

EXHIBITS

APPLICANT

- ✓ #1 UCP (board)
- ✓ #2 ^A 2002 Aerial
^B 2005 Aerial
- ✓ #3 ^A Eagle - Preserv. Area.
- ✓ #4 ^B Primary Protection
Phasing Plan
- ✓ #5 Eagle Mgmt Plan
- ✓ #6 ^A Existing Bathymetry
^B Bathymetry graphic
- ✓ #7 Deviation Drawing
- ✓ #8 Earthwork & Fill
- ✓ #9 NEFF Resume *
- ✓ #10 FRAZIER Resume *

OTHER EXHIBITS

NAME

- #1 _____
- #2 _____
- #3 _____
- #4 _____
- #5 _____

STAFF

- ✓ #1 Sexa Party letter
- ✓ #2 Sweigart Resume *
- #3 _____
- #4 _____
- #5 _____
- #6 _____
- #7 _____
- #8 _____
- #9 _____
- #10 _____

NAME

- #1 _____
- #2 _____
- #3 _____
- #4 _____
- #5 _____

Put copy in
H&E files
done

RECEIVED

MAY 31 2005

5/28/05

COMMUNITY DEVELOPMENT

Case # DC12064-00017

Case Name: Moody River Estates

I have noticed a dramatic difference in this area since the development of Moody River Estates.

Good to
hear
Eagle
Plan

a. Other displaced wildlife. There needs to be an additional area set aside that will not be developed. (nature preserve) I can give you examples of hawks, owls, family of armadillos, etc. right in my small back yard trying to feed. Highly unusual behavior in the middle of the day, right off Hancock Bridge Pkwy. A lot of land is being cleared, there is no reason every part needs to be concreted with no place for animals to live in existing trees, etc.



b. Noise Level - The dump trucks, concrete trucks + other service vehicles are creating a shortcut on 30mph

STAFF'S EXHIBIT # 1
DC12064-00017

residential Moody Rd. between
Pondella & Hancock. When these
trucks come over the Hancock
Creek Canal Bridge the ground
shakes, they hit their brakes
at the light, honk at each other.
I close the doors & come inside.
I used to sit on my patio & read,
talk to friends, watch TV NO MORE.
We used to have a "no heavy
trucks" sign on this road. I
contacted Andy Coy last year, Dept.
of Transportation & Colonial Homes.
There is no development on this
section of Moody Rd yet so why
can't something be done?

c. The controlled burn earlier
in the year also made it
impossible to sit outside. Everything
was so dirty & it smelled so
bad you had to stay inside.

Tina Barty
155 Anchor Way
M Ft Myers 33903
947-8116

334-6899 (work)

REBECCA SWEIGERT

EDUCATION

B.S. - Wildlife Science

Auburn University (2000)

EXPERIENCE

Lee County, Division of Environmental Sciences

Environmental Planner 2000 - 2004

Senior Environmental Planner 2004 - Present

Responsibilities include: main staff contact for development order requirements and issues. Development order review of open space, landscaping, buffering, protected species survey, and protected species management plan review per Land Development Code Chapter 10 and planned development resolution conditions. Review protected species surveys and management plans. Field verify protected species and management plans

Eagle Technical Advisory Committee (ETAC)

County Staff Liaison 2000-Present

Responsibilities include maintain eagle nesting data, assist land owners and developers of properties with nests in the timing and location of development to insure protection of Lee County's bald eagles, monitor bald eagle nests throughout Lee County. Review building permits in conjunction with nest location and provide conditions on the building permit per bald eagle ordinance Land Development Code 14-111 through 14-120 and the Lee County Comprehensive Plan

Florida Fish and Wildlife Conservation Commission

Volunteer Monitor February 2002 - Present

Volunteering to monitor burrowing owl productivity within the City of Cape Coral. Participating biologist in a study being performed by FWC to repeat a 5 year study conducted in the 1990s. I conduct weekly site visits and monitor the status of the burrows and age the chicks. This information is added to the scientific data base for the study.

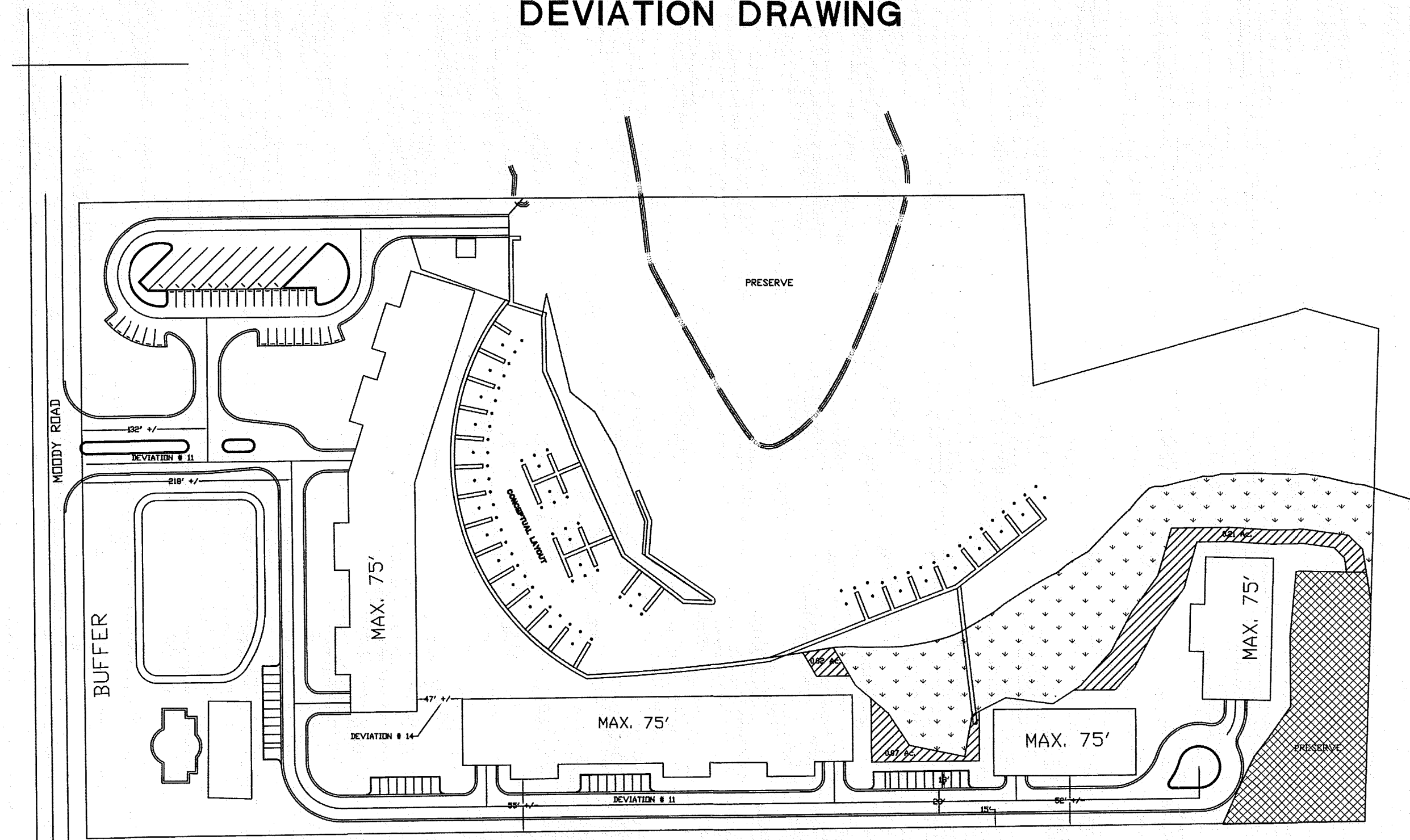
Southeastern Raptor Rehabilitation Center

Level II Volunteer June 1999 - August 2000

Duties included handling birds, cleaning cages, and presenting birds to the public. Also, assisted in flight team, released rehabilitated birds into the wild, and trained a Rough-legged Hawk for public presentations.

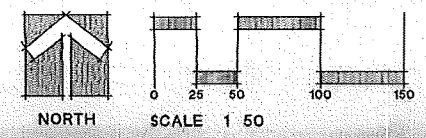
A7

DEVIATION DRAWING



DEVIATION # 11 FROM LDC SECTION 10-296(m)(4) WHICH
 REQUIRES THAT NO MORE THAN 100 UNITS BE CONSTRUCTED
 WITHOUT THE PROVISION OF A RIGHT OF WAY, TO ALLOW UP
 TO 200 UNITS.

DEVIATION # 14 FROM LDC SECTION 34-935(e)(4) WHICH
 REQUIRES A MINIMUM BUILDING SEPERATION OF 1/2 THE SUM
 OF THEIR HEIGHTS, TO ALLOW 47" +/-.



BALD EAGLE MANAGEMENT PLAN

Nest LE43B

for

MOODY RIVER ESTATES

AND MOODY RIVER ESTATES NORTH PARCEL

Section 9, 10, 15, Township 44S, Range 24E

Lee County, Florida

December 2003

Revised: February 2004

Revised: May 2004

Revised: August 2004

Prepared by:

**W. Dexter Bender & Associates, Inc.
2052 Virginia Avenue
Fort Myers, FL 33901**

INTRODUCTION

Moody River Estates (the "Project" or "project site") is a 243± acre project which is divided by Skyline Drive. Moody River Estates North Parcel is a 50± acre project located north of Hancock Bridge Parkway. A location map reflecting the location of the Project is attached as Exhibit "A". The northern 164± acre portion of the project is bounded on the North/West by Hancock Bridge Parkway, on the East by Moody Road, and on the South by Skyline Drive. The southern 79± acre portion of the project site is located at the southeast corner of Skyline Drive and Randag Drive. The property is bordered by single and multi-family residential, a small golf course, an elementary school, and vacant land.

As shown on Exhibit "B", a southern bald eagle (*Haliaeetus leucocephalus*) nest is located in a live pine tree located approximately 450' south of Hancock Bridge Parkway, 1,100' west of Moody Road, and 2,100' north of Skyline Drive. This nest has been designated by the Florida Fish and Wildlife Conservation Commission (FWC) as LE-43B. Nest LE-43B, (discovered December 9, 2003 by Lee County Environmental Sciences (ES) staff), is presumed to be the eagles from Nest LE-43A located in the Skyline Woods subdivision. The nest was monitored by W. Dexter Bender and Associates, Inc. from December 10, 2003 to January 2, 2004 to evaluate the nest site as well as observe eagle activity and flight patterns.

Site Conditions

The Project Site contains mostly uplands that have been converted to improved pasture with scattered areas within the upland consisting of stands of pine, oaks, and cabbage palms. The Project Site also contains six (6) wetland areas and two (2) borrow areas. The existing site topography ranges from 8.5 NGVD at the north end of the site to 4.9 NGVD at the south end of the site.

The Project will consist of single family lots, multi-family lots, lakes, internal roadways, clubhouse, recreational pool, tennis and Bocci Ball courts, catch basins, and culverts. Approximately 45 acres of upland/wetland preserves are proposed (see Exhibit "F").

The attached Exhibit "B" is 1" = 300' aerial dated 2002, depicting the existing conditions and location of the eagle's nest.

Site Observations

As reflected on Exhibit "B", Nest LE-43B is located in a live South Florida slash pine (*Pinus elliottii* var. *densa*). Nest LE-43B was first observed by Lee County ES staff on December 9, 2003. On Wednesday, December 10, 2003 W. Dexter Bender & Associates, Inc. observed one eagle perched on the nest tree and the nest appeared fairly complete. The nest and adjacent areas were observed for a total of thirteen (13) hours on nine (9) separate occasions. The dates and times of these observations are recorded below along with weather conditions and a description of any significant activities at or near the nest location.

12/22/03 - 6:45 am-8:00 am

Temperature was 52°F with clear skies. Winds were northeast at approximately 5 mph. Upon arrival both eagles were perched outside of nest. At 6:55 a.m. one eagle flew south and returned from the southeast at 6:58 a.m. On two (2) occasions an eagle would fly south, make a circle and reperch. At 7:05 a.m. one eagle flew south and returned from the south at 7:53 a.m. At 7:28 a.m. one eagle went into the nest.

12/23/03 - 6:45 a.m. - 8:00 a.m.

Temperature was 56°F with clear skies. Winds were calm. Upon arrival one eagle was in the nest and one eagle was perched on limb. At 7:00 a.m., the eagle came out of the nest for 2 minutes and went back in. There was one eagle in nest and one eagle on limb for the duration of this monitoring event. No flights.

9:00 a.m. - 9:30 a.m.

One eagle was in the nest and the other eagle was not present.

12/24/03 - 9:00 a.m. - 10:30 a.m.

Temperature was 66°F with sunny clear skies. Winds were southwest at approximately 5 mph. Upon arrival, one eagle was in the nest and the other eagle was not present. At 9:50 a.m., the second eagle arrived from the southwest, circled the tree, landed on nest from west side, and relieved first eagle from nest which perched on an adjacent tree to the east. Both eagles were at the nest tree upon leaving at 10:30 a.m.

12/27/03 - 12:30 p.m. - 2:00 p.m.

Temperature was 75°F with sunny clear skies. Winds were northeast at approximately 5 mph. Upon arrival, one eagle was in the nest. The other eagle was not present and did not return during survey time.

12/29/03 - 12:15 p.m. - 1:45 p.m.

Temperature was 76°F with partly cloudy skies. Winds were east, southeast at approximately 10-15 mph. Upon arrival one eagle was in the nest and one eagle was observed catching a rat in the field and bringing it to the nest. At 12:20 p.m., one eagle flew away to the southeast and did not return during survey time.

12/30/03 - 12:30 p.m. - 2:30 p.m.

Temperature was 80°F with sunny clear skies. Winds were southeast at approximately 5-10 mph. Upon arrival, one eagle was in the nest and the other eagle was not present and did not return during survey time.

12/31/03 - 7:30 a.m. - 9:30 a.m.

Temperature was 63°F with sunny clear skies. Winds were calm. Upon arrival, one eagle was in the nest and the other eagle was not present and did not return during survey time.

1/2/04 - 8:00 a.m. -10:00 a.m.

Temperature was 67°F with sunny clear skies. Winds were calm. Upon arrival, one eagle was in the nest and the other eagle was not present. At 8:33 a.m., the second eagle returned from the southeast

to the nest with nest material. The second eagle arranged material and settled into nest. The first eagle perched on branch in nest tree. At 8:44 a.m., the first eagle changed branches. At 8:45 a.m., the first eagle changed branches again. At 9:15 a.m., the second eagle got out of nest. There was a lot of vocalization between the eagles perched side by side. At 9:17 a.m., the first eagle got back in the nest. At 10:00 a.m., both eagles were at nest tree, one eagle in nest and one eagle perched on limb.

GENERAL DEVELOPMENT GUIDELINES

Critical Nesting Habitat and Protection Zones

Based upon the monitoring of LE-43B, the eagles primarily fly to the south and southeast to forage in the Caloosahatchee River. These eagles are flying over existing roads, an elementary school, and residences to reach their foraging destination. The LE-43A eagles have demonstrated a high tolerance to human activity by completing five (5) of six (6) successful nesting seasons and fledging seven (7) young eagles since 1997-1998 from the LE-43A nest location. Nest LE-43A was located in the Skyline Woods subdivision (Lot 10) and 100' east of Hancock Creek Elementary School. A single family residence was constructed in 2001-2002 within 100' of the nest and constant noises (bullhorns and screaming children) from the elementary school occurred during the successful nesting seasons (1997-1998 to 2002-2003) suggest that the eagle pair which used LE-43A adapted to urban environments and are more tolerant of land uses otherwise restricted or limited under the Bald Eagle Management Guidelines. Accordingly, strict application of the Guidelines would not be appropriate in light of the best data available for this eagle pair. Under this Management Plan the applicant will establish an Eagle Preserve Area (see Exhibit "C") that will consist of an irregular shaped polygon totaling 11.8 acres. This area is the equivalent to a 399' radius and will consist of a lake (8.2 acres) on three (3) sides of the nest. The irregular shape of the Eagle Preserve Area is based on eagle observations, flight study, and recommendations from Lee County Staff and Eagle Technical Advisory Committee (ETAC). The Primary Protection Zone (40.5 acres) (see Exhibit "D") will consist of a 750' radius from Nest LE-43B. No exterior construction or clearing activities will occur in the Primary Protection Zone during the nesting season (i.e. nesting activity through fledging).

In addition to the on-site preservation measures, Colonial Homes, Inc. has agreed to donate \$100,000.00 to the Calusa Land Trust for the purpose of purchasing bald eagle habitat on or near Pine Island, Florida. Colonial Homes has requested and the Calusa Land Trust has indicated that preference will be given to select a parcel that presently supports active nesting or supports suitable habitat for attracting and supporting nesting bald eagles.

Site Plan and Development Phasing

- * All buildings within the Project Site including single family, multi-family, and common area facilities will not exceed 35' in height.
- * Within the Eagle Preserve Area, no buildings will be constructed. Lake 9 will be constructed during the non-nesting season (May 15th - October 1st). The lake will be a minimum of 100' from the nest tree and will serve as a "moat" around three (3) sides of the nest tree. The lake

and fence/hedge along the south development pod will inhibit any human activity within the Eagle Preserve Area. The lake's shoreline will be heavily planted with trees to buffer the nest from development.

- * Excavation of Lake 9, the loop road around the phased development (including utilities) and proposed buffering and enhancement activities will occur following the 2003-2004 nesting season. Existing vegetation within the phased development areas will not be removed until such time as that particular phase is cleared and graded.
- * Existing pine trees located around the edge of the lake will be incorporated into the lake design to the maximum extent possible. Efforts will be made through the use of retaining walls, meandering the lake edge or other measures to preserve existing trees not located within development areas within the primary zone.
- * Twenty slash pine trees will be planted within the Eagle Preserve Area during the non-nesting season. Planted slash pine shall consist of ten (10) 14' minimum and ten (10) 10' minimum height trees. Dead-tree snags currently existing within the Eagle Preserve Area will not be removed.
- * Long term management of the Eagle Preserve area shall include replacement of the planted slash pine to achieve a 90 percent survival rate for a period of five (5) years. Long term management shall also include maintenance of the littoral zone vegetation to achieve 85 percent coverage by desirable native aquatic species through a 2-year establishment period. All lake maintenance and any required planting replacements will occur during the non-nesting season.
- * All work within the Primary Zone (750') will be conducted in the non-nesting season. If nesting activities within Nest LE-43B has not occurred by February 15th, then the nesting season shall be considered over and the construction restrictions within the Primary Zone shall not apply. Nesting season construction limitations shall not apply outside of the Primary Zone.
- * Within the Primary Zone, exterior house construction will be conducted during the non-nesting season only, except for the lots within the 50.0 acre Moody River Estates North Parcel development lying north of Hancock Bridge Parkway, and will be phased over a four (4) year period allowing the birds' acclimation to the change in landscape. Land clearing for the lots north of Hancock Bridge Parkway within the 750' Primary Zone will not be allowed during the nesting season.
- * Phasing within the Primary Protection Zone will be as follows (see attached Phasing Plan - Exhibit "E"):

Year 1: Following the 2003-2004 nesting season, Lake 9 will be excavated; the loop road around the phased development area will be constructed (including utilities); clearing, grading, and vertical construction will commence within the Year 1 areas (southeast and southwest of the nest tree); vegetative buffer plantings will occur,

where feasible, prior to construction of the building. The Year 2-4 areas will be left at existing grade with existing trees.

Year 2 will consist of clearing, grading, and vertical construction east, west and south of the nest tree. Vegetative buffer plantings will occur, where feasible, prior to construction of the buildings.

Year 3 will consist of clearing, grading, and vertical construction northeast and northwest of the nest tree. Buffer plantings will occur, where feasible, prior to construction of the buildings.

Year 4 will consist of clearing, grading, and vertical construction north of the nest tree. Buffer plantings will occur, where feasible, prior to construction of the buildings.

- * Multifamily units will be to the east and north of Nest LE-43B, and single family units to the west of the nest tree. No swimming pools are allowed within 350' of Nest LE-43B (See Exhibit "E").
- * Screening of the second story of the buildings will be accomplished through clumpings of staggered height cabbage palms (*Sabal palmetto*) and shade trees such as oaks (minimum 12' at planting). The first floor of the buildings will be screened by shrubs such as coco plum (*Chrysobalanus icaco*), wax myrtle (*Myrica cerifera*), and other native shrub species (see attached Exhibit "G" by MSA Design).
- * The Nest LE-43B nesting season shall be considered over upon fledging of chicks, if any, after which unrestricted construction activities may commence upon Lee County Environmental Sciences or FWS confirmation. After construction, normal residential activities will be allowed within the Primary Protection Zone throughout the calendar year.
- * All external lighting within the Primary Zone shall be shielded away from Nest LE-43B.
- * The Eagle Management Plan will be incorporated into the Project's restrictive covenants (HOA document), and will include a map showing the Eagle Preserve Area. A Conservation Easement or equivalent restrictive covenants will encumber the Eagle Preserve Area with South Florida Water Management District (SFWMD) and Lee County listed as Grantees.
- * Interior construction within the Primary Zone will be allowed during the Nest LE-43B nesting season subject to the following conditions:
 - If doors and windows have not been installed, plywood and blankets will be installed in their place to muffle sounds from within the house.
 - All door and window openings facing the eagle's nest are to remain closed at all times except for access and deliveries.

- All deliveries will be unloaded in the garage or at the entrance to the garage. All construction materials and deliveries will be stored inside the garage or house.
- If a construction dumpster is necessary, it will be located behind the proposed buildings, out of sight of the nest tree.
- Any portable sanitation facility will be located behind the buildings, out of view from the nest.
- No exterior work of any kind will be permitted.
- No radios, CD players, or similar equipment will be permitted.
- A sign will be prepared and posted that states:

NO RADIOS, CD PLAYERS, OR SIMILAR EQUIPMENT OR LOUD NOISES ARE ALLOWED ON THE PROPERTY. ALL WINDOWS AND DOORS ARE TO REMAIN CLOSED AT ALL TIMES. NO EXTERIOR WORK OF ANY KIND IS PERMITTED.

- All interior activities including preparatory cutting, sawing, etc. will only occur inside the house or garage.
- It is the responsibility of the general contractor/builder to insure that all workers including subcontractors, know and follow the above conditions.

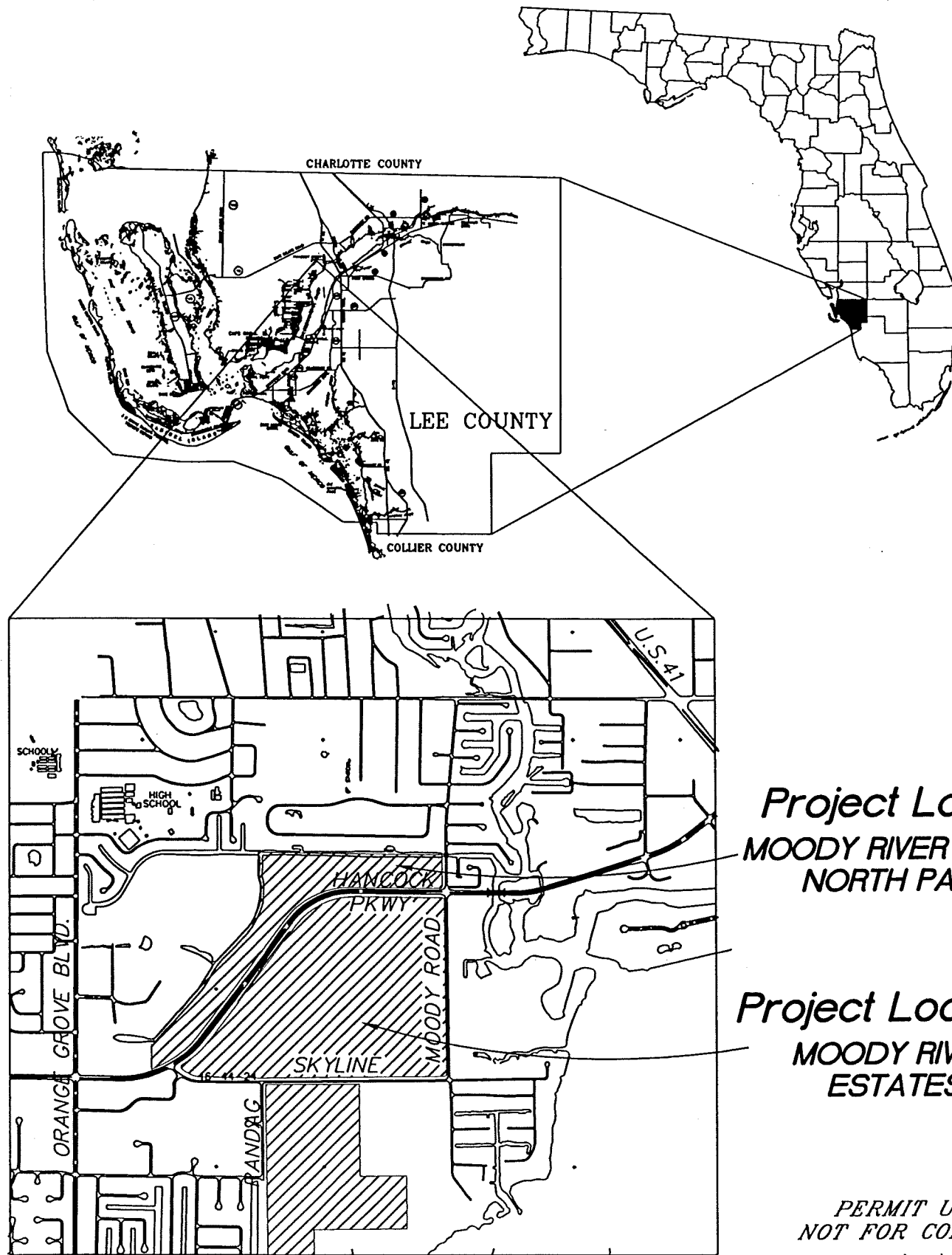
All of the management practices will be in effect until the nest is deemed abandoned by the FWC or the FWS.

W:\WPDOCS\COLO-7A\COLO-7A Bald Eagle Man Plan Rev 8-11-04 Rev.wpd

EXHIBIT "A"

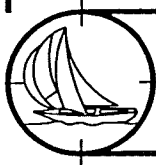
SECTION: 10
TOWNSHIP: 44 S
RANGE: 24 E

Project Location Map



*PERMIT USE ONLY,
NOT FOR CONSTRUCTION*

August 27, 2004 8:57:10 a.m.
Drawing: COLO7APROJECT_LOCATION.DWG (DCS)



**W. DEXTER BENDER
AND ASSOCIATES**
ENVIRONMENTAL & MARINE CONSULTING
FORT MYERS, FL (941) 334-3680

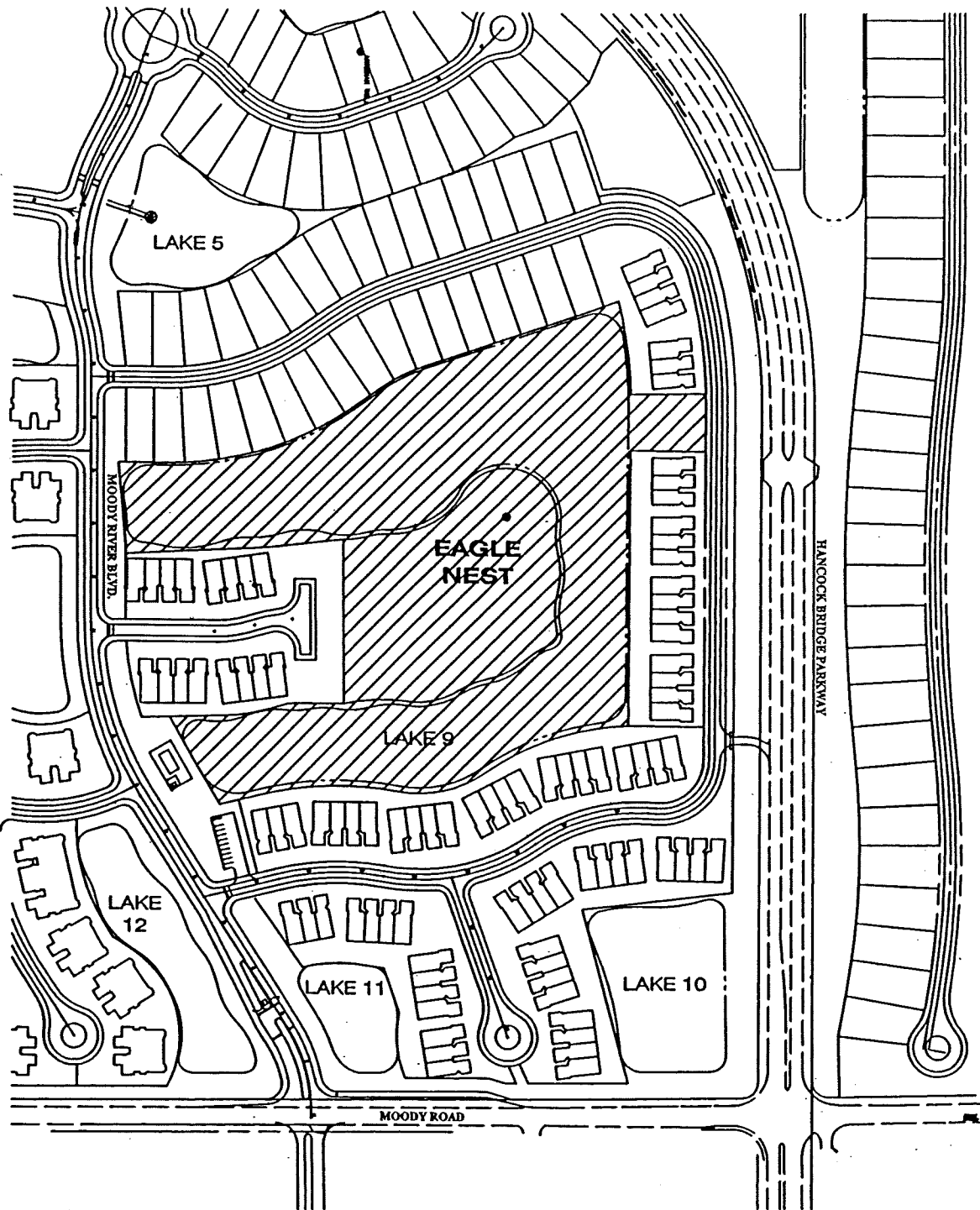
REVISED:

**MOODY RIVER
ESTATES**

SHEET

EXHIBIT “B”

EXHIBIT “C”

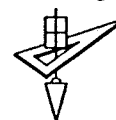


Prepared For:
COLONIAL HOMES, INC.
 12601 Westlinks Drive, Unit 7
 Fort Myers, Florida 33913
 (239) 768-3826
www.ColonialHomesInc.com

EAGLE PRESERVATION AREA EXHIBIT C

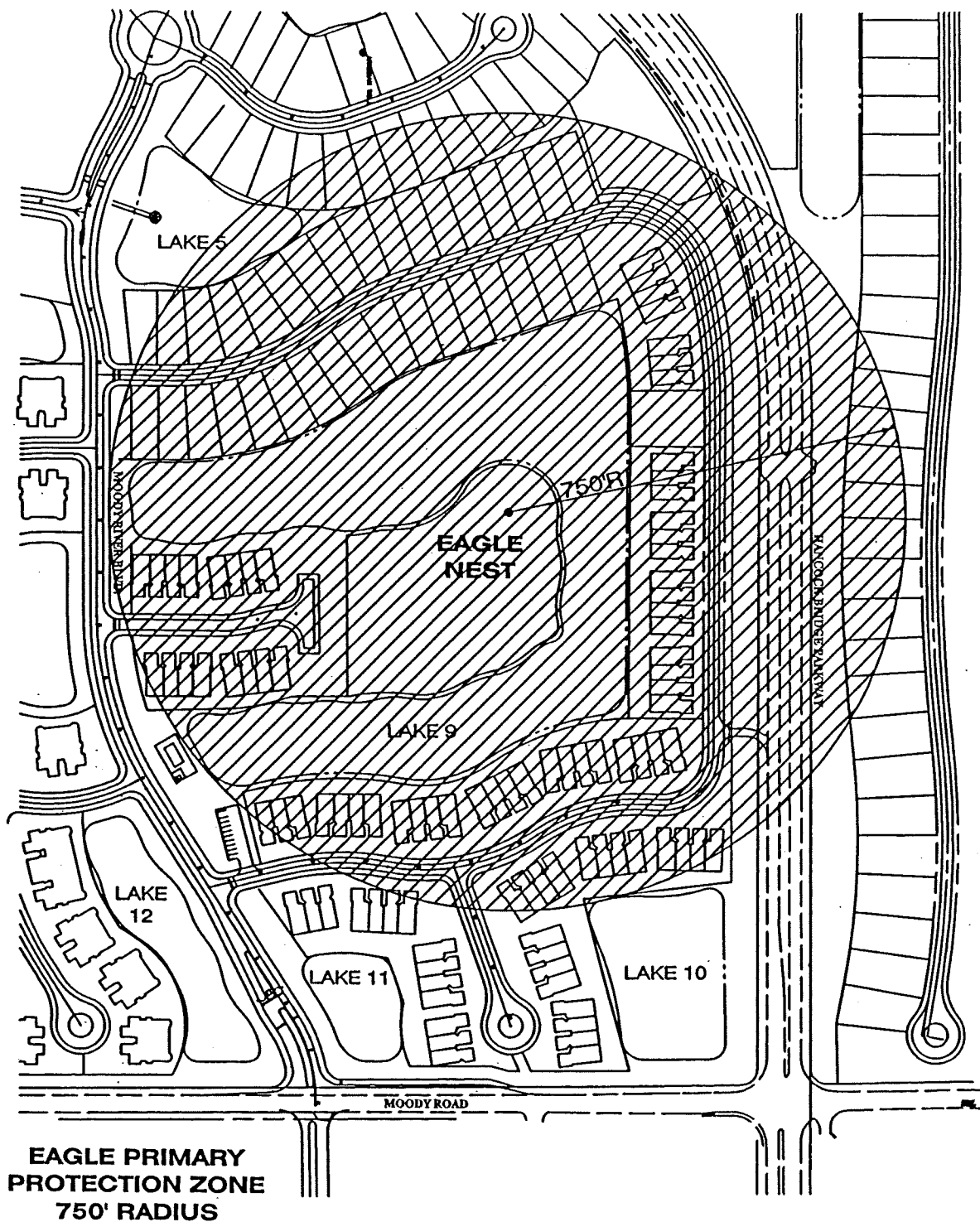
REVISED 4/27/04

Engineers:
HEIDT & ASSOCIATES, Inc.
 Tampa • Fort Myers



Ft. Myers Office
 3900 Colonial Blvd.
 Suite 200
 Ft. Myers, Florida 33919
 Phone: 239-482-7276
 Fax: 239-482-2103

EXHIBIT "D"



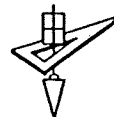
**EAGLE PRIMARY
PROTECTION ZONE
750' RADIUS**

Prepared For:
COLONIAL HOMES, INC.
 12601 Westlinks Drive, Unit 7
 Fort Myers, Florida 33913
 (239) 768-3826
www.ColonialHomesInc.com

EAGLE PRIMARY PROTECTION ZONE EXHIBIT D

REVISED 4/27/04

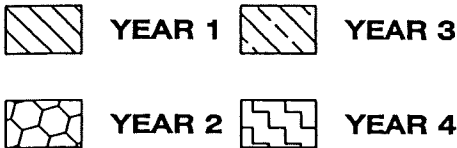
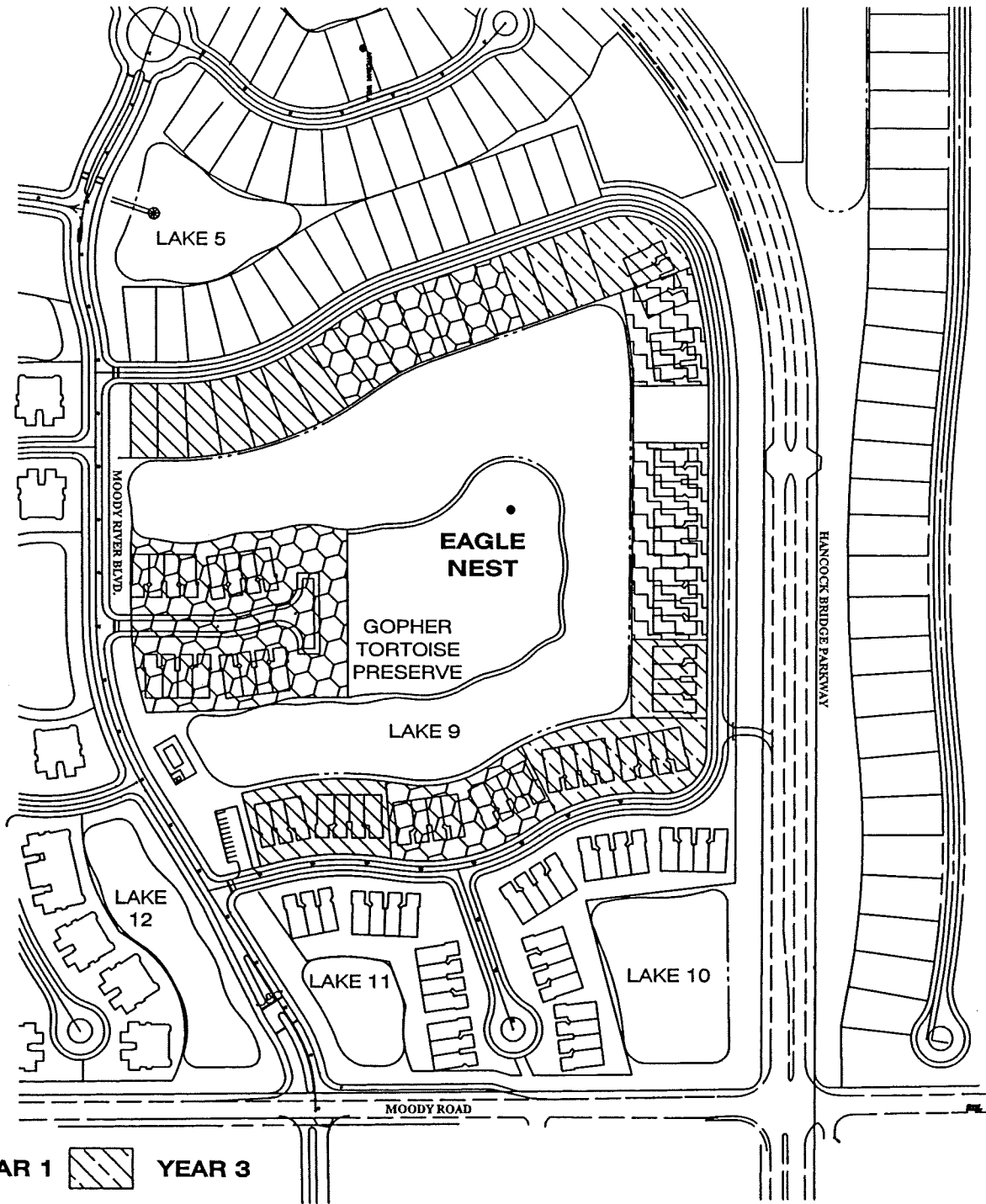
Engineer:
HEIDT & ASSOCIATES, Inc.
 Tampa • Fort Myers



Ft. Myers Office
 3800 Colonial Blvd.
 Suite 200
 Ft. Myers, Florida 33919
 Phone: 239-482-7276
 Fax: 239-482-2103

EXHIBIT "E"

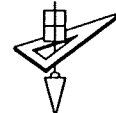
22



PHASING PLAN and GOPHER TORTOISE PRESERVE MAP EXHIBIT E

Prepared For:
COLONIAL HOMES, INC.
12601 Westlinks Drive, Unit 7
Fort Myers, Florida 33913
(239) 768-3826
www.ColonialHomesInc.com

Engineer:
HEIDT & ASSOCIATES, Inc.
Tampa • Fort Myers
Ft. Myers Office
3800 Colonial Blvd.
Suite 200
Ft. Myers, Florida 33918
Phone: 239-462-7276
Fax: 239-462-2103



REVISED 4/27/04

EXHIBIT "F"

EXHIBIT "G"

NOTE:
Equal treatment would be applied
to the exposure zone for any product.

Second Story screened by:
• Shade tree, or
• Staggered Sabal palmetto

"Exposure Zone" 12' ±

• Eagle's Sight line

Medium Trees/ Patio Trees, 10-12' H

Large Shrubs 4-6'

Small Shrubs, 1-3'

Lake Section

M'S'A
Design

MSA Design, Inc.
11111 Highway 19, Suite 100
Houston, Texas 77058
713.465.1111
www.msa-design.com

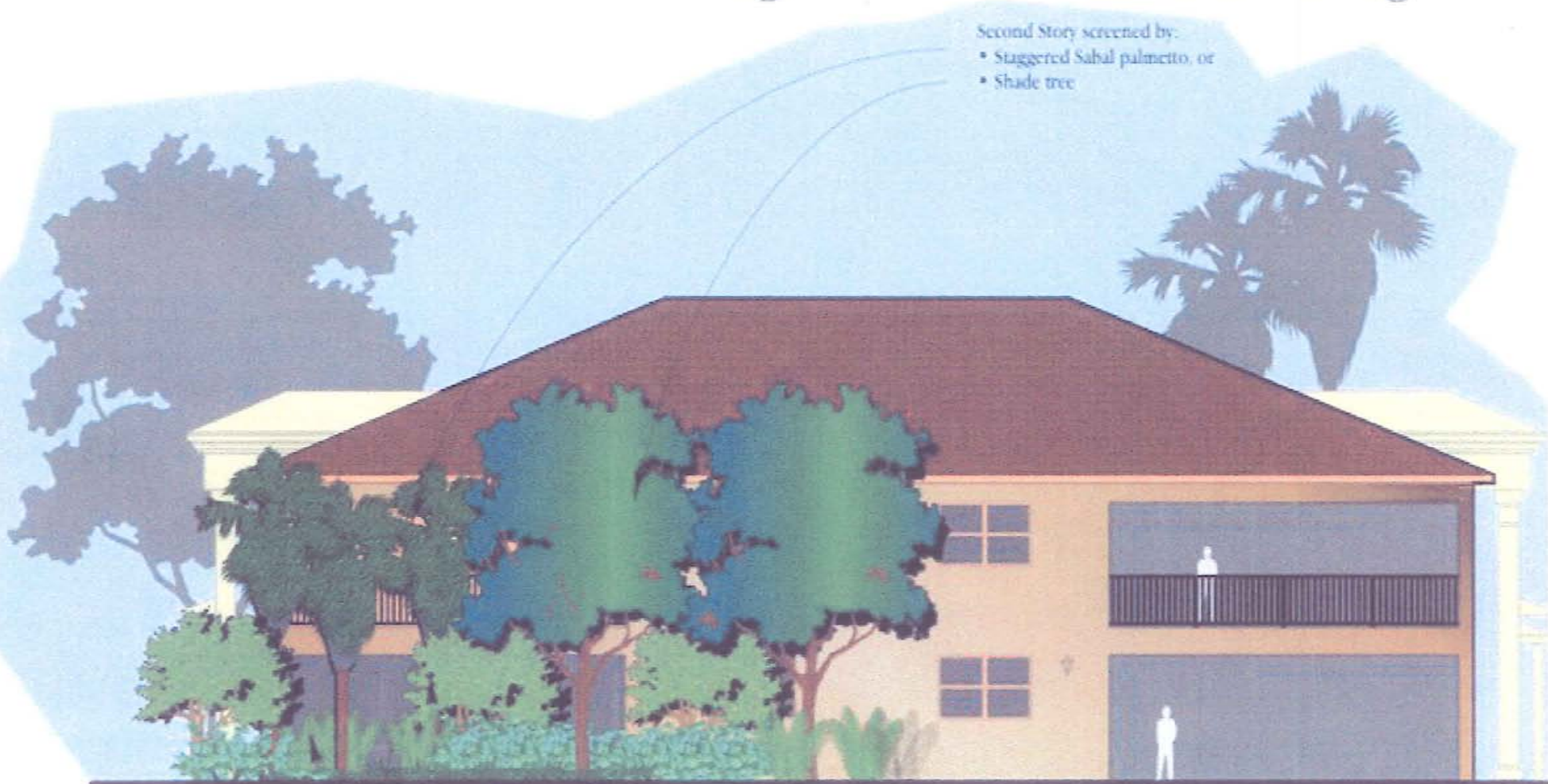
Moody River Estates Eagle Protection Plan

February 3, 2004 rev. February 5, 2004, February 11, 2004.

← *With screening*

Without screening →

- Second Story screened by:
- Staggered Sabal palmetto, or
 - Shade tree



Medium Trees/Patio Trees, 10-12' H
Large Shrubs 4-6'
Small Shrubs, 1-3'

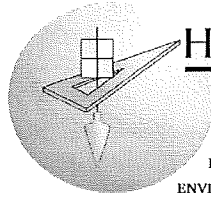
M'SA
Design

Kyle Design, Inc.
www.kyledesign.com
10000 S. 10th Ave., Suite 100
Tampa, FL 33615
(813) 988-1000

Lake Elevation

Moody River Estates Eagle Protection Plan

February 3, 2004 rev. February 5, 2004, February 11, 2004.



HEIDT & ASSOCIATES, INC.

CIVIL ENGINEERING
SURVEYING
PLANNING
LANDSCAPE ARCHITECTURE
ENVIRONMENTAL PERMITTING

Fort Myers
3800 Colonial Boulevard
Fort Myers, FL 33912
Phone: 239-482-7275
Fax: 239-482-2105
Tampa • Sarasota

Earthwork and Required Imported Fill

Moody Ranch

May 31, 2005

Number Parcel	Total Excavation	Total Required Fill	Fill Shortage	Excess Fill
South	141,700	286,000	144,300	0
Central	479,900	335,600	0	144,300
Totals	621,600	621,600		

Total Fill Needed for South Parcel including 30% losses = 187,590

Assumptions:

1. 6" Clear and Grub loss
2. Assumes inplace fill and excavation. Does not include shrinkage or transportation losses.

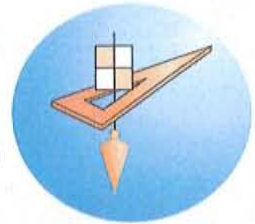
APPLICANT'S EXHIBIT # 82
DC12004-1000178

5/31/2005
HEX_Exhibit_Earthwork Calcs_053105.xls

MICHAEL C. NEFF

*Project Engineer
Heidt & Associates, Inc.*

Heidt & Associates, Inc.
3800 Colonial Blvd, Suite 200
Fort Myers, FL 33912



Education

B.S. Civil Engineering
Tri-State University, 1997

Mr. Neff has more than 8 years of experience in civil engineering. He currently serves as Project Engineer for the Fort Myers office of Heidt & Associates, Inc. Mr. Neff manages the daily operations of design, permitting, and construction services for several projects. Mr. Neff has extensive experience in the design and permitting of roadways, water, wastewater, and drainage facilities.

Mr. Neff's recent experience includes the following projects:

- **Cascades at Estero** – Project manager responsible for design, permitting, and construction services for a multi-phase 700 lot residential subdivision in Lee County with a 30,000 square foot Recreation Center.
- **Colonial Pointe** – Managed design, permitting, and construction services for a 25 acre, 72 lot residential subdivision in Lee County.
- **Timber Ridge at Gateway** – Project Manager responsible for design, permitting, and construction services for a 54 acres, 107 lot residential subdivision in Lee County.
- **Belle Lago** – Managed design, permitting, and construction services for a 240 acre, 450 lot residential subdivision in Lee County.
- **Moody River Estates** – Project Manager responsible for design, permitting, and construction services for a 325 acre, 1,000 unit, residential subdivision in Lee County.
- **Marbella Estates** – Project Manager responsible for design, permitting, and construction services for a 41 acre, 167 unit residential subdivision in Lee County.
- **Reserve at Estero** – Managed design and permitting for 155 acre, 497 unit single family residential project in Lee County.
- **Midfield Terminal** – Responsible for drainage and roadway design of entry and exit roads to proposed terminal.
- **Commerce Road Realignment** – Project Manager for road realignment design and permitting in Lee County.
- **Cape Coral Parkway** – Responsible for the design of the widening of Cape Coral Parkway between Chiquita and Skyline including drainage, water, and sanitary sewer design and relocation.

O:\Human Res\Resumes\Resumes_Mike Neff Hex Resume 053105.doc

APPLICANT'S EXHIBIT # 9
DC12004-AD017

THOMAS HENRY FRASER

W. Dexter Bender & Associates, Inc.
20101 Peachland Boulevard, Suite 207
Port Charlotte, FL 33954
941-2551462 (office)
fax 941-6254532
e-mail tfraser@dexbender.com

EDUCATION

Smithsonian Fellow, National Museum of Natural History,
Washington, D.C., Post-Doctoral Fellowship, 1973-74

University of Miami (Institute of Marine Sciences),
Coral Gables, Fla., Ph.D. in Marine Biology, 1970

University of Miami (Institute of Marine Sciences),
Coral Gables, Fla., M.S. in Marine Biology, 1966

Florida State University, Tallahassee, Fla., B.S.
with major in Biology and minor in Chemistry, 1963

POSITIONS

Senior Scientist	Water quality and biological consulting at W. Dexter Bender and Assoc. (WDB), 1990 to present.
Director	Environmental Quality Lab. (EQL), 1979-1990. Management of laboratory with an average of 16 employees. Analysis of data and reports, design and implementation of biological and water quality projects.
Marine Biologist	Environmental Quality Lab., 1975-79. Supervised projects designed to monitor effects of coastal development on marine and estuarine waters. Development of base-line aquatic data for Charlotte Harbor, Peace River, Indian River Lagoon, and the St. Lucie estuary.
Ichthyologist	1976. Smithsonian sponsored expedition to St. Brandon's Shoal and Agalega Island, Indian Ocean, 6 weeks.
American Consulting Editor	1974-75. For "The Dictionary of World Fishes in Color".
Post-doctoral Fellow	1973-74. Smithsonian Institution, National Museum of Natural History. Research on marine fishes.

Senior Lecturer	1970-73. Rhodes University, Grahamstown, South Africa. Field work in South Africa, Mozambique and Mauritius. Research, teaching, curation and editorial work.
Research Assistant	Undergraduate, 1962-63. Florida State University. Freshwater field work in southeastern U.S. Graduate, 1963-70. University of Miami, Marine Laboratory. Marine field work in Florida, Bahamas, Panama, Trinidad, Surinam, and Columbia. Four months at sea on R/V Tursiops, Gerda and Pillsbury.

PUBLIC SERVICE

Commissioner, Florida Marine Fisheries Commission. November 1985 - August 1993. Chairman, 1990, 1991, 1992, 1993. Vice-Chairman, 1987 and 1989. Chairman, Technical subcommittee, 1987-89. The Commission develops and approves rules for the State concerning all marine resources, a 6 billion dollar commercial and recreational industry. The Commission annually recommends to the Governor and Cabinet priority areas for Marine Research to be funded by the State.

Member of the Southwest Florida Water Management District's Charlotte Harbor SWIM Advisory Committee, 1989 - present.

Charlotte Harbor National Estuary Program, Chairman of the Technical Advisory Committee, 1996-97, Member of the Management Committee, 1996-97.

EXPERIENCE

Governmental Liaison with Florida Department of Environmental Protection, Southwest Florida Water Management District, South Florida Water Management District, St. Johns River Water Management District, EPA in Atlanta, Corps of Engineers in Jacksonville, U.S. Fish and Wildlife Service, National Marine Fisheries Service and various Regional Planning Councils on environmental issues for clients.

Testimony at Florida House and Senate Subcommittees, expert testimony at administrative hearings, testimony at public hearings of Florida Rules for water quality, biology and permitting. Member of various technical subcommittees concerning scientific planning and work in the Charlotte Harbor area and the Indian River Lagoon.

Research: Interrelationships among abiotic and biotic variables in Charlotte Harbor and the freshwater inflow of the Peace River and other estuaries in southern Florida. Freshwater fishes of the Peace River Basin and general zoogeography of Southwestern Florida. Systematics of cardinalfishes.

Presentations: Papers delivered at the 1969, 1971, 1972, 1975, and 1977 annual meetings of the American Society of Ichthyologists and 1977 and 1979 (invited paper) of the biannual meeting of the Estuarine Research Federation. 1978 meeting of the American Water Resources Association. 1980 International Symposium on Nutrient Enrichment of Estuaries. 1981 (invited paper) National Symposium in Effects of Freshwater Inflow to Estuaries. 1981 meeting of FIRST (Future of the Indian River System). 1987 Rivers of Florida Conference. 2001 Manatee Status meeting of the Manatee Technical Advisory Council. 2002 Charlotte Harbor Watershed Summit, Charlotte Harbor National Estuary. 2002 Charlotte Harbor Conference, Mote Marine Laboratory.

Environmental: Involved in redesign and monitoring of a 10 square mile residential area with creation of a 400 acre interceptor lagoon behind a mangrove system. Biologically related water withdrawal schedule for the Peace River Regional Water Treatment Plant accepted by the Southwest Florida Water Management District. Manatee Protection Plans. Water quality studies.

Expert Witness: Qualified as an expert witness for the fields of ichthyology, estuarine ecology, marine biology, water quality, fisheries, manatees and statistical analyses related to these fields of science in DOAH proceedings in Florida.

Computers: Software literate with Statistical Analysis Systems (SAS 8.2), WordPerfect for Windows(11), Windows XP, Excel 2002, Omnipage Professional, Photoshop 7.0, PSI Plot 7.5 and various other software for IBM PC clones.

AFFILIATIONS

American Association for the Advancement of Science
American Society of Ichthyologists and Herpetologists
(Member, Board of Governors 1975-80)
Biological Society of Washington
Estuarine Research Federation
Sigma XI

RESEARCH and ENVIRONMENTAL CONTRACTS

Southwest Florida Water Management District
Manatee River Hydrobiological Sampling Design @ EQL

Charlotte Harbor Water Quality @ WDB, subconsultant with Coastal Environmental Inc. for the SWIM program

Living Resource Requirements - Charlotte Harbor @ WDB, subconsultant with Coastal Environmental Inc. for the SWIM program

Analysis of Salinity and Vegetation Gradients in Seven Tidal rivers on the Coast of West-Central Florida @WDB, subconsultant with Environmental Quality Laboratory Inc.

Expert Witness, DOAH - SWUCA rule, freshwater inflow to estuaries @ WDB

Scientific Peer Review Panel, Hydrobiological Program for the Peace River and Charlotte Harbor @ WDB

Expert Witness, DOAH, Reduced Flows to Tidal Hillsborough River Fish Fauna @ WDB

South Florida Water Management District

External Peer Review: St. Lucie Estuary Nutrient Assessment Research Plan @ WDB

Charlotte County

Expert Witness, DOAH, Phosphate Mining Hearing on Manson-Jenkins parcel for Charlotte, Lee and Sarasota Counties - Freshwater and estuarine fishes and relationships with water quality and flow @WDB

Expert Witness, DOAH, Phosphate Mining Hearing on Altman tract for Charlotte County - Freshwater fishes and historical relationships with Peace River @WDB

Charlotte Harbor National Estuary Program

Compendium of Monitoring Programs @WDB

Synthesis of Existing Data @ WDB, subconsultant with Coastal Environmental Inc. now PBS&J

Data Management Strategy @WDB

Long-term Monitoring Strategy and Gaps Analysis @WDB

U. S. Geological Survey

Water Quality Trends in Charlotte Harbor @ EQL

Limiting Nutrients, Phytoplankton Productivity @ EQL

Light Profiles, Nutrients, Phytoplankton @ EQL

Florida Department of Health and Rehabilitative Services

Rotary ditching in salt marsh, Charlotte County - 4 year study on mosquito reduction, vegetation changes, hydrologic changes and other biotic responses @ EQL

Lee County

Lee County Surface Water Management Plan @ WDB subconsultant with Johnson Engineering

North Fort Myers Water Quality Study @ WDB

Dredging Feasibility Study: Big Hickory Pass and Interior Waters @ WDB

Draft Lee County Manatee Plan for the inland and nearshore navigable waters @ WDB

Channel Maintenance Dredging Permit for Fish Trap Bay an Outstanding Florida Waters and Aquatic Preserve @ WDB

Oyster Reef monitoring @WDB

Ambient Water Quality and Outstanding Florida Waters, Estero Bay and Tributaries @ WDB

Sarasota County

Water quality analysis of Little Sarasota Bay with reference to the closure of Midnight Pass @ EQL and WDB

Expert Witness, DOAH - Water Quality and Biological effects on Little Sarasota Bay from the closure of Midnight Pass

City of Sarasota

Expert Witness, Fisheries - County Court, Asbury v. City of Sarasota

Peace River/Manasota Regional Water Supply Authority

Power Analysis of Hydrobiological Program for the Peace River @ WDB

Expert Witness, Freshwater withdrawals from the Peace River @WDB

Marinas and Docks

Expert Witness, DOAH - Manatees, water quality for Deep Lagoon Marina, Lee County @ EQL and WDB

Permitting of marinas and docks in Collier, Charlotte, Dade, Lee, Manatee, Hillsborough and Indian River Counties

Manatees and Manatee Plans

Lee County, draft county-wide manatee protection plan @ WDB

Harbor Bay in Hillsborough County, manatee protection plan for East side of Tampa Bay just south of the TECO power plant, 3.9 mile slow speed buffer zone @WDB

Heritage Sound in Manatee County, draft manatee protection plan for the Manatee River east of I-75 to section 19 @WDB

Expert Witness, Federal lawsuits related to manatees and the Endangered Species Act and the Marine Mammal Protection Act for the interveners - analysis of existing data @WDB

Analysis of manatee data and reports for Coastal Conservation Association @WDB

Analysis of Collier County Manatees and the U. S. Fish and Wildlife Service's Draft Environmental Impact Statement concerning rulemaking for incidental take under the Marine Mammal Protection Act @WDB

U. S. Fish & Wildlife Service, member of the Manatee Population Status Working Group for the Recovery Plan of Florida's West Indian Manatee, 2004 to present @WDB

PEER REVIEWED PUBLICATIONS

- 1967 Contributions to the biology of *Tagelus divisus* (Tellinacea: Pelecypoda) in Biscayne Bay, Florida. Bull. Mar. Sci. **17**(1):111-132, 8 fig., 2 tabs.
- 1968 Some biomass figures from a tidal flat in Biscayne Bay, Florida. Bull. Mar. Sci. **18**(2):261-279, 9 figs., 1 tab. (coauthor with H.B. Moore, L.T. Davies, R.H. Gore, N.R. Lopez)
- 1968 Comparative osteology of the Atlantic snooks (Pisces: *Centropomus*). Copeia **1968**(3):433-460, 19 figs., 1 tab.
- 1970 Two new species of the clingfish genus *Derilissus* (Gobiesocidae) from the western Atlantic. Copeia **1970**(1):38-42, 5 figs.
- 1970 A new Atlantic genus of cardinalfishes with comments on some species from the Gulf of Guinea. Stud. Trop. Oceangr. **4**(2):302-315, 5 figs., 3 tabs. (coauthor with C.R. Robins)
- 1971 The deepwater fish *Scombrophyraena oceanica* from the Caribbean Sea with comments on its possible relationships. Spec. Publ. Smith Inst. Ichthyol. (8):1-7, 2 figs. (coauthor with P. Fourmanoir)

- 1971 Trypsin modification for Sihler technique of staining nerves for systematic studies of fish. *Copeia* **1971**(3):574-576, 1 fig. (coauthor with W.C. Freihofner)
- 1971 Notes on the biology and systematics of the flatfish genus *Syacium* in the Straits of Florida. *Bull. Mar. Sci.* **21**(2):491-509, 2 figs., 5 tabs., 1 app.
- 1971 The fish *Dinolestes lewini* with comments on its osteology and relationships. *Jap. J. Ichthyol.* **18**(4):157-163, 8 figs.
- 1972 Comparative osteology of the shallow water cardinalfishes (Perciformes: Apogonidae) with references to the systematics and evolution of the family. *Ichthyol. Bull. Smith Inst.* (34)i-v, 1-105, 44 pls., 6 tabs.
- 1972 A new species of the klipfish genus *Springeratus* from the Indian Ocean. *Spec. Publ. Smith Inst. Ichthyol.* (9):1-14, 3 figs., 3 tabs.
- 1972 Some thoughts on the teleostean fish concept - the Paracanthopterygii. *Jap. J. Ichthyol.* **19**(4):232-242, 1 fig., 2 tabs.
- 1973 Evolutionary significance of *Holapogon* a new genus of cardinalfishes (Apogonidae) with redescription of its type-species, *Apogon maximus*. *Spec. Publ. Smith Inst. Ichthyol.* (10):1-7, 1 fig. 1 tab.
- 1973 The fish *Elops machnata* in South Africa. *Spec. Publ. Smith Inst. Ichthyol.* (11):1-6, 1 tab.
- 1974 Redescription of the cardinalfish *Apogon endekataenia* Bleeker (Apogonidae) with comments on previous usage of the name. *Biol. Soc. Wash.* **87**(1):3-10, 1 fig., 1 tab.
- 1974 An exterilium larval fish from South Africa with comments on its classification. *Copeia* **1974**(4):886-892, 2 figs., 3 tabs. (coauthor with M.M. Smith)
- 1976 Two new Indo-West Pacific cardinalfishes of the genus *Apogon*. *Biol. Soc. Wash.* **88**(47):503-508, 2 figs., 1 tab. (coauthor with J.E. Randall)
- 1976 Synonymy of the fish families Cheilobranchidae (=Alabetidae) and the Gobiesocidae, with descriptions of two new species of *Alabes*. *Smithsonian Contr. Zool.* **234**:1-23, 14 figs., 3 tabs. (coauthor with V.G. Springer)
- 1977 *Anisochromis straussi*, new species of protogynous hermaphroditic fish and synonymy of Anisochromidae, Pseudoplesiopidae and Pseudochromidae. *Smithsonian Contr. Zool.* **242**:1-15, 2 figs., 4 tabs. (coauthor with V.G. Springer and C.L. Smith)

- 1978 FAO species identification sheets for fisheries purposes. Western Central Atlantic. Family Apogonidae 1:1-3, 4 figs. (coauthor with G.F. Mayer)
- 1978 FAO species identification sheets for fisheries purposes. Western Central Atlantic. Family Centropomidae 2:1-12, 11 figs.
- 1981 Variation in freshwater inflow and changes in a subtropical estuarine fish community. *In*: Cross, R. and D. Williams, Eds., Proc. Nat. Symp. Freshwater Inflow Estuaries, U.S. Fish Wildlife Serv. 1:296-319, 9 figs., 8 tabs.
- 1981 Enrichment of a subtropical estuary with nitrogen, phosphorus and silica. *In*: Nielsen, B. and L.E. Cronin, Eds., *Estuaries and Nutrients*. Humana Press 481-498, 9 figs., 5 tabs. (coauthor with W.H. Wilcox)
- 1984 New record of *Acipenser oxyrhynchus* in Charlotte Harbor, Florida. Fla. Scient. 47(1):78-79.
- 1984 An unusual Indo-West Pacific cardinalfish of the genus *Apogon* (Teleostei: Apogonidae). Proc. Biol. Soc. Wash. 97(3):632-636, 2 figs. (coauthor with E.A. Lachner)
- 1985 A revision of the cardinalfish subgenera *Pristiapogon* and *Zoramia* of the Indo-Pacific region (Teleostei: Apogonidae). Smithsonian Contr. Zool. 412:1-47, 20 figs., 4 tabs. (coauthor with E.A. Lachner)
- 1985 A revision of the Indo-Pacific apogonid fish genus *Pseudamia* with descriptions of three new species. Indo-Pac. Fish. 6:1-23, 6 figs., 3 tabs., 1 pl. (coauthor with J.E. Randall and E.A. Lachner)
- 1986 *Siphamia* Weber, 1909 and *Siphamia permutata* Klausewitz, 1966 (Osteichthyes: Perciformes): proposed conservation by suppression of *Beanea* Steindachner, 1902 and *Beanea trivittata* Steindachner, 1902. Z.N.(S.) 2517. Bull. zool. Nom. 43(2):193-195. (coauthor with J.E. Randall and E.A. Lachner)
- 1986 A new species of the cardinalfish genus *Apogon* from Easter Island. Copeia 1986(3):641-645. 2 figs. (coauthor with J.E. Randall)
- 1986 Long-term water quality characteristics of Charlotte Harbor, Florida. U.S. Geol. Sur., Water Resour. Invest. Rept. 86-4180:1-43, 20 figs., 15 tabs.
- 1990 On the validity of the Indo-Pacific cardinalfishes *Apogon aureus* (Lacepede) and *A. fleurieu* (Lacepede), with description of a related new species from the Red Sea. Biol. Soc. Wash., 103(1): 39-62, 9figs., 4 tabs. (coauthor with J.E. Randall and E.A. Lachner).

- 1991 The lower Peace River and Horse Creek: flow and water quality characteristics, 1976 - 1986. In: Livingston, R.J., ed. *The Rivers of Florida*. Ecological Studies 83, Springer-Verlag, Chap.9, 142-185, 12 figs., 12 tabs.
- 1991 A new genus and species of cardinalfish (Apogonidae) from the Indo-West Pacific with a key to the apogonine genera. *Copeia*, **1991**(3):718-722, 2 figs., 1 tab. (coauthor with P. Struhsaker)
- 1997 Abundance, seasonality, community indices, trend and relationships with physicochemical factors of trawled fish in upper Charlotte Harbor. *Bulletin of Marine Sciences*, **60**(3):739-763, 6 figs., 11 tabs.
- 1998 A new species of cardinalfish (Apogonidae) from the Philippines, with comments on species of *Apogon* with six first dorsal spines. *Proceedings of the Biological Society of Washington*, **111**(4): 986-991, 1 fig.
- 1999 A new species of cardinalfish (*Apogon*, Apogonidae) from the Bay of Bengal, Indian Ocean. *Proceedings of the Biological Society of Washington*, **112**(1): 39-43, 1 fig.
- 1999 A review of the Red Sea cardinalfishes of the *Apogon bandanensis* complex, with a description of a new species. *Special Publications, J.L.B. Smith Institute of Ichthyology*, No. 63, 1-13, 2 tabs., 5 figs. (Coauthor with John E. Randall and Ernest A. Lachner)
- 1999 Clarification of the western Pacific cardinalfish species *Apogon trimaculatus* and *A. rhodopterus*, with description of a similar new species. *Bulletin of the Raffles Museum, Singapore*, **47**(2): 617-633, 2 tabs, 5 figs., 3 pls. (Coauthor with John E. Randall).
- 2000 A new species of *Apogon* (Perciformes: Apogonidae) from the Saya de Mahla Bank, Indian Ocean, with redescription of *Apogon regani* Whitley, 1951, *Apogon gardineri* Regan, 1908, and *Apogon heraldi* (Herre, 1943). *Proceedings of the Biological Society of Washington* **113**(1):249-263, 5 figs.
- 2001 A New Species of Cardinalfish in *Neamia* (Apogonidae, Perciformes) with a Review of *Neamia octospina*. *Records of the Western Australian Museum* **20**(2):159-165, 2 figs., 1 tab. (Coauthor with Gerald Allen)
- 2002 *Apogon dianthus*, a new species of cardinalfish (Perciformes: Apogonidae) from Palau, western Pacific Ocean with comments on other species of the subgenus *Apogon*. *Proceedings of the Biological Society of Washington*, **115**(1): 25-31, 1 fig. 1 tab. (Coauthor with J.E. Randall)

- 2002 Clarification of the cardinalfishes (Apogonidae) previously confused with *Apogon moluccensis* Valenciennes, with a description of a related new species. The Raffles Bulletin of Zoology, **50**(1): 11 pages, 2 figs. 2 tabs. (Coauthor with J.E. Randall and G.R. Allen)
- 2003 Two new species of deeper dwelling *Apogon* (Perciformes: Apogonidae) from Micronesia and South Pacific Ocean. Zootaxa 171:1-11, 3 figs., 1 tab. (Coauthor with J.E. Randall)
- 2004 A review of the species in the *Apogon fasciatus* group with a description of a new species of cardinalfish from the Indo-West Pacific (Perciformes: Apogonidae). Zootaxa 924:1-30, 10 pls., 5 tabs.

IN PREPARATION

A revision of the *Apogon guamensis* species group of cardinalfishes (Apogonidae) from the Indo-Pacific region with descriptions of new species.

A review of the species in the *Apogon notatus* group with a description of a new species from the Andaman Sea.

Status of the freshwater fishes in the Peace River watershed and historical perspectives.

REPORTS

1976 - 1989. Hydrobiological monitoring of the Lower Peace River and Charlotte Harbor for the Peace River Regional Water Treatment Plant. SWFWMD permit monitoring.

1987. Environmental and water quality considerations in relation to withdrawing fresh water from the Peace River and Myakkahatchee Creek. Need and Sources Technical Memorandum for General Development Utilities, Inc. i-xiv + 133, 46 figs., 22 tabs., 1 app.

1988. Modified excerpts from: Environmental and water quality considerations in relation to withdrawing fresh water from the Peace River and Myakkahatchee. Technical Memorandum, General Development Utilities, Inc. 15pp., 7 figs., 5 tabs.

1988. Effect of flow on salinity variation in the tidal Peace River related to the first indication of mixing salt with freshwater. Technical Report, Environmental Quality Laboratory, Inc. 12pp. 4 figs., 3 tabs.

1995. Retrospective and prospective power analysis of selected environmental data from the hydrobiological programs related to water withdrawals by the Peace River/Manasota Regional Water Supply Authority.

1997. Compendium of existing monitoring programs in the greater Charlotte Harbor Watershed. Charlotte Harbor National Estuary Program Technical Report 97-03. (Thomas H. Fraser, Ralph T. Montgomery and Hans W. Zarbock)

1998. Framework for action: Quantifiable objectives and proposed action plans for the greater Charlotte Harbor Watershed. Charlotte Harbor National Estuary Program Technical Report 98-04. (Ralph T. Montgomery, Pamela Latham, Tony Janicki and Thomas H. Fraser)

1999. Data management strategy for the greater Charlotte Harbor Watershed. Charlotte Harbor National Estuary Program Technical Report. (Thomas H. Fraser and Ralph T. Montgomery).

1999. Synthesis of Existing Information. A Characterization of Water Quality, Hydrologic Alterations, and Fish and Wildlife Habitat in the Greater Charlotte Harbor Watershed. Charlotte Harbor National Estuary Program Technical Report 99-02. (Numerous authors)

2000. Charlotte Harbor long-term monitoring strategy and gaps analysis. Charlotte Harbor National Estuary Program Technical Report. (Thomas H. Fraser and Ralph T. Montgomery).

2001. Manatees in Florida: 2001. A Report for Coastal Conservation Association.

2002. Comments and Recommendations for Improving the Analyses of the Biological Status of Manatees in Florida. A Report for Coastal Conservation Association.

2003. Ichthyological history and zoogeography of the Peace River, Florida. Charlotte County. 21pp., 2 figs., 2 tabs., 1 app.

2003. Fishes and Streams Reclaimed after Phosphate Mining. White Paper for Charlotte County. 19pp., 8 figs., 3 tabs.