

17. DIRECTIONS TO THE SITE

The project is located near the De Soto Canyon in the Gulf of Mexico (Attachment X, Figure 1). At its closest extent proposed buoy placement occurs 53 miles (Buoy 1) south southwest of the mouth East Pass at Destin, Florida and 90 miles (Buoy 8) at its furthest extent. See Attachment A, Figure 1.

18. Nature of Activity (Description of project, include all features)

See Attachment B Supplemental Information for a description of the project.

19. Project Purpose (Describe the reason or purpose of the project, see instructions)

See Attachment B Supplemental Information for a description of the project purpose.

USE BLOCKS 20-23 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED**20. Reason(s) for Discharge**

N/A

21. Type(s) of Material Being Discharged and the Amount of Each Type in Cubic Yards:

Type Amount in Cubic Yards	Type Amount in Cubic Yards	Type Amount in Cubic Yards
N/A		

22. Surface Area in Acres of Wetlands or Other Waters Filled (see instructions)

Acres N/A

or

Linear Feet N/A

23. Description of Avoidance, Minimization, and Compensation (see instructions)

See Attachment B Supplemental Information for a description of the considerations taken into account regarding the placement of the proposed buoys.

24. Is Any Portion of the Work Already Complete? ☐ Yes ☒ No IF YES, DESCRIBE THE COMPLETED WORK

N/A

25. Addresses of Adjoining Property Owners, Lessees, Etc., Whose Property Adjoins the Waterbody (if more than can be entered here, please attach a supplemental list).

a. Address-

City -

State -

Zip -

b. Address-

City -

State -

Zip -

c. Address-

City -

State -

Zip -

d. Address-

City -

State -

Zip -

e. Address-

City -

State -

Zip -

26. List of Other Certificates or Approvals/Denials received from other Federal, State, or Local Agencies for Work Described in This Application.

AGENCY	TYPE APPROVAL*	IDENTIFICATION NUMBER	DATE APPLIED	DATE APPROVED	DATE DENIED

* Would include but is not restricted to zoning, building, and flood plain permits

27. Application is hereby made for permit or permits to authorize the work described in this application. I certify that this information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.


SIGNATURE OF APPLICANT

8-4-2016
DATE

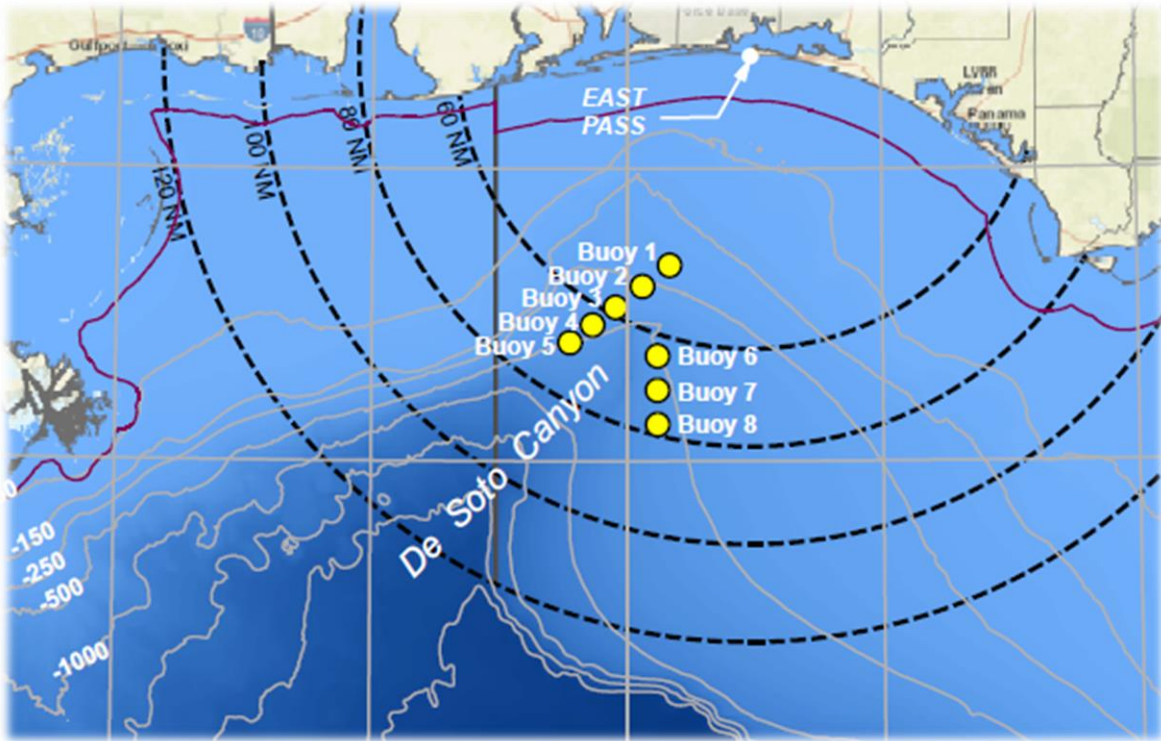

SIGNATURE OF AGENT

8/4/2016
DATE

The Application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in block 11 has been filled out and signed.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than \$10,000 or imprisoned not more than five years or both.

Okaloosa County Fishing Buoys Permit Application Gulf of Mexico



Application for Department of the Army Permit
July 2016

Submitted to the
U.S. Army Corps of Engineers

Prepared by:



Taylor Engineering Inc.
1221 Airport Road, Suite 210
Destin, Florida 32541
(850) 460-7040



On behalf of:

Okaloosa County
c/o Jim Trifilo
12540 N. Eglin Pkwy, Suite 100
Shalimar, Florida 32579

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July 2016

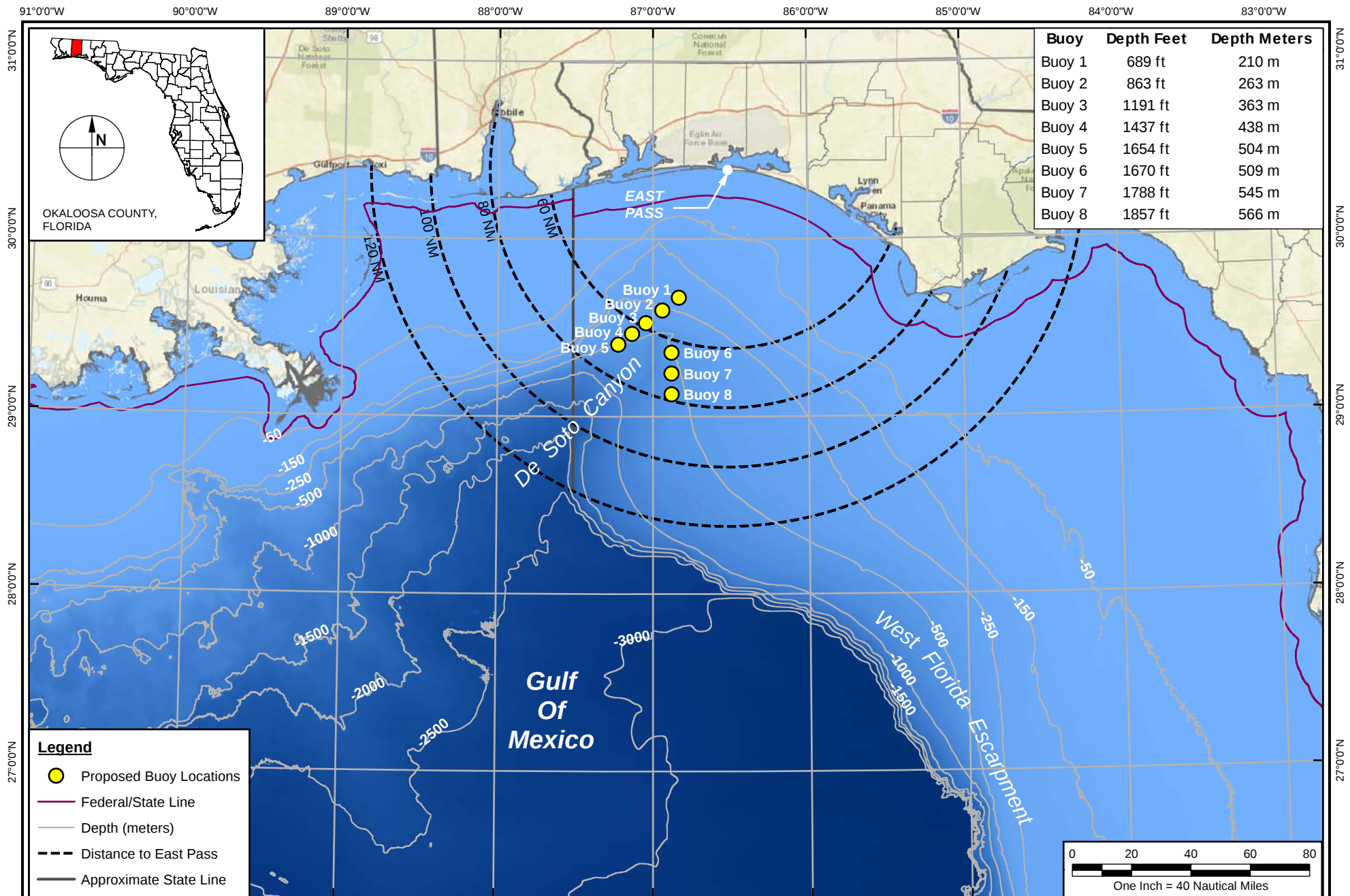
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Attachment A	Permit Drawings (pdf p. 6)
Attachment B	Supplemental Information (pdf p. 12)
Attachment C	Data Buoy Cooperation Panel Technical Document No. 8 (pdf p.16)
Attachment D	Section 7 Consultation Information (pdf p. 116)

**Okaloosa County Fishing Buoys
Permit Application**

Attachment A

Permit Drawings



TAYLOR ENGINEERING INC.
1221 AIRPORT ROAD, SUITE 210
DESTIN, FL 32541

CERTIFICATE OF AUTHORIZATION # 4815

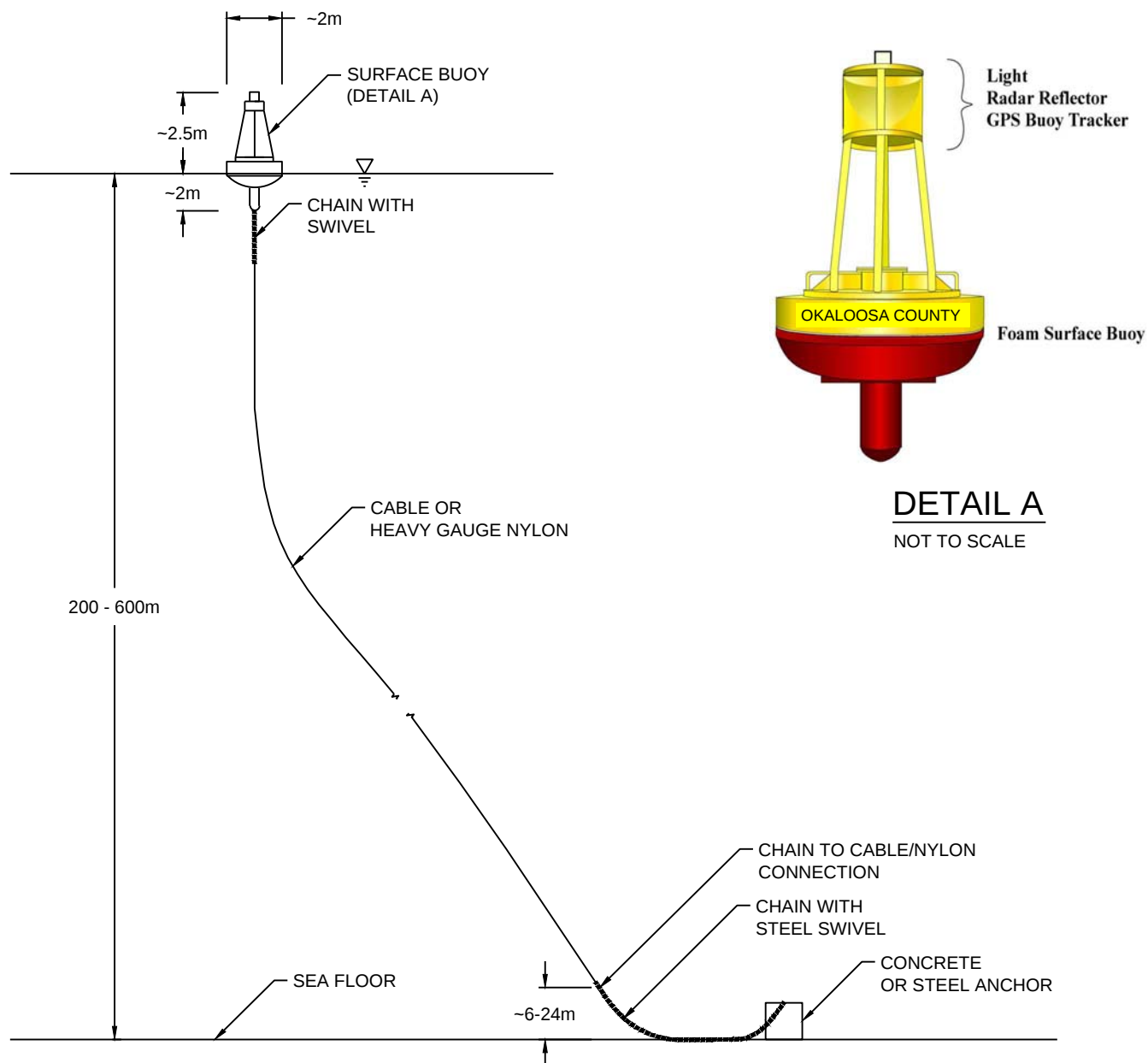
FIGURE 1
PROPOSED BUOY LOCATIONS
OKALOOSA COUNTY FISHING BUOYS
OKALOOSA COUNTY, FL

Notes:

1. Bathymetry Source: National Geophysical Data Center, NESDIS, NOAA, U.S. Department of Commerce
2. Basemap Source: ESRI, World Street Map
3. Vertical Datum: MLLW Meters
4. Horizontal Datum: NAD 1983

PROJECT	C2015-031
DRAWN BY	MNA
SHEET	1 of 5
DATE	JULY 2016

DUNCAN GREER L12015/C2015-031 OKALOOSA PAD PERMITTING/BUOY DESIGN/2016-07-18 BUOY DESIGN.DWG 7/27/2016 4:47:24 PM



NOTES:

1. ILLUSTRATION IS NOT TO SCALE.
2. PRELIMINARY DESIGN IS BASED ON NATIONAL DATA BUOY CENTER STANDARD SEMI-TAUT MOORING SYSTEM.
3. FINAL DESIGN SHALL BE PROVIDED BY THE BUOY MANUFACTURER.
4. BUOY SHALL BE EQUIPPED WITH AN INTEGRATED RADAR REFLECTOR .
5. BUOY SHALL BE EQUIPPED WITH A U.S. COAST GUARD APPROVED SOLAR POWERED LIGHT.
6. BUOY SHALL BE EQUIPPED WITH GPS TRACKING SYSTEM FOR BUOY RETRIEVAL SHOULD THE MOORING SYSTEM FAIL.
7. BUOY DESIGN CONDITIONS SHALL BE BASED ON A 20-YEAR RETURN PERIOD STORM EVENT.
8. ANCHOR SHALL BE COMPRISED OF CONCRETE, STEEL, OR A COMBINATION THEREOF.



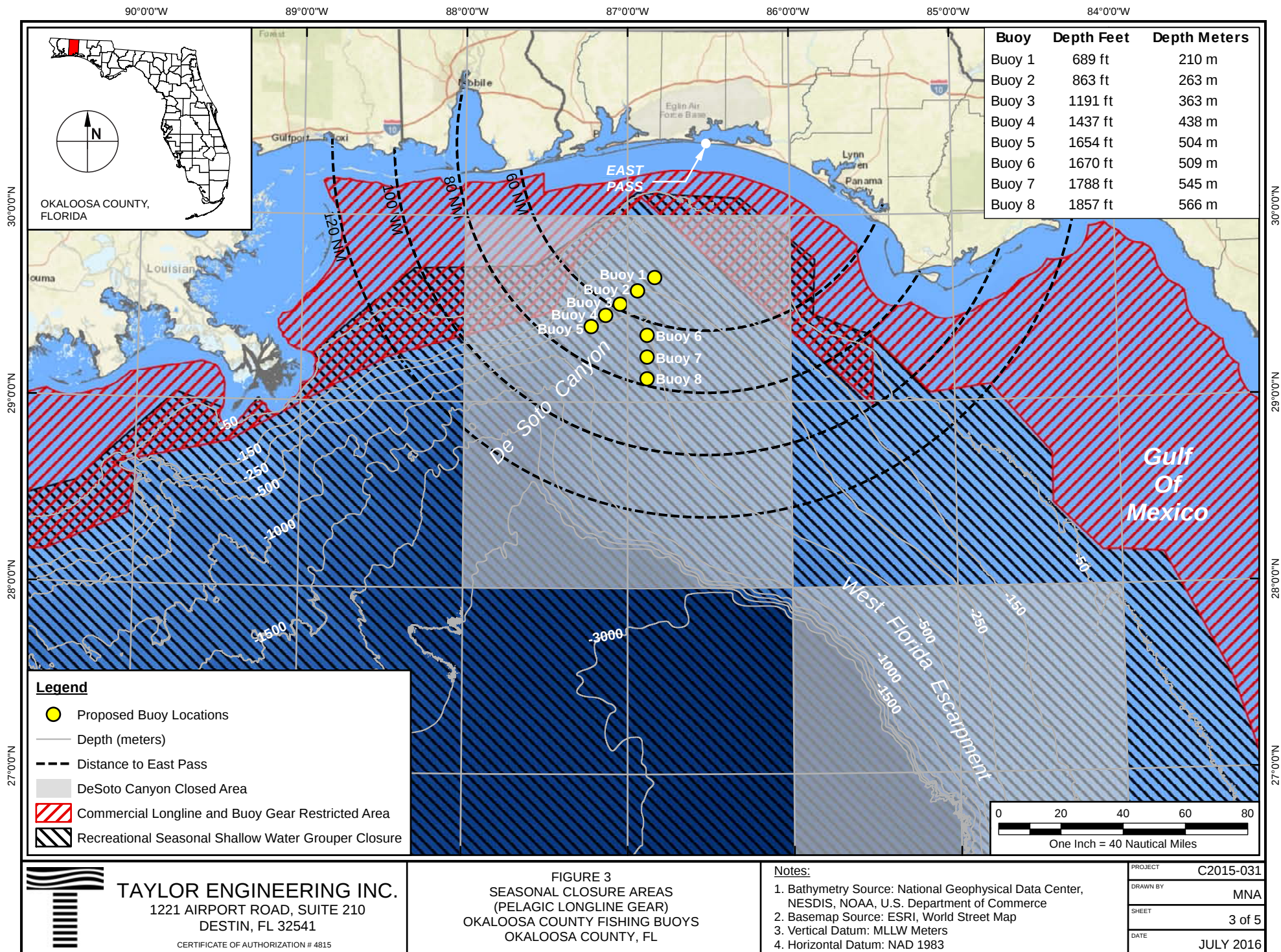
TAYLOR ENGINEERING INC.

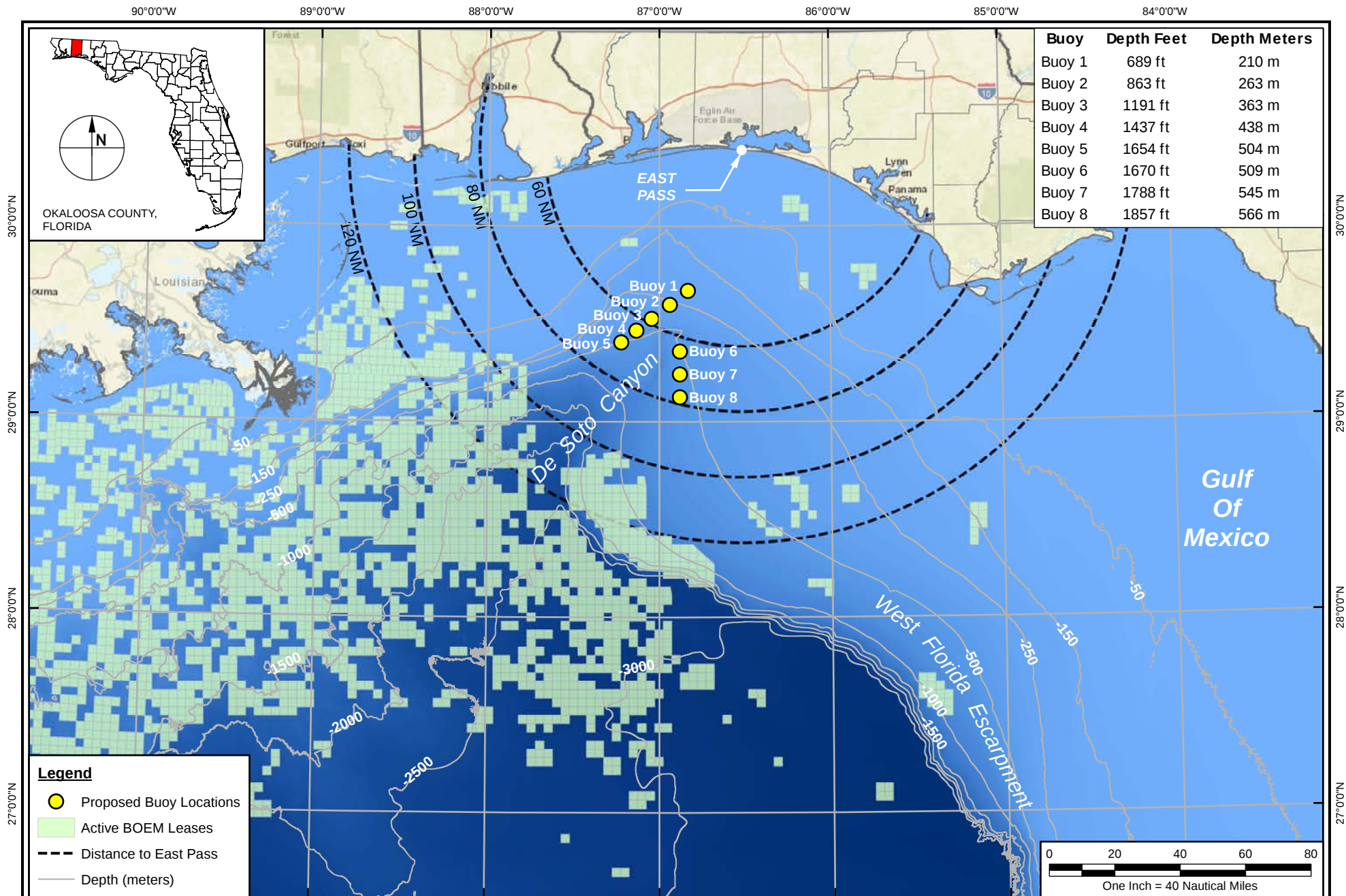
1221 AIRPORT ROAD
SUITE 210
DESTIN, FL 32541

CERTIFICATE OF AUTHORIZATION # 4815

FIGURE 2
BUOY SECTION
OKALOOSA COUNTY FISHING BUOYS
OKALOOSA COUNTY, FL

PROJECT	C2015-031
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DATE	JULY 2016





TAYLOR ENGINEERING INC.
1221 AIRPORT ROAD, SUITE 210
DESTIN, FL 32541

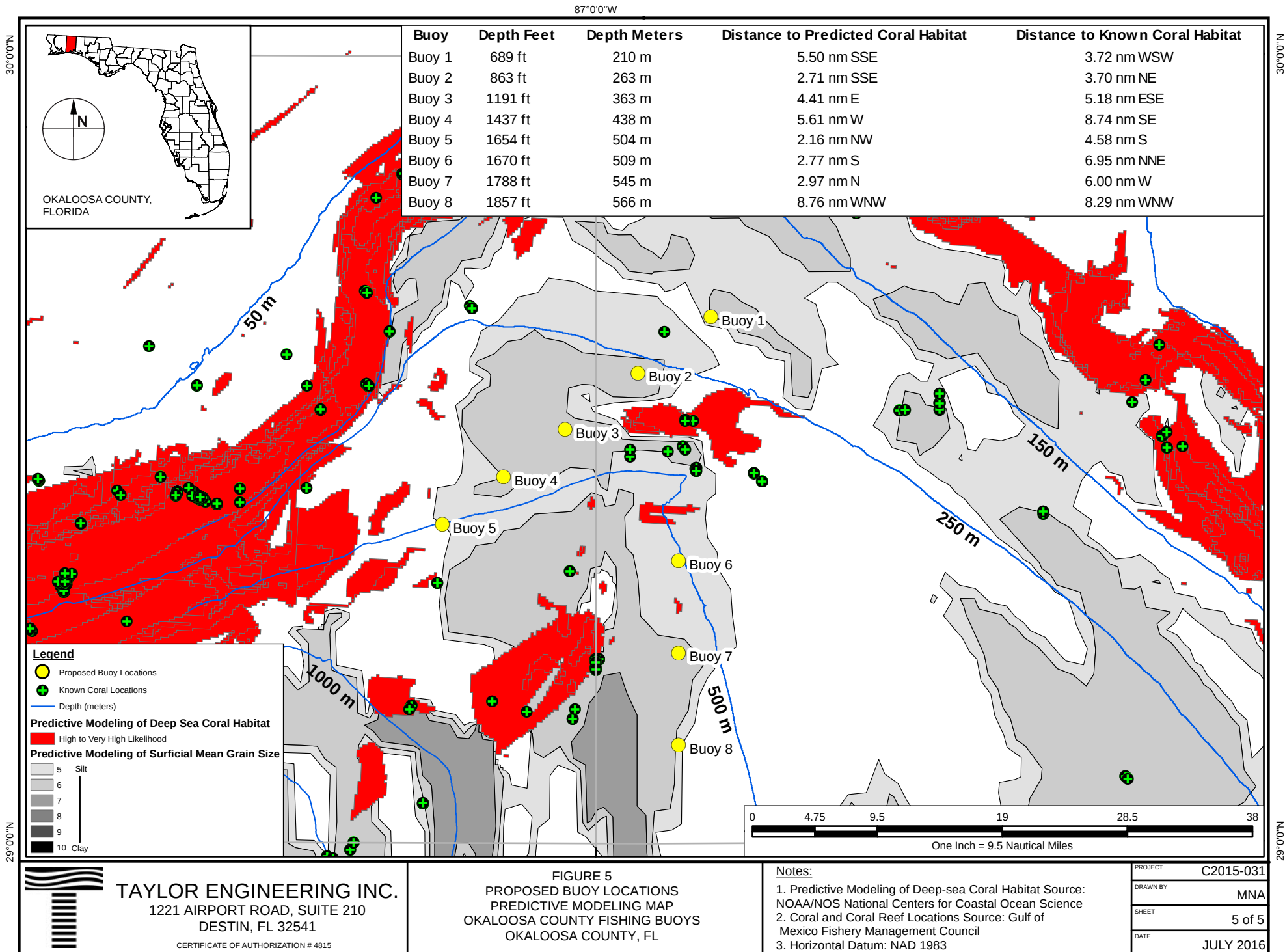
CERTIFICATE OF AUTHORIZATION # 4815

FIGURE 4
BUREAU OF OCEAN ENERGY
MANAGEMENT (BOEM) LEASES
OKALOOSA COUNTY FISHING BUOYS
OKALOOSA COUNTY, FL

Notes:

1. Bathymetry Source: National Geophysical Data Center, NESDIS, NOAA, U.S. Department of Commerce
2. Basemap Source: ESRI, World Street map
3. Vertical Datum: MLLW Meters
4. Horizontal Datum: NAD 1983

PROJECT	C2015-031
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DATE	JULY 2016



**Okaloosa County Fishing Buoys
Permit Application**

Attachment B

Supplemental Information

**Okaloosa County Fishing Buoys Permit Application
Gulf of Mexico**

Attachment B Supplemental Information

Project Purpose

This project proposes to place up to eight surface buoys in the northern Gulf of Mexico for enhancing recreational fishing opportunities.

General Buoy Location and Buoy System Design

The project proposes placement of up to 8 buoys in the Gulf of Mexico near the Desoto Canyon nominally in Florida waters somewhat east of the extended Alabama – Florida border line between East Pass in Okaloosa County and Pensacola Bay Inlet. The buoys will be placed between 40 and 80 nautical miles (nm – 1.15 statute miles) from the Florida shoreline and 6 – 7.5 nm apart (Attachment A, Figure 1). Notably, the yellow marker for each buoy shown in Figure 5 is approximately 6,500 ft. in diameter.

Table 1. Proposed Buoy Locations

Location	Latitude	Longitude
Buoy 1	29.669429° N	-86.832420° W
Buoy 2	29.597946° N	-86.938497° W
Buoy 3	29.526379° N	-87.044423° W
Buoy 4	29.465848° N	-87.133802° W
Buoy 5	29.405462° N	-87.222779° W
Buoy 6	29.359334° N	-86.879810° W
Buoy 7	29.242293° N	-86.879810° W
Buoy 8	29.125251° N	-86.879810° W

Buoys (Attachment A, Figure 2) will all include the following: Coast Guard approved solar-powered light, integrated radar reflection, and a remotely tracked GPS signaling device (for buoy retrieval in the event of mooring system failure). One or two buoys may be designed to carry an additional, limited amount of scientific equipment. Figure 2 provides a typical layout and the details may vary slightly depending on which manufacturer is selected to construct the system. The National Data Buoy Center and manufacturers recommend a semi-taut mooring line (Figure 2) due to the depth range of the buoys (see Attachment C for a discussion of this matter). Recommendations of the selected buoy and mooring system manufacturer, will determine the mooring system design specifications. Preliminary conversations with such manufacturers indicate the mooring line may be cable or heavy gauge nylon with mooring components consisting of heavy

gauge steel shackles, chains, and swivels. Since “biting depth” may include the first few thousand feet of the water column (Attachment C), the mooring line material used must be bite resistant regardless of its composition. The manufacturer will also specify an anchor composed of heavy gauge steel and/or concrete. A set of welded railroad car wheels provide an effective and compact steel anchor that is understood to be commonly used amongst buoy manufacturers and agencies. In summary, the buoy and mooring system will be designed to withstand the oceanographic conditions within the project area for the proposed design life (assumed to be 5 to 7 years, after which time the buoy system will either be removed or replaced).

Site-Specific Placement Considerations

Buoy/Buoy anchor placement was developed by first identifying a general area for recreational fishing benefit (near the DeSoto Canyon), then characterizing the area with regard to physical and biological conditions, legal constraints, and public interest issues. The buoy locations were selected to meet a relatively broad range of public interests and avoid and minimize potential impacts.

The buoys occur over a range of depths to provide a range of fishing opportunities, with respect to the species most likely caught in each area and with respect to the size of boats that may access the buoys. Larger boats will be the most likely primary users of buoys in deeper waters. The first few buoys will also provide access to smaller vessels with ranges nearer to 40 km. Gamefish species community composition changes seasonally over the 40-80 km / 200 – 800 m depth ranges, providing a wide variety of angling opportunities.

All buoys locate within the Desoto Canyon Closed Area for commercial longline fishing and within the Recreational Seasonal Shallow Water Grouper Closure area (Attachment A, Figure 3). The buoys locate well east and north of the reported BOEM (Bureau of Ocean Energy Management) leases (Attachment A, Figure 4).

The buoys were located considering benthic habitat conditions to place buoys in soft sediments and avoid known coral / hardbottom locations and locations with high coral habitat probability (Attachment A Figure 5). The nearest known coral location is over 3 miles from the edge of any buoy location dot and over 2 miles from any high likelihood coral habitat. All the buoys occur in soft sediments (Attachment A Figure 5 Silt-Clay areas). Note that in Figure 5 the dot locating each buoy is 6,500 ft. in diameter with the target point at the center of the circle. This allows the anchor placement process a wide error margin; buoy placement by an experienced contractor is targeted by dropping the anchor 7-10% of the water depth away from the desired anchor location. If we assume that a 10% location error may then be expected if assumptions about current velocity, vessel velocity at deployment, etc. are not completely accurate, a greater error may be assumed. Since the mooring length of the semi-taut design mooring cable may be greater than 50% of the target location depth, this adds additional potential error, as the deployment begins by deploying the buoy and line followed by anchor deployment. For a point in 800 m of water this rough estimate of possible errors results in a deployment target area diameter of several hundred meters or more in diameter. A discussion of a deep ocean buoy deployment and buoy placement precision for that effort can be found at <http://www.whoi.edu/page.do?pid=67136> .

Buoy Management Plan

The applicant proposes periodic examination to verify that the buoys remain in place and that any equipment on the buoys (lights or signaling devices) function properly. The applicant is seeking convenient methods, including a possible website link, for recreational fishermen to report observed damage or a

missing buoy. The website could also serve as a platform for fishermen utilizing the buoy network to report their catches, observations, uses, etc. Buoys that are deemed degraded or buoy system components that appear impaired will be replaced on a scheduled basis following County approval. Approximately five years following buoy placement, buoys will near the end of their design life and undergo inspection to determine if the buoys should be replaced prior to mooring failure. The design life of the buoy system will consider manufacturer recommendations, storm events during buoy operation, and the results of qualitative inspections. The applicant proposes to place a signal device (Global Positioning System Signal generator) on each buoy so that in case of buoy mooring failure, the County can track and recover the float and any trailing line. A specific signal for each buoy shall provide a means to allay concerns that in the long-term the buoys would contribute additional floating marine debris or navigational hazards when they fail. The applicant is seeking public-private partnerships to help support the assessment of buoy system status and maintenance.