

Financial Management Department Purchasing Division

1112 Manatee Avenue West, Ste 803

Bradenton, FL 34205

TO:

All Interested Bidders

SUBJECT:

Invitation for Bid# 16-2231-DS

Force Main Replacement Project at Windmill Village

#### **ADDENDUM #1**

Bidders are hereby notified that this Addendum shall be acknowledged on page Bid Form- 1 of the Bid Form and made a part of the above named bidding and contract documents. Bids submitted without acknowledgement of the Addendum will be considered incomplete.

The following items are issued to add to, modify, and clarify the bid and contract documents. These items shall have the same force and effect as the original bidding and contract documents, and cost involved shall be included in the bid prices. Bids to be submitted on the specific bid date, shall conform to the additions and revisions listed herein.

The deadline for clarification of questions is <u>July 12, 2016 at 3:00 pm</u>. The deadline has been established to maintain fair treatment of all potential bidders. Questions received after this date and time shall not be considered.

A public records request was made for the Engineers Estimate.

The Construction cost estimate for this project is \$206,055.00.

A public records request was made for the geotechnical report.

Attached is the report dated 6/18/2015.

Question # 1: Reference specifications Section 01590, COUNTY'S FIELD OFFICE, is this really

necessary for this little job?

Response # 1: Specifications exist to cover everything that may occur on any utility project.

If this situation doesn't apply to you, then ignore it. We have provided a bid form and a measurement and payment section in the specifications that we

believe specifically addresses this project.

Question # 2: Reference specifications Section 02720, SANITARY SEWER BY-PASS

PUMPING, Can a bid item for this be added to the bid form?

Response # 2: Bid item No.8, Force Main Connections and Lift Station Shutdown, has been

provided for payment associated with this item.

## Addendum # 1 to IFB# 16-2231-DS

Question # 3: Please provide soil borings along the route of the pipe line.

Response # 3: The geotechnical report for the project is attached to this addendum.

Question # 4: Please provide type of existing liner at Lift Station 404.

Response # 4: The liner is a fiberglass tube type.

Question # 5: Please provide current pump characteristics for Lift Stations 404 and 405. We

need to know what kind of flows will have to be handled for by-pass pumping.

Response # 5: Lift Station # 404 has 195 gpm at 42' TDH; Lift Station # 405 has 184 gpm at

59.5' TDH.

Question # 6: Please provide more information about the 4-inch force main from Lift Station 405,

where does it discharge at, how many feet of pipe is it, where is the line laying at?

Response # 6: The total length of 4-force main is approximately 800 feet and crosses

diagonally across U.S. 41 to the southwest corner of the intersection. It then runs westward to the west side of the driveway entrance to the pharmacy at the southwest corner of the intersection and then turns due south about 80 feet to a manhole in the existing parking lot behind the pharmacy. Manatee County does not have a record for the existing force main pipe material.

Question #7: Will the County waive the fee for the Right-of-Way Use Permit?

Response # 7: Manatee County asks that you obtain the ROW use permit for CIP projects.

but we do not require that you pay a fee when working on County CIP

projects.

## **BIDDERS NOTE:**

1. Please discard the Summary of Work section pages (01010-1 and 01010-2) provided in the original solicitation and <u>replace</u> with the attached amended specification section noted <u>(Addendum # 1 to IFB# 16-2231-DS).</u>

2. Please discard the Bid Forms (Bid "A" and Bid "B") provided in the original solicitation and <u>replace</u> with the attached amended Bid Forms noted as (Addendum # 1 to IFB# 16-2231-DS).

The deadline for submitting sealed Bids at the Manatee County Purchasing Division, 1112 Manatee Avenue West, Suite 803, Bradenton, FL 34205 remains at <u>July 22, 2016 at 3:30 PM.</u>

**END OF ADDENDUM #1** 

Sincerely.

Dennis W. Wallace

**Procurement Contracts & Buyer Manager** 

/ds (attachments)

## Ardaman & Associates, Inc.



June 18, 2015 File No. 14-7453

TO:

Kimley-Horn & Associates, Inc. 655 N. Franklin Street, Suite 150

Tampa, FL 33602

Attention: Mr. Jordan Walker, P.E.

SUBJECT:

Subsurface Soil Exploration for Proposed Windmill Village Force Main,

Bayshore Gardens Parkway & Saunders Road

Bradenton, Manatee County, Florida

Dear Mr. Walker:

As requested, 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 at the proposed underground pipeline replacement. We understand that the proposed development is to include installation of a force main by jack and bore and/or horizontal directional drill (HDD) methods. This report presents the data from our exploration.

This data report documents our findings and conclusions. It has been prepared for the exclusive use of Kimley-Horn & Associates, Inc. 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:

- Conducting four (4) Standard Penetration Test borings to determine the nature and condition of the subsurface soils.
- 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.
- Estimating the normal seasonal high groundwater level at the boring locations.
- Preparing this report to document the results of our field testing program.

Kimley-Horn & Associates, Inc. File No. 14-7135 June 18, 2015

#### SITE LOCATION

The subject site is located within Section 23, Township 35 South, Range 17 East, in Bradenton, Manatee County, Florida. The proposed alignment of the force main starts just east of the intersection of Bayshore Gardens Parkway and US 41 to the intersection of 63<sup>rd</sup> Avenue West and 8<sup>th</sup> Street Court West.

The proposed alignment is adjacent to a roadway and is through suburban/urban developed areas.

#### FIELD EXPLORATION PROGRAM

Our field exploration program consisted of conducting four (4) Standard Penetration Test borings at the locations shown on the attached Figure 1. These borings were performed to determine the nature and condition of the subsurface soils to a depth of 20 feet below the existing ground surface. Test boring depths, location and number were determined by Kimley-Horn & Associates. The equipment and procedures used in the borings are 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.

#### 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. Representative soil samples were assigned pertinent laboratory soil classification tests. The soil descriptions shown on the soil profiles are based on a visual classification procedure in general accordance with the Unified Soil Classification System (ASTM D-2487 or D-2488).



Kimley-Horn & Associates, Inc. File No. 14-7135 June 18, 2015

#### Percent Fines Tests

Three soil samples were selected for determination of the percent by dry weight finer than the U.S. No. 200 Sieve, using the test procedures outlined in ASTM Standard D-1140. These indices are useful in estimating compressibility and permeability characteristics of clayey soils, and in evaluating the applicability of soil improvement methods for granular soils. Furthermore, the results of these tests provide confirmation of our visual classification of the soils penetrated in this exploration. The results of the tests are presented on the soil boring profiles in Figure 1 at their respective depths/locations.

#### **GENERAL SUBSURFACE CONDITIONS**

The general subsurface conditions encountered during the field exploration program are depicted on the graphic soil profiles (boring logs) on Figure 1 of this report. Soil stratification is based on examination of recovered soil samples, interpretation of field boring logs and the results of the laboratory tests. The stratification lines represent the approximate boundaries between the soil types, while the actual transitions may be gradual.

On the date of our field exploration program, the groundwater table was encountered at depths ranging from 4 to 5.8 feet below the existing ground surface. The groundwater table is anticipated to fluctuate due to seasonal rainfall variations and other factors.

#### NORMAL SEASONAL HIGH GROUNDWATER LEVEL

The normal seasonal high groundwater level each year is the level in the August-September period at the end of the rainy season during a year of normal (average) rainfall. The water table elevations associated with a higher than normal rainfall and in the extreme case, flood, would be higher to much higher than the normal seasonal high groundwater level. The normal high water levels would more approximate the normal seasonal high groundwater levels.

The seasonal high groundwater level is affected by a number of factors. The drainage characteristics of the soils, the land surface elevation, relief points such as drainage ditches, lakes, rivers, swamp areas, etc., and distance to relief points are some of the more important factors influencing the seasonal high groundwater level.

Kimley-Horn & Associates, Inc. File No. 14-7135 June 18, 2015

Based on our interpretation of the site conditions using our boring logs, we estimate the normal seasonal high groundwater level at the boring locations to be approximately 2 to 3 feet above the groundwater levels measured at the time of our field exploration.

#### **ANALYSIS AND RECOMMENDATIONS**

We understand that the subject pipeline will be installed by horizontal directional drilling (HDD) or jack and bore methods. The soils encountered within a depth of 20 feet consisted primarily of very loose to medium dense fine sand (SP) to fine sand with silt (SP-SM) with varying amounts of shell. Although it was not within our scope of work to recommend drilling depths or other details of the installation, the geotechnical conditions at the borings are fairly typical for the area, and we see no major geotechnical issues in our borings that would significantly hinder installation efforts of the proposed pipeline, if installed by appropriate means and methods.

We do note that the gray limerock gravel encountered from a depth of 1.5 to 3 feet in Boring 4 may be difficult to excavate or drill into. This gravel may exist to greater depths and/or thicknesses at unexplored locations. Test pits could be used to further explore the affected area if the contractor believes the gravel could cause significant issues to the installation operations.

The soil conditions were explored only at the four locations presented on Figure 1. Soil conditions may be different adjacent to or between these borings, that could affect installation efforts. If difficulties or anomalies are encountered during the course of construction, Ardaman should be contacted to review the results of our borings and to recommend additional exploration, if necessary.

#### **GENERAL COMMENTS**

The analysis and recommendations submitted in this report are based upon the data obtained from four (4) test borings performed at the locations indicated on the attached Figure 1. This report does not reflect any variations which may occur between the borings. While the borings are representative of the subsurface conditions at their respective locations and within their respective vertical reaches, 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



Kimley-Horn & Associates, Inc. File No. 14-7135 June 18, 2015

evident until during the course of construction. 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 logs 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 logs 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 logs represent the groundwater surfaces encountered on the dates 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,

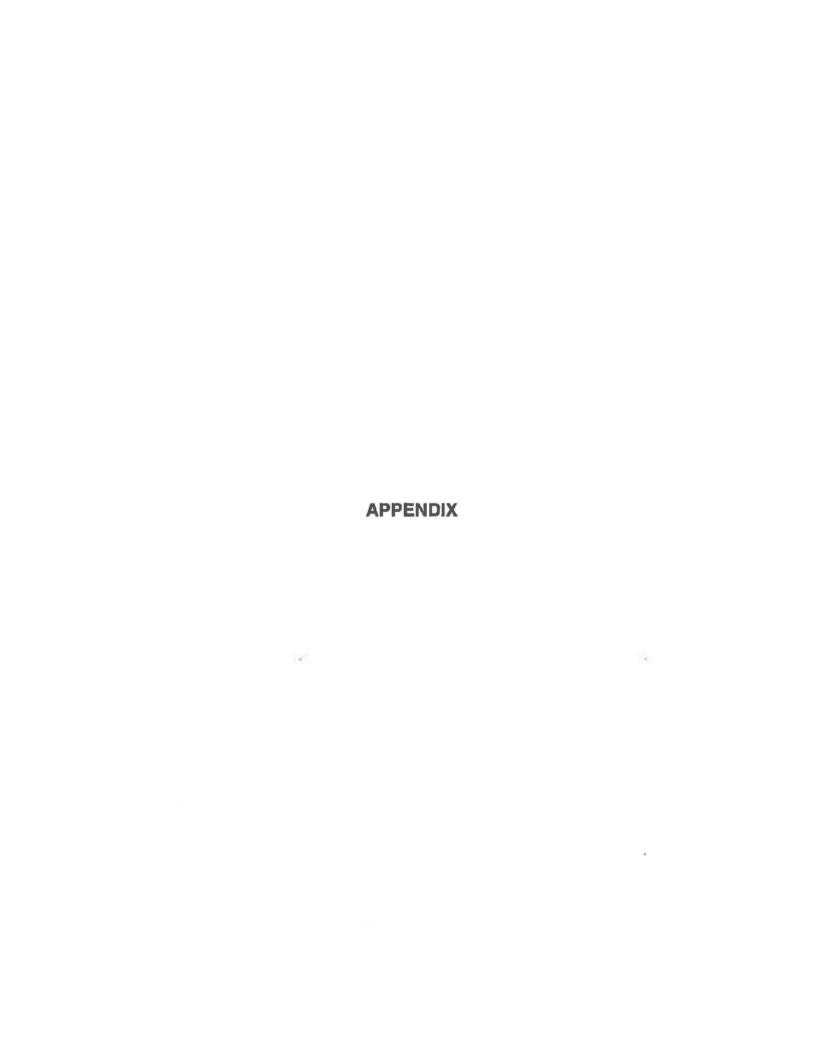
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Project Engineer PIDA

GSS/JHK:lv

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



## 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 0 to 4 4 to 10 10 to 30 30 to 50 Above 50	Description Very loose Loose Medium dense Dense Very dense	
Cohesive Soils:	N-Value 0 to 2 2 to 4 4 to 8 8 to 15 15 to 30 Above 30	Description Very soft Soft Medium stiff Stiff Very stiff Hard	Qu (ton/ft²) Below 0.25 0.25 to 0.50 0.50 to 1.0 1.0 to 2.0 2.0 to 4.0 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.

#### **Laboratory Test Methods**

Soil samples returned to our laboratory are examined by a geotechnical engineer or geotechnician to obtain more accurate descriptions of the soil strata. Laboratory testing is performed on selected samples as deemed necessary to aid in soil classification and to further define engineering properties of the soils. The test results are presented on the soil boring logs at the depths at which the respective sample was recovered, except that grain size distributions or selected other test results may be presented on separate tables, figures or plates as described in this report. The soil descriptions shown on the logs are based upon a visual-manual classification procedure in general accordance with the Unified Soil Classification System (ASTM D-2488-84) and standard practice. Following is a list of abbreviations which may be used on the boring logs or elsewhere in this report.

-200 - Fines Content (percent passing the No. 200 sieve); ASTM D1140

DD - Dry Density of Undisturbed Sample; ASTM D2937

Gs - Specific Gravity of Soil; ASTM D854

k - Hydraulic Conductivity (Coefficient of Permeability)

LL - Liquid Limit; ASTM D423
OC - Organic Content; ASTM D2974

pH - pH of Soil; ASTM D2976
PI - Plasticity Index (LL-PL); ASTM D424

PL - Plastic Limit; ASTM D424

Qp - Unconfined Compressive Strength by Pocket Penetrometer;

Qu - Unconfined Compressive Strength; ASTM D2166 (soil), D7012 (rock)

SL - Shrinkage Limit; ASTM D427

ST - Splitting Tensile Strength; ASTM D3967 (rock)

USCS - Unified Soil Classification System; ASTM D2487, D2488

w - Water (Moisture) Content; ASTM D2216

#### 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 12% to 50% fines

"with gravel" or "with shell" 15% to 50% grave or shell

For Silts or Clays: Modifier Fines, Sand or Gravel Content\*

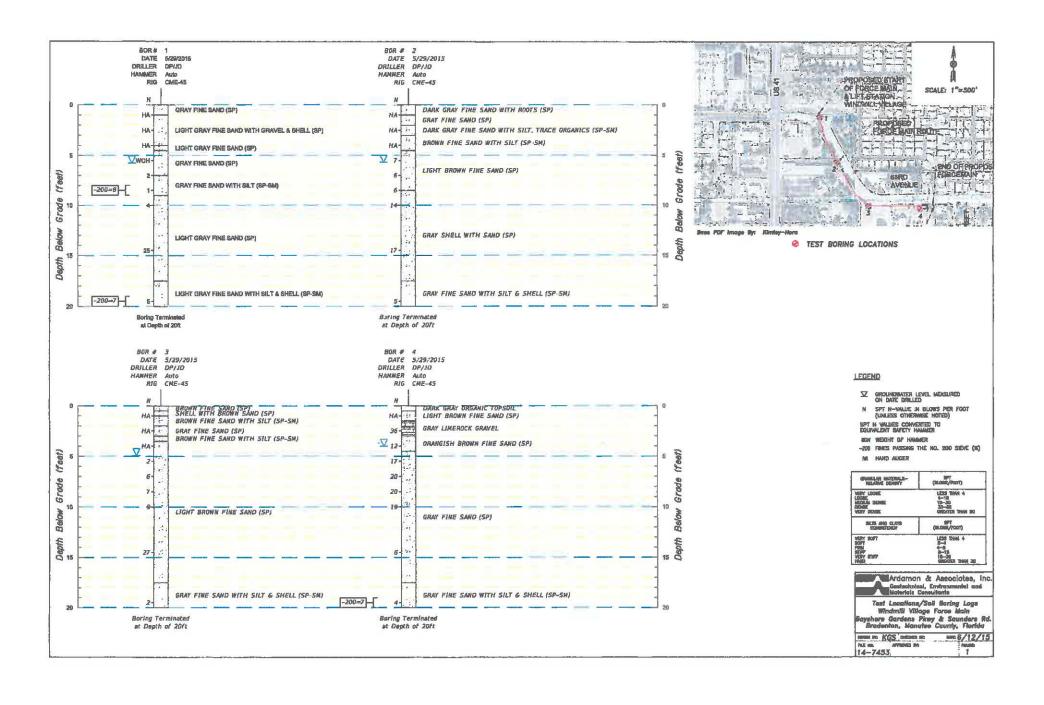
"with sand"

"sandy"

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.

<sup>\*</sup> 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.



#### **SECTION 01010**

#### SUMMARY OF WORK

#### PART 1 GENERAL

#### 1.01 WORK COVERED BY CONTRACT DOCUMENTS/REQUIREMENTS INCLUDED

- A. The work included, but is not limited to, in this contract consists of the following:
  - Construction of approximately 850 LF of 6" HDPE force main by directional drill and 600 LF of 6" PVC force that commences at Lift Station #405 near the intersection of US-41 and 63<sup>rd</sup> Avenue and ties into Lift Station #404 near the intersection of 63<sup>rd</sup> Avenue and 8<sup>th</sup> Street.
  - Project also includes the restoration of all pavement, concrete, and sod disturbed during construction of force main, bypassing, horizontal directional drills, and existing force main extensions and connections.
- B. The Contractor shall furnish all shop drawings, working drawings, labor, materials, equipment, tools, services and incidentals necessary to complete all work required by these Specifications and as shown on the Contract Drawings.
- C. The Contractor shall perform the work complete, in place and ready for continuous service and shall include any repairs, replacements, and/or restoration required as a result of damages caused prior to acceptance by the County.
- D. The Contractor shall furnish and install all materials, equipment and labor which is reasonably and properly inferable and necessary for the proper completion of the work, whether specifically indicated in the Contract Documents or not.

#### 1.02 CONTRACTS

Construct all the Work under a single contract.

#### 1.03 WORK SEQUENCE

- A. All work done under this Contract shall be done with a minimum of inconvenience to the users of the system or facility. The Contractor shall coordinate his work with private property owners such that existing utility services are maintained to all users to the maximum extent possible.
- B. The Contractor shall, if necessary and feasible, construct the work in stages to accommodate the County's use of the premises during the construction period; coordinate the construction schedule and operations with the County's Representative.
- C. The Contractor shall, where feasible, construct the Work in stages to provide for public convenience and not close off public use of any facility until completion of construction to provide alternative usage.

#### 1.04 CONSTRUCTION AREAS

- A. The Contractor shall: Limit his use of the construction areas for work and for storage, to allow for:
  - Work by other Contractors.
  - County's Use.
  - 3. Public Use.
- Coordinate use of work site under direction of County's Representative.
- C. Assume full responsibility for the protection and safekeeping of products under this Contract, stored on the site.
- D. Move any stored products under the Contractor's control, which interfere with operations of the County or separate contractor.
- E. Obtain and pay for the use of additional storage of work areas needed for Contractor operations.

#### 1.05 COUNTY OCCUPANCY

A. It is assumed that portions of the Work will be completed prior to completion of the entire Work. Upon completion of construction of each individual facility, including testing, if the County, at its sole discretion, desires to accept the individual facility, the Contractor will be issued a dated certificate of completion and acceptance for each individual facility. The County will assume ownership and begin operation of the individual facility on that date and the three-year guaranty period shall commence on that date. The County has the option of not accepting the entire work as a whole until it is completed, tested and approved by the County.

#### 1.06 PARTIAL COUNTY OCCUPANCY

The Contractor shall schedule his operations for completion of portions of the Work, as designated, for the County's occupancy prior to substantial completion of the entire work.

## PART 2 PRODUCTS (NOT USED)

### PART 3 EXECUTION (NOT USED)

**END OF SECTION** 

# BID FORM

(Submit in Duplicate)

# FORCE MAIN REPLACEMENT PROJECT AT WINDMILL VILLAGE

IFB #16-2231-DS

Bid "A" Based on Completion Time of 180 Calendar Days

	Bid "A" Based on Completion Time of 180 Calendar Days					
ITEM				BID PRICE	TOTAL BID	
#	DESCRIPTION	U/M	QTY.	PER UNIT	PRICE	
1	Mobilization	LS	1	\$	\$	
2	Maintenance of Traffic	LS	1	\$	\$	
3	Erosion and Sediment Control	LS	1	\$	\$	
4	Miscellaneous Work Clean up & Restoration	LS	1	\$	\$	
		SI	JBTOTAL	L (ITEMS 1-4)	\$	
5	6" PVC C900 DR 18 Force Main (Direct Bury)	LF	600	\$	\$	
6	6" Plug Valve	EA	1	\$	\$	
7	6" HDPE DR 11 DIPS (HDD)	LF	850	\$	\$	
8	Force Main Connections and Lift Station Shutdown	LS	1	\$	\$	
9	Air Release Valves	EA	3	\$	\$	
10	Pipe Adapters	EA	2	\$	\$	
11	Grout Fill Abandoned 4" Force Main	CY	3	\$	\$	

Bidder:	
Authorized	
Signature:	

Bid Form - 2 ADDENDUM #1

## **BID FORM** (Submit in Duplicate)

# FORCE MAIN REPLACEMENT PROJECT AT WINDMILL VILLAGE

## IFB #16-2231-DS

	Bid "A" Based on Completion Time of 180 Calendar Days					
ITEM				BID PRICE	TOTAL BID	
#	DESCRIPTION	U/M	QTY.	PER UNIT	PRICE	
12	Driveway/Sidewalk Restoration	SY	30	\$	\$	
13	Pavement Repair and Road Restoration (Base and Resurface)	SY	50	\$	\$	
14	Sodding	SY	60	\$	\$	
		SU	BTOTAL	(ITEMS 5-14)	\$	
H.					and the wife of	
	TOTAL BASE BID "A" (ITEMS 1-14) Based on Completion of 180 Calendar Days				<b>\$</b>	
	CONTRACT CONTINGENCY (USED ONLY WITH COUNTY APPROVAL)		10% of '	TOTAL BASE BID	\$	
	TOTAL OFFER FOR BID "A" with Contract Contingency Based on Completion Time of 180 Calendar Days				\$	

Bidder:		
Authorized		
Signature:		

Bid Form - 3 ADDENDUM #1

# **BID FORM**

# (Submit in Duplicate) FORCE MAIN REPLACEMENT PROJECT AT WINDMILL VILLAGE

## IFB #16-2231-DS

Bid "B" Based on Completion Time of 240 Calendar Days

h	Big B Based on Com	pietion	Time of Z	40 Calendar Days	·
ITEM				BID PRICE	TOTAL BID
#	DESCRIPTION	U/M	QTY.	PER UNIT	PRICE
1	Mobilization	LS	1	\$	\$
2	Maintenance of Traffic	LS	1	\$	\$
3	Erosion and Sediment Control	LS	1	\$	\$
4	Miscellaneous Work Clean up & Restoration	LS	1	\$	\$
		SI	JBTOTA	L (ITEMS 1-4)	\$
5	6" PVC C900 DR 18 Force Main (Direct Bury)	LF	600	\$	\$
6	6" Plug Valve	EA	1	\$	\$
7	6" HDPE DR 11 DIPS (HDD)	LF	850	\$	\$
8	Force Main Connections and Lift Station Shutdown	LS	1	\$	\$
9	Air Release Valves	EA	3	\$	\$
10	Pipe Adapters	EA	2	\$	\$
11	Grout Fill Abandoned 4" Force Main	CY	3	\$	\$

Bidder:	
Authorized	
Signature:	

Bid Form -- 4

ADDENDUM # 1

# **BID FORM**

(Submit in Duplicate)

# FORCE MAIN REPLACEMENT PROJECT AT WINDMILL VILLAGE

IFB #16-2231-DS

	Bid "B" Based on Completion Time of 240 Calendar Days				
ITEM				BID PRICE	TOTAL BID
#	DESCRIPTION	U/M	QTY.	PER UNIT	PRICE
12	Driveway/Sidewalk Restoration	SY	30	\$	\$
13	Pavement Repair and Road Restoration (Base and Resurface)	SY	50	\$	\$
14	Sodding	SY	60	\$	\$
		SU	BTOTAL	(ITEMS 5-14)	\$
	TOTAL BASE BID "B" (ITEMS 1-14) Based on Completion of 240 Calendar Days				\$
	CONTRACT CONTINGENCY (USED ONLY WITH COUNTY APPROVAL)		10% of	TOTAL BASE BID	;\$
	TOTAL OFFER FOR BID "B" with Contract Contingency Based on Completion Time of 240 Calendar Days				\$

Bidder:	
Authorized	
Signature:	