



## French Prairie Bridge Project Memorandum

Date: February 13, 2018  
To: Technical Advisory Committee  
From: Project Management Team  
RE: TAC Meeting #3 – Project Update

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Attached to this memorandum you will find meeting packet information for Technical Advisory Committee (TAC) Meeting #3 to be held on Wednesday, February 28, 2018.

Our primary meeting objective is to share and discuss TAC members' assessments of the three bridge locations. Please carefully review the packet and take action according to one of the options below before our meeting on the 28th.

This meeting packet includes:

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- Final Evaluation Criteria Memo .....Page 10
- Blank Location Evaluation Scoring Form.....Page 25
- PMT Location Evaluation Scoring .....Page 28

As many TAC members may be aware, the Federal Highway Administration, Oregon Department of Transportation, and the City of Wilsonville have been reviewing the project's approach to environmental permitting over the last six months. The review process has concluded and the agencies have agreed that the project shall proceed with an environmental assessment review process to better understand and address potential project impacts.

While this decision has some long-term impacts to the project schedule, in the short term, the project can proceed as originally planned. The next project steps will develop recommendations for the preferred bridge location and bridge type.

Prior to the February 28th TAC meeting, the PMT asks that each TAC member evaluate the three bridge locations under consideration by one of two options.

Option 1: Included in the TAC packet is a blank bridge location scoring form. TAC members are encouraged to review and score each bridge location relative to the evaluation criterion, resulting in a preferred bridge location determination. The Bridge Location Evaluation Criteria Memo and is included in the packet to use as a guide in assessment of the bridges.

Option 2: For those who do not have time to review each criterion on their own, the PMT bridge location scoring is provided at the end of the TAC packet. This includes written summaries for each bridge location relative to each evaluation criterion. TAC members are welcome to review, adjust scoring, and submit comments based on the PMT scoring to identify a preferred bridge location.

At the TAC meeting, the TAC members will share and discuss their assessment of the three bridge locations. As a group, the TAC will then finalize the scoring for the three bridge locations under consideration and make a final preferred bridge location recommendation to the project Task Force.



**French Prairie Bridge Project  
Technical Advisory Committee  
Draft Meeting Agenda  
Wednesday, February 28, 2018  
10am to 12pm**

Wilsonville City Hall  
29799 SW Town Center Loop E, Wilsonville, OR  
Willamette River Rooms I & II

Meeting Objectives:

- Review project team Evaluation Criteria scoring
- Discuss any revisions needed
- Agree upon scoring set to advance to the project Task Force

1. Welcome, Meeting 10:00 to 10:10 am
  - Zach Weigel, City of Wilsonville
  - Kirstin Greene, Meeting Orientation
2. Project Updates 10:10 to 10:20 am
  - Zach Weigel, Overview
  - Discussion
3. Scoring of Evaluation Criteria – PMT Draft 10:20 to 11:50 am
  - Bob Goodrich, Overview
  - Discussion
  - Final set to recommend
4. Next Steps 11:50 am to 12:00 pm
  - Bob Goodrich, Overview
  - Adjourn

*Community members will be invited to provide comments to the Technical Advisory Committee as time allows. Written comments are always welcome by emailing Project Manager Zach Weigel and will be shared with Task Force members.*



## French Prairie Bridge Project Technical Advisory Committee Meeting #2

**Meeting Summary**  
**Wednesday, May 10, 2017**  
**9:30– 11:30 AM**

Wilsonville City Hall  
29799 SW Town Center Loop E, Wilsonville, OR  
Willamette River Rooms I & II

### *Members Present*

Carrie Bond, Dan Cary, Terra Lingley, Vince Hall, Scott Hoelscher, John Mermin, Tom Loynes, Tom McConnell, , Chris Neamtzu, Andrew Phelps, Kerry Rappold, Robert Tovar, , Nancy Bush, Julia Uravich

### *Members Unable to Attend*

Rick Gruen, Anthony Buczek, Tod Blankenship, Tom Murtaugh

### *Project Management Team/ Staff*

Karen Buehrig, Clackamas County; Bob Goodrich, OBEC Consulting Engineers; Reem Khaki, Oregon Department of Transportation (ODOT) Zach Weigel, City of Wilsonville; Kirstin Greene, Cogan Owens Greene; P. Elise Scolnick, Cogan Owens Greene

*Conversation is summarized by agenda item below.*

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### **1. Welcome and Introductions**

**9:30 – 9:50 am**

City Project Manager Zach Weigel welcomed committee members. Facilitator Kirstin Greene asked members to introduce themselves and briefly describe their role.

- Kirstin announced that the meeting agenda was scheduled until 11:30, but the invitation was until 11. She asked if anyone had to leave before 11:30. Three people said they would need to leave early. Kirstin said that she will manage the agenda to get through by 11.
- Kirstin asked if there were any corrections to the meeting summary of TAC Meeting #1. None were identified.
- Kirstin asked participants to review the charter and if there were any concerns. None were expressed. All in attendance agreed on adoption of the charter as presented in the meeting packet.

### **2. Review of Project Schedule**

**9:50 – 10 am**

- Consulting team project manager Bob Goodrich reviewed the updated project schedule. The project team has identified a need to consult with the Confederated Tribes of the Grand Ronde and do some field work prior to alignment selection. Accordingly, the schedule has been moved out to select bridge landing points in Fall 2017. The end date for the project has not changed.
- Kirstin and Bob clarified that TAC meetings should be considered in each time the Task Force meetings are shown on the updated schedule. The next set of scheduled TAC and Task Force

meetings are expected in early fall, to apply the evaluation criteria to the bridge alternatives. The PMT will take a first run at applying the evaluation criteria to the alternatives for TAC consideration and adjustment, where needed, prior to Task Force consideration.

**Opportunities and Constraints:**

- Bob noted that the City had provided the Opportunities and Constraints (O & C) Memo for TAC review prior to the meeting. Notable issues identified include overhead wires, water treatment plant and Exclusive Farm Use (EFU) zoned lands. OBEC expects these all can be avoided, addressed or mitigated if an alternative that impact those constraints is selected.
- As these reports are background and not subject to TAC approval per se, they are foundational and worth correcting if TAC members see anything that needs correcting. Kirstin asked that TAC members who have additional questions contact Zach.
- Bob reminded participants that all the reports are included on the project web site: [www.Frenchprairiebridgeproject.com](http://www.Frenchprairiebridgeproject.com). There is a library on the site with the relevant technical documents. If more information is desired, contact Zach or Bob directly.

**3. Work to Date**

**10:00– 10:30 am**

- Bob presented the evaluation criteria proposed by the TAC, Task Force and public meeting which were collected during the previous set of meetings. . The results are part of Appendix A of the Evaluation Criteria report memo.
- Tom Loynes asked if the trails would be allowed for motorized vehicles.
  - *Bob responded that allowing motorized golf carts is a concern of Charbonneau residents. Currently golf cart use is only allowed in the Charbonneau District. It is up to the City to determine whether golf carts can be used outside if the district.*
- Kirstin reviewed the public guidance received associated with the public open house and online. More than 100 people participated in these first events. A summary was included in the TAC packet.
- John Mermin asked how will the team use public input on the criteria going forward?
  - *Bob: There are six major criteria that will be used. The weighting will depend on the criteria that are finally selected at the May 22<sup>nd</sup> Task Force meeting. He reviewed the formal process for moving forward.*

**4. Evaluation Criteria**

**10:30 – 11 am**

- Bob stated that Zach has presented the evaluation criteria to City Council. Today, Task Force Members will discuss the evaluation criteria and scoring guidance.
- Scoring of Alternatives will be done by the project team and TAC. Weighting will be done by the Task Force. Bob described the Evaluation Criteria elements by category. He referred the TAC to the memo for details.
- Reem Khaki: Should there be one on feasibility?
  - *They all seem feasible; and all have some property owner concerns. Bob said that the TAC will be getting to the discussion of alignment W-3 later in the meeting.*

**Category A, Connectivity & Safety**

- Bob reviewed the listed criteria and asked for questions or concerns.  
Questions:
- Karen Buehrig -It appears that if you connect to the regional route you get more points than to the local route. For scoring between 7-10, it should read connecting to “regional or local

planned bike/ped facilities”. Score at 4-6 for connecting to “local or regional facilities”. More points should be assigned if connecting to both. By adding these two together, you would get a better score.

- *Bob proposed that the 7-10 scoring should be “regional and local” connection.*
- Karen: Is this direct connection or more broadly defined? The word “connect” might need a little more definition.
- *Bob: Leaving some discretion may be helpful.*
- Zach Weigel: It is a range of scores.
- Reem Khaki suggested that the team add another criterion for impact on long-term planning into Category E.
  - *Bob suggested the TAC discuss this when Category E is reviewed later in the meeting.*
- Terra: There is a need to address out-of-direction travel, which may not be direct, but will get one to their destination. It is addressed for emergency traffic, but not for general bike/ped connectivity. Bob said he’d adjust the verbiage to reflect more direct connections should receive a higher score.

### **Category B-Emergency Access**

TAC members reviewed the three proposed criteria in Category B.

- Andrew Phelps: Seismic and flood hazard should be addressed. He suggested the addition of a new B-4, mitigate against seismic/flood hazards. Clarify design criteria.
- *Bob Goodrich: The bridge will be designed to survive a Cascadia event. It is a basic design criteria for the project regardless of alternative. The Memo will be revised to reflect those considerations which are design criteria.*

### **Category C-Environmental Impacts**

TAC members reviewed the three criteria proposed in Category C.

- Tom Loynes: Some alternatives would have more streamlined permitting than others. Some would not be permissible. There should be a comparison between easily permissible and not permissible for scoring. This may need a new scoring guidance to address Endangered Species Act (ESA), Division of State Lands (DSL), a Goal Exception, or other review.
  - *Bob Goodrich asked if there are there other issues like this?*
- Scott Hoelscher: A goal exception will be a different process for EFU lands. That would go into the permitting process. If W-3 is selected, that doesn’t involve EFU land and hence not a goal exception process. Where would that fall in the criteria? Would it be a separate category?
  - *Bob Goodrich: Programmatic or permitting-we weren’t looking at it differently. These are processes either way. This is open to discussion. If it’s not permissible that shows in the scoring. We are looking at the raw impacts on different resources. There is a lot of time to consider this.*
- Carrie Bond suggested a change in scoring criteria under 4-6, changing the wording from “minimizes adverse impact” to “minimal adverse impact”.
- Bob: Will look at adding a C-4 to catch permitting and programmatic process issues.
- Tom Loynes: Our (ODOT) scoring would be opposite of Scott Hoelscher’s agency (Clackamas County).
- Kirstin Greene: Routes with additional permitting complexity certainly will take more time. Clarify that Goal Exception in scoring criteria to allow that to feed into the score.
- Reem Khaki: The evaluation criteria have a focus on avoiding. Maybe we should add in mitigation strategies for clarity for evaluators (TAC/TF).

- *Bob: The scoring guidance is intended to provide what you are describing here. It's not simply "avoid" for exactly that purpose, which gets a maximum score. It is minimal impact is the medium score.*
- Kirstin asked if "minimize" would include mitigation?
- *Bob Goodrich stated that you would have to mitigate to minimize.*
- Carrie Bond: From a permitting perspective, you don't look at compensatory mitigation. You are always looking at a mitigation sequence of avoid and minimize. We prefer to look at impacts in general for the preferred alternative, then narrow down the mitigation.
- Dan Cary: Agrees with Carrie. The minimal impacts and adverse impacts, then add in substantial impacts: explain these more clearly. There would be mitigation in 4-6 as well as 0-3 scores. He compared the scoring definitions to being "a little bit pregnant".
- *Bob explained the intention. If you need less mitigation, there are less impacts to be reflected in the scoring. At 0-3 there is a lot of impact and more mitigation is needed. At 4-6, less mitigation would be needed. We could add language to this affect.*
- Dan Cary: Is the mitigation doable for something that is bigger, costlier? What if there is mitigation bank credit available for substantial impact? What about onsite mitigation for lesser impacts? What about if nothing can be done because there is no credit is available? That is something to think about.
- Carrie Bond: We don't want to choose an alternative with adverse impacts just because there is cheaper mitigation.
- *Bob suggested minimal impacts vs. minimizing impacts and removing mitigation altogether.*
- Dan Cary: It's good to know what you're talking about. If you are going to mitigate for seismic?
- Carrie Bond: If you are having adverse impacts, if there are not mitigation options...It seems hard to think about all of that.
- *Bob Goodrich: We should use "avoid", remove "minimize" and use minimal, to make the scoring cleaner.*
- Tom Loynes: Use something less than total avoidance. Not one of these avoids impacts.
- *Bob proposed that at the 7-10 range, use "avoid or minimal impacts". For a score of 4-6 use "moderate impacts" and use "adverse impacts" for a score of 0-3. Members agreed.*
- Kerry Rappold: Some categories have three, and some four, criteria. That would weight some more than others.
  - *Bob Goodrich: The intent is to use an average weighted score, not a numerically weighted one.*
  - Kirstin asked if the TAC agrees with the use of "moderate impacts" in the 4-6 scoring criteria? TAC members agreed.
- Kirstin asked for a TAC vote on adding new criteria:
  - Add new criteria C-4 related to permitting: **0 Votes.**
  - Leave proposed criteria as-is (at 3 criteria) **Vote: Unanimous approval.**
- Kirstin: The Project Management Team will consider how best to incorporate the permitting discussion and comments.

#### **Category D: Compatibility with Recreational Goals**

- John Mermin: Sub-criteria D-1 (positive user experience) impacts number of people who will use the new bridge and thus provides benefits beyond recreation. When the task is force is considering how to weight different criteria, consider that some provide greater benefits than just the category they're housed within.

- *Bob though this was a good idea and this guidance/recommendation will be shared with the Task Force.*

#### **Category E – Existing Environment**

- Karen: Is this is where we would add new criteria for long-term impacts on ODOT facilities, the railroad, marina, or other facilities?
  - *Bob Goodrich: Would that be an E-4?*
  - Karen Buehrig said she thinks it would. We think we would be getting at the impacts on the marina. We don't know how you'd fold in the railroad. Are we going to change Criteria E-3?
  - Bob Goodrich thought the marina is important enough to score separately. What else could be built that we'd have to consider for impacts.
  - Kirstin asked if TAC members wanted to add long-term planning for other existing or planned future infrastructure uses, e.g. railroad (in addition to the marina). The TAC agreed to add E-4 addressing long-term planning impacts on other existing facilities.

#### **Category F: Cost of Economic Impact**

- Carrie: Doesn't understand what environmental mitigation costs?
  - *Bob: Suggested a change to "environmental project costs" to clarify that the intent is to reflect total project cost for baseline comparison of the alternatives.*
  - Karen Buehrig.: On F-2, property acquisition, the difference in the amount of costs should be reflected, also easements should be considered as part of acquisition. Figure out how to differentiate costs. None of them would get 7-10 points as currently crafted.
  - Terra agreed.
  - Bob Goodrich: With F-1, the lowest cost would score highest. For F-2 should we consider the number of properties or square feet of property?
  - Terra Lingley: We need to differentiate between displacement costs and acquisition costs.
  - Dan Cary: We need real numbers to determine the actual costs.
  - *Kirstin-The project team will be taking a first look at the acquisition costs guidance in the scoring guide.*
  - Vince Hall: There will be right-of-way costs associated with public meetings, technical experts, etc. for acquisitions and displacements that should also be considered.
  - Robert Tovar: For (F-2), look at the number of properties. Stay away from square footage. Look at the intervention with the properties, including easements. Sometimes it takes as much effort to acquire easements as to acquire whole properties.
  - *Bob Goodrich Displacements will have to be addressed too. Suggests looking at the number of properties. Displacements will have to be looked at as well.*
  - Kirstin: Would these both be in F-2.
  - Bob Goodrich: Yes.
- Kirstin: This will be something for the PMT to work out and bring back to the TAC in the emailed version to be presented to the Task Force on May 22.
- Zach Weigel said that there are 6 main categories, A-F. Is there anything missing we didn't capture?
  - Terra: Environmental justice (EJ), Title VI.
  - Kirstin noted there are Latino community members present; additional outreach to reach and inform those residents is anticipated.
  - *Bob: will add it to E-1 & E-2.*
  - Terra Lingley: There could be benefits and adverse impacts to different communities.



- *Kirstin: The PMT will work this in for scoring. She thanked Terra for bringing this up.*

## 5. Alternatives

11 – 11:20 am

- Bob noted that the alignments haven't changed from the last meeting. In coordination with ODOT, ODOT has communicated to the project team that there is a portion of property owned by ODOT on the south side of the river for which ODOT wants to retain access. They also would like to retain their full ROW for expected widening and improving the Boone Bridge and I-5 in the future.
  - Reem spoke about plans to widen I-5 at the Boone Bridge in the future. There is ODOT concern about the land needed for widening and for maintenance (on the north side). This is the only place to access underneath the Boone Bridge.
  - Terra: One of the priorities of the City is to widen the Boone Bridge. A new bridge wouldn't preclude it from happening, but ODOT wants to make sure this concern is addressed.
- Kirstin: Knowing that this alignment is proposed for removal by ODOT, the question is whether we should maintain or remove the W-3 alignment in the scoring criteria? Should the Task Force consider W-3?
  - Carrie: If the bridge is being widened, are there going to be planned bike/ped improvements?
  - Terra: Yes, we are considering bike facilities. There are no plans on a map yet though.
  - Robert: Don't we discourage bikes on the Interstate?
  - Terra Lingley: Bikes are allowed everywhere unless they are specifically prevented. Carrie: Can we shift bike/ped to a widened I-5 Bridge?
  - Terra Lingley: We don't have a timeline yet.
  - Robert: We have a seismic retrofit program. No plans are currently in place, but those things can change. When widening is considered, both retrofit and widening bridges at the same time would be considered. We don't want to preclude this in the future. ODOT is currently working with the Legislature on seismic improvements statewide.
  - Vince: In the last meeting, wasn't there a proposal to put a bike lane under, or attached to, the existing I-5 bridge?
  - Zach Weigel: That was considered in the previous studies. The conclusion at that time was that a stand-alone bridge is preferred.
  - Vince Hall: The experience of the I-5 bike path would be different than a stand-alone bridge.
  - John Mermin: Widening /adding a lane to the I-5 bridge is not in the adopted Regional Transportation Plan. If ODOT and the City desire this widening it should be discussed within the context of the update to the Regional Transportation Plan currently underway. A major investment like that needs public input. Karen Buehrig: We would benefit from keeping it (W-3) in the analysis. We should keep it in the analysis. If we don't, we won't have the info on that alternative.
- **Kirstin took a straw poll:** Remove W-3 from scoring: (4 yes votes). Keep W-3 in consideration (8 yes votes). Abstain (1 vote).

## 6. Next Steps

11:20 – 11:30 am

- The PMT will make these changes for the Task Force packet. Their meeting is May 22 at 6 pm with an optional tour prior.

Kirstin thanked members and adjourned the meeting at 11 am.

# EVALUATION CRITERIA MEMO



June 7, 2017

Prepared for the City of Wilsonville



Prepared By



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## **INTRODUCTION**

The City of Wilsonville is undertaking a project to develop preliminary designs for the French Prairie Bridge, a proposed bicycle/pedestrian/emergency vehicle crossing of the Willamette River between Interstate 5 and the railroad bridge. The project addresses bridge alignment, bridge type selection, 30% design, and preliminary environmental documentation.

This memo is intended to provide a decision-making framework for selection of the preferred bridge alignment corridor. Since project kickoff in August 2016, the project team and project management team (PMT) have collected a comprehensive set of information and data that informs alignment corridor selection. Sources of information include: the Opportunities and Constraints Memo, the Technical Advisory Committee (TAC), the project's Task Force (TF), and public events and comments. The Opportunities and Constraints Memo has previously been submitted under separate cover. Appendix A summarizes the lists of criteria collected from the TAC meeting, TF meeting and Open House.

This memo distinguishes between design criteria and evaluation criteria, and presents the recommended evaluation criteria, the approach to scoring of alternatives, and the weighing of each criterion.

## **DESIGN CRITERIA**

Design criteria are those items and considerations that will be met or achieved by the project, regardless of the preferred alignment or bridge type. For each of the alternatives, the design criteria apply equally and are therefore not included as evaluation criteria. Some of the project considerations identified as part of the project meetings (Appendix A) fall into the design criteria category and are therefore not included in the evaluation criteria presented below. Project design criteria include:

- Bridge design according to ODOT's loading conditions, and seismic and hydraulic performance criteria
- Bicycle, pedestrian, roadway and emergency vehicle design standards.
- Compliance with the Americans with Disability Act (ADA)
- Compliance with all federal, state, and local laws and regulations

## **EVALUTION CRITERIA**

Based on the lists of criteria in Appendix A, and as tabulated in Appendix B, six evaluation criteria are recommended. The six criteria capture nearly all of the criteria listed in Appendix A, but with sufficient clarity and specificity to provide meaningful comparisons of alignment corridor alternatives.

Each criterion has three or four sub-criteria. The purpose of the sub-criteria is to capture the variety of considerations in the input received.

The six criteria and respective sub-criteria are presented below in narrative form and are tabulated in Appendix B.

## **Criterion A - Connectivity and Safety**

The criterion is to connect to existing or planned bike/pedestrian routes directly or using streets with sidewalks and bike lanes and meet minimum safety and design standards for bicycle and pedestrian users. The alignment corridors differ in how they connect to existing and planned local and regional bike/pedestrian routes. In addition, they differ in the ability to meet or exceed design standards for bike and pedestrian facilities. Exceeding design standards will provide users with a more functional facility. The four sub-criteria are:

- A-1 – Connect to existing bike/pedestrian routes directly or using streets with sidewalks and bike lanes on north side of the bridge
- A-2 – Connect to existing bike/pedestrian routes directly or using streets with sidewalks and bike lanes on south side of the bridge
- A-3 – Connect to planned bike/pedestrian routes on north side of the bridge
- A-4 – Connect to planned bike/pedestrian routes on south side of the bridge

## **Criterion B – Emergency Access**

The criterion is to provide direct and rapid emergency vehicle access to the bridge while minimizing impacts to bridge users, residents, park activities, and marina operations. The alignment corridors differ in ease of bridge access by emergency vehicles. Emergency access includes emergency response to Charbonneau and areas south of the Willamette River and secondary emergency response to clear accidents and debris when the I-5 Boone Bridge is congested. Emergency access also includes the movement of equipment and materials should the I-5 Boone Bridge not be accessible after a major earthquake. The three sub-criteria are:

- B-1 – Connect to emergency routes directly, minimizing out of direction travel and response time at and near the north terminus
- B-2 – Connect to emergency routes directly, minimizing out of direction travel and response time at and near the south terminus
- B-3 – Minimize emergency response impacts on residents, park activities, and marina operations

## **Criterion C – Environmental Impacts**

The criterion is to avoid adverse impacts on environmental resources with the goal of maximizing project eligibility for programmatic environmental permitting processes. Impacts will vary depending on alignment corridor. The three sub-criteria are:

- C-1 – Avoid or minimize adverse impacts on wildlife habitat and trees
- C-2 – Avoid or minimize adverse impacts on waters and wetlands
- C-3 – Avoid or minimize adverse impacts on cultural and historic resources

## **Criterion D – Compatibility with Recreational Goals**

The criterion is to maximize the recreational benefits the bridge provides. There are several opportunities to improve or enhance recreational opportunities. The opportunities vary among the alignment corridor. The four sub-criteria are:

- D-1 – Provide a positive user experience (e.g. noise, aesthetics, view, comfort, security, compatible with other travel modes, exceeds minimum design standards for turns and slopes)
- D-2 – Maximize compatibility with and flexibility for recreational uses including parks and the river on the north side.
- D-3 – Maximize compatibility with and flexibility for recreational uses, including parks, the marina and the river on the south side
- D-4 – Maintain or improve river access

## **Criterion E - Compatibility with the Existing Built Environment**

The criterion is to avoid displacement of and incompatibility with residences, businesses, marina operations, and planned infrastructure improvements and to minimize adverse effects of locating and accessing the bridge.

Consideration is given to project benefits or impacts to underrepresented populations (e.g. communities of color, limited English proficient and low-income populations, people with disabilities, seniors, and youth. The four sub-criteria are:

- E-1 – Minimize bridge location and access impacts on residences in Old Town
- E-2 – Minimize bridge location and access impacts on residences at the south terminus in Clackamas County
- E-3 – Minimize bridge location and access impacts on marina facilities

- E-4 – Minimize bridge location and access impacts to possible future infrastructure improvements (e.g. Railroad, ODOT)

## **Criterion F – Cost and Economic Impact**

The criterion is to minimize the cost and adverse economic impacts of the project. There are temporary and permanent economic impacts which could improve or hinder local and regional economics. Those impacts vary depending on the preferred alignment corridor. The four sub-criteria are:

- F-1 – Minimize total project cost (e.g. bridge, retaining wall, on grade path, environmental mitigation). This project cost does not consider architectural features or amenities.
- F-2 – Minimize property acquisition (e.g. right-of-way, easements) and avoid displacements of residences and businesses
- F-3 – Minimize the displacement of utilities
- F-4 – Maximizes economic benefit through tourism and access to commercial and regional destinations and trail system connections

## **SCORING OF ALTERNATIVES**

The three or four sub-criteria within each criterion will be arithmetically averaged to provide a score of 0 to 10 for each alternative. This avoids giving more weight to criteria with four sub-criteria.

For each sub-criterion three scoring ranges are recommended to provide an objective baseline. However, the scoring ultimately contains a necessary and appropriate level of subjectivity based on factors that are not readily quantified.

Scores of 0 to 3 are recommended when an alternative generally does not meet most or any of the sub-criterion's objectives. Scores of 4 to 6 are recommended where an alternative meets some of the objectives. Scores of 7 to 10 are recommended where an alternative meets most or all of the objectives. A brief description for each scoring range for each sub-criterion is provided in Appendix C.

## **WEIGHING CRITERIA**

The TF weighted criteria at their May 22, 2017 meeting as follows:

Criterion A – 20%	Criterion D – 20%
Criterion B – 20%	Criterion E – 17%
Criterion C – 11.5%	Criterion F – 11.5%





# French Prairie Bridge Project

## Appendix A – Criteria Lists

### Task Force Criteria List

At the first Task Force meeting, the following list of criteria to consider when evaluating bridge alignment was created by the membership:

- Bicycle-pedestrian connectivity at bridge landings and to the greater networks, for both residents and tourists
- Sensitivity to homes at the bridge landings and traffic Impacts to neighbors and residents
- Increased safety for all users
- Emergency vehicle access
- Seismic resilience
- Increased mode share towards active transportation
- Balance between cost, aesthetics and usability
- Increased tourism and revenue for maximum economic benefit to the city, state and region
- ADA accessibility
- Bridge landing design allows for park amenities like toilets and picnic tables
- Avoids railroad crossings
- Ability to use golf carts to cross the bridge
- Partnerships with the state and counties to upgrade local, connecting roadways
- Design maximizes the number of users
- Accommodates as many utility uses (power lines, sewer, etc.) as it can support
- Provides increased access to the river so all users can experience the water and natural environment
- Supports Wilsonville’s initiative as a HEAL (Healthy Eating Active Living) City through increased recreational opportunities

### Technical Advisory Committee Criteria List

At the first Technical Advisory Committee meeting, the following list of criteria to consider when evaluating bridge alignment was created by the membership:

- Impacts to historic resources
- Impacts to protected resources areas
- Impacts to trees
- Impacts of alignments on any potential park uses
- Impacts to fish, riparian habitats, streams, wetlands, channels, tributaries
- Ecological value and functional value of wetlands
- Interpretive and recreational opportunities around these ecological resources
- Directness of connections to major destinations and the regional and statewide trail network
- User experience (views, noise)
- User comfort (safety, topography)
- Effects on future master planning efforts of adjacent park facilities
- Level of access for emergency vehicles
- Neighborhood impacts (visual, noise, traffic, emergency use frequency)
- Level of construction costs
- Impacts to utilities



# French Prairie Bridge Project

## Appendix A – Criteria Lists

### Open House Criteria List

At the Open House a list of criteria proposed by the project Task Force and the Technical Advisory Committee was displayed on two boards. Participants were asked to use a green dot sticker to identify which criteria they thought were most important. A nearby easel pad also provided the opportunity to suggest additional criteria.

Overall, community members felt that the evaluation criteria proposed by the Task Force and TAC were comprehensive. Between the Task Force and TAC lists, the following top two criteria were identified as most important:

#### Task Force Evaluation Criteria

- Sensitivity to homes at the bridge landings and traffic impacts to neighbors and residents (23)
- Bicycle-pedestrian connectivity at bridge landings and to the greater networks, for both residents and tourists (15)

#### TAC Evaluation Criteria

- Neighborhood impacts (visual, noise, traffic, emergency use frequency). (14)
- Directness of connections to major destinations and the regional and statewide trail network. (13)

Community members were invited to provide any additional ideas or overall thoughts. Some of these included:

- The bridge would be a major asset to Wilsonville and connect it to the valuable regional bike network, increasing the tourism draw to the area.
- Impacts to private residences, businesses and neighborhoods should be closely monitored.
- Questions were raised about the greater traffic and transportation issues in the area.
- Questions were raised about the infrastructure for pedestrians and cyclists when they come off the bridge, especially on the south side of the river.



# French Prairie Bridge Project

Appendix B - Evaluation Matrix

June 7, 2017

<b>A Connectivity and Safety</b>		<b>W1</b>	<b>W2</b>	<b>W3</b>	<b>Notes</b>
A-1	Connects to existing bike/pedestrian routes directly or using streets with sidewalks and bike lanes on north side of the bridge				
A-2	Connects to existing bike/pedestrian routes directly or using streets with sidewalks and bike lanes on south side of the bridge				
A-3	Connects to planned bike/pedestrian routes on north side of the bridge				
A-4	Connects to planned bike/pedestrian routes on south side of the bridge				
20.0% Criteria A Weighting		0	0	0	

<b>B Emergency Access</b>		<b>W1</b>	<b>W2</b>	<b>W3</b>	<b>Notes</b>
B-1	Connect to emergency routes directly, minimizing out of direction travel and response time at and near the north terminus				
B-2	Connect to emergency routes directly, minimizing out of direction travel and response time at and near the south terminus				
B-3	Minimize emergency response impacts on residents, park activities, and marina operations				
20.0% Criteria B Weighting		0	0	0	



# French Prairie Bridge Project

Appendix B - Evaluation Matrix

June 7, 2017

<b>C</b>	<b>Environmental Impacts</b>	<b>W1</b>	<b>W2</b>	<b>W3</b>	<b>Notes</b>
C-1	Avoid or minimize adverse impacts on wildlife habitat and trees				
C-2	Avoid or minimize adverse impacts on waters and wetlands				
C-3	Avoid or minimize adverse impacts on cultural and historic resources				
11.5%	Criteria C Weighting	0	0	0	

<b>D</b>	<b>Compatibility with Recreational Goals</b>	<b>W1</b>	<b>W2</b>	<b>W3</b>	<b>Notes</b>
D-1	Provide a positive user experience (e.g. noise, aesthetics, view, security, compatible with other travel modes, exceeds design standards for turns and slopes)				
D-2	Maximize compatibility with and flexibility for recreational uses including parks and the river on the north side.				
D-3	Maximize compatibility with and flexibility for recreational uses, including parks, the marina and the river on the south side.				
D-4	Maintain or improve river access				
20.0%	Criteria D Weighting	0	0	0	



# French Prairie Bridge Project

Appendix B - Evaluation Matrix

June 7, 2017

<b>E</b>	<b>Compatibility with Existing Built Environment</b>	<b>W1</b>	<b>W2</b>	<b>W3</b>	<b>Notes</b>
E-1	Minimize bridge location and access impacts on residences in Old Town				
E-2	Minimize bridge location and access impacts on residences at south terminus in Clackamas County				
E-3	Minimize bridge location and access impacts on marina facilities				
E-4	Minimize bridge location and access impacts to possible future infrastructure improvements (e.g. Railroad, ODOT)				
17.0%	Criteria E Weighting	0	0	0	

<b>F</b>	<b>Cost and Economic Impact</b>	<b>W1</b>	<b>W2</b>	<b>W3</b>	<b>Notes</b>
F-1	Minimize total project cost (e.g. bridge, retaining wall, on grade path, environmental mitigation). This project cost does not consider architectural features or amenities.				
F-2	Minimize property acquisition (e.g. right-of-way, easements) and avoid displacement of residences and businesses				
F-3	Minimize the displacement of utilities				
F-4	Maximizes economic benefit through tourism and access to commercial and regional destinations and trail system connections				
11.5%	Criteria F Weighting	0	0	0	

100%	<b>Total, Weighted Score</b>	0	0	0	
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# French Prairie Bridge Project

Appendix C - Scoring Guidance

June 7, 2017

**SCORING GUIDANCE** - Blue text indicates evaluation considerations to determine the appropriate range of point value based on how well each alternative achieves the sub-criteria

<b>Criteria</b>
Sub-criteria

**0 to 3**

**4 to 6**

**7 to 10**

## A Connectivity and Safety

A-1	Connects to existing bike/pedestrian routes directly or using streets with sidewalks and bike lanes on north side of the bridge	Does not connect well to existing pedestrian and bike facilities or facilities do not meet most design and safety standards	Connects to existing pedestrian and bike facilities that do not comply with all design and safety standards	Directly connects to existing pedestrian and bike facilities that meet or exceed design and safety standards
A-2	Connects to existing bike/pedestrian routes directly or using streets with sidewalks and bike lanes on south side of the bridge	Does not connect well to existing pedestrian and bike facilities or facilities do not meet most design and safety standards	Connects to existing pedestrian and bike facilities that do not comply with all design and safety standards	Directly connects to existing pedestrian and bike facilities that meet or exceed design and safety standards
A-3	Connects to planned bike/pedestrian routes on north side of the bridge	Does not connect well to planned bike and pedestrian routes	Connects to planned regional or local bike and pedestrian routes	Directly connects to planned regional and local bike and pedestrian routes
A-4	Connects to planned bike/pedestrian routes on south side of the bridge	Does not connect well to planned bike and pedestrian routes	Connects to planned regional or local bike and pedestrian routes	Directly connects to planned regional and local bike and pedestrian routes

## B Emergency Access

B-1	Connect to emergency routes directly, minimizing out of direction travel and response time at and near the north terminus	Indirect route from Wilsonville Road to middle of Willamette River	Neither direct nor indirect route from Wilsonville Road to middle of Willamette River	Direct route from Wilsonville Road to middle of Willamette River
B-2	Connect to emergency routes directly, minimizing out of direction travel and response time at and near the south terminus	Indirect route from Miley Road @ I-5 to middle of Willamette River	Neither direct nor indirect route from Miley Road @ I-5 to middle of Willamette River	Direct route from Miley Road @ I-5 to middle of Willamette River
B-3	Minimize emergency response impacts on residents, park activities, and marina operations	Route for emergency responders directly adjoins residences or businesses or emergency vehicle use interrupts park activities or marina operations	Route for emergency responders avoids residences or businesses, but emergency vehicle use impacts park activities or marina operations	Route for emergency responders avoids residences, businesses, and parks and is separated from them



# French Prairie Bridge Project

Appendix C - Scoring Guidance

June 7, 2017

**SCORING GUIDANCE** - Blue text indicates evaluation considerations to determine the appropriate range of point value based on how well each alternative achieves the sub-criteria

<b>Criteria</b>
Sub-criteria

**0 to 3**

**4 to 6**

**7 to 10**

## C Environmental Impacts

C-1	Avoid or minimize adverse impacts on wildlife habitat and trees	Adverse impacts to wildlife habitat and trees	Moderate adverse impacts on wildlife habitat and trees	Avoids or has minimal adverse impacts on wildlife habitat and trees
C-2	Avoid or minimize adverse impacts on waters and wetlands	Adverse impacts to waters and wetlands	Moderate adverse impacts on waters and wetlands	Avoids or has minimal adverse impacts on existing waters and wetlands
C-3	Avoid or minimize adverse impacts on cultural and historic resources	Adverse impacts to cultural and historical resources	Moderate adverse impacts on cultural and historical resources	Avoids or has minimal adverse impacts on existing cultural and historical resources

## D Compatibility with Recreational Goals

D-1	Provide a positive user experience (e.g. noise, aesthetics, view, security, compatible with other travel modes, exceeds design standards for turns and slopes)	Achieves some or few facets of a positive user experience	Achieves most facets of a positive user experience	Achieves all or nearly all facets of a positive user experience
D-2	Maximize compatibility with and flexibility for recreational uses including parks and the river on the north side.	Generally incompatible with existing uses (Permanent inconvenience or displacement) and/or precludes future improvements.	Compatible with existing uses with some temporary modifications and/or minor permanent displacement or limits flexibility for future improvements.	Compatible with existing uses with minor temporary modifications and no permanent displacement, while being flexible for future improvements.
D-3	Maximize compatibility with and flexibility for recreational uses, including parks, the marina and the river on the south side.	Generally incompatible with existing uses (Permanent inconvenience or displacement) and/or precludes future improvements.	Compatible with existing uses with some temporary modifications and/or minor permanent displacement or limits flexibility for future improvements.	Compatible with existing uses with minor temporary modifications and no permanent displacement, while being flexible for future improvements.
D-4	Maintain or improve river access	The alignment provides opportunities to view the river, but adversely impacts existing public accesses to the river bank.	Provides opportunities to view the river and maintains existing public river bank access points	Provides opportunities to view the river and allows for improved public access to the river bank



# French Prairie Bridge Project

Appendix C - Scoring Guidance

June 7, 2017

**SCORING GUIDANCE** - Blue text indicates evaluation considerations to determine the appropriate range of point value based on how well each alternative achieves the sub-criteria

<b>Criteria</b>
Sub-criteria

**0 to 3**

**4 to 6**

**7 to 10**

## E Compatibility with Existing Built Environment

E-1	Minimize bridge location and access impacts on residences in Old Town	The alignment directly impacts residences in Old Town or impacts underrepresented populations (e.g. communities of color, limited English proficient and low-income populations, people with disabilities, seniors, and youth)	The alignment or its intended accesses is in close proximity to, but does not directly impact, residences in Old Town	The alignment and its accesses are not in close proximity to residences in Old Town or benefit underrepresented populations (e.g. communities of color, limited English proficient and low-income populations, people with disabilities, seniors, and youth)
E-2	Minimize bridge location and access impacts on residences at south terminus in Clackamas County	The alignment directly impacts residences in Clackamas County or impacts underrepresented populations (e.g. communities of color, limited English proficient and low-income populations, people with disabilities, seniors, and youth)	The alignment is in close proximity to, but does not directly impact, residences in Clackamas County	The alignment is not in close proximity to residences in Clackamas County or benefit underrepresented populations (e.g. communities of color, limited English proficient and low-income populations, people with disabilities, seniors, and youth)
E-3	Minimize bridge location and access impacts on marina facilities	The alignment directly impacts Marina operations and those impacts cannot be readily mitigated	The alignment impacts Marina operations, but those impacts can be readily mitigated	The alignment does not impact Marina operations
E-4	Minimize bridge location and access impacts to possible future infrastructure improvements (e.g. Railroad, ODOT)	The alignment impacts future infrastructure improvements	The alignment does not substantially impact future infrastructure improvements	The alignment does not impact future infrastructure improvements

## F Cost and Economic Impact

F-1	Minimize total project cost (e.g. bridge, retaining wall, on grade path, environmental mitigation). This project cost does not consider architectural features or amenities.	Formula based on relative project costs. Costs are not actual cost since there is insufficient information at this stage. Once each alignment has a relative cost based on the proportion of bridge, wall, path and mitigation, the least cost will receive a 10. Each of the other two alternatives will be scored lower in proportion to how much higher their cost is when compared with the lowest cost.		
F-2	Minimize property acquisition (e.g. right-of-way, easements) and avoid displacement of residences and businesses	The alignment affects more than four properties or may result in one or more displacements.	The alignment affects no more than four properties and does not result in any displacements.	The alignment affects no more than two properties and does not result in any displacements.
F-3	Minimize the displacement of utilities	The alignment directly impacts existing City or Franchise utilities which cannot be easily relocated	The alignment directly impacts existing City or Franchise utilities which can easily be relocated	The alignment does not impact existing City or Franchise utilities
F-4	Maximizes economic benefit through tourism and access to commercial and regional destinations and trail system connections	Provides limited opportunity to increase revenue for the local and regional economies through improved access and tourism	Provides some opportunity to increase revenue for the local and regional economies through improved access and tourism	Provides significant opportunity to increase revenue for the local and regional economies through improved access and tourism





# French Prairie Bridge Project

Blank Scoring Matrix

<b>A</b>		<b>Connectivity and Safety</b>			<b>W1</b>	<b>W2</b>	<b>W3</b>	<b>Notes</b>
A-1	Connects to existing bike/pedestrian routes directly or using streets with sidewalks and bike lanes on north side of the bridge				W1:	W2:	W3:	
A-2	Connects to existing bike/pedestrian routes directly or using streets with sidewalks and bike lanes on south side of the bridge				W1:	W2:	W3:	
A-3	Connects to planned bike/pedestrian routes on north side of the bridge				W1:	W2:	W3:	
A-4	Connects to planned bike/pedestrian routes on south side of the bridge				W1:	W2:	W3:	
20.0% Criteria A Weighting		0.0	0.0	0.0				

<b>B</b>		<b>Emergency Access</b>			<b>W1</b>	<b>W2</b>	<b>W3</b>	<b>Notes</b>
B-1	Connect to emergency routes directly, minimizing out of direction travel and response time at and near the north terminus				W1:	W2:	W3:	
B-2	Connect to emergency routes directly, minimizing out of direction travel and response time at and near the south terminus				W1:	W2:	W3:	
B-3	Minimize emergency response impacts on residents, park activities, and marina operations				W1:	W2:	W3:	
20.0% Criteria B Weighting		0.0	0.0	0.0				



# French Prairie Bridge Project

## Blank Scoring Matrix

<b>C</b>	<b>Environmental Impacts</b>	<b>W1</b>	<b>W2</b>	<b>W3</b>	<b>Notes</b>
C-1	Avoid or minimize adverse impacts on wildlife habitat and trees				W1: W2: W3:
C-2	Avoid or minimize adverse impacts on waters and wetlands				W1: W2: W3:
C-3	Avoid or minimize adverse impacts on cultural and historic resources				W1: W2: W3:
11.5%	Criteria C Weighting	0.0	0.0	0.0	

<b>D</b>	<b>Compatibility with Recreational Goals</b>	<b>W1</b>	<b>W2</b>	<b>W3</b>	<b>Notes</b>
D-1	Provide a positive user experience (e.g. noise, aesthetics, view, security, compatible with other travel modes, exceeds design standards for turns and slopes)				W1: W2: W3:
D-2	Maximize compatibility with and flexibility for recreational uses including parks and the river on the north side.				W1: W2: W3:
D-3	Maximize compatibility with and flexibility for recreational uses, including parks, the marina and the river on the south side.				W1: W2: W3:
D-4	Maintain or improve river access				W1: W2: W3:
20.0%	Criteria D Weighting	0.0	0.0	0.0	



# French Prairie Bridge Project

## Blank Scoring Matrix

<b>E Compatibility with Existing Built Environment</b>		<b>W1</b>	<b>W2</b>	<b>W3</b>	<b>Notes</b>
E-1	Minimize bridge location and access impacts on residences in Old Town				W1: W2: W3:
E-2	Minimize bridge location and access impacts on residences at south terminus in Clackamas County				W1: W2: W3:
E-3	Minimize bridge location and access impacts on marina facilities				W1: W2: W3:
E-4	Minimize bridge location and access impacts to possible future infrastructure improvements (e.g. Railroad, ODOT)				W1: W2: W3:
17.0% Criteria E Weighting		0.0	0.0	0.0	

<b>F Cost and Economic Impact</b>		<b>W1</b>	<b>W2</b>	<b>W3</b>	<b>Notes</b>
F-1	Minimize total project cost (e.g. bridge, retaining wall, on grade path, environmental mitigation). This project cost does not consider architectural features or amenities.				W1: W2: W3:
F-2	Minimize property acquisition (e.g. right-of-way, easements) and avoid displacement of residences and businesses				W1: W2: W3:
F-3	Minimize the displacement of utilities				W1: W2: W3:
F-4	Maximizes economic benefit through tourism and access to commercial and regional destinations and trail system connections				W1: W2: W3:
11.5% Criteria F Weighting		0.0	0.0	0.0	

100%	<b>Total, Weighted Score</b>	<b>0</b>	<b>0</b>	<b>0</b>	
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# French Prairie Bridge Project

Scoring for TAC Review  
February 12, 2018

<b>A</b>		<b>Connectivity and Safety</b>			<b>W1</b>	<b>W2</b>	<b>W3</b>	<b>Notes</b>
A-1	Connects to existing bike/pedestrian routes directly or using streets with sidewalks and bike lanes on north side of the bridge	5	3	4	Assume Boones Ferry Road connection slightly higher priority than I-5 undercrossing trail. W1: No pedestrian facilities. Direct connection to SB bike lane on Boones Ferry Rd. W2: Connects east & west via Tauchman St, with no pedestrian or bicycle facilities. W3: Non-direct connection along Tauchman St. to a path towards Memorial Park.			
A-2	Connects to existing bike/pedestrian routes directly or using streets with sidewalks and bike lanes on south side of the bridge	2	2	3	No bike/ped routes exist on the south side. All connect directly to Butteville Road. W3: Connects to north side Butteville Road. No need to cross road to travel west or access marina.			
A-3	Connects to planned bike/pedestrian routes on north side of the bridge	10	6	5	W1: Directly connects w/ regional Ice Age Tonquin Trail (IATT). Connects to EB local trail. W2: Non-direct connection to both IATT and EB local trail. W3: About the same as W2. Further from regional IATT.			
A-4	Connects to planned bike/pedestrian routes on south side of the bridge	8	7	6	W1: Direct regional bike connection west and local ped/bike trail connection east. No planned ped. connection west. W2: Same as W1, but located further from regional connection. W3: Non-direct regional bike connection west and local ped/bike connection east. No planned ped. connection west.			
20.0% Criteria A Weighting		12.5	9.0	9.0				



# French Prairie Bridge Project

Scoring for TAC Review  
February 12, 2018

<b>B</b>		<b>Emergency Access</b>			<b>W1</b>	<b>W2</b>	<b>W3</b>	<b>Notes</b>
B-1	Connect to emergency routes directly, minimizing out of direction travel and response time at and near the north terminus	10	6	2	W1: Direct route from Wilsonville Road to Boones Ferry Rd. W2: Some out of direction travel through the park onto Tauchman St. W3: Significant out of direction travel through the park onto Tauchman St.			
B-2	Connect to emergency routes directly, minimizing out of direction travel and response time at and near the south terminus	5	7	6	W1: Longest distant from I-5/Miley Rd. Slow access loop. W2: Fairly direct connection to I-5/Miley Rd. via Butteville Rd. with a less constrained access loop. W3: Closest access to I-5/Miley Rd., but requires out of direction travel.			
B-3	Minimize emergency response impacts on residents, park activities, and marina operations	6	2	3	W1: Furthest from and least impact to residents, minor impact to marina access, minimal impact to parking. W2: Closer to residents on both sides of river, minimal impact to marina operations, major impact to middle of park. W3: Closest and most impacts to residents, no impact to marina, potential for impact to east edge of park facilities.			
20.0% Criteria B Weighting		14.0	10.0	7.3				



# French Prairie Bridge Project

Scoring for TAC Review  
February 12, 2018

<b>C</b>	<b>Environmental Impacts</b>	<b>W1</b>	<b>W2</b>	<b>W3</b>	<b>Notes</b>
C-1	Avoid or minimize adverse impacts on wildlife habitat and trees	8	8	4	W1: Mostly avoids wildlife & tree impact. W2: Mostly avoids wildlife & trees impact. W3: Moderate impacts to wildlife & trees on both sides of river.
C-2	Avoid or minimize adverse impacts on waters and wetlands	7	7	4	W1: Minimal impacts to river with potential wetland impacts. W2: Minimal impacts to river with potential wetland impacts. W3: Minimal impacts to river with likely wetland impacts and a tributary crossing.
C-3	Avoid or minimize adverse impacts on cultural and historic resources	6	10	8	W1: Potential for moderate impacts to historic orchard or ferry crossing. However, resource significance undetermined. W2: Presence of resources are less likely due to ground disturbance from prior improvements. W3: Avoids most impacts on known resources. Area is undisturbed, so presence of unidentified resources possible.
11.5% Criteria C Weighting		8.1	9.6	6.1	



# French Prairie Bridge Project

Scoring for TAC Review  
February 12, 2018

D	Compatibility with Recreational Goals	W1	W2	W3	Notes
D-1	Provide a positive user experience (e.g. noise, aesthetics, view, security, compatible with other travel modes, exceeds design standards for turns and slopes)	8	9	4	W1: Secure/visible, view of RR bridge & river, some noise impact from train. Very good user experience. W2: Secure/visible, located away from existing bridges, least noise impact. Great user experience. W3: Natural setting, but less secure/visible. I-5 noise, least favorable views, wastewater plant nearby. Poor user experience.
D-2	Maximize compatibility with and flexibility for recreational uses including parks and the river on the north side.	9	4	8	W1: Compatible with existing park being located on edge of existing undeveloped park land. Easily integrate into future uses. W2: Minor displacement of existing open lawn and picnic area. Splits open lawn in half, limiting flexibility for future uses. W3: Compatible with existing park being located on edge of existing undeveloped park land. May limit incorporating local trail and existing drainage channel into future uses.
D-3	Maximize compatibility with and flexibility for recreational uses, including parks, the marina and the river on the south side.	3	5	10	W1: Compatible with existing use, but limits flexibility for marina parking, ramps, and slips. Limits use of land beneath bridge. W2: Similar to W1 with less parking impact, but potential building impacts. Parking impacts are more concerning to the County. W3: Avoids all related impacts.
D-4	Maintain or improve river access	8	6	4	W1: Provides new river view from bridge. Provides best opportunity to improve river bank access via old ferry landing. W2: Provides best new views of river from the bridge. Limited opportunity to improve public access to the river bank. W3: Provides view of river to the west from the bridge. Little opportunity to improve river bank access due to I-5 Bridge, Wasterwater Treatment Plant outfall, and drainage channel.
20.0% Criteria D Weighting		14.0	12.0	13.0	



# French Prairie Bridge Project

Scoring for TAC Review  
February 12, 2018

E	Compatibility with Existing Built Environment	W1	W2	W3	Notes
E-1	Minimize bridge location and access impacts on residences in Old Town	6	5	6	W1: Close to residents on Boones Ferry Rd. W2: Close to residents on Tauchman St and requires travel through the neighborhood, which includes underrepresented populations. W3: Not close to residents, but requires the most travel through the neighborhood, which includes underrepresented populations.
E-2	Minimize bridge location and access impacts on residences at south terminus in Clackamas County	7	2	3	No underrepresented populations identified south of the river. W1: In close proximity to one residence. W2: Directly impacts two small lot, waterfront residences. W3: Directly impacts two large lot rural residences.
E-3	Minimize bridge location and access impacts on marina facilities	6	5	10	W1: Potential impact to parking that can be mitigated. Impact to marina slips and operations not anticipated. W2: Impact to marina operations is anticipated, but can be mitigated. Impact to marina slips and parking not anticipated. W3: Avoids all marina impacts.
E-4	Minimize bridge location and access impacts to possible future infrastructure improvements (e.g. Railroad, ODOT)	6	10	5	W1: Located on railroad property, but can accommodate future improvements. Meeting w/RR provided confidence moving forward. W2: No impact to future infrastructure improvements. W3: Located on ODOT property, but can likely accommodate future infrastructure improvements, such as widening of I-5
17.0% Criteria E Weighting		10.6	9.4	10.2	





# French Prairie Bridge Project

Scoring for TAC Review

February 12, 2018

F		Cost and Economic Impact			W1	W2	W3	W2
F-1	Minimize total project cost (e.g. bridge, retaining wall, on grade path, environmental mitigation). This project cost does not consider architectural features or amenities.	9.7	9.8	10	Uses Design Team calculation based on relative cost as determined by the proportion of bridge (most expensive), wall, and on-grade path (least expensive) for each alignment. W1: 1200-ft bridge; 5100-sq ft wall; 850-ft on-grade path W2: 1160-ft bridge; 11400-sq ft wall; 740-ft on-grade path W3: 1180-ft bridge; 7400-sq ft wall; 1400-ft on-grade path			
F-2	Minimize property acquisition (e.g. right-of-way, easements) and avoid displacement of residences and businesses	9	3	7	W1: Minor impact to one property with no displacements anticipated. W2: Major/moderate impact to three properties with potential displacement of a residence and business. W3: Moderate/minor impact to three properties with no displacements anticipated.			
F-3	Minimize the displacement of utilities	5	4	3	W1: Overhead power lines that can be easily relocated. W2: Overhead power lines on Butteville Road/River Vista intersection that can be easily relocated, but intersection presents more challenges. W3: Potential impact to wastewater treatment plant outfall pipe that cannot be easily relocated. Might conflict with bridge foundation even if in proximity rather than directly.			
F-4	Maximizes economic benefit through tourism and access to commercial and regional destinations and trail system connections	9	9	6	W1: Provides significant benefit to local and regional economies. Closest to regional trails and parks, directly connects to Boones Ferry Rd, some noise impact from railroad. Also see D-1. W2: Provides significant benefit to local and regional economies. Good connection to regional trails and parks, good views, limited impact from I-5 and railroad. Also see D-1. W3: Provides some benefit to local and regional economies. Furthest from regional trails and parks, close to I-5, noise impacts, some out of direction travel. Also see D-1.			
11.5%	Criteria F Weighting	9.4	7.4	7.5				
100%	<b>Total, Weighted Score</b>	<b>69</b>	<b>57</b>	<b>53</b>				

## **Alignment W1 – excerpt from Location Evaluation Report**

Alignment W1 is located at the far west edge of the project area, adjacent to the Portland and Western Railroad facility. The north end of the path connects to the west shoulder of SW Boones Ferry Road in Boones Ferry Park. The south end of the path connects to NE Butteville Road opposite the Boones Ferry Boat Launch parking lot.

The alignment starts closely following the grade and alignment of SW Boones Ferry Road. Near the entrance to the Boones Ferry Park parking lot, the alignment begins to climb to the elevation required to clear the assumed United States Coast Guard (USCG) navigational clearance (assumed same as railroad bridge) at a maximum grade of 5%. After crossing over the navigational channel, the alignment descends at approximately a 2% grade. The alignment crosses over the westernmost boat slips of the Boones Ferry Marina and the main parking lot of the Boones Ferry Boat Launch before crossing over NE Butteville Road. After crossing NE Butteville Road, the alignment makes a big sweeping loop at a maximum grade of 5% down to connect to NE Butteville Road.

The path through the W1 alignment corridor is approximately 2,000 feet long. The main span crossing of the Willamette River is approximately 750 feet in length. The total bridge length, including approach spans, is anticipated to be approximately 1,200 feet long. Retaining walls are anticipated to minimize property impacts at both ends of the alignment.

See Figure 1 for a conceptual plan and profile drawing of Alignment W1.

### **Connectivity and Safety**

This criterion is related to the alignment's effectiveness of safely connecting existing and planned pedestrian routes on the two sides of the river.

#### **North Terminal Connection**

The alignment connects directly to the existing southbound bike lane on the west shoulder of SW Boones Ferry Road. This bike path connects directly to the planned extension of the Ice Age Tonquin Trail, which extends to Sherwood and Tualatin and connects to trails extending farther north. There are currently no pedestrian accommodations in this area.

The alignment connects to existing local trails to the east by way of SW Tauchman Street. The east end of SW Tauchman Street connects to the Wilsonville Waterfront Trail, which crosses under I-5 and connects to Memorial Park. SW Tauchman Street has no current accommodations for bicycles or pedestrians.

#### **South Terminal Connection**

There are no existing bicycle or pedestrian accommodations on the south side of the Willamette River.

The alignment's connection to NE Butteville Road provides opportunity to connect to a planned bicycle and pedestrian path located along the south bank of the Willamette River. This path will cross under I-5 and connect NE Butteville Road to the Charbonneau District. Users will need to pass through the busy area at the

Boones Ferry Marina, Boones Ferry Boat Launch, and NE River Vista Lane to connect to this planned path.

The alignment's relatively direct connection to NE Butteville Road provides excellent access to a planned widening of NE Butteville Road to Champoeg State Park and connections to the Willamette Valley Scenic Bikeway, which extends southward to Eugene.

## Emergency Access

This criterion is related to the alignment's effectiveness at conveying emergency vehicles across the Willamette River and assessing the impacts of such use on existing land uses.

### North Terminal Connection

Alignment W1 offers the most direct route possible from Wilsonville Road to the south side of the Willamette River, connecting to the south end of SW Boones Ferry Road and extending directly south over the river.

### South Terminal Connection

Alignment W1 uses a loop to connect to NE Butteville Road. Additionally, the alignment connects at the west end of the project corridor, while most expected emergency vehicle trips are expected to be headed east towards I-5, Miley Road, and the Charbonneau District.

### Impacts to Existing Uses

Alignment W1 is generally routed away from homes. The alignment has limited impacts to Boones Ferry Park users, as it is located in an undeveloped portion of the park. The alignment does not directly affect marina and boat launch users on the south side of the Willamette River, as it crosses overhead, but some noise impacts to marina and boat launch users are expected.

## Environmental Impacts

This criterion is related to the type and magnitude of anticipated impacts to terrestrial and aquatic habitat, animals and plants, and cultural and historic resources.

### Impacts to Terrestrial Habitat and Wildlife

Alignment W1 avoids most impacts to wooded areas and wildlife habitat. The alignment will impact trees and habitat on the river banks. Beyond the river banks, the alignment is located within developed areas and grassy fields.

### Impacts to Waters, Wetlands, and Aquatic Wildlife

Alignment W1 has the practical minimum impacts to wetlands, waters, and aquatic wildlife. The impacts to the Willamette River will be minimized as much as possible. There is the potential to impact some wetland areas within the grassy fields on the south side, but these impacts are anticipated to be minimal.

## **Impacts to Cultural and Historic Resources**

Alignment W1 is located in relatively close proximity to the historic location of Boones Ferry and a historic orchard located within Boones Ferry Park. As a result, it is possible that the alignment could impact historic era resources, though these resources likely have already been disturbed. The possibility of encountering prehistoric resources exists along both banks of the river, though this is somewhat minimized by prior historic era activities that have disturbed the area.

## **Compatibility with Recreational Goals**

This criterion is related to the recreational opportunities presented by the bridge. It includes the influence of the bridge on existing and future park uses on both sides of the river.

### **User Experience**

Alignment W1's location at the west edge of the project corridor is as far as practical from the busy I-5 Boone Bridge, minimizing the volume of highway noise heard by bridge users. However, this location is in close proximity to the railroad bridge, and the periodic noise due to railroad traffic will be loud. The alignment will provide good views downstream, but upstream views may be partially obstructed by the railroad bridge.

The alignment is out in the open for the majority of the path. A portion of the loop may feel secluded because of the proximity of the railroad embankment, but it is a safe and visible alignment.

Alignment W1 accommodates several features that meet or exceed the minimum design standards for the facility. In general, this alignment will provide a very good user experience.

### **Compatibility with North Bank Recreational Uses**

On the north bank of the Willamette River, Alignment W1 is located west of SW Boones Ferry Road. This location places the alignment outside of the developed portion of Boones Ferry Park. The path can be located at either the west or east edge of the portion of the park west of SW Boones Ferry Road, maximizing the possible future uses of that portion of the park.

### **Compatibility with South Bank Recreational Uses**

On the south bank of the Willamette River, Alignment W1 crosses over some of the Boones Ferry Marina boat slips, potentially limiting future flexibility with slip arrangement. The alignment is also elevated above the primary parking lot for the Boones Ferry Boat Launch, possibly affecting the number and arrangement of parking spaces within the lot. In addition to the potential loss of parking spaces, the County is concerned with parking impacts of new path and bridge users. It is expected this project's preliminary and final design will include explicit accommodation of the increased parking demand by providing a designated lot.

### **River Access**

Alignment W1 has no direct influence on river access. The alignment is located near the existing river access at the end of SW Boones Ferry Road on the north bank of

the river, creating the best opportunity to bring additional users to the north bank of the river. The alignment is located near the existing Boones Ferry Boat Launch, potentially bringing additional users to the south bank of the river, though river access needs to be coordinated with Boones Ferry Marina operations.

## **Compatibility with Built Environment**

This criterion is related to the potential impacts to the existing built environment in the immediate vicinity of the bridge alignment. Specific areas of consideration are residences, parks, and the Boones Ferry Marina.

### **North Terminal Connection**

The north terminal connection of Alignment W1 is located on the west side of SW Boones Ferry Road. It is anticipated that the end of the path would connect to SW Boones Ferry Road at or south of SW Tauchman Street. The nearest residences are located east of SW Boones Ferry Road and north of SW Tauchman Street. These residences include unrepresented populations. Users would access the path via SW Boones Ferry Road, which already has some accommodations for bicycle users.

### **South Terminal Connection**

The south terminal connection of Alignment W1 is located over a parking lot and lands in undeveloped or agricultural property south of NE Butteville Road. There is only one residence in proximity to the alignment and it is located approximately 50 feet from the closest approach of the alignment.

### **Marina Facilities**

Alignment W1 crosses over boat slips for the Boones Ferry Marina. The bridge can be configured to be compatible with the existing boat slips and marina usage.

### **Future Infrastructure Improvements**

Alignment W1 is located adjacent to the existing railroad bridge. The alignment requires use of a portion of the existing railroad right-of-way (ROW). Based on a meeting with the railroad, this alignment will not limit future expansion of railroad facilities. The railroad's primary concern focuses on trespassing and safety. Should this alignment be selected, further coordination would be necessary to determine what, if any, positive barriers between the path and rail line would be required.

## **Cost and Economic Impact**

This criterion is related to the construction cost, anticipated property acquisition and displacements of residences and businesses, required utility relocations, and anticipated economic benefits generated by the bridge crossing.

### **Estimated Construction Cost**

A comparative cost analysis was performed for Alignments W1, W2, and W3. All alignments are fairly comparable in relative cost. This analysis compared the relative quantities of bridge, retaining walls, and path required by each alignment. For Alignment W1 the quantities used for this comparison were: 1,200 feet of bridge (800 feet of main span, and 400 feet of approach span); 5,100 square feet of retaining walls; and 850 feet of on-grade path.

At the conclusion of this analysis, Alignment W1 was scored 9.7 points out of a possible 10.

### **Anticipated Property Acquisitions and Displacements**

Alignment W1 will primarily require transfer of public properties. The portion of the alignment located on the north bank of the river is wholly owned by the City of Wilsonville. On the south bank of the river, easements would be required from Clackamas County and the Oregon Department of Transportation (ODOT). Property acquisition from one private party is anticipated on the south bank of the river.

No residential or business relocations are anticipated for alignment W1.

### **Impacts to Utilities**

Alignment W1 will require the relocation of existing overhead power distribution lines located along NE Butteville Road. The placement of a path and bridge along Alignment W1 will require coordination with overhead power transmission lines and existing water and sewer lines on the north bank.

### **Economic Benefits**

Alignment W1 provides significant potential benefit to the local and regional economies as a result of the good connections to regional trails and parks, and a direct connection to Boones Ferry Road. Some impact from railroad noise is expected.

## **Alignment W2 – excerpt from Location Evaluation Report**

Alignment W2 is located roughly in the middle of the project area. The north end of the path connects to the south shoulder of SW Tauchman Street east of SW Magnolia Avenue. The south end of the path connects to NE Butteville Road south of NE River Vista Lane.

The alignment crosses a relatively open portion of Boones Ferry Park. From SW Tauchman Street, the path becomes elevated as it falls at a maximum grade of 5%, while the existing ground underneath falls at close to 10%. The path then begins to climb to the elevation required to clear the assumed USCG navigational clearance at a maximum grade of about 3.5%. After crossing over the navigational channel, the alignment descends at approximately a 2.5% grade. The alignment crosses over the easternmost boat slips of the Boones Ferry Marina. On the south bank of the Willamette River, the path crosses over a portion of the Boones Ferry Marina boat storage and a residential parcel before crossing over NE River Vista Lane. After crossing over NE River Vista Lane, the path turns towards the west and crosses over NE Butteville Road. The path then makes a loop and descends at a maximum grade of 5%, connecting to NE Butteville Road south of NE River Vista Lane.

The path through the W2 alignment corridor is approximately 1,900 feet long. The main span crossing of the Willamette River is approximately 700 feet in length. The total bridge length, including approach spans, is anticipated to be approximately 1,200 feet long. Retaining walls are anticipated to minimize property impacts at both ends of the alignment.

See Figure 2 for a conceptual plan and profile drawing of Alignment W2.

### **Connectivity and Safety**

This criterion is related to the alignment's effectiveness of safely connecting existing and planned pedestrian routes on the two sides of the river.

#### **North Terminal Connection**

The alignment connects to SW Tauchman Street, which does not have existing bicycle or pedestrian accommodations. Currently, traffic on SW Tauchman Street at the point of connection is very light, as the only traffic generator is a relatively small number of residences and the waste water treatment plant.

Path users can follow SW Tauchman Street west to SW Boones Ferry Road. SW Boones Ferry Road connects directly to the planned extension of the Ice Age Tonquin Trail, which extends to Sherwood and Tualatin and connects to trails extending farther north. Path users can follow SW Tauchman Street east to the Wilsonville Waterfront Trail, which crosses under I-5 and connects to Memorial Park.

#### **South Terminal Connection**

There are no existing bicycle or pedestrian accommodations on the south side of the Willamette River.

The alignment's connection to NE Butteville Road provides opportunity to connect to a planned bicycle and pedestrian path located along the south bank of the

Willamette River. This path will cross under I-5 and connect NE Butteville Road to the Charbonneau District.

The alignment's connection to NE Butteville Road provides access to a planned widening of NE Butteville Road to Champoeg State Park and connections to the Willamette Valley Scenic Bikeway, which extends southward to Eugene. Users will need to pass through the busy area at the Boones Ferry Marina, Boones Ferry Boat Launch, and NE River Vista Lane to make this connection.

## **Emergency Access**

This criterion is related to the alignment's effectiveness at conveying emergency vehicles across the Willamette River and assessing the impacts of such use on existing land uses.

### **North Terminal Connection**

Alignment W2 connects emergency responders from Wilsonville Road across the Willamette River by way of SW Boones Ferry Road and SW Tauchman Street. After turning off of SW Tauchman Street, the path proceeds directly across the Willamette River.

### **South Terminal Connection**

Alignment W2 uses a loop to connect to NE Butteville Road. This loop runs roughly parallel to NE Butteville Road, bringing responders towards I-5. The path is reasonably direct for the majority of emergency vehicle trips, which are anticipated to be headed east towards I-5, Miley Road, and the Charbonneau District.

### **Impacts to Existing Users**

Alignment W2 requires emergency responders to travel down SW Tauchman Street, which has residences located on the north side of the street. The alignment bisects the main portion of Boones Ferry Park, skirting to the east of the main improvements. The alignment does not directly affect residents, marina uses, and boat launch uses on the south side of the Willamette River as it crosses overhead. It is anticipated that noise impacts will be experienced by residents, park, and river users along the path alignment.

## **Environmental Impacts**

This criterion is related to the type and magnitude of anticipated impacts to terrestrial and aquatic habitat, animals and plants, and cultural and historic resources.

### **Impacts to Terrestrial Habitat and Wildlife**

Alignment W2 avoids most impacts to wooded areas and wildlife habitat. The alignment will impact trees and habitat on the river banks. Beyond the river banks, the alignment is located within developed areas and grassy fields.

### **Impacts to Waters, Wetlands, and Aquatic Wildlife**

Alignment W2 has the practical minimum impacts to wetlands, waters, and aquatic wildlife. The impacts to the Willamette River will be minimized as much as possible.



There is the potential to impact some wetland areas within the grassy fields on the south side, but these impacts are anticipated to be minimal.

### **Impacts to Cultural and Historic Resources**

Alignment W2 is located east of the Tauchman House and crosses the Willamette River adjacent to, but east of, the historic location of Boones Ferry. As a result, it is possible that the alignment could impact historic era resources, though these resources likely have already been disturbed. The possibility of encountering prehistoric resources exists along both banks of the river, though this is somewhat minimized by prior historic era activities that have disturbed the area.

### **Compatibility with Recreational Goals**

This criterion is related to the recreational opportunities presented by the bridge. It includes the influence of the bridge on existing and future park uses on both sides of the river.

#### **User Experience**

Alignment W2's location in the middle of the project corridor means that it is not particularly close to either the I-5 Boone Bridge or the railroad bridge. The alignment will provide good views both upstream and downstream.

The alignment is out in the open for the entirety of the path length. This alignment is safe and visible.

Alignment W2 accommodates several features that meet or exceed the minimum design standards for the facility. In general, this alignment will provide a great user experience.

#### **Compatibility with North Bank Recreational Uses**

On the north bank of the Willamette River, Alignment W2 bisects Boones Ferry Park. This location places the alignment east of the main developed portion of Boones Ferry Park. The location of the path can be adjusted today to accommodate current uses, but possible future uses of the park will be restricted by the presence of the path.

#### **Compatibility with South Bank Recreational Uses**

On the south bank of the Willamette River, Alignment W2 crosses over some of the Boones Ferry Marina boat slips, potentially limiting future flexibility of slip arrangement. The alignment is also elevated above dry boat storage for the Boones Ferry Marina, possibly affecting the number and arrangement of storage spaces within the lot.

#### **River Access**

Alignment W2 has no direct influence on river access. It will provide the best view of the river from the bridge. There are limited opportunities to enhance river access on this alignment.

## Compatibility with Built Environment

This criterion is related to the potential impacts to the existing built environment in the immediate vicinity of the bridge alignment. Specific areas of consideration are residences, parks, and the Boones Ferry Marina.

### North Terminal Connection

The north terminal connection of Alignment W2 is located in Boones Ferry Park on SW Tauchman Street. Residences are located across SW Tauchman Street from the end of the path. These residences include unrepresented populations. Users would access the path via SW Tauchman Street, which has no accommodations for bicycle or pedestrian use.

### South Terminal Connection

The south terminal connection of Alignment W2 is located over a storage yard for the Boones Ferry Marina, two residential properties, and agricultural property. One residence is located immediately adjacent to the alignment, and two other residences are located in proximity to the alignment.

### Marina Facilities

Alignment W2 crosses over boat slips for the Boones Ferry Marina. The bridge can be configured to be compatible with the existing boat slips and marina usage.

### Future Infrastructure Improvements

Alignment W2 does not have an appreciable impact on future expansion of existing infrastructure.

## Cost and Economic Impact

This criterion is related to the construction cost, anticipated property acquisition and displacements of residences and businesses, required utility relocations, and anticipated economic benefits generated by the bridge crossing.

### Estimated Construction Cost

A comparative cost analysis was performed for Alignments W1, W2, and W3. All alignments are fairly comparable in relative cost. This analysis compared the relative quantities of bridge, retaining walls, and path required by each alignment. For Alignment W2 the quantities used for this comparison were: 1,160 feet of bridge (720 feet of main span and 440 of approach span); 11,400 square feet of retaining walls; and 740 feet of on-grade path.

At the conclusion of this analysis, Alignment W2 was scored 9.8 points out of a possible 10.

### Anticipated Property Acquisitions and Displacements

Alignment W2 will primarily require transfer of public properties. The portion of the alignment located on the north bank of the river is wholly owned by the City of Wilsonville. On the south bank of the river, easements would be required from Clackamas County. Property acquisition from three private parties is anticipated on the south bank of the river.

One potential residential displacement is possible for Alignment W2. One business displacement is possible for alignment W2.

### **Impacts to Utilities**

Alignment W2 will require the relocation of existing overhead power transmission and distribution lines located along NE Butteville Road. The placement of a path and bridge along Alignment W2 will require coordination with underground gas lines located along NE Butteville Road and existing water and sewer lines located within Boones Ferry Park and along SW Tauchman Street.

### **Economic Benefits**

Alignment W2 provides the greatest potential benefit to the local and regional economies as a result of the good connections to regional trails and parks, inviting river views, and limited impact from I-5 and the railroad.

## **Alignment W3 – excerpt from Location Evaluation Report**

Alignment W3 is located at the far east edge of the project area. The north end of the path connects to the south shoulder of SW Tauchman Street at the entrance to the waste water treatment plant. The south end of the path connects to NE Butteville Road, well south of NE River Vista Lane.

The alignment begins at the east end of SW Tauchman Street and heads east through a wooded area within a parcel acquired by the City of Wilsonville for expansion of Boones Ferry Park. The path turns south at the bank of a drainage and crosses the Willamette River. The path more or less follows existing ground in this area, descending at a maximum 5% grade before beginning to climb at 4% to clear the assumed USCG navigational channel. After crossing over the navigational channel, the alignment descends at approximately a 4.5% grade. The alignment lands on the south bank of the river east of an existing drainage. After landing on the south bank of the river, the path follows existing ground through wooded terrain along the east bank of the channel before turning to the west and crossing over the channel on a single-span bridge. Once across the channel, the path follows an existing driveway to NE Butteville Road, with a maximum grade of about 3.1%.

The path through the W3 alignment corridor is approximately 2,550 feet long. The main span crossing of the Willamette River is approximately 800 feet in length. The total bridge length, including approach spans, is anticipated to be approximately 1,000 feet long. The second bridge is approximately 140 feet long. Retaining walls are anticipated to minimize property impacts at the north end of the alignment.

See Figure 3 for a conceptual plan and profile drawing of Alignment W3.

### **Connectivity and Safety**

This criterion is related to the alignment's effectiveness of safely connecting existing and planned pedestrian routes on the two sides of the river.

#### **North Terminal Connection**

The alignment connects to the end of SW Tauchman Street, which does not have existing bicycle or pedestrian accommodations. Currently, traffic on SW Tauchman Street at the point of connection is very light, as the only traffic generator is a relatively small number of residences and the waste water treatment plant.

Path users can follow SW Tauchman Street west to SW Boones Ferry Road. SW Boones Ferry Road connects directly to the planned extension of the Ice Age Tonquin Trail, which extends to Sherwood and Tualatin and connects to trails extending farther north. Path users can directly connect to the Wilsonville Waterfront Trail, which crosses under I-5 and connects to Memorial Park.

#### **South Terminal Connection**

There are no existing bicycle or pedestrian accommodations on the south side of the Willamette River.

The alignment's eastern location provides the opportunity to directly connect to a planned bicycle and pedestrian path located along the south bank of the Willamette

River. This path will cross under I-5 and connect NE Butteville Road to the Charbonneau District.

The alignment's connection to NE Butteville Road provides access to a planned widening of NE Butteville Road to Champoeg State Park and connections to the Willamette Valley Scenic Bikeway, which extends southward to Eugene. Bridge users wanting to travel west do not have to cross the NE Butteville Road at the alignment connection point. Users will need to pass through the busy area at the Boones Ferry Marina, Boones Ferry Boat Launch, and NE River Vista Lane to make this connection.

## **Emergency Access**

This criterion is related to the alignment's effectiveness at conveying emergency vehicles across the Willamette River and assessing the impacts of such use on existing land uses.

### **North Terminal Connection**

Alignment W3 connects emergency responders from Wilsonville Road across the Willamette River by way of SW Boones Ferry Road and SW Tauchman Street. At the end of SW Tauchman Street, the path proceeds east through Boones Ferry Park before turning south to cross the Willamette River.

### **South Terminal Connection**

Alignment W3 connects to NE Butteville Road by way of a long path. The route is fairly direct for responders headed towards I-5, Miley Road, and the Charbonneau District, but emergency vehicles would need to proceed carefully and slowly due to the shared use nature of the facility.

### **Impacts to Existing Users**

Alignment W3 requires emergency responders to travel down SW Tauchman Street, which has residences located on the north side of the street. The alignment travels along the east edge of an undeveloped portion of Boones Ferry Park. The alignment does not affect marina uses or the boat launch on the south side of the Willamette River. The alignment is in proximity to residences as it nears NE Butteville Road. It is anticipated that noise impacts will be experienced by residents, park, and river users along the path alignment.

## **Environmental Impacts**

This criterion is related to the type and magnitude of anticipated impacts to terrestrial and aquatic habitat, animals and plants, and cultural and historic resources.

### **Impacts to Terrestrial Habitat and Wildlife**

Alignment W3 impacts wooded areas and wildlife habitat for the majority of its length on both sides of the river.

### **Impacts to Waters, Wetlands, and Aquatic Wildlife**

Alignment W3 has the practical minimum impacts to wetlands, waters, and aquatic wildlife. The impacts to the Willamette River will be minimized as much as possible.

There are additional impacts due to the second bridge crossing the drainage south of the Willamette River.

### **Impacts to Cultural and Historic Resources**

Alignment W3 is located well east of the historic location of Boones Ferry. Impacts to historic era resources are not considered likely. The possibility of encountering prehistoric resources exists along both banks of the river and along the drainage south of the Willamette River, particularly because much of the area is undisturbed.

### **Compatibility with Recreational Goals**

This criterion is related to the recreational opportunities presented by the bridge. It includes the influence of the bridge on existing park uses on both sides of the river.

#### **User Experience**

Alignment W3 is located relatively close to the I-5 Boone Bridge. Freeway noise is anticipated to be noticeable on the bridge. The alignment will provide good views upstream, but the I-5 Boone Bridge will limit views in the downstream direction.

The alignment is largely secluded. The wooded nature of the path would make it a unique experience; however, it may also make the alignment feel unsafe due to lack of visibility.

Alignment W3 accommodates several features that meet or exceed the minimum design standards for the facility. In general, this alignment will provide a poor user experience.

#### **Compatibility with North Bank Recreational Uses**

On the north bank of the Willamette River, Alignment W3 skirts the east edge of Boones Ferry Park. This location places the alignment outside of currently developed park areas and maximizes flexibility for future uses of the undeveloped portion of the park. However, this location may limit local trail flexibility.

#### **Compatibility with South Bank Recreational Uses**

On the south bank of the Willamette River, Alignment W3 is well east of the Boones Ferry Marina and Boones Ferry Boat Launch. Existing recreational uses will not be impacted by this alignment.

#### **River Access**

Alignment W3 brings users to portions of the river bank not currently accessed. However, there is little opportunity to create river bank access due to the I-5 Bridge, the Wasterwater Treatment Plant outfall, and the drainage channels on both sides of the river.

### **Compatibility with Built Environment**

This criterion is related to the potential impacts to the existing built environment in the immediate vicinity of the bridge alignment. Specific areas of consideration are residences, parks, and the Boones Ferry Marina.

### **North Terminal Connection**

The north terminal connection of Alignment W3 is located at the end of SW Tauchman Street. Residences are located along the north side of SW Tauchman Street. These residences include unrepresented populations. Users would access the path via SW Tauchman Street, which has no accommodations for bicycle or pedestrian use.

### **South Terminal Connection**

The south terminal connection of Alignment W3 is located in undeveloped forest and through three residential parcels. It is anticipated that the path will share an existing driveway for access to NE Butteville Road. All three residences are in proximity to the path.

### **Marina Facilities**

Alignment W3 will avoid all marina facilities.

### **Future Infrastructure Improvements**

Alignment W3 is located adjacent to the I-5. The alignment requires use of a portion of ODOT property. If selected, further coordination with ODOT would be required to determine the feasibility of accommodating the future expansion of I-5 and this project.

Based upon discussions and coordination with ODOT to-date, there is a very low likelihood of ODOT agreeing to allow the new bridge and path to be sited on their property west of I-5. It is their perspective that all ODOT property in this area must be reserved for the widening of the I-5 Boone Bridge and Southbound I-5.

## **Cost and Economic Impact**

This criterion is related to the construction cost, anticipated property acquisition and displacements of residences and businesses, required utility relocations, and anticipated economic benefits generated by the bridge crossing.

### **Estimated Construction Cost**

A comparative cost analysis was performed for Alignments W1, W2, and W3. All alignments are fairly comparable in relative cost. This analysis compared the relative quantities of bridge, retaining walls, and path required by each alignment. For Alignment W3 the quantities used for this comparison were: 1,180 feet of bridge (800 feet of main span, and 380 feet of approach span); 2,400 square feet of retaining walls; and 1,400 feet of on-grade path.

At the conclusion of this analysis, Alignment W3 was scored 10 points out of a possible 10.

### **Anticipated Property Acquisitions and Displacements**

Alignment W3 will primarily require transfer of public properties. The portion of the alignment located on the north bank of the river is owned by the City of Wilsonville and ODOT. On the south bank of the river, easements would be required from ODOT. Property acquisition from three private parties is anticipated on the south side of the river to connect the path west to NE Butteville Road.

No residential or business relocations are anticipated to be required for Alignment W3.

### **Impacts to Utilities**

Alignment W3 will require coordination to avoid impacts to the existing City of Wilsonville sanitary sewer lines and outfall. It is expected a conflict can be avoided. However, even bridge foundations in the vicinity of the outfall (no direct impact) could result in a conflict and potential outfall relocation.

### **Economic Benefits**

Alignment W3 provides the least potential benefit to the local and regional economies. It is the furthest away from regional trails and parks, closest to I-5 noise impacts, and requires more out of direction travel.