

**FARR WEST**  
ENGINEERING

December 5, 2017

Mr. Mark Marin, Mayor  
City of Loyalton  
Box 128  
605 School Street  
Loyalton, CA 96118

**RE: LOYALTON – USDA FUNDING UTILITIZATION**

Dear Mark:

Farr West Engineering (Farr West) appreciated the opportunity to investigate and provide a recommendation for appropriate project use of USDA funding made available to the City of Loyalton. Two areas of focus identified in the attached Technical Memorandum, Scope of Work, and Fee Estimate were 1) the replacement of the Church Street sewer line and lateral connections, and 2) an updated CCTV survey. We believe these two projects can be accomplished by the June 30, 2018 deadline, will actively take incremental steps toward overall improvement in the City's sewer system, and will exhaust the currently available USDA grant funding. Additional information on the services, schedule, and associated fees are provided within the enclosed exhibits.

You will also find the USDA Rural Development Concurrence for the proposed projects.

Based on the information we have at this time, we estimate that Farr West's work will not exceed \$152,320 (on a time and materials basis). This includes a 10% project design contingency which will not be expended without prior direction from the City. Also with prior written approval, any work outside this established scope of work can be performed on a time and materials basis in accordance with the current rate schedule.

We would like to thank you again for this opportunity to perform these services for the City of Loyalton. If you have any questions or concerns, please don't hesitate to contact us. We are prepared to begin work immediately upon your authorization.

Thank you,



Samantha Stoughtenger, P.E.  
Senior Engineer



Matt Brecke, P.E.  
Senior Engineer/Client Manager

Encls.

USDA Use of Funds Concurrence Letter  
Technical Memorandum  
Contract  
Exhibit A – Scope of Work  
Exhibit B – Schedule  
Exhibit C – Budget  
Exhibit D – Engineer's Rate Schedule (2018 Projected)

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421 Court Street • Elko, Nevada 89801 • (775) 738-2121 • Fax (775) 738-7955  
[www.farrwestengineering.com](http://www.farrwestengineering.com)



United States Department of Agriculture

Rural Development

December 4, 2017

Davis Office

430 G St, #4169  
Davis, CA  
95616-4169

Voice 530.792.5806  
Fax 530.792.5838  
TDD: 530.792.5848

Ms. Samantha Stoughtenger, PE  
Farr West Engineering  
5510 Longley Lane  
Reno, NV 89511

Dear Ms. Stoughtenger:

Subject: City of Loyalton  
Use of Remaining USDA funding

USDA Rural Development has reviewed your December 4, 2017 letter that contains a proposal for utilizing the remainder of the USDA grant funding. This agency concurs with the proposed scope of work and approves the proposed costs as eligible for reimbursement with this agency's funding. At this time, Farr West will need to enter in to an Agreement with the City for the engineering services required for the Church Street Sewer Replacement and Closed Circuit TV (CCTV) Survey Project. (It is my understanding that you will requesting proposals from various firms for the required CCTV Survey.) You are strongly encouraged to start the proposal process as soon as possible in order to help ensure that the remaining USDA funds can be expended by the required deadline.

Sincerely,

Michael Starinsky, PE  
State Engineer

Attachments

cc: Doug Colucci, USDA Rural Development (with attachments)  
Mark Marin, City of Loyalton

USDA is an equal opportunity provider and employer.

If you wish to file a Civil Rights program complaint of discrimination, complete the USDA Program Discrimination Complaint Form, found online at [http://www.ascr.usda.gov/complaint\\_filing\\_cust.html](http://www.ascr.usda.gov/complaint_filing_cust.html), or at any USDA office, or call (866) 632-9992 to request the form. You may also write a letter containing all of the information requested in the form. Send your completed complaint form or letter to us by mail at U.S. Department of Agriculture, Director, Office of Adjudication, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410, by fax (202) 690-7442 or email at [program.intake@usda.gov](mailto:program.intake@usda.gov).

## **TECHNICAL MEMORANDUM**

**CITY OF LOYALTON (R4442-1403)**

**USDA FUNDING UTILIZATION**

**Prepared For:** Mark Marin, Loyalton City Mayor  
**Prepared By:** Samantha Stoughtenger, P.E., Senior Engineer  
**Reviewed By:** Matthew Brecke, P.E., Senior Engineer/Client Manager  
**Date:** December 4, 2017  
**Subject:** 2018 Sewer System Recommendations

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### **1.0 BACKGROUND**

Farr West Engineering has been hired by the City of Loyalton to assist them in addressing and resolving issues noted in the April 13, 2017 Notice of Violation (NOV) from the Central Valley Regional Water Quality Control Board (CVRWQCB). The City was issued the NOV for the discharge of treated domestic wastewater that was not in compliance with their current Waste Discharge Requirements (WDRs). The City has struggled to meet WDRs historically during significant rainfall years; Infiltration and Inflow (I&I) into the sewer collection system has been identified, in various studies as noted below, as the major culprit.

- 2001 Water and Wastewater Master Plan (2001 W/WWMP)
- Analysis of Infiltration and Inflow for the Wastewater Collection System dated December 2005 (2005 I&I Analysis)
- Preliminary Engineering Report for Wastewater Collection, Treatment, and Effluent Disposal for the City of Loyalton dated November 2007 (2007 WW PER)
- Sanitary Sewer Management Plan updated in January 2010 (2010 SSMP)

To help the City of Loyalton investigate and/or mitigate such issues with their sewer collection system, they received a USDA grant. Approximately \$600,000 in funds remain in the grant. However, grant funds must be expended by June 30, 2018 or they will expire. Therefore, this Technical Memorandum provides an option for the City to use such grant funding while taking incremental steps to overall sewer system improvement.

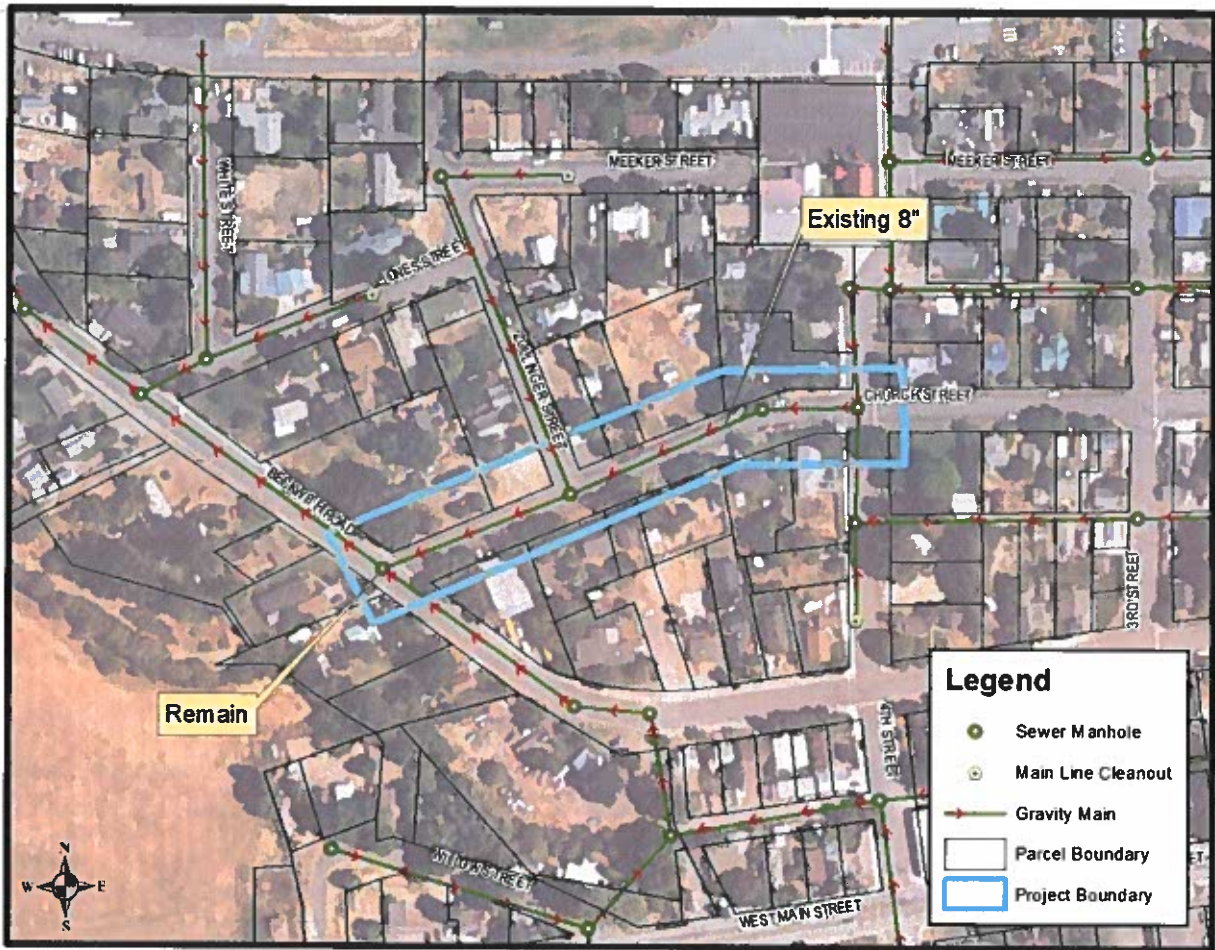
### **2.0 RECOMMENDED ACTIONS**

The City of Loyalton is committed to taking action to combat their I&I issues to preempt future WDR violations. They are also keenly aware of the short timeframe in which their grant funding is available to complete such related work. Therefore, Farr West is recommending a fast-track, dual-pronged project which consists of both system replacement work and further study of the aging infrastructure.

#### **2.1.1 System Replacement**

While there are many potential lines that could be replaced throughout the City of Loyalton sewer collection system, Farr West focused on those areas which have been previously identified but not yet repaired. For

example, the sewer line in Church Street from Beckwith Road to 4<sup>th</sup> Street is the only remaining top priority mainline (2005 I&I Analysis and 2010 SSMP), that has not been replaced. Of the 12 lateral services in this section of piping, 3 have been identified as significant contributors to the I&I flux of this section of pipe and in need of replacement (2005 I&I Analysis). And the existing 8" mainline has been documented as undersized and in need of upsizing to a 10" line (2001 W/WWMP and 2007 WW PER). It can be assumed that both mainline and lateral pipe conditions have not improved over time. Therefore, this section of pipe is recommended for replacement with the current USDA funds. A map of the Church St sewer replacement area is shown in Figure 1 and the planning level construction costs are shown in Table 1.



**Figure 1: Church St Sewer Replacement Project Vicinity Map**

**Table 1: Church St Sewer Replacement Project Costs**

| Item  | Qty | Unit | Unit Cost | Total      |
|---|-----|------|-----------|------------|
| <b>Construction</b>                         |     |      |           |            |
| Mobilization                                | 5%  |      |           | \$ 11,400  |
| <b>New Main Construction</b>                |     |      |           |            |
| 10" SDR 35 PVC                              | 700 | LF   | \$ 150    | \$ 105,000 |
| Manhole                                     | 3   | EA   | \$ 6,000  | \$ 18,000  |
| Lateral Connection (main to new cleanout)   | 12  | EA   | \$ 3,800  | \$ 45,600  |
| Lateral Connection (cleanout to residence)* | 12  | EA   | \$ 5,000  | \$ 60,000  |
| <b>Construction Subtotal</b>                |     |      |           | \$ 240,000 |
| Contingency                                 | 15% |      |           | \$ 36,000  |
| <b>Construction Project Total</b>           |     |      |           | \$ 276,000 |

\*costs on private property will not be eligible for USDA grant funding

### 2.1.2 Updated CCTV Survey

As noted in the various studies mentioned above, I&I has hindered the City of Loyaltan's ability to remain compliant with WDRs. A prime non-destructive tool for identifying I&I sources is a closed-circuit television inspection (CCTV) survey. During the survey, a robotic camera is traversed through the sewer collection system taking video of the material conditions. The resulting video collection and summary report can be used to identify I&I source locations and prioritize future repair needs. And specifically for the City of Loyaltan, the CCTV survey results will be used to create an updated I&I study which is required by the CVRWQCB.

The last CCTV survey conducted for the City of Loyaltan was in 1989, as compared to other utilities who typically complete such a survey once every 10 years or less. As shown in Table 2, more than 75% of the Loyaltan sewer collection system is vitrified clay or asbestos cement pipe materials; these pipe materials will deteriorate over time and could be nearing the end of their useable lifespan. The costs to investigate the current condition of these pipes through a CCTV survey are shown in Table 3.

**Table 2: Loyaltan Sewer Collection System Piping**

| Diameter            | Material        | Lengths (LF)  |
|---------------------|-----------------|---------------|
| 4"                  | HDPE            | 155           |
| 6"                  | Vitrified Clay  | 15,220        |
| 6"                  | Asbestos Cement | 3,200         |
| 6"                  | HDPE            | 155           |
| 8"                  | Vitrified Clay  | 3,500         |
| 8"                  | Asbestos Cement | 500           |
| 10"                 | Vitrified Clay  | 290           |
| 10"                 | PVC             | 2,000         |
| 12"                 | PVC             | 4,500         |
| <b>System Total</b> |                 | <b>29,520</b> |

**Table 3: CCTV Survey Project Costs**

| Description          | Fees             |
|----------------------|------------------|
| Mobilization         | \$ 9,860         |
| Line Cleaning        | \$ 26,460        |
| Video Inspections    | \$ 39,150        |
| Contingency          | \$ 7,500         |
| <b>Project Total</b> | <b>\$ 82,970</b> |

### 2.1.3 Project Development and Management

Farr West is ready and able to assist the City of Loyaltan in development and management of the projects as described above. As we know the June 30<sup>th</sup> deadline to expend the USDA funding is quickly approaching we have developed a Fee Estimate, shown in Table 4, to start work immediately upon approval.

**Table 4: Farr West Engineering Fee Estimate for Project Development and Management**

| Task                 | Description                | Fees              |
|----------------------|----------------------------|-------------------|
| 1                    | Project Management         | \$ 7,960          |
| 2                    | Topographic Survey         | \$ 4,510          |
| 3                    | Engineering Design         | \$ 45,545         |
| 4                    | Bidding Assistance         | \$ 6,320          |
| 5                    | CCTV Survey Oversight      | \$ 19,250         |
| 6                    | Construction Management    | \$ 20,150         |
| 7                    | Construction Observation   | \$ 28,440         |
| 8                    | Grant Administration       | \$ 13,645         |
| 9                    | Project Design Contingency | \$ 6,500          |
| <b>Project Total</b> |                            | <b>\$ 152,320</b> |

### 3.0 CONCLUSIONS

Bearing in mind the USDA grant funding will expire on June 30, 2018, the City of Loyaltan is urged to move forward quickly with a portion or all recommendations provided in this Technical Memorandum as a testament to their continued commitment to rectifying issues identified in the NOV.



**AGREEMENT  
BETWEEN OWNER AND ENGINEER  
FOR PROFESSIONAL SERVICES**

THIS IS AN AGREEMENT effective as of December 5, 2017 ("Effective Date") between City of Loyalton ("Owner") and Farr West Engineering ("Engineer"). Owner's Project, of which Engineer's services under this Agreement are a part, is generally identified as follows:

**Church St Sewer Replacement and CCTV Survey ("Project").**

The services to be provided under this Agreement by Engineer ("Scope of Work") are set forth in Exhibit A, which is attached to and incorporated in this Agreement. Engineer's Services are generally identified as follows:

*Use of USDA grant funds allocated to the City of Loyalton to assist in assessment or repair of their sanitary sewer system; the approximately \$600,000 must be expended by the City before June 30, 2018 on related activities. Farr West Engineering proposes a dual approach to use of these funds. A portion of the funds will be expended in the replacement of the sewer line in Church Street. The other portion of funds will be put towards an updated closed-circuit television inspection survey of the sewer collection system. These projects target the identification and removal of Infiltration and Inflow (I&I) sources which have been historically identified as a major impedance to the City's ability to meet wastewater permit compliance.*

Owner and Engineer further agree as follows:

1.01 *Basic Agreement and Period of Service*

- A. Engineer shall provide, or cause to be provided, the services set forth in this Agreement. If authorized by Owner, or if required because of changes in the Project, Engineer shall furnish services in addition to those set forth above. Owner shall pay Engineer for its services as set forth in Paragraph 8.01.
- B. Engineer shall complete its services within a reasonable time, or within the specific time period (if any) set forth in Exhibit B.

2.01 *Payment Procedures*

- A. *Invoices:* Engineer shall prepare invoices in accordance with its standard invoicing practices and submit the invoices to Owner on a monthly basis. Invoices are due and payable within 30 days of receipt. If Owner fails to make any payment due Engineer for services and expenses within 30 days after receipt of Engineer's invoice, then the amounts due Engineer will be increased at the rate of 1.0% per month (or the maximum rate of interest permitted by law, if less) from said thirtieth day. In addition, Engineer may, after giving seven days written notice to Owner, suspend services under this Agreement until Engineer has been paid in full all amounts due for services, expenses, and other related charges. Owner waives any and all claims against Engineer for any such suspension. Payments will be credited first to interest and then to principal.

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EJCDC E-520 Short Form of Agreement Between Owner and Engineer for Professional Services.

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### 3.01 Termination

A. The obligation to continue performance under this Agreement may be terminated:

1. For cause,

a. By either party upon 30 days written notice in the event of substantial failure by the other party to perform in accordance with the Agreement's terms through no fault of the terminating party. Failure to pay Engineer for its services is a substantial failure to perform and a basis for termination.

b. By Engineer:

1) upon seven days written notice if Owner demands that Engineer furnish or perform services contrary to Engineer's responsibilities as a licensed professional; or

2) upon seven days written notice if the Engineer's services for the Project are delayed for more than 90 days for reasons beyond Engineer's control.

Engineer shall have no liability to Owner on account of a termination by Engineer under Paragraph 3.01.A.1.b.

c. Notwithstanding the foregoing, this Agreement will not terminate as a result of a substantial failure under Paragraph 3.01.A.1.a if the party receiving such notice begins, within seven days of receipt of such notice, to correct its substantial failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt of notice; provided, however, that if and to the extent such substantial failure cannot be reasonably cured within such 30 day period, and if such party has diligently attempted to cure the same and thereafter continues diligently to cure the same, then the cure period provided for herein shall extend up to, but in no case more than, 60 days after the date of receipt of the notice.

2. For convenience, by Owner effective upon Engineer's receipt of written notice from Owner.

B. The terminating party under Paragraph 3.01.A may set the effective date of termination at a time up to 30 days later than otherwise provided to allow Engineer to complete tasks whose value would otherwise be lost, to prepare notes as to the status of completed and uncompleted tasks, and to assemble Project materials in orderly files.

C. In the event of any termination under Paragraph 3.01, Engineer will be entitled to invoice Owner and to receive full payment for all services performed or furnished in accordance with this Agreement and all reimbursable expenses incurred through the effective date of termination.

### 4.01 Successors, Assigns, and Beneficiaries

A. Owner and Engineer are hereby bound and the successors, executors, administrators, and legal representatives of Owner and Engineer (and to the extent permitted by Paragraph 4.01.B the assigns



of Owner and Engineer) are hereby bound to the other party to this Agreement and to the successors, executors, administrators, and legal representatives (and said assigns) of such other party, in respect of all covenants, agreements, and obligations of this Agreement.

- B. Neither Owner nor Engineer may assign, sublet, or transfer any rights under or interest (including, but without limitation, moneys that are due or may become due) in this Agreement without the written consent of the other, except to the extent that any assignment, subletting, or transfer is mandated or restricted by law. Unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under this Agreement.
- C. Unless expressly provided otherwise, nothing in this Agreement shall be construed to create, impose, or give rise to any duty owed by Owner or Engineer to any contractor, subcontractor, supplier, other individual or entity, or to any surety for or employee of any of them. All duties and responsibilities undertaken pursuant to this Agreement will be for the sole and exclusive benefit of Owner and Engineer and not for the benefit of any other party.

#### 5.01 *General Considerations*

- A. The standard of care for all professional engineering and related services performed or furnished by Engineer under this Agreement will be the care and skill ordinarily used by members of the subject profession practicing under similar circumstances at the same time and in the same locality. Engineer makes no warranties, express or implied, under this Agreement or otherwise, in connection with Engineer's services. Subject to the foregoing standard of care, Engineer and its consultants may use or rely upon design elements and information ordinarily or customarily furnished by others, including, but not limited to, specialty contractors, manufacturers, suppliers, and the publishers of technical standards.
- B. Engineer shall not at any time supervise, direct, control, or have authority over any contractor's work, nor shall Engineer have authority over or be responsible for the means, methods, techniques, sequences, or procedures of construction selected or used by any contractor, or the safety precautions and programs incident thereto, for security or safety at the Project site, nor for any failure of a contractor to comply with laws and regulations applicable to such contractor's furnishing and performing of its work.
- C. This Agreement is to be governed by the law of the state or jurisdiction in which the Project is located.
- D. Engineer neither guarantees the performance of any contractor nor assumes responsibility for any contractor's failure to furnish and perform its work in accordance with the contract between Owner and such contractor. Engineer is not responsible for variations between actual construction bids or costs and Engineer's opinions or estimates regarding construction costs.
- E. Engineer shall not be responsible for the acts or omissions of any contractor, subcontractor, or supplier, or of any of their agents or employees or of any other persons (except Engineer's own employees) at the Project site or otherwise furnishing or performing any construction work; or for

any decision made regarding the construction contract requirements, or any application, interpretation, or clarification of the construction contract other than those made by Engineer.

- F. All documents prepared or furnished by Engineer are instruments of service, and Engineer retains an ownership and property interest (including the copyright and the right of reuse) in such documents, whether or not the Project is completed. Owner shall have a limited license to use the documents on the Project, extensions of the Project, and for related uses of the Owner, subject to receipt by Engineer of full payment for all services relating to preparation of the documents and subject to the following limitations: (1) Owner acknowledges that such documents are not intended or represented to be suitable for use on the Project unless completed by Engineer, or for use or reuse by Owner or others on extensions of the Project, on any other project, or for any other use or purpose, without written verification or adaptation by Engineer; (2) any such use or reuse, or any modification of the documents, without written verification, completion, or adaptation by Engineer, as appropriate for the specific purpose intended, will be at Owner's sole risk and without liability or legal exposure to Engineer or to its officers, directors, members, partners, agents, employees, and consultants; (3) Owner shall indemnify and hold harmless Engineer and its officers, directors, members, partners, agents, employees, and consultants from all claims, damages, losses, and expenses, including attorneys' fees, arising out of or resulting from any use, reuse, or modification of the documents without written verification, completion, or adaptation by Engineer; and (4) such limited license to Owner shall not create any rights in third parties.
- G. To the fullest extent permitted by law, Owner and Engineer (1) waive against each other, and the other's employees, officers, directors, agents, insurers, partners, and consultants, any and all claims for or entitlement to special, incidental, indirect, or consequential damages arising out of, resulting from, or in any way related to the Project, and (2) agree that Engineer's total liability to Owner under this Agreement shall be limited to \$50,000 or the total amount of compensation received by Engineer, whichever is greater.
- H. The parties acknowledge that Engineer's scope of services does not include any services related to a Hazardous Environmental Condition (the presence of asbestos, PCBs, petroleum, hazardous substances or waste as defined by the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §§9601 et seq., or radioactive materials). If Engineer or any other party encounters a Hazardous Environmental Condition, Engineer may, at its option and without liability for consequential or any other damages, suspend performance of services on the portion of the Project affected thereby until Owner: (1) retains appropriate specialist consultants or contractors to identify and, as appropriate, abate, remediate, or remove the Hazardous Environmental Condition; and (2) warrants that the Site is in full compliance with applicable Laws and Regulations.
- I. Owner and Engineer agree to negotiate each dispute between them in good faith during the 30 days after notice of dispute. If negotiations are unsuccessful in resolving the dispute, then the dispute shall be mediated. If mediation is unsuccessful, then the parties may exercise their rights at law.

#### 6.01 *Delays*

- A. Where Engineer is prevented from completing any part of the Owner's Services within the time for completion due to delay beyond the control of Engineer, the time for completion will be extended

in an amount equal to the time lost due to such delay. Delays beyond the control of Engineer shall include, but not be limited to, acts or neglect by Owner, acts or neglect of utility owners or other contractors performing other work, fires, floods, epidemics, abnormal weather conditions, or acts of God.

**7.01 Total Agreement**

- A. This Agreement (including any expressly incorporated attachments), constitutes the entire agreement between Owner and Engineer and supersedes all prior written or oral understandings. This Agreement may only be amended, supplemented, modified, or canceled by a duly executed written instrument.

**8.01 Basis of Payment—Hourly Rates Plus Reimbursable Expenses**

- A. Using the procedures set forth in Paragraph 2.01, Owner shall pay Engineer as follows:
1. An amount equal to the cumulative hours charged to the Project by each class of Engineer's employees times standard hourly rates for each applicable billing class for all services performed on the Project, plus reimbursable expenses and Engineer's consultants' charges, if any. Engineer's standard hourly rates and reimbursable expenses will be adjusted on January 1<sup>st</sup> of each year that this Agreement is in effect to reflect equitable changes in the compensation payable to Engineer. Adjusted standard hourly rates and reimbursable expenses will become effective immediately.
  2. Engineer's Budget is attached as Exhibit C.
  3. Engineer's Rate Schedule (2018 Projected) is attached as Exhibit D.
  4. The total compensation for services and reimbursable expenses is not to exceed the amount of \$152,320.

**Attachments:**

- Exhibit A – Scope of Work
- Exhibit B – Schedule
- Exhibit C – Budget
- Exhibit D – Engineer's Rate Schedule

IN WITNESS WHEREOF, the parties hereto have executed this Agreement, the Effective Date of which is indicated on page 1.

OWNER: CITY OF LOYALTON

ENGINEER: FARR WEST ENGINEERING

By: \_\_\_\_\_

By: Brent Farr  
Brent Farr, P.E.

Title: \_\_\_\_\_

Title: President

Date Signed: \_\_\_\_\_

Date Signed: 12.5.17

Address for giving notices:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Address for giving notices:  
5510 Longley Lane  
Reno, NV 89511  
\_\_\_\_\_  
\_\_\_\_\_

## EXHIBIT A – SCOPE OF WORK

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### City of Loyalton

### Church St Sewer Replacement and CCTV Survey

#### INTRODUCTION

This Project focuses on the use of USDA grant funds allocated to the City of Loyalton to assist in assessment or repair of their sanitary sewer system; the approximately \$600,000 must be expended by the City before June 30, 2018 on related activities. Farr West Engineering (Farr West) proposes a dual approach to use of these funds. A portion of the funds will be expended in the replacement of the sewer line in Church Street. The other portion of funds will be put towards an updated closed-circuit television inspection (CCTV) survey of the sewer collection system. These projects target the identification and removal of Infiltration and Inflow (I&I) sources which have been historically identified as a major impedance to the City's ability to meet wastewater permit compliance.

The sewer construction project focuses on the replacement of a deteriorated and undersized 8" vitrified clay sewer main in Church Street from Beckwith Road to 4<sup>th</sup> Street. The work will include installation of approximately 770 lineal feet of new 10" PVC mainline, 3 new manholes, and 12 lateral services. Both this mainline and lateral connections have been identified in past City studies as significant sources of I&I and needing to be replaced. The project intends to replace the lateral connections from the mainline to the house connection which is the best option for eliminating I&I in this section of the system.

The CCTV survey will visually record the current condition of the sewer collection system. That information will be used to complete an updated I&I Study, as required per the Central Valley Regional Water Quality Control Board (CVRWQCB), and will assist in setting new repair priorities. Timing of this survey is very prudent as the previous CCTV survey was completed 28 years ago in 1989.

The phase and task breakdown for the Project is designated as follows:

- Task 1 – Project Management
- Task 2 – Topographic Survey
- Task 3 – Engineering Design
- Task 4 – Bidding Assistance
- Task 5 – CCTV Survey Oversight
- Task 6 – Construction Management
- Task 7 – Construction Observation
- Task 8 – Project Design Contingency

Additional information on the specific services, the schedule, and associated fees is provided as follows.

#### **Task 1 – Project Management**

##### ***Objective***

Plan, organize, direct, control, and communicate all relevant activities set forth in this Scope within the approved budget and schedule.

##### ***Approach***

Farr West will routinely review Project progress and communicate Project status on a regular basis. Communication will be through email and telephone. This task will include the following activities:

- Project administration includes scheduling maintenance, cost control, monthly invoicing, filing, resource allocation, subconsultant management, and routine communications.
- Team coordination, including conference calls and internal meetings.
- Monitoring changes to the Scope, budget, or schedule and developing change management strategies with City.

***Deliverables***

The following deliverables will be submitted under this task:

- Project Scope and Fee.
- Monthly invoices.
- Project schedules.

***Assumptions***

The following assumptions apply:

- Project duration will be 7 months.
- Communication will be through email and telephone.
- Project-related issues will be identified, communicated, and resolved.

**Task 2 – Survey**

***Objective***

Prepare a topographic base map of the Project site that is comprised of the field survey data in support of the design activities. Base map development will be done in a manner that will provide a 2-foot control interval map.

***Approach***

Activities under this task will include the following elements:

- Coordinate with the City to mark buried utilities within the Project corridor.
- Obtain limits of City rights-of-way, and parcel lines.
- Farr West field crews will supplement the topographic survey with additional data that will include the marked utilities, sewer invert elevations and pipe diameters.
- The horizontal and vertical control shall be based on published data and will be based on a ground modified coordinate system referencing NAD 83/94, NV State Plane Coordinate System (Hz.).
- Elevations will be based on the North American Vertical Datum of 1988 (NAVD 88).
- The topographic survey will consist of shots from existing right of way to existing right of way along the proposed route, and will be shot at an approximate station interval of 50-feet.
- Existing conditions shall be located and will include, but will not be limited to, buildings, fences, roads, curbs, driveways, sidewalks, etc.
- Survey and utility processing for design drawings.

***Deliverables***

The following deliverables will be submitted under this task:

- AutoCAD topographic drawings will be prepared for use in preparing design plans.

***Assumptions***

The following assumptions apply:

- Boundary Survey is not included in this task order.



- Legal descriptions and exhibits for easement acquisition are not required.
- Construction staking has not been included in this Scope.

### **Task 3 – Engineering Design**

#### ***Objective***

Prepare 60%, 90%, and Final Design Drawings for the sewer main replacement and lateral connection upgrades. Manage subconsultants on the project.

#### ***Approach***

Activities under this task will include the following elements:

- One (1) site visit with the City.
- 60% Design Drawings: This submittal will include the preparation of the Plans, Specifications, and Cost Estimate to include:
  - 3 general sheets, which include the cover; legend, abbreviations, notes; overall site plan.
  - 2 plan/profile sheets of the sewer main improvements.
  - 3 detail sheets.
  - 1 traffic control plan.
  - Technical specifications.
  - Opinion of probable construction costs.
  - Quality assurance and quality control of deliverable to the City.
  - One (1) 60% submittal review teleconference with Farr West and City staff.
- 90% Design Drawings to include:
  - Incorporation of 60% review comments by the City, and other applicable agencies.
  - Refinement of the 60% design of the civil design elements.
  - Final opinion of probable construction costs.
  - Submission of 90% plans and technical specifications to the City for final review and comment.
  - One (1) 90% submittal review teleconference with Farr West and City staff.
- Final Design Drawings to include:
  - Finalized plans and technical specifications submitted to the City for permit and bid processing.
- Quality assurance and quality control of deliverables to the City.
- Coordinate and secure appropriate permitting (Sierra County ROW permit) and agency approvals (USDA and CVRWQCB) for the overall project.
- Secure and manage subconsultant services through CEQA permitting on the project.

#### ***Deliverables***

The following deliverables will be submitted under this task:

- 60%, 90%, and Final Design submittals (PDF).
- Opinion of Probable Construction Costs.
- CEQA Notice of Exemption.

#### ***Assumptions***

The following assumptions apply:

- The City will provide review comments for the 60% and 90% submittals to Farr West within 1 week of our submissions of these documents.
- AutoCAD drawing files and hard copies are not required.
- A CEQA determination other than Notice of Exemption will result in work not identified in this scope.

#### **Task 4 – Bidding Assistance**

##### ***Objective***

Assists the City in the bid selection process and award of the contraction contract.

##### ***Approach***

Activities under this task will include the following elements:

- Post Bid Documents to the Farr West Bidroom website and upkeep of a plan holder's list.
- Schedule and attend one (1) pre-bid meeting at City Hall, including preparation of an agenda and meeting minutes.
- Answer questions from bidders (RFIs) and prepare addenda, as required.
- Review bids received and prepare a letter of recommendation for award of the contract.
- Work with the Contractor to obtain signed agreements, bonds, and insurance.

##### ***Deliverables***

The following deliverables will be submitted under this task:

- Pre-bid meeting minutes.
- Addenda, as required.
- Bid results summary.
- Letter of recommendation for award.
- Notice of Award and Notice to Proceed.
- One (1) original copy of the Specifications for use during construction.
- Three (3) 11"x17" sets of Plans for use during construction.

##### ***Assumptions***

The following assumptions apply:

- Farr West will conduct the pre-bid and bid-opening at the City Hall.
- Preparation of one (1) addendum is assumed.

#### **Task 5 – CCTV Survey Oversight**

##### ***Objective***

Work necessary to procure and oversee the CCTV survey.

##### ***Approach***

Activities under this task will include the following elements:

- Develop and publish the Request for Qualifications (RFQ) to perform the CCTV survey.
- Respond to RFQ inquires.
- Review responses and recommend most qualified Surveyor.
- Oversee field survey work and coordinate with City and residents (as necessary for access).
- Review summary report and provide to the City for final approval.

##### ***Deliverables***

The following deliverables will be submitted under this task:

- CCTV RFQ.
- CCTV videos and summary report.

##### ***Assumptions***

The following assumptions apply:

- CCTV survey is assumed to take 6 weeks.
- Farr West is not responsible for the Surveyor's means and methods; Project site safety; or the surveyor's failure to perform.

## **Task 6 – Construction Management**

### ***Objective***

Monitor the Project and keep the City informed of the Project status at all times. This phase also includes assisting the City with the close out of the construction process and construction contract.

### ***Approach***

Activities under this task will include the following elements:

- Manage and direct the Project team, provide routine Project management and communications.
- Conduct the pre-construction meeting at the City Hall, prepare agenda and meeting minutes for the pre-construction meeting with the City and Contractor. Farr West attendance will include the Project manager, Project engineer, and Project inspector.
- Processing two (2) change orders, two (2) payment applications, evaluating claims, reviewing submittals, respond to RFIs, and address unanticipated conditions.
- Weekly in-office construction management activities are limited to eight (8) hours per week. These activities include processing of documents (described earlier) and coordination with the Project inspector, Contractor, and City.
- Schedule and manage weekly on-site construction meeting to provide a forum for and foster open communication between all parties (i.e., Contractor, City, and Farr West). Prepare all agendas and meeting minutes for weekly construction meetings (4 meetings anticipated).
- The City and Farr West will conduct a substantial completion inspection and formulate a final punch-list of work items to be completed prior to final inspection.
- The City and Farr West will conduct a final inspection to verify that all outstanding work items are complete (Project inspector to perform on-site final walkthrough inspections).
- Recommend Project final acceptance to the City.
- Maintain all Project documentation for the duration of the Project including tracking, disbursing, and reviewing. Maintain logs for all documentation including submittals, RFCs/RFIs, field orders, work change directives, and change orders.
- Upon completion of construction, obtain both Project inspector and Contractor as-builts and incorporate all modifications into a set of record drawings. Revisions will be made in the AutoCAD files.

### ***Deliverables***

The following deliverables will be submitted under this task:

- Complete electronic set of documentation at Project completion (burned on CD or thumb drive).
- PDF copy of full-size record drawing plan set, and a disk containing all Project-related electronic files.

### ***Assumptions***

The following assumptions apply:

- Construction Contract Time is assumed to be 5 weeks.
- Farr West will be available for additional on-site visits if requested by the City, billed on a time and materials basis outside of the Scope.
- The Project inspector and Contractor will provide complete and clean set of redlines to Farr West.

## **Task 7 – Construction Observation**

### ***Objective***

On-site inspection to monitor construction activities.

### ***Approach***

Activities under this task will include the following elements:

- Farr West will provide full-time on-site inspection services for the duration of the Project.
- The Farr West Project inspector will complete Daily Field Reports.
- The Farr West Project inspector will keep a detailed set of as-built drawings.

### ***Deliverables***

The following deliverables will be submitted under this task:

- Daily Field Reports for each day of construction (delivered electronically).
- Inspector approvals requests from USDA.

### ***Assumptions***

The following assumptions apply:

- Farr West is not responsible for the Contractor's construction means and methods; Project site safety; or the Contractor's failure to perform.

## **Task 8 – Grant Administration**

### ***Objective***

Administration of the USDA grant for the Project.

### ***Approach***

Activities under this task will include the following elements:

- Preparation and submission of compliance documents for the USDA grant.
- Preparation and submission of drawdown requests for disbursements from the USDA grant.

### ***Deliverables***

The following deliverables will be submitted under this task:

- Monthly reports, drawdown requests, and projects closeout documents for the USDA grant.

### ***Assumptions***

The following assumptions apply:

- Total project timeframe is assumed to be 7 months.
- Farr West will be available for USDA audits if requested by the City, billed on a time and materials basis outside of the Scope.

## **Task 9 – Project Design Contingency**

Project Design Contingency is specifically for additional out-of-scope tasks and time extensions, as may be required, which are unidentifiable at this time nor included in this Scope. This work shall be added at the sole discretion of the City, for fees negotiated on a case-by-case basis. Contingency is set at ten (10) percent of the total of Task 1 (Project Management) through Task 4 (Bidding Assistance).

## EXHIBIT B – SCHEDULE

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The following is a *proposed* schedule for the Church St Sewer Replacement which should be used as a general guideline only.

|                          |                   |
|--------------------------|-------------------|
| Execution of Agreement:  | December 4, 2017  |
| 60% Design Completion:   | January 5, 2018   |
| 90% Design Completion:   | February 2, 2018  |
| Final Design Completion: | February 23, 2018 |
| Advertisement to Bid:    | March 5, 2018     |
| Bid Opening:             | April 2, 2018     |
| Notice to Proceed:       | April 16, 2018    |
| Construction Completion: | June 8, 2018      |

The following is a *proposed* schedule for the CCTV Survey which should be used as a general guideline only.

|                                |                   |
|--------------------------------|-------------------|
| Execution of Agreement:        | December 4, 2017  |
| Draft RFP Completion:          | February 16, 2018 |
| RFP Completion & Solicitation: | March 5, 2018     |
| RFP Response Deadline:         | April 2, 2018     |
| Notice to Proceed:             | April 16, 2018    |
| Survey Completion:             | June 8, 2018      |

## EXHIBIT C – BUDGET

The City shall pay Farr West on a time and expenses budget, including travel, not to exceed One Hundred Fifty-Two Thousand Three Hundred and Twenty dollars (\$152,320). Hourly rates and other expenses shall be in accordance with Exhibit D. A breakdown of the individual task budgets is as follows:

|        |                            |                   |
|--------|----------------------------|-------------------|
| Task 1 | Project Management         | \$ 7,960          |
| Task 2 | Topographic Survey         | \$ 4,510          |
| Task 3 | Engineering Design         | \$ 45,545         |
| Task 4 | Bidding Assistance         | \$ 6,320          |
| Task 5 | CCTV Survey Oversight      | \$ 19,250         |
| Task 6 | Construction Management    | \$ 20,150         |
| Task 7 | Construction Observation   | \$ 28,440         |
| Task 8 | Grant Administration       | \$ 13,645         |
| Task 9 | Project Design Contingency | \$ 6,500          |
|        | <b>TOTAL:</b>              | <b>\$ 152,320</b> |



**EXHIBIT D – ENGINEER’S RATE SCHEDULE (2018 PROJECTED)**

| <b>Title</b>               | <b>Hourly Rate</b> | <b>Title</b>                | <b>Hourly Rate</b> |
|----------------------------|--------------------|-----------------------------|--------------------|
| Principal Engineer         | \$145              | Planner                     | \$130              |
| Senior Engineer            | \$135              | Building Inspector II       | \$85               |
| Engineer III               | \$125              | Building Inspector I        | \$70               |
| Engineer II                | \$115              | Designer II                 | \$105              |
| Engineer I                 | \$105              | Designer I                  | \$95               |
| Engineer in Training II    | \$95               | GIS Analyst II              | \$130              |
| Engineer in Training I     | \$85               | GIS Analyst I               | \$115              |
| Senior Hydrogeologist      | \$145              | GIS Specialist              | \$95               |
| Hydrogeologist III         | \$125              | GIS Technician              | \$85               |
| Hydrogeologist II          | \$105              | Water Rights Specialist III | \$155              |
| Hydrogeologist I           | \$85               | Water Rights Specialist II  | \$130              |
| Electrical Engineer        | \$155              | Water Rights Specialist I   | \$105              |
| Environmental Scientist    | \$115              | Water Rights Technician III | \$95               |
| Construction Inspector III | \$110              | Water Rights Technician II  | \$85               |
| Construction Inspector II  | \$90               | Water Rights Technician I   | \$75               |
| Construction Inspector I   | \$80               | Professional Surveyor       | \$130              |
| Project Assistant          | \$75               | Survey Technician II        | \$90               |
| Admin III                  | \$85               | Survey Technician I         | \$75               |
| Admin II                   | \$70               | 1 Man Survey Crew           | \$130              |
| Admin I                    | \$55               | 2 Man Survey Crew           | \$170              |
| Intern                     | \$50               | 3 Man Survey Crew           | \$245              |

**Other Fees and Charges:**

1. All direct project expenses, including subconsultants, will be billed at actual cost plus 15%.
2. Vehicles used for travel to meetings, deliveries, etc. will be charged at the current federal reimbursement rate.
3. A daily rate of \$40 will be charged for field personnel staying overnight to cover meals.
4. An overtime surcharge of 25% will be applied to the hourly rates of non-salaried employees for authorized overtime work.
5. Different survey and construction inspection labor rates will apply on prevailing wage projects. Rates for prevailing wage projects will be provided on a case by case basis.