Financial Management Department
Purchasing Division
1112 Manatee Ave W Suite 803
Bradenton, FL 34205
Phone: (941) 749-3074
www.mymanatee.org

email
March 2, 2015

TO: All Interested Quoters

SUBJECT: Request for Quotation (RFQ) #15-0456DC
Turnkey Installation of Fuel Depot

ADDENDUM #2

**Bidders are hereby notified that this Addendum shall be acknowledged on the Bid Form and made a part of the above named bidding and contract documents.**

1. Quote opening is **March 18, 2015 at 3:00 P.M.** Quote can be transmitted via email to deborah.carey-reed@mymanatee.org.

2. The Site Work, including the asphalt and landscaping requirements, for this project is being completed by the County. The Site Work contractor will work in segments and return to the site as needed for the progression of this contract.

3. A revised Site Plan is attached with revisions relating to:
   a. Grading elevation and concrete specifications (pages 6 and 7).
   b. The Emergency Generator is **deleted** from this project (pages 8 and 9).

4. The connection fitting shown on Electrical Plan page E7.1, Electrical Service Rack, shall be used for a County supplied portable generator.

5. Geotechnical Soil Sample Report is attached.

6. It is the contractor's responsibility to obtain all required permits for this project which includes Manatee County Building Permit (foundation and electrical). Contractor is also responsible for the Florida Department of Environmental Protection coordination for the State of Florida and North County Fire Department inspections.

7. The contractor is responsible for underground boring (from communications box to electrical rack and from Peace River electric pole to electrical rack) and shall supply and set electrical conduit before concrete pour for all County-supplied fuel tank components, i.e., dispensers, FMU, Veeder Root, STP's, DEF System and E-stop.

8. **Question:** Quote Form item 2 - Who is supplying the overfill valve, pipe, check valve and ball valve?
   **Response:** Awarded contractor.

9. **Question:** Quote Form item 3 - Is this just the anchoring of the tank since we off-loaded in item 2. If not, what are we to include in this line item?
   **Response:** Awarded contractor shall off load tank onto concrete pad and anchor according to current wind codes. The contractor shall supply all piping, valves and hardware. The tank comes with ladder, catwalk, clocks, fillbox, 3" dry disconnects and dust caps. All items are to be installed by the awarded contractor.

10. **Question:** Quote Form item 4 - Who is supplying the hoses, nozzles, swivels, breakaways, whip hoses and shear valves?
    **Response**: The awarded contract shall supply shear valves. The County will supply the hoses, nozzles, swivels, breakaways.

11. **Question:** Quote Form item 5 – Who is supplying?
    **Response:** The County is supplying the dispensers and Bravo containment boxes.

12. **Question:** Quote Form item 10 - Are we to supply solenoid valves for anti-siphon on the supply lines?
    **Response:** Yes.

13. **Question:** Quote Form item 12 - Who is supplying the DEF hose, nozzle, swivel, etc.?
    **Response:** The County is supplying a complete Benecor DEF 500 gallon mini bulk system with dispenser, hose, etc. It's a plug and play system but will need to be hard wired for power and wired to the FMU and Veeder Root.

14. The awarded contractor shall supply all required equipment to offload the fuel tank, ladder, catwalk, clocks and remote fill box upon delivery. The fuel tank is ready for delivery as soon as the concrete is cured. The other components may be picked up by the awarded contractor at the County Warehouse.

15. Engineer's estimated construction cost for this project is $75,000.

Quotes will be received until March 18, 2015 at 3:00 P.M. at Manatee County Purchasing, 1112 Manatee Avenue West, Suite 803, Bradenton, Florida 34205, email: deborah.carey-reed@mymanatee.org.

Sincerely,

Melissa W. Wendel for

Melissa M. Wendel, CPPO
Purchasing Official

/dcr
Attachments as stated

**SUBSURFACE SOIL EXPLORATION,**
**ANALYSIS AND RECOMMENDATIONS**
**FOR PROPOSED**
**"NORTH COUNTY FUEL DEPOT,"**
**69TH STREET EAST,**
**ELLENTON,**
**MANATEE COUNTY, FLORIDA**


Ardaman & Associates, Inc.

OFFICES

FLORIDA

**Orlando,** 8008 S. Orange Avenue, Orlando, Florida 32809, Phone (407) 855-3860
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**Port St. Lucie,** 460 NW Concourse Place, Unit #1, Port St. Lucie, Florida 34986-2248, Phone (772) 878-0072
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LOUISIANA

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**Monroe,** 1122 Hayes Street, Monroe, Louisiana 71292, Phone (318) 387-4103
**New Orleans,** 1305 Distributors Row, Suite 1, Jefferson, Louisiana 70123, Phone (504) 835-2593
**Shreveport,** 7222 Greenwood Road, Shreveport, Louisiana 71119, Phone (318) 636-3723

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**Florida Institute of Consulting Engineers**

Ardaman & Associates, Inc.

Geotechnical, Environmental and
Materials Consultants

February 5, 2015
File No. 15-7027

TO: Manatee County Public Works
Project Management Division
1022 26th Avenue East
Bradenton, FL 34208

Attention: Jeff Streitmatter II, PE

SUBJECT: Subsurface Soil Exploration, Analysis and Recommendations for Proposed "North County Fuel Depot," 69th Street East, Ellenton, Manatee County, Florida

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Dear Jeff:

As requested and as authorized by WA #W1500111, our firm has completed a subsurface soil exploration program at the site referenced above. The purpose of this program was to assess subsurface soil conditions and prepare foundation design recommendations for the proposed fuel tank supports.

This report documents our findings and conclusions. It has been prepared for the exclusive use of Manatee County Public Works for specific application to the subject project, in accordance with generally-accepted geotechnical engineering practices.

## SCOPE

The scope of our services has included the following items:

1. Conducting one (1) Standard Penetration Test boring to determine the nature and condition of the subsurface soils.

2. Reviewing each soil sample obtained in our field testing program by a geotechnical engineer in the laboratory for further investigation, classification and assignment of laboratory tests, if required.

3. Analyzing the existing soil conditions with respect to the proposed construction.

5. Preparing this report to document the results of our field testing program, engineering analyses and recommendations.

## SITE LOCATION

The subject site is located within Section 26, Township 33 South, Range 19 East, in Manatee County, Florida. As shown on Figure 1, the site is located along 69th Street East, just north of the entrance driveway to the North County Water Reclamation Facility.

## FIELD EXPLORATION PROGRAM

Our field exploration program consisted of conducting one (1) Standard Penetration Test boring at the location shown on the attached Figure 1. The boring was performed to determine the nature and condition of the subsurface soils to a depth of 25 feet below the existing ground surface. The equipment and procedures used in the boring is described in the Appendix of this report.

Test borings were located in the field utilizing an aerial photograph of the site and visual reckoning to available landmarks. The locations should be considered accurate only to the degree implied by the method used. Should more accurate locations be required, a registered land surveyor should be retained.

## GENERAL SUBSURFACE CONDITIONS

The general subsurface conditions encountered during the field exploration program are depicted on the graphic soil profile (boring log) on Figure 1 of this report. Soil stratification is based on examination of recovered soil samples and interpretation of field boring logs. The stratification lines represent the approximate boundaries between the soil types, while the actual transitions may be gradual. A generalization of the subsurface soil conditions encountered in the borings is described below:

| DEPTH | | |
|---|---|---|
| From (feet) | To (feet) | SOIL DESCRIPTION |
| 0 | 2 | Loose fine sand (SP) |
| 2 | 17 | Medium dense fine sand with silt (SP-SM), silty sand (SM) to sandy silt (ML) |
| 17 | 22 | Firm clay (CL-CH) |
| 22 | 25 | Very dense/cemented silty sand (SM) |

On the date of our field exploration program, the groundwater table was encountered at a depth of approximately 5.0 feet below the existing ground surface. The groundwater table is anticipated to fluctuate due to seasonal rainfall variations and other factors.

## LABORATORY TESTING PROGRAM

Representative soil samples obtained during our field sampling operation were packaged and transferred to our office and, thereafter, examined by a geotechnical engineer to obtain more accurate descriptions of the existing soil strata. No additional testing was deemed necessary. The soil descriptions shown on the soil profiles are based on the laboratory test results and a visual classification procedure in general accordance with the Unified Soil Classification System (ASTM D-2487 or D-2488).

## ANALYSIS AND RECOMMENDATIONS

We understand that the proposed structure consists of an above-ground fuel tank having a total weight of approximately 240 kips, with contents. It is supported upon two supports, with each supporting approximately 120 kips. These are supported upon a concrete slab with thickened "footings" beneath the supports. If the actual loads exceed the above, please contact our office so that we may prepare revised recommendations, if necessary.

### Soils Analysis

The soils encountered at the subject site are well suited to support the proposed structure on conventionally designed shallow foundation systems. Assuming that the soils are prepared in accordance with the soil preparation recommendations of this report, and that foundation loads are no greater than those indicated previously, we anticipate that settlement of the proposed structure will not exceed one inch. Due to the granular nature of the materials at the site, this settlement will occur primarily during construction, and initial filling of the tank.

### Foundation Design

Foundations beneath the supports (i.e. the thickened portion of the slab) may be designed for an allowable soil contact pressure of 2,000 pounds per square foot (psf). We recommend that all foundations be no less than twenty-four inches wide. All foundations should be designed for an equal dead load distribution in accordance with standard building code requirements. A minimum

soil cover of eighteen inches, as measured from the bottom of the foundation system to outside adjacent finished grade, should be provided.

**Soil Preparation Recommendations**

The following soil preparation recommendations are made as a guide to the design professionals, parts of which should be incorporated into the project's general specifications:

1. The slab area, plus a margin of 5 feet outside its perimeter lines, should be cleared (stripped) of all surface vegetation and organic debris. After stripping, this area should be grubbed or root-raked to completely remove roots with a diameter greater than ½ inch, stumps, or smaller roots in a concentrated state. The actual depths of stripping and grubbing must be determined by visual observation and judgment during the earthwork operation. All existing slabs, abandoned utilities and underground structures should either be removed or filled with cement grout to reduce the possibility of soil erosion into the voids.

2. The cleared and grubbed elevation should be compacted with at least 10 passes with a vibratory roller having a static weight of at least 8,000 pounds, a loaded, rubber-tired, front-end loader, or similar equipment. Each pass should overlap the preceding pass by at least 30 percent (%). Sufficient passes should be made over the building area, plus the 5 feet margin, to produce a density of at least 95% of Modified Proctor (ASTM D-1557) maximum density to a depth of 1.5 feet below the compacted surface. Extreme care should be used if vibratory compaction is used near existing structures and heavy vibratory compactors should not be used within 100 feet of existing structures. A representative of Ardaman & Associates should be present during initial compaction efforts.

3. After excavation of the foundations, the foundation contact soils should be compacted to a minimum of 95% of Modified Proctor maximum density.

4. After compaction and testing to verify that the desired compaction has been achieved at this elevation, fill consisting of clean fine sands containing no more than 12% passing the No. 200 sieve, and having a Unified Soil Classification (ASTM D-2487) of "SP" or "SP-SM," can be placed in level lifts not exceeding 12 inches loose thickness and compacted with the equipment described above. Each lift should be compacted to at least 95% of Modified Proctor maximum density prior to the placement of subsequent lifts. We note that soils with more than 12% passing the No. 200 sieve can be used as fill in some applications, but will be more difficult to moisture condition and compact due to their inherent nature to retain moisture.

5. A geotechnical engineer or his representative from Ardaman & Associates, Inc., Sarasota office, should inspect and test the compacted excavated elevation and each layer of fill to verify compliance with the above recommendations. In addition, a representative should inspect and test the foundation contact soils immediately prior to concrete placement.

If the control of groundwater is required to achieve the necessary stripping, excavation, proof-rolling, filling, compaction, and any other earthwork, sitework, or foundation subgrade preparation operations required for the project, the actual method(s) of dewatering should be determined by the contractor. Dewatering should be performed to lower the groundwater level to depths that are adequately below excavations and compaction surfaces. Adequate groundwater level depths below excavations and compaction surfaces vary depending on soil type and construction method, and are usually two feet or more. Dewatering solely with sump pumps may not achieve the desired results.

## GENERAL COMMENTS

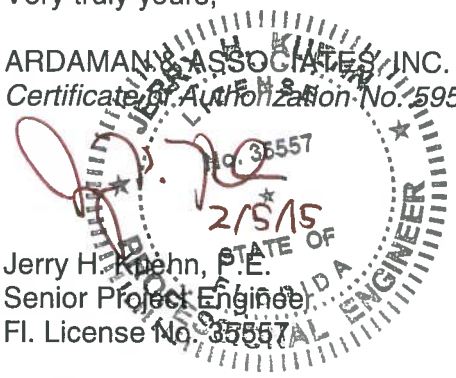
The analysis and recommendations submitted in this report are based upon the data obtained from one (1) test boring performed at the location indicated on the attached Figure 1. This report does not reflect any variations which may occur outside of boring locations. While the boring is representative of the subsurface conditions at its respective location and within its respective vertical reach, local variations characteristic of the subsurface materials of the region are anticipated and may be encountered. The nature and extent of variations may not become evident until during the course of a ground improvement program, if such a program is undertaken. If variations then appear evident, it will be necessary to reevaluate the recommendations of this report, after performing on-site observations during the construction period and noting the characteristics of any variations. The boring log and related information are based upon the driller's logs and visual examination of selected samples in the laboratory. The delineation between soil types shown on the log is approximate, and the description represents our interpretation of the subsurface conditions at the designated boring location on the particular date drilled.

The groundwater table depths shown on the boring log represent the groundwater surfaces encountered on the date shown. Fluctuation of the groundwater table should be anticipated throughout the year.

It has been a pleasure to be of assistance to you with this project. Please contact us when we may be of further service to you, or should you have any questions concerning this report.

Very truly yours,

ARDAMAN & ASSOCIATES, INC.
*Certificate of Authorization No. 5950*




Jerry H. Kuehn, P.E.
Senior Project Engineer
Fl. License No. 35557

Gary H. Schmidt, P.E.
Vice President
Fl. License No. 12305

JHK/GHS:ly

# APPENDIX

## SOIL BORING, SAMPLING AND TESTING METHODS

### Standard Penetration Test

The Standard Penetration Test (SPT) is a widely accepted method of in situ testing of foundation soils (ASTM D-1586). A 2-foot long, 2-inch O.D. split-barrel sampler attached to the end of a string of drilling rods is driven 18 inches into the ground by successive blows of a 140-pound hammer freely dropping 30 inches. The number of blows needed for each 6 inches of penetration is recorded. The sum of the blows required for penetration of the second and third 6-inch increments of penetration constitutes the test result or N-value. After the test, the sampler is extracted from the ground and opened to allow visual examination and classification of the retained soil sample. The N-value has been empirically correlated with various soil properties allowing a conservative estimate of the behavior of soils under load. The following tables relate N-values to a qualitative description of soil density and, for cohesive soils, an approximate unconfined compressive strength (Qu):

Cohesionless Soils:

| N-Value | Description |
|---|---|
| 0 to 4 | Very loose |
| 4 to 10 | Loose |
| 10 to 30 | Medium dense |
| 30 to 50 | Dense |
| Above 50 | Very dense |

Cohesive Soils:

| N-Value | Description | Qu (ton/ft$^2$) |
|---|---|---|
| 0 to 2 | Very soft | Below 0.25 |
| 2 to 4 | Soft | 0.25 to 0.50 |
| 4 to 8 | Medium stiff | 0.50 to 1.0 |
| 8 to 15 | Stiff | 1.0 to 2.0 |
| 15 to 30 | Very stiff | 2.0 to 4.0 |
| Above 30 | Hard | Above 4.0 |

The tests are usually performed at 5-foot intervals. However, more frequent or continuous testing is done by our firm through depths where a more accurate definition of the soils is required. The test holes are advanced to the test elevations by rotary drilling with a cutting bit, using circulating fluid to remove the cuttings and hold the fine grains in suspension. The circulating fluid, which is a bentonitic drilling mud, is also used to keep the hole open below the water table by maintaining an excess hydrostatic pressure inside the hole. In some soil deposits, particularly highly pervious ones, NX-size flush-coupled casing must be driven to just above the testing depth to keep the hole open and/or prevent the loss of circulating fluid.

Representative split-spoon samples from each sampling interval and from every different stratum are brought to our laboratory in air-tight jars for further evaluation and testing, if necessary. After thorough examination and testing of the samples, the samples are discarded unless prior arrangements have been made. After completion of a test boring, the hole is kept open until a steady state groundwater level is recorded. The hole is then sealed, if necessary, and backfilled.

A hammer with an automatic drop release (auto-hammer) is sometimes used. In this case, a correction factor is applied to the raw blow counts, since the energy efficiency of the auto-hammer is greater than that of the safety hammer. The auto-hammer blow counts are corrected to equivalent safety hammer "N" values, based upon calibration of the auto-hammer (per ASTM D4633) and standard practice.

## Soil Classifications

The soil descriptions presented on the soil boring logs are based upon the Unified Soil Classification System (USCS), which is the generally accepted method (ASTM D-2487 and D-2488) for classifying soils for engineering purposes. The following modifiers are the most commonly used in the descriptions.

| For Sands: | Modifier | Fines, Sand or Gravel Content* |
|---|---|---|
| | with silt or with clay | 5% to 12% fines |
| | silty or clayey | 12% to 50% fines |
| | with gravel or with shell | 15% to 50% gravel or shell |

| For Silts or Clays: | Modifier | Fines, Sand or Gravel Content* |
|---|---|---|
| | with sand | 15% to 30% sand and gravel; and % sand > % gravel |
| | sandy | 30% to 50% sand and gravel; and % sand > % gravel |
| | with gravel | 15% to 30% sand and gravel; and % sand < % gravel |
| | gravelly | 30% to 50% sand and gravel; and % sand < % gravel |

* May be determined by laboratory testing or estimated by visual/manual procedures.
Fines content is the combined silt and clay content, or the percent passing the No. 200 sieve.

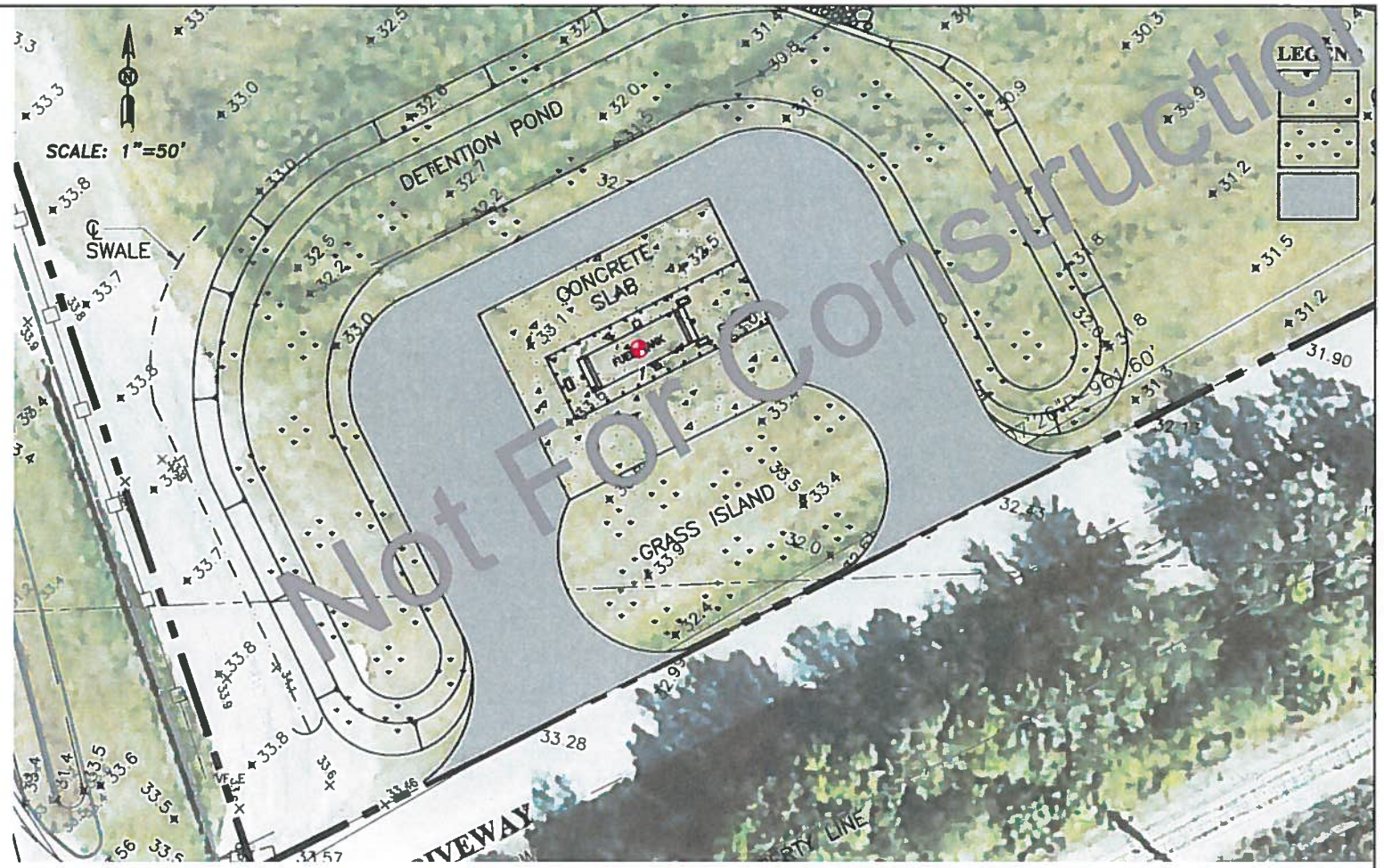
Other soil classification standards may be used, depending on the project requirements. The AASHTO classification system is commonly used for highway design purposes and the USDA soil textural classifications are commonly used for septic (on-site sewage disposal) system design purposes.

BOR # 1
DATE 2/2/2015
DRILLER DP/JD
HAMMER Auto
RIG CME-45

N

| Depth Below Grade (feet) | N | Material |
|---|---|---|
| 0 | 9 | Gray fine sand (sp) |
| | 21 | |
| 5 | 14 | Dark gray fine sand with silt (SP-SM) |
| | 15 | Light brown fine sand with silt (SP-SM) |
| | 16 | Gray silty fine sand (SM) |
| 10 | 14 | |
| | 16 | Gray sandy silt to very silty sand (ML/SM) |
| 15 | 27 | Gray fine sand with silt (SP-SM) |
| 20 | 6 | Gray clay (CL-CH) |
| 25 | 62/6" | Gray cemented silty fine sand (SM) |

Boring Terminated at Depth of 25ft






Base PDF Image From Manatee County

TEST BORING LOCATIONS

LEGEND

∇ GROUNDWATER LEVEL MEASURED ON DATE DRILLED

N SPT N-VALUE IN BLOWS PER FOOT (UNLESS OTHERWISE NOTED)

SPT N VALUES CONVERTED TO EQUIVALENT SAFETY HAMMER

| GRANULAR MATERIALS– RELATIVE DENSITY | SPT (BLOWS/FOOT) |
|---|---|
| VERY LOOSE | LESS THAN 4 |
| LOOSE | 4–10 |
| MEDIUM DENSE | 10–30 |
| DENSE | 30–50 |
| VERY DENSE | GREATER THAN 50 |

| SILTS AND CLAYS CONSISTENCY | SPT (BLOWS/FOOT) |
|---|---|
| VERY SOFT | LESS THAN 4 |
| SOFT | 2–4 |
| FIRM | 4–8 |
| STIFF | 8–15 |
| VERY STIFF | 15–30 |
| HARD | GREATER THAN 30 |

Ardaman & Associates, Inc.
Geotechnical, Environmental and Materials Consultants

**Test Locations/Soil Boring Logs**
**North County Fuel Depot**
**69th Street East, Ellenton**
**Manatee County, Florida**

| DRAWN BY: KGS | CHECKED BY: | DATE: 2/3/15 |
|---|---|---|
| FILE NO. 15-7027 | APPROVED BY: | FIGURE: 1 |