RESOLUTION R-5520

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF KIRKLAND AUTHORIZING THE CITY MANAGER TO EXECUTE A DESIGN-BUILD UTILITY RELOCATION AGREEMENT WITH THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION RELATED TO THE IMPROVEMENT OF THE I-405/NE 85TH STREET IN-LINE BUS RAPID TRANSIT STATION AND INTERCHANGE.

WHEREAS, Interstate-405 (I-405) is a major transportation corridor that extends through the center of Kirkland that, among other transportation and economic benefits, facilitates a growing amount of regional transit; and

WHEREAS, recognizing the increased demand and congestion that is occurring in the I-405 corridor, the Washington State Department of Transportation (WSDOT) undertook an extensive three-year study, including stakeholder participation, to develop an environmental impact statement in 2002 that became the basis of the *I-405 Master Plan;* and

WHEREAS, the voter-approved 2016 Sound Transit 3 (ST3) funding package includes Bus Rapid Transit (BRT) to serve the I-405 Corridor from Lynnwood to Burien; and

WHEREAS, I-405 BRT includes Sound Transit funding a new interchange with an in-line BRT station at the I-405/NE 85th Street Interchange (Interchange); and

WHEREAS, Sound Transit and WSDOT have agreed that Sound Transit will fund and WSDOT will design and construct the Interchange; and

WHEREAS, the Interchange design concept developed by WSDOT, Sound Transit, and the City creates a valuable new access point to the region's high-capacity transit network, improving mobility and access for people traveling between Kirkland, surrounding communities, and the greater region; and

WHEREAS, the project design concept necessitates the relocation of a City waterline that is located at NE 85th Street; and

WHEREAS, the waterline located at NE 85th Street is a critical connection in the City's water system, and it is the City's responsibility to fund the replacement of the waterline; and

WHEREAS, WSDOT has deemed it to be in the best public interest to construct the replacement waterline in conjunction with the Interchange project; and

WHEREAS, the City wishes to partner with WSDOT to deliver the replacement waterline as part of the Interchange project;

NOW, THEREFORE, be it resolved by the City Council of the City of Kirkland as follows:

Section 1. The City Manager is hereby authorized and directed to execute on behalf of the City of Kirkland a design-build utility relocation agreement with WSDOT substantially similar to the agreement attached to this Resolution as Exhibit A.

Passed by majority vote of the Kirkland City Council in open meeting this 15 day of February 2022.

Signed in authentication thereof this 15 day of February 2022.

Penny Sweet, Mayor

Attest:

Kathi Anderson, City Clerk

Utility Agreement Design-Build Utility Relocation Work by WSDOT — City Cost			Utility Name & Address Kirkland Public Works 123 5th Avenue Kirkland, WA 98033
Agreement Number UTB 1409	Region NWR	Control Section 174305	Project Title/Location I-405, NE 85th Street Interchange and Inline Station Project City of Kirkland Water Line Relocation
State Route 405	Milepost MP 18.11		
Agreement Amount $6,170,000	Advance Payment Amount $0		
CITY Share $6,170,000	WSDOT Share 0%		

This Utility Construction Agreement (Agreement) is entered into between the Washington State Department of Transportation (WSDOT) and the City of Kirkland (CITY); hereinafter referred to individually as the "Party" and collectively as the "Parties."

Recitals

1. WSDOT is planning the construction or improvement of the State Route as shown above for the identified WSDOT Design-Build Project (Project), and in connection therewith, it is necessary to remove and/or relocate and/or construct certain CITY facilities (Work).

2. The CITY is responsible for (1) the cost of the Work for CITY facilities located without a documented ownership of and/or interest in real property such as being located pursuant to a WSDOT franchise, a permit, or undocumented permission, (2) all betterments, and (3) new facilities.

3. The Work shall be defined as all design, right of way acquisition, permitting, materials, equipment, labor, contract administration and any other efforts required to perform the relocation, construction, and/or removal of the CITY's facilities.

4. WSDOT is undertaking the Project, and the CITY is reimbursing WSDOT, as set forth in this Agreement, for the relocation and construction of certain CITY facilities as outlined in Exhibit A, Scope of Work (the "Work").

5. It is deemed to be in the best public interest for WSDOT to include the Work in the Project. Coordination and cooperation between the Parties as outlined in the GCB 3252 will be followed for this Agreement.

Now, Therefore, pursuant to RCW 47.10.210 and chapter 47.44 RCW and in consideration of the terms, conditions, covenants, and performances contained herein, as well as the attached Exhibits A, B, and C which are incorporated and made a part hereof;

It Is Mutually Agreed As Follows:

1. Plans, Specifications, and Bids

1.1 Program Guide: *Utility Relocation and Accommodation on Federal Aid Highway Projects* shall determine and establish the definitions and applicable standards and payments under this Agreement. By this reference this document is adopted and made a part of this Agreement as if fully contained herein.

1.2 Betterment: A betterment is any improvement to the CITY's facilities not required by code, regulation, standard industry practice, or any other applicable regulation. If any of the Work or other work associated with the Project constitutes a betterment as defined in the Program Guide: *Utility Relocation and Accommodation on Federal Aid Highway Projects*, the CITY is solely responsible for the costs of such improvement.

1.3 Accrued Depreciation: Accrued depreciation may be applied to any of the CITY's major facilities, such as a building, pump station, power plant, etc. Accrued depreciation shall not apply to the CITY's primary facilities, such as pipelines, conductors, poles, cable, conduit, etc. If any CITY facility does qualify for an adjustment due to accrued depreciation as defined in Program Guide: *Utility Relocation and Accommodation on Federal Aid Highway Projects*, the costs are calculated according to the formula in the Program Guide and the result is shown as a CITY cost in Exhibit B, Cost Estimate.

1.4 WSDOT, acting on behalf of the CITY, agrees to perform the CITY facilities Work in accordance with the current WSDOT Standard Specifications for Road, Bridge, and Municipal Construction (M41-10) as amended and in accordance with the CITY Utility Standards for water, sewer and surface water documented in the Project Request for Proposal (RFP). The CITY agrees that it is solely responsible for ensuring that the Utility Codes and Standards provided, at the Project RFP advertisement date are the applicable standards, codes, regulations, or any other requirements the CITY is obligating the Project to meet, unless otherwise noted and mutually agreed to by the Parties in writing.

1.5 The CITY will review and approve the Work according to the Standards in Section 1.4 above, and these shall be the applicable standards for WSDOT to advertise in the Project RFP for bids. WSDOT will be the CITY's representative during the Project RFP Ad and award period. When requested by WSDOT, the CITY shall timely assist WSDOT in answering bid questions and resolving any design issues that may arise that are associated with the Work. All responses to comments and requests for clarification that arise during the Project RFP Ad and award period shall be managed solely by WSDOT. If the CITY supplies Work plans and special provisions, the CITY agrees to provide WSDOT with any addenda required for the Work during the Ad period, to the Parties' mutual satisfaction.

1.6 The Project will be completed using the design-build method of project delivery. As specified in the Project RFP, the final plans and specifications for the Work will be prepared by WSDOT's Design-Build Contractor (DB Contractor) in accordance with the current WSDOT Standard Specifications for Road, Bridge, and Municipal Construction (M41-10), as amended; adopted design standards, unless otherwise noted; and, Exhibit A, Scope of Work; Exhibit C, Conceptual Plans; in accordance with the CITY Utility Standards for water, sewer and surface water as documented in the Project RFP; and any other plans and specifications included in the Project RFP for the Work. WSDOT will direct the DB Contractor to complete the design Work in accordance with such plans and specifications and Section 1.7 herein.

1.7 The CITY agrees to meet with the WSDOT's DB Contractor as necessary to complete the design of the Work. The CITY shall inform WSDOT of all such meetings and WSDOT shall have the opportunity to attend said meetings at WSDOT's discretion. WSDOT shall require the DB Contractor to provide the CITY with the final proposed plans and specifications for the Work. Thereafter, the CITY agrees to review said plans and specifications in accordance with Section 3.0 of GCB 3252. The CITY shall have final approval authority over any plans and specifications for the Work and agrees to work in good faith with the DB Contractor to resolve all issues.

1.8 Any change to the DB Project that may affect the CITY's facilities must be approved by the CITY in accordance with GCB 3252.

2. CONSTRUCTION, INSPECTION, AND ACCEPTANCE

2.1 WSDOT agrees to administer the Work on behalf of the CITY.

2.2 The CITY agrees to allow WSDOT or its DB Contractor to disconnect and/or reconnect its facilities as required by WSDOT when such disconnection or reconnection is required. All active water valves will be operated by CITY staff. WSDOT agrees to provide written notice to the CITY when such disconnection or reconnection is required, as described in CITY preapproved plans and specifications. The Parties agree to define disconnect and/or reconnection requirements, including notification and response. WSDOT agrees, as part of the Work, to remove, disconnect and/or abandon facilities as agreed to by the Parties and at the cost of the CITY. CITY facilities not removed pursuant to this Agreement shall remain the ownership, operation, and maintenance responsibility of the CITY.

2.3 Salvage: All materials removed by WSDOT or its DB Contractor shall be reclaimed or disposed of by WSDOT and shall become the property of WSDOT. If the CITY desires to retain such materials and WSDOT agrees, the value of salvaged materials will be paid to WSDOT in an amount not less than that required by the *Program Guide: Utility Relocation and Accommodation on Federal Aid Highway Projects.*

2.4 As described in Section 8.0 of GCB 3252, the CITY may furnish an inspector for the Work. WSDOT agrees to notify the CITY within fourteen (14) calendar days in advance of the Work to be performed. The CITY agrees that it is solely responsible for all such inspection costs related to the Work. The Parties agree to follow the coordination protocols and disputes resolution as described in Section 8.0 of GCB 3252.

2.5 WSDOT shall promptly notify the CITY in writing when the Work is completed, as described in Section 8.1 of GCB 3252.

2.6 The CITY shall, according to Section 8.0 GCB 3252: (a) deliver a letter of acceptance to WSDOT which shall include a release and waiver of all future claims or demands of any nature resulting from the performance of the Work and WSDOT's administration thereof, or (b) deliver to WSDOT written reasons why the Work does not comply with the CITY standards in the previously approved Project RFP Plans and Special Provisions. Satisfactory closure of all non-conforming issues and completion of the CITY requested punch list items which do not comply with the Project RFP and design-build contract documents shall provide reasonable basis for CITY approval and acceptance, as described in Section 8.0 of GCB 3252. Upon completion of the Work, WSDOT shall ensure that all warranties for the Work are provided by WSDOT's DB Contractor.

2.7 If the CITY does not respond within the timeframes provided in Section 3.0 of GCB3252, the Work and WSDOT's administration thereof will be deemed accepted by the CITY, and WSDOT shall be released from all future claims and demands as described in Section 8.0 of GCB 3252.

2.8 Upon completion and acceptance of the Work pursuant to Sections 2.6 or 2.7, the CITY agrees that it shall be solely responsible for all future ownership, operation, and maintenance costs of its facilities, without WSDOT liability or expense.

2.9 WSDOT or WSDOT's DB Contractor will prepare the final construction documentation in general conformance with WSDOT's Construction Manual and according to the Project RFP. WSDOT or WSDOT's DB Contractor will maintain one set of plans as the official "as-built" set, then make notations in red on all plan revisions typically recorded per standard WSDOT practice, as directed by WSDOT's Construction Manual and Project RFP. Once the CITY has accepted the Work per Section 2.6 or 2.7, and the "as-built" set has been updated to reflect final revisions, WSDOT will provide one reproducible set of contract as-builts to the CITY within sixty (60) days of receiving the as-built plans from WSDOT or its DB Contractor, according to Section 2.10.9.12.2 of the Project RFP.

3. PAYMENT

3.1 In consideration for the Work performed under this Agreement, the CITY will reimburse WSDOT a Lump Sum Amount of Five Million Two Hundred Sixty-Five Thousand Seven Hundred US Dollars ($5,265,700) for the "Subtotal Construction Cost" and "Construction Management", as estimated in Exhibit B, Cost Estimate. This Lump Sum Amount shall be invoiced to include the WSDOT indirect cost rate percentage in accordance with Section 3.3.

3.2 WSDOT shall invoice the CITY based on progress of the Work until the total of all invoices equals the Lump Sum Amount and actual WSDOT indirect cost rate percentage, together with any cost increases pursuant to Section 4, and as estimated in the "Project Continency" estimated in Exhibit B. If the Project Continency is needed for change in Work or cost increase pursuant to Section 4, the Parties agree the change orders would include sales tax and the Construction Management percentage, before applying the WSDOT indirect cost rate percentage in accordance with Section 3.3.

3.3 The WSDOT indirect cost rate percentage fluctuates annually, so the percentage provided in Exhibit B is for estimate purposes only, and may increase or decrease during the time WSDOT and its DB Contractor performs the Work. The CITY agrees to pay actual WSDOT indirect cost percentage at the time the Work is invoiced.

3.4 The Parties agree the "Maximum Total Agreement Amount" for this Agreement, as shown in Exhibit B, shall not exceed Six Million One Hundred Seventy Thousand US Dollars ($6,170,000), unless agreed to the by the Parties in writing and in accordance with Section 7.5.

3.5 WSDOT will provide supporting documentation with each invoice. The CITY agrees to pay WSDOT within thirty (30) calendar days of receiving an invoice from WSDOT. A partial payment will not constitute agreement as to the appropriateness of any item and that, at the time of final payment, the Parties will resolve any discrepancies.

3.6 The Parties acknowledge and agree that WSDOT does not have the legal authority to advance WSDOT funds for the CITY's cost portion of the Work under this Agreement. Should the CITY fail to make payment according to the terms of this Agreement, WSDOT shall have the right to terminate this Agreement, charging the CITY for all associated costs of termination, including non-cancellable items, as well as associated DB Project delay and contractor claims. Such termination shall not relieve the CITY's obligation to timely relocate its facilities as provided under Section 2.2.

4. CHANGE IN WORK OR COST INCREASE

4.1 If WSDOT determines additional Work or a change in the Work is required, prior written approval must be secured from the CITY; however, where the change is required to mitigate a DB Project emergency such as a safety threat to the traveling public, WSDOT will direct the change without the CITY's prior approval. WSDOT will notify the CITY of such change as soon as possible thereafter. The CITY agrees to respond to all WSDOT change order requests in writing and within the timeline as outlined in GCB 3252 Section 4.7. The CITY agrees to pay all change order Work costs for which it is responsible, as well as the costs of DB Project or Work delays and/or subsequent contractor claims associated with the CITY's failure to timely respond as required.

4.2 The CITY may request elective change additions to the Work through WSDOT in writing. WSDOT will implement the requested changes as elective changes, provided that a change does not negatively impact WSDOT's transportation system and complies with the Standard Specifications, Project permits, State and/or federal law, applicable rules and/or regulations, and/or WSDOT design policies, and does not unreasonably delay critically scheduled DB Project contract activities.

4.3 All elective changes to the Work shall be approved in writing by the CITY before WSDOT directs the DB Contractor to implement the changes, even if an executed change order is not required by the DB Project contract. The CITY agrees to pay for the increases in cost, if any, for such elective changes in accordance with Section 3.

4.4 WSDOT will make available to the CITY all change order documentation related to the Work.

5. FRANCHISE OR PERMIT

5.1 The CITY shall apply for a WSDOT franchise or permit for those new or modified CITY facilities that will be located within the State's right of way. After receiving the application, WSDOT will issue the CITY a franchise or permit.

6. RIGHT OF ENTRY AND RIGHT OF WAY ACCESS

6.1 The CITY hereby grants to WSDOT a right of entry and applicable permissions onto all lands in which it has an interest for construction of the Work as defined in Exhibits A and C. Upon completion and acceptance of the Work, the right of entry shall terminate.

6.2 The CITY agrees WSDOT or its DB Contractor shall be allowed rights of entry and applicable permissions upon all privately owned lands upon which the CITY has an easement, documented property interest, or permit that are necessary to perform the Work. The CITY also agrees to obtain all necessary rights of entry and applicable permissions for WSDOT to perform the Work on such lands, which may include reasonable use restriction on those lands. Upon completion of the Work on such lands, the rights of entry and applicable permissions shall terminate.

7. GENERAL PROVISIONS

7.1 Indemnification:

7.1.1 Each Party to this Agreement will protect, defend, indemnify, and save harmless the other Party, its officers, officials, employees, agents, and Sound Transit, while acting within the scope of their employment as such, from any and all costs, claims, judgments, and/or awards of damages (both to persons and property), arising out of, or in any way resulting from, each Party's negligent acts or omissions with respect to the provisions of this Agreement. Neither Party will be required to indemnify, defend, or save harmless the other Party if the claim, suit, or action for injuries, death, or damages (both to persons and property) is caused by the sole negligence of the other Party. Where such claims, suits, or actions result from the concurrent negligence of the Parties, their agents, officials or employees, Sound Transit, and/or involve those actions covered by RCW 4.24.115, the indemnity provisions provided herein will be valid and enforceable only to the extent of the negligence of the indemnifying Party, its agents, officials or employees.

7.1.2 WSDOT and the CITY agree that their obligations under this Section extend to any claim, demand, and/or cause of action brought by, or on behalf of, any of their employees, or agents. For this purpose, the Parties, by mutual negotiation, hereby waive, with respect to each other only, any immunity that would otherwise be available against such claims under the Industrial Insurance provisions of Title 51 RCW.

7.1.3 This indemnification and waiver will survive the termination of this Agreement.

7.2 Disputes: If a dispute occurs between the CITY and WSDOT at any time during the performance of the Work, the Parties agree to follow the dispute resolution process outlined in GCB 3252 Section 12.

7.3 Venue: In the event that either Party deems it necessary to institute legal action or proceedings to

enforce any right or obligation under this Agreement, the Parties hereto agree that any such action or proceedings shall be brought in the superior court situated in Thurston County, Washington. Further, the Parties agree that each shall be responsible for its own attorney's fees and costs.

7.4 Termination:

7.4.1 Unless otherwise provided herein, the CITY may terminate this Agreement upon thirty (30) calendar days written notice to WSDOT. If this Agreement is terminated by the CITY prior to the fulfillment of the terms stated herein, the CITY shall reimburse WSDOT for all actual direct and related indirect expenses and costs, including mobilization, construction engineering, contract administration and overhead costs, incurred up to the date of termination associated with the CITY Work, as well as the cost of non-cancelable obligations, including any redesign, reengineering or re-estimating, if necessary, to delete the Work, and DB Contractor claims, if any, payment in accordance with Section 3. Further, the CITY acknowledges and agrees that should it terminate this Agreement, such termination shall not relieve the CITY from its responsibility to design, remove, relocate, and/or construct its facilities so as not to delay or conflict with WSDOT's DB Project. WSDOT agrees to provide to the CITY all Work-related documents upon final payment by the CITY.

7.4.2 Unless otherwise provided herein, WSDOT may terminate this Agreement upon thirty (30) calendar days written notice to the CITY. Should WSDOT terminate this Agreement, the CITY shall reimburse WSDOT for all actual direct and related indirect expenses and costs, including mobilization, construction engineering, contract administration and overhead cost, incurred by WSDOT up to the date of termination associated the Work. The CITY acknowledges and agrees that should WSDOT terminate this Agreement, such termination shall not relieve the Parties from their responsibilities to design, remove, relocate, and/or construct its facilities so as not to delay or conflict with WSDOT's DB Project. If WSDOT terminates this Agreement pursuant to it or the public's best interest, it shall restore the CITY's facilities that are located pursuant to a documented ownership of and/or interest in real property, such as an easement, fee title, or court finding of prescriptive right, which is impacted by the WSDOT, to the same or like condition than it was in prior to the commencement of any construction of the Work. WSDOT agrees to provide to the CITY all Work-related documents upon final payment by the CITY.

7.5 Amendments: This Agreement may be amended by the mutual agreement of the Parties. Such amendments or modifications shall not be binding unless put in writing and signed by persons authorized to bind each of the Parties.

7.6 Independent Contractor: Both Parties shall be deemed independent contractors for all purposes, and the employees of each Party and any of its contractors, subcontractors, consultants, and the employees thereof, shall not in any manner be deemed to be the employees of the other Party.

7.7 Audit and Records: During the progress of the Work and for a period of not less than six (6) years from the date of final payment, both Parties shall maintain the records and accounts pertaining to the Work and shall make them available during normal business hours and as often as necessary, for inspection and audit by the other Party, State of Washington, and/or Federal Government and copies of all records, accounts, documents or other data pertaining to the Work will be furnished upon request. The requesting Party shall pay the cost of copies produced. If any litigation, claim or audit is commenced, the records and accounts along with supporting documentation shall be retained until any litigation, claim or audit finding has been resolved even though such litigation, claim or audit continues past the six-year retention period.

7.8 Working Days: Working days for this Agreement are defined as Monday through Friday, excluding Washington State holidays per RCW 1.16.050.

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement as of the day and year last written below.

CITY	**Washington State Department of Transportation**
By:	By:
Printed: Kurt Triplett	Printed: Lisa Hodgson
Title: City Manager	Title: I-405/SR 167 Program Administrator
Date:	Date:
Approved as to Form CITY	**Approved as to Form Washington State Department of Transportation**
By:	By:
Printed:	Printed:
Title:	Title:
Date:	Date:

EXHIBIT A

UTILITY CONSTRUCTION AGREEMENT

I-405, NE 85th Street Interchange and Inline Station Project

CITY OF KIRKLAND RELOCATIONS

SCOPE OF WORK/TECHNICAL REQUIREMENTS

General

The City of Kirkland (CITY) owns and operates an existing 24" transmission water main within NE 85th Street underneath the existing I-405 overpasses. This transmission main must be relocated to facilitate construction of the proposed in-line BRT station planned with this Project RFP. The direct work associated with relocating the existing 24" transmission water main (Location 1 per Exhibit C), as well as the ancillary/connection work (Locations 2/3 per Exhibit C), shall be performed in accordance with the following requirements:

Design and construction of the relocation of CITY utility facilities shall be in accordance with WSDOT Standard Specifications for Road, Bridge and Municipal Construction, American Public Works Association (APWA), American Water Works Association (AWWA), and CITY standards and/or Pre-approved Plans.

Preparation of engineering design plans for the relocation of CITY utility facilities described herein, in conjunction with WSDOT's improvements within the Project limits at the intersection of NE 85th Street and Interstate 405 and within CITY local street ROW as indicated in Exhibit C, Conceptual Plans shall be in accordance with the CITY Pre-Approved Plans Policy G-7.

If any question arises regarding how to apply any provision of the CITY pre-approved plans to this contract, CITY's interpretation regarding such matter shall control. CITY may, in its sole discretion, allow a deviation from the requirements of CITY pre-approved plans.

The Design-Builder shall print a copy of CITY pre-approved plans, place in a in a three-ring binder and always keep accessible on site to CITY inspector.

Technical Requirements

City of Kirkland 24-inch Transmission Water Main Relocation

Location 1 Including Pressure Regulating Station, Flow Meter Vault and Isolation Valves:

The Design-Builder shall design and construct a 24-inch, earthquake resistant ductile iron transmission water main. Pipes installed using open-cut construction methods shall be designed for the concentric and eccentric loads by pressures imposed by soil (collapsing forces), groundwater (buoyancy forces), and traffic loads. The Design-Builder shall determine where piping or structures need to include provisions to counteract buoyancy forces in areas where installations could potentially be located below groundwater tables. Provisions may include

anchoring or weighting systems so pipes shall not float once installed or should soil and structure loads be displaced in the future as a result of other projects or factors.

The 24-inch water transmission main shall be placed on a constant slope from west to east and from north to south and shall not be deflected or curved. Standard earthquake resistant ductile iron bends shall be used to accommodate horizontal and vertical changes in direction, which shall be kept to a minimum. Concrete thrust blocking shall be placed at horizontal, vertical, combined bends, valves, tees, dead ends, and crosses. Concrete blocking shall bear against solid undisturbed earth at the sides and bottom of the trench excavation and shall be shaped so as not to obstruct access to the joints of the pipe or fittings. Steel reinforcement or soil modification may be considered to improve the soil bearing capacity of the surrounding area and reduce the size of the thrust block. Concrete blocks shall be supported by competent soil or foundation to ensure that the blocks shall not settle thereby pulling the pipeline down into soft soils during a seismic event.

The portion of the transmission main under I-405 shall be installed within a 36-inch steel casing., Casing pipe installations shall comply with the encasement requirements in the WSDOT Utilities Manual and any special provisions or conditions of the WSDOT franchise/permit or franchise permit modification. The entirety of the casing pipe shall maintain a minimum of 5-foot vertical clearance from the top of pavement to the top of the casing. This portion of the transmission main shall be straight and have no vertical or horizontal bends. The uncased portion of the transmission main located within the WSDOT ROW shall be installed within an access drive similar to CITY Pre-Approved Plan D.37. Transmission main shall be installed within 3' from center line of access road.

The 24-inch water transmission main shall extend from a new butterfly valve with bypass within NE 85th Street on the east side of I-405 to a combination air release/air vacuum valve assembly, that shall be placed at the high point adjacent to the casing on the east side of I-405, through the casing to a butterfly valve on the west side of the casing, to a Master Meter Station, to a Pressure Regulating Station (PRS)on the west side of the casing, ending at a new butterfly valve on the west/low pressure side of the PRS near the intersection of NE 87th Street and 116th Avenue NE. Flexible couplings are required on each side of all vaults, and at connections to the existing system. The 24-inch butterfly valves shall be short-body type with flanged ends and a manual actuator, buried service rated and applicable for the installed application.

For locations of butterfly valves with a bypass, two-inch outlets shall be installed on both sides of the butterfly valve with a connecting gate valve with 2-inch square operating nut. The gate valve shall be connected with a 2-inch bypass pipeline to enable filling and re-pressurizing the 24-inch water transmission main. The combination air release/ air vacuum valve shall be placed at the high point in the system and be adequately sized for filling and draining at a minimum flow rate of 500 gpm.

The Design-Builder shall provide all materials for the connections, temporary piping, and equipment as necessary to fill and drain pipes, flush pipes, disinfect the pipes, dispose of disinfection water, pressure test pipes, and draw samples for laboratory testing in accordance with the CITY Standards. The Design-Builder shall also provide all Site Work.

Master Meter Station

The Design-Builder shall construct a Master Meter Station within the CITY Right-of-Way. The meter station shall consist of a 16" electromagnetic flow meter with transmitter and integral readout head as specified by CITY, a dismantling joint to facilitate removal of the meter, and power and communication service.

The chamber containing the meter shall be sized to accommodate adequate clearance around all parts and access to the chamber shall be sufficiently sized to accommodate the removal and replacement of the meter and other components within the chamber. The chamber shall be located outside the traveled way and must daylight drain to a storm structure or outfall. Drain outlet shall be visible from surface.

Pressure Regulating Station (PRS)

The Design-Builder shall also design and construct a PRS within the CITY Right-of-Way. The PRS shall consist of three modulating valves and a combination air release/ air vacuum valve assembly. Two valves shall be pressure reducing valves. An 8-inch pressure reducing valve (PRV) for lower flows [Cla-Val 90-01G], and a 16-inch PRV for higher flows [Cla-Val 92-01G] and shall be installed in a parallel manner. Their function shall be to maintain constant downstream pressure and sustain upstream pressure in the case of the large valve. The PRVs shall be hydraulically operated, diaphragm-actuated, globe valves and include a pilot system capable of maintaining and adjusting system pressures. Each PRV should have an upstream strainer with ball valve cleanouts and upstream and downstream isolation valves, located within the station, for maintenance purposes. The third valve shall be an 8-inch pressure relief valve [Cla-Val 50-01G] that shall be installed downstream of the PRVs. An isolation valve shall be located upstream of the pressure relief valve which will discharge above ground through a cross-connection control air gap into a concrete chamber. The associated piping and above ground components of the air gap shall be structurally designed to facilitate the thrust expected. The above ground air gap shall be protected from the public as velocities may reach 10 feet per second if the discharge is through a 12-inch pipe. The concrete chamber shall discharge into a gravity conveyance system from the PRVs access chamber to the CITY's existing storm system within NE 87th Street.

Isolation valves for the pressure reducing valves shall be located and operable from inside the vault and have shackle rods of engineered size and strength to a thrust block outside of the vault. The thrust block must be engineered to size and strength for either bearing face or mass weight and specified as to which. Blocking cannot encapsulate the main and must be located below main with minimum 1' of separation. All component from tee to tee must be constructed

in a manner to allow for disassembly with system pressure on both the upstream and downstream valves of the PRV vault.

The chamber containing the PRVs shall be sized to accommodate adequate clearance around all parts and shall be sufficiently sized to accommodate the removal and replacement of the valves and other components within the chamber. Control valves shall have an FCA or dismantling joint installed adjacent to it to facilitate removal of the valve. Pressure gauges shall be installed upstream and downstream of each PRV to monitor inlet and discharge pressures. The chamber must daylight drain to a storm structure or outfall. Drain outlet shall be visible from surface.

The chamber shall have a 4' level and clear area surrounding it and shall not be located in a sidewalk, pedestrian pathway, bike or travel lane and have a minimum of one CITY vehicle designated parking spot no smaller than 10' by 30' located within 10' of the vault. Chamber shall have unimpeded 24/7 access once active.

Existing watermain pipe on site within the Project area may consist of asbestos cement (AC) pipe material. Any AC pipe material encountered that conflicts with new construction or excavation for construction activities shall be removed and disposed of in accordance with the Project RFP and any applicable laws and regulations.

The uncased portion of the transmission main located within the WSDOT ROW shall be installed with a pervious vegetated maintenance access along the pipe alignment. The utility maintenance access shall be designed to accommodate CITY maintenance vehicles. The access area over the new water main shall be graded to a minimum of 12 feet wide and orientated as so the access alignment is centered within three (3) feet of the water main centerline. The cross slope along the access alignment shall be graded to 6% or flatter. The water main shall be marked with a 12-foot wide by 2-foot long by 1-foot-deep concrete marker installed at grade with utility marker post identifying the buried water main facility. Concrete marker and marker posts shall be installed at the location where water main is accessed from NE 85th Street, at each change in horizontal alignment of water main pipe and at the casing ends within WSDOT ROW. Detectable underground tape shall be installed 1 foot blow surface grade along the center of the transmission main. Tracer wire shall also be installed over the transmission main along the uncased portion.

Description: Relocate water main north of proposed NE 85th Street interchange across WSDOT Limited Access to NE 87th Street utilizing Earthquake Resistant Ductile Iron Pipe (ERDIP) installed within casing. This work will be required to take place prior to excavation on NE 85th for the lower roadway.

Work includes, but not limited to:

- Mobilization and demobilization;
- Trenching, tunneling, excavation, shoring or extra excavation, dewatering, import/export trench backfill, compaction and connections to existing CITY water main system;
- Furnish and install 1345 linear feet of 24-inch diameter ERDIP CL 52 pipe including fittings;
- Furnish and install two (2) Combination air release/vacuum 4-inch valve assemblies;
- Furnish and install one (1) Pressure Regulating Station (PRS);

- Furnish and install three (3) 24-inch butterfly valve assemblies, one with 2-inch bypass, at specified locations as identified by the CITY on the east and west sides of I-405 mainline;
- Furnish and install one (1) Master Meter Station;
- Furnish and install 360 linear feet of telemetry conduit and wire;
- Furnish and install 645 linear feet of 36-inch diameter steel casing;
- Remove five (5) existing water system vaults.
- Abandon in place all portions of existing water main that are not removed as part of excavation activities associated with NE 85th Interchange construction;
- Remove and dispose of existing water main pipe encountered by excavation activities associated with NE 85th interchange construction.
- Grade and install a 12-foot-wide utility access along the alignment shown in Exhibit C
- Furnish and install utility marker posts, detectable taper and tracer wire along uncased portion of transmission main.
- Removal and disposal of AC watermain pipe if encountered.

City of Kirkland 24-inch/20-inch Distribution Water Mains – Locations 2 and 3.

The CITY owns the following facilities; the existing distribution 20-inch water main line located within NE 87th Street between 116th Ave NE and 114th Avenue NE, and the existing 16-inch distribution water main line located within NE 85th Street within 114th Avenue NE/Kirkland Way. The existing 20-inch water main will be upsized to 24-inch water main and the existing 16-inch distribution water main will be upsized to 20-inch water main as part of this Project.

The Design-Builder shall design and construct all modifications needed to avoid, Protect in Place, or Relocate the above CITY-owned facilities in accordance with the requirements provided in the Project RFP.

The 24-inch shall be AWWA Class 52 Earthquake Resistant Ductile Iron Pipe with Restrained Joints and 20-inch distribution mains shall be AWWA Class 52 Earthquake Resistant Ductile Iron Pipe with Restrained Joints.

The Design-Builder shall connect the new 24-inch main along NE 87th Street to the existing distribution water main that runs north along 116th Avenue NE. Coordinate with the CITY on water main shutdowns in accordance with CITY Standards.

The Design-Builder shall reconnect the new 24-inch main along NE 87th Street to the existing water services. There are 20 existing services that will need to be reconnected in accordance with CITY Standards. Design-Builder shall coordinate with CITY ahead of reconnections.

The Design-Builder shall furnish and install valve boxes for all temporary and permanent valves in accordance with the CITY Standard Plans.

The Relocated lines shall be installed in a location that minimizes construction staging and shall be Forward Compatible with all permanent facilities. Design and construction of the Relocated lines shall account for thrust restraint.

Where the Relocated 24-inch/20-inch Distribution Water Line is within the CITY Right-of-Way, the Design-Builder shall include, but not be limited to, the following:

- Provide a minimum of 42 inches of compacted cover over the distribution lines.
- Provide concrete blocking for all vertical and horizontal bends.
- No local high points.

The Design-Builder may consider franchise utility relocations within the CITY right-of-way as a means for meeting the Project requirements.

The Design-Builder shall remove or abandon the above existing facilities and shall coordinate that work with the CITY.

Existing watermain pipe on site within the NE 87th St. and 116th Ave. NE vicinity may consist of asbestos cement (AC) pipe material. Any AC pipe material encountered that conflicts with new construction or excavation for construction activities shall be removed and disposed of in accordance with the Project RFP and any applicable laws and regulations.

Location 2:

Description: Extend 24" Earthquake Resistant Ductile Iron Pipe (ERDIP) water main west, on NE 87th Street from WSDOT Limited Access ROW limit of the Project and connect to existing water main system on 114th Ave. NE. This option includes full-street grind and HMA overlay (edge of pavement to edge of pavement) of NE 87th St.

Work includes, but not limited to:

- Mobilization and demobilization;
- Trenching, excavation, shoring or extra excavation, dewatering, import/export trench backfill, compaction and connections to existing CITY water main system;
- Furnish and install 560 linear feet of 24-inch diameter ERDIP CL 52 pipe including fittings;
- Furnish and install 70 linear feet of 8 inch diameter ERDIP CL 52 pipe including fittings.
- Furnish and install two (2) 24-inch butterfly valves
- Furnish and install two (2) fire hydrant assemblies;
- Furnish and install 20 1-inch diameter water service line installations, including fittings and cross over connections.
- Abandon Existing 12" and 8" waterline after the new service lines are installed and in service.
- Design, obtain approval for temporary traffic control plans, and Furnish all Project temporary traffic control for water line installation;
- Furnish and install planning bituminous pavement and Hot Mix Asphalt (HMA) overlay, plane approximately 1700 Square Yards, pave 300 ton HMA CL. ½" PG64-22.
- Removal and disposal of AC watermain pipe if encountered.

***Location 3*:**

Description: Replace existing water line on 114th Ave NE across the NE 85th Street intersection with 20" Earthquake Resistant Ductile Iron Pipe (ERDIP) water main, and connect to existing water main system on 114th Ave. NE / Kirkland Way.

Work includes, but not limited to:

- Mobilization and demobilization;
- Trenching, excavation, shoring or extra excavation, dewatering, import/export trench backfill, compaction and connections to existing CITY water main system;
- Furnish and install 415 linear feet of 20-inch diameter RJ DIP CL 52, water main pipe including fittings.
- Furnish and install two (2) 20-inch butterfly valves
- Furnish and install planning and bituminous pavement and HMA overlay where pipe installation extends beyond the WSDOT Project paving scope, plane approximately 470 Square Yards, pave 54 ton HMA CL ½" PG 64-22.

Assumes temporary traffic control associated with Location 3 is not an added cost and work will be phased with planned intersection construction at 114th Ave NE and NE 85th Street.

UTB 1409

EXHIBIT B

Combined Summary, CITY Cost Responsibility

Item		Combined Total
Labor and Materials		$2,975,270
Engineering and Design	20%	$595,060
Minor Items	16%	$476,050
Mobilization	10%	$297,530
Subtotal DB Upset		$4,343,900
Sales Tax	10.2%	$443,080
Subtotal Construction Contract		$4,787,000
Construction Management	10%	$478,700
Project Contingency	4%	$191,480
Subtotal Construction Cost		$5,457,150
WSDOT Indirect Costs	13.04%	$711,620
Maximum Total Agreement Amount		$6,170,000

Notes

Labor and Materials reflects 2021 updated unit rates from Kreb's independent estimate.

UTB 1409
EXHIBIT B
NE 85TH ST. 24" DIA. WATER MAIN (Location 1)
COST ESTIMATE

CITY Cost Responsibility

For Location 1 concept detail and scope of work see UTB 1409 Exhibits A and C

Furnish & Install	PIPE, WM, ERDIP CL 52, 24 IN, INCL FITTINGS	1345	LF
Furnish & Install	SHORING OR EXTRA EXCAVATION (Bore pits)	3060	SF
Furnish & Install	4" COMBINATION AIR RELEASE/VACUUM VALVE	2	EA
Furnish & Install	PRESSURE REGULATING STATION	1	EA
Furnish & Install	GATE VALVE, 8 IN	4	EA
Furnish & Install	VALVE, BUTTERFLY, 24 IN	3	EA
Furnish & Install	MASTER MAG METER / VAULT	1	LS
Furnish & Install	TELEMENTRY CONDUIT AND WIRE	360	LF
Furnish & Install	DEWATERING SYSTEM	47	DAY
Furnish & Install	JACK AND BORE / 38" DIA STEEL CASING	645	LF
Remove	REMOVE EXISTING VAULTS	5	ea
Abandon/deactivate	ABANDON EXISTING 8" DIA. WATERLINE	335	LF
Abandon/deactivate	ABANDON EXISTING 16"& 24" DIA. WATERLINE	330	LF
Remove	REMOVE EXISTING 8" DIA. WATERLINE(OFFLINE)	830	LF
Remove	REMOVE EXISTING 16"& 24" DIA. WATERLINE (IN 85TH EXC)	1570	LF
Remove	DISPOSE OF EXISTING AC PIPE	730	LF
Furnish & Install	CONNECTION TO EXISTING WATER MAIN	1	EA
Furnish & Install	CONSTRUCT 12' WIDE UTILITY ACCESS (EXC/EMB)	700	CY
Furnish & Install	2' (W) X 12' (L) X 1' (D) CONCRETE UTILITY MARKER BLOCK	5	EA
Furnish & Install	DETECTABLE UNDERGROUND WARNING TAPE	650	LF
Furnish & Install	BURIAL MARK TRACER WIRE	650	LF
Furnish & Install	TEMPORARY EROSION AND SEDIMENT CONTROL (TESC)	1%	OF

Assumptions / Remarks

1 Unit costs in this estimate are per third party construction cost estimate evaluation.

2 Third party construction estimate was estimated in 2021 dollars, then escalated.

3 Costs for temporary traffic control and staging, where assumed work will correspond with WSDOT project, have not been included in the individual concept cost estimates.

4 For the purposes of this estimate, the size of steel casing for the I-405 crossing was assumed to be 1.5 x the pipe diameter (24") = 36" casing required. A larger casing size may be necessary depending on the water pipe material or installation methods used.

5 Fire hydrants are not required at the transit stops or under bridges per Fire Marshal and City of Kirkland.

6 Earthquake Resistant Ductile Iron Pipe (ERDIP) is assumed for permanent pipe material for entire length of installation in each concept cost estimate.

7 Costs for special water service or fire protection for Sound Transit BRT facilities within interchange area are being coordinated separately with Sound Transit and are not part of this estimate or agreement scope.

8 Costs associated with backfilling trenches with bank run gravel are included in unit prices for pipe installations.

9 Costs associated with shoring or extra excavation Class B are included in the unit prices for pipe installations.

10 Costs for potential 3rd party franchise utility conflict coordination and relocation for locations outside of WSDOT Limited Access ROW have not been included in the individual concept cost estimates. It is assumed the City of Kirkland will invoke franchise rights for water main installations within City of Kirkland jurisdictions.

11 Costs associated with abandoning existing 12" water main in NE 87th St. Location 2 assume capping and plugging each end of pipe in conformance with WSDOT/APWA Standard Specification 7-08.3(4)

12 Costs associated with abandoning existing water mains within WSDOT Limited Access ROW, Location 1, assume completely filling the existing pipe with pressure grout and will be subject to general and special provisions of the WSDOT franchise / permit modification for each facility.

13 Clearing of trees, vegetation, and clearing and grubbing for water main installations within WSDOT project limits have not been included in the individual concept estimates and are considered incidental to clearing and site grading requirements for the WSDOT project.

14 Costs for Hydrant Assembly includes service pipe, fittings, and connections necessary for complete system.

15 Construct 12' wide utility access estimate for Location 1 includes temporary shoring, excavation, grading and embankment construction work necessary to furnish and install 12-ft wide utility access.

16 For purposes of this estimate, it is assumed the 12-ft wide utility access is graded and installed as a vegetated pervious surface.

17 Removals of existing deactivated or abandoned facilities, in the 114th Ave. NE and Kirkland Way intersection area, are not included in the individual concept cost estimate.

18 At the time of this estimate, the existing water main material type of the active water main in 116th Ave. NE was unknown. There is conflicting information in the record drawings provided by the City of Kirkland and recent in-field inspections in the near vicinity of the project area. Existing pipe material may be C.I. pipe, AC pipe, or a combination of materials. Based on this risk, cost for AC pipe disposal has been added to the estimate.

19 An estimated value equating to 16% of the total construction costs was assumed for minor items not included in the item lists, including, but not limited to: specialty fittings, blocking/anchoring, meters, valve boxes, covers, castings, adjustments to grade, signing, safety/ security fencing, and above ground utility marker poles.

20 The Project Contingency included in this estimate is intended to cover change orders during final design and construction up to the amount estimated.

UTB 1409
EXHIBIT B
NE 85TH ST. Location 2
COST ESTIMATE

CITY Cost Responsibility

For Location 2 concept detail and scope of work see UTB 1409 Exhibits A and C

Furnish & Install	PIPE, WM, ERDIP CL 52, 24 IN, INCL FITTINGS	560	LF
Furnish & Install	PIPE, WM, ERDIP CL 52, 8 IN, INCL FITTINGS	70	LF
Furnish & Install	VALVE, BUTTERFLY, 24 IN	2	EA
Furnish & Install	CONNECTION TO EXISTING WATER MAIN	2	EA
Furnish & Install	FIRE HYDRANT ASSEMBLY	2	EA
Furnish & Install	1 IN SERVICE LINE INSTALLATION , INCL FITTINGS & CROSS OVER CONNECTION	20	EA
Furnish & Install	DEWATERING SYSTEM	12	DAY
Furnish & Install	PLANING BITUMINOUS PAVEMENT & HMA CL. 1/2" PG 64-22 OVERLAY	1912	SY
Furnish & Install	PROJECT TEMPORARY TRAFFIC CONTROL	160	HR
Abandon/deactivate	ABANDON EXISTING 12" DIA. WATERLINE (PLUGGING EXISTING PIPE)	2	EA
Remove	REMOVE EXISTING 8" DIA. WATERLINE	65	LF
Remove	DISPOSE OF EXISTING AC PIPE	65	LF
Furnish & Install	TEMPORARY EROSION AND SEDIMENT CONTROL (TESC)	1%	OF

Assumptions / Remarks

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8 Costs associated with backfilling trenches with bank run gravel are included in unit prices for pipe installations.

9 Costs associated with shoring or extra excavation Class B are included in the unit prices for pipe installations.

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14 Costs for Hydrant Assembly includes service pipe, fittings, and connections necessary for complete system.

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UTB 1409
EXHIBIT B
NE 85TH ST. Location 3
COST ESTIMATE

CITY Cost Responsibility

For Location 3 concept detail and scope of work see UTB 1409 Exhibits A and C

Furnish & Install	PIPE, WM, D.I, ERDIP CL 52, 20 IN, INCL FITTINGS	415	LF
Furnish & Install	VALVE, BUTTERFLY, 20 IN	2	EA
Furnish & Install	CONNECTION TO EXISTING WATER MAIN	2	EA
Furnish & Install	DEWATERING SYSTEM	11	DAY
Furnish & Install	PLANING BITUMINOUS PAVEMENT & HMA CL. 1/2" PG 64-22 OVERLAY	470	SY
Furnish & Install	TEMPORARY EROSION AND SEDIMENT CONTROL (TESC)	1%	OF

Assumptions / Remarks

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2 Third party construction estimate was estimated in 2021 dollars, then escalated.

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8 Costs associated with backfilling trenches with bank run gravel are included in unit prices for pipe installations.

9 Costs associated with shoring or extra excavation Class B are included in the unit prices for pipe installations.

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12 Costs associated with abandoning existing water mains within WSDOT Limited Access ROW, Location 1, assume completely filling the existing pipe with pressure grout and will be subject to general and special provisions of the WSDOT franchise / permit modification for each facility.

13 Clearing of trees, vegetation, and clearing and grubbing for water main installations within WSDOT project limits have not been included in the individual concept estimates and are considered incidental to clearing and site grading requirements for the WSDOT project.

14 Costs for Hydrant Assembly includes service pipe, fittings, and connections necessary for complete system.

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18 At the time of this estimate, the existing water main material type of the active water main in 116th Ave. NE was unknown. There is conflicting information in the record drawings provided by the City of Kirkland and recent in-field inspections in the near vicinity of the project area. Existing pipe material may be C.I. pipe, AC pipe, or a combination of materials. Based on this risk, cost for AC pipe disposal has been added to the estimate.

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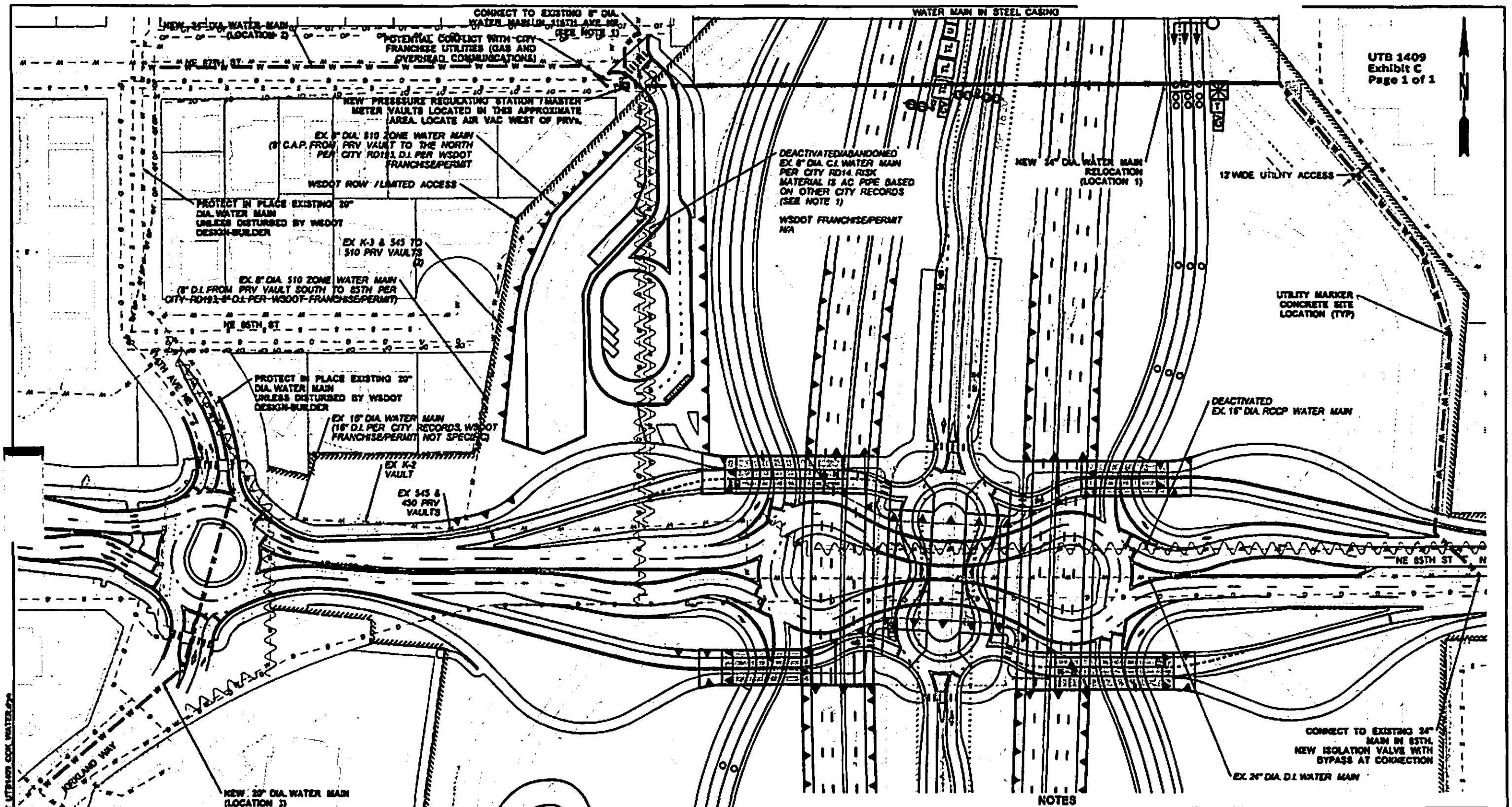
20 The Project Contingency included in this estimate is intended to cover change orders during final design and construction up to the amount estimated.



LEGEND

PREFERRED ALTERNATIVE:

- **LOCATION 1:** Relocate 24" dia. water main north of proposed Interchange across WSDOT limited access to NE 87th Street utilizing Earthquake Resistant Ductile Iron Pipe (ERDIP) within casing pipe. This concept assumes new 24" main is installed prior to excavation on NE85th for the lower roadway.
- **LOCATION 2:** Add-on cost. Extend 24" Earthquake Resistant Ductile Iron Pipe (ERDIP) water main west on NE 87th Street from limit of I-405 NE 85th Interchange project approximately 560 LF to existing water main system on 114th Ave. NE. Install new connection to existing water main in 116th Ave NE. This concept includes full street overlay on NE 87th St.
- **LOCATION 3:** Add-On cost. Replace existing water line on 114th Ave NE across the NE 85th st intersection with 20" dia. Earthquake Resistant Ductile Iron Pipe (ERDIP) water main, approximately 400 LF of water main. This concept includes half street overlay on Kirkland Way.

13-FT WIDE UTILITY ACCESS
EXISTING KNOWN UTILITIES (TYP)
EXISTING KNOWN ABANDONED OR DEACTIVATED UTILITY

NOTES

1. THERE IS A RECOGNIZED DISCREPANCY IN AVAILABLE AS-BUILT DATA FOR THIS FACILITY. CITY RECORD DRAWINGS INDICATE EXISTING PIPE MATERIAL IS CAST IRON (C.I.) PIPE. PER RECENT CITY INSPECTIONS ON OTHER PROJECTS IN THE VICINITY IT WAS VISUALLY INSPECTED THAT THE EXISTING WATER MAIN IN 116TH AVE. NE MAY BE ASBESTOS CEMENT (AC) PIPE. FOR COST PURPOSES OF AGREEMENT UTB 1409 IT WAS ASSUMED THAT THE MATERIAL IS AC PIPE AND ENCOUNTERED PIPE IN CONFLICT WITH PROJECT CONSTRUCTION SHALL BE REMOVED AND DISPOSED OF ACCORDING TO APPLICABLE LAWS AND REGULATIONS.

0 50 100
SCALE IN FEET

Washington State Department of Transportation

UTB 1409 EXHIBIT C NE85TH WATER LINE PREFERRED RELOCATION CONCEPT

LINE 1:
LINE 2:

CONCEPTUAL NOT FOR CONSTRUCTION