Exhibit 1

BREVARD COUNTY
BOARD OF COUNTY COMMISSIONERS

STAFF REPORT

SUBJECT: An Overview of Marina Use and Parking Standards

DATE: January 20, 2011

AUTHORS: Natural Resources Management Office (NRMO)

The following compiled information is intended to provide an overview of existing marine facility use and related parking data. First off it should be noted, as repeated throughout the available literature, that there is no universal rule for parking at marinas. The published parking standards established by engineers and planners for typical facilities such as apartments, motels, shopping malls, theatres, restaurants, etc. have not been adequately developed for marinas.

What follows is an overview of the related literature, a listing of local and international marina parking ratios, a review of the technical specifications designed to describe use patterns at marine facilities, and analysis with suggested marina parking ratios for Brevard County.

Related Literature

1. Title: Dry Stack Study of South Florida
   Author: Envirocare Solutions International

The study gives an overview of dry stack launching facilities and how they operate. It illustrates the importance of in water staging areas at these facilities to maximize launches and retrievals. Further it explains how these operations are primarily dependent upon and limited by the operation of the large, heavy-duty forklifts that are used to launch their vessels. A listing of commonly used marine forklifts is given along the manufacturers' information on retrieval times, speeds and estimated numbers of vessels that can be handled per day (8-5). In conclusion, upon examination of 5 dry stack facilities, through conversations with operators and logistical reviews, the study found that at sites with slip counts between 125 and 452 slips that 12% of the total storage capacity was the maximum launching ability on a daily basis. This was an estimated maximum of 32 boats launched per day, requiring two forklifts as necessary.

2. Title: Design of Marina Structures and Facilities
Author: Australian Government, Great Barrier Reef Marine Park Authority

The publication gives a wide range of design standards and criteria for the development of marina facilities. The following minimum parking provisions are included:

0.6 parking spaces per wet slip
0.2 parking spaces per dry storage slip
0.5 parking spaces per marina employee
0.2 parking spaces per permitted swing mooring

3. Title: Guidelines for Car Parking at Marinas and Launching Ramps
Author: Ron Stone, International Council Of Marine Industry Associations (ICOMIA)

This paper outlines research done by various people and groups/governments regarding parking at marinas. The work concedes that there is no universal rule for parking at marine facilities and that any plan needs to consider the location, types of boats berthed, and activities at the marina and adjacent area. Information included is drawn from the 2002 ICOMIA Marina Conference and lists trends in facility use by season. Boats in wet slips and rack storage tend to have very limited use during normal weekdays (possibly 10 to 15 percent) during the boating season, and almost none (less than one percent) off-season. On normal weekends, marinas see a higher use (possibly in the 20 to 30 percent range depending on weather); on extended holiday weekends, the traffic is usually higher (40 to 60 percent). The paper also references the provisions of #2 above as a best judgment estimates.

4. Title: Auto Parking in Marinas
Author: Neil W. Ross, International Marina Institute

This study surveyed boat use and autos parked on three high and low use days in July and August at 142 public and private marinas in 24 states. Total boat storage capacity was 28,060 boats with parking capacity for 33,254 cars. The study notes that wet slips, moorings, dry rack storage, facilities next to parks, marinas with restaurants, and sport fishing charters and party boats are not broken out in this survey.

Results are as follows: Boat Use: Busy Holiday 46% occupied
Typical Weekend 33% occupied
Typical Weekday 13% occupied
Parking Use: Busy Holiday 0.71 car/occupied berth
Typical Weekend 0.51 car/occupied berth
Typical Weekday 0.21 car/occupied berth

The study recommends that one car parking space for every two boat slips is quite adequate for a national guideline and that auto parking standards exceeding 0.5 cars per boat may be excessive. Dry stack marinas were reported as having significantly lower boat use percentages and lower parking needs that the national average of all marinas.

Marina Parking Ratios*

Reference	Ratio (parking / berth)	Berth Type
City of Sarasota	0.3	standard berth
Indian River County	0.3	standard berth
	1	live-aboard vessel
Port Canaveral	0.5	wet berth
	0.25	dry berth
City of Vero Beach	0.3	wet/dry berth, mooring
City of Sebastian	0.5	wet berth
	0.25	dry berth
	1	live-aboard vessel
Hillsborough County	1	wet berth
	0.3	dry berth
Palm Beach County	1	wet berth
	0.3	dry berth
Pinellas County	0.25	standard berth
City of Jacksonville Beach	0.25	wet berth
	0.17	dry berth
City of Duval County	0.67	wet berth
	0.25	dry berth
City of Melbourne	0.5	wet berth
	0.25	dry berth
State of California, 2005	0.6	standard berth
Institute of Transportation Eng.	0.6	standard berth
Gov of Canada, 1985	0.75	standard berth
UK, 2007	0.75	standard berth, coastal
	0.33	standard berth, inland
Dept. of Defense, 2005	0.75	standard berth
Australia, 2002	0.3 to 0.6	wet berth
	0.2 to 0.4	dry berth
	0.3 to 0.6	swing mooring

* The information compiled herein has been drawn from various sources including: Coastal Technology Corporation, Melbourne, FL; MAI Architects Engineers, Inc., Melbourne, FL; International Marina Institute, Wickford, RI; and electronic data received by the Brevard County Natural Resources Management Office.

Sum of the Rating of the Receptacles
Number of Receptacles

Technical Estimation

Demand or Diversity Factor: The ratio of the sum of the individual non-coincident maximum demands of various subdivisions of the system to the maximum demand of the complete system. This factor operates on the same principal used for estimating utilization and can be applied to marinas to estimate the percent of time available that a facility has its maximum or nominal load or demand. This expression directs one toward an estimate of occupation or a human usage factor.

A mathematical principal used frequently for modeling water and electrical usage, a demand factor looks at the probability of a finite number of operators to all be activated simultaneously. Applied here it could evaluate the chance of a certain number of slips to be occupied in a marina at any given time. For example, the chance of a 1 to 5 slip marina being full at any given time would be high, diversity factor of 1 or 100% use, while the chance of a 41 to 50 slip marina being full over that same time period would be lower, diversity factor of 0.5 or 50% use. These figures have been reached through the extrapolation of existing marine electrical design requirements, established for shore power for boats, and are estimates. These electrical design criteria (Table 1), demand factors, are based on the probability of the number of slips at a marina drawing electricity at a given moment and leads to the probability of the percentage of slips being full at a marina of specific size. This in turn yields the demand factor for the related marina parking.

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Port Canaveral	0.5	wet berth
	0.25	dry berth
City of Vero Beach	0.3	wet/dry berth, mooring
City of Sebastian	0.5	wet berth

Technical estimations using demand factors provide an alternative to the physical counts given in the referenced related literature. Note that the demand factors get smaller as the marina get larger. A larger facility will have a smaller percentage of active boaters at the site at any time as compared to a smaller facility. The same relationship is seen in the percent occupancy for the large-scale studies with physical counts done in review #3 and #4 above.

Analysis & Suggested Parking Ratios

Literature indicated the following:

- An average dry stack facility can launch approximately 32 boats per day,
- The parking requirements for a dry storage facility are consistently less than those for a wet slip facility,
- A variety of site use characteristics must be considered to determine proper parking ratios,
- Marine facilities, even during peak traffic holiday weekends will rarely if ever exceed 60% use.

Based on data compiled for marina parking ratios:

- The average parking for standard/wet slip facility is 0.51 spaces per slip,
- The average parking for dry storage facility is 0.23 spaces per slip.

Rudimentary demand factor analysis applied to marine facility occupancy shows that all but the smallest of marine facilities will operate below 100% active use. A larger facility will have a smaller percentage of active boaters at the site at any time as compared to a smaller facility.

Suggested Parking Ratios

Wet Slips: ≤30 2 slips/1 parking space
>30 3 slips/1 parking space (3:1 calculation is in addition to the 2:1 for ≤30)

Dry Slips: <50 4 slips/1 parking space
>50 5 slips/1 parking space

Moorings: <50 4 slips/1 parking space
>50 5 slips/1 parking space

Live-aboards: 1 slip/1 parking space