

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

**Airport Capital Improvement Plan
2012-2019**

Prepared for:

**Gogebic Iron County Airport
Ironwood, Michigan**

October 2011

Contact:

Mr. Duane DuRay
Gogebic Iron County Airport
E5560 Airport Road
Ironwood, MI 49938
906-932-3121
fax 906-932-4401

Prepared by:

Mead&Hunt

**MICHIGAN STATE BLOCK GRANT PROGRAM
AIRPORT CAPITAL IMPROVEMENT PROGRAM (CIP) FY-2012* to FY-2019**

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

Airport Name: Gogebic-Iron County Airport		Airport Identifier: IWD		Date prepared: 5/31/11	Revised:10/10/11						
Associated City: Ironwood, MI				Prepared By: Bob Leisenring							
Sponsor: Gogebic County				Sponsor email address & phone: 906-932-3121/ iwdairplane@flyfromironwood.com							
Airport Identifier: IWD		NPIAS Airport Code: D			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 - \$150,950										
2012	USER SURVEY CONSULTANT COORDINATION	N/A	PL-PL-MS	54	\$9,500			\$250	\$250	\$10,000	Runway user survey consultant coordination necessary to evaluate runway length and width to rehabilitate runway 9/27, the justification will be coordinate with MDOT and their new format for project justification.
2012	DESIGN EAST PARALLEL TAXIWAY EXTENSION AND BEACON REHAB	Yes	CA-TW-EX	49	\$132,050			\$3,475	\$3,475	\$139,000	This project will include the construction of a new full parallel taxiway to runway 9/27 (east portion), 35' wide with 10' shoulders. This project was requested by FAA to maintain the lowest minimums possible for the Runway 27 approach. It includes 2665' of old, abandoned runway to be removed for new construction. (CAT Ex Required)
2012	SRE BLOWER	Yes	NA	NA				\$220,500	\$24,500	\$245,000	This equipment will replace the existing 1985 blower. The equipment has exceeded its useful life and replacement parts are no longer available.
	Carryover-\$159,400										
2013	EAST PARALLEL TAXIWAY EXTENSION AND BEACON REHAB	Yes	CA-TW-EX	49	\$309,400	\$1,563,050		\$49,275	\$49,275	\$1,971,000	This project will include the construction of a new full parallel taxiway to runway 9/27 (east portion), 35' wide with 10' shoulders. This project was requested by FAA to maintain the lowest minimums possible for the Runway 27 approach. It includes 2665' of old, abandoned runway to be removed for new construction. (CAT Ex Required)
	Carryover- \$0										
2014	WEST PARALLEL TAXIWAY EXTENSION	Yes	CA-TW-EX	49	\$150,000	\$762,000		\$24,000	\$24,000	\$960,000	This project will complete the full parallel taxiway for runway 9/27 (35' wide with 10' shoulders), following the final determination regarding runway length. (CAT Ex Required)
	Carryover-\$0										
2015	DESIGN RUNWAY 9/27 REHAB, SHOULDER REHAB AND HIRL REPLACEMENT	Yes	RE-RW-IM	68	\$150,000	\$144,500		\$7,750	\$7,750	\$310,000	An early design for the following project will allow for more timely bidding.
	Carryover-\$0										
2016	RUNWAY 9/27 REHAB, SHOULDER REHAB AND HIRL REPLACEMENT	Yes	RE-RW-IM	68	\$150,000		\$4,419,500	\$120,250	\$120,250	\$4,810,000	This project will consist of rehabilitating runway 9/27 at its current width (130') and shoulders at their current width (25'). At this point the runway will have exceeded its useful life. The project will also include installation of new high intensity runway lighting with drainage features added to light bases. The existing runway lighting requires a large amount of maintenance and is in need of replacement. (2008 PCI-73) (CAT Ex Required)
	Carryover-\$0										
2017	DESIGN TERMINAL APRON REHABILITATION & PARALLEL TAXIWAY REHABILITATION	Yes	RE-TW-IM	64	\$123,500			\$3,250	\$3,250	\$130,000	An early design for the following project will allow for more timely bidding.
	Carryover-\$26,500										
2018	TERMINAL APRON REHABILITATION & PARALLEL TAXIWAY REHABILITATION	Yes	RE-TW-IM	64	\$176,500	\$500,000	\$1,147,500	\$48,000	\$48,000	\$1,920,000	This project will include the rehabilitation of the parallel taxiway, apron connectors, runway connectors, and terminal apron. The apron will have exceeded its useful life at this point. (2008 PCI-65) (CAT Ex Required)
	Carryover-\$0										
2019	ARRF TRUCK	NA	SA-EQ-RF	93	\$150,000	\$657,500		\$21,250	\$21,250	\$850,000	A new ARFF truck will be required by the airport with the addition of Embraer 145's. The existing ARFF truck will be 30+ years old at this point. This cost is based on a 1500 gallon per minute ARFF truck; this may be modified depending on changing aircraft sizes using 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: EAST PARALLEL TAXIWAY EXTENSION AND BEACON REHAB
 LOCATION: Gogebic-Iron County Airport
 CITY: Ironwood, MI
 DATE: 6/20/2011
 PREPARED BY: RAL, BJH, JAK

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

WORK DESCRIPTION: New (eastern end) 35' parallel taxiway w/ 10' paved shoulders to runway end, new MITLs, signs, and cabling; new P-209 aggregate and 4" HMA (OLD RUNWAY EXCAVATED)

ITEM DESCRIPTION	UNIT	QTY	UNIT PRICE	ITEM COST
Mobilization and General Conditions	LS	1	\$ 90,000.00	\$ 90,000
Safety and Security	LS	1	\$ 15,000.00	\$ 15,000
Rehabilitation of Existing Beacon (separate estimate)	LS	1	\$ 57,000.00	\$ 57,000
Cable, 5KV, CIC (incl. Counterpoise)	LF	10,500	\$ 3.50	\$ 36,750
Elec. Handhole	EA	4	\$ 1,500.00	\$ 6,000
Electrical Duct	LF	100	\$ 50.00	\$ 5,000
MITL (incl. Lens & Lamp)	EA	80	\$ 750.00	\$ 60,000
Vault Equipment / Regulator	EA	1	\$ 10,000.00	\$ 10,000
Guidance / Hold Short Signs / Dist Remaining Signs	EA	4	\$ 3,000.00	\$ 12,000
Unclassified Excavation (4 ft)	CY	35,157	\$ 3.50	\$ 123,050
Sand Subbase (38")	CY	29,264	\$ 12.00	\$ 351,168
Gravel Base (6" P-209)	CY	4,620	\$ 35.00	\$ 161,700
Bituminous Surface (4")	TON	6,445	\$ 62.00	\$ 399,590
Remove Existing Pavement	SY	30,100	\$ 3.00	\$ 90,300
Half-rate Pavement Marking	SF	12,000	\$ 0.50	\$ 6,000
Pavement Marking (Taxiway)	SF	12,000	\$ 0.50	\$ 6,000
Drainage Pipe	LF	600	\$ 50.00	\$ 30,000
Drainage Structure (incl cover)	EA	4	\$ 2,500.00	\$ 10,000
Underdrain	LF	9,000	\$ 4.00	\$ 36,000
Topsoil (3")	CY	1,800	\$ 20.00	\$ 36,000
Turfing and Mulching	AC	4	\$ 3,000.00	\$ 12,000
				\$ -
CONSTRUCTION TOTAL =				\$ 1,553,558
CONSTRUCTION CONTINGENCIES (15%) =				\$ 233,034
CONSTRUCTION TOTAL =				\$ 1,786,591
ENGINEERING DESIGN =				\$ 139,000
CONSTRUCTION ADMIN (10%) =				\$ 178,659
				\$ 2,104,250
PROJECT YEAR BUDGET ESTIMATE =				\$ 2,110,000



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. Estimate assumes 4" of pavement is removed full-width from the old 2665' runway and disposed of and the remainder is excavated full-depth for subbase beneath the new taxiway.

ENGINEERING COST ESTIMATE

PROJECT: WEST PARALLEL TAXIWAY EXTENSION
 LOCATION: Gogebic-Iron County Airport
 CITY: Ironwood, MI
 DATE: 6/20/2011
 PREPARED BY: RAL, BJH, JAK

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

WORK DESCRIPTION: New (western end) 35' parallel taxiway w/ 10' paved shoulders to runway end, new MITLs, signs, and cabling; P-209 aggregate and 4" HMA

ITEM DESCRIPTION	UNIT	QTY	UNIT PRICE	ITEM COST
Mobilization and General Conditions	LS	1	\$ 45,000.00	\$ 45,000
Safety and Security	LS	1	\$ 10,000.00	\$ 10,000
Cable, 5KV, CIC (incl. Counterpoise)	LF	5,500	\$ 3.50	\$ 19,250
Elec. Handhole	EA	2	\$ 1,500.00	\$ 3,000
Electrical Duct	LF	50	\$ 50.00	\$ 2,500
MITL (incl. Lens & Lamp)	EA	40	\$ 750.00	\$ 30,000
Guidance / Hold Short Signs / Dist Remaining Signs	EA	2	\$ 3,000.00	\$ 6,000
Unclassified Excavation (4 ft)	CY	18,705	\$ 3.50	\$ 65,468
Sand Subbase (38")	CY	14,029	\$ 12.00	\$ 168,348
Gravel Base (6" P-209)	CY	2,338	\$ 40.00	\$ 93,520
Bituminous Surface (4")	TON	3,261	\$ 62.00	\$ 202,182
Half-rate Pavement Marking	SF	6,000	\$ 0.50	\$ 3,000
Pavement Marking (Taxiway)	SF	6,000	\$ 0.50	\$ 3,000
Drainage Pipe	LF	300	\$ 50.00	\$ 15,000
Drainage Structure (incl cover)	EA	2	\$ 2,500.00	\$ 5,000
Underdrain	LF	3,900	\$ 4.00	\$ 15,600
Topsoil (3")	CY	900	\$ 20.00	\$ 18,000
Turfing and Mulching	AC	2	\$ 3,000.00	\$ 6,000
				\$ -
CONSTRUCTION TOTAL =				\$ 710,868
CONSTRUCTION CONTINGENCIES (15%) =				\$ 106,630
CONSTRUCTION TOTAL =				\$ 817,498
ENGINEERING DESIGN (7%) =				\$ 57,225
CONSTRUCTION ADMIN (10%) =				\$ 81,750
				\$ 956,472
PROJECT YEAR BUDGET ESTIMATE =				\$ 960,000



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. Estimate assumes no pulverized material will be reused from the eastern section to be constructed first.

ENGINEERING COST ESTIMATE

PROJECT: RUNWAY 9/27 REHAB, SHOULDER REHAB AND HIRL REPLACEMENT
 LOCATION: Gogebic-Iron County Airport
 CITY: Ironwood, MI
 DATE: 6/20/2011
 PREPARED BY: RAL, BJH

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

WORK DESCRIPTION: Rehabilitate runway 9-27 (130' X 6500'), replace HIRLs, rehabilitate 25' shoulders

ITEM DESCRIPTION	UNIT	QTY	UNIT PRICE	ITEM COST
Mobilization and General Conditions	LS	1	\$ 250,000.00	\$ 250,000
Safety and Security	LS	1	\$ 75,000.00	\$ 75,000
Cable, 5KV, CIC (incl. Counterpoise)	LF	18,500	\$ 3.50	\$ 64,750
HIRL (incl. Lens & Lamp) w/ Drain	EA	84	\$ 825.00	\$ 69,300
In-Pavement HIRL (incl. Lens & Lamp)	EA	2	\$ 2,500.00	\$ 5,000
Vault Equipment / Regulator	EA	1	\$ 20,000.00	\$ 20,000
Remove HIRL/MIRL/MITL, Base Mounted	EA	86	\$ 150.00	\$ 12,900
Guidance / Hold Short Signs / Dist Remaining Signs	EA	6	\$ 3,000.00	\$ 18,000
Remove Guidance / Hold Short Signs / Dist Remaining Signs	EA	4	\$ 250.00	\$ 1,000
Bituminous Surface - 3" for shoulder paving	TON	6,500	\$ 80.00	\$ 520,000
Bituminous Surface - 5" for runway paving	TON	28,200	\$ 80.00	\$ 2,256,000
Pulverize Asphalt shoulders	SY	36,200	\$ 1.25	\$ 45,250
Pulverize Asphalt runway	SY	94,000	\$ 1.25	\$ 117,500
Fine Grade & Compact Aggregate Base, shoulders	SY	36,200	\$ 1.50	\$ 54,300
Fine Grade & Compact Aggregate Base, runway	SY	94,000	\$ 1.50	\$ 141,000
Salvage Pulverized (3", shoulders)	CY	3,050	\$ 4.00	\$ 12,200
Salvage Pulverized (3", runway)	CY	7,900	\$ 4.00	\$ 31,600
Pavement marking, shoulders	LS	1	\$ 7,500.00	\$ 7,500
Pavement marking, runway	SFT	109,500	\$ 0.50	\$ 54,750
Pavement joints (180' @ 100' intervals)	LF	11,700	\$ 2.00	\$ 23,400
Sawcut shoulder/runway edge	LF	13,000	\$ 1.00	\$ 13,000
Turfing and Mulching	AC	4	\$ 3,000.00	\$ 12,000
				CONSTRUCTION TOTAL = \$ 3,804,450
				CONSTRUCTION CONTINGENCIES (15%) = \$ 570,668
				CONSTRUCTION TOTAL = \$ 4,375,118
				ENGINEERING DESIGN (7%) = \$ 306,258
				CONSTRUCTION ADMIN (10%) = \$ 437,512
				\$ 5,118,887
				PROJECT YEAR BUDGET ESTIMATE = \$ 5,120,000



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: PARALLEL TAXIWAY REHABILITATION
 LOCATION: Gogebic-Iron County Airport
 CITY: Ironwood, MI
 DATE: 6/20/2011
 PREPARED BY: RAL, BJH

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

WORK DESCRIPTION: Rehab Exist. Bit. Taxiway (21662 SY), remove Reflectors, new MITLs & cabling

ITEM DESCRIPTION	UNIT	QTY	UNIT PRICE	ITEM COST
Mobilization and General Conditions	LS	1	\$ 60,000.00	\$ 60,000
Safety and Security	LS	1	\$ 30,000.00	\$ 30,000
Cable, 5KV, CIC (incl. Counterpoise)	LF	12,000	\$ 4.00	\$ 48,000
Elec. Handhole	EA	10	\$ 2,000.00	\$ 20,000
Electrical Duct	LF	500	\$ 60.00	\$ 30,000
MITL (incl. Lens & Lamp)	EA	125	\$ 750.00	\$ 93,750
Vault Equipment / Regulator	EA	1	\$ 10,000.00	\$ 10,000
Guidance / Hold Short Signs / Dist Remaining Signs	EA	20	\$ 3,500.00	\$ 70,000
Remove Reflectors	EA	89	\$ 100.00	\$ 8,900
Remove Guidance / Hold Short Signs / Dist Remaining Signs	EA	20	\$ 300.00	\$ 6,000
Bituminous Surface (5")	TON	6,550	\$ 90.00	\$ 589,500
Pulverize Existing Pavement	SY	22,000	\$ 2.00	\$ 44,000
Fine Grade & Compact Aggregate Base	SY	22,000	\$ 1.75	\$ 38,500
Salvage Pulverized Material (3")	CY	1,850	\$ 5.00	\$ 9,250
Pavement Marking (Taxiway)	SF	12,000	\$ 0.60	\$ 7,200
Turfing and Mulching	AC	2	\$ 3,500.00	\$ 7,000
				\$ -
CONSTRUCTION TOTAL =				\$ 1,072,100
CONSTRUCTION CONTINGENCIES (15%) =				\$ 160,815
CONSTRUCTION TOTAL =				\$ 1,232,915
ENGINEERING DESIGN (7%) =				\$ 86,304
CONSTRUCTION ADMIN (10%) =				\$ 123,292
\$				1,442,511
PROJECT YEAR BUDGET ESTIMATE =				\$ 1,450,000



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.

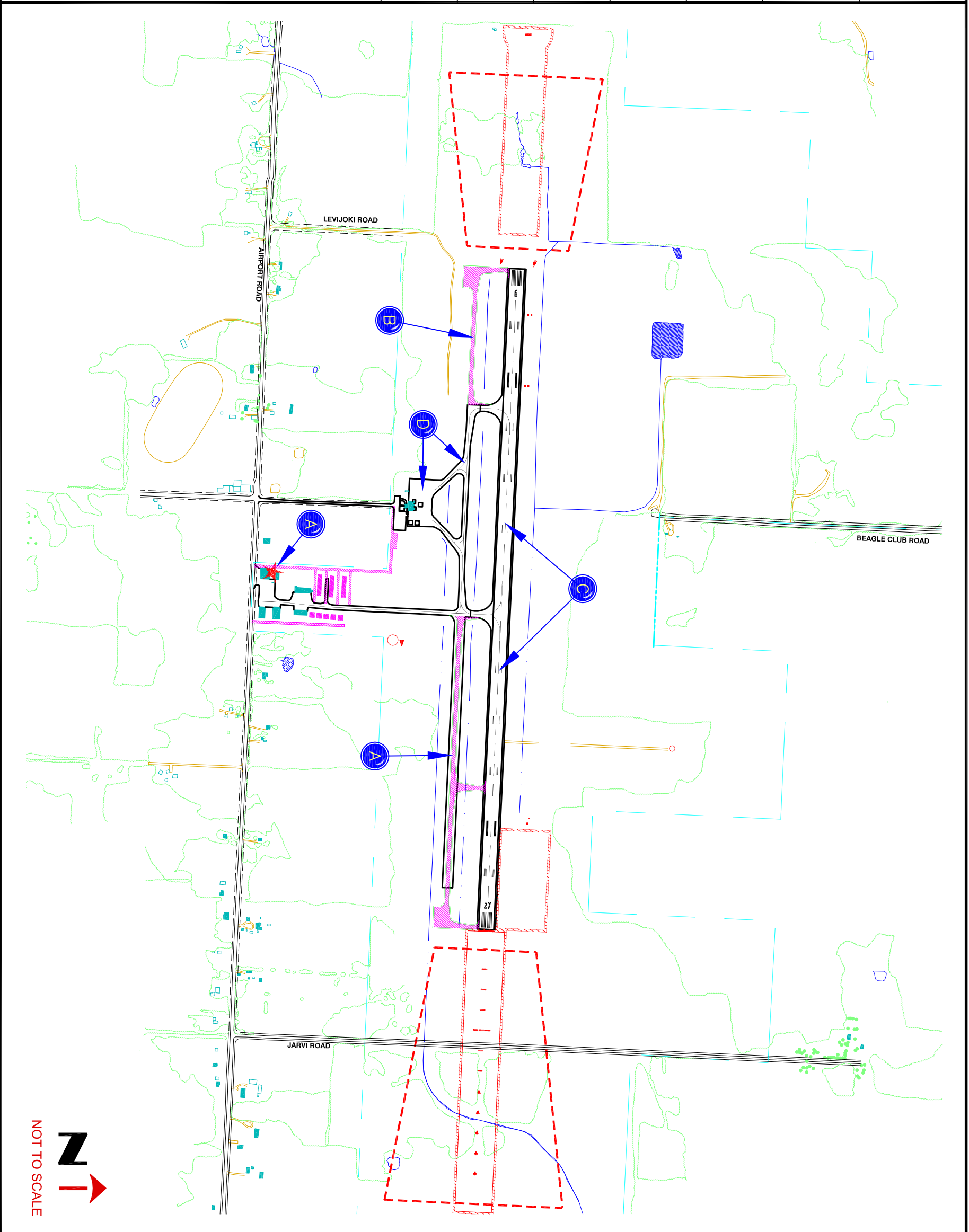
GOGEBIC COUNTY AIRPORT IRONWOOD, MICHIGAN

AIRPORT DEVELOPMENT PLAN - YEARS 2012 TO 2019



FAA IDENTIFIER: IWD
STATE ID: 27-05

YEAR - 2012	RUNWAY LENGTH JUSTIFICATION STUDY DESIGN EAST PARALLEL TAXIWAY EXTENSION AND BEACON REHAB SRE BLOWER
YEAR - 2013	EAST PARALLEL TAXIWAY EXTENSION AND BEACON REHAB
YEAR - 2014	WEST PARALLEL TAXIWAY EXTENSION
YEAR - 2015	DESIGN RUNWAY 9/27 REHAB, SHOULDER REHAB AND HIRL REPLACEMENT
YEAR - 2016	RUNWAY 9/27 REHAB, SHOULDER REHAB AND HIRL REPLACEMENT
YEAR - 2017	DESIGN TERMINAL APRON REHABILITATION & PARALLEL TAXIWAY REHABILITATION
YEAR - 2018	TERMINAL APRON REHABILITATION & PARALLEL TAXIWAY REHABILITATION
YEAR - 2019	ARFF TRUCK



Design By: RAL Drawn By: BJH Approved By: RAL