From: Robert Smith [bobakemi@comcast.net]
Sent: Sunday, December 12, 2010 2:07 PM
To: AWV SDEIS Comments
Subject: 2010 SupDrEIS - Comments on Alaskan Way Replacement Project

From Robert Smith, 9835 Arrowsmith Ave So, Seattle WA
Who attended Nov 16 meeting at Madison Middle School

Comments

I-140-001

1. Tolling - I am very skeptical about the tolling plan if it is put into effect. Proposing to get tolls as high as $4 or $5 at peak times looks totally unrealistic. If the tolls were standard at $1.00 or $1.50, and maybe up to $2 at peak periods, I think there would be acceptance for that.

I acknowledge that, we the public, have been conditioned to expect tolls on highway projects as the new reality. But does it make sense to predicate project financing on unrealistic revenue projections?

In the case of our family, we don't consider ourselves poor, but If the toll on the bore tunnel gets too pricey . . . more than $2.00 at the peak . . . I can't see using it except in truly urgent circumstances. I will be just another driver overloading the surface streets exploring alternative routes. Lots of waiting at lights, cutting through residential and commercial areas, alleys, parking lots and the like. And of course, using fuel inefficiently and generating more air pollution and ozone depletion. I believe that describes the general situation that will result if you price the tunnel passage too richly.

I-140-002

2. Tolling method - The transponder method of electronic toll collection looks like a proven way to gather tolls without slowing traffic flow. But how do you keep traffic from backing up if you still need a separate toll booth lane for cash collection from drivers not using the transponder system? This question is not addressed in the WSDOT website pages nor in the draft EIS. Wouldn't that be an important thing to explain when you are submitting this tunnel to the public and future users for comment?

I-140-003

3. Tunnel safety - The Parsons Brinckerhoff section of the DEIS speaks about the function of the lateral chambers at the south side of the tunnel.

> The wider shoulder would also provide access to emergency tunnel exits, which would be provided at least every 650 feet. In an emergency, travelers would walk along the shoulders to reach a doorway into a secure waiting area, called a refuge area, located between the tunnel's levels. Staircases inside the refuge area would provide access between the roadway levels. Signs would point travelers to the nearest exit, where they would either wait for assistance or walk out of the tunnel.

This says that the chambers are intended to be ambulatory escape routes for motorists and their passengers if for some reason they have to abandon their vehicles and walk to daylight. If so, that could involve having to walk nearly a mile to arrive at the outer world. Are the designers asking

I-140-001

Yes, if the new facility is tolled, traffic diversion is expected. The lead agencies acknowledge that a long-term solution should be sought to minimize the amount of diverted traffic in order to optimize operation of the transportation network. Strategies for optimization will be developed by the Tolling Advisory Committee (TAC). See Chapter 8, Mitigation, of the Final EIS for a discussion of the work of the TAC.

A detailed tolling analysis that includes effects to traffic has been conducted for all alternatives and is summarized in this Final EIS. Please refer to Appendix C, Transportation Discipline Report, for additional detailed analysis of tolling impacts to transportation elements.

I-140-002

SR 99 would use "open road" tolling, similar to what is being used on SR 520, so the toll structures would consist of gantries above the roadway, not toll booths used elsewhere. Toll booths would not be needed for drivers not using transponders. Instead, cameras would photograph the license plates of these vehicles, and their drivers would be mailed a bill. This information is available on the WSDOT website.

I-140-003

Yes, stairways to the surface are located at both ends of the tunnel. However, every 650 feet there would be an emergency exit leading directly into a refuge area. The refuge area provides a safe environment that has separate ventilation and is isolated from roadway traffic and emergencies with continuous walls. Each refuge area also has enough space for several wheelchairs, benches, a phone, and a camera so WSDOT would know when people are waiting for assistance. It is in the refuge areas, which are separate from the egress corridor, that those who need assistance would wait.

I-140-003 the aged, the infirm, the handicapped, and infants to walk this distance? How can this be mitigated and managed? This circumstance is not addressed in the DEIS.

And if so, are you serious about providing only two ambulatory refuge exits, one at each end of the 1.7 mile tunnel? Wouldn't it be logical to provide stair and elevator lift shafts perhaps at third point intervals? And is the refuge corridor only for the public, or is it also a means of access for emergency workers trying to get down to the scene of a serious accident? If the passageway is also for emergency workers, wouldn't that be additional reason to place interim access shafts from street level to improve response time?

I-140-004 Will there be trained response staff that will rush to the trouble spot when trouble happens? I find nothing in your information pages or the DEIS to reassure the public that you have a plan for quick response. Further, regarding getting emergency response vehicles to the scene, please read my separate concerns below, in ***5. Lane Widths.***

Safety summary: Incidents and emergencies will inevitably take place down in that 1.7 mile long tunnel. What measures will take place during those periods? If it is addressed in your materials, I can't find it. I have read through your website pages and the draft environmental impact statement without success on this area of concern. I would think you could call that a glaring deficiency.

I-140-005 **4. Lane polarity** - The cutaway illustration shows the lower roadway with the shoulder lane on the left of northbound traffic, and the upper roadway with the shoulder lane on the right of southbound traffic. It is apparent that this is due to the tunnel width restriction, meaning the escape/refuge corridor shoulder lane can be on one side only.

I understand that it is either the convention or the law that freight trucks are to stay to the right or outside lane on our highways. Yet your cutaway illustration shows freight on the right side going north and on the left side going south.

Does this mean that truckers will be directed to move to the left lane as they approach the southbound tunnel portal? Won't this necessitate lane repositioning by trucks as they approach the tunnel, and then lane repositioning once again after they emerge from the tunnel? Won't this will be a disruptive influence on motorists having to cope with this complication? And won't this result in degrading the vehicular volume planned for that stretch of Highway 99?

5. Lane Widths - The lane widths as shown in your tunnel design are set at 11 ft each for the two vehicle lanes, 2 ft for one shoulder and 6 ft for the other shoulder. Even a layman can see the inadequacy of this arrangement and I have to wonder what the thinking was when going forward with this substandard design. Were engineers told to compromise their standards to meet a cost target?

In using the AASHTO standard, WSDOT shrank the lane widths to a minimum, while still calling them legal. Then WSDOT essentially admitted that this was not good practice when it told bidders they would value-score proposals in the attempt to get a wider tunnel.The bid proposals are now in and the contractor has been selected. However the information released to the press gives no specifics as to whether this will produce a tunnel wide enough to accommodate proper sized lanes and shoulders.

I-140-004

The proposed bored tunnel would include safety features:

- Safe travel lanes: Two 11-foot travel lanes with shoulders in each direction would ensure enough space for legal size trucks. Long curves would allow for safe sight distances.
- Tunnel control center: The tunnel would have a 24-hour control center that would allow quick response to changing conditions and emergencies. WSDOT's tunnel operators would have access to real-time information about the tunnel's safety systems. The control center would have direct lines to the Seattle Fire Department, Police Department and other emergency responders.
- Incident response: Real-time traffic technology would minimize delays caused by collisions, stalled vehicles or other similar disruptions in the tunnel. If a collision occurs, incident detection systems would allow tunnel operators to view and respond to the incident.
- Emergency exits and refuge areas: Safe and effective evacuation routes would be provided for motorists. Enclosed emergency walkways, which would have independent ventilation and fire control systems, would run parallel to both traffic levels in the tunnel. The walkways would be separated from the tunnel's roadways by concrete walls and fire-rated doors. Access to the walkways would be provided about every 650 feet. In an emergency, travelers would walk along the shoulders to reach an emergency doorway and a safe refuge area. A flight of stairs would connect the refuge area to the emergency exit walkway and the non-affected level of the tunnel. Travelers unable to evacuate using the stairs would be protected by staying in the safe refuge areas, which would be equipped with fire-rated doors and lighting, ventilation and fire suppression systems. Refuge areas would also be monitored by cameras, provided with an emergency phone, and would be large enough to accommodate several people, including those with

I-140-005

a. Federal interstate highway standards call for 12 ft lanes and a 10 ft shoulder.

http://en.wikipedia.org/wiki/Interstate_Highway_standards

b. Washington State Highway Design Standards call for 12ft lanes and an 8 ft shoulder. 8 ft shoulder for law enforcement lane and for disabled vehicle lane.

http://www.wsdot.wa.gov/publications/manuals/fulltext/M22-01/1140.pdf

c. WSDOT employed the AASHTO minimum width for tunnels to justify a 30 ft roadway and a too narrow tunnel. This kind of decision-making is worrisome in the extreme.

How can a six foot shoulder lane be suitable for a disabled vehicle? And what about for an 8'-0" ambulance, or an 8'-6" tow truck, or a 9'-0" fire truck? [And these dimensions don't include the extended bracket mirrors.] There is no explanation about access for emergency vehicle in the DEIS.

There will be collisions and pile-ups that will result in a double lane blockage. How can emergency vehicles always and without exception reach the scene? How can you clear passenger vehicles past a blockage using a 6 ft shoulder lane?

Can you depend on passenger vehicles stopped in the lane adjacent to the shoulder always providing sufficient shy room clearance for emergency vehicles to move by in the shoulder lane?

Or are emergency vehicles expected to reach the scene by entering the tunnel from its exit portal, i.e. the opposite direction? The DEIS does not consider this question.

If that is the plan, where are the access locations near the portals that will permit emergency vehicles to enter the roadway in the reverse direction? The graphic presentation shows no provision for this.

Imagine the lawsuits against the WSDOT for wrongful death due to failure to design to federal or state standards.

Think of the fear of motorists being trapped in that tunnel, stuck in their vehicles or in the refuge corridor, waiting hours to get out of that nightmare. Count me among them. Take a good dose of tunnel claustrophobia and then add the fear of being trapped down there for hours. Result: Plentiful trouble that could have been avoided by better design.

I-140-006

6. **Freight traffic** - The FAQ's make the following statement:

Would there be restrictions on freight using the bored tunnel?
Most freight would be able to use the proposed bored tunnel. Vehicles hauling hazardous or combustible materials would be prohibited from the tunnel, similar to current restrictions in the Battery Street Tunnel and on the viaduct during peak hours. These vehicles would take I-5 or the waterfront, as they do today.

wheelchairs. Fire, police or WSDOT incident response vehicles would be dispatched to those waiting in the refuge areas.

I-140-005

Lane polarity

The purpose of the bored tunnel cross-section graphic is to provide the reader with a conceptual illustration of what the tunnel would look like. This conceptual exhibit, as seen on page 92 in the 2010 Supplemental Draft EIS, is not meant to comment on what type of vehicle is allowed to travel in which lane.

Lane widths

Yes, the shoulder widths proposed in the tunnel are a deviation from WSDOT roadway design standards. As explained in the 2010 Supplemental Draft EIS in Chapter 5, this deviation is necessary to minimize the diameter of the bored tunnel. The tunnel design proposed by the selected design-build contractor has a 2-foot shoulder in one direction and an 8-foot shoulder in the other direction. The 8-foot shoulder will help with emergency vehicle access and provide space for disabled vehicles to stop. All design standards deviations proposed for this project are contained in the Design Approval Package that was prepared by the project team and approved by WSDOT and the Federal Highway Administration (FHWA). The lead agencies are concerned about safety and will ensure that the roadway is built to be a safe facility for travelers.

The lead agencies have coordinated with emergency service providers on the proposed design of the project and it is the responsibility of these service providers to have an emergency response protocol or plan to respond to emergencies located in the tunnel.

I-140-006

The way that this ambiguous statement is worded makes it sound like freight trucks hauling hazardous cargoes will be prohibited from the tunnel, but only during peak hours.

Does this mean that hazardous waste can be hauled through the tunnel during other hours? That sounds patently ridiculous, and very frightening.

If access to the tunnel by freight trucks can be regulated, as this policy states, then why not consider reducing or denying freight traffic during peak tunnel hours, as a means of improving overall traffic volumes? It would also improve safety. With the tunnel limited to two lanes in each direction, the larger and cumbersome truck-and-trailer combinations will lead to additional difficulty at times when an incident takes place and the tunnel gets seized up.

Robert Smith
9835 Arrowsmith Ave So.
Seattle, WA 98118

I-140-006

At this time transporting hazardous materials in the Battery Street Tunnel is prohibited. The Final EIS notes that hazardous and flammable cargo would be prohibited in the bored tunnel all day. Currently hazardous/flammable materials can be transported on downtown city streets without restriction, as long as the trucks do not exceed 30 feet in length. Vehicles exceeding 30 feet in length carrying hazardous or flammable materials wishing to travel through downtown Seattle would continue to use I-5 Alaskan Way. This practice is not expected to change as a result of Alaskan Way Viaduct Replacement Project construction activities.