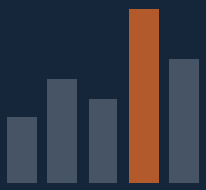
BRENNARD
CIVIL ENGINEERS

RESPONSE TO
RFP 2026-PW-031

FICTIONAL SAMPLE, FOR PORTFOLIO USE

TECHNICAL AND FEE PROPOSAL

Water Main Replacement Program: Design and Construction Phase Services for the City of Larkmere



SUBMITTED TO

City of Larkmere
Department of Public Works
Attn: Purchasing Division, RFP 2026-PW-031

SUBMITTED BY

Brennard Civil Engineers, PC
Elena Varga, PE, Principal
Authorized to bind the firm

DUE

December 4, 2026
3:00 p.m. local time
Original and 4 copies

IN THIS VOLUME

1	Executive Summary	4	Project Schedule
2	Firm Qualifications and References	5	Fee Proposal
3	Technical Approach	A–D	Appendices: resumes, forms, insurance, rates

Confidentiality. This proposal contains fees and methods that Brennard Civil Engineers considers proprietary. It is submitted for evaluation of RFP 2026-PW-031 only and should not be disclosed outside the selection committee except as public records law requires. Fees are firm for 120 days from the due date.

1 Executive Summary

The City of Larkmere asked for one engineering team to carry 9.4 miles of aging cast iron water main from survey through final design, bidding and construction, in three phases. This proposal shows how Brennard would do it, what it costs, and who signs the drawings.

We organize the work by corridor. Each construction phase has one project engineer who owns survey, hydraulic modeling, design and permitting for that corridor, so the City's project manager has one phone number and one person responsible for the answer. Drawings, review comments and permit status live in a single log the City can see at any time.

We propose to issue the Phase 1 bid set within seven months of notice to proceed, so the City holds its 2027 construction season, and to stage Phases 2 and 3 so no street is dug up twice.

1.1 What the City asked for

- **One accountable firm** for design, permitting and construction phase services on all three phases.
- **Fire flow confirmed,** with a calibrated hydraulic model and a flow target met at every hydrant after replacement.
- **A schedule that holds the 2027 season:** Phase 1 bid documents out before the spring bid window closes.
- **Transparent fees:** a lump sum by phase and a published rate schedule for added services.

1.2 What Brennard brings

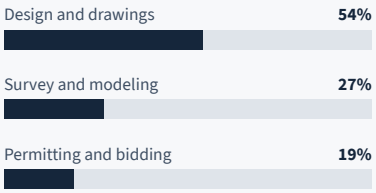
- **Distribution depth.** Fourteen municipal main replacement programs in eight years, each with a named project manager.
- **A review loop that closes.** Independent checks at 60, 90 and 100 percent, and a comment log that stays open until the City signs off.
- **Quantities that hold.** Low bids landed within 4.8 percent of our engineer's estimate, on average, across our last twelve water main projects.

Sections 3 through 5 give the technical approach, the schedule and the fee. The appendices hold staff resumes and the required forms, each signed.

4.8%

average gap between our engineer's estimate and the low bid across our last twelve water main projects.

Figure 1-1 Share of design labor hours by task



Basis: proposed staffing in Table 5-2. Hours exclude construction phase services.

PROPOSAL AT A GLANCE

- 9.4 miles of main, 3 phases
- 1,180 service connections
- 7 months to the Phase 1 bid set
- Lump-sum fee by phase, scaled to corridor length

3 Technical Approach

This section answers RFP Section 4.2, items a through f: how the work is organized, how design criteria are set for each class of main, and how quality is checked and corrected.

3.1 Project delivery model

The 9.4 miles form three construction phases of 2.6 to 3.7 miles, each with one project engineer who directs survey, modeling, design and permitting for that corridor and reports to the project manager.

3.1.1 Corridor-based staffing

Survey crews finish topographic and utility survey for a whole phase before design starts, test holes included. Design engineers then work corridor by corridor in plan and profile. Permitting runs beside the 60 percent set, so the drinking water permit is in hand before bid.

- **Project engineer on site** for every utility test hole.
- **Independent check** on 10 percent of design hours.
- **Surge team** for the Phase 1 bid push and bid questions.

WHY CORRIDORS

On our last three main replacement programs, design review cycles fell from four to two once one engineer owned a corridor from survey through permit. One call, one answer.

Corridor limits are proposed in Exhibit 3-A and finalized with the City in kickoff week 2.

3.1.2 Design criteria by main class

Table 3-1 sets the baseline. Every class gets a 60, 90 and 100 percent review. Section 5.3 prices added scope.

Table 3-1 Design criteria by main class

Main class	Miles	Services	Replacement pipe	Fire flow at 20 psi	Added review
6 in cast iron, residential	4.1	620	8 in ductile iron, CL 350	1,000 gpm	—
8 in cast iron, mixed use	2.7	410	8 in ductile iron, CL 350	1,500 gpm	—
12 in cast iron, transmission	1.8	150	12 in ductile iron, CL 350	3,500 gpm	Hydraulic model
Rail and highway crossings	0.5	—	12 in DI in steel casing	Per host main	Railroad and DOT
Bridge-attached main	0.3	—	8 in DI, insulated, hung	Per host main	Structural

3.1.3 Quality loop

1. **Check.** A second engineer checks every plan and profile sheet at 60, 90 and 100 percent.
2. **Correct.** Each comment opens a log item with an owner and a due date.
3. **Verify.** The City's project manager signs off in the same log. Nothing closes without that signature.
4. **Report.** Monthly progress report by phase, with earned value against the Section 4 schedule.

5 Fee Proposal

Fees are lump sum by phase and include labor, survey, modeling, printing, meetings, insurance and the reporting in Section 3. Phase 2 and 3 fees are scaled to corridor length and hold firm if the City authorizes each phase within 18 months of the prior notice to proceed. The program management plan is billed once, in Phase 1, when the City accepts the schedule.

Table 5-1 Lump-sum fee by task and phase

Task	Phase 1	Phase 2	Phase 3	Program total
Survey and utility designation	$184,500	$154,600	$129,600	$468,700
Hydraulic modeling	$62,300	$52,200	$43,800	$158,300
Final design and bid documents	$412,800	$345,900	$290,100	$1,048,800
Permitting and agency coordination	$78,400	$65,700	$55,100	$199,200
Bidding and construction phase services	$236,900	$198,500	$166,500	$601,900
Design services subtotal	**$974,900**	**$816,900**	**$685,100**	**$2,476,900**
Program management plan (one time) Section 4	$48,000	$0	$0	$48,000
Total lump-sum fee	**$1,022,900**	**$816,900**	**$685,100**	**$2,524,900**

5.1 Proposed staffing

Table 5-2 lists labor hours across the three phases. Hours were built bottom-up from the corridor lengths and sheet counts behind Table 3-1 at our standard hours per sheet, then checked against our fourteen main replacement programs.

Table 5-2 Staffing plan, labor hours

Role	Hours	When	Assignment
Principal in charge, PE	180	All phases	QA/QC sign-off
Project manager, PE	1,240	All phases	City liaison
Project engineer, PE	3,960	Per phase	Corridor lead
Design engineer, EIT	6,420	All phases	Plan and profile
CAD technician	4,880	All phases	Drawings
Survey crew, two person	2,760	Phase start	Topo, test holes
Hydraulic modeler	640	Phase start	Model, fire flow
Resident engineer	5,120	Construction	Field, pay apps
Total	**25,200**	**Includes 10% check hours**	

FEE ASSUMPTIONS

- City provides record drawings, GIS and billing data.
- Survey covers the right-of-way plus 25 feet each side.
- One drinking water permit per phase; railroad and DOT fees paid by the City.
- Added services billed from the rate schedule in Section 5.3.
- No fee change for alignment shifts under 5%.

OPTIONAL

Phase 4, the Mill Street district at 1.9 miles, is offered at the same fee per mile in Section 5.4, at the City's option.