



BALLAST PRODUCTION CURRY QUARRY 2019-2020

**INVITATION TO SITE VISIT
OCTOBER 2018**

SEPTEMBER 27, 2018

**ALASKA RAILROAD CORPORATION
327 WEST SHIP CREEK AVENUE
ANCHORAGE, ALASKA 99501**

PROJECT DESCRIPTION & SCOPE OF WORK

The Alaska Railroad Corporation (ARRC) is soliciting proposals for services to develop and produce material at ARRC's Curry Quarry site. The quarry is located within an approximately 5,000-acre ARRC owned parcel that is 22 miles north of Talkeetna, Alaska. The actual area for development is approximately 75 acres within the larger tract. The site is accessible by rail or by boat up the Susitna River from Talkeetna. There is NO road access into the jobsite.

The contract work shall consist of:

1.0 Quarry Development:

Development of the selected Quarry site will involve the adoption of an existing quarry floor with approximately 50,000 square feet of workable space. The current quarry face has been previously blasted and developed leaving behind high walls with interment benching. The exposed face stretches approximately 180 feet vertically from the floor to the existing ground surface, which is uphill and to the south.

Future development will required the stripping of overburden from the area due south and/or west of the existing quarry face. All overburden will be salvaged and placed on the graded waste disposal slide north of the quarry floor. This existing slide must be graded to a 2:1 slope prior to overburden placement. All irregularities must be addressed prior to placement of overburden. After overburden placement and track walking procedures have taken place, the slope shall be seeded and maintained until acceptable growth has occurred.

For additional slope protection and storm water controls, the ARRC will require the construction of water retaining berms on both the top and bottom grade breaks of the existing slide area. Additional check dams located near the midpoint of the slope may also be required as a means of breaking up concerted flows before they escape down the slope causing additional damage.

Production waste may be disposed of in the area east of the existing slide area, and as shown on the attached Site Maps. Storm water runoff in the new waste disposal area must be controlled using methods similar to that of those listed above for the existing slide. Production waste stockpiles/slide areas shall not encroach on the quarry limits. Additionally, enough room must be maintained to construct a berm at the base of the slope without encroachment on the Quarry Limits. The berm constructed at the base of the slide area must tie into existing drainage structures and feed surface runoff into controlled outfall points for discharge. Water detention ponds may be allowed to control storm surge runoff.

Drawings for quarry development guidance are attached; however, ARRC will require prospective contractors to provide their own detailed plan for quarry development.

2.0 Clearing & Grubbing:

As seen in the drawings, the area located to the south / south east of the existing Quarry face is sequentially next in the progression of quarry development activities. Prior to its development, grubbing activities to remove the excess overburden must be conducted. Said areas primarily

consists of grass, brush and sparse timber. Overburden is estimated to be at 1.5-3 ft in the areas to be cleared. Spoils shall be placed and tracked into the old slide area located to the north of the Quarry floor area. This material will be used as a tool to promote organic growth as part of the reclamation process and stabilization efforts

3.0 Quarry Floor:

In addition to the previously mentioned area east of the existing slide, Production waste material (fines) may be disposed of on the existing quarry floor. Placement of such fine material will result in an increase in the elevation of the existing quarry floor in even layers of one foot, compacted. The existing, workable floor area is approximately 50,000 square feet. The Quarry floor should be constructed and maintained in such a way that it remains workable throughout production and upon contract completion, shall be left as a level and consistent pad suitable for future operations. Suitable waste material for the pad disposal area may be a combination of granite and siltstone and its should be the crusher reject fines created as a result of ballast production. To reduce borrow haul distances, new pad construction may be permissible at approved locations above the main quarry floor. However, waste material must be placed in areas that will not inhibit future resource development.

4.0 Production Mining:

The initial production blasting will be focused at the top of the existing Quarry face and to the west of the tower access road. Upon successful completion of overburden removal, blasting operations shall extend the Quarry face to the south and/or the west. All mining activities shall be performed in accordance with MSHA requirements. Benching and slope stabilization shall be subsidiary to Quarry activities. Blasting resulting in the removal of bench access shall not be permissible. All quarrying activities must remain within the quarry boundaries, as permitted and shown.

Quality control shall be required and results to be submitted daily to the ARRC for review.

The ballast product shall fall within the following parameters.

Material Composition: The ballast shall be crushed shot rock, composed of hard, strong and durable particles, free from injurious amounts of deleterious substances and conforming to the following test standards.

Size	2-1/2"	2"	1-1/2"	1"	3/4"	3/8"	No. 200
Passing (%)	100	90-100	60-95	10-30	0-5	0-3	0-0.3

Table 1 – Percent Passing Gradation for Mainline Ballast

5.0 Bench Access:

Access from the quarry floor to all benches and production faces shall be planned, repaired, maintained and sequenced such that benches do not exceed MSHA requirements or a workable height of approximately 60 feet and shall not be less than 25 ft in width. Quarry access shall take in to account future quarry expansion and should not burden areas planned for mining with waste material. Access roads shall be constructed or have phased construction such that they are located as near to the quarry limits as possible but in no way extending beyond the quarry limits as dictated by the given coordinates found in the drawings.

6.0 Drainage:

Diversion ditching and/or berms shall be installed upslope of all cleared areas to convey runoff to its intended drainage path and prevent it from entering the quarry site. All drainage entering or accumulating within the quarry site shall be collected and diverted prior to the formation of concreted flows.

Channeled water shall be discharged through a low velocity; rock lined channel for the intent of surface water discharge into vegetative buffer regions. Sediment laden runoff shall not be allowed to exit the quarry boundaries nor shall it be allowed to scour existing landscape. Where appropriate, surface water discharge may be deposited into the stream located just west of the quarry floor. The Contractor will be expected to acquire all necessary permits for discharge.

7.0 Quantity:

The contractor shall phase quarry production activities with the anticipation for two years' worth of Ballast production at 110,000 tons/yr and Riprap produced only as a byproduct of obtaining the required ballast quantity.

8.0 Material Production and Stockpiling:

Processed materials shall be stockpiled along the Loop Track and within the designated Stockpile and Loadout Areas. The first 150 ft from track centerline is reserved for product storage with the only requirement being that the toe of a stockpile shall not be closer than 35 ft from track centerline. Stockpiles will not be permitted on the West (or inside) of the Loop Track.

100,000 tons of ballast shall be stockpiled in the cleared area to the South East of the primary stockpile area and as shown on the drawings. Once complete, this material stockpile is to be flagged off and maintained as a separate storage pile.

Stockpiles shall be limited to 20 feet in height and managed in such a way that degradation of material is limited to the maximum extent possible. Tracked equipment usage on the ballast pile will only be allowed under the direction of the ARRC. Stockpiled material shall be subject to additional testing should conditions indicate that material degradation is or has occurred.

9.0 Required Plans:

The contractor shall provide ARRC a quarry Development Plan addressing all conditions and contract requirements. Upon contractor selection and approval of a quarry development plan, work may begin to produce and stockpile 220,000 tons of Ballast and up to 20,000 (subject to change) tons of Riprap (Class III, Class IV or a combination fo the two). In addition to the quarry

development plan, upon award the contractor shall also provide the various other plans as required and described in the Contract Documents.

10.0 General Notes:

Commercial use of ARRC owned material from the quarry by the Contractor has not been included within this proposal request, but may be considered upon award of the contract.

Project Title and Contract Description: ARRC Curry Quarry Ballast Production

Project Location: 22 miles north of Talkeetna, Alaska

Contracting Entity: Alaska Railroad Corporation

Anticipated Contract Notice-to-Proceed Date: March 01, 2019

Required Production Completion Date: October 15, 2020