



Village of Wellington (VOW)
12300 Forest Hill Boulevard
Wellington, FL 33414

February 16th, 2017

Project No. 16-1148

Attention: Ms. Shannon LaRocque, P.E., Utilities Director

Reference: Condition Assessment and Infrastructure Improvement Evaluation,
South Sugar Pond Area, Village of Wellington, Florida

Dear Ms. LaRocque:

Based on your request and relying on the information exchanged during our recent meeting, we are enthusiastically presenting you with this proposal for professional services. It is our understanding that the Village of Wellington (VOW) wishes to proactively and methodically repair and/or replace its water/ wastewater network. This work is being planned for neighborhoods selected by the VOW. You have requested our firm to provide a proposal for engineering services in relation to several neighborhoods which are adjacent to each other. The attached Exhibits 1 and 2, obtained from VOW GIS files, highlight these neighborhoods and quantifies the existing water and wastewater systems within them. This proposal is related to those neighborhoods identified as "South Sugar Pond Area".

It is our intent to perform a thorough study of the subject systems and provide a report to the VOW that encompasses the extent and condition of the existing systems, recommendations for repairs and replacements, prioritization of the neighborhoods for scheduling and funding purposes, engineering and surveying costs and opinions of probable construction costs for the proposed water and wastewater system improvements.

Our assumptions are as follows based on VOW instructions:

- No hydraulic modeling of systems is necessary
- Wholesale size on size water system replacement. No service conversions/replacements on private property
- Wastewater pipe repairs through lining or size on size replacement or spot repairs as necessary
- Evaluate 50% of accessible and visible manholes
- No sewer force main evaluation
- Video entire gravity main system and approximately 10% of the laterals. The line video will provide indications of inflow and infiltration (I&I). Laterals will be videoed based on the results of the above.
- No smoke testing necessary
- Available GIS and Record Drawings will be provided by the VOW



The scope of our work will comprise, at a minimum, the following steps;

INITIAL INVESTIGATION

1. Collect information and data on existing systems. Available data will be gathered and examined resulting in a macro level understanding of the subject system and opportunities and constraints for improving the level of service from technical and social standpoints. Conduct preliminary site reviews.
2. Conduct interviews and review records with O&M personnel regarding previous repairs, issues and concerns on both water and wastewater systems. Take full advantage of the institutional knowledge readily available within VOW's internal departments, particularly the Utility Department.
3. Inquire about other potential upcoming community improvements and incorporate if necessary. We will strongly encourage communication between the various VOW departments who own and maintain the physical assets in the affected corridors to coordinate their upcoming improvements with each other to minimize disruption in these neighborhoods
4. Conduct a second round of site reviews after all above steps have been completed, preferably accompanied by VOW staff from relevant departments to observe firsthand the existing conditions of affected neighborhoods/corridors.
5. Prioritize neighborhoods and repairs based on a multifaceted risk matrix. Coordinate with and collaborate on same with O&M staff.
6. Create a schedule for all subject neighborhoods in connection with both systems as prioritized in the step above. Activities could be planned to overlap for different neighborhoods towards a more expeditious conclusion if desired.
7. Prepare "Opinions of Probable Construction Costs" including soft costs for water and wastewater systems.
8. Conduct community outreach, if required, to notify residents regarding water and particularly wastewater system evaluation during the study phase. The videoing process could appear intrusive and disruptive if not explained to the community ahead of time.
9. Prepare a Report or Technical Memorandum (TM) to include all above information by:
 - Summarizing the findings;
 - Providing a priority schedule for the subject neighborhoods;
 - Providing estimated cost data for the proposed activities.
10. Assist VOW staff in presenting the TM to elected officials, if necessary



WASTEWATER

11. Conduct a wastewater pipeline investigation. Video and evaluate the condition of the main lines through the services of a sub consultant with proven experience in this field. Those results will then become an efficient tool to identify laterals with I&I condition which warrant further investigation and videoing under a separate proposal.
12. Coordinate with VOW O&M personnel to review and discuss the findings in the video assessment to compare with previously identified system problems/repairs. Refer to detailed scope of work for wastewater system field assessment exhibit (Exhibit 3).
13. Identify general limits of sewer repairs or rehabilitation. Quantify type and extent of the corrective action required such as point repairs, slip lining or replacement of long runs of the main line.
14. Provide recommendations for repairs, replacement and/or corrective work by preparing schematic layouts of proposed wastewater system improvements.

WATER

15. Conduct potable water system review and confirm approach to wholesale replacement. Attempt to find opportunities to save existing networks that are newer, if any. Coordinate and collaborate with O&M staff and Fire Department staff. No private service conversions/replacements are intended to occur as a part of this scope.
16. Prepare schematic layouts of proposed water system replacement based on findings during the above step. Considerations for upsizing smaller existing water mains will be reviewed with the VOW personnel and incorporated into the proposed recommendations if desired.

Our fees for the subject services shall be as follows:

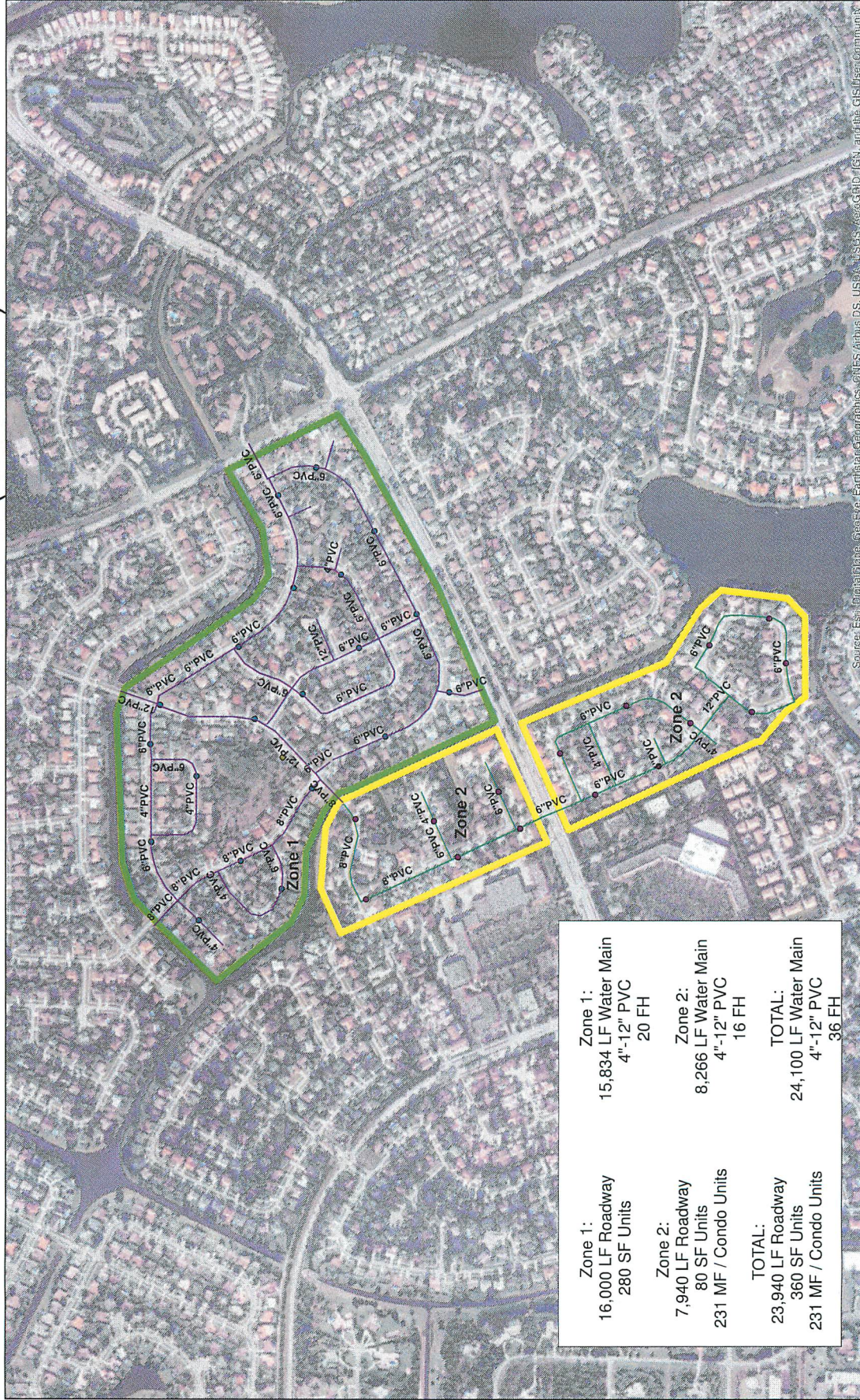
Sanitary Sewer Field Assessment (Layne Inliner "Exhibit 4")	\$ 52,965.50
Engineering Analysis (Keshavarz & Associates, Inc.)	\$ 48,000.00
Community Outreach, if required (TBD)	<u>\$ 2,000.00</u>
Condition Assessment and Infrastructure Improvement Study	
South Sugar Pond Area	\$ 102,965.50

We certainly appreciate the opportunity to present you with this proposal. Upon authorization, we will do our best to be an effective member of your team of professionals.

Respectfully,
KESHAVARZ & ASSOCIATES, INC.

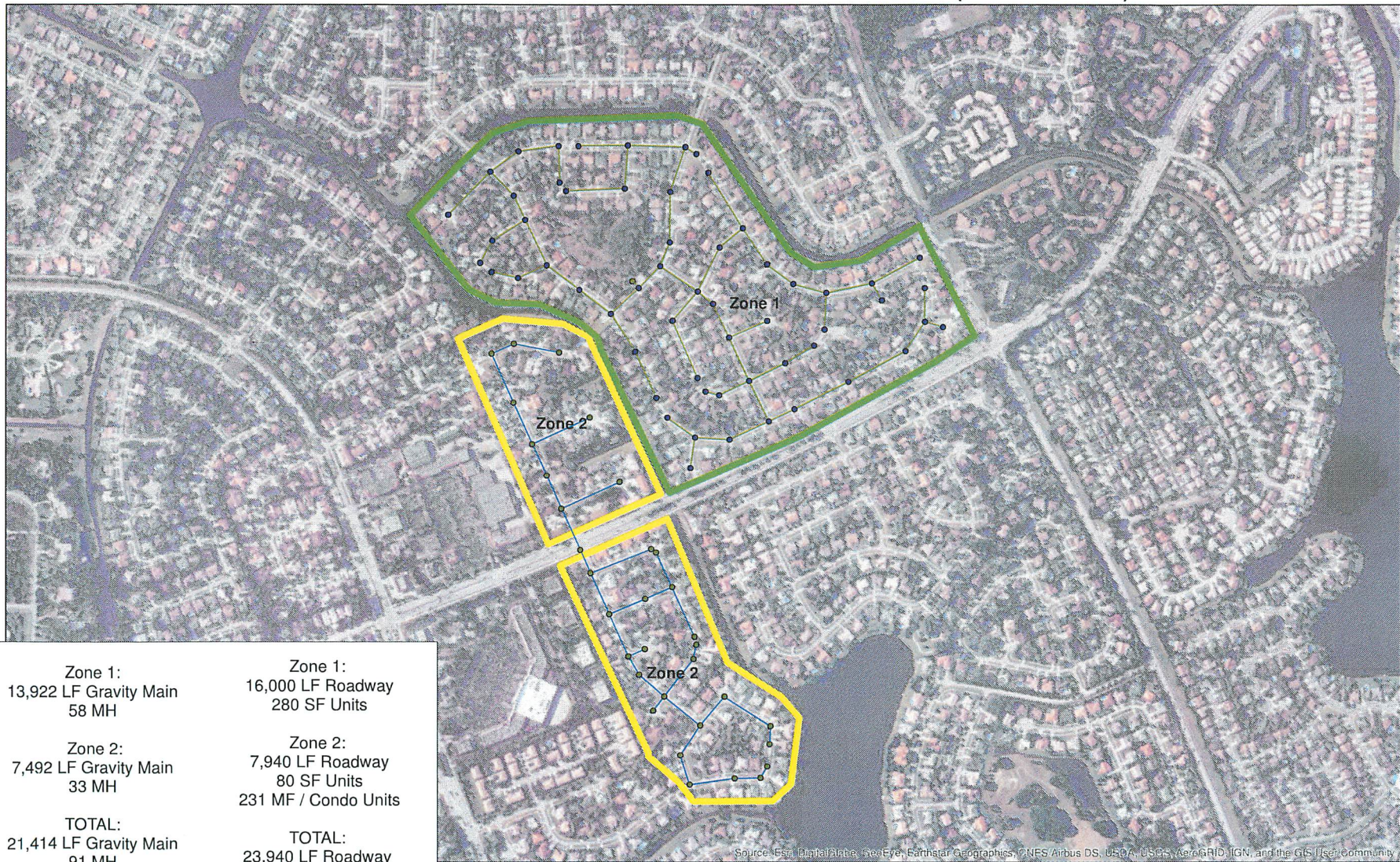
Maziar Keshavarz, P.E.
President

SOUTH SUGAR POND AREA EXISTING WATER SYSTEM (EXHIBIT 1)



Zone 1:	Zone 1:
16,000 LF Roadway	15,834 LF Water Main
280 SF Units	4"-12" PVC
	20 FH
Zone 2:	Zone 2:
7,940 LF Roadway	8,266 LF Water Main
80 SF Units	4"-12" PVC
231 MF / Condo Units	16 FH
TOTAL:	TOTAL:
23,940 LF Roadway	24,100 LF Water Main
360 SF Units	4"-12" PVC
231 MF / Condo Units	36 FH

SOUTH SUGAR POND AREA EXISTING SANITARY SEWER SYSTEM (EXHIBIT 2)



Zone 1:
13,922 LF Gravity Main
58 MH

Zone 2:
7,492 LF Gravity Main
33 MH

TOTAL:
21,414 LF Gravity Main
91 MH

Zone 1:
16,000 LF Roadway
280 SF Units

Zone 2:
7,940 LF Roadway
80 SF Units
231 MF / Condo Units

TOTAL:
23,940 LF Roadway
360 SF Units
231 MF / Condo Units

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

0 445 890 1,780 2,670 3,560 Feet



Exhibit 3

Sanitary Sewer System Field Assessments

The sanitary sewer assessment to be conducted as a part of this project will include CCTV sewer main, lateral and manhole inspections within the project area.

Based upon the GIS information provided for the subject communities, there is approximately 21,400 lf of 6" – 8" gravity sewer mains and 91 manholes within the project limits.

This proposal assumes that all of sanitary sewer mains will be cleaned and televised, approximately 10% of laterals will be televised and 50% of the manholes will be televised.

Sanitary Sewer Television and Manhole Inspections

The CONSULTANT will submit a CCTV plan for the project areas identified for review and approval prior to proceeding with the CCTV. CCTV inspection will consist of required permits, MOT, digital video recordings, digital photos and a "National Association of Sewer Services Companies / Pipeline Assessment & Certification Program" (NASSCO PACP) database. Inspection logs will also be provided. All mains will be cleaned by the CCTV crews before performing CCTV. This scope assumes that a portion of the lines will require heavy cleaning (as defined in the CCTV Subconsultant proposal attached as Exhibit 4) before performing CCTV. Lateral inspections will be performed to NASSCO Lateral Assessment Certification Program (LACP) standards at selected locations concurrent with the CCTV sewer main inspections.

Manhole will be televised and inspected using the Panorama Optical Manhole Scanner System to determine the detailed condition and to collect data of every notable feature, defect, or other important information. A digital file will be provided with the capability to produce a three dimensional representation of the manholes. A MACP evaluation (Manhole Assessment Certification Program) for each inspected manhole.

Sanitary Sewer System Results Analysis

CONSULTANT will perform a review and analysis of the field data collected in the field assessment. CONSULTANT will create defect tabulations for the CCTV inspections. Defect tabulations will include a quantification of structural defects and maintenance defects for pipes, and a summary of identified sources of I/I to the sewer system organized by sub basins, or portions of sub basins, that indicates the specific types of defects found and the quantity of each. Criteria for point repairs will be developed jointly with the Village and defects requiring point repairs will be identified.

The CONSULTANT will rate each sewer pipe and assign an overall rating using the Pipeline Assessment Certification Program (PACP) quick score method and modified as directed by the Village.

The CONSULTANT will prioritize the communities for rehabilitation based on criteria developed jointly with the Village.

Exhibit 3

Prioritization, Repair Recommendations, and Preliminary Design Report

The recommended rehabilitation approach for each sanitary sewer project will be determined based on the condition assessment results. The CONSULTANT will evaluate multiple rehabilitation methods for each asset type and make recommendations based on cost and other factors such as O&M, community impacts, Village standards, etc. In addition to the rehabilitation recommendation, information required for rehabilitation design will be delivered including a list of sags observed, stationing of the required point repairs and station of the service laterals and clock position.

Conceptual design level cost estimates for rehabilitation of the mains and manholes will be prepared as well as a recommended rehabilitation implementation schedule. A schedule of quantities will be developed, which will include, but not be limited to the following types of sewer construction work as applicable:

- Cured-in-place structural pipe lining
- Pipe-bursting replacement
- Rehabilitation of manholes using liner types as allowed by the Village specifications
- Replacement of manhole covers and/or frames
- Point repairs to replace sections of damaged or collapsed sewers
- Tree root removal and treatment
- Sanitary Lateral Repair/Replacement

The CONSULTANT will develop a Preliminary Design Report (PDR) for the prioritization of sewers for rehabilitation and the preferred rehabilitation method(s) with applicable figures and tables. The PDR will include a conceptual level cost estimate of the rehabilitation based on historical unit prices in the area.

The CONSULTANT will submit a draft PDR to the Village and attend a meeting to discuss the Village's comments. Following the meeting, the CONSULTANT will incorporate comments and finalize the report.



PROPOSAL

DATE: February 15, 2017

SUBMITTED TO: Keshavarz Associates
711 N. Dixie Highway, Suite 201
West Palm Beach, FL 33401
Attn: Randy Wertepny, P.E.
Vice President of Engineering

PROJECT: Village of Wellington, Sugar Pond

We propose hereby to furnish material and labor - complete in accordance with specifications below for the sum of

Fifty Two Thousand Nine Hundred Sixty-Five dollars and fifty cents (\$52,965.50)

Payment terms – 100% within thirty (30) days upon completion and acceptance.

All material is guaranteed to be as specified. All work to be completed in a workmanlike manner according to standard practices. Any alteration or deviation from specifications below involving extra costs will be executed only upon written orders, and will become an extra charge over and above the estimate. All agreements contingent upon strikes, accidents or delays beyond our control. Owner to carry fire, tornado and other necessary insurance. Our workers are fully covered by Workman's Compensation insurance. Note: This proposal may be withdrawn by us if not accepted within thirty (30) days.

We hereby submit specifications and estimates as follows:

Layne Inliner, LLC shall supply all equipment, materials and labor to perform the work as follows:

DESCRIPTION	QTY	UNIT	PRICE	TOTAL
Sewer main cleaning and TV Inspection (6" thru 12")	21,400	LF	\$1.53	\$32,742.00
Mechanical root or grease removal (12" and smaller)	215	LF	\$0.50	\$107.50
Mechanical tuberculation/concrete removal (12" & smaller)	25	LF	\$20.00	\$500.00
Bypass pumping (6" through 10" sewer)	1	Set Up	\$50.00	\$50.00
Maintenance of traffic – residential street	15	EA	\$50.00	\$750.00
Maintenance of traffic – FDOT, County or City arterial	2	EA	\$50.00	\$100.00
Laterals (6" through 12" mains)	45	EA	\$170.00	\$7,650.00
Sewer Lateral TV Inspection from main beyond 30 LF, any size main	20	LF	\$2.30	\$46.00
Sewer Lateral TV, setup charge in lines less than 3 inspections in the run	8	EA	\$515.00	\$4,120.00
Manhole Inspections	46	EA	\$150.00	\$6,900.00
			TOTAL	\$52,965.50

NOTES:

1. Proposal contingent upon the execution of a mutually agreeable subcontract.
2. Others to provide access to all structures.
3. If payment is not received within 30 days of invoice a 1.5% monthly finance charge will be assessed on all outstanding balances.
4. Proposal does not include bonds or permit fees. Bond, if required, will be invoiced at 2% of the total. Permit fees, if any, will be invoiced at cost.

Signature 
Michael Cannon, District Manager

Acceptance of Proposal - The above prices, specifications and conditions are satisfactory and are hereby accepted. You are authorized to do the work as specified. Payment will be made as outlined above.

Date of Acceptance _____ Authorized Signature _____
Printed Name & Title _____