8-24-2006 Version # 2

BOARD OF COUNTY COMMISSIONERS

ZONING HEARINGS

COUNTY COMMISSIONERS CHAMBERS OF THE STEPHEN P. CLARK CENTER - 2ND FLOOR

111 NW 1 Street, Miami

Thursday, September 28, 2006 at 9:30 a.m.

APPEALS

						DISTRICT	
1.	05-7-CZ10-5	IRENE G. ATHANS	Exhibit Missing Large	05-401 (Old #04-435)	01-54-39	N	12
2.	06-7-CZ11-1	CENTURY BUSINESS PARK LLC (DIC)	No Exhibit	05-274	09-55-39	N	11

6-5-2006 Version # 2

MIAMI-DADE COUNTY

COMMUNITY ZONING APPEALS BOARD 11
ARVIDA MIDDLE SCHOOL
10900 SW 127 Avenue, Miami
Thursday, July 6, 2006 at 7:00 p.m.

PREVIOUSLY DEFERRED

A.	06-6-CZ11-1	MILLER RB GEM LLC	NOT FOUND	03-343	26-54-39	
B.	06-6-CZ11-6	SOUTH TUSCANY LLC, & WM R. MIDDELTHON JR., TRUSTEE	NOT FOUND	05-377	14-55-39	
C.	06-6-CZ11-7	TAMIAMI KENDALL INVESTMENT, INC.	NOT FOUND	05-378	14-55-39	

CURRENT

1.	06-7-CZ11-1	CENTURY BUSINESS PARK LLC	Exhibits complete	05-274	09-55-39	N
2.	06-7-CZ11-2	DON CARTER'S KENDALL LANES, LTD.	NO FOUND	05-290	02-55-39	N
3.	06-7-CZ11-3	ESTEBAN DAVID AGUILA	NO Exhibits	05-368	10-55-39	N
4.	06-7-CZ11-4	DELFINA M. ROIG	NO Exhibits	06-48	35-54-39	N

COUNTY COMMISSION
ZONING AGENDA OF NOVEMBER 09, 2006
EXHIBITS SUBMITTED FOR THE RECORD

CENTURY BUSINESS PARK L.L.C. (06-7-CZ-1/05-274)

EXHIBIT **A-1:** Map showing the location of single family homes and townhouse. ✓

A-2: Thick binder with 34 tabs titled "CENTURY BUSINESS PARK, LLC submitted by Holland & Knight. ✓

A-3: Memorandum from Miami-Dade County Public Works department on the impact of existing roadways, and trafiic anticipation. ✓

A-4: Petition signatures in support of the application. ✓

IDALBERTO & ELOISA RODRIGUEZ (06-6-CZ10-2/05-322)

EXHIBIT **1-A:** 6 petition signatures in support of the application. ✓

1-B: 97 petition signatures in objection to the application. ✓

Submitted for the record this 9 day of NOVEMBER 2006

ATTEST:

HARVEY RUVIN, Clerk
Clerk of Circuit and County Courts

By _____
Deputy Clerk

TRANSFERRED TO THE CARE, CUSTODY AND CONTROL OF THE DEPARTMENT OF PLANNING AND ZONING.

RECEIVED BY: _____ 11/13/06 Nubia Jarquin
(SIGN) **(DATE)** **(PRINT)** **(DATE)**

BOARD MEETING OF JULY 12, 2006
SUMMARY OF AGENDA ITEMS
FACILITIES AND CONSTRUCTION REFORM COMMITTEE

RECEIVED BY CLERK
Item # 05-274
CZAB # 11 Exhibit # 1-2
JUL - 6 2006
CLERK OF THE BOARD

Item No.

A-2 Five-Year Capital Plan 2006-2010

B-8 Report of the Task Force on Affordable Housing

F-1 – 8 Declaration of Restrictions

- Impact Fees: $612,250 Total
- Additional contributions: $1,044,284 Total

F-9 - 11 Grant of Easements

F-12 - 15 Lease Agreements

F-17 - 18 Land Purchase Agreements

- 10.2 acres S/S "M1" to relieve Cristina Eve, Oliver Hoover and Claude Pepper Elementary Schools (KENDALL COMMONS)
- 10.0 acres S/S "P1" to relieve John I. Smith and Eugenia B. Thomas Elementary School

F-20 Budget Amendment – transfer of $1,240,734 for ongoing projects

F-21 Water Line Easement – Sweetwater Elementary School

F-22 Replacement of Designated Specialist

F-23-28 Commissionings of Architect/Engineers and CM At-Risk Firms

F-29 Agreement with City of Doral for Drop-Off at Eugenia B. Thomas Elementary School

F-32-34 GMP Awards

• S/S "JJJ":	2,844 seats,	$ 75,665,488
• Devon Aire K-8 Conversion:	783 seats,	$ 23,256,443
• State School "MM1", "PP1", "UU1":	4,716 seats,	$ 103,393,006
Total	8,343 seats,	$ 202,314,937

F-36-44 Final Change Orders ($480,010)

RECEIVED BY CLERK
Item # 05-274
CZAB # 11 Exhibit # 1-1
JUL - 6 2006
CLERK OF THE BOARD

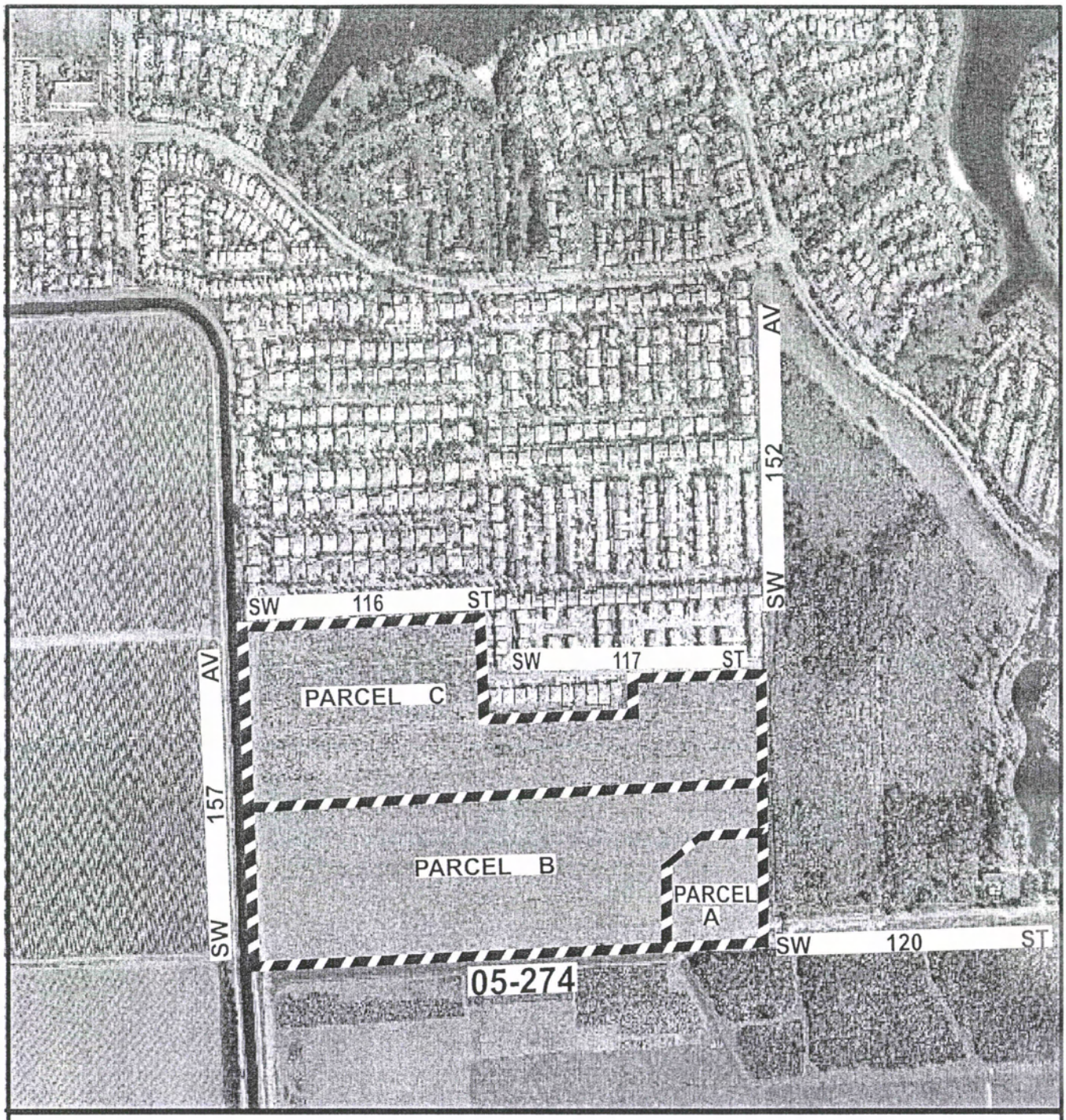
BEFORE THE MIAMI-DADE COUNTY COMMUNITY ZONING APPEALS BOARD FOR AREA 11

CENTURY BUSINESS PARK, LLC

Public Hearing 05-274
July 6, 2006

Holland+Knight

701 Brickell Avenue
Suite 3000
Miami, Florida 33131
(305) 374-8500 Phone
(305) 789-7799 Fax



MIAMI-DADE COUNTY

AERIAL

S C A L E
0 NTS

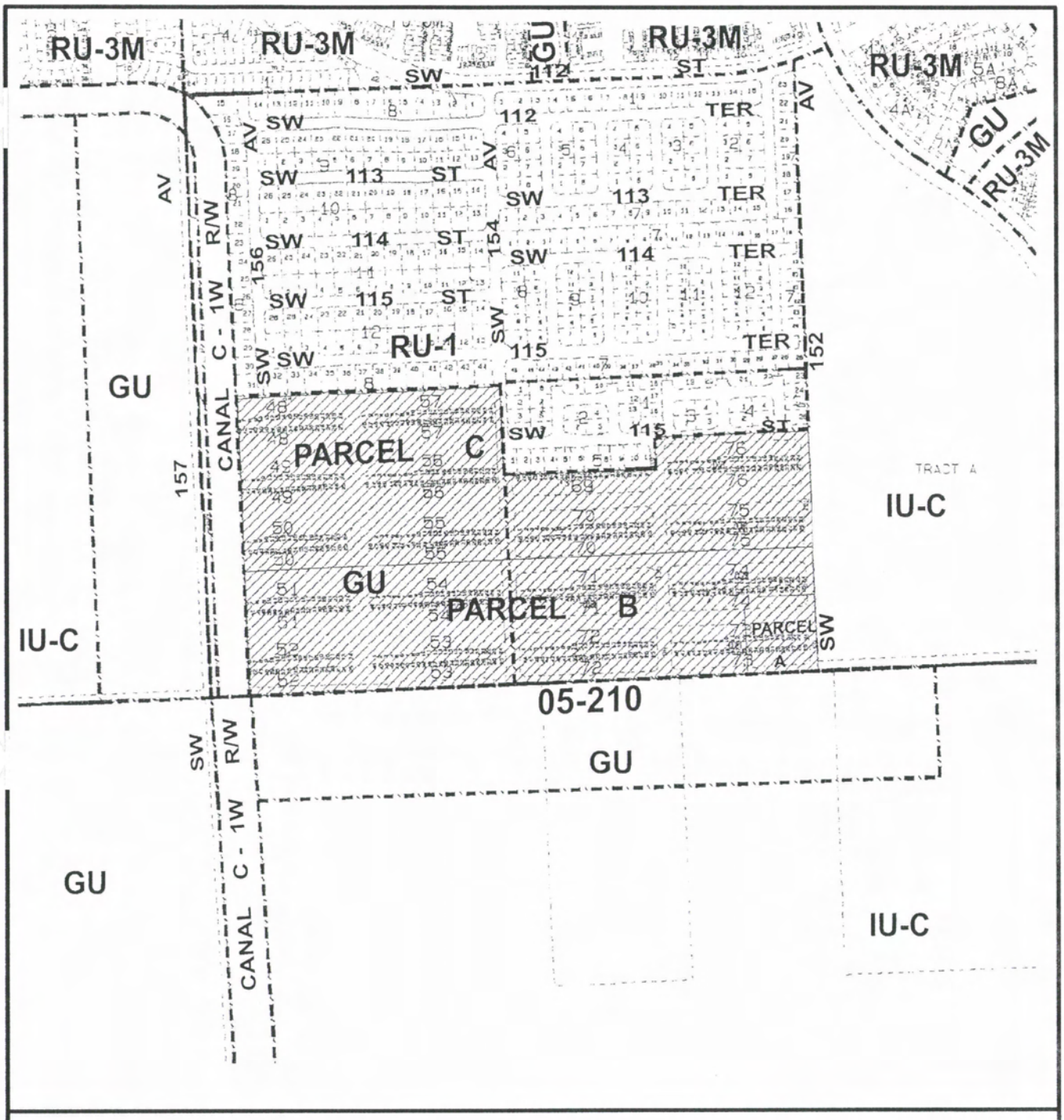
N

SUBJECT PROPERTY

Section: 09 Township: 55 Range: 39
Process Number: 05-274
Applicant: CENTURY BUSINESS PARK
Zoning Board: C11
District Number: 11
Drafter ID: KEELING
Scale: NTS

MIAMI-DADE

G: ZONING DRAFTING. 05- 274 02/06
REV. (LEGAL DES.) 02/06 KS.



MIAMI-DADE COUNTY

HEARING MAP

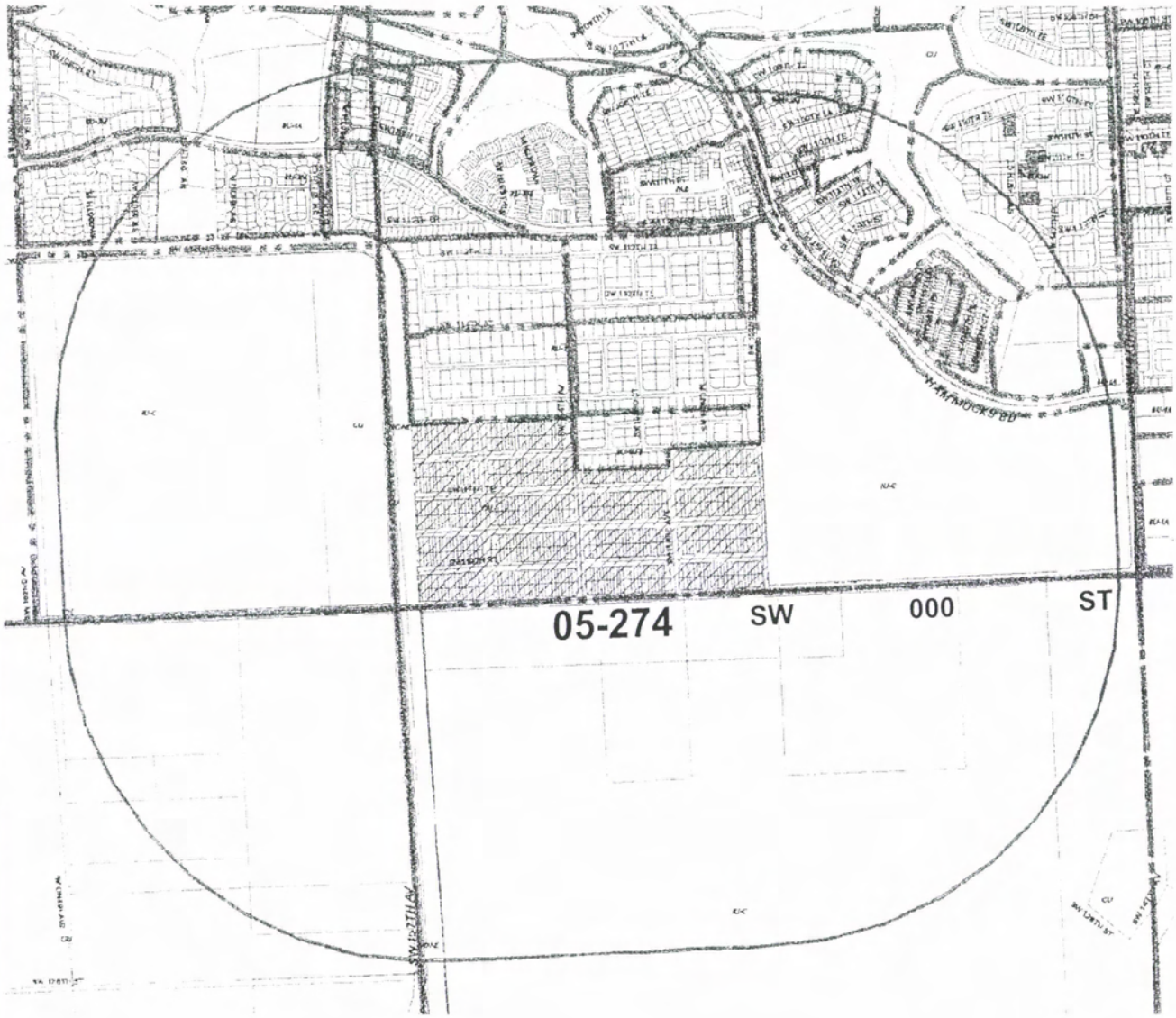
S C A L E
0 NTS
N

SUBJECT PROPERTY

Section: 09 Township: 55 Range: 39
Process Number: 05-274
Applicant: CENTURY BUSINESS PARK
Zoning Board: C11
District Number: 11
Drafter ID: KEELING
Scale: 1:200'

MIAMI-DADE COUNTY

G: ZONING DRAFTING, 05- 274 02/06.
REV. (LEGAL DES.) 02/06 KS.



MIAMI-DADE COUNTY

RADIUS MAP

S C A L E
0 NTS
N

SUBJECT PROPERTY

Radius: 2640'

Section: 09 Township: 55 Range: 39
Process Number: 05-274
Applicant: CENTURY BUSINESS PARK
Zoning Board: C11
District Number: 11
Drafter ID: KEELING
Scale: NTS

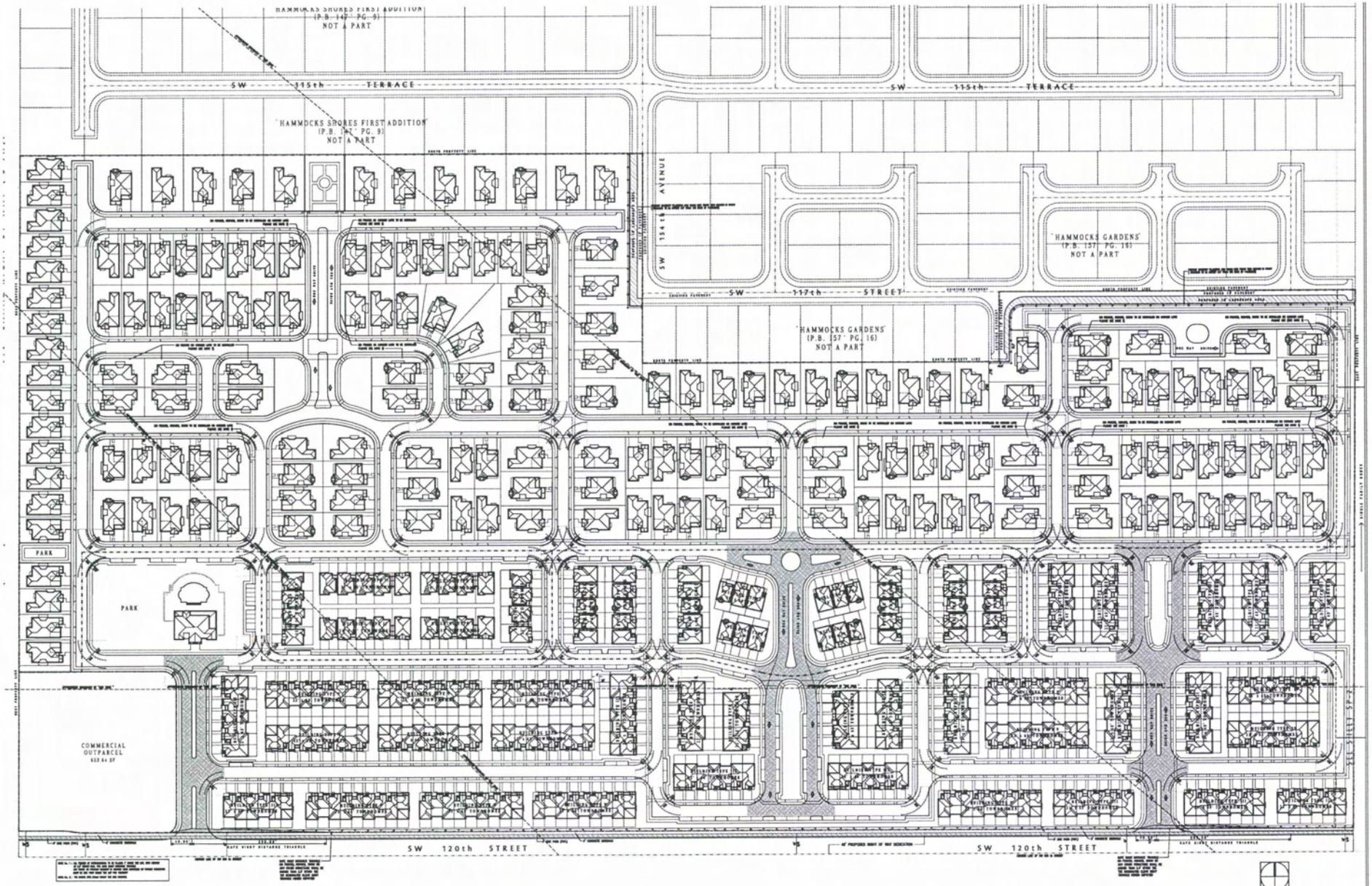
MIAMI-DADE COUNTY

G: ZONING DRAFTING, 05- 274 02/06
REV. (LEGAL DES.) 02/06 KS.

CENTURY GARDENS

SITE PLAN

PASCUAL, PEREZ, KILIDDJIAN & ASSOCIATES
Architects - Planners



NORTH

SITE PLAN

1" = 80'

PASCUAL
PEREZ
KILIDDJIAN
& ASSOCIATES
ARCHITECTS, PLANNERS
CERTIFICATE No.: AA 0002795

RICARDO PEREZ, AIA
LICENSE No.: AR 0015194
MARIO P. PASCUAL, AIA
LICENSE No.: AR 0008254

VILLAGE AT BEACON CENTER
8323 NORTHWEST 12 STREET
SUITE NO.: 104
MIAMI, FLORIDA 33126
TELEPHONE: (305) 592-1363
FACSIMILE: (305) 592-6865
www.pascualperezarchitects.com

REVISIONS:
11. 09. 05
11. 30. 05

CENTURY GARDENS

BY

CENTURY BUSINESS PARK

MIAMI, FLORIDA

SITE PLAN

DATE: 09. 06. 05

SCALE: AS SHOWN

DRAWN: ID

JOB NO.: NA

SP-1

SHEET NO.:

C E N T U R Y G A R D E N S

DETAIL OF LANDSCAPE BUFFER

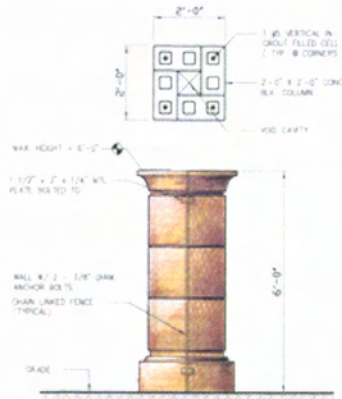
DETAIL A-A DECORATIVE WALL - ELEVATION (TYPICAL)

DETAIL A-A DECORATIVE WALL - FLOOR PLAN (TYPICAL)

STREET PAVEMENT

COLUMN PLAN VIEW

NTS



1 SECTION DETAIL

NTS

PASCUAL, PEREZ, KILIDDJIAN & ASSOCIATES

Architects - Planners

Century Gardens

Single Family Homes

Eden Model

3 bedrooms, 2 ½ baths,
family room, laundry room
and 2-car garage
Plan A

Preliminary Artist's Concept

Century Gardens

Brookside Model

4 bedrooms, 3 baths,
family room and 2-car garage
Plan B

Preliminary Artist's Concept

Century Gardens

Fairchild Model

4 bedrooms, 2 baths, breakfast nook, family room
and 2-car garage
Plan C

Preliminary Artist's Concept

Century Gardens

Montreal Model

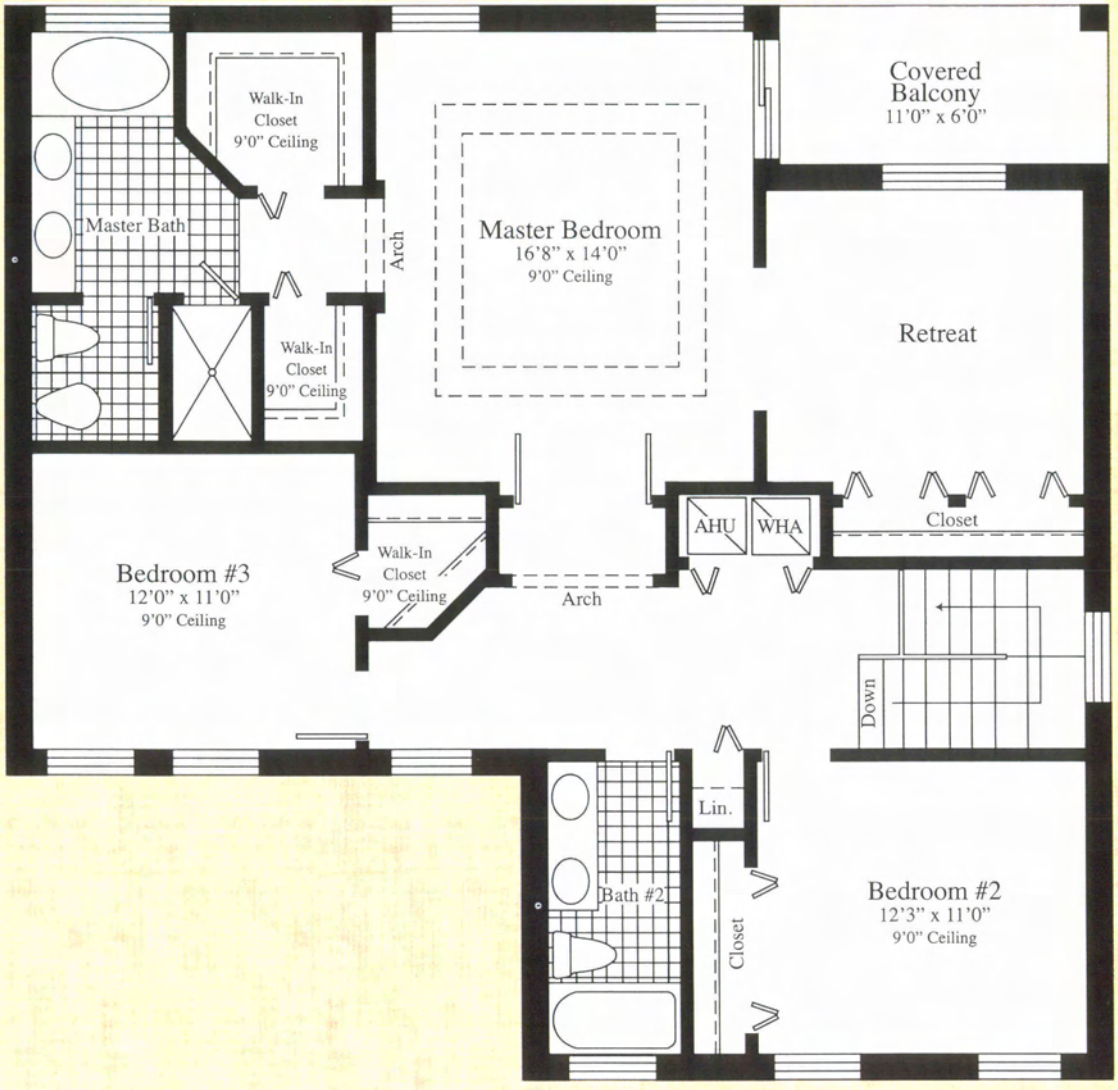
3 bedrooms, 2 ½ baths, covered entry, breakfast nook
family room, covered terrace, balcony and 2 car garage
Plan D

Preliminary Artist's Concept

Century Gardens

Montreal Model

3 bedrooms, 2½ baths, covered entry, breakfast nook
family room, covered terrace, balcony and 2 car garage
Plan D



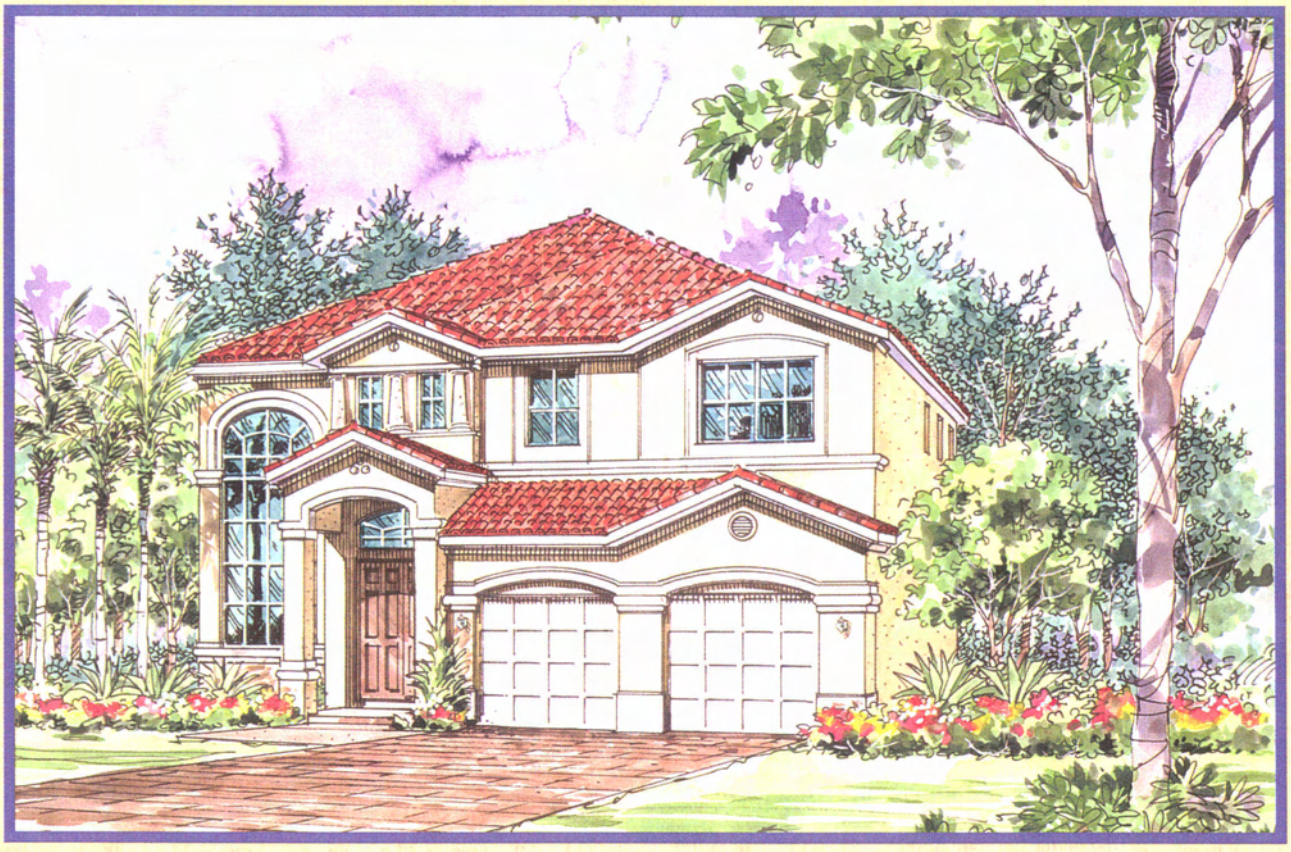
Second Floor

Century Gardens

We endeavor to constantly improve our products, therefore prices, plans, specifications, features, designs, dimensions, materials and availability are subject to change or substitution by Seller without notice. Floorplans are not to scale. All measurements are approximate. All square footage are measured from the outside of exterior walls. Illustrations of elevations and plans are artist's concept only. In production, plans and elevations may vary somewhat in precise details and dimensions and may not be as shown. Landscaping not to scale and may vary as to maturity and number. Floor plans not to scale and may be reversed (mirror image) of those shown. License No. CGC 047247 11/05

Helani Model

4 bedrooms, 3 baths, family room,
entry foyer, covered terrace, balcony and 2-car garage
Plan E

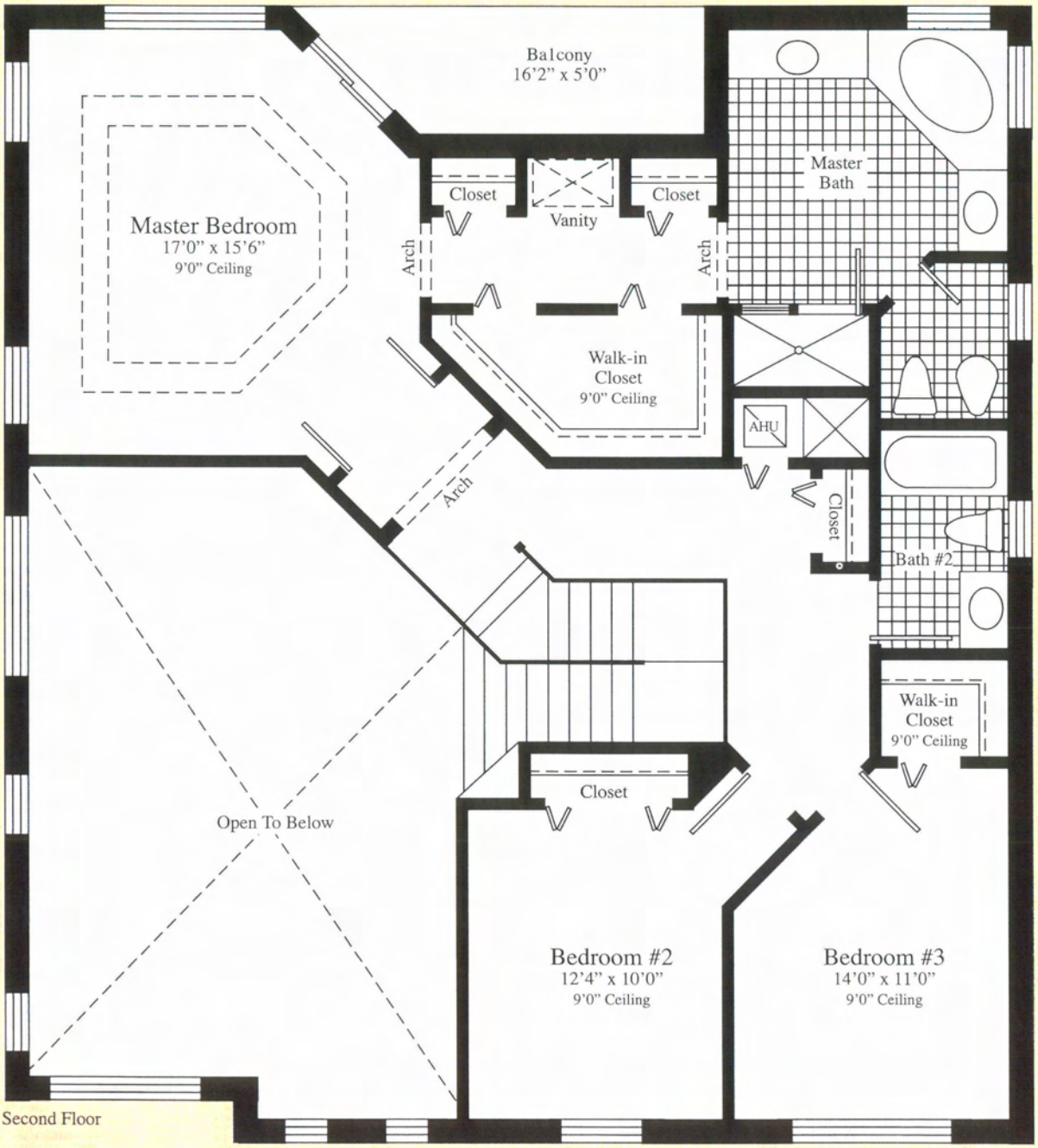


Preliminary Artist's Concept

Century Gardens

Helani Model

4 bedrooms, 3 baths, family room,
entry foyer, covered terrace, balcony and 2-car garage
Plan E



Second Floor

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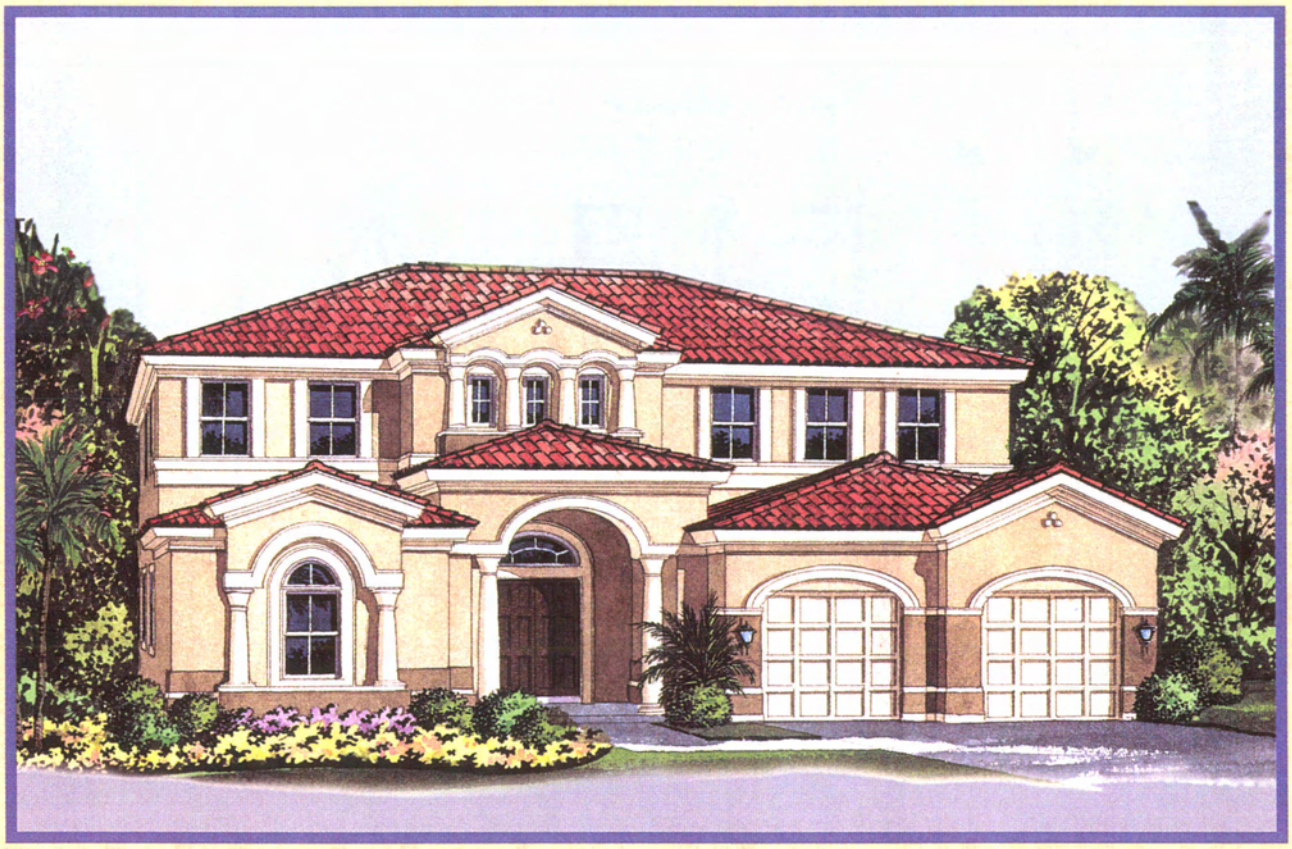
Martinique I Model

2 story, 4 bedrooms, 3½ baths, breakfast nook,
family room, laundry room, covered terrace
and 2-car garage
Plan F



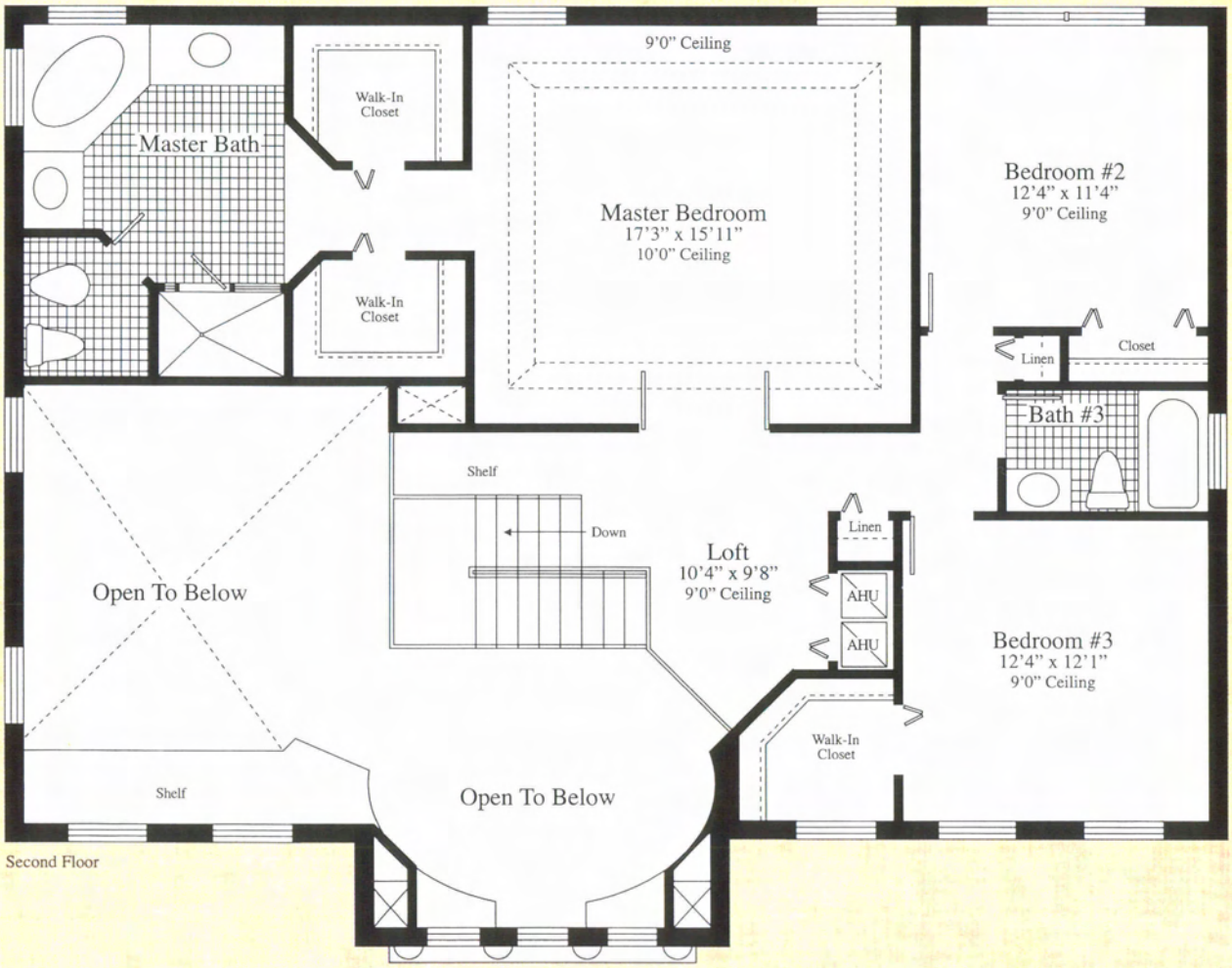
Preliminary Artist's Concept

Century Gardens

Martinique I Model

2 story, 4 bedrooms, 3½ baths, breakfast nook, family room, laundry room, covered terrace and 2-car garage

Plan F



Second Floor

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Huntington Model

2 story, 3bedrooms, 3 1/2 baths, breakfast nook
family room, covered terrace and 2-car garage
Plan G

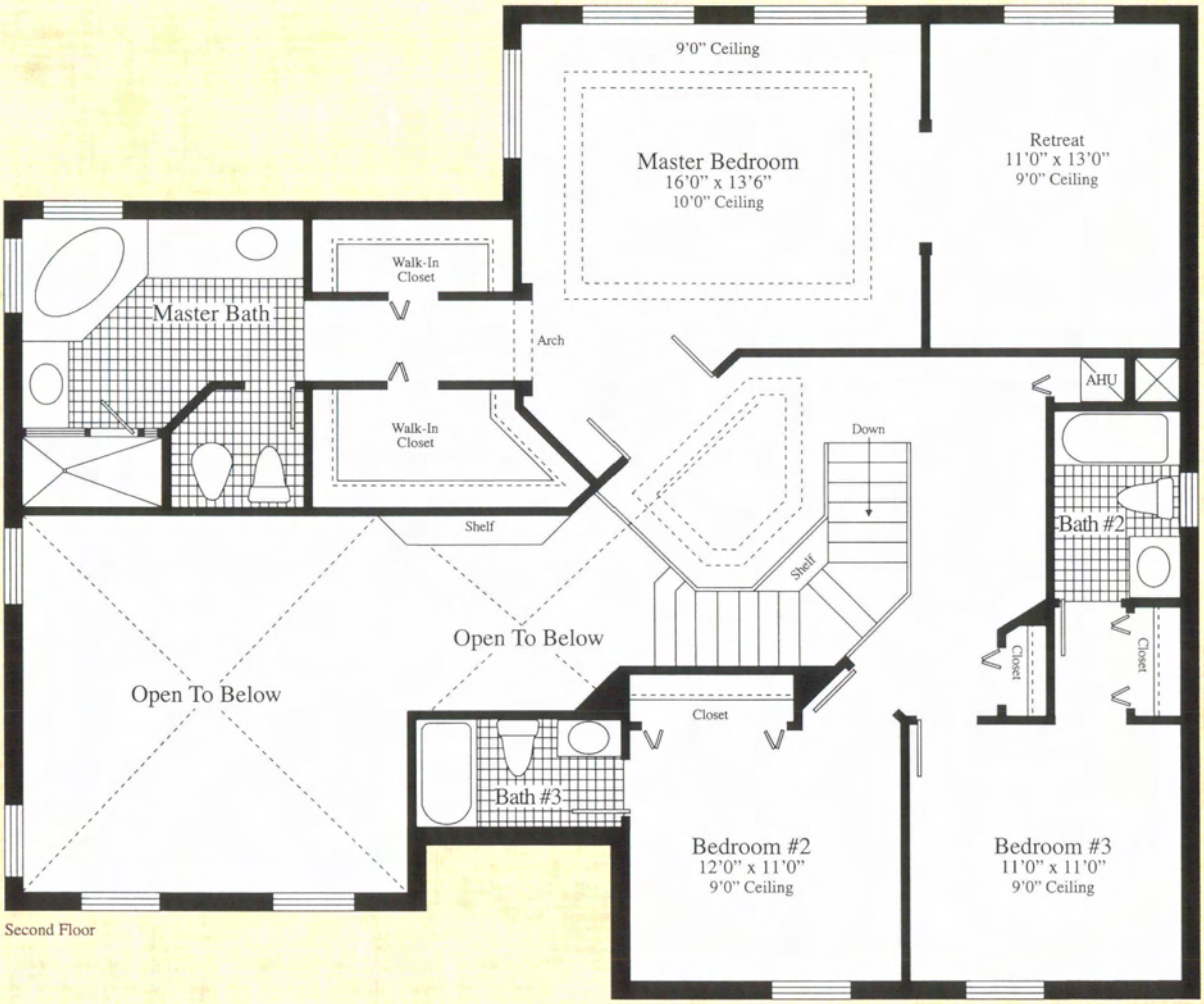
Preliminary Artist's Concept

Century Gardens

Huntington Model

2 story, 3 bedrooms, 3 1/2 baths, breakfast nook, family room, covered terrace and 2-car garage

Plan G



Second Floor

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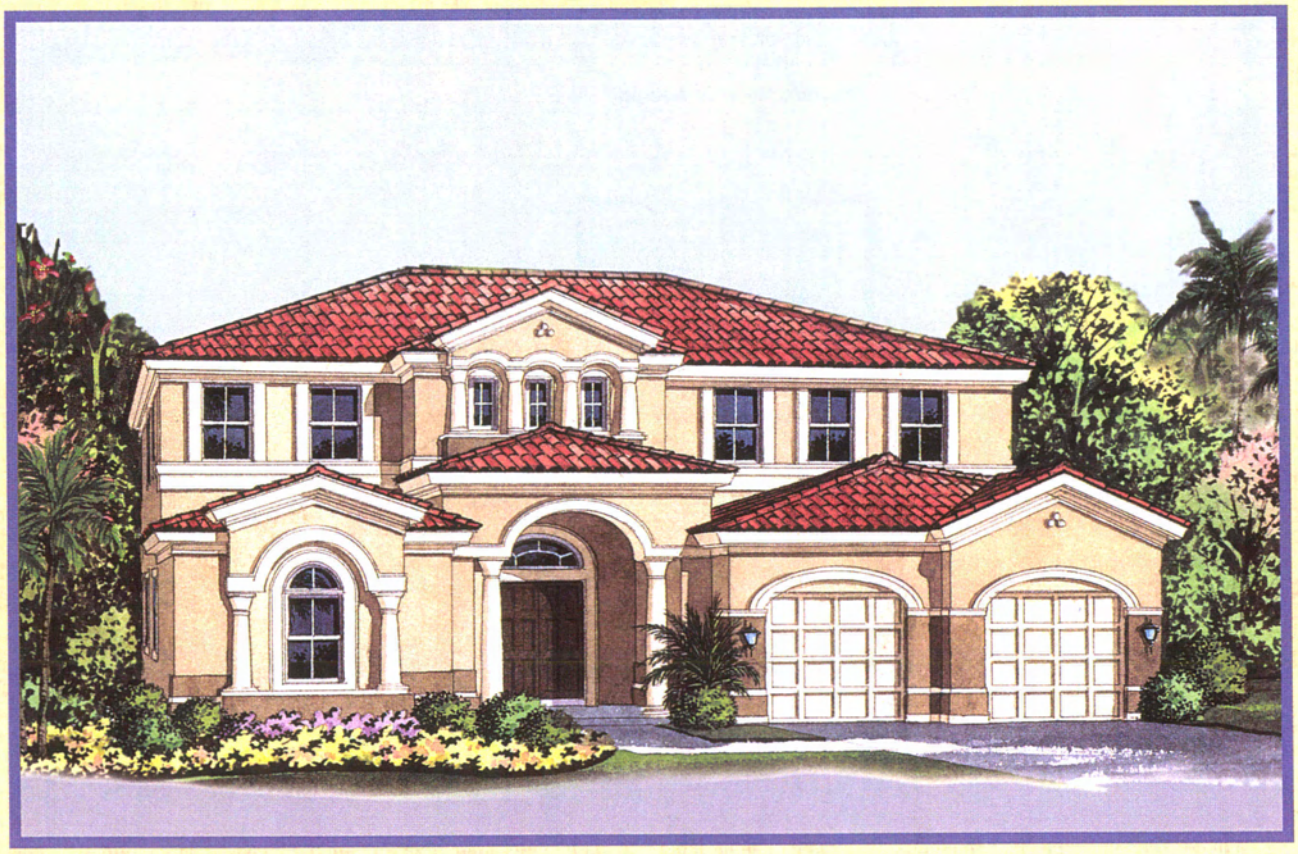
Martinique II Model

2 story, 5 bedrooms, 4½ baths, breakfast nook,
family room, laundry room, covered terrace
and 2-car garage
Plan H



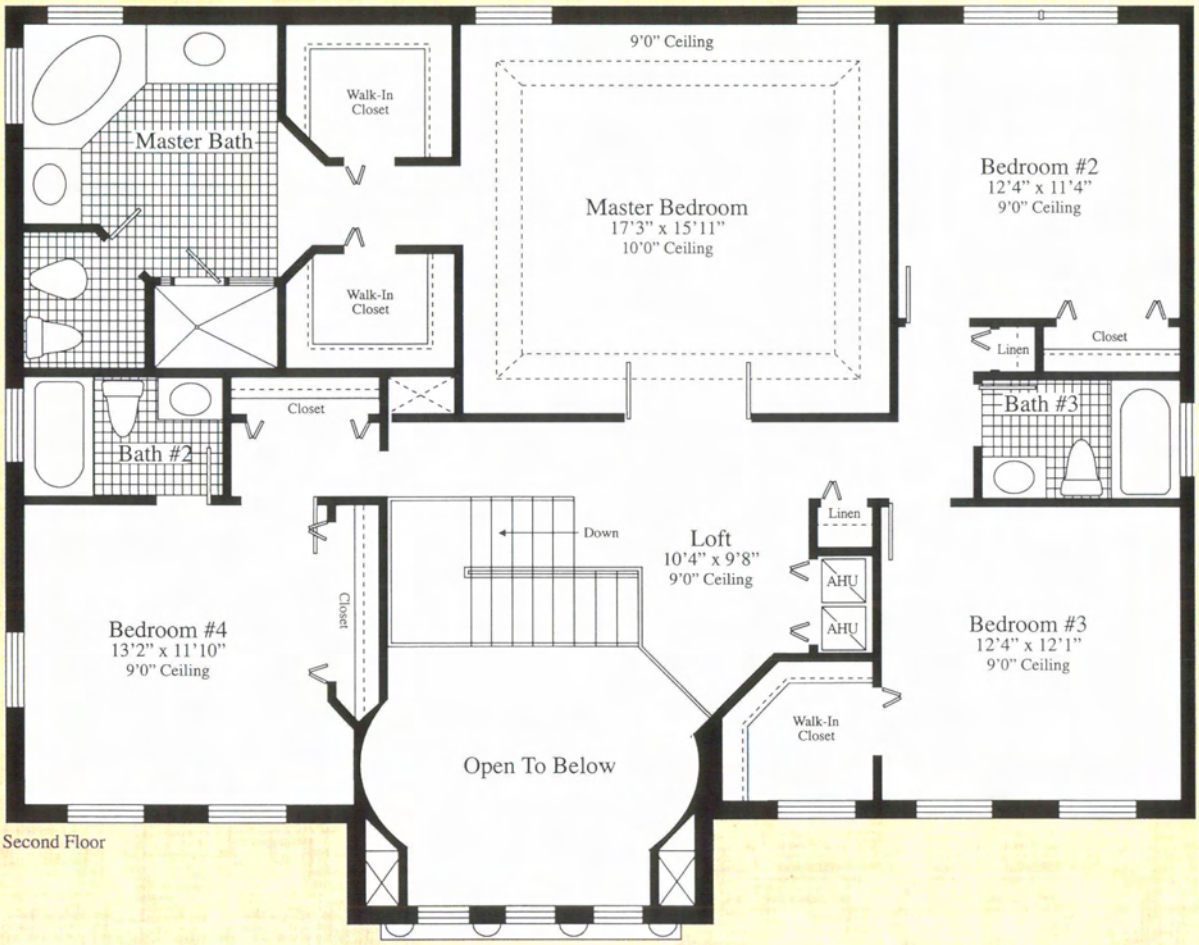
Preliminary Artist's Concept

Century Gardens

Martinique II Model

2 story, 5 bedrooms, 4½ baths, breakfast nook, family room, laundry room, covered terrace and 2-car garage

Plan H



Second Floor

Century Gardens

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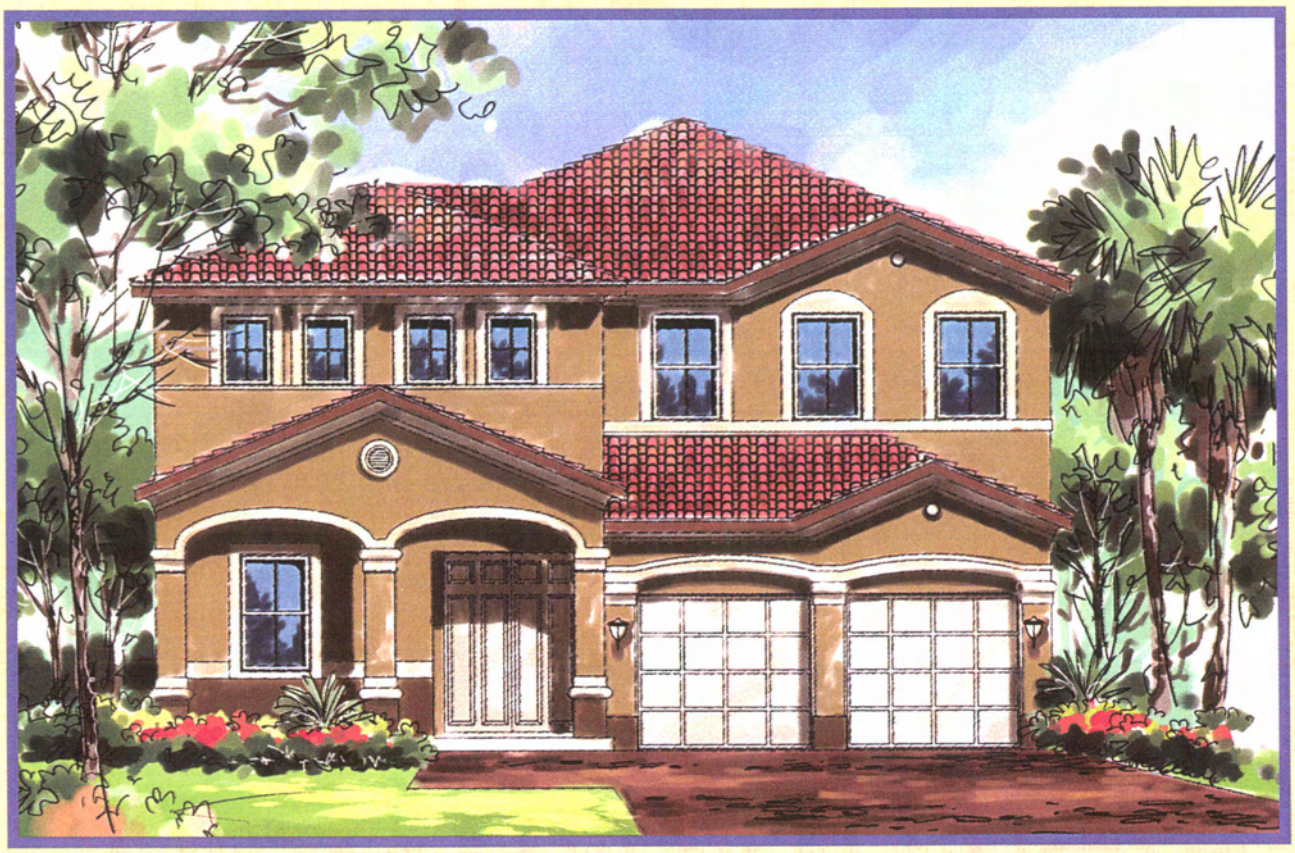
Centennial Model

4 bedrooms (2 master bedrooms), 3 1/2 baths,
family room, laundry room and 2-car garage
Plan I



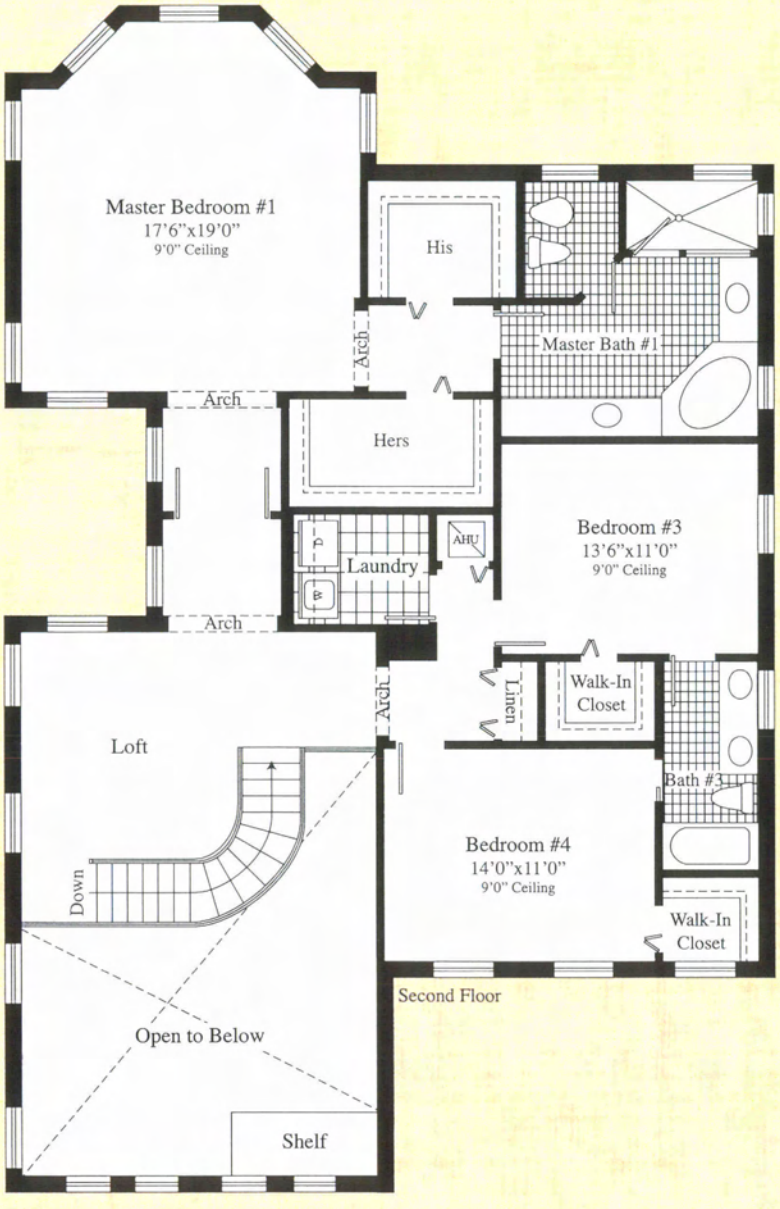
Preliminary Artist's Concept

Century Gardens

Centennial Model

4 bedrooms (2 master bedrooms), 3 1/2 baths, family room, laundry room and 2-car garage

Plan 1



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CENTURY
HOMEBUILDERS *of South Florida*

Features of your Home

The Century Gardens Single Family Homes are designed and built by Century HomeBuilders of South Florida and come complete with all of the features listed here.

Your Community

- Community Club House
- Professionally Designed Landscaping
- Elegant Entry
- Sidewalks Throughout the community
- Underground Utilities
- Street Lighting Creating a friendly neighborhood

Outside your home

- Sturdy lifetime concrete block construction and full stucco texture walls
- Concrete second floor
- Elegant and durable brick paver driveways and walkways
- Spanish style concrete roof tiles
- Professionally designed landscape package
- Concrete rear patios (per plan)
- Engineered hurricane protection for all openings
- Exterior front and rear hose bibs
- Coach lights on each side of garage

Throughout Your Home

- 16" x 16" ceramic tile in foyer and kitchen (in choice of 3 colors)
- Luxurious wall to wall carpet installed over 3/8" padding
- Decorative 6-panel Colonial doors
- Quality Colonial style baseboard
- Tempered safety glass sliding doors
- Pre-wired telephone outlets in all bedrooms, kitchen and family
- Alarm System
- Pre-wired for lighting or ceiling fans in family room and all bedrooms
- Designer light fixtures in hall (per plan)
- Pre-wired for garage door opener
- Durable marble window sills
- Volume ceiling (per plan)
- Knock-down textured walls and ceiling (except for bathrooms)
- Tray ceilings (per plan)

Your Gourmet Kitchen

- 16" x 16" ceramic tile (in choice of 3 colors)
- Durable European mica cabinets
- Stainless steel double bowl sink
- Full mica backsplash
- Decorative fluorescent lighting
- Quality white on white appliance package including:
    - 24.6 cu. ft. refrigerator with ice and water
    - Self cleaning range
    - Dishwasher
    - Food waste disposal
    - Space saver microwave

Your Elegant Bathrooms

- Acrylic roman tub (per plan)
- 8" x 8" ceramic tiles floors
- 8" x 8" ceramic tiles in all wet areas
- Cultured marble vanity in master bathroom suite
- European style mica vanities
- Full width vanity mirrors and decorative theater lighting
- Elongated commodes in master bathroom

Energy Saving Features

- Energy efficient central air and heating system
- 50 gallon water heater
- R 30 ceiling insulation
- R-11 insulation garage wall
- R-4.1 Foil insulation in exterior walls

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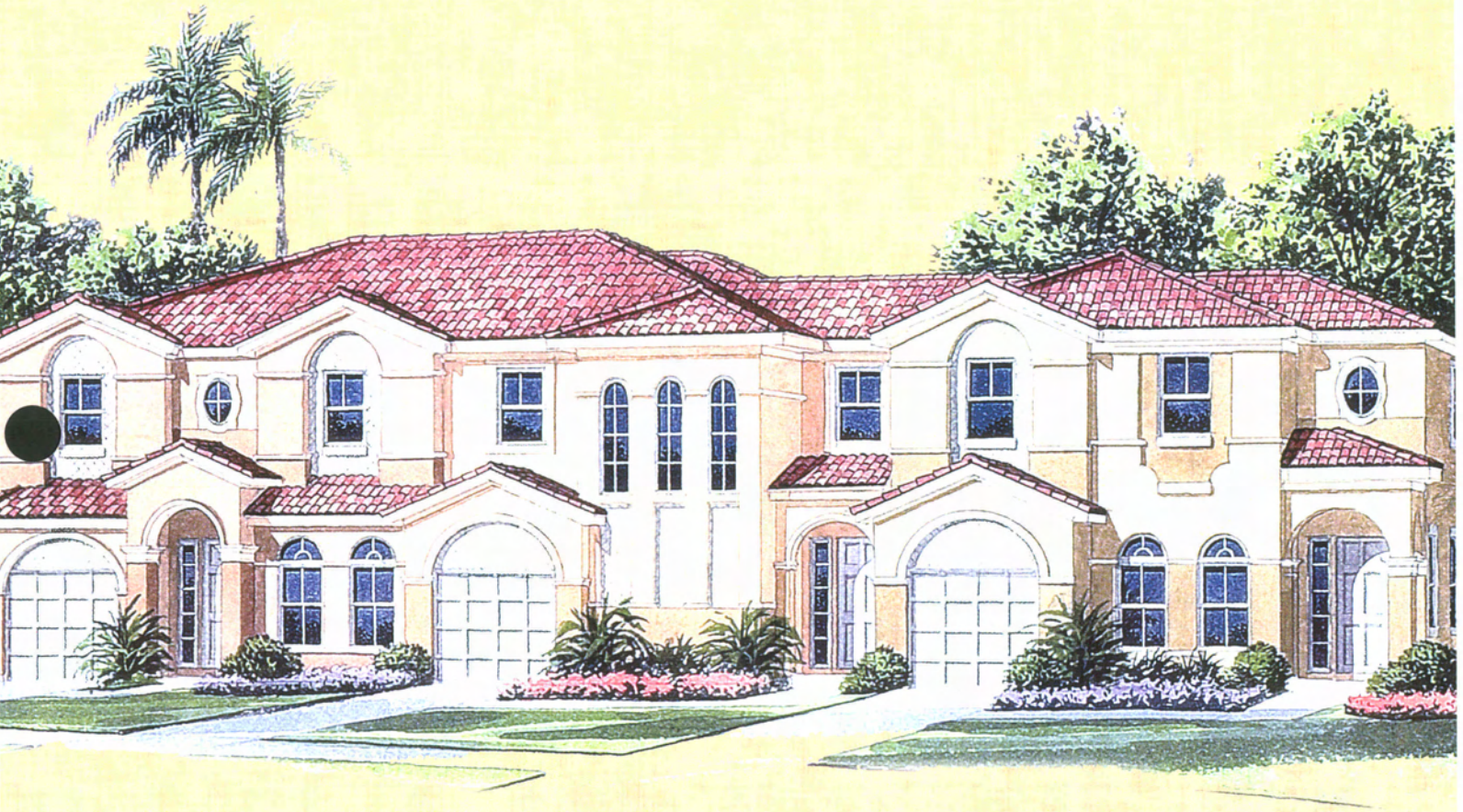
Lic # CGC 004457 11/05

Century Gardens

Telephone (305) 441-7000 - Fax (305) 441-9515
www.centuryhomebuilders.com

Preliminary

Century Gardens

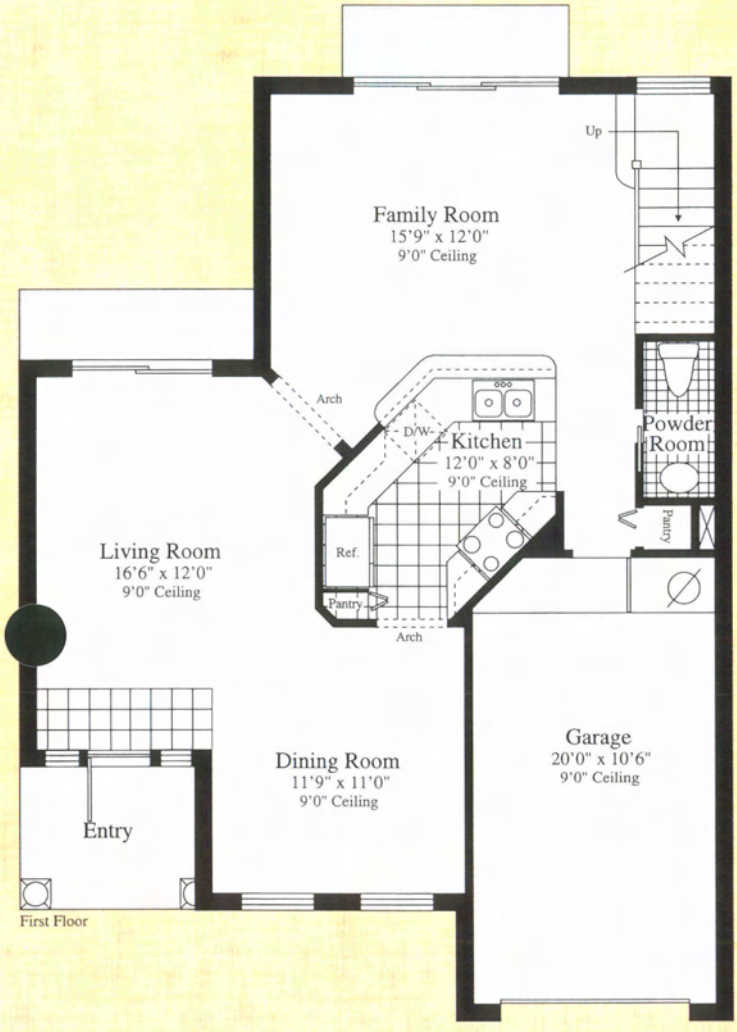


Luxury Townhomes

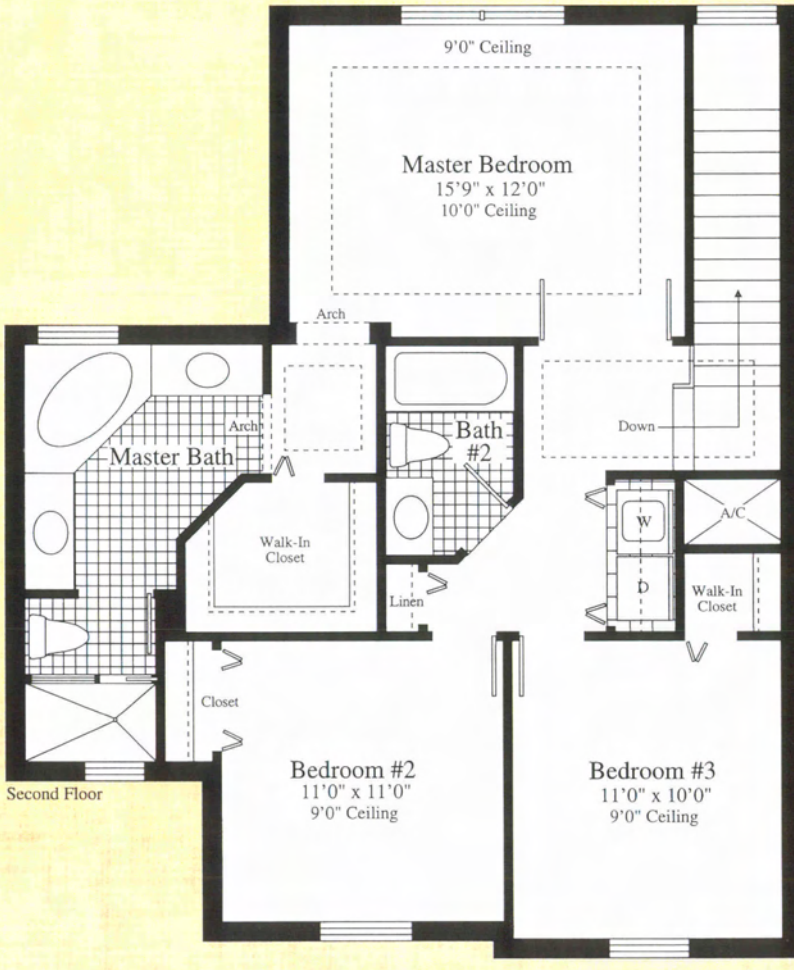
Preliminary Brochure

Amaryllis

3 bedrooms, 2 1/2 baths,
family room and garage
Plan A



First Floor



Second Floor

Century Gardens

Preliminary Artist's Concept

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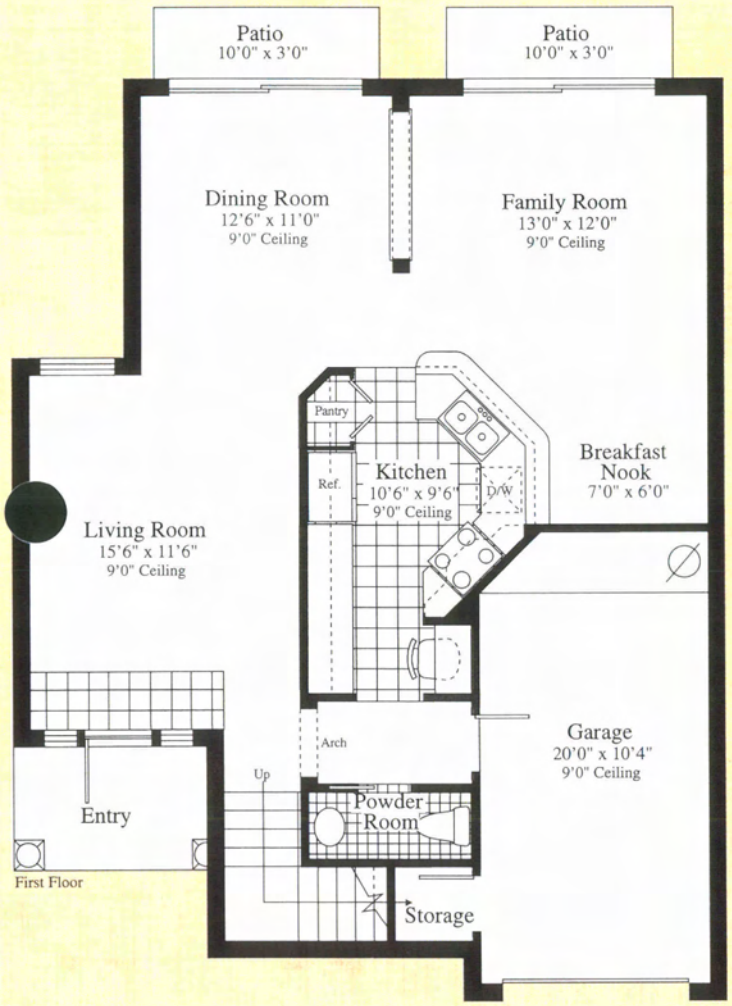
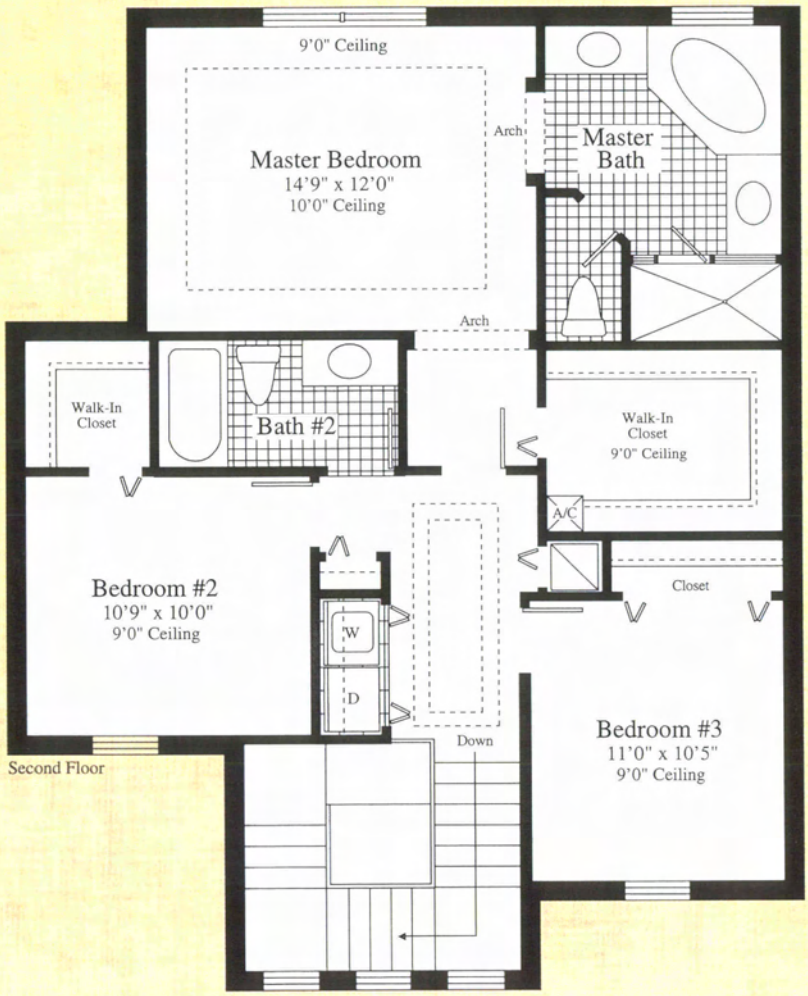
Blackberry

3 bedrooms, 2½ baths,
breakfast nook, family room and garage
Plan B





Century Gardens

Preliminary Artist's Concept

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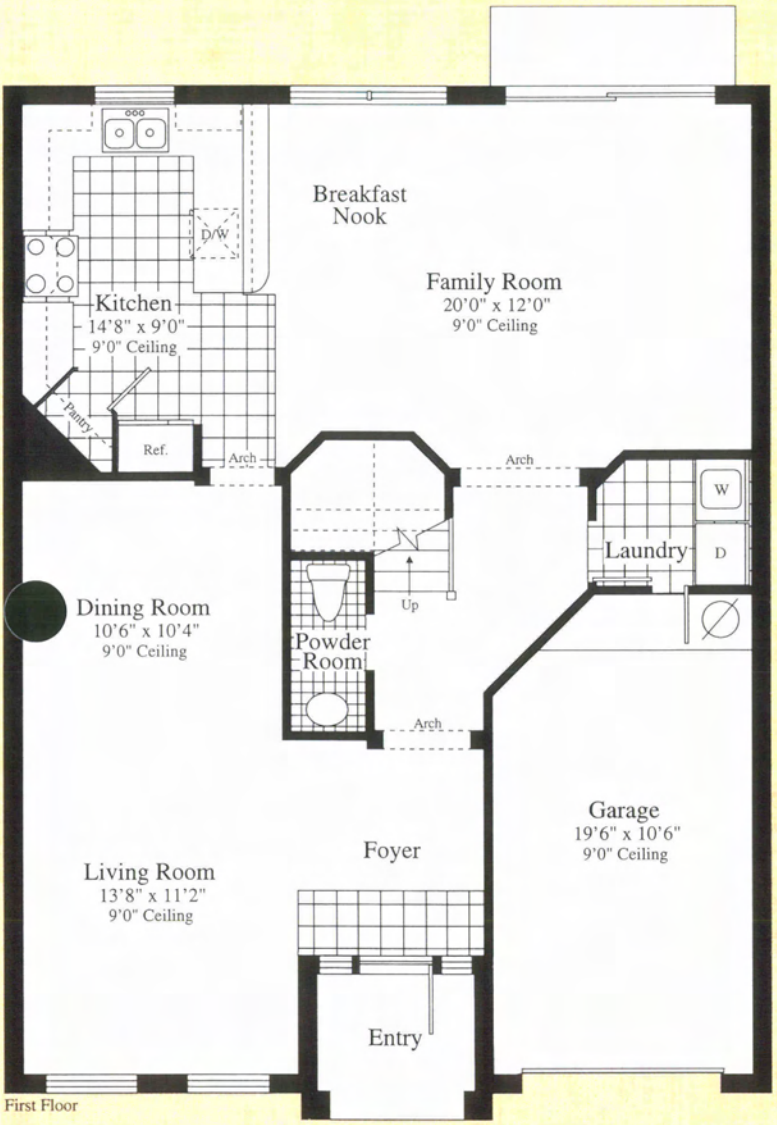
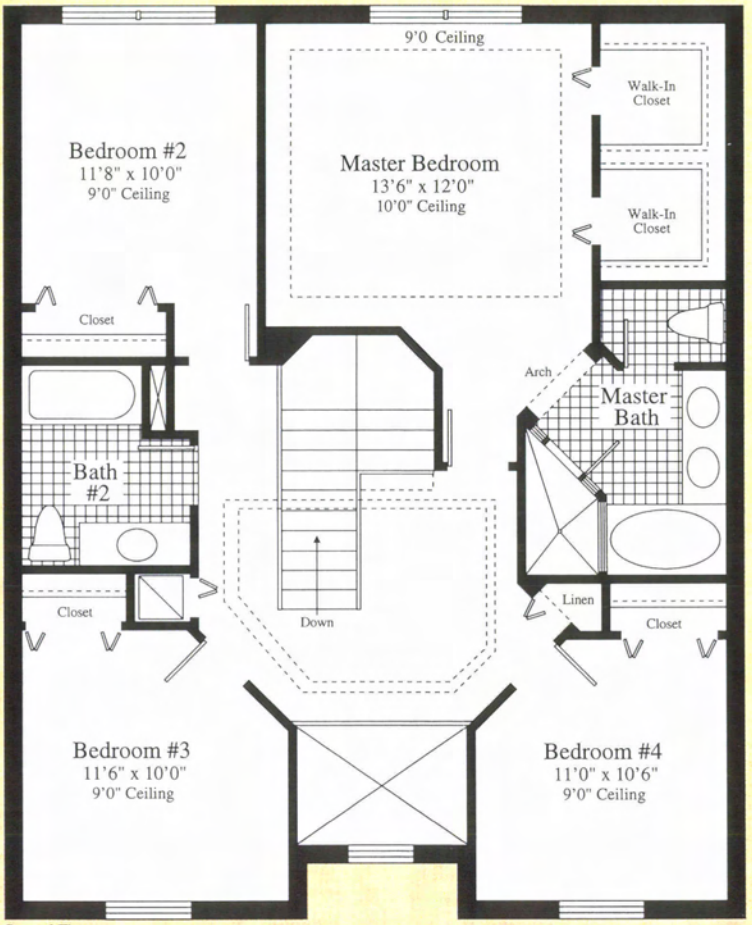
Carnation

4 bedrooms, 2 1/2 baths, breakfast nook,
family room, laundry room and garage
Plan C



First Floor



Second Floor

Century Gardens

Preliminary Artist's Concept

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CENTURY
HOMEBUILDERS *of South Florida*

Features of your Luxury Townhomes

The Century Gardens Luxury Townhomes are designed and built by Century HomeBuilders of South Florida and come complete with all of the features listed here.

Your Community

- Community Club House
- Professionally designed landscaping
- Elegant entry
- Sidewalks throughout the community
- Underground utilities
- Street lighting creating a friendly neighborhood.

Outside your home

- Sturdy lifetime concrete block construction and full stucco texture walls
- Concrete second floor
- Elegant and durable brick paver driveways and walkways
- Spanish style concrete roof tiles
- Professionally designed landscape package
- Concrete rear patios (per plan)
- Engineered hurricane protection for all openings
- Exterior front and rear hose bibs

Throughout Your Home

- 16" x 16" ceramic tile in foyer and kitchen (in choice of 3 colors)
- Luxurious wall to wall carpet installed over 3/8" padding
- Decorative 6-panel Colonial doors
- Quality Colonial style baseboard
- Tempered safety glass sliding doors
- Pre-wired four line telephone outlets
- Alarm system
- Pre-wired for ceiling fans in family room and all bedrooms
- Designer light fixtures in hall (per plan)
- Pre-wired for garage door opener
- Durable marble window sills
- 9 ft ceiling first and second story
- Knock-down textured walls and ceiling (except for bathrooms)
- Tray ceilings (per plan)

Your Gourmet Kitchen

- 16" x 16" ceramic tile (in choice of 3 colors)
- Durable European mica cabinets
- Stainless steel double bowl sink
- Full mica backsplash
- Decorative fluorescent lighting
- Quality white on white appliance package including:
    - 22 cu. ft. refrigerator with ice and water
    - Self cleaning range
    - Dishwasher
    - Food waste disposal
    - Space saver microwave
    - Washer and dryer hook up

Your Elegant Bathrooms

- Acrylic roman tub (per plan)
- 6" x 6" ceramic tiles floors
- 6" x 6" ceramic tiles in all wet areas
- Cultured marble vanity in master bathroom suite
- European style mica vanities
- Full width vanity mirrors and decorative theater lighting
- Elongated commodes in master bathroom

Energy Saving Features

- Energy efficient central air and heating system
- 50 gallon water heater
- R 30 ceiling insulation
- R-11 insulation garage wall
- R-4.1 Foil insulation in exterior walls

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Lic. No. CGC 047247 7/05

Preliminary

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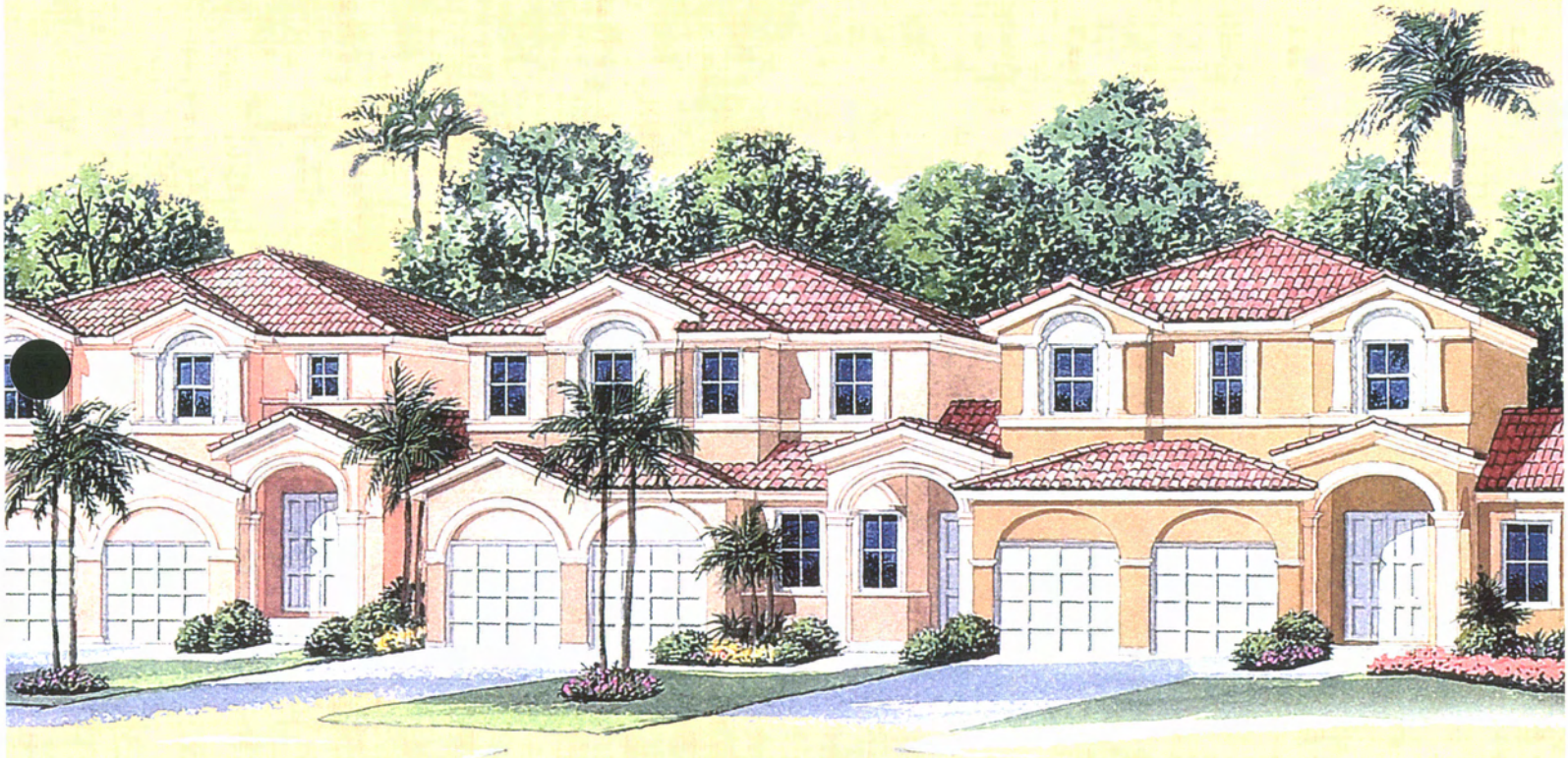
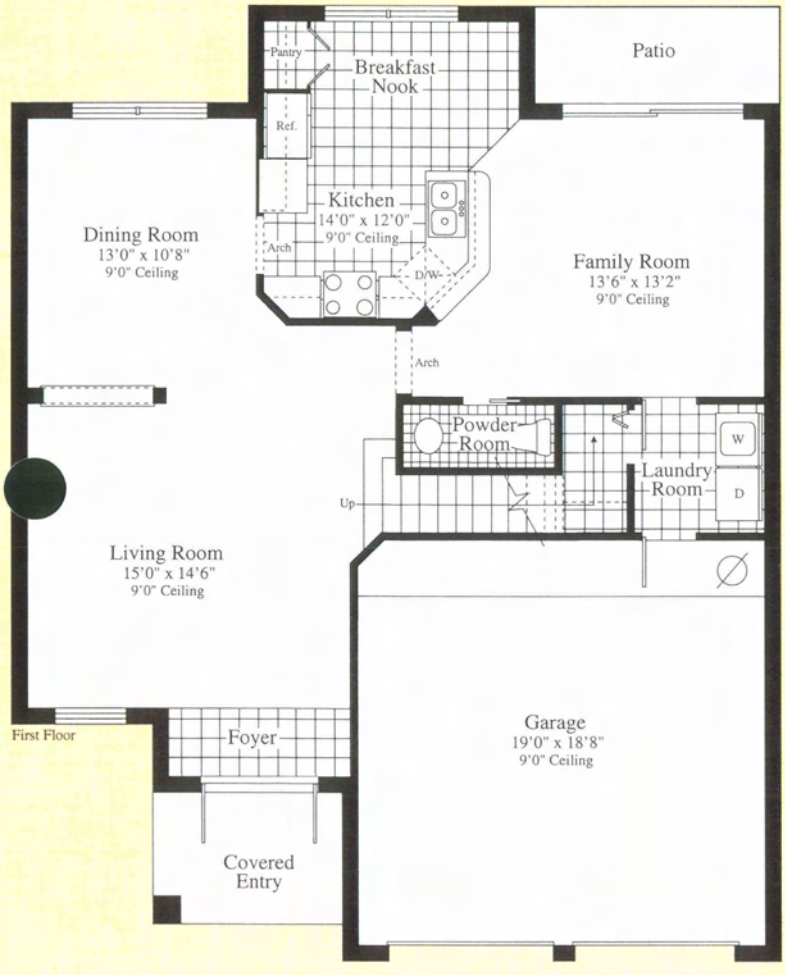


Villas

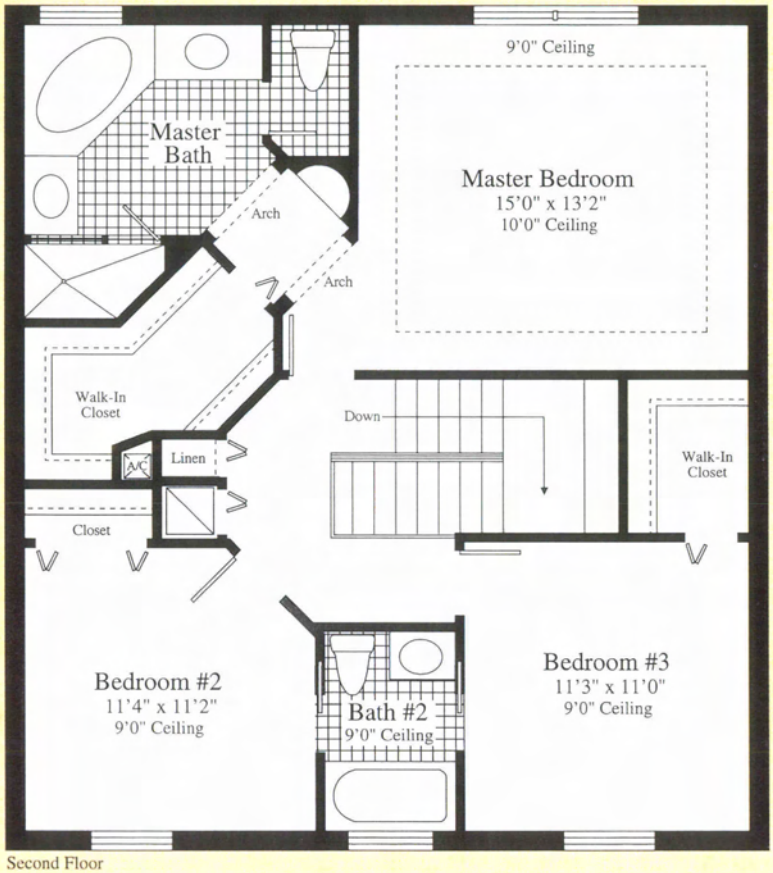
Preliminary Brochure

Ash

3 bedrooms, 2 1/2 baths, breakfast nook,
family room, laundry room and 2-car garage
Plan A



First Floor



Second Floor

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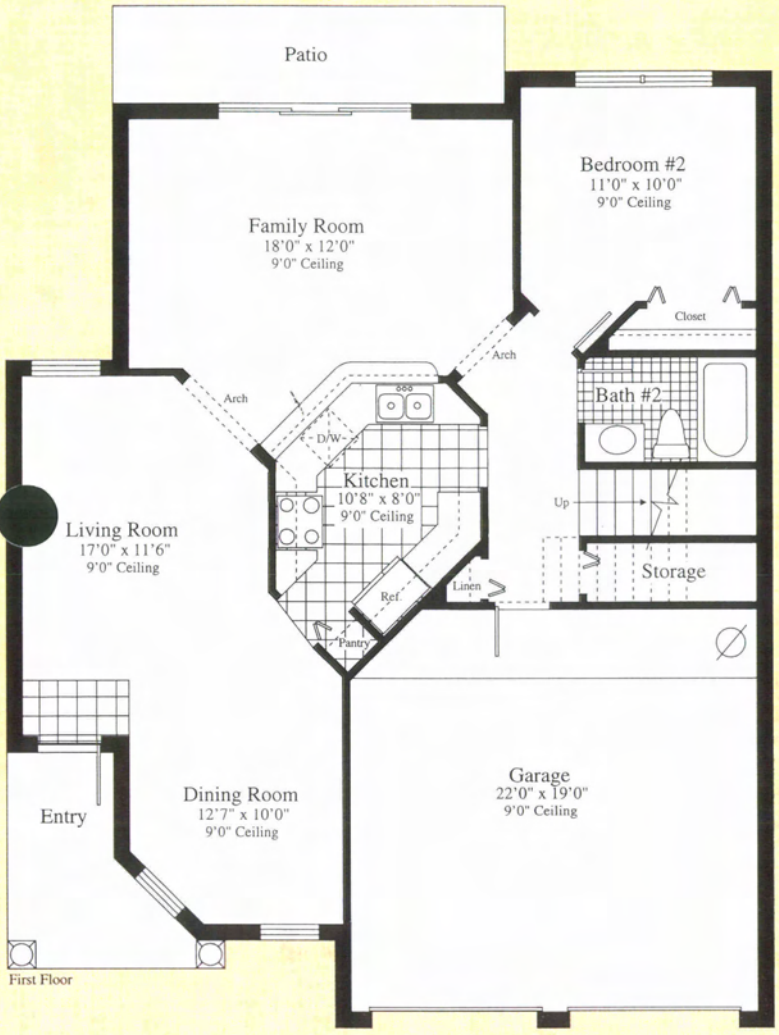
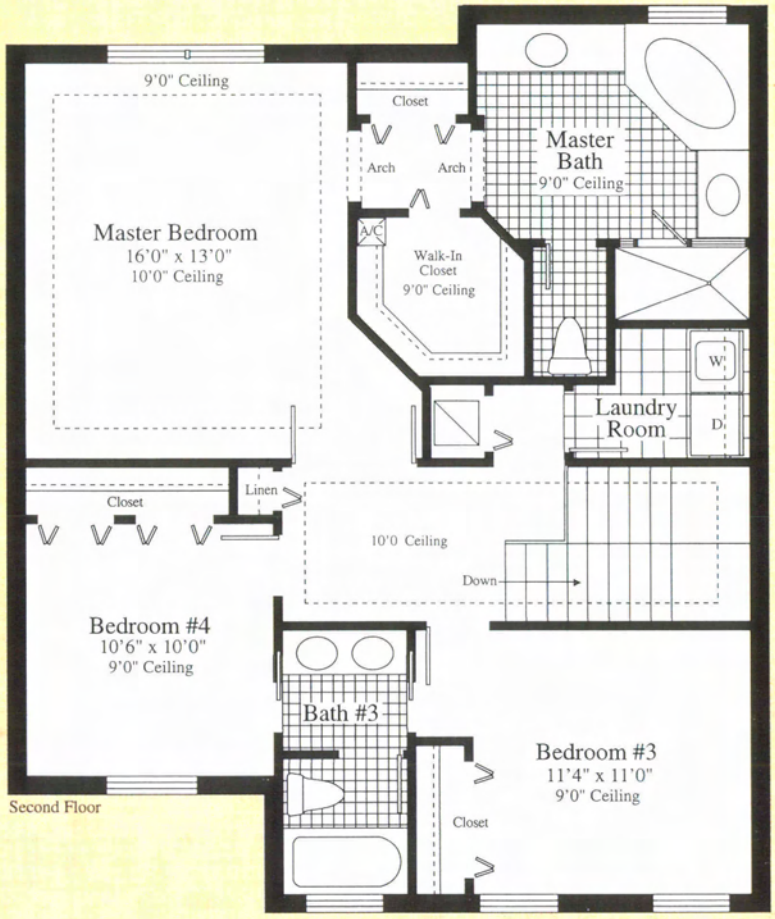
Basswood

4 bedrooms, 3 baths, family room,
laundry room and 2-car garage
Plan B



First Floor



Second Floor

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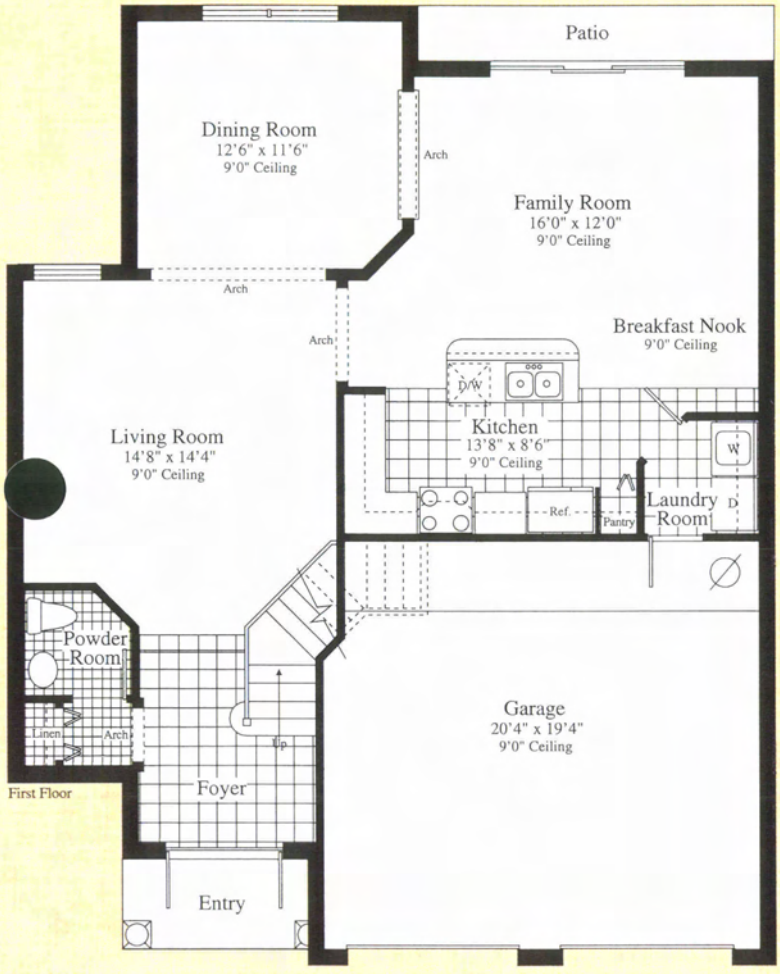
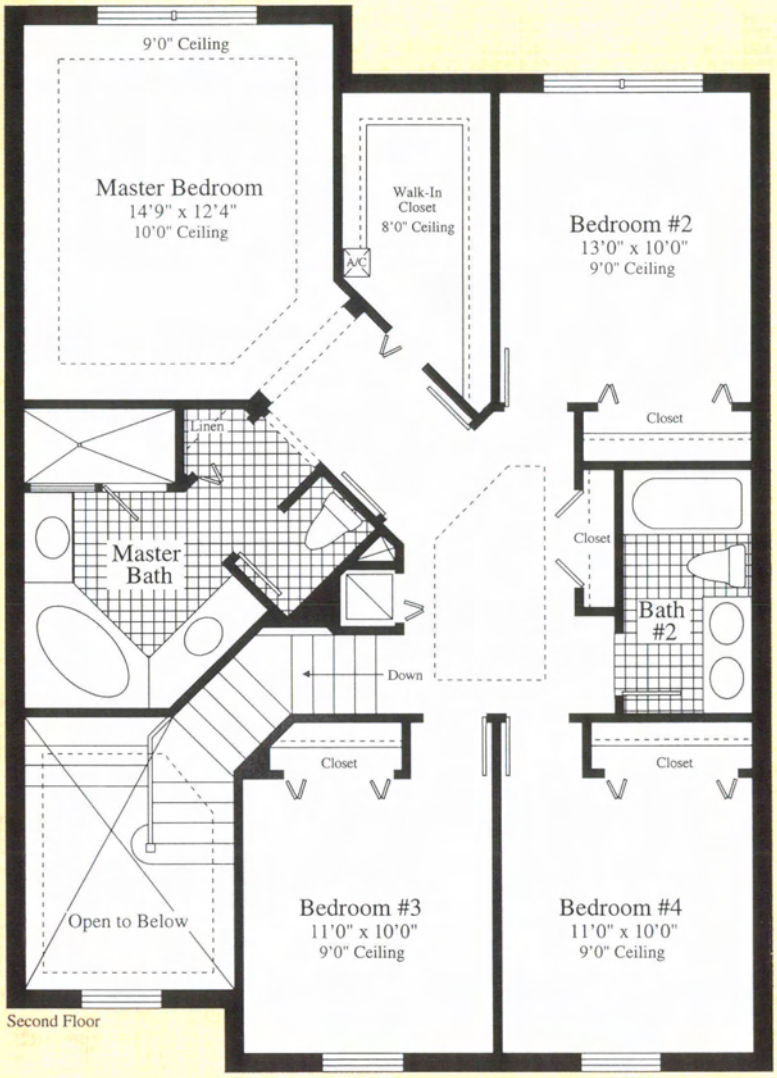
Cedar

4 bedrooms, 2 1/2 baths, breakfast nook,
family room, laundry room and 2 car-garage
Plan C



First Floor



Second Floor

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CENTURY
HOMEBUILDERS *of South Florida*

Features of your Villa

The Century Gardens Villas are designed and built by Century HomeBuilders of South Florida and come complete with all of the features listed here.

Your Community

- Conveniently Located 1 mile from the Florida Turnpike
- 2- swimming pools
- Community Club House
- Professionally designed landscaping
- Elegant entry
- Sidewalks throughout the community
- Underground utilities
- Street lighting creating a friendly neighborhood.

Outside your home

- Sturdy lifetime concrete block construction and full stucco texture walls
- Concrete second floor
- Elegant and durable brick paver driveways and walkways
- Spanish style concrete roof tiles
- Professionally designed landscape package
- Concrete rear patios (per plan)
- Engineered hurricane protection for all openings
- Exterior front and rear hose bibs

Throughout Your Home

- 16" x 16" ceramic tile in foyer and kitchen (in choice of 3 colors)
- Luxurious wall to wall carpet installed over 3/8" padding
- Decorative 6-panel Colonial doors
- Quality Colonial style baseboard
- Tempered safety glass sliding doors
- Pre-wired four line telephone outlets
- Alarm system
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Your Gourmet Kitchen

- 16" x 16" ceramic tile (in choice of 3 colors)
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- Decorative fluorescent lighting
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    - 22 cu. ft. refrigerator with ice and water
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    - Dishwasher
    - Food waste disposal
    - Space saver microwave
    - Washer and dryer hook up

Your Elegant Bathrooms

- Acrylic roman tub (per plan)
- 6" x 6" ceramic tiles floors
- 6" x 6" ceramic tiles in all wet areas
- Cultured marble vanity in master bathroom suite
- European style mica vanities
- Full width vanity mirrors and decorative theater lighting
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Energy Saving Features

- Energy efficient central air and heating system
- 50 gallon water heater
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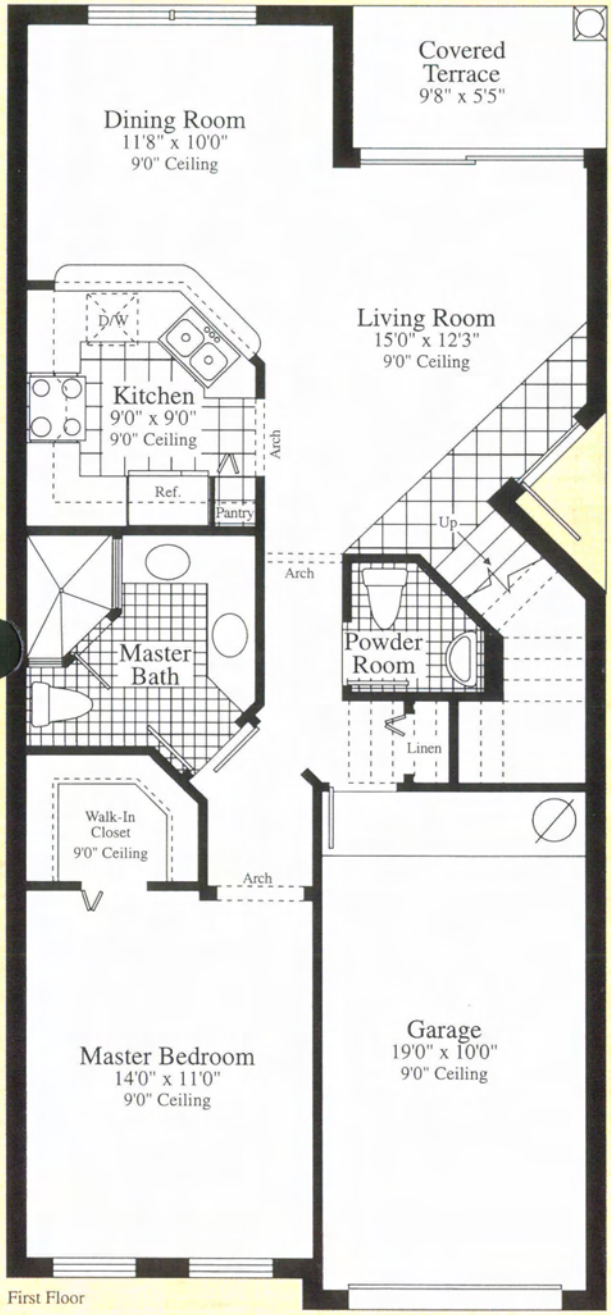
Century Gardens

Townhomes

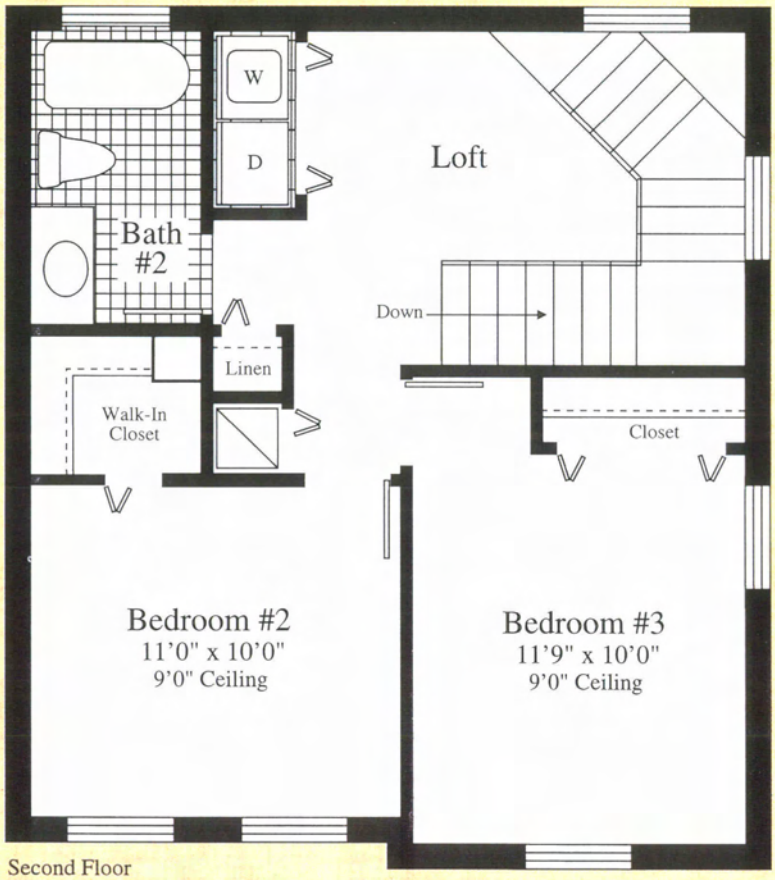
Preliminary Brochure

Azalea

3 bedrooms, 2 1/2 baths with loft,
covered terrace and garage
Plan A



First Floor



Second Floor

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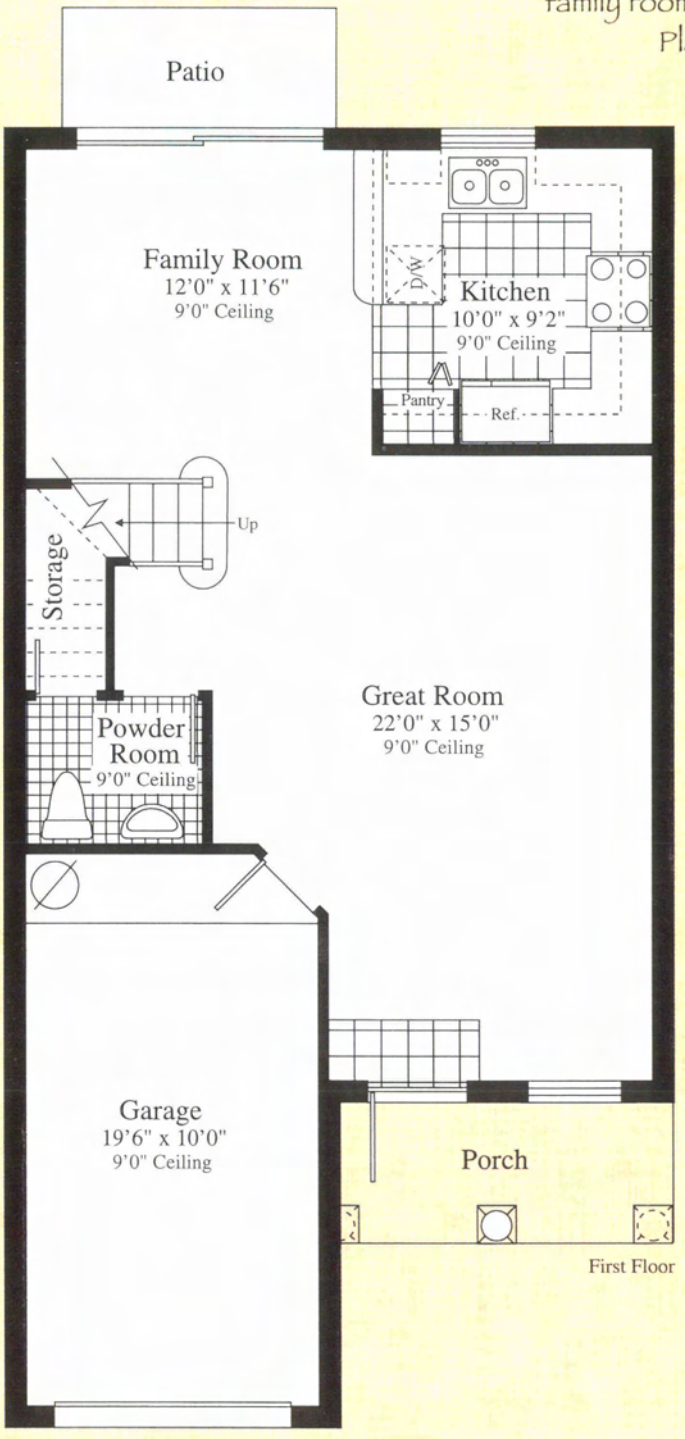
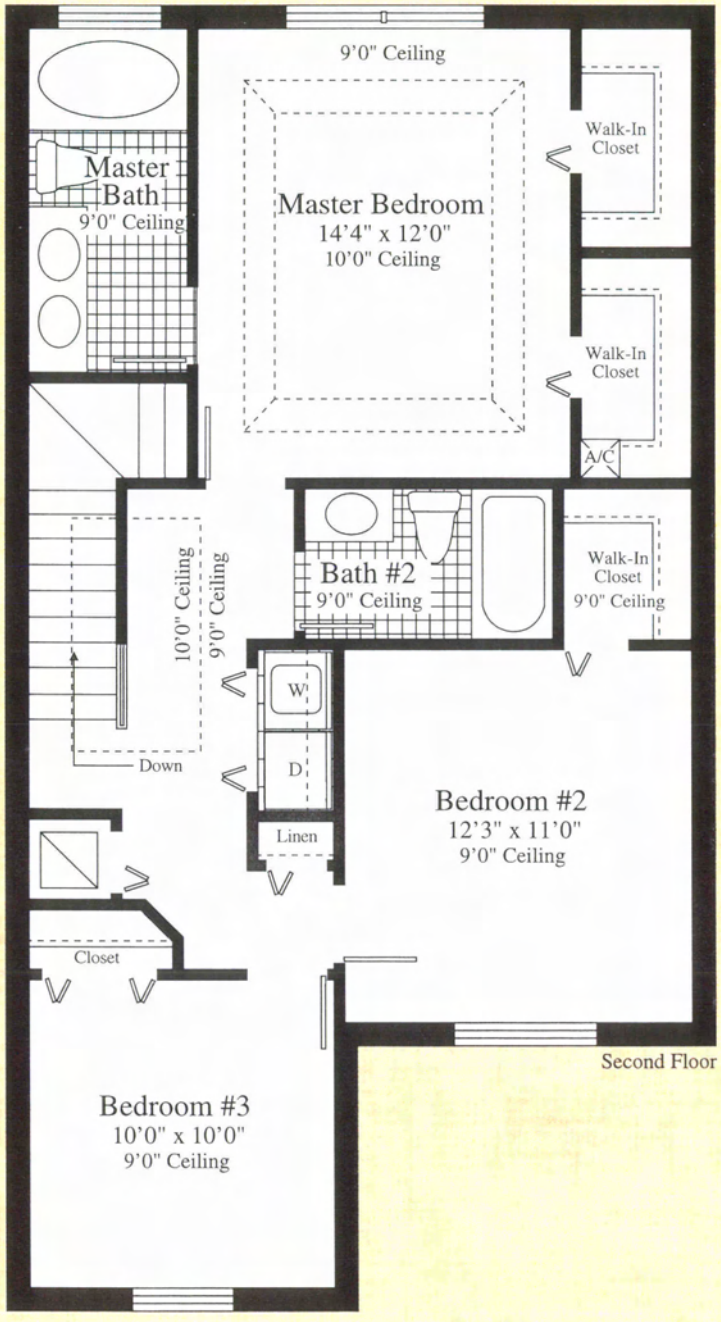
Bird of Paradise

3 bedrooms, 2½ baths,
family room, and garage
Plan B





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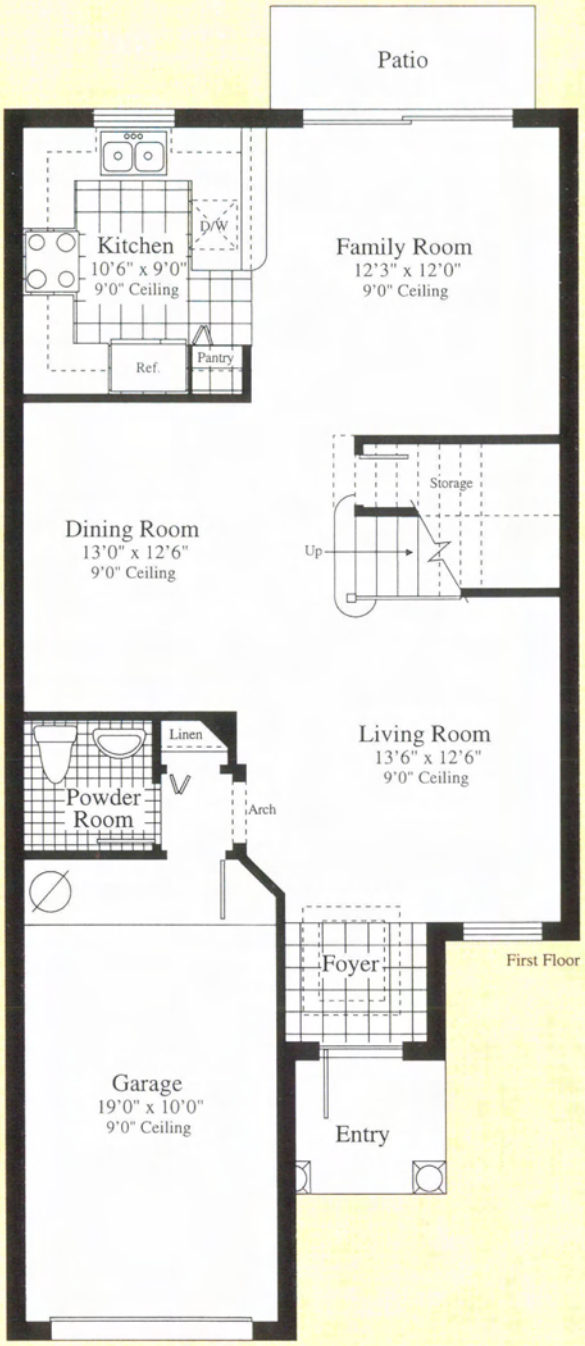
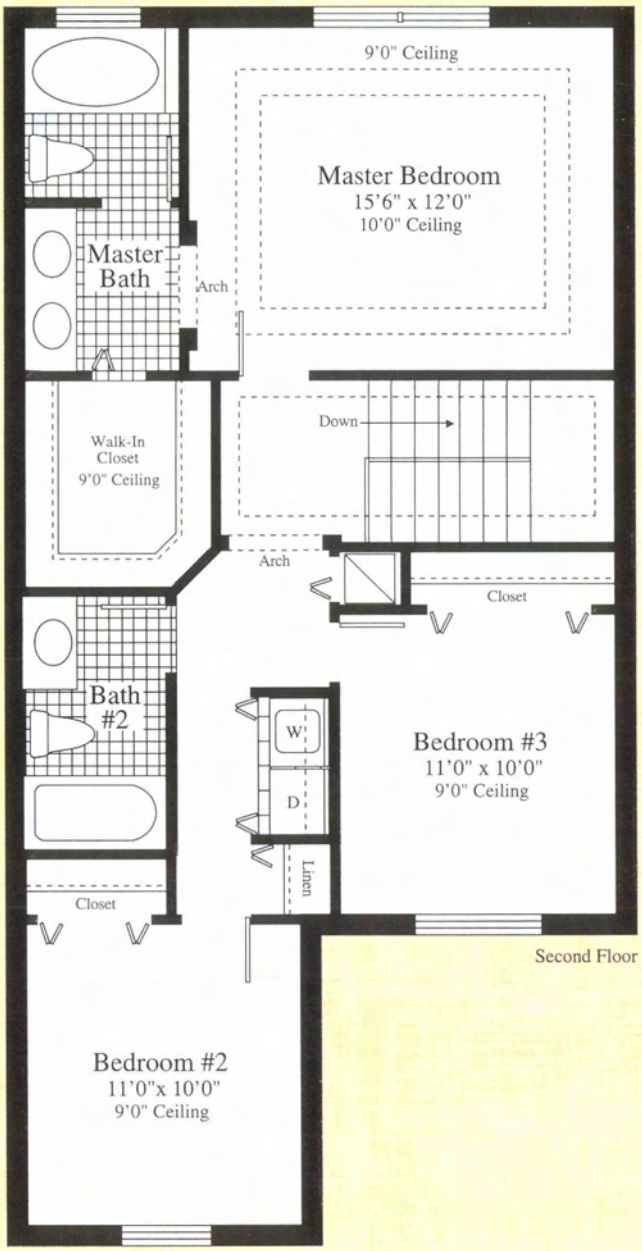
Cherry Blossom

3 bedrooms, 2½ baths,
family room, and garage
Plan C





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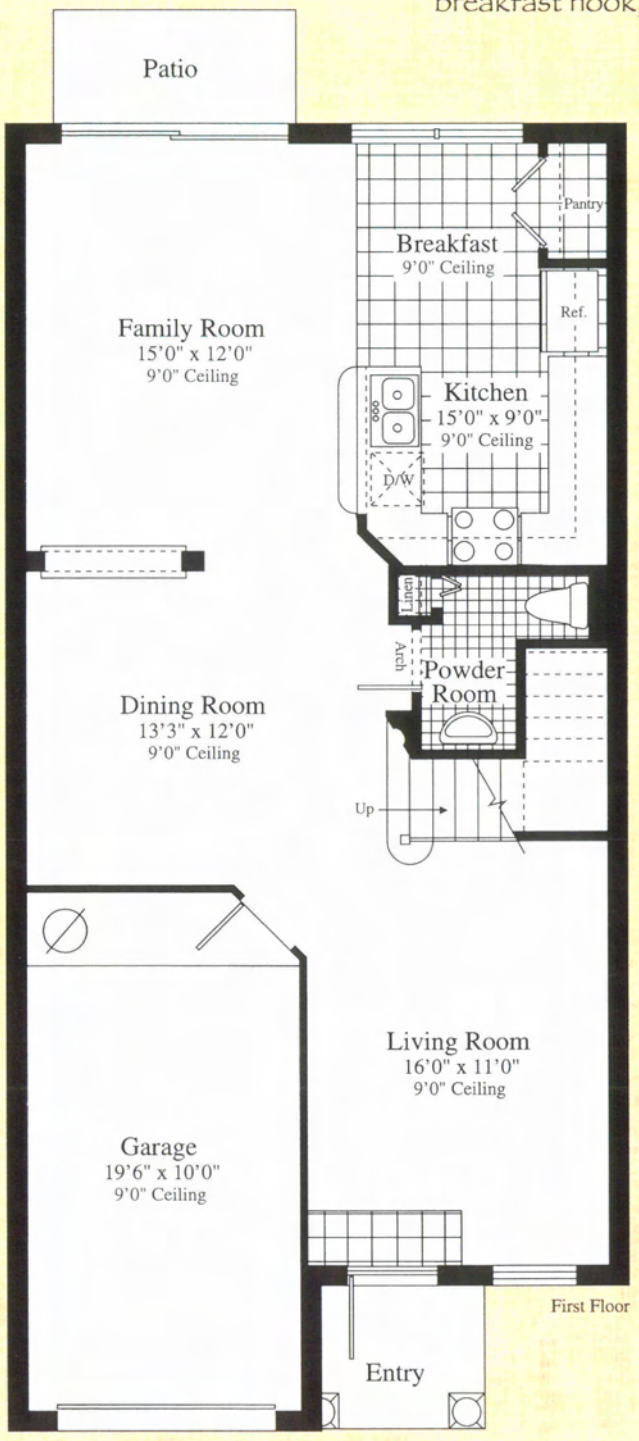
Daffodil

4 bedrooms, 2½ baths,
breakfast nook, family room and garage
Plan D



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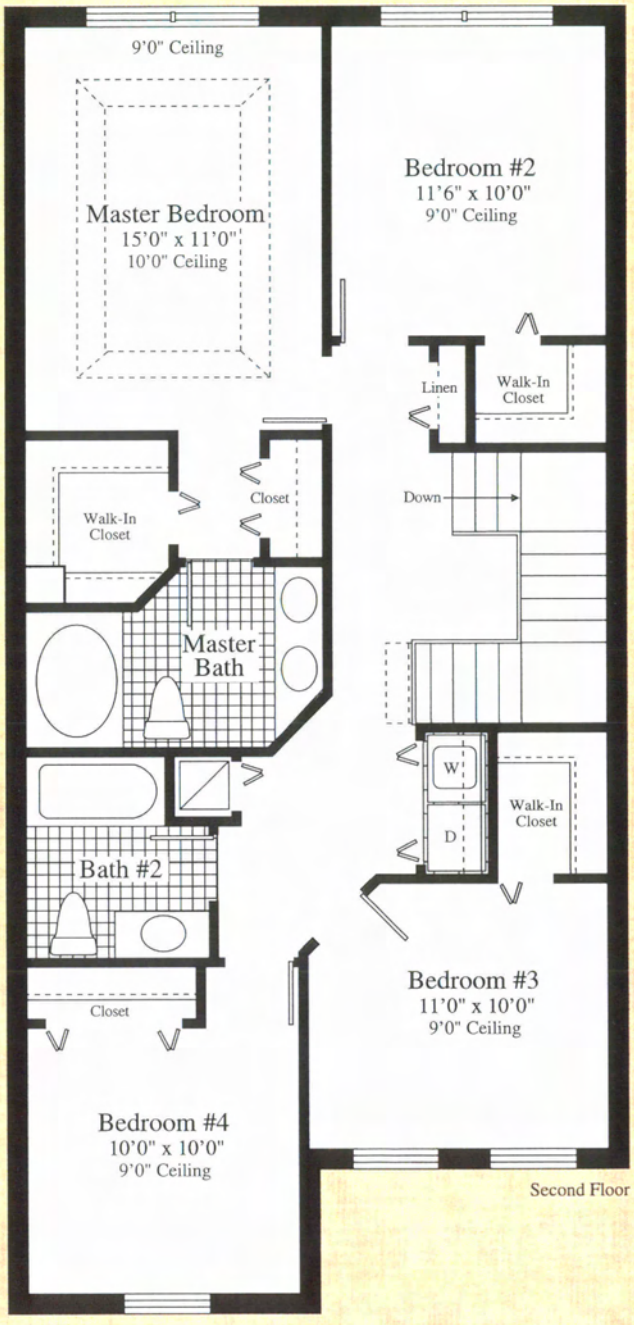

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CENTURY HOMEBUILDERS
OF SOUTH FLORIDA PRODUCT PRICE LIST

Century Gardens

CENTURY
HOMEBUILDERS of South Florida

CENTURY GARDENS	PRODUCT NAME	MODEL	BEDROOM / BATHS	GARAGE	AC SQ. FT.	TOTAL SQ. FEET	BASE PRICE	$ / SQ.FT.	EFFECTIVE DATE
	Eden	A	3 , 2 1/2	2 CAR	1,765	2,249	$416,990.00	$236.25	3/1/2006
Single-Family Homes	Brookside	B	4 , 3	2 CAR	1,838	2,249	$423,990.00	$230.68	3/1/2006
	Fairchild	C	4 , 2	2 CAR	1,848	2,392	$430,990.00	$233.22	3/1/2006
	Montreal	D	3 , 2 1/2	2 CAR	2,350	2,984	$490,990.00	$208.93	3/1/2006
	Helani	E	4 , 3	2 CAR	2,622	3,258	$500,990.00	$191.07	3/1/2006
	Martinique I	F	4 , 3 1/2	2 CAR	2,910	3,562	$536,990.00	$184.53	3/1/2006
	Huntington	G	3 , 3 1/2	2 CAR	3,087	3,936	$549,990.00	$178.16	3/1/2006
	Martinique II	H	5 , 4 1/2	2 CAR	3,190	3,842	$551,990.00	$173.04	3/1/2006
	Centennial	I	4 , 3	2 CAR	3,297	3,841	$546,990.00	$165.91	3/1/2006
22's Townhomes	Azalea	A	3 , 2 1/2	1 CAR	1,332	1,609	$315,990.00	$237.23	3/1/2006
	Bird Of Paradise	B	3 , 2 1/2	1 CAR	1,438	1,742	$319,990.00	$222.52	3/1/2006
	Cherry Blossom	C	3 , 2 1/2	1 CAR	1,549	1,836	$325,990.00	$210.45	3/1/2006
	Daffodil	D	4 , 2 1/2	1 CAR	1,761	2,040	$332,990.00	$189.09	3/1/2006
30's Townhomes	Amaryllis	A	3 , 2 1/2	1 CAR	1,655	1,945	$341,990.00	$206.64	3/1/2006
	Blackberry	B	3 , 2 1/2	1 CAR	1,758	2,077	$346,990.00	$197.38	3/1/2006
	Carnation	C	4 , 2 1/2	1 CAR	2,011	2,311	$352,990.00	$175.53	3/1/2006
35's Townhomes	Ash	A	3 , 2 1/2	2 CAR	1,867	2,348	$353,990.00	$189.60	3/1/2006
	Basswood	B	4 , 3	2 CAR	1,984	2,498	$362,990.00	$182.96	3/1/2006
	Cedar	C	4 , 2 1/2	2 CAR	2,112	2,648	$371,990.00	$176.13	3/1/2006

Updated 05/24/06

This instrument was prepared by:

Name: Juan J. Mayol, Jr., Esq.
Address: Holland & Knight LLP
701 Brickell Avenue
Suite 3000
Miami, Florida 33131

(Space Reserved for Clerk of the Court)

DECLARATION OF RESTRICTIONS

WHEREAS, the undersigned, CENTURY BUSINESS PARK, LLC, a Florida limited liability company (the "Owner"), holds the fee simple title to that certain parcel of land, which is legally described in Exhibit "A" to this Declaration (hereinafter the "Property");

NOW, THEREFORE, in order to assure Miami-Dade County (the "County") that the representations made by the Owner during consideration of Public Hearing No. 05-274 (the "Application") will be abided by, the Owner freely, voluntarily and without duress, makes the following Declaration of Restrictions covering and running with the Property:

1. **Site Plan**. The Property shall be developed in substantial accordance with the plans entitled "Century Gardens," as prepared by Pascual, Perez & Kiliddjan, dated May 1, 2006, and dated stamped received May 2, 2006, and consisting of sixty five (65) sheets, as may be modified at the public hearing on the Application (the "Plan").

The Owner also agrees as follows:

(a) The height of any dwelling unit to be located on a lot along the northern boundary of the Property, which abuts an existing one (1) story home, shall not exceed one (1) story in height.

(b) As depicted in the Plan, the Owner shall not seek to provide a vehicular

connection to the established single family subdivision on the north side of the Property.

(c) As depicted in the plan, prior to the issuance of a building permit for any dwelling unit within the Property, the Owner shall install, as applicable, either: (1) a six foot high wooden fence; or (2) masonry columns, a decorative aluminum picket fence, a hedge and curbing along the side or rear property line of any lot that is adjacent to an existing single family home or existing street.

(d) Every townhome within the Property shall be designed and constructed with a garage capable of accommodating at least one (1) automobile.

2. **Density Restriction**. The number of dwelling units on the Property shall not exceed five hundred and eight (508) units, of which a minimum of one-hundred and seventy-nine (179) shall be single family homes.

3. **Noise Level Reduction**. The Owner shall incorporate at least 25 decibel (db) Noise Level Reduction (NLR) into the design and construction of any dwelling unit with the Property.

4. **Airport and County Protection From New Residential Development.** The Owner reserves unto itself, its successors, and assigns, for the use and benefit of the public, a right of flight passage of aircraft in the airspace above the surface of the Property, together with the right to cause in said airspace such noise as may be inherent in the operation of aircraft, now known or hereafter used, for navigation of or flight in said airspace, and for use of said airspace for landing on, taking off from, or operating on the Kendall Tamiami Executive Airport ("KTEA").

The Owner expressly agrees for itself, its successors, and assigns to restrict the height of structures, objects of natural growth, and other obstructions on the Property to such a height so as to comply with Federal Aviation Regulations, Part 77.

The Owner expressly agrees for itself, its successors, and assigns, to prevent any use of the Property described herein that would interfere with or adversely affect the operation or maintenance of KTEA, or otherwise constitute an airport hazard.

5. Notice Requirements.

A. The Owner shall include the following notice (the "Notice") in every contract for the sale of any dwelling unit within the Property:

> THIS PROPERTY IS LOCATED IN CLOSE PROXIMITY TO THE KENDALL TAMIAMI EXECUTIVE AIRPORT ("KTEA"). AS SUCH, THE PROPERTY AND THE FUTURE RESIDENTS MAY EXPERIENCE DIRECT OVERFLIGHTS AT LOW ALTITUDES CREATING NOISE DURING DAYTIME AND NIGHTTIME HOURS.
>
> THE UNDERSIGNED, ON BEHALF OF ITSELF AND ITS SUCCESSORS, LESSEES AND/OR ASSIGNS, AGREES BY TAKING TITLE TO SAID PROPERTY, THAT THEY DO NOT OBJECT TO THE PRESENCE OF KTEA OR THE TWENTY-FOUR HOUR PER DAY OPERATION OF AIRCRAFT FROM ITS RUNWAYS AND HEREBY WAIVES ANY RIGHT TO OBJECT TO OR CHALLENGE IN ANY FORUM THE CURRENT OR FUTURE 24 HOUR PER DAY OPERATION OF THE AIRPORT AND ANY IMPROVEMENTS THERETO, INCLUDING, WITHOUT LIMITATION, THE FUTURE EXPANSION OF KTMB'S 9L/27R AND 9R/27L RUNWAYS.
>
> IT IS FURTHER AGREED THAT THE UNDERSIGNED, ITS SUCCESSORS, LESSEES AND/OR ASSIGNS, WILL NEVER REQUEST, SUPPORT OR PARTICIPATE IN ANY EFFORT TO IMPOSE MANDATORY NOISE ABATEMENT PROCEDURES AT KTEA.
>
> PURCHASER AGREES THAT THIS COVENANT IS ALSO BINDING UPON ALL FUTURE OWNERS, LESSEES AND RESIDENTS HERE AND FOREVER THEREAFTER AND THAT NOTIFICATION OF SUCH IS REQUIRED PRIOR TO THE SALE OR LEASE OF THE PROPERTY.

B. The Owner shall cause every prospective purchaser to acknowledge in writing

receipt of the Notice, which acknowledgement may be included in the contract for sale and purchase for each dwelling unit or may be provided by separate instrument prior to or simultaneously with the execution of any such contract. The Notice shall also be prominently displayed in the sales office for the subdivision.

C. Prior to the approval of a final plat for the Property, the Owner shall record an instrument in the Public Records of Miami-Dade County, which instrument shall run with title to the Property and be binding on the Owner's successors and assigns and shall provide the following restrictions:

> THE PROPERTY IS LOCATED IN CLOSE PROXIMITY TO THE KENDALL TAMIAMI EXECUTIVE AIRPORT ("KTEA"). AS SUCH, THE PROPERTY AND THE FUTURE RESIDENTS MAY EXPERIENCE DIRECT OVERFLIGHTS AT LOW ALTITUDES CREATING NOISE DURING DAYTIME AND NIGHTTIME HOURS. FURTHER, THE OWNER, ON BEHALF OF ITSELF AND ITS SUCCESSORS AND ASSIGNS, HEREBY WAIVES ANY OBJECTIONS TO ANY FUTURE EXPANSION OF KTEA'S 9L/27R AND 9R/27L RUNWAYS.
>
> THE UNDERSIGNED, ON BEHALF OF ITSELF AND ITS SUCCESSORS, LESSEES AND/OR ASSIGNS, AGREES BY TAKING TITLE TO SAID PROPERTY, THAT THEY DO NOT OBJECT TO THE PRESENCE OF KTEA OR THE TWENTY-FOUR HOUR PER DAY OPERATION OF AIRCRAFT FROM ITS RUNWAYS AND HEREBY WAIVES ANY RIGHT TO OBJECT TO OR CHALLENGE IN ANY FORUM THE CURRENT OR FUTURE 24 HOUR PER DAY OPERATION OF THE AIRPORT AND ANY IMPROVEMENTS THERETO, INCLUDING, WITHOUT LIMITATION, THE FUTURE EXPANSION OF KTMB'S 9L/27R AND 9R/27L RUNWAYS.
>
> IT IS FURTHER AGREED THAT THE UNDERSIGNED, ITS SUCCESSORS, LESSEES AND/OR ASSIGNS, WILL NEVER REQUEST, SUPPORT OR PARTICIPATE IN ANY EFFORT TO IMPOSE MANDATORY NOISE ABATEMENT PROCEDURES AT KTEA.

PURCHASER AGREES THAT THIS COVENANT IS ALSO BINDING UPON ALL FUTURE OWNERS, LESSEES AND RESIDENTS HERE AND FOREVER THEREAFTER AND THAT NOTIFICATION OF SUCH IS REQUIRED PRIOR TO THE SALE OR LEASE OF THE PROPERTY.

6. **Restrictions for Commercial Parcel**. Notwithstanding the approval of the Application, and subject to all applicable Code requirements, the Owner agrees to limit the use of that certain parcel of land depicted on the Plan as the "Commercial Out Parcel" to those uses listed below:

- Apparel stores
- Automobile washing
- Bakeries, retail only
- Banks, including drive-in teller service
- Barber shops
- Beauty parlors
- Cellular phones and accessories sales
- Computers and accessories sales
- Confectionery, ice cream, and dairy stores
- Dairy stores
- Day Care
- Drugstores with photo and retail sales
- Employment agencies
- Florist shops
- Grocery stores, fruit stores, health food stores, delicatessen, meat and fish markets, and other similar food stores, provided such establishment shall not exceed one thousand (1000) square feet of floor area
- Hardware stores
- Health and exercise club
- Interior design shops
- Jewelry stores, but excluding incidental sales and purchases of used jewelry or pawn

shops

- Mail order offices, without storage or products sold
- Newsstands
- Offices
- Office supplies and equipment sales
- Optical stores
- Outdoor sitting area for restaurants
- Outside walk-up window service in connection with establishments where the principal use is selling food and drink products, and where a sidewalk of at least seven (7) feet in width abuts the store unit concerned.
- Post office stations and branches operated by postal service employees or agents that directly serve the public
- Printing and copy services and supplies
- Restaurants and coffee housing dining rooms with outdoor seating where kitchen is located within an enclosed building or room and with ample provision for carrying away or dissipating fumes, odors, smoke, or noise and where premises are so arranged and the business is so conducted as not to be offensive or obnoxious to occupants of adjoining premises or to passerby. Restaurants and outdoor (where approved by public hearing) cafes may serve alcoholic beverages where such service is strictly incidental to the service of food and from service bar only provided no entertainment of any kind is furnished. No sign of any type or character shall be exhibited or displayed to the outside denoting that alcoholic beverages are obtainable within. Seating shall be limited to no more than 100 people.
- Self-service post office, which contains mechanical or computer equipment designed to provide limited service post office for walk up trade.
- Shoe stores and shoe repair shops
- Tailor shops

Further, in consideration of the proximity of the Property to a residential neighborhood,

any building that may be developed on the Commercial Out Parcel shall be designed and maintained in a manner that is compatible with the surrounding residential community. At a minimum, any such building shall have a barrel tile roof and shall be painted in a color or colors that are in harmony with the prevailing colors in the area at the time of the construction of the building. The site plan for the Commercial Out Parcel shall be submitted to the Department of Planning and Zoning for administrative site plan review approval, and the development of the parcel shall be in substantial accordance with said approved plan. Once developed, the Owner shall maintain adequate lighting equipped with deflectors or such other similar equipment to prevent the spillage of light onto adjacent residential properties. No business shall be allowed to operate within the Commercial Out Parcel any earlier than 7:00 AM, Monday – Friday, 9:00 AM on Saturday or 11:00 AM on Sunday or any later than 10:00 PM (Monday – Saturday) or 6:00 PM on Sunday. Deliveries and trash pick up shall take place between the hours of 7:00 AM and 7:00 PM, Monday - Friday.

7. **Improvements to SW 120th Street and SW 157th Avenue**. Prior to the final zoning inspection for any dwelling unit on the Property, the Owner agrees to improve those portions of SW 120th Street and SW 157th Avenue along the entire frontage of the Property. Said roadway improvements shall be approved and constructed in accordance with the requirements of the Public Works Department. In addition, the Owner agrees not to seek a final zoning inspection for more than fifty percent (50%) of the dwelling units within the Property until such time as SW 157th Avenue is open to traffic from SW 112th Street to SW 120th Street.

8. **Intersection Improvements at SW 120th Street and SW 137th Avenue.** Prior to the final zoning inspection for the dwelling unit representing fifty percent (50%) of the dwelling units within

the Property, subject to the conditions enumerated below, the Owner shall design and, following approval of said design, cause the improvement of the intersection of SW 120th Street and SW 137th Avenue by the addition of a dedicated right turn lane (eastbound to southbound) (for a total of 4 thru lanes and a turn lane). The Owner's obligations under this Paragraph are specifically subject to, and contingent on, the following: (i) the availability of right-of-way or necessary easements; (ii) acceptance by the Public Works Department of a traffic study (if requested by the Department) which establishes the need for such a turn lane; (iii) the receipt of all necessary governmental approvals; and (iv) the receipt of the approval of the Director of the County's Public Works Department of a credit for the full cost of the improvements against the roadway impact fees that will be assessed against the future development of the Property in the amount of the cost of the design and construction of the improvements.

9. Creation of Homeowners Association. Prior to the final zoning inspection for any dwelling unit within the Property, the Owner shall create a homeowner's association, which shall be responsible (along with any special taxing district or community development district that may be created) for the maintenance of all common areas within the Property, including both sides of the fencing and landscaping along SW 154th Avenue, SW 117th Street and SW 152nd Court. The homeowner's association shall adopt by-laws, rules and regulations substantially in the form of the document which is attached hereto as Exhibit B.

10. Construction Hours and Activities. The Owner shall limit construction activities to the hours of 7:00 AM - 7: 00 PM, Monday – Friday, and 10:00 AM – 5:00 PM on Saturday. No construction activities shall take place on Sundays. The use of explosives shall be strictly prohibited. In the event a hurricane warning is issued for Miami-Dade County, the Owner shall

promptly secure all construction materials to minimize the potential for damage from flying objects to adjacent properties.

11. **Compliance with DIC Report.** The Owner shall comply with all of the applicable conditions, requirements, recommendations, requests and other provisions of the various departments, as contained in the Departmental memoranda, which are part of the record of this application and incorporated herein by reference.

12. **Monetary School Contribution.** In order to help meet the future public schools needs generated by the development of the Property under the Application, the Owner, its successors and assigns, agrees to voluntarily contribute funds to the School Board of Miami-Dade County, Florida (the "School Board") in an amount equal to $542,000.00 (the "Contribution"), which funds shall be utilized for the acquisition of land or the construction of improvements to provide relief for Felix Varela Senior High School, and to the extent that there are no pending or proposed capital improvements at the foregoing school or a plan to provide relief at such school as of the date of the payment of the Contribution, then for capital improvements at other schools within the affected feeder pattern.. The total Contribution shall be paid in one (1) payment becoming due and payable, without demand, prior to the approval of the final plat for the Property.

The Owner, its successor and assigns acknowledge and agree that the Contribution shall not entitle the Owner or its successors and assigns to a credit against the amount of the educational facilities impact fees that will be assessed against the future development of the Property under Chapter 33K of the Miami-Dade County Code. To the extent that less than the requested 508 dwelling units is approved by the Community Zoning Appeals Board, the Board of

County Commissioners, or the Miami-Dade County Plat Committee, the amount of the Contribution shall be reduced on a pro rata basis, in an amount equal to $2,000.00 per student, as calculated by the School Board.

13. Miscellaneous.

A. County Inspection. As further part of this Declaration, it is hereby understood and agreed that any official inspector of the County, or its agents duly authorized, may have the privilege at any time during normal working hours of entering and inspecting the use of the premises to determine whether or not the requirements of the building and zoning regulations and the conditions herein agreed to are being complied with.

B. Covenant Running with the Land. This Declaration on the part of the Owner shall constitute a covenant running with the land and may be recorded, at the Owner's expense, in the Public Records of Miami-Dade County, Florida, and shall remain in full force and effect and be binding upon the undersigned Owner, its heirs, successors and assigns until such time as the same is modified or released. These restrictions during their lifetime shall be for the benefit of, and limitation upon, all present and future owners of the real property and for the public welfare.

C. Term. This Declaration is to run with the land and shall be binding on all parties and all persons claiming under it for a period of thirty (30) years from the date that this Declaration is recorded, after which time it shall be extended automatically for successive periods of ten (10) years each, unless an instrument signed by the, then, owner(s) of the Property has been recorded agreeing to change the covenant in whole, or in part, provided that the Declaration has first been modified or released by Miami-Dade County and the Owner has secured the consent of the adjacent property owners as described below.

D. **Modification, Amendment, Release**. This Declaration of Restrictions may be modified, amended or released as to the land herein described, or any portion thereof, by a written instrument executed by the, then, owner(s) of such portion of the Property that is covered under such modification, amendment or release, including joinders of all mortgagees, if any, provided that the same is also approved by the Board of County Commissioners or Community Zoning Appeals Board of Miami-Dade County, Florida, or other procedure permitted under the Miami-Dade County Code, whichever by law has jurisdiction over such matters, after public hearing, provided, further, that any modification or amendment that seeks to increase the number of units on the Property or to expand the permitted uses on the Commercial Out Parcel shall require the prior written consent of one hundred percent (100%) of the owners of any lots that are adjacent to the Property along the north property line and that any other modification or amendment of the Declaration shall require the consent of at least fifty percent (50%) of the owners of single family homes within 1,000 feet of the northern boundary of the Property.

Should this Declaration of Restrictions be so modified, amended or released, the Director of the Miami-Dade County Department of Planning and Zoning, or the executive officer of the successor of such Department, or in the absence of such director or executive officer by his assistant in charge of the office in his absence, shall forthwith execute a written instrument effectuating and acknowledging such modification, amendment or release.

E. **Enforcement**. Enforcement shall be by action against any parties or person violating, or attempting to violate, any covenants. The prevailing party in any action or suit pertaining to or arising out of this Declaration shall be entitled to recover, in addition to costs and disbursements allowed by law, such sum as the Court may adjudge to be reasonable for the

services of his attorney. This enforcement provision shall be in addition to any other remedies available at law, in equity or both.

F. **Authorization for Miami-Dade County to Withhold Permits and Inspections**. In the event the terms of this Declaration are not being complied with, in addition to any other remedies available, the County is hereby authorized to withhold any further permits, and refuse to make any inspections or grant any approvals, until such time as this Declaration is complied with.

G. **Election of Remedies**. All rights, remedies and privileges granted herein shall be deemed to be cumulative and the exercise of any one or more shall neither be deemed to constitute an election of remedies, nor shall it preclude the party exercising the same from exercising such other additional rights, remedies or privileges.

H. **Presumption of Compliance**. Where construction has occurred on the Property, or any portion thereof, pursuant to a lawful permit issued by the County, and inspections made and approval of occupancy given by the County, then such construction, inspection and approval shall create a rebuttable presumption that the buildings or structures thus constructed comply with the intent and spirit of this Declaration.

I. **Severability**. Invalidation of any one of these covenants, by judgment of Court, shall not affect any of the other provisions which shall remain in full force and effect.

J. **Recording**. This Declaration shall be filed of record in the Public Records of Miami-Dade County, Florida, at the cost of the Owner, following the adoption by the Miami-Dade County Board of County Commissioners or Community Zoning Appeals Board of a resolution approving the Application.

[Signature Pages Follow]

IN WITNESS WHEREOF, we have hereunto set our hands and seal this _____ day of _____, 2006.

WITNESSES:

CENTURY BUSINESS PARK, LLC,
Florida limited liability company

By: _____
Signature

Signature

Print Name

_____
Print Name/Title

Signature

Address:

Print Name

STATE OF FLORIDA)
) SS.
COUNTY OF MIAMI-DADE)

The foregoing instrument was acknowledged before me this _____ day of _____, 2006, by _____ on behalf of Century Business Park, LLC, who is personally known to me or has produced _____ as identification, and acknowledged that they did execute this instrument freely and voluntarily for the purposes stated herein.

My Commission Expires:

_____
Notary Public, State of _____

_____
Print Name

This instrument was prepared by:

Name: Juan J. Mayol, Jr., Esq.
Address: Holland & Knight LLP
701 Brickell Avenue
Suite 3000
Miami, Florida 33131

(Space Reserved for Clerk of the Court)

DECLARATION OF RESTRICTIONS

WHEREAS, the undersigned, CENTURY BUSINESS PARK, LLC, a Florida limited liability company (the "Owner"), holds the fee simple title to that certain parcel of land, which is legally described in Exhibit "A" to this Declaration (hereinafter the "Property");

NOW, THEREFORE, in order to assure Miami-Dade County (the "County") that the representations made by the Owner during consideration of Public Hearing No. 05-274 (the "Application") will be abided by, the Owner freely, voluntarily and without duress, makes the following Declaration of Restrictions covering and running with the Property:

1. **Site Plan**. The Property shall be developed in substantial accordance with the plans entitled "Century Gardens," as prepared by Pascual, Perez & Kiliddjan, dated stamped received May 30, 2006, and consisting of sixty five (65) sheets, as may be modified at the public hearing on the Application (the "Plan").

The Owner also agrees as follows:

(a) The height of any dwelling unit to be located on a lot along the northern boundary of the Property, which abuts an existing one (1) story home, shall not exceed one (1) story in height.

(b) As depicted in the Plan, the Owner shall not seek to provide a vehicular

connection to the established single family subdivision on the north side of the Property.

(c) As depicted in the plan, prior to the issuance of a building permit for any dwelling unit within the Property, the Owner shall install, as applicable, either: (1) a six foot high wooden fence; or (2) masonry columns, a decorative aluminum picket fence, a hedge and curbing along the side or rear property line of any lot that is adjacent to an existing single family home or existing street.

(d) Every townhome within the Property shall be designed and constructed with a garage capable of accommodating at least one (1) automobile.

2. **Density Restriction**. The number of dwelling units on the Property shall not exceed five hundred and eight (508) units, of which a minimum of one-hundred and seventy-nine (179) shall be single family homes.

3. **Noise Level Reduction**. The Owner shall incorporate at least 25 decibel (db) Noise Level Reduction (NLR) into the design and construction of any dwelling unit with the Property.

4. **Airport and County Protection From New Residential Development.** The Owner reserves unto itself, its successors, and assigns, for the use and benefit of the public, and grants a right of flight passage of aircraft in the airspace above the surface of the Property, together with the right to cause in said airspace such noise as may be inherent in the operation of aircraft, now known or hereafter used, for navigation of or flight in said airspace, and for use of said airspace for landing on, taking off from, or operating on the Kendall Tamiami Executive Airport ("KTEA").

The Owner expressly agrees for itself, its successors, and assigns to restrict the height of structures, objects of natural growth, and other obstructions on the Property to such a height so as

to comply with Federal Aviation Regulations, Part 77.

The Owner expressly agrees for itself, its successors, and assigns, to prevent any use of the Property described herein that would interfere with or adversely affect the operation or maintenance of KTEA, or otherwise constitute an airport hazard.

5. Notice Requirements.

A. The Owner shall include the following notice (the "Notice") in every contract for the sale of any dwelling unit within the Property:

> THIS PROPERTY IS LOCATED IN CLOSE PROXIMITY TO THE KENDALL TAMIAMI EXECUTIVE AIRPORT ("KTEA"). AS SUCH, THE PROPERTY AND THE FUTURE RESIDENTS MAY EXPERIENCE DIRECT OVERFLIGHTS AT LOW ALTITUDES CREATING NOISE DURING DAYTIME AND NIGHTTIME HOURS.
>
> THE UNDERSIGNED, ON BEHALF OF ITSELF AND ITS SUCCESSORS, LESSEES AND/OR ASSIGNS, AGREES BY TAKING TITLE TO SAID PROPERTY, THAT THEY DO NOT OBJECT TO THE PRESENCE OF KTEA OR THE TWENTY-FOUR HOUR PER DAY OPERATION OF AIRCRAFT FROM ITS RUNWAYS AND HEREBY WAIVES ANY RIGHT TO OBJECT TO OR CHALLENGE IN ANY FORUM THE CURRENT OR FUTURE 24 HOUR PER DAY OPERATION OF THE AIRPORT AND ANY IMPROVEMENTS THERETO, INCLUDING, WITHOUT LIMITATION, THE FUTURE EXPANSION OF KTMB'S 9L/27R AND 9R/27L RUNWAYS.
>
> IT IS FURTHER AGREED THAT THE UNDERSIGNED, ITS SUCCESSORS, LESSEES AND/OR ASSIGNS, WILL NEVER REQUEST, SUPPORT OR PARTICIPATE IN ANY EFFORT TO IMPOSE MANDATORY NOISE ABATEMENT PROCEDURES AT KTEA.
>
> PURCHASER AGREES THAT THIS COVENANT IS ALSO BINDING UPON ALL FUTURE OWNERS, LESSEES AND RESIDENTS HERE AND FOREVER THEREAFTER AND THAT NOTIFICATION OF SUCH IS REQUIRED PRIOR TO THE SALE OR LEASE OF THE PROPERTY.

B. The Owner shall cause every prospective purchaser to acknowledge in writing receipt of the Notice, which acknowledgement may be included in the contract for sale and purchase for each dwelling unit or may be provided by separate instrument prior to or simultaneously with the execution of any such contract. The Notice shall also be prominently displayed in the sales office for the subdivision.

C. Prior to the approval of a final plat for the Property, the Owner shall record an instrument in the Public Records of Miami-Dade County, which instrument shall run with title to the Property and be binding on the Owner's successors and assigns and shall provide the following restrictions:

> THE PROPERTY IS LOCATED IN CLOSE PROXIMITY TO THE KENDALL TAMIAMI EXECUTIVE AIRPORT ("KTEA"). AS SUCH, THE PROPERTY AND THE FUTURE RESIDENTS MAY EXPERIENCE DIRECT OVERFLIGHTS AT LOW ALTITUDES CREATING NOISE DURING DAYTIME AND NIGHTTIME HOURS. FURTHER, THE OWNER, ON BEHALF OF ITSELF AND ITS SUCCESSORS AND ASSIGNS, HEREBY WAIVES ANY OBJECTIONS TO ANY FUTURE EXPANSION OF KTEA'S 9L/27R AND 9R/27L RUNWAYS.
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> IT IS FURTHER AGREED THAT THE UNDERSIGNED, ITS SUCCESSORS, LESSEES AND/OR ASSIGNS, WILL NEVER REQUEST, SUPPORT OR PARTICIPATE IN ANY EFFORT TO IMPOSE MANDATORY NOISE ABATEMENT PROCEDURES

AT KTEA.

PURCHASER AGREES THAT THIS COVENANT IS ALSO BINDING UPON ALL FUTURE OWNERS, LESSEES AND RESIDENTS HERE AND FOREVER THEREAFTER AND THAT NOTIFICATION OF SUCH IS REQUIRED PRIOR TO THE SALE OR LEASE OF THE PROPERTY.

6. **Restrictions for Commercial Parcel**. Notwithstanding the approval of the Application, and subject to all applicable Code requirements, the Owner agrees to limit the use of that certain parcel of land depicted on the Plan as the "Commercial Out Parcel" to those uses listed below:

- Banks, including drive-in teller service
- Barber shops
- Beauty parlors
- Offices
- Optical stores
- Post Offices
- Printing and copy services and supplies

Further, in consideration of the proximity of the Property to a residential neighborhood, any building that may be developed on the Commercial Out Parcel shall be designed and maintained in a manner that is compatible with the surrounding residential community. At a minimum, any such building shall have a barrel tile roof and shall be painted in a color or colors that are in harmony with the prevailing colors in the area at the time of the construction of the building. The site plan for the Commercial Out Parcel shall be submitted to the Department of Planning and Zoning for administrative site plan review approval, and the development of the parcel shall be in substantial accordance with said approved plan. Once developed, the Owner shall maintain adequate lighting equipped with deflectors or such other similar equipment to

prevent the spillage of light onto adjacent residential properties. No business shall be allowed to operate within the Commercial Out Parcel any earlier than 7:00 AM (Monday – Friday), 9:00 AM on Saturday, 11:00 AM on Sunday or any later than 10:00 PM (Monday – Saturday) or 6:00 PM on Sunday. Deliveries and trash pick up shall take place between the hours of 7:00 AM and 7:00 PM, on Monday - Friday.

7. **Improvements to SW 120th Street and SW 157th Avenue**. Prior to the final zoning inspection for any dwelling unit on the Property, the Owner agrees to improve those portions of SW 120th Street and SW 157th Avenue along the entire frontage of the Property. Said roadway improvements shall be approved and constructed in accordance with the requirements of the Public Works Department. In addition, the Owner agrees not to seek a final zoning inspection for more than fifty percent (50%) of the dwelling units within the Property until such time as SW 157th Avenue is open to traffic from SW 112th Street to SW 120th Street.

8. **Intersection Improvements at SW 120th Street and SW 137th Avenue.** Prior to the final zoning inspection for the dwelling unit representing fifty percent (50%) of the dwelling units within the Property, subject to the conditions enumerated below, the Owner shall design and, following approval of said design, cause the improvement of the intersection of SW 120th Street and SW 137th Avenue by the addition of a dedicated right turn lane (eastbound to southbound) (for a total of 4 thru lanes and a turn lane). The Owner's obligations under this Paragraph are specifically subject to, and contingent on, the following: (i) the availability of right-of-way or necessary easements; (ii) acceptance by the Public Works Department of a traffic study (if requested by the Department) which establishes the need for such a turn lane; (iii) the receipt of all necessary governmental approvals; and (iv) the receipt of the approval of the Director of the County's Public Works

Department of a credit for the full cost of the improvements against the roadway impact fees that will be assessed against the future development of the Property in the amount of the cost of the design and construction of the improvements.

9. **Creation of Homeowners Association.** Prior to the final zoning inspection for any dwelling unit within the Property, the Owner shall create a homeowner's association, which shall be responsible (along with any special taxing district or community development district that may be created) for the maintenance of all common areas within the Property, including both sides of the fencing and landscaping along SW 154th Avenue, SW 152nd Court and SW 117th Street. The homeowner's association shall adopt by-laws, rules and regulations substantially in the form of the document which is attached hereto as Exhibit B.

10. **Construction Hours and Activities.** The Owner shall limit construction activities to the hours of 7:00 AM - 7: 00 PM, Monday – Friday, and 10:00 AM – 5:00 PM on Saturday. No construction activities shall take place on Sundays. The use of explosives shall be strictly prohibited. In the event a hurricane warning is issued for Miami-Dade County, the Owner shall promptly secure all construction materials to minimize the potential for damage from flying objects to adjacent properties.

11. **Compliance with DIC Report.** The Owner shall comply with all of the applicable conditions, requirements, recommendations, requests and other provisions of the various departments, as contained in the Departmental memoranda, which are part of the record of this application and incorporated herein by reference.

12. **Monetary School Contribution.** In order to help meet the future public schools needs generated by the development of the Property under the Application, the Owner, its successors

and assigns, agrees to voluntarily contribute funds to the School Board of Miami-Dade County, Florida (the "School Board") in an amount equal to $542,000.00 (the "Contribution"), which funds shall be utilized for the acquisition of land or the construction of improvements to provide relief for Felix Varela Senior High School, and to the extent that there are no pending or proposed capital improvements at the foregoing school or a plan to provide relief at such school as of the date of the payment of the Contribution, then for capital improvements at other schools within the affected feeder pattern.. The total Contribution shall be paid in one (1) payment becoming due and payable, without demand, prior to the approval of the final plat for the Property.

The Owner, its successor and assigns acknowledge and agree that the Contribution shall not entitle the Owner or its successors and assigns to a credit against the amount of the educational facilities impact fees that will be assessed against the future development of the Property under Chapter 33K of the Miami-Dade County Code. To the extent that less than the requested 508 dwelling units is approved by the Community Zoning Appeals Board, the Board of County Commissioners, or the Miami-Dade County Plat Committee, the amount of the Contribution shall be reduced on a pro rata basis, in an amount equal to $2,000.00 per student, as calculated by the School Board.

13. Miscellaneous.

A. County Inspection. As further part of this Declaration, it is hereby understood and agreed that any official inspector of the County, or its agents duly authorized, may have the privilege at any time during normal working hours of entering and inspecting the use of the premises to determine whether or not the requirements of the building and zoning regulations and

the conditions herein agreed to are being complied with.

B. **Covenant Running with the Land**. This Declaration on the part of the Owner shall constitute a covenant running with the land and may be recorded, at the Owner's expense, in the Public Records of Miami-Dade County, Florida, and shall remain in full force and effect and be binding upon the undersigned Owner, its heirs, successors and assigns until such time as the same is modified or released. These restrictions during their lifetime shall be for the benefit of, and limitation upon, all present and future owners of the real property and for the public welfare.

C. **Term**. This Declaration is to run with the land and shall be binding on all parties and all persons claiming under it for a period of thirty (30) years from the date that this Declaration is recorded, after which time it shall be extended automatically for successive periods of ten (10) years each, unless an instrument signed by the, then, owner(s) of the Property has been recorded agreeing to change the covenant in whole, or in part, provided that the Declaration has first been modified or released by Miami-Dade County and the Owner has secured the consent of the adjacent property owners as described below.

D. **Modification, Amendment, Release**. This Declaration of Restrictions may be modified, amended or released as to the land herein described, or any portion thereof, by a written instrument executed by the, then, owner(s) of such portion of the Property that is covered under such modification, amendment or release, including joinders of all mortgagees, if any, provided that the same is also approved by the Board of County Commissioners or Community Zoning Appeals Board of Miami-Dade County, Florida, or other procedure permitted under the Miami-Dade County Code, whichever by law has jurisdiction over such matters, after public hearing, provided, further, that any modification or amendment that seeks to increase the number

of units on the Property or to expand the permitted uses on the Commercial Out Parcel shall require the prior written consent of one hundred percent (100%) of the owners of any lots that are adjacent to the Property along the north property line and that any other modification or amendment of the Declaration shall require the consent of at least fifty percent (50%) of the owners of single family homes located within 1,000 feet of the northern boundary of the Property.

Should this Declaration of Restrictions be so modified, amended or released, the Director of the Miami-Dade County Department of Planning and Zoning, or the executive officer of the successor of such Department, or in the absence of such director or executive officer by his assistant in charge of the office in his absence, shall forthwith execute a written instrument effectuating and acknowledging such modification, amendment or release.

E. **Enforcement**. Enforcement shall be by action against any parties or person violating, or attempting to violate, any covenants. The prevailing party in any action or suit pertaining to or arising out of this Declaration shall be entitled to recover, in addition to costs and disbursements allowed by law, such sum as the Court may adjudge to be reasonable for the services of his attorney. This enforcement provision shall be in addition to any other remedies available at law, in equity or both.

F. **Authorization for Miami-Dade County to Withhold Permits and Inspections**. In the event the terms of this Declaration are not being complied with, in addition to any other remedies available, the County is hereby authorized to withhold any further permits, and refuse to make any inspections or grant any approvals, until such time as this Declaration is complied with.

IN WITNESS WHEREOF, we have hereunto set our hands and seal this _____ day of _____, 2006.

WITNESSES:

CENTURY BUSINESS PARK, LLC, Florida limited liability company

By: _____
Signature

Signature

Print Name

_____
Print Name/Title

Signature

Address:

Print Name

STATE OF FLORIDA)
) SS.
COUNTY OF MIAMI-DADE)

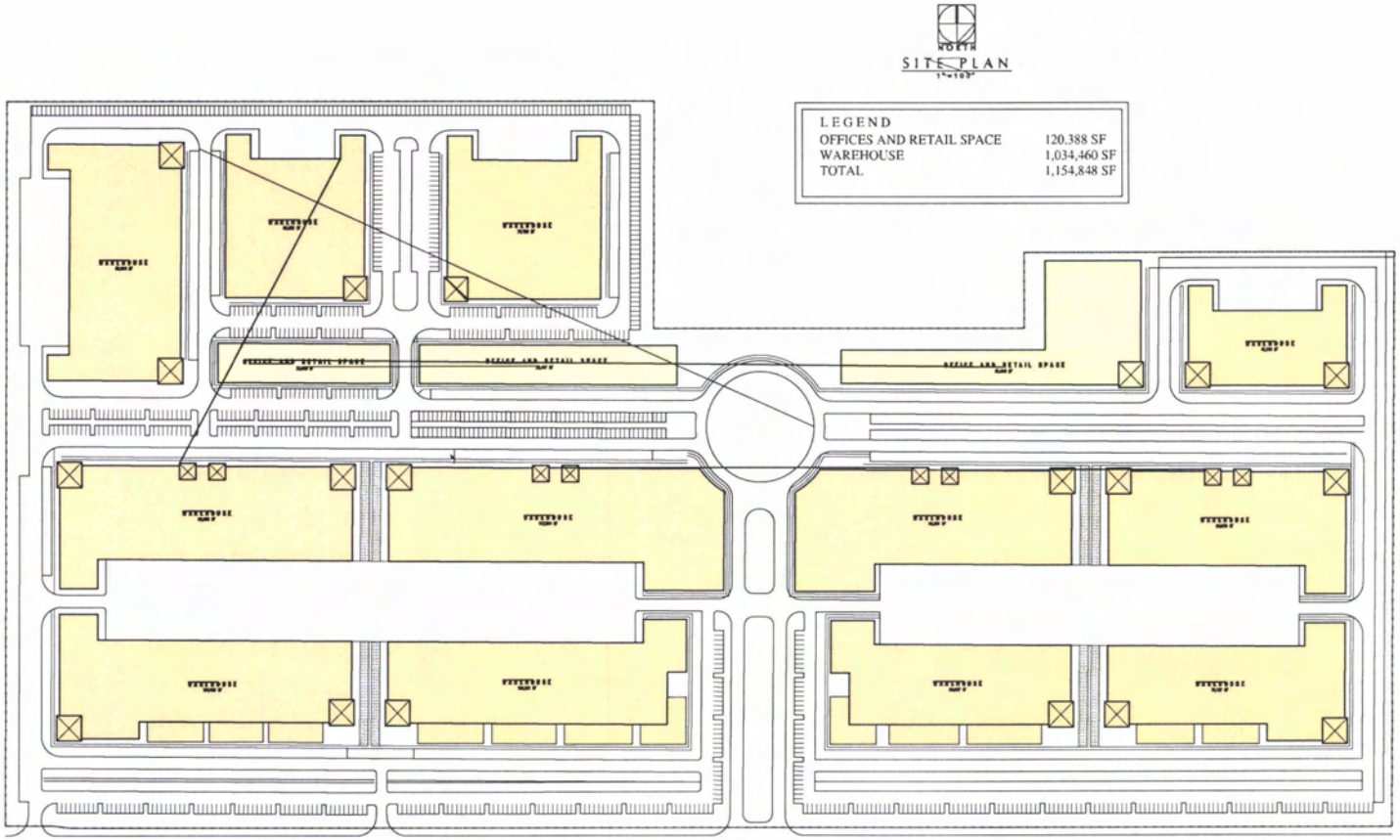
The foregoing instrument was acknowledged before me this _____ day of _____, 2006, by _____ on behalf of Century Business Park, LLC, who is personally known to me or has produced _____ as identification, and acknowledged that they did execute this instrument freely and voluntarily for the purposes stated herein.

My Commission Expires:

_____
Notary Public, State of _____

_____
Print Name

3843809_v4



CENTURY GARDENS

CENTURY BUSINESS PARK

TIMOTHY J. PLUMMER, PE
PRESIDENT

EDUCATION:

Professional Engineer
State of Colorado - #29878
State of Florida - #49676

Professional Affiliations:
Institute of Transportation Engineers

Master of Business Administration
University of Colorado

Bachelor of Science, Civil Engineering
North Carolina State University

Continuing Education:
Advanced Traffic Signal Systems Technology Workshop, Iowa State University
Project Development and Environmental Documentation Course, FHWA
Fundamentals of Geometric Design Workshop, Northwestern University Traffic Institute
Transportation Exchange, Florida Atlantic University

EXPERIENCE:

Mr. Plummer is responsible for the overall transportation planning, traffic engineering, and civil design for the company. These responsibilities include: project management and strategies, technical analysis, and quality control/quality assurance. He has over 16 years of transportation/civil experience including two years with the Florida Department of Transportation's District Six office.

Mr. Plummer's general experience includes tasks related to traffic operations and safety, transportation engineering, transportation planning, traffic engineering, access management, site design, traffic calming, parking analyses and geometric design. His transportation engineering experience includes traffic impact analyses, transit studies, access management, corridor studies parking studies, and safety studies. Mr. Plummer's design experience includes roadway design, site design, and signal design. His experience also includes signal timing (using TRANSYT-7F) and capacity analysis (Highway Capacity Software), as well as the interconnection of multiple traffic signal controllers.

REPRESENTATIVE PROJECTS:

Mr. Plummer has worked on various projects from planning through design. Several of the significant projects are:

Downtown Miami Transportation Master Plan

Mr. Plummer spearheaded the management and technical efforts of this complex transportation master plan for downtown Miami. This plan guides future transportation improvements, solves transportation problems, improves the efficiency of the transportation system, and helps to achieve the desired vision for Downtown Miami for the next 25 years.

TIMOTHY J. PLUMMER, PE
PRESIDENT

I-95 Downtown Distributor Ramps PD&E Study
Mr. Plummer is involved with various technical aspects of a complex urban interstate reconstruction project in Miami for the Florida Department of Transportation. His responsibilities include alternatives development and analysis, freeway system analysis, preliminary accident analysis and traffic analysis and forecasting.

American Airlines Arena Transportation Management Plan
Mr. Plummer was responsible for providing a comprehensive traffic and parking management plan for the American Airlines Arena in downtown Miami, FL. This effort included developing temporary street modifications, police control plans, fire-rescue access, bus/taxi/limo staging plans, surface street signs, expressway directional signs, and parking plans. This multi-jurisdictional effort led to one of the fastest parking garage unloading times for National Basketball Associations arenas.

OTHER SIGNIFICANT PROJECTS:
- MPO InteracTIP
- Coral Gables Trolley
- MPO Congestion Management System
- Performing Arts Center Transportation Management Plan
- Museum Park Miami Transportation Consultant
- Downtown Miami Circulator
- City of Miami Transportation Consultant
- FDOT District 6 Traffic Operations and Safety Studies
- FDOT District 6 General Planning Consultant
- FDOT District 6 Expert Witness
- City of Coral Gables Transportation Consultant
- Miami-Dade County Public Works Transportation Consultant
- Miami-Dade MPO Transportation Consultant
- FDOT District 4 General Planning Consultant
- FDOT Turnpike District SW 112 Avenue PD&E Study
- SR 826/NW 36 Street Interchange Final Design
- HEFT/NW 12 Street SEIR
- SR 836/NW 87 Avenue Interchange Modification Report (IMR)
- US 1 (SR 5) ADA Study
- Rocky Mountain National Park Traffic Operations and Safety Study
- Fort Lauderdale-Hollywood International Airport Terminal Loop Road Assessment
- Miami International Airport Trip Generation Study
- Miami-Dade County Integrated Transportation Management System (ITMS)
- Miami-Dade County Congestion Management System
- Brickell Key Traffic Calming Study
- City of Boca Raton Downtown Parking Study

DAVID PLUMMER & ASSOCIATES

TRANSPORTATION • CIVIL • STRUCTURAL • ENVIRONMENTAL

1750 PONCE DE LEON BOULEVARD
CORAL GABLES, FLORIDA 33134
305 447-0900 FAX: 305 444-4986
E-mail: dpa@dplummer.com

May 23, 2006

Mr. Cesar Llano
Century Homebuilders of South Florida, LLC
7270 NW 12 Street, Suite 410
Miami, FL 33126
(305) 599-8100

RE: Century Gardens Trip Generation Comparison - #06157

Dear Cesar:

The purpose of this letter is to summarize and report the findings of the vehicular trip generation comparison between the proposed Century Gardens project and a Maximum Density scenario for the same area. The Century Gardens project, a mixed-use development, is located on 67.8 acres in southwest Miami-Dade County. The project is bounded by SW 120 Street on the south, SW 157 Avenue on the west, SW 152 Avenue on the east, and theoretical SW 116 Street on the north.

The proposed Century Gardens project includes:

- Townhomes: 329 dwelling units
- Single Family Homes:179 dwelling units
- Retail: 93,487 sf

The Maximum Density scenario with the site's current zoning (GU and IU-C), prepared by Cabrera Ramos, includes:

- Industrial Park: 840,000 sf
- Retail: 280,000 sf
- Office: 280,000 sf

The Institute of Transportation Engineers (ITE) **Trip Generation** manual (7th edition) was used to determine the project's am peak hour, pm peak hour, and weekday daily vehicular trips that will be generated by both scenarios. The following deductions were taken for both scenarios: internalization (as both scenarios are mixed-use in nature), and pass-by (retail only) as per the ITE manual (see Appendix A for the Century Gardens calculations and Appendix B for the Maximum Density scenario calculations). A summary of the analyses is shown below.

Weekday Net New Vehicular Trips [1]

SCENARIO	AM PEAK HOUR	PM PEAK HOUR	DAILY VEH.
Maximum Density	958	1,552	22,828
Century Gardens	269	463	6,253
Difference	**689**	**1,089**	**16,575**

[1] Trips are two-way

As shown above, the Century Gardens project generates approximately **70% less** vehicular trips in the am peak hour, pm peak hour, and weekday daily basis compared to the Maximum Density development scenario.

Please call me at (305) 447-0900 if you have any questions or need more information.

Sincerely,

Timothy J. Plummer, PE
President

Attachments

cc: Juan Mayol, Richard Perez, File

llano1-let.doc

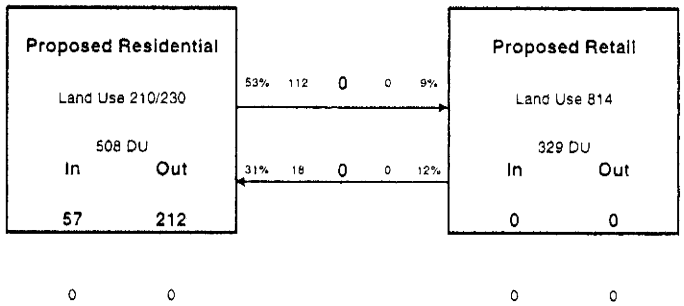
APPENDIX A

Century Gardens Trip Generation

Century Gardens
Proposed Land Uses
Net New Trips

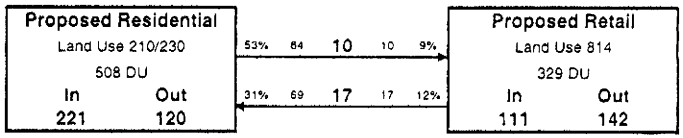
Proposed Land Uses	Number of Units	Daily Trips	AM Peak			PM Peak		
			In	Out	Total	In	Out	Total
Single Family Homes (Land Use 210)	179 DU	1,776	34	101	135	114	67	181
Townhomes (Land Use 230)	329 DU	1,766	23	111	76	107	53	160
Specialty Retail (Land Use 814)	93,487 SF	4,143	0	0	0	111	142	253
Subtotal		7,685	57	212	269	332	262	594
Internalization	9%	-829	0	0	0	-27	-27	-54
Retail Pass-by Trips	34%	-604	0	0	0	-34	-42	-77
Total Proposed		6,253	57	212	269	271	192	463

AM Internalization



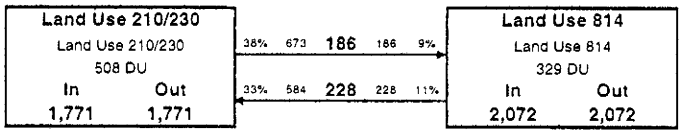
0 0 0 0

PM Internalization



-17 -10 -10 -17

Daily Internalization



-228 -186 -186 -228

Summary of Multi-Use Trip Generation
Average Weekday Driveway Volumes
May 18, 2006

Land Use	Size	24 Hour Two-Way Volume	AM Pk Hour Enter	AM Pk Hour Exit	PM Pk Hour Enter	PM Pk Hour Exit
Single Family Detached Housing	179 Dwelling Units	1776	34	101	114	67
Residential Condominium / Townhouse	329 Dwelling Units	1766	23	111	107	53
Specialty Retail Center	93.487 T.G.L.A.	4143	0	0	111	142
Total		7685	57	212	332	262

Note: A zero indicates no data available.

TRIP GENERATION BY MICROTRANS

Summary of Multi-Use Trip Generation
Saturday and Sunday Driveway Volumes
May 18, 2006

		Saturday			Sunday		
		24 Hr 2-Way	Peak Hour		24 Hr 2-Way	Peak Hour	
Land Use	Size	Vol.	Enter	Exit	Vol.	Enter	Exit
Single Family Detached Housing	179 Dwelling Units	1819	92	78	1571	83	74
Residential Condominium / Townhouse	329 Dwelling Units	1619	75	63	1387	62	64
Specialty Retail Center	93.487 T.G.L.A.	3930	0	0	1910	0	0
Total		7368	167	141	4868	145	138

Note: A zero indicates no data available.

TRIP GENERATION BY MICROTRANS

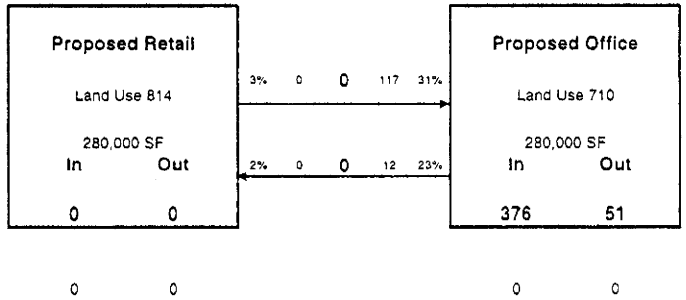
APPENDIX B

Maximum Density Scenario Trip Generation

Century Gardens
Zoned Trip Generation
Net New Trips

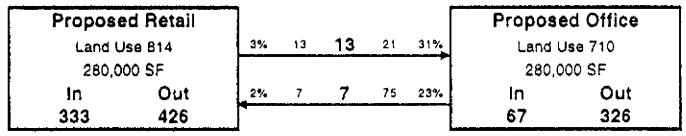
Zoned Land Uses	Number of Units	Daily Trips	AM Peak			PM Peak		
			In	Out	Total	In	Out	Total
Specialty Retail (Land Use 814)	280,000 SF	12,410	0	0	0	333	426	759
Office (Land Use 710)	280,000 SF	2,948	376	51	427	67	326	393
Industrial Park (Land Use 130)	840,000 SF	12,410	435	96	531	145	544	689
Subtotal		27,768	811	147	958	545	1,296	1,841
Internalization	7%	-869	0	0	0	-19	-19	-38
Retail Pass-by Trips	34%	-4,072	0	0	0	-111	-140	-258
Total Proposed		22,828	811	147	958	415	1137	1,552

AM Internalization



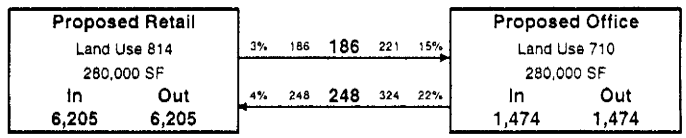
0 0 0 0

PM Internalization



-7 -13 -13 -7

Daily Internalization



-248 -186 -186 -248

Summary of Multi-Use Trip Generation
Average Weekday Driveway Volumes
May 18, 2006

Land Use	Size	24 Hour Two-Way Volume	AM Pk Hour Enter	AM Pk Hour Exit	PM Pk Hour Enter	PM Pk Hour Exit
Industrial Park	840 Th.Gr.Sq.Ft.	4914	435	96	145	544
General Office Building	280 Th.Gr.Sq.Ft.	2948	376	51	67	326
Specialty Retail Center	280 T.G.L.A.	12410	0	0	333	426
Total		20272	811	147	545	1296

Note: A zero indicates no data available.

TRIP GENERATION BY MICROTRANS

Summary of Multi-Use Trip Generation
Saturday and Sunday Driveway Volumes
May 18, 2006

		Saturday			Sunday		
		24 Hr 2-Way	Peak Hour		24 Hr 2-Way	Peak Hour	
Land Use	Size	Vol.	Enter	Exit	Vol.	Enter	Exit
Industrial Park	840 Th.Gr.Sq.Ft.	1989	0	0	583	0	0
General Office Building	280 Th.Gr.Sq.Ft.	618	46	39	173	14	10
Specialty Retail Center	280 T.G.L.A.	11771	0	0	5720	0	0
Total		14378	46	39	6476	14	10

Note: A zero indicates no data available.

TRIP GENERATION BY MICROTRANS

Century Business Park LLC / Century Gardens
Projected Impact Fees

	179 SINGLE FAMILY HOMES	329 TOWNHOMES
Roadways	$233,953.00	$303,009.00
Fire	$31,634.67	$61,651.31
Police	$46,314.46	$85,125.46
Water & Sewer	$437,923.50	$574,927.50
Schools*	$503,920.80	$744,987.60
Parks	$232,757.28	$349,457.22
TOTAL	**$1,486,503.60**	**$2,119,158.00**

* ***Based upon average unit area of 2,400 s.f. per single family home and 1,800 s.f. per townhome.***

3802819_v1

Analysis of Development Impact on Educational Facilities

Century Business Park, LLC

District Boundary Change from IU-C to BU-1A on 2.44 acres; GU and IU-C to RU-3M on 32.5 acres; and GU and IU-C to RU-1M(a) on 34.99 acres (approximately 69.93 Total Acres) at the Northeast Corner of SW 120th Street and Theoretical SW 157th Avenue

The proposed development of 179 single family homes and 329 townhomes has the following estimated student impact:

Units	Total Students*	Elementary	Middle	Senior
Proposed 179 Single Family Homes	116	53	29	34
Proposed 329 Townhomes	155	71	39	45
Total Proposed Development	271	124	68	79
Currently Permitted – 7 Single Family Homes	(5)	(2)	(1)	(2)
Total	**266**	**122**	**67**	**77**

*Public School Students per Unit by Type of Structure by Minor Statistical Area (Census 2000), Miami-Dade County Department of Planning and Zoning, April, 2004. The student generation rates used in this analysis (.65 and .47) are calculated by dividing the total number of students in single family and townhome residential units by the total number of single family and townhome residential units, respectively, within MSA 6.2.

School Mitigation –

- A voluntary contribution of **$542,000** is being proffered for the benefit of Felix Varela Senior High School.

- With the August 2006 opening of Norma Bossard Elementary and the January 2007 opening of Jorge Mas Canosa Middle School, both the elementary and middle schools serving this application are expected to be below the 115% threshold, inclusive of this development. The capital costs associated with the remaining 77 senior high students to be generated are approximately $1,680,525. Conservatively (using the current impact fee formula), this development's total contribution of **$1,889,502** will exceed this capital cost by more than $200,000.

- Under the current Impact Fee Ordinance, the development would pay approximately $1,347,502 in school impact fees, based on an average single family unit size of 3,000 square feet and an average townhome unit size of 1,800 square feet.

- The current impact fee ordinance and formula are under review, and it is anticipated that changes will be adopted in the next 6 to 8 months that could significantly increase the fee. If the fees and formula proposed by Miami-Dade County Public Schools are adopted, this development will pay approximately **$3,607,059** in school impact fees, an increase of **268%**.

Schools Serving the Application Area	October FTE 2005 Membership/with development**	FISH Design Capacity Total Modified by Class Size Amendment	% Utilization Total/with development
Gilbert Porter Elem.*	1,268	937	135%
	1,390		148%
Hammocks Middle	2,198	1,688	130%
	2,265		134%
Felix Varela Senior	4,174	2,888	145%
	4,251		147%

**Capacity numbers from Miami-Dade County Public Schools (MDCPS) adopted Facilities Work Program (September 7, 2005). Enrollment numbers as published by MDCPS and State for October 2005 FTE.

*Note: Information presented at the Attendance Boundary Committee (ABC) projected Gilbert Porter Elementary at 98% of capacity (approximately 918 students) with the opening of Norma Bossard Elementary. Based on this, when the students from this development are included, Gilbert Porter's utilization rate would be 111%, below the review threshold.

Other Area Schools	October FTE 2005 Membership	FISH Design Capacity Total*	% Utilization Total
Norma Bossard Elementary (opening August 2006)	N/A	1,068	ABC projections indicate Bossard will open at 44% of capacity (K-4) and increase to 56% for 2007-08 (K-5)
Jorge Mas Canosa Middle (opening January 2007)	N/A	2,232	N/A
Christina Eve Elem.	783	710	110%
Claude Pepper Elem.	1,182	1,048	113%
Oliver Hoover Elem.	1,165	1,026	114%
Arvida Middle	1,795	1,197	150%
Robert Morgan Senior	2,322	2,042	114%

**Capacity numbers from Miami-Dade County Public Schools (MDCPS) adopted Facilities Work Program (September 7, 2005). Enrollment numbers as published by MDCPS and State for October 2005 FTE.

1. Planned Relief Schools and Major Additions*

Name	Type of School/ Location	# of Student Stations	Estimated Occupancy Date
State School "M1"	New Elementary Eve/Hoover/Kendale Lakes Relief	862	September 2008
Devonnaire Elementary	Modular Addition/K-8 conversion Arvida Middle Relief	783	March 2007
State School "HHH1"	Varela/Sunset/Southridge Senior Relief	2,858	February 2010
Total – 4,503 Student Stations	**862 Elementary** **783 Middle** **2,858 Senior**	**4,503**	

* MDCPS Capital Project Status Report

2. **Magnet and Choice Programs:** Several schools in MDCPS offer magnet programs, which are choice programs offering themes of study. Any student who attends or is eligible to attend a MDCPS school may apply for admission to a magnet program and, as such, school capacity that might otherwise be available to proposed development, is made available to out-of-area students. The following schools, impacted by the application offer magnet programs:

   - **Robert Morgan Senior High**

3. **Impact Fees:** This development will pay school impact fees based on the square footage of the units. Based on the adopted formula [[$600 + (.90 X Unit Size)] X 1.02], this development will pay approximately **$1,347,502** in school impact fees (based on 179 single family homes with an average square footage of 3,000 and 329 townhomes with an average square footage of 1,800), based on the current formula. However, the ordinance and formula are under review, and it is anticipated that changes will be adopted in the next 6 to 8 months that could significantly increase the fee. If the fees and formula proposed by Miami-Dade County Public Schools are adopted, this development will pay approximately **$3,607,059** in school impact fees, an increase of **268%**.

The Educational Facilities Impact Fee Ordinance provides for three Benefit Districts within which collected impact fees must be spent: the East Benefit District; the Northwest Benefit District; and the Southwest Benefit District. MDCPS' 2005-06 Budget documents indicate that approximately $260.19 million has been received in impact fees across the benefit districts since the enactment of the Ordinance (October 1995), **with $45.55 million estimated to be collected in 2005-06.**

The Budget documents indicate that the following projects have been or will be funded by the Southwest Benefit District impact fee revenues.

Southwest Benefit
District Projects

S/S "VV1" Curry Middle
PLC "U" at Oliver Hoover El
Site Purchase for S/S "YY1" Mid (Redland Richmond Hts, Hammocks Ammons relief)
McMillan Middle Addition
S/S "SS1" Middle (Redland, Homestead Mid relief)
S/S "UU1" (Doolin Mid relief)
Redondo El Addition
Claude Pepper El Addition
Braddock Sr Addition
Laura Saunders El Addition
Wesleys Matthews El Addition

Felix Varela Senior

Sent via e-mail 2/24/06.

Miami-Dade County Public Schools
giving our students the world

Five Year Capital Plan
Rebuilding, Expanding and Maintaining Our Facilities

THE ZONE

MIAMI-DADE COUNTY PUBLIC SCHOOLS
FACILITIES PLANNING
1450 NE 2ND AVENUE, ROOM 525
MIAMI, FLORIDA 33132

PROJECT SUMMARY

APPLICATION: No. 05-274, Century Business Park, LLC (DIC)
REQUEST: Special exception to permit residential uses in the BU-1A district
ACRES: 67.8 acres
MSA/Multiplier: 6.2/.65 (single-family) .47 (townhouse)
LOCATION: Northeast Corner of SW 157 Avenue and SW 120 Street
NUMBER OF UNITS: 508 units (179 single-family and 329 townhouse units)
Site Plan Provided: yes __ No X
Estimated Square Footage: 1,500-2,000 sq ft. per unit **Estimated Impact Fees** $1,071,150/-$1,950-$2,400 per unit

---

ESTIMATED STUDENT POPULATION: 271 students*
ELEMENTARY: 125
MIDDLE: 68
SENIOR: 78

	STUDENT POPULATION	FISH DESIGN CAPACITY PERMANENT	% UTILIZATION FISH DESIGN CAPACITY PERMANENT	NUMBER OF PORTABLE STUDENT STATIONS	% UTILIZATION FISH DESIGN CAPACITY PERMANENT AND RELOCATABLE	CUMULATIVE STUDENTS **
Dr. Gilbert L. Porter Elem.	1247/ 1372*	919	137%/ 149%*	18	133%/ 146%*	1372
Hammocks Middle	2195/ 2263*	1450	151%/ 156%*	238	130%/ 134%*	2364
Felix Varela Sr.	4175/ 4253*	2888	145%/ 147%*	0	145%/ 147%*	4351

PLANNED RELIEF SCHOOLS IN THE AREA
(information included in proposed 5-Year Capital Plan, 2005-2009, dated April 2005):

Projects in Planning, Design or Construction

School	Status	Projected Occupancy Date
State School "Y1" (Gordon and Porter Elementary School Relief) (1068 student stations)	Construction	School Opening 2007

State School "YY1" (Redland, Hammocks, Ammons and Richmond Heights Middle School Relief) (2232 student stations)	Construction	School Opening 2007

Proposed Relief Schools

School	Funding Year
New Senior High School – (S/S "HHH1") (Felix Varela, Sunset and Southridge Senior High School Relief) (2858 student stations)	FY 07-08

Miami-Dade County Public Schools
giving our students the world

Five Year Capital Plan
Rebuilding, Expanding and Maintaining Our Facilities

THE ZONE

Dialogue Worksheet

A. . LICANT: CENTURY BUSINESS PARK, LLC

Mitigation Options:

1. Contribute the full capital cost of providing student stations for the additional students to be generated by the proposed residential development, based on the State of Florida maximum allowable cost per student station, minus the estimated impact fee revenue to be generated from the proposed residential development.

   Based on the State's 2006 Student Station Cost Factors for the month of February.

	Number of Students		Cost Factor	
Elementary	125	x $	14,378	= $ 1,797,250
Middle	68	x $	16,485	= $ 1,120,980
Senior	78	x $	21,815	= $ 1,701,570
			Total $	4,619,800

Minus Estimated Educational Facilities Impact Fees *(See attached worksheet)* ($ 1,071,150 ($ 1950 - 2400 / units)

al Contribution *(Over and above Impact Fees)* $ 3,548,650

**Does not meet the review threshold*

Applicant and District Staff

- **Selected Option No. 1**

_____ Initials (Applicant or Representative)

_____ Initials (District)

_____ Initials (District)

- **Reviewed and not selected Option No. 1**

_____ Initials (Applicant or Representative)

2. Donate land to the School District for construction of the required student stations in the area of the impact in addition to, or as a contribution in-lieu-of educational facilities impact fees, and in conformance with the School District's Five-Year Capital Plan.

   Acreage 10 net or gross

   Square footage in proposed development _____

   Location _____

   Over and Above

   Contribution in-lieu of Educational Impact Fees

   Other _____

Option 2 or in the event of no land available option 1

Applicant and District Staff

- **Selected Option No. 2**

_____ Initials (Applicant or Representative)

_____ Initials District)

_____ Initials (District)

- **Reviewed and not selected Option No. 2**

_____ Initials (Applicant or Representative)

3. Build the required student stations to mitigate the impact of the proposed residential development at the affected schools, or donate the equivalent monetary value, minus the estimated impact fee revenue to be generated from the proposed residential velopment, and in conformance with the School District's Five-Year Capital Plan.

Contribution Options:

_____ Build required student stations at existing facilities

or

	Number of Students		Cost Factor		
Elementary	_____	x $	_____	=	$_____
Middle	_____	x $	_____	=	$_____
Senior	_____	x $	_____	=	$_____

Total $_____

Minus Estimated Educational Facilities Impact Fees ($_____)($_____/ units)
(See attached worksheet)

Total Contribution $_____
(Over and above Impact Fees)

**Does not meet the review threshold*

Applicant and District Staff

- **Selected Option No. 3**

_____ Initials (Applicant or Representative)

_____ Initials (District)

_____ Initials (District)

- **Reviewed and not selected Option No. 3**

_____ Initials (Applicant or Representative)

4. Provide a combination of two or more of these mitigation options to meet the estimated impact of the residential development at the affected schools, and in conformance with the School District's Five-Year Capital Plan.

Proposed Mitigation Option:

_____

_____

_____

_____

Applicant and District Staff

- **Selected Option No. 4**

_____ Initials (Applicant or Representative)

_____ Initials (District)

_____ Initials (District)

- **Reviewed and not selected Option No. 4**

_____ Initials (Applicant or Representative)

This instrument was prepared by:

Name: Juan J. Mayol, Jr., Esq.
Address: Holland & Knight LLP.
701 Brickell Avenue
Suite 3000
Miami, Florida 33131

(Space Reserved for Clerk of the Court)

DRAFT

DECLARATION OF RESTRICTIONS IN FAVOR OF THE SCHOOL BOARD OF MIAMI-DADE COUNTY

WHEREAS, the undersigned, **Century Business Park, LLC.**, a Florida limited liability company (the "Owner"), holds the fee simple title to that certain parcel of land located in unincorporated Miami-Dade County, Florida, which is legally described in Exhibit "A" to this Declaration (the "Property");

WHEREAS, the Owner filed application number P.H. 05-274 (the "Application") with Miami-Dade County, requesting a district boundary change on the Property from GU and IU-C to RU-1M(A) and RU-TH in order to permit the development of the Property with five hundred and eight (508) dwelling units;

WHEREAS, the Owner desires to help mitigate the future public school needs generated by the residential development proposed for the Property under the Application;

NOW, THEREFORE, in order to assure The School Board of Miami-Dade County (the "School Board") that representations made to it during its consideration of the Application will be abided by, the Owner freely, voluntarily and without duress, makes the following Declaration of Restrictions covering and running with the Property:

1. **Monetary School Contribution.** In order to help meet the future public schools needs generated by the development of the Property under the Application, the Owner, its successors and assigns, agrees to voluntarily contribute funds to the School Board in an amount equal to $542,000.00 (the "Contribution"), which funds shall be utilized for capital improvements at Felix Varela Senior High School or for the acquisition of land or the construction of improvements to provide relief for said high school, and to the extent that there are no pending or proposed capital improvements at the foregoing school or a plan to provide relief at such school as of the date of the payment of the Contribution, then for capital improvements at other schools within the affected feeder pattern. The total Contribution shall be paid in one (1) payment becoming due and payable, without demand, prior to the approval of the final plat for the Property.

The Owner, its successor and assigns acknowledge and agree that the Contribution shall not entitle the Owner or its successors and assigns to a credit against the amount of the educational facilities impact fees that will be assessed against the future development of the Property under Chapter 33K of the Miami-Dade County Code. To the extent that less than the requested 508 dwelling units is approved by the Community Zoning Appeals Board, the Board of County Commissioners, or the Miami-Dade County Plat Committee, the amount of the Contribution shall be reduced on a pro rata basis, in an amount equal to $2,000.00 per student, as calculated by the School District.

2. **Miscellaneous.**

A. **Covenant Running with the Land**. This Declaration on the part of the Owner shall constitute a covenant running with the land and shall be recorded, at Owner's expense, in the public records of Miami-Dade County, Florida, and shall remain in full

DRAFT

force and effect and be binding upon the undersigned Owner, and its heirs, successors, and assigns until such time as the same is modified or released, or until such time as the same is modified or released with the approval of the School Board.. These restrictions during their lifetime shall be for the benefit of, and limitation upon, all present and future owners of the Property and for the public welfare.

B. **Term**. This Declaration shall run with the land and shall be binding on all parties and all persons claiming under it for a period of thirty (30) years from the date that this Declaration is recorded. After which time, it shall be extended automatically for successive periods of ten (10) years each, unless an instrument signed by the then owner(s) of the Property has been recorded agreeing to change the Declaration in whole, or in part, provided that the Declaration has first been modified or released by the School Board.

C. **Modification, Amendment, Release**. This Declaration on the part of the Owner shall constitute a covenant running with the land and shall be recorded by the Owner, at the Owner's expense, in the public records of Miami-Dade County, Florida, and shall remain in full force and effect and be binding upon the undersigned Owner and its heirs, successors, and assigns until such time as the same is modified or released with the approval of the School Board. These restrictions, during their lifetime, shall be for the benefit of, and limitation upon, all present and future owners of the Property and for the public welfare; provided, however, upon payment of the Contribution, the Superintendent of Schools, or his/her designee shall release this Declaration by forthwith executing a

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written instrument in recordable form effectuating and acknowledging such release on behalf of the School Board.

D. **Enforcement**. Enforcement shall be by action against any parties or person violating, or attempting to violate any covenants. This enforcement provision shall be in addition to any other remedies available at law or in equity or both.

E. **Election of Remedies**. All rights, remedies, and privileges granted herein shall be deemed to be cumulative and the exercise of any one or more shall neither be deemed to constitute an election of remedies, nor shall it preclude the party exercising the same from exercising such other additional rights, remedies or privileges.

F. **Severability**. Invalidation of any one of these covenants, by judgment of Court, in no way shall affect any of the other provisions, which shall remain in full force and effect.

G. **Recording**. This Declaration shall be filed of record by the Owner in the public records of Miami-Dade County, Florida, with the cost to the Owner, and shall become effective following the adoption by the Miami-Dade County Board of County Commissioners or Community Zoning Appeals Board of a resolution approving the Application and the expiration of any applicable filing periods without an appeal of the Application having been filed. Upon recordation, the Owner shall provide a copy of the recorded Declaration to the School Board.

(Signature Page Follows)

DRAFT

Signed, sealed and acknowledged on this _____ day of _____, 2004.

WITNESSES

_____
Signature

_____
Printed Name

_____
Signature

_____
Printed Name

CENTURY BUSINESS PARK, LLC., a Florida limited liability company

By: _____
Signature

_____
Printed Name/Title

STATE OF FLORIDA)
) SS
COUNTY OF MIAMI-DADE)

The foregoing instrument was acknowledged before me this _____ day of _____, 2004, by (Name) _____, as (Title) _____ of Century Business Park, LLC., a Florida limited liability company, on behalf of said corporation, for the purposes stated herein. She/he is personally known to me or has produced _____ as identification.

_____
Notary Public - State of Florida

My Commission Expires: _____

_____
Printed Name

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EXHIBIT "A"
Page 1 of 1

3762017_v1

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AGENDA
SCHOOL SITE PLANNING AND CONSTRUCTION COMMITTEE
May 18, 2006
6:00 p.m.
SBAB - Room 559

I. Call To Order

II. Roll Call

III. Approval of Minutes: February 1, 2006 and April 5, 2006

IV. Amendments to the Agenda

V. Old Business:

A. State School HHH-1, a ± 38-acre site located at SW 160 Street and SW 152 Avenue, Miami. A new senior high school proposed to relieve Miami Sunset, Felix Varela and Miami Southridge Senior High Schools.

B. State School HH1, a ± 17-acre site located at NW 58 Street and NW 104 Avenue, Doral. A new K-8 Center proposed to relieve Eugenia B. Thomas and John I. Smith Elementary Schools, and Doral Middle School.

C. State School P1, a ± 10-acre site located at NW 74 Street and NW 117 Avenue, Doral; 10 acres of vacant land located at approximately NW 112 Avenue and NW 80 Street, Doral, FL. A new elementary school proposed to relieve Eugenia B. Thomas and John I. Smith Elementary Schools.

D. State School GGG1, a ± 20-acre site located at NW 25 Street and NW 137 Avenue, Miami; ± 20 acres located at NW 17 Street and NW 137 Avenue, Miami. A new senior high school proposed to relieve Miami Coral Park and Doral (Ronald Reagan) Senior High Schools.

E. State School F1, a ± 6.31-acre site located at theoretical NW 91 Avenue and Flagler Street; ± 14-acre site located at Fontainbleau Boulevard and theoretical NW 3 Street, Miami. A new elementary school proposed to relieve Charles R. Hadley, E.W.F. Stirrup, Coral Park and Sweetwater Elementary Schools.

VI. Committee or Special Reports and Updates

VII. Adjournment

If a person wishes to appeal any decision made with respect to any matter considered at this meeting, such person should ensure the preparation of a verbatim record of the meeting's proceedings including the testimony and evidence upon which the appeal is to be based (Chapter 286.0105 F.S.)

If you have a disability that requires an accommodation, you may call the individual listed as the Contact Person for the above-posted meeting or call the Telecommunications Device for the Deaf (TDD) at (305) 995-2400. For accommodations or assistance, the request for assistance must be made at least 48 hours in advance. For special equipment (chair lifts, special wheel chairs, etc.) or other special assistance, such as a sign language interpreter or meeting materials, the request for assistance must be made at least five (5) days in advance.

Miami-Dade County Public Schools
giving our students the world

School Site Planning and Construction Committee

UPDATE ON STATE SCHOOL "HHH-1", A NEW SENIOR HIGH SCHOOL TO RELIEVE MIAMI SUNSET, FELIX VARELA AND MIAMI SOUTHRIDGE SENIOR HIGH SCHOOLS

Facilities Planning

May 18, 2006

GENERAL INFORMATION

- Site search conforms with and is included in the District's 5-year Work Program.
- Proposed school furthers the District's primary goal to create additional stations and relieve overcrowding.
- Site acquisition and school construction have designated funding in FY 05-06 and FY 07-08 respectively. The proposed new senior high school will accommodate an additional 2,858 student stations.

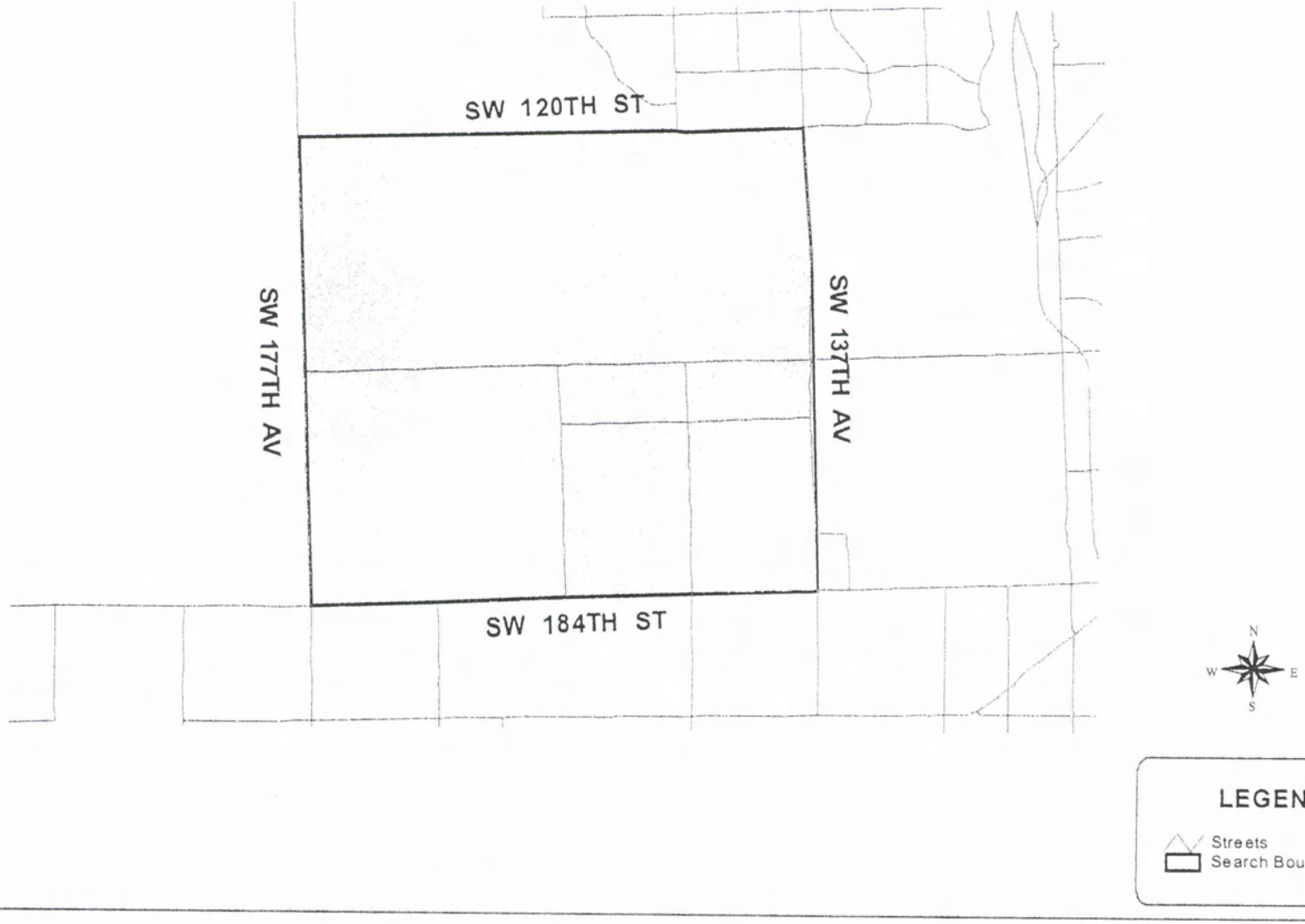
GENERAL INFORMATION

State School "HHH-1" will relieve Miami Sunset, Felix Varela and Miami Southridge Senior High Schools

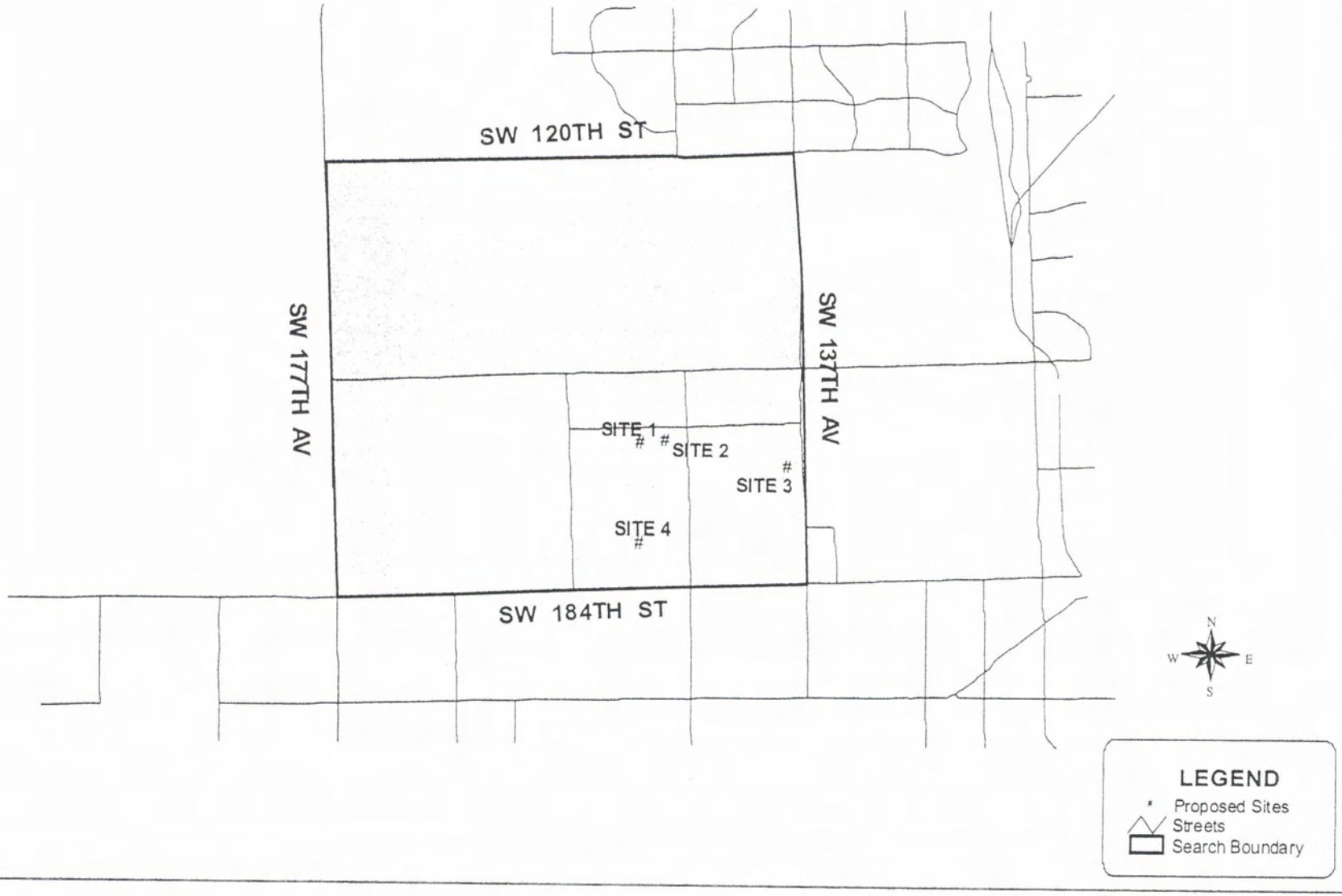
SCHOOL NAME	STUDENT POPULATION*	PERM CAPACITY*	DEFICIT
Miami Sunset Senior High School	3,311	2,522	-789
Felix Varela Senior High School	4,175	2,888	-1,287
Miami Southridge Senior High School	3,665	2,662	-1,003
Total Deficit			-3,079

* As of the October 2005 Percent of Utilization and Fish Design Capacity reports

SEARCH BOUNDARIES

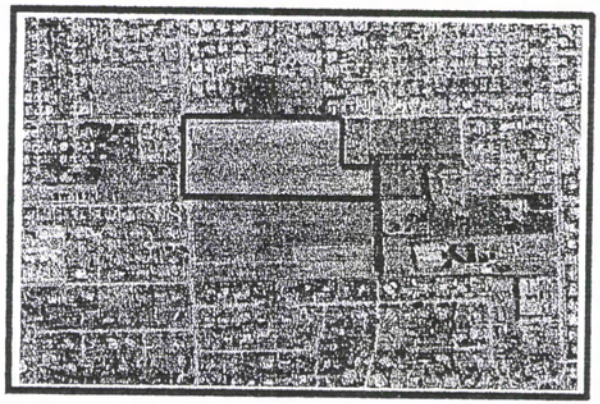


LOCATION OF SITES INITIALLY IDENTIFIED

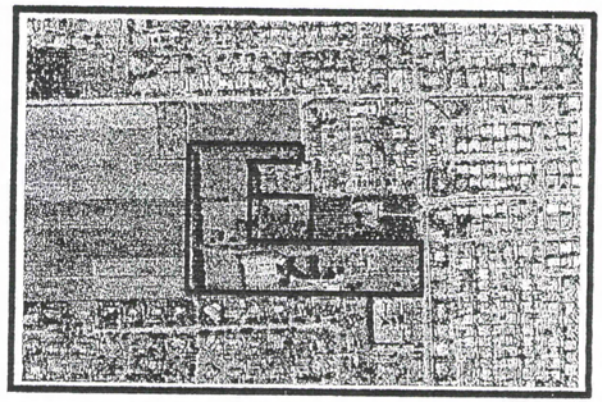


SITES INITIALLY IDENTIFIED

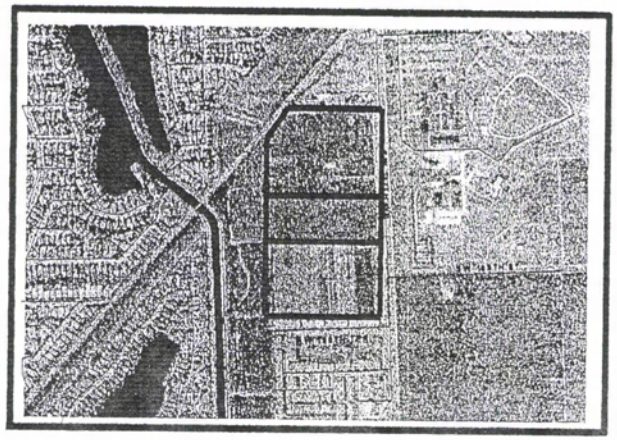
14950 SW 160 Street



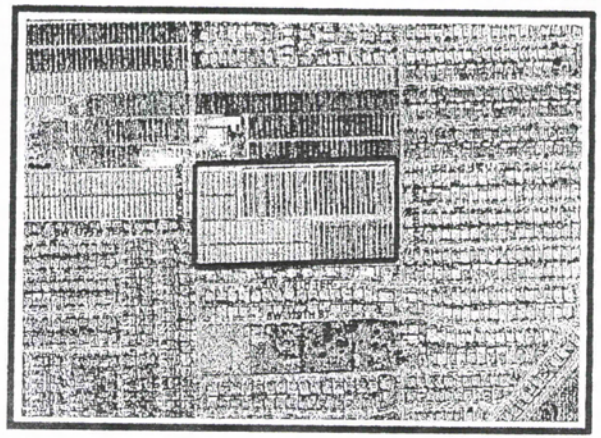
SW 163 Street and SW 147 Avenue



SW 168 Street and SW 137 Avenue

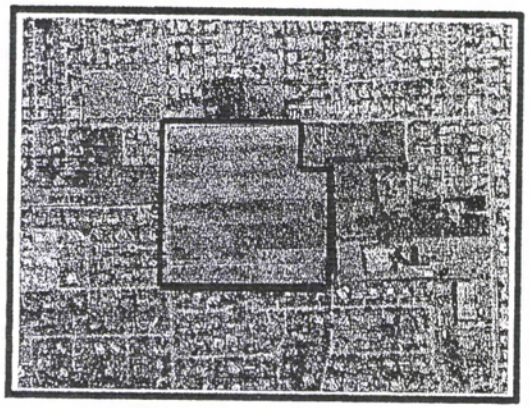


SW 176 Street and SW 152 Avenue

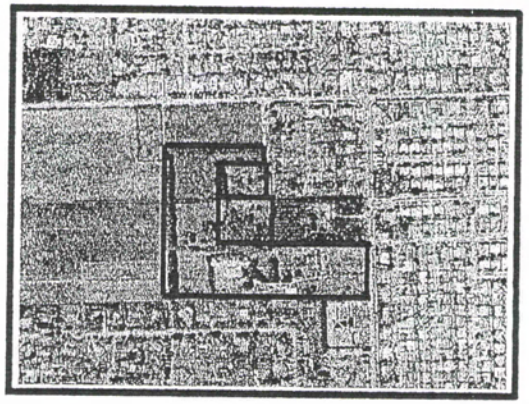


Sites selected and recommended by the School Site Planning and Construction Committee, at its meeting of February 1, 2006.

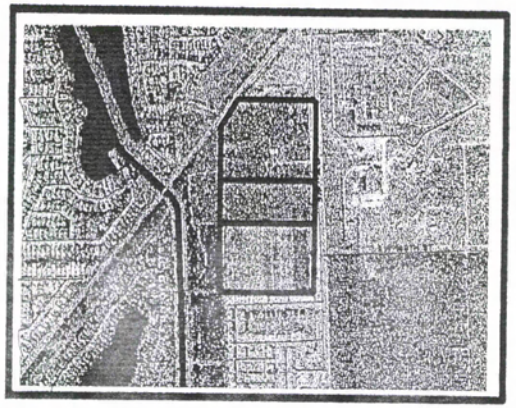
14950 SW 160 Street



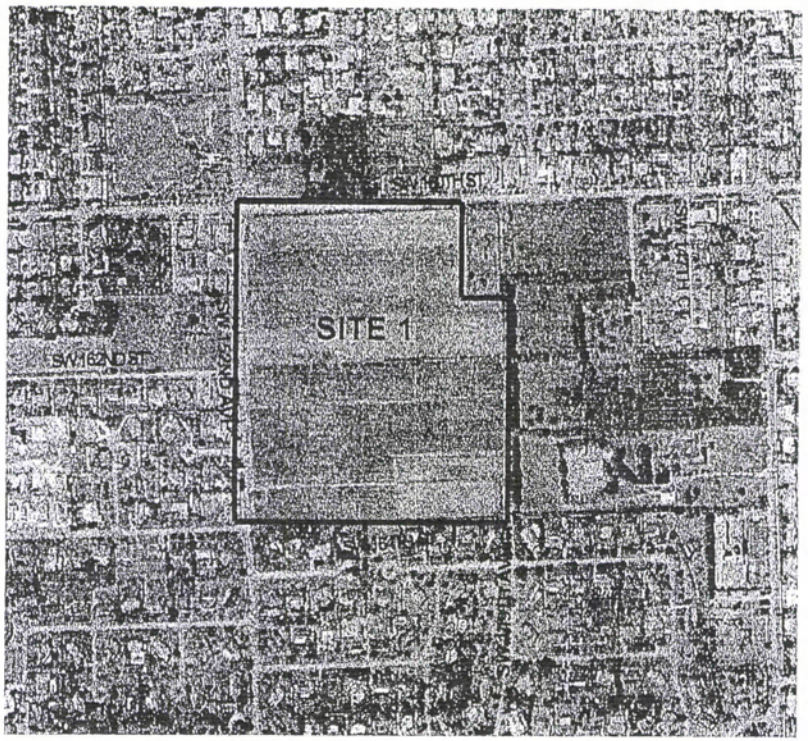
SW 163 Street and SW 147 Avenue



SW 168 Street and SW 137 Avenue



SITE 1



Site 1 is ± 38.73 acres in size and located at 14950 SW 160 Street. The owner is Matheson Properties S.A. ("Owner"). Based on the SSPCC's recommendation of February 1, 2006, District staff presented a purchase offer to the Owner of Site 1, based on the value established in the restricted use appraisal. The Owner counter-offered in the amount shown on the informational chart included in the Committee's packets, but the appraisals commissioned by the District do not support the Owner's counteroffer price. Additionally, Owner has expressed an interest in acquiring a ±24-acre Board-owned site located at SW 157 Avenue and SW 45 Street, adjacent to Lamar Louise Curry Middle School, and may consider a trade of this 24-acre site for Site 1, with the difference in value to be paid by the corresponding party.

COMMENTS FROM VARIOUS GOVERNMENTAL ENTITIES ON SITE 1

- The **DERM Water Control Section** has indicated that no storm water retention area is required for Site 1.

- The Miami-Dade County **Department of Planning and Zoning** has indicated that Site 1 is better suited for an elementary school or middle school because the western boundary of Site 1 is located approximately ½ mile from the Urban Development Boundary (UDB). However, if there are no other sites available in the area, it is recommended that the principal school buildings and entrances be placed as far as functionally practical from the UDB.

- The Miami-Dade County **Aviation Department** has indicated that Site 1 is located outside the No-School Zone and would be compatible with airport operations.

- **Department of Environmental Resources Management** and the **South Florida Water Management District** – responses pending

- The **Office of Community and Economic Development** has indicated that Site 1 contains no archeological and/or historical concerns.

- The **U.S. Army Corps of Engineers** has indicated that a response cannot be given until and if an application to conduct work in the waters of the United States is submitted. It recommended that the District work with the Department of Environmental Resources Management and the South Florida Water Management District for any preliminary jurisdictional determinations.

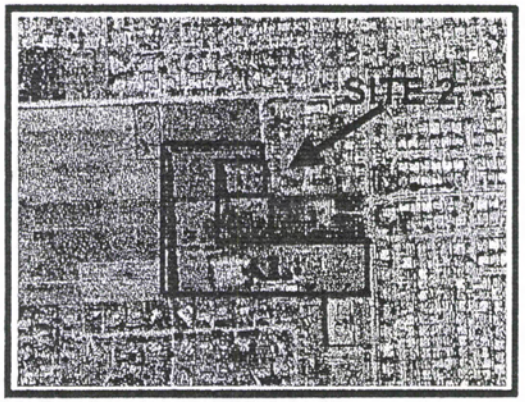
SITE 1
ADVANTAGES

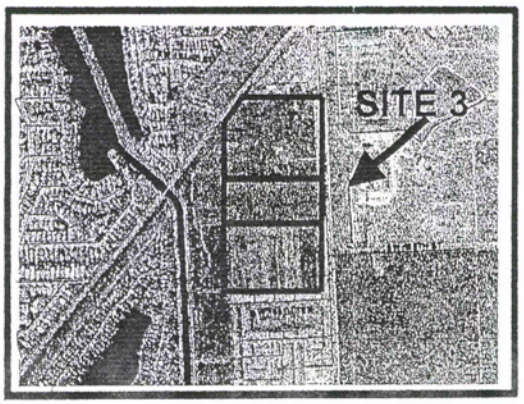
- Site 1 has frontage on 2 roads.
- Regional Center VI ranked Site 1 as first priority for its intended purpose of situating S/S "HHH-1".
- Size of Site 1 is ample for a senior high school.
- By acquiring the entire 38-acre tract, a portion of Site 1 can be used for S/S "HHH-1" and the balance can be used for future growth and will give the District the ability to expand.

DISADVANTAGES

- There may be some opposition from area residents to placement of a new school on Site 1.

SITE 2 and SITE 3





In accordance with the SSPCC's recommendation of February 1, 2006, District staff submitted purchase offers to the owners of Site 2 and Site 3. To date, no counter-offers have been received from any of these property owners, and it appears that the owners are unwilling to sell. Based on the Region's recommendation and other factors such as site size, Region site ranking, multiple ownership, etc., District staff will pursue Site 1 for placement of State School HHH-1.

MEMORANDUM

GOE
AGENDA ITEM NO. 7(A)

TO: Hon. Chairperson Barbara Carey-Shuler, Ed.D. and Members, Board of County Commissioners

DATE: May 18, 2004

FROM: George M. Burgess
County Manager

SUBJECT: Report on the status of the planning, design, construction and funding of SW 157 Avenue, SW 136 Street and SW 120 Street

BACKGROUND

The construction of SW 157 Avenue from SW 152 Street to SW 112 Street will provide a vital North-South roadway corridor, which will link the fast growing areas of Coral Reef (Metrozoo) and West Kendall. This effort further includes the extensions of SW 136 Street and SW 120 Street to SW 157 Avenue, a railroad crossing, and three bridges over Black Creek Canal (C-1W). Improvements to the aforementioned roadways are essential to alleviate serious existing traffic congestion and to provide access for the citizens to this area of the County, including the proposed West Kendall Regional Park site. Construction of these roadways is a complex process, which involves a combination of County agencies, local developers and various funding sources. The combined cost of these roadway corridors will exceed $10 million. As such, Public Works Department is providing this update for your information.

CURRENT STATUS

The current status of the project is graphically depicted on Exhibit "A", attached. The southern leg (First Phase) of the project, consists of four lanes of SW 157 Avenue from approximately SW 152 Street, on the South, to SW 136 Street, on the North; two lanes of SW 136 Street from approximately SW 144 Avenue on the East to the C-1W Canal on the West; a four lane bridge across the C-1W Canal and an at-grade railroad crossing. This phase has been completed and was opened to traffic on March 24, 2004. The construction of this first phase was funded as a combination of developers' obligations as part of their subdivision requirements; Contributions-in-Lieu of payments of Road Impact Fees from other local area developers; and by utilizing funds from Road Impact Fee District Five.

The middle leg of the project (Second Phase) consists of constructing two lanes of SW 157 Avenue from SW 136 Street on the South to SW 120 Street on the North; two lanes of SW 120 Street from approximately SW 150 Avenue to the C-1W Canal on the West; and a four lane bridge across the C-1W. The right-of-way for this middle leg of SW 157 Avenue has been obtained at no cost to the County, through a developer's contribution and complemented by additional acquisition through condemnation. The only remaining portion to be acquired is

through the Tamiami Airport property which is awaiting FAA approval. The design plans for this portion of SW 157 Avenue are complete and the design for the bridge at SW 120 Street is in progress. Construction of this portion of the project is anticipated to start this year and be completed in 2005, provided that the Aviation Department receives the aforementioned approval from the FAA for the straight alignment route of the South half of SW 157 Avenue, which runs through Tamiami Airport property. Funding for the construction of this middle portion of SW 157 Avenue will come from the People's Transportation Plan (PTP), while the bridge will be funded by the Parks Department. The SW 120 Street component of this second phase is under construction by a developer as a Contribution-in-Lieu of Traffic Impact Fee, on right of way previously acquired from Tamiami Airport. It is anticipated that this component will be completed this year, although the elevations of the western 500 feet of 120 Street have not been finalized pending the final grades from the Parks' Bridge.

The North leg of the project (Third Phase) is the continuation of SW 157 Avenue through the proposed West Kendall Regional Park up to the C-1W Canal and the northern bridge connecting to the already existing portion SW 157 Avenue across the C-1W Canal at approximately SW 112 Street. This four-lane section of the roadway and bridge is presently planned to be funded by the PTP. The design work of this third phase, to be managed by Public Works Department, has not started pending the final alignment being generated as part of the Parks Department planning process.

FUNDING ISSUES

Funding associated with each project component is shown in attached Exhibit "B", and is more specifically described as follows:

1. First Phase – The West two lanes of SW 157 Avenue from SW 148 Street to SW 136 Street were part of the subdivision process obligations of the adjacent development and were built at no cost to the County. On October 10, 2001 that same developer, Milon Corporation, N.V. (Milon) received approval from Community Council Zoning Appeals Board 11 for a 514 unit development located West of 157 Avenue and South of 136 Street. One of the conditions of that approval was roadway improvements along SW 157 Avenue and SW 136 Street, all subject to Milon receiving credits for contribution in lieu of payment of road impact fees, as provided in Chapter 33E of the Miami Dade County Code. Said roadway improvements were to be constructed in two parts as follows:

   Part I:

   a. The widening of SW 157 Avenue from two (2) lanes to four (4) lanes, from SW 152 Street north to SW 148 Street;
   b. The improvement of SW 157 Avenue (2 lanes) from SW 148 Street north to SW 136 Street, including the construction of the railroad crossing;
   c. The improvement of SW 136 Street (North 2 lanes) from SW 144 Avenue Road west to SW 157 Avenue, including the bridge/canal crossing.

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Part II:

The improvement of SW 157 Avenue (2 lanes) from SW 136 Street north to SW 120 Street.

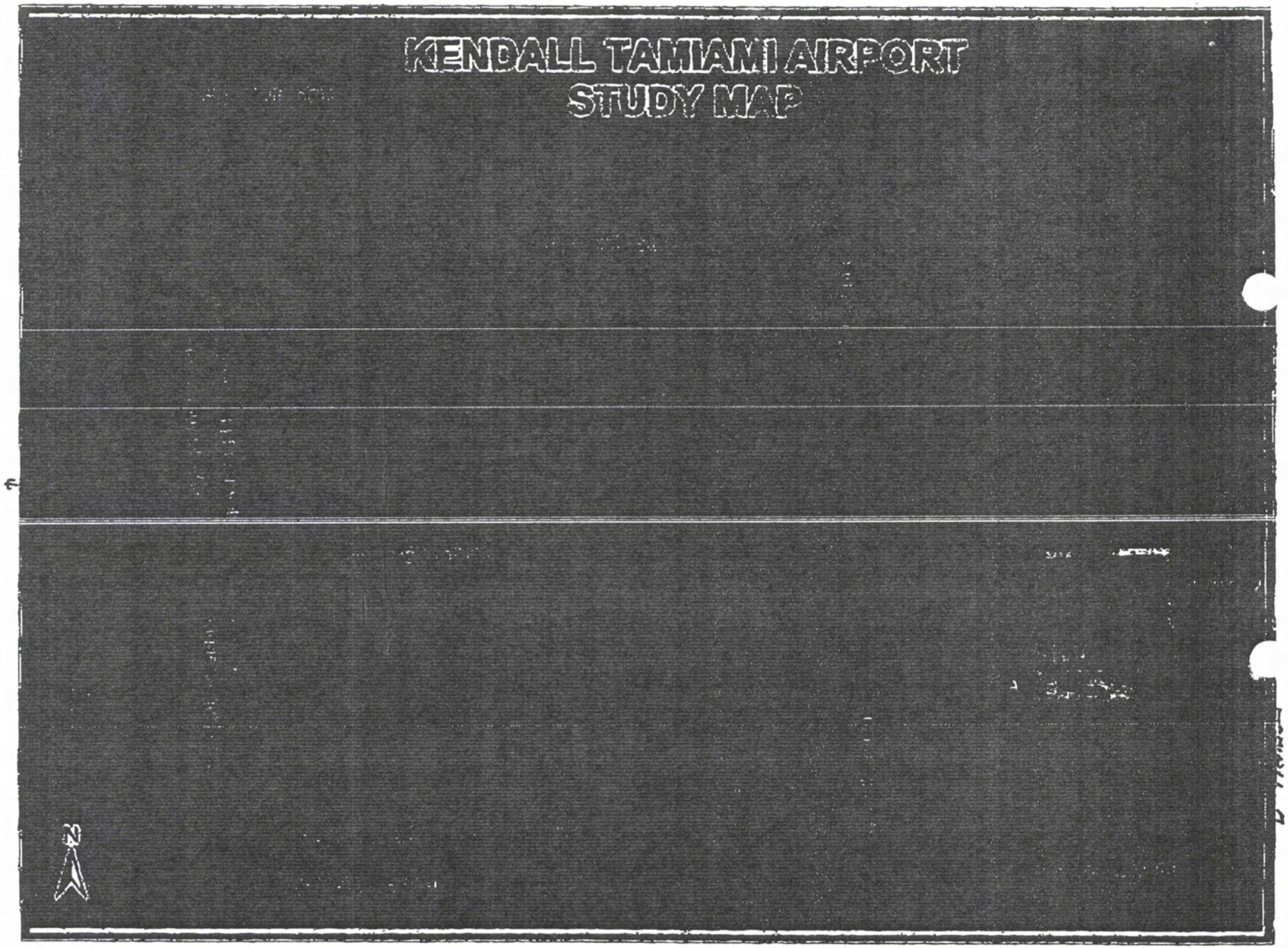
Originally, approximately $2.6 million of potential contributions in lieu of road impact fees from developers in the area were identified to pay for the improvements in Phase I, matching the construction cost also estimated at approximately $2.6 million. As of March 31, 2004 Milon completed all the improvements in Phase I at a cost of $2,684,812. However, only $1,605,933 million of contributions in lieu of road impact fees have actually occurred, while Milon advanced the funds for the shortfall of $1,078,879. In accordance to Section 9J of the Road Impact Fee Manual, the Public Works Department will reimburse said amount of $1,078,879 (less any additional contributions in lieu of impact fees which may actualize in the near future) to Milon from the road impact fund for RIF District Five.

2. Second Phase – As described above the funding for the two-lane construction of SW 157 Avenue from SW 136 Street to SW 120 Street will proceed from the PTP, and its cost is currently estimated at $1.5 million, in addition to an estimated $1.1 million for right-of-way acquisition from the Aviation Department. The two-lane portion of SW 120 Street from SW 150 Avenue to the C-1W Canal is being constructed by a local developer, Lucky Start Homes, as a contribution in lieu of road impact fees, at an estimated cost of $900,000. The four-lane bridge component of this Phase, which is estimated to cost approximately $800,000 is being funded by the Parks Department as part of the West Kendall Regional Park project.

3. Third Phase – The components of this third phase are the four lanes of SW 157 from SW 120 Street to SW 112 Street through the park and the northern bridge over the C-1W Canal. Both projects; which are estimated at $1.75 million and $800,000, respectively, will also be funded by the PTP.

T. Martinez for Pedro G. Hernandez
Assistant County Manager

MAY-20-2004 THU 09:42 AM LAWYERS ADV TITLE FAX NO. 3052562983 P. 05/06


KENDALL TAMIAMI AIRPORT
STUDY MAP

MEMORANDUM

.07-17A

TO: Diane O'Quinn Williams
Director
Planning and Zoning Department

DATE: December 15, 2005

SUBJECT: #05-274 (DIC)
Century Business Park

FROM: Bruce Drum
Interim Deputy Director
Aviation Department

As requested by the Miami-Dade County Planning and Zoning Department, the Aviation Department (MDAD) has reviewed Developmental Impact Committee (DIC) zoning application #05-274 (Century Business Park, LLC) requesting a special exception to permit residential uses consisting of 508 units in the BU-1A district and a variance to permit new residential construction in the Inner District (ILZ) and to permit more than two (2) units per acre in the Outer Safety Zone (OSZ) as referenced in the Land Use Zoning Ordinance (#99-118) for Kendall-Tamiami Executive Airport (TMB). The subject property is 67.8 acres and is located in the northeast corner of SW 157 Avenue and SW 120 Street.

Please be advised that MDAD has reviewed the application for both land use and airspace restrictions.

Land Use Review:

MDAD has some concerns regarding the location of the site and its proximity to TMB Runways 9L/27R and 12/30 for the following reasons:

- The proposed site is approximately 0.14 miles from the end of TMB Runway 9L/27R.
- The total number of operations for the year 2004 at TMB was approximately 194,441.
- The altitude of aircraft when traversing the proposed site is as low as 148 feet for arrivals and 364 feet for departures.
- The majority of the parcel falls inside the Inner District (ILZ) as depicted in the Land Use Zoning Ordinance for TMB. According to the Ordinance, new residential construction and educational facilities, excluding aviation, are not permitted within this land use classification.
- It should be noted that residential areas that surround our County operated airports are very noise sensitive. Aircraft noise complaints from TMB have not increased in the past few years. One contributing factor to this is the buffer of compatible non-residential land that exists around portions of the airport. To allow encroachment of residential areas into these areas will certainly increase the noise problem and work against our efforts to reduce aircraft noise impacts in residential areas.

For these reasons and as stated in the Land Use Zoning Ordinance for TMB, MDAD does not recommend residential development at this location.

Airspace Review:

MDAD has reviewed the request of October 18, 2005 for a height analysis for Century Business Park - DIC Case Z2005000274. Our review finds that a proposed 54 ft Above Ground Level (AGL) structure, assumed 65 ft AMSL (Above Mean Sea Level) at the referenced location on the Northeast corner of SW 124th Street and SW 137th Avenue) conforms to the Miami-Dade County Height Zoning Ordinance.

Please note, however, that the application indicates the placement of poles on top of the structure, as an architectural detail. These poles may not conform to County Ordinance. The pole heights were not included in our analysis due to lack of information provided in the submittal (i.e., elevation at top of poles and pole locations). The Aviation Planning Division recommends that the applicant remove the poles from the proposal or re-submit with sufficient information so that we may analyze them and issue a determination as to the impacts to airport operations.

Notwithstanding the above, Aviation Planning Division would not object to a proposed structure height that conforms to the Miami-Dade County Height Zoning Ordinance as long as:

1) FAA determines that the construction of a building at the above mentioned height will not diminish or affect the safety, efficiency or capacity of Kendall-Tamiami Executive Airport in any way; and

2) FAA issues a "Determination of No Hazard" for this project and location; and

2) An interested party does not file a "petition for review" to FAA's aeronautical study that has yet to be completed for this project and location.

This height determination is an estimate issued on a preliminary or advisory basis. Before proceeding with design, any proposed construction at this location exceeding 30 ft will be required to file with the FAA by using form 7460-1 'Notice of Proposed Construction Alteration for Determination of Known Hazards'. In addition, any construction cranes for this project exceeding 30 feet must be filed by the construction contractor using the same form. Thus, for any structure or crane at this location exceeding 30 feet, FAA form 7460-1 must be filed.

The form is available through this office or through the FAA website: http://forms.faa.gov/forms/faa7460-1.pdf. This form should be mailed to:

Federal Aviation Administration
Air Traffic Airspace Branch - ASW-520
2601 Meacham Blvd, Ft. Worth, TX 76137-0520

Alternatively, you may "e-file" online at https://oeaaa.faa.gov .

For a more accurate determination, you may re-submit this information to us by providing latitude and longitude coordinates of the footprint of the proposed structure in "degrees, minutes, seconds" format using a NAD83 projection with an accuracy of three decimal places (for the 'seconds' number).

Please note that the airspace review process is governed by two different regulations: the Miami-Dade County Height Zoning Ordinances and Federal Regulation Title 14 Part 77. Neither MDAD nor any MDAD staff has the power or authority to enforce the County's zoning provisions or the FAA requirements. Pursuant to section 33-339, the County's Department of Planning & Zoning (P&Z) administers the County's height zoning provisions (Section 33-339) which states that "all applications for permits made to appropriate municipal Building and Zoning Departments or agencies for all construction...shall be approved by the [Miami-Dade Department of Planning and Zoning] Director and the Building Official or by their duly authorized representatives prior to issuance of the permit." The FAA has its own airspace evaluation requirements, as well as the right to permit or not permit construction of a facility or use of a crane based on the particular facts then presented before the FAA. Only P&Z or the applicable municipal building official can make the final determination as to whether the County's zoning requirements and height limitations are met, and only FAA can make the determination as to whether FAA building and height requirements are met.

This determination is based, in part, on the description provided to us by you, which includes specific building locations and heights. Any changes in building locations/layouts or heights will void this determination. Any future construction or alteration, including an increase to heights requires separate notice to the FAA and the Miami-Dade Aviation Department.

Should you have any questions regarding obtaining and/or filling out FAA form 7460-1 you may contact Mr. José A. Ramos, Chief of Aviation Planning at 305-876-8080.

Should you have any questions concerning the application, please contact me at (305) 876-7022.

BD/rb

C: Jeffrey Bunting, Manager, Aircraft Noise & Environmental Planning
Sunil Harman, Manager, Planning
José Ramos, Chief, Planning
Daryl Vreeland, Aviation Planner, Planning

MIAMI-DADE COUNTY, FLORIDA

MIAMI-DADE

AVIATION DEPARTMENT
P.O. BOX 592075
MIAMI, FLORIDA 33159-2075
(305) 876-7000

November 7, 2005

Ms. Leila M. Jackson Batties
Holland & Knight LLP
701 Brickell Ave, Suite 3000
Miami, FL 33131

RE: Height Analysis for Proposed Single Family & Townhouse Development with a Maximum Height of 30 ft at the Northeast Corner of SW 157 Ave and SW 120 Street, in Miami, FL

Dear Ms. Batties:

The Miami-Dade Aviation Department (MDAD) has reviewed your request of October 18, 2005 for a height analysis for the above referenced location. Our review finds that a 30 ft Above Ground Level (AGL) structure (assumed 40 ft AMSL (Above Mean Sea Level) at the referenced location conforms to the Miami-Dade County Height Zoning Ordinance. Refer to the attachment for a pictorial representation of the height zoning surfaces shown in relation to the referenced property.

Based on the above, MDAD would not object to a proposed structure height that conforms to the Miami-Dade County Height Zoning Ordinance as long as:

1) FAA determines that the construction of a building at the above mentioned height will not diminish or affect the safety, efficiency or capacity of the Miami International Airport in any way; and

2) FAA issues a "Determination of No Hazard" for this project and location; and

3) An interested party does not file a "petition for review" to FAA's aeronautical study that has yet to be completed for this project and location.

This height determination is an estimate issued on a preliminary or advisory basis. Before proceeding with design, any proposed construction at this location will be required to file with the FAA by using form 7460-1 'Notice of Proposed Construction Alteration for Determination of Known Hazards'. In addition, any construction cranes for this project must be filed by the construction contractor using the same form. Thus, for any structure or crane at this location, FAA form 7460-1 must be filed.

The form is available through this office or through the FAA website: http://forms.faa.gov/forms/faa7460-1.pdf. This form should be mailed to: Federal Aviation Administration, Air Traffic Airspace Branch - ASW-520, 2601 Meacham Blvd, Ft. Worth, TX 76137-0520. Alternatively, you may "e-file" online at https://oeaaa.faa.gov .

This height determination is an estimate issued on a preliminary or advisory basis. For a more accurate determination, you may re-submit this information to us by providing latitude and longitude coordinates of the footprint of the proposed structure in "degrees, minutes, seconds" format using a NAD83 projection with an accuracy of three decimal places (for the 'seconds' number).

Please note that the airspace review process is governed by two different regulations: the Miami-Dade County Height Zoning Ordinances and Federal Regulation Title 14 Part 77. Neither MDAD nor any MDAD staff has the power or authority to enforce the County's zoning provisions or the FAA requirements. Pursuant to section 33-339, the County's Department of Planning & Zoning (P&Z) administers the County's height zoning provisions (Section 33-339) which states that "all applications for permits made to appropriate municipal Building and Zoning Departments or agencies for all construction...shall be approved by the [Miami-Dade Department of Planning and Zoning] Director and the Building Official or by their duly authorized representatives prior to issuance of the permit." The FAA has its own airspace evaluation requirements, as well as the right to permit or not permit construction of a facility or use of a crane based on the particular facts then presented before the FAA. Only P&Z or the applicable municipal building official can make the final determination as to whether the County's zoning requirements and height limitations are met, and only FAA can make the determination as to whether FAA building and height requirements are met.

This determination is based, in part, on the description provided to us by you, which includes specific building locations and heights. Any changes in building locations/layouts or heights will void this determination. Any future construction or alteration, including an increase to heights requires separate notice to the FAA and the Miami-Dade Aviation Department.

Should you have any questions in obtaining and/or filling out FAA form 7460-1 or if I can be of any further assistance, please feel free to contact me at 305-876-8080.

Respectfully,

José A. Ramos, R.A.
Chief of Aviation Planning

JR/DV/cf
Attachment

C: S. Harman, J. Bunting, Al Torres, Planning & Zoning, File Airspace

SW112TH TE

SW 112TH TE

SW 154TH AV

SW 152ND CT

SW 113TH TE

SW 114TH ST

SW115TH ST

SW 157TH AV

SW16TH ST

SW117TH ST

SW117TH TE

100'

SW118TH TE

160 ft
150 ft
140 ft
130 ft
120 ft
110 ft
100 ft
90 ft
80 ft
70 ft
60 ft
50 ft
40 ft
30 ft
20 ft

SW119TH ST

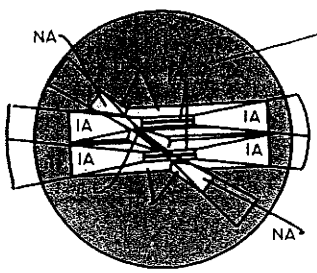
SW 120TH ST

Notes: 1 Protection of the Miami-Dade County height zoning surfaces in no way guarantees the outcome of an airspace evaluation conducted by the Federal Aviation Administration (FAA).
2 All height zoning contour elevations are depicted in units of feet above Mean Sea Level (MSL).

LEGEND:

- EXISTING RUNWAYS
- NON-LIMITING SURFACE BOUNDARY
- BODIES OF WATER
- L LANDING DISTRICT
- IA INSTRUMENT APPROACH DISTRICT (SEE NOTE 3)
- NA NON-INSTRUMENT APPROACH DISTRICT (34:1 SLOPE)
- TR TRANSITION DISTRICT (7:1 SLOPE)
- TI CONICAL DISTRICT (20:1 SLOPE)

LEGEND KEY MAP



HORIZONTAL DISTRICT (DENOTED IN THE GRAPHICS) POSSESSES AN ELEVATION OF 150 FEET ABOVE MEAN SEA LEVEL

ORD. NO. 69-40, SS 1, 7-9-69;
ORD. NO. 99-118, SS 1, 9-21-99

N

0 200 400 600 800

SCALE IN FEET 1 inch = 400 ft

AIRPORT HEIGHT ZONING AREA MAP
KENDALL-TAMIAMI EXECUTIVE AIRPORT

PRINT DATE November 1, 2005

SHEET NO. TMB 2

MIAMI-DADE

Stanley E. Dunn, PhD, PE
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Consultant in Acoustics
12005 Garnet Drive
Clermont, Florida 34711

May 22, 2006

Mr. Richard A. Perez
Holland + Knight
701 Brickell Avenue, Suite 3000
Miami, FL 33131

Re: Acoustical Consulting

Dear Mr. Perez:

I provide services in acoustical and vibration control engineering and consulting with a capability that includes over thirty years of experience. Total capabilities include a wide range of analysis, measurement, and design functions in the areas of surface transportation noise control, airport noise control, commercial property development, industrial noise control, environmental noise surveys, noise ordinance development and review, interior architectural acoustical design for office, school, church, and theater projects, building noise and vibration control, vibration testing and analysis, sound system design, product testing and design, as well as shipboard noise control and signal processing. Projects specifically involving the assessment of vibration levels relative to sensitive equipment have been included in this experience. Services can also include expert testimony and environmental impact analyses.

Clients have included the City of West Palm Beach, the City of Ft. Lauderdale, Broward County, the City of Coral Springs, the United States Environmental Protection Agency, Palm Beach County, Manatee County, the United States Department of Transportation, the United States Navy, the Florida Department of Transportation, developers, manufacturing companies, architects, other engineering companies, private parties, land developers, and other organizations in Colorado, Florida, Washington, and Maryland. These private clients have included the Breakers of Palm Beach, Perry Technologies, Bethesda Hospital, the Boca Raton Hospital, the Park Place Hotel, the AVITAR Corporation, Tampa Electric Company, B & E Aerospace, the Pugliese Company, Colorado Railcar, the Minto Corporation, Kenco Communities, Rosen Hotels, PBM Development, RLF Architects, Turnberry Development, the Palm Beach County School Board, the Solid Waste Authority of Palm Beach County as well as numerous law firms. I have taught undergraduate and graduate courses and carried out research in acoustics and vibration at the university level. I am currently the noise consultant for the City of Coral Springs, Florida. Engineering registration in held in Florida and Colorado. Expert testimony has been provided in numerous cases in Florida. Membership is held in ASME, IEEE, INCE, NCAC, and ASA.

Thank you for contacting me.

Yours truly,

Stanley E. Dunn, PhD, PE

Stanley E. Dunn ***Consultant in Acoustics***
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DunnSJR@aol.com

May 20, 2006

Ms. Diane O'Quinn Williams
Director
Miami-Dade Department of Planning
and Zoning
111N.W. 1st Street
Miami, Florida 33131

Re: Century Gardens, Kendall-Tamiami Executive Airport

Dear Ms. Williams:

The following letter report is provided to the Miami-Dade County Department of Planning and Zoning in connection with the re-zoning application filed by Century Business Park. This report analyzes the impact of airport noise from the Kendall-Tamiami Executive Airport on the proposed Century Gardens residential development.

Based on the noise contour studies commissioned by the Miami-Dade County Aviation Department, while some aircraft noise will be present, the annual average sound levels (DNL) from aircraft predicted to be experienced by the future residents of Century Gardens will be below the levels of noise set as being incompatible with residential uses in the guidelines promulgated by the Federal Aviation Authority ("FAA") and the Florida Department of Transportation (FDoT).

Background

I. The Property

The proposed Century Gardens is located between SW 152nd and SW 157th Avenues and between SW 116th Street and SW 120th Street in Miami-Dade County, Florida. The area is presently undeveloped and is bordered on the north and east by residential areas, to the west by agricultural uses, and to the south across SW 120th Street by the Kendall-Tamiami Executive Airport (cross hatched area on Figure 1). The plan for Century Gardens includes town homes in approximately the southern third of the property along SW 120th Street and single family detached homes on the northern two-thirds of the property. The property's western boundary aligns with the western boundary of the Kendall-Tamiami Executive Airport and the property is thus to the north-northwest of the airport.

II. Kendall-Tamiami Executive Airport

Kendall-Tamiami Executive Airport (TMB) services corporate, recreational, maintenance, flight training and governmental agency activities and is one of six airports that are owned and operated by Miami-Dade County. FAA tower data indicates that there were a total of some 175,810 annual operations (takeoffs and landings) in 2005, down slightly from 2003 and 2004. Of these operations, approximately 98% were classified as general aviation and 1.6% as air taxi operations. The airport did not report any operations by air carriers.

The airport has three runway surfaces or six active runways. Runways 9L-27R are located on the north side of the airport, runways 9R-27L are located along the south side of the airport, and runways 13-31 lie diagonally across the airport between the two. Two of the runway surfaces are parallel east-west (9L-27R and 9R-27L) and provide for landings and takeoffs to the east and west on runways that are each approximately 5000 feet in length. Runway 9R includes a Precision Instrument Approach and a Non-precision Instrument Approach, while runways 27L and 9L-27R do not provide for instrument (IFR) approaches. The two diagonal runways that may have the greatest influence on Century Gardens are runways 13-31 as they are aligned toward the southwest corner of that property. Neither of these runways of some 4000 feet have an instrument approach. The vast majority of the takeoffs and landings occur in the easterly direction, while runways 13-31 account for approximately 15% of the total operations of TMB. Based on data provided by TMB it appears that the southern runway pair, 9R-27L, is the most heavily used for all classes of aircraft.

The instrument approach for 9R serves to support the arrival of aircraft flying on instrument flight plans (IFR) and aircraft flying practice instrument approaches. Instrument flight plans and instrument approaches allow aircraft to operate and land in circumstances of poor weather that would preclude fight based strictly on visual references. Larger aircraft such as jets and turboprops will by and large fly on instrument flight plans by way of their operations. The non-instrument approaches for the other runways as well as for 9R serve to support the arrival of aircraft not flying on instrument flight plans, aircraft who may have arrived in the area of TMB but because weather permitted could make the approach and landing under visual flight rules (VFR), or aircraft simply flying on visual flight rules to TMB or operating in the pattern doing practice landings.

Based on discussions with the Miami-Dade Aviation Authority, the current plans for TMB call for an extension to runway 9R-27L, the runway located furthest away from the Century property, with the intention of maintaining this runway as the principal instrument approach runway for TMB. In turn, this would result in assuring that runway 9R-27L remains the principal runway for jet aircraft, as it would be the receptor runway for arriving jet aircraft on IFR flight plans with its instrument approach. Runway 9R-27L would likely support the vast majority of departures of jet aircraft at their higher gross takeoff weights due to its greater length. The longer runway length of 9R-27L will also provide a greater margin of safety for landing jet and larger turboprop aircraft.

As part of the effort to extend the southern runway, TMB has carried out a noise study to investigate the effects of the extensions. Based on future 2010 noise contours (Figures 2 and 3) produced by TMB's airport noise consultant, HMMH, little change in aircraft noise may be anticipated along the northern portion of the airport and the DNL 65 dB noise contour lies entirely within the airport boundary. As will be discussed, the DNL 65 dB contour marks the FAA's lower limit for defining significant aircraft noise impact on people.

III. Airport Land Use Districts

Portions of Article XL, Section 33, Miami-Dade County Code of Ordinances, establishes land use classifications and height limitations around TMB. In defining these classifications, it appears that Miami-Dade County appears to have employed elements of Chapter 333, Florida Statutes, FDoT's Airport Compatible Land Use Guidance for Florida Communities as well as FAA Part 77 and certain FAA Orders.

Aircraft noise impact around airports is usually described in terms of day-night average A-weighted average sound levels (DNL in dB). These contours show the special extent of aircraft noise in the vicinity of an airport and are generated using approved computer programs using input about annual average aircraft operations at an airport. The DNL shows the annual average 24-hour sound level due to all aircraft operations at an airport. The DNL is employed as it has been determined that it best correlates to community response as compared to other noise metrics such as maximum sound level or some other statistical value.

The DNL contours for an airport generally show the locations of the 65, 70 and 75 dB levels relative to the airport runways. These values are important as they range from the FAA's lower limit for defining a significant noise impact to the level where residential land uses become extremely difficult and are not recommended as described in the applicable federal regulation, 14 CFR Part 150.

In the absence of noise contours developed in accordance with the provisions of 14 CFR Part 150, Florida Statutes, Chapter 333 (2) (d) provides an alternative means of defining land uses. These zones as defined in Chapter 333 do not however have a strict basis in actual predicted noise. Thus when the airport authority has conducted a noise study, the resulting noise contours should be used to determine noise impact because they are much more accurate than the Chapter 333 (2) (d) zones.

With regard to TMB, Article XL of the Miami-Dade County Code establishes land use zones based on Florida Statues, Chapter 333 and FDOT's Airport Compatibility Land use Guidance for Florida Communities, as shown in Figure 1. The Code of Ordinances sets forth the following land use districts:

1) Inner Landing Zone District (ILZ). The ILZ covers an area measured as one-half the length of runway 9R-27L on the north side and west end of 9R-27L together with the northwest end and north side of runway 13-31.

The ILZ prohibits new residential and education facilities, except those educational facilities associated with aviation. The origin of this zone's boundary appears to be Chapter 333, Florida Statutes, which prescribes a noise zone of this dimension in the absence of DNL noise contours being available for a runway. However, one should remember that DNL noise contours have been developed for TMB and thus the use of the ILZ as defined here is not advisable in place of the noise contours if the most accurate depiction of aircraft noise impact is desired.

2) The Outer Landing Zone District (OLZ). The OLZ is a larger zone than the ILZ that appears to be based on the VFR traffic requirements prescribed by the FAA (reported to be FAA Advisory Circular 7400.2C). As such it tends to approximate the extent to which aircraft flying in the pattern at TMB will be in the vicinity of the airport in the landing pattern and to some extent be heard. Roughly speaking, aircraft flying in the pattern for 9L-27R were observed to fly approximately along or slightly north of the southern border of the already existing residential area to the north of TMB when on a down-wind leg (Figures 5, 6, and 7). This would place them on the northern edge of the property of the proposed Century Gardens area. Only occasionally were aircraft observed to fly directly overhead of the Century Gardens property when approaching or departing the airport. The OLZ does not prohibit new residential construction and educational facilities, but does require such construction to incorporate at least a 25 dB Noise Level Reduction (NLR) into the design of the structure.

3) The No School Zone (NSZ). The NSZ covers an area roughly aligned in direction with the runways. The zone extends on either side and for some distance at either end of any of the runways as described in Florida Statutes, Chapter 333. The NSZ prohibits the construction of any new non-aviation educational facilities.

4) The Outer Safety Zone District (OSZ). The OSZ covers a prismatic area at either end of a runway. The OSZ limits any new residential construction to two units per acre and prohibits non-aviation educational facilities or places of public assembly. As discussed by FDOT in their "Guidance" document, the OSZ appears to be based in some approximate manner on a projection of the FAA's requirements for runway approach surfaces. These are areas where obstacles to flight are limited in height and thus their primary intent is on safety.

5) The Inner Safety Zone District (ISZ). The ISZ covers smaller prismatic areas close by the ends of each runway. The ISZ's based on runway protection zones for both 13-31 and 9L-27R do not appear to intrude into the Century Gardens property area. A runway protection zone prohibits

any obstacle and is intended to provide a clear area should an aircraft land short or need extra distance to stop in an aborted takeoff.

Regarding these zones and their locations relative to Century Gardens, the ILZ and OLZ cover substantial and all of the Century Gardens property respectively. The southwestern portion of the Century Gardens development is included in the OSZ for runway 13-31. The No School Zone (NSZ) for runway 13-31 occupies roughly the southwest half of the property. Neither of the ISZ areas for runways 13-31 or 9L-27R intrude into the Century Gardens property.

In summary with regard to aircraft noise, while the TMB noise contours show no intrusion into the Century Gardens property, a number of the restrictive land use zones for TMB significantly overlay the property.

In addition to establishing the preceding land use restrictions, Section 333 delineates the requirements for certain height limitations for the areas surrounding the airport. These height limitations are derived from FAA Part 77 regulations for determining and preventing obstructions to navigable airspace. The details of the FAA regulations and their translations into Section 333 are complicated as the "artificial surface" above the elevation of the airport defined for flight safety has numerous sections to it. It is safe to say that for the Century Gardens property in question, some consideration to building height will be required. Given the nature of the development, it would appear that this concern lies primarily for the properties along the southern portion of the property. While we have not subjected the property to an exact analysis it would appear that along SW 120th Street a building height limitation would exist for the eastern half of the property along SW 120th Street. These issues have also been discussed by the Miami-Dade Aviation Department in their 15 December 2005 memorandum (#05-274). They observe that construction in certain location exceeding 30 feet will require FAA approval and there is a concern about the height of poles on certain buildings near the proposed entrance to the property. Subject to the approval of the FAA regarding flight safety, the Aviation Planning Division has stated that it would not object to a proposed structure whose height conforms to the Miami-Dade height Zoning Ordinance.

IV. Noise Criteria

Compatibility of airports and the aircraft operating at airports is a concern for the airport, local governments, developers, and residents. With regard to airport noise the Federal Aviation Administration has adopted a process that employs the use of yearly average day-night A-weighted sound levels to describe the noise from aircraft operations at airports. This day-night average sound level or DNL is expressed in terms of dB. Typical exterior DNL values and corresponding activities are shown in Figure 4.

It is important to note that the DNL is the average sound level assessed on a 24-hour basis with a 10 dB weighting given to the night time hours of 10 PM to 7 AM. The DNL is based on an airport's yearly average 24-hour operations. The DNL is not a measure of individual aircraft noise levels nor is it a measure of the maximum sound

level of aircraft as these values vary considerably from one event to another and have proven to be not as receptive to correlation with people response as has the DNL.

The Federal Aviation Administration employs the DNL as the metric for measuring aviation noise exposure and uses the DNL value of 65 dB as the level of significance for assessing noise impacts. The exterior DNL 65 dB contour is the FAA's lower limit for defining significant noise impact on people. Based on what has become known as the "Shultz Curve" at 65 DNL approximately 12% of people living in such an area would report themselves to be "highly annoyed" by transportation noise. At 55 DNL approximately 3% would be expected to be highly annoyed. For a variety of reasons, noise predictions and interpretations are frequently less reliable below DNL 65 dB as other sources of noise, some natural, can enter into the picture. Additionally, the United States Environmental Protection Agency uses the outdoor 55 DNL and the indoor 45 DNL as their criteria for an acoustical environment generally sufficient to protect the public health and welfare with an adequate margin of safety. Other factors including prior experience, the actual use of a property, or the prior knowledge that transportation noise may be present can influence community response to aircraft noise.

State statute requires that the noise study be conducted "in accordance with provisions of 14 C.F.R. Part 150." In the absence of a conducted noise study, Florida Chapter 333 employs the use of zones such as described in the Miami-Dade's ILZ definition for limiting non-compatible uses (mainly residential) near an airport. As TMB does have published noise contours developed by a highly competent consultant, the ILZ is not the most accurate basis for determining noise impact at TMB and the noise contours are.

Airport Noise Compatibility Assessment

The publicly available airport noise information for TMB consists of the airport noise contours that established airport noise projections through 2003 and a more recent analysis conducted by HMMH that establishes airport noise projections through 2010. The 2010 airport noise study was commissioned by the Miami-Dade County Aviation Department as part of a proposed lengthening of runway 9R-27L.

On review of Figures 1, 2 and 3 included in the TMB runway extension noise study, one can readily see that the proposed Century Gardens development lies beyond the 65 DNL contours of 2003 and 2010 even though it lies entirely within the ILZ. The ILZ as described in Sec. 33-394, considerably overstates the area within which TMB aircraft noise would constitute an incompatibility for the proposed residential use based on the FAA's 65 DNL criteria. Furthermore, the Century Gardens area is well outside of both the 2003 and 2010 65 DNL and appears to lie on what would possibly appear to be the 60 DNL at its closest, southeastern corner. The remainder of the property would lie in areas where 60 to 55 DNL or less would be the case for the aircraft noise. With this description supplied by TMB's airport noise consultant, there appears to be a 5 dB margin between the 65 dB noise contour and what might be expected on the property at its highest sound level location .

The information available indicates that the DNL values on the property are expected to remain less than 65 dB. However, some aircraft noise will be present and aircraft will at times be over the property. Aircraft will be seen and heard over the airport and in the VFR traffic pattern area. It appears that runway 13/31 operations would be in closest proximity to observers on the ground in Century Gardens. However, operational data from the 2005 report indicates that the northwest-southeast runway use is on the order of less than 15% of the total operations and the predominant direction of operations is to the east. This means that by and large aircraft land and takeoff to the east on 9L and 9R. By and large, aircraft, especially jet and larger prop aircraft employ 9R, the southern most runway.

The town homes located in the southern third of the property would be closest to the airport and hence would receive the greatest degree of what ever noise would be present. Based on the visits to the site during February and May of this year and the sound levels measured during that visit, at a location approximately 300 feet into the property on the south and mid-way along the road, we would approximate the short duration maximum exterior sound levels on the ground from aircraft landing and departing on 9R-27L to range from 44 dBA to 58 dB. For the few piston aircraft landing and departing 13-31 and passing directly overhead this southwest portion of the property the short duration maximum sound levels were some 69 to 78 dBA.

For the northern runway pair 9L-27R, landing aircraft maximum sound levels were on the order of 52 to occasionally 68 dBA for westerly departures. Helicopter activity over the field registered short duration maximum sound levels of 53 to occasionally 63 dBA. For locations further into the property, the aircraft maximum sound levels would be less by approximately 4 to 6 dB. In many instances, especially for aircraft operating on the southern runway, aircraft sounds were barely audible. Landing aircraft on the northern runway were often no louder than a passing vehicle as they were at very much reduced power settings. By way of comparison, normal speech is generally on the order of 60 to 65 dBA and the quiet daytime background sound levels were on the order of 40 dBA. Sound levels from autos on a residential street would be on the order of 55 to 65 dBA.

Maximum sound levels vary and are offered here only as sample examples. The average annual day-night sound level or DNL is the accepted means of characterizing an environment and the compatibility of that environment for a particular use.

With regard to interior spaces in a future development, the feasible exterior to interior sound reduction afforded by the Century Gardens town home designs with windows and doors closed can be expected to be on the order of 20 to 25 dB for new construction. Single family detached homes can also achieve this level of sound reduction. This is due to a combination of increases in the quality of windows and the overall general quality of construction since the introduction of more stringent building codes in South Florida. As a result, using current construction methods and some additional enhancements, except in the instance of a low altitude over flight, it should be

expected that in general the maximum sound levels within the homes with the windows and doors closed will be on the order of or below many other sound sources. The exception to this would be in the southwest portion of the property when occasional over flights from or to 13-31 occur. The overall average interior aircraft related sound levels in the town homes and single family homes should feasibly be expected to be meet or be below the 45 DNL required by HUD and recommended by FAA for interior residential areas.

Summary

Century Gardens is planned to lie immediately to the north of Kendall-Tamiami Executive Airport. As a result, it will experience some aircraft noise. However, based on previously generated TMB noise contours together with an estimate of future 2010 aircraft noise levels a significant level of aircraft noise impact is not projected. Based on FAA Part 150 criteria for airport noise compatibility planning, the Century Gardens property would fall within a designation of being compatible with aircraft noise in terms of DNL values as the DNL values would be less than 65 dB. The ILZ restrictions for TMB would seem to overstate the noise impact of TMB on the property as the DNL 65 contour lies entirely on the airport property in this area. The OLZ also appears to overstate the noise impact based on the contours and Part 150 recommendations. Neither runway protection zone ISZs for either 9L-27R or 13-31 lie on the property though the runway 13-31 OSZ does affects the southwest corner of the property. The NSZ precluding schools also passes through the property.

While the property lies beyond the 65 DNL contour, some aircraft noise will be present from TMB aircraft operations. In order to mitigate this aircraft noise, such as it might be present, we would recommend considering an exterior to interior sound level reduction for the some portion or possibly all of the dwellings in the property that would provide not less than a Noise Level Reduction (NLR) 25 dB with all windows and doors closed for aircraft type noise. Details in design as well as care during construction can achieve this NRL value.

We would also suggest examining whether a rear yard wall or berm would be effective or desirable for the southern most properties' rear yards along SW 120th Street. For noise from aircraft and helicopters at low altitudes or on the field itself, some shielding can occur from the rows of intervening houses and this would be intended to provide a similar effect, if it were shown to be effective and aesthetically attractive.

We would recommend that disclosure statements be included in the sale documents of the individual properties that both inform the purchasers of the properties of the presence of the airport, of aircraft and aircraft noise and acknowledgements that the purchasers are aware of the airport, its aircraft operations and aircraft noise.

We would suggest that the southwest portion of the property lying under the OSZ for runway 13-31 be developed in a manner consistent with that defined in Article XL, Sec. 33-395 (A) (5). As we understand it, no schools are anticipated for the development.

It is not clear whether an avigation easement would or would not be appropriate but is mentioned here simply for completeness.

Construction height limits should be set and maintained so as not to penetrate the artificial surfaces that surround the airport and overlay the property as required by the applicable regulations. The limits for these height restrictions can be surveyed and set according to the provisions of Sec. 33-393 of Article XL and the requirements of the FAA.

Yours truly,

Stanley E. Dunn

Attachments: Figures 1 through 7

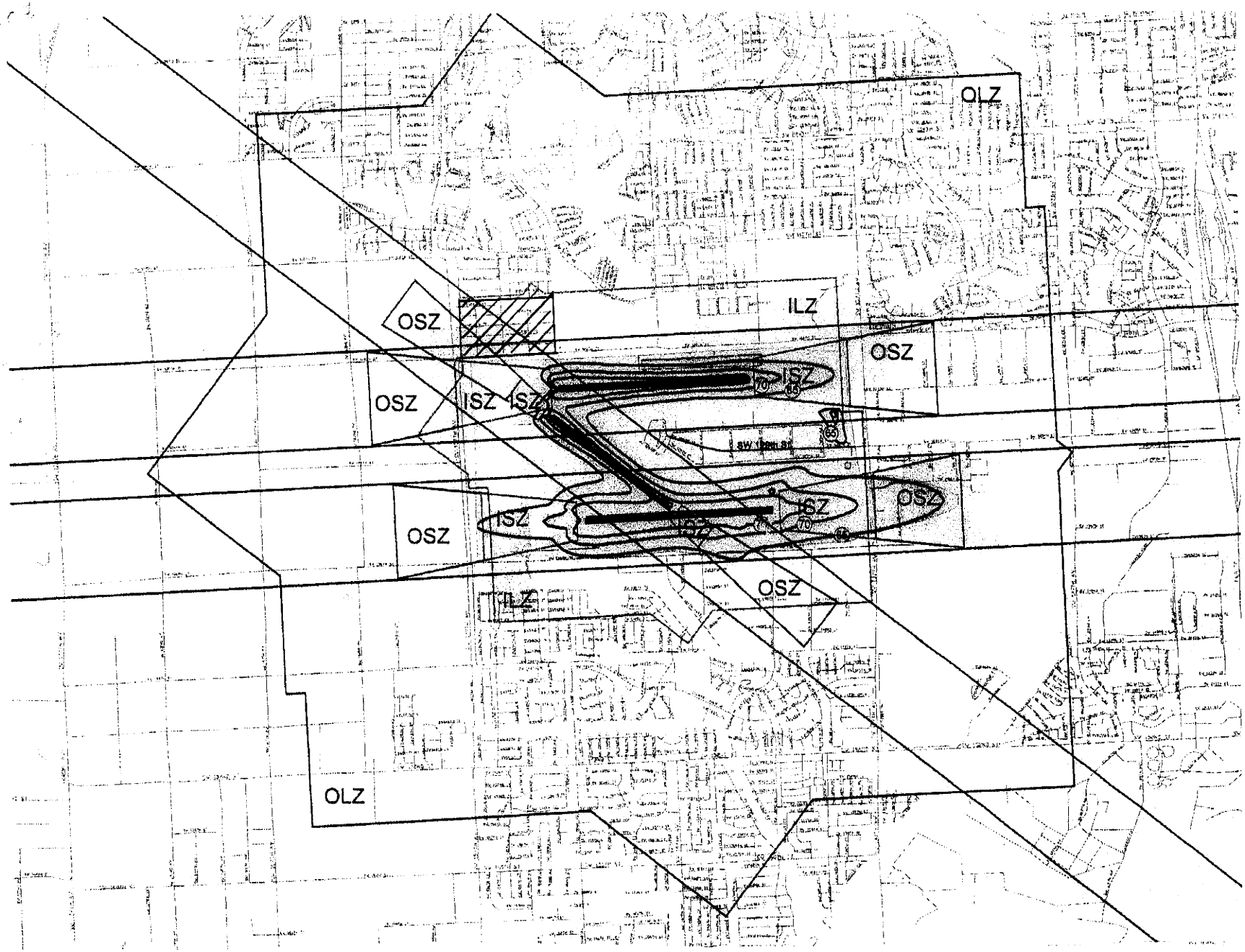


Figure 1. Century Gardens Property (cross hatched) together with TMB land use zones and 2003-2010 No Build DNL Contours (2005 TMB report on lengthening 9R-227L)

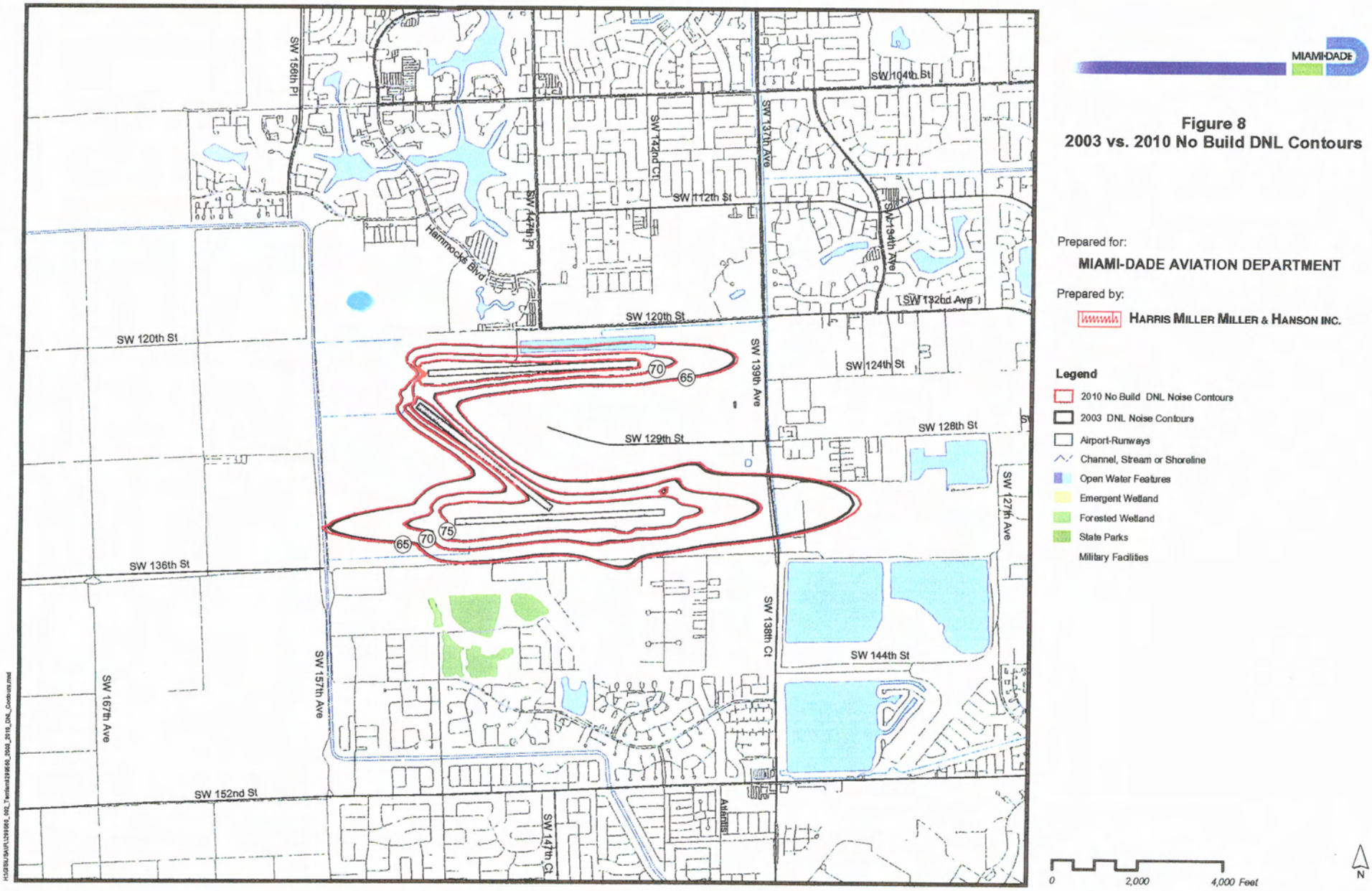
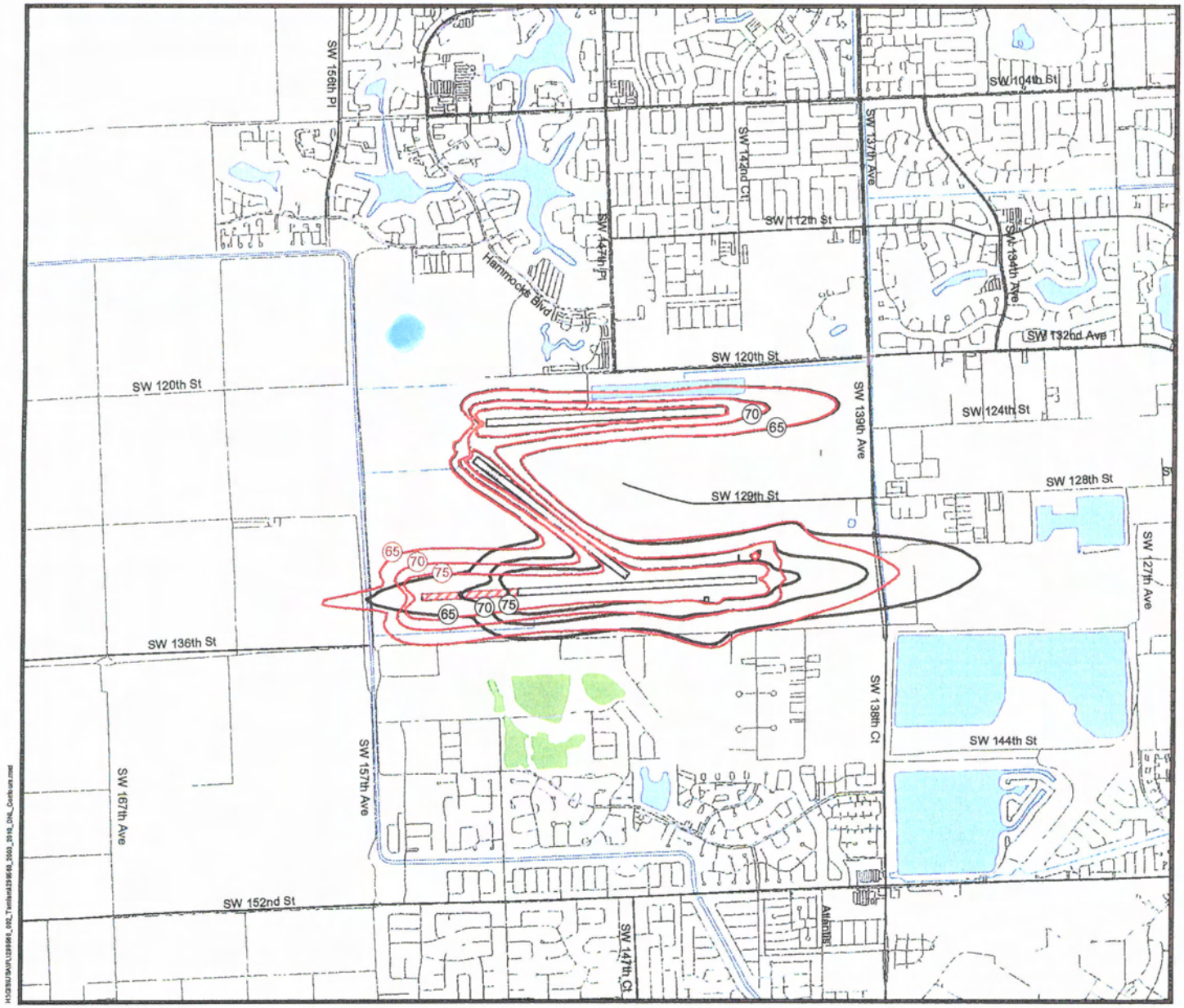


Figure 2. Comparison of 2003 and 2010 No Build DNL Contours from 2005 TMB report



MIAMI-DADE

Figure 9
2010 No Build vs. 2010 Build DNL Contours

Prepared for:

MIAMI-DADE AVIATION DEPARTMENT

Prepared by:

HARRIS MILLER MILLER & HANSON INC.

Legend

- 2010 Build DNL Noise Contours
- 2010 No Build DNL Noise Contours
- Runway Extension (2010 Build)
- Airport-Runways
- Channel, Stream or Shoreline
- Open Water Features
- Emergent Wetland
- Forested Wetland
- State Parks
- Military Facilities

0 2,000 4,000 Feet

N

Figure 3. Comparison of 2003 and 2010 Build DNL Contours from 2005 TMB report.

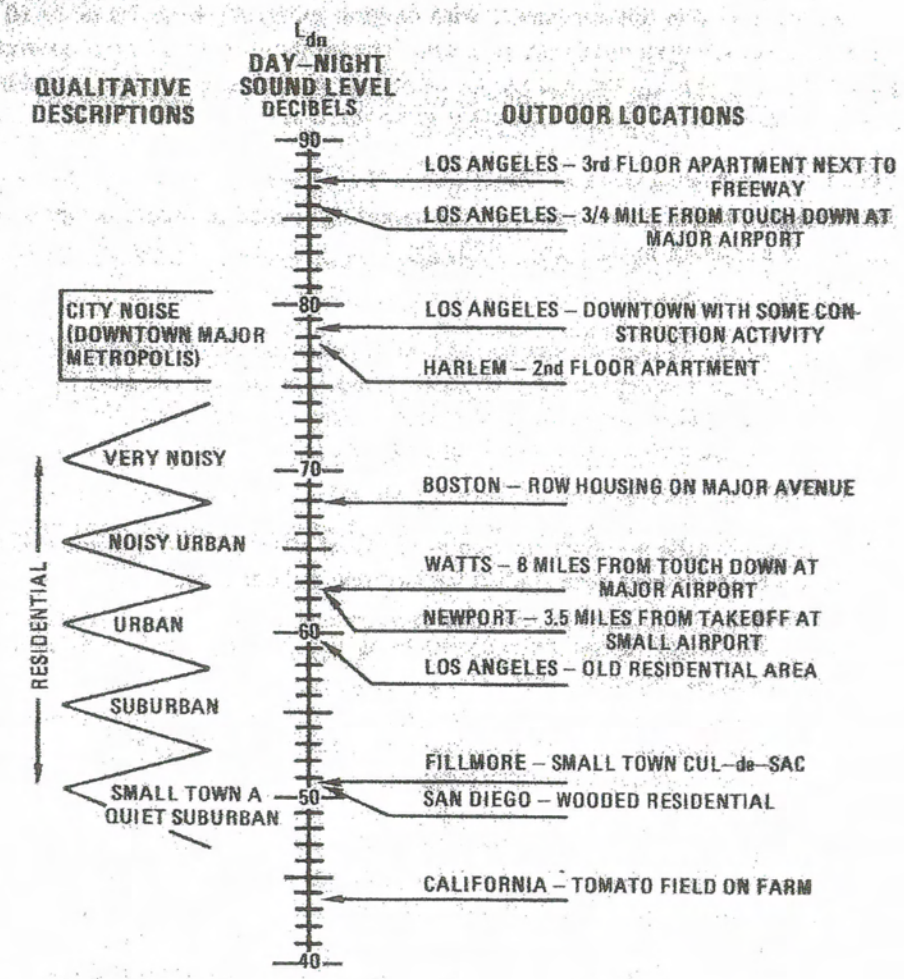
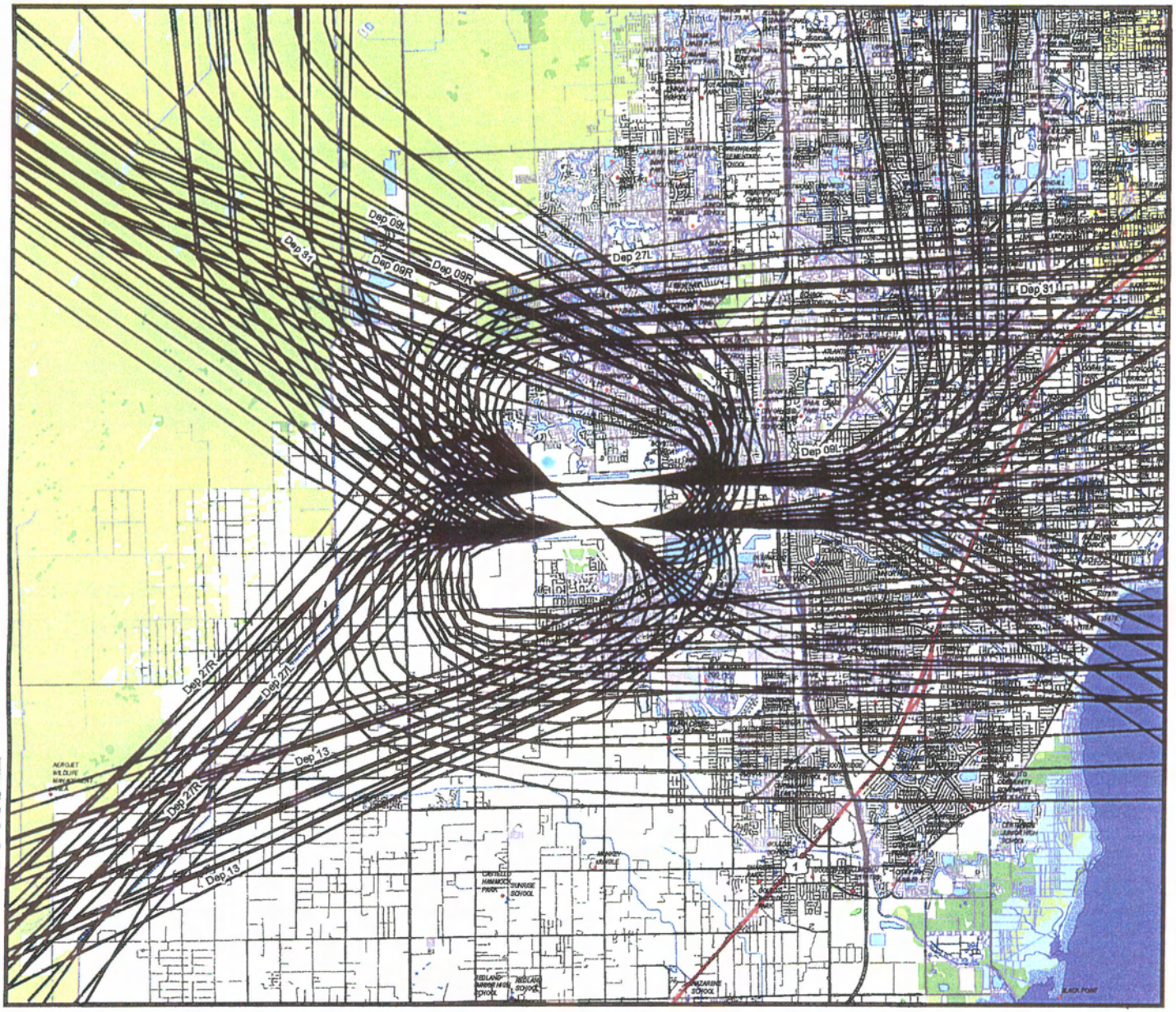


Figure 4. Typical DNL levels with representative activities (EPA March 1974)



MIAMI-DADE

Figure 2
Fixed-wing INM Departure Flight Tracks

Prepared for:

MIAMI-DADE AVIATION DEPARTMENT

Prepared by:

HARRIS MILLER MILLER & HANSON INC.

Legend

- Fixed-wing INM Departure Flight Tracks
- Airport-Runways
- Channel, Stream or Shoreline
- Open Water Features
- Emergent Wetland
- Forested Wetland
- State Parks
- Military Facilities

0 8,000 16,000 Feet

N

Figure 5. Fixed-wing INM departure flight tracts from 2005 TMB report

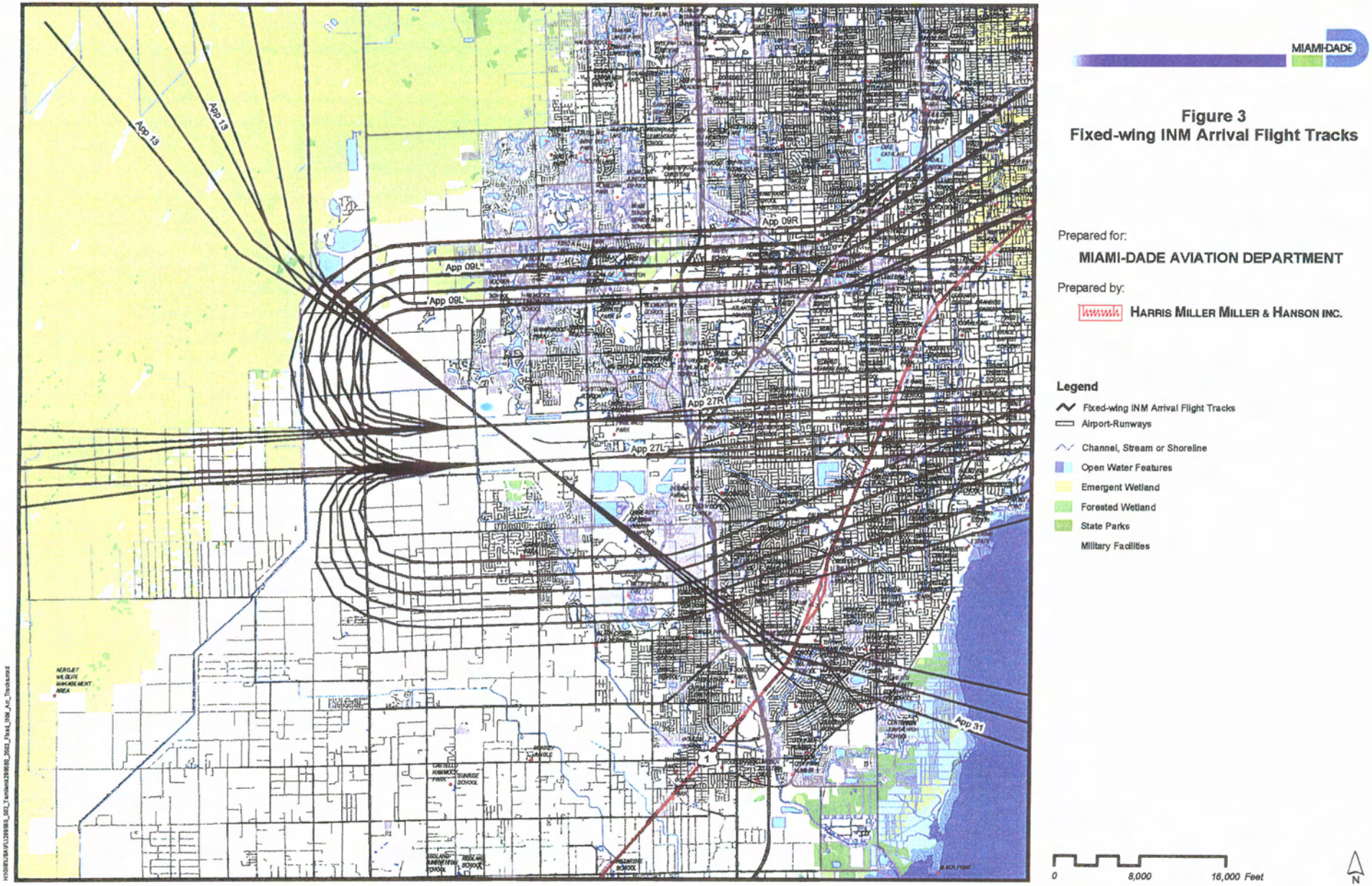


Figure 6. Fixed-wing INM arrival flight tracts from 2005 TMB report

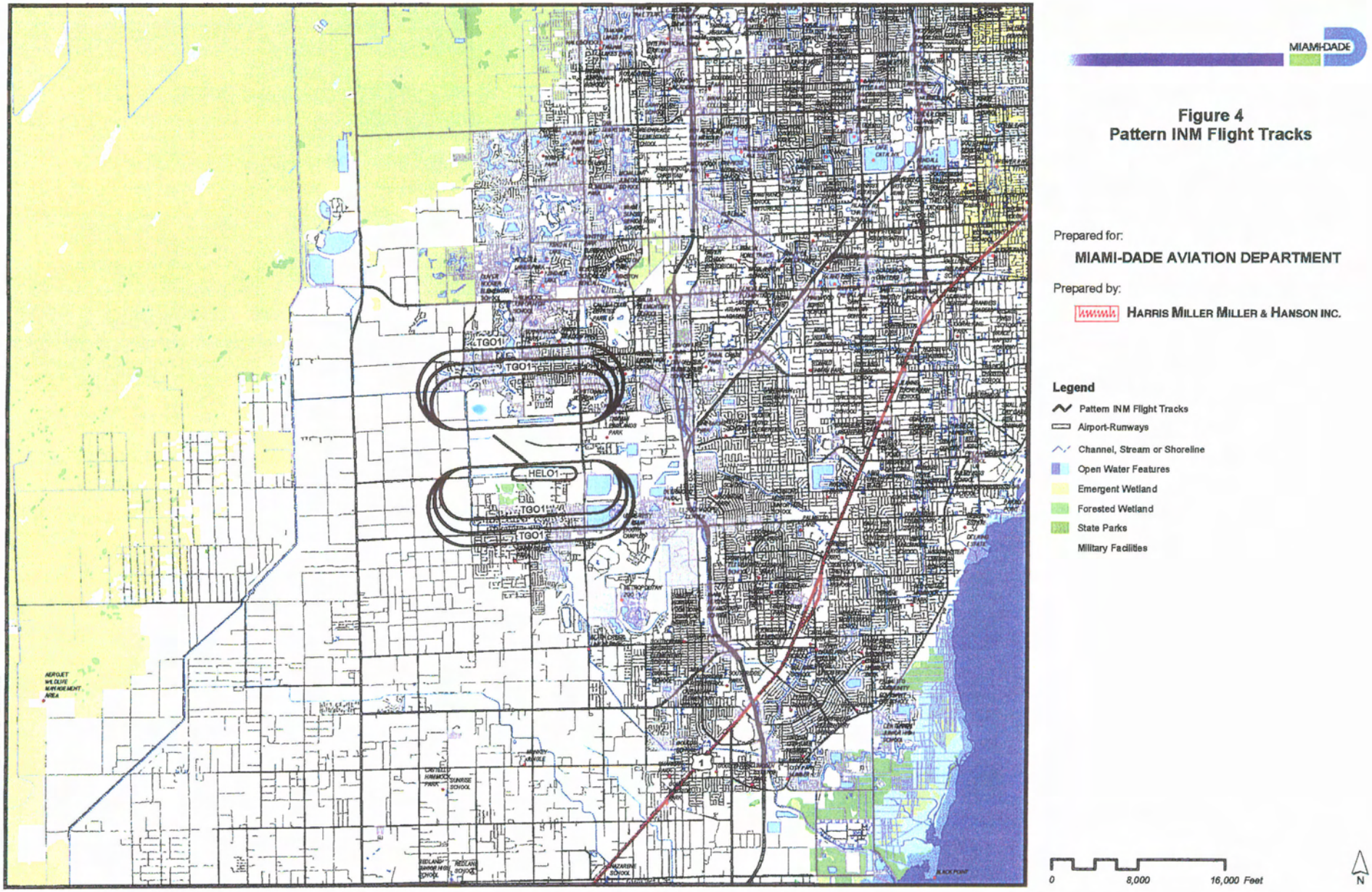


Figure 7. Fixed-wing INM pattern flight tracts from 2005 TMB report

Stanley E. Dunn ***Consultant in Acoustics***
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June 2, 2006

Ms. Diane O'Quinn Williams
Director
Miami-Dade Department of Planning
and Zoning
111N.W. 1st Street
Miami, Florida 33131

Re: Century Gardens, Kendall-Tamiami Executive Airport

Dear Ms. Williams:

The following letter report is provided to the Miami-Dade County Department of Planning and Zoning in connection with the re-zoning application filed by Century Business Park. This report analyzes the impact of airport noise from the Kendall-Tamiami Executive Airport on the proposed Century Gardens residential development and takes into account the changes proposed by the developer regarding the introduction of commercial and additional open areas in the southwest portion of the property.

Based on the noise contour studies commissioned by the Miami-Dade County Aviation Department, while some aircraft noise will be present, the annual average sound levels (DNL) from aircraft predicted to be experienced by the future residents of Century Gardens will be below the levels of noise set as being incompatible with residential uses in the guidelines promulgated by the Federal Aviation Authority ("FAA") and the Florida Department of Transportation (FDoT).

Background

I. The Property

The proposed Century Gardens is located between SW 152nd and SW 157th Avenues and between SW 116th Street and SW 120th Street in Miami-Dade County, Florida. The area is presently undeveloped and is bordered on the north and east by residential areas, to the west by agricultural uses, and to the south across SW 120th Street by the Kendall-Tamiami Executive Airport (cross hatched area on Figure 1). The plan for Century Gardens includes town homes in approximately the southern third of the property along SW 120th Street and single family detached homes on the northern two-thirds of the property. The southwest area of the property includes a commercial section and an open area without residences. The property's western boundary aligns with the western boundary of the Kendall-Tamiami Executive Airport and the property is thus to the north-northwest of the airport.

II. Kendall-Tamiami Executive Airport

Kendall-Tamiami Executive Airport (TMB) services corporate, recreational, maintenance, flight training and governmental agency activities and is one of six airports that are owned and operated by Miami-Dade County. FAA tower data indicates that there were a total of some 175,810 annual operations (takeoffs and landings) in 2005, down slightly from 2003 and 2004. Of these operations, approximately 98% were classified as general aviation and 1.6% as air taxi operations. The airport did not report any operations by air carriers.

The airport has three runway surfaces or six active runways. Runways 9L-27R are located on the north side of the airport, runways 9R-27L are located along the south side of the airport, and runways 13-31 lie diagonally across the airport between the two. Two of the runway surfaces are parallel east-west (9L-27R and 9R-27L) and provide for landings and takeoffs to the east and west on runways that are each approximately 5000 feet in length. Runway 9R includes a Precision Instrument Approach and a Non-precision Instrument Approach, while runways 27L and 9L-27R do not provide for instrument (IFR) approaches. The two diagonal runways that may have the greatest influence on Century Gardens are runways 13-31 as they are aligned toward the southwest corner of that property. Neither of these runways of some 4000 feet have an instrument approach. The vast majority of the takeoffs and landings occur in the easterly direction, while runways 13-31 account for approximately 15% of the total operations of TMB. Based on data provided by TMB it appears that the southern runway pair, 9R-27L, is the most heavily used for all classes of aircraft.

The instrument approach for 9R serves to support the arrival of aircraft flying on instrument flight plans (IFR) and aircraft flying practice instrument approaches. Instrument flight plans and instrument approaches allow aircraft to operate and land in circumstances of poor weather that would preclude fight based strictly on visual references. Larger aircraft such as jets and turboprops will by and large fly on instrument flight plans by way of their operations. The non-instrument approaches for the other runways as well as for 9R serve to support the arrival of aircraft not flying on instrument flight plans, aircraft who may have arrived in the area of TMB but because weather permitted could make the approach and landing under visual flight rules (VFR), or aircraft simply flying on visual flight rules to TMB or operating in the pattern doing practice landings.

Based on discussions with the Miami-Dade Aviation Authority, the current plans for TMB call for an extension to runway 9R-27L, the runway located furthest away from the Century property, with the intention of maintaining this runway as the principal instrument approach runway for TMB. In turn, this would result in assuring that runway 9R-27L remains the principal runway for jet aircraft, as it would be the receptor runway for arriving jet aircraft on IFR flight plans with its instrument approach. Runway 9R-27L would likely support the vast majority of departures of jet aircraft at their higher gross takeoff weights due to its greater length. The longer runway length of 9R-27L will also provide a greater margin of safety for landing jet and larger turboprop aircraft.

As part of the effort to extend the southern runway, TMB has carried out a noise study to investigate the effects of the extensions. Based on future 2010 noise contours (Figures 2 and 3) produced by TMB's airport noise consultant, HMMH, little change in aircraft noise may be anticipated along the northern portion of the airport and the DNL 65 dB noise contour lies entirely within the airport boundary. As will be discussed, the DNL 65 dB contour marks the FAA's lower limit for defining significant aircraft noise impact on people.

III. Airport Land Use Districts

Portions of Article XL, Section 33, Miami-Dade County Code of Ordinances, establishes land use classifications and height limitations around TMB. In defining these classifications, it appears that Miami-Dade County appears to have employed elements of Chapter 333, Florida Statutes, FDoT's Airport Compatible Land Use Guidance for Florida Communities as well as FAA Part 77 and certain FAA Orders.

Aircraft noise impact around airports is usually described in terms of day-night average A-weighted average sound levels (DNL in dB). These contours show the special extent of aircraft noise in the vicinity of an airport and are generated using approved computer programs using input about annual average aircraft operations at an airport. The DNL shows the annual average 24-hour sound level due to all aircraft operations at an airport. The DNL is employed as it has been determined that it best correlates to community response as compared to other noise metrics such as maximum sound level or some other statistical value.

The DNL contours for an airport generally show the locations of the 65, 70 and 75 dB levels relative to the airport runways. These values are important as they range from the FAA's lower limit for defining a significant noise impact to the level where residential land uses become extremely difficult and are not recommended as described in the applicable federal regulation, 14 CFR Part 150.

In the absence of noise contours developed in accordance with the provisions of 14 CFR Part 150, Florida Statutes, Chapter 333 (2) (d) provides an alternative means of defining land uses. These zones as defined in Chapter 333 do not however have a strict basis in actual predicted noise. Thus when the airport authority has conducted a noise study, the resulting noise contours should be used to determine noise impact because they are much more accurate than the Chapter 333 (2) (d) zones.

With regard to TMB, Article XL of the Miami-Dade County Code establishes land use zones based on Florida Statues, Chapter 333 and FDOT's Airport Compatibility Land use Guidance for Florida Communities, as shown in Figure 1. The Code of Ordinances sets forth the following land use districts:

1) Inner Landing Zone District (ILZ). The ILZ covers an area measured as one-half the length of runway 9R-27L on the north side and west end of 9R-27L together with the northwest end and north side of runway 13-31.

The ILZ prohibits new residential and education facilities, except those educational facilities associated with aviation. The origin of this zone's boundary appears to be Chapter 333, Florida Statutes, which prescribes a noise zone of this dimension in the absence of DNL noise contours being available for a runway. However, one should remember that DNL noise contours have been developed for TMB and thus the use of the ILZ as defined here is not advisable in place of the noise contours if the most accurate depiction of aircraft noise impact is desired.

2) The Outer Landing Zone District (OLZ). The OLZ is a larger zone than the ILZ that appears to be based on the VFR traffic requirements prescribed by the FAA (reported to be FAA Advisory Circular 7400.2C). As such it tends to approximate the extent to which aircraft flying in the pattern at TMB will be in the vicinity of the airport in the landing pattern and to some extent be heard. Roughly speaking, aircraft flying in the pattern for 9L-27R were observed to fly approximately along or slightly north of the southern border of the already existing residential area to the north of TMB when on a down-wind leg (Figures 5, 6, and 7). This would place them on the northern edge of the property of the proposed Century Gardens area. Only occasionally were aircraft observed to fly directly overhead of the Century Gardens property when approaching or departing the airport. The OLZ does not prohibit new residential construction and educational facilities, but does require such construction to incorporate at least a 25 dB Noise Level Reduction (NLR) into the design of the structure.

3) The No School Zone (NSZ). The NSZ covers an area roughly aligned in direction with the runways. The zone extends on either side and for some distance at either end of any of the runways as described in Florida Statutes, Chapter 333. The NSZ prohibits the construction of any new non-aviation educational facilities.

4) The Outer Safety Zone District (OSZ). The OSZ covers a prismatic area at either end of a runway. The OSZ limits any new residential construction to two units per acre and prohibits non-aviation educational facilities or places of public assembly. As discussed by FDOT in their "Guidance" document, the OSZ appears to be based in some approximate manner on a projection of the FAA's requirements for runway approach surfaces. These are areas where obstacles to flight are limited in height and thus their primary intent is on safety.

5) The Inner Safety Zone District (ISZ). The ISZ covers smaller prismatic areas close by the ends of each runway. The ISZ's based on runway protection zones for both 13-31 and 9L-27R do not appear to intrude into the Century Gardens property area. A runway protection zone prohibits

any obstacle and is intended to provide a clear area should an aircraft land short or need extra distance to stop in an aborted takeoff.

Regarding these zones and their locations relative to Century Gardens, the ILZ and OLZ cover substantial and all of the Century Gardens property respectively. The southwestern portion of the Century Gardens development is included in the OSZ for runway 13-31 with the projected centerline of 13-31 approximately over the southwest corner of the property. The No School Zone (NSZ) for runway 13-31 occupies roughly the southwest half of the property. Neither of the ISZ areas for runways 13-31 or 9L-27R intrude into the Century Gardens property.

In summary with regard to aircraft noise, while the TMB noise contours show no intrusion into the Century Gardens property, a number of the restrictive land use zones for TMB significantly overlay the property.

In addition to establishing the preceding land use restrictions, Section 333 delineates the requirements for certain height limitations for the areas surrounding the airport. These height limitations are derived from FAA Part 77 regulations for determining and preventing obstructions to navigable airspace. The details of the FAA regulations and their translations into Section 333 are complicated as the "artificial surface" above the elevation of the airport defined for flight safety has numerous sections to it. It is safe to say that for the Century Gardens property in question, some consideration to building height will be required. Given the nature of the development, it would appear that this concern lies primarily for the properties along the southern portion of the property. While we have not subjected the property to an exact analysis it would appear that along SW 120th Street a building height limitation would exist for the eastern half of the property along SW 120th Street. These issues have also been discussed by the Miami-Dade Aviation Department in their 15 December 2005 memorandum (#05-274). They observe that construction in certain location exceeding 30 feet will require FAA approval and there is a concern about the height of poles on certain buildings near the proposed entrance to the property. Subject to the approval of the FAA regarding flight safety, the Aviation Planning Division has stated that it would not object to a proposed structure whose height conforms to the Miami-Dade height Zoning Ordinance.

IV. Noise Criteria

Compatibility of airports and the aircraft operating at airports is a concern for the airport, local governments, developers, and residents. With regard to airport noise the Federal Aviation Administration has adopted a process that employs the use of yearly average day-night A-weighted sound levels to describe the noise from aircraft operations at airports. This day-night average sound level or DNL is expressed in terms of dB. Typical exterior DNL values and corresponding activities are shown in Figure 4.

It is important to note that the DNL is the average sound level assessed on a 24-hour basis with a 10 dB weighting given to the night time hours of 10 PM to 7 AM. The DNL is based on an airport's yearly average 24-hour operations. The DNL is not a

measure of individual aircraft noise levels nor is it a measure of the maximum sound level of aircraft as these values vary considerably from one event to another and have proven to be not as receptive to correlation with people response as has the DNL.

The Federal Aviation Administration employs the DNL as the metric for measuring aviation noise exposure and uses the DNL value of 65 dB as the level of significance for assessing noise impacts. The exterior DNL 65 dB contour is the FAA's lower limit for defining significant noise impact on people. Based on what has become known as the "Shultz Curve" at 65 DNL approximately 12% of people living in such an area would report themselves to be "highly annoyed" by transportation noise. At 55 DNL approximately 3% would be expected to be highly annoyed. For a variety of reasons, noise predictions and interpretations are frequently less reliable below DNL 65 dB as other sources of noise, some natural, can enter into the picture. Additionally, the United States Environmental Protection Agency uses the outdoor 55 DNL and the indoor 45 DNL as their criteria for an acoustical environment generally sufficient to protect the public health and welfare with an adequate margin of safety. Other factors including prior experience, the actual use of a property, or the prior knowledge that transportation noise may be present can influence community response to aircraft noise.

State statute requires that the noise study be conducted "in accordance with provisions of 14 C.F.R. Part 150." In the absence of a conducted noise study, Florida Chapter 333 employs the use of zones such as described in the Miami-Dade's ILZ definition for limiting non-compatible uses (mainly residential) near an airport. As TMB does have published noise contours developed by a highly competent consultant, the ILZ is not the most accurate basis for determining noise impact at TMB and the noise contours are.

Airport Noise Compatibility Assessment

The publicly available airport noise information for TMB consists of the airport noise contours that established airport noise projections through 2003 and a more recent analysis conducted by HMMH that establishes airport noise projections through 2010. The 2010 airport noise study was commissioned by the Miami-Dade County Aviation Department as part of a proposed lengthening of runway 9R-27L.

On review of Figures 1, 2 and 3 included in the TMB runway extension noise study, one can readily see that the proposed Century Gardens development lies beyond the 65 DNL contours of 2003 and 2010 even though it lies entirely within the ILZ. The ILZ as described in Sec. 33-394, considerably overstates the area within which TMB aircraft noise would constitute an incompatibility for the proposed residential use based on the FAA's 65 DNL criteria. Furthermore, the Century Gardens area is well outside of both the 2003 and 2010 65 DNL and appears to lie on what would possibly appear to be the 60 DNL at its closest, southeastern corner. The remainder of the property would lie in areas where 60 to 55 DNL or less would be the case for the aircraft noise. With this description supplied by TMB's airport noise consultant, there appears to be a 5 dB

margin between the 65 dB noise contour and what might be expected on the property at its highest sound level location .

The information available indicates that the DNL values on the property are expected to remain less than 65 dB. However, some aircraft noise will be present and aircraft will at times be over the property. Aircraft will be seen and heard over the airport and in the VFR traffic pattern area. It appears that runway 13/31 operations would be in closest proximity to observers on the ground in Century Gardens. However, operational data from the 2005 report indicates that the northwest-southeast runway use is on the order of 15% of the total operations and the predominant direction of operations is to the east. This means that by and large aircraft land and takeoff to the east on 9L and 9R. By and large, aircraft, especially jet and larger prop aircraft employ 9R, the southern most runway. The current development plan [laces a commercial area in the southwest corner, thus replacing residential units with the less noise sensitive commercial uses in this location.

The town homes located in the southern third of the property would be closest to the airport and hence would generally receive the greatest degree of whatever noise would be present. Based on the visits to the site during February and May of this year and the sound levels measured during that visit, at a location approximately 300 feet into the property on the south and mid-way along the road, we would approximate the short duration maximum exterior sound levels on the ground from aircraft landing and departing on 9R-27L to range from 44 dBA to 58 dB. For the few piston aircraft landing and departing 13-31 and passing directly overhead this southwest portion of the property the short duration maximum sound levels were some 69 to 78 dBA.

For the northern runway pair 9L-27R, landing aircraft maximum sound levels were on the order of 52 to occasionally 68 dBA for westerly departures. Helicopter activity over the field registered short duration maximum sound levels of 53 to occasionally 63 dBA. For locations further into the property, the aircraft maximum sound levels would be less by approximately 4 to 6 dB. In many instances, especially for aircraft operating on the southern runway, aircraft sounds were barely audible. Landing aircraft on the northern runway were often no louder than a passing vehicle as they were at very much reduced power settings. By way of comparison, normal speech is generally on the order of 60 to 65 dBA and the quiet daytime background sound levels were on the order of 40 dBA. Sound levels from autos on a residential street would be on the order of 55 to 65 dBA.

Maximum sound levels vary and are offered here only as sample examples. The average annual day-night sound level or DNL is the accepted means of characterizing an environment and the compatibility of that environment for a particular use.

With regard to interior spaces in a future development, the feasible exterior to interior sound reduction afforded by the Century Gardens town home designs with windows and doors closed can be expected to be on the order of 20 to 25 dB for new construction. Single family detached homes can also achieve this level of sound

reduction. This is due to a combination of increases in the quality of windows and the overall general quality of construction since the introduction of more stringent building codes in South Florida. As a result, using current construction methods and some additional enhancements, except in the instance of a low altitude over flight, it should be expected that in general the maximum sound levels within the homes with the windows and doors closed will be on the order of or below many other sound sources. The exception to this would be in the southwest portion of the property when generally less frequent over flights from or to 13-31 occur. The overall average interior aircraft related sound levels in the town homes and single family homes should feasibly be expected to be meet or be below the 45 DNL required by HUD and recommended by FAA for interior residential areas. The commercial buildings' interiors would be considered to be less noise sensitive.

Summary

Century Gardens is planned to lie immediately to the north of Kendall-Tamiami Executive Airport. As a result, it will experience some aircraft noise. However, based on previously generated TMB noise contours together with an estimate of future 2010 aircraft noise levels a significant level of aircraft noise impact is not projected. Based on FAA Part 150 criteria for airport noise compatibility planning, the Century Gardens property would fall within a designation of being compatible with aircraft noise in terms of DNL values as the DNL values would be less than 65 dB. The ILZ restrictions for TMB would seem to overstate the noise impact of TMB on the property as the DNL 65 contour lies entirely on the airport property in this area. The OLZ also appears to overstate the noise impact based on the contours and Part 150 recommendations. Neither runway protection zone ISZs for either 9L-27R or 13-31 lie on the property though the runway 13-31 OSZ does affects the southwest corner of the property. The NSZ precluding schools also passes through the property.

While the property lies beyond the 65 DNL contour, some aircraft noise will be present from TMB aircraft operations. In order to mitigate this aircraft noise, such as it might be present, we would recommend considering an exterior to interior sound level reduction for the some portion or possibly all of the dwellings in the property that would provide not less than a Noise Level Reduction (NLR) of 25 dB with all windows and doors closed for aircraft type noise. Details in design as well as care during construction can achieve this NRL value.

We would also suggest examining whether a rear yard wall or berm would be effective or desirable for the southern most properties' rear yards along SW 120th Street. For noise from aircraft and helicopters at low altitudes or on the field itself, some shielding can occur from the rows of intervening houses and this would be intended to provide a similar effect, if it were shown to be effective and aesthetically attractive.

We would recommend that the disclosure statements and avigation easement (Century Business Park's Declaration of Restrictions) be included in the sale documents of the individual properties that both inform the purchasers of the properties of the

presence of the airport, of aircraft and aircraft noise and acknowledgements that the purchasers are aware of the airport, its aircraft operations and aircraft noise. We suggest that the requirements for building noise reductions to meet or exceed NLR 25 dB together with the provisions in the Declaration of Restrictions offer a viable alternative for consideration regarding aircraft noise to the conditions of Article XL, Sec. 33-395 (A) (5) for the OSZ lying on the southwest corner of the property. Additionally, it appears that the introduction of the commercial property and open area in the southwest portion of the property is a positive step in reducing the number of people who might reside within that general area. As we understand it, no schools are anticipated for the development.

Construction height limits should be set and maintained so as not to penetrate the artificial surfaces that surround the airport and overlay the property as required by the applicable regulations. The limits for these height restrictions can be surveyed and set according to the provisions of Sec. 33-393 of Article XL and the requirements of the FAA.

Yours truly,

Stanley E. Dunn

Attachments: Figures 1 through 7

Arrojas, Mercedes F (MIA - X27478)

From: Mayol, Juan J (MIA - X27787)
t: Friday, February 24, 2006 12:16 AM
Arrojas, Mercedes F (MIA - X27478)
ubject: Fw: Request for Contours (TMB)

Attachments: TMB_2010_Final_022006.pdf; 299560_2003_Pattern_INM_Tracks.pdf; 299560_2003 _Helo_INM_Tracks.pdf; 299560_2003_Fixed_INM_Dep_Tracks.pdf; 299560_2003 _Fixed_INM_Arr_Tracks.pdf; 299560_2003_DNL_Contours.pdf; 2010 _no_build_build_Contours_revised.pdf; 2003_2010_contours_revised.pdf

Please print. Thanks.

Sent from my BlackBerry Wireless Handheld

-----Original Message-----
From: Perez, Richard A (MIA - X27630)
To: Mayol, Juan J (MIA - X27787)
Sent: Thu Feb 23 17:03:08 2006
Subject: FW: Request for Contours (TMB)

2003_2010_cont
urs_revised.pdf..

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rom: Norman A. Hegedus [mailto:NHEGEDUS@miami-airport.com]
Sent: Thursday, February 23, 2006 3:05 PM
To: DunnSJr@aol.com
Cc: Renee Bergeron
Subject: RE: Request for Contours (TMB)

Mr. Dunn

As per your request find attached the 2005 report for TMB airport (Development of Existing and Future Noise Contours at Kendall-Tamiami Executive Airport with the Evaluation of a Runway Extension for 9R-27L). All Exhibits are also included.

Regards,

Norman A. Hegedus
Aviation Environmental Planner
Miami-Dade-Aviation- Department
Phone: 305-876-0464
Fax:: 305-869-3908

-----Original Message-----
From: DunnSJr@aol.com [mailto:DunnSJr@aol.com]
Sent: Thursday, February 23, 2006 10:32 AM
To: Norman A. Hegedus
Cc: DunnSJr@aol.com

Subject: Re: Request for Contours (TMB)

Dear Mr. Hegedus,

Please do provide an electronic copy of the report containing the noise contours and porting information for Kendall-Tamiami that you just provided (2003 & 2010 contours and operations data).

For your information, I am an independent acoustical consultant residing in Clermont, Florida. I have been involved in acoustical consulting for a number of years. I was retained by Holland+Knight on behalf of Century Business Park, LLC for the proposed Century Gardens. Please see my address below.

PO Box 121308 Clermont, FL 34712-1308
12005 Garnet Drive Clermont, FL 34711
352 394 0621 fax 352 394 5139 561 289 3866 cell

Thank you for your time and assistance.

Stanley Dunn

E-mails are automatically scanned for viruses using McAfee.

Development Of Existing and Future Noise Contours At Kendall-Tamiami Executive Airport with an Evaluation of a Runway Extension for Runway 9R-27L

HMMH Report No. 299560.002
January 2005

Prepared for:

Miami-Dade County Aviation Department
Miami International Airport
5600 N.W. 36 Street
Suite 533
Miami, FL 33166

Prepared by:

Robert C. Mentzer Jr.

HARRIS MILLER MILLER & HANSON INC.
15 New England Executive Park
Burlington, MA 01803

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1 INTRODUCTION

1.1 Background

In 2003, Miami-Dade County renewed their contract with Harris Miller Miller & Hanson Inc. (HMMH) to undertake "Miscellaneous Acoustical Services" for Miami-Dade Aviation Department (MDAD). This report presents the results of Service Order No. 2 and 2a, "Noise Contour Development at Kendall-Tamiami Executive Airport."

Kendall-Tamiami Executive Airport (TMB) is located in south Miami-Dade County. The airport occupies 1380 acres of land and has 3 runways. The tower at the airport is open from 07:00 to 21:00 (local time) and TMB is home to the Miami Automated International Flight Service Station (AIFSS).

1.2 Project Description

The purpose of the original service order was to develop existing base case noise contours for the year 2003 for TMB. This was completed in November 2004 and a subsequent add-on to that task is to develop two sets of contours for the future year 2010. The first contour set represents the future 2010 conditions at the airport with no airfield developments. The second set represents the future 2010 conditions with a proposed 2000' extension to west on runway 09R-27L.

The project analysis comprised six parts:

- Collection of existing data.
- Analysis of the existing data to prepare it for noise modeling purposes.
- Preparation of the associated existing noise exposure contours.
- Development of the future airport operations and conditions.
- Preparation of the future build and no-build noise exposure contours.
- Documentation of the noise impact.

Section 2 presents information on the existing operational input and Section 3 presents the existing 2003 noise exposure contours. Section 4 documents the development of the future 2010 conditions, Section 5 presents the future no-build contours and compares them to the existing, and Section 6 presents the future build contours and compares with the no-build set of contours

1.3 Project Summary

The first part of this study is to develop the existing 2003 DNL noise contours based on the 2003 operations at TMB and flight track patterns. The second part is to develop an operational fleet mix for the future year 2010 and the associated contours. This fleet mix was developed for the airport layout as it exists today and a second fleet mix is adjusted for a build condition, which represents a runway extension on the southern parallel runway. The analysis was undertaken with the following steps:

- Collect operations information and adapt to noise modeling inputs for the existing conditions;
- Collect aircraft flight path information and adapt to the noise modeling;
- Develop runway and track use data;
- Develop the existing 2003 noise contours.
- Develop the future 2010 fleet mixes
- Establish a build alternative with a runway extension (2000' on west end of 09R-27L)
- Develop the future 2010 noise contours.
- Develop the future build alternative contours for 2010.

The resulting noise contours are presented on street maps of the area and the 2010 No-build is compared to the 2003 contour. This will establish the change in noise exposure due to the change in use of the airport between 2003 and 2010. The 2010 No-build is then compared to the 2010 Build alternative, which will establish the change in noise exposure due to the runway extension and its affect on airport operations.

2 DEVELOPMENT OF EXISTING OPERATIONAL INPUT

This report contains a description of the process HMMH used to prepare the operational data that constitute the input for the 2003 existing base case noise exposure contours.

2.1 Contour Preparation Process

The standard approach for preparation of airport noise exposure contours requires compilation of several categories of information about the operation of an airport:

- Airport Layout: Location, length and orientation of all runways.
- Operation Numbers: Numbers of departures, arrivals and pattern operations by each type of aircraft during an "annual average day". The number of operations on this day is the number of operations during the year divided by the number of days in the year. The average daily operations for TMB are based on the total operations for the annual 12-month period between January 1st, 2003 and December 31st, 2003. The 24-hour day has two parts, the daytime (0700-2200) and the nighttime (2200-0700).
- Runway Use: Percentage of operations by each type of aircraft that occur on each runway.
- Flight Tracks: Paths followed by aircraft departing from, or arriving to, each runway.
- Flight Track Usage: Percentage of operations by each aircraft type that use each flight track.
- Meteorological data for 2003.

2.1.1 FAA's Integrated Noise Model

HMMH obtained all of the required operations information and prepared input for one of the FAA-approved airport noise models, the FAA's Integrated Noise Model, version 6.1 (INM 6.1). INM 6.1 is the latest release of the noise model which models annual average day conditions for an airport. The model can provide results for a variety of metrics at specific locations or in contour form. The INM computes the noise exposure around an airport as a grid of values of a selected metric, in this case the Day-Night Sound Level (DNL or L_{dn}). The grid information becomes the input for a contouring program, which produces the noise exposure contours for the airport.

The INM uses airport geometry, descriptions of aircraft operations, and an internal database of noise and performance characteristics to compute the noise of individual flights. The INM also contains a database of noise and performance information for helicopters adapted from the Helicopter Noise Model (HNM). The INM then adds the noise of the individual flights together developing a noise value for each grid point.

2.2 Description of the Data Input

This section of the report contains the specific information HMMH used to prepare the operational data input for the noise contours. It also cites the sources for the information.

2.2.1 Airport Layout

Information regarding the locations, lengths and orientations of the runways at TMB was obtained from the airport manager at TMB and the FAA.[1] Kendall-Tamiami Executive has 3 runways.

- Runway 09L-27R is 5001' long and is closed when the tower is closed.
- Runway 09R-27L is 4999' long and 09R has an Instrument Landing System (ILS).
- Runway 13-31 is 4000'.
- Helicopter patterns are on the south side of the airfield.

Figure 1 is an aerial photograph of the airport. The figure shows the runway layout and the land surrounding the airport.

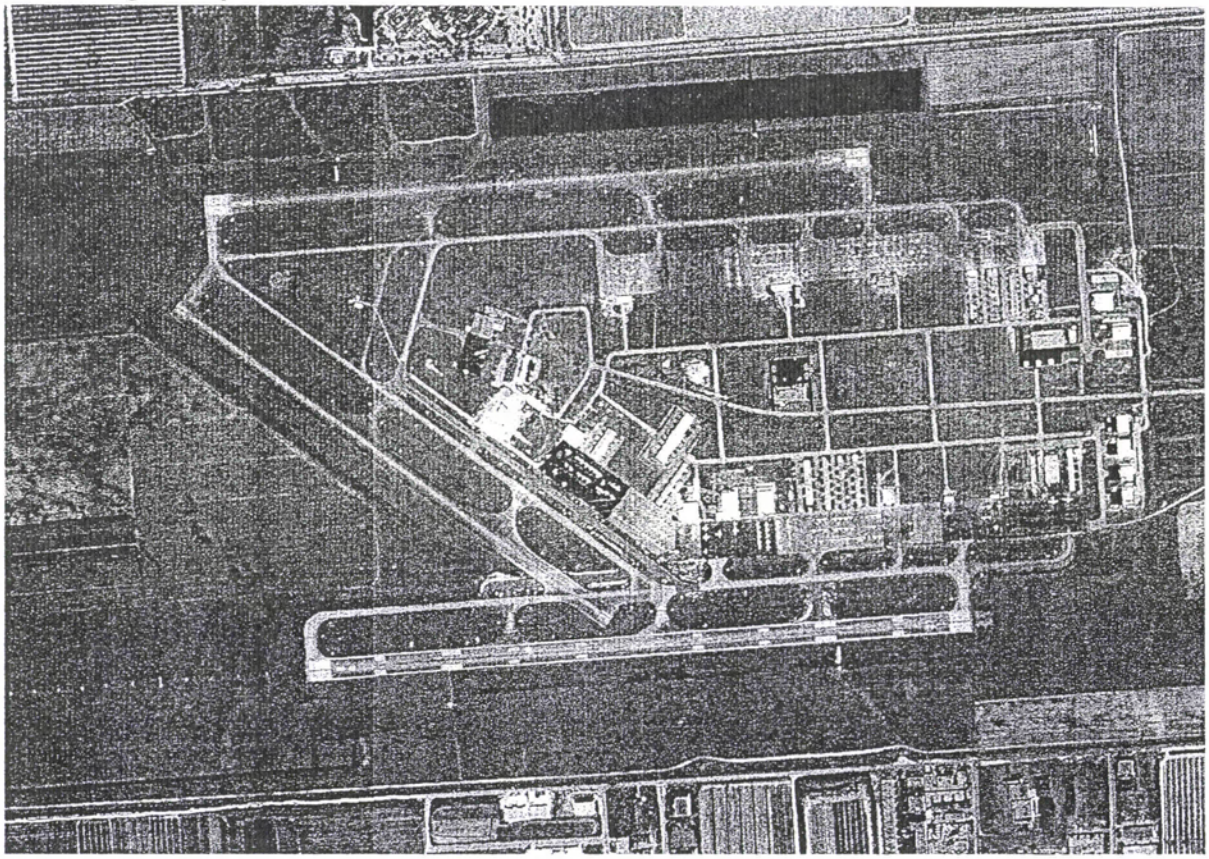


Figure 1 Kendall-Tamiami Executive Airport Layout

[1] FAA web site for Airport diagrams - http://www.naco.faa.gov/content/naco/online/airportdiagrams/05349AD.pdf

2.2.2 Meteorological Data

HMMH obtained 12 months of meteorological data for TMB for 2003. The INM utilizes an annual average value for temperature, relative humidity and pressure. These values are used to adjust the aircraft performance to match those conditions and to adjust ability of the noise to travel through the atmosphere.

- Annual average temperature for 2003 was 77.9 deg F.
- Annual average relative humidity for 2003 was 72.4 %.
- Annual average pressure for 2003 was 29.95 in Hg.

These values were used in the development of the contours.

2.2.3 Operation Numbers

The metric used to account for the total noise at an airport is referred to as the Day-Night Average Sound Level, abbreviated as L_{dn} or DNL. The annual average DNL noise exposure contours for the 2003 existing base case are based on the average daily operations during the most recent 12-month period (see Section 2.1). The majority of operations at TMB are smaller propeller aircraft or helicopters. The airport is home to several flight schools, repair stations and law enforcement and medical aviation units. The Miami-Dade Fire and Police departments have fixed-wing and helicopters based at TMB. The airport also serves the corporate jet community and the noise environment around the airport would be largely influenced by the operations of the turbojet aircraft. The 2003 contours reflect the noise from all types of aircraft operations. HMMH used several sources for the operations information for 2003.

The FAA maintains records of the total numbers of operations during a year and assigns the operations to four categories: air carrier, air taxi, civil or general aviation, and military. Table 1 presents the total 12-month operations data from the FAA Air Traffic Control Tower (ATCT). There are no FAA records of the numbers of operations by type of aircraft or by time of day. In addition, the ATCT at TMB is closed between 9:00 p.m. and 7:00 a.m. Operations when the tower was closed were estimated by the AIFSS.

Table 1 Average Annual Day Operations for 2003

TYPE	ITINERANT	LOCAL	TOTAL
Air Carrier	1	0	1
Air Taxi	2,481	0	2,481
General Aviation	85,874	96,977	182,851
Military	52	4	56
Total	88,408	96,981	185,389
ATCT Closed (9pm to 7 am)			10,950
Annual Total for 2003			196,339

HMMH obtained the 2003 Airport Noise Monitoring System (ANOMS) counts from MDAD. The annual operations in the categories were further disaggregated into the various aircraft types, the number of average daily operations for arrivals and departures, and the number of daytime and nighttime operations based on the discussion presented below. The percentages were applied to the total operations in each of the aircraft categories.

The "air carrier" category pertains to any aircraft capable of carrying 60 or more passengers with a three-letter company designator[2]. TMB is not an air carrier airport and as such has almost no operations of this type.

The "air taxi" category refers to any aircraft fewer than 60 seats with a three-letter company designator or using the prefix "TANGO"[3]. The ANOMS data captured most of these operations. The mix of aircraft, referred to as the fleet mix, was determined from this data and scaled to 2,482 operations. Turboprop and corporate jet operations make up 75% of the operations in this category.

The "general aviation" aircraft category refers to any civil aircraft not designated air carrier or air taxi. General aviation type aircraft include single-engine and twin-engine piston propeller aircraft, other turboprop aircraft, helicopters, and business turbojet aircraft. Since all aircraft operating at TMB are unscheduled, discussions with MDAD and ATCT personnel and analysis of the ANOMS data resulted in the number of average daily operations, by aircraft type, by time of day.

It is estimated that of all the general aviation operations, 85% is by general aviation-type aircraft, and 15% is by civilian helicopter. The fixed-wing general aviation fleet is made up of 35% single-engine propeller, 15% twin-engine propeller, 15% turbine-powered propeller, and 20% turbojet business aircraft. Additional analysis by HMMH resulted in further breakdown into INM aircraft categories.

There are no based military aircraft at TMB and very few operations were recorded at TMB for 2003.

Table 2 contains the air taxi operations data for 2003. Table 3 contains the general aviation operations for 2003 and Table 4 contains the pattern operations. The existing average daily operations modeled at TMB are 537.91.

[2] FAA order 7210_3, Appendix 3 Air Carrier Counts

[3] FAA order 7210_3, Chapter 9-1-2 Categories of Operations

Table 2 Air Taxi Operations for 2003

Air Taxi (Average Annual Day)					
General Aviation Jets					
INMTYPE	Category	Typical Aircraft Type	Day	Night	Total
CIT3	Jet	Cessna - Citation 3	0.14	0.00	0.14
CL600	Jet	Canadair Challenger, Falcon 2000	0.20	0.00	0.20
CL601	Jet	Canadair - Regional Jet	0.03	0.00	0.03
CNA500	Jet	Cessna - Citation 1	0.09	0.00	0.09
CNA55B	Jet	Cessna - Citation 2/-S2	0.15	0.01	0.16
CNA750	Jet	Cessna - Citation 10	0.13	0.00	0.14
FAL20	Jet	Falcon 20	0.00	0.00	0.00
FAL50/900	Jet	Falcon 50 & 900	0.04	0.00	0.04
GIIB	Jet	Gulfstream II	0.00	0.00	0.00
GIV	Jet	Gulfstream IV	0.03	0.00	0.03
IA1125	Jet	Westwind 24, 25	0.04	0.00	0.04
LEAR25	Jet	Learjet 24,25	0.23	0.01	0.25
LEAR35	Jet	Learjet 35,55,60	1.98	0.05	2.03
MU3001	Jet	Mitsubishi Diamond I, Cessna 560	1.02	0.02	1.04
Non-Jet Aircraft					
CNA172	Single Piston	Cessna - Skyhawk 172	0.59	0.00	0.59
CNA206	Single Piston	Cessna - Stationair	0.20	0.00	0.20
GASEPF	Single Piston	Piper 28, Beech 23, 24	0.11	0.00	0.11
GASEPV	Single Piston	Piper 32, 46, Beech 35, 36	0.08	0.00	0.08
CNA20T	Single Piston	Turbo Stationair	0.06	0.00	0.06
BEC58P	Twin Piston	Baron58, Piper 27, 30, 31	0.47	0.01	0.48
CNA441	Twin Turboprop	Conquest, King Air	0.34	0.01	0.35
DHC6	Twin Turboprop	Beech 1900, 200, 300	0.43	0.00	0.44
DHC8	Large Turboprop	Dash - 8	0.01	0.00	0.01
HS748A	Large Turboprop	G159, ATR72	0.01	0.00	0.01
L188	Large Turboprop	P-3 Orion	0.01	0.00	0.01
BO105	Helicopter	Bell 412	0.10	0.01	0.11
SA360	Helicopter	SA-360/361 Dauphin	0.14	0.00	0.15
Total			**6.66**	**0.14**	**6.80**

Table 3 General Aviation Operations for 2003

General Aviation (Average Annual Day)					
General Aviation Jets					
INMTYPE	**Category**	**Typical Aircraft Type**	**Day**	**Night**	**Total**
CIT3	Jet	Cessna - Citation 3	3.31	0.42	3.73
CL600	Jet	Canadair Challenger, Falcon 2000	2.70	0.11	2.80
CL601	Jet	Canadair - Regional Jet	0.09	0.00	0.09
CNA500	Jet	Cessna - Citation 1	6.06	0.14	6.20
CNA55B	Jet	Cessna - Citation 2/-S2	6.10	0.12	6.22
CNA750	Jet	Cessna - Citation 10	0.37	0.02	0.39
FAL20	Jet	Falcon 20	0.23	0.00	0.23
FAL50	Jet	Falcon 50 & 900	1.44	0.04	1.47
GII	Jet	Gulfstream II	0.77	0.00	0.77
GIIB	Jet	Gulfstream IIB	0.33	0.02	0.35
GIV	Jet	Gulfstream IV	1.37	0.04	1.40
GV	Jet	Gulfstream V	0.74	0.00	0.74
IA1125	Jet	Westwind 24, 25	1.37	0.07	1.44
LEAR25	Jet	Learjet 24,25	2.65	0.07	2.72
LEAR35	Jet	Learjet 35,55,60	17.69	1.26	18.96
MU3001	Jet	Mitsubishi Diamond I, Cessna 560	5.48	0.11	5.59
Non-Jet Aircraft					
CNA172	Single Piston	Cessna - Skyhawk 172	38.18	1.05	39.23
CNA206	Single Piston	Cessna - Stationair	9.71	0.20	9.90
COMSEP	Single Piston	DV-20	0.39	0.01	0.40
GASEPF	Single Piston	Piper 28, Beech 23, 24	13.90	0.24	14.14
GASEPV	Single Piston	Piper 32, 46, Beech 35, 36	31.24	0.64	31.88
CNA20T	Single Piston	Turbo Stationair	1.49	0.05	1.54
BEC58P	Twin Piston	Baron58, Piper 27, 30, 31	35.82	1.29	37.11
DC3	Large Piston	DC3	0.03	0.00	0.03
DC6	Large Piston	DC6	0.01	0.00	0.01
CNA441	Twin Turboprop	Conquest, King Air	18.51	0.65	19.16
DHC6	Twin Turboprop	Beech 1900, 200, 300	16.69	0.82	17.50
EMB120	Twin Turboprop	Embraer - Brasilia EMB-120	0.50	0.05	0.55
SD330	Twin Turboprop	Shorts 330	0.48	0.02	0.50
DHC8	Large Turboprop	Dash - 8	0.19	0.00	0.19
HS748A	Large Turboprop	G159, ATR72	0.14	0.00	0.14
SF340	Large Turboprop	Saab & Fairchild - SF-340	0.22	0.00	0.22
Helicopter					
B206L	Helicopter	Bell Jetranger	15.15	3.16	18.31
BO105	Helicopter	Bell 412	11.86	2.47	14.33
H500D	Helicopter	Robinson 22, 44	5.27	1.10	6.37
S76	Helicopter	Sikorsky S-76	0.66	0.14	0.80
Total			**251.13**	**14.28**	**265.41**

Table 4 Pattern Operations for 2003

Patterns (Pattern = 2 operations)					
INMTYPE	**Category**	**Typical Aircraft Type**	**Day**	**Night**	**Total**
BEC58P	Twin Piston	Baron58, Piper 27, 30, 31	24.18	0.00	24.18
CNA172	Single Piston	Cessna - Skyhawk 172	25.56	0.00	25.56
GASEPF	Single Piston	Piper 28, Beech 23, 24	9.22	0.00	9.22
GASEPV	Single Piston	Piper 32, 46, Beech 35, 36	20.62	0.00	20.62
H500D	Helicopter	Robinson 22, 44	31.89	0.00	31.89
B206L	Helicopter	Bell Jetranger	21.26	0.00	21.26
Total Patterns			**132.73**	**0.00**	**132.73**
Grand Total			**523.49**	**14.42**	**537.91**

2.2.4 *Runway Use*

During the modeling process, it is necessary to assign all operations to a specific runway. Although the FAA controls runway use, it does not keep records of which runway is in use. However, the FAA provided an estimate of the runway use by various aircraft categories for TMB. Using the analyzed ANOMS data and the FAA estimate HMMH developed the runway use. Table 5 contains the runway use percentages for 2003 for an annual average day.

Table 5 Runway Use for 2003 and 2010 No-Build

Jet Operations				
	Arrivals		Departures	
Runway	Day	Night	Day	Night
13	1%	5%	4%	10%
31	1%	2%	1%	1%
09L	2%	0%	23%	0%
27R	1%	0%	1%	0%
09R	73%	76%	52%	70%
27L	22%	17%	19%	19%
	100%	100%	100%	100%
Turboprop Operations				
	Arrivals		Departures	
Runway	Day	Night	Day	Night
13	10%	3%	6%	0%
31	5%	0%	7%	3%
09L	5%	0%	34%	0%
27R	3%	0%	2%	0%
09R	62%	87%	38%	79%
27L	15%	10%	13%	18%
	100%	100%	100%	100%
Piston Operations				
	Arrivals		Departures	
Runway	Day	Night	Day	Night
13	12%	1%	9%	14%
31	4%	2%	9%	10%
09L	10%	0%	32%	0%
27R	4%	0%	4%	0%
09R	58%	85%	37%	65%
27L	12%	12%	9%	11%
	100%	100%	100%	100%

** ANOMS data and HMMH

2.2.5 Flight Tracks

INM simulates the operation of an airport by "flying" the aircraft along relatively small numbers of flight tracks that represent the large number of flight paths actually used by aircraft. During preparation of noise contours for TMB, HMMH used several different sources of information to develop flight tracks. This included information from the ANOMS system at Miami International Airport, discussions with ATCT personnel and Airport staff, and review of the operating rules and procedures for TMB.

Flight tracks utilization were divided into groups according to type of aircraft (jet, propeller, or helicopter) and type of operation (departure or arrival). Tables 6, 7, 8, and 9 present the aircraft utilization for arrival, departure, pattern, and helicopter flight tracks.

Table 6 Arrival Track Use for 2003

Runway	Track Name	Jets	Turboprop	Piston
09R	APP1	20%	10%	5%
	APP2	32%	15%	5%
	APP3	8%	5%	15%
09L	APP1	15%	10%	5%
	APP2	32%	15%	5%
13	APP1	15%	50%	50%
	APP2	70%	25%	25%
27R	APP1	10%	20%	10%
27L	APP1	5%	20%	10%
31	APP1	80%	80%	80%

The area covered by a family of flight tracks for aircraft using a single runway and heading in a single direction or toward a fix is called a flight "corridor". A flight corridor may be very wide. This characteristic of flight tracks to form a wide corridor is called "dispersion" and is most pronounced on turns. To model the noise exposure properly, we must also model the dispersion properly. At TMB the flight corridors are of different widths and we use varying amounts of flight tracks to model each flight corridor.

Figures 2 to 5 present the modeled flight tracks for fixed-wing departures, fixed-wing arrivals, pattern operations, and helicopters.

Figure 2 Fixed-wing INM Departure Tracks

Figure 3 Fixed-wing INM Arrival Tracks

Figure 4 Pattern INM Tracks

Figure 5 Helicopter INM Tracks

Table 7 Departure Track Use for 2003

Runway	Track Name	Jets	Turboprop	Piston
09R	09RJTD1	20%	10%	5%
	09RJTD2	32%	15%	5%
	09RJTD4	8%	5%	15%
	09RSJTD	37%	25%	30%
	DEP6	0%	20%	15%
	DEP4	0%	20%	10%
	DEP5	3%	5%	20%
09L	09LJTD1	15%	10%	5%
	09LJTD2	32%	15%	5%
	09LJTD4	8%	5%	5%
	09LSJTD	39%	25%	35%
	DEP3	3%	20%	15%
	DEP5	3%	20%	10%
	DEP6	0%	5%	25%
13	DEP1	15%	50%	50%
	DEP2	70%	25%	25%
	DEP3	15%	25%	25%
27R	DEP5	10%	20%	10%
	DEP7	10%	20%	10%
	27RJTD1	50%	20%	25%
	27RJTD4	30%	20%	25%
	DEP3	0%	20%	30%
27L	DEP5	5%	20%	10%
	DEP6	5%	15%	10%
	DEP3	5%	20%	30%
	27LJTD2	5%	5%	0%
	27LJTD4	30%	20%	25%
	27LJTD1	35%	15%	25%
	27LJTD3	15%	5%	0%
31	DEP1	80%	80%	80%
	DEP2	10%	10%	10%
	DEP3	10%	10%	10%

Table 8 Pattern Track Use for 2003

Runway	Track Name	All Aircraft
09R	TGO1	100%
09L	TGO1	100%
27R	TGO1	100%
27L	TGO1	100%
Area Alpha	HELO1	100%

Table 9 Helicopter Track Use for 2003

Departures		
Track Name	**Percent**	**Direction**
DEP1	70%	Northeast
DEP2	5%	Southeast
DEP3	15%	East
DEP4	5%	Northwest
DEP5	5%	Southwest
Arrivals		
Track Name	**Percent**	**Direction**
APP1	70%	Northeast
APP2	5%	Southeast
APP3	15%	East
APP4	5%	Northwest
APP5	5%	Southwest

3 EXISTING (2003) NOISE CONTOURS

Figure 6 presents the DNL contours for 2003 annual average day operations at TMB. The existing base case noise contours as developed from the information contained in Section 2.

The FAA generally considers areas within the 65 DNL noise contour as incompatible land use for residential structures[4]. At TMB the 65 DNL remains mainly on airport property. The only areas outside the airport property with levels above 65 DNL are along the southern property line and to the east of 09R/27L. Both of these areas are commercial or industrial areas and are compatible with those noise levels.

The contour on the east side of the airport not near the runway is due to helicopter operations at the airport. Helicopter operations were included in the noise modeling utilizing information adapted from the HNM. As you can see from the figure, Runway 09R/27L is the most heavily used runway. This runway is also open at night and nighttime operations carry a penalty due to lower ambient levels at night.

[4] FAA order 1050.1E, Appendix A, Section 4.2 Table 1

Figure 6 2003 DNL Contours

4 DEVELOPMENT OF 2010 OPERATIONAL INPUT

This section contains a description of the process HMMH used to prepare the operational data that constitute the input for the 2010 future noise exposure contours.

4.1 Description of the Data Input

This section of the report contains the specific information HMMH used to prepare the operational data input for the noise contours. It also cites the sources for the information.

4.1.1 Airport Layout

The airport layout for the 2010 No-build noise contours is the same as described in Section 2.2.1. For the 2010 Build alternative, runway 09R-27L will be extended 2000' on the west end of the runway (the 09R end). This extension will increase the length of 09R/27L to 6999'. The extension is not meant to establish scheduled service at the airport but to enhance the current operations that operate there today. Figure 7 shows the future build airport layout.

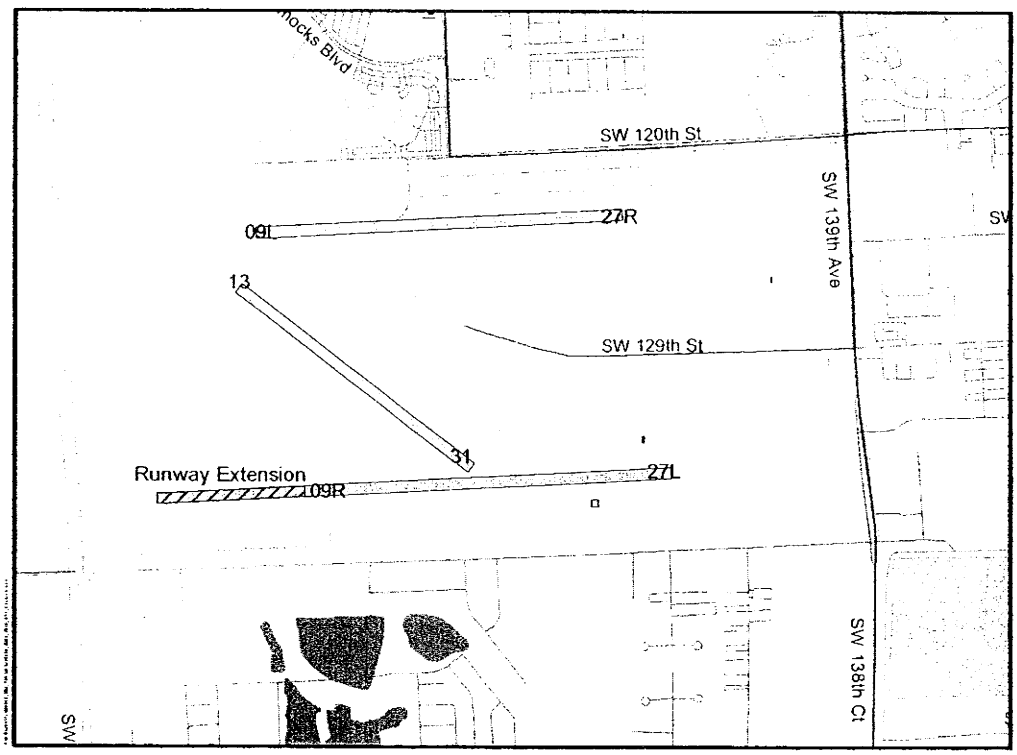


Figure 7 Future 2010 Build Runway Layout

4.1.2 Operation Numbers

The 2010 fleetmix was based on the 2003 fleetmix. Section 2.2.3 describes the development of the fleetmix for TMB. The total operational levels for 2010 were obtained from the FAA's Terminal Area Forecast (TAF)[5] and the fleetmix was scaled to match these levels. The FAA's TAF for TMB had kept the air taxi levels flat for the future levels. Based on discussions with TMB staff and the addition of a new fixed based operator (FBO) at the airport, we increased the air taxi levels. To do this, we based the increase on the same growth rate as the TAF for Opa-Locka (OPF), which is an airport similar to TMB to the north of Miami. The average growth rate for OPF was 2.15% per year for Air Taxi operations. This resulted in an increase of 13.4% in air taxi operations between 2003 and 2010. This level is 1.7% less than the increase in general aviation traffic. Table 10 presents the 2003 actual and 2010 forecast operation levels for TMB along with the percent change from 2003 to 2010.

Table 10 Average Annual Day Operations for 2003 and 2010

ITINERANT Type	2003 Total	2010 Total	Percent Change
Air Taxi	2482	2815	13.4%
General Aviation & Military	96876	111490	15.1%
LOCAL Type	**2003 Total**	**2010 Total**	**Percent Change**
General Aviation & Military	96981	108816	12.2%
Grand Total	**196339**	**223121**	**13.6%**

The fleetmix for TMB is predominately general aviation operations with approximately 85% fixed-wing operations and 15% by civilian helicopter. The fixed-wing general aviation fleet is made up of 35% single-engine propeller, 15% twin-engine propeller, 15% turbine-powered propeller, and 20% turbojet business aircraft. Less than 2% of the operations at TMB are considered air taxi and the turboprop and corporate jet operations make up 75% of the operations in this category.

The 2010 fleetmix will retain this split of aircraft categories. The changes to the 2010 fleetmix are as follows:

- Operations for the G159/ATR72 were eliminated.
- Operations for the P-3 Orion were eliminated.
- Air Taxi numbers increased based on OPF growth rate of 2.15% per year.
- The number of general aviation Stage 2 corporate jet operations were held the same as 2003.

[5] FAA web site: http://www.apo.data.faa.gov/faatafall.HTM February 2004 release

Tables 11 thru 13 compare the 2003 and 2010 annual operations broken down by aircraft type. Table 11 compares the annual air taxi operations for both years. Table 12 compares the annual general aviation operations and Table 13 compares the pattern operations for both years.

Table 11 - 2003 and 2010 Air Taxi Annual Operations Broken Down by Type

INMTYPE	Category	Air Taxi Jets Typical Aircraft Type	Annual Total 2003	 2010
CIT3	Jet	Cessna - Citation 3	50.5	57.5
CL600	Jet	Canadair Challenger, Falcon 2000	73	83.1
CL601	Jet	Canadair - Regional Jet	12.6	14.4
CNA500	Jet	Cessna - Citation 1	33.7	38.3
CNA55B	Jet	Cessna - Citation 2/-S2	57.6	65.5
CNA750	Jet	Cessna - Citation 10	50.5	57.5
FAL20	Jet	Falcon 20	1.4	1.6
FAL50/900	Jet	Falcon 50 & 900	14	15.9
GIIB	Jet	Gulfstream II	1.4	1.6
GIV	Jet	Gulfstream IV	12.6	14.4
IA1125	Jet	Westwind 24, 25	15.4	17.6
LEAR25	Jet	Learjet 24,25	89.8	102.2
LEAR35	Jet	Learjet 35,55,60	739.8	842
MU3001	Jet	Mitsubishi Diamond I, Cessna 560	380.4	433
Total all Air Taxi Jets operations			**1533**	**1744.6**
		Non-Jet Aircraft		
CNA172	Single Piston	Cessna - Skyhawk 172	176.9	244.4
CNA206	Single Piston	Cessna - Stationair	214.8	83.1
GASEPF	Single Piston	Piper 28, Beech 23, 24	73	46.3
GASEPV	Single Piston	Piper 32, 46, Beech 35, 36	40.7	32
CNA20T	Single Piston	Turbo Stationair	28.1	25.6
BEC58P	Twin Piston	Baron58, Piper 27, 30, 31	22.5	201.3
CNA441	Twin Turboprop	Conquest, King Air	126.3	143.8
DHC6	Twin Turboprop	Beech 1900, 200, 300	160	182.1
DHC8	Large Turboprop	Dash - 8	4.2	4.8
HS748A	Large Turboprop	G159, ATR72	4.2	0
L188	Large Turboprop	P-3 Orion	4.2	0
Total all Air Taxi Non-jet operations			**854.9**	**963.4**
		Helicopter		
BO105	Helicopter	Bell 412	40.7	46.3
SA360	Helicopter	SA-360/361 Dauphin	53.3	60.7
Total all Air Taxi Helicopter operations			**94.1**	**107**
Total Air Taxi operations			**2482**	**2815**

Table 12 - 2003 and 2010 General Aviation Annual Operations Broken Down by Type

INMTYPE	Category	General Aviation Jets Typical Aircraft Type	Annual Total 2003	 2010
CIT3	Jet	Cessna - Citation 3	1362	1571.5
CL600	Jet	Canadair Challenger, Falcon 2000	1023.1	1180.5
CL601	Jet	Canadair - Regional Jet	32	36.9
CNA500	Jet	Cessna - Citation 1	2263.6	2611.9
CNA55B	Jet	Cessna - Citation 2/-S2	2270	2619.2
CNA750	Jet	Cessna - Citation 10	140.7	162.3
FAL20	Jet	Falcon 20	83.1	83.1
FAL50/900	Jet	Falcon 50 & 900	537.1	619.8
GII	Jet	Gulfstream II	281.4	281.4
GIIB	Jet	Gulfstream IIB	127.9	127.9
GIV	Jet	Gulfstream IV	511.6	590.3
GV	Jet	Gulfstream V	268.6	309.9
IA1125	Jet	Westwind 24, 25	524.3	605
LEAR25	Jet	Learjet 24,25	991.1	991.1
LEAR35	Jet	Learjet 35,55,60	6918.8	7983.2
MU3001	Jet	Mitsubishi Diamond I, Cessna 560	2039.8	2353.6
Total all GA Jet operations			**19375.2**	**22127.6**
		Non-Jet Aircraft		
CNA172	Single Piston	Cessna - Skyhawk 172	14319.2	16522
CNA206	Single Piston	Cessna - Stationair	3615.2	4171.4
COMSEP	Single Piston	DV-20	145.5	167.9
GASEPF	Single Piston	Piper 28, Beech 23, 24	5162.4	5956.6
GASEPV	Single Piston	Piper 32, 46, Beech 35, 36	11634.6	13424.4
CNA20T	Single Piston	Turbo Stationair	560.9	647.2
BEC58P	Twin Piston	Baron58, Piper 27, 30, 31	13545.6	15629.4
DC3	Large Piston	DC3	11.5	13.3
DC6	Large Piston	DC6	3.8	4.4
CNA441	Twin Turboprop	Conquest, King Air	6994	8069.9
DHC6	Twin Turboprop	Beech 1900, 200, 300	6389.3	7372.2
EMB120	Twin Turboprop	Embraer - Brasilia EMB-120	201.6	232.6
SD330	Twin Turboprop	Shorts 330	184.1	212.4
DHC8	Large Turboprop	Dash - 8	70.1	80.9
HS748A	Large Turboprop	G159, ATR72	52.6	0.0
SF340	Large Turboprop	Saab & Fairchild - SF-340	78.9	91.0
Total all GA Non-Jet operations			**62969.4**	**72595.6**
		Helicopter		
B206L	Helicopter	Bell Jetranger	6684.4	7712.7
BO105	Helicopter	Bell 412	5231.3	6036.1
H500D	Helicopter	Robinson 22, 44	2325.0	2682.7
S76	Helicopter	Sikorsky S-76	290.6	335.3
Total all Helicopter operations			**14531.4**	**16766.8**
General Aviation Total			**96876**	**111490**

Table 13 - 2003 and 2010 Pattern Annual Operations Broken Down by Type

		Pattern Operations	Annual Total	
INMTYPE	Category	Typical Aircraft Type	2003	2010
BEC58P	Twin Piston	Baron58, Piper 27, 30, 31	17648.2	19801.9
CNA172	Single Piston	Cessna - Skyhawk 172	18656.1	20932.8
GASEPF	Single Piston	Piper 28, Beech 23, 24	6726.0	7546.8
GASEPV	Single Piston	Piper 32, 46, Beech 35, 36	15158.4	17008.2
H500D	Helicopter	Robinson 22, 44	23275.4	26115.8
B206L	Helicopter	Bell Jetranger	15517.0	17410.6
Total			96981	108816
Grand Total All Operations			196339	223121

Tables 14 thru 16 present the breakdown for 2010 by aircraft type and day-night split. Table 14 presents the air taxi operations, which increase 13.4% over 2003. Table 15 presents the general aviation operations, which increase 15.1%, and Table 16 presents the pattern operations, which increase 12.2% over 2003. The day-night split for 2010 is the same as 2003.

Table 14 – 2010 Air Taxi Operations

Air Taxi (Average Annual Day)						Annual Totals		
Air Taxi Jets								
INMTYPE	Category	Typical Aircraft Type	Day	Night	Total	Day	Night	Total
CIT3	Jet	Cessna - Citation 3	0.16	0.00	0.16	58	0	58
CL600	Jet	Canadair Challenger, Falcon 2000	0.22	0.00	0.23	81	2	83
CL601	Jet	Canadair - Regional Jet	0.04	0.00	0.04	14	0	14
CNA500	Jet	Cessna - Citation 1	0.10	0.00	0.11	37	2	38
CNA55B	Jet	Cessna - Citation 2/-S2	0.17	0.01	0.18	62	3	66
CNA750	Jet	Cessna - Citation 10	0.15	0.00	0.16	56	2	58
FAL20	Jet	Falcon 20	0.00	0.00	0.00	2	0	2
FAL50/900	Jet	Falcon 50 & 900	0.04	0.00	0.04	16	0	16
GIIB	Jet	Gulfstream II	0.00	0.00	0.00	2	0	2
GIV	Jet	Gulfstream IV	0.04	0.00	0.04	14	0	14
IA1125	Jet	Westwind 24, 25	0.05	0.00	0.05	18	0	18
LEAR25	Jet	Learjet 24,25	0.27	0.01	0.28	97	5	102
LEAR35	Jet	Learjet 35,55,60	2.25	0.05	2.31	823	19	842
MU3001	Jet	Mitsubishi Diamond I, Cessna 560	1.16	0.03	1.19	423	10	433
Total all Air Taxi Jets operations			**4.67**	**0.11**	**4.78**	**1703**	**42**	**1745**
Non-Jet Aircraft								
CNA172	Single Piston	Cessna - Skyhawk 172	0.67	0.00	0.67	244	0	244
CNA206	Single Piston	Cessna - Stationair	0.22	0.00	0.23	81	2	83
GASEPF	Single Piston	Piper 28, Beech 23, 24	0.13	0.00	0.13	46	0	46
GASEPV	Single Piston	Piper 32, 46, Beech 35, 36	0.09	0.00	0.09	32	0	32
CNA20T	Single Piston	Turbo Stationair	0.07	0.00	0.07	26	0	26
BEC58P	Twin Piston	Baron58, Piper 27, 30, 31	0.54	0.01	0.55	197	5	201
CNA441	Twin Turboprop	Conquest, King Air	0.39	0.01	0.39	141	3	144
DHC6	Twin Turboprop	Beech 1900, 200, 300	0.49	0.00	0.50	181	2	182
DHC8	Large Turboprop	Dash - 8	0.01	0.00	0.01	5	0	5
HS748A	Large Turboprop	G159, ATR72	0.00	0.00	0.00	0	0	0
L188	Large Turboprop	P-3 Orion	0.00	0.00	0.00	0	0	0
Total all Air Taxi Non-jet operations			**2.61**	**0.03**	**2.64**	**952**	**11**	**963**
Helicopter								
BO105	Helicopter	Bell 412	0.12	0.01	0.13	43	3	46
SA360	Helicopter	SA-360/361 Dauphin	0.16	0.00	0.17	59	2	61
Total all Air Taxi Helicopter operations			**0.28**	**0.01**	**0.29**	**102**	**5**	**107**
Total Air Taxi operations			**7.55**	**0.16**	**7.71**	**2757**	**58**	**2815**

Table 15 – 2010 General Aviation Operations

		General Aviation Jets				Day		
INMTYPE	Category	Typical Aircraft Type	Day	Night	Total	Day	Night	Total
CIT3	Jet	Cessna - Citation 3	3.82	0.49	4.31	1394	177	1572
CL600	Jet	Canadair Challenger, Falcon 2000	3.11	0.12	3.23	1136	44	1181
CL601	Jet	Canadair - Regional Jet	0.10	0.00	0.10	37	0	37
CNA500	Jet	Cessna - Citation 1	6.99	0.16	7.16	2553	59	2612
CNA55B	Jet	Cessna - Citation 2/-S2	7.03	0.14	7.18	2568	52	2619
CNA750	Jet	Cessna - Citation 10	0.42	0.02	0.44	155	7	162
FAL20	Jet	Falcon 20	0.23	0.00	0.23	83	0	83
FAL50/900	Jet	Falcon 50 & 900	1.66	0.04	1.70	605	15	620
GII	Jet	Gulfstream II	0.77	0.00	0.77	281	0	281
GIIB	Jet	Gulfstream IIB	0.33	0.02	0.35	121	6	128
GIV	Jet	Gulfstream IV	1.58	0.04	1.62	575	15	590
GV	Jet	Gulfstream V	0.85	0.00	0.85	310	0	310
IA1125	Jet	Westwind 24, 25	1.58	0.08	1.66	575	30	605
LEAR25	Jet	Learjet 24,25	2.65	0.07	2.72	966	26	991
LEAR35	Jet	Learjet 35,55,60	20.42	1.46	21.87	7452	531	7983
MU3001	Jet	Mitsubishi Diamond I, Cessna 560	6.33	0.12	6.45	2309	44	2354
Total all GA Jet operations			**57.87**	**2.76**	**60.62**	**21122**	**1006**	**22128**
		Non-Jet Aircraft						
CNA172	Single Piston	Cessna - Skyhawk 172	44.06	1.21	45.27	16080	442	16522
CNA206	Single Piston	Cessna - Stationair	11.20	0.23	11.43	4087	84	4171
COMSEP	Single Piston	DV-20	0.45	0.01	0.46	163	4	168
GASEPF	Single Piston	Piper 28, Beech 23, 24	16.04	0.28	16.32	5855	102	5957
GASEPV	Single Piston	Piper 32, 46, Beech 35, 36	36.04	0.74	36.78	13155	270	13424
CNA20T	Single Piston	Turbo Stationair	1.72	0.06	1.77	627	20	647
BEC58P	Twin Piston	Baron58, Piper 27, 30, 31	41.33	1.49	42.82	15086	544	15629
DC3	Large Piston	DC3	0.04	0.00	0.04	13	0	13
DC6	Large Piston	DC6	0.01	0.00	0.01	4	0	4
CNA441	Twin Turboprop	Conquest, King Air	21.36	0.75	22.11	7797	273	8070
DHC6	Twin Turboprop	Beech 1900, 200, 300	19.26	0.94	20.20	7028	344	7372
EMB120	Twin Turboprop	Embraer - Brasilia EMB-120	0.58	0.06	0.64	212	20	233
SD330	Twin Turboprop	Shorts 330	0.55	0.03	0.58	202	10	212
DHC8	Large Turboprop	Dash - 8	0.22	0.00	0.22	81	0	81
HS748A	Large Turboprop	G159, ATR72	0.00	0.00	0.00	0	0	0
SF340	Large Turboprop	Saab & Fairchild - SF-340	0.25	0.00	0.25	91	0	91
Total all GA Non-jet operations			**193.10**	**5.79**	**198.89**	**70483**	**2112**	**72596**
		Helicopter						
B206L	Helicopter	Bell Jetranger	17.49	3.65	21.13	6382	1331	7713
BO105	Helicopter	Bell 412	13.68	2.85	16.54	4995	1041	6036
H500D	Helicopter	Robinson 22, 44	6.08	1.27	7.35	2220	463	2683
S76	Helicopter	Sikorsky S-76	0.76	0.16	0.92	277	58	335
Total all GA Helicopter operations			**38.01**	**7.93**	**45.94**	**13874**	**2893**	**16767**

Table 16 – 2010 Pattern Operations

			Patterns (Pattern = 2 operations)			Annual totals		
INMTYPE	Category	Typical Aircraft Type	Day	Night	Total	Day	Night	Total
BEC58P	Twin Piston	Baron58, Piper 27, 30, 31	27.13	0.00	27.13	19802	0	19802
CNA172	Single Piston	Cessna - Skyhawk 172	28.68	0.00	28.68	20933	0	20933
GASEPF	Single Piston	Piper 28, Beech 23, 24	10.34	0.00	10.34	7547	0	7547
GASEPV	Single Piston	Piper 32, 46, Beech 35, 36	23.30	0.00	23.30	17008	0	17008
H500D	Helicopter	Robinson 22, 44	35.78	0.00	35.78	26116	0	26116
B206L	Helicopter	Bell Jetranger	23.85	0.00	23.85	17411	0	17411
Total			**149.07**	**0.00**	**149.07**	**108816**	**0**	**108816**

Two contour sets are being developed for 2010. The first is a No-build case and for that scenario the Operations listed in Tables 14 thru 16 will be modeled and the Runway use and track use will be the same as in 2003. The average annual day operations modeled for the 2010 No-build case is 611.29 operations.

The second scenario, which will be developed for 2010, is a build condition. This condition consists of a 2000' extension to the west on the southern runway. The extension is not intended to add scheduled service but to allow larger air taxi and general aviation aircraft to use the airport. The extension will primarily benefit jet operations. After discussions with TMB staff, we increased the jet operations by five percent to account for the runway extension. This increased the total number of operations modeled per day from 611.29 for the No-build to 614.56 for the build scenario. Table 17 presents the total jet operations for the air taxi and general aviation groups.

The air taxi jet operations increase from 4.78 ops per day to 5.02 ops per day. The general aviation jet operations increase from 60.62 ops per day to 63.65 ops per day.

Table 17 – Jet Operations for the 2010 Build Scenario

INMTYPE	Category	Typical Aircraft Type	Average Day			Annual totals		
			Day	Night	Total	Day	Night	Total
Total all Air Taxi Jets operations			4.90	0.12	5.02	1788	44	1832
Total all GA Jet operations			60.76	2.90	63.65	22178	1056	23234

4.1.3 2010 Future Runway Use

Since the 2010 future operations retain the same mixture of aircraft as 2003, it is reasonable to use the 2003 runway use also for the 2010 No-build scenario. The 2003/2010 No-build runway use is provided in Table 5.

Due to the extension on the southern runway, we shifted two percent of the jet departure use of 09L to 09R. Since 09R will be longer more jet aircraft will prefer to use 09R in the build scenario. Table 18 presents the runway use for the 2010 build scenario.

Table 18 - Runway Use for the 2010 Build Scenario

Runway Use by Aircraft group				
Jet Operations				
	Arrivals		**Departures**	
Runway	**Day**	**Night**	**Day**	**Night**
13	1%	5%	4%	10%
31	1%	2%	1%	1%
09L	2%	0%	21%	0%
27R	1%	0%	1%	0%
09R	73%	76%	54%	70%
27L	22%	17%	19%	19%
	100%	100%	100%	100%
Turboprop Operations				
	Arrivals		**Departures**	
Runway	**Day**	**Night**	**Day**	**Night**
13	10%	3%	6%	0%
31	5%	0%	7%	3%
09L	5%	0%	34%	0%
27R	3%	0%	2%	0%
09R	62%	87%	38%	79%
27L	15%	10%	13%	18%
	100%	100%	100%	100%
Piston Operations				
	Arrivals		**Departures**	
Runway	**Day**	**Night**	**Day**	**Night**
13	12%	1%	9%	14%
31	4%	2%	9%	10%
09L	10%	0%	32%	0%
27R	4%	0%	4%	0%
09R	58%	85%	37%	65%
27L	12%	12%	9%	11%
	100%	100%	100%	100%

** ANOMS data and HMMH

4.1.4 2010 Flight Tracks

The flight tracks and track use for the 2010 no-build scenario are the same as 2003. The flight tracks for the build condition were adjusted to use the new end of the runway. The basic flight paths are the same as 2003. Runway 09R departures will begin their start of takeoff roll 2000' farther west than they do today. Arrivals to runway 09R will arrive to the new runway end and arrival procedures to that runway end will not change from what they are in 2003. Arrivals and departures tracks on runway 27L are unaffected by the extension.

5 FUTURE (2010) NO-BUILD NOISE CONTOURS

Figure 8 presents the DNL contours for 2010 and compares them to the 2003 contours at TMB. The future contours are developed from the information provided in Section 4 and the existing base case noise contours as developed from the information contained in Section 2.

On the north side of the airport the contours following runway 09L-27R show almost no change between the 2003 and 2010 no-build scenarios. There is a slight increase to the east, which is primarily due to the increase in operations and eastbound departures.

Along the crosswind runway there is almost no change in the contour. This is due to the small increase in operations and less jet traffic than the parallel runways. The use of the crosswind runway remains the same between the two years.

Runway 09R-27L is the main runway at TMB and there is a more noticeable change in the contour due to its use. The increase in operations is mostly noticeable along this runway. Since the use of the runway is the same between both years the increase has the same shape as the 2003 DNL contours. The contour to the east is dominated by departure noise and shows the most increase along the extended runway centerline. The contour to the west is dominated by arrival noise and again the largest increase is along the extended centerline.

The increase in traffic at TMB by 2010 will not create a significant change in noise levels at the airport but it does show an increase in noise to the east, which is residential property.

Figure 8 2010 No-Build and 2003 DNL Contours

6 FUTURE (2010) BUILD NOISE CONTOURS

Figure 8 presents the DNL contours for 2010 with the runway extension and compares them to the 2010 No-build contours at TMB.

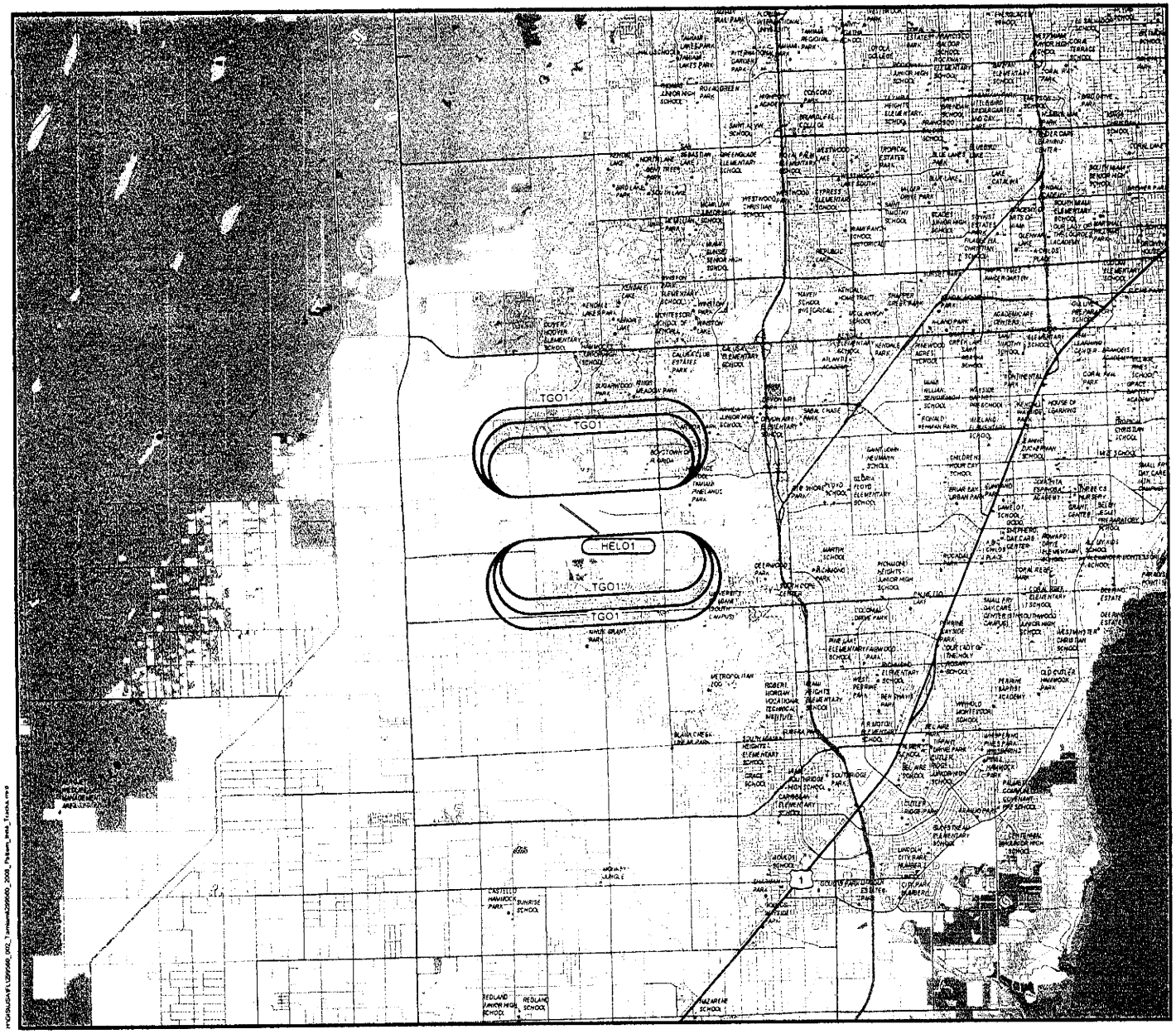
Between the build and no-build noise contours for 2010, there is almost no change in noise exposure along Runway 09L-27R. There is a slight reduction to the east, which is due to the shifting of a small amount of jet operations to the longer runway.

Along the crosswind runway there is almost no change in the contour. This is due to less jet use than the parallels and no change in use between the build and no-build conditions.

Runway 09R-27L is extended to the west for the build scenario. There is a significant change in the contour due to the extension and it has shifted the noise contours to the west. The increase in noise levels to the west is due to the departures beginning their takeoff roll 2000' to the west and arrivals will be using the new end of the runway also. To the east the contour has shifted west also, this is due to the eastbound departures beginning their departure roll farther to the west which allows the aircraft to be higher in the air when it crosses the airport property line to the east. The 65 DNL is almost completely on airport property. Only a small area of the 65 DNL crosses over SW 139th Ave. Westbound departures and arrivals from the east will still use the existing runway 27L end. The area to the west will experience a significant increase in noise levels but most of the area is on airport property and is undeveloped land.

In conclusion, the extension to runway 09R-27L would be a benefit to airport operations and a benefit to the community, which is mainly east of the airport.

Figure 9 2010 Build and 2010 No-Build DNL Contours



MIAMI-DADE

Figure 4
Pattern INM Flight Tracks

Prepared for:

MIAMI-DADE AVIATION DEPARTMENT

Prepared by:

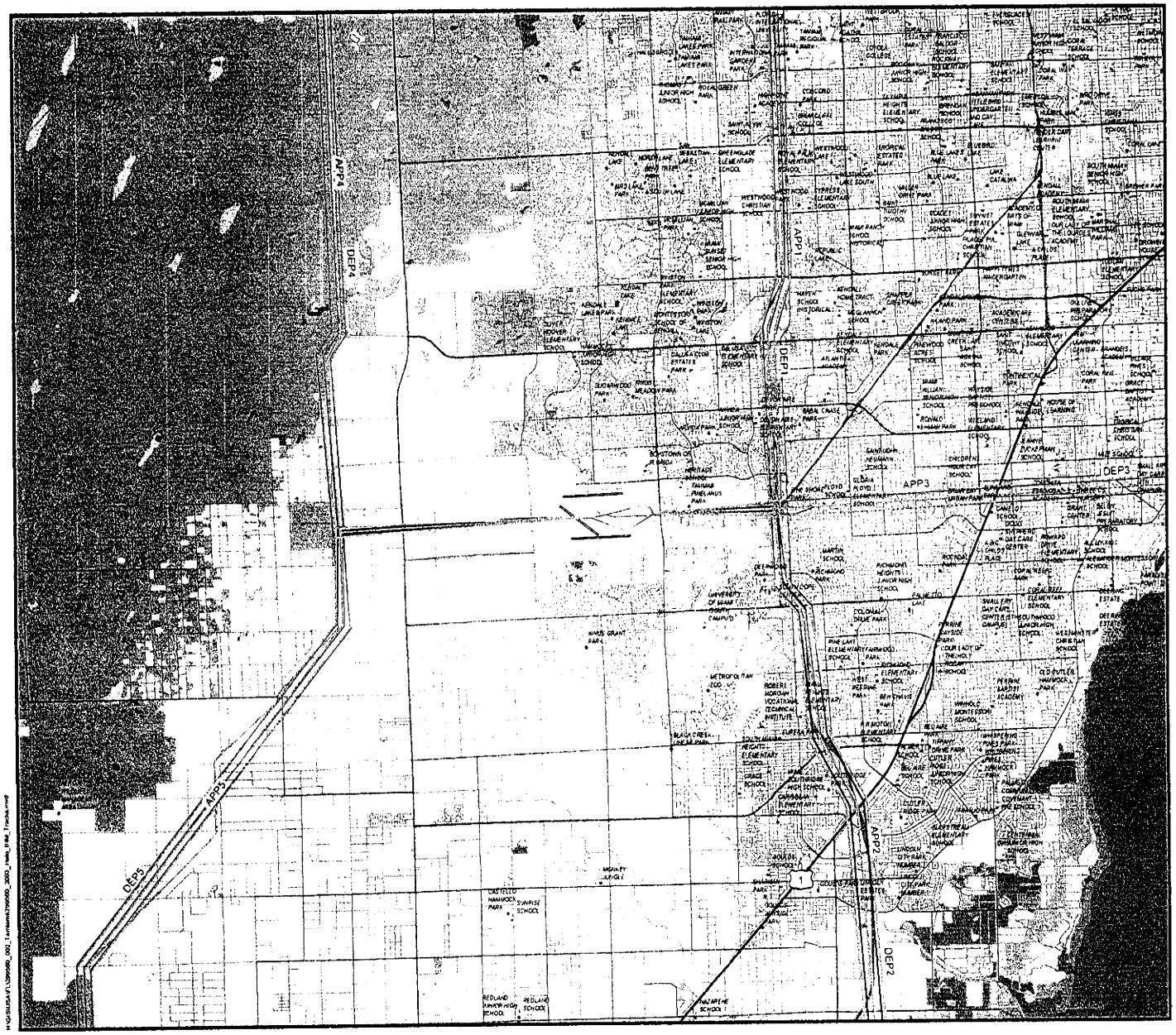
HARRIS MILLER MILLER & HANSON INC.

Legend

- Pattern INM Flight Tracks
- Airport-Runways
- Channel, Stream or Shoreline
- Open Water Features
- Emergent Wetland
- Forested Wetland
- State Parks
- Military Facilities

0 8,000 16,000 Feet

N



MIAMI-DADE

Figure 5
Helicopter INM Flight Tracks

Prepared for:

MIAMI-DADE AVIATION DEPARTMENT

Prepared by:

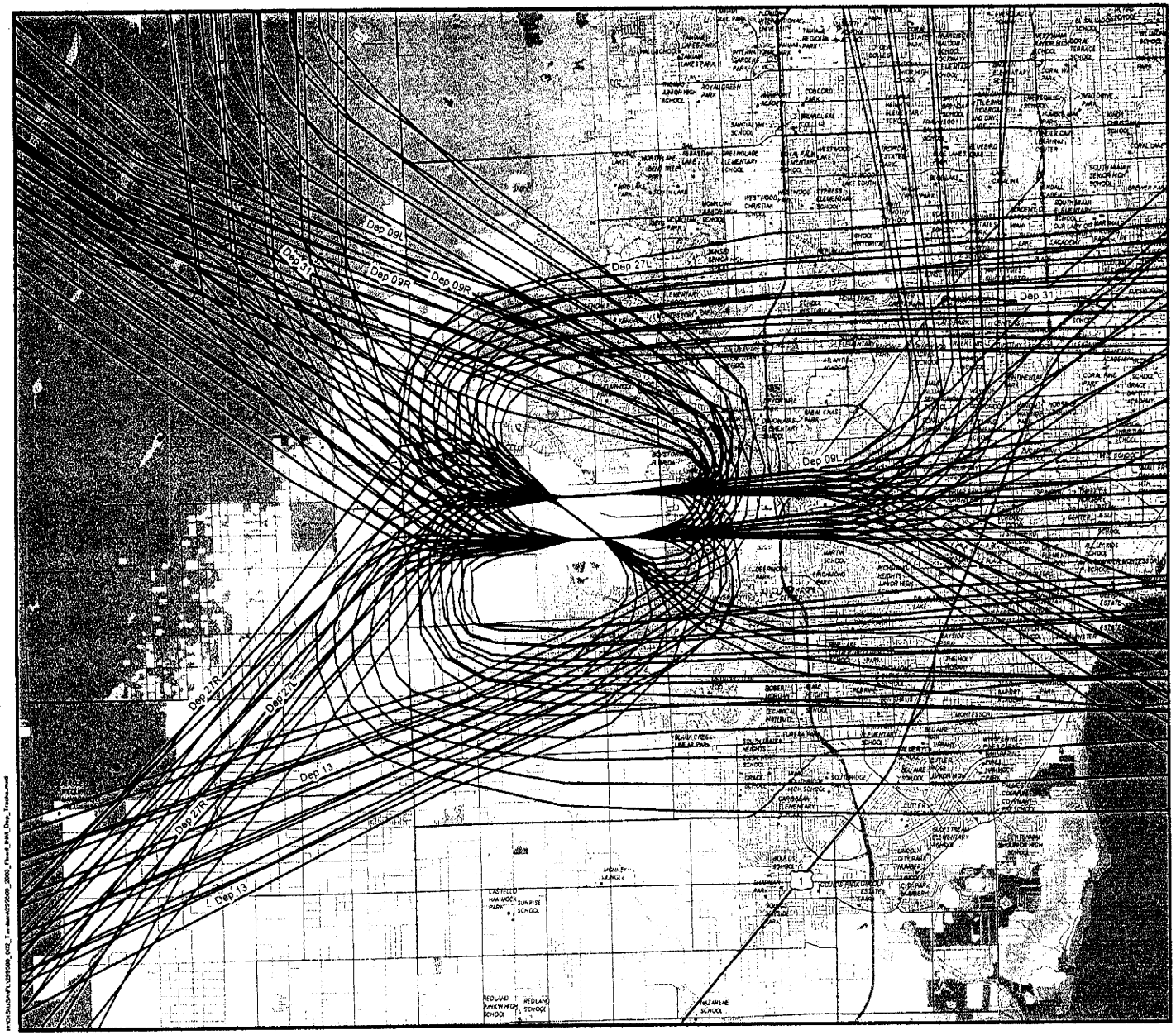
HARRIS MILLER MILLER & HANSON INC.

Legend

- Helicopter INM Arrival Flight Tracks
- Helicopter INM Departure Flight Tracks
- Airport-Runways
- Channel, Stream or Shoreline
- Open Water Features
- Emergent Wetland
- Forested Wetland
- State Parks
- Military Facilities

0 8,000 16,000 Feet

N



MIAMI-DADE

Figure 2
Fixed-wing INM Departure Flight Tracks

Prepared for:

MIAMI-DADE AVIATION DEPARTMENT

Prepared by:

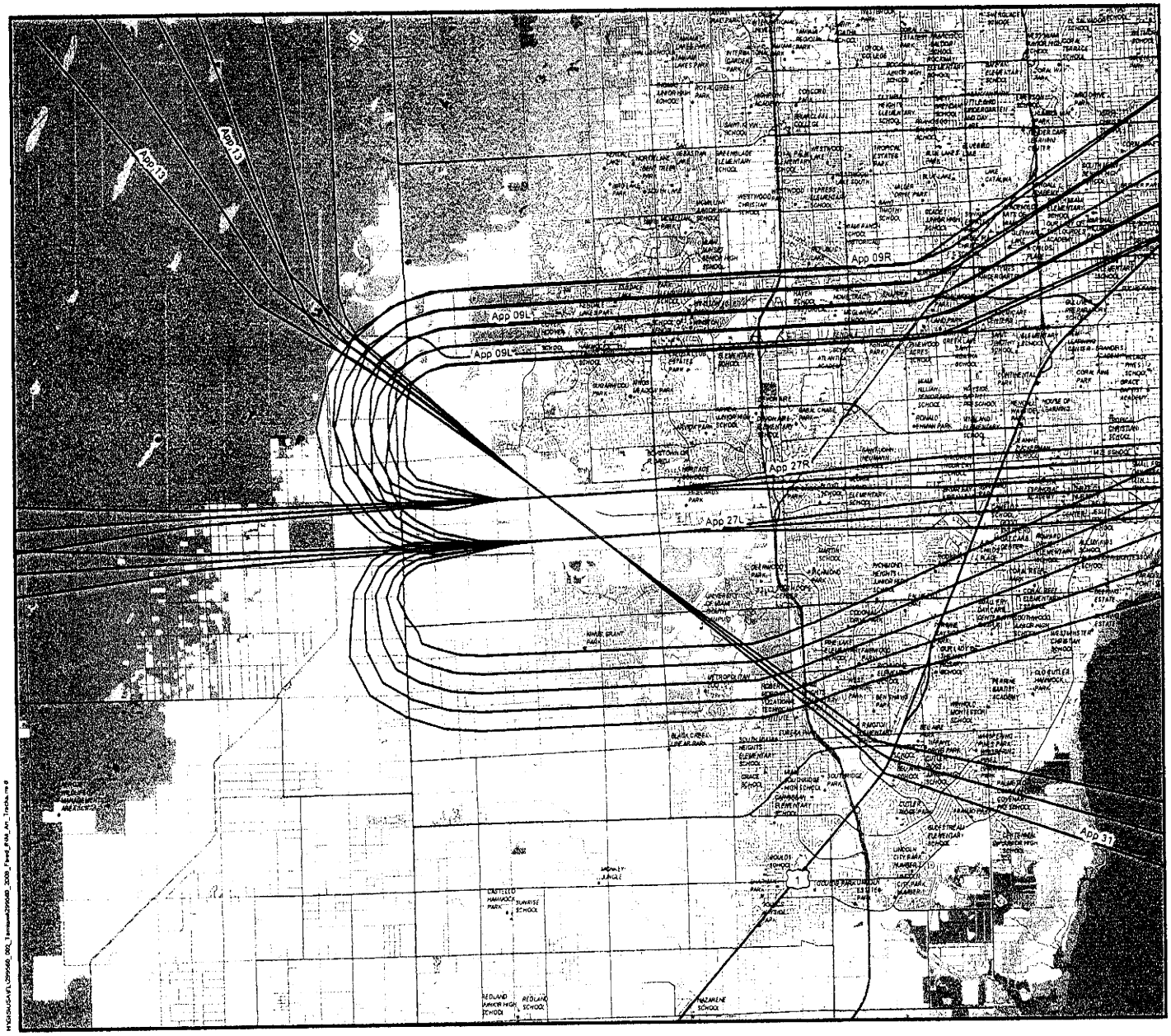
HARRIS MILLER MILLER & HANSON INC.

Legend

- Fixed-wing INM Departure Flight Tracks
- Airport-Runways
- Channel, Stream or Shoreline
- Open Water Features
- Emergent Wetland
- Forested Wetland
- State Parks
- Military Facilities

0 8,000 16,000 Feet

N



MIAMI-DADE

Figure 3
Fixed-wing INM Arrival Flight Tracks

Prepared for:

MIAMI-DADE AVIATION DEPARTMENT

Prepared by:

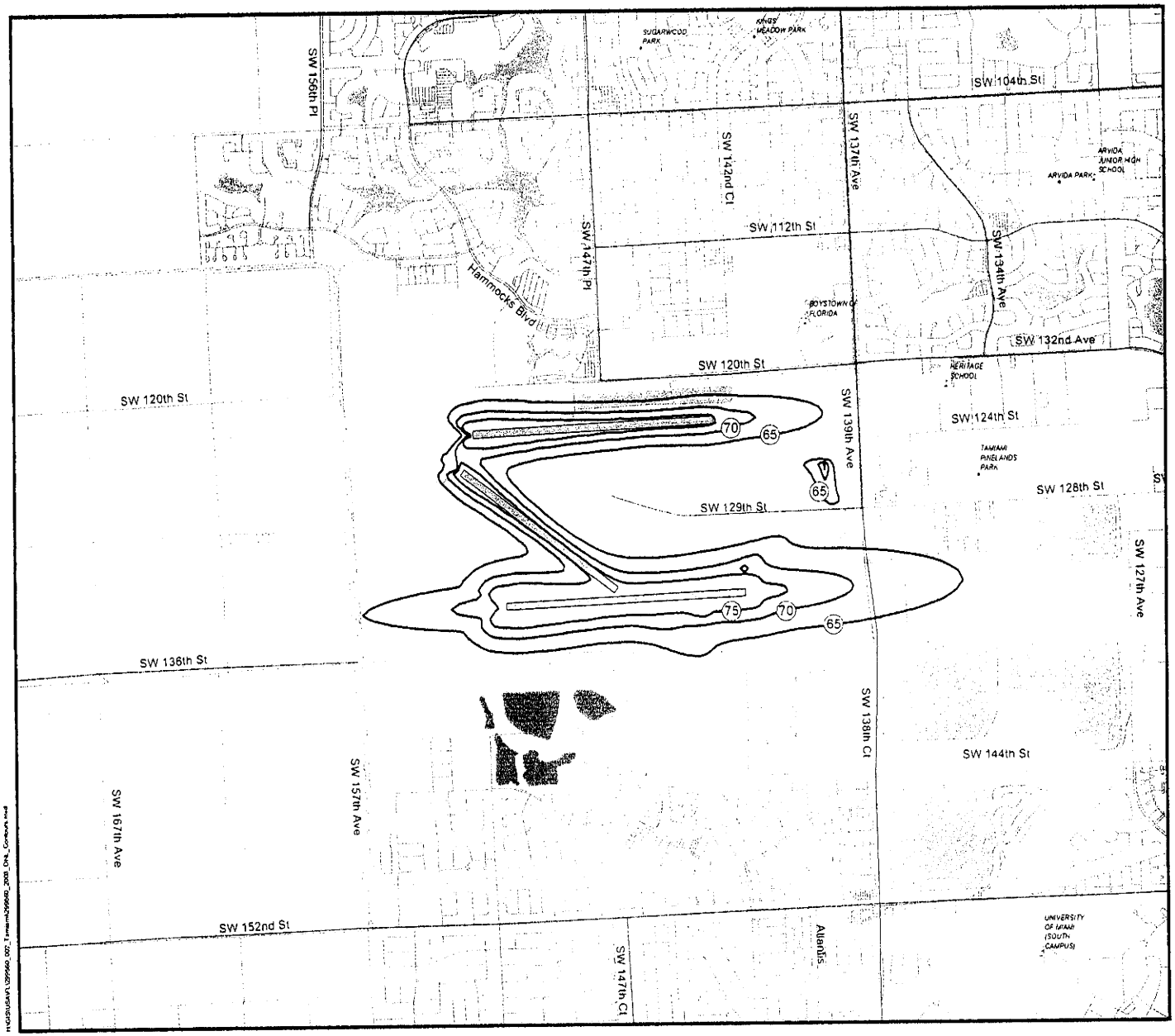
HARRIS MILLER MILLER & HANSON INC.

Legend

- Fixed-wing INM Arrival Flight Tracks
- Airport-Runways
- Channel, Stream or Shoreline
- Open Water Features
- Emergent Wetland
- Forested Wetland
- State Parks
- Military Facilities

0 8,000 16,000 Feet

N



MIAMI-DADE

Figure 6
2003 DNL Contours

Prepared for:

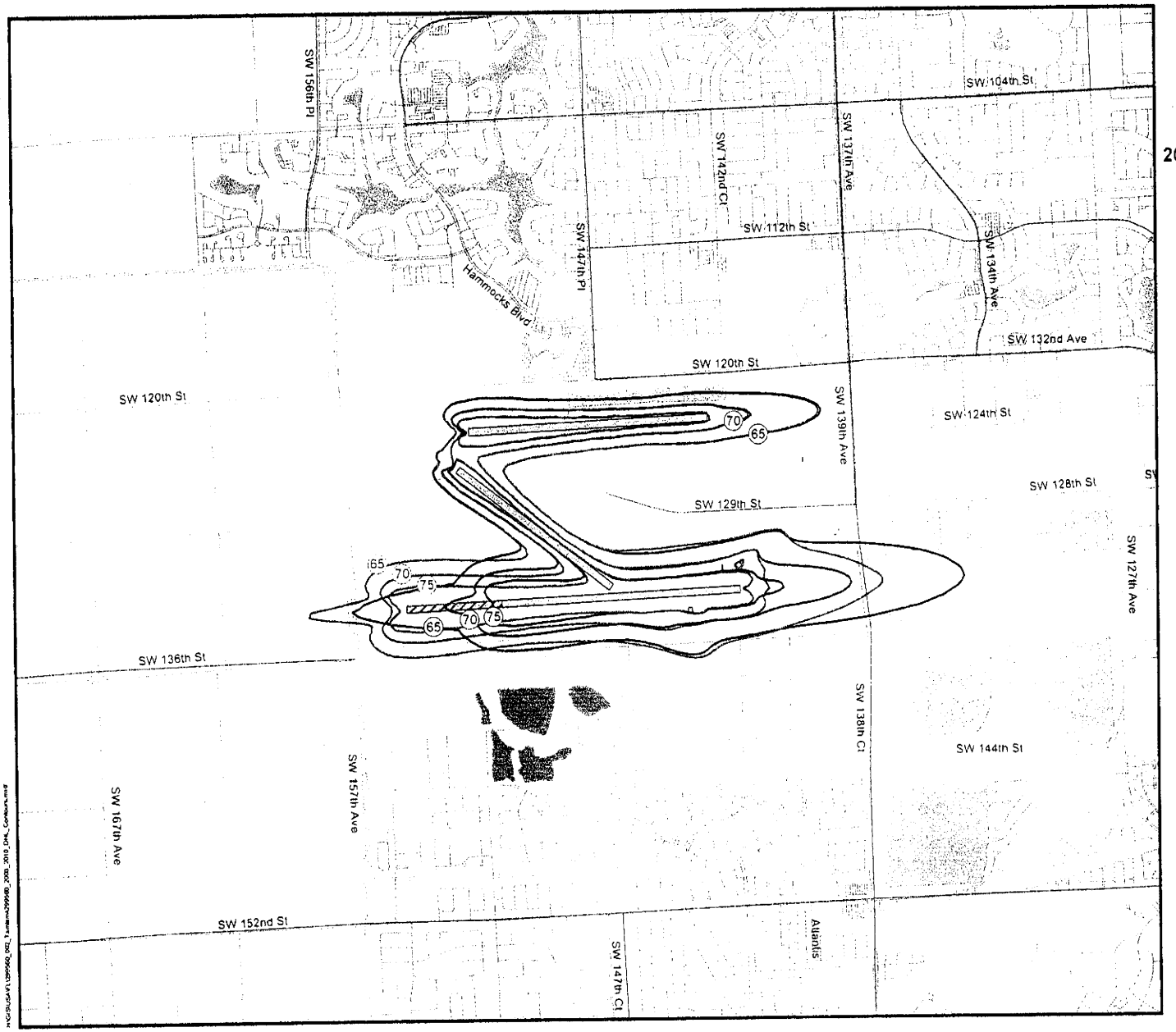
MIAMI-DADE AVIATION DEPARTMENT

Prepared by:

HARRIS MILLER MILLER & HANSON INC.

Legend

- 2003 DNL Noise Contours
- Airport-Runways
- Channel, Stream or Shoreline
- Open Water Features
- Emergent Wetland
- Forested Wetland
- State Parks
- Military Facilities



MIAMI-DADE

Figure 9
2010 No Build vs. 2010 Build DNL Contours

Prepared for:

MIAMI-DADE AVIATION DEPARTMENT

Prepared by:

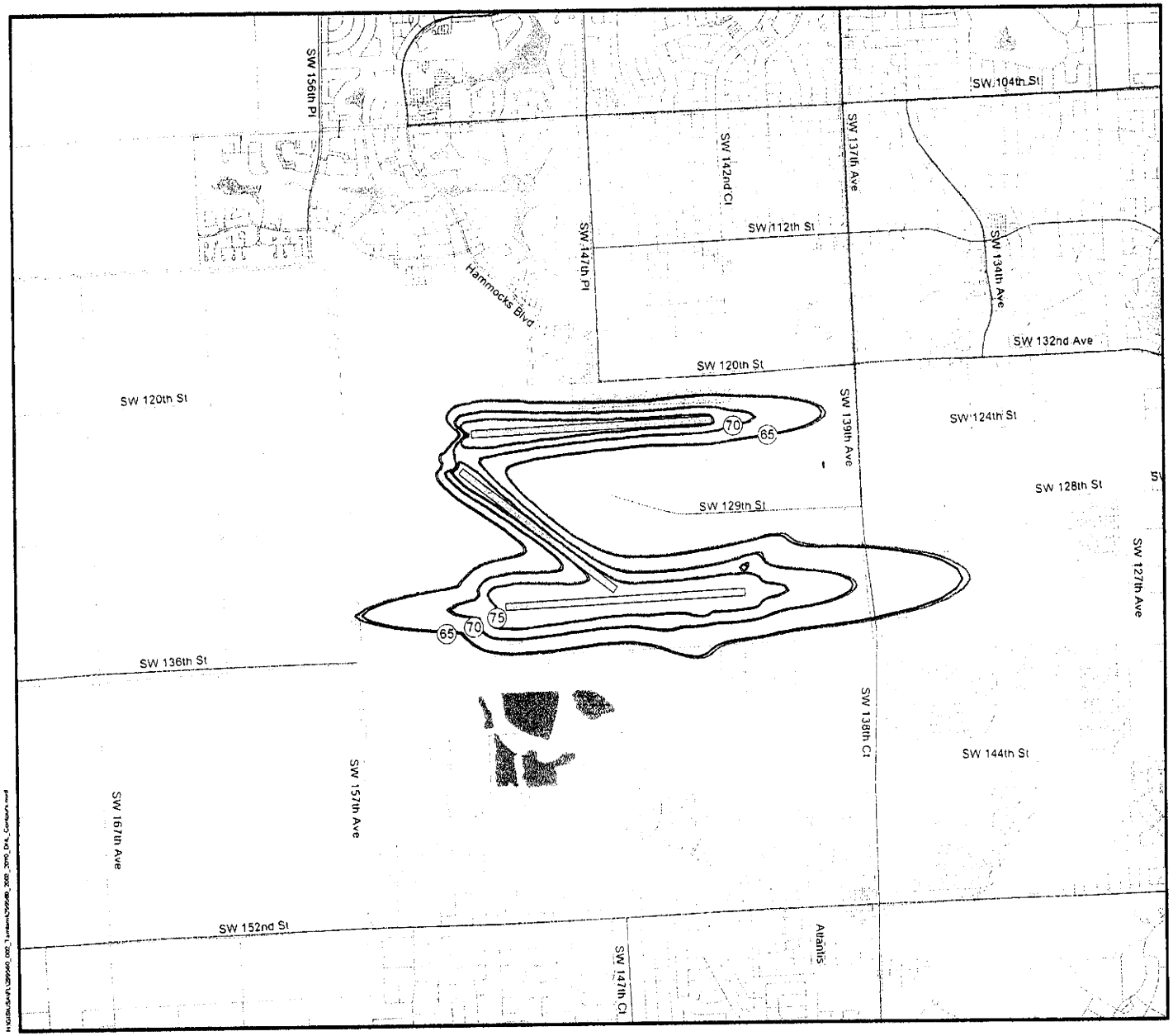
HARRIS MILLER MILLER & HANSON INC.

Legend

- 2010 Build DNL Noise Contours
- 2010 No Build DNL Noise Contours
- Runway Extension (2010 Build)
- Airport-Runways
- Channel, Stream or Shoreline
- Open Water Features
- Emergent Wetland
- Forested Wetland
- State Parks
- Military Facilities

0 2,000 4,000 Feet

N



MIAMI-DADE

Figure 8
2003 vs. 2010 No Build DNL Contours

Prepared for:

MIAMI-DADE AVIATION DEPARTMENT

Prepared by:

HARRIS MILLER MILLER & HANSON INC.

Legend

- 2010 No Build DNL Noise Contours
- 2003 DNL Noise Contours
- Airport-Runways
- Channel, Stream or Shoreline
- Open Water Features
- Emergent Wetland
- Forested Wetland
- State Parks
- Military Facilities

0 2,000 4,000 Feet

N

Federal Aviation Administration

The National Aviation Safety Data Analysis Center

Source Databases

Air Registry (AR)

The FAA aircraft registry is a data system used to record and track civil aircraft registered in the United States. Registration occurs at the Federal Aviation Administration in Oklahoma City where the appropriate information is obtained and recorded from the aircraft purchaser. The database is updated in real time as the registry staff obtain and enter the data into the data system. The Registry maintains the permanent records of over 320,000 active civil aircraft and provides approximately 700 copies of aircraft records daily for review to users of the Public Documents Room located in the Registry Building at the Mike Monroney Aeronautical Center in Oklahoma City, Oklahoma.

Aviation Safety Reporting System (ASRS)

The Aviation Safety Reporty System (ASRS) receives, processes, and analyzes reports of unsafe occurrences and hazardous situations that are voluntarily submitted by pilots, air traffic controllers, and others. Information collected by the ASRS is used to identify hazards and safety discrepancies in the National Airspace System. It is also used to formulate policy and to strengthen the foundation of aviation human factors safety research.

Bureau of Transportation Statistics (BTS)

The Bureau of Transportation Statistics (BTS) database contains traffic and capacity statistics on individual Air Carrier operations. BTS is an administration under the Department of Transportation (DOT), at a similar organizational level as the FAA. During the 1970s, when the Civil Aeronautics Board (CAB) was disestablished, the CAB Bureau of Accounts and Statistics came to be what is now the BTS office of Airline Statistics.

FAA Accidents/Incidents Data System (AIDS)

The Accident/Incident Data System (AIDS) database contains data records for general aviation and commercial air carrier incidents since 1978. The NASDAC database for AIDS contains incidents only because NASDAC uses the National Transportation Safety Board (NTSB) accident database as the primary source for accident information. The information contained in AIDS is gathered from several sources including incident reports on FAA Form 8020-5.

Near Midair Collision System (NMACS)

The Near Midair Collision System (NMACS) database is used to record reports of in flight incidents where two aircraft have closed to an unsafe distance and avoided an actual collision.

NTSB Aviation Accident and Incident Data System (NTSB)

The National Transportation Safety Board (NTSB) Aviation Accident and Incident Data System contains information collected during an NTSB investigation of an accident or incident involving civil aircraft within the United States, its territories and possessions, and in international waters. The NTSB Board is an independent Federal agency that investigates every civil aviation accident in the United States and significant accidents in the other modes of transportation, conducts special investigations and safety studies, and issues safety recommendations to prevent future accidents.

NTSB Safety Recommendations to the FAA with FAA Responses

The National Transportation Safety Board (NTSB) uses the information it gathers during accident investigations and the determination of probable cause to make safety recommendations to all elements of the transportation industry. While the recipient of a recommendation does not have to implement the proposed action, it does have to respond formally to the recommendation and specify what action is or is not being taken and why. This database contains the NTSB recommendations to the FAA and the FAA responses.

World Aircraft Accident Summary (WAAS) - Subset

The World Aircraft Accident Summary (WAAS) produced on behalf of the British Civil Aviation Authority, by Airclaims Limited, provides brief details of all known major operational accidents involving air carriers operating jet and turboprop aircraft and helicopters and the larger piston-engined types worldwide.

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Date Updated: 19-SEP-2005

Aviation Accident/Incident Database

Background
The FAA Accident/Incident Data System (AIDS) database contains incident data records for all categories of civil aviation . Incidents are events that do not meet the aircraft damage or personal injury thresholds contained in the National Transportation Safety Board (NTSB) definition of an accident. For example, the database contains reports of collisions between aircraft and birds while on approach to or departure from an airport. While such a collision may not have resulted in sufficient aircraft damage to reach the damage threshold of an NTSB accident, the fact that the collision occurred is valuable safety information that may be used in the establishment of aircraft design standards or in programs to deter birds from nesting in areas adjacent to airports.

Using the Database
Things You Should Know
The FAA issues a separate report for each aircraft involved in an aviation incident. The FAA Accident/Incident Data System (AIDS) database contains incidents that occurred between 1978 and the present. The current system is being revised to reflect the full narrative on all incident reports with an active event date of January 1, 1995 or greater. This will apply to approximately 10,000 reports.

The data is presented in a report format divided into the following categories: Location information, Aircraft Information, Operator Information, Narrative, Findings, Weather/Environmental Information, and Pilot Information.

The FAA Accident/Incident Data System (AIDS) database can be used to:

- browse FAA's aviation incident information
- count aircraft involved in FAA's aviation incidents
- select FAA's incident reports based on:
    - user supplied words or phrases
    - user selected criteria, including:
        - report number
        - date range
        - state
        - aircraft registration number
        - aircraft make and model
        - operator/airline (Part 121 only)
        - type of operation
        - airport identification,

    OR

    - a combination of both user supplied words or phrases AND user selected criteria

Types of Search
Textual search across all data fields is provided. Identifying additional information prior to the search can also narrow the search: Report Number, Start/End Dates, State Code, Aircraft Registration Number, Aircraft Make/Model, Operator/Airline, Type of Operation (FAR Part) and Airport Identifier. Counts presented are of aircraft involved in aviation incidents, and, in general, will exceed the counts of events themselves. Keyword searches using just the text search box will not always return the same number of records as searches conducted using the additional fields on the query screen. This is because the text search box searches for all occurrences of a word or string throughout the report, whereas a field on the search form is tied to a single field on the report.

NASDAC BRIEF REPORT

GENERAL INFORMATION

Data Source:	NTSB AVIATION ACCIDENT/INCIDENT DATA
Event Id:	20001211X13777
Local Date:	11/07/1993
Local Time:	1625
State:	FL
City:	MIAMI
Airport Name:	KENDALL-TAMIAMI EXECUTIVE
Event Type:	ACCIDENT
Injury Severity:	MINOR
Report Status:	FINAL
Mid Air Collision:	NO
Event Location:	OFF AIRPORT/AIRSTRIP

WEATHER INFORMATION

Weather Briefing Complete:	UNKNOWN
Brief Source:	
Basic Weather Conditions:	VISUAL METEOROLOGICAL COND
Light Condition:	DAY
Cloud Condition:	SCATTERED
Cloud Height above Ground Level (ft):	2000
Ceiling Height above Ground Level (ft):	8000
Cloud Type:	BROKEN
Visibility RVR (ft):	0
Visibility RVV (sm):	0
Visibility (sm):	7
Wind Direction (deg):	60
Wind Condition Flag:	U
Wind Speed (knots):	10
Wind Condition Indicated:	Unknown
Visibility Restrictions:	
Precipitation Type:	

AIRCRAFT INFORMATION

Aircraft 1

Category of Operation:	
Aircraft Type:	AIRPLANE
Aircraft Homebuilt:	YES
Aircraft Damage:	SUBSTANTIAL
Phase of Flight:	MANEUVERING
Aircraft Make:	
Aircraft Model:	
Aircraft Series:	
Operator Doing Business As:	
Operator Name	
Owner Name	S & R AVIATION ENTERPRISES
NTSB Report Number:	MIA94LA016
Number of Seats:	1
Number of Engines:	1
ELT Installed:	NO
ELT Operated:	UNKNOWN
Aircraft Use:	PERSONAL
Type of Operation:	PART 91: GENERAL AVIATION
Departure Airport Id:	6X6
Departure City:	HOMESTEAD
Departure State:	FLORIDA
Last Departure Point:	NO
Destination Local:	LOCAL FLIGHT
Destination Airport Id:	
Destination City:	
Destination State:	
Runway Id:	0
Runway Length:	
Runway Width:	
Flight Plan Filed:	NONE
Domestic/International:	
Passenger/Cargo:	
Registration Number:	N55SR
Air Carrier Operating Certificates:	NO
Air Carrier Other Operating Certificates:	NO
Rotocraft/Agriculture Operating Certificate:	UNKNOWN
Cert Max Gross Wgt:	1150
Aircraft Fire:	NONE
Aircraft Explosion:	NONE

Landing Gear:
ATC Clearance
Landing Gear
Runway Condition
Landing Surface

ENGINE INFORMATION

Aircraft 1 - Engine #:1

Engine Type:	RECIPROCATING
Engine Group	
Engine Manufactuer	LYCOMING
Engine Make	LYCOMI
Engine Model	IO-360
Engine Cert Type	
Engine Horsepower	200
Engine Thrust	HP
Carb/Injection	FUEL INJECTED
Propeller Type	

Injury Summary for Aircraft 1

	Fatal	Serious	Minor	None
Crew	0	0	1	0
Pass				
Total	0	0	1	0

Pilot-in-Command for Aircraft 1

Certificates:	COMMERCIAL
Ratings:	
Plane:	
Non-Plane:	
Instrument:	
Instruction:	

Had Current BFR:	Y
Months Since Last BFR:	

Medical Certificate: CLASS 3
Medical Certificate Validity: VALID MEDICAL--W/ WAIVERS/LIM.

Flight Time (hours)

Total	:	1045
Make/Model	:	25
Instrument	:	0
Multi-Engine	:	97
Last 24 Hours	:	0
Last 30 Days	:	3
Last 90 Days	:	9
Rotocraft	:	0

Sequence of Events
Aircraft 1
Occurrence #: 1
LOSS OF ENGINE POWER (TOTAL) - NON-MECHANICAL
Phase of Operation: MANEUVERING

Findings

Event Seq #	Event Group Code	Subject	Modifier	Personnel	Cause/Factor
1	1	FLUID, FUEL	EXHAUSTION		
2	2	AIRCRAFT PREFLIGHT	INADEQUATE	PILOT IN COMMAND	CAUSE

Occurrence #: 2
FORCED LANDING
Phase of Operation: DESCENT - EMERGENCY

Findings

Event Seq #	Event Group Code	Subject	Modifier	Personnel	Cause/Factor

Occurrence #: 3
IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: DESCENT - EMERGENCY

Findings

Event Seq #	Event Group Code	Subject	Modifier	Personnel	Cause/Factor
1	1	OBJECT	WIRE, STATIC		

Occurrence #: 4
IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: DESCENT - UNCONTROLLED

Findings

Event Seq #	Event Group Code	Subject	Modifier	Personnel	Cause/Factor
1	1	OBJECT	TREE(S)		

Occurrence #: 5
IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED

Findings

Event Seq #	Event Group Code	Subject	Modifier	Personnel	Cause/Factor
1	1	TERRAIN CONDITION	GROUND		

AIRCRAFT 1 PRELIMINARY REPORT

On November 7, 1993, about 1625 eastern standard time, a Lovern Pitts S1C, N55SR, registered to S and R Aviation Enterprises, Inc., collided with a power line, tree, then the ground near Miami, Florida, while on a 14 CFR Part 91 personal flight. Visual meteorological conditions prevailed at the time and no flight plan was filed. The airplane was substantially damaged and the commercial-rated pilot sustained minor injuries. The flight originated from Richards Field, Homestead, Florida, about 25 minutes earlier. The pilot stated that before departure during the airplane preflight, he observed that the lower fuel tank quantity sight gauge indicated that the tank contained about 10 gallons of fuel. He did not mention in either a written statement or telephone interview that he verified the sight gauge indication by looking in the fuel tank. The flight departed and when it was east of the Kendal-Tamiami Executive Airport, the engine sputtered. He pushed the mixture control full rich and applied full throttle, which restored engine power. He then advised Tamiami Tower personnel of the engine malfunction and was given a vector to fly direct to the airport. While proceeding to the airport, the engine sputtered. Attempts to restore power were unsuccessful. Unable to maintain altitude he initiated an emergency descent for a forced landing. During the descent the airplane collided with a power line, tree, then the ground. The airplane came to rest laying on its left side. According to the police report, debris from the airplane damaged two vehicles. The duration of the flight was .28 hour, indicated by the tachometer. An FAA operations inspector arrived at the accident site about 35 minutes after the accident and reported that he did not see any evidence of fuel leakage on the ground nor did he smell fuel. Additionally, a lieutenant with the fire department stated that his unit was the first to arrive at the accident site and he did not observe any fuel leakage from the airplane. He also stated that the fuel quantity sight gauge indicated empty and that he did observe an oil stain on the ground beneath the engine. A police officer who also responded to the accident site stated that he observed the oil stain on the ground below the engine assembly but did not observe any fuel leaking from the airplane. A witness who stated she is an FAA certificated pilot told an FAA inspector that she witnessed the accident. After the accident she asked the pilot why he was landing on the road to which he responded that he ran out of fuel. An individual called the NTSB investigator-in-charge after reading an article in a local newspaper in which the pilot was disputing preliminary NTSB findings. The individual stated that he witnessed the accident and when he arrived at the accident site, the pilot was still in the airplane. He stated that he did observe oil leakage below the engine assembly but did not observe any fuel leaking from the airplane. He further stated that he was not interviewed at the scene. The airplane was taken to a facility for storage and was examined by several FAA airworthiness inspectors 2 days after the accident. Examination of the airplane revealed that it had two fuel tanks installed. The upper fuel tank was marked, which indicates it has a 5-gallon capacity and

the lower tank is marked indicating a 19-gallon capacity. The upper fuel tank selector valve was in the closed position and the lower fuel tank selector valve was in the open position. Both fuel tank caps were installed and the upper fuel tank was damaged although the tank was not compromised. The lower fuel tank was not compromised. The sump drain for the lower tank was opened and about 1 cup of fuel was drained. The sump drain for the upper tank was opened and no fuel drained. The fuel line from the engine-driven fuel pump to the fuel servo was disconnected at the fuel pump and a small quantity (several drops) were drained. The fuel line from the fuel servo to the fuel distribution valve was removed and no fuel was noted. The total quantity of fuel drained was about 8 ounces of fuel. The airplane was transferred to another storage facility and several months after the accident, with the airplane in an upright, level attitude, the lower fuel tank was filled with water. Leakage on the floor was indicated from a damaged fuel line attached to the right main landing gear. The fuel line is reportedly the overboard expansion drain line. The fuel quantity site gauge correctly indicated full. A flight log which documents airplane operation and fuel servicing is attached to this report. Review of the log revealed that the airplane had been operated for .96 hour, indicated by the tachometer, since the last documented fuel servicing. The pilot stated that fuel servicing was not always recorded in the log.

AIRCRAFT 1 FINAL REPORT

AFTER TAKEOFF WHILE MANEUVERING, THE ENGINE EXPERIENCED TOTAL LOSS OF ENGINE POWER DUE TO FUEL EXHAUSTION. DURING THE DESCENT FOR A FORCED LANDING, THE AIRPLANE COLLIDED WITH A POWERLINE, A TREE, AND THEN THE GROUND. THERE WAS NO FUEL LEAKAGE AT THE ACCIDENT SITE. THE AIRPLANE HAD BEEN OPERATED FOR .96 HOUR, INDICATED BY THE TACHOMETER SINCE DOCUMENTED FUELING.

AIRCRAFT 1 CAUSE REPORT

INADEQUATE PREFLIGHT BY THE PILOT-IN-COMMAND RESULTING IN THE TOTAL LOSS OF ENGINE POWER DUE TO FUEL EXHAUSTION.

END REPORT

Printed on 3/24/2006

National Transportation Safety Board FACTUAL REPORT AVIATION	NTSB ID: MIA94LA016	Aircraft Registration Number: N55SR
	Occurrence Date: 11/7/1993	Most Critical Injury: Minor
	Occurrence Type: Accident	Investigated By: NTSB

Location/Time

Nearest City/Place	State	Zip Code	Local Time	Time Zone
MIAMI	FL	33156-	1625	EST

Airport Proximity: Off Airport/Airstrip | Distance From Landing Facility: 6 | Direction From Airport: 90

Aircraft Information Summary

Aircraft Manufacturer	Model/Series	Type of Aircraft
LOVERN	PITTS S1C	Airplane

Sightseeing Flight: No **Air Medical Transport Flight:** No

Narrative

Brief narrative statement of facts, conditions and circumstances pertinent to the accident/incident:

On November 7, 1993, about 1625 eastern standard time, a Lovern Pitts S1C, N55SR, registered to S and R Aviation Enterprises, Inc., collided with a power line, tree, then the ground near Miami, Florida, while on a 14 CFR Part 91 personal flight. Visual meteorological conditions prevailed at the time and no flight plan was filed. The airplane was substantially damaged and the commercial-rated pilot sustained minor injuries. The flight originated from Richards Field, Homestead, Florida, about 25 minutes earlier.

The pilot stated that before departure during the airplane preflight, he observed that the lower fuel tank antity sight gauge indicated that the tank contained about 10 gallons of fuel. He did not mention in either a written statement or telephone interview that he verified the sight gauge indication by looking in the fuel tank.

The flight departed and when it was east of the Kendal-Tamiami Executive Airport, the engine sputtered. He pushed the mixture control full rich and applied full throttle, which restored engine power. He then advised Tamiami Tower personnel of the engine malfunction and was given a vector to fly direct to the airport. While proceeding to the airport, the engine sputtered. Attempts to restore power were unsuccessful. Unable to maintain altitude he initiated an emergency descent for a forced landing. During the descent the airplane collided with a power line, tree, then the ground. The airplane came to rest laying on its left side. According to the police report, debris from the airplane damaged two vehicles. The duration of the flight was .28 hour, indicated by the tachometer.

An FAA operations inspector arrived at the accident site about 35 minutes after the accident and reported that he did not see any evidence of fuel leakage on the ground nor did he smell fuel. Additionally, a lieutenant with the fire department stated that his unit was the first to arrive at the accident site and he did not observe any fuel leakage from the airplane. He also stated that the fuel quantity sight gauge indicated empty and that he did observe an oil stain on the ground beneath the engine. A police officer who also responded to the accident site stated that he observed the oil stain on the ground below the engine assembly but did not observe any fuel leaking from the airplane.

A witness who stated she is an FAA certificated pilot told an FAA inspector that she witnessed the accident. After the accident she asked the pilot why he was landing on the road to which he responded that ' e ran out of fuel.

An individual called the NTSB investigator-in-charge after reading an article in a local newspaper in

(Continued on next page)

Narrative (Continued)

which the pilot was disputing preliminary NTSB findings. The individual stated that he witnessed the accident and when he arrived at the accident site, the pilot was still in the airplane. He stated that he did observe oil leakage below the engine assembly but did not observe any fuel leaking from the airplane. He further stated that he was not interviewed at the scene.

The airplane was taken to a facility for storage and was examined by several FAA airworthiness inspectors 2 days after the accident. Examination of the airplane revealed that it had two fuel tanks installed. The upper fuel tank was marked, which indicates it has a 5-gallon capacity and the lower tank is marked indicating a 19-gallon capacity. The upper fuel tank selector valve was in the closed position and the lower fuel tank selector valve was in the open position. Both fuel tank caps were installed and the upper fuel tank was damaged although the tank was not compromised. The lower fuel tank was not compromised. The sump drain for the lower tank was opened and about 1 cup of fuel was drained. The sump drain for the upper tank was opened and no fuel drained. The fuel line from the engine-driven fuel pump to the fuel servo was disconnected at the fuel pump and a small quantity (several drops) were drained. The fuel line from the fuel servo to the fuel distribution valve was removed and no fuel was noted. The total quantity of fuel drained was about 8 ounces of fuel.

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A flight log which documents airplane operation and fuel servicing is attached to this report. Review of the log revealed that the airplane had been operated for .96 hour, indicated by the tachometer, since the last documented fuel servicing. The pilot stated that fuel servicing was not always recorded in the log.

National Transportation Safety Board
FACTUAL REPORT
AVIATION

NTSB ID:	MIA94LA016
Occurrence Date:	11/7/1993
Occurrence Type:	Accident

Landing Facility/Approach Information

Airport Name	Airport ID:	Airport Elevation	Runway Used	Runway Length	Runway Width
KENDAL-TAMIAMI EXECUTIVE	TMB	Ft. MSL	0		

Runway Surface Type:

Runway Surface Condition:

Type Instrument Approach:

VFR Approach/Landing: Forced Landing

Aircraft Information

Aircraft Manufacturer	Model/Series	Serial Number
LOVERN	PITTS S1C	1DB

Airworthiness Certificate(s): Experimental (Special)

Landing Gear Type: Tailwheel

Homebuilt Aircraft?	Number of Seats:	Certified Max Gross Wt.	Number of Engines:
Yes	1	1150 LBS	1

ne Type:	Engine Manufacturer:	Model/Series:	Rated Power:
procating	LYCOMING	IO-360	200 HP

- Aircraft Inspection Information

Type of Last Inspection	Date of Last Inspection	Time Since Last Inspection	Airframe Total Time
Annual	2/10/1993	20 Hours	991 Hours

- Emergency Locator Transmitter (ELT) Information

ELT Installed?	ELT Operated?	ELT Aided in Locating Accident Site?
No		

Owner/Operator Information

Registered Aircraft Owner	Street Address	City	State	Zip Code
S & R AVIATION ENTERPRISES	444 BRICKELL AVE. SUITE 300	MIAMI	FL	33131

Operator of Aircraft	Street Address	City	State	Zip Code
GOLDSTEIN, STUART A.	13651 SW 77 AVE.	MIAMI	FL	33158

Operator Does Business As: | Operator Designator Code:

- Type of U.S. Certificate(s) Held: None

Air Carrier Operating Certificate(s):

ating Certificate: | Operator Certificate:

egulation Flight Conducted Under: Part 91: General Aviation

Type of Flight Operation Conducted: Personal

National Transportation Safety Board

FACTUAL REPORT AVIATION

NTSB ID:	MIA94LA016
Occurrence Date:	11/7/1993
Occurrence Type:	Accident

First Pilot Information

Name	City	State	Date of Birth	Age
STUART A GOLDSTEIN	MIAMI	FL	On File	51

Sex: M | Seat Occupied: Unknown | Principal Profession: Lawyer | Certificate Number: On File

Certificate(s): Commercial

Airplane Rating(s): Multi-engine Land; Single-engine Land

Rotorcraft/Glider/LTA: None

Instrument Rating(s): Airplane

Instructor Rating(s): None

Type Rating/Endorsement for Accident/Incident Aircraft? No | Current Biennial Flight Review?

Medical Cert.: Class 3 | Medical Cert. Status: Valid Medical--w/ waivers/lim. | Date of Last Medical Exam: 3/8/1993

- Flight Time Matrix	All A/C	This Make and Model	Airplane Single Engine	Airplane Mult-Engine	Night	Instrument Actual	Instrument Simulated	Rotorcraft	Glider	Lighter Than Air
l Time	1045	25	939	97	43	45	76			
ot In Command(PIC)	778	25	706	77	14	34				
Instructor										
Last 90 Days	9	6	9							
Last 30 Days	3	1	3							
Last 24 Hours										

Seatbelt Used? Yes | Shoulder Harness Used? Yes | Toxicology Performed? No | Second Pilot? No

Flight Plan/Itinerary

Type of Flight Plan Filed: None

Departure Point	State	Airport Identifier	Departure Time	Time Zone
HOMESTEAD	FL	6X6	1600	EST

Destination	State	Airport Identifier
Local Flight		

Type of Clearance: None

Type of Airspace: Class G

Weather Information

urce of Briefing: No record of briefing

Method of Briefing:

National Transportation Safety Board
FACTUAL REPORT
AVIATION

NTSB ID: MIA94LA016
Occurrence Date: 11/7/1993
Occurrence Type: Accident

Weather Information

WOF ID	Observation Time	Time Zone	WOF Elevation	WOF Distance From Accident Site	Direction From Accident Site
TMB	1647	EST	10 Ft. MSL	6 NM	270 Deg. Mag.

Sky/Lowest Cloud Condition: Scattered 2000 Ft. AGL
Condition of Light: Day
Lowest Ceiling: Broken 8000 Ft. AGL
Visibility: 7 SM
Altimeter: 30.00 "Hg
Temperature: 26 °C
Dew Point: 21 °C
Wind Direction: 60
Density Altitude: Ft.
Wind Speed: 10
Gusts: 0
Weather Condtions at Accident Site: Visual Conditions
Visibility (RVR): 0 Ft.
Visibility (RVV) 0 SM
Intensity of Precipitation:
Restrictions to Visibility: Haze
Type of Precipitation: None

Accident Information

Aircraft Damage: Substantial
Aircraft Fire: None
Aircraft Explosion None
Classification: U.S. Registered/U.S. Soil

ry Summary Matrix	Fatal	Serious	Minor	None	TOTAL
First Pilot			1		1
Second Pilot					
Student Pilot					
Flight Instructor					
Check Pilot					
Flight Engineer					
Cabin Attendants					
Other Crew					
Passengers					
- TOTAL ABOARD -			1		1
Other Ground	0	0	0		
- GRAND TOTAL -			1		1

NTSB ID:	MIA94LA016
Occurrence Date:	11/7/1993
Occurrence Type:	Accident

Administrative Information

Investigator-In-Charge (IIC)

TIMOTHY W MONVILLE

Additional Persons Participating in This Accident/Incident Investigation:

DAVID S. CARLTON
FAA
MIAMI , FL

BRUCE J. HILL
FAA
MIAMI , FL

DENNIS . WARE
FAA
MIAMI , FL

WILLIAM M. DIBBLEY
FAA
MIAMI , FL

National Transportation Safety Board

Docket Contents

Project Information

Project ID (mkey)	Mode	
37454	Aviation	
NTSB Accident ID	Occurrence Date	Location
MIA94LA016	Nov 07, 1993	MIAMI, FL, United States

Docket Information

Creation Date	Last Modified	Public Release Date & Time
Jun 06, 1995	Jun 06, 1995 02:28	Jun 06, 1995 02:28

Comments

List of Contents

Results 1 through 5 of 5
Total Pages 18/Photos 1

Document	Filing Date	Document Title	Pages	Photo
1	Jun 06, 1995	Pilot/Operator Aircraft Accident Report, NTSB Form 6120.1/2	7	
2	Jun 06, 1995	Witness Statements	7	
3	Jun 06, 1995	Reports from Federal Agencies	3	
4	Jun 06, 1995	Other Pertinent Forms and Reports	1	
5	Jun 06, 1995	PHOTO 1: FUEL DRAINED FROM LOWER FUEL TANK AND FUEL LINES.		1

FM

FORM APPROVED FOR USE THROUGH 11/30/90 BY OMB NO. 3147-0001.

NATIONAL TRANSPORTATION SAFETY BOARD
PILOT/OPERATOR AIRCRAFT ACCIDENT REPORT
This Form To Be Used For Reporting Civil Aircraft Accidents Involving Commercial and General Aviation Aircraft

Location

Nearest City/Place, State, Zip Code	Date of Accident	Local Time (24 HOUR CLOCK)	Zone	Elevation At Accident Site
Miami, Florida	11/07/93	1620 approx	EST	0 Feet MSL ____ Feet MSL

If The Accident Occurred On Approach, Takeoff Or Within 3 Miles Of An Airport, Complete The Following Information

Proximity To Airport:

1. ☐ On Airport 3. ☐ Within 1/2 Mile 5. ☐ Within 1 Mile 7. ☐ Within 3 Miles
2. ☐ Within 1/4 Mile 4. ☐ Within 3/4 Mile 6. ☐ Within 2 Miles 8. ☒ Beyond 3 Miles

Airport Name	Airport Ident	Runway/Landing Surface And Conditions: U. S. 1
Tamiami	TMB	1. Direction: SW 3. Width: 2. Length: 4. Surface: Concr. 5. Condition: Dry

Phase Of Operation:

1. ☐ Standing 3. ☐ Takeoff 5. ☒ Cruise 7. ☐ Approach 9. ☐ Hover/Maneuver
2. ☐ Taxi 4. ☐ Climb 6. ☐ Descent 8. ☒ Landing 10. ☐ Altitude Of In-Flight Occurrence ____ Feet MSL

Aircraft Information

Registration Mark	Aircraft Manufacturer	Aircraft Type/Model	Serial Number	Cert Max Gross WT
N55SR	Donald Lovern	Pitts Sp. S-1S	1DB	1150

Type Of Aircraft
1. ☒ Airplane 5. ☐ Blimp/Dirigible
2. ☐ Helicopter 6. ☐ Ultralight
3. ☐ Glider 7. ☐ Gyroplane
4. ☐ Balloon 8. Specify ____

Type Of Airworthiness Certificate
1. ☐ Normal 5. ☐ Restricted
2. ☐ Utility 6. ☐ Limited
3. ☐ Acrobatic 7. ☒ Experimental
4. ☐ Transport 8. Specify ____

Amateur Built
1. ☒ Yes
2. ☐ No

Landing Gear
1. ☐ Tricycle—Fixed 4. ☐ Tailwheel—Retractable 7. ☐ Skid
2. ☐ Tricycle—Retractable 5. ☐ Tailwheel—Retractable Mains 8. ☐ Ski/Wheel
3. ☒ Tailwheel—Fixed 6. ☐ Amphibian 9. Specify ____

No. Of Seats
Flight/Cabin
Crew 1
Pax ____

Stall Warning System Installed
1. ☐ Yes
2. ☒ No

IFR Equipped
1. ☐ Yes
2. ☒ No

Engine Type
1. ☐ Reciprocating—Carburetor 3. ☐ Turbo Prop 5. ☐ Turbo Fan
2. ☒ Reciprocating—Fuel Injected 4. ☐ Turbo Jet 6. ☐ Turbo Shaft

Engine Manufacturer	Engine Model/Series	Engine Rated Power	Type Of Fire Extinguishing System Used
Lycoming	IO-360	1. 200 Horsepower 2. ____ Lbs. Thrust	1. ☒ None 2. Specify ____

Engine(s)	Date of Mfg.	Mfg. Serial No.	Total Time	Time Since Inspection	Time Since Overhaul
Engine No. 1	Unk.	L-6444-51A	991.43 Hours	19.84 Hours	128.18 Hours
Engine No. 2			Hours	Hours	Hours
Engine No. 3			Hours	Hours	Hours
Engine No. 4			Hours	Hours	Hours

Type Of Maintenance Program
1. ☐ Annual
2. ☐ Manufacturer's Inspection Program
3. ☐ Other Approved Inspection Program (AAIP)
4. ☐ Continuous Airworthiness
5. Specify ~~Condition Inspection~~

Type Of Last Inspection
1. ☒ Annual
2. ☐ 100 Hour
3. ☐ AAIP
4. ☐ Continuous Airworthiness

Date Last Inspection Performed ~~02/10/93~~ (M/D/Y)
Time Since Last Inspection 19.84 Hours
Airframe Total Time 991.43 Hours

Emergency Locator Transmitter (ELT) N/A

ELT Manufacturer	Model/Series	Serial Number	Battery Date (M/D/Y)

Switch 1. ☐ On 2. ☐ Off 3. ☐ Armed
Operated 1. ☐ Yes 2. ☐ No
Aided In Accident Location 1. ☐ Yes 2. ☐ No

Registered Aircraft Owner
S&R Aviation Enterprises, Inc.

Address 444 Brickell Avenue, Suite 300
Miami, Florida 33131

Operator Of Aircraft
1. ☐ Same As Registered Owner
2. Name Stuart A. Goldstein
3. DBS:

Address
1. ☐ Same As Registered Owner
2. 13651 S. W. 77th Avenue
Miami, Florida 33158

Owner/Operator Information (cont.)

Operator (Certificate Number): N/A

Operator Designator (4 Letter Designator): N/A

Purpose Of Flight And Type Of Operation

Regulation Flight Conductor Under
1. [X] FAR 91 (only)
2. [ ] FAR 91D
3. [ ] FAR 103
4. [ ] FAR 121
5. [ ] FAR 125
6. [ ] FAR 129
7. [ ] FAR 133
8. [ ] FAR 135
9. [ ] FAR 137

Purpose Of Flight
X [X] Personal
2. [ ] Business
3. [ ] Instructional
4. [ ] Executive/Corporate
5. [ ] Aerial Application
6. [ ] Aerial Observation
7. [ ] Other Work Use
8. [ ] Public Use
9. [ ] Ferry
10. [ ] Positioning

Operator Authority
FAR 121
1. [ ] Domestic
2. [ ] Flag
3. [ ] Supplemental

FAR 135
4. [ ] On Demand
5. [ ] Commuter

FAR 133
6. [ ] Rotorcraft External Load

FAR 125
7. [ ] Large Aircraft

FAR 129
8. [ ] Foreign

FAR 121, 125, 127, 129, 135 Revenue Operations
1. [ ] Scheduled
2. [ ] Non Scheduled
3. [ ] Domestic
4. [ ] International
5. [ ] Passenger
6. [ ] Cargo
7. Specify

Pilot Information

Pilot Name: Stuart A. Goldstein

Pilot Certificate No.: 1718789

Address: 13651 S. W. 77th Ave Miami, Florida 33158

Nationality: U.S.

Certificate(s)
1. [ ] Student
2. [ ] Private
3. [X] Commercial
4. [ ] Airline Transport
5. [ ] Flight Instructor
6. [ ] Flight Engineer
7. [ ] Military
8. [ ] Foreign
9. [ ] None
10. Specify

Rating(s)
1. [ ] None
2. [ ] Single Engine Land
3. [ ] Single Engine Sea
4. [X] Multiengine Land
5. [ ] Multiengine Sea
6. [ ] Helicopter
7. [ ] Glider
8. [ ] Free Balloon
9. [ ] Airship
10. [ ] Gyroplane

Instrument Rating(s)
1. [ ] None
2. [X] Airplane
3. [ ] Helicopter

Instructor Rating(s)
1. [X] None
2. [ ] Airplane S.E.
3. [ ] Airplane M.E.
4. [ ] Helicopter
5. [ ] Glider
6. [ ] Instrument Airplane
7. [ ] Instrument Helicopter
8. [ ] Ground Instructor
9. Specify

Type Ratings/Student Endorsements

Date Of Biennial Flight Review Or Equivalent (M/D/Y): 03/21/93

BFR Aircraft
1. Make: Mooney
2. Model: Mark 20K

Medical Certificate
1. [ ] None
2. [ ] Class 1
3. [ ] Class 2
4. [X] Class 3

Date Of Last Medical (M/D/Y): 03/08/93

Limitations: Corrective Lenses

Waivers

Date Of Birth (M/D/Y): 02/19/42

Degree Of Injury
1. [ ] None
2. [X] Minor
3. [ ] Serious
4. [ ] Fatal

Seat Occupied
1. [ ] Left
2. [ ] Right
3. [X] Center
4. [ ] Front
5. [ ] Rear

Person At Controls At Time Of Accident
1. [X] Pilot In Command
2. [ ] Second Pilot
3. [ ] Both Pilots
4. [ ] Non-Pilot
5. [ ] No One

Seat Belt Available
1. [X] Yes -2
2. [ ] No

Seat Belt Used
1. [X] Yes
2. [ ] No

Shoulder Harness Available
1. [X] Yes
2. [ ] No

Shoulder Harness Used
1. [X] Yes
2. [ ] No

Source Of Pilot Flight Time Information
1. [X] Pilot Logbook
2. [ ] Operators Estimate
3. [ ] FAA Records
4. [ ] Company
5. Specify

Flight Time Rounded	All A/C	This Make & Model	Airplane Single Engine	Airplane Multiengine	Night	Instrument Actual	Instrument Simulated	Rotorcraft	Glider	Lighter Than Air
Total Time	1045	25	939	97	43	45	76	0	0	0
Pilot In Command (PIC)	778	25	706	77	14	34				
Instructor N/A										
This Make/Model										
Last 90 Days	9	6	9	0	0	0	0			
Last 30 Days	3	1	3	0	0	0	0			
Last 24 Hours	0					0	0			

Second Pilot Information N/A

Second Pilot Responsibilities At The Time Of Accident
1. [ ] Co-Pilot
2. [ ] Dual Student
3. [ ] Safety Pilot
4. [ ] Check Pilot
5. [ ] None (Pilot-Rated Passenger)

Pilot Name:

Pilot Certificate No.:

Address:

Nationality:

Certificate(s)
1. [ ] Student
2. [ ] Private
3. [ ] Commercial
4. [ ] Airline Transport
5. [ ] Flight Instructor
6. [ ] Flight Engineer
7. [ ] Military
8. [ ] Foreign
9. None
10. Specify

SECOND PILOT INFORMATION (cont.)

Rating(s)
1. ☐ None
2. ☐ Single Engine Land
3. ☐ Single Engine Sea
4. ☐ Multiengine Land
5. ☐ Multiengine Sea
6. ☐ Helicopter
7. ☐ Glider
8. ☐ Free Balloon
9. ☐ Airship
10. ☐ Gyroplane

Instrument Rating(s)
1. ☐ None
2. ☐ Airplane
3. ☐ Helicopter

Instructor Rating(s)
1. ☐ None
2. ☐ Airplane S.E.
3. ☐ Airplane M.E.
4. ☐ Helicopter
5. ☐ Glider
6. ☐ Instrument Airplane
7. ☐ Instrument Helicopter
8. ☐ Ground Instructor
9. Specify _____

Type Ratings/Student Endorsements

Date Of Biennial Flight Review Or Equivalent (M/D/Y)

BFR Aircraft
1. Make _____
2. Model _____

Medical Certificate
1. ☐ None
2. ☐ Class 1
3. ☐ Class 2
4. ☐ Class 3

Date Of Last Medical (M/D/Y)

Limitations

Waivers

Date Of Birth

Degree Of Injury
1. ☐ None
2. ☐ Minor
3. ☐ Serious
4. ☐ Fatal

Seat Occupied
1. ☐ Left
2. ☐ Right
3. ☐ Center
4. ☐ Front
5. ☐ Rear

Seat Belt Available
1. ☐ Yes
2. ☐ No

Seat Belt Used
1. ☐ Yes
2. ☐ No

Shoulder Harness Available
1. ☐ Yes
2. ☐ No

Shoulder Harness Used
1. ☐ Yes
2. ☐ No

Source Of Pilot Flight Time Information
1. ☐ Pilot Logbook
2. ☐ Operators Estimate
3. ☐ FAA Records
4. ☐ Company
5. Specify _____

Flight Time	All A/C	This Make & Model	Airplane Single Engine	Airplane Multiengine	Night	Instrument Actual	Instrument Simulated	Rotorcraft	Glider	Lighter Than Air
Total Time										
Pilot In Command (PIC)										
Instructor										
This Make/Model										
Last 90 Days										
Last 30 Days										
Last 24 Hours										

Other Personnel

Name	Seat	Address (City & State)	Crew	Passenger Non-Revenue	Passenger Revenue	Non-Occupant	FAA	Degree Of Injury Fatal	Serious	Minor	None
1.											
2.											
3.											
4.											
5.											
6.											

Flight Itinerary Information

Last Departure Point
1. Airport ID Richards
2. City/Place Homestead
3. State Florida

Time Of Departure
1. Time 1600L Approx
2. Time Zone EST

Destination
1. Airport ID _____
2. City/Place _____
3. State _____

Flight Plan Filed
1. ☒ None
2. ☐ VFR
3. ☐ IFR
4. ☐ VFR/IFR
5. ☐ Company (VFR)
6. ☐ Military (VFR)

If Weather Was Involved, State If Weather Briefing Was Obtained Or If Weather Reports Were Checked And How It Was Accomplished

N/A

Fuel On Board At Last Takeoff
10 Gallons Approx
or
_____ Pounds

Fuel Type
1. ☐ 80/87
2. ☒ 100 Low Lead
3. ☐ 100/130
4. ☐ 115/145
5. ☐ Jet A
6. ☐ Automotive
7. Specify _____

Other Services, If Any, Prior To Departure
None

Weather Information At The Accident Site

Source Of Weather Information (Pilot/Operator, Weather Observation)
Pilot

Light Condition
1. ☐ Dawn
2. ☒ Daylight
3. ☐ Dusk
4. ☐ Bright Night
5. ☐ Dark Night

Visibility
10-15 East
6 West/Haze
Miles

Temp (°F)
80F

Weather Information At The Accident Site (cont.) Same

Dew Point (°F)

Altimeter Setting "Hg

Sky/Lowest Cloud Condition
1. ☐ Clear
2. ☒ Scattered ____ Feet AGL
3. ☐ Broken ____ Feet AGL
4. ☐ Overcast ____ Feet AGL
5. ☐ Partial Obscuration
6. ☐ Obscurred

Wind Information
1. Direction East
2. Velocity 10 KTS
3. Gusts ____ KTS

Restriction To Visibility Haze to West

Type Precipitation None

Intensity Of Precipitation
1. ☐ Light
2. ☐ Moderate
3. ☐ Heavy
4. Specify ____

Turbulence (Multiple entry)
1. ☒ None 2. ☐ Light 3. ☐ Moderate 4. ☐ Severe 5. ☐ Extreme 6. ☐ Clear Air 7. ☐ In Clouds

Damage To Aircraft And Other Property

Degree Of Aircraft Damage
1. ☐ None 2. ☐ Minor 3. ☒ Substantial 4. ☐ Destroyed

Fire
1. ☐ Yes
2. ☒ No
3. ☐ In-Flight
4. ☐ On Ground

Description Of Damage To Aircraft And Other Property

Substantial damage to aircraft. I was told, but do not know, that two cars on U. S. 1 were very slightly damaged and that a power line(s) and/or a transformer were damaged. I do not know extent. No other persons injured.

Mechanical Malfunction Failure
1. ☐ No
2. ☒ Yes List The Name Of The Part, Manufacturer, Part No., Serial No. And Describe The Failure

ENGINE

Total Time

On Part	At Overhaul
991.43 Hours	971.59 Hours

Collision Accident N/A

If Collison Accident Occurred, Complete The Information For Other Aircraft

Registration mark

Aircraft Manufacturer

Aircraft Type/Model

Degree Of Aircraft Damage
1. ☐ Destroyed
2. ☐ Substantial
3. ☐ Minor
4. ☐ None

Registered Aircraft Owner

Address

Pilot Name

Address

Pilot Certificate No.

Evacuation Of Aircraft On my own. Some assistance offered by others.

Assistance Received
1. ☐ Outside Person(s)
2. ☐ Auxiliary Lighting
3. ☐ Slide
4. ☐ Rope
5. ☐ Ladder
6. ☐ Specify ____

Method Of Exit (State Approximate Number Of Persons Using Each Of The Following) Only means of egress
1. Main Door ____ 2. Auxiliary Door ____ 3. Emergency Exit ____

Recommendation (How Could This Accident Have Been Prevented)

Operator/Owner Safety Recommendation (Optional Entry)

Additional Flight Crew Members N/A

For Each Additional Flight Crew Member, Exclusive Of Cabin Attendents Complete The Following Information:

Name	FAA Certificate No.	Address	Title

Certificate(s)
1. ☐ Student
2. ☐ Private
3. ☐ Commercial
4. ☐ Airline Transport
5. ☐ Flight Instructor
6. ☐ Flight Engineer
7. ☐ Foreign
8. Specify

Ratings/Endorsements	Total Flight Time	Flight Time This Accident

Name	FAA Certificate No.	Address	Title

Certificate(s)
1. ☐ Student
2. ☐ Private
3. ☐ Commercial
4. ☐ Airline Transport
5. ☐ Flight Instructor
6. ☐ Flight Engineer
7. ☐ Foreign
8. Specify

Ratings/Endorsements	Total Flight Time	Flight Time This Accident

Name	FAA Certificate No.	Address	Title

Certificate(s)
1. ☐ Student
2. ☐ Private
3. ☐ Commercial
4. ☐ Airline Transport
5. ☐ Flight Instructor
6. ☐ Flight Engineer
7. ☐ Foreign
8. Specify

Ratings/Endorsements	Total Flight Time	Flight Time This Aircraft

Narrative History Of Flight

Describe What Occurred In Chronological Order, The Circumstances Leading To The Accident And The Nature Of The Accident. Describe The Terrain And Include A Sketch Of Wreckage Distribution If Pertinent. Attach Extra Sheets If More Space Is Needed. State Point Of Departure, Time Of Departure, Intended Destination And Services Obtained.

SEE ATTACHED

I Hereby Certify That The Above Information Is Complete And Accurate To The Best Of My Knowledge

Date Of This Report	Signature Of Pilot/Operator
November 15, 1993	Stuart A. Goldstein Stuart A. Goldstein

Signature Of Person Filing Report Other Than Pilot/Operator

1. Signature
2. Type Or Print Name
3. Title

For NTSB Use Only

NTSB Accident No.	Reviewed By NTSB Office Located At	Name Of Investigator	Date Report Received
MIA94LA016	MIAMI, FL	MONVILLE	NOV 18 1993

Narrative History of Flight

I performed a normal pre-flight inspection and took off from Richards Field at approximately 3:50 to 4:00 p.m., on Sunday, November 7, 1993. My pre-flight inspection specifically included, as it always does, checking the fuel sight gauge. The gauge showed fuel at slightly more than 3/4 full. On this aircraft, by experience, this is 10-12 gallons. This amount of fuel is sufficient for more than one hour of flight time. My partner and co-owner of the aircraft, Rob Russo, had pre-flighted the aircraft the previous weekend (but did not fly). During his pre-flight, Mr. Russo noted the fuel level at more than 3/4 full. The aircraft did not fly between Mr. Russo's pre-flight inspection and my flight. Mr. Russo's day phone number is (305) 670-0700.

I proceeded eastbound to east of U.S. 1 and then flew north-east bound, roughly paralleling U.S. 1 to approximately S. W. 152nd Street, where I turned eastbound. I flew eastbound until just east of S. W. 77th Avenue and then turned northbound. Upon reaching S. W. 136th Street, I made two turns and then proceeded eastbound along approximately S. W. 136th Street to Biscayne Bay. At all of the above times, I was at altitudes of between 1500' and 1200' MSL.

I flew over the Bay for a very short time and the engine sputtered. I enriched the mixture to full rich and advanced the throttle to full open and the engine resumed full power. I climbed to 1800' MSL.

I had been monitoring Tamiami (TMB) tower on 118.9, and called to advise of engine problems and asked for a heading directly to TMB, as I could not see the airport due to the haze. TMB gave me a heading of 270 degrees, which I took up. Very shortly thereafter, the engine sputtered again, and I was unable to restore power. At last observation following loss of engine power, I noted the power setting, it was at 1500 rpm. At this time, I was still east of U. S. 1 and was descending because I could not maintain level flight and was looking for a suitable place to land. I called TMB to advise of further engine problems and asked for help as to a place to land. TMB suggested either the Florida Turnpike or U. S. 1. I was too far to reach the Turnpike. U. S. 1 looked like my best option, as I was over a densely populated area and there were no other suitable landing areas that I could see.

I turned south-west bound to line up with the south-west bound lanes of U. S. 1 and prepared to land. Unfortunately, I struck power lines (I do not know which ones) and as I maneuvered away from them (I was still controlling the aircraft) I flew through a tree on the median on U. S. 1. The left side and center of the aircraft struck the tree. The aircraft impacted on the north-east bound lanes. I believe I turned off the master and alternator switches. I opened the canopy and exited the aircraft.

During my pre-flight inspection, I noted the tachometer reading as 127.9. When I checked the tachometer on November 10, 1993, it read 128.18, showing an elapsed time of only .28. Obviously, I had much more than sufficient fuel to fly this short period of time. It was reported by a number of people at the accident sight that they saw and/or smelled fuel.

DATE: 12/14/93 TIME: 1340hrs.

RECORD OF VISIT CONFERENCE OR XXXX TELEPHONE CALL

NAME OF PERSON(S) CONTACTED OR IN CONFERENCE AND LOCATION

BARBARA CINTRON
19217 SW 92 ROAD 305-251-9910 OR 577-2127
MAIMI, FLORIDA 33157

IOP#7

SUBJECT: AIRCRAFT ACCIDENT ON 11/07/93

DIGEST: BARBARA CINTRON STATED TO INSPECTOR MINARY THAT SHE WAS DRIVING NORTH ON U.S. 1 WHEN SHE SEEN AN AIRPLANE ATTEMPTING TO LAND IN THE SOUTHBOUND LANE. SHE STATED THAT THE AIRCRAFT HIT THE POWER LINES, FLIPPED OVER AND ALMOST COLLIDED WITH HER HEAD ON. SHE MANAGED TO SWAY TO THE LEFT TO GET OUT OF THE WAY, HOWEVER THE AIRCRAFT STRUCK THE FRONT END OF HER VEHICLE. SHE STATED THAT SHE THOUGHT SHE WAS GOING TO GET KILLED. SHE FURTHER STATED THAT THE AIRCRAFT HIT A TREE AND CAME TO A STOP. SHE WENT OVER TO SEE IF THE PILOT WAS HURT. SHE STATED THAT HE HAD MINOR INJURIES AND SHE ASKED HIM WHY HE WAS TRYING TO LAND ON U.S. 1 HE STATED TO HER THAT HE HAD RAN OUT OF GAS.

BARBARA CINTRON ALSO STATED THAT SHE IS A FAA LISENSED PILOT

CONCLUSIONS, ACTION TAKEN, OR REQUIRED

REQUESTED A WRITTEN STATEMENT

DATE: 12/14/93 TITLE: AVIATION SAFETY INSPECTOR

SIGNATURE James A. Minary Jr

DATE: 1/20/94 TIME: 1145hrs.

RECORD OF VISIT CONFERENCE OR XXXX TELEPHONE CALL

NAME OF PERSON(S) CONTACTED OR IN CONFERENCE AND LOCATION

MR. RAY CREGO, TOW TRUCK OPERATOR AT SCENE OF ACCIDENT
305-235-6065

SUBJECT: AIRCRAFT ACCIDENT 11/07/93

DIGEST: INSPECTOR MINARY SPOKE TO THE ABOVE LISTED PERSON WHO STATED THAT HE WAS THE PERSON RESPONSIBLE FOR PICKING UP AIRCRAFT REG. N55SR AT SCENE OF ACCIDENT ON 11/07/93. I ASKED MR. RAY CREGO IF HE INSPECTED THE AIRCRAFT FOR ANY FUEL PRIOR TO TOWING THIS AIRCRAFT AND HE STATED THE FOLLOWING. HE HAD LOOKED FOR FUEL PRIOR TO TOWING THE AIRPLANE TO HIS PREMISES LOCATED AT 14294 S.W. 142 AVE. HE STATED THAT HE DID NOT SEE OR SMELL ANY FUEL ANYWHERE AROUND THE AIRCRAFT N55SR.

I OP #9

CONCLUSIONS, ACTION TAKEN, OR REQUIRED

DATE: 1/20/94 TITLE: AVIATION SAFETY INSPECTOR

SIGNATURE

NATIONAL TRANSPORTATION SAFETY BOARD ECORD OF [ ] VISIT [ ] CONFERENCE OR [X] TELEPHONE CALL	Time 0846	Date 12/29/93

ame(s) of Person(s) contacted or in conference and location	Routing Symbol	Routing Initials
Mr. Aurelio Sica		
Subject N55SR		

Digest

He stated that he called to report what he observed at the accident site and that he departed the scene before he was interviewed. He observed the airplane fly over his car about 150 feet above ground level then heard an explosion and saw the airplane descend through trees and impact the ground. When he arrived at the accident site, the pilot was still in the airplane and he did observe oil leakage below the engine but there was no fuel leakage whatsoever.

Conclusions, Action Taken, or Required

Date	Title	Signature
12/29/93	ASI	Timothy W. Monville

NTSB Form 1320.12 (5/70)

NATIONAL TRANSPORTATION SAFETY BOARD RECORD OF [ ] VISIT [ ] CONFERENCE OR [X] TELEPHONE CALL	Time 0920	Date 12/10/93

Name(s) of Person(s) contacted or in conference and location	Routing Symbol	Routing Initials
Lieutenant Jim Horachek		
Metro Dade Fire Department		
Subject N55SR		

Digest

He stated that when he was on scene, he didn't recall seeing or smelling any fuel leakage. He also stated that Lieutenant Roberts could provide additional information.

Conclusions, Action Taken, or Required

Date	Title	Signature
12/10/93	ASI	Timothy W. Monville

NTSB Form 1320.12 (5/70)

NATIONAL TRANSPORTATION SAFETY BOARD

ECORD OF [ ] VISIT [ ] CONFERENCE OR [X] TELEPHONE CALL

Time	Date
1556	11/29/93

ame(s) of Person(s) contacted or in conference and location

Routing	
Symbol	Initials

Judith Katz Soto

(witness)

Subject

N55SR

Digest

She stated that people were telling her to get out of her car because fuel was leaking but she couldn't be sure she saw fuel leaking.

Conclusions, Action Taken, or Required

Date	Title	Signature
11/29/93	ASI	Timothy W. Monville

NTSB Form 1320.12 (5/70)

NATIONAL TRANSPORTATION SAFETY BOARD ECORD OF [ ] VISIT [ ] CONFERENCE OR [X] TELEPHONE CALL	Time 1649	Date 01/18/94

ame(s) of Person(s) contacted or in conference and location	Routing Symbol	Routing Initials
Lieutenant Harry Roberts		
Metro Dade Fire Rescue		
Subject N55SR		

Digest

He stated that his unit was the first to arrive at the scene and that the pilot was out of the airplane. He eventually checked the cockpit of the airplane and observed that the fuel sight gauge indicated empty and then asked the pilot if he ran out of fuel to which the pilot responded "No" he has a 19 gallon fuel tank. He also stated that there was no fuel leakage and that he couldn't have left the scene if there had been fuel leakage. He did state that he observed oil leakage adjacent to the engine.

Conclusions, Action Taken, or Required

Date	Title	Signature
01/18/94	ASI	Timothy W. Monville

NTSB Form 1320.12 (5/70)

NATIONAL TRANSPORTATION SAFETY BOARD RECORD OF [ ] VISIT [ ] CONFERENCE OR [X] TELEPHONE CALL	Time 1443	Date 11/26/93	
Name(s) of Person(s) contacted or in conference and location		Routing	
		Symbol	Initials
Sergeant Frank O'Neil			
Metro-Dade Police Department			
Subject N55SR			

Digest

He stated that he did not smell fuel at the accident site and that there was no fuel leaking. He did state that he observed an oily substance below the engine and that it wasn't fuel.

Conclusions, Action Taken, or Required

Date	Title	Signature
11/26/93	ASI	Timothy W. Monville

NTSB Form 1320.12 (5/70)

U.S. Department
of Transportation
**Federal Aviation
Administration**

Flight Standards District Office-19
P. O. Box 592015
Miami, Florida 33159

My name is William Dibbley. I am an Aviation Safety Inspector for the Federal Aviation Administration. I performed an on site investigation of a crash of N55SR on November 7, 1993. I arrived on scene at approximately 1700 hours.

Upon approaching the scene I neither observed or smelled any evidence of fuel on or near the aircraft.

William Dibbley

William M. Dibbley
November 10, 1993

U.S. Department of Transportation
Federal Aviation Administration

Flight Standards District Office-19
P.O. Box 592015
Miami, Fl. 33159

November 11, 1993

TO: Mr. Tim Monville, NTSB

FROM: David S. Carlton, ASI, FAA

Subject: Pitts S1C Accident, N55SR, S/N 1DB.
Registered to S&R Aviation Enterprises

At your request, Aircraft N55SR, S/N 1DB, which had been involved in an accident, was inspected at the Excaliber Impound lot located at 14294 S.W. 142nd ave., Tamiami, Florida. At the direction of the police the aircraft had been transferred from the crash site to this facility, which is very secure, and accessible only with NTSB, or Police permission. I was accompanied by FAA Inspectors Bruce Hill and Dennis Ware. Following are the results of that inspection which was completed on November 9, 1993.

General condition of aircraft:

The upper and lower wings of the aircraft were broken off at the left side of the aircraft. The empennage was bent and twisted. The right side of both upper and lower wings were not severely damaged and were still attached to the aircraft. The fuselage was without major damage.

Propeller condition:

Examination of the propeller revealed no cordwise scarring or torsional twisting and the spinner showed no evidence of rotation. The prop was bent straight back around the cowling and one half of the prop spinner was crushed around the hub of the propeller. Oil had leaked out of the engine on to the cowling through #2 cylinder rocker box cover, which was crushed.

Fuel System condition:

The aircraft had two fuel tanks installed, one in the center of the upper wing, and one in the top of the fuselage, aft of the engine firewall, and forward of the windshield. The upper tank capacity was marked 5 gallons. The lower tank capacity was marked 19 gallons. Both fuel tank caps were securly installed. The upper fuel tank was damaged in the accident, however the tank was not punctured nor cracked, therefore no fuel could escape. The lower tank was not damaged at all. There was no other damage to the fuel system therefore no fuel could escape as a result of the accident.

There was a tubular type plastic (or glass) fuel quantity sight gage placed vertically on the right side of the instrument panel. The sight gage was marked to indicate fuel capacity in the lower tank. The fuel in the lower tank would seek it's own level in this type gage, showing how much fuel was actually in the lower tank. The gage indicated that the tank was empty. There are two fuel selector valves, one for the lower tank, and one for the upper tank. The upper tank valve was in the closed position, and the lower tank valve was in the open position.

Important Conditions Existing in the Cockpit:

The throttle lever was in the wide open position. The fuel mixture was in the full rich position. The alternate air handle was in the closed position. The cabin air handle was in the open position. The magneto switch was of the key type, and was in the off position with the key removed. The master switch was in the off position. The recording tach indicated 128.18 hrs. All other instruments were indicating normal static readings. The lower fuel tank selector was in the open position. The upper fuel tank selector was in the closed position. The elevator trim was in the neutral range position.

Fuel System Inspection Observations:

The fuel line running from the fuel pump to the fuel servo was disconnected at the pump and lowered into a plastic cup and only several drops of fuel were observed. This line under normal static conditions should be full of fuel. The fuel line running from the fuel servo to the flow divider was also removed and contained no fuel at all. This line also should be full of fuel under normal static conditions. The lower fuel tank sump drain was then opened and the fuel (less than 1 cup), was drained into a plastic cup. The upper fuel selector valve was then opened, and the sump was again opened and no fuel came out. The fuel contained in the plastic cup used for draining, was then transferred into a bottle, sealed, and delivered to the NTSB.

Conclusion:

Less than one cup of fuel remained in the entire fuel system at the time of this inspection.

Respectfully Submitted,

David S. Carlton Jr.

David S. Carlton Jr.
Aviation Safety Inspector

The Above inspection was Witnessed by: Bruce J. Hill ASI

Dennis Ware ASI

DATE	PILOT	TACH OUT	TACH IN	TIME	COMMENTS
7-11-93	SG	119.31	120.09	.78	[illegible] gals fuel
7-18-93	RR	120.09	120.79	.70	6.7 " "
"	SG	120.79	121.46	.67	
8-1-93	"	121.46	122.04	.58	
8-14-93	SG	122.04	122.41	.37	10 gals fuel [illegible]
8-15-93	"	122.41	122.91	.50	
8-21-93	"	122.91	123.42	.51	5 gals fuel [illegible]
8-22-93	"	123.42	123.91	.49	
8-24-93	RR	123.91	124.20	.29	
9-5-93	SG	124.20	124.75	.58	5 gals @ TMB
9-12-93	SG	124.78	125.40	.62	4 " "
9-19-93	"	125.40	126.05	.65	7 " Richards
10-10	RR	126.05	127.22	1.17	7 " "
10-17	SG	[illegible].22	127.90	.68	

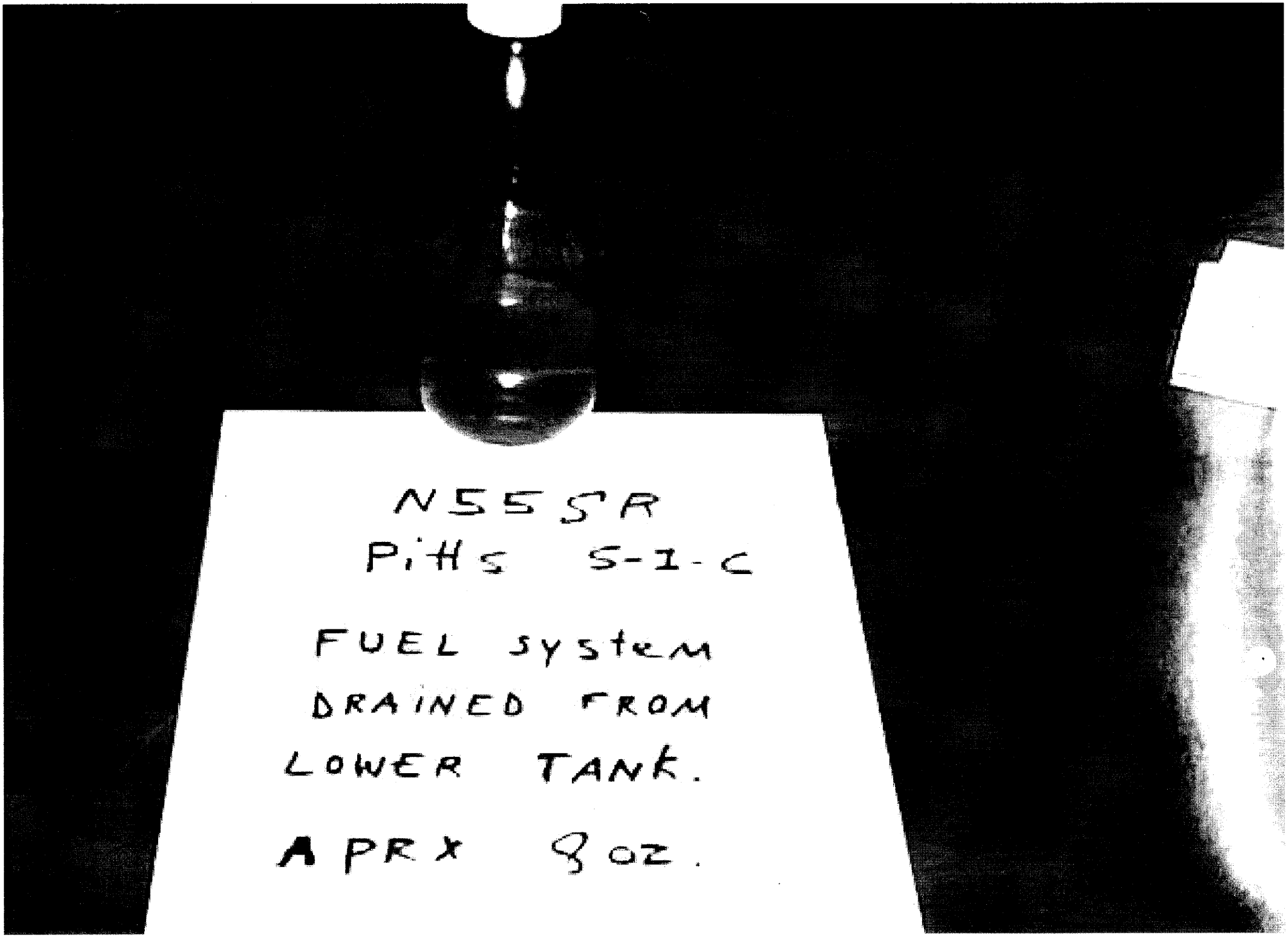

PHOTO 1: FUEL DRAINED FROM LOWER FUEL TANK AND FUEL LINES.

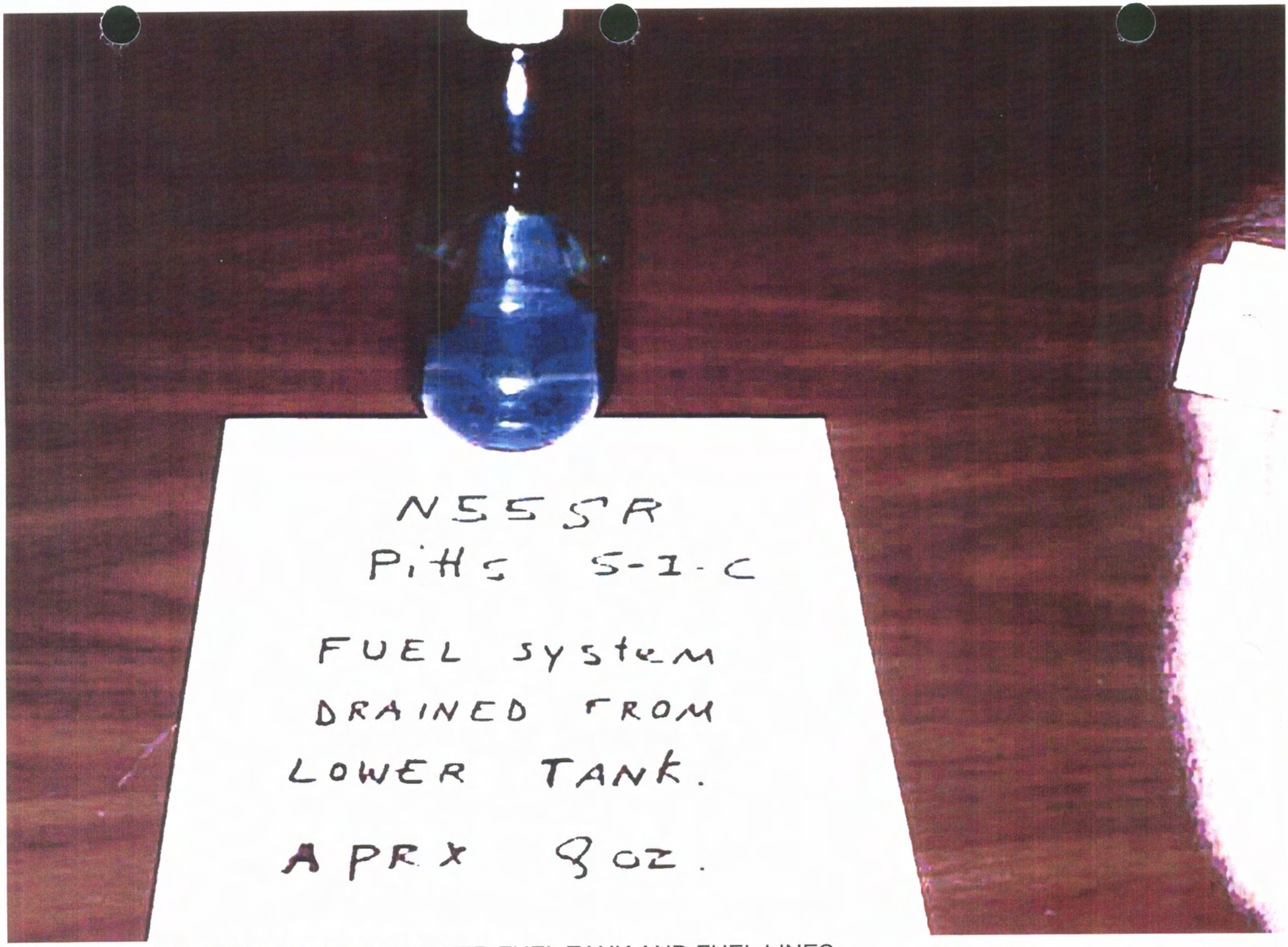

PHOTO 1: FUEL DRAINED FROM LOWER FUEL TANK AND FUEL LINES.

NASDAC BRIEF REPORT

GENERAL INFORMATION

Data Source:	NTSB AVIATION ACCIDENT/INCIDENT DATA
Event Id:	20001207X03773
Local Date:	06/11/1995
Local Time:	1004
State:	FL
City:	MIAMI
Airport Name:	KENDALL-TAMIAMI EXECUTIVE
Event Type:	ACCIDENT
Injury Severity:	SERIOUS
Report Status:	FINAL
Mid Air Collision:	NO
Event Location:	OFF AIRPORT/AIRSTRIP

WEATHER INFORMATION

Weather Briefing Complete:	UNKNOWN
Brief Source:	
Basic Weather Conditions:	VISUAL METEOROLOGICAL COND
Light Condition:	DAY
Cloud Condition:	UNKNOWN
Cloud Height above Ground Level (ft):	0
Ceiling Height above Ground Level (ft):	3000
Cloud Type:	BROKEN
Visibility RVR (ft):	0
Visibility RVV (sm):	0
Visibility (sm):	15
Wind Direction (deg):	120
Wind Condition Flag:	U
Wind Speed (knots):	6
Wind Condition Indicated:	Unknown
Visibility Restrictions:	
Precipitation Type:	

AIRCRAFT INFORMATION

Aircraft 1

Category of Operation:	
Aircraft Type:	AIRPLANE
Aircraft Homebuilt:	NO
Aircraft Damage:	SUBSTANTIAL
Phase of Flight:	CRUISE
Aircraft Make:	BLANCA
Aircraft Model:	BL-8
Aircraft Series:	BL-8-KCAB
Operator Doing Business As:	
Operator Name	
Owner Name	APT AVIATION, INC.
NTSB Report Number:	MIA95LA149
Number of Seats:	2
Number of Engines:	1
ELT Installed:	YES
ELT Operated:	YES
Aircraft Use:	PERSONAL
Type of Operation:	PART 91: GENERAL AVIATION
Departure Airport Id:	OPF
Departure City:	
Departure State:	
Last Departure Point:	NO
Destination Local:	LOCAL FLIGHT
Destination Airport Id:	TMB
Destination City:	
Destination State:	
Runway Id:	0
Runway Length:	
Runway Width:	
Flight Plan Filed:	NONE
Domestic/International:	
Passenger/Cargo:	
Registration Number:	N7631S
Air Carrier Operating Certificates:	NO
Air Carrier Other Operating Certificates:	NO
Rotocraft/Agriculture Operating Certificate:	UNKNOWN
Cert Max Gross Wgt:	1800
Aircraft Fire:	NONE
Aircraft Explosion:	NONE

Landing Gear:
ATC Clearance
Landing Gear
Runway Condition
Landing Surface

ENGINE INFORMATION

Aircraft 1 - Engine #:1

Engine Type:	RECIPROCATING
Engine Group	
Engine Manufactuer	LYCOMING
Engine Make	LYCOMI
Engine Model	AEIO-320-E1B
Engine Cert Type	
Engine Horsepower	150
Engine Thrust	HP
Carb/Injection	FUEL INJECTED
Propeller Type	

Injury Summary for Aircraft 1

	Fatal	Serious	Minor	None
Crew	0	0	0	1
Pass				
Total	0	0	0	1

Pilot-in-Command for Aircraft 1

Certificates:	COMMERCIAL,FLIGHT INSTRUCTOR
Ratings:	
Plane:	
Non-Plane:	
Instrument:	
Instruction:	

Had Current BFR:	Y
Months Since Last BFR:	

Medical Certificate: CLASS 2
Medical Certificate Validity: VALID MEDICAL--W/ WAIVERS/LIM.

Flight Time (hours)

Total	:	1982
Make/Model	:	68
Instrument	:	973
Multi-Engine	:	72
Last 24 Hours	:	3
Last 30 Days	:	18
Last 90 Days	:	46
Rotocraft	:	0

Sequence of Events
Aircraft 1
Occurrence #: 1
LOSS OF ENGINE POWER (TOTAL) - NON-MECHANICAL
Phase of Operation: CRUISE - NORMAL

Findings

Event Seq #	Event Group Code	Subject	Modifier	Personnel	Cause/Factor
1	1	INDUCTION AIR DUCTING	BLOCKED (TOTAL)		CAUSE
2	2	MAINTENANCE, SERVICE OF AIRCRAFT/EQUIPMENT	INADEQUATE	OTHER MAINTENANCE PERSONNEL	CAUSE
3	1	INDUCTION AIR DUCTING	UNDETERMINED		CAUSE

Occurrence #: 2
FORCED LANDING
Phase of Operation: DESCENT - EMERGENCY

Findings

Event Seq #	Event Group Code	Subject	Modifier	Personnel	Cause/Factor

Occurrence #: 3
ON GROUND/WATER COLLISION WITH OBJECT
Phase of Operation: LANDING - ROLL

Findings

Event Seq #	Event Group	Subject	Modifier	Personnel	Cause/Factor

	Code				
1	1	OBJECT	VEHICLE		
2	1	OBJECT	TREE(S)		
3	2	UNSUITABLE TERRAIN OR TAKEOFF/LANDING/TAXI AREA	ENCOUNTERED	PILOT IN COMMAND	FACTOR

AIRCRAFT 1 PRELIMINARY REPORT

On June 11, 1995, about 1004 eastern daylight time, a Bellanca 8KCAB, N7631S, registered to APT Aviation, Inc., was substantially damaged during a forced landing on a road east of the Kendall-Tamiami Executive Airport, Miami, Florida, while on a 14 CFR Part 91 personal flight. Visual meteorological conditions prevailed at the time and no flight plan was filed. The commercial-rated pilot, the sole occupant, was not injured. A vehicle struck by the airplane received minor damage and the driver of the vehicle sustained serious injuries indirectly related to the collision. The flight originated about 0940 from the Opa-Locka Airport, Opa-Locka, Florida. The pilot stated that at various times during the flight as well as just before the engine failure, he exercised the alternate air (heated, unfiltered air) control to verify operation. The only discrepancy noted was that the handle would return to the alternate position if not held to the normal (filtered) position. During cruise flight at 1,000 feet inbound to the Tamiami Airport, the engine failed. Emergency procedures included verification that the fuel selector was in the "on" position, the auxiliary fuel pump was turned "on" and the mixture control was pushed to the "full rich" position. The engine failed to respond and the pilot executed a forced landing to the north on the southbound lanes of U.S. 1. During the landing roll the roof of a vehicle was scraped by the right wing of the airplane which then collided with a tree. The airplane yawed clockwise and came to rest upright with the left main landing gear attached only by the brake line. Examination of the cockpit at the accident site revealed that the alternate air control was nearly fully engaged. The airplane was then recovered and further examination of the air induction system revealed a piece of paper in the air inlet of the servo fuel injector. The paper was about 28 inches long and had numerous areas of blue/green stains. The engine with propeller installed were removed from the airframe and placed on a test stand. The paper was removed and the engine was started and operated to near full rated rpm. The only discrepancy noted was an excessive magneto drop when operating on the right magneto. The sleeve (insulator) at the spark plug end of the No. 1 cylinder bottom ignition lead was found to be broken. Review of the overhaul manual for the engine revealed that the No. 1 bottom ignition lead is routed to the right magneto. Review of the engine logbook revealed that the servo fuel injector had been removed on May 8, 1995, and reinstalled on May 28, 1995. The airplane had been operated for about 3.8 hours since the servo fuel injector was reinstalled.

AIRCRAFT 1 FINAL REPORT

THE PILOT STATED THAT DURING CRUISE FLIGHT, SHORTLY AFTER ACTIVATION OF THE ALTERNATE AIR CONTROL, THE ENGINE LOST POWER AND ATTEMPTS TO RESTORE POWER WERE UNSUCCESSFUL. THE PILOT EXECUTED A FORCED LANDING ON A ROAD AND DURING THE LANDING ROLL, THE RIGHT WING OF THE AIRPLANE COLLIDED WITH A VEHICLE AND A TREE. EXAMINATION OF THE AIR INDUCTION SYSTEM REVEALED A PIECE OF PAPER IN THE SERVO FUEL INJECTOR AIR INLET. THE ENGINE WAS PLACED ON A TEST STAND, THE PAPER WAS REMOVED, AND THE ENGINE WAS STARTED AND FOUND TO OPERATE TO NEAR FULL RATED RPM. THE ONLY DISCREPANCY NOTED WAS EXCESSIVE MAGNETO DROP WHEN OPERATING ON THE

RIGHT MAGNETO. THIS WAS DUE TO A BROKEN SLEEVE (INSULATOR) OF ONE OF THE IGNITION LEADS. REVIEW OF THE ENGINE LOGBOOK REVEALED THAT THE SERVO FUEL INJECTOR WAS REMOVED ON MAY 8, 1995, AND REINSTALLED 20 DAYS LATER. THE AIRPLANE HAD BEEN OPERATED FOR ABOUT 3.8 HOURS SINCE THE SERVO FUEL INJECTOR HAD BEEN REINSTALLED.

AIRCRAFT 1 CAUSE REPORT

TOTAL BLOCKAGE OF THE AIR INDUCTION AT THE SERVO FUEL INJECTOR BY PAPER FROM AN UNDETERMINED SOURCE AND INADEQUATE MAINTENANCE SERVICING BY OTHER MAINTENANCE PERSONNEL. CONTRIBUTING TO THE ACCIDENT WAS UNSUITABLE TERRAIN ENCOUNTERED BY THE PILOT DURING THE FORCED LANDING.

END REPORT

NASDAC BRIEF REPORT

GENERAL INFORMATION

Data Source:	NTSB AVIATION ACCIDENT/INCIDENT DATA
Event Id:	20001211X10651
Local Date:	07/17/1998
Local Time:	1431
State:	FL
City:	MIAMI
Airport Name:	KENDALL-TAMIAMI EXECUTIVE
Event Type:	ACCIDENT
Injury Severity:	FATAL
Report Status:	FINAL
Mid Air Collision:	NO
Event Location:	OFF AIRPORT/AIRSTRIP

WEATHER INFORMATION

Weather Briefing Complete:	NOT PERTINENT
Brief Source:	
Basic Weather Conditions:	VISUAL METEOROLOGICAL COND
Light Condition:	DAY
Cloud Condition:	SCATTERED
Cloud Height above Ground Level (ft):	3500
Ceiling Height above Ground Level (ft):	10000
Cloud Type:	BROKEN
Visibility RVR (ft):	0
Visibility RVV (sm):	0
Visibility (sm):	10
Wind Direction (deg):	180
Wind Condition Flag:	U
Wind Speed (knots):	7
Wind Condition Indicated:	Unknown
Visibility Restrictions:	
Precipitation Type:	

AIRCRAFT INFORMATION

Aircraft 1

Category of Operation:	
Aircraft Type:	AIRPLANE
Aircraft Homebuilt:	NO
Aircraft Damage:	DESTROYED
Phase of Flight:	TAKEOFF
Aircraft Make:	PIPER
Aircraft Model:	PA-31
Aircraft Series:	PA-31-310
Operator Doing Business As:	
Operator Name	
Owner Name	JON SPEISMAN
NTSB Report Number:	MIA98FA200
Number of Seats:	7
Number of Engines:	2
ELT Installed:	YES
ELT Operated:	NO
Aircraft Use:	PERSONAL
Type of Operation:	PART 91: GENERAL AVIATION
Departure Airport Id:	TMB
Departure City:	
Departure State:	
Last Departure Point:	YES
Destination Local:	LOCAL FLIGHT
Destination Airport Id:	
Destination City:	
Destination State:	
Runway Id:	9L
Runway Length:	5002
Runway Width:	150
Flight Plan Filed:	NONE
Domestic/International:	
Passenger/Cargo:	
Registration Number:	N7578L
Air Carrier Operating Certificates:	NO
Air Carrier Other Operating Certificates:	NO
Rotocraft/Agriculture Operating Certificate:	UNKNOWN
Cert Max Gross Wgt:	6500
Aircraft Fire:	NONE
Aircraft Explosion:	NONE

Landing Gear:	RETR
ATC Clearance	
Landing Gear	
Runway Condition	
Landing Surface	

ENGINE INFORMATION

Aircraft 1 - Engine #:1

Engine Type:	RECIPROCATING
Engine Group	
Engine Manufactuer	LYCOMING
Engine Make	LYCOMI
Engine Model	TIO-540 SER
Engine Cert Type	
Engine Horsepower	310
Engine Thrust	HP
Carb/Injection	FUEL INJECTED
Propeller Type	

Injury Summary for Aircraft 1

	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass				
Total	1	0	0	0

Pilot-in-Command for Aircraft 1

Certificates:	COMMERCIAL,FLIGHT ENGINEER
Ratings:	
Plane:	
Non-Plane:	
Instrument:	
Instruction:	

Had Current BFR:	U
Months Since Last BFR:	

Medical Certificate: CLASS 2
Medical Certificate Validity: VALID MEDICAL--W/ WAIVERS/LIM.

Flight Time (hours)

Total	:	6700
Make/Model	:	0
Instrument	:	0
Multi-Engine	:	0
Last 24 Hours	:	0
Last 30 Days	:	0
Last 90 Days	:	0
Rotocraft	:	0

Sequence of Events
Aircraft 1
Occurrence #: 1
LOSS OF ENGINE POWER (PARTIAL) - MECH FAILURE/MALF
Phase of Operation: TAKEOFF

Findings

Event Seq #	Event Group Code	Subject	Modifier	Personnel	Cause/Factor
1	1	FUEL SYSTEM, FUEL CONTROL	CONTAMINATION		
2	2	PREFLIGHT PLANNING/PREPARATION	INADEQUATE	PILOT IN COMMAND	CAUSE

Occurrence #: 2
FORCED LANDING
Phase of Operation: DESCENT - UNCONTROLLED

Findings

Event Seq #	Event Group Code	Subject	Modifier	Personnel	Cause/Factor
1	2	AIRSPEED (VMC)	NOT MAINTAINED	PILOT IN COMMAND	CAUSE

Occurrence #: 3
IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: MANEUVERING - TURN TO LANDING AREA (EMERGENCY)

Findings

Event Seq #	Event Group Code	Subject	Modifier	Personnel	Cause/Factor

1	1	TERRAIN CONDITION	HIGH VEGETATION	

AIRCRAFT 1 PRELIMINARY REPORT

HISTORY OF FLIGHT On July 17, 1998, about 1431 eastern daylight time, a Piper PA-31-310, N7578L, registered to a private individual, operating as a Title 14 CFR Part 91 personal flight, crashed after takeoff from Kendall-Tamiami Executive Airport (TMB), Miami, Florida. Visual meteorological conditions prevailed and no flight plan was filed. The airplane was destroyed, and the commercial-rated pilot, the sole occupant, was fatally injured. The flight was originating at the time of the accident. According to the FAA control tower communication tapes, N7578L called for, and was given, clearance for takeoff and a downwind departure from runway 9L at about 1429. About 2 minutes later, a radio transmission from N7578L that included some unintelligible words, but clearly mentioned the words, "we got a.." and "engine", was made. The airplane impacted the terrain about 1 mile northeast of the geographic center of the airport in heavy underbrush of scrub pines and palmetto. Several witnesses observed the airplane in its departure turn at an altitude below 100 feet agl, and hearing unusual engine sounds seconds before the accident. An aircraft mechanic, standing abeam of the departure runway, observed most of the takeoff roll and the airplane's gyrations before it went out of sight into the brush. He states that he was first attracted to the sound of a rough running engine, and saw that the left engine was trailing black smoke. He states that the airplane never got above about 150 feet agl, and its airspeed seemed slow. The last thing he observed was a rapid left roll, and a marked pitch down of the nose. PERSONNEL INFORMATION Although requested of the family numerous times, the pilot's logbooks were not recovered. At the time of the pilot's application for his second class medical certificate on December 5, 1996, he listed his flight time as 6,700 hours. According to numerous sources from the airport community at TMB, the pilot tried to maintain the airplane as economically as possible, and in fact, did some of his own maintenance. AIRCRAFT INFORMATION The airplane and engine logbooks were not located after the accident. An interview with the owner/operator of a local engine repair station revealed that the right engine had undergone a recent major overhaul by the repair station and certified "zero time" on November 4, 1997. The owner/operator of the repair station was told at that time that the left engine would be brought in for a major overhaul in "a couple of months". The pilot had previously mentioned to a friend and co-worker that the left engine was 400 hours over factory recommended time for overhaul. METEOROLOGICAL INFORMATION Visual meteorological conditions prevailed at the time of the accident. Meteorological information is contained in this report under Weather Information. WRECKAGE AND IMPACT INFORMATION Examination of the crash site revealed the airplane crashed on county property adjacent to Boystown of Florida, a foster care facility, at coordinates, N25.39.65 and W80.25.07 or about 1.26 miles/072 degrees from the airport's center. The site roughly corresponds to a point in the departure traffic pattern off runway 9L at TMB about the 110-degree point of a 180-degree down wind departure turn. The wreckage path and tree and foliage scars indicated the twin engine airplane was rolling left about its longitudinal axis and was about 70 degrees nose down, inverted, near wings level with both propellers turning, at ground impact. The nose of the airplane was crushed along a line from about 2 feet behind the two pilots' seats on the top of the airplane to about 1 foot aft of the rudder pedals on the bottom. Wing leading edges were deformed backward and toward the top of the airplane and matched the fuselage crush line. From the point of initial impact, where the propellers and nose pieces were found buried in the hard packed sand, the airplane bounced, became upright, and slid tail first to its final resting place. Extensive wing trailing edge damage was done as the wings encountered small trees in the backward slide. The aft fuselage from the third cabin window, aft sustained little damage. There was no explosion or fire, although the site revealed heavy fuel leakage. The wreckage came to rest heading about 030 degrees. Everything forward of the crush line, including

the instrument panel and radios was demolished. Both engines were broken away from their mounts and both propellers had broken away at the crankshaft flange. The site smelled strongly of aviation fuel. Postcrash examination of the wreckage revealed that the pilot's seatbelt was buckled and had been cut by rescue personnel. The shoulder harness had not been used. All flight control surfaces were present at impact. Complete continuity of primary flight control path was impossible due to damage to the cockpit floor/center section area. Aileron control rods had separated at the wing bellcrank, but control cable path was confirmed from center section to the bellcrank. Rudder and elevator controls were confirmed intact and operable from the control surfaces to about the rear baggage compartment. Rudder cables were attached at the pedals. Measured at the rudder trim jackscrew, the rudder was trimmed for 1/4 of full range for nose right. Similarly measured, the elevator was trimmed for 1/2 of full nose up range for nose up. Landing gear and flaps were retracted and cowl flaps were closed. Both fuel cells, (main and auxiliary) on both wings had been compromised and contained no fuel. The cockpit fuel management panel was found with left engine selected to left main tank, right engine to right main, and crossfeed selector to "off". The left and right fuel filters were removed and a small amount of fuel in each was tested negatively for water content, however, the left filter cartridge contained aluminum and brown colored sediment, and the cartridge housing had sediment crusted at it's bottom and was showing evidence of its own corrosion. The right fuel filter cartridge contained a smaller amount of the same sediment and the cartridge housing held a small amount in it's bottom. Postcrash examination of the engines and propellers revealed that both propellers were turning at impact and both broke off at the crankshaft flange. The left propeller showed all three blades bent aft from a point about 10 inches outward from the hub. Two blades bent aft about 15 degrees and the third blade about 40 degrees. All showed chordwise scoring on the front of the blades, no marking on the aft sides, and little leading edge damage. The spinner was crushed against the hub, which was bent at about a 15 degree angle and showed less rotational scoring that the right spinner. The blades showed signs of surface corrosion. The right propeller had one blade broken at its retention radius with little blade bending and heavy leading edge scoring, and two blades bent aft, one about 20 degrees from a point 10 inches from the hub, and the third about 45 degrees from its midspan point. The two bent blades had extensive rotational scoring on front and aft sides with heavy leading edge burnishing and scoring. The spinner was crushed against the hub, and showed moderate rotational scoring. The propeller appeared to have been recently overhauled. Both propellers were removed for further examination. Both propeller governors revealed no evidence of precrash malfunction. Both engines had broken loose from their engine mounts, both exhaust systems and turbochargers had been displaced rearward, and the aft mounted accessories sustained severe crushing damage. Both drive trains were manually rotated and revealed no malfunctions of the rotating group, valve train, and accessory section. Both engine's spark plugs were checked for security and removed, revealing good compression in the proper firing order at all cylinders, and no cylinder wall scoring could be seen. The left engine spark plug electrodes showed a black coloration consistent with a rich fuel/air mixture combustion. The right engine spark plug electrodes showed the ash-brown coloration of a normal fuel/air mixture combustion, (Champion Spark Plugs Check-A-Plug chart AV-27). The ignition harnesses had been severed in several places, but the connections at the magneto and spark plug terminals were secure. The left engine magneto to engine timing could not be confirmed due to magneto impact damage. One magneto sustained a shattered housing and could not be field tested for spark. The other sustained a broken hold down clamp, and it tested good for spark at all six terminals. Both right engine magnetos also sustained impact damage that shattered their housings and precluded checking magneto to engine timing or testing for spark. The fuel injection servos and induction systems for both engines were free of obstructions, and all engine compartment fuel lines were in place with connections secure. The fuel inlet filter screens for both servos were found properly installed and were free of contamination. The left servo was removed for further testing. Both engine driven fuel pumps showed no sign of precrash malfunction. The injector nozzles and all fuel feed and upper deck reference lines were found in place and all fittings and connections were secure. All nozzles and lines were then removed and found unobstructed. Both exhaust systems, although severely deformed, were unobstructed. The turbocharger wastegates showed no evidence of precrash malfunction. The

turbochargers were removed for further testing. MEDICAL AND PATHOLOGICAL INFORMATION Postmortem examination and toxicological testing of the pilot was performed by Bruce A. Hyma, M.D. at the Medical Examiner's Department, Miami, Florida, and revealed cause of death to be blunt force trauma to head and chest. Their toxicology test results showed 9.5 percent saturation for carbon monoxide in the blood and a finding of "detected" for morphine in the urine. Because morphine was found "undetected" in the blood specimens, it is not considered relevant to the accident. Toxicological tests were also conducted at the Federal Aviation Administration Research Laboratory, Oklahoma City, Oklahoma. The tests were negative for ethanol, basic, acidic, and neutral drugs. They did not test for carbon monoxide due to unsuitability of specimen. TEST AND RESEARCH Records from the pilot's fixed-base operator revealed that 35 gallons of 100 LL aviation fuel was pumped into the airplane's fuel tanks just prior to the accident. Records show the fuel farm had been inspected the day before and the fuel truck filtration equipment had been inspected the day of the accident, with no negative entries noted. The magnetos for the right engine were impact damaged to the point that they were not removed, but the left engine magnetos were removed and shop examined. Points, point gap, coils, coil lead insulation, condensers, magnets, and teflon drive gears showed no discrepancies. No areas of carbon tracking were found. The block and points for the left engine, left magneto looked newly changed. The left engine fuel servo was removed from the engine and subjected to repair station operation and disassembly examination. It was revealed that three mandatory updates to the servo had not been accomplished. Flow testing of the servo revealed a steady fuel flow could not be sustained at high power settings. Disassembly inspection of the servo revealed a bent diaphragm stem and aluminum oxide sediment on and adjacent to the diaphragm. This matched the appearance of the sediment found in the left fuel filter container and fuel filter cartridge assembly. Subsequent disassembly examination of the three bladed, hydraulically operated constant speed, feathering propellers by NTSB and factory investigators revealed that the left propeller's condition and attached decals indicated it had been operated at least 10 years since overhaul. Two of the left propeller blades showed impact marks on the hub base plates corresponding to about 45 degrees of blade angle, and the 3rd blade at about 7 degrees. Impact forces on the propeller hub's pitch control piston showed it was driven forcibly by ground impact to the low pitch stop and was further confirmed by one blade's pitch knob being broken in the direction of low pitch. For this reason, all three blades had to be at an angle higher than the impact marks revealed, precrash. The blade angle of 7 degrees was a result of impact damage because the physical limit of low pitch is 13 degrees. The conclusion stated by the factory investigative report was, "The left propeller was rotating with little or no power at impact and was very possibly feathered or moving toward feather." The right propeller's condition indicated it had undergone a recent overhaul. Impact marks on the 3 hub base plates revealed impressions at 24 degrees, 30 degrees and 37 degrees. At maximum power, according to the factory report, the blades should be between 17 degrees and 20 degrees of pitch, depending on airspeed. The right propeller hub sustained crushing of the pitch control cylinder and the opposite effect than with the left propeller resulted, that is, the blades had been ground impact driven toward high pitch. This was confirmed by one blade's pitch knob being broken off in the direction of high pitch. In this case the blades had to be at an angle less than shown by the impact marks, precrash. The conclusion stated by the factory report was, "The right propeller was rotating with power, more power than the left engine." The turbochargers were shipped to the manufacturer for disassembly examination. Analysis of internal rotational score marks and contour rub marks showed that both compressors and turbines were turning at impact. Neither wastegate could be functionally tested due to impact damage. The report concluded, "No pre-accident conditions were found that would have interfered with normal operation." The examiner added, "both turbochargers exhibited surface rust in areas that suggest possible infrequent operation and/or maintenance." A copy of the audio tape of radio transmissions between the pilot and TMB control tower was sent to the NTSB Vehicles Recorder Laboratory in Washington, D.C. for sound spectrum analysis in an effort to substantiate engine speeds. Duration of N7578L's transmissions were insufficient to determine separate engine speeds. The analysis did, however determine that one or both engines were running at 2,440 rpm during the pilot's last transmission, (takeoff rpm, according to flight manual is 2,575 rpm). ADDITIONAL INFORMATION

The wreckage was subsequently released, less the components listed on the NTSB Release of Aircraft Wreckage form, to a representative of the operator's estate, on August 20, 1998. All components retained by the NTSB for further examination were shipped to the representative of the operator's estate on April 8, 1999.

AIRCRAFT 1 FINAL REPORT

An aircraft mechanic working abeam of the point on the runway that the airplane lifted off was attracted by the sound of engine roughness, and observed black smoke trailing from the left engine. The airplane continued to climb to about 150 feet above ground level, entered a series of shallow left turns at about the airport's east boundary at a slow speed, and then entered a rapid left roll and pitched down. The pilot transmitted an unreadable call on FAA tower frequency, but the words, 'we got a..' and 'engine' were clearly discernable. The airplane crashed in dense brush about 1.25 miles northeast of the airport. Contamination was found in the left engine fuel system. Post crash testing of the left fuel servo revealed it would not sustain a steady state fuel flow above about one half throttle due to contamination.

AIRCRAFT 1 CAUSE REPORT

The pilot's inadequate preflight inspection which led to fuel contamination and subsequent loss of engine power. Also causal was the pilot's failure to maintain single engine flying speed (VMC).

END REPORT

ARTICLE XL. KENDALL TAMIAMI EXECUTIVE AIRPORT ZONING*

***Editor's note:** Article XL, §§ 33-388--33-403, is derived from Ord. No. 69-40, §§ 1--16, enacted July 9, 1969. Section 17 of said ordinance provides that the ordinance provisions be included in the Code of Ordinances as a new article of Chapter 33.

Sec. 33-388. Short title.

This article shall be known and may be cited as the "Kendall Tamiami Executive Airport Zoning Ordinance."

(Ord. No. 69-40, § 1, 7-9-69; Ord. No. 99-118, § 1, 9-21-99)

Sec. 33-389. Provisions hereof established as minimum standards governing zoning.

It is established that the airport zoning area for Kendall Tamiami Executive Airport, the zone classification districts therein and the height limitation applicable to such districts, as the same are hereinafter set forth, shall be incorporated with all other minimum standards governing zoning heretofore or hereinafter adopted pursuant to Section 4.07 of the Home Rule charter for Miami-Dade County, Florida.

(Ord. No. 69-40, § 2, 7-9-69; Ord. No. 99-118, § 1, 9-21-99)

Sec. 33-390. Definitions.

In construing the provisions hereof and each and every word, term, phrase or part thereof, where the context will permit, the definitions provided in Section 1.01 F.S. and Section 33-1 and Section 33-302 of the Code of Miami-Dade County, Florida, and the following definitions shall apply:

(1) *Airport* means Kendall Tamiami Executive Airport.

(2) *Airport elevation* means the established elevation of the highest point on the usable landing area. The airport elevation for Kendall Tamiami Executive Airport is ten (10.0) feet mean sea level.

(3) *Airport reference point* means the point established as the approximate geographic center of the landing area and so designated and identified. The position of the airport reference point for Kendall Tamiami Executive Airport is described as follows:

> Commence at the northeast corner of Section 16, Township 55 South, Range 39 East, Miami-Dade County, Florida, and run thence southward along the east line of said Section 16 at a bearing of South 02° 22' 40" East a distance of 2734.47 feet; thence westward at right angles to the said east line of Section 16 at a bearing of South 87° 37' 20" West for a distanced of 334.45 feet to the airport reference point.

(4) *Aviation schools* shall mean any educational facility that primarily provides education or training in the science and art of flight, including but not limited to: the

operation and construction of aircraft, aircraft power plants and accessories, including the repair, packing and maintenance of parachutes; the design, establishment, construction, extension, operations, improvement, repair or maintenance of airports or other air navigation facilities, and instruction in flying or ground subjects pertaining thereto.

(5) *Educational facilities* shall mean those facilities as defined by Chapter 235, Florida Statutes, as amended, and the Code of Miami-Dade County.

(6) *Hazard to Air Navigation* is an obstruction determined by the Federal Aviation Administration to have a substantial adverse effect on the safe and efficient utilization of the navigable airspace.

(7) *Height* for the purpose of determining the height limits in all districts set forth in this article and shown on the boundary map for zone classification districts, the datum shall be mean sea level (MSL) elevation unless otherwise specified.

(8) *Instrument runway* means a runway equipped or to be equipped with electronic or visual air navigation aids adequate to permit the landing or take-off of aircraft under restricted visibility conditions. The instrument runways at Kendall Tamiami Executive Airport are designated as Runway 9L/27R and Runway 9R/27L and their centerlines are described as follows:

(a) *Runway 9L/27R:* Commencing at the northeast corner of Section 15, Township 55 South, Range 39 East, Miami-Dade County, Florida; thence south 03° 53' 36" East along the east line of said Section 15 a distance of 945.03 feet; thence south 87° 04' 03" West a distance of 2606.21 feet to the east end of the runway and the point of beginning; thence continue south 87° 04' 03" West a distance of 5000 feet to the west end of the runway.

(b) *Runway 9R/27L:* Commencing at the southeast corner of Section 15, Township 55 South, Range 39 East, Miami-Dade County, Florida; thence north 04° 35' 16" West along the east line of said Section 15 a distance of 1068.16 feet; thence south 87° 04' 03" West a distance of 2684.19 feet to the east end of the runway and the point of beginning; thence continue south 87° 04' 03" West a distance of 5000 feet to the west end of the runway.

(8.5) *Landing area* means the area of the airport used or intended to be used for landing, take-off, or taxiing of aircraft.

(9) *Nonconforming use* means any structure, tree or use of land lawfully in existence on the effective date hereof which does not conform to a regulation prescribed in this article or any amendment thereto, as of the effective date of such regulations.

(10) *Non-instrument runway* means a runway other than an instrument runway. The non-instrument runway at Kendall Tamiami Executive Airport is designated as Runway 13/31 and its centerline is described as follows:

(a) *Runway 13/31:* Commencing at the northeast corner of Section 15, Township 55 South, Range 39 East, Miami-Dade County, Florida; thence south 03° 53' 36" East along the east line of said Section 15 a distance of 945.03 feet; thence south 87° 04' 03" West a distance of 9254.87 feet; thence south 52° 54' 00" East a distance of 1148.67 feet to the northwest end of the runway and the point of beginning; thence continue south 52° 54' 00" East a distance of 4000 feet to the southeast end of the runway.

(11) *Person* means an individual, firm, co-partnership, corporation, company, association, joint stock association or body politic, and includes any trustee, receiver, assignee, administrator, executor, guardian or other similar representative thereof.

(12) *Runway* means the defined area on an airport prepared for landing and take-off of

aircraft along its length.

(13) *Structure* means an object constructed or installed by man, including, but without being limited to, buildings, derricks, draglines, cranes and other boom-equipped machinery, towers, signs, smokestacks, utility poles, or overhead transmission lines.

(14) *Tree* means any object of natural growth.

(15) *Obstruction* means any structure, growth, or other object, including a mobile object, which exceeds the height limitations as set forth herein.

(16) *Airport hazard* means any structure or tree or use of land which would exceed the federal obstruction standards as contained in 14 C.F.R. §§ 77.21, 77.23, 77.25, 77.28, and 77.29 and which obstructs the airspace required for the flight of aircraft in taking off, maneuvering, or landing or is otherwise hazardous to such taking off, maneuvering, or landing of aircraft.

(Ord. No. 69-40, § 3, 7-9-69; Ord. No. 99-118, § 1, 9-21-99)

Sec. 33-391. Establishment of airport zoning area for Kendall Tamiami Executive Airport.

For the purpose of this article there is hereby created and established the airport zoning area for Kendall Tamiami Executive Airport and it is hereby ordained that such area shall include, and the provisions of this article shall be applicable to and embrace all of the unincorporated and the incorporated land and water area lying, situate and being in those certain portions of Miami-Dade County, Florida, described as follows, to wit:

(1) In Township 55 South, Range 37 East, all of Sections 1, 12, 13, 24, 25 and 36.

(2) In Township 55 South, Range 38 East, all of Section 1 to 32 inclusive.

(3) In Township 55 South, Range 39 East, all of Sections 1 to 30 inclusive.

(4) In Township 55 South, Range 40 East, all of Sections 1 to 30 inclusive, and the north one-half (1/2) of Section 36.

(5) In Township 55 South, Range 41 East, all of Sections 6, 7, 18, 19, 30, and the north one-half (1/2) of Section 31.

(6) In Township 54 South, Range 40 East, the south one-half (1/2) of Sections 35 and 36.

(7) In Township 54 South, Range 41 East, the south one-half (1/2) of Section 31.

(8) All of Lot 1 as the same lies between Township 54 South, Range 37 East and Township 55 South, Range 37 East.

(9) All of Lot 6 as the same lies between Township 54 South, Range 38 East and Township 55 South, Range 38 East.

(Ord. No. 69-40, § 4, 7-9-69; Ord. No. 99-118, § 1, 9-21-99)

Sec. 33-392. Establishment of zone classification districts for airport zoning area.

For the purpose of this article all of the Airport Zoning Area for Kendall Tamiami Executive Airport, as the same is created, established and described hereinbefore, is hereby divided into zone classification districts as follows:

(1) *L or Landing districts (Primary Surfaces).* A "landing district" is established for each

instrument runway for instrument landings and take-offs and for each non-instrument runway for non-instrument landings and take-offs.

A landing district for an instrument runway shall have a uniform width of one thousand (1,000) feet, shall extend for the full length of such instrument runway plus a distance of two hundred (200) feet beyond each end thereof and shall include such runway and be symmetrical about the centerline thereof.

A landing district for non-instrument runway shall have a uniform width of five hundred (500) feet, shall extend for the full length of such non-instrument runway plus a distance of two hundred (200) feet beyond each end thereof and shall include such runway and be symmetrical about the centerline thereof.

(2) *IA or Instrument approach districts.* An "instrument approach district" is established for each end of each instrument runway for instrument landings and take-offs and it is further established that each such instrument approach district shall embrace and include all of the land and water area lying vertically beneath an imaginary inclined surface which shall hereafter, for the purposes of this article, be referred to and described as the instrument approach surface.

The instrument approach surface shall begin, and shall have a base one thousand (1,000) feet wide, at a distance of two hundred (200) feet beyond the end of the runway, widening thereafter uniformly to a width of sixteen thousand (16,000) feet at a horizontal distance of fifty thousand two hundred (50,200) feet beyond the end of the runway, the centerline of this surface being the continuation of the centerline of the runway. The instrument approach surface shall extend outward and upward from its base, theelevation of which shall be the same as that of the runway end adjacent thereto, with a slope of one (1) foot vertically to fifty (50) feet horizontally for the first ten thousand (10,000) feet of its length and thence with a slope of one (1) foot vertically to forty (40) feet horizontally for the remainder.

(3) *NA or Non-instrument approach districts.* A "non-instrument approach district" is established for each end of each non-instrument runway for non-instrument landings and take-offs and it is further established that each such non-instrument approach district shall embrace and include all of the land and water area lying vertically beneath an imaginary inclined surface which shall hereafter, for the purposes of this article be referred to and described as the non-instrument approach surface.

The non-instrument approach surface shall begin, and shall have a base five hundred (500) feet wide, at a distance of two hundred (200) feet beyond the end of the runway, widening thereafter uniformly to a width of three thousand five hundred (3,500) feet at a horizontal distance of ten thousand two hundred (10,200) feet beyond the end of the runway, the centerline of this surface being the continuation of the centerline of the runway. The non-instrument approach surface shall extend outward and upward fromits base, the elevation of which shall be the same as that of the runway end adjacent thereto, with a slope of one (1) foot vertically to thirty-four (34) feet horizontally for its entire length.

(4) *TR or Transitional districts.* "Transitional districts" are hereby established adjacent to each landing, instrument approach and non-instrument approach district.

Transitional districts adjacent to runways embrace and include all of the land and water area lying vertically beneath an imaginary inclined surface symmetrically located on each side of each runway. For

instrument runways such imaginary inclined surfaces extend outward from lines parallel to and five hundred (500) feet on either side of the centerline of the runway, upward with a slope of one (1) foot vertically to seven (7) feet horizontally and terminating at an elevation one hundred fifty (150) feet above the hereinbefore established airport elevation. For non-instrument runways such imaginary inclined surfaces extend outward from lines parallel to and two hundred fifty (250) feet on either side of the centerline of the runway, upward with a slope of one (1) foot vertically to seven (7) feet horizontally and terminating at an elevation one hundred fifty (150) feet above the hereinbefore established airport elevation.

Transitional districts adjacent to non-instrument approach districts embrace and include all of the land and water area lying vertically beneath imaginary inclined surfaces which extend outward and upward from the long sides of the non-instrument approach surfaces, as hereinbefore described, at right angles to the centerline of the runway, with a slope of one (1) foot vertically to seven (7) feet horizontally terminating at an elevation one hundred fifty (150) feet above the hereinbefore established airportelevation.

Transitional districts adjacent to instrument approach districts embrace and include all of the land and water area lying vertically beneath imaginary inclined surfaces which extend outward and upward from the long sides of the instrument approach surfaces as hereinbefore described, at right angles to the centerline of the runway with a slope of one (1) foot vertically to seven (7) feet horizontally.

Within horizontal districts, which are hereafter established and described, this imaginary inclined plane shall terminate when it reaches an elevation one hundred fifty (150) feet above the hereinbefore established airport elevation. Within conical districts, which are also hereafter established and described, this imaginary inclined surface shall terminate in its intersection with the conical surface which, for the purposes of this article, is described hereinbelow. Outward from the limits of such conicalsurface, this imaginary inclined surface shall terminate five thousand (5,000) feet from the long sides of the hereinbefore described instrument approach surfaces, such five thousand (5,000) feet being measured horizontally and at right angles to the continuation of the centerline of the runway.

For the purposes of this subsection, the horizontal surface is established one hundred fifty (150) feet above the heretofore established airport elevation by swinging arcs of 10,000 feet radii for all runways from the center of each end of the primary surface of each runway and connecting the adjacent arcs by lines tangent to those arcs.

For the purposes of this article, the conical surface is established at the outer edge of the horizontal surface base which has a radius of thirteen thousand two hundred and fifty (13,250) feet centered vertically above the airport reference point at an elevation one hundred fifty (150) feet above the heretofore established airport elevation and the horizontal circular top of which has a radius of seventeen thousand two hundred and fifty (17,250) feet at an elevation three hundred and fifty (350) feet abovethe hereinbefore established airport elevation by extending outward and upward from the periphery of the horizontal surface at a slope of 20 to 1 for a horizontal distance of 4,000 feet.

(5) *T or Horizontal districts.* A "horizontal district" is established as the area within the

oblique circle having its center at the airport reference point and thirteen thousand two hundred and fifty (13,250) feet as its radius is created by swinging arcs of 10,000 feet for all runways from the center of each end of the primary surface of each runway and connecting the adjacent arcs by drawing lines tangent to those arcs. The horizontal district does not include the landing, instrument approach, non-instrument approach, transitional orconical districts.

(6) *TI or Conical districts.* A "conical district" is established commencing at the periphery of the horizontal district and extending to a periphery seventeen thousand two hundred and fifty (17,250) feet from the airport reference point therefrom a horizontal distance of 4,000 feet. The conical district does not include the landing instrument approach, non-instrument approach and transitional or horizontal districts.

(7) *NZ or Non-zoned districts.* Those portions of the airport zoning area not embraced and included in landing, instrument approach, non-instrument approach, transitional, horizontal and conical districts, as the same are established and described elsewhere herein, are hereby designated as non-zoned districts.

(Ord. No. 69-40, § 5, 7-9-69; Ord. No. 99-118, § 1, 9-21-99)

Sec. 33-393. Establishment of height limitations for zone classification districts in the airport zoning area.

Except as otherwise provided elsewhere in this article, no structure shall be erected or altered and no tree shall be allowed to grow or be maintained in any district created and established by this article to a height in excess of the height limits herein established for such district. Such height limitations will, in applying the provisions of this article, be corrected to elevations referred to the heretofore established mean sea level datum plane, by adding such height limitations to the mean sea levelelevation of the point, line or plane to which such height limitation is referenced, or to the airport elevation, as the context of this article requires. Such limitations are hereby established for the districts as follow:

(1) *Landing districts:* Structures and trees will not be permitted in landing districts except as required, necessary and pertinent to the operation and maintenance of Kendall Tamiami Executive Airport and then only to the extent permitted or authorized by applicable rule or regulation promulgated by the Federal Aviation Administration, or its successor counterpart.

(2) *Instrument approach districts:* One (1) foot in height for each fifty (50) feet in horizontal distance beginning at a point two hundred (200) feet from the end of the instrument runway and extending to a distance of ten thousand two hundred (10,200) feet from the end of the runway; thence one (1) foot in height for each forty (40) feet in horizontal distance to a point fifty thousand two hundred (50,200) feet from the end of the runway.

(3) *Non-instrument approach districts:* One (1) foot in height for each thirty-four (34) feet in horizontal distance beginning at a point two hundred (200) feet from the end of the non-instrument runway and extending to a point ten thousand two hundred (10,200) feet from the end of the runway.

(4) *Transitional districts:* One (1) foot in height for each seven (7) feet in horizontal distance beginning at a point two hundred fifty (250) feet from the centerline of non-instrument runways and five hundred (500) feet from the centerline of instrument runways, measured at right angles to the longitudinal centerline of the runway and extending upward to a maximum height of one hundred fifty (150) feet above the airport elevation as established elsewhere herein.

In addition to the foregoing, there are established height limits of one (1) foot vertical height for each seven (7) feet horizontal distance measured from the edges of all instrument approach surfaces, all non-instrument approach surfaces and the long sides of all primary surfaces upward and outward to an intersection with hereinbefore described horizontal and conical surfaces. Further, where the instrument approach surface projects beyond, or through and beyond the conical surface, the height limit of one(1) foot for each seven (7) feet of horizontal distance shall be maintained, beginning at the edge of the instrument approach surface and extending a distance of five thousand (5,000) feet from the edge of the instrument approach surface, such five thousand (5,000) feet being measured horizontally and at right angles to the continuation of the centerline of the runway.

(5) *Horizontal district:* One hundred fifty (150) feet above the hereinbefore established airport elevation.

(6) *Conical district:* One (1) foot in height for each twenty (20) feet of horizontal distance beginning at the periphery of the hereinbefore described horizontal surface and extending to a height of 350 feet above the airport elevation.

(7) *Non-zoned districts:* The height limitations as well as land use requirement in non-zoned districts shall, for the purposes of this article, be identical with requirements as set forth in Chapter 33 of the Code of Miami-Dade County, Florida, or, as the same may be set forth in the general zoning ordinances of the various municipalities where the property is located within a municipality.

Where the hereinbefore described imaginary inclined or horizontal surfaces for one (1) district overlap, merge or intersect with those of any other district, the imaginary inclined or horizontal surface that prescribes the most restrictive height limitation shall obtain and shall govern.

Notwithstanding any other provisions of this article to the contrary, the height limits prescribed by this article shall not establish for any particular parcel of privately owned land at any particular point within such a parcel, a height limit of less than forty (40) feet above mean sea level at that point.

The drawing entitled "Airport Height Zoning Area Map for Kendall-Tamiami Executive Airport" as prepared by the Miami-Dade Aviation Department, dated March 26, 2002, reflecting the above-defined height limitations, which is on file in the Office of the Miami-Dade County Planning and Zoning Department, shall be the official height zoning map for the Kendall-Tamiami Executive Airport, shall be prima facie evidence of the height of the structures and shall be applicable to and controlling of such height limitations established herein.

(Ord. No. 69-40, § 6, 7-9-69; Ord. No. 99-118, § 1, 9-21-99; Ord. No. 02-169, § 1, 9-24-02)

Sec. 33-394. Establishment of land use zoning criteria for airports.

For the purpose of this article all of the land use zoning criteria for Kendall-Tamiami Executive Airport and the surrounding area, as the same is created, established and described hereinbefore, is hereby divided into classifications as follows:

(1) *Inner District (ILZ).* An ILZ covers an area measured as one-half the length of the longest runway at the airport on either side and at the end of each runway centerline at the airport.

(2) *Outer District (OLZ).* The OLZ at an airport is based on VFR traffic pattern criteria and predominant type of aircraft utilizing the airport. For Kendall-Tamiami Executive Airport "Category A" is used due to the predominant type of aircraft having an approach

speed less than 91 knots and aircraft weighing less than 30,001 pounds. The mathematical formula for determining the limits of the OLZ are found in Federal Aviation Administration (FAA) Advisory Circular 7400.2C.

(3) *No School Zone (NSZ).* An NSZ for each runway covers an area that extends five statute miles from the end of a runway in a direct line along the centerline of the runway, and has a width measuring one-half the length of the longest runway at the airport.

(4) *Inner Safety Zone (ISZ).* Also referred to as the Runway Protection Zone (RPZ). For Kendall-Tamiami Executive Airport the ISZ is defined as an area which is centered about the extended runway centerline and begins 200 feet beyond the end of the area usable for take-off or landing. The ISZ dimension for Runway 13/31 begins at a width of 500 feet and extends 1,000 feet to a width of 700 feet. The ISZ dimension for Runway 9R/27L and Runway 9L/27R begin at a width of 1,000 feet and extends 2,500 feet to a width of 1,750 feet.

(5) *Outer Safety Zone (OSZ).* The OSZ is described as an area that extends outward from the ISZ to a point 5,000 feet from a runway end. The OSZ dimension for Runway 13/31 begins at a width of 700 feet and extends 3,800 feet to a width of 1,460 feet. The OSZ dimensions for Runway 9R/27L and Runway 9L/27R begin at a width of 1,750 feet and extend 2,300 feet to a width of 2,440 feet.

The drawing entitled "Airport Land Use Zoning Map for Kendall-Tamiami Executive Airport and Surrounding Area," as prepared by the Miami-Dade Aviation Department, dated September 13, 2001, reflecting the above defined classifications, which is on file in the Office of the Miami-Dade County Planning and Zoning Department, shall be the official land use zoning map for the Kendall-Tamiami Executive Airport, shall be prima facie evidence of the boundaries of the zones and districts dipicted thereon, and shall beapplicable to and controlling of zoning for such zones and districts.

(Ord. No. 99-118, § 1, 9-21-99; Ord. No. 02-169, § 1, 9-24-02)

Sec. 33-395. Land use zoning classifications for airports.

(A) Except as otherwise provided in this article, limitations on development of land, structures, and utilization of land within areas designated herein as being restricted due to non-compatibility with aircraft operations are in effect. In situations where land is beneath more than one land use classification the most restrictive shall apply. Restrictions to insure land use compatibility around Kendall-Tamiami Executive Airport are hereby established as follows:

(1) *Inner District (ILZ).* New residential construction and educational facilities, excluding aviation, are not permitted within this land use classification.

(2) *Outer District (OLZ).* New residential construction and educational facilities excluding aviation, within this land use classification are required to incorporate at least a 25 db Noise Level Reduction (NLR) into the design/construction of the structure.

(3) *No School Zone (NSZ).* New educational facilities, excluding aviation schools, are not permitted within this land use classification.

(4) *Inner Safety Zone (ISZ).* New residential construction, educational facilities (excluding aviation schools), churches and places of public assembly are not permitted within this land use classification.

(5) *Outer Safety Zone (OSZ).* Residential units are limited to less than two per acre. Educational facilities (excluding aviation schools) and places of public assembly are not permitted.

(B) Except as otherwise provided in this article, it shall be unlawful to put any land or water located within L, T, and NA Districts and within TR Districts adjoining L and NA Districts and

within the inner ten thousand (10,000) feet of IA Districts and the adjoining portions of TR Districts to any of the following prohibited uses:

Prohibited uses:

(1) Establishments or uses that emit smoke, gases, or dust in quantities or densities sufficient to jeopardize the safe use of the airport.

(2) Notwithstanding any other provisions of this article, no use may be made of land or water within the airport zoning area in such a manner as to create electrical interference with radio communications between the airport and aircraft; make it difficult for aircraft pilots and tower control operators to distinguish between airport lights, aircraft and others; result in glare in the eyes of aircraft pilots using the airport, or tower control operators; impair visibility in the vicinity of the airport; or otherwise endanger the landing, taking off or maneuvering of aircraft.

(3) Neither residential construction nor any educational facility as defined in Chapter 235, Florida Statutes, and the Code of Miami-Dade County, with the exception of aviation school facilities, shall be permitted within an area contiguous to the airport measuring one-half the length of the longest runway on either side of and at the end of each runway centerline.

(4) Nothing contained herein shall be construed to require the removal, alteration, sound conditioning, or other change, or to interfere with the continued use or adjacent expansion of any educational structure or site in existence on July 1, 1993, or be construed to prohibit the construction of any new structure for which a site has been determined as provided in Section 235.19, Florida Statues, as of July 1, 1993.

(5) Land fills and associated uses that emit smoke, gases, dust or attract birds shall not be permitted within 10,000 feet of any runway.

(Ord. No. 69-40, § 8, 7-9-69; Ord. No. 99-118, § 1, 9-21-99)

Sec. 33-396. Land use and height zoning maps for the airport zoning area.

The Board of County Commissioners shall, by ordinance, adopt, approve and ratify drawings which shall be entitled "Airport Land Use Zoning Map for Kendall-Tamiami Executive Airport and Surrounding Area, and "Airport Height Zoning Map for Kendall-Tamiami Executive Airport." Such drawings shall locate and identify Kendall-Tamiami Executive Airport, the affected surrounding area, and other topographic data pertinent thereto and to the purposes of this article and they shall also truly and faithfully depict theairport zoning area and the boundaries; and by contour lines, the height limitations, and zone classification districts therein as the same are established herein and as the same may be changed, varied, amended or supplemented by ordinance as provided and prescribed in Chapter 33 of the Code of Miami-Dade County, Florida. Copies or prints of such drawings shall be maintained and kept on file in the office of the Miami-Dade County Planning and Zoning Department and shall be prima facie evidence of the boundaries of the zone classification districts and the height limitations applicable thereto and therein.

(Ord. No. 69-40, § 7, 7-9-69; Ord. No. 95-215, § 1, 12-5-95; Ord. No. 99-118, § 1, 9-21-99; Ord. No. 02-169, § 1, 9-24-02)

Sec. 33-397. Nonconforming uses, regulations not retroactive.

The regulations prescribed by this article or any amendment thereto shall not be construed to

require the removal, lowering, or other change or alteration of any structure or tree or use of land lawfully in existence not conforming to the regulations as of July 19, 1969, or otherwise interfere with the continuance of any nonconforming use. Between July 19, 1969 and the effective date of this ordinance property owners shall not be permitted to erect any structure or to grow or maintain trees to heights in excess of those provided in Ordinance No. 69-40. After July 19, 1969, property owners shall not be permitted to erect any structure or to grow or maintain trees to heights in excess of those provided herein. Notwithstanding the preceding provisions of this article, the owner of any such nonconforming structure or tree is hereby required to permit the installation, operation and maintenance thereon of such marking, or marking and lighting, as shall be deemed necessary by the Director of the Aviation Department, to indicate to the operators of aircraft in the vicinity of the airport the presence of such airport hazard. Such marking and lighting, and the installation, operation and maintenance thereof, or such disposition of the hazard as may be agreed upon by and between the owner and the Director of the Miami-Dade County Aviation Department in lieu of such marking, or marking and lighting, shall be at the expense of the Miami-Dade County Aviation Department.

For the purposes of determining what shall constitute a nonconforming use, nothing contained herein shall be construed to prohibit or to require the removal of any lawful residential construction existing on the effective date of this ordinance or the approval of new residential construction either (a) on land located inside a residential zoning district, (b) on land designated or considered as "Residential Communities" on the Comprehensive Development Master Plan Land Use Plan Map, or (c) on land designated as "Agriculture" or "Open Land" on the Land Use Plan Map that was surrounded on three or more sides within 1/4 mile by land designated as "Residential Communities" on the Land Use Plan Map on the effective date of this ordinance. Any new residential construction on land identified in this paragraph is required to incorporate at least a 25 db Noise Level Reduction (NLR) into the design/construction of the structure.

For the purposes of determining what shall constitute a non-conforming use, nothing contained herein shall be construed to prohibit the construction of educational facilities previously approved by Zoning Resolution of the Community Zoning Appeals Board or Board of County Commissioners within twelve (12) months prior to the effective date of this ordinance.

(Ord. No. 69-40, § 9, 7-9-69; Ord. No. 99-118, § 1, 9-21-99)

Sec. 33-398. Reserved.

Editor's note: Ord. No. 99-118, § 1, adopted Sept. 21, 1999 renumbered former section 33-398, entitled "Permits" as section 33-400.

Sec. 33-399. Administration and enforcement.

It shall be the duty of the Director of the Department of Planning and Zoning of Miami-Dade County, Florida, to administer the regulations prescribed herein in accordance with Section 2-105, Code of Miami-Dade County, Florida. It shall be the duty of Team Metro to enforce these regulations.

In the event of any violation of the regulations contained herein, the person responsible for such violation shall be given notice in writing by Team Metro. Such notice shall indicate the nature of the violation and the necessary action to correct or abate the violation. A copy of said notice shall be sent to the Director of the Aviation Department and Team Metro of Miami-Dade County. A Planning and Zoning Department administrative official shall order discontinuance of use of land or buildings; removal oftrees to conform with height limitations set forth herein; removal of buildings, additions, alteration, or structures; discontinuance of any work being done; or shall take any or all other action necessary to correct violations and obtain compliance with all the provisions of this article.

(Ord. No. 69-40, § 10, 7-9-69; Ord. No. 95-215, § 1, 12-5-95; Ord. No. 98-125, § 21, 9-3-98; Ord. No. 99-118, § 1, 9-21-99)

Sec. 33-400. Permits.

Applications for permits under this article shall be obtained from the appropriate planning and zoning department or agency.

Approval of applications for permits for all construction, for adding height to any existing structures, and for all alterations, repairs, or additions that will change the use of the structure from the existing use to any commercial, industrial educational facility or residential use in any airport zone classification district lying within unincorporated and incorporated areas of Miami-Dade County, shall be obtained from the Director of the Department of Planning and Zoning, such application for permits shall include the height and location of derricks, draglines, cranes and other boom-equipped machinery, if such machinery is to be used during construction. No person shall operate such equipment until approval is obtained from the Director of the Aviation Department and Building Department.

All applications for permits made to appropriate municipal Planning and Zoning Departments or agencies for all construction or for adding height to any existing structure, and for all alterations, repairs, or additions that will change the use of structure from the existing use to any commercial, industrial educational facility or residential use in any airport zone classification district lying within a municipality for which airport zone classification district boundaries have been established herein, shall be approved by the Director of the Miami-Dade County Planning and Zoning Department and Building Official or by their duly authorized representatives prior to issuance of the permit by any municipal Planning and Zoning Department or agency for the purpose of assuring compliance with the minimum standards governing zoning as set forth in this article; provided, however, no approval by the Director and Building Official will be required for building and use permits from municipalities which have adopted byordinance effective airport zoning regulations, the minimum standards of which are at least as restrictive as the minimum standards prescribed herein as such apply to the areas covered by this article. No approval by the Director of the Miami-Dade County Planning and Zoning Department and Building Official will be required for building and use permits from municipalities which have adopted by ordinance effective general zoning regulations, the minimum standards of which are at least as restrictive as the minimum standards prescribed herein as such apply to the areas covered by this article; providing, however, that no municipality may grant any variance to said general zoning regulations which would make said minimum standards less restrictive than the minimum standards prescribed herein.

Permits will be approved by the Director of the Miami-Dade County Planning and Zoning Department and Building Official or their duly authorized representatives unless the proposal fails to meet the requirements of all applicable zoning regulations and building codes including the provisions of this article.

Permits when applied for by applicants intending to use derricks, draglines, cranes and other boom-equipped machinery for such construction, reconstruction or alteration of any commercial, industrial, educational facility or residential use as is consistent with the provisions hereof, shall, when the boom operating height exceeds the height limitations imposed by this article, require applicant to mark, or mark and light, the machinery to reflect conformity with the Federal Aviation Administration's or theMiami-Dade County Aviation Department standards for marking and lighting obstructions, whichever is the more restrictive, and shall require the applicant in such cases to obtain approval from the Director of the Miami-Dade County Aviation Department for the location, height and time of operation for such construction equipment use prior to the issuance of a construction permit to the applicant.

Notwithstanding any provision of this ordinance, in granting any permit or variance under this article, the Director or the appropriate board shall require the owner of the structure or tree for which a permit or variance is being sought, to install, operate and maintain thereon, at the owners sole expense, such marking and lighting as may be necessary to indicate to aircraft pilots the presence of an obstruction, such marking and lighting to conform to the specific standards established by rule of the Department of Transportation.

Any decision of the Director of the Planning and Zoning Department of Miami-Dade County may be appealed as provided and prescribed under Article XXXVI, of Chapter 33, Code of Miami-Dade County, Florida.

(Ord. No. 69-40, § 11, 7-9-69; Ord. No. 95-215, § 1, 12-5-95; Ord. No. 98-125, § 21, 9-3-98; Ord. No. 99-118, § 1, 9-21-99)

Sec. 33-401. Nonconforming uses abandoned or destroyed.

Whenever the Director of Planning and Zoning Department of Miami-Dade County determines that the height limits or use standards of this article will be violated by the reconstruction, substitution or replacement of an existing nonconforming use, structure or tree, no permit shall be granted for such reconstruction substitution or replacement.

Whether application is made for a permit under this paragraph or not, the Director of the Planning and Zoning Department of Miami-Dade County may by appropriate action require the owner of the nonconforming structure or tree to permit the Miami-Dade County Aviation Department at its expense to lower, remove, or mark, or mark and light such object as may be necessary to conform to these regulations.

(Ord. No. 69-40, § 12, 7-9-69; Ord. No. 95-215, § 1, 12-5-95; Ord. No. 99-118, § 1, 9-21-99)

Sec. 33-402. Variances.

(1) Any person desiring to erect or increase the height of any structure, or permit the growth of any tree or otherwise use his property not in accordance with the regulations prescribed in this article may apply to the appropriate zoning board for a variance from such regulations as provided and prescribed under Article XXXVI of Chapter 33, Code of Miami-Dade County, Florida. Applications for variances or any other authorization for any construction or use not authorized by Sections 33-392, 33-393, 33-394, 33-395, 33-396 or 33-397 shall be submitted and determined in accordance with the procedures, provisions and requirements set forth in Florida Statutes, Section 333.03 and Sections 333.07 through and including 333.11 (1998) or successor legislation. For the purpose of zoning applications filed under this chapter, the appropriate Community Zoning Appeals Board shall constitute the board of adjustment pursuant to Florida Statutes, Section 333.10, subject to all procedures applicable to community zoning appeals boards.

(2) At the time of filing the application, the applicant shall forward to the Florida Department of Transportation by certified mail, return receipt requested, a copy of the application for the Department's review and comment, if any. A copy of the return receipt must be filed with the Director of the Miami-Dade County Department of Planning and Zoning at the time of filing the application. No public hearing on the application may commence less than forty-six (46) days after receipt of the application by the Department of Transportation. Notwithstanding any provision of the Code of Miami-Dade County, failure to comply with the requirements of this subsection shall be grounds for appeal of a decision rendered by the community zoning appeals board by an applicant, governing body of any municipality, if affected, or any aggrieved party as defined in Section 33-313, Code of Miami-Dade County, the Director or the County Manager to the Board of County Commissioners. The provisions of Section 33-313 shall govern all appeals brought under this subsection.

(3) No application shall be considered unless a written evaluation and recommendation of the director of the aviation department of his or her designee has been provided to the applicable board. For purposes of applications brought under this section, the procedures of this section shall be in addition to any procedures set forth elsewhere in the Code of Miami-Dade County.

(4) Approval of such variances shall be limited to those cases in which it is duly found that a literal application or enforcement of the regulations would result in practical difficulty or unnecessary hardship and the relief granted would not be contrary to the public interest but would do substantial justice and be in accordance with the spirit of this article, and such zoning board is hereby admonished that the intent and purpose of this article is to promote the health, safety and general welfare of the inhabitants of Miami-Dade County, Florida, by preventing the creation of an airport hazard or of a hazard to air navigation, thereby protecting the lives and property of users of Kendall Tamiami Executive Airport and of occupants of land in its vicinity and preventing destruction or impairment of the utility of the airport and the public investment therein.

(5) Construction of any educational facility is prohibited at either end of a runway of Kendall-Tamiami Executive Airport within an area which extends 5 miles in a direct line along the centerline of the runway, and which has a width measuring one-half the length of the runway. In addition to any findings required in this chapter, variances approving construction of an educational facility within the delineated area shall only be granted when the appropriate zoning board makes specific findings detailing how the public policy reasons for allowing construction outweigh health and safety concerns prohibiting such a location.

(6) Notwithstanding the foregoing provisions of this section, in granting any permit or variance under this article, the Director or the appropriate board shall require the owner of the structure or tree for which a permit or variance is being sought, to install, operate and maintain thereon, at the owners sole expense, such marking and lighting as may be necessary to indicate to aircraft pilots the presence of an obstruction, such marking and lighting to conform to the specific standards established by rule ofthe Department of Transportation.

(7) Notwithstanding any provision contained in any section of this Code, the Board of County Commissioners shall have jurisdiction over any appeal filed by the County Manager from a decision of a Community Zoning Appeals Board rendered pursuant to this section where it is the opinion of the County Manager that a Community Zoning Appeals Board's resolution is incompatible with aviation activity or aviation safety.

(Ord. No. 69-40, § 13, 7-9-69; Ord. No. 99-118, § 1, 9-21-99)

Sec. 33-403. Conditions to variances.

Any variance granted under this article may, if such action is deemed advisable to effectuate the purposes of this article and reasonable in the circumstance, be so conditioned as to require the owner of the structure or tree in question to install, operate, and maintain, at his expense, or to permit the Miami-Dade County Aviation Department to install, operate, and maintain thereon at the owner's expense such marking, or marking and lighting, as may be necessary to indicate to aircraft pilots the presenceof an airport hazard or hazard to air navigation.

(Ord. No. 69-40, § 14, 7-9-69; Ord. No. 99-118, § 1, 9-21-99)

Sec. 33-404. Penalties and enforcement.

Each violation of this article or of any regulation, order, or ruling promulgated hereunder shall be punishable as provided by Section 33-39, Code of Miami-Dade County, Florida.

(Ord. No. 69-40, § 15, 7-9-69; Ord. No. 99-118, § 1, 9-21-99)

Sec. 33-405. Conflicting regulations.

Nothing contained in this article shall be interpreted to conflict with or supersede any federal regulation pertaining to the control of hazards to air navigation; provided however, where this article imposes lower height limitations or more stringent restrictions upon the use of land or water than are imposed or required by other County ordinance or resolution, or federal rules or regulations the provisions of this article shall govern.

(Ord. No. 69-40, § 16, 7-9-69; Ord. No. 99-118, § 1, 9-21-99)

Secs. 33-406--33-419. Reserved.

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CHAPTER 333

AIRPORT ZONING

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333.01 Definitions.--For the purpose of this chapter, the following words, terms, and phrases shall have the meanings herein given, unless otherwise specifically defined, or unless another intention clearly

appears, or the context otherwise requires:

(1) "Aeronautics" means transportation by aircraft; the operation, construction, repair, or maintenance of aircraft, aircraft power plants and accessories, including the repair, packing, and maintenance of parachutes; the design, establishment, construction, extension, operation, improvement, repair, or maintenance of airports, restricted landing areas, or other air navigation facilities, and air instruction.

(2) "Airport" means any area of land or water designed and set aside for the landing and taking off of aircraft and utilized or to be utilized in the interest of the public for such purpose.

(3) "Airport hazard" means any structure or tree or use of land which would exceed the federal obstruction standards as contained in 14 C.F.R. ss. 77.21, 77.23, 77.25, 77.28, and 77.29 and which obstructs the airspace required for the flight of aircraft in taking off, maneuvering, or landing or is otherwise hazardous to such taking off, maneuvering, or landing of aircraft and for which no person has previously obtained a permit or variance pursuant to s. 333.025 or s. 333.07.

(4) "Airport hazard area" means any area of land or water upon which an airport hazard might be established if not prevented as provided in this chapter.

(5) "Airport land use compatibility zoning" means airport zoning regulations restricting the use of land adjacent to or in the immediate vicinity of airports in the manner enumerated in s. 333.03(2) to activities and purposes compatible with the continuation of normal airport operations including landing and takeoff of aircraft in order to promote public health, safety, and general welfare.

(6) "Airport layout plan" means a detailed, scale engineering drawing, including pertinent dimensions, of an airport's current and planned facilities, their locations, and runway usage.

(7) "Obstruction" means any existing or proposed manmade object or object of natural growth or terrain that violates the standards contained in 14 C.F.R. ss. 77.21, 77.23, 77.25, 77.28, and 77.29.

(8) "Person" means any individual, firm, copartnership, corporation, company, association, joint-stock association, or body politic, and includes any trustee, receiver, assignee, or other similar representative thereof.

(9) "Political subdivision" means any county, city, town, village, or other subdivision or agency thereof, or any district, port commission, port authority, or other such agency authorized to establish or operate airports in the state.

(10) "Runway clear zone" means a runway clear zone as defined in 14 C.F.R. part 151.9(b).

(11) "Structure" means any object, constructed or installed by humans, including, but without limitation thereof, buildings, towers, smokestacks, utility poles, and overhead transmission lines.

(12) "Tree" includes any plant of the vegetable kingdom.

History.--s. 1, ch. 23079, 1945; s. 2, ch. 75-16; s. 1, ch. 88-356; s. 70, ch. 90-136; s. 84, ch. 91-221; s. 482, ch. 95-148.

333.02 Airport hazards and uses of land in airport vicinities contrary to public interest.--

(1) It is hereby found that an airport hazard endangers the lives and property of users of the airport and of occupants of land in its vicinity and also, if of the obstruction type, in effect reduces the size of the area available for the taking off, maneuvering, or landing of aircraft, thus tending to destroy or impair the utility of the airport and the public investment therein. It is further found that certain activities and uses of land in the immediate vicinity of airports as enumerated in s. 333.03(2) are not compatible with normal airport operations, and may, if not regulated, also endanger the lives of the participants, adversely affect their health, or otherwise limit the accomplishment of normal activities. Accordingly, it is hereby declared:

(a) That the creation or establishment of an airport hazard and the incompatible use of land in airport vicinities are public nuisances and injure the community served by the airport in question;

(b) That it is therefore necessary in the interest of the public health, public safety, and general welfare that the creation or establishment of airport hazards and incompatible land uses be prevented; and

(c) That this should be accomplished, to the extent legally possible, by the exercise of the police power, without compensation.

(2) It is further declared that the limitation of land uses incompatible with normal airport operations, the prevention of the creation or establishment of airport hazards, and the elimination, removal, alteration, mitigation, or marking and lighting of existing airport hazards are public purposes for which political subdivisions may raise and expend public funds and acquire land or property interests therein, or air rights thereover.

History.--s. 2, ch. 23079, 1945; s. 2, ch. 88-356; s. 71, ch. 90-136.

333.025 Permit required for structures exceeding federal obstruction standards.--

(1) In order to prevent the erection of structures dangerous to air navigation, subject to the provisions of subsections (2), (3), and (4), each person shall secure from the Department of Transportation a permit for the erection, alteration, or modification of any structure the result of which would exceed the federal obstruction standards as contained in 14 C.F.R. ss. 77.21, 77.23, 77.25, 77.28, and 77.29. However, permits from the Department of Transportation will be required only within an airport hazard area where federal standards are exceeded and if the proposed construction is within a 10-nautical-mile radius of the geographical center of a publicly owned or operated airport, a military airport, or an airport licensed by the state for public use.

(2) Affected airports will be considered as having those facilities which are shown on the airport master plan, or an airport layout plan submitted to the Federal Aviation Administration Airport District Office or

comparable military documents, and will be so protected. Planned or proposed public-use airports which are the subject of a notice or proposal submitted to the Federal Aviation Administration or to the Department of Transportation shall also be protected.

(3) Permit requirements of subsection (1) shall not apply to projects which received construction permits from the Federal Communications Commission for structures exceeding federal obstruction standards prior to May 20, 1975, provided such structures now exist; nor shall it apply to previously approved structures now existing, or any necessary replacement or repairs to such existing structures, so long as the height and location is unchanged.

(4) When political subdivisions have adopted adequate airspace protection in compliance with s. 333.03, and such regulations are on file with the Department of Transportation, a permit for such structure shall not be required from the Department of Transportation.

(5) The Department of Transportation shall, within 30 days of the receipt of an application for a permit, issue or deny a permit for the erection, alteration, or modification of any structure the result of which would exceed federal obstruction standards as contained in 14 C.F.R. ss. 77.21, 77.23, 77.25, 77.28, and 77.29.

(6) In determining whether to issue or deny a permit, the department shall consider:

(a) The nature of the terrain and height of existing structures.

(b) Public and private interests and investments.

(c) The character of flying operations and planned developments of airports.

(d) Federal airways as designated by the Federal Aviation Administration.

(e) Whether the construction of the proposed structure would cause an increase in the minimum descent altitude or the decision height at the affected airport.

(f) Technological advances.

(g) The safety of persons on the ground and in the air.

(h) Land use density.

(i) The safe and efficient use of navigable airspace.

(j) The cumulative effects on navigable airspace of all existing structures, proposed structures identified in the applicable jurisdictions' comprehensive plans, and all other known proposed structures in the area.

(7) When issuing a permit under this section, the Department of Transportation shall, as a specific condition of such permit, require the obstruction marking and lighting of the permitted structure as

provided in s. 333.07(3)(b).

(8) The Department of Transportation shall not approve a permit for the erection of a structure unless the applicant submits both documentation showing compliance with the federal requirement for notification of proposed construction and a valid aeronautical evaluation, and no permit shall be approved solely on the basis that such proposed structure will not exceed federal obstruction standards as contained in 14 C.F.R. ss. 77.21, 77.23, 77.25, 77.28, or 77.29, or any other federal aviation regulation.

History.--s. 3, ch. 75-16; s. 3, ch. 88-356; s. 7, ch. 92-152.

333.03 Power to adopt airport zoning regulations.--

(1)(a) In order to prevent the creation or establishment of airport hazards, every political subdivision having an airport hazard area within its territorial limits shall, by October 1, 1977, adopt, administer, and enforce, under the police power and in the manner and upon the conditions hereinafter prescribed, airport zoning regulations for such airport hazard area.

(b) Where an airport is owned or controlled by a political subdivision and any airport hazard area appertaining to such airport is located wholly or partly outside the territorial limits of said political subdivision, the political subdivision owning or controlling the airport and the political subdivision within which the airport hazard area is located, shall either:

1. By interlocal agreement, in accordance with the provisions of chapter 163, adopt, administer, and enforce airport zoning regulations applicable to the airport hazard area in question; or

2. By ordinance or resolution duly adopted, create a joint airport zoning board, which board shall have the same power to adopt, administer, and enforce airport zoning regulations applicable to the airport hazard area in question as that vested in paragraph (a) in the political subdivision within which such area is located. Each such joint board shall have as members two representatives appointed by each political subdivision participating in its creation and in addition a chair elected by a majority of the members so appointed. However, the airport manager or managers of the affected political subdivisions shall serve on the board in a nonvoting capacity.

(c) Airport zoning regulations adopted under paragraph (a) shall, as a minimum, require:

1. A variance for the erection, alteration, or modification of any structure which would cause the structure to exceed the federal obstruction standards as contained in 14 C.F.R. ss. 77.21, 77.23, 77.25, 77.28, and 77.29;

2. Obstruction marking and lighting for structures as specified in s. 333.07(3);

3. Documentation showing compliance with the federal requirement for notification of proposed construction and a valid aeronautical evaluation submitted by each person applying for a variance;

4. Consideration of the criteria in s. 333.025(6), when determining whether to issue or deny a variance; and

5. That no variance shall be approved solely on the basis that such proposed structure will not exceed federal obstruction standards as contained in 14 C.F.R. ss. 77.21, 77.23, 77.25, 77.28, or 77.29, or any other federal aviation regulation.

(d) The department shall issue copies of the federal obstruction standards as contained in 14 C.F.R. ss. 77.21, 77.23, 77.25, 77.28, and 77.29 to each political subdivision having airport hazard areas and, in cooperation with political subdivisions, shall issue appropriate airport zoning maps depicting within each county the maximum allowable height of any structure or tree. Material distributed pursuant to this subsection shall be at no cost to authorized recipients.

(2) In the manner provided in subsection (1), interim airport land use compatibility zoning regulations shall be adopted. When political subdivisions have adopted land development regulations in accordance with the provisions of chapter 163 which address the use of land in the manner consistent with the provisions herein, adoption of airport land use compatibility regulations pursuant to this subsection shall not be required. Interim airport land use compatibility zoning regulations shall consider the following:

(a) Whether sanitary landfills are located within the following areas:

1. Within 10,000 feet from the nearest point of any runway used or planned to be used by turbojet or turboprop aircraft.

2. Within 5,000 feet from the nearest point of any runway used only by piston-type aircraft.

3. Outside the perimeters defined in subparagraphs 1. and 2., but still within the lateral limits of the civil airport imaginary surfaces defined in 14 C.F.R. part 77.25. Case-by-case review of such landfills is advised.

(b) Whether any landfill is located and constructed so that it attracts or sustains hazardous bird movements from feeding, water, or roosting areas into, or across, the runways or approach and departure patterns of aircraft. The political subdivision shall request from the airport authority or other governing body operating the airport a report on such bird feeding or roosting areas that at the time of the request are known to the airport. In preparing its report, the authority, or other governing body, shall consider whether the landfill will incorporate bird management techniques or other practices to minimize bird hazards to airborne aircraft. The airport authority or other governing body shall respond to the political subdivision no later than 30 days after receipt of such request.

(c) Where an airport authority or other governing body operating a publicly owned, public-use airport has conducted a noise study in accordance with the provisions of 14 C.F.R. part 150, neither residential construction nor any educational facility as defined in chapter 1013, with the exception of aviation school facilities, shall be permitted within the area contiguous to the airport defined by an outer noise contour that is considered incompatible with that type of construction by 14 C.F.R. part 150, Appendix A or an equivalent noise level as established by other types of noise studies.

(d) Where an airport authority or other governing body operating a publicly owned, public-use airport has not conducted a noise study, neither residential construction nor any educational facility as defined in chapter 1013, with the exception of aviation school facilities, shall be permitted within an area contiguous to the airport measuring one-half the length of the longest runway on either side of and at the end of each runway centerline.

(3) In the manner provided in subsection (1), airport zoning regulations shall be adopted which restrict new incompatible uses, activities, or construction within runway clear zones, including uses, activities, or construction in runway clear zones which are incompatible with normal airport operations or endanger public health, safety, and welfare by resulting in congregations of people, emissions of light or smoke, or attraction of birds. Such regulations shall prohibit the construction of an educational facility of a public or private school at either end of a runway of a publicly owned, public-use airport within an area which extends 5 miles in a direct line along the centerline of the runway, and which has a width measuring one-half the length of the runway. Exceptions approving construction of an educational facility within the delineated area shall only be granted when the political subdivision administering the zoning regulations makes specific findings detailing how the public policy reasons for allowing the construction outweigh health and safety concerns prohibiting such a location.

(4) The procedures outlined in subsections (1), (2), and (3) for the adoption of such regulations are supplemental to any existing procedures utilized by political subdivisions in the adoption of such regulations.

(5) The Department of Transportation shall provide technical assistance to any political subdivision requesting assistance in the preparation of an airport zoning code. A copy of all local airport zoning codes, rules, and regulations, and amendments and proposed and granted variances thereto, shall be filed with the department.

(6) Nothing in subsection (2) or subsection (3) shall be construed to require the removal, alteration, sound conditioning, or other change, or to interfere with the continued use or adjacent expansion of any educational structure or site in existence on July 1, 1993, or be construed to prohibit the construction of any new structure for which a site has been determined as provided in former s. 235.19, as of July 1, 1993.

History.--s. 3, ch. 23079, 1945; s. 4, ch. 75-16; s. 4, ch. 88-356; s. 72, ch. 90-136; s. 8, ch. 92-152; s. 10, ch. 93-164; s. 1, ch. 94-201; s. 958, ch. 95-148; s. 971, ch. 2002-387.

333.04 Comprehensive zoning regulations; most stringent to prevail where conflicts occur.--

(1) INCORPORATION.--In the event that a political subdivision has adopted, or hereafter adopts, a comprehensive zoning ordinance regulating, among other things, the height of buildings, structures, and natural objects, and uses of property, any airport zoning regulations applicable to the same area or portion thereof may be incorporated in and made a part of such comprehensive zoning regulations, and be administered and enforced in connection therewith.

(2) CONFLICT.--In the event of conflict between any airport zoning regulations adopted under this chapter and any other regulations applicable to the same area, whether the conflict be with respect to the height of structures or trees, the use of land, or any other matter, and whether such regulations were adopted by the political subdivision which adopted the airport zoning regulations or by some other political subdivision, the more stringent limitation or requirement shall govern and prevail.

History.--s. 4, ch. 23079, 1945.

333.05 Procedure for adoption of zoning regulations.--

(1) NOTICE AND HEARING.--No airport zoning regulations shall be adopted, amended, or changed under this chapter except by action of the legislative body of the political subdivision in question, or the joint board provided in s. 333.03(1)(b) by the bodies therein provided and set forth, after a public hearing in relation thereto, at which parties in interest and citizens shall have an opportunity to be heard. Notice of the hearing shall be published at least once a week for 2 consecutive weeks in an official paper, or a paper of general circulation, in the political subdivision or subdivisions in which are located the airport areas to be zoned.

(2) AIRPORT ZONING COMMISSION.--Prior to the initial zoning of any airport area under this chapter the political subdivision or joint airport zoning board which is to adopt the regulations shall appoint a commission, to be known as the airport zoning commission, to recommend the boundaries of the various zones to be established and the regulations to be adopted therefor. Such commission shall make a preliminary report and hold public hearings thereon before submitting its final report, and the legislative body of the political subdivision or the joint airport zoning board shall not hold its public hearings or take any action until it has received the final report of such commission, and at least 15 days shall elapse between the receipt of the final report of the commission and the hearing to be held by the latter board. Where a city plan commission or comprehensive zoning commission already exists, it may be appointed as the airport zoning commission.

History.--s. 5, ch. 23079, 1945; s. 74, ch. 90-136; s. 23, ch. 90-279; s. 39, ch. 95-143.

333.06 Airport zoning requirements.--

(1) REASONABLENESS.--All airport zoning regulations adopted under this chapter shall be reasonable and none shall impose any requirement or restriction which is not reasonably necessary to effectuate the purposes of this chapter. In determining what regulations it may adopt, each political subdivision and joint airport zoning board shall consider, among other things, the character of the flying operations expected to be conducted at the airport, the nature of the terrain within the airport hazard area and runway clear zones, the character of the neighborhood, the uses to which the property to be zoned is put and adaptable, and the impact of any new use, activity, or construction on the airport's operating capability and capacity.

(2) INDEPENDENT JUSTIFICATION.--The purpose of all airport zoning regulations adopted under this chapter is to provide both airspace protection and land use compatible with airport operations. Each

aspect of this purpose requires independent justification in order to promote the public interest in safety, health, and general welfare. Specifically, construction in a runway clear zone which does not exceed airspace height restrictions is not evidence per se that such use, activity, or construction is compatible with airport operations.

(3) NONCONFORMING USES.--No airport zoning regulations adopted under this chapter shall require the removal, lowering, or other change or alteration of any structure or tree not conforming to the regulations when adopted or amended, or otherwise interfere with the continuance of any nonconforming use, except as provided in s. 333.07(1) and (3).

(4) ADOPTION OF AIRPORT MASTER PLAN AND NOTICE TO AFFECTED LOCAL GOVERNMENTS.--An airport master plan shall be prepared by each publicly owned and operated airport licensed by the Department of Transportation under chapter 330. The authorized entity having responsibility for governing the operation of the airport, when either requesting from or submitting to a state or federal governmental agency with funding or approval jurisdiction a "finding of no significant impact," an environmental assessment, a site-selection study, an airport master plan, or any amendment to an airport master plan, shall submit simultaneously a copy of said request, submittal, assessment, study, plan, or amendments by certified mail to all affected local governments. For the purposes of this subsection, "affected local government" is defined as any city or county having jurisdiction over the airport and any city or county located within 2 miles of the boundaries of the land subject to the airport master plan.

History.--s. 6, ch. 23079, 1945; s. 75, ch. 90-136; s. 76, ch. 2002-20.

333.065 Guidelines regarding land use near airports.--The Department of Transportation, after consultation with the Department of Community Affairs, local governments, and other interested persons, shall adopt by rule recommended guidelines regarding compatible land uses in the vicinity of airports. These guidelines shall utilize acceptable and established quantitative measures, such as the Air Installation Compatible Use Zone standards, the Florida Statutes, and applicable Federal Aviation Administration documents.

History.--s. 49, ch. 93-206.

333.07 Permits and variances.--

(1) PERMITS.--

(a) Any airport zoning regulations adopted under this chapter may require that a permit be obtained before any new structure or use may be constructed or established and before any existing use or structure may be substantially changed or substantially altered or repaired. In any event, however, all such regulations shall provide that before any nonconforming structure or tree may be replaced, substantially altered or repaired, rebuilt, allowed to grow higher, or replanted, a permit must be secured from the administrative agency authorized to administer and enforce the regulations, authorizing such replacement, change, or repair. No permit shall be granted that would allow the establishment or creation of an airport hazard or would permit a nonconforming structure or tree or nonconforming use to be made

or become higher or to become a greater hazard to air navigation than it was when the applicable regulation was adopted or than it is when the application for a permit is made.

(b) Whenever the administrative agency determines that a nonconforming use or nonconforming structure or tree has been abandoned or is more than 80 percent torn down, destroyed, deteriorated, or decayed, no permit shall be granted that would allow said structure or tree to exceed the applicable height limit or otherwise deviate from the zoning regulations; and, whether application is made for a permit under this subsection or not, the said agency may by appropriate action, compel the owner of the nonconforming structure or tree, at his or her own expense, to lower, remove, reconstruct, or equip such object as may be necessary to conform to the regulations. If the owner of the nonconforming structure or tree shall neglect or refuse to comply with such order for 10 days after notice thereof, the said agency may report the violation to the political subdivision involved therein, which subdivision, through its appropriate agency, may proceed to have the object so lowered, removed, reconstructed, or equipped, and assess the cost and expense thereof upon the object or the land whereon it is or was located, and, unless such an assessment is paid within 90 days from the service of notice thereof on the owner or the owner's agent, of such object or land, the sum shall be a lien on said land, and shall bear interest thereafter at the rate of 6 percent per annum until paid, and shall be collected in the same manner as taxes on real property are collected by said political subdivision, or, at the option of said political subdivision, said lien may be enforced in the manner provided for enforcement of liens by chapter 85.

(c) Except as provided herein, applications for permits shall be granted, provided the matter applied for meets the provisions of this chapter and the regulations adopted and in force hereunder.

(2) VARIANCES.--

(a) Any person desiring to erect any structure, increase the height of any structure, permit the growth of any tree, or otherwise use his or her property in violation of the airport zoning regulations adopted under this chapter or any land development regulation adopted pursuant to the provisions of chapter 163 pertaining to airport land use compatibility, may apply to the board of adjustment for a variance from the zoning regulations in question. At the time of filing the application, the applicant shall forward to the department by certified mail, return receipt requested, a copy of the application. The department shall have 45 days from receipt of the application to comment and to provide its comments or waiver of that right to the applicant and the board of adjustment. The department shall include its explanation for any objections stated in its comments. If the department fails to provide its comments within 45 days of receipt of the application, its right to comment is waived. The board of adjustment may proceed with its consideration of the application only upon the receipt of the department's comments or waiver of that right as demonstrated by the filing of a copy of the return receipt with the board. Noncompliance with this section shall be grounds to appeal pursuant to s. 333.08 and to apply for judicial relief pursuant to s. 333.11. Such variances may only be allowed where a literal application or enforcement of the regulations would result in practical difficulty or unnecessary hardship and where the relief granted would not be contrary to the public interest but would do substantial justice and be in accordance with the spirit of the regulations and this chapter. However, any variance may be allowed subject to any reasonable conditions that the board of adjustment may deem necessary to effectuate the purposes of this chapter.

(b) The Department of Transportation shall have the authority to appeal any variance granted under this chapter pursuant to s. 333.08, and to apply for judicial relief pursuant to s. 333.11.

(3) OBSTRUCTION MARKING AND LIGHTING.--

(a) In granting any permit or variance under this section, the administrative agency or board of adjustment shall require the owner of the structure or tree in question to install, operate, and maintain thereon, at his or her own expense, such marking and lighting as may be necessary to indicate to aircraft pilots the presence of an obstruction.

(b) Such marking and lighting shall conform to the specific standards established by rule by the Department of Transportation.

(c) Existing structures not in compliance on October 1, 1988, shall be required to comply whenever the existing marking requires refurbishment, whenever the existing lighting requires replacement, or within 5 years of October 1, 1988, whichever occurs first.

History.--s. 7, ch. 23079, 1945; s. 5, ch. 88-356; s. 76, ch. 90-136; s. 483, ch. 95-148.

333.08 Appeals.--

(1) Any person aggrieved, or taxpayer affected, by any decision of an administrative agency made in its administration of airport zoning regulations adopted under this chapter; or any governing body of a political subdivision, or the Department of Transportation, or any joint airport zoning board, which is of the opinion that a decision of such an administrative agency is an improper application of airport zoning regulations of concern to such governing body or board, may appeal to the board of adjustment authorized to hear and decide appeals from the decisions of such administrative agency.

(2) All appeals taken under this section must be taken within a reasonable time, as provided by the rules of the board, by filing with the agency from which appeal is taken and with the board, a notice of appeal specifying the grounds thereof. The agency from which the appeal is taken shall forthwith transmit to the board all the papers constituting the record upon which the action appealed from was taken, or properly certified copies thereof in lieu of originals, as the agency involved may elect.

(3) An appeal shall stay all proceedings in furtherance of the action appealed from, unless the agency from which the appeal is taken certifies to the board, after the notice of appeal has been filed with it, that by reason of the facts stated in the certificate a stay would, in its opinion, cause imminent peril to life or property. In such cases, proceedings shall not be stayed otherwise than by an order of the board on notice to the agency from which the appeal is taken and on due cause shown.

(4) The board shall fix a reasonable time for the hearing of appeals, give public notice and due notice to the parties in interest, and decide the same within a reasonable time. Upon the hearing, any party may appear in person or by agent or by attorney.

(5) The board may, in conformity with the provisions of this chapter, reverse or affirm wholly or partly, or modify, the order, requirement, decision, or determination appealed from and may make such order, requirement, decision, or determination as ought to be made, and to that end shall have all the powers of the administrative agency from which the appeal is taken.

History.--s. 8, ch. 23079, 1945; s. 6, ch. 88-356.

333.09 Administration of airport zoning regulations.--All airport zoning regulations adopted under this chapter shall provide for the administration and enforcement of such regulations by an administrative agency which may be an agency created by such regulations or any official, board, or other existing agency of the political subdivision adopting the regulations or of one of the political subdivisions which participated in the creation of the joint airport zoning board adopting the regulations, if satisfactory to that political subdivision, but in no case shall such administrative agency be or include any member of the board of adjustment. The duties of any administrative agency designated pursuant to this chapter shall include that of hearing and deciding all permits under s. 333.07(1), deciding all matters under s. 333.07 (3), as they pertain to such agency, and all other matters under this chapter applying to said agency, but such agency shall not have or exercise any of the powers herein delegated to the board of adjustment.

History.--s. 9, ch. 23079, 1945.

333.10 Board of adjustment.--

(1) All airport zoning regulations adopted under this chapter shall provide for a board of adjustment to have and exercise the following powers:

(a) To hear and decide appeals from any order, requirement, decision, or determination made by the administrative agency in the enforcement of the airport zoning regulations, as provided in s. 333.08.

(b) To hear and decide any special exceptions to the terms of the airport zoning regulations upon which such board may be required to pass under such regulations.

(c) To hear and decide specific variances under s. 333.07(2).

(2) Where a zoning board of appeals or adjustment already exists, it may be appointed as the board of adjustment. Otherwise, the board of adjustment shall consist of five members, each to be appointed for a term of 3 years by the authority adopting the regulations and to be removable by the appointing authority for cause, upon written charges and due notice and after public hearing.

(3) The concurring vote of a majority of the members of the board of adjustment shall be sufficient to reverse any order, requirement, decision, or determination of the administrative agency, or to decide in favor of the applicant on any matter upon which it is required to pass under the airport zoning regulations, or to effect any variation in such regulations.

(4) The board shall adopt rules in accordance with the provisions of the ordinance or resolution by which

it was created. Meetings of the board shall be held at the call of the chair and at such other times as the board may determine. The chair, or in the chair's absence the acting chair, may administer oaths and compel the attendance of witnesses. All hearings of the said board shall be public. The board shall keep minutes of its proceedings, showing the vote of each member upon each question, or, if absent or failing to vote, indicating such fact, and shall keep records of its examinations and other official actions, all of which shall be immediately filed in the office of the board and shall be a public record.

History.--s. 10, ch. 23079, 1945; s. 484, ch. 95-148.

333.11 Judicial review.--

(1) Any person aggrieved, or taxpayer affected, by any decision of a board of adjustment, or any governing body of a political subdivision or the Department of Transportation or any joint airport zoning board, or of any administrative agency hereunder, may apply for judicial relief to the circuit court in the judicial circuit where the board of adjustment is located within 30 days after rendition of the decision by the board of adjustment. Review shall be by petition for writ of certiorari, which shall be governed by the Florida Rules of Appellate Procedure.

(2) Upon presentation of such petition to the court, it may allow a writ of certiorari, directed to the board of adjustment, to review such decision of the board. The allowance of the writ shall not stay the proceedings upon the decision appealed from, but the court may, on application, on notice to the board, on due hearing and due cause shown, grant a restraining order.

(3) The board of adjustment shall not be required to return the original papers acted upon by it, but it shall be sufficient to return certified or sworn copies thereof or of such portions thereof as may be called for by the writ. The return shall concisely set forth such other facts as may be pertinent and material to show the grounds of the decision appealed from and shall be verified.

(4) The court shall have exclusive jurisdiction to affirm, modify, or set aside the decision brought up for review, in whole or in part, and if need be, to order further proceedings by the board of adjustment. The findings of fact by the board, if supported by substantial evidence, shall be accepted by the court as conclusive, and no objection to a decision of the board shall be considered by the court unless such objection shall have been urged before the board, or, if it was not so urged, unless there were reasonable grounds for failure to do so.

(5) In any case in which airport zoning regulations adopted under this chapter, although generally reasonable, are held by a court to interfere with the use and enjoyment of a particular structure or parcel of land to such an extent, or to be so onerous in their application to such a structure or parcel of land, as to constitute a taking or deprivation of that property in violation of the State Constitution or the Constitution of the United States, such holding shall not affect the application of such regulations to other structures and parcels of land, or such regulations as are not involved in the particular decision.

(6) No appeal shall be or is permitted under this section, to any courts, as herein provided, save and except an appeal from a decision of the board of adjustment, the appeal herein provided being from such

final decision of such board only, the appellant being hereby required to exhaust his or her remedies hereunder of application for permits, exceptions and variances, and appeal to the board of adjustment, and gaining a determination by said board, before being permitted to appeal to the court hereunder.

History.--s. 11, ch. 23079, 1945; s. 43, ch. 63-512; s. 7, ch. 88-356; s. 485, ch. 95-148.

333.12 Acquisition of air rights.--In any case which: it is desired to remove, lower or otherwise terminate a nonconforming structure or use; or the approach protection necessary cannot, because of constitutional limitations, be provided by airport regulations under this chapter; or it appears advisable that the necessary approach protection be provided by acquisition of property rights rather than by airport zoning regulations, the political subdivision within which the property or nonconforming use is located, or the political subdivision owning or operating the airport or being served by it, may acquire, by purchase, grant, or condemnation in the manner provided by chapter 73, such air right, navigation easement, or other estate, portion or interest in the property or nonconforming structure or use or such interest in the air above such property, tree, structure, or use, in question, as may be necessary to effectuate the purposes of this chapter, and in so doing, if by condemnation, to have the right to take immediate possession of the property, interest in property, air right, or other right sought to be condemned, at the time, and in the manner and form, and as authorized by chapter 74. In the case of the purchase of any property or any easement or estate or interest therein or the acquisition of the same by the power of eminent domain the political subdivision making such purchase or exercising such power shall in addition to the damages for the taking, injury or destruction of property also pay the cost of the removal and relocation of any structure or any public utility which is required to be moved to a new location.

History.--s. 12, ch. 23079, 1945.

333.13 Enforcement and remedies.--

(1) Each violation of this chapter or of any regulations, orders, or rulings promulgated or made pursuant to this chapter shall constitute a misdemeanor of the second degree, punishable as provided in s. 775.082 or s. 775.083, and each day a violation continues to exist shall constitute a separate offense.

(2) In addition, the political subdivision or agency adopting the airport zoning regulations under this chapter may institute in any court of competent jurisdiction an action to prevent, restrain, correct, or abate any violation of this chapter or of airport zoning regulations adopted under this chapter or of any order or ruling made in connection with their administration or enforcement, and the court shall adjudge to the plaintiff such relief, by way of injunction (which may be mandatory) or otherwise, as may be proper under all the facts and circumstances of the case in order to fully effectuate the purposes of this chapter and of the regulations adopted and orders and rulings made pursuant thereto.

(3) The Department of Transportation may institute a civil action for injunctive relief in the appropriate circuit court to prevent violation of any provision of this chapter.

History.--s. 13, ch. 23079, 1945; s. 232, ch. 71-136; s. 5, ch. 75-16.

333.14 Short title.--This chapter shall be known and may be cited as the "Airport Zoning Law of 1945."

History.--s. 15, ch. 23079, 1945.

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to be submitted, a statement indicating "no change" shall be included in the report.

(7) Include any other information not otherwise required under this part which is considered pertinent to activities carried on in the restricted area.

(c) If it is determined that the information submitted under paragraph (b) of this section is not sufficient to evaluate the nature and extent of the use of a restricted area, the FAA may request the using agency to submit supplementary reports. Within 60 days after receiving a request for additional information, the using agency shall submit such information as the Program Director for Air Traffic Airspace Management considers appropriate. Supplementary reports must be sent to the FAA officials designated in paragraph (a) of this section.

(Secs. 307 and 313(a), Federal Aviation Act of 1958 (49 U.S.C. 1348 and 1354(a)))

[Doc. No. 15379, 42 FR 54798, Oct. 11, 1977, as amended by Amdt. 73-5, 54 FR 39292, Sept. 25, 1989; Amdt. 73-6, 58 FR 42001, Aug. 6, 1993; Amdt. 73-8, 61 FR 26435, May 28, 1996; Amdt. 73-8, 63 FR 16890, Apr. 7, 1998]

EDITORIAL NOTE: The restricted areas formerly carried as §§608.21 to 608.72 of this title were transferred to part 73 as §§73.21 to 73.72 under subpart B but are not carried in the Code of Federal Regulations. For FEDERAL REGISTER citations affecting these restricted areas, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and on GPO Access.

Subpart C—Prohibited Areas

§73.81 Applicability.

This subpart designates prohibited areas and prescribes limitations on the operation of aircraft therein.

§73.83 Restrictions.

No person may operate an aircraft within a prohibited area unless authorization has been granted by the using agency.

§73.85 Using agency.

For the purpose of this subpart, the using agency is the agency, organization or military command that established the requirements for the prohibited area.

EDITORIAL NOTE: Sections 73.87 through 73.99 are reserved for descriptions of designated prohibited areas. For FEDERAL REGISTER citations affecting these prohibited areas, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and on GPO Access.

PART 75 [RESERVED]

PART 77—OBJECTS AFFECTING NAVIGABLE AIRSPACE

SPECIAL FEDERAL AVIATION REGULATION NO. 98

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AUTHORITY: 49 U.S.C. 106(g), 40103, 40113-40114, 44502, 44701, 44718, 46101-46102, 46104.

SOURCE: Docket No. 1882, 30 FR 1839, Feb. 10, 1965, unless otherwise noted.

SPECIAL FEDERAL AVIATION REGULATION NO. 98—CONSTRUCTION OR ALTERATION IN THE VICINITY OF THE PRIVATE RESIDENCE OF THE PRESIDENT OF THE UNITED STATES

Section 1. *Construction or alteration near the private residence of the President.* This section applies to:

(a) Any object of natural growth, terrain, or permanent or temporary construction or alteration, including appurtenances and equipment or materials used therein.

(b) Any apparatus of a permanent or temporary character.

Section 2. *Notice of Construction/Alteration.* Proponents proposing construction or alteration of any object described in Section 1 that would exceed 50 feet AGL and is within 3 NM radius of lat. 31°34'45 N, long. 97°32'00 W shall notify the Administrator in the form and manner prescribed in 14 CFR 77.17.

Section 3. *Obstruction Standard.*

(a) Any object described in Section 1 that would exceed 50 feet AGL and is within 3 NM radius of lat. 31°34'45N, long. 97°32'00W is an obstruction and is presumed to adversely affect aviation safety and therefore is a hazard to air navigation.

(b) A Determination of No Hazard will be issued only when the FAA determines, based upon submitted information and in consultation with the USMC and the SSPPD, that the construction or alteration will not adversely affect safety and would not result in a hazard to air navigation.

Section 4. *Termination.* This rule will terminate at the end of President George W. Bush's term in office.

[Doc. No. FAA-2003-14972, 68 FR 19732, Apr. 22, 2003; 68 FR 23584, May 5, 2003]

Subpart A—General

§77.1 Scope.

This part:

(a) Establishes standards for determining obstructions in navigable airspace;

(b) Sets forth the requirements for notice to the Administrator of certain proposed construction or alteration;

(c) Provides for aeronautical studies of obstructions to air navigation, to determine their effect on the safe and efficient use of airspace;

(d) Provides for public hearings on the hazardous effect of proposed construction or alteration on air navigation; and

(e) Provides for establishing antenna farm areas.

§77.2 Definition of terms.

For the purpose of this part:

Airport available for public use means an airport that is open to the general public with or without a prior request to use the airport.

A seaplane base is considered to be an airport only if its sea lanes are outlined by visual markers.

Nonprecision instrument runway means a runway having an existing instrument approach procedure utilizing air navigation facilities with only horizontal guidance, or area type navigation equipment, for which a straight-in nonprecision instrument approach procedure has been approved, or planned, and for which no precision approach facilities are planned, or indicated on an FAA planning document or military service military airport planning document.

Precision instrument runway means a runway having an existing instrument approach procedure utilizing an Instrument Landing System (ILS), or a Precision Approach Radar (PAR). It also means a runway for which a precision approach system is planned and is so indicated by an FAA approved airport layout plan; a military service approved military airport layout plan; any other FAA planning document, or military service military airport planning document.

Utility runway means a runway that is constructed for and intended to be used by propeller driven aircraft of

12,500 pounds maximum gross weight and less.

Visual runway means a runway intended solely for the operation of aircraft using visual approach procedures, with no straight-in instrument approach procedure and no instrument designation indicated on an FAA approved airport layout plan, a military service approved military airport layout plan, or by any planning document submitted to the FAA by competent authority.

[Doc. No. 8276, 33 FR 5256, Apr. 2, 1968, as amended by Amdt. 77-9, 36 FR 5969, Apr. 1, 1971]

§ 77.3 Standards.

(a) The standards established in this part for determining obstructions to air navigation are used by the Administrator in:

(1) Administering the Federal-aid Airport Program and the Surplus Airport Program;

(2) Transferring property of the United States under section 16 of the Federal Airport Act;

(3) Developing technical standards and guidance in the design and construction of airports; and

(4) Imposing requirements for public notice of the construction or alteration of any structure where notice will promote air safety.

(b) The standards used by the Administrator in the establishment of flight procedures and aircraft operational limitations are not set forth in this part but are contained in other publications of the Administrator.

[Doc. No. 1882, 30 FR 1839, Feb. 10, 1965, as amended by Amdt. 77-9, 36 FR 5970, Apr. 1, 1971]

§ 77.5 Kinds of objects affected.

This part applies to:

(a) Any object of natural growth, terrain, or permanent or temporary construction or alteration, including equipment or materials used therein, and apparatus of a permanent or temporary character; and

(b) Alteration of any permanent or temporary existing structure by a change in its height (including appurtenances), or lateral dimensions, including equipment or materials used therein.

Subpart B—Notice of Construction or Alteration

§ 77.11 Scope.

(a) This subpart requires each person proposing any kind of construction or alteration described in § 77.13(a) to give adequate notice to the Administrator. It specifies the locations and dimensions of the construction or alteration for which notice is required and prescribes the form and manner of the notice. It also requires supplemental notices 48 hours before the start and upon the completion of certain construction or alteration that was the subject of a notice under § 77.13(a).

(b) Notices received under this subpart provide a basis for:

(1) Evaluating the effect of the construction or alteration on operational procedures and proposed operational procedures;

(2) Determinations of the possible hazardous effect of the proposed construction or alteration on air navigation;

(3) Recommendations for identifying the construction or alteration in accordance with the current Federal Aviation Administration Advisory Circular AC 70/7460-1 entitled "Obstruction Marking and Lighting," which is available without charge from the Department of Transportation, Distribution Unit, TAD 484.3, Washington, DC 20590.

(4) Determining other appropriate measures to be applied for continued safety of air navigation; and

(5) Charting and other notification to airmen of the construction or alteration.

(Sec. 6, 80 Stat. 937, 49 U.S.C. 1655)

[Doc. No. 1882, 30 FR 1839, Feb. 10, 1965, as amended by Amdt. 77-8, 33 FR 18614, Dec. 17, 1968; Amdt. 77-10, 37 FR 4705, Mar. 4, 1972]

§ 77.13 Construction or alteration requiring notice.

(a) Except as provided in § 77.15, each sponsor who proposes any of the following construction or alteration shall notify the Administrator in the form and manner prescribed in § 77.17:

(1) Any construction or alteration of more than 200 feet in height above the ground level at its site.

(2) Any construction or alteration of greater height than an imaginary surface extending outward and upward at one of the following slopes:

(i) 100 to 1 for a horizontal distance of 20,000 feet from the nearest point of the nearest runway of each airport specified in paragraph (a)(5) of this section with at least one runway more than 3,200 feet in actual length, excluding heliports.

(ii) 50 to 1 for a horizontal distance of 10,000 feet from the nearest point of the nearest runway of each airport specified in paragraph (a)(5) of this section with its longest runway no more than 3,200 feet in actual length, excluding heliports.

(iii) 25 to 1 for a horizontal distance of 5,000 feet from the nearest point of the nearest landing and takeoff area of each heliport specified in paragraph (a)(5) of this section.

(3) Any highway, railroad, or other traverse way for mobile objects, of a height which, if adjusted upward 17 feet for an Interstate Highway that is part of the National System of Military and Interstate Highways where overcrossings are designed for a minimum of 17 feet vertical distance, 15 feet for any other public roadway, 10 feet or the height of the highest mobile object that would normally traverse the road, whichever is greater, for a private road, 23 feet for a railroad, and for a waterway or any other traverse way not previously mentioned, an amount equal to the height of the highest mobile object that would normally traverse it, would exceed a standard of paragraph (a) (1) or (2) of this section.

(4) When requested by the FAA, any construction or alteration that would be in an instrument approach area (defined in the FAA standards governing instrument approach procedures) and available information indicates it might exceed a standard of subpart C of this part.

(5) Any construction or alteration on any of the following airports (including heliports):

(i) An airport that is available for public use and is listed in the Airport Directory of the current Airman's Information Manual or in either the Alaska or Pacific Airman's Guide and Chart Supplement.

(ii) An airport under construction, that is the subject of a notice or proposal on file with the Federal Aviation Administration, and, except for military airports, it is clearly indicated that that airport will be available for public use.

(iii) An airport that is operated by an armed force of the United States.

(b) Each sponsor who proposes construction or alteration that is the subject of a notice under paragraph (a) of this section and is advised by an FAA regional office that a supplemental notice is required shall submit that notice on a prescribed form to be received by the FAA regional office at least 48 hours before the start of the construction or alteration.

(c) Each sponsor who undertakes construction or alteration that is the subject of a notice under paragraph (a) of this section shall, within 5 days after that construction or alteration reaches its greatest height, submit a supplemental notice on a prescribed form to the FAA regional office having jurisdiction over the region involved, if—

(1) The construction or alteration is more than 200 feet above the surface level of its site; or

(2) An FAA regional office advises him that submission of the form is required.

[Doc. No. 8276, 33 FR 5256, Apr. 2, 1968, as amended by Amdt. 77-9, 36 FR 5970, Apr. 1, 1971; Amdt. 77-10, 37 FR 4705, Mar. 4, 1972]

§ 77.15 Construction or alteration not requiring notice.

No person is required to notify the Administrator for any of the following construction or alteration:

(a) Any object that would be shielded by existing structures of a permanent and substantial character or by natural terrain or topographic features of equal or greater height, and would be located in the congested area of a city, town, or settlement where it is evident beyond all reasonable doubt that the structure so shielded will not adversely affect safety in air navigation.

(b) Any antenna structure of 20 feet or less in height except one that would increase the height of another antenna structure.

(c) Any air navigation facility, airport visual approach or landing aid,

aircraft arresting device, or meteorological device, of a type approved by the Administrator, or an appropriate military service on military airports, the location and height of which is fixed by its functional purpose.

(d) Any construction or alteration for which notice is required by any other FAA regulation.

[Doc. No. 1882, 30 FR 1839, Feb. 10, 1965, as amended by Amdt. 77-5, 33 FR 5257, Apr. 2, 1968; Amdt. 77-9, 36 FR 5970, Apr. 1, 1971]

§ 77.17 Form and time of notice.

(a) Each person who is required to notify the Administrator under § 77.13(a) shall send one executed form set (four copies) of FAA Form 7460-1, Notice of Proposed Construction or Alteration, to the Manager, Air Traffic Division, FAA Regional Office having jurisdiction over the area within which the construction or alteration will be located. Copies of FAA Form 7460-1 may be obtained from the headquarters of the Federal Aviation Administration and the regional offices.

(b) The notice required under § 77.13(a) (1) through (4) must be submitted at least 30 days before the earlier of the following dates:

(1) The date the proposed construction or alteration is to begin.

(2) The date an application for a construction permit is to be filed.

However, a notice relating to proposed construction or alteration that is subject to the licensing requirements of the Federal Communications Act may be sent to FAA at the same time the application for construction is filed with the Federal Communications Commission, or at any time before that filing.

(c) A proposed structure or an alteration to an existing structure that exceeds 2,000 feet in height above the ground will be presumed to be a hazard to air navigation and to result in an inefficient utilization of airspace and the applicant has the burden of overcoming that presumption. Each notice submitted under the pertinent provisions of this part 77 proposing a structure in excess of 2,000 feet above ground, or an alteration that will make an existing structure exceed that height, must contain a detailed showing, directed to meeting this burden. Only in exceptional cases, where the FAA concludes that a clear and compelling showing has been made that it would not result in an inefficient utilization of the airspace and would not result in a hazard to air navigation, will a determination of no hazard be issued.

(d) In the case of an emergency involving essential public services, public health, or public safety that requires immediate construction or alteration, the 30-day requirement in paragraph (b) of this section does not apply and the notice may be sent by telephone, telegraph, or other expeditious means, with an executed FAA Form 7460-1 submitted within 5 days thereafter. Outside normal business hours, emergency notices by telephone or telegraph may be submitted to the nearest FAA Flight Service Station.

(e) Each person who is required to notify the Administrator by paragraph (b) or (c) of § 77.13, or both, shall send an executed copy of FAA Form 117-1, Notice of Progress of Construction or Alteration, to the Manager, Air Traffic Division, FAA Regional Office having jurisdiction over the area involved.

(Sec. 6, 80 Stat. 937, 49 U.S.C. 1655)

[Doc. No. 1882, 30 FR 1839, Feb. 10, 1965, as amended by Amdt. 77-2, 31 FR 9449, July 12, 1966; Amdt. 77-8, 33 FR 18614, Dec. 17, 1968; Amdt. 77-10, 37 FR 4705, Mar. 4, 1972; Amdt. 77-11, 54 FR 39292, Sept. 25, 1989]

§ 77.19 Acknowledgment of notice.

(a) The FAA acknowledges in writing the receipt of each notice submitted under § 77.13(a).

(b) If the construction or alteration proposed in a notice is one for which lighting or marking standards are prescribed in the FAA Advisory Circular AC 70/7460-1, entitled "Obstruction Marking and Lighting," the acknowledgment contains a statement to that effect and information on how the structure should be marked and lighted in accordance with the manual.

(c) The acknowledgment states that an aeronautical study of the proposed construction or alteration has resulted in a determination that the construction or alteration:

(1) Would not exceed any standard of subpart C and would not be a hazard to air navigation;

(2) Would exceed a standard of subpart C but would not be a hazard to air navigation; or

(3) Would exceed a standard of subpart C and further aeronautical study is necessary to determine whether it would be a hazard to air navigation, that the sponsor may request within 30 days that further study, and that, pending completion of any further study, it is presumed the construction or alteration would be a hazard to air navigation.

[Doc. No. 1882, 30 FR 1839, Feb. 10, 1965, as amended by Amdt. 77-4, 32 FR 12997, Sept. 13, 1967; Amdt. 77-5, 33 FR 5257, Apr. 2, 1968]

Subpart C—Obstruction Standards

§ 77.21 Scope.

(a) This subpart establishes standards for determining obstructions to air navigation. It applies to existing and proposed manmade objects, objects of natural growth, and terrain. The standards apply to the use of navigable airspace by aircraft and to existing air navigation facilities, such as an air navigation aid, airport, Federal airway, instrument approach or departure procedure, or approved off-airway route. Additionally, they apply to a planned facility or use, or a change in an existing facility or use, if a proposal therefor is on file with the Federal Aviation Administration or an appropriate military service on the date the notice required by § 77.13(a) is filed.

(b) At those airports having defined runways with specially prepared hard surfaces, the primary surface for each such runway extends 200 feet beyond each end of the runway. At those airports having defined strips or pathways that are used regularly for the taking off and landing of aircraft and have been designated by appropriate authority as runways, but do not have specially prepared hard surfaces, each end of the primary surface for each such runway shall coincide with the corresponding end of the runway. At those airports, excluding seaplane bases, having a defined landing and takeoff area with no defined pathways for the landing and taking off of aircraft, a determination shall be made as to which portions of the landing and takeoff area are regularly used as landing and takeoff pathways. Those pathways so determined shall be considered runways and an appropriate primary surface as defined in § 77.25(c) will be considered as being longitudinally centered on each runway so determined, and each end of that primary surface shall coincide with the corresponding end of that runway.

(c) The standards in this subpart apply to the effect of construction or alteration proposals upon an airport if, at the time of filing of the notice required by § 77.13(a), that airport is—

(1) Available for public use and is listed in the Airport Directory of the current Airman's Information Manual or in either the Alaska or Pacific Airman's Guide and Chart Supplement; or

(2) A planned or proposed airport or an airport under construction, that is the subject of a notice or proposal on file with the Federal Aviation Administration, and, except for military airports, it is clearly indicated that that airport will be available for public use; or,

(3) An airport that is operated by an armed force of the United States.

[Doc. No. 1882, 30 FR 1839, Feb. 10, 1965, as amended by Amdt. 77-5, 33 FR 5257, Apr. 2, 1968; Amdt. 77-9, 36 FR 5970, Apr. 1, 1971]

§ 77.23 Standards for determining obstructions.

(a) An existing object, including a mobile object, is, and a future object would be, an obstruction to air navigation if it is of greater height than any of the following heights or surfaces:

(1) A height of 500 feet above ground level at the site of the object.

(2) A height that is 200 feet above ground level or above the established airport elevation, whichever is higher, within 3 nautical miles of the established reference point of an airport, excluding heliports, with its longest runway more than 3,200 feet in actual length, and that height increases in the proportion of 100 feet for each additional nautical mile of distance from the airport up to a maximum of 500 feet.

(3) A height within a terminal obstacle clearance area, including an initial approach segment, a departure area, and a circling approach area, which would result in the vertical distance

between any point on the object and an established minimum instrument flight altitude within that area or segment to be less than the required obstacle clearance.

(4) A height within an en route obstacle clearance area, including turn and termination areas, of a Federal airway or approved off-airway route, that would increase the minimum obstacle clearance altitude.

(5) The surface of a takeoff and landing area of an airport or any imaginary surface established under §77.25, §77.28, or §77.29. However, no part of the takeoff or landing area itself will be considered an obstruction.

(b) Except for traverse ways on or near an airport with an operative ground traffic control service, furnished by an air traffic control tower or by the airport management and coordinated with the air traffic control service, the standards of paragraph (a) of this section apply to traverse ways used or to be used for the passage of mobile objects only after the heights of these traverse ways are increased by:

(1) Seventeen feet for an Interstate Highway that is part of the National System of Military and Interstate Highways where overcrossings are designed for a minimum of 17 feet vertical distance.

(2) Fifteen feet for any other public roadway.

(3) Ten feet or the height of the highest mobile object that would normally traverse the road, whichever is greater, for a private road.

(4) Twenty-three feet for a railroad, and,

(5) For a waterway or any other traverse way not previously mentioned, an amount equal to the height of the highest mobile object that would normally traverse it.

[Doc. No. 10183, 36 FR 5970, Apr. 1, 1971]

§77.25 Civil airport imaginary surfaces.

The following civil airport imaginary surfaces are established with relation to the airport and to each runway. The size of each such imaginary surface is based on the category of each runway according to the type of approach available or planned for that runway. The slope and dimensions of the approach surface applied to each end of a runway are determined by the most precise approach existing or planned for that runway end.

(a) *Horizontal surface.* A horizontal plane 150 feet above the established airport elevation, the perimeter of which is constructed by swinging arcs of specified radii from the center of each end of the primary surface of each runway of each airport and connecting the adjacent arcs by lines tangent to those arcs. The radius of each arc is:

(1) 5,000 feet for all runways designated as utility or visual;

(2) 10,000 feet for all other runways. The radius of the arc specified for each end of a runway will have the same arithmetical value. That value will be the highest determined for either end of the runway. When a 5,000-foot arc is encompassed by tangents connecting two adjacent 10,000-foot arcs, the 5,000-foot arc shall be disregarded on the construction of the perimeter of the horizontal surface.

(b) *Conical surface.* A surface extending outward and upward from the periphery of the horizontal surface at a slope of 20 to 1 for a horizontal distance of 4,000 feet.

(c) *Primary surface.* A surface longitudinally centered on a runway. When the runway has a specially prepared hard surface, the primary surface extends 200 feet beyond each end of that runway; but when the runway has no specially prepared hard surface, or planned hard surface, the primary surface ends at each end of that runway. The elevation of any point on the primary surface is the same as the elevation of the nearest point on the runway centerline. The width of a primary surface is:

(1) 250 feet for utility runways having only visual approaches.

(2) 500 feet for utility runways having nonprecision instrument approaches.

(3) For other than utility runways the width is:

(i) 500 feet for visual runways having only visual approaches.

(ii) 500 feet for nonprecision instrument runways having visibility minimums greater than three-fourths statute mile.

(iii) 1,000 feet for a nonprecision instrument runway having a nonprecision instrument approach with visibility minimums as low as three-fourths of a statute mile, and for precision instrument runways.

The width of the primary surface of a runway will be that width prescribed in this section for the most precise approach existing or planned for either end of that runway.

(d) *Approach surface.* A surface longitudinally centered on the extended runway centerline and extending outward and upward from each end of the primary surface. An approach surface is applied to each end of each runway based upon the type of approach available or planned for that runway end.

(1) The inner edge of the approach surface is the same width as the primary surface and it expands uniformly to a width of:

(i) 1,250 feet for that end of a utility runway with only visual approaches;

(ii) 1,500 feet for that end of a runway other than a utility runway with only visual approaches;

(iii) 2,000 feet for that end of a utility runway with a nonprecision instrument approach;

(iv) 3,500 feet for that end of a nonprecision instrument runway other than utility, having visibility minimums greater than three-fourths of a statute mile;

(v) 4,000 feet for that end of a nonprecision instrument runway, other than utility, having a nonprecision instrument approach with visibility minimums as low as three-fourths statute mile; and

(vi) 16,000 feet for precision instrument runways.

(2) The approach surface extends for a horizontal distance of:

(i) 5,000 feet at a slope of 20 to 1 for all utility and visual runways;

(ii) 10,000 feet at a slope of 34 to 1 for all nonprecision instrument runways other than utility; and,

(iii) 10,000 feet at a slope of 50 to 1 with an additional 40,000 feet at a slope of 40 to 1 for all precision instrument runways.

(3) The outer width of an approach surface to an end of a runway will be that width prescribed in this subsection for the most precise approach existing or planned for that runway end.

(e) *Transitional surface.* These surfaces extend outward and upward at right angles to the runway centerline and the runway centerline extended at a slope of 7 to 1 from the sides of the primary surface and from the sides of the approach surfaces. Transitional surfaces for those portions of the precision approach surface which project through and beyond the limits of the conical surface, extend a distance of 5,000 feet measured horizontally from the edge of the approach surface and at right angles to the runway centerline.

[Doc. No. 10183, 36 FR 5970, Apr. 1, 1971; 36 FR 6741, Apr. 8, 1971]

§ 77.27 [Reserved]

§ 77.28 Military airport imaginary surfaces.

(a) *Related to airport reference points.* These surfaces apply to all military airports. For the purposes of this section a military airport is any airport operated by an armed force of the United States.

(1) *Inner horizontal surface.* A plane is oval in shape at a height of 150 feet above the established airfield elevation. The plane is constructed by scribing an arc with a radius of 7,500 feet about the centerline at the end of each runway and interconnecting these arcs with tangents.

(2) *Conical surface.* A surface extending from the periphery of the inner horizontal surface outward and upward at a slope of 20 to 1 for a horizontal distance of 7,000 feet to a height of 500 feet above the established airfield elevation.

(3) *Outer horizontal surface.* A plane, located 500 feet above the established airfield elevation, extending outward from the outer periphery of the conical surface for a horizontal distance of 30,000 feet.

(b) *Related to runways.* These surfaces apply to all military airports.

(1) *Primary surface.* A surface located on the ground or water longitudinally centered on each runway with the same length as the runway. The width of the primary surface for runways is 2,000 feet. However, at established bases where substantial construction has

taken place in accordance with a previous lateral clearance criteria, the 2,000-foot width may be reduced to the former criteria.

(2) *Clear zone surface.* A surface located on the ground or water at each end of the primary surface, with a length of 1,000 feet and the same width as the primary surface.

(3) *Approach clearance surface.* An inclined plane, symmetrical about the runway centerline extended, beginning 200 feet beyond each end of the primary surface at the centerline elevation of the runway end and extending for 50,000 feet. The slope of the approach clearance surface is 50 to 1 along the runway centerline extended until it reaches an elevation of 500 feet above the established airport elevation. It then continues horizontally at this elevation to a point 50,000 feet from the point of beginning. The width of this surface at the runway end is the same as the primary surface, it flares uniformly, and the width at 50,000 is 16,000 feet.

(4) *Transitional surfaces.* These surfaces connect the primary surfaces, the first 200 feet of the clear zone surfaces, and the approach clearance surfaces to the inner horizontal surface, conical surface, outer horizontal surface or other transitional surfaces. The slope of the transitional surface is 7 to 1 outward and upward at right angles to the runway centerline.

[Doc. No. 1882, 30 FR 1839, Feb. 10, 1965, as amended by Amdt. 77-1, 30 FR 6713, May 18, 1965; Amdt. 77-9, 36 FR 5971, Apr. 1, 1971]

§ 77.29 Airport imaginary surfaces for heliports.

(a) *Heliport primary surface.* The area of the primary surface coincides in size and shape with the designated take-off and landing area of a heliport. This surface is a horizontal plane at the elevation of the established heliport elevation.

(b) *Heliport approach surface.* The approach surface begins at each end of the heliport primary surface with the same width as the primary surface, and extends outward and upward for a horizontal distance of 4,000 feet where its width is 500 feet. The slope of the approach surface is 8 to 1 for civil heliports and 10 to 1 for military heliports.

(c) *Heliport transitional surfaces* These surfaces extend outward and upward from the lateral boundaries of the heliport primary surface and from the approach surfaces at a slope of 2 to 1 for a distance of 250 feet measured horizontally from the centerline of the primary and approach surfaces.

[Doc. No. 1882, 30 FR 1839, Feb. 10, 1965, as amended by Amdt. 77-9, 36 FR 5971, Apr. 1, 1971; 36 FR 6741, Apr. 8, 1971]

Subpart D—Aeronautical Studies of Effect of Proposed Construction on Navigable Airspace

§ 77.31 Scope.

(a) This subpart applies to the conduct of aeronautical studies of the effect of proposed construction or alteration on the use of air navigation facilities or navigable airspace by aircraft. In the aeronautical studies, present and future IFR and VFR aeronautical operations and procedures are reviewed and any possible changes in those operations and procedures and in the construction proposal that would eliminate or alleviate the conflicting demands are ascertained.

(b) The conclusion of a study made under this subpart is normally a determination as to whether the specific proposal studied would be a hazard to air navigation.

[Doc. No. 1882, 30 FR 1839, Feb. 10, 1965, as amended by Amdt. 77-6, 33 FR 10843, July 31, 1968]

§ 77.33 Initiation of studies.

(a) An aeronautical study is conducted by the FAA:

(1) Upon the request of the sponsor or any construction or alteration for which a notice is submitted under subpart B of this part, unless that construction or alteration would be located within an antenna farm area established under subpart F of this part; or

(2) Whenever the FAA determines it appropriate.

[Doc. No. 1882, 30 FR 1839, Feb. 10, 1965, as amended by Amdt. 77-4, 32 FR 12997, Sept. 13, 1967]

§ 77.35 Aeronautical studies.

(a) The Regional Manager, Air Traffic Division of the region in which the proposed construction or alteration would be located, or his designee, conducts the aeronautical study of the effect of the proposal upon the operation of air navigation facilities and the safe and efficient utilization of the navigable airspace. This study may include the physical and electromagnetic radiation effect the proposal may have on the operation of an air navigation facility.

(b) To the extent considered necessary, the Regional Manager, Air Traffic Division or his designee:

(1) Solicits comments from all interested persons;

(2) Explores objections to the proposal and attempts to develop recommendations for adjustment of aviation requirements that would accommodate the proposed construction or alteration;

(3) Examines possible revisions of the proposal that would eliminate the exceeding of the standards in subpart C of this part; and

(4) Convenes a meeting with all interested persons for the purpose of gathering all facts relevant to the effect of the proposed construction or alteration on the safe and efficient utilization of the navigable airspace.

(c) The Regional Manager, Air Traffic Division or his designee issues a determination as to whether the proposed construction or alteration would be a hazard to air navigation and sends copies to all known interested persons. This determination is final unless a petition for review is granted under § 77.37.

(d) If the sponsor revises his proposal to eliminate exceeding of the standards of subpart C of this part, or withdraws it, the Regional Manager, Air Traffic Division, or his designee, terminates the study and notifies all known interested persons.

[Doc. No. 1882, 30 FR 1839, Feb. 10, 1965, as amended by Amdt. 77-6, 33 FR 10843, July 31, 1968; Amdt. 77-11, 54 FR 39292, Sept. 25, 1989]

§ 77.37 Discretionary review.

(a) The sponsor of any proposed construction or alteration or any person who stated a substantial aeronautical objection to it in an aeronautical study, or any person who has a substantial aeronautical objection to it but was not given an opportunity to state it, may petition the Administrator, within 30 days after issuance of the determination under § 77.19 or § 77.35 or revision or extension of the determination under § 77.39(c), for a review of the determination, revision, or extension. This paragraph does not apply to any acknowledgment issued under § 77.19(c)(1).

(b) The petition must be in triplicate and contain a full statement of the basis upon which it is made.

(c) The Administrator examines each petition and decides whether a review will be made and, if so, whether it will be:

(1) A review on the basis of written materials, including study of a report by the Regional Manager, Air Traffic Division of the aeronautical study, briefs, and related submissions by any interested party, and other relevant facts, with the Administrator affirming, revising, or reversing the determination issued under § 77.19, § 77.35 or § 77.39(c); or

(2) A review on the basis of a public hearing, conducted in accordance with the procedures prescribed in subpart E of this part.

[Doc. No. 1882, 30 FR 1839, Feb. 10, 1965, as amended by Amdt. 77-3, 32 FR 6970, May 6, 1967; Amdt. 77-11, 54 FR 39292, Sept. 25, 1989]

§ 77.39 Effective period of determination of no hazard.

(a) Unless it is otherwise extended, revised, or terminated, each final determination of no hazard made under this subpart or subpart B or E of this part expires 18 months after its effective date, regardless of whether the proposed construction or alteration has been started, or on the date the proposed construction or alteration is abandoned, whichever is earlier.

(b) In any case, including a determination to which paragraph (d) of this section applies, where the proposed construction or alteration has not been started during the applicable period by actual structural work, such as the laying of a foundation, but not including excavation, any interested person

may, at least 15 days before the date the final determination expires, petition the FAA official who issued the determination to:

(1) Revise the determination based on new facts that change the basis on which it was made; or

(2) Extend its effective period.

(c) The FAA official who issued the determination reviews each petition presented under paragraph (b) of this section, and revises, extends, or affirms the determination as indicated by his findings.

(d) In any case in which a final determination made under this subpart or subpart B or E of this part relates to proposed construction or alteration that may not be started unless the Federal Communications Commission issues an appropriate construction permit, the effective period of each final determination includes—

(1) The time required to apply to the Commission for a construction permit, but not more than 6 months after the effective date of the determination; and

(2) The time necessary for the Commission to process the application except in a case where the Administrator determines a shorter effective period is required by the circumstances.

(e) If the Commission issues a construction permit, the final determination is effective until the date prescribed for completion of the construction. If the Commission refuses to issue a construction permit, the final determination expires on the date of its refusal.

[Doc. No. 1882, 30 FR 1839, Feb. 10, 1965, as amended by Amdt. 77-5, 33 FR 5257, Apr. 2, 1968]

Subpart E—Rules of Practice for Hearings Under Subpart D

§ 77.41 Scope.

This subpart applies to hearings held by the FAA under titles I, III, and X of the Federal Aviation Act of 1958 (49 U.S.C. subchapters I, III, and X), on proposed construction or alteration that affects the use of navigable airspace.

§ 77.43 Nature of hearing.

Sections 4, 5, 7, and 8 of the Administrative Procedure Act (5 U.S.C. 1003, 1004, 1006, and 1007) do not apply to hearings held on proposed construction or alteration to determine its effect on the safety of aircraft and the efficient use of navigable airspace because those hearings are factfinding in nature. As a factfinding procedure, each hearing is nonadversary and there are no formal pleadings or adverse parties.

§ 77.45 Presiding officer.

(a) If, under § 79.37, the Administrator grants a public hearing on any proposed construction or alteration covered by this part, the Director, Air Traffic Operations Service designates an FAA employee to be the presiding officer at the hearing.

(b) The presiding officer may:

(1) Give notice of the date and location of the hearing and any prehearing conference that may be held;

(2) Administer oaths and affirmations;

(3) Examine witnesses;

(4) Issue subpoenas and take depositions or have them taken;

(5) Obtain, in the form of a public record, all pertinent and relevant facts relating to the subject matter of the hearing;

(6) Rule, with the assistance of the legal officer, upon the admissibility of evidence;

(7) Regulate the course and conduct of the hearing; and

(8) Designate parties to the hearing and revoke those designations.

[Doc. No. 1882, 30 FR 1839, Feb. 10, 1965, as amended by Amdt. 77-11, 54 FR 39292, Sept. 25, 1989]

§ 77.47 Legal officer.

The Chief Counsel designates a member of his staff to serve as legal officer at each hearing under this subpart. The legal officer may examine witnesses and assist and advise the presiding officer on questions of evidence or other legal questions arising during the hearing.

[Doc. No. 1882, 30 FR 1839, Feb. 10, 1965, as amended at 38 FR 26444, Sept. 17, 1973]

§ 77.49 Notice of hearing.

In designating a time and place for a hearing under this subpart the presiding officer considers the needs of the FAA and the convenience of the parties and witnesses. The time and place of each hearing is published in the "Notices" section of the FEDERAL REGISTER before the date of the hearing, unless the notice is impractical or unnecessary.

§ 77.51 Parties to the hearing.

The presiding officer designates the following as parties to the hearing—

(a) The proponent of the proposed construction or alteration.

(b) Those persons whose activities would be substantially affected by the proposed construction or alteration.

§ 77.53 Prehearing conference.

(a) The presiding officer may, in his discretion, hold a prehearing conference with the parties to the hearing and the legal officer before the hearing.

(b) At the direction of the presiding officer, each party to a prehearing conference shall submit a brief written statement of the evidence he intends to provide through his witnesses and by questioning other witnesses at the hearing, and shall provide enough copies of the statement so that the presiding officer may keep three for the FAA and give one to each other party.

(c) At the prehearing conference, the presiding officer reduces and simplifies the subject matter of the hearing so far as possible and advises the parties of the probable order of presenting the evidence.

§ 77.55 Examination of witnesses.

(a) Each witness at a hearing under this subpart shall, after being sworn by the presiding officer, give his testimony under oath.

(b) The party for whom a witness, other than an employee of the FAA, is testifying shall examine that witness. After that examination, other parties to the hearing may examine the witness, in the order fixed by the presiding officer. The presiding officer and the legal officer may then examine the witness. The presiding officer may grant any party an additional opportunity to examine any witness, if that party adequately justifies the additional examination.

(c) The legal officer examines each FAA employee who is a witness, before the other parties examine him. After that examination, the order prescribed in paragraph (b) of this section applies. An FAA employee may testify only as to facts within his personal knowledge and the application of FAA regulations, standards, and policies.

§ 77.57 Evidence.

(a) The presiding officer receives all testimony and exhibits that are relevant to the issues of the hearing. So far as possible, each party shall submit enough copies of his exhibits that the presiding officer may keep three copies for the FAA and give one to each other party.

(b) The presiding officer excludes any testimony that is irrelevant, unduly repetitious, or consists of statements made during an aeronautical study in an effort to reconcile or compromise aviation or construction or alteration requirements. A party to the hearing may object to the admission of evidence only on the ground that it is irrelevant.

§ 77.59 Subpoenas of witnesses and exhibits.

(a) The presiding officer of a hearing may issue subpoenas for any witness or exhibit that he determines may be material and relevant to the issues of the hearing. So far as possible, each party to the hearing shall provide the witnesses and exhibits that he intends to present at the hearing.

(b) If any party to the hearing is unable to provide his necessary witnesses and exhibits, he shall advise the presiding officer far enough in advance that the presiding officer can determine whether he should issue subpoenas for the desired witnesses or exhibits.

§ 77.61 Revision of construction or alteration proposal.

(a) The sponsor of any proposed construction or alteration covered by this part may revise his proposal at any time before or during the hearing. If he revises it, the presiding officer decides

whether the revision affects the proposal to the extent that he should send it to the Administrator for a redetermination of the need for a hearing.

(b) If the presiding officer decides that it does not need to be resubmitted to the Administrator, he advises the parties of the revised proposal and takes the action necessary to allow all parties to effectively participate in the hearing on the revised proposal. Without limiting his discretion, the presiding officer may recess and reconvene the hearing, or hold another prehearing conference.

§77.63 Record of hearing.

(a) Each hearing is recorded verbatim by an official reporter under an FAA contract. The transcript, and all exhibits, become a part of the record of the hearing.

(b) Any person may buy a copy of the transcript of the hearing from the reporter at the price fixed for it.

(c) The presiding officer may allow any party to withdraw an original document if he submits authenticated copies of it.

(d) Any person may buy, from the FAA, photostatic copies of any exhibit by paying the copying costs.

(e) A change in the official transcript of a hearing may be made only if it involves an error of substance. Any recommendation to correct the transcript must be filed with the presiding officer within 5 days after the hearing closes. The presiding officer reviews each request for a correction to the extent he considers appropriate and shall make any revisions that he finds appropriate as a result of that review.

§77.65 Recommendations by parties.

Within 20 days after the mailing of the record of hearing by the official reporter, or as otherwise directed by the presiding officer, each party may submit to the presiding officer five copies of his recommendations for a final decision to be made by the Administrator.

§77.67 Final decision of the Administrator.

After reviewing the evidence relevant to the questions of fact in a hearing, including the official transcript and the exhibits, The Administrator resolves all these questions, based on the weight of evidence, and makes his determination, stating the basis and reasons for it. He then issues an appropriate order to be served on each of the parties.

§77.69 Limitations on appearance and representation.

(a) A former officer or employee of the FAA may not appear on behalf of, or represent, any party before the FAA in connection with any matter to which this part applies, if he considered or passed on that matter while he was an officer or employee of the FAA.

(b) A person appearing before the FAA on any matter to which this part applies may not, in connection with that appearance, knowingly accept assistance from, or share fees with, any person who is prohibited by paragraph (a) of this section, from appearing himself on that matter.

(c) A former official or employee of the FAA may not, within 6 months after he ceases to be such an officer or employee, appear before the FAA on behalf of, or represent, any party in connection with any proceeding that was pending under this part while he was an officer or employee of the FAA, unless he obtains written consent from an appropriate officer of the FAA, based on a verified showing that he did not personally consider the matter concerned or gain particular knowledge of it while he was an officer or employee of the FAA.

Subpart F—Establishment of Antenna Farm Areas

§77.71 Scope.

(a) This subpart establishes antenna farm areas in which antenna structures may be grouped to localize their effect on the use of navigable airspace.

(b) It is the policy of the FAA to encourage the use of antenna farms and the single structure-multiple antenna concept for radio and television towers whenever possible. In considering proposals for establishing antenna farm areas, it considers as far as possible the revision of aeronautical procedures and operations to accommodate antenna

structures that will fulfill broadcasting requirements.

§ 77.73 General provisions.

(a) An antenna farm area consists of a specified geographical location with established dimensions of area and height, where antenna towers with a common impact on aviation may be grouped. Each such area is established by appropriate rule making action.

(b) Each proposal for an antenna farm area is evaluated on the basis of its effect on the use of navigable airspace. The views of the Federal Communications Commission are requested on the effect that each establishment of an antenna farm area would have on its statutory responsibilities. Any views submitted by it are fully considered before the antenna farm concerned is established. If the Commission advises that the establishment of any proposed antenna farm area would interfere with its statutory responsibility, the proposed area is not established.

(c) The establishment of an antenna farm area is considered whenever it is proposed by:

(1) The FAA;

(2) The Federal Communications Commission;

(3) The sponsor of a proposed antenna tower; or

(4) Any other person having a substantial interest in a proposed antenna tower.

[Doc. No. 1882, 30 FR 1839, Feb. 10, 1965, as amended by Amdt. 77-10, 37 FR 4705, Mar. 4, 1972]

§ 77.75 Establishment of antenna farm areas.

The airspace areas described in the following sections of this subpart are established as antenna farm areas.

NOTE: Sections 77.77 through 77.1100 reserved for descriptions of antenna farm areas.

SUBCHAPTER I—AIRPORTS

PART 150—AIRPORT NOISE COMPATIBILITY PLANNING

Subpart A—General Provisions

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Subpart B—Development of Noise Exposure Maps and Noise Compatibility Programs

150.21 Noise exposure maps and related descriptions.
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150.31 Preliminary review: Acknowledgments.
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APPENDIX A TO PART 150—NOISE EXPOSURE MAPS
APPENDIX B TO PART 150—NOISE COMPATIBILITY PROGRAMS

AUTHORITY: 49 U.S.C. 106(g), 40113, 44715, 47101, 47501–47504.

SOURCE: Docket No. 18691, 49 FR 49269, Dec. 18, 1984, unless otherwise noted.

Subpart A—General Provisions

§ 150.1 Scope and purpose.

This part prescribes the procedures, standards, and methodology governing the development, submission, and review of airport noise exposure maps and airport noise compatibility programs, including the process for evaluating and approving or disapproving those programs. It prescribes single systems for— (a) measuring noise at airports and surrounding areas that generally provides a highly reliable relationship between projected noise exposure and surveyed reaction of people to noise; and (b) determining exposure of individuals to noise that results from the operations of an airport. This part also identifies those land uses which are normally compatible with various levels of exposure to noise by individuals. It provides technical assistance to airport operators, in conjunction with other local, State, and Federal authorities, to prepare and execute appropriate noise compatibility planning and implementation programs.

§ 150.3 Applicability.

This part applies to the airport noise compatibility planning activities of the operators of "public use airports," including heliports, as that term is used in section 47501(2) as amended (49 U.S.C. 47501 *et seq.*) and as defined in section 47102(17) of 49 U.S.C.

[Doc. No. FAA-2004-19158, 69 FR 57625, Sept. 24, 2004]

§ 150.5 Limitations of this part.

(a) Pursuant to 49 U.S.C. 47501 *et seq.*, this part provides for airport noise compatibility planning and land use programs necessary to the purposes of those provisions. No submittal of a map, or approval or disapproval, in whole or part, of any map or program submitted under this part is a determination concerning the acceptability or unacceptability of that land use under Federal, State, or local law.

(b) Approval of a noise compatibility program under this part is neither a commitment by the FAA to financially assist in the implementation of the program, nor a determination that all measures covered by the program are eligible for grant-in-aid funding from the FAA.

(c) Approval of a noise compatibility program under this part does not by itself constitute an FAA implementing action. A request for Federal action or approval to implement specific noise compatibility measures may be required, and an FAA decision on the request may require an environmental assessment of the proposed action, pursuant to the National Environmental Policy Act (42 U.S.C. 4332 *et seq.*) and guidelines.

(d) Acceptance of a noise exposure map does not constitute an FAA determination that any specific parcel of land lies within a particular noise contour. Responsibility for interpretation of the effects of noise contours upon subjacent land uses, including the relationship between noise contours and specific properties, rests with the sponsor or with other state or local government.

[Doc. No. 18691, 49 FR 49269, Dec. 18, 1984, as amended by Amdt. 150-4, 69 FR 57625, Sept. 24, 2004]

§ 150.7 Definitions.

As used in this part, unless the context requires otherwise, the following terms have the following meanings.

Airport means any public use airport, including heliports, as defined by the ASNA Act, including: (a) Any airport which is used or to be used for public purposes, under the control of a public agency, the landing area of which is publicly owned; (b) any privately owned reliever airport; and (c) any privately owned airport which is determined by the Secretary to enplane annually 2,500 or more passengers and receive scheduled passenger service of aircraft, which is used or to be used for public purposes.

Airport noise compatibility program and *program* mean that program, and all revisions thereto, reflected in documents (and revised documents) developed in accordance with appendix B of this part, including the measures proposed or taken by the airport operator to reduce existing noncompatible land uses and to prevent the introduction of additional noncompatible land uses within the area.

Airport Operator means, the operator of an airport as defined in the ASNA Act.

ASNA Act means 49 U.S.C. 47501 *et seq.*

Average sound level means the level, in decibels, of the mean-square, A-weighted sound pressure during a specified period, with reference to the square of the standard reference sound pressure of 20 micropascals.

Compatible land use means the use of land that is identified under this part as normally compatible with the outdoor noise environment (or an adequately attenuated noise level reduction for any indoor activities involved) at the location because the yearly day-night average sound level is at or below that identified for that or similar use under appendix A (Table 1) of this part.

Day-night average sound level (DNL) means the 24-hour average sound level, in decibels, for the period from midnight to midnight, obtained after the addition of ten decibels to sound levels for the periods between midnight and 7 a.m., and between 10 p.m., and midnight, local time. The symbol for DNL is L_{dn}.

Noise exposure map means a scaled, geographic depiction of an airport, its noise contours, and surrounding area developed in accordance with section A150.1 of Appendix A of this part, including the accompanying documentation setting forth the required descriptions of forecast aircraft operations at that airport during the fifth calendar year (or later) beginning after submission of the map, together with the ways, if any, those operations will affect the map (including noise contours and the forecast land uses).

Noise level reduction (NLR) means the amount of noise level reduction in decibels achieved through incorporation of noise attenuation (between outdoor and indoor levels) in the design and construction of a structure.

Noncompatible land use means the use of land that is identified under this part as normally not compatible with the outdoor noise environment (or an adequately attenuated noise reduction level for the indoor activities involved at the location) because the yearly day-night average sound level is above that identified for that or similar use under appendix A (Table 1) of this part.

Regional Airports Division Manager means the Airports Division Manager having responsibility for the geographic area in which the airport in question is located.

Restriction affecting flight procedures means any requirement, limitation, or other action affecting the operation of aircraft, in the air or on the ground.

Sound exposure level means the level, in decibels, of the time integral of squared A-weighted sound pressure during a specified period or event, with reference to the square of the standard reference sound pressure of 20

micropascals and a duration of one second.

Yearly day-night average sound level (YDNL) means the 365-day average, in decibels, day-night average sound level. The symbol for YDNL is also L_{dn}.

[Doc. No. 18691, 49 FR 49269, Dec. 18, 1984, as amended by Amdt. 150–1, 53 FR 8724, Mar. 16, 1988; 53 FR 9726, Mar. 24, 1988; Amdt. 150–2, 54 FR 39295, Sept. 25, 1989; Amdt. 150–4, 69 FR 57625, Sept. 24, 2004]

§ 150.9 Designation of noise systems.

For purposes of this part, the following designations apply:

(a) The noise at an airport and surrounding areas covered by a noise exposure map must be measured in A-weighted sound pressure level (L_A) in units of decibels (dBA) in accordance with the specifications and methods prescribed under appendix A of this part.

(b) The exposure of individuals to noise resulting from the operation of an airport must be established in terms of yearly day-night average sound level (YDNL) calculated in accordance with the specifications and methods prescribed under appendix A of this part.

(c) Uses of computer models to create noise contours must be in accordance with the criteria prescribed under appendix A of this part.

§ 150.11 Identification of land uses.

For the purposes of this part, uses of land which are normally compatible or noncompatible with various noise exposure levels to individuals around airports must be identified in accordance with the criteria prescribed under appendix A of this part. Determination of land use must be based on professional planning criteria and procedures utilizing comprehensive, or master, land use planning, zoning, and building and site designing, as appropriate. If more than one current or future land use is permissible, determination of compatibility must be based on that use most adversely affected by noise.

§ 150.13 Incorporations by reference.

(a) *General.* This part prescribes certain standards and procedures which are not set forth in full text in the rule. Those standards and procedures are hereby incorporated by reference and were approved for incorporation by reference by the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51.

(b) *Changes to incorporated matter.* Incorporated matter which is subject to subsequent change is incorporated by reference according to the specific reference and to the identification statement. Adoption of any subsequent change in incorporated matter that affects compliance with standards and procedures of this part will be made under 14 CFR part 11 and 1 CFR part 51.

(c) *Identification statement.* The complete title or description which identifies each published matter incorporated by reference in this part is as follows:

International Electrotechnical Commission (IEC) Publication No. 179, entitled "Precision Sound Level Meters," dated 1973.

(d) *Availability for purchase.* Published material incorporated by reference in this part may be purchased at the price established by the publisher or distributor at the following mailing addresses.

IEC publications:

(1) The Bureau Central de la Commission Electrotechnique, Internationale, 1, rue de Varembe, Geneva, Switzerland.

(2) American National Standards Institute, 1430 Broadway, New York, NY 10018.

(e) *Availability for inspection.* A copy of each publication incorporated by reference in this part is available for public inspection at the following locations:

(1) FAA Office of the Chief Counsel, Rules Docket, AGC–200, Federal Aviation Administration Headquarters Building, 800 Independence Avenue, SW., Washington, DC 20591.

(2) Department of Transportation, Branch Library, Room 930, Federal Aviation Administration Headquarters Building, 800 Independence Avenue, SW., Washington, DC 20591.

(3) The respective Regional Offices of the Federal Aviation Administration as follows. The most current mailing address, phone numbers, and States covered by each region are available on the FAA's Web site at *http://www.faa.gov/arp/index.cfm?nav=hq.*

(i) New England Regional Office, 12 New England Executive Park, Burlington, Massachusetts 01803.

(ii) Eastern Regional Office, Airports Division, 1 Aviation Plaza, Jamaica, NY 11434–4809.

(iii) Southern Regional Office, Federal Aviation Administration, ATTN: ASO–600, P.O. Box 20636, Atlanta, GA 30320–0631.

(iv) Great Lakes Regional Office, 2300 East Devon, Des Plaines, Illinois 60018.

(v) Central Regional Office, Federal Aviation Administration, ACE–600, 901 Locust, Kansas City, MO 64106–2325.

(vi) Southwest Regional Office, Federal Aviation Administration, 2601 Meacham Blvd., Fort Worth, TX 76137–4298.

(vii) Northwest Mountain Regional Office, Federal Aviation Administration, Airports Division, 1601 Lind Avenue SW., Suite 315, Renton, WA 98055–4056.

(viii) Western Pacific Regional Office, 15000 Aviation Boulevard, Hawthorne, California (P.O. Box 92007, Worldway Postal Center, Los Angeles) 90009.

(ix) Alaskan Regional Office, 222 W. 7th Avenue #14, Anchorage, AK 9951.

(4) National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030, or go to: *http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.*

[Doc. No. 18691, 49 FR 49269, Dec. 18, 1984, as amended by Amdt. 150–2, 54 FR 39295, Sept. 25, 1989; 69 FR 18803, Apr. 9, 2004; Amdt. 150–4, 69 FR 57625, Sept. 24, 2004]

Subpart B—Development of Noise Exposure Maps and Noise Compatibility Programs

§ 150.21 Noise exposure maps and related descriptions.

(a) Each airport operator may after completion of the consultations and public procedure specified under paragraph (b) of this section submit to the Regional Airports Division Manager five copies of the noise exposure map (or revised map) which identifies each noncompatible land use in each area depicted on the map, as of the date of submission, and five copies of a map each with accompanying documentation setting forth—

(1) The noise exposure based on forecast aircraft operations at the airport for a forecast period that is at least 5 years in the future, beginning after the date of submission (based on reasonable assumptions concerning future type and frequency of aircraft operations, number of nighttime operations, flight patterns, airport layout including any planned airport development, planned land use changes, and demographic changes in the surrounding areas); and

(2) The nature and extent, if any, to which those forecast operations will affect the compatibility and land uses depicted on the map.

(b) Each map, and related documentation submitted under this section must be developed and prepared in accordance with appendix A of this part, or an FAA approved equivalent, and in consultation with states, and public agencies and planning agencies whose area, or any portion of whose area, of jurisdiction is within the L_{dn} 65 dB contour depicted on the map, FAA regional officials, and other Federal officials having local responsibility for land uses depicted on the map. This consultation must include regular aeronautical users of the airport. The airport operator shall certify that it has afforded interested persons adequate opportunity to submit their views, data, and comments concerning the correctness and adequacy of the draft noise exposure map and descriptions of forecast aircraft operations. Each map and revised map must be accompanied by documentation describing the consultation accomplished under this paragraph and the opportunities afforded the public to review and comment during the development of the map. One copy of all written comments received during consultation shall also be filed with the Regional Airports Division Manager.

(c) The Regional Airports Division Manager acknowledges receipt of noise exposure maps and descriptions and indicates whether they are in compliance with the applicable requirements. The Regional Airports Division Manager publishes in the FEDERAL REGISTER a

notice of compliance for each such noise exposure map and description, identifying the airport involved. Such notice includes information as to when and where the map and related documentation are available for public inspection.

(d) The airport operator shall, in accordance with this section, promptly prepare and submit a revised noise exposure map.

(1) If, after submission of a noise exposure map under paragraph (a) of this section, any change in the operation of the airport would create any "substantial, new noncompatible use" in any area depicted on the map beyond that which is forecast for a period of at least five years after the date of submission, the airport operator shall, in accordance with this section, promptly prepare and submit a revised noise exposure map. A change in the operation of an airport creates a substantial new noncompatible use if that change results in an increase in the yearly day-night average sound level of 1.5 dB or greater in either a land area which was formerly compatible but is thereby made noncompatible under Appendix A (Table 1), or in a land area which was previously determined to be noncompatible under that Table and whose noncompatibility is now significantly increased.

(2) If, after submission of a noise exposure map under paragraph (a) of this section, any change in the operation of the airport would significantly reduce noise over existing noncompatible uses that is not reflected in either the existing conditions or forecast noise exposure map on file with the FAA, the airport operator shall, in accordance with this section, promptly prepare and submit a revised noise exposure map. A change in the operation of the airport creates a significant reduction in noise over existing noncompatible uses if that change results in a decrease in the yearly day-night average sound level of 1.5 dB or greater in a land area which was formerly noncompatible but is thereby made compatible under Appendix A (Table 1).

(3) Such updating of the map shall include a reassessment of those areas excluded under section A150.101(e)(5) of Appendix A because of high ambient noise levels.

(4) If the forecast map is based on assumptions involving recommendations in a noise compatibility program which are subsequently disapproved by the FAA, a revised map must be submitted if revised assumptions would create a substantial, new noncompatible use not indicated on the forecast map. Revised noise exposure maps are subject to the same requirements and procedures as initial submissions of noise exposure maps under this part.

(e) Each map, or revised map, and description of consultation and opportunity for public comment, submitted to the FAA, must be certified as true and complete under penalty of 18 U.S.C. 1001.

(f)(1) Title 49, section 47506 provides that no person who acquires property or an interest therein after the date of enactment of the Act in an area surrounding an airport with respect to which a noise exposure map has been submitted under section 47503 of the Act shall be entitled to recover damages with respect to the noise attributable to such airport if such person had actual or constructive knowledge of the existence of such noise exposure map unless, in addition to any other elements for recovery of damages, such person can show that—

No person who acquires property or an interest therein after the date of enactment of the Act in an area surrounding an airport with respect to which a noise exposure map has been submitted under section 103 of the Act shall be entitled to recover damages with respect to the noise attributable to such airport if such person had actual or constructive knowledge of the existence of such noise exposure map unless, in addition to any other elements for recovery of damages, such person can show that—

(i) A significant change in the type or frequency of aircraft operations at the airport; or

(ii) A significant change in the airport layout; or

(iii) A significant change in the flight patterns; or

(iv) A significant increase in nighttime operations; occurred after the date of the acquisition of such property or interest therein and that the damages for which recovery is sought have resulted from any such change or increase."

(f)(2) Title 49 section 47506(b) further provides:

That for this purpose, "constructive knowledge" shall be imputed, at a minimum, to any person who acquires property or an interest therein in an area surrounding an airport after the date of enactment of the Act if—

(i) Prior to the date of such acquisition, notice of the existence of a noise exposure map for such area was published at least three times in a newspaper of general circulation in the county in which such property is located; or

(ii) A copy of such noise exposure map is furnished to such person at the time of such acquisition.

(g) For this purpose, the term *significant* in paragraph (f) of this section means that change or increase in one or more of the four factors which results in a "substantial new noncompatible use" as defined in § 150.21(d), affecting the property in issue. Responsibility for applying or interpreting this provision with respect to specific properties rests with local government.

[Doc. No. 18691, 49 FR 49269, Dec. 1, 1984; 50 FR 5063, Feb. 6, 1985; Amdt. 150-2, 54 FR 39295, Sept. 25, 1989; Amdt. 150-4, 69 FR 57626, Sept. 24, 2004]

§ 150.23 Noise compatibility programs.

(a) Any airport operator who has submitted an acceptable noise exposure map under § 150.21 may, after FAA notice of acceptability and other consultation and public procedure specified under paragraphs (b) and (c) of this section, as applicable, submit to the Regional Airports Division Manager five copies of a noise compatibility program.

(b) An airport operator may submit the noise compatibility program at the same time as the noise exposure map. In this case, the Regional Airports Division Manager will not begin the statutory 180-day review period (for the program) until after FAA reviews the noise exposure map and finds that it and its supporting documentation are in compliance with the applicable requirements.

(c) Each noise compatibility program must be developed and prepared in accordance with appendix B of this part, or an FAA approved equivalent, and in consultation with FAA regional officials, the officials of the state and of any public agencies and planning agencies whose area, or any portion or whose area, of jurisdiction within the L_{dn} 65 dB noise contours is depicted on the noise exposure map, and other Federal officials having local responsibility of land uses depicted on the map. Consultation with FAA regional officials shall include, to the extent practicable, informal agreement from FAA on proposed new or modified flight procedures. For air carrier airports, consultation must include any air carriers and, to the extent practicable, other aircraft operators using the airport. For other airports, consultation must include, to the extent practicable, aircraft operators using the airport.

(d) Prior to and during the development of a program, and prior to submission of the resulting draft program to the FAA, the airport operator shall afford adequate opportunity for the active and direct participation of the States, public agencies and planning agencies in the areas surrounding the airport, aeronautical users of the airport, the airport operator, and the general public to submit their views, data, and comments on the formulation and adequacy of that program. Prior to submitting the program to the FAA, the airport operator shall also provide notice and the opportunity for a public hearing.

(e) Each noise compatibility program submitted to the FAA must consist of at least the following:

(1) A copy of the noise exposure map and its supporting documentation as found in compliance with the applicable requirements by the FAA, per § 150.21(c).

(2) A description and analysis of the alternative measures considered by the airport operator in developing the program, together with a discussion of why each rejected measure was not included in the program.

(3) Program measures proposed to reduce or eliminate present and future noncompatible land uses and a description of the relative contribution of each of the proposed measures to the overall effectiveness of the program.

(4) A description of public participation and the consultation with officials of public agencies and planning agencies in areas surrounding the airport,

FAA regional officials and other Federal officials having local responsibility for land uses depicted on the map, any air carriers and other users of the airport.

(5) The actual or anticipated effect of the program on reducing noise exposure to individuals and noncompatible land uses and preventing the introduction of additional noncompatible uses within the area covered by the noise exposure map. The effects must be based on expressed assumptions concerning the type and frequency of aircraft operations, number of nighttime operations, flight patterns, airport layout including planned airport development, planned land use changes, and demographic changes within the L_{dn} 65 dB noise contours.

(6) A description of how the proposed future actions may change any noise control or compatibility plans or actions previously adopted by the airport proprietor.

(7) A summary of the comments at any public hearing on the program and a copy of all written material submitted to the operator under paragraphs (c) and (d) of this section, together with the operator's response and disposition of those comments and materials to demonstrate the program is feasible and reasonably consistent with obtaining the objectives of airport noise compatibility planning under this part.

(8) The period covered by the program, the schedule for implementation of the program, the persons responsible for implementation of each measure in the program, and, for each measure, documentation supporting the feasibility of implementation, including any essential governmental actions, costs, and anticipated sources of funding, that will demonstrate that the program is reasonably consistent with achieving the goals of airport noise compatibility planning under this part.

(9) Provision for revising the program if made necessary by revision of the noise exposure map.

[Doc. No. 18691, 49 FR 49269, Dec. 18, 1984; 50 FR 5063, Feb. 6, 1985; Amdt. 150–2, 54 FR 39295, Sept. 25, 1989; Amdt. 150–4, 69 FR 57626, Sept. 24, 2004]

Subpart C—Evaluations and Determinations of Effects of Noise Compatibility Programs

§ 150.31 Preliminary review: Acknowledgments.

(a) Upon receipt of a noise compatibility program submitted under § 150.23, the Regional Airports Division Manager acknowledges to the airport operator receipt of the program and conducts a preliminary review of the submission.

(b) If, based on the preliminary review, the Regional Airports Division Manager finds that the submission does not conform to the requirements of this part, he disapproves and returns the unacceptable program to the airport operator for reconsideration and development of a program in accordance with this part.

(c) If, based on the preliminary review, the Regional Airports Division Manager finds that the program conforms to the requirements of this part, the Regional Airports Division Manager publishes in the FEDERAL REGISTER a notice of receipt of the program for comment which indicates the following:

(1) The airport covered by the program, and the date of receipt.

(2) The availability of the program for examination in the offices of the Regional Airports Division Manager and the airport operator.

(3) That comments on the program are invited and, will be considered by the FAA.

(d) The date of signature of the published notice of receipt starts the 180-day approval period for the program.

[Doc. No. 18691, 49 FR 49269, Dec. 18, 1984, as amended by Amdt. 150–2, 54 FR 39295, Sept. 25, 1989]

§ 150.33 Evaluation of programs.

(a) The FAA conducts an evaluation of each noise compatibility program and, based on that evaluation, either approves or disapproves the program. The evaluation includes consideration of proposed measures to determine whether they—

(1) May create an undue burden on interstate or foreign commerce (including unjust discrimination);

(2) Are reasonably consistent with obtaining the goal of reducing existing noncompatible land uses and preventing the introduction of additional noncompatible land uses; and

(3) Include the use of new or modified flight procedures to control the operation of aircraft for purposes of noise control, or affect flight procedures in any way.

(b) The evaluation may also include an evaluation of those proposed measures to determine whether they may adversely affect the exercise of the authority and responsibilities of the Administrator under the Federal Aviation Act of 1958, as amended.

(c) To the extent considered necessary, the FAA may—

(1) Confer with the airport operator and other persons known to have information and views material to the evaluation;

(2) Explore the objectives of the program and the measures, and any alternative measures, for achieving the objectives.

(3) Examine the program for developing a range of alternatives that would eliminate the reasons, if any, for disapproving the program.

(4) Convene an informal meeting with the airport operator and other persons involved in developing or implementing the program for the purposes of gathering all facts relevant to the determination of approval or disapproval of the program and of discussing any needs to accommodate or modify the program as submitted.

(d) If requested by the FAA, the airport operator shall furnish all information needed to complete FAA's review under (c).

(e) An airport operator may, at any time before approval or disapproval of a program, withdraw or revise the program. If the airport operator withdraws or revises the program or indicates to the Regional Airports Division Manager, in writing, the intention to revise the program, the Regional Airports Division Manager terminates the evaluation and notifies the airport operator of that action. That termination cancels the 180-day review period. The FAA does not evaluate a second program for any airport until any previously submitted program has been withdrawn or a determination on it is issued. A new evaluation is commenced upon receipt of a revised program, and a new 180-day approval period is begun, unless the Regional Airports Division Manager finds that the modification made, in light of the overall revised program, can be integrated into the unmodified portions of the revised program without exceeding the original 180-day approval period or causing undue expense to the government.

[Doc. No. 18691, 49 FR 49269, Dec. 18, 1984, as amended by Amdt. 150-2, 54 FR 39295, Sept. 25, 1989]

§ 150.35 Determinations; publications; effectivity.

(a) The FAA issues a determination approving or disapproving each airport noise compatibility program (and revised program). Portions of a program may be individually approved or disapproved. No conditional approvals will be issued. A determination on a program acceptable under this part is issued within 180 days after the program is received under § 150.23 of this part or it may be considered approved, except that this time period may be exceeded for any portion of a program relating to the use of flight procedures for noise control purposes. A determination on portions of a program covered by the exceptions to the 180-day review period for approval will be issued within a reasonable time after receipt of the program. Determinations relating to the use of any flight procedure for noise control purposes may be issued either in connection with the determination on other portions of the program or separately. Except as provided by this paragraph, no approval of any noise compatibility program, or any portion of a program, may be implied in the absence of the FAA's express approval.

(b) The Administrator approves programs under this part, if—

(1) It is found that the program measures to be implemented would not create an undue burden on interstate or foreign commerce (including any unjust discrimination) and are reasonably consistent with achieving the goals of reducing existing noncompatible land

uses around the airport and of preventing the introduction of additional noncompatible land uses;

(2) The program provides for revision if made necessary by the revision of the noise map; and

(3) Those aspects of programs relating to the use of flight procedures for noise control can be implemented within the period covered by the program and without—

(i) Reducing the level of aviation safety provided;

(ii) Derogating the requisite level of protection for aircraft, their occupants and persons and property on the ground;

(iii) Adversely affecting the efficient use and management of the Navigable Airspace and Air Traffic Control Systems; or

(iv) Adversely affecting any other powers and responsibilities of the Administrator prescribed by law or any other program, standard, or requirement established in accordance with law.

(c) When a determination is issued, the Regional Airports Division Manager notifies the airport operator and publishes a notice of approval or disapproval in the FEDERAL REGISTER identifying the nature and extent of the determination.

(d) Approvals issued under this part for a program or portion thereof become effective as specified therein and may be withdrawn when one of the following occurs:

(1) The program or portion thereof is required to be revised under this part or under its own terms, and is not so revised;

(2) If a revision has been submitted for approval, a determination is issued on the revised program or portion thereof, that is inconsistent with the prior approval.

(3) A term or condition of the program, or portion thereof, or its approval is violated by the responsible government body.

(4) A flight procedure or other FAA action upon which the approved program or portion thereof is dependent is subsequently disapproved, significantly altered, or rescinded by the FAA.

(5) The airport operator requests rescission of the approval.

(6) Impacts on flight procedures, air traffic management, or air commerce occur which could not be foreseen at the time of approval.

A determination may be sooner rescinded or modified for cause with at least 30 days written notice to the airport operator of the FAA's intention to rescind or modify the determination for the reasons stated in the notice. The airport operator may, during the 30-day period, submit to the Regional Airports Division Manager for consideration any reasons and circumstances why the determination should not be rescinded or modified on the basis stated in the notice of intent. Thereafter, the FAA either rescinds or modifies the determination consistent with the notice or withdraws the notice of intent and terminates the action.

(e) Determinations may contain conditions which must be satisfied prior to implementation of any portion of the program relating to flight procedures affecting airport or aircraft operations.

(f) Noise exposure maps for current and forecast year map conditions that are submitted and approved with noise compatibility programs are considered to be the new FAA accepted noise exposure maps for purposes of part 150.

[Doc. No. 18691, 49 FR 49269, Dec. 18, 1984, as amended by Amdt. 150–2, 54 FR 39295, Sept. 25, 1989; Amdt. 150–4, 69 FR 57626, Sept. 24, 2004]

APPENDIX A TO PART 150—NOISE EXPOSURE MAPS

PART A—GENERAL

Sec. A150.1 Purpose.
Sec. A150.3 Noise descriptors.
Sec. A150.5 Noise measurement procedures and equipment.

PART B—NOISE EXPOSURE MAP DEVELOPMENT

Sec. A150.101 Noise contours and land usages.
Sec. A150.103 Use of computer prediction model.
Sec. A150.105 Identification of public agencies and planning agencies.

PART C—MATHEMATICAL DESCRIPTIONS

Sec. A150.201 General.
Sec. A150.203 Symbols.
Sec. A150.205 Mathematical computations.

PART A—GENERAL

Sec. A150.1 Purpose.

(a) This appendix establishes a uniform methodology for the development and preparation of airport noise exposure maps. That methodology includes a single system of measuring noise at airports for which there is a highly reliable relationship between projected noise exposure and surveyed reactions of people to noise along with a separate single system for determining the exposure of individuals to noise. It also identifies land uses which, for the purpose of this part are considered to be compatible with various exposures of individuals to noise around airports.

(b) This appendix provides for the use of the FAA's Integrated Noise Model (INM) or an FAA approved equivalent, for developing standardized noise exposure maps and predicting noise impacts. Noise monitoring may be utilized by airport operators for data acquisition and data refinement, but is not required by this part for the development of noise exposure maps or airport noise compatibility programs. Whenever noise monitoring is used, under this part, it should be accomplished in accordance with Sec. A150.5 of this appendix.

Sec. A150.3 Noise descriptors.

(a) *Airport Noise Measurement.* The A-Weighted Sound Level, measured, filtered and recorded in accordance with Sec. A150.5 of this appendix, must be employed as the unit for the measurement of single event noise at airports and in the areas surrounding the airports.

(b) *Airport Noise Exposure.* The yearly day-night average sound level (YDNL) must be employed for the analysis and characterization of multiple aircraft noise events and for determining the cumulative exposure of individuals to noise around airports.

Sec. A150.5 Noise measurement procedures and equipment.

(a) Sound levels must be measured or analyzed with equipment having the "A" frequency weighting, filter characteristics, and the "slow response" characteristics as defined in International Electrotechnical Commission (IEC) Publication No. 179, entitled "Precision Sound Level Meters" as incorporated by reference in part 150 under §150.11. For purposes of this part, the tolerances allowed for general purpose, type 2 sound level meters in IEU 179, are acceptable.

(b) Noise measurements and documentation must be in accordance with accepted acoustical measurement methodology, such as those described in American National Standards Institute publication ANSI 51.13, dated 1971 as revised 1979, entitled "ANS—Methods for the Measurement of Sound Pressure Levels"; ARP No. 796, dated 1969, entitled "Measurement of Aircraft Exterior Noise in the Field"; "Handbook of Noise Measurement," Ninth Ed. 1980, by Arnold P.G. Peterson; or "Acoustic Noise Measurement," dated Jan., 1979, by J.R. Hassell and K. Zaveri. For purposes of this part, measurements intended for comparison to a State or local standard or with another transportation noise source (including other aircraft) must be reported in maximum A-weighted sound levels (L_{AM}); for computation or validation of the yearly day-night average level (L_{dn}), measurements must be reported in sound exposure level (L_{AE}), as defined in Sec. A150.205 of this appendix.

PART B—NOISE EXPOSURE MAP DEVELOPMENT

Sec. A150.101 Noise contours and land usages.

(a) To determine the extent of the noise impact around an airport, airport proprietors developing noise exposure maps in accordance with this part must develop L_{dn} contours. Continuous contours must be developed for YDNL levels of 65, 70, and 75 (additional contours may be developed and depicted when appropriate). In those areas where YDNL values are 65 YDNL or greater, the airport operator shall identify land uses and determine land use compatibility in accordance with the standards and procedures of this appendix.

(b) Table 1 of this appendix describes compatible land use information for several land uses as a function of YDNL values. The ranges of YDNL values in Table 1 reflect the statistical variability for the responses of large groups of people to noise. Any particular level might not, therefore, accurately assess an individual's perception of an actual noise environment. Compatible or noncompatible land use is determined by comparing the predicted or measured YDNL values at a site with the values given. Adjustments or modifications of the descriptions of the land-use categories may be desirable after consideration of specific local conditions.

(c) Compatibility designations in Table 1 generally refer to the major use of the site. If other uses with greater sensitivity to noise are permitted by local government at a site, a determination of compatibility must be based on that use which is most adversely affected by noise. When appropriate, noise level reduction through incorporation of sound attenuation into the design and construction of a structure may be necessary to achieve compatibility.

(d) For the purpose of compliance with this part, all land uses are considered to be compatible with noise levels less than L_{dn} 65 dB. Local needs or values may dictate further delineation based on local requirements or determinations.

(e) Except as provided in (f) below, the noise exposure maps must also contain and indentify:

(1) Runway locations.

(2) Flight tracks.

(3) Noise contours of L_{dn} 65, 70, and 75 dB resulting from aircraft operations.

(4) Outline of the airport boundaries.

(5) Noncompatible land uses within the noise contours, including those within the L_{dn} 65 dB contours. (No land use has to be identified as noncompatible if the self-generated noise from that use and/or the ambient noise from other nonaircraft and nonairport uses is equal to or greater than the noise from aircraft and airport sources.)

(6) Location of noise sensitive public buildings (such as schools, hospitals, and health care facilities), and properties on or eligible for inclusion in the National Register of Historic Places.

(7) Locations of any aircraft noise monitoring sites utilized for data acquisition and refinement procedures.

(8) Estimates of the number of people residing within the L_{dn} 65, 70, and 75 dB contours.

(9) Depiction of the required noise contours over a land use map of a sufficient scale and quality to discern streets and other identifiable geographic features.

(f) Notwithstanding any other provision of this part, noise exposure maps prepared in connection with studies which were either Federally funded or Federally approved and which commenced before October 1, 1981, are not required to be modified to contain the following items:

(1) Flight tracks depicted on the map.

(2) Use of ambient noise to determine land use compatibility.

(3) The L_{dn} 70 dB noise contour and data related to L_{dn} 70 dB contour. When determinations on land use compatibility using Table 1 differ between L_{dn} 65–70 dB and the L_{dn} 70–75 dB, determinations should either use the more conservative L_{dn} 70–75 dB column or reflect determinations based on local needs and values.

(4) Estimates of the number of people residing within the L_{dn} 65, 70, and 75 dB contours.

TABLE 1—LAND USE COMPATIBILITY* WITH YEARLY DAY-NIGHT AVERAGE SOUND LEVELS

Land use	Yearly day-night average sound level (L_{dn}) in decibels					
	Below 65	65–70	70–75	75–80	80–85	Over 85
RESIDENTIAL						
Residential, other than mobile homes and transient lodgings.	Y	N(1)	N(1)	N	N	N
Mobile home parks	Y	N	N	N	N	N
Transient lodgings	Y	N(1)	N(1)	N(1)	N	N
PUBLIC USE						
Schools	Y	N(1)	N(1)	N	N	N
Hospitals and nursing homes	Y	25	30	N	N	N
Churches, auditoriums, and concert halls	Y	25	30	N	N	N
Governmental services	Y	Y	25	30	N	N
Transportation	Y	Y	Y(2)	Y(3)	Y(4)	Y(4)
Parking	Y	Y	Y(2)	Y(3)	Y(4)	N
COMMERCIAL USE						
Offices, business and professional	Y	Y	25	30	N	N
Wholesale and retail—building materials, hardware and farm equipment.	Y	Y	Y(2)	Y(3)	Y(4)	N
Retail trade—general	Y	Y	25	30	N	N
Utilities	Y	Y	Y(2)	Y(3)	Y(4)	N
Communication	Y	Y	25	30	N	N
MANUFACTURING AND PRODUCTION						
Manufacturing, general	Y	Y	Y(2)	Y(3)	Y(4)	N
Photographic and optical	Y	Y	25	30	N	N
Agriculture (except livestock) and forestry	Y	Y(6)	Y(7)	Y(8)	Y(8)	Y(8)
Livestock farming and breeding	Y	Y(6)	Y(7)	N	N	N
Mining and fishing, resource production and extraction.	Y	Y	Y	Y	Y	Y
RECREATIONAL						
Outdoor sports arenas and spectator sports	Y	Y(5)	Y(5)	N	N	N
Outdoor music shells, amphitheaters	Y	N	N	N	N	N
Nature exhibits and zoos	Y	Y	N	N	N	N
Amusements, parks, resorts and camps	Y	Y	Y	N	N	N
Golf courses, riding stables and water recreation.	Y	Y	25	30	N	N

Numbers in parentheses refer to notes.

*The designations contained in this table do not constitute a Federal determination that any use of land covered by the program is acceptable or unacceptable under Federal, State, or local law. The responsibility for determining the acceptable and permissible land uses and the relationship between specific properties and specific noise contours rests with the local authorities. FAA determinations under part 150 are not intended to substitute federally determined land uses for those determined to be appropriate by local authorities in response to locally determined needs and values in achieving noise compatible land uses.

KEY TO TABLE 1

SLUCM=Standard Land Use Coding Manual.
Y (Yes)=Land Use and related structures compatible without restrictions.
N (No)=Land Use and related structures are not compatible and should be prohibited.
NLR=Noise Level Reduction (outdoor to indoor) to be achieved through incorporation of noise attenuation into the design and construction of the structure.
25, 30, or 35=Land use and related structures generally compatible; measures to achieve NLR of 25, 30, or 35 dB must be incorporated into design and construction of structure.

NOTES FOR TABLE 1

(1) Where the community determines that residential or school uses must be allowed, measures to achieve outdoor to indoor Noise Level Reduction (NLR) of at least 25 dB and 30 dB should be incorporated into building codes and be considered in individual approvals. Normal residential construction can be expected to provide a NLR of 20 dB, thus, the reduction requirements are often stated as 5, 10 or 15 dB over standard construction and normally assume mechanical ventilation and closed windows year round. However, the use of NLR criteria will not eliminate outdoor noise problems.
(2) Measures to achieve NLR 25 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where the normal noise level is low.
(3) Measures to achieve NLR of 30 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where the normal noise level is low.
(4) Measures to achieve NLR 35 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where the normal level is low.
(5) Land use compatible provided special sound reinforcement systems are installed.
(6) Residential buildings require an NLR of 25.
(7) Residential buildings require an NLR of 30.
(8) Residential buildings not permitted.

Sec. A150.103 Use of computer prediction model.

(a) The airport operator shall acquire the aviation operations data necessary to develop noise exposure contours using an FAA approved methodology or computer program, such as the Integrated Noise Model (INM) for airports or the Heliport Noise Model (HNM) for heliports. In considering approval of a methodology or computer program, key factors include the demonstrated capability to produce the required output and the public availability of the program or methodology to provide interested parties the opportunity to substantiate the results.

(b) Except as provided in paragraph (c) of this section, the following information must be obtained for input to the calculation of noise exposure contours:

(1) A map of the airport and its environs at an adequately detailed scale (not less than 1 inch to 2,000 feet) indicating runway length, alignments, landing thresholds, takeoff start-of-roll points, airport boundary, and flight tracks out to at least 30,000 feet from the end of each runway.

(2) Airport activity levels and operational data which will indicate, on an annual average-daily-basis, the number of aircraft, by type of aircraft, which utilize each flight track, in both the standard daytime (0700–2200 hours local) and nighttime (2200–0700 hours local) periods for both landings and takeoffs.

(3) For landings—glide slopes, glide slope intercept altitudes, and other pertinent information needed to establish approach profiles along with the engine power levels needed to fly that approach profile.

(4) For takeoffs—the flight profile which is the relationship of altitude to distance from start-of-roll along with the engine power levels needed to fly that takeoff profile; these data must reflect the use of noise abatement departure procedures and, if applicable, the takeoff weight of the aircraft or some proxy for weight such as stage length.

(5) Existing topographical or airspace restrictions which preclude the utilization of alternative flight tracks.

(6) The government furnished data depicting aircraft noise characteristics (if not already a part of the computer program's stored data bank).

(7) Airport elevation and average temperature.

(c) For heliports, the map scale required by paragraph (b)(1) of this section shall not be less than 1 inch to 2,000 feet and shall indicate heliport boundaries, takeoff and landing pads, and typical flight tracks out to at least 4,000 feet horizontally from the landing pad. Where these flight tracks cannot be determined, obstructions or other limitations on flight tracks in and out of the heliport shall be identified within the map areas out to at least 4,000 feet horizontally from the landing pad. For static operation (hover), the helicopter type, the number of daily operations based on an annual average, and the duration in minutes of the hover operation shall be identified. The other information required in paragraph (b) shall be furnished in a form suitable for input to the HNM or other FAA approved methodology or computer program.

Sec. A150.105 Identification of public agencies and planning agencies.

(a) The airport proprietor shall identify each public agency and planning agency whose jurisdiction or responsibility is either

wholly or partially within the L_{dn} 65 dB boundary.

(b) For those agencies identified in (a) that have land use planning and control authority, the supporting documentation shall identify their geographic areas of jurisdiction.

PART C—MATHEMATICAL DESCRIPTIONS

Sec. A150.201 General.

The following mathematical descriptions provide the most precise definition of the yearly day-night average sound level (L_{dn}), the data necessary for its calculation, and the methods for computing it.

Sec. A150.203 Symbols.

The following symbols are used in the computation of L_{dn};

Measure (in dB)	Symbol
Average Sound Level, During Time T	L_T
Day-Night Average Sound Level (individual day)	L_{dni}
Yearly Day-Night Average Sound Level	L_{dn}
Sound Exposure Level	L_{AE}

Sec. A150.205 Mathematical computations.

(a) Average sound level must be computed in accordance with the following formula:

$$L_T = 10 \log_{10}\left[\frac{1}{T}\int_0^T 10^{L_A(t)/10}\,dt\right] \quad (1)$$

where T is the length of the time period, in seconds, during which the average is taken; $L_A(t)$ is the instantaneous time varying A-weighted sound level during the time period T.

NOTE: When a noise environment is caused by a number of identifiable noise events, such as aircraft flyovers, average sound level may be conveniently calculated from the sound exposure levels of the individual events occurring within a time period T:

$$L_T = 10 \log_{10}\left[\frac{1}{T}\sum_{i=1}^{n} 10^{L_{AEi}/10}\right] \quad (2)$$

where L_{AEi} is the sound exposure level of the i-th event, in a series of n events in time period T, in seconds.

NOTE: When T is one hour, L_T is referred to as one-hour average sound level.

(b) Day-night average sound level (individual day) must be computed in accordance with the following formula:

$$L_{dn} = 10 \log_{10}\left[\frac{1}{86400}\left(\int_{0000}^{0700} 10^{[L_A(t)+10]/10}dt + \int_{0700}^{2200} 10^{L_A(t)/10}dt + \int_{2200}^{2400} 10^{[L_A(t)+10]/10}dt\right)\right] \quad (3)$$

Time is in seconds, so the limits shown in hours and minutes are actually interpreted in seconds. It is often convenient to compute day-night average sound level from the one-hour average sound levels obtained during successive hours.

(c) Yearly day-night average sound level must be computed in accordance with the following formula:

$$L_{dn} = 10 \log_{10}\frac{1}{365}\sum_{i=1}^{365} 10^{L_{dni}/10} \quad (4)$$

where L_{dni} is the day-night average sound level for the i-th day out of one year.

(d) Sound exposure level must be computed in accordance with the following formula:

$$L_{AE} = 10 \log_{10}\left(\frac{1}{t_o}\int_{t_1}^{t_2} 10^{L_A(t)/10}dt\right) \quad (5)$$

where t_o is one second and $L_A(t)$ is the time-varying A-weighted sound level in the time interval t_1 to t_2.

The time interval should be sufficiently large that it encompasses all the significant sound of a designated event.

The requisite integral may be approximated with sufficient accuracy by integrating $L_A(t)$ over the time interval during which $L_A(t)$ lies within 10 decibels of its maximum value, before and after the maximum occurs.

[Doc. No. 18691, 49 FR 49269, Dec. 18, 1984; 50 FR 5064, Feb. 6, 1985, as amended by Amdt. 150-1, 53 FR 8724, Mar. 16, 1988; Amdt. 150-4, 69 FR 57626, Sept. 24, 2004]

APPENDIX B TO PART 150—NOISE COMPATIBILITY PROGRAMS

Sec. B150.1 Scope and purpose.
Sec. B150.3 Requirement for noise map.
Sec. B150.5 Program standards.

Sec. B150.7 Analysis of program alternatives.
Sec. B150.9 Equivalent programs.

Sec. B150.1 Scope and purpose.

(a) This appendix prescribes the content and the methods for developing noise compatibility programs authorized under this part. Each program must set forth the measures which the airport operator (or other person or agency responsible) has taken, or proposes to take, for the reduction of existing noncompatible land uses and the prevention of the introduction of additional noncompatible land uses within the area covered by the noise exposure map submitted by the operator.

(b) The purpose of a noise compatibility program is:

(1) To promote a planning process through which the airport operator can examine and analyze the noise impact created by the operation of an airport, as well as the costs and benefits associated with various alternative noise reduction techniques, and the responsible impacted land use control jurisdictions can examine existing and forecast areas of noncompatibility and consider actions to reduce noncompatible uses.

(2) To bring together through public participation, agency coordination, and overall cooperation, all interested parties with their respective authorities and obligations, thereby facilitating the creation of an agreed upon noise abatement plan especially suited to the individual airport location while at the same time not unduly affecting the national air transportation system.

(3) To develop comprehensive and implementable noise reduction techniques and land use controls which, to the maximum extent feasible, will confine severe aircraft YDNL values of L_{dn} 75 dB or greater to areas included within the airport boundary and will establish and maintain compatible land uses in the areas affected by noise between the L_{dn} 65 and 75 dB contours.

Sec. B150.3 Requirement for noise map.

(a) It is required that a current and complete noise exposure map and its supporting documentation as found in compliance with the applicable requirements by the FAA, per §150.21(c) be included in each noise compatibility program:

(1) To identify existing and future noncompatible land uses, based on airport operation and off-airport land uses, which have generated the need to develop a program.

(2) To identify changes in noncompatible uses to be derived from proposed program measures.

(b) If the proposed noise compatibility program would yield maps differing from those previously submitted to FAA, the program shall be accompanied by appropriately revised maps. Such revisions must be prepared in accordance with the requirements of Sec. A150.101(e) of appendix A and will be accepted by FAA in accordance with §150.35(f).

Sec. B150.5 Program standards.

Based upon the airport noise exposure and noncompatible land uses identified in the map, the airport operator shall evaluate the several alternative noise control actions and develop a noise compatibility program which—

(a) Reduces existing noncompatible uses and prevents or reduces the probability of the establishment of additional noncompatible uses;

(b) Does not impose undue burden on interstate and foreign commerce;

(c) Provides for revision in accordance with §150.23 of this part.

(d) Is not unjustly discriminatory.

(e) Does not derogate safety or adversely affect the safe and efficient use of airspace.

(f) To the extent practicable, meets both local needs and needs of the national air transportation system, considering tradeoffs between economic benefits derived from the airport and the noise impact.

(g) Can be implemented in a manner consistent with all of the powers and duties of the Administrator of FAA.

Sec. B150.7 Analysis of program alternatives.

(a) Noise control alternatives must be considered and presented according to the following categories:

(1) Noise abatement alternatives for which the airport operator has adequate implementation authority.

(2) Noise abatement alternatives for which the requisite implementation authority is vested in a local agency or political subdivision governing body, or a state agency or political subdivision governing body.

(3) Noise abatement options for which requisite authority is vested in the FAA or other Federal agency.

(b) At a minimum, the operator shall analyze and report on the following alternatives, subject to the constraints that the strategies are appropriate to the specific airport (for example, an evaluation of night curfews is not appropriate if there are no night flights and none are forecast):

(1) Acquisition of land and interests therein, including, but not limited to air rights, easements, and development rights, to ensure the use of property for purposes which are compatible with airport operations.

(2) The construction of barriers and acoustical shielding, including the soundproofing of public buildings.

(3) The implementation of a preferential runway system.

(4) The use of flight procedures (including the modifications of flight tracks) to control

the operation of aircraft to reduce exposure of individuals (or specific noise sensitive areas) to noise in the area around the airport.

(5) The implementation of any restriction on the use of airport by any type or class of aircraft based on the noise characteristics of those aircraft. Such restrictions may include, but are not limited to—

(i) Denial of use of the airport to aircraft types or classes which do not meet Federal noise standards;

(ii) Capacity limitations based on the relative noisiness of different types of aircraft;

(iii) Requirement that aircraft using the airport must use noise abatement takeoff or approach procedures previously approved as safe by the FAA;

(iv) Landing fees based on FAA certificated or estimated noise emission levels or on time of arrival; and

(v) Partial or complete curfews.

(6) Other actions or combinations of actions which would have a beneficial noise control or abatement impact on the public.

(7) Other actions recommended for analysis by the FAA for the specific airport.

(c) For those alternatives selected for implementation, the program must identify the agency or agencies responsible for such implementation, whether those agencies have agreed to the implementation, and the approximate schedule agreed upon.

Sec. B150.9 Equivalent programs.

(a) Notwithstanding any other provision of this part, noise compatibility programs prepared in connection with studies which were either Federally funded or Federally approved and commenced before October 1, 1981, are not required to be modified to contain the following items:

(1) Flight tracks.

(2) A noise contour of L_{dn} 70 dB resulting from aircraft operations and data related to the L_{dn} 70 dB contour. When determinations on land use compatibility using Table 1 of appendix A differ between L_{dn} 65–70 dB and L_{dn} 70–75 dB, the determinations should either use the more conservative L_{dn} 70–75 dB column or reflect determinations based on local needs and values.

(3) The categorization of alternatives pursuant to Sec. B150.7(a), although the persons responsible for implementation of each measure in the program must still be identified in accordance with §150.23(e)(8).

(4) Use of ambient noise to determine land use compatibility.

(b) Previously prepared noise compatibility program documentation may be supplemented to include these and other program requirements which have not been excepted.

PART 151—FEDERAL AID TO AIRPORTS

Subpart A—General Requirements

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151.3 National Airport Plan.
151.5 General policies.
151.7 Grants of funds: General policies.
151.9 Runway clear zones: General.
151.11 Runway clear zones; requirements.
151.13 Federal-aid Airport Program: Policy affecting landing aid requirements.
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Subpart B—Rules and Procedures for Airport Development Projects

151.21 Procedures: Application; general information.
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151.24 Procedures: Application; information on estimated project costs.
151.25 Procedures: Application; information as to property interests.
151.26 Procedures: Applications; compatible land use information; consideration of local community interest; relocation of displaced persons.
151.27 Procedures: Application, plans, specifications, and appraisals.
151.29 Procedures: Offer, amendment, and acceptance.
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151.35 Airport development and facilities to which subparts B and C apply.
151.37 Sponsor eligibility.
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151.45 Performance of construction work: General requirements.
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151.54 Equal employment opportunity requirements: Before July 1, 1968.
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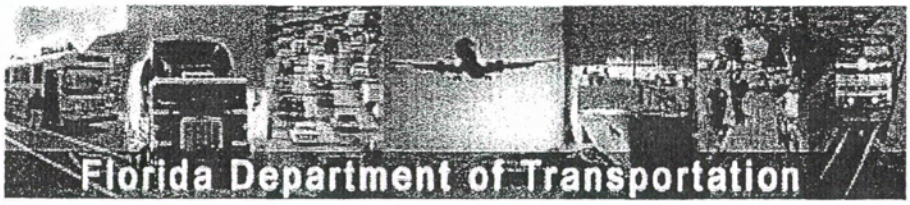

Airport Compatible Land Use

Airport Compatible Land Use Guidance
FAA's Land Use Guide
Air Installation Compatible Use Zone
Air Force - Air Installation
Air National Guard - Air Installation
Navy and Marine Corps - Air Installation

Airport Compatible Land Use Guidance for Florida Communities - Rescinded, Pending Revision

FAA's Land Use Guide (Link)
This link will take you to the Federal Aviation Administration's (FAA) web site where you can download a copy of the FAA's guidebook, Land Use Compatibility and Airports, A Guide for Effective Land Use Planning, published by the FAA Airports Division Southern Region.

Military Land Use Guide

Department of Defense - Air Installation Compatible Use Zone
Department of Defense Instruction (DODI) 4165.57, Air Installation Compatible Use Zone (AICUZ), dated November 8, 1977 implements Title 32 Code of Federal Regulations (CFR), Chapter I, Part 256 AICUZ. This document (1) sets forth DOD policy on achieving compatible use of public and private lands in the vicinity of military airfields, (2) defines required restrictions on the uses and heights of natural and man-made objects in the vicinity of air installations to provide for safety of flight and to assure that people and facilities are not concentrated in areas susceptible to aircraft accidents; (3) includes desirable restrictions on land use to assure its compatibility with characteristics, including noise, of air installation operations and (4) describes the procedures by which AICUZ may be defined; and (5) provides policy on the extent of U.S. government interest in real property within these zones which may be retained or acquired to protect the operational capability of active military airfields.

Air Force - Air Installation Compatible Use Zone Program (327 KB in PDF)
Air Force Instruction (AFI) 32-7063, dated April 17, 2002, implements, AFPD 32-70 Environmental Quality (379 KB in PDF), dated July 20, 1994, by identifying requirements to develop, implement, and maintain the Air Installation Compatible Use Zone (AICUZ) program. It also implements DODI 4165.57 Air Installation Compatible Use Zone, dated November 8, 1977. It applies to all Air Force installations with active runways located in the U.S. and its territories, including government-owned, contractor-operated facilities, unless exempted. This instruction interfaces with AFI 32-7061, Environmental Impact Analysis Process (343 KB in PDF) and with AFI 32-7062, Air Force Comprehensive Planning (242 KB in PDF).

Air National Guard - Air Installation Compatible Use Zone (581 KB in PDF)
This 17-page booklet prepared by the National Guard Bureau (NGB) in Washington, D.C. describes the Air National Guard's (ANG) Air Installation Compatible Use Zone (AICUZ) program and its commitment to work with local communities to ensure safety and responsible future development.

Navy and Marine Corps - Air Installation Compatible Use Zone
Secretary of the Navy Instruction 11010.11, Air Installation Compatible Use Zone (AICUZ), dated May 22, 1978, promulgates DOD AICUZ program within the Department of the Navy and assigns

responsibilities for implementation. Assigns responsibility to the Assistant Secretary of the Navy for Manpower, Reserve Affairs and Logistics (MRA&L). Tasks Chief of Naval Operations and Commandant of the Marine Corps to: (1) promulgate planning criteria and technical guidance to air installations on the AICUZ program; (2) investigate and study air installations for compliance; (3) develop and update an AICUZ plan for each Navy and Marine Corps air installation which complies with the DOD requirements and includes the following basic elements (a) reduction of aircraft noise pollution, on and off station; (b) establishment of a compatible land use plan for lands within the AICUZ; and (c) establishment of a plan for coordinating with federal, state, and local officials, and maintaining public awareness of the Navy AICUZ program; and (4) identify and maintain current property rights acquisition and sound suppression projects in situations where action to achieve compatibility with local land use controls has been attempted, but unsuccessful.

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