



Celebrating  
35  
years

**CAULFIELD & WHEELER, INC.**  
Consulting Engineers • Surveyors & Mappers

Engineering EB0003591  
Surveying LB0003591  
Landscape Architecture LC0000318

January 03, 2022

**Re: Island Plaza Shopping Center**  
**City of Riviera Beach, FL**  
**C&W Project #3517**  
**Stormwater Calculations Narrative**

To Whom It May Concern:

The Island Plaza Shopping Center is an existing commercial development with a size of approximately 6.18 acres lying west of Lake Shore Drive and east of Broadway SR5 (US Highway 1). The existing development consists of two separate stormwater management systems. These systems receive runoff via inlets within the parking lot roadway surface and each conveys that runoff to separate outfalls to the east, both eventually discharging into the Lake Worth Lagoon.

The proposed improvements to the development are the construction of three residential multifamily buildings and associated parking areas on the northeast section of the site, referred to as Island Cove Apartments. This portion of the site is the “affected area” of the Island Plaza Shopping Center. The existing drainage system which serves this area is proposed to be replaced with dry detention and underground exfiltration trenches to provide water quality and attenuation consistent with SFWMD regulations and requirements. Discharge will be via existing underground drainage conveyance pipes which eventually outfall to the Lake Worth Lagoon.

The portion of the site which is not within the “affected area” has no proposed improvements and the drainage system will continue to perform in this area as it has historically. The grading design of the “affected area” is expected to provide a slight reduction in runoff to the existing drainage system to remain, therefore there is no negative effect on the performance of the existing system.

Caulfield & Wheeler, Inc.

John F. Wheeler, P.E.  
Professional Engineer #25478  
State of Florida

Boca Raton Office: 7900 Glades Road, Suite 100 | Boca Raton, Florida 33434 | Phone: 561 • 392-1991 | Fax: 561 • 750-1452  
 Port St. Lucie Office: 410 S.E. Port St. Lucie Boulevard | Port St. Lucie, Florida 34984 | Phone: 772 • 408-1920 | Fax: 772 • 408-1925