



City of Tacoma, WA

TACOMA PUBLIC UTILITIES / TACOMA WATER
REQUEST FOR QUALIFICATIONS
CONSULTANT SERVICES
FOR GRAVITY PIPELINE WELLS IMPROVEMENTS AND TREATMENT
SPECIFICATION NO. TW20-0227F

CITY OF TACOMA
TACOMA PUBLIC UTILITIES
WATER DIVISION

REQUEST FOR QUALIFICATIONS

CONSULTANT SERVICES FOR GRAVITY PIPELINE WELLS IMPROVEMENTS AND TREATMENT

SPECIFICATION NO. TW20-0227F

MICHAEL GORENSEN
PROJECT MANAGER
TACOMA PUBLIC UTILITIES - WATER DIVISION

SEPTEMBER 2020

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**City of Tacoma
Tacoma Water**

**REQUEST FOR QUALIFICATIONS TW20-0227F
Gravity Pipeline Wells Improvement and Treatment**

Submittal Deadline: 11:00 a.m., Pacific Time, Tuesday, September 29, 2020

Submittal Delivery: Sealed submittals will be received as follows: Electronic submission.

By Email:

bids@cityoftacoma.org

Maximum file size: 35 MB. Multiple emails may be sent for each submittal

By Carrier:

City of Tacoma Procurement & Payables Division
Tacoma Public Utilities
3628 S 35th Street
Tacoma, WA 98409

In Person:

City of Tacoma Procurement & Payables Division
Tacoma Public Utilities Administration Building North
Guard House (east side of main building)
3628 S 35th Street
Tacoma, WA 98409

By Mail:

City of Tacoma Procurement & Payables Division
Tacoma Public Utilities
PO Box 11007
Tacoma, WA 98411-0007

Until further notice, public Bid Opening meetings have been cancelled.

Submittals in response to a RFQ will be recorded as received. As soon as possible on the day of submittal deadline, preliminary results will be posted to www.TacomaPurchasing.org.

Solicitation Documents: An electronic copy of the complete solicitation documents may be viewed and obtained by accessing the City of Tacoma Purchasing website at www.TacomaPurchasing.org.

- [Register for the Bid Holders List](#) to receive notices of addenda, questions and answers and related updates.
- Click here to see a [list of vendors registered for this solicitation](#).

Pre-Proposal Meeting: A pre-proposal meeting will not be held. An onsite can be scheduled if requested. Contact Samol Hefley if requesting a site visit.

Project Scope: Provide engineering consultant services for improvements of the Gravity Pipeline Wells, including well rehabilitation, pump and motor replacement, addition of corrosion control treatment, and electrical system upgrades.

Estimate: N/A

Paid Leave and Minimum Wage: Effective February 1, 2016, the City of Tacoma requires all employers to provide paid leave and minimum wages, as set forth in Title 18 of the Tacoma Municipal Code. For more information visit www.cityoftacoma.org/employmentstandards.

Americans with Disabilities Act (ADA Information): The City of Tacoma, in accordance with Section 504 of the Rehabilitation Act (Section 504) and the Americans with Disabilities Act (ADA), commits to nondiscrimination on the basis of disability, in all of its programs and activities. Specification materials can be made available in an alternate format by emailing Gail Himes at ghimes@cityoftacoma.org, or by calling her collect at 253-591-5785.

The following is applicable to Federal Aid Projects:

The City of Tacoma in accordance with Title VI of the Civil Rights Act of 1964, 78 Stat. 252, 42 U.S.C. 2000d to 2000d-4 and Title 49, Code of Federal Regulations, Department of Transportation, subtitle A, Office of the Secretary, part 21, nondiscrimination in federally assisted programs of the Department of Transportation issued pursuant to such Act, hereby notifies all bidders that it will affirmatively ensure that in any contract entered into pursuant to this advertisement, disadvantaged business enterprises as defined at 49 CFR, part 26, will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, national origin, or sex in consideration for an award.

Additional Information: Requests for information regarding the specifications may be obtained by contacting Samol Hefley, Senior Buyer by email to shefley@cityoftacoma.org

Protest Policy: City of Tacoma [protest policy](#), located at www.tacomapurchasing.org, specifies procedures for protests submitted prior to and after submittal deadline.



Meeting sites are accessible to persons with disabilities. Reasonable accommodations for persons with disabilities can be arranged with 48 hours advance notice by calling 253-502-8468.

**CITY OF TACOMA
STANDARD TERMS AND CONDITIONS
GOVERNS BOTH GOODS AND SERVICES AS APPLICABLE**

In the event of an award by the City, these Terms and Conditions stated herein, Additional Contract Documents if issued, Solicitation if issued, Purchase Orders if issued by City, and Supplier's Submittal, if provided, shall constitute the Contract between City and Supplier for the acquisition of goods, including materials, supplies, and equipment or for the provision of services and deliverables.

Said documents represent the entire Contract between the parties and supersede any prior oral statements, discussions, or understandings between the parties, and/or subsequent Supplier invoices. No modification of the Contract shall be effective unless mutually agreed in writing.

The specific terms and conditions of any Solicitation (Specification, Request for Bids, Request for Proposals, Requests for Qualifications, Requests for Quotations, Request for Information, bid documents, request to enter into negotiations, or other form of solicitation issued by City, including any general, special, or technical provisions associated with such Solicitations) are incorporated herein by reference and supersede these Terms and Conditions where there is conflict or inconsistency.

In the event Additional Contract Documents are negotiated and agreed to in writing between Supplier and City, the specific terms of such Additional Contract Documents are incorporated herein by reference and supersede all other terms and conditions where there is conflict or inconsistency.

These Terms and Conditions, Additional Contract Documents if issued, Solicitation if issued, City purchase order if issued, are controlling over Supplier's Submittal if a Submittal is provided. Submittals if provided are incorporated herein by reference.

1.01 SUPPLIER / CONTRACTOR

As used herein, "Supplier" or "Contractor" shall be the Supplier(s) entering a Contract with City, whether designated as a Supplier, Contractor, Vendor, Proposer, Bidder, Respondent, Seller, Merchant, Service Provider, or otherwise.

1.02 SUBMITTAL

Submittal means Bids, Proposals, Quotes, Qualifications or other information, content, records or documents submitted in response to a City Solicitation.

1.03 FORMS OF SUBMITTAL

Unless stated otherwise, all submittals must be in SAP Ariba and submitted exactly as specified or directed, and all required forms must be used.

1.04 COSTS TO PREPARE SUBMITTAL

The City is not liable for any costs incurred by Supplier for the preparation of materials or a Submittal provided in response to a solicitation, conducting presentations to the City, or any other activities related to responding to the City's Solicitation.

1.05 LICENSES/PERMITS

- A. Suppliers, if applicable, must have a Washington state business license at the time of Submittal and throughout the term of the Contract. Failure to include a Washington state business license may be grounds for rejection of the Submittal or cancellation of contract award. Information regarding Washington state business licenses may be obtained at <http://bls.dor.wa.gov>.
- B. Upon award, it is the responsibility of the Supplier to register with the City of Tacoma's Tax and License Division, 733 South Market Street, Room 21, Tacoma, WA 98402-3768, 253-591-5252, https://www.cityoftacoma.org/government/city_departments/finance/tax_and_license/. Supplier shall obtain a business license as is required by Tacoma Municipal Code Subtitle 6C.20.
- C. During the term of the Contract, Supplier, at its expense, shall obtain and keep in force any and all necessary licenses and permits.

1.06 PUBLIC DISCLOSURE: PROPRIETARY OR CONFIDENTIAL INFORMATION

- A. Supplier Submittals, all documents and records comprising the Contract, and all other documents and records provided to the City by Supplier are deemed public records subject to disclosure under the Washington State Public Records Act, Chapter 42.56 RCW (Public Records Act). Thus, City may be required, upon request, to disclose the Contract and documents or records related to it unless an exemption under the Public Records Act or other laws applies. In the event CITY receives a request for such disclosure, determines in its legal judgment that no applicable exemption to disclosure applies, and Supplier has complied with the requirements to mark records considered confidential or proprietary as such requirements are stated below, City agrees to provide Supplier 10 days written notice of impending release. Should legal action thereafter be initiated by Supplier to enjoin or otherwise prevent such release, all expense of any such litigation shall be borne by Supplier, including any damages, attorneys' fees or costs awarded by reason of having opposed disclosure. City shall not be liable for any release where notice was provided and Supplier took no action to oppose the release of information.
- B. If Supplier provides City with records or information that Supplier considers confidential or proprietary, Supplier must mark all applicable pages or sections of said record(s) as "Confidential" or "Proprietary." Further, in the case of records or information submitted in response to a Request for Proposals, an index must be provided indicating the affected pages or sections and locations of all such material identified Confidential or Proprietary. Information not included in the required index will not be reviewed for confidentiality or as proprietary before release. If Supplier fails to so mark or index Submittals and related records, then the City, upon request, may release said record(s) without the need to satisfy the requirements of subsection A above; and Supplier expressly waives its right to allege any kind of civil action or claim against the City pertaining to the release of said record(s).
- C. Submission of materials in response to City's Solicitation shall constitute assent by Supplier to the foregoing procedure and Supplier shall have no claim against the City on account of actions taken pursuant to such procedure.

1.07 SUSTAINABILITY

- A. The City has interest in measures used by its contractors to ensure sustainable operations with minimal adverse impact on the environment. The City seeks to do business with vendors that value community and environmental stewardship that help us meet our sustainable purchasing goals.
- B. The City encourages the use of environmentally preferable products or services that help to minimize the environmental and human health impacts of City operations. Suppliers are encouraged to incorporate environmentally preferable products or services into Submittals wherever possible. "Environmentally preferable" means products or services that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose. This comparison may consider raw materials acquisition, production, manufacturing, packaging, distribution, reuse, operation, maintenance, or disposal of the product or service.
- C. Environmental Standards. The City seeks to ensure that all purchases comply with current environmental standards and product specifications. Where appropriate, third party independent certifiers such as Green Seal and USEPA Standards shall be a minimum specification for products to the City, unless specified otherwise herein.
- D. The City encourages the use of sustainability practices and desires any awarded Suppliers to assist in efforts to address such factors when feasible for:
 - 1. Pollutant releases
 - 2. Toxicity of materials used
 - 3. Waste generation
 - 4. Greenhouse gas emissions, including transportation of materials and services
 - 5. Recycle content
 - 6. Energy consumption
 - 7. Depletion of natural resources
 - 8. Potential impact on human health and the environment

1.08 ALTERATIONS NOT ALLOWED

Except as otherwise specifically provided in a Solicitation, Submittals that are incomplete or conditioned in any way, contain erasures, alternatives or items not called for, or not in conformity with law, may be rejected as being non-responsive. Any attempt to condition a Submittal by inserting exceptions to the Solicitation or any conditions, qualifications or additions that vary its terms may result in rejection of the Submittal. The City may reject any submittal containing a material deviation from the Solicitation.

1.09 CORRECTION OF AMBIGUITIES AND OBVIOUS ERRORS

- A. The City reserves the right to correct obvious errors in Supplier's Submittal. In this regard, if the unit price does not compute to the extended total price, the unit price shall govern.
- B. Supplier shall notify the City of Tacoma Procurement and Payables Division in writing of any ambiguity, conflict, discrepancy, omission or other error in a Solicitation no later than five business days prior to the submittal deadline.
 - 1. For solicitations conducted in SAP Ariba, Supplier shall notify the City of Tacoma Procurement and Payables Division on the message board of the event.
 - 2. For all other solicitations, Supplier shall notify the contract person listed in the Solicitation.
- C. The City will make necessary modifications by addendum.
- D. Supplier is responsible for identifying ambiguities, conflicts, discrepancies, omissions or other errors in the Solicitation prior to providing its Submittal or the ambiguity, conflict, discrepancy, omission, or other error is waived. Any Submittal that includes assumed clarifications and/or corrections without the required authentication of the same is subject to rejection.

1.10 WARRANTIES/GUARANTEE

- A. Suppliers warrant that all items, including services, as applicable:
 - 1. Are merchantable.
 - 2. Comply with the City's latest drawings and specifications.
 - 3. Are fit for the City's intended use.
 - 4. Will be performed according to the skill and care required by customarily accepted good practices and procedures followed by service providers rendering the same or similar type of service.
 - 5. Are new and unused unless otherwise stated.
 - 6. Comply with all applicable safety and health standards established for such products by the Occupational Safety and Health Administration (OSHA), Washington Industrial Safety and Health Act (WISHA) and/or Consumer Products Safety Act (CPSA), and all other applicable state and federal laws or agency regulations.
 - 7. Are properly packaged and contain appropriate instructions or warnings, including applicable MSDS sheets.

1.11 PATENTS, TRADEMARKS AND COPYRIGHTS

Suppliers warrant that equipment and/or materials furnished, including software, do not infringe on any patent, trademark or copyright, and agree to indemnify, defend and hold harmless, the City in the event of any infringement or claim thereof.

1.12 DELIVERY OF SUBMITTALS TO THE CITY'S PROCUREMENT AND PAYABLES DIVISION

- A. Submittal packages must be received by the City's Procurement and Payables Division in SAP Ariba (unless another form of delivery is stated), prior to the scheduled time and date stated in the Solicitation.
- B. Supplier is solely responsible for timely delivery of its Submittal.
- C. Submittals received after the time stated in the solicitation will not be accepted.
- D. For purposes of determining whether a Submittal has been timely received in SAP Ariba, the City's Procurement and Payables Division will rely on the submittal clock in SAP Ariba.

1.13 SUBMITTAL IS NON-COLLUSIVE

Supplier acknowledges that by its delivery of a Submittal to the City in response to a Solicitation, it represents that the prices in such Submittal are neither directly nor indirectly the result of any formal or informal agreement with another Supplier.

1.14 PARTNERSHIPS

The City will allow firms to partner in order to respond to a Solicitation. Multiple suppliers may team under a Prime Supplier's Submittal in order to provide responses to all sections in a single submission; however, each Supplier's participation must be clearly delineated by section. The Prime Supplier will be considered the responding vendor and the responsible party at contract award. All contract negotiations will be conducted only with the Prime Supplier. All contract payments will be made only to the Prime Supplier. Any agreements between the Prime Supplier and other companies will not be a part of the Contract between the City and the Prime Supplier. The City reserves the right to select more than one Prime Supplier.

1.15 WITHDRAWAL OF SUBMITTALS

- A. Prior to Submittal Deadline. Submittals may be withdrawn (including in SAP Ariba) prior to the scheduled submittal deadline.
- B. After Submittal Deadline. No Submittal can be withdrawn after having been opened before the actual award of the contract, unless the award is delayed more than 90 calendar days beyond the date of opening. If a delay of more than 90 calendar days does occur, Supplier must submit written notice to the City purchasing manager that Supplier is withdrawing its submittal.

1.16 ACCEPTANCE OF SUBMITTALS

- A. If the solicitation announcement so states, submittals, unless previously withdrawn, will be read aloud, irrespective of any irregularities or informalities in such submittal, at the time and place specified in the solicitation announcement.
- B. All submittals must remain open for acceptance by the City for a period of at least 90 calendar days from the submittal deadline.

1.17 RIGHT TO REJECT

- A. The City of Tacoma reserves the right to reject any and all submittals, waive minor deviations or informalities, supplement, amend, reduce or otherwise modify the scope of work or cancel the solicitation, and if necessary, call for new submittals.

1.18 RESERVED RIGHTS

- A. By providing a submittal in response to a City solicitation, Supplier acknowledges and consents to the below City rights and conditions. With regard to this procurement process, the City reserves, holds without limitation, and may exercise, at its sole discretion, the following rights and conditions:
 - 1. To terminate the procurement process or decide not to award a contract as a result thereof by written notice to the Suppliers for any reason whatsoever with or without substitution of another solicitation.
 - 2. To waive any defect, technicality, or any other minor informality or irregularity in any submittal, or any other response from Suppliers.
 - 3. To issue addenda for any purpose including:
 - a. To make minor or major changes or alterations to the evaluation, selection and/or performance schedule(s) for any events associated with a procurement.
 - b. To supplement, amend, reduce, cancel, or otherwise modify a Solicitation, including but not limited to modifications to the description of services and/or products contained in the solicitation, by omitting services/products and/or including services/products.
 - 4. To request clarifications, additional information, and/or revised Submittals from one or more Suppliers.
 - 5. To conduct investigations with respect to the qualifications and experience of Supplier(s), including inspection of facilities and to request additional evidence to support any such information.

6. To eliminate any Supplier that submits an incomplete or inadequate response, or is non-responsive to the requirements of a Solicitation, or is otherwise deemed to be unqualified during any stage of the procurement process.
7. To select and interview a single finalist or multiple finalists to further the City's evaluation of Submittals provided in response to a Solicitation. The City may, in its sole and exclusive discretion as to what is in the City's best interest, elect not to conduct interviews of any or all Suppliers in connection with a solicitation process.
8. Except in the case of Requests for Bids, to negotiate any rate/fee offered by a Supplier. The City shall have the sole right to make the final rate/fee offer during contract negotiations. If the selected Supplier does not accept the City's final offer, the City may, in its sole discretion discontinue contract negotiations and commence negotiations with another Supplier, except as otherwise provided in Chapter 39.80, RCW.
9. To select and enter into a Contract with one or more Suppliers whose Submittal best satisfies the interests of the City and is most responsive, in the sole judgment of the City, to the requirements of a Solicitation.
10. To award by line item or group of line items.
11. To not award one or more items.
12. To issue additional or subsequent solicitations.
13. To seek partnerships between one or more Suppliers.
14. Request additional related products and services from the selected Supplier(s) as necessary throughout the term of the Contract.
15. Negotiate costs or fees in the event of new legislation or regulatory changes, or issuance of related compliance guidance, technology enhancements, and innovative solutions.
16. In the event the City receives questions concerning a Solicitation from one or more Suppliers prior to the deadline for response, the City reserves the right to provide such questions, and the City's responses, if any, to all Suppliers.
17. If an award is made and, prior to entering into a contract, subsequent information indicates that such award is not in the best interest of the City, the City may rescind the award without prior notice to Supplier and either award to another Supplier or reject all submittals or cancel this solicitation.
18. To cancel award of a contract at any time before execution of the Contract by both parties if cancellation is deemed to be in the City's best interest. In providing a submittal, Suppliers agree that the City is not liable for any costs or damages for the cancellation of an award. Supplier assumes the sole risk and responsibility for all expenses connected with the preparation of its submittal.
19. To add additional City departments or divisions to the Contract or develop a separate Contract with the Supplier subject to all terms, conditions and pricing of the original Contract
20. To take any other action affecting a Solicitation or a procurement process that is determined to be in the City's best interests.

1.19 SUBMITTAL CLARIFICATION

Suppliers may be asked to clarify their Submittal. This action shall not be construed as negotiations or any indication of intentions to award. If called upon, Supplier must respond to such requests within two business days or the timeframe set forth by the City in its request for clarification. Supplier's failure to respond to such a request may result in rejection of its Submittal.

1.20 EVALUATION OF SUBMITTALS

- A. The City of Tacoma reserves the right to award to the lowest and best responsible Supplier(s) delivering a Submittal in compliance with the Solicitation, provided such Submittals are reasonable and are in the best interest of the City to accept. The City may use a number of criteria for determining award, including evaluation factors set forth in Municipal Code Section 1.06.262. Suppliers who are inexperienced or who fail to properly perform other contracts may have their submittal rejected for such cause.

1. Evaluation Factors. In addition to the factors set forth in Municipal Code Section 1.06.262, the following may be used by the City in determining the lowest and best responsible Submittal:
 - a. Compliance with a Solicitation and with applicable City requirements, including by not limited to, the City's Ethics Code and its Small Business Enterprise and Local Employment and Apprenticeship programs.
 - b. Submittal prices, listed separately if requested, as well as a lump sum total (if the unit price does not compute to the extended total price, the unit price shall govern).
 - c. The total cost to the City, including all applicable taxes, may be the basis for contract award.
 - d. Time of delivery and/or completion of performance (delivery date(s) offered).
 - e. Warranty terms.
 - f. Quality of performance of previous contracts or services, including safety requirements and past compliance with the City's Ethics Code.
 - g. Previous and existing compliance with laws and ordinances relating to contracts or services.
 - h. Sufficiency of financial resources.
 - i. Quality, availability, and adaptability of the supplies or services to the particular use required.
 - j. Ability to provide future maintenance and service on a timely basis.
 - k. Location of nearest factory authorized warranty repair facility or parts dealership.
 - l. Ability, capacity, experience, stability, reputation, integrity, character, judgment, technical qualifications, and skill to perform the contract or provide the services required.
2. Prompt Payment Discount. Payment discount periods of 20 calendar days or more, if offered in the submittal, will be considered in determining the apparent lowest responsible submittal. Discounts will be analyzed in context of their overall cumulative effect.
 - a. ePayable/Credit Card Acceptance. Submittals offering ePayable/Credit card acceptance may be compared against submittals offering a prompt payment discount to evaluate the overall cumulative effect of the discount against the advantage to the City of the ePayable/Credit card acceptance, and may be considered in determining the apparent lowest responsible submittal.
3. All other elements or factors, whether or not specifically provided for in a Solicitation, which would affect the final cost to, and the benefits to be derived by, the City, may be considered in determining the award of a Contract. The final award decision will be based on the best interests of the City.

1.21 CONTRACT OBLIGATION

- A. The Submittal contents of the successful Supplier will become contractual obligations if a Contract ensues.
- B. In the event the City of Tacoma determines to award a Contract, the selected Supplier(s) may be requested to execute Additional Contract Documents.
- C. Supplier shall register with the City of Tacoma on the SAP Ariba Network and be enabled for transactions upon request by the City.
- D. Suppliers may propose amendments to City's Contract documents or to these Terms and Conditions, but the City retains the right to accept or reject proposed amendments.
- E. No costs chargeable for work under the proposed Contract may be incurred before mutual acceptance and execution as directed.

1.22 AWARD

The City reserves the right to award Contracts for any or all items to one or more Suppliers in the best interests of the City.

1.23 SUPPLIER'S REFUSAL TO ENTER INTO CONTRACT

Any Supplier who refuses to enter into a Contract after it has been awarded to the Supplier will be in breach of the agreement to enter the Contract, and Supplier's certified or cashier's check or bid bond, if any, shall be forfeited.

1.24 LEGAL HOLIDAYS

- A. The City of Tacoma observes the following holidays, which shall apply to performance of all contracts:

New Year's Day	January 1
Martin Luther King's Birthday	3rd Monday in January

Washington's Birthday	3rd Monday in February
Memorial Day	Last Monday in May
Independence Day	July 4
Labor Day	1st Monday in September
Veteran's Day	November 11
Thanksgiving Day	4th Thursday of November
Day after Thanksgiving	4th Friday of November
Christmas Day	December 25

- B. When any of these holidays occur on Saturday or Sunday, the preceding Friday or the following Monday, respectively, is a legal holiday for the City of Tacoma.

1.25 CONTRACT TERM

All services shall be satisfactorily completed and all deliverables provided by the termination date stated, and the Contract shall expire on said date unless mutually extended in writing by the parties.

1.26 EXTENSION OF CONTRACT

Contracts shall be subject to extension at City's sole discretion.

1.27 TERMINATION AND SUSPENSION

- A. Supplies. The City reserves the right to terminate a Contract at any time upon prior written notice to Supplier. Upon the effective date of termination specified in such notice, and payment by the City, all conforming supplies, materials, or equipment previously furnished hereunder shall become its property.
- B. Services. The City may terminate a Contract at any time, with or without cause, by giving 10 business days written notice to Supplier. In the event of termination, all finished and unfinished work prepared by Supplier pursuant to the Contract shall be provided to the City. In the event City terminates the Contract due to the City's own reasons and without cause due to Supplier's actions or omissions, the City shall pay Supplier the amount due for actual work and services necessarily performed under the Contract up to the effective date of termination, not to exceed the total compensation set forth in the Contract.
- C. Suspension. For either services or supplies, the City may suspend a Contract, at its sole discretion, upon three business days' written notice to Supplier. Such notice shall indicate the anticipated period of suspension. Any reimbursement for expenses incurred due to the suspension shall be limited to Supplier's actual expenses and shall be subject to verification. Supplier shall resume performance of services under the Contract without delay when the suspension period ends.
- D. Termination or suspension of a Contract by City shall not constitute a waiver of any claims or remaining rights the City may have against Supplier relative to performance under a Contract.

1.28 DEFAULT/BREACH

In the event of material default or breach by Supplier on any of the conditions of a Contract, Supplier agrees that the City may, at its election, procure the goods or services from other sources, and may deduct from the unpaid balance due Supplier, or collect against the bond or security (if any), or may invoice and recover from Supplier all costs paid in excess of the price(s) set forth in the Contract.

- A. Supplies. The City at any time by written change order or other form of written contract amendment may make reasonable changes in the place of delivery, installation, or inspection, the method of shipment or packing, identification and ancillary matters that Supplier may accommodate without substantial additional expense.
- B. Services. The City shall have the right to make changes within the general scope of services and/or deliverables upon execution in writing of a change order or other written form of contract amendment. If the changes will result in additional work effort by Supplier the City agrees to reasonably compensate Supplier for such additional effort up to the maximum amount specified in the Contract or as otherwise provided by Tacoma Municipal Code. Any new services accepted by the City may be added to the Contract and/or substituted for discontinued services. New services shall meet or exceed all requirements of original award.
- C. Expansion Clause. A Contract may be further expanded in writing to include other related services or products normally offered by Supplier, as long as the price of such additional services or products have a profit margin equal to or less than that in place at the time of original submittal. Such additions and prices will be established in writing. New items not meeting these criteria will not be added to the Contract. Supplier profit margins are not to increase as a result any such expansion.

1.29 SCOPE OF SERVICES

Supplier agrees to diligently and completely perform the services required by a Contract.

1.30 SERVICES DO NOT INCLUDE PUBLIC WORK

Unless otherwise stated, the services and/or work contracted for herein exclude public work and improvements as defined in RCW 39.04, as that statute may hereafter be amended.

1.31 PREVAILING WAGES

- A. If federal, state, local, or any applicable law requires Supplier to pay prevailing wages in connection with a Contract, and Supplier is so notified by the City, then Supplier shall pay applicable prevailing wages.
- B. If applicable, a Schedule of Prevailing Wage Rates for the locality or localities where the Contract will be performed is attached and made of part of the Contract by this reference. If prevailing wages do apply to the Contract, Supplier and its subcontractors shall:
 - 1. Be bound by the provisions of Chapter 39.12 RCW, as amended, relating to prevailing wages and usual fringe benefits,
 - 2. Ensure that no worker, laborer or mechanic employed in the performance of any part of the Contract shall be paid less than the prevailing rate of wage specified on that Schedule, and
 - 3. Immediately upon award of the Contract, contact the Department of Labor and Industries, Prevailing Wages section, Olympia, Washington, to obtain full information, forms and procedures relating to these matters. Per such procedures, a Statement of Intent to Pay Prevailing Wages must be submitted by Contractor and its subcontractors to the City, in the manner requested by the City, prior to any payment by the City hereunder, and an Affidavit of Wages Paid must be received or verified by the City prior to final Contract payment.

1.32 CONTRACT PRICING

- A. Submitted prices shall include costs of submittal preparation, servicing of the account, all contractual requirements during contract period such as transportation, permits, insurance costs, bonds, labor, wages, materials, tools, components, equipment, and appurtenances necessary to complete the work, which shall conform to the best practice known to the trade in design, quality, material, and workmanship.
- B. Surcharges of any type will not be paid.
- C. If applicable, related additional products and corresponding services of benefit to the City not specifically required in a solicitation, but which Supplier offers to provide, may be included with the submittal. Supplier may request to add new products if the City approves them and Supplier can demonstrate the pricing is from the same pricing structure/profit margin.
- D. Unless specifically stated otherwise, only firm prices will be accepted and all prices shall remain firm during the term of a Contract.
- E. Price increases may at City's discretion be passed along during a contract period if the increase is mandated by statute, or the result of a tariff.
- F. By submitting prices, Supplier warrants prices equal to or better than the equivalent prices, terms, and benefits offered by Supplier to any other government unit or commercial customer.
- G. Should Supplier, during the term of a Contract, enter into any other contract, agreement or arrangement that provides lower prices, more favorable terms or greater benefits to any other government unit or commercial customer, the Contract with the City shall thereupon be deemed amended to provide the same price or prices, terms and benefits to the City. This provision applies to comparable products and purchase volumes by the City that are not less than the purchase volumes of the government unit or commercial customer that has received the lower prices, greater benefits, or more favorable terms.
- H. If at any time during the term of the Contract, Supplier reduces prices to other buyers purchasing approximately the same quantities stated on the Contract, Supplier will immediately notify the City purchasing manager of such fact, and the price(s) for future orders under the Contract shall be reduced accordingly.
- I. The City is entitled to any promotional pricing during the Contract period.
- J. Price decreases shall be immediately passed on to the City.

- K. The City reserves the right to increase or decrease the quantities of any item awarded pursuant to the Contract and pay according to the unit prices quoted in the submittal with no adjustments for anticipated profit.

1.33 APPROVED EQUALS WHEN ALTERNATES ARE ALLOWED

- A. Unless an item is indicated as "no substitute," special brands, when named, are intended to describe the standard of quality, performance, or use desired. Equal items will be considered by the City, provided that Supplier specifies the brand and model, and provides all descriptive literature, independent test results, specification sheets, schematic drawings, photographs, product samples, local servicing, parts availability, etc., to enable the City to evaluate the proposed equal. Performance testing in the field may be required.
- B. The decision of the City as to what items are equal shall be final and conclusive. If the City elects to purchase a brand represented by Supplier to be an "equal," the City's acceptance of the item is conditioned on the City's inspection and testing after receipt. If, in the sole judgment of the City, the item is determined not to be an equal, the item shall be returned at Supplier's expense.
- C. When a brand name or level of quality is not stated in Supplier's submittal, it is understood Supplier's submittal shall exactly confirm with those required in the Contract. If more than one brand name is stated in a Solicitation, Supplier(s) must indicate the brand and model/part number to be supplied.

1.34 RISK OF LOSS, SHIPPING AND DELIVERY

- A. Shipping. Prices must be quoted FOB destination (the place of destination as defined in RCW 62A.2-319, as that statute may hereafter be amended), with freight prepaid and allowed (shipping costs included in unit prices), and risk of loss remaining with Supplier until delivery is tendered.
- B. Delivery. Delivery will be to the designated addresses set forth in a Solicitation or as otherwise stated in the Contract. Deliveries shall be between 9:00 a.m. and 3:30 p.m., Monday through Friday only, except Legal Holidays. Failure to make timely delivery shall be cause for termination of the contract or order and return of all or part of the items at Supplier's expense except in the case of force majeure.

1.35 DELIVERY OF PRODUCTS AND PROVISION OF SERVICES – IDLING PROHIBITED

- A. The City of Tacoma has a commitment to reduction of unnecessary fuel emissions and improving air quality by reducing unnecessary air pollution from idling vehicles. Limiting car and truck idling supports cleaner air, healthier work environments, the efficient use of city resources, the public's enjoyment of City properties and programs, conservation of natural resources, and good stewardship practices.
- B. Vehicles and/or diesel fuel trucks shall not idle at the time and location of the delivery to the City of Tacoma for more than three minutes. The City requires contractors to utilize practices that reduce fuel consumption and emission discharge, including turning off trucks and vehicles during delivery of products to the City. Exceptions to this requirement include when associated power is necessary to make a delivery or provide the service, when the engine is used to provide power to another device, and when a running engine is required for proper warm-up and cool-down of the engine.

1.36 PACKING SLIPS AND INVOICES

- A. Each invoice shall show City of Tacoma purchase order number, release number if applicable, quantity, unit of measure, item description, unit price and extended price for each line if applicable, services and deliverables provided if applicable. Line totals shall be summed to give a grand total to which sales tax shall be added, if applicable.
 - 1. For transactions conducted in SAP Ariba, invoices shall be submitted through Ariba.
 - 2. For invoices paid by ACH or by check, unless stated otherwise, invoices shall be electronically submitted by email with corresponding PO number listed in the subject line to accountspayable@cityoftacoma.org.
 - 3. For invoices paid by credit card, invoices shall also display the last name of the cardholder and last four digits (only) of the card number (e.g., Jones/6311). Unless stated otherwise, invoices shall be electronically submitted by email with corresponding PO number listed in the subject line to (do not combine different POs into one invoice or charge) to pcardadmin@cityoftacoma.org.
- B. Any terms, provisions or language in Supplier's invoice(s) that conflict with the terms of the Contract are superseded and shall not apply to the Contract unless expressly accepted in writing by the City.
- C. Packing slips and shipping notices shall be sent to the specific City Division or Department receiving the item(s) at the address stated in City's Solicitation or as otherwise stated in the Contract and include

complete description of items, contents of items if crated or cased, quantity, shipping point, carrier, bill of lading number and City of Tacoma purchase order.

- D. Supplier shall package orders, preferably in environmental friendly packaging such as reduced packaging and recyclable packing materials.

1.37 COOPERATIVE PURCHASING

The Washington State Interlocal Cooperation Act RCW 39.34 provides that other governmental agencies may purchase goods and services based on the Contract with the City in accordance with the terms and prices of the Contract if all parties are agreeable. Each public agency shall formulate a separate contract with Supplier, incorporating the terms and conditions of the Contract with the City of Tacoma. The City shall incur no liability in connection with such contracts or purchases by other public agencies thereunder. It will be Supplier's responsibility to inform such public agencies of the Contract with the City. Supplier shall invoice such public agencies as separate entities.

1.38 TAXES

- A. Unless otherwise stated, applicable federal, state, City, and local taxes shall be included in the submittal and in contract as indicated below. As used herein, the term "taxes" shall include any and all taxes, assessments, fees, charges, interest, penalties, and/or fines imposed by applicable laws and regulations in connection with the procurement of goods and/or services hereunder.
 - 1. Federal Excise Tax. The City of Tacoma is exempt from federal excise tax. The City will furnish a Federal Excise Tax Exemption certificate, if required. If Supplier fails to include any applicable tax in its submittal, then Supplier shall be solely responsible for the payment of said tax.
 - 2. State and Local Sales Tax. The City of Tacoma is subject to Washington state sales tax. It is Supplier's obligation to state the correct sales tax percentage and include the applicable Washington state, city and local sales tax as a separate line item(s) in the submittal.
 - 3. City of Tacoma Business and Occupation Tax. It is Supplier's obligation to include City of Tacoma Business and Occupation tax in the unit and/or lump sum prices submitted; it shall not be shown separately on the submittal. Per Sub-Title 6A of the City of Tacoma Municipal Code, transactions with the City of Tacoma may be subject to the City's Business and Occupation Tax.
- B. Any or All Other Taxes. Any or all other taxes are the responsibility of Supplier unless otherwise required by law. Except for state sales tax, Supplier acknowledges that it is responsible for the payment of all taxes applicable to the Contract and Supplier agrees to comply with all applicable laws regarding the reporting of income, maintenance of records, and all other requirements and obligations imposed pursuant to applicable law.
- C. If the City is assessed, made liable, or responsible in any manner for taxes contrary to the provisions of the Contract, Supplier agrees to hold the City harmless from such costs, including attorney's fees. In the event Supplier fails to pay any taxes, assessments, penalties, or fees imposed by any governmental body, including a court of law, other than those taxes the City is required to pay, then Supplier authorizes the City to deduct and withhold or pay over to the appropriate governmental body those unpaid amounts upon demand by the governmental body. It is agreed that this provision shall apply to taxes and fees imposed by City ordinance. Any such payments shall be deducted from Supplier's total compensation.

1.39 COMPENSATION

- A. The City shall compensate Supplier in accordance with the Contract. Said compensation shall be the total compensation for Supplier's performance hereunder including, but not limited to, all work, services, deliverables, materials, supplies, equipment, subcontractor's fees and all reimbursable travel and miscellaneous or incidental expenses to be incurred by Supplier. Unless stated otherwise the total stated compensation may not be changed without a written change order or other form of contract amendment.
- B. Payment(s) made in accordance with the Contract shall fully compensate Supplier for all risk, loss, damages or expense of whatever nature, and acceptance of payment shall constitute a waiver of all claims submitted by Supplier.

1.40 PAYMENT TERMS

- A. Payment shall be made through the City's ordinary payment process, and shall be considered timely if made within 30 days of receipt of a properly completed invoice. All payments shall be subject to adjustment for any amounts, upon audit or otherwise, determined to have been improperly invoiced.

The City may withhold payment to Supplier for any services or deliverables not performed as required hereunder until such time as Supplier modifies such services or deliverables to the satisfaction of the City.

- B. Invoices will not be processed for payment, nor will the period of cash discount commence, until all invoiced items are received and satisfactory performance of the Contract has been attained. Upon CITY'S request, Supplier shall submit necessary and appropriate documentation, as determined by the CITY, for all invoiced services and deliverables. If an adjustment in payment is necessary due to damage or dispute, the cash discount period shall commence on the date final approval for payment is authorized.

1.41 PAYMENT METHOD – EPAYABLES – CREDIT CARD ACCEPTANCE – EFT/ACH ACCEPTANCE

A. Payment methods include:

1. EPayables (Payment Plus). This is payment made via a virtual, single use VISA card number provided by the City's commercial card provider. Suppliers accepting this option will receive "due immediately" payment terms. Two options for acceptance are available to suppliers. Both are accompanied by an emailed advice containing complete payment details:
 - a. Straight-through processing (buyer initiated). Immediate, exact payments directly deposited to supplier accounts by the City's provider bank; the supplier does not need to know card account details.
 - b. Supplier retrieves card account through the secure, on-line portal provided via email notifications sent by the City's commercial card provider.
2. Credit card. Tacoma's VISA procurement card program is supported by standard bank credit suppliers and requires that merchants abide by the VISA merchant operating rules. It provides "due immediately" payment terms.
 - a. Suppliers must be PCI-DSS compliant (secure credit card data management) and federal FACTA (sensitive card data display) compliant.
 - b. Suppliers must be set up by their card processing equipment provider (merchant acquirer) as a minimum of a Level II merchant with the ability to pass along tax, shipping and merchant references information.
3. Electronic Funds Transfer (EFT) by Automated Clearing House (ACH). Standard terms are net 30 for this payment method.
4. Check or other cash equivalent. Standard terms are net 30 for this payment method.

B. The City's preferred method of payment is by ePayables (Payment Plus) followed by credit card (aka procurement card). Suppliers may be required to have the capability of accepting the City's ePayables or credit card methods of payment. **The City of Tacoma will not accept price changes or pay additional fees when ePayables (Payment Plus) or credit card is used.**

C. The City, in its sole discretion, will determine the method of payment for goods and/or services as part of the Contract.

1.42 NOTICES

Unless otherwise specified, except for routine operational communications, which may be delivered personally or transmitted by electronic mail, all notices required by the Contract shall be in writing and shall be deemed to have been duly given if delivered personally or mailed first-class mail, postage prepaid, to Supplier's registered agent and to the applicable City department representative.

1.43 INDEPENDENT CONTRACTOR STATUS

A. Supplier is considered an independent contractor who shall at all times perform his/her duties and responsibilities and carry out all services as an independent contractor and shall never represent or construe his/her status to be that of an agent or employee of the City, nor shall Supplier be eligible for any employee benefits. No payroll or employment taxes or contributions of any kind shall be withheld or paid by the City with respect to payments to Supplier. Supplier shall be solely responsible for all said payroll or employment taxes and/or contributions including, but not limited to, FICA, FUTA, federal income tax, state personal income tax, state disability insurance tax and state unemployment insurance tax. If the City is assessed, made liable or responsible in any manner for such taxes or contributions, Supplier agrees to indemnify and hold the City harmless from all costs incurred, including attorney fees.

- B. Unless otherwise specified in writing, Supplier shall provide at its sole expense all materials, working space, and other necessities and instruments to perform its duties under the Contract. Supplier, at its sole expense, shall obtain and keep in force any and all applicable licenses, permits and tax certificates necessary to perform the Contract.

1.44 NONDISCRIMINATION

Supplier agrees to take all steps necessary to comply with all federal, state, and City laws and policies regarding non-discrimination and equal employment opportunities. Supplier shall not discriminate in any employment action because of race, religion, color, national origin or ancestry, sex, gender identity, sexual orientation, age, marital status, familial status, or the presence of any sensory, mental, or physical handicap. In the event of non-compliance by Supplier with any of the non-discrimination provisions of the Contract, the City shall be deemed to have cause to terminate the Contract, in whole or in part.

1.45 FEDERAL, STATE, AND MUNICIPAL LAWS AND REGULATIONS

Supplier shall comply with all federal, state, municipal, and/or local laws and regulations in the performance of all terms and conditions of the Contract. Supplier shall be solely responsible for all violations of the law from any cause in connection with its performance of work under the Contract.

1.46 FEDERAL AID PROJECTS

The City of Tacoma in accordance with Title VI of the Civil Rights Act of 1964, 78 Stat. 252, 42 U.S.C. 2000d to 2000d-4 and Title 49, Code of Federal Regulations, Department of Transportation, subtitle A, Office of the Secretary, part 21, nondiscrimination in federally assisted programs of the Department of Transportation issued pursuant to such Act, hereby notifies all bidders that it will affirmatively insure that in any contract entered into pursuant to this advertisement, disadvantaged business enterprises as defined at 49 CFR, part 26, will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, national origin, or sex in consideration for an award.

1.47 REPORTS, RIGHT TO AUDIT, PERSONNEL

- A. Reports. Supplier shall, at such times and in such form as the City may reasonably require, furnish the City with periodic status reports pertaining to the services undertaken or goods provided pursuant to the Contract.
- B. Right to Audit. Upon City's request, Supplier shall make available to City all accounts, records and documents related to the scope of work for City's inspection, auditing, or evaluation during normal business hours as reasonably needed by City to assess performance, compliance and/or quality assurance under the Contract or in satisfaction of City's public disclosure obligations as applicable.
- C. Personnel. If before, during, or after the execution of a Contract, Supplier has represented or represents to the City that certain personnel would or will be responsible for performing services pursuant to the Contract, then Supplier is obligated to ensure that said personnel perform said Contract services to the maximum extent permitted by law. Substantial organizational or personnel changes within Supplier's firm are expected to be communicated to City immediately. Failure to do so could result in termination of the Contract. This provision shall only be waived by written authorization by the City, and on a case-by-case basis.

1.48 INSURANCE

- A. During the course and performance of a Contract, Supplier will provide proof and maintain the insurance coverage in the amounts and in the manner specified in the City of Tacoma Insurance Requirements as is applicable to the services, products, and deliverables provided under the Contract. The City of Tacoma Insurance Requirements document, if issued, is fully incorporated into the Contract by reference.
- B. Failure by City to identify a deficiency in the insurance documentation provided by Contractor or failure of City to demand verification of coverage or compliance by Contractor with these insurance requirements shall not be construed as a waiver of Contractor's obligation to maintain such insurance.

1.49 INDEMNIFICATION – HOLD HARMLESS

- A. Supplier agrees to indemnify, defend, and hold harmless the City of Tacoma, its officers, agents and employees, from and against any and all liability which may accrue to or be sustained by the City of Tacoma for any claim, suit or legal action made or brought against the City for the death of or injury to persons (including Supplier's or subcontractor's employees), or damage to property involving Supplier or subcontractor(s) and their employees or agents, or for any other cause arising out of and in

connection with or incident to the performance of the Contract, except for injuries or damages caused by the sole negligence of the City. In this regard, Supplier recognizes it is waiving immunity under Industrial Insurance Law, Title 51 RCW. This indemnification includes attorney's fees and the cost of establishing the right to indemnification hereunder in favor of the City of Tacoma. By Supplier's acceptance of this order, he/she agrees that this subsection has been mutually negotiated.

B. These indemnifications shall survive the termination of a Contract.

1.50 CONFLICT OF INTEREST

No officer, employee, or agent of the City, nor any member of the immediate family of any such officer, employee or agent as defined by City ordinance, shall have any personal financial interest, direct or indirect, in a Contract, either in fact or in appearance. Supplier shall comply with all federal, state, and City conflict of interest laws, statutes, and regulations. Supplier represents that Supplier presently has no interest and shall not acquire any interest, direct or indirect, in the program to which the Contract pertains that would conflict in any manner or degree with the performance of Supplier's services and obligations hereunder. Supplier further covenants that, in performance of a Contract, no person having any such interest shall be employed. Supplier also agrees that its violation of the City's Code of Ethics contained in Chapter 1.46 of the Tacoma Municipal Code shall constitute a breach of Contract subjecting the Contract to termination.

1.51 CITY OWNERSHIP OF WORK/RIGHTS IN DATA/PUBLICATIONS

A. To the extent that Supplier creates any work subject to the protections of the Copyright Act (Title 17 U.S.C.) in its performance of a Contract, Supplier agrees to the following: The work has been specially ordered and commissioned by the City. Supplier agrees that the work is a "work made for hire" for copyright purposes, with all copyrights in the work owned by City. To the extent that the work does not qualify as a work made for hire under applicable law, and to the extent that the work includes material subject to copyright, Supplier hereby assigns to City, its successors and assigns, all right, title and interest in and to the work, including but not limited to, all copyrights, patent, trade secret and other proprietary rights, and all rights, title and interest in and to any inventions and designs embodied in the work or developed during the course of Supplier's creation of the work.

B. Supplier shall be solely responsible for obtaining releases and/or licenses for the reproduction, distribution, creation of derivative works, performance, display, or other use of copyrighted materials. Should Supplier fail to obtain said releases and/or licenses, Supplier shall indemnify, defend, and hold harmless the City for any claim resulting there from.

1.52 DUTY OF CONFIDENTIALITY

Supplier acknowledges that unauthorized disclosure of information or documentation concerning the Scope of Work hereunder may cause substantial economic loss or harm to the City. Except for disclosure of information and documents to Supplier's employees, agents, or subcontractors who have a substantial need to know such information in connection with Supplier's performance of obligations under the Contract, Supplier shall not without prior written authorization by the City allow the release, dissemination, distribution, sharing, or other publication or disclosure of information or documentation obtained, discovered, shared or produced pursuant to a Contract.

1.53 DISPUTE RESOLUTION

In the event of a dispute pertaining to a Contract, the parties agree to attempt to negotiate in good faith an acceptable resolution. If a resolution cannot be negotiated, then the parties agree to submit the dispute to voluntary non-binding mediation before pursuing other remedies. This provision does not limit the City's right to terminate.

1.54 GOVERNING LAW AND VENUE

A. Washington law shall govern the interpretation of the Contract. The state or federal courts located in Pierce County Washington shall be the sole venue of any mediation, arbitration, or litigation arising out of the Contract.

B. Respondents providing submittals from outside the legal jurisdiction of the United States of America will be subject to Tacoma's City Attorney's Office (CAO) opinion as to the viability of possible litigation pursuant to a contract resulting from this Specification. If it is the opinion of the CAO that any possible litigation would be beyond reasonable cost and/or enforcement, the submittal may be excluded from evaluation.

1.55 ASSIGNMENT

Supplier shall not assign, subcontract, delegate or transfer any obligation, interest or claim to or under the Contract without the prior written consent of the City.

1.56 WAIVER

A waiver or failure by either party to enforce any provision of the contract shall not be construed as a continuing waiver of such provisions, nor shall the same constitute a waiver of any other provision of the Contract.

1.57 SEVERABILITY AND SURVIVAL

If any term, condition or provision herein or incorporated by reference is declared void or unenforceable or limited in its application or effect, such event shall not affect any other provisions hereof and all other provisions shall remain fully enforceable. The provisions of the Contract, which by their sense and context are reasonably intended to survive the completion, expiration or cancellation of the Contract, shall survive termination of the Contract.

1.58 NO CITY LIABILITY

Neither the City, its officials, staff, agents, employees, representatives, or consultants will be liable for any claims or damages resulting from any aspect of this procurement process.

1.59 SIGNATURES

A signed copy of Submittals, Contract documents, including but not limited to contract amendments, contract exhibits, task orders, statements of work and other such Contract related documents, delivered by email or other means of electronic transmission including by using a third party service, which service is provided primarily for the electronic execution of electronic records, shall be deemed to have the same legal effect as delivery of an original signed copy.

SUBMITTAL CHECK LIST

This checklist identifies items to be included with your submittal. Any submittal received without these required items may be deemed non-responsive and not be considered for award.

Submittals must be received by the City of Tacoma Purchasing Division by the date and time specified in the Request for Proposal page.

The following items make up your submittal package:	
One electronic copy (CD or flash drive) of your complete submittal package (with original and copies clearly identified)	
Signature Page (Appendices)	
Information in Section 6.00 (ex. Content To Be Submitted)	
After award, the following documents will be executed:	
Services Contract	
Certificate of Insurance and related endorsements	

Request for Qualifications for Consultant Services for Gravity Pipeline Wells Improvements and Treatment

Specification No. TW20-0227F

1.00 OBJECTIVE

The City of Tacoma, Department of Public Utilities, Water Division (Tacoma Water) is currently accepting Statements of Qualifications (SOQs) from qualified Consulting Firms to provide engineering services for improvements at the Gravity Pipeline Wells, including well rehabilitation, pump and motor replacement, addition of corrosion control treatment, and electrical system upgrades.

2.00 BACKGROUND INFORMATION

Tacoma Water is planning on making improvements at two wells located on Pipeline 4 in the Puyallup area (11302 E Pipeline Rd, Puyallup). The wells are known as the Gravity Pipeline Wells (GPL1 and GPL2). Together, the two wells produce approximately 8 million gallons per day (MGD) and are an important part of Tacoma Water's water supply. These wells were last used in 2015 to supplement the water supply from the Green River during the drought. The Green River typically supplies about 95 percent of Tacoma Water's water, and the remainder is supplied from wells. In drought years, the well water supply becomes increasingly more critical.

Tacoma Water has developed an Integrated Resource Plan (IRP) to improve its ability to manage available water supplies. A sophisticated computer model called the Water Yield, Supply and Demand Model (WYSDM) was used to project future conditions and water supply requirements. This plan has recommended that Tacoma Water have 40 MGD of reliable well water available to limit curtailment during drought years. Both GPL1 and GPL2 are needed as part of the 40 MGD. It is anticipated that the wells will primarily be operated during droughts, emergencies, or routine testing; in most years, the wells may be used 1 to 2 weeks per year.

Tacoma Water recently completed an updated corrosion control study. As a result of this study, Tacoma Water is required to maintain a minimum daily average pH of greater than 7.4 for all groundwater sources. The GPL Wells need to have corrosion control treatment added in order to meet Washington State Department of Health (DOH) requirements. Tacoma Water intends to provide pH adjustment using 25-percent sodium hydroxide fed at a combined location for both

wells. Because the wells will be infrequently operated, treatment must be flexible, easy to start up and shut down, and stable to sit idle for months or years at a time.

Both wells have failed since 2015 and require new pumps and motors so that they may be available to reliably meet Tacoma Water’s needs. Initial investigations have been performed for the wells, but the selected Consultant team will be asked to further inspect each well and provide recommendations for rehabilitation and design capacity.

Pierce County is planning to construct the Pipeline Trail project in the vicinity of the Gravity Pipeline Wells at some point in the future. Although the public trail will not pass directly through the site where the treatment facility is planned, the trail may draw more visitors to the area and measures should be taken to limit public access to the new facilities. In addition, coordination with Pierce County will be required to ensure that the new facilities do not interfere with one another and that public messaging is consistent.

The following table provides additional information about the GPL1 and GPL2 wells. Appendix E provides drawings for the existing facilities, while Appendix F provides existing water quality information for the wells.

Well	Capacity	Well Depth (ft)	HP
GPL1	3200 GPM @ 485 ft TDH	315	500
GPL2	3200 GPM @ 485 ft TDH	351	450

3.00 PROPOSED SCOPE OF PROJECT

The completed project will include, but is not limited to, the following components:

- Complete any required well rehabilitation for GPL1 and GPL2 based upon video inspection, likely to include cleaning screens and well casings. Replace or rehabilitate the existing column pipes.
- Replace the pumps and motors at GPL1 and GPL2. The wells had submersible pumps; however, it is potentially desired to convert these wells to line shaft vertical turbine vertical turbine style pumps. Vertical turbine motors are easier to maintain and troubleshoot. Noise mitigation may be required as these wells are near residential areas.
- Modify existing well discharge piping if necessary.
- Upgrade electrical equipment, including conversion of site voltage from 2400V to 480V if feasible, replacement of motor control centers, installation of variable frequency drives, and addition of new pad-mounted transformers.
- Make both GPL1 and GPL2 site-ready to run off of a portable generator. A Camlock-style quick connect device will be installed at both wells.
- The structures containing the current equipment is circa 1960’s and these structures may not be practical for use with new equipment. New facilities may be required to meet current codes.

- Add corrosion control treatment for the wells by constructing a new building at GPL2 for addition of liquid sodium hydroxide to combined well discharge. It is desired that the tanks be sized to accept full tanker deliveries with redundancy for tanks and dosing equipment.
- Replace the existing sodium hypochlorite feed systems at GPL1 and GPL2 with a shared feed system located in the new building.
- Reroute the GPL1 well discharge piping, approximately 700 feet, from GPL1 to GPL2 to have a single location for chemical injection.
- Improve access from 86th Ave E to allow chemical deliveries to the new building.
- Connect the new building to sanitary sewer for more convenient analyzer discharge and drainage from sinks or floor drains.
- Potentially add a restroom at this facility.

4.00 PROPOSED CONSULTANT SCOPE OF WORK

A detailed scope of work and budget will be negotiated with the selected Consultant. The Consultant scope of work will include, but is not limited to, the following tasks:

- Perform a hydrogeological evaluation of both GPL1 and GPL2 and identify recommendations for required well redevelopment activities and design capacity of the wells.
- Evaluate the feasibility of converting both wells from submersible pumps to vertical turbine pumps and the feasibility of using the existing column pipes.
- Develop a basis of design report for the project, which will be used as a guideline for the final design.
- Complete final design for all identified project components, providing final plans and specifications for bidding. Prepare preliminary submittals for review at 30 percent, 60 percent, and 90 percent design.
- Provide capital cost estimates for the project at 30 percent, 60 percent, and 90 percent design.
- Facilitate design review workshops, assumed at project kick-off, 30 percent, 60 percent, and 90 percent.
- Identify and support Tacoma Water in obtaining all required permits for the new treatment facility and other site improvements, including a conditional use permit from Pierce County.
- Support Tacoma Water in obtaining project approval from the Washington State Department of Health.

- Support Tacoma Water in public outreach regarding the project. While a comprehensive outreach campaign is not required, owners of adjacent properties should remain informed about the changes at the site.
- Support Tacoma Water in ensuring that the proposed design and proposed construction sequencing are complementary to the Pipeline Trail work that may be constructed within the same timeframe or in the future.
- Conduct field survey or other site verifications as necessary.
- Conduct geotechnical investigation and testing as necessary.
- Coordinate with S&B Inc. of Bellevue, Washington, Tacoma Water's instrumentation and control system integrator, throughout the project design.
- Support Tacoma Water in bid process, including answering any bidder questions on design.
- Provide engineering and technical support during construction and startup. Services during construction will be negotiated as an amendment to the design services contract.

5.00 REQUEST FOR QUALIFICATION PROCESS

It is Tacoma Water's intent to select a Consultant based on the qualifications and abilities of the firm(s), proposed project team, and key project individuals.

Proposers may either be individual firms or teams as appropriate to meet the specific needs of the project. If relevant, it shall be at the discretion of the Proposer to determine and identify the lead consultant for the design team. The lead consultant will be considered the responding vendor and the responsible party at contract award. Proposers are solely responsible for all costs incurred in the development and submission of the SOQ or any other presentations whether in response to this Request for Qualifications (RFQ) or to any subsequent requirements of the consultant selection and contract negotiation process.

5.01 SOQ SUBMITTAL AND GENERAL GUIDELINES

Clearly mark the specification number, TW20-0227F, and the name of Proposer on the outside of the delivery package.

Submit one (1) original copy of the SOQ containing original signatures and one (1) electronic copy on a USB flash drive. The hard copy shall be printed on standard paper and bound with a staple or binder clip.

SOQs shall be limited to 30 pages total (equivalent to 15 pages printed front and back), not including appendices.

5.02 INQUIRIES ON RFQ

No pre-proposal conference is being held; however, questions and request for clarifications of the RFQ may be submitted in writing by 3:00 PM on September 15 ,2020 to Samol Hefley,

Procurement and Payables Division, via email to shefley@cityoftacoma.org. In your email subject line, reference the specification number and title. It is preferred that all questions be in the body of the email rather than in an attachment. No further questions will be accepted after this date and time. The City will not be responsible for unsuccessful submittal of questions.

Written answers to all questions submitted will be posted on the Procurement and Payables website at www.TacomaPurchasing.org on or about September 17, 2020. The City reserves the discretion to group similar questions, to provide a single answer, or not to respond when the requested information is confidential. The answers are not typically considered an addendum.

5.03 ANTICIPATED RFQ SCHEDULE

The following schedule has been established for the submission and evaluation of the SOQs and selection of the Consultant. These are tentative dates only and the City reserves the right to adjust these dates at its sole discretion.

Questions Due - 3:00 PM	9/15/2020
Responses to Questions	9/17/2020
SOQs Due - 11:00 AM	9/29/2020
Interviews (if required)	10/5/2020-10/9/2020
Final Selection	10/15/2020
Contract Negotiations	10/26/2020
Utility Board Approval	11/11/2020
Notice to Proceed	11/23/2020

5.04 ACCEPTANCE/REJECTION OF RESPONSES

Proposers agree to provide 60 days for acceptance from the submittal deadline. All submittals will be reviewed by the City to determine compliance with the requirements and instructions specified in this RFQ. The Proposer is specifically notified that failure to comply with any part of this RFQ may result in rejection of the submittal as non-responsive. The City of Tacoma reserves the right, in its sole discretion, to waive irregularities deemed by the City of Tacoma to be immaterial.

The City of Tacoma reserves the right and holds at its discretion the following rights and options:

- To waive any or all informalities in any SOQ.
- To reject any or all responses.
- To issue subsequent requests.

The final selection, if any, will be that Consultant which, after review of submissions and potential interviews, in the sole judgment of the City, best meets the requirements set forth in this RFQ.

5.05 ADDENDA

Addenda supplementing this RFQ document and issued prior to the SOQ deadline shall be made part of the RFQ. Failure to acknowledge addenda may result in an SOQ being deemed non-responsive by the City.

5.06 SERVICES AGREEMENT

A copy of the draft Standard Services Agreement is enclosed as Appendix B and shall be finalized between the City and the selected Consultant. The City must approve the scope of work, budget, and design schedule proposed by the selected Consultant. The Consultant shall maintain the insurance coverage described in the Insurance Requirements in Appendix B during the project.

The City reserves the right to extend or cancel the contract for any reason by written notice as stipulated in the contract.

5.07 EQUITY IN CONTRACTING PROGRAM INFORMATION

The City's Equity In Contracting (EIC) program information is included in this specification. Participation in the program is encouraged and up to five points have been established in the Evaluation process. Consultants are to submit with their submittal the SBE Questionnaire.

6.00 SOQ SUBMITTAL CONTENT

All materials submitted in response to this RFQ, except for proprietary materials, become the property of the City.

Proprietary information in a qualification submittal must be designated clearly and should be bound separately, as an appendix, and labeled with the words "Proprietary Information." Appropriate references to this information must appear in the body of the SOQ. An entire SOQ marked "Proprietary Information" shall not be accepted.

Proposers should be aware that the City is required by law to make its records available for public inspection with certain exceptions. See Revised Code of Washington, Chapter 42.17. It is the City's belief that this legal obligation would not require the disclosure of proprietary, descriptive literature that contains valuable designs, drawings, or documentation. However, the Proposer, by submission of materials marked "proprietary," acknowledges and agrees that the City shall have no obligation or liability to the Proposer in the event that the City is required to disclose these materials.

To be considered responsive to this RFQ, the Proposer's SOQ must include the following information. (See maximum point values for each item in Section 7.01.)

6.01 SOQ COVER AND COVER LETTER

Clearly label the SOQ cover and the subject line in the cover letter with "Statement of Qualifications for Consultant Services for Gravity Pipeline Wells Improvements and Treatment, Specification No. TW20-0227F". The cover letter should identify the Proposer name and contact

person with his/her title. Include address, mailing address, e-mail address, phone number, and any other information that shall allow the City to reach the contact person quickly and directly.

The cover letter should include the name of the proposed project manager. A duly authorized officer, employee, or agent of the consulting firm must sign the cover letter.

The fully completed Signature Page, Appendix A, shall be included with the SOQ Cover and Cover Letter.

6.02 TEAM STRUCTURE AND QUALIFICATIONS

Please describe the consulting team structure including names of lead team members with titles, technical qualifications, and general project responsibilities. Include the following information:

- Provide a summary of the background and experience of the Project Manager relevant to the project under consideration. Describe the Project Manager's experience with projects of similar type and size. Provide at least one example. Provide level of effort and availability of the Project Manager for this project.
- Identify key team members, their technical qualifications, and general project responsibilities. At a minimum, identify the project principal, lead engineers for each discipline, permitting lead, QC lead, and any other staff expected to make key contributions to the project.
- Provide an org chart for the team including all sub-consultants. Clearly delineate responsibilities of sub-consultants.
- Discuss the firm's ability to actively perform the proposed work and provide a statement which clearly conveys the ability of all proposed project personnel to accept responsibility for completing the project in view of the firm's current and projected workload.
- Identify which office(s) the project will be delivered from and the locations of key team members.
- Individual resumes should be included for all team members as Appendix A (resumes will not count toward page count total).

6.03 EXPERIENCE AND RELATED PROJECTS

Please provide a summary of the experience of the firm relative to the project under consideration. For each project identified, please include the following:

- Basic description of the project
- Name and contact information of the client
- Project location
- Project cost

- Start and completion dates
- Any key similarities to the Gravity Pipeline Wells project
- Involvement of the individuals proposed for the Gravity Pipeline Wells project team

Provide examples of the following types of projects:

- At least **3 examples** of projects involving water treatment facilities that were designed, permitted and constructed within the past 15 years
- At least **3 examples** of projects involving well rehabilitation or improvements that were designed, permitted and constructed within the past 15 years
- At least **1 example** of a project involving significant electrical upgrades that was designed, permitted and constructed within the past 15 years
- At least **2 examples** of projects involving services during construction for projects designed by the firm

A single project may be used as more than one type of example.

6.04 PROJECT APPROACH AND UNDERSTANDING

Summarize the project team's understanding of the project and primary issues that will need to be addressed to complete the Gravity Pipeline Wells Improvements and Treatment project. Describe the following:

- Proposer's understanding of the project
- Proposed tasks, activities, and methodologies that will be used to accomplish the required scope of work objectives
- Key issues to be addressed for this project and approaches proposed to address them
- A proposed schedule to demonstrate the Proposer's understanding of the key project tasks, milestones, deliverables, and interdependencies of work elements

6.05 REFERENCES

References shall be used to verify the accuracy of information provided by the Proposer, which may affect the rating of the Proposer. The City reserves the right to contact references other than those submitted by the Proposer. Please provide a list of references in Appendix B (references will not count toward the total page count).

Provide five recent references who may be contacted concerning your firm's performance with regard to the qualifications listed in the SOQ. In listing the references, include the name of the client, mailing address, telephone number, e-mail address, contact person, and the specific work your firm did for the client.

6.06 SIGNATURE PAGE

- Signature Page: Proposers participating in this RFQ process must submit a completed Signature Page in their SOQ. See Appendix A.

6.07 EQUITY IN CONTRACTING (EIC)

Please provide answers to the questions below in your proposal. A “yes” answer to any of the questions below will result in the award of five (5) points.

- Is your firm a certified City of Tacoma SBE firm?
- Is your firm partnering with a certified City of Tacoma SBE firm(s)?
- Is your firm a minority/woman owned firm certified with the Washington State Office of Minority and Women’s Business Enterprise?
- Is your firm partnering with a minority/woman owned firm certified with the Washington State Office of Minority and Women’s Business Enterprise?

7.0 CONSULTANT SELECTION PROCESS

The Selection Advisory Committee (SAC) consisting of City staff shall evaluate the written SOQ package submitted by each Proposer to produce a rating. References may be used to help clarify and verify information presented in the SOQ, which may affect the rating of the Proposer.

After the SOQ evaluation, the most qualified firms may be selected to interview with the SAC. Proposers submitting SOQs shall be notified in writing whether they have been selected for an interview. Proposers shall be available to interview within ten (10) business days’ notice. The City reserves the right to adjust scoring based on additional information and/or clarifications provided during the interviews.

The City reserves the right to begin contract negotiations without conducting interviews.

At the conclusion of the evaluation process, a recommendation shall be made to Tacoma Water management to obtain approval to begin negotiations with the selected Proposer. Contract negotiations shall then commence with the selected Proposer as described in Section 8.00. The Proposers not selected shall be notified in writing of the selection outcome. If the selected Proposer and the City are unable to agree on the final scope and fee for the contract, the City reserves the right to terminate the negotiations with the selected Proposer and initiate contract negotiations with the next highest rated Proposer.

7.01 EVALUATION CRITERIA

Each member of the SAC shall evaluate qualifications independently on the basis of the firm’s response as it can be applied to the City’s project needs. The SOQs shall be evaluated based on the following criteria. The City reserves the right to adjust its evaluation criteria and point allocations as deemed appropriate.

Criteria	Max Points
<i>Team Structure and Qualifications</i>	
Project Manager Qualifications	25
Project Team Qualifications	40
Responsiveness of Team Structure	10
<i>Experience and Related Projects</i>	
Experience with Water Treatment Facilities	40
Experience with Well Rehabilitation/Improvements	30
Experience with Electrical Upgrades	20
Experience with Services During Construction	10
<i>Project Approach and Understanding</i>	
Proposer's Understanding of Project Scope/Issues	10
Proposer's Understanding of Project Schedule	10
<i>Equity In Contracting (EIC)</i>	
	5
	200

7.02 REQUESTS FOR CLARIFICATION

The City reserves the right to request clarification of any aspect of a Proposer's qualifications submittal, or to request additional information that might be required to properly evaluate the qualifications. A Proposer's failure to respond to such a request within two (2) business days may result in rejection of the firm's submittal.

Requests for clarification or additional information shall be made at the sole discretion of the City. The City's retention of this right shall in no way diminish a Proposer's responsibility to submit a qualification submittal that is current, clear, complete, and accurate.

7.03 REFERENCE CHECKS

References may be used to clarify and verify information presented in the SOQ, and may affect the rating of the Proposer. The City reserves the right to contact references other than those submitted by the Proposer.

8.0 CONTRACT NEGOTIATION PROCESS

The City shall enter into the contract negotiation process with the selected Proposer (Consultant) based on the recommendations of the Selection Advisory Committee (SAC).

8.01 SERVICES AGREEMENT

A draft Standard Services Agreement is enclosed as Appendix B and shall be finalized between the City and the selected Consultant during this process. The draft agreement is provided for informational use only. The City reserves the right to amend the draft agreement at the City's sole discretion.

8.02 SCOPE, BUDGET, AND SCHEDULE

The selected Proposer shall submit a draft scope, budget, investigation, and evaluation schedule to the City within five (5) business days after notification of selection or as directed by the City's Project Manager. The City of Tacoma Public Utility Board will have final approval to award a contract.

APPENDIX A

Signature Page

SIGNATURE PAGE

**CITY OF TACOMA
TACOMA WATER / PLANNING AND ENGINEERING**

All submittals must be in ink or typewritten, executed by a duly authorized officer or representative of the bidding/proposing entity, and received and time stamped as directed in the **Request for Qualifications page near the beginning of the specification**. If the bidder/proposer is a subsidiary or doing business on behalf of another entity, so state, and provide the firm name under which business is hereby transacted.

**REQUEST FOR QUALIFICATIONS SPECIFICATION NO. TW20-0227F
CONSULTANT SERVICES
FOR GRAVITY PIPELINE WELLS IMPROVEMENTS AND TREATMENT**

The undersigned bidder/proposer hereby agrees to execute the proposed contract and furnish all materials, labor, tools, equipment and all other facilities and services in accordance with these specifications.

The bidder/proposer agrees, by submitting a bid/proposal under these specifications, that in the event any litigation should arise concerning the submission of bids/proposals or the award of contract under this specification, Request for Bids, Request for Proposals or Request for Qualifications, the venue of such action or litigation shall be in the Superior Court of the State of Washington, in and for the County of Pierce.

Non-Collusion Declaration

The undersigned bidder/proposer hereby certifies under penalty of perjury that this bid/proposal is genuine and not a sham or collusive bid/proposal, or made in the interests or on behalf of any person or entity not herein named; and that said bidder/proposer has not directly or indirectly induced or solicited any contractor or supplier on the above work to put in a sham bid/proposal or any person or entity to refrain from submitting a bid/proposal; and that said bidder/proposer has not, in any manner, sought by collusion to secure to itself an advantage over any other contractor(s) or person(s).

Bidder/Proposer's Registered Name

Signature of Person Authorized to Enter into Contracts for Bidder/Proposer

Date

Address

Printed Name and Title

City, State, Zip

(Area Code) Telephone Number / Fax Number

E-Mail Address

State Business License Number
in WA, also known as UBI (Unified Business Identifier) Number

E.I.No. / Federal Social Security Number Used on Quarterly
Federal Tax Return, U.S. Treasury Dept. Form 941

State Contractor's License Number
(See Ch. 18.27, R.C.W.)

Addendum acknowledgement #1_____ #2_____ #3_____ #4_____ #5_____

THIS PAGE MUST BE SIGNED AND RETURNED WITH SUBMITTAL.

APPENDIX B

Standard Services Agreement (DRAFT)

SERVICES CONTRACT

Click here for the [Contract Questionnaire Popup Quick Reference](#)

Start Questionnaire

Finalize Document

THIS CONTRACT, made and entered into effective as of the ____ day of _____, 20__ (EFFECTIVE DATE) by and between the CITY OF TACOMA, a municipal corporation of the State of Washington (hereinafter referred to as the "CITY"), and **[INSERT legal name of Supplier exactly as it appears in Ariba]**, (hereinafter referred to as "CONTRACTOR");

In consideration of the mutual promises and obligations hereinafter set forth, the Parties hereto agree as follows:

1. Scope of Services/Work

The CONTRACTOR agrees to diligently and completely perform the services and/or deliverables consisting of [INSERT A BRIEF DESCRIPTION OF THE WORK TO BE PERFORMED] as is described in Exhibit XXXXX [A, B, ETC., if needed] attached hereto and incorporated herein.

2. Order of Precedence

To the extent there is any discrepancy or conflict between and/or amongst the terms of this Contract and Exhibit(s) _____, the controlling terms for this Contract will be interpreted in the following order of precedence, with the first listed being the most controlling, and the last listed being the least controlling: Contract, Exhibit ____, Exhibit _____. [INSERT EXHIBIT REFERENCES IN ORDER OF WHICH IS MOST CONTROLLING]

3. Changes to Scope of Work

The CITY shall have the right to make changes within the general scope of services and/or deliverables upon execution in writing of a change order or amendment hereto. If the changes will result in additional work effort by CONTRACTOR, the CITY will agree to reasonably compensate the CONTRACTOR for such additional effort up to the maximum amount specified herein or as otherwise provided by City Code.

4. On Call Contracts

If the services and deliverables performed under this Contract are on an on call or as assigned basis, service and deliverables may be assigned by Task Authorization or Statements of Work, are subject to Section 9, and cannot augment any other work that the CONTRACTOR is doing for the CITY on another Contract. Actual compensation will depend upon the actual purchases made by the City during the life of this Contract and will be paid at the rates set in Exhibit A

5. Term

All services shall be satisfactorily completed on or before [INSERT CONTRACT TERMINATION DATE] and this Contract shall expire on said date unless mutually extended by a written and executed Amendment to this Contract.

6. Renewals

At CITY's sole option, the Term of this Contract may be renewed for additional [INSERT THE RENEWAL PERIOD - 1 YEAR, ETC] periods, not to exceed [INSERT THE MAXIMUM NUMBER OF RENEWAL PERIODS]. CITY will provide written notice of its intent to exercise any renewal options at least 30 days prior to the then existing Term and a written Amendment to this Contract will be mutually executed.

7. Delay

Neither party shall be considered to be in default in the performance of this Contract to the extent such performance is prevented or delayed by any cause which is beyond the reasonable control of the affected party and, in such event, the time for performance shall be extended for a period equal to any time lost as a result thereof. In the event CONTRACTOR is unable to proceed due to a delay solely attributable to CITY, CONTRACTOR shall advise CITY of such delay in writing as soon as is practicable.

8. Compensation

The CITY shall compensate the CONTRACTOR for the services and deliverables performed under this Contract [in accordance with OR on the basis of] [INSERT DESCRIPTION OF COMPENSATION ARRANGEMENTS – REFERENCE EXHIBIT, TIME AND MATERIALS, LUMP SUM ETC.]

9. Not to Exceed Amount

The total price to be paid by CITY for CONTRACTOR'S full and complete performance of the Scope of Work hereunder shall not exceed \$ [INSERT TOTAL AMOUNT OF CONTRACT] plus applicable taxes without a written and executed Amendment to this Contract. Said price shall be the total compensation for CONTRACTOR'S performance hereunder including, but not limited to, all work, deliverables, materials, supplies, equipment, subcontractor's fees, and all reimbursable travel and miscellaneous or incidental expenses to be incurred by CONTRACTOR.

In the event the CONTRACTOR incurs cost in excess of the sum authorized for service under this Contract, the CONTRACTOR shall pay such excess from its own funds, and the CITY shall not be required to pay any part of such excess, and the CONTRACTOR shall have no claim against the CITY on account thereof.

10. Payment

CONTRACTOR shall submit XXXXXXXX {monthly, weekly, annual, Contract milestone, etc.} invoices for services completed and/or deliverables furnished during the invoice period. Upon CITY'S request, CONTRACTOR shall submit necessary and appropriate documentation, as determined by the CITY, for all invoiced services and deliverables.

Payment shall be made through the CITY'S ordinary payment process, and shall be considered timely if made within 30 days of receipt of a properly completed invoice. All payments shall be subject to adjustment for any amounts, upon audit or otherwise, determined to have been improperly invoiced. The CITY may withhold payment to the CONTRACTOR for any services or deliverables not performed as required hereunder until such time as the CONTRACTOR modifies such services or deliverables to the satisfaction of the CITY.

11. Payment Method

The City's preferred method of payment is by ePayables (Payment Plus), followed by credit card (aka procurement card), then Electronic Funds Transfer (EFT) by Automated Clearing House (ACH), then check or other cash equivalent. CONTRACTOR may be required to have the capability of accepting the City's ePayables or credit card methods of payment. The City of Tacoma will not accept price changes or pay additional fees when ePayables (Payment Plus) or credit card is used. The City, in its sole discretion, will determine the method of payment for this Contract.

12. Independent Contractor Status

The services and deliverables shall be furnished by the CONTRACTOR as an independent Contractor, and nothing herein contained shall be construed to create an employer and employee relationship. The CONTRACTOR shall provide at its sole expense all materials, office space, and other necessities to perform its duties under this Contract, unless stated otherwise in this Contract. No payroll or employment taxes of any kind shall be withheld or paid by the CITY with respect to payments to CONTRACTOR. The payroll or employment taxes that are the subject of this paragraph include, but are not limited to, FICA, FUTA, federal income tax, state personal income tax, state disability insurance tax and state unemployment insurance tax. By reason of CONTRACTOR's status as an independent Contractor hereunder, no workers' compensation insurance has been or will be obtained by the CITY on account of CONTRACTOR. CONTRACTOR may be required to provide the CITY proof of payment of these said taxes and benefits. If the CITY is assessed or deemed liable in any manner for those charges or taxes, the CONTRACTOR agrees to hold the CITY harmless from those costs, including attorney's fees.

13. Services Warranty

The CONTRACTOR warrants that all services performed pursuant to this Contract shall be generally suitable for the use to which CITY intends to use said services and deliverables as expressed in the Scope of Work. In the performance of services under this Contract, the CONTRACTOR and its employees further agree to exercise the degree of skill and care required by customarily accepted good practices and procedures followed by professionals or service providers rendering the same or similar type of service. All obligations and services of the CONTRACTOR hereunder shall be performed diligently and completely according to such professional standards.

Unless a higher standard or longer periods of warranty coverage for product deliverables provided under this Contract is provided herein, CONTRACTOR agrees to correct any defect or failure of deliverables supplied under this Contract which occurs

within one year from _____ [FILL IN APPROPRIATE TIME FRAME, E.G. GO LIVE, FIRST USE, ETC]. During said warranty period, all of the costs (including shipping, dismantling and reinstallation) of repairs or corrections is the responsibility of the CONTRACTOR. If CONTRACTOR is not the manufacturer of the item of equipment, CONTRACTOR agrees to be responsible for this warranty and shall not be relieved by a lesser manufacturer's guarantee. This Contract warranty period shall be suspended from the time a significant defect is first documented by the CITY until repair or replacement by CONTRACTOR and acceptance by the CITY. In the event less than ninety (90) days remain on the warranty period (after recalculating), the warranty period shall be extended to allow for at least ninety (90) days from the date of repair or replacement and acceptance by the CITY.

14. Reliance on CITY Provided Data or Information

If the CONTRACTOR intends to rely on information or data supplied by the CITY, other CITY contractors or other generally reputable sources without independent verification, such intent shall be brought to the attention of the CITY.

15. Contract Administration

[INSERT NAME TITLE AND DEPARTMENT OF CONTRACT ADMINISTRATOR] for the CITY shall have primary responsibility for contract administration and approval of services to be performed by the CONTRACTOR, and shall coordinate all communications between the CONTRACTOR and the CITY.

16. Specific Personnel

If before, during, or after the execution of this Contract, CONTRACTOR represents to the CITY that certain personnel would or will be responsible for performing services and deliverables under this Contract, then the CONTRACTOR is obligated to ensure that said personnel perform said Contract services to the maximum extent permitted by law. This Contract provision shall only be waived by written authorization by the CITY, and on a case-by-case basis.

17. Right to Audit

During the Term of this Contract, and for six (6) years thereafter, the CITY shall have the right to inspect and audit during normal business hours all pertinent books and records of the CONTRACTOR and/or any sub-contractor or agent of CONTRACTOR that performed services or furnished deliverables in connection with or related to the Scope of Work hereunder as reasonably needed by CITY to assess performance, compliance and quality assurance under this Contract or in satisfaction of City's public disclosure obligations, as applicable.

CONTRACTOR shall, upon three (3) business days of receipt of written request for such inspection and audit from CITY, provide the CITY with, or permit CITY to make, a copy of any work-related books, accounts, records and documents, in whole or in part, as specified in such request. Said inspection and audit shall occur in Pierce County, Washington or such other reasonable location as the CITY selects. The CITY shall bear the cost of any inspection audit requested hereunder, provided, that if an inspection

audit in accordance with the foregoing provisions discloses overpricing or overcharges (of any nature) by the CONTRACTOR to the CITY in excess of one percent (1%) of the total contract billings, in addition to making adjustments for the overcharges, the reasonable actual cost of the CITY's audit shall be reimbursed to CITY by CONTRACTOR. Any adjustments or payments that must be made as a result of any audit and inspection hereunder shall be made no later than 90 days from presentation of CITY's findings to CONTRACTOR.

CONTRACTOR shall ensure that the foregoing inspection, audit and copying rights of the CITY are a condition of any subcontract, agreement or other arrangement under which any other person or entity is permitted to perform the Scope of Work under this Contract.

18. Records Retention

The CONTRACTOR shall establish and maintain records in accordance with requirements prescribed by the CITY, with respect to all matters related to the performance of this Contract. Except as otherwise authorized by the CITY, the CONTRACTOR shall retain such records for a period of _____ [INSERT THE TIME THE RECORDS SHOULD BE KEPT. MOST COMMON IS 6 YEARS] years after receipt of the final payment under this Contract or termination of this Contract.

If CONTRACTOR retains any City records or data hosted in a Cloud Service. CITY shall have the ability to access its records hosted in a Cloud Service at any time during the Term of this Contract. CITY may export and retrieve its records during the Term of the Contract and, no later than 30 days from the termination of this Contract, CONTRACTOR shall export CITY records to City's custody and control.

19. Notices

Except for routine operational communications, which may be delivered personally or transmitted by electronic mail all notices required hereunder shall be in writing and shall be deemed to have been duly given if delivered personally or mailed first-class mail, postage prepaid, to the parties at the following addresses:

CITY:	CONTRACTOR:
Name:	Name:
Title:	Title:
Address:	Address:
Telephone No.:	Telephone No.:
E-mail:	E-mail:

20. Termination

Except as otherwise provided herein, the CITY may terminate this Contract at any time, with or without cause, by giving ten (10) business days written notice to CONTRACTOR.

In the event of termination, all finished and unfinished work prepared by the CONTRACTOR pursuant to this Contract shall be provided to the CITY. In the event CITY terminates this Contract due to the CITY's own reasons and without cause due to the CONTRACTOR's actions or omissions, the CITY shall pay the CONTRACTOR the amount due for actual work and services necessarily performed under this Contract up to the effective date of termination, not to exceed the total compensation set forth herein. Termination of this Contract by CITY shall not constitute a waiver of any claims or remaining rights the CITY may have against CONTRACTOR relative to performance hereunder.

21. Suspension

The CITY may suspend this Contract, at its sole discretion, upon seven (7) business days' written notice to the CONTRACTOR. Such notice shall indicate the anticipated period of suspension. Any reimbursement for expenses incurred due to the suspension shall be limited to the CONTRACTOR'S reasonable expenses and shall be subject to verification. The CONTRACTOR shall resume performance of services under this Contract without delay when the suspension period ends. Suspension of this Contract by CITY shall not constitute a waiver of any claims or remaining rights the CITY may have against CONTRACTOR relative to performance hereunder.

22. Taxes

Unless stated otherwise in Exhibit A, CONTRACTOR is responsible for the payment of all charges and taxes applicable to the services performed under this Contract, and CONTRACTOR agrees to comply with all applicable laws regarding the reporting of income, maintenance of records, and all other requirements and obligations imposed pursuant to applicable law. If the CITY is assessed, made liable, or responsible in any manner for such charges or taxes, the CONTRACTOR holds CITY harmless from such costs, including attorney's fees.

If CONTRACTOR fails to pay any taxes, assessments, penalties, or fees imposed by any governmental body, including by Tacoma City ordinance, and including by a court of law, CITY will deduct and withhold or pay over to the appropriate governmental body those unpaid amounts upon demand by the governmental body. Any such payments shall be deducted from the CONTRACTOR's total compensation.

23. Licenses and Permits

The CONTRACTOR, at its expense, shall obtain and keep in force any and all necessary licenses and permits. The CONTRACTOR shall obtain a business license as required by Tacoma Municipal Code Subtitle 6B.20 and shall pay business and occupation taxes as required by Tacoma Municipal Code Subtitle 6A.30. If applicable, CONTRACTOR must have a Washington state business license.

24. Indemnification

CONTRACTOR shall indemnify, defend, and hold harmless the CITY, its officials, officers, agents, employees, and volunteers, from any and all claims, demands, damages, lawsuits, liabilities, losses, liens, expenses and costs arising out of the subject

matter of this Contract; provided that this provision shall not apply to the extent that damage or injury results from the sole negligence of the CITY, or its officers, agents, or employees. This indemnification shall extend to and include attorneys' fees and the cost of establishing the right of indemnification hereunder in favor of the CITY. This indemnification shall survive the termination of this Contract.

It is expressly agreed that with respect to design professional services performed by CONTRACTOR herein, CONTRACTOR's duty of indemnification, including the duty and cost to defend, against liability for damages arising out of such services or out of bodily injury to persons or damage to property shall, as provided in RCW 4.24.115 apply only to the extent of CONTRACTOR's negligence.

CONTRACTOR hereby warrants and represents CONTRACTOR is owner of any products, solutions or deliverables provided and licensed under this Contract or otherwise has the right to grant to CITY the licensed rights under this Contract, without violating the rights of any third party worldwide. CONTRACTOR shall, at its expense, defend, indemnify and hold harmless CITY and its employees, officers, directors, contractors, agents and volunteers from any claim or action against CITY which is based on a claim against CITY for infringement of a patent, copyright, trademark, or other propriety right or appropriation of a trade secret.

25. Title 51 Waiver

CONTRACTOR specifically assumes potential liability for actions brought by the CONTRACTOR'S own employees against the CITY and, solely for the purpose of this indemnification and defense, the CONTRACTOR specifically waives any immunity under the state industrial insurance law, Title 51 RCW. THE CONTRACTOR RECOGNIZES THAT THIS WAIVER WAS THE SUBJECT OF MUTUAL NEGOTIATION.

26. Insurance

During the course and performance of the services herein specified, CONTRACTOR will maintain the insurance coverage in the amounts and in the manner specified in the City of Tacoma Insurance Requirements as is applicable to the services and deliverables provided under this Contract. The City of Tacoma Insurance Requirements documents are fully incorporated herein by reference.

Failure by City to identify a deficiency in the insurance documentation provided by Contractor or failure of City to demand verification of coverage or compliance by Contractor with these insurance requirements shall not be construed as a waiver of Contractor's obligation to maintain such insurance.

27. Nondiscrimination

The CONTRACTOR agrees to take all steps necessary to comply with all federal, state, and City laws and policies regarding non-discrimination and equal employment opportunities. The CONTRACTOR shall not discriminate in any employment action because of race, religion, creed, color, national origin or ancestry, sex, gender identity, sexual orientation, age, marital status, familial status, veteran or military status, the

presence of any sensory, mental or physical disability or the use of a trained dog guide or service animal by a disabled person. In the event of non-compliance by the CONTRACTOR with any of the non-discrimination provisions of this Contract, the CITY shall be deemed to have cause to terminate this Contract, in whole or in part.

28. Conflict of Interest

No officer, employee, or agent of the CITY, nor any member of the immediate family of any such officer, employee, or agent as defined by City ordinance, shall have any personal financial interest, direct or indirect, in this Contract, either in fact or in appearance. The CONTRACTOR shall comply with all federal, state, and City conflict of interest laws, statutes, and regulations. The CONTRACTOR represents that the CONTRACTOR presently has no interest and shall not acquire any interest, direct or indirect, in the program to which this Contract pertains which would conflict in any manner or degree with the performance of the CONTRACTOR'S services and obligations hereunder. The CONTRACTOR further covenants that, in performance of this Contract, no person having any such interest shall be employed. The CONTRACTOR also agrees that its violation of the CITY'S Code of Ethics contained in Chapter 1.46 of the Tacoma Municipal Code shall constitute a breach of this Contract subjecting the Contract to termination.

29. City ownership of Work/Rights in Data and Publications

To the extent CONTRACTOR creates any Work subject to the protections of the Copyright Act (Title 17 U.S.C) in its performance of this Contract, CONTRACTOR agrees to the following: The Work has been specially ordered and commissioned by CITY. CONTRACTOR agrees that the Work is a "work made for hire" for copyright purposes, with all copyrights in the Work owned by CITY. To the extent that the Work does not qualify as a work made for hire under applicable law, and to the extent that the Work includes material subject to copyright, CONTRACTOR hereby assigns to CITY, its successors and assigns, all right, title and interest in and to the Work, including but not limited to, all patent, trade secret, and other proprietary rights and all rights, title and interest in and to any inventions and designs embodied in the Work or developed during the course of CONTRACTOR'S creation of the Work. CONTRACTOR shall execute and deliver such instruments and take such other action as may be required and requested by CITY to carry out the assignment made pursuant to this section. Any documents, magnetically or optically encoded media, or other materials created by CONTRACTOR pursuant to this Contract shall be owned by CITY and subject to the terms of this subsection. To the maximum extent permitted by law, CONTRACTOR waives all moral rights in the Work. The rights granted hereby to CITY shall survive the expiration or termination of this Contract. CONTRACTOR shall be solely responsible for obtaining releases for the performance, display, recreation, or use of copyrighted materials.

30. Public Disclosure

This Contract and documents provided to the CITY by CONTRACTOR hereunder are deemed public records subject to disclosure under the Washington State Public Records Act, Chapter 42.56 RCW (Public Records Act). Thus, the CITY may be required, upon request, to disclose this Contract and documents related to it unless an exemption under the Public Records Act or other laws applies. In the event CITY receives a request for

such disclosure, determines in its legal judgment that no applicable exemption to disclosure applies, and CONTRACTOR has complied with the requirements herein to mark all content considered to be confidential or proprietary, CITY agrees to provide CONTRACTOR ten (10) days written notice of impending release. Should legal action thereafter be initiated by CONTRACTOR to enjoin or otherwise prevent such release, all expense of any such litigation shall be borne by CONTRACTOR, including any damages, attorneys fees or costs awarded by reason of having opposed disclosure. CITY shall not be liable for any release where notice was provided and CONTRACTOR took no action to oppose the release of information. Notice of any proposed release of information pursuant to Chapter 42.56 RCW, shall be provided to CONTRACTOR according to the "Notices" provision herein.

31. Confidential or Proprietary Records Must be Marked

If CONTRACTOR provides the CITY with records that CONTRACTOR considers confidential or proprietary, CONTRACTOR must mark all applicable pages of said record(s) as "Confidential" or "Proprietary." If CONTRACTOR fails to so mark record(s), then (1) the CITY, upon request, may release said record(s) without the need to satisfy the notice requirements above; and (2) the CONTRACTOR expressly waives its right to allege any kind of civil action or claim against the CITY pertaining to the release of said record(s).

32. Duty of Confidentiality

CONTRACTOR acknowledges that unauthorized disclosure of information or documentation concerning the Scope of Work hereunder may cause substantial economic loss or harm to the CITY.

Except for disclosure of information and documents to CONTRACTOR's employees, agents, or subcontractors who have a substantial need to know such information in connection with CONTRACTOR's performance of obligations under this Contract, the CONTRACTOR shall not without prior written authorization by the CITY allow the release, dissemination, distribution, sharing, or other publication or disclosure of information or documentation obtained, discovered, shared or produced pursuant to this Contract.

CONTRACTOR shall inform its employees, agents, and subcontractors of the confidentiality obligations under this Contract and instruct them so as to ensure such obligations are met. If so requested by the CITY, the CONTRACTOR further agrees to require all such individuals and entities performing services pursuant to this Contract to execute a Confidentiality and Non-Disclosure Agreement in a form acceptable to CITY.

This Section shall survive for six (6) years after the termination or expiration of this Contract.

CITY is required to provide notice of the Red Flags Rules published by the Federal Trade Commission in Title 16 Code of Federal Regulations, Part 681 ("Rules") to all entities that receive confidential or otherwise protected personal information of CITY's customers. Terms in quotations in this Section refer to defined terms contained in the "Rules." CONTRACTOR is, as to "Covered Accounts" of CITY for which CONTRACTOR

performs activities under the Contract, a "Service Provider." "Service Provider" will perform in accordance with its reasonable policies and procedures designed to detect, prevent, and mitigate the risk of identity theft and will promptly report to CITY any specific "Red Flag" incidents detected as to "Covered Accounts" of CITY and upon request by CITY will respond to or reasonably assist CITY in responding reported "Red Flags." This Section shall survive for six (6) years after the termination or expiration of this Contract.

33. Approval for Release of Information Related to Contract

If requested by CITY, CONTRACTOR shall not release any information or documentation concerning the work under this Contract or any part thereof for marketing, advertising, or other commercial activities or publication including, but not limited to, news releases or professional articles without CITY's prior written approval. CONTRACTOR may submit at any time for review and approval a generic abstract describing the component parts of the completed Scope of Services ("Project Abstract"). After receiving written approval of the Project Abstract from the CITY, the CONTRACTOR may make minor insignificant changes to the Project Abstract and use all or parts of the Project Abstract in proposals.

This Section shall survive for six (6) years after the termination or expiration of this Contract.

34. Dispute Resolution

In the event of a dispute pertaining to this Contract, the parties agree to attempt to negotiate in good faith an acceptable resolution. If a resolution cannot be negotiated, then the parties agree to submit the dispute to voluntary non-binding mediation before pursuing other remedies. This provision does not limit the CITY'S right to terminate authorized by this Contract.

35. Miscellaneous Provisions

Governing Law and Venue

Washington law shall govern the interpretation of this Contract. Pierce County shall be the venue of any mediation, arbitration, or litigation arising out of this Contract.

Assignment

The CONTRACTOR shall not assign, subcontract, delegate, or transfer any obligation, interest or claim to or under this Contract or for any of the compensation due hereunder without the prior written consent of the CITY.

No Third Party Beneficiaries

This Contract shall be for the sole benefit of the parties hereto, and nothing contained herein shall create a contractual relationship with, or create a cause of action in favor of, a third party against either party hereto.

Waiver

A waiver or failure by either party to enforce any provision of this Contract shall not be construed as a continuing waiver of such provisions, nor shall the same constitute a waiver of any other provision of this Contract.

Severability and Survival

If any term, condition or provision of this Contract is declared void or unenforceable or limited in its application or effect, such event shall not affect any other provisions hereof and all other provisions shall remain fully enforceable. The provisions of this Contract, which by their sense and context are reasonably intended to survive the completion, expiration or cancellation of this Contract, shall survive termination of this Contract.

Entire Agreement

This Contract and the attached Exhibits, as modified herein, contain the entire agreement between the parties as to the services to be rendered hereunder. All previous and contemporaneous agreements, representations or promises and conditions relating to the subject matter of this Contract are superseded hereby. The Parties hereto mutually acknowledge, understand and agree that the terms and conditions set forth herein shall control and prevail over any conflicting terms and conditions stated in any attachments hereto.

Modification

No modification or amendment of this Agreement shall be effective unless set forth in a written and executed Amendment to this Contract.

Direct Solicitation and Negotiation

For service contracts valued \$25,000 or less the City signature authorizes waiver of competitive solicitation by "Direct Solicitation and Negotiation" of professional and personal services in accordance with Tacoma Municipal Code 1.06.256 and the Purchasing Policy Manual.

IN WITNESS WHEREOF, the Parties hereto have accepted and executed this Contract, as of the Effective Date stated above, which shall be Effective Date for bonding purposes as applicable. The undersigned Contractor representative, by signature below, represents and warrants they are duly authorized to execute this legally binding Contract for and on behalf of Contractor.

CITY OF TACOMA:
By: _____

CONTRACTOR:
By: _____

(City of Tacoma use only - blank lines are intentional)

Director of Finance: _____

City Attorney (approved as to form): _____

Approved By: _____

APPENDIX C

Insurance Requirements



CITY OF TACOMA INSURANCE REQUIREMENTS FOR CONTRACTS

The Contractor (Contractor) shall maintain at least the minimum insurance set forth below. By requiring such minimum insurance, the City of Tacoma shall not be deemed or construed to have assessed the risk that may be applicable to Contractor under this Contract. Contractor shall assess its own risks and, if it deems appropriate and/or prudent, maintain greater limits and/or broader coverage.

1. GENERAL REQUIREMENTS

The following General Requirements apply to Contractor and to Subcontractor(s) of every tier performing services and/or activities pursuant to the terms of this Contract. Contractor acknowledges and agrees to the following insurance requirements applicable to Contractor and Contractor's Subcontractor(s):

- 1.1. City of Tacoma reserves the right to approve or reject the insurance provided based upon the insurer, terms and coverage, the Certificate of Insurance, and/or endorsements.
- 1.2. Contractor shall not begin work under the Contract until the required insurance has been obtained and approved by City of Tacoma.
- 1.3. Contractor shall keep this insurance in force during the entire term of the Contract and for Thirty (30) calendar days after completion of all work required by the Contract, unless otherwise provided herein.
- 1.4. Insurance policies required under this Contract that name "City of Tacoma" as Additional Insured shall:
 - 1.4.1. Be considered primary and non-contributory for all claims.
 - 1.4.2. Contain a "Separation of Insured provision and a "Waiver of Subrogation" clause in favor of City of Tacoma.
- 1.5. Section 1.4 above does not apply to contracts for purchasing supplies only.
- 1.6. Verification of coverage shall include:
 - 1.6.1. An ACORD certificate or equivalent.
 - 1.6.2. Copies of all endorsements naming the City of Tacoma as additional insured and showing the policy number.
 - 1.6.3. A notation of coverage enhancements on the Certificate of Insurance shall not satisfy these requirements – actual endorsements must be submitted.
- 1.7. Liability insurance policies, with the exception of Professional Liability and Workers' Compensation, shall name the City of Tacoma and its officers, elected officials, employees, agents, and authorized volunteers as additional insured.
 - 1.7.1. No specific person or department should be identified as the additional insured.
 - 1.7.2. All references on certificates of insurance and endorsements shall be listed as "City of Tacoma".
 - 1.7.3. The City of Tacoma shall be additional insured for both ongoing and completed operations using Insurance Services Office (ISO) form CG 20 10 04 13 and CG 20



CITY OF TACOMA INSURANCE REQUIREMENTS FOR CONTRACTS

37 04 13 or the equivalent for the full available limits of liability maintained by the Contractor irrespective of whether such limits maintained by the Contractor are greater than those required by this Contract and irrespective of whether the Certificate of Insurance describes limits lower than those maintained by the Contractor.

- 1.8. Contractor shall provide a Certificate of Insurance for each policy of insurance meeting the requirements set forth herein when Contractor provides the signed Contract for the work to City of Tacoma. Contractor shall provide copies of any applicable Additional Insured, Waiver of Subrogation, and Primary and Non-contributory endorsements. Contract or Permit number and the City Department must be shown on the Certificate of Insurance.
- 1.9. Insurance limits shown below may be written with an excess policy that follows the form of an underlying primary liability policy or an excess policy providing the required limit.
- 1.10. Liability insurance policies shall be written on an "occurrence" form, except for Professional Liability/Errors and Omissions, Pollution Liability, and Cyber/Privacy and Security
- 1.11. If coverage is approved and purchased on a "Claims-Made" basis, Contractor warrants continuation of coverage, either through policy renewals or by the purchase of an extended reporting period endorsement as set forth below.
- 1.12. The insurance must be written by companies licensed or authorized in the State of Washington pursuant to RCW 48 with an (A-) VII or higher in the A.M. Best's Key Rating Guide www.ambest.com.
- 1.13. Contractor shall provide City of Tacoma notice of any cancellation or non-renewal of this required insurance within Thirty (30) calendar days.
- 1.14. Contractor shall not allow any insurance to be cancelled or lapse during any term of this Contract, otherwise it shall constitute a material breach of the Contract, upon which City of Tacoma may, after giving Five (5) business day notice to Contractor to correct the breach, immediately terminate the Contract or, at its discretion, procure or renew such insurance and pay any and all premiums in connection therewith; with any sums so expended to be repaid to City of Tacoma by Contractor upon demand, or at the sole discretion of City of Tacoma, offset against funds due Contractor from City of Tacoma.
- 1.15. Contractor shall be responsible for the payment of all premiums, deductibles and self-insured retentions, and shall indemnify and hold the City of Tacoma harmless to the extent such a deductible or self-insured retained limit may apply to the City of Tacoma as an additional insured. Any deductible or self-insured retained limits in excess of Twenty Five Thousand Dollars (\$25,000) must be disclosed and approved by City of Tacoma Risk Manager and shown on the Certificate of Insurance.
- 1.16. City of Tacoma reserves the right to review insurance requirements during any term of the Contract and to require that Contractor make reasonable adjustments when the scope of services has changed.



CITY OF TACOMA INSURANCE REQUIREMENTS FOR CONTRACTS

- 1.17. All costs for insurance shall be incidental to and included in the unit or lump sum prices of the Contract and no additional payment will be made by City of Tacoma to Contractor.
- 1.18. Insurance coverages specified in this Contract are not intended and will not be interpreted to limit the responsibility or liability of Contractor or Subcontractor(s).
- 1.19. Failure by City of Tacoma to identify a deficiency in the insurance documentation provided by Contractor or failure of City of Tacoma to demand verification of coverage or compliance by Contractor with these insurance requirements shall not be construed as a waiver of Contractor's obligation to maintain such insurance.
- 1.20. If Contractor is a State of Washington or local government and is self-insured for any of the above insurance requirements, a certification of self-insurance shall be attached hereto and be incorporated by reference and shall constitute compliance with this Section.

2. CONTRACTOR

As used herein, "Contractor" shall be the Supplier(s) entering a Contract with City of Tacoma, whether designated as a Supplier, Contractor, Vendor, Proposer, Bidder, Respondent, Seller, Merchant, Service Provider, or otherwise.

3. SUBCONTRACTORS

It is Contractor's responsibility to ensure that each subcontractor obtain and maintain adequate liability insurance coverage. Contractor shall provide evidence of such insurance upon City of Tacoma's request.

4. REQUIRED INSURANCE AND LIMITS

The insurance policies shall provide the minimum coverages and limits set forth below. Providing coverage in these stated minimum limits shall not be construed to relieve Contractor from liability in excess of such limits.

4.1 Commercial General Liability Insurance

Contractor shall maintain Commercial General Liability Insurance policy with limits not less than One Million Dollars (\$1,000,000) each occurrence and Two Million Dollars (\$2,000,000) annual aggregate. The Commercial General Liability Insurance policy shall be written on an Insurance Services Office form CG 00 01 04 13 or its equivalent. Products and Completed Operations shall be maintained for a period of three years following Substantial Completion of the Work related to performing construction services.

This policy shall include product liability especially when a Contract solely is for purchasing supplies. The Commercial General Liability policy shall be endorsed to include:

4.1.1 A per project aggregate policy limit, using ISO form CG 25 03 05 09 or an equivalent endorsement.

4.1.2

4.2 Commercial (Business) Automobile Liability Insurance

Contractor shall maintain Commercial Automobile Liability policy with limits not less than One Million Dollars (\$1,000,000) each accident for bodily injury and property damage and bodily injury



CITY OF TACOMA

INSURANCE REQUIREMENTS FOR CONTRACTS

and property damage coverage for owned (if any), non-owned, hired, or leased vehicles. Commercial Automobile Liability Insurance shall be written using ISO form CA 00 01 or equivalent. Contractor must also maintain an MCS 90 endorsement or equivalent and a CA 99 48 endorsement or equivalent if "Pollutants" are to be transported.

4.3 Workers' Compensation

4.3.1 Contractor shall comply with Workers' Compensation coverage as required by the Industrial Insurance laws of the State of Washington, as well as any other similar coverage required for this work by applicable federal laws of other states. The Contractor must comply with their domicile State Industrial Insurance laws if it is outside the State of Washington.

4.4 Employers' Liability Insurance

Contractor shall maintain Employers' Liability coverage with limits not less than One Million Dollars (\$1,000,000) each employee, One Million Dollars (\$1,000,000) each accident, and One Million Dollars (\$1,000,000) policy limit.

4.5 Professional Liability Insurance or Errors and Omissions

Contractor and/or its subcontractor shall maintain Professional Liability or Errors and Omissions with limits of One Million Dollars (\$1,000,000) per claim and Two Million Dollars (\$2,000,000) in the aggregate covering acts, errors and omissions arising out of the professional services under this Contract.

If the policy limit includes the payment of claims or defense costs, from the policy limit, the per claim limit shall be Two Million Dollars (\$2,000,000).

If the scope of such design-related professional services includes work related to pollution conditions, the Professional Liability policy shall include Pollution Liability coverage.

If provided on a "claims-made" basis, such coverage shall be maintained by policy renewals or an extended reporting period endorsement for not less than three years following the end of the Contract.

4.6 Other Insurance

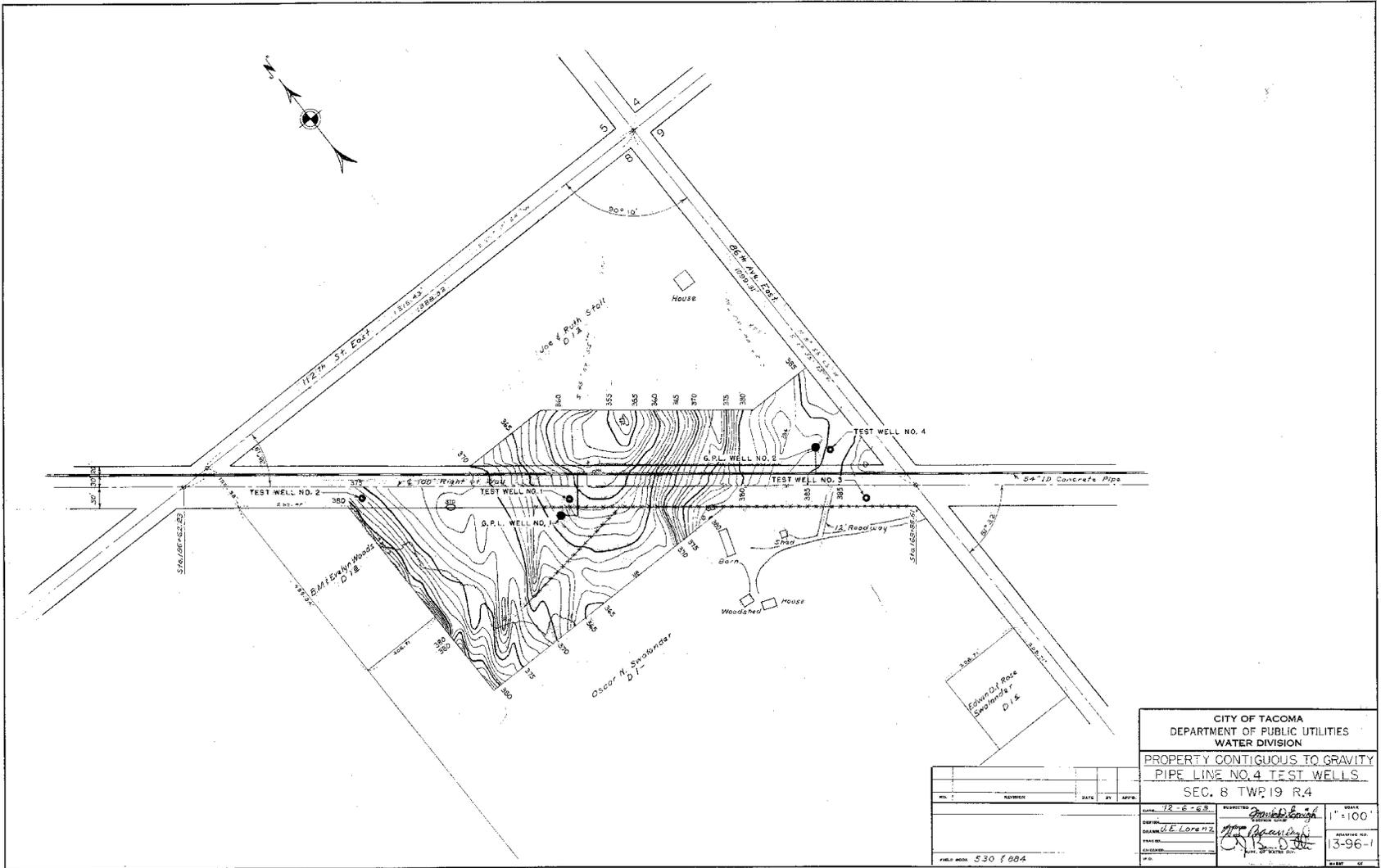
Other insurance may be deemed appropriate to cover risks and exposures related to the scope of work or changes to the scope of work required by City of Tacoma. The costs of such necessary and appropriate Insurance coverage shall be borne by Contractor.

Appendix D

Drawings

Drawing List

GPL1 Drawings	GPL2 Drawings	General Drawings
13-96-01	14-29-01	1070-A
13-96-02	14-29-02	
13-96-03	14-29-03	
13-96-04	14-29-04	
13-96-05	14-29-05	
13-96-06	14-29-06	
13-96-07	14-29-07	
13-96-08	14-29-08	
13-96-09	14-29-09	
13-96-10	661-A	
14-92-01	679-A	
14-92-02	1612-B	
1598-B	729-A	
651-A		
730-A		

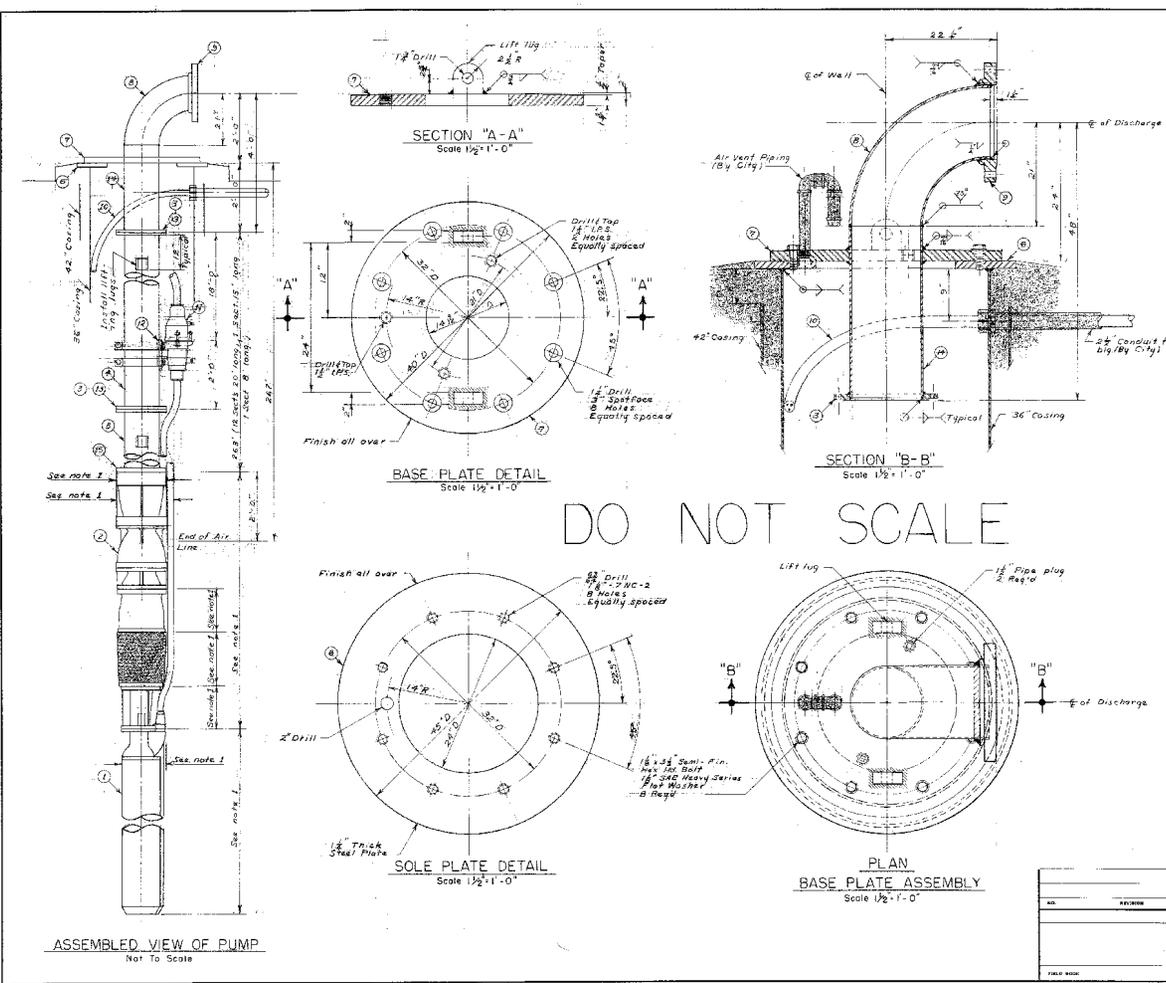


CITY OF TACOMA
 DEPARTMENT OF PUBLIC UTILITIES
 WATER DIVISION

PROPERTY CONTIGUOUS TO GRAVITY
 PIPE LINE NO. 4 TEST WELLS
 SEC. 8 TWP. 19 R. 4

NO.	REVISION	DATE	BY	APP.

DATE: 7-2-68	DESIGNED: <i>[Signature]</i>	SCALE: 1" = 100'
DRAWN: C.E. Lorenz	CHECKED: <i>[Signature]</i>	REVISION NO. 13-96-1
PROJECT: <i>[Signature]</i>	APPROVED: <i>[Signature]</i>	DATE: 7-2-68
FIELD NO. 530 1004		



DO NOT SCALE

LIST OF MATERIALS			
PART NO.	QUAN.	DESCRIPTION	MATERIAL
1	1	Submersible Motor #50HP 1775 RPM, 2300 Volts	As req'd
2	1	Submersible pump bowl assembly	"
3	20	1/2" Column Flange (Weld to (B)) 1 (2)	Steel
4	13	1/4" Sched 20 pipe-cut 20" face to face	"
5	1	Taper Section (Cut B face to face)	"
6	1	Sole plate 1/2" Thick, 45 dia.	"
7	1	Base plate 2" Thick, 40 dia.	"
8	1	Discharge elbow 1/2" 90° Std. weight-1. R.	"
9	1	1/4" 150° Slip-On Flange	"
10	10	1/2" Power cable (3C-1/2" Armored cable)	Per Spec.
11	1	6/0 Cable Cmp. (Type CR 5-5000V-200 Amps/10ft. Std.)	"
12	1	Mounting Plate (To be clamped to column pipe)	Steel
13	28	1/4" Flange, Galv. Pl.	Per Spec.
14	1	1/4" Schedule pipe-cut 215" face to face	Steel
15	1	Flange (Taper Sect. to pump as req'd)	"

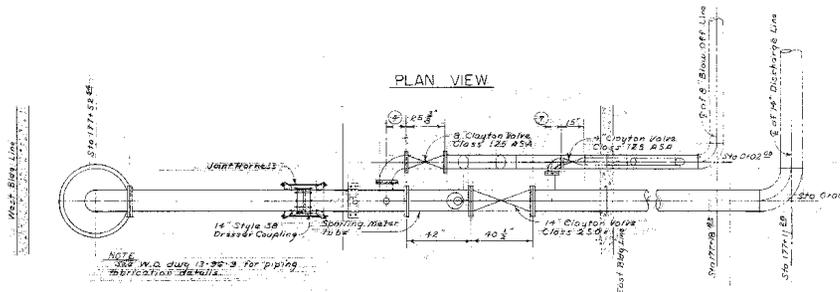
NOTES

- Bidder to supply dimension.
- Power cable shall be supported by the column pipe every ten feet with cable grips & seals. Provided with stainless steel bands & buckles.
- Shaded areas indicate portions furnished by the City.

CITY OF TACOMA
DEPARTMENT OF PUBLIC UTILITIES
WATER DIVISION

**GRAVITY PIPE LINE WELL NO. 1
SUBMERSIBLE PUMP
ASSEMBLY**

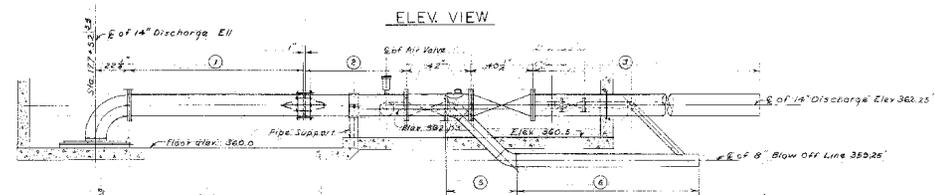
DATE: 4-13-64	DESIGNED BY: [Signature]	CHECKED BY: [Signature]
DRAWN BY: J.E.L.	PROJECT NO: 13-96-2	SCALE: As Shown
APPROVED BY: [Signature]	DATE: 4-13-64	BY: [Signature]



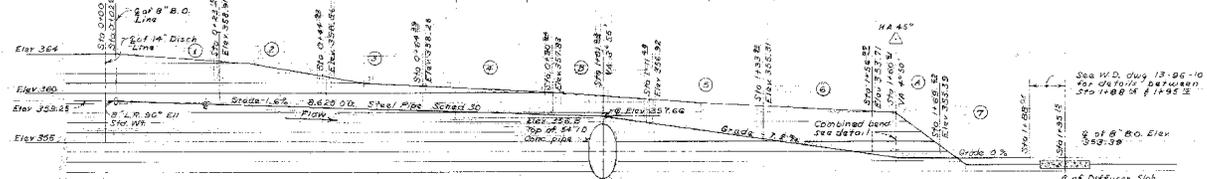
PLAN VIEW

NOTE
See W.D. Eng 13-96-3 for piping
substitution details.

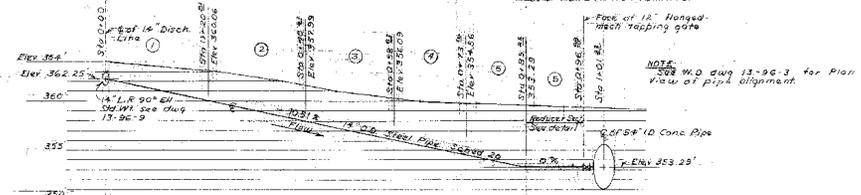
STATION PIPING
Scale 3/8" = 1'-0"



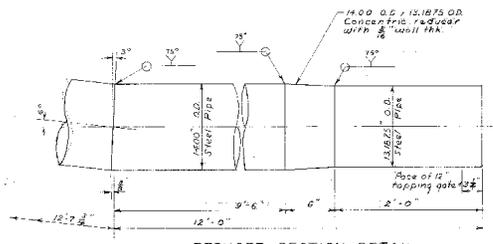
ELEV VIEW



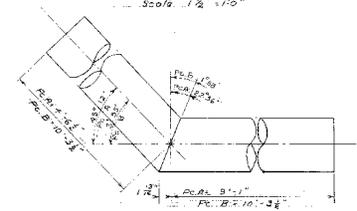
PROFILE B" BLOW OFF LINE
Scale Horiz 1" = 10' Vert 1" = 5'



PROFILE 14" DISCHARGE LINE
Scale Horiz 1" = 10' Vert 1" = 5'



REDUCER SECTION DETAIL
Scale 1/2" = 1'-0"



COMBINED BEND DETAIL
Scale 1/2" = 1'-0"

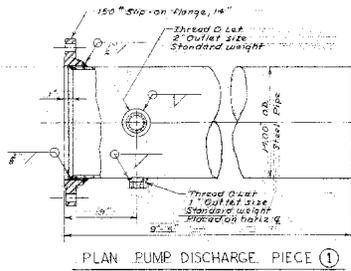
CITY OF TACOMA
DEPARTMENT OF PUBLIC UTILITIES
WATER DIVISION

GRAVITY PIPE LINE WELL NO 1
STATION PIPING
B" B, Q & 14" DISCH. PROFILES

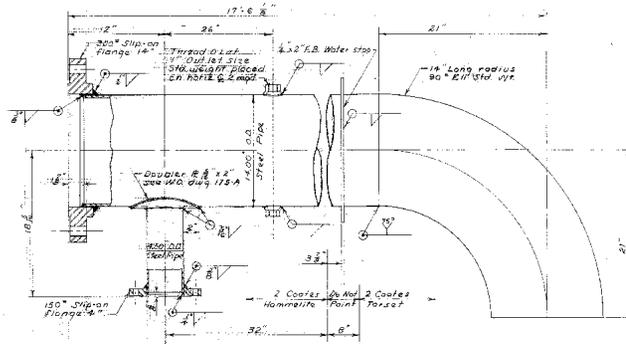
NO.	REVISION	DATE	BY	APP.

DATE: 9-29-84	DESIGNED: P.R.H.	CHECKED: J.E.H.	DATE: 9-29-84
APPROVED: J.E.H.	APPROVED: J.E.H.	DATE: 9-29-84	DATE: 9-29-84
PROJECT: 13-96-3	BY: J.E.H.	DATE: 9-29-84	DATE: 9-29-84
SCALE: 1/2" = 1'-0"	BY: J.E.H.	DATE: 9-29-84	DATE: 9-29-84

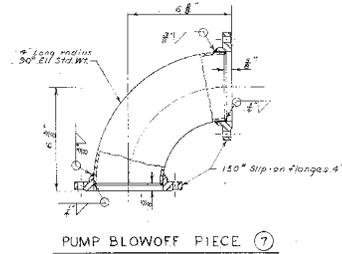
AS SHOWN
DRAWING NO.
13-96-8
SHEET 10



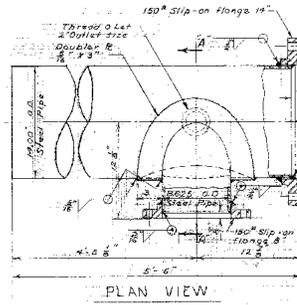
PLAN PUMP DISCHARGE PIECE ①



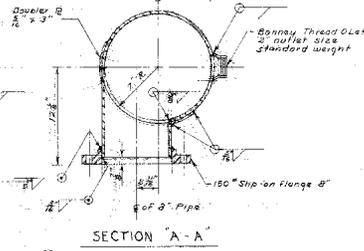
PLAN - PUMP DISCHARGE - PIECE ③



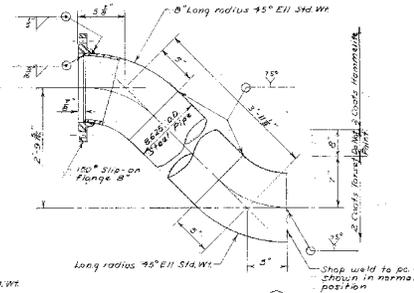
PUMP BLOWOFF PIECE ⑦



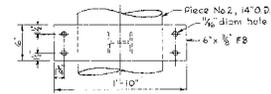
PUMP DISCHARGE PIECE ②



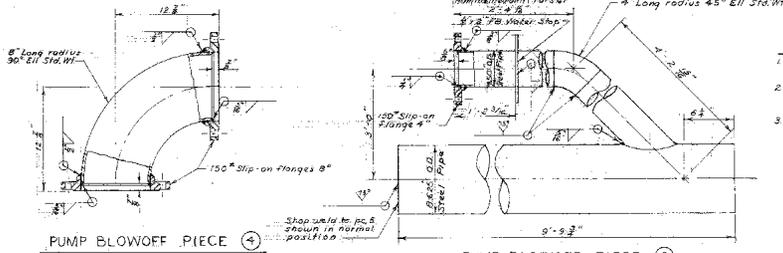
SECTION A-A



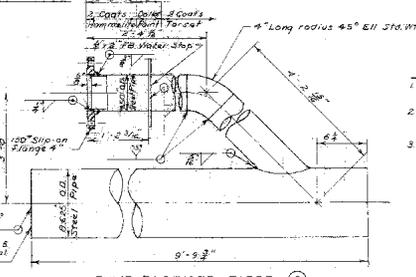
PUMP BLOWOFF PIECE ⑤



PIPE SUPPORT DETAIL



PUMP BLOWOFF PIECE ④

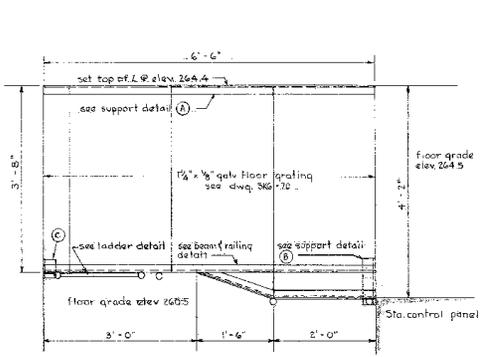


PUMP BLOWOFF PIECE ⑥

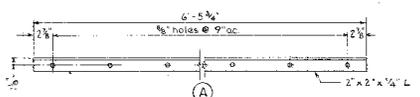
NOTES

1. All holes to straddle vertical ϵ on all flanges.
2. Tap all flanges and doubler plates for 1/4" NPS. Apply 40" air test. Weld full after acceptance.
3. All pieces are to be sandblasted after fabrication and painted inside with 2 coats of zinc chromate. The outside of pieces 1, 2, 4 and 7 shall receive 2 coats of flammable. Pieces 3, 5, and 6 shall be painted as shown.

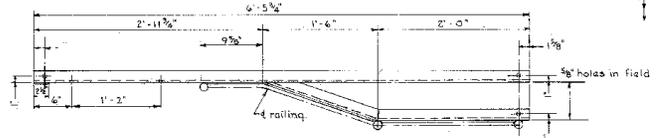
CITY OF TACOMA DEPARTMENT OF PUBLIC UTILITIES WATER DIVISION			
GRAVITY PIPE LINE WELL NO. 1 PIPING FABRICATION DETAILS			
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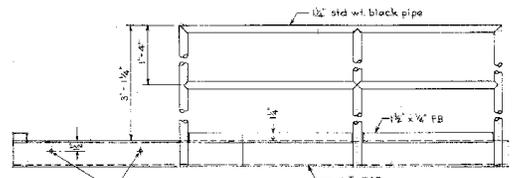
GRATING FLOOR PLAN
1' x 1'-0"



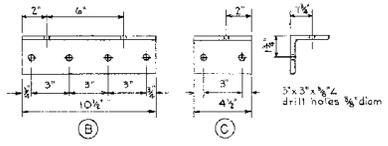
SUPPORT DETAIL
1 1/2' x 1'-0"



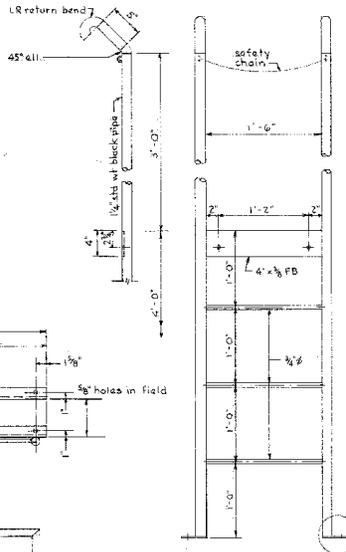
PLAN



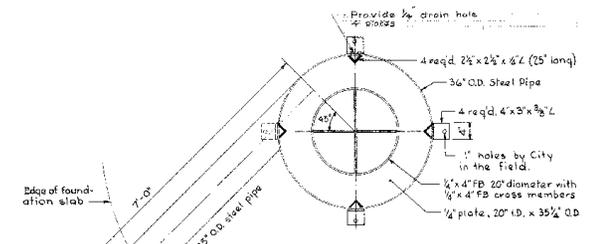
ELEVATION
BEAM & RAILING DETAIL
1 1/2' x 1'-0"



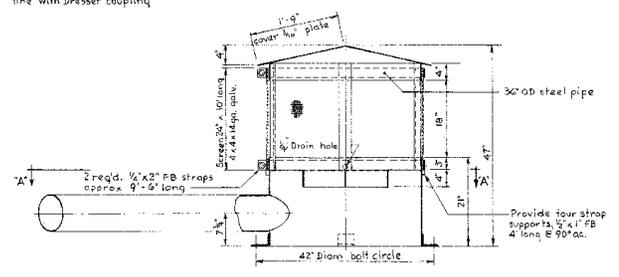
SUPPORT DETAIL
3' x 1'-0"



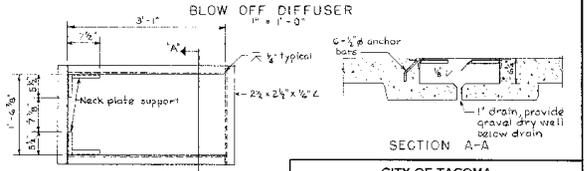
LADDER DETAIL
1 1/2' x 1'-0"



SECTION A-A



BLOW OFF DIFFUSER
1' x 1'-0"



SCALE PIT FRAME
1' x 1'-0"

NO.	REVISION	DATE	BY	APP'D.

CITY OF TACOMA DEPARTMENT OF PUBLIC UTILITIES WATER DIVISION	
GRAVITY PIPE LINE WELL NO. 1	
MISCELLANEOUS STEEL FABRICATIONS	
DATE: 8-28-04	REVISION:
DESIGN: F R H	SECTION CHECK:
DRAWN: C R H	APPROVED:
CHECKED:	DATE OF REVIEW:
NO. 10587	SCALE: 1/8" = 1'-0"

REV.	DESCRIPTION	DATE	BY	CHKD.
1	ISSUED FOR CONSTRUCTION			

GENERAL ELECTRIC 1350283
 INDUSTRY CONTROL DEPARTMENT
 NEW YORK, N. Y.
 TYPE 735730000000
 10-TIME A.M.P. 15.0
 REDUCTION MOTOR CONTROL LEE

GENERAL NOTES

- 1. MOTOR OPERATOR STARTER WITH THE FUSE SHELF IN THE DISCONNECT POSITION, AND THE TEST POWER INTERLOCK ON THE TEST POSITION.
- 2. TO TEST FUSE SHELF MUST BE IN THE DISCONNECT POSITION. FURNISHED TO CONNECT TEST POWER TO THE PROPER TERMINALS SO THAT THE TEST POWER BEING CONNECTED WITH THE STARTER CONTROL CIRCUIT.
- 3. TO START MOTOR FUSE SHELF AND TURN SELECTOR SWITCH (SEMI) TO "LOCK" POSITION, OR FOR AUTOMATIC LIGHT TURN (SEMI) TO "STOP" AND ENERGIZE LIGHT.
- 4. L11 OPENS ONLY WHEN FUSE SHELF HANDLE IS PUSHED IN. HANDLE IS OPENED WHEN MAIN LINE CONTACTOR IS CLOSED.
- 5. AT TERMINAL 112, A LOOP IN THE SECONDARY CIRCUIT WIRE PERMITS THE INSERTION OF A HOOK-ON AMPMETER FOR MEASURING LINE CURRENT.

NONRELATIVE

- 100.....RELATIVE DEVICE - CITY OF TACOMA
- 101.....CONTROL POWER INTERLOCK (OPERATED BY FUSE SHELF HANDLE)
- 102.....CONTROL POWER TRANSFORMER
- 103.....CONTROL RELAY
- 104.....CURRENT TRANSFORMER
- 105.....FUSE
- 106.....FUSE
- 107.....FUSE
- 108.....FUSE
- 109.....FUSE
- 110.....FUSE
- 111.....FUSE
- 112.....FUSE
- 113.....FUSE
- 114.....FUSE
- 115.....FUSE
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- 198.....FUSE
- 199.....FUSE
- 200.....FUSE

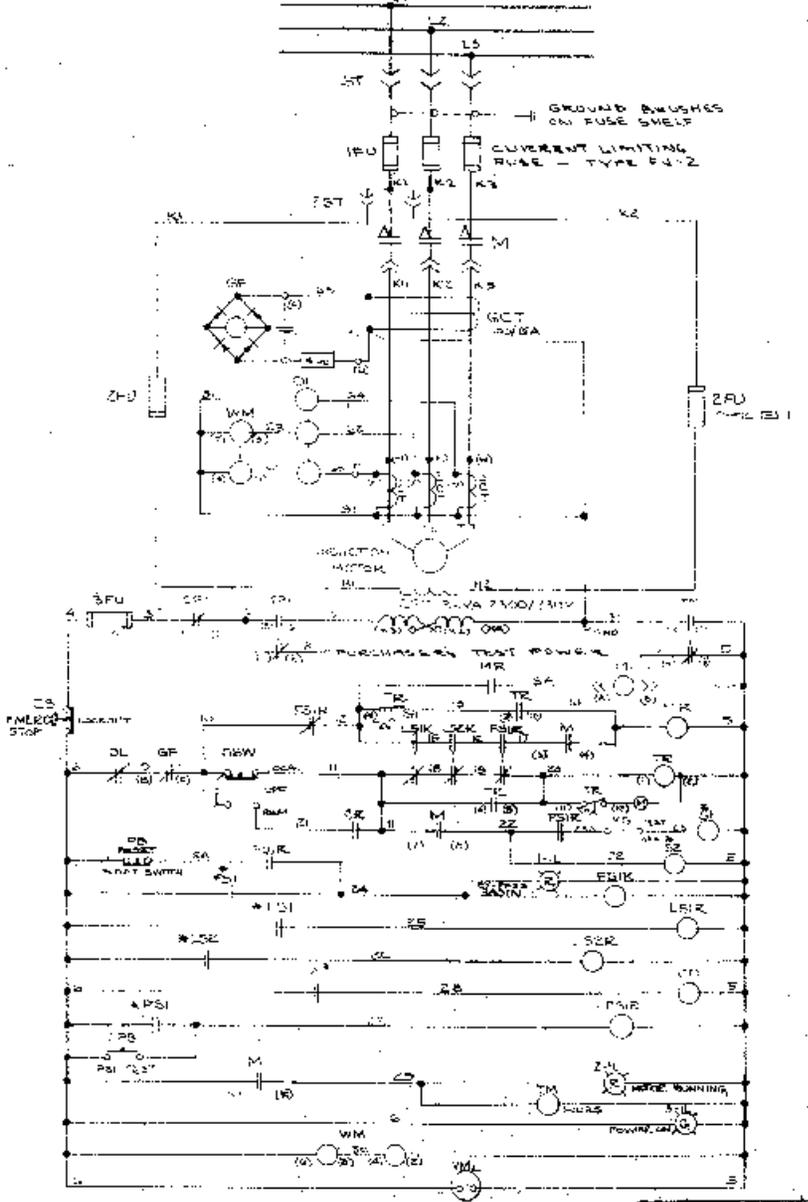
WATER DIV. DWG.
 14-92-1

Gravity P.W. Well #1

DIAGRAM PART TABLE

NO.	DESCRIPTION	QTY.	REMARKS
1	100	1	RELATIVE DEVICE - CITY OF TACOMA
2	101	1	CONTROL POWER INTERLOCK (OPERATED BY FUSE SHELF HANDLE)
3	102	1	CONTROL POWER TRANSFORMER
4	103	1	CONTROL RELAY
5	104	1	CURRENT TRANSFORMER
6	105	1	FUSE
7	106	1	FUSE
8	107	1	FUSE
9	108	1	FUSE
10	109	1	FUSE
11	110	1	FUSE
12	111	1	FUSE
13	112	1	FUSE
14	113	1	FUSE
15	114	1	FUSE
16	115	1	FUSE
17	116	1	FUSE
18	117	1	FUSE
19	118	1	FUSE
20	119	1	FUSE
21	120	1	FUSE
22	121	1	FUSE
23	122	1	FUSE
24	123	1	FUSE
25	124	1	FUSE
26	125	1	FUSE
27	126	1	FUSE
28	127	1	FUSE
29	128	1	FUSE
30	129	1	FUSE
31	130	1	FUSE
32	131	1	FUSE
33	132	1	FUSE
34	133	1	FUSE
35	134	1	FUSE
36	135	1	FUSE
37	136	1	FUSE
38	137	1	FUSE
39	138	1	FUSE
40	139	1	FUSE
41	140	1	FUSE
42	141	1	FUSE
43	142	1	FUSE
44	143	1	FUSE
45	144	1	FUSE
46	145	1	FUSE
47	146	1	FUSE
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91	190	1	FUSE
92	191	1	FUSE
93	192	1	FUSE
94	193	1	FUSE
95	194	1	FUSE
96	195	1	FUSE
97	196	1	FUSE
98	197	1	FUSE
99	198	1	FUSE
100	199	1	FUSE
101	200	1	FUSE

A.C. SOURCE



APPROVED FOR INSTALLATION: _____ DATE: _____
 CHECKED BY: _____ DATE: _____
 DESIGNED BY: _____ DATE: _____
 DRAWN BY: _____ DATE: _____
 GENERAL ELECTRIC COMPANY, NEW YORK, N. Y.

W.R. 14-92-1

1350283
 DWG. NO. 14-92-1

DATE OF DEPOSIT

730-A

WELL DATA AND Gravity Pipeline Well #1

1302 East Pipeline Road YEAR INSTALLED 1964 Remote control

DEPTH 360' C. DIAMETER MAIN 362.25' IN. 315'

PIPE CASING 36" L. DIAM. CASING 270'

PIPE CASING 24" L. DIAM. CASING 73'

PIPE CASING 24" L. DIAM. CASING 33'

TYPE BYRON JACKSON BYRON JACKSON SUBMERSIBLE YEAR INSTALLED 1964

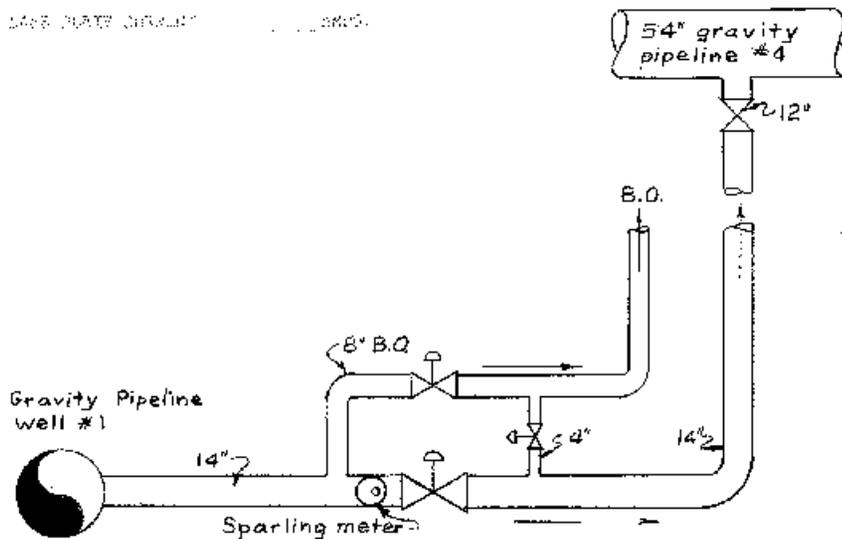
DEPTH 8-711238 C. DIAM. 3200 G.P. 485' T.D.H.

YEAR INSTALLED 1964 4 stage 18" KXL

TYPE BYRON JACKSON BYRON JACKSON YEAR INSTALLED 1964

LINE NUMBER 1775 VOLTAGE 2.3KV 3 ⁶⁰ 60

DATE OF DEPOSIT



730 A
JEX 7-12-67

DATE OF DEPOSIT

730-A

WELL DATA AND Gravity Pipeline Well #1

1302 East Pipeline Road YEAR INSTALLED 1964 Remote control

APPROX. DEPTH 360 C. DIAMETER MAIN 362.25' IN. 315'

PIPE DIA. 36" LATEST MANUFACTURE DATE 270

PIPE DIA. 24" WEIGHT MANUFACTURE & LENGTH 73

PIPE DIA. 24" WEIGHT MANUFACTURE & LENGTH 33

TYPE BYRON JACKSON BYRON JACKSON SUBMERSIBLE YEAR INSTALLED 1964

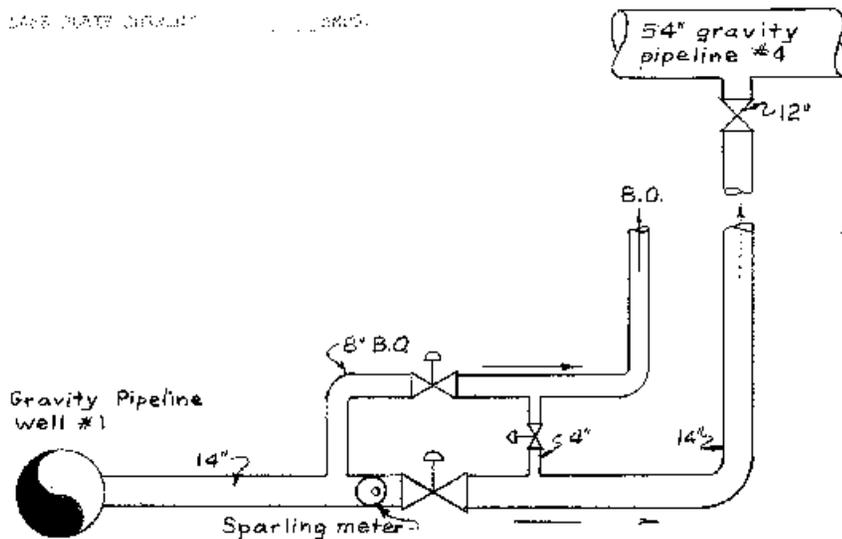
APPROX. DEPTH S-711238 CON. CAP. 3200 G.P.H. @ 485' T.D.H.

YEAR INSTALLED 1964 4 stage 18" KXL

TYPE BYRON JACKSON BYRON JACKSON YEAR INSTALLED 1964

LINE NUMBER 1775 VOLTAGE 2.3KV @ 3 ⁶⁰ / 60

DATE OF DEPOSIT



730 A
JEX 7-12-67

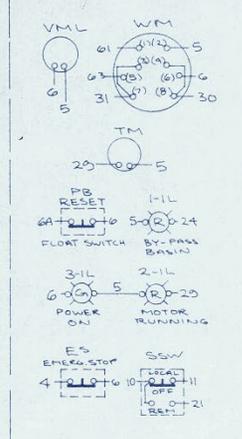
REVISIONS	1	2	3	4
DRAWING NO. DESCRIPTION. MATERIAL WEIGHT				
NAME				
PART NO.				
QTY. IN NO. AND QUANTITY				

MADE BY *San Diego*
 APPROVAL *WJ* ISSUED *7/67*
 FIRST MADE FOR *50/14650*

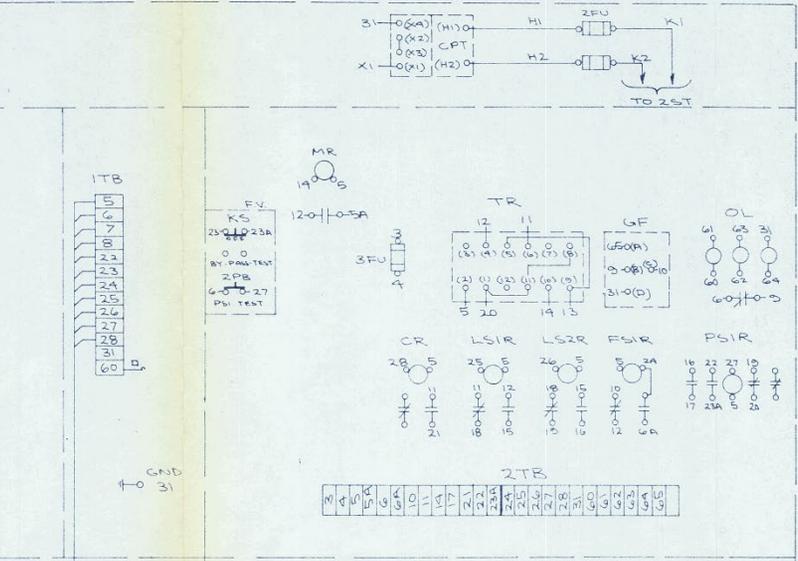
GENERAL ELECTRIC 135C6283
 INDUSTRY CONTROL DEPARTMENT
 SAN LEONARD, CALIF. CONT. ON SH. EL. SH. NO. 2
 TITLE CONN. IC-7160-A117 OR B LIMITAMP
 FVNR IND MOTOR CONTROLLER

IC-7160-A117 PANEL.

DOOR BACK VIEW



FRONT VIEW

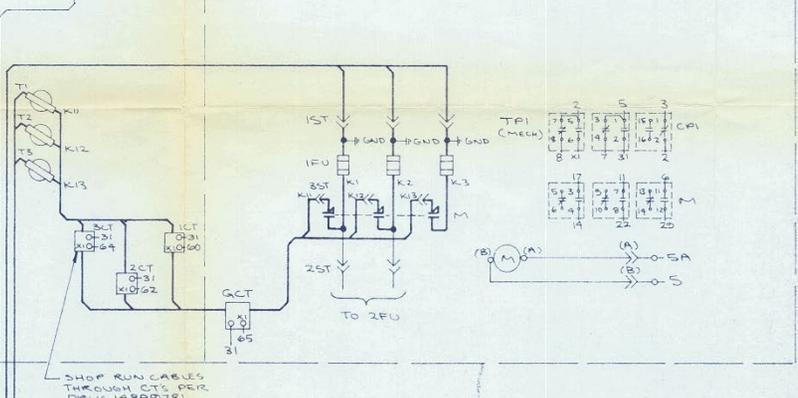


WIRE	CONNECTION
#19 STD. SI-58170	
X1	CPT:TAI
2	CPT:TAI
2A	2TB:3FU:CP1
5	2TB:3FU:ES
5A	ITB:2TB:MTB:TAI:TR: FSIR:LSIR:LS2R:PSIR: CR:1-IL:2-IL:3-IL:TM: WM:VML:MR
6	2TB:MTB:MR
6A	ITB:2TB:M:OL:ES:PB: 3-IL:WM:VML:2PB
7	2TB:PB:FSIR
8	ITB:TAI
10	OL:GF
11	2TB:GF:FSIR:SSW
12	ITB:SSW:M:CR:TR:LSIR: FSIR:TR:LSIR:MR
14	2TB:M:TR:MR
15	LSIR:LS2R
16	LS2R:PSIR
17	2TB:M:PSIR
18	LSIR:LS2R
19	LS2R:PSIR
20	PSIR:TR
21	2TB:CR:SSW
22	2TB:M:PSIR:ITB
23	ITB:KS
23A	2TB:KS:PSIR
24	ITB:2TB:FSIR:1-IL
25	ITB:2TB:LSIR
26	ITB:2TB:LS2R
27	ITB:2TB:PSIR:2PB
28	ITB:2TB:CR
29	M:TM:2-IL
31	ITB:2TB:OL:GF:WM
60	ITB:2TB:OL:ICT
61	2TB:OL:WM
62	2TB:OL:2CT
63	2TB:OL:WM
64	2TB:OL:3CT
65	2TB:GF:GCT

TO PURCHASER'S TEST POWER → 7, 8

TO PURCHASER'S REMOTE DEVICES: 5, 6, 22, 23, 24, 25, 20, 27, 28, 51, 52, FS1, LS1, LS2, PS1, A

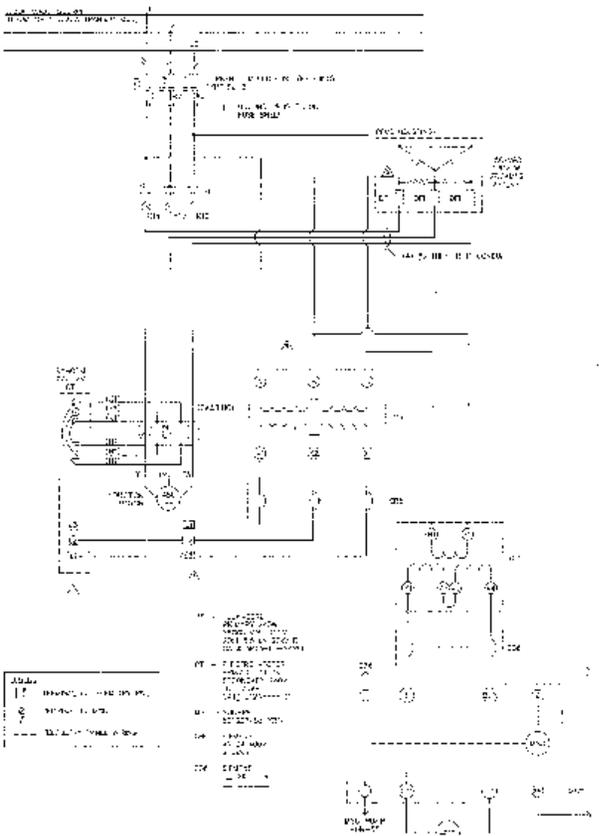
TO AC SOURCE
 TO IND MOTOR



WATER DIV. DWG.
 14-92-2

135C6283
 CONT. ON SH. EL. SH. NO. 2

CUSTOMER: *City of Tacoma* ORDER NO. *135C6283* DATE: *7/67* APPROVED FOR INSTALLATION: *[Signature]* FOR YOUR APPROVAL:
 PRINTS ARE NOT TO SCALE AND ARE LOANED SUBJECT TO RETURN UPON DEMAND AND UPON THE EXPRESS NOTICE OF PURCHASER REFER TO CONTRACT FOR MATERIAL TO BE FURNISHED BY THE GENERAL ELECTRIC CO. THE AMOUNT OF SUCH MATERIAL IS NOT INCREASED BY ANYTHING SHOWN UPON THIS DRAWING. GENERAL ELECTRIC CO.



WIRING SCHEMATIC

NO.	DESCRIPTION	QTY	REMARKS
1	STARTER MOTOR	1	
2	STARTER CONTROL CIRCUITRY	1	
3	STARTER MOTOR	1	
4	STARTER MOTOR	1	
5	STARTER MOTOR	1	

NOTES:

1. ALL WIRING TO BE DONE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC).
2. THE MOTOR SHALL BE PROTECTED BY A CIRCUIT BREAKER OF THE FOLLOWING RATING:
 - 30 AMP.
 - 250 V.
3. THE MOTOR SHALL BE PROTECTED BY A THERMAL OVERLOAD RELAY OF THE FOLLOWING RATING:
 - 30 AMP.
 - 250 V.
4. THE MOTOR SHALL BE PROTECTED BY A FUSE OF THE FOLLOWING RATING:
 - 30 AMP.
 - 250 V.
5. THE MOTOR SHALL BE PROTECTED BY A GROUND FAULT CIRCUIT INTERRUPTER (GFCI) OF THE FOLLOWING RATING:
 - 30 AMP.
 - 250 V.
6. THE MOTOR SHALL BE PROTECTED BY A SHORT-CIRCUIT AND GROUND FAULT CIRCUIT INTERRUPTER (SCGFCI) OF THE FOLLOWING RATING:
 - 30 AMP.
 - 250 V.
7. THE MOTOR SHALL BE PROTECTED BY A DIFFERENTIAL CURRENT CIRCUIT INTERRUPTER (DCC) OF THE FOLLOWING RATING:
 - 30 AMP.
 - 250 V.
8. THE MOTOR SHALL BE PROTECTED BY A RESIDUAL CURRENT CIRCUIT INTERRUPTER (RCC) OF THE FOLLOWING RATING:
 - 30 AMP.
 - 250 V.
9. THE MOTOR SHALL BE PROTECTED BY A RESIDUAL CURRENT CIRCUIT INTERRUPTER (RCC) OF THE FOLLOWING RATING:
 - 30 AMP.
 - 250 V.
10. THE MOTOR SHALL BE PROTECTED BY A RESIDUAL CURRENT CIRCUIT INTERRUPTER (RCC) OF THE FOLLOWING RATING:
 - 30 AMP.
 - 250 V.

STARTER INCLUDES:

- 1. THERMAL OVERLOAD RELAY
- 2. CIRCUIT BREAKER
- 3. FUSE
- 4. GFCI
- 5. SCGFCI
- 6. DCC
- 7. RCC
- 8. RCC
- 9. RCC
- 10. RCC

WIRING SCHEMATIC:

1. THE WIRING SHALL BE DONE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC).

2. THE WIRING SHALL BE DONE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC).

3. THE WIRING SHALL BE DONE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC).

4. THE WIRING SHALL BE DONE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC).

5. THE WIRING SHALL BE DONE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC).

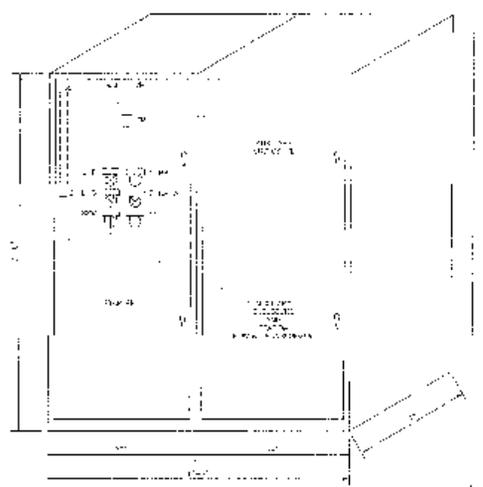
6. THE WIRING SHALL BE DONE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC).

7. THE WIRING SHALL BE DONE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC).

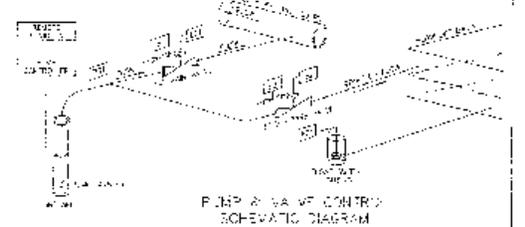
8. THE WIRING SHALL BE DONE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC).

9. THE WIRING SHALL BE DONE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC).

10. THE WIRING SHALL BE DONE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC).



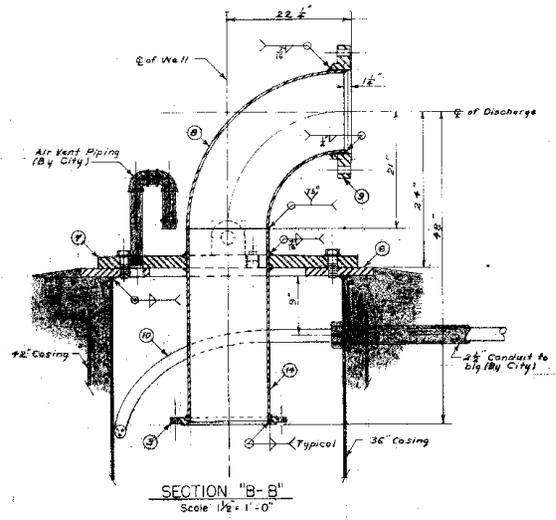
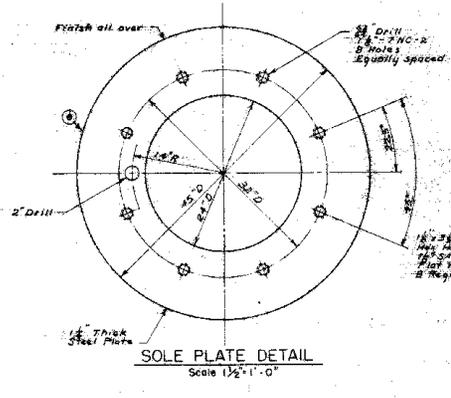
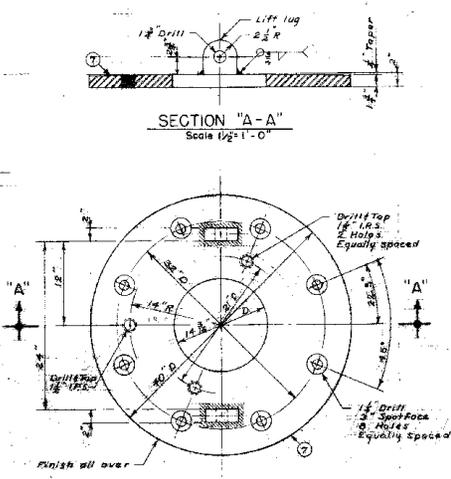
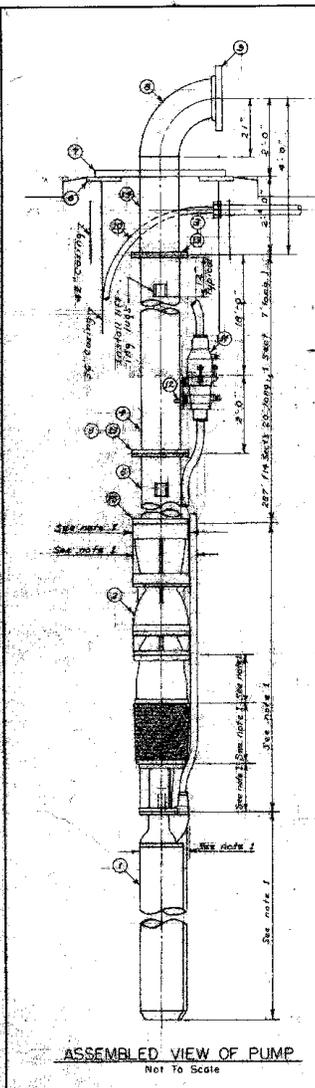
STARTER ENCLOSURE



PUMP'S V.F.D. CONTROL SCHEMATIC DIAGRAM

STARTER CONTROL WIRING SCHEMATIC

STARTER CONTROL WIRING SCHEMATIC
 STARTER PLUS AUXILIARY CONTACTS
 PUMP'S V.F.D. CONTROL SCHEMATIC DIAGRAM



DO NOT SCALE

LIST OF MATERIALS			
PART NO.	QUAN.	DESCRIPTION	MATERIAL
1	1	Submersible Motor 150 H.P., 1775 R.P.M., 2500 Volts	As Req'd
2	1	Submersible pump bowl assembly	"
3	2B	1/2" Column Flange (Flange to C.D. @ 1 (2))	Steel
4	13	1/4" Sched. 40 pipe - cut 20" Face to face	"
5	1	Taper Section (Cut 5" face to face)	"
6	1	Base plate 1/2" thick, 43" dia.	"
7	1	Base plate 2" thick, 40" dia.	"
8	1	Discharge elbow 1/4" x 30" S.P. weight 4.4	"
9	1	1/4" x 1/2" 30" Dr. Flange	"
10	As Req'd	Power cable (3c - 1/2" Armored cable)	As Spec.
11	1	Cable Coupling (Type to be approved)	Mfg. Spd.
12	1	Mounting studs by City	Steel
13	20	1/2" Flange "C" hex	As Spec.
14	1	1/4" Sched. 40 pipe - cut 20" Face to face	Steel
15	1	Flange (Taper Sect. to pump As Req'd)	"

NOTES

1. Bidder to supply dimension.
2. Power cable shall be supported by the column pipe every ten feet with cable grips & spools provided with stainless steel bands & buckles.
3. Shaded areas indicate portions furnished by the City.



CITY OF TACOMA
DEPARTMENT OF PUBLIC UTILITIES
WATER DIVISION

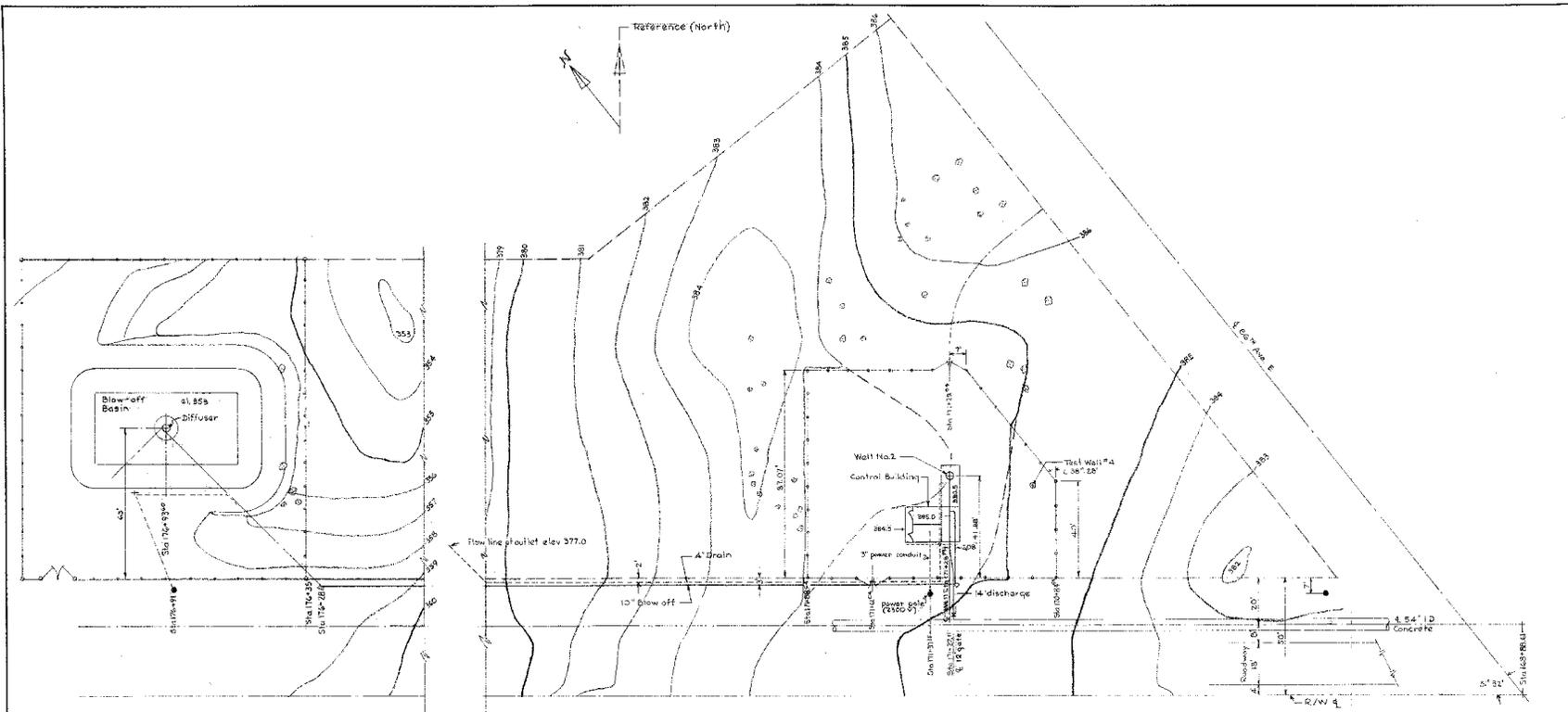
GRAVITY PIPE LINE WELL NO. 2
SUBMERSIBLE PUMP
ASSEMBLY

DATE	REVISION	DATE	BY	APPROV.

DESIGNED BY: J.E.L.
CHECKED BY: J.E.L.
DATE: 4-29-60

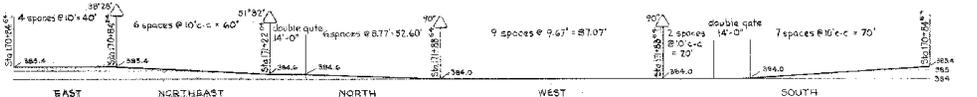
AS SHOWN

4-29-2



PLAN OF GROUNDS

Note: All stationing referenced to
 Pipeline No. 4, stationing
 Sta. 168+88.61 = Mon & R/W (86th Ave East)



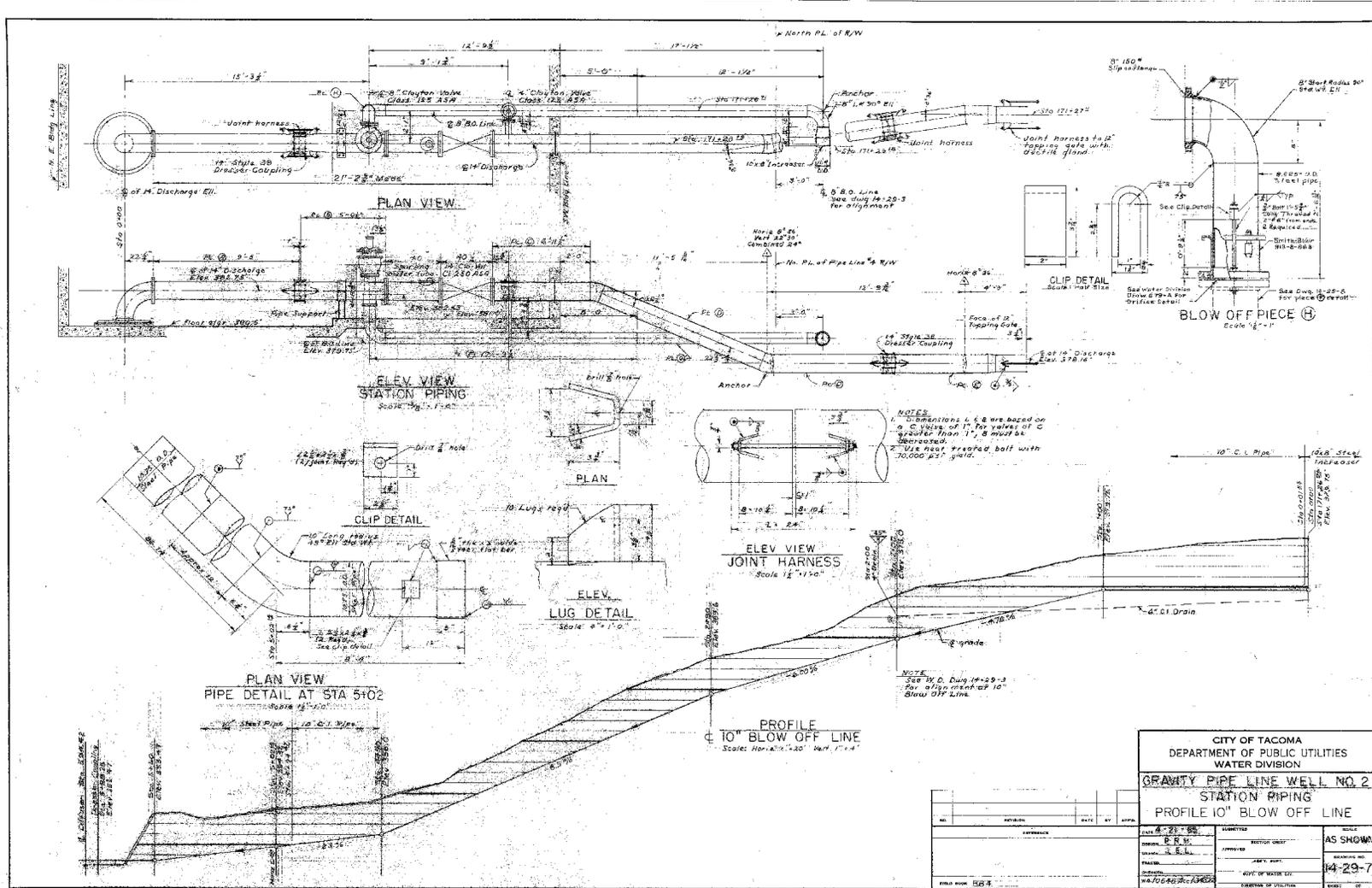
CONTROL BUILDING
 AREA FENCING

Note: Fencing shall be constructed of #9 gal. coil chain link fabric 6' high with 1" barbed wire strand expansion. Posts shall be galvanized pipe section; Gate posts - 4" O.D. Corner posts - 3" O.D. Line - 2 1/2" O.D. or 4 1/2" ft H section.

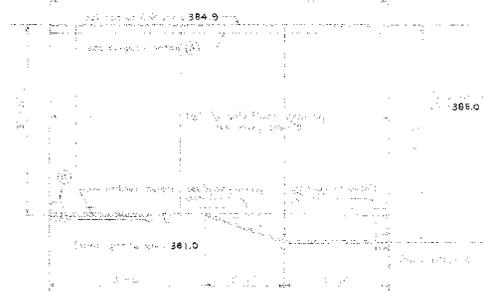
CITY OF TACOMA
 DEPARTMENT OF PUBLIC UTILITIES
 WATER DIVISION
 GRAVITY PIPE LINE WELL NO. 2
 GROUNDS DEVELOPMENT

NO.	REVISION	DATE	BY	APP'D.

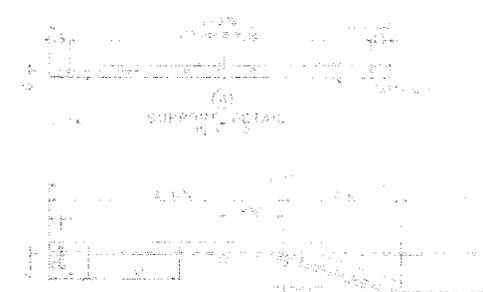
DATE: July 16, 1965	DRAWN: P.H.H.	APPROVED: [Signature]	SCALE: Horiz. 1" = 20' Vert. 1" = 6'
PROJECT: [Blank]	DESIGNER: [Blank]	CHECKED: [Blank]	DRAWING NO.: 14-29-3



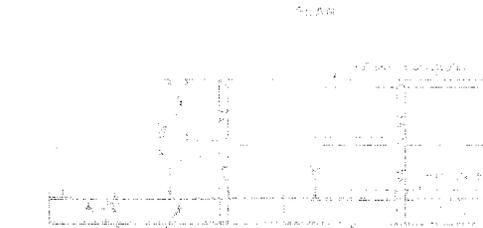
CITY OF TACOMA DEPARTMENT OF PUBLIC UTILITIES WATER DIVISION			
GRANTY PIPE LINE WELL NO. 2 STATION PIPING PROFILE 10" BLOW OFF LINE			
DATE: 6-21-55	DESIGNED BY: B.F.S.	APPROVED BY: B.F.S.	SCALE: AS SHOWN
PROJECT: GRANTY PIPE LINE	ASST. ENGR: []	REVISION NO.:	14-29-7
DEPT. OF WATER DIV.	ENGINEER OF UTILITIES:	DATE:	



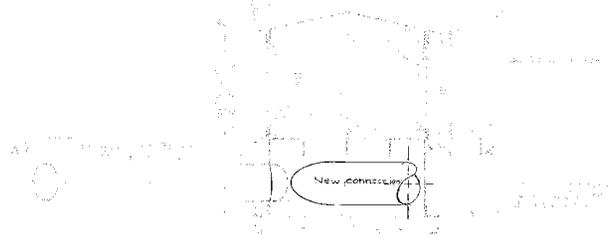
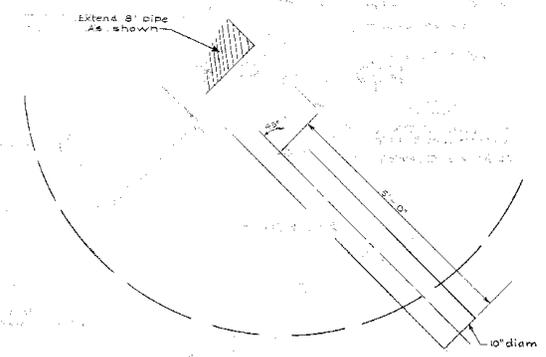
EXISTING FLOOR PLAN



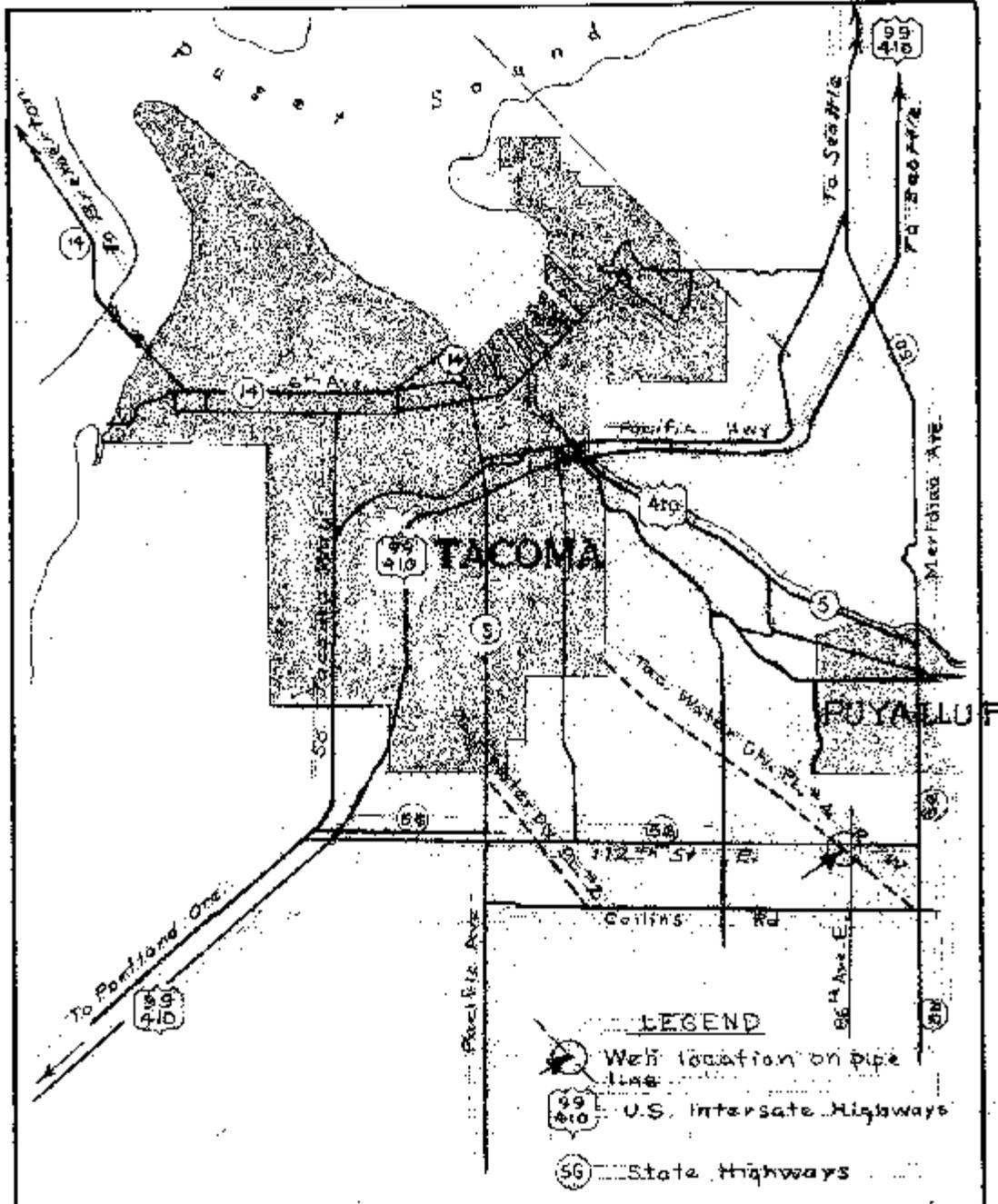
SUPPORT DETAIL



ELEVATION
BEAM & HOLDING DETAIL



CITY OF TARRANT DEPARTMENT OF PUBLIC UTILITIES WATER & SEWER DIVISION WATER MAINS STEEL STRUCTURES		
PROJECT NO. SHEET NO. 14-29-9	DATE DRAWN BY CHECKED BY	SCALE DATE



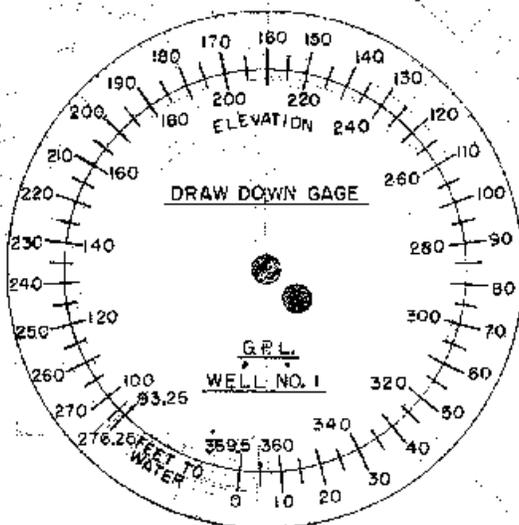
CITY OF TACOMA — DEPARTMENT OF PUBLIC UTILITIES — WATER DIVISION

DATE 1-2-58
 DESIGN [Signature]
 DRAWN [Signature]
 CHECKED [Signature]

SECTION [Signature]
 ASTE [Signature]
 DEPT. OF WATER DIV.

GRAVITY P. L. WELL NO. 2
 ACCESS ROUTES TO SITE

SCALE
 1" = 100'
 DRAWING NO.
 651-A



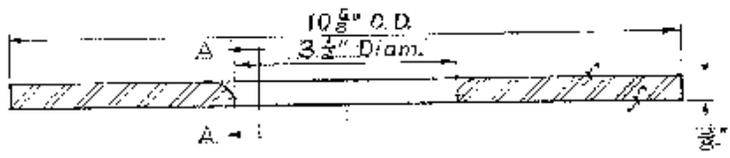
DATA G.P.L. WELL NO. 1

Elev. of Gage ----- 309.50
 Elev. bottom of air line -- 93.25
 Length of air line ----- 276.25
 Max. gage press. of
 static water table ----- 66 psi
 Gage range ----- 100 psi
 Degrees full scale -- -323.0
 Discharge & elev existing 362.25

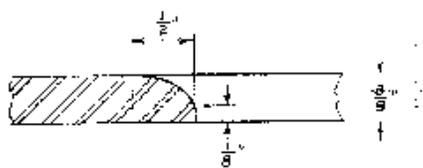
CITY OF TACOMA — DEPARTMENT OF PUBLIC UTILITIES — WATER DIVISION

DATE: 8-21-68	SECTION CHIEF	WELL DRAW DOWN GAUGE	SCALE Full Size
DESIGNER: BRH	ASST. SUPT.	G.P.L. WELL NO. 1 DIAL DATA	DRAWING 661-A
DRAWN: JEL	SUPT. OF WATER DIV.		
CHECKED:			

679-A



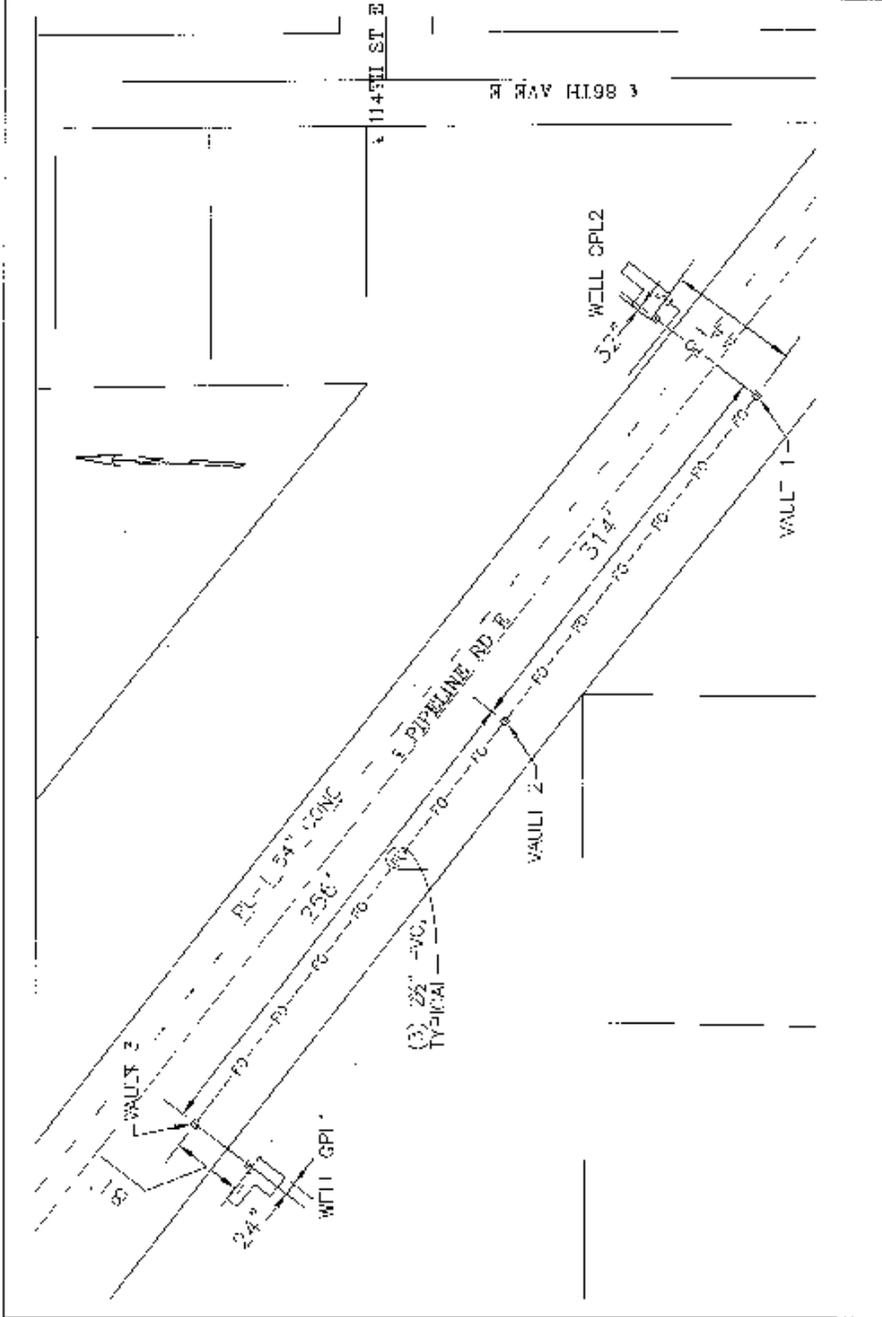
BLOW OFF ORIFICE
SCALE: HALF SIZE



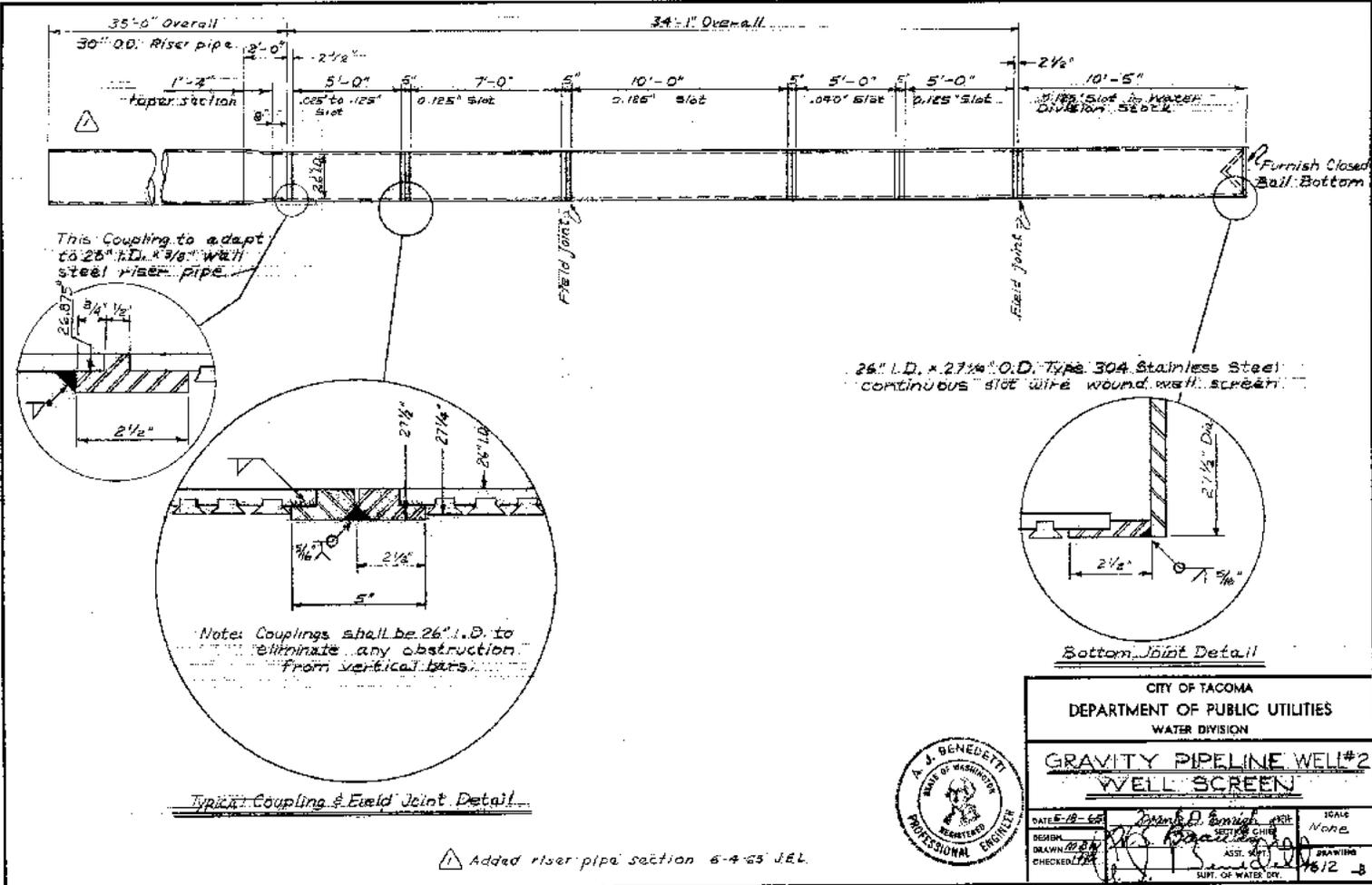
SECTION A-A
SCALE: FULL SIZE

CITY OF TACOMA — DEPARTMENT OF PUBLIC UTILITIES — WATER DIVISION

DATE: 1-14-68	SECTION CHIEF	G.B.L. WELL NO. 2 BLOW OFF ORIFICE	SCALE AS SHOWN
DRAWN: J.F.V.	ASST. SVPT.		DRAWING
CHECKED:	SUPT. OF WATER DIV.		679-A



DEPARTMENT OF PUBLIC UTILITIES - TACOMA WATER		4'-0"	3'-0"
REFERENCE 1.0 1070A	DATE: 3/22/18	GRAVITY PIPELINE WELLS 1 & 2	
COUNCIL PROJECT NAME AUGUSTINUS	DISTRICT M-1	ELECTRICAL -	
PROJECT NUMBER 2000056467	LINE NO. 251	FIBER RUN BETWEEN WELLS	
	CHECK	1070A	



CITY OF TACOMA	
DEPARTMENT OF PUBLIC UTILITIES	
WATER DIVISION	
GRAVITY PIPELINE WELL#2	
WELL SCREEN	
DATE: 5-12-65	SCALE: None
DESIGN: Frank D. Benish	ASSIST. CHIEF: [Signature]
DRAWN: [Signature]	ASSIST. CHIEF: [Signature]
CHECKED: [Signature]	DATE: 5/12/65

WATER SYSTEM

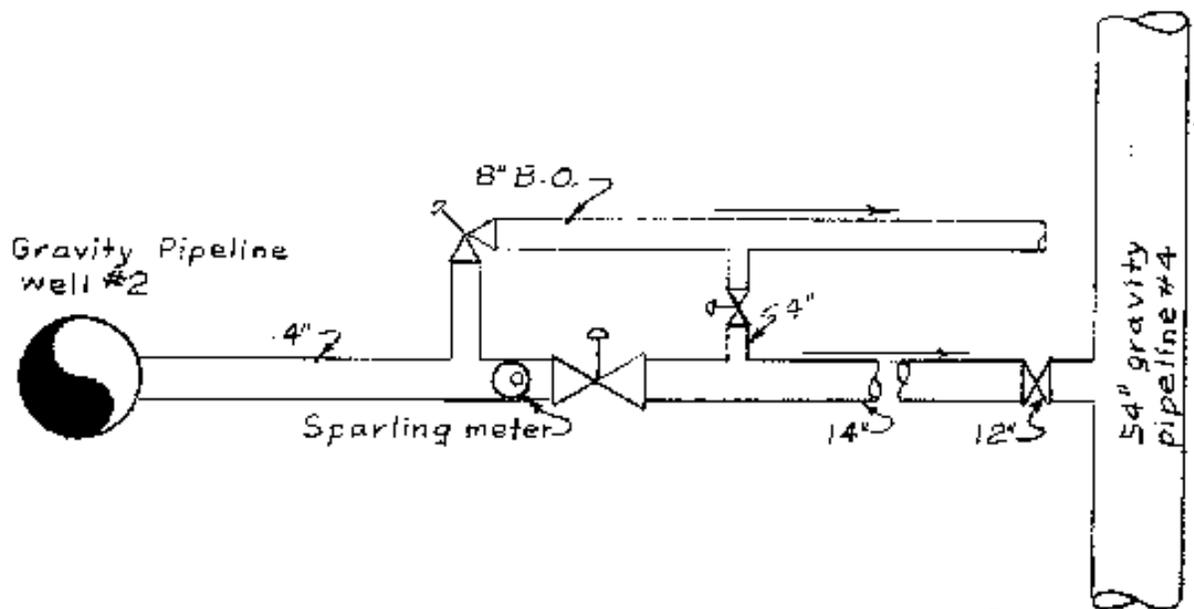
729A

WELL DATA for Gravity Pipeline Well #2

ADDRESS	11302 East Pipeline Road	YEAR DRILLED	1965	OPERATION	Remote control
SURFACE ELEV.	380.5'	WATER TABLE ELEV.	382.75'	DEPTH	351'
OUTER CASING	36"	INNER DIAMETER @ BOTTOM	306.5	FT.	
INNER CASING	26"	INNER DIAMETER @ BOTTOM	35	FT.	
SCREEN	26"	INNER DIAMETER @ BOTTOM	44.5	FT.	

PUMP:
 MANUFACTURER: Byron Jackson TYPE: Submersible YEAR PURCHASED: 1965
 SERIAL NUMBER: 651-S-0040 CAPACITY: 3200 G.P.A. @ 485 FT. T.D.H.
 YEAR PURCHASED: 1965 4 stage 18 KXL

MOTOR:
 MANUFACTURER: Byron Jackson H.P.: 450 YEAR PURCHASED: 1965
 SERIAL NUMBER: _____ R.V.P.: 1800 VOLTS: 2.3KV 3 CYCLE: 60
 NAME PLATE CURRENT: _____ AMP.



729A
 JEV 7-12-67

730-A

WATER DIVISION

WELL NAME: Gravity Pipeline Well #1
 ADDRESS: 11302 East Pipeline Road
 YEAR INSTALLED: 1964
 REMOTE CONTROL: Remote control

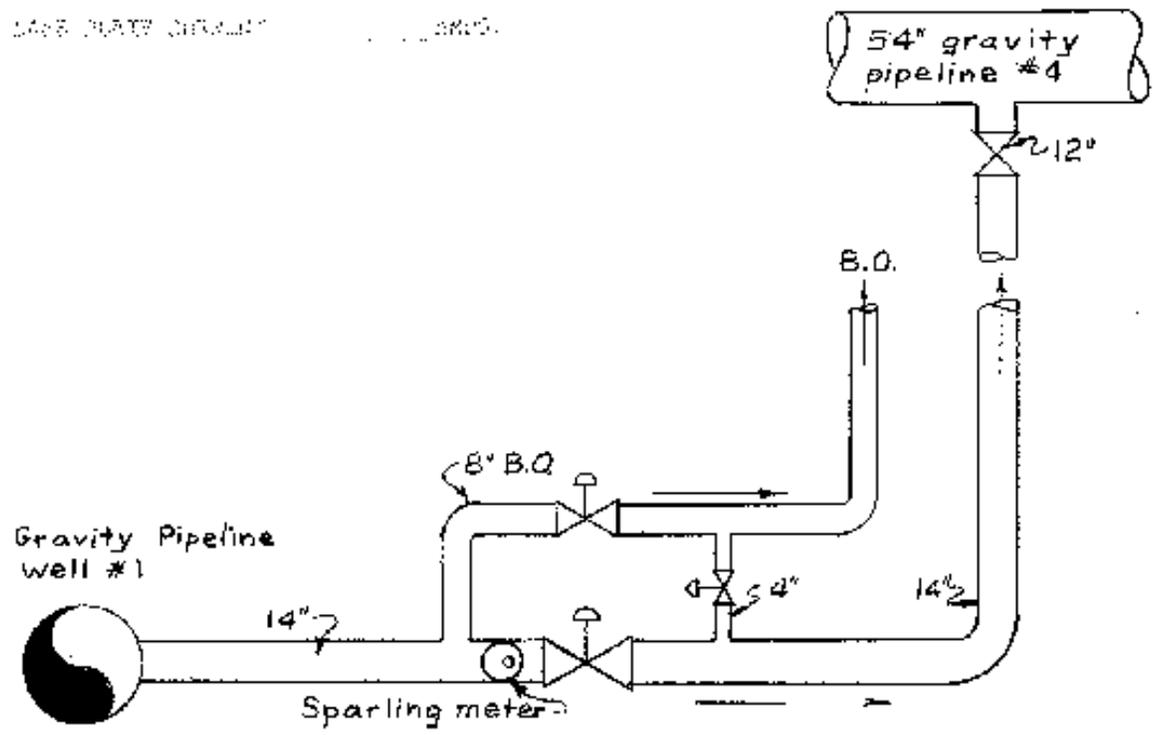
ENTRANCE SIZE: 360 C. DIAMETER: 362.25' DEPTH: 315'
 CURVE: 36" LATEST STANDARD: 270 ft
 PIPE: 24" WEIGHT: 73 lb
 SCREEN: 24" WEIGHT: 33 lb

TYPE: Submersible
 MANUFACTURER: Byron Jackson
 YEAR: 1964
 SERIAL NUMBER: S-711238
 MODEL: 3200
 G.P. #: 485
 T.D.H.:

YEAR: 1964
 STAGE: 4 stage 18" KXL

MANUFACTURER: Byron Jackson
 YEAR: 1964
 MODEL NUMBER: 1775
 VOLTAGE: 2.3KV
 PHASE: 3
 AMP: 60

WELL DATE: 1964



730 A
JAN 7-12-67

Appendix E

Water Quality Information

Parameter	Units	Well GPL2						
		9/14/00	9/12/02	6/4/03	8/15/07	9/2/08	2/12/13	06/29/15
Acidity	mg/L as CaCO ₃	14	<10.0	<10.0	3.33	2.67	8.6	NA
Alkalinity	mg/L as CaCO ₃	72	76	78	86	83	88.7	NA
Ammonia-Nitrogen	mg/L as N	<0.01	<0.01	<0.02	<0.01	0.06	<0.050	NA
Antimony	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.003
Arsenic	mg/L	<0.01	<0.002	<0.002	0.002	0.002	<0.001	<0.001
Aluminum	mg/L	NA	NA	NA	NA	<0.05	NA	NA
Barium	mg/L	<0.1	<0.1	<0.1	<0.1	<0.01	<0.0056	<0.1
Beryllium	mg/L	<0.003	<0.003	<0.003	<0.003	<0.003	<0.001	<0.0003
Cadmium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.001
Calcium	mg/L	19	18	19	19.5	19.3	20.4	23
Chloride	mg/L	<20	<20	<20	<20.0	<20	6.16	<20
Chromium	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	0.001	<0.007
Color	color units	5	5	<5	<5.0	<5	<5.0	<15
Conductivity	umhos/cm	200	190	180	234	226	240	230
Copper	mg/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.011	<0.02
Cyanide	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.010	NA
Fluoride	mg/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.5
Hardness	mg/L as CaCO ₃	89	82	87	91.5	91.0	97.4	110
Iron	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	0.06	<0.1
Lead	mg/L	<0.002	0.0042	0.0071	0.005	0.004	<0.001	<0.001
Magnesium	mg/L	10	9	9.5	10.4	10.4	11.3	12
Manganese	mg/L	<0.01	<0.01	<0.01	<0.01	0.018	0.03	<0.01
Mercury	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002
Nickel	mg/L	<0.04	<0.04	<0.04	<0.04	<0.04	0.001	<0.005
Nitrate-Nitrogen	mg/L as N	2.4	2.5	2.0	2.6	2.55	2.12	3.2
Nitrite-Nitrogen	mg/L as N	<0.5	<0.5	<0.5	<0.5	<0.5	<0.10	<0.1
Ortho Phosphate	mg/L	0.043	<0.10	<0.005	<0.005	0.13	<0.050	NA
pH	pH units		7.17	7.18	6.99	6.79	NA	6.50
Selenium	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.002
Silica	mg/L	34	33	28	30.0	29.8	32.6	NA
Silver	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.1
Sodium	mg/L	<5.0	5	5	6.39	6.2	7.0	6.7
Sulfate	mg/L	<10	<10	<10	<10	<10	8.00	<50
Thallium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.001
Total Dissolved Solids	mg/L	140	140	130	NA	ND	127	150
Total Solids	mg/L	160	140	130	NA	NA	NA	NA
Total Suspended Solids	mg/L	<2	<2	<2	NA	<2	<4	NA
Turbidity	NTU	<0.1	0.50	0.11	0.88	1.1	0.4	0.28
Zinc	mg/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.005	<0.2

Appendix F

Business Case for GPL Wells

TACOMA WATER BUSINESS CASE EVALUATION

SHORT FORM



Project Title Gravity Pipeline Wells Renewal

Project Summary Information

Who is	Responsible	Accountable	Consulted (as appropriate)	Informed (as appropriate)
Title	Project Manager	Project Sponsor	Reference Group, Project Team	Financial Stewardship, Management Team
Name(s)	Jason Moline 253-396-3383 jmoline@cityoftacoma.org	Glen George 253-502-8737 ggeorge1@cityoftacoma.org	Casey Jarbeaux, Dave Boehm, Jason Scott, Kim DeFolo, Michael Duffy, Michael Washington, Mike Gorenson, Rob Walker	Andrew Zaremba, Bill Cummins, Jim Goodman, Marc Powell, Ryan Flynn, Shannon Wall, Stuart Vaughan

Original Request Date	January 9, 2020
Latest Amendment Date	
Latest Updated Business Case	March 11, 2020
Estimated Start Date	2020 Q1
Estimated Completion Date	2024 Q4
Project Source (Ex: VA, Regulatory, SAMP)	Wells SAMP, Integrated Resource Plan (Si88)

Budget Information

Existing 2019/2020 Capital Budget	\$ 0.50 million (already budgeted for GPL CC)
2021/2022 Capital Budget Request	\$ 0.44 million (part of Wells Master Plan BCE)
CIP: 2023/2024 plan	\$ 1.70 million (part of Wells Master Plan BCE) (plus \$ 2.00 million carry forward for GPL CC)
Total project estimate	\$ 2.14 million (part of Wells Master Plan BCE) (plus \$ 2.50 million already budgeted)

Previously Funded Project	
Project #	WTR-00543 (GPL Corrosion Control)
Expenses to date	No spending to date

Thresholds for Amendment or New Business Case Required

Action Required*	Total Spend
Amendment Required	See Wells Master Plan Long Form BCE
New Business Case Required	See Wells Master Plan Long Form BCE

*Project Manager must submit a Business Case Amendment or a New Business Case if the higher of these thresholds is projected to be met during project execution.

1. Project Overview

1.1. Problem Statement

See Section 1.1 of the Wells Master Plan Long Form BCE.

1.2. Project Description

Primary tasks to be performed at Wells GPL1 and GPL2 include the following:

- Pull and rehabilitate
 - GPL1
 - 3200 gpm pump installed 2001 (19 years old)
 - 500 HP motor installed 2001 (19 years old)
 - Byron Jackson, mercury seals
 - Pulled in July 2015 due to failure, rebuilt and reinstalled in April 2016
 - Pulled again in January 2017 due to failure
 - GPL2
 - 3200 gpm pump installed 1965 (55 years old)
 - 450 HP motor installed 1965 (55 years old)
 - Byron Jackson, mercury seals
 - Pulled in September 2019 to investigate change in noise / vibration
 - Rehabilitate or replace pumps if recommended by the equipment vendor
 - Replace both motors, per existing recommendations from the equipment vendor
 - Consider converting submersible motors to vertical turbines if appropriate
 - Consider variable frequency drives (VFDs)
 - Provide buildings, soundproofing, etc. as needed
 - Repair and recoat column pipes as needed
 - Hire a hydrogeologist to TV (put a video camera down and televise) the well casing
 - Clean well screens, bail / rehab the well as needed
 - Make other minor improvements recommended by the hydrogeologist
 - Make other minor improvements recommended by the hydrogeologist

- Electrical
 - Replace all motor control centers
 - Provide soft starts
 - Integrate controls
 - Simocode upgrade
 - Convert Cla Valves to butterfly valves with Rotork valve actuators
 - Make genset ready (add a quick connect for a generator)
 - Consider conversion from existing 2400 V to 480 V
 - May not be feasible with submersible motors due to larger cable requirements
 - Make other minor improvements recommended by electrical staff
- Corrosion Control
 - Design and build new corrosion control facility recommended in the Corrosion Control Study from HDR, with enhancements recommended by Water Quality
- Miscellaneous
 - Make other minor improvements recommended by mechanics

Capital Costs in Thousands by Type of Work

Item	Cost
Pull and Rehabilitate	\$ 1,430
Electrical Upgrades	\$ 620
Corrosion Control	\$ 2,500
Miscellaneous	\$ 90
TOTAL	\$ 4,640

See also Section 1.2 of the Wells Master Plan Long Form BCE.

1.3. Assumptions

We are assuming that the previously budgeted corrosion control project is already going forward, so we do not need additional funds for this portion of the work.

Potential additional costs for converting from submersible motors to vertical turbines, such as for new buildings or soundproofing, are assumed to be negligible or not included. Existing submersible motors in the Tacoma Water system typically have mercury seals, but vendors for the most part no longer service or sell these. Submersible motors with double mechanical seals are estimated to have approximately half the expected 40 to 50 year life with mercury seals. The phasing out of mercury seals in submersible motors now makes using vertical turbines more appealing than in the past. Vertical turbines can also be inspected and repaired without pulling the well.

For new MCCs at higher voltage facilities (such as at the GPL wells, Hood Street Pump Station, or South Tacoma Pump Station), assume costs increase by 50%, whether or not the facility is converted to 480 V. Converting to 480 V at this facility is a good idea because it reduces our risk by allowing us to perform more electrical work in house, and making replacement parts more readily available. If a higher voltage transformer fails, Tacoma Power does not have a backup, so the facility could be down for a long time. The larger diameter cables associated with 480 V motors should not be an issue if we can convert to vertical turbines, as the cable would not need to fit between the well casing and column pipes.

Corrosion control costs from HDR were increased by 130% from \$1.1 million to 2.5 million, based on estimates by Water Quality. Reasons for this include: HDR's assumed caustic dose was quite low, they assumed no redundancy for tanks/pumps, the tank was smaller than a full load, design/engineering and internal labor costs were excluded.

It is assumed no fluoridation facilities will be required here. This would be an additional cost. Note that the intent is for the GPL wells to be exercised more regularly than they are now, although the details of an exercise program have not yet been defined. The water produced from these wells would be blended with GRFF water in Pipeline 4.

See Section 1.3 of the Wells Master Plan Long Form BCE.

1.4. Anticipated Quantifiable & Non-Quantifiable Benefits/Outcomes

See Section 1.4 of the Wells Master Plan Long Form BCE.

1.5. Cost Benefit Analysis

See Section 1.5 of the Wells Master Plan Long Form BCE.

1.6. Alternatives Considered

See Section 3 of the Wells Master Plan Long Form BCE.

2. Project Management Plan

2.1. Project Timeline and Resources

A suggested timeline is below.

- 2020:
 - Select and contract with designer of corrosion control improvements
 - Decide on 480 V conversion
- 2021:
 - Complete design
- 2022:
 - Obtain Conditional Use Permit from Pierce County
 - Bid construction
- 2023
 - Construct improvements

- 2024
 - Startup improvements

Project phase	Target Start Date	Target End Date
Pre-design	2020 Q1	2020 Q4
Design	2021 Q1	2022 Q1
Construction	2022 Q4	2024 Q1
Substantially complete	2024 Q1	2024 Q2
Closeout	2024 Q2	2024 Q3
Project Finished	2024 Q3	2024 Q4

See also Sections 2.2 and 2.3 of the Wells Master Plan Long Form BCE.

2.2. Project Management

See Section 2 of the Wells Master Plan Long Form BCE.

2.3. Impacts to Stakeholders

See Section 2.3 of the Wells Master Plan Long Form BCE.

3. Supporting Documentation

Document Name
• Wells Master Plan Long Form BCE
• Corrosion Control Treatment for GPL Wells BCE
• Well Removal GPL1 Project Request

APPENDIX G

Business Case for GPL Corrosion Control

TACOMA WATER BUSINESS CASE EVALUATION
LONG FORM



Project Title Corrosion Control Treatment for GPL Wells

Project Summary Information

Original Request Date	2/17/2016
Latest Revision Date	5/10/2016
Project Sponsor/Phone#/Email	Chris McMeen / 253-502-8210 / cmcmeen@cityoftacoma.org
Project Manager/Contact – Phone #/Email	Craig Downs / 253-396-3063 / craig.downs@cityoftacoma.org
Estimated Start Date	1/1/2017
Estimated Completion Date	4/30/2019
Project Source (Ex: VA, Regulatory, SAMP)	Regulatory Mandate, System Deficiency
Reference group members	Chris McMeen, Kim DeFolo, Craig Downs, Supply Staff (future)

Budget Information

2017/2018 Capital Budget Request	2,000,000
CIP: 2019/2020 plan	500,000
CIP: 2021/2022 plan	
CIP: 2023/2024 plan	
CIP: 2025/2026 plan	
Total project costs	2,500,000

Document Revision History

Date	Description of revision	Created/changed by	Approved by
2/7/2016	Original document	Craig Downs	
4/27/2016	Revision to Long Form	Gary Fox	
5/10/2016	Provided additional information	Kim DeFolo	

1. Project Overview

1.1. Problem Statement

Tacoma Water is required by the Federal Lead and Copper Rule to provide optimized corrosion control treatment of the drinking water provided to customers in order to minimize the amount of lead or copper that may be absorbed from customers' home plumbing. Tacoma Water provides corrosion control treatment for the Green River and a majority of its groundwater well supplies; however, there are some water sources that do not have corrosion control treatment. The drought of 2015 highlighted the importance of all drinking water sources for Tacoma Water, even infrequently used sources like the two Gravity Pipeline (GPL) wells. Failure to construct this project would result in these wells and their nominal 7.5 million gallons per day (MGD) being unavailable for use by Tacoma Water, except in an emergency basis. Running the GPL wells without effective corrosion control treatment would put Tacoma Water customers at risk of higher levels of lead or copper in their drinking water, and may put Tacoma Water at risk of violating the regulatory standards for these chemicals. Violation of the regulatory limits for lead and copper would require public notification which could result in a loss of faith in the safety of the drinking water that Tacoma Water provides its customers.

1.2. Project Description

This project would design, permit, and construct a new corrosion control treatment facility, connecting pipeline(s) between the two wells, provisions for chemical truck deliveries, and related appurtenances for the GPL wells. The corrosion control treatment facility will include a new building, chemical storage tanks, secondary containment, chemical metering pumps, water quality analyzers, as well as electrical and communication equipment.

1.3. Assumptions

The following assumptions were used during the alternatives analysis: (1) The GPL wells are required to meet Tacoma Water's minimum auxiliary source requirements and will be used an average of 2 weeks per year at full capacity, (2) The GPL wells will be unavailable without corrosion control treatment, (3) Regulatory violations are unacceptable, (4) Addition of Caustic Soda (Sodium Hydroxide) will be selected treatment option, (5) An updated Corrosion Control study is anticipated in 2016 to better inform the optimal level of chemical dosage, (6) One treatment building will be constructed and chemical injection will be made to the water discharged from each well prior to entry into Pipeline 4, (7) Developing a new source with treatment would have a higher life cycle cost than adding treatment to the GPL wells, and (8) Adding treatment to other smaller individual wells would have a higher life cycle cost than adding treatment to the GPL wells. Current cost estimates and proposed timeline are based on recently constructed Groundwater Treatment Facilities at Hood Street Reservoir.

1.4. Anticipated Quantifiable & Non-Quantifiable Benefits/Outcomes

The goal of this project is to provide corrosion control treatment for the largest remaining drinking water sources for Tacoma Water that do not currently have it. This treatment will enable Tacoma Water to enhance optimization of corrosion control treatment during operation of these wells and Tacoma Water's ability to meet the regulatory requirements of the Federal Lead and Copper Rule. The ability to operate the GPL wells is critical during periods when supply from the Green River is restricted (drought, emergency, etc). These sources also draw from a different aquifer than Tacoma's primary South Tacoma Wellfield, enhancing Tacoma Water's reliability of supply. This project assists in ensuring that

Tacoma Water's mission of providing clean and reliable water now and in the future can be met. It is also consistent with Tacoma Water's strategies to work with our customer's best interests in mind (Objective C01) and ensure supply security for our customers (Objective IP01).

1.5. Comparative Cost-Benefit Analysis

1.6. Provide a summary of quantifiable costs and benefits associated with the alternatives evaluated.

Cost Benefit analysis	Status Quo	Corrosion Control	Purchase water	Alternative 3	Alternative 4
Present value: Costs	\$0	\$7,286,047	\$11,603,914	\$0	\$0
Present value: Benefits	\$0	\$0	\$0	\$0	\$0
Net present value	\$0	-\$7,286,047	-\$11,603,914	\$0	\$0

2. Project Management Plan

2.1. Project Timeline and Resources

This project is anticipated to follow a similar timeline to the Groundwater Treatment Facilities at Hood Street Reservoir, and require similar consulting and internal resources.

Project phase	Target Start Date	Target End Date	Required resources
Pre-design	1/1/2017	6/30/2017	PM, Consultant, Internal staff
Design	6/30/2017	3/31/2018	PM, Consultant, Internal staff
Construction	6/1/2018	5/31/2019	PM, Construction Inspector, Consultant, Internal staff
Substantially complete		6/1/2019	PM
Closeout		8/1/2019	PM
Project Finished		10/1/2019	

2.2. Project Management

The project will have a Project Manager identified out of the Water Quality Engineering group. Other Water Quality Engineering and Water Supply staff will participate in design workshops and construction coordination. A construction inspector will be onsite to oversee construction. An engineering consultant will be selected to assist in design, permitting, and construction management support. The consultant and construction contractor selection process will follow Purchasing department procedures and obtain TPU Board approval as required. Long-term operations and maintenance will require a Water Quality mechanic to periodically visit the site for routine checks and more frequent staffing during operation.

Unknowns include the outcome of the corrosion control study to be performed in 2016; the study may change assumptions regarding required pH and caustic soda dosing. Other unknowns related to the project site and permitting requirements could also affect the assumptions made here. Performance will be measured by working within the final budget and schedule.

2.3. Impacts to Stakeholders

Business Unit	Contact Person	Impact
Water Supply Operations	Chris Johnson	Until this project is built, the GPL wells may have limitations on their operations.
Water Supply	Chris Johnson, John Luu	Staff that typically work at the site (Gravity, Wells, Electrical) will be affected by changes to the site. They will also need to perform coordination work during design and construction.
GPL Well neighbors		Changes to the site, including construction activities and chemical truck traffic, will affect the residents nearby.

3. Alternatives Analysis

3.1. Alternative Status Quo – Business as Usual

In addition to evaluating the addition of corrosion control treatment at the GPL wells, the Do Nothing Option was also considered. If this project is not completed, the Gravity Pipeline wells would likely be relegated to use only in an emergency. These wells would not be available as a seasonal supply as they are currently used, and any time they are used, Tacoma Water’s corrosion control treatment strategy may be compromised. The Do Nothing Option would impact Tacoma Water’s ability to reliably meet water supply needs in the event of a disruption in the Green River supply. The Do Nothing Option is not consistent with Tacoma Water’s strategy to ensure supply security for our customers.

3.1.1. Project Costs

Indicate the total project costs, including capital and operations expense, as well as risk costs. Provide additional narrative as needed.

There are no quantifiable project costs for the Do Nothing Option.

3.1.2.

Costs	100 Year Present Value
Capital Cost 1 - One-time	-
Capital Cost 2 - One-time	-
Ongoing O&M Cost 1	-
Ongoing O&M Cost 2	-

Ongoing O&M Cost 3	-
Ongoing O&M Cost 4	-
Ongoing O&M Cost 5	-
Ongoing O&M Cost 6	-
Ongoing O&M Cost 7	-
Ongoing O&M Cost 8	-
Ongoing O&M Cost 9	-
Risk cost 1	-
Risk cost 2	-
Risk cost 3 (manual input)	-
Risk cost 4 (manual input)	-
Total Costs	-
2017 Present Value of Total Costs (-)	-

3.1.3. Quantifiable & Non-Quantifiable Benefits

The benefit of the Do Nothing alternative is that there will be no capital or operating expenses related to sources that have been minimally used in the last ten years or more.

Benefits	100 Year Present Value
One-time benefit 1	-
One-time benefit 2	-
One-time benefit 3	-
Ongoing benefit 1	-
Ongoing benefit 2	-
Ongoing benefit 3	-
Total Benefits	-
2017 Present Value of Total Benefits (-)	-

3.1.4. Risks and Constraints

The primary risk of continuing business as usual is that the large-capacity GPL wells will not be available to ensure supply security for our customers. The GPL wells were relied upon during the 2015 drought and would have been even more critical if both had been operable. Following Tacoma Water's corrosion control study in 2016, water quality parameters will be developed for the groundwater supply and agreed upon with the Department of Health. Following that evaluation, Tacoma Water risks a regulatory violation and public notification any time the GPL wells are operated without corrosion control. In addition, operation of the wells without corrosion control could put Tacoma Water customers at risk of higher

levels of lead or copper in their drinking water, and may put Tacoma Water at risk of violating the regulatory standards for these chemicals.

3.1.5. Sensitivity Analysis

The Do Nothing alternative has the lowest cost of all alternatives, but the lost supply security and/or the loss in public confidence is not quantifiable.

3.2. Alternative 1 – Recommended Alternative

The recommended project would design, permit, and construct a new corrosion control treatment facility, connecting pipeline(s) between the two wells, provisions for chemical truck deliveries, and related appurtenances for the GPL wells. The corrosion control treatment facility will include a new building, chemical storage tanks, secondary containment, chemical metering pumps, water quality analyzers, as well as electrical and communication equipment. Corrosion control treatment would involve pH adjustment of the well water using caustic soda.

3.2.1. Project Costs

Indicate the total project costs, including capital and operations expense, as well as risk costs. Provide additional narrative as needed.

Project capital costs are based upon the Groundwater Treatment Facilities at Hood Street Reservoir that were completed in 2013. O&M costs are based upon assumptions used in the design report for the Groundwater Treatment Facilities at Hood Street Reservoir, as well as current chemical costs for that facility. Chemical O&M costs assume that the groundwater requires a caustic soda dose of approximately 30 mg/L and the wells will be run approximately 2 weeks every year on average.

Costs	100 Year Present Value
Capital Cost 1 - One-time	5,348,348
Capital Cost 2 - One-time	1,262,485
Ongoing O&M Cost 1	294,211
Ongoing O&M Cost 2	2,732
Ongoing O&M Cost 3	378,271
Ongoing O&M Cost 4	-
Ongoing O&M Cost 5	-
Ongoing O&M Cost 6	-
Ongoing O&M Cost 7	-
Ongoing O&M Cost 8	-
Ongoing O&M Cost 9	-
Risk cost 1	-
Risk cost 2	-
Risk cost 3 (manual input)	-
Risk cost 4 (manual input)	-

Total Costs	
<i>2017 Present Value of Total Costs (-)</i>	7,286,047

3.2.2. Quantifiable & Non-Quantifiable Benefits

The primary anticipated benefit is the supply flexibility provided by the GPL wells. These wells are high-producing wells, located in a part of the system not served by the South Tacoma Wellfield. Operability of the GPL wells allows Tacoma Water to serve groundwater directly to Pipeline 4 during a drought or emergency that limits the Green River supply. Effective corrosion control is the only way to allow the GPL wells to operate without introducing other risks to public health or regulatory compliance.

Benefits	100 Year Present Value
One-time benefit 1	-
One-time benefit 2	-
One-time benefit 3	-
Ongoing benefit 1	-
Ongoing benefit 2	-
Ongoing benefit 3	-
Total Benefits	-
<i>2017 Present Value of Total Benefits (-)</i>	-

3.2.3. Risks and Constraints

Risks of the project include limited utilization of the wells and new treatment system after it is built. The Integrated Resource Plan project underway in 2016 is expected to confirm the criticality of maintaining GPL well operations. Other potential risks include the possibility that caustic soda dosing requirements may be higher than expected and feed/storage system capacities will need to be greater than assumed.

3.2.4. Sensitivity Analysis

For the recommended alternative to no longer be valid, Assumptions 1, 2, and 3 identified in Section 1.3 would have to change. As long as GPL wells are a required backup source, they require corrosion control to operate without a regulatory violation, and regulatory violations are unacceptable, this alternative is valid.

3.3. Alternative 2 – Other Alternative

One alternative would be developing another source that does not require additional treatment, such as purchasing water from Lakehaven Utility District as in 2015. This alternative involves manipulating Pipeline 5 operations to allow well water from Lakehaven to enter Tacoma Water’s system. In this alternative, it is assumed that

Tacoma would need to purchase water from Lakehaven in an amount to equal the assumed usage of the GPL wells (average of 2 weeks per year at full capacity: 105 MG).

3.3.1. Project Costs

Project costs associated with a long-term reverse connection to Lakehaven are unknown and depend on future water supply outlooks and water demands. Quantified costs for this alternative are represented as ongoing O&M costs equal to 105 MG purchased per year at \$2513.19/MG, which was the rate that was paid to Lakehaven for the 2015 water purchase.

Costs	100 Year Present Value
Capital Cost 1 - One-time	-
Capital Cost 2 - One-time	-
Purchase of water from LUD	11,603,914
Ongoing O&M Cost 2	-
Ongoing O&M Cost 3	-
Ongoing O&M Cost 4	-
Ongoing O&M Cost 5	-
Ongoing O&M Cost 6	-
Ongoing O&M Cost 7	-
Ongoing O&M Cost 8	-
Ongoing O&M Cost 9	-
Risk cost 1	-
Risk cost 2	-
Risk cost 3 (manual input)	-
Risk cost 4 (manual input)	-
Total Costs	
2017 Present Value of Total Costs (-)	11,603,914

3.3.2. Quantifiable & Non-Quantifiable Benefits

The benefit of this alternative is that no new infrastructure is required.

Benefits	100 Year Present Value
One-time benefit 1	-
One-time benefit 2	-
One-time benefit 3	-
Ongoing benefit 1	-
Ongoing benefit 2	-

Ongoing benefit 3	-
Total Benefits	-
2017 Present Value of Total Benefits (-)	-

3.3.3. Risks and Constraints

The risks of this alternative include unknowns related to supply reliability and costs. Because the source is outside of Tacoma Water’s control, if demands within Lakehaven’s system increase over time or their other sources become more limited, this option may not always be available. In addition, the interference with Pipeline 5 operations is disruptive and poses challenges to operations. Finally, it is unknown if Lakehaven’s corrosion control practices will meet the water quality requirements set by Tacoma Water’s upcoming corrosion control study.

3.3.4. Sensitivity Analysis

For this alternative to become more viable than the recommended alternative, the Integrated Resource Plan would have to conclude that the GPL wells are not necessary to ensure supply security for our customers.

3.4. Justification of recommended alternative

Overall, the costs associated with the recommended alternative are higher than the Do Nothing alternative. The unquantifiable benefit of having 7.5 MGD capacity available to Tacoma Water under all circumstances, however, is justification for this recommendation.

4. Supporting Documentation

Document Name
<ul style="list-style-type: none"> • Conceptual Opinions of Probable Life Cycle Costs for Proposed Hood Street Reservoir Corrosion Control Facilities – 2009 memo, HDR\Fs109\wa_comm\Water Quality\South Tacoma Groundwater Treatment Project Files\South Tacoma Groundwater Treatment Ph1_Eval-PreDesign\HDR_Deliverables\2009-08-19_CostComparisonRevision\2009-08-19_Task 8 HSR Corrosion Control Costs TM (resubmit).pdf
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APPENDIX H

Wells Master Plan

TACOMA WATER BUSINESS CASE EVALUATION
LONG FORM



Project Title Wells Master Plan (Groundwater Prioritization)

Project Summary Information

Who is	Responsible	Accountable	Consulted (as appropriate)	Informed (as appropriate)
Title	Project Manager	Project Sponsor	Reference Group, Project Team	Financial Stewardship, Superintendent and Management Team
Name(s)	Jason Moline 253-396-3383 jmoline@ cityoftacoma.org	Glen George 253-502-8737 ggeorge1@ cityoftacoma.org	Casey Jarbeaux, Dave Boehm, Jason Scott, Kim DeFolo, Michael Duffy, Mike Gorensen, Michael Washington, Rob Walker	Andrew Zaremba, Jim Goodman, Marc Powell, Ryan Flynn, Scott Dewhirst, Shannon Wall, Stuart Vaughan

Original Request Date	September 30, 2019
Latest Amendment Date	n/a
Latest Updated Business Case	March 11, 2020
Estimated Start Date	January 2020
Estimated Completion Date	December 2025
Project Source (Ex: VA, Regulatory, SAMP)	Wells SAMP Integrated Resource Plan / Si88

Budget Information

Existing 2019/2020 Capital Budget	\$1.28 million (already budgeted for GPL and 12A)
2021/2022 Capital Budget Request	\$3.30 million
CIP: 2023/2024 plan	\$5.72 million (plus \$2.00 million carry forward for GPL CC)
CIP: 2025/2026 plan	N/A
Total project estimate	\$9.02 million (plus \$3.28 million already budgeted)

Previously Funded Project	
Project #	
Expenses to date	

Thresholds for Amendment or New Business Case Required

Action Required*	Total Spend
Amendment Required	\$ 200,000
New Business Case Required	\$1,000,000

*Project Manager must submit a Business Case Amendment or a New Business Case if the higher of these thresholds is projected to be met during project execution.

1. Project Overview

1.1. Problem Statement

The Water Supply Yield and Demand Model (WYSDM) developed with the Integrated Resource Plan (IRP) indicates Tacoma Water should have approximately 40 MGD of reliable groundwater supply available at essentially all times. Given the current condition of the wells, our reliability estimates indicate only about 31 MGD would be available on average now. What should Tacoma Water do to ensure we have enough ground water available according to our models?

Please refer to the separate Wells Master Plan document for further details.

1.2. Project Description

For all alternatives except the status quo, specific facilities are hardened to bring these up to current standards. The intent is to maintain fewer wells, but in a more reliable state, to maintain the desired level of system reliability while reducing life cycle costs.

Primary tasks to be performed at the selected facilities include the following:

- Pull and Rehabilitate
 - Rebuild or replace all pumps and motors near design life (~30 years old)
 - Both submersibles and vertical turbines
 - Both wells and associated pump stations
 - Follow recommendations from the equipment vendor
 - Replace the power cable
 - Review the productivity of the well, and size new equipment accordingly
 - Consider converting submersible motors to vertical turbines when appropriate
 - Consider variable frequency drives (VFDs)
 - Repair and recoat column pipe as needed
 - Hire a hydrogeologist to TV (put a video camera down and televise) the well casing
 - Clean well screens and address flow reductions
 - Bail, rehab, or redrill the well as recommended
 - Make other minor improvements recommended by the hydrogeologist

- Electrical
 - Replace all motor control centers (MCCs) past design life (~30 years old)
 - Provide or update soft start
 - Add Simocode motor protections
 - Integrate controls
 - Replace obsolete Rotork valve actuators
 - Make all sites genset ready (add a quick connect for a generator)
 - May be more complicated for > 480 V (GPL, pump stations)
 - Consider 480 V conversion of higher voltage sites
 - Includes GPL wells, HSPS, STPS as needed
 - May not be feasible due to larger cable requirements
 - Make other minor improvements recommended by electrical staff
- Corrosion Control
 - Design and build new corrosion control facilities if recommended in the Corrosion Control Study from HDR
- Miscellaneous
 - Make other minor improvements recommended by mechanics

It is also suggested that going forward, each well be pulled again approximately every 15 to 25 years for inspection and rehabilitation. However, after the first round is completed in 2024, the next round of pulls could likely be deferred until around 2035. The intent of restarting the program somewhat early would be to get on a routine schedule of proactively working on a few wells at a time. A regular program is thought to have benefits to resiliency and cost, rather than deferring maintenance, and then trying to catch up by rebuilding every well in the system over a relatively short time.

While this program is more intensive than recent practices, it is comparable to what is done by the RWSS Partners and many other nearby utilities.

Other wells will be mothballed. Specifics of this should be determined separately later. It is expected that once the proposed work is complete, at other groundwater facilities 3-phase power will be administratively disconnected, buildings will generally be left in place, and exterior maintenance will be continued. The intent is to minimize ongoing expenses and not to use these wells in the near future, but leave the option open for these sites to be rehabilitated and brought back online if future analyses indicate this is necessary.

There might be different levels of mothballing; for example, exterior maintenance only versus complete abandonment (demolition and sale of surplus property). New water rights are very difficult to obtain and generally not available, so consideration of actions such as selling off real property with a groundwater right should be done with caution and only after thorough review.

Cross-project dependencies include the following related BCEs.

- Hood Street Facilities Seismic Improvements
- Hood Street Reservoir Seismic Improvements
- South Tacoma Pump Station Seismic Improvements
- Pipeline No. 1 Pressurization Project

The above projects all temporarily decrease supply by taking production facilities out of service. The schedules will be coordinated by the respective project managers to make sure demands can still be met, and minimize the combined impacts. See section 2.1 for additional information about the three projects for seismic improvements.

The Eagle Lake Siphon BCE is also a related project in the sense that it also is intended to help meet our instream flow obligations for the Green River. At the steady low flow rates proposed though, combined with the long circuitous path (~10 miles of natural channel) to reach the reservoir behind Howard Hanson Dam, its impact is considered relatively negligible for the purposes of the Wells Master Plan.

1.3. Assumptions

Because nearly 50 possible facilities were reviewed, the cost estimates here are very high level and will need to be refined further as individual projects are developed. Some key assumptions behind these preliminary budgetary cost estimates are listed below.

- If pumps or motors are less than 20 years old, it is assumed these can be inspected and continue to be used. Should extensive rehabilitation or replacement be necessary, costs will increase.
 - Although in some cases rehabilitation of existing pumps and motors may be considered, based on our experience at Well 12A, this is not expected to create significant cost savings over replacing all these with new.
- Potential additional costs for converting from submersible motors to vertical turbines, such as for new buildings or soundproofing, are not included.
 - Existing submersible motors in the Tacoma Water system typically have mercury seals, but vendors for the most part no longer service or sell these. Concerns about potential spills of this hazardous liquid metal into water wells or near workers now tend to overshadow the reliability advantages of mercury seals. Submersible motors with double mechanical seals are estimated to have approximately half the expected 40 to 50 year life of motors with mercury seals.
 - The phasing out of mercury seals in submersible motors now makes using vertical turbines more appealing than in the past. Vertical turbines are less susceptible to corrosion, and can also be inspected and repaired without pulling the well. However, a vertical turbine may require a building, ventilation, sound reduction, and a long shaft down to the aquifer that could freeze up if not exercised periodically.
- For new MCCs at higher voltage facilities (such as at the GPL wells, Hood Street Pump Station, or South Tacoma Pump Station), costs increase by 50%, whether or not the facility is converted to 480 V.
- The cost of purchasing or renting a genset is not included.

- An additional 30% was added to most capital costs (except corrosion control) to allow for soft costs (~10%, including design/engineering and internal labor) and contingencies (~20%).
 - The 20% contingency money is also intended to allow repairs at wells with unaccounted failures that need to be addressed, since we are not moving forward with Wells Rehabilitation & Replacement money. Since all the wells we propose to use in the next several years are being rehabilitated, it was not thought necessary to add in additional funds separately.
- All corrosion control costs from HDR were increased by 130% (that is, multiplied by 2.3), based on estimates by Water Treatment & Quality Planning for the GPL Wells. Reasons for this include the following.
 - HDR's assumed caustic dose was quite low.
 - They assumed no redundancy for tanks / pumps.
 - The tank was smaller than a full load.
 - Design / engineering and internal labor costs were excluded.
- No additional water quality measures are needed, beyond corrosion control for outlying wells (that is, those not near South Tacoma Way).
 - No additional fluoridation facilities will be required.
 - Existing blowers at Well 12A continue to adequately address remaining VOCs from the Time Oil Superfund site, even if the plume migrates in the future due to increased groundwater use or other reasons.
 - There is a risk that STPS will need additional corrosion control in the future. The diffused aeration system just barely meets our required setpoint, so additional caustic soda facilities may be required in the future. They are not warranted at this time, though.
 - Right now, PFAS regulation is in its infancy, but more regulations are expected. We believe that with blending at Hood St or STPS, we can mitigate any PFAS levels in the South Tacoma wells (except 10C and possibly 7B); however, there is a slight risk that changes in pumping frequency, aquifer changes, or EPA/DOH standards could require us to shut down other wells or construct treatment. At this early stage, we cannot be sure.

During predesign and design, more detailed cost estimates will be developed. If the overall costs in the Wells Master Plan BCE are significantly exceeded, an amendment or new BCE would be needed to complete the remaining work.

An annual exercise plan is also recommended. The details could vary based on staff recommendations going forward, but a preliminary cost estimate was made using the assumptions below.

- Test run each facility using a genset twice a year
 - Annually perform wire to water and megger testing
- Run each well briefly on line power in 1 of every 4 years
- Run each well on line power nearly as much as possible in 1 of every 10 years

Perhaps a few wells could be run continuously during part of each year to avoid the complications of turning the treatment system at Hood Street on and off repeatedly, and low river flows could trigger running additional wells.

See also Section 3.2.3.

1.4. Anticipated Quantifiable & Non-Quantifiable Benefits/Outcomes

The benefits (that is, avoided risk) are being able to reliably provide supply to meet system demands, and comply with the terms of the Muckleshoot agreement. This is consistent with the 2018 Integrated Resource Plan and Si88.

Groundwater supplies would be needed during a low likelihood but high consequence event, such as a severe drought. An attempt has been made to quantify the dollar value of this, although it requires some assumptions. There is also value in customer and stakeholder relations to being able to show drought preparedness, even at times when these wells are not running.

See also the separate Wells Master Plan document.

1.5. Comparative Cost-Benefit Analysis

	Status Quo	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Scenario	Existing Condition	Lowest Cost (Recommended)	Include UP, SE, and PRS	South Tacoma Only	55 MGD / Year 2070
Expected ¹ Flow (MGD)	31	40	40	40	56
Nominal ² Flow (MGD)	63	47	46	51	69
Pump Sta. Cap. ³ (MGD)	39	37	32	44	44
Capital Costs	--	\$ 12.30 M	\$ 15.79 M	\$ 13.50 M	\$ 30.66 M
Previously Budgeted ⁴	\$ 0.78 M	\$ 3.28 M	\$ 3.28 M	\$ 0.78 M	\$ 3.28 M
Capital Costs Not Prev. Budgeted	--	\$ 9.02 M	\$ 12.51 M	\$ 12.72 M	\$ 27.38 M
Ongoing O&M Costs (per year)	\$ 2.20 M	\$ 1.59 M	\$ 1.64 M	\$ 1.95 M	\$ 2.35 M
Risk Cost (25 years)	\$ 39 M	--	--	--	--
Simplified Net Cost ⁵ (25 years)	\$ 94 M	\$ 52 M	\$ 57 M	\$ 62 M	\$ 89 M
Net Present Value ⁶ (100 years)	- \$ 169 M	- \$ 82 M	- \$ 88 M	- \$ 100 M	- \$ 134 M
Wells and Other Sources	1B,2C,3A,4A, 5A,6B,7B,8B, 9A,10C,11A, 12A,13A, GPL2,UP1/10, SE2/6/11/11A, PA1,PRS	1B,3A,5A,6B, 8B,11A,12A, GPL1/2	* Delete 6B; Add UP1, SE11/11A, PRS	* Add 2B,2C,4A,9A, 13A; Delete GPL1/2	* Add 2B, 2C,4A,7B,9A, 13A,14A,UP1, SE2/6/11/11A, Lakehaven, Peak Shaving
Pump Stations	HS, ST, MV1-7	HS, ST, MV5/6	* Delete MV5/6	* Add MV7, HS4 (new)	* Add MV7, HS4 (new)

* Facilities are compared to Alternative 1 (Recommended)

¹ Expected Flow is reduced to allow for equipment breakdowns, aquifer drawdown, etc.

² Nominal Flow assumes all pumping equipment at every site is fully functional, and excludes non-well options

³ Pump Sta. Cap. is nominal capacity of the 3 pump stations associated with the South Tacoma Wells

⁴ Previously Budgeted Funds are from BCEs approved earlier for Well 12A Rehabilitation (\$492,280), Well 12A Blower and MCC Rehab (\$190,000), Well 12A Pipe Supports (\$100,000), and Corrosion Control Treatment for GPL Wells (\$2,500,000)

⁵ Simplified Net Cost neglects interest and discount rates

⁶ NPV is from the Analytical Template (Benefits are assumed to be zero, so only Costs count toward NPV)

2. Project Management Plan

2.1. Project Timeline and Resources

Preferably no more than 3 wells and 1 pump station would be unavailable at a time. The work would need to be staged to meet this constraint. Work on each set could probably be done in within around 18 months. It is assumed that all work at each site (rehab or replace mechanical equipment, clean well casing, electrical, corrosion control, treatment enhancements, etc.) would be done during the same time period.

Seismic improvements at South Tacoma Pump Station and Hood Street are being planned separately. Construction at STPS is scheduled during November 2021 and February 2022. It will not be possible to run wells to Hood Street during January to July 2022.

The procurement process may make it difficult for work to proceed as quickly as we might like. Generally, a consulting hydrogeologist would be selected first based on qualifications. Then a crane would be brought in under contract to work with the crews. Once the pump and motor are pulled, a vendor would inspect it, which may involve shipping it back to the factory. Once the necessary work is determined, this would be bid out. To repair existing equipment, or to buy from a specific preferred manufacturer (such as Byron Jackson), typically each manufacturer has a very limited number of authorized dealers for the region. Repair or replacement of large pumps and motors typically has a long lead time, on the order of around 6 months. Then the crane and crew will be needed again to reinstall the well. Occasionally subsequent testing reveals problems, as occurred recently at GPL1. See also section 3.2.3.

A suggested timeline is below. The specific facilities addressed each year could vary somewhat depending on the alternative selected.

- 2020
 - Research and determine procurement processes
 - Select and contract with hydrogeology consultant
 - Select and contract with designer of GPL corrosion control improvements
 - Decide on 480 V conversion of GPL, STPS, HSPS
 - Advise on any impacts to separate seismic projects at STPS, HSPS
 - Plan and design 3A, 8B, MVPS
 - Substantially complete 12A
- 2021
 - Substantially complete 3A, 8B, MVPS
 - Plan and design 5A, 6B, GPL, Hood Street treatment enhancements
- 2022
 - Resolve issue with the existing flow meter at STPS
 - Obtain permits for and bid GPL
 - Plan and design HSPS
 - Substantially complete 5A, 6B

- 2023
 - Construct GPL
 - Substantially complete GPL1/2, HSPS, Hood Street treatment enhancements
 - Plan and design 1B, 11A, STPS
- 2024
 - Startup GPL
 - Substantially complete 1B, 11A, STPS

Short form BCEs are being submitted for the biennium when construction is planned. Some additional dollars are being requested earlier in this long form BCE to allow for design, as well as any potential unexpected costs that exceed the included contingency of approximately 20%.

2.2. Project Management

The project would be managed by 3 engineers, as broken out below.

- Planning & Engineering (P&E) / Project Delivery / Project Support & Execution
 - Overall project manager
 - May have an engineer from P&E / Water Resources perform these tasks
- P&E / Electrical & Control Systems – Electrical work
- P&E / Water Treatment & Quality Planning – Treatment improvements

Also, Maintenance & Construction would coordinate pulling each well and pump.

2.3. Impacts to Stakeholders

Business Unit	Contact Person	Required resources
Planning & Engineering (P&E)/ Electrical & Control Systems, Electrical AMP Team	Michael Duffy, Jason Scott, Duc Vuong	Senior Principal Engineer, Principal Engineer, Senior Engineer, Electricians, Systems Integrator (S&B)
P&E / Project Delivery / Construction Management	Geff Yotter	Construction Inspector
P&E / Project Delivery / Project Support & Execution, Pump Stations AMP Team	Ryan Flynn, Michael Washington, Ralph Eaton	Principal Engineer, Professional Engineer, Engineering Technician
P&E / Water Treatment & Quality Planning, Treatment and Monitoring AMP Team	Kim DeFolo, Mike Gorenson, Bill Cummins	Principal Engineer, Professional Engineer, Water Quality Mechanic
P&E / Water Resources, Wells AMP Team	Glen George, Jason Moline	Wells SAMP Lead, Professional Engineer
P&E	Melissa Anderson, Denyse Kerlee	Administrative Assistant
Maintenance & Construction / Field Operations / Maintenance / Wells	Stuart Vaughan, Jim Goodman	Wells Crew
Maintenance & Construction / Planning & Logistics	Rob Walker, Jeff Krier	Planner, Scheduler, Warehouse Technician
Procurement and Payables	Alex Clark	Senior Buyer
Legal	Martha Lantz	Attorney
External Contractors	To be determined	Consulting Hydrogeologist, Pump Vendor Representative, Consulting Engineer, Construction Contractor
Pierce County Planning and Land Use	To be determined	Conditional Use Permit Reviewer / Planner

2.4. Contracting Approach

We will contact Procurement about the possibility of combining all maintenance and repair services into one large contract, or a few large contracts. This may be complicated because some of the work could be arguably be considered engineering (selected based on qualifications per state law), and other could be considered public works and improvements (low bid).

To minimize time spent with administrative and procurement tasks, it is suggested that a large contract be created with each outside vendor that would cover work throughout the wellfield over the next few years. Otherwise, up to 5 separate contracts may be needed for each of the approximately 12 facilities selected to remain available. This may also help prevent procurement issues as the cumulative dollar amount increases when going site to site.

An engineering consultant will be selected for design of corrosion control facilities. This would include work at GPL1/2 (as well as at UP, SE, PRS if we elect to retain any of these facilities at the present time).

The assistance of a consultant might also be useful to address the concerns with caustic soda dosing at Hood Street when starting or stopping wells, although we have some ideas and S&B may be able to help with the controls too. However, this issue was brought up with the consultant throughout the design of the Hood St facility and there was no clear solution at the time.

Similarly, a contractor would be used to build corrosion control improvements.

A groundwater consultant will also be needed to clean well screens and the bottom of the casing pipe. They would also help us determine the cause of flow issues.

A well equipment vendor would be used to evaluate, repair, and/or replace pumps and motors once these are pulled.

Electrical equipment including new MCCs, valve actuators (Rotorks), and genset connections will be necessary. A contractor will need to be hired if the electrical group does not have in house capacity to install the new equipment.

2.5. Timing

It is estimated that the work can be completed in about 5 years with current staffing levels, although interest has been expressed in trying address deferred maintenance at wells ideally within 2 years. Design of corrosion control facilities should begin soon, as it will likely take a while for engineering and construction.

The intent is to start at selected facilities with known issues when possible, to get the most return on investment first.

As improvements are made to the selected wells, and we get to or exceed 40 MGD of reliable groundwater capacity, more formal efforts could be taken to mothball other wells.

3. Alternatives Analysis

3.1. Alternative Status Quo – Business as Usual

This is the “do nothing” alternative. It does not provide the recommended amount of groundwater. The separate Wells Master Plan document describes the potential problems of this, including possibly not meeting customer demand or instream flow obligations.

It is also the most expensive option, in part due to the cost of maintaining obsolete facilities. This option also continues to hold on to many facilities that cannot normally be used, generally due to water quality restrictions. The elevated risk and cost both create urgency to make a decision and move away from the status quo.

Section 5.3.4.3 of the 2016 Tacoma Water: Seismic Vulnerability Assessment states “After internal analysis of the impacts to select major businesses in the area (RockTenn [now WestRock], US Oil, Marina, Graymont Western, and Metals Recycling, TW determined that the approximate economic impact to the region from a loss of activity in the Tide Flats to be approximately \$3 million per day.” Assuming the Tideflats uses approximately 20 MGD, this works out to a \$150,000 risk cost per MG of shortage.

WYSM was used to calculate the shortages predicted over 25 years, as shown in the table below. This is based on an analysis of year 2024, using a 25-year run, and assuming central tendency climate change.

Shortages in a 25-Year Model Run for Year 2024 with Central Tendency Climate Change

Simulated Year*	Volume (MG)
2013	20
2024	222
2036	20
Total	262

*(*These simulated years can be thought of as 25 statistically generated possible versions of 2024, rather than a specific weather forecast for each year made long in advance. WYSM models future long-term climate trends, but does not provide a single deterministic prediction of weather variability in a specific future year.)*

Keep in mind that a model run with more years would include more extreme years, so this would increase the risk cost. However, it was thought that the relatively high cost of a shortage used was already conservative enough, given the uncertainties

3.1.1. Project Costs

Life Cycle Costs in Millions

Equalized Annual Costs**	Wells	Pump Stations	TOTAL
Equipment Renewal	\$ 0.91	\$ 0.42	\$ 1.33
Pull	\$ 0.04	\$ 0.02	\$ 0.06
Test	\$ 0.14	\$ 0.06	\$ 0.20
Exercise	\$ 0.14	\$ 0.02	\$ 0.16
Additional Treatment	\$ 0.34	-	\$ 0.34
Mothball	\$ 0.11	-	\$ 0.11
TOTAL	\$ 1.68	\$ 0.52	\$ 2.20

*(**Many of these life cycle costs, especially equipment renewal and pulling, are likely to only be incurred once over a period of maybe 20 to 40 years. However, for this analysis, the cost of these projects was spread evenly throughout all years.)*

Some of these costs could arguably be refined further, although this would be difficult in part due to limited data collection and availability. While the numbers could be debated, this high-level analysis already helps make some valid points. We have historically been reluctant to routinely pull, test, and exercise wells because of the cost, but it is worth noting that these are a relatively small part of the life cycle costs. We have tended to hang onto unused facilities (such as Well UP10 and other “emergency” sources), but the cost of this (while still maintaining the facility, occasionally replacing broken equipment, paying for power, keeping records, etc.) is significant. Some sites have had relatively recent capital investments made (such as 10C and PRS), only to be essentially taken out of service due to recent regulatory developments (PFAS, corrosion control, etc.). Finally, even if we defer some maintenance, eventually broken equipment will need to be replaced to make a source functional and useful during a drought.

Analytical Template 100-Year Costs in Millions

Costs	100 Year Present Value
Capital Costs One-time	-
Ongoing Life Cycle Costs	\$ 96.4
Risk cost	\$ 72.6
Total Costs	\$ 169.0

At times in the past, there has been a practice of running most or all wells at least once in every 5 years. This use was part of an effort to retain the water right by being able to demonstrate what the Washington State Department of Ecology refers to as “active compliance”. The cost of the practice is only included above for wells that are functional and have corrosion control. The 2003 Municipal Water Law passed by the state legislature made municipal water rights not subject to relinquishment for non-use. Although water rights law can be complex and subject to change, listing the groundwater rights in the Water System Plan is thought to provide “safe harbor”. However, if desired, a small portable pump could be dropped down all but the deepest mothballed wells, and run briefly at a relatively low cost.

3.1.2. Quantifiable & Non-Quantifiable Benefits

See Section 1.4.

3.1.3. Risks and Constraints

See Sections 1.4. and 3.2.3.

3.1.4. Sensitivity Analysis

See Section 3.2.4.

DRAFT

3.2. Alternative 1 – Recommended Alternative

The analysis indicates this is the lowest cost way to provide the recommended 40 MGD. This level of service eliminates the risk cost in this analysis. (Theoretically, there is always some risk of an extreme weather event causing a water shortage, but when WYSDM indicates 0 MG of shortage over a 25-year run, this is considered negligible for this analysis.)

The following facilities would be invested in to bring these up to current standards:

- Wells 1B, 3A, 5A, 6B, 8B, 11A, 12A, GPL1, and GPL2
- Hood Street and South Tacoma Pump Stations
- Pumps 5 and 6 at Marine View Pump Station

Some smaller, site-specific projects are also listed below.

- 1B: Modify or replace existing building that has ventilation issues
- 3A: Provide separation in the well column of the shallow and sea-level aquifer
 - It may be necessary to modify the well to only pump from the sea-level aquifer, which would lower PFAS levels
 - If production decreases, improvements at Well 13A may be needed to compensate
 - 13A is deep, non-detect for PFAS, and provides WCC flexibility
- 6B: Adjust depth of pump to reduce late-season drawdown; consider additional measures if recommended by consultant
- 8B: Revise downstream piping to provide adequate backpressure on pump
- 12A: Possible seismic measures to protect blower towers
 - All work at Wells 12A has already been approved under previous BCEs
- Hood Street: Improve the existing treatment facility to simplify starting and stopping wells, especially at low flows (approx. 5-10 MGD)
 - Add a check valve at the inlet from the Wells Line
 - Adjustments to programming / dosing can be considered, but are not as straightforward as they might seem due to all the variables with the wellfield
 - Change programming to adjust caustic dosing based on which wells are running
 - Delay the beginning of caustic injection when the first well is started
- Marine View Pump Station: Remove the smaller pumps (1-4), and move electrical gear inside the existing building

The following facilities will be mothballed (see section 1.2 for more information about this):

- Existing Wells 2B, 2C, 4A, 7B, 9A, 10C, 13A, UP1, UP10, PA1, SE2, SE6, SE8, SE11, SE11A, TF1
- Prairie Ridge Springs
- Sites for other SE, UP, and DP wells
- Proposed Wells 14A, TF2, Fred1 (in permit status)
- Pumps 1-4 and 7 at Marine View Pump Station

3.2.1. Project Costs

Breakdown of estimated capital costs are below, both by type of work and by facility. An additional 20% was typically added to the initial estimate of capital costs to allow for soft costs, including design and project management. (The exception to this is for corrosion control facilities, where the estimate from Water Treatment & Quality Planning already had soft costs built in.) A table of estimated O&M costs is also provided.

Note that the columns below may not add due to rounding.

Capital Costs in Millions by Type of Work

One-Time Costs	Wells	Pump Stations	TOTAL
Pull / Rehab	\$ 3.6	\$ 2.6	\$ 6.2
Electrical	\$ 1.5	\$ 1.2	\$ 2.7
Corrosion Control	\$ 2.5	-	\$ 2.5
Misc	\$ 0.4	\$ 0.4	\$ 0.8
TOTAL	\$ 8.0	\$ 4.3	\$ 12.3

Capital Costs in Millions by Facility

Facility	Cost
Well 1B	\$ 0.45
Well 3A	\$ 0.51
Well 5A	\$ 0.44
Well 6B	\$ 0.26
Well 8B	\$ 0.50
Well 11A	\$ 0.47
Well 12A	\$ 0.78
Wells GPL1 & GPL2	\$ 4.64
Hood Street PS & Treatment	\$ 2.08
South Tacoma PS	\$ 1.53
Marine View PS (Pumps 6 & 7)	\$ 0.64
TOTAL	\$ 12.30

Life Cycle Costs in Millions

Equalized Annual Costs	Wells	Pump Stations	TOTAL
Equipment Renewal	\$ 0.49	\$ 0.36	\$ 0.85
Pull	\$ 0.02	\$ 0.02	\$ 0.04
Test	\$ 0.08	\$ 0.06	\$ 0.14
Exercise	\$ 0.09	\$ 0.02	\$ 0.11
Additional Treatment	\$ 0.08	-	\$ 0.08
Mothball	\$ 0.36	\$ 0.01	\$ 0.37
TOTAL	\$ 1.05	\$ 0.46	\$ 1.59

Analytical Template 100-Year Costs in Millions

Costs	100 Year Present Value
Capital Costs One-time	\$ 12.7
Ongoing Life Cycle Costs	\$ 69.7
Risk cost	-
Total Costs	\$ 82.3

3.2.2. Quantifiable & Non-Quantifiable Benefits

This alternative would allow us to access the Gravity Pipeline Wellfield that we otherwise could not, which could be useful if issues were to develop in the South Tacoma Wellfield. This also potentially increases supply resilience and helps maintain the associated water rights.

See also Section 1.4.

3.2.3. Risks and Constraints

Much of the work is extraordinary or deferred maintenance. The average age of the equipment is 33 years. For comparison, the design life of pumps and motors is typically considered to be around 20 to 30 years.

The extent of repairs needed will not be known exactly until after the well is pulled and the equipment can be visually inspected. The nature of working with and around existing equipment makes the cost estimate less certain than with new construction. Possible issues include the following:

- Severe corrosion of column and casing pipes
 - Need for cathodic protection measures
- Damage to cable or equipment when pulling and replacing the well
- Limited availability of vendors and consultants due to other opportunities
- Delays while obtaining permits from Pierce County for a new treatment building (and possibly buildings for converting to vertical turbines) at the GPL wells

- Coordination of multiple parties (see also section 3.2.5), including:
 - Consulting hydrogeologist (such as Robinson Noble)
 - Consulting engineer for corrosion control design (such as HDR)
 - Pump / motor equipment vendor (such as PumpTech)
 - Electrical equipment vendor
 - Tacoma Water electrical staff
 - Tacoma Water Wells Crew
 - City of Tacoma Procurement and Payables

If it is determined that more work than was anticipated is needed, perhaps additional funds could be provided in subsequent biennia so all the work can be completed. Or an additional contingency could be budget initially, perhaps assuming all pumps and motors are replaced rather than just rehabilitated.

3.2.4. Sensitivity Analysis

Unlike many BCEs, this analysis looked at the entire groundwater system, rather than just one or a few projects. Many costs and reliabilities were estimated at a high level. The assumptions are thought to be reasonable overall, although many of these could be debated by reasonable parties. The cost estimates will be updated as work progresses.

The alternatives listed below (and also in section 1.3) outline some other options that would likely be more competitive if some of the assumptions were revised.

3.3. Alternative 2 – Add UP, SE, and PRS

The Management Team may wish to consider keeping some additional outlying wells available, especially UP1, SE11/SE11A, and Prairie Ridge Springs. These may be useful for seismic resiliency, water rights, or pipeline shutdowns, which are somewhat outside the scope of the current analysis that focuses primarily on drought needs. It is also difficult to quantify these benefits. Keeping a foothold in these more remote facilities may also help set us up more options for the future. Although this work adds cost, this is partially offset by fewer needs from the South Tacoma Wells.

This is similar to Alternative 1, except the added facilities are used instead of Well 6B and Marine View Pump Station.

3.3.1. Project Costs

Capital Costs in Millions by Type of Work

One-Time Costs	Wells	Pump Stations	TOTAL
Pull / Rehab	\$ 4.3	\$ 2.2	\$ 6.5
Electrical	\$ 1.8	\$ 1.0	\$ 2.8
Corrosion Control	\$ 5.6	-	\$ 5.6
Misc	\$ 0.4	\$ 0.4	\$ 0.8
TOTAL	\$ 12.1	\$ 3.6	\$ 15.8

Capital Costs in Millions by Facility

Facility	Cost
Well 1B	\$ 0.45
Well 3A	\$ 0.51
Well 5A	\$ 0.44
Well 8B	\$ 0.50
Well 11A	\$ 0.47
Well 12A	\$ 0.78
Wells GPL1 & GPL2	\$ 4.64
Well UP1	\$ 1.17
Wells SE11 and SE11A	\$ 1.58
Prairie Ridge Springs	\$ 1.64
Hood Street PS & Treatment	\$ 2.08
South Tacoma PS	\$ 1.53
TOTAL	\$ 15.79

Life Cycle Costs in Millions

Equalized Annual Costs	Wells	Pump Stations	TOTAL
Equipment Renewal	\$ 0.58	\$ 0.26	\$ 0.84
Pull	\$ 0.03	\$ 0.01	\$ 0.04
Test	\$ 0.10	\$ 0.05	\$ 0.15
Exercise	\$ 0.10	\$ 0.02	\$ 0.12
Additional Treatment	\$ 0.17	-	\$ 0.17
Mothball	\$ 0.30	\$ 0.02	\$ 0.32
TOTAL	\$ 1.28	\$ 0.36	\$ 1.64

Analytical Template Costs in Millions

Costs	100 Year Present Value
Capital Costs One-time	\$ 16.3
Ongoing Life Cycle Costs	\$ 71.9
Risk cost	-
Total Costs	\$ 88.1

3.3.2. Quantifiable & Non-Quantifiable Benefits

This alternative would allow us to access multiple wellfields (Gravity Pipeline, University Place, Southeast Tacoma, and Prairie Ridge) that we otherwise could not, which could be useful if issues were to develop in the South Tacoma Wellfield. This also potentially increases supply resilience, and helps maintain the associated water rights for future system changes. The value of this is difficult to quantify; it is a judgement call if the benefits justify the over \$3 million increase to initial capital cost.

In addition to the cost increase, it is also worth considering that operating and maintaining the small outlying sites (including 4 new corrosion control facilities) may be a significant inconvenience to staff when these wells are run, even though each produces only a relatively small quantity of water. It may be best to hold off on the additional small wells for now, and then reconsider after a few years if more wells are needed.

See also Sections 1.4. and 3.3.

3.3.3. Risks and Constraints

See Section 3.2.3.

3.3.4. Sensitivity Analysis

See Section 3.2.3.

3.4. Alternative 3 – South Tacoma Only

It is possible to meet the reliability target with only South Tacoma Wells. Partway through the analysis, this option seemed like a way to avoid paying for additional corrosion control facilities. However, to provide enough pump station capacity to use all wells in the event of a WestRock shutdown, this alternative would require adding another pump at Hood Street, for which there is no existing spot. The associated high cost is not very attractive.

This is also similar to Alternative 1, except for the following:

- Include Wells 2B, 2C, 4A, 9A, and 13A
- Exclude Wells GPL1 and GPL2
- Include Pump 5 at Marine View Pump Station
- Modify Hood Street Pump Station to add a 4th Pump

3.4.1. Project Costs

Capital Costs in Millions by Type of Work

One-Time Costs	Wells	Pump Stations	TOTAL
Pull / Rehab	\$ 3.2	\$ 2.9	\$ 6.1
Electrical	\$ 1.3	\$ 1.3	\$ 2.6
Corrosion Control	-	-	-
Misc	\$ 0.4	\$ 4.3	\$ 4.8
TOTAL	\$ 4.9	\$ 8.5	\$ 13.5

Capital Costs in Millions by Facility

Facility	Cost
Well 1B	\$ 0.45
Well 2B	\$ 0.29
Well 2C	\$ 0.14
Well 3A	\$ 0.51
Well 4A	\$ 0.32
Well 5A	\$ 0.44
Well 6B	\$ 0.26
Well 8B	\$ 0.50
Well 9A	\$ 0.58
Well 11A	\$ 0.47
Well 12A	\$ 0.78
Wells 13A	\$ 0.22
Hood Street PS & Treatment	\$ 2.08
Pump 4 at Hood Street PS	\$ 3.97
South Tacoma PS	\$ 1.53
Marine View PS (Pumps 5-7)	\$ 0.96
TOTAL	\$ 13.50

Life Cycle Costs in Millions

Equalized Annual Costs	Wells	Pump Stations	TOTAL
Equipment Renewal	\$ 0.60	\$ 0.45	\$ 1.05
Pull	\$ 0.03	\$ 0.02	\$ 0.05
Test	\$ 0.08	\$ 0.07	\$ 0.15
Exercise	\$ 0.10	\$ 0.03	\$ 0.13
Additional Treatment	\$ 0.01	-	\$ 0.01
Mothball	\$ 0.58	-	\$ 0.58
TOTAL	\$ 1.38	\$ 0.57	\$ 1.95

Analytical Template Costs in Millions

Costs	100 Year Present Value
Capital Costs One-time	\$ 13.9
Ongoing Life Cycle Costs	\$ 86.3
Risk cost	-
Total Costs	\$ 100.2

3.4.2. Quantifiable & Non-Quantifiable Benefits

See Section 1.4.

3.4.3. Risks and Constraints

See Section 3.2.3.

3.4.4. Sensitivity Analysis

See Section 3.2.4.

3.5. Alternative 4 – 55 MGD / Year 2070

This is generally similar to making all the facility investments described in Alternatives 2 and 3, plus the following:

- Include Wells 7A, SE2, and SE6
- Construct Well 14A (currently just a hole in the ground and a water right permit)
- Exclude Prairie Ridge Springs
- Lakehaven (build a station to pump Lakehaven's groundwater into Pipeline 5)
- Aggressive Peak Shaving (further reduce water consumption in the summer)

This option is largely shown for long-term planning purposes, to provide an idea of what additional groundwater facilities may be needed in approximately 50 years if no other changes to supply or demand occur. This information may be useful for managing water rights and properties.

3.5.1. Project Costs

Project costs are shown in the tables below. Costs from the Lakehaven Pump Station and Aggressive Peak Shaving are shown as "Other", since these deliver water from outside sources or through additional conservation.

Capital Costs in Millions by Type of Work

One-Time Costs	Wells	Pump Stations	Other	TOTAL
Pull / Rehab	\$ 5.9	\$ 2.9	-	\$ 8.8
Electrical	\$ 2.5	\$ 1.3	-	\$ 3.8
Corrosion Control	\$ 6.0	-	-	\$ 6.0
Misc	\$ 5.5	\$ 4.3	\$ 2.3	\$ 12.1
TOTAL	\$ 19.8	\$ 8.5	\$ 2.3	\$ 30.7

Capital Costs in Millions by Facility

Facility	Cost	Nominal Flow (MGD)	Annual Volume (kAF)
Well 1B	\$ 0.45	3.5	2.0
Well 2B	\$ 0.29	2.0	0.4
Well 2C	\$ 0.14	2.9	0.5
Well 3A	\$ 0.51	4.1	2.3
Well 4A	\$ 0.32	1.3	0.7
Well 5A	\$ 0.44	6.5	3.7
Well 6B	\$ 0.26	3.9	1.8
Well 7B	\$ 0.90	1.2	0.4
Well 8B	\$ 0.50	4.4	2.1
Well 9A	\$ 0.58	4.5	3.8
Well 11A	\$ 0.47	8.8	4.9
Well 12A	\$ 0.78	5.0	4.2
Well 13A	\$ 0.22	1.1	0.8
Well 14A (New Facility)	\$ 4.97	3.9	0.7
Wells GPL1 & GPL2 (Add CC)	\$ 4.64	7.8	4.4
Well UP1 (Add CC)	\$ 1.17	1.6	0.7
SE2 & SE6 (Replace CC)	\$ 1.62	1.2	0.7
SE11 & SE11A (Add CC)	\$ 1.58	1.7	0.7
Hood Street PS & Treatment	\$ 2.08	15	8.5
Pump 4 at HSPS (New Facility)	\$ 3.97	5	2.8
South Tacoma PS	\$ 1.52	16.7	9.4
Marine View PS: Pumps 5-7	\$ 0.96	7.0	4.0
Lakehaven PS (New Facility)	\$ 1.95	3	1.7
Peak Shaving (New Program)	\$ 0.33	5	0.9
TOTAL	\$ 30.66		

Life Cycle Costs in Millions

Equalized Annual Costs	Wells	Pump Stations	Other	TOTAL
Equipment Renewal	\$ 0.94	\$ 0.45	\$ 0.02	\$ 1.41
Pull	\$ 0.05	\$ 0.02	-	\$ 0.07
Test	\$ 0.16	\$ 0.07	-	\$ 0.23
Exercise	\$ 0.13	\$ 0.03	\$ 0.02	\$ 0.18
Additional Treatment*	\$ 0.20	-	\$ 0.12	\$ 0.32
Mothball	\$ 0.14	-	-	\$ 0.14
TOTAL	\$ 1.63	\$ 0.57	\$ 0.16	\$ 2.35

(*Or other additional costs, such as for an ongoing Peak Shaving program)

Analytical Template Costs in Millions

Costs	100 Year Present Value
Capital Costs One-time	\$ 31.6
Ongoing Life Cycle Costs	\$ 103.0
Risk cost	-
Total Costs	\$ 134.6

3.5.2. Quantifiable & Non-Quantifiable Benefits

See Sections 1.4. and 3.5.

3.5.3. Risks and Constraints

See Section 3.2.3.

3.5.4. Sensitivity Analysis

See Section 3.2.4.

3.6. Justification of recommended alternative

The recommended approach – Alternative 1 – is the lowest cost way to get to the 40 mgd of reliable capacity recommended by yield modeling at this time. This would modernize our current “go to” wells and associated pump stations, as well as make the high producing GPL wells available. In future years, if more groundwater is needed, improving some of the outlying wells may become a more attractive option as our needs and situation evolve.

4. Supporting Documentation

Document Name
• Wells Master Plan Report
• Short Form BCEs for Individual Wells and Associated Pump Stations
• Well 12A Rehabilitation BCE (and 2019-2020 Wells R&R BCE)
• Well 12A Blower Motor and MCC Rehab BCE
• Well 12A Pipe Supports BCE
• Corrosion Control Treatment for GPL Wells BCE
• Hood Street Facilities Seismic Improvements BCE
• Hood Street Reservoir Seismic Improvements BCE
• South Tacoma Pump Station Seismic Improvements BCE
• Pipeline No. 1 Pressurization Project BCE
• Eagle Lake Siphon Project BCE

APPENDIX I

GPL1 Inspection Report



February 19, 2016

Si Phan
Tacoma Water
Via email: SPhan@ci.tacoma.wa.us

RE: Cleanout of Tacoma's GPL Well 1

Dear Mr. Phan,

Robinson Noble recently reviewed the video inspection of the City of Tacoma's Gravity Pipeline 4 Production Well #1 (GPL1). In addition to the two pieces of PVC pipe within the well screen, the inspection shows that the well's screen is partially filled with scale and sediment that probably accumulated over the years. This scale and sediment should be removed before placing the well back into service, as it is blocking the screen and reducing the efficiency of the well. Additionally, the upper portion of the well screen is covered with a scale or encrustation. This should also be cleaned to the degree possible for optimum well performance.

The following image is of the upper-most portion of the screen, at approximately 260 feet below the top of the well casing. The support wires are mostly covered with encrustation, and the screen wires are barely visible.



For comparison, the next image is from deeper within the screen. This image was taken at approximately 280 feet, note that the screen wires and support wires are clean and it is possible to see aquifer material through the screen slots.



The next image is of the filled screen at 285 feet. According to the report we located in our files¹, the well was originally drilled to a depth of 297 feet. Consequently, it appears that there is approximately 12 feet of screen filled with material.



The final image, below, shows two pieces of pipe within the well screen. While the presence of the pipe likely doesn't hurt the ability of the well to produce water, removing it is a good idea.

¹ Robinson, J. W. 1965, Production Well No. 1 Along Gravity Pipeline, City of Tacoma, prepared for the City of Tacoma by Robinson, Roberts & Associates, Inc.



In summary, the well screen is partially filled with scale and sediment, contains two pieces of PVC pipe, and is partially encrusted with scale. We recommend cleaning out the screen by removing the pipes, brushing off the scale, and bailing out the accumulated scale and sediment. We have contacted three qualified contractors who are capable of completing this work. Cost estimates were received from Holt Services, Hokkaido Drilling, and Charon Drilling. All three contractors are available to start the work next week, upon your authorization. All three estimate completing the job in three days (approximately 30 hours of site time). The lowest cost estimate we received was from Charon Drilling, we have included their costs in this estimate.

Cleanout activities will be conducted by the drilling crew; Robinson Noble will provide oversight during the process. In addition to remaining in regular communication with the drilling contractor during cleanout work, our hydrogeologist will periodically visit the site and observe the contractor's progress, serving as your representative on site.

After well cleanout is complete, we recommend the completion of a second video inspection to document the condition of the well and screen prior to the re-installation of the permanent pump. As with the previous video inspection, we recommend running water into the well for at least a day prior to the inspection to flush the dirty water from within the well casing and provide optimum visibility.

Following the re-installation of the permanent pump, we recommend pumping the well to waste until the water produced is clear and sand-free. Cleanout activities result in the agitation of the aquifer sediments and will suspend fine materials, resulting in elevated turbidity and minor sand production on initial pump startup. Typically, the turbidity and sand production will decrease to normal levels within the first hour of pumping.

We understand that due to the site's constraints, it may not be possible to discharge significant amounts of water to waste without causing impacts to surrounding properties, but we don't recommend pumping directly into the City's gravity pipeline without confirming that the pumped water at the design rate of operation (3,500 gallons per minute) is free of turbidity and

Si Phan
February 19, 2016
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sand. While the well is pumping to waste, Robinson Noble staff will be onsite to record elapsed time, pumping rates and pumping water levels, as well as evaluate the turbidity and sediment content of the discharged water. This final stage in the well cleanout will also serve as a pumping test to confirm the performance of the well has not degraded since it was installed. This will also provide an opportunity for the City to collect water samples, as appropriate for the source, prior to placing the well back into service.

Once the cleanout activities and testing are complete, we will document the efforts and results in a brief letter report for your files.

Based on our understanding of the project and the conditions outlined in this scope, we estimate the cost of the well cleanout, follow-up inspection, and testing, as described above, to be \$15,960 plus applicable sales tax, for an estimated total of \$17,480. Robinson Noble works on a time-and-expense basis according to the attached Tacoma Public Utilities Fee Schedule. This estimate will remain valid for 90 days from the date of this scope.

This project estimate does not include costs for any extra insurance, business licenses or fees, or applicable local taxes that might be necessary to complete the project. We will request that these additional costs be added to the above total estimate when they become known to us. Rental costs for our standard field equipment and any specialized equipment as detailed in this scope are included in the above estimate. Should additional equipment be deemed necessary or warranted in order to properly complete the project, we will submit a change in scope request with estimated costs based on the equipment rental schedule included in the Tacoma Public Utilities Fee Schedule.

As a cost-savings measure for our clients, each Robinson Noble employee charges their time on a project according to the level of expertise required for a given task (i.e., employees may have more than one billing rate). This allows us to make use of our more experienced staff without unduly impacting project costs, but also means that our clients only pay for the level of expertise applied.

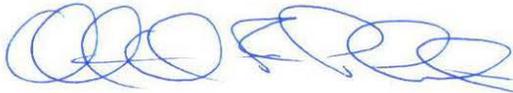
We hope this scope of work and cost estimate is adequate for your needs. Please contact us if we can provide additional information or modify the scope of work to better assist Tacoma Water. Should Tacoma Water decide to pursue some or all of the work discussed above, please send a Formal Task Authorization if you wish to proceed under our current on-call contract (SAP Contract No. 46500011199) with Tacoma Public Utilities, the scope of which includes water supply consulting. The contract manager for TPU is Jeromy Adams with Tacoma Power.

If at any time prior to or during this project Tacoma Water identifies a concern or problem with our work or progress that cannot be resolved by the assigned Robinson Noble project manager, please contact Joseph Becker, our company President, and he will make every effort to resolve the issue to your satisfaction.

Si Phan
February 19, 2016
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If you have questions or need additional information, please contact us. Thank you for the opportunity to be of service.

Respectfully submitted,
Robinson Noble, Inc.

A handwritten signature in blue ink, consisting of several overlapping loops and a final flourish.

Michael F. Piechowski, L.HG.
Associate Hydrogeologist

Attachment

APPENDIX J

Equity In Contracting TMC

CHAPTER 1.07 EQUITY IN CONTRACTING

Sections:

1.07.010	Policy and purpose.
1.07.020	Definitions.
1.07.030	Discrimination prohibited.
1.07.040	Program administration.
1.07.050	Certification.
1.07.060	Program requirements.
1.07.070	Evaluation of submittals.
1.07.080	Contract compliance.
1.07.090	Program monitoring.
1.07.100	Enforcement.
1.07.110	Remedies.
1.07.120	Unlawful acts.
1.07.130	Severability.
1.07.140	Review of program.

1.07.010 Policy and purpose.

It is the policy of the City of Tacoma that citizens be afforded an opportunity for full participation in our free enterprise system and that historically underutilized business enterprises shall have an equitable opportunity to participate in the performance of City contracts. The City finds that in its contracting for supplies, services and public works, there has been historical underutilization of small and minority-owned businesses located in certain geographically and economically disfavored locations and that this underutilization has had a deleterious impact on the economic well-being of the City. The purpose of this chapter is to remedy the effects of such underutilization through use of narrowly tailored contracting requirements to increase opportunities for historically underutilized businesses to participate in City contracts. It is the goal of this chapter to facilitate a substantial procurement, education, and mentorship program designed to promote equitable participation by historically underutilized businesses in the provision of supplies, services, and public works to the City. It is not the purpose of this chapter to provide any person or entity with any right, privilege, or claim, not shared by the public, generally, and this chapter shall not be construed to do so. This chapter is adopted in accordance with Chapter 35.22 RCW and RCW 49.60.400.

(Ord. 28625 Ex. A; passed Nov. 5, 2019; Ord. 27867 Ex. A; passed Dec. 15, 2009)

1.07.020 Definitions.

Terms used in this chapter shall have the following meanings unless defined elsewhere in the Tacoma Municipal Code (“TMC”), or unless the context in which they are used clearly indicates a different meaning.

- A. “Bid” means an offer submitted by a Respondent to furnish Supplies, Services, and/or Public Works in conformity with the Specifications and any other written terms and conditions included in a City request for such offer.
- B. “Bidder” means an entity or individual who submits a Bid, Proposal or Quote. See also “Respondent.”
- C. “City” means all Departments, Divisions and agencies of the City of Tacoma.
- D. “Contract” means any type of legally binding agreement regardless of form or title that governs the terms and conditions for procurement of Public Works and Improvements and/or Non-Public Works and Improvements Supplies and Services. Contracts include the terms and conditions found in Specifications, Bidder or Respondent Submittals, and purchase orders issued by the City. A “Contract” as used in this chapter shall include an agreement between the City and a non-profit entity to perform construction-related services for Public Works. A “Contract” does not include: (1) awards made by the City with federal/state grant or City general funds monies to a non-profit entity where the City offers assistance, guidance, or supervision on a project or program, and the recipient of the grant awards uses the grant moneys to provide services to the community; (2) sales transactions where the City sells its personal or real property; (3) a loan transaction where the City is acting as a debtor or a creditor; (4) lease, franchise; (5) agreements to use City real property (such as Licenses, Permits and Easements) and, (6) banking and other financial or investment services.
- E. “Contractor” means any Person that presents a Submittal to the City, enters into a Contract with the City, and/or performs all or any part of a Contract awarded by the City, for the provision of Public Works, or Non-Public Works and Improvements, Supplies or Services.

F. “Goals” means the annual level of participation by MWBEs and SBEs in City Contracts as established in this chapter, the Program Regulations, or as necessary to comply with applicable federal and state nondiscrimination laws and regulations. Goals for individual Contracts may be adjusted as provided for in this chapter and shall not be construed as a minimum for any particular Contract or for any particular geographical area.

G. “MWBE Certified business” (or “MWBEs”) means a business that meets the criteria set forth in Section 1.07.050 of this chapter and has been certified as meeting that criteria by the Community and Economic Development Department Program Manager.

H. “SBE Certified Business” (or “SBEs”) means a business that meets the criteria set forth in Section 1.07.050 of this chapter and has been certified as meeting that criteria by the Community and Economic Development Department-SBE Program Manager.

I. “SBE Program Manager” means the individual appointed, from time to time, by the City’s Community and Economic Development Director to administer the Program Regulations.

J. “Program Regulations” shall mean the written regulations and procedures adopted pursuant to this chapter for procurement of Supplies, Services and Public Works.

K. “Non-Public Works and Improvements” means all competitively solicited procurement of Supplies and/or Services by the City not solicited as Public Works.

L. “Person” means individuals, companies, corporations, partnerships, associations, cooperatives, any other legally recognized business entity, legal representative, trustee, or receivers.

M. “Proposal” means a written offer to furnish Supplies or Services in response to a Request for Proposals. This term may be further defined in the Purchasing Policy Manual and/or in competitive solicitations issued by the City.

N. “Public Works (or “Public Works and Improvements”)” means all work, construction, alteration, repair, or improvement other than ordinary maintenance, executed at the cost of the City, or that is by law a lien or charge on any property therein. This term includes all Supplies, materials, tools, and equipment to be furnished in accordance with the Contract for such work, construction, alteration, repair, or improvement.

O. “Quote” means a competitively solicited written offer to furnish Supplies or Services by a method of procurement that is less formalized than a Bid or a Proposal. This term may be further defined in the Purchasing Policy Manual.

P. “Respondent” means any entity or Person, other than a City employee, that provides a Submittal in response to a request for Bids, Request for Proposals, Request for Qualifications, request for quotes or other request for information, as such terms are defined in Section 1.06.251 TMC. This term includes any such entity or Person whether designated as a supplier, seller, vendor, proposer, Bidder, Contractor, consultant, merchant, or service provider that; (1) assumes a contractual responsibility to the City for provision of Supplies, Services, and/or Public Works; (2) is recognized by its industry as a provider of such Supplies, Services, and/or Public works; (3) has facilities similar to those commonly used by Persons engaged in the same or similar business; and/or (4) distributes, delivers, sells, or services a product or performs a Commercially Useful Function.

Q. “Services” means non-Public Works and Improvements services and includes professional services, personal services, and purchased services, as such terms are defined in Section 1.06.251 TMC and/or the City’s Purchasing Policy Manual.

R. “Submittal” means Bids, Proposals, Quotes, qualifications or other information submitted in response to requests for Bids, Requests for Proposals, Requests for Qualifications, requests for Quotations, or other City requests for information, as such terms are defined in Section 1.06.251 TMC.

S. “Supplies” means materials, Supplies, and other products that are procured by the City through a competitive process for either Public Works procurement or Non-Public Works and Improvements procurement unless an approved waiver has been granted by the appropriate authority.

T. “Tacoma Public Utilities Service Area” means any ZIP code in which Tacoma Public Utilities maintains infrastructure or provides retail services.

(Ord. 28625 Ex. A; passed Nov. 5, 2019; Ord. 28274 Ex. A; passed Dec. 16, 2014; Ord. 28141 Ex. A; passed Mar. 26, 2013; Ord. 27867 Ex. A; passed Dec. 15, 2009)

1.07.030 Discrimination prohibited.

A. No person that is engaged in the construction of public works for the City, engaged in the furnishing of laborers or craftspeople for public works of the City, or is engaged for compensation in the provision of non-public works and improvements supplies and/or services to the City, shall discriminate against any other person on the basis of race, religion, color, national origin or ancestry, sex, gender identity, sexual orientation, age, marital status, familial status, or the presence of

any sensory, mental or physical disability in employment. Such discrimination includes the unfair treatment or denial of normal privileges to a person as manifested in employment upgrades, demotions, transfers, layoffs, termination, rates of pay, recruitment of employees, or advertisement for employment.

B. The violation of the terms of RCW 49.60 or Chapter 1.29 TMC by any person that is engaged in the construction of public works for the City, is engaged in the furnishing of laborers or craftspeople for public works of the City, or is engaged for compensation in the provision of non-public works and improvements supplies and/or services shall result in the rebuttable presumption that the terms of this chapter have also been violated. Such violation may result in termination of any City contract the violator may have with the City and/or the violator's ineligibility for further City Contracts.

(Ord. 27867 Ex. A; passed Dec. 15, 2009)

1.07.040 Program administration.

A. The Community and Economic Development Director, or their designated Program Manager, shall be responsible for administering this chapter and obtaining compliance with respect to contracts entered into by the City and/or its contractors. It shall be the duty of the Director to pursue the objectives of this chapter by conference, conciliation, persuasion, investigation, or enforcement action, as may be necessary under the circumstances. The Director is authorized to implement an administrative and compliance program to meet these responsibilities and objectives.

B. The Director is hereby authorized to adopt and to amend administrative rules and regulations known as the Program Regulations, to properly implement and administer the provisions of this chapter. The Program Regulations shall be in conformance with City of Tacoma policies and state and federal laws and be designed to encourage achievement of the MWBE and SBE goals set forth herein. The Program Regulations shall become effective following public notice and an opportunity to comment by the public.

C. The Program Regulations adopted pursuant to this section are for the administrative and procedural guidance of the officers and employees of the City and are further expressions of the public policy of the City. The Program Regulations, when adopted, shall not confer an independent cause of action or claim for relief cognizable in the courts of the state of Washington or the United States of America to any third parties, and such provisions shall not be used as the basis for a lawsuit in any court of competent jurisdiction challenging the award of any contract by the City.

(Ord. 28141 Ex. A; passed Mar. 26, 2013; Ord. 28110 Ex. B; passed Dec. 4, 2012; Ord. 27867 Ex. A; passed Dec. 15, 2009)

1.07.050 Certification.

A. The Program Manager shall approve a business as a Certified Business if all of the following criteria are satisfied:

1. The business is certified as a SBE, MBE, WBE, or MWBE through the state of Washington's Office of Minority & Women Business Enterprises; and
2. The company can demonstrate that it also meets at least one of the following additional requirements:
 - a. The personal residence of the owner is located within the City of Tacoma or Tacoma Public Utilities Service Area, or
 - b. The company's business offices are located in any county of the Tacoma Public Utilities Service Area or any county adjacent to Pierce County, or
 - c. When the work is performed outside of Pierce County, the company's business offices may be located in an adjacent county in which the work is performed, or
 - d. Such additional information as the Program Manager or designee may require.

When another governmental entity has an equivalent business classification process, the City may enter into an interlocal cooperative agreement for mutual recognition of certifications.

B. Appeals. The applicant may appeal any certification determination by the Program Manager under this chapter to the Director. The appeal must be made in writing and must set forth the specific reasons for the appeal. The Director shall make a decision on the appeal request within a reasonable time, which decision shall be final unless further appeal is made to the Hearing Examiner. In that event, the Hearing Examiner Rules of Procedure for Hearings, Chapter 1.23 TMC, shall be applicable to that appeal proceeding.

(Ord. 28625 Ex. A; passed Nov. 5, 2019; Ord. 28274 Ex. A; passed Dec. 16, 2014; Ord. 28147 Ex. A; passed May 7, 2013; Ord. 28141 Ex. A; passed Mar. 26, 2013; Ord. 28110 Ex. B; passed Dec. 4, 2012; Ord. 27867 Ex. A; passed Dec. 15, 2009)

1.07.060 Program requirements.

A. The program shall meet the following requirements:

1. Establishment of Annual Goals. The Program Regulations adopted pursuant to this chapter shall state reasonably achievable cumulative annual goals for utilization of MWBEs and SBEs in the provision of supplies, services, and public works procured by the City. Cumulative annual goals for the participation of MWBEs and SBEs in City contracts shall be based on the number of qualified MWBEs and SBEs operating within the Tacoma Public Utilities Service Area. The dollar value of all contracts awarded by the City to MWBEs and SBEs in the procurement of supplies, services, and public works shall be counted toward the accomplishment of the applicable goal.

2. Application of Annual Goals to Contracts. The Program Manager shall consult with City departments/divisions to establish department/division specific goals for competitively solicited contracts in accordance with this chapter and the Program Regulations.

B. Waivers. City departments/divisions or the Program Manager may request to waive one or more of the requirements of this chapter as they apply to a particular contract or contracts. Waivers may be granted in any one or more of the following circumstances:

1. Emergency: The supplies, services and/or public works must be provided with such immediacy that neither the City nor the contractor can comply with the requirements herein. Such emergency and waiver must be documented by the department/division awarding the contract.

2. Not Practicable: Compliance with the requirements of this chapter would impose an unwarranted economic burden or risk to the City after consideration of existing budgetary approvals.

3. Sole source: The supplies, services, and/or public works are available from only one source, and subcontracting possibilities do not reasonably exist as determined by the finance purchasing manager.

4. Government purchasing. The City is a party to or included in a federal, state or inter-local government purchasing agreement as approved by the finance purchasing manager.

5. Lack of certified contractors: An insufficient number of qualified contractors exist to create utilization opportunities.

6. Best interests of the City: Waiver of goals is in the best interests of the City due to unforeseen circumstances, provided that said circumstances are set forth in writing by the requestor.

C. Review of Waivers. A waiver determination by the finance purchasing manager may be reviewed by the Board of Contracts and Awards (C&A Board). The C&A Board may also review a request to reduce or waive the utilization requirements based on Not Practicable or Best Interests of the City circumstances. The C&A Board shall determine whether compliance with such requirements would impose unwarranted economic burden on, or risk to, the City of Tacoma as compared with the degree to which the purposes and policies of this chapter would be furthered by requiring compliance. If the determination of the C&A Board does not resolve the matter, a final determination shall be made by the City Council or Public Utility Board, as the case may be.

(Ord. 28625 Ex. A; passed Nov. 5, 2019; Ord. 28141 Ex. A; passed Mar. 26, 2013; Ord. 27867 Ex. A; passed Dec. 15, 2009)

1.07.070 Evaluation of submittals.

A. All submittals for a supplies, services, or public works and improvements contracts shall be evaluated for attainment of the MWBE and SBE requirements established for that contract in accordance with this chapter and the Program Regulations.

B. The determination of MWBE and SBE usage and the calculation of MWBE or SBE requirements per this section shall include the following considerations:

1. General. The dollar value of the contract awarded by the City to a MWBE or SBE in the procurement of supplies, services, or public works shall be counted toward achievement of the respective goal.

2. Supplies. A public works and improvements contractor may receive credit toward attainment of the MWBE and/or SBE requirement(s) for expenditures for supplies obtained from an MWBE or SBE; provided such MWBE or SBE assumes the actual and contractual responsibility for delivering the supplies with its resources. The contractor may also receive credit toward attainment of the MWBE or SBE goal for the amount of the commission paid to a MWBE or SBE resulting from a supplies contract with the City; provided the MWBE or SBE performs a commercially useful function in the process.

3. Services and Public Works subcontracts. Any bid by a certified MWBE and/or SBE or a bidder that utilizes a certified MWBE and/or SBE shall receive credit toward requirement attainment based on the percentage of MWBE and/or SBE usage demonstrated in the bid. A contractor that utilizes an MWBE and/or SBE subcontractor to provide services or public works

shall receive a credit toward the contractor's attainment of the respective requirement based on the value of the subcontract with that firm.

4. Brokers, Fronts, or Similar Pass-Through Arrangements. MWBEs and/or SBEs acting as brokers, fronts, or similar pass-through arrangements (as such terms are defined in the Program Regulations) shall not count toward the requirement attainment unless the activity reflects normal industry practices and the broker performs a commercially useful function.

C. Evaluation of competitively solicited submittals for public works and improvements and for services when a requirement has been established for the contract to be awarded shall be as follows:

1. When contract award is based on price. The lowest priced bid submitted by a responsive and responsible bidder will be reviewed to determine if it meets the requirement. An MWBE and/or SBE firm may self-count utilization on such bids if they will perform the work for the scope the requirement is based upon.

a. If the low bidder meets the requirements, the bid shall be presumed the lowest and best responsible bid for contract award.

b. any bidder that does not meet the MWBE and/or SBE requirements shall be considered a non-responsible bidder unless the bidder receives a waiver from the Program Manager or C&A Board.

2. When contract award is based on qualifications or other performance criteria in addition to price. Solicitations shall utilize a scoring system that promotes participation by certified contractors. The Program Regulations may establish further requirements and procedures for final selection and contract award, including:

a. Evaluation of solicitations for Architectural and Engineering (A&E) services;

b. Evaluation and selection of submittals in response to requests for proposals; and

c. Selection of contractors from pre-qualified roster(s).

(Ord. 28625 Ex. A; passed Nov. 5, 2019; Ord. 28141 Ex. A; passed Mar. 26, 2013; Ord. 27867 Ex. A; passed Dec. 15, 2009)

1.07.080 Contract compliance.

A. The contractor awarded a contract based on MWBE or SBE participation shall, during the term of the contract, comply with the requirements established in said contract. To ensure compliance with this requirement following contract award, the following provisions apply:

1. Any substitutions for or failure to utilize MWBE or SBEs projected to be used must be approved in advance by the Program Manager. Substitution of one MWBE or SBE with another shall be allowed where there has been a refusal to execute necessary agreements by the original MWBE or SBE, a default on agreements previously made or other reasonable excuse; provided that the substitution does not increase the dollar amount of the bid.

2. Where it is shown that no other MWBE or SBE is available as a substitute and that failure to secure participation by the MWBE or SBE identified in the solicitation is not the fault of the respondent, substitution with a non-MWBE or non-SBE shall be allowed; provided, that, the substitution does not increase the dollar amount of the bid.

3. If the Program Manager determines that the contractor has not reasonably and actively pursued the use of replacement MWBEs or SBEs, such contractor shall be deemed to be in non-compliance.

B. Record Keeping. All contracts shall require contractors to maintain relevant records and information necessary to document compliance with this chapter and the contractor's utilization of MWBEs or SBEs, and shall include the right of the City to inspect such records.

(Ord. 28625 Ex. A; passed Nov. 5, 2019; Ord. 28141 Ex. A; passed Mar. 26, 2013; Ord. 27867 Ex. A; passed Dec. 15, 2009)

1.07.090 Program monitoring.

A. An Advisory Committee shall monitor compliance with all provisions of this chapter and the related Regulations. The Program Manager shall establish procedures to collect data and monitor the effect of the provisions of this chapter to assure, insofar as is practical, that the remedies set forth herein do not disproportionately favor one or more racial, gender, ethnic, or other protected groups, and that the remedies do not remain in effect beyond the point that they are required to eliminate the effects of under utilization in City contracting, unless such provisions are supported by a Disparity Study. The Program Manager shall have the authority to obtain from City departments/divisions, respondents, and contractors such relevant records, documents, and other information as is reasonably necessary to determine compliance.

B. The Program Manager shall submit an annual report to the Community and Economic Development Director, Director of Utilities, and the City Manager detailing performance of the program. The report shall document MWBE and SBE utilization

levels, waivers, proposed modifications to the program, and such other matters as may be specified in the Program Regulations.

(Ord. 28625 Ex. A; passed Nov. 5, 2019: Ord. 28141 Ex. A; passed Mar. 26, 2013: Ord. 28110 Ex. B; passed Dec. 4, 2012: Ord. 27867 Ex. A; passed Dec. 15, 2009)

1.07.100 Enforcement.

The Director, or designee, may investigate the employment practices of contractors to determine whether or not the requirements of this chapter have been violated. Such investigation shall be conducted in accordance with the procedures established in the Program Regulations.

(Ord. 28625 Ex. A; passed Nov. 5, 2019: Ord. 28141 Ex. A; passed Mar. 26, 2013: Ord. 28110 Ex. B; passed Dec. 4, 2012: Ord. 27867 Ex. A; passed Dec. 15, 2009)

1.07.110 Remedies.

A. Upon receipt of a determination of contractor violation by the Program Manager, the City Manager or Director of Utilities, as appropriate, may take the following actions, singly or together, as appropriate:

1. Forfeit the contractor's bid bond and/or performance bond;
2. Publish notice of the contractor's noncompliance;
3. Cancel, terminate, or suspend the contractor's contract, or portion thereof;
4. Withhold funds due contractor until compliance is achieved; and/or
5. Recommend appropriate action including, but not limited to, disqualification of eligibility for future contract awards by the City (debarment) per Section 1.06.279 TMC;

B. Prior to exercise of any of the foregoing remedies, the City shall provide written notice to the contractor specifying the violation and the City's intent to exercise such remedy or remedies. The notice shall provide that each specified remedy becomes effective within ten business days of receipt unless the contractor appeals said action to the Hearing Examiner pursuant to Chapter 1.23 TMC.

C. When non-compliance with this chapter or the Program Regulations has occurred, the Program Manager and the department/division responsible for enforcement of the contract may allow continuation of the contract upon the contractor's development of a plan for compliance acceptable to the Director.

(Ord. 28625 Ex. A; passed Nov. 5, 2019: Ord. 28141 Ex. A; passed Mar. 26, 2013: Ord. 28110 Ex. B; passed Dec. 4, 2012: Ord. 27867 Ex. A; passed Dec. 15, 2009)

1.07.120 Unlawful acts.

It shall be unlawful for any Person to willfully prevent or attempt to prevent, by intimidation, threats, coercion, or otherwise, any Person from complying with the provisions of this chapter.

(Ord. 27867 Ex. A; passed Dec. 15, 2009)

1.07.130 Severability.

If any section of this chapter or its application to any Person or circumstance is held invalid by a court of competent jurisdiction, then the remaining sections of this chapter, or the application of the provisions to other Persons or circumstances, shall not be affected.

(Ord. 27867 Ex. A; passed Dec. 15, 2009)

1.07.140 Review of program.

This chapter shall be in effect through and until December 31, 2024, unless the City Council shall determine at an earlier date that the requirements of this chapter are no longer necessary. If this chapter has not been repealed by July 1, 2024, the City Council shall determine by the end of that year whether substantial effects or lack of opportunity of MWBEs and/or SBEs remain true in the relevant market and whether, and for how long, some or all of the requirements of this chapter should remain in effect.

(Ord. 28625 Ex. A; passed Nov. 5, 2019: Ord. 28274 Ex. A; passed Dec. 16, 2014: Ord. 28141 Ex. A; passed Mar. 26, 2013: Ord. 27867 Ex. A; passed Dec. 15, 2009)