



# SR 520 Floating Bridge and Landings Project

## Technical Noise Variance

Public Hearing, Medina, WA June 15, 2016

**Kiewit/General/Manson, A Joint Venture**

Cody Bishop, Project Director

Kate Snider, Floyd|Snider, Permit Lead





# Existing Noise Variance Ends July 13, 2016

## Existing Noise Variance Issued March 2012

- Covered all project work, including demolition
- Anticipated completion of demolition in 2015

## Need for Additional Noise Variance Coverage

- Project delays due to pontoon repair work extended the overall project duration by 17 months
- Work still to be completed:
  - Demolition of old bridge
  - Noise wall construction, completion of park and ride
  - Slope re-establishment and landscaping





## Purpose of Noise Variance Coverage

### Potential Daytime Noise Exceeding Threshold

- Most daytime work is within allowable limits
- May be periodic noise that exceeds limits, especially at properties immediately adjacent to existing bridge East Approach, within 50-100'

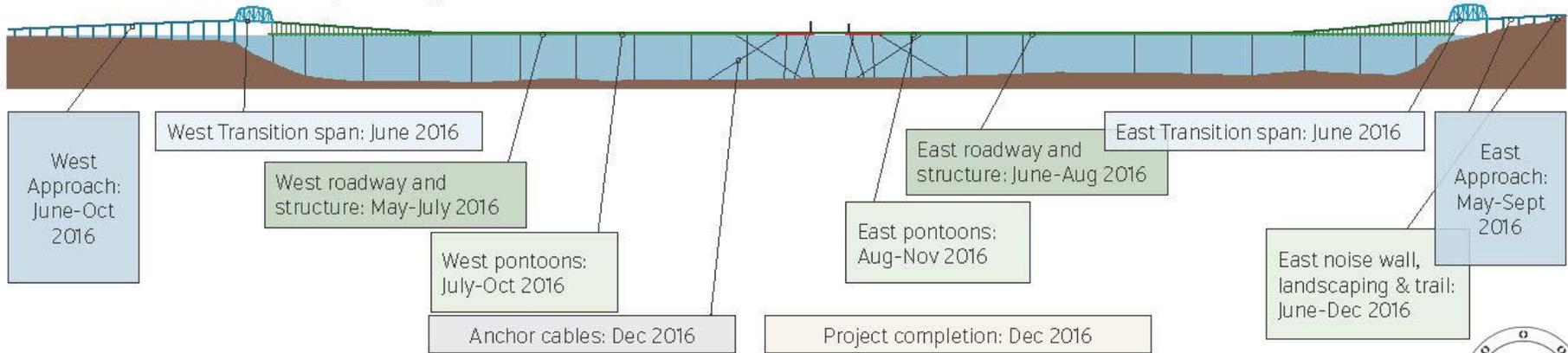
### Potential Contingency Night Work

- No night demolition work is planned
- Night time staging will occur (barge and equipment movement)
- Some night construction for noise walls/park & ride during lane closures
- Night demolition work may be necessary as contingency if schedule delays
- Limited night work may be necessary to fit work within National Marine Fisheries Service (NMFS) Permit fish windows or storm seasons





## Old SR 520 Floating Bridge Demolition Schedule



Note: concrete demolition for transportation occurs on barges within the project limits: June-Nov 2016





## Demolition Activities

- **East Transition Span Removal** June 2016
- **East Approach Demolition** May - Sept 2016
- **Remove Superstructure from pontoons** June – Sept 2016
- **Float Out pontoons** Aug – Nov 2016
- **Demo Concrete for Transportation\*** June – Nov 2016
- **Remove Anchor Cables** Dec 2016
- **Planned completion - December 2016**

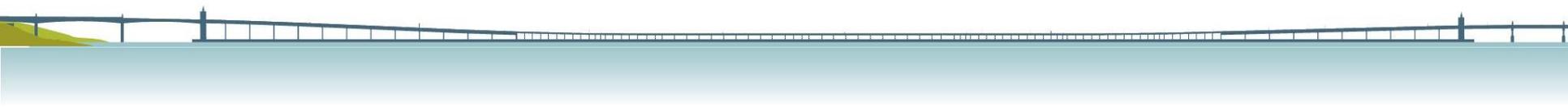
\*Concrete from demolished structures will be broken up to separate rebar, and to create chunks that can be transported by truck. Concrete breaking will occur on the structures or in barges on the lake within the project limit. Pontoon superstructure demolition will occur at the East Side Staging Area. Debris will be barged to Kenmore and transloaded to trucks for transportation to the recycling facility. Debris from the East Approach upland area will be trucked from the site. pontoons will be floated whole out the locks.





## **Non-Demolition Construction Activities**

- **Noise Wall Construction** May - Oct 2016
- **Park and Ride Area Construction Finishing** Aug - Sept 2016
- **Slope Reestablishment and Landscaping** Sept - Oct 2016
- **Anchor Cable Work** July – Dec 2016





## Noise Minimization Measures

All requirements of updated Construction Mitigation Plan and 2012 Noise Variance will be followed. Best available minimization and mitigation measures will be used, including:

- Electric tools/equipment where possible, minimize generator use
- Mufflers on all equipment, ambient back up alarms, regular equipment inspections
- When feasible, limit high noise activities to daytime, and complete noisiest night work before midnight
- Locate stationary equipment as far from noise-sensitive properties as possible, use noise mitigation blankets/barriers as feasible
- Prohibit unnecessary idling and tailgate banging
- Majority of demolition debris will be hauled offsite on barges not through Medina





## Notification, Hotline and Monitoring

- Provide construction and demolition schedules to City monthly
- Notify impacted residents at least 7 days in advance of planned night work
- Continue existing 24-hr construction hotline for community concerns
- Maintain construction log to use if necessary to identify activities or equipment of concern, and facilitate quick resolution of issues
- Continue conducting noise monitoring during nighttime construction activity, provide quarterly reports to City





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**Additional Slides if Needed**





# April 2015 Air Photo

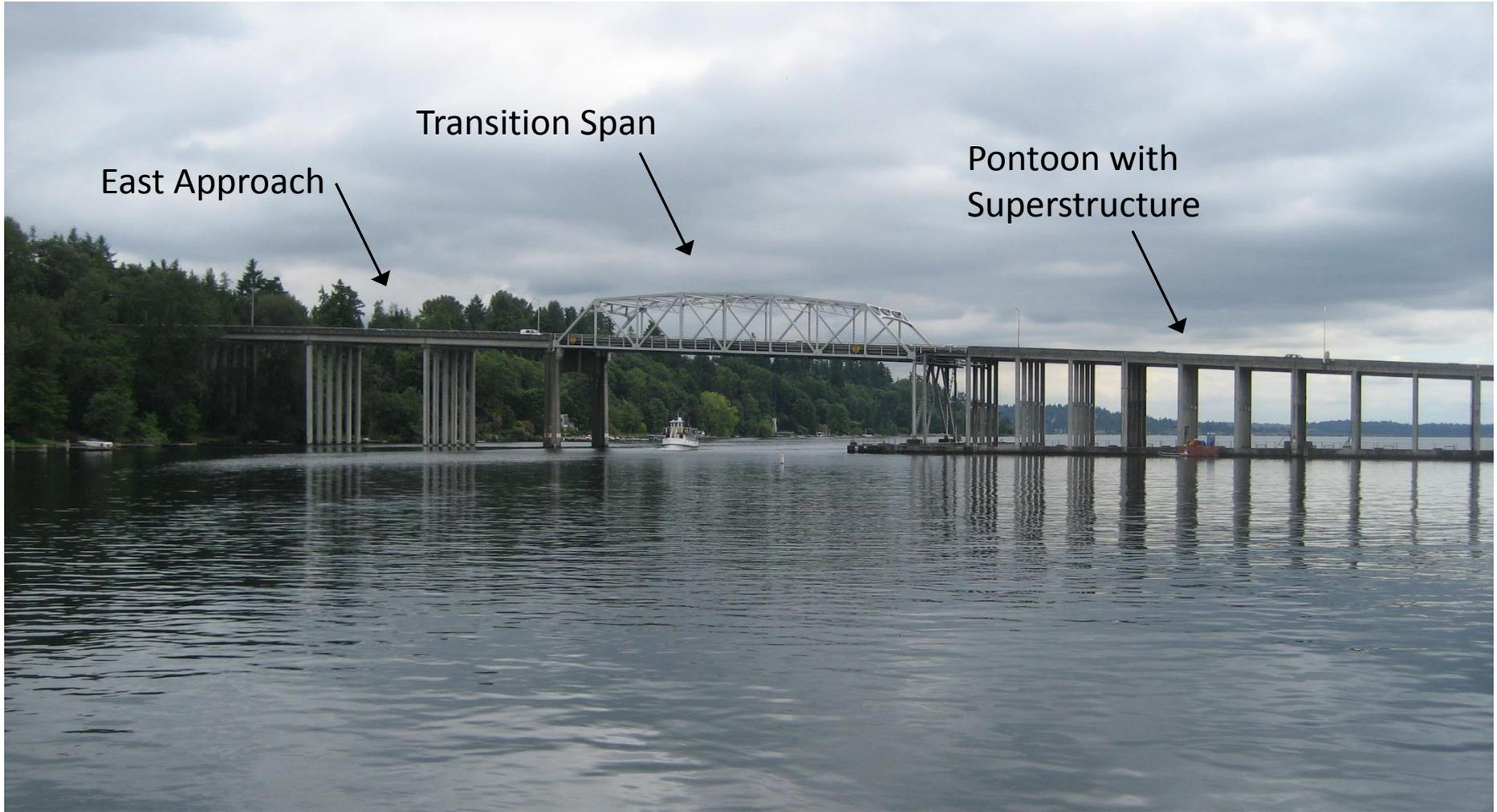


Google earth





# Existing Bridge

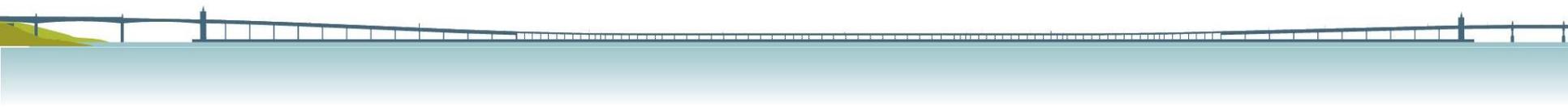




## Estimated Peak Noise Levels

- Permissible sound levels for construction activity:
  - 7:00am to 10:00 pm weekdays, 9:00am to 10:00pm weekends = 80 dB(A)
  - 10:00pm to 7:00am weekdays, 10:00pm to 9:00am weekends = 45 dB(A)
- Estimated peak noise levels fall as distance from activity increases:

Distance from Site in feet	50	100	200	400	600	800	1,000
7:00/ 9:00 am to 10:00 pm daytime range in dB(A)	74-90	67-83	59-75	52-71	44-64	37-56	29-49
10:00 pm to 7:00/ 9:00 am nighttime range in dB(A)	74-85	67-78	59-75	52-71	44-60	37-56	29-50





## Construction Areas and Offset Distances

