

Boggs Engineering, LLC 607 South Alexander Street, Ste 101 Plant City, Florida 33563 (813) 747-9100

> May 31, 2018 BBE Project No. 13044.001

Mr. Charles Boissiere Avondale Groves of Hillsborough Homeowners Association, Inc. 1505 Avondale Ridge Drive Plant City, FL 33567

RE: Pond Inspection and SWFWMD Certification; Site Inspection and Review of Drainage Issues

Dear Mr. Boissiere,

BBE performed an inspection on May 22, 2018 of both the existing stormwater system for the SWFWMD Statement of Inspection and the portion of the neighborhood that is having drainage issues for determining potential issues. The time of the inspection was from 1:30 to 3:00 pm and the sky was clear with temperatures in the high 80s to low 90s. This inspection report is organized by inspection purpose and the ponds are identified as labeled on the SWFWMD permitted plans for ERP No. 44028418.000.

Inspection of existing stormwater system for SWFWMD Statement of Inspection:

Pond N2:

- This pond was in good condition with no large growth in the pond.
- The outfall control structure needs to be cleaned out including all vegetation and trash around and inside of the skimmer.

Pond N:

- The outfall control structure needs to be cleaned out including all vegetation and trash inside of the skimmer.
- There is a substantial amount of vegetative growth in the northern half of the pond. This growth needs to be removed from the pond. Should the slopes of the pond be disturbed during the removal of this growth, the disturbed slopes will need to be re-graded to a 4:1 slope and sodded/seeded.
- There is a fence running east-west that spans across the northern portion of this pond. It does not appear this fence will cause conveyance issues as the fence has an opening for water to flow underneath the fence.

Pond S:

- This pond could not be accessed due to the substantial amount of vegetative growth. The areas that could potentially provide access to the pond were fenced off. The vegetative growth within the pond and the maintenance berm needs to be removed. Should the slopes of the pond or the maintenance berm be disturbed during the removal of this growth, the disturbed slopes will need to be re-graded to a 4:1 slope and sodded/seeded.
- A concrete outfall control structure was found, although the vegetation growth was too large to allow inspection of the structure. The structure is not identified on the permitted plan set.

Pond E:

• The western end of the pond has substantial vegetative growth that needs to be removed. Should the slopes of the pond be disturbed during the removal of this growth, the disturbed slopes will need to be re-graded to a 4:1 slope and sodded/seeded.

Existing Pond:

- Per conversations with Mr. Granger, SWFWMD considers this pond to be part of the ERP.
- This pond has a substantial amount of vegetative growth that needs to be removed from within the pond. Should the slopes of the pond or the maintenance berm be disturbed during the removal of this growth, the disturbed slopes will need to be re-graded to a 4:1 slope and sodded/seeded.
- The permitted plan calls for rip-rap around the outfall (S-24) into the pond from Pond E. Per Mr. Granger, he has placed some rip rap; however, rip rap needs to be installed per the plans.

Inspection Notes for Drainage Issues near Pond E and existing pond:

- Per Mr. Granger, the cul-de-sac of Avondale Ridge Drive experiences significant flooding during lesser storm events. Runoff is backing out of the curb inlet S-21 and is spreading into the roadway approximately 4 to 6 feet. The water level in the upstream curb inlets, S-18 and S-19, has been increasing and these structures are now experiencing flooding.
- Mr. Granger has experienced significant flooding on his property both in the front near the culde-sac and in his back/side yards.
- Mr. Granger stated the neighbor east of his property has cut a swale to allow discharge from the neighbor's property to the existing pond. It appears runoff from the east and potentially the south is flowing into the existing pond.
- The areas to the east and south of the existing pond were flooded and the water level in these areas appeared consistent with the water level in the existing pond. From review of the permitted calculations and plans, it appears this existing pond was supposed to discharge to the southeast toward an existing ditch and ultimately flow to Smith Ryals Road.
- Based on information found during the inspection and a preliminary review of the permitted plans and the latest survey provided by the HOA, BBE suspects the flooding is due to the outfall conditions of the existing pond. Further investigation will be needed to verify the issue and provide a solution.

BBE is unable to complete the Statement of Inspection and certify that the stormwater system complies with the existing ERP due to the state of the existing ponds. BBE recommends the Client hire a contractor to remove the vegetation from the ponds and bring the ponds into compliance with the ERP. BBE understands SWFWMD is aware of the drainage issues surrounding the existing pond and does not intend to approve any certification/statement of inspection until these flooding issues are addressed. BBE will provide a copy of this letter to SWFWMD and notify SWFWMD that additional engineering work will be required before the drainage issue(s) can be confirmed and a solution to the drainage issue(s) is found and ultimately constructed. BBE will request a time extension from SWFWMD to allow these issues to be resolved.

Should you have any questions, please contact our office.

Sincerely, BBE-BOGGS ENGINEERING, LLC

Mull C. Brone.

Nikki C. Brom, EI



Image 1: Outfall control structure in Pond N2.



Image 2: Pond N2, standing at northeast corner looking southwest.



Image 3: Outfall control structure in Pond N.



Image 4: Pond N, standing at southwest corner, looking north.



Image 5: Pond N, standing on west side of pond looking north.



Image 6: Pond S, concrete control structure found.



Image 7: Pond S, looking south.



Image 8: Pond E, standing on northeast side, looking west.



Image 9: Existing pond, standing on eastern side, looking south.



Image 10: Existing pond, standing at southeast corner, looking northwest.



Image 11: Existing pond, standing at northwest corner, looking southeast.