

STATE OF ALASKA REQUEST FOR INFORMATION (RFI)



Department of Transportation & Public Facilities
Central Region Design & Engineering Services
4111 Aviation Avenue
P.O. Box 196900
Anchorage, AK 99519

Request for Information

The Alaska Department of Transportation and Public Facilities (DOT&PF) is releasing this Request for Information (RFI) to obtain vendor input regarding implementation and time frames for a replacement toll collection system at the **Anton Anderson Memorial Tunnel (AAMT)** located in Whittier Alaska. The information received in response to this RFI will be reviewed and evaluated by a team of DOT&PF stakeholders. It is our intent to analyze the responses to determine appropriate and suitable solutions to meet the requirements discussed below, and to potentially develop specifications for a future Request for Proposal (RFP).

Introduction

The DOT&PF is releasing this RFI to obtain vendor input regarding implementation and time frames for a replacement toll collection system at the AAMT located in Whittier Alaska.

Located 50 miles southeast of Anchorage near Portage Glacier, the AAMT connects the port city of Whittier on Prince William Sound to the Seward Highway and Southcentral Alaska. It opened to vehicle traffic on June 7, 2000 after extensive conversion from a World War II railroad tunnel. It is the longest highway tunnel (13,300' or 2.5 miles), and longest combined rail and highway use tunnel in North America. Two computer-based systems – the Tunnel Control System (TCS) and Train Signal System (TSS) – make it possible for cars and trains to safely take turns traveling through the tunnel.

Current System Details

The toll system for the AAMT is 20 years old and has exceeded its life expectancy. The original designer, TollTex, no longer exists leaving the system without support.

The AAMT facility has three (3) toll booths. One is located inside the TCC, and is rarely used. The other two are separate from the TCC. All large vehicles (RVs, semi-trucks, etc.) must use Toll Booth #3 (farthest from the TCC) due to space limitations in the current configuration. The main toll plaza computer contains the toll database and is located inside the TCC.

The current system employs a loop detector connected to a lane controller for each toll booth to track vehicles. Each toll booth is equipped with touch screen point-of-sale (POS) terminals, receipt printers, and bar code scanners. POS terminals and scanners communicate with the toll plaza computer via the lane controller. In addition, each booth has a credit card machine that is a separate, stand-alone POS device. Funds from these credit card machines are deposited directly into the State's account. Cash and checks are deposited by the State's O&M contractor into the State's account.

The system tracks vehicle classes and assigns tolls based on classification. Classifications are established in toll regulations set by the Alaska State Legislature

<http://tunnel.alaska.gov/tolls.shtml>.

Payment includes cash, checks, Visa and MasterCard, coupons from bulk purchases (books of 10 or 30), prepaid cards, vouchers (issued when a patron has paid and would like to use the tunnel at a different date/time), and season passes. Coupons and prepaid cards are generated by the toll system and printed on-site, and they are also accounted for by the toll system. Each coupon or prepaid card has a unique bar code. These bar codes must be printed (scanners cannot read electronic screens from a smartphone or tablet).

Payment information is recorded for reconciliation using credit card end-of-shift reports and video audit/comparison.

The main toll plaza computer is using dual obsolete operating systems (Windows XP and QNX).

Timeline of toll system installation, enhancements, and hardware upgrades:

- 2000: Initial installation of the complete toll system software, lane controllers and hardware.
- 2001: Upgrade for batch credit processing and changes to existing report screens.
- 2002: Upgrade to accept, sell, and process coupon books and passes; expanded number of vehicle classes from 5 to 11; included checks as another form of payment; implemented bar code scanner; new POS touch screen monitors.
- 2004: Upgrade to accept, sell and process prepaid accounts.

- 2009: Upgrade to toll plaza computer, POS touch screen monitors, receipt printers, bar code scanners, and installed a NAS device to access coupon book orders and for a back-up of the toll system database.
- 2020: A new credit card processing system, Clover, is now being used by the facility. Clover has a developer tool that allows applications to be created that interface with Clover.

Replacement System Requirements

- System supplier shall be a large, reputable toll system equipment/service provider that can provide service over the lifespan of the system. The system shall have a 2-year warranty from the date of acceptance, plus 10 years of support (under separate contract) after the end of the warranty period. Support shall include a help line available during business hours and on-call technical personnel for onsite repairs if required.
- Most toll operations assign tolls based upon axle counts. Unless the Alaska State Legislature intends to revise Alaska Administrative Code 17 ACC 38, the new system needs to allow a Toll Collector to manually input toll classifications. On occasion, Toll Collectors will need to revise an incorrect classification or account for non-revenue usage (i.e., AAMT O&M Contractor employees, Alaska Railroad Corporation (ARRC) employees, or government vehicles).
- The new toll system shall have a reliable, easy-to-use database backup system.
- The system shall provide all accountability for the State and the AAMT O&M Contractor to be able to reconcile all transactions (i.e., revenue and classification shall be traceable to an individual toll collector).
- Web-based customer account management interface for patrons to add/view trips or buy a season pass. Electronic tickets must have unique bar/QR codes and shall be printable. Scanners shall be capable of reading printed tickets or electronic screens from a smartphone or tablet. The ticket database will need to allow auditors to search/query individual coupons and/or coupon books and redemption status. The system shall be compatible with smart phones (a separate application will be beneficial). Patrons need to be able to pay with cash, Visa/MasterCard, and electronic tickets.
 - Option for online accounts is desired such that the system can charge a patron's credit card for an amount determined by the patron (i.e., \$100). For each usage, the account is decreased by the appropriate toll amount (allowing patrons to use different vehicle types/classifications under the same account). When the balance reaches \$0, the patron is automatically charged again for the predetermined amount. Note: patrons will need to be able to close their account and have their funds returned.

- The system needs to be upgradeable. Possible upgrades include:
 - Laser/photo scanners to identify vehicle length/width as they approach toll booths to assist in classification, plus the ability to override the system for non-revenue, government, etc. patrons.
 - Existing toll booths may be relocated in the future so that all lanes can accommodate all traffic types.
 - As future traffic increases, the DOT&PF may implement a system of dynamic tolling (i.e., peak hours will have higher costs). The new system will need to allow adjustments in classification and the toll schedule on a daily and hourly basis.
 - Adding additional vehicle classifications.
 - Accommodating new versions of Microsoft Windows.
 - Upgrade to self-pay kiosks should the DOT and State Legislature decide to assign tolls based upon axle count instead of vehicle classification.
- It may be that an application can be developed that interfaces with the new Clover system recently installed at the AAMT facility. If so, the application would need to:
 - Include web based access for customers to buy coupons that are redeemed at the AAMT facility.
 - Be able to upload the existing data base for continuity.
 - Be able to track coupons sold and redeemed.
 - Be able to change lights and read detector loops, provide functions described above.

Other Considerations

- Training will be required using the toll plaza software, generating reports (i.e., revenue, usage by classification), toll collector training, backup data recovery, maintenance.
- Would like to be able to have remote connection to POS toll terminals from inside the TCC at main toll plaza computer to observe toll collector actions and to rectify problems/mistakes or facilitate training new employees.
- Toll collectors would like a change counting process to track currency in (cash received) and currency out (cash returned).
- Wireless connection for scanners to POS terminals.
- System to include a backup computer with software. The computer should be fully functional once the backup database has been uploaded. This will provide seamless service to the public in the event of a computer failure.

Funding

Replacing the toll system is part of a larger project included in the Alaska Statewide Transportation Improvement Program (STIP). The STIP is the state's four-year program for transportation system preservation and development. It covers all system improvements for which partial or full federal funding is approved and that are expected to take place during the four-year duration of the STIP.

As a component to your response, please include the estimated range for installing a replacement system and providing support and training as described above to allow for the appropriate funding to be programed. The estimated range should fall within the following ranges: \$1,000,000-\$2,500,000; \$2,500,000-5,000,000; etc.

RFI Response

Responses to this RFI must be received by DOT&PF no later than 4:00pm, November 16, 2020. Interested companies are requested to send their responses electronically to crdotpfcontracts@alaska.gov.

Contact the Project Manager, Kevin Jackson, P.E. at (907) 269-0641 or kevin.jackson@alaska.gov for questions or additional information.

This RFI does not extend any rights to prospective vendors or obligate the State to conduct a solicitation or purchase any goods or services. Nor will the State be financially responsible for any cost associated with the preparation of any response for the requested information. This RFI is issued for the sole purpose of obtaining information as described in this notice. However, the information obtained from this request may be used to prepare a purchase, contract, or solicitation in the future.