August 9, 2019

North Florida Professional Services, Inc.
P.O. Box 3823
Lake City, Florida 32056

Attention: Mr. Seth Cohen, Project Manager

Woodstock Boulevard - Retention Ponds – Parcels 17-3S-20-0000-0000-0015 & 0020
Sanderson, Baker County, Florida
AID, Inc. Project No. NFPS19028

Dear Mr. Cohen:

American Infrastructure Development, Inc. (AID) has completed the exploratory borings and in-place permeability testing at the referenced site. Our work was planned and performed in general accordance with our Letter of Agreement dated June 14, 2019. Acceptance to this agreement and authorization to proceed was provided on July 31, 2019. The following report presents the results of our field exploration and testing, an evaluation of the subsurface conditions with respect to available project information, and recommendations to aid in the design of the stormwater management facilities at the subject site.

Purpose and Scope of Work

The purpose of the exploratory borings was to evaluate the subsurface conditions with respect to the design of the proposed stormwater management facilities at the referenced site. This report briefly describes our field activities and presents our findings and recommendations. The services rendered by AID during the course of this exploration can be summarized as follows:

1. Performed a site reconnaissance to identify surface conditions and accessibility;
2. Reviewed available data pertaining to the referenced project, such as results of similar explorations and published information including USDA/NRC records;
3. Planned and performed three (3) auger borings within the limits of the proposed stormwater management facility areas, each extending 20 feet below the ground surface;
4. Performed three (3) in-place permeability tests near the auger borings;
5. Reviewed and analyzed gathered data, and
6. Prepared this report, which includes our findings.

Project/Site Description

We have been provided with an undated map indicating the location of the auger borings and proposed stormwater management facility areas. Based on our understanding, NFPS will be designing stormwater management facilities within the vicinity of the borings shown on the attached Borings Location Map. The subject parcels are located on the north side of US Highway 90 approximately 3,700 feet west of Baker Re-Entry Center in Baker County, Florida. The subject parcels are currently wooded and undeveloped. At the time of our site visit, the ground surface within the proposed pond locations appeared damp to dry and covered with trees and underbrush.
Field Exploration

The subsurface condition within the limits of the proposed stormwater management facilities was explored by drilling three (3) auger borings each extending 20 feet below the existing ground surface. The borings were performed near the locations shown on the attached Borings Location Map. These locations were determined in the field using a hand-held GPS device and should be considered only as accurate as the means and methods by which they were obtained. The following table summarizes the subsurface conditions encountered at each boring location:

<table>
<thead>
<tr>
<th>Boring No.</th>
<th>Location</th>
<th>Boring Depth (feet)</th>
<th>Date Drilled</th>
<th>At-Completion Groundwater (feet)</th>
<th>Permeability Kv (ft./day)</th>
<th>Test Depth (feet)</th>
<th>Bottom Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-1</td>
<td>30.230383° N, 82.328973° W</td>
<td>20</td>
<td>08/08/2019 Auger</td>
<td>4.5</td>
<td>1.1</td>
<td>3</td>
<td>Terminated (SP-SM)</td>
</tr>
<tr>
<td>A-2</td>
<td>30.237765° N, 82.330370° W</td>
<td>20</td>
<td>08/08/2019 Auger</td>
<td>1</td>
<td>0.5</td>
<td>1</td>
<td>Terminated (SP-SM)</td>
</tr>
<tr>
<td>A-3</td>
<td>30.236840° N, 82.331545° W</td>
<td>20</td>
<td>08/08/2019 Auger</td>
<td>3.5</td>
<td>2.1</td>
<td>3</td>
<td>Terminated (SP-SM)</td>
</tr>
</tbody>
</table>

NOTE: All depths referenced from the existing ground surface.

The auger borings were performed mechanically using a continuous flight auger in general accordance with ASTM D 1452-16 ("Soil Investigation and Sampling by Auger Borings"). Representative samples of the soils were brought to the ground surface by the auger process and transported to our laboratory for visual evaluation and classification.

The field permeability tests were performed by inserting a non-slotted casing into the augered borings that extended to the test depth. The casing was then filled with clear water and allowed to permeate vertically into the soils through the bottom of the casing by gravity for a period of 15 minutes. The drop-in water level was recorded for each 1-minute of elapsed time for a total of ten (10) readings. The coefficient of permeability (k) was calculated based on the amount of water permeated into the soils, water head height, and pipe’s inside diameter.

Refer to the attached record of boring logs for more details regarding soil descriptions and stratification. It must be noted that stratification lines and depth designations indicated on the boring records represent approximate boundaries between soil types. In some instances, the transition between these soil types may be gradual. When reviewing the boring records, it should be understood that soil conditions may vary away from the boring locations.

Encountered Soils

In general, the soil profile as disclosed by the borings initially consisted of about 6 to 9 inches of grayish brown to dark gray sand with silt and organic (topsoil). This surface cover is underlain by alternating layers of grayish brown to dark brown sand with silt (SP-SM), gray to grayish tan sand (SP) with trace of silt, and dark brown silty sand (SM).

USDA/NRCS Soil Survey

The USDA Soil Survey indicates the majority of the soils within the vicinity of the borings to consist of the following:
### Stormwater Management Facility Considerations

Based on the results of the field exploration and review of the USDA/NRC data, the following parameters may be used to aid in the design of the proposed stormwater management facilities at the referenced site:

**Vicinity of Boring A-1**
- Estimated depth to confining layer = 20 feet
- Estimated vertical unsaturated hydraulic conductivity = 1.1 ft./day
- Suggested saturated horizontal hydraulic conductivity = 1.7 ft./day
- Estimated fillable Porosity = 20%
- Estimated average depth to water level = 2.5 feet (Low= 4.5', High= 0.5')

**Vicinity of Boring A-2**
- Estimated depth to confining layer = 20 feet
- Estimated vertical unsaturated hydraulic conductivity = 0.5 ft./day
- Suggested saturated horizontal hydraulic conductivity = 0.8 ft./day
- Estimated fillable Porosity = 20%
- Estimated average depth to water level = 0.75 feet (Low= 1', High= 0.5')

**Vicinity of Boring A-3**
- Estimated depth to confining layer = 20 feet
- Estimated vertical unsaturated hydraulic conductivity = 2.1 ft./day
- Suggested saturated horizontal hydraulic conductivity = 3.2 ft./day
- Estimated fillable Porosity = 20%
- Estimated average depth to water level = 2 feet (Low= 3.5', High= 0.5')

### Report Limitations

This report has been prepared for the exclusive use of North Florida Professional Services, Inc. of Lake City, Florida and for the specific application to the project discussed herein. Our conclusions and recommendations have been rendered using generally accepted standards of geotechnical engineering practice in the State of Florida. No other warranty is expressed or implied. AID is not responsible for the interpretations, conclusions, opinions, or recommendations of others based on the data contained herein. Environmental assessment for the presence of pollutants within the subject site was beyond the scope of this exploration. Samples collected during our field program and were not destructed in the process of testing will remain in our storage facility for a period of 180 calendar days starting from the date of this report. Should you require a longer storage period, this office should be notified in writing prior to the termination of the 180-day storage period.
Closing

We appreciate the opportunity to work with you on this project and look forward to serving you on the remainder of this and future projects. Should you have any questions concerning this report, please contact me at 386-438-8058.

Sincerely,
American Infrastructure Development, Inc.

[Signature]

Nabil O. Hmeidi, P. E.
Senior Project Engineer
Licensed, Florida No. 57842

Distribution: File (1)
Addressee (1 copy & PDF via e-mail)

Attachments: Vicinity Map (1 page)
Borings Location Map (1 page)
Record of Boring Logs (3 pages)
ATTACHMENTS
American Infrastructure Development, Inc.
3810 Northdale Boulevard, Suite 170
Tampa, Florida 33624
Phone: (813) 374-2200

Vicinity Map
Woodstock Boulevard - Retention Ponds
Parcels 17-3S-20-0000-0000-0015 & 0020
Baker County, Florida
AID, Inc. Project No.NFPS19028
Exhibit 2

American Infrastructure Development, Inc.
3810 Northdale Boulevard, Suite 170
Tampa, Florida 33624
Phone: (813) 374-2200

Borings Location Map
Woodstock Boulevard - Retention Ponds
Parcels 17-3S-20-0000-0000-0015 & 0020
Baker County, Florida
AID, Inc. Project No.NFPS19028
<table>
<thead>
<tr>
<th>DEPTH (ft)</th>
<th>GRAPHIC LOG</th>
<th>MATERIAL DESCRIPTION</th>
<th>BLOW COUNTS (N VALUE)</th>
<th>SAMPLE TYPE</th>
<th>POCKET PEN (mF)</th>
<th>MOISTURE CONTENT (%)</th>
<th>LIQUID LIMIT</th>
<th>PLASTIC LIMIT</th>
<th>FINE CONTENT (%)</th>
<th>ATTERBERG LIMITS</th>
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<tbody>
<tr>
<td>0</td>
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<td>Grayish brown, sand with silt and organic (TOPSOIL)</td>
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<td>Kv= 1.1 ft./day (3.784 x 10^-4 cm/sec) at 3 feet</td>
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<td>Dark gray, sand with silt (SP-SM)</td>
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</table>
BORE NO.: A-2

Woodstock Boulevard - Retention Ponds
Parcels 17-3S-20-0000-0000-0015 & 0020

CLIENT: North Florida Professional Services, Inc.  
PROJECT NUMBER: NFPS19028

DATE STARTED: 08/08/2019  COMPLETED: 08/08/2019

DRILLING CONTRACTOR: Whitaker Drilling, Inc.

DRILLING METHOD: CME-55 ATV

LOGGED BY: N.H.  CHECKED BY:  

NOTES:  

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<table>
<thead>
<tr>
<th>DEPTH (ft)</th>
<th>GRAPHIC LOG</th>
<th>MATERIAL DESCRIPTION</th>
<th>BLOW COUNTS (N VALUE)</th>
<th>SAMPLE TYPE NUMBER</th>
<th>MOISTURE CONTENT (%)</th>
<th>LIQUID LIMIT</th>
<th>PLASTIC LIMIT</th>
<th>PLASTICITY INDEX</th>
<th>FINE CONTENT (%)</th>
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<tr>
<td>0</td>
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<td>Dark gray, sand with silt and organic (TOPSOIL)</td>
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</table>
| 10         |             | Dark gray, sand with silt (SP-SM)  
Kv= 0.5 ft./day (1.76 x 10^-4 cm/sec) at 12" |  | 2 |  |  |  |  |  |
| 15         |             | Dark brown, silty sand (SM) |  | 3 |  |  |  |  |  |
| 20         |             | Grayish brown, sand with silt (SP-SM) |  | 4 |  |  |  |  |  |
| 25         |             | Boring Terminated @ 20'  
±30.233765° N, 82.330370° W |  |  |  |  |  |  |  |

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<td>$K_v = 2.1$ ft/day ($7.306 \times 10^{-4}$ cm/sec) at 1 feet</td>
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<td>Grayish tan, sand (SP) trace of silt</td>
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<td>Dark brown, silty sand (SM)</td>
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\[ \pm 30.236840^\circ \text{ N, 82.331646}^\circ \text{ W} \]