item Description	Quantity	Unit	Price	Amount
Mobilization	1	Lump Sum	\$ 15,000.00	\$ 15,000
Safety & Security	1	Lump Sum	\$ 3,000.00	\$ 3,000
Saw Cut and Seal pavement	84	LFT.	\$ 5.00	\$ 420
Unclassified Excavation	3,000	CYD.	\$ 5.00	\$ 15,000
Granular Sub-base 12"	1,200	CYD.	\$ 15.00	\$ 18,000
Aggregate Base Course	600	CYD.	\$ 30.00	\$ 18,000
Curb & Gutter	500	LFT.	\$ 25.00	\$ 12,500
Bituminous Pavement	600	Ton	\$ 95.00	\$ 57,000
Marking	1	Lump Sum	\$ 2,500.00	\$ 2,500
Underdrain	1,260	LFT.	\$ 8.00	\$ 10,080
Restoration	1	LS	\$ 5,000.00	\$ 5,000
Resurface Existing Pavement	300	Ton	\$ 95.00	\$ 28,500
Ditch/curb Work	1,680	LFT.	\$ 12.00	\$ 20,160
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	TOTAL CONSTI	BUCTION		\$ 205,160.00
	ENGINEERING			\$ 18,000.00
	CONSTRUCTIO			\$ 15,000.00

TOTAL CONSTRUCTION		\$	205,160.00
ENGINEERING DESIGN		\$	18,000.00
CONSTRUCTION ADMIN.		\$	15,000.00
CONTINGENCY	5%	\$	10,258.00
TOTAL*		\$	249,000.00
TOTAL FEDERAL DOLLARS	95%	\$	236,550
TOTAL FEDERAL DOLLARS TOTAL STATE DOLLARS	95% 2.5%	\$ \$	236,550 6,225

<sup>\*</sup> Amount rounded up to the nearest thousand dollars.

### **DESCRIPTION AND JUSTIFICATION:**

The current parking lot is too small for daily usage. Additional space passenger traffic requires increasing the parking lot size. (28 spaces). Airport Drive relocation is required to expand parking lot.

ALP STATUS	ENV.	PURPOSE:	Other	4
	Categorical Ex.	COMPONENT:	Other	7
	Expected	TYPE:	Parking	1
		PRIORITY NUMBER		19

YEAR (PROJECT NUMBER): 2014(1)

**DESCRIPTION: Rehabilitate Existing Airport Access Road** 

Work Item Description	Quantity	Unit	Price	Amount
Mobilization	1	Lump Sum	\$ 14,000.00	\$ 14,000
Safety & Security	1	Lump Sum	\$ 3,500.00	\$ 3,500
Mill Existing Pavement	5,300	SYD.	\$ 4.00	\$ 21,200
Bituminous Pavement	600	Ton	\$ 95.00	\$ 57,000
Marking	1	Lump Sum	\$ 2,000.00	\$ 2,000
Ditch/Curb Work	4,000	LFT.	\$ 15.00	\$ 60,000
Sidewalk	7,500	SFT	\$ 4.00	\$ 30,000
Drainage Structures	3	Lump Sum	\$ 2,000.00	\$ 6,000
24" Storm Pipe	2,000	LFT	\$ 38.00	\$ 76,000
Earthwork for drainage ditch	2,000	CYD	\$ 4.00	\$ 8,000
				\$ -
	TOTAL CONSTR			\$ 277,700.00
	ENGINEERING			\$ 25,000.00
	CONSTRUCTIO			\$ 20,000.00
	CONTINGENCY	,	5%	\$ 13,885.00
	TOTAL*			\$ 337,000.00
	TOTAL FEDERA	AL DOLLARS	95%	\$ 320,150

 $\begin{tabular}{ll} TOTAL\ LOCAL\ DOLLARS & 2.5\% \\ {}^*\ Amount\ rounded\ up\ to\ the\ nearest\ thousand\ dollars. \\ \end{tabular}$ 

2.5%

\$

\$

8,425

8,425

TOTAL STATE DOLLARS

### DESCRIPTION AND JUSTIFICATION:

Existing access road is over 20 years old and needs rehabilitation.

ALP STATUS	ENV.	PURPOSE:	Other	4
Yes	Categorical Ex.	COMPONENT:	Gnd Transp	4
	Expected	TYPE:	Access	7
		PRIORITY NUMBER		23

### Ann Arbor Municipal Airport YEAR (PROJECT NUMBER): 2015(1)

DESCRIPTION: Carryover for Future Project

Work Item Description	Quantity	Unit	Price	Am	ount
				\$ \$	-
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	TOTAL CONSTI ENGINEERING			\$	-
	CONSTRUCTIO				
	CONTINGENCY			\$	_
	TOTAL*			\$	-
	TOTAL FEDERA		95%	\$	-
	TOTAL STATE I		2.5%	\$ \$ \$	-
	TOTAL LOCAL I		2.5%	\$	-
	* Amount rounded u	p to the nearest thou	sand dollars.		
ESCRIPTION AND JUSTIFICATION:					
LOOM HOWARD GOOTH TOATION.					

ALP STATUS	ENV.	PURPOSE:		#N/A
		COMPONENT:		#N/A
		TYPE:		#N/A
			PRIORITY NUMBER	#N/A

YEAR (PROJECT NUMBER): 2016(1)

**DESCRIPTION: Terminal Building Expansion and Renovation** 

Work Item Description	Quantity	Unit	Price		Amount
Building Expansion	1,000	SFT	\$ 70.00	\$	70,000
New Green Roof	1	LS	\$ 40,000.00	\$	40,000
Electrical Upgrades	1	LS	\$ 25,000.00	\$	25,000
Renovations to Existing Building	5,000	SFT	\$ 16.00	\$	80,000
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	TOTAL CONSTR			\$	215,000.00
	ENGINEERING [			\$	45,000.00
	CONSTRUCTIO			\$	40,000.00
	CONTINGENCY		5%	\$ \$	10,750.00
	TOTAL*			\$	311,000.00
	TOTAL FEDERA	L DOLLARS	95%	\$	295,450
	TOTAL STATE D	OLLARS	2.5%	\$ \$	7,775
	TOTAL LOCAL D	OLLARS	2.5%	\$	7,775

<sup>\*</sup> Amount rounded up to the nearest thousand dollars.

### **DESCRIPTION AND JUSTIFICATION:**

Existing terminal building is too small to meet current needs. Additional insulation will be added to existing building to conserve energy. Renovations will be necessary to meet current ADA and other codes.

ALP STATUS	ENV.	PURPOSE:	Capacity	7
	Categorical Ex.	COMPONENT:	Terminal	1
	Expected	TYPE:	Improvements	8
	_		PRIORITY NUMBER	44

Consultant URS Corporation

(Preparer) William M. Malinowski, P.E.

### **Ann Arbor Municipal Airport**

YEAR (PROJECT NUMBER): 2017(1)

**DESCRIPTION: SRE Equipment (Truck and Tractor)** 

Work Item Description	Quantity	Unit	Price	Aı	mount
Tractor with Blower	1	LS	\$ 180,000.00	\$	180,000
_arge Plow Truck	1	LS	\$ 300,000.00	\$	300,000
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	TOTAL CONSTRU	CTION	•	\$ 4	480,000.00
	ENGINEERING DE	SIGN		\$	10,000.00
	CONSTRUCTION				
	CONTINGENCY		5%	\$	24,000.0
	TOTAL*			\$ \$ 5	514,000.0
	TOTAL FEDERAL	DOLLARS	95%	\$	488,30
	TOTAL STATE DO		2.5%	\$	12,850
		-		*	,

<sup>\*</sup> Amount rounded up to the nearest thousand dollars.

TOTAL LOCAL DOLLARS

### DESCRIPTION AND JUSTIFICATION:

Existing equipment from city is aging and will need to be replaced. No FAA funding has been used for existing Snow Removal Equipment.

ALP STATUS	ENV.	PURPOSE:	Standards	6
	Categorical Ex.	COMPONENT:	Equipment	8
	Expected	TYPE:	Snow Removal Eq	9
			PRIORITY NUMBER	48

\$

2.5%

12,850

(Preparer) William M. Malinowski, P.E

### **Ann Arbor Municipal Airport**

YEAR (PROJECT NUMBER): 2018(1)

DESCRIPTION: Rehabilitate MIRL (Runway Edge Lights)

Work Item Description	Quantity	Unit	T	Price		Amount
•						
Mobilization	1	Lump Sum	\$	15,000.00	\$	15,000
Safety & Security	1	Lump Sum	\$	5,000.00	\$	5,000
LED Sign	12	Each	\$	4,000.00	\$	48,000
LED Edge Light	66	Each	\$	500.00	\$	33,000
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	TOTAL CONSTR	RUCTION			\$	101,000.00
	ENGINEERING I				\$	15,000.00
	CONSTRUCTIO				\$	15,000.00
	CONTINGENCY			5%	\$	5,050.00
	TOTAL*			070	\$	137,000.00
	TOTAL FEDERA	I DOLLARS		95%	\$	130,150
	TOTAL TEDENA			2.5%	φ \$	3,425
	TOTAL STATE L			2.5%	φ \$	3,425

<sup>\*</sup> Amount rounded up to the nearest thousand dollars.

### **DESCRIPTION AND JUSTIFICATION:**

Replace all MIRL and guidance signs with new LED units. Project will reduce operating costs and downtime due to more efficient longer lasting bulbs.

ALP STATUS	ENV.	PURPOSE:	Reconstruction	8
	Categorical Ex.	COMPONENT:	Runway	10
	Expected	TYPE:	Lighting	8
			PRIORITY NUMBER	72

YEAR (PROJECT NUMBER): 2018(2)

**DESCRIPTION: Reconstruct SE and NE Taxiways** 

Work Item Description	Quantity	Unit	Price	Amount
Mobilization	1	Lump Sum	\$ 80,000.00	\$ 80,000
Safety & Security	1	Lump Sum	\$ 10,000.00	\$ 10,000
Unclassified Excavation	15,000	CYD.	\$ 4.00	\$ 60,000
Granular Sub-base 12"	8,600	CYD.	\$ 15.00	\$ 129,000
Aggregate Base Course 6"	4,300	CYD.	\$ 30.00	\$ 129,000
Bituminous Pavement 3"	4,400	Ton	\$ 95.00	\$ 418,000
Marking	1	Lump Sum	\$ 5,000.00	\$ 5,000
Underdrain	8,000	LFT.	\$ 8.00	\$ 64,000
Restoration	1	LS	\$ 3,000.00	\$ 3,000
Mill Existing Pavement	25,388	SYD	\$ 2.00	\$ 50,776
				\$ -
	TOTAL CONST	DUCTION		\$ 948 776 43

TOTAL CONSTRUCTION 948,776.43 **ENGINEERING DESIGN** 80,000.00 \$ CONSTRUCTION ADMIN. \$ 75,000.00 CONTINGENCY 5% 47,438.82 TOTAL\* \$ 1,152,000.00 TOTAL FEDERAL DOLLARS 95% \$ 1,094,400 TOTAL STATE DOLLARS 2.5% 28,800 \$ TOTAL LOCAL DOLLARS 2.5% 28,800 \$ \* Amount rounded up to the nearest thousand dollars.

### **DESCRIPTION AND JUSTIFICATION:**

Pavements are aging and will need replacement. PCI was 80 and 82 for these pavements in 2005.

ALP STATUS	ENV.	PURPOSE:	Reconstruction	8
Yes	Categorical Ex.	COMPONENT:	Taxiway	8
	Expected	TYPE:	Improvements	8
			PRIORITY NUMBER	68

(Preparer) William M. Malinowski, P.E

#### **Ann Arbor Municipal Airport**

YEAR (PROJECT NUMBER): 2019(1)

**DESCRIPTION: Rehabilitate and Expand Apron** 

Work Item Description	Quantity	Unit	Price		Amount		
Rehab				\$	-		
Mobilization	1	Lump Sum	\$ 15,000.00	\$	15,000		
Safety & Security	1	Lump Sum	\$ 5,000.00	\$	5,000		
Mill Existing Pavement	21,000	SYD	\$ 2.00	\$	42,000		
5" Concrete Overlay	21,000	SYD	\$ 25.00	\$	525,000		
				\$	-		
Expansion				\$	-		
Unclassified Excavation	3,200	CYD.	\$ 4.00	\$	12,800		
Aggregate Base Course 6"	1,500	CYD.	\$ 30.00	\$	45,000		
Bituminous Surface 3"	1,700	Tons	\$ 95.00	\$	161,500		
Trenching	800	LFT.	\$ 1.00	\$	800		
Underground Cable, 1/C #8	2,400	LFT.	\$ 2.00	\$	4,800		
Counterpoise Wire, #6	800	LFT.	\$ 3.00	\$	2,400		
Galvanized Steel Conduit, 2" Direct Burial	100	LFT.	\$ 35.00	\$	3,500		
Apron Lights	6	Each	\$ 9,000.00	\$	54,000		
Markings (Center & Edge)	1,200	SFT.	\$ 0.50	\$	600		
Seeding & Mulching	2	Acres	\$ 2,000.00	\$	3,700		
Tie-Downs	60	Each	\$ 600.00	\$	36,000		
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	TOTAL CONST	LIGTION		\$	912 100 00		

TOTAL CONSTR	UCTION		\$ 912,100.00
ENGINEERING D	DESIGN		\$ 100,000.00
CONSTRUCTION	N ADMIN.		\$ 95,000.00
CONTINGENCY		5%	\$ 45,605.00
TOTAL*			\$ 1,153,000.00
TOTAL FEDERA	L DOLLARS	95%	\$ 1,095,350
TOTAL STATE D	OLLARS	2.5%	\$ 28,825
TOTAL LOCAL D	OLLARS	2.5%	\$ 28.825

<sup>\*</sup> Amount rounded up to the nearest thousand dollars.

### **DESCRIPTION AND JUSTIFICATION:**

Apron pavement is aging and will need reconstruction. 5" concrete overlay will provide cost effective construction. There has been a steady growth in transient corporate flights into the airport along with the continual expansion of helicopter activity requiring increased aircraft parking. The airport is also experiencing a growth in tie-down activity in conjunction with an increased activity on football weekends and other similar community and University event days. The terminal aircraft parking apron is frequently full on many weekdays with large corporate aircraft and tie-down users. PCI in the Apron was 90 in 2005.

ALP STATUS	ENV.	PURPOSE:	Reconstruction	8
Yes	Categorical Ex.	COMPONENT:	Apron	5
	Expected	TYPE:	Improvements	8
			PRIORITY NUMBER	62

Consultant **URS Corporation** 

(Preparer) William M. Malinowski, P.E

### **Ann Arbor Municipal Airport**

YEAR (PROJECT NUMBER): 2019(2)

**DESCRIPTION: Terminal Apron Lighting** 

Work Item Description	Quantity	Unit	Price		Amount
Mobilization	1	Lump Sum	\$ 8,000.00	\$	8,000
Safety & Security	1	Lump Sum	\$ 2,000.00	\$	2,000
Underground Cable , 1/C, #8	2,000	LFT.	\$ 2.00	\$	4,000
Counterpoise Wire, #6	600	LFT.	\$ 2.00	\$	1,200
Apron Lights	8	Each	\$ 9,000.00	\$	72,000
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	TOTAL CONSTR	DUCTION		Φ.	97 200 00
				\$	87,200.00
	ENGINEERING			\$	10,000.00
	CONSTRUCTIO CONTINGENCY		5%	\$ \$	7,000.00 4,360.00
	TOTAL*		3%	<u>\$</u>	109,000.00
					ŕ
	TOTAL FEDERA		95%	\$ \$	103,550
	TOTAL STATE [		2.5%	\$	2,725
	TOTAL LOCAL [	OULLARS	2.5%	\$	2,725

 $<sup>^{\</sup>star}$  Amount rounded up to the nearest thousand dollars.

### DESCRIPTION AND JUSTIFICATION:

Apron lights are old and require replacement. LED replacement lights will be installed.

ALP STATUS	ENV.	PURPOSE:	Standards	6
Yes	Categorical Ex. COMPONENT:		Apron	5
Expected	TYPE:	Lighting	8	
			PRIORITY NUMBER	42

YEAR (PROJECT NUMBER): 2020(1)

**DESCRIPTION: Hangar Site Work** 

Work Item Description	Quantity	Unit		Price		Amount
Mobilization & Safety Security	1	Lump Sum	\$	20,000.00	\$	20,000
Unclassified Excavation & Grading	2,000	CYD.	\$	5.00	\$	10,000
Seeding and Mulching	3	Acres	\$	1,200.00	\$	3,600
Drainage Structures	3	Lump Sum	\$	2,000.00	\$	6,000
24" Storm Pipe	1,000	LFT	\$	38.00	\$	38,000
Pavement Restoration	1	Lump Sum	\$	20,000.00	\$	20,000
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	TOTAL CONSTR	RUCTION			\$	97,600.00
	ENGINEERING I	DESIGN		15%	\$	15,000.00
	CONSTRUCTIO	N ADMIN.		15%	\$	10,000.00
	CONTINGENCY			5%	\$	4,880.00
	TOTAL*				\$	128,000.00
	TOTAL FEDERA	L DOLLARS		95%	\$	121,600
	TOTAL STATE D			2.5%	\$	3,200
	TOTAL LOCAL D			2.5%	\$	3,200
	* Amount rounded up	_	sand o		Ψ	5,200

### **DESCRIPTION AND JUSTIFICATION:**

Currently, a detention pond is blocking development of additional corporate hangar space. Relocation of the pond will develop new corporate hangar space and apron. Pipe will need to tie into drainage system that outlets in pond to the northwest. Pavements will be crossed by pipe and will be restored.

ALP STATUS	ENV.	PURPOSE:	Standards	6
	Categorical Ex.	COMPONENT:	Public Bldg	7
	Expected	TYPE:	Misc.	5
			PRIORITY NUMBER	40

YEAR (PROJECT NUMBER): 2020(2)

DESCRIPTION: Rehabilitate Rwy and Txy Conc. Joint Seals and Remark

Work Item Description	Quantity	Unit		Price		Amount
		_				
Mobilization & Safety Security	1	Lump Sum	\$	3,000.00	\$	3,000
Joint Seal	5,000	LFT	\$	5.00	\$	25,000
Paint Marking	1	LS	\$	40,000.00	\$	40,000
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	TOTAL CONSTR	LICTION			\$	68,000.00
		TOTAL CONSTRUCTION ENGINEERING DESIGN				5,000.00
					\$ \$	3,000.00
	CONSTRUCTION ADMIN. CONTINGENCY			5%	\$ \$	3,400.00
	TOTAL*			J /6	\$	80,000.00
	TOTAL FEDERAL DOLLARS			95%	\$ \$	76,000
	TOTAL STATE D			2.5%	\$	2,000
	TOTAL LOCAL D	OLLARS		2.5%	\$	2,000

### **DESCRIPTION AND JUSTIFICATION:**

Preventative maintenance on existing pavements. Repair failed concrete joints. Markings will be faded. Remark all existing markings.

ALP STATUS	ENV.	PURPOSE:	Reconstruction	8
Yes	Categorical Ex. COMPON		Runway	10
	Expected	TYPE:	Improvements	8
			PRIORITY NUMBER	72

\* Amount rounded up to the nearest thousand dollars.

YEAR (PROJECT NUMBER): 2021(1)

DESCRIPTION: Hangar Access Road Phase II

Work Item Description	Quantity	Unit		Price		Amount
Mobilization	1	Lump Sum	\$	25,000.00	\$	25,000
Safety & Security	1	Lump Sum	\$	8,000.00	\$	8,000
Saw Cut and Seal Pavement	216	LFT	\$	5.00	\$	1,080
Unclassified Excavation	3,400	CYD	\$	4.00	\$	13,600
Granular Sub-base 12"	900	CYD	\$	12.00	\$	10,800
Aggregate Base course 6"	450	CYD	\$	30.00	\$	13,500
Bituminous Surface 3"	900	Tons	\$	95.00	\$	85,500
Pavement Marking	1	Lump Sum	\$	1,500.00	\$	1,500
Ditch/Curb Underdrain Work	4,320	LFT	\$	20.00	\$	86,400
Seeding and Mulching	2	Acres	\$	2,000.00	\$	4,320
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	TOTAL CONSTI	<u> </u> RUCTION			\$	249,700.00
	TOTAL CONSTRUCTION ENGINEERING DESIGN				ф Ф	45,000.00
	CONSTRUCTIO				Φ	45,000.00
	CONTINGENCY			5%	\$	12.485.00

TOTAL CONSTRUCTION		\$ 249,700.00
ENGINEERING DESIGN		\$ 45,000.00
CONSTRUCTION ADMIN.		\$ 45,000.00
CONTINGENCY	5%	\$ 12,485.00
TOTAL*		\$ 353,000.00
TOTAL FEDERAL DOLLARS	95%	\$ 335,350
TOTAL STATE DOLLARS	2.5%	\$ 8,825
TOTAL LOCAL DOLLARS	2.5%	\$ 8,825
* Amount rounded up to the nearest thousan	d dollars.	

### DESCRIPTION AND JUSTIFICATION:

Road will provide better access for users of hangars. Will increase safety and security by providing them with separate access road.

ALP STATUS	ENV.	PURPOSE:	Other	4
Yes	Categorical Ex.	COMPONENT:	Gnd Transp	4
	Expected	TYPE:	Access	7
			PRIORITY NUMBER	23

### Ann Arbor Municipal Airport YEAR (PROJECT NUMBER): 2021(2)

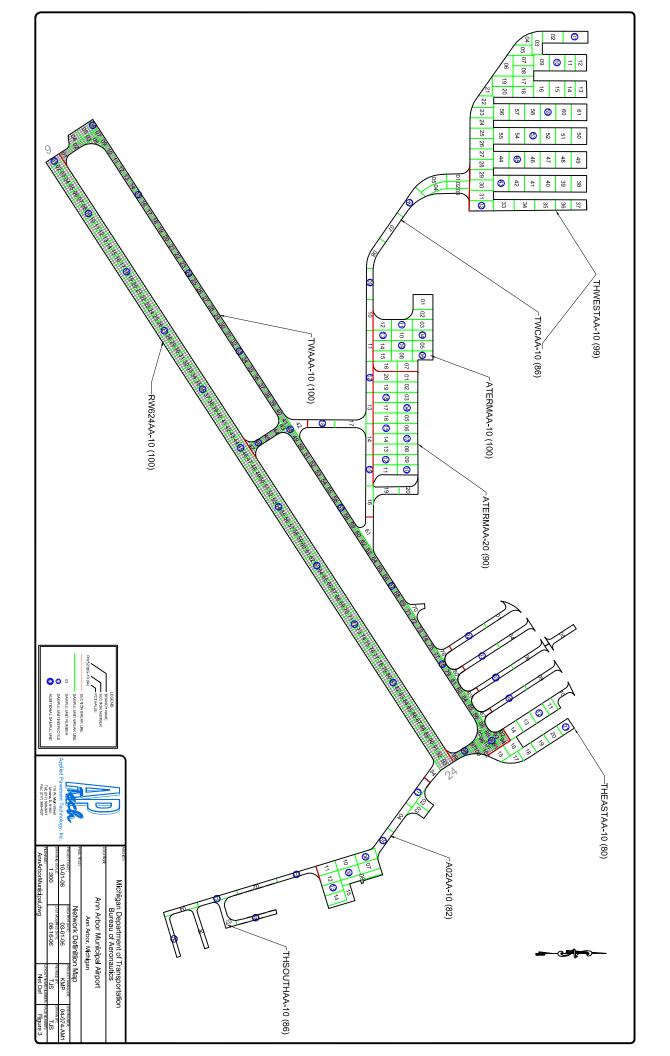
DESCRIPTION: Taxilanes for New Hangars

Work Item Description	Quantity	Unit	Price		Amount
Mobilization	1	Lump Sum	\$ 20,000.00	\$	20,000
Safety & Security	1	Lump Sum	\$ 5,000.00	\$	5,000
Unclassified Excavation	1,500	CYD.	\$ 5.00	\$	7,500
Granular Sub-base 12"	3,600	CYD.	\$ 15.00	\$	54,000
Aggregate Base Course	1,800	CYD.	\$ 30.00	\$	54,000
Bituminous Pavement	6	Ton	\$ 95.00	\$	570
Marking	1	Lump Sum	\$ 2,500.00	\$	2,500
Underdrain	1,800	LFT.	\$ 8.00	\$	14,400
Restoration	1	LS	\$ 3,000.00	\$	3,000
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	TOTAL CONST	RUCTION		\$	160,970.00
	ENGINEERING			\$	25,000.00
	CONSTRUCTIO			\$	25,000.00
	CONTINGENCY		5%	\$	8,048.50
	TOTAL*		370	\$	220,000.00

TOTAL CONSTRUCTION		\$ 160,970.00
ENGINEERING DESIGN		\$ 25,000.00
CONSTRUCTION ADMIN.		\$ 25,000.00
CONTINGENCY	5%	\$ 8,048.50
TOTAL*		\$ 220,000.00
TOTAL FEDERAL DOLLARS	95%	\$ 209,000
TOTAL STATE DOLLARS	2.5%	\$ 5,500
TOTAL LOCAL DOLLARS	2.5%	\$ 5,500
* Amount rounded up to the nearest thousan	d dollars.	

DESCRIPTION AND JUSTIFICATION:		
New taxilanes will be needed for additional hangars.		

ALP STATUS	ENV.	PURPOSE:	Standards	6
Yes	Categorical Ex.	COMPONENT:	Public Bldg	7
	Expected	TYPE:	Misc.	5
			PRIORITY NUMBER	40



**5 YEAR PLAN**