BENNER TOWNSHIP BOARD OF SUPERVISORS

IN RE: BELLEFONTE CAMPGROUND – CONDITIONAL USE HEARING

EXHIBIT A

GIS ARIAL SHOWING TAX PARCEL NUMBERS

Exhibit A

12-002-,083-,0000-
12-003-,068-,0000-
12-003-,068D,0000-
12-003-,066-,0000-
12-003-,068C,0000-
12-003-,081E,0000-
12-003-,081-,0000-
12-003-,082D,0000-
BRAYLYN WAY
LOWER GYP RD
BUFFALO RUN RD
SNOWBIRD LN
CRUSTIN
12-003-,063-,0000-
12-003-,063I,0000-
12-003-,067D,0000-
12-003-,066C,0000-
12-317-,019-,0000-
12-317-,070-,0000-
12-003-,065C,0000-
RAYMONDS LN
12-317-,019A,0000-
EASTWOOD FARM LN
12-003-,092-,0000-
12-317-,010-,0000-
WILLOW BEND DR
12-003-,092A,0000-
12-317-,053-,0000-
SALIX DR
SAPLING DR
ASTER AVE
TEASEL WAY
12-317-,045-,0000-
12-003-,092F,0000-
12-003-,109-,0000-
BARNS LN

BENNER TOWNSHIP BOARD OF SUPERVISORS

IN RE: BELLEFONTE CAMPGROUND – CONDITIONAL USE HEARING

EXHIBIT B

DEED FOR PROPERTY

Exhibit B

Receipt 222804

Printed 08-05-2011 14:36:16

Joseph L. Davidson
Recorder of Deeds - Centre County
414 Holmes Street Suite 1
Bellefonte, PA 16823

MID STATE REALTY SERVICES LP
ATTN: WANDA
3RD FLOOR
330 INNOVATION BLVD
STATE COLLEGE PA 16803

DEED - NONTAXABLE
R 02084-0527A 399 5 pages
1 ELNITSKI, MARINA E
2 ELNITSKI, MARINA E
********** RETURN TO **********
MID STATE REALTY SERVICES LP
ATTN: WANDA
3RD FLOOR
330 INNOVATION BLVD
STATE COLLEGE PA 16803
****

County Fee	20.00
State Writ	.50
ATJ Fee	23.50
Affordable Housing	11.50
DEED - NONTAXABLE	55.50

Commonwealth of Pennsylvania)
)
County of Centre)

Recorded on Aug 05, 2011

By: JOSEPH L. DAVIDSON
RECORDER OF DEEDS
CENTRE COUNTY

This sheet includes required recording and tax information and is part of the official record. DO NOT DETACH

MidState
5-2
55.50

Prepared by and Return to:
BABST CALLAND
330 Innovation Boulevard
Suite 302
State College, PA 16803
814-234-2048

File No. 11-0752WB

Parcel ID # 12-317/20 & 19

R 02084-0527 Aug 05, 2011
ELNITSKI, MARINA E
ELNITSKI, MARINA E
08-05-2011
14:33:02
DN 6 pgs RECORDER OF DEEDS

This DEED, made the 2nd day of August, 2011,

Between

MARINA E. ELNITSKI

(hereinafter called the Grantor), of the one part, and

MARINA E. ELNITSKI

(hereinafter called the Grantees), of the other part,

Witnesseth, that the said Grantor for and in consideration of the sum of **ONE AND 00/100 ($1.00)** DOLLARS lawful money of the United States of America, unto him well and truly paid by the said Grantee, at or before the sealing and delivery hereof, the receipt whereof is hereby acknowledged, has granted, bargained and sold, released and confirmed, and by these presents does grant, bargain and sell, release and confirm unto the said Grantee

PARCEL NO. 1

ALL THAT CERTAIN lot or piece of ground situate in Benner Township, County of Centre, Commonwealth of Pennsylvania, bounded and described as follows:

BEGINNING at a concrete monument, common corner of property of Crust and Spearly, being the northeasterly corner of the tract herein conveyed; thence along land of Spearly, South 21 degrees 58 minutes 30 seconds East, a distance of 927.72 feet to an iron pin; thence along the residue of the premises owned by the grantors herein, South 71 degrees 26 minutes West, a distance of 4,177.67 feet to a railroad spike on the easterly side of the Township Road 392; thence along same North 18 degrees West a distance of 250 feet to a hum and tack; thence North 71 degrees 26 minutes East a distance of 3385.28 feet to an iron pin; thence North 15 degrees 16 minutes 45 seconds West a distance of 734.17 feet to a concrete monument; thence North 76 degrees 34 minutes 15 seconds East a distance of 707.07 feet to a concrete monument, the place of beginning.

CONTAINING 34 acres according to a survey by William C. Arble, dated September 12, 1968.

BEING KNOWN AS Centre County Uniform Parcel Identifier Tax Parcel No. 12-317-20 and 225 Snowbird Lane, Bellefonte, PA

BEING the same premises which became vested in John J. Elnitski and Marina E. Elnitski by deed of Bald Eagle Aviation, Inc., dated January 15 1988 and recorded February 11, 1988 in Centre County Deed Book 461, Page 521. John J. Elnitski, Sr., subsequently died on _____ thereby vesting title in his spouse, Marina E. Elnitski, by operation of law.

EXCEPTING AND RESERVING thereout an therefrom the following described tract of land:

BEGINNING at an iron pin corner on the eastern right of way line of Township Road No. T-392 and on line of other lands of Marion C. Dunlap; thence along line of other lands of Marion C. Dunlap, North 71 degree 26 minutes 00 seconds East, a distance of 1,284.92 feet to an iron pin corner on line of Bald Eagle Aviation, Inc.: thence along line of Bald Eagle Aviation, Inc., South 66 degrees 06 minutes 17 seconds West, a distance of 1,206.51 feet to an iron pin corner; thence by same South 71 degrees 26 minutes 00 seconds West, a distance of 84.73 feet to an iron pin corner on the aforementioned eastern right of way line of Township Road No. T-392; thence along the eastern right of way line of Township Road No. T-392 North 18 degrees 00 minutes 00 seconds West a distance of 112.05 feet to an iron pin corner, the place of beginning.

CONTAINING 1.76 acres according to a survey by Kerry A. Uhler.

TOGETHER with the full and free right of ingress, egress and regress in, over and upon the farm land and right of way as extended from Route 550 to the premises hereinabove described to be used in common with others using the same.

C.C.B.O.A. PARCEL 1 Registry
pd. $10. pd 8-3-11
12-317/20
Uniform Parcel Identifier

PARCEL NO. 2

ALL THAT CERTAIN messuage, tenement and tract of land situate, lying and being in the Township of Benner, County of Centre and State of Pennsylvania, being bounded and described as follows, to-wit:

BEGINNING at an iron pin along the right of way of T-392. Said pin being the southwestern corner of the lands herein described; thence along T-392 North 18 degrees 00 minutes 00 seconds West, a distance of 112.05 feet to an iron pin; thence the following five courses along Lot 8R3; 1) North 71 degrees 26 minutes 00 seconds East, a distance of 728.76 feet to an iron pin; 2) North 66 degrees 38 minutes 37 seconds East, a distance of 111.16 feet to an iron pin: 3) North 19 degrees 47 minutes 04 seconds West, a distance of 103.21 feet to an iron pin; 4) North 72 degrees 07 minutes 24 seconds East, a distance of 205.52 feet to an iron pin; 5) North 18 degrees 22 minutes 59 seconds West, a distance of 660.85 feet to an iron pin; thence along lands of Joseph Hartle North 71 degrees 11 minutes 24 seconds East, a distance of 1,716.78 feet to an iron pin; thence along lands of James Bird, North 75 degrees 27 minutes 59 seconds East, a distance of 637.92 feet to an iron pin; thence along lands of John Elnitski the following five courses: 1) South 15 degrees 16 minutes 31 seconds East a distance of 734.47 feet to an iron pin; 2) South 71 degrees 26 minutes 00 seconds West, a distance of 2,070.58 feet to an iron pin; 3) South 66 degrees 06 minutes 17 seconds West, a distance of 508.38 feet to an iron pin; 4) South 66 degrees 06 minutes 17 seconds West, a distance of 698.13 feet to an iron pin; 5) South 71 degrees 26 minutes 00 seconds West, a distance of 84.73 feet to the place of beginning.

CONTAINING 43.49 acres.

BEING Lot No. 7R2 of a plan of a Lot Addition to Lots 7R and 8RR into Lots 7R2 and 8R3 of SkyPark Heights (Block 4). All shown on a plan by Kerry A. Uhler & Associates dated June 17, 1999 and recorded in Plat Book 60, Page 19.

BEING known as Centre County Uniform Parcel Identifier Tax Parcel Number 12-317-19 and Raymonds Lane

BEING the same premises which became vested in John J. Elnitski, Sr. and Marina E. Elnitski, his wife, by deed of Maribeth Dunlap Wells and Randall S. Wells, dated and recorded April 14, 2000 in Centre County Record Book 1149, Page 1071. John J. Elnitski, Sr., subsequently died on _____, thereby vesting title in his spouse, Marina E. Elnitski, by operation of law.

UNDER AND SUBJECT, NEVERTHELESS, to all restrictions, easements and conditions of record.

GRANTORS certify that no hazardous waste, within the meaning of the Solid Waste Management Act of 1980, is presently being disposed of or has ever been disposed of by the Grantors or to the Grantors' actual knowledge in or upon the above described premises.

Self to self and exempt from transfer tax

C.C.B.O.A. PARCEL 2 Registry | pd. $10. pd 8-3-11

12-317 / 19 Uniform Parcel Identifier

Together with all and singular the buildings and improvements, ways, streets, alleys, driveways, passages, waters, water-courses, rights, liberties, privileges, hereditaments and appurtenances, whatsoever unto the hereby granted premises belonging, or in anywise appertaining, and the reversions and remainders, rents, issues, and profits thereof; and all the estate, right, title, interest, property, claim and demand whatsoever of him, the said grantor, as well at law as in equity, of, in and to the same.

To have and to hold the said lot or piece of ground described above, with the buildings and improvements thereon erected, hereditaments and premises hereby granted, or mentioned and intended so to be, with the appurtenances, unto the said Grantees, their heirs and assigns, to and for the only proper use and behoof of the said Grantees, their heirs and assigns, forever.

And the said Grantor, for herself and her heirs, executors and administrators, does, by these presents, covenant, grant and agree, to and with the said Grantees, their heirs and assigns, that he, the said Grantor, and her heirs, all and singular the hereditaments and premises herein described and granted, or mentioned and intended so to be, with the appurtenances, unto the said Grantees, their heirs and assigns, against him, the said Grantor, and her heirs, will warrant and defend against the lawful claims of all persons claiming by, through or under the said Grantor but not otherwise.

In Witness Whereof, the party of the first part has hereunto set her hand and seal. Dated the day and year first above written.

Sealed and Delivered
IN THE PRESENCE OF US:

Amy Marshall

Marina E. Elnitski (SEAL)
Marina E. Elnitski

Commonwealth of Pennsylvania
County of Centre } ss

On this, the 2nd day of Aug. 2011, before me, the undersigned Notary Public, personally appeared MARINA E. ELNITSKI, known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument, and acknowledged that she executed the same for the purposes therein contained.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

Wanda E. Boone
Notary Public
My commission expires _____

COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Wanda E. Boone, Notary Public
College Twp., Centre County
My Commission Expires Oct. 16, 2012
Member, Pennsylvania Association of Notaries

CERTIFICATE OF RESIDENCE

The precise residence and the complete post office address of the above-named Grantee is:

769 Seibert Road
Bellefonte, PA 16823

Amy Marshall KC.
On behalf of the Grantees

BENNER TOWNSHIP BOARD OF SUPERVISORS

IN RE: BELLEFONTE CAMPGROUND – CONDITIONAL USE HEARING

EXHIBIT C

DECLARATION OF PERMANENT STORMWATER EASEMENT

Exhibit C

5-2
44.00

DECLARATION OF PERMANENT STORMWATER MANAGEMENT EASEMENTS – AND MAINTENANCE AGREEMENT

MARINA E. ELNITSKI

BENNER TOWNSHIP, CENTRE COUNTY, PENNSYLVANIA

WHEREAS, Marina E. Elnitski, here forth referred to as the DEVELOPER, is owner of tax parcels 12-317-19 and 12-317-20 otherwise known as Bellefonte Airport.

WHEREAS, said DEVELOPER became fee simple owner of the tracts of land by deed recorded in Deed book 461, Page 521, and Record book 1149, page 1071.

WHEREAS, the DEVELOPER now leases the land and improvements to Pleasant Valley Aviation, Inc. for the operation of an airport.

WHEREAS, the DEVELOPER has submitted a plan of a land development to Benner Township for the purpose of widening and improving the airport runway surface.

WHEREAS, as a condition of this plan approval, the DEVELOPER must provide a perpetual access and maintenance easement to provide for the protection and perpetual maintenance of the stormwater facilities proposed within the plan

NOW THEREFORE the DEVELOPER declares that specific areas of site shall be subject to perpetual stormwater facilities easements as follows:

1. The Final Plan of a Land Development for Marina E. Elnitski, titled "Widen Runway 7-25 and Construction Partial Parallel Taxiway, Phase I" Benner Township, Centre County, PA, dated February 2011 and last revised March 2011, which Plan is intended to be recorded in the Office of the Recorder of Deeds of Centre County, Pennsylvania, provides for certain stormwater facilities as they appear on said Land Development Plan.

2. Said stormwater facilities easement is more fully described in the descriptions attached hereto as "Exhibit A" and depicted in the drawing attached here to as "Exhibit B".

3. Said easement shall constitute a covenant running with the land, and each subsequent heir, successor, or assignee in title, on behalf of themselves, their executors,

R 02106-0556 Aug 01, 2012
ELNITSKI, MARINA E
BENNER TOWNSHIP
08-01-2012
10:14:12
EASE 5 pgs
RECORDER OF DEEDS

administrators, heirs, successor or successors in title and assigns agrees to be subject to same.

4. No structures or trees may be placed or allowed to grow within the stormwater facilities easements which would impede the function of the stormwater management facilities, or restrict access to the stormwater management facilities.

5. The DEVELOPER his heir, heirs, successors and assigns, shall be responsible for all operation and maintenance of said facilities including the cost of such maintenance to assure the operation of the stormwater facilities as designed. The operation and maintenance of the facilities may be delegated to any agent of the DEVELOPER, his heirs, successors and assigns choosing, now Pleasant Valley Aviation, Inc.

6. The Township of Benner shall have the right to periodically inspect the stormwater facilities for proper operation and maintenance, during the normal business hours of the airport and with a minimum of 24 hours advanced notice to the DEVELOPER, his heirs, successors and assigns or their designated agent, now Pleasant Valley Aviation, Inc.

7. In the event the DEVELOPER, his heirs, successors and assigns or their designated agent fail to maintain the said facilities, the Township of Benner or their designated agent, shall have the right to enter onto and upon the easement to affect such repairs or maintenance as necessary to assure the proper operation of the facilities.

8. The DEVELOPER, his heirs, successors and assigns shall be responsible for all reasonable costs incurred by the Township of Benner associated with the maintenance of the facilities including the cost of collection of the debt incurred.

9. The storm water facilities easements created hereby shall be permanent easements which shall run with the land and bind the grantee and DEVELOPER, his heirs, successors and assigns to the terms and conditions of this easements.

10. As this facility is an active airport, access to the stormwater facilities within the easement and within 200 feet of the runway, or any aircraft operations areas for inspection or maintenance, as allowed by paragraphs six and seven above, by the Township or their designated agent shall be made only in accordance with all Federal

Aviation Administration regulations and only while escorted by the DEVELOPER their heir, successor, assignee or their designated agent, now Pleasant Valley Aviation, Inc.

11. Included with this easement shall be the right of entry onto and across the lands of the DEVELOPER, his heirs, successors and assigns for the purpose of gaining accessing to the easement for the purposes stated above. The right of entry shall extend only so far as to provide a reasonable path of entry from a public right of way to the easement.

IN WITNESS WHEREOF, the undersigned have executed this Declaration this 31 day of JULY, 2012.

Cynthia Mock — Witness

Marina E Elnitski — Marina E. Elnitski

COMMONWEALTH OF PENNSYLVANIA :
: SS
COUNTY OF CENTRE :

On this, the 31ST day of JULY, 2012, before me a notary public, the undersigned officer, personally appeared Marina E. Elnitski, known to me (or satisfactorily proven) to be the persons whose names are subscribed to the within instrument, and acknowledged that they executed the same for the purposes therein contained.

IN WITNESS WHEREOF, I have hereunto set my hand and notarial seal.

Cynthia Mock

COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Cynthia Mock, Notary Public
Patton Twp., Centre County
My Commission Expires July 15, 2013
Member, Pennsylvania Association of Notaries

EXHIBIT A

Storm Water Easement

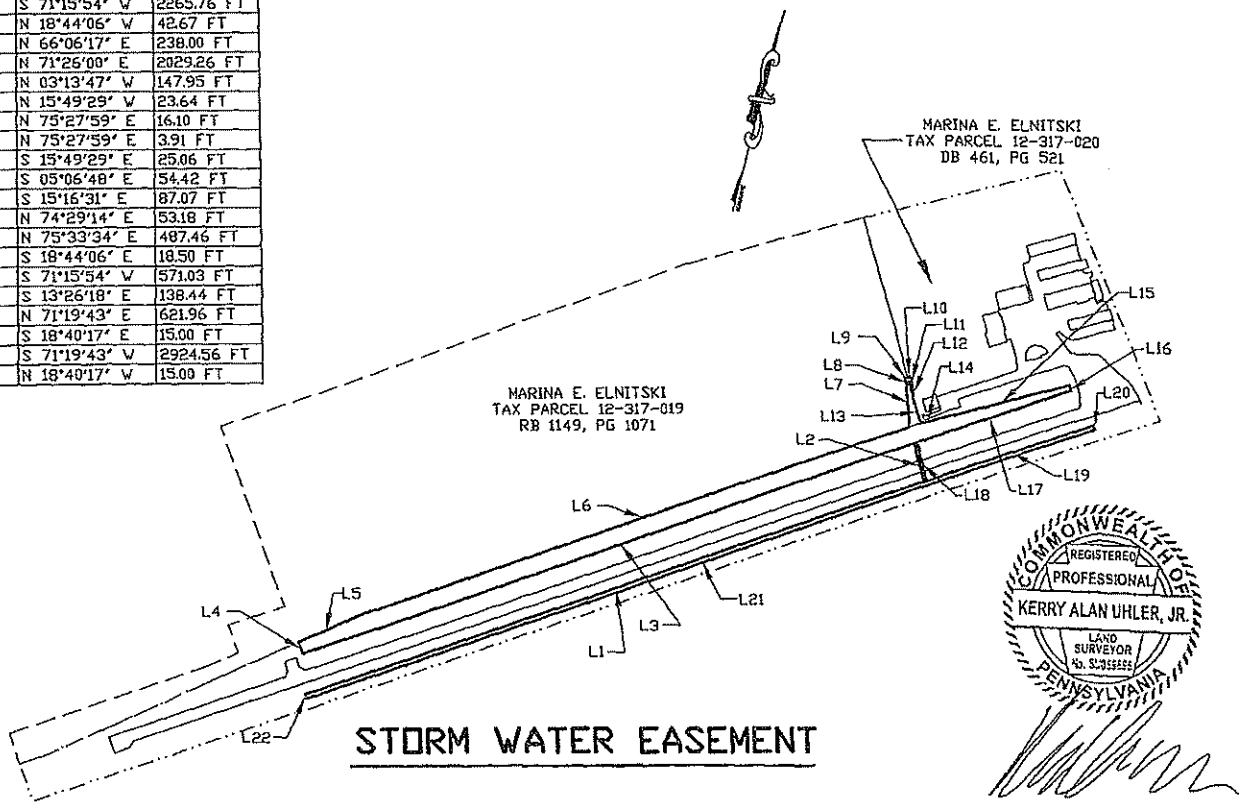
BEGINNING AT A POINT along the southerly property line of UPI #12-317-,019 lands now or formerly of Marina E. Elnitski and a northerly property line of UPI #12-317-,020 lands now or formerly of Marina E. Elnitski, said point being further described and located the following 3 courses from a common iron pin along the westerly line of said properties and the easterly right of way of T-392 aka Raymonds Lane:

1. N 71°26'00" E a distance of 84.73 feet to an iron pin;
2. N 66°06'17" E a distance of 698.13 feet to an iron pin;
3. N 66°06'17" E a distance of 270.34 feet to the point of beginning;

Thence along the common line of the aforesaid properties N 66°06'17" E a distance of 238.00 feet to a point; thence along same N 71°26'00" E a distance of 2029.26 feet to a point; thence through lot 19 N 03°13'47" W a distance of 147.95 feet to a point, thence through same N 15°49'29" W a distance of 23.64 feet to a point; thence through lot 19 N 75°27'59" E a distance of 16.10 feet to point on the common line of lots 19 and 20; thence through lot 20 N 75°27'59" E a distance of 3.91 feet to a point; thence continuing through lot 20 S 15°49'29" E a distance of 25.06 feet to a point; thence through same S 05°06'48" E a distance of 54.42 feet to a point on the common line of lots 19 and 20; thence along the easterly line of lot 19 and the westerly line of lot 20 S 15°16'31" E a distance of 87.07 feet to a point; thence through lot 20 the following 13 courses:

1. N 74°29'14" E a distance of 53.18 feet to a point;
2. N 75°33'34" E a distance of 487.46 feet to a point;
3. S 18°44'06" E a distance of 18.50 feet to a point;
4. S 71°15'54" W a distance of 571.03 feet to a point;
5. S 13°26'18" E a distance of 138.44 feet crossing the runway to a point;
6. N 71°19'43" E a distance of 621.96 feet to a point;
7. S 18°40'17" E a distance of 15.00 feet to a point;
8. S 71°19'43" W a distance of 2924.56 feet to a point;
9. N 18°40'17" W a distance of 15.00 feet to a point;
10. N 71°19'43" W a distance of 2292.56 feet to a point
11. N 13°26'18" E a distance of 138.43 feet crossing the runway to a point;
12. S 71°15'54" W a distance of 2265.76 feet to a point;
13. N 18°44'06" W a distance of 42.67 feet to the point of beginning.

NUMBER	DIRECTION	DISTANCE
L1	N 71°19'43" E	2292.56 FT
L2	N 13°26'18" W	138.43 FT
L3	S 71°15'54" W	2265.76 FT
L4	N 18°44'06" W	42.67 FT
L5	N 66°06'17" E	238.00 FT
L6	N 71°26'00" E	2029.26 FT
L7	N 03°13'47" W	147.95 FT
L8	N 15°49'29" W	23.64 FT
L9	N 75°27'59" E	16.10 FT
L10	N 75°27'59" E	3.91 FT
L11	S 15°49'29" E	25.06 FT
L12	S 05°06'48" E	54.42 FT
L13	S 15°16'31" E	87.07 FT
L14	N 74°29'14" E	53.18 FT
L15	N 75°33'34" E	487.46 FT
L16	S 18°44'06" E	18.50 FT
L17	S 71°15'54" W	571.03 FT
L18	S 13°26'18" E	138.44 FT
L19	N 71°19'43" E	621.96 FT
L20	S 18°40'17" E	15.00 FT
L21	S 71°19'43" W	2924.56 FT
L22	N 18°40'17" W	15.00 FT



STORM WATER EASEMENT

APPROVED BY:	DRAWN BY:	KERRY A. UHLER & ASSOCIATES, INC. SURVEYING & ENGINEERING 140 W. HIGH ST. 814-355-0432 BELLEFONTE, PA 16823 570-748-7510	PROJECT STORM WATER EASEMENT EXHIBIT 'B' BELLEFONTE AIRPORT
PROJ. NO.	DATE:		
	DWG. NO.:		
	DWG.		

BENNER TOWNSHIP BOARD OF SUPERVISORS

IN RE: BELLEFONTE CAMPGROUND – CONDITIONAL USE HEARING

EXHIBIT D

RIGHT OF WAY AGREEMENT FOR SNOWBIRD LANE

ENTERED FOR RECORD
1976 JUN 11 AM 11: 30
JOHN W. MILES
RECORDER OF DEEDS
CENTRE COUNTY, PA.

JAMES H. BIRD, JR. et ux.
and
ROY R. MILLER et ux.
and
JARED EVEY et ux.
and
MARION E. DUNLAP

Dated: April 20, 1976

RIGHT-OF-WAY AGREEMENT

LAW OFFICES OF
MILLER, KISTLER, CAMPBELL, MITINGER & BEIK
A PROFESSIONAL CORPORATION
BELLEFONTE, PENNSYLVANIA 16823
CAIDERS EXCHANGE BUILDING

Recorded in the office for the recording of Deeds, etc. in and for Centre County in Misc Book Vol 130 at page 1116
11 day of June A. D. 19 76
Witness my hand and seal of office
John W. Miles Recorder

BOOK 130 PAGE 1116

Exhibit D

RIGHT-OF-WAY AGREEMENT

THIS AGREEMENT is made this 20th day of April, 1976, by and between:

JAMES H. BIRD, JR. and EVELYN BIRD, his wife, parties of the first part,

A N D

ROY R. MILLER and CONNIE J. MILLER, his wife, parties of the second part,

A N D

JARED EVEY and KATHY EVEY, his wife, parties of the third part,

A N D

MARION C. DUNLAP, party of the fourth part.

WITNESSETH: that the parties hereto, being the abutting owners of the hereinafter-described right-of-way, do hereby mutually agree with respect to the use, maintenance and improvement of said right-of-way as follows:

1 - The parties agree that they have heretofore acquired an easement and right-of-way in, over and upon a fifty-foot right-of-way described as follows:

> Situate in Benner Township, Centre County, Pennsylvania, and BEGINNING at an iron pin on the Southerly right of way line of Pa. Route #550; thence South 15° 16' 45" East a distance of 991.42 feet to an iron pin in line of lands of the Bellefonte Skypark; thence along same North 76° 34' East a distance of 50.02 feet to an iron pin; thence North 15° 16' 45" West a distance of 995.49 feet to an iron pin on the Southerly right of way line of Pa. Route #550; thence along same South 71° 55' 15" West a distance of 50.06 feet to an iron pin, the place of beginning.

2 - The parties mutually agree that each of the parties hereto shall have the full and free right of ingress, egress and regress in, over and upon said right-of-way, together with their heirs, successors and assigns, tenants, occupiers or possessors of premises contiguous to said right-of-way, in common with each other in, over and across said right-of-way.

3 - The parties of the first part, James H. Bird, Jr. and Evelyn Bird, his wife, reserve the right to grant to the abutting owners in the future the use of said right-of-way in accordance with the terms of this agreement.

4 - The parties hereto covenant and agree that each party shall bear the cost and expense of the maintenance and repair of said right-of-way, and any party hereto shall have the right, but not the obligation, to improve the right-of-way by paving the same, at the cost of the person electing to pave the same.

IN WITNESS WHEREOF, the parties hereto have executed this right-of-way agreement the day and year first above written.

James H. Bird Jr.
James H. Bird, Jr.

Evelyn Bird
Evelyn Bird

Roy R. Miller
Roy R. Miller

Connie J. Miller
Connie J. Miller

Jared Evey
Jared Evey

Kathy Evey
Kathy Evey

Marion E. Dunlap
Marion E. Dunlap

BOOK 130 PAGE 1119

COMMONWEALTH OF PENNSYLVANIA)
) SS:
COUNTY OF CENTRE)

On this, the 20th day of April, 1976, before me, a Notary Public, personally appeared James H. Bird, Jr. and Evelyn Bird, his wife, known to me (or satisfactorily proven) to be the persons whose names are subscribed to the within agreement, and acknowledged that they executed the same for the purpose therein contained.

IN WITNESS WHEREOF, I have hereunto set my hand and Notarial seal.

Ethel J. Knapp

ETHEL J. KNAPP, NOTARY PUBLIC
BELLEFONTE BOROUGH, CENTRE COUNTY
MY COMMISSION EXPIRES AUG. 26, 1978
Member, Pennsylvania Association of Notaries

COMMONWEALTH OF PENNSYLVANIA)
) SS:
COUNTY OF CENTRE)

On this, the 20th day of April, 1976, before me, a Notary Public, personally appeared Roy R. Miller and Connie J. Miller, his wife, known to me (or satisfactorily proven) to be the persons whose names are subscribed to the within agreement, and acknowledged that they executed the same for the purpose therein contained.

IN WITNESS WHEREOF, I have hereunto set my hand and Notarial seal.

Ethel J. Knapp

ETHEL J. KNAPP, NOTARY PUBLIC
BELLEFONTE BOROUGH, CENTRE COUNTY
MY COMMISSION EXPIRES AUG. 26, 1978
Member, Pennsylvania Association of Notaries

COMMONWEALTH OF PENNSYLVANIA)
) SS:
COUNTY OF CENTRE)

On this, the 20th day of April, 1976, before me, a Notary Public, personally appeared Jared Evey and Kathy Evey, his wife, known to me (or satisfactorily proven) to be the persons whose names are subscribed to the within agreement, and acknowledged that they executed the same for the purpose therein contained.

IN WITNESS WHEREOF, I have hereunto set my hand and Notarial seal.

Ethel J. Knapp

ETHEL J. KNAPP, NOTARY PUBLIC
BELLEFONTE BOROUGH, CENTRE COUNTY
MY COMMISSION EXPIRES AUG 25, 1978
Member, Pennsylvania Association of Notaries

COMMONWEALTH OF PENNSYLVANIA)
) SS:
COUNTY OF CENTRE)

On this, the 20th day of April, 1976, before me, a Notary Public, personally appeared Marion E. Dunlap, known to me (or satisfactorily proven) to be the person whose name is subscribed to the within agreement, and acknowledged that he executed the same for the purpose therein contained.

IN WITNESS WHEREOF, I have hereunto set my hand and Notarial seal.

Ethel J. Knapp

ETHEL J. KNAPP, NOTARY PUBLIC
BELLEFONTE BOROUGH, CENTRE COUNTY
MY COMMISSION EXPIRES AUG 25, 1978
Member, Pennsylvania Association of Notaries

BENNER TOWNSHIP BOARD OF SUPERVISORS

IN RE: BELLEFONTE CAMPGROUND – CONDITIONAL USE HEARING

EXHIBIT E

DOCUMENTS FROM PRIOR CONDITIONAL USE HEARING FOR BELLEFONTE AIRPORT RUNWAY WIDENING - 2011

Exhibit E

APPLICATION REQUEST FOR CONDITIONAL USE HEARING BEFORE BENNER TOWNSHIP SUPERVISORS

Today's Date: 2/17/11

Filing fee is $300.00. Payable to "Benner Township Supervisors."

A. Applicant Information:

Name: Marina Elnitski - Bellefonte Airport

Mailing Address: 225 Snowbird Ln., Bellefonte PA 16823

Phone No.: 814 355 7407 Work Phone: _____

B. Property Information:

Tax Map No. 12-317-019-0000 12-317-020-0000 Lot Size: 43.49 acres 29.63 acres

Property Location: 225 Snowbird Lane

What do you propose to do on the premises? *(Please be specific)*

Widen Runway 10ft on each side, Storm water Resurface, try to fill dip. See Attached

Are there existing buildings on the property and how many? 8

What size(s) are the existing buildings? As Shown on Plan

Do you propose to build a building, if so what size? NO

Are you proposing a parking lot on the parcel? If so, what size: NO

Approximately how many cars can be parked in this lot? NA

Approximately how many employees do you hope to employ? NA

Further Information on Back Side

C. Additional Comments You Wish to Give to the Board: (additional sheets may be attached)

See Attached

D. Certification by Applicant:

Waiver of Stenographic Record
I agree to waive the requirements of Section 908(7) of the Penna. Municipalities Planning Code which requires that a stenographic record of the proceedings be made, and consent that a record of the proceedings be prepared from a tape recording of the hearing and the recording secretary's minutes.

Marina E Elnitski Date: 02-17-2011

I hereby certify that all of the above statements and the statements contained in any papers or plans submitted herewith are true to the best of my knowledge and belief.

Marina E Elnitski Date: 02-17-2011

BELOW FOR OFFICE USE ONLY

Date Received: 2-17-2011 By Whom: RAS

Date Paid: 2-17-2011 Check No.: 751 Amount: $300.00

Advertisement Date: 3/7 + 3/14/11 PC Review Date:

Supervisor's Hearing Date: March 21, 2011

10/06

PLEASANT VALLEY AVIATION, INC.
Bellefonte Airport
225 Snowbird Lane
Bellefonte, PA 16823
814-355-7407
Fax 814-355-5518

Rec'd
2-17-2011
RAS

Dear Supervisors of Benner Township

Bellefonte Airport owner Marina Elnitski is respectfully requesting approval of a Runway widening and resurfacing project at 225 Snowbird Lane, Bellefonte PA, 16823. From 2001 to December 2003, an airport layout study was conducted of current and future needs at the airport and an airport layout plan (ALP) was devised and approved by the PA Bureau of Aviation. Attached is a letter acknowledging and approving the ALP by the PA Bureau of Aviation.

In 2008, PA Bureau of Aviation provided a grant to design a plan for construction of resurfacing the runway, widening the runway 10 feet on each side, a taxiway, stormwater design and a change in Category status from A1 small to B1 small according to the recommendations of the airport layout study. The PA Bureau of Aviation is now providing funding to resurface the runway, widen the runway and construct the required stormwater improvements. All of these changes are based on safety requirements and a letter is attached from the PA Bureau of Aviation showing approval of the changes to the airport.

The runway is being resurfaced as it is nearing the useful life of the current asphalt layer. The runway is being widened from 40 ft to 60 ft to meet the change in minimum runway width from 40 ft to 50 ft and a PA Bureau of Aviation policy that requires it to be 60 ft. A copy of email from our engineer stating the policy is attached. The actual major part of construction is due to stormwater requirements and will improve the overall stormwater footprint of the Township. Also, one end of the pavement will be squared off for safety reasons and will require a variance. The squaring off will provide a straight line of pavement so that pilots will not accidently run off the side as they exit the runway and provide surface area to be able to plow snow properly from where the aircraft operate. The change in Category form A to B is a speed rating at landing, where A is for aircraft under 91 knots and B is for aircraft from 91 to 121 knots. Aircraft in the B rating have operated from the airport since 1967 and this is more of a formality then a change in the type of aircraft that will use the airport. The runway requirements are the same for width whether it is an A or B rating, as supported in the attached regulatory requirements.

There will be no change in airspace requirements or impacts on surrounding properties, as the widening of the runway does not change the current primary zone of 250 ft or 125 ft from the centerline of the runway.

As to the criteria to review, page 170 of section 240.13 of the Benner Township Zoning Ordinance. There is no change in A-G. Under H, it is been determined by the PA Bureau of Aviation the there are safety needs for the runway to be widened and resurfaced.

Sincerely,

Marina Elnitski

Marina Elnitski 02-17-2011

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

400 North Street
P.O. Box 3457
Harrisburg, PA 17105-3457

BUREAU OF AVIATION

Administrative Offices
Phone - (717) 705-1260
Fax - (717) 705-1255

Rec'd 2-17-2011 RAS

January 12, 2011

John Elnitski, VP
Pleasant Valley Aviation, Inc.
225 Snow Bird Lane
Bellefonte, PA 16823-8538

Dear Mr. Elnitski:

I am pleased to inform you that your airport has been selected for funding through the Bureau of Aviation (BOA) Grant Program. The following project (PennDOT Internal Order No. 7889009101) is approved at Bellefonte Airport:

Project Description
Widen/resurface runway: Ph II: Construction

Project Funding

State	Local	Federal
$1,260,000	$140,000	$0

This selection is contingent upon the submittal and approval of all item(s) required by this letter:

- Completed project schedule
- Grant request letter w/ Approved Project Cost
- Engineering Contract
- Administrative Cost Plan (admin., legal, etc.)
- Sponsor Certification for Selection of Consultants
- Sponsor Certification of Plans and Specifications
- Sponsor Certification for Equipment/Construction Contracts
- Contract Documents for review
- Bid tabulations
- Apparent low bidder Contact information including Federal Identification Number
- Notice of Proposed Construction or Alteration (FAA Form 7460-1)
- Other: Any updates to the existing Environmental docmentation that may be required

The above item(s) shall be returned to and/or addressed with

your Project Manager within 90 days of your receipt of this letter. All outstanding item(s) shall be resolved prior to the grant being issued.

Funding for these project(s) is based on a balanced program which is derived from each airport's Twelve Year Plan. Therefore, we cannot guarantee additional funding will be available for any project with costs that are significantly greater than our programmed amount (listed above). Additional funds, if available, will be allocated to those projects which meet all BOA requirements in the order in which they are received.

Please be advised that this is not a grant. Project formulation, design and land acquisition can be started as approved by the BOA and will be reimbursed when the grant is issued. However, no construction, equipment procurement or planning shall take place until a grant is offered.

Please review all of the information requested in this letter. If you are not ready to receive the programmed funds in the specified time frame, please advise the BOA in writing so we can reprogram the funds to a project that is ready. If you are unable to submit the required item(s) within the above time frame, you must contact your Project Manager prior to that deadline. If you are ready to proceed with this project, please log on to dotGrants to complete the requested forms.

If you have any questions or wish to discuss this further, please contact your Project Manager Matthew Johnson at (717)320-0718 or at matjohnson@state.pa.us.

Sincerely,

Brian J. Gearhart, P.E.
Director
Bureau of Aviation

Certified No. 7003 2260 0006 5046 9905

Rec'd 2-17-2011 RAS

Chapter 1. REGULATORY REQUIREMENTS AND DEFINITION OF TERMS

1. **GENERAL.** Section 103 of the Federal Aviation Act of 1958 states in part, "In the exercise and performance of his power and duties under this Act, the Secretary of Transportation shall consider the following, among other things, as being in the public interest: (a) The regulation of air commerce in such manner as to best promote its development and safety and fulfill the requirements of defense; (b) The promotion, encouragement, and development of civil aeronautics . . . ."

This public charge, in effect, requires the development and maintenance of a national system of safe, delay-free, and cost-effective airports. The use of the standards and recommendations contained in this publication in the design of airports supports this public charge. These standards and recommendations, however, do not limit or regulate the operations of aircraft.

2. **DEFINITIONS.** As used in this publication, the following terms mean:

Aircraft Approach Category. A grouping of aircraft based on 1.3 times their stall speed in their landing configuration at the certificated maximum flap setting and maximum landing weight at standard atmospheric conditions. The categories are as follows:

Category A: Speed less than 91 knots.

Category B: Speed 91 knots or more but less than 121 knots.

Category C: Speed 121 knots or more but less than 141 knots.

Category D: Speed 141 knots or more but less than 166 knots.

Category E: Speed 166 knots or more.

Airplane Design Group (ADG). A grouping of airplanes based on wingspan or tail height. Where an airplane is in two categories, the most demanding category should be used. The groups are as follows:

Group I: Up to but not including 49 feet (15 m) wingspan or tail height up to but not including 20 feet.

Group II: 49 feet (15 m) up to but not including 79 feet (24 m) wingspan or tail height from 20 up to but not including 30 feet.

Group III: 79 feet (24 m) up to but not including 118 feet (36 m) wingspan or tail height from 30 up to but not including 45 feet.

Group IV: 118 feet (36 m) up to but not including 171 feet (52 m) wingspan or tail height from 45 up to but not including 60 feet.

Group V: 171 feet (52 m) up to but not including 214 feet (65 m) wingspan or tail height from 60 up to but not including 66 feet.

Group VI: 214 feet (65 m) up to but not including 262 feet (80 m) wingspan or tail height from 66 up to but not including 80 feet.

Table 1-1. Airplane Design Groups (ADG)

Group #	Tail Height (ft)	Wingspan (ft)
I	<20	<49
II	20 - <30	49 - <79
III	30 - <45	79 - <118
IV	45 - <60	118 - <171
V	60 - <66	171 - <214
VI	66 - <80	214 - <262

Airport Elevation. The highest point on an airport's usable runway expressed in feet above mean sea level (MSL).

Airport Layout Plan (ALP). The plan of an airport showing the layout of existing and proposed airport facilities.

Airport Reference Point (ARP). The latitude and longitude of the approximate center of the airport.

Blast Fence. A barrier used to divert or dissipate jet blast or propeller wash.

Building Restriction Line (BRL). A line which identifies suitable building area locations on airports.

Clear Zone. See Runway Protection Zone.

Clearway (CWY). A defined rectangular area beyond the end of a runway cleared or suitable for use in lieu of runway to satisfy takeoff distance requirements.

Compass Calibration Pad. An airport facility used for calibrating an aircraft compass.

Table 3-1. Runway design standards for aircraft approach category A & B visual runways and runways with not lower than 3/4-statute mile (1,200 m) approach visibility minimums

(Refer also to Appendix 16 for the establishment of new approaches)

ITEM	DIM 1/	AIRPLANE DESIGN GROUP				
		I 2/	I	II	III	IV
Runway Length	A	- Refer to paragraph 301 -				
Runway Width	B	60 ft	60 ft	75 ft	100 ft	150 ft
		18 m	18 m	23 m	30 m	45 m
Runway Shoulder Width		10 ft	10 ft	10 ft	20 ft	25 ft
		3 m	3 m	3 m	6 m	7.5 m
Runway Blast Pad Width		80 ft	80 ft	95 ft	140 ft	200 ft
		24 m	24 m	29 m	42 m	60 m
Runway Blast Pad Length		60 ft	100 ft	150 ft	200 ft	200 ft
		18 m	30 m	45 m	60 m	60 m
Runway Safety Area Width	C	120 ft	120 ft	150 ft	300 ft	500 ft
		36 m	36 m	45 m	90 m	150 m
Runway Safety Area Length Prior to Landing Threshold 3/, 4/		240 ft	240 ft	300 ft	600 ft	600 ft
		72 m	72 m	90 m	180 m	180 m
Runway Safety Area Length Beyond RW End 3/, 4/	P	240 ft	240 ft	300 ft	600 ft	1,000 ft
		72 m	72 m	90 m	180 m	300 m
Obstacle Free Zone Width and Length		- Refer to paragraph 306 -				
Runway Object Free Area Width	Q	250 ft	400 ft	500 ft	800 ft	800 ft
		75 m	120 m	150 m	240 m	240 m
Runway Object Free Area Length Beyond RW End 5/	R	240 ft	240 ft	300 ft	600 ft	1,000 ft
		72 m	72 m	90 m	180 m	300 m

1/ Letters correspond to the dimensions on figures 2-1 and 2-3. Use this table only when both ends of the runway provide not lower than ¾-statute mile approach visibility minimums.

2/ These dimensional standards pertain to facilities for small airplanes exclusively. aircraft of 12,500 pounds or less take off weight

3/ The runway safety area (RSA) length begins at each runway end when a stopway is not provided. When a stopway is provided, the length begins at the stopway end.

4/ The standard RSA length beyond the runway end may be reduced to the standard RSA length prior to landing threshold if a standard Engineered Materials Arresting System (EMAS) is provided. To qualify for this reduction, the EMAS installation must provide the ability to stop the critical aircraft exiting the end of the runway at 70 knots, and the runway must provide either instrument or visual vertical guidance for approaches in the opposite direction. See AC 150/5220-22.

5/ The runway object free area length beyond the end of the runway never exceeds the standard RSA length beyond the runway end as provided by note 4 above.

Rec'd 2/17/2011 RAS

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

400 North Street
P.O. Box 3457
Harrisburg, PA 17105-3457

BUREAU OF AVIATION

Administrative Offices
Phone - (717) 705-1260
Fax - (717) 705-1255

December 16, 2003

Mr. & Mrs. John J. Elnitski
Bellefonte Airport
612 Buffalo Run Road
Bellefonte, PA 16823

Contract No.	810516
Agreement No.	21-A-00-4
Project No.	ADN96-00-001
Expiration	6/30/2003 (Closed)

RE: Bellefonte Airport - Conduct Airport Action Plan

Dear Mr. & Mrs. Elnitski:

The Bureau of Aviation (BOA) has completed the review of the Airport Layout Plan (ALP) for the Bellefonte Airport and found it to be an acceptable "planning" document. The ALP has also been subject to an airspace study and a "NO OBJECTION" response was issued by the FAA on October 3, 2003.

The approval indicated by my signature is given subject to the condition that the proposed airport development requiring an environmental finding shall not be undertaken without prior written environmental approval from the BOA. Additionally, all projects requiring access to airport operational areas must be in compliance with all safety directives, policies and regulations. The BOA's conditional approval of this ALP represents acceptance of the general location of future facilities depicted. However, the airport owner is required to submit, for BOA review and approval, exact locations of improvements, actual heights and exterior finishes of future structures, all which could adversely affect the safety, efficiency, and utility of the airport.

It is important to note that the conditional approval of this ALP does not in anyway constitute a commitment to participate in or fund the development depicted thereon, nor does it indicate that the proposed development is environmentally acceptable, or in accordance with the appropriate public laws. BOA participation is also subject to available funding.

If you have any questions please call me at 717-705-1246 or email at ttomczyk@state.pa.us .

Sincerely,

Thomas M. Tomczyk
Airport Planner

cc: Ronald L. Deck, L. Robert Kimball & Associates

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

400 North Street
P.O. Box 8457
Harrisburg, PA 17105-8457

BUREAU OF AVIATION

Rec'd
2-19-2011

Administrative Office
Phone: 717-705-1200
Fax: 717-705-1958

February 18, 2011

Mr. John Elnitski, Jr.
Pleasant Valley Aviation, Inc
225 Snowbird Lane
Bellefonte, PA 16823

Re: Widen Runway 7-25

Dear Mr. Elnitski,

As you requested, I am writing this letter to hopefully provide you with a better understanding of the Bureau of Aviation's position concerning the project referenced above and the criteria used with regards to the runway dimensions. For your project, the current FAA runway width standard was specified, and to receive 90% state aviation funding, your runway must be widened to the FAA minimum of 60 feet (FAA AC 150 5300-13 Table 3.1).

Typically, whether a project is federally funded or uses state only funds, it is the BOA's policy that the project be designed and built to the most current FAA standards, particularly if the project is a safety related/enhancement project, as is the case with your runway widening project. As you may know, within the Regulations Relating to Pennsylvania Aviation, there is a subsection that essentially says that the Department reserves the right to specify and make determinations as to the standards, designs, and dimensional criteria acceptable in projects funded by aviation development grants. In this case, the current FAA design criteria are able to be met and this safety enhancement project will certainly provide a significant improvement at your airport.

If you have any questions, please contact me at rsukley@state.pa.us or by phone 717-705-1250.

Robin Sukley, PE

Chief, Airport Engineering and Planning Division

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

AIRPORT MASTER RECORD

PRINT DATE: 03/17/2011
AFD EFF 03/10/2011
Form Approved OMB 2120-0015

> 1 ASSOC CITY: BELLEFONTE
> 2 AIRPORT NAME: BELLEFONTE
3 CBD TO AIRPORT (NM): 03 SW

4 STATE: PA
6 REGION/ADO: AEA/HAR

LOC ID: N96
5 COUNTY: CENTRE PA
7 SECT AERO CHT: DETROIT

FAA SITE NR: 19814.2*A

GENERAL

10 OWNERSHIP: PRIVATE
> 11 OWNER: JOHN & MARINA ELNITSKI
> 12 ADDRESS: 225 SNOWBIRD LA
BELLEFONTE, PA 16823
> 13 PHONE NR: 814-355-7407
> 14 MANAGER: JOHN ELNITSKI
> 15 ADDRESS: 225 SNOWBIRD LA
BELLEFONTE, PA 16823
> 16 PHONE NR: 814-355-7407
> 17 ATTENDANCE SCHEDULE:
ALL ALL 0800-DUSK

18 AIRPORT USE: PUBLIC
19 ARPT LAT: 40-53-07.7000N ESTIMATED
20 ARPT LONG: 077-48-58.7000W
21 ARPT ELEV: 1071 SURVEYED
22 ACREAGE: 42
> 23 RIGHT TRAFFIC: 25
> 24 NON-COMM LANDING:
25 NPIAS/FED AGREEMENTS:
> 26 FAR 139 INDEX:

SERVICES

> 70 FUEL: 100LL A
> 71 AIRFRAME RPRS: MAJOR
> 72 PWR PLANT RPRS: MAJOR
> 73 BOTTLE OXYGEN: NONE
> 74 BULK OXYGEN: NONE
75 TSNT STORAGE: HGR, TIE
76 OTHER SERVICES:
INSTR, RNTL, SALES

FACILITIES

> 80 ARPT BCN: CG
> 81 ARPT LGT SKED: RDO-CTL
> 82 UNICOM: 122.800
> 83 WIND INDICATOR: YES
84 SEGMENTED CIRCLE: YES
85 CONTROL TWR: NONE
86 FSS: ALTOONA
87 FSS ON ARPT: NO
88 FSS PHONE NR:
89 TOLL FREE NR: 1-800-WX-BRIEF

BASED AIRCRAFT

90 SINGLE ENG:	19
91 MULTI ENG:	2
92 JET:	0
TOTAL:	21
93 HELICOPTERS:	0
94 GLIDERS:	0
95 MILITARY:	0
96 ULTRA-LIGHT:	2

OPERATIONS

100 AIR CARRIER:	0
102 AIR TAXI:	200
103 G A LOCAL:	8,000
104 G A ITNRNT:	4,000
105 MILITARY:	60
TOTAL:	12,260

OPERATIONS FOR 12 MONTHS ENDING 04/02/2010

RUNWAY DATA

> 30 RUNWAY IDENT:	07/25			
> 31 LENGTH:	3,585			
> 32 WIDTH:	40			
> 33 SURF TYPE-COND:	ASPH-F			
> 34 SURF TREATMENT:				
35 GROSS WT: SW				
36 (IN THSDS) DW				
37 DTW				
38 DDTW				
> 39 PCN:				
LIGHTING/APCH AIDS				
> 40 EDGE INTENSITY:	NSTD			
> 42 RWY MARK TYPE-COND:	BSC - F / BSC - F	- / -	- / -	- / -
> 43 VGSI:	/ P2L	/	/	/
44 THR CROSSING HGT:	/ 40	/	/	/
45 VISUAL GLIDE ANGLE:	/ 3.50	/	/	/
> 46 CNTRLN-TDZ:	- / -	- / -	- / -	- / -
> 47 RVR-RVV:	- / -	- / -	- / -	- / -
> 48 REIL:	/	/	/	/
> 49 APCH LIGHTS:	/	/	/	/
OBSTRUCTION DATA				
50 FAR 77 CATEGORY:	A(V) / A(V)	/	/	/
> 51 DISPLACED THR:	238 /	/	/	/
> 52 CTLG OBSTN:	TREE /	/	/	/
> 53 OBSTN MARKED/LGTD:	/	/	/	/
> 54 HGT ABOVE RWY END:	26 /	/	/	/
> 55 DIST FROM RWY END:	317 /	/	/	/
> 56 CNTRLN OFFSET:	134R /	/	/	/
57 OBSTN CLNC SLOPE:	4:1 / 50:1	/	/	/
58 CLOSE-IN OBSTN:	N / N			
DECLARED DISTANCES				
> 60 TAKE OFF RUN AVBL (TORA):	/	/	/	/
> 61 TAKE OFF DIST AVBL (TODA):	/	/	/	/
> 62 ACLT STOP DIST AVBL (ASDA):	/	/	/	/
> 63 LNDG DIST AVBL (LDA):	/	/	/	/

(>) ARPT MGR PLEASE ADVISE FSS IN ITEM 86 WHEN CHANGES OCCUR TO ITEMS PRECEDED BY >

> 110 REMARKS:

A 017 FOR SVC AFTER HRS CTC 814-355-7407.
A 017 FOR SVC AFTER HRS CTC 814-355-7407 OR 814-883-7646.
A 040 RWY 07/25 NSTD LIRL; EDGE LGTS MORE THAN 10 FT OUTWARD FROM PAVEMENT EDGE; STD THR LGTS. FIRST 30 FT ON RY END 25 NOT LGTD.
A 051 RWY 07 RY 07 DSPLCD THLD UNLGTD.
A 057 RWY 07 APCH SLOPE 21:1 TO DSPLCD THLD.
A 081 ACTVT ROTG BCN & LIRL RY 07/25 - 122.7.
A 110-1 ULTRALIGHTS ON & INVOF ARPT.

111 INSPECTOR: (S) 112 LAST INSP: 04/02/2010 113 LAST INFO REQ: 06/10/1983

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

AIRPORT MASTER RECORD

PRINT DATE: 03/17/2011
AFD EFF 03/10/2011
Form Approved OMB 2120-0015

> 1 ASSOC CITY: ****CONTINUED****
> 2 AIRPORT NAME:
3 CBD TO AIRPORT (NM):

4 STATE: PA
6 REGION/ADO: AEA/HAR

LOC ID: N96
5 COUNTY:
7 SECT AERO CHT:

FAA SITE NR: 19814.2*A

GENERAL

10 OWNERSHIP:
> 11 OWNER:
> 12 ADDRESS:

> 13 PHONE NR:
> 14 MANAGER:
> 15 ADDRESS:

> 16 PHONE NR:
> 17 ATTENDANCE SCHEDULE:

18 AIRPORT USE:
19 ARPT LAT:
20 ARPT LONG:
21 ARPT ELEV:
22 ACREAGE:
> 23 RIGHT TRAFFIC:
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> 74 BULK OXYGEN:
75 TSNT STORAGE:
76 OTHER SERVICES:

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> 80 ARPT BCN:
> 81 ARPT LGT SKED:
> 82 UNICOM:
> 83 WIND INDICATOR:
84 SEGMENTED CIRCLE:
85 CONTROL TWR:
86 FSS:
87 FSS ON ARPT:
88 FSS PHONE NR:
89 TOLL FREE NR:

BASED AIRCRAFT

90 SINGLE ENG:
91 MULTI ENG:
92 JET:
TOTAL:
93 HELICOPTERS:
94 GLIDERS:
95 MILITARY:
96 ULTRA-LIGHT:

OPERATIONS

100 AIR CARRIER:
102 AIR TAXI:
103 G A LOCAL:
104 G A ITNRNT:
105 MILITARY:
TOTAL:

OPERATIONS FOR 12 MONTHS ENDING

RUNWAY DATA

> 30 RUNWAY IDENT:
> 31 LENGTH:
> 32 WIDTH:
> 33 SURF TYPE-COND:
> 34 SURF TREATMENT:
35 GROSS WT: SW
36 (IN THSDS) DW
37 DTW
38 DDTW
> 39 PCN:

LIGHTING/APCH AIDS

> 40 EDGE INTENSITY:
> 42 RWY MARK TYPE-COND:
> 43 VGSI:
44 THR CROSSING HGT:
45 VISUAL GLIDE ANGLE:
> 46 CNTRLN-TDZ:
> 47 RVR-RVV:
> 48 REIL:
> 49 APCH LIGHTS:

OBSTRUCTION DATA

50 FAR 77 CATEGORY:
> 51 DISPLACED THR:
> 52 CTLG OBSTN:
> 53 OBSTN MARKED/LGTD:
> 54 HGT ABOVE RWY END:
> 55 DIST FROM RWY END:
> 56 CNTRLN OFFSET:
57 OBSTN CLNC SLOPE:
58 CLOSE-IN OBSTN:

DECLARED DISTANCES

> 60 TAKE OFF RUN AVBL (TORA):
> 61 TAKE OFF DIST AVBL (TODA):
> 62 ACLT STOP DIST AVBL (ASDA):
> 63 LNDG DIST AVBL (LDA):

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(>) ARPT MGR PLEASE ADVISE FSS IN ITEM 86 WHEN CHANGES OCCUR TO ITEMS PRECEDED BY >

> 110 REMARKS:

A 110-2 RY 25 HAS 35 FT PAVED RY SAFETY AREA.
A 110-4 ALL HELICOPTERS REQUIRED TO USE FIXED WING TRAFFIC PATTERN.
A 110-5 HEAVY GLIDER ACTIVITY DURG DALGT HRS, ALL ALTS WITHIN 10 NM AREA, ALL DIRECTIONS, ESPECIALLY ALONG RIDGE 1 NM WEST & NORTH OF ARPT.

111 INSPECTOR: (S) 112 LAST INSP: 04/02/2010 113 LAST INFO REQ: 06/10/1983

HRG
Herbert, Rowland & Grubic, Inc.
Engineering & Related Services

LAND DEVELOPMENT PLAN REVIEW REPORT

Project:	BELLEFONTE AIRPORT WIDEN RUNWAY 7-25 & CONSTRUCT PARTIAL TAXIWAY, PHASE 1	Report Number:	1
Developer:	MARINA ELNITSKY	Report Date:	March 1, 2011
Designer:	LR KIMBALL	CCPC File Number:	N/A
Plan Date:	February 2009; rev March 2009	HRG Project Number:	1024.0434
Plan Sheets:	29	Other Data:	SWM & E/S Report; NPDES Permit

We have received the Plans for the above captioned Land Development and have reviewed this submission for conformance with the following:

Ordinance Reference	*The following are comments concerning the items contained in the Township Stormwater Ordinance:*
§IV.402.B.14	1. The total tract boundary shown on the Plan is missing the distances marked to the nearest foot and bearings marked to the nearest degree.
§III.308.B §IV.402.B.19	2. Access and maintenance easements shall be provided for the proposed stormwater facilities.
§IV.402.B.24	3. A statement, signed by the landowner, acknowledging the stormwater management system to be a permanent fixture that can be altered or removed only after approval of a revised plan by the Township.
§IV.402.B.25	4. A note shall be added to the plan stating that as-built drawings will be provided for the stormwater management facilities prior to the release of the surety bond.
§IV.402.B.26	5. A signature block for the registered professional engineer certifying the plan shall be added to the drawings.
§IV.402.B.28	6. A signature block for the Township Engineer certifying the plan shall be added to the drawings.
§IV.402.B.28	7. The geotechnical report is missing from Appendix D of the stormwater management report.
§III.304.A.20	8. The proposed infiltration trenches shall be modeled as impervious since they will be lined with clay.
General	9. The dimensions for proposed top unit for outlet structure JB-2 is smaller than the dimensions of box.

This review is based solely on the documents referenced above and does not relieve the design professional of any responsibility, nor does it imply any design responsibility by Herbert, Rowland & Grubic, Inc.

Signed by: Douglas E. Weikel, P.E. Date: 3/1/2011

Distribution:
- ☒Renee Swancer
- ☒CCPC - Anson Burwell
- ☒Developer – John Elnitski (225 Snowbird Lane, Bellefonte, PA 16823)
- ☒Designer – L.R. Kimball, Inc.
- ☒ File

BEFORE THE BOARD OF SUPERVISORS OF BENNER TOWNSHIP

In the Matter of:	:	
	:	Conditional Use Application
Marina Elnitski	:	
	:	
	:	
Property Location:	:	
UPI # 12-317-019 and 12-317-020	:	

PROCEDURAL BACKGROUND

Applicant submitted a completed application for a conditional use hearing on February 17, 2011. The application sought conditional use approval to: (1) widen the Bellefonte airport runway by ten (10) feet on each side of the runway; (2) perform stormwater improvements; and (3) resurface the existing runway, including "squaring off" one runway end. The application was forwarded to the Benner Township Planning Commission, FAA and Pennsylvania Bureau of Aviation for review and comment. The Board of Supervisors advertised in the Centre Daily Times that a public hearing would be held on March 21, 2011. A public hearing was held on March 21, 2011 and continued to March 28, 2011 and April 4, 2011, as publicly announced at the March 21, 2011 and March 28, 2011 hearings. The property was posted with notice of the hearing and written notice of the hearing was provided to adjoining landowners. Supervisor John Elnitski noted a conflict of interest in this matter due to the fact the applicant is his mother and he would be presenting information on his mother's behalf. Mr. Elnitski noted he does not have an ownership interest in the land or airport operation and is not an employee of the airport. Mr. Elnitski stated he does help run the airport for his mother without pay.

Present on behalf of the Board: David Breon and Randy Moyer

Present on behalf of the Applicant: Marina Elnitski and John Elnitski.

Present on behalf of the Township: Renee Swancer – Zoning Officer

Others Present: Sharon Royer, Secretary, Timothy A. Schoonover – Solicitor, Doug Weikel-Township Engineer, Connie Peters, Bob Peters, Tammy Chronister, Larry Chronister, Andrea Chronister, Dottie Bird, Jamie Bird, Kathy Evey, Jared Evey, Jim Stanio, Lois Stanio, Mike Ostroskie, Dan Swarm, Randy Wells, Maribeth Wells, Donna Baumi, Sandy Richner, Nate Campbell, Andy Swales, Sandi Swales, Dan Hoffman, John Zimmerman, Jarrod Stahlman, Dan Mattern.

There were no objections to procedure. Applicant waived in writing the need for a stenographic record. The Township presented Exhibits #1-4 consisting of copies of the hearing advertisings in the Centre Daily Times (Exhibits #1 and 2) and copies of Township Engineer Doug Weikel's

reports on the application (Exhibits #3 and 4). Applicant submitted Exhibits 1 and 2 consisting of a letter dated March 25, 2011, from Applicant requesting John Elnitski act as agent for her (Exhibit #1) and a letter from the Pennsylvania Bureau of Aviation dated March 22, 2011 addressing licensing criteria (Exhibit #2).

FINDINGS OF FACT

1. Marina Elnitski (the "Applicant") as the owner of Pleasant Valley Aviation, Inc. a/k/a Bellefonte Airport plans to (1) widen the airport runway by ten (10) feet on each side of the runway; (2) perform stormwater improvements; and (3) resurface the existing runway on property owned by Applicant, being Centre County Tax Parcels #12-317-019 and 12-317-020 (the "Property").

2. The Property is located in the Agricultural (A) zoning district.

3. Parcel #12-317-019 is 43.49 acres in size.

4. Parcel #12-317-020 is 29.63 acres in size.

5. Applicant submitted plans prepared by L. Robert Kimball & Associates, Inc. detailing the work to be performed as part of her application.

6. The Benner Township Planning Commission recommended approval of the application without conditions.

7. No comments on the application were received by the Township from FAA or Pennsylvania Bureau of Aviation.

8. The taxiway shown on the plans will not be constructed.

9. An airport is currently being operated on the Property and has been operated on the Property since 1969.

10. The runway is currently 40 feet in width.

11. The airport currently serves aircraft in the B-I category as determined by the aircraft landing speed (up to 121 knots), weight (12,500 lbs. or less) and wing span (49 feet or less).

12. The widening and repaving will not allow aircraft exceeding the B-I category requirements set forth above to use the airport.

13. The airport hazard zones will not be changed as a result of the runway widening or repaving.

14. The airport is currently licensed by the Pennsylvania Bureau of Aviation as a public use, privately owned airport.

15. The lot coverage after the work is performed will not exceed 40%.

16. Planning for the runway widening, repaving and stormwater improvements have been in process since 2003.

17. Applicant received notice in January 2011 from the Pennsylvania Bureau of Aviation that the airport had been selected for widening and resurfacing as part of the Bureau's Aviation Grant Program.

18. The runway must be widened to FAA minimum required runway width of 60 feet in order for Applicant to receive 90% funding for the project.

19. Applicant will receive less funding if the runway is not widened to the FAA minimum requirement of 60 feet.

20. The increase in runway width will increase safety for those persons using the runway.

21. Applicant intends to "square off" one end of the runway as part of the project.

22. The area that will be squared off will not be used as active runway.

23. The runway length is not being increased as part of the project.

24. The airport can continue to operate if the runway is not widened or resurfaced.

25. The planned improvements are not expected to generate a significant increase in air traffic.

26. The airport is accessed from State Route 550 by a private road, Snowbird Lane.

27. The planned improvements are not expected to generate a significant increase in vehicular traffic to the airport.

28. At times planes using the airport flow low over neighbors homes and are outside the normal flight path for landing or taking off.

29. The stormwater plan has been approved by the Pennsylvania Department of Environmental Protection.

30. Stormwater runoff from the Property is expected to be reduced by the improvements.

31. The airport runway is less than 300 feet from one or more of the Applicant's property lines.

32. Applicant has submitted a variance request to the Benner Township Zoning Hearing Board seeking approval of the runway encroaching into the 300 foot setback.

33. Applicant indicated that there may be a need for construction to occur on two nights to allow the airport to be open during the day.

34. Applicant requested approval of resurfacing of the runway alone if variance approval is not received from the Benner Township Zoning Hearing Board.

DISCUSSION

Airports are permitted in the Agricultural zoning district as a conditional uses pursuant to the Benner Township Zoning Ordinance (Ordinance No. 104) Section 201.3 (1). Approval of an airport as a conditional use is subject to the requirements of Sections 240.13 and 402 of the Zoning Ordinance, along with review procedures set forth at Section 905. Certain changes at an operating airport require conditional use approval pursuant to Section 241.13 (1) of the Zoning Ordinance. Those changes include, but are not limited to, expansion of a runway in width or length and paving of any previously unpaved portions of a runway.

The Applicant's airport is currently in operation and is seeking conditional use approval as a result of plans to widen the current runway by a total of 20 feet (10 feet on each side of the runway) and to resurface the entire runway. Stormwater improvements will also be made to the Property as part of the project. The widening of the runway will increase the runway width to 60 feet, which is the FAA recommended minimum width. The runway length is not being increased. One end of the runway will be "squared off" but this area will not be used as active runway. The project improvements are not expected to significantly increase air or vehicular traffic accessing the airport. Aircraft currently use the airport fall within the FAA's B-I category as it relates to land speed, aircraft weight and wingspan. The resurfacing and widening of the runway will not allow aircraft exceeding the B-I designation to use the airport. Township Engineer, Doug Weikel, reported the resurfacing and widening do not change the current airport hazard zones. Additionally, Mr. Weikel reported he reviewed the Applicant's revised Stormwater Management Plan submittal and recommended its approval.

Testimony was provided by several neighbors to the airport that at times planes fly low over their homes and outside the normal flight path for the runway. Applicant stated it will address any complaints received regarding these issues.

The FAA and Pennsylvania Bureau of Aviation offered no comment on the Applicant's Plan. The Township Planning Commission recommended approval of the application without conditions. The Township Engineer and Zoning Officer have reviewed the applicable conditional use criteria for changes made by an airport and have found that this application meets all the

criteria except for the runway does not lie 300 feet or more from the property lines as required by Section 402.6 of the Zoning Ordinance. As noted in the Findings of Fact, Applicant is seeking a variance from the Benner Township Zoning Hearing Board to address this issue.

DECISION

The application of Marina Elnitski for the runway widening, resurfacing and stormwater improvements described in said application to be performed on Centre County Parcel #12-317-019 and 12-317-020, is approved with the following conditions:

1. Applicant shall receive all required local, Commonwealth and Federal approval for the project.

2. Any necessary Township building or zoning permits must be applied for and the associated fees paid in full.

3. Applicant shall provide a copy of its current license with the Pennsylvania Bureau of Aviation prior to a zoning permit being issued.

4. Applicant must obtain approval from the Benner Township Zoning Hearing Board (or any competent court of jurisdiction in the event of an appeal of the ZHB's decision) and provide evidence thereof to the Township allowing the runway to be within the 300 foot setback set forth in Section 402.6 of the Zoning Ordinance. In the event that Applicant does not receive approval from the Benner Township Zoning Hearing Board (or any competent court of jurisdiction in the event of an appeal), Applicant shall be permitted only to resurface the currently existing paved portion of the runway.

5. In the event Applicant will perform work on the project during the hours of 8:00 p.m. through 6:00 a.m., Applicant shall provide written notice of when the night work will be performed to the Township and all landowners directly abutting the Property (Parcel #12-317-019 and 12-317-020) at least two (2) weeks prior to the work being performed. Applicant's night work shall be limited to trenching across the runway for utilities. Applicant shall make reasonable efforts to limit work to be performed during these hours and to limit the light and noise associated with any such night work.

6. The area to be "squared away" by Applicant shall not be used as active runway.

7. Applicant shall not increase traffic along its access greater than allowed for its existing use without obtaining required approvals through the Township Street Standard Ordinance and/or PennDOT Highway Occupancy standards.

8. Temporary stormwater controls shall be put in place by Applicant prior to starting the runway widening project.

9. Applicant agrees to permit the Township and/or its agents to inspect the premises during regular business hours for conformance with the terms of this Conditional Use decision.

10. Applicant shall meet all other applicable Federal and State requirements for design and operation.

BEFORE THE BOARD OF SUPERVISORS OF BENNER TOWNSHIP

In the Matter of:	:	Conditional Use Application
Marina Elnitski	:	
	:	
Property Location: UPI # 12-317-019 and 12-317-020	:	

AND NOW, the foregoing Opinion and Decision of the Board of Supervisors in the above-captioned matter is adopted or defeated by a vote of the Board of Supervisors as follows:

	YES	NO	ABSTAIN	ABSENT
John Elnitski, Jr.			X	
David C. Breon	X			
Randy S. Moyer	X			

ADOPTED THIS 4th DAY OF April, 2011.

John Elnitski, Jr.

David C. Breon

Randy S. Moyer

ATTEST:

Sharon Royer, Secretary

{B0417056.1}

BEFORE THE BENNER TOWNSHIP ZONING HEARING BOARD

In the matter of: MARINA ELNITSKI, t/a BELLEFONTE AIRPORT, Applicant	:	Variance Request Property Setback (Runway) Section 402.6
Property Location: 225 Snowbird Lane Tax Parcel No.: 12-317/020	:	

FINDINGS OF FACT, CONCLUSIONS OF LAW AND DECISION

PROCEDURAL BACKGROUND

By application received February 21, 2011, Applicant requested a hearing before the Zoning Hearing Board. A hearing was scheduled, advertised and held on March 31, 2011.

Members of the Benner Township Zoning Hearing Board present: Ian Henderson, Chairman; and Frank Dencevich, members.

Appearing on behalf of the Applicants: John Elnitski; and Terry J. Williams, Esquire.

Appearing on behalf of the Municipality: Renee Swancer, Zoning Administrator.

Appearing on behalf of others in favor of the application: Connie Peters.

Appearing on behalf of others opposed to the application: None.

At the hearing, there were no objections to notice, advertising or procedure on behalf of any parties. At the close of the testimony, the Board discussed the case in open hearing. Upon the conclusion of the discussion the Board voted 2 to 0 to grant the Applicant's application. The Board instructed the solicitor to prepare a draft set of findings of fact and conclusions of law embodying the decision of the Board.

FINDINGS OF FACT

1. The subject property is located at 225 Snowbird Lane, and it is assigned a Centre County Tax Parcel No. 12-317/020.

2. Applicant Marina Elnitski owns the subject property which is located in the agricultural zoning district.

3. The property contains 29.63 acres of area. It is improved by an office, several airplane hangers and equipment storage buildings, a paved driveway and parking lot, paved taxi ways and a paved runway.

4. An existing fence stretches along the southern property line of the subject property, separating it from the residential properties to the south that front on Seibert Road.

5. The existing macadam runway measures 40 feet in width. The western end of the runway is squared off, but the eastern end tapers to a point over the last approximately 60 feet.

6. The property is operated as an airport, a use that was established in 1969. Subsequent to the airport's establishment, Benner Township enacted its zoning ordinance. While the ordinance permits airports in the agricultural district as special exceptions, Applicant's airport is actually a pre-existing nonconforming use. Benner Township Zoning Ordinance, Section 201.3.

7. The zoning ordinance requires runways to be set back 300 feet from the property line. Id. Section 402.6. The applicant's runway is completely within that 300 foot setback, and is therefore nonconforming as to setbacks.

8. Applicant now proposes to widen the existing runway from 40 feet to a width of 60 feet as part of a runway resurfacing project. Pursuant to that proposal, Applicant would add 10 feet of width to either side of the runway over its entire length as well as squaring off the eastern

end of the runway. A subsequent phase of the project may install a taxi way to the north of the runway, but Applicant has not decided whether to proceed with that phase at the current time.

9. The purpose for Applicant's proposal is to upgrade the runway to meet current FAA standards, thus enhancing the safety of the airport operations. Current FAA safety regulations require runways to be a minimum of 60 feet in width.

10. Applicant has applied for and received a government grant for the resurfacing project. As part of the requirements for that grant, Applicant must widen the runway to current FAA design standards.

11. Applicant's proposal will not result in a substantive lengthening of the runway nor result in a change in airport rating category. As such, the project will not allow larger aircraft or a different type of aircraft from using the airport and runway than what currently do. Nor will the project alter the airport hazard zones currently in effect for Applicant's airport.

12. While ample area exists on Applicant's property to install the additional runway width to the north side of Applicant's property, thus avoiding the creation of an additional encroachment into the side yard setback than the southern edge of the existing runway, Applicant proposes to split the addition, 10 feet on either side, so as not to change the location of the center line of the runway. A change in the center line would require an alteration of airport hazard zones that would affect the use of neighboring properties to the south of Applicant's property.

13. Applicant proposes no change to the location of the fence along the southern property line of her property, although Applicant may, depending on TSA Regulations, make some improvements and repairs to that fence as it currently exists.

14. Neighbor Connie Peters testified that she has no objection to the widening of the runway, but does hope that repairs will be made to the existing fence.

DISCUSSION

Applicant seeks a variance from the Benner Township runway yard setback requirements in order to widen its existing, nonconforming runway. The airport and runway were established in 1969, prior to the enactment of the current zoning regulation. The zoning ordinance now requires runways to be set back 300 feet from the property line. Applicant's runway exists entirely within that 300 feet setback.

Applicant has now qualified for a grant to resurface the runway, conditioned upon her compliance with current FAA safety regulations, including the now mandated minimum runway width of 60 feet. Hence, Applicant must add 20 feet of width to the runway. Applicant proposes to do so by adding 10 feet and either side of the existing runway. The entire runway would then be resurfaced.

Because Applicant's runway is currently nonconforming as to setbacks, Applicant requires a variance to install the additional width to the runway. Furthermore, the width on the south side will result in an additional encroachment of 10 feet into the setback. Hence, Applicant seeks a variance of 10 feet to accommodate the additional encroachment.

In order to qualify for a variance, an Applicant must meet the 5 criteria required by the Pennsylvania Municipalities Planning Code. See 53 Pa.C.S. Section 10910.2. Those criteria, as summarized by the Pennsylvania Supreme Court, are as follows:

(1) An unnecessary hardship will result if a variance is denied, due to unique physical circumstances or conditions of the property;
(2) Because of such physical circumstances or conditions the property cannot be developed in strict conformity with the provisions of the Zoning Ordinance and a variance is necessary to enable the reasonable use of the property;
(3) The hardship is not self-inflicted;
(4) Granting the variance will not alter the essential character of the neighborhood nor be detrimental to the public welfare; and
(5) The variance sought is the minimum variance that will afford relief.

In the present case, Applicant desires to expand its nonconforming runway that exists entirely within the required 300 foot setback. The expansion will result in a widening of the runway by 20 feet, 10 of which will expand the runway farther into the setback than the existing runway. The purpose of that expansion is not to accommodate an increase in business, but to comply with the updated safety standards for runway width. Those standards are imposed by the Federal Aviation Administration. This Board is of the opinion that a variance from the yard setback is justified where the purpose is to comply with safety standards for airport operations.

The proposed variance is the minimum variance that will afford relief. Applicant is widening the airport runway only to the degree required by the FAA regulations. Because the runway now exists entirely within the setback, it is impossible for Applicant to widen the runway anywhere other than within the setback. Furthermore, Applicant has taken care to only add 10 feet of the width on the side of the runway closest to the property line. While Applicant could put the entire 20 feet toward the interior of the property, doing so would alter the center line of the runway. A change of the center line would alter the existing airport hazard zones, thus affecting the neighbors' use of their properties. By preserving the center line, the hazard zones remain the same.

The grant of the proposed variance will not alter the essential character of the neighborhood nor be detrimental to the public welfare. To the contrary, the grant of the variance, and the widening of the runway, will improve the safety of the travelling public. Because the additional runway width will not change of the type of aircraft that can land on the runway, nor change the airport hazard zones, there will be no affect on the surrounding neighborhood.

CONCLUSIONS OF LAW

1. Applicant's property is located in the agricultural zoning district.

2. Applicant's airport is a valid nonconforming use established prior to the enactment of zoning in Benner Township.

3. Applicant's runway, located entirely within the 300 foot setback, is a prior nonconforming improvement on the property.

4. Applicant's property is characterized by unique physical circumstances or conditions given its prior nonconforming use status.

5. Applicant faces an unnecessary hardship because the ordinance, without a variance, prevents a widening of the airport runway in order to comply with current FAA safety regulations.

6. The grant of the variance, permitting Applicant to add 10 feet of runway width to either side of the runway, is the minimum variance that will afford relief.

7. The hardship is not self-created.

8. The grant of the variance will not alter the essential character of the neighborhood nor be detrimental to the public welfare.

DECISION

Applicant's request for a variance of 20 feet to the runway width, 10 feet of which will be on the property line side of the runway, is **GRANTED** by a vote of 2 to 0.

BEFORE THE BENNER TOWNSHIP ZONING HEARING BOARD

In the matter of:	:	
MARINA ELNITSKI, t/a BELLEFONTE AIRPORT,	:	Variance Request
	:	Property Setback (Runway)
Applicant	:	Section 402.6
	:	
	:	
	:	
Property Location:	:	
225 Snowbird Lane	:	
Tax Parcel No.: 12-317/020	:	

AND NOW, the foregoing Opinion and Decision of the Board in the above-captioned matter is adopted by a vote of the Board as follows:

	YES	NO	ABSTAIN	NOT PRESENT
IAN HENDERSON, Chairman	X			
FRANK DENCEVICH	X			
JOHN MIDDLESWORTH				X

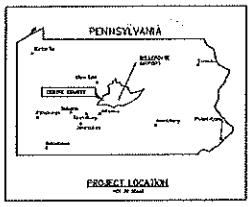
ADOPTED, this 31st day of March, A.D. 2011.

BY THE BOARD

Ian Henderson, Chairman

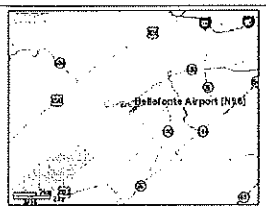
Frank Dencevich

John Middlesworth



PROJECT LOCATION

BELLEFONTE AIRPORT (N96)
AS-BID
CONSTRUCTION DRAWINGS
FOR
CONTRACT 2011-01
PennDOT INTERNAL ORDER NO. PENDING
PennDOT TA NO. TA-ADP-2010-Pleasant Valley Av-00011
WIDEN AND RESURFACE RUNWAY 7-25, PHASE II (CONSTRUCTION)



VICINITY MAP

DRAWING INDEX

DRAWING NO.	DESCRIPTION	CADD FILE NAME
AP-01	TITLE SHEET AND SHEET INDEX	P N96 COVER 11-0131
AP-02	CONTRACT QUANTITIES AND GENERAL NOTES	P N96 QUANTITIES 11-0131
AP-03	SITE PLAN	P N96 SITE 11-0131
AP-04	CONSTRUCTION PHASING PLAN – SHEET 1 OF 2	P N96 PHASING 11-0131
AP-05	CONSTRUCTION PHASING PLAN – SHEET 2 OF 2	P N96 PHASING 11-0131
AP-06	EXISTING CONDITIONS PLAN	P N96 EX. COND. 11-0131
AP-07	BORING LOCATION PLAN	P N96 BORING 11-0131
AP-08	RUNWAY GEOMETRY PLAN (BASE BID)	P N96 RW GEOMETRY 11-0131
AP-09	RUNWAY GRADING AND E&S CONTROL PLAN – SHEET 1 OF 3 (BASE BID)	P N96 GRADING 11-0131
AP-10	RUNWAY GRADING AND E&S CONTROL PLAN – SHEET 2 OF 3 (BASE BID)	P N96 GRADING 11-0131
AP-11	RUNWAY GRADING AND E&S CONTROL PLAN – SHEET 3 OF 3 (BASE BID)	P N96 GRADING 11-0131
AP-12	RUNWAY GRADING (ADD ALTERNATE BID #1) AND E&S CONTROL PLAN	P N96 ALT 1 GRADE 11-0131
AP-13	NORTH CHANNEL AND DITCH PROFILES (BASE BID)	P N96 TRENCH PROFILES 11-0131
AP-14	SOUTH CHANNEL AND DITCH PROFILES (BASE BID)	P N96 TRENCH PROFILES 11-0131
AP-15	PIPE PROFILES (BASE BID)	P N96 TRENCH PROFILES 11-0131
AP-16	RUNWAY GEOMETRY PLAN (ADD ALTERNATE BID #1) (BY OTHERS)	P N96 TW GEOMETRY 11-0131
AP-17	RUNWAY GRADING AND E&S CONTROL PLAN – SHEET 1 OF 3 (ADD ALTERNATE BID #1) (BY OTHERS)	P N96 TW GRADING 11-0131
AP-18	RUNWAY GRADING AND E&S CONTROL PLAN – SHEET 2 OF 3 (ADD ALTERNATE BID #1) (BY OTHERS)	P N96 TW GRADING 11-0131
AP-19	RUNWAY GRADING AND E&S CONTROL PLAN – SHEET 3 OF 3 (ADD ALTERNATE BID #1) (BY OTHERS)	P N96 TW GRADING 11-0131
AP-20	EXISTING MARKING PLAN	P N96 EX. MARKING 11-0131
AP-21	PROPOSED RUNWAY MARKING PLAN (BASE BID)	P N96 MARKING 11-0131
AP-22	PROPOSED RUNWAY MARKING PLAN (ADD ALTERNATE BID #1) (BY OTHERS)	P N96 TW MARKING 11-0131
AP-23	MARKING DETAILS	P N96 DETAILS 11-0131
AP-24	PAVING DETAILS	P N96 DETAILS 11-0131
AP-25	STORMWATER DETAILS – SHEET 1 OF 2 (BASE BID)	P N96 DETAILS 11-0131
AP-26	STORMWATER DETAILS – SHEET 2 OF 2 (BASE BID)	P N96 DETAILS 11-0131
AP-27	E&S DETAILS – SHEET 1 OF 3	P N96 DETAILS 11-0131
AP-28	E&S DETAILS – SHEET 2 OF 3	P N96 DETAILS 11-0131
AP-29	E&S DETAILS – SHEET 3 OF 3	P N96 DETAILS 11-0131

CONTRACT TIME	CALENDAR DAYS
BID DATE __/__/____	
START DATE __/__/____	
END DATE __/__/____	____
AS-BUILTS __/__/____	

This Drawing was prepared specifically for the project and site set forth in the title block and is not to be used otherwise without written approval of

L.R. KIMBALL

THE PREPARATION OF THESE DRAWINGS WAS FINANCED IN PART UNDER A GRANT FROM THE PENNSYLVANIA DEPARTMENT OF TRANSPORTATION, BUREAU OF AVIATION.

It is the intent of the OWNER to award a Contract to the lowest responsible Bidder providing the Bid has been submitted in accordance with the requirements of the Bidding Documents and does not exceed the funds available. The OWNER shall have the right to waive informalities or irregularities in a Bid received and to accept the Bid which, in the OWNER's judgment, is in the OWNER's best interest.

The OWNER shall have the right to accept Alternate Bids in any order or combination, unless otherwise specifically specified in the Bidding Documents, and to determine the low Bidder on the basis of the sum of the Base Bid and Alternates accepted.

AS-BUILT DRAWING NOTE ⚠

As-built drawings will be provided by the Developer for all stormwater management facilities prior to the release of the surety bond.

LANDOWNER ⚠

I, _____, acknowledge that the stormwater management system to be a permanent fixture that can be altered or removed only after approval of a revised plan by the Township.

_____ Signature

_____ Date

TOWNSHIP ENGINEER ⚠

I, _____, have reviewed this Stormwater Management Plan in accordance with the Design Standards and Criteria of the Spring Creek Act 167 Stormwater Management Ordinance."

_____ Signature

_____ Date

PROFESSIONAL ENGINEER ⚠

I, _____, hereby certify that the Stormwater Management Plan meets or exceeds the design standards and criteria of the Spring Creek Act 167 Stormwater Management Ordinance."

_____ Signature

_____ Date

L.R.Kimball
ENGINEERING • ENVIRONMENT • CONSERVATION TECHNOLOGY
A CDI Company

CDI - Infrastructure, LLC dba L.R. Kimball
615 West Highland Ave.
Clearfield, PA 16830
Phone 814.472.7780
Fax 814.472.7213
Email: cory.cree@lrkimball.com
Website: www.lrkimball.com

CONSULTANTS:

Bellefonte Airport

PROJECT NAME:
Widen and Resurface Runway 7-25, Phase II (Construction)

OWNER:
Marion Ghilani
225 Brookside Lane
Bellefonte, PA 16823

ENGINEER'S SEAL

MARK	DATE	DESCRIPTION
⚠	03/03/11	TWP REVIEW REVISIONS

ISSUE:	April 2011
PROJECT NO.	11-1909-9131
COORDINATE:	P 2006 Cover 11-0131
DRAWN BY:	RWK
CHECKED BY:	CCC

© CDI - Infrastructure, LLC dba L.R. Kimball

SHEET TITLE

TITLE SHEET AND SHEET INDEX

AP-01

CONTRACT QUANTITIES
Base Bid (Widen and Resurface Runway 7-25)

ITEM NO	DESCRIPTION	UNIT	ESTIMATED	FINAL
S-100-1.1	Mobilization / Demobilization	LS	1	
S-100-4.3	Construction Surveying	LS	1	
D-701-4.1	24" Perforated Corrugated Pipe	LF	172	
D-701-4.2	36" Perforated Corrugated Pipe	LF	184	
D-705-5.1	4" Perforated Underdrain Pipe	LF	2,633	
D-705-5.2	6" Perforated Underdrain Pipe	LF	1,709	
D-751-4.1	Type M Inlet	EA	4	
D-751-4.2	Junction Box JB-1	EA	1	
D-751-4.3	Junction Box JB-2	EA	1	
D-751-4.4	36" D-W Corrugated Endwall	EA	1	
P-152-4.1	Unclassified Excavation	CY	20,000	
P-152-4.3	Borrow Excavation	CY	8,250	
P-152-4.3	Embankment	CY	8,250	
P-152-4.4	Topsoil	CY	1	
P-152-4.5	Remove by Milling and Salvage Pavement and Stockpiling	LS	1	
P-152-5.1	Topsoiling	SY	215	
P-410-5.1	Turf Establishment	SY	77,500	
P-620-5.1	Pavement Marking Paint	GL	1,700	
P-620-5.1	Pavement Marking Paint (150% Application Rate w/ Glass Beads)	GL	1,700	
P-620-5.1	Pavement Marking Paint (150% Application Rate w/ Glass Beads)	GL	8,500	
P-620-5.1	Temporary Construction Entrance	EA	1	
T-905-5.1	Mobilization (Electrical, Signage & Equipment)	LS	1	
T-904-4.1	Excavation	CY	7,500	
T-904-4.2	Backfill	CY	600	
T-904-4.3	Sand Base	CY	300	
T-904-4.4	Rock Apron Class R-4	SY	30	
T-904-5.1	Bedding 4" Depth Pipe 3/4 Stone	SY	9,300	
T-904-5.1	1 1/2" Base Wearing Course, PG 64-22, 6.5mm	TON	2,450	
T-904-5.2	Variable Depth Mill Leveling Course, PG 64-22, 6.5mm	TON	800	
T-904-5.3	1 1/2" Base Binder Course, PG 64-22, 25mm	TON	2,200	
T-904-5.4	Pavement Performance	LS	1	
T-905-5.1	Underground Duct Ducts	GAL	1,000	
T-905-5.1	Underground Duct Ducts	GAL	5,000	
T-905-5.1	Clay Cover	SY	2,000	

CONTRACT QUANTITIES
Add Alternate Bid #1 (Construct Partial Parallel Taxiway)

ITEM NO	DESCRIPTION	UNIT	ESTIMATED	FINAL
	ADD ALTERNATE BID #1 IS NOT PART OF THIS PROJECT.			

CONTRACT QUANTITIES
Add Alternate Bid #2 (Relocate Drainage Channel)

ITEM NO	DESCRIPTION	UNIT	ESTIMATED	FINAL
S-100-1.1	Mobilization / Demobilization	LS	1	
P-152-4.3	Unclassified Excavation	CY	1,000	
P-152-4.4	Unsuitable Excavation	CY	100	
426-5.2	Variable Depth Mill, Bituminous Pavement, PG 64-22, 25mm	TON	1,100	

CONTRACT QUANTITIES
Add Alternate Bid #3 (Seeding & Mulching)

ITEM NO	DESCRIPTION	UNIT	ESTIMATED	FINAL
804-4.1	Seeding and Soil Supplements, Formula B	AC	11	
804-4.2	Seeding and Soil Supplements, Formula D	AC	2	
804-4.3	Seeding and Soil Supplements, Formula E and Mulching of Mowed and Undisturbed Wetland Boundaries	LS	1	
805-5.1	Mulching, Mulch Hay	AC	13	
808-5.1	Erosion Control Matting (Blanket)	SY	9,690	
808-5.1	Silt Barrier Fence, 18" Height	LF	1,700	
T-904-5.7	Topsoiling (Mechanical), Spreading, 4" Depth	LS	1	

CONTRACT QUANTITIES
Add Alternate Bid #4 (Field Offices)

ITEM NO	DESCRIPTION	UNIT	ESTIMATED	FINAL
S-100-1.4	Supply, Place, & Remove Construction Barricades	LS	1	
S-100-1.5	Maintenance Of Routes & Subdivision Construction	LS	1	
S-100-1.6	Contractor's Field Office	Month	3	
S-100-1.7	Resident Project Representative's (RPR) Field Office	Month	3	
S-100-1.8	Supply, Place, & Remove Phone by Contractor Use	Month	3	

GENERAL NOTES

G1. The CONTRACTOR will be required to have an adequate number of crews on the frequency of 123.900 MHz (UNICOM) to monitor all traffic that is working on the project within the Aircraft Operational Area (AOA). The AOA includes all of runway, taxiway and apron pavement areas and associated safety areas.

G2. All vehicles crossing any AOA shall have radios as described in note G1 or be escorted by a vehicle provided by the CONTRACTOR with the proper radio. Clearance must be obtained by those vehicles before entering, crossing, or traveling over the AOA.

G3. All vehicles and equipment shall be properly marked with flags and/or flashing amber lights during daytime construction, and flashing amber lights for night construction, as specified in Section 8 of the Project Manual. (See Sheet AP-03 for Junction Map for Equipment Detail)

G4. All pavement areas used by the CONTRACTOR will be swept of foreign and loose debris. If necessary, to remove any dust, mudflaps, blowing pavement, or waste as required to keep the pavement areas and as requested by the ENGINEER. Any debris left at the end of the workday shall be removed before the CONTRACTOR leaves the site and before any pavement areas are reopened.

G5. The CONTRACTOR shall organize their operations to minimize trips to and from the AOA construction site during workdays.

G6. At the end of each day of rubble shall be removed from the site and placed at an approved rock storage area, unless otherwise directed.

G7. The CONTRACTOR will be responsible for locating and marking existing cables and utilities during all phases of the work. Any cables or utilities damaged during construction will be repaired and/or replaced at the CONTRACTOR's expense. The CONTRACTOR will also provide cables marked/at CONTRACTOR's expense as directed by the ENGINEER. Repairs must begin immediately and be completed as soon as possible. There will be no pay item for this work.

G8. Refer to Section 8 of the Project Manual for additional requirements for this project and limitations on working in any restricted areas.

G9. The CONTRACTOR must submit, in writing, a project construction schedule at least one week prior to the start of the work, and update a weekly during construction unless otherwise directed by the ENGINEER. Construction will not be permitted to begin until the schedule has been approved by the ENGINEER. This form will be included in the project.

G10. Any damage to the existing airport pavement by the CONTRACTOR will be repaired and/or replaced by the CONTRACTOR at their own expense.

GENERAL NOTES CONTINUED

G11. The Contractor is responsible for all surveying and layout of all the work. Side-mark will be submitted to the project.

G12. The CONTRACTOR will be required to call the "PA ONE CALL SYSTEM" at 1-800-242-1776, at least 3 days in advance before any construction can begin. The PA Dept. One Call serial number is 20003500276.

G13. At the end of the project, all disturbed areas shall be regraded and seeded to the satisfaction of the ENGINEER.

G14. Equipment Storage Areas are as shown on the plans, or approved by the ENGINEER.

G15. When the runway is NOTAM closed, all lighting circuits shall be turned off.

G16. The locations of all existing runway, taxiway and apron, drainage structures and electrical cables are approximate only. It is the CONTRACTOR's responsibility to locate and avoid these existing utilities. Damaged construction of or on-site structures supplied by the Airport Owner will be referenced for approximate value. If damage is determined, the CONTRACTOR shall repair and test to the satisfaction, at no additional expense to the Owner. CONTRACTOR is required to work continuously until all circuits are operational.

G17. The exact location of the disposal site for any unwanted materials or rubbing shall be determined by the ENGINEER.

The CONTRACTOR is encouraged to salvage/recycle all pavement materials, if pavement is not milled, pavement excavation must be disposed of offsite.

G18. It is recommended that the CONTRACTOR make a site visit to familiarize themselves with the existing conditions of the Airport. All site visits must be coordinated with the Airport Manager.

G19. The Contractor will be required to obtain any and all permits as necessary to complete this project. Permit check should be included in Item B-100.

G20. The Contractor's Staging Area is as shown on the plans, or approved by the ENGINEER.

G21. The Contractor will be required to comply with all applicable Federal, Federal and State laws and Regulations throughout construction. If these laws and Regulations are not followed during construction and a fine is levied, the Contractor is responsible for payment of fines. No additional compensation will be made to the Contractor for fines.

G22. The CONTRACTOR shall provide a sufficient number of cones, barricades, and flashing lights as necessary to define and protect the work area during the day and at night to the satisfaction of the ENGINEER.

G23. Source of topographic information provided on these sheets are from mapping provided by the Airport Owner.

G24. 1 foot contour interval.

G25. During all construction activities, including backfill, it will be the CONTRACTOR's responsibility to ensure that only authorized construction vehicles have access to the AOA.

G26. When working within and/or adjacent to Taxiway safety Area, the requirements of Article 4 of Division 1 of the Project Manual must be followed. Flagged NOTAMS must be issued by the Airport Manager prior to any work in these areas. Constant coordination and radio monitoring is required during this construction.

G27. Prior to entering any AV Operations Area (OAA), the CONTRACTOR shall notify the ENGINEER and the Airport Manager from (2) days in advance on the proper SOTAM's not be issued.

G28. The Phasing Plan has been developed to minimize the effects on airport operations and allow the project to be completed in an orderly manner. If there are any changes to this plan, they must be approved by the Engineer and the Airport Manager prior to implementation.

G29. Any other disturbed due to barrier, blockading, cones, or parking operations must be regraded to provide acceptable drainage to the satisfaction of the Engineer. Removing of any barrier, blockade, or hard hard cones will be at the CONTRACTOR's expense.

G30. The CONTRACTOR will strictly conform to FAA Advisory Circular 150/5370-2, Latest Edition, "Operational Safety on Airports During Construction". It is the responsibility of the CONTRACTOR to brief all of the Contractor's employees and Subcontractors on the FAA requirements, safety, and security requirements.

G31. At the end of the project, the CONTRACTOR shall restore to pre-project conditions, the Contractor's Equipment Storage Area, and Stockpile Contractor Parking Area, and the haul Road to the satisfaction of the ENGINEER and the Airport Manager.

G32. The temporary haul stockpile and unclassified material stockpile location shall be as shown on Sheet AP-03. The stockpile shall be placed a minimum of 250 feet perpendicularly from the runway centerline and shall be no higher than the runway centerline elevation at the 250 feet location. The height of the stockpile may be increased at a rate of 7:1 as the pile is regraded away from the runway.

EXAMINATION OF SITE

1. This project is limited to the base and resurface Runway 7-25 by adding two (2) feet of pavement to each side of the runway and by making a smooth transition to the Bellefonte Airport.
2. The Project consists of a base bid and one (1) Add Alternate Bid.
3. The Base Bid and Add Alternate Bid #2, #3, and #4 will be let at the same time by the Bellefonte Airport. The Contractor shall be required to bid the Base Bid and any of the Add Alternates as newly paved and stock, or as directed by the Engineer, as the Owner's best interest.
4. Add Alternate Bid #1 Construct Partial Parallel Taxiway, is shown for information purposes only and is not to be bid as part of this project.
5. The Contractor shall be required to provide the project with Airport Safety Notice. Therefore, the Owner reserves the right to cancel Add Alternate Bid #1 under #2 and #3 in accordance with Airport Safety Notice, the Owner also reserves the right to cancel Add Alternate Bid #2 under #3 in the best interest of the Owner. In the event of an Airport Safety Notice, the Contractor, shall not be liable, carry into the Base Bid.

LIST OF UTILITIES

- ALLEGHENY COMMUNICATIONS CONNECT
- ALLEGHENY POWER COMPANY MITTANY DIVISION
- BOROUGH OF BELLEFONTE
- BENNER TOWNSHIP
- BENNER TOWNSHIP WATER AUTHORITY
- COLUMBIA GAS OF PA INC—STATE COLLEGE
- COMCAST CABLE COMMUNICATIONS
- D&E COMMUNICATIONS
- LEVEL 3 COMMUNICATIONS LLC
- PENN STATE UNIV—TELECOM
- PENN STATE UNIVERSITY
- SPRING BENNER WALKER JOINT AUTHORITY
- STATE COLLEGE BOROUGH WATER AUTHORITY
- VERIZON PENNSYLVANIA INC.

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CONSULTANTS

Bellefonte Airport

PROJECT NAME:
Widen and Resurface Runway 7-25, Phase II (Construction)

OWNER:
Martin Stroup
225 Beaufort Lane
Bellefonte, PA 16823

ENGINEER SEAL

MARK	DATE	DESCRIPTION
1	03/18/11	THP REVIEW REVISIONS
2	04/08/11	ADDENDUM #1

ISSUE: April 2011
PROJECT NO: 11-1800-0131
ORIGINAL FILE: P:\DM Quantities 11-0131
DRAWN BY: BJC
CHECKED BY: DOC

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SHEET TITLE
CONTRACT QUANTITIES AND GENERAL NOTES

AP-02

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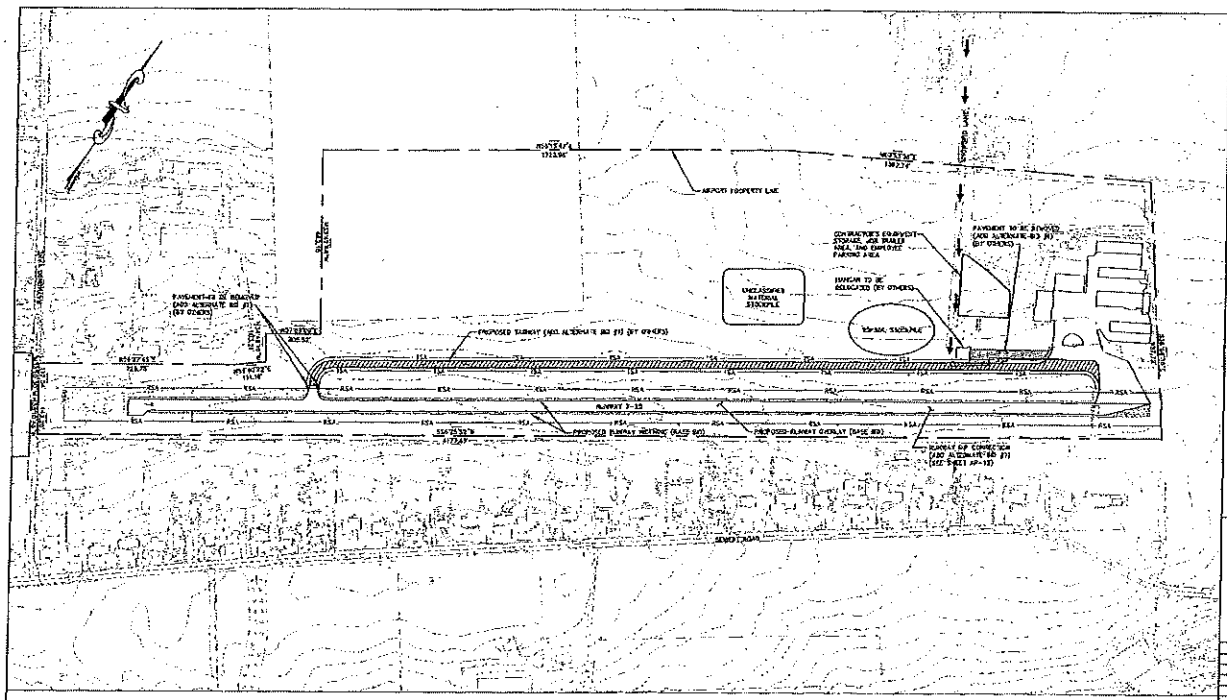

GRAPHIC SCALE

(IN FEET)
1 inch = 100 ft.

LEGEND		
ITEM	EXISTING	PROPOSED
AIRPORT BUILDINGS		N/A
RUNWAY PAVEMENT		
TAXIWAY PAVEMENT		
RUNWAY PAVEMENT OVERLAY	N/A	
PAVEMENT TO BE REMOVED	N/A	
ROADS		N/A
RUNWAY SAFETY AREA	RSA	RSA
TAXIWAY SAFETY AREA	N/A	TSA
CONSTRUCTION ACCESS ROUTE	N/A	
AIRPORT PROPERTY LINE		

NOTES:

1. THE AIRPORT PROPERTY LINE SHOWN IS BASED ON AVAILABLE INFORMATION AND DOES NOT NECESSARILY REPRESENT AN ACTUAL FIELD SURVEY.

2. PER SECTION 308.D AND 308.E.III OF THE BEDFORD TOWNSHIP, BEDFORD COUNTY, STORMWATER MANAGEMENT ORDINANCE, ORDINANCE NO. 84, THE OWNERS AND OWNER FOR ACCESS AND MAINTENANCE EASEMENTS SHALL BE 30 FT SHOWNED LANE TO RUNWAY 7-25, WHICH MAY BE UTILIZED TO ACCESS BOTH THE PROPOSED BEDFORD STORMWATER MANAGEMENT FACILITIES AND THE SOUTH STORMWATER MANAGEMENT FACILITIES. SINCE THE STORMWATER MANAGEMENT FACILITIES ARE LOCATED AT AN ACTIVE AIRPORT, ALL ACCESS TO THE FACILITIES WOULD NEED TO BE COORDINATED WITH THE AIRPORT OWNER AND ALL SAFETY REQUIREMENTS FOLLOWED.

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CONSULTANTS

Bedford Airport

PROJECT NAME:
Widen and Resurface Runway 7-25, Phase II (Construction)

OWNER:
Bedford Borough
235 Simonsville Lane
Bedford, PA 15522

ENGINEER'S SEAL

Δ	03/30/11	IFP REVISE REVISIONS

MARK	DATE	DESCRIPTION

ISSUE: April 2011
PROJECT NO. 11-1606-0101
CADD FILE: P1606 Site 11-0101
DRAWN BY: BAK
CHECKED BY: CCC

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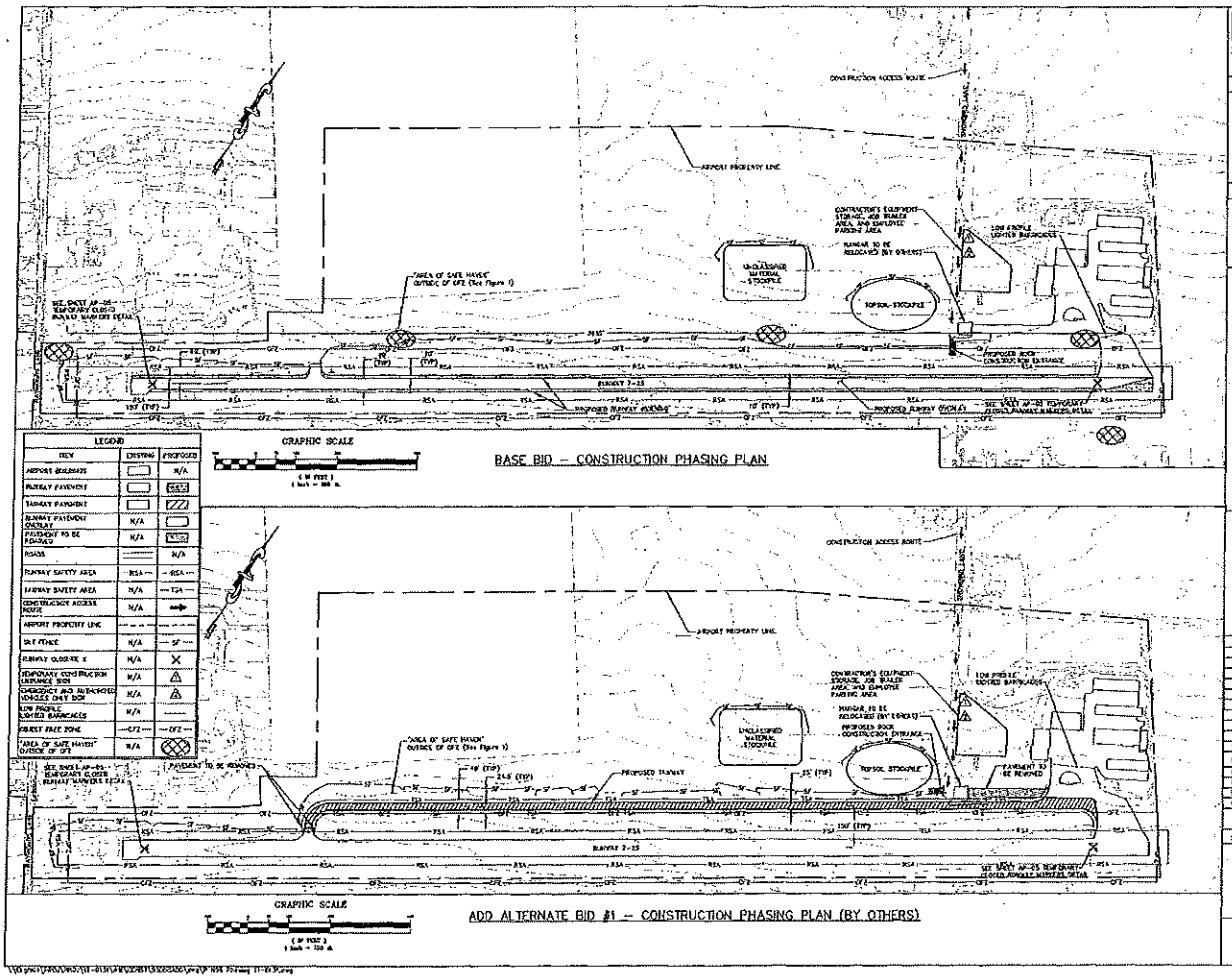
SHEET TITLE

SITE PLAN

AP-03



LEGEND		
ITEM	EXISTING	PROPOSED
AIRPORT BOUNDARY		N/A
RUNWAY PAVEMENT		
TAXIWAY PAVEMENT		
RUNWAY PAVEMENT OVERLAY	N/A	
PAVEMENT TO BE REMOVED	N/A	
RSA/SSA		N/A
RUNWAY SAFETY AREA	RSA	RSA
TAXIWAY SAFETY AREA	N/A	TSA
CONSTRUCTION ACCESS ROUTE	N/A	
AIRPORT PROPERTY LINE		
SILT FENCE	N/A	SF
RUNWAY CLOSURE X	N/A	X
TEMPORARY CONSTRUCTION LIGHTING SIGN	N/A	
CONTRACTOR AND SUBCONTRACTOR VEHICLES ONLY SIGN	N/A	
LOW PROFILE LIGHTED BARRICADES	N/A	
OBJECT FREE ZONE	OFZ	OFZ
"AREA OF SAFE HAVEN" OUTSIDE OF OFZ	N/A	

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CONSULTANTS

Bellefonte Airport

PROJECT NAME:

Widen and Resurface Runway 7-25, Phase II (Construction)

OWNER:

Nevine Elkhalil
225 Schofield Lane
Bellefonte, PA 16823

ENGINEER'S SEAL

MARK	DATE	DESCRIPTION

ISSUE:	April 2011
PROJECT NO:	11-1604-0131
CADD FILE:	P1180 Phasing 11-0131
DRAWN BY:	RAK
CHECKED BY:	CCC

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SHEET TITLE

CONSTRUCTION PHASING PLAN
SHEET 1 OF 2

AP-04

SEQUENCE OF CONSTRUCTION

The following sequence of Construction must be followed by the Contractor in order to minimize the greater and inconvenience from the project. The Contractor may revise the sequence, but approval must be obtained from the County Construction Contract at the pre-construction meeting.

1. The Contractor shall notify the Airport Manager and the Engineer at least four days (4) days in advance of the start of construction.

2. The Contractor must place "Temporary Construction Entrance" and "Emergency and Authorized Vehicles Only" signs at all vehicle entrances and shall be responsible for maintaining the Temporary Construction Gate Entrance Sign. The sign must be located in Item D-705, Contractor's Plan.

3. At a minimum of three (3) days prior to the start of work, the Contractor shall notify the Engineer and Airport Manager and request the Airport Manager to have the proper NOTAM (Notice to Airmen).

4. The CONTRACTOR will be required to call the "PA DOT CALL BEFORE" at 1-800-242-1776, at least 3 days in advance before any construction can begin. The PA Bridge One Call number is 800-242-1776.

5. Survey and layout project area and have it approved by the Engineer.

6. Contact the Centre County Communication Center at least seven (7) days prior to commencing of earthmoving activities.

7. Close sewers and place Runway Closure markers (7's) over sewers/ manholes and place Low Profile Lighted Barricades.

8. Prior to beginning any earthmoving operations, install the erosion and sedimentation control measures as shown on the Construction Drawings and as per the E&S Plan and Details. This will include, but not be limited to, the construction of the stone construction entrance and the C^1 level. Refer to Sheet AP-02 through AP-03 of AP-03 through AP-15.

9. Remove topsoil and stockpile material and stockpile at the location indicated.

10. Temporary topsoil stockpile and mulch/seed if required. Topsoil stockpile shall be placed in Sheet AP-02 and the stockpile shall be placed in accordance of ZCO 1-01 (unless/only from the runway construction and shall be no higher than the runway Longitudinal Centerline of the 7-25 Safe Area. The height of the stockpile may be increased at a rate of 2:1 as the pile is repositioned away from the runway.

11. Construct the Drainage system starting from the downstream end and work back. Place Inlet D-1 and the outlet pipe provisions. Then place Inlets D-2 and then complete the D-1 and D-2 in accordance with the plan and details. Ground D-1, D-2 and D-3 with the respective pipe.

12. Install construction equipment within the areas of subgrade. No compaction of the subgrade area is to occur.

13. Begin construction of the Underground Detection System. Construct equipment pipes Units 1-1, 1-2, 1-3, and 1-4 with the respective pipe.

14. Place the aggregate layer in the Underground Detection System.

15. After the completion of the Underground Detection System is complete, begin the construction of the Infiltration trench. Place the geotextile underlain in the infiltration trench. Place aggregate over the infiltration within the trench as shown on the plan and in accordance with the details.

16. Perform excavation construction and place underdrains where shown on the plans.

17. Compact subgrade. Place and compact fill as needed in accordance with the specifications.

17. Place and compact subbase.

18. Place linear course pavement.

19. Place surface course pavement.

20. Complete all grading and install & restoring.

21. Place permanent markings.

22. Install all signage and instrumentation control devices and other as deemed permanently installed by the Engineer.

23. Upon approval of permanent stabilization of the project site by the Centre County Conservation District, remove all temporary erosion control measures, temporary grass in bare areas disturbed and stabilize any remaining disturbed areas with permanent vegetative cover.

GENERAL CONSTRUCTION PHASING NOTES

1. Daily construction consist of (1) as shown on the Construction Phasing Plan. While the Base Construction Entrance shown on the plan to access the project area.

2. For all work within the Runway Safety Area (RSA), the runway will be closed during Runway Closure 7's placed on the runway pavement prior to beginning of construction work. For all runway closures, the Contractor shall coordinate with the Airport Manager to have the runway lights, Airport Beacon, and the PAPI (Precision Approach Path Indicator) flashed.

3. The Phasing Plan has been developed to minimize the effects to airport operations and to allow the project to be completed in an orderly manner. If there is any deviation to the Plan, they must be approved by the Engineer and the Airport Manager prior to implementation.

4. Any area disturbed due to barrier, stockpiling, waste, or haulage operations must be repaired to provide acceptable drainage to the satisfaction of the Engineer. Furnishing of any barrier, stockpile, and/or haul road areas off of the Contractor's expense.

5. The Contractor will strictly conform to FAA Advisory Circular 150/5370-2, latest edition, "Operational Safety on Airports During Construction." It is the responsibility of the Contractor to hold all of the Contractor's employees and Subcontractors on the FAA operating safety and security requirements.

6. Place permanent seed for any area where construction operations are not planned to resume within 30 days.

7. If any working areas to take place during the dry seasons, then the Contractor is responsible for watering the working areas.

8. Work construction equipment within the areas of subgrade. No compaction of the subgrade area is to occur.

9. Dust controlled as controlled equipment is to be within the area of the Infiltration trench when the runway

CLEARING AND GRUBBING NOTES

1. Prior to excavation, or construction, and before any equipment is placed, clear and grub areas required for all equipment and excavation material. Stockpile, but not limited to, topsoil, rock, and other materials. Topsoil shall be placed in Sheet AP-02. The stockpile shall be placed in accordance of ZCO 1-01 (unless/only from the runway construction and shall be no higher than the runway Longitudinal Centerline of the 7-25 Safe Area. The height of the stockpile may be increased at a rate of 2:1 as the pile is repositioned away from the runway.

2. Upon completion of clearing and grubbing beyond the limits of work, place and compact fill material in accordance with the specifications.

3. Upon completion of clearing and grubbing beyond the limits of work, place and compact fill material in accordance with the specifications.

4. Place and compact fill material in accordance with the specifications.

5. All waste materials removed during the clearing and grubbing process will be disposed in accordance with the Contractor. The Contractor is responsible for complying with all applicable Township, Federal and State laws and Regulations.

6. Any and all stumps and trees will be removed in the specified excavation area. Stumps will be the required payment for clearing and grubbing.

FILL PLACEMENT AND COMPACTION NOTES

1. Fill material shall be placed in horizontal layers not exceeding eight (8) inches in loose thickness. Each layer shall be compacted to 95 percent of laboratory maximum dry density as determined by ASTM D-1557, or as directed by the Engineer.

2. Prepare the surface of the fill area for placement of the first layer of fill material by removing all vegetation, stumps, and other objectionable material.

3. Place fill in horizontal layers such that the top surface is maintained approximately level during construction, but surface should be crowned to provide drainage. Slope the surface of the material of the end of each working day to reduce the potential for development of low or flat areas for overnight precipitation or rain.

4. Include moisture density testing of embankment fill placement at the site to demonstrate that placement of the fill meets or exceeds project specifications. Each lift of the compacted embankment fill should be closely observed and tested by an approved accredited laboratory and the results documented. Perform density tests at a rate of one test per 5,000 square feet of placed material.

5. The embankment fill materials should be tested into the existing embankment to maintain with the fill levels detail shown on the plans.

7. Embankments should be overfilled, and cut to produce the final slopes.

8. Provide a test trip prior to commencing embankment fills.

9. Final slopes for proposed embankment should be 2:1 or flatter.

DETAILED PHASING NOTES

1. The Construction Phasing Plan has been developed to limit and minimize the duration of runway closures for this project to provide the minimal amount of disruption to Airport Operations, to a reasonably feasible to keep the runway open as much as possible. However, the following are detailed phasing notes that the Contractor shall be required to follow and adhere to unless approved by the Engineer or Airport Manager.

2. Daytime Work – Due to Daytime Township requirements, most of the work will be completed during the day. Work during daylight hours may begin no earlier than 7 a.m. and shall cease by 6 p.m., or as approved by Township. Daytime hour limit restrictions are in effect for work every day of the week.

3. Prior to beginning work, each that the top surface is maintained approximately level during construction, but surface should be crowned to provide drainage. Slope the surface of the end of each working day to reduce the potential for development of low or flat areas for overnight precipitation or rain.

4. Include moisture density testing of embankment fill placement at the site to demonstrate that placement of the fill meets or exceeds project specifications. Each lift of the compacted embankment fill should be closely observed and tested by an approved accredited laboratory and the results documented. Perform density tests at a rate of one test per 5,000 square feet of placed material.

5. The embankment fill materials should be tested into the existing embankment to maintain with the fill levels detail shown on the plans.

7. Embankments should be overfilled, and cut to produce the final slopes.

8. Provide a test trip prior to commencing embankment fills.

9. Final slopes for proposed embankment should be 2:1 or flatter.

DETAILED PHASING NOTES (CONTINUED)

Runway Closures

1. Runway closures shall be completed in daytime work. (See Note 2 above). A low work (11-hour) commencing may extend only as a detail for the runway closing of both sides of the runway including pavement, temporary construction, and removal pavement and temporary. At the end of the two week period, the runway must be reopened by 6 p.m. at the end of the 14th day so the Contractor shall be assessed liquidated damages of $500.00 for additional calendar day the runway remains closed.

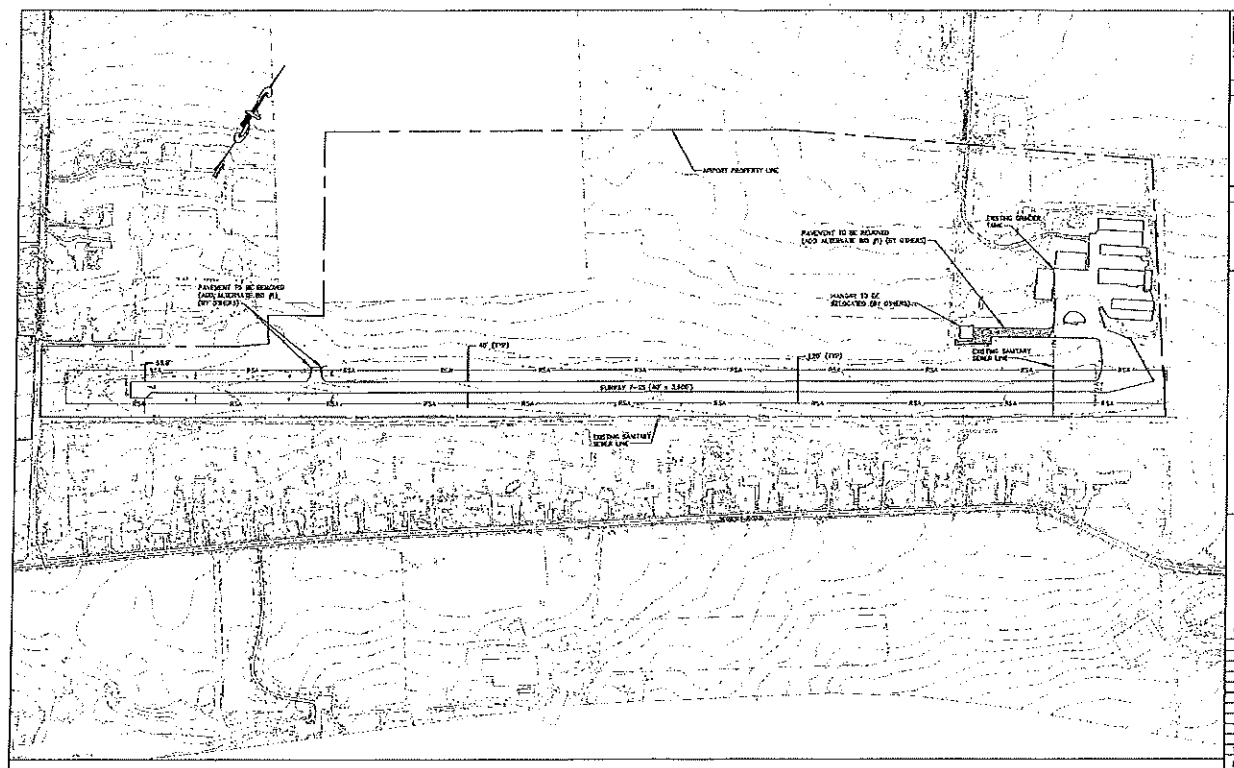
2. The Contractor should note that the proposed pavement section includes a 3.5 inch binder course. Thus, when the subbase is placed and completed to the proper grade, it will achieve a 3.5 inches drop in the RSA, and at the ending procedure. Thus, the Contractor will be required to temporarily place additional material to bring the RSA up to minimum requirements of the 3.5 inch drop in the completed pavement. The additional material and temporary pavement will be removed/removed when the binder course is placed.

3. Both sides of the runway may be scarified, subgrade compacted, subbase placed and compacted, and binder course placed at the same time.

10. Paving work has separate runway closure requirements.

11. The placement of the binder course shall be completed during Daytime Hours with the runway closed. The Contractor shall have one (1) calendar day to pave each side of the runway including binder course, for a total of two (2) calendar days. For each additional calendar day (after Base Bid Item 12) beyond (2) that the runway must be closed to place the binder course for the runway widening, the Contractor will be assessed liquidated damages of $500.00.

12. The runway widening surface course paving shall also be completed during daylight hours and shall be completed when the widening runway pavement is excited. The Contractor shall have four (4) consecutive calendar days to place the entire leveling course. The paving hours, the entire surface course including runway marking, and the pavement markings, at a 500 application rate (Mixed Grid Hours). On Day the paving the runway will be closed for 24 consecutive hours (4 days x 24 hours per day). For each additional calendar day (other than the four (4) consecutive consecutive) that the runway must be closed to place the surface leveling course, the paving fabric



LEGEND	
ITEM	EXISTING
AIRPORT BUILDINGS	
AIRPORT PAVEMENT	
FENCE	
RUNWAY SAFETY AREA	RSA
AIRPORT PROPERTY LINE	
RUNWAY EDGE LIGHTS	
RUNWAY THRESHOLD LIGHTS	

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Website: www.lrkimball.com

CONSULTANTS:

Bellefonte Airport

PROJECT NAME:

Widen and Resurface Runway 7-25, Phase II (Construction)

OWNER:

Bruce Kimball
225 Greenfield Lane
Bellefonte, PA 16823

ENGINEER SEAL:

MARK	DATE	DESCRIPTION

ISSUE: April 2011
PROJECT NO.: 11-1910-0101
CAD ENGTEEL: P:\NM EX Cond 11-4111
DRAWN BY: RAK
CHECKED BY: CCC

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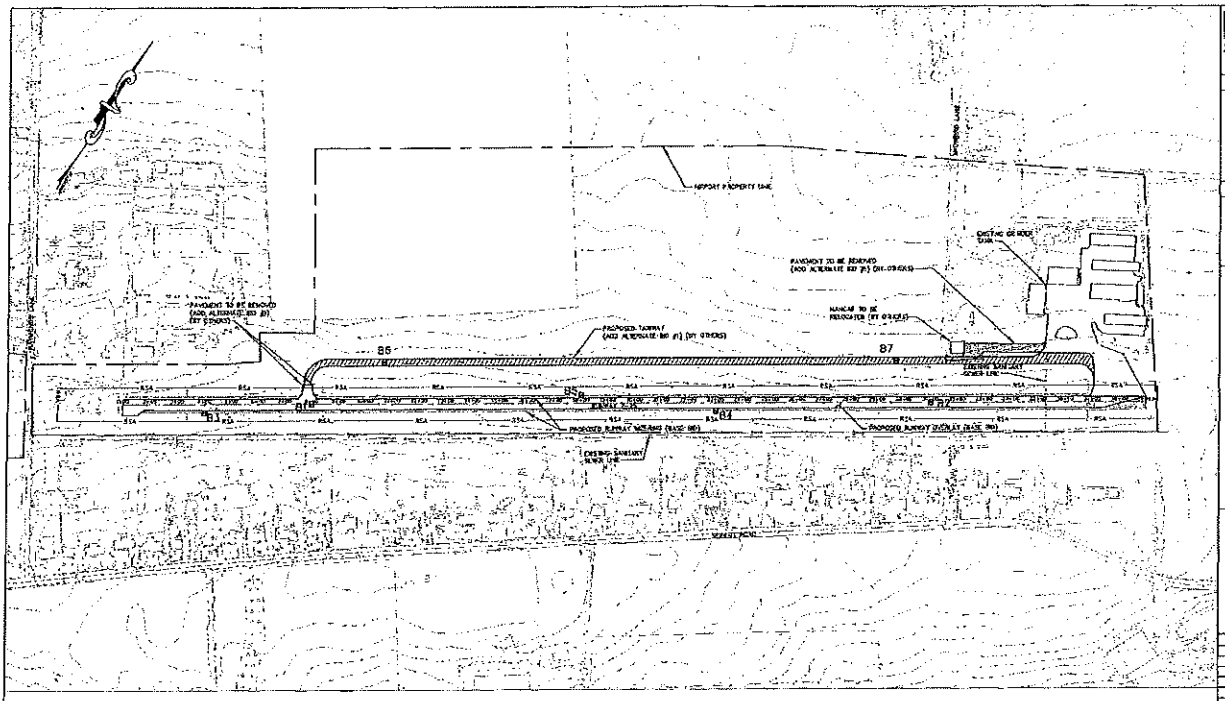
SHEET TITLE:

EXISTING CONDITIONS PLAN

AP-06



GRAPHIC SCALE

BORING NOTES:

1. THE BORING LOCATIONS SHOWN ARE APPROXIMATE LOCATIONS ONLY.
2. THE BORING LOCATIONS SHOWN WERE NOT SURVEYED.
3. THE BORING LOG INFORMATION IS LOCATED IN THE GEOTECHNICAL EXPLORATION AND FOUNDATION ENGINEERING REPORT DATED NOVEMBER 2000 PREPARED BY L. ROBERT KIMBALL & ASSOCIATES, INC. AND FOUND IN DIVISION 11 OF THE PROJECT MANUAL.

BORING CHART

BORING	RUNWAY STATION	OFFSET	EXISTING ELEVATION
B1	8+00	0	1071.00
B2	31+00	0	1055.17
B3	5+00	30' RT	1049.50
B4	33+00	30' RT	1051.00
B5	10+00	30' LT	1058.81
B6	40+70	150' LT	1056.33
B7	35+70	150' LT	1043.04

LEGEND

ITEM	EXISTING	PROPOSED
BORING LOCATION	N/A	B
BORING LABEL	N/A	B5
AIRPORT BUILDINGS		N/A
RUNWAY PAVEMENT		
TAXIWAY PAVEMENT		
RUNWAY PAVEMENT OVERLAY	N/A	
PAVEMENT TO BE REMOVED	N/A	
ROADS		N/A
RUNWAY SAFETY AREA	RSA	RSA
TAXIWAY SAFETY AREA	N/A	TSA
AIRPORT PROPERTY LINE		

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CONSULTANTS:

Bellefonte Airport

PROJECT NAME:
Widen and Resurface Runway 7-25, Phase II (Construction)

OWNER:
Marina Kimball
125 Snowdrift Lane
Bellefonte, PA 16823

ENGINEER'S SEAL

MARK	DATE	DESCRIPTION

DATE: April 2011
PROJECT NO.: 11-050-0131
CAD DWG FILE: P 050 Boring 11-0131
DRAWN BY: RAK
CHECKED BY: CCC

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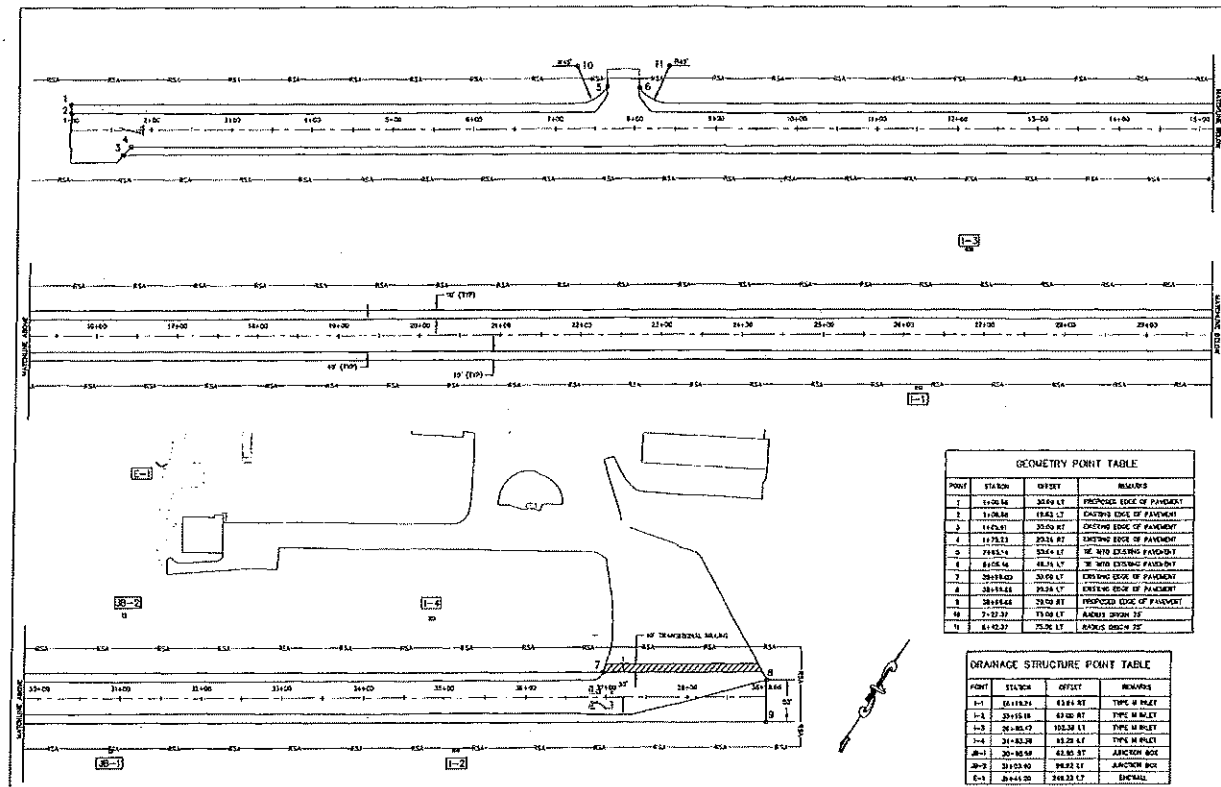
SHEET TITLE:
BORING LOCATION PLAN

AP-07



GEOMETRY POINT TABLE			
POINT	STATION	OFFSET	REMARKS
1	1+00.56	30.00 LT	PROPOSED EDGE OF PAVEMENT
2	1+06.68	19.83 LT	EXISTING EDGE OF PAVEMENT
3	1+00.91	25.00 RT	EXISTING EDGE OF PAVEMENT
4	1+79.23	29.16 RT	EXISTING EDGE OF PAVEMENT
5	7+85.14	53.64 LT	TIE INTO EXISTING PAVEMENT
6	8+05.46	48.76 LT	TIE INTO EXISTING PAVEMENT
7	29+98.00	30.00 LT	EXISTING EDGE OF PAVEMENT
8	30+59.66	29.36 LT	EXISTING EDGE OF PAVEMENT
9	30+59.66	29.00 RT	PROPOSED EDGE OF PAVEMENT
10	7+27.37	75.00 LT	RADIUS BEGIN 25'
11	8+42.37	75.00 LT	RADIUS BEGIN 25'

DRAINAGE STRUCTURE POINT TABLE			
POINT	STATION	OFFSET	REMARKS
I-1	16+19.24	63.84 RT	TYPE M INLET
I-2	33+15.18	63.00 RT	TYPE M INLET
I-3	26+80.17	102.38 LT	TYPE M INLET
I-4	31+82.28	63.28 LT	TYPE M INLET
JB-1	30+50.59	42.95 RT	JUNCTION BOX
JB-2	31+03.90	94.92 LT	JUNCTION BOX
E-1	8+44.00	348.33 LT	ENDWALL

PLAN LEGEND		
ITEM	EXISTING	PROPOSED
GEOMETRY POINT LABEL	N/A	3
AIRPORT BUILDINGS		N/A
AIRPORT PAVEMENT		
STORMWATER JUNCTION BOX	N/A	
TYPE M INLET	N/A	
CONCRETE ENDWALL	N/A	
STORM STRUCTURE LABEL	N/A	I-3
RUNWAY SAFETY AREA		

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Website: www.lrkimball.com

CONSULTANTS:

Bellefonte Airport

PROJECT NAME:
Widen and Resurface Runway 7-25, Phase II (Construction)

OWNER:
Venna Shiloh
236 Shiloh Lane
Bellefonte, PA 16823

ENGINEER'S SEAL

MARK	DATE	DESCRIPTION

ISSUE: April 2011
PROJECT NO.: 11-1800-0131
CAD FILE NAME: P1800 Rnwy Geometry 11-0131
DRAWN BY: RAK
CHECKED BY: DGG

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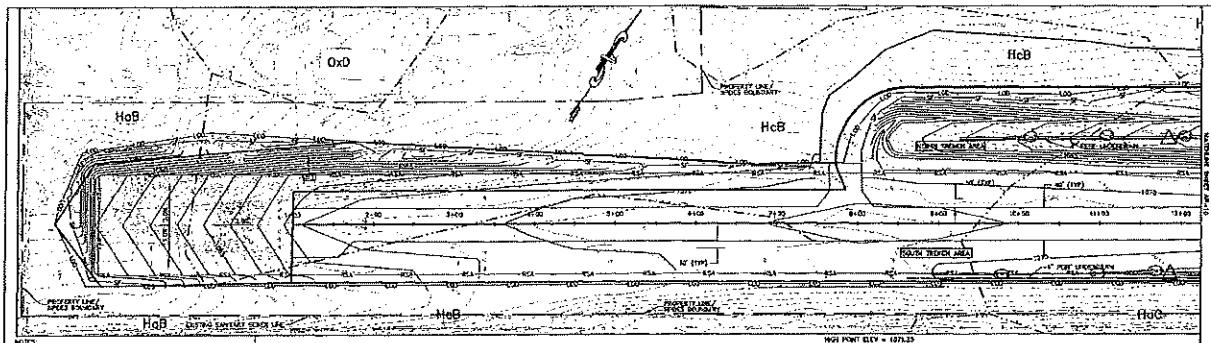
SHEET TITLE

RUNWAY GEOMETRY PLAN (BASE BID)

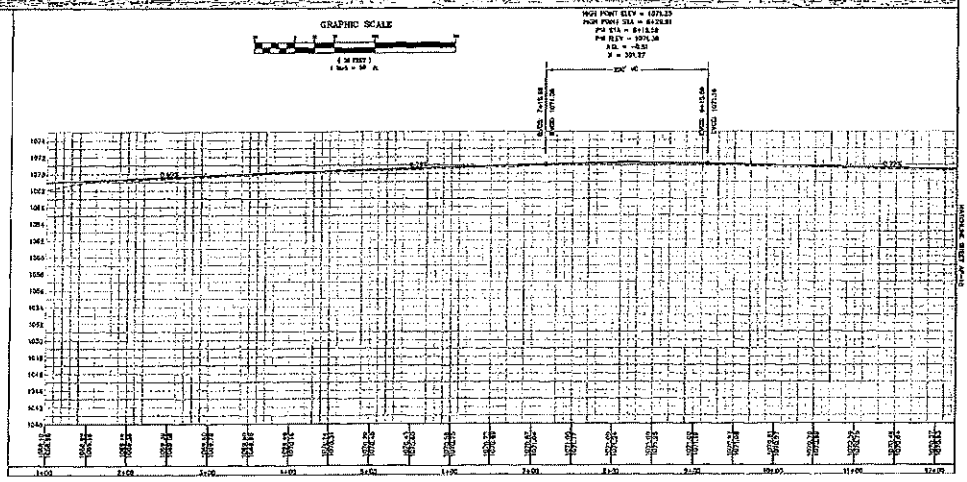
AP-08



NOTES:

1. The existing waters for this project are an Unnamed Tributary to Buffalo Run (HQ) and an Unnamed Tributary to Spring Creek (CWF).
2. The Contractor must use environmental due diligence to ensure that the material associated with this project qualifies as clean fill. Clean fill is defined as: "uncontaminated, non-water soluble, non-decomposable, inert, solid material like soil, rock, stone, dredged material, used asphalt, and brick, block, or concrete from construction or demolition activities that is recyclable than other waste and is recyclable in such. The term does not include materials placed in or on the waters of the Commonwealth without otherwise authorized. (The term 'clean fill' does not include rubble (crush or asphalt that has been processed for re-use.) Unprocessed fill (logs & stumps & debris) or construction debris, building, but not limited to, wood, property foundations, electric, data base conduits, tubes or property stops, environmental contaminants, hazardous waters, analytical testing, environmental contaminants or wastes.
3. LOD Area = 24.65 Acres
4. Property Area = 63.92 Acres.
5. All Slopes 3:1 and greater must utilize Erosion Control Matting.
6. See the Runway Geometry Plan for Station and Offsets for Proposed Drainage Structures.

PLAN LEGEND		
ITEM	EXISTING	PROPOSED
AIRPORT BUILDINGS		N/A
AIRPORT PAVEMENT		
CONTOURS		
STORMWATER JUNCTION BOX		
RUNWAY SAFETY AREA		
ROCK CONSTRUCTION ENTRANCE	N/A	
RUNWAY LIGHTS		N/A
STORMWATER PIPE	N/A	
CONCRETE DITCHES	N/A	
INFIELD/DRAIN CHANNEL	N/A	
LIMIT OF DISTURBANCE	N/A	
SILT FENCE	N/A	
PROPERTY BOUNDARY/ AIRPORT PROPERTY LINE		
SOIL TYPE BOUNDARY		
SOIL TYPE LABEL	HoB	HoB
DRAINAGE AREAS		
ROCK JUNCTIONS	N/A	
STORM STRUCTURE LABEL	N/A	
EARTH BERM	N/A	



RUNWAY 7-25 PROFILE
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'

EARTHWORK TABLE – BASE BID

CUT	31,941 CY
FILL	8,374 CY
NET CUT	23,567 CY

PROFILE LEGEND

DESCRIPTION	SYMBOL
EXISTING GROUND	
PROPOSED GRADE	
EXISTING ELEVATION	473.79
PROPOSED ELEVATION	475.33

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CONSULTANTS:

Bellefonte Airport

PROJECT NAME:
Widen and Resurface Runway 7-25, Phase II (Construction)

OWNER:
Marine Corbell
236 Strawbridge Lane
Bellefonte, PA 16823

ENGINEER'S SEAL:

MARK	DATE	DESCRIPTION

ISSUE: April 2011
PROJECT NO: 11-1003-0131
CAD DWG FILE: P1RW Grading 11-0131
DRAWN BY: RAK
CHECKED BY: GCC

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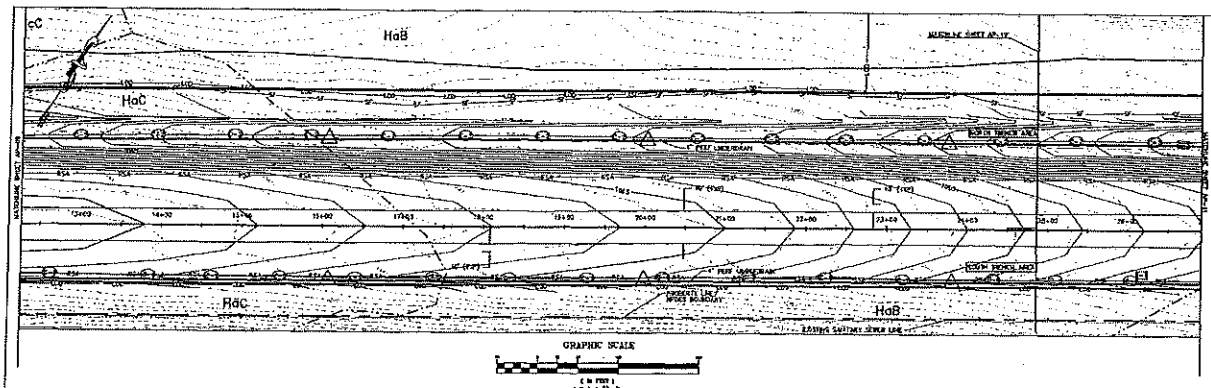
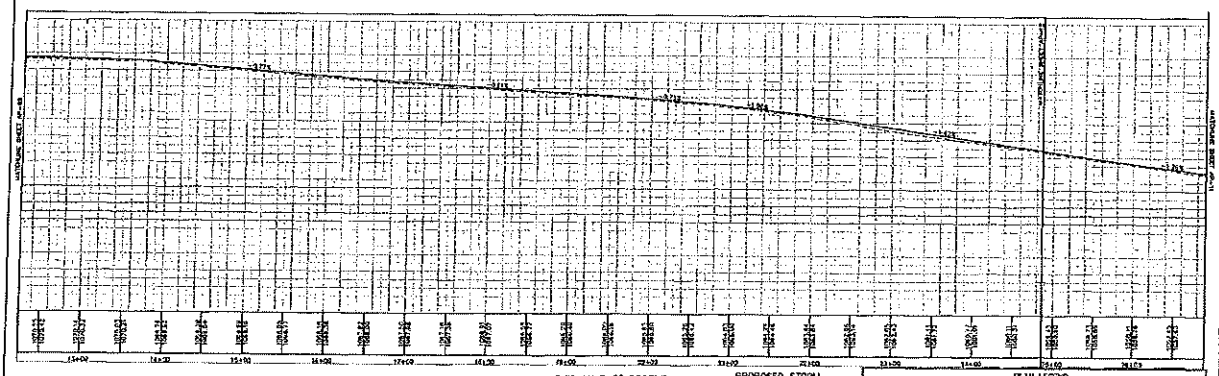
SHEET TITLE:
RUNWAY GRADING AND E&S CONTROL PLAN
SHEET 1 OF 3
(BASE BID)

AP-09





PROFILE LEGEND

DESCRIPTION	SYMBOL
EXISTING GROUND	
PROPOSED GRADE	
EXISTING ELEVATION	474.28
PROPOSED ELEVATION	478.53

NOTES:

1. The vertical values for this project are on Universal Elevation to Buffalo Park (BIO) and an Unknown Elevation to Spring Creek (CHF).
2. The Contractor must use environmental due diligence to assure that the EC material associated with this project qualifies as Class B6 or defined as: Unconsolidated, non-water soluble, non-decomposable, inert, solid materials. The term includes soil, rock, stone, dredged material, asphalt, and brick, block, or concrete from construction or demolition activities that is separate from other waste and is recognizable as such. The term does not include materials found in or on the waters of the commonwealth unless otherwise authorized. (The term 'land reclamation' does not include milled asphalt or asphalt that has been processed for re-use.) Environmental due diligence is defined as: Investigative techniques, including, but not limited to, visual property inspections, site/plot plan base maps review, review of property maps, environmental assessments, transaction screens, analytical testing, environmental assessments or audits.

RUNWAY 7-25 PROFILE
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'

NOTES CONTINUED:

3. LOD Area = 24.45 Acres
4. Property Area = 43.42 Acres
5. All slopes 3:1 and greater must utilize Erosion Control Blanket Average.
6. See the Runway Geometry Plan for Station and Offsets for Proposed Drainage Structures.

PROPOSED STORM DRAINAGE TABLE

ES	TYPE M INLET TOP OF GRATE = 1006.31 INV. IN = 1004.00 (SE) INV. OUT = 1003.76 (SE PIPE)
ES	TYPE M INLET TOP OF GRATE = 1010.79 INV. IN = 1003.80 (SE) INV. OUT = 1003.64 (SE PIPE)

EARTHWORK TABLE – BASE BID

CUT	31,631 CY
FILL	8,374 CY
NET CUT	23,257 CY

PLAN LEGEND

ITEM	EXISTING	PROPOSED	ITEM	EXISTING	PROPOSED
AIRPORT BUILDINGS		N/A	MAIN DRAINAGE CHANNEL	N/A	
AIRPORT PAVEMENT			LIMIT OF DISTURBANCE	N/A	
CONTOURS			ELT FENCE	N/A	
STORMWATER INLETS (ES)			PROJECT BOUNDARY/ AIRPORT PROPERTY LINE		
RUNWAY SAFETY AREA			SOIL TYPE BOUNDARY		
ROCK CONSTRUCTION ENTRANCE	N/A		SOIL TYPE LABEL	HaB	HaB
RUNWAY LIGHT		N/A	DRAINAGE AREAS		
STORMWATER PIPE	N/A		ROCK ARROWS	N/A	
CONCRETE CHANNEL	N/A		STORM STRUCTURE LABEL	N/A	
CATCH BOXES	N/A				

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CONSULTANTS:

Bellefonte Airport

PROJECT NAME:
Widen and Resurface Runway 7-25, Phase II (Construction)

OWNER:
Metro Bloom
225 Brookside Lane
Bellefonte, PA 16823

ENGINEER'S SEAL:

MARK	DATE	DESCRIPTION

DATE:	April 2011
PROJECT NO:	11-1000-0131
CADD/GIS FILE:	P1455 Grading 11-0131
DRAWN BY:	BAK
CHECKED BY:	DOC

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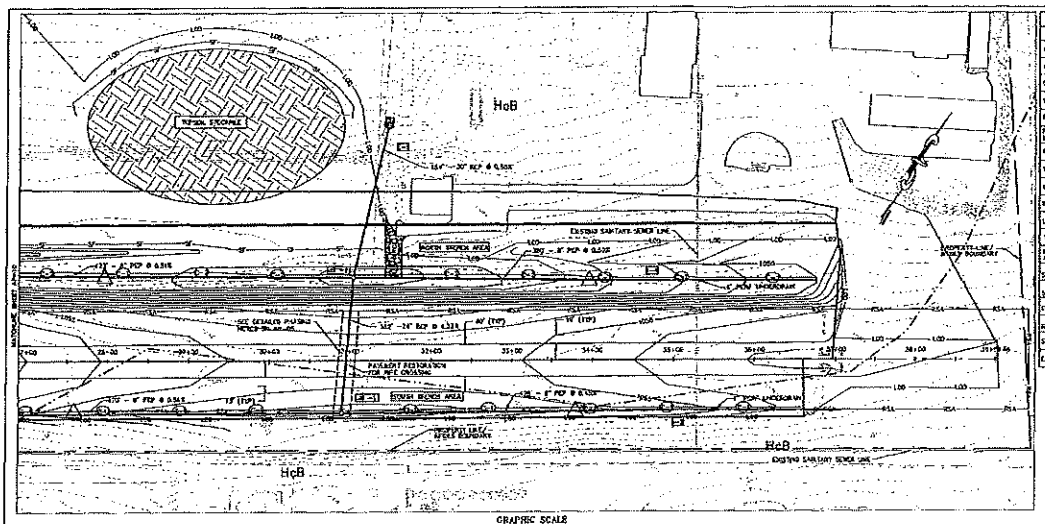
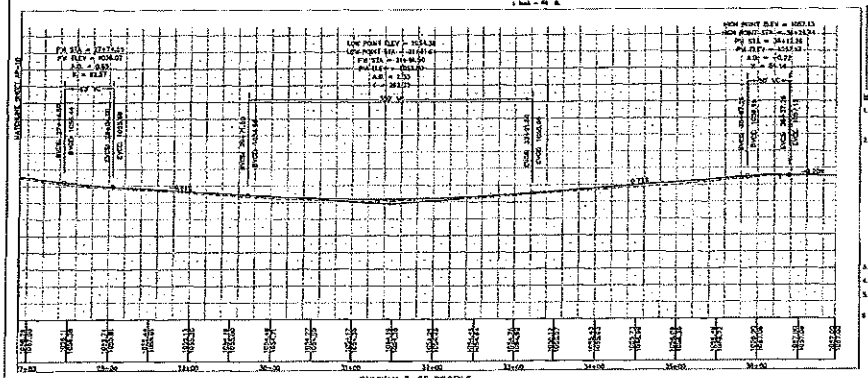
SHEET TITLE:
RUNWAY GRADING AND ESS CONTROL PLAN
SHEET 2 OF 3
(BASE BID)

AP-10



GRAPHIC SCALE



RUNWAY 7-25 PROFILE
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'

PLAN LEGEND		
ITEM	EXISTING	PROPOSED
AIRPORT BUILDINGS		N/A
AIRPORT PAVEMENT		
CONTOURS		
STORMWATER JUNCTION BOX		
RUNWAY SAFETY AREA		
ROOF CONSTRUCTION ENTRANCE	N/A	
RUNWAY LIGHTS		N/A
STORM SEWER PIPE	N/A	
CONCRETE SIDEWALK	N/A	
PRECIPITATION CHANNEL	N/A	
LIMIT OF DISTURBANCE	N/A	
SILT FENCE	N/A	
PROPERTY BOUNDARY/ AIRPORT PROPERTY LINE		
SOIL TYPE BOUNDARY		
SOIL TYPE LABEL	HoB	HoB
DRAINAGE AREAS		
ROCK APRONS	N/A	
STORM STRUCTURE LABEL	N/A	
ENDWALL	N/A	

PROPOSED STORM DRAINAGE TABLE

1	TYPE M INLET TOP OF GRATE = 1055.00 INV. IN = 1053.69 (5-6) INV. OUT = 1049.62 (6" PCP)
2	TYPE M INLET TOP OF GRATE = 1047.71 INV. IN = 1045.69 (5-6) INV. OUT = 1039.30 (6" PCP)
JB-1	JUNCTION BOX TOP OF GRATE = 1053.79 INV. IN = 1047.00 (6-1) INV. IN = 1047.00 (6-2) INV. OUT = 1041.05 (JB-2)
JB-2	JUNCTION BOX TOP OF GRATE = 1041.00 INV. IN = 1037.50 (6-3) INV. IN = 1037.50 (6-4) INV. IN = 1040.85 (JB-1) INV. OUT = 1032.85 (C-1)
E-1	ENDWALL INV. IN = 1029.55 (JB-2)

PROFILE LEGEND

DESCRIPTION	SYMBOL
EXISTING GROUND	
PROPOSED GRADE	
EXISTING ELEVATION	474.76
PROPOSED ELEVATION	474.15

NOTES:

1. The receiving waters for this project are an Unnamed Tributary to Buffalo Run (TSF) and an Unnamed Tributary to Spring Creek (CWF).
2. The Contractor must use environmental due diligence to ensure that the fill material associated with this project qualifies as Clean Fill. Clean fill is defined as: Unsuitable/unacceptable material, non-decomposable, inert, solid material like rock, concrete rock, rock, stone, dredged material, sand gravel, and soil, which an operator from construction or demolition activities that is separate from other waste and is recognizable as such. The term does not include materials placed in or on the waters of the commonwealth unless otherwise authorized. (This term used specifically does not include asphalt or asphalt that has been processed for re-use.) Environmental due diligence is defined as: Investigation techniques, including, but not limited to, visual property inspections, electronic data base searches, review of property maps, environmental questionnaires, interviews, review of aerial/photo listing, environmental assessments or audits.
3. LOD Area = 14.15 Acres
4. Property Area = 43.42 Acres
5. All slopes 3:1 and greater must utilize Erosion Control Mesh Blanket.
6. See the Runway Geometry Plan for Station and Offsets for Proposed Drainage Structures.

EARTHWORK TABLE - BASE BID

CUT	17,000 CY
FILL	8,374 CY
NET CUT	8,626 CY

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Website: www.lrkimball.com

CONSULTANTS:

Bellefonte Airport

PROJECT NAME:
Widen and Resurface Runway 7-25, Phase II (Construction)

OWNER:
Marlin Elizabeth
225 Steinfeldt Lane
Bellefonte, PA 16823

ENGINEER'S SEAL

MARK	DATE	DESCRIPTION

ISSUE: April 2011
PROJECT NO.: 11-1860-047
CAD DWG FILE: Phase Grading 11-0121
DRAWN BY: RAK
CHECKED BY: KDC

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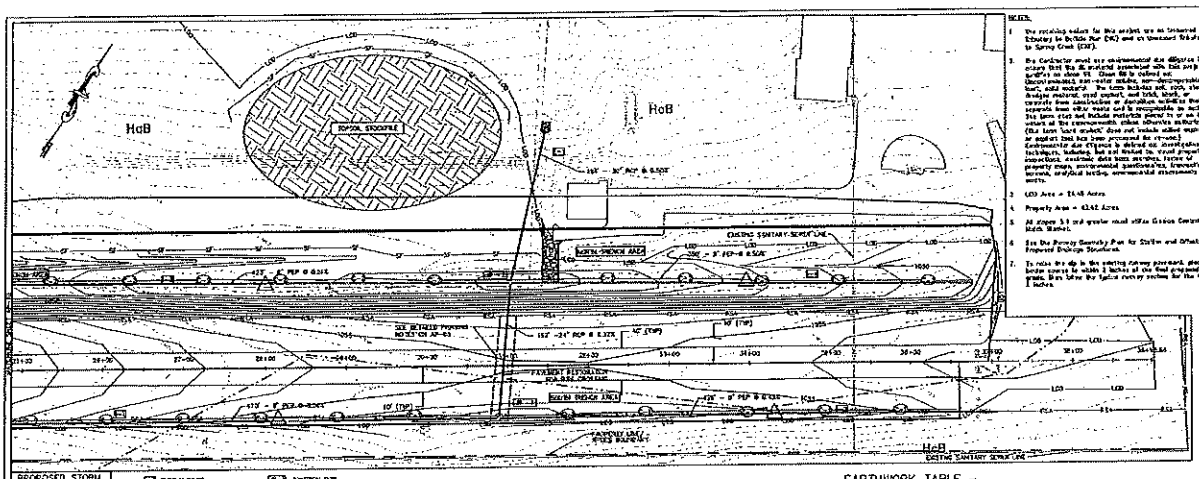
SHEET TITLE
RUNWAY GRADING AND E&S CONTROL PLAN
SHEET 3 OF 3
(BASE BID)

AP-11



NOTES:

1. The existing values for this project are as Universal Ellipsoid for Bellefonte Port (UE) and as Universal Reference Ellipsoid for Spring Creek (URE).
2. The Contractor must use environmental due diligence to ensure that the all material associated with this project includes as clean fill. Clean fill is defined as: Uncontaminated, non-water soluble, non-decomposable, inert, solid material. The term includes soil, rock, stone, dredge material, used asphalt, and brick, block, or concrete from construction or demolition activities that is separate from other waste and is recognizable as such. The term does not include materials found to or on the subject of the commonwealth either otherwise authorized (like land beneficial) does not include added asphalt or asphalt that has been processed for reuse.) Contaminated due diligence is defined as investigative techniques, including but not limited to, visual property inspections, available data base searches, review of property maps, environmental questionnaires, transaction screens, analytical testing, environmental assessments or audits.
3. LOD Area = 24.48 Acres
4. Property Area = 42.42 Acres
5. All slopes 3:1 and greater must utilize Erosion Control Blank Blankets.
6. See the Runway Geometry Plan for Station and Offsets for Proposed Drainage Structures.
7. To raise the dip in the existing runway pavement, place binder course to widen 2 inches of the final proposed grade. Bring below the typical overlay section for the final 2 inches.

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CONSULTANTS:

Bellefonte Airport

PROJECT NAME:

Widen and Resurface Runway 7-25, Phase II (Construction)

OWNER:

Bellefonte Airport
225 Beaver Lake
Bellefonte, PA 16823

ENGINEER'S SEAL:

MARK	DATE	DESCRIPTION

ISSUE: April 2011
PROJECT NO: 11-1500-0131
CAD FILE: P-1500 ALT 2 Grade 11-0131
DRAWN BY: NAK
CHECKED BY: CCC

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SHEET TITLE:

RUNWAY GRADING (ADD ALTERNATE BID #2) AND E&S CONTROL PLAN

AP-12

PROPOSED STORM DRAINAGE TABLE

(C-1) TYPE M INLET TOP OF GRATE = 1048.31 INV. IN = 1044.00 (L-3) INV. OUT = 1046.76 (8" PCP)	(C-2) TYPE M INLET TOP OF GRATE = 1043.83 INV. IN = 1040.83 (L-4) INV. OUT = 1039.64 (8" PCP)
(C-3) TYPE M INLET TOP OF GRATE = 1035.09 INV. IN = 1032.91 (L-5) INV. OUT = 1030.33 (8" PCP)	(C-4) TYPE M INLET TOP OF GRATE = 1017.71 INV. IN = 1014.68 (L-6) INV. OUT = 1016.58 (8" PCP)
(E-1) ENDWALL INV. IN = 1015.60 (B-1)	(J-1) JUNCTION BOX TOP OF GRATE = 1035.70 INV. IN = 1032.00 (L-1) INV. IN = 1032.00 (L-2) INV. OUT = 1027.00 (B-2)
(J-2) JUNCTION BOX TOP OF GRATE = 1046.00 INV. IN = 1037.50 (L-3) INV. IN = 1037.50 (L-4) INV. IN = 1040.50 (B-1) INV. OUT = 1037.00 (E-1)	

GRAPHIC SCALE

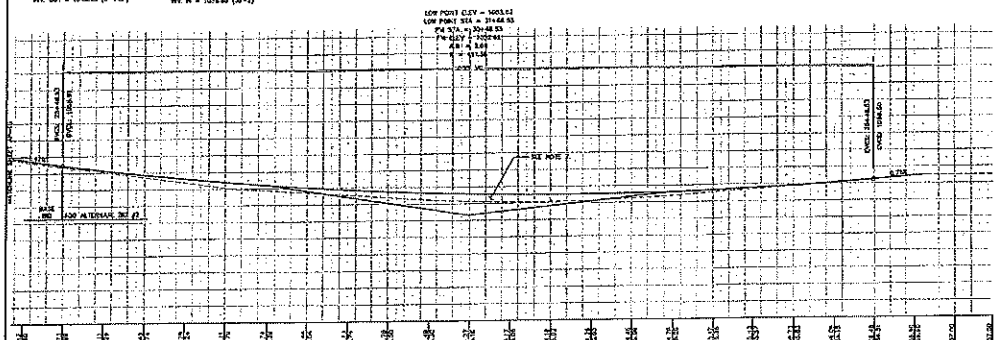
1 inch = 50 ft.

EARTHWORK TABLE – ADD ALTERNATE BID #2

CUT	0 CY
FILL	911 CY
NET FILL	911 CY

PLAN LEGEND

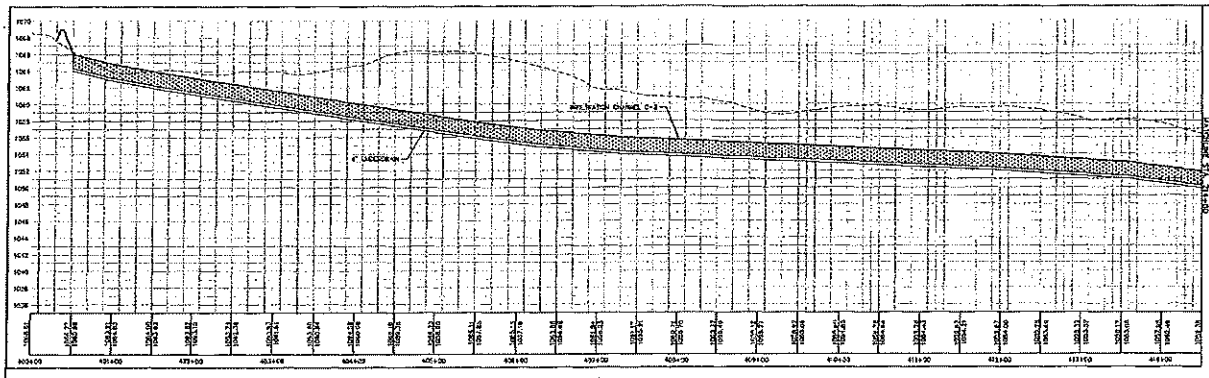
ITEM	EXISTING	PROPOSED
AIRPORT BUILDINGS		N/A
AIRPORT PAVEMENT		
CONTOURS		
STORMWATER JUNCTION BOX		
RUNWAY SAFETY AREA	RSA	RSA
ROCK CONSTRUCTION ENTRANCE	N/A	
RUNWAY LIGHTS		N/A
STORMWATER PIPE	N/A	
CONCRETE ENDWALL	N/A	
INFILTRATION CHANNEL	N/A	
LIMIT OF DISTURBANCE	N/A	LOD
SILT FENCE	N/A	SF
AIRPORT PROPERTY LINE		
SOIL TYPE BOUNDARY		
SOIL TYPE LABEL	HoB	HoB
DRAINAGE AREAS		
ROCK APRONS	N/A	
STORM STRUCTURE LABEL	N/A	
EARTH BERM	N/A	

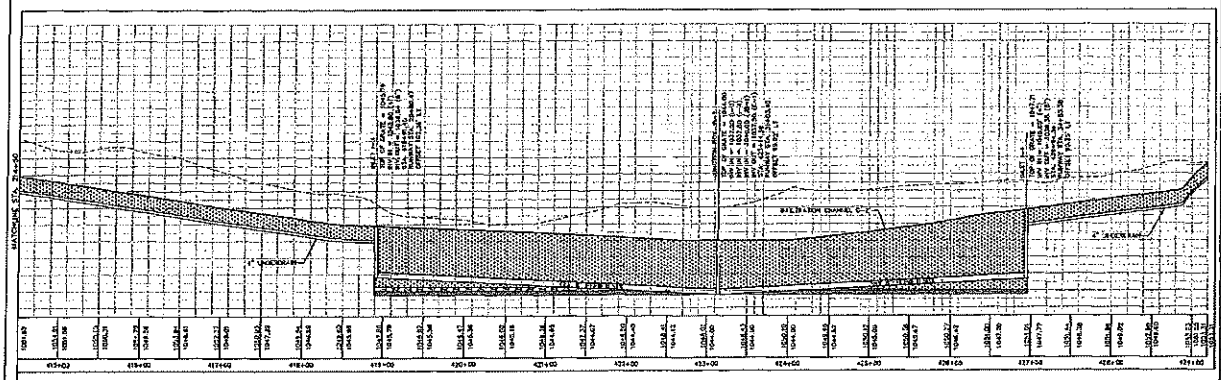


RUNWAY 7-25 PROFILE
HORIZONTAL SCALE 1" = 50'
VERTICAL SCALE 1" = 5'

PROFILE LEGEND

DESCRIPTION	SYMBOL
EXISTING GROUND	
PROPOSED GRADE	
EXISTING ELEVATION	474.78
PROPOSED ELEVATION	474.13





LEGEND

AASHTO #57 STONE

AASHTO #1 STONE

SAND FILTER

NOTE: SEE UNDERDRAINS DETAILS ON BASIN DETAIL ON SHEET AP-26.

SEE INSTALLATION DETAIL FOR STORM SEWER ON SHEETS AP-25, AP-26, AND AP-28.

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 2'

PROFILE LEGEND

DESCRIPTION	SYMBOL
EXISTING GROUND	
PROPOSED GRADE	
EXISTING ELEVATION	[illegible]
PROPOSED ELEVATION	[illegible]

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CONSULTANTS

Bellefonte Airport

PROJECT NAME:

Widen and Resurface Runway 7-25, Phase II (Construction)

OWNER:

Marion Gingrich
225 Snowhill Lane
Bellefonte, PA 16823

ENGINEER'S SEAL

MARK	DATE	DESCRIPTION
1	03/14/11	TWP. BOARD REVISIONS
2	04/18/11	ADDENDUM #1

ISSUE:	April 2011
PROJECT NO.	11-1003-0121
CAD DRAWING:	P 998 Trench Prof. 11-0121
DRAWN BY:	RAK
CHECKED BY:	DCC

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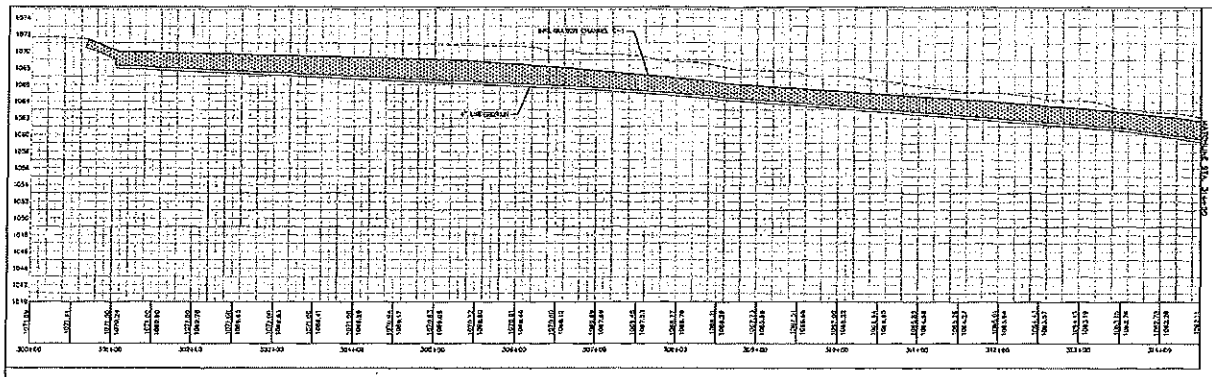
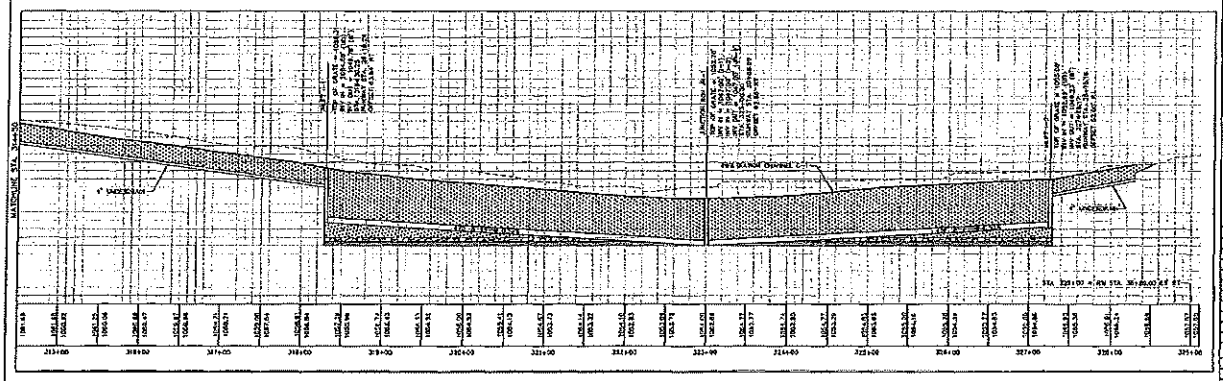
SHEET TITLE

NORTH CHANNEL AND BASIN PROFILES (BASE BID)

AP-13





LEGEND

AASHTO #57 STONE

AASHTO #8 STONE

SAND FILTER

NOTE: SEE UNDERGROUND DETENTION BASIN DETAIL ON SHEET AP-19.

SEE INSTALLATION DETAIL FOR KEYED DETAILS ON SHEETS AP-23, AP-26, AND AP-29.

HORIZONTAL SCALE 1" = 50'
VERTICAL SCALE 1" = 5'

PROFILE LEGEND

DESCRIPTION	SYMBOL
EXISTING GROUND	
PROPOSED GRADE	
DESIGNED ELEVATION	1025.44
PROPOSED ELEVATION	1048.38

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CONSULTANTS

Bellefonte Airport

PROJECT NAME

Widen and Resurface Runway 7-25, Phase II (Construction)

OWNER:

Marion Elliott
228 Snowden Lane
Bellefonte, PA 16823

ENGINEER'S SEAL

MARK	DATE	DESCRIPTION
1	03/31/11	PMT REVIEW REVISIONS
2	04/01/11	ADDENDUM #3

ISSUE	April 2011
PROJECT NO.	11-1300-01H
CADD/DWG FILE	P MES Trench Prof. 11-01H
DRAWN BY	RGW
CHECKED BY	CCC

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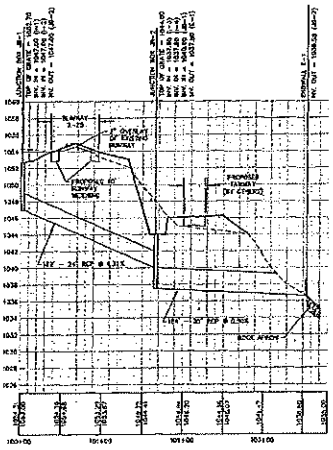
SHEET TITLE

SOUTH CHANNEL AND BASIN PROFILES (BASE BID)

AP-14



JUNCTION BOX JB-1 TO JUNCTION BOX JB-2 TO ENDWALL E-1

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 2'

PROFILE LEGEND

DESCRIPTION	SYMBOL
EXISTING GROUND	
PROPOSED GRADE	
EXISTING ELEVATION	1031.14
PROPOSED ELEVATION	1048.35

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CONSULTANTS

Bellefonte Airport

PROJECT NAME:

Widen and Resurface Runway 7-25, Phase II (Construction)

OWNER:

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Bellefonte, PA 16823

ENGINEER'S SEAL

MARK	DATE	DESCRIPTION

ISSUE: April 2011
PROJECT NO: 11-1000-0131
CAD SHEET NO.: P-AIR Finals.dwg, 11-0131
DRAWN BY: RAK
CHECKED BY: CCC

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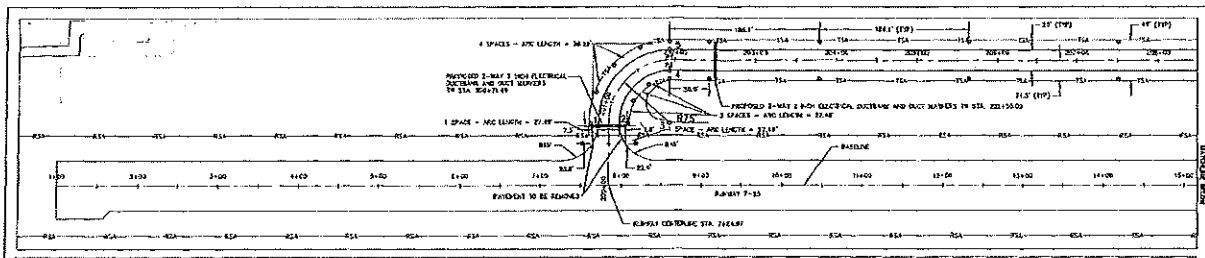
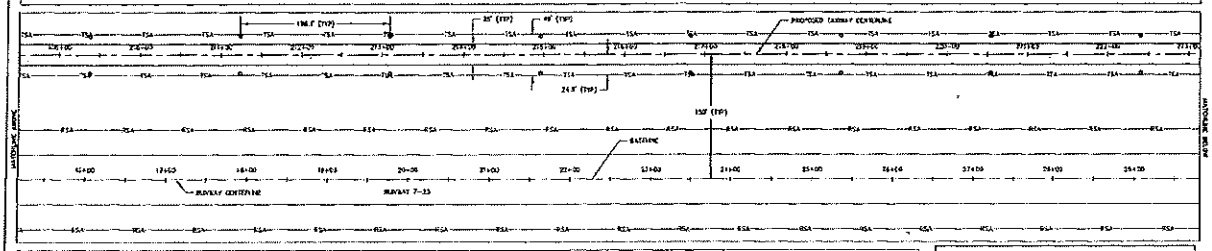
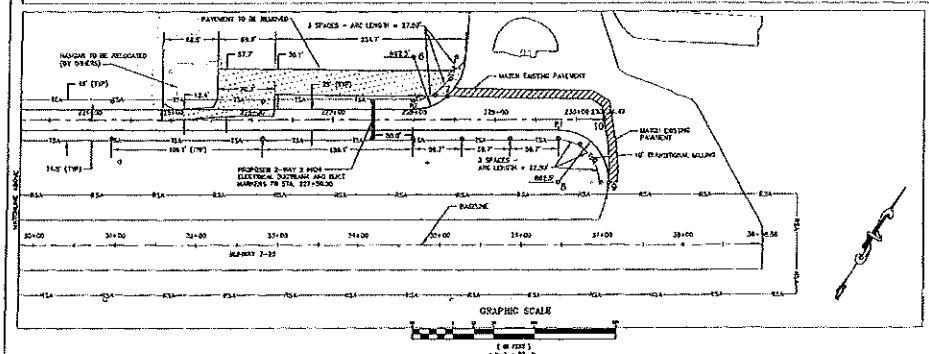
SHEET TITLE

PIPE PROFILES
(BASE BID)

AP-15







GEOMETRY POINT TABLE

POINT	STATION	OFFSET	REMARKS
1	7+72.37	71.26 LT	MATCH EXISTING EDGE OF PAVEMENT
2	7+57.27	71.51 LT	MATCH EXISTING EDGE OF PAVEMENT
3	6+56.87	78.03 LT	RADIUS ORIGIN 75'
4	6+56.87	137.00 RT	P1
5	6+56.87	152.50 LT	P1
6	3+65.71	235.93 LT	RADIUS ORIGIN 815'
7	33+03.26	178.21 LT	MATCH EXISTING EDGE OF PAVEMENT
8	34+44.34	75.00 RT	RADIUS ORIGIN 815'
9	33+03.42	53.30 RT	MATCH EXISTING EDGE OF PAVEMENT
10	33+03.25	120.00 RT	END OF NEW PAVEMENT

PLAN LEGEND

ITEM	EXISTING	PROPOSED
GEOMETRY POINT LABEL	N/A	ø 5
AIRPORT BUILDINGS		N/A
AIRPORT PAVEMENT		
PAVEMENT TO BE REMOVED	N/A	
PAVEMENT MARKING	N/A	
STORMWATER JUNCTION BOX	N	N/A
TYPE 'M' INLET	N	N/A
CONCRETE CURBWALL		N/A
TAXIWAY SAFETY AREA	N/A	TSA
RUNWAY SAFETY AREA	RSA	RSA
ELECTRICAL DUCTBANK AND DUCT MARKERS	N/A	
REFIRE REFLECTIVE MARKERS	N/A	

TAXIWAY REFLECTOR NOTES

R1. Blue taxiway reflectors not be installed at the locations shown. Exact locations will be field set in the field by the Contractor and approved by the Engineer prior to the placement of the new reflectors.

R2. All reflectors will be placed approximately ten (10) feet off of the pavement edge. All reflectors on straight sections shall be in alignment with each other.

R3. On straight sections, the taxiway reflectors on opposite sides of the taxiway shall be located on a line perpendicular to the taxiway centerline.

R4. If any reflectors need slightly repositioned due to field conditions, the repositioning must be approved by the Engineer.

ELECTRICAL NOTES

E1. Any existing electrical cable, ducts, signs, lights, handholes, and other electrical components shown are approximate locations only. The Contractor is responsible to locate and avoid existing cables and utilities. Refer to note C1 under General Notes on Sheet AP-03.

E2. Any lighting equipment or details damaged as a result of this project shall be repaired or replaced and then margins tested at the CONTRACTOR's expense and to the satisfaction of the ENGINEER.

E3. CONTRACTOR is required to exercise exactly any cables encountered in the field to make sure which circuit has been located.

CONCRETE DUCT NOTES

D1. A concrete duct marker shall be placed at each end of all new ducts.

D2. New concrete ducts will extend six (6) feet beyond the edge of pavement.

FOR INFORMATION ONLY

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CONSULTANTS:

Bellefonte Airport

PROJECT NAME:
Widen and Resurface Runway 7-25, Phase II (Construction)

OWNER:
Bellefonte Borough
236 Spring Street Lane
Bellefonte, PA 16823

ENGINEER'S SEAL

MARK	DATE	DESCRIPTION

DATE:	April 2011
PROJECT NO.	11-1803-001
CAD DWG FILE:	P:\Job 11\Geometry 11-0431.dwg
DRAWN BY:	BAE
CHECKED BY:	CCC

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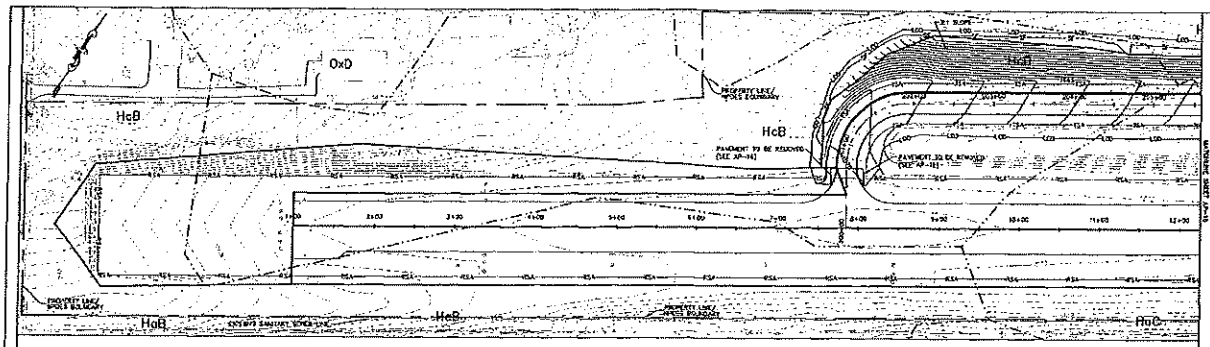
SHEET TITLE

TAXIWAY GEOMETRY PLAN
(ADD ALTERNATE BID #1)
(BY OTHERS)

AP-16



GRAPHIC SCALE

(IN FEET)
1 inch = 60 ft.

PLAN LEGEND

ITEM	EXISTING	PROPOSED	ITEM	EXISTING	PROPOSED
AIRPORT BUILDINGS		N/A	RUNWAY SAFETY AREA	RSA	RSA
AIRPORT PAVEMENT			LIMIT OF DISTURBANCE	N/A	LOD
CONTOURS	400	400	SILT FENCE	N/A	SF
STORMWATER JUNCTION BOX		N/A	AIRCO BOUNDARY/ AIRPORT PROPERTY LINE		
HOLD CONSTRUCTION DISTURBANCE	N/A		SOIL TYPE BOUNDARY		
RUNWAY LIGHT		N/A	SOIL TYPE LABEL	HaB	HaB
STORMWATER PIPE		N/A	DRAINAGE AREAS		
CONCRETE SIDEWALK		N/A	ADOC APRONS		N/A

NOTES:

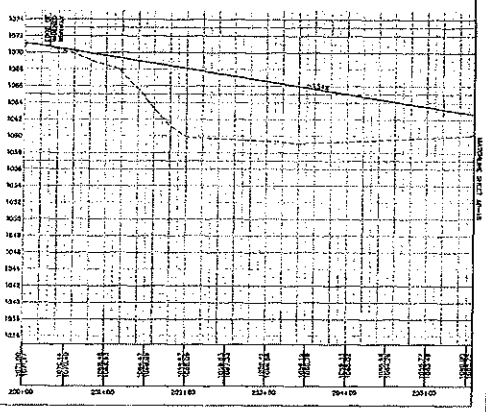
1. The excavation volume for this project are an estimated 5 bulkey to Buffer Rock 0-10 mm or Washed Sandy to Spring Creek (CWF).
2. The Contractor must use environmental dot diagrams to ensure that the fill material associated with this project qualifies as zone III. Class III is defined as: Uncontaminated non-water soluble, non-decomposable, inert, solid material that term includes soil, rock, stone, dredged materials, used asphalt, and brick, block, or concrete from construction or demolition activities that is separate from other waste and is recognizable as such. The term does not include materials placed in or on the waters of the commonwealth unless otherwise authorized. (The term "inert material" does not include used asphalt or asphalt that has been processed for re-use.) Environmental dot diagram is defined as: investigation handbook, including but not limited to, visual property inspection, structure data base searches, review of property maps, aerial photographs, interviews, information review, regional survey, environmental assessments or audits.
3. LOD Area = 9.81 Acres.
4. Property Area = 43.42 Acres.
5. All slopes 3:1 and greater must utilize Erosion Control Matrix Blanket.
6. See the Runway Geometry Plan for Station and Offset for Proposed Drainage Structures.

PROFILE LEGEND

DESCRIPTION	SYMBOL
EXISTING GROUND	
PROPOSED GRADE	
EXISTING ELEVATION	474.70
PROPOSED ELEVATION	476.15

EARTHWORK TABLE – ADD ALTERNATE BID #1

CUT	2,730 CY
FILL	15,725 CY
NET FILL	12,995 CY



TAXIWAY PROFILE
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'

FOR INFORMATION ONLY

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CONSULTANTS

Bellefonte Airport

PROJECT NAME:
Widen and Resurface Runway 7-25, Phase II (Construction)

OWNER:
Bellefonte Airport
235 Scenic Drive
Bellefonte, PA 16823

ENGINEER'S SEAL

NAME	DATE	DESCRIPTION

ISSUE: April 2011
PROJECT NO.: 11-1030-0111
CAD DWG FILE: P:\PM TW Grading 11-0131
DRAWN BY: RMK
CHECKED BY: CCC

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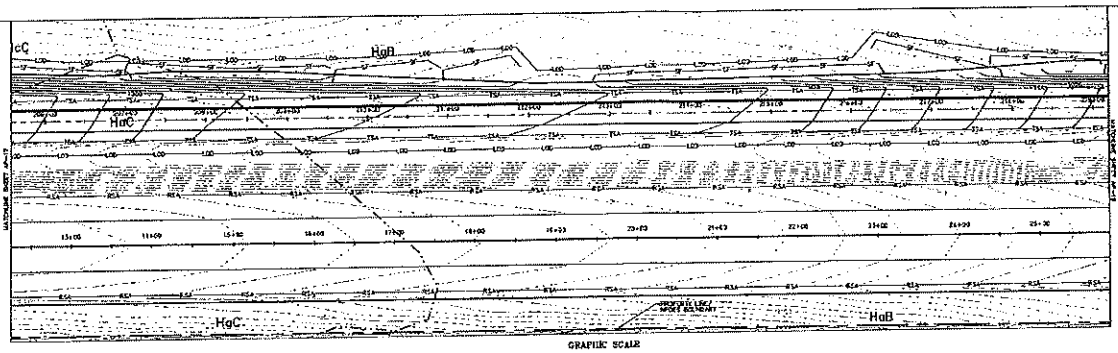
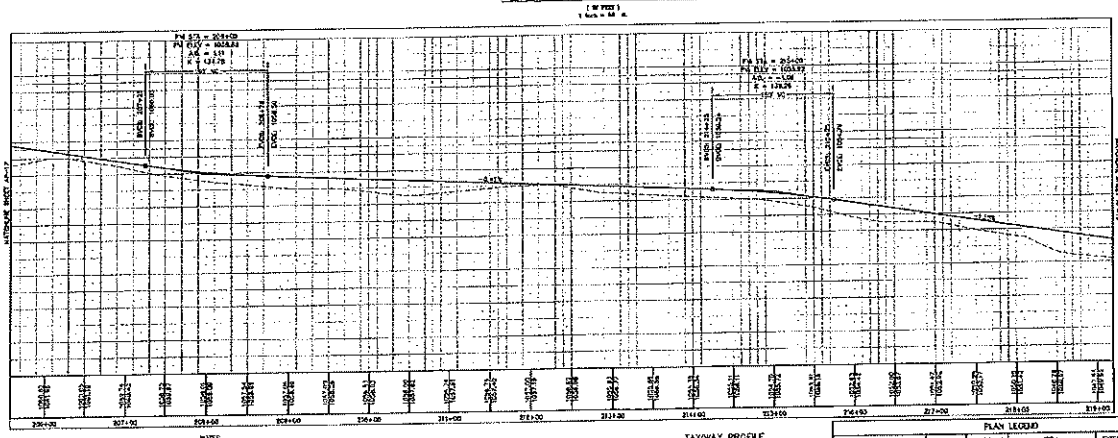
SHEET TITLE
TAXIWAY GRADING AND E&S CONTROL PLAN
SHEET 1 OF 3
(ADD ALTERNATE BID #1)
(BY OTHERS)

AP-17





PROFILE LEGEND

DESCRIPTION	SYMBOL
EXISTING GROUND	
PROPOSED GRADE	
EXISTING ELEVATION	674.78
PROPOSED ELEVATION	676.13

NOTES:

1. The drainage waters for this project are an Unnamed Tributary to Buffalo Run (WQ) and an Unnamed Tributary to Spring Creek (CWF).
2. The Contractor must use environmental due diligence to ensure that the 3C activities associated with this project comply as close to: Clean fill is defined as: Uncontaminated, non-water soluble, non-decomposable, inert, solid material. The definition includes that is composed of rock, stone, concrete, brick, block, or composite item construction or demolition activities that is clean from other waste and is recognizable as such. The term does not include materials placed in or on the waters of the commonwealth unless otherwise authorized. (The term "solid asphalt" does not include asphalt or asphalt that has been processed for reuse.) Environmental due diligence is defined as: investigative actions taken to ensure that has been processed for reuse.) Environmental due diligence is defined as: investigative actions taken to ensure that has been processed for reuse.) Environmental due diligence is defined as: investigative actions, including, but not limited to, visual property inspection, electronic data base searches, review of property records, or interviews of environmental professionals, Geographic surveys, analytical testing, environmental assessments or audits.
3. LOD Area = 3.16 Acres
4. Property Area = 45.42 Acres
5. All slopes 3:1 and greater must utilize Erosion Control Mats Blanket
6. See the Runway Centerline Plan for Station and Offsets for Proposed Drainage Structures

TAXIWAY PROFILE

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'

EARTHWORK TABLE – ADD ALTERNATE BID #1

CUT	2,793 CY
FILL	15,755 CY
NET FILL	-12,962 CY

FOR INFORMATION ONLY

PLAN LEGEND

ITEM	EXISTING	PROPOSED	ITEM	EXISTING	PROPOSED
AIRPORT BUILDINGS		N/A	RUNWAY SAFETY AREA		
AIRPORT PAVEMENT			LIMIT OF DISTURBANCE	N/A	LOD
CONTOURS		650	SILT FENCE	N/A	SF
STORMWATER JUNCTION BOX		N/A	AIRPORT BOUNDARY/ AIRPORT PROPERTY LINE		
ROCK CONSTRUCTION SEDIMENT	N/A		SOIL TYPE BOUNDARY		
RUNWAY LIGHT		N/A	SOIL TYPE LABEL	HaB	HaB
STORMWATER PIPE		N/A	DRAINAGE AREAS		
CONCRETE CHANNEL		N/A	ROCK APRONS		N/A

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CONSULTANTS

Bellefonte Airport

PROJECT NAME:
Widen and Resurface Runway 7-25, Phase II (Construction)

OWNER:
Marvin Kimball
725 Snowbird Lane
Bellefonte, PA 16823

ENGINEER'S SEAL

MARK	DATE	DESCRIPTION

ISSUE: April 2011
PROJECT NO: 11-1302-0131
CAD DWG FILE: P-108 TW Grading 11-0131
DRAWN BY: DMK
CHECKED BY: DSC

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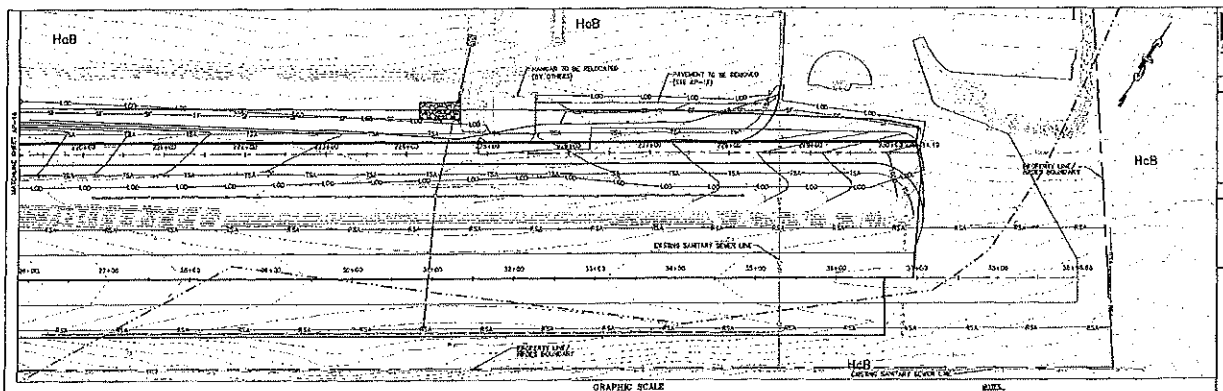
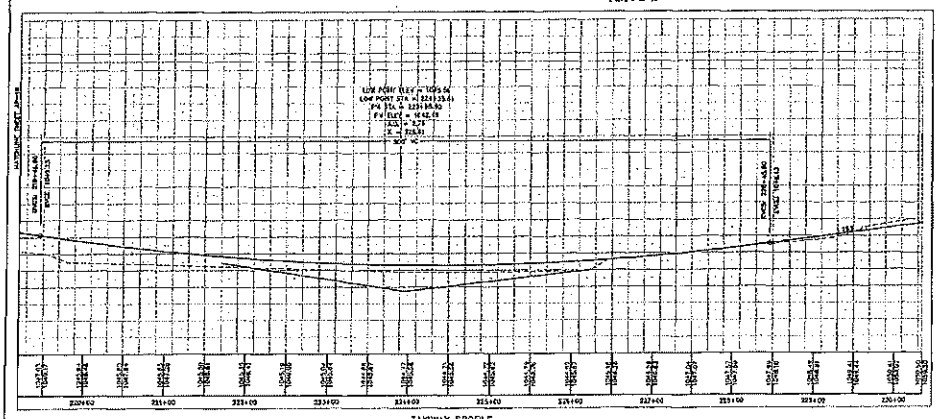
SHEET TITLE
TAXIWAY GRADING AND E&S CONTROL PLAN
SHEET 2 OF 3
(ADD ALTERNATE BID #1)
(BY OTHERS)

AP-18



GRAPHIC SCALE



TAXIWAY PROFILE
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'

PROFILE LEGEND

DESCRIPTION	SYMBOL
EXISTING GROUND	
PROPOSED GRADE	
DESIGN ELEVATION	974.78
PROPOSED ELEVATION	975.12

FOR INFORMATION ONLY

EARTHWORK TABLE – ADD ALTERNATE BID #1

CUT	2,750 CY
FILL	15,750 CY
NET FILL	13,000 CY

NOTES:

1. The existing values for this project are as Unnamed Tributary to Buffalo Run (HQ) and as Unnamed Tributary to Spring Creek (CWF).
2. The Contractor must use environmental due diligence to ensure that the [illegible] associated with this project modifies at their [illegible]. Their M.O. method is [illegible] non-[illegible] [illegible] and materials. This term includes [illegible], rock, stone, crushed [illegible], [illegible] asphalt and brick, blocks of concrete from construction or demolition activities, that is separate from other waste and is recognized as such. The term does not include residuals placed in or on the waters of the commonwealth during otherwise authorized. (The term brick rubble does not include asphalt or asphalt that has been processed for re-use.) Environmental due diligence is defined as investigative techniques, including, but not limited to, visual property inspections, windows data base searches, review of property maps, environmental questionnaires, transaction screens, analytical testing, or environmental assessment or audits.
3. LOD Area = 7.15 Acres.
4. Property Area = 43.43 Acres.
5. All slopes 3:1 or greater must utilize Erosion Control Mesh Blanket.
6. See the Runway Geometry Plan for Station and Offsets for Proposed Drainage Structures.

PLAN LEGEND

ITEM	EXISTING	PROPOSED
RUNWAY SAFETY AREA	—RSA—	—RSA—
LIMIT OF DISTURBANCE	N/A	—LOD—
SILT FENCE	N/A	—SF—
NEXUS BOUNDARY/ AIRPORT PROPERTY LINE		
SOIL TYPE BOUNDARY		
SOIL TYPE LABEL	HoB	HoB
DRAINAGE AREAS		
ROCK APRONS		N/A
AIRPORT BUILDINGS		N/A
AIRPORT PAVEMENT		
CONTOURS		—400—
STORMWATER INLET/ MH		N/A
ROCK CONSTRUCTION ENTRANCE	N/A	
RUNWAY LIGHT		N/A
STORMWATER PIPE		N/A
DIMENSIONS CHANNEL		N/A

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CONSULTANTS

Bellefonte Airport

PROJECT NAME:
Widen and Resurface Runway 7-25, Phase II (Construction)

OWNER:
Marvin Kimball
728 Snow Shoe Lane
Bellefonte, PA 16823

ENGINEER'S SEAL

MARK	DATE	DESCRIPTION

ISSUE: April 2015
PROJECT NO: 11-1000-0133
CAD DWG FILE: P-106 TW Grading 11-0133
DRAWN BY: RAK
CHECKED BY: CCC

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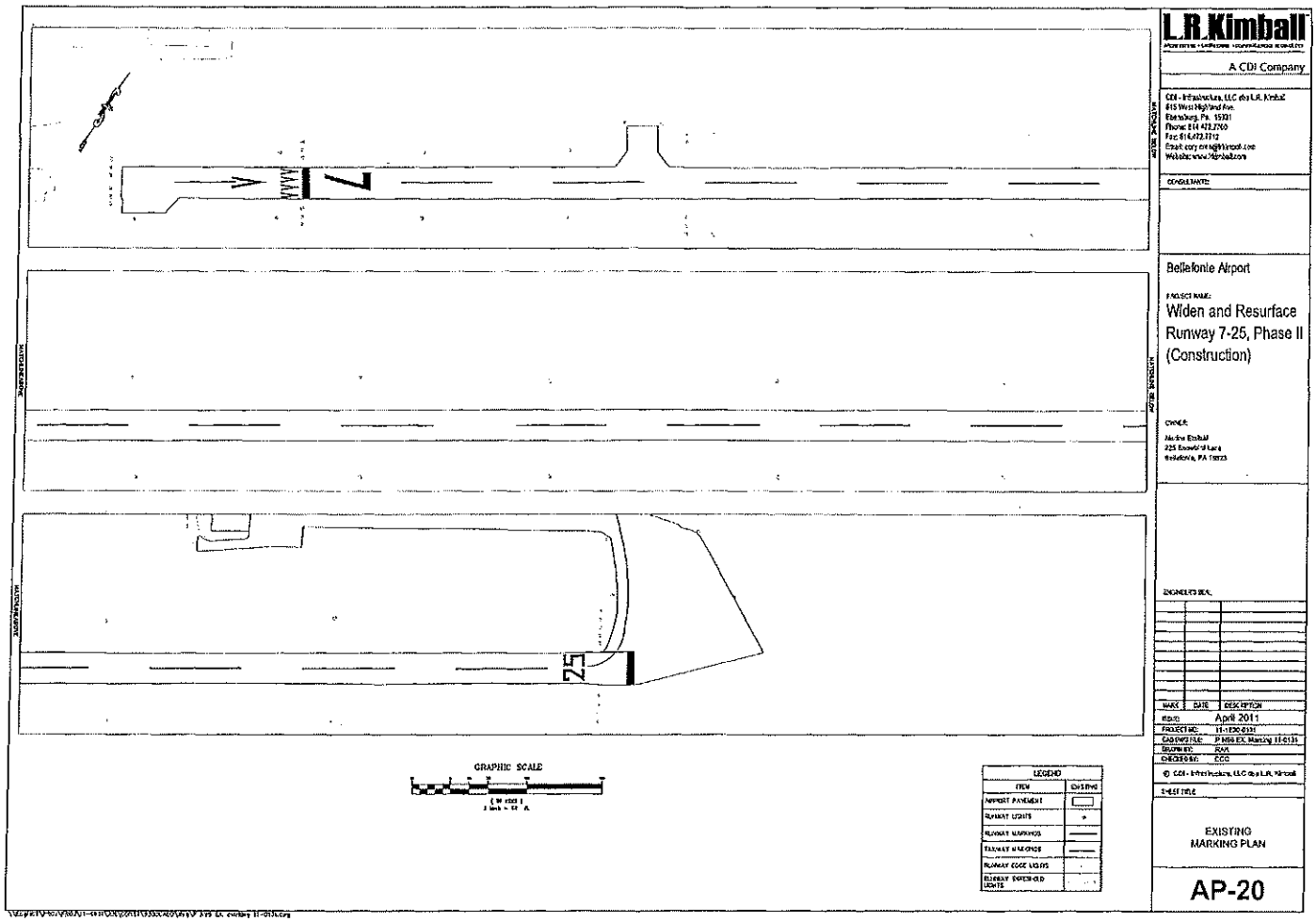
SHEET TITLE
TAXIWAY GRADING AND E&S CONTROL PLAN
SHEET 3 OF 3
(ADD ALTERNATE BID #1)
(BY OTHERS)

AP-19



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Email: cory.ones@lrkimball.com
Website: www.lrkimball.com

CONSULTANTS:

Bellefonte Airport

PROJECT NAME:

Widen and Resurface Runway 7-25, Phase II (Construction)

OWNER:

Nadine Kimball
225 Snowbird Lane
Bellefonte, PA 16823

ENGINEER'S SEAL:

MARK	DATE	DESCRIPTION

ISSUED: April 2011
PROJECT NO: 11-1330-0131
CAD FILE NAME: P MSB EX Marking 11-0131
DRAWN BY: RAA
CHECKED BY: CCC

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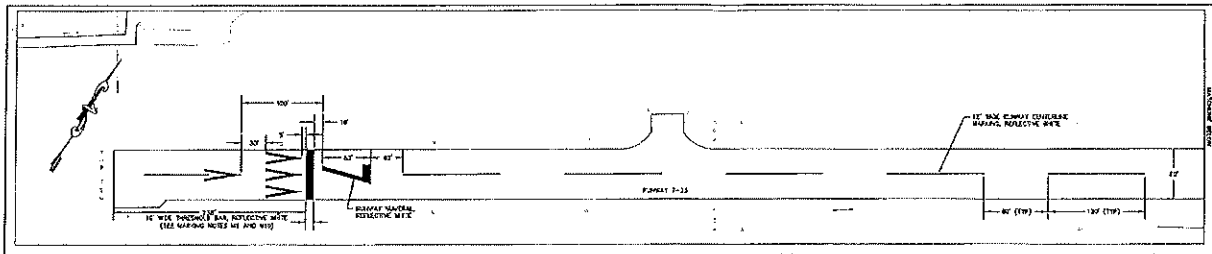
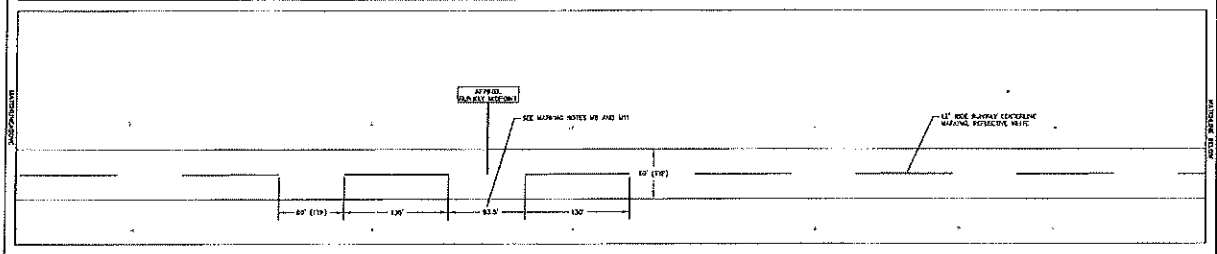
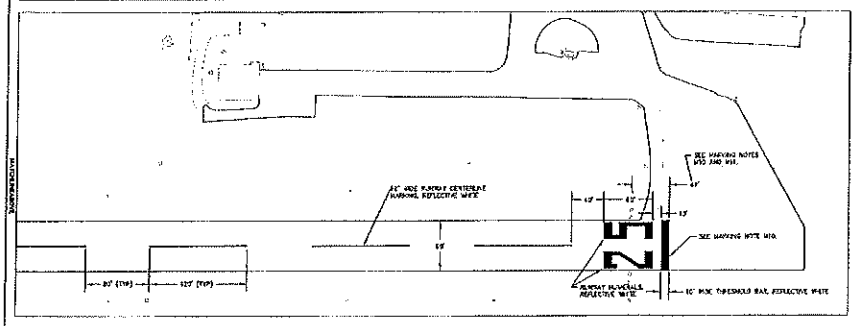
SHEET TITLE

EXISTING MARKING PLAN

AP-20







LEGEND		
ITEM	EXISTING	PROPOSED
AIRPORT PAVEMENT		N/A
RUNWAY MARKINGS	N/A	
TAXIWAY MARKINGS		N/A
RUNWAY EDGE LIGHTS		N/A
RUNWAY THRESHOLD LIGHTS		N/A

GRAPHIC SCALE

(IN FEET)
1 inch = 50 ft.

MARKING NOTES:

M1. The Contractor shall lay out all markings to be removed and/or to be removed and have them approved by the Engineer.

M2. Apply glass beads to all white and yellow pavement markings. See Item No. P-620 in the detailed specifications. Do not apply glass beads to any black outline markings.

M3. Do not paint over existing markings except for yellow on yellow paint, white on white paint, or black on black paint.

M4. Any existing markings that need removed will not be painted over with black paint, but will be removed by a method acceptable to the Engineer. Grinding is not an acceptable method.

M5. All other runway and taxiway markings removed by construction activities shall be remarked at the CONTRACTOR's expense.

M6. See Sheet AP-06 for the limits of Runway Construction Safety Areas. When working in a Runway Safety Area the runway must be closed. CONTRACTOR must give ENGINEER a minimum of 72 hours notice in order to issue a NOTAM prior to closing any runway. In lieu of closing any runway, temporary markings may be laid out and painted by a CONTRACTOR or SUBCONTRACTOR who has prior airport marking experience. This will be at the discretion of the ENGINEER.

M7. Marking details on Sheet AP-23 are typical details to be used as a guideline.

M8. Adjustment to the length of the stripes and gaps, where necessary to accommodate the curve of lenght, the shall meet the runway edgeline.

M9. The Contractor shall verify that the threshold bars are co-located with the existing inbound threshold lights at the Runway 7 end. The center of the threshold lights should be in line with the back edge of the threshold bar. Any discrepancies shall be reported to the Engineer for direction.

M10. The Contractor shall mark the proposed threshold bars based on end of their existing locations. Therefore, the Contractor will need to locate the existing threshold bars prior to removing them.

M11. The distance shown for the location of the Runway 25 threshold bar relative to the center of the outbound threshold lights and for the location of the end of the runway centerline stripes near the center of the runway are approximate only. As stated in Note M10, the proposed threshold bars shall be co-located at their existing locations. Therefore, the end of the runway centerline stripes near the center of the runway will need adjusted by the Contractor per Note M8. Prior to painting, the Contractor shall verify the distance of the stripe with the Engineer.

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CONSULTANTS:

Bellefonte Airport

PROJECT TITLE:
Widen and Resurface Runway 7-25, Phase II (Construction)

OWNER:
Marion Ekstedt
233 Greenfield Lane
Bellefonte, PA 16823

ENGINEER'S SEAL

MARK	DATE	DESCRIPTION

ISSUE: April 2011
PROJECT NO. 11-169-011
DRAWING: P-620 Marking 11-4101
DRAWN BY: RAK
CHECKED BY: CDC

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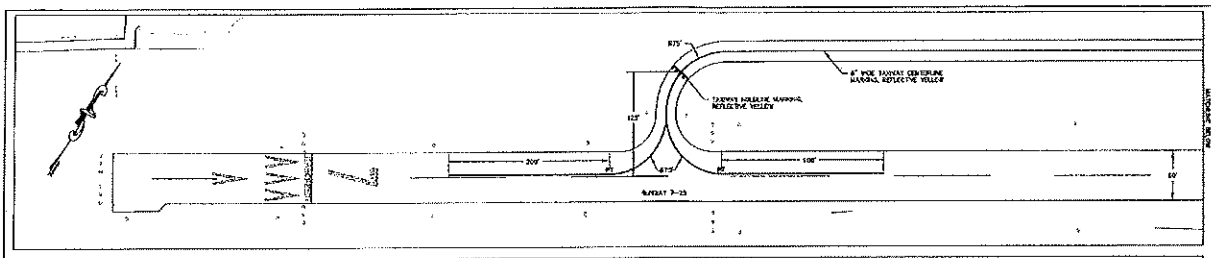
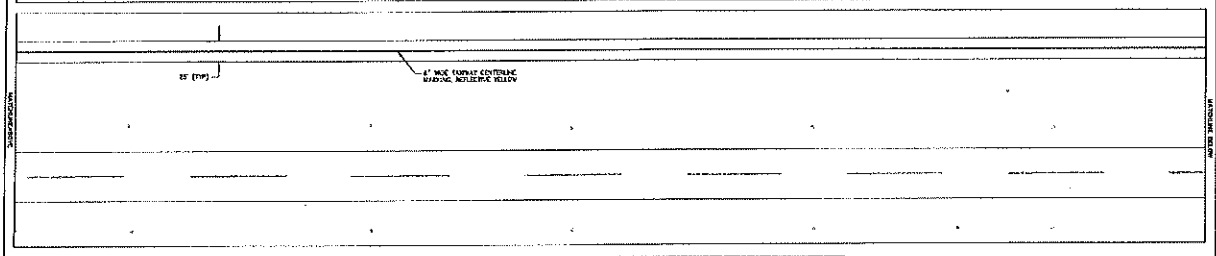
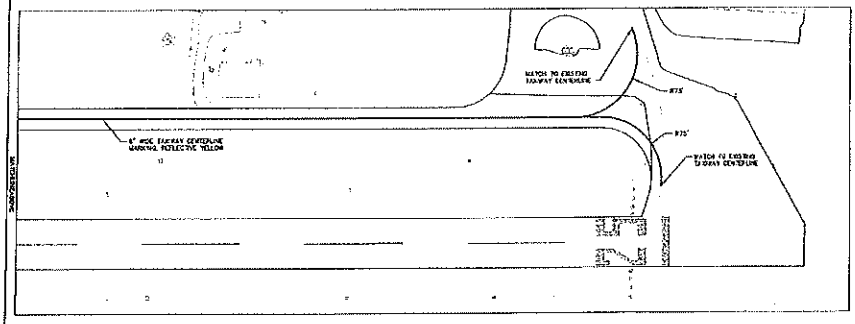
SHEET TITLE
PROPOSED RUNWAY MARKING PLAN (BASE BID)

AP-21







MARKING NOTES:

M1. The Contractor shall lay out all markings to be painted and/or to be removed and have them approved by the Engineer.

M2. Apply glass beads to all white and yellow pavement markings. See Item No. P-620 in the Related Specifications. Do not apply glass beads to any black edging markings.

M3. Do not paint over existing markings except on white on white paint, or black on black paint.

M4. Any painting markings that need removal will not be painted over with black paint, but will be removed by a method acceptable to the Engineer. Grinding is not an acceptable method.

M5. All other runway and taxiway markings affected by reconstruction activities shall be removed at the CONTRACTOR's expense.

M6. See Sheet AP-01 for the Series of Runway Construction Safety Areas. When working on a Runway Safety Area the runway must be closed. CONTRACTOR must give ENGINEER a minimum of 72 hours notice to take a NOTAM prior to closing any runway. In lieu of closing any runway, pavement markings may be laid out and painted by a CONTRACTOR or SUBCONTRACTOR who has prior airport marking experience. This will be at the discretion of the ENGINEER.

M7. Marking details on Sheet AP-23 are typical details to be used as a guideline.

LEGEND		
ITEM	EXISTING	PROPOSED
AIRPORT PROPERTY		N/A
RUNWAY MARKINGS		N/A
TAXIWAY MARKINGS		
RUNWAY EDGE LIGHTS		N/A
RUNWAY THRESHOLD LIGHTS		N/A

GRAPHIC SCALE

FOR INFORMATION ONLY

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CONSULTANTS

Bellefonte Airport

PROJECT NAME
Widen and Resurface Runway 7-25, Phase II (Construction)

OWNER
Bellefonte Borough
236 Spring Street
Bellefonte, PA 16823

ENGINEER'S SEAL

ISSUE	DATE	DESCRIPTION

ISSUE	April 2011
PROJECT NO.	11-1900-0131
CAD/SHEET FILE	P-620 TW Marking 11-0131
DRAWN BY	RAK
CHECKED BY	CCC

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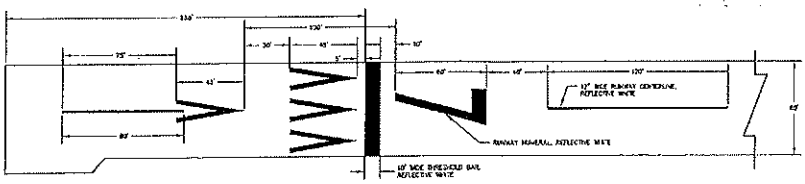
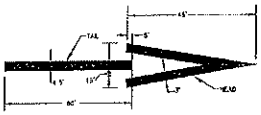
SHEET TITLE
PROPOSED TAXIWAY MARKING PLAN (ADD ALTERNATE BID #1) (BY OTHERS)

AP-22

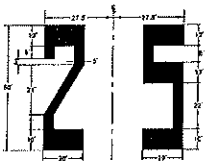


RUNWAY 7 DISPLACED THRESHOLD MARKING DETAIL
NOT TO SCALE

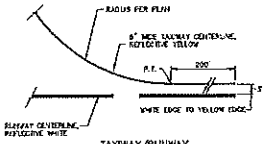


ARROW DETAIL (WHITE)
NOT TO SCALE

RUNWAY CENTERLINE MARKING (WHITE)
NOT TO SCALE

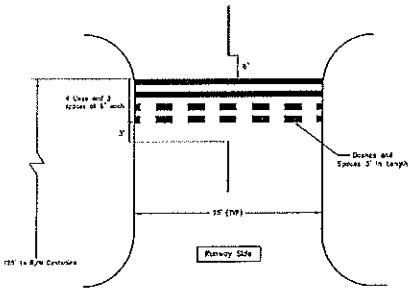


RUNWAY NUMERAL DESIGNATION (WHITE)
NOT TO SCALE



TAXIWAY/RUNWAY INTERSECTION MARKING
NOT TO SCALE

TAXIWAY CENTERLINE MARKING (YELLOW) (BY OTHERS)
NOT TO SCALE



TAXIWAY HOLD LINE MARKING (YELLOW) (BY OTHERS)
NOT TO SCALE

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CONSULTANTS

Bellefonte Airport

PROJECT NAME
Widen and Resurface Runway 7-25, Phase II (Construction)

OWNER
Martha Ehrhart
215 S. Central Ave
Bellefonte, PA 16823

ENGINEER'S SEAL

MARK	DATE	DESCRIPTION

ISSUE: April 2011
PROJECT NO: 11-1800-0031
CADD FILE: P:\CAD Drawn 11-0131
DRAWN BY: RWK
CHECKED BY: DCG

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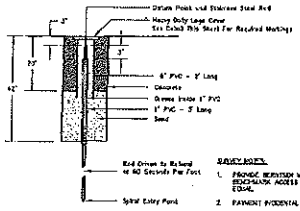
SHEET TITLE
MARKING DETAILS

AP-23

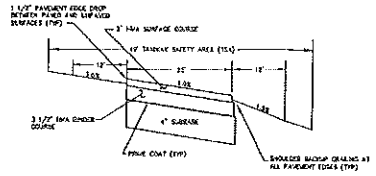


SURVEY NOTES:

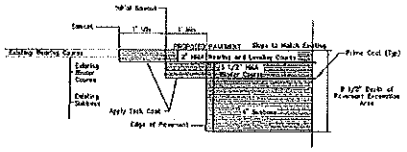
1. PROVIDE BERTRAM MODEL BM2-6 BENCHMARK MONUMENTS COVERS OR APPROVED EQUAL.
2. PAVEMENT INCIDENTAL TO ITEM 5-100.
3. THE CONTRACTOR SHALL PROVIDE ELEVATIONS, STATIONS, AND STATE PLANE COORDINATES FOR EACH MARKER. THE INFORMATION SHALL BE FURNISHED BY A PROFESSIONAL LAND SURVEYOR LICENSED BY THE COMMONWEALTH OF PENNSYLVANIA.

SURVEY MARKER
NOT TO SCALE

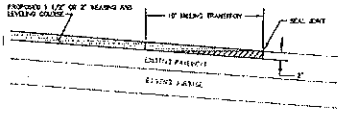
SURVEY COVER MARKING DETAIL
NOT TO SCALE



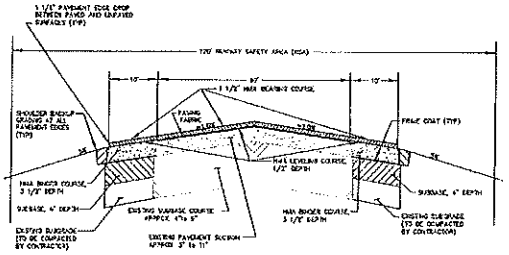
TYPICAL TAXIWAY SECTION (ADD ALTERNATE BID #1) (BY OTHERS)
NOT TO SCALE



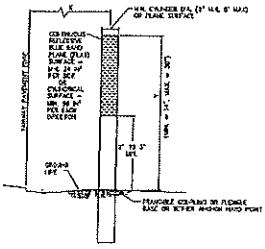
PAVEMENT SECTION AND PAVEMENT ABUTMENT DETAIL
NOT TO SCALE



PAVING NOTCH DETAIL
NOT TO SCALE



TYPICAL RUNWAY SECTION
(BASE BID AND ADD ALTERNATE BID #2)
NOT TO SCALE



TAXIWAY RETROREFLECTIVE MARKER IN TURF (BY OTHERS)
NOT TO SCALE

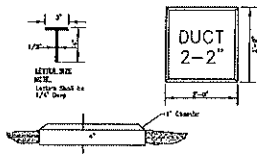
DISTANCE FROM TAXIWAY PAVEMENT EDGE (FEET)	TAXIWAY LIGHT 6" FIXTURE (INCHES)
5	14
6	16
7	18
8	20
9	22
10	24-30*

* TYPICALLY, THE FIXTURE IS PLACED 10 FEET FROM THE TAXIWAY EDGE OF PAVEMENT AT A HEIGHT OF 24 TO 30 INCHES.

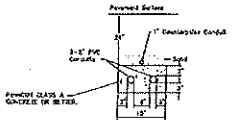
** THE FIXTURE SHOULD BE PLACED AT THE SAME DISTANCE FROM THE TAXIWAY EDGE OF PAVEMENT AND AT THE SAME HEIGHT AS THE EXISTING TAXIWAY EDGE LIGHTS

*** MUST COMPLY WITH FAA ADVISORY CIRCULAR (AC) NUMBER 150/5345-39, LATEST VERSION.

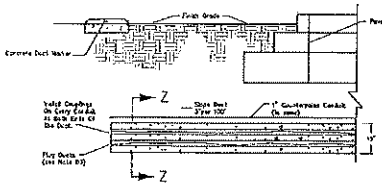
**** THE MARKER SHALL BE BI-DIRECTIONAL WITH A FLAT BAND.



TYPICAL CONCRETE MARKER DETAILS (BY OTHERS)
NOT TO SCALE



SECTION Z-Z, 2-WAY-2" ELECTRICAL DUCT (BY OTHERS)
NOT TO SCALE



TYPICAL ELECTRICAL DUCT DETAIL (BY OTHERS)
NOT TO SCALE

DUCT NOTES:

01. All ducts shall be provided with a strong line for pulling the permanent wiring.
02. High and low voltage cables will not be permitted in the same conduit.
03. All elbow ducts shall be stagged with concrete encase stops.
04. Concrete encase shall be placed on the concrete envelope, not under the duct.
05. Exact size and number of ducts in each bank will be marked the typical drawing will be shown here.
06. Use reinforcement bars (# No. 4 Bars, 12" long) in at construction joints, if necessary.
07. Extend ducts 5 feet beyond the edge of pavement.

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Website: www.lrkimball.com

CONSULTANTS

Bellefonte Airport

PROJECT NAME:
Widen and Resurface Runway 7-25, Phase II (Construction)

OWNER:
Marion Bryant
215 Snow Hill Lane
Bellefonte, PA 16823

ENGINEER'S SEAL

MARK	DATE	DESCRIPTION

ISSUE:	April 2011
PROJECT NO.	11-1800-0131
CAD DIRECTORY	P:\800 Docs\11-0131
DRAWN BY:	RAE
CHECKED BY:	CDC

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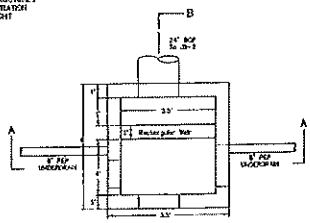
SHEET TITLE

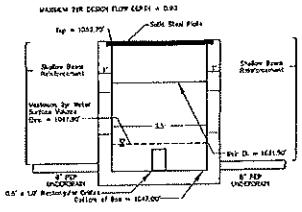
PAVING DETAILS

AP-24

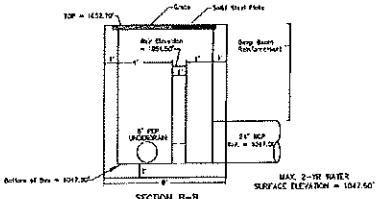
NOTE:
ALL PIPES CONNECTING TO STRUCTURES THAT ARE PART OF THE INFILTRATION SYSTEM MUST HAVE WATER TIGHT CONNECTIONS.



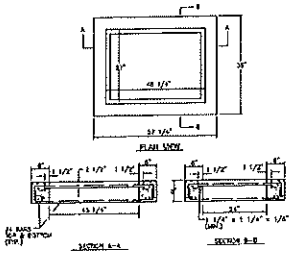
JUNCTION BOX JB-1
NOT TO SCALE



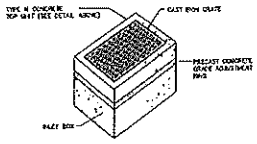
SECTION A-A
JUNCTION BOX JB-1
NOT TO SCALE



SECTION B-B
JUNCTION BOX JB-1
NOT TO SCALE



TYPE M INLET
NOT TO SCALE



TYPE M INLET BOX
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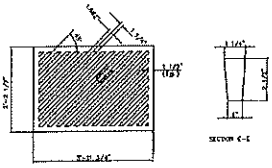

CAST IRON GRATE
NOT TO SCALE

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CONSULTANTS:

Bellefonte Airport

PROJECT NAME:
Widen and Resurface Runway 7-25, Phase II (Construction)

OWNER:
Marks Ehdist
200 Bonnie Blue Lane
Bellefonte, PA 16823

ENGINEERS SEAL

1	03/30/11	PWP REVIEW REVISIONS

MARK	DATE	DESCRIPTION

DATE:	April 2011
PROJECT NO.	11-1005-0135
CAD FILE/FILE	P-MAN Details 11-0135
DRAWN BY:	KKK
CHECKED BY:	CCC

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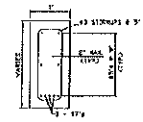
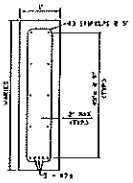
SHEET TITLE

STORMWATER DETAILS
SHEET 1 OF 2
(BASE BID)

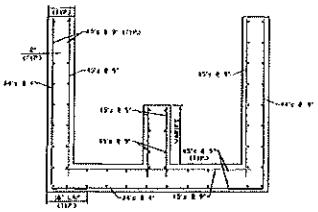
AP-25



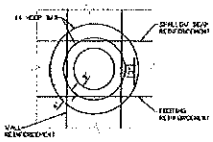
SHALLOW BEAM REINFORCEMENT
NOT TO SCALE



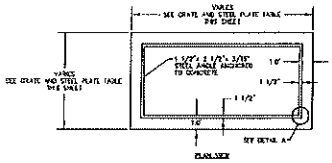
DEEP BEAM REINFORCEMENT
NOT TO SCALE



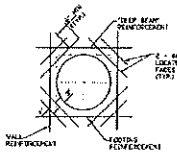
TYPICAL WALL, WEIR, and SLAB REINFORCEMENT
NOT TO SCALE



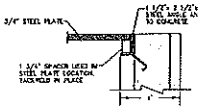
REINFORCEMENT DETAILS AT SHALLOW BEAM VERTICAL OPENINGS
NOT TO SCALE



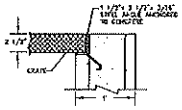
JUNCTION BOX EMBEDDED ANGLE DETAIL
NOT TO SCALE



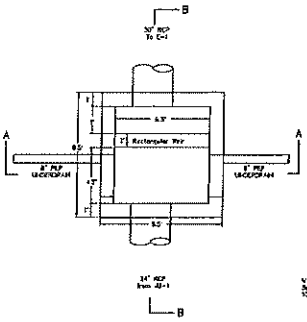
REINFORCEMENT DETAILS AT DEEP BEAM VERTICAL OPENINGS
NOT TO SCALE



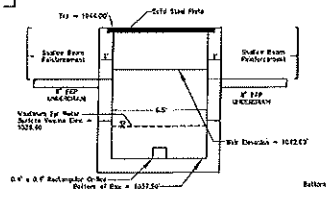
A DETAIL A (STEEL PLATE)
NOT TO SCALE



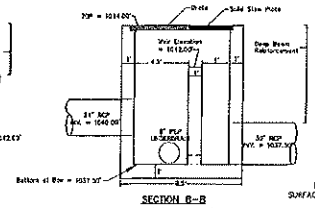
A DETAIL A (GRATE)
NOT TO SCALE



NORTH TRENCH
JUNCTION BOX JB-2
NOT TO SCALE



SECTION A-A
JUNCTION BOX JB-2
NOT TO SCALE



SECTION B-B
JUNCTION BOX JB-2
NOT TO SCALE

MAX. 2-YR WATER SURFACE ELEVATION = 1038.40'
FREEBOARD = 4.60'

JUNCTION BOX GRATE AND STEEL PLATE TABLE

GRATES			
JUNCTION BOX NUMBER	THICKNESS (INCHES)	WIDTH (INCHES)	LENGTH (INCHES)
1	2 1/2	46	33.5
2	2 1/2	41	34.5
STEEL PLATES			
JUNCTION BOX NUMBER	THICKNESS (INCHES)	WIDTH (INCHES)	LENGTH (INCHES)
1	3/4	45	83.5
2	3/4	81	46.5

⚠ NOTE:
ALL PIPES CONNECTING TO STRUCTURES THAT ARE PART OF THE BOR/TRENCH SYSTEM MUST HAVE WATER TIGHT CONNECTIONS.

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Website: www.lrkimball.com

CONSULTANTS:

Bellefonte Airport

PROJECT NAME:
Widen and Resurface Runway 7-25, Phase II (Construction)

OWNER:
Centre County
2565 Brooks Hill Drive
Bellefonte, PA 16823

ENGINEER'S SEAL:

⚠	03/08/11	PDP REVIEW REVISIONS

MARK	DATE	DESCRIPTION

ISSUE: April 2011
PROJECT NO. 11-1800-0131
CAD DRAWING: P-106 Details 11-0131
DRAWN BY: RAK
CHECKED BY: CCC

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SHEET TITLE:
STORMWATER DETAILS
SHEET 2 OF 2
(BASE BID)

AP-26

Number of Erosion Control Inspections

The contractor shall make inspections of the measures as some any sediment pollution control measures as required by Pennsylvania law and as necessary and be responsible. Repair and maintenance has priority of sediment, storm water, and channels should be kept properly and in good condition. All sediment removed shall be disposed of properly and in a manner approved by the Engineer. All sediment removed shall be stored in a manner approved by the Engineer. All sediment removed shall be disposed of properly and in a manner approved by the Engineer.

Dewatering Operations

Dewatering operations shall be conducted in such a manner that no silt or other pollutants will be discharged into the Engineer prior to the Erosion Control Plan Drawing and be approved by the Contractor.

Within the duration of a storm event, only minimal dewatering operations shall be scheduled as prior to the greatest storm possible, only a minimum of a single or assumed storm shall not be scheduled and subject to work.

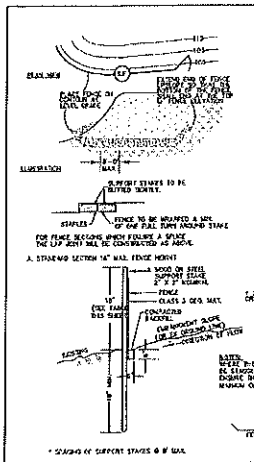
Restoration work shall be done as the project progresses and not left until the end of the project. No area shall be left unprotected for more than 21 days.

All areas on which final grading is completed after October 15th must be stabilized with permanent mulch and spring when after the seeding can be undertaken.

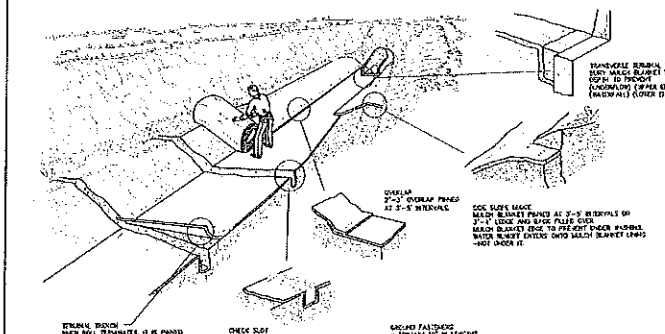
After permanent site stabilization has been achieved, temporary erosion and sedimentation control must be removed. Newly disturbed drainage areas of the project must be stabilized immediately.

This project is the general contractor and may be modified to suit your needs. If you have any questions please contact the Engineer.

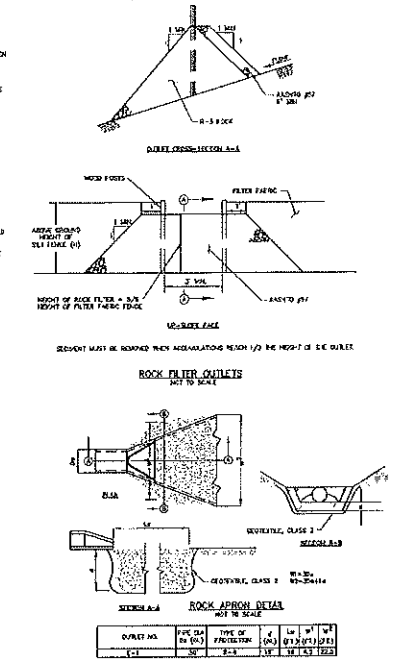
The Contractor will be responsible for the installation of Erosion and Sediment Pollution Control Plans for any areas to be disturbed, which are not shown on the plan including, but not limited to, temporary grass and temporary construction roads. Prior to start of work the Contractor shall submit to the Engineer a Construction Sequence and Erosion Control Plan which shall be approved in writing by the Centre County Conservation District and approved prior to any construction activities



STANDARD FILTER FABRIC FENCE (18" HIGH) INSTALLATION DETAIL
NOT TO SCALE



EROSION CONTROL MAT, EROSION CONTROL MULCH BLANKET AND HIGH VELOCITY EROSION CONTROL MULCH BLANKET DETAIL
NOT TO SCALE

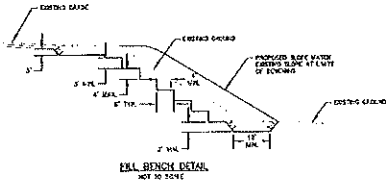


ROCK FILTER OUTLETS
NOT TO SCALE

ROCK APRON DETAIL
NOT TO SCALE

OUTLET NO.	PIPE DIA IN (D)	TYPE OF PROTECTION	d (ft)	Lo (ft)	B' (ft)	W' (ft)
E-1	30	R-5	1.5'	18	4.5	22.5

RIPRAP APRON DETAIL
NOT TO SCALE



FILL BENCH DETAIL
NOT TO SCALE

L.R.Kimball
A CDI Company

CDI - Infrastructure, LLC d/b/a L.R. Kimball
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CONSULTANTS

Bellefonte Airport

PROJECT NAME
Widen and Resurface Runway 7-25, Phase II (Construction)

OWNER:
Marlin Elwood
225 Smithford Lane
Bellefonte, PA 16823

ENGINEER'S SEAL

MARK	DATE	DESCRIPTION

ISSUE: April 2011
PROJECT NO: 11-1300-0101
CAD DWG FILE: P 7-25 Details 11-0101
DRAWN BY: RAK
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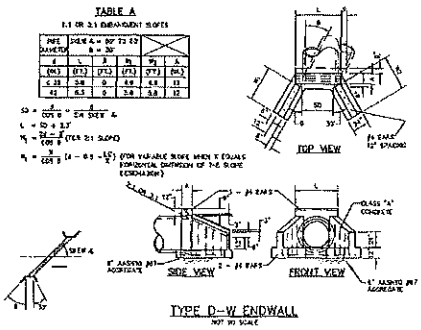
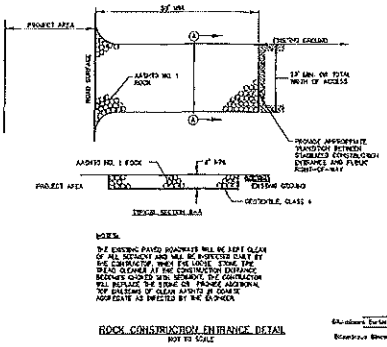
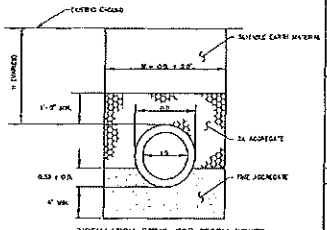
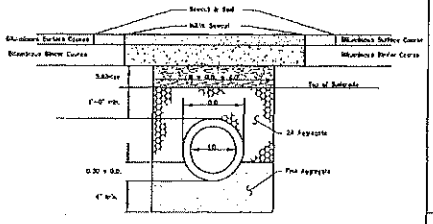
SHEET TITLE
E&S DETAILS
SHEET 2 OF 3

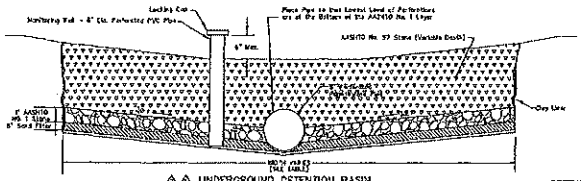
AP-28





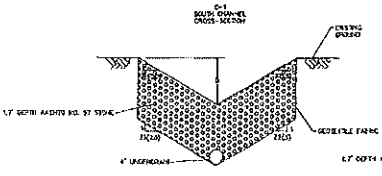


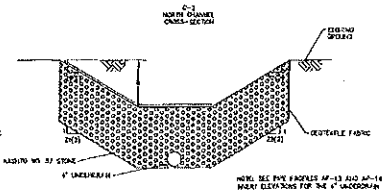




DETENTION BASIN TABLE

	WIDTH	DEPTH, D
NORTH DETENTION BASIN	10'	6.5'
SOUTH DETENTION BASIN	8'	6'





CHANNEL NO.	CHANNEL SLOPE (%)	BOTTOM WIDTH B (FT)	DEPTH D (FT)	X1 (FT)	X2 (FT)
C-1(North)	1.00	4	0.3	30	0
C-2(South)	1.33	8	2	5	5

NOTE:
1. THIS IS A DETAIL WITH AVERAGE WIDTH, DEPTH AND ASSOCIATED DIMENSIONS. CHANNELS ARE TO BE CONSTRUCTED TO THE SPECIFIC GRADES SHOWN ON THE GRADING PLAN.

INFILTRATION CHANNELS
NOT TO SCALE

CONSTRUCTION REQUIREMENTS

1. DUE TO THE NATURE OF CONSTRUCTION SITES, INFILTRATION MEASURES SHOULD BE INSTALLED TOWARD THE END OF THE CONSTRUCTION PERIOD, IF POSSIBLE. SINCE THE SITE IS STABILIZED AND SEDIMENT STORAGE IS NO LONGER REQUIRED, THE SPACE AREA CAN BE EXCAVATED TO ITS FINAL GRADE.

2. THE EXISTING SUBGRADE UNDER THE SWALE AREAS SHOULD NOT BE COMPACTED OR SUBJECT TO EXCESSIVE CONSTRUCTION EQUIPMENT.

L.R.Kimball
A CDI Company

CDI - Infrastructure, LLC dba L.R. Kimball
615 West Highland Ave
Bloomsburg, Pa. 17801
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Email: cary.rose@lrkimball.com
Website: www.lrkimball.com

CONSULTANTS

Bellefonte Airport

PROJECT NAME:
Widen and Resurface Runway 7-25, Phase II (Construction)

OWNER:
Nittany Airport
233 Smithfield Drive
Bellefonte, PA 16823

ENGINEER'S SEAL

MARK	DATE	DESCRIPTION
1	03/18/11	TWP REVIEW REVISIONS
2	03/21/11	ADDENDUM #1

ISSUE: April 2011
PROJECT NO: 11-1100-0131
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SHEET NAME

E&S DETAILS
SHEET 3 OF 3

AP-29

BENNER TOWNSHIP BOARD OF SUPERVISORS

IN RE: BELLEFONTE CAMPGROUND – CONDITIONAL USE HEARING

EXHIBIT F

CONSENT OF LANDOWNER

Exhibit F

July 26, 2021

I, Marina E. Elnitski, am the owner of the parcel being considered for the campground, and I have no objection to the project.

Marina E. Elnitski

MARINA E. ELNITSKI

769 Seibert Road
Bellefonte, PA
16823

BENNER TOWNSHIP BOARD OF SUPERVISORS

IN RE: BELLEFONTE CAMPGROUND – CONDITIONAL USE HEARING

EXHIBIT G

LETTER FROM KATHY AND JARED EVEY

6

Kathy & Jared Evey
604 Buffalo Run Rd
Bellefonte, PA 16823
(814) 441-0843 (C)
kateevey@hotmail.com

Benner Township Supervisors
1224 Buffalo Run Rd
Bellefonte, PA 16823

August 2, 2021

Benner Township Supervisors,

Listed below are our concerns and questions regarding the Conditional Use Hearing for Maison Lodging, LLC to construct a campground:

1. **Safety within the community**
   - Will there be on site security?
   - Will there be Police presence?
   - Can we expect patrolling around our private properties?
   - Can we expect camp site renters to stay off of our private properties?
   - How will noise be controlled?

2. **Traffic impact**
   - If all 100 sites are rented, a minimum of one vehicle trip to and from the campground, would be 200 with a potential of 400-600 on a weekend if the 100 renters make 2 or 3 trips;
   - The increased traffic on Route 550 will affect every property owner in this area
   - A Highway Occupancy Permit for low volume traffic which is 26-1500 vehicles was obtained for Snowbird Lane, a private road to the airport that also serves the private residents along this road
     - How was the HOP obtained?
     - Who obtained the permit?
     - Who signed the application for the permit?
       - The property owner did not sign for the permit;
       - The property owner was never contacted about the HOP;
       - The land was never deeded over to the airport;
       - There was never a deed of dedication for Snowbird Lane;

        - This road was recorded as a right-of-way/easement with the assumption it would be used ONLY as a private entrance to the airport by the Dunlaps per their request; the original plans had the airport entrance from Seibert Road, the design plans were changed; unfortunately, my parents did not realize that
        - Is there a township ordinance defining what type of road is required for access to a business? Most townships require business access is by use of a public road.

3. **How will this affect storm water runoff/management?**
    - Will the proposed business occupy space which is already designated as stormwater management for the airport itself?
    - Will the required township stormwater setbacks be maintained? This was an issue in 2011.
    - We already get the run off, how much more can we expect?
    - Can you guarantee that the water quality of our well water, which is located in our side yard adjacent to Snowbird Lane, will remain as it is now?

4. **How can conditional use be given for a piece of property that already received a different conditional use?**
    - Zoning hearing application dated 3/9/98 for the Wells property (tax ID ending #19) was signed by John J Elnitiski stating:
        - Section B. Type of request: "Lot addition"
        - Section C. "Ground to be added to Bellefonte Airport"
        - The boundary lines on this piece of property are marked on the Township maps as one property that includes parcel #20 (the original airport parcel of 34 acres) and #19 (43.49 acre parcel)
        - There is a parcel noted as Parcel #2 on the #20 deed which is Mrs. Elnitiski's residence (1.83 acres)
        - Section D. Property Information "Tax #12-3-146; Property Location Raymond Lane" "Lot Area 41.268 acres"
            - Where is this property? The property used to change the boundary lines was Parcel #19 noted above for 43.49 acres; the permit lists 41.268 acres; what is the 2.22 acres being used for?
            - Why does this property appear to now have a different tax ID?
            - Is the remaining acreage a ROW from Raymonds Lane?

- If so, is there consideration to access the proposed RV site via that ROW especially since Raymonds Lane is not a private road and it is a lot wider than Snowbird Lane?

- Request for Variance #2. The proposed variance will not alter the essential character of the neighborhood for the following reasons: "Bellefonte Airport is the adjacent property and the addition of this acreage would protect the airport property."

5. Will the proposed sites infringe on township required setbacks? There is a proposed property line change to address the setback issue. Where is the line going to change? Wasn't the property line changed for the last project?

6. **Is it fact that a project funded by State and Local funding for an airport must be airport related and must remain as airport use**? Is this project approved by the BOA and the FAA?

- Was the land proposed for the RV Park purchased with any BOA and/or local funding?

7. **Rumor has it that the airport is sold.**

- Is this true? If so, what can we look forward to? Why not wait on this project until the land is transferred?

This project is not airport activity. It is a major detriment to those of us with properties directly connected to the airport and this portion of the property including Willow Bend. The increase of traffic on Route 550 increases the potential for accidents and injury (at least one car per minute passes my house now). That will increase with the proposed completion of housing development as well as a potential for approximately 300 more homes on the Szyller Farm.

Considering the economic, environmental and safety within our neighborhood would be jeopardized, all of these questions and concerns **must be satisfactorily answered**. We are requesting the Township deny the change of use for this project.

Thank you for the opportunity to present our questions and concerns.

Kathy E. Evey
Kathy E. Evey

Jared L. Evey
Jared L. Evey

BENNER TOWNSHIP BOARD OF SUPERVISORS

IN RE: BELLEFONTE CAMPGROUND – CONDITIONAL USE HEARING

EXHIBIT H

LETTER FROM THOMAS AND BETTY SIMCO

#

TO: Benner Township Supervisors

FROM: Thomas & Betty Simco 125 Salix Drive, Bellefonte

DATE: July 29, 2021

REF: **Conditional Use Application - Bellefonte Campground**

FAX: 814-355-0719

#OF PAGES INCLUDING COVER PAGE (1)

Attention: Township Supervisors

Regarding notice mailed to us June 30, 2021, We **"STRONGLY REJECT"** Conditional Use Application - Bellefonte Campground. All the reasons listed in the letter are our concerns along with Benner Township doesn't allow short term rentals. We are currently out town and not available to attend Township Meeting on August 2, 2021 at 7:00 P.M.

Please include this letter in your minutes of the Meeting and share our concerns with others.

Sincerely,
Thomas A Simco Betty M. Simco

Thomas & Betty Simco
125 Salix Drive
Bellefonte, PA 16823
814-933-7281

BENNER TOWNSHIP BOARD OF SUPERVISORS

IN RE: BELLEFONTE CAMPGROUND – CONDITIONAL USE HEARING

EXHIBIT I

LETTER FROM CAROL SMITH AND SUE LOUNSBURY

July 29, 2021

Benner Township Supervisors
1224 Buffalo Run Road
Bellefonte, PA 16823

Re: Conditional Use Application - Bellefonte Campground

Dear Supervisors:

This morning was a typical morning at 1023 Seibert Road. At 8:00 we sipped coffee on our deck, gazed over our backyard at the corn fields on the other side of the airport runway. Listened to the various baby birds remind their parents that they were hungry. Watched the squirrels simultaneously jump from branch to branch and chatter. Laughed and wondered if the chipmunk could stuff any more bird seed in his cheeks.

What we did not hear were 20 diesel motorhome engines running for 30-40 minutes in preparation to leave the campground. We did not see Benner Township crews repairing roads that were damaged by 15 ton motorhomes repeatedly driving to and from the campground. We did not smell the smoke from the campfires that were left smoldering overnight. We were not exhausted from being kept awake by the 100 campers in 60 RV sites and the 90 people renting the 40 Tiny Homes, all of whom were enjoying their vacation by drinking and singing until 2 in the morning.

Because we own a motorhome and have been to hundreds of campgrounds throughout these United States, we know first hand how quickly and how easily a campground can go from a peaceful, idyllic setting to a loud, out of control party, with dumpsters overflowing and police intervening. Especially when Penn State students and alumni are celebrating a significant victory or mourning a loss. Especially when the owners add outdoor movies, concerts, and similar events to its activity schedule to entice additional campers.

Since we built our home in 1985, there have been many changes on Seibert Road and within Benner Township. New homes have been added and new neighbors welcomed. None have risked our property value and our quiet, peaceful life in Benner Township. We ask that you deny Maison Lodging, LLC's request to construct a campground that will significantly and negatively impact us and our neighbors. Unfortunately, we will be out of town and unable to attend your August 2nd conditional use hearing, but would welcome the opportunity to provide additional input at your convenience.

Sincerely,

Carol M. Smith

Carol M. Smith & Sue Lounsbury

1023 Seibert Road
814-360-4027

BENNER TOWNSHIP BOARD OF SUPERVISORS

IN RE: BELLEFONTE CAMPGROUND – CONDITIONAL USE HEARING

EXHIBIT J

LETTER FROM JOHN AND CARRIE FALA

J

August 2, 2021 Benner Twp Conditional use hearing:

We live on Raymonds Lane. Raymonds is a street without sidewalks. Without street lights. And without a painted center line.

Raymonds is a street with a rolling hill that makes it difficult for drivers to see if anyone is over the rise until the last second. Raymonds is a street with posted 25 miles an hour which few people obey.

Also what Raymonds Lane has is many walkers. Dog walkers, exercisers, and baby stroller walkers.

What will this extra traffic mean to the many people who use Raymonds with their feet. What safety precautions will be constructed?

Will sidewalks be put in? Will street lights be put up? Will the 25 mph be enforced?

John & Carrie Fala 294 Raymonds Lane

John Fala Carrie Fala

BENNER TOWNSHIP BOARD OF SUPERVISORS

IN RE: BELLEFONTE CAMPGROUND – CONDITIONAL USE HEARING

EXHIBIT K

AIR SAFETY INSTITUTE REPORT REGARDING ACCIDENTS DURING FLIGHT INSTRUCTION

A DIVISION OF THE
AOPA FOUNDATION

AIRSAFETYINSTITUTE.ORG

ACCIDENTS DURING FLIGHT INSTRUCTION:

A REVIEW

© 2014 AIR SAFETY INSTITUTE

Exhibit K

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Conclusion 23

Appendix 26

CREDITS

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SUMMARY

The aviation industry has historically held that flight training is safer than non-instructional general aviation flight. The Air Safety Institute analyzed GA accident data to assess this claim. This analysis found that:

– Fatal accident rates during instructional flights were less than half of those during non-instructional flights.

While instructional flights have a much lower rate of fatal accidents, the rates of non-fatal accidents were similar. This is a useful finding in its own right, but other important points also emerged from the data review.

– In airplanes, accidents caused by fuel mismanagement, adverse weather, and mechanical failures were less common during instructional flights.

Just as in other GA flying, takeoffs, landings, and go-arounds accounted for a high percentage of training accidents in airplanes:

– Eighty percent of accidents on fixed-wing student solos occurred during takeoffs, landings, or go-arounds.

In both instructional and non-instructional flight, poor airmanship during these phases of flight caused the largest number of accidents but relatively few fatalities.

Accidents in helicopter training didn't follow the same patterns seen in fixed-wing aircraft. Perhaps this is because rotorcraft instructors wait longer before allowing students to fly solo, or perhaps it's due to reasons we haven't figured out yet. But there were differences.

– Two-thirds of primary training accidents in fixed-wing aircraft happened on student solo flights, while in helicopters these made up just one-quarter.

Just as in other GA flying, takeoffs, landings, and go-arounds accounted for a high percentage of training accidents in airplanes...

...fatal accidents were more common during advanced instruction than in primary training...

In both categories, accidents were apparently both more frequent and more severe during advanced training.

- In both rotorcraft and airplanes, the majority of accidents on dual flights (with an instructor on board) occurred during advanced training (i.e., the student was already rated in the same category of aircraft).
- In both airplanes and helicopters, fatal accidents were more common during advanced instruction than in primary training, and happened more frequently during dual instruction than on solo flights by student pilots.
- More airplanes crashed during recurrent training and new-model transitions than in pursuit of additional ratings or certificates, but fatalities were most common during instrument training.

Additional details presented in the following pages offer further insights and suggest opportunities to make flight instruction safer.

INTRODUCTION

One of the most common questions of prospective students—and their families—is whether flight training is safe. The industry's traditional response has been that instructional flights have a better safety record than general aviation (GA) as a whole. While true as far as it goes, that answer ignores complexities in the accident records that characterize different aircraft and different stages of the training process. More detailed analysis can help illuminate the actual risks involved.

While you might expect to know one when you see it, the actual definition of an aircraft accident is less straightforward.

WHAT IS AN *ACCIDENT*?

While you might expect to know one when you see it, the actual definition of an aircraft accident is less straightforward. Inclusion in the official statistics isn't determined by the cost of repair or even entirely by the extent of the damage. An event that destroys an aircraft may not even qualify as an "accident" under the law.

The regulation that defines "aircraft accident" is 49 C.F.R. Part 830, which specifies which occurrences must be reported to the National Transportation Safety Board (NTSB). Two conditions must be met: The aircraft is occupied for the purpose of flight, and the event results in serious injury to a person, substantial damage to an aircraft, or both. Thus, if a pilot taxiing out to the runway hits a hangar and damages a wing spar, it would count as an accident, but if a mechanic does the same thing during a ground run, it would not.

"Serious injury" and "substantial damage" are likewise defined by the regulation. The former includes broken bones, injuries to internal organs, or hospitalization for more than 48 hours; the accident is considered fatal if the injuries cause death within 30 days. The latter essentially requires that damage to structural components of the aircraft make it unairworthy without major repair, but also provides a list of exclusions including damage to landing gear, propellers, engines, and skins. The result is that the majority of gear-up landings in retractable-gear airplanes, while expensive to fix, are not considered "accidents" for reporting or statistical purposes. Thus, accident statistics alone do not capture every event with safety implications, but do provide a fairly complete view of those causing significant injuries.

The relevant sections of 49 C.F.R. Part 830 are reprinted in the Appendix.

TYPES OF ACCIDENTS

To analyze their causes, it is useful to place each accident in exactly one category. The Air Safety Institute (ASI) reviews every probable-cause report issued by the NTSB before making an independent determination of the most important causal factor. In complex accident chains, this may be more a matter of emphasis than a clear choice. For instance, if a pilot successfully glides his tailwheel airplane back to the runway after an engine failure and touches down under control, then ground-loops during the landing roll, ASI would typically classify this as a landing accident rather than one caused by a mechanical problem.

> The Air Safety Institute (ASI) reviews every probable-cause report issued by the NTSB before making an independent determination of the most important causal factor.

Some of the categories used in this report are less intuitive than others. Takeoff accidents are those involving loss of control between the start of the takeoff roll and beginning the crosswind turn or reaching pattern altitude; similarly, landing accidents are losses of control during the time between entering the final leg of the traffic pattern (or passing the final approach fix on IFR flights) and exiting the runway. Go-around accidents are those in which control is lost initiating the go-around prior to establishing a stable climb. Maneuvering accidents are all those precipitated by significant deliberate changes of aircraft attitude; these encompass everything from turns in the traffic pattern to aerobatic practice. When the failure of some part or component brings down the aircraft in circumstances that make a safe emergency landing unlikely, it's classified as a mechanical accident.

In helicopters, autorotation accidents include both intentional practice and those emergency autorotations where a pilot of ordinary skill could reasonably be expected to land without injury or damage. "Other rotorcraft aerodynamics" includes phenomena such as settling with power, dynamic rollovers, ground resonance, mast bumping, and losses of tail rotor effectiveness.

Complete definitions of all the accident categories used in this report are provided in the Appendix.

WHAT IS AN INSTRUCTIONAL FLIGHT?

While the first thing that comes to mind might be a student pilot working toward a recreational, sport, or private certificate, the field is considerably broader. Flight instruction includes not only initial pilot training, but also work toward advanced certificates or ratings, transitions into unfamiliar aircraft, and recurrent instruction such as flight reviews and instrument proficiency checks (IPCs). Practical tests administered by FAA inspectors or designated pilot examiners (aka "checkrides") are not considered dual instruction under the Federal Aviation Regulations, but are an essential step toward pilot certification and unavoidably part of the instructional process.

In examining 10 years' worth of instructional accidents (calendar years 2002-2011, inclusive), ASI found it helpful to distinguish between the two basic levels of flight instruction:

Primary training: The pilot undergoing instruction (PUI) holds nothing higher than a student pilot certificate for that category of aircraft. Fixed-wing pilots learning to fly helicopters and helicopter pilots taking initial instruction in airplanes are also considered primary students.

Advanced training: The PUI holds at least a recreational, sport, or private pilot certificate in the same category of aircraft. He or she may be pursuing a more advanced certificate or rating, seeking an additional endorsement (e.g., tailwheel, complex, or high-performance), transitioning to an unfamiliar model of aircraft, or undergoing recurrent training such as a flight review or IPC. Dual instruction for the purpose of maintaining proficiency outside of flight reviews or IPCs also falls into this category.

2401
INSTRUCTIONAL ACCIDENTS 2002-2011

410
INVOLVED HELICOPTERS

1995
INVOLVED AIRPLANES

IDENTIFYING INSTRUCTIONAL ACCIDENTS

Primary and advanced training include both dual and solo flights. Past analyses have relied on the NTSB's classification of the purpose of each accident flight; by their definition, instruction includes all "flying accomplished in supervised training under the direction of an accredited instructor." However, careful review discovered a predisposition to classify any single-pilot flight, including authorized student solos, as "personal." ASI was able to identify more than 300 instructional accidents that had been misclassified as personal flights, the vast majority of them student solos, as well as a small number of accidents labelled as "instructional" that were not. Unauthorized flights by student pilots, whether solo or carrying passengers, were not considered training flights.

Unfortunately, the purposes of solo flights by certificated pilots are often difficult to determine. Accidents can occur while accruing the required experience or practicing maneuvers in pursuit of commercial, flight instructor, or airline transport pilot certificates, but though these serve the same purposes as student solos, identifying them as training flights relies on statements from the pilots themselves, their instructors, or knowledgeable witnesses. Often none are available, making it likely that most solo accidents during advanced training are never identified as instructional. The extent of this undercount and its effects on calculated accident rates are difficult to estimate. ASI's review of a sample of accidents involving certificated pilots flying solo found that only about one percent could be conclusively determined to have occurred on training flights, but many more remained ambiguous.

THE RECORD

A total of 2,401 known instructional accidents between 2002 and 2011 involved 1,995 airplanes and 410 helicopters. (Four were mid-air collisions between two training aircraft.) These represent 16 and 31 percent, respectively, of all non-commercial accidents during that period. By FAA estimates, training made up 17 percent of non-commercial fixed-wing flight time and 26 percent of non-commercial helicopter activity.

18%

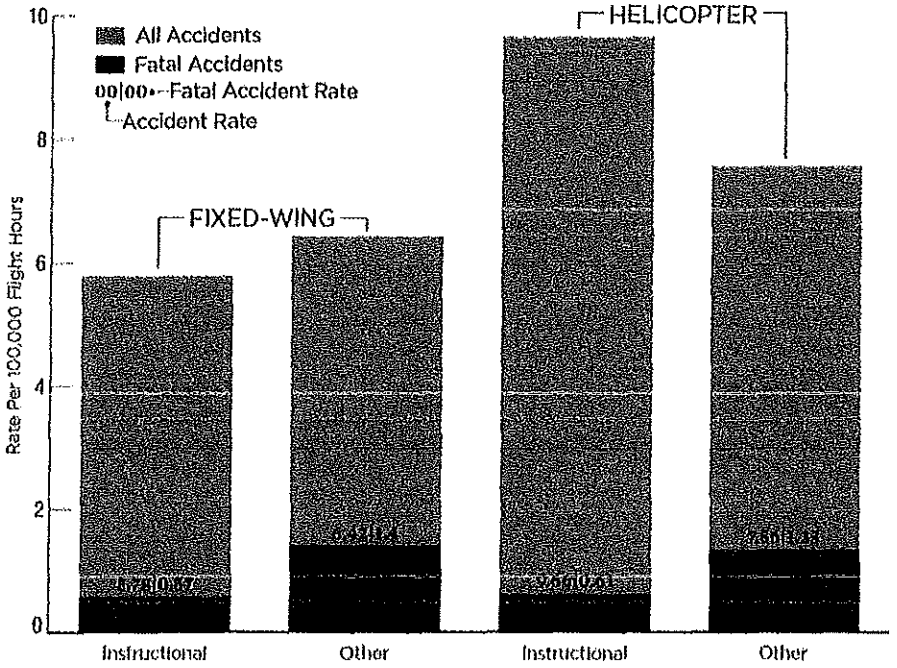
HIGHER, HELICOPTER ACCIDENT RATE VS FIXED-WING RATE SINCE 2006

In both categories, instructional accidents were less than half as likely to be fatal as non-instructional; 194 of the fixed-wing accidents (10 percent) and 24 of the helicopter (6 percent) caused fatalities compared to 22 percent of non-instructional fixed-wing and 18 percent of non-instructional helicopter accidents. Fatal accident rates were likewise less than half of those on all other non-commercial flights. Overall accident rates were much more similar.

The rate of fixed-wing training accidents changed little during this decade, but the helicopter accident rate dropped dramatically: from more than 25 per 100,000 flight hours in 2002 to just 5 in 2006. The decrease owes less to reductions in the numbers of accidents (44 in 2002 compared to 35 in 2006) than to sharp increases in FAA-estimated training time, which quadrupled over the same period from less than 175,000 hours to nearly 700,000. It's possible that this reflects improvements

The rate of fixed-wing training accidents changed little during this decade, but the helicopter accident rate dropped dramatically...

Accident Rates: Instructional Vs. Non-Instructional Flights



Note: At the time of publication, the FAA had not released the results of the 2011 General Aviation and Part 135 Activity Survey. Estimated rates are based on accidents and flight times from 2002-2010.

in the methods used to conduct the annual GA activity survey more than an actual increase in instructional flying. Since 2006, the rate of helicopter training accidents has been 18 percent higher than the fixed-wing rate (7.00 vs. 5.92).

TYPES OF INSTRUCTION: FIXED-WING VS. HELICOPTER

In airplanes, almost two-thirds of all accidents occurred during primary training, but more than 60 percent of fatal accidents came in advanced instruction. Two-thirds of all primary accidents were on student solos, but two-thirds of fatal primary accidents took place during dual instruction. In helicopters, advanced instruction accounted for nearly 60 percent of all accidents, fatal and non-fatal alike, and student solos only made up one quarter of all primary training accidents.

Two-thirds of all primary accidents were on student solos, but two-thirds of fatal primary accidents took place during dual instruction.

Because of the strong likelihood that most solo accidents during advanced training have not been identified, and with no reason to assume those that have are representative of the rest, discussion of advanced instructional accidents will be confined to those on dual flights.

63%
OF FATAL ACCIDENTS DURING ADV. TRAINING

Instructional Accidents, 2002-2011

	ALL ACCIDENTS		FATAL ACCIDENTS	
FIXED-WING	1995		194	
Primary	1306	65%	72	37%
Dual	436	33%	47	65%
Solo	870	67%	25	35%
Advanced	687	35%	122	63%
Dual	615	90%	115	94%
Solo*	72	10%	7	6%
HELICOPTER	409		24	
Primary	180	44%	11	46%
Dual	135	75%	7	64%
Solo	45	25%	4	36%
Advanced	229	56%	13	54%
Dual	210	92%	11	85%
Solo*	19	8%	2	15%

Probably undercounted

FIXED-WING

Mishaps during takeoffs, landings, and go-arounds (TLGs) made up half of all accidents in both primary and advanced dual instruction and more than 80 percent of those on student solos.

RELATIVE RISKS

Two-thirds of primary accidents, including 35 percent of fatal accidents, were on student solos. Unfortunately, there is no reliable data on the total amount of solo flight time logged by student pilots, but there is little doubt that it is a small fraction of the time spent in dual instruction. If 80 percent of a typical student's training time is dual, it would follow that the risk of an accident during a solo is eight times higher than on a dual flight. The risk of fatality would be about twice as high during solos, though still very low.

Looking only at dual instruction, the number of accidents during advanced training was more than 40 percent higher than the number in primary training, and included two and a half times as many fatal accidents. Differences in the respective amounts of CFI time devoted to the two are likewise difficult to estimate. Those without instrument or multiengine instructor privileges presumably devote almost all their time to primary instruction, while senior instructors in larger schools may be able to use the majority of theirs providing instrument, commercial, and multiengine training. Long-time CFIs often describe this kind of career progression.

It seems clear that advanced instruction carries a greater accident risk and a much higher risk of fatality than primary instruction. How much greater depends on the amount of CFI time devoted to each. If, for example, two-thirds of all teaching time was spent with primary students, the overall accident rate during advanced instruction would be almost three times higher, and the fatal accident rate five times as high. If primary training made up 80 percent of all fixed-wing instruction, advanced training would carry five and a half times the risk of any accident and nearly 10 times the risk of fatality.

ACCIDENT CAUSES

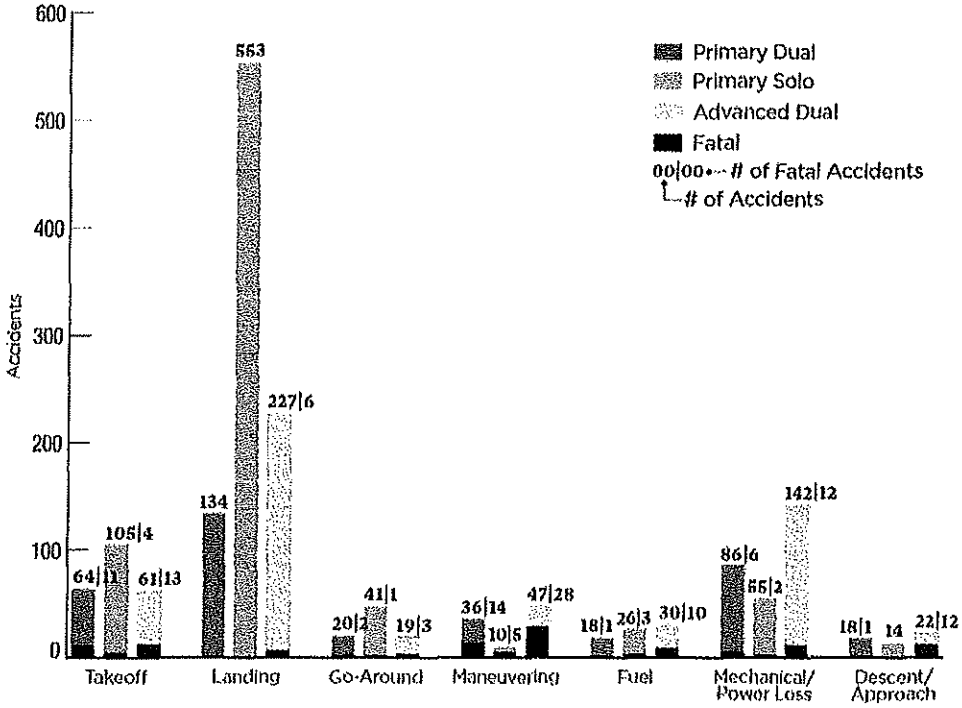
As in all fixed-wing GA, the greatest hazards are near the ground. Mishaps during takeoffs, landings, and go-arounds (TLGs) made up half of all accidents in both primary and advanced dual instruction and more than 80 percent of those on student solos. Landing accidents were most common but least dangerous; while they accounted for 64 percent of student solo accidents, 31 percent of primary dual, and 37 percent in advanced training, only six were

fatal (all on advanced flights). Takeoffs ranked a distant second in primary training at 15 percent of dual and 12 percent of solo accidents; in advanced instruction, they accounted for 10 percent, ranking third behind mechanical failures (17 percent).

Accidents blamed on known mechanical failures or unexplained losses of engine power were the next most common, accounting for 20 percent of all accidents during primary dual, 23 percent during advanced, and 7 percent of accidents on student solos. Maneuvering—including flight in the traffic pattern as well as maneuver practice per se—led to the largest numbers of fatal accidents, including 30 percent of all those in primary dual, 20 percent of those on student solos, and one-quarter of those during advanced dual. Forty percent of maneuvering accidents on dual primary flights, 50 percent of those on student solos, and 60 percent of those during advanced lessons were fatal.

Unlike fixed-wing GA in general, adverse weather was not a significant hazard, causing less than 1 percent of all instructional accidents.

Leading Accident Causes During Fixed-Wing Instruction



Advanced training flights suffered nine mid-air collisions, all fatal, including two between two training aircraft. There were six, two of them fatal, on student solos, and five (three fatal) during primary dual lessons. Unlike fixed-wing GA in general, adverse weather was not a significant hazard, causing less than 1 percent of all instructional accidents.

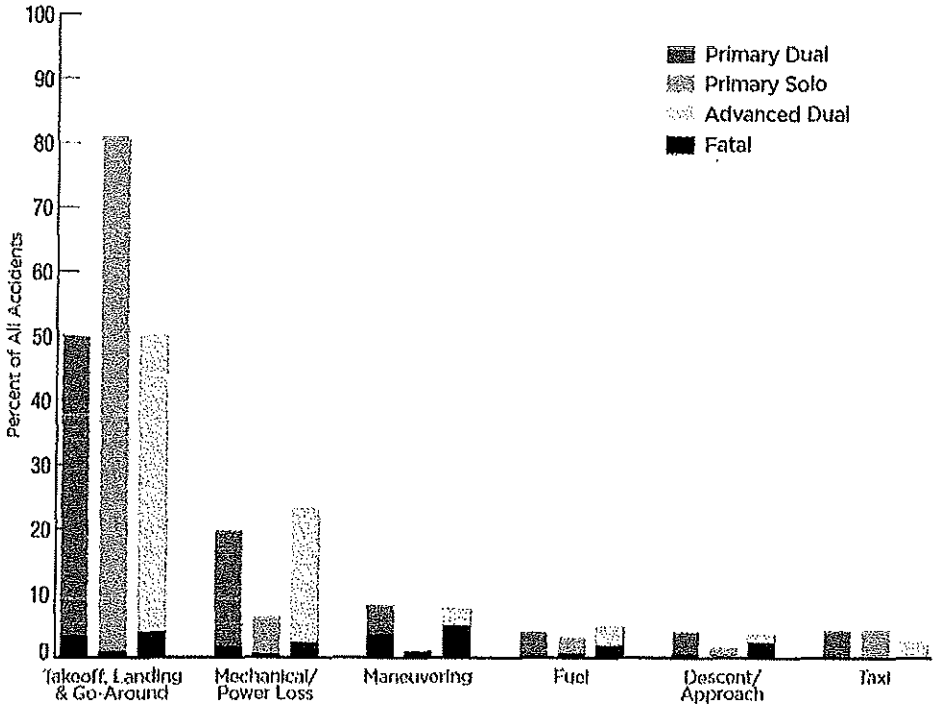
In dual instruction, most types of accidents were both more frequent and more severe during advanced training, but the percentages due to various causes were almost identical. Half occurred during takeoffs, landings, or go-arounds. A little more than 20 percent were caused by unexplained power losses or proven mechanical problems, and 8 percent of each were losses of control or collisions with obstacles while maneuvering. Fuel mismanagement led to 4 percent of primary and 5 percent of advanced dual accidents and another 4 percent came during descent and approach. Only accidents while taxiing were less common during advanced training, where they made up only 2 percent of the total compared to 4 percent in both levels of primary training.

50%

PRIMARY DUAL AND ADVANCED DUAL ACCIDENTS ARE DURING TAKEOFFS, LANDINGS, AND GO-AROUNDS

On student solos, TLG accidents were almost evenly divided between losses of directional control and hard landings or stalls...

Percent of Accidents by Cause During Fixed-Wing Instruction



TAKEOFFS, LANDINGS, AND GO-AROUNDS

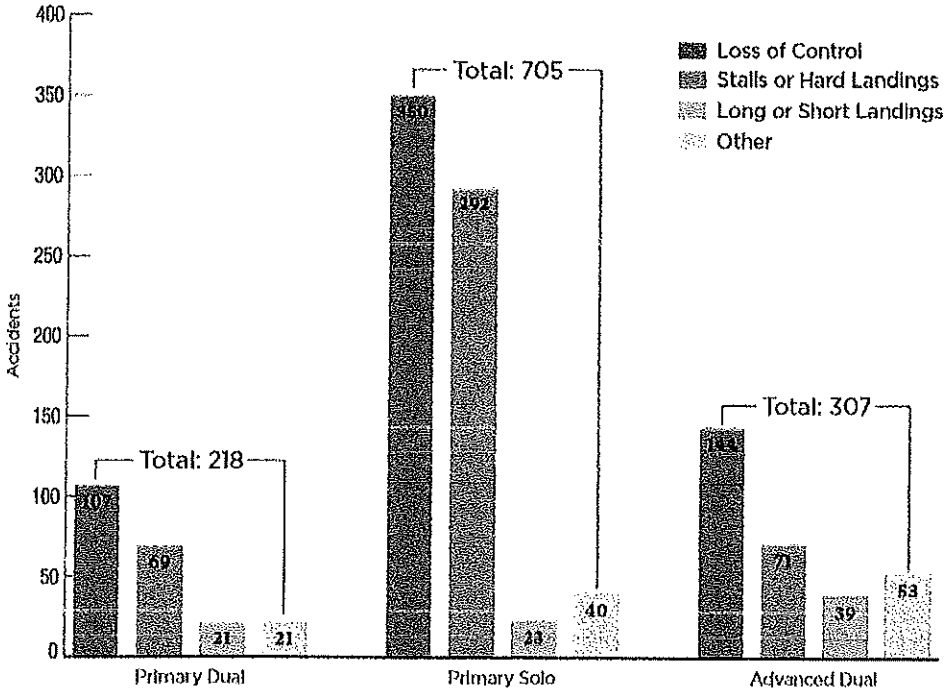
The specific causes of TLG accidents did vary with type of instruction. Almost half involved losses of directional control (including ground loops and cartwheels) in primary dual, solo, and advanced training alike, but the raw counts differed considerably. Primary and advanced dual saw almost identical numbers of stalls and hard landings, but advanced lessons suffered 35 percent more losses of control, almost twice as many undershoots or overruns, and two and a half times as many TLG accidents of other types (including accidents

attributed to density altitude, excess weight, runway conditions, and errors operating retractable landing gear). Collectively, these led to 40 percent more TLG accidents during advanced training. Student solo accidents were almost evenly divided between losses of directional control and hard landings or stalls; only 3 percent were landing attempts that came up either long or short.

Stall accidents on instructional flights rarely occur while actually practicing stalls.

90%
OF STALLS ON STUDENT SOLOS CAME WHILE LANDING

Takeoff, Landing, and Go-Around Accidents During Fixed-Wing Instruction



STALLS

Unintended stalls (including spins) have been an area of concern for many years; all levels of fixed-wing instruction devote considerable attention to stall recognition, prevention, and recovery. Despite that emphasis, stalls continue to cause significant numbers of accidents both during and outside training. Notably, stall accidents on instructional flights rarely occur while actually practicing stalls. Almost 90 percent of those on student solos happened during landing attempts, while the single largest share in both levels of dual instruction occurred while practicing other maneuvers. Maneuvering stalls were also the most deadly in every phase of instruction: Five of seven on student solos, 12 of 25 during dual primary instruction, and 20 of 33 during advanced dual were fatal. These made up two-thirds of all fatal stall accidents during dual instruction and more than 70 percent of those on student solos.

3/4

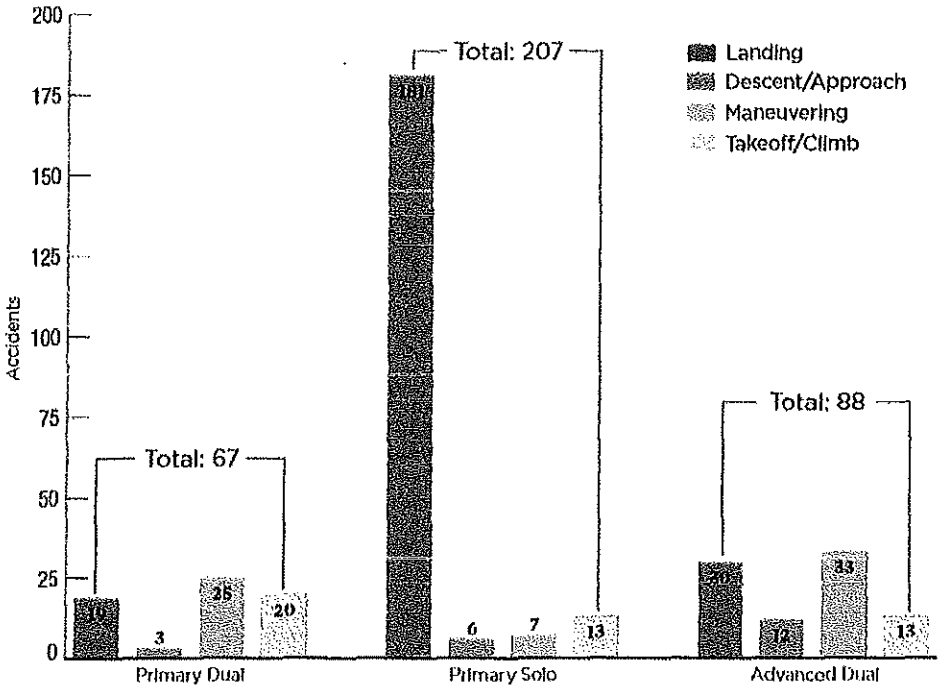
OF FUEL MGMT. ACCIDENTS DURING ADVANCED TRAINING WERE DUE TO INCORRECT OPERATION OF FUEL SYSTEMS

Only 5 percent of those in primary dual instruction and 10 percent of those on student solos were fatal compared to 33 percent of the fuel-management accidents during advanced training...

Student pilots flying solo occasionally succumb to temptation and attempt unauthorized maneuvers. Four of the seven maneuvering stalls on student solos happened during sharp pull-ups after low-altitude passes, and two were fatal. During dual instruction, the leading cause of stall accidents in maneuvering flight was practicing emergency procedures, particularly simulated engine failures. More than half of all maneuvering stalls in both primary (14 of 25) and advanced training (17 of 33) were the result of emergency training gone wrong, including 14 of a combined 32 fatal accidents.

All the remaining fatal stalls during primary training were takeoff accidents, six on dual lessons and two on student solos. Stalls during descent and approach were especially lethal in advanced instruction, where seven of 12 were fatal. Only one occurred during an instrument approach, and it was the result of an unauthorized low-altitude circling attempt in IMC. All the rest took place in visual conditions in daylight. Ten of the 12, including all seven fatal accidents, were in single-engine airplanes. Both stalls in twins occurred in the traffic pattern while simulating single-engine flight.

Stall Accidents During Fixed-Wing Instruction



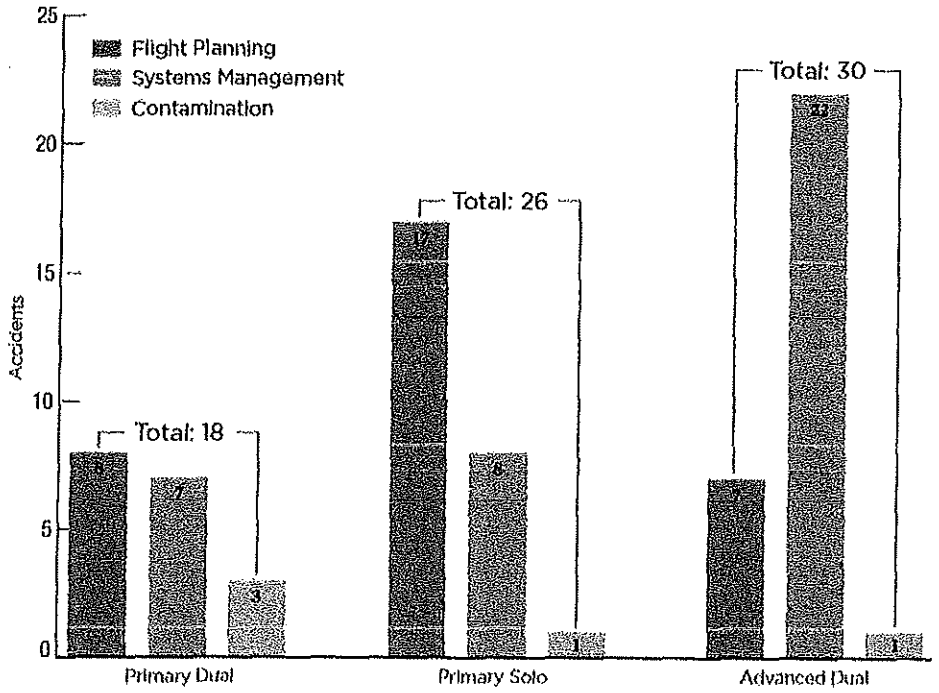
FUEL MISMANAGEMENT

Because it is entirely preventable, fuel mismanagement remains of concern even though it caused less than 4 percent of all instructional accidents. The record of these suggests the interaction between pilot experience and aircraft speed and complexity. Two-thirds of those on student solos were complete fuel exhaustion, the result of poor flight planning or unwillingness to adapt to unexpected circumstances such as stronger-than-forecast headwinds or fuel not being available at a planned stop.

Three-quarters of those during advanced instruction, on the other hand, resulted from incorrect operation of the aircraft's fuel systems, either starvation due to a failure to switch tanks at an appropriate time or misuse of boost or transfer pumps. Primary dual instruction saw both types of accidents in essentially equal numbers. Both pilot experience and the speed and weight of the accident aircraft helped determine these accidents' survivability. Only 5 percent of those in primary dual instruction and 10 percent of those on student solos were fatal compared to 33 percent of the fuel-management accidents during advanced training, where 20 of the 30 accident aircraft were high-performance, complex, or both; these included seven of the 10 fatal accidents. Fuel mismanagement was particularly hazardous in twin-engine airplanes, where five of eight accidents were fatal.

The record of these suggests the interaction between pilot experience and aircraft speed and complexity.

Fuel Mismanagement Accidents During Fixed-Wing Instruction



MECHANICAL FAILURES AND UNEXPLAINED ENGINE STOPPAGES

About 22 percent of all accidents during dual instruction were the result of either confirmed mechanical problems or losses of engine power for reasons that were never satisfactorily explained: adequate fuel was available, and inspection found no evidence of pre-impact abnormalities. This is comparable to non-instructional flights, where they caused about 25 percent of fixed-wing accidents. Only 6 percent of accidents on student solos were attributed to engine stoppages or mechanical failures. (This does not mean that solo students are less likely to break their airplanes; rather, the overall number of accidents on their flights is inflated by the large number caused by lapses in basic airmanship.) Standardized by hours flown, the rate of mechanical and power-failure accidents on instructional flights was only half that on non-instructional (0.81 vs. 1.62 per 100,000 hours), and those that did occur were only about half as likely to be fatal, with 7 percent lethality compared to 13 percent in all other types of flights.

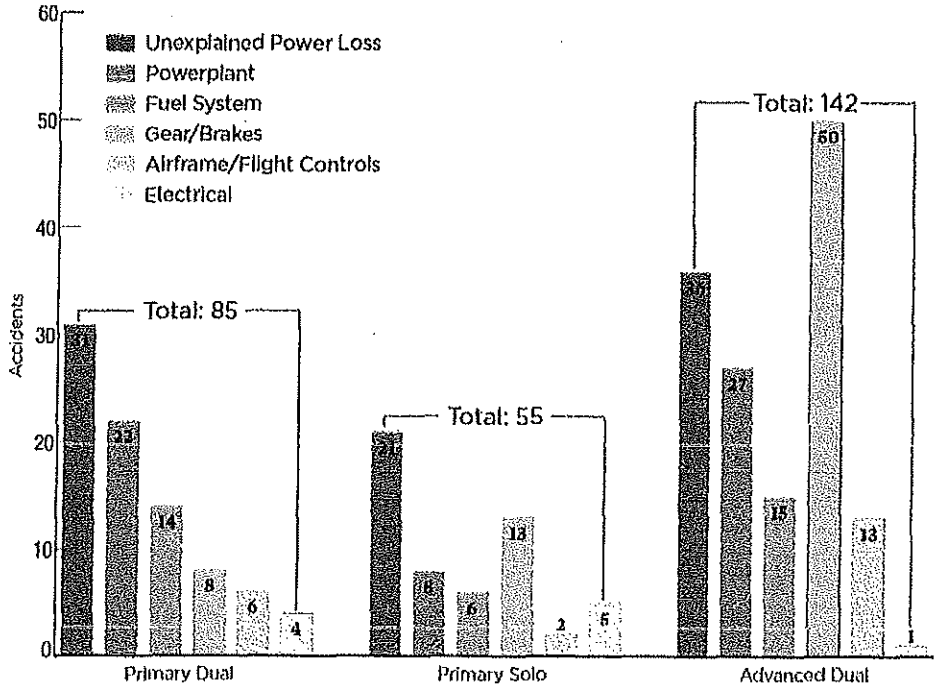
6%

OF ACCIDENTS ON STUDENT SOLOS DUE TO ENGINE STOPPAGES OR MECHANICAL FAILURE

In primary training, unexplained losses of engine power caused more accidents on both dual and solo flights than proven failures...

In primary training, unexplained losses of engine power caused more accidents on both dual and solo flights than proven failures of any individual type of aircraft system or component. In these cases, physical examination of the aircraft's engines and accessories failed to detect any anomalies beyond impact damage; adequate fuel was available and the fuel system was configured correctly. Those

Mechanical and Power Loss Accidents During Fixed-Wing Instruction



engines that escaped serious damage generally ran normally after the accidents. Some were probably due to fuel starvation or carburetor ice, but neither these nor any other causes could be confirmed. Add in powerplant and fuel-system malfunctions, and conditions causing complete or partial losses of engine power were responsible for nearly 80 percent of all accidents of mechanical origin in primary dual instruction (67 of 85) and almost two-thirds of those on student solos (35 of 55).

Landing gear and brake problems were the most prevalent type of failure during advanced instruction.

Landing gear and brake problems were the most prevalent type of failure during advanced instruction. Three-fourths of the airplanes involved (37 of 50) had retractable gear, including 21 twins. Gear collapses were also the second leading category on student solos, where they made up almost one-quarter of the total (13 of 55), though all of those aircraft were fixed-gear singles. Unexplained power losses and confirmed breakdowns of powerplant or fuel-system components were responsible for just over half of mechanically related accidents during advanced training. Failures of flight controls, other airframe elements, or electrical equipment rarely led to accidents in any level of flight instruction, causing a combined total of just 11 percent (31 of 282).

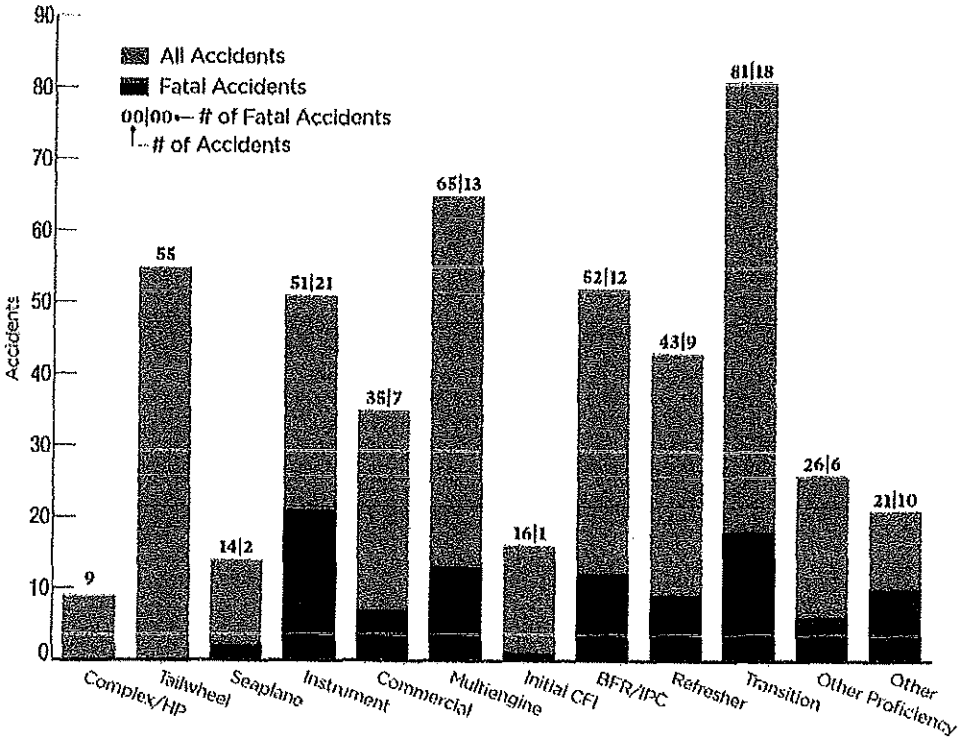
LESS THAN **40%** OF ADVANCED DUAL ACCIDENTS OCCURRED IN PURSUIT OF CHECKRIDE-REQUIRED CERTIFICATES OR RATINGS

TYPES OF ADVANCED TRAINING

The elements of primary instruction are well defined, but "advanced training" is a catch-all category including everything from complex and high-performance endorsements to standardization training for newly hired instructors and the proficiency checks required by commercial and government flight departments. Detailed review of the 615 accidents during advanced dual instruction identified the type of training being conducted in 468 (76 percent), including 99 of the 115 fatal accidents (86 percent). They cannot be assumed representative of the remaining 147, so the results should be interpreted with some caution. However, accidents on flights for which the type of instruction was not specified were predominantly minor, with only half the lethality of those on flights whose purposes were identified.

Few accidents occurred while training for complex and high-performance endorsements, and though aircraft were frequently damaged during tailwheel instruction, serious injuries were rare. During the study period, there were no fatalities during instruction toward any of these logbook endorsements. In all, less than 40 percent of advanced dual accidents occurred in pursuit of certificates or ratings requiring a checkride. The majority took place during recurrent training, new-model transitions, instruction in specialized techniques such as crop-dusting, mountain flying, or aerobatics, and training toward the logbook endorsements mentioned above.

Types of Advanced Fixed-Wing Instruction Conducted on Accident Flights



The number of accidents during multiengine training, which ranked second overall, was disproportionate to the number of aircraft and amount of flight time involved.

Fatal accidents were most frequent during instrument training, including recurrent practice approaches as well as initial instruction; 41 percent were fatal, almost double the lethality of accidents during flight reviews, IPCs, or transition training. However, only three of the 21 fatal accidents were ascribed to deficiencies in flying instrument procedures. Five were the result of mid-air collisions, including one between two airplanes engaged in hood work. Since there were only nine fatal mid-airs in all types of advanced training, the perception of excess risk of collisions during instrument practice seems well founded.

Of the remaining 12, three were takeoff or landing stalls in visual conditions and three more were the result of fuel mismanagement (two cases of starvation and one of complete fuel exhaustion). One was a low-altitude stall attempting an unauthorized circling approach after breaking out long and four were CFIT or losses of control during the visual portions of the flights. One instructor was killed by a prop strike after leaving the cockpit with the engine running.

The number of accidents during multiengine training, which ranked second overall, was disproportionate to the number of aircraft and amount of flight time involved. As might be expected, the majority occurred during real or simulated engine failures (which make up much of the multiengine curriculum). Nine of 13 fatal accidents involved losses of control in flight, and at least seven of those

were in single-engine flight (including two which lost engine power due to fuel starvation). One loss of control was precipitated when the instructor suffered a seizure; there were also two mid-air collisions, a bird strike at night, and one case of complete fuel exhaustion without loss of control.

The greatest number of accidents overall occurred during transitions to unfamiliar aircraft, which also resulted in the second-largest number of fatalities. More than a third, including six of 18 fatal accidents, were in either antique or experimental aircraft. Non-fatal accidents were predominantly takeoffs, landings, or go-arounds (35 of 63, or 56 percent, combined), while mechanical failures and unexplained engine stoppages accounted for another 17 (28 percent) combined. The largest share of fatal accidents (7 of 18) was attributed to unduly aggressive maneuvering, including attempted aerobatics in unapproved airplanes, aggravated stalls in low-altitude pull-ups, and unrecoverable stalls while practicing emergency procedures. Losses of control while attempting to take off or go around led to another five, while fuel mismanagement, adverse weather, unexplained power loss, inadequate preflight, and mechanical failure were each blamed for one.

The greatest number of accidents overall occurred during transitions to unfamiliar aircraft, which also resulted in the second-largest number of fatalities.

Flight reviews and instrument proficiency checks ranked just ahead of refresher training not targeted toward specific currency requirements; together they produced just over 20 percent of advanced training accidents, fatal and non-fatal alike. The "Other proficiency" category includes scheduled recurrent training and check flights required by Part 135 operators, government entities, and organizations like the Civil Air Patrol, while "Other" captures specialized programs including aerial application, mountain flying, aerobatic, and upset recovery training.

MORE THAN 1/3 WERE IN EITHER ANTIQUE OR EXPERIMENTAL AIRCRAFT

AIRCRAFT AND FLIGHT CONDITIONS

Primary training is conducted almost exclusively in single-engine fixed-gear airplanes (SEF), and the accident record shows it. Advanced instruction, by contrast, is far more likely to involve retractable-gear, multiengine, or turbine aircraft. SEF airplanes were involved in 94 percent of primary dual accidents and 98 percent of accidents on student solos but just 54 percent of those during advanced instruction, where 25 percent of all accidents involved retractable piston singles, 18 percent were in piston twins, and 3 percent were in turbine-powered models. The small number of accidents in turboprops probably reflects the wide availability of simulator training for higher-end aircraft, the characteristically greater experience of the pilots who fly them, and more stringent apprenticeship requirements imposed by operators or their insurance underwriters.

More than half (55 percent) of all accidents involving tailwheel airplanes took place during advanced instruction, and 45 percent of all SEF aircraft in

advanced training accidents had conventional gear. In primary training, they made up only 14 percent of SEF aircraft in dual accidents and 8 percent of those that suffered accidents on student solos. The ratio of solo to dual primary training accidents was actually higher in tricycle-gear airplanes, where there were 2.20 accidents on student solos for every one during dual instruction. In taildraggers, the ratio was 1.25 to one. The difference in the risk of landing accidents—widely believed to be a particular hazard to students and tailwheel pilots alike—was even more pronounced: In tailwheel airplanes, there were 1.91 times as many landing accidents on student solos as in dual lessons compared to 4.63 times as many in airplanes with tricycle gear. The extent to which this represents more thorough pre-solo training of tailwheel students versus less ability of their instructors to prevent accidents on dual flights isn't clear.

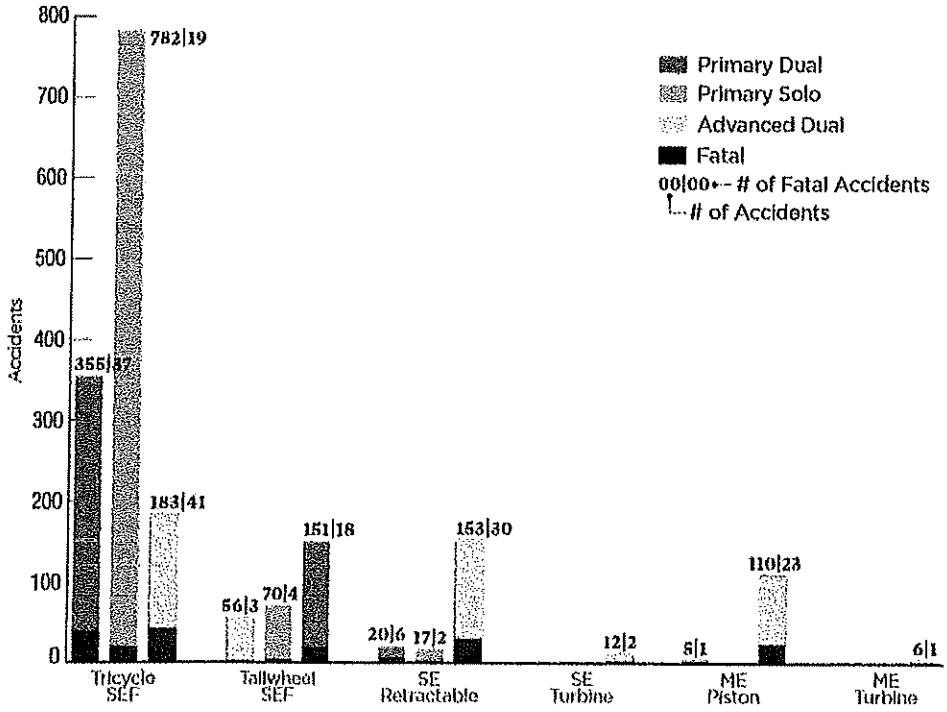
In tailwheel airplanes, there were 1.91 times as many landing accidents on student solos as in dual lessons...

Even for pilots pursuing an instrument rating, flight training remains primarily a fair-weather activity. Only 3 percent of all accidents in advanced training took place in instrument meteorological conditions (IMC), and adverse weather was the principal cause of only 15 of the 1,993 accidents in all three types of instruction combined. The vast majority of training flights are made in daytime, and 91 percent of primary dual accidents, 98 percent of accidents on student solos, and 90 percent of those during advanced dual took place in visual meteorological conditions (VMC) during daylight hours. Night VMC was the setting in 7 percent of accidents during primary dual instruction, 8 percent during advanced dual, and just 2 percent of those on student solos.

15

OF 1,993 ACCIDENTS WERE ATTRIBUTED TO HAZARDOUS WEATHER

Accidents By Aircraft Type During Fixed-Wing Instruction



HELICOPTER

RELATIVE RISKS

Accidents on solo flights by student pilots were much rarer in helicopters, accounting for only about one-quarter of primary training accidents compared to two-thirds of those in airplanes. While reliable data on time to first solo aren't available, anecdotal accounts suggest that helicopter students routinely receive more dual instruction (perhaps 25-30 hours) and complete a larger portion of the curriculum before receiving their solo endorsements than fixed-wing students, for whom 15-20 hours might be more typical. Students flying Robinson R22 and R44 helicopters, which comprise a substantial share of the training fleet, are required by Special Federal Aviation Regulation (SFAR) 73 to log a minimum of 20 hours of dual before becoming eligible to solo, and among those without prior rotorcraft experience, solos at the 20-hour mark are rare.

1/4
OF PRIMARY TRAINING ACCIDENTS IN HELICOPTERS WERE DURING SOLOS

Not only did student solos comprise a much smaller share of primary training accidents in helicopters, but primary instruction as a whole accounted for only 44 percent of all rotorcraft training accidents compared to two-thirds of those in fixed-wing aircraft. As a result, student solos made up less than 12 percent of all instructional accidents in helicopters. In airplanes, they accounted for 45 percent.

[In helicopters] fatal accidents were almost evenly divided between primary and advanced training...

Fatal accidents were almost evenly divided between primary and advanced training, another contrast with the fixed-wing record where more than 60 percent occurred during advanced instruction. The highest proportion of fatalities occurred on solo flights, which had the lowest proportion of fatal fixed-wing accidents. A lower risk of relatively minor landing accidents appears to be the principal factor; a much greater proportion of solo helicopter crashes were the result of genuine emergencies such as mechanical problems.

ACCIDENT CAUSES

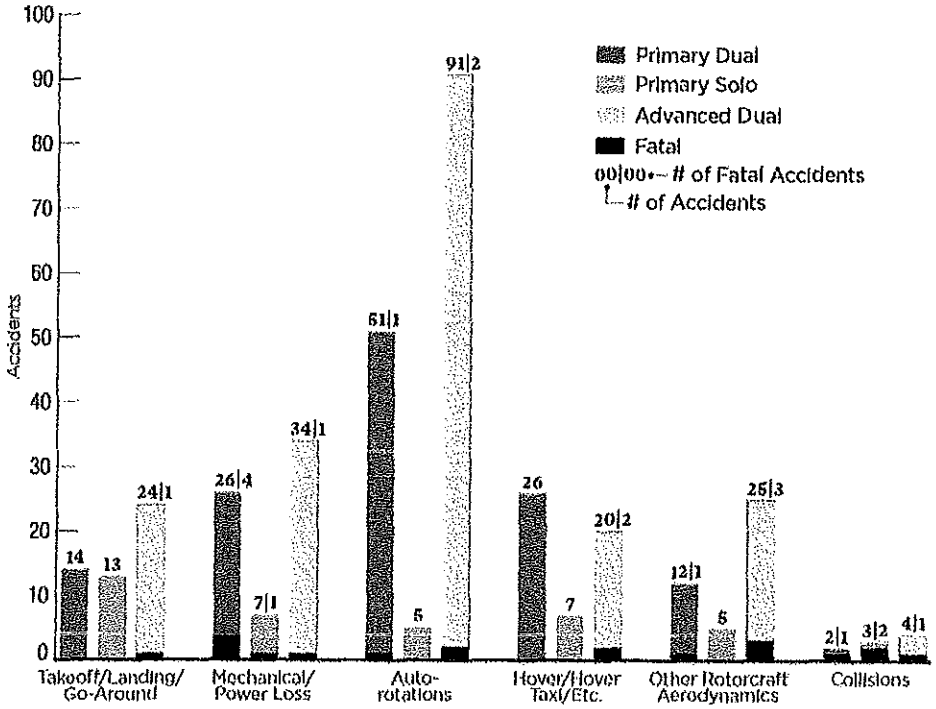
Takeoffs and landings also posed the greatest risk to helicopter students on solo flights, though to a much lower extent than in fixed-wing training. Eight of 45 solo accidents occurred while trying to lift off, and five more when trying to set back down. Together they accounted for 29 percent of student solo accidents—a far cry from the 80 percent share of student solo accidents attributed to TLGs during fixed-wing instruction. Seven each were attributed to mechanical failures and to losses of control during either stationary hovering (three) or pedal turns (four). The remaining accidents were too scattered to reveal much of a pattern; there were three while attempting practice autorotations (a practice most flight

40%

OF HELICOPTER DUAL INSTRUCTION ACCIDENTS OCCURRED DURING AUTOROTATIONS

...primary students were more susceptible to losses of control while hovering, hover taxiing, or doing other low-altitude exercises...

Leading Accident Causes During Helicopter Instruction

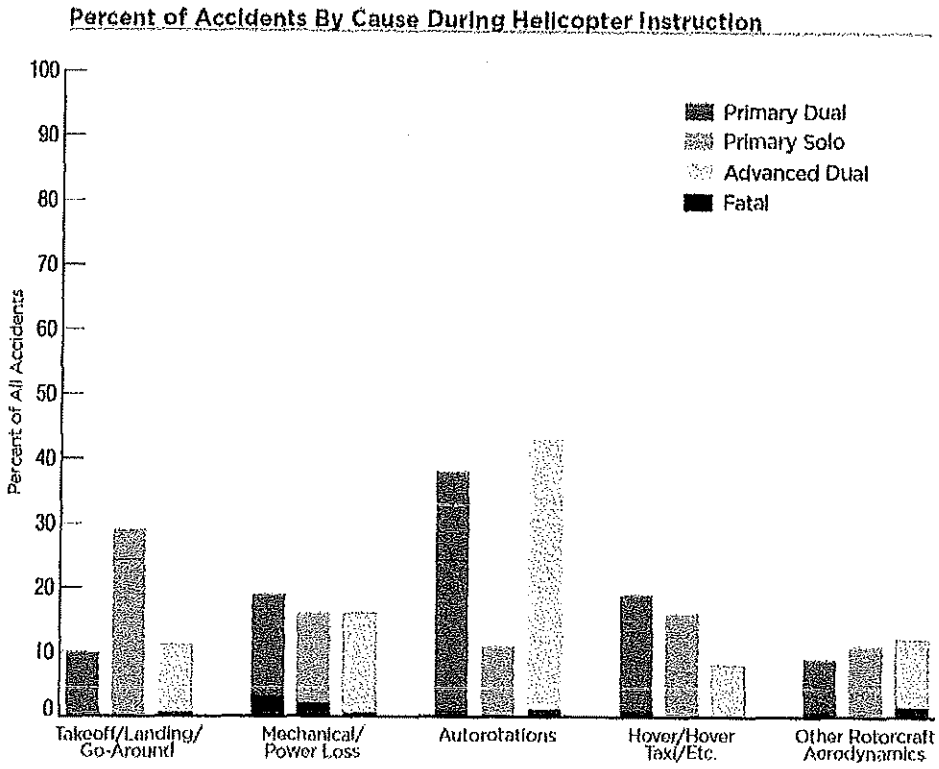


schools discourage on student solos) and two more in full-down autorotations in response to perceived in-flight abnormalities. Fuel exhaustion, dynamic rollover, and loss of tail rotor effectiveness caused two apiece, while one was attributed to settling with power. The four fatal accidents on student solos were similarly random; an unexplained loss of engine power, controlled flight into terrain in visual conditions, continuing VFR flight into IMC, and a mid-air collision each caused one.

Autorotations were the major problem in dual instruction; they led to about 40 percent of all accidents in primary and advanced dual alike. Ninety-six percent of these happened while practicing autorotations; only six of 147 (less than 4 percent) involved actual emergency landings. Known mechanical failures and unexplained losses of engine power, the next largest category, caused less than half as many (67). Sixteen of the 26 accidents of this type in primary training were either unexplained or proven engine failures (nine and seven, respectively). Mechanical problems led to four of the seven fatal accidents in primary dual. These included three of the four accidents involving failures of rotor blades or pitch-change mechanisms.

Eleven of 26 mechanically related accidents in advanced instruction were powerplant failures or stoppages, while 11 more were caused by anomalies in main or tail rotor systems. Airframe or landing gear problems made up the rest. As might be expected, primary students were more susceptible to losses of

Solo students were most vulnerable to losses of control during takeoffs and landings but suffered far fewer accidents during autorotations, most likely because they rarely attempted them.



control while hovering, hover taxiing, or doing other low-altitude exercises such as pedal turns, but advanced students suffered more accidents due to phenomena like settling with power (12 vs. two), ground resonance, and dynamic rollover (three vs. two in both cases). Advanced instruction also saw seven losses of control (none fatal) while practicing simulated hydraulic failures as well as the only fatal accident attributed to mast bumping.

As in fixed-wing training, the relative frequencies of different accident types were very similar at the primary and advanced states of dual instruction, both of which were quite distinct from the patterns that characterized student solos. Solo students were most vulnerable to losses of control during takeoffs and landings (no solo helicopter accidents were specifically attributed to piloting technique while attempting go-arounds) but suffered far fewer accidents during autorotations, most likely because they rarely attempted them. The share of accidents precipitated by mechanical failures or losses of engine power was very similar at all three levels, accounting for 19 percent in primary dual and 16 percent in both advanced instruction and student solos. Hovering, hover taxiing, and other low-altitude maneuvers such as pedal turns or practicing sideways or backwards flight posed the greatest hazard during dual primary instruction, where 19 percent of all accidents occurred during those maneuvers compared to 16 percent on student solos and just 6 percent in advanced training. In each case, less than 10 percent were blamed on

aerodynamic phenomena peculiar to rotorcraft such as dynamic rollover, settling with power, or failures to recover from a loss of main rotor RPM.

Some accident causes that were rare during fixed-wing instruction were even more so in helicopters. Only 2 percent were due to fuel mismanagement, and only five accidents in 10 years were blamed on adverse weather. There was also one bird strike, three wire strikes, and three mid-air collisions.

6 OF 180

PRIMARY TRAINING ACCIDENTS WERE IN TURBINE HELICOPTERS

75 OF 211

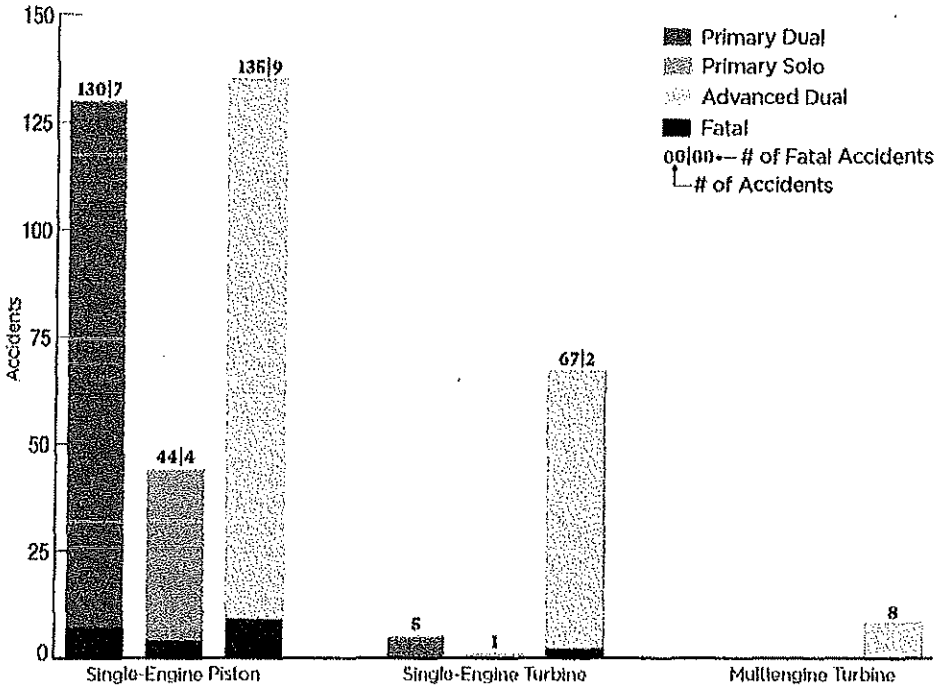
ACCIDENTS DURING ADV. TRAINING WERE IN TURBINE HELICOPTERS

AIRCRAFT AND FLIGHT CONDITIONS

The accident record suggests that helicopter primary training is conducted almost exclusively in single-engine piston models; only six of 180 (3 percent) were in turbine helicopters, and none in multiengine turbines. More than one-third of the accidents during advanced instruction (75 of 211) occurred in turbine models, almost all of them (67) single-engine. Fatal accidents were likewise concentrated in piston aircraft; there were only two in turbine-powered helicopters, both in North Carolina during the first few weeks of 2009. One occurred while practicing powerline inspections, the other during a simulated shipboard landing.

Except for two fatal accidents arising from attempted VFR flight in instrument meteorological conditions, all instructional helicopter accidents during this decade took place in visual conditions, and 96 percent were during daylight hours. Of the 14 accidents at night, 10 were during advanced instruction and two each during dual and solo primary lessons.

Accidents by Aircraft Type During Helicopter Instruction



CONCLUSION

While overall accident rates are similar, the rates of fatal accidents during flight instruction are less than half those on non-instructional flights. These facts back up the familiar assertion that flight training is safer than general aviation as a whole.

Fixed-wing training is characterized by a pattern suggesting a high but rapidly diminishing early risk of low-impact, low-injury "fender-benders." Two-thirds of all fixed-wing training accidents come during primary instruction, and two-thirds of those are during the relatively few hours of solo flight by student pilots. However, fatalities on student solos are extremely rare. Accidents during primary dual instruction are three times as likely to be fatal as solo accidents. This should not be interpreted as evidence that an instructor's presence increases risk; rather, it reflects their success in preventing the less serious mishaps that dog student pilots. These dual accidents are still fatal less than half as often as non-instructional airplane crashes. Accidents during takeoffs, landings, and go-arounds—when maneuvering room and reaction time are both in short supply—make up 80 percent of all those on student solos and half in both levels of dual instruction.

These facts back up the familiar assertion that flight training is safer than general aviation as a whole.

Two-thirds of all fatal fixed-wing accidents occurred during advanced instruction, less than half of them while pursuing a specific certificate, rating, or endorsement. Transition training, flight reviews, generic refresher training, and specialized instruction in areas such as mountain flying, aerobatics, and crop-dusting collectively accounted for over 60 percent of all advanced dual accidents, including more than half the fatal accidents. Of the programs directed toward higher ratings, instrument and multiengine instruction were the most lethal; initial tailwheel instruction saw a large number of accidents but no fatalities.

Helicopter students were insulated from much of the excess risk of TLG crashes that afflicted fixed-wing students; these were no more common than accidents caused by mechanical problems. Probably because they rarely attempted them, helicopter students also suffered few accidents during autorotation practice, the leading cause of accidents in all levels of dual instruction. Practice autos were actually a greater factor in advanced instruction than in primary. This reflects both a reduced risk of spills while practicing hovering, hover taxiing, and other low-altitude maneuvers and the more challenging aircraft and maneuver profiles

flown at the advanced level. (The latter include specialties like zero-airspeed and 360-degree autorotations and maximum-performance glides at low rotor rpm, while far more autos are continued to full-down landings.) In contrast with the fixed-wing record, more than half of all helicopter accidents came during advanced instruction. (This is partly explained by data published by the FAA which shows that in calendar year 2012, 78 percent of helicopter pilots held advanced ratings compared to 70 percent of airplane pilots.) Fatalities were proportional to the total number of accidents in all three phases of instruction.

This record suggests that the most promising areas for risk mitigation are:

Fixed-Wing Student Solos: The first solo is a crucial step for any pilot, but the traditional approach of focusing the first phase of instruction on readying the student for solo flight may merit re-examination. The need to manage the aircraft at speeds of 50 knots or more while control authority is near its minimum makes takeoffs and landings in airplanes challenging for student pilots. Helicopter students, by contrast, benefit from extensive time spent learning to hover the aircraft and control it precisely in low-altitude maneuvers, with the result that actual takeoffs and landings involve only small changes in altitude and airspeed, and low airspeed does not reduce a helicopter's control effectiveness. A conscious decision to postpone fixed-wing solo endorsements to allow students to gain more experience with aircraft performance, low-speed handling including stalls and stall recoveries, and crosswind control might substantially reduce their susceptibility to solo accidents.

The competence of unfamiliar pilots should be demonstrated, not assumed, even when those pilots own the aircraft they fly.

Flight Reviews, Make-and-Model Transitions, and Other Informal Training: The prevalence of accidents during transition and refresher training of certificated fixed-wing pilots suggests that the hazards of these types of instruction have not been fully appreciated. CFIs undertaking them should be wary, especially with pilots they haven't flown with frequently or recently, and should be realistic in assessing their own ability to maintain an adequate margin of safety, particularly in aircraft they don't know well. The competence of unfamiliar pilots should be demonstrated, not assumed, even (perhaps particularly) when those pilots own the aircraft they fly. Instructors should also insist both parties agree on who will act as pilot-in-command before they get into the aircraft.

Training is an essential part of all aviation, and while flight instruction enjoys one of the better safety records in GA, there are lessons to be learned...

Autorotation Practice: Since autorotation is the most crucial emergency maneuver, frequent practice is essential. That practice is also the leading cause of helicopter training accidents, however, suggesting room for improvement in developing techniques for teaching it safely. CFIs should not wait to intervene until the safe completion of the maneuver is in real doubt.

HOW SAFE IS FLIGHT TRAINING?

It's safer than most other types of general aviation, but there's still room for improvement. A prospective pilot with a realistic understanding of real-world GA may fairly see this as "safe enough," while nervous friends and family members might be less sanguine. As in personal flying, though, most of the risk is under the pilot's control. For student and CFI alike, combining a clear understanding of their own abilities and those of the aircraft with a consistent conscious effort to maintain a healthy margin of safety can substantially reduce the risks. The keys to minimizing risk include practicing as much as necessary, expanding the envelope gradually, and taking the time to learn to do things right rather than trying to do them fast. Becoming a bad pilot isn't worth the effort.

Training is an essential part of all aviation, and while flight instruction enjoys one of the better safety records in GA, there are lessons to be learned from its accident history. Identifying problem areas and developing strategies to address them is the first step in making it safer still—and regular, rigorous training helps make all other flying more enjoyable as well as safer.

APPENDIX

ACCIDENT DEFINITION AND TYPES

49 C.F.R. Part 830, the regulation that covers mandatory reporting to the National Transportation Safety Board, defines "aircraft accident" for the purposes of both official statistics and the Air Safety Institute's reports. The relevant sections of the full definition follow:

Aircraft accident means an occurrence associated with the operation of an aircraft which takes place between the time any person boards the aircraft with the intention of flight and all such persons have disembarked, and in which any person suffers death or serious injury, or in which the aircraft receives substantial damage. For purposes of this part, the definition of "aircraft accident" includes "unmanned aircraft accident" as defined herein.

- **Fatal injury** means any injury which results in death within 30 days of the accident.

- **Serious injury** means any injury which:

  (1) Requires hospitalization for more than 48 hours, commencing within seven days from the date the injury was received;

  (2) Results in a fracture of any bone (except simple fractures of fingers, toes, or nose);

  (3) Causes severe hemorrhages, nerve, muscle, or tendon damage;

  (4) Involves any internal organ; or

  (5) Involves second- or third-degree burns, or any burns affecting more than five percent of the body surface.

- **Substantial damage** means damage or structural failure which adversely affects the structural strength, performance, or flight characteristics of the aircraft, and which would normally require major repair or replacement of the affected component. Engine failure or damage limited to an engine if only one engine fails or is damaged, bent fairings or cowling, dented skin, small punctured holes in the skin or fabric, ground damage to rotor or propeller blades, and damage to landing gear, wheels, tires, flaps, engine

accessories, brakes, or wing tips are not considered "substantial damage" for the purpose of this part.

— **Unmanned aircraft accident** means an occurrence associated with the operation of any public or civil unmanned aircraft system that takes place between the time that the system is activated with the purpose of flight and the time that the system is deactivated at the conclusion of its mission, in which

(1) Any person suffers death or serious injury; or

(2) The aircraft has a maximum gross takeoff weight of 300 pounds or greater and suffers substantial damage.

— **Civil aircraft** means any aircraft other than a public aircraft.

— **Public aircraft** means an aircraft used only for the United States Government, or an aircraft owned and operated (except for commercial purposes) or exclusively leased for at least 90 continuous days by a government other than the United States Government, including a State, the District of Columbia, a territory or possession of the United States, or a political subdivision of that government. "Public aircraft" does not include a government-owned aircraft transporting property for commercial purposes and does not include a government-owned aircraft transporting passengers other than: transporting (for other than commercial purposes) crewmembers or other persons aboard the aircraft whose presence is required to perform, or is associated with the performance of, a governmental function such as firefighting, search and rescue, law enforcement, aeronautical research, or biological or geological resource management; or transporting (for other than commercial purposes) persons aboard the aircraft if the aircraft is operated by the Armed Forces or an intelligence agency of the United States. Notwithstanding any limitation relating to use of the aircraft for commercial purposes, an aircraft shall be considered to be a public aircraft without regard to whether it is operated by a unit of government on behalf of another unit of government pursuant to a cost reimbursement agreement, if the unit of government on whose behalf the operation is conducted certifies to the Administrator of the Federal Aviation Administration that the operation was necessary to respond to a significant and imminent threat to life or property (including natural resources) and that no service by a private operator was reasonably available to meet the threat.

For analytic purposes, this report classified accidents into broad categories defined as follows:

Mechanical: Accidents caused by the failure of some aircraft part or component in circumstances where a pilot of ordinary skill couldn't be expected to land the aircraft without damage (including failures due to improper or neglected maintenance)

Unexplained Power Loss: Partial or total loss of engine power during flight for reasons that could not be determined afterwards; adequate fuel was available and the engines showed no evidence of mechanical failure

Takeoff: Losses of control between the beginning of the takeoff roll and turning crosswind or reaching pattern altitude

Landing: Losses of control between passing the final approach fix (IFR) or entering the final leg of the traffic pattern (VFR) and exiting the runway

Go-Around: Losses of control while attempting to initiate a go-around and prior to attaining a stable climb

Maneuvering: Losses of control or collisions caused by deliberate and significant changes of aircraft attitude; includes everything from deliberate stalls to attempted aerobatics to turns in the traffic pattern

Fuel Mismanagement: Fuel exhaustion (no usable fuel remains aboard the aircraft), starvation (engine stops due to lack of fuel although usable fuel is available), or contamination

Descent and Approach: Losses of control or collisions between the end of the en route portion of the flight and entry to the traffic pattern (VFR) or the initial approach fix (IFR)

Autorotations: Includes both practice autorotations and those emergency autorotations that a pilot of ordinary skill could reasonably be expected to complete without damage to the aircraft

Hovering, Hover Taxi, Etc.: Also includes low-altitude maneuvers such as pedal turns, box patterns, point turns, etc.

Other Rotorcraft Aerodynamics: Phenomena peculiar to rotorcraft, including settling with power, loss of tail rotor effectiveness, dynamic rollover, ground resonance, and mast bumping.

BENNER TOWNSHIP BOARD OF SUPERVISORS

IN RE: BELLEFONTE CAMPGROUND – CONDITIONAL USE HEARING

EXHIBIT L

PHOTOGRAPHS OF AIRPLANE OFF RUNWAY

Exhibit L