King County

Department of Local Services
Road Services Division

April 23, 2024

TO: Stacy Graves, Project/Program Manager, Permitting Division

FM: Tanner Harris, Environmental Scientist, Environmental Unit

RE: Construction Hours Variance Request
Duvall Slough Bridge No. 1136B Redeck Project #1142850

King County Department of Local Services, Road Services Division (Roads) is requesting a Construction Hours Variance to work outside of normal hours of operation per King County Code (KCC) 12.86.550. The following information is provided in support of this request.

Project: Duvall Slough Bridge No. 1136B Redeck Project #1142850

Applicant/Contact: Tanner Harris
Environmental Scientist III, Environmental Unit
Road Services Division, King County Department of Local Services
155 Monroe Avenue NE (Mailstop: RSD-LS-0100)
Renton, WA 98056

Project Location: The project is located on NE Woodinville-Duvall Road, approximately 1,400 feet west of State Route (SR) 203 (Duvall-Monroe Road NE), in unincorporated King County, west of the City of Duvall. The project area occurs in the NE quarter of Section 14 in Township 26N and Range 06E, Willamette Meridian.

Project Narrative: The Duvall Slough Bridge No. 1136B carries NE Woodinville-Duvall Road over Duvall Slough, a Type F stream also known as Tuck Creek. NE Woodinville-Duvall Road is an urban principal arterial that connects the cities of Duvall and Woodinville and numerous unincorporated communities in between. In the vicinity of the project site, NE Woodinville-Duvall Road had an average daily traffic count of 10,560 vehicles in 2019, the most recent year counts were conducted. The bridge exhibits substantial levels of deterioration throughout the bridge deck, particularly on the driving surface. The bridge does not have approach slabs, and there is continuous settlement on the approach roadway fill causing traffic vehicle impacts to the bridge. The bridge currently has three expansion joints that are exhibiting restricted movement for thermal expansion. The settlement and restricted thermal expansion are also contributing factors to the ongoing deck deterioration. The project will scarify the existing bridge deck using hydro-demolition, repair the deck with a structural concrete overlay, and replace the frozen expansion joints. The approaches will be excavated to the depth of the exiting road fill prism and reconstructed using geotextile-wrapped lifts.

To minimize impacts to the traveling public, the project will occur during the summer months when school is out of session and the work will occur under a full road closure. The start date for the work is anticipated to be on or around July 08, 2024. The work is anticipated to take approximately 38 working days to reach substantial completion. Standard equipment will be needed to complete the project, see the attached equipment table as a reference.

Variance Requested: To expedite project work and maximize efficiency during the full road closure, Roads is requesting a Construction Hours Variance for up to 14 days within the construction period, from approximately July 08 to August 31, 2024.

Justification for Variance:

- NE Woodinville-Duvall Road is a heavily traveled urban principal arterial that provides a connection from the cities of Woodinville and Redmond to Duvall and a critical route across the Snoqualmie Valley.
- The project will repair the deteriorating bridge deck and joints and provide stabilization of the bridge approaches to reduce settlement maintenance needs.
- Roads anticipates that allowing work outside of normal construction hours will help the contractor to complete most of the work within the total number of allowed closure days. This will help to reduce economic hardship to local area residents if the closure prevents or delays them from traveling to work, or from accessing childcare or other services necessary for work.
- Allowing work at night/early morning is anticipated to have less impact on the public because the road is closed during this time.
- No homes or local businesses are located within 500 feet of the project location (see the attached map).
- No known sensitive receivers are located within 500 feet of the work area.

Mitigation Measures: Per KCC 16.82.105.B.6, proposed measures are provided to minimize noise impacts to avoid health and safety hazards outside of normal hours of operation. The forested conditions and topography surrounding the project are anticipated to provide additional sound attenuation. To further reduce noise impacts, the following mitigation measures will be implemented:

- General mitigation measures listed in attached equipment table will be implemented to the extent feasible.
- All vehicles will be equipped with backup warning devices, except pure tone devices, to the extent allowed or required by the Washington State Department of Labor and Industries. Workers may use back-up observers in lieu of back-up warning devices for all equipment except dump trucks in compliance with WAC Chapter 296-155-610 and 296-155-615. Workers shall use back-up observers and back-up warning devices, except pure tone devices, for dump trucks in compliance with WAC Chapter 296-155-610.
- All trucks shall have well-maintained bed liners as inspected and approved by the Engineer.
- Truck tailgate banging is prohibited. All truck tailgates shall be secured to prevent excessive noise from banging.
- All equipment shall be properly muffled and comply with all applicable local, state, and federal regulations.
- Music, loud voices, radios, and other such amplifying equipment shall not be used in a manner that is heard outside the immediate work area.
- A copy of the construction hours variance shall be kept on the project site at all times.
- A 24-hour complaint number (listed below), as well as a list of designated contact persons, shall be provided for the purpose of forwarding complaints.
- Roads will provide additional verbal and/or written notice to parcel owners within approximately 500 feet that might be potentially affected by noise at least 14 days prior to the start date of the work.

- Public outreach for the upcoming work may also employ social media.
- Additional information for the public will be available on the project website.
- Permitting Division will be notified prior to the actual start date of the work per the conditions of Construction Hours Variance.
- Roads will maintain an accurate record of the work completed on this project per ongoing coordination with the contractor.
- Contact information during construction is as follows:

    - Victor Daggs, King County Roads, Construction Supervisor
      206-423-1063, Victor.Daggs@kingcounty.gov

    - Fabia Fu, King County Roads, Resident Engineer
      206-477-5826, ffu@kingcounty.gov

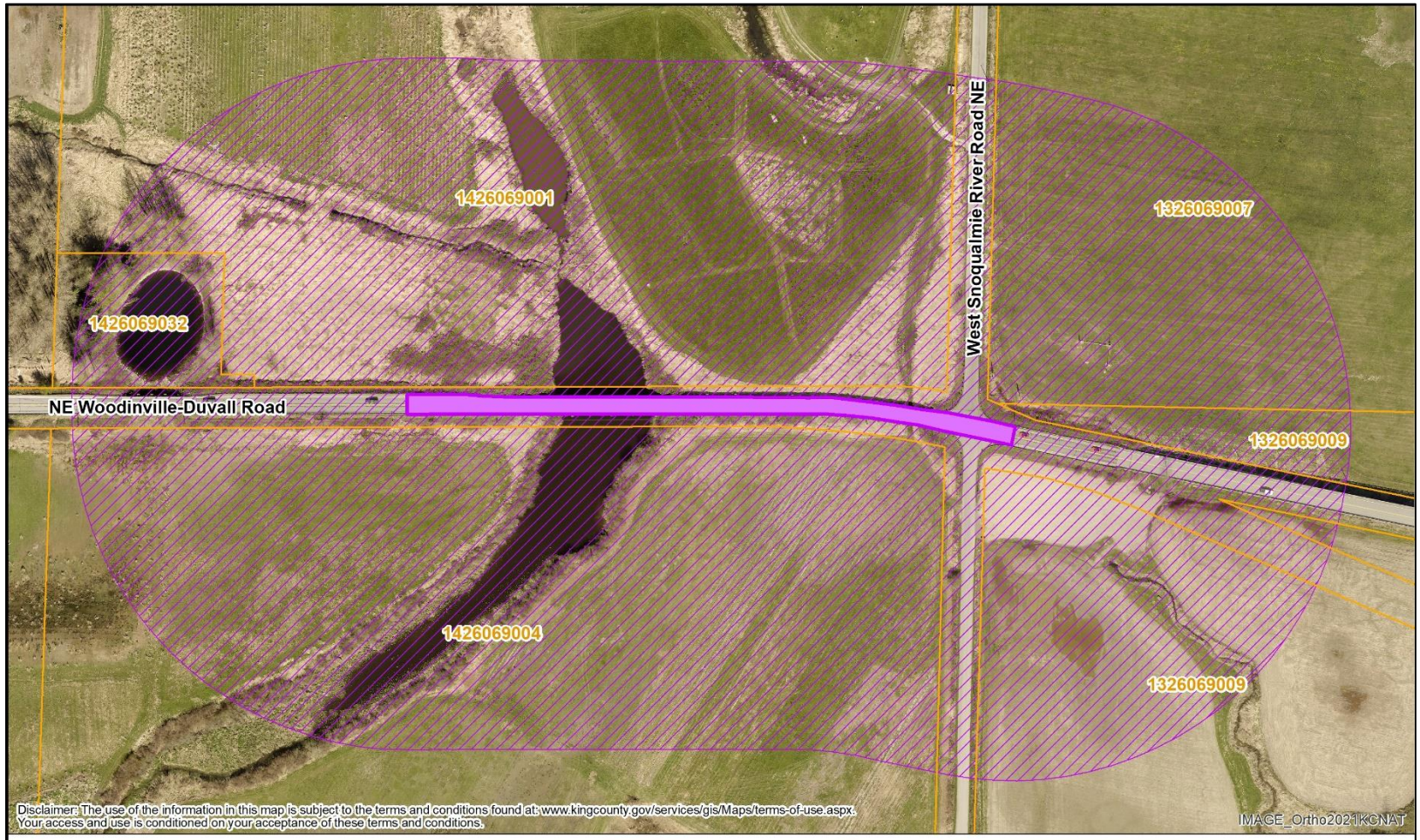
    - Roads 24-hour complaint/information number
      206-477-8100

Thank you for your assistance with this project. If there are any questions, please call me at 206-263-8179 or email me at tanharris@kingcounty.gov.

Enclosures

TH

cc: Jessy Jose, Project Manager, Bridge Unit



Duvall Slough Bridge No. 1136B Redeck

Figure 2. Parcels within 500 Feet of the Project

King County Parcels
Project Area
500-Foot Buffer

0 125 250 500 Feet

N

King County

T. Harris - April 15, 2024

Equipment Table

Equipment	Sound Level (dBA)[a]			Mitigation Measures
	At 50 ft	At 500 ft	At 1000 ft	
Air compressors	68	48	42	No residences are present within 500 feet. The nearest residences appear to be located 900 to 1,200 feet from the project site. At 1,000 feet, the loudest piece of equipment (hydro-demolition machine) is expected to produce a maximum of 64 dBA, a sound level similar to a normal conversation. The project will implement standard best management practices (BMPs) to minimize noise levels such as using only non-pure tone back-up alarms, prohibiting truck tailgate banging, and minimizing the use of percussive equipment (e.g., jackhammers) outside of normal construction hours. With the implementation of basic BMPs, no residences are anticipated to be significantly disturbed by work outside of standard construction hours.
Asphalt paving machines	80	60	54	
Concrete saws	85	65	59	
Dump trucks	79	59	53	
Generators	71	51	45	
Jackhammers	88	68	62	
Portable light plants and generators	72	52	46	
Pickup trucks	64	44	38	
Striping trucks	78	58	52	
Street sweeper	72	52	46	
Asphalt grinding/planing machine	85	65	59	
Vactor truck	85	65	59	
Hydro-demolition machine	90	70	64	
Excavator	85	65	59	
Mini-Excavator	80	60	54	

[a]Based on published noise levels (L_{max} at 50 ft) for common construction equipment and soft-site noise attenuation (WSDOT Biological Preparation Manual, 2020 Update).