



**ELECTRON DRIVE RAILROAD  
CROSSING REPLACEMENT**

**INVITATION TO BID  
24-07-211736**

**FEBRUARY 08, 2024**



**ALASKA RAILROAD CORPORATION**

**327 W. SHIP CREEK AVENUE**

**ANCHORAGE, AK 99501**

**PHONE 907.265.2355**

**CELL 907.854.3141**

February 8, 2024

**INVITATION TO BID**

**24-07-211736**

**ELECTRON DRIVE RAILROAD**

**CROSSING REPLACEMENT**

**Response Required:** This page must be completed and returned ensuring receipt of future addenda or additional information. Please email this form to [ThompsonC@akrr.com](mailto:ThompsonC@akrr.com).

**Firms that have not returned this cover sheet will not be informed of addenda and will only be alerted to addenda by checking with the ARRC procurement officer or by checking ARRC's internet site:**

<https://www.alaskarailroad.com/corporate/procurement/solicitations>.

**Bidders are responsible for assuring they have all of the issued addenda. Bidders must acknowledge all issued addenda in their submittal.**

Company \_\_\_\_\_

Address \_\_\_\_\_

Contact \_\_\_\_\_

Phone \_\_\_\_\_

Email \_\_\_\_\_

Website: [www.alaskarailroad.com](http://www.alaskarailroad.com)

(THIS IS NOT AN ORDER)

**INVITATION TO BID NUMBER: 24-07-211736**

## **ELECTRON DRIVE RAILROAD CROSSING REPLACEMENT**

**DATE OF INVITATION TO BID: February 8, 2024**

ALASKA RAILROAD CORPORATION  
CONTRACTS SECTION  
327 W SHIP CREEK AVE  
ANCHORAGE, ALASKA 99501  
ATTENTION: C. LEE THOMPSON (907) 265-2355  
CELL. NUMBER (907) 854-3141  
[ThompsonC@akrr.com](mailto:ThompsonC@akrr.com)

Closing Date

SEALED BIDS WILL BE RECEIVED AT:

Alaska Railroad Corporation  
Attn. C. Lee Thompson  
327 W. Ship Creek Avenue,  
Anchorage, Alaska 99501

**Offers will be received until 3:00 pm local time on March 7, 2024.  
At which time bids will be publicly opened.**

### **IMPORTANT**

ARRC reserves the right to reject any and all bids, or any part thereof, negotiate changes in bids, accept any bids or any part thereof, waive minor informalities or defects in any bids, and not to award the proposed contract if it is in the best interest of the ARRC. Any resulting contract from this Invitation to Bid shall incorporate the Standard Instructions, and General Terms and Conditions incorporated in this Invitation to Bid.

This Invitation to Bid is not to be construed as a commitment of any kind nor does it commit the ARRC to pay for any costs incurred in the submission of an offer or for any other incurred cost prior to the execution of a formal contract

Bidder/contractor imposed terms and conditions which conflict with this Invitation to Bid terms and conditions are considered counter offers and, as such, will cause the Alaska Railroad Corporation to consider the bid non-responsive. PROSPECTIVE BIDDERS ARE CAUTIONED TO PAY PARTICULAR ATTENTION TO THIS CLAUSE.

Return your bid in a sealed envelope on which the Solicitation number appears. Bids received by facsimile transmission will not be considered for award. Bids shall be submitted on the forms furnished herein. Hand-delivered bids, amendments, or withdrawals must be received by ARRC's Contracts Section prior to the scheduled time of bid opening.

**Aggrieved Bidder:** An aggrieved bidder/offeror may protest an ARRC procurement action by filing a written protest with the procurement officer in accordance with the procedures and time limits specified in ARRC Procurement Rules 1800.1-1800.11

**ARRC Disadvantaged Business Enterprise (DBE) Program:** ARRC is an equal opportunity corporation that encourages the participation of DBEs as prime contractors and subcontractors on its contracts funded in whole or in part by agencies within the U.S. Department of Transportation (USDOT), including the Federal Transit Administration (FTA), the Federal Railroad Administration (FRA), and the Federal Highway Administration (FHWA). ARRC has a race-neutral DBE Program and does not set DBE goals on individual solicitations. Nonetheless, ARRC aspires to achieve an overall DBE participation of 4.0% in federal fiscal years 2022-2024 on USDOT-funded contracts. If this contract is funded in whole or in part by funds from the USDOT, it is imperative that you consult the Federal Terms and Conditions portion of this solicitation.



The Alaska Railroad is a member of Green Star ([www.greenstarinc.org](http://www.greenstarinc.org)). ARRC earned an initial Green Star Award in 1994 and a Green Star Air Quality Award in 2007. The Alaska Railroad considers Green Star membership to be a positive business attribute, and regards a Green Star award as a tangible sign of an organization's commitment to environmental stewardship and continual improvement within its operations.

The envelope used in submitting your offer shall be plainly marked with the following information:

1. Offeror's Name -
2. ITB # 24-07-211736
3. Date and Time Scheduled for Receipt of Offers.
4. Sealed Offer: Electron Drive Railroad Crossing Replacement

**Please direct all responses and/or questions concerning this ITB to C. Lee Thompson, Alaska Railroad Corporation, Contracts, 327 Ship Creek Avenue, Second Floor, Anchorage, AK 99501, telephone number 907-265-2355, cell number 907-854-3141 or at email address [ThompsonC@akrr.com](mailto:ThompsonC@akrr.com).**

Sincerely,

**C. Lee Thompson**  
Contract Administrator  
Alaska Railroad Corporation

## BID INDEX

SECTION A REQUIRED DOCUMENTS

SECTION B SCOPE OF WORK

SECTION C BIDDERS INSTRUCTIONS & SPECIAL REQUIREMENTS

SECTION D FORMS

Contractor Responsibility Questionnaire [Form 395-0138]

Construction Bid Form [Form 395-0121]

Bid Bond [Form 395-0120]

Sample Construction Contract [Form 395-0122]

Subcontractors List [Form 395-0131]

Payment Bond [Form 395-0126]

Performance Bond [Form 395-0127]

SECTION E GENERAL CONDITIONS CONSTRUCTION

[https://www.alaskarailroad.com/sites/default/files/procurement/General\\_Conditions\\_for\\_Construction\\_Rev\\_May\\_3\\_2022-use\\_with\\_Supplimentary\\_Conditions.pdf](https://www.alaskarailroad.com/sites/default/files/procurement/General_Conditions_for_Construction_Rev_May_3_2022-use_with_Supplimentary_Conditions.pdf)

SECTION F SUPPLEMENTAL CONDITIONS

SECTION G TECHNICAL SPECIFICATIONS

SECTION H COST SCHEDULE

ATTACHMENTS:

1. Technical Standards for Roadway Trail and Utility Facilities in the ARRC Right of Way
2. Standard Spec for work on Railroad property
3. Pamphlet 600 - Issue 47, Effective September 1, 2023
4. Standard Crossing Contract Plans
5. Electron Drive Crossing Photos

## SECTION A REQUIRED DOCUMENTS

**REQUIRED FOR BID** Bids may not be considered if the following documents are not completely filled out and submitted at the time of bidding:

1. Construction Bid Form - [Form 395-0121]
2. Bid Bond - [Form 395-0120]
3. Cost Schedule - SECTION H
4. Contractor Responsibility Questionnaire - [Form 395-0138]
5. Alaska Contractors License

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**REQUIRED AFTER NOTICE OF APPARENT LOW BIDDER** The apparent low bidder is required to complete and submit the following documents within **Five (5) Working Days** after receipt of written notification:

1. Subcontractor List - [Form 395-0131]
2. Contractor's QA/QC Plan
3. Contractor's Site Health & Safety Plan

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**REQUIRED FOR AWARD** In order to be awarded the contract, the successful bidder must completely fill out and submit the following documents within the time specified in the intent to award letter:

1. Certificate of Insurance - [from Insurance Carrier]
2. Payment Bond - [Form 395-0126]
3. Performance Bond - [Form 395-0127]
4. Contract - [Form 395-0122] and Notice to Proceed, ARRC Generated
5. Contractors Business License
6. State of Alaska Department of Labor - Notice of Work

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### **POST AWARD DOCUMENTATION**

1. Weekly Certified Payrolls
2. State of Alaska, DOL Notice of Completion

**SECTION B**  
**SCOPE OF WORK**

**Contract Title**

Alaska Railroad Corporation (ARRC) Electron Drive Crossing Upgrades

**Objectives/Project Scope**

The Contractor shall be responsible for all construction items associated with this project to the limits shown. All work on ARRC property shall be conducted in strict accordance with the requirements contained in the Standard Specifications for Work on Railroad Property. Unless otherwise specified, all track materials and work methods shall comply with the applicable standards contained herein.

The work involved in this project consists of, but is not necessarily limited to, the following activities:

ARRC is requesting quotes for labor, equipment, and ballast as required for the upgrading the existing crossing located at Electron Drive located in Anchorage including the Wilder Loop and Alaska Steel tracks.

Please provide pricing for all labor, equipment, and ballast required to remove the existing crossings and install two new 32 foot concrete modular concrete crossings.

Concrete Crossing Panels will be installed per "Section 244 Railroad Crossing". Work to include but is not limited to replacing ties, installing ballast, track surfacing, and installing new concrete modular crossing panels. All materials other than ballast will be supplied by ARRC and will be available for pickup at the ARRC Anchorage Warehouse (907) 265-2507. Rail will be delivered to the site.

The work will take approximately 6 days and must be coordinated with the project manager and Municipality of Anchorage Street Maintenance.

Please note that all durations and schedules are estimates and subject to change pending permitting requirements and field progress.

All work is to be completed by June 30, 2024.

ARRC will provide railroad track protection for removal of existing crossings and track, installation of the railroad ties, track surfacing, and crossing installation. Municipality of Anchorage Street Maintenance to provide saw cuts adjacent to existing crossing surface, paving, and traffic control.

This project is considered Davis Bacon for Construction Services.

It shall be the responsibility of the Contractor to determine conditions and requirements at each particular situation, and provide all items necessary for the completion of the work according to the parameters established by the Contract Documents.

## **REQUIREMENTS & CONSIDERATIONS:**

### **1. Work Scope:**

Prior to track & road closures:

- Mobilize ARRC provided material from ARRC yard in Anchorage to job site(s)

During allowed track closures:

- Remove & discard existing crossing surfaces, rail, ties, and hardware materials
- Excavate & Embank
  - o Excavate 7' either side of track CL to 16" below tie & dispose of material offsite
  - o Compact subgrade to 95% using 12 ton compactor
  - o Embank ballast to within 2" of finish grade & compact with 12 ton compactor
- Construct new track
- Dump ballast, surface and tamp using approved equipment with a 300' runoff and a minimum of 3 passes. Maximum raise of 1" allowed
- Install crossing pads by pre-drilling holes prior to installing concrete crossing screws (track must be regulated & free of ballast prior to installation of panels)
- Re-grade/repair any disturbed areas prior to demob

### **2. Additional Information:**

- Bid Bonds, Payment Bonds, and Performance Bonds are required for projects over \$100,000.
- Railroad Protective Liability Insurance will not be required for this project.
- ARRC will provide two additional 80-foot sticks of rail so that contractor can cut them to the correct length to accommodate continue the 115lb rail through the crossing without comp bars given the existing 90lb rail that is present on the Alaska Steel track.
- Both crossings shall be installed at the same elevation.
- Surfacing not required where asphalt is placed on Alaska Steel Track.

Price to include all labor and equipment

Contractor is responsible for pickup/purchase/delivery of Ballast materials

All workers must attend onsite Preconstruction meeting prior to start of work

Work must occur within the allotted closure times

Contractor shall comply with DPW and Alaska Digline policy

**ALL WORK MUST BE COMPLETED IN ACCORDANCE WITH THE FOLLOWING PLANS AND SPECIFICATIONS:**

Alaska Railroad Corporation's Standard Modular Crossing Drawing Number 2.78-06  
Alaska Railroad Corporation's Standard Specifications for work on Railroad Property  
American Railway Engineering and Maintenance-of-Way Association's manual for Railway Engineering  
Alaska Department of Transportation and Public Facilities Standard Specifications for Highway Construction

No more than 1" of raise allowed at each crossing. Contractor to be responsible for any additional costs associated with additional pavement, curb work, or utility adjustment required should there be more than 1" of track raise.

Excavation material to be wasted onsite within ARRC ROW.

Contractor shall exclude the following items:

New material to be provided by ARRC

Flagging to be provided by ARRC

Traffic control provided by MOA

Striping provided by MOA

Paving provided by MOA

Sawcut & asphalt disposal provided by MOA



ARRC to provide the following material:

Concrete Pads & End Ramps

Geotextile Fabric

80' strings of new 115 lb rail

10' hardwood ties

E-clips Bolts

Nuts Washers Anchors

Pandrol Plates Lag Screws Angle Bars

ARRC to provide a material list prior to mobilizations for contractor to confirm everything that is included.

### **3. Access Control**

The Contractor is advised that the entire work site is located on an operating rail line. The Work for this Contract must be executed in safe manner that does not interfere with operations. ARRC will work with the Contractor in advance for securing work windows and flagging protection as required.

### **4. Contract Type**

The ARRC will award this work on a firm fixed price basis.

### **5. Period of Performance**

- **Substantial Completion** date of June 30, 2024. Substantial Completion shall include all items of the SOW except for the deliverables.
- **Final Completion** date of July 15, 2024.
- Please note that the schedules are estimates and subject to change pending permitting requirements, train schedules, and field progress. **WORK MAY BE REQUIRED ON WEEKENDS AND/OR NIGHTS.**

### **6. Special Conditions**

Work shall be completed in accordance with the scope of work, project drawings, technical specifications, and these special conditions. In the event of technical specification conflicts, the project drawings shall control.

It is recommended that the Contractor become familiar with the site conditions and review the Owner provided information prior to bidding the work, so as to make their own assessment of what means and methods will be necessary to complete the work.

All construction shall meet the current industry standards for the work being performed. The Contractor will help the Owner or its representative perform construction observation and oversight as required to complete the project and provide quality assurance for the project. All work shall meet all the stipulations stated herein and in any governing permits.

## SECTION C

### BIDDERS INSTRUCTIONS & SPECIAL REQUIREMENTS (CONSTRUCTION)

To be considered for award, Bids must be made in accordance with the following requirements:

**Duty to Seek Clarification:** ARRC shall not be held responsible for a Bidder's lack of understanding of what is required by the Invitation to Bid. Should a Bidder not understand any aspect of the Invitation to Bid, or require further explanation or clarification regarding the intent or requirements of the same, it shall be the responsibility of the Bidder to seek clarification from ARRC prior to submitting his or her Bid.

**Terms and Conditions:** Any resulting contract from this Invitation to Bid shall incorporate the general terms and conditions contained in this bid package.

**Contract Documents:** Bidders shall familiarize themselves with the requirements of all of the Contract Documents which include, but are not limited to the "Bidders Instructions & Special Requirements", the Invitation to Bid, Bid and Contract Forms, General Conditions, Special Conditions, Specifications, Drawings, any Addenda issued prior to the receipt of Bids, and any other documents referenced or incorporated therein.

**Examination and Interpretation of Documents:** Each Bidder shall examine the Contract Documents carefully and shall make written requests to ARRC prior to Bid submission for interpretation or correction of any ambiguity, inconsistency, discrepancy, omission, or error therein which the bidder may discover. Any interpretation or correction will be issued in an Addendum by ARRC. Only a written interpretation or correction shall be binding. No Bidder shall rely on any interpretation or correction given by any other method.

**Addenda:** ARRC may modify the Invitation to Bid prior to the date fixed for opening of Bids by issuance of an Addendum to all parties who have been furnished the Bid Package for bidding purposes. Bidders must acknowledge receipt of all Addenda on the Construction Bid Form [Form 395-0121].

**Qualification of Bidders:** Pursuant to ARRC Procurement Rule 1600.3, before a Bid is considered for award, ARRC may request a Bidder to submit information regarding the Bidder's capability in all respects to fully perform the contract requirements or the individual integrity and reliability which will assure good faith performance. Such information shall include the Bidder's prior experience in performing comparable Work, the availability of necessary financing, equipment, facilities, expertise and personnel to perform the Work and whether he or she has ever been terminated or defaulted on construction work.

**Bid Forms:** Bids must be submitted on the forms provided by ARRC, completed in all respects as required by the Bid Forms and other Contract Documents and manually signed by an authorized official of the Bidder. Bidders may make copies of the Bid Forms for submission of Bids.

**Submission of Bids:** Bids must be submitted as directed in the Invitation to Bid prior to the exact time set for opening bids. Late bids will not be considered.

**Modification, Correction, Withdrawal of Bids:** Modification, correction or withdrawal of Bids will be allowed only as provided in ARRC Procurement Rule 1200.8.

**Bid Opening:** Bids will be opened in public at the time set forth in the Invitation to Bid in accordance with ARRC Procurement Rule 1200.6. The contents of the Bids will be open for public inspection after the notice of intent to award a contract is given.

**Evaluation of Bids:** Bids will be evaluated in accordance with the provisions of ARRC Procurement Rule 1200.7. Alternative bids, if called for, are intended to provide ARRC a range of comparative costs which will allow identification of the combinations most responsive to ARRC's need. The order in which the alternatives are listed or set out in the Invitation to Bid should not be taken as any indication as to the order in which ARRC may elect to select the alternatives, if any. Bidders shall submit bid prices for all alternatives stated in the Invitation to Bid

and are advised that the order in which the alternatives, if any, are chosen by ARRC, may affect which Bidder is the lowest responsive and responsible Bidder.

**Bid Security:** In accordance with ARRC Procurement Rule 1200.4, all Bids shall be accompanied by bid security in the form of a cashier's check or an acceptable Bid Bond, a form of which is provided herein, in the amount of five percent (5%) of the Bid price.

**Rejection of Bids:** ARRC reserves the right to waive minor defects or informalities in a Bid in accordance with the provisions of ARRC Procurement Rule 1200.8, or to reject any or all Bids in accordance with the provisions of ARRC Procurement Rule 1600.2.

**Award of Contract:** Unless the Invitation to Bid is canceled or all bids are rejected, the procurement officer shall award a contract based on the solicited bids with reasonable promptness by written notice to the lowest, responsible and responsive Bidder whose bid conforms in all material respects to the requirements and criteria set out in the Invitation to Bid.

**Execution of Contract:** A written contract must be signed by the Bidder to whom an award is made and returned to ARRC within ten (10) calendar days, together with all required performance and payment bonds, and certificate(s) of insurance in the amounts required by the Invitation to Bid. The Bidder to whom award is made shall not be permitted to occupy the project site until he has first obtained the required insurance and submitted to ARRC proof of such insurance together with a statement certifying that said insurance conforms to requirements set forth in the Invitation to Bid.

**Failure to Execute Contract:** If the Bidder to whom the Contract is awarded refuses or neglects to execute it, or fails to furnish the required bonds and insurance within the time specified, the amount of his bid security may be retained by ARRC as liquidated damages.

**Government Contract Requirements:** If Federal funds will be used to pay for any part of the project described in the Invitation to Bid, any contract awarded hereunder will contain provisions requiring the successful Bidder to comply with all pertinent provisions, agreements, and clauses of the subject federal grant and all pertinent laws, regulations, Presidential directives, and executive orders to the extent they apply to the subject matter of the contract.

**Drug and Alcohol-Free Workplace:** Safety is paramount at ARRC. For that reason, ARRC maintains an alcohol and drug-free workplace and requires that the Contractor do the same. At all times during the performance of this contract, the Contractor shall have in place a written drug and alcohol program that includes, at a minimum, the following:

- a. a requirement that all applicants present a negative pre-employment drug screen prior to being hired by the Contractor;
- b. a requirement that employees submit to a "reasonable suspicion" drug and/or alcohol test when showing signs and symptoms of drug and/or alcohol influence on duty;
- c. a requirement that employees submit to "reasonable cause/post-accident" drug and alcohol tests following certain accidents or incidents (with the threshold level triggering testing to be determined by the Contractor);
- d. a provision defining a positive alcohol test as one that reveals a breath alcohol level of .02 or greater;
- e. a provision defining a positive drug test as one that reveals concentrations at the levels set forth in 49 C.F.R. § 40.87(b)(screening test) and 49 C.F.R. § 40.87(c)(confirmatory test) or greater;
- f. a provision that outlines the consequences of a positive drug or alcohol test and the consequences of an employee's refusal to submit to drug/alcohol testing; and

- g. a provision that establishes the conditions under which an employee may return to work following a positive drug and/or alcohol test, which at a minimum include an evaluation by a substance abuse professional and compliance with a recommended treatment program.

The Contractor agrees that at any time during the performance of this contract, if an ARRC employee reports to the Contractor that an employee of the Contractor or its subcontractor is showing signs and symptoms of drug/alcohol influence on duty, the Contractor shall remove the employee from ARRC property immediately and shall have the employee tested for drug/alcohol influence. If the employee tests positive, the Contractor shall ensure that the employee is not returned to work on the project until he/she has met the return to work requirements contained in the Contractor's written program.

All contractors and subcontractors providing Roadway Worker services for ARRC will be required to register with Avetta, a third-party verification company that ARRC has engaged to verify and track contractor compliance with 49 C.F.R. Part 219 as well as other contractor responsibilities. The cost for each contractor to register will vary based on the services provided, and will be paid by the contractor directly to Avetta.

Resources to assist with registration: Avetta <https://www.avetta.com/>  
Avetta team at 800-506-7427.  
Part 219 questions: ARRC Compliance Manager: 907-265-2533.

**Offer Acceptance Period:** For the purpose of award, offers made in accordance with this ITB shall be good and firm for a period of thirty (30) days from the date of bid opening.

**Site-Safety Plan Requirement:** Before the contractor or any subcontractor begins any construction related work under this contract including but not limited to mobilization, equipment setup, storage, etc., taking place on sites under Alaska Railroad Corporation (ARRC) control, they will submit a site Health and Safety Plan to ARRC for compatibility acceptance.

The plan must be compatible with ARRC Safety Policies, including On-Track Safety, ARRC on-site employee safety including safety for Project Managers, Construction Managers, Flaggers, Visitors, Safety personnel, Quality Assurance staff, vendors, and the public. The plan must outline procedures for first aid, emergency response, chemical exposures, spills, site sign-in requirements for site-safety briefings, coordination with ARRC dispatch, Section 6.16 (SAFETY AND PROTECTION), Section 6.17 (WORK SAFETY ON RAILROAD PROPERTY), and Section 6.18 (EMERGENCIES), other sections of the contract GENERAL CONDITIONS, Appendix F.

A complete, detailed Site-Safety Plan shall be submitted to the Project Manager at least 10 days prior to commencement of any Work on the Project

## **CONTRACTOR'S INSTRUCTION FOR SUBMITTING CERTIFIED PAYROLL:**

This contract may include work on an Alaska Railroad Corporation (ARRC) construction project, which is subject to the wage/certified payroll requirements of the DOLWD and/or it may include work on a federally funded construction project and be subject to U. S. Department of Labor Davis-Bacon Act wage/certified payroll requirements. As part of the contract the following will be required:

1. All contractors paid under a construction contract funded in whole or in part with federal funds shall pay laborers and mechanics the higher of the two wages listed in this contract from the U. S. Department of Labor ([www.access.gpo.gov/davisbacon/](http://www.access.gpo.gov/davisbacon/)) or from the DOLWD ([www.labor.state.ak.us/lss/home.htm](http://www.labor.state.ak.us/lss/home.htm)). Contractors paid under ARRC only funded construction contracts shall pay laborers and mechanics the appropriate wage established by the DOLWD, which is often called Little Davis-Bacon wages.
2. All contractors employing laborers and mechanics under this contract, including the

owner/operator if he or she worked on the job, must submit weekly certified payrolls that contain the information listed on the DOLWD Weekly Certified Payroll Form 07-6058, pages 1 and 2. Owner/operators working on the project as mechanics or laborers, either as prime or subcontractor, must file certified payrolls and record all information including the hourly wage, fringe benefits, hours worked, overtime, et cetera, however they can defer the weekly payment and write over the total deductions and net pay boxes "owner/operator." Page 2 is the "Statement of Compliance" and must bear an original signature. The prime contractor is responsible for gathering the certified payrolls, with original signatures, from each subcontractor and for submitting them, along with its own, to the ARRC Certified Payroll Processor.

3. **Private utility companies** exempt by the state of Alaska from filing certified payrolls because they are working on their own lines must provide a copy of the state approved sworn work affidavit indicating they are paying state DOLWD required wages. Private Utility companies shall file Notices of Work (NOW) and Notices of Completion (NOC) with DOLWD, listing subcontractors, if any. The DOLWD approved finalized affidavit, NOW, and NOC shall be sent to the ARRC. The utility company shall collect original certified payrolls from all subcontractors and submit them weekly to the ARRC as outlined in these submission instructions.
4. These weekly certified payrolls must be uploaded to ARRC's web portal within seven days after the regular "payday" for that certified payroll at the following web address: <https://certpayportal.akrr.com/> A website login will be required to be set up prior to the first submission.
5. The contractor and its subcontractors are also responsible for filing certified payrolls with DOLWD as required.
6. The certified payroll must be completely filled out by the contractor including, but not limited to:
  - i. **Contractor's complete name**, including join ventures, Inc., LLC. etc.
  - ii. **Contractor's license number**, also called the contractor's registration number, is required in addition to a business license to do construction work in the state. The prime contractor must be registered even if the contractor does not work on the site, but only uses site subcontractors.
  - iii. **Employee's**
    - a. Name
    - b. Address (domicile and mailing)
    - c. Social security number
    - d. Job classification
    - e. Hours worked
    - f. Wages/fringe benefits paid

Owner/operators working on the project as mechanics or laborers, either as prime or subcontractor, must file certified payrolls and record all information including the hourly wage, fringe benefits, hours worked, overtime, et cetera, however they can defer the weekly payment and write over the total deductions and net pay boxes "owner/operator."

iv. **Contracting agency project number**, which is the ARRC contract/purchase order number, is listed on the DOLWD finalized Notice of Work. This notice also lists the **DOLWD project number, project name, and location**. The prime contractor will supply all of this information to its subcontractors.

v. **Week ending date and payroll numbers**. The first week or part of a week of payroll will be designated as payroll number 1 for the first week, 2 for the second week, etc. until the final week worked on the project. The final payroll must be marked FINAL.

vi. The **Statement of Compliance** must be completely filled out indicating how fringe benefits are paid and listing the payroll period. The Statement of Compliance must be signed, dated, and filed (delivered or postmarked) within seven days of the payment date of the payroll. The Statement of Compliance must have an original signature.

vii. **Stamp or write “Confidential”** on the certified payroll to help ensure the privacy of contractor employees. Failure to submit timely, complete, and accurate weekly certified payrolls to ARRC may result in the delay of payment on the contract. Sample copies of DOLWD certified payroll forms with the “Statement of Compliance” are shown in Appendix B.

# State of Alaska Certified Payroll Form, 07-6058



## CERTIFIED PAYROLL

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

Contractor Name		SubContractor		Address																							
Alaska Strong Steel, Inc				782 Northridge Avenue, Anchorage, AK 99503																							
Contractor License No.	Contractor License No.	Week Ending	Payroll No.	Contracting Agency Project #	Dept. Labor Project #																						
907-555-1212	28888	18-Dec-04	1	35014	04/12-1500																						
Name, SSN, Permanent Domicile Address (NO P.O. BOX or RURAL ROUTES ACCEPTED) and Mailing Address (if different) for each employee		Specific Work Class Code including certificate #s for Electricians, Plumbers, Painters, Foundrymen, Asbestos Workers, Truck drivers, etc. (truck license number)	Union Membership? (If NONE put N/A)	Apprentice (%) if Applicable	OT	ST	FB	S	M	T	W	TH	F	S	Total Hours Worked	Hourly Rate Paid	Gross Amount Earned	FICA	FED WIR TAX	ESD	UNION DUES	OTHER (EXPLAIN) Dental or Medical Insurance	Total DEDUCTIONS	Net Amount Paid	Check No.		
Joe H. Worker; SSN: 555-55-5555 316 Timber Lake Road Anchorage, AK 99515		S0301	N/A						0.50	1.00					1.50	42.15	63.23										
		Classification:								8.00	8.00	8.00	8.00	0.00	32.00	28.10	899.20										
		Truck License #							6.50	8.00	8.00	8.00	0.00	41.5	12.75	427.13		106.29	259.21					385.50	1024.06	#678	
		Classification Code:																									11/04/04
		Classification:																									
		Certificate #																									
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"CONFIDENTIAL"

# State of Alaska Certified Payroll Form, 07-0658, page 2

## STATEMENT OF COMPLIANCE

**SSN MUST be listed for each employee on payroll**

## CERTIFIED PAYROLL FORM 07-6058

Contractors & Subcontractors Please Note!!!

8 AAC 30.020 CERTIFIED PAYROLL. (a) All Contractors (including owner/operators) who perform work on a public construction contract for the state or political subdivision of the state shall file with the Department a certified payroll (Form 07-6058) before Friday of each week that covers the preceding week.

(b) The certified payroll shall be submitted to the Department's regional office in which the work is performed.

Region I,  
North of N63°

Labor Standards & Safety Div. DOLWD  
675 7th Ave., Station J-1  
Fairbanks, AK 99701-4593  
(907) 451-2886 Fax: (907) 451-2885

Region II,  
South of N63°

Labor Standards & Safety Div. DOLWD  
3301 Eagle Street, Suite 301  
Anchorage, AK 99503-4149  
(907) 269-4800 Fax: (907) 269-4915

Region IIA, Southeast Alaska,  
(From Yakutat south)

Labor Standards & Safety, DOLWD  
P. O. Box 21149  
11111 W. 8th Street, Rm. 302  
Juneau, AK 99801  
(907) 465-4842 Fax: (907) 465-3584

In lieu of submitting Form 07-6058, contractors may submit his/her payroll form. **THE FORM MUST CONTAIN SOCIAL SECURITY NUMBERS FOR EACH EMPLOYEE.**

The contractor's payroll record must contain the same information required on this form.

Sec. 35.05.040 requires that all contractors or subcontractors who perform work on a public construction contract for the state or a political subdivision of the state shall, **BEFORE**

**FRIDAY OF EACH WEEK**, file with the Department of Labor and Workforce Development (DOLWD), a sworn affidavit for the previous week, setting out in detail the

number of workers employed, wages paid each week, job classification of each employee, hours worked each day and week, and other information which the DOLWD requires.

**CONTRACTORS WHO DISREGARD THEIR OBLIGATIONS TO THEIR EMPLOYEES, INCLUDING PAYMENT OF THE APPROPRIATE PREVAILING RATES OF PAY, UNCONDITIONAL PAYMENT,**

**AND PAYMENT NOT LESS THAN ONCE A WEEK MAY BE DEBARRED FROM PUBLIC CONSTRUCTION.**

Date: **22-Dec-04**

I, **Jane Doe, President** do hereby state  
(Name of Signatory Party) (Title)

(1) That I pay or supervise the payment of persons employed by

**Alaska Strong Steel, Inc.** on the

(Contractor / Subcontractor)

**Gold Creek Bridge Project**; that during the payroll

(Building or Work)

period commencing on **12-Dec-04**, and ending on

(date)

**18-Dec-04**, all persons employed on said project have

(date)

been paid full weekly wages earned, that no rebates have

been or will be made either directly or indirectly to or on behalf of

said

**Alaska Strong Steel, Inc.**

(Contractor / Subcontractor)

from the full weekly wages earned by an person, and that no deductions have been made either directly or indirectly from the full wages earned by any person, other than permissible deductions, on projects covered by Alaska Statute 36 as defined in regulations issued by the Commissioner of Labor; or on Federal Projects as defined in Regulations, Part 3 (29 CFR Subtitle A), issued by the Secretary of Labor under the Copeland Act, as amended (48 Stat. 948; 63 Stat. 108; 72 Stat. 967; 76 Stat. 357; 40 USC 276 (c), and described below.

- (c) Each laborer, mechanic or field surveyor listed on this payroll has been paid, as indicated on the payroll, an amount not less than the sum of the applicable basic hourly wage rate plus the amount of the required fringe benefits as currently published by DOLWD, except as noted in Section 6(d)
- (d) Exceptions:

Exception (Craft)	Explanation
Remarks:	

The willful falsification of any of the above information may subject the contractor or subcontractor to civil or criminal prosecution. See Section 1001 of Title 18 and Section 231 of the United States Code. Also see AS 36.05.060.

*Jane Doe*

Signature (original signature required)

**Jane Doe, President**

Name & Title (print or type)



**SECTION D**

**FORMS**

## CONTRACTOR RESPONSIBILITY QUESTIONNAIRE

### PART I - INSTRUCTIONS

1. All Bidders/Proposers submitting a Bid/Proposal for federally funded contracts are to complete and submit all Parts of this Questionnaire with their Bid or Proposal. Failure to complete and return this questionnaire, any false statements, or failure to answer question when required, may render the bid/proposal non-responsive. All responses must be typewritten or printed in ink. All information must be legible.
2. Please state "not applicable" in questions clearly not applicable to Bidder/Proposer in connection with this solicitation. Do not omit any question.
3. The completed Questionnaire must be sworn to by a partner (if partnership), a duly authorized officer or individual (if a corporation or LLC), or a principal (if a sole proprietorship).
4. The term "Proposer" includes the term "Bidder" and also refers to the firm awarded the Contract. The term "Proposal" includes the term "Bid".
5. ARRC reserves the right to inquire further with respect to Proposer's responses; and Proposer consents to such further inquiry and agrees to furnish all relevant documents and information as requested by ARRC. Any response to this document prior or subsequent to Proposer's Proposal which is or may be construed as unfavorable to Proposer will not necessarily automatically result in a negative finding on the question of Proposer's responsibility or a decision to terminate the contract if it is awarded to Proposer.

### PART II - IDENTITY OF PROPOSER

1. Proposer's Full Legal Name: \_\_\_\_\_
2. The Proposer represents that it operates as the following form of legal entity:  
(Check whichever applies and fill in any appropriate blanks.)
  - an individual or sole proprietorship
  - a general partnership
  - a limited partnership
  - a joint venture consisting of: \_\_\_\_\_ and \_\_\_\_\_  
(List all joint ventures on a separate sheet if this space is inadequate.)
  - a non-profit organization
  - a corporation organized or incorporated under the laws of the following state or country: \_\_\_\_\_ on the following date: \_\_\_\_\_
  - a limited liability company organized under the laws of the following state or country: \_\_\_\_\_ on the following date: \_\_\_\_\_
3. Proposer's federal taxpayer identification number: \_\_\_\_\_

4. Proposer's Alaska business license number: \_\_\_\_\_

5. Proposer's contractor's license number (for construction only): \_\_\_\_\_

6. Proposer's legal address: \_\_\_\_\_

Telephone Number: (\_\_\_\_) \_\_\_\_\_ Fax Number: (\_\_\_\_) \_\_\_\_\_

7. Proposer's local or authorized point of contract address:

Name: \_\_\_\_\_ Title: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone Number: (\_\_\_\_) \_\_\_\_\_ EMAIL: \_\_\_\_\_

8. How long has the Proposer been in business? \_\_\_\_\_

9. Has Proposer been in business under another name? If so, identify name and dates used.

\_\_\_\_\_  
\_\_\_\_\_

10. Does your firm consider itself to be an MBE, WBE or DBE?

YES  NO

If answer is "YES," attach a copy of certification.

11. Number of employees: \_\_\_\_\_ including \_\_\_\_\_ employees in the State of Alaska.

### PART III-CONTRACTING HISTORY

1. Has the Proposer been awarded any contracts within the last five years by ARRC, the State of Alaska, or any other public entity for the same or reasonably similar goods or services sought by this solicitation? If none, answer "No". If yes, on a separate sheet of paper describe those contracts beginning with the most recent. State the name of the contracting entity; give a brief description of the contract and the contract number, the dollar amount at award and at completion, date completed; state the contract period, the status of the contract, and the name, address, and telephone number of a contact person at the agency. Indicate if award was made to Proposer as prime contractor or joint venture.

Proposer need not provide more than three such descriptions.

YES  NO

2. Has the Proposer been awarded any private sector contracts within the last five years for the same or reasonably similar goods or services sought by this solicitation? If none, answer "No." If yes, on a separate sheet of paper provide the name and address of the contracting entity, a brief description of work, the dollar amount at award and at completion, date completed, status of the contract and name, address and telephone number of contact person as to each, beginning with the most recent. Indicate if Proposer acted as prime contractor or joint venture. Proposers need not provide more than three such descriptions.
- YES  NO

**NOTE: ANY "YES" ANSWERS TO #3 BELOW MUST BE FULLY EXPLAINED ON A SEPARATE SHEET OF PAPER AND ATTACHED TO THIS QUESTIONNAIRE.**

3. In the past five years has the Proposer been the subject of any of the following actions?
- A. Been suspended, debarred, disqualified, or otherwise declared ineligible to bid?  
YES  NO
- B. Failed to complete a contract for a public or private entity?  
YES  NO
- C. Been denied a low-bid contract in spite of being the low bidder?  
YES  NO
- D. Had a contract terminated for any reason, including default?  
YES  NO
- E. Had liquidated damages assessed against it during or after completion of a contract?  
YES  NO
- F. Been a defaulter, as principal, surety or otherwise?  
YES  NO
- G. Been denied an award of a public contract based upon a finding by a public agency that your company was not a responsible contractor?  
YES  NO
- H. A public entity requested or required enforcement of any of its rights under a surety agreement on the basis of your company's default or in lieu of declaring your company in default?  
YES  NO
- I. Been denied a performance or payment bond by a surety company?  
YES  NO

J. Been required to pay back wages and/or penalties for failure to comply with state or federal prevailing wage or overtime laws?

YES  NO

4. Does Proposer currently possess the financial, organizational, technical, equipment, facilities, and other resources necessary to supply the goods or services sought by this solicitation? If no, on a separate sheet of paper describe how you intend to obtain the resources necessary to supply the goods or services sought by this solicitation.

YES  NO

5. Does Proposer have any present or anticipated commitments and/or contractual obligations that might impact its ability to meet the required delivery or performance requirements of this solicitation? If yes, on a separate sheet of paper describe any apparent conflicts as between the requirements/commitments for this solicitation with respect to the use of Proposer's resources, such as management, technical expertise, financing, facilities, equipment, etc.

YES  NO

#### PART IV-CIVIL ACTIONS

**If "Yes" to Parts IV or V, provide details on a separate sheet of paper including a brief summary of cause(s) of action; indicate if Proposer, its principals, officers or partners were plaintiffs or defendants; define charges explicitly, by what authority, court or jurisdiction, etc. In the case of tax liens, please indicate whether the liens were resolved with the tax authorities. Please submit proof of payment or agreements to pay the liens. Complete details are required!**

1. Violations Of Civil Law. In the past five years has Proposer, any of its principals, officers or partners been the subject of an investigation of any alleged violation of a civil antitrust law, or other federal, state or local civil law?

YES  NO

2. Lawsuits With Public Agencies. At the present time is, or during the past five years has Proposer, any of its principals, officers or partners been a plaintiff or defendant in any lawsuit or arbitration regarding services or goods provided to a public agency?

YES  NO

3. Bankruptcy. During the past five years, has the Proposer filed for bankruptcy or reorganization under the bankruptcy laws?

YES  NO

4. Judgments, Liens And Claims. During the past five years, has the Proposer been the subject of a judgment, lien or claim of \$25,000 or more by a subcontractor or supplier?

YES  NO

5. Tax Liens. During the past five years, has the Proposer been the subject of a tax lien by federal, state or any other tax authority?

YES  NO

PART V-COMPLIANCE WITH LAWS AND OTHER REGULATIONS

1. Criminal: In the past five years has the Proposer, any of its principals, officers, or partners been convicted or currently charged with any of the following:

A. Fraud in connection with obtaining, attempting to obtain, or performing a public contract, agreement or transaction?

YES  NO

B. Federal or state antitrust statutes, including price fixing collusion and bid rigging?

YES  NO

C. Embezzlement, theft, forgery, bribery, making false statements, submitting false information, receiving stolen property, or making false claims to any public agency?

YES  NO

D. Misrepresenting minority or disadvantaged business entity status with regard to itself or one of its subcontractors?

YES  NO

E. Non-compliance with the prevailing wage requirements of the State of Alaska or similar laws of any other state?

YES  NO

F. Violation of any law, regulation or agreement relating to a conflict of interest with respect to a government funded procurement?

YES  NO

G. Falsification, concealment, withholding and/or destruction of records relating to a public agreement or transaction?

YES  NO

H. Violation of a statutory or regulatory provision or requirement applicable to a public or private agreement or transaction?

YES  NO

I. Do any principals, officers or partners in Proposer's company have any felony charges pending against them that were filed either before, during, or after their employment with the Proposer?

YES  NO

2. Regulatory Compliance. In the past five years, has Proposer or any of its principals, officers or partners:

A. Been cited for a violation of any labor law or regulation, including, but not limited to, child labor violations, failure to pay correct wages, failure to pay into a trust account, failure to remit or pay withheld taxes to tax authorities or unemployment insurance tax delinquencies?

YES  NO

B. Been cited and assessed penalties for an OSHA or Alaska/OSHA “serious violation”?

YES  NO

C. Been cited for a violation of federal, state or local environmental laws or regulations?

YES  NO

D. Failed to comply with Alaska corporate registration, federal, state or local licensing requirements?

YES  NO

E. Had its corporate status, business entity’s license or any professional certification, suspended, revoked, or had otherwise been prohibited from doing business in the State of Alaska?

YES  NO

## **PART VI-FINANCIAL**

**Copies of the following documents are to be submitted with this Questionnaire:**

1. Proposer’s current Alaska Business License, if required by state law.
2. Proposer’s Financial Statements may be requested:

A. PUBLICLY TRADED COMPANIES: Financial information will be accessed on-line. However, if additional information is needed, it will be specifically requested from the Proposer.

B. NON-PUBLICLY TRADED COMPANIES WITH AUDITED OR REVIEWED FINANCIAL STATEMENTS: Statements, including balance sheet, statement of earnings and retained income, with footnotes, for the most recent three years **may be requested.**

**NOTE: ARRC reserves the right to ask for additional documentation if it is reasonably required to make a determination of integrity and responsibility relevant to the goods or services the Proposer will provide to ARRC if awarded a contract. All financial information provided is considered confidential and not subject to public disclosure under Alaska law.**

**NOTICE TO PROPOSERS**

**A material false statement, omission or fraudulent inducement made in connection with this Questionnaire is sufficient cause for denial of a contract award or revocation of a prior contract award, thereby precluding the Proposer from doing business with, or performing work for ARRC, either as a vendor, prime contractor, subcontractor, consultant or subconsultant for a period of five years. In addition, such false submission may subject the person and/or entity making the false statement to criminal charges under applicable state and/or federal law.**

**PART VII -VERIFICATION AND ACKNOWLEDGMENT**

The undersigned recognizes that the information submitted in the questionnaire herein is for the express purpose of inducing ARRC to award a contract, or to allow Proposer to participate in ARRC projects as contractor, subcontractor, vendor, supplier, or consultant. The undersigned has read and understands the instructions for completing this Questionnaire.

STATE OF \_\_\_\_\_

COUNTY OF \_\_\_\_\_

I, (printed name) \_\_\_\_\_, being first duly sworn, state that I am the (title) \_\_\_\_\_ of Proposer. I certify that I have read and understood the questions contained in the attached Questionnaire, and that to the best of my knowledge and belief all information contained herein and submitted concurrently or in supplemental documents with this Questionnaire is complete, current, and true. I further acknowledge that any false, deceptive or fraudulent statements on the Questionnaire will result in denial or termination of a contract.

I authorize ARRC to contact any entity named herein, or any other internal or outside resource, for the purpose of verifying information provided in the Questionnaire or to develop other information deemed relevant by ARRC.

\_\_\_\_\_  
Signature of Certifying Individual

\_\_\_\_\_  
Date

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_

\_\_\_\_\_  
Signature of Notary

Notary Public in and for the State of \_\_\_\_\_

My Commission Expires: \_\_\_\_\_



**ALASKA RAILROAD CORPORATION CONSTRUCTION BID FORM**  
Of:

**NAME** \_\_\_\_\_

**ADDRESS** \_\_\_\_\_

\_\_\_\_\_

**To the CONTRACTING OFFICER, ALASKA RAILROAD CORPORATION:**

In compliance with your Invitation for Bids No. \_\_\_\_\_, dated \_\_\_\_\_, the Undersigned proposes to furnish and deliver all the materials and do all the work and labor required in the construction of \_\_\_\_\_ Located at or near \_\_\_\_\_, according to the plans and specifications and for the amount and prices named herein as indicated on the Cost Schedule, which is made a part of this Bid.

The Undersigned declares that he/she has carefully examined the contract requirements and that he/she has made a personal examination of the site of the work; that he/she understands that the quantities, where such are specified in the Cost Schedule or on the plans for this Project, are approximate only and subject to increase or decrease, and that he/she is willing to perform increased or decreased quantities of work at unit prices bid under the conditions set forth in the Contract Documents.

The Undersigned hereby agrees to execute the said contract and bonds within **Ten (10) Calendar Days**, or such further time as may be allowed in writing by the Contracting Officer, after receiving notification of the acceptance of this Bid, and it is hereby mutually understood and agreed that in case the Undersigned does not, the accompanying bid guarantee shall be forfeited to the Alaska Railroad Corporation as liquidated damages, and said Contracting Officer may proceed to award the contract to others.

The Undersigned agrees to commence the work within **Ten (10) Calendar Days** after the effective date of the Notice to Proceed and to complete the work by \_\_\_\_\_, unless extended in writing by the Contracting Officer.

The Undersigned proposes to furnish a Payment Bond in the amount of One Hundred Percent (100%) and a Performance Bond in the amount of One Hundred Percent (100%) (of the contract), as surety conditioned for the full, complete and faithful performance of this contract. The Undersigned acknowledges receipt of the following addenda to the drawings and/or specifications (give number and date of each).

**Addenda No. Date Issued    Addenda No. Date Issued    Addenda No. Date Issued**

\_\_\_\_\_  
\_\_\_\_\_

**NON-COLLUSION AFFIDAVIT**

The Undersigned declares, under penalty of perjury under the laws of the United States, that neither he/she nor the firm, association, or corporation of which he/she is a member, has, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with this Bid.

The Undersigned has read the foregoing proposal and hereby agrees to the conditions stated therein by affixing his/her signature below:

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Name and Title of Person Signing

\_\_\_\_\_  
Telephone Number

\_\_\_\_\_  
E-Mail Address

Form 395-0121 (12/99)

## ALASKA RAILROAD CORPORATION – BID BOND

<b>ITB #</b>			<b>DATE BOND EXECUTED</b>	
<b>PRINCIPAL (Legal name and business address)</b>			<b>TYPE OF ORGANIZATION</b>	
			<input type="checkbox"/> INDIVIDUAL <input type="checkbox"/> PARTNERSHIP <input type="checkbox"/> JOINT VENTURE <input type="checkbox"/> CORPORATION	
			9 STATE OF INCORPORATION	
<b>SURETY(IES) (Name and business address)</b>				
<b>A.</b>	<b>B.</b>	<b>C.</b>		
<b>PENAL SUM OF BOND</b>			<b>DATE OF BID</b>	
<p>We, the <b>PRINCIPAL</b> and <b>SURETY</b> above named, are held and firmly bound to the Alaska Railroad Corporation (ARRC), in the penal sum of the amount stated above, for the payment of which sum will be made, we bind ourselves and our legal representatives and successors, jointly and severally, by this instrument.</p> <p><b>THE CONDITION OF THE FOREGOING OBLIGATION</b> is that the Principal has submitted the accompanying bid or proposal in writing, date as shown above, on the following project: _____, in accordance with contract documents filed in the office of the Contracting Officer, and under the Invitation for Bids therefore, and is required to furnish a bond in the amount stated above.</p> <p>If the Principal's bid is accepted and he/she is offered the proposed contract for award, and if Principal fails to enter into the contract, then the obligation to ARRC created by this bond shall be in full force and effect.</p> <p>If the Principal enters into the contract, then the foregoing obligation is null and void.</p>				
<b>PRINCIPAL</b>				
Signature(s)	1.	2.	3.	Corporate Seal
Name(s) & Titles [Typed]	1.	2.	3.	

<b>CORPORATE SURETY(IES)</b>				
<b>S U R E T Y  A</b>	Name of Corporation		State of Incorporation	Liability Limit \$
	Signature(s)	1.	2.	Corporate Seal
	Name(s) & Titles [Typed]	1.	2.	

CORPORATE SURETY(IES)				
S U R E T Y  B	Name of Corporation		State of Incorporation	Liability Limit \$
	Signature(s)	1.	2.	Corporate Seal
	Name(s) & Titles [Typed]	1.	2.	

CORPORATE SURETY(IES)				
S U R E T Y  C	Name of Corporation		State of Incorporation	Liability Limit \$
	Signature(s)	1.	2.	Corporate Seal
	Name(s) & Titles [Typed]	1.	2.	

**INSTRUCTIONS**

1. This form shall be used whenever a bid bond is submitted.
2. Insert the full legal name and business address of the Principal in the space designated. If the Principal is a partnership or joint venture, the names of all principal parties must be included (e.g., "Smith Construction, Inc. and Jones Contracting, Inc. dba Smith/Jones Builders, a Joint Venture"). If the Principal is a corporation, the name of the state in which incorporated shall be inserted in the space provided.
3. Insert the full legal name and business address of the Surety in the space designated. The Surety on the bond may be any corporation or partnership authorized to do business in Alaska as an insurer under AS 21.09. Individual sureties will not be accepted.
4. The penal amount of the bond may be shown either as an amount (in words and figures) or as a percent of the contract bid price (a not-to-exceed amount may be included).
5. The scheduled bid opening date shall be entered in the space marked Date of Bid.
6. The bond shall be executed by authorized representatives of the Principal and Surety. Corporations executing the bond shall also affix their corporate seal.
7. Any person signing in a representative capacity (e.g., an attorney-in-fact) must furnish evidence of authority if that representative is not a member of the firm, partnership, or joint venture, or an officer of the corporation involved.
8. The states of incorporation and the limits of liability of each surety shall be indicated in the spaces provided.
9. The date that bond is executed must not be later than the bid opening date.

**ALASKA RAILROAD CORPORATION**  
SAMPLE CONSTRUCTION CONTRACT

**Contract Number:** \_\_\_\_\_

This CONTRACT, between the ALASKA RAILROAD CORPORATION, herein called ARRC, acting by and through its Contracting Officer, and \_\_\_\_\_.

A Corporation, incorporated under the laws of the State of Alaska, its successors and assigns, hereinafter called the Contractor, is effective the date of the signature of the Contracting Officer on this document.

**Billing Information:** Invoices shall be submitted to Accounts Payable, Alaska Railroad Corporation, PO Box 107500, Anchorage, AK 99510-7500. Please reference your contract number on all invoices and correspondence.

**WITNESSETH:** That the Contractor, for and in consideration of the payment or payments herein specified and agreed to by ARRC, hereby covenants and agrees to furnish and deliver all the materials and to do and perform all the work and labor required in the construction of the following project: **ITB** \_\_\_\_\_  
\_\_\_\_\_ at the prices bid by the Contractor for the respective estimated quantities aggregating approximately the sum of: **Bid amount** \_\_\_\_\_ **dollars and /cents (\$\_\_\_\_\_ .00)** for the Base Bid and such other items as are mentioned in the original Bid, which Bid and prices named, together with the Contract Documents (Invitation to Bid, Addenda & Contract) and Contractors Bid are made a part of this Contract and accepted as such, the project being situated between the Alaska Railroad stations of Potter and Girdwood, Alaska.

It is distinctly understood and agreed that no claim for additional work or materials, done or furnished by the Contractor and not specifically herein provided for shall be allowed by ARRC, nor shall the Contractor do any work or furnish any material not covered by this Contract, unless such work is ordered in writing by ARRC. In no event shall ARRC be liable for any materials furnished or used, or for any work or labor done, unless the materials, work, or labor are required by the Contract or on written order furnished by ARRC. Any such work or materials which may be done or furnished by the Contractor without written order first being given shall be at the Contractor's own risk, cost, and expense and the Contractor hereby covenants and agrees to make no claim for compensation for work or materials done or furnished without any such written order.

The Contractor further covenants and agrees that all materials shall be furnished and delivered and all labor, equipment, shall be done and performed, in every respect, to the satisfaction of ARRC by \_\_\_\_\_.

It is expressly understood and agreed that in case of the failure on the part of the Contractor, for any

reason, except with the written consent of ARRC, to complete the furnishing and delivery of materials and the doing and performance of the work before the aforesaid date, ARRC shall have the right to deduct from any money due or which may become due the Contractor, or if no money shall be due, ARRC shall have the right to recover liquidated damages as spelled out in General Conditions, Construction. The bonds given by the Contractor in the sum of: **100% of Bid Amount \$\_\_\_\_\_ Payment Bond, and 100% of Bid Amount \$\_\_\_\_\_ Performance Bond**, to secure the proper compliance with the terms and provisions of this Contract, are submitted herewith and made a part hereof.

**IN WITNESS WHEREOF**, the parties hereto have executed this Contract and hereby agree to its terms and conditions.

---

**CONTRACTOR**

\_\_\_\_\_  
Name of Contractor

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Name and Title

**(Corporate Seal)**

---

**ALASKA RAILROAD CORPORATION**

\_\_\_\_\_  
Contracting Officer (Signature)

\_\_\_\_\_  
Date

\_\_\_\_\_  
Typed or Print Name

**ALASKA RAILROAD CORPORATION**

**SUBCONTRACTOR LIST**  
[First Tier Subcontractors Only]

The apparent low bidder shall complete this form and submit it so as to be received by the Contracting Officer prior to the close of business on the **Fifth (5<sup>th</sup>) Working Day** after receipt of written notice from the Alaska Railroad Corporation.

Failure to submit this form with all required information by the due date will result in the bidder being declared non-responsive and may result in the forfeiture of the Bid Security.

Scope of work must be clearly defined. If an item of work is to be performed by more than one (1) firm, indicate the portion or percent of work to be done by each.

Check as applicable:  All work on the below-referenced project will be accomplished without subcontracts greater than 1/2 of 1% of the contract amount.

Or

Subcontractor List is as follows:

<b>FIRM NAME, ADDRESS, TELEPHONE NUMBER</b>	<b>BUSINESS LICENSE NUMBER AND CONTRACTOR'S REGISTRATION NUMBER</b>	<b>SCOPE OF WORK TO BE PERFORMED</b>	<b>TOTAL DOLLAR AMOUNT OF WORK</b>

[CONTINUE SUBCONTRACTOR INFORMATION BELOW]

**I hereby certify that the above-listed licenses and registrations were valid at the time bids were received for this project. For contracts involving Federal-aid funding, Alaska Business License and Contractor Registration will be required prior to award of a subcontract.**

\_\_\_\_\_  
COMPANY NAME

\_\_\_\_\_  
SIGNATURE BY AND FOR THE BIDDER

\_\_\_\_\_  
COMPANY ADDRESS

\_\_\_\_\_  
PRINTED NAME OF BIDDER

\_\_\_\_\_  
COMPANY ADDRESS

\_\_\_\_\_  
DATE OF BID

\_\_\_\_\_  
CONTACT PHONE NUMBER

\_\_\_\_\_  
CONTACT E-MAIL NUMBER





**ALASKA RAILROAD CORPORATION - PAYMENT BOND**

**KNOW ALL PERSONS BY THESE PRESENTS:**

That \_\_\_\_\_  
of: \_\_\_\_\_ as Principal,  
and \_\_\_\_\_  
of: \_\_\_\_\_ as Surety,  
firmly bound and held unto the Alaska Railroad Corporation in the penal sum of \_\_\_\_\_ Dollars (\$ \_\_\_\_\_),  
good and lawful money of the United States of America for the payment whereof, well and truly to be paid  
to the Alaska Railroad Corporation, we bind ourselves, our heirs, successors, executors, administrators,  
and assigns, jointly and severally, firmly by these presents.

**WHEREAS**, the said Principal has entered into a written contract with said Alaska Railroad Corporation,  
on the \_\_\_\_\_ of \_\_\_\_\_, 20\_\_\_\_\_,  
for \_\_\_\_\_, said work to be done  
according to the terms of said contract. **ARRC Project: ITB** \_\_\_\_\_

**NOW, THEREFORE**, the conditions of the foregoing obligation is such that if the said Principal shall  
comply with all requirements of law and pay, as they become due, all just claims for labor performed and  
materials and supplies furnished upon or for the work under said contract, whether said labor be  
performed and said materials and supplies be furnished under the original contract, any subcontract, or  
any and all duly authorized modifications thereto, then these presents shall become null and void;  
otherwise they shall remain in full force and effect.

**IN WITNESS WHEREOF**, We have hereunto set our hands and seals this \_\_\_\_\_ day of \_\_\_\_\_,  
20\_\_\_\_\_.

Principal: \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone Number: \_\_\_\_\_  
Contact Name: \_\_\_\_\_

By: \_\_\_\_\_  
By: \_\_\_\_\_

Surety: \_\_\_\_\_  
Address: \_\_\_\_\_  
Contact Name: \_\_\_\_\_

By: \_\_\_\_\_  
By: \_\_\_\_\_

The offered bond has been checked for adequacy under the applicable statutes and regulations:

\_\_\_\_\_  
Alaska Railroad Corporation [Authorized Representative]

\_\_\_\_\_  
Date

(Instructions on Next Page)

## **INSTRUCTIONS**

1. This form, for the protection of persons supplying labor and material, shall be used whenever a payment bond is required. There shall be no deviation from this form without approval from the Contracting Officer.
2. The full legal name, business address, telephone number, and point of contact of the Principal and Surety shall be inserted on the face of the form. Where more than a single surety is involved, a separate form shall be executed for each surety.
3. The penal amount of the bond, or in the case of more than one surety the amount of obligation, shall be entered in words and in figures.
4. The bond shall be signed by authorized persons. Where such persons are signing in a representative capacity (e.g., an attorney-in-fact), but is not a member of the firm, partnership, or joint venture, or an officer of the corporation involved, evidence of authority must be furnished.

# ALASKA RAILROAD CORPORATION – PERFORMANCE BOND

## KNOW ALL PERSONS BY THESE PRESENTS:

That \_\_\_\_\_  
of: \_\_\_\_\_ as Principal,  
and \_\_\_\_\_  
of: \_\_\_\_\_ as Surety,  
firmly bound and held unto the Alaska Railroad Corporation in the penal sum of \_\_\_\_\_ Dollars (\$ \_\_\_\_\_),  
good and lawful money of the United States of America for the payment whereof, well and truly to be paid  
to the Alaska Railroad Corporation, we bind ourselves, our heirs, successors, executors, administrators,  
and assigns, jointly and severally, firmly by these presents.

**WHEREAS**, the said Principal has entered into a written contract with said Alaska Railroad Corporation,  
on the \_\_\_\_\_ of \_\_\_\_\_, 20\_\_\_\_\_,  
for \_\_\_\_\_,  
said work to be done according to the terms of said contract. **ARRC Project: ITB** \_\_\_\_\_

**NOW, THEREFORE**, the conditions of the foregoing obligation is such that if the said Principal shall well  
and truly perform and complete all obligations and work under said contract and if the Principal shall  
reimburse upon demand of the Alaska Railroad Corporation any sums paid him/her which exceed the  
final payment determined to be due upon completion of the project, then these presents shall become null  
and void; otherwise they shall remain in full force and effect.

**IN WITNESS WHEREOF**, We have hereunto set our hands and seals this \_\_\_\_\_ day of \_\_\_\_\_,  
20\_\_\_\_\_.

Principal: \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone Number: \_\_\_\_\_  
Contact Name: \_\_\_\_\_

By: \_\_\_\_\_

By: \_\_\_\_\_

Surety: \_\_\_\_\_

Address: \_\_\_\_\_

Contact Name: \_\_\_\_\_

By: \_\_\_\_\_

By: \_\_\_\_\_

The offered bond has been checked for adequacy under the applicable statutes and regulations:

\_\_\_\_\_  
Alaska Railroad Corporation

\_\_\_\_\_  
[Authorized Representative]      Date

## **INSTRUCTIONS**

1. This form shall be used whenever a performance bond is required. There shall be no deviation from this form without approval from the Contracting Officer.
2. The full legal name, business address, telephone number, and point of contact of the Principal and Surety shall be inserted on the face of the form. Where more than a single surety is involved, a separate form shall be executed for each surety.
3. The penal amount of the bond, or in the case of more than one surety the amount of obligation, shall be entered in words and in figures.
4. The bond shall be signed by authorized persons. Where such persons are signing in a representative capacity (e.g., an attorney-in-fact), but is not a member of the firm, partnership, or joint venture, or an officer of the corporation involved, evidence of authority must be furnished.

**SECTION E**

**GENERAL CONDITIONS**  
**(CONSTRUCTION)**  
**(Revised 01/08/16)**

[https://www.alaskarailroad.com/sites/default/files/procurement/General\\_Conditions\\_for\\_Construction\\_Rev\\_May\\_3\\_2022-use\\_with\\_Supplimentary\\_Conditions.pdf](https://www.alaskarailroad.com/sites/default/files/procurement/General_Conditions_for_Construction_Rev_May_3_2022-use_with_Supplimentary_Conditions.pdf)

## SECTION F

### SUPPLEMENTAL CONDITIONS

#### SC-01 Safety

1. Roadway Worker Protection: Safety is of the utmost importance for the Alaska Railroad Corporation (ARRC); refer to ARRC General Conditions Section 6.17-Work Safety on Railroad Property. Note that a Railroad Safety Plan will be required. Contractor's project supervisors, foremen, and vehicle operators will be required to complete an ARRC safety presentation. All Contractor employees expected to be working on or near the track are encouraged to complete an RWP course. An approved on-line version of this course is offered at [www.contractororientation.com](http://www.contractororientation.com).
2. Personal Protective Equipment (PPE): All Contractor employees working on ARRC property in a field environment are required to wear hard hats, safety glasses, safety boots and other protection as necessary per State and Federal regulations. PPE shall meet applicable American National Standards Institute (ANSI), and American Society for Testing and Materials (ASTM), standards.
3. Passing Trains: Equipment working within 20 feet of the nearest rail, or performing any work at any distance from the rail that may inadvertently foul the track, must stop all operations when a train is approaching or as otherwise directed by the flagman. Ground personnel must move to a safe distance away from the track. All personnel must be aware of loose cargo, straps and banding that may pose a danger while working near the track. At no time shall any work occur within 20 feet of the tracks without an ARRC flagman present at the work site.
4. Injury Reporting: Any personal injury sustained by the Contractor's employees or subcontractors while on ARRC property must be immediately reported to the Owner's Representative. The injury report form provided by ARRC is to be completed and sent by fax to the address indicated on the form no later than the close of shift on the date of the injury.

#### SC-02 Contract Time

1. Notice to Proceed: It is anticipated that the awarded Contractor will receive the Notice to Proceed (NTP) within Seven days of the bid opening.
2. Substantial Completion: Substantial Completion shall be on or before **June 30, 2024**, unless accepted and agreed upon otherwise by the Owner. This completion scope includes all work items contained within the contract documents, properly completed, approved by the Owner and fully serviceable for the intended use.
3. Final Completion: Final Completion of all work shall be on or before **July 14, 2024**.

### **SC-03 Construction Scheduling**

1. All work is to be scheduled in coordination with the Owner's Representative and other ARRC onsite work. Flexibility and accommodation is key as each location should be impacted for a minimal amount of time.

### **SC-04 Unit Price Bid**

1. The project is to be bid by the unit price for all labor, supervision, materials, equipment, transportation, disposal, administration and all other incidentals necessary to undertake and complete the work in accordance with the Contract Documents. Progress payments will be based upon the percent completion of the itemized costs included in the Contractor's Schedule of Values. The percent completion must be accepted and approved by the Owner's Representative. No measurement or payment will be made for wasted materials, for work done for the convenience of the Contractor, or for work that is not in accordance with the Contract Documents. Payment will constitute full compensation for performing all work included within the Contract Documents and for all risk, loss, damage and expense arising out of the nature or prosecution of the work, subject to General Conditions 13.18.

### **SC-05 Minimum Work to be performed by Contractor**

1. The Contractor shall perform with their own organization not less than 51% of the original contract base amount.

### **SC-06 Construction Requirements**

1. General Requirements:
  - a. All construction, reconstruction, operation and maintenance on Railroad property shall be performed in compliance with these specifications. For the purposes of this contract, the project limits within the existing or new rights-of-way shall be considered Railroad property.
  - b. Whenever in the opinion of the Owner's Representative, the construction may cause a hazard to the safe operation of the Railroad; they may place at the site of the work the required number of qualified employees to protect the Railroad's operations. The providing of such employees and such other precautions as may be taken shall not relieve the Contractor, nor subcontractors from liability for the payment of damages caused by their operations. ARRC shall be the sole judge of the necessity for, and as to the number and classification of employees required. All ARRC cost and expense for providing such additional employees shall be collected from the Contractor, except for flagging which shall be paid for as described in the ARRC General Conditions 6.17.
  - c. No substances shall be discharged onto ARRC property. Should a discharge occur, it must be reported by the quickest means possible to the Owner's Representative. All spills and discharges must be reported to ARRC Environmental Operations, Matt Kelzenberg (748-2470) or Eric White (748-2196). If unable to contact Environmental Operations, the Contractor must notify the Chief Dispatcher at 265-2421.
2. Protection of Railroad Traffic and Property
  - a. The Contractor shall make provisions satisfactory to the Owner's Representative against disturbing, in any manner, the embankment, structures and tracks during construction. If the work to be performed by the Contractor shall, as determined by the Owner's Representative, weaken or undermine the Railroad's embankment, structures or tracks, then said work shall be stopped, upon notice to do so. Should any damage occur to ARRC property as a result of the Contractor's unauthorized or negligent operations, the Owner may repair such damages and/or perform any work for protection of its property it may deem necessary and the actual cost thereof shall be borne by the Contractor.
  - b. The Contractor shall follow Federal, State and local governmental guidelines and

- suggestions for notification and location of utility locations before proceeding with work.
- c. The Contractor shall, before entering onto the property of the ARRC or project limits for the performance of any construction work or work preparatory thereto, secure permission from the Owner's Representative for the occupancy and use of the ARRC property and shall confer with the Owner's Representative relative to the requirements for Railroad clearances, operation, Contractor's temporary construction crossing and general safety regulations.
  - d. The Contractor shall, upon the completion of the work, remove from the property of the ARRC, all machinery, equipment, surplus materials, false work, rubbish and temporary buildings made necessary by the contract operations, and to leave said property in a neat condition satisfactory to the Owner's Representative.

### 3. Personal Injury Reporting

- a. ARRC is required to report certain injuries as a part of compliance with Federal reporting requirements.
- b. Any personal injury sustained by a Contractor employee while on ARRC property must be reported immediately (by fax or email if unable to contact in person) to the Owner's Representative in charge of the project. The injury report form provided by the Railroad is to be completed and given to the Owner's Representative, no later than the close of shift on the date of injury.
- c. The Contractor shall submit a one page typed report to Owner's Representative within seventy-two (72) hours of incident. The report shall be a brief narrative describing the details of the incident, root cause as developed during injury investigation and corrective measures recommended to prevent re-occurrences.
- d. Non-Injury Incident Reporting. Any non-injury incident involving a Contractor employee or equipment while on ARRC property must be reported immediately (by fax or email if unable to contact in person) to the Owner's Representative in charge of the project. The incident report form provided by the Railroad is to be completed and given to the Owner's Representative, no later than the close of shift on the date of the incident.

### 4. Delay Damages

- a. Whether or not the Contractor's right to proceed with the Work is terminated, he and his sureties shall be liable for the damages resulting from his refusal or failure to complete the Work within the specified time. Liquidated damages for delay shall be paid by the Contractor or his Surety to the Owner for each Calendar Day past the agreed upon Interim Percentage Completion dates, as well as the for each Calendar Day past the Completion Date. If such amount of liquidated damages is not established by the Contract Documents, then the Contractor and his Surety shall be liable to the Owner for any actual damages occasioned by such delay.

### 5. Clean-up

- a. At the end of each day's work, the job site shall be cleaned up and left in a neat and workman-like condition. Before calling for final inspection the entire premises shall be cleaned up to the satisfaction of the Engineer.

## **SC-07 Rail Operations Coordination**

All work on ARRC Property shall be conducted in such a manner as to prevent delays to trains or other rail traffic operated by ARRC. ARRC will provide a weekly forecast of train traffic and the ARRC flag persons will provide daily updates of anticipated train traffic. Under no circumstances, however, will the ARRC be liable in any way for delays to the Contractor's work created by any changes or deviations from anticipated train schedules.

### 1. Railroad Flagging



Whenever an ARRC flag person is required for performance of the Work, he or she will be provided by the ARRC at no expense to the Contractor. A minimum of ten (10) business days' notice is required for ARRC flag protection. Whenever an ARRC flag person is required for performance of the work, he or she will work for no more than Twelve (12) hours in a Twenty-four (24) hour period.

**SC-08 Contractors Special Instructions for Submitting Certified Payroll**

The Contractor shall submit State of Alaska, DOL Certified Payroll broken down by location. Each location's Certified Payroll will have the same ARRC contract number followed by a dash and a single digit number per the order of locations as stated in the Cost Schedule.

**SC-09 Contacts**

Please direct all responses and/or questions concerning this ITB to C. Lee Thompson, Alaska Railroad Corporation 327 Ship Creek Avenue, Anchorage, AK 99501, telephone number 907-265-2355, cell Number 907-854-3141 or at email address [ThompsonC@gmail.com](mailto:ThompsonC@gmail.com).

ARRC Procurement Officer - C. Lee Thompson: 907-265-2355

ARRC Project Manager - Andrew Reynolds: 907-265-4209

**END OF SUPPLEMENTAL**

## SECTION G

### TECHNICAL SPECIFICATIONS

#### **Section 240, Railroad**

**240-1.01 DESCRIPTION.** The Contractor shall be responsible for all railroad trackwork and construction items associated with this Project within the limits shown on the Plans. All work on ARRC property shall be conducted in strict accordance with the requirements contained herein and Supplementary Condition Section F. Unless otherwise specified, all track materials and work methods shall comply with the applicable standards contained herein.

#### **240-1.02 DEFINITIONS.**

1. ARRC. Alaska Railroad Corporation.
2. AREMA. American Railway Engineering and Maintenance-of-Way Association.
3. W.C.L.I.B. West Coast Lumberman's Inspection Bureau.
4. FRA. Federal Railroad Administration.

#### **240-1.03 REFERENCED STANDARDS.**

1. ARRC Standard Plans.
2. AREMA Manual for Railway Engineering
3. AREMA Portfolio of Trackwork Plans
4. All standards listed in each section of these specifications but referenced thereafter by a basic designation only (e.g., *AREMA*), form a part of the specifications to the extent indicated by the reference. The most recent edition of the standard at the time of advertising shall apply.

**240-1.04 REFERENCED DRAWINGS.** Drawings are incorporated by reference herein and made a part of these specifications.

**240-1.05 STORAGE.** Storage facilities shall be in areas designated by the Owner or Owner's Representative.

**240-1.06 CLEAN-UP.** At the end of each day's Work, the job site shall be cleaned up and left in a neat, safe, secure, and workman-like condition.

Before requesting a final inspection, the entire premises shall be cleaned up to the satisfaction of the Owner.

**240-1.07 SURVEYING.** All surveying work necessary for the performance of this project shall be furnished by the Contractor in accordance with SSHC Section 642.

**240-1.08 OWNERSHIP.** All removed track materials (rails, ties, other track materials) will become the property of the Contractor, except as noted on the Plans or in the Contract Documents. All track materials that become the property of the Contractor shall be removed from the project area and disposed of in a Contractor-furnished waste disposal site in accordance with all federal, local, state, and tribal regulations; removal and disposal shall be before Substantial Completion unless otherwise approved by the Owner.

#### **Section 241, Railroad Ballast**

**241-1.01 DESCRIPTION.** The Contractor shall be responsible for placing, tamping and shaping railroad ballast and surfacing and lining new and existing track and turnouts, in conformance with

the lines, grades and thickness' shown on the Plans.

**241-2.01 MATERIALS.** Prepared ballast shall be crushed shot rock or crushed pit-run rock, size No. 3, composed of hard, strong and durable particles, free from injurious amounts of deleterious substances and conforming to the following requirements:

**Table 1 - Rock Quality Tests**

Property	Test Method	Limits
Bulk Specific Gravity (SSD)	AASHTO T 85	2.65 min.
Absorption	ASTM C 97	2% max
L.A. Abrasion	AASHTO T 96	50% max. loss after 500 revs.
Freeze/Thaw	ASTM D 5312	5% max. loss after 100 cycles
Wet/Dry	ASTM D 5313	1% max. loss
Degradation	ATM 313	40 min.

**Table 2 - ARRC Type 3 Ballast Broad Band Gradation**

Test	Procedure	Standard	Frequency
Sampling Aggregate	ASTM D7 5 & ASTM C 702	As required	1 per 1,000 tons
Sieve Analysis	ATM 304, Method A	See Table 3 Below	1 per 1,000 tons
Flat and/or Elongated Particles	USACE CRD-C119	5.0% max.	1 per 1,000 tons
Clay Lumps & Friable Particles	ASTM C 142	0.5% max.	1 per 1,000 tons
Fractured Particles	ASTM D5821	80% min., two face	1 per 1,000 tons
Bulk Specific Gravity (SSD)	AASHTO T 85	2.65 min.	1 per source
Absorption	ASTM C 97	2% max.	1 per source
Magnesium Sulfate Soundness	ASTM C88 (Five Cycles)	1% max.	1 per source
L.A. Abrasion	AASHTO T 96	50% max. loss after 500 revolutions	1 per source

Sieve Opening	2-1/2"	2"	1-1/2"	1"	1/2"	3/8"	No. 200
Percent (%) Passing	100	95-100	35-70	0-15	0-10	0-3	0-0.3

**Manufacturing, Handling, Delivery, and Stockpiling of Material.** The ballast shall be manufactured, handled, delivered, stockpiled, and placed in such a manner that it is kept clean and free from segregation. Processed ballast shall be washed and/or rescreened as necessary to remove fine particle contamination as defined by the specification prior to stockpiling. Stockpiling of ballast will only be allowed over firm stable base areas. In order to minimize segregation ballast shall be stockpiled in more or less horizontal layers with no dumping over the sides of the stockpile allowed. Travel of construction machinery and other vehicles over the top of the stockpiles shall be kept at a minimum. Contractor will be responsible for the control of dust when hauling to and from stockpile.

## CONSTRUCTION REQUIREMENTS

241-3.01 GENERAL. Ballast dumped on subgrade prior to track or turnout construction shall be kept free from material tracked in by construction equipment. Ballast dumped on skeleton track and turnouts shall be distributed uniformly during the dumping operation to minimize the carrying or regulating required to provide the designed ballast section.

### 241-3.02 BALLAST PLACEMENT.

1. Ballast shall be placed to the lines and grades indicated. The average thickness shall be within one-quarter inch of the thickness shown on the drawings. Ballast shall not be placed on soft, muddy, or frozen areas. Where the prepared subgrade (*roadbed*) is soft, muddy, rutted, exhibits severe depressions, or is otherwise damaged, the ballast shall not be placed until the damaged subgrade has been repaired and the Owner has approved the area.
2. Forming of ruts that would impair proper drainage shall be prevented when distributing ballast from trucks and off track equipment. Any ruts formed greater than one (1) inch shall be leveled and graded to drain.
3. Ballast shall be unloaded as close as possible to the point of use so that unnecessary handling is prevented. Excess ballast shall be picked up and redistributed at the Contractor's expense. Ballast shall be handled in such a manner as to ensure it remains clean of deleterious materials and within specifications.
4. Minimum Ballast Depth: The minimum depth of ballast below the bottom of the tie shall be 12 inches.

### 241-3.03 TRACK TAMPING, SURFACING AND FINAL DRESSING.

1. This work shall consist of shaping, tamping, surfacing and dressing of the ballast section on all new track and runoffs except that which is included in other work items. These work limits are shown on the plans as the anchoring limits.
2. Preliminary Surfacing. The preliminary alignment and surfacing gangs shall follow the unloading of the ballast. Rail and tie installation, spiking, bolt tightening, and ballast placement shall be complete prior to commencement of surfacing and alignment work.
3. Lifts. The track, after being aligned, shall be brought to grade, surfaced in lifts not to exceed four (4) inches each and tamped. When using jacks, they shall be placed close enough together to prevent undue bending of rail or stress of rail and joint. Both rails shall be raised at one time and as uniformly as possible, except where super-elevation is required. The track shall be lifted so that after a period of not less than five (5) train operations after the last lift, it will be necessary to give the track a final lift of between one (1) and two (2) inches to bring it to grade.
4. Raising and tamping of track shall be performed with an automatic, vibratory, squeeze type power tamper with sixteen (16) tamping heads, capable of raising both rails simultaneously and maintaining cross level. The tamper shall be a Jackson 6700 Series, or an Owner-approved equal, truss type tamper with lift, line and surface capability. If the equipment selected by the Contractor differs from a Jackson 6700 Series, the Contractor must submit equipment make, model, and specifications to the Owner for approval and the equipment shall be subject to inspection and acceptance by the Owner. Every tie in the track shall receive two or more full insertions of the tamping heads. Ballast shall be power-tamped under both sides of ties from each end to a point fifteen (15) inches inside each rail for 8 foot-6 inch ties and eighteen (18) inches for 10 foot ties. The center shall be filled with ballast, but tamping shall not be permitted in the center of the tie between the above stated limits. Both ends of the ties shall be tamped simultaneously and tamping inside and outside of the

rail shall be done at the same time. Tamping tools shall be worked opposite each other on the same tie. Ballast under switch ties and road crossing ties shall be tamped the entire length of each tie and care must be taken not to “center bind ties”. All ties shall be tamped to provide solid bearing against the base of the rail after the track or turnout is raised to grade at final surfacing. All down ties shall be brought up to the base of rail and shall be machine tamped. The resultant track surface and alignment shall be uniform and smooth. Final tamping of track in snow or frozen ballast conditions shall not be permitted. Track that was tamped during such conditions will need to be re-tamped when conditions allow at no cost to the Owner.

5. Contractor shall prepare, for the Owner’s review and approval, a detailed tamping procedure covering tamping equipment and methods. The specification shall include a complete description of equipment to be used and variables that can be adjusted such as:
  - a. Number of insertions of tamping tools per tie.
  - b. Number of passes of tamping machine.
  - c. Depth of penetration.
  - d. Lifting capacity.
  - e. Lining capacity.
  - f. Year, make and model of tamping machine.
6. Replacement of Ties. After tamping has been completed and the jacks removed, any damaged ties shall be removed and replaced. All ties pulled loose or replaced shall be restored to their proper position, re-spiked and re-tamped to provide full bearing against the rail, at no cost to the owner.
7. Runoff of Track Raises. The runoff at the end of a raise shall not exceed one quarter (1/4) inch in thirty-one (31) feet of track unless otherwise noted on the Plan and/or the Contract Documents, or as approved by the Owner.
8. Final Surfacing. After preliminary surfacing has been completed, grade and line stakes shall be checked and the track brought to final grade and alignment.
9. Final Tamping. Track shall be brought to grade and the ballast re-tamped in the manner described for preliminary surfacing, except that the tamping distance inside the rail shall be decreased from 12 to 10 inches for eight (8) foot ties, fifteen (15) to thirteen (13) inches for eight (8) foot-six (6) inch ties, and eighteen (18) to sixteen (16) inches for nine (9) foot and ten (10) foot ties.
  - a. After final tamping is complete, ballast shall be dressed to the section indicated with a Fairmont C154BR ballast regulator, or Owner-approved equal, and all ballast removed from the top of crossties, tie plates and base of rail by the ballast regulator broom. If the equipment selected by the Contractor differs from a Fairmont C154BR, the Contractor must submit equipment make, model, and specifications to the Owner for approval.
10. Surplus ballast remaining after final surfacing and dressing of the ballast section shall be distributed or otherwise disposed of as directed by the Owner.
11. Upon completion of the work, the Contractor shall remove all rubbish, waste, and discarded materials generated by the work from the project area and dispose of the materials in a Contractor-furnished waste disposal site in accordance with all federal, local, state, and tribal regulations. Areas where the Contractor has worked, including but not limited to, project areas, material storage sites, and borrow or disposal areas shall be left in a clean, well-graded, and well-drained condition.
12. One hundred–eighty (180) calendar days after the track has been accepted and put into operation, the Contractor may be required to perform, at no additional cost to the Owner, any necessary resurfacing adjustments to leave the track in alignment and on grade.

13. Completed track shall meet the following tolerances. Track installed by the Contractor not meeting the tolerances specified below shall be repaired to meet said requirements, at no additional cost to the Owner.
- a. Gauge. Track gauge shall be within plus or minus 1/8 inch of standard gauge.
  - b. Alignment. Alignment shall be measured as the deviation of the mid-offset of a 62 foot line, with the ends of the line at points on the gauge side of the line rail, 5/8 inch below the top of the railhead. Either rail may be used as the line rail on tangent track; however, the same rail shall be used for the entire length of the tangent. The outside rail in a curve is always the line rail. Alignment on tangents shall not deviate from uniformity more than 1/2 inch. Alignment on curves shall not deviate from uniformity more than 3/8 inches.
  - c. Track Surface. Track surface shall meet the following requirements:
    - i. The runoff at the end of a raise shall not exceed 1/4 inch for any 31 foot of rail.
    - ii. The deviation from design profile on either rail at the mid-ordinate of a 62 foot chord shall not exceed 1/4 inch.
    - iii. Deviation from design elevations on spirals shall not exceed 1/2 inch.
    - iv. Deviation from zero cross level at any point on tangent or from designated super-elevation on curves or spirals shall not exceed 1/8 inch.
    - v. The difference in cross level between any two points less than 62 foot apart on tangents, and on curves between spirals shall not exceed 1/8 inch.

#### **Section 242. Trackwork**

**242-1.01 DESCRIPTION**. This work consists of constructing mainline track to the alignment and limits shown on the Plans.

**242-2.01 MATERIALS**. The Owner shall supply all track materials in the Anchorage Yard, with the exception of rail, to construct mainline track. Rail will be provided to the vicinity of the project site by the Owner. The material shall conform to the current AREMA "Manual for Railway Engineering" and as detailed in this specification.

1. **Premium/High Strength Rail**. Rail shall be 115 RE rail section (new or used), last hole blank and 39 feet in length. Rail shall either be head hardened or fully heat treated. Rail shall conform to the latest current AREMA Manual for Railway Engineering, Volume 1, Chapter 4, Rail, Specifications for Steel Rail and ARRC Standard Plan 3.1 with the clarifications listed below. The bidder shall include with their bid response sufficient technical data to allow for a detailed evaluation of the product bid.
  - a. Size. Per AREMA Chapter 4, Part 1, Figure 4-1-1, 115 RE Rail Section.
  - b. Drilling. Rail shall be last hole blank with two 1-1/4 in. diameter holes centered 2-7/8 in. above the base of the rail and 9-1/2 in. and 15-1/2 in. from each end of the rail. For use with 6-hole, 36-in. angle bars and 1-1/16 in. track bolts. Per AREMA.
  - c. Length. Per AREMA Chapter 4, Section 2.1 Article 11, standard length is 80 feet. Rail shorter than 74 feet in length will not be accepted. Rail shorter than 80 feet in length will not be accepted at crossing locations.
2. **Angle Joint Bars**. Angle joint bars shall be new 36 in. head free, standard toeless, 6 holes for use with 115 RE rail with hole spacing to fit rail drilling per AREMA Volume 1, Chapter 4, Section 2.8. Joint bars shall be quenched or medium carbon steel, rolled steel only, heat #16. Hole diameter shall be 1-1/8 in.
3. **Rail Anchors**. In wood tie areas only. Use new rail anchors sized to conform to the rail and "Specifications for Rail Anchors" in Chapter 5, Part 7 of the AREMA Manual. Use Unit V, drive-

on type rail anchors for 115 RE, no substitute. For 115 RE, width 1-3/32 in. x thickness 21/32 in. and weight 1.8 lb. Application shall be by a standard sledgehammer without the use of special tool or an anchor applicator to drive on. Packaging shall be in 50# bags containing 28 each with 75 bags per pallet, banded.

4. Tie Plates.

- a. Crossings and Switch. For 5-1/2 in. rail base for crossings and switches: Shall be PANDROL TPL-P26M, 5.5 x 7-3/4 in. x 15 in. with four 1 in. round holes and two 11/16 in. square holes. 1:40 cant.
- b. Curve and Tangent. Shall be 7-3/4 in. x 14 in. x 5-1/2 in. with B-8 punching, 3/4 in. square holes. 1:40 cant.
- c. Tie Plates. Tie plates may remain in place if they are in serviceable condition.

5. e-Clips. Shall be PANDROL Part Number ECL-2055 (right hand) for use with 115 RE rail and Pandrol tie plates.

6. j-Clips. For use on wood ties with angle joint bars. Shall be PANDROL Part Number J-clip.

7. Screw spikes. New, PANDROL, 15/16 in. x 6 in. SQ HD, Washer Type Part No. 6619, 1.1 pound each. For use with 13/16-in. socket. Packaged 50 to bag. Requires 3/4-in. diameter x 6-in. deep pre-bore in hardwood ties.

8. Track Bolts, Nuts & Washers. Bolts and nuts shall be new and manufactured in accordance with AREMA Volume 1, Chapter 4, Section 1.4 and 2.9. Bolts shall be 1-1/16 in. diameter x 6 inches long for a full nut, lock-washer and 2 threads exposed after tightening, but not to exceed a 1 in. exposure after tightening.

9. Nut-lock Washer (a.k.a. Spring Washer). New, to fit 115 RE rail with thread diameter of 1-1/16 in. Product must conform to current AREMA Specifications Volume 1, Chapter 4, Section 2.10 for Spring Washers and ARRC Standard Plan #7.0.

10. Wooden Cross Ties. Cross ties shall be treated, 7-in. x 9-in. x 10 ft and 7-in. x 9-in. x 8 1/2 ft. Cross ties shall be manufactured in accordance with the current AREMA Manual for Railway Engineering, Chapter 3; W.C.L.I.B. Grading Rules #17, paragraph 192b; and this specification. Hardwood ties shall be new.

- a. Timber. Cross ties shall be sawn from sound, straight live timber, free from any defect that might impair durability and/or strength. Multiples or combinations will not be accepted. Cross ties shall be cut square at the ends and have all bark that impairs treatability entirely removed.
- b. Stump Pull. Stump pulls will be graded the same as holes or splits in the end of a tie. Cross ties with a stump pull that goes into the interior more than 5 in. will be rejected.
- c. Wane. Cross ties shall have a minimum 8 in. face. Minimum face specifications apply to the entire length of the cross tie. All wane shall be free of bark.
- d. Knots. A knot exceeding in diameter 1/4 of the width of the surface on which it appears will be rejected if it occurs in the rail bearing area. Outside the rail bearing area, knots will be accepted up to a diameter of 1/3 of the surface on which they appear. A cluster of knots will be judged as being a large knot in damaging effect. Rail bearing area shall be defined as 20 in. to 40 in. from center of tie.
- e. Cross Grain. Any cross tie with cross grain exceeding one in fifteen will be rejected.
- f. Straightness. A cross tie will be considered straight when (1) a straight line along the top from middle of one end to middle of the other end is not closer than 3 in. from either side of tie, and (2) when a straight line along a side from middle on one end to the middle of the other end is everywhere more than 2 1/2 in. from top or bottom of the tie.
- g. Bark. Any cross tie containing more than a minimal amount of ingrown bark will be rejected.
- h. Saw Kerf. A saw kerf is not required.
- i. Treatment. All treatment shall meet the specifications of the American Wood Preservers

Association Standards Book C6 and the following guidelines. A treatment report shall be accurately completed for all charges and at a minimum shall contain the following:

- i. Charge number
- ii. Date
- iii. Wood species and size
- iv. Total retort time in hours
- v. Conditioning time in hours
- vi. Pressing time in hours
- vii. Retention in pounds per cubic meter
- viii. Average penetration to be shown for oak
- ix. Initial air time, if applicable
- x. Gauge readings and times
- xi. Treating operator's signature
- xii. Seasoned condition (dry or green), if green show moisture content.
- xiii. Final Vacuum
- xiv. Weight of solution at 100 °F
- xv. Work tank number and cylinder number

The preservative shall consist of a mixture of 50 percent by volume of creosote oil and 50 percent by volume of residuum oil, 50/50 coal tar solution may also be used. Final readings shall be entered on the treating report.

- j. Care of Treated Wood. Extreme care shall be used in handling treated cross ties to avoid damage to the edges of the timbers or breaking through the treated portions and exposing untreated wood. The use of peavies, cant hooks, pickaroons, long hooks or pointed tools shall be such as not to break through the treated portion of the wood. If damage during handling which could potentially impair the longevity of material service life, this material shall then be retreated at the Contractor's expense. All cost associated with retreatment, including oil, shall be the responsibility of the Contractor.
- k. Boring. All cross ties shall be bored and adzed in conformance to the ARRC Standard Tie Boring and Adzing Plan 1.13. Adzing may be deleted if vendor will certify that ties furnished will be flat and provide a uniform bearing surface for the tie plates.
- l. Anti-splitting Devices. All hardwood cross ties shall have steel multi-nail anti-splitting end plates in accordance with the current AREMA Manual of Railway Engineering, Chapter 3, Section 1.8 titled "Ties and Wood Preservation", Section 1.9.2.3 titled "Nail Plates", and Section 1.10.3 titled "Nail Plates".
- m. Species. Acceptable hardwood species are Red Oak, White Oak, Hickory, Black Walnut, Gum, Beech, Ash, White Heart Sycamore, Hackberry and Hard Maple.

242-3.01 CONSTRUCTION REQUIREMENTS. Track construction shall be performed in accordance with the current ARRC Standards, AREMA Manual for Railway Engineering, and as specified in this document. Scope of construction includes but is not limited to, unloading and distribution of track material, distribution and spacing of cross ties, laying, bolting and spiking rail, field welding of jointed rail, placing rail anchors, raising, aligning and tamping track, and shaping ballast to the design section. The rail for the crossing panels shall be box anchored to the ties prior to moving the panels.

Construction procedures and methods shall be employed that keep the railroad sub-ballast and ballast sections from becoming rutted or disturbed and any operation that causes damage shall be stopped immediately. Alternate construction methods shall be instituted.



All removed track materials (rails, ties, other track materials) will become the property of the Contractor, except as noted on the Plans or in the Contract Documents. All track materials that become the property of the Contractor shall be removed from the project area and disposed of in a Contractor-furnished waste disposal site in accordance with all federal, local, state, and tribal regulations; removal and disposal shall be before Substantial Completion unless otherwise approved by the Owner.

242-3.02 TRACK ALIGNMENT AND GEOMETRY. The track shall be constructed to the alignment and profile indicated, or as adjusted by the Owner's authorized representative, within the tolerances specified. Contractor shall designate right or left rail, while facing in the direction of increasing stationing, to control the grade of all tangent tracks on a contract-wide basis. Low rail on curves shall be the profile grade rail. High rail on curves shall be the line rail.

242-3.03 TOLERANCES. Deviations from indicated gauge, cross level, horizontal line, profile grade, and tie spacing shall conform to the following requirements:

1. Gauge. Shall be 4 ft-8 ½ in. plus or minus 1/8 in.
2. Cross Level and Super-elevation. Shall be plus or minus 1/8 in. from level on tangent or design super-elevation on curve.
3. Deviation from Horizontal Alignment. Plus or minus ¼ in. in a 62 foot chord. Plus or minus ½ in. total except in road crossings where total deviation shall be plus or minus ¼ in.
4. Deviation from Profile Grade. Shall not exceed plus or minus ¼ in. in 62 foot chord or a total of plus or minus ½ in.
5. Tie Spacing. Distance between centerline on adjacent ties shall be 19 ½ in. for wooden cross ties and not vary more than plus or minus 1 in. from the indicated spacing, with the additional requirements that 48 wooden ties shall be installed per 78 foot of track or 39 concrete ties per 78 foot of track.
6. Acceptance. Final track alignment will be accepted only after ARRC traffic has used the new track and alignment for 3 weeks.

242-3.04 CROSS TIE DISTRIBUTION. Contractor shall receive cross ties from supplier and transport them to the work area in accordance with the AREMA "Handling of Ties from the Tree into the Track" for wooden ties and "Recommended Practices for Shipping, Handling, Application and Use" for concrete ties. Ties shall be placed on a smooth, compacted surface as specified herein, spaced as shown within specified tolerances, and laid normal to the centerline of track with heartwood face down. Line ends of ties in the track shall be aligned uniformly on the right side of track when facing increased stationing.

242-3.05 TIE PLATES AND SCREWS. Tie plates shall be attached to the cross ties with line and hold-down screws to the indicated patterns. Contractor may pre-plate cross ties prior to distribution. If Contractor chooses to pre-plate the cross ties, he shall furnish any additional material required at no added cost to Owner. Contractor shall use a jig to compensate for fabrication tolerances to achieve track gauge tolerances.

242-3.06 RAIL LAYING. Rail shall be laid in accordance with the details and procedures that follow:

1. Rail Distribution. Rails shall be distributed along the roadbed with the head of the rail up and in such a manner and using equipment that will prevent damage to them. Dropping rails from the sides of railcars or trucks will not be permitted.
2. Rail Laying. The base of the rail and surface of the tie and tie plate shall be cleaned prior to laying. Rails shall be laid one at a time without bumping or striking. Rail ends shall be brought

squarely together against the expansion shims and completely bolted before spiking. Rails shall be laid so that the joints in opposite rails are staggered not less than 20 ft apart, plus or minus 24 in., except closer joints may be required at turnouts or roadway crossings. Rails of less than standard length shall be used to space the joints on curves. Rails shorter than 16 ft shall not be used. Rail shall be laid or welded so that no joints are in grade crossings or within 20 ft of the grade crossing surface.

3. Rail Cutting and Drilling. Rails shall be cut square and clean by means of rail saws. Holes for complete bolting of cut rail shall be precisely marked, center punched, and drilled using an exact template for alignment. In no instance shall marking through or drilling through joint bars be allowed. Holes shall be deburred. New holes shall not be drilled between two holes already drilled. Burning or cutting of rails or bolt holes by means of an acetylene torch will not be permitted. All cut rail ends shall be beveled at the head and be hardened to conform to AREMA "Manual Specifications for Steel Rails", Supplementary Requirement S1.
4. Rail Joints. The fishing surface of the rails and joint-bars shall be wire-brushed to remove rust before assembly. Allowance for rail expansion shall be made at all joints by the use of expansion shims placed between the ends of adjacent rails. The proper expansion allowance shall be determined as referenced in Table 3 – Expansion allowance for joints.. Refer to AREMA chapter 5, paragraph 5.3.1 for shim thickness to use for 39 foot rail.

Rail Temperature (°F)	Shim Thickness for 80 (nominal) foot rail (in.)
Below 35	5/16
35-47	1/4
48-60	3/16
61-73	1/8
74-85	1/16
Over 85	None

**Table 3** – Expansion allowance for joints.

For shorter lengths of rail, proportionate shim thickness shall be used. The temperature of the rails shall be determined by the use of an AREMA standard rail thermometer, placed on the base of the rails close to the web on the side shaded from the sun. Sufficient time shall be allowed to accurately record the temperature. Care shall be taken to assure that shims are not squeezed or damaged during installation of shims or rails. Shims shall be removed from between rail ends as soon as the bolts have been tightened and the rail anchors applied. All track bolts shall be installed when the rail is laid and tightened before spiking.

Final bolt tension shall be between 20,000 and 30,000 lbs. Bolts shall be tightened once, at the time of rail installation. Final tension shall be checked and adjusted as necessary just prior to final acceptance per AREMA chapter 5, paragraph 5.5.2.

5. Rail Anchoring. Rail anchors shall be located as indicated on ARRC standard plan No. 1.22-03. Rail anchors shall be installed to the gauge side of the rail. Rail anchors shall grip the base of the rail firmly and shall have full bearing against the face of the tie. Rail anchors shall not be moved by driving them along the rail.
6. Tie-in points. When tying into jointed rail on wood ties, every tie in the jointed rail for the distance called out in the Plans shall be box anchored.

**242-3.07 THERMITE WELDING.**

1. Rails shall be cut square and clean by means of rail saws and cleaned a minimum distance of

six (6) inches from the end with a torch (take care not to overheat the rail) and wire brush to free the area of grease, rust, and other foreign materials, along with any other recommendations of the welding kit manufacturer.

2. No holes shall be permitted in the rail.
3. Welding shall be performed by a certified thermite welder. Certification shall be submitted to Owner.
4. All welds giving fault indication by ultrasonic inspection, magnetic particle inspection or visible inspection shall be replaced at no expense to ARRC. This includes the addition of a rail plug and the additional welds.
5. Any additional work associated with attempting and failing to make a successful weld, resulting in a rail plug and two welds shall be at Contractor's expense.
6. Contractor shall inform the Owner's Representative daily of the location of completed welds. All thermite welds performed under this contract shall be listed on a Daily Thermite Welding Report to be provided by ARRC as required.
7. Contractor and Owner's Representative will visually inspect all welds for surface cracks. Welds with surface cracks visible to the eye shall not be acceptable.
8. Contractor shall furnish all equipment and material required in the production of thermite welds.
9. Thermite welding materials and equipment shall be from an approved source. ARRC shall be notified in writing as to the source, and will notify Contractor if the source is not acceptable.
10. Welding shall be done in accordance with Chapter 4, Part 2 of AREMA Manual, articles "Thermite Welding Rail Joints and Specifications for Fabrication of Continuous Welded Rail", except as modified by these specifications.
  - a. The faces of the rail ends shall be arranged at right angles by cutting or grinding and shall be further cleaned to remove all scale and rust.
  - b. The ends of the rails to be welded shall be properly gapped and aligned to produce a weld, which shall conform to the specified alignment tolerances. No dip in the rails shall be allowed. Refer to Section 242-3.08 for "Detail of Max. Vertical Offset" and "Tolerances for Thermite Welds".
  - c. Before preheating check the rail temperature with a rail thermometer if the rail temperature is below thirty five (35) degrees Fahrenheit, the following procedures shall be followed to ensure that a proper preheat is made.
  - d. Both rails must have supplemental heat applied to raise the rail temperature to provide for controlled cooling.
    - i. The length of rail to be supplementally heated shall be between thirty (30) and thirty six (36) inches for rail temperatures from thirty five (35) down to fifteen (15) degrees Fahrenheit.
    - ii. Depending upon the type of change expected, one of the following procedures will assist in preventing temperature induced stresses from affecting the quality of the weld:
      - (1) Rail temperature is low and a raise in temperatures is anticipated, the rail expander should be set to expand the gap and enough pressure built up to cause a slight subsequent increase in the gap. This should prevent any subsequent decrease in gap width.
      - (2) Rail temperature is high and a drop in temperature is anticipated the rail expander should be set up to pull and enough pressure built up to cause a slight subsequent decrease in width.

Whenever either of the above procedures is required, the final gap width shall be as stated in the manufacturer's instructions for the rail weight being welded.

11. Rail ends shall be preheated prior to welding to a sufficient temperature and for a sufficient time to ensure full fusion of the weld metal to the rail ends without cracking of the rail or weld, per manufacturer's instructions.
12. The mold shall be left in place after tapping for a sufficient time to permit complete solidification of the molten metal and proper slow cooling to prevent cracking and provide a complete weld with the proper hardness and ductility.
13. The completed weld shall be finished by mechanically controlled grinding to conform to the same requirements specified for shop welding including grinding under the base.
14. Wearing protective clothing and safety equipment is required during welding operations.
15. Never dump hot slag on wet soil, wet ballast or into water.
16. On curves where the slag basin is placed on the low side, the plug portion of the mold shall be filled so that it is horizontal when placed in the mold and will cause the molten metal to flow equally to both sides of the mold.
17. Thermite welds shall not be made within three (3) feet of another thermite weld or within twelve (12) inches of a plant weld or within two and one half (2-1/2) feet from the end of a bonded joint without written approval by the Owner's Representative.
18. Contractor shall re-space cross ties as necessary to prevent a weld from sitting on a tie. The cost incurred by Contractor to re-space the crossties will be considered incidental to the cost of completing a thermite weld. It is acceptable to cut the rail in order to prevent a weld from sitting on a tie.
19. Contractor shall tamp and dress track, as necessary, to provide firm support at the weld.
20. Contractor shall plug and re-drive all necessary spikes.
21. Contractor shall properly re-apply and adjust anchors as necessary to conform to anchor pattern.
22. Contractor shall clean up all waste from the field welding process and shall dispose of all superfluous materials.
23. No payment will be made for additional welds created by avoidable plugging, without written authority of the Owner's Representative.

#### 242-3.08 WELD FINISHING AND TOLERANCES.

1. Welded joints in the finished track shall be brought to a true surface and alignment by means of a proper grinding or planing machine (shear). Finish grinding shall be performed with an approved profile grinder operated by a skilled workman grinding evenly and leaving the joints in a smooth and satisfactory condition. Finishing shall eliminate all cracks. Mechanically controlled grinding in conformance with the following requirements shall finish the completed weld:
  - a. Maximum Vertical Offset. The maximum vertical offset in the vertical plane shall be no greater than 0.060 inches measured 1 inch from the weld fusion line.
  - b. Combined Vertical Offset and Crown. The maximum combined vertical offset and crown shall be no greater than 0.060 inches.
  - c. Dip Camber. No dip camber is allowed. Contractor shall remove and replace any sections of rail with dip camber at his own expense.
  - d. Horizontal Offset. The maximum horizontal alignment offset shall be no greater than 0.030 inches.
  - e. Horizontal Offset and Kink (to gauge side of rail). The maximum horizontal alignment offset and kink shall be no greater than 0.030 inches.
  - f. Horizontal Offset and Kink (to field side of rail). The maximum horizontal alignment offset and kink shall be no greater than 0.015 inches.
  - g. Measurements. Shall be made with an approved 36-inch straight edge and taper gauge.

#### 242-3.09 WELD QUALITY. Each completed weld shall have full penetration and complete fusion

and be entirely free of cracks or fissures. Welds shall meet the acceptance criteria given in AWS D1.1.

Quality control testing is required on all welds. The contractor shall supply the ARRC with certified ultrasonic weld test results prior to the installation of the crossing.

Contractor shall guarantee welds for a period of twelve (12) months after final acceptance date.

242-3.10 WELD NUMBERING. The Contractor shall semi-permanently mark a sequential weld number on the rail immediately adjacent to the weld, using a quality lead paint marker at the time the weld is made. Welds shall be numbered sequentially in the order in which they are made. The Owner will provide the Contractor with the initial weld number. Defective welds, which are replaced, shall be assigned a new sequential number by adding a letter to the defective weld number (e.g., defective weld 347 would be replaced by 347A).

242-3.11 WELDING SUPERVISION. A certified welder shall perform welding under the direct supervision of an experienced welding supervisor or foreman and be certified by the manufacturer of the welding equipment.

242-3.12 WEATHER CONDITIONS. Welding shall not be performed in rain, snow, or other inclement weather without adequate protection of the welding from the elements. If using field welds, welding shall not be performed below minimum ambient temperature recommended by the manufacturer.

242-3.14 SUBMITTALS.

1. Thermite Welding Procedures. A detailed statement covering the step-by-step procedures to be employed in making the welds, including a complete description of each of the following items, as applicable, and any other essential characteristics included in the welding procedures.
  - a. The manufacturer's trade name for the welding process.
  - b. The method used for cutting and cleaning the rail ends. Flame cutting of rail ends shall not be allowed.
  - c. The minimum and maximum spacing between rail ends.
  - d. The method used for maintaining the rails in alignment during welding.
  - e. The method used for preheating, including time and temperature.
  - f. The tapping procedure, including the minimum time required to cool the weld under the mold insulation.
  - g. The method used, including a description of special tools and equipment, for removing the upset metal and finishing the weld to the final contour.
  - h. Quality control procedures to be followed.
  - i. The contractual agreements with any subcontractor employed by the Contractor in doing the work.
2. Record of Field Weld. A welding record of each field weld on forms provided by ARRC. The original copies of the form bearing the signatures and initials of personnel involved shall be submitted as part of the Project Record Documents.

**Section 244, Trackwork Removal**

244-1.01 DESCRIPTION. This work consists of dismantling and removing track from the existing roadbed. All removed track materials (rails, ties, other track materials) will become the property of the Contractor, except as noted on the Plans or in the Contract Documents. All track materials that

become the property of the Contractor shall be removed from the project area and disposed of in a Contractor-furnished waste disposal site in accordance with all federal, local, state, and tribal regulations; removal and disposal shall be before Substantial Completion unless otherwise approved by the Owner.

## **CONSTRUCTION REQUIREMENTS**

244-3.01 GENERAL. Remove all trackwork that is scheduled to be retired from service as a result of the new track construction.

244-3.02 ROADBED CLEANUP AND SHAPING. After all track material has been removed and debris and tie remnants removed, the remaining unclassified excavation shall be disposed.

244-3.03 MISCELLANEOUS MATERIALS. Spikes, bolts, nuts, and washers and other miscellaneous track parts such as gauge rods shall become the property of the contractor.

## SECTION 243

### TRACKWORK REMOVAL

**243-1.01 DESCRIPTION.** This work consists of dismantling and removing track and crossings from the existing roadbed. This work also includes grading and reshaping the existing railroad embankment to natural contours. All removed trackwork materials, unless otherwise specified on the plans or in these specifications, shall become the property of the contractor.

**243-2.01. NOT USED**

### CONSTRUCTION REQUIREMENTS

**243-3.01 GENERAL.** Remove all trackwork and grade crossings that are retired from service as a result of the new track construction.

**243-3.02 ROADBED CLEANUP AND SHAPING.** After all track material has been removed and debris and tie remnants removed, the remaining ballast shall be excavated and removed in preparation of the subgrade.

**243-3.03 MISCELLANEOUS MATERIALS.** Spikes, bolts, nuts, and washers and other miscellaneous track parts such as gauge rods shall become the property of the contractor.

**243-4.01 METHOD OF MEASUREMENT.** Trackwork removal shall be measured by the track-foot along the centerline of track beginning at the centerline of the first crosstie and ending at the centerline of the last cross tie for each track removed. Removal of crossings, pavement, and miscellaneous railroad materials shall be incidental to this work and will not be measured for payment.

**243-5.01 BASIS OF PAYMENT.** The accepted quantity of work will be paid for at the contract unit price, per track foot from the center of the first cross tie to the center of the last. All required grading and shaping of existing track embankment and removal of existing crossings shall be subsidiary to Item 243 (1) Trackwork Removal.

## SECTION H

### COST SCHEDULE

A bidder's failure to provide the information requested in this section will be cause for rejection of the bid on the basis of non-responsiveness. Cost shall be bid in accordance to all specifications in Appendix C, and any Technical Specifications incorporated herein.

#### DESCRIPTION

Provide crossing upgrades in accordance with the Terms, Conditions, Scope of Work, Specifications, and drawings.

Item	Item Description	Qty	Unit	Unit Bid Price	Item Total
<b>1</b>	<b>Electron Drive</b>				
1.01	Track Removal	1	LS		\$
1.02	Railroad Ballast	200	TN		\$
1.03	Track Installation	1	LS		\$
1.04	Track Surfacing	1	LS		\$
1.05	Crossing Panel Installation	1	LS		\$
1.06	Equipment/Mob	1	LS		\$
<b>Total:</b>					

#### AWARD CRITERIA

An award will be made to the low, responsive, responsible bidder that meets the requirements as set forth in the specifications and compliance thereof. The Alaska Railroad Corporation reserves the right to determine that all offered materials will serve the application intended.

#### NON-COLLUSION AFFIDAVIT

The Undersigned declares, under penalty of perjury under the laws of the United States, that neither he/she nor the firm, association, or corporation of which he/she is a member, has, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with this Bid.

\_\_\_\_\_  
COMPANY NAME

\_\_\_\_\_  
BY AND FOR THE BIDDER

\_\_\_\_\_  
COMPANY ADDRESS

\_\_\_\_\_  
PRINTED NAME OF BIDDER

\_\_\_\_\_  
DATE OF BID

\_\_\_\_\_  
CONTACT EMAIL

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CONTACT PHONE NUMBER

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CONTACT FAX NUMBER