

Request for Discussion

Tacoma Narrows Bridge Toll Collection System and Attended Toll Booth Procurement Approach

Requested from

Toll System Solution Providers

Requested by

**Washington State
Department of Transportation**

ISSUED: March 27, 2019

Revised April 4, 2019

REQUEST A MEETING BY: April 12, 2019



**Washington State
Department of Transportation**

1. Purpose and Need

The Washington State Department of Transportation (WSDOT) intends to publish a Request for Proposals (RFP) in the Summer of 2019 to replace the existing Tacoma Narrows Bridge (TNB) toll collection system (TCS) and provide maintenance and attended toll booth operations through approximately 2031. The TCS includes three lanes of mainline open road tolling (ORT), six lanes of attended toll booths, and one lane of ramp ORT, all supported by a nearby Plaza Administration Building. WSDOT seeks input from toll system solution providers on two questions related to this procurement:

- 1) How can the transition to a new toll collection system be achieved with no or minimal loss in toll revenue and with minimal impact to the public?
- 2) How can operational cost efficiencies be achieved through the application of innovation and technology?

WSDOT will use information gathered through this Request for Discussion, along with other information available to WSDOT, to inform its RFP development process. Interested toll system solution providers are requested to follow the process outlined in this document and to refrain from requesting meetings with WSDOT outside of this process.

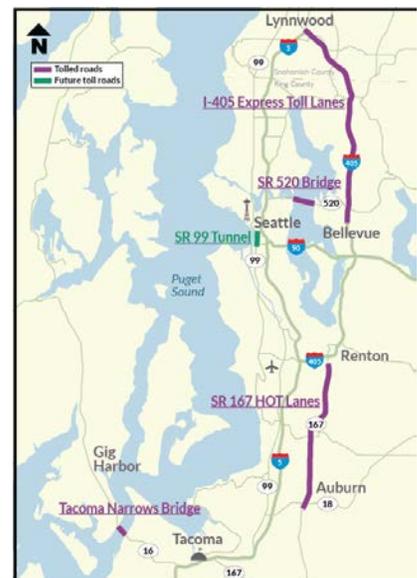
2. Background

In July 2007, WSDOT opened a new TNB span parallel to the existing TNB span on SR 16, reconfigured traffic to be one-way on each bridge, and began tolling in the eastbound direction only leading up to the new span. The new span became the first toll facility in Western Washington in nearly two decades, accepting electronic toll collection under the program name of *Good To Go!* and cash toll collection. In 2010, the Washington State Legislature passed ESSB 6499, which provided for a third payment method, photo tolling, and an alternative toll enforcement process to be administered exclusively by WSDOT. In fiscal year 2018, ending June 2018, the bridge carried more than 14.8 million tolled trips.

Since then, WSDOT has implemented three additional toll facilities located in the greater Seattle area and is in the final stages of implementing its fifth toll facility. Information about WSDOT's toll program is available online: <http://www.wsdot.wa.gov/Tolling/default.htm>.

Specifically, WSDOT's toll program is comprised of five tolled facilities, opened in the following order:

- **Tacoma Narrows Bridge** – One-way, fixed price by axle classification, single point ORT/attended booth system on eastbound SR 16 in Gig Harbor (opened in 2007).
- **SR 167 HOT Lanes** – Two-way, dynamically priced, High Occupancy Toll (HOT) lane system on SR 167 between Renton and Auburn (opened in 2008 and extended southward in 2016).
- **SR 520 Bridge** – Two-way, time-of-day priced, single-point, ORT system on SR 520, near the east landing of the new Evergreen Point Floating Bridge (opened in 2011 on the original bridge and relocated to the new bridge in 2016).
- **I-405 Express Toll Lanes** – Two-way, dynamically priced, Express Toll Lane (ETL) system on I-405 between Bellevue and Lynnwood (opened in 2015).



- **SR 99 Tunnel** – Two-way, time-of-day priced, single-point ORT system on SR 99 at the south portal of the new SR 99 tunnel under Seattle (opening in late 2019).

The RFP that will result from this Request for Discussion will apply to the Tacoma Narrows Bridge toll system only. The toll systems for all other toll facilities are provided under a separate, unrelated statewide roadway toll system contract and are not being procured at this time.

3. Project Goals

It is WSDOT's expectation that the toll system solution provider for the new Tacoma Narrows Bridge toll collection system will design, implement, and operate a solution consistent with the following project goals:

- 1) Execute a safe and smooth transition to a new toll collection system that minimizes or eliminates revenue loss and minimizes disruption to customers.
- 2) Achieve operational cost efficiencies through the application of innovation, technology, and industry best practices.
- 3) Meet or exceed schedule and performance targets.
- 4) Cooperate and collaborate productively with WSDOT and its project partners.
- 5) Provide a superior customer experience at the toll booths.

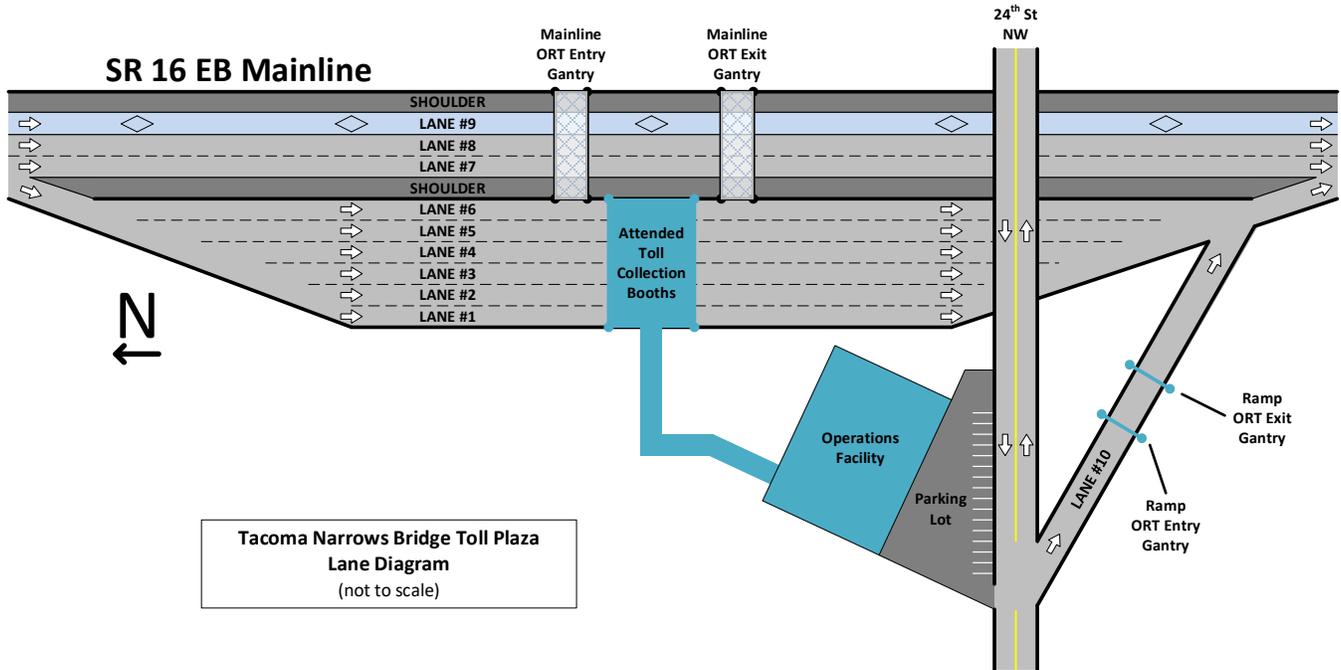
4. Existing Tacoma Narrows Bridge Toll Facility

The current Tacoma Narrows Bridge toll facility is a one-way, single-point toll facility consisting of three mainline ORT lanes, six attended toll booth lanes located immediately adjacent to the ORT lanes behind barrier, and a single on-ramp ORT lane located just south of the toll plaza that allows entrance to eastbound SR 16 from 24th Street for local traffic.

The current toll collection system is provided and maintained by TransCore, LP (TransCore). Toll operations, including attended toll booth operation and money counting, are also provided by TransCore based out of a Plaza Administration Building located adjacent to the attended toll booth lanes. All ORT and image-based transactions, including vehicle run-throughs in the attended toll booth lanes, are transmitted to WSDOT's statewide back office for account posting or pay-by-mail processing. Cash transactions in the attended toll booth lanes are captured locally and transmitted separately to WSDOT's accounting and reporting systems.

The current *Good To Go!* statewide back office system and operations, provided by Electronic Transaction Consultants Corporation (ETCC), will be transitioned to a new back office system, provided by ETAN Industries (ETAN) and operated by AECOM Energy and Construction, Inc. (AECOM) during 2019. The new Tacoma Narrows Bridge toll collection system will be required to capture and transmit ORT and image-based transactions to the new statewide back office system and to continue capturing and transmitting cash transactions to WSDOT's accounting and reporting systems.

The following diagram illustrates the general layout of the Tacoma Narrows Bridge toll plaza, Plaza Administration Building, and 24th Street tolled ramp.



Tacoma Narrows Bridge Toll Plaza Lane Diagram (not to scale)

The following sections describe each area of the Tacoma Narrows Bridge toll plaza in more detail.

Mainline ORT Lanes – The SR 16 mainline ORT toll system consists of two gantries, spanning three travel lanes plus left and right shoulders, separated by approximately 73 feet in the direction of travel and supported by several roadside cabinets located in the barrier between the ORT lanes and the attended toll booth lanes. Each gantry is a box truss structure with a walkway enabling access to overhead equipment. Overhead toll equipment on each gantry consists of cameras and visible light illuminators. The lead gantry also has RFID antennae on outriggers. In-pavement equipment consists of multiple loops located between the gantries for vehicle detection and classification by axle count.



Attended Booth Lanes – Each of the six lanes is identically equipped and includes in-pavement treadles for axle counting, vertical light curtains for vehicle separation and image triggering, rear-plate image illumination and image capture, a patron message display, audible violation horn, red-yellow-green traffic signal, in-booth manual lane toll terminal for attendant classification and payment processing, and overhead LED canopy message display for lane open/closed and other configurable messages. Both lanes do not have gates. As part of WSDOT’s conversion to 6C transponders in 2011, the RFID systems in each lane were disabled. Thus, attended toll booth operations do not currently accept *Good To Go!* account payment except by image toll. This feature can be re-enabled by the current vendor if it is determined that *Good To Go!* tolling in the attended booth lanes is desirable in support of transition. The right-most lane (Lane #1) is wider than the others to accommodate cash-paying truck traffic, and the booth for Lane #1 is ADA accessible. Attendants must traverse each lane to their designated booth as there is no underground tunnel. Booth lanes are covered by a single metal canopy structure spanning all booths.



Ramp ORT Lane – The 24th Street on-ramp provides a single-lane, tolled access to eastbound SR 16 for local Gig Harbor access without requiring customers to enter SR 16 upstream of the toll plaza. This location provides ORT tolling only (no cash collection) via two square monotube gantries on the ramp separated by approximately 73 feet in the direction of travel and supported by roadside cabinets located nearby. Each gantry is a box truss structure. Overhead toll equipment on the lead gantry consists of cameras, visible light illuminators, and RFID antennae on outriggers. The downstream gantry has cameras and visible light illuminators. In-pavement equipment consists of the multiple loops located between the gantries for vehicle detection and classification by axle count.



Plaza Administration Building – Located at SR 16 and 24th Street in Gig Harbor, the Plaza Administration Building (PAB) is a one-story building of approximately 9000 square feet with a secured direct access, covered, open air walkway (of approximately 650 feet) to the attended toll booth lanes. The PAB is a secured, non-public-access building providing a maintenance bay with rollup door access, administrative office space, server room, break room, money counting room, and vault.



5. Transition Constraints

WSDOT is contemplating the following toll system transition constraints for its upcoming RFP for the Tacoma Narrows Bridge toll collection system replacement. Toll system solution providers are encouraged to opine on these constraints in its discussions with WSDOT regarding transition to the new toll collection system.

Potential Strategy	Allowable for Mainline ORT Lanes	Allowable for Attended Toll Booths	Allowable for 24 th Street ORT Ramp
Install one or more new permanent gantries upstream or downstream of the existing ORT gantries.	No – see note re: New Construction below	N/A	No – see note Re: New Construction below
Install one or more temporary gantries upstream or downstream of the existing ORT gantries.	Yes – see note re: construction below	N/A	Yes – see note re: construction below.
Install new equipment on existing gantries, tollbooth canopy, and existing structures with existing equipment.	Yes – subject to space availability	Yes – subject to space availability	Yes– subject to space availability
Decommission downstream ORT gantry and install new equipment on gantry.	Yes	N/A	Yes
Close all travel lanes.	Yes – nights only; see note re: Closures below	No	Yes – up to 3 days; see note re: Closures below
Close one or more lanes.	Yes – up to 3 days; see note re: Closures below	Yes – see note re: Closures below	N/A (see above)
Use shoulder lane for travel.	Yes	N/A	Yes
Decommission cash collection.	N/A	No	N/A
Operate legacy or new system in degraded mode for a limited period.	Yes	Yes	Yes

5.1 Closures

As noted in the table above, WSDOT is willing to allow limited lane closures; however, such closures would require approval by WSDOT and are subject to traffic analysis and verification. For closures in the attended toll booth lanes, queue lengths cannot extend backwards onto the mainline.

5.2 New Construction

WSDOT intends to use a form of contract for this procurement (Best Value IT Contract), which precludes civil construction. Therefore, transition scenarios, including the use of temporary structures, that require substantial earthwork or foundations will not be allowed.

5.3 Revenue Loss

WSDOT would prefer a transition that results in no toll revenue loss but recognizes that some loss may be necessary. If so, WSDOT is evaluating how much toll revenue loss during transition that it can accept. If an amount can be established, WSDOT is considering an arrangement whereby the toll system solution provider would receive as an incentive the difference between the allowed revenue loss and the actual revenue loss. Under this arrangement, the toll system solution provider would assume any toll revenue loss beyond the allowed amount.

5.4 KPI Relief

WSDOT has not yet determined the Key Performance Indicators (KPI) for this project; however, WSDOT may consider waiving or reducing Key Performance Indicators during the period of transition.

6. Additional Information

The following documents are provided as additional information to assist toll system solution providers in understanding WSDOT's toll program and the infrastructure and revenue implications of transition.

Infrastructure Assessment – This document provides summary of an analysis of the toll system infrastructure to determine if the existing toll system gantries (box truss and square monotube) and associated infrastructure could accommodate additional equipment under a transition scenario in which the new toll system equipment is collocated alongside existing toll system equipment utilizing the existing structures and existing conduits running to roadside cabinets. This analysis is based on an inspection of the infrastructure conducted by WSDOT in the fall of 2018 to determine its serviceability, and may be found on WSDOT's public ftp site:

<ftp://ftp.wsdot.wa.gov/incoming/TNB%20Tolling/TNB%20Infrastructure%20Assessment.pdf>

Toll Division Annual Report – Each year, the WSDOT Toll Division produces an annual report outlining its overarching business goals and highlights from the past year. Annual reports for fiscal years 2013 through 2018 may be found on WSDOT's website: <http://www.wsdot.wa.gov/tolling/publications.htm>.

TNB Forecasted and Reported Toll Traffic – Each year, the WSDOT Toll Division produces a report of projected and reported revenue for the Tacoma Narrows Bridge. This report includes the number of transactions by type (tollbooth, *Good To Go!* pass, *Good To Go!* plate, pay by mail) by month. Projected and Reported Revenue Reports for fiscal years 2008 through 2019 may be found on WSDOT's website:

<http://www.wsdot.wa.gov/Tolling/TNBTolling/TNBLibrary.htm>.

7. Process to Participate in Discussions

WSDOT invites toll system solution providers to participate in private, in-person, one-on-one discussions with WSDOT to be held April 29-May 3, 2019 at WSDOT's Toll Division offices at 401 Second Avenue South in Seattle, Washington. To participate in this process, toll system solution providers shall observe the following process.

Step 1: Review This Document – Please review this document and the linked documents and consider WSDOT's goals for this procurement. Determine whether your firm can provide the requested services and whether your firm has unique perspectives or information to offer WSDOT. WSDOT is only interested in hearing from prime contractors at this point. Prime contractors, for the purposes of this request, are defined as firms willing to assume the risk of integrating a new toll collection system. Technology providers, consultant firms, and other non-prime contractors are requested to refrain from responding to this Request for Discussion and instead to contact firms likely to prime this procurement. WSDOT reserves the right to determine whether an interested party meets the definition of prime contractor and may decline a request for discussion.

Step 2: Schedule an Appointment with WSDOT – WSDOT will conduct private, one-on-one discussions with toll system solution providers onsite in Seattle. Each session will be 120 minutes in length, one in the morning, one in the afternoon. Discussions by telephone will not be permitted. Available time slots are as follows:

Mon, April 29	Tue, April 30	Wed, May 1	Thu, May 2	Fri, May 3
9am – 11am	9am – 11am	9am – 11am	9am – 11am	9am – 11am
1pm – 3pm	1pm – 3pm	1pm – 3pm	1pm – 3pm	1pm – 3pm

Interested toll system solution providers are instructed to send an email to the following contact requesting their first, second, and third time slot choices:

Robert Kopelk, Toll Systems Development Manager
KopelkR@wsdot.wa.gov

Requests should be sent as soon as possible but no later than 4 p.m. Pacific time on April 12, 2019. WSDOT will allocate time slots on a first-come, first-served basis. If there is more interest than space allows, WSDOT reserves the right to forego meeting with others or to provide additional time slots as needed.

No phone calls please. WSDOT will assign time slots and notify interested toll system solution providers of their assigned time slot via email and request confirmation. Additional instructions may be provided at that time.

Step 3: Meet with WSDOT – WSDOT will meet with interested toll system solution providers during the designated time slot within the designated week. Interested toll system solution providers should be prepared to discuss the following:

1. What fatal flaws do you see with this plan as proposed?
 - a. What conditions would allow you to leverage your experience and expertise to mitigate those issues?
 - b. What specific risks would you prefer to see WSDOT own?
2. What conditions or constraints regarding the transition would provide you the most flexibility and the highest level of success?

3. How can transition to a new toll collection system be achieved with no or minimal loss in toll revenue and with minimal impact to the public?
 - a. How can WSDOT achieve a transition with no or minimal revenue loss?
 - b. If some revenue loss must be realized, how should the vendor be incentivized to minimize revenue loss?
 - c. Should WSDOT be more prescriptive or less prescriptive in specifying the requirements and constraints for transition?
 - d. Discuss the table of constraints in the preceding section and identify any that should be reconsidered by WSDOT.
 - e. What incentives related to transition should WSDOT consider?
4. How can operational cost efficiencies be achieved through the application of innovation and technology?
 - a. WSDOT is interested in reducing the cost of attended toll booth operations. What technologies or innovations are available to allow for a reduction?
 - b. What incentives for achieving lower operational costs should WSDOT consider?
5. What kind of support is required from TransCore to facilitate a smooth transition?

Interested toll system solution providers are advised that WSDOT will focus discussions on the foregoing topics and the best way to specify the requirements related to the transition. WSDOT will not discuss other aspects of the procurement and is not interested in receiving presentations on firm qualifications, capabilities, or similar marketing materials at this time.

WSDOT will not create or publish a record of one-on-one discussions. The intent of the discussions is to educate and inform the RFP development team regarding the reasonableness of WSDOT's expectations and approach to the transition portion of this procurement. As such, interested toll system solution providers may prepare materials to facilitate discussions, but under no circumstances will WSDOT accept mailed, emailed, or left-behind materials.

Information, ideas, and concepts presented by toll system solution providers during these meetings may be incorporated into the final RFP; therefore, toll system solution providers should refrain from providing information, ideas, and concepts considered to be proprietary, confidential, or trade secrets.

WSDOT will not assume any expense incurred by toll system solution providers participating in this Request for Discussion. Toll system solution providers are solely responsible for their own expenses.

WSDOT may amend or cancel this Request for Discussion at any time for any reason.

8. Conclusion

Following completion of all discussions, WSDOT will consider what it learned from these discussions and complete development of the RFP.

WSDOT intends to issue the RFP during the summer of 2019, award a contract in the Winter of 2019, and go live with the new toll collection system and attended toll booth operations in Spring of 2021.