



## Online Survey – Bridge Values and Type Selection

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August 30, 2010

The sixth survey for the Sellwood Bridge study was posted on the project homepage ([www.sellwoodbridge.org](http://www.sellwoodbridge.org)) from July 16 to August 8, 2010. The survey period coincided with a public open house on the bridge type selection that was held at Oaks Park on July 21.

The purpose of this survey was to obtain public feedback on community values and bridge type selection preferences for the Sellwood Bridge replacement. As with previous surveys, the information obtained through the survey is intended as a guide to help inform project decision-makers. Since respondents to these online surveys are self-selected, the findings should be considered to be an informal community poll. They are not intended to be a statistically representative commentary on public opinion.

The online survey was publicized through a mass mailing sent to 22,000 households in the project vicinity, via two email announcements to the project database of over 5,000 addresses, through the local media (including newspapers, radio, and interest group websites and blogs), at community briefings, and via a banner over the bridge throughout the comment period.

At the conclusion of the survey, **2,452\*** surveys were submitted from interested persons in the Sellwood neighborhood and throughout the Portland metro area. This report details the results and analyzes those responses.

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*\* Accidental duplicate responses for a survey of this type are not uncommon. To mitigate the effect of any intentional or unintentional duplicates, the following steps were taken to identify and remove duplicate answers:*

- 1. Results were sorted by email address (a required field). Duplicates with identical or incomplete entries were identified. It is common for multiple family members in the same household to use the same email address. Entries with different names and answers that used the same email address were not removed.*
- 2. The remaining results were sorted by the respondent IP address that was automatically logged by the survey. Duplicate IP addresses were highlighted and suspicious blocks of entries with identical information were flagged.*
- 3. Two team members reviewed possible duplicates before any entries were removed from the final tally.*

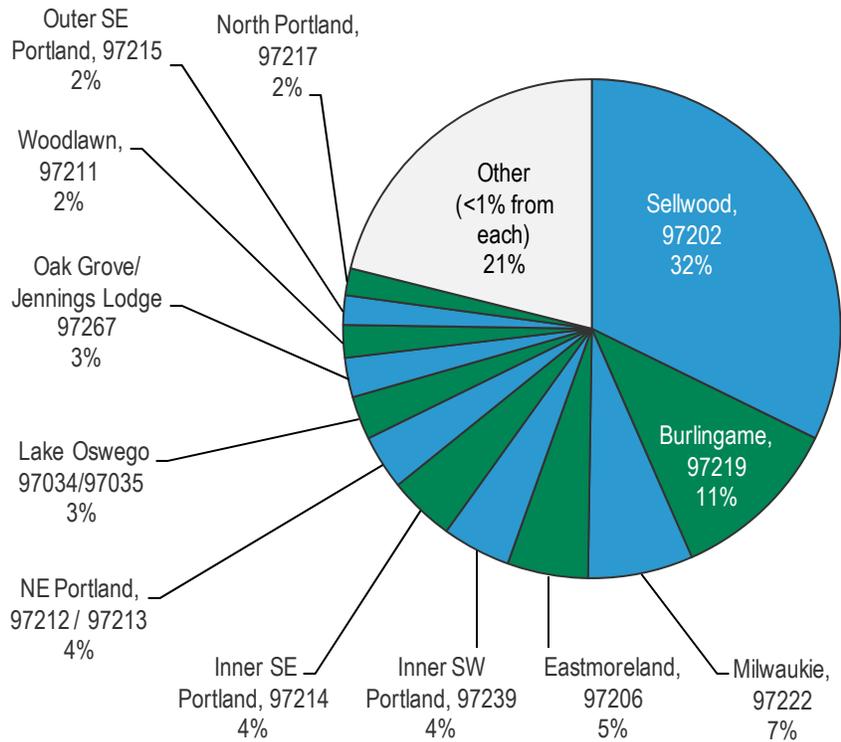
*The final tally of 2,452 surveys does not include 29 submissions that were removed based on the process outlined above.*

## Survey Demographics

### Questions 1-3 ▶

These questions asked for demographic and contact information and to determine the ZIP code distribution of survey participants.

**Observations:** Responses came from a broad area and included many ZIP codes in the Portland region. Responses were consistent with earlier Sellwood Bridge surveys, with approximately 1/3 of responses coming from the greater Sellwood area.

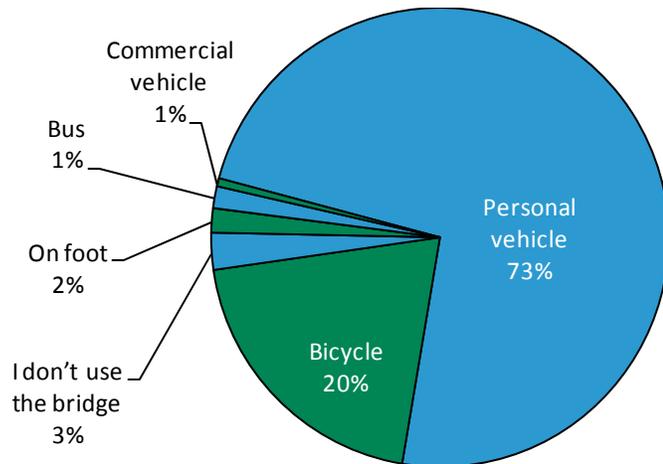


### Question 4 ▶

**What is your primary mode of travel across the Sellwood Bridge? (Select one, required.)**

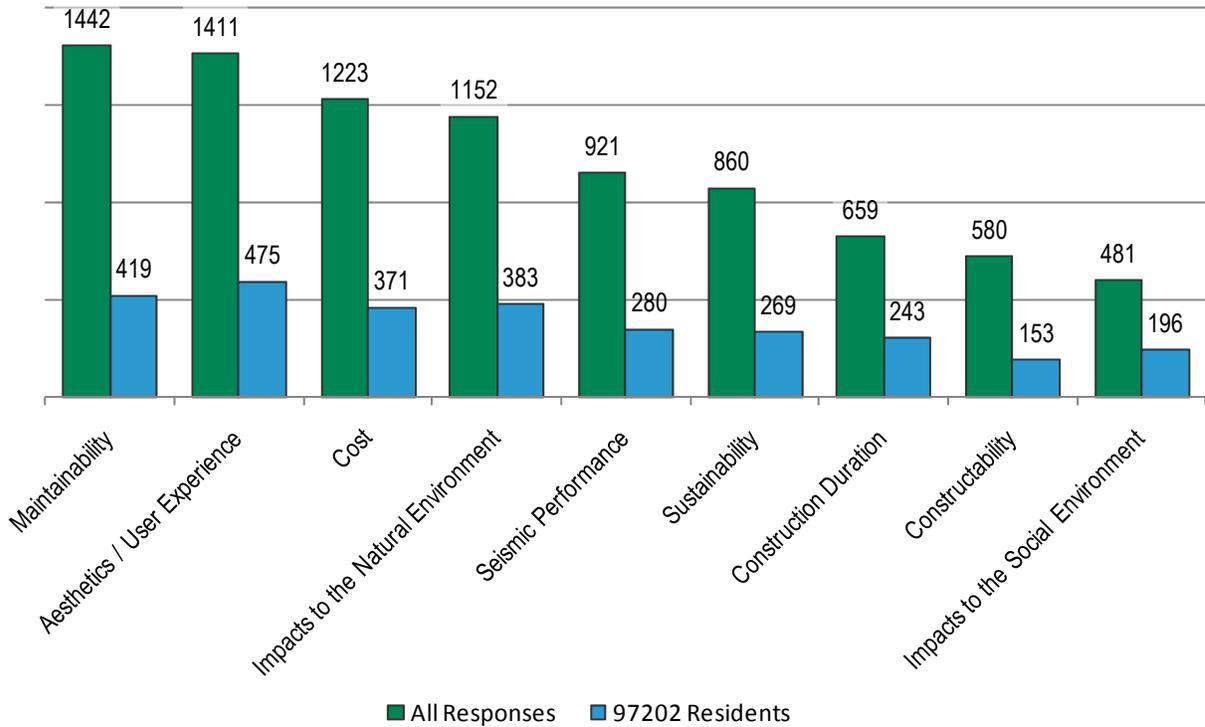
**Observations:** A majority of respondents (73%) indicated that they drive a personal vehicle across the bridge. 20% of the responses were from cyclists. Only 2% of respondents indicated that they primarily walk and 3% don't use the bridge.

Respondents who answered with "bus" refer to bus travel prior to weight restrictions.



**Question 5 ▶ Which evaluation criteria are the most important to you? (Select four.)**

Responses are presented in the order of response popularity.

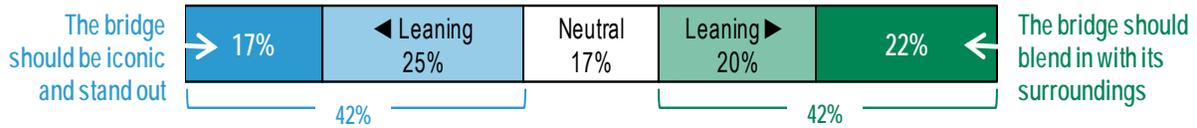


**Observations:** Responses from 97202 (Sellwood) residents were largely proportional (within 4%) of the average response. Exceptions: Maintainability (-6.2%), Constructability (-4.4%), and Impacts to the Social Environment (+5.2%).

Questions 6-10 asked respondents to select a choice that represents their opinion along a preference continuum between two opposite choices for the bridge.

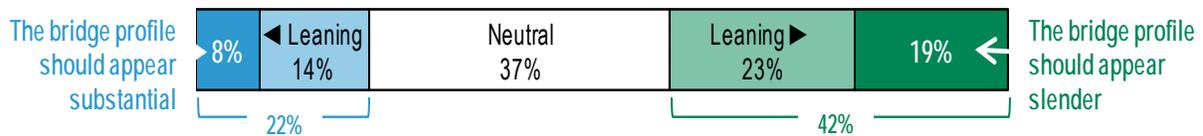
**General Observations:** None of the responses to these questions revealed a clear majority opinion. For each question, only a minority expressed a strong opinion one way or the other and many responses were neutral.

### Question 6 ▶ Visibility



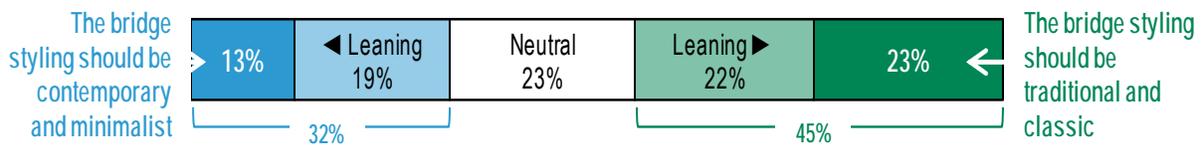
**Observations:** Respondents were evenly divided (42%) regarding bridge visibility preference. Fewer people were neutral on this question than for the others.

### Question 7 ▶ Profile (side view)



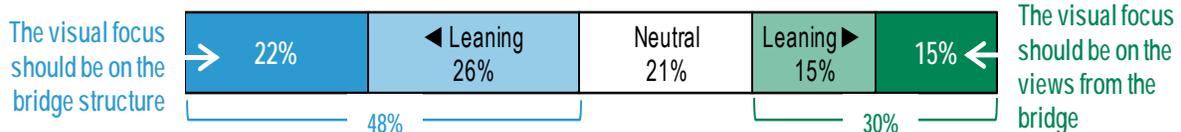
**Observations:** Although 42% of respondents preferred a slender bridge, a significant number of respondents (37%) were neutral or had no opinion.

### Question 8 ▶ Style



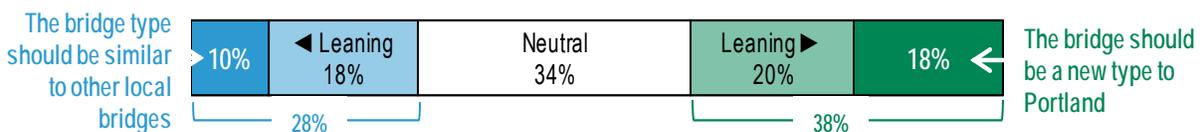
**Observations:** A plurality of respondents (45%) favored a traditional and classic looking bridge.

### Question 9 ▶ Focus



**Observations:** When given a choice between views from the bridge and visual focus on the bridge structure, a sizeable plurality (48%) selected the bridge structure.

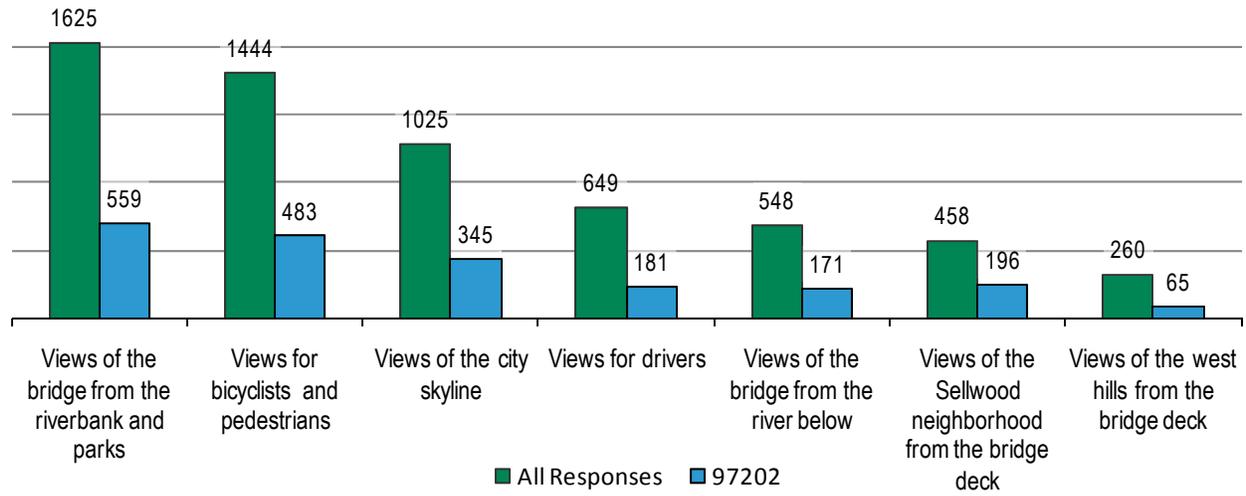
### Question 10 ▶ Character



**Observations:** A plurality (38%) of respondents preferred that the bridge be a type new to Portland. Nearly as many (34%) were neutral.

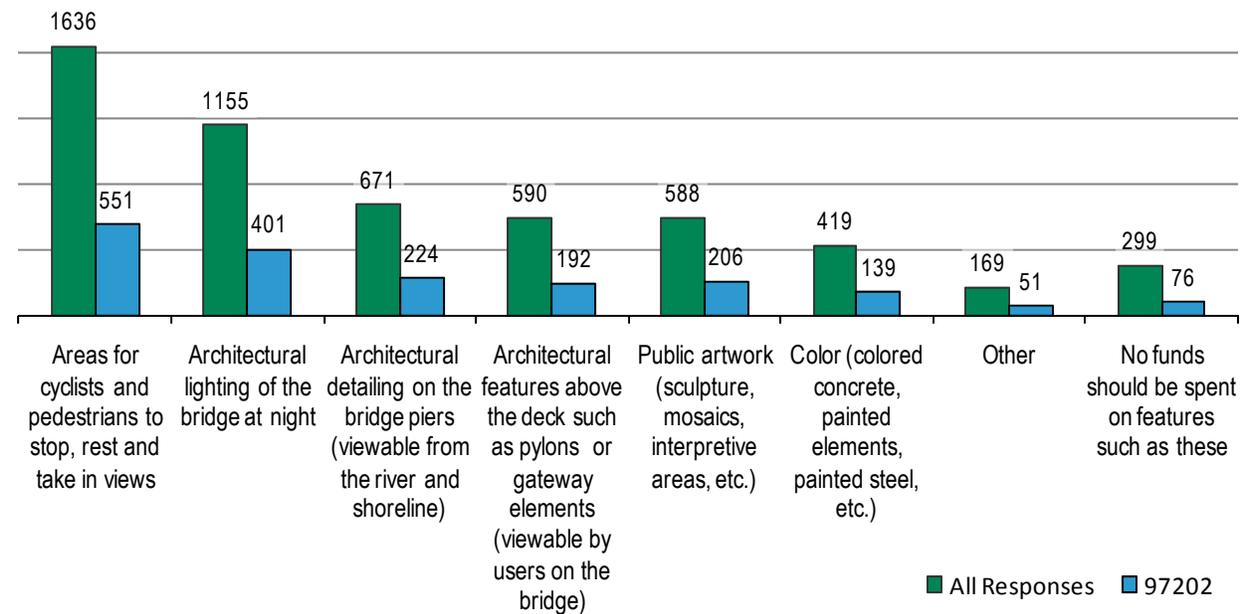
**Question 11** ▶ **Bridge Views – which are most important to you? (Choose your top three.)**

Choices are presented in the order of response popularity.



**Observations:** Respondents heavily favored views of and from the bridge for non-drivers. Views from the bridge deck of the east and west banks were considered the least important. Responses from 97202 (Sellwood) residents were typically within 4% of the average response. Exceptions were Views for drivers (-4.3%) and Views of the Sellwood neighborhood (+6.4%).

**Question 12** ▶ **Would you like to see project funds spent on the following amenities/features for a new bridge? (Check all that apply.)**



**Observations:** Facilities for cyclists and pedestrians were the most popular. Only 13% of respondents felt that no funds should be spent on additional amenities. Responses from 97202 (Sellwood) residents were roughly within 3% of the average.

## Question 12 (continued)

*Other suggested amenities from the open ended responses included (responses in parentheses indicate number of comments):*

### General Appearance

- Arches below (6)
- Planters and greenery on the bridge deck (2)
- Decorative railing
- Aesthetic elements that don't obscure views
- Expansive entry/exit areas for bikes/peds
- Simple designs, simple expression, no faux detailing
- Towers akin to the Burnside Bridge
- Features that relate to current bridge and convey its history
- Detailing on the bridge stringers
- More features on the Sellwood end

### Artwork

- Stamped impressions in concrete, such as salmon (2)
- Bridge name artistically displayed
- Artwork integrated into the structure
- Art that teaches about Portland history
- Make the *bridge* look like art
- Move the Portlandia statue to the bridge head
- Something truly unique, like the world's biggest ball of twine, or maybe really big statue of an Osprey
- Gargoyles or native American motif
- Music

### Lighting

- Bicycle/pedestrian lighting (3)
- Lighting only if renewable (ex. solar) (3)
- Night sky compliant lighting
- Laser lights
- Historic type lighting

### Environment

- Raptor nesting friendly (4)
- Sound dampening road features (2)
- Green uses such as water collection

### Safety/Practical Concerns

- Barrier between auto and bike/ped path (6)
- Traffic calming features
- Good visual signage
- Safety features to prevent people from jumping off bridge
- Consider vandalism and graffiti re: any artwork
- Pet-friendly features

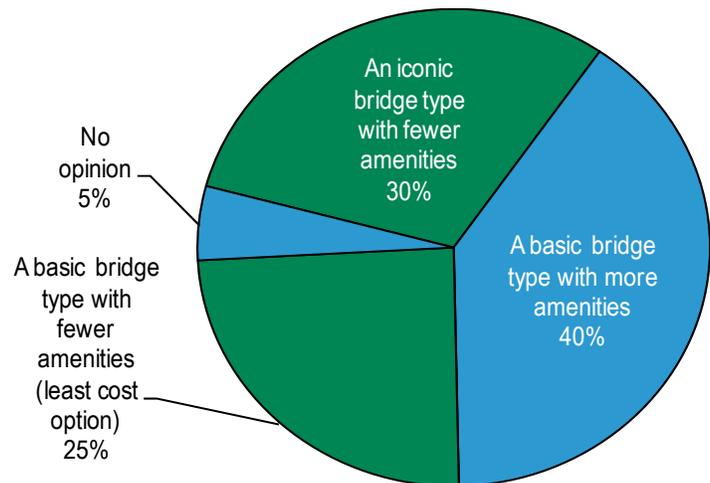
### Public Facilities

- Drinking fountains/Benson Bubblers (3)
- Bathrooms
- Picnic tables
- Timed-quarter paid binoculars

## Question 13 ▶

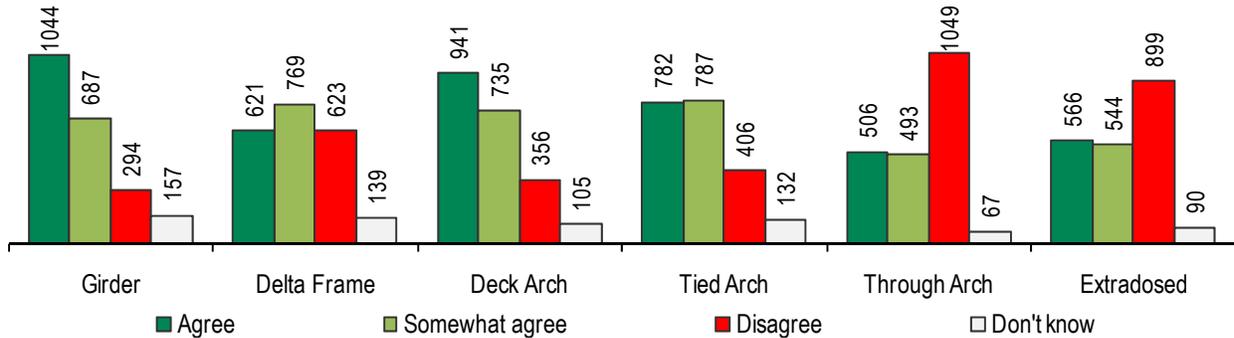
This question noted that a trade-off may be involved between bridge type and amenities on the bridge. Respondents were asked which combination they considered the most important:

**Observations:** Respondents were fairly divided with a plurality preferring a more basic bridge type with more amenities. One quarter of respondents preferred a least cost option. Only 5% of respondents had no opinion.



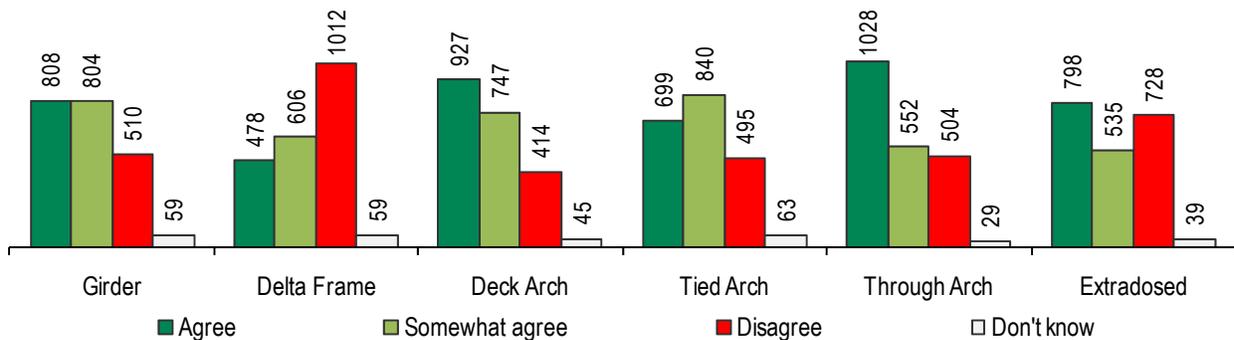
**Questions 14-25** ▶ These questions were presented along with basic information and concept sketches of the candidate bridge types. Based on the drawings and descriptions, respondents were asked whether they agreed or disagreed with various statements about each type. Respondents also were asked to offer additional comments.

▶ The size and scale are appropriate (fits the site well):



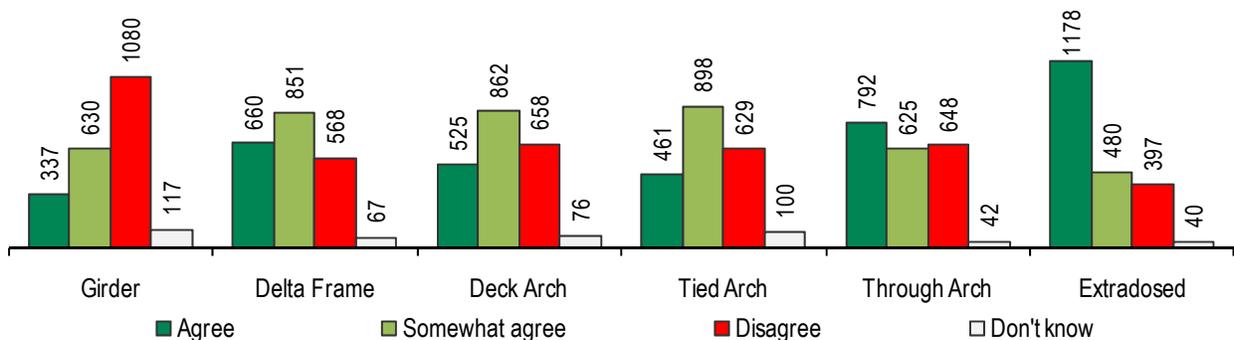
**Observations:** The Girder, Deck Arch, and Tied Arch were felt to fit the site the best. Opinions were more divided on the Delta Frame. Respondents felt that the Through Arch and Extradosed types were inappropriate for the site.

▶ The profile (side view) is attractive:



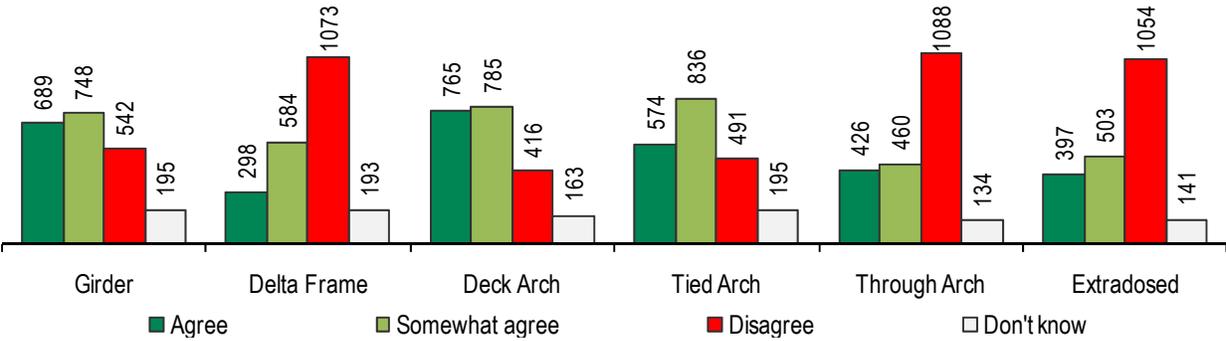
**Observations:** Although respondents felt it to be inappropriate for this location, the Through Arch was considered to have the most attractive profile. The Delta Frame type was considered the least attractive option.

▶ It looks distinctive or unique:



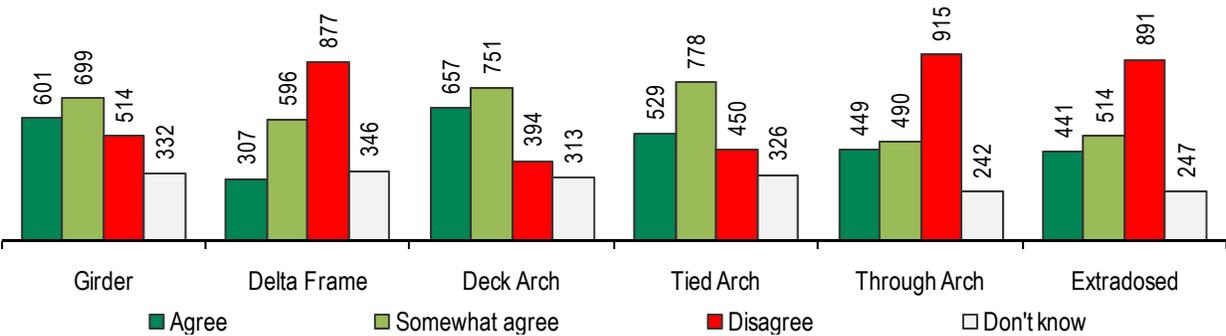
**Observations:** The Extradosed type, which would be new in Portland, was perceived as the most unique bridge type. The Girder was perceived as the least distinctive bridge type.

► It feels appropriate to the Sellwood neighborhood:



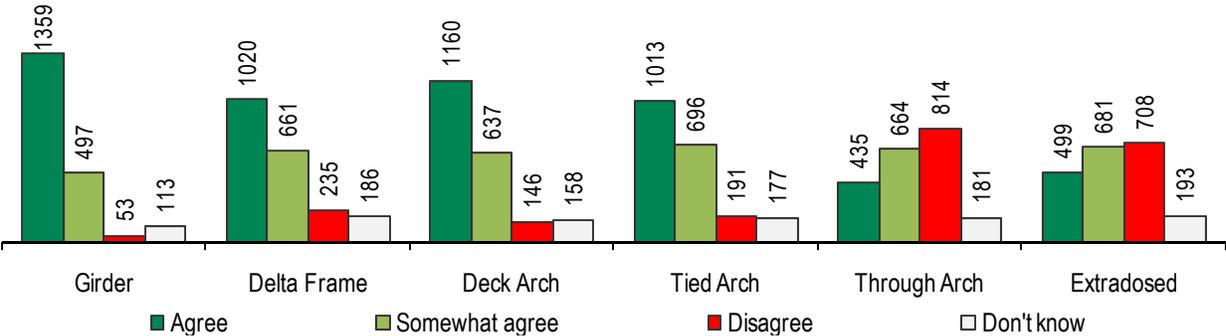
**Observations:** Consistent with the question about appropriate size and scale, the Delta Frame, Through Arch, and Extradosed were described as inappropriate for the Sellwood neighborhood. There was more ambivalence about the remaining types.

► It feels appropriate for the west side/hills:



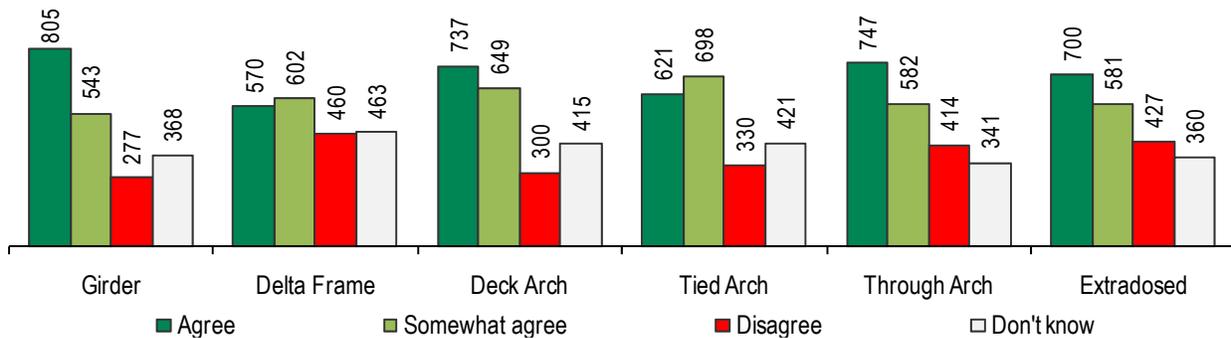
**Observations:** Similar responses to the previous question about the appropriateness for the Sellwood neighborhood may indicate that respondents do not significantly differentiate between the two sides of the river in terms of bridge type.

► It offers open views from the deck:



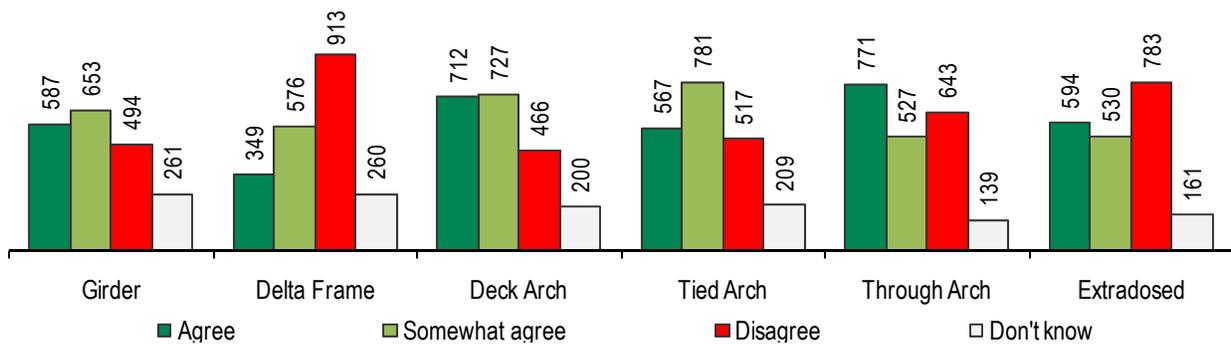
**Observations:** The bridges with above deck structures were perceived as having the least open views. Of the remaining bridges, although identical with regard to above deck structural features, the Girder bridge was perceived as being the most open.

► It provides a gateway for bridge users:



**Observations:** Perceptions of whether each bridge type provides a gateway were mixed. The relatively high number of “Don’t know” responses indicates that the use of the term “gateway” was unclear. This was confirmed by reviewing answers to the open-ended responses.

► It frames the river nicely:

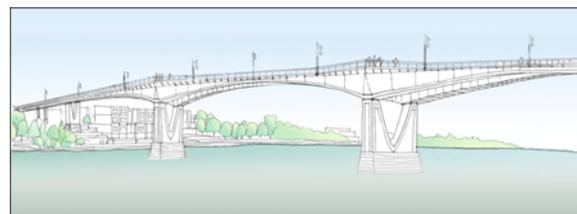


**Observations:** Responses to this question were similar to the responses about area appropriateness. Although there were varying opinions about which type best frames the river, most respondents felt that the Delta Frame does not frame the river well. As with the “gateway” statement, many people did not understand the intent here (open-ended responses).

### Questions 14-25 (Comment Summary)

#### Girder

**Pro** ► People who favored the Girder type appreciated its simplicity and perceived affordability relative to the other bridge types. These people generally seemed to agree that the Girder was “suitable” even if their enthusiasm for this type was somewhat tempered by a basic design. They appreciated the open deck and felt that the structure could be dressed up with deck amenities, entryways, or by adding angles and arcs to the substructure. Several respondents preferred steel versions of this bridge. The Girder may be a popular choice because of the current economic recession. **Descriptions included:** Simple, frugal, modern, sleek, low cost, decent looking.

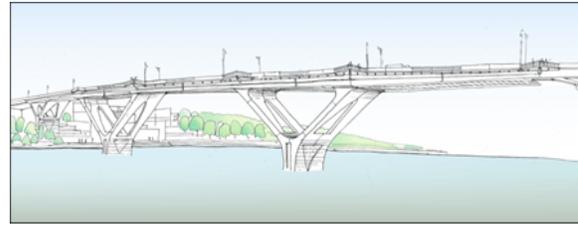


**Con** ► People who disliked the Girder type felt that it is too simple, not unique enough and more closely resembles a typical freeway structure. These people felt that there were enough examples of plain Girder bridges elsewhere and desired something more distinctive and befitting of the location. There were some questions about how the variable deck width would be accommodated with a Girder structure.

**Descriptions included:** Ugly, bulky, unremarkable, plain, boring, generic, massive, heavy, dull, flat.

## Delta Frame

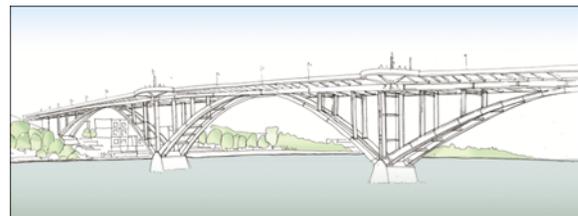
**Pro** ▶ People who liked the Delta Frame appreciated its sleek lines and distinctive, contemporary look. Some felt it represents a good compromise choice by offering architectural interest at a lower cost. Having a new bridge type to Portland was also a priority for many people and they liked the Delta Frame for that reason. *Descriptions included: Unique, affordable, elegant, quiet style, sleek, contemporary and modern.*



**Con** ▶ People who disliked the Delta Frame tended to feel strongly that the type is very unattractive. They disliked the “Y” shaped piers and wondered if they would limit the clearance for river traffic or collect debris at high water. Some felt that the structure would be out of place on this section of the river and thought it looked more suited to a downtown or urban freeway setting. There were many comments that the type did not have a neighborhood scale and would not suit historic Sellwood. There were also questions about its seismic capacity. *Descriptions included: Plain, clunky, industrial, intrusive, ugly, utilitarian, forgettable, and uninspiring.*

## Deck Arch

**Pro** ▶ There were many comments that the Deck Arch resembles the current Sellwood Bridge, especially if constructed in steel. For some this was a positive thing and for others it was negative. Those who liked this option felt that the Deck Arch is graceful, frames the river well and fits the location as a nice complement to the park-like setting and Sellwood neighborhood. Others thought that it “fit” Portland’s bridge collection. The arches are a popular feature. *Descriptions included: Attractive, beautiful, distinctive, has character, looks classic, graceful, historic and good proportions.*



**Con** ▶ There were also many concerns, expressed both by people who liked and disliked this type, that the Deck Arch might limit river navigational clearance. Many felt that to limit possible future river uses through below deck piers and arches would be unwise. Those who disliked this option thought that the Deck Arch was too dominant and intrusive for the setting and blocked views of the river. Some believed it did not fit the neighborhood. There were also comments that there are too many bridges of this type already located throughout the area. There were also some concerns about the possibility of people climbing on the arches. *Descriptions included: Industrial, old fashioned, boring, too traditional, too busy, bottom heavy, not unique enough, mundane.*

## Tied Arch

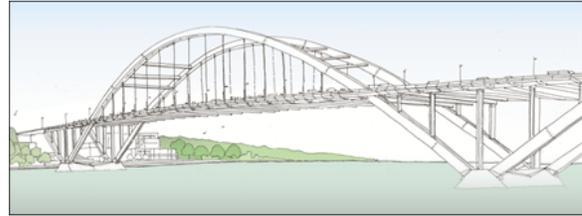
**Pro** ▶ Some people had a difficult time seeing the distinctions between the Tied Arch and the Deck Arch. People that liked this type thought it looked graceful and open. Several remarked that the arched piers reminded them of the St. Johns Bridge, and several preferred steel as a construction material. Many also wondered if the fewer arches compared to the Deck Arch offered better river traffic clearance. This may be a reason for its popularity. The smaller scale also seemed more suitable to the neighborhood for some. Again, some people thought the type resembled the current bridge. One person wrote: “I liked this one and the one immediately previous to this one (Deck Arch) because they evoke the past the most, harkening back to the current bridge design, which is of historic and personal meaning.” *Descriptions included: Attractive, pretty, appropriate to the neighborhood, industrial (nice), less fussy than the Deck Arch, traditional, good compromise between historic and modern.*



**Con** ▶ As with the Deck Arch, there were many concerns about the sub-structure impeding the navigational channel. Some thought that the lack of arches at the ends of the structure made it look half done, as though parts of it are missing. The single main arch span made this type appear asymmetrical to some people. Others also thought there are too many of this type in the area already. One person thought the columns on land looked “weak” compared to the columns in the water. **Descriptions included:** *Awkward, looks off-balance, choppy, boring, tacky, mundane, ordinary, ugly, not elegant, sterile.*

## Through Arch

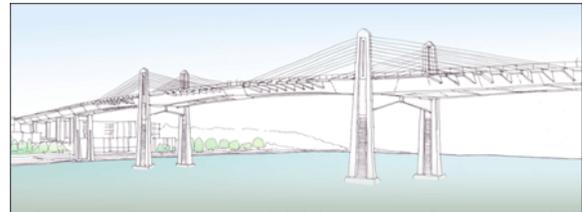
**Pro** ▶ Those who liked the Through Arch appreciated this type’s iconic presence. Comparisons were made to the Fremont Bridge and several thought that a through arch Sellwood Bridge would book-end the river nicely. Someone observed that it would finally be nice to walk or bike on a through arch bridge in Portland, since the Fremont Bridge has only ever been accessible to cars. Many thought it is very attractive, but their comments were tempered that it is probably not a practical choice. One suggestion called for sidewalks outside of the arches to create separation from traffic and another respondent suggested trying to simulate the look of a through arch by adding non-structural arches to a tied or deck arch. **Descriptions included:** *Graceful, flowing presence, gorgeous, attractive, soaring, good gateway, inspiring, less impact to river navigation.*



**Con** ▶ Those who disliked this type felt strongly that a large superstructure is inappropriate and too grandiose to the Sellwood neighborhood and this part of the river. They think that it is oversized in scale and proportion to its surroundings. Negative comparisons were made to the Fremont Bridge. Some thought it took away from the focus on the river and views. Construction and ongoing maintenance costs were also concerns for many. **Descriptions included:** *Excessive, too fancy, ponderous, impractical, cluttered, benefit not worth the cost, over the top.*

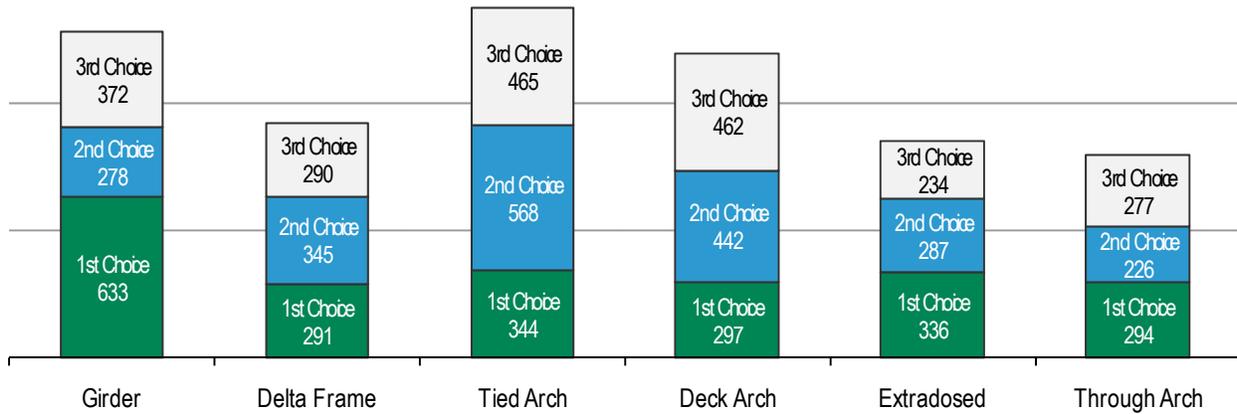
## Extradosed

**Pro** ▶ People who liked the Extradosed type appreciated the contemporary design and sleek look. They liked the fact that this would be a new bridge type to Portland and that it would be an unusual local bridge. Many appreciated the bold statement made by this type. The fact that it offers easier river navigational clearance was also noted. However, even some people who preferred the design stated that it was not the appropriate location for this type. A few people compared it to the new Willamette River light rail bridge. Several comments focused on the tall support columns, noting that they could include adjacent pedestrian viewing areas and feature designs in the concrete. Some thought the Extradosed would have fewer impacts to the river. Other respondents suggested that they would like to see this design with a single, cable-stayed support column in the center of the bridge. **Descriptions included:** *Sleek, modern, harkens to an earlier age, interesting looking, unique, beautiful, distinctive.*



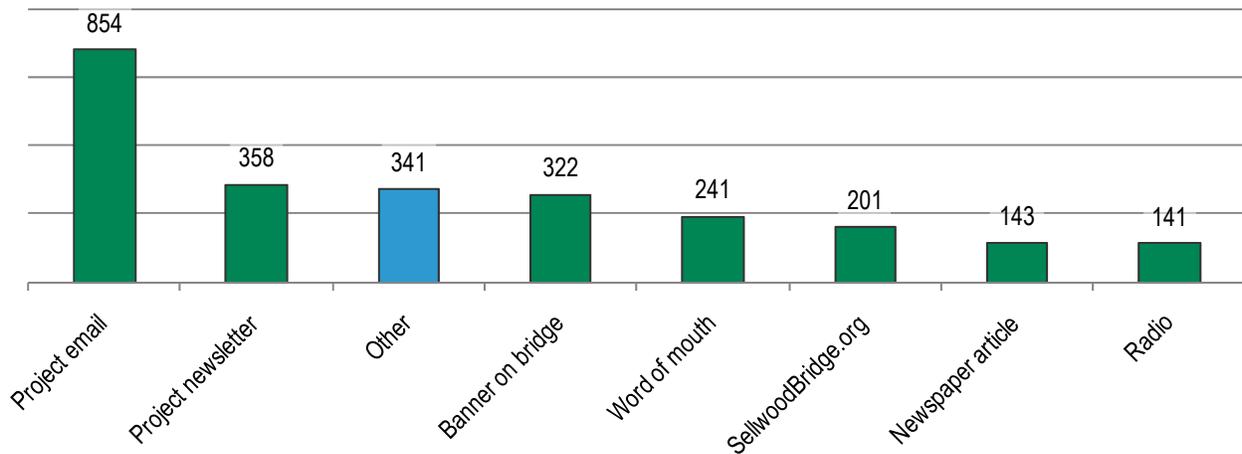
**Con** ▶ As with the Through Arch, many people felt that this is the wrong bridge type for this location. They felt that it is too contemporary for the Sellwood neighborhood and this part of the river. Concerns about the cost were frequently raised. A few noted that unusual bridge designs such as this invariably go over budget (the SW Gibbs Street pedestrian bridge, the original design of which was an Extradosed, was referenced). There were numerous comments that people thought the above deck columns were too stubby, detract from views for bridge users and seem more suited to a freeway structure than a pedestrian-friendly environment. Some wondered whether cable bridges in general are a fad that will soon fade due to maintenance concerns and budget constraints. **Descriptions included:** *Ugly, half baked, a nightmare, expensive, pretentious, horrible, too complex, cluttered, cold and high-tech looking.*

**Question 26** ▶ Consider each bridge type and indicate your preference. Which three do you prefer the most? (Rank your top three.)



**Observations:** The Girder bridge received the most 1<sup>st</sup> choice preferences. The Tied Arch bridge received the most cumulative 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> choice preferences. The Delta Frame, Extradosed, and Through Arch received the fewest cumulative preferences.

**Question 27** ▶ How did you hear about this survey? (Choose all that apply.)



**Other** responses included: BikePortland.org website (120), Facebook (27), email from public officials (25), Twitter (22), friends or family members (17), forwarded emails (16), neighborhood associations (SMILE, Collins View: 14), Portland Bridge Festival (11), and online weblogs (portlandtransport.com, Oregon Economic Blog: 10).

Question 28 ► **Is there anything else you would like to tell us?** (Responses in parentheses indicate number of comments)

## Comments on the bridge design

- **The current design doesn't seem like it will accommodate future traffic needs (i.e. needs to be 4 lanes).** (43)
- **The bridge should be more bike friendly than it is now.** *Improve bike/ped facilities and infrastructure, including connections to trails and the bridge.* (39)
- **Consider lifetime maintenance.** *Don't build anything impractical or beyond the ability to maintain effectively. Consider lifetime costs, material durability, sustainability and the longevity of bridge amenities.* (37)
- **Build a simple, functional bridge.** *A simple design may be the most appropriate for the area and the most cost effective.* (36)
- **Improve bike/ped safety.** *The current bridge is highly unsafe. Consider a barrier or other means to separate bicycles from cars and pedestrians.* (36)
- **Aesthetics are important.** *Give the bridge character and invest in making it attractive.* (32)
- **Fit the community.** *Consider local character and the surrounding environment.* (30)
- **Build a special bridge.** *The bridge should be: unique; interesting; distinctive; graceful; a landmark; bold; creative. It should make a statement, instill a sense of glory, and be a source of pride. Make it a destination.* (26)
- **Preserve a historical feel.** *Consider the appearance of the current bridge and the history of existing Portland bridges.* (25)
- **Safety is the most important consideration.** *Don't make it easy to climb the bridge. Provide adequate safety lighting. Provide solid guard rails.* (17) (Also see bike/ped safety above.)
- **Appearance is *not* important.** *Other factors like safety and cost should come first.* (13)
- **Provide adequate river clearance.** *Consider the needs of current and future river traffic.* (11)
- **Design for earthquakes.** (11)
- **Steel is preferable.** *It is recyclable, used historically in this area, and can employ local labor.* (10)
- **The current design options are too limited.** *Other types of bridges should be reconsidered.* (10)
- **Existing designs are good.** *The small bridge with two lanes is appropriate.* (8)
- **Bridges with arches are best.** *Arches complement the site. They are iconic and common in Portland bridges.* (8)
- **Views are important.** (7)
- **Ornamental features should be used.** *Gateways, sculpture, columns, terraced landscaping. Be clear about what amenities may need to be sacrificed because of cost.* (7)
- **Too much space has been dedicated to bike/ped needs.** (6)
- **Use an open deck design.** *An open deck may be roomier than a deck with structure above. Above deck features may obscure views.* (5)
- **Consider environmental impacts from noise and light.** (5)
- **Streetcar and light rail are inappropriate for this bridge.** (4)
- **Observation areas.** *Don't cause backups on the bridge from people stopping for the view. Don't let bump-outs be an awkward looking part of the design. A bridge may not be an appropriate place for picnics.* (3)

## Question 28 (continued)

### Comments on planning/ process:

- **Something must be built soon.** *The safety of the existing bridge is a concern. The process feels like it is taking a long time. (78)*
- **Keep the bridge affordable.** *Keep costs low and consider how it will be paid for. Be upfront about cost estimates. (64)*
- **Funding sources.** *Multnomah County seems to be paying more than others. User fees or tolls may be a good way to pay for the bridge. (20)*
- **Think about future transit.** *Anticipate future needs regarding other improvements when building the bridge. (12)*
- **Consider through traffic impacts.** *Think about future related traffic through neighborhoods and along Highway 43. (12)*
- **Impact from new traffic signals.** *Think about the effect on safety and traffic. (8)*
- **Seek additional public feedback.** *Ask for input on the interchange design and design decisions such as color choice. (7)*
- **The bridge should encourage slower driving.** *Traffic through neighborhoods should be discouraged. (6)*

### Comments on construction

- **Minimize closures, disruptions, and delays.** *Consider whether there will be other closures at the same time and schedule appropriately. Consider detour impacts for cyclists and pedestrians. (22)*
- **Build it locally.** *Use local labor, businesses, materials and manufacturing. (14)*
- **Minimize impacts to local neighborhoods and businesses.** (12)

### Example designs/ designers

- Calatrava, Maillart, Candela, Foster
- Eads Bridge over the Mississippi River, St. Louis
- Conde McCullough (Oregon) or Robert Maillart (Europe)
- Simon Benson
- Ponte Vecchio (Florence, Italy)