

MICHIGAN STATE BLOCK GRANT PROGRAM
TEN-YEAR AIRPORT CAPITAL IMPROVEMENT PROGRAM (CIP) FY-2012* to FY-2022

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

Airport Name: Paul C. Miller Airport	Date prepared: 10/14/2011
Associated City: Sparta, Michigan	Prepared By: RS&H Michigan, Inc.
Sponsor: Village of Sparta	Sponsor email address & phone: robsparta@hotmail.com -- 616-887-5744
Airport Identifier: 8D4	FINAL ACIP due to MDOT AERO: no later than 12/1/11

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.
2013	DESIGN SERVICES FOR INSTALL 10' WILDLIFE FENCING	NO *	ST, EQ, SE	41	29,450			775	775	31,000	SEE ATTACHED PROJECT JUSTIFICATION DOCUMENT
2013	INSTALL 10' WILDLIFE FENCING - PHASE 1	NO *	ST, EQ, SE	41	270,550			7,120	7,120	284,790	SEE ATTACHED PROJECT JUSTIFICATION DOCUMENT
2015	INSTALL 10' WILDLIFE FENCING - PHASE 2	NO *	ST, EQ, SE	41	187,350			4,930	4,930	197,210	SEE ATTACHED PROJECT JUSTIFICATION DOCUMENT
2015	LAND ACQUISITION - PARCEL 6 RPZ RUNWAY 25	YES	ST, LA, SZ	44	71,250			1,875	1,875	75,000	SEE ATTACHED PROJECT JUSTIFICATION DOCUMENT
2015	DESIGN SERVICES FOR CONSTRUCT NEW SRE EQUIPMENT BUILDING	YES	ST, BD, SN	39	28,500			750	750	30,000	SEE ATTACHED PROJECT JUSTIFICATION DOCUMENT
2016	CONSTRUCT NEW SRE EQUIPMENT BUILDING	YES	ST, BD, SN	39	86,901	350,100		11,500	11,500	460,000	SEE ATTACHED PROJECT JUSTIFICATION DOCUMENT
2016	PURCHASE NEW SNOW REMOVAL EQUIPMENT	YES	ST, EQ, SN	47	76,000			2,000	2,000	80,000	SEE ATTACHED PROJECT JUSTIFICATION DOCUMENT
2017	CONSTRUCT APRON AND HANGAR DEMOLITION	YES	CA, AP, EX	46	150,000	342,100		12,950	12,950	518,000	SEE ATTACHED PROJECT JUSTIFICATION DOCUMENT
2018	CONSTRUCT SOUTH TAXIWAY	YES	CA, TW, CO	59	150,000	78,000		6,000	6,000	240,000	SEE ATTACHED PROJECT JUSTIFICATION DOCUMENT
2019	RECONSTRUCT APRON	YES	CA, AP, EX	46	150,000	188,200		8,900	8,900	356,000	SEE ATTACHED PROJECT JUSTIFICATION DOCUMENT
2019	CONSTRUCT APRON EXPANSION AND NEW ACCESS TAXIWAY TO APRON AND T-HANGARS PHASE 2	YES	CA, AP, EX	46	-	265,050		6,975	6,975	279,000	SEE ATTACHED PROJECT JUSTIFICATION DOCUMENT
2022	CONSTRUCT REPLACEMENT TERMINAL BUILDING	YES	CA, TE, CO	47	469,300			12,350	12,350	494,000	SEE ATTACHED PROJECT JUSTIFICATION DOCUMENT
2022	INSTALL CEILOMETER	YES	ST, EQ, WX	45		33,250		875	875	35,000	SEE ATTACHED PROJECT JUSTIFICATION DOCUMENT
2022	TRANSIENT AIRCRAFT HANGAR	YES							100,000	100,000	SEE ATTACHED PROJECT JUSTIFICATION DOCUMENT

**In accordance with FAA Order 5100.39A, Appendix 6 - Fields need to be completed

* Fencing to be added to upcoming ALP update.



**MICHIGAN AIRPORT DEVELOPMENT
AID PROGRAM**

TEN-YEAR DEVELOPMENT PLAN

FOR

**PAUL C. MILLER - SPARTA AIRPORT
SPARTA, MICHIGAN**

August 3, 2011

Submitted by:



Martin Super, Village Manager



Richard Roberts, Airport Manager

Prepared by:

RS&H
IMPROVING YOUR WORLD

Fiscal Year Project Started	Project Description	Total Project Cost	F=Total Federal Dollars S=Total State Dollars L=Total Local Dollars T=Total Dollars			
			F=	S=	L=	T=
2012	NONE CARRY OVER YEAR	\$ -	F= \$ -	S= \$ -	L= \$ -	T= \$ -
2013	DESIGN SERVICES FOR INSTALL 10' WILDLIFE FENCING	\$ 31,000	F= \$ 29,450.00	S= \$ 775.00	L= \$ 775.00	T= \$ 31,000.00
	INSTALL 10' WILDLIFE FENCING - PHASE 1	\$ 285,000	F= \$ 270,750.00	S= \$ 7,125.00	L= \$ 7,125.00	T= \$ 285,000.00
2014	NONE CARRY OVER YEAR	\$ -	F= \$ -	S= \$ -	L= \$ -	T= \$ -
2015	INSTALL 10' WILDLIFE FENCING - PHASE 2	\$ 208,000	F= \$ 197,600.00	S= \$ 5,200.00	L= \$ 5,200.00	T= \$ 208,000.00
	LAND ACQUISITION PARCEL 6 RPZ AVIGATION EASEMENT	\$ 75,000	F= \$ 71,250.00	S= \$ 1,875.00	L= \$ 1,875.00	T= \$ 75,000.00
	DESIGN SERVICES FOR CONSTRUCT NEW SRE BUILDING	\$ 30,000	F= \$ 28,500.00	S= \$ 750.00	L= \$ 750.00	T= \$ 30,000.00
2016	CONSTRUCT NEW SRE EQUIPMENT BUILDING	\$ 460,000	F= \$ 437,000.00	S= \$ 11,500.00	L= \$ 11,500.00	T= \$ 460,000.00
	PURCHASE NEW SNOW REMOVAL EQUIPMENT	\$ 80,000	F= \$ 76,000.00	S= \$ 2,000.00	L= \$ 2,000.00	T= \$ 80,000.00
2017	CONSTRUCT APRON AND HANGAR DEMOLITION	\$ 518,000	F= \$ 492,100.00	S= \$ 12,950.00	L= \$ 12,950.00	T= \$ 518,000.00
2018	CONSTRUCT SOUTH TAXIWAY	\$ 240,000	F= \$ 228,000.00	S= \$ 6,000.00	L= \$ 6,000.00	T= \$ 240,000.00
2019	RECONSTRUCT APRON	\$ 356,000	F= \$ 338,200.00	S= \$ 8,900.00	L= \$ 8,900.00	T= \$ 356,000.00
	CONSTRUCT APRON EXPANSION AND NEW ACCESS TAXIWAY TO APRON AND T-HANGARS PHASE 2	\$ 279,000	F= \$ 265,050.00	S= \$ 6,975.00	L= \$ 6,975.00	T= \$ 279,000.00
2020	NONE CARRY OVER YEAR	\$ -	F= \$ -	S= \$ -	L= \$ -	T= \$ -
2021	NONE CARRY OVER YEAR	\$ -	F= \$ -	S= \$ -	L= \$ -	T= \$ -
2022	CONSTRUCT REPLACEMENT TERMINAL BUILDING (DESIGN AND CONSTRUCTION)	\$ 494,000	F= \$ 469,300.00	S= \$ 12,350.00	L= \$ 12,350.00	T= \$ 494,000.00
	INSTALL CEILOMETER	\$ 35,000	F= \$ 33,250.00	S= \$ 875.00	L= \$ 875.00	T= \$ 35,000.00
	TRANSIENT AIRCRAFT HANGAR	\$ 100,000	F= \$ -	S= \$ -	L= \$ 100,000.00	T= \$ 100,000.00
PROJECT TOTALS 2012-2022			F= \$ 2,936,450.00	S= \$ 77,275.00	L= \$ 177,275.00	T= \$ 3,191,000.00

SPARTA AIRPORT 8D4 MAP

2013

Design Services for Installing Ten Foot Wildlife Fencing

Currently the airport has no fencing to eliminate access surrounding the property. The airport still is in a primarily rural and country setting. Routinely and on a frequent basis, wildlife such as turkeys and deer cross the runway. In October 2010 an aircraft collided with a deer during take-off. Fortunately no major damage or injuries occurred. We have also seen domestic dogs chasing this wildlife across the runway. Incursions with this various wildlife remain a concern for pilots and aircraft at the airport. The airport has also experience some security issues with minor vandalism to runway edge and end lights from persons able to freely access the property. This type of fencing would also help eliminate the tampering and vandalism to airport nav aids and lighting.

Install Ten Foot Wildlife Fencing – Phase 1

Currently the airport has no fencing to eliminate access surrounding the property. The airport still is in a primarily rural and country setting. Routinely and on a frequent basis, wildlife such as turkeys and deer cross the runway. We have also seen domestic dogs chasing this wildlife across the runway. Incursions with this various wildlife remain a concern for pilots and aircraft at the airport. The airport has also experience some security issues with minor vandalism to runway edge and end lights from persons able to freely access the property. This type of fencing would also help eliminate the tampering and vandalism to airport nav aids and lighting.

2015

Design Services for Construct New SRE Equipment Building

With the growth of the airport the needs for proper equipment for maintenance become evident. Most of which is snow removal equipment. Before an investment is made into this equipment a proper and secure storage building is necessary. The airport currently has no maintenance building that could secure such equipment.

Install Ten Foot Wildlife Fencing – Phase 2

Currently the airport has no fencing to eliminate access surrounding the property. The airport still is in a primarily rural and country setting. Routinely and on a frequent basis, wildlife such as turkeys and deer cross the runway. We have also seen domestic dogs chasing this wildlife across the runway. Incursions with this various wildlife remain a concern for pilots and aircraft at the airport. The airport has also experience some security issues with minor vandalism to runway edge and end lights from persons able to freely access the property. This type of fencing would also help eliminate the tampering and vandalism to airport nav aids and lighting.

Land Acquisition RPZ Runway 25

This parcel is located in the approach area to runway 25. A current old easement is in place and under recommendation of MDOT AREO an up to date easement is in order to protect the RPZ.

2016

Construct New SRE Equipment Building

With the growth of the airport the needs for proper equipment for maintenance become evident. Most of which is snow removal equipment. Before an investment is made into this equipment a proper and secure storage building is necessary. The airport currently has no maintenance building that could secure such equipment.

Purchase New Snow Removal Equipment

With any ramp expansion and parallel taxiway the need for proper equipment to remove the snow is necessary. In order to accomplish this in a way to not interfere with or pile snow around lights and nav aids proper equipment is needed. Currently the airport has no specific snow removal equipment primary to the airport and relies upon the Villages road snow plow crews and their equipment. With the airport obtaining their own equipment the priority for making sure the airports operations are better met.

2017

Apron Expansion and Hangar Demolition

Project provides for additional apron development south of the terminal in the location of existing open air hangars. The existing hangars are shown to be demolished by the current ALP. The additional apron area would provide additional paved tie-down parking for smaller aircraft and remove buildings close to the safety area.

2018

Construct South Taxiway

With the addition to what is mention above, Automated Weather Reporting, approved GPS/RNAV approaches and availability of Jet Fuel, we anticipate growth in the commercial side of aviation. To accommodate this growth a proposed south taxiway to a corporate area is proposed. This area would allow for commercial and business aircraft parking and hangar development. This area would eliminate any conflict between general aviation and commercial operations.

2019

Reconstruct Apron

The older existing apron areas are beginning to exhibit deterioration and will need replacement. The pavements have been crack sealed repeatedly and the previous pavement was placed in 2003.

Apron Expansion (Phase two)

This proposal is for a phase two ramp expansion depending on need given the growth experience.

2022

Terminal Building

The airport's terminal building will be close to thirty (30) years old by this time. This terminal building was a modular style when constructed. This building requires a great deal of maintenance to try and keep its appearance and the mechanicals are also problematic and very inefficient. The terminal building is used by transient pilots, local EAA chapter and the Civil Air Patrol on a regular basis. A quality built and energy efficient building would enhance the image of the airport and provide the needed space with the anticipated growth.

Install Ceilometer

It is anticipated that at this time this vendor will have an approved ceilometer to add to the airports current weather station. Approved and accurate weather reporting including ceiling will enhance safety operation for IFR pilots arriving at the airport.

Transient Aircraft Hangar

The airport has seen an increase in transient aircraft arriving and staying overnight at the airport. Many of these aircraft are larger expensive aircraft. Inquiries are frequent as to the availability of keeping the aircraft in a hangar overnight.

MAGNETIC DECLINATION
4° 47.1' WEST
FEBRUARY, 2001
ANNUAL CHANGE 5.1" WEST

0' 100' 200'
SCALE: 1" = 200'

2019
CONSTRUCT APRON
EXPANSION, PHASE 2

2019
RECONSTRUCT
APRON

2022
CONSTRUCT TRANSIENT
AIRCRAFT HANGAR

2022
CONSTRUCT REPLACEMENT
TERMINAL BUILDING

2015/2016
CONSTRUCT NEW
SRE EQUIPMENT BUILDING

2022
INSTALL
CEILOMETER

2017
CONSTRUCT
APRON AND
DEMO HANGARS

2015
LAND AQUISITION
RPZ RUNWAY 25

2018
CONSTRUCT
SOUTH TAXIWAY

2013/2015
CONSTRUCT
WILDLIFE FENCE

THRESHOLD
STA. 29+67.31
ELEV. 774.75
(HIGH POINT)

RUNWAY
PROTECTION ZONE
500'x1000'x700'

NON-PRECISION
INSTRUMENT APPROACH SURFACE
@ 20:1 SLOPE (UTILITY RUNWAY)

RUNWAY
PROTECTION ZONE
500'x1000'x700'

NON-PRECISION INSTRUMENT
APPROACH SURFACE @ 20:1
SLOPE (UTILITY RUNWAY)

THRESHOLD
STA. 70+00.00
ELEV. 740.90

NOTES:

1. BUILDING RESTRICTION LINE (BRL) BASED ON A 35' TALL BUILDING.
2. FAR PART 77 SURFACE LINES (F-77, U-77, U-77) DEPICT PRIMARY SURFACE OR 50 FEET ABOVE RUNWAY ELEVATION CONTOUR.
3. FUTURE AND ULTIMATE AIRPORT PROPERTY AND EASEMENTS DEPICTED ON PROPERTY PLAN.

LEGEND

- EXISTING AIRPORT PROPERTY LINE
- - - EXISTING PARCELS
- - - EXISTING AVIGATION EASEMENTS
- U-TOFA ULTIMATE TAXIWAY OBJECT FREE AREA
- U-TSA ULTIMATE TAXIWAY SAFETY AREA
- EXISTING BUILDINGS
- ULTIMATE BUILDINGS

RS&H

Architectural, Engineering, Planning
and Environmental Services

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PAUL C. MILLER-
SPARTA
AIRPORT LAYOUT
PLAN

CONSULTANTS

REVISIONS

NO.	DESCRIPTION	DATE
1	CONSTRUCT TAXISTREETS	03/16/05
2	CONSTRUCT RUNWAY 7-25	07/01/07

DATE ISSUED: 09-04-03

REVIEWED BY: NAW

DRAWN BY: BJQ

DESIGNED BY: SWM

AEP PROJECT NUMBER
210-1808-000

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SHEET TITLE

FUTURE AIRPORT
LAYOUT SHEET

SHEET NUMBER

4 OF 17

**PAUL C. MILLER - SPARTA AIRPORT
SPARTA, MICHIGAN**

DEVELOPMENT PLAN

FOR

2013

LOCATION: Paul C. Miller - Sparta Airport

Reynolds, Smith and Hills, Inc.
 Date Prepared: 03-Aug-11
 Prepared By: AMA

PROJECT DESCRIPTION:
 Install 10' Wildlife Fencing - Phase 1

Preliminary Project Cost Estimate

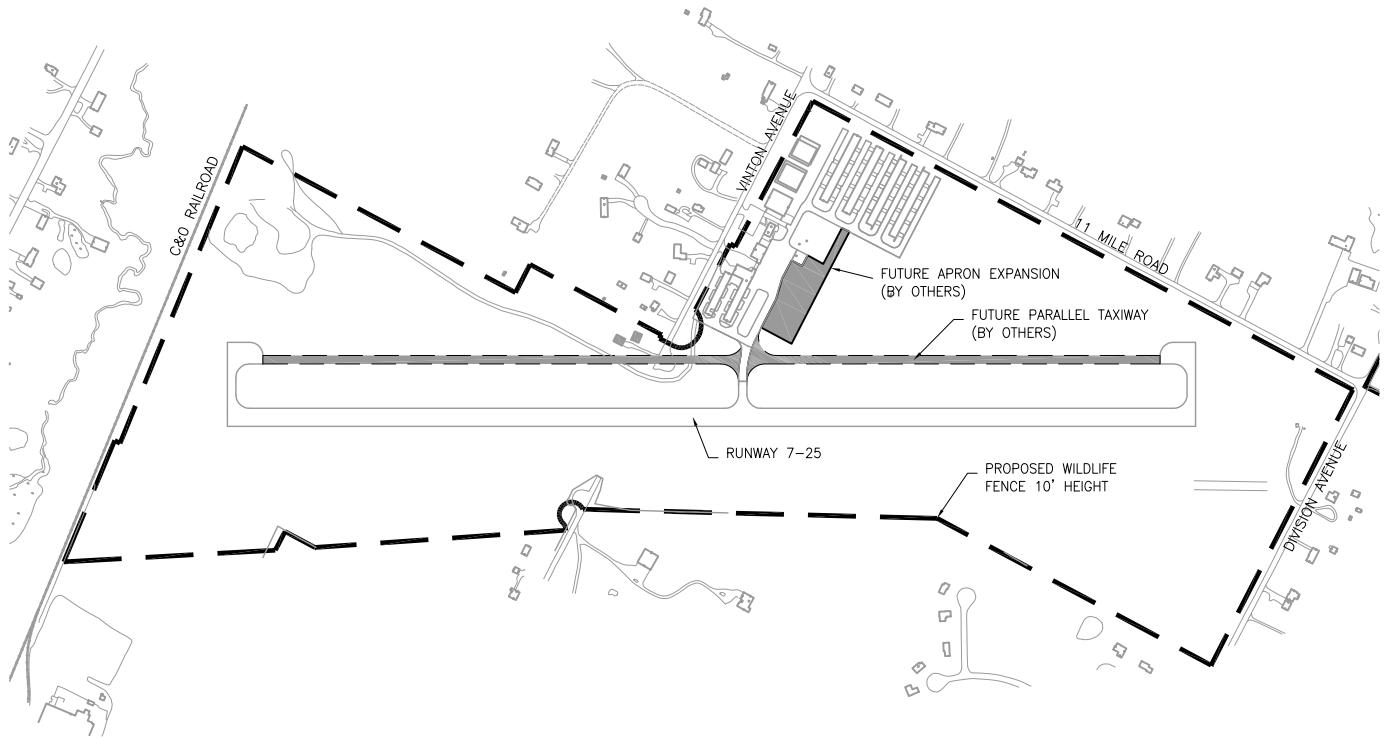
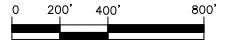
File Name: 2011_08_03_Sparta MAP 2011

ITEM NO.	WORK ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
<u>Install 10' Wildlife Fencing - Phase 1</u>					
1000400	Mobilization and General Conditions	LSUM	1	\$10,000.00	\$10,000.00
1000410	Safety and Security	LSUM	1	\$2,000.00	\$2,000.00
1627050	Misc. Chain-Link Fence, 10', Class E	LFT	8,500	\$25.00	\$212,500.00
1627050	Misc. Double Leaf Gate 20', 10' Chain Link	EACH	2	\$1,000.00	\$2,000.00
7057001	Misc. Drainage Culvert and Headwalls	EACH	5	\$500.00	\$2,500.00
Subtotal					\$229,000.00
10% Contingency					\$22,900.00
Total Preliminary Construction Cost					\$251,900.00
PROFESSIONAL SERVICES					
	Design Services	LSUM	1	\$31,000.00	\$31,000.00
	Construction Services	LSUM	1	\$33,000.00	\$33,000.00
Total Estimated Construction Cost					\$316,000.00

NORTH



SCALE: 1" = 800'



--- PROPOSED WILDLIFE FENCE 10' HEIGHT

**PAUL C. MILLER
AIRPORT
VILLAGE OF SPARTA**



WILDLIFE FENCE 10' HEIGHT

SITE PLAN

**PAUL C. MILLER - SPARTA AIRPORT
SPARTA, MICHIGAN**

DEVELOPMENT PLAN

FOR

2015

LOCATION: Paul C. Miller - Sparta Airport

Reynolds, Smith and Hills, Inc.
 Date Prepared: 03-Aug-11
 Prepared By: AMA

PROJECT DESCRIPTION:
 Install 10' Wildlife Fencing - Phase 2

Preliminary Project Cost Estimate

File Name: 2011_08_03_Sparta MAP 2011

ITEM NO.	WORK ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
<u>Install 10' Wildlife Fencing - Phase 2</u>					
1000400	Mobilization and General Conditions	LSUM	1	\$10,000.00	\$10,000.00
1000410	Safety and Security	LSUM	1	\$2,000.00	\$2,000.00
1627050	Misc. Chain-Link Fence, 10', Class E	LFT	6,250	\$25.00	\$156,250.00
1627050	Misc. Double Leaf Gate 20', 10' Chain Link	EACH	2	\$1,000.00	\$2,000.00
7057001	Misc. Drainage Culvert and Headwalls	EACH	5	\$500.00	\$2,500.00
Subtotal					\$172,750.00
10% Contingency					\$17,275.00
Total Preliminary Construction Cost					\$190,025.00
PROFESSIONAL SERVICES					
	Construction Services	LSUM	1	\$17,000.00	\$17,000.00
Total Estimated Construction Cost					\$208,000.00

LOCATION: Paul C. Miller - Sparta Airport

Reynolds, Smith and Hills, Inc.
 Date Prepared: 03-Aug-11
 Prepared By: AMA

PROJECT DESCRIPTION:
 Construct New SRE Building

Preliminary Project Cost Estimate

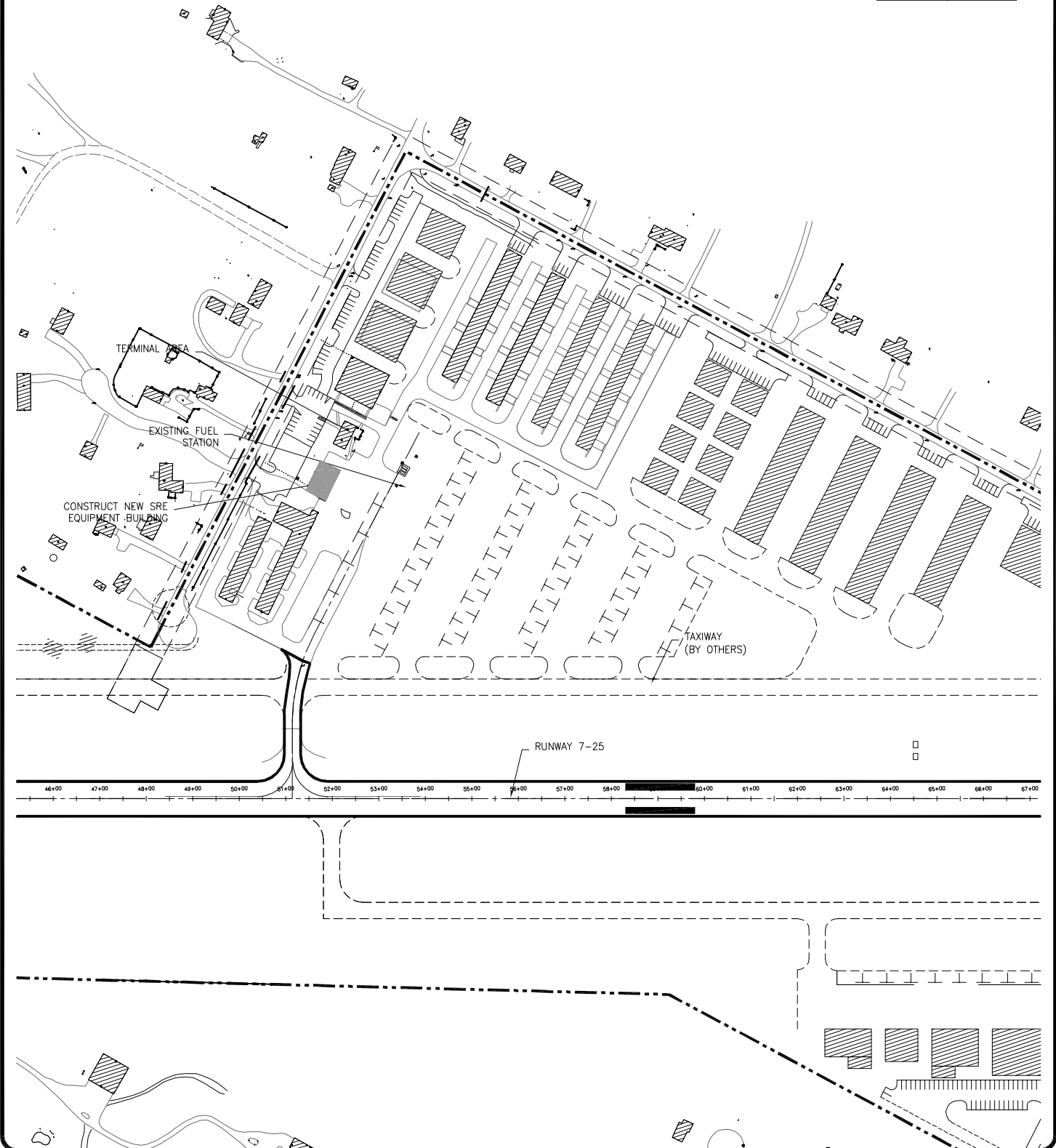
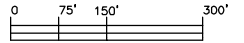
File Name: 2011_08_03_Sparta MAP 2011

ITEM NO.	WORK ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
	<u>Construct New SRE Building</u>				
	Construct SRE Building	LSUM	1	\$380,000.00	\$380,000.00
				Subtotal	\$380,000.00
				10% Contingency	\$38,000.00
				Total Preliminary Construction Cost	<u>\$418,000.00</u>
PROFESSIONAL SERVICES					
	Design Services	LSUM	1	\$30,000.00	\$30,000.00
	Construction Services	LSUM	1	\$40,000.00	\$40,000.00
Total Estimated Construction Cost					\$490,000.00

NORTH



SCALE: 1" = 300'



**PAUL C. MILLER
AIRPORT
VILLAGE OF SPARTA**



CONSTRUCT SRE EQUIPMENT BUILDING

SITE PLAN

**PAUL C. MILLER - SPARTA AIRPORT
SPARTA, MICHIGAN**

DEVELOPMENT PLAN

FOR

2016

LOCATION: Paul C. Miller - Sparta Airport

Reynolds, Smith and Hills, Inc.
 Date Prepared: 03-Aug-11
 Prepared By: AMA

PROJECT DESCRIPTION:
 Construct New SRE Building

Preliminary Project Cost Estimate

File Name: 2011_08_03_Sparta MAP 2011

ITEM NO.	WORK ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
	<p align="center"><u>Construct New SRE Building</u></p> <p>Construct SRE Building</p>	LSUM	1	\$380,000.00	\$380,000.00
<p align="right">Subtotal</p> <p align="right">10% Contingency</p> <p align="right">Total Preliminary Construction Cost</p>					<p align="right">\$380,000.00</p> <p align="right">\$38,000.00</p> <hr/> <p align="right">\$418,000.00</p>
<p>PROFESSIONAL SERVICES</p> <p>Design Services</p> <p>Construction Services</p>		LSUM	1	\$30,000.00	\$30,000.00
		LSUM	1	\$40,000.00	\$40,000.00
<p align="right">Total Estimated Construction Cost</p>					<p align="right">\$490,000.00</p>

LOCATION: Paul C. Miller - Sparta Airport

Reynolds, Smith and Hills, Inc.
Date Prepared: 16-Jul-10
Prepared By: AMA

PROJECT DESCRIPTION:
Purchase New SRE Equipment

Preliminary Project Cost Estimate

File Name: 2010_07_16_Sparta MAP 2009

ITEM NO.	WORK ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
	<u>Purchase New SRE Equipment</u>				
	Purchase New SRE Equipment - Truck	LSUM	1	\$72,000.00	\$72,000.00
				Subtotal	\$72,000.00
				10% Contingency	\$7,200.00
				Total Preliminary Construction Cost	\$79,200.00
Total Estimated Construction Cost					\$80,000.00