EARTHQUAKE READY BURNSIDE BRIDGE

Multnomah County is creating an earthquake-ready downtown river crossing.

BETTER – SAFER – CONNECTED May 20, 2019

Community Task Force Meeting #6

Meeting information

Project:	Earthquake Ready Burnside Bridge
Subject:	Community Task Force, Meeting #6
Date:	Monday, May 20, 2019
Time:	6:00 to 8:00 p.m.
Location:	University of Oregon, White Stag Building – 70 NW Couch Street, Portland; White Box Room

Attendees:

CTF Members:
Art Graves, Multnomah County Bike and Pedestrian Citizen Advisory Committee
Cameron Hunt, Portland Spirit
Dan Lenzen, Old Town Community Association
Ed Wortman, Community Member
Frederick Cooper, Laurelhurst Neighborhood Emergency Team
Gabe Rahe, Burnside Skate Park
Howie Bierbaum, Portland Saturday Market
Jackie Tate, Community Member
Paul Leitman, Oregon Walks
Rina Eleanor Jimmerson, Central Eastside Industrial Council
Sharon Wood Wortman, Community Member
Stella Funk Butler, Coalition of Gresham Neighborhood Associations
Susan Lindsay, Buckman Community Association
Tesia Eisenberg, Mercy Corps
William Burgel, Portland Freight Advisory Committee

Project Team Members:
Megan Neill, MultCo
Ian Cannon, MultCo
Heather Catron, HDR
Steve Drahota, HDR
Cassie Davis, HDR
Jeff Heilman, Parametrix
Penny Mabie, Enviroissues
Aascot Bohlander, Enviroissues

Apologies:
Timothy Desper, Marie Dodds, Matt Hoffman, Neil Jensen, Robert McDonald, Kathy Pape, Kiley Wilson.

Summary Notes

INTRODUCTION AND HOUSEKEEPING

Penny Mabie, facilitator, opened the meeting by calling everyone to the table. Penny introduced herself and provided an overview of the meeting format, then started roundtable introductions. Penny reviewed the meeting agenda and meeting packet contents. The Community Task Force (CTF) Meeting #6 Packet is appended to this meeting summary.

PROJECT UPDATE

WORKING GROUP UPDATES

Penny invited Cameron Hunt to provide a progress update on the **Lower Columbia Region Harbor Safety Committee Meeting**:

- Cameron said that at the last harbor safety meeting, the group briefly discussed the project. The group's greatest concern was around the dimensions of the new bridge. Shaver Transportation, a tugboat service provider, heard a rumor that the new bridge would narrow the current river navigation span's width. If that is true, navigation would be severely impacted. At the end of the day, local river businesses look to the Coast Guard to advocate in their best interests.

An update on the last **Multi-Modal Working Group Meeting** was provided:

- Steve Drahota, HDR: The last meeting focused on the cross-section dimensions for a temporary diversion bridge. The design team is very close to coming to the CTF with their draft cross-section that aligns with current standards and conditions. Their draft includes options for an in-kind replacement and Couch couplet. The design team is starting to discuss temporary bridge cross-section options as well. That draft will come to the CTF for review much later in the process. In the retrofit alternative, the design team will need to look at a permanent clearance reduction.

- William Burgel: My takeaway from the meeting was the pedestrian/bicyclist area would be 24-feet wide. That's a good chunk of real estate. There could be trees and plantings on the bridge.

SENIOR AGENCY STAFF GROUP UPDATE

Heather Catron, HDR, briefly introduced the structure and makeup of the Senior Agency Staff Group (SASG) before summarizing their last meeting. The SASG was updated on the status of project items, including review of upcoming project deliverables, a draft project dashboard, review of the risk register and discussion of a temporary diversion bridge. Steve spoke to the construction estimating and diversion bridge review methodologies

PORTLAND STATE UNIVERSITY (PSU) OPEN HOUSE

Several CTF and project team members attended the open house and shared their takeaways from the event:

- Mike Pullen, Multnomah County, briefly explained the event as an open house exhibiting concepts for a new Burnside Bridge that PSU architecture students developed as part of a class project last semester. Some of the concepts included:
    - Greater separation of non-motorized and motorized vehicles
    - Creating a sense of place; one idea included a grand staircase down to the park and a new amphitheater to encourage better bridge-park connectivity
    - Visual clues or beacons for easy identification in an emergency as a safe place in a way that transcends language and local familiarity barriers; this might include projections or screens that displayed art on a normal day and emergency messages when needed.

  Mike shared that some concepts may be revisited in the design phase.

- Steve also attended the open house, noting: Many designs were modern and considered future technologies. That's the right approach because the bridge will be out there for 100 years. There were some cool ideas, but we can't consider design yet. We need to focus on the alternatives and then we can think about how the alternative might play into architectural choices.

- Stella Funk Butler also attended, sharing: It was enlightening. It challenged my perceptions and made me think outside the box. I noticed none of the designs kept the historical towers either literally or in concept. There was no attachment to those. There were creative ideas and I appreciated how much effort and thought went into troubleshooting the issues with the involved agencies.

PUBLIC COMMENT

Penny acknowledged that no registrations had been received for public comment.

REACHING THE PREFERRED ALTERNATIVE

Heather walked the committee through the process to getting to a preferred alternative. She referenced examples of scoring sheets used during the Feasibility Study phase to help the committee better understand how their work will evolve. Heather noted that the CTF's work will lead to a recommendation of a preferred alternative. Clarifying questions from the CTF members and responses follow.

- Cameron: Are the options that scored the highest the alternatives we're looking at in this phase of the process?
    - Heather: The feasibility study narrowed 100+ options to a smaller range for the environmental review process. This concluded in four build alternatives and one no-build alternative recommended for further study during the environmental phase. During this phase, the CTF will recommend one option as the preferred alternative. Alternatives may end up with very close scores once we go through the alternatives evaluation process. Further sensitivity analysis may occur to help decide which one to recommend. The alternative analysis is a tool to see how well the alternatives meet our criteria, which is important to help us get to a preferred alternative. But the ultimate decision is part of a broader discussion.
    - Jeff: The range of four build alternatives in the Environmental Impact Statement (EIS) process were part of the top six scoring options from the feasibility study. We wanted to explore a range of options and ensure we're making the right choice.
- Gabe Rahe (referencing the example handouts): Does the solid blue dot next to unreinforced masonry risk mean it scored positively, as in low risk or negatively as in high risk?
    - Steve: The solid blue dot means it scored positively, as in low risk.
    - Heather: We want to make sure the criteria moving forward reflects your interests and values because they are going to score the alternatives. That's why it's so important.

PRELIMINARY-DRAFT EVALUATION CRITERIA REVIEW

Penny moved the discussion to the review of the preliminary draft evaluation criteria. Penny reminded the CTF to consider conflicts of interest when getting into making recommendations and referred to the group charter for guidance.

Jeff Heilman, Parametrix, presented the draft evaluation criteria to the CTF and asked for feedback from the group. Clarifying questions and feedback from the CTF and responses follow. An updated draft criteria table follows each criteria category discussion with changes to the table as it appeared in the meeting packet marked in blue.

DISCUSSION AND REVIEW

- Cameron: I noticed that you're grouping pedestrians, bikes and ADA. I know ADA includes a lot of people not necessarily on wheels. I don't like the concept of grouping those. We also need to consider blind people, deaf people, etc. We should consider those and whether we should separate those topics.
- Jackie Tate: This is hard. For me, it's hard to look at these categories without discussing them. With some of these, as the discussion goes on, we may learn more. ADA may belong with a different category or we pair them differently based on conversation. I don't want to duplicate the work.
- Ed: What does "future phase" refer to?
    - Jeff: Some interests and values that came up or language you proposed are criteria we can't measure yet. The point pertains to level of design or won't be considered until the design phase. We can't measure those points for the EIS, but we can document it so the next group in the next phase will know that the CTF recommended this issue be evaluated later. Later, you are going to be asked to prioritize these criteria. Which are more important? Plan A is to assign weights at the category level. We will have two meetings just on measures for criteria.

1. SEISMIC RESILIENCY

Jeff: Please add a new criterion for consideration. Given that the odds for this earthquake happening in the near future are high, the group wanted to prioritize getting a resilient crossing in place sooner rather than later. That is not reflected in this draft. The draft wording or that new criterion is, "Minimized duration of construction"

- Tesia Eisenberg: I agree, but I wonder if there should be another construction point about avoiding weakening the resilience of neighboring buildings. Something like, "Minimize weakened resiliency of neighboring buildings." The construction could impact nearby buildings.

- Art Graves: Isn't that captured in parks and historic resources?
- Gabe: This goes beyond historic buildings.
- Jackie: The buildings are not getting a seismic retrofit.
    - Jeff: We pay damages if construction weakens buildings next to the site, but damage is rare.
    - Steve: It comes down to the bridge's responsibility verse the building's responsibility. What authority does this project have over adjacent properties? We're thinking through it. I want to collect your comments here. It might be outside of what we're allowed to affect, and we may not have authority. Right now, it's not the bridge's fault if we're putting a two-foot gap there, which is the current plan. It's the property owner's responsibility to strengthen the structure.

1. Seismic Resiliency

Long Term	1a.1	Maximize confidence in post-earthquake operability and reparability.
	1a.2	Maximize post-earthquake emergency vehicle access and travel time.
	1a.3	Maximize ability for all modes to use the crossing post-earthquake (this will include heavy freight).
	1a.4	Ability to include utilities on bridge to support resilient functions after a major earthquake
During Const.	1b.1	Minimize reductions to seismic resilience of adjacent buildings.
	1b.2	Minimize duration of construction.
Future Phase	1c.1	Ability to include equipment (such as communication devices, message boards, antennas/facilities) on bridge to create additional resilient functions after a major earthquake.

2. COMMUNITY QUALITY OF LIFE

- Jackie: I think personal safety and ADA belong together. ADA is looking at folks with disabilities, possibly multiple disabilities. ADA and safety concerns dovetail well together. And they both have high importance. They would fit together well in a new category.
- Ed: I see Jackie's point. Under category 2, we have two kinds of things here. Most of them are things that are not on the bridge itself and then there's the use of bridge. Category 7 is focused on the users of the bridge — pedestrians, bicyclists and ADA. Perhaps we could add personal safety there because that category is about users, not the neighbors.
- Jackie: If we are going to be weighing them, we have to weigh personal safety and ADA very highly for the County.

- Heather: In thinking about why the items in category 7 were grouped together, the thread they had in common is that they are all non-motorized travel modes. The grade you provide, and other key factors is different for non-motorized travel. What I'm hearing is there may be considerations for ADA under criteria category 7 and 2. Can they be in both? Can they be measured in both or only under one?
- Jeff: You can have it in both, but then you start to have non-deliberate weighting by having the same thing twice.
- William: If it stands alone, it would be more powerful.
- Jeff: That would be deliberate weighting.

- William: For 2a.3, "minimize long-term noise," is too vague. I was talking about preserving the night sky, really. When you put lighting in, some of it can shine upward, creating light pollution. With some forethought, we can get rid of it.
- Paul Leitman: What if we if changed it to simply, "minimize light/shadow impacts"? Just cut it off there. That would enlarge the scope.
- Jeff: The measure could talk about the night sky. That may not be considered until the design phase. We won't know enough in the EIS phase to measure impacts to the night sky.

2. Community Quality of Life (includes Social Services, Indirect Land Use Impacts, Community Resources, Personal Safety)

Long Term	2a.1	Minimize social service displacements and long-term access impacts.
	2a.2	Maintain social service providers' long-term ability to provide current level of service.
	2a.3	Minimize long-term noise and light/shadow impacts (including night sky impacts).
	2a.4	Minimize long-term impacts to community facilities and events under and near the bridge (e.g., Skatepark, Saturday Market, park festivals, parades, organized runs, etc.).
	2a.5 Crime	~~Promote~~ Maximize personal safety and crime reduction by following principles of Prevention Through Environmental Design (CPTED).
During Const.	2b.1	Minimize temporary access impacts for social service providers.
	2b.2	Minimize temporary noise and light/shadow impacts on adjacent land uses.
	2b.3	Minimize temporary impacts to community facilities and events under and near the bridge.
Future Phase	2c.1	Maintain a safe construction site.
	2c.2	Implement design that minimizes risk of attempted suicide from the structure.

3. BUSINESS AND ECONOMICS

- Fredrick Cooper: I want to point out that this process is not easy for us to do. I want time to delve into this and consider these criteria. It's fine with me that they are shown for a show of progress. But I'm not ready to sign off on this. Looking back at what we've developed, we had identified the impact on public events, festivals, marathons, etc. They have a major economic impact like the lodging industry, other businesses, visitors, etc. I think this has to be here in construction criteria.
    - Jeff: That is captured in category 2 but could be moved to category 3.
    - Frederick: There is a community impact but there is also a business impact.
    - Jackie: It's relevant in both categories.
    - Jeff: Your comment is understood. There isn't enough time tonight for the final word. We're just asking for initial thoughts. You will have more opportunities at upcoming meetings to further review and finalize.

3. Business and Economics

Long Term	3a.1	Minimize business displacements and permanent access impacts.
	3a.2	Support redevelopment potential consistent with local plans.
During Const.	3b.1	Minimize temporary access impacts to businesses.
	3b.2	Minimize temporary regional economic impacts.
	3b.3	Minimize temporary impacts to major community events under and near the bridge (in particular, the economic benefits of these events).
Future Phase	3c.1	

4. PARKS AND HISTORIC RESOURCES

- Cameron: This is talking a lot about preventing things from getting worse, but we may want to add improvements. Better access could be a result of this project.
- Jackie: I like the amphitheater idea. The cost of a temporary diversion bridge doesn't build our city. The amphitheater might be costly but looking at the total cost, if we are going to invest in infrastructure, something like that could be amazing to add value. After 4 years we could get some new infrastructure.
- Cameron: The high fixed bridge won't have easy access to the park.

4. Park and Historic Resources

Long Term	4a.1	Minimize park displacements, access and functionality impacts, and ~~enhance~~ maximize park functionality (will look at the net effect of impacts).
	4a.2	Minimize historic resource impacts (including destruction or damage, changes in access and context impacts).
During Const.	4b.1	Minimize temporary impacts to parks (including temporary displacement, access and functionality impacts).
Future Phase	4c.1	

5. VISUAL AND AESTHETICS

- Jeff: This category really pertains to viewsheds, view corridors and construction impacts to those viewsheds.

5. Visual and Aesthetics

Long Term	5a.1	Minimize adverse impacts on existing views and view corridors and support the potential for new scenic views.
During Const.	5b.1	~~Enhance~~ Maximize pedestrian/bicycle aesthetic experience on the bridge.
	5b.2	Provide a structure that instills a sense of community pride.
	5b.3	Respect the historic character of the existing bridge and area and integrate with the urban fabric.
Future Phase	5c.1	~~Enhance~~ Maximize pedestrian/bicycle aesthetic experience on the bridge.
	5c.2	Provide a structure that instills a sense of community pride.
	5c.3	Respect the historic character of the existing bridge and area and integrate with the urban fabric.

6. NATURAL RESOURCES AND SUSTAINABILITY

- William: With the temporary bridge, a lot of resources are used. If there were no temporary bridge, it's a savings of natural resources.
    - Jeff: That would fall into the 6B category.
- Jackie: In 6c.1, why does the future phase include construction?

- Jeff: Yes, but that's post-EIS. The decision is still relevant.
- Jackie: I want to see that in parenthesis.

6. Natural Resources and Sustainability

Long Term	6a.1	Minimize impacts to water quality and flooding.
	6a.2	Minimize impacts to fish and wildlife.
	6a.3	Minimize impacts to air quality and greenhouse gas emissions.
During Const.	6b.1	Minimize temporary impacts to water quality and flooding.
	6b.2	Minimize temporary impacts to air quality and green-house gas (GHG) emissions.
	6b.3	Minimize temporary impacts to fish and wildlife.
	6b.4	Minimize resource consumption and waste production during construction.
Future Phase	6c.1	~~Promote~~ Maximize waste reduction and use of sustainable materials in design and construction.
	6c.2	~~Promote~~ Maximize energy sustainability in design (e.g., in construction methods as well as long-term source for operations).

7. PEDESTRIANS, BICYCLES AND ADA

- Paul: "Promote" is weak verbiage. "Ensure," or, "maximize," are better terms. "Promote" sounds like we don't need better non-vehicle access. I'd also like to add something that speaks to Vision Zero as well. That could be under category 7 or 10, regarding how the bridge can support changing the city's mode share and reducing single occupancy vehicle use. The bridge is an important opportunity for the goal the city has.
  - Gabe: I'd prefer, "enhance," so we don't accidentally apply weight to anything; keep it all the same for now.
  - Jeff: We want to apply value to it; we want to express weights. That is appropriate wording with a clear goal.
- Jackie: I think we should group 2A, 5, 2C1 and 2C2 together because they're all about safety. 7B2 and ADA could be grouped together. When we talked about category 7, we talked about the camber of the bridge. But I don't see that reflected here. That was important for all those things, all modes.
  - Jeff: That would be a measure. The criteria in this example is safety and comfort, and camber is a measure of that. Measures are not reflected here yet.
- Sharon: Under 7a.1, what falls under "other low impact vehicles"?
  - Jeff: Scooters, skateboards, etc.
  - Sharon: Can we name those?

- William: At the risk of biasing the committee, if we're replacing the Burnside Bridge, we're starting in a hole due to the s-curve on the east end. That turn doesn't meet any of these criteria. You can't run a car, truck or bicycle through there safely any time. Any alternative that keeps that curve won't meet this.
    - Jeff: It will rate low.
    - Steve: There are other mitigations we could be looking at. It could be challenging. We will focus on mitigations later.
- Mike Pullen: I noticed for ADA; it's listed as a criterion during construction but not listed as a long-term criterion. Are we assuming that what the law requires for the long-term bridge design to account for ADA concerns and standards? It sounds like a goal for the long-term, too.
    - Jeff: That was an oversight, you're right.

7. Pedestrians, ~~Bicycles~~ Bicyclists and ADA
(Americans with Disabilities Act)

Long Term	7a.1	Maximize safety (including advancing Vision Zero) and comfort for bicyclists and other low-impact vehicles (e.g., scooters, skateboards).
	7a.2	Maximize access/connectivity for bicyclists and other low-impact vehicles.
	7a.3	Maximize safety and comfort for pedestrians (including advancing Vision Zero).
	7a.4	Maximize access/connectivity for pedestrians.
	7a.5	Maximize improved travel time and capacity for bicyclists, pedestrians and ADA (includes wheeled and non-wheeled).
	7a.6	Maximize safety and comfort for ADA (including advancing Vision Zero).
	7a.7	Maximize access/connectivity for ADA.
	7a.8	~~Maximize mode shift away from single occupant vehicles~~ Increase pedestrian and bicyclist modal share.
During Const.	7b.1	Minimize temporary travel time and access/connectivity impacts for bicyclists and pedestrians
	7b.2	Maximize potential to provide permanent and temporary ADA facilities that are comfortable and safe and ~~promote~~ maximize efficient access and connectivity for users of the facilities.
	7b.3	Minimize temporary safety impacts for bicyclists and pedestrians.
Future Phase	7c.1	

8. MOTOR VEHICLES, FREIGHT AND EMERGENCY VEHICLES

- Art: Are we promoting freight to use the bridge? Is this a freight corridor?
    - William: Freight is defined as any box truck like UPS, FedEx, etc. That's all freight. We are now an Amazon society. Those trucks have to go everywhere, but that doesn't make Burnside a freight corridor.
    - Cameron: The central east side is fairly freight heavy. Downtown is more pedestrian-focused.
    - Art: I don't think we want to encourage turning Burnside into a large truck corridor.
    - Cameron: Due to the s-curve, freight can't take the bridge. But we're looking at measures to find one that gives the ability for freight to go across. We're not trying to make it a corridor.
    - Art: Maybe that's more of a PBOT thing.
    - Jeff: In the measure phase, we will define what we mean by freight. We will define the length of vehicle we're talking about.
    - William: You can see now where trucks go up onto the curbs. Jeff and Steve should be taking that data now. As a pedestrian standing there, you can see skid marks where trucks go up onto the sidewalk.
- Cameron: I recall the American Medical Response representative mentioning something about the ability for emergency vehicles to access bike lanes to bypass traffic. Will that be assessed in a future phase?
    - Jeff: That could be in the measures.
- Howie Bierbaum: Under 8c.1, regarding freight, will the bridge be ready for freight after an earthquake?
    - Jeff: Yes. We have a post-earthquake criterion to maximize access for all modes. We'll be thinking about the kind of recovery vehicles needed after a seismic event.
- Fred: I'm concerned about the impact on other river crossing routes or corridors during construction, especially during peak travel times.
    - Jeff: We have that captured in "minimize temporary access and travel time impacts during construction". We will define that in the measures regarding handling traffic diversion.
- Jackie: I wanted to say that after an earthquake, this bridge will need to be strong enough to handle big vehicles. There doesn't need to be a conversation about Burnside becoming a major freight corridor because after the earthquake it will be a major freight corridor.
    - Stella: I agree with Jackie.

8. Motor Vehicles, Freight and Emergency Vehicles

Long Term	8a.1	~~Promote~~ Maximize safety for motor vehicles and freight.
	8a.2	~~Promote~~ Maximize travel time and capacity for motor vehicles, freight and emergency vehicles.
	8a.3	~~Promote~~ Maximize access/connectivity for motor vehicles, freight and emergency vehicles.
	8a.4	Minimize impacts to on-street parking.
During Const.	8b.1	Minimize temporary access and travel time impacts for motor vehicles, freight and emergency vehicles.
	8b.2	Minimize temporary safety, on-street parking, and capacity impacts for motor vehicles, freight and emergency vehicles.
Future Phase	~~8c.1~~	*[Ensure bridge will be ready for heavy freight after a seismic event. – moved to Criteria 1a.3]*

9. RIVER NAVIGATION

- Cameron: You captured it all. Under future phase, I want to include equipment such as message boards or lighting schemes that don't affect marine traffic. Large lights late at night can be dangerous. It also speaks to minimizing the impact to night light. LED lights affect radar signals. It might be addressed in a future phase, but if there is a distinct difference in which one alternative has a footprint in the navigation channel, that would be key to point out. That goes for height clearance changes as well.
    - Jeff: We will define that in the measures.

9. River Navigation

Long Term	9a.1	Minimize permanent direct and indirect impacts to navigation.
During Const.	9b.1	Minimize temporary direct and indirect impacts to navigation.
Future Phase	9c.1	Ensure that bridge lighting and signals don't affect navigation safety (e.g., don't create hazardous nighttime glare, or interfere with radar).

10. TRANSIT

- Paul: Just like I said for bike/pedestrian criteria, I'd like to use the word "maximize". I'd also like to see enhancing travel capacity to appear as a long-term goal, too.
- William: Is a streetcar extension in our plans?
  - Steve: The bridge will be designed to handle streetcar tracks when they are installed at some point.
  - Howie: Is streetcar the same as a light rail?
    - Steve: Close.
  - Mike: In the adopted streetcar plan, it includes a corridor on Burnside at some point that goes up Sandy Boulevard. It is a priority for the city.
- Howie: Once the bridge goes under construction, will the light rail stops in the area be closed?
  - Steve: We are preserving those during construction.
- William: Will bus weight be a concern?
  - Steve: We're going to design for a vehicle much heavier than any conventional loading due to post-earthquake loading. It's greater than any freeway traffic.
  - William: TriMet is going to articulated buses and double-decker buses.

10. Transit

Long Term	10a.1 Maximize streetcar readiness. 10a.2 ~~Promote~~ Maximize bus accessibility. 10a.3 Maximize potential to provide enhanced transit capacity and improvements in travel times ~~10a.4 Increase transit modal share.~~
During Const.	10b.1 Minimize temporary impacts on transit access, safety~~, and~~ travel times and ridership.
Future Phase	10c.1

11. UTILITIES

- Jeff: There were some Ankeny pump station concerns. We ended up making this concern more general for futureproofing.
- Cameron: We talked about if a fixed bridge gets chosen, we should consider using that bridge to transport utilities.

  - Jeff: If there is a need for more utility crossings.
  - Cameron: If there is an earthquake and we're anticipating other bridges collapsing, we will still need vital utilities like drinking water. This bridge should carry those utilities.
  - Jackie: Or in a trench during construction.
- Tesia: 6c.2 should be under utilities. I agree with Cameron. Plus, if it's not the fixed bridge, the bridge will still need energy to function after an earthquake. They go hand in hand.
  - Jeff: Got it.
- Stella: There should be solar panels, windmills or turbines. There should be energy creating functions that could be effective on the bridge and utilized elsewhere.
  - Jeff: That's what we tried to capture in 6c.2, "promote sustainability in design."
  - Stella: I want to call that out specifically with, "alternative energy generation."
  - Cameron: That's also in 1a.1.
- Stella: Are communications under utilities as well? Like a cell tower, HAM radio, antennas, etcetera? Are all those part of utilities?
  - Jeff: For post-earthquake use?
  - Stella: Yes.
  - Jeff: Yes, that is under 1c.1, "Ability to include equipment for communications post-earthquake." We can't evaluate that in the EIS process, really. We'll need to think about that in a future phase.

11. Utilities

Long Term	11a.1 Minimize long-term impacts to major utilities, such as the Ankeny Pump Station. *[Currently addressed in Criteria 12a.1 Fiscal Responsibility]* ~~*11a.1a Promote*~~ *[Maximize (if needed) inclusion of utility crossings either on structure (for fixed bridge) or underwater (for movable bridges) – moved to Criteria 1a.4]*
During Const.	11b.1 Minimize construction-related impacts to major utilities, such as the Ankeny Pump Station. *[Currently addressed in Criteria 12a.1 Fiscal Responsibility]*
Future Phase	11c.1

12. FISCAL RESPONSIBILITY

- Jackie: Would the cost of a diversion bridge go under the construction phase?
  - Jeff: No, it wouldn't go under subcategory B. It is not a temporary impact to spend money. Once that money is spent, it's spent. It's part of the long-term cost of construction.

- Jackie: Throw that into the parenthesis, please.

12. Fiscal Responsibility

Long Term	12a.1 Minimize total construction cost (including ~~opportunity cost~~ right-of-way, construction, diversion bridge, mitigation, utility relocation, etc.). 12a.2 Minimize long-term maintenance effort/cost.
During Const.	12b.1
Future Phase	12c.1

POTENTIAL MEASURES

A number of comments that may be more suitably reflected in the development of future measures were also identified on Flipcharts during the discussion. These included:

- Criteria 7. Multiple criteria related to maximizing safety and comfort for bicyclists, pedestrians, and ADA
  - *Measure: Steepness and length of crossing slope (camber).*
- Criteria 8. Multiple criteria addressing freight:
  - *Note: Include definition of "freight vehicles" within the relevant measures.*
- Criteria 8. Multiple criteria addressing emergency vehicle travel time and capacity:
  - *Measure: Ability of emergency vehicles to use bike lanes.*
- Criteria 8b.1 Minimize temporary access and travel time impacts for motor vehicles, freight and emergency services:
  - *Measure: Impacts of construction on travel time and congestion on other parts of transportation network (including other bridges and roads).*
- Criteria 9a.1 Minimize permanent direct and indirect impacts to navigation.
  - *Measure: Change in navigation channel width (i.e. from abutments) or navigation channel height/vertical clearance.*

CRITERIA REVIEW OUTCOMES AND NEXT STEPS

Heather spoke to the CTF about upcoming process pieces for this work. She outlined that the project team will take all of your comments and incorporate them into this document. The updated document will be sent to the CTF by the end of this week.

The CTF will have all of next week to review the document. At the next meeting on June 3, please come to the meeting with any further comments on the draft criteria so they can be incorporated into the next draft and be presented to the Policy Group in June.

TEMPORARY DIVERSION BRIDGE TRADEOFFS

Steve shared a quick review of the slides regarding diversion bridge alternatives. He noted the exercise will center around the appropriate number of diversion bridges, one or two. He outlined that a future discussion will ask whether-or-not to have a diversion bridge, but today's discussion is about its appropriate width if there was a diversion bridge. Steve asked the group if there was anything the group would like the project team to consider or assess regarding diversion bridges in the coming weeks. The CTF's comments and questions follow.

- William: Does it make a difference to river navigation if the temporary bridge is fixed at a certain height?
    - Steve: A temporary fixed bridge would be required to have the same vertical clearance as that of a permanent fixed bridge.
    - William: What if there is a drop in the clearance?
    - Steve: There can't be. The Coast Guard has determined that a 142ft. to 147ft. is the vertical clearance needed, even during construction.
- Frederick: There is a big difference in that extra 6ft. of deck width. We'd be getting three lanes. That's what we have now.
    - Steve: Possibly, but the exact lane configuration (i.e., number of lanes versus multi-modal path) allocations to match the provided width will be decided in the future.
    - Frederick: We could reverse the lanes during peak travel times. It's flexible. It's a no-brainer.
- Ed: A big variable that is not listed here is the effect on roadway traffic for an extended time. City traffic could have one lane in each direction. Would the city be happy with that arrangement from a traffic standpoint?
- William: The baseline cost is needed. If that's listed, we can deduct it from the total cost if we choose not to build it.
    - Steve: We may not have that before the next CTF meeting in early June.
- Art: Regarding the two-bridge option, are they two totally separate bridges and lift mechanisms or do they use one lift mechanism?

- Steve: They are completely separate and would be raised at the same time.

- Jackie: Would the temporary bridge end up having more capacity than the permanent bridge?
  - Steve: No, the permanent bridge will have more space for multi-use paths on either side and a greater number of lanes. We will bring a comparison to the existing bridge next time.

NEXT STEPS

Penny noted that CTF members have an opportunity to be an ambassador to the Policy Group. The ambassador(s) would attend the Policy Group meetings and share the interests and views of the CTF as a whole. CTF members should email either Mike Pullen or Alice Sherring expressing their interest.

ADJOURN

Penny adjourned the meeting.