



## MICHIGAN AIRPORT DEVELOPMENT PROGRAM PACKAGE

### TEN YEAR AIRPORT CAPITAL IMPROVEMENT PLAN

Fiscal Years 2015 - 2024

# GRAYLING ARMY AIRFIELD

Grayling, Michigan

Submitted By: Dept. of Military and Veterans Affairs

Date: August 19, 2014

MAP Meeting Date: November 13, 2014

Revision Date: November 18, 2014

Prepared By:



**MICHIGAN STATE BLOCK GRANT PROGRAM  
TEN-YEAR AIRPORT CAPITAL IMPROVEMENT PROGRAM (CIP) FY-2015\* to FY-2025**

\*ACIP includes current development year (2014 already programmed - minor changes acceptable)

Airport Name: Grayling Army Airfield		Date prepared: 07/28/14						Revised: 11/18/14			
Associated City: Grayling		Prepared By: QoE Consulting									
Sponsor: Department of Military and Veterans Affairs		Sponsor email address & phone: christopher.Lcook14.mil@mail.mil (989) 344-4300						<b>FINAL ACIP due to MDOT AERO: no later than 12/15/14</b>			
Airport Identifier: GOV											
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.
2015	Design - Rehab and Shift Rwy 14-32 - Elec.	Yes	RE/RW/LI	66	42,500			2,361	2,361	47,222	Runway 32 threshold will shift to the northeast in order to move the RPZ on airport property
2015	Design - Rehab and Shift Rwy 14-33 - Civil	Yes	RE/RW/IM	66	107,500	207,500		17,500	17,500	350,000	Runway has a PCI of 65, shift is to relocate rwy 32 end to move RPZ on airport property
2016	Rehab and Shift Rwy 14-32 - Electrical	Yes	RE/RW/LI	66	150,000	232,500		21,250	21,250	425,000	Runway 32 threshold will shift to the northeast in order to move the RPZ on airport property
2016	Rehab and Shift Rwy 14-32 - Civil	Yes	RE/RW/IM	66	0	2,835,000		157,500	157,500	3,150,000	Runway has a PCI of 65, shift is to relocate rwy 32 end to move RPZ on airport property
2017	Design - Rehabilitate Taxiways A, B, C, D & E	Yes	RE/TW/IM	62	150,000	41,700		10,650	10,650	213,000	Twys have reached their expected design life - PCI's - twys A,B,C - PCI of 42; twys D,E - PCI of 65
2018	Rehabilitate Taxiways A, B, C, D & E	Yes	RE/TW/IM	62	150,000	1,513,200		92,400	92,400	1,848,000	Twys have reached their expected design life - PCI's - twys A,B,C - PCI of 42; twys D,E - PCI of 65
2019	Construct 8-unit T-hangar	Yes	ST/BD/MS	29	150,000	75,000		12,500	12,500	250,000	Anticipation of a waiting list for pilots wanting to store their aircraft
2019	Install Misc. NAVAID Beacon	No	ST/OT/IN	39		54,000		3,000	3,000	60,000	The existing beacon lense is incorrect and in the wrong location. A new beacon is required.
2020	Install GA Area Lighting	Yes	ST/AP/LI	38	2,880			160	160	3,200	Overhead lighting planned for the existing Entrance Road and Parking Lot of the GA Area
2021	Construct Box Hangar	Yes	ST/BD/MS	29	150,000			8,333	570,667	729,000	Anticipation of having an FBO on the airfield.
2022	Rehabilitate Runway 5-23 (military funds only)	Yes	RE/RW/IM	45					2,615,000	2,615,000	Runway 5-23 has received multiple slab replacements and needs to be rehabbed completely. Reconstruction is proposed to be funded by the military
2022	Carryover funds				150,000						Carryover funds to assist in funding for future projects
2023	Install Txy C, D, and E Lighting (MITL)	Yes	ST/TW/LI	42	300,000	18,600		17,700	17,700	354,000	Light existing taxiways for nighttime operations
2024	Install Txy A and B Lighting (MITL)	Yes	ST/TW/LI	42	150,000	194,700		19,150	19,150	383,000	Light existing taxiways for nighttime operations
2025	Install GA Txy F Lighting (MITL)	Yes	ST/TW/LI	42	61,200			3,400	3,400	68,000	Light existing GA Area taxiway for nighttime operations
2025	Remove Tetrahedron	Yes			9,000			500	500	10,000	The existing tetrahedron is costly to maintain and has been replaced by a windcone
2025	Carryover funds				88,800						Carryover funds to assist in funding for future projects
2026	Install Rwy 14-32 and 5-23 distance-to-go Signs	No	SP/RW/SG	80	90,900			5,050	5,050	101,000	The sponsor would like to add distance to go signs on runways 14-32 and 5-23 to increase safety.
2026	Carryover funds				147,900						Carryover funds to assist in funding for future projects

\*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 (Refer to Airport Code spreadsheet provided on MDOT Aeronautics website under Block Grant Program for specific airport code)



**QoE Consulting**  
 4100 CAPITAL CITY BLVD., FLR 2  
 LANSING, MI 48906

P: 517-327-1980

F: 517-327-1982

**ITEM SHEET**

<b>ITEM</b>	<b>Design</b>
	Rehab Runway 14-32 (4,420' x 150')
	Shift Runway 14-32 (580' x 150')
	and Connecting Taxiway (1,000' x 50')

<b>FUNDING YEAR</b>	
<b>Local Plan:</b>	2015
<b>Mtg. Decision:</b>	2015

<b>ESTIMATE COST</b>	
<b>Total:</b>	\$350,000
<b>Federal:</b>	\$315,000
<b>State:</b>	\$17,500
<b>Local:</b>	\$17,500

ITEM IS ON ALP?  YES  
 NO

<b>FAA Approval Date:</b>	5/31/2007
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**Instructions:**

List all reasons/need for this project, including detailed descriptions of existing conditions, i.e. pavement age, thickness, distresses, increase in aircraft/vehicle weight and/or usage, etc. Use additional sheets as needed.

Runway 14-32 is a bituminous runway that was rehabilitated in 1988. The runway was rehabilitated by cracking and seating the existing concrete and overlaying with bituminous pavement. The Military has been maintaining the pavement by crack sealing. However, pavement reconstruction is now necessary in order to provide a safe useable pavement for aircraft operations. The current PCI is 65. The runway will also be shifted to the northwest to move the runway 32 RPZ onto airport property and to eliminate the displaced threshold on runway 32.



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 4100 CAPITAL CITY BLVD., FLR 2  
 LANSING, MI 48906

P: 517-327-1980

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**ITEM SHEET**

<b>ITEM</b>	<b>Design</b>
	Light Runway 14-32 Shift
	(580' x 150') and Connecting Taxiway
	(1000' x 50'); Replace Runway 14-32
	Lighting

<b>FUNDING YEAR</b>	
<b>Local Plan:</b>	2015
<b>Mtg. Decision:</b>	2015

<b>ESTIMATE COST</b>	
<b>Total:</b>	\$47,222
<b>Federal:</b>	\$42,500
<b>State:</b>	\$2,361
<b>Local:</b>	\$2,361

ITEM IS ON ALP?  YES  
 NO

<b>FAA Approval Date:</b>	5/31/2007
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**Instructions:**

List all reasons/need for this project, including detailed descriptions of existing conditions, i.e. pavement age, thickness, distresses, increase in aircraft/vehicle weight and/or usage, etc. Use additional sheets as needed.

Runway 14-32 will be shifted to the northwest to move the runway 32 RPZ onto airport property and to eliminate the displaced threshold on runway 32. As a result of the runway shift the runway lighting will be replaced/installed/relocated.



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**ITEM SHEET**

<b>ITEM</b>	Rehab Runway 14-32 (4,420' x 150')
	Shift Runway 14-32 (580' x 150')
	and Connecting Taxiway (1,000' x 50')

<b>FUNDING YEAR</b>	
Local Plan:	2016
Mtg. Decision:	2016

<b>ESTIMATE COST</b>	
Total:	\$3,150,000
Federal:	\$2,835,000
State:	\$157,500
Local:	\$157,500

ITEM IS ON ALP?  YES  
 NO

<b>FAA Approval Date:</b>	5/31/2007
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**Instructions:**

List all reasons/need for this project, including detailed descriptions of existing conditions, i.e. pavement age, thickness, distresses, increase in aircraft/vehicle weight and/or usage, etc. Use additional sheets as needed.

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**ITEM SHEET**

<b>ITEM</b>	Light Runway 14-32 Shift
	(580' x 150') and Connecting Taxiway
	(1000' x 50'); Replace Runway 14-32
	Lighting

<b>FUNDING YEAR</b>	
Local Plan:	2016
Mtg. Decision:	2016

<b>ESTIMATE COST</b>	
Total:	\$3,150,000
Federal:	\$2,835,000
State:	\$157,500
Local:	\$157,500

ITEM IS ON ALP?  YES  
 NO

<b>FAA Approval Date:</b>	5/31/2007
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**Instructions:**

List all reasons/need for this project, including detailed descriptions of existing conditions, i.e. pavement age, thickness, distresses, increase in aircraft/vehicle weight and/or usage, etc. Use additional sheets as needed.

Runway 14-32 will be shifted to the northwest to move the runway 32 RPZ onto airport property and to eliminate the displaced threshold on runway 32. As a result of the runway shift the runway lighting will be replaced/installed/relocated.







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P: 517-327-1980

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**ITEM SHEET**

<b>ITEM</b>	<b>Design</b>
	Rehabilitate Taxiways A, B, C, D & E

<b>FUNDING YEAR</b>	
<b>Local Plan:</b>	2017
<b>Mtg. Decision:</b>	2017

<b>ESTIMATE COST</b>	
<b>Total:</b>	\$213,000
<b>Federal:</b>	\$191,700
<b>State:</b>	\$10,650
<b>Local:</b>	\$10,650

ITEM IS ON ALP?  YES  
 NO

<b>FAA Approval Date:</b>	5/31/2007
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**Instructions:**

List all reasons/need for this project, including detailed descriptions of existing conditions, i.e. pavement age, thickness, distresses, increase in aircraft/vehicle weight and/or usage, etc. Use additional sheets as needed.

The existing taxiways are concrete and were constructed in 1944. The taxiways have considerable cracking, spalling and deteriorated concrete. The Military has been replacing slabs over the years. However, pavement reconstruction is now necessary in order to provide a safe useable pavement for aircraft operations. The current PCI for these taxiways is 65.



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 4100 CAPITAL CITY BLVD., FLR 2  
 LANSING, MI 48906

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**ITEM SHEET**

<b>ITEM</b>	<b>Construction</b>
	Rehabilitate Taxiways A, B, C, D & E

<b>FUNDING YEAR</b>	
<b>Local Plan:</b>	2018
<b>Mtg. Decision:</b>	2018

<b>ESTIMATE COST</b>	
<b>Total:</b>	\$1,848,000
<b>Federal:</b>	\$1,663,200
<b>State:</b>	\$92,400
<b>Local:</b>	\$92,400

ITEM IS ON ALP?  YES  
 NO

<b>FAA Approval Date:</b>	5/31/2007
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**Instructions:**

List all reasons/need for this project, including detailed descriptions of existing conditions, i.e. pavement age, thickness, distresses, increase in aircraft/vehicle weight and/or usage, etc. Use additional sheets as needed.

The existing taxiways are concrete and were constructed in 1944. The taxiways have considerable cracking, spalling and deteriorated concrete. The Military has been replacing slabs over the years. However, pavement reconstruction is now necessary in order to provide a safe useable pavement for aircraft operations. The current PCI for these taxiways is 65.







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4100 CAPITAL CITY BLVD., FLR 2  
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**ITEM SHEET**

<b>ITEM</b>	Construct 8-unit T-hangar

<b>FUNDING YEAR</b>	
Local Plan:	2019
Mtg. Decision:	2019

<b>ESTIMATE COST</b>	
Total:	\$250,000
Federal:	\$225,000
State:	\$12,500
Local:	\$12,500

ITEM IS ON ALP?  YES  
 NO

<b>FAA Approval Date:</b>	5/31/2007
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**Instructions:**

List all reasons/need for this project, including detailed descriptions of existing conditions, i.e. pavement age, thickness, distresses, increase in aircraft/vehicle weight and/or usage, etc. Use additional sheets as needed.

The Crawford County Airport Board would like to construct an 8-unit T-hangar to meet future demand for aircraft storage at Grayling Army Airfield.



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**ITEM SHEET**

<b>ITEM</b>	Install NAVAID Beacon

<b>FUNDING YEAR</b>	
Local Plan:	2019
Mtg. Decision:	2019

<b>ESTIMATE COST</b>	
Total:	\$60,000
Federal:	\$54,000
State:	\$3,000
Local:	\$3,000

ITEM IS ON ALP?  YES  
 NO

<b>FAA Approval Date:</b>	5/31/2007
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**Instructions:**

List all reasons/need for this project, including detailed descriptions of existing conditions, i.e. pavement age, thickness, distresses, increase in aircraft/vehicle weight and/or usage, etc. Use additional sheets as needed.

The existing beacon is colored incorrectly and sits on top of the ATCT. The airport would like to designate a new location for the beacon separate from the ATCT. It would also like to change the lense colors to identify the airport as a joint use facility. The ALP Update in 2014 will identify a new location for the beacon.



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**ITEM SHEET**

<b>ITEM</b>	General Aviation Area
	Entrance Road Lighting

<b>FUNDING YEAR</b>	
Local Plan:	2020
Mtg. Decision:	2020

<b>ESTIMATE COST</b>	
Total:	\$64,000
Federal:	\$57,600
State:	\$3,200
Local:	\$3,200

ITEM IS ON ALP?  YES  
 NO

<b>FAA Approval Date:</b>	<b>5/31/2007</b>
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**Instructions:**

List all reasons/need for this project, including detailed descriptions of existing conditions, i.e. pavement age, thickness, distresses, increase in aircraft/vehicle weight and/or usage, etc. Use additional sheets as needed.

The Civilian General Aviation Area is open to the public and there needs to be overhead lighting installed along the Entrance Road.





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**ITEM SHEET**

<b>ITEM</b>	Construct box hangar
	(5,500 sf +/-)

<b>FUNDING YEAR</b>	
Local Plan:	2021
Mtg. Decision:	2021

<b>ESTIMATE COST</b>	
Total:	\$729,000
Federal:	\$189,900
State:	\$10,550
Local:	\$528,550

ITEM IS ON ALP?  YES  
 NO

<b>FAA Approval Date:</b>	5/31/2007
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**Instructions:**

List all reasons/need for this project, including detailed descriptions of existing conditions, i.e. pavement age, thickness, distresses, increase in aircraft/vehicle weight and/or usage, etc. Use additional sheets as needed.

The Crawford County Airport Board would like to construct a 5,500 sft +/- box hangar in efforts to support a Fixed Base Operator (FBO).





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 LANSING, MI 48906

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**ITEM SHEET**

<b>ITEM</b>	Rehabilitate Runway 5-23
	(5,000' x 150')
	Military Funds Only

<b>FUNDING YEAR</b>	
Local Plan:	2022
Mtg. Decision:	2022

<b>ESTIMATE COST</b>	
Total:	\$2,615,000
Federal:	\$0
State:	\$0
Local:	\$2,615,000

ITEM IS ON ALP?  YES  
 NO

<b>FAA Approval Date:</b>	5/31/2007
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**Instructions:**

List all reasons/need for this project, including detailed descriptions of existing conditions, i.e. pavement age, thickness, distresses, increase in aircraft/vehicle weight and/or usage, etc. Use additional sheets as needed.

Runway 5-23 is a concrete runway that was constructed in 1944. The runway has considerable cracking, spalling, and deteriorated concrete. The Military has been replacing slabs over the years. However, pavement reconstruction is now necessary in order to provide a safe useable pavement for aircraft operations. The current PCI for these taxiways is 65.





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**ITEM SHEET**

<b>ITEM</b>	Light Taxiways A, B, C, D, E and Taxiway F (to GA Apron)

<b>FUNDING YEAR</b>	
<b>Local Plan:</b>	2023-2025
<b>Mtg. Decision:</b>	2023-2026

<b>ESTIMATE COST</b>	
<b>Total:</b>	\$805,000
<b>Federal:</b>	\$724,500
<b>State:</b>	\$40,250
<b>Local:</b>	\$40,250

ITEM IS ON ALP?  YES  
 NO

<b>FAA Approval Date:</b>	5/31/2007
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**Instructions:**

List all reasons/need for this project, including detailed descriptions of existing conditions, i.e. pavement age, thickness, distresses, increase in aircraft/vehicle weight and/or usage, etc. Use additional sheets as needed.

The existing taxiway system at the airport is currently not lighted. Existing runways 14-32 and 5-23 have MIRLS. The taxiway system should have edge lights and lighted taxiway guidance signs to provide safer taxiing at night and during low visibility.









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**ITEM SHEET**

<b>ITEM</b>	Remove Tetrahedron

<b>FUNDING YEAR</b>	
Local Plan:	2025
Mtg. Decision:	2025

<b>ESTIMATE COST</b>	
Total:	\$10,000
Federal:	\$9,000
State:	\$500
Local:	\$500

ITEM IS ON ALP?  YES  
 NO

<b>FAA Approval Date:</b>	5/31/2007
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**Instructions:**

List all reasons/need for this project, including detailed descriptions of existing conditions, i.e. pavement age, thickness, distresses, increase in aircraft/vehicle weight and/or usage, etc. Use additional sheets as needed.

The airport has recently installed two LED internally lit windcones on the airfield. This means that the tetrahedron in the middle of the airfield is no longer needed. The airport would like to donate it to another airport that may have an aeronautical use for it



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**ITEM SHEET**

<b>ITEM</b>	Install Runway 14-32 and 5-23
	distance-to-go Signs

<b>FUNDING YEAR</b>	
Local Plan:	2026
Mtg. Decision:	2026

<b>ESTIMATE COST</b>	
Total:	\$101,000
Federal:	\$90,900
State:	\$5,050
Local:	\$5,050

ITEM IS ON ALP?  YES  
 NO

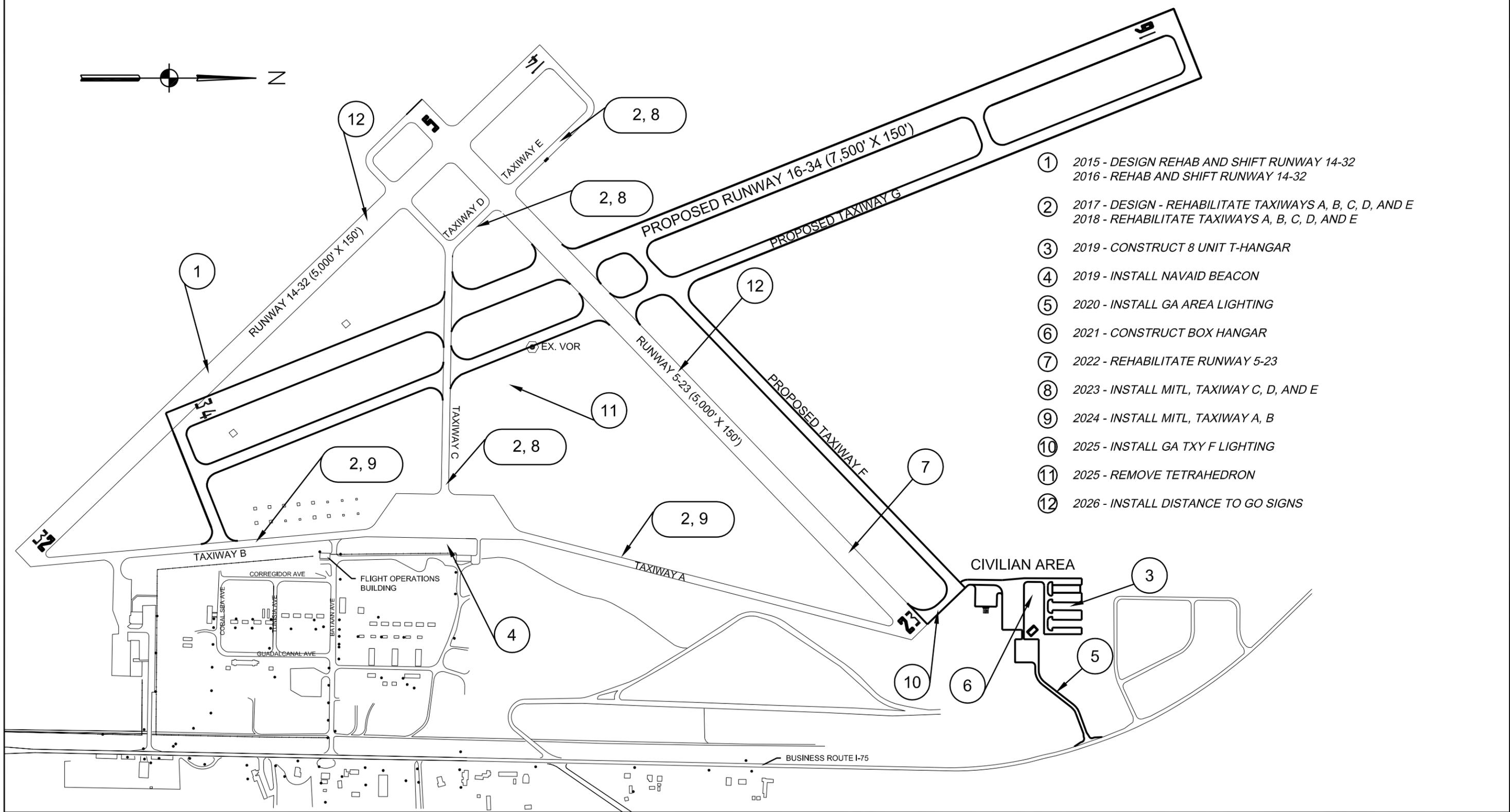
<b>FAA Approval Date:</b>	5/31/2007
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**Instructions:**

List all reasons/need for this project, including detailed descriptions of existing conditions, i.e. pavement age, thickness, distresses, increase in aircraft/vehicle weight and/or usage, etc. Use additional sheets as needed.

The Airport would like to add distance to go signs on runways 14-32 and 5-23 to increase safety. The distance to go signs will be added to the ALP in 2014. The distance to go signs will be connected to the airports runway circuits.





- ① 2015 - DESIGN REHAB AND SHIFT RUNWAY 14-32  
2016 - REHAB AND SHIFT RUNWAY 14-32
- ② 2017 - DESIGN - REHABILITATE TAXIWAYS A, B, C, D, AND E  
2018 - REHABILITATE TAXIWAYS A, B, C, D, AND E
- ③ 2019 - CONSTRUCT 8 UNIT T-HANGAR
- ④ 2019 - INSTALL NAVAID BEACON
- ⑤ 2020 - INSTALL GA AREA LIGHTING
- ⑥ 2021 - CONSTRUCT BOX HANGAR
- ⑦ 2022 - REHABILITATE RUNWAY 5-23
- ⑧ 2023 - INSTALL MITL, TAXIWAY C, D, AND E
- ⑨ 2024 - INSTALL MITL, TAXIWAY A, B
- ⑩ 2025 - INSTALL GA TXY F LIGHTING
- ⑪ 2025 - REMOVE TETRAHEDRON
- ⑫ 2026 - INSTALL DISTANCE TO GO SIGNS

File Name: M:\Gray\ing\ACIP\2015\2015 GAAF TYP.dwg - 112414  
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 Modified / By: November 24, 2014 4:35:39 PM / Clint Nemeth  
 Plotted / By:



4100 Capital City Blvd., Flr 2  
 Lansing, MI 48906  
 PH 517.327.1980 // FX 517.327.1982  
 QoEConsulting.com

## TEN YEAR ACIP SKETCH

NOVEMBER 24, 2014

