



GRUBER CONSULTING ENGINEERS

DRAINAGE STATEMENT
Proposed Contractor's Storage Yard
January 7, 2016
Revised April, 2016
Revised May, 2016
Revised October, 2016
Revised February, 2017

Subject: MacDonal Industrial, North Florida Mango Rd., Palm Beach County

Proposal: Construction of contractor's warehouse and office building on vacant property.

Introduction:

The subject property is a previously cleared and graded lot of approximately 4.05 acres containing no existing structures. The current proposal for review consists of the construction of a contractor's office and warehouse for equipment and materials.

Existing Site Drainage Conditions:

North Florida Mango Rd. borders the property on the east, a self-storage facility to the north, an office warehouse facility to the west, and the Palm Beach County (PBC) canal to the south. The property, in its current configuration, is graded generally from north to south, with runoff being discharged into the PBC canal. The existing surface water management system in this area consists of a narrow canal system along the west edge of the property that discharges into the PBC canal on the south side of the property. The canal along the west side of the property appears to serve the existing properties to the north. A county pump station is located in the east third of the PBC canal along the south property line. After water passes through the PBC Canal pump station, it makes its way to the C-51 canal and the Intracoastal Waterway via the Lake Worth Spillway.

Proposed Site Drainage Conditions:

The currently proposed site plan calls for new structures to be built on the east and north sides of the property with associated parking and a paved yard on the south and west sides of the property with proposed driveways entering from N. Florida Mango Rd. near the northeast and southeast corners of the property. A concrete domed stormwater retention/detention area will be constructed under the parking and equipment storage

areas on the west and south sides of the property. Runoff will be collected in catch basins installed in the drive/parking areas. Collected runoff will be retained in the concrete domed stormwater retention/detention area to provide for the required water quality and quantity volumes. In addition, a 20 ft. drainage easement will be dedicated along the west property line to ensure that neighbors to the north will continue to have legal positive outfall to the canal. Runoff received beyond the required retention volume will be discharged through a pipe connection to the canal on the south side of the property. The project is located in the SFWMD C-51 basin (sub-basin 30), which has an allowable runoff of 27 cfs and a design frequency of 10-year.

Design Criteria:

Peak Discharge Rate:	10 yr. – 3 day
Min. Perimeter Berm:	25 yr. – 3 day
Min. Finished Floor:	100 yr. – 3 day

Rainfall:

Design Storm	Rainfall
10 yr. – 3 day	10 in.
25 yr. – 3 day	12 in.
100 yr. – 3 day	15 in.

Conclusions:

Stormwater runoff will be managed in an onsite subsurface retention/detention area for the proposed project. Proposed site grading will be modified to prevent runoff onto neighboring properties. The point of discharge will be modified to connect to the proposed storm drainage system to the existing canal on the south side of the property. Approval by Palm Beach County Land Development will be required.

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cc: SMC Sitework
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