

INTRODUCTION

This supplemental report is provided to Salem City Council in preparation for its January 30, 2019, work session regarding the Salem River Crossing Project. This report augments the Salem River Crossing Project Questions and Answers document provided to City Council on January 18, 2019. The questions answered in this report were received from Councilors after the earlier report had been completed.

1. SUPPLEMENTAL QUESTIONS

- a. Could you investigate how the City or ODOT, as a matter of planning to be resilient after a natural catastrophe, could obtain a pontoon bridge from the National Guard or similar organization, store it on city property, and utilize it if an earthquake destroys the bridge by the efforts of the Guard or other similar organization? What is the ball park estimate of the costs of obtaining a pontoon bridge? How quickly could it be deployed?

The Oregon National Guard no longer has a bridging asset or capability in its inventory. An Army Reserve unit, which is under federal command and control, does have a portion of this capability in Clackamas. This team would likely be utilized as part of the federal response in the Portland Area.

To answer the question regarding the City owning and prepositioning equipment required for a pontoon bridge (also called a “Ribbon Bridge” by the military), City staff assumed the spanning distance was between 800 and 1,000 feet. Based on this preliminary estimate, the City would need to procure, store, and maintain between 38 and 44 bridge sections, each of which would be mounted on a launch truck. Two end sections, several water craft, repair supplies, specialized tools and equipment, and fueling facilities would also be required, in addition to trained personnel.

All prepositioned equipment—bridge sections, trucks, water craft, and supporting rolling stock and materiel—would require routine inspection and repair. The personnel assigned to maintaining and operating the equipment would require ongoing training. Based on standards of practice in the US military, there should be periodic operational exercises during which the equipment is tested and the bridge is deployed. Installing the bridge must be done at a location where both opposing riverbanks do not exceed gradient limitations for bridge operations. There are also limits on the maximum current allowed for installation and operation of a pontoon bridge.

City staff were unable to determine the cost for initial acquisition of the necessary equipment and facilities. Cost estimates for ongoing storage, material, operation, training, or personnel were also not determined.

The US Army Manual for Military Float Bridge Operations (1988) is available online.¹ Information on the personnel and material needed for a US Army Engineer Company to transport, assemble, disassemble, retrieve, and maintain a standard US Army bridging system is also available online.²

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- b. How do the traffic flow impacts of the Congestion Relief Task Force options that add one lane to each bridge compare with the traffic flow impacts of the Preferred Alternative, and how do the construction and operating costs compare?

Although discussed at length by members the Congestion Relief Task Force, the members did not recommend any improvements that would add lanes to the bridges.³ In part, this was because adding lanes would provide no benefits unless accompanied by other projects east and west of the bridgeheads. Collectively, the set of projects—called “Solutions Packages” in the Task Force report—cost between \$155 and \$202 million.⁴ This cost does not include an estimated additional \$161 million to seismically retrofit the two bridges.⁵ This value can be compared to the \$425 million required for the entire Salem River Crossing Project (in 2020 dollars). A more likely scenario would involve phasing the Salem River Crossing Project. It would cost about \$300 million for the new bridge and approaches if all four bridge lanes are constructed. It would cost less than \$300 million if the first construction phase was limited to one bridge with two lanes.⁶ Per the work done for the Congestion Relief Task Force, downtown congestion would return to its preconstruction levels within 10 years of project completed.⁷ The traffic analysis performed for the Congestion Relief Task Force was independent of the Salem River Crossing Project and used different time horizons (10 years vs. 20 years). Additional analysis would be needed to make a direct comparison of the traffic flow between Congestion Relief Task Force options and the Preferred Alternative.

Additional information regarding the work of the Congestion Relief Task Force can be found in Section 12 of the Salem River Crossing Project: Question and Answers report dated January 18, 2019.

- c. From a procedural perspective, could the Salem City Council consider a motion that the cost estimates for the Preferred Alternative will exceed \$500 million and require that the Salem River Crossing Oversight Team develop a detailed financial plan before the Salem City Council would consider Land Use actions regarding the LUBA remand?

The cost estimate for the Preferred Alternative is \$425 million in 2020 dollars and it is uncertain how that value can be changed by a City of Salem Council motion. Per the Staff Report for the January 30 work session, the matter currently before Council is whether it intends to proceed with the land use actions leading to a Final Environmental Impact Statement or to abandon the EIS process entirely. The FHWA Administrator has advised ODOT and the City that a definitive statement from Council indicating whether or not it intends to proceed toward completing the FEIS must be received by FHWA by mid-February.⁸ If a Record of Decision is issued for the Preferred Alternative, ODOT and its partner agencies, including the City of Salem, will need to prepare a financial plan before any federal funds can be authorized for construction.⁹

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- d. In 2016, the Land Conservation and Development Commission promulgated Administrative Rules establishing a minor amendment option with criteria for streamlining the process for Urban Growth Boundary (UGB) expansions of under 50 acres. If the City Council were to approve a motion that it is impracticable to construct the Preferred Alternative and make the expansion serviceable within a reasonable time period, would State land use laws and Administrative Rules including OAR 660-024-0065 (4) and (7) enable the Salem City Council to exclude land in West Salem from consideration for a UGB expansion?

In OAR 660-024-0065, the issue of impracticability is related to: (1) the land is subject to significant development hazards (landslides, flooding, tsunamis, etc.); (2) the land consists of a significant scenic, natural, cultural, or recreational resource; or (3) The land is owned by the federal government and managed primarily for rural uses. Issues related to OAR 660-024-0065 (Land Conservation and Development) Sections (4) and (7) are discussed in pages 119-129 in the Findings Report. Additional findings, quoted below, are from Page 123 and Page 124 of the report:¹⁰

Findings – 660-024-0065(4): As noted above, the preliminary study area was narrowed to areas that would meet the suitability characteristics established through analysis in earlier studies. No other areas were excluded based on 660-024-0065(4). Because the transportation need relates specifically to a crossing of the Willamette River, portions of all alternatives (including 2A) are within the FEMA Special Flood Hazard Area. However, City of Salem regulations would require no rise in the flood elevation for any build alternative.

Findings – 660-024-0065(7): The provisions in 660-024-0065(7) are not relevant to the proposed UGB expansion based on an identified transportation need that requires particular land characteristics to be suitable.

- e. How many feet of park land, floodplain, and floodway would be impacted by construction of Marine Drive?

The answer to this question cannot be provided until further engineering, design, surveys, and other project planning actions are completed. None of those actions will be taken until Council has approved funding for the preliminary engineering for Marine Drive (or a segment of Marine Drive).

- f. Would the intersection of Calico Street and Marine Drive remain open once the proposed Preferred Alternative is built. If not, how would residents access the 40 parking spaces on the east portion of Calico Street without relocating the residents' laundry building, or does the plan include provisions for relocating the laundry facilities?

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The conceptual design for the Preferred Alternative assumes that the intersection of Calico Street and Marine Drive will be operated as right-in/right-out which would continue to allow access to the parking spaces on the east portion of Calico Street.

- g. If the Preferred Alternative were constructed with a new four-lane bridge, and the two-lane section of Marine Drive between Pioneer Village and Wallace Marine Park were found to be inadequate to accommodate regional freight and car traffic, would the viaduct with elevated roadway that was removed from Alternative 4D by the Salem City Council be the likely option for increasing capacity without removing four 4-plexes from Pioneer Village or expanding Marine Drive into more of Wallace Marine Park?

The traffic analysis prepared for the Final EIS indicates that all but one intersection along Marine Drive will meet applicable mobility targets in 2040. The one intersection that is projected to not meet mobility targets is at the west bridgehead, north of both Pioneer Village and Wallace Marine Park. ¹¹ If conditions change in the future, new analysis would need to be undertaken, including a possible need for a new or Supplemental Environmental Impact Statement. In any case, Council approval would be required before staff could even begin to consider any project of this magnitude.

- h. City management indicate in public hearings that two short segments of Marine Drive south of Harritt Drive that cross outside the Urban Growth Boundary cannot be constructed without an Urban Growth Boundary expansion. Please provide documentation of this requirement and related communications between City of Salem and Department of Land Conservation and Development representatives.

Construction of Marine Drive is in the Council-adopted Salem Transportation System Plan. If Council does not address the UGB expansion as part of the Salem River Crossing Project, then it will have to address it later whenever this segment of Marine Drive comes to Council for consideration. The portions of the Marine Drive alignment currently outside of the UGB cannot be constructed until brought into the Salem-Keizer UGB. That determination is from the City Attorney's Office. In a Staff Report from February 8, 2016: ¹²

Portions of the adopted alignment [of Marine Drive], however, are located outside the UGB in three locations. These deviations from the UGB were the result of the irregular nature of the UGB, requirements of the design standards, and to minimize environmental impacts associated with Glen Creek at the north terminus of the street alignment. Construction of Marine Drive NW outside of the UGB is not permitted under Polk County land use regulations.

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- i. The Preferred Alternative would require demolition of about 100 buildings where people live and businesses operate. Please estimate how the buildings are occupied and summarize how many residents, business owners, and employees would have to find other housing, business space, or jobs, with data broken out by east vs. west Salem location of the buildings and the race, ethnicity, age, and household income of the affected occupants.

This level of detail is not available at this time. As preliminary engineering moves toward survey and design, information on specific property required, for example, to widen an intersection, add a turn lane, incorporate a bike lane, or extend a sidewalk are identified. For City projects, property acquisition proceedings require Council approval. The Salem River Crossing Project Environmental Justice Technical Report Addendum evaluated the potential direct, indirect, and cumulative impacts on minority and low income populations associated with the No Build and Preferred Alternatives. Based on the results of the analysis, the report made the following conclusion.¹³

The preferred alternative would result in both adverse impacts and benefits for environmental justice communities as well as the general population. For some elements, implementation of proposed mitigation measures would eliminate or reduce adverse impacts. When taking into account the mitigation measures, enhancements, and potential offsetting benefits, the preferred alternative does not appear to result in a disproportionately high and adverse effect on minority or low-income populations.

- j. Would the Preferred Alternative require demolition of an RV park such as the Rosehaven 55+ Community along Commercial Street NE and if so, how many units are there, what is the average monthly rent paid by the long-term residents of the park and what local equivalent options exist for those people if they are forced to move?

According to the draft Right-of-way Technical Report, the Preferred Alternative assumes a property-only impact to the tax lot on which the Rosehaven Community is located. No units would be displaced.¹⁴

- k. Has the Oregon Department of Parks and Recreation made a "Section 4(f) Resource de minimis impact" determination regarding the Preferred Alternative related to McLane Island park land, the Willamette Greenway, or the national and state Willamette River Water Trail? If it has not, when will this be considered?

The Oregon Department of Parks and Recreation (OPRD), as the Official with Jurisdiction over the Willamette River Water Trail, will need to concur with the FHWA preliminary determination that project actions will result in a Section 4(f) de minimis impact to the Willamette River Water Trail, consistent with 23 CFF Park 774.17. FHWA sought comment on this preliminary determination in the

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summer of 2017. To our knowledge, OPRD has not yet issued their concurrence. This will need to be issued prior to publication of the Final Environmental Impact Statement.

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References

- ¹ US Army, 1988. Military Float Bridge Equipment. Training Circular 5-210. December 27, 1988. 208 pages.
Available at: https://armypubs.army.mil/epubs/DR_pubs/DR_a/pdf/web/tc5_210.pdf. (Accessed January 29, 2019)
- ² US Army, undated. "US Army Table of Organization and Equipment." Engineer Company, Multi-Role Bridge.
Available at: <https://fas.org/man/dod-101/army/unit/toe/05473L000.htm>. (Accessed January 29, 2019)
- ³ DKS Associates, 2018. *Salem Congestion Relief Task Force: Final Report*. Prepared for the City of Salem by DKS Associates, Cogito Partners, and Angelo Planning Group. October 19, 2018. Available at: <https://www.cityofsalem.net/citydocuments/traffic-congestion-task-force-recommendations-final-report.pdf>. (Accessed January 28, 2019).
- ⁴ More information regarding the Congestion Relief Task Force's Solution Packages can be found in DKS Associates (2018). See "Project Ideas" (pages 4 - 6) for written descriptions the packages. The material in Appendix H (Task Force Meeting #4) provides graphics and additional information regarding the Solution Packages.
- ⁵ Hewitt, Becky and M. Dorman, 2016. Findings Report: Salem River Crossing Preferred Alternative. Angelo Planning Group. October 4, 2016. Page 246. Available at: <https://www.cityofsalem.net/citydocuments/salem-river-crossing-ca16-04-exhibit-1-findings-report.pdf>. (Accessed January 28, 2019).
- ⁶ City of Salem, 2019. "Salem River Crossing Project Questions and Answers." Prepared for the Salem City Council Work Session, January 30, 2019. Original report is dated January 18, 2019. 126 pages. See Section 9 for estimates on the costs for the Salem River Crossing Project. See Section 10 on funding options. Available at: <https://salem.legistar.com/LegislationDetail.aspx?ID=3844953&GUID=A5304C2A-07F7-4174-A98F-EB86CDAA9DA9>. (Accessed January 28, 2019)
- ⁷ More information regarding the Congestion Relief Task Force's Solution Packages can be found in DKS Associates (2018). See "Project Ideas" (pages 4 - 6) for written descriptions the packages. The material in Appendix H (Task Force Meeting #4) provides graphics and additional information regarding the Solution Packages.
- ⁸ City of Salem, 2019. Staff Report. City Council Work Session of January 30, 2017. File Number 19-53. "Information on the Salem River Crossing Project for Council Work Session on January 30, 2019." Available at: <https://salem.legistar.com/LegislationDetail.aspx?ID=3844953&GUID=A5304C2A-07F7-4174-A98F-EB86CDAA9DA9>. (Accessed January 28, 2019)
- ⁹ City of Salem, 2019. "Salem River Crossing Project Questions and Answers." Prepared for the Salem City Council Work Session, January 30, 2019. Original report is dated January 18, 2019. 126 pages. See Question 10.e.
- ¹⁰ Hewitt, Becky and M. Dorman, 2016. Findings Report: Salem River Crossing Preferred Alternative. Angelo Planning Group. October 4, 2016. Available at: <https://www.cityofsalem.net/citydocuments/salem-river-crossing-ca16-04-exhibit-1-findings-report.pdf>. (Accessed January 28, 2019).
- ¹¹ ch2m, 2016. "Salem River Crossing Project – Traffic and Transportation Technical Report Addendum." Draft. October 2016. Table 4.2-4. Available at: <https://www.cityofsalem.net/citydocuments/salem-river-crossing-ca16-04-src-traffic-transportation-final-tech-report-addendum.pdf>. (Accessed January 28, 2019)
- ¹² City of Salem, 2016. Staff Report. City Council February 8, 2016. Agenda Item 3.3(c). "Marine Drive NW, Urban Growth Boundary, and Streets and Bridges Bond Fund." <http://temp.cityofsalem.net/CouncilMeetingAgenda/Documents/346/3.3c.pdf>. (Accessed: January 28, 2019)
- ¹³ Ch2m, 2016. "Salem River Crossing Project – Environmental Justice Technical Report Addendum." Draft. Prepared for the Oregon Department of Transportation. October 2013. Quote is from Section 5.4 on page

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5-6. Available at: <https://www.cityofsalem.net/citydocuments/salem-river-crossing-ca16-04-src-envjustice-finaltechrpt-addendum.pdf>. (Accessed January 15, 2019)

- ¹⁴ Angelo Planning Group, 2016. "Salem River Crossing Project: Right-of-Way Final Technical Report Addendum." Draft. Prepared for Oregon Department of Transportation by Universal Field Services, Inc. August 2016.. Available at: <https://www.cityofsalem.net/citydocuments/salem-river-crossing-ca16-04-src-row-finaltechreport-addendum.pdf>. (Accessed January 28, 2019)