

## Invitation to Bid

Project: 2021 KENAI WELLHOUSE RELOCATION

Release: March 8, 2021

Pre Bid Zoom Meeting: March 11, 2021 at 2:00pm see city website for login details

Last day for Questions: March 17, 2021 by 2:00pm

Bids Due Date: April 1, 2021, no later than 2:00pm

Kenai City Hall

210 Fidalgo Avenue

Kenai, AK 99611

ATTN: Director of Public Works

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### **Advertisement for Bid**

Project Name: 2021 KENAI WELLHOUSE RELOCATION

Pre Bid Zoom Meeting: March 11, 2021 at 2:00pm details to follow

Last Day for Questions: No later than 2:00pm March 17, 2021

Bid Due Date and Time: No later than 2:00pm April 1, 2021 at City Hall

Scope of Work: This project consists of the deconstruction of a small, approximately 20'x28', prefabricated steel building that received concrete foundation damages during the 2018 earthquake. The building shall be relocated to a new site roughly one mile away and placed on a new concrete foundation, repurposing the structure as a storage facility for the Water Department. The existing foundation and all appurtenances shall be demolished and the well capped. See the plans & specifications for a full list of requirements.

Bidders should contact the Public Works Department at (907) 283-8236 to be placed on the plans holders list. Questions may be submitted to <a href="mailto:publicworks@kenai.city">publicworks@kenai.city</a>.

Bids must be delivered in a sealed envelope clearly marked with the project name to the Public Works Department at the address above. Bid documents can be obtained on City of Kenai website at <a href="https://www.kenai.city">www.kenai.city</a> or at City Hall for a non-refundable fee of \$30.00 including sales tax for each set of documents.

This contract will be subject to the provisions of the State of Alaska Title 36 Wage and Hour Administration Pamphlet Statutes and Regulations and may require 100% performance and payment bonds.

Publish: Anchorage Daily News – March 8, 2021

Peninsula Clarion - March 8, 2021 or earliest available date

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## CITY OF KENAI INSTRUCTIONS TO BIDDER

### 1. GENERAL

These instructions specify the form and procedures for the submission of a complete and acceptable bid. To obtain addenda in a timely manner, you should be on the City of Kenai's plan holder's list. Downloading project specifications and drawings from the City website or other online plans rooms does not place you on the City's plan holder's list. To be added to the plan holder's list, please contact the Public Works Department Administrative Assistant by phone (907) 283-8236 or by email at <a href="mailto:publicWorks@kenai.city">PublicWorks@kenai.city</a>.

Project: 2021 KENAI WELLHOUSE RELOCATION

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Last Day for Questions: March 17, 2021 by 2:00pm Bid Due Date and Time: April 1, 2021 by 2:00pm

### 2. EVIDENCE OF QUALIFICATIONS

Upon request of the City, a Bidder whose bid is under consideration for the award of the Agreement, shall submit promptly to the City, satisfactory evidence of the Bidder's financial resources, their experience, their performance in completing other projects of a similar nature, and the organization and equipment they have available for the performance of the Agreement.

### 3. BIDDER QUALIFICATIONS

Before the bid is considered for award, the City reserves the right to determine whether or not a Bidder is responsible and to require the Bidder to complete a Bidder Qualification Form and/or provide a current financial statement prepared by a Certified Public Accountant. The City shall determine whether a Bidder is responsible on the basis of the following criteria:

- The skill and experience demonstrated by the Bidder in performing Agreements of a similar nature.
- The Bidder's record for honesty and integrity.
- The Bidder's capacity to perform in terms of facilities, personnel, and financing.
- The Bidder's past performance under City Agreements. If the Bidder has failed in any material way to perform its obligations under any Agreement with the City, the Bidder may be determined as a non-responsible Bidder.
- A Bidder's representations concerning their qualifications will be construed as a covenant under the Agreement. Should it appear that the Bidder has made a material misrepresentation, the City shall have the right to terminate the Agreement for the Contractor's breach, and the City may then pursue such remedies as provided in the Agreement Documents or as provided by state statute, City code, or as appropriate.

Any final determination that a Bidder is non-responsible will be made by the City Manager. Such determination will be made in writing to the Bidder setting forth the reasons for such determination.

### 4. CONDITIONS AFFECTING THE WORK

The Bidder shall examine carefully the site(s) of the proposed work and the bid documents before submitting a bid. The submission of a bid shall be an admission that the Bidder has made such examination and is satisfied as to the conditions to be encountered in performing the work and as to the requirements and accuracy of the bid documents.

The City assumes no responsibility for any understanding or representations concerning conditions made by any of its officers, agents, or employees prior to the execution of this Agreement, unless such understanding or representations are expressly stated in the bid documents or Addenda.

The Bidder shall include in their bid, sufficient sums to cover all items required by the Agreement and the conditions of the site(s), and shall rely entirely upon their own examination in making their bid. The submission of a bid shall be taken as prima facie evidence of compliance with this paragraph.

If information or documentation required for submitting an accurate and complete bid is absent from these documents, the Bidder is required to notify the Public Works Director by facsimile (907) 283-3014, or by e-mail to PublicWorks@kenai.city.

### 5. SECURITY TO BE FURNISHED BY BIDDER

If the bid exceeds \$100,000, a certified check, bank cashier's check, or bid bond, made payable to the City of Kenai amount equal to five (5%) percent of the total bid, shall accompany each bid as evidence of good faith, a guarantee that if awarded the agreement, the Bidder will execute the agreement and give bond as required. All Bidder's checks or bid bonds will be retained until the successful Bidder has entered into a satisfactory agreement and furnished bonds, as required. The successful Bidder shall furnish the City a Performance and Payment bond in the full amount of the Agreement and shall maintain the Bond in force during the continuance of the Agreement. The bonds must be furnished prior to the City's execution of the Agreement. The Bond shall be for the faithful performance of the Agreement in all respects including, but not limited to, payments for all materials and labor. All alterations, extensions of time, additional work, and other changes authorized by the Agreement Documents may be made without securing the consent of the Surety or Sureties. Power-of-Attorney for the person signing the Bond for the Surety must be submitted with the Bond. These bonds, in whatever amount required by the specific agreement, shall be administered and deemed governed by the provisions of Alaska Statutes Title 36, Chapter 25, and shall comply with all requirements for payment and submission of claims as provided by that chapter.

### 6. LICENSING

Alaska State Statutes requires that all businesses wishing to engage in business in Alaska obtain license(s). All Bidders are required to furnish with their bid, the applicable, current licenses required to perform the work. Applicable licenses may include the following: Contractor's License, Specialty Contractor License, and Alaska Business License. Failure to submit license(s) with the bid may result in rejection of the Contractor's bid.

### 7. TAX COMPLIANCE CERTIFICATE

No agreement will be awarded to any individual or entity that is in violation of the tax laws of the City of Kenai or the Kenai Peninsula Borough unless the violation is cured within ten business days of notice. The Tax Compliance Certificate must be signed by the Bidder only and submitted with the bid. The City will obtain verification of tax compliance from the Kenai Peninsula Borough for the successful bidder. Bids submitted without a completed Tax Compliance Certificate may be considered non-responsive.

### 8. INTERPRETATION OR CORRECTIONS OF BID DOCUMENTS

Bidders shall notify the Public Works Director promptly of any error, omission, or inconsistency that may be discovered during examination of the bid documents and the proposed work site(s). Requests from Bidders for interpretation or clarification of the bid documents shall be made in writing to the Public Works Director and shall arrive no later than the time and date specified in Section 1 of these Instructions to Bidders. Questions may be faxed to (907) 283-3014 or emailed to <a href="mailto:PublicWorks@kenai.city">PublicWorks@kenai.city</a>. The subject line of the email or fax must include the name of the project.

Oral questions may be presented at a pre-bid conference if one is provided for in Section 1 of these Instructions to Bidders. Interpretations, corrections, or changes, if any, to the bid documents shall be made by Addendum. Bidders shall not rely upon interpretations, corrections, and changes made in any other manner, including orally, at the pre-bid conference. Interpretations, corrections, and changes shall not be binding unless included in an Addendum. All Addenda issued during the time of bidding shall become part of the Agreement Documents. Questions or requests for clarifications shall be directed to the Public Works Director. Only written interpretations or corrections by Addendum shall be binding, and no other forms of interpretation or correction will be binding on the City of Kenai.

It is the Bidder's sole responsibility to ascertain that they have received all Addenda issued by the City of Kenai. Addenda will be issued electronically and/or by facsimile. All Addenda must be acknowledged in the space provided on the Bid Form. If no Addenda have been issued, write or type "zero" or "N/A" on the Bid Form in the space provided.

### 9. PREPARATION AND SUBMISSION OF BIDS

- Bids must be received at City Hall prior to the time and date specified in Section 1 of these Instructions to Bidders.
- Bids must be submitted on the Bid Form furnished. Bids must be completed in ink or by typewriter, and must be manually signed by an authorized person. If erasures or other changes appear on the forms, the person signing the bid must initial each erasure or change in ink.
- Bids shall specify a unit or lump sum price, typed or written in ink in figures, for each bid item called for. In case of error in the extension of prices, the unit price will govern. Bids may be rejected if they show any omissions, alteration of the forms, additions not called for, conditional or alternate bids not called for, qualified bids, or irregularities of any kind.

- It is expressly agreed that the quantities shown in the Bid Form, whether for a "Unit Price Bid" or in connection with a "Lump Sum Bid" on the Bid Form are approximate only for use as a basis for comparison of bids and are not to be taken to be either representations or warranties. The City does not expressly, nor by implication, agree that the actual amount of work will correspond therewith.
- The Bid Form invites bids on definite plans and specifications. Only the amounts and information asked for on the Bid Form will be considered as the bid. Each Bidder shall bid upon the work exactly as specified and as requested on the Bid Form, and Bidders shall bid upon all alternates as indicated. When bidding on an alternate for which there is no charge, Bidder shall write the words "No Charge" in the space provided.
- One (1) complete bid package shall be completely sealed in an envelope clearly marked with the Bidder's company name, and the "Project Name" and "Bid Due Date" specified in Section 1 of these Instructions to Bidders. A complete bid package shall include the following documents:
  - o Bid Form
  - Tax Compliance Certificate
  - Applicable Licenses
  - o Non-Collusion Affidavit
  - o Bid Bond with Power of Attorney (If bid exceeds \$100,000.00)
- Bids received without all the required documents may be considered non-responsive.
   Bids received after the bid due date and time will be considered non-responsive and will not be accepted.
- No responsibility shall be attached to the City for the premature opening of, or the failure to open a bid not properly addressed and identified.
- Please note that overnight delivery from the Lower 48 States is generally not available.
   Prospective Bidders should anticipate a minimum of two to three days delivery time for express, priority or expedited delivery services.

### 10. MODIFICATION OF BIDS

Bid modifications will be accepted by the City at <a href="mailto:publicworks@kenai.city">publicworks@kenai.city</a> and binding upon the Bidder where the modification:

- is received at City Hall prior to the time and date specified in Section 1 of these Instructions to Bidders.
- does <u>not</u> identify the adjusted Bid Total price. Only adjustments to the sealed bid will be accepted. For example:
  - CORRECT Decrease the Unit Bid Price of Item 20.22 Leveling Course by \$2.50 per ton and the Bid Total by \$2,500.
  - CORRECT Increase the Unit Bid Price of Item 90.16 Mobilization and Demobilization and the Bid Total by \$5,000.
  - o INCORRECT Decrease the Bid Total by \$5,000 for a new Total of \$95,000.
- is signed by the same individual who signed the original bid.

Should there be more than one bid modification from a Bidder, only the last modification received prior to the deadline shall be applied to the bid. All earlier modifications shall be disregarded.

Any modification which fails to meet any requirement of this section shall be rejected, and the bid shall be considered as if no modification had been attempted.

It is the Bidder's responsibility to confirm the City's receipt of any bid modification.

### 11. WITHDRAWAL OF BID

At any time prior to scheduled closing time for receipt of bids, any Bidder may withdraw their bid, either personally or by written request.

After the scheduled closing time for receipt of bids, no Bidder will be permitted to withdraw their bid unless Notice of Award is delayed for a period exceeding forty-five (45) days.

A bid may not be withdrawn after opening without the written consent of the City.

#### 12. ACCEPTANCE – REJECTION OF BIDS

The City reserves the right to reject any or all bids, to waive minor irregularities in any bids or in the bidding procedure, and to accept any bid presented which meets or exceeds said specifications and which is deemed to be in the best interest of the City. However, the requirements for timeliness and manual signatures shall not be waived. The City is not obligated to accept the lowest bid and is not responsible for bid preparation costs.

### 13. EXECUTION OF AGREEMENTS

The successful Bidder shall be required to execute an Agreement for the work within ten (10) days after receiving the Notice of Award and Agreement documents from City; if Contractor does not return executed copies within this time, then, at the option of City, the bid may be rejected.

### 14. AWARD OF AGREEMENT

It is the intent of the City to award the bid to the lowest, qualified, responsive and responsible Bidder. Unless otherwise stated in the bid documents, the Agreement, if awarded, shall be awarded to the responsible Bidder who submits the lowest responsive bid. When bid documents contain a base bid and alternates, only the total of the base bid and the alternates to be awarded shall be used to determine the low Bidder.

The amount of the Agreement shall be the total sum of the amounts computed from the estimated quantities and unit prices and/or the lump sum awarded by the City and specified in the Agreement.

On all bids, Notice of Award or rejection will be given within forty-five (45) days of bid opening. The notice will be in writing and signed by the Public Works Director. A Notice of Intent to Award, and no other act of the City of Kenai or its representatives, constitutes an acceptance of a bid. The acceptance of a bid shall bind the successful Bidder to execute the Agreement.

## 15. AGREEMENT AND PERFORMANCE AND PAYMENT BOND SIGNATURE INSTRUCTIONS WHEN BONDS ARE REQUIRED

The successful Bidder shall insert the full name and business of the Contractor in the Agreement and on the Performance and Payment Bond, hereinafter the Bond.

If the Contractor is a partnership or joint venture, all partners or joint ventures shall sign the Agreement and the Bond except that one partner or one joint venturer may sign for the partnership or joint venture when all other partners or joint venturers have executed a Power-of-Attorney authorizing one partner or joint venturer to sign. The Power-of-Attorney shall accompany the executed Agreement and the Bond.

If the Contractor is a Limited Liability Company (LLC), a person with appropriate authority to bind the LLC shall execute the Agreement and Bond unless a Power-of-Attorney or Corporate Resolution accompanies the executed Agreement and Bond.

If the Contractor is a corporation, the President or Vice-President and Secretary or Treasurer of the corporation shall execute the Agreement and the Bond unless a Power-of-Attorney or Corporate Resolution accompanies the executed Agreement and Bond.

The Bond shall be returned undated as to Agreement Date. The Agreement Date shall be inserted on the Agreement when the City signs the Agreement and the Bond shall be dated the same as the Agreement Date.

### 16. SPECIAL PROVISIONS

If funded in part or in whole by a grant or grants, the contractor and their subcontractors will be required to comply with the requirements of these grants, including insurance and purchasing requirements, if any. If any permits are included with the bid documents, e.g. a U.S Corp of Engineers wetland permit, all conditions of this permit must be met by the Contractor and their Subcontractors.

### 17. APPEAL PROCEDURE

KMC 7.15.120 Appeal procedures.

- (a) Any party submitting a bid or proposal for a contract with the City and who believes that they are adversely affected by the City's relevant ordinances, regulations, procurement process, or by any acts of the City in connection with the award of a City contract, may file a protest appeal with the City Clerk. All protest appeals must be to the City within five (5) calendar days of the issuance of the City's notice of its intent to award the contract. The appeal must be hand delivered, delivered by mail, or by facsimile and must comply with all requirements of this section. If the fifth day is a City-recognized holiday or a weekend, the deadline for appeal shall be the next work day. It is up to the protester to choose a method of delivery to assure timely receipt by the City.
- (b) Rejection of Appeal. The Clerk shall reject an untimely or incomplete appeals. Such rejection shall be final and may be appealed to the Superior Court pursuant to the Court Rules of Appellate Procedure.
- (c) The protest appeal must be in writing and shall include the following information:
- (1) The name, address, e-mail, and telephone (and facsimile if available) numbers of the protester;
- (2) The signature of the protester or the protester's representative;
- (3) Identification of the contracting agency and the solicitation or contract at issue;
- (4) A statement of the legal and factual grounds of the protest, including copies of relevant documents; and
- (5) The form of relief requested.

- (d) Stay of Award. If a timely and complete protest appeal is filed, the award of the contract shall be stayed until all administrative remedies have been exhausted, unless the City Manager determines in writing that award of the contract pending resolution of the appeal is in the best interests of the City.
- (e) Notice and Response. Notice of the stay and protest appeal shall be delivered to any party who may be adversely affected by the City Manager's decision by facsimile, first class mail or in person within three (3) business days of receipt of a properly filed appeal.
- (f) City Manager Decision. The City Manager shall issue a written decision to the appellant within ten (10) business days of the date the appeal is filed. If multiple appeals have been filed, they may be consolidated for purposes of the decision. Copies of the appeal and decision shall be provided to any interested party requesting one. The decision may include any lawful action, including without limitation an amendment of all or any part of the recommended award. For good cause shown, the City Manager may extend the date for the decision for such additional period as may be necessary.
- (g) If the City Manager sustains a protest in whole or in part, the City Manager shall implement an appropriate remedy. In determining an appropriate remedy, the City Manager shall consider the circumstances surrounding the solicitation or procurement including the seriousness of the procurement deficiencies, the degree of prejudice to other interested parties or to the integrity of the procurement system, the good faith of the parties, the extent the procurement has been accomplished, costs to the agency and other impacts on the agency of a proposed remedy, and the urgency of the procurement to the welfare of the City.
- (h) Notwithstanding subsections (a) and (b) immediately above, if the City Manager sustains a bid protest appeal in whole or part, the protester's damages shall not exceed the reasonable bid or proposal preparation costs.
- (i) Appeal to Superior Court. Appeals may be taken from the written decision of the City Manager within thirty (30) days of the date of the decision pursuant to Part VI of the Alaska Rules of Appellate Procedure.

(Ord. 2852-2015)

### 18. COMPLIANCE OR ACCEPTED ALTERNATES TO SPECIFICATIONS

Bidder hereby agrees that the material offered will meet all the requirements of the specifications in this solicitation unless alternates have been deemed acceptable by the City. Manufacturer's names, trade names, brand names, model and catalog numbers used in these specifications are for the purpose of describing and establishing general quality levels. Such references are not intended to be restrictive. Alternates will be approved via addenda, and only via addenda. Request for alternates must be submitted no later than the Last Day for Questions in the Advertisement for Bid. An alternate must be requested via email sent to the addresses in section 1 with an explanation giving in detail the extent of the alternate, the reason for which it is requested, and why the City should approve the alternate. Provide as much detail as possible. If multiple models or options are provided with your submittal data clearly indicate which you are requesting. The City of Kenai will be the sole judge of whether an alternative is acceptable to the items specified.

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### CITY OF KENAI BID FORM

TO: City of Kenai

Public Works Department 210 Fidalgo Avenue Kenai, Alaska 99611-7794

FROM:

Name of Bidder's Company or Business Entity

### **BIDDER'S DECLARATION & UNDERSTANDING**

The undersigned, hereinafter called the Bidder, declares that the Bidder has carefully examined the Bid Documents including but not limited to: the Agreement, Addenda, Supplemental General Conditions, General Conditions, Drawings and Specifications, Invitation to Bid, Instructions to Bidders, this Bid Form, Advertisement, Releases, Affidavits, and supplemental documentation (e.g. Grant documentation, Title 36 or other State Statues), and the location(s) where work is to be performed for the project, and that the Bidder has satisfied themselves as to the contractual requirements, and quantity and condition of work involved.

It is expressly agreed that the quantities shown in the Bid Form, whether for a "Unit Price Bid" or in connection with a "Lump Sum Bid" on the Bid Form are approximate only for use as a basis for comparison of Bids and are not to be taken to be either representations or warranties. The City does not expressly, nor by implication, agree that the actual amount of work will correspond therewith.

The Bidder further declares that the only person or parties interested in the Bid are those named herein, that this Bid is, in all respects, fair and without fraud, that it is made without collusion with any official of the City of Kenai, and that the Bid is made without any connection or collusion with any person submitting another Bid.

The Bidder agrees not to withdraw this bid within forty-five (45) days after the actual date of the bid opening.

### **DOCUMENTS TO SUBMIT WITH THIS BID**

- 1. Bid Form
- 2. Tax Compliance Certificate
- 3. Applicable Licenses
- 4. Non-Collusion Affidavit
- 5. Bid Bond with Power-of-Attorney (If Bid exceeds \$100,000.00)

# DOCUMENTS THE CITY OF KENAI IS TO RECEIVE WITHIN 10 DAYS AFTER NOTICE OF AWARD

The Bidder agrees that if this Bid is accepted he will deliver to the City of Kenai, within ten (10) calendar days of Notice of Award, the following:

- 1. Executed Agreement
- 2. Certificate(s) of Insurances\*
- 3. Construction Schedule
- 4. List of Subcontractors
- 5. Performance and Payment Bond
- 6. Power of Attorney and/or Corporate Resolution (See Instructions to Bidders)

\* Refer to the General Conditions for insurance requirements. Note the additional insured and waiver of subrogation requirements.

### TIME OF COMPLETION AND LIQUIDATED DAMAGES

Bidder agrees to commence and complete work as follows: Owner anticipates a Notice to Proceed in April 2021 with Substantial Completion within 180 Calendar days from NTP.

<u>Liquidated Damages</u>. Liquidated damages will be charged at Three Hundred (\$300.00) for each calendar day that expires after the contract time required for substantial completion to the actual date of substantial completion as provided for in the Agreement Documents.

### **BID TABULATION AND SUMMARY**

Bidder agrees to perform all of the work described and per the conditions in the Bid Documents for the prices stated on this Bid Form.

Prices are to be shown in both words and figures. In case of discrepancy, the amount shown in words will govern. In case of error in the extension of prices, the unit price will govern. Bidder understands that the City reserves the right to reject any or all bids and to waive irregularities in the bidding.

BID GUARANTEE: The Undersigned further agrees that the check or bid bond accompanying the bid is left in escrow with the City, that the amount of the check or bond is the measure of damages which the City will sustain by failure of the Undersigned to deliver said documents within ten (10) days after written notice of the award of contract to him or her, and that check shall become the property of the City, or the bid bond shall remain in full effect, should he or she so fail. But if this bid is not accepted within ninety (90) days of the date set for the opening thereof, or if accepted and the Undersigned delivers said Agreement, and performance, and labor, and material payment bonds as required, the check shall be returned to him or her and the bid bond shall become void.

### **EXECUTION OF BID**

Bidder shall complete and submit all pages of the Bid Form.

I have received the Bid Documents for the Project: 2021 KENAI WELLHOUSE RELOCATION			
I have received Addenda No(s).	and have included their provisions in my proposal.		
I have examined both the Bid Documents and the work locations, and submit the following bid with the understanding that I agree:			

- 1. To hold my bid open forty-five (45) consecutive calendar days.
- 2. To accept the provisions of the Bid Documents.
- 3. To enter into and execute an Agreement, if awarded, on the basis of my Bid.
- 4. To furnish all labor and materials and to accomplish the work in accordance with the Bid Documents.
- To accomplish Substantial Completion as specified above in TIME OF COMPLETION.

# [See attached Bid Schedule to assist with determining total costs, indicate amounts below] **BASE BID TOTAL:** (All work as detailed within the plans) (Amount Written in Words) **DEDUCTIVE ALTERNATE:** (Disassemble structure, demo and replace foundation, reconstruct building as detailed within the plans & specification on its existing site. To be clear, the number below is the amount to deduct from the Base Bid, it is not a total amount.) (Amount Written in Words) In the event the Base Bid exceeds the Owner's budget for the Work, Owner reserves the right to award to any combination of Base Bid and Deductive Alternate that provides the best value to the City. An Agreement shall not be formed and no rights shall exist under the Agreement until the final Agreement is fully executed by all parties. Bidder agrees to commence work immediately upon full execution of the Agreement or such later time as defined in a Notice To Proceed. If provided a Notice of Award, Bidder agrees to execute and perform the Agreement in accordance with the Bid Documents. By executing this Bid I certify that I have authority to bind the Company or Business Entity submitting this bid. Date Name of Company or Business Entity Title Signature Print Name Phone

Fax

Email address

Address

Address

Engineer's Estimate - Kenai Wellhouse Relocation For Bid							
DEDUCTIVE ALTERNATE - REMOVE CO BID SCHEDULE - BASE BID ASSOCIATED WITH MOVING TO NEW							
Item Number	Pay Item Description	Unit	Estimated Quantity	Unit Bid Price	Amount Bid	Estimated Quantity	Amount Bid
017113(1)	Mobilization and Demobilization	Lump Sum	1				\$ -
013500(1)	Remove/Install Metal Building from/to Foundation	Lump Sum	1				\$ -
013500(2)	Relocate Metal Building	Lump Sum	1				\$ -
013500(3)	Demo Existing Building Foundation and Appurtenances	Lump Sum	1				\$ -
013500(4)	Abandon Water Main	Lump Sum	1				\$ -
013500(5)	Furnish & Install New Electrical Systems	Lump Sum	1				\$ -
033000(1)	Concrete Building Foundation, Slab, and Landings	Lump Sum	1				\$ -
310100(1)	Construction Survey Measurement	Lump Sum	1				\$ -
311000(1)	Clearing and Grubbing	Lump Sum	1				\$ -
312000(1)	Unusable Excavation	Cubic Yard	520				\$ -
312000(2A)	Classified Fill and Backfill (Type IIA)	Ton	600				\$ -
312000(2B)	Classified Fill and Backfill (Type III)	Ton	760				\$ -
312000(3)	Compaction Control by the Contractor	Lump Sum	1				\$ -
312010(1)	Geotextile (Separation)	Square Yard	830				\$ -
329350(1)	Topsoil (4" Depth)	MSF	0.85				\$ -
329350(2)	Seeding (Schedule D)	MSF	0.85				\$ -
332200(1)	Decommision Water Supply Well	Lump Sum	1				\$ -
334213(1)	Culvert (18-Inch, CMP, Round) [Owner Furnished]	Linear Foot	30				\$ -
334213(2)	Culvert End Section (18-Inch)	Each	2				\$ -
	Contractor's Name:			Total Est.:	•	Deductiv	\$ -
Contractor's Name: Base Bid Total Deductive Alternate							

## Tax Compliance Certification Kenai Peninsula Borough Finance Department

144 N. Binkley Street

Phone: (907) 714-2197

Soldofna, Alaska 99669-/599 www.kpb.us		76	
1.) Fill in all information requested.	2.) Sign and date. 3.) Submit v	vith solicitation, or oth	er. For Official Use Only
Reason for Certificate:		For Department	:
☐ Solicitation ☐ Other:		Dept. Contact:	
Business Name:			·
Business Type:	☐ Individual ☐ Corpora	ıtion 🗌 Partnershi	p Other:
Owner Name(s):			
Business Mailing Address:			
Business Telephone:		Business Fax:	
Email:			
contracting to do business with th	la Borough Code of Ordinan ne Kenai Peninsula Borough b	nces, Chapter 5.28.14 be in compliance with	elow. If no, please sign below.)  0, requires that businesses/individuals  1 Borough tax provisions. No contract  Borough Code of Ordinances in the
REAL/PERSONAL/BUSINESS PROF	PERTY ACCOUNTS	TAX ACCOUNTS	S/STATUS (TO BE COMPLETED BY KPB)
ACCT. NO.	ACCT. NAME	YEAR LAST PAID	BALANCE DUE
			In Commission of Makin Commission
KPB Finance Department (signature	required)	Date	In Compliance 🗌 Not in Compliance
SALES TAX ACCOU	NTS	TAX ACCOUNTS	/STATUS (TO BE COMPLETED BY KPB)
	ACCT. NAME	FILED THRU	M/F'S BALANCE DUE
			In Compliance 🔲 Not in Compliance
KPB Sales Tax Division (signature rec	ųuired)	Date	
CERTIFICATION: I,(Name o	the		, hereby certify that, to the
(Name o best of my knowledge, the above i		(Title)  (Date)	

Signature of Applicant (Required)

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### NON – COLLUSION AFFIDAVIT

(To be executed a	nd submitted with Bid Proposal)
l,	of ,
,	of, Firm Name
being duly sworn, do depose and stat	re:
	on of which I am a member, who bid on the Contract r the construction of that certain construction project
2021 KENAI W	ELLHOUSE RELOCATION
	e of Alaska, have not, either directly or indirectly, ated in any collusion, or otherwise taken any action in connection with such Contract.
	Signature
	Name
	Title
	Date
ACKNOW	LEDGMENT
STATE OF ALASKA )	
)ss THIRD JUDICIAL DISTRICT )	
The foregoing instrument was acknow 2021, by	vledged before me this day of
	NOTARY PUBLIC for State of Alaska
	My Commission Expires:

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### **BID BOND**

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned,		
as Principal, and		
as Surety, are hereby held and firmly bound unto		
as the OWNER, in the penal sum of for the payment of which, well and truly made, we hereby jointly and severally bind ourselves, successors and assigns.		
Signed this day of, 2021. The Principal has submitted to, a certain BID, attached hereto and hereby made a part hereof, to enter into a contract in writing for the		
NOW, THEREFORE,  (a) If said BID shall be rejected, or  (b) If said BID shall be accepted and the principal shall execute and deliver a contract in the Form		
of Contract attached hereto (properly completed in accordance with said BID), and shall furnish a BOND for his faithful performance of said contract, and for the payment of all persons performing labor or furnishing materials in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said BID, then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.		
The Surety, for value received, hereby stipulates and agree that the obligations of said Surety and its BOND shall be in no way impaired or affected by any extension of the time within which the OWNER may accept such BID; and said Surety does hereby waive notice of any such extension.		
IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.		
Principal		
Surety		
By:		
IMPORTANT Surety companies executing BONDS must appear on the Treasury		

Bid Bond Rev 2013-03-04 G. Page | 1

Department's most current list (Circular 570 as amended) and be authorized to transact

business in the state where the project is located.

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# CITY OF KENAI AGREEMENT BETWEEN OWNER AND CONTRACTOR

MADE AS OF THE	_ DAY OF 2021.	
BETWEEN the OWNER:	CITY OF KENAI 210 Fidalgo Avenue Kenai, Alaska 99611-7794	
AND the CONTRACTOR:		
FOR the PROJECT: 2021	KENAI WELLHOUSE RELOCATION	

ARTICLE 1
THE WORK

The Contractor shall perform all the work required by the contract documents.

## ARTICLE 2 ENUMERATION OF THE CONTRACT DOCUMENTS

The additional documents which are specifically incorporated into this Agreement by reference and which form the contract documents are:

- A. Any and all later modifications, change orders, and written interpretations of the contract documents issued by the Owner
- B. This Agreement
- C. Addenda
- D. Supplemental General Conditions (if any)

The Owner and Contractor agree as set forth below.

- E. General Conditions
- F. Drawings and Specifications Provided by Engineer. In the case of an inconsistency between Drawings and Specifications or within either Document not clarified by addendum, the better quality or greater quantity of Work shall be provided.
- G. Drawings and Specifications in the latest edition of the Municipality of Anchorage Standard Specifications (M.A.S.S.) In the case of an inconsistency between Drawings and Specifications or within either Document not clarified by addendum, the better quality or greater quantity of Work shall be provided. Contractor is responsible for obtaining the latest edition of the M.A.S.S
- H. The Request for Proposals / Invitation to Bid
- I. The Contractor's bid/proposal.

Any other attachments to this Agreement do not form a part of the Agreement but are for reference or proof of compliance with the requirements of the Agreement, except where the provisions of this Agreement provide such attachments will be or are a part of the Agreement.

These form the contract and what is required by any of the documents shall be as binding as if required by all. The intention of the contract documents is to require the furnishing of all labor, material, equipment, and other items necessary for the proper execution and completion of the work and to prescribe the terms and conditions of the contract and payment, so as to include work and materials which may be necessary to produce the intended results.

\* M.A.S.S. is the Municipality of Anchorage Standard Specifications, and Divisions 20 through 80 are hereby incorporated into these Contract Documents. Division 10 is specifically excluded. The Contractor is responsible for checking to ensure they have the most current version. Specifications, drawings, and general provisions provided by the Owner (City of Kenai) or their Agents (Engineers, Architects, or others as appointed by the City) take precedence over the M.A.S.S.

## ARTICLE 3 TIME OF COMMENCEMENT AND COMPLETION

Work shall commence upon receipt of the Notice to Proceed. All work must be substantially completed within \_\_\_\_\_ days after the date of the Notice to Proceed. Liquidated damages will be charged against the Contractor as provided below.

# ARTICLE 4 CONTRACT SUM

The Owner shall pay the Contractor as provided in this contract the total sum price of for the successful completion of the specified work.

# ARTICLE 5 PROGRESS PAYMENT

Progress payments shall be made per the General Conditions.

## ARTICLE 6 FINAL PAYMENT

Final payment shall be made per the General Conditions. The Contractor shall request the final inspection at least five (5) days in advance of the anticipated date of inspection. If all work has not been satisfactorily completed, the Contractor shall be liable for all costs incurred by the Owner in making such inspection.

## ARTICLE 7 NOTICES

All legal notices relating to this contract, including changes of address, shall be mailed to the Owner and the Contractor at the following addresses:

### **CONTRACTOR**

OWNER
CITY OF KENAI
Public Works Director
210 Fidalgo Avenue
Kenai. AK 99611

## ARTICLE 8 INDEMNIFICATION

No provision in the contract documents lessens, alters, or makes inapplicable the requirement for indemnification stated in the General Conditions or other documents incorporated into the contract by this Agreement.

## ARTICLE 9 JURISDICTION: CHOICE OF LAW

This contract shall be governed by the laws of the State of Alaska, and any lawsuit brought thereon shall be filed in the Third Judicial District at Kenai, Alaska.

## ARTICLE 10 ATTACHMENTS

In the event there is any difference between an attachment to the original of this Agreement on file with the City of Kenai Public Works Department and any attachment to a copy of the Agreement, the attachments to the original filed with the Public Works Department shall control.

## ARTICLE 11 LIQUIDATED DAMAGES

Owner and Contractor recognize that time is of the essence in performance of this contract and the Owner will suffer financial loss if the work is not substantially complete within the time specified above, plus any extensions thereof allowed in accordance with contract documents. They also recognize the delays, expense and difficulties involved in proving the actual loss suffered by Owner if the work is not substantially complete on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty) Contractor shall pay Owner <a href="https://documents.org/linearing-the-the-contract-time-required-for-substantial-completion-to-the-actual-date-of-substantial-completion-determined-as-set-out-in-the-Contract Documents. The Owner and Contractor agree that this amount is a reasonable forecast of just compensation for the harm that is caused by the delay.

## ARTICLE 12 NO THIRD-PARTY BENEFICIARY

This Agreement is intended solely for the benefit of each party hereto. Nothing contained herein shall be construed or deemed to confer any benefit or right upon any third party.

OWNER and CONTRACTOR each binds themselves, their partners, successors, assigns and legal representatives in respect to all covenants, Agreements and obligations contained in the Contract Documents.

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed in their respective names or by their duly authorized representatives as of the date and year above written.

OWNER:	CONTRACTOR:
CITY OF KENAI  By:  Name:	By:
Title:	Title:
STATE OF ALASKA ) )ss.	STATE OF ALASKA )
THIRD JUDICIAL DISTRICT )	THIRD JUDICIAL DISTRICT )
THIS IS TO CERTIFY that on this day of, 2021 Paul Ostrander, City Manager, City of Kenai, Alaska, being personally known to me or having produced satisfactory evidence of identification, appeared before me and acknowledged the voluntary and authorized execution of the foregoing instrument on behalf of said City.	THIS IS TO CERTIFY that on this day of, 2021, (title), being personally known to me or having produced satisfactory evidence of identification, appeared before me and acknowledged the voluntary and authorized execution of the foregoing instrument on behalf of said corporation.
NOTARY PUBLIC FOR ALASKA My Commission Expires:	NOTARY PUBLIC FOR ALASKA My Commission Expires:
Approved by Legal: Approved by Finance:	

# GENERAL CONDITIONS OF THE CONTRACT BETWEEN OWNER AND CONTRACTOR

### ARTICLE 1 CONTRACT DOCUMENTS

- 1.1 The contract documents enumerated in the Agreement between Owner and Contractor form the final and completely integrated contract between the parties and supersede any prior statements, negotiations, agreements, documents or representations, written or oral. What is required by any one contract document is deemed to be required by all documents.
- 1.2 The contract documents consist of documents designated as contract documents and enumerated in the Agreement between Owner and Contractor.
- 1.3 The contract documents do not include any documents unless specifically enumerated in Agreement between Owner and Contractor.
- Unless specifically provided otherwise in the contract documents the parties to this agreement intend that Contractor will obtain all permits, inspections, tests, bonds, and insurance required by state or federal law, rule, regulation or order, or local ordinance or rule or regulation or the contract documents, whichever requirement is greater, and provide all labor, equipment, transportation, water, heat, utilities, tools, scaffolding, materials, supplies, facilities, and services necessary for performance of the contract and that the cost of these requirements be included within the contract price. The parties further intend that the cost of all overhead, supervision, and other incidental expenses required or occasioned by the contract is included in the contract price. The parties also intend that minor items required to produce complete functional system(s) and sub-system(s) are deemed to be required by the contract documents at the contract price whether or not specifically expressed. The requirements stated in this provision apply whether or not the execution or completion of the work is temporary or permanent and whether or not it is incorporated or to be incorporated in the work or final product.
- 1.5 The requirements of the contract documents and the duties and rights of each party may be amended subsequent to execution of this contract only by:
  - 1. A written amendment to the contract signed by both parties; or,
  - 2. A change order issued pursuant to ARTICLE 9.1
- 1.6 The term "Work" includes all procurement, labor, materials, products, equipment, erection, installation, and alterations necessary to complete the construction envisioned by this contract. The term "Project" refers to the overall construction, of which the work required by the contract may be the whole or may be a part. The term "Architect" also refers to Registered Engineers as appropriate.
- 1.7 The contract between Owner and Contractor shall be executed and returned by Contractor within the time required in the instructions to bidders. A written Notice to Proceed with the work will be issued to Contractor within five (5) days after Owner has executed the contract, except as provided in ARTICLE 4.1.3.
- 1.8 Should any provision or requirement of one portion of the contract documents conflict with any other portion of the contract documents, unless otherwise provided herein, the conflict will be resolved by reference to the contract documents in the following order of priority:
  - A. Any and all later modifications, Change Orders, and written interpretations of the Contract Documents issued by the Owner
  - B. The Agreement
  - C. Addenda
  - D. Supplemental General Conditions (if any)
  - E. General Conditions

<sup>&</sup>lt;sup>1</sup> Unless otherwise stated, all references to an ARTICLE refer to the articles of these general conditions.

- F. Drawings and Specifications Provided by Engineer. In the case of an inconsistency between Drawings and Specifications or within either Document not clarified by addendum, the better quality or greater quantity of Work shall be provided.
- G. Drawings and Specifications in the latest edition of the Municipality of Anchorage Standard Specifications (M.A.S.S.) In the case of an inconsistency between Drawings and Specifications or within either Document not clarified by addendum, the better quality or greater quantity of Work shall be provided. Contractor is responsible for obtaining the latest edition of the M.A.S.S.
- H. The Request for Proposals / Invitation to Bid
- I. The contractor's bid/proposal.
- 1.9 In case of difference between small and large scale drawings, the large scale drawings shall govern. Schedules on any contract drawing shall take precedence over conflicting information on that or any other contract drawing. On any of the drawings where a portion of the work is detailed or drawn out and the remainder is shown in outline, the parts detailed or drawn out shall apply also to all other like portions of the work.
- 1.10 In the event Contractor believes a discrepancy exists in the contract documents, Contractor shall submit the issue to the Project Representative together with Contractor's proposed course of action for performance of the work. Project Representative shall respond within seven (7) working days or advise Contractor that a response cannot be given within that time. If response will take more than seven (7) working days, Project Representative shall take steps to provide a response within a reasonable time. Any action taken by Contractor prior to or without Owner's response shall be at Contractor's own risk and expense.
- 1.11 Words and abbreviations which are not defined in the contract documents, but which have well known technical or trade meanings, shall be construed in accordance with the common meaning established by sound architectural or engineering practice in the State of Alaska.
- 1.12 Drawings, Specifications, other documents prepared for this project, and copies of them that are furnished by Owner and/or Architect or Consultant for this project, whether or not the documents or project are completed, shall be the property of Owner. All rights of use are reserved to Owner for this project and any subsequent project in which Owner participates in construction. Owner specifically relieves Architect or Consultant of any responsibility or liability pertaining to any subsequent use of the documents, in whole or in part, where those documents bear the stamp of a subsequent Architect or Consultant and are used for a subsequent project.
- 1.13 An electronic version of contract documents, typically in pdf format on a disc, will be furnished to the Contractor without charge. Contractor shall check all documents furnished immediately upon receipt and shall promptly notify Owner of any discrepancies.
- 1.14 The contract documents shall not be construed in any way as limiting Contractor's responsibility to perform the work completely, nor shall any prior customs or trade practices be held to constitute a waiver of the requirements of the contract documents or any portion of them.
- 1.15 The individual(s) executing the contract represent that they have the legal authority to execute the contract as or on behalf of Contractor in accordance with the bid instructions and the contract documents.
- 1.16 Execution of the contract by Contractor is a representation that Contractor has visited the site, become familiar with the local conditions under which the work is to be performed, has correlated personal observations with the requirements of the contract documents and enters this contract with knowledge of those conditions.

### ARTICLE 2 ADMINISTRATION OF THE CONTRACT

2.1 The term "Project Representative" shall mean a person or entity employed by or under contract to Owner to be Owner's on-site designated representative. The term Project Representative shall include the Project Representative's employees.

- 2.2 The terms "Architect" or "Engineer" (hereinafter used interchangeably) shall mean the person or entity contracted by the City of Kenai to provide design services for the project. Architect or Engineer also includes employees of the Architect or Engineer. Architect shall provide professional services during construction as described herein below or as authorized by Owner.
- 2.3 Project Representative will provide administration of this contract and all communication made to Owner, Architect or Engineer by Contractor shall be made through Project Representative.
- 2.4 Project Representative will be Owner's primary representative during construction until final payment has been made and the project has been closed out. Owner's instructions to Contractor shall be made through Project Representative, who shall have authority to act on behalf of Owner to the extent set forth in this contract.
- 2.5 Project Representative shall not have the authority to require additional work, changes in the work, modifications or waivers of the rights, work or duties required by the contract documents or the right to bind Owner to any change in specifications or drawings without the written consent of Owner except as provided herein.
- 2.6 Project Representative shall have authority to allow minor deviation in the requirements of the contract documents by Field Order to a maximum cumulative amount of \$5,000.00 per each additional work item, change in work, modification or waiver in the work. Field Orders are to be incorporated into a subsequent Change Order.
- 2.7 Project Representative will render interpretations of the contract documents necessary for the proper execution or progress of the project. All interpretations and decisions of Project Representative shall be consistent with the intent of the contract documents and shall be in writing.
- 2.8 Matters relating to design intent will be referred to the design Architect whose decisions will be final, consistent with the intent of the contract documents.
- 2.9 Project Representative, Architect, and authorized representatives of Owner shall have access to the project site and to the work at all times and shall be afforded every reasonable facility for ascertaining whether or not the work is in accordance with the requirements and intent of the contract documents.
- 2.10 All claims, disputes and other matters in question between Contractor and Owner relating to the execution or progress of the work shall be resolved pursuant to ARTICLE 12.
- 2.11 Project Representative shall have the authority: 1) to reject work which does not conform to the contract documents; 2) to require additional inspections or testing of any work during, prior to, or after fabrication, installation, or completion; 3) to specify both remedial work necessary to correct defective work and the time within which such work must be performed.
- 2.12 On the basis of on-site observations and inspections Project Representative will keep Owner informed of the progress of the work, and will endeavor to guard Owner against defects and deficiencies in the work. If Project Representative determines that any construction method, sequence, material, technique, safety precaution, act or omission of Contractor, Contractor's subcontractors, suppliers, or any of their agents, is detrimental to the progress, quality or safety of the work or to Owner's interest, then Project Representative shall inform Owner promptly, and Owner may, among other things, stop the work and order remedial measures. This provision shall not eliminate or reduce the responsibilities or requirements placed upon contractor and/or subcontractors by the contract documents and shall not place any liability upon the owner for action or omission in regard to this provision.
- 2.13 In accordance with the requirements of ARTICLE 8.5, Project Representative will determine amounts owing to Contractor and will recommend that Owner issue payment in the amount determined due.
- 2.14 Project Representative, with the concurrence of Owner, will determine the dates of Substantial Completion and Final Completion. The Architect will receive and forward to Owner for Owner's review, written warranties and related documents required by the contract and assembled by Contractor.

2.15 Project Representative's duties, responsibilities, and limitations of authority will not be modified without written consent of Owner and Project Representative.

### ARTICLE 3 OWNER GENERAL RIGHTS AND DUTIES

- 3.1 At Owner's option, Owner may undertake any or all tasks of Project Representative described in ARTICLE 2.
- 3.2 Owner's directions to Contractor will be made in writing either directly or through Project Representative in accordance with ARTICLE 2. No verbal representation shall be binding upon any party unless confirmed in writing.
- 3.3 Owner shall have the right to perform work related to the project under separate contract(s) in accordance with the provisions of ARTICLE 6.
- Owner shall have the right to issue change orders from time to time which may alter the scope of work required by the contract documents. All change orders will be subject to provisions of ARTICLE 9.
- 3.5 Owner will have the authority to reject work which does not conform to the requirements of the contract documents and to require such remedial work at no charge to Owner as is necessary to correct the defective work. Where defective work is being performed by Contractor and Contractor fails to correct the defective work within a reasonable period of time as set out in ARTICLE 10, or repeatedly fails to carry out the work in accordance with the contract documents, Owner shall have the authority to order an immediate halt to all defective work. Any losses suffered by Contractor as a result of the halt shall be borne by Contractor without recourse to Owner. Issuance of a stop-work order shall not be construed as constituting a breach of the agreement nor authorize Contractor to refuse to perform other portions of the work which Owner has not halted.
- 3.6 Owner shall have the right to terminate the contract or suspend performance of the contract as set out in these general conditions or other contract documents.
- 3.7 Owner shall promptly pay Contractor all sums properly due as provided by ARTICLE 8. If Owner fails to issue payment for a period of forty-five (45) days after the certificate of payment has been approved by Project Representative, without a written statement indicating why payment is being withheld, then Contractor may terminate the contract upon seven (7) days written notice to Owner and may recover from Owner payment for all work executed and for any proven losses sustained upon any materials, equipment and tools, including a reasonable profit and overhead.
- 3.8 Owner and Contractor warrant that neither party will maintain an action against the other for punitive or exemplary damages.

### ARTICLE 4 CONTRACTOR'S GENERAL RIGHTS AND DUTIES

### 4.1 EXAMINATION OF SITE AND CONTRACT DOCUMENTS

- 4.1.1 The term "Contractor" means the person or entity identified in the Agreement which has contracted with Owner to perform the work of the contract. This definition includes a responsible officer of Contractor's organization or its authorized representative who shall be made known to Owner.
- 4.1.2 Contractor represents by execution of the Agreement that Contractor has carefully examined the contract documents and the site upon which the work is to be performed and has developed familiarity with the nature, extent, site access, and risks involved in the work and with all local conditions and applicable statutes, ordinances and regulations that may affect the performance of the work. Contractor assumes full responsibility for having correlated Contractor's study of the contract documents and observation of the site. Contractor represents that Contractor has studied all available surveys and investigation reports of subsoil and latent physical conditions of the site and has made such additional surveys and investigations as Contractor deemed necessary for the performance of the work at the contract price, within the time specified and in accordance with the requirements of the contract documents.

- 4.1.3 Contractor shall not begin work until given a Notice to Proceed, which will be issued as promptly as possible after the Agreement has been executed by all parties. If Owner is required to delay issuance of a Notice to Proceed for more than five (5) working days because of fault of Contractor or other reasons which Owner deems sufficient, then Contractor shall be notified in writing of the delay and when issuance of the Notice to Proceed is anticipated.
- 4.1.4 Before commencing any part of the work, and prior to undertaking each subsequent phase of the work, Contractor shall carefully study the plans and specifications and check and verify all previous work and pertinent dimensions, figures and amounts shown in them and shall make all applicable field measurements. Contractor shall at once report in writing to Owner any apparent conflict, ambiguity, discrepancy, error or other omissions which Contractor may discover. Contractor shall be liable to Owner for failure to notify Owner of any conflict, ambiguity, discrepancy, error or other omissions which Contractor discovered, but failed to report to Owner and shall be responsible for providing a remedy.
- 4.1.5 Contractor shall lay out the work from established base lines and bench marks indicated on the drawings and shall be responsible for all measurements in connection therewith. Contractor will be held responsible for the execution of the work to such lines and grades. It shall be the responsibility of Contractor to maintain, preserve, or replace all stakes and other marks.
- 4.1.6 Drawings showing location of equipment, piping, etc., are diagrammatic and job conditions will not always permit installation in the location shown. If a situation occurs which may require relocation of an item or system which substantially differs from the location called for in the contract documents, it shall be brought to Owner's attention immediately and the relocation determined with the concurrence of Architect or Engineer. If Contractor relocates such items without approval, Contractor will be responsible for any cost or expense for removal or further relocation necessitated by installation without approval.

### 4.2 SUBMITTALS

- 4.2.1 Within 10 days after the effective date of the notice to proceed and prior to commencement of work, Contractor shall submit to Owner the construction progress schedule and schedule of values required in Articles 4.2.2, 4.2.3 and 4.2.4. The schedule of values and progress schedule must be acceptable to owner and provide reasonable divisions of contract work with corresponding payment. No payment will be made under this contract prior to completion of this requirement. In cases of a unit bid project, the bid schedule on the bid form will be the schedule of values.
- 4.2.2 In accordance with the requirements governing submittals as provided in the contract documents, Contractor shall prepare and submit to Owner a detailed progress schedule for the work which reveals and identifies the critical path of progress, which is consistent with the work and time required by the contract, and which shall provide for the most expeditious and practicable execution of the work. Float time between work items is part of the project and not property of the Contractor. Float time is defined as the amount of time that spans from completion of one previously scheduled activity and extends to the point at which the next scheduled activity is set to begin.
- 4.2.3 Contractor shall also provide Owner with a proposed schedule of values upon submittal of a detailed progress schedule for the work. The schedule of values shall be allocated to various portions of the work and be prepared in such a form and supported by such data to substantiate its accuracy as reasonably required by Owner. Each item of work shall include all applicable profit and overhead. This schedule of values, unless objected to by owner shall be the basis for progress payments made to Contractor and shall include specific lump sum amounts for "Final Payment." This line item shall be in conformance with guidelines specified in ARTICLE 8. Contractor, at the request of Owner, shall amend the progress schedule and the schedule of values as the work progresses.
- 4.2.4 The schedule of values must show a complete breakdown of all phases of the work required by the contract documents. Payment will be in accordance with ARTICLE 8. Pay requests, schedules of value and progress schedules must correspond.
- 4.2.5 Contractor shall submit for Architect's and Owner's approval all product data required by the contract documents in conformance with the dates specified in the detailed progress schedule. Such data include illustrations, standards, schedules, performance charts, instructions, brochures, diagrams, or other

- information necessary to assist Architect in determining whether a proposed product meets the intent of the contract documents.
- 4.2.6 Contractor shall also submit physical samples of materials, equipment or workmanship where required by the contract documents. After approval by Owner and Architect, the sample shall be established as the minimum standard of work, material, equipment or other quality which will be acceptable for work of which the sample is representative.
- 4.2.7 Submittal of shop drawings by contractor constitutes a representation by contractor that the submittal and work, or products required or to be used in accordance with that submittal, will meet or exceed the criteria and conditions of the contract documents and that performance of the work identified in those submittals will meet the progress schedule.
- 4.2.8 Before initiating any work for which shop drawings are required, Contractor shall obtain Architect's approval of the shop drawings, which include drawings, diagrams, schedules and other data specially prepared by Contractor, a subcontractor, a manufacturer, a supplier or distributor to illustrate in detail that portion of the work. Contractor shall review, approve, and submit all shop drawings, whether prepared by himself/herself or subcontractor or supplier. It shall be the duty of Contractor to provide a whole or complete system and to coordinate all work depicted by a particular shop drawing with the work required by other shop drawings for that portion of the work or for related or adjacent work.
- 4.2.9 Contractor shall provide a copy of all transmittal letters to Project Representative at the time the submittal is made to Architect. Architect will review Contractor's submittals only for conformance with the design concept of the work and the information given in the contract documents. Architect's approval of a specific item shall not indicate approval of an assembly of which the item is a component. Architect will return reviewed submittals to Contractor with written comments and forward one set to Project Representative with reasonable promptness so as to cause no delay. A minimum of five (5) sets of submittals shall be required.
- 4.2.10 Should Architect reject any proposed shop drawings, product data or sample, Contractor shall resubmit revised drawings, samples or product data and draw Architect's attention to any deviation or revisions other than those requested by Architect.
- 4.2.11 All of Contractor's submittals shall be made in conformance with the dates specified in the detailed progress schedule with reasonable promptness and in such sequence as to cause no delay in the work of Owner or any separate contractor.
- 4.2.12 The Contractor shall provide two (2) hard copies and an electronic .PDF file of the operation and maintenance manuals for equipment and systems incorporated in the work.

### 4.3 SAFETY AND CONTROL OF SITE

- 4.3.1 Contractor is deemed to be in physical control of the work site. Contractor shall confine Contractor's operations at the site to those areas described in the contract documents or permitted by applicable statutes, ordinances or permits.
- 4.3.2 Contractor shall not unreasonably encumber the site with materials, equipment or ancillary construction. Contractor shall be responsible for eliminating or minimizing to the extent reasonably possible, public hazards and inconveniences which might result from this work.
- 4.3.3 Contractor shall at all times keep the premises free from accumulation of excess snow, waste materials or rubbish and shall keep adjacent public road clear of mud and dust caused by Contractor's activities. At the completion of the work, Contractor shall remove all waste materials and rubbish from the project as well as Contractor's tools, equipment and surplus materials. The removal and disposal of waste materials, rubbish, or other material, shall be accomplished in accordance with all local, state and federal requirements.
- 4.3.4 Contractor shall be responsible for initiating, maintaining and supervising all necessary safety precautions in connection with this work and shall be responsible for ascertaining and adhering to all applicable federal, state, and local standards, laws, ordinances, regulations, requirements and any lawful order of any public authority bearing on the safety of persons or property or their protection from damage, injury, or loss.

- 4.3.5 Contractor's duty to maintain a safe and secure project site shall include all precautions necessary to assure the safety and protection against injury and damage, of all employees engaged in the work and any other person who may be affected by the work including Owner's agents and employees; Contractor's agents and employees; and members of the general public. Contractor shall assure the safety and protection of all work, materials and equipment which may be upon the site; utilities and other property of Owner including portions of structures and utilities not designated for removal or relocation, trees, shrubs, lawns, walks, pavements and roadways. Contractor duties include but are not limited to protection of project site from vandalism. Such precautions shall further include but not be limited to protection from dangers from hazardous materials.
- 4.3.6 Contractor shall take all necessary measures to prevent members of the general public from entering upon the site without the permission of Owner or Contractor.
- 4.3.7 Contractor shall comply with all OSHA requirements, give all safety notices, erect and maintain all reasonable safeguard notices and barriers, including danger signs and fences which may be required to protect the site and limit access to it.
- 4.3.8 In the event of an emergency, the Contractor will take all means necessary to minimize all damage to or exposure from effects of a catastrophic event. In such case, the Contractor may consult with Owner or seek Owner's assistance. The responsibility for protection of the site, work, and all material remains with the Contractor.
- 4.3.9 Contractor shall designate a person in Contractor's employ at the site to be primarily responsible for the prevention of accidents, identification of all applicable safety standards, statutes and regulations, including but not limited to those addressing hazardous material, and full compliance therewith. This person shall be Contractor's Superintendent unless otherwise designated by Contractor in writing to Owner.
- 4.3.10 Should Project Representative or other representative of Owner ascertain that a safety danger exists, Project Representative or Owner may order an immediate cessation of all dangerous activity and a correction of any safety hazard. Written notice of the order to stop work or to correct the safety hazard shall be made to Contractor as soon as practicable. Contractor shall have no recourse against Owner for any alleged losses or delays arising from this section unless the order to stop work or correct safety deficiency is wholly without basis.
- 4.3.11 Should Contractor elect to utilize explosives or other hazardous materials or equipment, or should Contractor be required to do so for the execution of the work, Contractor shall first give jurisdictional authorities and Owner notice of the intention to utilize hazardous materials, explosives or equipment at a particular time and date. Contractor shall use the utmost care in utilizing such materials and shall use only properly qualified and licensed personnel.
- 4.3.12 Contractor shall correct any damage to the property of Owner or other parties which arises out of the activities or omissions of Contractor, Contractor's agents, subcontractors, employees, personnel or suppliers. Contractor shall commence remedial activities within seven (7) days from the date of the damage. If Contractor fails to do so, Owner or the affected party may utilize his own forces to correct or replace the damaged property and Contractor shall promptly reimburse Owner or the affected party for all losses and costs thereupon. In the event Contractor fails to reimburse Owner as set forth herein, Owner may set off the amount due Owner from any amount due Contractor.

### 4.4 SUPERVISION AND QUALITY OF THE WORK

4.4.1 Contractor shall supervise and direct the work using the best skill and attention. Contractor is responsible for, and agrees to comply with all applicable local, state and federal ordinances, laws, regulations and statutes. Contractor shall be solely responsible for all construction means, methods, techniques, sequences and procedures, and for the schedule and coordination of all portions of the work to be performed under the contract. Contractor shall also be required to coordinate the work with that of any other contractor working on the project so as to minimize delay, inconvenience, and expense to both. Where identified in writing by Owner at any time, Contractor shall be required to coordinate the work with any partial use of the site that Owner deems necessary.

- 4.4.2 All materials and equipment shall be applied, installed, connected, erected, used, cleaned, prepared or conditioned in accordance with the instructions of the applicable manufacturer, fabricator or processor except as otherwise provided in the plans and specifications.
- 4.4.3 Contractor shall keep on the job site at all times during work progress, a competent resident superintendent capable of reading and thoroughly understanding the plans and specifications. The superintendent will be Contractor's representative at the site and all communications given to the superintendent shall be as binding as if given to Contractor directly. In the event Contractor decides to replace the superintendent, Contractor shall submit to Owner a written notice including the proposed new superintendent's qualifications. The superintendent shall not be replaced without this written notice and a statement of non-objection by the Owner.
- 4.4.4 Contractor shall provide sufficient, competent, and suitable qualified personnel to survey and lay out the work and to perform all construction required by the contract documents. Contractor is responsible for maintaining good discipline and order at the job site at all times and shall not employ any unfit person or anyone not skilled in the task assigned to that person.
- 4.4.5 Contractor shall be fully responsible to Owner for the acts and omissions of Contractor's employees and agents, Contractor's subcontractors and their employees and agents, and any other persons performing any of the work for the benefit of Contractor.
- 4.4.6 Contractor shall not permit the possession or use of alcohol or controlled substances on the site, and shall remove from the site any person who possesses, uses, or is under the influence of alcohol or controlled substances. Contractor shall require all Contractor's agents, subcontractors, employees or suppliers who perform work on site to sign a statement that they have been informed and will abide by the above policy. A copy of all such statements shall be kept at the job site throughout the duration of Contractor's work.
- 4.4.7 Contractor warrants to Owner that all work will be free from faults and defects and meeting or exceeding the requirements of the contract documents and all local, state, and federal legal requirements. All work not so conforming to these standards will be considered defective, and Owner may require its correction.

### 4.5 DIVISION OF THE WORK

4.5.1 The division of the work into various specialties and divisions in the contract specifications and drawings shall not bind Contractor in apportioning the work among various subcontractors, specialty contractors or workers, and Contractor's own employees.

### 4.6 TITLE 36 AND OTHER STATUTORY REQUIREMENTS

- 4.6.1 Contractor shall give and post all notices and comply with all federal, state, and local laws, ordinances, regulations, requirements and any lawful order of any public authority bearing on the performance of the work, and shall notify Owner in writing if the drawings and specifications or the contract documents are at variance therewith. If Contractor knows or should know that Contractor is performing work contrary to such legal requirements without giving written notice to Owner in time for Owner to give a stop work order, the Contractor shall bear all costs to remedy that work and to bring it into conformance with the applicable requirements. In the event Contractor fails to reimburse Owner as set forth herein, Owner may set off the amount due Owner from any amount due Contractor. This requirement does not lessen or alter the requirement for indemnification stated in ARTICLE 4.13.
- 4.6.2 Contractor and subcontractors shall strictly comply with all requirements of Title 8, Chapter 30 of the Alaska Administrative Code and Title 36 of the Alaska Statutes as applicable to this contract.
- 4.6.3 Contractor or subcontractors of the contractor shall pay all employees unconditionally as required by AS 36.05.040 and any other applicable laws or regulations. Wages may not be less than those stated in the advertised specifications, regardless of the contractual relationship between the Contractor or subcontractors and laborers, mechanics, or field surveyors. The wages are determined for the region in which the work is done and the rates are issued by the Alaska State Department of Labor (see attached Title 36 wage schedule). The scale of wages to be paid shall be posted by Contractor in a prominent and easily accessible place at the site of the work. If it is found that a laborer, mechanic or field surveyor employed by the Contractor or subcontractor has been or is being paid a rate of wages less than the rate

of wages required by this contract, Owner may, on written notice to Contractor hold Contractor in immediate default and terminate Contractor's right to proceed with the work or that part of the work for which there is a failure to pay the required wages, and Owner may prosecute the remaining work to completion by contract or otherwise, holding Contractor and Contractor's sureties liable for any costs in excess of the contract price. In the event Owner permits Contractor to pursue further work under the contract, Owner shall withhold so much of the accrued payments as is necessary to pay to laborers, mechanics, or field surveyors employed by the Contractor or subcontractors the difference between the rates of wages required by the contract to be paid laborers, mechanics, or field surveyors on the work and the rates of wages in fact received by laborers, mechanics, or field surveyors.

4.6.4 A copy of certified payrolls shall be provided to the Project Representative with each Progress Payment Request.

#### 4.7 PROJECT RECORDS

- 4.7.1 Contractor shall maintain at the project site copies of plans and technical specifications, approved shop drawings and manufacturers' information sheets, and other contractor documents which are necessary for the expeditious and correct execution of the work.
- 4.7.2 Contractor shall maintain at the project site a complete daily job report showing job conditions, work activities started, in progress, interrupted and completed; work force, including identification and number of Contractor's employees and subcontractors by craft; receipt and disposition of materials and equipment; tests performed, visiting personnel and any accidents on a particular day. Owner shall have access to the daily report at all times. A copy of each daily report shall be provided to Project Representative at the end of each week.
- 4.7.3 Contractor shall keep one record copy of all specifications, drawings, addenda, modifications, and shop drawings at the job site in good order and annotated to show all changes made during the construction process. These shall be available to Owner during construction and turned over to Owner prior to final completion of the work.

#### 4.8 ALLOWANCES

4.8.1 Contractor shall include in the contract sum all allowances stated in the specifications or plans, and all items covered by these allowances shall be supplied in such amounts, or by such a person, as Owner may direct. The allowance shall include the cost to Contractor, less applicable trade discounts, of materials and equipment required by the allowance; delivery at the site, applicable taxes; Contractor's cost for unloading and handling on the site, for labor, installation, overhead, profit and other expenses incurred by Contractor. Whenever the cost of the allowed item exceeds or is less than the allowance, the contract sum shall be adjusted equitably by change order.

#### 4.9 NONDISCRIMINATION

- 4.9.1 Contractor must comply with all federal and state laws, rules, regulations and orders, and all local ordinances, regulations and rules concerning wages, taxes, social security, workers' compensation, nondiscrimination, licenses, registration requirements, and similar provisions governing employment of individuals.
- 4.9.2 Contractor will not discriminate against any employee or applicant for employment or refuse employment to a person, or bar a person from employment, or discriminate against a person in compensation or in a term, condition, or privilege of employment because of the person's race, religion, color, or national origin, or because of the person's age, physical or mental disability, sex, marital status, changes in marital status, pregnancy, or parenthood when the reasonable demands of the position do not require distinction on the basis of age, physical or mental disability, sex, marital status, changes in marital status, pregnancy, parenthood, or political affiliation. Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause. Contractor further agrees to insert this provision in all subcontracts hereunder and to require the subcontractors to insert this provision in their subcontracts.

Notwithstanding the prohibition against employment discrimination on the basis of marital status or parenthood stated above, an employer may, without violating this provision, provide greater health and retirement benefits to employees who have a spouse or dependent children than are provided to other employees.

- 4.9.3 Contractor shall state, in all solicitations or advertisements for employees to work on contract jobs, that all qualified applicants will receive consideration for employment in accordance with the above referenced nondiscrimination clause.
- 4.9.4 Contractor shall comply with the reporting requirements which the State of Alaska may establish by regulation.
- 4.9.5 Contractor shall include the provisions of these paragraphs in this section in every subcontract or purchase order under this contract so as to be binding upon every such subcontractor or vendor of Contractor under this contract.

#### 4.10 TAXES

- 4.10.1 Contractor shall pay all sales, consumer, use and other taxes for the work or portions thereof provided by Contractor which are legally enacted at the time bids are received, whether or not yet effective.
- 4.10.2 Contractor shall comply with Owner's requirements for payment of taxes. This contract is specifically subject to the provisions of City of Kenai Code, as it now stands or as it may be amended, including but not limited to termination of the contract for non-compliance. If the violation arises from failure to file or remit sales taxes, no payment will be made to Contractor until all filings have been made and all amounts due are paid.

#### 4.11 PERMITS, FEES, AND NOTICES

- 4.11.1 Contractor shall secure the building permit from the City of Kenai at no cost. Unless otherwise provided in contract documents, Contractor shall secure and pay for all other legally required permits and government fees, licenses and inspections necessary for the proper execution and completion of the work. These are customarily secured after execution of the contract. These costs are part of the contract price. This provision does not lessen the requirements set out in ARTICLE 1.4.
- 4.11.2 Contractor is required to comply with all permits obtained by Owner for project, if any. Contractor is responsible for requesting information from Owner regarding any applicable permits obtained by Owner.

#### 4.12 ROYALTIES AND PATENTS

4.12.1 Contractor shall pay for all royalties and license fees. Contractor shall defend all suits or claims for infringement of any patent rights and shall save Owner harmless from loss on account thereof.

#### 4.13 INDEMNIFICATION

4.13.1 The contractor shall indemnify, hold harmless, and defend the City at its own expense from and against any and all claims, losses, damages or expenses, including reasonable attorney's fees, of, or liability for, any wrongful or negligent acts, errors, or omissions of the contractor, its officers, agents or employees, or any subcontractor under this contract. The contractor shall not be required to defend or indemnify the City for any claims of, or liability for, any wrongful or negligent act, error, or omission solely due to the independent negligence of the City. If there is a claim of, or liability for, the joint negligence of the contractor and the independent negligence of the City, the indemnification and hold harmless obligation shall be apportioned on a comparative fault basis. Apportionment shall be determined upon final determination of percentage of fault. If any such determination is by settlement, the percentage of fault attributed to each party for purposes of this indemnification provision shall only be binding upon the parties included in the settlement agreement. "Contractor" and "City" as used in this article include the employees, agents, officers, directors, and other contractors who are directly responsible, respectively, to each. The term "independent negligence of the City" is negligence other than in the City's selection, administration, monitoring, or controlling of the contractor and in approving or accepting the contractor's work.

#### ARTICLE 5 SUBCONTRACTORS AND SUPPLIERS

#### 5.1 DEFINITIONS AND RESPONSIBILITIES

- 5.1.1 A subcontractor is a person or entity having a direct contractual relationship with Contractor, or with one of Contractor's subcontractors, to perform any of the work at the site. A supplier is any manufacturer or person or firm providing materials, equipment or assemblies to Contractor or to one of the subcontractors for inclusion in this project.
- 5.1.2 All contracts between Contractor, subcontractors and suppliers (whether or not in privity with Contractor) shall be in accordance with the terms of this contract and shall incorporate the General Conditions of this contract. Contractor shall include in such contracts, and require its inclusion in any subcontracts, a provision holding any subcontractor or supplier (whether or not in privity with Contractor) directly accountable to Owner for work which fails to meet the requirements of the contract documents, or which prevents Contractor or any subcontractor from performing work. This direct accountability to the Owner shall be in addition to Contractor's liability for any such failure.
- 5.1.3 The provisions in this ARTICLE shall not be construed as creating a right of recourse, or any direct contractual relationship, between Owner or Owner's agents and any subcontractor, supplier, or manufacturer (whether or not in privity with Contractor).
- 5.1.4 Contractor shall make all necessary copies of these contract documents available to Owner and to each subcontractor and shall require each subcontractor to make copies of these contract documents available to each of Contractor's subcontractors, if any.
- 5.1.5 Contractor shall be fully responsible for enforcing discipline among subcontractors, their employees and their subcontractors, and for insuring that each subcontractor performs the work in accordance with the contract documents and all safety regulations.
- 5.1.6 Contractor shall have the discretion to require subcontractor(s) to provide payment or performance bonds for work of the subcontractor(s).

#### 5.2 AWARDS TO SUBCONTRACTORS AND SUPPLIERS

- 5.2.1 At Owner's request Contractor shall submit to Owner a list of all principal subcontractors and material suppliers and shall not contract with any proposed person or organization to whom Owner voices a reasonable objection. This provision applies to substitution of subcontractors or suppliers subsequent to Owner's initial objection to a proposed person or entity. Such list shall be submitted in accordance with Division 1 requirements as provided in the contract specifications.
- 5.2.2 Rejection of a proposed subcontractor or material supplier shall not entitle Contractor to any increase in the contract sum or time.
- 5.2.3 At Owner's request Contractor shall submit to Owner a copy of any subcontract and any purchase orders for materials and equipment prior to purchase of such items.

#### 5.3 CONTRACTOR PAYMENTS TO SUBCONTRACTORS AND SUPPLIERS

- 5.3.1 Recognizing the importance of maintaining the integrity of a public contract, Contractor warrants that Contractor will pay all subcontractors and material suppliers at least monthly on or about the 20th day of each month upon approval of the subcontractors' and materials suppliers' billing, for all apparently acceptable work performed on the site during the preceding month and for all apparently acceptable material incorporated into the project or delivered and properly stored at the site during any month for which Contractor has received payment from Owner. If Owner retains a percentage of sums due, Contractor may retain a like percentage, but when retainage is paid, Contractor must pay to the subcontractor or supplier interest on retainage equal to interest rate paid to Contractor by Owner.
- 5.3.2 In furtherance of Contractor's warranty under this ARTICLE and ARTICLE 8, Owner, may require Contractor to declare Contractor's status of accounts with any or all the subcontractors and suppliers. A proof of payment to subcontractors and suppliers shall be made in a form acceptable to Owner. If Contractor

breaches this warranty and fails to pay each subcontractor and materials supplier within 45 days after a monthly billing has been presented, then Owner reserves the right to withhold sufficient sums from Progress Payments due to Contractor and to issue payment to the subcontractors or material suppliers directly. This ARTICLE shall not be construed as creating a right in the subcontractors or material suppliers to have direct recourse against Owner for payment. Contractor expressly agrees that Owner will not be liable for any exercise of Owner's discretionary right under this section, and Contractor agrees to release and indemnify Owner for any claims arising therefrom, either by Contractor directly or by any subcontractor or material supplier. Likewise, this ARTICLE shall not be construed as creating a right in Contractor's surety or any other subrogated party to have direct recourse against Owner for failure to withhold sums pursuant to this section.

#### **ARTICLE 6** SEPARATE CONTRACTS

- 6.1 Owner has the right to award separate contracts for work on the project that is not included in this contract.
- When separate contracts are awarded for different portions of the Project or other work on the site, the term Contractor in the contract documents in each case shall mean the Contractor who executes each separate contract.
- 6.3 Contractor shall afford other contractors and Owner's own forces reasonable opportunity for the introduction and storage of materials and equipment and for the execution of their work and shall properly connect and coordinate Contractor's work with theirs as required by the contract documents.
- Any costs caused by defective or ill-timed work under separate contracts shall be borne by the party responsible thereof and shall be paid promptly.
- When separate contracts are let within the limits of any one project, each Contractor shall conduct the work so as not to interfere with or hinder the progress of completion of the work being performed by other Contractors. Contractors working on the same project shall cooperate with each other as directed.
  - Each Contractor involved shall assume all liability, financial or otherwise, in connection with his or her contract and shall protect and save harmless the Owner from any and all damages or claims that may arise because of inconvenience, delays, or loss experienced because of the presence and operations of other Contractors working within the limits of the same project.
- 6.6 If any part of Contractor's work depends upon work performed by Owner or any separate contractor, prior to proceeding with the work, Contractor is required to report to Owner any apparent discrepancies, defects or delays in the other work which impede proper execution of the work required by this contract. If Contractor fails to report such unsuitable work by another contractor to Owner, then Contractor shall be deemed to have accepted the unsuitable work and any liability for all deficiencies, damages and costs which arise as a result of the defective work or of Contractor's use or covering of the unsuitable work.
- 6.7 Should Contractor or any subcontractor delay or cause damage to the work or property of any other contractor or person, Contractor shall repair the damage or settle the claim and shall further, to the extent allowed by law, indemnify, defend, and hold Owner harmless from any and all claims, costs, expenses, injury, damages, or loss of any kind, including attorneys' fees, court costs, or arbitration costs, which arise out of such delay or damage.
- 6.8 Should a dispute arise between Contractor and separate contractors as to the responsibility for completing, finishing or cleaning up particular work or a portion of the work, Owner may complete, finish or clean up the disputed portion and apportion the cost among Contractors responsible as Owner shall determine to be equitable.

#### ARTICLE 7 BONDS AND INSURANCE

#### 7.1 PERFORMANCE AND PAYMENT BONDS

7.1.1 For contracts with a contract sum of one hundred thousand dollars (\$100,000) or greater, or as otherwise specified in the request for bid, Contractor shall provide as part of the basic contract sum, a performance bond and a payment bond, each in the amount of 100% of the contract amount, prior to Owner's execution

of the contract. Contractor shall have no recourse of any kind against Owner, if Owner declines to award a contract due to Contractor's failure to provide the required bonds. These bonds, in whatever amount required by the specific contract, shall be administered and deemed governed by the provisions of Alaska Statutes Title 36, Chapter 25 and shall comply with all requirements for payment and submission of claims as provided by that chapter.

- 7.1.2 All bonds shall name Owner as the beneficial party and shall protect Owner for a period of at least one year subsequent to the date of final payment upon this contract. All bonds shall be executed upon a form acceptable to Owner and by a surety company licensed to do business within the State of Alaska and acceptable to Owner. The form of the bond shall provide that Owner shall have at least thirty (30) days prior notice of any lapse in bond coverage. The bond payment shall be applicable to all subcontractors or material suppliers (whether or not in privity with Contractor) who might attempt to assert a claim against Owner.
- 7.1.3 Owner may inform the surety as to the general progress and status of the work. A copy of all communications with the surety company shall be provided promptly to Contractor upon request.
- 7.1.4 In the event Contractor refuses, or is unable to make payments to laborers, subcontractors or material suppliers, or to complete the work, or to correct defective work, within the times provided by this contract, Owner may elect to call upon Contractor's surety to rectify Contractor's default. Contractor shall first be given seven (7) calendar days written notice (effective when mailed) of Owner's intentions to call upon the surety company and Owner shall specify to Contractor the basis for the proposed course of action. If Contractor fails to correct the default within the time provided, Owner shall promptly call upon the surety.
- 7.1.5 Prior to final payment or reduction in retainage, Contractor shall provide written consent of each affected surety releasing Owner from any further claims arising from payment to Contractor and obligating the surety company to rectify any default, nonpayment, defective work, error, omission or deficiency of Contractor.
- 7.1.6 Contractor and Owner expressly agree that Owner shall be entitled to retain from payments to Contractor amounts in excess of normal retainage if these additional amounts may be necessary to indemnify Contractor's surety for any payment or corrective work which the surety might be required to undertake. This additional retainage will be made only upon written directive by Contractor's surety specifying the reason for retaining extra amounts, the amounts to be retained and agreement of the surety to reimburse Owner for any interest which may be due Contractor under the provisions of the Alaska Statutes.

#### 7.2 CONTRACTOR'S INSURANCE

- 7.2.1 The services to be rendered under this contract are those of an independent Contractor.
- 7.2.2 Contractor and all subcontractors, if any, shall be responsible for the purchase and maintenance of all insurance required by law and at a minimum purchase the insurance coverage as specified in ARTICLE 7.2.5 and 7.2.6 below, and any other insurance coverage as may be specified in ARTICLE 7.2.11 SUPPLEMENTARY GENERAL CONDITIONS OF INSURANCE, if attached and forming a part of this contract. Such insurance shall be by a company/corporation currently rated "A-" or better by A.M. Best.
- 7.2.3 This insurance coverage required by ARTICLE 7.2.5 and 7.2.6, and ARTICLE 7.2.11 if attached, shall be in acceptable form, and for the amounts specified by the City of Kenai, or as required by law, whichever is greater.
- 7.2.4 The insurance policies shall remain in force for the life of the contract and shall be a part of the contract price.
- 7.2.5 Commercial general liability with minimum coverage of \$1,000,000 and automobile liability insurance with minimum coverage of \$1,000,000 combined single limit bodily injury and property damage per occurrence. This insurance shall be primary and exclusive of any other insurance carried by the City of Kenai. The commercial general liability insurance shall be without limitation on the time within which the resulting loss, damage, or injury is actually sustained.
- 7.2.6 Per Alaska State Statutes, Worker's Compensation and Employers Liability Insurance shall be provided for all employees who are performing work under this contract.

- 7.2.7 Certificate(s) of Insurance shall be provided by Contractor and all subcontractors, or their Insurance Companies and/or their Agents, naming the City of Kenai as an additional insured for the work specified in this contract with a waiver of subrogation for commercial general liability insurance and automobile liability insurance. The certificates of insurance must reference the specific contract by name. Workers compensation insurance must be endorsed for waiver of subrogation against the City. Certificates of Insurance, acceptable in form and content, will be delivered to Owner at the address designated for legal service in the agreement, at or prior to presentation of the contract for execution by owner.
- 7.2.8 There shall be no cancellation or material change of the insurance coverage, or intent not to renew the insurance coverages as specified in this contract, without thirty (30) days prior written notice to the City of Kenai. Notice of cancellation, material change in coverage, or intent not to renew will be delivered to the address designated for legal notice in the agreement.
- 7.2.9 Upon renewal or change in policies during the contract, Certificates of Insurance shall be delivered to the address designated for legal notice in the agreement.
- 7.2.10 Owner shall have the option to purchase and maintain such insurance as will protect Owner against property losses or liability claims, which may arise from operations under the contract. Insurance providing coverage against fire and extended coverage perils, may, at Owner option, provide coverage to the full insurable value of the project and insure the interests of Contractor and all subcontractors as their interests may appear. Any recovery for loss insured pursuant to this General Condition is to be adjusted to Owner and made payable to Owner as trustee for the insured, as their interests may appear. This section does not modify the contractor or subcontractors' responsibility to provide insurance as required in ARTICLE 7.
- 7.2.11 May be added in supplementals as Supplementary General Conditions of Insurance.

#### **ARTICLE 8** MEASUREMENT, PAYMENT AND COMPLETION

#### 8.1 SCOPE OF PAYMENT

8.1.1 Unless altered by change order, Contractor shall be paid only that sum set forth in the agreement between Owner and Contractor as Contractor's compensation for performance of all work required by the contract documents.

#### 8.2 LUMP SUM PAY ITEMS

- 8.2.1 Each bid item is characterized as either a lump sum item or a unit price item in the bid documents. Where the item is bid at a lump sum price, no additional compensation shall be paid to Contractor for additional work required because Contractor failed to include items or quantities in Contractor's estimate or a subcontractor's estimate, or failed to utilize proper construction means, methods, procedures or sequence or by virtue of any decision of Contractor.
- 8.2.2 Contractor is required to provide and pay for all requirements necessary for the proper execution and completion of the contract unless specifically excluded by the contract documents. The costs are part of the contract price. The requirements include but are not limited to the requirements stated in ARTICLE 1.4.
- 8.2.3 All materials and equipment incorporated in the work shall be new except as otherwise provided in the contract documents. All materials and equipment shall meet or exceed the requirements of the plans and specifications and Contractor shall furnish, if requested, satisfactory evidence as to the source, kind and quality of any materials and equipment.

#### 8.3 UNIT COST ITEMS

8.3.1 Quantities appearing in the bid schedule are approximate and are prepared for comparison of bids. Payment to Contractor will be for actual quantities of work performed and materials furnished in accordance with the contract documents. Scheduled quantities of work and materials may be increased, decreased or eliminated as provided herein.

#### 8.4 APPLICATION FOR PAYMENT

- 8.4.1 Applications for payment shall be based on Contractor's submitted schedule of values, as approved by Owner per Section 4.2. Schedule of values shall be prepared in such form and supported by such data as may be required by Owner to substantiate its accuracy prior to Contractor's first application for payment.
- 8.4.2 The schedule of values shall include quantities of work, unit prices and other items comprising the contract price. It shall subdivide the work into each component part in sufficient detail to serve as the basis for progress payments during construction.
- 8.4.3 With each subsequent application for progress payment, Contractor shall provide a schedule of values to Owner showing all work which has been performed to date together with the value thereof, and the percentage of work completed.

#### 8.5 PROGRESS PAYMENTS

- 8.5.1 Progress Payments shall be made monthly, based upon the amount of apparently acceptable work performed at the site and apparently acceptable materials purchased for the project and properly stored at the site during the previous month. Disbursement of progress payments will not effect a transfer of the risk of loss from the Contractor to the Owner for invoiced equipment or material. The risk of loss of the work and all material and equipment not yet incorporated in the work is the liability of the Contractor until substantial or final completion, whichever is earlier.
- 8.5.2 The value of work performed and materials stored shall be set forth in Contractor's revised schedule of values. If requested by Owner, Contractor shall promptly provide Owner any additional information necessary to ascertain the value of the work performed or the cost of materials stored at the site during the previous month. Each updated Schedule of Values shall be in the form of a notarized affidavit. Proof of certified payroll shall be provided per ARTICLE 4.
- 8.5.3 By application for payment, Contractor warrants and guarantees to Owner that title to all work, materials, and equipment for which payment is requested will pass to Owner either by incorporation in the construction and after substantial completion or upon receipt of payment, whichever occurs later, that such title will be clear of all liens, claims, security interests, and other encumbrances, except for liens to be released later prior to final payment and specifically identified on the application for payment, and that all such work, materials, and equipment are of acceptable quality.
- 8.5.4 Each application for payment shall be made no later than the tenth day of each month for work performed during the preceding month. Progress Payment requests shall be submitted to Project Representative for analysis and recommendation to Owner.
- 8.5.5 Project Representative will review Contractor's application for payment within seven (7) working days after receipt and if Project Representative ascertains that the amounts set forth therein are properly due and owing to Contractor, then Project Representative shall issue a Certificate of Payment to Owner. If Project Representative determines that only a portion of the sum requested is then properly due and owing to Contractor, then Project Representative may issue a Certificate of Payment in a lesser amount or may reject the application altogether. Project Representative will notify in writing both Contractor and Owner of the reasons for reduction or rejection of any application for Progress Payment.
- 8.5.6 Project Representative's issuance of a Certificate of Payment constitutes a representation that the work has progressed to the point indicated and that to the best of Project Representative's professional knowledge and information, Contractor is entitled to payment in the amounts certified.

#### 8.6 RETAINAGE

8.6.1 After receipt from Project Representative of the Certificate for Payment, Owner shall make payment to Contractor within thirty (30) days. Owner shall have the option to retain up to 10% of the full amount of the Certificate for Payment plus lump sum amounts for material and equipment not properly stored, or subject to damage prior to use. Amounts retained by Owner may be held by Owner until project completion. If the project involves grant money or the City has entered into a written contract with the state to provide state funds, payment will be made in accordance with AS 36.90.200-270.

8.6.2 Owner may withhold additional sums of money from progress payments in an amount sufficient to safeguard and protect Owner against any apparently meritorious claims against Contractor by any party other than Owner, and for any work which Owner ascertains to be defective or not meeting the requirements of the contract documents.

#### 8.7 CONDITIONS OF PAYMENT

- 8.7.1 Project Representative may refuse to approve all or any part of any request for progress payment if, in Project Representative's opinion, it would be incorrect to make the representation to Owner set out in ARTICLE 8. Project Representative may also refuse to approve all or any part of any request for progress payment, if subsequently discovered evidence or the results of subsequent inspections or tests nullify any payment previously approved.
- 8.7.2 Owner may withhold payment to the extent necessary to protect Owner from loss resulting from:
  - Defective or damaged work;
  - B. Claims or liens which have been filed or may be reasonably expected;
  - C. Contract price reduction by modifications or change orders;
  - D. Owner cost to correct or complete defective work;
  - E. Unsatisfactory prosecution of the work by Contractor, including but not limited to failure to furnish adequate submittals or to clean up the work or site;
  - F. Reasonable evidence that the work cannot be completed for the unpaid balance of the contract sum;
  - G. Failure of Contractor to make payment properly due to subcontractors, employees, suppliers or utilities:
  - H. Reasonable evidence to believe the work cannot be completed within the contract time.
  - I. Damage to Owner's property not replaced or repaired in timely manner.

When the grounds for withholding payment are removed, payment shall be made for amounts withheld.

8.7.3 Neither the issuance of a Certificate of Payment, nor the making of any progress payment, nor the partial or entire use of the project by Owner shall constitute an acceptance of any work not in accordance with the contract documents nor shall it constitute a waiver of any right accruing to Owner or of any duty of Contractor.

#### 8.8 SUBSTANTIAL COMPLETION

- 8.8.1 Substantial Completion is defined as the state of construction at which the work is sufficiently complete and in accordance with the contract documents, so that Owner could occupy and utilize the work or a specific portion of it, for its intended use.
- 8.8.2 When Contractor considers the work substantially complete Contractor shall notify Project Representative in writing and request a Substantial Completion inspection. The request shall be made a minimum of three business days in advance. The notice shall include a comprehensive list of items to be completed, reasons they are not completed and a date of anticipated completion. The notice shall also include copies of all code compliance inspections, the Certificate of Occupancy, if applicable, and any other documents required by the contract.
- 8.8.3 Project Representative shall schedule the Substantial Completion inspection and notify Contractor. The inspection will be performed by Project Representative, Architect, Design Engineers, and Owner personnel in the presence of Contractor. Should this inspection find the work not substantially complete, Owner may terminate the inspection and promptly notify Contractor in writing of the conditions for reinspection. Any deficiencies identified by this inspection will be listed and promptly furnished to Contractor for remedial action.
- 8.8.4 If Contractor has requested that Project Representative and Owner make an inspection to ascertain Substantial Completion, and if the work is not then substantially complete, Contractor shall be liable for all costs Owner, Architect, and Project Representative have incurred in making the inspection.

- 8.8.5 If it is determined on the basis of inspection that the work is substantially complete, Project Representative will issue a Certificate of Substantial Completion. Included in the certificate shall be a list of items which must be completed or corrected before final payment and the time within which such items shall be complete and corrected. Failure to include an item on this list does not alter the responsibility of Contractor to complete all work in accordance with contract requirements.
- 8.8.6 Certificate of Substantial Completion shall state the date of Substantial Completion and the respective responsibilities of Owner and Contractor for the maintenance, insurance and security of the work. Certificate of Substantial Completion shall specifically authorize Owner to take possession of the premises and utilize them for their intended purpose. Owner's beneficial occupancy of the premises shall make reasonable allowance for the performance of the work which Contractor must complete prior to final completion.
- 8.8.7 If Contractor fails to complete or correct work required by the Certificate of Substantial Completion within the time allowed, then the Certificate of Substantial Completion shall be voided and the contract time expended by Contractor shall be counted, and the acceptability of the work shall be inspected as if a Certificate of Substantial Completion had not been issued.
- 8.8.8 Upon Substantial Completion of the work and upon application by Contractor and certification by Project Representative, Owner shall make payment, reflecting adjustment in retainage, if any, for such work as provided in the contract documents.

#### 8.9 FINAL COMPLETION AND WARRANTY PERIOD

- 8.9.1 The terms Final Completion and Warranty Period refer to, respectively, the finalization of the construction phase and a one-year warranty period following the Substantial Completion. Final Completion shall be represented by a lump sum dollar amount identified on the schedule of values. Final Payment represents a sum of money to perform all tasks necessary from Substantial Completion to Final Completion, including completion of final punch list, completion of as-built data, turnover of all warranty information, notarized acknowledgments of payments, and relinquishment of claims against Owner.
- 8.9.2 When Contractor considers the work ready for Final Completion, Contractor shall forward to Project Representative an application for final payment including (1) an affidavit that all payrolls, bills for materials and equipment, and other indebtedness connected with the work have been paid or otherwise satisfied, (2) consent of surety, if any, to payment, (3) irrevocable, notarized proof of payment and relinquishment of claim against Owner, issued by every subcontractor (whether or not in privity with Contractor), material supplier and other party who might assert a claim against Owner, and (4) all other documentation required by the contract documents. Project Representative and Owner shall promptly inspect the work to see that it is fully performed and complete, that all portions of the work are acceptable and that the contract is fully performed aside from completion of the Warranty Period. After Project Representative has made a determination that these requirements have been met, Project Representative shall prepare and recommend that Owner issue a Certificate of Final Completion and Final Payment.
- 8.9.3 Project Representative's approval of Final Payment constitutes an additional representation by Project Representative to Owner that to the best of Project Representative's knowledge and information, all conditions which Contractor must fulfill prior to being entitled to Final Payment have in fact been fulfilled in accordance with the contract documents.
- 8.9.4 If any party refuses to relinquish its claim, or if Owner considers that any item or portion of the work: (1) is of doubtful acceptability under the contract documents; or (2) may diminish the value of the work; or (3) may prove to be ultimately unreliable; or (4) may prove to be less functional than required by the intent of the contract, then Owner, in lieu of refusing Final Payment to Contractor, may allow Contractor to furnish a bond in a form and in an amount satisfactory to indemnify Owner against losses occasioned thereby. If any additional costs to settle the claim or to correct work of doubtful quality accrue to Owner in excess of the indemnity available to Owner, Contractor shall refund to Owner all differences and costs which Owner might be compelled to pay, including all litigation costs and reasonable attorney fees.
- 8.9.5 Acceptance of final payment by Contractor constitutes an explicit waiver of all claims which Contractor might assert against Owner except those previously made in writing and identified by Contractor as unsettled at the time of the Application for Final Payment.

- 8.9.6 Final Payment to Contractor shall constitute a waiver of all claims which Owner might assert except those arising from: (1) unsettled claims; (2) faulty or defective work (3) failure of the work to comply with the requirements of the contract documents; (4) warranties required by this contract or that by their terms do not expire upon completion of the contract.
- 8.9.7 If, after Substantial Completion, Warranty Completion is delayed through no fault of Contractor, or by the issuance of change orders affecting Final Completion, Owner may, upon recommendation of the Project Representative, extend the contract time by a reasonable period and accept certified applications for further Progress Payments.
- 8.9.8 Upon completion of all requirements identified in ARTICLE 8 as "Final" the funds representing Final Payment shall be released to Contractor along with the Certificate of Final Completion. Upon issuance of Certificate of Final Completion all contract sums shall be accounted for to Contractor and shall be paid to Contractor. However, any and all applicable bonds shall not be released until after the Warranty Period.

#### 8.10 TIME AND LIQUIDATED DAMAGES

- 8.10.1 The time permitted for construction of the work will run from issuance of Notice to Proceed through the dates for Substantial Completion as specified in Agreement between Owner and Contractor, unless a specific completion date is specified.
- 8.10.2 The term "day" as used in this contract shall mean "calendar day" unless specifically stated otherwise.
- 8.10.3 All warranty periods and obligations accruing to Contractor through completion of the work shall be considered to begin on the date of Substantial Completion, unless otherwise agreed to separately in writing by Owner and Contractor.
- 8.10.4 Contractor shall begin the work as soon as possible after the date identified in Notice to Proceed and shall prosecute the work expeditiously and with adequate labor and materials.
- 8.10.5 Liquidated damages will be applied in the amount set out in the Agreement.
- 8.10.6 Claims for extension of time will be considered only if they affect "critical path" items specifically identified in the detailed progress schedule or in any applicable Supplementary Conditions. Claims for extension of the contract time must be made in writing to Owner not more than twenty (20) days after the reason for requested extension appears.

#### ARTICLE 9 CHANGES IN THE WORK, CONTRACT PRICE, AND TIME

#### 9.1 CHANGE ORDERS

- 9.1.1 Without invalidating this contract, Owner may, at any time, order additions, deletions, or revisions in the work. All such changes must be authorized by written change order. Upon receipt of a change order, Contractor shall proceed with the work in accordance with applicable requirements of the contract documents. If any change order entails an increase or decrease in the contract price or an extension or curtailment of the contract time, adjustment will be made as provided herein.
- 9.1.2 Extra work will be paid for either at a fixed price specified in the change order (using unit prices or a lump sum amount) or on a time and materials basis.
- 9.1.3 Project Representative may authorize minor changes, alterations or deviations in the work in accordance with ARTICLE 2. These changes shall be authorized by written Field Order to be included in a subsequent Change Order.
- 9.1.4 Any additional work performed by Contractor without a properly executed change order will not entitle Contractor to an increase in the contract amount or to an extension of the contract time, except in the case of emergency threatening life, safety or property.

#### 9.2 ISSUANCE OF CHANGE ORDER

- 9.2.1 The contract sum constitutes the total compensation to Contractor for the work required by this contract. The contract price may be changed only by a properly executed change order. Any request for increase in the contract price shall be based upon written notice delivered to Project Representative within ten (10) days after the reason for the proposed increase appears. Change order proposals must be accompanied by all pertinent data and documentation, including a detailed estimate showing costs, quantities, unit prices and markups for overhead and profit.
- 9.2.2 Project Representative shall analyze Contractor's change order proposal and shall make a recommendation to Owner within a reasonable period of time. If Owner accepts the proposal, Project Representative shall prepare the change order for execution by Contractor and Owner.
- 9.2.3 The value of any work added or deleted by change order shall be determined by one of the following methods:
  - A. Application of unit prices set forth in the bid: unit prices shall include all direct and indirect costs of the work, including labor, equipment (whether owned or rented), materials, home office expense, all overhead and profit.
  - B. Application of mutually accepted unit prices for work not covered by bid unit prices: unit prices shall include all direct and indirect costs of the work, including labor, equipment (whether owned or rented), materials, home office expense, all overhead and profit.
  - C. Mutual acceptance of a lump sum: Contractor's lump sum proposal must include an itemized breakdown of all costs of Contractor, subcontractors and suppliers. Breakdowns shall show quantities and prices of labor, materials, equipment and other direct costs. To direct costs shall be added the allowable combined overhead and profit as provided in ARTICLE 9.4.
  - D. At Owner's option, Contractor may be directed to proceed with additional work on a "time and materials" basis which may also stipulate a maximum "not to exceed" amount. Contractor will be required to maintain and submit detailed records showing all quantities and prices of labor, materials, equipment and other direct costs. To direct costs shall be added the allowable combined overhead and profit as provided in ARTICLE 9.4.
- 9.2.4 When both additions and credits for related work or substitutions are involved in any one change, the allowance for overhead and profit shall be based on the net change. All related items within a proposal shall be considered as a single item for purposes of computing overhead and profit.
- 9.2.5 When Contractor is directed to proceed on a time and materials basis, costs of the work shall be submitted daily for approval by Project Representative and may only include:
  - Actual payroll costs for employees, as substantiated by certified payroll, in the direct employ of Contractor for the times actually utilized in prosecution of the additional work, including allowance for benefits which Contractor customarily provides its employees;
  - B. The actual substantiated cost to Contractor for all material and equipment incorporated into the work, including transportation and storage expenses;
  - C. The actual substantiated amounts of payments by Contractor to subcontractors for work performed by the subcontractors;
  - D. Any costs of special consultants to the extent authorized by Owner:
  - E. Substantiated equipment rental costs at reasonable market rates;
  - F. Additional supervision and travel costs reasonably related to the work performed;
  - G. Increased bond premiums:
  - H. Additional license fees, permits, or applicable taxes;

I. Minor incidental expenses such as telegrams and long distance telephone charges.

To these direct costs shall be added the allowable combined overhead and profit as provided in ARTICLE 9.4.

- 9.2.6 Unless specifically agreed to by Owner in writing, the cost of additional work shall not include any portion of Contractor's general overhead, nor any sum attributable to Contractor's prosecution and supervision of the principal work at the site, nor any overtime expense, unless specifically agreed to by Owner in writing. Contractor shall not be compensated for any casualty or other losses or expenses attributable to negligence of Contractor or any person in its employ or any subcontractor or supplier.
- 9.2.7 Payment to Contractor shall be made only for the actual quantities of work performed and accepted or materials furnished, in conformance with the contract or applicable change order. When the accepted quantities of work or materials vary from the quantities stated in the bid schedule, Contractor shall accept as payment in full, payment at the original contract unit prices for the quantities of work and materials furnished, completed and accepted; except as provided in the contract documents.

#### 9.3 UNIT PRICES

- 9.3.1 When unit prices are used, and where the final quantity of a major contract item varies more than 25% above or below the bid quantity, either party to the contract may request an equitable adjustment in the contract unit price of that item. A major contract item is an item equal to 10% or more of the total contract.
- 9.3.2 When the final quantity of work is less than 75% of the bid quantity, the equitable adjustment shall be made for those units of work done and accepted, except that the total payment for the item shall not exceed 75% of the total amount bid for the item.
- 9.3.3 To determine unit prices for authorized changes or additions in the work that alter the quantity of work under a lump sum pay item, adjustment to the pay item will be determined by multiplying the added or deleted quantity by the quotient of the contract lump sum price and the estimated quantity shown on the original plans. Payment will be made under a new contract item established for that purpose. Adjustments will be made as a change order to the contract.
- 9.3.4 No allowance shall be made for any increased expenses, loss of expected reimbursement or loss of anticipated profits suffered or claimed, either directly from such alterations in quantities or indirectly from unbalanced allocations among the contract items by Contractor, or any other causes.

#### 9.4 ALLOWABLE OVERHEAD AND PROFIT

- 9.4.1 When the value of change order work is determined by the lump sum method or by the time and materials method, the following definitions and percentages shall apply.
- 9.4.2 Direct costs are defined as the net cost to Contractor to accomplish a given change. Costs of bonds and insurance associated with the change shall be applied after addition of indirect costs.
- 9.4.3 Indirect costs are defined as general operational charges relating to the accomplishment of a given change, including but not limited to small tools, incidental job burdens and general office expense.
- 9.4.4 Overhead and Profit: Allowances for all indirect costs shall be identified as combined overhead and profit and shall not exceed the percentages in the following schedule:

#### A. Additive work:

- (1) Prime Contractor:
  - (a) 15% of the direct costs of own work in excess of \$1,000.00; 20% when the total value of own work is equal to or less than \$1,000.00.
  - (b) 8% of the direct costs of work performed by subcontractors not including subcontractor's overhead and profit.
  - (c) 8% of the direct costs of equipment.
- (2) Subcontractors: percentages represented in subsections (a) and (b) are a maximum percentage

- allowed regardless of the tier or number of subcontractor(s) performing the work:
- (a) 15% total of the work performed by subcontractors in excess of \$1,000.00; 20% total of the work performed by subcontractor equal to or less than \$1,000.00.
- (b) 8% of the direct costs of equipment.
- (3) In no case shall overhead and profit exceed 23% of the direct costs of work or 16% of the direct costs of equipment when the cost of the work exceeds \$1,000.00. In no case shall overhead and profit exceed 28% of the direct costs of work or 16% of the direct costs of equipment when the cost of the work is equal to or less than \$1,000.00.

#### B. Deductive work:

(1) Prime Contractor: 4% of the direct cost of deleted own work.

#### 9.5 CONCEALED CONDITIONS

- 9.5.1 This ARTICLE applies only when concealed conditions substantially at variance with the conditions set forth in the contract documents are encountered and these conditions were not foreseeable by Contractor or reasonably inferable from information provided by Architect or Owner in the bidding documents.
- 9.5.2 If it is determined the Contractor could not predict the concealed conditions as set forth under ARTICLE 9.5.1, Owner may issue a change order for the performance of additional work required with an equitable adjustment in the contract sum. Contractor shall not begin work upon any concealed condition until Owner has approved a written change order

#### ARTICLE 10 TESTING AND CORRECTION OF WORK

#### 10.1 TESTS AND INSPECTIONS

- 10.1.1 Contractor shall be responsible for securing permits and approvals from entities having jurisdiction over the work. Contractor will provide any special testing or inspections required by the contract documents. Contractor shall notify Owner 48 hours prior to performing testing. Contractor shall not cover work that requires testing, inspection or approval until such testing, inspection, or approval has been completed. Owner reserves the right to approve the testing agency.
- 10.1.2 Neither observation by Owner nor inspections, tests, or approvals by Owner or Owner's testing agency shall relieve Contractor from Contractor's obligation to perform the work in accordance with the contract documents.

#### 10.2 UNCOVERING OF WORK

- 10.2.1 If any work is covered or buried contrary to contract requirements or Owner's written request, such work shall be uncovered at Owner's request for inspections, tests or approvals. Uncovering and recovering shall be at Contractor's expense, unless Contractor has given notice of intent to cover the work and Owner has not acted with reasonable promptness to provide any necessary tests, inspections or approvals.
- 10.2.2 If any work has been covered which Owner has not specifically requested to observe prior to covering, or if Owner considers it necessary or advisable that covered work be inspected or tested by others, then Contractor shall, at Owner's request, uncover, expose or otherwise make available for observation, inspection, or testing, that portion of the work as Owner may require. Contractor shall furnish all necessary labor, materials and equipment. If such work is found to be defective, Contractor shall bear all expenses, including compensation for any additional professional services and testing. If, however, the uncovered work is found not to be defective, Contractor shall be allowed an equitable adjustment in the contract price or the contract time. Only Contractor's direct costs attributable to the uncovering of work and its recovering shall be allowed.

#### 10.3 DEFECTIVE WORK

- 10.3.1 All work not meeting the requirements of the contract documents shall be considered defective.
- 10.3.2 Contractor shall promptly correct or replace any defective work. Any and all costs associated with correction or replacement shall be borne by Contractor. Contractor shall also bear the expense of making good all

- work of others destroyed or damaged or required to be redone because of the correction or replacement of defective work.
- 10.3.3 If, after seven (7) days written notice to Contractor, Contractor fails to correct deficiencies or to provide Owner with an approved schedule for correcting defective work, Owner may, without prejudice to any other remedy it may have, make good deficiencies and deduct the cost thereof from the payment then or thereafter due Contractor. No extensions of time shall be allowed for correction of work that is defective.

#### **ARTICLE 11 WARRANTIES**

- 11.1 Contractor unconditionally warrants for a period of one year from issuance of the Certificate of Substantial Completion the usability and quality of all work, labor and materials incorporated into the project, unless otherwise provided in the contract documents. After the approval of Final Payment and prior to the expiration of one year after the date of Final Completion, any work found to be defective shall be remedied promptly by Contractor within fourteen (14) days of written notice without cost to Owner and in accordance with Owner's written instructions. Contractor shall either correct such defective work, or, if it has been rejected by Owner, remove it from the site and replace it with acceptable work. If Contractor does not promptly comply with the terms of Owner's instructions, Owner may have the defective work corrected or the rejected work removed and replaced, and all direct and indirect costs of such removal and replacement, including compensation for additional professional services, shall be deducted from Warranty Period Payment, unless the surety elects to remedy deficiency.
- 11.2 In addition to other warranties set forth in this contract and in accordance with requirements stated in the contract documents, Contractor shall obtain and transmit to Architect all warranties on material and equipment incorporated into the work and either provided by the supplier or otherwise required by the contract documents. Transmittal of warranties to Owner shall be a prerequisite of the Certificate of Final Completion.
- 11.3 All material and equipment installed by Contractor shall have a manufacturer's warranty for a period of one year, except as otherwise provided by the contract documents. The period of warranty shall begin on the date of Substantial Completion unless otherwise noted on the Certificate of Substantial Completion. This article does not limit any manufacturer's warranty which extends for a period of time longer than that specified as minimum in the contract documents.
- 11.4 If a warranty period in excess of one year on a particular item or part of the work is required by the contract documents, the longer warranty period shall govern warranty obligations of Contractor.
- 11.5 Owner may accept defective work or materials found during the warranty period instead of requiring correction or removal and replacement. If acceptance occurs prior to approval of final payment, a change order shall be issued to reduce the contract price. If acceptance occurs after approval of final payment, an appropriate amount shall be paid by Contractor to Owner.
- 11.6 The provisions of this ARTICLE shall not be construed as limiting the right of Owner to make a claim against Contractor for work not constructed in accordance with the contract documents. Where a defect attributable to Contractor's or subcontractor's materials or workmanship appears after expiration of the one-year warranty period, Owner shall notify Contractor of the appearance of damages due to defective work or materials and shall offer Contractor the right to replace or repair all defective work and other work using Contractor's forces. If Contractor fails to correct the work and any consequentially damaged work within a reasonable time, or if Contractor refuses to correct the work, Owner may correct the work utilizing Owner's own forces. Contractor shall pay Owner all costs attributable to correction of the defective work and any consequential damages occasioned by the defective work.
- 11.7 Should Owner and Contractor agree to delay completion of any items, the one-year warranty period for those items shall commence upon written acceptance of each item by Owner.

#### ARTICLE 12 CLAIMS AND LITIGATION

12.1 This contract shall be governed by the laws of the State of Alaska, and any lawsuit brought thereon shall be filed in the Third Judicial District at Kenai, Alaska.

- 12.2 No controversy or claim arising out of this contract shall be subject to binding arbitration unless both Owner and Contractor agree in writing to submit the question to arbitration at the time when the controversy arises.
- 12.3 All claims, disputes and other matters in question between Contractor and Owner relating to the execution or progress of the work shall be referred initially to Project Representative, who shall render a recommendation in writing to Owner within a reasonable time.
- During pendency of any claim arising out of this contract, Contractor shall carry on the work and maintain the Progress Schedule approved by Owner unless otherwise agreed by Contractor and Owner in writing. Should Contractor cease work, Contractor shall be in breach of this contract and Owner shall have the right to terminate the contract and to prosecute the work to completion with Owner's own forces or with a replacement Contractor. Contractor shall be responsible for any increase in costs to Owner above the contract price.
- 12.5 Contractor may make claims for additional costs only if the additional cost involved has occurred because of:
  - A. A change order issued by Owner, where the additional sum due Contractor set forth in the change order is in dispute.
  - B. An order by Owner to stop the work where Contractor was not at fault.
  - C. Concealed conditions as set out in ARTICLE 9.
  - D. Failure of payment by Owner pursuant to ARTICLE 3.
  - E. Additional costs or delays caused by separate contractors' or Owner's forces in accordance with ARTICLE 6.
- 12.6 Contractor shall not make a claim for additional costs where the basis of the claim lies in an oversight or mistake made by Contractor during the bidding process or by reason of negligent acts or omissions of Contractor or any mistake in judgment or improper selection of construction means, methods, sequences and materials during the course of construction.
- 12.7 If Contractor is entitled to make claim for an increase in the contract sum, Contractor shall deliver to Owner written notice of Contractor's intention to assert each claim within twenty (20) days after occurrence of each event giving rise to the claim. Contractor must give this notice of claim and specify the full extent and nature of the claim(s) to Owner before proceeding to execute the work upon which a claim might be asserted. No claim for additional costs or compensation shall be valid unless the prior twenty (20) day notice has been given. Adherence to this provision shall be strict. Any adjustment in the contract sum resulting from settlement of claims shall be authorized by change order.

#### ARTICLE 13 TERMINATION OF THE CONTRACT OR SUSPENSION OF THE WORK

#### **13.1 TERMINATION BY OWNER**

- 13.1.1 Owner shall have the right to terminate the contract if Contractor should file for bankruptcy, reorganization, otherwise be declared insolvent, or if Contractor makes a general assignment for the benefit of creditors. Exercise of these rights, where required by law, is contingent upon relief from the automatic stay provisions of the United States Bankruptcy Court or through other appropriate court order. This right of termination is in addition to the right of Owner to terminate for cause outlined below and other rights of termination as stated in the contract documents.
- 13.1.2 Termination for cause: If Contractor: (1) repeatedly refuses or fails to supply enough proper skilled workmen; or (2) fails to pay promptly all subcontractors, suppliers, or other parties as set out in the contract documents; or (3) fails to adhere in all respects to the provisions of Title 8, Chapter 30, of the Alaska Administrative Code and Title 36 of the Alaska Statutes as applicable to this contract and all other pertinent statutes, ordinances or regulations or orders of any local, state, or federal authority concerning payment; or (4) allows insurance to lapse; or (5) if after seven (7) days written notice, without prejudice to any other remedy of Owner, Contractor fails to correct to Owner's satisfaction deficiencies in work that does not conform to the contract documents; or (6) allows a situation that creates a danger to person or property to arise. Where an emergency situation creating a danger to person or property arises, Owner may at its option terminate the contract and take possession of the site and any of Contractor's equipment and material necessary to complete an emergency response or hire a separate contractor to complete the

emergency response. Contractor shall be paid the contract rate for the material used and shall be paid for the use of Contractor's equipment at the price shown in the contract documents or at the rate for such equipment listed in <u>RENTAL RATE BLUE BOOK FOR CONSTRUCTION EQUIPMENT</u>, published by Machinery Information Division of K-III Directory Corporation, 1735 Technology Drive, Suite 410, San Jose, California 95110. If the rate for such equipment is not so listed, reliable sources will be used to determine a reasonable rate.

- 13.1.3 In the event of termination for cause, Owner shall have the right of set-off, from any payment due Contractor, of all expenses, costs, and damages including but not limited to all professional and legal expenses and attorneys' fees and costs or other additional expenditures necessary to complete the projects that are occasioned by the termination. In the event such amounts exceed the amount of payment withheld, Contractor shall be liable to Owner for such amounts. No payment shall be made to Contractor prior to determination that a balance is due Contractor after the amount of set-off is determined.
- 13.1.4 Owner may terminate this contract at any time for the convenience of Owner for any reason deemed by Owner to be in the best interest of Owner.
- 13.1.5 If this contract is terminated for convenience, Contractor will be directed to make all necessary preparations for closing out the project and for safeguarding Owner's materials and the work already completed. Contractor will be paid for all conforming work done to date and for all materials delivered to the site and already paid for by Contractor, together with all reasonable costs directly attributed to termination, including fixed overhead. Contractor shall be responsible for minimizing the extent of such expenses and shall **not** be paid for expenses which could have been reasonably avoided. On the date that notice of termination or suspension for convenience is issued, Contractor shall immediately take all actions necessary to stop orders of material, rental of equipment or premises, employment of persons on the project, and shipment of materials not yet delivered to the site. The notice of termination or suspension for convenience shall specify a date by which all steps necessary for termination shall be completed and by which Contractor shall have removed any unused material and all Contractor's equipment and forces. Contractor shall leave the premises in a clean and safe condition on or prior to the date specified in the notice. Owner shall certify that all termination procedures have been completed and that the premises have been turned over to the possession of Owner. Within fifteen (15) days after that certification by Owner, Contractor shall render to Owner a bill for all expenses incurred in termination and for all work done subsequent to the last progress payment. Owner shall pay Contractor all sums properly due, together with any retainage not necessary to cover apparently nonconforming work or other changes, within fifteen (15) working days after the bill has been received by Owner, provided that Owner has received releases for all liens.
- 13.1.6 If Contractor is terminated for cause or default on this contract, the performance bond surety shall commence performance within fourteen (14) days of the termination or default. If the surety does not arrange for or commence performance by that date, Owner shall have the option to complete or arrange for performance and the surety shall not be relieved of any responsibility for payment of costs of performance.
- 13.1.7 Should Owner elect to terminate Contractor's services prior to final completion of the work, such termination shall not affect any rights Owner might assert against Contractor at time of termination or thereafter. Any retention or payment of monies by Owner to Contractor shall not release Contractor from that liability.

#### 13.2 SUSPENSION OF THE WORK

13.2.1 Owner may, at any time and for any reason, suspend the work or any portion of it for a period not to exceed ninety (90) days, by written notice delivered to Contractor thirty (30) days prior to the date fixed for suspension. The notice of suspension shall fix the date on which the work is to be resumed and Contractor shall resume the work on the date so fixed. Equitable adjustment in the contract price, the contract time, or both shall be made for cost or delay directly attributable to suspension of the work.

#### 13.3 TERMINATION BY CONTRACTOR

13.3.1 If through no act or fault of Contractor, Owner orders a suspension of work for a period of more than ninety (90) days, Contractor may, upon thirty (30) days written notice to Owner, terminate this contract and recover from Owner payment for work accepted to date plus purported overhead and profit in the manner provided in ARTICLE 9.4. Contractor shall also have the right to terminate this contract if Owner fails within forty-

five (45) days to pay amounts properly due Contractor for satisfactorily accomplished work, so certified by Project Representative, as due and payable. The provisions of this section do not include amounts ordinarily retained from Contractor's Application for Payment or amounts retained because of unsatisfactory, defective, or incomplete work, or for any other reason provided in the contract documents.

#### ARTICLE 14 MISCELLANEOUS PROVISIONS

- 14.1 Whenever any provision of the contract documents requires written notice, such notice shall be deemed to have been given and binding when given by certified mail to the respective party at the address provided in the Legal Notice provision of the agreement section of the contract documents.
- 14.2 Neither party may assign this contract without the written consent of the other party and Contractor may not delegate duties under this contract other than as provided in the contract documents without the prior written consent of Owner.
- In the event a provision of the contract documents is found to be unenforceable or void for any reason, it shall be considered as severed from the contract documents, and the remaining portions of the contract documents shall stand as if that provision had never been included in the contract documents. In the event the unenforceable or void provision is legally essential to the continuing existence of the contract, the parties shall attempt to substitute a reasonable replacement provision.
- 14.4 No general condition stated in these provisions or other provision in the contract documents lessens, alters, or makes inapplicable the requirement for indemnification stated in ARTICLE 4.13.

  In the event of conflict between any contract provisions, the requirements set out in ARTICLE 4.13 control.

**END GENERAL CONDITIONS** 

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#### PERFORMANCE BOND

(Name	e of Contractor)
(Addres	ss of Contractor)
a(Corporation, Partnership, or Individual)	, hereinafter called Principal, and
(Nar	me of Surety)
(Addi	ress of Surety) unto
(Nai	me of Owner)
(Addı	ress of Owner)
	Dollars the United States, for the payment of which sum well and truly s, administrators and successors, jointly and severally, firmly
	that whereas, the Principal entered into a certain contract with, 2021, a copy of which is hereto attached and made a par
2021 KENAI WELLHOUSE RELOCATION	

NOW, THEREFORE, if the Principal shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions, and agreements of said contract during the original term thereof, and any extensions thereof which may be granted by the Owner, with or without notice to the Surety, and if he shall satisfy all claims and demands incurred under such contract, and shall fully indemnify and save harmless the Owner from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay owner all outlay and expense which the owner may incur in making good any default, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said Surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to the work to be performed thereunder or the specifications accompanying the same shall in any ways affects its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the work or to the specifications.

PROVIDED, FURTHER, that no final settlement between the Owner and the Contractor shall abridge the right of any beneficiary hereunder, who claims may be unsatisfied.

IN WITNESS WHEREOF, this instrument is		ch one of which shall be deemed
an original, this the day of	, 2021.	
	(Principal)	(SEAL)
	(Fillicipal)	(OLAL)
	(Principal Secretary)	
ATTECT.	( )	
ATTEST:	BY	
	<del></del>	
(Witness as to Principal)	(Address)	
(Address)		
	(Surety)	(SEAL)
	(Odroty)	(OL/IL)
ATTEST:	BY(Attorney-in-Fac	:t)
	(/ ((()))	• 9
	. <u></u>	
(Witness as to Surety)	(Address)	
(Address)		
NOTE: If Contractor is Partnership, all par	tners should execute bond.	
IMPORTANT: Surety companies executing bo	ande must annear on the Treesury Departmen	at's most current list (Circular 570 co
	onds must appear on the Treasury Departmen	c located

#### **PAYMENT BOND**

(Nam	ne of Contractor)
(Addre	ess of Contractor)
a(Corporation, Partnership, or Individual)	, hereinafter called Principal, and
(Na	ame of Surety)
(Add	dress of Surety)
(Na	ame of Owner)
(Add	dress of Owner)
	Dollars, f the United States, for the payment of which sum well and truly rs, administrators and successors, jointly and severally, firmly
	that whereas, the Principal entered into a certain contract with, 2021, a copy of which is hereto attached and made a part
2021 KENAI WELLHOUSE RELOCATION	

NOW, THEREFORE, if the Principal shall promptly make payment to all persons, firms, subcontractors, and corporations furnishing materials for or performing labor in the prosecution of the work provided for in such contract, and any authorized extension or modification thereof, including all amounts due for materials lubricants, oil, gasoline, coal and coke, repairs on machinery, equipment and tools, consumed or used in connection with the construction of said work, and all insurance premiums on said work, and for all labor, performed in such work whether by subcontractor or other-wise, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said Surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to the work to be performed thereunder or the specifications accompanying the same shall in any ways affects its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the work or to the specifications.

PROVIDED, FURTHER, that no final settlement between the Owner and the Contractor shall abridge the right of any beneficiary hereunder, who claims may be unsatisfied.

IN WITNESS WHEREOF, this instrument is an original, this the day of	s executed in three (3) counterparts, each one of which shall be deemed
an original, this this day or	
	(Principal) (SEAL)
	(Principal Secretary)
ATTEST:	BY
(Witness as to Principal)	(Address)
(Address)	
	(Surety) (SEAL)
ATTEST:	BY(Attorney-in-Fact)
	(Allomey-iii-i act)
(Witness as to Surety)	(Address)
(Address)	
NOTE: If Contractor is Partnership, all par	rtners should execute bond.
IMPORTANT: Surety companies executing be amended) and be authorized to a	onds must appear on the Treasury Department's most current list (Circular 570 attransact business in the State where the project is located.

## CONTRACTOR'S RELEASE AND AFFIDAVIT OF PAYMENTS OF DEBTS AND CLAIMS ("Release")

PROJECT NAME: 2021 KENAI WELLHOUSE RELOCATION

The undersigned, being first duly sworn, deposes and says:	
1. That pursuant to this contract for project	aterials known able in made
2. The Contractor further certifies he did not extend any loan, gratuity, or gift of money form whatsoever to any employee or agent of the City, that he did not rent or purcha equipment or materials from any employee of the City, nor to the best of his knowledge, from agent of any employee of the City, and that he has not made any promise to an employee of the City to do or undertake any such action after completion of the subject contra	se any om any oyee or
3. Pursuant to the above-described contract and in consideration of the final paymen amount of \$, the undersigned Contractor hereby releases and discharge City of Kenai, its officers, agents and employees of and from any and all further claim charge, demand, liability, or other obligation whatsoever under or arising from said contraction whether known or unknown and whether or not ascertainable at the time of the execution instrument. This release is complete, final, binding and irrevocable.	ges the i, debt, ontract,
4. The Contractor shall indemnify, defend, save and hold the City, its elected and approficers, agents and employees, harmless from any and all claims, demands, suits, or lia any nature, kind or character including costs, expenses, and attorneys fees resultin Contractor or Contractor's officers, agents, employees, partners, attorneys, supplier subcontractors' performance or failure to perform this Agreement in any way whatsoeve defense and indemnification responsibility includes claims alleging acts or omissions by to rits agents which are said to have contributed to the losses, failure, violations, or da However, Contractor shall not be responsible for any damages or claim arising from the negligence or willful misconduct of the City, its agents, or employees. Contractor subcontractors shall also not be required to defend or indemnify the City for damage or loss been found to be attributed to an independent contractor directly responsible to the City separate written contract	bility of g from s, and r. This he City amage. he sole or and oss that

## CONTRACTOR'S RELEASE AND AFFIDAVIT OF PAYMENTS OF DEBTS AND CLAIMS ("Release")

If any portion of this Release is voided by law or court of competent jurisdiction, the remainder of this Release shall remain in full force and effect. IN WITNESS WHEREOF, this Release has been executed this \_\_day of \_\_\_\_\_\_, 2021. (Contractor's signature) Title **ACKNOWLEDGMENT** STATE OF ALASKA SS THIRD JUDICIAL DISTRICT THIS IS TO CERTIFY that on this \_\_\_\_\_ day of \_\_\_\_\_, 2021, before the undersigned, a Notary Public in and for the State of Alaska, duly commissioned and sworn, personally appeared \_\_\_\_\_\_ having produced satisfactory evidence of identification, and having acknowledged the voluntary and authorized execution of the foregoing instrument for the purposes therein mentioned, executed the above and foregoing instrument. Notary Public for Alaska My Commission Expires: \_\_\_\_\_

(NOTE: In case of a corporation, the attached Certificate of Authority must be completed by a corporate officer other than the one who signs above.)



## CONSENT OF SURETY COMPANY TO FINAL PAYMENT

PRO.	ECT:
CON	RACT DATE:
CON	RACTOR:
TO:	CITY OF KENAI, OWNER 210 Fidalgo Avenue Kenai, AK 99611 Attn: Public Works Department
	rdance with the provisions of the above-referenced Contract between Owner, City ii, and Contractor, Surety (insert name and address of Surety),
	reby consent to and approve of the final payment to Contractor in the amount of, and in the case of Surety, it is further agrees as follows:
repres	In giving this Consent, Surety has made its own investigation to determine resaid payment should be made to Contractor and Surety has not relied on any intation by the City of Kenai or its employees or agents which has induced it to to such payment.
2.	Surety agrees that this payment shall not relieve Surety of any of its obligations to

the City of Kenai as set forth in its Labor and Material Payment and Performance Bonds

and Surety waives any and all claims against C to Contractor.	ity of Kenai for wrongful release of funds
IN WITNESS WHEREOF, said Surety Compa, 20	ny has set its hand this day of
	(Surety)
	(Signature of authorized representative)
	(Printed name and title)
STATE OF	LEDGMENT
THIS IS TO CERTIFY that on the, Title:	
of the foregoing instrument.	and dedicated checking
	Notary Public for My Commission Expires:

**NOTE TO SURETY:** ATTACH PROOF OF POWER OF ATTORNEY OR OTHER DOCUMENTATION DEMOSTRATING SIGNATORY MAY BIND SURETY

SAMPLE

Alaska Department of Commerce, Community, and Economic Development P.O. Box 110806, Juneau, Alaska 99811-0806

ALASKA BUSINESS LICENSE
The licensee named below holds Alaska Business License Number  Covering the period of: through  Line of Business:
COMPANY NAME
ADDRESS
Owner: NAME OF OWNER
This license shall not be taken as permission to do business in the state without having complied with The other requirements of the laws of the State of Alaska or of the United States.
Alaska Department of Commerce, Community, and Economic Development Commissioner:
This license must be posted in a conspicuous place at the business location. It is not transferable or assignable.
SAMPLE
No  Effective: Expires:  DEPARTMENT OF COMMERCE, COMMUNITY & ECONOMIC DEVELOPMENT  Division of Occupational Licensing
Division of Occupational Licensing
Certifies that
COMPANY NAME

Is a Registered

**Specialty** 

Commissioner: \_\_\_\_\_



### CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(les) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy certain policies may require an endorsement. A statement on this certificate does not confer rights to the

PRODUCER		CONTACT NAME:				
		PHONE (A/C, No. Ext):	FAX (A/C, No):	ic		
		E-MAIL ADDRESS:				
		INSURER(S) AI	FFORDING COVERAGE	NAIC #		
		INSURER A		:		
INSURED		INSURER B:				
		INSURER C:				
		INSURER D:				
		INSURER E :				
		INSURER F:				
COVERAGES	CERTIFICATE NUMBER:		REVISION NUMBER:			
INDICATED, NOTWITH	HAT THE POLICIES OF INSURANCE LISTED BELOW STANDING ANY REQUIREMENT, TERM OR CONDITI ISSUED OR MAY PERTAIN, THE INSURANCE AFFO	ON OF ANY CONTRACT OR OTHE	ER DOCUMENT WITH RESPECT TO	WHICH THIS		

EXCLUSIONS AND CONDITIONS OF SUCH POLICIES, LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSF	TYPE OF INSURANCE	ADD	SUBR		POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMIT	s	
(	GENERAL LIABILITY  X COMMERCIAL GENERAL LIABILITY							EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence)	\$	1,000,000
A	SHAME MADE K OCCUR	х	х	7				MED EXP (Any one person)	\$	5,000
			+-					PERSONAL & ADV INJURY	\$	1,000,000
								GENERAL AGGREGATE	\$	2,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:							PRODUCTS - COMP/OP AGG	\$	2,000,000
	X POLICY PRO-								5	
	AUTOMOBILE LIABILITY							COMBINED SINGLE LIMIT (Ea accident)	\$	1,000,000
A	X ANY AUTO		-					BODILY INJURY (Per person)	\$	<u> </u>
12	ALL OWNED SCHEDULED AUTOS	X	x			R 8	BODILY INJURY (Per accident)	\$		
	HIRED AUTOS NON-OWNED AUTOS	-	-					PROPERTY DAMAGE (Per accident)	\$	
								Underinsured motorist	\$	1,000,000
	X UMBRELLA LIAB OCCUR							EACH OCCURRENCE	\$	
A	EXCESS LIAB CLAIMS-MADE							AGGREGATE	\$	4,000,000
	DED TRETENTIONS 10,000				170-170 July 100 170-170 170-170 170-170 170-170 170-170 170-170-170 170-170-170-170-170-170-170-170-170-170-				\$	
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY			1000000				X WC STATU- OTH-		
	ANY PROPRIETOR PARTNER/EXECUTIVE	N/A				i.		E.L. EACH ACCIDENT	\$	1,000,000
	OFFICER/MEMBER EXCLUDED? (Mandatory in NH)	1	_			pa		E.L. DISEASE - EA EMPLOYEE	\$	1,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below		X					E.L. DISEASE - POLICY LIMIT	\$	1,000,000

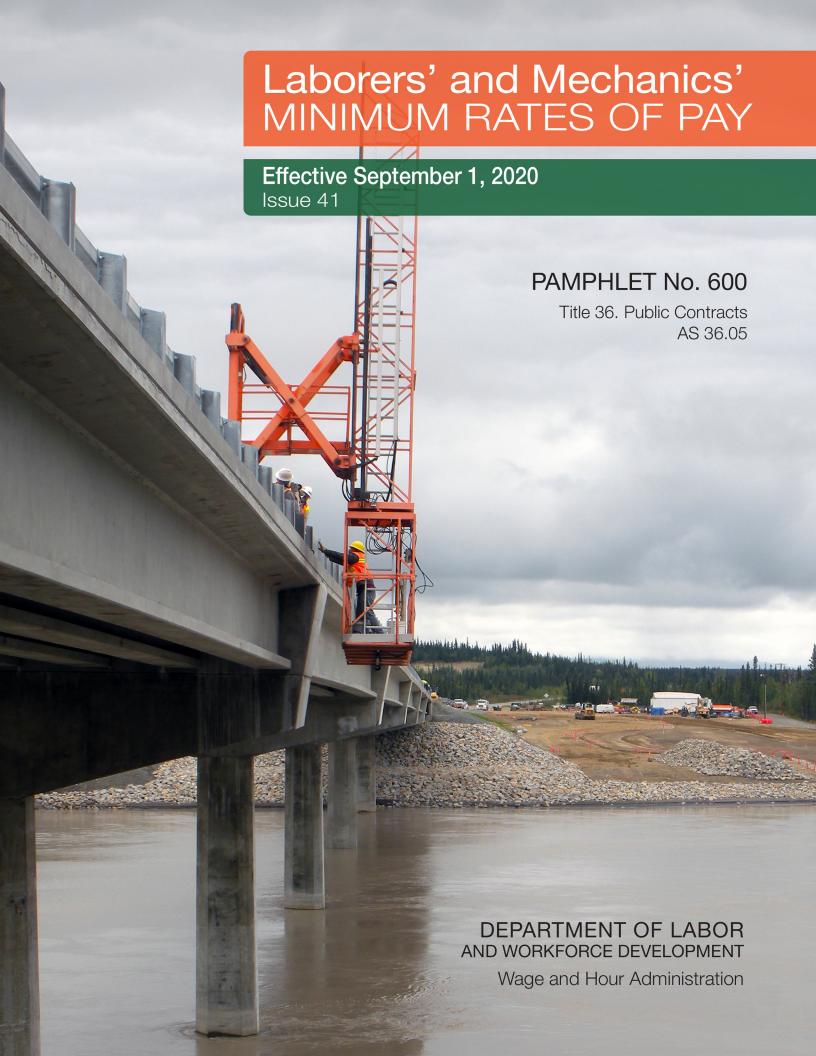
DESCRIPTION OF OPERATIONS (LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

#### Re: PROJECT NAME

Certificate Holder is an Additional Insured on General Liability & Automobile policies, but only with respect to work done by or on behalf or the named insured for the project referenced. The Certificate Holder is granted Waiver of Subrogation on the General Liability, Automobile and Workers' Compensation policies as respects the referenced project

CERTIFICATE HOLDER	CANCELLATION
City of Kenai	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
210 Fidalgo Ave Kenai, AK 99611	AUTHORIZED REPRESENTATIVE

ACORD 25 (2010/05)







# Department of Labor and Workforce Development

Office of the Commissioner

Post Office Box 111149 Juneau, Alaska 99811 Main: 907.465.2700 fax: 907.465-2784

September 1, 2020

#### TO ALL CONTRACTING AGENCIES:

At the Alaska Department of Labor and Workforce Development, our goal is putting Alaskans to work. This pamphlet is designed to help contractors awarded public construction contracts understand the most significant laws of the State of Alaska pertaining to prevailing wage.

This pamphlet identifies current prevailing wage rates for public construction contracts (any construction projects awarded for the State of Alaska or its political subdivisions, such as local governments and certain non-profit organizations). Because these rates may change in a subsequent determination, please be sure you are using the appropriate rates. The rates published in this edition become effective September 1, 2020.

The prevailing wage rates contained in this pamphlet are applicable to public construction projects with a final bid date of September 11, 2020, or later. As the law now provides, these rates will remain stable during the life of a contract or for 24 calendar months, whichever is shorter. **The 24-month period begins on the date the prime contract is awarded.** Upon expiration of the initial 24-month period, the <u>latest</u> wage rates issued by the department shall become effective for a subsequent 24-month period or until the original contract is completed, whichever occurs first. This process shall be repeated until the original contract is completed.

The term "original contract" means the signed contract that resulted from the original bid and any amendments, including changes of work scope, additions, extensions, change orders, and other instruments agreed to by the parties that have not been subject to subsequent open bid procedures.

If a higher federal rate is required due to partial federal funding or other federal participation, the higher rate must be paid.

For additional copies of this pamphlet go to: <a href="http://labor.state.ak.us/lss/pamp600.htm">http://labor.state.ak.us/lss/pamp600.htm</a>

For questions regarding prevailing wage or employment preference requirements, please contact the nearest Wage and Hour office. These offices are listed on Page x.

Sincerely,

Dr. Tamika L. Ledbetter

Commissioner

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Note to Readers: The statutes and administrative regulations listed in this publication were taken from the official codes, as of the effective date of the publication. However, there may be errors or omissions that have not been identified and changes that occurred after the publication was printed. This publication is intended as an informational guide only and is not intended to serve as a precise statement of the statutes and regulations of the State of Alaska. To be certain of current laws and regulations, please refer to the official codes.

#### EXCERPTS FROM ALASKA LAW

#### Sec. 36.05.005. Applicability.

This chapter applies only to a public construction contract that exceeds \$25,000.

#### Sec. 36.05.010. Wage rates on public construction.

A contractor or subcontractor who performs work on a public construction contract in the state shall pay not less than the current prevailing rate of wages for work of a similar nature in the region in which the work is done. The current prevailing rate of wages is that contained in the latest determination of prevailing rate of wages issued by the Department of Labor and Workforce Development at least 10 days before the final date for submission of bids for the contract. The rate shall remain in effect for the life of the contract or for 24 calendar months, whichever is shorter. At the end of the initial 24-month period, if new wage determinations have been issued by the department, the latest wage determination shall become effective for the next 24-month period or until the contract is completed, whichever occurs first. This process shall be repeated until the contract is completed.

#### Sec. 36.05.040. Filing schedule of employees, wages paid, and other information.

All contractors or subcontractors who perform work on a public construction contract for the state or for a political subdivision of the state shall, before the Friday of every second week, file with the Department of Labor and Workforce Development a sworn affidavit for the previous reporting period, setting out in detail the number of persons employed, wages paid, job classification of each employee, hours worked each day and week, and other information on a form provided by the Department of Labor and Workforce Development.

#### Sec. 36.05.045. Notice of work and completion; withholding of payment.

- (a) Before commencing work on a public construction contract, the person entering into the contract with a contracting agency shall designate a primary contractor for purposes of this section. Before work commences, the primary contractor shall file a notice of work with the Department of Labor and Workforce Development. The notice of work must list work to be performed under the public construction contract by each contractor who will perform any portion of work on the contract and the contract price being paid to each contractor. The primary contractor shall pay all filing fees for each contractor performing work on the contract, including a filing fee based on the contract price being paid for work performed by the primary contractor's employees. The filing fee payable shall be the sum of all fees calculated for each contractor. The filing fee shall be one percent of each contractor's contract price. The total filing fee payable by the primary contractor under this subsection may not exceed \$5,000. In this subsection, "contractor" means an employer who is using employees to perform work on the public construction contract under the contract or a subcontract.
- (b) Upon completion of all work on the public construction contract, the primary contractor shall file with the Department of Labor and Workforce Development a notice of completion together with payment of any additional filing fees owed due to increased contract amounts. Within 30 days after the department's receipt of the primary contractor's notice of completion, the department shall inform the contracting agency of the amount, if any, to be withheld from the final payment.
- (c) A contracting agency
  - (1) may release final payment of a public construction contract to the extent that the agency has received verification from the Department of Labor and Workforce Development that
    - (A) the primary contractor has complied with (a) and (b) of this section;
    - (B) the Department of Labor and Workforce Development is not conducting an investigation under this title; and
    - (C) the Department of Labor and Workforce Development has not issued a notice of a violation of this chapter to the primary contractor or any other contractors working on the public construction contract; and

- (2) shall withhold from the final payment an amount sufficient to pay the department's estimate of what may be needed to compensate the employees of any contractors under investigation on this construction contract, and any unpaid filing fees.
- (d) The notice and filing fee required under (a) of this section may be filed after work has begun if
  - (1) The public construction contract is for work undertaken in immediate response to an emergency; and
  - (2) The notice and fees are filed not later than 14 days after the work has begun.
- (e) A false statement made on a notice required by this section is punishable under AS 11.56.210.

#### Sec. 36.05.060. Penalty for violation of this chapter.

A contractor who violates this chapter is guilty of a misdemeanor and upon conviction is punishable by a fine of not less than \$100 nor more than \$1,000, or by imprisonment for not less than 10 days nor more than 90 days, or by both. Each day a violation exists constitutes a separate offense.

#### Sec. 36.05.070. Wage rates in specifications and contracts for public works.

- (a) The advertised specifications for a public construction contract that requires or involves the employment of mechanics, laborers, or field surveyors must contain a provision stating the minimum wages to be paid various classes of laborers, mechanics, or field surveyors and that the rate of wages shall be adjusted to the wage rate under AS 36.05.010.
- (b) Repealed by §17 ch 142 SLA 1972.
- (c) A public construction contract under (a) of this section must contain provisions that
  - (1) the contractor or subcontractors of the contractor shall pay all employees unconditionally and not less than once a week;
  - (2) wages may not be less than those stated in the advertised specifications, regardless of the contractual relationship between the contractor or subcontractors and laborers, mechanics, or field surveyors;
  - (3) the scale of wages to be paid shall be posted by the contractor in a prominent and easily accessible place at the site of the work;
  - (4) the state or a political subdivision shall withhold so much of the accrued payments as is necessary to pay to laborers, mechanics, or field surveyors employed by the contractor or subcontractors the difference between
    - (A) the rates of wages required by the contract to be paid laborers, mechanics, or field surveyors on the work; and
    - (B) the rates of wages in fact received by laborers, mechanics, or field surveyors.

#### Sec. 36.05.080. Failure to pay agreed wages.

Every contract within the scope of AS 36.05.070 shall contain a provision that if it is found that a laborer, mechanic, or field surveyor employed by the contractor or subcontractor has been or is being paid a rate of wages less than the rate of wages required by the contract to be paid, the state or its political subdivision may, by written notice to the contractor, terminate the contractor's right to proceed with the work or the part of the work for which there is a failure to pay the required wages and to prosecute the work to completion by contract or otherwise, and the contractor and the contractor's sureties are liable to the state or its political subdivision for excess costs for completing the work.

#### Sec. 36.05.090. Payment of wages from withheld payments and listing contractors who violate contracts.

- (a) The state disbursing officer in the case of a state public construction contract and the local fiscal officer in the case of a political subdivision public construction contract shall pay directly to laborers, mechanics, or field surveyors from accrued payments withheld under the terms of the contract the wages due laborers, mechanics, or field surveyors under AS 36.05.070.
- (b) The state disbursing officer or the local fiscal officer shall distribute to all departments of the state government and to all political subdivisions of the state a list giving the names of persons who have disregarded their obligations to employees. A person appearing on this list and a firm, corporation, partnership, or association in which the person has an interest may not work as a contractor or

subcontractor on a public construction contract for the state or a political subdivision of the state until three years after the date of publication of the list. If the accrued payments withheld under the contract are insufficient to reimburse all the laborers, mechanics, or field surveyors with respect to whom there has been a failure to pay the wages required under AS 36.05.070, the laborers, mechanics, or field surveyors have the right of action or intervention or both against the contractor and the contractor's sureties conferred by law upon persons furnishing labor or materials, and in the proceedings it is not a defense that the laborers, mechanics, or field surveyors accepted or agreed to accept less than the required rate of wages or voluntarily made refunds.

#### Sec. 36.05.900. Definition.

In this chapter, "contracting agency" means the state or a political subdivision of the state that has entered into a public construction contract with a contractor.

#### EXCERPTS FROM ALASKA ADMINISTRATIVE CODE

- \*\*\*Notice: Regulations relating to board and lodging and per diem went into effect on November 25, 2018. The new regulations are excerpted here\*\*\*
- **8 AAC 30.051. Purpose.** The purpose of 8 AAC 30.052 8 AAC 30.056 is to ensure that wages paid to laborers, mechanics, and field surveyors do not fall below the prevailing rate of pay.
- **8 AAC 30.052. Board and lodging; remote sites.** (a) A contractor on a public construction project located 65 or more road miles from the international airport closest to the project area in either Fairbanks, Juneau, or Anchorage, or that is inaccessible by road in a two-wheel drive vehicle, shall provide adequate board and lodging to each laborer, mechanic, or field surveyor while the person is employed on the project. If commercial lodging facilities are not available, the contractor shall provide temporary lodging facilities. Lodging facilities must comply with all applicable state and federal laws. For a highway project, the location of the project is measured from the midpoint of the project.
- (b) A contractor is not required to provide board and lodging:
  - (1) to a laborer, mechanic, or field surveyor who is a domiciled resident of the project area; or
  - (2) on a laborer, mechanic, or field surveyor's scheduled days off, when the person can reasonably travel between the project and the person's permanent residence; for the purposes of this paragraph, "scheduled day off" means a day in which a person does not perform work on-site, is not required to remain at or near the job location for the benefit of the contractor, and is informed of the day off at least seven days before the day off.
- (c) Upon a contractor's written request, the commissioner may waive the requirements of (a) of this section where:
  - (1) the project is inaccessible by road in a two-wheel drive vehicle, but the laborer, mechanic, or field surveyor can reasonably travel between the project and the person's permanent residence within one hour; or
  - (2) a laborer, mechanic, or field surveyor is not a domiciled resident of the project area, but has established permanent residence, with the intent to remain indefinitely, within 65 road miles of the project, or for a highway project, the mid-point of the project.
- **8 AAC 30.054. Per diem instead of board and lodging.** (a) A contractor may pay a laborer, mechanic, or field surveyor per diem instead of providing board and lodging, when the following conditions are met:
  - (1) the department determines that per diem instead of board and lodging is an established practice for the work classification; the department shall publish and periodically revise its determinations in the pamphlet Laborers' and Mechanics' Minimum Rates of Pay;
  - (2) the contractor pays each laborer, mechanic, or field surveyor the appropriate per diem rate as published and periodically revised in the pamphlet *Laborers' and Mechanics' Minimum Rates of Pay*; and

- (3) the contractor pays the per diem to each laborer, mechanic, or field surveyor on the same day that wages are paid.
- (b) A contractor may not pay per diem instead of board and lodging on a highway project located
  - (1) west of Livengood on the Elliot Highway, AK-2;
  - (2) on the Dalton Highway, AK-11;
  - (3) north of milepost 20 on the Taylor Highway, AK-5;
  - (4) east of Chicken on the Top of the World Highway; or
  - (5) south of Tetlin Junction to the Alaska-Canada border on the Alaska Highway, AK-2.

**8 AAC 30.056. Alternative arrangement.** Upon a contractor's written request, the commissioner may approve an alternative board and lodging or per diem arrangement, provided

- (1) the arrangement does not reduce the laborer, mechanic, or field surveyor's wages below the prevailing wage rate; and
- (2) the laborer, mechanic, or field surveyor voluntarily enters into and signs the written arrangement; a labor organization representing laborers, mechanics, or field surveyors may enter into the written agreement on their behalf.

# **8 AAC 30.900. General definitions** (selected excerpts only):

In this chapter and in AS 36

- (22) "domiciled resident" means a person living within 65 road miles of a public construction project, or in the case of a highway project, the mid-point of the project, for at least 12 consecutive months prior to the award of the public construction project;
- (23) "employed on the project" means the time period from the date the laborer, mechanic, or field surveyor first reports on-site to the project through the final date the person reports on-site to the project.

# ADDITIONAL INFORMATION

# **PER DIEM**

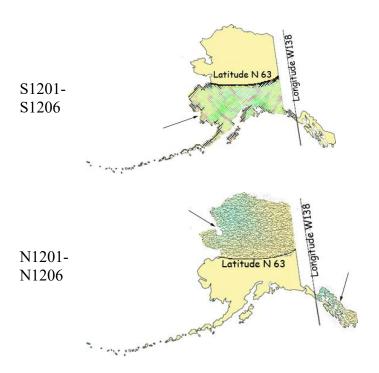
**Notice:** New regulations relating to board and lodging and per diem went into effect on November 25, 2018. The regulations provide a comprehensive set of requirements for the provision of board and lodging or per diem for workers on remote projects. Please refer to Alaska Administrative Code 8 AAC Chapter 30 and read the chapter carefully.

The Alaska Department of Labor and Workforce Development has determined that per diem is an established work practice for certain work classifications. These classifications are indicated throughout the Pamphlet by an asterisk (\*) under the classification title. If all of the conditions of 8 AAC 30.054 are met, an employer may pay workers in these classifications per diem instead of providing board and lodging on a remote project.

**Per Diem Rate:** As of May 1<sup>st</sup>, 2019, the minimum per diem rate is \$100.00 per day, or part thereof, the worker is employed on the project. In the event that a contractor provides lodging facilities, but no meals, the department will accept a payment of \$48 per day for meals to meet the per diem requirements.

# LABORER CLASSIFICATION CLARIFICATION

The laborer rates categorized in class code S1201-S1206 apply in one area of Alaska; the area that is south of N63 latitude and west of W138 Longitude. The laborer rates categorized in class code N1201-N1206 apply in two areas of Alaska; the Alaska areas north of N63 latitude and east of W138 longitude. The following graphic representations should assist with clarifying the applicable wage rate categories:



#### APPRENTICE RATES

Apprentice rates at less than the minimum prevailing rates may be paid to apprentices according to an apprentice program which has been registered and approved by the Commissioner of the Alaska Department of Labor and Workforce Development in writing or according to a bona fide apprenticeship program registered with the U.S. Department of Labor, Office of Apprenticeship Training. Any employee listed on a payroll at an apprentice wage rate who is not registered as above shall be paid the journeyman prevailing minimum wage in that work classification. Wage rates are based on prevailing crew makeup practices in Alaska and apply to work performed regardless of either the quality of the work performed by the employee or the titles or classifications which may be assigned to individual employees.

# FRINGE BENEFIT PLANS

Contractors/subcontractors may compensate fringe benefits to their employees in any one of three methods. The fringe benefits may be paid into a union trust fund, into an approved benefit plan, or paid directly on the paycheck as gross wages.

Where fringe benefits are paid into approved plans, funds, or programs including union trust funds, the payments must be contributed at least monthly. If contractors submit their own payroll forms and are paying fringe benefits into approved plans, funds, or programs, the employer's certification must include, in addition to those requirements of <u>8 AAC 30.020(c)</u>, a statement that fringe benefit payments have been or will be paid at least monthly. Contractors who pay fringe benefits to a plan must ensure the plan is one approved by the Internal Revenue Service and that the plan meets the requirements of <u>8 AAC 30.025</u> (eff. 3/2/08) in order for payments to be credited toward the prevailing wage obligation.

# SPECIAL PREVAILING WAGE RATE DETERMINATION

Special prevailing wage rate determinations may be requested for special projects or a special worker classification if the work to be performed does not conform to traditional public construction for which a prevailing wage rate has been established under <u>8 AAC 30.050(a)</u> of this section. Requests for special wage rate determinations must be in writing and filed with the Commissioner <u>at least 30 days before the award of the contract</u>. An applicant for a special wage rate determination shall have the responsibility to support the necessity for the special rate. An application for a special wage rate determination filed under this section must contain:

- (1) a specification of the contract or project on which the special rates will apply and a description of the work to be performed;
- (2) a brief narrative explaining why special wage rates are necessary;
- (3) the job class or classes involved;
- (4) the special wage rates the applicant is requesting, including survey or other relevant wage data to support the requested rates;
- (5) the approximate number of employees who would be affected; and
- (6) any other information which might be helpful in determining if special wage rates are appropriate.

Requests made pursuant to the above should be addressed to:

Director
Alaska Department of Labor and Workforce Development
Labor Standards and Safety Division
Wage and Hour Administration
P.O. Box 111149
Juneau, AK 99811-1149

Email: statewide.wagehour@alaska.gov

# **EMPLOYMENT PREFERENCE INFORMATION**

In October 2019, the Alaska Attorney General issued a formal opinion stating that the Alaska Statutes 36.10.150 of the State's 90% Employment Preference law, also known as the Alaska Resident Hire law, violates both the U.S. and Alaska Constitutions. As a result, the state has stopped all enforcement activity. A copy of the Attorney General opinion is found here:

http://law.alaska.gov/pdf/opinions/opinions 2019/19-005 AK-hire.pdf

# Alaska Department of Labor and Workforce Development Labor Standards and Safety Division Wage and Hour Administration

Web site: <a href="http://labor.state.ak.us/lss/pamp600.htm">http://labor.state.ak.us/lss/pamp600.htm</a>

Anchorage	Juneau	Fairbanks
1251 Muldoon Road, Suite 113	PO Box 111149	Regional State Office Building
Anchorage, Alaska 99504-2098	Juneau, Alaska 99811	675 7 <sup>th</sup> Ave., Station J-1
Phone: (907) 269-4900	Phone: (907) 465-4842	Fairbanks, Alaska 99701-4593
		Phone: (907) 451-2886
Email:	Email:	Email:
statewide.wagehour@alaska.gov	statewide.wagehour@alaska.gov	statewide.wagehour@alaska.gov

# LABOR STANDARDS AND SAFETY NOTICE REQUESTS

If you would like to receive Wage and Hour Administration or Mechanical Inspection **regulation notices** or **publications information**, they are available via electronic mail, by signing up in the GovDelivery System, <a href="https://public.govdelivery.com/accounts/AKDOL/subscriber/new">https://public.govdelivery.com/accounts/AKDOL/subscriber/new</a> and selecting topics LSS – Wage and Hour – Forms and Publications, LSS – Mechanical Inspection Regulations, or LSS – Wage and Hour Regulations.

Publications are also available online at http://labor.alaska.gov/lss/home.htm

# **DEBARMENT LIST**

<u>AS 36.05.090(b)</u> states that "the state disbursing officer or the local fiscal officer shall distribute to all departments of the state government and to all political subdivisions of the state a list giving the names of persons who have disregarded their obligations to employees."

A person appearing on the following debarment list and a firm, corporation, partnership, or association in which the person has an interest may not work as a contractor or subcontractor on a public construction contract for the state or a political subdivision of the state for three years from the date of debarment.

Company Name	<u>Debarment Expires</u>
Tim Banach, Individual	February 23, 2021
Boulder Creek Electric	February 23, 2021

# Laborers' & Mechanics' Minimum Rates of Pay

Class Code Classification of Laborers & Mechanics	BHR H&W	PEN	TRN	Other I	Benefits	THR
Boilermakers						
*See per diem note on last page						
A0101 Boilermaker (journeyman)	46.08 8.57	16.72	1.65	VAC 3.50	<b>SAF</b> 0.34	76.86
Bricklayers & Blocklayers						
*See per diem note on last page						
A0201 Blocklayer	42.16 9.00	10.05	0.62	<b>L&amp;M</b> 0.20		62.03
Bricklayer Marble or Stone Mason Refractory Worker (Firebrick, Plastic, Castable, and Gunite Refractory Applications) Terrazzo Worker Tile Setter						
A0202 Tuck Pointer Caulker	42.16 9.00	10.05	0.62	L&M 0.20		62.03
Cleaner (PCC)	42.10 7.00	10.03	0.02			02.03
A0203 Marble & Tile Finisher	35.99 9.00	10.05	0.62	L&M 0.20		55.86
Terrazzo Finisher	40.10.002	0.50	0.55	L&M	0.05	60.00
A0204 Torginal Applicator	40.10 9.83	8.50	0.55	0.15	0.87	60.00
Carpenters, Region I (North of 63 latitude)  *See per diem note on last page						
N0301 Carpenter (journeyman)	38.34 10.08	15.23	1.10	<b>L&amp;M</b> 0.10	<b>SAF</b> 0.10	64.95
Lather/Drywall/Acoustical						
Carpenters, Region II (South of N63 latitude)  *See per diem note on last page						
S0301 Carpenter (journeyman)	38.34 10.08	15.77	1.10	<b>L&amp;M</b> 0.10	<b>SAF</b> 0.10	65.49
Lather/Drywall/Acoustical						
Cement Masons  *See per diem note on last page						

Class Code	Classification of Laborers & Mechanics	BHR H&W F	PEN	TRN	Other Benefits	THR
Cemer	nt Masons					
;	See per diem note on last page					
					L&M	
A0401	Group I, including:	38.38 8.70 1	1.80	1.43	0.10	60.41
	Application of Scaling Commound					
	Application of Sealing Compound Application of Underlayment					
	Building, General					
	Cement Mason (journeyman)					
	Concrete					
	Concrete Paving					
	Curb & Gutter, Sidewalk					
	Curing of All Concrete					
	Grouting & Caulking of Tilt-Up Panels					
	Grouting of All Plates					
	•					
	Patching Concrete Screed Pin Setter					
	Spackling/Skim Coating				L&M	
A0402	Group II, including:	38.38 8.70 1	1.80	1 43	0.10	60.41
110402		30.30 0.70 1	1.00	1.15	0.10	00.11
	Form Setter					
			1 00		L&M	
A0403	Group III, including:	38.38 8.70 1	1.80	1.43	0.10	60.41
	Concrete Saw (self-powered)					
	Curb & Gutter Machine					
	Floor Grinder					
	Pneumatic Power Tools					
	Power Chipping & Bushing					
	Sand Blasting Architectural Finish					
	Screed & Rodding Machine Operator					
	Troweling Machine Operator					
					L&M	
A0404	Group IV, including:	38.38 8.70 1	1.80	1.43	0.10	60.41
	Application of All Composition Mastic					
	Application of All Epoxy Material					
	Application of All Plastic Material					
	Finish Colored Concrete					
	Gunite Nozzleman					
	Hand Powered Grinder					
	Tunnel Worker					
					T 0.3.5	
					L&M	

Plasterer

Class Code	Classification of Laborers & Mechanics	BHR H&W PEN	TRN Other B	Benefits THR
Culina	ry Workers			
A0501	Baker/Cook	28.37 8.40 7.56	LEG	44.33
A0503	General Helper	25.05 8.40 7.56	LEG	41.01
	Housekeeper Janitor			
A0504	Kitchen Helper Head Cook	28.97 8.40 7.56	LEG	44.93
A0505	Head Housekeeper	25.45 8.40 7.56	LEG	41.41
	Head Kitchen Help			
Dredge *	See per diem note on last page			
A0601	Assistant Engineer	40.76 10.35 13.00	1.00 0.10	0.05 65.26
	Craneman Electrical Generator Operator (primary pump/power barge/dredge) Engineer Welder			
<u>A0602</u>	Assistant Mate (deckhand)	39.60 10.35 13.00	1.00 0.10	0.05 64.10
A0603	Fireman	40.04 10.35 13.00	1.00 0.10	0.05 64.54
A0605	Leverman Clamshell	43.29 10.35 13.00	1.00 <b>L&amp;M</b> 0.10	0.05 67.79
<u>A0606</u>	Leverman Hydraulic	41.53 10.35 13.00	1.00 <b>L&amp;M</b> 0.10	0.05 66.03
A0607	Mate & Boatman	40.76 10.35 13.00	1.00 <b>L&amp;M</b> 0.10	0.05 65.26
A0608	Oiler (dredge)	40.04 10.35 13.00	1.00 <b>L&amp;M</b> 0.10	0.05 64.54
Electric*	cians See per diem note on last page			
A0701	Inside Cable Splicer	41.27 13.90 13.88	<b>L&amp;M</b> 0.95 0.20	<b>LEG</b> 0.15 70.35

Class Code	Classification of Laborers & Mechanics	BHR H&W PEN	TRN	Other I	Benefits	THR
Electri	icians					
*	See per diem note on last page					
A0702	Inside Journeyman Wireman, including:	40.94 13.90 14.12	0.95	L&M 0.20	<b>LEG</b> 0.15	70.26
	Technicians (including use of drones in electrical construction)					
A0703	Power Cable Splicer	57.79 13.90 18.92	0.95	<b>L&amp;M</b> 0.20	<b>LEG</b> 0.15	91.91
A0704	Tele Com Cable Splicer	50.53 13.90 16.17	0.95	<b>L&amp;M</b> 0.20	<b>LEG</b> 0.15	81.90
A0705	Power Journeyman Lineman, including:	56.04 13.90 18.87	0.95	L&M 0.20	<b>LEG</b> 0.15	90.11
	Power Equipment Operator Technician (including use of drones in electrical construction)			T 0.24	LEC	
<u>A0706</u>	Tele Com Journeyman Lineman, including:	48.78 13.90 16.11	0.95	<b>L&amp;M</b> 0.20	0.15	80.09
	Technician (including use of drones in telecommunications construction) Tele Com Equipment Operator					
<u>A0707</u>	Straight Line Installer - Repairman	48.78 13.90 16.11	0.95	L&M 0.20	0.15	80.09
A0708	Powderman	54.04 13.90 18.81	0.95	<b>L&amp;M</b> 0.20	<b>LEG</b> 0.15	88.05
A0710	Material Handler	26.57 13.33 4.80	0.15	<b>L&amp;M</b> 0.15	<b>LEG</b> 0.15	45.15
A0712	Tree Trimmer Groundman	28.37 13.90 12.59	0.15	<b>L&amp;M</b> 0.15	<b>LEG</b> 0.15	55.31
A0713	Journeyman Tree Trimmer	37.30 13.90 12.86	0.15	<b>L&amp;M</b> 0.15	<b>LEG</b> 0.15	64.51
A0714	Vegetation Control Sprayer	40.85 13.90 12.97	0.15	<b>L&amp;M</b> 0.15	<b>LEG</b> 0.15	68.17
<u>A0715</u>	Inside Journeyman Communications CO/PBX	39.52 13.90 13.83	0.95	<b>L&amp;M</b> 0.20	<b>LEG</b> 0.15	68.55
Elevat	or Workers					
*	See per diem note on last page					
A0802	Elevator Constructor	41.38 15.73 18.41	0.63	L&M 0.48		81.22
A0803	Elevator Constructor Mechanic	59.11 15.73 18.41	0.63	L&M 0.48	VAC 6.56	100.92

Class Code Classification of Laborers & Mechanics	BHR H&V	V PEN	TRN	Other B	enefits	THR
Heat & Frost Insulators/Asbestos Workers						
*See per diem note on last page						
A0902 Asbestos Abatement-Mechanical Systems	38.68 9.24	11.01	1.20	<b>SAF</b> 0.12		60.25
A0903 Asbestos Abatement/General Demolition All Systems	38.68 9.24	11.01	1.20	<b>SAF</b> 0.12		60.25
A0904 Insulator, Group II	38.68 9.24	11.01	1.20	<b>SAF</b> 0.12		60.25
A0905 Fire Stop	38.68 9.24	11.01	1.20	<b>SAF</b> 0.12		60.25
IronWorkers  *See per diem note on last page						
A1101 Ironworkers, including:	38.87 9.51	24.28	0.74	<b>L&amp;M</b> 0.20	IAF 0.24	73.84
Bender Operators Bridge & Structural Hangar Doors Hollow Metal Doors Industrial Doors Machinery Mover Ornamental Reinforcing Rigger Sheeter Signalman Stage Rigger Toxic Haz-Mat Work Welder	20.07. 0.51	24.20	0.74	L&M	IAF	74.04
Helicopter (used for rigging and setting)	39.87 9.51	24.28	0.74	0.20	0.24	74.84
Tower (energy producing windmill type towers to include nacelle and blades)				L&M	IAF	
A1103 Fence/Barrier Installer	35.37 9.51	23.93	0.74	0.20 L&M	0.24 IAF	69.99
A1104 Guard Rail Layout Man	36.11 9.51	23.93	0.74	0.20	0.24	70.73
				L&M	IAF	

A1105 Guard Rail Installer

0.24 70.99

36.37 9.51 23.93 0.74 0.20

# Laborers (The Alaska areas north of N63 latitude and east of W138 longitude)

\*See per diem note on last page

L&M LEG

N1201 Group I, including:

31.71 8.95 17.81 1.30 0.20 0.20 60.17

Asphalt Worker (shovelman, plant crew)

**Brush Cutter** 

Camp Maintenance Laborer

Carpenter Tender or Helper

Choke Setter, Hook Tender, Rigger, Signalman

Concrete Labor (curb & gutter, chute handler, curing, grouting,

screeding)

Crusher Plant Laborer

**Demolition Laborer** 

Ditch Digger

Dumpman

Environmental Laborer (hazard/toxic waste, oil spill)

Fence Installer

Fire Watch Laborer

Flagman

Form Stripper

General Laborer

Guardrail Laborer, Bridge Rail Installer

Hydro-seeder Nozzleman

Laborer, Building

Landscaper or Planter

Laying of Mortarless Decorative Block (retaining walls, flowered

decorative block 4 feet or less - highway or landscape work)

Material Handler

Pneumatic or Power Tools

Portable or Chemical Toilet Serviceman

Pump Man or Mixer Man

Railroad Track Laborer

Sandblast, Pot Tender

Saw Tender

Slurry Work

Steam Cleaner Operator

Steam Point or Water Jet Operator

Storm Water Pollution Protection Plan Worker (SWPPP Worker -

erosion and sediment control Laborer)

Tank Cleaning

Utiliwalk & Utilidor Laborer

Watchman (construction projects)

Window Cleaner

Classification of Laborers & Mechanics

BHR H&W PEN TRN Other Benefits THR

Laborers (The Alaska areas north of N63 latitude and east of W138 longitude)

\*See per diem note on last page

L&M LEG

N1202 Group II, including:

32.71 8.95 17.81 1.30 0.20 0.20 61.17

Burning & Cutting Torch

Cement or Lime Dumper or Handler (sack or bulk)

Certified Erosion Sediment Control Lead (CESCL Laborer)

Choker Splicer

Chucktender (wagon, air-track & hydraulic drills)

Concrete Laborer (power buggy, concrete saws, pumpcrete nozzleman,

vibratorman)

Culvert Pipe Laborer

Cured Inplace Pipelayer

Environmental Laborer (asbestos, marine work)

Floor Preparation, Core Drilling

Foam Gun or Foam Machine Operator

Green Cutter (dam work)

**Gunite Operator** 

Hod Carrier

Jackhammer/Chipping Gun or Pavement Breaker

Laser Instrument Operator

Laying of Mortarless Decorative Block (retaining walls, flowered

decorative block over 4 feet - highway or landscape work)

Mason Tender & Mud Mixer (sewer work)

Pilot Car

Pipelayer Helper

Plasterer, Bricklayer & Cement Finisher Tender

Powderman Helper

Power Saw Operator

Railroad Switch Layout Laborer

Sandblaster

Scaffold Building & Erecting

Sewer Caulker

Sewer Plant Maintenance Man

Thermal Plastic Applicator

Timber Faller, Chainsaw Operator, Filer

Timberman

L&M LEG

N1203 Group III, including:

33.61 8.95 17.81 1.30 0.20 0.20 62.07

Bit Grinder

Camera/Tool/Video Operator

Guardrail Machine Operator

High Rigger & Tree Topper

High Scaler

Class	
Code	

Classification of Laborers & Mechanics

BHR H&W PEN TRN Other Benefits THR

Laborers (The Alaska areas north of N63 latitude and east of W138 longitude)

\*See per diem note on last page

L&M LEG

**N1203** Group III, including: 33.61 8.95 17.81 1.30 0.20 0.20 62.07

Multiplate

Plastic Welding

Slurry Seal Squeegee Man

Traffic Control Supervisor

Welding Certified (in connection with laborer's work)

L&M LEG

N1204 Group IIIA 36.89 8.95 17.81 1.30 0.20 0.20 65.35

Asphalt Raker, Asphalt Belly Dump Lay Down

Drill Doctor (in the field)

Driller (including, but not limited to wagon drills, air-track drills,

hydraulic drills)

Pioneer Drilling & Drilling Off Tugger (all type drills)

**Pipelayers** 

Powderman (Employee Possessor)

Storm Water Pollution Protection Plan Specialist (SWPPP Specialist)

Traffic Control Supervisor, DOT Qualified

L&M LEG

**N1205** Group IV 21.28 8.95 17.81 1.30 0.20 0.20 49.74

Final Building Cleanup

Permanent Yard Worker

L&M LEG

**N1206** Group IIIB 40.68 6.24 17.81 1.30 0.20 0.20 66.43

Driller (including, but not limited to wagon drills, air-track drills,

hydraulic drills)(over 5,000 hours)

Federal Powderman (Responsible Person in Charge)

Grade Checking (setting or transferring of grade marks, line and grade,

GPS, drones)

Pioneer Drilling & Drilling Off Tugger (all type drills)(over 5,000

hours)

Stake Hopper

Laborers (The area that is south of N63 latitude and west of W138 longitude)

\*See per diem note on last page

L&M LEG

**S1201** Group I, including: 31.71 8.95 17.81 1.30 0.20 0.20 60.17

Asphalt Worker (shovelman, plant crew)

**Brush Cutter** 

Camp Maintenance Laborer

Carpenter Tender or Helper

**Classification of Laborers & Mechanics** 

BHR H&W PEN TRN Other Benefits THR

Laborers (The area that is south of N63 latitude and west of W138 longitude)

\*See per diem note on last page

L&M LEG

**S1201** Group I, including:

31.71 8.95 17.81 1.30 0.20 0.20 60.17

Choke Setter, Hook Tender, Rigger, Signalman

Concrete Labor (curb & gutter, chute handler, curing, grouting,

screeding)

Crusher Plant Laborer

**Demolition Laborer** 

Ditch Digger

Dumpman

Environmental Laborer (hazard/toxic waste, oil spill)

Fence Installer

Fire Watch Laborer

Flagman

Form Stripper

General Laborer

Guardrail Laborer, Bridge Rail Installer

Hydro-seeder Nozzleman

Laborer, Building

Landscaper or Planter

Laying of Mortarless Decorative Block (retaining walls, flowered

decorative block 4 feet or less - highway or landscape work)

Material Handler

Pneumatic or Power Tools

Portable or Chemical Toilet Serviceman

Pump Man or Mixer Man

Railroad Track Laborer

Sandblast, Pot Tender

Saw Tender

Slurry Work

Steam Cleaner Operator

Steam Point or Water Jet Operator

Storm Water Pollution Protection Plan Worker (SWPPP Worker -

erosion and sediment control Laborer)

Tank Cleaning

Utiliwalk & Utilidor Laborer

Watchman (construction projects)

Window Cleaner

L&M LEG

0.20

0.20

32.71 8.95 17.81 1.30

Burning & Cutting Torch

S1202 Group II, including:

Cement or Lime Dumper or Handler (sack or bulk)

Certified Erosion Sediment Control Lead (CESCL Laborer)

Wage benefits key: BHR=basic hourly rate; H&W=health and welfare; IAF=industry advancement fund; LEG=legal fund; L&M=labor/management fund; PEN=pens fund; SAF=safety; SUI=supplemental unemployment insurance; S&L=SUI & LEG combined; TRN=training; THR=total hourly rate; VAC=vacation

61.17

Classification of Laborers & Mechanics

BHR H&W PEN TRN Other Benefits THR

Laborers (The area that is south of N63 latitude and west of W138 longitude)

\*See per diem note on last page

L&M LEG

**S1202** Group II, including:

32.71 8.95 17.81 1.30 0.20 0.20 61.17

**Choker Splicer** 

Chucktender (wagon, air-track & hydraulic drills)

Concrete Laborer (power buggy, concrete saws, pumpcrete nozzleman,

vibratorman)

Culvert Pipe Laborer

Cured Inplace Pipelayer

Environmental Laborer (asbestos, marine work)

Floor Preparation, Core Drilling

Foam Gun or Foam Machine Operator

Green Cutter (dam work)

**Gunite Operator** 

Hod Carrier

Jackhammer/Chipping Gun or Pavement Breaker

Laser Instrument Operator

Laying of Mortarless Decorative Block (retaining walls, flowered

decorative block over 4 feet - highway or landscape work)

Mason Tender & Mud Mixer (sewer work)

Pilot Car

Pipelayer Helper

Plasterer, Bricklayer & Cement Finisher Tender

Powderman Helper

Power Saw Operator

Railroad Switch Layout Laborer

Sandblaster

Scaffold Building & Erecting

Sewer Caulker

Sewer Plant Maintenance Man

Thermal Plastic Applicator

Timber Faller, Chainsaw Operator, Filer

Timberman

**S1203** Group III, including:

L&M LEG

0.20 62.07

33.61 8.95 17.81 1.30 0.20

Bit Grinder

Camera/Tool/Video Operator

Guardrail Machine Operator

High Rigger & Tree Topper

High Scaler

Multiplate

Plastic Welding

Slurry Seal Squeegee Man

Classification of Laborers & Mechanics	BHR H&W	PEN	TRN	Other !	Benefits	THR
ers (The area that is south of N63 latitude and west of W138 long	gitude)					
See per diem note on last page	<i>,</i>					
Group III, including:	33.61 8.95	17.81	1.30	L&M 0.20	<b>LEG</b> 0.20	62.07
Traffic Control Supervisor						
Welding Certified (in connection with laborer's work)						
	• • • • • • • •				_	
Group IIIA	36.89 8.95	17.81	1.30	0.20	0.20	65.35
Asphalt Raker, Asphalt Belly Dump Lay Down						
· · · · · · · · · · · · · · · · · · ·						
hydraulic drills)						
• • • • • • • • • • • • • • • • • • • •						
•				L&M	LEG	
Group IV	21.28 8.95	17.81	1.30	0.20	0.20	49.74
Final Building Cleanup						
Permanent Yard Worker						
Comma HID	40.69.624	1701	1.20			(( 12
Group IIIB	40.08 0.24	17.81	1.30	0.20	0.20	66.43
Driller (including, but not limited to wagon drills, air-track drills, hydraulic drills)(over 5,000 hours)						
Federal Powderman (Responsible Person in Charge)						
Grade Checking (setting or transferring of grade marks, line and grade, GPS, drones)						
Pioneer Drilling & Drilling Off Tugger (all type drills)(over 5,000						
See per diem note on last page						
Millwright (journeyman)	40.77 10.08	12.28	1.10	L&M 0.40	0.05	64.68
				I & M		
Millwright Welder	41.77 10.08	12.28	1.10	0.40	0.05	65.68
	Group III, including:  Traffic Control Supervisor Welding Certified (in connection with laborer's work)  Group IIIA  Asphalt Raker, Asphalt Belly Dump Lay Down Drill Doctor (in the field) Driller (including, but not limited to wagon drills, air-track drills, hydraulic drills) Pioneer Drilling & Drilling Off Tugger (all type drills) Pipelayers Powderman (Employee Possessor) Storm Water Pollution Protection Plan Specialist (SWPPP Specialist) Traffic Control Supervisor, DOT Qualified  Group IV  Final Building Cleanup Permanent Yard Worker  Group IIIB  Driller (including, but not limited to wagon drills, air-track drills, hydraulic drills)(over 5,000 hours) Federal Powderman (Responsible Person in Charge) Grade Checking (setting or transferring of grade marks, line and grade, GPS, drones) Pioneer Drilling & Drilling Off Tugger (all type drills)(over 5,000 hours) Stake Hopper  ights See per diem note on last page  Millwright (journeyman)	Group III, including:  Group III, including:  Group III, including:  Group IIIA  Group IIII potential but not limited to wagon drills, air-track drills, hydraulic drills) Pipelayers Powderman (Employee Possessor)  Storm Water Pollution Protection Plan Specialist (SWPPP Specialist) Traffic Control Supervisor, DOT Qualified  Group IV  Group IIIB  Group IIIIB  Group IIIII duding, but not limited to wagon drills, air-track drills, hydraulic drills)(over 5,000 hours) Federal Powderman (Responsible Person in Charge) Grade Checking (setting or transferring of grade marks, line and grade, GPS, drones) Floineer Drilling & Drilling Off Tugger (all type drills)(over 5,000 hours) Stake Hopper  Grade Checking (setting or transferring of grade marks, line and grade, GPS, drones)  Grade Checking (setting or transferring of grade marks, line and grade, GPS, drones)  Grade Checking (setting or transferring of grade marks, line and grade, GPS, drones)  Grade Checking (setting or transferring of grade marks, line and grade, GPS, drones)  Grade Checking (setting or transferring of grade marks, line and grade, GPS, drones)  Grade Checking (setting or transferring of grade marks, line and grade, GPS, drones)  Grade Checking (setting or transferring of grade marks, line and grade, GPS, drones)	Group III, including:  Traffic Control Supervisor Welding Certified (in connection with laborer's work)  Group IIIA  Asphalt Raker, Asphalt Belly Dump Lay Down Drill Doctor (in the field) Driller (including, but not limited to wagon drills, air-track drills, hydraulic drills) Pioneer Drilling & Drilling Off Tugger (all type drills) Pipelayers Powderman (Employee Possessor) Storm Water Pollution Protection Plan Specialist (SWPPP Specialist) Traffic Control Supervisor, DOT Qualified  Group IV  21.28  8.95  17.81  Prinal Building Cleanup Permanent Yard Worker  Group IIIB  40.68  40.68  6.24  17.81  Driller (including, but not limited to wagon drills, air-track drills, hydraulic drills)(over 5,000 hours) Federal Powderman (Responsible Person in Charge) Grade Checking (setting or transferring of grade marks, line and grade, GPS, drones) Pioneer Drilling & Drilling Off Tugger (all type drills)(over 5,000 hours) Stake Hopper  ights See per diem note on last page  Millwright (journeyman)  40.77  40.08  12.28	Group III, including: 33.61 8.95 17.81 1.30  Traffic Control Supervisor Welding Certified (in connection with laborer's work)  Group IIIA 36.89 8.95 17.81 1.30  Asphalt Raker, Asphalt Belly Dump Lay Down Drill Doctor (in the field) Driller (including, but not limited to wagon drills, air-track drills, hydraulic drills) Pioneer Drilling & Drilling Off Tugger (all type drills) Prowderman (Employee Possessor) Storm Water Pollution Protection Plan Specialist (SWPPP Specialist) Traffic Control Supervisor, DOT Qualified  Group IIV 21.28 8.95 17.81 1.30  Driller (including, but not limited to wagon drills, air-track drills, hydraulic drills) Pormanent Yard Worker  Group IIIB 40.68 6.24 17.81 1.30  Driller (including, but not limited to wagon drills, air-track drills, hydraulic drills)(over 5,000 hours) Federal Powderman (Responsible Person in Charge) Grade Checking (setting or transferring of grade marks, line and grade, GPS, drones) Pioneer Drilling & Drilling Off Tugger (all type drills)(over 5,000 hours) Stake Hopper  ights See per diem note on last page  Millwright (journeyman) 40.77 10.08 12.28 1.10	Firs (The area that is south of N63 latitude and west of W138 longitude)  See per diem note on last page  Group III, including:  33.61 8.95 17.81 1.30 0.20  Traffic Control Supervisor Welding Certified (in connection with laborer's work)  Group IIIA  36.89 8.95 17.81 1.30 0.20  Asphalt Raker, Asphalt Belly Dump Lay Down Drill Doctor (in the field) Driller (including, but not limited to wagon drills, air-track drills, hydraulic drills) Pipelayers Powderman (Employee Possessor) Storm Water Pollution Protection Plan Specialist (SWPPP Specialist) Traffic Control Supervisor, DOT Qualified  Group IV  21.28 8.95 17.81 1.30 0.20  L&M Group IIIB  40.68 6.24 17.81 1.30 0.20  Driller (including, but not limited to wagon drills, air-track drills, hydraulic drills)(over 5,000 hours) Federal Powderman (Responsible Person in Charge) Grade Checking (setting or transferring of grade marks, line and grade, GPS, drones) Pioneer Drilling & Drilling Off Tugger (all type drills)(over 5,000 hours) Stake Hopper  ights See per diem note on last page  Millwright (journeyman)  40.77 10.08 12.28 1.10 L&M 0.40	See per diem note on last page

\*See per diem note on last page

N1301 Group I, including:

56.35

L&M

0.07

32.99 8.71 13.50 1.08

Class Code	Classification of Laborers & Mechanics	BHR H&W PEN TRN Other Benefits	THR
<b>Painte</b>	rs, Region I (North of N63 latitude)		
;	*See per diem note on last page		
		L&M	
N1301	Group I, including:		56.35
	Brush		
	General Painter		
	Hand Taping		
	Hazardous Material Handler		
	Lead-Based Paint Abatement		
	Roll		
		L&M	
N1302	Group II, including:		56.87
	D.1 D.4		
	Bridge Painter		
	Epoxy Applicator General Drywall Finisher		
	Hand/Spray Texturing		
	Industrial Coatings Specialist		
	Machine/Automatic Taping		
	Pot Tender		
	Sandblasting		
	Specialty Painter		
	Spray		
	Structural Steel Painter		
	Wallpaper/Vinyl Hanger		
N1304	Group IV, including:	39.64 8.71 16.37 1.05 0.05	65.82
111001		2510.1 01/1 1010/ 1100 0100	00.02
	Glazier		
	Storefront/Automatic Door Mechanic		
N1305	Group V, including:	28.63 8.71 5.02 0.83 0.07	43.26
	Carpet Installer		
	Floor Coverer		
	Heat Weld/Cove Base		
	Linoleum/Soft Tile Installer		
Deinte	Design H (Courth of N/2 letter let		
	ers, Region II (South of N63 latitude) *See per diem note on last page		
		L&M	
<u>S1301</u>	Group I, including:		54.34
	Brush		
	General Painter		
	Hand Taping		
	Hazardous Material Handler		
XX7 1	mofite leave DIID—hoose hovely motor II 6-W—hoolth and svolfour. IA F—in disctore	advancement fund. I EC-level fund. I &M-lehen/menseement fund. DEN	*

Class						
Code	Classification of Laborers & Mechanics	BHR H&W	PEN	TRN	Other Benefits	THR
	rs, Region II (South of N63 latitude)					
;	See per diem note on last page					
<u>S1301</u>	Group I, including:	30.33 8.71	14.15	1.08	<b>L&amp;M</b> 0.07	54.34
	Lead-Based Paint Abatement Roll					
S1302	Spray  Group II, including:	31.58 8.71	14 15	1 08	<b>L&amp;M</b> 0.07	55.59
51302	General Drywall Finisher Hand/Spray Texturing Machine/Automatic Taping Wallpaper/Vinyl Hanger	31.30 6.71	14.13	1.00		33.37
S1303	Group III, including:	31.68 8.71	14.15	1.08	<b>L&amp;M</b> 0.07	55.69
	Bridge Painter  Epoxy Applicator Industrial Coatings Specialist Pot Tender Sandblasting Specialty Painter Structural Steel Painter					
S1304	Group IV, including:	39.85 8.71	15.41	1.08	<b>L&amp;M</b> 0.07	65.12
	Glazier Storefront/Automatic Door Mechanic				L&M	
<u>S1305</u>	Group V, including:	28.63 8.71	5.02	0.83	0.07	43.26
	Carpet Installer Floor Coverer Heat Weld/Cove Base Linoleum/Soft Tile Installer					
Piledr	ivers *See per diem note on last page					
	Piledriver	38.34 10.08	15.23	1.10	L&M IAF 0.10 0.10	64.95
	Assistant Dive Tender Carpenter/Piledriver Rigger Sheet Stabber					

Skiff Operator

Class Code	Classification of Laborers & Mechanics	BHR H&W	PEN	TRN	Other I	Benefits	THR
Piledri							
*	See per diem note on last page						
A1402	Piledriver-Welder/Toxic Worker	39.34 10.08	15.23	1.10	<b>L&amp;M</b> 0.10	<b>IAF</b> 0.10	65.95
A1403	Remotely Operated Vehicle Pilot/Technician	42.65 10.08	15.23	1.10	<b>L&amp;M</b> 0.10	IAF 0.10	69.26
	Single Atmosphere Suit, Bell or Submersible Pilot						
<u>A1404</u>	Diver (working) **See note on last page	82.45 10.08	15.23	1.10	<b>L&amp;M</b> 0.10	<b>IAF</b> 0.10	109.06
A1405	Diver (standby) **See note on last page	42.65 10.08	15.23	1.10	<b>L&amp;M</b> 0.10	<b>IAF</b> 0.10	69.26
<u>A1406</u>	Dive Tender **See note on last page	41.65 10.08	15.23	1.10	<b>L&amp;M</b> 0.10	IAF 0.10	68.26
A1407	Welder (American Welding Society, Certified Welding Inspector)	43.90 10.08	15.23	1.10	<b>L&amp;M</b> 0.10	IAF 0.10	70.51
	ers, Region I (North of N63 latitude)						
Φ,	See per diem note on last page						
N1501	Journeyman Pipefitter	41.91 11.25	17.20	1.50	L&M 0.65	S&L	72.51
	Plumber Welder						
Plumbe	ers, Region II (South of N63 latitude)						
*	See per diem note on last page						
S1501	Journeyman Pipefitter	41.00 11.13	15.02	1.55	<b>L&amp;M</b> 0.20		68.90
	Plumber Welder						
	ers, Region IIA (1st Judicial District) See per diem note on last page						
X1501	Journeyman Pipefitter	38.82 13.37	11.75	2.50	<b>L&amp;M</b> 0.24		66.68
	Plumber Welder						
	Equipment Operators See per diem note on last page						
	Group I, including:	41.53 10.35	13.00	1.00	<b>L&amp;M</b> 0.10	0.05	66.03

# Classification of Laborers & Mechanics

BHR H&W PEN TRN Other Benefits THR

Power Equipment Operators

\*See per diem note on last page

L&M

A1601 Group I, including:

41.53 10.35 13.00 1.00 0.10 0.05 66.03

Asphalt Roller: Breakdown, Intermediate, and Finish

Back Filler

Barrier Machine (Zipper)

Beltcrete with Power Pack & similar conveyors

Bending Machine

**Boat Coxswain** 

Bulldozer

Cableways, Highlines & Cablecars

Cleaning Machine

Coating Machine

Concrete Hydro Blaster

Cranes (45 tons & under or 150 feet of boom & under (including jib & attachments))

- (a) Hydralifts or Transporters, (all track or truck type)
- (b) Derricks
- (c) Overhead

Crushers

Deck Winches, Double Drum

Ditching or Trenching Machine (16 inch or over)

Drag Scraper, Yarder, and similar types

Drilling Machines, Core, Cable, Rotary and Exploration

Finishing Machine Operator, Concrete Paving, Laser Screed, Sidewalk,

Curb & Gutter Machine

Grade Checker and/or Line and Grade including Drone

Helicopters

Hover Craft, Flex Craft, Loadmaster, Air Cushion, All-Terrain Vehicle,

Rollagon, Bargecable, Nodwell, & Snow Cat

Hydro Ax, Feller Buncher & similar

Hydro Excavation (Vac-Truck and Similar)

Loaders (2 1/2 yards through 5 yards, including all attachments):

- (a) Forklifts (with telescopic boom & swing attachment)
- (b) Front End & Overhead, (2-1/2 yards through 5 yards)
- (c) Loaders, (with forks or pipe clamp)
- (d) Loaders, (elevating belt type, Euclid & similar types)

Material Transfer Vehicle (Elevating Grader, Pickup Machine, and similar types)

Mechanic, Welder, Bodyman, Electrical, Camp & Maintenance

Engineer

Micro Tunneling Machine

Mixers: Mobile type with hoist combination

Motor Patrol Grader

**Classification of Laborers & Mechanics** 

BHR H&W PEN TRN Other Benefits THR

**Power Equipment Operators** 

\*See per diem note on last page

L&M

A1601 Group I, including:

41.53 10.35 13.00 1.00 0.10 0.05 66.03

Mucking Machine: Mole, Tunnel Drill, Horizontal/Directional Drill

Operator and/or Shield

Off-Road Hauler (including Articulating and Haul Trucks)

Operator on Dredges

Piledriver Engineer, L.B. Foster, Puller or similar paving breaker

Plant Operator (Asphalt & Concrete)

Power Plant, Turbine Operator 200 k.w & over (power plants or

combination of power units over 300 k.w.)

Remote Controlled Equipment

Scraper (through 40 yards)

Service Oiler/Service Engineer

Shot Blast Machine

Shovels, Backhoes, Excavators with all attachments, and Gradealls (3

yards & under)

Sideboom (under 45 tons)

Sub Grader (Gurries & similar types)

Tack Tractor

Truck Mounted Concrete Pump, Conveyor/Tele-belt, & Creter

Wate Kote Machine

L&M

A1602 Group IA, including:

43.29 10.35 13.00 1.00 0.10 0.05 67.79

Camera/Tool/Video Operator (Slipline)

Certified Welder, Electrical Mechanic, Camp Maintenance Engineer,

Mechanic (over 10,000 hours)

Cranes (over 45 tons or 150 feet including jib & attachments)

- (a) Clamshells & Draglines (over 3 yards)
- (b) Tower Cranes

Licensed Water/Waste Water Treatment Operator

Loaders (over 5 yards)

Motor Patrol Grader, Dozer, Grade Tractor (finish: when finishing to

final grade and/or to hubs, or for asphalt)

Power Plants (1000 k.w. & over)

Profiler, Reclaimer, and Roto-Mill

Quad

Scrapers (over 40 yards)

Screed

Shovels, Backhoes, Excavators with all attachments (over 3 yards)

Sidebooms (over 45 tons)

Slip Form Paver, C.M.I. & similar types

Topside (Asphalt Paver, Slurry machine, Spreaders, and similar types)

#### Classification of Laborers & Mechanics

BHR H&W PEN TRN Other Benefits THR

# **Power Equipment Operators**

\*See per diem note on last page

L&M

# A1603 Group II, including:

40.76 10.35 13.00 1.00 0.10 0.05 65.26

Boiler - Fireman

Cement Hogs & Concrete Pump Operator

Conveyors (except those listed in Group I)

Hoists on Steel Erection, Towermobiles & Air Tuggers

Horizontal/Directional Drill Locator

Locomotives, Rod & Geared Engines

Mixers

Screening, Washing Plant

Sideboom (cradling rock drill, regardless of size)

Skidder

Trenching Machines (under 16 inches)

Water/Waste Water Treatment Operator

L&M

40.04 10.35 13.00 1.00 0.10 0.05 64.54

# A1604 Group III, including:

"A" Frame Trucks, Deck Winches

Bombardier (tack or tow rig)

**Boring Machine** 

Brooms, Power (sweeper, elevator, vacuum, or similar)

**Bump Cutter** 

Compressor

Farm Tractor

Forklift, Industrial Type

Gin Truck or Winch Truck (with poles when used for hoisting)

Hoists, Air Tuggers, Elevators

Loaders:

- (a) Elevating-Athey, Barber Greene & similar types
- (b) Forklifts or Lumber Carrier (on construction job sites)
- (c) Forklifts, (with tower)
- (d) Overhead & Front End, (under 2-1/2 yards)

Locomotives: Dinkey (air, steam, gas & electric) Speeders

Mechanics, Light Duty

Oil, Blower Distribution

Posthole Digger, Mechanical

Pot Fireman (power agitated)

Power Plant, Turbine Operator, (under 200 k.w.)

Pumps, Water

Roller (other than Asphalt)

Saws, Concrete

Skid Hustler

Skid Steer (with all attachments)

Class Code	Classification of Laborers & Mechanics	BHR H&W PEN	TRN	Other	Benefits	THR
Power	Equipment Operators					
:	*See per diem note on last page					
A1604	Group III, including:	40.04 10.35 13.00	1.00	<b>L&amp;M</b> 0.10	0.05	64.54
	Stake Hopper Straightening Machine Tow Tractor					
A1605	Group IV, including:	33.83 10.35 13.00	1.00	<b>L&amp;M</b> 0.10	0.05	58.33
	Crane Assistant Engineer/Rig Oiler Drill Helper Parts & Equipment Coordinator Spotter Steam Cleaner Swamper (on trenching machines or shovel type equipment)					
Roofe	*See per diem note on last page					
A1701	Roofer & Waterproofer	44.62 11.75 3.91	0.81	<b>L&amp;M</b> 0.10		61.25
<u>A1702</u>	Roofer Material Handler	31.23 11.75 3.91	0.81	<b>L&amp;M</b> 0.10	0.06	47.86
Sheet	Metal Workers, Region I (North of N63 latitude)					
	*See per diem note on last page					
N1801	Sheet Metal Journeyman	48.64 11.50 14.11	1.65	<b>L&amp;M</b> 0.12		76.02
	Air Balancing and duct cleaning of HVAC systems Brazing, soldering or welding of metals					

Demolition of sheet metal HVAC systems

Fabrication and installation of exterior wall sheathing, siding, metal

roofing, flashing, decking and architectural sheet metal work

Fabrication and installation of heating, ventilation and air conditioning

ducts and equipment

Fabrication and installation of louvers and hoods

Fabrication and installation of sheet metal lagging

Fabrication and installation of stainless steel commercial or industrial

food service equipment

Manufacture, fabrication assembly, installation and alteration of all

ferrous and nonferrous metal work

Metal lavatory partitions

Preparation of drawings taken from architectural and engineering plans

required for fabrication and erection of sheet metal work

Class Code	Classification of Laborers & Mechanics	BHR H&W PEN TRN Other Bene	fits THR
	Metal Workers, Region I (North of N63 latitude) See per diem note on last page		
N1801	Sheet Metal Journeyman	<b>L&amp;M</b> 48.64 11.50 14.11 1.65 0.12	76.02
	Sheet Metal shelving Sheet Metal venting, chimneys and breaching Skylight installation		
	Metal Workers, Region II (South of N63 latitude) See per diem note on last page		

 L&M

 S1801
 Sheet Metal Journeyman
 43.20 11.50 14.09 1.68 0.43 70.90

Air Balancing and duct cleaning of HVAC systems

Brazing, soldering or welding of metals

Demolition of sheet metal HVAC systems

Fabrication and installation of exterior wall sheathing, siding, metal roofing, flashing, decking and architectural sheet metal work

Fabrication and installation of heating, ventilation and air conditioning ducts and equipment

Fabrication and installation of louvers and hoods

Fabrication and installation of sheet metal lagging

Fabrication and installation of stainless steel commercial or industrial

food service equipment

Manufacture, fabrication assembly, installation and alteration of all

ferrous and nonferrous metal work

Metal lavatory partitions

Preparation of drawings taken from architectural and engineering plans

required for fabrication and erection of sheet metal work

Sheet Metal shelving

Sheet Metal venting, chimneys and breaching

Skylight installation

A1901 Sprinkler Fitter

# Sprinkler Fitters \*See per diem note on last page L&M

47.25 10.23 17.85 0.52

0.25

Surveyors

\*See per diem note on last page

	L&M	
A2001 Chief of Parties	44.16 11.43 12.64 1.15 0.10	69.48
	1.01	
	L&M	
A2002 Party Chief	42.57 11.43 12.64 1.15 0.10	67.89

Wage benefits key: BHR=basic hourly rate; H&W=health and welfare; IAF=industry advancement fund; LEG=legal fund; L&M=labor/management fund; PEN=pens fund; SAF=safety; SUI=supplemental unemployment insurance; S&L=SUI & LEG combined; TRN=training; THR=total hourly rate; VAC=vacation

76.10

E 67.2  [ 65.1  [ 60.8
67.2 I 65.1 I 60.8
67.2 I 65.1 I 60.8
67.2 I 65.1 I 60.8
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65.1 I 60.8
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67.5
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65.0

All Deltas, Commanders, Rollagons, & similar equipment

Batch Trucks (8 yards & up)

Batch Trucks (up to & including 7 yards)

Class
Code

# **Classification of Laborers & Mechanics**

BHR H&W PEN TRN Other Benefits THR

Truck Drivers

\*See per diem note on last page

L&M

A2103 Group II, including:

39.68 11.43 12.64 1.15 0.10

65.00

Boom Truck/Knuckle Truck (over 5 tons)

Cacasco Truck/Heat Stress Truck

Construction and Material Safety Technician

Dump Trucks (including rockbuggy, side dump, belly dump, & trucks

with pups) over 20 yards up to & including 40 yards

Gin Pole Truck, Winch Truck, Wrecker (truck mounted "A" frame

manufactured rating over 5 tons)

Mechanics

Oil Distributor Driver

Partsman

Ready-mix (up to & including 12 yards)

Stringing Truck

Turn-O-Wagon or DW-10 (not self loading)

L&M

**A2104** Group III, including:

38.86 11.43 12.64 1.15 0.10 64.18

Boom Truck/Knuckle Truck (up to & including 5 tons)

Dump Trucks (including rockbuggy, side dump, belly dump, & trucks

with pups) over 10 yards up to & including 20 yards

Expeditor (electrical & pipefitting materials)

Gin Pole Truck, Winch Truck, Wrecker (truck mounted "A" frame

manufactured rating 5 tons & under)

Greaser - Shop

Semi or Truck & Trailer

Thermal Plastic Layout Technician

Traffic Control Technician

Trucks/Jeeps (push or pull)

L&M

A2105 Group IV, including:

38.28 11.43 12.64 1.15 0.10

63.60

Air Cushion or similar type vehicle

All Terrain Vehicle

Buggymobile

Bull Lift & Fork Lift, Fork Lift with Power Boom & Swing Attachment

(over 5 tons)

Bus Operator (over 30 passengers)

Cement Spreader, Dry

Combination Truck-Fuel & Grease

Compactor (when pulled by rubber tired equipment)

Dump Trucks (including rockbuggy, side dump, belly dump, & trucks

with pups) up to & including 10 yards

Dumpster

**Classification of Laborers & Mechanics** 

BHR H&W PEN TRN Other Benefits THR

Truck Drivers

\*See per diem note on last page

L&M

38.28 11.43 12.64 1.15 0.10 63.60

A2105 Group IV, including:

Expeditor (general)

Fire Truck/Ambulance Driver

Flat Beds, Dual Rear Axle

Foam Distributor Truck Dual Axle

Front End Loader with Fork

Grease Truck

Hydro Seeder, Dual Axle

Hyster Operators (handling bulk aggregate)

Loadmaster (air & water operations)

Lumber Carrier

Ready-mix, (up to & including 7 yards)

Rigger (air/water/oilfield)

Tireman, Light Duty

Track Truck Equipment

Truck Vacuum Sweeper

Warehouseperson

Water Truck (Below 250 Bbls)

Water Truck (straight)

Water Wagon, Semi

L&M

**A2106** Group V, including: 37.52 11.43 12.64 1.15 0.10 62.84

**Buffer Truck** 

Bull Lifts & Fork Lifts, Fork Lifts with Power Boom & Swing

Attachments (up to & including 5 tons)

Bus Operator (up to 30 passengers)

Farm Type Rubber Tired Tractor (when material handling or pulling

wagons on a construction project)

Flat Beds, Single Rear Axle

Foam Distributor Truck Single Axle

Fuel Handler (station/bulk attendant)

Gear/Supply Truck

Gravel Spreader Box Operator on Truck

Hydro Seeders, Single axle

Pickups (pilot cars & all light-duty vehicles)

Rigger/Swamper

Tack Truck

Team Drivers (horses, mules, & similar equipment)

# Tunnel Workers, Laborers (The Alaska areas north of N63 latitude and east of W138 longitude)

\*See per diem note on last page

Class	
Code	

**Classification of Laborers & Mechanics** 

BHR H&W PEN TRN Other Benefits THR

Tunnel Workers, Laborers (The Alaska areas north of N63 latitude and east of W138 longitude)

\*See per diem note on last page

L&M LEG

**N2201** Group I, including: 34.88 8.95 17.81 1.30 0.20 0.20 63.34

Brakeman

Mucker

Nipper

Storm Water Pollution Protection Plan Worker (SWPPP Worker -

erosion and sediment control Laborer)

Topman & Bull Gang

Tunnel Track Laborer

**L&M LEG** 35.98 8.95 17.81 1.30 0.20 0.20 64.44

N2202 Group II, including:

Burning & Cutting Torch Certified Erosion Sediment Control Lead (CESCL Laborer)

Concrete Laborer

Floor Preparation, Core Drilling

Jackhammer/Chipping Gun or Pavement Breaker

Laser Instrument Operator

Nozzlemen, Pumpcrete or Shotcrete

Pipelayer Helper

L&M LEG

**N2203** Group III, including: 36.97 8.95 17.81 1.30 0.20 0.20 65.43

Miner

Retimberman

L&M LEG

**N2204** Group IIIA, including: 40.58 8.95 17.81 1.30 0.20 0.20 69.04

Asphalt Raker, Asphalt Belly Dump Lay Down

Drill Doctor (in the field)

Driller (including, but not limited to wagon drills, air-track drills,

hydraulic drills)

Pioneer Drilling & Drilling Off Tugger (all type drills)

**Pipelayer** 

Powderman (Employee Possessor)

Storm Water Pollution Protection Plan Specialist (SWPPP Specialist)

Traffic Control Supervisor, DOT Qualified

L&M LEG 0.20 0.20

44.75 6.24 17.81 1.30

Driller (including, but not limited to wagon drills, air-track drills,

hydraulic drills)(over 5,000 hours)

Federal Powderman (Responsible Person in Charge)

Grade Checking (setting or transferring of grade marks, line and grade,

GPS, drones)

N2206 Group IIIB, including:

Wage benefits key: BHR=basic hourly rate; H&W=health and welfare; IAF=industry advancement fund; LEG=legal fund; L&M=labor/management fund; PEN=pens fund; SAF=safety; SUI=supplemental unemployment insurance; S&L=SUI & LEG combined; TRN=training; THR=total hourly rate; VAC=vacation

70.50

Class

**Code** Classification of Laborers & Mechanics

BHR H&W PEN TRN Other Benefits THR

Tunnel Workers, Laborers (The Alaska areas north of N63 latitude and east of W138 longitude)

\*See per diem note on last page

L&M LEG

N2206 Group IIIB, including:

44.75 6.24 17.81 1.30 0.20 0.20 70.50

Pioneer Drilling & Drilling Off Tugger (all type drills)(over 5,000

hours)

Stake Hopper

Tunnel Workers, Laborers (The area that is south of N63 latitude and west of W138 longitude)

\*See per diem note on last page

L&M LEG

L&M

LEG

**S2201** Group I, including: 34.88 8.95 17.81 1.30 0.20 0.20 63.34

Brakeman

Mucker

Nipper

Storm Water Pollution Protection Plan Worker (SWPPP Worker -

erosion and sediment control Laborer)

Topman & Bull Gang

Tunnel Track Laborer

**L&M LEG S2202** Group II, including: 35.98 8.95 17.81 1.30 0.20 0.20 64.44

Burning & Cutting Torch

Certified Erosion Sediment Control Lead (CESCL Laborer)

Concrete Laborer

Floor Preparation, Core Drilling

Jackhammer/Chipping Gun or Pavement Breaker

Laser Instrument Operator

Nozzlemen, Pumpcrete or Shotcrete

Pipelayer Helper

**S2203** Group III, including: **L&M LEG S2203** Group III, including: 36.97 8.95 17.81 1.30 0.20 0.20 65.43

Miner

Retimberman

**S2204** Group IIIA, including: 40.58 8.95 17.81 1.30 0.20 0.20 69.04

Asphalt Raker, Asphalt Belly Dump Lay Down

Drill Doctor (in the field)

Driller (including, but not limited to wagon drills, air-track drills,

hydraulic drills)

Pioneer Drilling & Drilling Off Tugger (all type drills)

**Pipelayer** 

Powderman (Employee Possessor)

Storm Water Pollution Protection Plan Specialist (SWPPP Specialist)

Class
Code

# Classification of Laborers & Mechanics

BHR H&W PEN TRN Other Benefits THR

Tunnel Workers, Laborers (The area that is south of N63 latitude and west of W138 longitude)

\*See per diem note on last page

**S2204** Group IIIA, including: **L&M LEG S2204** Group IIIA, including: 40.58 8.95 17.81 1.30 0.20 0.20 69.04

Traffic Control Supervisor, DOT Qualified

**S2206** Group IIIB, including: **L&M LEG S2206** 44.75 6.24 17.81 1.30 0.20 70.50

Driller (including, but not limited to wagon drills, air-track drills,

hydraulic drills)(over 5,000 hours)

Federal Powderman (Responsible Person in Charge)

Grade Checking (setting or transferring of grade marks, line and grade,

GPS, drones)

Pioneer Drilling & Drilling Off Tugger (all type drills) (over 5,000

hours)

Stake Hopper

# **Tunnel Workers, Power Equipment Operators**

\*See per diem note on last page

	L&M
A2207 Group I	45.68 10.35 13.00 1.00 0.10 0.05 70.18
	L&M
A2208 Group IA	47.62 10.35 13.00 1.00 0.10 0.05 72.12
	L&M
A2209 Group II	44.84 10.35 13.00 1.00 0.10 0.05 69.34
	L&M
A2210 Group III	44.04 10.35 13.00 1.00 0.10 0.05 68.54
	L&M
A2211 Group IV	37.21 10.35 13.00 1.00 0.10 0.05 61.71

<sup>\*</sup> Per diem is an established practice for this classification. This means that per diem is an allowable alternative to board and lodging if all criteria are met. See 8 AAC 30.051-08 AAC 30.056, and the per diem information on page vii of this Pamphlet.

<sup>\*\*</sup> Work in combination of classifications: Employees working in any combination of classifications within the diving crew (working diver, standby diver, and tender) in a shift are paid in the classification with the highest rate for a minimum of 8 hours per shift.

# Appendix A – Plans & Specifications

# SECTION 0000000

# TECHNICAL SPECIFICATIONS

# **INDEX**

# DIVISION 01 - GENERAL REQUIREMENTS

011000	SUMMARY
013500	SPECIAL PROVISIONS
017113	MOBILIZATION AND DEMOBILIZATION

# DIVISION 03 - CONCRETE

033000 CAST-IN-PLACE CONCRETE

# DIVISION 31 – EARTHWORK

310100	CONSTRUCTION SURVEY
311000	SITE CLEARING
312010	GEOTEXTILES

# **DIVISION 32 – EXTERIOR IMPROVEMENTS**

329350 LANDSCAPING

# **DIVISION 33 – UTILITIES**

332200	DECOMMISION WATER SUPPLY WELLS
334213	STORMWATER CUI VERTS

**END OF SECTION** 

#### **SECTION 011000**

#### **SUMMARY**

#### PART 1 - GENERAL

# 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section Includes:
  - 1. Project information.
  - 2. Work covered by Contract Documents and Construction Schedule
  - 3. Work by Owner.
  - 4. Access to site.
  - 5. Coordination with occupants.
  - 6. Work restrictions.
  - 7. Specification and Drawing conventions.

# 1.3 PROJECT INFORMATION

- A. Project Identification: City of Kenai Kenai Wellhouse Relocation.
  - 1. Project Location #1: Kenai Well House #1, 7465 Kenai Spur Highway, Kenai, AK 99611
  - 2. Project Location #2: Kenai Well House #2, 420 Shotgun Drive, Kenai, Alaska 99611.
- B. Owner: City of Kenai.
  - Owner's Representative: City of Kenai Public Works Department. 210 Fidalgo Avenue, Kenai, Alaska 99611. Public Works Director: Scott Curtin.
- C. Lead Engineer: Nelson Engineering, PC, 155 Bidarka St, Kenai, Alaska 99611. Project Manager: Matthew Dura, PE

#### 1.4 WORK COVERED BY CONTRACT DOCUMENTS AND CONSTRUCTION SCHEDULE

- A. The Scope of Work shall be conducted as follows:
  - 1. Well House #1 Site Work includes (but not limited to): Removal and relocation of existing Well House #1 building, demolition of existing Well House #1 foundation and interior appurtenances, decommissioning of water supply well at Well House #1, backfilling and regrading pad.
  - 2. Well House #2 Site Work includes (but not limited to): clearing and grubbing, site excavation, geotextile placement, culvert installation (owner furnished), gravel backfill and compaction testing

for driveway and building pad, building foundation and slab construction, well house building relocation, new electrical components, site grading, topsoil and seeding.

# 1.5 WORK BY OWNER

A. General: Cooperate fully with Owner so work may be carried out smoothly, without interfering with or delaying work under this Contract or work by Owner. Coordinate the Work of this Contract with work performed by Owner.

#### 1.6 ACCESS TO SITE

- A. General: Contractor shall have limited use of Project site for construction operations as indicated on Drawings by the Contract limits and as indicated by requirements of this Section.
- B. Use of Site: Limit use of Project site to Work in areas indicated. Do not disturb portions of Project site beyond areas in which the Work is required.
  - 1. Limits: Confine construction operations to interior areas required for construction and exterior areas as shown on the drawings.
  - 2. Driveways and Entrances: Keep driveways and entrances available to Owner, Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or for storage of materials.
    - a. Deliveries to the site will be restricted to contractor's dedicated project entrance only, unless otherwise specifically approved by the Owner's representative.
- C. Condition of Existing Grounds: Maintain portions of existing grounds, landscaping, and hardscaping affected by construction operations throughout construction period. Repair damage caused by construction operations.

# 1.7 COORDINATION WITH OCCUPANTS

- A. Owner will occupy site during entire construction period. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's day-to-day operations. Maintain existing exits unless otherwise indicated.
  - Maintain access to existing corridors and other adjacent occupied or used facilities. Do not close
    or obstruct corridors or other occupied or used facilities without written permission from Owner
    and approval of authorities having jurisdiction.
  - 2. Notify Owner not less than 72 hours in advance of activities that will affect Owner's operations.
- B. Owner Limited Occupancy of Completed Areas of Construction: Owner reserves the right to occupy and to place and install equipment in completed portions of the Work, prior to Substantial Completion of the Work, provided such occupancy does not interfere with completion of the Work. Such placement of equipment and limited occupancy shall not constitute acceptance of the total Work.
  - 1. Project Manager will prepare a Certificate of Substantial Completion for each specific portion of the Work to be occupied prior to Owner acceptance of the completed Work.

#### 1.8 WORK RESTRICTIONS

- A. Work Restrictions, General: Comply with restrictions on construction operations.
  - Comply with limitations on use of public streets and with other requirements of authorities having jurisdiction.
- B. On-Site Work Hours: Limit work in the existing building to normal business working hours of 7 a.m. to 8 p.m., Monday through Sunday, unless otherwise indicated.
  - 1. Hours for Utility Shutdowns: Coordinate with Owner.
  - 2. Hours for noisy activities: Coordinate with Owner.
- C. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after providing temporary utility services according to requirements indicated:
  - 1. Notify Owner not less than three days in advance of proposed utility interruptions.
  - 2. Obtain Owner's written permission before proceeding with utility interruptions.
- D. Noise, Vibration, and Odors: Coordinate operations that may result in high levels of noise and vibration, odors, or other disruption to Owner occupancy with Owner.
  - 1. Notify Owner not less than three days in advance of proposed disruptive operations.
  - 2. Obtain Owner's written permission before proceeding with disruptive operations.

# 1.9 SPECIFICATION AND DRAWING CONVENTIONS

- A. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
  - 1. Imperative mood and streamlined language are generally used in the Specifications. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.
  - 2. Specification requirements are to be performed by Contractor unless specifically stated otherwise.
- B. Division 01 General Requirements: Requirements of Sections in Division 01 apply to the Work of all Sections in the Specifications.
- C. Drawing Coordination: Requirements for materials and products identified on Drawings may also be described in the Specifications. One or more of the following are used on Drawings to identify materials and products:
  - 1. Terminology: Materials and products may be identified by the typical generic terms used in the individual Specifications Sections.
  - 2. Abbreviations: Materials and products may be identified by abbreviations.
  - 3. Keynoting: Materials and products may be identified by reference keynotes referencing Specification Section numbers found in this Project Manual.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

#### **SECTION 013500**

#### SPECIAL PROVISIONS

#### PART 1 GENERAL

#### 1.01 COMPLETION DATES OF WORK ITEMS

- A. The Contractor shall commence work on the date specified within the written "Notice to Proceed". The project shall be substantially complete within 1 calendar year of Notice to Proceed.
  - 1. Liquidation Damages for Completion Date. Liquidated damages will be charged as provided for in the Agreement Documents in the amount of Six Hundred and Thirty Dollars (\$630.00) for each calendar day. Liquidated damages will be applied to each day the after the completion date that the project is not substantially complete.

2.

#### 1.02 CONTRACTOR WORK AND STORAGE AREAS

A. The Contractor shall make arrangements for areas and facilities needed by Contractor for the storage of materials, supplies and equipment, parking, and other activities. Security for such areas shall be the sole responsibility of the Contractor. The Contractor shall hold the Owner harmless from all claims or complaints arising from the use of such areas. The Contractor may store equipment within the newly cleared areas for construction. The contractor will not be allowed to store equipment within the State Right of Way or City of Kenai Right of Way.

# 1.03 EXISTING SITE CONDITIONS

- A. Water table is expected to be encountered within the depths of the excavation required to complete this project based on soils investigation by HDL conducted on Feb 28th, 2011. No separate payment shall be made for dewatering, and any dewatering effort shall be considered incidental to the bid item under construction or to the Contract.
- B. Investigations conducted by the City of subsurface conditions were made for the purpose of study and design, and neither the City nor the Engineer assumes any responsibility with respect to the sufficiency or accuracy of borings, or of the logs of test borings, or of other investigations that have been made, or of the interpretations made thereof, and there is no warranty or guarantee, either expressed or implied, that the conditions indicated by such investigations are representative of those existing throughout such area, or any part thereof, or that unforeseen developments may not occur.
- C. A Logs of test borings or topographic maps showing a record of the data obtained by the Engineer's investigations of surface and subsurface conditions that are made available or bound herewith shall not be considered a part of the Contract Documents, said logs represent only the opinion of the Engineer as to the character of the materials encountered by him in his investigations, and is provided only for the convenience of the Contractor.

- D. Information derived from inspection of logs of test borings, of topographic maps, or from Drawings showing location of utilities and structures will not in any way relieve the Contractor from any risk, or from properly examining the site and making such additional investigations as he may elect, or from properly fulfilling all the terms of the Contract Documents.
- E. A The Contractor warrants that he has made such additional investigations and tests as may be deemed necessary to determine his Bid for performance of the Work in accordance with the time, price and other terms and conditions of the Contract Documents.
- F. The Contractor agrees that Contractor will make no claim against the City or the Engineer if, in carrying out the work, Contractor finds that the actual subsurface conditions encountered do not conform to those indicated by said borings, test excavations, and other subsurface investigations.
- G. Neither the City nor the Engineer assumes any responsibility for any interpretations or representations made by any of its officers or agents during or prior to the execution of this Contract, unless such interpretations or representations are expressly stated in the Contract Documents.

#### 1.04 EXISTING SURVEY MONUMENTS

A. Survey monuments and rebars marking property corners shown on the plans or located and marked by the Engineer shall be carefully preserved from damage or disturbance by the Contractor. If the Contractor disturbs monuments needlessly or without his having established proper reference points, the Contractor shall pay all costs for proper replacement of the monument. Upon completion of construction the Contractor shall have the survey monuments and property corners reinstalled in their original location under the supervision of an Alaska Registered Land Surveyor, who shall provide a written certification verifying that all such monuments and property corners have been reinstalled in their original location.

# 1.05 COORDINATE WITH OTHER PROJECTS

A. The Contractor shall coordinate and cooperate with other contractors who are known or expected to be working on City property or within the project work limits.

# 1.06 WATER FOR COMPACTION OR DUST CONTROL

A. The City may, upon written request, supply the Contractor with limited quantities of water to be used for construction activities within this project. The Contractor shall use only an approved hydrant wrench, operate the fire hydrant in manner approved by the City Water and Fire Department, remove the hose when not in use, and notify the Fire Department of any extended periods of non-use to enable the hydrant to be pumped out. Such use of City water supply, if approved by the City, shall only occur during low water usage periods as determined by the Engineer.

### 1.07 CONSTRUCTION SCHEDULE AND SEQUENCE

- A. The Contractor will be required to complete in entirety and submit a construction schedule in bar graph form. Contractor's schedule shall address all bid items and major milestones.
- B. No work shall be allowed to proceed until this schedule has been approved. The schedule shall be submitted at the pre-construction meeting. Failure to submit a satisfactory schedule prior to

beginning excavation will constitute sufficient grounds for the Owner to stop work. All costs such as for delays or other claims resulting from such a stop work order shall be borne by the Contractor at no expense to the City.

#### 1.08 NON-PAY ITEMS

- A. On the Drawing there are minor work items which are incidental and are not designated as pay items. No separate payment will be made to the Contractor for these items, and all compensation received for performance of these items shall be included by the Contractor in his unit bid price for listed contract bid items.
- B. The Contractor shall provide areas off the project site for the disposal of unusable excavation. It shall be the sole responsibility of the Contractor to obtain the permission of the owner(s) of the disposal areas for the use of such area(s) by the Contractor and at no additional cost to the City. The Contractor shall hold the City harmless from all claims or complaints arising from the use of any disposal area.

#### 1.09 EXISTING UTILITIES IN THE CONSTRUCTION ZONE

- A. This item shall consist of providing all labor, materials, equipment, supervision and other means necessary to work around, protect, and preserve in place, or relocate if necessary, existing utilities including natural gas, telephone, electrical power, and cable television.
- B. The following utility companies may have existing buried and overhead facilities on the project site that will be encountered during excavation for the project and that may require removal of material over, under and adjacent to the existing utility:
  - 1. ENSTAR Natural Gas Company (gas)
  - 2. Alaska Communication Services (telephone and communication)
  - 3. Homer Electric Association (electric)
  - 4. General Communications, Inc. (cable)
  - 5. City of Kenai (water, sewer, private electric, private gas)
- C. All utilities damaged by the Contractor shall be repaired or replaced, at the option of the utility owner, with materials equal to or better than the original materials.
- D. The Contractor shall contact utility companies and the Locate Call Center of Alaska prior to construction to obtain field location of existing utilities and additional information regarding requirements of the utility company pertaining to the Contractor's work in the vicinity of the utility, including methods of exposing, shoring and relocating utilities.
- E. Field location marks are intended to show the approximate horizontal location of the utility within 2 feet either side of the field location mark. The depth of located utilities is not known. The Contractor is responsible for all damages and/or delays resulting from damage to utilities located within 2 feet horizontally of field marks, no matter what depth the utility is located. Care shall be taken by the Contractor to avoid damage to utilities outside of the field locates also. Plan locations of utilities are diagrammatic only and shall not be scaled to determine actual locations in the field.
- F. The Contractor shall protect and preserve all utilities in a manner acceptable to the utility company and shall exercise all possible care to avoid damaging existing utilities unless otherwise approved by the utility company.

- G. When utilities are encountered that would remain exposed upon completion of the project such as may occur due to lowering of existing grade, the Contractor shall notify the utility company and shall coordinate and schedule his activities to facilitate the relocation of the utility with the utility company. The Contractor shall cooperate with the utility company by providing 48 hours written notice to the utility company prior to work beginning in a specific area and by scheduling his activities such that the utility company is able to efficiently, as determined by the Engineer, perform such modifications and relocations.
- H. Payment for this work shall be incidental to other bid items.

### 1.10 MATERIALS

A. All materials shall be supplied by the Contractor for this project and shall be included in their respective bid items.

### 1.11 SUBSTANTIAL COMPLETION

A. The date of substantial completion shall be the date upon which the improvements, which are the subject matter of the Contract, are essentially completed and available for the Owners beneficial use for the purpose and in the manner intended by the contract documents as determined by the Engineer.

#### 1.12 DISPOSAL AREAS

A. The Contractor shall provide a disposal area for unusable excavation, unsuitable materials and other waste materials from this project. It shall be the sole responsibility of the Contractor to obtain the permission of the Owner(s) of such property for use as a disposal area, at no cost to the City. The Contractor shall hold the City harmless from all claims and complaints arising from the use of any disposal area. The Contractor shall notify the Engineer of the location for off-site disposal before dumping occurs.

#### 1.13 RELOCATE METAL BUILDING

- A. Remove/Install Metal Building from/to Foundation
  - 1. The work under this section consists of performing all Work required to remove the existing building from its foundation, and installing it on the newly constructed foundation at the Well House #2 site.
  - 2. Install building on new foundation as shown on the Project Drawings.

### B. Relocate Metal building

1. Contractor shall be responsible for transporting metal building from Well House #1 site to the Well House #2 site. Contractor shall be responsible for all Federal, State, or City permits for transporting building within the Kenai Spur Highway Right-of-Way and City of Kenai Right-of-Ways.

- 2. Contractor shall coordinate with utility companies to ensure transportation of metal building will not interfere with existing buried or overhead utilities between sites. This work shall be incidental to the Relocate Metal Building bid item.
- 3. Infill building wall as shown on the Project Drawings. This work shall be incidental to this Relocate Metal Building bid item.
- C. Method of Payment
  - 1. The measurement of the bid items shall be by lump sum.
- D. Basis of Payment
  - 1. Payment will be made under:

Pay Item No.	Pay Item	Pay Units
013500(1)	Remove/Install Metal Building from/to Foundation	Lump Sum
013500(2)	Relocate Metal Building	Lump Sum

### 1.14 DEMOLISH EXISTING BUILDING FOUNDATION AND APPURTENANCES

# A. General

- 1. The work under this section consists of performing all Work required to demolish the existing building foundation, demolish and/or salvage appurtenances within building and below grade, backfill and regrade pad area as shown on the Project Drawings.
- B. Method of Payment
  - 1. The measurement of this item shall be by lump sum.
- C. Basis of Payment
  - 1. Payment will be made under:

Pay Item No. Pay Item Pay Units

013500(3) Demo Existing Building Foundation and Appurtenances Lump Sum

#### 1.15 ABANDON EXISTING WATER MAIN TO WELL #1

### A. General

1. The work under this section consists of performing all Work required to sawcut and disconnect the water main at the existing gate valve, install a blind flange at the gate valve, empty the abandoned water main, and place 12" thick concrete plugs on both ends of the abandoned water main.

- B. Method of Payment
  - 1. The measurement of this item shall be by lump sum.
- C. Basis of Payment
  - 1. Payment will be made under:

Pay Item No. Pay Item

Pay Units

013500(4) Abandon Water Main

Lump Sum

### 1.16 FURNISH AND INSTALL NEW ELECTRICAL SYSTEMS

#### A. General

- 1. The work under this section consists of performing all Work required to design and install electrical components as required to provide a working electrical system for lights and power outlets, as described in the project drawings.
- 2. The electrical work shall be completed in accordance with NEC 2014 by the contractor as designed by an electrical administrator licensed in the state of Alaska. The administrator shall determine the point of connection in the existing Water Treatment Plant (WTP) building and verify the capacity of the existing system for the proposed loads. The contractor shall provide all materials and equipment required to connect to the existing WTP building.
- B. Method of Payment
  - 1. The measurement of this item shall be by lump sum.
- C. Basis of Payment
  - 1. Payment will be made under:

Pay Item No. Pay Item Pay Units

013500(5) Furnish & Install New Electrical Systems Lump Sum

PART 2 PRODUCTS (not used)

PART 3 EXECUTION (not used)

# **END OF SECTION**

#### **SECTION 017113**

### MOBILIZATION AND DEMOBILIZATION

#### PART 1 - GENERAL

### 1.01 DESCRIPTION

A. The Work This item shall consist of preparatory work and operations, including, but not limited to, those necessary for the movement of personnel, equipment, supplies, and incidentals to and from the project site; and for all other work and operations which must be performed, or costs incurred, prior to beginning work on the various items on the project. Also included in this item is all work necessary to remove labor, materials, and equipment from the project site and to clean up all project work areas.

# 1.02 MAXIMUM ALLOWABLE BID

A. The amount bid for Mobilization and Demobilization may not exceed ten percent (10%) of the total amount of the Basic Bid.

### PART 2 – PRODUCTS (NOT USED)

# PART 3 – EXECUTION

### 3.01 MEASUREMENT

- A. When five percent (5%) of the original contract amount is earned from other bid items, fifty (50) percent of the amount of mobilization, or five (5) percent of the original contract amount, whichever is less, will be paid.
- B. When ten percent (10%) of the original contract amount is earned from other bid items, eighty (80) percent of the amount of mobilization, or eight (8) percent of, the original contract amount, whichever is less, will be paid.
- C. Upon completion of all work on the project, payment of the remaining amount bid for Mobilization and Demobilization of the original contract amount will be paid.
- D. Materials stockpiled will not be included in the percent of original contract measurement.

#### 3.02 BASIS OF PAYMENT

A. Mobilization and demobilization will be paid at the contract lump sum bid. No adjustments shall be made in the contract price for mobilization and demobilization due to over-runs or under-runs in pay item quantities.

Payment will be made under:

Pay Item No.Pay ItemPay Units017113(1)Mobilization and DemobilizationLump Sum

# END OF SECTION

#### **SECTION 033000**

### CAST IN PLACE CONCRETE

#### PART 1 GENERAL

#### 1.1 DESCRIPTION

### A. Work Included:

1. Cast in place concrete required for this project is shown in the Drawings and includes, but is not necessarily limited to footings, foundation walls, slabs on grade, floor slabs, concrete tanks, exterior apron slab, and concrete reinforcement.

#### B. Related Work Described Elsewhere:

1. None

# 1.2 QUALITY ASSURANCE

#### A. Codes and Standards:

In general, all concrete work on this Project shall comply with current American Concrete Institute Manuals of Concrete Practices. Comply with all applicable codes and regulations and pertinent portions of the following referenced standards and other standard publications referenced in subsequent articles, which shall become a part of these specifications to the extent of their applicability to the particular product, system, assembly, or item specified:

- 1. ACI 301: "Specifications for Structural Concrete for Buildings".
- 2. ACI 302: "Guide for Concrete Floor and Slab Construction."
- ACI 304: "Recommended Practice for Measuring, Mixing, Transporting, and Placing Concrete."
- 4. ACI 311: Recommended Practice for Concrete Inspection".
- 5. ACI 315: "Manual of Standard Practice for Detailing Reinforced Concrete Structures."
- 6. ACI 318: "Building Code Requirements for Reinforced Concrete".
- 7. ACI 347: "Recommended Practice for Concrete Formwork".

#### B. Conflicts:

In the event of conflict or inconsistency between or among referenced standards and any provisions of this specification, or other Contract Documents, the most stringent requirement shall prevail, and shall be enforced.

### C. Testing:

- Conduct tests of the concrete during construction in accordance with ACI 301. Submit results
  of tests for approval. Remove and replace concrete which fails to achieve minimum 28 day
  compressive strength shown on the Drawings, at Contractor's expense.
- 2. Test all concrete for footings, slabs, walls, curbs and sidewalks.
- 3. Reject concrete which fails to meet specified criteria for slump, air content, and temperature.

# D. Frequency of Testing:

4. Slump tests - ASTM C-143:

Perform one test for each set of compressive strength test specimens.

5. Air content - ASTM C-231:

Perform one test for each set of compressive strength test specimens.

6. Concrete temperature:

Test hourly when ambient air temperature is  $40^{\circ}F$  and below, and each time a set of compression test specimens are made.

7. Compression test specimen - ASTM C-31:

One set of three standard cylinders for each compressive strength test. Field cure.

8. Compressive strength tests - ASTM C-39:

Samples for strength tests for each class of concrete placed each day shall be taken not less than one a day nor less than once for each 20 cu. yd. of concrete, nor less than once for each 1,000 sq. ft. of surface area for slabs.

# 1.3 SUBMITTALS

Make all submittals in conformance with applicable section of these specifications. Conform with ACI 315 for nomenclature and conventions used in shop and placement drawings:

#### A. Concrete Materials:

Submit concrete design specification, laboratory test results, and materials list showing source and gradation of all aggregates, type and brand of Portland cement, admixtures source and quality of mixing water, and other aspects of the concrete design.

### B. Reinforcing Steel:

Provide Materials Certificates signed by manufacturer and Contractor certifying that each material item complies with, or exceeds, specified requirements.

# C. Admixtures:

Provide Materials Certificates signed by manufacturer and Contractor certifying that each material item complies with, or exceeds, specified requirements and that chloride content complies with specification requirements.

# 1.4 PRODUCT HANDLING

# A. Delivery and Storage:

Do not permit delivery of any of the products of this section to the project site until proper facilities, away from traffic, are available for their proper storage and which will permit sorting and handling without endangering the materials themselves or materials for installations of other sections. Store all reinforcing steel on wood dunnage to keep it from direct contact with the ground surface.

## B. Environmental Requirements:

In the event of damage make all repairs and replacements necessary to restore to undamaged condition and do not proceed in those areas until all repairs have been made. Repairs and replacements shall be subject to approval of the Contracting Agency and shall be accomplished at no additional expense to the Owner.

#### 1.5 PRODUCT CONDITIONS

### A. Protection Against Freezing:

Cover work with temporary or permanent cover as required to protect concrete against possibility of freezing during placement of concrete, and for at least 14 days after placement of concrete.

#### PART 2 PRODUCTS

#### **2.1 FORMS**

#### A. Material:

Provide new, except as permitted in PART 3 of this section for re-use:

# 1. Plywood:

U.S. Product Standard PS-1 "B-B (Concrete Form) Plywood", Class I, Exterior Grade or better, mill oiled and edge sealed, with each piece bearing legible grade mark of a recognized and approved inspection agency.

### 2. Dimensional lumber:

Hem-Fir Number two grade, seasoned

# B. Ties and Spreaders:

- 3. Provide type providing minimum working strength of 3,000 lbs. when fully assembled, which does not leave open holes through the concrete, and which permits neat and solid patching.
- 4. Metal shall not be closer than 3/4" to surface when forms are removed.
- 5. Do not use wire ties and wood spreaders.

### C. Alternate Forming Systems:

Alternate systems will be considered upon submittal.

### D. Coatings and Parting Compounds:

Provide commercial fabrication that will not bond with stain or adversely affect concrete surfaces and will not impair subsequent treatment of concrete surfaces to be cured with water or compounds conforming to FSTT-3-001657.

#### E. Joint Fillers:

Provide pre-molded, resilient, waterproof, compressible type with minimum 75% recovery conforming to FS HH-F- 341E, Type II; 1/2" thick for interior joints and 1/2" thick for exterior walks.

### F. Other Materials:

Provide all other materials required for complete installation as selected by Contractor subject to the approval of the Contracting Agency.

#### 2.2 REINFORCING

All concrete reinforcement shall be new, free from rust, and shall comply with the following reference standards:

# A. Reinforcing Bars:

Provide ASTM A-615 grade 40 or 60 except where noted otherwise.

## B. Wire:

Provide ASTM A-82 #16 double annealed iron wire.

#### C. Welded Wire Fabric:

Provide ASTM A-185 in Flat Sheets.

# D. Accessories and Supports:

Provide supports, bolsters, chairs, spacers and other devices and accessories conforming to recommended Concrete Reinforcing Steel Institute (CRSI) practices. Provide galvanized accessories within 1-1/2" of surface of concrete with plastic tip chairs for exposed finish surfaces. Concrete dobie or other block, brick, or wood supports will not be permitted, except where specifically noted.

#### E. Welding Electrodes:

Conform to AWS Code D12.1.

#### F. Other Materials:

Provide all other materials, not specifically described but required for a complete and proper installation of concrete reinforcement, as selected by the Contractor, subject to the approval of the Contracting Agency

# 2.3 CONCRETE

### A. General:

Concrete mixes shall be designed to produce the tabulated properties below, and shall be subject to the approval of the Owner's Representative.

# B. Quality:

- 1. Provide concrete having 3,000 psi minimum 28 day compressive strengths for footings, walls and slabs, unless noted otherwise in drawings.
- 2. Provide concrete with maximum aggregate of 3/4" for all concrete except concrete for exposed aggregate surfaces, which shall have a maximum aggregate size of 3/8".
- 3. Slump at placement shall conform to the following:

	Concrete Without Super Plasticizer	Concrete with Super Plasticizer
<u>Location</u>		
Slab on Grade	3 inches	6 to 9 inches
Footings, Walls, Slabs and Beams	4 inches	6 to 9 inches
Exterior Apron Slab	3 inches	6 to 9 inches
Sidewalks	3 inches	6 to 9 inches
Curb & Gutters	3 inches	6 to 9 inches

4. Entrained air content at placement shall be 6% with 1.5% tolerance.

#### C. Cement:

Provide portland cement conforming to ASTM C-150, type I or II the product of a single manufacturer.

# D. Aggregates:

- 1. Provide aggregates conforming to ASTM C-33, current edition, except as expressly permitted by the Contracting Agency.
- Course aggregate size shall not exceed one-fifth the narrowest dimension between forms, onethird the depth of slabs, nor three-fourths the minimum clear spacing between individual bars or bundles of bars.
- 3. Fine aggregates shall be clean, sharp, natural sand, free from loam, clay, lumps, alkali, organic matter, or other deleterious substances.
- 4. Aggregates shall be well graded, clean, hard gravel and coarse sand, non-frost susceptible material, and free of vegetable matter and coatings of silt or clay. The graduations shall be determined by standard laboratory sieves with square openings. Material retained on a No. 4 screen shall be classified as coarse aggregate, which shall conform to the requirements of AASHTO M-80 and have the following limits of gradation:

# COARSE AGGREGATE FOR PCC

Designated Sizes	Percent by wei	ght passin	g Labor	atory Sieve	•		
(AASHTO Gradation)	having square openings in inches						
	2	1-1/2	1	3/4	1/2	3/8	No.4
No.67 (3/4" to No.4)			100	90-100		20-55	0-10*

<sup>\*</sup>Not more than 5% shall pass a No. 8 sieve.

All material passing a No. 4 sieve shall be classified as fine aggregate and shall conform to the requirements of AASHTO M-6 and have the following gradation:

### FINE AGGREGATE FOR PCC

SIEVE SIZE	PERCENT PASSING SIEVE
Passing a 3/8 inch sieve	100
Passing a No. 4 inch sieve	95-100
Passing a No. 8 inch sieve	80-100
Passing a No. 16 inch sieve	45-80
Passing a No. 30 inch sieve	25-60
Passing a No. 50 inch sieve	10-30
Passing a No. 100 inch sieve	2-10

### E. Water:

Provide mixing water from an approved source, clean, fresh, and free of acids, alkalis, oil, organic or other deleterious matter.

F. Miscellaneous Inserts:

Provide ASTM A-36 steel.

G. Air Entrainment:

Comply with ASTM C-260.

H. Water Reducing Admixture:

Comply with ASTM C-494.

I. Epoxy Grout:

Provide Master Builder's "Masterflow 713", Sonneborn "Ferrolith", or approved equal.

J. Joint Sealer:

Provide Grace "Daraweld-U Traffic Grade" or approved equal.

K. Other Materials:

Provide all other materials not specifically described but required for a complete and proper concrete installation, as selected by Contractor and subject to the approval of the Contracting Agency.

- L. Calcium chloride additives are not permitted.
- M. Latex cement leveling compound Laticrete 4237 or approved equal.

Provide a smooth trowel finish to accept finishes as scheduled.

N. Curing Compound:

Provide curing compound after concrete is placed.

- 1. Curing compound shall meet the requirements of ASTM C-309
- Curing compound shall be removed from the concrete surface prior to allocation of further surface treatments. Curing compound shall not interfere with application of hardener/sealer.
- 3. Recommended Product: Dayton Superior Clear Resin Cure J7WB

#### O. Hardener/Sealer:

Water soluble sealer/densifier, that when applied in accordance with manufacturers application recommendations will produce a dense surface resistant to abrasion, moisture, tire marking and provides added gloss to the floor finish.

4. Acceptable Product: Dayton Superior Penta-Hard Densifier

# P. Superplasticizers:

- 1. Meet ASTM C 494, Type F or G, of second or third generation type.
- 2. Do not use first generation superplasticizer
- 3. Hold slump to 6" or greater for 2 hours.

Meet ASTM C 494, Type F or G, of second or third generation type.

- 4. Do not use first generation superplasticizer
- 5. Hold slump to 6" or greater for 2 hours.
- 6. Second Generation Superplasticizer: Batch plant added to extend plasticity time up to 2-1/2 hours, control temperature of fresh concrete, reduce water 20 to 30 percent, and give higher strengths at all ages.
- 7. Third Generation Superplasticizer: Batch plant added to extend plasticity time up to 2-1/2 hours, maintain setting characteristics similar to normal concrete throughout its recommended dosage range and at varying concrete temperatures, reduce water to 30 to 40 percent, and give high-early and ultimate strengths.
- 8. Manufacturer and Product:
  - a. Master Builders, Inc., Cleveland, OH, Rheobuild
  - b. W.R. Grace & Co., Cambridge, MA, Darecem 100.
- Q. Synthetic Fiber Reinforcement for Concrete Slabs:
  - 1. 'Forte Fibre' synthetic fiber. Add to mix at rates recommended by fiber manufacturer.

### PART 3 EXECUTION

# 3.1 JOB CONDITIONS

A. Inspection:

Examine the surface of areas to which the concrete work is to be applied and determine that prior work complete, that all subgrades have been properly compacted, graded, that all slab cushions are in place, and that all previous work is complete and ready for erection of forms, setting of reinforcement, and placement of concrete.

## B. Discrepancies:

In the event of discrepancy, ambiguity, interference, or any other unanticipated condition which might impede the timely execution of the work of this section, promptly notify the Contracting Agency and do not proceed in the area of discrepancy until all questions in regard thereto have been resolved.

#### C. Certificates:

Obtain written acknowledgment(s) from the subcontractors or installers of the formwork, reinforcement, and concrete placement that the substrates affecting their work have been examined and found satisfactory for subsequent operations. Such acknowledgments countersigned by the Contractor and delivered to the Contracting Agency prior to the final inspection, shall be a condition of the acceptance of the work of this section.

#### D. Admixtures:

# Superplasticizers:

- Add at concrete plant only through equipment furnished and/or approved by admixture manufacturer.
- 2. Equipment shall provide for easy and quick visual verification of admixture amount used for each dose.
- 3. Discharge amount to be added to each load of concrete into separate dispensing container, measured verified as to amount, then add to concrete.
- 4. Redosing of Concrete: Not permitted except when approved by inspection agency monitoring concrete quality and only after quality tests show this practice does not decrease the quality specified for concrete.

# 3.2 NOTICE

Notify the Owner's Representative at least 48 hours prior to beginning any pour of concrete, or 24 hours prior to closing any forms.

#### 3.3 FORMWORK

# A. Design:

Design forms to support vertical and lateral loads that might be applied until such loads can be supported by the concrete structure, so that they may be readily removed without impact, shock, or damage to in place concrete and adjacent materials.

#### B. Construction:

- 1. Construct forms to conform with ACI 347, to sizes, shapes, lines, and dimensions shown or as required to obtain accurate alignment, location, grades, and level and plumb work in finished structure. Forms shall be set straight, plumb and true to within 1/4" in 10' of length.
- 2. Provide for openings, offsets, recesses, linkages, keyways, moldings, reglets, chamfers, blocking, screeds, bulkheads, anchorages and inserts and other features required to attain the required configuration.
- 3. Use materials selected to achieve the indicated finishes. Solidly butt joints and provide back up to prevent leakage of cement paste.
- 4. Fabricate for easy removal without hammering or prying against concrete surfaces. Provide crush plates where stripping might damage cast concrete surfaces. Provide top forms for inclined surfaces where slope is too steep to place concrete with bottom forms only. Kerf wood inserts for forming keyways, reglets, recesses, and the like, to prevent swelling and for easy removal.
- 5. Where interior area of formwork is inaccessible, provide temporary openings for cleanout, inspection prior to concrete placement, and for final placement. Securely brace temporary openings and set tightly to forms to prevent loss of concrete mortar. Locate temporary openings on forms at inconspicuous locations.
- 6. Chamfer exposed corners and edges as shown or required using wood, metal, PVC, or rubber chamfer strips fabricated to produce uniform smooth lines and tight edge joints.

#### C. Form Ties:

Use factory fabricated, adjustable length, removable or snap-off metal form ties, designed to prevent form deflection, and prevent spalling concrete surfaces upon removal. Position ties so portion remaining within concrete after removal is at least 1-1/2" inside the concrete and which will not leave holes larger than 1" diameter in the concrete surface.

# D. Coordination with Other Trades:

Provide necessary coordination with other trades to determine size and location of openings necessary for work of those trades. Accurately place and securely support items built into forms.

# E. Cleaning & Tightening:

Thoroughly clean forms and adjacent surfaces receiving concrete. Remove chips, wood, sawdust, dirt, and other debris prior to placement of concrete. Retighten forms after concrete placement if required to eliminate mortar leaks.

# 3.4 PLACING REINFORCEMENT

### A. General:

Comply with specified codes and standards and CRSI recommended placing practices for details and methods of placing reinforcement and supports.

# B. Cleaning:

Clean reinforcement of loose rust and mill scale, earth, ice, and other materials which reduce or destroy bond with concrete.

# C. Positioning:

- 1. Support and secure reinforcement against displacement by formwork, construction, or concrete placement operations. Locate and support reinforcing by metal chairs, runners, bolsters, spacers, and hangers, as required.
- 2. Place reinforcement to obtain the minimum coverages for concrete protection. Arrange, space, and securely tie bars and bar supports to hold in position during concrete placement. Set wire ties so ends are directed into concrete, not toward exposed surfaces.
- 3. Do not place reinforcing bars more than 2" beyond the last leg of continuous bar support. Do not use supports as bases for runways for conveying equipment or similar construction loads.

### D. Welded Wire Fabric:

- 1. Install welded wire fabric. Mats only. No rolled material will be acceptable. Lap adjoining mats a minimum of one and one half meshes and lace splices with wire. Offset end laps in adjacent widths to prevent continuous laps.
- 2. Support welded wire fabric with plastic chairs at intervals not exceeding 4 feet measured along both directions of the mesh. Support welded wire fabric to the middle of the slab thickness.
- 3. The practice of lifting the welded wire fabric off the subgrade as concrete is poured will be allowed only if after lifting the wire it is supported per Item D, 2 above.

# 3.5 JOINTS

### A. Construction Joints:

Locate and install construction joints which are not shown on the drawings so as not to impair the strength and appearance of the structure, subject to the approval of the Contracting Agency.

Place construction joints perpendicular to the main reinforcement. Continue all reinforcement across construction joints.

# B. Keyways:

Provide keyways at least 1-1/2" deep in all construction joints in walls, slabs, and between walls and footings; approved bulkheads designed for this purpose may be used for slabs.

#### C. Contraction Control Joints:

Construct preformed contraction control joints in slabs to form panels of patterns as shown on the drawings.

# D. Expansion:

# 1. Expansion joints:

Expansion joint material shall conform to the requirements at ASTM D-994 and AASHTO M-33. Expansion joint material shall extend the full width of the structure and shall be cut to such dimensions that the base of the expansion joint shall extend to the subgrade and the top shall be depressed not less than one-quarter (1/4) inch nor more than one-half (1/2) inch below the finished surface of the concrete.

The material shall be of one (1) piece in the vertical dimension and shall be securely fastened in a vertical position to the existing concrete face against which fresh concrete is to be poured. After the concrete has set, the expansion joints shall be filled flush to the finish concrete surface with asphalt cement, two hundred (200) to three hundred (300) penetration. Application temperature of the sealing asphalt shall be between 250 degrees and 350 degrees Fahrenheit.

Sealing asphalt shall be applied by pouring from a bucket with a V-shaped spout, equipped with a positive shutoff to prevent spilling or dripping of asphalt. Before sealing, the joint shall be cleaned of all dirt, gravel, concrete mortar or other extraneous material. Sealing shall be done in a neat workmanlike manner. Sloppy work in sealing of expansion joints will not be tolerated.

#### 3.6 EMBEDDED ITEMS

Set and build into the work anchorage devices and other embedded items required for other work that is attached to, or supported by, cast in place concrete. Use approved setting drawings, diagrams, instructions, and directions provided by suppliers of the items to be attached thereto.

### 3.7 PREPARATION OF FORMS

Coat the contact surfaces of forms with an approved coating compound before placement of concrete, and according to manufacturer's instructions. Thin only with approved thinners according to manufacturer's recommendations. Do not permit application of excessive coating compound or allow it to accumulate in the forms or come into contact with concrete surfaces against which fresh concrete will be placed.

Coat steel forms with a non-staining, rust preventative form oil or otherwise protect against rusting. Rust stained steel formwork will not be acceptable and will be rejected.

# 3.8 CONCRETE PLACEMENT

### A. Pre-placement Inspection:

Before placement of concrete, inspect the formwork and reinforcement and verify that all prior work has been completed to the point that placement of the concrete may be executed in complete conformance with the original design, the approved submittals and the referenced standards. Determine that all embedded items, supports, backing, and other provisions for items supported by or attached to the concrete have been provided for. Coordinate with other trades whose work will be affected by the operations of this section. Obtain all written acknowledgments specified in 3.01C above.

# B. General:

Comply with ACI 304 and as herein specified. Deposit continuously or in layers of such thickness that no concrete will be placed on concrete which has hardened sufficiently to cause formation of seams or planes of weakness within the section. If a section cannot be placed continuously, provide construction joints as specified in 3.05. Deposit concrete as nearly as practicable to its final location to avoid segregation due to re-handling or flowing.

### C. Footings and Walls:

- 1. Deposit in forms in horizontal layers not exceeding 24" in depth and in a manner to avoid inclined construction joints. Where placement consists of several layers, place each layer while previous layer is still plastic to avoid cold joints. Where vertical drop is more than three feet, elephant trunks shall be used.
- 2. Consolidate by mechanical vibrating equipment supplemented by hand spading, rodding, or tamping. Use equipment and procedures for consolidation of concrete in accordance with the recommended practices of ACI 309 to suit type of concrete and project conditions.
- 3. Do not use vibrators to transport concrete inside forms. Insert and withdraw vibrators vertically at uniformly spaced locations not farther than the visible effectiveness of the machine. Place vibrators to rapidly penetrate the placed layer and at least 6" into the previous layer. Do not insert vibrators into lower layers of concrete that have begun to set. Limit the duration of vibration to the time necessary to consolidate the concrete and complete embedment of reinforcement and other embedded items without causing segregation of the mix.

# D. Interior Slabs and Exterior Apron Slabs:

- 1. Deposit and consolidate in a continuous operation within the limits of construction joints, until the placing of a panel or section is completed.
- 2. Consolidate by previously specified methods, working concrete around reinforcement, embedded items, and into corners.
- 3. Bring slab surfaces to the correct level with a straight edge and strike off. Use bull floats or darbies to smooth the surface, leaving it free of humps and hollows. Do not sprinkle water onto the plastic surface. Do not disturb the slab surfaces prior to beginning finishing operations.
- Maintain reinforcing in the proper position during all placement and consolidating operations.

#### E. Curb and Gutters:

- 1. The subgrade shall be properly compacted and brought to specified grade in accordance with the Drawings before placing concrete. The subgrade shall be thoroughly dampened immediately prior to the placement of the concrete. Forms shall not be splashed with concrete in advance of placing.
- 2. Concrete shall be discharged from transport vehicle to the point of final placement in a continuous manner as rapidly as practicable. The rate of placement shall not exceed the rate at which the various placing and finishing operations can be performed in accordance with these Specifications. Concrete shall not be allowed to free fall more than three feet (3').
- 3. Expansion joints shall be placed along all structures, as shown in the Project Drawings, and around all features that project into, through, or against the concrete. An expansion joint shall be constructed at the intersection of sidewalks; between sidewalk crossings and sidewalks; between curbs and sidewalks (except parallel curb); and at the beginning and end of curb returns. Additionally expansion joints shall be constructed every fifty feet (50') where the sidewalk span exceeds seventy-five feet (75') and expansion joints are not required for the above listed reasons. Expansion joint material shall conform to the requirements of ASTM D-1751 (AASHTO M-213). Expansion joints shall not exceed one half inch plus or minus one-

eighth inch (1/2"±1/8") in width. Expansion joint material shall extend the full width of the structure and shall be cut to such dimensions that the base of the expansion joint shall extend to the subgrade and the top shall be depressed not less than one-quarter inch (1/4") nor more than one-half inch (1/2") below the finished surface of the concrete. The material shall be of one (1) piece in the vertical dimension and shall be securely fastened in a vertical position to the existing concrete face against which fresh concrete is to be placed. After the concrete has set, the expansion joints shall be filled flush to the finish concrete surface with an approved polyurethane sealant applied according to the manufacturer's recommendation. Before sealing, the joint shall be cleaned of all dirt, gravel, concrete mortar, and other extraneous material. Sealing shall be done in a neat workmanlike manner.

4. Transverse contraction joints, cut to a depth of one inch (1") prior to the final set of the concrete, shall be tooled in the sidewalks at intervals of five feet (5'), and at ten feet (10') intervals in the curb and gutter. Where the sidewalk adjoins the curb (parallel to it), contraction joints in the sidewalk and curb shall be made to match where practicable.

### F. Sidewalks:

- 1. The concrete shall be spread uniformly between the forms and thoroughly compacted with a steel shod strikeboard. After the concrete has been thoroughly compacted and leveled, it shall be floated with wood floats and finished at the proper time with a steel float. Joints shall be edged with a one-quarter inch (1/4") radius edger and the sidewalk edges shall be tooled with a one-half inch (1/2") radius edger. After final troweling, sidewalk on grades of less than six percent (6%) shall be given a fine hair broom finish applied transversely to the centerline. On grades exceeding six percent (6%), walk shall be finished by hand with a wood float. Walk shall be re-marked as necessary after final finish to assure neat uniform edges, joints, and score lines. Unsightly, poorly finished, and sidewalk failing to meet the requirements of the Drawings, Specifications, and this Section will be rejected.
- 2. The expansion joints shall be placed at all structures such as catch basins and manholes, at driveways, and at all points of tangency and points of curvature. Additional requirements for placing and finishing concrete in cold weather shall be as outlined in Weather Limitations.

### G. Curb Ramps:

- 3. The ramps shall comply with the Americans with Disabilities Act Title II as identified in 28 CFR Part 35 Nondiscrimination on the Basis of Disability in State and Local Government Services.
- 4. The Contractor shall construct each curb ramp and install the detectable warning panel(s) in conformance with the Contract Documents and the manufacturer's recommendations.
- 5. No later than five (5) days prior to construction of the curb ramps, Contractor shall submit to the Engineer for review and approval, a layout drawing for each curb ramp to resolve issues related to pattern repeat, tile cuts, expansion joints, control joints, ramp curves, ramp end returns and surface interfaces, and truncated dome spacing.
- 6. In accordance with the Americans with Disabilities Act Public Rights-of-Way Accessibility Guidelines (PROWAG), dimension not stated as "maximum" or "minimum" are absolute. All dimensions are subject to conventional industry tolerances, except where the requirement is stated as a range with specific minimum and maximum end points.

# H. Cold Weather Placement:

Protect placed concrete from physical damage or reduced strength which could be caused by frost, freezing action, or low temperatures, in compliance with ACI 306 and as follows:

- 1. Submit cold temperature concreting plan to the Engineer at least 5 days before beginning concrete placement when Cold Weather Conditions are present or expected.
- 2. When ambient temperature has fallen to or is expected to fall below 40°F., uniformly heat water and aggregates prior to mixing to maintain mixture temperature not less than 50°F. and not more than 80°F. at point of placement.
- 3. Do not use frozen materials or materials containing ice or snow and do not allow concrete to be placed on frozen subgrade or on subgrade containing frozen materials.
- Do not use calcium chloride, salt, or other material containing anti-freeze agents or chemical
  accelerators unless specifically permitted by the Contracting Agency for the particular
  situation encountered.
- 5. Remove snow, ice, and frost from all surfaces that will touch fresh concrete. Thaw the subgrade to at least 2 feet below the concrete to be placed before beginning concrete placement. Preheat surfaces that will be in contact with placed concrete. Maintain these temperatures to no more than 10°F greater or 15°F less than that of the concrete during placement.
- 6. Cold temperature protection may be terminated when the air temperature in the shade, away from artificial heat, is rising, above 40°F, and is expected to remain above 40°F until the end of the curing period. At the end of the protection period, remove the protection so the concrete surface drops in temperature

# 3.9 FINISHING FORMED SURFACES

# A. Rough Form Finish:

For formed surfaces not exposed to view in the finish work or by other construction, unless otherwise indicated, provide a surface having the texture imparted by the form facing material used with tie holes and defective areas repaired and patched and fins and other projections chipped down and rubbed off.

## B. Smooth Form Finish:

For formed surfaces exposed to view, or that are to be covered with a coating or covering material applied to or bonded directly to the concrete, such as waterproofing, damp proofing, painting or other similar system, provide a surface obtained by selecting form facing material, arranged symmetrically orderly with a minimum of seams. Repair and patch defective areas with fins and projections completely removed and smoothed.

# C. Smooth Rubbed Finish:

Provide smooth rubbed finish which has received smooth form finish treatment not later than the day after removal of the forms. Moisten the surfaces and rub with carborundum brick or other abrasive until a uniform color and texture is attained. Do not apply cement grout other than the created by the rubbing process.

# D. Grout Cleaned Finish:

Provide grout cleaned finish as scheduled to surfaces which have received smooth form finish by combining one part of portland cement to 1-1/2 parts fine sand by volume, and mixing with water to the

consistency of thick paint. Blend standard portland cement and white portland cement in amounts determined by trial patches so that final color of dry grout will closely match adjacent surfaces. Thoroughly wet concrete surfaces and apply grout immediately to coat surfaces and fill small holes. Remove excess grout by scraping and rubbing with clean burlap. Keep damp by fog spray for at least 36 hours after rubbing.

### E. Related Unformed Surfaces:

At tops of walls, horizontal offsets and similar unformed surfaces occurring adjacent to formed surfaces, strike off smooth and finish with a texture matching the adjacent surface. Continue the final surface treatment uniformly across adjacent informed surfaces unless otherwise indicated.

#### 3.10 SLAB FINISHES

#### A. Scratch Finish:

Where scheduled or shown provide scratch finish on monolithic slab surfaces that are to receive topping or mortar setting beds for tile, terrazzo, or other bonded cementitious finishes.

After placement of slab, plane surface to a tolerance not exceeding 1/4" in 24". Slope surfaces uniformly to drains where required. After leveling, roughen surface before final set, with stiff brushes, rakes, or brooms.

#### B. Float Finish:

Apply float finish to monolithic slab surfaces that are to receive trowel finish and other finishes described in subsequent paragraphs, and surfaces which are to be covered by membrane or elastic waterproofing, roofing, or other finishes as scheduled.

After screeding and consolidating concrete slabs, do not work surface until ready for floating. Begin floating when surface water has disappeared or when concrete has stiffened sufficiently to permit floating of surface. Consolidate surface with power or hand floats or both, using hand floats in small or inaccessible areas. Float surface to a tolerance not exceeding 1/4" in 10' when tested with a 10' straight edge. Cut down high spots and fill in low spots by floating. Do not apply cement or cement and sand mixture for filling in, use only grout removed from high spots. Uniformly slope to drains. Immediately after leveling refloat surface to a uniform, smooth, granular texture.

# C. Trowel Finish:

Apply trowel finish to slab surfaces that are to be exposed to view and surfaces that are to be covered by resilient flooring, paint, or other thin-film finish systems.

After floating, begin first troweling operation with power driven or hand trowels. Begin troweling when surface produces a ringing sound as trowel is moved over surface. Hand trowel as necessary to obtain a smooth surface free of trowel marks and of a uniform texture and appearance, and with a tolerance not exceeding 1/8" in 10' when tested with a 10' straightedge.

# D. Broom Finish:

Apply broom finish to exterior and interior platforms, exterior apron slab, steps, stoops, walks, and ramps, and curb and gutters, and elsewhere as shown or scheduled.

Immediately after trowel finishing, slightly roughen surface by brooming with a fiber bristle broom perpendicular to direction of travel. Coordinate final finish with Contracting Agency before application.

#### E. Chemical Hardener/Sealer Finish:

Apply chemical hardener/Sealer finish to interior and exterior slabs, after complete curing and drying of the concrete surface. Chemical hardeners shall be coordinated with adhesive to be used in conjunction with other flooring materials. Membrane curing compounds shall be completely removed from the surface prior to application of Chemical Hardener/Sealer.

1. Apply per manufacturer's recommendations.

#### F. Exposed Aggregate:

- 1. Provide exposed aggregate surface at locations indicated in the Drawings.
- 2. Concrete with a maximum slump of 3" shall be used in exposed aggregate areas. Air entrainment shall be in accordance with specifications.
- 3. Aggregate shall be 3/8" maximum.
- 4. Screed concrete to proper level. Do not jitterbug or tamp concrete.
- 5. Floating shall be limited to amount required to ensure that aggregate is surrounded and only slightly covered by mortar, leaving no holes in the surface.
- 6. Shortly after floating, Masterbuilders Confilm surface retarder may be sprayed over the surface to allow sufficient time to elapse before exposing operation begins.
- 7. Exposing operation should begin as soon as brushing and hosing of the surface can be done without over-exposing or dislodging the aggregate. Finishers are to stay off the newly exposed surface to avoid breaking the aggregate bond. If it is necessary for finishers to move about on the newly exposed surface, kneeboards are to be used. Kneeboards shall be gently placed on the surface, and shall not be slid or twisted when on the surface.
- 8. Exposed aggregate slabs shall be cured thoroughly.

#### 3.11 CURING & PROTECTION

# A. General:

Protect freshly placed concrete from premature drying and excessive cold, and maintain without drying at a relatively constant temperature for a period of time necessary for hydration of cement and proper hardening. Conduct all curing operations in compliance with ACI 301 & ACI 308.

- 1. Initiate curing process as soon as free water has disappeared from the concrete surface. Weather permitting, keep continuously moist for not less than 72 hours.
- Begin final curing procedures immediately following initial curing and before concrete has dried.
- 3. Continue curing for a minimum of 10 days after initial placement unless otherwise permitted in writing by Contracting Agency.
- 4. Avoid rapid drying at end of curing period.

5. Maintain concrete surface temperature at least 50°F. for 7 days after following placement of concrete. At least once each shift and once per day on non-work days, an inspection shall be made of all areas subject to cold-weather protection. Any deficiencies shall be noted, corrected, and reported.

### B. Curing Methods:

## 1. Moisture Curing:

- a. Keep concrete surface continuously wet by covering with water or continuous fog spray.
- b. Cover concrete surface with specified absorptive cover, thoroughly saturated with water, and keeping continuously wet. Place absorptive cover to provide coverage at edges, with 4" lap over adjacent absorptive covers.

# 2. Moisture-cover Curing:

Cover concrete surfaces with moisture retaining cover, placed in widest practicable width with sides and lapped a minimum of 3" and sealed with waterproof tape or adhesive. Immediately repair any holes or tears occurring during curing period using cover material and waterproof tape.

# Membrane Curing:

Apply curing compound per manufacturer's recommendations. Ensure membrane curing compound is compatable with adhesives and/or sealer/densifier compounds prior to application.

### C. Formed Surfaces:

Cure formed surfaces including undersides of beams, supported slabs, and other similar surfaces by moist curing with forms in place for full curing period or until forms are removed. If forms are removed, continue curing by methods specified above as applicable.

#### D. Unformed Surfaces:

Cure formed surfaces such as slabs, floor topping and other similar flat surfaces by application of the approved curing method.

Use moisture retaining curing method for surfaces which are to receive liquid floor hardener or finish flooring, unless otherwise specifically directed in writing by the Contracting Agency.

#### 3.12 FORM REMOVAL

# A. Non-Supporting Forms:

Formwork not supporting concrete, such as sides of footings, may be removed after cumulatively curing at not less than 50oF. for a minimum of 24 hours after placement, provided concrete has sufficiently hardened not to be damaged by removal operations, and providing curing operations are maintained.

# B. Supporting Forms:

Formwork supporting weight of concrete such as beam soffits, joints, slabs and other similar structural elements shall not be removed in less than 14 days, and not until design minimum compressive strength

for 28 days has been attained, as determined by testing of field cured specimens' representative of actual location of the members in question.

C. Metal decking forms shall be left in place.

#### 3.13 RE-USE OF FORMS

Re-use of forms will be permitted only under the following conditions, subject to the approval of the Contracting Agency in each instance:

- A. Clean and repair all contact surfaces to achieve capability equal to that of new forms.
- B. Split, frayed, delaminated, or otherwise deteriorated facing or supporting materials will not be permitted.
- C. Apply new coating compound to contact surfaces as specified for new work.
- D. Where forms are extended for successive placement, thoroughly clean all surfaces and tighten to close joints. Align and secure joints to avoid offsets.
- E. Do not use "Patched" forms for expressed surfaces unless specifically permitted in writing by Contracting Agency in each particular instance.

#### 3.14 SURFACE REPAIRS

#### A. General:

Repair and patch defective areas with cement mortar immediately after removal of forms, but only when acceptable to Contracting Agency.

- 1. Cut out honeycomb, rock pockets, voids over 1/4" in any dimension, and holes left by tie rods and bolts, down to solid concrete, but in no case greater than 1".
- 2. Make edges of cuts perpendicular to the concrete surface.
- 3. Dampen the area to be patched with water and brush coat with neat cement grout or proprietary bonding agent.

# B. Exposed to View Surfaces:

- 1. Blend white portland cement and standard portland cement so that when dry patching mortar will match color of surrounding surface. Provide test areas at inconspicuous location to verify match.
- 2. Compact mortar in place and stake off slightly higher than surrounding surface.
- 3. Apply appropriate finish as provided in 3.09.

# C. High Areas:

Correct high areas by grinding, after concrete has cured at least 14 days.

D. Low Areas:

Correct low areas during or immediately after completion of surface finishing operations by cutting out the low area and replacing with fresh concrete. Finish repaired areas to blend into adjacent concrete. Proprietary patching compounds may be used upon approval of the Contracting Agency.

### E. Other Repairs:

- 1. Repair defective areas, except random cracks and single holes not exceeding 1" dia. by cutting out and replacing with fresh concrete. Remove defective areas to sound concrete with clean square cuts and expose reinforcing steel with at least 3/4" clearance all around. Dampen concrete surfaces in contact with patching concrete, and brush with neat cement grout coating or concrete bonding agent. Mix patching concrete of same materials to provide concrete of the same type or class as original concrete. Place, compact, and finish to blend with adjacent finished concrete. Cure in the same manner as adjacent concrete.
- 2. Repair isolated random cracks and single holes not over 1" in dia. by dry-pack method. Groove top of cracks and cut out holes to sound concrete and clean of dust, dirt, and loose cement grout coating or concrete bonding agent. Mix dry-pack, consisting of one-part portland cement to 2-1/2 parts fine aggregate passing #16 screen, using only enough water as required for handling and placing. Compact dry-pack mixture in place and finish to match adjacent concrete. Keep patched area continuously moist for not less than 72 hours.

#### F. Other Methods:

Repair methods not specified may be used, subject to the approval of the Contracting Agency.

#### 3.15 METHOD OF MEASUREMENT

A. The measurement for the construction of the new well house building foundation, slab, and landings shall be by lump sum.

### 3.16 BASIS OF PAYMENT

A. Payment will be made under:

Pay Item No. Pay Item Pay Units

O33000(1) Concrete Building Foundation, Slab, and Landings Lump Sum

END OF SECTION

#### **SECTION 310100**

#### CONSTRUCTION SURVEY

#### PART 1 GENERAL

#### 1.01 DESCRIPTION

A. The Contractor shall provide all surveying and staking essential for completion of the project in conformance with the plans and specifications and shall perform the necessary calculations required to accomplish the work. Staking, surveying, computations, and calculations shall be accomplished in accordance with standard engineering and surveying practice.

### 1.02 PERSONNEL AND EQUIPMENT

#### A. Surveyor:

 All survey work performed in relation to measurement of quantities for payment under the Contract shall be performed under the direction of a Professional Land Surveyor licensed by the State of Alaska to practice land surveying. The Contractor shall be responsible for the supervision of the construction surveying personnel and any errors from the operation of said personnel shall be corrected at the expense of the Contractor, and at no additional cost to the Owner.

# B. Equipment and Method:

- 1. The Surveyor shall use suitable equipment for the layout work required and shall furnish all stakes, templates, straight edges, and other devices necessary for checking and maintaining points, lines, and grades.
- 2. Field measurements and staking for items related to measurement of quantities for payment under the Contract shall be made using electronic data collection. The contractor's Surveyor shall verify depth of excavation and top of embankment based on field survey points using TIN format with fault lines as 3D polylines. All surveys of material quantities shall be provided to the Engineer. The coordinate files, in ASCII format, a printout of the TIN, and an AutoCAD drawing of the contours generated by the TIN shall be furnished to the Engineer. The AutoCAD drawing shall be stamped and signed by the Professional Land Surveyor.
- 3. The Contractor's surveyor shall make a conscious attempt to locate all property corners and monuments along the route of work, and shall reference those corners that may be disturbed due to this work. At the completion of the project, the Contractor shall restore all disturbed property corners and monuments at no additional cost to the Owner.
- 4. The Contractor's surveyor shall maintain accurate and up-to-date as-built measurements of the ongoing construction. Upon completion of the project, the Contractor shall provide the Owner with one set of redline record drawings stamped and signed by a Professional Land Surveyor and survey notes.

# 1.03 QUANTITY MEAUREMENT

### A. Original Ground:

1. A topographic survey was completed in 2014 by Whitford Surveying. The results of this survey will define the pre-excavation surface to be used in the determination of the unit price quantities for excavation. Contractor shall verify the accuracy of the survey or provide new baseline survey in the area prior to excavation.

#### B. After Excavation:

1. When excavation to the approved subgrade elevations has been accomplished on all areas of the site, the Contractor provide a cross section survey by a professional Land Surveyor at Contractor's expense. Contractor shall provide the Engineer written notification at least 48 hours in advance of when the survey is to be performed. The survey shall be done on a nominal 25' grid and at edges, boundaries and break-lines in the excavation. The results of this survey will establish the after excavation cross sections used in the determination of the unit price excavation quantities. The registered Land Surveyor shall provide quantity calculations with certification of accuracy and drawings in electronic format acceptable to Engineer.

# C. Finish Grade:

1. Contractor's Surveyor shall provide staking for finish grades. Calculation of fill quantities will be based upon truck scale tickets. In the event that truck scale tickets are not available or deemed unreliable, the engineer may utilize a comparison of approved subgrade excavation surface and as-built finish grade surface to determine fill quantities for payment.

PART 2 PRODUCTS (not used)

#### PART 3 EXECUTION

### 3.01 METHOD OF MEASUREMENT

A. Measurement of this item will be by a percentage of project completion.

### 3.02 BASIS OF PAYMENT

A. Payment will be made under:

Pay Item No. Pay Item Pay Units

310100(1) Construction Surveying Lump Sum

**END OF SECTION** 

#### **SECTION 311000**

### SITE CLEARING

#### PART 1 GENERAL

### 1.01 DESCRIPTION OF WORK

### A. Work included:

Site clearing includes, but is not limited to:

- 1. Removal of all vegetation, debris, brush, trees, logs, tree stumps, roots, and root mat to a Contractor-provided disposal site. Limits of Site Clearing shall be as shown on Drawings, staked by Contractor, and approved by the Engineer.
- 2. Topsoil stripping.
- 3. Preservation from damage of all items designated to remain.
- B. Related Work Specified Elsewhere
  - 1. Section 312000: Earthwork

PART 2 PRODUCTS (not used)

### PART 3 EXECUTION

### 3.01 SITE CLEARING

#### A. General:

Contractor shall remove all vegetation, debris, brush, trees, logs, tree stumps, roots, and root mat to a Contractor-provided disposal site, and the preserve from damage of all items designated to remain for the new construction. Prior to site clearing, the Contractor shall stake the clearing limits for review by the Engineer.

# B. Topsoil:

Contractor shall provide friable loam topsoil as required. If suitable soil exists on site, Contractor may stockpile and topsoil for later incorporation into the project as directed by the Engineer.

#### 3.02 DISPOSAL OF WASTE MATERIALS

#### A. Removal from Site:

Remove waste materials and unsuitable and excess topsoil from Owner's property and dispose of offsite. The Contractor shall be responsible for furnishing a disposal site.

# B. Burning on Owner's Property:

Onsite burning will not be permitted.

#### 3.03 METHOD OF PAYMENT

A. The measurement of clearing and grubbing shall be by lump sum or by the acre. The method of measurement for any individual project shall be as specified in the Bid Schedule.

# 3.04 BASIS OF PAYMENT

A. Payment shall include full compensation for clearing, grubbing, disposal, and clearing debris.

Payment will be made under:

Pay Item No. Pay Item Pay Units

311000(1) Clearing and Grubbing Lump Sum

END OF SECTION

#### **SECTION 312000**

### **EARTHWORK**

#### PART 1 - GENERAL

# 1.01 DESCRIPTION

A. This section covers the furnishing of materials, labor, equipment and supervision required to complete the site earthwork construction including roads, walks, parking areas and building pad; excavation, fill and backfill and site grading and drainage as shown on the contract drawings.

#### 1.02 TESTING

A. Where compaction requirements are specified, the maximum soil density shall be determined in accordance with the current requirements of AASHTO Standard Method T-180-D.

The Diameter of the test mold in AASHTO T-180 Method D limits the size of particles which may be included in the test to that passing the three-quarter inch (3/4) sieve. In those instances where the particles are retained on the three-quarter inch (3/4) sieve, a correction must be applied to the standard laboratory density prior to calculating the percent compaction. To expedite field result the plus three-quarter inch (3/4) material may be sieved wet and the weight computed as a percent of the total weight of the material from the hole. The corrected laboratory density shall be computed in each instance by the formula:

Corrected Lab Density=
$$\frac{62.4}{\frac{A}{C} + \frac{62.4(B)}{rD}}$$

A = Percent by weight of original material retained on the 3/4-inch sieve, expressed as a decimal.

B = Percent by weight of original material passing the 3/4-inch sieve, expressed as a decimal.

C = Specific gravity of +3/4-inch material (apparent specific gravity) as determined by AASHTO T-85.

D = Uncorrected laboratory density (minimum 3/4-inch material).

R = Coefficient with value depending A, as follows:

For 
$$A = 0.18$$
 or less,  $r = 1.00$   
 $A = 0.19$  or more,  $r = 1.036 - 0.2A$ 

B. The in-place soil density shall be determined in accordance with:

ASTM D1556 – Standard Test Method for Density and Unit Weight of Soil in Place by Sand-Cone Method.

ASTM D2167 – Standard Test Method for Density and Unit Weight of Soil in Place by the Rubber Balloon Method; and/or

ASTM D6983 – Standard Test Methods for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Method (Shallow Depth)

- C. In-place density tests shall be taken on each lift of fill or backfill placed during site grading at the rate of one test per 5,000 square feet of area. In-place density tests on each lift of trench backfill shall be taken at the rate of one test per 100 lineal feet, or one test per lift if the trench is less than 100 feet long. Failing test areas shall be re-compacted and retested until the compaction requirements are met.
- D. Backfill under traffic and building structures and trench backfill from six inches (6") over the top of the pipe to the surface shall be compacted to ninety-five percent (95%) of maximum density, unless otherwise noted and approved by the Owner's Representative. The Owner's Representative may permit lifts in excess of twelve inch (12") thickness when classified fill or backfill is placed over swampy or saturated ground, or where he is satisfied that the Contractor's method and equipment will consistently produce the specified density.
- E. The backfill material shall be placed in horizontal loose lifts not exceeding twelve inches (12") in thickness and compacted. Any excavations improperly filled shall be reopened to the depth required for proper compaction, then refilled and compacted at the Contractor's expense. The use of water in excess of the quantity required to obtain specified density (optimum moisture content) to settle or compact the backfill will not be permitted.

# 1.03 SUBMITTALS

- A. Contractor shall submit a gradation test, in accordance with ASTM D-422, on each type and source of material used in fills and backfills. If material is to be non-frost susceptible, hydrometer tests shall be performed in accordance with ASTM D-7928 unless the material has less than 6% passing the 200 sieve. The results of a new gradation and hydrometer test shall be submitted by the Contractor for each furnished material and each time the furnished material changes from that which was previously approved.
- B. Contractor shall submit a processing and blending plan to the Owner's Representative for review and approval prior to utilization of classified fill or backfill from more than one source. The plan must be accompanied by materials analysis reports for each material source and fully describe how the material will be placed and blended to ensure that timely and accurate in-place density testing can be achieved.

#### 1.04 DEFINITIONS

#### A. Classified Material

1. Classified fill and backfill shall contain no lumps, frozen material, organic matter, or other deleterious material, and shall be durable and sound. It shall have a plasticity index not greater than six (6) as determined by ASTM D-4318 and shall conform to one of the following types as required by the Drawings and Specifications. The coarse aggregate material conforming to the requirements specified below shall have a percentage of wear not to exceed thirty (30) after five hundred (500) revolutions, as determined by the current requirements of ASTM C-131. The portion of the material retained on a #4 sieve

shall be known as coarse aggregate. Both coarse and fine aggregates shall conform to the quality requirements of AASHTO M-147.

2. Materials furnished by the Contractor for use as Type II Classified Fill and/or Backfill shall be graded within the limitations delineated below:

Type II

U. S. Std. Sieve Size	Cumulative % Passing By Weight
8"	100
3"	70-100
1 ½"	55-100
3/4"	45-85
#4	20-60
#10	12-50
#40	4-30
#200	2-6

In addition to the grading limits listed above, the fraction of material passing the #200 sieve shall not be greater than twenty percent (15%) of that fraction passing the #4 sieve.

3. Materials furnished by the Contractor for use as Type IIA Classified Fill and/or Backfill shall be graded within the limitations delineated below:

**Type IIA Classified Fill** 

U. S. Std. Sieve Size	Cumulative % Passing By Weight
2"	100
3/4"	50-100
#4	25-60
#10	15-50
#40	4-30
#200	2-6

In addition to the grading limits listed above, the fraction of material passing the #200 sieve shall not be greater than twenty percent (20%) of that fraction passing the #4 sieve.

- 4. Materials furnished by the Contractor for use as Type III Classified Fill and/or Backfill shall be approved sand or gravel with a maximum of ten percent (10%) passing the #200 sieve.
- 5. Materials furnished by the Contractor for use as Leveling Course shall be graded within the limitations delineated below:

# **Leveling Course**

U. S. Std. Sieve Size	Cumulative % Passing By Weight
1"	100
3/4"	70-100
3/8"	50-80
#4	35-65
#8	20-50
#50	8-28
#200	*2-6

\*In addition to the grading limits stipulated above, fractions passing the #200 sieve shall not be greater than seventy-five percent (75%) of the fractions passing the #50 sieve.

Course Aggregate: The coarse aggregate material conforming to the requirements specified above shall have a percentage of wear not to exceed thirty-five (35) after five hundred (500) revolutions, as determined by the current requirements of ASTM C-131. It shall consist of angular fragments reasonably uniform in density and quality, and reasonably free from thin and elongated pieces, dirt, and other objectionable material. At least fifty percent (50%) of the coarse aggregate particles shall have two or more mechanically fractured faces.

Fine Aggregate: The fine aggregate shall consist of material free of organic or other objectionable matter. The fine aggregate, either naturally combined with the coarse aggregate or separately obtained and mixed therewith, shall be of such character that the composite material will conform to the gradation and other requirements specified.

- B. Additional Excavation: Excavation beyond the limits necessary to place classified or unclassified material, where authorized in writing in advance by the Owners Representative.
- C. Area Grading: Area grading consists of the excavation and fill work, along the perimeter of the site, necessary for a smooth transition from the design site grades to the grade(s) of the adjacent properties. This work is also commonly called "site grading" or "overlot grading".
- D. Backfill: Material placed in an excavated area.

- E. Bedding: Ground or support in which pipe is laid. Type III Classified Fill, with the additional requirement that no particles may be greater than 3" size that is used for backfill in a utility trench at the direction of the Owner's Representative.
- F. Borrow: Material used as fill and/or backfill which is obtained from a source other than required excavation.
- G. Disposal Site: Any area where waste, unsuitable, unusable or surplus material from construction is placed. Contractor must provide offsite disposal site throughout duration of project.
- H. Excavation: Area or material removed to provide a suitable base for improvement.
- I. Fill: the material placed above the original or natural ground line.
- J. Leveling Course: compacted material placed above the subbase and below the finishing surface of the improvement.
- K. Non-Frost-Susceptible (NFS) Material: Non-organic soil containing less than three percent (3%) by weight of grains smaller than .02 mm obtained from minus three inches (-3") material.
- L. Over-Excavation: Any excavation beyond limits of the contract that has been done without the written authorization of the Owner's representative.
- M. Service Connection: Any connection from a main line utility or storm drain to a property line for the purpose of providing service to an individual property.
- N. Subbase: The subbase is compacted material placed above the subgrade and below the leveling course.
- O. Subgrade or Bottom of Excavation: The subgrade is material below the bottom of excavation and upon which the subbase material is placed.
- P. Suitable Soils: Excavated soils that conform to the requirements for the intended use as determined by the Owner's Representative.
- Q. Trench: Any Excavation for a utility or drainage system.
- R. Unclassified Material: Inorganic soils, free of trash, peat, volcanic ash, debris, or frozen clods.
- S. Unsuitable soils: All soils and debris that do not conform to the requirements for Type III classified fill, or which do not meet the requirements for the intended use, as determined by the Owner's Representative.
- T. Usable excavation: Inorganic non-frost susceptible sand or gravel soils, free of trash, peat, volcanic ash, debris, or frozen clods, that are excavated from the project site and are approved by the Owner's Representative for incorporation into the backfill.
- U. Unusable Excavation: All suitable excavated soils that are surplus to the needs of the project and all unsuitable soils as designated by the Owner's Representative.

# 1.05 WEATHER LIMITATIONS

A. Unless otherwise authorized by the Owner's Representative, fill, backfill, and leveling course shall not be placed when the atmospheric temperature is below 35 degrees Fahrenheit. When the temperature falls below 35 degrees Fahrenheit, it shall be the responsibility of the Contractor to protect all areas of completed work against any detrimental effects. Any areas of work not completed in accordance to the plans and specifications that are damaged by weather shall be reconditioned, reshaped, and recompacted by the Contractor in conformance with the requirements of these specifications without additional cost to the owner.

#### 1.06 EXISTING UTILITIES

- A. At various stages of the project the Contractor will be required to work in close proximity to existing utilities, including possible removal of material over, under, and adjacent to the lines. It is the Contractor's responsibility to contact the utility owners for locations, scheduling, and additional information.
- B. The Contractor shall protect these lines in a manner approved by both the Owner's Representative and the Utility Owner in writing.
- C. Compaction density and techniques in the vicinity of existing utilities shall conform to requirements for classified fill.
- D. The Contractor is directed to contact the utility companies both prior to bidding and during construction, for information about existing utilities, scheduling, location and other pertinent information.
- E. Utilities are required to be relocated during construction. The Contractor is directed to contact the utility companies both prior to bidding and during construction and include any additional costs in relocating utilities in bid amount.

#### 1.07 CONTAMINATED MATERIAL

A. Unless otherwise noted in the Contract Documents, the Owner is not aware of any contaminated material within the project limits. If such material is encountered, Contractor shall notify the Owner's Representative immediately for direction. Unless the contamination was caused by Contractor's operation, discovery of contaminated material will be treated as a changed condition.

# 1.08 EQUIPMENT

All equipment, tools, and machines used in the performance of the Work covered by these Specifications shall be subject to the approval of the Owner's Representative and shall comply with all applicable safety requirements. All equipment used on the project shall be adequately maintained and shall be the proper equipment for the Work being accomplished so as to produce the result required by the Contract Documents.

### 1.09 RELATED WORK

A. Construction Survey Section 310100

B. Geotextiles Section 312010

C. Asphalt Paving Section 321216

#### **PART 2-PRODUCTS**

#### 2.01 MATERIAL SOURCE

- A. When the quantity of classified, unclassified, and screened soils required for the work exceeds that available from excavated materials, the additional material shall be from Contractor-furnished borrow areas. The Contractor shall locate, obtain, develop and process classified and unclassified materials to complete the requirements of work.
- B. The source of materials shall be approved by the Owner's Representative. Any change in the source of materials during the construction shall be approved by the Owner's Representative.

#### 2.02 MATERIAL HANDLING

- A. When the soils into which the excavation will penetrate and/or when the backfill soils are sensitive to erosion, sloughing under seepage forces, softening during soaking, and/or repeated loading of heavy equipment, the Contractor shall take all necessary steps to protect the work. These may include, but are not limited to:
  - 1. Sloping the excavation to drain and/or dewatering from inside the excavation with sumps and/or pumps or from outside the excavation with well-points or other means;
  - 2. Limiting construction traffic to designated and maintained construction roads and placing additional temporary fill as necessary to support the traffic loads.
  - 3. Developing alternate access routes.
  - 4. Excavating with a smooth bladed backhoe from outside the excavation.
  - 5. Covering of temporarily stockpiled unclassified fill to protect it from precipitation as directed.
  - 6. Using only dryer unclassified fills for compaction and reuse.
  - 7. The costs to protect the work shall be included in the bid price for earthwork.
- B. If the subgrade or backfill soils are disturbed by surface runoff, ponding, seepage, and/or construction traffic, the disturbed soils shall be regraded and densified to the density requirements specified herein or completely removed and replaced with classified materials compacted to the density requirements specified herein. The corrective work shall be performed by the Contractor at no additional expense to the owner.

# PART 3 - EXECUTION

# 3.01 CONSTRUCTION STAKING

### A. General

The Contractor shall furnish all vertical and horizontal controls and staking sufficient for Contractor's needs to accurately complete the requirements of this project.

B. Contractor shall furnish Professional Land Surveyor for Measurement of excavation and fill quantities as specified in Section 310100.

### 3.02 SITE EXCAVATION

### A. General

- Excavation consists of the removal and reuse or disposal of all materials encountered to
  obtain the required subgrade elevations in accordance with the typical sections shown on
  the Drawings, and as directed by the Owner's Representative.
- 2. Excavated material conforming to the specifications for classified fill and backfill shall be used where practical for fill and backfill as directed by the Owner's Representative. When this material is used, it shall be considered usable excavation. When not used on the Project site, the material shall be hauled away and treated as unusable excavation. Unusable excavation shall be hauled to a Contractor-furnished disposal site. Unless otherwise specified in the Special Provisions, the Contractor will not be required to transport usable excavation from one schedule of a Contract for use in another schedule of the same Contract unless they are continuous or adjacent. Suitable excavated materials shall not be removed from the site unless they are surplus to the requirements of the work and then only with the written approval of the Owner's Representative. Excess suitable material not incorporated in the work and unsuitable material shall be transported to a contractor furnished disposal site.
- 3. The excavation shall conform to the limits shown on the drawings and as directed by the owner's representative, within a tolerance of 0.10 feet. Excavation beyond the limits indicated on the drawings is not permitted without written approval. The Owner's Representative is to be notified 24 hours in advance of Contractors need for after excavation surveys. Payment for excavation will be based on typical sections shown on the drawings, and as directed by the Owner's Representative.
- Excavation shall be performed in a manner that will not endanger adjacent structures or improvements. Contractor shall shore excavations and trenches as required to avoid damaging existing roadways or structures.
- 5. Where unusable soils are encountered in the subgrade within the specified depth below finish grade as indicated on the Drawings, the Contractor shall excavate to a depth such that usable soils are uncovered or the depth below finished grade as directed by the Owner's Representative. The excavations shall be uniformly shaped so that classified backfill material can be properly placed and compacted. The area shall be feathered to adjoining areas where usable material is found. Excavated area shall not be backfilled until cross sectional elevations and measurements of the area excavated have been taken.

6. Boulders and dense gravel deposits have been encountered in excavations onsite during previous construction developments onsite. Contractor shall plan to encounter obstructions such as boulders and dense gravel during earth moving, including excavation, trenching, and shoring. No additional payment will be provided to work around existing site conditions, including boulders and dense gravel.

### B. Dewatering

The Contractor shall plan his operation in a sequence that will provide drainage at all times. The excavation shall be shaped to drain and shall be maintained in a dry condition, free of puddles or holes where water may accumulate. Any areas that cannot be so drained shall be kept free of standing water by pumping, if necessary. Unless otherwise provided in the Specifications, all Work associated with pumping or dewatering shall be considered incidental to the Contract and no separate payment shall be made.

### C. Roadways, Parking Areas, Building Pad and Paved Parking Areas

- Excavation shall be carried to the subgrade elevations required for the placement of classified material and to such additional depths as required to remove unsuitable material as directed by the Owner's Representative.
- 2. Classified fill shall only be placed on a dewatered, non saturated subgrade and shall not be placed until the subgrade has been approved in writing by the Owner's Representative.

### D. Additional Excavation

- 1. The Owner's Representative will inspect and approve the various subgrade areas as they are excavated. He may direct that soils found to be excessively soft, wet, or otherwise unsuitable below the subgrade elevations shall be removed.
- 2. The Contractor shall promptly perform all such additional excavation that is authorized in writing.
- 3. The resulting additional excavation will be measured for unit price payment.
- 4. Backfill shall match sections shown on the Drawings.

### G. Over Excavation

 Over excavation shall be restored by the Contractor by backfilling with Type IIA classified material and compacting to 95% of the maximum density at no cost to the Owner.

### H. Stability of Excavations

The Contractor shall slope the sides of excavations to the angle required for safety, or shore and brace where sloping is not possible either because of space restrictions or stability of material excavated. Maintain sides and slopes of excavations in a safe condition until completion of backfilling, by scaling, benching, shelving or bracing. Take precautions to prevent slides or cave-ins when excavations are made in locations adjacent

to backfilled excavations, and when sides of excavations are subjected to vibrations from vehicular traffic or the operation of machinery, or any other source. In all cases the sides of all excavations shall be constructed to satisfy the requirements set forth in the local, state, and federal safety regulations regarding shoring and slope angle.

### I. Cold Weather Protection

- 1. The subgrade must be kept from freezing from the time earthwork begins until final grades have been achieved or backfill is done, unless specified otherwise, in writing, by the Owner's Representative.
- 2. All subgrade which is allowed to freeze shall be thawed and compacted to 95% of the maximum density by the Contractor at no expense to the Owner, unless specified otherwise, in writing, by the Owner's Representative.

### 3.03 FILL AND BACKFILL

### A. General

- 1. Fill and backfill consists of the placement of classified and/or unclassified material in layers to the required elevations.
- 2. The subgrade shall be cleared of all debris and organic material. All depressions or holes below the general area surface level, whether caused by removal of debris or unacceptable material, or otherwise, shall be backfilled with approved material and compacted to specified density and to a level, uniform surface before the placement of other layers. Embankment shall not be placed on frozen ground, nor on ground having a slope greater than one vertical to four horizontal (slope 1:4).
- 3. The specified material shall be constructed at the locations and to the lines and grades indicated on the Drawings. The material shall be placed and spread uniformly in successive layers not exceeding twelve inches (12") in loose thickness. The Owner's Representative may approve lifts of greater thickness provided the equipment and method used will consistently achieve the specified density. The layers shall be carried up full width from the bottom of the fill to avoid the necessity of widening the edges after the center has been brought to grade. Each layer shall be compacted to not less than ninety-five percent (95%) of the maximum density at optimum moisture as determined by the method of testing noted in Testing section. Reasonable time shall be provided to the Owner's Representative to make field density determinations prior to placement of successive layers of material.
- 4. Blading, rolling, and tamping shall continue until the surface is smooth, free from waves and irregularities, and conforms to elevations shown on the Drawings. If at any time the material is excessively wet, it shall be aerated by means of blade graders, harrows, or other suitable equipment until the moisture content is satisfactory. The surface shall then be compacted and finished as specified above.

- All excavated materials meeting the requirements for classified and unclassified
  materials shall be incorporated into the work unless they are surplus to the requirements
  of the work and the Owner's representative has given written approval not to use the
  material.
- 4. Fills and backfills shall be constructed in lifts of twelve (12) inches maximum thickness, (six inches maximum thickness if hand operated compactors are used) and compacted to not less than 98% of maximum density. The finished surface of fills and backfills shall be smooth with no soft or yielding areas and shall be graded to not more than 0.05 feet above or below the design grade.
- 5. The Contractor shall backfill excavations as promptly as the work permits, but not until completion of the following:
  - a. Owner's acceptance of construction below finish grade such as culverts, subdrains, and other utilities.
  - b. Inspection, testing, approval, and recording locations of underground utilities.
  - c. Removal of shoring and bracing, and backfilling of any resulting voids with satisfactory materials. Cut off temporary sheet piling driven below the bottom of structures and remove in a manner to prevent settlement of the structure or utilities; or leave in place if required.
  - d. Removal of trash and debris.
  - e. Placement of permanent or temporary horizontal bracing on earth retaining wall.

### C. Trench Bedding

1. Trench Bedding shall only be used where directed by the Owner's Representative, when required due to wet trench conditions.

### D. Cold Weather Protection

- 1. The fill and backfill must be kept from freezing from the time earthwork begins until final surfacing is complete, unless work is discontinued due to a seasonal shutdown. In the event work is suspended due to a seasonal shutdown, such as winter, the ground shall be completely thawed to all depths prior to resuming work.
- 2. All fill and backfills which is allowed to freeze shall be thawed and compacted to 95% of the maximum density by the Contractor at no expense to the Owner, unless specified otherwise, in writing, by the Owner's Representative.

### 3.04 GEOTEXTILES

### Geotextile Fabric

1. The subgrade shall be shaped according to the typical section shown on the drawings and as directed. The subgrade shall be free of large rocks, sticks, and deleterious material.

Fabric shall be installed in full roll widths. All end and side joints shall be overlapped 2 feet minimum.

- 2. Where manholes, valve boxes, or other items will penetrate the fabric, the fabric shall be neatly cut in the shape of the penetration. A second piece of fabric shall then be placed on top of the main fabric. The second piece shall extend at least four feet in all directions from the penetration.
- 3. Fill and backfill shall be dumped and spilled over the fabric. No equipment shall operate directly on the filter fabric. Filter fabric must be covered with at least one foot of classified material backfill before equipment is allowed to operate over it.

### 3.05 METHOD OF PAYMENT

### A. Unusable Excavation

- 1. Authorized excavation shall be measured in its original position by surveyed cross sections prior to the beginning of excavation operations. After the excavation is completed, a second set of cross sections shall be taken at the same locations as the original ground measurements.
- 2. The volume of excavation shall be computed by the average end area method based upon the original ground cross sections and cross sections taken after excavation is completed.
- 3. If the nature of the excavation is such that cross sectioning is unsafe or impractical, excavation may be measured by the cubic yard, truck volume measurement as approved by the Engineer.
- 4. Truck volume measure must be agreed, in writing, prior to initiating the work. Truck count tickets will be serialized and delivered to the Engineer at the end of each work shift. Any truck count ticket not so delivered within twenty-four (24) hours from the subject work shift may not be considered for payment.

### B. Classified Fill and Backfill

- 1. Classified fill or backfill material obtained from borrow pits will be measured in tons (2,000 lbs./ton) of material delivered and placed in accordance with these Specifications.
- 2. Imported fill and backfill will be weighed on a scales certified by the State of Alaska. Weight tickets will be serialized and witnessed at the time of weighing by a Contractor furnished weighman. The Engineer may at any time verify load weights and the weighing process.
- Each load of fill or backfill arriving on the project must be accompanied by a weight ticket. Imported backfill that is not accompanied by a weight ticket shall not be considered for payment.
- 4. Where excavation of unsuitable material beyond the lines and grades shown on the plans is ordered in writing, the measurement of Classified backfill will include the material required for replacement. No measurement will be made for imported fill placed beyond

the authorized lines and grades or for quantities placed outside the limits of the authorized excavation or embankment.

- C. Compaction Control by the Contractor
  - 1. No measurement will be made for this item of work.

### 3.06 BASIS OF PAYMENT

A. Payment will be made under:

Payment will be made under:

Pay Item No.	Pay Item	Pay Units
312000(1)	Unusable Excavation	Cubic Yard
312000(2)	Classified Fill and Backfill (Type)	Ton
312000(3)	Compaction Control by the Contractor	Lump Sum

END OF SECTION

### **SECTION 312010**

### **GEOTEXTILES**

### PART 1 GENERAL

### 1.01 DESCRIPTION

### A. Work Included:

The Work under this Section shall consist of furnishing and installing Geotextile Fabric
for embankment separation, subgrade reinforcement of roadways, subsurface drainage, or
riprap lining in a manner and at locations as shown in the Drawings or as directed by the
Engineer.

### 1.02 SUBMITTAL REQUIREMENTS

- A. The following information shall be submitted to the Engineer for review and acceptance:
  - 1. Full-scale laboratory testing and in-ground testing of pavement structures reinforced with the proposed geotextile product which illustrates significant structural contribution of the geotextile product to the pavement structure.
  - 2. Certified test results stating that the geotextile product meets the material and physical properties in all respects.
  - 3. Guidelines to pavement design using proposed geotextile product.
  - 4. A list of not less than ten (10) comparable projects, in terms of size and application, in the United States, with references and phone numbers, where the results of the proposed geotextile product's use can be verified after a minimum of three years continuous service life.
  - 5. Geotextile product samples and certified material property data sheets.
  - 6. Recommended installation instructions.
  - 7. Geotextile manufacturer shall provide a letter certifying that its geotextile product meets the specified requirements.

### **PART 2 PRODUCTS**

### 2.01 TYPE A GEOTEXTILE – FOR SEPARATION

- A. Type A Geotextile shall be used for separation. The Type A Geotextile shall be a woven or nonwoven pervious fabric constructed from long chain polymeric filaments such as polypropylene, polyethylene, polyester, polyvinylidene chloride or polyamide formed into a stable network such that the filaments or yarns retain their relative position to each other. The geotextile shall be inert to commonly encountered chemicals and shall be free from defects.
- B. Non-woven geotextile may be formed by the needle-punched, spun-bonded or melt-bonded process.

- C. Woven geotextile shall be a pervious sheet of yarn woven into a uniform pattern with distinct and measurable openings. Edges of the cloth shall be salvaged to prevent the outer yarn from pulling away from the cloth.
- D. Acceptance of geotextile material is to be determined according to ASTM D-4873.
- E. Geotextile manufacturer shall provide a letter certifying that its geotextile product meets the specified requirements.
- F. Type A Geotextile supplied shall meet the physical and mechanical properties as follows:

### Type A Geotextile

Geotextile Property	Test Method	Woven Value	Non-woven Value
Grab Strength, lbs., min.	ASTM D-4632	250	160
Sewn Seam Strength, lbs	ASTM D-4632	225	140
Tear Strength, lbs.	ASTM D-4533	90	56
Puncture Strength, lbs.	ASTM D-6241	495	310
Permittivity, Sec	ASTM D-4491	0.02	0.02
Ultraviolet Resistance			
Retained Strength, %	ASTM D-4355	50% after 500 h of exposure	
Apparent Opening Size, mm	ASTM D-4751	0.60 max avg roll value	

### 2.02 TYPE B GEOTEXTILE – FOR SUBGRADE REINFORCEMENT

- A. Type B Geotextile shall consist of a regular grid structure formed by biaxially drawing a continuous sheet of select polypropylene material; it shall have aperture geometry and rib and junction cross sections sufficient to permit significant mechanical interlock with the material being reinforced.
- B. Type B Geotextile shall have high flexural rigidity and high tensile strength at ribs and junctions of the grid structure.
- C. Type B Geotextile shall maintain its reinforcement and interlock capabilities under repeated dynamic loads while in service and shall also be resistant to ultraviolet degradation, to damage under normal practices, and to all forms of biological or chemical degradation normally encountered in the material being reinforced.
- D. Type B Geotextile supplied shall meet the physical and mechanical properties as follows:

### Type A Geotextile

Geotextile Property	Test Method	Woven Value	Non-woven Value
Grab Strength, lbs., min.	ASTM D-4632	315	200
Sewn Seam Strength, lbs	ASTM D-4632	285	182

Trapezoid Tear, lbs.	ASTM D-4533	115	80
Puncture Strength, lbs.	ASTM D-6241	620	435
Permittivity, Sec	ASTM D-4491	0.05	0.05
Ultraviolet Resistance, %	ASTM D-4355	50% after 500 h	of exposure
Apparent Opening Size, mm	ASTM D-4751	0.43 max avg rol	l value

### 2.03 TYPE C GEOTEXTILE – FOR DRAINAGE OR RIP RAP LINING

- A. Type C Geotextile shall be used for drainage or riprap lining. The geotextile shall be constructed from long chain polymeric filament or yarns such as polypropylene, polyethylene, polyester, nylon, polyvinylidene chloride or polyamide formed into a stable network such that the filaments or yarns retain their relative position to each other. The geotextile shall be inert to commonly encountered chemicals and shall be free from defects.
- B. Non-woven geotextile may be formed by the needle punched, spun-bonded or melt-bonded process.
- C. Woven geotextile shall be a pervious sheet of yarn woven into a uniform pattern with distinct and measurable openings. Edges of the cloth shall be salvaged to prevent the outer yarn from pulling away from the cloth.
- D. Geotextiles made from yarns of a flat, tape-like character are not allowed.
- E. The Type C Geotextile Fabric supplied shall meet the physical and mechanical properties listed below:

Type C Geotextile

Geotextile Property	Test Method	Woven Value	Non-woven Valu	<u>ie</u>
Grab Strength, lbs., min.	ASTM D-4632	250	160	
Sewn Seam Strength, lbs	ASTM D-4632	225	140	
Tear Strength, lbs.	ASTM D-4533	90	56	
Puncture Strength, lbs.	ASTM D-6241	495	310	
		% in situ soil pas	ssing #25 Sieve (0.	.075mm)
		<u>&lt;15</u>	15 to 50	<u>&gt;50</u>
Permittivity, Sec	ASTM D-4491	0.5	0.2	0.1
Ultraviolet Resistance				
Retained Strength, %	ASTM D-4355	50% after 500 h	of exposure	
Apparent Opening Size, mm	ASTM D-4751	0.43	0.25	0.22
max avg roll value				

### PART 3 EXECUTION

### 3.01 SURFACE PREPERATION

- A. Prepare surface by removal of stumps, boulders, and sharp objects in accordance with Section 311000 Site Clearing. Contractor shall fill holes and large ruts with material shown on the Drawings or as approved by the Engineer.
- B. Material used to fill ruts and holes shall be paid for at the unit price for the type of material used, as shown on the Drawings or as approved by the Engineer.
- C. In Areas to Be Surcharged: All trees and brush having a trunk base diameter greater than one-half inch (1/2") shall be cut to within two inches (2") of original ground surface. Grass shall be flattened with no more than two passes of a tracked vehicle.

### 3.02. GEOTEXTILE PLACEMENT

- A. Unroll geotextile directly onto the prepared surface. Exposure of geotextile to the elements after removal of protective covering shall not exceed five days.
- B. Unroll geotextile for embankment reinforcement parallel to the embankment centerline.
- C. Geotextile shall be placed in daily work sections so the lap adjustment can be made should movement of the geotextile occur during placement of fill.

### 3.03 JOINING

### A. Type A Geotextile

- 1. Fabric shall be joined with adjacent pieces of fabric by sewing or overlapping a minimum of three feet (3').
- 2. If fabric is sewn, the fabric shall have all seams sewn by butterfly or J-seams and shall develop a minimum of eighty-five percent (85%) of the specified strength. Seams shall be sewn with a double-thread chain-lock stitch. High strength polyester, polypropylene or Kevlar thread shall be used. The seam shall be one and one-half inch plus or minus one-quarter inch (1-1/2" ±1/4") from the outside edge of the geotextile.

### B. Type B Geotextile

- 1. Sections shall be overlapped a minimum of three feet (3'), or as shown on the Drawings, to prevent shifting of geotextile during installation and filling.
- 2. Lap joints shall be tied with plastic ties specifically manufactured for this purpose at five foot (5') intervals.

### C. Type C Geotextile

- 1. Fabric shall be joined with adjacent pieces of fabric by sewing or overlapping.
- 2. If fabric is sewn, the fabric shall have all seams sewn by butterfly or J-seams and shall develop a minimum of eighty-five percent (85%) of the specified strength. Seams shall be sewn with a double-thread chain-lock stitch. High strength polyester, polypropylene or Kevlar thread shall be used. The seam shall be one and one-half inch plus or minus one-quarter inch  $(1-1/2" \pm 1/4")$  from the outside edge of the geotextile. If the fabric is

overlapped, the sections shall be overlapped a minimum of three feet (3') or as shown on the Drawings.

### 3.04 MATERIAL PLACING AND SPREADING

- A. Fill material placement shall not occur until the Engineer accepts surface preparation and geotextile laps.
- B. Contractor shall maintain minimum laps and fabric continuity without fabric loops or kinks during material placement and spreading.
- C. Follow the manufacturer's recommendations for material placing and spreading of the geotextile. During placing and spreading, the Contractor shall maintain a minimum depth of one foot (1') of cover material at all times between the fabric and the wheels or tracks of the construction equipment. At no time shall equipment operate on the unprotected geotextile. Construction equipment shall not make sudden stops, starts, or turns on the cover material. Use a smooth drum roller to achieve the specified density.
- D. Spread the material in the direction of the fabric overlap.
- E. On weak subgrade, spread the cover material simultaneously with dumping to minimize the potential of a localized subgrade failure.

### 3.05 GEOTEXTILE REPAIR

- A. Should it be determined during or after embankment construction that specified geotextile lap widths have not been achieved, or that the Contractor otherwise damaged the installed geotextile, the Contractor shall correct the geotextile installation at no additional cost to the Owner.
- B. The Contractor shall expose the geotextile and add additional geotextile extending in all directions to achieve specified laps and anchorage. After correcting the geotextile, the embankment shall be reconstructed in accordance with the Contract Documents.

### 3.06 METHOD OF MEASUREMENT

A. Synthetic fabric shall be measured by the net square yard of ground surface covered. No additional measurement will be made for patches required around manholes and valve boxes or for laps required at fabric joints.

### 3.07 BASIS OF PAYMENT

A. Payment will be made under:

Pay Item No. Pay Item Pay Units

312010(1) Geotextile Fabric (Type) Square Yard

END OF SECTION

### SECTION 329350 LANDSCAPING

### PART 1 GENERAL

### 1.01 DESCRIPTION OF WORK

### A. Work included:

The Work under this Section consists of providing all plants, labor, equipment, supplies, materials, transportation, handling and storage, and performing all operations in connection with the construction of the landscaping improvements, including the planting and maintenance of trees, shrubs, ground cover, perennials and annuals. The work shall also include all operations pertaining to removing and replacing trees and protecting existing trees in place. The Work shall also consist of providing all operations pertaining to the furnishing, transporting, and spreading of topsoil. The work shall also consist of providing all labor, equipment, and materials for the preparation of ground surfaces for the application and maintenance of seeded areas, fertilization, lime application (if necessary), watering, and mulching at locations shown on the Plans or established by the Engineer.

All seeding shall be performed between May 1 and September 1. Seeding any other time will only be allowed upon written approval from the Engineer. Seeding shall not be done during windy conditions or when climatic or ground conditions would hinder placement or proper germination of seed mixes.

### B. Related Work Specified Elsewhere

1. Earthwork: Section 312000

### **PART 2 PRODUCTS**

### 2.01 SEEDING

### A. Materials

### 1. Seed

Seed shall be certified and shall be furnished in standard containers with the seed name, lot number, net weight, percentages of purity and of germination and hard seed, and percentage of maximum weed seed content clearly marked for each kind of seed. The Contractor shall furnish the Engineer duplicate signed copies of a statement by the vendor certifying that each lot of seed has been tested by a recognized laboratory for seed testing within a 9 month period prior of application. This statement shall include name and address of laboratory, date of test, lot number for each kind of seed, and the results of

tests as to name, percentages of purity and of germination, and percentage of weed content for each kind of seed furnished and, in case of a mixture, the proportions of each kind of seed. Seed that has become wet, moldy, or otherwise damaged in transit or storage will not be acceptable.

The Contractor shall submit to the Engineer a certification tag for the seed mixes provided listing species, proportion by weight, percent purity, and percent germination. The certification tag shall come from the specified seed mixes and be removed from the unopened bags in the presence of the Engineer. Contractor shall deliver seed to the site in its original unopened container, which shall bear the vendor's guarantee of analysis.

Seed shall conform to one of the following seed mix:

Mowable Seed Mix – Application Rate: 5 lbs. / 1,000 s.f.

NAME	PROPORTION BY	WEIGHT	PURITY	GERMINATION
Annual Ryegrass	5%	6	90%	85%
(Lolium multiflorum)				
Kentucky Bluegrass – Ke	nai 30	0%	90%	85%
(Poa pratensis "Kenai")				
Kentucky Bluegrass – Ale	ene 25	5%	90%	85%
(Poa pratensis)				
Boreal Fescue	40	0%	90%	85%

(Festuca rubra 'Boreal')

### 2. Fertilizer

Fertilizer shall be a standard inorganic or organic commercial grade supplied separately or in mixtures and furnished in moisture-proof containers. Each container shall be marked with the weight and the manufacturer's guaranteed analysis of the contents showing the percentage for each ingredient contained therein. The proportion of chemical ingredients furnished shall be a mixture such as to provide the total available nitrogen, phosphoric, and potassium as required by the soil analysis or as specified in the Special Provisions. At least five (5) days prior to placement, the Contractor shall submit to the Engineer for approval an analysis of the proposed fertilizer and Manufacturer's Certificate of Compliance indicating Specifications are met.

Tolerances of the chemical ingredients shall be plus or minus two percent (+/- 2%).

No cyanamid compounds or hydrated lime will be permitted in mixed fertilizers.

### 3. Limestone

Limestone shall contain not less that eighty-five percent (85%) of calcium and magnesium carbonates. Agricultural ground limestone suitable for application by a fertilizer spreader shall conform to the following gradation:

Sieve Designation	Minimum Percent Passing, by Weight
# 10	100
# 20	90
# 100	50

Fertilizer and limestone for use in a hydraulic sprayer shall be soluble or ground to a fineness that will permit complete suspension of insoluble particles in water.

### 4. Mulch

Shall be dried shredded peat moss or cellulose wood or paper fiber such as "Astromulch," Eco Fiber," "Conwed," or approved equal.

### 5. Water

Water used in all operations shall be of potable quality.

### 2.02 TOPSOIL

### A. Materials

Topsoil furnished by the Contractor shall consist of a natural friable surface soil without admixtures of undesirable subsoil, refuse, or foreign materials. It shall be shredded and free from roots, hard clay, rocks larger than one inch (1") in any dimension, noxious weeds, seeds or plant propagules, tall grass, brush, sticks, stubble, or other litter, and shall have indicated by a healthy growth of crops, grasses, trees, or other vegetation that it is free-draining and non-toxic. Topsoil shall contain not more than ten percent (10%) gravel by dry weight of total sample. For the purposes of this specification gravel is defined per ASTM D422 modified to include only material passing one inch (1") and retained on the No. 4 sieve.

Topsoil shall conform to the following requirements, as tested using the procedures included in ASTM D422, ASTM D2974 and AASHTO T267. The topsoil shall be inspected and tested by the Engineer before approval will be granted for its use.

Topsoil Mi
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Organic Material\* 15 to 25% by total sample dry weight

Silt 25 to 45% by dry weight Sand 35 to 55% by dry weight

\*Organic matter is to be determined by loss-on-ignition of oven-dried material in accordance with ASTM D2974.

Organic material for incorporation into topsoil, shall be partially decomposed peat moss. Organic material shall be from a source above the water table. Peat moss may require chopping or shredding to insure thorough mixing with the topsoil.

### 2.03 TREES

### A. Materials

### 1. Tree Schedule

A complete schedule of plants, including names, quantities, sizes, and other requirements, is shown on the Landscape Drawings. The Contractor shall furnish a report listing the proposed sources of the plants and location grown. In the event of plant count discrepancy between the Plant Schedule and the plants counted on the Plans, the Plans shall prevail. Discrepancies between the quantity shown on the Plant Schedule and those required by the City of Soldotna code shall not entitle the Contractor to claim any additional compensation, nor relieve him of the obligation to complete the Work shown on the plans.

No substitutes shall be accepted, except with the written permission of the Engineer. The Contractor shall submit all substitution requests, noting the source of plants, location, size, and condition, within thirty (30) days of receiving the Notice to Proceed. Substitutes shall be inspected by the Engineer prior to installation.

Each plant shall have a durable legible label with plant size and name (genus, species, variety, cultivar) securely attached when delivered and in place until after acceptance. Labels shall not girdle or damage plants. Contractor shall remove label from plant material at time of acceptance.

### PART 3 EXECUTION

### 3.01 SEEDING

### A. Application

### 1. Soil Preparation

After grading of areas has been completed in conformity with the lines and grades shown on the Drawings, and before beginning seeding operations, the areas to be seeded shall be cultivated to provide a reasonably firm but friable seedbed. Cultivation shall be carried to a depth of two inches (2"). On slopes steeper than 3:1, depth of cultivation may be reduced as directed by the Engineer. All cultivated areas shall be raked or cleared of stones (one inch [1"] in diameter and larger), weeds, plant growth, sticks, stumps, and other debris or irregularities which might interfere with the seeding operation, germination of seed, or subsequent maintenance of the seed-covered areas. Contractor may be required to track-walk slopes 2:1 or over as directed in the Drawings or by the Engineer.

### 2. Fertilizer

Fertilizer used with topsoil shall be applied at a rate to provide two (2) pounds actual Nitrogen per thousand (1,000) square feet of area. In the absence of soil tests and direction from the Engineer, the Contractor shall apply 16-16-16 at the rate of twelve and one-half (12.5) pounds per thousand (1,000) square feet.

When applying a fertilizer used with the soil amendment, the Contractor shall apply a natural /organic based fertilizer with 25% slow release materials such as Arctic Gro Biotic Fertilizer. The organic based fertilizer shall have a minimum guaranteed analysis of 10-10-10-8.5S. It should provide a minimum of 10% (N) nitrogen, 10% (P) phosphate, 10% (K) potash, and 8.5% (S) sulfur. The fertilizer shall contain Humic DG (Dispersing Granule) to promote microbial growth and soil fertility and Sustane Organic for greater root development. It should be in a granular form that is easily spread. Apply at five hundred pounds per acre (500 lbs/acre).

### 3. Limestone

Limestone, whether in liquid or dry form, shall be applied at a sufficient rate to attain a soil pH between 6.0 and 7.0.

### 4. Application Methods

All machinery shall be free of invasive weeds, seeds, or plant propagules. Apply seed mixtures at rates as specified and/or as directed by the Engineer. Seed, fertilizer, limestone, mulch, and water may be applied by the following methods:

### a. Hydraulic Method

Seeding by hydraulic methods shall consist of furnishing and placing a slurry made of seed, fertilizer, dried peat moss or cellulose wood fiber and water.

The dried peat moss or cellulose wood fiber shall be added to the water slurry in the hydraulic seeder after the proportionate amounts of seed and fertilizer have been added. The slurry mixture shall then be combined and applied in such a manner that the rate of application will result in an even distribution of all materials.

Hydraulic seeding equipment shall be capable of maintaining a continuous agitation so that a homogeneous mixture can be applied through a spray nozzle. The pump shall be capable of producing sufficient pressure to maintain a continuous, non-fluctuating spray capable of reaching the extremities of the seeding area with the pump unit located on the roadbed. Sufficient hose shall be provided to reach areas not practical to seed from the nozzle unit situated on the roadbed.

### b. Dry Method

Mechanical spreader, seed drills, landscape seeder, cultipacker seeder, fertilizer spreader, or other approved mechanical spreading equipment may be used when seed and fertilizer are to be applied in dry form. Fertilizer shall be spread separately at the specified rates, and then incorporated in one operation to a minimum depth of two inches (2"). Seeded areas shall be compacted within twenty-four (24) hours from the time the seeding is completed, weather and soil conditions permitting, by cultipacker, roller or other equipment satisfactory to the Engineer. Compacting equipment shall be operated at right angles to the slope. Compaction shall not be performed when the soil is in such condition that

it will be picked up by the equipment, nor shall heavy soils be compacted unless directed by the Engineer.

### c. Hand Method

Hand broadcasting by means of portable, hand operated mechanical spreaders or "by hand" may be substituted for the preceding two (2) methods provided that the application rate is twice that of the dry method, and that the application is applied in a minimum of two (2) passes over the areas to be seeded (at ninety degrees [90°] to one another in order to assure uniform and even coverage to all seeded surfaces).

### B. Maintenance

### General

The Contractor shall furnish all labor, materials, supplies and equipment required to establish, maintain, and protect the planted and seeded areas, for a one year Plant Establishment Period from date of acceptance of the initial planting operations. However, maintenance activities shall commence immediately after each item is planted or when areas have been seeded.

The Contractor shall supply a maintenance schedule to the Engineer, thirty (30) days prior to the landscape inspection. The Contractor shall also be responsible for protection of his work during the maintenance period, and shall repair and replace all materials and seeded areas damaged or destroyed within the scope of the Work, regardless of cause.

The Contractor's staff shall include supervisory personnel experienced in landscape maintenance. The Work Force is to be experienced and familiar with maintaining plant material in subarctic conditions.

Contractor shall replace any tree or shrub damaged by vandalism, a lawnmower, weed whip or other equipment at no additional cost to the Owner.

### 2. Watering

A proposed watering schedule shall be submitted to the Engineer thirty (30) days prior to installation of plant materials. The Contractor shall notify the Engineer of watering activities. The Contractor shall keep a log of date, time of day, and amount of water used for every watering activity.

The Contractor shall deep water all trees and shrubs, providing water penetration throughout the root zone to the full depth of the planting pits. Deep water application shall be applied at a low pressure application rate using hand watering with a hose with a minimum of water run-off.

Watering shall cease at first hard frost in the fall and shall resume upon ground thaw in the spring.

If at any time during the maintenance period weather conditions (such as extended period with no rain or continuous drying winds) cause the plant root zone to dry out, the

Engineer may direct the Contractor to deep water all trees and shrubs. Contractor shall provide supplemental watering immediately and at no additional cost to the Owner.

Should soil conditions be encountered that are not conducive to water absorption, the Contractor shall take whatever corrective actions that may be required to correct this condition, without additional cost to the Owner.

Turf, seeded, bulb areas, and annual flower beds shall be watered at such frequency as weather conditions require to maintain soil moisture within the root zone. When establishing turf and seeded areas, the soil shall be watered often enough to maintain a moist seedbed to promote healthy seed germination resulting in an even and uniform coverage. If the Contractor does not provide adequate watering as required by the Engineer, the Engineer will hire others to perform this task and deduct costs from final payment to the Contractor.

The Contractor shall protect seeded areas from damage from all traffic, whether people, animals, on or off road vehicles, or any other causes which may damage newly seeded and maintained surfaces. Contractor shall maintain a minimum coverage of 90%. Surfaces damaged shall be repaired by regrading, reseeding (including all specified amendments), as directed by the Engineer, at no additional cost to the Owner. The Contractor shall otherwise maintain seeded areas, including regular mowing, in a satisfactory condition until Seeding Acceptance.

On the fortieth (40th) day of the maintenance period, the Contractor shall apply one application of fertilizer (16-16-16) at the rate of seven (7) pounds per thousand (1,000) square feet.

### C. Seeding Acceptance

### 1. Acceptance

A Landscaping Acceptance Inspection of the project will occur after completion of the Plant Establishment Period. Engineer shall verify that Contractor performed maintenance functions as identified above. If the Engineer does not accept the improvements, the Contractor shall correct all deficiencies. All costs associated with correcting the deficiencies and extending the Plant Establishment Period shall be paid by the Contractor without additional cost to the Owner, until all Work is complete and accepted by the Engineer.

### 3.02 TOPSOIL

### A. Placing of Topsoil

- 1. Placement of Topsoil shall not occur until the project area has been inspected and approved by the Engineer.
- 2. The topsoil shall be evenly spread on the designated areas to a depth of four inches (4") after settlement unless otherwise specified on the Drawings. Contractor shall not place or spread topsoil when the ground or topsoil is frozen, excessively wet, or otherwise in a condition detrimental to the Work.

- 3. Settlement for seeded areas shall be achieved by rolling the topsoil with a water-filled drum approved by the Engineer. The Engineer may direct that topsoil placed on slopes be track-walked perpendicular to the slope with a small track dozer. Track walking shall be incidental to this bid item and no separate payment shall be made.
- 4. Topsoil in planting beds shall be at the depth shown on the Drawings, but no less than twelve inches (12").
- 5. Contractor shall keep roadway surfaces within the project and on haul routes clean during hauling and spreading operations.

### 3.03 METHOD OF MEASUREMENT

### A. Seeding

- 1. The quantity of seeding to be paid for shall be the number of 1000 square foot units (msf), measured to the nearest 0.1 unit on the ground surface.
- 2. When hydraulic seeding methods are used, mixing water in the hydraulic application will not be measured for payment.
- 3. The quantity of seeding specified shall include all cultivating, seed, limestone, if required, fertilizer, and mulch material of the type specified, completed, and accepted.

### B. Topsoil

1. Measurement shall be the number of 1000 square foot units (msf) measured to the nearest 0.1 unit on the ground surface.

### 3.04 BASIS OF PAYMENT

A. Payment will be made under:

Pay Item No.	Pay Item	Pay Units	
329350(1)	Topsoil (Depth)	MSF	
329350(2)	Seeding (Type)	MSF	

### **END OF SECTION**

### **SECTION 332200**

### DECOMMISSION WATER SUPPLY WELL

### PART 1 - GENERAL

### 1.01 DESCRIPTION

A. The Work under this Section consists of performing all operations pertaining to the decommission of the existing water supply well in such a manner as to prevent the contamination of the aquifer penetrated by the water supply well as indicated on the Drawings or as directed by the Owner's Representative.

### 1.02 REFERENCED METHOD FOR DECOMMISSION

A. All work in this section shall be in conformance to the "Alaska Best Management Practices for Maintaining or Decommissioning Water Wells and Boreholes". Dated January 23, 2017.

### 1.03 RECORDS

A. Record of Decommissioning ("well decommissioning log"). The person completing the work should provide, in the form of a written report or completed form, a well decommissioning log to the owner within thirty (30) days of completion of the work. The well decommissioning log should include an accurate account of the procedures, as well as materials and their associated amounts, used to perform the work. The well decommissioning log is an important record that should be carefully filed and kept with other important property documents. To assist, a form is available from the ADNR, <a href="http://dnr.alaska.gov/">http://dnr.alaska.gov/</a>

### 1.04 SUBMITTALS

B. The Contractor shall submit a detailed description of the planned decommissioning procedure for review and approval prior to mobilizing to the site for decommissioning. The submittal shall include data sheets for the materials to be used.

### PART 2 – PRODUCTS

### 2.01 MATERIALS

A. Bentonite – A naturally occurring montmorillonite aluminum silicate clay. As a commercial product bentonite comes in the form of powder, granules (8- to 20-mesh size), chips (1/4 inch to 3/4 inch size), or pellets (1/4 inch to 1/2 inch size) approved by NSF/ANSI for use as grout in water wells.

### PART 3 – EXECUTION

### 3.01 CONSTRUCTION

A. The Contractor shall decommission well by following all guidelines outlined in Section 6.2.B.2 of the "Alaska Best Management Practices for Maintaining or Decommissioning Water Wells and

Boreholes" method, dated January 23, 2017, as approved and adopted by the Alaska Department of Environmental Conservation (ADEC) Division of Environmental Health. For this project, the open annular space is potentially problematic. The Contractor shall follow all steps outlined in the referenced document to decommission well in such a manner as to prevent the contamination of the aquifer penetrated by the existing water supply well. The ground surface referenced in the above document shall be measured as the finish ground surface.

B. The existing well depth is approximately 300' with 40' of screen at the bottom. The Casing diameter is 12".

### 3.02 METHOD OF MEASUREMENT

A. The measurement of Decommissioning Water Supply Well shall be by lump sum.

### 3.03 BASIS OF PAYMENT

A. Payment will be made under:

Pay Item No. Pay Item Pay Units

332200(1) Decommission Water Supply Well Lump Sum.

END OF SECTION

### SECTION 334213 STORMWATER CULVERTS

### PART 1 GENERAL

### 1.01 DESCRIPTION OF WORK

### A. Work included:

This Section covers the construction and reconstruction of culverts, to the lines and grades shown on the plans. Culvert sections will be furnished by the owner. Contractor shall furnish culvert coupling bands and end sections.

### B. Related Work Specified Elsewhere

1. Earthwork: Section 312000

2. Cast In Place Concrete: Section 033000

### C. Subsurface Data:

Subsurface investigations have not been performed at the project site and the engineering designs incorporated into the Contract Documents are predicated upon the assumption that suitable non frost susceptible soils will be encountered in the excavation. It is expressly understood that Owner's Representative, Engineer, nor Owner will be responsible for interpretations or conclusions drawn regarding subsurface conditions by Contractor.

### 1.02 QUALITY ASSURANCE

### A. Qualifications of Workmen:

- To perform the work of this section, employ at least one thoroughly experienced supervisor who is familiar with the materials, equipment, and operations required, and who shall be present at all times during actual construction and direct all operations under this section.
- 2. In the acceptance or rejection of work of this section no allowance will be made for lack of skill on the part of the workmen.
- 3. Employ qualified engineers or surveyors for the establishment of lines and grades.

### B. Referenced Standards

The latest revision of the following standards of the American Society for Testing and Materials (ASTM), The American Association for State Highway Officials (AASHTO), the American Standards Association (ASA), and the American Water Works Association (AWWA) are hereby made a part of these specifications.

AASHTO M-36	Corrugated Steel Pipe & Fittings		
AASHTO M-190	Bituminous Coating of CMP		
AASHTO M-196	Corrugated Aluminum Pipe & Fittings		
AASHTO M-218	Steel Sheet, Zinc-Coated (Galvanized), for Corrugated Steel		
	Pipe		
AASHTO M-245	Precoated Galvanized Steel Culverts and Underdrains		
AASHTO M-246	Precoated Galvanized Steel Sheets for Culverts and		
	Underdrains		
AASHTO M-274	Corrugated Aluminized Pipe and Fittings		
AASHTO M-252	Corrugated Polyethylene Pipe 3"-10" diameter		
AASHTO M-289	Aluminum-Zinc Alloy Coated Steel Sheet for Corrugated Steel		
	Pipe		
AASHTO M-294	Corrugated Polyethylene Pipe, 12" diameter and larger		
Federal Specification SS-S-210	Sealing Compound, Preformed Plastic, for Expansion Joints		
	and Pipe Joints		

### 1.03 SUBMITTALS

Submit manufacturer's product data and installation instructions for each product specified for installation.

### 1.04 ABBREVIATIONS

Corrugated Metal Pipe	CMF
Diameter	D
East	E
Edge of Pavement	EP
Gauge	Ga.
Invert	Inv.
North	N
Slope	S
South	S
West	W

### **PART 2 PRODUCTS**

### 2.01 EQUIPMENT

The Contractor shall utilize equipment both suitable for the work intended and appropriate for the weather and conditions encountered.

### 2.02 MATERIALS

### A. Corrugated Polyethylene Pipe:

- 1. Corrugated Polyethylene pipe shall conform to the following specifications:
  - a. Type C This pipe shall have a full circular cross-section with corrugated surface both inside and outside. Corrugations may be either annular or helical.
  - b. Type S This pipe shall have a full circular cross-section, with an outer corrugated pipe wall and a smooth inner liner. Corrugations may be either annular or helical.
- 2. All CPEP fittings shall be rotational or blow molded and shall conform to the fitting requirements of AASHTO M-252 or M-294.
- 3. Contractor shall join CPEP segments per the manufacturer's recommendations. When a bell and spigot joint is utilized, the Contractor shall ensure that the rubber gasket is correctly inserted into the joint and that the bell is on the upstream end of the pipe.
- 4. Contractor shall join twelve inch (12") and larger CPEP with couplings, corrugated to match the index in the pipe corrugations and in a width not less than three-quarters (3/4) of the nominal pipe diameter. All couplings shall be manufactured to lap equally to a distance on each jointed pipe and shall provide a positive means of closure.
- 5. CPEP may be connected to CMP or may be used between or connected to dissimilar metals. When CPEP is used as a connection, the Contractor shall construct the connection utilizing a joint specifically manufactured for that type of connection or shall construct the connection in accordance with project drawings.
- 6. Contractor shall not insert any portion of the bell of CPEP pipe into any manhole, catch basin, or catch basin manhole unless that portion will be completely removed when the pipe is trimmed to two inches (2") inside the manhole.

### B. Corrugated Metal Pipe:

- 1. Corrugated metal pipe is intended to refer to both steel and aluminum. Not authorized for sewer main construction. The pipe shall conform to the following specifications:
  - Steel: Corrugated steel pipe shall meet the current requirements of AASHTO Specifications Designations M-36.
  - Aluminum: Corrugated aluminum pipe shall conform to the requirements of the AASHTO M-196.

- c. Aluminum Coated (Aluminized): Corrugated aluminized pipe shall conform to the requirements of AASHTO M-36 and AASHTO M-274.
- 3. All CMP fittings shall be fabricated in a workmanlike manner, develop the full strength of the material being joined, and finished to conform to the appropriate requirements of AASHTO M-36, AASHTO M-196 and AASHTO M-274.
- 4. Corrugated steel and aluminum pipe shall be joined by using coupling bands applied as recommended by the manufacturer and approved by the Owner's Representative.
- 5. Dissimilar metals may only be used in extending in place metal CMP and reattachment of dissimilar metal end sections provided an electrical insulating material, at least one-sixteenth inch (1/16") in thickness, is used to separate the dissimilar materials.
- 6. All angles, bolts, and nuts shall be as recommended by the manufacturer for the type of pipe used and as approved by the Owner's Representative.
- 7. The metal gauge for pipe to be used shall be 16 Gauge unless specified otherwise in the Contract Documents.
- 7. Aluminum pipe shall not be placed in direct contact with steel or other metal. Where it is necessary to repair an existing facility by replacing a section of steel with aluminum, or aluminum with steel, a proper insulation of the two (2) dissimilar metals will be effected by use of a bituminous coating, rubber or neoprene sheeting, special fabricated coupling, or concrete expansion block or other methods as approved by the Owner's Representative.
- 8. All welding performed by the Contractor on aluminum pipe shall incorporate the use of 4043 of 5356 alloy for welding wire. The welding shall be accomplished by either the "TIG" tungsten, (inert gas shielded) or "MIG" (metal arc welding inert gas shielded) process.

### D. Insulation

Insulation shall be InsulFoam 60 Expanded Polystyrene (EPS), or approved equal. Insulation shall be furnished in 2'x8'x2" thick or 4'x8'x2" thick sheets

### E. Pipe Bedding Material

Materials furnished by the Contractor for use as "C" bedding classified fill and/or backfill shall be graded within the limitations delineated below:

### Class "C" Bedding

Cumulative % Passing

U.S. Std. Sieve by Weight

2" 100

1/2"	40-100
#4	20-75
#10	12-60
#40	2-30
#200	0-6

Materials furnished by the Contractor for use as "D" bedding classified fill and/or backfill shall be graded within the limitations delineated below:

### Class "D" Bedding

Cumul	lative	%	Passing
Cullia	iuu i c	70	I abbiling

U.S. Std. Sieve	by Weight
1"	100
3/4"	90-100
1/2"	50-70
3/8"	20-50
#4	0-10
#200	0-1

### PART 3 EXECUTION

### 3.01 JOB CONDITIONS

### A. Inspection:

Prior to beginning any of the operations of this section, become thoroughly familiar with the site, site conditions, and all portions of the work affected by the installation of the culverts.

### B. Discrepancies:

In the event of discrepancy, ambiguity, interference, or any other unanticipated condition which might impede timely installation under this section immediately notify the Owner's Representative and do not proceed in the questioned areas until resolution or clarification has been obtained.

### C. Survey:

The Contractor shall be responsible for all construction surveying of culverts.

### 3.02 INSTALLATION

### A. Trench Excavation and Backfill

This work shall consist of all excavation and backfill required for pipe installation, manholes, and all other related work as specified in this section.

### 1. Excavation

All excavation shall be unclassified and the Contractor shall do all excavation of whatever substances encountered, including rock and frozen ground, to the depth shown on the plans. Where distinct surface layers are encountered, of topsoil, clay, silt, peat or other materials undesirable for inclusion in the backfill, these materials shall be segregated into separate stockpiles during the excavating.

Lines and grades shall be carried by means of transit and level, or approved equivalent. Whenever there is an indication of a discrepancy in grade, the Owner's Representative shall be consulted and the grade changed or approved before proceeding with work.

### a. Clearing:

The Contractor shall clear all brush, trees, debris, trash, garbage, etc. from project areas as is necessary to accomplish the storm drain construction and to prevent such extraneous materials from being utilized in the backfill. All areas shown on the plans to be cleared shall be cleared to the limits indicated.

### b. Removal of culverts, Mailboxes, Signs & Markers:

All culverts, mailboxes, signs, and markers located within the cross section of the trench or crossing the trench shall be removed or shored up as directed by the Owner's Representative. Any damage to the above items as a result of construction under this contract will be repaired or the item replaced in kind by the Contractor.

### c. Trench Section:

Trench shall conform to OSHA requirements.

### d. Utilities:

All water lines, sewers, gas lines, or other utilities encountered in excavation of the trench or appurtenances shall be supported and protected from injury throughout the entire construction period until adequate backfill has been completed.

### e. Water Removal:

Ground adjacent to the excavations shall be graded to prevent water from running into the trench. The Contractor shall remove, by pumping or other means, any water accumulated in the excavation which is detrimental to the proposed installation of the sewer lines, appurtenances and structures.

### f. Bracing and Shoring:

The Contractor shall, at his own expense, do all bracing, sheathing, shoring and underpinning of the excavation walls and adjacent structures and shall perform such bracing, shoring, etc., for all subsurface utilities and structures and all surface utilities and structures.

### g. Unauthorized Excess Excavation:

All excavation below the required grade shall be backfilled with sand or gravel and thoroughly compacted. All unauthorized excess excavation and backfill shall be at the expense of the contractor.

### h. Limit of Open Trenches:

The total length of open trench per trenching machine shall not exceed eight hundred (800) feet.

### 2. Backfill.

After the pipe lines and appurtenances have been properly completed and inspected, the trenches and appurtenant structure shall be backfilled. Backfill from six (6) inches below the pipe to one (1) foot of cover over the top to the pipe shall be of approved selected material grading generally from sand to two (2) inches, and shall contain no large rocks or frozen clods. Any large rocks or frozen clods occurring in the material used for select backfill shall be removed by hand picking, prior to backfilling. Approved selected backfill may be material from the excavation or material selected from the sides of the trenches. Backfill to one (1) foot of cover over the top of the pipe shall be evenly placed and carefully deposited under, around and over the pipe in maximum six (6) inch layers which shall be thoroughly compacted. The remainder of the backfill shall be free of extraneous material such as trees, stumps, trash and large boulders. Backfill shall be placed in lifts and compacted in a manner such that 95% of maximum density is obtained.

### a. Utilization of Excavated Material

Usable material removed from trench excavation shall be kept separate from unsuitable material and shall be used where practical for fill and backfill. Excavated materials not required or not suitable for fill and backfill shall be removed from the site to Contractor furnished disposal site.

### b. Replacement of Culverts, Mailboxes, Signs & Markers

All culverts, mailboxes, signs and markers temporarily removed or shored during construction under this contract shall be returned to their original positions. Culverts shall be left free of debris with clear access at each end. Mailboxes, sign, and markers shall be washed or wiped clean of dirt and stains resulting from construction under this contract.

### B. Pipe Laying

- 1. CMP and PCMP pipe shall be laid in Class C Bedding and CPEP and HDPEP pipe shall be laid in Class D Bedding unless otherwise required by the Contract
- 2. Pipe laying shall in all cases proceed upgrade. Each pipe shall be laid true to line and grade and in such a manner as to form a close concentric joint with the adjoining pipe.

The alignment of the installed pipe shall appear straight to visual observations and shall be such that a full circle of light can be seen between endpoints, when sighting along all points of the pipe circumference. Each section of pipe shall be handled carefully and placed accurately. Each section of pipe shall be properly supported to ensure true alignment and an invert which is smooth and free from roughness or irregularity. On helical pipe, the laps shall not impede the flow and all seams shall be aligned uniformly for the length of the run. At all times, when Work is not in progress, open ends of pipe and fittings shall be securely and satisfactorily closed so that no undesirable substances shall enter the pipe or fittings. All pipe shall be laid in accordance with the respective manufacturer's recommendations. Pipe shall not be laid when the bottom of the ditch or the sides to one foot (1') above the pipe are frozen. Backfill containing frozen material shall not be placed, nor shall the trench be left open during freezing weather so that the temperature of the material near the pipe goes below freezing.

### a. Pipe Grade and Alignment:

Variance of individual pipe sections from established line and grade shall not be greater than those listed in the table below, providing that such variance does not result in a level of reverse sloping invert.

Tolerance	Diameter	Tolerance
Feet	Inches	Feet
0.03	14	0.04
0.03	16	0.04
0.03	18*	0.05
	Feet 0.03 0.03	Feet Inches 0.03 14 0.03 16

<sup>\*</sup>note: For all pipe over 18 inches diameter, tolerance not to exceed 0.05 feet.

Wherever work is in progress, the Contractor shall have instruments such as transits, levels, laser devices, and other facilities for transferring grades from offset hubs or for setting of batter boards or other construction guides from the control points and bench marks provided to the contractor by the owner. He also shall have in his employment a man who is qualified to use such instruments and who shall have the duty and responsibility for placing and maintaining such construction guides.

If the method of transferring grades from the offset hubs to the pipe is used, they shall be at least 1" x 6" supported on 2" x 4" stakes of approved metal rods and shall be placed every 25 feet. At least three boards must be in place at any given time to facilitate checking of line and grade. Both line and grade shall be checked for each piece of pipe laid, except at tunnels where methods acceptable to the Owner shall be used to carry forward line and grade.

The practice of pushing in uncompacted backfill over a section of pipe to provide a platform for transit and level alignment and grade observations shall be subject to the approval of the Owner's Representative. In those instances where this intermittent backfilling is allowed, backfilling shall be accomplished in accordance with the BACKFILLING portion of these specifications.

### 2. Laying Instructions for Pipe:

All other pipe shall be laid in accordance with the respective manufacturer's recommendations. No pipe shall be laid when the bottom of the ditch or the sides to one foot above the pipe is frozen. No backfill containing frozen material shall be placed within three feet of the pipe, nor shall the trench be left open during freezing weather so that temperature of the material near the pipe goes below freezing.

### 4. Joining Pipe

### a. Metal Pipe

Join metal pipe firmly using coupling bands. Use bands that are no more than two nominal sheet thicknesses lighter than the pipe being joined, and in no case more than 0.052 inches lighter.

### b. Polyethylene Pipe

Ensure that polyethylene pipe couplings are corrugated to match the pipe corrugations and that their width is not less than one half the nominal pipe diameter.

### 5. Test of Workmanship

### a. General

The Contractor shall clean all culvert pipes installed. All sand, debris, mortar and other foreign materials shall be removed from pipe prior to testing or final inspection.

### 3.03 CLEANING UP

### A. General

During the time that the work is in progress, the Contractor shall make every effort to maintain the sites in a neat and orderly condition. All refuse, broken pipe, excess fill material, cribbing, etc. shall be removed as soon as practicable.

The pipe laying shall not progress ahead of backfilling of ditches more than 400 feet. Should the cleanup not be maintained in a prudent manner, the Owner may cause the work to stop and payments to be withheld until the "cleanup" portion of the work had been done to the satisfaction of the Owner.

### B. Final Payment

The work will not be considered complete or the final payment certificate issued until all rubbish, unused material or equipment have been removed and the premises left in a condition satisfactory to the Owner.

### C. Check of Line & Grade

After backfilling and cleaning, but before final acceptance, all sections of installed line may be checked for line and grade. A full circle of light must be seen and no pipe misplaced in line or grade. A visual inspection of the interior of all storm drain lines may be made before acceptance. Any excess deviation in line and grade shall be corrected by the Contractor prior to final acceptance of the project.

All cleanup shall be considered a subsidiary obligation under the contract and no extra payment will be allowed for this portion of work.

### 3.04 METHOD OF MEASUREMENT

### A. Culvert

The measurement of this item shall be by linear foot.

### B. Culvert End Section

The measurement of this item shall each item installed.

### 3.05 BASIS OF PAYMENT

### A. Payment will be made under:

Pay Item No.	Pay Item	Pay Units
334213(1)	Culvert (Size, Type) [Owner Furnished]	Linear Foot
334213(2)	Culvert End Section (Size, Type)	Each

### END OF SECTION

# WELLHOUSE RELOCATION CITY OF KENAI

## CONTROL POINTS

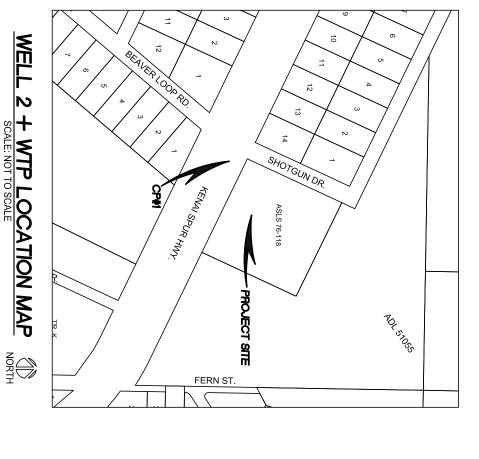
EASTING C	10075.5	10021.9	BM Y80 - ELEV 50.62
	NORTHING E	EASTING	DESCRIPTION

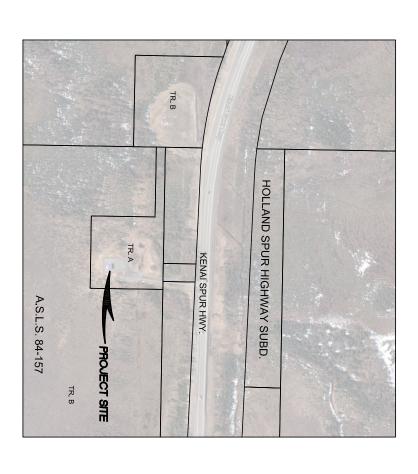
BASIS OF COORDINATES - COORDINATE DATUM IS KENAI WATER SUPPLY IMPROVEMENT PROJECT 2011, WITH THE BASIS AT THE SW CORNER OF ASLS 76-118, N 10168.77, E 10063.09.

VERTICAL DATUM IS NAVD88 BASED ON USC&G BRASS CAP Y-80 (CP#2)

RECORD SURVEY DATA AS SHOWN IS FROM THE PLAT OF ASLS 76-118.

LEGAL DESCRIPTION T 6N R 11W SEC 36 SEWARD MERIDIAN ALASKA STATE LAND SURVEY 76-118 ADL 72801





## **DRAWING INDEX**

DETAILS	BUILDING ELEVATIONS	BUILDING SECTIONS	FLOOR PLAN	FOUNDATION PLAN	DEMOLITION PLAN	SPECIAL INSPECTION	NOTES + SPECIFICATIONS	SITE SECTION	GRADING PLAN	ENLARGED SITE PLAN	SITE PLAN	WELL #1 DEMO SITE PLAN	LEGEND, ABBREVIATIONS, AND GENERAL NOTES	TITLE SHEET, AND LOCATION MAP	DRAWING
S5.1	S4.1	S3.1	S2.3	S2.2	S2.1	S1.2	SI.1	<b>6</b>	ß	2	${\mathfrak S}$	ß	Ω	TITLE	SHEET



**BUILDING DETAILS** 

S5.2







### LEGEND

101	CONTOUR LINES - PROPOSED
	CULVERT (EXISTING)
	CULVERT (PROPOSED)
	CURB/EDGE OF PAVEMENT
	PROPERTY LINE
	PROPERTY LINE/EASEMENT/EDGE OF R.O.W.
	INSULATION
*	FENCE (EXISTING)
*	FENCE (PROPOSED)
— GAS —	UTILITY - GAS LINE (EXISTING)
   	UTILITY - WATER (EXISTING)
w	UTILITY - WATER (PROPOSED)
ss	UTILITY - SANITARY SEWER (EXISTING)
— ЭНО —	UTILITY - OVERHEAD ELECTRIC (EXISTING)
— JOE —	UTILITY - BURIED ELECTRIC (EXISTING)
— UGT —	UTILITY - UNDERGROUND TELEPHONE (EXISTING)
	ACS PEDESTAL
>	END SECTION (CULVERT)
Ħ	HYDRANT
Ф-	POWER POLE
0	SANITARY SEWER MANHOLE/LIFT STATION (PROPOSED)
4	SIGN
X	GATE VALVE
	ASPHALT PAVEMENT (EXISTING)
	GRAVEL PAD (PROPOSED)
†	DRODOSED SWALE

## **ABBREVIATIONS**

		G.	35	ָיי נָ	3 6		25	DIA	Ը	음	i .	0	ВОР	BLDG	ATTACX	1	ALUM		AC	
																			ASPHALT CONCRETE,	
		No. CAN	MAX	<b>π</b> '	_	N	OVH	: !	GR	ପ	7	7	FG	Ŧ	EXIV.	1	ESMT	8	EL,ELEV	
		MENTAL		LINEAR FEET	IENGTH	INVERT	HYDRANT		GRADE	GROUND	רטטו, רבבו	FOOT FEET	FINISH GRADE	FINISH FLOOR	EXIGING	TVICTINO	EASEMENT	EDGE OF PAVEMENT	ELEVATION	
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REQUIRED	RADIUS RECORD	PAVEMENT	PRESSURE TREATED	POWER POLE	PROPERTY LINE	N EXCECTION	- 014- 01	DOINT OF	OFFSET	ON CENTER	NOT TO SCALE	1	NOT IN CONTRACT	SUSCEPTIBLE	NON FROST	1401211	NORTH	MONUMENT	MINIMUM	
₩S:	€	₹	TC	TBC	STA	UMM		2010		SS	ĭ	2	WS	S/W	S		ROW	RG		
WATER SERVICE	WATER WEST	TEST PIT	TOP OF CONCRETE	TOP BACK OF CURB	STATION	SANITARY SEWER MANHOLE	DANITARY DEWER LIFT DIATION	CANITADY SEWED LIET STATION	SEWER SERVICE	SANITARY SEWER/	SHOULDER		SWALE	SIDEWALK	SOUTH		RIGHT-OF-WAY	RAIN GARDEN		

## GENERAL NOTES

- 1.) LOCATION OF UNDERGROUND UTILITIES ARE APPROXIMATE. ACTUAL DEPTH, NUMBER AND LOCATION UNKNOWN. BURIED UTILITIES OTHER THAN THOSE SHOWN ON THE PLANS MAY BE PRESENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATION, IDENTIFYING, AND WORKING AROUND ALL UTILITIES WITHIN THE PROJECT LIMITS AT NO ADDITIONAL COST TO THE OWNER. CALL FOR LOCATES PRIOR TO EXCAVATION, ALASKA DIGLINE 1-800-478-3121.
- 2.) THE FOLLOWING ALASKA STATUTES APPLY TO WORK NEAR OVERHEAD ELECTRIC LINES: AS 18.60.670 (1) PLACEMENT OF AN TYPE OF TOOL, EQUIPMENT, MACHINERY OR MATERIAL THAT IS SWINGING MOTION, WITHIN 10' OF ENERGIZED LINES IS NOT ALLOWED. CAPABLE OF LATERAL, VERTICAL OR
- AS 18.60.670 (2) MINIMUM 10' CLEARANCE FROM BUILDINGS, APPARATUS, MACHINERY, MATERIALS, ETC. AS 18.60.680 ANY WORK WITHIN MINIMUM DISTANCE STATED ABOVE SHALL REQUIRE CONTACT WITH HEA 1 BARRIERS, TEMPORARY DE-ENERGIZATION AND GROUNDING, OR TEMPORARY RAISING OF CONDUCTORS. TO INSTALL TEMPORARY MECHANICAL
- 3.) VEHICLE ACCESS TO PROPERTY SHALL BE MAINTAINED AT ALL TIMES.
  4.) IF NOT DETAILED IN THESE DRAWINGS AND SPECIFICATIONS, ALL APPLICABLE CONSTRUCTION SHALL BE BUILT IN ACCORDANCE WITH MUNICIPALITY OF ANCHORAGE STANDARD SPECIFICATIONS (M.A.S.S.), LATEST EDITION. PROJECT SPECIFIC DRAWINGS AND SPECIFICATIONS TAKE PRECEDENCE OVER M.A.S.S.
- 6.) CONTRACTOR SHALL SHORE TRENCHES AS REQUIRED TO WORK WITHIN CITY PROPERTY AND RIGHT OF EXISTING IMPROVEMENTS. WAY, AND TO PREVENT UNDERMINING
- 5.) CONTRACTOR IS REQUIRED TO FIND ALL PROPERTY PINS/MONUMENTS WITHIN PROJECT AREA AND PROTECT OR REPLACE AFTER CONSTRUCTION IS COMPLETE.
- 7.) SEED ALL AREAS DISTURBED BY CONSTRUCTION PER MUNICIPALITY OF ANCHORAGE STANDARD SPECIFICATIONS, LATEST EDITION.
- 8.) CONTOURS SHOWN ON THE PLANS ARE FOR INFORMATIONAL PURPOSES AND SHOULD ONLY BE USED GRADES. SURVEYED ELEVATIONS ARE SHOWN ON THE PIPE PROFILES. AS A REPRESENTATION OF EXISTING
- 9.) CLEARING AND GRUBBING LIMITS SHALL BE AS SHOWN ON DRAWING UNLESS DIRECTED OTHERWISE BY THE ENGINEER.
- 10.) CONTRACTOR SHALL PERFORM DISINFECTION UNDER THE OBSERVATION OF THE ENGINEER  $\,$  AND IN ARTICLE 2.5. ACCORDANCE WITH MASS

60,

- 11.) CONTRACTOR SHALL NEUTRALIZE ALL DISINFECTING WATER.
- 12.) DESIGN PER GEOTECHNICAL RECOMMENDATIONS & TEST HOLES IN REPORT PREPARED BY HDL ENGINEERING CONSULTANTS DATED FEB 28TH, 2011.

KENAI WELLHOUSE RELOCATION

NELSON

CONSULTING ENGINEERS STRUCTURAL/CIVIL 155 BIDARKA ST KENAI, AK 99611 TEL. (907) 283 - 3583 NELSONENGINEER@ALASKA.NET AK CORP. AUTHORIZATION AECC129

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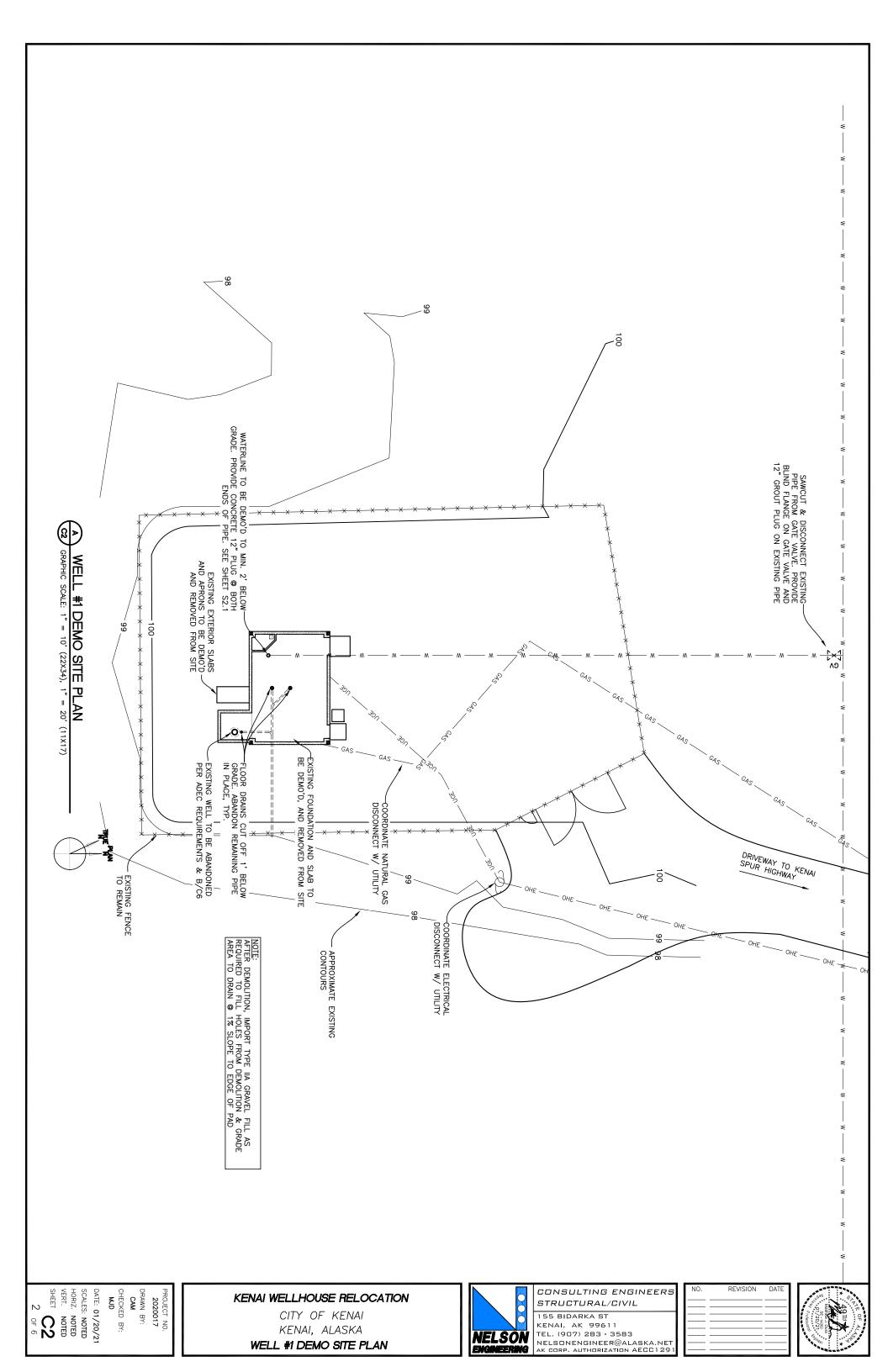
GRAPHIC SCALE: 1" = 25' (22X34), 1" = 50' (11X17) LEGEND ABBREVIATIONS AND GENERAL NOTES

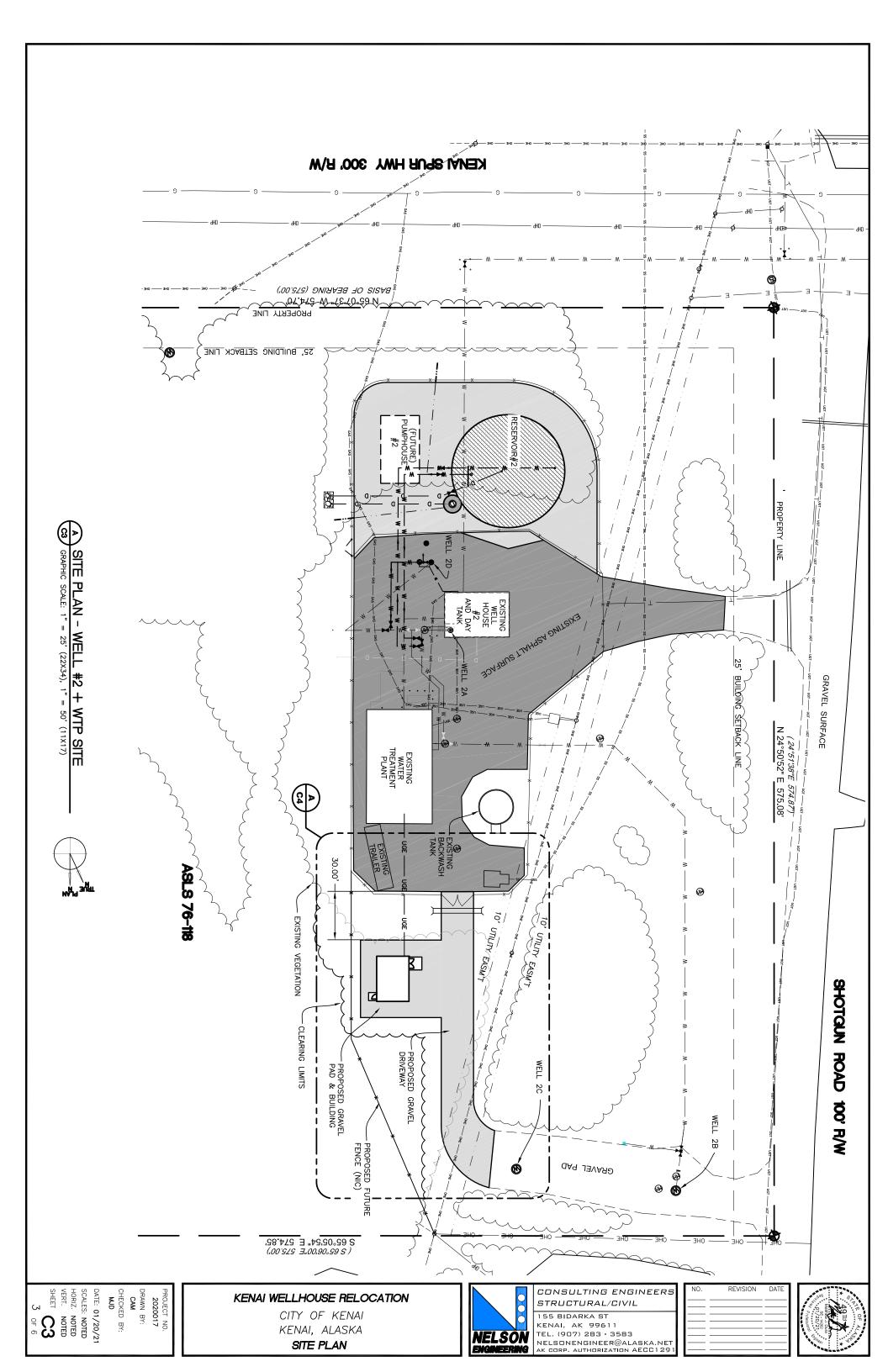
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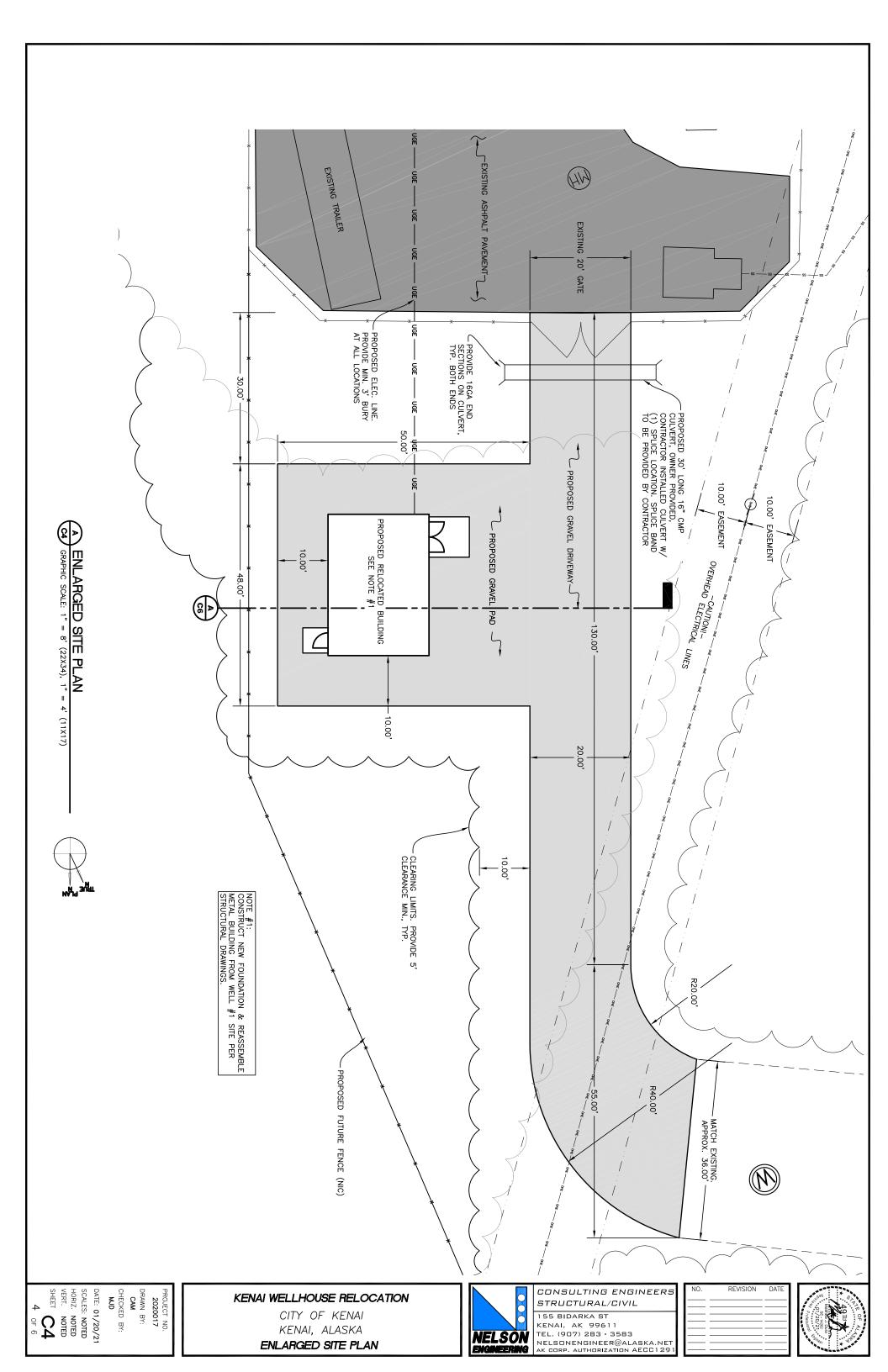
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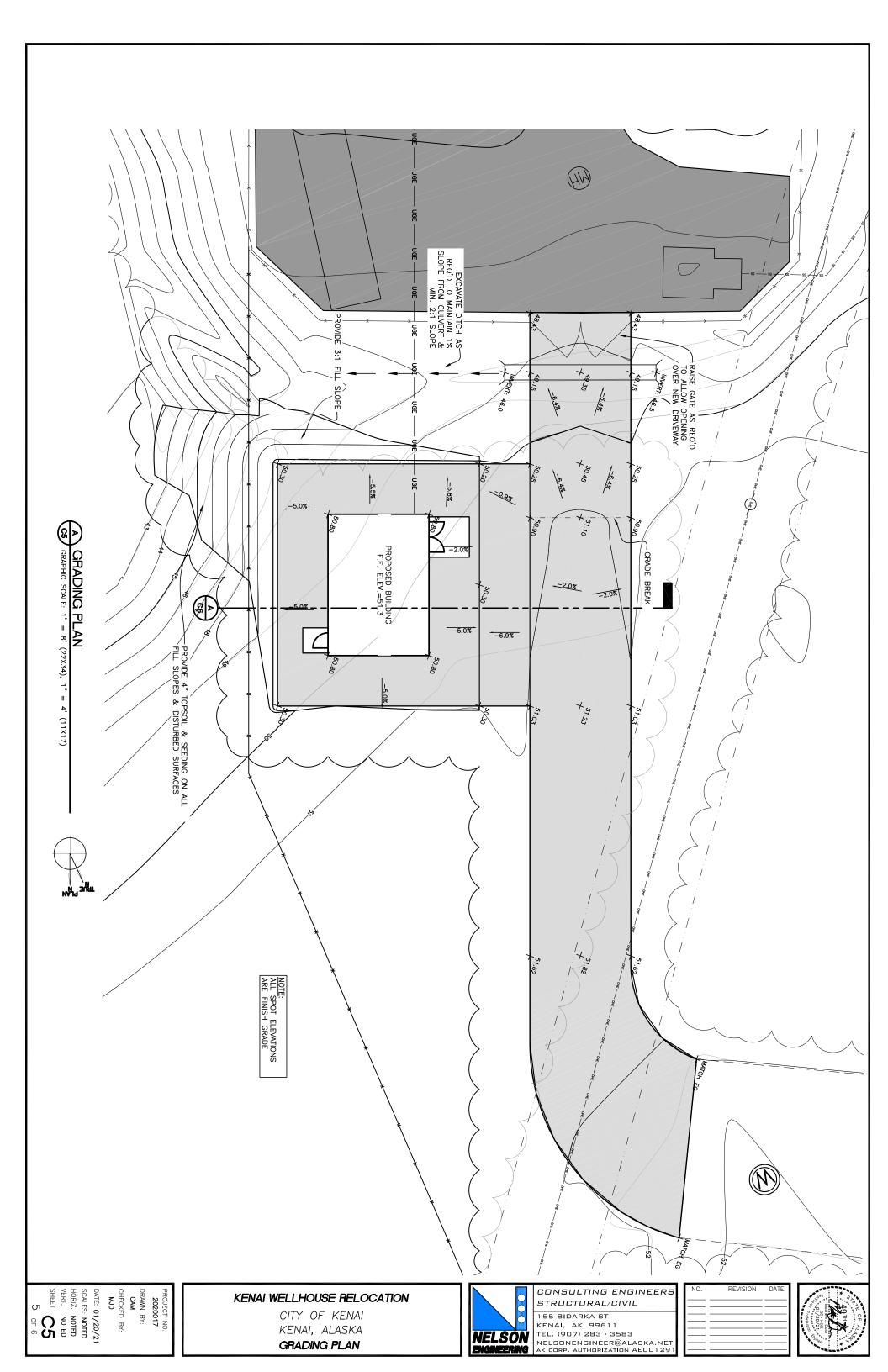
CITY OF KENAI KENAI, ALASKA

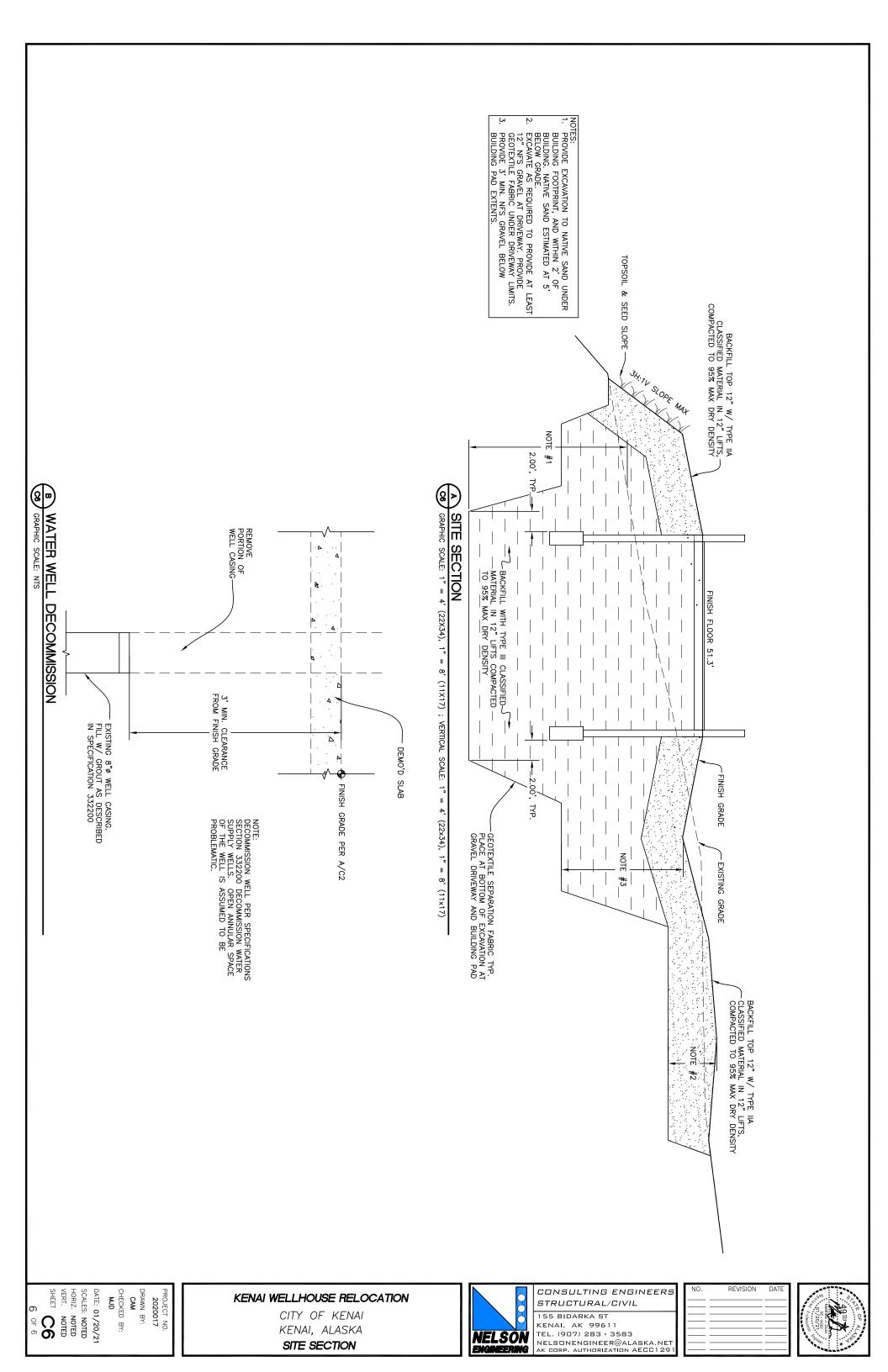
LEGEND/ABBREV. GENERAL NOTES











# NOTES & SPECIFICATIONS

ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO REQUIREMENTS OF THE INTERNATIONAL CODE COUNCIL INTERNATIONAL BUILDING CODE (IBC) 2018 EDITION. WHERE EXPLICIT DETAILS ARE NOT SHOWN OR DESCRIBED, THE MINIMUM REQUIREMENTS OF THE ABOVE CODE SHALL APPLY. UNLESS OTHERWISE NOTED, ALL CODES, STANDARDS AND OT PUBLICATIONS CITED SHALL REFER TO THE LATEST EDITION. OTHER

LOCATION

THESE STRUCTURAL DRAWINGS ARE INTENDED FOR THE RELOCATION OF ONE BUILDING FROM THE CITY OF KENAI WELL #1 SITE TO THE WELL#2/WTP SITE. A NEW FOUNDATION WILL BE CONSTRUCTED AND THE BUILDING WILL BE MOVED TO THE NEW SITE.

DESIGN LOADS

BASED ON THE ORIGINAL BUILDING SPECIFICATIONS THE
BUILDING WAS DESIGNED UNDER THE UNIFORM BUILDING CODE
1997 EDITION WITH THE FOLLOWING LOADS USED FOR DESIGN:

## ROOF: SNOW LOAD P = 50 PSF

WIND: BASIC WIND SPEED EXPOSURE B V = 100 MPH

SITE WORK

PREPARATION OF A SAFE AND SUITABLE BUILDING SITE SHALL
BE COMPLETED PRIOR TO CONSTRUCTION OF FOUNDATIONS AND
SLABS. NO SITE INVESTIGATION OR SOILS BERINGS WERE
PERFORMED BY THE ENGINEER. THE FOUNDATION DESIGN IS
BASED ON THE ASSUMPTION THAT SOILS BENEATH THE
FOUNDATION ARE WELL DRAINED NON FROST SUSCEPTIBLE SAND
OR GRAVEL WITH LOAD CAPACITIES IN ACCORDANCE WITH IBC
TABLE 1806.2 ALLOWABLE BEARING CAPACITY OF 2500 PSF WAS
USED FOR DESIGN.

FOUNDATIONS

EXCAVATE AND REMOVE ALL ORGANIC MATTER, DEBRIS AND FROST SUSCEPTIBLE SOILS FROM UNDER THE BUILDING FROST SUSCEPTIBLE SOILS FROM UNDER THE BUILDING FOOTPRINT. FLACE ALL INTERIOR AND EXTERIOR FOOTINGS ON NATURAL UNDISTURBED, NON-FROST SUSCEPTIBLE (N.F.S.) SOIL OR ON COMPACTED NON-FROST SUSCEPTIBLE GRAVEL BACKFILL FREE OF ORGANIC MATTER AND DEBRIS, AND CONFORMING TO THE FOLLOWING GRADATION:

NON-FROST SUSCEPTIBLE GRAVEL BACKFILL SIEVE:

3"
100
1"
80 - 100
#4
30 - 70
#200
0 - 5

NO MORE THAN 3% OF PARTICLES BY WEIGHT SHALL BE FINER THAN 0.02 MM. BACKFILL SHALL BE PLACED IN LIFTS NOT EXCEEDING 12 INCHES IN LOOSE THICKNESS AND COMPACTED TO 95% OF MAXIMUM DENSITY IN ACCORDANCE WITH ASTM SPECIFICATION D-1557.

FOUNDATION INSULATION
FOUNDATION INSULATION SHALL BE ASTM C578 TYP VI
EXTRUDED POLYSTYRENE INSULATION, WITH 40 PSI MINIMUM
COMPRESSIVE STRENGTH. EXPANDED POLYSTYRENE INSULATION
ASTM C578 TYP IX MAY BE SUBSTITUTED IF THE THICKNESS IS
INCREASED BY 1.5 TIMES WHAT IS SPECIFIED IN THE DRAWINGS.
PROVIDE ALL NEW FOUNDATION INSULATION.

CONCRETE

MIXING, SELECTION OF MATERIALS, AND PLACING OF ALL
CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF THE IBC,
CHAPTER 19. AN AIR ENTRAINING AGENT SHALL BE USED IN
ALL CONCRETE MIXES FOR CONCRETE WHICH IS TO BE
EXPOSED TO EARTH OR WEATHER. AIR ENTRAINMENT SHALL BE
5% +/- 1% BY VOLUME. ALL CONCRETE SHALL HAVE A
MINIMUM 28 DAY COMPRESSIVE STRENGTH (F'C) = 3000 P.S.I.
EXCEPT CONCRETE GROUT FOR MASONRY WALLS WHICH SHALL
HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH (F'C)= 2000
P.S.I. CONCRETE FOR INTERIOR AND EXTERIOR SLABS SHALL
CONTAIN 0.1% BY VOLUME OF 'GENESIS FIBER' COLLATED
FIBRILLATED POLYPROPYLENE FIBER. THE FIBER SHALL BE
THOROUGHLY MIXED INTO THE CONCRETE IN TRANSIT TO THE
SITE, IN ACCORDANCE WITH THE FIBER MANUFACTURER'S
RECOMMENDATIONS.

RECOMMENDATIONS.

REINFORCING STEEL

UNLESS NOTED OTHERWISE, ALL REINFORCING STEEL SHALL BE
DEFORMED BARS CONFORMING TO IBC CHAPTER 19.

REINFORCING BARS SHALL BE GRADE 60. REINFORCING STEEL
SHALL BE SECURELY TIED IN PLACE WITH NO. 16 DOUBLE
ANNEALED IRON WIRE. REINFORCING IN FOOTINGS SHALL BE
SUPPORTED ON WELL CURED CONCRETE BLOCKING OR
APPROVED METAL CHAIRS. REINFORCING BARS NO. 6 AND
SMALLER SHALL BE SPLICED BY A LAP OF AT LEAST (44) BAR
DIAMETERS. REINFORCING BARS NO. 7 OR LARGER SHALL BE
SPLICED BY A LAP OF AT LEAST (55) BAR DIAMETERS. A
MINIMUM LAP FOR ALL BARS SHALL BE 24". CONCRETE COVER
OVER REINFORCING SHALL BE 3" FOR CONCRETE THAT WILL
BE EXPOSED TO WEATHER OR EARTH SHALL BE 2" MINIMUM FOR NO. 6 THROUGH NO. 18 BARS AND 1 1/2" MINIMUM FOR NO. 5 BARS AND SMALLER, INCLUDING WELDED WIRE FABRIC
(WWF). OTHER REINFORCEMENT SHALL HAVE A MINIMUM

TO COMMENT OF THE PROPERTY OF THE PARTY OF THE (WWF). OTHER REINFORCEMENT SHALL HAVE A MINIMUM COVERAGE OF NOT LESS THAN 3/4".

EQUIVALENT, INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. ANCHOR BOLTS SHALL BE PROVIDES WITH HEX HEAD NUTS AND 3"x3"x1/4" STEEL PLATE WASHERS. WHERE BOLTS OR RODS ARE USED WITH CEDAR SILL PLATES, BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED. ALL FASTENERS IN CONTACT WITH PRESSURE TREATED WOOD SHALL BE HOT DIPPED GALVANIZED OR SHALL BE STAINLESS STEEL. ANCHOR BOLTS AND CONCRETE EXPANSION ANCHORS ANCHOR BOLTS, THREADED RODS AND CONCRETE EXPANSION ANCHORS SHALL CONFORM TO ASTM F1554 GRADE 36.
CONCRETE EXPANSION ANCHORS (KB) SHALL BE "HILTI KWIK BOLT II" CONCRETE EXPANSION ANCHORS OR STRUCTURAL BOLT II" CONCRETE EXPANSION ANCHORS OR STRUCTURAL

STEEL FASTENERS

USE ALL NEW BOLTS AND SCREWS FOR REASSEMBLY OF BUILDING STRUCTURE. NEW BOLTS SHALL BE THE SAME GRADE AND SIZE AS EXISTING BOLTS. NEW SCREWS SHALL BE ONE SIZE LARGER THAN THE EXISTING SELF TAPPING SCREWS. ALL A325 BOLTS IN THE BUILDING PRIMARY STEEL SHALL BE PRE-TENSIONED VIA THE TURN OF THE

=.0358 IN^3/FT, BOTTOM IN COMPRESSION Sxx=.0452 IN^3/FT. MINIMUM STEEL YIELD STRENGTH SHALL BE 80 KSI. PANELS SHALL HAVE A KYNAR 500 FACTORY APPLIED FINISH. PANELS SHALL BE CONNECTED TO EACH SUPPORTING MEMBER WITH #12-14X1 1/4" SELF DRILLING 'TEKS' SCREW IN EACH VALLEY, 2 PER PANEL, AND #1/4-14X7/8" STITCH SCREWS A'12" O/C ALONG PANEL EDGES. PANEL COLOR TO MATCH EXISTING BUILDING. STEEL PANELS

WALL PANELS SHALL BE 24 GAUGE 'PBR' PANELS BY WALL PANELS SHALL HAVE A MINIMUM SECTION PROPE
AS FOLLOWS: |xx=.036 |N^4/FT, TOP |N COMPRESION S BY METAL PROPERTIES S X X

%"x352" R-PANEL TAPE SEALANT BY METAL SALES IS REQUIRED AT THE PANEL SEAMS AND ANY LOCATION WHERE SCREWS PENETRATE THE PANELING. R-PANEL INSIDE AND OUTSIDE CLOSURE STRIPS ARE REQUIRED AT ALL PANEL EDGES.

## COLD FORMED STEEL FRAMING ALL STUD WALL FRAMING MEMBERS SHALL BE OF THE TYPE, SIZE AND GAUGE AS SHOWN ON THE PLANS AND SHALL BE MANUFACTURED BY MEMBERS OF THE STEEL STUD MANUFACTURER'S ASSOCIATION (SSMA), ALL MEMBERS SHALL BE FORMED FROM STEEL THAT CORRESPONDS TO THE MINIMUM REQUIREMENTS OF THE 2012 AMERICAN IRON AND STEEL INSTITUTE (AISI) STANDARDS. ALL STEEL SHALL HAVE A MINIMUM REQUIREMENTS OF THE 2012 AMERICAN IRON AND STEEL INSTITUTE (AISI) STANDARDS. ALL STEEL SHALL HAVE A MINIMUM REQUIREMENTS OF THE 2012 AMERICAN IRON AND STEEL INSTITUTE (AISI) STANDARDS. ALL STEEL SHALL HAVE A MINIMUM REQUIREMENTS OF THE MANUFACTURES NOTED OTHERWISE. ALL MEMBERS SHALL BE DESIGNED IN ACCORDANCE WITH THE LATEST EDITION OF ASI "SPECIFICATION FOR THE DESIGN OF COLD—FORMED STEEL STRUCTURAL MEMBERS"." PROVIDE ALL ACCESSORIES INCLUDING, BUT NOT LIMITED TO TRACKS, CLIPS, WEB STIFFENERS, ANCHORS, FASTENING DEVICES, RESILIENT CLIPS, AND OTHER ACCESSORIES REQUIRED FOR A COMPLETE AND PROPER INSTALLATION, AND AS RECOMMENDED BY THE MANUFACTURER FOR THE STEEL MEMBERS USED. FASTENING OF MEMBERS SHALL BE WITH SELF DOF SUFFICIENT SIZE TO INSURE THE STREEL SHALL BE CONNECTION. ALL WELDS OF GALVANIZED STEEL SHALL BE TOUCHED UP WITH PAINT. ALL WELDS OF CARBON STEEL SHALL BE TOUCHED UP WITH PAINT. WIRE TYING OF COMPONENTS SHALL NOT BE PERMITTED. THE PHYSICAL AND STRUCTURAL PROPERTIES SHALL BE AS INDICATED ON THE DRAWINGS AND SHALL CONFORM TO THE PROPERTIES LISTED BY THE STRAM INVECTMENT FORDIGT CORPE SSMA UNIFORM FOUR PART PRODUCT CODE.

### LEGAL DESCRIPTIONS:

EXISTING BUILDING LOCATION
T 6N R IIW SEC 35 SEWARD
MERIDIAN KN 0860072
ALASKA STATE LAND SURVEY
84-157 TRACT A

NEW BUILDING LOCATION
T 6N R IIW SEC 36
SEWARD MERIDIAN KN
0790169 ALASKA STATE LAND SURVEY 76-118 ADI

2018 IBC CODE DATA	DATA
OCCUPANCY GROUP	S-I
CONSTRUCTION TYPE	V-B
ALLOWABLE AREA (NON-SPRINKLERED)	I STORY - 9,000SF
NUMBER OF STORIES	2 ALLOWED
FIRST STORY AREA	560 SF
OCCUPANT LOAD	560SF/300SF=2
FIRST FLOOR EXITS REQUIRED	_
FIRST FLOOR EXITS PROVIDED	2
FIRST FLOOR EXIT WIDTH REQUIRED	36 INCHES

ELECTRICAL SYSTEMS
THE CONTRACTOR SHALL PROVIDE ELECTRICAL SYSTEMS IN ACCORDANCE WITH NEC 2014, DESIGN BY AN ELECTRICAL ADMINISTRATOR LISCENSED IN THE STATE OF ALASKA.

CONTRACTOR SHALL PROVIDE ALL NEW ELECTRICAL COMPONENTS INCLUDING LIGHTS, SWITCHES, WIRE, BREAKERS, OUTLETS ETC. AS REQUIRED TO PROVIDE THE LIGHTS & OUTLETS SHOWN IN THE DRAWINGS. LIGHTING FIXTURES AND POSITIONS SHALL PROVIDE MIN. 30FC ILLUMINATION AT THE FINISH FLOOR LEVEL AT -20°F. FOR ALL LOCATIONS WITHIN THE BUILDING & WITHIN 10' OF EXTERNAL DOORS.



CONSULTING ENGINEERS STRUCTURAL/CIVIL

155 BIDARKA ST KENAI, AK 99611 TEL. (907) 283 - 3583 NELSONENGINEER@ALASKA.NET AK CORP. AUTHORIZATION AECC129

NO.	REVISION	DATE



KENAI WELLHOUSE RELOCATION

CITY OF KENAI KENAI, ALASKA NOTES & SPECIFICATIONS

SCALES: NOTED
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DATE: 1/20/21

DRAWN BY:

PROJECT

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2020017

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# SPECIAL INSPECTION NOTES

OWNER SHALL PROVIDE THE FOLLOWING INSPECTION FOR THE PROJECT DURING CONSTRUCTION.
CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF INSPECTION & CONTACTING CITY REPRESENTATIVE A MINIMUM OF 24 HOURS BEFORE ANY INSPECTION IS REQUIRED. CITY WILL PAY FOR ALL SPECIAL INSPECTIONS.

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	YES		ΥES	YES	YES	YES	REQUIRED				
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PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHODS USED.	FAYING SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS	CONNECTING ELEMENTS INCLUDING THE APPROPRIATE	DETAIL	PROPER BOLTING PROCEDURE SELECTED FOR JOINT	EXCLUDED FROM SHEAR PLANE)	PROPER FASTENERS SELECTED FOR THE JOINT DETAIL	FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS		MANUFACTURER'S CERTIFICATIONS AVAILABLE FOR	VERIFICATION AND INSPECTION TASK	AISC TABLE N5.6-1 INSPECTION TASKS PRIOR TO BOLTING
P	0		,	0	C	D.	0		0	QC	TO BOLTING
0	0		,	0	C	)	0		ש	QA	

PERFORM THESE TASKS FOR EACH WELDED JOINT OR MEMBER OBSERVE THESE ITEMS ON A RANDOM BASIS.

QUALITY CONTROL AS SPECIFIED SHALL BE PROVIDED BY THE FABRICATOR AND ERECTOR.

QUALITY ASSURANCE SHALL BE PROVIDED BY OTHERS

PROPER STORAGE PROVIDED FOR WASHERS AND OTHER FASTENER (

R BOLTS, NUTS, COMPONENTS

0

0

QA=

	AISC TABLE N5.6-2 INSPECTION TASKS DURING BOLTING	G B(	OLTING
	VERIFICATION AND INSPECTION TASK	ac	
	FASTENER ASSEMBLIES, OF SUITABLE CONDITION, PLACED IN ALL HOLES AND WASHERS (IF REQUIRED) ARE POSITIONED AS REQUIRED	0	
2.	JOINT BROUGHT TO THE SNUG-TIGHT CONDITION PRIOR TO THE PRETENSIONING OPERATION	0	
3.	FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING	0	
 4	FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH THE ROSC SPECIFICATION, PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT TOWARD THE FREE EDGES	0	

WHERE APPLICABLE, SEE ALSO SECTION 1705.11, SPECIAL INSPECTION FOR SEISMIC RESISTANCE
SPECIFIC REQUIREMENTS FOR SPECIAL INSPECTION SHALL BE INCLUDED IN THE RESEARCH REPORT FOR THE ANCHOR ISSUED BY AN APPROVED SOURCE IN ACCORDANCE WITH ACI 355,2 OR OTHER QUALIFICATION PROCEDURES, WHERE SPECIFIC REQUIREMENTS ARE NOT PROVIDED, SPECIAL INSPECTION REQUIREMENTS SHALL BE SPECIFIED BY THE REGISTERED DESIGN PROFESSIONAL AND SHALL BE APPROVED BY THE BUILDING OFFICIAL PRIOR TO THE COMMENCEMENT OF THE WORK.

- P= PERFORM THESE TASKS FOR EACH WELDED JOINT OR MEMBER
  O= OBSERVE THESE ITEMS ON A RANDOM BASIS.
  QC= QUALITY CONTROL AS SPECIFIED SHALL BE PROVIDED BY THE FABRICATOR AND ERECTOR.
  QA= QUALITY ASSURANCE SHALL BE PROVIDED BY OTHERS

DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS	VERIFICATION AND INSPECTION TASK	AISC TABLE N5.6-3 INSPECTION TASKS AFTER BOLTING
ט	QC	3 BOLTING
v	QA	

P= PERFORM THESE TASKS FOR EACH WELDED JOINT OR MEMBER
O= OBSERVE THESE ITEMS ON A RANDOM BASIS.
QC= QUALITY CONTROL AS SPECIFIED SHALL BE PROVIDED BY THE
FABRICATOR AND ERECTOR.
QA= QUALITY ASSURANCE SHALL BE PROVIDED BY OTHERS

DATE: 1/20/21
SCALES: NOTED
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MJD PROJECT NO. **2020017** 

### KENAI WELLHOUSE RELOCATION

CITY OF KENAI KENAI, ALASKA SPECIAL INSPECTION



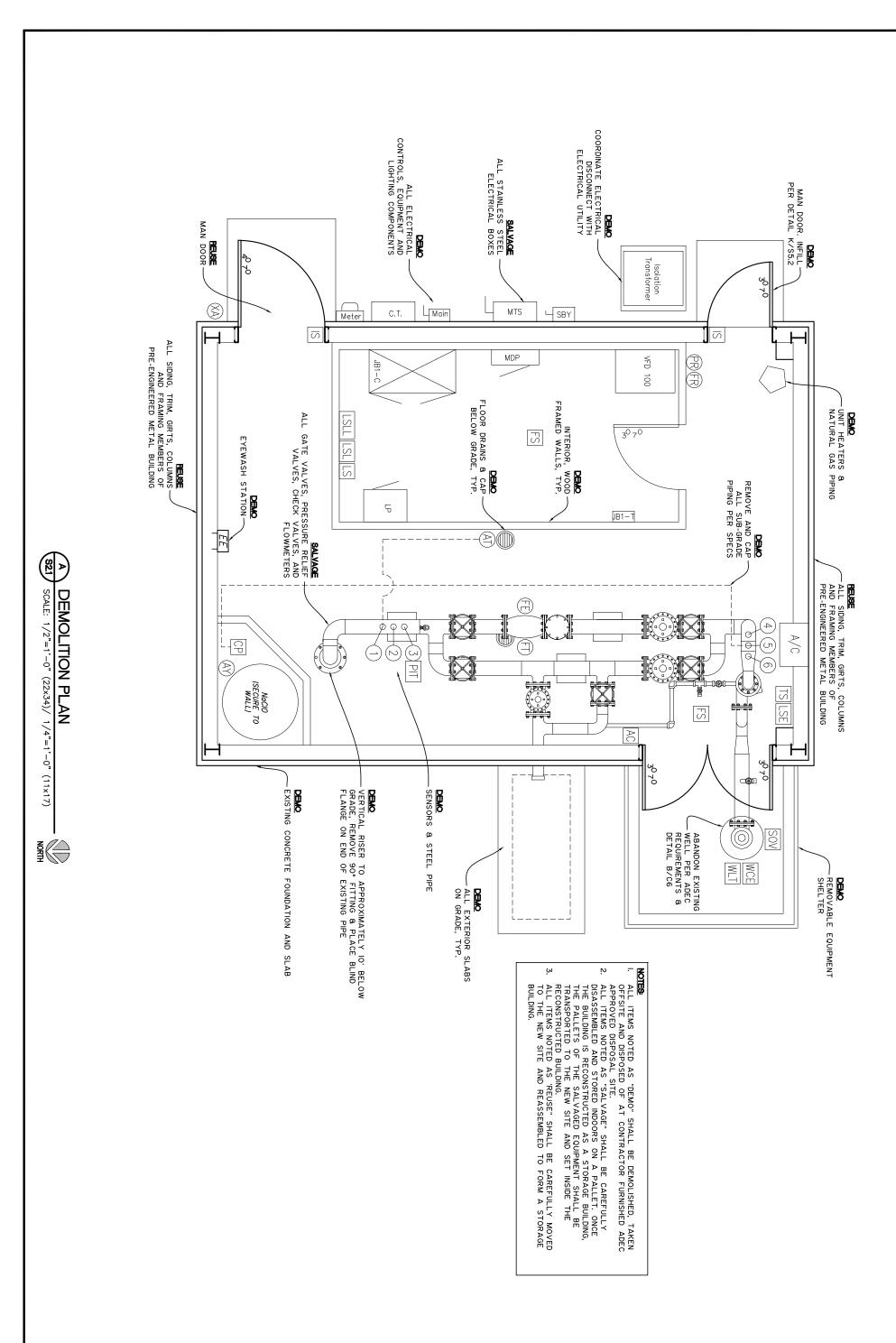
CONSULTING ENGINEERS STRUCTURAL/CIVIL

155 BIDARKA ST KENAI, AK 99611 TEL. (907) 283 - 3583 NELSONENGINEER@ALASKA.NET AK CORP. AUTHORIZATION AECC129

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PROJECT NO.
2020017

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CAM

CHECKED BY:
MJD

DATE: 1/20/21

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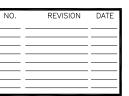
KENAI WELLHOUSE RELOCATION

CITY OF KENAI KENAI, ALASKA DEMOLITION PLAN

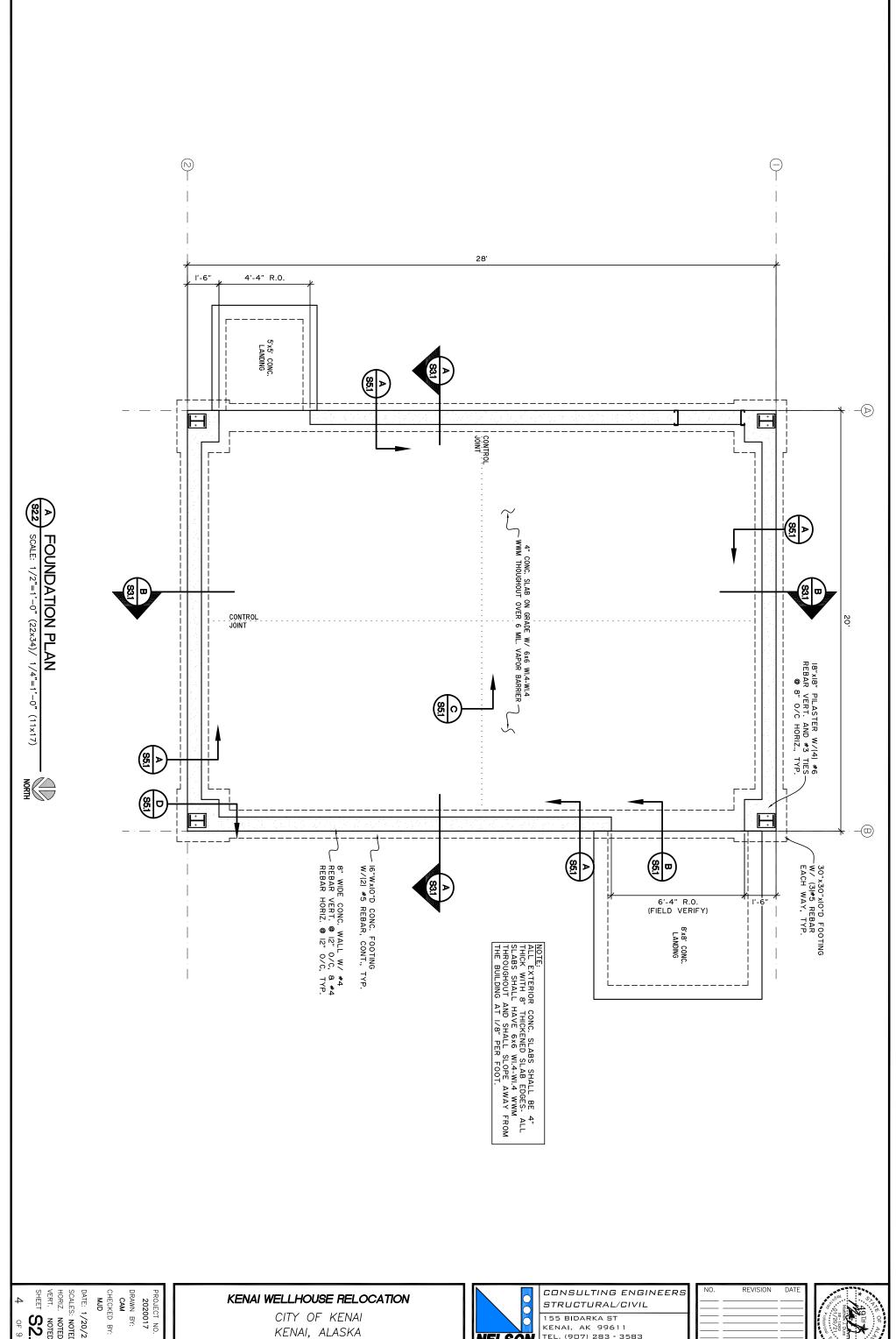


CONSULTING ENGINEERS STRUCTURAL/CIVIL

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DATE: 1/20/21
SCALES: NOTED
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KENAI, ALASKA FOUNDATION PLAN



KENAI, AK 99611 TEL. (907) 283 - 3583 NELSONENGINEER@ALASKA.NET AK CORP. AUTHORIZATION AECC129





