Set No. _____

Specifications, Proposal, and Contract Documents for:

NE 120th St Water Quality Treatment Project CIP No. SDC1250000 Job No. 02-21-PW

Funded in part by the Washington State Department of Ecology



City of Kirkland Department of Public Works 123 Fifth Avenue Kirkland, Washington 98033

CITY OF KIRKLAND DEPARTMENT OF PUBLIC WORKS

NE 120th St Water Quality Treatment Project CIP NO. SDC1250000 JOB NO. 02-21-PW

Certificate of Engineer:

The Special Provisions and drawings contained herein have been prepared by or under the direction of the undersigned, whose seal as a Professional Engineer licensed to practice in the State of Washington, is affixed below.



Darrell Smith, P.E. Project Engineer

Approved for Construction:

Rod Steitzer, P.E. Capital Projects Manager



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INVITATION TO BID

Notice is hereby given that the City of Kirkland will receive sealed bids in the office of the Purchasing Agent, City Hall, 123 Fifth Avenue, Kirkland, Washington, at **1:00 pm** local time on **Thursday, February 18, 2021** for the project hereinafter referred to as:

NE 120th St Water Quality Treatment Project JOB NO. 02-21-PW

Due to Governor Inslee's Stay Home Stay Healthy proclamation, the public bid opening will be available online at the following link: http://kirkland.granicus.com/player/camera/7?publish_id=1308

A recorded version will be posted online with the bid results. Bidders choosing to hand deliver their bids will submit their bids at City Hall. Entering at the North entrance of 123 5th AVE Kirkland, WA 98033, you will press the button for the RING doorbell on the door. Staff members will accept your bid and date/time stamp your submission.

At said time all bids will be opened and publicly read aloud. Each bid shall be accompanied by a bid proposal deposit in the form of a cashier's check or a bond issued on a form acceptable to your surety made payable to the City of Kirkland for a sum of not less than five percent (5%) of the total bid amount. No bid shall be considered unless accompanied by such bid proposal deposit. Incomplete proposals and proposals received after the time stated above will not be considered. Faxed or emailed responses are not acceptable.

The City of Kirkland in accordance with Title VI of the Civil Rights Act of 1964, 78 Stat. 252, 42 USC 2000d to 2000d-4 and Title 49, Code of Federal Regulations, Department 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 in 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.

The work to be performed for this project consists of furnishing all labor, tools, material and equipment necessary for completion of the **NE 120th St Water Quality Treatment Project**. Specific work includes, but is not limited to: traffic control, temporary erosion control, the installation of water quality treatment structures, drainage structures and sidewalk/paving improvements as shown in the Plans.

- This project includes construction of six (6) water quality treatment structures with associated improvements necessary for the installation of each. The estimated cost for all portions of the overall project is in a range of \$220,000 to \$275,000.
- Sealed bids with bid bonds are due in the office of the Purchasing Agent at 1:00 pm on **Thursday, February 18, 2021**.
- Anticipate Council award of bid at Council Meeting on Tuesday, March 16, 2021.
- It is estimated that this project will be completed within 35 working days for substantial completion of project improvements.

- It is anticipated that this project will be funded in part by the Washington State Department of Ecology. Neither the State of Washington nor any of its departments or employees are, or shall be, a party to any contract or any subcontract resulting from this solicitation for bids.
- Questions regarding the Project shall be submitted <u>in writing</u> to Catherine Okamura via email (<u>Cokamura@kirklandwa.gov</u>). Questions via phone or any other method will not be accepted. Bidders shall submit questions not later than 5:00 pm on Friday, February 12, 2021.

<u>The City will not sell bid packages.</u> Plans, specifications, and addenda may be viewed and obtained online at *www.bxwa.com*. Click on: "Posted Projects"; "Public Works", "City of Kirkland". The Bidders List is maintained by the Builder's Exchange of Washington, Inc. Registration for the bidder's list may be made online, by phoning (425) 258-1303, or at Builder's Exchange of Washington located at 2607 Wetmore Ave, Everett, WA.

The City reserves the right to reject any and all bids, and to waive any informalities in the bidding, and to make the award to the lowest, responsive, responsible bidder based on the base bid. The Owner, at their discretion, may choose to award any combination of Schedules that best serves the interest of the City.

No bids may be withdrawn within forty-five (45) days after the actual date of the bid opening.

Published: Daily Journal of Commerce – January 29, 2021 February 4, 2021 February 11, 2021



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CITY OF KIRKLAND INFORMATION FOR BIDDERS

Bidders must bid on all items contained in the proposal.

The omission or deletion of any bid item will be considered non-responsive and shall be cause for rejection of the bid.

Submit your proposal on the Bid Proposal and other forms which are enclosed, or make a copy of the required forms and submit these documents.

It is anticipated that this project will be funded in part by the Washington State Department of Ecology. Neither the State of Washington nor any of its departments or employees are, or shall be, a party to any contract or any subcontract.

The following forms must be executed in full *with* submittal of the bid:

- 1. BIDDER RESPONSIBILITY CRITERIA CHECKLIST
- 2. <u>SUBCONTRACTOR RESPONSIBILITY CRITERIA CHECKLIST</u>
- 3. PROPOSAL

The lump sum or unit prices must be shown in the spaces provided on the bid schedule.

Show total bid price in both words and figures on the Proposal.

The Proposal form must be completed in full, signed and dated.

4. BID BOND

A surety issued bid bond must be executed by the bidder and its surety company. The amount of the bid bond shall be not less than five percent (5%) of the total amount bid and may be shown in dollars or on a percentage basis. (A cashier's check payable to the City of Kirkland and issued for an amount not less than 5% of the total bid may be submitted in lieu of a bid bond.)

- 5. NONCOLLUSION AFFIDAVIT Notarized
- 6. <u>STATEMENT OF BIDDER'S QUALIFICATIONS</u>

This form must be filled in and signed. The owner reserves the right to check all statements and to judge the adequacy of the bidder's qualifications.

7. <u>SUBCONTRACTOR IDENTIFICATION LIST</u>

This form must be completed for HVAC, plumbing, and electrical subcontractors if the estimate exceeds \$1,000,000.

The following forms are to be executed <u>after</u> the contract is awarded:

1. <u>CONTRACT</u>

This agreement is to be executed by the successful bidder.

2. <u>PERFORMANCE AND PAYMENT BOND</u>

To be executed by the successful bidder and its surety company.

3. <u>CONTRACTOR'S DECLARATION OF OPTION FOR MANAGEMENT OF STATUTORY</u> <u>RETAINED PERCENTAGE; RETAINED PERCENTAGE ESCROW AGREEMENT</u>

To be executed by the successful bidder based on bidder's selection of option.

4. CERTIFICATES OF INSURANCE

To be executed by the successful bidder and by an acceptable insurance company. The City of Kirkland must be named as an additional insured.

5. <u>STATEMENT(S) OF INTENT TO PAY PREVAILING WAGES</u>

MUST BE SUBMITTED WITH PROPOSAL

Affidavit certifying all employees of Contractor and Subcontractor shall be paid no less than the Prevailing Wage Rate(s) as determined by the Industrial Statistician of the Washington State Department of Labor and Industries.

SPECIAL NOTE: Prior to commencing work, the contractor and all subcontractors must have applied and paid for a City of Kirkland business license

CITY OF KIRKLAND BIDDER RESPONSIBILITY CRITERIA

It is the intent of City to award a contract to the low responsible bidder. Before award, the bidder must meet the following bidder responsibility criteria to be considered a responsible bidder. The bidder may be required by the City to submit documentation demonstrating compliance with the criteria. The bidder must:

- 1. Have a current certificate of registration as a contractor in compliance with chapter 18.27 RCW, which must have been in effect at the time of bid submittal;
- 2. Have a current Washington Unified Business Identifier (UBI) number;
- □ 3. Have:
 - a. Industrial Insurance (workers' compensation) coverage for the bidder's employees working in Washington, as required in Title 51 RCW;
 - b. A Washington Employment Security Department number, as required in Title 50 RCW;
 - c. A Washington Department of Revenue state excise tax registration number, as required in Title 82 RCW;
- 4. Not be disqualified from bidding on any public works contract under RCW 39.06.010 or 39.12.065(3). **Meet responsibility criteria in RCW 39.04.350**
- 5. Until December 31, 2017, not have violated more than one time the off-site, prefabricated, non-standard, project specific items reporting requirements of RCW 39.04.370.
- 6. For public works projects subject to the apprenticeship utilization requirements of RCW 39.04.320, not have been found out of compliance by the Washington state apprenticeship and training council for working apprentices out of ratio, without appropriate supervision, or outside their approved work processes as outlined in their standards of apprenticeship under chapter 49.04 RCW for the one-year period immediately preceding the first date of advertising for the project.

CITY OF KIRKLAND SUBCONTRACTOR RESPONSIBILITY CRITERIA

- △ A. The Contractor shall include the language of this section in each of its first tier subcontracts, and shall require each of its subcontractors to include the same language of this section in each of their subcontracts, adjusting only as necessary the terms used for the contracting parties. Upon request of the Owner, the Contractor shall promptly provide documentation to the Owner demonstrating that the subcontractor meets the subcontractor responsibility criteria below. The requirements of this section apply to all subcontractors regardless of tier.
- B. At the time of subcontract execution, the Contractor shall verify that each of its first-tier subcontractors meets the following bidder responsibility criteria:
 - □ 1. Have a current certificate of registration in compliance with chapter 18.27 RCW, which must have been in effect at the time of subcontract bid submittal;
 - 2. Have a current Washington Unified Business Identifier (UBI) number;
 - □ 3. Have:
 - a) Industrial Insurance (workers' compensation) coverage for the subcontractor's employees working in Washington, as required in Title 51 RC
 - b) A Washington Employment Security Department number, as required in Title 50 RCW;
 - c) A Washington Department of Revenue state excise tax registration number, as required in Title 82 RCW;
 - d) An electrical contractor license, if required by Chapter 19.28 RCW;
 - e) An elevator contractor license, if required by Chapter 70.87 RCW.
 - 4. Not be disqualified from bidding on any public works contract under RCW 39.06.010 or 39.12.065 (3). **Meet responsibility criteria in RCW 39.04.350**
 - □ 5. Until December 31, 2017, not have violated more than one time the off-site, prefabricated, non-standard, project specific items reporting requirements of RCW 39.04.370.
 - □ 6. For public works projects subject to the apprenticeship utilization requirements of RCW 39.04.320, not have been found out of compliance by the Washington state apprenticeship and training council for working apprentices out of ratio, without appropriate supervision, or outside their approved work processes as outlined in their standards of apprenticeship under chapter 49.04 RCW for the one-year period immediately preceding the first date of advertising for the project.

CITY OF KIRKLAND BID PROPOSAL



NE 120th St Water Quality Treatment Project JOB NO. 02-21-PW

To: Director of Finance City of Kirkland 123 Fifth Avenue Kirkland, Washington 98033

The undersigned, hereinafter called the Bidder, declares that the only persons or parties interested in this proposal are those named herein; that this proposal is in all respects fair and without fraud; that it is made without collusion with any official or employee of the City of Kirkland, hereinafter called the Owner; and that the proposal is made without any connection or collusion with any person making another proposal on this contract.

The bidder further declares that it has carefully examined the contract documents for the construction of the project; that it has personally inspected the site; that it has satisfied itself as to the quantities involved, including materials and equipment and conditions of work involved, including the fact that the description of the quantities of work materials, as included herein, is brief and is intended only to indicate the general nature of the work and to identify the said quantities with the detailed requirements of the contract documents; and that this proposal is made according to the provisions and under the terms of the contract documents, which documents are hereby made a part of this proposal.

The bidder further agrees that it has exercised its own judgment regarding the interpretation of subsurface information and has utilized all data which it believes pertinent from the engineer-architect, owner, and other sources in arriving at its conclusions.

The bidder agrees to hold its bid proposal open for 45 days after the actual date of bid opening and to accept the provisions of the Instructions to Bidders regarding disposition of bid bond.

The bidder agrees that if this proposal is accepted, it will, within ten (10) calendar days after notification of acceptance, execute the contract with the Owner in the form of contract included in the contract documents, and will, at the time of execution of the contract, deliver to the Owner the Performance and Payment Bond and all Certificates of Insurance required therein, and will, to the extent of its proposals, furnish all machinery, tools, apparatus, and other means of construction and do the work in the manner, in the time, and according to the methods as specified in the contract documents and required by the engineer or other project manager designated thereunder.

The bidder further agrees, if awarded the contract, to begin work within ten (10) calendar days after the date of the execution of the contract and to complete the construction within the time specified in Section 1-08.5 of the Special Provisions.

In the event the bidder is awarded the contract and shall fail to complete the work within the time limit or extended time limit agreed upon as more particularly set forth in the contract documents, liquidated damages shall be paid to the Owner per the specifications contained in the contract documents.

The bidder further proposes to accept as full payment for the work proposed herein, the amounts computed under the provisions of the contract documents and based upon the lump sum and unit

MUST BE SUBMITTED WITH PROPOSAL

price amounts entered by the bidder for the various bid items included in the Bid Schedule. The bidder further agrees the lump sum and unit prices entered for the various bid items included in the Bid Schedule include all use taxes, overhead, profit, bond premiums, insurance premiums and all other miscellaneous and incidental expenses as well as all costs of materials, labor, tools and equipment required to perform and complete the work.

Within the three-year period immediately preceding the date of the bid solicitation for this Project, bidder has not been determined by a final and binding citation and notice of assessment issued by the department of labor and industries or through a civil judgment entered by a court of limited or general jurisdiction to have willfully violated, as defined in RCW 49.48.082, any provision of chapter 49.46, 49.48, or 49.52 RCW.

The undersigned bids and agrees to complete all construction of the NE 120th St Water Quality Treatment Project; JOB NO. 02-21-PW for the following:

Schedule Total Computed Price (in figure	s): <u>\$</u>
Total Computed Price (in figures):	\$
Washington State Sales Tax 10.2% (in fig	gures): <u>NOT APPLICABLE</u>
Total Bid <i>(in figures)</i> : <u></u>	
Total Bid <i>(in words)</i> :	
Receipt of Addenda No(s) i I certify (or declare) under penalty of perjur that the foregoing is true and correct:	s hereby acknowledged. Ty under the laws of the State of Washington
CONTRACTOR (Firm Name)	Location or Place Executed: (City, State)
Ву	Name and title of person signing
(Indicate whether Contractor is Partnership, Corporation, or Sole Proprietorship)	Date
Washington State Contractor's	Contractor's Industrial Insurance

Employment Security Identification Number Uniform Business Identification (UBI) Number

Contractor's Address:

Telephone Number

Fax Number

EMAIL

** Bid proposal to be submitted in a sealed envelope marked "Bid Enclosed" for NE 120th St Water Quality Treatment Project, JOB NO. 02-21-PW.

CITY OF KIRKLAND BID SCHEDULE A – PART OF BASE BID

NE 120th St Water Quality Treatment Project JOB NO. 02-21-PW

Note: Unit prices for all items, all extensions, and the total amount of the bid must be shown. All entries must be typed or entered in ink.

ltem No.	Item Description	Spec Ref.	Est. Qty.	Unit	Unit Price	Amount
1	Minor Changes	1-04.4 (1)	1	FA	\$ 5,000.00	\$ 5,000.00
2	SPCC Plan	1-07.15	1	LS	\$	\$
3	Mobilization	1-09.7	1	LS	\$	\$
4	Project Temporary Traffic Control	SP 1-10	1	LS	\$	\$
5	Clearing and Grubbing	2-01	1	LS	\$	\$
6	Removal and/or Relocation of Structures and Obstructions	SP 2-02	1	LS	\$	\$
7	Saw Cutting	SP 2-02	330	LF	\$	\$
8	Removing Asphalt Conc. Pavement	SP 2-02	148	SY	\$	\$
9	Removing Cement Conc. Curb and Gutter	SP 2-02	140	LF	\$	\$
10	Removing Cement Conc. Sidewalk	SP 2-02	41	SY	\$	\$
11	HMA CL. 1/2in. PG. 64-22	SP 5-04	17	TN	\$	\$
12	Structure Excavation Class B Incl. Haul	7-01	331	СҮ	\$	\$
13	Schedule A Storm Sewer Pipe 12 in. Diameter	7-04	138	LF	\$	\$
14	Testing Storm Sewer Pipe	SP 7-04	138	LF	\$	
15	Shoring or Extra Excavation Class B	7-05	26	SF	\$	\$
16	Storm Structure Backfill	7-05	99	CY	\$	\$
17	Plugging Existing Pipe	7-08	1	EA	\$	\$
18	Connection to Drainage Structure	7-05	4	EA	\$	\$
19	Grate Inlet Type 2	SP 7-05	1	EA	\$	\$
20	1-Cartridge Curb Inlet StormFilter Catch Basin	SP 7-06	1	EA	\$	\$
21	2-Cartridge Curb Inlet StormFilter Catch Basin	SP 7-06	1	EA	\$	\$
22	3-Cartridge Curb Inlet StormFilter Catch Basin	SP 7-06	1	EA	\$	\$
23	2-Cartridge Standard StormFilter Catch Basin	SP 7-06	1	EA	\$	\$
24	2-Cartridge Deep StormFilter Catch Basin	SP 7-06	1	EA	\$	\$

MUST BE SUBMITTED WITH PROPOSAL

25	4-Cartridge Linear StormFilter	SP 7-06	1	EA	\$	\$
26	Erosion/Water Pollution Control	SP 8-01	1	LS	\$	\$
27	PSIPE Arborvitae	8-02	5	EA	\$	\$
28	Cement Conc. Traffic Curb and Gutter, Type A	SP 8-04	140	LF	\$	\$
29	Potholing	SP 8-05	6	EA	\$	\$
30	Cement Conc. Sidewalk	SP 8-14	50	SY	\$	\$
31	Painted Line	8-22 81 LF ^{\$}		\$	\$	
		Subtotal				
		Sales Tax 10.2% N/A			N/A	

TOTAL COMPUTED PRICE: \$_____



BID DEPOSIT

Herewith find deposit in the form of a cashier's check or certified check in the amount of \$______which amount is not less than five percent (5%) of the total bid.

SIGN HERE_____

BID BOND

KNOW ALL MEN BY THESE PRESENTS:

That we,		, as Principal, and
		, as Surety, are
held and firmly bound unto the City of Kirkland, as Obligee	, in the penal sum of	
	dollars, for the pa	yment of which the
Principal and the Surety bind themselves, their heirs, exec	utors, administrators,	successors and assigns,
jointly and severally, by these presents.		
The condition of this obligation is such that if the Obligee s	hall make any award	to the Principal for
Project Name	Jc	b Number
according to the terms of the proposal or bid made by the make and enter into a contract with the Obligee in accord award and shall give bond for faithful performance thereof, or if the Principal shall, in case of failure to do so, pay an deposit specified in the call for bids, then this obligation s remain in full force and effect and the Surety shall forthwit liquidated damages, the amount of this bond.	Principal therefor, a ance with the terms of with Surety or Sureties d forfeit to the Oblige shall be null and void h pay and forfeit to th	nd the Principal shall duly of said proposal or bid and s approved by the Obligee; e the penal amount of the ; otherwise it shall be and he Obligee, as penalty and
SIGNED, SEALED AND DATED THIS	DAY OF	. , 20
PRINCIPAL:	SURETY:	

Note: If a Bid Bond is provided, it must be accompanied by a power of attorney which appoints the Surety's true and lawful attorney-in-fact to make, execute, seal and deliver this Bid Bond.

MUST BE SUBMITTED WITH PROPOSAL

CITY OF KIRKLAND NONCOLLUSION AFFIDAVIT **NE 120th St Water Quality Treatment Project**

JOB NO. 02-21-PW

STATE OF WASHINGTON COUNTY OF KING

) SS

The undersigned, being duly sworn, on oath deposes and says that the person(s), firm, association, partnership or corporation herein named has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with the project for which this proposal is submitted.

Firm Name

Authorized Signature

Type Name

Title

Sworn to before me, this _____ day of _____, 20__.

Notary Public in and for the State of Washington Residing at My Commission Expires

NOTICE TO ALL BIDDERS

To report bid rigging activities call: 1-800-424-9071

The U.S. Department of Transportation (USDOT) operates the above toll-free "hotline" Monday through Friday, 8:00 a.m. to 5:00 p.m., ET. Anyone with knowledge of possible bid rigging, bidder collusion, or other fraudulent activities should use the "hotline" to report such activities.

The "hotline" is part of USDOT's continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the USDOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

MUST BE SUBMITTED WITH PROPOSAL

CITY OF KIRKLAND STATEMENT OF BIDDER'S QUALIFICATIONS

Contractor Name:	Contact:
Business Address:	
Business phone:	Fax:
Number of years the Contractor has been	engaged in the construction business under the presen

Describe the general character of work performed by your company:

firm name: _____

List five projects of a similar nature which Contractor has completed within the last 10 years. Include contract amount and contact information for references:

Amount	Owner/Agency	Contact	Phone	Year Completed
	Amount	Amount Owner/Agency	AmountOwner/AgencyContactImage: ContactImage: Contact </td <td>AmountOwner/AgencyContactPhoneImage: Second se</td>	AmountOwner/AgencyContactPhoneImage: Second se

List major equipment anticipated to be used on this project; indicate whether Contractor-owned or to be leased from others:

Bank reference(s):

Washington State Contractor Registration No.: _____

Uniform Business Identification No.:

I certify that other contracts now in progress or hereafter obtained will not interfere with timely performance of the City of Kirkland project should I become the successful bidder.

Authorized Signature:

Print Name:	Т	Title:

CITY OF KIRKLAND SUBCONTRACTOR IDENTIFICATION FOR CONTRACTS ESTIMATED TO BE IN EXCESS OF ONE MILLION DOLLARS (\$1,000,000.00)

RCW 39.30.060 requires the following:

"Every invitation to bid on a prime contract that is **expected** to cost one million dollars or more for the construction, alteration, or repair of any public building or public work of the state or a state agency or municipality as defined under RCW 39.04.010 ... shall require each prime contract bidder to submit as part of the bid, or within one hour after the published bid submittal time [see note below], the names of the subcontractors with whom the bidder, if awarded the contract, will subcontract for performance of the work of: HVAC (heating, ventilation, and air conditioning); plumbing as described in chapter 18.106 RCW; and electrical as described in chapter 19.28 RCW, or to name itself for the work. The prime contract bidder shall not list more than one subcontractor for each category of work identified, unless subcontractors vary with bid alternates, in which case the prime contract bidder must indicate which subcontractor will be used for which alternate. Failure of the prime contract bidder to submit as part of the bid the names of such subcontractors or to name itself to perform such work or the naming of two or more subcontractors to perform the same work shall render the prime contract bidder's bid non-responsive and, therefore, void."

NOTE: The City of Kirkland has elected <u>not</u> to allow bidders to submit the information required by RCW 39.30.060 after the published bid submittal time. A proposal will be considered irregular and will be rejected if the bidder does not provide the above list as part of its proposal when submitting its bid.

Each bidder shall submit a list of:

- 1. HVAC, plumbing, and electrical subcontractors; and
- 2. The specific items of work those subcontractors will perform on the contract; and
- 3. The specific items of work that will be performed by the bidder on the contract.

CITY OF KIRKLAND SUBCONTRACTOR IDENTIFICATION LIST

*REQUIRED IF ESTIMATE AMOUNT EXCEEDS \$1,000,000 (*Reference RCW 39.30.060 RCW*)

Proposed Subcontractors and items of work to be performed:

ubcontractor Name:
em Numbers:
ubcontractor Name:
em Numbers:
ubcontractor Name:
em Numbers:
ubcontractor Name:
em Numbers:
- make additional pages if necessary -
lork to be performed by Prime Contractor:
em Numbers:

CITY OF KIRKLAND BIDDER'S CHECKLIST

- 1. Have you reviewed the Bidder Responsibility and Subcontractor Responsibility Criteria?
- 2. Have you enclosed a bid bond or certified check with your bid? (Must be at least 5% of the total amount bid)
- 3. Have you entered a bid amount for all items and all schedules?
- 4. Do the written amounts of the proposal agree with the amounts shown in the figures?
- 5. Have you acknowledged receipt of addenda?
- 6. Has the proposal been properly completed and signed?
- 7. Have you completed the Statement of Bidder's Qualifications?
- 8. Have you completed the City of Kirkland Non-collusion Affidavit?
- 9. Have you completed the Subcontractor Identification List? (This is to be completed for HVAC, plumbing, and electrical subcontractors if the estimate amount exceeds \$1,000,000.)
- 10. Bid proposal to be submitted in a sealed envelope marked "Bid Enclosed" for:

CONTRACT

INFORMATION ONLY

The following forms must be executed and submitted by the successful bidder within ten (10) calendar days following Notice of Award.



CITY OF KIRKLAND TABLE OF CONTENTS – CONTRACT DOCUMENTS

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CITY OF KIRKLAND PUBLIC WORKS AGREEMENT

Version:063020 NE 120th St Water Quality Treatment Project JOB NO. 02-21-PW

This agreement is made and entered into this _____day of _____, 20____, by and between CONTRACTOR NAME, hereinafter called the "Contractor" and the City of Kirkland, hereinafter called the "Citv."

WITNESSETH:

Whereas, pursuant to the invitation of the City extended through an officially published "Invitation to Bid," the Contractor did, in accordance therewith, file with the City a proposal containing an offer which was invited by said notice, and

Whereas, the City has heretofore determined that said offer was the lowest responsible bid submitted: now, therefore, it is agreed:

That Contractor shall comply in every way with the requirements of those certain Section 1. specifications entitled: "NE 120th St Water Quality Treatment Project, Job No. 02-21-PW"

The further terms, conditions and covenants of the contract are set forth in the following contract documents which are hereby made a part of this agreement by actual attachment or by this reference thereto as follows:

- Α. Invitation to Bid, as published by the City.
- Β. Specifications prepared for this project by the City and named above by title.
- C. Detailed Plans listed and described in said Specifications, together with those which may be issued as supplements thereof.
- D. The bid proposals submitted by the Contractor as to those items and/or alternatives accepted by the City.
- Ε. Any written change orders, additions or deletions, if any, issued by the City, pursuant to this agreement.
- F. Indemnification and insurance provisions included in the project documents shall apply to this agreement.

In consideration of faithful compliance with the terms and conditions of this agreement, Section 2. whether set forth herein or incorporated by reference, the Owner shall pay to the Contractor, at the times and in the manner provided in said specifications, the total sum of dollars) which sum is subject, however, to increase or decrease in such proportion as the (\$ quantities named in said proposal are so changed, all as in said specifications and proposal provided.

In witness whereof, said Contractor and said City have caused this agreement to be executed on the day and year first written above.

CONTRACTOR (Firm Name)

Signatu	ire of authorized	lofficer		Name and title of officer (print or type)
WA Co	ntractor's Regist	tration Number		Industrial Insurance Account Number
Uniform	n Business Ident	tification (UBI) N	lumber	Phone Number
		(For c	orporations,	LLC's and other legal entities)
STATE	OF WASHINGT	ΓΟΝ)) SS)	
On this and s and acl and put	day before me, worn, persona knowledged the rposes therein s	, the undersigne Illy appeared of said instrument et forth, and on	to be the froath stated	Public in and for the State of Washington, duly commissioned , to me known to be the , the legal entity that executed the foregoing instrument, ree and voluntary act and deed of said legal entity, for the uses that he/she was authorized to sign said instrument.
Given u	under my hand a	and official seal t	his	day of, 2
				Print Name: NOTARY PUBLIC in and for the State of Washington, residing Commission expires:
			(For ind	lividuals and d/b/a's)
STATE	OF WASHING	ΓΟΝ)) SS	
COUNT	ry of King)	
On this and execute volunta	day before me, sworn, ed the foregoing ry act and deed	, the undersigne personally instrument, and , for the uses an	ed, a Notary appeare t acknowlec d purposes	Public in and for the State of Washington, duly commissioned ed and o me known to be the individual(s) described herein and who dged that he/she/they signed the same as his/her/their free and therein mentioned.
Given ι	under my hand a	and official seal t	his	day of, 2
				Print Name: NOTARY PUBLIC in and for the State of Washington, residing Commission expires:
CITY O	F KIRKLAND			
BY:		Puty City Monor		

Tracey Dunlap, Deputy City Manager



Bond No.

PERFORMANCE BOND

SURETY TO HAVE AN A.M. BEST RATING OF A-: VII OR BETTER.

KNOW ALL PERSONS BY THESE PRESENTS, that **CONTRACTOR NAME**, as Principal, and ______, (insert name of surety), as Surety, a corporation duly organized under the laws of the State of ______, (insert Surety's state of incorporation), and authorized to do business as a surety in the State of Washington, are held and firmly bound unto the City of Kirkland (City) in the sum of _______ dollars (\$______), lawful money of the United States of America, plus the total amount of extra orders issued by the City to the Principal pursuant to the terms of the Contract referred to in the next succeeding paragraph hereof, for the payment whereof Principal and Surety bind ourselves, and our heirs, executors, administrators, representatives, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has been awarded, and is about to enter into, a written Contract with the City for NE 120th St Water Quality Treatment Project, **JOB NO. 02-21-PW**, which is hereby made a part of this bond as if fully set forth herein;

NOW, THEREFORE, the condition of this bond is such that:

- 1. If the Principal shall completely and faithfully perform all of its obligations under the Contract, including any warranties required thereunder, and all modifications, amendments, additions, and alterations thereto, including modifications which increase the contract price or time for completion, with or without notice to the surety; and
- 2. If the Principal shall indemnify and hold the City harmless from any and all losses, liability, damages, claims, judgments, liens, costs, and fees of any type that the City may be subject to because of the failure or default of the Principal in the performance of any of the terms, conditions, or obligations of the Contract, including all modifications, amendments, additions, and alterations thereto, and any warranties required thereunder;

THEN THIS obligation shall be null and void; otherwise to remain in full force and effect. If the City shall declare Principal to be in default of the Contract, and shall so notify Surety, Surety shall, within a reasonable time which shall not exceed 14 days, except for good cause shown, notify the City in writing of the manner in which surety will satisfy its obligations under this Bond.

Nonpayment of the Bond premium will not invalidate this Bond nor shall the City be obligated for the payment thereof. The Surety hereby waives notice of any modification of the Contract or extension of time made by the City.

Signed this	day of	, 2	
Principal:		Surety:	
Ву:		Ву:	
Title:		Title:	
Address:		Address:	
City/Zip:		City/Zip:	
Telephone: ()	Telephone: ()

Note: A power of attorney must be provided which appoints the Surety's true and lawful attorney-in-fact to make, execute, seal and deliver this performance bond.



LABOR, MATERIAL AND TAXES PAYMENT BOND Surety to have an A.M. Best rating of A-:VII or better.

Bond No.

KNOW ALL PERSONS BY THESE PRESENTS, that, **CONTRACTOR NAME**, as Principal, and ______, (insert name of surety), as Surety, a corporation duly organized under the laws of the State of _______ (insert Surety's state of incorporation), and authorized to do business as a surety in the State of Washington, are held and firmly bound unto the City of Kirkland (City) for the use and benefit of claimants as hereinafter defined, in the sum of ______ **Dollars** (\$______), lawful money of the United States of America, plus the total amount of any extra orders issued by the City, for the payment whereof Principal and Surety bind themselves, their heirs, executors, administrators,

WHEREAS, Principal has been awarded, and is about to enter into, a Contract with City of Kirkland for **NE 120th St Water Quality Treatment Project, JOB NO. 02-21-PW**, which contract is by this reference made a part hereof:

WHEREAS, the contract is a public works contract, subject to the provisions of RCW Titles 39 and 60;

representatives, successors, and assigns, jointly and severally, firmly by these presents.

NOW, THEREFORE, the conditions of this obligation are such that, if the Principal shall promptly make payment to all claimants as hereinafter defined, for (a) all labor and material used or reasonably required for use in the performance of the contract and (b) all taxes, increases, and penalties incurred on the above-referenced contract under Titles 50, 51, and 82 RCW which may be due, then this obligation shall be void; otherwise, it shall remain in full force and effect, subject, however, to the following conditions: A claimant is defined as and includes (a) a person claiming to have supplied labor or materials for the prosecution of the work provided for in the contract, including any person having direct contractual relationship with the contractor furnishing the bond or direct contractual relationship with any subcontractor, or an assignee of such person, (b) the state with respect to taxes incurred on the above-referenced contract under Titles 50, 51, and 82 RCW which may be due and (c) any other person or entity as allowed or required by law.

3. The Principal and Surety hereby jointly and severally agree with the City that every claimant as herein defined, who has not been paid in full prior to Final Acceptance of the project, or materials were furnished by such claimant, has an action on this bond for such sum or sums as may be justly due claimant, and may have execution thereon. The City shall not be liable for the payment of any costs or expenses of any such suit or action.

(Form continues on next page)

4. No suit or action shall be commenced hereunder by any claimant (except the state with respect to taxes, increases, and penalties incurred on the above-referenced contract under Titles 50, 51, and 82 RCW which may be due) unless the claimant has sent the written notice required under RCW Title 39 to the Principal and to the City's Purchasing Agent by registered or certified mail, or by hand delivery, no later than 30 days after Final Acceptance of the Project.

The amount of this bond shall be reduced by and to the extent of any payment or payments made in good faith hereunder, inclusive of the payment by Surety of mechanics' liens which may be filed of record against the improvement, whether or not claim for the amount of such lien be presented under and against this bond.

The Surety hereby waives notice of any modification of the contract or extension of time made by the City.

Signed this	day of , 2
Principal:	Surety:
Ву:	Ву:
Title:	Title:
Address:	Address:
City/Zip:	City/Zip:
Telephone: ()	Telephone: ()

Note: A power of attorney must be provided which appoints the Surety's true and lawful attorney-in-fact to make, execute, seal and deliver this performance bond.

END OF LABOR, MATERIAL AND TAXES PAYMENT BOND FORM



CITY OF KIRKLAND CONTRACTOR'S DECLARATION OF OPTION FOR MANAGEMENT OF STATUTORY RETAINED PERCENTAGE NE 120TH ST WATER QUALITY TREATMENT PROJECT JOB NO. 02-21-PW

Monies reserved under provisions of Chapter 60.28 RCW, at the option of the Contractor, shall be:

Select

- One
- [] (1) Retained in a fund by the City. No interest will be earned on the retained percentage amount under this election.
- [] (2) Retainage Bond
- (3) Placed in escrow with a bank or trust company by the City. When the monies
 reserved are to be placed in escrow, the City will issue a check representing the sum of the monies
 reserved payable to the bank or trust company and the Contractor jointly. Such check shall be
 converted into bonds and securities chosen by the Contractor and approved by the City and the bonds
 and securities held in escrow. (For the convenience of those Contractors choosing option (3) a City
 approved Form of Escrow Agreement is included on the next page and should be completed and
 submitted with the executed contract.)

The Contractor in choosing option (3) agrees to assume full responsibility to pay all costs which may accrue from escrow services, brokerage charges or both, and further agrees to assume all risks in connection with the investment of the retained percentages in securities.

 (4) Deposited by the City in an interest-bearing account at the FDIC insured bank currently providing contracted banking services to the City of Kirkland. Interest on such account shall be paid to the contractor. Any fees incurred shall be the responsibility of the contractor.

CONTRACTOR:
Signature:
Print or Type Name:
Title:
Date:



RETAINAGE BOND RETURN THIS FORM IF RETAINAGE BOND OPTION IS SELECTED

Contract Title	
Contract Number	
Contractor Name	

The Undersigned, _____, existing under and by virtue of the laws of the State of Washington and authorized to do business in the State of Washington as Principal, and _ organized and existing under the laws of the State of ______ and authorized to transact business in the State of Washington as Surety, are jointly and severally held and bound unto______, hereinafter called Obligee, and are similarly held and bound unto the beneficiaries of the trust fund created by RCW 60.28, in the penal sum of

), Which is 5% of the principal's price on Contract ID (\$_

WHEREAS, on the day of _____, 2____, the said principal herein executed a contract with the Obligee, for the Contract specified above, Contract ID Number_____.

WHEREAS, said contract and RCW 60.28 require the Obligee to withhold from the Principal the sum of ____% from monies earned on estimates during the progress of the construction, herein after referred to as earned retained funds.

NOW WHEREAS, Principal has requested that the Obligee not retain any earned retained funds as allowed under RCW 60.28.

NOW THEREFORE, the condition of the obligation is such that the Principal and Surety are held and bound unto the beneficiaries of the trust fund created by RCW 60.28 in the penal sum of ______ percent (___%) of the final contract cost which shall include any increases due to change orders, increases in quantities of work or the addition of any new item of work. If the Principal shall use the earned retained funds, which will not be retained, for the trust fund purposes of RCW 60.28, then this obligation shall be null and void; otherwise, it shall remain in full force and effect until release is authorized in writing by the Obligee. This bond and any proceeds therefrom shall be made subject to all claims and liens and in the same manner and priority as set forth for retained percentages in RCW 60.28.

PROVIDED HOWEVER, that:

1. The liability of the surety under this bond shall not exceed 5% or 50% of the total amount earned by the Principal if no monies are retained by the Obligee on estimates during the progress of construction.

2. Any suit under this bond must be instituted within the time provided by applicable law.

Witness our hands this day of	, 2	
<u>SURETY</u>	PRINCIPAL	
By: Name/Title	By: Name/Title	
OF:	OF:	
Surety Name and Local Office of Agent:		
Surety Address and Phone of Local Office and Agent:		



CITY OF KIRKLAND RETAINED PERCENTAGE ESCROW AGREEMENT NE 120TH ST WATER QUALITY TREATMENT PROJECT JOB NO. 02-21-PW

Escrow No.

City of Kirkland 123 Fifth Avenue Kirkland, Washington 98033

Contractor:

Address:	
Auuress.	

Project Description:

TO: Escrow Bank or Trust Company:

Name: _____

Address: _____

Attention:

The undersigned, ______, herein referred to as the Contractor, has directed the City of Kirkland to deliver to you its warrants, which shall be payable to you and the Contractor jointly. Such warrants are to be held and disposed of by you in accordance with the following instructions and upon the terms and conditions hereinafter set forth.

INSTRUCTIONS

- 1. Warrants or checks made payable to you and the Contractor jointly upon delivery to you shall be endorsed by you and forwarded for collection. The moneys will then be used by you to purchase, as directed by the Contractor, bonds or other securities chosen by the Contractor and approved by the City of Kirkland. Attached is a list of such bonds, or other securities approved by the City of Kirkland. Other bonds or securities, except stocks, may be selected by the Contractor, subject to the express written approval of the City of Kirkland. Purchase of such bonds or other securities shall be in a form which shall allow you alone to reconvert such bonds or other securities into money if you are required to do so at the direction of the City of Kirkland and Contractor.
- 2. When and as interest on the securities held by you pursuant to this agreement accrues and is paid, you shall collect such interest and forward it to the Contractor at its address designated below unless otherwise directed by the Contractor.
- 3. You are not authorized to deliver to the Contractor all or any part of the securities held by you pursuant to this agreement (or any moneys derived from the sale of such securities, or the

negotiation of the City of Kirkland's warrants) <u>except</u> in accordance with written instructions from the City of Kirkland. Compliance with such instructions shall relieve you of any further liability related thereto. The estimated completion date on the contract underlying this Escrow Agreement is

4. The Contractor agrees to pay you as compensation for your services hereunder as follows:

Payment of all fees shall be the sole responsibility of the Contractor and shall not be deducted from any property placed with you pursuant to this agreement until and unless the City of Kirkland directs the release to the Contractor of the securities and moneys held hereunder whereupon you shall be granted a first lien upon such property released and shall be entitled to reimburse yourself from such property for the entire amount of your fees as provided for hereinabove. In the event that you are made a party to any litigation with respect to the property held by you hereunder, or in the event that the conditions of this escrow are not promptly fulfilled or that you are required to render any service not provided for in these instructions, or that there is any assignment of the interests of this escrow or any modification hereof, you shall be entitled to reasonable compensation for such extraordinary services from the Contractor and reimbursement from the Contractor for all costs and expenses, including attorneys fees occasioned by such default, delay, controversy, or litigation.

- 5. This agreement shall not be binding until executed by the Contractor and the City of Kirkland and accepted by you.
- 6. This instrument contains the entire agreement between you, the Contractor and the City of Kirkland, with respect to this escrow and you are not a part nor bound by any instrument or agreement other than this; you shall not be required to take notice of any default or any other matter nor be bound by nor required to give notice or demand, nor required to take any action whatever, except as herein expressly provided; you shall not be liable for any loss or damage not caused by your own negligence or willful misconduct.
- 7. The foregoing provisions shall be binding upon the assigns, successors, personal representatives, and heirs of the parties hereto.
- 8. The Contractor's Federal Income Tax Identification number is
- ** Please note: Written release will be issued by the Director of Finance & Administration. For further information, contact the Purchasing Agent at (425) 587-3123. The undersigned have read and hereby approve the instructions as given above governing the administration of this escrow and do hereby execute this agreement on this _____ day of ______, 2____.

CON	ITRACTOR:	CITY OF KIRKLAND:	
By:	Signature	By: Signature	_
	Print or Type Name	Print or Type Name	_
	Title	Title	
Addı	ress:	123 Fifth Avenue	
		Kirkland, Washington 98033	
ESC	ROW BANK OR TRUST CO:		
By:	Authorized Signature		
	Print or Type Name		
	Title		
Seci	urities Authorized by City of Kirkland (se	ect one):	
1. 2. 3. 4. 5.	Bills, certificates, notes or bonds of the Other obligations of the United States Obligations of any corporation wholly-o Indebtedness of the Federal National I Time deposits in commercial banks.	United States; or its agencies; owned by the government of the United States; Mortgage Association; and	

RETURN THIS SIGNED AGREEMENT TO:

City of Kirkland Attn: Purchasing Agent 123 Fifth Avenue Kirkland, Washington 98033



CITY OF KIRKLAND RETAINAGE RELEASE REQUIREMENTS

DOCUMENTS REQUIRED TO BE ON FILE PRIOR TO RELEASE OF RETAINAGE

1. Intent to Pay Prevailing Wage (Contractor must generation including for subcontractors)

Department of Labor/Industries Employment Standards Division General Administration Building Olympia, Washington 98504 (360) 956-5335

2. Notice of Completion of Public Works Contract (City generates)

Department of Revenue Excise Tax Division Olympia, Washington 98504

3. Affidavit of Wages Paid (Contractor must generate including for subcontractors)

Department of Labor/Industries

4. Certificate of Release - State Excise Tax by Public Works Contractor (Letter from State to City)

Department of Revenue Department of Labor and Industries Employment Security Department

5. Receipt for Payment in full or Release of Lien signed by Lien Claimant and filed with City (Responsibility of Contractor to obtain)

Claims against retainage or Payment Bond filed with City by any such subcontractor, workman, or material supplier.

- 6. Current insurance certificate through retainage release (Contractor generates)
- 7. Produce final invoice for retainage if bond is not selected (Contractor generates)

SPECIAL PROVISIONS

Supplement to

2021

WSDOT Standard Specifications







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City of Kirkland Special Provisions

INTRODUCTION

The work on this project shall be accomplished in accordance with the Standard Specifications for Road, Bridge and Municipal Construction, **2021** edition, as issued by the Washington State Department of Transportation (WSDOT) and the American Public Works Association (APWA), Washington State Chapter (hereafter "Standard Specifications"). The Standard Specifications, as modified or supplemented by the Amendments to the Standard Specifications and these Special Provisions, all of which are made a part of the Contract Documents, shall govern all of the Work.

These Special Provisions supersede any conflicting provisions of the Standard Specifications, and the foregoing Amendments to the Standard Specifications.

The accompanying Plans and these Specifications and any Addenda thereto, show and describe the location and type of work to be performed under the **NE 120th St Water Quality Treatment Project.**

It is anticipated that this project will be funded in part by the Washington State Department of Ecology. Neither the State of Washington nor any of its departments or employees are, or shall be, a party to any contract or any subcontract.

Third-Party Beneficiary: All parties agree that the State of Washington shall be, and is hereby, named as an express third-party beneficiary of this contract, with full rights as such.

Protection of the Environment: No construction related activity shall contribute to the degradation of the environment, allow material to enter surface or ground waters, or allow particulate emissions to the atmosphere, which exceed state or federal standards. Any actions that potentially allow a discharge to state waters must have prior approval of the Washington State Department of Ecology.

These Special Provisions are made up of both General Special Provisions (GSPs) from various sources, which may have project-specific fill-ins; and project-specific Special Provisions. Each Provision supplements, modifies, or replaces the comparable Standard Specification, or is a new Provision. The deletion, amendment, alteration, or addition to any subsection or portion of the Standard Specifications is meant to pertain only to that particular portion of the section, and in no way should it be interpreted that the balance of the section does not apply.

The titles of headings of the Sections and subsections herein are intended for convenience or reference and shall not be considered as having any bearing on their interpretation.

Several types of Special Provisions are included in this contract and are differentiated as follows:

General Special Provisions (GSPs) are similar to Standard Specifications in that they typically apply to many projects and are used by agencies throughout the state. Denoted as: *(date)*

Local Agency Approved GSPs are modifications to the standard specifications prepared by the APWA Division 1 subcommittee, which is comprised of representatives of local agencies throughout the state. APWA GSPs replace what was formerly referred to as "Division 1-99 APWA Supplement" in previous editions of the Standard Specifications for Road, Bridge and Municipal Construction. Denoted as: (*date APWA GSP*)

City of Kirkland GSPs are commonly applicable to City of Kirkland projects. Denoted as: (date COK GSP)

Project Specific Special Provisions normally appear only in the contract for which they were developed. Denoted as: (******)

Also incorporated into the Contract Documents by reference are:

- Manual on Uniform Traffic Control Devices for Streets and Highways, currently adopted edition, with Washington State modifications, if any
- Standard Plans for Road, Bridge and Municipal Construction, WSDOT/APWA, current edition
- City of Kirkland Public Works Department Pre-Approved Plans and Policies.

Contractor shall obtain copies of these publications, at Contractor's own expense.

DIVISION 1 - GENERAL REQUIREMENTS

DESCRIPTION OF WORK

This contract provides for the improvement of the **NE 120th St Water Quality Treatment Project** and other work, all in accordance with the attached Contract Plans, these Contract Provisions, and the Standard Specifications.

1-01 DEFINITIONS AND TERMS

(January 4, 2016 APWA GSP)

1-01.3 Definitions

Delete the heading **Completion Dates** and the three paragraphs that follow it, and replace them with the following:

Dates

Bid Opening Date

The date on which the Contracting Agency publicly opens and reads the Bids.

Award Date

The date of the formal decision of the Contracting Agency to accept the lowest responsible and responsive Bidder for the Work.

Contract Execution Date

The date the Contracting Agency officially binds the Agency to the Contract.

Notice to Proceed Date

The date stated in the Notice to Proceed on which the Contract time begins.

Substantial Completion Date

The day the Engineer determines the Contracting Agency has full and unrestricted use and benefit of the facilities, both from the operational and safety standpoint, any remaining traffic disruptions will be rare and brief, and only minor incidental work, replacement of temporary substitute facilities, plant establishment periods, or correction or repair remains for the Physical Completion of the total Contract.

Physical Completion Date

The day all of the Work is physically completed on the project. All documentation required by the Contract and required by law does not necessarily need to be furnished by the Contractor by this date.

Completion Date

The day all the Work specified in the Contract is completed and all the obligations of the Contractor under the contract are fulfilled by the Contractor. All documentation required by the Contract and required by law must be furnished by the Contractor before establishment of this date.

Final Acceptance Date

The date on which the Contracting Agency accepts the Work as complete.

Supplement this Section with the following:

All references in the Standard Specifications, Amendments, or WSDOT General Special Provisions, to the terms "Department of Transportation", "Washington State Transportation Commission", "Commission", "Secretary of Transportation", "Secretary", "Headquarters", and "State Treasurer" shall be revised to read "Contracting Agency".

All references to the terms "State" or "state" shall be revised to read "Contracting Agency" unless the reference is to an administrative agency of the State of Washington, a State statute or regulation, or the context reasonably indicates otherwise.

All references to "State Materials Laboratory" shall be revised to read "Contracting Agency designated location".

All references to "final contract voucher certification" shall be interpreted to mean the Contracting Agency form(s) by which final payment is authorized, and final completion and acceptance granted.

Additive

A supplemental unit of work or group of bid items, identified separately in the Bid Proposal, which may, at the discretion of the Contracting Agency, be awarded in addition to the base bid.

Alternate

One of two or more units of work or groups of bid items, identified separately in the Bid Proposal, from which the Contracting Agency may make a choice between different methods or material of construction for performing the same work.

Business Day

A business day is any day from Monday through Friday except holidays as listed in Section 1-08.5.

Contract Bond

The definition in the Standard Specifications for "Contract Bond" applies to whatever bond form(s) are required by the Contract Documents, which may be a combination of a Payment Bond and a Performance Bond.

Contract Documents

See definition for "Contract".

Contract Time

The period of time established by the terms and conditions of the Contract within which the Work must be physically completed.

Notice of Award

The written notice from the Contracting Agency to the successful Bidder signifying the Contracting Agency's acceptance of the Bid Proposal.

Notice to Proceed

The written notice from the Contracting Agency or Engineer to the Contractor authorizing and directing the Contractor to proceed with the Work and establishing the date on which the Contract time begins.

Traffic

Both vehicular and non-vehicular traffic, such as pedestrians, bicyclists, wheelchairs, and equestrian traffic.

1-02 BID PROCEDURES AND CONDITIONS

(January 24, 2011 APWA GSP)

1-02.1 Prequalification of Bidders

Delete this Section and replace it with the following:

1-02.1 Qualifications of Bidder

Before award of a public works contract, a bidder must meet at least the minimum qualifications of RCW 39.04.350(1) to be considered a responsible bidder and qualified to be awarded a public works project.

(July 31, 2017 APWA GSP; requires pre-approval on FHWA funded projects, through WSDOT/Local Programs)

1-02.1(1) Supplemental Qualifications Criteria

Add the following new section:

In addition, the Contracting Agency has established Contracting Agency-specific and/or projectspecific supplemental criteria, in accordance with RCW 39.04.350(3), for determining Bidder responsibility, including the basis for evaluation and the deadline for appealing a determination that a Bidder is not responsible. These criteria are contained in Section 1-02.14 Option C of these Special Provisions.

(1/1/2016 COK GSP)

Bidders shall complete and sign the Statement of Bidder's Qualification contained in the Proposal. Said form must be submitted with the bid proposal.

After bids are opened, Contracting Agency may request that a bidder or all bidders provide supplemental information concerning responsibility in accordance with RCW 39.04.350(2). Such supplemental information shall be provided to Contracting Agency in writing within two (2) business days of the request. Whether bidder supplies this supplemental information within the time and manner specified or not, in addition to consideration of this additional information, Contracting Agency may also base its determination of responsibility on any available information related to the supplemental criteria.

If Contracting Agency determines that a bidder is not responsible, Contracting Agency will provide, in writing, the reasons for such determination at which point the contractor will be deemed disqualified in accordance with WSDOT Standard Specification 1-02.14(10) and the proposal rejected. The bidder may appeal the determination within two (2) business days after receipt of the determination by presenting additional information to Contracting Agency. Contracting Agency sinal decision affirms that the bidder is not responsible, Contracting Agency will not execute a contract with any other bidder until two (2) business days after the bidder determined to be not responsible has received Contracting Agency's final determination. The failure or omission of a bidder to receive or examine any form, instrument, addendum or other document shall in no way relieve any bidder from obligations with respect to the bid or to the contract.

Any bidder may, within five (5) business days before the bid submittal deadline, request that Contracting Agency modify the supplemental criteria. Contracting Agency will evaluate the information submitted by the bidder and respond before the submittal deadline. If the evaluation results in a change of the criteria, the Contracting Agency will issue an Addendum to the bidding documents identifying the new criteria.

Supplemental Criteria. Contracting Agency acknowledges that Change Orders (changes, extra work, requests for equitable adjustment and claims (defined as including demands for money or time

in excess of the contract amount or contract time)) are ubiquitous on public works construction projects. The expeditious resolution of Change Orders is critical to the on budget and on time successful completion of a public works project. Thus, the City has established the following relevant supplemental bidder responsibility criteria applicable for the project:

- Criterion. The bidder must demonstrate a record of successful and timely resolution of Change Orders including compliance with public contract Change Order resolution procedures (e.g. timely notice of event giving rise to the Change Order, timely submission of a statement of the cost and/or impact of the Change Order unless the bidder is able to show extenuating circumstances that explain bidder's failure to timely provide such information to the satisfaction of Contracting Agency.
- 2. Documentation. As evidence that the bidder meets the supplemental responsibility criteria, after bids are opened and within two (2) business days of the public notice of Contracting Agency's tabulation of bids, the lowest responsive bidder must submit the following documentation of public works projects completed within the previous three (3) years and include for each project the following:
 - a. The Owner and contact information for the Owner;
 - b. A listing of Change Orders and a signed statement from the bidder that the project timelines concerning resolution of Change Orders was complied with, and if not, provide a written explanation of what the bidder believes to be the extenuating circumstances excusing compliance with the Contract Change Order notice and claim provisions.

Contracting Agency may contact owners listed by the bidders to validate the information provided by a bidder.

(June 27, 2011 APWA GSP)

1-02.2 Plans and Specifications

Delete this section and replace it with the following:

Information as to where Bid Documents can be obtained or reviewed can be found in the Invitation for Bids for the work.

After award of the contract, plans and specifications will be issued to the Contractor at no cost as detailed below:

To Prime Contractor	No. of Sets	Basis of Distribution
Reduced plans (11" x 17")	3	Furnished automatically upon award.
Contract Provisions	3	Furnished automatically upon award.
Large plans (e.g., 22" x 34")	2	Furnished only upon request.

Additional plans and Contract Provisions may be obtained by the Contractor from the source stated in the Call for Bids, at the Contractor's own expense.

(March 8, 2013 APWA GSP)

1-02.4(2) Subsurface Information

The second sentence in the first paragraph is revised to read:

The Summary of Geotechnical Conditions and the boring logs, if and when included as an appendix to the Special Provisions, shall be considered as part of the Contract.

(July 31, 2017 APWA GSP)

1-02.5 Proposal Forms

Delete this section and replace it with the following:

The Proposal Form will identify the project and its location and describe the work. It will also list estimated quantities, units of measurement, the items of work, and the materials to be furnished at the unit bid prices. The bidder shall complete spaces on the proposal form that call for, but are not limited to, unit prices; extensions; summations; the total bid amount; signatures; date; and, where applicable, retail sales taxes and acknowledgment of addenda; the bidder's name, address, telephone number, and signature; the bidder's UDBE/DBE/M/WBE commitment, if applicable; a State of Washington Contractor's Registration Number; and a Business License Number, if applicable. Bids shall be completed by typing or shall be printed in ink by hand, preferably in black ink. The required certifications are included as part of the Proposal Form.

The Contracting Agency reserves the right to arrange the proposal forms with alternates and additives, if such be to the advantage of the Contracting Agency. The bidder shall bid on all alternates and additives set forth in the Proposal Form unless otherwise specified.

(June 20, 2017 APWA GSP)

1-02.6 Preparation of Proposal

Supplement the second paragraph with the following:

- 4. If a minimum bid amount has been established for any item, the unit or lump sum price must equal or exceed the minimum amount stated.
- 5. Any correction to a bid made by interlineation, alteration, or erasure, shall be initialed by the signer of the bid.

Delete the fourth paragraph and replace it with the following:

The Bidder shall submit with the Bid a completed Underutilized Disadvantaged Business Enterprise (UDBE) Utilization Certification, when required by the Special Provisions. For each and every UDBE firm listed on the Bidder's completed Underutilized Disadvantaged Business Enterprise Utilization Certification, the Bidder shall submit written confirmation from that UDBE firm that the UDBE is in agreement with the UDBE participation commitment that the Bidder has made in the Bidder's completed Underutilized Disadvantaged Business Enterprise Utilization Certification. WSDOT Form 422-031U (Underutilized Disadvantaged Business Enterprise Written Confirmation Document) is to be used for this purpose. Bidder must submit good faith effort documentation with the Underutilized Disadvantaged Business Enterprise Utilization only in the event the bidder's efforts to solicit sufficient UDBE participation have been unsuccessful. Directions for delivery of the Underutilized Disadvantaged Business Enterprise Written Confirmation Documents and Underutilized Disadvantaged Business Enterprise Written Confirmation are included in Sections 1-02.9

Delete the last paragraph, and replace it with the following:

The Bidder shall make no stipulation on the Bid Form, nor qualify the bid in any manner.

A bid by a corporation shall be executed in the corporate name, by the president or a vice president (or other corporate officer accompanied by evidence of authority to sign).

A bid by a partnership shall be executed in the partnership name, and signed by a partner. A copy of the partnership agreement shall be submitted with the Bid Form if any UDBE requirements are to be satisfied through such an agreement.

A bid by a joint venture shall be executed in the joint venture name and signed by a member of the joint venture. A copy of the joint venture agreement shall be submitted with the Bid Form if any UDBE requirements are to be satisfied through such an agreement.

(March 8, 2013 APWA GSP)

1-02.7 Bid Deposit

Supplement this section with the following:

Bid bonds shall contain the following:

- 1. Contracting Agency-assigned number for the project;
- 2. Name of the project;
- 3. The Contracting Agency named as obligee;
- 4. The amount of the bid bond stated either as a dollar figure or as a percentage which represents five percent of the maximum bid amount that could be awarded;
- 5. Signature of the bidder's officer empowered to sign official statements. The signature of the person authorized to submit the bid should agree with the signature on the bond, and the title of the person must accompany the said signature;
- 6. The signature of the surety's officer empowered to sign the bond and the power of attorney.

If so stated in the Contract Provisions, bidder must use the bond form included in the Contract Provisions.

If so stated in the Contract Provisions, cash will not be accepted for a bid deposit.

(1/1/2016 COK GSP)

1-02.8 Noncollusion Declaration and Lobbying Certification

The following new paragraph is inserted at the end of Section 1-02.8:

Conflict of Interest

The bidder affirms that it presently has no interest and shall not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance of its services hereunder. The Contractor further covenants that in the performance of this contract, no person having any conflicting interest shall be employed. Any interest on the part of the Contractor or its employees must be disclosed forthwith to the City of Kirkland. If this contract is within the scope of a Federal Housing and Community Development Block Grant program, the Contractor further covenants that no person who presently exercises any functions or responsibilities in connection with the block grant program has any personal financial interest, direct or indirect, in this contract.

(July 31, 2017 APWA GSP, Option A)

1-02.9 Delivery of Proposal

Delete this section and replace it with the following:

Each Proposal shall be submitted in a sealed envelope, with the Project Name and Project Number as stated in the Invitation for Bids clearly marked on the outside of the envelope, or as otherwise required in the Bid Documents, to ensure proper handling and delivery. If the project has FHWA funding and requires UDBE Written Confirmation Document(s) or Good Faith Effort (GFE) Documentation, then to be considered responsive, the Bidder shall submit Written Confirmation Documentation from each UDBE firm listed on the Bidder's completed UDBE Utilization Certification, form 272-056U, as required by Section 1-02.6. The UDBE Written Confirmation Document(s) and/or GFE (if any) shall be received either with the Bid Proposal or as a Supplement to the Bid. The document(s) shall be received no later than 24 hours (not including Saturdays, Sundays and Holidays) after the time for delivery of the Bid Proposal.

The Bidder shall submit to the Contracting Agency a signed "Certification of Compliance with Wage Payment Statutes" document where the Bidder under penalty of perjury verifies that the Bidder is in compliance with responsible bidder criteria in RCW 39.04.350 subsection (1) (g), as required per Section 1-02.14. The "Certification of Compliance with Wage Payment Statutes" document shall be received either with the Bid Proposal or no later than 24 hours (not including Saturdays, Sundays and Holidays) after the time for delivery of the Bid Proposal.

If submitted after the Bid Proposal is due, the document(s) must be submitted in a sealed envelope labeled the same as for the Proposal, with "Supplemental Information" added. All other information required to be submitted with the Bid Proposal must be submitted with the Bid Proposal itself, at the time stated in the Invitation for Bids.

The Contracting Agency will not open or consider any Bid Proposal that is received after the time specified in the Invitation for Bids for receipt of Bid Proposals, or received in a location other than that specified in the Invitation for Bids. The Contracting Agency will not open or consider any "Supplemental Information" (UDBE confirmations, GFE documentation, or Certification of Compliance with Wage Payment Statutes) that is received after the time specified above, or received in a location other than that specified in the Invitation for Bids.

(July 23, 2015 APWA GSP)

1-02.10 Withdrawing, Revising, or Supplementing Proposal

Delete this section, and replace it with the following:

After submitting a physical Bid Proposal to the Contracting Agency, the Bidder may withdraw, revise, or supplement it if:

- 1. The Bidder submits a written request signed by an authorized person and physically delivers it to the place designated for receipt of Bid Proposals, and
- 2. The Contracting Agency receives the request before the time set for receipt of Bid Proposals, and
- 3. The revised or supplemented Bid Proposal (if any) is received by the Contracting Agency before the time set for receipt of Bid Proposals.

If the Bidder's request to withdraw, revise, or supplement its Bid Proposal is received before the time set for receipt of Bid Proposals, the Contracting Agency will return the unopened Proposal package to the Bidder. The Bidder must then submit the revised or supplemented package in its entirety. If the Bidder does not submit a revised or supplemented package, then its bid shall be considered withdrawn.

Late revised or supplemented Bid Proposals or late withdrawal requests will be date recorded by the Contracting Agency and returned unopened. Mailed, emailed, or faxed requests to withdraw, revise, or supplement a Bid Proposal are not acceptable.

1-02.12 Public Opening of Proposals

This section is supplemented with the following new paragraph:

If an emergency or unanticipated event interrupts normal work processes of the Contracting Agency so that Proposals cannot be opened at the time indicated in the call for Bids the time specified for opening of Proposals will be deemed to be extended to the same time of day on the first work day on which the normal work processes of the Contracting Agency resume.

1-02.13 Irregular Proposals

Delete this section and replace it with the following:

- 1. A Proposal will be considered irregular and will be rejected if:
 - a. The Bidder is not prequalified when so required;
 - b. The authorized Proposal form furnished by the Contracting Agency is not used or is altered;
 - c. The completed Proposal form contains any unauthorized additions, deletions, alternate Bids, or conditions;
 - d. The Bidder adds provisions reserving the right to reject or accept the award, or enter into the Contract;
 - e. A price per unit cannot be determined from the Bid Proposal;
 - f. The Proposal form is not properly executed;
 - g. The Bidder fails to submit or properly complete a Subcontractor list, if applicable, as required in Section 1-02.6;
 - h. The Bidder fails to submit or properly complete an Underutilized Disadvantaged Business Enterprise Certification, if applicable, as required in Section 1-02.6;
 - i. The Bidder fails to submit written confirmation from each UDBE firm listed on the Bidder's completed UDBE Utilization Certification that they are in agreement with the bidder's UDBE participation commitment, if applicable, as required in Section 1-02.6, or if the written confirmation that is submitted fails to meet the requirements of the Special Provisions;
 - j The Bidder fails to submit UDBE Good Faith Effort documentation, if applicable, as required in Section 1-02.6, or if the documentation that is submitted fails to demonstrate that a Good Faith Effort to meet the Condition of Award was made;
 - k. The Bid Proposal does not constitute a definite and unqualified offer to meet the material terms of the Bid invitation; or
 - I. More than one Proposal is submitted for the same project from a Bidder under the same or different names.
- 2. A Proposal may be considered irregular and may be rejected if:
 - a. The Proposal does not include a unit price for every Bid item;
 - b. Any of the unit prices are excessively unbalanced (either above or below the amount of a reasonable Bid) to the potential detriment of the Contracting Agency;
 - c. Receipt of Addenda is not acknowledged;
 - d. A member of a joint venture or partnership and the joint venture or partnership submit Proposals for the same project (in such an instance, both Bids may be rejected); or
 - e. If Proposal form entries are not made in ink.

(July 31, 2017 APWA GSP, Option A)

1-02.14 Disqualification of Bidders

Delete this section and replace it with the following:

A Bidder will be deemed not responsible if the Bidder does not meet the mandatory bidder responsibility criteria in RCW 39.04.350(1), as amended.

The Contracting Agency will verify that the Bidder meets the mandatory bidder responsibility criteria in RCW 39.04.350(1). To assess bidder responsibility, the Contracting Agency reserves the right to request documentation as needed from the Bidder and third parties concerning the Bidder's compliance with the mandatory bidder responsibility criteria.

The Bidder shall submit to the Contracting Agency a signed "Certification of Compliance with Wage Payment Statutes", document where the Bidder under penalty of perjury verifies that the Bidder is in compliance with responsible bidder criteria in RCW 39.04.350 subsection (1)(g). A form appropriate for "Certification of Compliance with Wage Payment Statutes" will be provided by the Contracting Agency in the Bid Documents. The form provided in the Bid Documents shall be submitted with the Bid as stated in Section 1-02.9.

If the Contracting Agency determines the Bidder does not meet the mandatory bidder responsibility criteria in RCW 39.04.350(1) and is therefore not a responsible Bidder, the Contracting Agency shall notify the Bidder in writing, with the reasons for its determination. If the Bidder disagrees with this determination, it may appeal the determination within two (2) business days of the Contracting Agency's determination by presenting its appeal and any additional information to the Contracting Agency. The Contracting Agency will consider the appeal and any additional information before issuing its final determination. If the final determination affirms that the Bidder is not responsible, the Contracting Agency will not execute a contract with any other Bidder until at least two business days after the Bidder determination.

(August 14, 2013 APWA GSP)

1-02.15 Pre Award Information

Revise this section to read:

Before awarding any contract, the Contracting Agency may require one or more of these items or actions of the apparent lowest responsible bidder:

- 1. A complete statement of the origin, composition, and manufacture of any or all materials to be used,
- 2. Samples of these materials for quality and fitness tests,
- 3. A progress schedule (in a form the Contracting Agency requires) showing the order of and time required for the various phases of the work,
- 4. A breakdown of costs assigned to any bid item,
- 5. Attendance at a conference with the Engineer or representatives of the Engineer,
- 6. <u>Obtain, and furnish a copy of, a business license to do business in the city or county where the work is located</u>.
- 7. Any other information or action taken that is deemed necessary to ensure that the bidder is the lowest responsible bidder.

1-03 AWARD AND EXECUTION OF CONTRACT

(January 23, 2006 APWA GSP)

1-03.1 Consideration of Bids

Revise the first paragraph to read:

After opening and reading proposals, the Contracting Agency will check them for correctness of extensions of the prices per unit and the total price. If a discrepancy exists between the price per unit and the extended amount of any bid item, the price per unit will control. If a minimum bid amount has been established for any item and the bidder's unit or lump sum price is less than the minimum specified amount, the Contracting Agency will unilaterally revise the unit or lump sum price, to the minimum specified amount and recalculate the extension. The total of extensions, corrected where necessary, including sales taxes where applicable and such additives and/or alternates as selected by the Contracting Agency, will be used by the Contracting Agency for award purposes and to fix the Awarded Contract Price amount and the amount of the contract bond.

(October 1, 2005 APWA GSP)

1-03.3 Execution of Contract

Revise this section to read:

Copies of the Contract Provisions, including the unsigned Form of Contract, will be available for signature by the successful bidder on the first business day following award. The number of copies to be executed by the Contractor will be determined by the Contracting Agency.

Within ten (10) calendar days after the award date, the successful bidder shall return the signed Contracting Agency-prepared contract, an insurance certification as required by Section 1-07.18, and a satisfactory bond as required by law and Section 1-03.4. Before execution of the contract by the Contracting Agency, the successful bidder shall provide any pre-award information the Contracting Agency may require under Section 1-02.15.

Until the Contracting Agency executes a contract, no proposal shall bind the Contracting Agency nor shall any work begin within the project limits or within Contracting Agency-furnished sites. The Contractor shall bear all risks for any work begun outside such areas and for any materials ordered before the contract is executed by the Contracting Agency.

If the bidder experiences circumstances beyond their control that prevents return of the contract documents within <u>10</u> calendar days after the award date stated above, the Contracting Agency may grant up to a maximum of <u>10</u> additional calendar days for return of the documents, provided the Contracting Agency deems the circumstances warrant it.

(1/1/2016 COK GSP) 1-03.4 Contract Bond

Revise the first paragraph to read:

The successful bidder shall provide executed payment and performance bond(s) for the full contract amount. Separate payment and performance bonds are required and each shall be for the full contract amount. The bond(s) shall:

- 1. Be on Contracting Agency-furnished form(s);
- 2. Be signed by an approved surety (or sureties) that:
 - a. Is registered with the Washington State Insurance Commissioner, and
 - b. Appears on the current Authorized Insurance List in the State of Washington published by the Office of the Insurance Commissioner, and
 - c. Have an A.M. best rating of A:VII or better.
- 3. Guarantee that the Contractor will perform and comply with all obligations, duties, and conditions under the Contract, including but not limited to the duty and obligation to indemnify, defend, and

protect the Contracting Agency against all losses and claims related directly or indirectly from any failure:

- a. Of the Contractor (or any of the employees, subcontractors, or lower tier subcontractors of the Contractor) to faithfully perform and comply with all contract obligations, conditions, and duties, or
- b. Of the Contractor (or the subcontractors or lower tier subcontractors of the Contractor) to pay all laborers, mechanics, subcontractors, lower tier subcontractors, material person, or any other person who provides supplies or provisions for carrying out the work;
- 4. Be conditioned upon the payment of taxes, increases, and penalties incurred on the project under titles 50, 51, and 82 RCW; and
- 5. Be accompanied by a power of attorney for the Surety's officer empowered to sign the bond; and
- 6. Be signed by an officer of the Contractor empowered to sign official statements (sole proprietor or partner). If the Contractor is a corporation, the bond(s) must be signed by the president or vice president, unless accompanied by written proof of the authority of the individual signing the bond(s) to bind the corporation (i.e., corporate resolution, power of attorney, or a letter to such effect signed by the president or vice president).

(1/1/2016 COK GSP)

In accordance with RCW 39.08.010, on contracts of twenty-five thousand dollars (\$25,000) or less, at the option of the Contractor the Owner may, in lieu of the bond, retain fifty percent (50%) of the contract amount for a period of thirty (30) days after date of final acceptance, or until receipt of all necessary releases from the Department of Revenue and the Department of Labor and Industries and settlement of any liens filed under Chapter 60.28 RCW, whichever is later.

(October 10, 2008 APWA GSP)

1-03.4(1) Retainage in Lieu of Contract Bond

For contracts of \$35,000 or less, the Contractor may, at the Contractor's option, authorize the Contracting Agency to retain ten percent (10%) of the contract amount in lieu of furnishing a performance and/or payment bond. If the Contractor elects this option, the retainage shall be held for a period of thirty (30) days after the date of final acceptance, or until receipt of all necessary releases from the Departments of Revenue and of Labor and Industries and settlement of any liens filed under RCW 60.28, whichever is later. The Contractor must advise the Contracting Agency in writing of the Contractor's election to authorize retainage in lieu of a bond, at the time of execution of the Contract.

In choosing this option, the Contractor agrees that if the Contractor, its heirs, executors, administrators, successors, or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions and agreements in the Contract, and shall faithfully perform all the provisions of such contract and shall also well and truly perform and fulfill all the undertakings, covenants, terms, conditions and agreements of any and all duly authorized modifications of the Contract that may hereafter be made, at the time and in the manner therein specified, and shall pay all laborers, mechanics, subcontractors, and material suppliers, and all persons who shall supply such person or persons, or subcontractors, with provisions and supplies for the carrying on of such work, on his or her part, and shall indemnify and save harmless the Contracting Agency, its officers and agents from any claim for such payment, then the funds retained in lieu of a performance bond shall be released at the time provided above; otherwise, the funds shall be retained until the Contractor fulfills the said obligations.

(July 23, 2015 APWA GSP)

1-03.7 Judicial Review

Revise this section to read:

Any decision made by the Contracting Agency regarding the Award and execution of the Contract or Bid rejection shall be conclusive subject to the scope of judicial review permitted under Washington Law. Such review, if any, shall be timely filed in the Superior Court of the county where the Contracting Agency headquarters is located, provided that where an action is asserted against a county, RCW 36.01.05 shall control venue and jurisdiction.

1-04 SCOPE OF THE WORK

(1/1/2016 COK GSP)

1-04.1 Intent of the Contract

Section 1-04.1 is supplemented with the following:

All materials, tools, labor, and guarantees thereof of required to complete the work shall be furnished and supplied in accordance with the Plans, these Special Provisions, the Standard Specifications, and City of Kirkland Pre-Approved (Standard) Plans and Policies. The Contractor shall include all costs of doing this work within the contract bid item prices.

(March 13, 2012 APWA GSP)

1-04.2 Coordination of Contract Documents, Plans, Special Provisions, Specifications, and Addenda

Revise the second paragraph to read:

Any inconsistency in the parts of the contract shall be resolved by following this order of precedence (e.g., 1 presiding over 2, 2 over 3, 3 over 4, and so forth):

- 1. Addenda,
- 2. Proposal Form,
- 3. Special Provisions,
- 4. Contract Plans,
- 5. Amendments to the Standard Specifications,
- 6. Standard Specifications,
- 7. Contracting Agency's Standard Plans, or Details (if any),
- 8. Contracting Agency's Standard Policies, and
- 9. <u>WSDOT</u> Standard Plans for <u>Road</u>, <u>Bridge</u>, and <u>Municipal Construction</u>.

1-04.4(1) Minor Changes (*****)

Replace the third paragraph of Section 1-04.4(1) with the following:

To provide a common basis for all bidders, the City has estimated and included in the Proposal, a contingency allowance dollar amount for all items to be paid by force account. All such dollar amounts are to become a part of the Contractor's total bid. However, the City does not warrant, expressly or by implication that the actual amount of work will correspond with those estimates. It shall, therefore, not be the basis of a Lost Profit Claim if this contingency item is not expended. Payment will be made on the basis of work actually authorized by the Engineer and in accordance with Section 1-09.6 of the Standard Specifications.

For this contract, the bid item "Minor Changes" shall be used to pay for third party damage, and other items not covered

(1/1/2016 COK GSP)

1-04.11 Final Cleanup

Section 1-04.11 is deleted in its entirety and replaced with the following:

From time to time or as may be ordered by the Engineer, the Contractor shall cleanup and remove debris, refuse, and discarded materials of any kind resulting from the Work. Failure to do so may result in cleanup done by the Owner and the cost thereof charged to the Contractor and deducted from the Contractor's progress estimate.

The Contractor shall perform final cleanup as provided in this Section. The Engineer will not establish the Physical Completion Date until this is done. All public and private property the Contractor occupied to do the Work, including but not limited to the Street Right of Way, material sites, borrow and waste sites, and construction staging area shall be left neat and presentable. Immediately after completion of the Work, the Contractor shall cleanup and remove all refuse and unused materials of any kind resulting from the Work. Failure to do the final cleanup may result in the final cleanup being done by the Owner and the cost thereof charged to the Contractor and deducted from the Contractor's final progress estimate.

The Contractor shall:

- 1. Remove all rubbish, surplus materials, discarded materials, falsework, piling, camp buildings, temporary structures, equipment, and debris;
- 2. Remove from the Project, all unneeded, oversized rock left from grading, surfacing, or paving unless the Contract specifies otherwise or the Engineer approves otherwise;
- 3. On all concrete and asphalt pavement work, flush the pavement clean and remove the wash water and debris;
- 4. Sweep and flush structure decks and remove wash water and debris;
- 5. Clean out from all open culverts and drains, inlets, catch basins, manholes and water main valve chambers, within the limits of the Project Site, all dirt and debris of any kind that is the result of the Contractor's operations;
- 6. Level and fine grade all excavated material not used for backfill where the Contract requires;
- 7. Fine grade all slopes;
- 8. Upon completion of grading and cleanup operations at any privately-owned site for which a written agreement between the Contractor and property owner is required, the Contractor shall obtain and furnish to the Engineer a written release from all damages, duly executed by the property owner, stating that the restoration of the property has been satisfactorily accomplished.;

All costs associated with cleanup shall be incidental to the Work and shall be included in the various Bid items in the Bid, and shall be at no additional cost to the Owner.

1-05 CONTROL OF WORK

(January 1, 2020 COK GSP)

1-05.4 Conformity with and Deviations from Plans and Stakes

Section 1-05.4 is supplemented with the following:

Unless otherwise identified on Plans or in the Special Provisions, Unit Bid prices shall cover all costs for all surveying labor, equipment, materials, and supervision required to perform the Work. This shall include any resurveying, checking, correction of errors, replacement of missing or damaged stakes, and coordination efforts.

Add the following two new sub-sections:

(January 1, 2016 COK GSP)

1-05.4(1) Roadway and Utility Surveys

The Contractor shall be responsible for setting, maintaining, and resetting all alignment stakes, slope stakes, and grades necessary for the construction of the improvements under this contract. Except for the survey control data furnished by the Owner, calculations, surveying, and measuring required for setting and maintaining the necessary lines and grades shall be the Contractor's responsibility.

The Owner may spot-check the Contractor's surveying. These spot-checks will not change the requirements for normal checking by the Contractor.

To facilitate the establishment of lines and elevations, the Owner will provide the Contractor with primary survey control information consisting of descriptions of two primary control points used for the horizontal and vertical control. Primary control points will be described and shown on the right-of-way Plans. The Contractor shall check all control points for horizontal and vertical locations prior to use and report any discrepancy to the Engineer. Errors resulting from using control points which have not been verified, shall be the Contractors responsibility.

At a minimum the Contractor shall provide following survey staking shall be required:

- 1. Construction centerline or an offset to construction centerline shall be staked at all angle points and 100-foot intervals on tangents.
- 2. Offset stakes of JUT Centerline at all angle points and at 50-foot intervals on tangents
 - a. Cut/fill shall reference the elevations of the lowest conduit.
 - b. Offset shall reference the location of the center of trench and list the width of the trench section.
- 3. Offset stakes of all structure control/location points shown on the undergrounding Plans.
 - a. Each vault, handhold, and junction box shall have a sets of off-set points provided each location point shown in the location tables Cut/Fill shall reference elevations of the finish grade of the top lid of the structure.
 - b. Each pole riser and stub up, shall have at least one set of off-set hubs provided with cut/fills to finish ground elevations.
 - c. Finish grade elevations of all structures shall be determined by the Contractor based on the typical sections and details provide on the Contract Drawings.
- 4. Offset stakes at face or walls.
- 5. Offset staking of all drainage structures and drainage pipes at 50-foot intervals.
- 6. Location of all right-of-way and easements adjacent to the work area as shown on the rightof-way Plans.
- 7. Offset of all permanent concrete sidewalks, curb ramps, and driveways.

Each stake shall have the following information: Hub elevation, offset distance to items being staked, cut/fill to proposed elevations, design elevation of items being staked.

The above information shall also be shown on a written Cut Sheet and provided to the City inspector 48-hours prior to installation of the items being staked.

The Contractor shall establish all secondary survey controls, both horizontal and vertical, as necessary to assure proper placement of all project elements based on the primary control points provided by the Engineer. Survey work shall be within the following tolerances:

Stationing	+.01 foot
Alignment	+.01 foot (between successive points)
Superstructure Elevations	+.01 foot (from plan elevations)
Substructure Elevations	+.05 foot (from plan elevations)
Sidewalk and Curb Ramp Elevations	+.01 foot (from plan elevations)

During the progress of the work, the Contractor shall make available to the Engineer all field books including survey information, footing elevations, cross sections and quantities.

The Contractor shall be fully responsible for the close coordination of field locations and measurements with appropriate dimensions of structural members being fabricated.

(OCTOBER 1, 2005 APWA GSP)

1-05.4(2) Bridge and Structure Surveys

For all structural work such as bridges and retaining walls, the Contractor shall retain as a part of Contractor's organization an experienced team of surveyors.

The Contractor shall provide all surveys required to complete the structure, except the following primary survey control which will be provided by the Engineer:

- 1. Centerline or offsets to centerline of the structure.
- 2. Stations of abutments and pier centerlines.
- 3. A sufficient number of benchmarks for levels to enable the Contractor to set grades at reasonably short distances.
- 4. Monuments and control points as shown in the Plans.

The Contractor shall establish all secondary survey controls, both horizontal and vertical, as necessary to assure proper placement of all project elements based on the primary control points provided by the Engineer. Survey work shall be within the following tolerances:

Stationing	+.01 foot
Alignment	+.01 foot (between successive points)
Superstructure Elevations	+.01 foot (from plan elevations)
Substructure Elevations	+.05 foot (from plan elevations)

During the progress of the work, the Contractor shall make available to the Engineer all field books including survey information, footing elevations, cross sections and quantities.

The Contractor shall be fully responsible for the close coordination of field locations and measurements with appropriate dimensions of structural members being fabricated.

1-05.6 Inspection of Work and Materials

Revised the first sentence of the first paragraph to read as follows:

The Engineer and appropriate Department of Ecology personnel may inspect all Work and materials for conformity with Contract terms and shall be provided safe access to the construction site and to the contractor's records.

(October 1, 2005 APWA GSP)

1-05.7 Removal of Defective and Unauthorized Work

Supplement this section with the following:

If the Contractor fails to remedy defective or unauthorized work within the time specified in a written notice from the Engineer, or fails to perform any part of the work required by the Contract Documents, the Engineer may correct and remedy such work as may be identified in the written notice, with Contracting Agency forces or by such other means as the Contracting Agency may deem necessary.

If the Contractor fails to comply with a written order to remedy what the Engineer determines to be an emergency situation, the Engineer may have the defective and unauthorized work corrected immediately, have the rejected work removed and replaced, or have work the Contractor refuses to perform completed by using Contracting Agency or other forces. An emergency situation is any situation when, in the opinion of the Engineer, a delay in its remedy could be potentially unsafe, or might cause serious risk of loss or damage to the public.

Direct or indirect costs incurred by the Contracting Agency attributable to correcting and remedying defective or unauthorized work, or work the Contractor failed or refused to perform, shall be paid by the Contractor. Payment will be deducted by the Engineer from monies due, or to become due, the Contractor. Such direct and indirect costs shall include in particular, but without limitation, compensation for additional professional services required, and costs for repair and replacement of work of others destroyed or damaged by correction, removal, or replacement of the Contractor's unauthorized work.

No adjustment in contract time or compensation will be allowed because of the delay in the performance of the work attributable to the exercise of the Contracting Agency's rights provided by this Section.

The rights exercised under the provisions of this section shall not diminish the Contracting Agency's right to pursue any other avenue for additional remedy or damages with respect to the Contractor's failure to perform the work as required.

(1/1/2016 COK GSP)

1-05.9 Equipment

The following new paragraph is inserted between the second and third paragraphs:

Use of equipment with metal tracks will not be permitted on concrete or asphalt surfaces unless otherwise authorized by the Engineer.

(1/1/2016 COK GSP)

1-05.10 Guarantees

Section 1-05.10 is supplemented as follows:

Guarantees and maintenance bonds shall be in accordance with City of Kirkland, State of Washington, Public Works Performance and Payment Bond forms and requirements. The performance bond shall be in the full amount of contract. The Contractor guarantees all items of material, equipment, and workmanship against mechanical, structural, or other defects for which the Contractor is responsible that may develop or become evident within a period of one year from and after acceptance of the work by the Owner. This guarantee shall be understood to require prompt remedy of defects upon written notification to the Contractor. If the Owner determines the defect requires immediate repair, the Owner may, without further notice to the Contractor, make the necessary corrections, the cost of which shall be borne by the Contractor. To support the above guarantee, the Contractor's performance bond shall remain in full force and effect for one year following the acceptance of the project by the Owner.

(October 1, 2005 APWA GSP)

1-05.11 Final Inspection

Delete this section and replace it with the following:

1-05.11 Final Inspections and Operational Testing

1-05.11(1) Substantial Completion Date

When the Contractor considers the work to be substantially complete, the Contractor shall so notify the Engineer and request the Engineer establish the Substantial Completion Date. The Contractor's request shall list the specific items of work that remain to be completed in order to reach physical completion. The Engineer will schedule an inspection of the work with the Contractor to determine the status of completion. The Engineer may also establish the Substantial Completion Date unilaterally.

If, after this inspection, the Engineer concurs with the Contractor that the work is substantially complete and ready for its intended use, the Engineer, by written notice to the Contractor, will set the Substantial Completion Date. If, after this inspection the Engineer does not consider the work substantially complete and ready for its intended use, the Engineer will, by written notice, so notify the Contractor giving the reasons therefor.

Upon receipt of written notice concurring in or denying substantial completion, whichever is applicable, the Contractor shall pursue vigorously, diligently and without unauthorized interruption, the work necessary to reach Substantial and Physical Completion. The Contractor shall provide the Engineer with a revised schedule indicating when the Contractor expects to reach substantial and physical completion of the work.

The above process shall be repeated until the Engineer establishes the Substantial Completion Date and the Contractor considers the work physically complete and ready for final inspection.

1-05.11(2) Final Inspection and Physical Completion Date

When the Contractor considers the work physically complete and ready for final inspection, the Contractor by written notice, shall request the Engineer to schedule a final inspection. The Engineer will set a date for final inspection. The Engineer and the Contractor will then make a final inspection and the Engineer will notify the Contractor in writing of all particulars in which the final inspection reveals the work incomplete or unacceptable. The Contractor shall immediately take such corrective measures as are necessary to remedy the listed deficiencies. Corrective work shall be pursued vigorously, diligently, and without interruption until physical completion of the listed deficiencies. This process will continue until the Engineer is satisfied the listed deficiencies have been corrected.

If action to correct the listed deficiencies is not initiated within 7 days after receipt of the written notice listing the deficiencies, the Engineer may, upon written notice to the Contractor, take whatever steps are necessary to correct those deficiencies pursuant to Section 1-05.7.

The Contractor will not be allowed an extension of contract time because of a delay in the performance of the work attributable to the exercise of the Engineer's right hereunder.

Upon correction of all deficiencies, the Engineer will notify the Contractor and the Contracting Agency, in writing, of the date upon which the work was considered physically complete. That date shall constitute the Physical Completion Date of the contract, but shall not imply acceptance of the work or that all the obligations of the Contractor under the contract have been fulfilled.

1-05.11(3) Operational Testing

It is the intent of the Contracting Agency to have at the Physical Completion Date a complete and operable system. Therefore when the work involves the installation of machinery or other mechanical equipment; street lighting, electrical distribution or signal systems; irrigation systems; buildings; or other similar work it may be desirable for the Engineer to have the Contractor operate and test the

work for a period of time after final inspection but prior to the physical completion date. Whenever items of work are listed in the Contract Provisions for operational testing they shall be fully tested under operating conditions for the time period specified to ensure their acceptability prior to the Physical Completion Date. During and following the test period, the Contractor shall correct any items of workmanship, materials, or equipment which prove faulty, or that are not in first class operating condition. Equipment, electrical controls, meters, or other devices and equipment to be tested during this period shall be tested under the observation of the Engineer, so that the Engineer may determine their suitability for the purpose for which they were installed. The Physical Completion Date cannot be established until testing and corrections have been completed to the satisfaction of the Engineer.

The costs for power, gas, labor, material, supplies, and everything else needed to successfully complete operational testing, shall be included in the unit contract prices related to the system being tested, unless specifically set forth otherwise in the proposal.

Operational and test periods, when required by the Engineer, shall not affect a manufacturer's guaranties or warranties furnished under the terms of the contract.

(March 8, 2013 APWA GSP)

1-05.12 Final Acceptance

Add the following new section:

1-05.12(1) One-Year Guarantee Period

The Contractor shall return to the project and repair or replace all defects in workmanship and material discovered within one year after Final Acceptance of the Work. The Contractor shall start work to remedy any such defects within 7 calendar days of receiving Contracting Agency's written notice of a defect, and shall complete such work within the time stated in the Contracting Agency's notice. In case of an emergency, where damage may result from delay or where loss of services may result, such corrections may be made by the Contracting Agency's own forces or another contractor, in which case the cost of corrections shall be paid by the Contractor. In the event the Contractor does not accomplish corrections within the time specified, the work will be otherwise accomplished and the cost of same shall be paid by the Contractor.

When corrections of defects are made, the Contractor shall then be responsible for correcting all defects in workmanship and materials in the corrected work for one year after acceptance of the corrections by Contracting Agency.

This guarantee is supplemental to and does not limit or affect the requirements that the Contractor's work comply with the requirements of the Contract or any other legal rights or remedies of the Contracting Agency.

(August 14, 2013 APWA GSP)

1-05.13 Superintendents, Labor and Equipment of Contractor

Delete the sixth and seventh paragraph of this section.

(March 25, 2009 APWA GSP)

1-05.15 Method of Serving Notices

Revise the second paragraph to read:

All correspondence from the Contractor shall be directed to the Project Engineer. <u>All correspondence</u> from the Contractor constituting any notification, notice of protest, notice of dispute, or other

correspondence constituting notification required to be furnished under the Contract, must be in paper format, hand delivered or sent via mail delivery service to the Project Engineer's office. Electronic copies such as e-mails or electronically delivered copies of correspondence will not constitute such notice and will not comply with the requirements of the Contract.

(October 1, 2005 APWA GSP)

1-05.16 Water and Power

The Contractor shall make necessary arrangements, and shall bear the costs for power and water necessary for the performance of the work, unless the contract includes power and water as a pay item.

Add the following new section:

(March 8, 2013 APWA GSP)

1-05.18 Record Drawings

The Contractor shall maintain one set of full size plans for Record Drawings, updated with clear and accurate red-lined field revisions on a daily basis, and within 2 business days after receipt of information that a change in Work has occurred. The Contractor shall not conceal any work until the required information is recorded.

This Record Drawing set shall be used for this purpose alone, shall be kept separate from other Plan sheets, and shall be clearly marked as Record Drawings. These Record Drawings shall be kept on site at the Contractor's field office, and shall be available for review by the Contracting Agency at all times. The Contractor shall bring the Record Drawings to each progress meeting for review.

The preparation and upkeep of the Record Drawings is to be the assigned responsibility of a single, experienced, and qualified individual. The quality of the Record Drawings, in terms of accuracy, clarity, and completeness, is to be adequate to allow the Contracting Agency to modify the computeraided drafting (CAD) Contract Drawings to produce a complete set of Record Drawings for the Contracting Agency without further investigative effort by the Contracting Agency.

The Record Drawing markups shall document all changes in the Work, both concealed and visible. Items that must be shown on the markups include but are not limited to:

- Actual dimensions, arrangement, and materials used when different than shown in the Plans.
- Changes made by Change Order or Field Order.
- Changes made by the Contractor.
- Accurate locations of storm sewer, sanitary sewer, water mains and other water appurtenances, structures, conduits, light standards, vaults, width of roadways, sidewalks, landscaping areas, building footprints, channelization and pavement markings, etc. Include pipe invert elevations, top of castings (manholes, inlets, etc.).

If the Contract calls for the Contracting Agency to do all surveying and staking, the Contracting Agency will provide the elevations at the tolerances the Contracting Agency requires for the Record Drawings.

When the Contract calls for the Contractor to do the surveying/staking, the applicable tolerance limits include, but are not limited to the following:

_	Vertical	Horizontal
As-built sanitary & storm invert and grate elevations	± 0.01 foot	± 0.01 foot
As-built monumentation	± 0.001 foot	± 0.001 foot

As-built waterlines, inverts, valves, hydrants	± 0.10 foot	± 0.10 foot
As-built ponds/swales/water features	± 0.10 foot	± 0.10 foot
As-built buildings (fin. Floor elev.)	± 0.01 foot	± 0.10 foot
As-built gas lines, power, TV, Tel, Com	± 0.10 foot	± 0.10 foot
As-built signs, signals, etc.	N/A	± 0.10 foot

Making Entries on the Record Drawings:

- Use erasable colored pencil (not ink) for all markings on the Record Drawings, conforming to the following color code:
- Additions Red
- Deletions Green
- Comments Blue
- Dimensions Graphite
- Provide the applicable reference for all entries, such as the change order number, the request for information (RFI) number, or the approved shop drawing number.
- Date all entries.
- Clearly identify all items in the entry with notes similar to those in the Contract Drawings (such as pipe symbols, centerline elevations, materials, pipe joint abbreviations, etc.).

The Contractor shall certify on the Record Drawings that said drawings are an accurate depiction of built conditions, and in conformance with the requirements detailed above. The Contractor shall submit final Record Drawings to the Contracting Agency. Contracting Agency acceptance of the Record Drawings is one of the requirements for achieving Physical Completion.

No payment will be made for "Record Drawings" and shall be considered incidental to the "Mobilization" bid item.

1-06 CONTROL OF MATERIAL

(1/1/2016 COK GSP)

1-06.1 Approval of Materials Prior to Use

Section 1-06.1 is supplemented as follows:

Approval of a Material source shall not mean acceptance of the Material. The Material shall meet the requirements of the Contract.

(January 4, 2016 APWA GSP)

1-06.6 Recycled Materials

Delete this section, including its subsections, and replace it with the following:

The Contractor shall make their best effort to utilize recycled materials in the construction of the project. Approval of such material use shall be as detailed elsewhere in the Standard Specifications.

Prior to Physical Completion the Contractor shall report the quantity of recycled materials that were utilized in the construction of the project for each of the items listed in Table 9-03.21(1)E in Section 9-03.21. The report shall include hot mix asphalt, recycled concrete aggregate, recycled glass, steel furnace slag and other recycled materials (e.g. utilization of on-site material and aggregates from concrete returned to the supplier). The Contractor's report shall be provided on DOT form 350-075 Recycled Materials Reporting.

1-07 LEGAL RELATIONS AND RESPONSIBILITIES TO THE PUBLIC

(1/1/2016 COK GSP)

1-07.1 Laws to Be Observed

Section 1-07.1 is supplemented with the following:

The Contractor shall at all times eliminate noise to the maximum practicable extent. Air compressing plants shall be equipped with silencers, and the exhaust of all gasoline motors or other power equipment shall be provided with mufflers. Special care shall be used to avoid noise or other nuisances, and the Contractor shall strictly observe all federal, state, and local regulations concerning noise.

The Contractor shall make an effort to reduce carbon emissions by turning off engines on construction equipment not in active use, and on trucks that are idling while waiting to load or unload material for five minutes or more.

Compliance with Laws

The Contractor shall comply with the requirements of all other City ordinances, state statutes, laws, and regulations, whether or not stated herein, which are specifically applicable to the public improvements and work to be performed.

(October 1, 2005 APWA GSP)

Supplement this section with the following:

In cases of conflict between different safety regulations, the more stringent regulation shall apply.

The Washington State Department of Labor and Industries shall be the sole and paramount administrative agency responsible for the administration of the provisions of the Washington Industrial Safety and Health Act of 1973 (WISHA).

The Contractor shall maintain at the project site office, or other well known place at the project site, all articles necessary for providing first aid to the injured. The Contractor shall establish, publish, and make known to all employees, procedures for ensuring immediate removal to a hospital, or doctor's care, persons, including employees, who may have been injured on the project site. Employees should not be permitted to work on the project site before the Contractor has established and made known procedures for removal of injured persons to a hospital or a doctor's care.

The Contractor shall have sole responsibility for the safety, efficiency, and adequacy of the Contractor's plant, appliances, and methods, and for any damage or injury resulting from their failure, or improper maintenance, use, or operation. The Contractor shall be solely and completely responsible for the conditions of the project site, including safety for all persons and property in the performance of the work. This requirement shall apply continuously, and not be limited to normal working hours. The required or implied duty of the Engineer to conduct construction review of the Contractor's performance does not, and shall not, be intended to include review and adequacy of the Contractor's safety measures in, on, or near the project site.

(1/1/2016 COK GSP)

Contractor's Safety Responsibilities

These construction documents and the joint and several phases of construction hereby contemplated are to be governed at all times by applicable provisions of the federal law(s), including but not limited to the latest amendments of the following:

Williams-Steiger Occupational Safety and Health Act of 1980, Public Law 91-596.

Part 1910 - Occupational Safety and Health Standards, Chapter XVII of Title 29, Code of Federal Regulations.

This project, the Contractor and its subcontractors, shall, at all times, be governed by Chapter XIII of Title 29, Code of Federal Regulations, Part 1518 - Safety and Health Regulations for Construction (35 CFR 75), as amended to date.

To implement the program, and to provide safe and healthful working conditions for all persons, the construction superintendent or his/her designated safety officer shall conduct general project safety meetings at the site at least once each month during the course of construction.

The prime contractor and all subcontractors shall immediately report all accidents, injuries, and health hazards to the Manager, in writing. This shall not obviate any mandatory reporting under the provisions of the Occupational Safety and Health Act of 1970. This program shall become a part of the contract documents and the contract between the Owner and the Contractor, and all subcontractors, as though fully written therein.

Where the location of the work is in proximity to overhead wires and power lines, the Contractor shall coordinate all work with the utility and shall provide for such measures as may be necessary for the protection of the workers.

In response to COVID-19, the Contractor shall prepare a project specific COVID-19 health and safety plan (CHSP) in conformance with Section 1-07.4(2) as supplemented in these specifications, COVID-19 Health and Safety Plan (CHSP).(January 1, 2016 COK GSP)

(June 27, 2011 APWA GSP)

1-07.2 State Taxes

Delete this section, including its sub-sections, in its entirety and replace it with the following:

1-07.2 State Sales Tax

The Washington State Department of Revenue has issued special rules on the State sales tax. Sections 1-07.2(1) through 1-07.2(3) are meant to clarify those rules. The Contractor should contact the Washington State Department of Revenue for answers to questions in this area. The Contracting Agency will not adjust its payment if the Contractor bases a bid on a misunderstood tax liability.

The Contractor shall include all Contractor-paid taxes in the unit bid prices or other contract amounts. In some cases, however, state retail sales tax will not be included. Section 1-07.2(2) describes this exception.

The Contracting Agency will pay the retained percentage (or release the Contract Bond if a FHWAfunded Project) only if the Contractor has obtained from the Washington State Department of Revenue a certificate showing that all contract-related taxes have been paid (RCW 60.28.051). The Contracting Agency may deduct from its payments to the Contractor any amount the Contractor may owe the Washington State Department of Revenue, whether the amount owed relates to this contract or not. Any amount so deducted will be paid into the proper State fund.

1-07.2(1) State Sales Tax — Rule 171

WAC 458-20-171, and its related rules, apply to building, repairing, or improving streets, roads, etc., which are owned by a municipal corporation, or political subdivision of the state, or by the United States, and which are used primarily for foot or vehicular traffic. This includes storm or combined sewer systems within and included as a part of the street or road drainage system and power lines when such are part of the roadway lighting system. For work performed in such cases, the Contractor

shall include Washington State Retail Sales Taxes in the various unit bid item prices, or other contract amounts, including those that the Contractor pays on the purchase of the materials, equipment, or supplies used or consumed in doing the work.

1-07.2(2) State Sales Tax — Rule 170

WAC 458-20-170, and its related rules, apply to the constructing and repairing of new or existing buildings, or other structures, upon real property. This includes, but is not limited to, the construction of streets, roads, highways, etc., owned by the state of Washington; water mains and their appurtenances; sanitary sewers and sewage disposal systems unless such sewers and disposal systems are within, and a part of, a street or road drainage system; telephone, telegraph, electrical power distribution lines, or other conduits or lines in or above streets or roads, unless such power lines become a part of a street or road lighting system; and installing or attaching of any article of tangible personal property in or to real property, whether or not such personal property becomes a part of the realty by virtue of installation.

For work performed in such cases, the Contractor shall collect from the Contracting Agency, retail sales tax on the full contract price. The Contracting Agency will automatically add this sales tax to each payment to the Contractor. For this reason, the Contractor shall not include the retail sales tax in the unit bid item prices, or in any other contract amount subject to Rule 170, with the following exception.

Exception: The Contracting Agency will not add in sales tax for a payment the Contractor or a subcontractor makes on the purchase or rental of tools, machinery, equipment, or consumable supplies not integrated into the project. Such sales taxes shall be included in the unit bid item prices or in any other contract amount.

1-07.2(3) Services

The Contractor shall not collect retail sales tax from the Contracting Agency on any contract wholly for professional or other services (as defined in Washington State Department of Revenue Rules 138 and 244).

1-07.11 (1) General Application

Section 1-07.11(1) is supplemented with the following:

All bidders for this project are encouraged to utilize certified minority-owned and women-owned businesses to the extent possible in the performance of this contract. All prospective bidders or persons submitting qualifications should take the following steps, when possible.

1. Include qualified minority and women's businesses on solicitation lists.

2. Assure that qualified minority and women's businesses are solicited whenever they are potential sources of services or supplies.

3. Divide the total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by qualified minority and women's businesses.

4. Establish delivery schedules, where work requirements permit, which will encourage participation of qualified minority and women's businesses.

5. Use the services and assistance of the State Office of Minority and Women's Business Enterprises (OMWBE) and the Office of Minority Business Enterprises of the U.S. Department of Commerce, as appropriate.

All prospective bidders must provide a list of the MBE/WBE subcontractors they intend to use during the project. This list must be provided with the bid package.

(1/1/2016 COK GSP)

1-07.14 Responsibility for Damage

Section 1-07.14 is supplemented with the following:

The Contractor further agrees that it is waiving immunity under Industrial Insurance Law Title 51 RCW for any claims brought against the City by its employees. In the event Contractor fails, after receipt of timely notice from the City, to appear, defend, or pay as required by the first paragraph of this section, then in that event and in that event only, the City may in its sole discretion, deduct from the City may have knowledge and regardless of the informalities of notice of such claim, arising out of the performance of this contract, provided the City has theretofore given notice of receipt of such claim to the Contractor and the Contractor has failed to act thereon.

1-07.15 Temporary Water Pollution/Erosion Control

1-07.15(1) Spill Prevention, Control, and Countermeasures Plan (COK GSP)

SPCC Plan Element Requirements is supplemented with the following:

2. City of Kirkland spill response hotline (425) 587-3900 shall be listed as the first point of contact.

1-07.15(1) Spill Prevention, Control, and Countermeasures Plan (*****)

SPCC Plan Element Requirements

SPCC Plan Element Requirements is supplemented with the following:

- 11. The SPCC Plan shall incorporate information that meets the requirements for a Stormwater Pollution Prevention Plan (SWPPP) defined at the Department of Ecology website (<u>http://www.ecy.wa.gov/programs/wq/sand/swppp.html</u> or current weblink).
- 12. The SPCC shall incorporate information that meets the requirements of the Temporary Erosion and Sediment Control (TESC) Plan defined in 8-01.3(1)A.

1-07.16 Protection and Restoration of Property

(1/1/2016 COK GSP)

1-07.16(3) Fences, Mailboxes, Incidentals

Section 1-07.16(3) is supplemented with the following:

U.S. Postal Service Collection Boxes, Mail Receptacles, and other Structures: U.S. Postal Service collection box and other Structures requiring temporary relocation to accommodate construction, the Contractor shall contact the Kirkland Postmaster at least 5 Working Days in advance for coordination. Only the U.S. Post Office will move Postal Service-owned property.

1-07.16(4) Archeological and Historical Objects

Section 1-07.16(4) is supplemented with the following:

The contractor shall obtain a copy of the Inadvertent Discovery Plan from the Project Owner. The contractor shall keep a copy of the inadvertent discovery plan for the project on the work site at al times. The contractor shall immediately stop all work if human remains, cultural, or archeological resources are discovered in the course of construction. The contractor shall follow the inadvertent discovery plan in dealing with the human remains, cultural, or archeological resources.

(1/1/2016 COK GSP)

1-07.17 Utilities and Similar Facilities

Section 1-07.17 is supplemented with the following:

Locations and dimensions shown in the Plans for existing facilities are in accordance with available information obtained without uncovering, measuring, or other verification.

The Contractor is alerted to the existence of Chapter 19.122 RCW, a law relating to underground utilities. Any cost to the Contractor incurred as a result of this law shall be at the Contractor's expense.

No excavation shall begin until all known facilities in the vicinity of the excavation area have been located and marked.

The Contractor shall give advance notice to all utility companies involved where work is to take place and in all other respects comply with the provisions of Chapter 19.122 RCW. Notice shall include, but not be limited to, the following utility companies:

- Water, sewer, storm, streets minimum two working days in advance
- Power (Electric and Natural Gas) minimum 48 hours in advance
- Telephone minimum 30 days in advance
- Natural Gas minimum 48 hours in advance
- Cable Television minimum 48 hours in advance
- Transit minimum 21 days in advance

The following is a list of some utilities serving the Kirkland area. This is not intended or represented to be a complete list and is provided for the Contractor's convenience.

Utility	Agency/Company	Address	Contact	Phone
Water/Sewer	City of Kirkland	123 Fifth Avenue Kirkland, WA 98033	Josh Pantzke	(425) 587-3900
Storm Drainage	City of Kirkland	123 Fifth Avenue Kirkland, WA 98033	Josh Pantzke	(425) 587-3900
Water / Sewer (North area of Kirkland)	Northshore Utility District	6380 NE 185th St Kenmore, WA 98028	George Matote	(425) 398-4400
Street	City of Kirkland	123 Fifth Avenue Kirkland, WA 98033	Nathen Hower	(425) 587-3900
Natural Gas	Puget Sound Energy	P.O. Box 97034 EST-11W Bellevue, WA 98009- 9734	Jeanne Coleman	(425) 449-7410
Electric	Puget Sound Energy	35131 SE Center St Snoqualmie, WA 98065	Fremont Aguinaldo	(425) 223-0936
Telephone/ FIOS	Ziply Fiber	P.O. Box 1127 Everett, WA 98206	Jay Schwab	(425) 263-4019
FIOS	Zayo	22651 83 rd Ave. S. Kent, WA 98032	Jason Accuradi	(971) 344-0530
Cable Television	Comcast	1525 - 75th St SW, Suite 200 Everett, WA 98203	Joe Fordon	(425) 263-5348
Network	Verizon/MCI	11311 NE 120 th St Kirkland, WA 98034	Brad Landis Scott Christenson	(425) 201-0901 (425) 471-1079
School District Transportation	Lake Washington School District	15212 NE 95th St Redmond, WA 98052	Jeff Miles	(425) 936-1120
Transit	King County METRO	MS SVQ-TR-0100 1270 6th Ave S Seattle, WA 98134	David Freeman	(206) 477-1140 (206) 477-0438

Note that most utility companies may be contacted for locations through the "One Call" system, 1-800-424-5555. In the event of a gas emergency, <u>call 911</u> and then the PSE hotline at 1-888-225-5773 (1-888-CALL-PSE).

The Contractor shall coordinate the work with these utilities and shall notify the Engineer in advance of any conflicts affecting the work schedule. The utility companies shall witness or perform all shutdowns, connections or disconnections.

Wherever in the course of the construction operation it becomes necessary to cause an outage of utilities, it shall be the Contractor's responsibility to notify the affected users not less than twenty-four (24) hours in advance of the creation of such outage. The Contractor shall make reasonable effort to minimize the duration of outages.

The Contractor shall be responsible for any breakage of utilities or services resulting from its operations and shall hold the City and its agents harmless from any claims resulting from disruption of, or damage to, same.

Other Notifications

<u>Service Area Turn Off</u>: All service area turn off notices must be distributed to affected parties two working days in advance of any scheduled shut off. City to provide door hangers and affected service area map. The contractor shall fill in all required information prior to hanging door hanger.

<u>Entry onto Private Property</u>: Each property owner shall be given two working days advance Written Notice prior to entry by the Contractor.

<u>Loop Detection Systems</u>: Where an excavation is to take place through a signal loop detector system, the Contractor shall provide at least five (5) Working Days advance notice to the City Signal Shop at (425) 587-3920 to coordinate temporary signal wire disconnect and installation of temporary signal detection equipment.

<u>Survey Monuments</u>: When proposed pavement removal is close to existing survey monumentation, or proposed pavement removal includes existing survey monumentation, the Contractor shall provide a minimum 4 Working Days advance notice to the Engineer to allow survey crews to tie the monument out and reset the monument after pavement installation.

(1/1/2016 COK GSP)

1-07.17(2) Utility Construction, Removal or Relocation by Others

Section 1-07.17(2) is supplemented with the following:

Under no circumstances will discrepancies in location or incompleteness in description of existing utilities or improvements, whether they are visible from the surface, buried, or otherwise obscured, be considered as a basis for additional compensation to the Contractor.

(January 4, 2016 APWA GSP)

1-07.18 Public Liability and Property Damage Insurance

Delete this section in its entirety, and replace it with the following:

1-07.18 Insurance

1-07.18(1) General Requirements

- A. The Contractor shall procure and maintain the insurance described in all subsections of section 1-07.18 of these Special Provisions, from insurers with a current A. M. Best rating of not less than A: VII and licensed to do business in the State of Washington. The Contracting Agency reserves the right to approve or reject the insurance provided, based on the insurer's financial condition.
- B. The Contractor shall keep this insurance in force without interruption from the commencement of the Contractor's Work through the term of the Contract and for thirty (30) days after the Physical Completion date, unless otherwise indicated below.
- C. If any insurance policy is written on a claims made form, its retroactive date, and that of all subsequent renewals, shall be no later than the effective date of this Contract. The policy shall state that coverage is claims made, and state the retroactive date. Claims-made form coverage shall be maintained by the Contractor for a minimum of 36 months following the Completion Date or earlier termination of this Contract, and the Contractor shall annually provide the Contracting Agency with

proof of renewal. If renewal of the claims made form of coverage becomes unavailable, or economically prohibitive, the Contractor shall purchase an extended reporting period ("tail") or execute another form of guarantee acceptable to the Contracting Agency to assure financial responsibility for liability for services performed.

- D. The Contractor's Automobile Liability, Commercial General Liability and Excess or Umbrella Liability insurance policies shall be primary and non-contributory insurance as respects the Contracting Agency's insurance, self-insurance, or self-insured pool coverage. Any insurance, self-insurance, or self-insured pool coverage maintained by the Contracting Agency shall be excess of the Contractor's insurance and shall not contribute with it.
- E. The Contractor shall provide the Contracting Agency and all additional insureds with written notice of any policy cancellation, within two business days of their receipt of such notice.
- F. The Contractor shall not begin work under the Contract until the required insurance has been obtained and approved by the Contracting Agency
- G. Failure on the part of the Contractor to maintain the insurance as required shall constitute a material breach of contract, upon which the Contracting Agency may, after giving five business days' notice to the 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 the Contracting Agency on demand, or at the sole discretion of the Contracting Agency, offset against funds due the Contractor from the Contracting Agency.
- H. 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.

1-07.18(2) Additional Insured

All insurance policies, with the exception of Workers Compensation, and of Professional Liability and Builder's Risk (if required by this Contract) shall name the following listed entities as additional insured(s) using the forms or endorsements required herein:

• the Contracting Agency and its officers, elected officials, employees, agents, and volunteers

The above-listed entities shall be additional insured(s) 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 provided by the Contractor pursuant to 1-07.18(4) describes limits lower than those maintained by the Contractor.

For Commercial General Liability insurance coverage, the required additional insured endorsements shall be at least as broad as ISO forms CG 20 10 10 01 for ongoing operations and CG 20 37 10 01 for completed operations.

1-07.18(3) Subcontractors

The Contractor shall cause each Subcontractor of every tier to provide insurance coverage that complies with all applicable requirements of the Contractor-provided insurance as set forth herein, except the Contractor shall have sole responsibility for determining the limits of coverage required to be obtained by Subcontractors.

The Contractor shall ensure that all Subcontractors of every tier add all entities listed in 1-07.18(2) as additional insureds, and provide proof of such on the policies as required by that section as detailed in 1-07.18(2) using an endorsement as least as broad as ISO CG 20 10 10 01 for ongoing operations and CG 20 37 10 01 for completed operations.

Upon request by the Contracting Agency, the Contractor shall forward to the Contracting Agency evidence of insurance and copies of the additional insured endorsements of each Subcontractor of every tier as required in 1-07.18(4) Verification of Coverage.

1-07.18(4) Verification of Coverage

The Contractor shall deliver to the Contracting Agency a Certificate(s) of Insurance and endorsements for each policy of insurance meeting the requirements set forth herein when the Contractor delivers the signed Contract for the work. Failure of Contracting Agency to demand such verification of coverage with these insurance requirements or failure of Contracting Agency to identify a deficiency from the insurance documentation provided shall not be construed as a waiver of Contractor's obligation to maintain such insurance.

Verification of coverage shall include:

- 1. An ACORD certificate or a form determined by the Contracting Agency to be equivalent.
- 2. Copies of all endorsements naming Contracting Agency and all other entities listed in 1-07.18(2) as additional insured(s), showing the policy number. The Contractor may submit a copy of any blanket additional insured clause from its policies instead of a separate endorsement.
- 3. Any other amendatory endorsements to show the coverage required herein.
- 4. A notation of coverage enhancements on the Certificate of Insurance shall <u>not</u> satisfy these requirements actual endorsements must be submitted.

Upon request by the Contracting Agency, the Contractor shall forward to the Contracting Agency a full and certified copy of the insurance policy(s). If Builders Risk insurance is required on this Project, a full and certified copy of that policy is required when the Contractor delivers the signed Contract for the work.

1-07.18(5) Coverages and Limits

The insurance shall provide the minimum coverages and limits set forth below. Contractor's maintenance of insurance, its scope of coverage, and limits as required herein shall not be construed to limit the liability of the Contractor to the coverage provided by such insurance, or otherwise limit the Contracting Agency's recourse to any remedy available at law or in equity.

All deductibles and self-insured retentions must be disclosed and are subject to approval by the Contracting Agency. The cost of any claim payments falling within the deductible or self-insured retention shall be the responsibility of the Contractor. In the event an additional insured incurs a liability subject to any policy's deductibles or self-insured retention, said deductibles or self-insured retention shall be the responsibility of the Contractor.

1-07.18(5)A Commercial General Liability

Commercial General Liability insurance shall be written on coverage forms at least as broad as ISO occurrence form CG 00 01, including but not limited to liability arising from premises, operations, stop gap liability, independent contractors, products-completed operations, personal and advertising injury, and liability assumed under an insured contract. There shall be no exclusion for liability arising from explosion, collapse or underground property damage.

The Commercial General Liability insurance shall be endorsed to provide a per project general aggregate limit, using ISO form CG 25 03 05 09 or an equivalent endorsement.

Contractor shall maintain Commercial General Liability Insurance arising out of the Contractor's completed operations for at least three years following Substantial Completion of the Work.

Such policy must provide the following minimum limits:

\$1,000,000	Each Occurrence
\$2,000,000	General Aggregate
\$2,000,000	Products & Completed Operations Aggregate
\$1,000,000	Personal & Advertising Injury each offence
\$1,000,000	Stop Gap / Employers' Liability each accident

1-07.18(5)B Automobile Liability

Automobile Liability shall cover owned, non-owned, hired, and leased vehicles; and shall be written on a coverage form at least as broad as ISO form CA 00 01. If the work involves the transport of pollutants, the automobile liability policy shall include MCS 90 and CA 99 48 endorsements.

Such policy must provide the following minimum limit:

\$1,000,000 Combined single limit each accident

1-07.18(5)C Workers' Compensation

The Contractor shall comply with Workers' Compensation coverage as required by the Industrial Insurance laws of the State of Washington.

(January 4, 2016 APWA GSP)

1-07.18(5)D Excess or Umbrella Liability

The Contractor shall provide Excess or Umbrella Liability insurance with limits of not less than \$3 million each occurrence and annual aggregate. This excess or umbrella liability coverage shall be excess over and as least as broad in coverage as the Contractor's Commercial General and Auto Liability insurance

All entities listed under 1-07.18(2) of these Special Provisions shall be named as additional insureds on the Contractor's Excess or Umbrella Liability insurance policy.

This requirement may be satisfied instead through the Contractor's primary Commercial General and Automobile Liability coverages, or any combination thereof that achieves the overall required limits of insurance.

(January 4, 2016 APWA GSP)

1-07.18(5)K Professional Liability

The Contractor and/or its Subcontractor(s) and/or its design consultant providing construction management, value engineering, or any other design-related non-construction professional services shall provide evidence of Professional Liability insurance covering professional errors and omissions.

Such policy shall provide the following minimum limits:

\$1,000,000 per claim and annual aggregate

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

If insurance is on a claims made form, its retroactive date, and that of all subsequent renewals, shall be no later than the effective date of this Contract.

1-07.23 Public Convenience and Safety

Section 1-07.23 is supplemented with the following:

(1/1/2016 COK GSP)

No road or street shall be closed to the public except as permitted in these plans and specifications or with the approval of the Engineer and proper governmental authority. Fire hydrants on or adjacent to the work shall be kept accessible to firefighting equipment at all times. Provision shall be made by the Contractor to ensure the proper functioning of all gutters, sewer inlets, drainage ditches and culverts, irrigation ditches and natural water courses, and storm sewer facilities throughout the project. Temporary interruption of service will be allowed only with the permission of the Engineer.

The Kirkland Police Department and Kirkland Fire Department shall be notified at least four (4) hours in advance of any actions by the Contractor that may affect the functions of either the Police Department or Fire Department.

The Contractor shall conduct its work and take preventative measures so that dust or other particulate matter in the project area shall not become objectionable to the adjacent property owners or general public. Should the Owner determine the Contractor is not fulfilling its obligation in this regard; the Owner reserves the right to take such action as may be necessary to remedy the objectionable condition and to charge the Contractor with any cost that may be incurred in such remedial action. All work shall be carried on with due regard for the safety of the public. No driveway, whether public, commercial, or private, may be closed without prior approval of the Owner, project supervisor, or Engineer unless written authority has been given by the affected property owner. The Contractor shall be responsible for notifying the affected property owners 24 hours in advance of scheduled interruptions to access.

(1/1/2016 COK GSP) Pedestrian Control and Protection

When the work area encroaches upon a sidewalk, walkway or crosswalk area, special consideration must be given to pedestrian safety. Maximum effort must be made to separate pedestrians from the work area. Protective barricades, fencing, and bridges, together with warning and guidance devices and signs, shall be utilized so that the passageway for pedestrians is safe and well defined. Whenever pedestrian walkways are provided across excavations, they shall be provided with suitable handrails. Footbridges shall be safe, strong, free of bounce and sway, have a slip resistant coating, and be free of cracks, holes, and irregularities that could cause tripping. Ramps shall be provided at the entrance and exit of all raised footbridges, again to prevent tripping. Adequate illumination and reflectorization shall be provided during hours of darkness. All walkways shall be maintained with at least 4 feet clear width.

Where walks are closed by construction, an alternate walkway shall be provided, preferably within the planting strip.

Where it is necessary to divert pedestrians into the roadway, barricading or channeling devices shall be provided to separate the pedestrian walkway from the adjacent vehicular traffic lane. At no time shall pedestrians be diverted into a portion of a street used concurrently by moving vehicular traffic.

At locations where adjacent alternate walkways cannot be provided, appropriate signs shall be posted at the limits of construction and in advance of the closure at the nearest crosswalk or intersection to divert pedestrians across the street.

Physical barricades shall be installed to prevent visually impaired people from inadvertently entering a closed area. Pedestrian walkways shall be wheelchair accessible at all times. Pedestrian access shall be maintained to all properties adjacent to the construction site.
(May 2, 2017 APWA GSP)

1-07.23(1) Construction under Traffic

Revise the third sentence of the second paragraph to read:

Accessibility to existing or temporary pedestrian push buttons shall not be impaired; if approved by the Contracting Agency activating pedestrian recall timing or other accommodation may be allowed during construction.

(July 23, 2015 APWA GSP)

1-07.24 Rights of Way

Delete this section and replace it with the following:

Street Right of Way lines, limits of easements, and limits of construction permits are indicated in the Plans. The Contractor's construction activities shall be confined within these limits, unless arrangements for use of private property are made.

Generally, the Contracting Agency will have obtained, prior to bid opening, all rights of way and easements, both permanent and temporary, necessary for carrying out the work. Exceptions to this are noted in the Bid Documents or will be brought to the Contractor's attention by a duly issued Addendum.

Whenever any of the work is accomplished on or through property other than public Right of Way, the Contractor shall meet and fulfill all covenants and stipulations of any easement agreement obtained by the Contracting Agency from the owner of the private property. Copies of the easement agreements may be included in the Contract Provisions or made available to the Contractor as soon as practical after they have been obtained by the Engineer.

Whenever easements or rights of entry have not been acquired prior to advertising, these areas are so noted in the Plans. The Contractor shall not proceed with any portion of the work in areas where right of way, easements or rights of entry have not been acquired until the Engineer certifies to the Contractor that the right of way or easement is available or that the right of entry has been received. If the Contractor is delayed due to acts of omission on the part of the Contracting Agency in obtaining easements, rights of entry or right of way, the Contractor will be entitled to an extension of time. The Contractor agrees that such delay shall not be a breach of contract.

Each property owner shall be given 48 hours notice prior to entry by the Contractor. This includes entry onto easements and private property where private improvements must be adjusted.

The Contractor shall be responsible for providing, without expense or liability to the Contracting Agency, any additional land and access thereto that the Contractor may desire for temporary construction facilities, storage of materials, or other Contractor needs. However, before using any private property, whether adjoining the work or not, the Contractor shall file with the Engineer a written permission of the private property owner, and, upon vacating the premises, a written release from the property owner of each property disturbed or otherwise interfered with by reasons of construction pursued under this contract. The statement shall be signed by the private property owner, or proper authority acting for the owner of the private property affected, stating that permission has been granted to use the property and all necessary permits have been obtained or, in the case of a release, that the restoration of the property has been satisfactorily accomplished. The statement shall include the parcel number, address, and date of signature. Written releases must be filed with the Engineer before the Completion Date will be established.

(1/1/2016 COK GSP)

The Contractor shall file with the Engineer signed property release forms (in the format as detailed below) for all properties disturbed or damaged by the Contractor's operations.

	PROPERTY RELEASE	
	(Contractor's name and address)	_
DATE:		
Ι,		owner of
,	hereby release	,
(Contractor's name)		
from any property damage or personal	injury resulting from construction o	n or adjacent to my property located at
during construction of the		Mu signature halow is mu
acknowledgment and acceptance that i	my property as identified above wa	My signature below is my
acknowledgment and acceptance that	my property, as identified above, wa	s returned to a satisfactory condition.
	Signed:	
	Name:	
	Address:	
	Phone:	

1-08 PROSECUTION AND PROGRESS

Add the following new section:

(May 25, 2006 APWA GSP)

1-08.0 Preliminary Matters

Add the following new section:

(October 10, 2008 APWA GSP)

1-08.0(1) Preconstruction Conference

Prior to the Contractor beginning the work, a preconstruction conference will be held between the Contractor, the Engineer and such other interested parties as may be invited. The purpose of the preconstruction conference will be:

- To review the initial progress schedule;
- To establish a working understanding among the various parties associated or affected by the work;
- To establish and review procedures for progress payment, notifications, approvals, submittals, etc.;
- To establish normal working hours for the work;
- To review safety standards and traffic control; and
- To discuss such other related items as may be pertinent to the work.

The Contractor shall prepare and submit at the preconstruction conference the following:

- A breakdown of all lump sum items;
- A preliminary schedule of working drawing submittals; and
- A list of material sources for approval if applicable.

Add the following new section:

(1/1/2016 COK GSP)

1-08.0(2) Hours of Work

Except in the event of an emergency, no work shall be done between the hours of 6:00 p.m. and 7:00 a.m., or weekends (except driveway construction), or holidays observed by the City of Kirkland and identified in Section 1-08.5 of the Standard Specifications. If the proper and efficient prosecution of the work requires operations during the night, hours of operation more than 8 hours per day, or work weeks greater than 40 hours in duration, the written permission of the Owner shall be obtained before starting such items of the work and shall be in full compliance with terms therewith.

Except in the case of emergency or unless otherwise approved by the Contracting Agency, the normal straight time working hours for the contract shall be any consecutive 8-hour period between 7:00 a.m. and 6:00 p.m. of a working day with a maximum 1-hour lunch break and a 5-day work week. The normal straight time 8-hour working period for the contract shall be established at the preconstruction conference or prior to the Contractor commencing the work.

If a Contractor desires to perform work on holidays, Saturdays, Sundays, or before 7:00 a.m. or after 6:00 p.m. on any day, the Contractor shall apply in writing to the Engineer for permission to work such times. Permission to work longer than an 8-hour period between 7:00 a.m. and 6:00 p.m. is not required. Such requests shall be submitted to the Engineer no later than noon on the working day prior to the day for which the Contractor is requesting permission to work.

Permission to work between the hours of 10:00 p.m. and 7:00 a.m. during weekdays and between the hours of 10:00 p.m. and 9:00 a.m. on weekends or holidays may also be subject to noise control requirements. Approval to continue work during these hours may be revoked at any time the Contractor exceeds the Contracting Agency's noise control regulations or complaints are received from the public or adjoining property owners regarding the noise from the Contractor's operations. The Contractor shall have no claim for damages or delays should such permission be revoked for these reasons.

Permission to work Saturdays, Sundays, holidays or other than the agreed upon normal straight time working hours Monday through Friday may be given subject to certain other conditions set forth by the Contracting Agency or Engineer. These conditions may include but are not limited to: requiring the Engineer or such assistants as the Engineer may deem necessary to be present during the work; requiring the Contractor to reimburse the Contracting Agency for the costs in excess of straight-time costs for Contracting Agency employees who worked during such times, on non Federal aid projects; considering the work performed on Saturdays and holidays as working days with respect to contract time; and considering multiple work shifts as multiple working days with respect to contract time even though the multiple shifts occur in a single 24-hour period. Assistants may include, but are not limited to, survey crews; personnel from the Contracting Agency's material testing lab; inspectors; and other Contracting Agency employees when in the opinion of the Engineer, such work necessitates their presence.

Arterial Streets

<u>No work will be performed on arterial streets during the peak traffic hours</u> of 7:00 a.m. - 9:00 a.m. and 3:30 p.m. - 6:00 p.m., except emergency work to restore services, unless a City-approved traffic control plan allows work during the peak hours. The following streets are classified as arterials:

STREET	FROM	ТО
Central Way/NE 85th St	Market St	132nd Ave NE
Juanita Dr NE /NE Juanita Dr	NE 143 rd St (City Limits)	98th Ave NE
Juanita Woodinville Way	100 th Ave NE	NE 145 th St (City Limits)

Lake St/Lake Washington Blvd/Northup Wy	Central Way	Northup Way (City Limits)
Kirkland Ave/Kirkland Way	Lake St	NE 85 th St
Lakeview Dr /NE 68th St/NE 70th St	Lake Washington Blvd	132nd Ave NE
Market St/98th Ave NE/100th Ave NE	Central Way	NE 145 th St (City Limits)
NE 116th St	98th Ave NE	Slater Ave NE
NE 120th St/132nd Ave NE	Slater Ave NE	NE 60th St (City Limits)
NE 124th St	100th Ave NE	East City Limits
NE 128th St	116 th Ave NE/116 th Way NE	120 th Ave NE
Simonds Rd NE	92 nd Ave NE (City Limits)	100 th Ave NE
Slater Ave NE	NE 116 th St	NE 124 th St
Totem Lake Blvd	NE 132nd St	124th Ave NE
3 rd Street/State Street	Central Way	NE 68 th Street/Lakeview Dr.
6 th St/6 th St S/108 th Ave NE	Central Way/NE 85th St	South City Limits
90th Ave NE/NE 131st Way/NE 132nd St	NE 134 th St	132nd Ave NE
120 th Ave NE/116 th Ave NE/116 th Way NE	NE 112 th St	NE 132 nd St
124th Ave NE	NE 85th St	NE 124th St
124th Ave NE	NE 132 nd St	NE 145 th PI (City Limits)

Add the following new section:

1-08.0(2) Hours of Work

(December 8, 2014 APWA GSP)

Except in the case of emergency or unless otherwise approved by the Engineer, the normal working hours for the Contract shall be any consecutive 8-hour period between 7:00 a.m. and 6:00 p.m. Monday through Friday, exclusive of a lunch break. If the Contractor desires different than the normal working hours stated above, the request must be submitted in writing prior to the preconstruction conference, subject to the provisions below. The working hours for the Contract shall be established at or prior to the preconstruction conference.

All working hours and days are also subject to local permit and ordinance conditions (such as noise ordinances).

If the Contractor wishes to deviate from the established working hours, the Contractor shall submit a written request to the Engineer for consideration. This request shall state what hours are being requested, and why. Requests shall be submitted for review no later than **5 working days** prior to the day(s) the Contractor is requesting to change the hours.

If the Contracting Agency approves such a deviation, such approval may be subject to certain other conditions, which will be detailed in writing. For example:

- 1. On non-Federal aid projects, requiring the Contractor to reimburse the Contracting Agency for the costs in excess of straight-time costs for Contracting Agency representatives who worked during such times. (The Engineer may require designated representatives to be present during the work. Representatives who may be deemed necessary by the Engineer include, but are not limited to: survey crews; personnel from the Contracting Agency's material testing lab; inspectors; and other Contracting Agency employees or third party consultants when, in the opinion of the Engineer, such work necessitates their presence.)
- 2. Considering the work performed on Saturdays, Sundays, and holidays as working days with regard to the contract time.

- 3. Considering multiple work shifts as multiple working days with respect to contract time even though the multiple shifts occur in a single 24-hour period.
- 4. If a 4-10 work schedule is requested and approved the non working day for the week will be charged as a working day.

1-08.1 Subcontracting

(1/1/2016 COK GSP)

Section 1-08.1 is supplemented with the following:

A Subcontractor or an Agent to the Subcontractor will not be permitted to perform any work under the contract until the following documents have been completed and submitted to the Engineer:

- 1. Request to Sublet Work (form 421-012).
- 2. Statement of Intent to Pay Prevailing Wages (Form 700-029-000).

The Contractor's records pertaining to the requirements of this Special Provision shall be open to inspection or audit by representatives of the Department during the life of the contract and for a period of not less than three years after the date of acceptance of the contract. The Contractor shall retain these records for that period. The Contractor shall also guarantee that these records of all Subcontractors and Agents shall be open to similar inspection or audit for the same period.

(1/1/2016 COK GSP)

1-08.3 Progress Schedule

The order of work will be at the Contractor's option, in keeping with good construction practice and the terms of the contract. All work shall be carried out in accordance with the requirements of the City of Kirkland in compliance with the plans and specifications. However, the Contractor shall so schedule the work within the time constraints noted in the various contract documents, including any permits. The Contractor is cautioned to review said documents and permits and schedule the work appropriately as no additional compensation will be made to the Contractor due to the time constraints imposed by such documents.

(March 13, 2012 APWA GSP)

1-08.3(2)A Type A Progress Schedule

Revise this section to read:

The Contractor shall submit **5** copies of a Type A Progress Schedule no later than<u>at the</u> <u>preconstruction conference</u>, or some other mutually agreed upon submittal time. The schedule may be a critical path method (CPM) schedule, bar chart, or other standard schedule format. Regardless of which format used, the schedule shall identify the critical path. The Engineer will evaluate the Type A Progress Schedule and approve or return the schedule for corrections within 15 calendar days of receiving the submittal.

(July 23, 2015 APWA GSP)

1-08.4 Prosecution of Work

Delete this section in its entirety, and replace it with the following:

1-08.4 Notice to Proceed and Prosecution of Work

Notice to Proceed will be given after the contract has been executed and the contract bond and evidence of insurance have been approved and filed by the Contracting Agency. The Contractor shall

not commence with the work until the Notice to Proceed has been given by the Engineer. The Contractor shall commence construction activities on the project site within ten days of the Notice to Proceed Date, unless otherwise approved in writing. The Contractor shall diligently pursue the work to the physical completion date within the time specified in the contract. Voluntary shutdown or slowing of operations by the Contractor shall not relieve the Contractor of the responsibility to complete the work within the time(s) specified in the contract.

When shown in the Plans, the first order of work shall be the installation of high visibility fencing to delineate all areas for protection or restoration, as described in the Contract. Installation of high visibility fencing adjacent to the roadway shall occur after the placement of all necessary signs and traffic control devices in accordance with 1-10.1(2). Upon construction of the fencing, the Contractor shall request the Engineer to inspect the fence. No other work shall be performed on the site until the Contracting Agency has accepted the installation of high visibility fencing, as described in the Contract.

(September 12, 2016 APWA GSP, Option A)

1-08.5 TIME FOR COMPLETION

Revise the third and fourth paragraphs to read:

Contract time shall begin on the first working day following the Notice to Proceed Date.

Each working day shall be charged to the contract as it occurs, until the contract work is physically complete. If substantial completion has been granted and all the authorized working days have been used, charging of working days will cease. Each week the Engineer will provide the Contractor a statement that shows the number of working days: (1) charged to the contract the week before; (2) specified for the physical completion of the contract; and (3) remaining for the physical completion of the contract. The statement will also show the nonworking days and any partial or whole day the Engineer declares as unworkable. Within 10 calendar days after the date of each statement, the Contractor shall file a written protest of any alleged discrepancies in it. To be considered by the Engineer, the protest shall be in sufficient detail to enable the Engineer to ascertain the basis and amount of time disputed. By not filing such detailed protest in that period, the Contractor shall be deemed as having accepted the statement as correct. If the Contractor is approved to work 10 hours a day and 4 days a week (a 4-10 schedule) and the fifth day of the week in which a 4-10 shift is worked would ordinarily be charged as a working day then the fifth day of that week will be charged as a working day then the fifth day.

Revise the sixth paragraph to read:

The Engineer will give the Contractor written notice of the completion date of the contract after all the Contractor's obligations under the contract have been performed by the Contractor. The following events must occur before the Completion Date can be established:

- 1. The physical work on the project must be complete; and
- 2. The Contractor must furnish all documentation required by the contract and required by law, to allow the Contracting Agency to process final acceptance of the contract. The following documents must be received by the Project Engineer prior to establishing a completion date:
 - a. Certified Payrolls (per Section 1-07.9(5)).
 - b. Material Acceptance Certification Documents
 - c. Monthly Reports of Amounts Credited as DBE Participation, as required by the Contract Provisions.
 - d. Final Contract Voucher Certification
 - e. Copies of the approved "Affidavit of Prevailing Wages Paid" for the Contractor and all Subcontractors
 - f. Property owner releases per Section 1-07.24

(1/1/2016 COK GSP)

Section 1-08.5 is supplemented with the following:

This project shall be considered substantially completed within 35 working days. 10 additional working days will be provided for punchlist completion. This anticipates the project will be physically complete in its entirety in no more than 45 working days.

(1/1/2016 COK GSP)

1-08.9 Liquidated Damages

The third paragraph of Section 1-08.9 is revised to read as follows: Accordingly, the Contractor agrees:

- 1. To pay (according to the following formula) liquidated damages for each working day beyond the number of working days established for Physical Completion, and
- 2. To authorize the Engineer to deduct these liquidated damages from any money due or coming to the Contractor.

LIQUIDATED DAMAGES FORMULA

For C > $$50,000 \rightarrow LD = 0.15 \times C \div T$, and For C ≤ $$50,000 \rightarrow LD = 0.30 \times C \div T$.

Where:

- LD = liquidated damages per working day (rounded to the nearest dollar)
- C = original Contract amount
- T = original time for Physical Completion

(August 14, 2013 APWA GSP)

Revise the fourth paragraph to read:

When the Contract Work has progressed to Substantial Completion as defined in the Contract. The Engineer may determine that the work is Substantially Complete. The Engineer will notify the Contractor in writing of the Substantial Completion Date. For overruns in Contract time occurring after the date so established, the formula for liquidated damages shown above will not apply. For overruns in Contract time occurring after the Substantial Completion Date, liquidated damages shall be assessed on the basis of direct engineering and related costs assignable to the project until the actual Physical Completion Date of all the Contract Work. The Contractor shall complete the remaining Work as promptly as possible. Upon request by the Project Engineer, the Contractor shall furnish a written schedule for completing the physical Work on the Contract.

1-09 MEASUREMENT AND PAYMENT

1-09.2 Weighing Equipment

(July 23, 2015 APWA GSP, Option 2)

1-09.2(1) General Requirements for Weighing Equipment Revise item 4 of the fifth paragraph to read:

4. Test results and scale weight records for each day's hauling operations are provided to the Engineer daily. Reporting shall utilize WSDOT form 422-027, Scaleman's Daily Report, <u>unless the printed ticket contains the same information that is on the Scaleman's Daily Report Form. The scale operator must provide AM and/or PM tare weights for each truck on the printed ticket.</u>

(1/1/2016 COK GSP)

1-09.2(1) General Requirements for Weighing Equipment

The second to last paragraph of Section 1-09.2(1) is supplemented with the following: **Trucks and Tickets**

All tickets shall, at a minimum, contain the following information:

- 7. Ticket serial number
- 8. Date and hour of weighing
- 9. Weigher's identification

Duplicate tally tickets shall be prepared to accompany each truckload of materials delivered to the project.

It is the responsibility of the Contractor to see that tickets are given to the Inspector on the project for each truckload of material delivered. Pay quantities will be prepared on the basis of said tally tickets, delivered to the Inspector at time of delivery of materials. Tickets not collected at the time of delivery will not be honored for payment.

(May 2, 2017 APWA GSP)

1-09.2(5) Measurement

Revise the first paragraph to read:

Scale Verification Checks – <u>At the Engineer's discretion, the Engineer may perform verification</u> <u>checks on</u> the accuracy of each batch, hopper, or platform scale used in weighing contract items of Work.

(October 10, 2008 APWA GSP)

1-09.6 Force Account

Supplement this section with the following:

The Contracting Agency has estimated and included in the Proposal, dollar amounts for all items to be paid per force account, only to provide a common proposal for Bidders. All such dollar amounts are to become a part of Contractor's total bid. However, the Contracting Agency does not warrant expressly or by implication that the actual amount of work will correspond with those estimates. Payment will be made on the basis of the amount of work actually authorized by Engineer.

(March 13, 2012 APWA GSP)

1-09.9 Payments

Supplement this section with the following:

Lump sum item breakdowns are not required when the bid price for the lump sum item is less than \$20,000.

(March 13, 2012 APWA GSP)

1-09.9 Payments

Delete the first four paragraphs and replace them with the following:

The basis of payment will be the actual quantities of Work performed according to the Contract and as specified for payment.

The Contractor shall submit a breakdown of the cost of lump sum bid items at the Preconstruction Conference, to enable the Project Engineer to determine the Work performed on a monthly basis. A breakdown is not required for lump sum items that include a basis for incremental payments as part

of the respective Specification. Absent a lump sum breakdown, the Project Engineer will make a determination based on information available. The Project Engineer's determination of the cost of work shall be final.

Progress payments for completed work and material on hand will be based upon progress estimates prepared by the Engineer. A progress estimate cutoff date will be established at the preconstruction conference.

The initial progress estimate will be made not later than 30 days after the Contractor commences the work, and successive progress estimates will be made every month thereafter until the Completion Date. Progress estimates made during progress of the work are tentative, and made only for the purpose of determining progress payments. The progress estimates are subject to change at any time prior to the calculation of the final payment.

The value of the progress estimate will be the sum of the following:

- 1. Unit Price Items in the Bid Form the approximate quantity of acceptable units of work completed multiplied by the unit price.
- 2. Lump Sum Items in the Bid Form based on the approved Contractor's lump sum breakdown for that item, or absent such a breakdown, based on the Engineer's determination.
- 3. Materials on Hand 100 percent of invoiced cost of material delivered to Job site or other storage area approved by the Engineer.
- 4. Change Orders entitlement for approved extra cost or completed extra work as determined by the Engineer.

Progress payments will be made in accordance with the progress estimate less:

- 1. Retainage per Section 1-09.9(1), on non FHWA-funded projects;
- 2. The amount of progress payments previously made; and
- 3. Funds withheld by the Contracting Agency for disbursement in accordance with the Contract Documents.

Progress payments for work performed shall not be evidence of acceptable performance or an admission by the Contracting Agency that any work has been satisfactorily completed. The determination of payments under the contract will be final in accordance with Section 1-05.1.

(1/1/2016 COK GSP)

Unless otherwise agreed to by both parties, the work period shall coincide with the calendar month. A check will be mailed or made available to the Contractor no later than thirty (30) days following the last day of the work period.

(July 23, 2015 APWA GSP)

1-09.11(3) Time Limitation and Jurisdiction

Revise this section to read:

For the convenience of the parties to the Contract it is mutually agreed by the parties that any claims or causes of action which the Contractor has against the Contracting Agency arising from the Contract shall be brought within 180 calendar days from the date of final acceptance (Section 1-05.12) of the Contract by the Contracting Agency; and it is further agreed that any such claims or causes of action shall be brought only in the Superior Court of the county where the Contracting Agency headquarters is located, provided that where an action is asserted against a county, RCW 36.01.05 shall control venue and jurisdiction. The parties understand and agree that the Contractor's failure to bring suit within the time period provided, shall be a complete bar to any such claims or causes of action. It is further mutually agreed by the parties that when any claims or causes of action which the Contractor asserts against the Contracting Agency arising from the Contract are filed with the Contracting Agency

or initiated in court, the Contractor shall permit the Contracting Agency to have timely access to any records deemed necessary by the Contracting Agency to assist in evaluating the claims or action.

1-09.12(1) Audits General

Shall be supplemented with the following:

The Contractor shall maintain accurate records and accounts to facilitate the Owner's audit requirements and shall ensure that all subcontractors maintain auditable records.

These Project records shall be separate and distinct from the Contractor's other records and accounts.

All such records shall be available to the Owner and to Washington State Department of Ecology personnel for examination. All records pertinent to this project shall be retained by the Contractor for a period of three (3) years after the final audit.

1-09.13 CLAIMS RESOLUTION

(October 1, 2005 APWA GSP)

1-09.13(3) Claims \$250,000 or Less

Delete this Section and replace it with the following:

The Contractor and the Contracting Agency mutually agree that those claims that total \$250,000 or less, submitted in accordance with Section 1-09.11 and not resolved by nonbinding ADR processes, shall be resolved through litigation unless the parties mutually agree in writing to resolve the claim through binding arbitration.

(1/1/2016 COK GSP)

1-09.13(3) Claims \$250,000 or Less

Delete this Section and replace it with the following:

The Contractor and the Contracting Agency mutually agree that those claims that total \$250,000 or less, submitted in accordance with Section 1-09.11 and not resolved by nonbinding ADR processes, provided Contracting Agency agreed to engage such ADR processes, shall be resolved through litigation unless the parties mutually agree in writing to resolve the claim through binding arbitration.

(July 23, 2015 APWA GSP)

1-09.13(3)A Administration of Arbitration

Revise the third paragraph to read:

The Contracting Agency and the Contractor mutually agree to be bound by the decision of the arbitrator, and judgment upon the award rendered by the arbitrator may be entered in the Superior Court of the county in which the Contracting Agency's headquarters is located, provided that where claims subject to arbitration are asserted against a county, RCW 36.01.05 shall control venue and jurisdiction of the Superior Court. The decision of the arbitrator and the specific basis for the decision shall be in writing. The arbitrator shall use the Contract as a basis for decisions.

1-10 TEMPORARY TRAFFIC CONTROL

(1/1/2016 COK GSP)

1-10.2 Traffic Control Management

1-10.2(2) Traffic Control Plans

The first and second sentences of Section 1-10.2(2) are deleted and replaced with the following:

The Contractor shall submit a traffic control plan or plans showing a method of handling traffic including pedestrian and bicycle traffic. All construction signs, flaggers, spotters, traffic control

supervisors, and other traffic control devices shall be shown on the traffic control plan(s) except for emergency situations.

1-10.5 Payment

(January 23, 2006 APWA GSP)

1-10.5(1) Lump Sum Bid for Project (No Unit Items)

Revise the pay item name to read:

Project Temporary Traffic Control	LS

1-10.5(3) Reinstating Unit Items with Lump Sum Traffic Control

Costs for layout, installation, removal, and transport of project signage shall be included with the Contract lump sum price for "Project Temporary Traffic Control." This Bid item shall also constitute full compensation for all labor, tools, equipment, and materials necessary and incidental to maintaining temporary driving surface as required by Section 1-07.23(1), traffic and pedestrian control as required throughout the project duration in compliance with the MUTCD including, but not limited to, reflective signage, barricades, lights, traffic control Supervisor during all periods of construction activities shall be included in the lump sum Bid item "Project Temporary Traffic Control".

No separate payment will be made for preparation of the Traffic Control or Detour Plans. All costs for developing, updating, and implementing Traffic Control or Detour Plans shall be included in "Project Temporary Traffic Control".

END OF DIVISION 1

DIVISION 2 - EARTHWORK

2-02 REMOVAL OF STRUCTURES AND OBSTRUCTIONS (*****)

2-02.3(3) Removal of Pavement, Sidewalks, Curbs, and Gutters

Item 1 in Section 2-02.3(3) is revised to read:

1. Haul broken-up pieces to off-project site, to become property of contractor.

Section 2-02.3(3) is supplemented with the following:

Saw Cutting

All full-depth saw cuts shall be continuous, and shall be made with saws specifically equipped for the purpose. No skip cutting or jack hammering will be allowed unless specifically approved otherwise in writing by the Engineer. The location of all pavement cuts shall be where shown in the Plans or as approved by the Engineer in the field before cutting commences.

The approximate thickness of the asphalt concrete pavement is variable between 4 and 8 inches.

Section 2-02.3 is supplemented with the following:

2-02.3(4) Removal and/or Relocation of Structures and Obstructions

1. **Removal.** Structures that impede the construction of improvements and associated infrastructure must be removed or relocated as shown on the contract plans. Structures to be removed on this project include type 1 catch basins and any associated pipe as necessary to facilitate the installation of associated infrastructure. These structures are noted for removal on the contract plans.

STA 19+42.47, 19.76' LT STA 22+10.76, 18.25' LT

 Relocation. Structures and obstructions that impede the construction of improvements and associated infrastructure must be removed or relocated as shown on the contract plans. Structures to be relocated on this project dry utility lines and junction boxes as necessary to facilitate the installation of associated infrastructure. These structures are noted for removal on the contract plans. Approximate location is listed below.

STA 19+41.39, 22.34' LT

 Junction box: reset north further into plated strip to create separation from proposed water quality structure in vicinity.

Dry utilities to be relocated shall be coordinated with respective dry utilities purveyors. Dry utilities purveyors shall be notified in advance of work to be performed so as to coordinate relocation responsibilities and obtain any permit documents necessary for relocation as shown in the contract documents.

2-02.4 Measurement

Section 2-02.4 is supplemented with the following:

Saw cutting existing pavement will be measured by the linear foot along the surface being cut.

Removing curb and gutter will be measured by the linear foot along the line and slope of the existing curb and gutter prior to removal

Removing sidewalk will be measured by the square yard of sidewalk removed prior to removal.

Removal of asphalt concrete pavement will be measured by the square yard prior to removal.

Removal and/or relocation of structures and obstructions will be measured by lump sum for the services rendered.

2-02.5 Payment

Add the following to the end of the first paragraph of this section:

Removal and/or Relocation of Structures and Obstructions	LS

Shall include all labor, equipment, methods, and materials necessary and incidental to complete the work for removal and or relocation of catch basins, water main, dry utilities or junction boxes per 2-02.3(4). Including hauling of material underneath whether soil, concrete, and asphalt shall be incidental to this bid item. Any backfill and compaction of the resulting voids will be incidental to this bid item. Coordination with respective utility purveyors will be incidental to this item. This item shall include all costs associated with relocating water main, including pipe, pipe bedding, fittings, blocking and any testing required for restoring service to main.

Saw Cutting	LF

The unit Contract price per linear foot for "Saw Cutting" shall be full pay for all costs necessary to complete the Work as specified regardless of the depth encountered or the material to be cut, including collection, removal, and disposal of slurry.

Removing Cement Conc. Sidewalk	SY
Removing Cement Conc. Curb and Gutter	LF
Removing Asphalt Conc. Pavement	SY

The unit Contract price per square yard for "Removing Asphalt Conc. Pavement" shall be full pay for performing the Work as specified, including disposal.

END OF DIVISION 2

DIVISION 5 - SURFACE TREATMENTS AND PAVEMENT

5-04 HOT MIX ASPHALT (*****)

5-04.1 Description

Section 5-04.1 is supplemented with the following

Hot Mix Asphalt paving activities include all relevant paving, grading, subgrade backfill and compaction and all necessary materials to conform pavement trenching for stormwater pipe to City of Kirkland Standard Detail CK-D.02.

5-04.5 Payment

Section 5-04.5 is supplemented with the following

Hot Mix Asphalt paving will include payment for all necessary pavement materials and backfill to conform pavement trenching for stormwater pipe to City of Kirkland Standard Detail CK-D.02.

END OF DIVISION 5

DIVISION 7 - DRAINAGE STRUCTURES, STORM SEWERS, SANITARY SEWERS, WATER MAINS, & CONDUITS

7-05 MANHOLES, INLETS, CATCH BASINS AND DRYWELLS (*****)

7-05.2 Materials

Section 7-05.2 is supplemented with the following

Grate inlets type 2 structure per standard detail B-35.40-00 and shall have dual vaned grates installed. Frame to be per standard detail B-40.40-02 and allow for construction of two vaned grates. Vaned grates to be constructed per City of Kirkland Standard Detail CK-D.14.

7-05.3 Construction Requirements

Section 7-05.3 is supplemented with the following

Grate inlets type 2 structure shall have dual vaned grates installed. Frame and grates to be parallel to and within the curbline with grated rims oriented such that curbline drainage is collected within the vaned grates.

All pipe connections to and from proposed structures shall be PVC pipe unless otherwise allowed by the City and the Engineer. All connections and/or adjustments to structures shall use sand collars with non-shrink grout (no Jet Set will be allowed).

7-05.5 Payment

Section 7-05.5 is supplemented with the following



Grate inlets type 2 payment shall include the cost of all structure bedding, setting of rim to grade and pipe connections as necessary. It shall also include the furnishing of all frames and grates associated with full structure construction. This shall include payment for connection of pipe to proposed structures. Pipe for connections and adjustments as noted in the contract plans shall be paid for separately.

7-06 STORMFILTER WATER QUALITY STRUCTURE (*****)

7-06.1 Description

Water quality structures to be StormFilter units produced by Contech Engineered Solutions, or equal as approved by the Engineer, for the purpose of stormwater treatment. Unit shall be constructed to specifications per contract plans for invert elevations, rim elevations and filtration cartridge quantity, size and flow rates. Unit cut sheets shall be approved by the Engineer prior to purchase and manufacturing. Unit shall be placed and constructed in accordance with manufacturers recommendations and requirements and per all notes and specifications on the contract plans.

7-06.2 Materials

StormFilter water quality structure to be constructed with materials per standard detail located in the contract plans and documents.

Rims on the structure that are within sidewalk areas shall be ADA-compliant with non-slip coating or facing. Rims within sidewalk areas shall meet ADA guidelines for slopes and grade

transitions and shall meet equivalent requirements as WSDOT Standard detail B-30.15-00 or equal as approved by the Engineer.

7-06.3 Construction Requirements

The installation of the StormFilter Water Quality Structure shall conform to all applicable National, State, State Highway, municipal and local Specifications, as well as manufacturer's installation requirements. Excavation activities in the vicinity of trees as noted in the contract plans shall be performed with the consultation of a certified arborist.

7-06.4 Measurement

StormFilter Water Quality Structure of the type and size specified will be measured per each.

7-06.5 Payment

Payment will be made for the following Bid items when included in the Proposal:

1-Cartridge Curb Inlet Stormfilter Catch Basin	EA
2-Cartridge Curb Inlet Stormfilter Catch Basin	EA
3-Cartridge Curb Inlet Stormfilter Catch Basin	EA
2-Cartridge Standard Stormfilter Catch Basin	EA
2-Cartridge Deep Stormfilter Catch Basin	EA
4-Cartridge Linear Stormfilter	EA

The unit Contract price per each for shall be full payment for all costs with furnishing and installing a complete StormFilter Water Quality Structure, as specified. All costs associated with furnishing and installing gravel backfill for bedding of the structure, the setting of rims to grade, furnishing of ADA-compliant rims and the connection of piping shall be included in the unit contract price for the item installed.

END OF DIVISION 7

DIVISION 8 - MISCELLANEOUS CONSTRUCTION

8-01 MISCELLANEOUS CONSTRUCTION

8-01.1 Description (COK GSP)

Section 8-01.1 is supplemented with the following:

Implementation of appropriate TESC BMP's at the appropriate construction phases is very important to prevent siltation of the subgrade, aggregate courses, and final permeable pavement. The Contractor shall install and maintain all temporary and permanent erosion control measures and Best Management Practices (BMPs) in accordance with the Contract Documents, Standard Specifications, Permit Conditions, the Contractors "Stormwater Pollution Prevention Plan" (SWPPP) and as directed by the Engineer prior to clearing, grubbing, or grading or as necessary, as clearing and grading progress. Such measures shall include, but are not necessarily limited to:

- Commercial construction entrances per CK-E.02.
- Quarry Spall outfall pads for temporary erosion control
- Rock, Wattle, Compost sock check dams
- Straw mulch, netting and tackifier
- Concrete wash
- Baker tanks and/or Settling ponds
- Stabilized construction entrance / exit
- Inlet protection on existing and proposed drainage structures
- Reinforced silt fencing
- Plastic Covering
- Temporary pipe slope drains
- Temporary HMA Curb
- Disposal of sediments and materials
- TESC seeding
- Maintenance of BMPs including in the event of emergencies and as weather and field conditions dictate; and also including installation of additional BMPs which may become required as field and weather conditions evolve.
- Street sweeping and Cleaning
- ESC Lead per 8-01 of the Standard Specifications
- All materials, tools and equipment necessary to meet these requirements

The Contractor shall provide erosion control as required for all stockpiled materials at no cost to the Contracting Agency. The Engineer, in the event of an emergency, and as weather and field conditions dictate, may require additional erosion controls and BMPs.

Site Specific BMPs and SWPPP Plan

Temporary Erosion / Water Pollution Control notes and performance criteria are noted in the Contract Documents. The Contractor shall submit his or her own Storm Water Pollution Prevention Plan (SWPPP) to the Contracting Agency for review and approval prior to the commencement of clearing, grubbing, or grading activities.

Water quality testing and discharge volume reporting required by the project permits shall be performed by the Contractor and is a condition of approval of the SWPPP. The reporting data shall be provided to the Engineer as soon as practical, at regular intervals and prior to reporting deadlines established in the permits. The Contractor will provide a copy of the reporting information within 24 hours of a request to do so by the Engineer. All costs to perform these reporting requirements are to be included in the lump sum contract price for "Erosion/Water Pollution Control".

8-01.3 Construction Requirements (COK GSP)

Section 8-01.3 is supplemented with the following:

The Contractor shall bear sole responsibility for damage to completed portions of the project and to property located off the project caused by erosion, siltation, runoff, or other related items during the construction of the project. The Contractor shall also bear sole responsibility for any pollution of rivers, streams, groundwater, or other water that may occur as a result of construction operations.

Any area not covered with established, stable vegetation where no further work is anticipated for a period of 15 days, shall be immediately stabilized with the approved erosion and sedimentation control methods (e.g., seeding and mulching, straw). Where seeding for temporary erosion control is required, fast germinating grasses shall be applied at an appropriate rate (e.g., perennial rye applied at approximately 80 pounds per acre).

At no time shall more than 1 foot of sediment be allowed to accumulate within a catch basin. All catch basins and conveyance lines shall be cleaned at a time designated by the Contracting Agency Construction Inspector.

The cleaning operation shall not flush sediment-laden water into the downstream system. The cleaning shall be conducted using an approved vacuum truck capable of jet rodding the lines. The collection and disposal of the sediment shall be the responsibility of the Contractor at no cost to the Contracting Agency.

8-01.3(1) General

8-01.3(1)A Submittals (COK GSP) Section 8-01.3(1)A is supplement with the following:

Stormwater Pollution Prevention Plan

The Contractor shall prepare a Stormwater Pollution Prevention Plan (SWPPP) in accordance with Department of Ecology requirements.

The Contractor shall incorporate the SWPPP implementation schedule into the Contractor's progress schedule. The SWPPP and implementation schedule shall be submitted in accordance with Sections 1-05.3 and 1-08.3.

In addition, the SWPPP shall outline the procedures to be used to prevent high pH stormwater. The plan shall include how the pH of the water will be maintained between pH 6.5 and pH 8.5 prior to being discharged from the project or entering surface waters. Prior to beginning any concrete or grinding work, the Contractor shall submit the plan, for the Engineer's review and approval. The Ecology template can be found at the following link:

http://www.ecy.wa.gov/programs/wq/stormwater/construction/

The SWPPP is considered a "living" document that shall be revised to account for additional erosion control/pollution prevention BMPs as they become necessary and are implemented in the field during project construction. A copy of the most current SWPPP shall remain on-site at all times and an additional copy shall be forwarded to the Engineer. At the Contractor's preference, revisions to the SWPPP may be forwarded to the Engineer rather than submitting a complete document. Revisions to the SWPPP may be kept on-site in a file along with the original SWPPP document.

8-01.3(1)B Erosion and Sediment Control (ESC) Lead (COK GSP) Supplement this the second paragraph with the following:

3. Inspecting all on-site erosion and sediment control BMPs at least once every five working days and within 24 hours of every runoff event. A SWPPP Inspection report or form shall be prepared for each inspection and shall be included in the SWPPP file. A copy of each SWPPP Inspection report

or form shall be submitted to the Engineer no later than the end of the next working day following the inspection. The report or form shall include, but not be limited to the following:

- a. When, where, and how BMPs were installed, maintained, modified, and removed.
- b. Observations of BMP effectiveness and proper placement.
- c. Recommendations for improving future BMP performance with upgraded or replacement BMPs when inspections reveal SWPPP inadequacies.
- d. Approximate amount of precipitation since last inspection and when last inspection was performed.
- 4. Updating and maintaining a SWPPP file on site that includes, but is not limited to the following:
 - a. SWPPP Inspection Reports or Forms.
 - b. SWPPP narrative.
 - c. Other applicable permits.

8-01.3(1)C Water Management (COK GSP)

Section 8-01.3(1)C is supplemented with the following:

The Contractor will be responsible for meeting the SWPPP requirements.

The Bid Item "Erosion/Water Pollution Control" shall include the cost of providing temporary detention/retention facilities as illustrated in the Contractor's SWPPP Plan as well as modifications, additions and removals of such facility as dictated by the Contractor's sequence of work and may include, but are not limited to:

- 1. Temporary detention/retention facilities such as ponds, Baker Tanks, or other facilities.
- 2. If any permanent stormwater facilities are utilized, such as the detention vault, for SWPPP compliance, the Contractor shall remove accumulated sediment and clean the facility prior to final acceptance at no additional cost to the Contracting Agency.
- 3. Temporary facilities such as wheel wash stations or similar.
- 4. Temporary construction entrances.

No additional compensation shall be made for construction, alteration, removal, maintenance, and any additional requirements necessary for "Erosion/Water Pollution Control". No additional compensation shall be made for conflicts with existing or proposed improvements or construction sequencing of work when facilities are utilized to meet permit requirements.

8-01.4 Measurement (*****)

Section 8-01.4 is supplemented with the following:

Measurement for Erosion/Water Pollution Control shall be Lump Sum.

8-01.5 Payment (*****)

Erosion/Water Pollution Control	Per Lump Sum

The lump sum contract price for "Erosion/Water Pollution Control" shall include the cost of providing temporary detention/retention facilities as illustrated in the Contractor's SWPPP Plan as well as modifications, additions and removals of such facility as dictated by the Contractor's sequence of work and may include, but are not limited to:

- 1. Preparation of SWPPP.
- 2. Temporary detention/retention facilities such as ponds, Baker Tanks, or other facilities.
- 3. If any permanent stormwater facilities are utilized, such as the detention vault, for SWPPP compliance, the Contractor shall remove accumulated sediment and clean the facility prior to final acceptance at no additional cost to the Contracting Agency.
- 4. Temporary facilities such as wheel wash stations or similar.
- 5. Temporary construction entrances.

No additional compensation shall be made for construction, alteration, removal, maintenance, and any additional requirements necessary for "Erosion/Water Pollution Control". No additional compensation shall be made for conflicts with existing or proposed improvements or construction sequencing of work when facilities are utilized to meet permit requirements.

8-04 CURBS, GUTTERS, AND SPILLWAYS(*****)

8-04.3 Construction Requirements

8-04.3(1) Cement Concrete Curbs, Gutters, and Spillways

Supplement Section 8-04.3 with the following:

Cement concrete traffic curb and gutter, type A shall be constructed with air-entrained Class 4000 concrete in accordance with City of Kirkland Standard Details. The gutter pan slope shall match the adjacent paved surface.

8-04.4 Measurement

Add the following to the end of the first paragraph of this section:

Measurement of "Cement Concrete Traffic Curb and Gutter, Type A" shall include crushed rock base course as required by City of Kirkland Pre-approved Plan CK-R.17.

8-04.5 Payment

Add the following to the end of the first paragraph of this section:

Cement Concrete Traffic Curb and Gutter, Type A	Per Linear Foot

The per linear foot price bid for "Cement Concrete Traffic Curb and Gutter, Type A" shall be full compensation for all labor, materials, tools, and equipment necessary and incidental to the complete installation of the full vertical section of the concrete curb and gutter and the concrete vertical curb per City of Kirkland Pre-approved Plan CK-R.17 and the contract plans including all subgrade preparation, cement concrete, crushed rock base course, testing and related materials.

8-05 **POTHOLING** (*****)

8-05.1 Description

Existing utilities will be within the location of existing structures. Potholing locations, as depicted by the contract plans, denote areas that could possibly be utility conflicts with new structures. Excavation to the depth of the top of utilities (pipe, duct bank, etc) is to be performed temporarily and then excavated grade will be replaced.

8-05.2 Materials

Backfill for filling excavation holes is to be like materials as was excavated for pervious, grassed and landscaped areas. Potholing performed within paved areas will be backfilled with gravel borrow per 2-03.3 (14) and will be patched with a 6" thick concrete at the final grade surface.

8-05.3 Construction Requirements

Excavation of potholes shall be performed with care such that existing utilities are not damaged by excavation. Excavation shall be undertaken with a vactor truck and water jet such that utilities are protected from any machine excavation. Spoils from the potholing excavation shall be dispensed of off the project site.

Actual locations of existing underground utilities that are noted to be potholed in the contract plans shall be recorded after potholing and provided to the City of Kirkland project manager and the project engineer.

8-05.4 Measurement

Potholing will be measured per lump sum.

8-05.5 Payment

Payment will be made for the following Bid items when included in the Proposal:

Potholing	EA
-----------	----

The unit Contract price shall be all costs associated with excavation equipment and rentals, disposal of spoils, backfilling and paving of excavated potholes to City of Kirkland standards.

8-14 CEMENT CONCRETE SIDEWALKS (*****)

8-14.3 Construction Requirements

Replace this Section with the following:

Cement concrete sidewalk and curb ramps shall be constructed with Class 4000 Portland Cement Concrete per City of Kirkland Plan No. CK-R.23 for sidewalk construction details.

8-14.4 Measurement

Section 8-14.4 is supplemented with the following:

"Cement Conc. Sidewalk" shall be measured by square yard of horizontal concrete surface area of sidewalks as shown in the Project Plans or as-built if field adjustments to the contract limits are approved

by the Engineer. All sawcutting, excavation, backfill, and compaction; crushed surfacing top course base; forming and finishing; and other ancillary work related to the complete installation of the sidewalk are included in the measurement and incidental to this item.

8-14.5 Payment

Section 8-14.5 is supplemented with the following:

Cement Conc. Sidewalk	Per Square Yard
-----------------------	-----------------

The Contract Bid price for "Cement Conc. Sidewalk", per square yard, shall be full compensation for all labor, tools, materials, and equipment necessary to provide forms; procure and pour concrete; and perform finish work and testing for all concrete at locations and to the lines and grades shown on the Plans. The cost for all incidental items of work, including but not limited to providing expansion joints, joint filler, excavation and base preparation, finishing, and providing white polyethylene sheeting for curing shall be incidental and included in the unit contract price. No additional compensation will be made.

END OF DIVISION 8

PREVAILING WAGE RATES

PREVAILING WAGE RATES

Prevailing wage rates can be found at: <u>www.lni.wa.gov/tradeslicensing/prevwage/wagerates</u>

Use February 18, 2021 rates (published date – use bid date)

King County

A copy of the applicable wage rates is available for viewing in our office:

City Hall Annex 310 1st Street Kirkland, WA 98033

The City of Kirkland will mail a hard copy of the applicable wage rates upon request. Send your request to the Project Engineer.

APPENDIX A STANDARD PLANS









4" MIN.

Α

В





PIPE MATERIAL	MAXIMU INSIDE DIAMETE
REINFORCED OR PLAIN CONCRETE	18"
ALL METAL PIPE	21"
CPSSP * (STD. SPEC. 9-05.20)	18"
SOLID WALL PVC (STD. SPEC. 9-05.12(1))	21"
PROFILE WALL PVC (STD. SPEC. 9-05.12(2))	21"

***** CORRUGATED POLYETHYLENE STORM SEWER PIPE

GRATE INLET TYPE 2

EXPIRES JULY I, 2007

NOTE: BUT AN THE EN FILE AT PORTAT

STANDARD PLAN B-35.40-00

SHEET 1 OF 2 SHEETS

APPROVED FOR PUBLICATION





BAR LIST					BENDING DIAGRAM (ALL DIMENSIONS ARE OUT TO OUT)	6 "	
MARK	LOCATION	QTY.	SIZE	LENGTH	DESCRIPTION	(1) N N N	
1	BOTTOM SLAB AND SIDE WALL	3		5' - 9"			
2	BOTTOM SLAB AND SIDE WALL	2		12' - 5"	-		GRATE
3	BOTTOM SLAB AND SIDE WALL	2		7' - 2"			
4	BOTTOM SLAB AND SIDE WALL	2		2' - 9"	STRAIGHT		
5	WALL	4		9' - 1"	HOOP] (1) 2' - 9" (<u>-2' - 7 1/2</u> ")	4" × 3" × 3/8"
6	SIDE WALL	3		14' - 6"	HOOP	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	STEEL ANGLE
7	UNIT H	2	3	14' - 2"	HOOP	$\begin{bmatrix} 3 & 4' - 2'' \\ (11) & 4' - 2'' \end{bmatrix} = \begin{bmatrix} 7 & 4 & 2 \\ 8 & 4' - 1'' \end{bmatrix}$	
8	UNIT J	2		14' - 2"	HOOP	13 4' - 2"	
8	UNIT K	3		14' - 2"	HOOP	4"	5 1/2" × 1 1/2" × 1/4"
9	UNIT K	4		0' - 9"	STRAIGHT		(3 BOTH ENDS)
10	SIDE WALL	8		2' - 8"	STRAIGHT		
(11)	BOTTOM SLAB AND SIDE WALL	4		7' - 5"		* (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	
(12)	BOTTOM SLAB AND SIDE WALL	3		6' - 0"			
13	SIDE WALL	4		14' - 6"	HOOP		DETAIL

1. The Steel Angles shall be set so that each bearing bar of prefabricated grate shall have full bearing on both ends. The finished top of concrete shall be even with the grate surface.

2. Top of inlet grate shall be placed at ground level to present an unobstructed ditch or median section.

3. All exposed concrete edges shall be finished with a 1/2" radius.

Pipes may enter through the knockouts on any side at any reasonable angle, provided the outside of the pipe can be contained between two opposite walls.

5. The flow line of the outlet pipe shall be 18" minimum above the inside bottom of the inlet structure.

6. The grade line of the top inside of any inlet pipe shall enter no lower than the grade line of the top

7. Unit "H" and optional extension units "J" and "K" shall be grouted in place to the satisfaction of the

8. All pickup holes shall be grouted full after the basin has been placed.

12"

9. See contract for type of grate specified. See Standard Plan B-40.20 and B-40.40 for grate details.





FRAME AND DUAL FOR GRATE INLET **STANDARD PLAN B-40.40-02**







ISOMETRIC

1. Bolt-down capability is required on all frames, grates, and covers, unless specified otherwise in the Contract. Provide 2 holes in the frame that are vertically aligned with the grate or cover slots. The frame shall accept the 304 Stainless Steel (S.S.) 5/8'' (in) - 11 NC × 2'' (in) allen head cap screw by being tapped, or other approved mechanism. Location of bolt-down

NOTES

BOLT-DOWN DETAILS SEE NOTE 1





 WHERE TRENCH IS PERPENDICULAR TO TRAVELED LANES, BACKFILL FULL DEPTH WITH CRUSHED SURFACING—TOP COURSE. WHERE TRENCH IS PARALLEL TO TRAVELED LANES, BACKFILL THE TOP 4' OF TRENCH TO SUBGRADE WITH CRUSHED SURFACING—TOP COURSE. SUITABLE EXCAVATED MATERIAL MAY BE USED PROVIDED 95% MAX. COMPACTION DENSITY (ASTM D1557) CAN BE ACHIEVED.







NOTES:

- 1. USE EAST JORDAN IRON WORKS OR EQUAL TWO BOLT LOCK CAPABILITY THAT MEETS WSDOT SPEC. MANUFACTURER SUBJECT TO APPROVAL BY CITY.
- 2. USE WITH TWO LOCKING BOLTS 5/8"-11 NC STAINLESS TYPE 304 STEEL SOCKET HEAD (ALLEN HEAD) BOLTS, 2" LONG. NOTE SLOT DETAIL.
- 3. MATERIAL IS DUCTILE IRON ASTM A536 GRADE 80-55-06.
- 4. "OUTFALL TO STREAM DUMP NO POLLUTANTS" MAY BE LOCATED ON BORDER AREA.
- 5. SHALL CONFORM TO SEC. 7.05 OF THE STANDARD SPECIFICATIONS.
- 6. WELDING IS NOT PERMITTED.
- 7. EDGES SHALL HAVE 0.125" RADIUS, 0.125" CHAMBER OR COMPLETE DEBURRING.
- 8. USE A BI-DIRECTIONAL VANED GRATE AT ANY LOW POINT OR WHEN FLOWS COME FROM MULTIPLE DIRECTIONS.
- 9. NO EXPANSION MATERIAL IN THE FLOW LINE, WHERE CONCRETE COMES TO FRAME.
- 10. FRAME AND COVER SHALL BE H-20 LOADING RATED IF INSTALLED IN ROADWAY.

CITY OF KIRKLAND

PLAN NO. CK- D.14



VANED GRATE FOR CATCH BASIN AND INLET





TYPICAL PATCH FOR PAVEMENT

NOTES:

- 1. IF THE DISTANCE FROM THE EDGE OF PATCH TO THE EDGE OF PAVEMENT OR CURB AND GUTTER IS LESS THAN 3', THE PATCH MUST CONTINUE TO THE EXISTING EDGE; UNLESS ROADWAY IS OVERLAID WITHIN 60 DAYS.
- 2. HOT MIX ASPHALT SHALL BE CLASS 1/2".
- 3. ALL TRENCH BACKFILL SHALL BE CRUSHED SURFACING TOP COURSE MATERIAL FOR PERPENDICULAR TRENCHES, OR AS DIRECTED BY ENGINEER.
- 4. HMA CLASS 1/2" MAY BE USED IN LIEU OF ATB.
- 5. PATCH MUST ALWAYS BE 1" DEEPER THAN EXISTING ASPHALT; MAX 6" DEEP, OR AS DIRECTED BY ENGINEER.
- 6. TOP SEAL-USE PG 64-22 AND PROVIDE A SAND BLANKET TO ALLEVIATE TRAILING.








- 1. MINIMUM SIX (6) FOOT HIGH TEMPORARY CHAINLINK FENCE SHALL BE PLACED AT THE CRITICAL ROOT ZONE OR DESIGNATED LIMIT OF DISTURBANCE OF THE TREE TO BE SAVED. FENCE SHALL COMPLETELY ENCIRCLE TREE(S). INSTALL FENCE POSTS USING PIER BLOCK ONLY. AVOID POST OR STAKES INTO MAJOR ROOTS. MODIFICATIONS TO FENCING MATERIAL AND LOCATION MUST BE APPROVED BY PLANNING OFFICIAL.
- 2. TREATMENT OF ROOTS EXPOSED DURING CONSTRUCTION: FOR ROOTS OVER ONE (1) INCH DIAMETER DAMAGED DURING CONSTRUCTION, MAKE A CLEAN STRAIGHT CUT TO REMOVE DAMAGED PORTION OF ROOT. ALL EXPOSED ROOTS SHALL BE TEMPORARILY COVERED WITH DAMP BURLAP TO PREVENT DRYING, AND COVERED WITH SOIL AS SOON AS POSSIBLE.
- 3. NO STOCKPILING OF MATERIALS, VEHICULAR TRAFFIC, OR STORAGE OF EQUIPMENT OR MACHINERY SHALL BE ALLOWED WITHIN THE LIMIT OF THE FENCING. FENCING SHALL NOT BE MOVED OR REMOVED UNLESS APPROVED BY THE CITY PLANNING OFFICIAL. WORK WITHIN PROTECTION FENCE SHALL BE DONE MANUALLY UNDER THE SUPERVISION OF THE ON-SITE ARBORIST AND WITH PRIOR APPROVAL BY THE CITY PLANNING OFFICIAL.
- FENCING SIGNAGE AS DETAILED ABOVE MUST BE POSTED EVERY FIFTEEN (15) FEET ALONG THE FENCE. SIGN TO BE MINIMUM 11"X17", AND MADE OF WEATHERPROOF MATERIAL.





CURB INLET FRONT FACE CHANNEL OF CURB 2'-0" CURB INLET CONCRETE CURB. GUTTER. & LOCAL DEPRESSION AT INLET BY CONTRACTOR **SECTION B-B**



1

NON-POWDER COATED STEEL CATCH BASIN CONTECH 28" x 48" ACCESS COVER CONTRACTOR 1 2 28" x 28" ACCESS COVER CONTRACTOR

PERFORMANCE SPECIFICATION

FILTER CARTRIDGES SHALL BE MEDIA-FILLED, PASSIVE, SIPHON ACTUATED, RADIAL FLOW, AND SELF CLEANING. RADIAL MEDIA DEPTH SHALL BE 7-INCHES. FILTER MEDIA CONTACT TIME SHALL BE AT LEAST 37 SECONDS. SPECIFIC FLOW RATE SHALL BE 1 GPM/SF (MAXIMUM). SPECIFIC FLOW RATE IS THE MEASURE OF THE FLOW (GPM) DIVIDED BY THE MEDIA SURFACE CONTACT AREA (SF). MEDIA VOLUMETRIC FLOW RATE SHALL BE 6 GPM/CF OF MEDIA (MAXIMUM).

GENERAL NOTES

- 1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
- 2. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS REPRESENTATIVE. www.ContechES.com
- 3. STORMFILTER WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
- 4. STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' 5' AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
- 5. STEEL STRUCTURE TO BE MANUFACTURED OF 1/4 INCH STEEL PLATE. CASTINGS SHALL MEET AASHTO HS20 LOAD RATING. FOR HS20 LOAD RATING ON STRUCTURE, CONCRETE COLLAR IS REQUIRED AND TO BE PROVIDED BY CONTRACTOR.

INSTALLATION NOTES

- A. ANY SUB-BASE, BACKFILL DEPTH AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STORMFILTER STRUCTURE (LIFTING CLUTCHES PROVIDED).
- D. CATCHBASIN STORMFILTER EQUIPPED WITH 4 INCH (APPROXIMATE) LONG STUBS FOR INLET (IF APPLICABLE) AND OUTLET PIPING.
- E. STANDARD OUTLET STUB IS 8 INCHES IN DIAMETER. MAXIMUM OUTLET STUB IS 15 INCHES IN DIAMETER. CONNECTION TO COLLECTION
- PIPING CAN BE MADE USING FLEXIBLE COUPLING BY CONTRACTOR CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.
- F. FOR H20 LOAD RATING, CONTRACTOR TO PROVIDE CONCRETE COLLAR WITH REINFORCEMENT, AS SHOWN.
- G. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.

STRUCTURE WEIGHT

APPROXIMATE HEAVIEST PICK = 2,830 LBS



|--|

WATER QUALITY FLOW RATE	0.0399 CFS
PEAK FLOW RATE	0.46 CFS
RETURN PERIOD OF PEAK FLOW	N/A YRS
FILTER MEDIA TYPE	ZPG

The design and information shown on this drawing is provided as a service to the project owner, engineer	and contractor by Contech Engineered Solutions LLC ("Contech"). Neither this drawing, nor any part thereof, may be used, reproduced or modified in any manner	without the prior written consent of Contech. Failure to comply is done at the user's own risk and Contech	expressly discialins any ilability or responsibility for such use.	If discrepancies between the supplied information upon which the drawing is based and actual field conditions are encountered as site work monsesses	these discrepancies must be reported to Contech immediately for re-evaluation of the design. Contech	accepts to razonny tor designs based on missing, incomplete or inaccurate information supplied by others.
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						REVISION DESCRIPTION
						DATE
						MARK
	3 CARTRIDGE STEEL CATCH	CURB INLET - 642515-0	NF 120TH KIRKI AND			SILE DESIGNATION. SFC
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SECTION C-C

SECTION D-D

MATERIAL LIST- PROVIDED BY CONTECH

COUNT	DESCRIPTION	INSTALLED BY
2	18", 7.5 GPM, ZPG CARTRIDGE (BLU)	CONTECH
1	FLOW KIT	CONTECH
1	NON-POWDER COATED STEEL CATCH BASIN	CONTRACTOR
1	28" x 28" VANED INLET COVER w/GASKET	CONTRACTOR
1	28" x 48" ACCESS COVER w/GASKET	CONTRACTOR

PERFORMANCE SPECIFICATION

FILTER CARTRIDGES SHALL BE MEDIA-FILLED, PASSIVE, SIPHON ACTUATED, RADIAL FLOW, AND SELF CLEANING. RADIAL MEDIA DEPTH SHALL BE 7-INCHES. FILTER MEDIA CONTACT TIME SHALL BE AT LEAST 38 SECONDS. SPECIFIC FLOW RATE SHALL BE 1 GPM/SF (MAXIMUM). SPECIFIC FLOW RATE IS THE MEASURE OF THE FLOW (GPM) DIVIDED BY THE MEDIA SURFACE CONTACT AREA (SF). MEDIA VOLUMETRIC FLOW RATE SHALL BE 6 GPM/CF OF MEDIA (MAXIMUM).

GENERAL NOTES

- 1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
- 2. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS REPRESENTATIVE. www.ContechES.com
- 3. STORMFILTER WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS
- DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT. 4. STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 5' AND GROUNDWATER ELEVATION AT, OR
- BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
- 5. STEEL STRUCTURE TO BE MANUFACTURED OF 1/4 INCH STEEL PLATE. CASTINGS SHALL MEET AASHTO HS20 LOAD RATING. FOR HS20 LOAD RATING ON STRUCTURE, CONCRETE COLLAR IS REQUIRED AND TO BE PROVIDED BY CONTRACTOR.
- 6. MANUFACTURER TO APPLY A SURFACE BEAD WELD IN THE SHAPE OF THE LETTER "O" ABOVE THE OUTLET PIPE STUB ON THE EXTERIOR SURFACE OF THE STEEL SFCB.

INSTALLATION NOTES

- A. ANY SUB-BASE, BACKFILL DEPTH AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STORMFILTER
- STRUCTURE (LIFTING CLUTCHES PROVIDED).
- D. CATCHBASIN STORMFILTER EQUIPPED WITH 4 INCH (APPROXIMATE) LONG STUBS FOR INLET (IF APPLICABLE) AND OUTLET PIPING.
- E. STANDARD OUTLET STUB IS 8 INCHES IN DIAMETER. MAXIMUM OUTLET STUB IS 15 INCHES IN DIAMETER. CONNECTION TO COLLECTION PIPING CAN BE MADE USING FLEXIBLE COUPLING BY CONTRACTOR.CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT
- CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.
- F. FOR H20 LOAD RATING, CONTRACTOR TO PROVIDE CONCRETE COLLAR WITH REINFORCEMENT, AS SHOWN. G. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.

STRUCTURE WEIGHT

APPROXIMATE HEAVIEST PICK = 2,395 LBS

CONTECH CONTRACT DRAWING



SITE DESIGN DATA

WATER QUALITY FLOW RATE	0.0184 CFS
PEAK FLOW RATE	0.1353 CFS
RETURN PERIOD OF PEAK FLOW	N/A YRS
FILTER MEDIA TYPE	ZPG

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-			6 ENGINEERED SOLUTIONS LLC 642515-0	11835 NE General Widing Drive, Portland, OR 9720 ME 120TH KIRK			
			642515-0	TI 11835 NE CHEM WIGHING DIVINE, PORTIAND, OR 97220 NE 120TH KIRK			



CONTECH CONTRACT DRAWING



SECTION D-D

وصم

INSTALLED BY

CONTECH

CONTECH

CONTRACTOR

CONTRACTOR

CONTRACTOR

SITE DESIGN DATA

WATER QUALITY FLOW RATE	0.0286 CFS
PEAK FLOW RATE	0.59 CFS
RETURN PERIOD OF PEAK FLOW	N/A YRS
FILTER MEDIA TYPE	ZPG

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CONTECH CONTRACT DRAWING

FOR INLET (IF APPLICABLE) AND OUTLET PIPING
5 INCHES IN DIAMETER. CONNECTION TO
CONTRACTOR TO TAKE APPROPRIATE
I RUNOFF.

G.

WATER QUALITY FLOW RATE	0.0133 CFS
PEAK FLOW RATE	0.50 CFS
RETURN PERIOD OF PEAK FLOW	N/A YRS
FILTER MEDIA TYPE	ZPG

SITE DESIGN DATA



L

SECTION D-D

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		CURB INLET - 642515-040	NE 120TH KIRKLAND			
		ENGINEERED SOLUTIONS LLC	WWW.CONTECNES.COM 11815 NE Glenn Widing Drive, Portland, OR 97220	800-548-4667 503-240-3393 800-561-1271 FAX	The Stammarker Managements	Задатата по конструктирати и сталови и предостати и предостати и предостати и предостати и предостати и предост и в литира с водата и предостати и предостати и предостати и предостати и предостати и предостати и предостати на лита гоје до литира с на опредостати и предостати и предостати и предостати и предостати и предостати и пред
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HILL

SHEET:

1 OF











0%")

Ø2" OUTLET PIPE

Ø12" OUTLET STUB

INV. ELEV. 215.88'

FROM FLOWKIT

MATERIAL LIST- PROVIDED BY CONTECH

2'-0"

INSIDE

2'-01/2" OUTSIDE

FRONT FACE

2"x6" BOX TUBE

6

5/4")

OF CURB

4.4

PERMANENT POOL

1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.

ENGINEERED SOLUTIONS REPRESENTATIVE. www.ContechES.com

SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.

CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.

COUNT	DESCRIPTION	INSTALLE
2	18", 7.5 GPM, ZPG CARTRIDGE (BLU)	CONTE
1	FLOW KIT	CONTE
1	SLOPED LID	CONTE
1	NON-POWDER COATED STEEL CATCH BASIN	CONTE
1	28" x 28" ACCESS COVER	CONTRA

28" x 48" ACCESS COVER

PERFORMANCE SPECIFICATION

1

GENERAL NOTES

INSTALLATION NOTES

C

CONTRACTOR



STRUCTURE WEIGHT

APPROXIMATE HEAVIEST PICK = 2,395 LBS

SPECIFIED BY ENGINEER OF RECORD.

STRUCTURE (LIFTING CLUTCHES PROVIDED).



SITE DESIGN DATA

WATER QUALITY FLOW RATE	0.0256 CFS
PEAK FLOW RATE	0.195 CFS
RETURN PERIOD OF PEAK FLOW	N/A YRS
FILTER MEDIA TYPE	ZPG

FILTER CARTRIDGES SHALL BE MEDIA-FILLED, PASSIVE, SIPHON ACTUATED, RADIAL FLOW, AND SELF CLEANING. RADIAL MEDIA DEPTH SHALL BE 7-INCHES. FILTER MEDIA CONTACT TIME SHALL BE AT LEAST 37 SECONDS.

SPECIFIC FLOW RATE SHALL BE 1 GPM/SF (MAXIMUM). SPECIFIC FLOW RATE IS THE MEASURE OF THE FLOW (GPM) DIVIDED BY THE MEDIA SURFACE CONTACT AREA (SF). MEDIA VOLUMETRIC FLOW RATE SHALL BE 6 GPM/CF OF MEDIA (MAXIMUM).

2. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH

3. STORMFILTER WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.

4. STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 5' AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS

5. STEEL STRUCTURE TO BE MANUFACTURED OF 1/4 INCH STEEL PLATE. CASTINGS SHALL MEET AASHTO HS20 LOAD RATING. FOR HS20 LOAD RATING ON STRUCTURE, CONCRETE COLLAR IS REQUIRED AND TO BE PROVIDED BY CONTRACTOR.

A. ANY SUB-BASE, BACKFILL DEPTH AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE

B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STORMFILTER

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PLAN VIEW

(TOP SLAB NOT SHOWN)

MATERIAL LIST - PROVIDED BY CONTECH

COUNT	DESCRIPTION	INSTALLED BY	WATER QUALITY	0.06 CFS
4	18", 7.5 GPM, ZPG CARTRIDGE (BLU)	CONTECH	FLOW RATE	
			PEAK FLOW	0.47 CES
0	2"Ø PVC SLIP PLUG	CONTECH	RATE	0.47 01 0
1	FLOW KIT (LN4)	CONTECH	RETURN PERIOD	N/A YRS
			OF PEAK FLOW	
1	JOINT SEALANT (BY PRECASTER)	CONTRACTOR		
			FILTER MEDIA TYPE	ZPG
1	24 X100 X3.3 WILLIO.3 AFRON, HS-20 HATCH, R&D STEEL OR	CONTECH		
	EQUIVALENT			

PERFORMANCE SPECIFICATION FILTER CARTRIDGES SHALL BE MEDIA-FILLED, PASSIVE, SIPHON ACTUATED, RADIAL FLOW, AND SELF CLEANING. RADIAL MEDIA DEPTH SHALL BE 7-INCHES. FILTER MEDIA CONTACT TIME SHALL BE AT LEAST 38 SECONDS. SPECIFIC FLOW RATE SHALL BE 1 GPM/SF (MAXIMUM). SPECIFIC FLOW RATE IS THE MEASURE OF THE FLOW (GPM) DIVIDED BY THE MEDIA SURFACE CONTACT AREA (SF). MEDIA VOLUMETRIC FLOW RATE SHALL BE 6 GPM/CF OF MEDIA (MAXIMUM).

GENERAL NOTES

- CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE 1
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- FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH 3 ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
- STORMFILTER WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM THAT STRUCTURE MEETS THE REQUIREMENTS OF THE PROJECT 4
- 5. STRUCTURE SHALL MEET AASHTO HS-20 LOAD RATING, ASSUMING GROUND INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDW M306 AND BE CAST WITH THE CONTECH LOGO
- 6. STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-857, A METHOD

INSTALLATION NOTES

- A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE
- SHALL BE SPECIFIED BY ENGINEER OF RECORD В. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REAC STRUCTURE
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- CENTERLINES TO MATCH PIPE OPENING CENTERLINES CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES Ε. RUNOFF

STRUCTURE WEIGHT APPROXIMATE HEAVIEST PICK = 18,000 LBS.

MAX. FOOTPRINT: 3.33' x 10.50'

DRAWING

SITE DESIGN DATA

_		6" 		
		- 0	OUTLE	T BAY
-			-1'-2"	FLOW
			1	
-	- 9'	•		

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IPE TO			www.ContechES.com	9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069	B00-526-3999 513-645-7000 513-645-7993 FAX	The Seminater Dimension	HISPRODUTING REGECTERS OR DECOMMON U.S. PATRITS: 3.22262.554.178.5/77.527.558.77.627.538.64640-04. REAVED FOREIGN IN ENTIG, OR OTHER INTER PROMIS.
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APPENDIX B GEOTECHNICAL REPORT

GEOTECHNICAL REPORT NE 120th Street Sidewalk and Water Quality Improvements Kirkland, Washington

HWA Project No. 2019-193-21

Prepared for LCD, Inc.

December 16, 2020



GEOSCIENCES INC.

DBE/MWBE

Geotechnical Engineering Pavement Engineering Geoenvironmental Hydrogeology Inspection & Testing



LDC Inc. 20210 142nd Avenue NE Woodinville, Washington 98072

Attention: Tom Abbott, P.E.

Subject: GEOTECHNICAL REPORT NE 120th Street Sidewalk and Water Quality Improvements Kirkland, Washington

Dear Mr. Abbott:

As requested, HWA GeoSciences Inc. (HWA) has performed geotechnical engineering evaluations for the proposed NE 120th Street Sidewalk and water quality Improvements Projects in Kirkland, Washington. This geotechnical report includes the results of our field explorations and our engineering analyses for design and construction of the proposed improvements.

We appreciate the opportunity to provide geotechnical engineering services on this project. If you have any questions regarding this report or require additional information or services, please contact the undersigned at your convenience.

Sincerely,

HWA GEOSCIENCES INC.

Donald & Haling

Donald J. Huling, P.E. Geotechnical Engineer, Principal

Enclosure: Geotechnical Report

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1.3 SURFACE CONDITIONS
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GEOTECHNICAL REPORT NE 120th STREET SIDEWALK AND WATER QUALITY IMPROVEMENTS KIRKLAND, WASHINGTON

1. INTRODUCTION

1.1 GENERAL

This report summarizes the results of the geotechnical engineering studies performed to-date by HWA GeoSciences Inc. (HWA) for the proposed NE 120th Street sidewalks and Water quality Improvements Project in Kirkland, Washington. The approximate location of the project site is shown on the Site & Vicinity Map, Figure 1, and on the Site & Exploration Plans, Figures 2A and 2B. Our field explorations involved drilling 6 borings along the alignment. Engineering analyses were conducted to develop design recommendations for the proposed sidewalk and water quality improvements.

1.2 PROJECT UNDERSTANDING

This project involves constructing improvements along the NE 120th Street alignment from Slater Avenue NE to just past 131st Lane NE. These improvements will provide upgraded non-motorized facilities while maintaining adequate life-safety and limiting impact to surrounding properties along this portion of NE 120th Street.

We understand the proposed improvements include installing new sidewalks along the corridor and improving water quality treatment facilities. The project also includes constructing ADAcompliant curbs ramps and installing storm water facilities to support the proposed sidewalk improvements.

1.3 SURFACE CONDITIONS

The project alignment runs west to east along NE 120th Street from Slater Avenue NE to just past 131st Lane NE. The alignment consists of single west and eastbound through lanes. There is a center turn lane initiating at approximately 600 feet east of the Slater Avenue NE intersection, and continuing eastward past the remainder of the project alignment. The roadway is surfaced with asphalt pavement along the alignment. Numerous utilities exist below the roadway and road shoulders. The corridor is fronted in the southeast portion of the alignment by the Lake Washington Institute of Technology. The remaining portions of the alignment primarily feature multi-family residential land use. There is an existing sidewalk along the south side, only along the section of roadway with a center turn lane.

2. FIELD INVESTIGATION AND LABORATORY TESTING

2.1 GEOTECHNICAL SUBSURFACE EXPLORATIONS

Our geotechnical exploration program included surface reconnaissance of the alignment, and drilling six borings. Specific boring locations are indicated on the Site & Exploration Plans, Figures 2A and 2B. Specific details regarding subsurface explorations are provided in the following paragraphs.

Our geotechnical exploration program was conducted on April 14, 2020 and consisted of drilling six borings along the alignment, designated BH-1 through BH-6, using a Diedrich D-50 tracked rig equipped with hollow-stem augers provided and operated by Holocene Drilling, Inc. of Puyallup, Washington. The borings were advanced to depths ranging from 15 to 21.5 feet below the existing ground surface.

Sampling in the boreholes was performed using Standard Penetration Test (SPT) methods. This consists of driving a 2-inch outside diameter split-spoon sampler into the bottom of the borehole at selected depths with a 140-pound drop automatic hammer. During the SPT, samples were obtained by driving the sampler 18 inches with the hammer free-falling 30 inches. The number of blows required for each 6 inches of penetration was recorded. The N-value (or resistance in terms of blows per foot) is defined as the number of blows recorded to drive the sampler the final 12 inches. This resistance provides an indication of the relative density of granular soils and the relative consistency of cohesive soils. If a total of 50 blows was recorded within a single 6-inch interval, the test was terminated, and the blow count was recorded as 50 blows for the number of inches of penetration achieved.

Each exploration was supervised and logged by an HWA geologist. Representative soil samples were obtained from the explorations at selected intervals and taken to our laboratory in Bothell, Washington for further examination and testing. Summary logs of each exploration are presented in Appendix A.

2.2 LABORATORY TESTING

Laboratory tests were conducted at HWA's Bothell, Washington laboratory, on selected samples retrieved from the borings to determine relevant index and engineering properties of the soils encountered at the site. The tests included visual classifications, natural moisture content, and grain size distribution analyses using wet sieve and fines content determination using hydrometer analysis. The tests were conducted in general accordance with appropriate American Society of Testing and Materials (ASTM) standards. The test results and a discussion of laboratory test methodology are presented in Appendix B, and/or displayed on the exploration logs in Appendix A, as appropriate.

3. SITE CONDITIONS

3.1 GENERAL GEOLOGIC CONDITIONS

The project is located within the Puget Lowland. The Puget Lowland has repeatedly been occupied by a portion of the continental glaciers that developed during the ice ages of the Quaternary period. During at least four periods, portions of the ice sheet advanced south from British Columbia into the lowlands of Western Washington. The southern extent of these glacial advances was near Olympia, Washington. Each major advance included numerous local advances and retreats, and each advance and retreat resulted in its own sequence of erosion and deposition of glacial lacustrine, outwash, till, and drift deposits. Between and following these glacial advances, sediments from the Olympic and Cascade Mountains accumulated in the Puget Lowland. As the most recent glacier retreated, during the Vashon stade of the Fraser Glaciation, it uncovered a sculpted landscape of elongated, north-south trending hills and valleys between the Cascade and Olympic mountain ranges. This landscape is composed of a complex sequence of glacial and interglacial deposits.

Geologic information specific to the project area was obtained from the *Geologic Map of the Kirkland Quadrangle, Washington* (Minard, 1983). According to this map, the near-surface deposits in the vicinity of the project consist of soils associated with the Vashon Stade of the most recent continental glaciation (Fraser Glaciation). The map indicates the site is underlain by glacial till. Generally, glacial till is an unsorted unit consisting of clay, silt, sand, gravel, cobbles and boulders that were deposited during glacial retreat. Glacial till is a glacially overridden, overconsolidated unit.

The project alignment is located on a north to south trending hill. The elevation at the west end of the alignment is approximately 175 feet, and increases steadily to approximately 290 at the eastern alignment terminus. There is a prehistoric landslide identified approximately 600 feet northeast from the eastern alignment terminus. Prehistoric landslides are described as having failed over 150 years ago.

There is a South Whidbey Island Fault trace located approximately 1 mile northeast of the project alignment. The South Whidbey Island Fault is described as prehistoric, last rupturing at least 15 thousand years ago. The slip rate of this fault is unknown.

3.2 SUBSURFACE SOIL CONDITIONS

The soils encountered in our explorations are consistent with the general geologic conditions described in Section 3.1 of this report. In general, the encountered soils included various types of fill soils, typically silty to gravelly sand. Fill was encountered in borings BH-2, BH-3, and BH-5. The underlaying units typically encountered were weathered glacial drift and ice contact stratified drift. Ice contact stratified drift is a glacially overridden, overconsolidated unit similar to till. Glaciolacustrine deposits were encountered in the bottom approximately 4.5 feet of BH-5. Further descriptions of soils encountered in our explorations are presented below in order of

deposition, beginning with the most recently deposited. The exploration logs in Appendix A provide more detail of subsurface conditions observed at specific locations and depths.

- **Fill:** Fill was encountered in boreholes BH-2, BH-3, and BH-5 to depths of 5.5, 8, and 10 feet, respectively. The fill consisted of very loose to loose, slightly gravelly to gravelly, silty sand. Borehole BH-3 contained scattered organics in this unit, and the borehole was drilled approximately 16 feet from the crest of an 8-foot high fill embankment slope. We anticipate that this fill was placed as part of roadway construction and associated site development and consists of locally derived glacial drift soils. The fill in BH-5 appear to be consistent with trench backfill.
- Weathered Drift: Weathered drift was encountered in all borings, ranging in depth from 3 to 10 feet. The weathered drift consisted of very loose to very dense, slightly gravelly to gravelly, slightly silty to very silty, sand. The unit was massive to faintly stratified. Borehole BH-2 contained charcoal in this unit. This unit is most likely the product of weathering of the underlaying ice contact stratified drift, and was identified by lower density, oxidation, and presence organic materials.
- Ice Contact Stratified Drift: Ice contact stratified drift was encountered in all borings and extended to the full depths explored of 21.5 feet in each boring. The stratified drift consisted of medium dense to very dense, slightly gravelly to gravelly, slightly silty to silty, sand or medium dense to very stiff, slightly gravelly to gravelly, sandy, silt. The silt was both plastic and non-plastic. The unit was massive to stratified. BH-3 contained organics in this unit. Ice contact stratified drift is deposited at the base of and in proximity to a glacier undergoing ephemeral advance and retreat during overall recession, resulting in a more stratified unit than glacial till.

Within boring BH-5, fine-grained soils were encountered within the Ice contact stratified drift deposits. The fine-grained soils consisted of very stiff, slightly gravelly, slightly sandy, clay, grading to hard clay with scattered gravel and sand. These fine-grained soils we likely deposited in a stagnant water body downstream of a glacial terminus.

3.3 GROUNDWATER CONDITIONS

Groundwater was not encountered in boreholes BH-1 or BH-2. Groundwater was encountered in BH-3 through BH-6, ranging in depth from about 7.5 to 15 feet, apparently in localized layers within the Ice Contact Stratified Drift. However, it should be noted that groundwater levels fluctuate seasonally, due to variations in rainfall, irrigation, and on- and off-site land usage. Locally, perched water may be present seasonally above silty layers at shallow depths. Where existing utility trenches are intercepted by excavations, increased groundwater flow is expected due to the trench backfill be more permeable than the native soils.

4. CONCLUSIONS AND RECOMMENDATIONS

4.1 GENERAL

In general, the shallow subsurface soils between Station 10+00 and 18+00 consist of loose fill or loose to medium dense weathered soils. These soils may require some level of over excavation and replacement to provide suitable support for prosed sidewalks and pavement. In addition, the subsurface soils are not conducive to the use of onsite infiltration along the alignment. The native soils possess high fines contents and are expected to be moisture sensitive. Therefore, we do not recommend that the native soil be reused as structural fill for the project. The subsurface soils will support WSDOT standard plan luminaire foundation design, if required.

4.2 SEISMIC CONSIDERATIONS

4.2.1 AASHTO Seismic Design Parameters

Earthquake loading for the project corridor was developed in accordance with Section 3.4 of the *AASHTO Guide Specifications for LRFD Bridge Design*, 2nd Edition, 2011. For seismic analysis, the Site Class is required to be established and is determined based on the average soil properties in the upper 100 feet below the ground surface. Based on our explorations and understanding of site geology, it is our opinion that the proposed alignment is underlain by soils consistent with Site Class D. Therefore, Site Class D should be used with AASHTO seismic evaluations for this project. Table 1 presents recommended seismic coefficients for use with the General Procedure described in AASHTO (2011), which is based upon a design event with a 7 percent probability of exceedance in 75 years (equal to a return period of 1,033 years).

Table 1: Seismic Coefficients for Evaluation UsingAASHTO Guide Specifications Calculated by USGS Seismic Hazard Map

Site Class	Peak Horizontal Bedrock	Spectral Bedrock Acceleration	Spectral BedrockSite CoefficientsPeak H AccelAccelerationAccel	Site Coefficients		Peak Horizontal Acceleration	
	PBA, (g)	at 0.2 sec S _s , (g)	at 1.0 sec S _{1,} (g)	F pga	Fa	$\mathbf{F}_{\mathbf{v}}$	$\mathbf{FGA}(\mathbf{A}_{s}), (\mathbf{g})$
D	0.394	0.876	0.295	1.106	1.149	1.811	0.435

4.2.2 IBC Seismic Design parameters

The City of Kirkland's critical area design code, Chapter 85, requires that the onset of liquefaction, magnitude of liquefaction induced settlement, and stability of existing steep slopes be evaluated based on a seismic event with a 2 percent probability of exceedance in 50 years (equal to a return period of 2,475 years) as defined in the current version of the International

Building Code (IBC). A peak horizontal ground acceleration of 0.538g was applied corresponding to the "Maximum Considered Design Earthquake Event" for the project corridor. This PGA was used to determination the extent of anticipated liquefiable soils, the magnitude of anticipated liquefaction-induced settlement, and global slope stability analyses.

4.2.3 Soil Liquefaction

Liquefaction is a temporary loss of soil shear strength due to earthquake shaking. Loose, saturated cohesionless soils are highly susceptible to earthquake-induced liquefaction; however, recent experience and research has shown that certain silts and low-plasticity clays are also susceptible. Primary factors controlling the development of liquefaction include the intensity and duration of strong ground motions, the characteristics of subsurface soils, in-situ stress conditions and the depth to ground water.

City of Kirkland's critical area maps indicate that the western portion of the project alignment possess a high potential for the onset of liquefaction. Whereas the eastern portion of the project alignment is mapped as having a low potential for the onset of liquefaction. Based on soil and groundwater conditions, observed in our geotechnical boring, the onset of widespread liquefaction is not expected along the alignment.

Liquefaction analysis was completed at the location of borings BH-3 and BH-5, where loose to medium dense saturated soils were observed at the time of drilling. Liquefaction analysis was not completed at the locations of borings BH-1, BH-2, BH-4, and BH-6 due very dense soils and suppressed groundwater. All liquefaction analyses were completed assuming a seismic event with a 2 percent probability of exceedance in 50 years (equal to a return period of 2,475 years). Results of our liquefaction analysis are presented in Appendix C of this report.

Our analysis suggest that thin layers of potentially liquefiable soils were identified in borings BH-3 and BH-5. These layers were encountered between 12 and 17 feet below ground surface in boring BH-3 and 7 and 12 feet below ground surface in boring BH-5. It should be noted that the potentially liquefiable material observed in boring BH-5 is likely trench backfill material. Therefore, the lateral extent and thickness of this material is difficult to determine but likely not representative of the site as a whole. The onset of liquefaction at these locations is not expected to significantly affect the proposed improvements or stability of the site and site slopes.

Liquefaction induced settlements, at the ground surface, are expected to occur in the vicinity the locations of borings BH-3 and BH-5. Our analysis suggest that these settlements may range between 1 and 2 inches as a result of the design earthquake, as shown on Appendix C.

It is our understanding that the City of Kirkland does not current have a policy with respect to mitigation of liquefaction induced settlement for transportation projects. Therefore, HWA's guiding principal for determining if liquefaction-induced settlement mitigation is needed, is to protect life safety of the traveling public during the design earthquake. As the identified zones of liquefaction are at depths greater than 7 feet below ground surface, we do not expect that the initiation of liquefaction will result in a threat to life safety of the traveling public. Therefore, we

do not recommend implementation of liquefaction mitigation for this project. However, we recommend that proposed improvements, to be founded above the liquefiable layers, be designed to accommodate anticipated liquefaction-induced settlement to the maximum extent possible. After the design earthquake, we expect the roadway will continue to be operational. However, some surface repairs of pavement may be required where liquefaction occurs.

4.3 STEEP SLOPES

4.3.1 Slope Conditions

Per the City of Kirkland's critical area code, Chapter 85, HWA has evaluated the slopes along the project alignment. City of Kirkland critical area maps indicate that some slopes adjacent to the NE 120th Street corridor are steeper than 15 percent. Topographic contours of the alignment and associated adjacent slopes are provided in Figure 2A and 2B. Slope areas ranging between 15% and 40% and slopes greater than 40% are indicated in Figure 2A and 2B. As Shown in Figure 2A, the project site is relatively flat with minimal slopes from project station 10+00 to 17+50. Some minor areas with slopes greater than 40 percent were identified. However, along this portion of the alignment, none of these slopes are higher than 10 feet. Along this portion of the alignment, no evidence of instability was observed, and it is our opinion that the proposed improvements will have no adverse effect on the stability of the minor adjacent slopes.

Along the north side of the roadway, between station 17+50 and 23+75, existing slopes in excess of 40 percent are present, as shown on Figure 2B. These slopes are greater than 10 feet in height. The slopes to the north of the alignment are currently retained with a rockery retaining wall that was likely constructed at the time the adjacent property was developed. The rockery appears to be in good condition and shows no signs of failure. The nearby geotechnical borings suggest that the adjacent slope, retained by the rockery, likely consists of high shear strength glacially consolidated soils.

Along the south side of the alignment, between approximate Station 17+50 and 23+00, the existing slope ranges between 35 and 45 percent and possess a height of greater than 10 feet. This slope is vegetated with mature trees and shows no signs of instability. Nearby geotechnical borings suggest that the adjacent slope likely consists of high shear strength glacially consolidated soils. These soils are not prone to deep seated slope instability. Near surface sloughing can occur at times in these types of soils. However, the existing thick vegetation is expected to resist the development of near surface instability and no evidence of past near surface instability is observed.

4.3.2 Lidar Review

HWA has reviewed the LIDAR imagery of the project alignment in search of evidence of past slope instability and features that may negatively affect the proposed improvements. A copy of the LIDAR image is included in Figure 3 of this report. Slope features shown in the LIDAR image indicate no signs of past or impending instability. The largest slope adjacent to the project

site is located on the north and south sides of NE 120th Street, between approximate Stations 17+50 and 23+50. The LIDAR image shows no signs of instability along these portions of the roadway. Based on review of the LIDAR image, our geotechnical explorations, and observations along the alignment, HWA does not expect the proposed improvements to have a negative impact on adjacent slopes or properties.

4.4 SLOPE STABILITY EVALUATION

HWA performed global slope stability analyses for the existing slope to the south and north of the project alignment between approximate Station 17+50 and 23+00. The analyses for the existing slope were performed using an approximated cross-section generated perpendicular to the roadway. No survey information has been provided for either slope at this time; an estimation of the topographic relief of the slope and the height of the rockery wall has been produced based on aerial photographs and lidar data. It should be noted that HWA did not evaluate the internal stability of the existing rockery wall. Global slope stability analyses were conducted extending beneath the existing rockery. The location and orientation of the slope stability cross-section evaluated can be seen on Figure 2B, the Site and Exploration Plan.

Global slope stability was evaluated using limit equilibrium methods for two scenarios: (1) static loading and (2) pseudo-static earthquake loading. In the pseudo-static earthquake loading analysis, a constant horizontal acceleration of one-half of the peak horizontal ground acceleration of the "Maximum Considered Design Earthquake Event," or 0.269 g, was applied to the slope. Based on our observed slope conditions, we do not anticipate the presence of potentially liquefiable soils within the steep slopes to the north or south of the project alignment. As a result, post-liquefaction slope stability conditions were not considered.

Limit equilibrium analyses were performed using the computer program SLIDE 8.020 to determine the global factor of safety with respect to potential deep-seated failure surfaces. The factor of safety computed is the ratio of the summation of the driving forces to the summation of the resisting forces. Where the factor of safety is less than 1.0, instability is predicted. For global slope stability design, minimum acceptable factors of safety under static loading conditions are commonly taken as 1.5 for slopes supporting structures or walls. For slopes adjacent to structures or minor walls where slope instability would have a lesser effect in terms of safety considerations, the factor of safety may be taken as 1.3. Minimum acceptable factors of safety for the pseudo-static loading cases are 1.1.

The stability of each analysis was evaluated with Spencer's method and GME/Morgenstern-Price method using circular and non-circular failure planes. Slope stability evaluations were completed under the existing conditions.

4.4.1 Static Slope Stability Analysis

The results of the slope stability analysis assuming static loading conditions can be seen in Appendix D as Figures D-1 and D-2. The exiting slope to the south of the roadway was found to

possess a factor of safety in excess of 1.5 under static loading. Therefore, the steep slope to the south of the of the roadway exceeds the Cities standards for static slope stability. Global slope stability analysis in the vicinity of the existing rockery yielded a static factor of safety of 1.37. This is slightly lower than the Cities standards for slopes.

4.4.2 Pseudo-Static Slope Stability Analysis

The results of the slope stability analysis assuming pseudo-static loading conditions can be seen in Appendix D as Figures D-3 and D-4. In the pseudo-static earthquake loading analysis, we applied a constant horizontal acceleration equal to one-half of the design acceleration, or 0.269g. Cross-section A-A' was found to have factors of safety greater than 1.1 for the southern slope but a factor of safety of 1.03 for the northern slope. Therefore, the existing slope to the south of the roadway was found to meet the City standards for steep slopes, whereas the slope retained by the rockery was found to posses a factor of safety slightly below the Cities standards for slopes under seismic loading.

4.4.3 Slope Stability Summary and Recommendations

The above-described slope stability analysis indicates that the steep slope to the south of the roadway alignment, between approximate Stations 17+50 and 23+50, is stable and meets the Cities requirements for both static and seismic loading conditions. Our analysis also indicate that the slope retained by an existing rockery, between approximate Stations 17+50 and 23+50, is stabile under static and seismic loading conditions, but falls below the Cities standards for factors of safety.

Although the factors of safety for slope stability of the existing rockery fall below the Cities standards for both static and seismic loading conditions, we do not expect the response of the subject slope, under either of these loading scenarios, to represent a threat to life safety of the traveling public. Additionally, the proposed project will have no affect on the stability of the rockery or associated slope. Therefore, we do not recommend implementation of any slope mitigation measures for this project.

4.5 **RETAINING WALLS**

4.5.1 General

It is our understanding that the proposed improvements will require the construction of short and low retaining walls at specific points along the alignment. We expect that these walls will consist of cast in place concrete or modular block walls with maximum retained heights less than 3-feet. Based on the anticipated limited height of the walls, geotechnical design is not required. However, we recommend that design of these walls consider standard subgrade preparation and backfill drainage.

4.5.2 General Wall Subgrade Preparation

Subgrade preparation for wall support is important to limit differential settlement of walls and maintain global stability. All organic material should be removed from beneath the entire footprint of the walls. Loose or soft native soil should be removed and replaced with "Structural Backfill" or be suitably compacted. Based on the loose nature of the near surface subgrade soils, some over excavation and replacement of subgrade soils should be anticipated, prior to construction of proposed retaining walls. The limits of this over excavation and replacement will need to eb determined in the field by the engineer.

All areas on which the wall will bear should be graded level perpendicular to the wall face and compacted in accordance with Section 2-03.3(14)D of the WSDOT *Standard Specifications* (WSDOT, 2020) with the exception that all relative compaction shall be determined using ASTM D 1557 (Modified Proctor). All retaining walls should be constructed on a minimum 1-foot thick leveling pad consisting of Crushed Surfacing Base Course as specified in Section 9-03.9(3) of the WSDOT *Standard Specifications* (WSDOT, 2020) compacted to 95 percent of the maximum dry density determined using the Modified Proctor.

4.5.3 General Wall Drainage

Drainage should be provided behind all SEW walls and should consist of a perforated, rigid plastic pipes, bedded and backfilled with Gravel Backfill for Drains, as specified in Section 9-03.12(4) of the WSDOT *Standard Specifications* (WSDOT, 2020). The pipes should slope to drain to a suitable outlet.

4.6 LUMINAIRE FOUNDATIONS

We understand that illumination upgrades may be proposed along the project alignment. We expect that these improvements will be designed in accordance with WSDOT *Standard Plans* (WSDOT, 2018) for signal poles and luminaries. WSDOT *Standard Plan* foundation designs are based on allowable lateral bearing pressures of the subsurface soils. The allowable lateral bearing pressures, along the project alignment, were evaluated based on the results of our subsurface explorations program. Our explorations indicate that the subsurface soils along the project alignment generally will provide an allowable lateral bearing pressure of 1,000 psf.

4.6.1 Luminaire Construction Considerations

The shaft excavations for the proposed luminaire locations will extend through loose to medium dense fill soils containing varying amounts of gravel and cobbles for the various proposed locations across the project. The contractor should, therefore, be prepared to case the shaft excavations. Without careful casing placement and soil excavation, the loose to medium dense fill and weathered soils are susceptible to caving due to lack of cohesion resulting in detrimental loss of ground. Should this occur, it may be necessary to recover ground loss through immediate

backfilling of the caved areas with controlled density fill (CDF), followed by re-drilling of the shaft(s) after the CDF has set sufficiently.

Should ground water seepage be encountered and standing water is present at the base of the excavation, concrete should be pumped to the base of the excavation by tremie rather than enddumped from the surface, to facilitate displacement of the standing water.

4.7 STORMWATER MANAGEMENT

It is our understanding the stormwater infiltration is desired along the project alignment. However, the project alignment is underlain by thick deposits of Ice Contact Stratified Drift, which is both silty and glacially overconsolidated. Additionally, seasonally varying perched groundwater is expected to develop along the project alignment. Based on the fine-grained nature of the native of the subsurface soils and the potential for perched groundwater, the use of onsite infiltration as a means of stormwater management is not recommended. Therefore, we recommend that stormwater management consist of detention as a means of flow control.

4.8 GENERAL CONSTRUCTION CONSIDERATIONS

4.8.1 Sidewalk and Road Subgrade Preparation

In areas proposed to accommodate sidewalk or road shoulder, subgrade preparation should begin with the removal of all topsoil, deleterious material, and vegetation. Using a smooth bucket, the soils should be excavated to the proposed subgrade elevation. The exposed subgrade should be inspected by the Geotechnical Engineer, or their representative, and any loose or unsuitable soils should be over-excavated and replaced with properly compacted structural fill. Based on the loose nature of the near surface subgrade soils, we expect that some level of over excavation will be required to provide a suitable based for proposed sidewalks. We recommend that an over excavation and replacement bid item be included in the project documents to cover any required quantities without incurring project cost overruns.

4.8.2 Structural Fill and Compaction

For purposes of this report, material placed under pavement structures or sidewalks, used as trench backfill, or used as backfill behind below-grade structures such as catch basins, infiltration galleries, or pipes, is classified as structural fill. The native soils and onsite fill are expected to be highly variable and moisture sensitive. Therefore, we do not recommend that these soils be reused as structural fill for the project. Structural fill should be imported. Imported structural fill (gravel borrow) should consist of clean, non-plastic, relatively freedraining, sand and gravel free from organic matter or other deleterious materials. Such fill should contain particles of less than 4 inches maximum dimension, with less than 7 percent fines (material passing the No. 200 sieve; based on the ¾-inch fraction), as described in Section 9-03.14(1) of the WSDOT *Standard Specifications* (WSDOT, 2020). Fines should be non-plastic.

Structural fill soils should be moisture conditioned and compacted to the requirements specified in Section 2-03.3(14)C, Method C, of the WSDOT *Standard Specifications* (WSDOT, 2020); except the standard of compaction achieved shall not be less than 95% of the maximum dry density (MDD) determined for the fill material by test method ASTM D1557 (Modified Proctor). Subgrade compaction in road bed areas should conform to the requirements of Section 2 06.3(1) of the WSDOT *Standard Specifications* (WSDOT 2020).

Imported structural fill for sidewalk base should consist of Crushed Surfacing Base Course (CSBC) and Crushed Surfacing Top Course (CSTC), as described in Section 9-03.9(3) of the WSDOT *Standard Specifications* (WSDOT, 2020).

Structural fill should be placed in loose, horizontal, lifts of not more than 8 inches in thickness and at the time of placement, the moisture content of structural fill should be at or near optimum. The procedure required to achieve the specified minimum relative compaction depends on the size and type of compaction equipment, the number of passes, thickness of the layer being compacted, and the soil moisture-density properties.

When the first fill is placed in a given area, and/or anytime the fill material changes, the area should be considered a test section. The test section should be used to establish fill placement and compaction procedures required to achieve proper compaction. The geotechnical consultant should observe placement and compaction of the test section to assist in establishing an appropriate compaction procedure. Once a placement and compaction procedure are established, the contractor's operations should be monitored, and periodic density tests performed to verify that proper compaction is being achieved.

Generally, loosely compacted soils result from poor construction technique or improper moisture content. Soils with a high percentage of silt or clay content are particularly susceptible to becoming too wet, and coarse-grained materials easily become too dry, for proper compaction. Silty or clayey soils with a moisture content too high for adequate compaction should be dried, as necessary, or moisture conditioned by mixing with drier materials, or other treatment methods. For coarse-grained structural fill soils, moisture conditioning by sprinkling before and during compaction is sometimes required to achieve the required relative compaction.

Over-excavated areas should be backfilled with foundation gravel consisting of 1¹/₄ inch minus crushed rock meeting the gradation requirements for Crushed Surfacing Base Course, as described in Section 9-03.9(3) of the WSDOT *Standard Specifications* (WSDOT, 2020).

4.8.3 Wet Weather Earthwork

General recommendations relative to earthwork performed in wet weather or in wet conditions are presented below. These recommendations should be incorporated into the contract specifications.

• Earthwork should be performed in small areas to minimize exposure to wet weather. Excavation of unsuitable and/or softened soil should be followed promptly by

placement and compaction of clean structural fill. The size and type of construction equipment used may need to be limited to prevent soil disturbance. Under some circumstances, it may be necessary to excavate soils with a backhoe to minimize subgrade disturbance caused by equipment traffic.

- For wet weather conditions, the allowable fines content of the structural fill should be reduced to no more than 5 percent by weight of the portion of the fill material passing the ³/₄-inch sieve. The fines should be non-plastic. It should be noted this is an additional restriction on the structural fill materials specified.
- The ground surface within the construction area should be graded to promote surface water run-off and to prevent ponding.
- Within the construction area, the ground surface should be sealed on completion of each shift by a smooth drum vibratory roller, or equivalent, and under no circumstances should soil be left uncompacted and exposed to moisture infiltration.
- Bales of straw and/or geotextile silt fences should be strategically located to control erosion and the movement of soil.

4.8.4 Temporary Excavations

Maintenance of safe working conditions, including temporary excavation stability, is the responsibility of the contractor. In accordance with Part N of Washington Administrative Code (WAC) 296-155, latest revisions, all temporary cuts in excess of 4 feet in height must be either sloped or shored prior to entry by personnel. The existing near surface fill and weathered soil are generally classified as Type C soils per WAC 296-155. Where shoring is not used, temporary cuts in Type C soils should be sloped no steeper than 1½H:1V.

5. CONDITIONS AND LIMITATIONS

We have prepared this draft report for the City of Kirkland and LDC. for use in design of portions of this project. This report should be provided in its entirety to prospective contractors for bidding and estimating purposes; however, the conclusions and interpretations presented in this report should not be construed as our warranty of the subsurface conditions. Experience has shown that soil and ground water conditions can vary significantly over small distances. Inconsistent conditions can occur between explorations and may not be detected by a geotechnical study. If, during future site operations, subsurface conditions are encountered which vary appreciably from those described herein, HWA should be notified for review of the recommendations of this report, and revision of such if necessary.

We recommend HWA be retained to review the plans and specifications to verify that our recommendations have been interpreted and implemented as intended. Sufficient geotechnical monitoring, testing, and consultation should be provided during construction to confirm the conditions encountered are consistent with those indicated by the explorations, to provide

recommendations for design changes should conditions revealed during construction differ from those anticipated, and to verify that the geotechnical aspects of construction comply with the contract plans and specifications.

Within the limitations of scope, schedule and budget, HWA attempted to execute these services in accordance with generally accepted professional principles and practices in the fields of geotechnical engineering and engineering geology in the area at the time the report was prepared. No warranty, express or implied, is made. The scope of our work did not include environmental assessments or evaluations regarding the presence or absence of wetlands or hazardous substances in the soil, surface water, or ground water at this site.

HWA does not practice or consult in the field of safety engineering. We do not direct the contractor's operations and cannot be responsible for the safety of personnel other than our own on the site. As such, the safety of others is the responsibility of the contractor(s). The contractor(s) should notify the owner if it is considered that any of the recommended actions presented herein are unsafe.

_____O•O_____

We appreciate the opportunity to provide geotechnical services on this project. Should you have any questions or comments, or if we may be of further service, please do not hesitate to call.

Sincerely,

HWA GEOSCIENCES INC.



Donald J. Huling, P.E. Geotechnical Engineer, Principal

6. REFERENCES

- American Associate of State Highway and Transportation Officials, 2017, *LRFD Bridge Design* Specifications, 8th Edition, Washington D.C.
- American Association of State Highway and Transportation Officials, 2011, AASHTO Guide Specifications for LRFD Seismic Bridge Design, 2nd edition, Washington, DC.
- Minard, J.P., 1983, *Geologic Map of the Kirkland Quadrangle, Washington*, United State Geological Society, MF-1543, scale 1:24,000.
- WSDOT, 2018, Standard Plans, Washington State Department of Transportation.
- WSDOT, 2019, *Bridge Design Manual (LRFD)*, Washington State Department of Transportation.
- WSDOT, 2020, *Standard Specifications for Road, Bridge and Municipal Construction,* Washington State Department of Transportation.



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EXPLORATION LEGEND



BASE MAP PROVIDED BY: BING AND LDC, INC. 05/14/2020

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APPENDIX A

HWA EXPLORATION LOGS

RELATIVE DENSITY OR CONSISTENCY VERSUS SPT N-VALUE

COHESIONLESS SOILS				COHESIVE SOIL	S
Density	N (blows/ft)	Approximate Relative Density(%)	Consistency	N (blows/ft)	Approximate Undrained Shear Strength (psf)
Very Loose	0 to 4	0 - 15	Very Soft	0 to 2	<250
Loose	4 to 10	15 - 35	Soft	2 to 4	250 - 500
Medium Dense	10 to 30	35 - 65	Medium Stiff	4 to 8	500 - 1000
Dense	30 to 50	65 - 85	Stiff	8 to 15	1000 - 2000
Very Dense	over 50	85 - 100	Very Stiff	15 to 30	2000 - 4000
			Hard	over 30	>4000

USCS SOIL CLASSIFICATION SYSTEM

MAJOR DIVISIONS				GROUP DESCRIPTIONS				
Coarse Grained Soils More than 50% Retained on No. 200 Sieve Size	Gravel and Gravelly Soils	Clean Gravel (little or no fines)	GW	Well-graded GRAVEL Poorly-graded GRAVEL				
	More than 50% of Coarse Fraction Retained on No. 4 Sieve	Gravel with Fines (appreciable	G	1 Silty GRAVEL				
		amount of fines)	GC	Clayey GRAVEL				
	Sand and Sandy Soils 50% or More of Coarse Fraction Passing No. 4 Sieve	Clean Sand	SW	/ Well-graded SAND				
		(little or no fines)	SP	Poorly-graded SAND				
		Sand with	SN	Silty SAND				
		amount of fines)	sc 🖉	Clayey SAND				
Fine Silt	Silt		ML	SILT				
Grained Soils	Grained and Soils Clay	Liquid Limit Less than 50%	CL	Lean CLAY				
				Organic SILT/Organic CLAY				
50% or More Passing No. 200 Sieve Size	Silt and Clay		MH	Elastic SILT				
		Liquid Limit 50% or More	C⊦	Fat CLAY				
			j Single CF	Organic SILT/Organic CLAY				
	Highly Organic Soils			PEAT				

TEST SYMBOLS

%F	Percent Fines						
AL	Atterberg Limits: PL = Plastic Limit LL = Liquid Limit						
CBR	California Bearing Ratio						
CN	Consolidation						
DD	Dry Density (pcf)						
DS	Direct Shear						
GS	Grain Size Distribution						
к	Permeability						
MD	Moisture/Density Relationship (Proctor)						
MR	Resilient Modulus						
PID	Photoionization Device Reading						
PP	Pocket Penetrometer Approx. Compressive Strength (tsf)						
SG	Specific Gravity						
тс	Triaxial Compression						
TV	Torvane						
	Approx. Shear Strength (tsf)						
UC	Unconfined Compression						
SAMPLE TYPE SYMBOLS							
Μ	2.0" OD Split Spoon (SPT)						
	(140 lb. hammer with 30 in. drop)						
	Shelby Tube						
	3-1/4" OD Split Spoon with Brass Rings						
0	Small Bag Sample						
	Large Bag (Bulk) Sample						
	Core Run						
	Non-standard Penetration Test (3.0" OD split spoon)						
GROUNDWATER SYMBOLS							
$\overline{\Delta}$	Groundwater Level (measured at						
Ţ	Groundwater Level (measured in well or						
	Creatianation Ector (mododrod in Woll Of						

COMPONENT DEFINITIONS

COMPONENT	SIZE RANGE
Boulders	Larger than 12 in
Cobbles	3 in to 12 in
Gravel Coarse gravel Fine gravel	3 in to No 4 (4.5mm) 3 in to 3/4 in 3/4 in to No 4 (4.5mm)
Sand Coarse sand Medium sand Fine sand	No. 4 (4.5 mm) to No. 200 (0.074 mm) No. 4 (4.5 mm) to No. 10 (2.0 mm) No. 10 (2.0 mm) to No. 40 (0.42 mm) No. 40 (0.42 mm) to No. 200 (0.074 mm)
Silt and Clay	Smaller than No. 200 (0.074mm)

NGE	DESCRIPTIVE TE

COMPONENT PROPORTIONS

PROPORTION RANGE	DESCRIPTIVE TERMS				
< 5%	Clean				
5 - 12%	Slightly (Clayey, Silty, Sandy)				
12 - 30%	Clayey, Silty, Sandy, Gravelly				
30 - 50%	Very (Clayey, Silty, Sandy, Gravelly)				
Components are arranged in order of increasing quantities.					

NOTES: Soil classifications presented on exploration logs are based on visual and laboratory observation. Soil descriptions are presented in the following general order:

Density/consistency, color, modifier (if any) GROUP NAME, additions to group name (if any), moisture content. Proportion, gradation, and angularity of constituents, additional comments. (GEOLOGIC INTERPRETATION)

Please refer to the discussion in the report text as well as the exploration logs for a more complete description of subsurface conditions.



NE 120th Street Sidewalk and Water Quality Improvements Kirkland, Washington

MOISTURE CONTENT

open hole after water level stabilized)



LEGEND OF TERMS AND SYMBOLS USED ON **EXPLORATION LOGS**

2019-193 PROJECT NO .:

FIGURE:

A-1

DRILLING COMPANY: Holoc DRILLING METHOD: Hollow SAMPLING METHOD: SPT v LOCATION: See Figure 2	ene Drilling Stem Auger, Dietrich D-50 Track Rig v/Autohammer				DATE : DATE (LOGG	STARTI COMPL ED BY:	ED: 4/1 ETED: B. Thu	14/2020 4/14/202 Irber	20		
DEPTH feet) sYMBOL JSCS SOIL CLASS	DESCRIPTION	SAMPLE TYPE SAMPLE NUMBER	PEN. RESISTANCE blows/6 inches)	DTHER TESTS	BROUNDWATER		Star (14	ndard Per 0 lb. weig MBlows	netration 7 Jht, 30" dri per foot	⁻est op)	
	ACP.		шU	0	0 0	:	10	20	30	40	50
- Loose g medium	rading to medium dense, brown, silty, gravelly, fine to SAND, moist. (WEATHERED DRIFT)	S-1	1-3-19	GS		•		•			
5	nse, light olive gray, gravelly,silty, fine to medium noist. (ICE CONTACT STRATIFIED DRIFT) [,] drill action.	S-2	18-28-50/6	n		••••					>>▲
0 - SM Very del SAND, r 1-inch-tl feet.	nse, light olive gray, gravelly, silty, fine to medium noist. nick lens of clean, fine to medium sand at about 10.1	S-3	13-50/4"			••••					>>
5 Very del	eported large rock at 15 feet. Split spoon broke at top ds, almost lost shoe. Poor recovery. nse, light olive gray. gravelly, silty, fine to medium		50/01								>>
Livini SAND. r Borehol due to a No grou Borehol	noist. e BH-1 terminated at 15 feet below ground surface uger refusal. ndwater was observed during drilling. e abandoned with 3/8" bentonite chips.]∑ S-4	50/6"								
)											
_ _5					C		20	40 Water Co	60 ontent (%)	80	100
OTE: This log of subsurface and therefore may no	e conditions applies only at the specified location and on t necessarily be indicative of other times and/or location	the date i s.	indicated			Plas	tic Limi Na	t 📕 🖂	ter Conte	ıquid Lim nt	nt
	NE 120th Stree Sidewalk and Water Quality Kirkland, Washing	et Impro gton	ovemen	ts				BOI B PAGE	RING H-1 E: 1 of 1	:	

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BORING-DSM 2019-193 GPJ 12/15/20

A-3

FIGURE:


BORING-DSM 2019-193.GPJ 12/15/20

A-4

FIGURE:



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A-5



BORING-DSM 2019-193 GPJ 12/15/20

A-6

FIGURE:



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<u>A-7</u>

APPENDIX B

LABORATORY TEST RESULTS

APPENDIX B

LABORATORY INVESTIGATION

Representative soil samples obtained from the explorations were placed in plastic bags to prevent loss of moisture and transported to our Bothell, Washington, laboratory for further examination and testing. Laboratory tests were conducted on selected soil samples to characterize relevant engineering and index properties of the site soils. The results are tabulated in the attached Summary of Material Properties, Figures B-1 through B-4. Laboratory testing was conducted as described below:

MOISTURE CONTENT OF SOIL: The moisture content of selected soil samples (percent by dry mass) was determined in general accordance with ASTM D 2216. The results are shown at the sampled intervals on the appropriate summary logs in Appendix A.

PARTICLE SIZE ANALYSIS OF SOILS: Selected granular samples were tested to determine the particle size distribution of material in accordance with ASTM D 422 (wash sieve or wash sieve and hydrometer methods). The results are summarized on the attached Particle-Size Distribution reports (Figures B-5 through B-8), which also provide information regarding the classification of the samples and the moisture content at the time of testing.

LIQUID LIMIT, PLASTIC LIMIT, AND PLASTICITY INDEX OF SOILS (ATTERBERG LIMITS): Selected cohesive samples were tested using method ASTM D 4318, multi-point method. The results are reported on the attached Liquid Limit, Plastic Limit, and Plasticity Index report, Figure B-9.

			Ŧ	WITY			AT LI	TERBE MITS (°	RG %)				if) تا		NC	
EXPLORATION DESIGNATION	SAMPLE NUMBER	TOP DEPTH (feet)	BOTTOM DEPT (feet)	SPECIFIC GRA	DRY DENSITY (pcf)	MOISTURE CONTENT (%)	LL	PL	PI	% GRAVEL	% SAND	% FINES	UNCONFINED COMPRESSIVI STRENGTH (p	TESTS CONDUCTED	ASTM SOIL CLASSIFICATI	SAMPLE DESCRIPTION
BH-1	S-1	2.5	4.0			7				29.1	57.1	13.8		GS	SM	Brown, silty SAND with gravel
BH-1	S-2	5.0	6.5			9									SM	Light olive-brown, silty SAND
BH-1	S-3	10.0	10.8			8									SM	Grayish-brown, silty SAND with gravel
BH-1	S-4	15.0	15.5													
BH-2	S-1	2.5	4.0			10				18.5	56.3	25.3		GS	SM	Grayish-brown, silty SAND with gravel
BH-2	S-2	5.0	6.0													
BH-2	S-3	7.5	9.0			17				13.0	70.4	16.6		GS	SM	Yellowish-brown, silty SAND
BH-2	S-4	10.0	11.5			10									SM	Grayish-brown, silty SAND with gravel
BH-2	S-5	12.5	13.0													
BH-2	S-6	15.0	15.5			7									SM	Grayish-brown, silty SAND with gravel
BH-2	S-7	20.0	20.4													
BH-3	S-1	2.5	4.0			15				14.5	62.2	23.3		GS	SM	Dark olive-brown, silty SAND
Notes:	 This ta with th "Penet "Other 	ble summa ne report te ration Res Test" abbi	arizes infor ext, other g istance" m reviations a	mation presen raphs and tab ay represent th are defined in t	ted elsewi les, and th ne results the "Leger	here in the le explorat of standar nd of Term	e report tion logs rd (SPT ns and S	and sh s.) or nor Symbols	ould be n-standa s Used	ard pene on Expl	etration	tests. Logs."	See exploratio	n logs.		



SUMMARY OF MATERIAL PROPERTIES

PAGE: 1 of 4

PROJECT NO.: 2019-193

			Ŧ	ИТY			AT LI	TERBE MITS (9	RG %)				ة 1		NC	
EXPLORATION DESIGNATION	SAMPLE NUMBER	TOP DEPTH (feet)	BOTTOM DEPT (feet)	SPECIFIC GRA	DRY DENSITY (pcf)	MOISTURE CONTENT (%)	LL	PL	PI	% GRAVEL	% SAND	% FINES	UNCONFINED COMPRESSIVE STRENGTH (ps	TESTS CONDUCTED	ASTM SOIL CLASSIFICATI	SAMPLE DESCRIPTION
BH-3	S-2	5.0	6.5			15									SM	Dark olive-brown, silty SAND with gravel
BH-3	S-3a	7.5	8.0													
BH-3	S-3b	8.0	9.0													
BH-3	S-4	10.0	11.5			10				35.0	51.5	13.6		GS	SM	Olive-brown, silty SAND with gravel
BH-3	S-5a	12.5	13.4			18									SM	Light olive-brown, silty SAND with gravel
BH-3	S-5b	13.6	14.0													
BH-3	S-6	15.0	16.5			18	NP	NP	NP					AL	SM	Light olive-brown, silty SAND with gravel
BH-3	S-7a	17.5	18.3													
BH-3	S-7b	18.3	19.0													
BH-3	S-8	20.0	21.5													
BH-4	S-1	2.5	4.0			13				22.8	53.9	23.3		GS	SM	Yellowish-brown, silty SAND with gravel
BH-4	S-2	5.0	6.5			10									SM	Olive-brown, silty SAND with gravel
Notes:	 This ta with th "Penetration of the second sec	ble summa ne report te ration Resi Test" abbr	arizes inform ext, other g istance" ma reviations a	mation present raphs and tabl ay represent th are defined in t	ted elsewhes, and the results of he "Legen	here in the e explorat of standar d of Term	e report tion logs rd (SPT ns and \$	and sho s.) or non Symbols	ould be -standa Used	ard pen on Expl	etration	nction tests. Logs."	See exploratic	n logs.		



SUMMARY OF MATERIAL PROPERTIES

PAGE: 2 of 4

PROJECT NO.: 2019-193

_			Ŧ	WITY			AT	TERBE MITS (°	RG %)				Е sf)		NO	
EXPLORATION DESIGNATION	SAMPLE NUMBER	TOP DEPTH (feet)	BOTTOM DEPT (feet)	SPECIFIC GRA	DRY DENSITY (pcf)	MOISTURE CONTENT (%)	LL	PL	PI	% GRAVEL	% SAND	% FINES	UNCONFINED COMPRESSIVI STRENGTH (p	TESTS CONDUCTED	ASTM SOIL CLASSIFICATI	SAMPLE DESCRIPTION
BH-4	S-3	7.5	8.3													
BH-4	S-4	10.0	10.9			9				13.4	56.8	29.7		GS	SM	Grayish-brown, silty SAND
BH-4	S-5	15.0	16.0			11									SM	Grayish-brown, silty SAND with gravel
BH-4	S-6	20.0	20.9													
BH-5	S-1	2.5	4.0			5				40.4	43.0	16.6		GS	SM	Light olive-brown, silty SAND with gravel
BH-5	S-2	5.0	6.5			9									SM	Grayish-brown, silty SAND with gravel
BH-5	S-3	7.5	9.0													
BH-5	S-4	10.0	11.5			11				16.9	50.1	32.9		GS	SM	Dark gray, silty SAND with gravel
BH-5	S-5	12.5	14.0													
BH-5	S-6a	15.0	15.8													
BH-5	S-6b	15.8	16.5													
BH-5	S-7	17.5	19.0			20	33	20	13					AL	CL	Gray, lean CLAY with sand
Notes:	 This ta with th "Penet "Other 	ble summa ne report to ration Res Test" abb	arizes infor ext, other g istance" m reviations a	mation present praphs and tabl ay represent th are defined in t	ted elsewhes, and th ne results of he "Legen	here in the e explorat of standar d of Term	e report tion log: d (SPT ns and \$	and sh s.) or nor Symbols	ould be n-standa s Used	e used ir ard pen on Expl	t conjur etration oration	tests. Logs."	See exploratio	n logs.	1	



SUMMARY OF MATERIAL PROPERTIES

PAGE: 3 of 4

PROJECT NO.: 2019-193

BH-6 BH-6	o SAMPLE & SAMPLE	TOP DEPTH (feet)	BOTTOM DEPT (feet)	PECIFIC GRA	DENSITY	JRE NT (%)							ш С			
BH-5 BH-6 BH-6	S-8	20.0		<u> </u>	DRY (pcf)	MOISTL	LL	PL	PI	% GRAVEL	% SAND	% FINES	UNCONFINED COMPRESSIVE STRENGTH (ps	TESTS CONDUCTED	ASTM SOIL CLASSIFICATIO	SAMPLE DESCRIPTION
BH-6 BH-6	S-1		21.5													
BH-6	0-1	2.5	4.0			14									SM	Light olive-brown, silty SAND
	S-2	5.0	6.0													
BH-6	S-3	7.5	9.0			7				18.9	53.2	27.9		GS	SM	Grayish-brown, silty SAND with gravel
BH-6	S-4	10.0	11.0			10									SM	Grayish-brown, silty SAND with gravel
BH-6	S-5	12.5	14.0			10				13.8	58.9	27.2		GS	SM	Dark gray, silty SAND
BH-6	S-6	15.0	16.5													
BH-6	S-7	20.0	20.4													
Notes: 1. 2. 3.	I. This tal with th 2. "Penetu 3. "Other	ble summa e report te ation Resi Test" abbr	arizes inforn ext, other g istance" ma reviations a	mation presen raphs and tab ay represent th are defined in t	ited elsewh les, and the ne results o the "Legen	ere in the e explorat of standar d of Term	e report tion logs d (SPT) as and S	and sh s.) or nor Symbols	ould be n-standa	e used ir ard pend on Expl	n conjun etration pration	ction tests. :	See exploratio	n logs.		
5.	o. Other		eviations a		the Legen			Symbole	s Oseu (oration	Logs.				



MATERIAL PROPERTIES

PAGE: 4 of 4

PROJECT NO.: 2019-193

B-4 FIGURE:









HWAGRSZ 2019-193.GPJ 5/18/20

FIGURE:





LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS METHOD ASTM D4318

HWAATTB 2019-193.GPJ 5/18/20

PROJECT NO.: 2019-193

APPENDIX C

RESULTS OF LIQUEFACTION ANALYSIS

NE 120th Str

2019-193-21

Project Name

Project Number

10/202

Cohesion Method Friction Angle Method Entered Values

Entered Values

Surcharge Present Surchange Weight No

Do Not Enter Maximum Considere Liquefaction Depth

Liquefiable Silt Friction Angle 60.0 feet

25.0 degree

Calculation s bv Reviewed by

SKS DJH Date Date

| Return Period
 | 2,475 year | |

 | Entry
Acceptable by
Program
 |

 |
 | |

 | | | | Reviewed by
 |
 | Date | | | N1(60)
Method
 | Idriss and
Boulanger | | | | | Liquefaction Triggering
Method
 | Cetin et al. (2016) | | | |
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| Borehole Diameter
 | 6.0 inches | |

 | Blank Cell to be
Filled
 | •

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 | |

 | | | | Reviewed
bv
 |
 | Date | | | Cap
Cohesion
 | No | | | | | Total Estimated
 | 1.085 inches | | | |
| Hammer Efficiency
 | 80% | |

 | Pull Down Menu
 |

 |
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 | | | |
 |
 | | | | Cohesion
Cap
 | Do Not Enter | | | | | Average Residual Friction
 | 19.6 degrees | | | |
| Use of Liners
 | No | |

 | Entry
Unacceptable
 |

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| Data From Boring
 | BH-3 | |

 | bv Program
Output cell
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| Acceleration
 | 0.538 g | |

 | Calculation cell
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| Magnitude
 | 7.08 | |

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| Groundwater Depth
Surface Elevation
 | 12.5 feet
31.0 feet | |

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| Termination Depth
 | 21.5 feet | |

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bottom | Classi
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 | Depth of
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 | USCS
Classificat
 | Field N-Value |
Percent Fines
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Weight | Water
Content | Cohesio | Friction
angle
 | Liquefiable
based on
 | LL | PL | PI | | |
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| 8.5
10
 | 10
13.5 | SM
SM | ICSD

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 | 7.5

 | SM
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30 |
14
13.6
 | 120 | 9 8 | 0 | 34
36
 | yes
yes
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| 13.5
15
 | 15 | SM
SM | ICSD
ICSD

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 | depth at
midpoint of | Soil | Unit Tuno

 | N-Value Blow
 | Percent

 | Unit
 | Water |
Cohesion
 | Friction | based on | LL | PL
 | PI
 | Total at | Effective a | t CE | C.P.
 | CP | CR | N/60) | | CINKA | CN
 | | N1(60) | | Chosen N1/60) |
| intepoint of layer
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 | AASHTO LRFD | FHWA Drilled
Shaft Manual | Idriss and Boulanger | Chosen N1(00) |
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0
 | (degrees)
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60 | (psf)
60 | 1.3 | 1.05
 | 0.75 | 1.00 | 9 | 2.0 | Shaft
2.0 | 1.7
 | 19 | 19 | 16 | 16 |
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-
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780 | 1.3
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1.8
1.6 | 1.7
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1.4
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 | 19
17
15
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Project Name	NE 120th Street	L I	т	URN ON ITERATIVE	CALCS IN	OPTIONS -> I	FORMULAS ->	TOP RIGHT BEF	FORE USING	3		Calculation s by	SKS	Date	11/12/2020	1	Cohesion Method	Entered Values	1	Surcharge Present	No		Maximum Considered Liquefaction Depth	60.0 feet
Project Number	2019-193-21											Reviewed by	DJH	Date	12/10/2020		Friction Angle Method	Entered Values		Surchange Weight	Do Not Enter		Liquefiable Silt Friction Angle	25.0 degrees
Return Period	2,475 year			Entry Acceptable by Program							-	Reviewed bv		Date			N1(60) Method	Idriss and Boulanger					Liquefaction Triggering Method	Cetin et al. (2016)
Borehole Diameter	6.0 inches			Blank Cell to be Filled								Reviewed by		Date			Cap Cohesion	No					Total Estimated Liquefaction	2.135 inches
Hammer Efficiency	80%			Pull Down Menu												-	Cohesion Cap	Do Not Enter					Average Residual Friction Angle	10.3 degrees
Use of Liners	No			Entry Unacceptable by Program															_					
Data From Boring	BH-5			Output cell																				
Acceleration	0.538 g 7 08	1		Calculation cell																				
Groundwater Depth	7.5 feet				1																			
Surface Elevation	31.0 feet																							
Termination Depth	21.5 feet																							
		USCS			Soil	Profile				Field Data					Atterbergs]							
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Depth to top	bottom	Classi	Unit Type		Depth of	USCS	Field N-Value	Percent Fines	Unit	Water	Cohesio	Friction	Liquenable based on		PI	PI								
Depth to top (ft)	bottom (ft)	ficatio n	Unit Type		Depth of SPT (ft)	USCS Classificat	Field N-Value (bpf)	Percent Fines (%)	Unit Weight (ncf)	Water Content	Cohesio n (nef)	Friction angle	based on material	LL (%)	PL (%)	PI (%)								
Depth to top (ft)	bottom (ft)	Classi ficatio n	Unit Type		Depth of SPT (ft)	USCS Classificat ion	Field N-Value (bpf)	Percent Fines (%)	Unit Weight (pcf)	Water Content (%)	Cohesio n (psf)	Friction angle (*)	based on material review	LL (%)	PL (%)	PI (%)								
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Depth to top (ft) 0 10 10 17 17 17 17 17 Elevation at midpoint of layer ft	depth at midpoint of layer f	Classi ficatio n SM SM SM CL CL CL CL CL	Unit Type Fill Westmend (CSD ICSD ICSD ICSD ICSD UNIt Type Unit Type	N-Value Blow Counts (bof)	Depth of SPT (ft) 2.5 5 7.5 10 12.5 5 7.5 10 12.5 17.5 20 Percent Fines	USCS Classificat ion SM SM SM SM SM SM CL CL CL CL Field Dat Unit Weight (ocf)	Field N-Value (bpf) 65 33 3 5 10 24 41 25 41 25 41 25 41 25 41 25 41 25 41 25 41 25 41 25 41 25 41 26 41 26 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Percent Fines (%) 16.6 32.9 33 33 70 70 70 70 70 70 70 70 70 70 70 70 70	Unit Weight (pcf) 120 120 120 120 120 120 120 120 120 120	Water Content (%) 5 9 9 11 11 20 20	Cohesio n (psf) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Friction angle (°) 36 36 36 32 34 34 38 0 0 0	Liqueiane based on raterial ves ves ves ves ves no no no pi	LL (%) - - - - - - - - - - - - - - - - - - -	PL (%) - - - - - - - - - - - - - - - - - - -	Pi (%) - - - - - - - - - - - - - - - - - - -	СВ	CR	cs	N(60)	AASHTO LRFD	Co FHWA Drilled Shaft	rrected Blow Counts CN Idriss and Boulanger	AASHTO LRFD

Elevation at	depth at	Roll		N-Value Blow	Percent	Unit	Water	Cohosion	Friction	based on		DI	ы	Total at	Effective at								CN		N1(60)		
midpoint of layer	layer	Туре	Unit Type	Counts	Fines	Weight	Content	Collesion	angle	material review			п	mid	Mid	CE	СВ	CR	cs	N(60)	AASHTO	FHWA Drilled	Idriss and Boulanger	AASHTO LRFD	FHWA Drilled Shaft Manual	Idriss and Boulanger	Chosen N1(60)
ft	ft			(bof)	(%)	(pcf)	(%)	(psf)	(degrees)	Yes or No	(%)	(%)	(%)	(psf)	(psf)						Liu D	Shaft			onan mandar		
30.5	0.5	SM	Fill	65	16.6	120	5	0	36	ves	-			60	60	1.3	1.05	0.75	1.00	68	2.0	2.0	1.7	137	137	60	60
29.5	1.5	SM	Fill	65	16.6	120	5	0	36	yes	-	-	-	180	180	1.3	1.05	0.75	1.00	68	1.8	2.0	1.7	123	137	60	60
28.5	2.5	SM	Fill	65	16.6	120	5	0	36	ves	-	-	-	300	300	1.3	1.05	0.75	1.00	68	1.6	2.0	1.7	112	137	60	60
27.5	3.5	SM	Fill	65	16.6	120	5	0	36	yes	-			420	420	1.3	1.05	0.75	1.00	68	1.5	2.0	1.5	104	137	60	60
26.5	4.5	SM	Fill	65	16.6	120	5	0	36	ves	-	-	-	540	540	1.3	1.05	0.75	1.00	68	1.4	2.0	1.4	98	135	60	60
25.5	5.5	SM	Fill	33	17	120	9	0	36	ves	-			660	660	1.3	1.05	0.75	1.00	35	1.4	1.8	1.4	48	62	47	47
24.5	6.5	SM	Fill	33	17	120	9	0	36	yes	-	-	-	780	780	1.3	1.05	0.75	1.00	35	1.3	1.6	1.3	46	57	45	45
23.5	7.5	SM	Fill	5	17	120	9	0	32	ves	-			900	900	1.3	1.05	0.75	1.00	5	1.3	1.5	1.3	7	8	7	7
22.5	8.5	SM	Fill	5	17	120	9	0	32	yes	-	-		1020	958	1.3	1.05	0.75	1.00	5	1.2	1.5	1.2	7	8	6	6
21.5	9.5	SM	Fill	5	17	120	9	0	32	ves	-		-	1140	1015	1.3	1.05	0.75	1.00	5	1.2	1.4	1.2	6	8	6	6
20.5	10.5	SM	Weathered ICSD	10	32.9	120	11	0	34	yes	-	-	-	1260	1073	1.3	1.05	0.80	1.00	11	1.2	1.4	1.2	14	16	13	13
19.5	11.5	SM	Weathered ICSD	10	32.9	120	11	0	34	yes	-	-	-	1380	1130	1.3	1.05	0.80	1.00	11	1.2	1.4	1.2	13	15	13	13
18.5	12.5	SM	Weathered ICSD	24	33	120	11	0	34	yes	-	-	-	1500	1188	1.3	1.05	0.80	1.00	27	1.2	1.3	1.2	32	36	31	31
17.5	13.5	SM	Weathered ICSD	24	33	120	11	0	34	yes	-	-	-	1620	1246	1.3	1.05	0.85	1.00	29	1.2	1.3	1.1	33	37	33	33
16.5	14.5	SM	Weathered ICSD	24	33	120	11	0	34	yes	-	-	-	1740	1303	1.3	1.05	0.85	1.00	29	1.1	1.3	1.1	33	36	32	32
15.5	15.5	SM	Weathered ICSD	41	33	120	11	0	38	yes	-	-	-	1860	1361	1.3	1.05	0.85	1.00	49	1.1	1.2	1.1	55	61	55	55
14.5	16.5	SM	ICSD	25	70	120	20	3000	0	no	33	20	13	1980	1418	1.3	1.05	0.85	1.00	30	1.1	1.2	1.1	33	36	33	33
13.5	17.5	CL	ICSD	25	70	120	20	3000	0	no	33	20	13	2100	1476	1.3	1.05	0.85	1.00	30	1.1	1.2	1.1	33	36	33	33
12.5	18.5	CL	ICSD	25	70	120	20	3000	0	no	33	20	13	2220	1534	1.3	1.05	0.85	1.00	30	1.1	1.2	1.1	32	35	32	32
11.5	19.5	CL	ICSD	25	70	120	20	3000	0	no	33	20	13	2340	1591	1.3	1.05	0.85	1.00	30	1.1	1.2	1.1	32	34	32	32
10.5	20.5	CL	ICSD	41	70	120	20	3000	0	no	33	20	13	2460	1649	1.3	1.05	0.95	1.00	55	1.1	1.1	1.1	58	62	58	58

			Field Data	Fines Correction Boula	(Modifies I Inger N60)	Idriss and			CR	R				CSF									Set	tlement			
Elevation at		Unit	depth at	Δ(N1)60			1	K	σ	MSF/KI	w		rd	Calculation		000									I storel		
midpoint of layer	Unit Type	Weigh t	midpoint of laver	Boulanger and	Cetin et	N1(60)CS	CRRM=7.5&σ =1	Boulanger and Idrise	Cetin et	Boulanger and Idrise	Cetin et	CRR	c(7)	B(z)	rd	Using	FS (CRR/CSR)	Is Liquefaction Anticipated?	Fα	γmin	γmax	٤٧	٤٧	н	Displacement	Settlement	Settlement
ft		(pcf)	ft	Idriss (2014)	al. (2016)		=1 and Idriss al. (2016) and Idriss al. (2016) α(z (2014) (2014) al. (2016)			-(-)	P(-/		0.65amax	,						(%)	(ft)	(ft)	(ft)	(in)			
30.5	Fill	120	0.5	3.75	3.14	63	2.00	1.10	1.60	1.32	1.14	2.00	0.01	0.00	1.01	0.35	5.69	No	-2.69	0.00	0.00	0.000	0.000	1.0	0.000	0.0000	0.000
29.5	Fill	120	1.5	3.75	3.14	63	2.00	1.10	1.60	1.32	1.14	2.00	0.00	0.00	1.00	0.35	5.70	No	-2.69	0.00	0.00	0.000	0.000	1.0	0.000	0.0000	0.000
28.5	Fill	120	2.5	3.75	3.14	63	2.00	1.10	1.60	1.32	1.14	2.00	-0.02	0.00	1.00	0.35	5.72	No	-2.69	0.00	0.00	0.000	0.000	1.0	0.000	0.0000	0.000
27.5	Fill	120	3.5	3.75	3.14	63	2.00	1.10	1.60	1.32	1.14	2.00	-0.03	0.00	1.00	0.35	5.74	No	-2.69	0.00	0.00	0.000	0.000	1.0	0.000	0.0000	0.000
26.5	Fill	120	4.5	3.75	3.14	63	2.00	1.10	1.58	1.32	1.14	2.00	-0.04	0.01	0.99	0.35	5.75	No	-2.69	0.00	0.00	0.000	0.000	1.0	0.000	0.0000	0.000
25.5	Fill	120	5.5	3.85	2.85	50	2.00	1.10	1.48	1.32	1.14	2.00	-0.06	0.01	0.99	0.35	5.77	No	-1.58	0.00	0.00	0.000	0.000	1.0	0.000	0.0000	0.000
24.5	Fill	120	6.5	3.85	2.79	48	2.00	1.10	1.40	1.32	1.14	2.00	-0.08	0.01	0.99	0.35	5.79	No	-1.42	0.00	0.00	0.000	0.000	1.0	0.000	0.0000	0.000
23.5	Fill	120	7.5	3.85	1.70	8	0.11	1.07	1.33	1.02	1.14	0.16	-0.09	0.01	0.98	0.34	0.47	Yes	0.94	0.50	0.50	0.042	4.152	1.0	0.500	0.0415	0.498
22.5	Fill	120	8.5	3.85	1.70	8	0.11	1.07	1.31	1.02	1.14	0.16	-0.11	0.01	0.98	0.37	0.43	Yes	0.94	0.50	0.50	0.042	4.181	1.0	0.500	0.0418	0.502
21.5	Fill	120	9.5	3.85	1.69	8	0.11	1.06	1.28	1.02	1.14	0.15	-0.13	0.01	0.98	0.38	0.40	Yes	0.94	0.50	0.50	0.042	4.209	1.0	0.500	0.0421	0.505
20.5	Weathered ICSD	120	10.5	5.46	3.66	17	0.17	1.08	1.26	1.06	1.14	0.25	-0.15	0.02	0.97	0.40	0.63	Yes	0.66	0.22	0.22	0.026	2.614	1.0	0.220	0.0261	0.314
19.5	Weathered ICSD	120	11.5	5.46	3.65	17	0.17	1.07	1.23	1.06	1.14	0.24	-0.17	0.02	0.97	0.41	0.59	Yes	0.67	0.22	0.22	0.026	2.637	1.0	0.225	0.0264	0.316
18.5	Weathered ICSD	120	12.5	5.46	4.66	36	1.36	1.10	1.21	1.20	1.14	1.89	-0.18	0.02	0.97	0.43	4.44	No	-0.50	0.02	0.00	0.000	0.000	1.0	0.000	0.0000	0.000
17.5	Weathered ICSD	120	13.5	5.46	4.75	38	2.00	1.10	1.19	1.22	1.14	2.00	-0.20	0.02	0.96	0.44	4.58	No	-0.62	0.01	0.00	0.000	0.000	1.0	0.000	0.0000	0.000
16.5	Weathered ICSD	120	14.5	5.46	4.73	37	1.83	1.10	1.18	1.22	1.14	2.00	-0.23	0.03	0.96	0.45	4.48	No	-0.59	0.02	0.00	0.000	0.000	1.0	0.000	0.0000	0.000
15.5	Weathered ICSD	120	15.5	5.46	5.96	61	2.00	1.10	1.16	1.32	1.14	2.00	-0.25	0.03	0.95	0.46	4.39	No	-2.49	0.00	0.00	0.000	0.000	1.0	0.000	0.0000	0.000
14.5	ICSD	120	16.5	5.57	10.09	43	2.00	1.10	1.14	1.29	1.14	2.00	-0.27	0.03	0.95	0.46	4.32	No	-1.04	0.00	0.00	0.000	0.000	1.0	0.000	0.0000	0.000
13.5	ICSD	120	17.5	5.57	10.05	43	2.00	1.10	1.13	1.28	1.14	2.00	-0.29	0.03	0.94	0.47	4.26	No	-1.01	0.00	0.00	0.000	0.000	1.0	0.000	0.0000	0.000
12.5	ICSD	120	18.5	5.57	10.02	42	2.00	1.09	1.11	1.28	1.14	2.00	-0.31	0.04	0.94	0.48	4.21	No	-0.99	0.01	0.00	0.000	0.000	1.0	0.000	0.0000	0.000
11.5	ICSD	120	19.5	5.57	9.98	42	2.00	1.08	1.10	1.27	1.14	2.00	-0.34	0.04	0.93	0.48	4.16	No	-0.96	0.01	0.00	0.000	0.000	1.0	0.000	0.0000	0.000
10.5	ICSD	120	20.5	5.57	13.04	71	2.00	1.07	1.09	1.32	1.14	2.00	-0.36	0.04	0.93	0.49	4.12	No	-3.41	0.00	0.00	0.000	0.000	1.0	0.000	0.0000	0.000

APPENDIX D

SLOPE STABILITY ANALYSIS RESULTS

36	Safety	Factor	Material Name	Color	Unit Weight (Ibs/ft3)	Cohesion (psf)	Phi (deg)	2.48	3													
		0.250	Weathered Drift		120	 O	36															
40		1.000	ICSD		130	50	38		•	•				•			•	• •				
ю́_ -		1.500	Rockery		<u>,</u> 200																	
		2.000			· · /·									•				• •				
		2.500																				
320		3.000			.							·		·		· ·	·	• •				
-		3.500		. /																		
		4.000												•								
000		4.250		/																		
-		4.750 5.000		. 0																		
	· · · ·	5.250 5.500												÷) .	•	•	• •		
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28	· · ·	J								0												
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260																						
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5																						
-		100	120		40	160		180		200		220			40		260		2	80		30
			120	Pro	nject		F	igure D-1 - N	E 120t	h St	reet Sidev	walk a	nd Wa	ater Qu	uality Im	prover	nents					
H	WA.	GEOS	CIENCES IN	JC. And	alysis Description					Gl	obal Slope	Stabili	ty Ana	ysis								
			DBE/M	WBE Dra	awn By	SKS	5		Scale	1:	250	Comp	any		H۱	VA Geo	Scienc	es Inc.				
SLIDEI	NTERPRET 8.029			Dai	te		12	/10/2020				Loadii	ng Scenari	atic Ar	alysis - E	Existing	Condi	tions -	South	ern Slo	pe	

- 36	Safety	7 Factor 0.000	Material Name	Color	Unit Weight (lbs/ft3)	Cohesion (psf)	Phi (dég)												-									
		0.250	Weathered Drift		120	0	36																					
0		1.000	ICSD	,	130	50	38			•					•	•	•	•	•					•		•		
- 3		1.500	Rockery		200																			i.				
		2.000		•	•																							
		2.250																										
320	· · · · ·	2.750																										
-		3.250								÷	÷	÷	÷				÷	÷	·		÷	÷	÷	÷				
		3.500							÷	·								-						÷				
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0000		4.500						· ·																				
		4.750 5.000								·	·	·									-0		÷		х х х			· ·
		5.250						1.369		0											•	•				•	•	
		5.750					- /				 																	
280		0.0001					-																					
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240																												
1_	160	18	0 200	, , , , D	220		240			260			28	30			300			32	 0			340			360	
				Pr	oject		F	igure l	D-2	- NE	120	th St	reet	Sidev	valk	and	Wate	er Q	uality	' Imp	rove	men	ts					
	WA-	GEOS	CIENCES IN	JC. Ar	nalysis Description							G	obal S	Slope	Stabi	lity A	nalys	sis										
			DBE/M	WBE DI	rawn By	SKS	5				Scale	1	:250		Con	pany				HW	A Geo	Scie	nces	Inc.				
SLIDEIN	TERPRET 8.02	29		Da	ate		12	2/10/202	20						Load	ing St	atic A	Analy	sis - E	xistir	ng Co	nditic	ons -	North	ern R	ockei	ry Wa	all

- 36	Safety	Factor 0.000	Material Name	Color	Unit Weight (Ibs/ft3)	Cohesion (psf)	Phi (deg)		1.211																
		0.250	Weathered Drift		120	0	36]				·	÷		÷					·	·				.269
40		1.000	ICSD		130	50	38]							•						•			WWWWW	
- 3		1.500	Rockery		200		÷																		
		2.000						- 				·													
	· · ·	2.500 2.750					•					•											•		
33		3.000																							
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0		4.000																							
00		4.750																							
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240																									
		100	120		10	400		100																	
		100	120	Pro	40 nject	שו	F	Figure D)-3 - NE	 120th	, Stre	et Sid	lewal	zu k and	Wat	er Oi	ualitv Ir	mprov	 eme	nts			200		30
	WA.	GEOS	CIENCES IN	JC And	alysis Description		-	5			Glol	oal Slo	oe Sta	ability	Analv	sis	,								
			DBE/M	WBE Dra	awn By	SKS	5			Scale	1:2	50	0	Company	7	-	F	IWA Ge	eoSci	ences	s Inc.				
SLIDEIN	TERPRET 8.029	1		Dai	te		12	2/10/202	0				4	oading §	seudo seudo	ostatio	: Analys	is - Exi	sting	Conc	lition	s - So	outhe	ern Slop	е

- 36	Safety	Factor 0.000	Material Name	Color	Unit Weight (Ibs/ft3)	Cohesion (psf)	Phi (deg)																						
		0.250	Weathered Drift		120	0	36			ŗ										ŗ								0.26	39
40	· · ·	1.000	ICSD	·	130	50	38			•	•	•							•	•	•		•				WWWW		
ε - -		1.500	Rockery		<u>200</u>					·	·	·	. <u>-</u>							·					÷				
		2.000		÷															÷										
		2.250		÷																									
320		2.750		÷																·									
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1	160	18	0 200))	220		240			260		1	280			3	00	• • •		320			3	40	- I - I	1	36	- 	
				Pro	nject		F	igure	D-4 ·	- NE	120tl	h Str	eet Si	dewa	alk a	nd W	/ater	Qua	ality Iı	npro	vem	ents	5					-	
\mathbb{H}	WA-	GEOS	CIENCES IN	JC. An	alysis Description							Glo	bal Slo	ppe S	tabilit	y An	alysis	5											
			DBE/M	WBE Dr.	awn By	SKS	5			5	Scale	1:2	250		Compa	ny			ŀ	IWA (GeoS	cien	ces I	nc.					
SLIDEIN	TERPRET 8.029	9		Da	te		12	2/10/202	20						^{Loadin} PS	eudo	static	: Ana	lysis -	Exist	ing C	Condi	tions	5 - No	orthe	ern R	ockei	ry W	all